FORM 103.
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
NOV 17 1937
LOS ANGELES, CALIFORNIA

History of Oil or Gas Well

OPERATOR UNION OIL COMPANY OF CALIFORNIA FIELD LONG BEACH

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

Signed Henry E Winter

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

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

1937

CASING RECORD AT START OF WORK.

NEW WELL

CASING RECORD AT END OF WORK.

13-3/8" C 757
8-5/8" C 4105 OK
68' 6-5/8" L 4155 incl 47' perf.
Total depth 4155'.

Date	DEPTH	EFF. DEPTH	REMARKS
9-30	187		Spudded in and drilled with 17" rotary bit.
10-3-	757		Drilled with 17" bits to 757'. Cemented new 13-3/8" 45.97# National seamless slipjoint casing at 757' with 350 sacks Velo cement. Cementing operation approved by Pierce of D.O.G.
10-4-	817		Found top of cement at 737'. Cleaned out cement and plugs. Drilled ahead with 12-1/4" bit.
10-13	4110		Drilled and cored to 4043'. Ran Schlumberger survey. Cored ahead to 4110'.
10-14	"		Enlarged hole to 4106' with 12-1/4" reamer. Cemented 8-5/8" - 36# Grade "C" (510' of Grade D on bottom) 8 thread rounded seamless casing at 4105', with 400 sacks Victor Oil Well cement.
10-20	"		Found top of cement at 4081'. Cleaned out cement and plugs to 4110'. WSO test on 8-5/8" casing at 4105', witnessed and approved by Murray-Aaron of D.O.G. Directional survey of hole made by Alexander Anderson.
10-21	4155		Cored ahead to 4155' with 7-5/8 barrel.
10-22	"		Landed 68' of 6-5/8" 26# Grade "C" 10 thread casing at 4155' including 47' of 120 Mesh (16-2-6-) Kobe perforated on bottom.
10-23	"		Landed 3" Upset tubing at 4077'. Installed Xmas tree. Swabbed fluid to 2000'. Well started flowing by heads. CP 225#.

3

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LOS ANGELES, CALIFORNIA

History of Oil or Gas Well

OPERATOR UNION OIL COMPANY OF CALIFORNIA FIELD LONG BEACH

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

Signed Henry E Wirth

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

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

Date

PRODUCTION TEST DATA

	Gross	Net	Gravity	Cut	Hrs.	CP.
10-24	370	363	23.9	1.8	P 24	325
10-25	97	96	"	1.4	P 4	
10-26	177	174	"	1.5	P 7	
10-27	322	317	"	1.6	P 24	
10-28	370	365	"	1.4	"	
10-29	333	328	"	1.5	"	
10-30	195	193	"	1.0	P 13	
10-31	457	452	"	"	P 24	
11-3	350	345	"	1.3	"	
11-5	433	427	23.4	1.4	"	
11-9	528	520	"	1.5	"	
11-11	456	451	"	1.2	"	

100.
LIFORNIA STATE PRINTING OFFICE

SUBMIT LOG IN DUPLICATE

FILL THIS BLANK IN WITH TYPEWRITER. WRITE ON ONE SIDE OF PAPER ONLY

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

LOG OF OIL OR GAS WELL

DIVISION OF OIL AND GAS
RECEIVED
NOV 17 1937
LOS ANGELES, CALIFORNIA

Operator UNION OIL COMPANY OF CALIFORNIA Field LONG BEACH

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

Location 555 S'ly along the prolongation of the center line of the W'ly portion of San Antonia Drive, from the center line of Del Mar Ave thence 110' N.W'ly at right angles. Elevation 56.84

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

Date NOVEMBER 12, 1937 Signed Henry E Winter

Title DISTRICT ENGINEER.

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

Commenced drilling September 30, 1937 Completed drilling October 23, 1937 Drilling tools ~~Cable~~ Rotary

Total depth 4155 Plugged depth

Junk

GEOLOGICAL MARKERS	DEPTH
Top of Wilbur shale	3647
Top Alamitos shale	3874
Top brown sand.	4106'

Reference to file of data

Map	Index	Section	Cards	Forms 114	Forms 121
					✓

Commenced producing OCTOBER 24, 1937 (date) ~~Flowing/gas lift~~/pumping (cross out unnecessary words)

	Clean Oil bbl. per day	Gravity Clean Oil	Per Cent Water including emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pressure
Initial production	363	23.9	1.8	121		325#
Production after ~~30~~ 20 days	451	23.4	1.2	222		

Casing Record (Present Hole)

Size of Casing (A. P. I.)	Depth of Shoe	Top of Casing	Weight of Casing	New or Second Hand	Seamless or Lapweld	Grade of Casing	Size of Hole Casing landed in	Number of Sacks of Cement	Depth of Cementing if through perforations
13-3/8	757	Surface	45.97	New	Smls	C	17"	350	
8-5/8	4105	"	36#	"	"	C & D	12¼	400	
6-5/8	4155	4087	26#	"	"	C	7-5/8	-	

Perforations

Size of Casing	From	To	Size of Perforations	Number of Rows	Distance Between Centers	Method of Perforations
6-5/8	4108 ft.	4155 ft.	120 Mesh	16	6"	Kobe.
	ft.	ft.				
	ft.	ft.				
	ft.	ft.				
	ft.	ft.				

Electrical Log Depths Schlumberger from 757 - 4043. (Attach Copy of Log)

FORM 101.
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
NOV 17 1937
LOS ANGELES, CALIFORNIA

LOG AND CORE RECORD OF OIL OR GAS WELL

Operator UNION OIL COMPANY OF CALIFORNIA Field LONG BEACH

Well No. OIL OPRATORS #1 Sec. 13, T. 4 S, R. 13W, SB B. & M.

FORMATIONS PENETRATED BY WELL

Henry E Winter

DEPTH TO Top of Formation	DEPTH TO Bottom of Formation	Thickness	Drilled or Cored	Recovery	DESCRIPTION
0	40	40			Surface clay
40	254	214			Clay and sand.
254	592	338			Sand and boulders
592	730	138			Sand
730	984	254			Shale and streaks of sand.
984	990	6			Hard sand.
990	1349	359			Shale and streaks of hard sand.
1349	3083	1734			Shale and streaks of sand.
3083	3087	4			Hard sand.
3087	3106	19			Shale and streaks of sand.
3106	3108	2			Shell
3108	3251	143			Shale and streaks of sand.
3251	3253	2			Hard sand.
3253	3398	145			Shale and streaks of sand.
3398	3399	1			Hard shell
3399	3442	43			Shale and streaks of sand.
3442	3445	3			Shell
3445	3459	14			Sand.
3459	3478	19			Shale and sand.
3478	3480	2			Shell
3480	3487	7			Hard sand.
3487	3498	11			Sand and shale
3498	3500	2			Hard sand
3500	3614	114			Shale and streaks of sand.
3614	3636	22			Hard sand.
3636	3800	164			Shale and streaks of sand.
3800	3911	111			Hard sand.
3911	3914	3			Shell
3914	3928	14			Medium hard sand and shale
3928	3930	2			Shell
3930	4010	80			Shale
4010	4040	30			Sand (See core record)
4040	4044	4			Shell
4044	4051	7			Sand.
4051	4053	2			Shell
4053	4155	102			Shale and sand.

DIVISION OF OIL AND GAS
RECEIVED
NOV 17 1937
LOS ANGELES, CALIFORNIA

LONG BEACH UNION OIL OIL OPERATORS 1

56.84

Henry E Winter

						Sh.	O.s.	Gy Sd	Shell	
7										
			0	4010						Drilled.
10-13	1	7-5/8 Soll	4010	4028	17.2			4.6		Firm soft medium to coarse gray sand. No odor
						0.1				Hard brown shale
								3.2		Firm fine compact gray sand, grading to medium in lower part
						0.2		0.1		Hard brown shale, streaks of fine gray sand
						0.2				Hard brown shale
						0.2		0.1		Hard brown shale, streaks of fine gray sand. Good dips of 31°-33°
								8.5		Firm soft medium to coarse gray sand
						0.7		16.5		Streak of brown shale at top
10-13	2	7-5/8 Soll	4028	4040	10.8			0.8		Firm soft medium gray sand
						0.1				Broken brown shale, inclusions of medium gray sand
								2.3		Firm soft medium gray sand, grading to very fine on bottom
						0.3				Hard brown shale, streaks of fine gray sand. Poor dip of 20°
								0.4		Very fine firm gray sand
						0.1				Hard brown shale
								0.3		Firm soft fine gray sand
						0.1				Hard brown shale
								6.4		Firm soft medium gray sand
						0.6		10.2		
10-13	3	7-5/8 Soll	4040	4041	0.7				0.7	Hard coarse calcareous sandstone shell. Vertical fracture.
									0.7	
			4041	4058						Drilled.
10-14	4	7-5/8 Soll	4058	4076	15.0			5.0		Firm soft medium gray sand. No odor
						0.8		0.1		Hard brown silty shale, streaks and partings of fine gray sand. Dip of 28°
								2.4		Firm soft medium gray sand
						0.1				Hard brown shale
								3.6		Firm soft medium gray sand
						0.1				Hard brown shale. Dip of 29°
								1.0		Firm soft medium to coarse gray sand
						1.9				Hard dark brown silty shale. Partings have dip of 23° to 28°. Streak of gray sand
						2.9		12.1		

DIVISION OF OIL AND GAS 9
RECEIVED
NOV 17 1937
LOS ANGELES, CALIFORNIA

Henry C Winter

1937						Shale	O.S.	Gy Sd	Shell	
10-14	5	7-5/8 Soll	4076	4092	17.1	1.1				Hard dark brown shale
								0.2		Firm soft medium gray sand
						0.2				Hard sandy brown shale
								0.7		Firm soft fine to medium gray sand
						2.0				Hard dark brown shale. Streak of gray sand 0.7 from top
								3.6		Firm soft medium to coarse gray sand
						0.4				Hard sandy dark brown shale
								1.9		Firm soft medium gray sand
						2.9				Hard brownish black shale
								0.1		Firm soft medium argillaceous dark brown gray sand. Slightly oil stained with fair odor
						4.0				Hard brownish black slightly sandy shale. Laminated with partings of gray sand 0.6 from bottom. Streak of brown oil sand on bottom. Dip of 22°
						10.6		6.5		
10-14	6	7-5/8 SOLL	4092	4110	18.5		0.7			Firm, soft fine to medium dark brown oil sand. Strong odor and dark amber cut.
						0.4				Hard, brownish black shale.
							1.0			Firm, soft, fine to medium dark brown oil sand.
						0.5				Hard brownish black shale.
							0.1			Fine to medium dark brown oil sand.
						0.2				Hard, brown shale.
							0.6			Fine to medium dark brown oil sand.
						0.5				Hard, brownish, black shale.
								0.1		Hard, coarse, slightly calcareous gray sand.
						0.3				Hard, brownish, black shale.
								0.1		Firm, soft, fine dark gray sand. No odor and no cut.
						9.6				Hard, black to brownish shale.
							0.3			Firm, soft, fine dark brown oil sand. Streaks of mud.
						0.5				Hard brownish black shale. Firm soft fine to medium
							1.3			dark brown oil sand. Strong odor.
						0.6				Hard, brownish black massive shale.
							0.4			Fine, to medium dark brown oil sand. Strong odor and dark amber cut. Good flash
						0.4				Hard, brownish black shale, partings of fine, brown oil sand.
							0.9			Firm, soft, fine to medium dark brown oil sand - strong odor.
						13.0	5.3	0.2		

LONG BEACH UNION OIL OIL OPERATORS #1

56.84

Henry E Winter

						Sh.	O.S.	Gy Sd	Shell	
937										
0-21	7	7-5/8 soil	4110	4125	10.4		5.9			Soft, loose, fine dark brown oil sand. Good odor and dark amber cut. Core has strong flash test.
						0.1				Hard, grayish brown slightly calcareous bentonitic shale. This shale differs from the others and may be a marker.
							0.3			Soft, loose, fine dark brown oil sand.
						0.1				Hard, brownish black shale.
							4.0			Firm, soft, fine to medium dark brown oil sand. Strong odor with strong flash. Streak of shale 0.4 from bottom
						0.2	10.2			
0-21	8	7-5/8 SOIL	4125	4140	12.8		0.4			Soft, loose, grayish brown washed oil sand.
						0.1				Hard, brownish black shale
							0.6			Firm, soft, fine dark brown oil sand.
						0.3				Hard, brownish black shale.
							4.2			Firm soft, fine to medium dark brown oil sand. Dark amber cut.
						0.1				Hard, brown shale.
							4.4			Firm, soft fine to medium dark brown oil sand. Strong odor and dark amber cut. Streak of shale 3.0 from top.
						0.3				Hard, dark, brown shale . Streak of fine brown oil sand.
							2.4			Firm, soft, fine, dark brown oil sand. Strong odor.
						0.8	12.0			
0-21	9	7-5/8 SOIL	4140	4155	13.9		0.2			Firm, soft, fine to medium dark brown oil sand.
									0.3	Hard, slightly calcareous shale shell.
							4.1			Firm, soft, fine to medium dark brown oil sand. Strong odor and dark amber cut.
									0.1	Hard, slightly calcareous shale shell.
						0.1	8.1			Firm, soft, fine to medium dark brown oil sand. Strong odor and dark amber cut. Sand looks good. 0.1 of brown shale 0.3 from bottom.
						0.1	13.4		0.4	

629 South Hill Street
Los Angeles, California
November 11, 1937.

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

Gentlemen: Attention Mr. W. S. Eggleston

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

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

Please correct your copies accordingly.

Yours truly,

E. J.

Deputy Supervisor.

Made as Follows	By Whom
Summaries ✓ WJC:EMS	Ems
Rev. and Loc. Cards	
Production Reports	
Well Records { Folders	
Well Records { Reports	
Pen Models	
Graphics	
Field Maps	

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

Topo 53 RJB
11/12/37.

FORM 109-B. 46392 7-37 8750.
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Test of Water Shut-off

No. T 1-33300

Los Angeles, Calif. November 5, 1937.

Mr. Ed. Jussen, Jr.,

Los Angeles, Calif.

121

Agent for UNION OIL COMPANY OF CALIFORNIA

DEAR SIR:

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

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

Depth and manner of water shut-off: 4105 ft. of 8-5/8 in. 36 lb. / ft. of in. lb. casing was 10-15-37 cemented ~~landed~~ in shale (Formation)

at 4105 ft. with 400 sacks Victor cement by casing method.

Water string was landed in 12¼" rotary (Size, rotary or cable tool) hole.

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

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

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

At See below (Time and date) oil bailed to xx ft., drilling fluid bailed / swabbed to xx ft.

At " " (Time and date) top of oil found at xxx ft., top of fluid found at xxx ft.

MR. HAGESTAD REPORTED THE FOLLOWING:

1. No casing test was made.
2. 21' of set cement was drilled out of the 8-5/8" casing (equivalent to 6 sacks).
3. The Johnston tester was run into the hole on 4" drill pipe.
4. The wall packer was set at 4086'.

THE INSPECTOR NOTED THE FOLLOWING:

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

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

THE SHUT-OFF IS APPROVED.

R. D. BUSH
State Oil and Gas Supervisor

By [signature] Deputy

cc- H. E. Winter
Long Beach

ERMA:OH

FORM 109-D. 47172 7-37 15M
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 1-33264

Los Angeles, Calif. October 29, 1937

Mr. Ed Jussen, Jr.,
Los Angeles, Calif.
Agent for UNION OIL COMPANY OF CALIFORNIA
"OIL OPERATORS, ~~INC.~~"

DEAR SIR:

Operations at your well No. 1 Sec. 13, T. 4S., R. 13W., S. B. B. & M., Long Beach Field, in Los Angeles County, were witnessed by G. Peirce, representative of the supervisor, on Oct. 15, 1937. There was also present H. E. Winter, Engineer, and B. W. Messer, Driller.

Casing Record	Junk
13-3/8" cem. 757'. T. D. 4110'.	None.

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

and the data and conclusions are as follows:

MR. WINTER REPORTED THE FOLLOWING:

1. A 12¼" rotary hole was drilled from 757' to 4106' and a 7-5/8" rotary hole was drilled from 4106' to 4110'.
2. Mud fluid was circulated for 2 hr. prior to the test.
3. No record was kept of the loss of mud fluid prior to the test.
4. The drill pipe was hanging at 4070' during the test.
5. Cores were taken from the following important depths:

4010' - 4040' -- gray sand
4040' - 4041' -- shell
4058' - 4071' -- gray sand
4071' - 4079' -- shale
4079' - 4092' -- gray sand
4092' - 4106' -- shale
4106' - 4110' -- oil sand

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

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

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

R. D. BUSH
State Oil and Gas Supervisor

By E. Fugelvin Deputy

629 South Hill Street
Los Angeles, California
October 8, 1937.

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

Gentlemen: Attention Mr. H. E. Winter.

This will acknowledge receipt of and thank you for your letter of October 7, 1937, giving the elevation of your well No. "Oil Operators, ~~Inc.~~" 1, Sec. 13, T. 4 S., R. 13 W., S. B. B. & M., Long Beach field, as 56.84 feet, U. S. G. S.

Our records have been corrected accordingly.

Yours truly,

E. J.

Deputy Supervisor.

B:EMS

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

[illegible] Made as Follows	By Whom
[illegible] Summaries	
[illegible] Loc. Cards	
Production Reports	
Well Records { Folders	
Well Records { Reports	
Peg Models	
Graphics	
Field Maps	

FORM 401 9-36 70M
PRINTED IN U. S. A.

DIVISION OF OIL AND GAS
RECEIVED
OCT 8 - 1937
LOS ANGELES, CALIFORNIA

Union Oil Company of California

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

Santa Fe Springs, Calif. Oct. 7, 1937

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

Dear Sir:

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

Our records have been corrected accordingly.

Very truly yours,
Henry E Winter
District Engineer.

HEW:S

M 109-D. 47172 7-37 15M
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T1-33187

Los Angeles, Calif. October 22, 1937

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

Agent for UNION OIL COMPANY OF CALIFORNIA

DEAR SIR:

Operations at your well No. "OIL OPERATORS, ~~INC.~~" Sec. 13, T. 4S., R. 13W., S. B. B. & M., Long Beach Field, in Los Angeles County, were witnessed by G. Peirce, representative of the supervisor, on Oct. 3, 1937. There was also present R. Rampton, Engineer, and G. Bussett, Driller.

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

Junk --

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

and the data and conclusions are as follows:

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

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

The test was completed at 4:30 p. m.

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

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

R. D. BUSH
State Oil and Gas Supervisor

By E. Hugelstein Deputy

...11. 46011 6-37 20M.
...FORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Proposed Operations

No. P 1-31200

Los Angeles, Calif. August 16, 1937

Mr. Ed Jussen, Jr.,
Los Angeles, Calif.
Agent for UNION OIL COMPANY OF CALIFORNIA

121

Dear Sir:

Your proposal to drill Well No. "OIL OPERATORS, ~~INC.~~" 1, Section 13, T. 4S., R. 13W., S. B. B. & M., Long Beach Field, Los Angeles County, dated Aug. 9, 1937, received Aug. 11, 1937, has been examined in conjunction with records filed in this office.

Present conditions as shown by the records and the proposal are as follows: * 56.84' U. S. G. S. (Correction letter 10-8-37)

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

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

Size of Casing	Weight	New or Second Hand	Depth	Landed or Cemented
13-3/8"	46	New	700	Cmtd.
8-5/8"	36	New	4100	Cmtd.
6-5/8" Perf.liner	26	New	4150	Landed

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

DECISION:
THE PROPOSAL IS APPROVED PROVIDED THAT:

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

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

R. D. BUSH
State Oil and Gas Supervisor

By E. Hagenbuch, Deputy

24758 9-35 10M
CALIFORNIA STATE PRINTING OFFICE

DIVISION OF OIL AND GAS
RECEIVED
AUG 11 1937
LOS ANGELES, CALIFORNIA

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Notice of Intention to Drill New Well

This notice must be given before drilling begins

037-09792

General Exploration Co.

SANTA FE SPRINGS Cal. AUGUST 9, 1937

MR. E. HUGUENIN

Deputy State Oil and Gas Supervisor

Los Angeles, Calif. Cal.

DEAR SIR:

In compliance with Section 17, Chapter 718, Statutes of 1915, as amended, notice is hereby given that it is our intention to commence the work of drilling well No. Oil Operators, ~~Inc.~~ #1 "Oil Operators" (Correction letter 11-11-37), Sec. 13, T. 4-S, R. 13-W, S.B. B. & M., Long Beach Oil Field Los Angeles County. CJB

Lease consists of

The well is 555' S-W'ly along the prolongation of the center line of the W'ly portion of San Antonio Drive from the center line of Del Mar Ave., thence 100' N-W'ly at right angles feet N. or S., and feet E. or W. from

(Give location in distance from section corners or other corners of legal subdivision)

The elevation of the derrick floor above sea level is ~~Will be determined later (Approx. 50').~~ 56.84' (Correction letter 10-8-37) feet

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

Size of Casing, Inches	Weight, Lb. Per Foot	New or Second Hand	Depth	Landed or Cemented
13-3/8"	46	New	700	Cmtd.
8-5/8"	36	New	4100	Cmtd.
6-5/8" Perf. liner	26	New	4150	Landed

Well is to be drilled with rotary ~~cable~~ tools.

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

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

Respectfully yours

Address Santa Fe Springs, Calif.

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

Telephone number Whittier 426-87

By Henry E. Winter
District Engineer.

ADDRESS NOTICE TO DEPUTY STATE OIL AND GAS SUPERVISOR IN CHARGE OF DISTRICT WHERE WELL IS LOCATED

Reference to file of data

Map	Book	Section	Form	Pl.	Ex
Map 53					
CJB	✓				

Wildcat book

8/12/37 CJB

Pacific Energy Resources Ltd.

"Oil Operators" 1
NWLBU 8-1
Sec. 13-4S-13W.
LONG BEACH

S... LOGS

C... 1937
F... 13-
W... 3W
... ft.

WEST LONG BEACH
Union Oil Co.
Oil Operators #1
UN No. C. 4-100

Casing shoe depth:	Driller	757 ft.	Started run	5:45 p m.
	Schlumberger	757 ft.	Finished run	8:00 p m.
Bottom Depth:	Driller	4041 ft.	Time well occupied by outfit	2¼ h.
Max. depth reached by lower elect		4043 ft.	Time waiting at well	0:45 h.
Max. footage measured (p or S. P.)		3286 ft.	Mileage incurred by run	15 M.
Footage missed		-- ft.	Total time incurred by run	4 h.

MUD CHARACTERISTICS

121

NATURE : natural VISCOSITY : 34 LEVEL :
DENSITY : 73 RESISTIVITY : 10½

DIAMETER OF HOLE

1-263

12¼" to 4000 ft.
7-5/8" to 4041 ft.

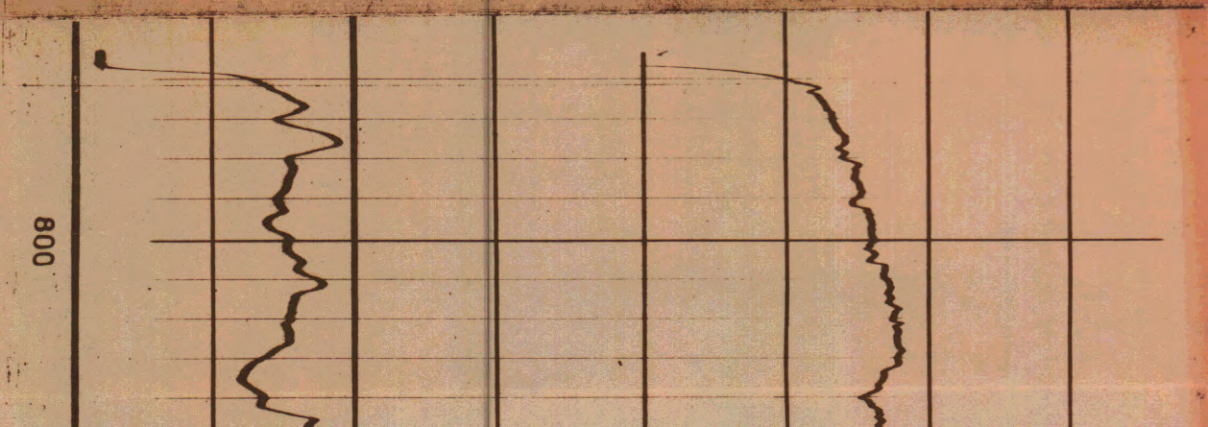
REMARKS

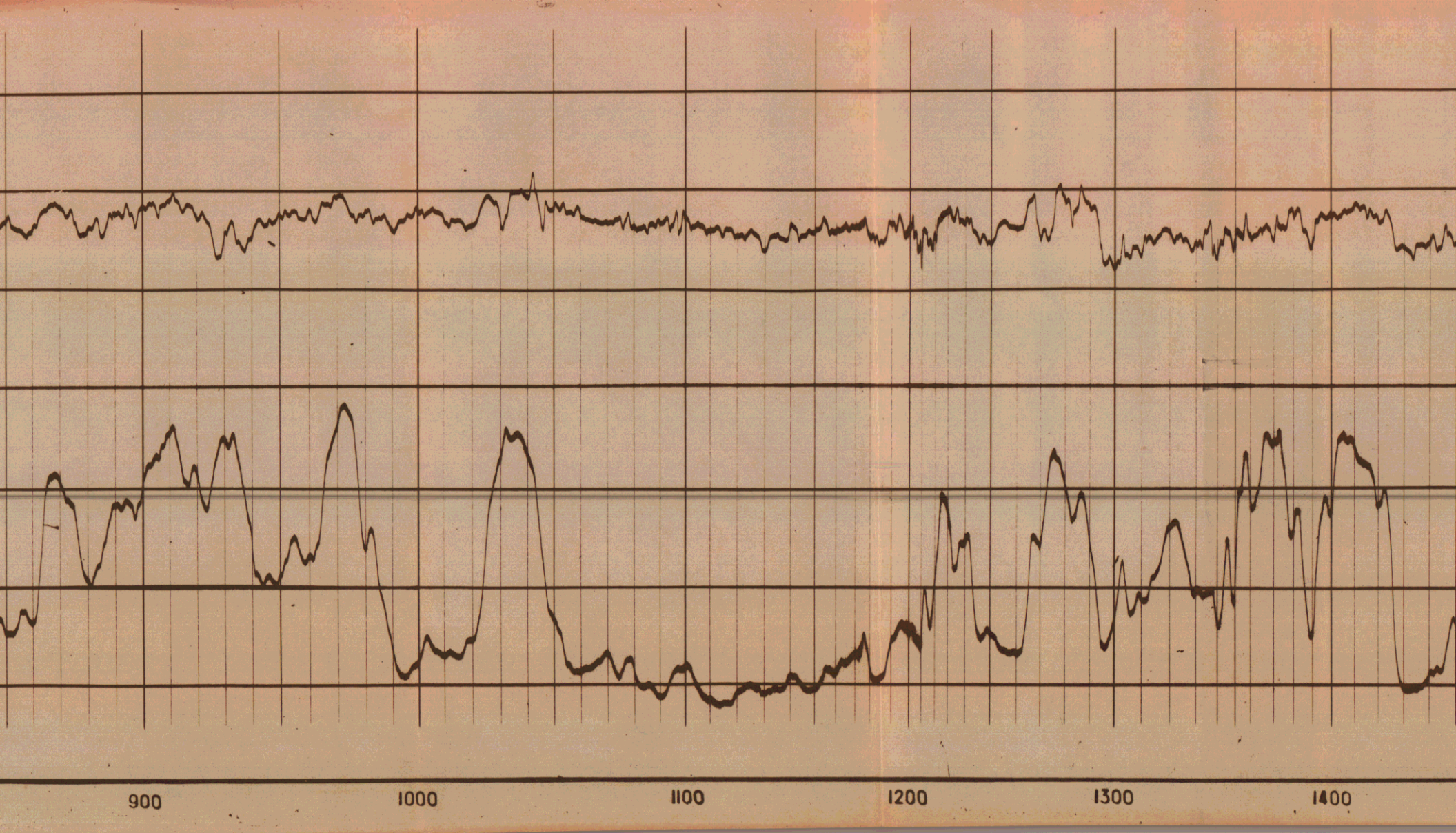
Device: 20"

Witnessed By : Mr. Winter

OBSERVERS : J. WALSTROM

DEPTH	RESISTIVITY LOG ohms. m²m	POROSITY LOG millivolts
	0 15 30	-------150 m.v.---------

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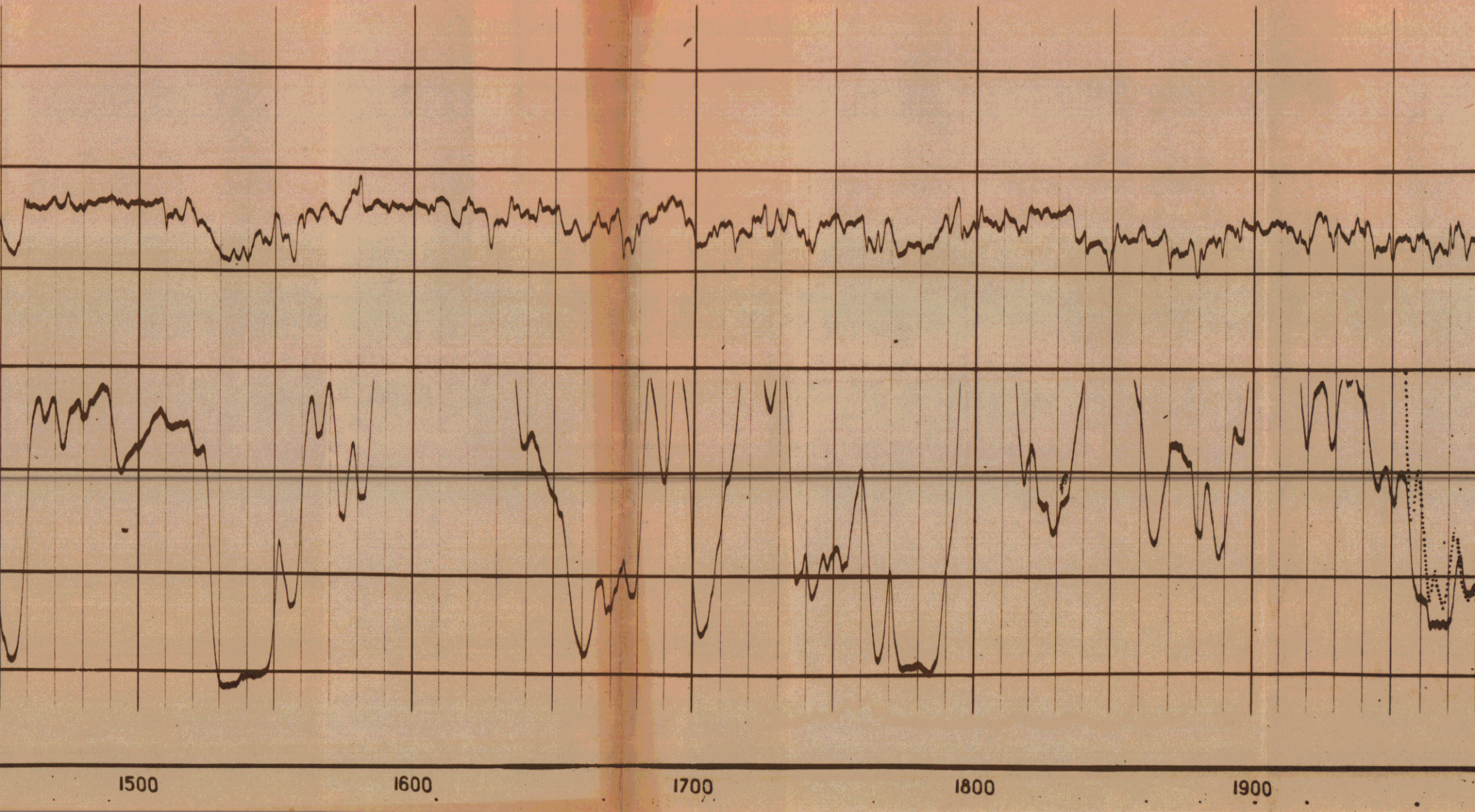
1000
1100
1200
1300
1400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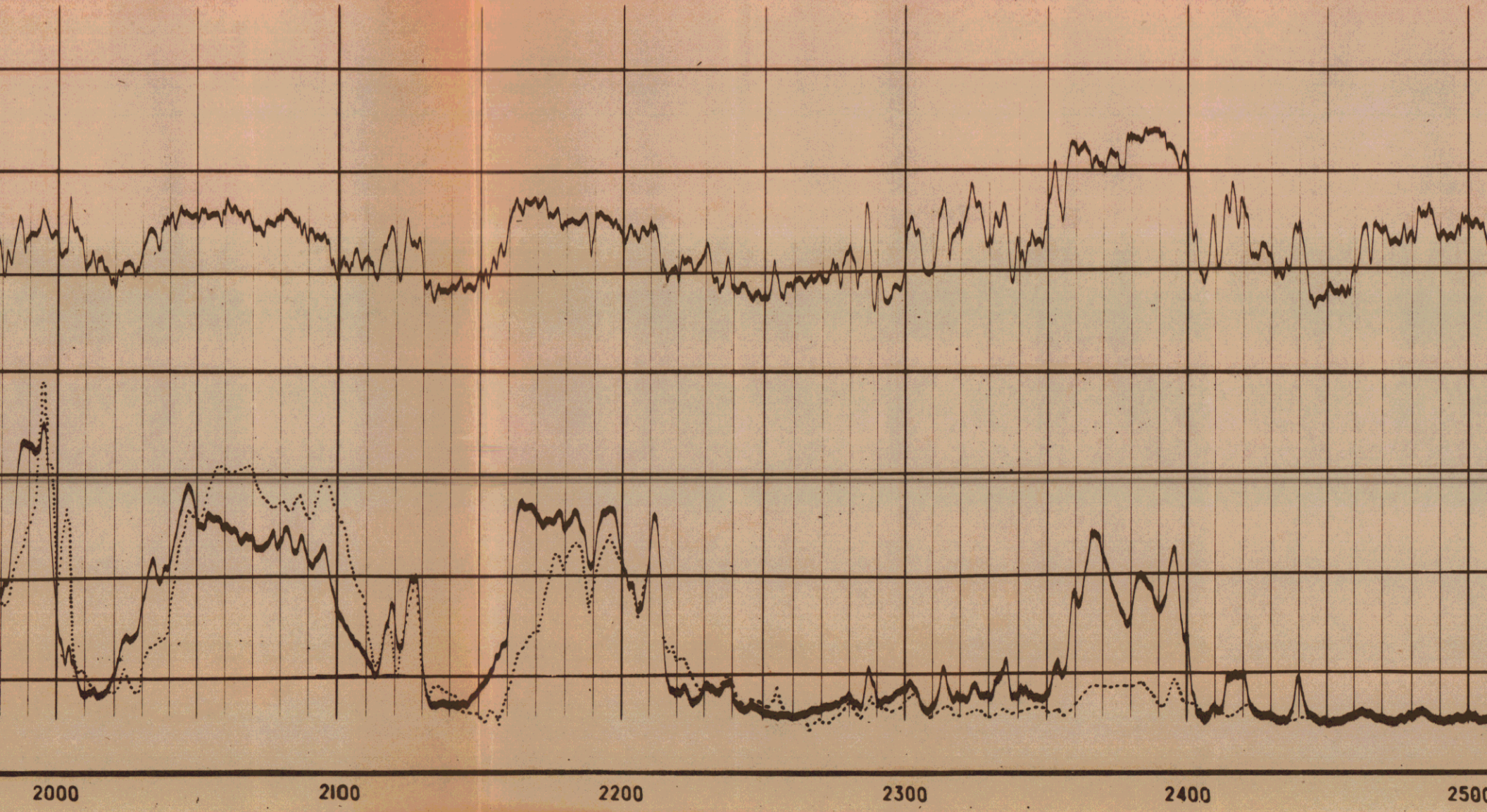
1800
1900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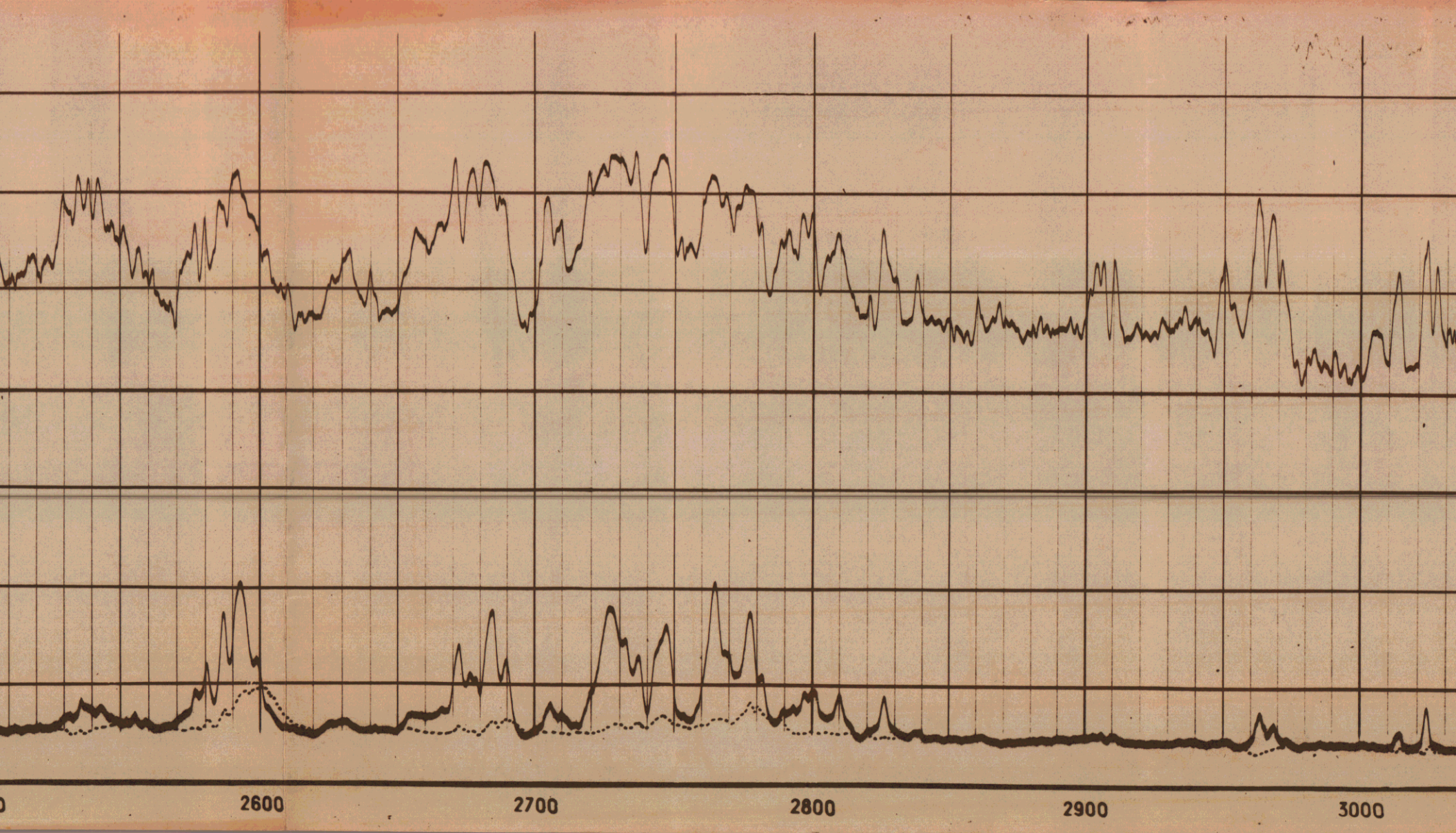
2200
2300
2400
2500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2700
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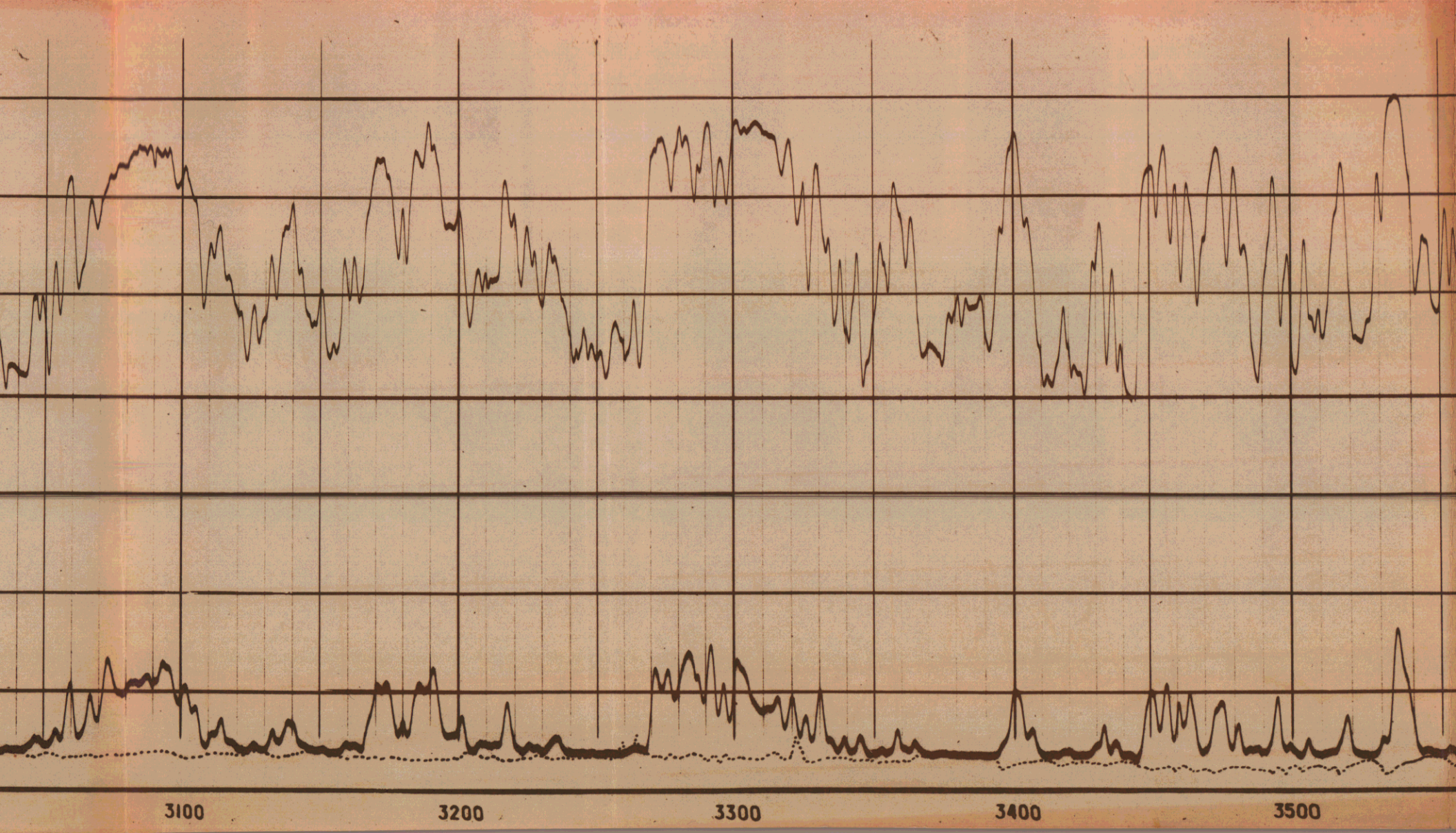
2900
3000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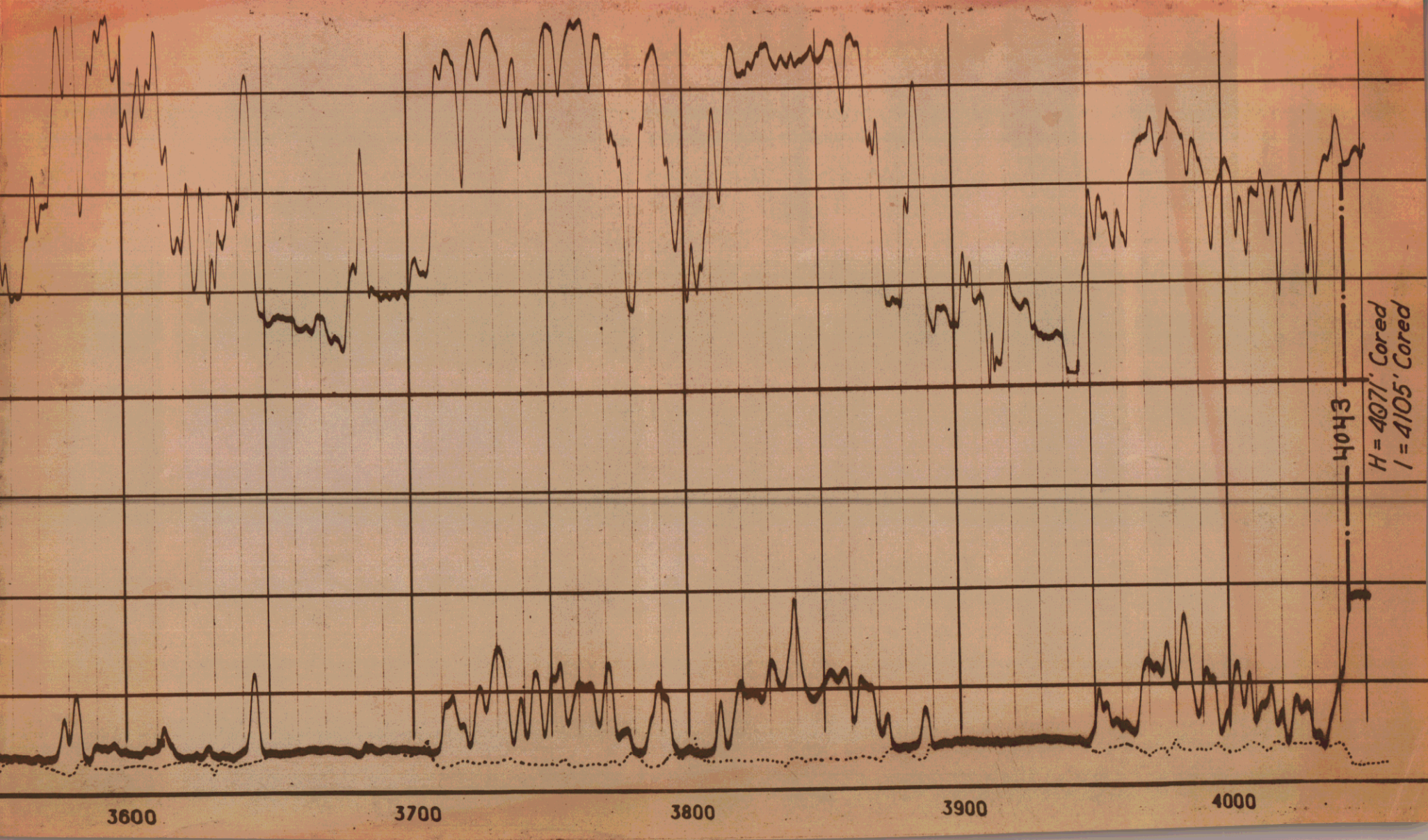
3200
3300
3400
3500


3600
3700
3800
3900
4000
4043
H = 4071' Cored
I = 4105' Cored

RECEIVED 1-263

Pacific Energy Resources Ltd.

(037-09792)

~~"Oil Operators" 1~~

NWLBU 8-1

Sec. 13-4S-13W. LONG BEACH

S ... RGER

...ATION

COMPANY: UNION OIL COMPANY OF CALIFORNIA

FIELD: Long Beach

WELL: Oil Operators #1

COUNTY: Los Angeles

FILING NO: C-5-1493

CO... IA

WELL: Oil Operators #1

RUN NO: Second

ELEVATION: Sec 13-4S-13W

SMB

FIELD: Long Beach

COUNTY: Los Angeles

STATE: California

Reference to file of data

Form	Date	Cross Section	Cards	Forms
				21

1-263

Casing shoe depth:	Driller	4105 ft.	Started run	4:15 p. m.
	Schlumberger	ft.	Finished run	5:45 p. m.
Bottom Depth:	Driller	4532 ft.	Time well occupied by outfit	1½ h.
Max. depth reached by lower elect		4532 ft.	Time waiting at well	¼ h.
Footage measured		427 ft.	Mileage incurred by run	10 M.
Footage missed		1 ft.	Total time incurred by run	3 h.

DIAMETER OF HOLE

from ..... to 4532' 7-5/8"

from ..... to .....

from ..... to .....

Bottom Temperature 126 °F

MUD CHARACTERISTICS

Nature: Natural

Weight: 72

Viscosity: 500 cc Marsh Funnel 32

Resistivity: 8.9 @ ..... °F

REMARKS

Device: Long

Note: 60 Ohms scale attached at bottom

Depth measurements taken from: Top of rotary table

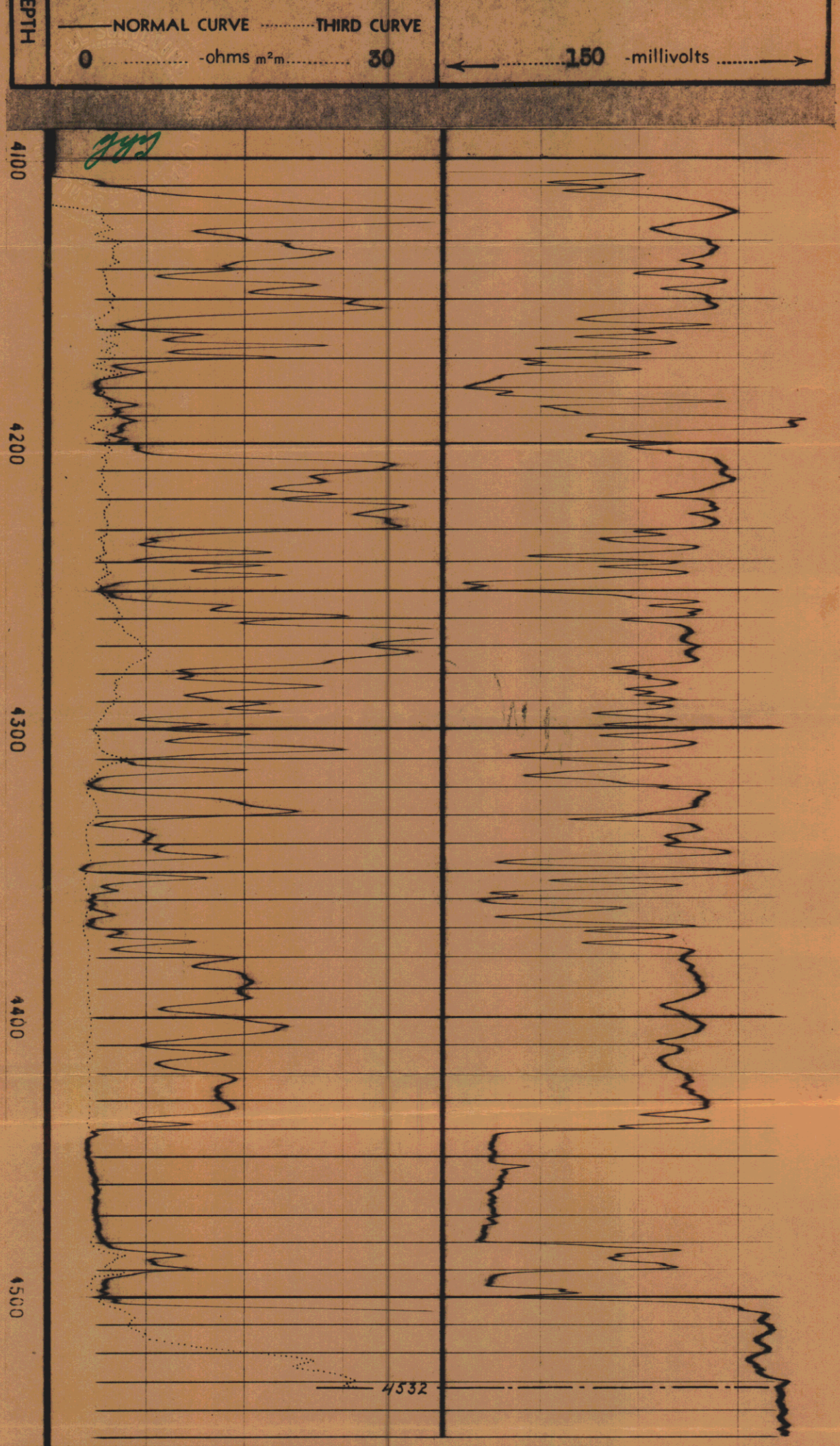
Maximum Pull 1800 lbs. at 4532 ft.

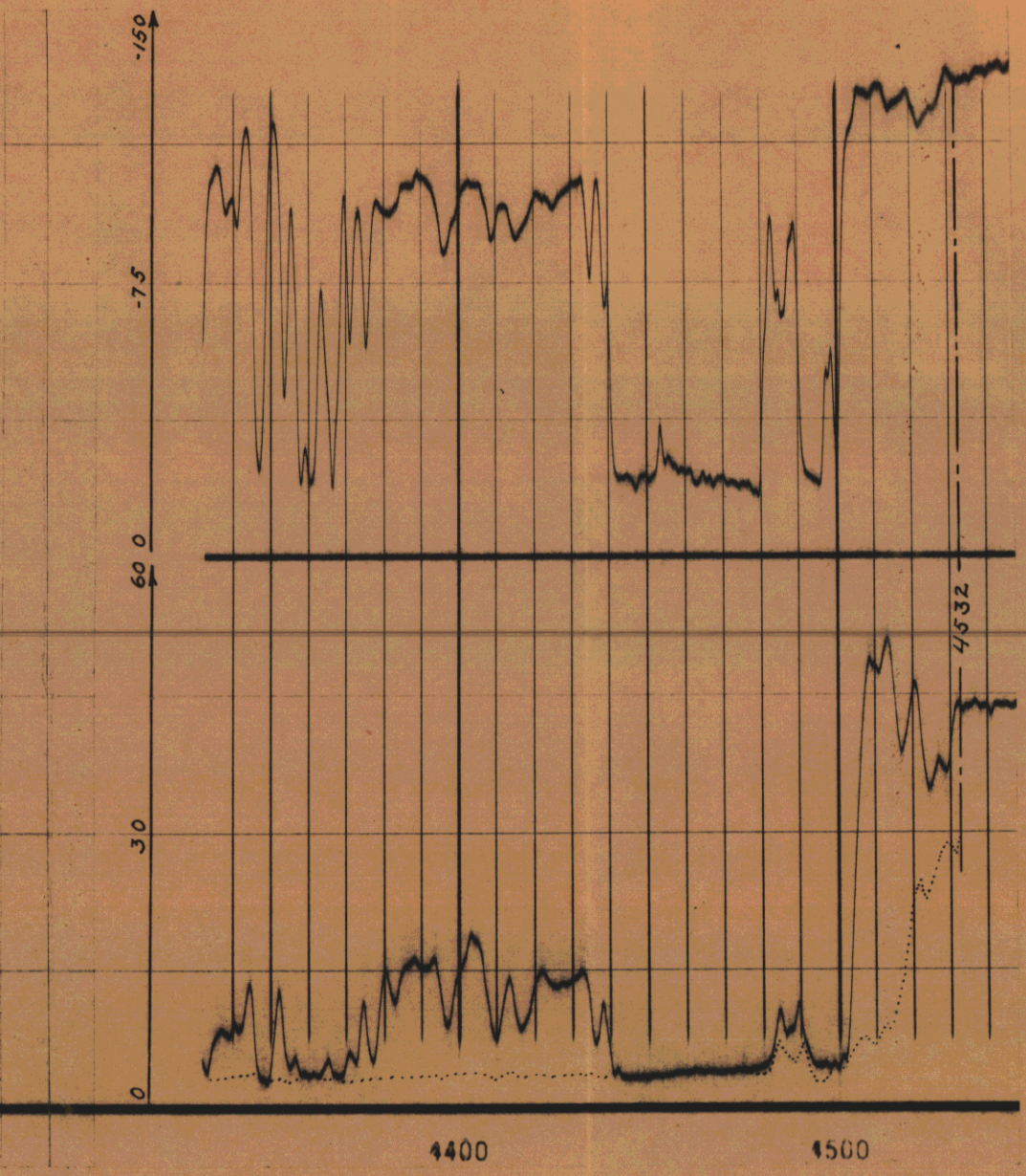
Witnessed By: Mr. Winter

DATE August 13, 1939 OBSERVERS V. T. FANT

RESISTIVITY

SELF-POTENTIAL


EPTH
NORMAL CURVE
THIRD CURVE
0
-ohms m²m
30
150
-millivolts
4100
4200
4300
4400
4500
4532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-75
0
60
30
0
4532
4400
4500

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

REPORT OF PROPERTY AND WELL TRANSFER

Field or county Wilmington, Long Beach, Montebello, Rosecrans, Rosecrans East, Torrance, and Newport West.		District One/Cypress
Former owner Pacific Energy Resources	Operator code P0250	Date 7/10/2007
Name and location of well(s) See Attatchment		
Description of the land upon which the well(s) is (are) located See Attachment		

Date of transfer, sale, assignment, conveyance, or exchange 06/14/2007	New owner Pacific Energy Resources Ltd.	Operator code P0250	Type of organization Partnership
	Address 111 West Ocean Blvd Long Beach, CA 90802		Telephone No. (562) 628-1526

Reported by OG30A Both Signed	
Confirmed by	
New operator new status (status abbreviation) PA	Request designation of agent Darren Katic, Agent
Old operator new status (status abbreviation) NPI	Remarks See Operator File

OPERATOR STATUS ABBREVIATIONS	Deputy Supervisor R.K. Baker	Signature Kenneth Carlson Ken Carlson Associate Engineer

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

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121			Map and book		
Form OGD140			Notice to be cancelled		
New well cards			Bond status	VM	7-11-07
Well records			EDP files		
Electric logs			Computer Files	VM	7-11-07
Production reports					

OGD156 (5/98)

WELL TRANSFER NOTICE

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

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF WELL PLUGGING AND ABANDONMENT

Long Beach, California

March 9, 1993

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

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

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

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

By P.C. Manuel
For R. K. Baker, *Deputy Supervisor*

KMCdf

cc: Update
Conservation Committee
L.A. County Assessor
L.A. County Fire Prevention Bureau
Don Callow, City of Signal Hill

OG159

DIVISION OF OIL AND GAS

CHECK - RECORDS RECEIVED AND WELL US

Company Petro Resources, Inc. Well No. NWLBU 8-1

API No. 037-09792 Sec. 13, T. 4S, R. 13W, S.B. B.&M.

County Los Angeles Field Long Beach

RECORDS RECEIVED	DATE
Well Summary (Form OG100)	
History (Form OG103)	10/7/92 (2)
Core Record (Form OG101)	
Directional Survey	
Sidewall Samples	
Other	
Date final records received	
Electric logs:	

10-6-92

STATUS		STATUS	
Producing - Oil		Water Disposal	
Idle - Oil		Waterflood	
Abandoned - Oil		Steamflood	
Drilling - Idle		Fire Flood	
Abandoned - Dry Hole		Air Injection	
Producing - Gas		Gas Injection	
Idle - Gas		CO_2 Injection	
Abandoned - Gas		LPG Injection	
Gas-Open to Oil Zone		Observation	
Gas Storage		Waterflood Source	

DATE _____ "E" well Yes ☐ No ☐

RECOMPLETED _____

REMARKS _____

ENGINEER'S CHECK LIST

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

CLERICAL CHECK LIST

1. Location change ____ (F-OGD165)
2. Elevation change ____ (F-OGD165)
3. Form OGD121 fl
4. Form OG159 (Final Letter) 3/9/93
5. Form OGD150b (Release of Bond)
6. Duplicate logs to archives
7. Notice of Records due (F-OGD170)
8. EDP (F-OGD42A-1, 2)

Surf. Insp. 2/14/92 GM

Final Letter

UPDATE CENTER 3-22-93

RECORDS NOT APPROVED

Reason: _____

RECORDS APPROVED Km 2/11/93

RELEASE BOND _____

Date Eligible _____

(Use date last needed records were received.)

MAP AND MAP BOOK F.S.L. 3-8-93

LONG BEACH OFFICE - USE REVERSE SIDE

OGD2 (6/91/GSR1/5M)

SUBMIT IN DUPLICATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

Operator Petro Resources, Inc. Field Long Beach County Los Angeles
Well NWLBU 8-1, Sec. 13, T 4S, R 13W, S.B.B. & M.
A.P.I. No. 037-09792 Name Joe D. Rose (Person submitting report) Title Manager (President, Secretary or Agent)
Date Oct. 6, 1992

Signature

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

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

Date	
1/31/84	Ran 3-3/4" bailor to 518'. Bailed pieces of wood. Ran 6-3/4" bit.
2/3/84-2/6/84	Drill and mill wood and steel to 558'. Ran I.B., appears to be angle iron in hole. (Mill worn down on outside 6" diameter).
6/2/92	MIRU Finley Oilwell Service.
6/3/92	7" I.B. to 551'. Mark on outside of 7". Ran in sawtooth on 2-7/8" to 551'. Ran 1-1/4" tubing to 551'. No go.
6/4/92	Pickup power swivel,spools for wellhead etc. Short day.
6/5/92	Ran 7-3/8" shoe and 1 ft. washover pipe. Wash 551-554'. Pull @ 25,000# to free string. No fish. 2' worn inprint inside shoe.
6/8/92	Ran 7" shoe with skirt drill 551-555'. Torque up, pull 32,000#, slipped off. Ran again to 554', won't go. Torqued up.
6/9/92	Ran 7-3/8" x 6-5/8" ID diamond friction shoe -- no catch. Diamond friction springs flattened. Ran 7-5/8" bit drill hard, torquing, getting wood and metal. Drill to 555'.
6/10/92	Ran piloted cone buster mill 554-556'. Torqued up. 7" I.B., no impression. Ran 6-3/4" junk mill, flat bottomed. Mill 556-557'. Ran I.B., indicated 6" OD metal tube looking up.
6/11/92	Ran 4-3/8" magnet. Recovered 2 gallons of metal pieces and wood. Bolt pieces, pipe fragments, etc. Ran 4-5/8" mill, mill to 558', Ran I.B. - indeterminate.
6/12/92	Ran 4-1/2" washover shoe, c.o. to 564'. POOH, recover 6' - 3-1/2" OD metal tube split and twisted w/ID of interior full of redwood pieces and splinters. Ran again, wouldn't go. Blanks off like we are inside of a core inside of wood.
6/15/92	Ran 4-9/16" junk mill, c.o. to 573'. Lots of wood and some metal shavings. Ran 7-5/8" 2 cone bit, c.o. to 575'. Wood and metal.
6/16/92	Ran 2 prong spear. Recover 3' of 1" drilling line. Re-run. Recover misc. wire pieces, metal and wood. Ran magnet, a gallon of pieces of metal.
6/17/92	Load out tools. Rig up 10-900 double gate BOP. Shoot 8- 1/2" holes 578-70'. RIH with Baker permanent cement retainer set at 537'. Pump away at 0-200 psi.
6/18/92	Pump 250 sx. cmt. through retainer and out perfs. Open valve between 8-5/8" and 13-3/8" casing and circulate. Spot 273 sx - pull out of the retainer and circulate 162 sx. inside 8-5/8" casing, filling the 8-5/8" from 578' to surface, and 250 sx. of cement pumped away down from 578' on the outside of the 8-5/8" casing. Total 685 sx. cement.
7/3/92	Cut off casing 8' below ground level and welded on metal cap. Both strings observed to be full of cement.

RECEIVED
92 OCT -7 PM 1:28
DIVISION OF OIL & GAS
LONG BEACH, CA

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

No. T 192-610

Report on Operations

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

Long Beach Calif.
July 13, 1992

Your operations at well NWLBU 8-1, API No. 037-09792,
Sec. 13, T. 4S, R. 13W, S.B. B. & M. Long Beach
Field, in Los Angeles County,
were witnessed on 7-3-92. J. Hebein, Engineer, representative of
the supervisor, was present from 1400 to 1405.
There were also present Dave Dahlman
Present condition of well: 13 3/8" cem 757'; 8 5/8" cem 4105', cp 570'; 6 5/8" ld 4024'-4529', cp 4475'. Junk below 580'. TD 4532'. Bp 4200'. Plugged w/cem 4529'-4443', 4200'-4124', w/523 sx cem below 535' & w/cem 535'-8'.

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

DECISION:

APPROVED.

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

DEFICIENCIES: None.

CONTRACTOR: Finley Oil Well Service, Inc.

Surface Inspection Approved ~~7-14-92~~
gm

JH:df

cc: Update
Callow, Signal Hill

K. P. Henderson, Acting Chief
State Oil and Gas Supervisor
By R. C. Manner
Deputy Supervisor
for R. K. Baker

OG109 (9/91/GSR1/5M)

EDP 7-10-92

192-610 lm 7/10/92

DIVISION OF OIL AND GAS
Cementing/Plugging Memo

Operator Petro Resources, Inc. Well No. NWLBU 8-1
API No. 037-09792 Sec. 13, T. 4S, R. 13W, S.B. B&M
Field Long Beach, County Los Angeles. On 7/3/92,
Mr./~~Ms.~~ J. Hebein, representative of the supervisor, was present from 1400 to 1405.
There were also present Dave Dahlman, Pacific Energy Resources

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

The operations were performed for the purpose of (L)

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

☐ The location and hardness of the cement plug @_____' is approved.

Hole size:_____" fr._____' to_____', _____" to_____' & _____" to_____'

Casing				Cemented			Top of Fill		Squeezed Away	Final Press.	Perfs.
Size	Wt.	Top	Bottom	Date	MO-Depth	Volume	Annulus	Casing			
				6/18/92	Ret. @ 535'		returned	6'	523 SX	300	8 1/2" holes @ 570'

B/D 26 bbl/m @ 200 psi.

Casing/tubing recovered:_____" shot/cut at_____', _____', _____' pulled fr._____';
_____" shot/cut at_____', _____', _____' pulled fr._____'.

Junk (in hole): below 580'

Hole fluid (bailed to) at_____'. Witnessed by_____

Mudding	Date	Bbls.	Displaced	Poured	Fill	Engr.

- NOTE (K) II 2M 6/18/92

Cement Plugs		Placing	Placing Witnessed		Top Witnessed			
Date	Sx./cf	MO & Depth	Time	Engr.	Depth	Wt/Sample	Date & Time	Engr.
6/18/92	162 Sx / 523 Sx	Ret. @ 535'	0900	M. Saw	8' *	visual	7/3/92 1403	J. Hebein

C/O 580', bad csg @ 551'
* plate welded on 20" conductor

OGD10 (9/91/GSR1/5M)

DEFICIENCIES NOTED AND CORRECTED:

None

DEFICIENCIES NOTED AND TO BE CORRECTED:

None

UNCORRECTABLE DEFICIENCIES:

None

CONTRACTOR:

Finlay Oil Well Service, Inc.

API No. _____ DIVISION OF OIL AND GAS T_____

BLOWOUT PREVENTION EQUIPMENT MEMO

Operator Petro Resources, Inc. Well NWLBU 8-1
Field Long Beach County L.A. Spud Date

VISITS:	Date	Engineer	Time	Operator's Rep.	Title
1st	6/18/92	M. Saw	(0850 to 0900)	J. Moyers	R.F.
2nd			(to)		

Contractor _____ Rig # _____ Contractor's Rep. & Title _____
Casing record of well: _____

MEMO

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

Proposed Well Opns: Abandon . MACP: _____ psi
Hole size: _____ " fr. _____ ' to _____ ' , _____ " to _____ ' & _____ " to _____ '

REQUIRED BOPE CLASS: II > M

CASING RECORD OF BOPE ANCHOR STRING					Cement Details	Top of Cement	
Size	Weight(s)	Grade(s)	Shoe at	CP at		Casing	Annulus

BOP STACK

API Symb.	Ram Size (in.)	Manufacturer	Model or Type	Vert. Bore Size (in.)	Press. Rtg.	Date Last Overhaul
Rd	2 7/8	Shaffer	Mech	8	3000	—
Rd	CSO	"	"	8	"	—

TEST DATA

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

ACTUATING SYSTEM

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

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

CONTROL STATIONS	Elec.	Hyd.	Pneu.
Manifold at accumulator unit			
Remote at Driller's station			
X Other: Handwheels			

EMERG. BACKUP SYSTEM			Press.	Wkg. Fluid
N_2 Cylinders	1	L= "		gal.
Other:	2	L= "		gal.
	3	L= "		gal.
	4	L= "		gal.
	5	L= "		gal.
	6	L= "		gal.
		TOTAL:		gal.

TOTAL:

AUXILIARY EQUIPMENT

	No.	Size (in.)	Rated Press.	Connections Weld	Flange	Thread	Test Press.
Fill-up Line							
X Kill Line		2	2000			X	
Control Valve(s)							
Check Valve(s)							
Aux. Pump Connect.							
Choke Line							
Control Valve(s)							
Pressure Gauge							
Adjustable Choke(s)							
Bleed Line							
Upper Kelly Cock							
Lower Kelly Cock							
Standpipe Valve							
Standpipe Press. Gauge							
X Pipe Safety Valve		2 7/8	2000				
Internal Preventer							

HOLE FLUID MONITORING EQUIPMENT	Alarm Type Audible	Visual	Class
Calibrated Mud Pit			A
Pit Level Indicator			B
Pump Stroke Counter			B
Pit Level Recorder			C
Flow Sensor			C
Mud Totalizer			C
Calibrated Trip Tank			C
Other:			

Hole Fluid Type	Weight	Storage Pits (Type & Size)

REMARKS AND DEFICIENCIES: _____

OGD9 (12/90/GSR1/2M)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

No. P 192-651

412 (field code)
03 (area code)
-- (new pool code)
00 (old pool code)

PERMIT TO CONDUCT WELL OPERATIONS

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

Long Beach, California
June 16, 1992

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

THE PROPOSAL IS APPROVED PROVIDED:

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

NOTES:

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

KMC:ss

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

BLANKET BOND

Engineer Kenneth M. Carlson

Phone (310) 590-5311

K.P. HENDERSON, Acting Chief

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

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

OG111

OG

STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

Notice of Intention to Abandon Well

This notice must be given at least five days before work is to begin.

FOR DIVISION USE ONLY			
CARDS	BOND	FORMS 114	FORMS 121
6/12/92	BB 6/12/92	6/12/92	6/12/92

DIVISION OF OIL AND GAS

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon Well No. NWLBU 8-1, API No. 037-09792, Sec. 13, T. 4S, R. 13W, S.B. B. & M., Long Beach Field, Los Angeles County. commencing work on June 15, 1992.

The present condition of the well is:

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

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

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

or

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

Additional data for dry hole (show depths)

5. Oil or gas shows

6. Stratigraphic markers:

7. Formation and age at total depth:

8. Base of fresh water sands: 2100'

The proposed work is as follows:

1. Perforate 8 - 1/2" holes at 550'.
2. Set cement retainer at 500', squeeze 250 sxs. through retainer to squeeze below shoe of 13-3/8" surface casing.
3. Peforate 8- 1/2" holes at 480'. Establish circulation between 8-5/8" and 13-3/8" casings. Circulate cement leaving 8-5/8" and annulus between 8-5/8" & 13-3/8" full of cement - use 500 sx. cmt.
4. Cut off casing strings 6' below ground level and level site.

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

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

Petro Resources, Inc. (Name of Operator)
By [signature] (Name) 6-12-92 (Date)
Joe D. Rose
Type of Organization Corporation (Corporation, Partnership, Individual, etc.)

FORM 108 (REV. 1-73)

10341-705 1-73 10M ② OSP

~~Fax~~

Dan Hunt N

(310) ~~[illegible]~~ Fax

595 0310

Peter

Vern Rice

NWCB 8-1[illegible]

FINLEY
• DRILLING
• PULLING
• BAILING
OILWELL SERVICE INC.

VERN RICE

PRODUCTION
SUPERINTENDENT

Mailing Address
P.O. Box 92527
Long Beach, CA 90809-2527

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

TO: Ken

ROOM/STA. NO.

FROM: Vern

ROOM/STA. NO.

REPRESENTING

DATE: 6-16 | TIME: 11:45 | PHONE: (310) 595-4505 | ATSS ☐

☐ Telephoned ☐ Please call ☐ Was In
☐ Returned Call ☐ Will Call Again ☐ Wants To See You

☐ Information ☐ Comment ☐ Investigate ☐ Contact Me

NOTE and: ☐ Re-route ☐ Return ☐ File

REPLY: ☐ My Signature ☐ Copy Me ☐ Forwarded Per Request

MESSAGE/REMARKS

Did you fax the notice yet?

BY FAX (310) 595-0310

STATE OF CALIFORNIA
MESSAGE
STD 7 (REV 1/90) 89 54047

PROTECT YOUR INFORMATION ASSETS

RECEIVED
92 JUN 15 PM 1:35
DIVISION OF OIL & GAS
LONG BEACH, CA

OG

STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

Notice of Intention to Abandon Well

This notice must be given at least five days before work is to begin.

FOR DIVISION USE ONLY			
CARDS	BOND	FORMS 114	FORMS 121
6/12/92	BB 6/12/92	6/12/92	6/12/92

DIVISION OF OIL AND GAS

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon Well No. NWLBU 8-1, API No. 037-09792, Sec. 13, T. 4S, R. 13W, S.B. B. & M., Long Beach Field, Los Angeles County, commencing work on June 15, 1992.

The present condition of the well is:

1. Total depth: 4532', junk @ ~~551'~~ 560'

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

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

or

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

Additional data for dry hole (show depths)

5. Oil or gas shows

6. Stratigraphic markers:

7. Formation and age at total depth:

8. Base of fresh water sands: 2100'

The proposed work is as follows:

1. Perforate 8 - 1/2" holes at 550'.
2. Set cement retainer at 500', squeeze 250 sxs. through retainer to squeeze below shoe of 13-3/8" surface casing.
3. Peforate 8- 1/2" holes at 480'. Establish circulation between 8-5/8" and 13-3/8" casings. Circulate cement leaving 8-5/8" and annulus between 8-5/8" & 13-3/8" full of cement - use 500 sx. cmt.
4. Cut off casing strings 6' below ground level and level site.

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

Address 4200 Easton #16 (Street)
Bakersfield, Ca. 93309
(City) (State) (Zip)

Telephone Number (805) 323-4118

Petro Resources, Inc. (Name of Operator)

By [signature] (Name) 6-12-92 (Date)
Joe D. Rose

Type of Organization Corporation (Corporation, Partnership, Individual, etc.)

FORM 108 (REV. 1-73)

10541-708 1-73 10M © OSP

RECEIVED

92 JUN 12 AM 11:01

DIVISION OF OIL & GAS
LONG BEACH, CA

PETRO RESOURCES INC

Facsimile Transmission Cover Sheet

To : KEN CARLSON DIVISION OF O&G

Receiving FAX telephone : 310/590/5301

1 more page follows this cover page

Sent by :

JOE ROSE

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

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

In case of trouble, contact : 805 323 4118

Sent on 06-12-1992 at 10:56

RECEIVED

92 JUN 12 AM 11:01

DIVISION OF OIL & GAS
LONG BEACH, CA

PETRO RESOURCES INC

Facsimile Transmission Cover Sheet

To : KEN CARLSON DIVISION OF O&G

Receiving FAX telephone : 310/590/5301

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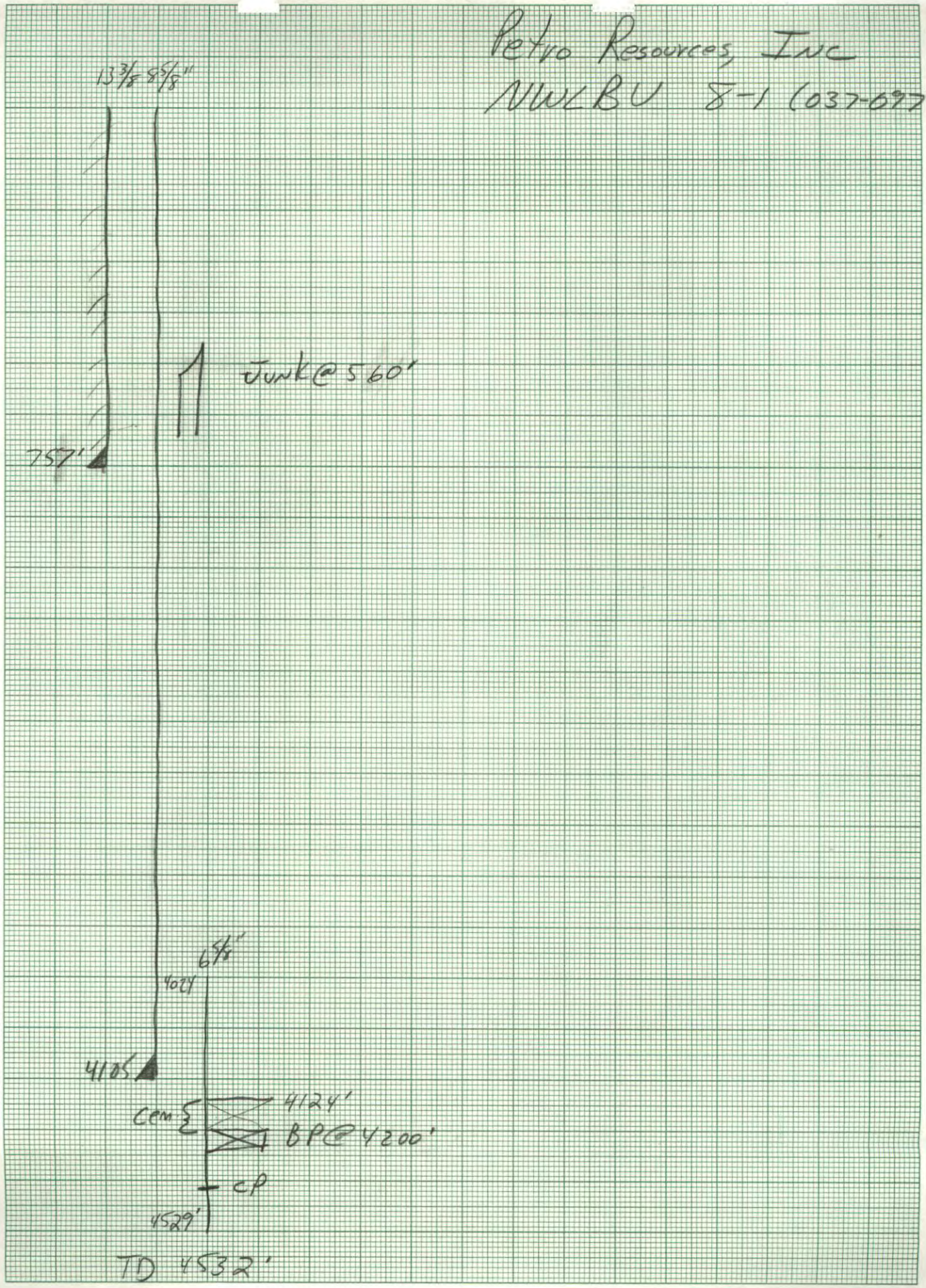
Sent on 06-12-1992 at 10:56

RECEIVED
92 JUN 12 AM 11:01
DIVISION OF OIL & GAS
LONG BEACH, CA

Petro Resources, Inc
NWLBU 8-1 (037-09792)



46 1510
K+E 10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

PETRO RESOURCES I...

Cost Sheet 6-2-92 thru 6-14-92 NWLB 8-1

		Daily	Accum.
John McPhillips Co.:	12-900 x 8-900 X-OVER SPOOL	20.00	180.00
	8-900 PGSR	25.00	225.00
	1 EA 3½ IF P/L Lifter	15.-5.	30.00
	1 SET 4½" Tong JAWS	45.-45.	135.00
	1 SET 4½" SLIP INSERTS	20.-20.	60.00
	2 EA 4¾" DRILL COLLARS	10.-5.	50.00
	SOS TRUCK DELIVERY	98./HR.	200.00
		SUB TOTAL	$880.00
MARLIN Pacific:	TRUCKING	70./HR	600.00
	6¾" Junk mill ✓	205./IN.	1435.00
		SUB TOTAL	$2035.00
JET BAILER:	7" IMPRESSION BLOCK	PER JOB	196.00
	4" " "	" "	98.00
	4⅜" " "	" "	110.00
	4⅜" MAGNET	" "	100.00
		SUB TOTAL	$504.00
MIDWAY Fishing:	7" WASHOVER SHOE ✓	155./IN	1085.00
	7" W/O EXTENSION	170./85.	170.00
	7" DRIVE SUB F/W/O	260./135.	260.00
	6⅛ Junk mill ✓	185/IN.	1157.00
	3 EA. X-OVER SUBS	25./12.	75.00
	7⅜" Bit	300.00/JOB	300.00
		SUB TOTAL	$3037.00
Homco Int.:	7⅜" SHOE	150./IN.	1126.00
	7⅜" W/O PIPE	2.90 5.80/ft.	174.00
	7⅜" DRIVE SUB	220./110.	220.00
	6" DRILL COLLAR	58./29	58.00
	6⅝" mill, Junk ✓	185./IN	1226.00
	3½ IF Lifter	25./12.	37.00
		SUB TOTAL	$2841.00
STEVE's oilfield TRUCKING:	4 DELIVERIES	98.00/HR.	800.00
Misc. UNBILLED:	Tools & EQUIP.		500.00
		SUB TOTAL	$1300.00

FINLEY . DRILLING . PULLING . . BAILING .
OILWELL SERVICE INC.

P.O. BOX 92527 LONG BEACH, CA 90809
PHONE 595-4505

Service Report
JOB № 49982

Company PETRO RESOURCES INC.
Lease NW LB. Well 8-1
Field LONG BEACH

Date 6-2-92
Work Order No.

ROD RECORD

Size	No. Rods Pulled	No. Rods Run	No. Subs Pulled	No. Subs Run	Length

PUMP RECORD

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

TUBING RECORD

Size	No. Joints Out	Feet	No. Joints Run	Depth of Shoe	Total Feet in Hole

Size of nipples in tubing string and location ____
Make of tubing catcher, anchor ____ Size ____ Amount of tubing above catcher ____
BAILING RECORD Amount of tubing below catcher ____
Maker of bailer ____ Size ____ Bailed from ____ to ____ Formation ____
Fluid Level ____ Top. Perf. ____ Bottom Perf. ____ Zero Point ____

REMARKS LAID OUT RIG MATS - MOVED IN MUD PUMP - M.R.U. MAST - S.D. T.M A.M.

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

	START	STOP	HOURS
HOIST			
MAST #4	2:30 PM	4:30 PM	2
SAND LINE			
PUMP			
SWIVEL			
PUSHER R. LUHEELER	2:30 PM	4:30 PM	2
HELPER A. MEDINA	/	/	/
HELPER JUAN MEDINA			
HELPER E. HARTSOCK - TRAINEE -			
HELPER			

FINLEY OILWELL SERVICE INC.
. DRILLING
. PULLING
. . BAILING .

P.O. BOX 92527 LONG BEACH, CA 90809
PHONE 595-4505

Service Report
JOB № 49983

Company PETRO RESOURCES INC.
Lease NWLB Well 8-1
Field LONG BEACH, CAL

Date 6-3-92
Work Order No.

ROD RECORD

Size	No. Rods Pulled	No. Rods Run	No. Subs Pulled	No. Subs Run	Length

PUMP RECORD

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

TUBING RECORD

Size	No. Joints Out	Feet	No. Joints Run	Depth of Shoe	Total Feet in Hole

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

BAILING RECORD

Maker of bailer Size Bailed from to Formation
Fluid Level Top. Perf. Bottom Perf. Zero Point

REMARKS REMOVE WELL HEAD - M/U 7" IMPRESSION BLOCK - JET BAILER - R.I.H. - STACKED OUT @ 551 - P.O.H. - DN. I.B. 1" WIDE MARK ON OUTSIDE OF FACE ON IB - R.I.H. W/OPEN END TBG. - STOPPED @ 551' - UNABLE TO WORK PAST 551' P.O.H. - R.I.H. / 45° COLLAR - STOPPED @ 551' UNABLE TO GET PASSED 551' - P.O.H. - M/U JET BAILER 4" I.B. & R.I.H. - STACK OUT @ 551' - P.O.H - I.B. INDICATES PARTED OR BAD CSG. @ 551' - M/U 1 JT. 1¼" TBG. ON 2⅞ TBG & R.I.H. - UNABLE TO GET PASSED 551' W/1¼" TBG - P.O.H. - SECURE WELL LAY WATER LINE TO WELL 8-1

Rig & Crew 1503.00

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

	START	STOP	HOURS
HOIST			
MAST #4	6:30AM	3:30PM	9HRS
SAND LINE			
PUMP			
SWIVEL			
PUSHER R. WHEELER	6:30AM	3:30 PM	9HRS
HELPER A. MEDINA	"	"	"
HELPER M. MEDINA	"	"	"
HELPER E. HARTSOCK — TRN.	"	"	"

WELDER

FINLEY . DRILLING . PULLING . . BAILING .
OILWELL SERVICE INC.

P.O. BOX 92527 LONG BEACH, CA 90809
PHONE 595-4505

Service Report
JOB № 49984

Company PETRO RESOURCES INC.
Lease NWLB Well 8-1
Field LONG BEACH, CA.

Date 6-4-92
Work Order No.

ROD RECORD

Size	No. Rods Pulled	No. Rods Run	No. Subs Pulled	No. Subs Run	Length

PUMP RECORD

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

TUBING RECORD

Size	No. Joints Out	Feet	No. Joints Run	Depth of Shoe	Total Feet in Hole

Size of nipples in tubing string and location
Make of tubing catcher, anchor Size Amount of tubing above catcher
BAILING RECORD Amount of tubing below catcher
Maker of bailer Size Bailed from to Formation
Fluid Level Top. Perf. Bottom Perf. Zero Point

REMARKS MOVE IN POWER SWIVEL & N/UP SAME & HANG BACK IN DERRECK. N/UP HOSES & CROSS-OVER SPOOL TO PGSR. SHUT DN. UNTIL AM 6-5-92 TO RECEIVE WASH OVER PIPE & MISC. C/O & FISHING tools.

$584.50 Rig & Crew
$40.00 Sub Pay

No Accidents.

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

	START	STOP	HOURS
HOIST #4	6:30 AM	10:00 AM	3.5
MAST			
SAND LINE			
PUMP			
SWIVEL			
PUSHER R. WHEELER	6:30 AM	10:00 AM	3.5
HELPER A. MEDINA	6:30 AM	10:00 AM	3.5
HELPER M. MEDINA	6:30 AM	10:00 AM	3.5
HELPER E. HARTSOCK	6:30 AM	10:00 AM	3.5
HELPER			

FINLEY OILWELL SERVICE INC.
. DRILLING
. PULLING
. . BAILING .

BOX 92527 LONG BEACH, CA 90809
PHONE 595-4505

Service Report
JOB № 49985

Company PETRO RESOURCES INC.
Lease NWLB Well 8-1
Field LONG BEACH CA.

Date 6-5-92
Work Order No.

ROD RECORD

Size	No. Rods Pulled	No. Rods Run	No. Subs Pulled	No. Subs Run	Length

PUMP RECORD

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

TUBING RECORD

Size	No. Joints Out	Feet	No. Joints Run	Depth of Shoe	Total Feet in Hole
DAILY COST ON FISHING TOOLS			$2465.00	APPROX.	

Size of nipples in tubing string and location ____
Make of tubing catcher, anchor ____ Size ____ Amount of tubing above catcher ____
BAILING RECORD Amount of tubing below catcher ____

Maker of bailer ____ Size ____ Bailed from ____ to ____ Formation ____
Fluid Level ____ Top. Perf. ____ Bottom Perf. ____ Zero Point ____

REMARKS SERVICE RIG & COMPONENTS. RIH W/ OPEN-ENDED TBG. & CHANGE OVER to FRESH WATER; CIRC. FLUID. RECEIVE & UNLOAD WASH-OVER & MISC. TOOLS. PICK UP OTHER W/O TOOLS & MEAS. M/U & RIH W/ 7 3/8" OD T/C FLAT BTM. SHOE. WASH OVER F/ 551.43' KB to 554.43 +/- SHOE ID 6 1/4" INDICATED. APPROX. 1' OF FISH ENTERED FULL GAGE OF SHOE. 20-30,000# STRING WT to PULL FREE BEFORE POH. STRING UP-DN. RT WTS. WERE 10,000#. DISCON-TINUED W/O OPER. DUE to LACK OF COLLAR WT. SECURE WELL & SHUT DN. UNTIL AM 6-8-92 ORDERED 2 EA. 30' W/ 52#/FT D.C. & CO BORE SHOE & ADD CUTTER SURFACE to INSIDE BORE F/ W/O.

CREW ONLY	6 HRS. @ 117.00	Total	702.00	$1810.00
RIG & CREW	4 HRS @ 167.00	Total	468.00	
SUB PAY		Total	40.00	
POWER SWIVEL & MUD PUMP	@ 300.00 EA.	Total	600.00	

NO ACCIDENTS.

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

	START	STOP	HOURS
HOIST 4	6 AM	4 PM	10
MAST			
SAND LINE			
PUMP			
SWIVEL			
PUSHER R. WHEELER	6 AM	4 PM	10
HELPER A. MEDINA	6 AM	4 PM	10
HELPER M. MEDINA	6 AM	4 PM	10
HELPER E. HARTSOCK	6 AM	4 PM	10
HELPER			

FINLEY
. DRILLING
. PULLING
. . BAILING .
OILWELL SERVICE INC.

...DX 92527 LONG BEACH, CA 90809
PHONE 595-4505

Service Report
JOB № 49986

Company Petro Resources Inc.
Lease NWLB Well 8-1
Field LONG BEACH

Date 6-8-92
Work Order No.

ROD RECORD

Size	No. Rods Pulled	No. Rods Run	No. Subs Pulled	No. Subs Run	Length

PUMP RECORD

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

TUBING RECORD

Size	No. Joints Out	Feet	No. Joints Run	Depth of Shoe	Total Feet in Hole

Size of nipples in tubing string and location ____
Make of tubing catcher, anchor ____ Size ____ Amount of tubing above catcher ____
BAILING RECORD Amount of tubing below catcher ____

Maker of bailer ____ Size ____ Bailed from ____ to ____ Formation ____
Fluid Level ____ Top. Perf. ____ Bottom Perf. ____ Zero Point ____

REMARKS See Equipt. N/up & RIH w/ 7" H-90 WASHOVER SHOE, EXTENSION, Top Sub, Shirted mill x 6 1/8" OD TAG w/ 7 3/8" OD w/ 6 1/4" ID w/ T/C on Btm, ID @ 550.35 +/-. DRESS OVER TO 555' TORQUE up P/up to 32,000# STRING Wt 13,000# & Pull FREE. Attempt to WORK OVER & GET BACK to 555' UNABLE to GET BELOW 554'. UNABLE to GET TOOLS to Location until AM 6-9-92 SECURE WELL & SHUT ON until Tomorrow.

Rig & Crew	$918.50	$1558.50 Daily Cost.
Sub Pay	40.00	
Power Swivel	300.00	
Mud Pump	300.00	

No Accidents

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

		START	STOP	HOURS
HOIST	4	6 30 AM	12 PM	5 1/2
MAST				
SAND LINE				
PUMP				
SWIVEL				
PUSHER	R. Wheeler	6 30 AM	12 PM	5 1/2
HELPER	A. MEDINA	6 30 AM	12 PM	5 1/2
HELPER	J. MEDINA	6 30 AM	12 PM	5 1/2
HELPER	E. HARTSOCK	6 30 AM	12 PM	5 1/2
HELPER				

FINLEY OILWELL SERVICE INC.
. DRILLING
. PULLING
. . BAILING .

P.O. BOX 92527 LONG BEACH, CA 90809
PHONE 595-4505

Service Report
JOB № 49987

Company Petro Resources Inc.
Lease NWLB Well 8-1
Field Long Beach

Date 6-9-92
Work Order No.

ROD RECORD

Size	No. Rods Pulled	No. Rods Run	No. Subs Pulled	No. Subs Run	Length

PUMP RECORD

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

TUBING RECORD

Size	No. Joints Out	Feet	No. Joints Run	Depth of Shoe	Total Feet in Hole

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

BAILING RECORD

Maker of bailer ____ Size ____ Bailed from ____ to ____ Formation ____
Fluid Level ____ Top. Perf. ____ Bottom Perf. ____ Zero Point ____

REMARKS Su. Equip. Meas. m/u & RIH w/ 7 3/8" OD x 6 5/8" ID Diamond windowed friction shoe. Tag @ 552' +/- & work Dn. to 553' UNABLE to get below 553'. POH & BTM 2 Diamonds Bent out APPROX. 1' +/- OVER BSH w/ outside of shoe showing wear. Dn. W/O & Meas. m/u & RIH w/ 7 5/8 tri cone bit & DRILL 2' getting long STRINGS of WOOD & WOOD w/ metal scales POH 554' +/- LAY DN BIT & BIT SUB. SECURE WELL & SHUT DOWN to AM 6-10-92

Rig & Crew	$1252.50	
Sub Pay	40.00	$1892.50 total
Power Swivel	300.00	
Mud Pump	300.00	

NO ACC.

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

	START	STOP	HOURS
HOIST #4	6 30 AM	2 PM	7 1/2
MAST			
SAND LINE			
PUMP			
SWIVEL			
PUSHER R. Wheeler	6 30 AM	2 PM	7 1/2
HELPER A. Medina	6 30 AM	2 PM	7 1/
HELPER E. Hardsoch	6 30 AM	2 PM	7
HELPER J. Medina	6 30 AM	10 AM	3 1/
HELPER M. Medina	10 00 AM	2 PM	4

FINLEY OILWELL SERVICE INC.
. DRILLING
. PULLING
. . BAILING .

P.O. BOX 92527 LONG BEACH, CA 90809
PHONE 595-4505

Service Report
JOB № 49988

Company Petro Resources Inc.
Lease N.W LB Well 8-1
Field Long Beach,

Date 6-10-92
Work Order No.

ROD RECORD

Size	No. Rods Pulled	No. Rods Run	No. Subs Pulled	No. Subs Run	Length

PUMP RECORD

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

TUBING RECORD

Size	No. Joints Out	Feet	No. Joints Run	Depth of Shoe	Total Feet in Hole

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

BAILING RECORD

Maker of bailer Size Bailed from to Formation
Fluid Level Top. Perf. Bottom Perf. Zero Point

REMARKS ✓ Equip. meet stinger truck @ 6:30am & P/U w/ same 35' BHA RIH w/ Piloted Cone buster mill Tag @ 554' mill to 556' POH: mer. m/u & RIH w/ 7 3/8 Shoe & RIH & Reverse clean @ 556': Re Run Piloted Cone Buster & see 2 3/4" x 7/8" wear pattern on pilot. Re Run Shoe & mill to get pattern. POH & see circle wear pattern. POH. RIH w/ 7" Impression Block: No show (Restricted). RIH w/ 6 3/4" Junk mill on 6" Drill collar Tag @ 556' & mill to 557' POH to ✓ wear pattern. Indicates 6-6 1/4" OD metal tube w/ smaller circular OD inside same. Ran 2 5/16" stinger & stop @ 557' secure well shut Dn. until Am 6-11-92

Rig & Crew 1837.00 @ 167.00/hr.
Power Swivel & Mud Pump $600.00 @ 300.00/day ea.
Sub Pay 40.00 @ per day rate
No Acc.
} 2477.00 Total

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

	START	STOP	HOURS
HOIST 4	6 Am	5 Pm	11
MAST			
SAND LINE			
PUMP			
SWIVEL			
PUSHER J. Wheeler	6 Am	5 Pm	11
HELPER A. Medina	6 Am	5 Pm	11
HELPER M. Medina	6 Am	5 Pm	11
HELPER E. Hardrock	6 Am	5 Pm	11
HELPER			

FINLEY OILWELL SERVICE INC.
. DRILLING
. PULLING
. . BAILING .

P.O. BOX 92527 LONG BEACH, CA 90809
PHONE 595-4505

Service Report
JOB № 49989

Company Petro Resources Inc.
Lease N.W.L.B. Well 8-1
Field Long Beach

Date 6-11-92
Work Order No.

ROD RECORD

Size	No. Rods Pulled	No. Rods Run	No. Subs Pulled	No. Subs Run	Length

PUMP RECORD

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

TUBING RECORD

Size	No. Joints Out	Feet	No. Joints Run	Depth of Shoe	Total Feet in Hole

Size of nipples in tubing string and location ____
Make of tubing catcher, anchor ____ Size ____ Amount of tubing above catcher ____
BAILING RECORD Amount of tubing below catcher ____

Maker of bailer ____ Size ____ Bailed from ____ to ____ Formation ____
Fluid Level ____ Top. Perf. ____ Bottom Perf. ____ Zero Point ____

REMARKS ✓ Equip. Air Compressor leaking. Fill & see notify mech. services. Meas. m/u & RIH w/ 5 3/8" od Impression Block. Tag @ 557'. Set Block wt. one same of sure picture. POH. & show of metal cuttings settled on obstruction. RIH w/ 4 5/8" od magnet. Recovered 3# coffee can full of metal fragments laced w/ strings of wood. Ds. Magnet. RIH w/ 5 3/8" Re-Run IB: metal object in middle undetermined cement configuration. RIH w/ 4 5/8" mill & 4 1/4 x 5 5/8" Junk sub above mill. Tag @ 557' Rotate w/o torque to 558' work to establish torque POH & 4 9/16" outside wear. 3 1/2" Circulate w/ solid 2" center wear pattern. Secure well & shut on.

Rig & Crew	1085.30	$1725.50 Total
Swivel & Pump	600.00	
Sub Pay	40.00	

No Rec.

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

		START	STOP	HOURS
HOIST	4	6:30 Am	1 Pm	6 1/2
MAST				
SAND LINE				
PUMP				
SWIVEL				
PUSHER	L. Wheeler	6:30 Am	1 Pm	6 1/2
HELPER	G. Medina	6:30 Am	1 Pm	6 1/2
HELPER	M. Medina	6:30 Am	1 Pm	6 1/2
HELPER	E. Hardsock	6:30 Am	1 Pm	6 1/2
HELPER				

FORM OGD156 (5-80)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF PROPERTY AND WELL TRANSFER

Field or county	District
Long Beach	1
Former owner	**Date**
Sun Exploration & Production Co.	June 15, 1983

Name and location of well(s)

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

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

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

Date of transfer, sale, assignment, conveyance, or exchange	New owner	Type of organization
	Petro Resources, Inc.	Corp.
May 1, 1983	Address: 4200 Easton Drive, Suite 16, Bakersfield, CA 94309	Telephone No. 805/323-4118

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

Confirmed by
Letter form Petro Resources, Inc., dated 5-18-83.

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

Deputy Supervisor	Signature
V. F. Gaede	Richard L. Manuel

OPERATOR STATUS ABBREVIATIONS

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

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121	CP	7-7-83	Map and book	137	7/12/83
Form ODG140	NONE		Notice to be cancelled		
New well cards	CP	7-7-83	Bond status		
Well records	CP	7-7-83	EDP files Update		
Electric logs	CP	7-7-83	Conservation Committee		
Production reports			L. A. Assessors		

Name change from Sun Oil Co. to SUN EXPLORATION & PRODUCTION CO.

1-1-82, Form 156 dated 1-21-82. See ownership file.

FORM 157

STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT ON PROPOSED CHANGE OF WELL DESIGNATION

Long Beach, California

Oct. 4, 1979

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

DEAR SIR:

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

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

the proposed change in designation is hereby authorized as follows:

Old Designation	API	New Designation
"Oil Operators" 1	037-09792	NWLBU 8-1
" " 2	037-09793	NWLBU 8-2
" " 3	037-06496	NWLBU 8-3
" " 4	037-06415	NWLBU 8-4
"Pool" 1	037-09795	NWLBU 5-1
" 2	037-00397	NWLBU 5-2
" 3	037-09796	NWLBU 5-3
" 4	037-09797	NWLBU 5-4
"Amebco" 1	037-09788	NWLBU 6-1
" 2	037-09789	NWLBU 6-2
"Flood Control" 2	037-13525	NWLBU 9-2
" " 3	037-09791	NWLBU 9-3
" " 4	037-00392	NWLBU 9-4
" " 5	037-00142	NWLBU 9-5
" " 6	037-00393	NWLBU 9-6

M. G. Mefferd
~~JOHN F. MATTHEWS, JR.~~
State Oil and Gas Supervisor

RWS:sc

cc: Update Center
EDP
Conservation Committee

By Richard W. Stehl for
Acting *Deputy Supervisor*
R. A. Ybarra

CORRECTIONS: TICKLER AS PRELIMINARY — by initials
FORM 114 — 119 — 121 — 108 — CARD — DIRECTIONAL SURVEY — WELL RECEIVED — PRELIMINARY — FIELD NAME 137 — MAP BOOK
Dec 11-2-79 — CC 11-2-79 — SC 11-2-79 — PMC 11/2/79 — PMC 11/2/79

57998-705 11-71 3M ① OSP

Call
Dave Williams
805-259-2440

March 19, 1979

Division of Oil and Gas

Gentlemen:

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

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

OLD WELL #	OLD DESIGNATION OLD NAME OIL OPERATORS	NEW WELL #	NEW DESIGNATION NEW NAME ~~NLBU~~
1	03709792	8-1	NORTHWEST LONG BEACH UNIT
2	03709793	8-2	" " " " "
3	03706496	8-3	" " " " "
4	03706415	8-4	" " " " "

RS/Dave Williams 9/25/79
OK to use "NWLBU"

Dun Oil Co.
(Name of Operator)

23928 Lyons Ave
(Address)

Newhall, Calif 91321

By [signature]

X 3-9-79 TRS

Form 42 (10/71)

RECEIVED
MAR 29 10 51 AM '79
DIV. OF OIL AND GAS
LONG BEACH, CA.

March 19, 1979

Division of Oil and Gas

Gentlemen:

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

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

OLD WELL #	OLD DESIGNATION	OLD NAME POOL	NEW WELL #	NEW DESIGNATION	NEW NAME
1	03709795		5-1	NORTHWEST	LONG BEACH UNIT
2	03700397		5-2	"	" " "
3	03709796		5-3	"	" " "
4	03709797		5-4	"	" " "
1	03709788	AMERACO	6-1	"	" " "
2	03709789		6-2	"	" " "
2	03713525	FLOOD CONTROL	9-2	"	" " "
3	03709791		9-3	"	" " "
4	03700392		9-4	"	" " "
5	03700142		9-5	"	" " "
6	03700393		9-6	"	" " "

Sun Oil Company
(Name of Operator)

23928 Lyons Avenue
(Address)

Newhall, Calif 91321

By Jack Andrews

Form 42 (10/71)

RECEIVED
MAR 29 10 51 AM '79
DIV. OF OIL AND GAS
LONG BEACH, CA.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF PROPERTY AND WELL TRANSFER

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

Name and location of well(s)

Sec. 11-4S-13W

"Dominguez" 2-10 (037-11859)

Sec. 13-4S-13W

"Amebco" 1 (037-09788)
"Amebco" 2 (037-09789)
"Flood Control" 2 (037-13525)
"Flood Control" 3 (037-09791)
"Flood Control" 4 (037-00392)
"Flood Control" 5 (037-00142)

Sec. 13-4S-13W

"Flood Control" 6 (037-00393)
"Oil Operators" 1 (037-09792)
"Oil Operators" 2 (037-09793)
"Oil Operators" 3 (037-06496)
"Oil Operators" 4 (037-06415)
"Pool" 1 (037-09795)
"Pool" 2 (037-00397)
"Pool" 3 (037-09796)
"Pool" 4 (037-09797)

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

Sec. 14-4S-13W

"Dominguez" 1 (037-11858)

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

Reported by: Former operator

Confirmed by: New operator

New operator new status (status abbreviation): PA	Request designation of agent
Old operator new status (status abbreviation): AB	Remarks

OPERATOR STATUS ABBREVIATIONS	Deputy Supervisor: for M. B. Albright	Signature: Eleanor Bickel

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

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121			Map and book	PR	2-16-79
Form OGD148			Notice to be posted in		
New well cards			Bond status		
Well records			EDP [illegible]		
Electric logs			ara		
Production records			cc: EDP Update Conservation Committee Update Center		

OGD156 (12-77-GSR1-2M)

(213) 590-5311

May 21, 1976

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

Dear Sir:

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

Sincerely,

ADS

A. D. Stockton
Associate Oil and Gas Engineer

ADS:dr

156

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

REPORT OF PROPERTY AND WELL TRANSFER

Field or County: Long Beach — District: 1

Former Owner: Union Oil Co. of California — Date: January 17, 1961

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

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

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

Telephone No.

Type of Organization: Corporation
Reported by: Union Oil Co. of California (Letter of January 6, 1961)
Confirmed by: General Exploration Co. of California (Letter of January 11, 1961)
New Operator New Status: PA, Old Operator New Status: PA
Request designation of agent: No

Remarks:

eb
CC- Mr. E. H. Musser
Prod. Dept.
Conservation Committee

Wm. C. Bailey
Deputy Supervisor

	INITIALS	DATE
Form 121	EB	1-17-61
New Well Cards		
Well Records	EB	1-17-61
Electric Logs		
Production Reports	C Prod Dept	
Map and Book 130	S.C.	1-18-61
Form 148		
Notice to be cancelled	No JRT 1/18/61	

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

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

96785 4-59 4500 SPO

E. H. MUSSER
State Oil and Gas Supervisor

W. C. BAILEY
Deputy

EDMUND G. BROWN
Governor

DEWITT NELSON
Director of Natural Resources

DIVISION OF OIL AND GAS
RECEIVED
JAN 13 1961
INGLEWOOD, CALIFORNIA

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS
830 NORTH LA BREA AVENUE
INGLEWOOD 3, CALIFORNIA

January 11, 1961

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

Gentlemen

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

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

Yours truly

WM. C. BAILEY
Deputy Supervisor

By J. R. Thomas
J. R. Thomas
Associate Oil & Gas Engineer

eb

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

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

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

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

1-11-61
(Date)

GENERAL EXPLORATION COMPANY
OF CALIFORNIA

By [illegible]
(Signature)

UNION OIL COMPANY OF CALIFORNIA
UNION OIL CENTER
LOS ANGELES 17, CALIFORNIA

DIVISION OF OIL AND GAS
RECEIVED
JAN 10 1961
INGLEWOOD, CALIFORNIA

HAROLD H. STREAM
MANAGER OF LANDS

January 6, 1961

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

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

Dear Mr. Bailey:

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

Section 13, Township 4 South, Range 13 West

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

Very truly yours,

G. B. Hall
Supervisor of Lease Processing

By W. A. Watson
W. A. Watson

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

Attention: Mr. C. G. Willis, President

STENOGRAPHER

Forms Filed 102

Date Rec'd. 10-3-44

Electric Log /

Location /

Elevation /

ENGINEER

Form Needed none

Map Correction ✓

Form 150b (Date of Release)

At Request of Operator

Because Abandoned

Because Request by Oper.

Remarks O.K. rec. for 102 ~~subsequent~~ work report

DCH.

FORM 102. 54822 2-38 10M.
CALIFORNIA STATE PRINTING OFFICE

SMB 5

DIVISION OF OIL & GAS
RECEIVED
OCT 3 1944
LOS ANGELES, CALIFORNIA

SUBMIT IN DUPLICATE
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Subsequent Work Report

OPERATOR Union Oil Company of California FIELD Long Beach

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

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

SIGNED Henry E Winter

Date September 27, 1944

Title Division Engineer
(President, Secretary or Agent)

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

Casing Record at Beginning of Work:
13-3/8" C 757'
8-5/8" C 4105' O.K.
505' 6-5/8" L 4529', inc. 50' perf.
C.P. 4475' - Top 161' is Securaloy

Casing Record at End of Work:
13-3/8" C 757'
8-5/8" C 4105' O.K.
505' 6-5/8" L 4529', inc. 50' perf.
C.P. 4475' - Top 161' is Securaloy

Date 1944	Depth	Effective Depth	Remarks
8-26	4532	Liner 4529	Rigged up to plug and perforate higher.
9-1	4532	Plug 4443	Cleaned out sand from 4497 to 4529'. Dumped 15 sacks of Blue Diamond construction cement in stages to fill from 4529 to 4443'. Location of plug at 4443' witnessed by Division of Oil and Gas.
9-4	4532	Plug 4443	Bailed out 143 barrels of oil and 8 barrels of water to lower fluid level from 525' to 1105'. Note: Apparently the Securaloy or some other part of the liner was letting fluid through, as all of the perforations were plugged.
9-8	4532	Plug 4124	Set 6-5/8" Cavins drillable bridge plug at 4200'. Dumped 8-1/2 sacks of Blue Diamond construction cement in stages to fill from 4200 to 4124'. Bailed out 194 barrels of water to lower fluid level from 830 to 1725'. Slight show of oil. Note: Securaloy liner must be defective since plug in 6-5/8" is only 21' from shoe of 8-5/8" and 6-5/8" has not been perforated.
9-10	4532	Plug 4124	Ran rods and 3-1/2" upset tubing to 2419' overall and put well to pumping.

Production Data

	Hrs.	Gross	Net	Gravity	Cut	Remarks
9-12	24	713	0		100.0	
9-14	24	698	0		100.0	
9-16	18	428	0		100.0	Changed pump.
9-18	24	640	0		100.0	
9-20	24	610	0		100.0	

MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121

FORM 109-D

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 1-43185

Los Angeles 14, Calif. September 8, 1944.

Mr. W. S. Eggleston,
Los Angeles 14, Calif.
Agent for UNION OIL COMPANY OF CALIFORNIA

DEAR SIR:

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

Casing Record 13-3/8" cem. 757'; 8-5/8" cem. 4105', W.S.O. 6-5/8" 4024'-4529', c.p. 4475', perf. 4479'-4529'; T.D. 4532', plugged with cement 4529'-4443'.

Junk None

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

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

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

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

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

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

AP:my

L/R.

R. D. BUSH
State Oil and Gas Supervisor

By E. H. Musser Deputy

28381 10-43 15M
STATE PRINTING OFFICE

111.
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Proposed Operations

No. P 1-39843

Los Angeles 14, Calif. July 19, 1944

Mr. W. S. Eggleston
Los Angeles 14, Calif.
Agent for UNION OIL COMPANY OF CALIFORNIA

121

Dear Sir:

Your proposal to plug & alter casing Well No. "Oil Operators" 1, Section 13, T. 4 S., R. 13 W., S.B. B. & M., Long Beach Field, Los Angeles County, dated July 15, 1944, received July 18, 1944, has been examined in conjunction with records filed in this office.

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

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

THE NOTICE STATES:

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

Well is non-commercial.

2. June, 1944 Prod. (Date) 82 (Net Oil) 22.1 (Gravity) 99.3 (29 days) (Cut)"

PROPOSAL:

"The proposed work is as follows:
1. Clean out to 4529' and plug with cement to 4455'.
2. Test plug by Division of Oil and Gas.
3. Make casing test and if O.K., perforate 4250-4270'.
4. If casing test is wet, cement 4-3/4" casing 4020-4300'.
5. Perforate 4250-4270 and test.
6. If wet, plug to 4230' and test plug by Division of Oil and Gas.
7. Perforate 4105 to 4120 and test."

DECISION:

THE PROPOSAL IS APPROVED.

NRMA:OH

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

S/ma

R. D. BUSH
State Oil and Gas Supervisor

By E. H. Musser Deputy

Blanket bond No. 99071

FORM 107. 29275 11-43 10M
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL & GAS
RECEIVED
JUL 18 1944
LOS ANGELES, CALIFORNIA

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

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

Santa Fe Springs, Calif. July 15, 19 44

DIVISION OF OIL AND GAS

Los Angeles, Calif.

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of ~~deepening, redrilling~~, plugging or altering casing at well No. Oil Operators 1
(Cross out unnecessary words)

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

Long Beach Field, Los Angeles County.

The present condition of the well is as follows:

1. Complete casing record.

Total depth 4532'
13-3/8" C 757'
8-5/8" C 4105' O.K.
505' 6-5/8" L 4529', inc. 50' perf. C.P. 4475' (Top 161 ft. of liner Securaloy)

Well is non-commercial.

2. ~~Last produced~~ June, 1944 (Date) Prod. 82 (Net Oil) 22.1 (Gravity) 99.3 (Cut) (29 days)

The proposed work is as follows:

1. Clean out to 4529' and plug with cement to 4455'.
2. Test plug by Division of Oil and Gas.
3. Make casing test and if O.K., perforate 4250-4270'.
4. If casing test is wet, cement 4-3/4" casing 4020-4300'.
5. Perforate 4250-4270 and test.
6. If wet, plug to 4230' and test plug by Division of Oil and Gas.
7. Perforate 4105 to 4120 and test.

plug + alter casing

MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121
			Blanket bond #99071		

UNION OIL COMPANY OF CALIFORNIA
(Name of Operator)

By Henry E. Winter
Division Engineer.

cc: P. A. W.

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

FORM 102.

DIVISION OF OIL AND GAS
RECEIVED
SEP 14 1939
LOS ANGELES, CALIFORNIA

SUBMIT IN DUPLICATE
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Subsequent Work Report

OPERATOR Union Oil Co. of Calif. FIELD Long Beach

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

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

SIGNED Henry E Winter

Date 9-8-39 Title Division Engineer
(President, Secretary or Agent)

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

Date

CSG= RECORD AT BEGINNING OF WORK	CSG. RECORD AT PRESENT
13-3/8 C 757	13-3/8 C 757
8-5/8 C 4105 OK	8-5/8 C 4105 OK
68-6-5/8 L 4155 inc 47 perf.	505-6-5/8 L 4529 inc 50 perf.
	C P 4475

DATE	DEPTH	EFF=DEPTH	
7-31-39	4155		Rig up to pull liner and deepen. Cut and pulled all of liner. Deepening.
8-10-39	4254		
8-17-39	4532		Deepened to 4532. 505.15 - 6-5/8 landed 4529 (hung on Burns line hanger) inc 49.82 of 120 mesh (12-1-1/2-6) Kobe and cemented thru Baker whirler basket at 4475 with 125 sacks Victor Oil Well cement. Top 160.91 of liner is 6-5/8 Securaloy.
8-21-39	4532		C.O. to 4150. Top of cement 3794. Bailed fluid to 2810. Splice O K by Division of Oil and Gas.
8-22-39	4532		C.O. to 4528. Bailing.
8-25-39	4532		Ran 4433 - 3" tubing and rods. Rigged up pumping unit.
8-26-39			251 gross 184 Net 22.8 26.5% P 13 hr
8-27-39			254 " 248 " 22.0 2.5% P 24 hr
9-1-39			241 " 226 " 22.0 6.1% P 24 hr
9-4-39			235 " 201 " 22.0 14.3% P 24 hr

FORM 101.

DIVISION OF OIL AND GAS
RECEIVED
SEP 14 1939
LOS ANGELES, CALIFORNIA

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

LOG AND CORE RECORD OF OIL OR GAS WELL

Operator Union Oil Company of Calif. Field Long Beach

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

FORMATIONS PENETRATED BY WELL

Henry E Winter

DEPTH TO Top of Formation	DEPTH TO Bottom of Formation	Thickness	Drilled or Cored	Recovery	DESCRIPTION
4155	4532	377	Drilled & Cored	(See core record)	
	Quit on shell				

SMB

UNION OIL COMPANY OF CALIFORNIA
CORE RECORD

LONG BEACH FIELD UNION OIL COMPANY OIL OPERATORS LEASE #1 WELL

LOCATION ELEVATION

DATE	CORE NO.	DRILLER SIZE & TYPE BARREL	FROM	TO	TOTAL RECRY.	SHALE	OIL SAND	GRAY SAND	SHELL	DESCRIPTION OF CORE	APPT. DIP	ANGLE OF HOLE
8-11-39	1	7-5/8" Elliott	4375	4385	9.8			9.8		Firm to hard medium to coarse gray sand - Dip 16°		
"	2	"	4385	4395	10.1			8.3		Firm to hard medium to coarse gray sand		
						0.1				Irregular inclusion of brown shale		
								1.7		Firm, fine to medium broken gray sand		
						0.1		10.0				
"	3	"	4395	4405	10.1			0.5		Firm, fine dark gray sand		
								9.6		Firm, coarse to medium gray sand		
								10.1				
"	4	"	4405	4415	11.9			3.0		Firm, soft medium gray sand		
								0.8		Firm, fine dark gray slightly argillaceous gray sand		
								5.9		Firm soft medium gray sand		
								2.2		Firm to firm soft, fine dark gray sand		
								11.9				
	5	"	4415	4425	10.6			10.6		Firm soft medium grey sand		
"	6	"	4425	4435	8.0			8.0		Firm soft medium gray sand		
8-12-39	7	7-5/8" Elliott	4435	4445	5.3	0.2				Hard brown shale		
								3.7		Firm soft fine to medium gray sand		
						0.1				Hard brown shale		
								0.1		Medium gray sand		
						0.2				Hard brown shale with streaks of fine gray sand		
								1.0		Soft medium gray sand with inclusion of brown shale 0.3 from top		
						0.5		4.8				
"	8	"	4445	4455	6.0	3.0				Hard fractured brown shale with high angle fracturing. Crushed zones at bottom and 1.4 from top		
						2.3				Hard massive brown shale		
						0.7				Hard broken brown shale		
						6.0						
"	9	"	4455	4465	11.3	11.3				Hard brown shale. Parts at angle of 30-35°		
"	10	"	4465	4475	4.2	4.2				Hard brown shale		

Henry E Winter

708A 1-38 10M

UNION OIL COMPANY OF CALIFORNIA
CORE RECORD

LONG BEACH FIELD UNION OIL COMPANY OIL OPERATORS LEASE #1 WELL

LOCATION ELEVATION

DATE	CORE NO.	DRILLER SIZE & TYPE BARREL	FROM	TO	TOTAL RECRY.	SHALE	OIL SAND	GRAY SAND	SHELL	DESCRIPTION OF CORE	APPT. DIP	ANGLE OF HOLE
8-12-39	11	7-5/8" Elliott	4475	4485	9.6	4.7	0.1			Hard brown shale, slightly silty in spots.0.3 at top broken. Streaks of fine brown oil sand in bottom 1.6		
							0.1			Firm fine brown oil sand		
						0.5				Hard slightly silty brown shale with partings of fine brown oil sand		
							2.3			Firm to firm soft, fine brown oil sand, grading to medium at bottom. Good odor and dark amber cut		
						0.6				Hard silty brown shale with streaks and partings of fine brown oil sand		
							0.8			Firm soft to soft, medium brown oil sand. Good odor and dark amber cut		
						0.2				Hard brown shale		
							0.3			Firm, fine slightly argillaceous brown oil sand		
						6.0	3.6					
"	12	"	4485	4490	4.7		0.1			Firm fine dark brown oil sand		
						0.1				Hard brown shale		
							0.6			Firm fine brown oil sand. Good odor and dark amber cut		
						0.1				Hard brown shale		
							0.6			Firm soft medium brown oil sand		
						0.2				Hard slightly silty brown shale		
							2.3			Soft fine brown oil sand, mixed with mud		
						0.1				Hard brown shale		
							0.1			Soft fine brown oil sand		
						0.5				Hard brown shale, apparent dip 30°		
						1.0	3.7					
"	13	"	4490	4500	2.7	1.5				Hard broken brown shale, apparent dip 30°		
						1.2				Hard broken brown shale, badly broken in coring and mixed with mud. 0.1 crushed zone at top		
						2.7						
"	14	"	4500	4510	0.0					No recovery		
"	15	"	4510	4515	0.0					No recovery		
8-13-39	16	"	4515	4520	0.0					No recovery		

Henry E Winter

708A 1-38 10M

UNION OIL COMPANY OF CALIFORNIA

CORE RECORD

LONG BEACH FIELD UNION OIL COMPANY OIL OPERATORS LEASE #1 WELL

LOCATION ELEVATION

DATE	CORE NO.	DRILLER SIZE & TYPE BARREL	FROM	TO	TOTAL RECRY.	SHALE	OIL SAND	GRAY SAND	SHELL	DESCRIPTION OF CORE	APPT. DIP	ANGLE OF HOLE
8-13-39	17	7-5/8" Elliott	4520	4525	5.8		3.6			Firm medium brown oil sand, grading to coarse pebbly brown oil sand		
							2.2			Firm soft fine brown oil sand, good odor and dark amber cut		
							5.8					
"	18	"	4525	4530	5.7		3.4			Firm soft medium to coarse, slightly pebbly in spots, brown oil sand Good odor and dark amber cut		
							2.3			Firm soft fine grading to medium brown oil sand, good odor and dark amber cut		
							5.7					
"	19	"	4530	4532	2.9		2.9			Firm soft to soft coarse, slightly pebbly brown oil sand. Fair odor and dark amber cut. Sand does not look too good		
							2.9					
					T.D.	4532	8-13-39					

Henry E Winter

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

No. 5735

DIVISION OF OIL AND GAS

LOS ANGELES

Union Oil Co of Caly Calif. 9/5 1939

Name of Operator

LOS ANGELES

Address

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

Logs

History

Core record

Subsequent work

Dec log - Oil Operators 1 - 8/13/30

R. D. BUSH, State Oil and Gas Supervisor

AH By E Huguenin Deputy

DUPLICATE

FORM 127. 66837 1-39 3500 TRIP

CALIFORNIA STATE PRINTING OFFICE

FORM 109-D. 60529 7-38 15M.
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 1-36446

Los Angeles, Calif. August 29, 1939

Mr. W.S. Eggleston,

Los Angeles, Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

DEAR SIR:

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

Casing Record 13-3/8" cem. 757'; 8-5/8" cem. 4105', W.S. O.; 6-5/8" liner 4024'-4529', c. p. 4475', perf. 4479'-4529'. T. D. 4532', plugged with cement 4475'-?

Junk None.

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

and the data and conclusions are as follows:

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

1. The 6-5/8" liner landed at 4155' was all recovered.
2. An 8½" rotary hole was drilled from 4105' to 4532'.
3. Mud fluid was circulated 4 hr. before cementing the casing.
4. Electrical core readings showed the following: 4440' - 4480' - shale (J-K).
5. On August 17, 1939, 505' of 6-5/8" casing (top 161' Securaloy, bottom 344' - 26 lb.), including 50' of perforated, was landed at 4529' and was cemented through perforations at 4475' with 125 sacks of Victor cement.
6. Cement was drilled out of the 8-5/8" and 6-5/8" casings from 3794' to 4035', equivalent to 68 sacks, and the casing was cleaned out to 4150'.
7. The fluid was bailed to 2800' at 4:45 p. m., on August 21, 1939.

ENGINEER PEIRCE NOTED THE FOLLOWING:

1. The fluid rose 10' in 7¼ hr., equivalent to 1 bbl. per 24 hr.
2. The hole was open to 4200'.

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

THE OPERATIONS AS WITNESSED AND REPORTED ARE APPROVED AS INDICATING THAT fluid does not have access to the well between the 6-5/8" and 8-5/8" casings.

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

R. D. BUSH
State Oil and Gas Supervisor

By E. Hugelman Deputy

M 111
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Proposed Operations

No. P 1-34051

Los Angeles, Calif. July 26, 1939.

Mr. W. S. Eggleston,

Los Angeles, Calif.

Agent for UNION OIL COMPANY OF CALIFORNIA

121

Dear Sir:

Your proposal to deepen Well No. "OIL OPERATORS" 1, Section 13, T. 4 S., R. 13 W., S.B. B. & M., Long Beach Field, Los Angeles County, dated July 24, 1939, received July 26, 1939, has been examined in conjunction with records filed in this office.

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

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

THE NOTICE STATES:
"The present condition of the well is as follows:
4155' deep
13-3/8" C 757'
8-5/8" C 4105' O.K.
68' 6-5/8" L 4155', inc. 47' perf.
June, 1939 production 1034 oil, 16,287 water - 30 days."

PROPOSAL:
"The proposed work is as follows:
1. Pull 6-5/8" liner.
2. Deepen to approximately 4535'.
3. Land 6-5/8" liner, including 110' perforated, at 4535' and cement through perforations at approximately 4425'."

DECISION:
THE PROPOSAL IS APPROVED PROVIDED THAT THIS DIVISION SHALL BE NOTIFIED TO WITNESS a test after drilling out the cement to within 50' of the cementing point to demonstrate that no fluid has access to the well between the 6-5/8" and 8-5/8" casings.

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

CFB

R. D. BUSH
State Oil and Gas Supervisor

By E. Hugenmick Deputy

FORM 107. 42649 3-37 10M
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
JUL 26 1939
LOS ANGELES, CALIFORNIA

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

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

Santa Fe Springs Calif. July 24 19 39

DIVISION OF OIL AND GAS

Los Angeles Calif.

In compliance with Section 17, Chapter 718, Statutes of 1915, as amended, notice is hereby given that it is our intention to commence the work of deepening, ~~redrilling, plugging, altering casing~~ (Cross out unnecessary words) at well No. Oil Operators #1

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

Long Beach Field, Los Angeles County.

The present condition of the well is as follows:

4155' deep

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

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

The proposed work is as follows:

1. Pull 6-5/8" liner.

2. Deepen to approximately 4535'.

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

Deepen

Reference to file of data

Maps	Model	Cross Sections	Cards	Forms 114	Forms 121
				✓	✓

UNION OIL COMPANY OF CALIFORNIA
(Name of Operator)

By Henry E Wunter
Division Engineer

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

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

No. 2558

DIVISION OF OIL AND GAS

LOS ANGELES

Calif. 11/30 19 37

Union Oil Co of Calif
Name of Operator

LOS ANGELES

Address

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

Logs

History

Core record Elec Log - "Oil Operators, Inc" 1 - 11/1/37

Subsequent work

R. D. BUSH, *State Oil and Gas Supervisor*

DUPLICATE

AH By E Huguenin *Deputy*

FORM 127. 46818 7-37 3M

CALIFORNIA STATE PRINTING OFFICE

FORM 103.
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
NOV 17 1937
LOS ANGELES, CALIFORNIA

History of Oil or Gas Well

OPERATOR UNION OIL COMPANY OF CALIFORNIA FIELD LONG BEACH

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

Signed Henry E Winter

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

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

1937

CASING RECORD AT START OF WORK.

NEW WELL

CASING RECORD AT END OF WORK.

13-3/8" C 757
8-5/8" C 4105 OK
68' 6-5/8" L 4155 incl 47' perf.
Total depth 4155'.

Date	DEPTH	EFF. DEPTH	REMARKS
9-30	187		Spudded in and drilled with 17" rotary bit.
10-3-	757		Drilled with 17" bits to 757'. Cemented new 13-3/8" 45.97# National seamless slipjoint casing at 757' with 350 sacks Velo cement. Cementing operation approved by Pierce of D.O.G.
10-4-	817		Found top of cement at 737'. Cleaned out cement and plugs. Drilled ahead with 12-1/4" bit.
10-13	4110		Drilled and cored to 4043'. Ran Schlumberger survey. Cored ahead to 4110'.
10-14	"		Enlarged hole to 4106' with 12-1/4" reamer. Cemented 8-5/8" - 36# Grade "C" (510' of Grade D on bottom) 8 thread rounded seamless casing at 4105', with 400 sacks Victor Oil Well cement.
10-20	"		Found top of cement at 4081'. Cleaned out cement and plugs to 4110'. WSO test on 8-5/8" casing at 4105', witnessed and approved by Murray-Aaron of D.O.G. Directional survey of hole made by Alexander Anderson.
10-21	4155		Cored ahead to 4155' with 7-5/8 barrel.
10-22	"		Landed 68' of 6-5/8" 26# Grade "C" 10 thread casing at 4155' including 47' of 120 Mesh (16-2-6-) Kobe perforated on bottom.
10-23	"		Landed 3" Upset tubing at 4077'. Installed Xmas tree. Swabbed fluid to 2000'. Well started flowing by heads. CP 225#.

3

FORM 103.
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
NOV 17 1937
LOS ANGELES, CALIFORNIA

History of Oil or Gas Well

OPERATOR UNION OIL COMPANY OF CALIFORNIA FIELD LONG BEACH

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

Signed Henry E Wirth

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

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

Date

PRODUCTION TEST DATA

	Gross	Net	Gravity	Cut	Hrs.	CP.
10-24	370	363	23.9	1.8	P 24	325
10-25	97	96	"	1.4	P 4	
10-26	177	174	"	1.5	P 7	
10-27	322	317	"	1.6	P 24	
10-28	370	365	"	1.4	"	
10-29	333	328	"	1.5	"	
10-30	195	193	"	1.0	P 13	
10-31	457	452	"	"	P 24	
11-3	350	345	"	1.3	"	
11-5	433	427	23.4	1.4	"	
11-9	528	520	"	1.5	"	
11-11	456	451	"	1.2	"	

100.
LIFORNIA STATE PRINTING OFFICE

SUBMIT LOG IN DUPLICATE
FILL THIS BLANK IN WITH TYPEWRITER. WRITE ON ONE SIDE OF PAPER ONLY

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

LOG OF OIL OR GAS WELL

DIVISION OF OIL AND GAS
RECEIVED
NOV 17 1937
LOS ANGELES, CALIFORNIA

Operator UNION OIL COMPANY OF CALIFORNIA Field LONG BEACH

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

Location 555 S'ly along the prolongation of the center line of the W'ly portion of San Antonia Drive, from the center line of Del Mar Ave thence 110' N.W'ly at right angles. Elevation 56.84

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

Date NOVEMBER 12, 1937 Signed Henry E Winter

Title DISTRICT ENGINEER.

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

Commenced drilling September 30, 1937 Completed drilling October 23, 1937 Drilling tools ~~Cable~~ Rotary

Total depth 4155 Plugged depth

Junk

GEOLOGICAL MARKERS	DEPTH
Top of Wilbur shale	3647
Top Alamitos shale	3874
Top brown sand.	4106'

Reference to file of data

Map	Index	Section	Cards	Forms 114	Forms 121
					✓

Commenced producing OCTOBER 24, 1937 (date) ~~Flowing/gas lift~~/pumping (cross out unnecessary words)

	Clean Oil bbl. per day	Gravity Clean Oil	Per Cent Water including emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pressure
Initial production	363	23.9	1.8	121		325#
Production after ~~30~~ 20 days	451	23.4	1.2	222		

Casing Record (Present Hole)

Size of Casing (A. P. I.)	Depth of Shoe	Top of Casing	Weight of Casing	New or Second Hand	Seamless or Lapweld	Grade of Casing	Size of Hole Casing landed in	Number of Sacks of Cement	Depth of Cementing if through perforations
13-3/8	757	Surface	45.97	New	Smls	C	17"	350	
8-5/8	4105	"	36#	"	"	C & D	12¼	400	
6-5/8	4155	4087	26#	"	"	C	7-5/8	-	

Perforations

Size of Casing	From	To	Size of Perforations	Number of Rows	Distance Between Centers	Method of Perforations
6-5/8	4108 ft.	4155 ft.	120 Mesh	16	6"	Kobe.
	ft.	ft.				
	ft.	ft.				
	ft.	ft.				
	ft.	ft.				

Electrical Log Depths Schlumberger from 757 - 4043. (Attach Copy of Log)

FORM 101.
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
NOV 17 1937
LOS ANGELES, CALIFORNIA

LOG AND CORE RECORD OF OIL OR GAS WELL

Operator UNION OIL COMPANY OF CALIFORNIA Field LONG BEACH

Well No. OIL OPRATORS #1 Sec. 13, T. 4 S, R. 13W, SB B. & M.

FORMATIONS PENETRATED BY WELL

Henry E Winter

DEPTH TO Top of Formation	DEPTH TO Bottom of Formation	Thickness	Drilled or Cored	Recovery	DESCRIPTION
0	40	40			Surface clay
40	254	214			Clay and sand.
254	592	338			Sand and boulders
592	730	138			Sand
730	984	254			Shale and streaks of sand.
984	990	6			Hard sand.
990	1349	359			Shale and streaks of hard sand.
1349	3083	1734			Shale and streaks of sand.
3083	3087	4			Hard sand.
3087	3106	19			Shale and streaks of sand.
3106	3108	2			Shell
3108	3251	143			Shale and streaks of sand.
3251	3253	2			Hard sand.
3253	3398	145			Shale and streaks of sand.
3398	3399	1			Hard shell
3399	3442	43			Shale and streaks of sand.
3442	3445	3			Shell
3445	3459	14			Sand.
3459	3478	19			Shale and sand.
3478	3480	2			Shell
3480	3487	7			Hard sand.
3487	3498	11			Sand and shale
3498	3500	2			Hard sand
3500	3614	114			Shale and streaks of sand.
3614	3636	22			Hard sand.
3636	3800	164			Shale and streaks of sand.
3800	3911	111			Hard sand.
3911	3914	3			Shell
3914	3928	14			Medium hard sand and shale
3928	3930	2			Shell
3930	4010	80			Shale
4010	4040	30			Sand (See core record)
4040	4044	4			Shell
4044	4051	7			Sand.
4051	4053	2			Shell
4053	4155	102			Shale and sand.

DIVISION OF OIL AND GAS
RECEIVED
NOV 17 1937
LOS ANGELES, CALIFORNIA

LONG BEACH UNION OIL OIL OPERATORS 1

56.84

Henry E Winter

						Sh.	O.s.	Gy Sd	Shell	
7										
			0	4010						Drilled.
10-13	1	7-5/8 Soll	4010	4028	17.2			4.6		Firm soft medium to coarse gray sand. No odor
						0.1				Hard brown shale
								3.2		Firm fine compact gray sand, grading to medium in lower part
						0.2		0.1		Hard brown shale, streaks of fine gray sand
						0.2				Hard brown shale
						0.2		0.1		Hard brown shale, streaks of fine gray sand. Good dips of 31°-33°
								8.5		Firm soft medium to coarse gray sand
						0.7		16.5		Streak of brown shale at top
10-13	2	7-5/8 Soll	4028	4040	10.8			0.8		Firm soft medium gray sand
						0.1				Broken brown shale, inclusions of medium gray sand
								2.3		Firm soft medium gray sand, grading to very fine on bottom
						0.3				Hard brown shale, streaks of fine gray sand. Poor dip of 20°
								0.4		Very fine firm gray sand
						0.1				Hard brown shale
								0.3		Firm soft fine gray sand
						0.1				Hard brown shale
								6.4		Firm soft medium gray sand
						0.6		10.2		
10-13	3	7-5/8 Soll	4040	4041	0.7				0.7	Hard coarse calcareous sandstone shell. Vertical fracture.
									0.7	
			4041	4058						Drilled.
10-14	4	7-5/8 Soll	4058	4076	15.0			5.0		Firm soft medium gray sand. No odor
						0.8		0.1		Hard brown silty shale, streaks and partings of fine gray sand. Dip of 28°
								2.4		Firm soft medium gray sand
						0.1				Hard brown shale
								3.6		Firm soft medium gray sand
						0.1				Hard brown shale. Dip of 29°
								1.0		Firm soft medium to coarse gray sand
						1.9				Hard dark brown silty shale. Partings have dip of 23° to 28°. Streak of gray sand
						2.9		12.1		

DIVISION OF OIL AND GAS 9
RECEIVED
NOV 17 1937
LOS ANGELES, CALIFORNIA

Henry C Winter

1937						Shale	O.S.	Gy Sd	Shell	
10-14	5	7-5/8 Soll	4076	4092	17.1	1.1				Hard dark brown shale
								0.2		Firm soft medium gray sand
						0.2				Hard sandy brown shale
								0.7		Firm soft fine to medium gray sand
						2.0				Hard dark brown shale. Streak of gray sand 0.7 from top
								3.6		Firm soft medium to coarse gray sand
						0.4				Hard sandy dark brown shale
								1.9		Firm soft medium gray sand
						2.9				Hard brownish black shale
								0.1		Firm soft medium argillaceous dark brown gray sand. Slightly oil stained with fair odor
						4.0				Hard brownish black slightly sandy shale. Laminated with partings of gray sand 0.6 from bottom. Streak of brown oil sand on bottom. Dip of 22°
						10.6		6.5		
10-14	6	7-5/8 SOLL	4092	4110	18.5		0.7			Firm, soft fine to medium dark brown oil sand. Strong odor and dark amber cut.
						0.4				Hard, brownish black shale.
							1.0			Firm, soft, fine to medium dark brown oil sand.
						0.5				Hard brownish black shale.
							0.1			Fine to medium dark brown oil sand.
						0.2				Hard, brown shale.
							0.6			Fine to medium dark brown oil sand.
						0.5				Hard, brownish, black shale.
								0.1		Hard, coarse, slightly calcareous gray sand.
						0.3				Hard, brownish, black shale.
								0.1		Firm, soft, fine dark gray sand. No odor and no cut.
						9.6				Hard, black to brownish shale.
							0.3			Firm, soft, fine dark brown oil sand. Streaks of mud.
						0.5				Hard brownish black shale. Firm soft fine to medium
							1.3			dark brown oil sand. Strong odor.
						0.6				Hard, brownish black massive shale.
							0.4			Fine, to medium dark brown oil sand. Strong odor and dark amber cut. Good flash
						0.4				Hard, brownish black shale, partings of fine, brown oil sand.
							0.9			Firm, soft, fine to medium dark brown oil sand - strong odor.
						13.0	5.3	0.2		

LONG BEACH UNION OIL OIL OPERATORS #1

56.84

Henry E Winter

						Sh.	O.S.	Gy Sd	Shell	
937										
0-21	7	7-5/8 soil	4110	4125	10.4		5.9			Soft, loose, fine dark brown oil sand. Good odor and dark amber cut. Core has strong flash test.
						0.1				Hard, grayish brown slightly calcareous bentonitic shale. This shale differs from the others and may be a marker.
							0.3			Soft, loose, fine dark brown oil sand.
						0.1				Hard, brownish black shale.
							4.0			Firm, soft, fine to medium dark brown oil sand. Strong odor with strong flash. Streak of shale 0.4 from bottom
						0.2	10.2			
0-21	8	7-5/8 SOIL	4125	4140	12.8		0.4			Soft, loose, grayish brown washed oil sand.
						0.1				Hard, brownish black shale
							0.6			Firm, soft, fine dark brown oil sand.
						0.3				Hard, brownish black shale.
							4.2			Firm soft, fine to medium dark brown oil sand. Dark amber cut.
						0.1				Hard, brown shale.
							4.4			Firm, soft fine to medium dark brown oil sand. Strong odor and dark amber cut. Streak of shale 3.0 from top.
						0.3				Hard, dark, brown shale . Streak of fine brown oil sand.
							2.4			Firm, soft, fine, dark brown oil sand. Strong odor.
						0.8	12.0			
0-21	9	7-5/8 SOIL	4140	4155	13.9		0.2			Firm, soft, fine to medium dark brown oil sand.
									0.3	Hard, slightly calcareous shale shell.
							4.1			Firm, soft, fine to medium dark brown oil sand. Strong odor and dark amber cut.
									0.1	Hard, slightly calcareous shale shell.
						0.1	8.1			Firm, soft, fine to medium dark brown oil sand. Strong odor and dark amber cut. Sand looks good. 0.1 of brown shale 0.3 from bottom.
						0.1	13.4		0.4	

629 South Hill Street
Los Angeles, California
November 11, 1937.

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

Gentlemen: Attention Mr. W. S. Eggleston

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

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

Please correct your copies accordingly.

Yours truly,

E. J.

Deputy Supervisor.

Made as Follows	By Whom
Summaries ✓ WJC:EMS	Ems
Rev. and Loc. Cards	
Production Reports	
Well Records { Folders	
Well Records { Reports	
Pen Models	
Graphics	
Field Maps	

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

Topo 53 RJB
11/12/37.

FORM 109-B. 46392 7-37 8750.
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Test of Water Shut-off

No. T 1-33300

Los Angeles, Calif. November 5, 1937.

Mr. Ed. Jussen, Jr.,

Los Angeles, Calif.

121

Agent for UNION OIL COMPANY OF CALIFORNIA

DEAR SIR:

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

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

Depth and manner of water shut-off: 4105 ft. of 8-5/8 in. 36 lb. / ft. of in. lb. casing was 10-15-37 cemented ~~landed~~ in shale (Formation)

at 4105 ft. with 400 sacks Victor cement by casing method.

Water string was landed in 12¼" rotary (Size, rotary or cable tool) hole.

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

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

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

At See below (Time and date) oil bailed to xx ft., drilling fluid bailed / swabbed to xx ft.

At " " (Time and date) top of oil found at xxx ft., top of fluid found at xxx ft.

MR. HAGESTAD REPORTED THE FOLLOWING:

1. No casing test was made.
2. 21' of set cement was drilled out of the 8-5/8" casing (equivalent to 6 sacks).
3. The Johnston tester was run into the hole on 4" drill pipe.
4. The wall packer was set at 4086'.

THE INSPECTOR NOTED THE FOLLOWING:

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

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

THE SHUT-OFF IS APPROVED.

R. D. BUSH
State Oil and Gas Supervisor

By [signature] Deputy

cc- H. E. Winter
Long Beach

ERMA:OH

FORM 109-D. 47172 7-37 15M
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 1-33264

Los Angeles, Calif. October 29, 1937

Mr. Ed Jussen, Jr.,
Los Angeles, Calif.
Agent for UNION OIL COMPANY OF CALIFORNIA
"OIL OPERATORS, ~~INC.~~"

DEAR SIR:

Operations at your well No. 1 Sec. 13, T. 4S., R. 13W., S. B. B. & M., Long Beach Field, in Los Angeles County, were witnessed by G. Peirce, representative of the supervisor, on Oct. 15, 1937. There was also present H. E. Winter, Engineer, and B. W. Messer, Driller.

Casing Record	Junk
13-3/8" cem. 757'. T. D. 4110'.	None.

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

and the data and conclusions are as follows:

MR. WINTER REPORTED THE FOLLOWING:

1. A 12¼" rotary hole was drilled from 757' to 4106' and a 7-5/8" rotary hole was drilled from 4106' to 4110'.
2. Mud fluid was circulated for 2 hr. prior to the test.
3. No record was kept of the loss of mud fluid prior to the test.
4. The drill pipe was hanging at 4070' during the test.
5. Cores were taken from the following important depths:

4010' - 4040' -- gray sand
4040' - 4041' -- shell
4058' - 4071' -- gray sand
4071' - 4079' -- shale
4079' - 4092' -- gray sand
4092' - 4106' -- shale
4106' - 4110' -- oil sand

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

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

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

R. D. BUSH
State Oil and Gas Supervisor

By E. Fugelvin Deputy

629 South Hill Street
Los Angeles, California
October 8, 1937.

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

Gentlemen: Attention Mr. H. E. Winter.

This will acknowledge receipt of and thank you for your letter of October 7, 1937, giving the elevation of your well No. "Oil Operators, ~~Inc.~~" 1, Sec. 13, T. 4 S., R. 13 W., S. B. B. & M., Long Beach field, as 56.84 feet, U. S. G. S.

Our records have been corrected accordingly.

Yours truly,

E. J.

Deputy Supervisor.

B:EMS

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

[illegible] Made as Follows	By Whom
[illegible] Summaries	
[illegible] Loc. Cards	
Production Reports	
Well Records { Folders	
Well Records { Reports	
Peg Models	
Graphics	
Field Maps	

FORM 401 9-36 70M
PRINTED IN U. S. A.

DIVISION OF OIL AND GAS
RECEIVED
OCT 8 - 1937
LOS ANGELES, CALIFORNIA

Union Oil Company of California

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

Santa Fe Springs, Calif. Oct. 7, 1937

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

Dear Sir:

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

Our records have been corrected accordingly.

Very truly yours,
Henry E Winter
District Engineer.

HEW:S

M 109-D. 47172 7-37 15M
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T1-33187

Los Angeles, Calif. October 22, 1937

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

Agent for UNION OIL COMPANY OF CALIFORNIA

DEAR SIR:

Operations at your well No. "OIL OPERATORS, ~~INC.~~" Sec. 13, T. 4S., R. 13W., S. B. B. & M., Long Beach Field, in Los Angeles County, were witnessed by G. Peirce, representative of the supervisor, on Oct. 3, 1937. There was also present R. Rampton, Engineer, and G. Bussett, Driller.

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

Junk --

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

and the data and conclusions are as follows:

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

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

The test was completed at 4:30 p. m.

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

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

R. D. BUSH
State Oil and Gas Supervisor

By E. Hugelstein Deputy

...11. 46011 6-37 20M.
...FORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Proposed Operations

No. P 1-31200

Los Angeles, Calif. August 16, 1937

Mr. Ed Jussen, Jr.,
Los Angeles, Calif.
Agent for UNION OIL COMPANY OF CALIFORNIA

121

Dear Sir:

Your proposal to drill Well No. "OIL OPERATORS, ~~INC.~~" 1, Section 13, T. 4S., R. 13W., S. B. B. & M., Long Beach Field, Los Angeles County, dated Aug. 9, 1937, received Aug. 11, 1937, has been examined in conjunction with records filed in this office.

Present conditions as shown by the records and the proposal are as follows: * 56.84' U. S. G. S. (Correction letter 10-8-37)

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

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

Size of Casing	Weight	New or Second Hand	Depth	Landed or Cemented
13-3/8"	46	New	700	Cmtd.
8-5/8"	36	New	4100	Cmtd.
6-5/8" Perf.liner	26	New	4150	Landed

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

DECISION:
THE PROPOSAL IS APPROVED PROVIDED THAT:

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

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

R. D. BUSH
State Oil and Gas Supervisor

By E. Hagenbuch, Deputy

24758 9-35 10M
CALIFORNIA STATE PRINTING OFFICE

DIVISION OF OIL AND GAS
RECEIVED
AUG 11 1937
LOS ANGELES, CALIFORNIA

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Notice of Intention to Drill New Well

This notice must be given before drilling begins

037-09792

General Exploration Co.

SANTA FE SPRINGS Cal. AUGUST 9, 1937

MR. E. HUGUENIN

Deputy State Oil and Gas Supervisor

Los Angeles, Calif. Cal.

DEAR SIR:

In compliance with Section 17, Chapter 718, Statutes of 1915, as amended, notice is hereby given that it is our intention to commence the work of drilling well No. Oil Operators, ~~Inc.~~ #1 "Oil Operators" (Correction letter 11-11-37), Sec. 13, T. 4-S, R. 13-W, S.B. B. & M., Long Beach Oil Field Los Angeles County. CJB

Lease consists of

The well is 555' S-W'ly along the prolongation of the center line of the W'ly portion of San Antonio Drive from the center line of Del Mar Ave., thence 100' N-W'ly at right angles feet N. or S., and feet E. or W. from

(Give location in distance from section corners or other corners of legal subdivision)

The elevation of the derrick floor above sea level is ~~Will be determined later (Approx. 50').~~ 56.84' (Correction letter 10-8-37) feet

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

Size of Casing, Inches	Weight, Lb. Per Foot	New or Second Hand	Depth	Landed or Cemented
13-3/8"	46	New	700	Cmtd.
8-5/8"	36	New	4100	Cmtd.
6-5/8" Perf. liner	26	New	4150	Landed

Well is to be drilled with rotary ~~cable~~ tools.

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

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

Respectfully yours

Address Santa Fe Springs, Calif.

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

Telephone number Whittier 426-87

By Henry E. Winter
District Engineer.

ADDRESS NOTICE TO DEPUTY STATE OIL AND GAS SUPERVISOR IN CHARGE OF DISTRICT WHERE WELL IS LOCATED

Reference to file of data

Map	Book	Section	Form	Pl.	Ex
Map 53					
CJB	✓				

Wildcat book

8/12/37 CJB

SCHLUMBERGER ELECTRICAL LOGS

RUN No. [illegible]

Union Oil Co.

Oil Operators [illegible]

LOG [illegible]

COMPANY : UNION OIL CO. DATE : 12/2/37

FIELD : Long Beach LOCATION :

WELL : Oil Operators #2 ELEVATION ft.

Casing shoe depth:	Driller	759 ft.	Started run	10:00 p.m.
	Schlumberger	ft.	Finished run	12:45 a.m.
Bottom Depth:	Driller	3859 ft.	Time well occupied by outfit	2 h.
Max. depth reached by lower elect		[illegible] ft.	Time waiting at well	none h.
Max. footage measured (p or S. P.)		[illegible] ft.	Mileage incurred by run	15 M.
Footage missed		[illegible] ft.	Total time incurred by run	[illegible] h.

MUD CHARACTERISTICS

NATURE : Natural VISCOSITY : LEVEL :

DENSITY : 75 RESISTIVITY : [illegible]

DIAMETER OF HOLE

12½"

REMARKS

Device: 20"

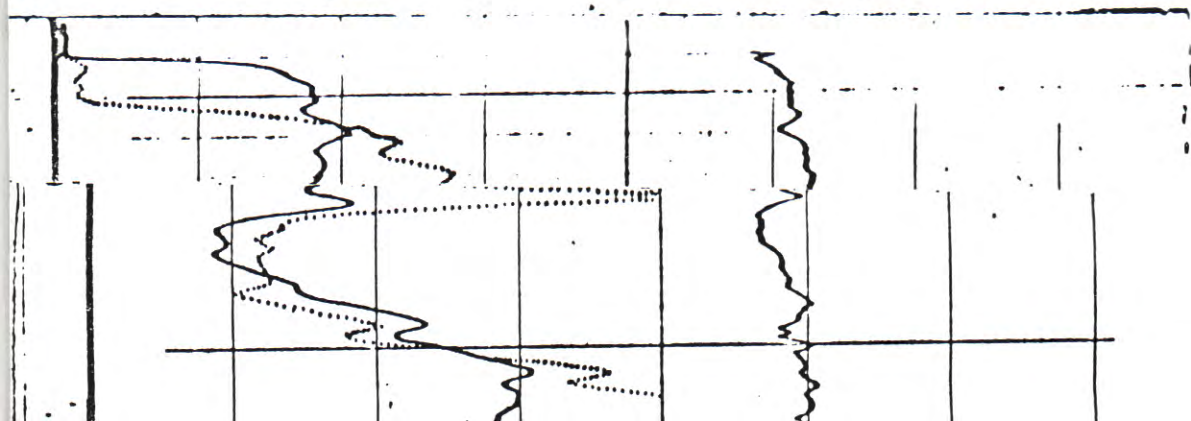
8 - 2

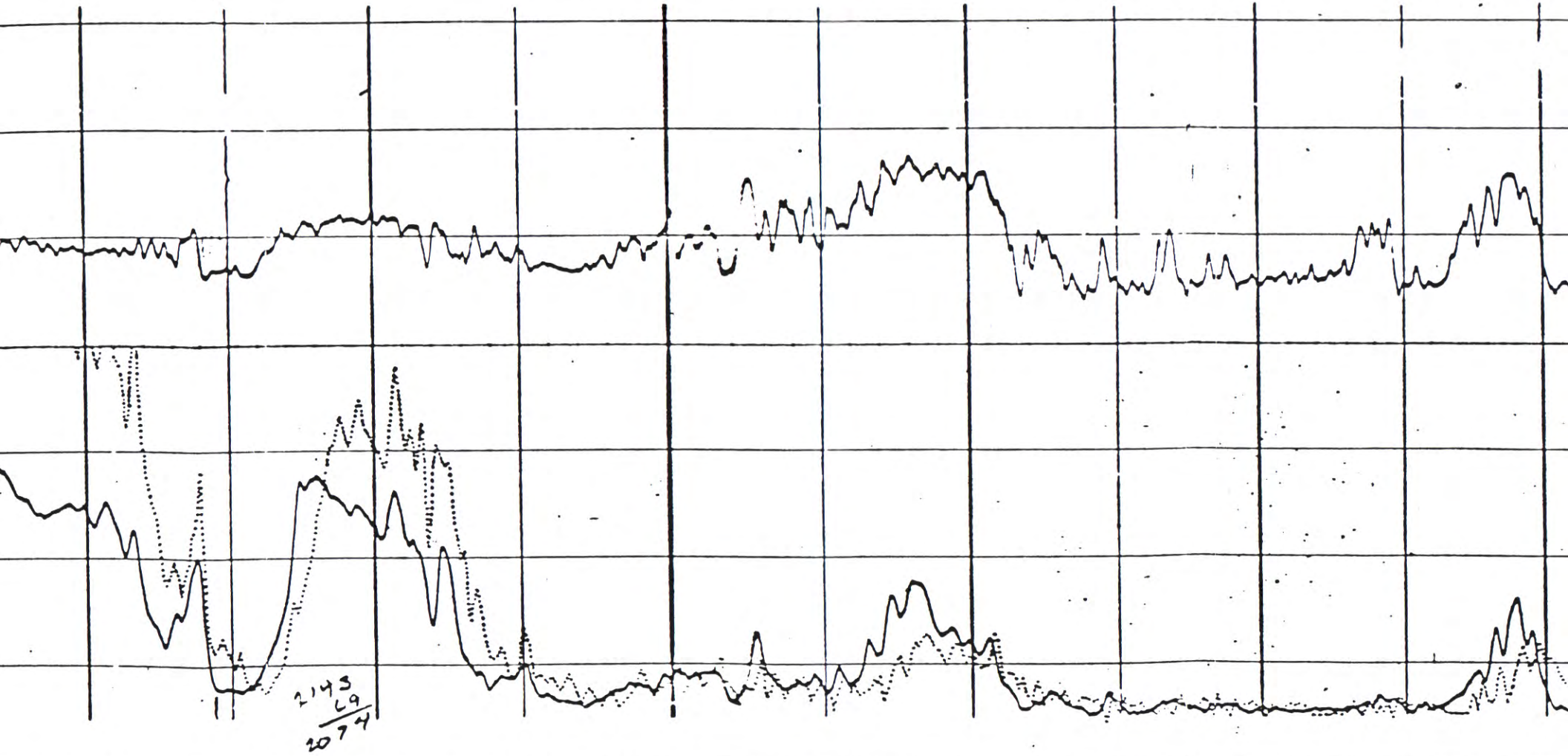
Witnessed By : Mr. Winter

OBSERVERS : [illegible]

EPTH	RESISTIVITY LOG ohms. m²m	POROSITY LOG millivolts

0 15 30 ----------150 Mv.---------





2100 2200 2300 2400 2500 2600

2100

M. O. JOHNSTON OIL FI

DATE. 12-10-37

COMPANY. Union Oil Co

WELL. Oil Operator #2

LOCATION. Long Beach

PACKER SET AT. 4005'

HOLE OPEN TO. 4021'

RECORDER NO. L-12536

CAPACITY. 5000

CALIBRATED. 11-19-37.

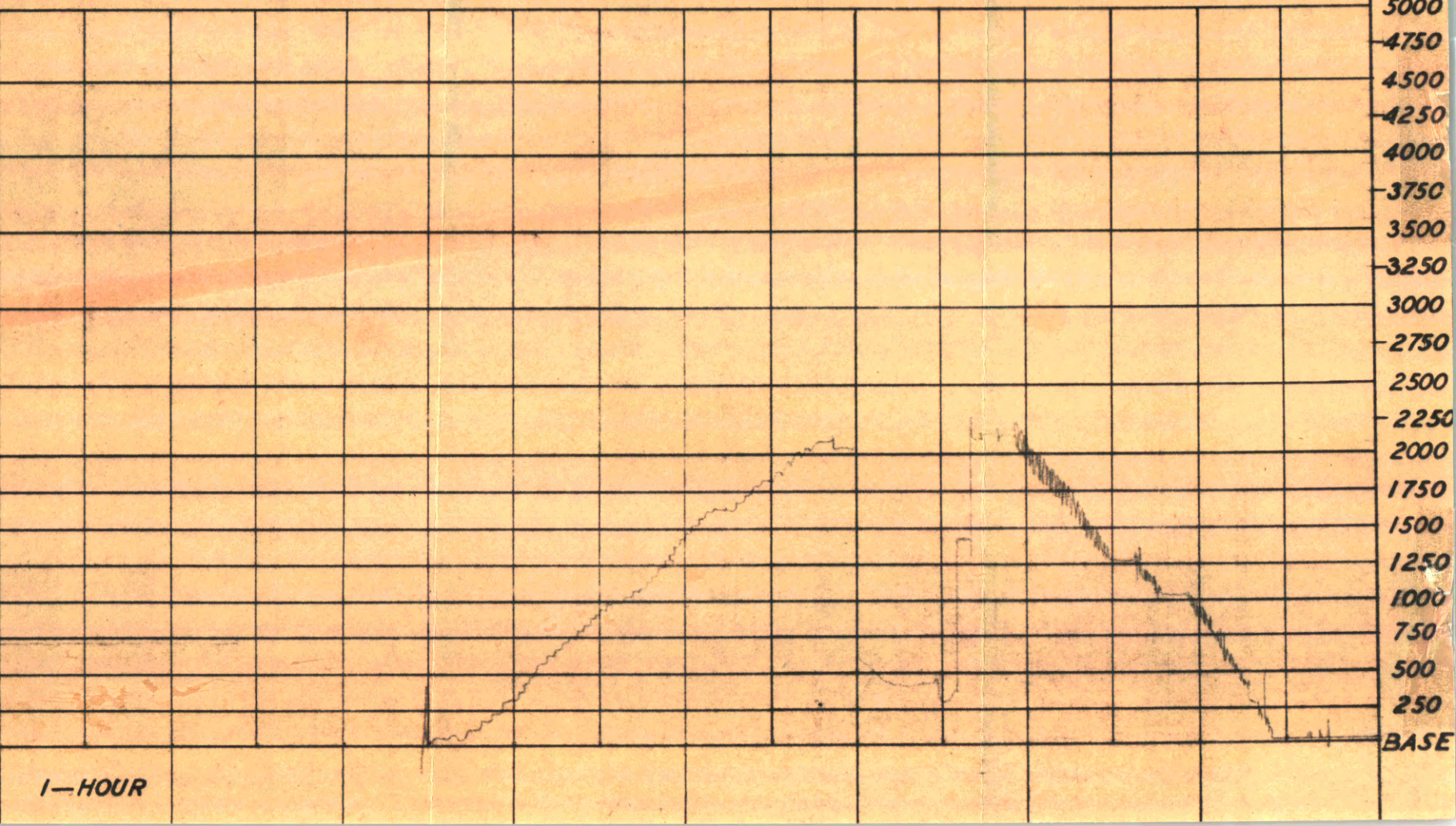
TEMPERATURE. 140°

FLUID RISE. 1885'

FLOW PERIOD. 33 Min.

TICKET NO. 8617

ELD SERVICE CORPORATION.



L.A.

SC[illegible]S

Pacific Energy Resources Ltd.

~~"Oil Operators" 2~~

NWLBU 8-2

Sec. 13-4S-13W.

LONG BEACH

COM[illegible] 937

FIEL[illegible]

WELL : [illegible] Operators #2 ELEVATION : ft.

RUN No. C. 4-373 Oil Operators #2 Union Oil Co. W. LONG BEACH

Casing shoe depth:	Driller	4016 ft.	Started run	9:00 a.m.
	Schlumberger	ft.	Finished run	11:00 a.m.
Bottom Depth:	Driller	4105 ft.	Time well occupied by outfit	2 h.
Max. depth reached by lower elect		4104 ft.	Time waiting at well	-- h.
Max. footage measured (p or S. P.)		72 ft.	Mileage incurred by run	10 M.
Footage missed		1 ft.	Total time incurred by run	3 h.

MUD CHARACTERISTICS

NATURE : natural VISCOSITY : no sample LEVEL :

DENSITY : 72 RESISTIVITY : no sample

DIAMETER OF HOLE

7-5/8"

1- 275

REMARKS

Device: 20"

Cross Section	Cards	Forms 114	Forms 121
			✓

SCHLUMBERGER ELECTRICAL LOGS

COMPANY : UNION OIL CO. DATE : 12/4/37

FIELD : W. Long Beach LOCATION :

WELL : Oil Operators #2 ELEVATION : ft.

RUN No. C-4-330 Oil Operator #2 Union Oil Co. W. LONG BEACH

Casing shoe depth:	Driller	759 ft.	Started run	4:15 p.m.
	Schlumberger	ft.	Finished run	5:45 p.m.
Bottom Depth:	Driller	4034 ft.	Time well occupied by outfit	1½ h.
Max. depth reached by lower elect		4032 ft.	Time waiting at well	none h.
Max. footage measured (p or S. P.)		173 ft.	Mileage incurred by run	15 M.
Footage missed		2 ft.	Total time incurred by run	3 h.

MUD CHARACTERISTICS

NATURE : Natural VISCOSITY : 24 LEVEL :

DENSITY : 75 RESISTIVITY : 3.4

DIAMETER OF HOLE

12¼"--3965 7-5/8"--below

REMARKS

Device: 20"

6

SCHLUMBERGER ELECTRICAL LOGS

LONG BEACH
Union Oil Co.
Oil Operators #2
RUN No. C-4-323

COMPANY : UNION OIL CO. DATE 12/2/37

FIELD : Long Beach LOCATION :

WELL : Oil Operators #2 ELEVATION : ft.

Casing shoe depth:	Driller	759 ft.	Started run	10:00 p.m.
	Schlumberger	ft.	Finished run	12:45 a.m.
Bottom Depth:	Driller	3859 ft.	Time well occupied by outfit	2¾ h.
Max. depth reached by lower elect		3857 ft.	Time waiting at well	none h.
Max. footage measured (p or S. P.)		3098 ft.	Mileage incurred by run	15 M.
Footage missed		2 ft.	Total time incurred by run	3½ h.

MUD CHARACTERISTICS

NATURE : Natural VISCOSITY : LEVEL :

DENSITY : 75 RESISTIVITY : 6.8

DIAMETER OF HOLE

12¼"

REMARKS

Device: 20"

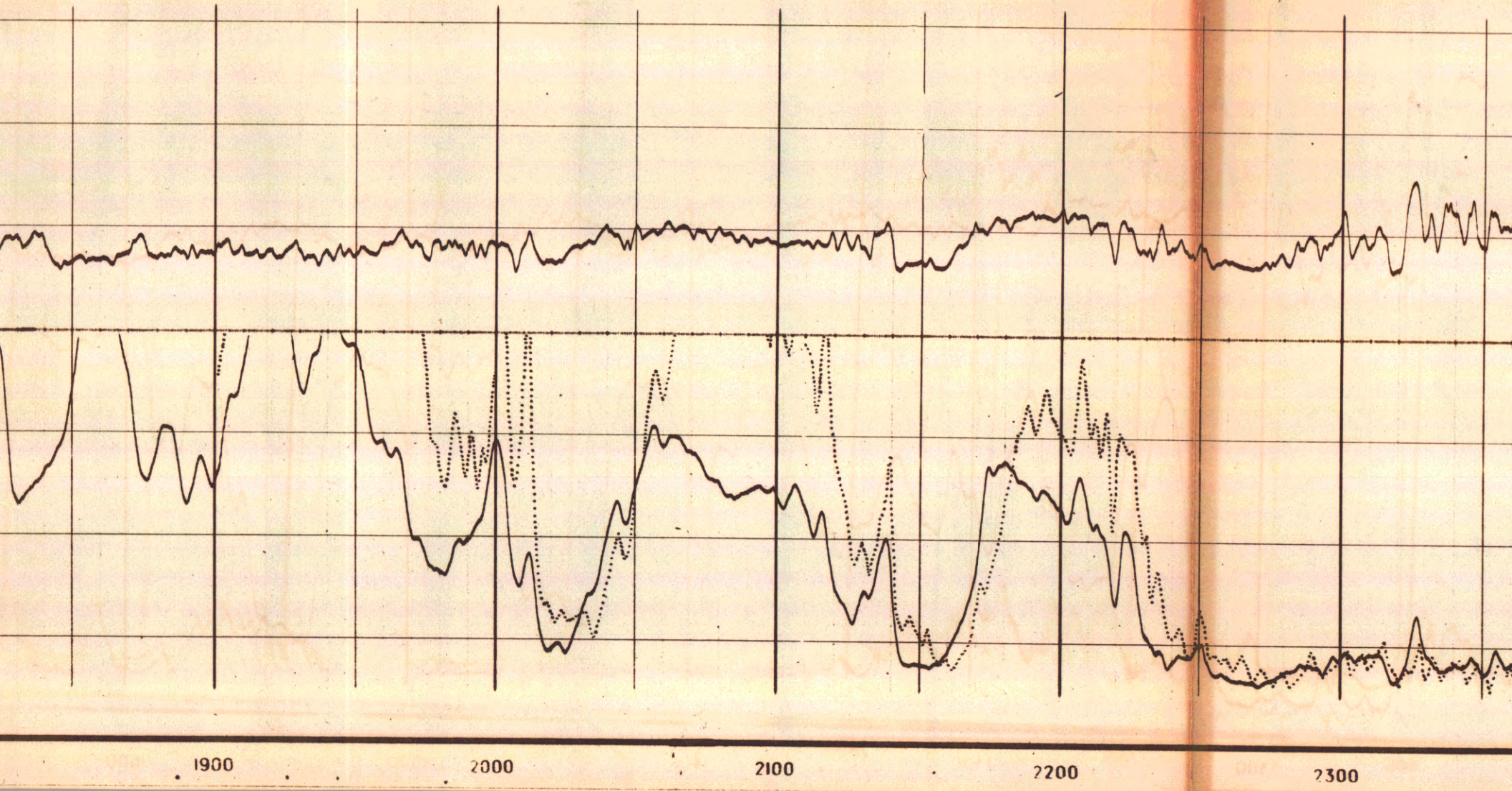
Witnessed By : Mr. Winter

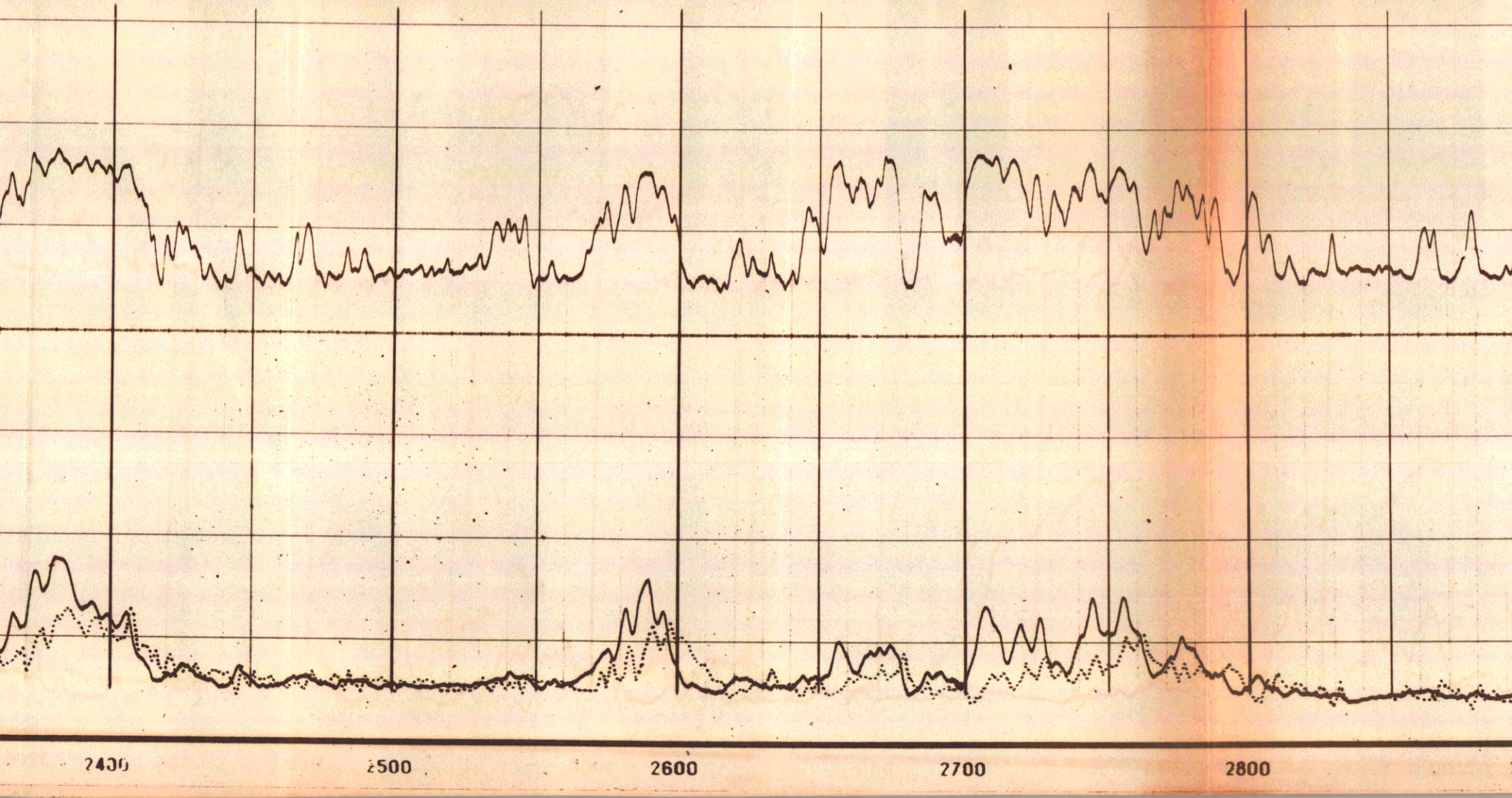
OBSERVERS : F. PEHOUSHEK

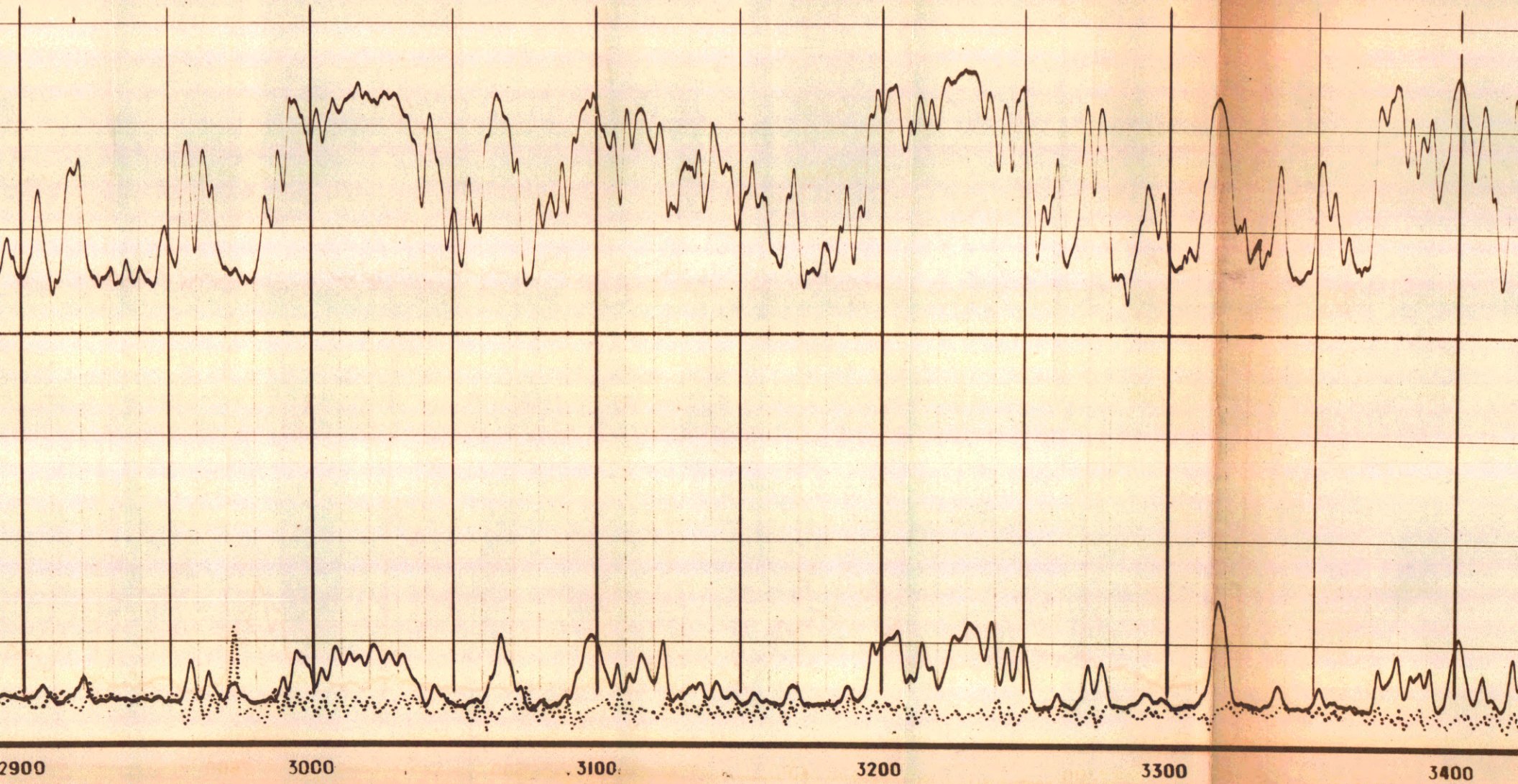
DEPTH	RESISTIVITY LOG ohms. m²m	POROSITY LOG millivolts
0	15 30	----------150 Mv.

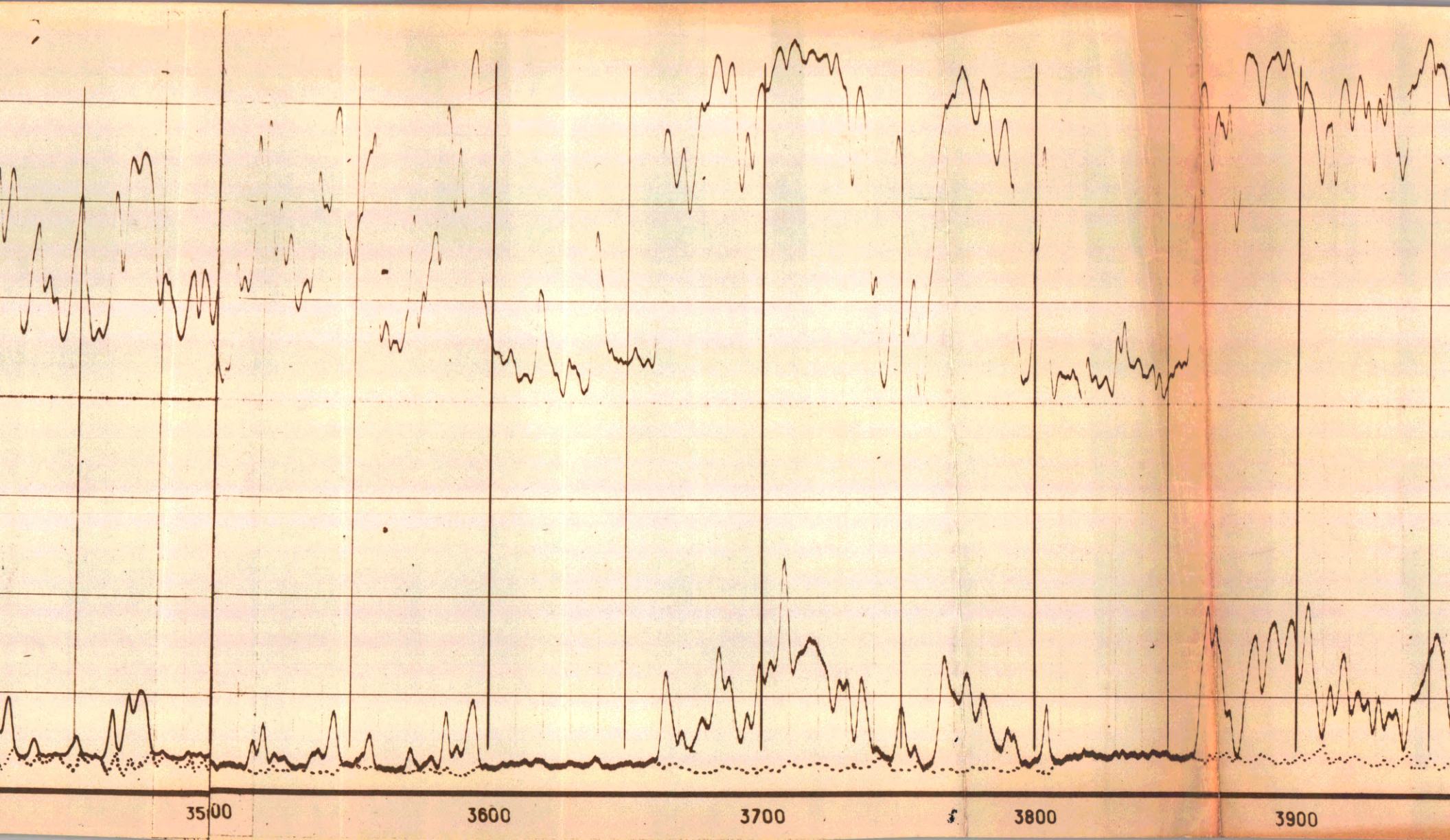
800
900
1000
1100
1200
P_T 3431

1300
1400
1500
1600
1700
1800


1900
2000
2100
2200
2300


2400
2500
2600
2700
2800


2900
3000
3100
3200
3300
3400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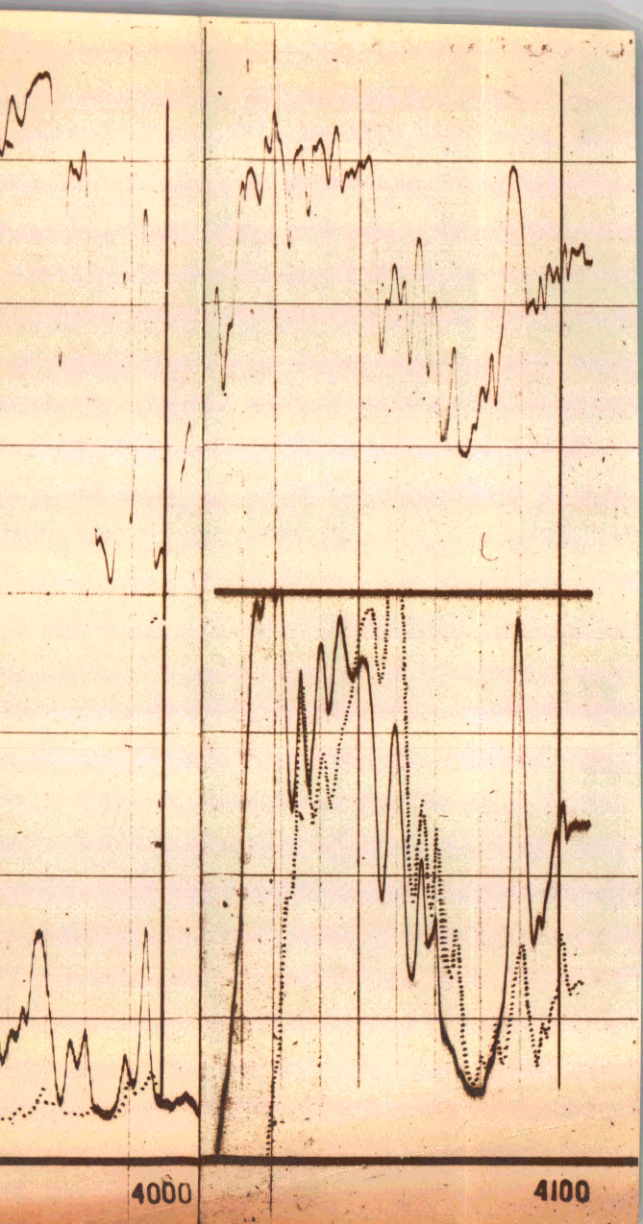
3600
3700
3800
3900


4000
4100

L.A.

1 275

S[illegible]ERGER

[illegible]ATION

Pacific Energy Resources Ltd.

[illegible]O.
[illegible]IA

LWLBU 8-2
~~"Oil Operators" 2~~
(037-09793)

Sec. 13-4S-13W.

LONG BEACH

CO[illegible]

FIE[illegible]

RECEIVED
OCT 31 1941
LOS ANGELES, CALIFORNIA

WELL: Oil Operators #2

SEC. 13 T. 4 S R. 13 W

COUNTY: Los Angeles STATE: Calif.

ELEV.: 57

COMPANY: UNION OIL CO. OF CALIF.
FIELD: Long Beach
WELL: Oil Operators 2
COUNTY: Los Angeles
FILING NO: C-8-134 C-8-147

RUN	1-D	2-D	3	4	5
Date	10-27-41	10-29-41			
Csg. shoe	4016'	4016'			
Total depth	5235'	5480'			
Depth rchd.	5233'	5477'			
Ft. Meas.	1129'	242'			
Mud Nat.	Natural	Chemical			
Dens	76#	79#			
Visc.	40	40			
Res.	5.3 @ 82°F	5.5 @ 87°F			
Max. Temp.	160°F	175°F			
Meas. from	Top Table	Top Table			
Tension	2000#	1800#			
Rig. Time	2 hrs.	1 hr.			
Mileage	10	10			
Observer	V. Fant	W. Dale			

Witnessed by: Mr. Winter

DIAMETER OF HOLE

7-5/8"

REMARKS

Standard Device 3rd Curve: ----------

Long Device 3rd Curve: .....

DEPTH

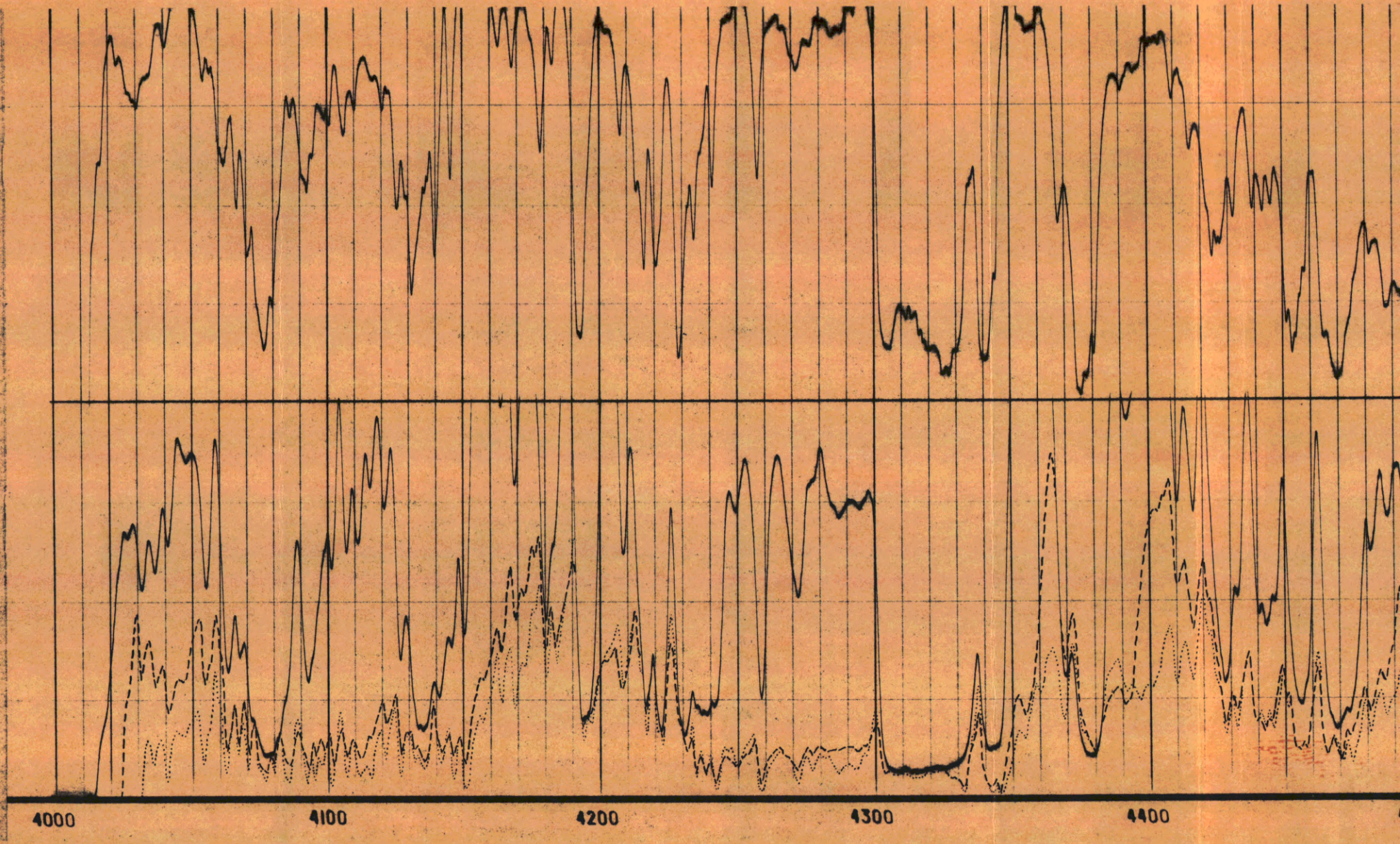
RESISTIVITY

GPS NORMAL CURVE ..... THIRD CURVE

0 ← -ohms m²m → 30

SELF-POTENTIAL

100 ← -millivolts →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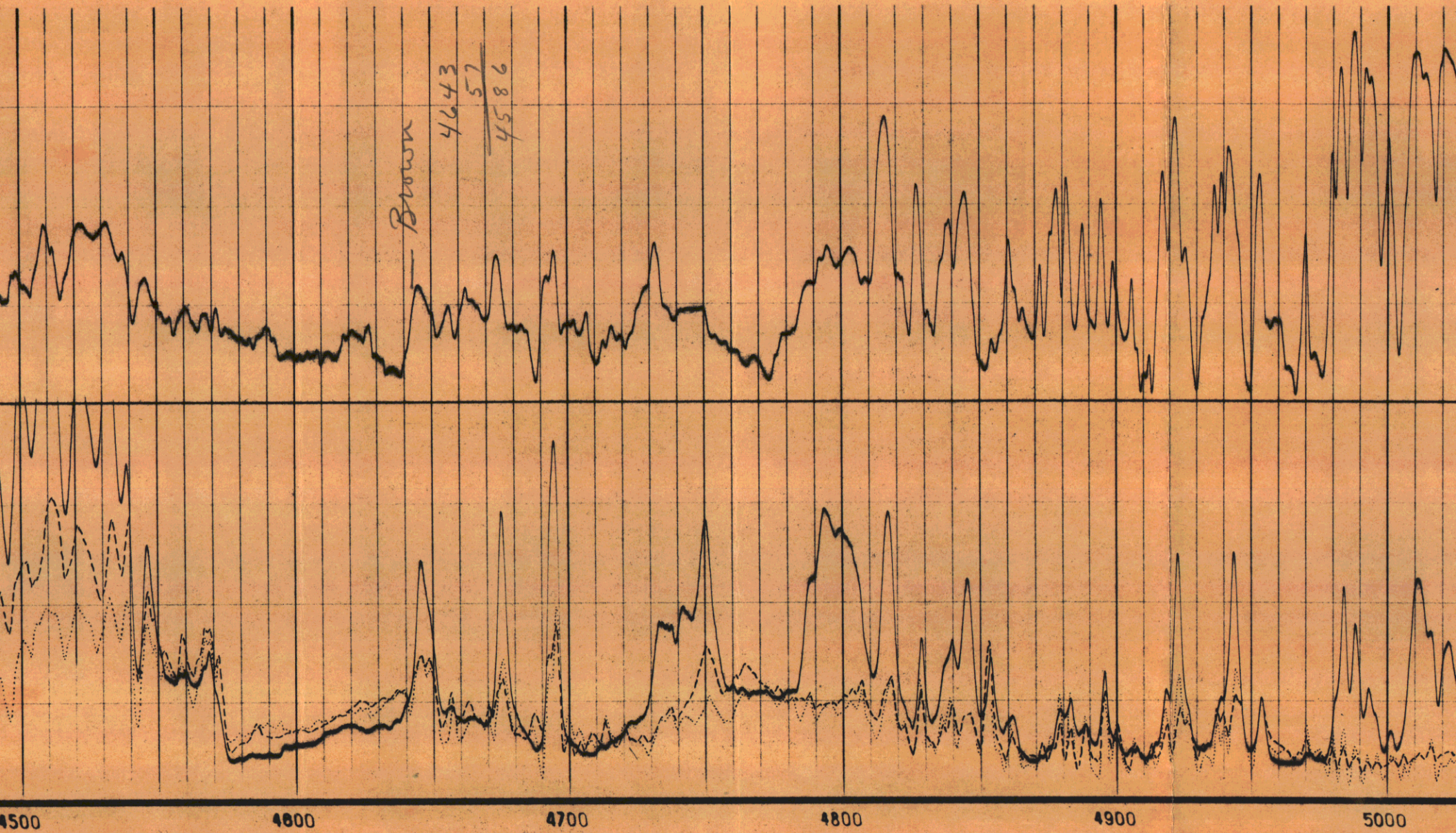
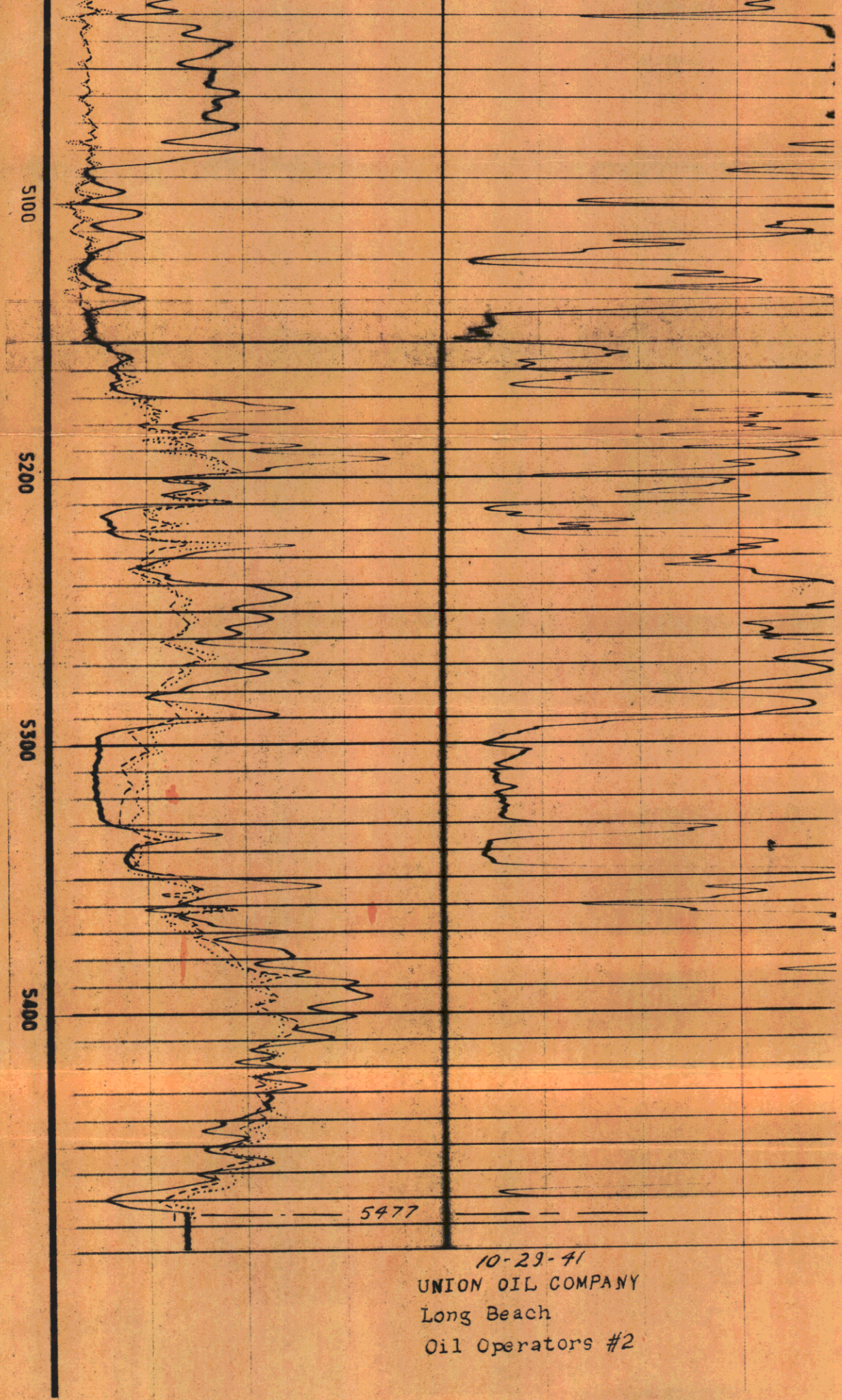
4100
4200
4300
4400


Brown
4643
57
4586
4500
4600
4700
4800
4900
5000



10-29-41
UNION OIL COMPANY
Long Beach
Oil Operators #2

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

REPORT OF PROPERTY AND WELL TRANSFER

Field or county Wilmington, Long Beach, Montebello, Rosecrans, Rosecrans East, Torrance, and Newport West.		District One/Cypress
Former owner Pacific Energy Resources	Operator code P0250	Date 7/10/2007
Name and location of well(s) See Attatchment		
Description of the land upon which the well(s) is (are) located See Attachment		

Date of transfer, sale, assignment, conveyance, or exchange 06/14/2007	New owner Pacific Energy Resources Ltd.	Operator code P0250	Type of organization Partnership
	Address 111 West Ocean Blvd Long Beach, CA 90802		Telephone No. (562) 628-1526

Reported by OG30A Both Signed	
Confirmed by	
New operator new status (status abbreviation) PA	Request designation of agent Darren Katic, Agent
Old operator new status (status abbreviation) NPI	Remarks See Operator File

	Deputy Supervisor R.K. Baker	Signature Kenneth Carlson Ken Carlson Associate Engineer

OPERATOR STATUS ABBREVIATIONS

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

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121	—	—	Map and book		
Form OGD140	—	—	Notice to be cancelled	—	—
New well cards			Bond status	VM	7-11-07
Well records			EDP files		
Electric logs			Computer Files	VM	7-11-07
Production reports	—	—			

OGD156 (5/98)

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

REPORT OF WELL PLUGGING AND ABANDONMENT

Long Beach, California

November 27, 1996

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

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

NOTES:

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

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

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

DEC:df

NO BOND REQUIRED

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

OG159

DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

CHECK LIST - RECORDS RECEIVED AND WELL STATUS

Company ~~North Side Oil Corp~~ Pacific Energy Resources Well No. NWL BU 8-2

API No. 037-09793 Sec. 13, T. 4S, R. 13W, S.B. B. & M.

County Los Angeles Field Wilmington

RECORDS RECEIVED	DATE
Well Summary (Form OG100)	
History (Form OG103)	11-22-96
Core Record (Form OG101)	
Directional Survey	
Sidewall Samples	
Other	
Date final records received	
Electric Logs:	

STATUS		STATUS	
Producing - Oil	___	Water Disposal	___
Idle - Oil	___	Waterflood	___
Abandoned - Oil	X	Steamflood	___
Drilling - Idle	___	Fire Flood	___
Abandoned - Dry Hole	___	Air Injection	___
Producing - Gas	___	Gas Injection	___
Idle - Gas	___	CO_2 Injection	___
Abandoned - Gas	___	LPG Injection	___
Gas - Open to Oil Zone	___	Observation	___
Gas Storage	___	Waterflood Source	___

DATE 10-21-96 "E" well Yes ___ No X

RECOMPLETED

REMARKS

ENGINEERS CHECK LIST

1. Summary, History, & Core Record (dupl.) JM
2. Electric Log
3. Operator's Name
4. Signature
5. Well Designation
6. Location
7. Elevation
8. Notices
9. "T" Reports
10. Casing Record
11. Plugs
12. Directional Survey
13. Production
14. E Well on Prod., enter EDP
15. Surface Inspection OK 11-26-96

CLERICAL CHECK LIST

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

ABANDON OK

RECORDS NOT APPROVED

Reason:

RECORDS APPROVED JM 11/96 -C-

RELEASE BOND

Date Eligible

(Use date last needed records were received.)

MAP AND MAP BOOK # 137 MS 11/27/96

OGD2 (5/96)

SUBMIT IN DUPLICATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

Operator ~~NORTH SIDE OIL CORP~~. Pacific Energy Resources Field Wilmington County Los Angeles
Well NWLBU 8-2, Sec. 13, T 4S, R 13W, SB B. & M.
A.P.I. No. 037-09793 Name Steve Graner (Person submitting report) Title President (President, Secretary or Agent)
Date November, 1996

Signature

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

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

Date 1996	
10/ 7	MIRU. RIH with 1-1/2" C.T.. Tagged top of lines at 3948'. Tagged fill at 4071'. Bottom of lines at 5065'. POOH. Secured well. MO.
10/14	MIRU. Filled well with water. Pressured casing to 500psi and held for 10 minutes. RIH with 1-1/2" C.T. to 3946'. Unable to go deeper. POOH. Secured well.
10/15	MIRU. RIH with 1-1/2" C.T. to 3946'. Spotted 5 barrels water followed by 181 cf of cement. Estimated TOC at 3417'. POOH. Filled hold with water. Pressured up casing to 500psi and held for 5 minutes. Squeezed 8-1/2 cf away. Estimate TOC at 3442'.
10/16	MIRU. RIH with 1-1/2" C.T. Tagged TOC at 3400'. Mudded hole with 72% mud from 3400' to 2575'. POOH. Rigged up Primo wireline and shot cavity shot at 2575'. RIH with 1-1/2" C.T. to 2575'. Spotted 5 barrels water followed by 152 cf of cement. Estimate top at 2132'. POOH. Filled hole with water. Downsqueezed 11 cf with 550psi and held for 5 minutes. Estimate TOC at 2164'.
10/17	MIRU. RIH with 1-1/2" CT and tagged TOC at 2177'. Mudded hole with 133 barrels of 72% mud from 2177' to surface. POOH. Secured well.
10/19	MIRU. Cut 8-5/8" casing at 70'. MO. MIRU. RIH with 1-1/2" C.T. to 70'. Spotted 5 barrels water followed by 242 cf of cement. Cement to surfact. POOH. Cement top fell. Cement with 97 cf of cement to surface.
10/21	Welded steel plate on casing. Well abandoned.

RECEIVED
NOV 2 2 1996
DIVISION OF OIL, GAS
& GEOTHERMAL RESOURCES
LONG BEACH

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

No. T 196-750

REPORT ON OPERATIONS

Long Beach, California
November 22, 1996

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

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

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

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

DECISION: APPROVED.

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

DEFICIENCIES: None.

Surface Inspection Approved 11-26-96

CONTRACTOR: Fleet Cementers, Inc.

DEC:df

cc: Update
Pacific Energy Resources

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

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

OG109

NWLBU – 8-2
View W. west, 10-21-96
Photo - Bill F. with R. Manuel

EDP 11-15-96 NORTH SIDE OIL CORP.

DEL 11/96 OK

-C-

196-750

ION OF OIL, GAS, AND GEOTHERMAL RESOURCES

CEMENTING/PLUGGING MEMO

Operator Pacific Energy Resources / Well No. NWLBU 8-2

API No. 037-09793 Sec. 13, T. 4 S, R. 13 W, S.B. B&M

Field Long Beach, County Los Angeles, On 10-21-96,

Mr. / Ms. Bill Fedasko, representative of the supervisor, was present from 1530 to 1600.

There were also present Steve Graner, PRESIDENT

Casing record of well: 13 3/8" cem 759'; 8 5/8" cem 4016' WSO, cav shot 2575' ①; 5 1/2" cem 3950'-5475', perf 4869' WSO, perf ③ 4118'-4228', 4640-4700, @ int 4835-4945, ~~@ int~~ 5165'-5245' & 5345'-5395' ②.

The operations were performed for the purpose of (L)

TD 5480'. Plugged w/cem 5475-5456', 5415-5065, 3946-3400, 2575'-2177', 70'-5'.

①, PULLED FR 70'
②, COLLAPSED 3980'±
③, 4018'-4055'

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

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

Hole size: _____" fr. _____' to _____', _____" to _____' & _____" to _____'

Casing				Cemented			Top of Fill		Squeezed Away	Final Press.	Perfs.
Size	Wt.	Top	Bottom	Date	MO-Depth	Volume	Annulus	Casing			
8 5/8"	32	0	4016'	10/15/96	SURF. SQZ.	181cf	form?	~~3400 3442~~	~~0 8.5~~	500*	4018'-5475'
5 1/2	17	3950'		10/16	POOH & dwn sqz	152cf	"	~~2177 2153±~~	~~19cf 71cf~~	550	2575 cs
								* = locked up		tight	

(.3422) Cav shot 2575'

Casing/tubing recovered: 8 5/8" shot/cut at 70', _____', _____' pulled fr. 70';

_____" shot/cut at _____', _____', _____' pulled fr. _____'.

Junk (in hole): _____

Hole fluid (bailed to) at _____'. Witnessed by _____

Mudding	Date	bbls.	Displaced	Poured	Fill	Engr.
pass	10/16/96	51	tbg 3400'		2575'±	Hebein
72 pcf	10/17	133	" 2177		surface	R. Navia

NOTE: (L) 8-2A 10/14/96 5 1/2" collapsed (?) @ 3950'

Cement Plugs		Placing	Placing Witnessed		Top Witnessed			
Date	Sx./cf	MO & Depth	Time	Engr.	Depth	Wt/Sample	Date & Time	Engr.
10/15/96	181cf	tbg 3946'	rptd. L.	Bowen	3400'	2000#	10/16/96 1430	Hebein
10/16	152cf	" 2575	1930	R. Navia	2177'	"	10/17 1200	R. Navia
10/19	239 cf	T70	—	Rptd & S. Graner	5'	Visual	10-21-96 1600	B. Fedasko

OGD10 (12/94/GSR1/5M) Printed on recycled paper

coiled tubing only into 3946'

c/o to 3970' (O'KD by D.C.) - conventional rig

DEFICIENCIES NOTED AND CORRECTED:

None

DEFICIENCIES NOTED AND TO BE CORRECTED:

None

UNCORRECTABLE DEFICIENCIES:

None

CONTRACTOR:

Fleet Cementing, Inc

API No. 03709793 DIVISION OF OIL AND GAS T_____

BLOWOUT PREVENTION EQUIPMENT MEMO

Operator Pacific Energy Res. Well "NWLBU" 8-2

Field _____ County _____ Spud Date _____

VISITS:

	Date	Engineer	Time	Operator's Rep.	Title
1st	10/14/95	R. Navia	(0900 to 0915)		
2nd			(to)		

Contractor Fleet Cementers, Inc Rig # ____ Contractor's Rep. & Title L. Bowen, RF

Casing record of well: MEMO

OPERATION: ~~Testing~~ (inspecting) the blowout prevention equipment and installation.

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

Proposed Well Opns: Abd . MACP: _____ psi

Hole size: ____ " fr. ____ ' to ____ ' , ____ " to ____ ' & ____ " to ____ '

REQUIRED BOPE CLASS: II-2M

CASING RECORD OF BOPE ANCHOR STRING					Cement Details	Top of Cement	
Size	Weight(s)	Grade(s)	Shoe at	CP at		Casing	Annulus

BOP STACK

API Symb.	Ram Size (in.)	Manufacturer	Model or Type	Vert. Bore Size (in.)	Press. Rtg.	Date Last Overhaul
A	1 1/2	Bell Rubber Co	HL-HD	1 3/4	3000	
A	CSO	Hangwell	B	4	4000	
A	1 1/2	Bell Rubber Co	HL-HD	1 3/4	3000	

TEST DATA

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

TOTAL:

ACTUATING SYSTEM

Accumulator Unit(s) Working Pressure _____ psi

Total Rated Pump Output _____ gpm

Distance From Well Bore _____ ft.

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

	CONTROL STATIONS	Elec.	Hyd.	Pneu.
	Manifold at accumulator unit			
X	Remote at Driller's station		✓	
	Other:			

	EMERG. BACKUP SYSTEM		Press.	Wkg. Fluid
	N_2 Cylinders	1 L= "		gal.
	Other:	2 L= "		gal.
		3 L= "		gal.
		4 L= "		gal.
		5 L= "		gal.
		6 L= "		gal.
		TOTAL:		gal.

AUXILIARY EQUIPMENT

		No.	Size (in.)	Rated Press.	Connections Weld	Connections Flange	Connections Thread	Test Press.
	Fill-up Line							
X	Kill Line		2"	2000			✓	
	Control Valve(s)							
	Check Valve(s)							
	Aux. Pump Connect.							
	Choke Line							
	Control Valve(s)							
	Pressure Gauge							
	Adjustable Choke(s)							
	Bleed Line							
	Upper Kelly Cock							
	Lower Kelly Cock							
	Standpipe Valve							
	Standpipe Press. Gauge							
X	Pipe Safety Valve		1 1/2	2000				
	Internal Preventer							

	HOLE FLUID MONITORING EQUIPMENT	Alarm Type Audible	Alarm Type Visual	Class
	Calibrated Mud Pit			A
	Pit Level Indicator			B
	Pump Stroke Counter			B
	Pit Level Recorder			C
	Flow Sensor			C
	Mud Totalizer			C
	Calibrated Trip Tank			
	Other:			

Hole Fluid Type	Weight	Storage Pits (Type & Size)
Clay base mud		

REMARKS AND DEFICIENCIES: _____

OGD9 (8/92/GSR1/3M)

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

No. P 196-1138

412
(Field Code)

PERMIT TO CONDUCT WELL OPERATIONS

03
(Area Code)

--
(New Pool Code)

00
(Old Pool Code)

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

Long Beach, California
September 16, 1996

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

THE PROPOSAL IS APPROVED PROVIDED:

1. Blowout prevention equipment equivalent to this Division's Class **II2M** requirements, or better, shall be installed and maintained in operating condition.
2. All portions of the well not plugged with cement shall be filled with clay base mud having a minimum density of 72 lb/cu ft and a minimum gel-shear strength of 25 lb/100 sq ft.
3. The well shall be plugged with cement from **3918'** to **3850'**.
4. The cement plug proposed to be placed to **2410'** shall extend to at least **2375'** outside and inside the casing.
5. This Division shall be consulted and a Supplementary Notice may be required before making any changes in the proposed program.
6. **THIS DIVISION SHALL BE NOTIFIED TO:**
   a. Inspect the installed blowout prevention equipment prior to commencing downhole operations.
   b. Witness the placing, location and hardness of the cement plug from **5065'** to **3850'**.
   c. Witness the mudding of the hole.
   d. Witness the placing, location and hardness of the cement plug from **2575'** to **2375'**.
   e. Witness the placing, location and hardness of the cement plug from **70'** to **6'**.
   f. Inspect and approve the cleanup of the well site within 60 days after placement of the surface plug.

NOTE:

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

10/11/96 STEVE GRANER / CURTIS - 5½ COLLAPSED @ 3980'±, WILL DOWN SQZ w/ EXCESS CEMENT - OK

DEC:dc

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

NO BOND REQUIRED

Engineer: D. E. Curtis

Phone: 310/590-5311

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

By R.C. Manuel
For R. K. Baker, *Deputy Supervisor*

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

OG 111

412
NWB 03 F OG
00

STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

Notice of Intention to Abandon Well

File in Duplicate

P196-1138

FOR DIVISION USE ONLY			
CARDS	BOND AL	FORMS	
		OGD114	OGD121
9/13/96	BB	9/13/96	9/13/96

DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon well (North Side Oil Company 8-2) NWLBU 8-2, API No. 037-09793, Sec. 13 T. 4S, R. 13W, SB B. & M., Long Beach Field, Los Angeles County, commencing work on October 10, 19 96.

The present condition of the well is:

1. Total depth 5480'
2. Complete casing record, including plugs and perforations (present hole)

see over

3. Last produced 8/93 (Date) 5 (Oil, B/D) 0 (Gas, Mcf/D) 460 (Water, B/D)

(or)

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

Additional data for dry hole (show depths):

5. Oil or gas shows
6. Stratigraphic markers
7. Formation and age at total depth
8. Base of freshwater sands 2225' 2250

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

The proposed work is as follows:

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

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

Address P O Box 16007 (Street)
Long Beach (City) CA (State) 90807 (Zip)
Telephone Number (310) (Area Code) (Number)

North Side Oil Corp. (Name of Operator)
By Steve Graner, President (Print Name)
[signature] (Signature) 9/12/96 (Date)

OG108 (1/95/GSR1/5M) Printed on recycled paper.

CRITICAL WELL

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

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

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

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

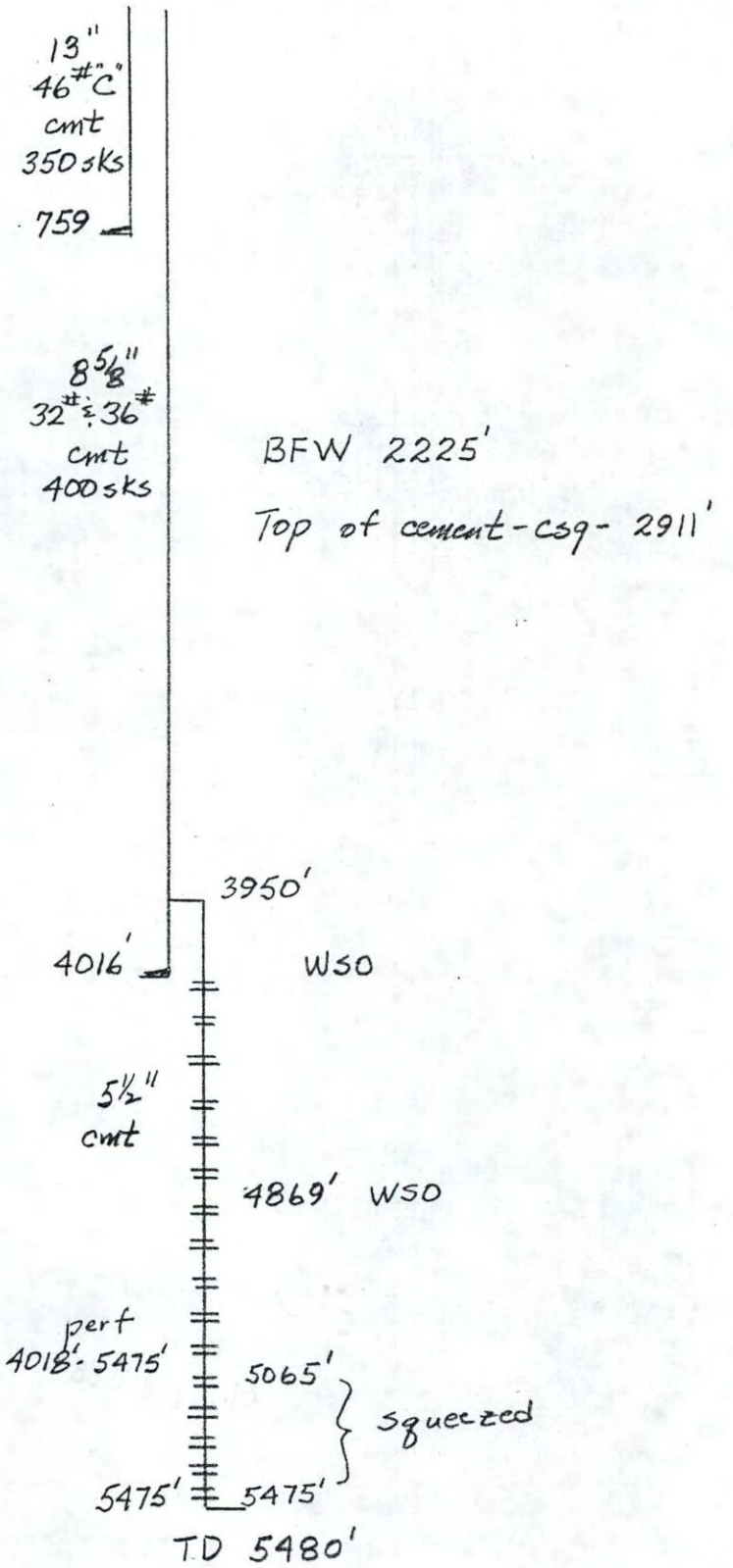
2. 13-3/8" cmt @ 759'; 8-5/8" cmt @ 4016' (WSO); 5-1/2" cmt @ 5475' top @ 3950'; perf 4869' WSO; perf 4018'-5395'; perfs plugged 5065'-5415' and 5456'-5475'.

RECEIVED
SEP 12 1996
DIVISION OF OIL, GAS
& GEOTHERMAL RESOURCES
LONG BEACH

NORT IDE OIL COMPAI

NWLBU 8-2

API No. 037-09793



RECEIVED
SEP 12 1996
GEOTHERMAL RESOURCES
LONG BEACH

WELL TRANSFER NOTICE

EFFEC MAY 9, 1994, PETRO RESOURCES, INC.
TRANS LONG BEACH NWLBU WELLS
TO PACIFIC ENERGY ~~CORP~~. Resources
SEE OGD156 DATED 5-13-94

DIVISION OF OIL AND GAS
CHECK LIST - RECORDS RECEIVED AND WELL STATUS

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

RECORDS RECEIVED	DATE
Well Summary (Form OG100)	
History (Form OG103)	3-15-84
Core Record (Form OG101)	
Directional Survey	
Sidewall Samples	
Other	
Date final records received	
Electric logs:	

STATUS		STATUS	
Producing - Oil	/	Water Disposal	
Idle - Oil		Water Flood	
Abandoned - Oil		Steam Flood	
Drilling - Idle		Fire Flood	
Abandoned - Dry Hole		Air Injection	
Producing - Gas		Gas Injection	
Idle - Gas		CO_2 Injection	
Abandoned - Gas		LPG Injection	
Gas-Open to Oil Zone		Observation	
Water Flood Source			

DATE
RECOMPLETED 2/15/84
REMARKS

ENGINEER'S CHECK LIST

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

CLERICAL CHECK LIST

1. Location change ____ (F-OGD165)
2. Elevation change ____ (F-OGD165)
3. Form OGD121
4. Form OG159 (Final Letter)
5. Form OGD150b (Release of Bond)
6. Duplicate logs to archives
7. Notice of Records due (F-OGD170)

UPDATE CENTER 5/30/84

RECORDS NOT APPROVED
Reason:

RECORDS APPROVED HO 5/9/84

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

LONG BEACH OFFICE - USE REVERSE SIDE

OGD2 (12/80/DWRR/5M)

SUBMIT IN DUPLICATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

Operator Petro Resources, INC Field Long Beach County Los Angeles
Well NWLBU 8-2, Sec. 13, T 4S, R 13W, SB B. & M.
A.P.I. No. 037-09793 Name Joe D. Rose (Person submitting report) Title Agent (President, Secretary or Agent)
Date March 14, 19 84

Signature

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

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

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

RECEIVED
MAR 15 1 35 PM '84
DIV OF OIL AND GAS
LONG BEACH, CA.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

No. T 184-507

DIVISION OF OIL AND GAS

Report on Operations

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

Long Beach, Calif.
March 22, 1984

Your operations at well NWLBU 8-2, API No. 037-09793, Sec. 13, T. 4S, R. 13W, S.B. B.& M. Long Beach Field, in Los Angeles County, were witnessed on 2-15-84. G. Muggelberg, Engineer, representative of the supervisor, was present from 0810 to 0820. There were also present Joe Rose, Agent

Present condition of well: 13-3/8" cem 761'; 8-5/8" cem 4016' WSO; 5½" cem 3950'-5475', perf 4869' WSO, perf 4118'-4228', 4640'-4700', @ int 4835'-4945', @ int 5165'-5245' & 5345'-5395'. TD 5480'. Plugged w/ cem 5456'-5475' & 5415'-5065'.

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

DECISION: APPROVED.

NOTE: DEFICIENCIES TO BE CORRECTED
NONE

DEFICIENCIES CORRECTED
Low pressure valve on kill line.

CONTRACTOR: Graner Oil Co.

GM:mh

cc: Update

M. G. MEFFERD
State Oil and Gas Supervisor

Deputy Supervisor
V. F. Gaede

OG109 (9/83/GSR1/15M)

DIVISION OF OIL AND GAS

BLOWOUT PREVENTION EQUIPMENT MEMO

Rg 2-21-84

T 184-507

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

VISITS:	Date	Engineer	Time	Operator's Rep.	Title
1st	2-15-84	G. Muggelberg	0810 to 0820	Joe Rose	Agent
2nd			to		

Casing record of well: 13 3/8" cem 761'; 8 5/8" cem 4016' WSO; 5 1/2" cem 3950'-5475', perf 4869' WSO, perf 4118'-4228', 4640'-4700', @ int 4835'-4945', @ int 5165'-5245' & 5345'-5395'. TD 5480'. Plugged w/cem 5456'-5475' & 5415'-5065'.

OPERATION: Testing (inspecting) the blowout prevention equipment and installation.
DECISION: The blowout prevention equipment and its installation on the 8 5/8 "casing are approved.

REQUIRED BOPE CLASS: II 2M

Proposed Well Opns: alter casing MPSP: _____ psi
Hole size: _____ " fr. _____ ' to _____ ' , _____ " to _____ ' & _____ " to _____ '

CASING RECORD (BOPE ANCHOR STRING ONLY)					Cement Details	Top of Cement	
Size	Weight(s)	Grade(s)	Shoe at	CP at		Casing	Annulus

BOP STACK							a	b	a/b	TEST DATA			
API Symb.	Ram Sz.	Mfr.	Model or Type	Size (in.)	Press. Rtg.	Date Last Overhaul	Gal. to Close	Rec.Time (Min.)	Calc. GPM Output	psi Drop to Close	Secs. to Close	Test Date	Test Press.
Rd	2 7/8"	Shaffer	E	6	3000	–						–	
Rd	CSO	Shaffer	E	6	3000	–						–	

ACTUATING SYSTEM

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

	Mfr.	Accum. Cap.	Precharge
1		gal.	psi
2		gal.	psi

CONTROL STATIONS	Elec.	Hyd.
Manif. at accum. unit		
Remote at Drlr's. stn.		
Other:		

EMERG. BACKUP SYST.			Press.	Wkg. Fl.
N2 Cyl	No:	Type:	1	gal.
✓ Other:			2	gal.
Hand Pump			3	gal.
			4	gal.
			5	gal.
			6	gal.

AUXILIARY EQUIPMENT

		No.	Sz. (in.)	Rated Press.	Connections Weld	Flan.	Thrd.	
	Fill-Up Line							
✓	Kill Line		2	2000			✓	–
✓	Control Valve(s)	1		2000			✓	–
	Check Valve(s)							
	Auxil. Pump Connec.							
	Choke Line							
	Control Valve(s)							
	Pressure Gauge							
	Adjustable Choke(s)							
	Bleed Line							
	Upper Kelly Cock							
	Lower Kelly Cock							
	Standpipe Valve							
	Standpipe Pressure Ga.							
✓	Pipe Safety Valve		2 7/8	2000				–
	Internal Preventer							

HOLE FLUID MONITORING EQUIPMENT

		Alarm Aud.	Alarm Vis.	Class
	Calibrated Mud Pit			A
	Pit Level Indicator			B
	Pump Stroke Counter			B
	Pit Level Recorder			C
	Flow Sensor			C
	Mud Totalizer			C
	Calibrated Trip Tank			C
	Other:			

REMARKS:

Hole Fluid Type	Weight	Storage Pits
Water		

OGD9 (3/83/DWRR/3M)

DEFICIENCIES—TO BE CORRECTED

None

DEFICIENCIES—CORRECTED

① Low pressure valve on kill line

CONTRACTOR

Graner Oil Co.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

No. P 184-93

412
(field code)
03
(area code)
00
(new pool code)
00
(old pool code)

PERMIT TO CONDUCT WELL OPERATIONS

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

Long Beach, California
February 8, 1984

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

THE PROPOSAL IS APPROVED PROVIDED:

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

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

RCM:mh

cc: Update

BLANKET BOND

Engineer Richard C. Manuel

Phone (213) 590-5311

M. G. MEFFERD, State Oil and Gas Supervisor

By _____
V. F. Gaede, Deputy Supervisor

A copy of this report and the proposal must be posted at the well site prior to commencing operations.

Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.

OG111 (9/83/GSR1/5M)

0/5

OG107 (8/79)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

Notice of Intention to Rework Well

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

FOR DIVISION USE ONLY		
BOND	FORMS	
	OGD114	OGD121
Blanket	2-2-84	2-2-84

DIVISION OF OIL AND GAS

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

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

The present condition of the well is as follows:

1. Total depth 5480

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

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

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

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

   (or)

   Last injected -not- (Date) ____ (Water, B/D) ____ (Gas, Mcf/D) ____ (Surface pressure, psig)

The proposed work is as follows:

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

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

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

Petro Resources, Inc. (Name of Operator)
By Joe D. Rose (Print Name)
Joe D. Rose (Signature) (Date)

RECEIVED
JAN 31 1 15 PM '84
DIV. OF OIL AND GAS
LONG BEACH, CA.

FORM OGD156 (5-80)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF PROPERTY AND WELL TRANSFER

Field or county	District
Long Beach	1
Former owner	**Date**
Sun Exploration & Production Co.	June 15, 1983

Name and location of well(s)

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

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

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

Date of transfer, sale, assignment, conveyance, or exchange	New owner	Type of organization
May 1, 1983	Petro Resources, Inc.	Corp.
	Address: 4200 Easton Drive, Suite 16, Bakersfield, CA 94309	Telephone No. 805/323-4118

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

Confirmed by
Letter form Petro Resources, Inc., dated 5-18-83.

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

Deputy Supervisor	Signature
V. F. Gaede	Richard L. Manuel

OPERATOR STATUS ABBREVIATIONS

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

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121	CP	7-7-83	Map and book	137	7/12/83
Form ODG140	NONE		Notice to be cancelled		
New well cards	CP	7-7-83	Bond status		
Well records	CP	7-7-83	EDP files		
Electric logs	CP	7-7-83	Update Conservation Committee		
Production reports			L. A. Assessors		

Name change from Sun Oil Co. to SUN EXPLORATION & PRODUCTION CO.

1-1-82, Form 156 dated 1-21-82. See ownership file.

FORM 157

STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT ON PROPOSED CHANGE OF WELL DESIGNATION

Long Beach, California

Oct. 4, 1979

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

DEAR SIR:

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

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

the proposed change in designation is hereby authorized as follows:

Old Designation	API	New Designation
"Oil Operators" 1	037-09792 (See)	NWLBU 8-1
" " 2	037-09793	NWLBU 8-2
" " 3	037-06496	NWLBU 8-3
" " 4	037-06415	NWLBU 8-4
"Pool" 1	037-09795	NWLBU 5-1
" 2	037-00397	NWLBU 5-2
" 3	037-09796	NWLBU 5-3
" 4	037-09797	NWLBU 5-4
"Amebco" 1	037-09788	NWLBU 6-1
" 2	037-09789	NWLBU 6-2
"Flood Control" 2	037-13525	NWLBU 9-2
" " 3	037-09791	NWLBU 9-3
" " 4	037-00392	NWLBU 9-4
" " 5	037-00142	NWLBU 9-5
" " 6	037-00393	NWLBU 9-6

Map 137 & Book PMC 11/6/79

M. G. Mefferd
~~JOHN F. MATTHEWS, JR.~~
State Oil and Gas Supervisor

RWS:sc

By Richard W. Stehl /
Acting *Deputy Supervisor*
R. A. Ybarra

cc: Update Center
EDP
Conservation Committee

57998-705 11-71 3M ⓘ OSP

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF PROPERTY AND WELL TRANSFER

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

Name and location of well(s)

Sec. 11-4S-13W

"Dominguez" 2-10 (037-11859)

Sec. 13-4S-13W

"Amebco" 1 (037-09788)
"Amebco" 2 (037-09789)
"Flood Control" 2 (037-13525)
"Flood Control" 3 (037-09791)
"Flood Control" 4 (037-00392)
"Flood Control" 5 (037-00142)
"Flood Control" 6 (037-00393)
"Oil Operators" 1 (037-09792)
"Oil Operators" 2 (037-09793)
"Oil Operators" 3 (037-06496)
"Oil Operators" 4 (037-06415)
"Pool" 1 (037-09795)
"Pool" 2 (037-00397)
"Pool" 3 (037-09796)
"Pool" 4 (037-09797)

Sec. 14-4S-13W

"Dominguez" 1 (037-11858)

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

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

Reported by: Former operator

Confirmed by: New operator

New operator new status (status abbreviation): PA	Request designation of agent
Old operator new status (status abbreviation): AB	Remarks

Deputy Supervisor: for M. B. Albright

Signature: Eleanor Bricker

OPERATOR STATUS ABBREVIATIONS

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

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121			Map and book	PR	2-16-79
Form OGD148			Notice to be sent in		
New well cards			Bond status		
Well records			EDP [illegible]		
Electric logs					
Production reports					

ara
cc: EDP Update
Conservation Committee
Update Center

(213) 590-5311

May 21, 1976

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

Dear Sir:

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

Sincerely,

ADS

A. D. Stockton
Associate Oil and Gas Engineer

ADS:dr

FORM 156

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

REPORT OF PROPERTY AND WELL TRANSFER

Field or County: Long Beach — District: 1

Former Owner: Union Oil Co. of California — Date: January 17, 1961

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

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

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

Telephone No.

Type of Organization: Corporation
Reported by: Union Oil Co. of California (Letter of January 6, 1961)
Confirmed by: General Exploration Co. of California (Letter of January 11, 1961)
New Operator New Status: PA, Old Operator New Status: PA
Request designation of agent: No

Remarks:

eb
CC- Mr. E. H. Nusser
Prod. Dept.
Conservation Committee

Wm. C. Bailey
Deputy Supervisor

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

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

96785 4-59 4500 ② SPO

Form 10

CLERK

Date Received 11-19-59 Form 100 ____ 101 ____ 103 ____

Elec. Log _____ Radio Log _____

Direct. Surv. _____ Other Data History

Location _____

_____

Elevation _____ Clerk Scott

Prod. Repts. _____ Clerk _____

COMPLETED PRODUCING ON 10-27-59 ENGINEER

ABANDONED ON _____

BOND blanket Release ____ Date Elig. _____ 150b ____

End Prem. year ____ Release Requested ____ Superseded ____

Aband. _____

HOLD BOND _____ Reason _____

_____

Data Needed _____

_____ Final Letter ____ Eng. RC

RECEIPT FOR

10

____ New Well Records

____ Subsequent Work

Well Summary _____ (100)

Drillers Log _____ (101)

Core Record _____ (101)

History ✓ (103)

Elec.Log _____

Other _____

_____

Redrill _____

Deepen _____

Plug _____

Alter Csg. ✓

Abandon _____

IN U.S.A.

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

(10)

WELL NO. "Oil Operators #2"

Long Beach (FIELD)

Los Angeles (COUNTY)

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

UNION OIL COMPANY of California

History of Oil or Gas Well

REPAIR REPORT

Port. Hoist - Contract (TOOLS)

October 26, 1959 (PERIOD ENDING)

CASING RECORD

See below (NOTE INEFFECTIVE CASING)

DIVISION OF OIL AND GAS
RECEIVED
NOV 1 9 1959
INGLEWOOD, CALIFORNIA

NO. TOURS	DATE 1959	DEPTH	EFFECTIVE DEPTH	REMARKS
				CHARGE: ER-AFE 59359, Job 539 PROPOSED WORK: Add perforations in the Alamitos Zone. PRODUCTION BEFORE REPAIR: 7 Gross - 6 Net - 21.8° - 12.1% ZERO POINT FOR THIS JOB: 1' above derrick floor.
				CASING RECORD AT START OF WORK: 13-3/8" C 759' 8-5/8" C 4016' WSO. ~~114' 6-5/8" H 4105' incl. 90' pfs.~~, pulled. 1525' 5-1/2" C 5475'. Splice test OK. Bullet pf & plgd. ~~5165-5205', 5220-5245', 5345-5395'~~. Test holes 4869' OK. Bullet pf 4640-4700', 4835-4845', 4870-4945'. Perf & Repf 4915-4945'.
				CASING RECORD AT COMPLETION OF WORK: 13-3/8" C 759' 8-5/8" C 4016' WSO ~~114' 6-5/8" H 4105' incl. 90' pfs.~~, pulled. 1525' 5-1/2" C 5475'. Splice test OK. Bullet pf & plgd., ~~5165-5205', 5220-5245', 5345-5395'~~. Test holes 4869' OK. Bullet pf 4118-4228', 4640-4700', 4835-4845', 4870-4945'. Pf & repf 4915-4945'.
1	10-20	5480	Plug 5065	Contractor moved in and strung up 2 new tubing lines. Pulled rods and pump. Rigged to pull tubing. Could not get twist out of line. Strung 4 lines.
1	10-21	"	" "	Pulled tubing. Strung in with 2-5/8" Cavins sand pump and found top of sand fill at 4995'. Ran in 4-1/2" impression block - stopped at 4995'. Tried to break off 8-5/8" production head - unable to do so.
1	10-22	"	" "	Ran 8-5/8" washer cup on 2 joints of 2-1/2" tubing. Backed out 8-5/8" production riser. Replaced with new 8-5/8" production riser. Pulled and laid down 2 joints of tubing and 8-5/8" washer. Installed blow-out preventer.
1	10-23	"	" "	Gun perforated 5-1/2" casing from 4228-4118' with two 1/2" bullets per foot. Used B-J wire line equipment. Fluid level at start 4450' - at finish 1200'. Very good blow of gas. Had approximately 400' of sand fill from 4900' to 4500'. Cleaned out to 4880' with 2-5/8" Cavins sand pump going through bridge.
	10-24			Crew off.
	10-25			" "
	10-26	"	" "	Ran 2-5/8" Cavins sand pump and cleaned out sand from 4720' to 4780'. Laid down excess tubing. Ran tubing. Laid down excess rods. Ran rods and pump. Spaced pump. Loaded out tools. Fluid level at 700'.

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

Vaughn S. Moyer
DISTRICT ENGINEER

12

N.U.S.A.

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

UNION OIL COMPANY of California

History of Oil or Gas Well

REPAIR REPORT

WELL NO. Oil Operators #2

Long Beach
(FIELD)

Los Angeles
(COUNTY)

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

Port. Hoist - Contract
(TOOLS)

November 8, 1959
(PERIOD ENDING)

CASING RECORD

13-3/8" C 759'
8-5/8" C 4016' WSO
Plld ~~114'-6-5/8"-H-4105'-inc.-90'-pf.~~
1525' 5½" C 5475'. Splice test
OK. ~~Bullet pf & plg 5165-5205',~~
~~5220-5245, 5345-5395'. WSO 4869'~~
Bullet pf 4118-4228, 4640-4700, 4835-
4845', 4870-
4945'. Pf & repf 4915-4945'.
(NOTE INEFFECTIVE CASING)

NO. TOURS	DATE 1959	DEPTH	EFFECTIVE DEPTH	REMARKS
1	10-27	5480	Plug 5065	Spooled tubing line off of derrick. Loaded out tools. Contractor moved out.

PRODUCTION DATA

	Hrs	Gross	Net	Cut	Grav.	Mcf	Remarks
10-27	-						Mvd in & assembled large pumping unit.
10-28	16	289	29	90.0		4	
10-29	24	502	15	97.0		4	
10-30	24	579	12	98.0		3	
10-31	24	576	12	98.0		3	
11-1	24	593	12	98.0		3	
11-2	24	583	15	97.0		3	
11-3	24	581	15	97.0		3	
11-4	24	597	24	96.0	22.8	3	
11-5	24	583	17	97.0	22.3	3	
11-6	24	591	18	97.0	22.3	3	
11-7	24	590	18	97.0	22.3	3	
11-8	24	583	23	96.0	22.3	3	

DIVISION OF OIL AND GAS
RECEIVED
NOV 19 1959
INGLEWOOD, CALIFORNIA

rjh

NAMES OF DRILLERS/HEAD WELL PULLERS:

Terminal Drilling Co. - Contractor

Vaughn S. Moyer
DISTRICT ENGINEER

COMPLETED PRODUCING ON 10-27-59

ABANDONED ON _____

FORM 111

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

REPORT ON PROPOSED OPERATIONS

No. P 159-886

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

Inglewood 3, Calif.
October 21, 1959

DEAR SIR:

Your proposal to alter casing Well No. "Oil Operators" 2,

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

dated Oct. 19, 1959, received Oct. 20, 1959, has been examined in conjunction with records filed in this office.

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

RECORDS IN ADDITION TO, OR AT VARIANCE WITH, THOSE SHOWN IN THE NOTICE.
5-1/2" cem. 3950'-5475', perf. at intervals 5395'-5165', perf. 4869', W.S.O., plugged with cement 5480'-5456', 5417'-5065'.

THE NOTICE STATES
"The present condition of the well is as follows:
1. Total depth. 5480' Plug 5065'
2. Complete casing record.
13-3/8" C 759'
8-5/8" C 4016' WSO
~~114' 6-5/8" H 4105' incl. 90' pfs.~~, pulled.
1525' 5-1/2" C 5475'. Splice test OK.
Bullet pf & plgd ~~5165-5205'~~, ~~5220-5245'~~, ~~5345-5395'~~.
Test holes 4869' OK
Bullet pf 4640-4700', 4835-4845', 4870-4945'.
Repf. 4915-4945'.
3. Last produced. Sept. 1959 (Date) 6 B/D (Net Oil) 21.8° (Gravity) 12.1% (Cut)"

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

DECISION
THE PROPOSAL IS APPROVED.

RC:omh
cc Vaughn S. Moyer

E. H. MUSSER, State Oil and Gas Supervisor

By John C. Bailey, Deputy

Blanket Bond

58444 7-57 60M SPO

FORM 107.

DIVISION OF OIL AND GAS
RECEIVED
OCT 20 1959
INGLEWOOD, CALIFORNIA

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

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

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

Santa Fe Springs, Calif. October 19, 1959

DIVISION OF OIL AND GAS

Inglewood, Calif.

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of ~~deepening, redrilling, plugging or~~ altering casing at Well No. OIL OPERATORS #2
(Cross out unnecessary words)

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

Long Beach, Field, Los Angeles County.

The present condition of the well is as follows:

1. Total depth. 5480' Plug 5065'

2. Complete casing record.
   13-3/8" C 759'
   8-5/8" C 4016' WSO
   ~~114' 6-5/8" H 4105' incl. 90' pfs.~~, pulled.
   1525' 5-1/2" C 5475'. Splice test OK.
   Bullet pf & plgd ~~5165-5205', 5220-5245', 5345-5395'~~.
   Test holes 4869' OK
   Bullet pf 4640-4700', 4835-4845', 4870-4945'.
   Repf. 4915-4945'.

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

The proposed work is as follows:

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

alter casing

MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121
			Blanket	EB	EB

Union Oil Company of California
(Name of Operator)

By V.S. Moyer R.J.H.
Vaughn S. Moyer, Division Engr.

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

rjh

STENOGRAPHER

Date Received 10-21-53 Form 100 ____ 101 ____ 103 ____

Elec. Log ____ Radio Log ____

Direct. Surv. ____ Other Data History

Location ____

Elevation ____ Steno. PCW

ENGINEER

BOND Blanket Release ____ Date Elig. ____ 150b ____

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

HOLD BOND ____ Reason ____

Data Needed None

Final Letter ____ Eng. ____

unsigned OK JLW JLW 11-3-53

RECEIPT FOR

16

Well Summary ____

Drillers Log ____

Core Record ____

History ✓ (2)

Elec. Log ____

Radio Log ____

Direct.Surv. ____

Redrill ____

Deepen ____

Plug ✓

Alter Csg. ✓

Abandon ____

10

DIVISION OF OIL AND GAS
RECEIVED
OCT 21 1953
LOS ANGELES, CALIFORNIA

8

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

UNION ~~OIL COMPANY~~ of California

History of Oil or Gas Well

REPAIR REPORT

WELL NO. Oil Operators #2

Long Beach
(FIELD)

Los Angeles
(COUNTY)

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

Prod. Hoist - Contract
(TOOLS)

September 10, 1953
(PERIOD ENDING)

CASING RECORD

See below

(NOTE INEFFECTIVE CASING)

NO. TOURS	DATE 1953	DEPTH	EFFECTIVE DEPTH	REMARKS
				CHARGE: B.R.-A.F.E. 51528 Job 240-D
				PROPOSED WORK: Plug with cement to 5100'. Test for WSO at 4869'. Gun perf 4870-4945'. Test on production.
				PRODUCTION BEFORE REPAIR: June, 1953 - 4 B/D Net - 23.8° - 83.0%
				ZERO POINT for this job: 12" above derrick floor.
				Casing Record at Start of Work: T.D. 4105' Deepen 5480' 13-3/8" C 759' 8-5/8" C 4016' WSO. ~~114' 6-5/8" H 4105' ine 90' pf.~~ Pulled 1525' 5½" C 5475'. Splice test OK Bullet pf 5165-5205', 5220-5245', 5345-5395'.
				Casing Record at Completion of Work: T.D. 5480'. Plug 5065'. 13-3/8" C 759'. 8-5/8" C 4016' WSO. ~~114' 6-5/8" H 4105' ine 90' pf.~~ Pulled 1525' 5½" C 5475'. Splice test OK. Bullet perf & plgd ~~5165-5205', 5220-5245', 5345-5395'~~. Test holes 4369' OK. Bullet perf 4640-4700', 4835-4845', 4870-4945'. Reperf 4915-4945'.
1	9-2	5480	Plug 5456	CALIFORNIA PRODUCTION SERVICE, Contractor, moved in and rigged up. Pulled rods and tubing.
				CLEAN OUT AND PLUG
1	9-3	"	" 5270	Bailed with 3-1/8" Cavins sand pump from 5390' to 5415'. Ran 4-3/4" impression block to 5415'. Fluid level at 4060'. Dumped 16 sacks of Blue Diamond construction cement in 4 hours from 5415' to 5270'.
1	9-4	"	" 5065	Found top of cement at 5263'. Fluid level at 3950'. Dumped 18 sacks of Blue Diamond construction cement. Fluid level 3910'. Top of cement at 5065'. Witnessed by Division of Oil and Gas representative - OK.
1	9-5	"	" "	Found fluid level at 3905'.
				WSO & PERFORATING
1	9-8	"	" "	Ran in with McCullough 3-1/2" o.d., 4 shot gun. Checked fluid level at 3920'. Shot four 1/2" holes at 4869'. Let set four hours (7:15 a.m. to 11:15 a.m.) No fluid rise. Water shut-off witnessed and approved by Division of Oil and Gas representative. Ran in with 3-1/2" o.d., 20 shot gun and perforated 5-1/2" casing with four 1/2" holes per foot from 4945' to 4870'. Fluid level after perforating 3870'.
1	9-9	"	" "	Checked fluid at 3840', fill at 5047'. Cleaned out sand with 3-1/3" Cavins sand pump from 5047' to 5065'. Ran tubing.
1	9-10	"	" "	Ran rods. Put well on production. California Production Service, Contractor, moved out.

NAMES OF DRILLERS/HEAD WELL PULLERS: California Production Service, Contractor

Vaughn S. Moyer,
DISTRICT ENGINEER

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED 169
OCT 21 1953
LOS ANGELES, CALIFORNIA

UNION OIL COMPANY of California
History of Oil or Gas Well

REPAIR REPORT

WELL NO. Oil Operators #2

(FIELD) Long Beach

(COUNTY) Los Angeles

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

(TOOLS) Prod. Hoist - Contract

(PERIOD ENDING) September 26, 1953

CASING RECORD

See next page.

(NOTE INEFFECTIVE CASING)

NO. TOURS	DATE 1953	DEPTH	EFFECTIVE DEPTH	REMARKS
		5480	Plug 5065	

PRODUCTION DATA

	Hours	Gross	Net	Cut	Remarks
9-10	16	24	0	100.0	
9-11	24	6	3	50.0	
9-12	24	6	5	20.0	
9-13	24	6	5	20.0	
9-14	24	6	1	80.0	
9-15	-				Pulled rods & tubing. Ran bailer.
9-16	15	31	6	80.0	Lowered tubing 61'
9-17	24	12	4	66.0	Pumped off
9-18	24	7	1	80.0	
9-19	24	6	1	80.0	
9-20	24	6	1	80.0	
9-21	24	6	5	13.0	
9-22	24	6	5	13.0	
9-23	24	5	4	13.0	

NO. TOURS	DATE	DEPTH	EFFECTIVE DEPTH	REMARKS
1	9-24	"	"	CALIFORNIA PRODUCTION SERVICE, Contractor, moved in and rigged up. Pulled rods and tubing. Found fluid level at 3680', no fill. 4¾" impression block went to bottom - 5065'.
1	9-25	"	"	PERFORATING Ran in with 4" o.d., Lane-Wells A-2 gun perforator and checked fluid level at 3750' at 7:45 a.m. Shot four 1/2" holes per foot from 4945' to 4915'. Very light gas blow on 5th run. Fluid level at 3710'. at 10:20 a.m. Perforated from 4845' to 4835' with light to medium gas blow. Perforated from 4700' to 4640' with light to moderate blow. Total holes shot - 400. Fluid level 3450' at 1:50 p.m. Net fluid rise 300'. No fill.
1	9-26	"	"	Checked fluid level at 3445', no fill. Ran tubing and rods. Put well on production. California Production Service, Contractor, moved out. Well completed pumping in the Brown Zone.

NAMES OF DRILLERS/HEAD WELL PULLERS: California Production Service, Contractor.

Vaughn S. Moyer,
DISTRICT ENGINEER

10

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS of California

UNION OIL COMPANY

History of Oil or Gas Well
REPAIR REPORT

WELL NO. Oil Operators #2

Long Beach
(FIELD)

Los Angeles
(COUNTY)

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

Prod. Hoist - Contract
(TOOLS)

October 6, 1953
(PERIOD ENDING)

CASING RECORD 13-3/8" C 739', 8-5/8" C 4016' WSO. ~~3341' 6-5/8" H 4105' tne 90' pf~~ Pulled. 1525' 5½" C 5475'. Splice test OK. Bullet pf & plgd ~~5265-5285'~~, ~~5220-5245'~~, ~~5345-5395'~~. Test holes 4869' OK. Bullet pf 4640-4700', ~~4835-4845'~~, ~~4870-4945'~~.
(NOTE INEFFECTIVE CASING)

REMARKS Repf 4915-4945'.

NO. TOURS	DATE 1953	DEPTH	EFFECTIVE DEPTH
		5480	Plug 5065

DIVISION OF OIL AND GAS
RECEIVED
OCT 21 1953
LOS ANGELES, CALIFORNIA

PRODUCTION DATA

	Hours	Gross	Net	Cut	Remarks
9-26	17	39	0	100.0	
9-27	24	47	6	87.0	
9-28	24	12	10	15.0	
9-29	24	9	8	12.0	
9-30	24	9	6	3.5	
10-1	24	8	7	8.0	
10-2	24	7	6	8.0	
10-3	24	7	6	8.0	
10-4	24	7	6	8.0	
10-5	24	6	6	2.8	
10-6	24	6	6	3.0	

bg
fs

NAMES OF DRILLERS/HEAD WELL PULLERS: California Production Service, Contractor

Vaughn S. Moyer,
DISTRICT ENGINEER

FORM 109-B (10-49)

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Test of Water Shut-off
(BAILING)

No. T 153-1095

Los Angeles 15 Calif. September 16 1953

Mr. W S Eggleston
Los Angeles 17 Calif.
Agent for UNION OIL CO OF CALIFORNIA

DEAR SIR:

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

Shut-off data: 5-1/2 in. 15 lb. casing was cemented at 5475 ft. on October 29, 1941 in 7-5/8 hole with 275 sacks of cement of which xxx sacks was left in casing.

Casing record of well: 13-3/8" cem. 759'; 8-5/8" cem. 4016', W.S.O.; 5-1/2" cem. 3950'-5475', perf. 5395'-5345', 5245'-5220', 5205'-5165', four 1/2" holes 4869', W.S.O., plugged with cement 5480'-5456' and 5417'-5065'

Reported total depth 5480 ft. ~~Bridged~~ Plugged with cement from 5417 ft. to 5065 ft. Cleaned out to 5065 ft. for this test.

~~Casing test data~~:

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

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

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

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

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

WCB:ES

cc Long Beach
Mr C F Bowden

E/G

R. D. BUSH, State Oil and Gas Supervisor

By R. N. Walling, Deputy

16586 10-49 100 PADS SPO

FORM 109-D

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 153-1094

Los Angeles 15 Calif. September 16 1953

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

121

DEAR SIR:

Operations at your well No. "Oil Operators" 2 Sec. 13, T. 4 S, R. 13 W, S B B. & M., Long Beach Field, in Los Angeles County, were witnessed by G C Hazenbush, Inspector, representative of the supervisor, on September 4, 19 53. There was also present A Fowks, Foreman
W Bradford, Well Puller

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

Junk xxx

The operations were performed for the purpose of testing the location and hardness of a cement plug placed from 5417' to 5065', in the process of plugging back.

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

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

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

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

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

GCH:ES

cc Long Beach

Mr C F Bowden Div Eng
Union Oil Co of California
9645 S Santa Fe Springs Rd
Whittier California

R. D. BUSH
State Oil and Gas Supervisor

By R. N. Walling Deputy

82547 7-53 17,850 ② SPO

FORM 111 (1-49)

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

REPORT ON PROPOSED OPERATIONS

No. P 153-1075

Los Angeles 15 Calif. August 25 1953

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

Agent for UNION OIL CO OF CALIFORNIA

DEAR SIR: "Oil Operators"

Your proposal to plug & alter casing Well No. 2,

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

dated Aug. 20 1953, received Aug. 21 1953, has been examined in conjunction with records filed in this office.

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

RECORDS IN ADDITION TO, OR AT VARIANCE WITH, THOSE SHOWN IN THE NOTICE:
The hole is plugged with cement from 5480'-5456'.

THE NOTICE STATES
"The present condition of the well is as follows:
1. Total depth.
4105' Deepen 5480'
2. Complete casing record.
13-3/8" C 759'
8-5/8" C 4016' W.S.O.
~~1141 6-5/8" H 4105' including 90' perforations.~~ Pulled.
1525' 5-1/2" C 5475', splice test O.K.
Bullet perforate 5165-5205, 5220-5245, 5345-5395'.

3. Last produced. June 1953 (Date) 4 B/D (Net Oil) 23.8° (Gravity) 83.0% (Cut)"

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

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

JLW:OH

cc Long Beach

Records Filed
100
101
103 ✓ 10-21-53 JLW
E. Loc.

F/K

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

R. D. BUSH
State Oil and Gas Supervisor

By E. H. Musser Deputy

53076 11-51 25,500 SPO

Blanket bond.

FORM 107. 36140 11-50 10M SPO

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
AUG 21 1953
LOS ANGELES, CALIFORNIA

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

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

Whittier Calif. August 20, 1953 19

DIVISION OF OIL AND GAS

Los Angeles Calif.

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of ~~deepening, redrilling, plugging or~~ altering casing at Well No. Oil Operators #2
(Cross out unnecessary words)

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

Long Beach Field, Los Angeles County.

The present condition of the well is as follows:

1. Total depth.

4105' Deepen 5480'

2. Complete casing record.

13-3/8" C 759'
8-5/8" C 4016' W.S.O.
~~114' 6-5/8" H 4105' including 90' perforations.~~ Pulled.
1525' 5-1/2" C 5475', splice test O.K.
Bullet perforate 5165-5205, 5220-5245, 5345-5395'

3. Last produced. June 1953 (Date) 4 B/D (Net Oil) 23.8° (Gravity) 83.0% (Cut)

The proposed work is as follows:

1. Plug with cement to 5100'.
2. Test for water shut-off at 4869'.
3. Gun perforate interval 4870' to 4945'.
4. Test on production.

Plug + alter casing

MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121
			Blanket		

UNION OIL COMPANY OF CALIFORNIA
(Name of Operator)

By C. F. Bowden
C. F. Bowden, Division Engineer

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

FORM 102.

SUBMIT IN DUPLICATE
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL & GAS
RECEIVED
DEC 10 1941
LOS ANGELES, CALIFORNIA

Subsequent Work Report

OPERATOR UNION OIL COMPANY OF CALIFORNIA FIELD LONG BEACH

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

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

Reference to file of data

Cards | Forms

SIGNED Henry E Winter

Date December 5, 1941

Title DIVISION ENGINEER.
(President, Secretary or Agent)

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

Date	CASING RECORD AT BEGINNING OF WORK	CASING RECORD AT PRESENT
1941	13-3/8" C 759' 8-5/8" C 4016' O.K. 114' of 6-5/8" L 4105' incl 90' perf.	13-3/8" C 759' 8-5/8" C 4016' O.K. 1525' of 5-1/2" C 5475' Gun Perforated 5165-5205' 5220-5245' 5345-5395'

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

6

FORM 102.

SUBMIT IN DUPLICATE
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Subsequent Work Report

OPERATOR UNION OIL COMPANY OF CALIFORNIA FIELD LONG BEACH

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

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

SIGNED Henry E Winter

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

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

Date 1941	DEPTH	EFF. DEPTH	REMARKS
11-4	5480'	Plug 5456'	Cleaned to 5456' (cement from 3945-3970'). Bailed fluid to 3000', stood eight hours. Splice test OK by Division of Oil and Gas. No rise.
11-6	5480'	Plug 5456'	Replaced mud with oil and perforated 5-1/2" casing with Lane-Wells gun, 1/2" holes, as follows 5165-5205', 81 holes 5220-5245', 49 holes 5345-5395', 100 holes
11-7			Ran 5313' 2-1/2" tubing and rods and put on pump. Pumping unit broke after pumping 18 barrels of oil.
11-8			Repairing pumping unit.
11-9			Repairing pumping unit.
11-10			Repairing pumping unit.
11-11			Production - 116 net, 2.5% cut, P 15 hours
11-12			" 88 net, 23.8° gravity, 2.8% cut, P 24 hours
11-22			" 74 net, 25.4° gravity, 4.6% cut, P 24 hours
11-30			" 56 net, 25.4° gravity, 2.4% cut, P 24 hours

November Production - 1,317 barrels in 20 days.

101. 31130 4-36 30M
FORNIA STATE PRINTING OFFICE

16

DIVISION OF OIL & GAS
RECEIVED
JAN 20 1942
LOS ANGELES, CALIFORNIA

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

LOG AND CORE RECORD OF OIL OR GAS WELL

Operator UNION OIL COMPANY OF CALIFORNIA Field LONG BEACH

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

FORMATIONS PENETRATED BY WELL

Henry E Wirth

DEPTH TO Top of Formation	DEPTH TO Bottom of Formation	Thickness	Drilled or Cored	Recovery	DESCRIPTION
4800	4802				Took 0.8 core of oil stained, medium, coarse gray sand with a basket while fishing for pieces of a disc bit.

FORM 109-D.
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 1-40317

Los Angeles, Calif. November 7, 1941

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

DEAR SIR:

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

Casing Record	Junk
13-3/8" cem. 759', 8-5/8" cem. 4016' W. S. O.; 5-1/2" cem. 3950'-5475'. T. D. 5480', plugged with cement 5480'-5456'.	None

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

and the data and conclusions are as follows:

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

1. All of the 6-5/8" casing was pulled out of the hole.
2. A 7-5/8" rotary hole was drilled from 4105' to 5480'.
3. On October 29, 1941, 1525' of 5-1/2" - 15 lb. casing was cemented at 5475' with 275 sacks of Slow Colton cement.
4. The 8-5/8" - 5-1/2" casing splice tested wet.
5. On November 2, 1941, the 8-5/8" - 5-1/2" casing splice was cemented with a Halliburton cementer set at 3911' with 100 sacks of Cement. It was estimated that 84 sacks of cement was forced away under a 1375 lb. final pressure.
6. Cement was drilled out of the 8-5/8" and 5-1/2" casings from 3905' to 3970' (equivalent to 16 sacks) and the casing was cleaned out to 5456'.
7. The fluid in the hole was bailed to 3000' at 10:00 a. m. on November 4, 1941.

THE INSPECTOR NOTED THE FOLLOWING:

1. No fluid entered the well while standing 8 hr. for test.
2. The hole was open to 5456'.

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

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

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

R. D. BUSH
State Oil and Gas Supervisor

By E. H. Musser Deputy

FORM 111.
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Proposed Operations

No. P 1-36864

Los Angeles, Calif. September 15, 1941.

MR. W. S. Eggleston,
Los Angeles, Calif.
Agent for UNION OIL COMPANY OF CALIFORNIA

121

DEAR SIR:

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

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

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

THE NOTICE STATES:

"The present condition of the well is as follows:
Total Depth 4105
13-3/8 cmtd. 759
8-5/8 cmtd. 4016 O.K.
114- 6-5/8 landed 4105 inc. 90 perforated.
It is desired to deepen to the R S & T Zones
Last Production August, 1941 - 1481 oil - 29224 water - 31 days."

PROPOSAL:

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

DECISION:

THE PROPOSAL IS APPROVED PROVIDED THAT:

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

cc- H. E. Winter
Long Beach
ABH:OH
R lat

R. D. BUSH
State Oil and Gas Supervisor

By E. H. Meusser Deputy

FORM 107. 42649 3-37 10M
CALIFORNIA STATE PRINTING OFFICE

DIVISION OF OIL & GAS
RECEIVED
SEP 12 1941
LOS ANGELES, CALIFORNIA

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

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

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

Santa Fe Springs, Calif. September 11, 1941

DIVISION OF OIL AND GAS

Los Angeles, Calif.

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

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

Long Beach Field, Los Angeles County.

The present condition of the well is as follows:

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

It is desired to deepen to the R S & T Zones
Last Production August, 1941 - 1481 oil - 29224 water - 31 days

The proposed work is as follows:

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

Deepen

Union Oil Company of California
(Name of Operator)

By Henry E Winter
Division Engineer

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

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

No. 2792

DIVISION OF OIL AND GAS

LOS ANGELES

Calif. 1/13 1938

Union Oil Co of Calif.
Name of Operator

LOS ANGELES

Address

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

Logs

History

Core record

Subsequent work Elec Log - Oil Operators 2 - 12/11/37

R. D. BUSH, *State Oil and Gas Supervisor*

DUPLICATE

By [signature] *Deputy*

FORM 127. 46818 7-37 3M

CALIFORNIA STATE PRINTING OFFICE

FORM 103.
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
JAN 14 1938
LOS ANGELES, CALIFORNIA

History of Oil or Gas Well

OPERATOR UNION OIL COMPANY OF CALIFORNIA FIELD LONG BEACH

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

Signed Henry C Winter

Date Jan. 11, 1938 Title District Engineer
(President, Secretary or Agent)

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

Date

CASING RECORD AT START OF WORK:

New well

CASING RECORD AT END OF WORK:

13-3/8" C 759'
8-5/8" C 4016'
114' 6-5/8" L 4105', inc 90' perf.

Copy to file of data
Section | Cards | 114 | 121

1937	Depth	Remarks
11-13	78	Spudded in and drilled with 17" rotary bit.
11-17	761	Drilled with 17" rotary bits to 761'. Cemented new 13-3/8" 45.97# National seamless slipjoint casing at 759' with 350 sx Monolith Velo cement. Cementing operations witnessed and approved by Stolz, of Division of Oil & Gas.
11-19	1070	Found top of cement at 747'. Cleaned out cement and plugs and drilled ahead with 12-1/4" bits.
12-2	3859	Drilled with 12-1/4" bits to 3859'. Ran Schlumberger Survey.
12-5	4034	Drilled with 12-1/4" bits to 3965' and cored with 7-5/8" core barrels to 4034'. Ran Schlumberger Survey. Reamed out core hole with 12-1/4" bit to 4016'. Cemented 8-5/8" 32# Grade "C" (1963' of 36# Grade "C" on bottom) 8-thread rounded seamless casing at 4016' with 400 sx cement (200 sx Victor oil well and 200 sx Victor construction).
12-10	4075	Found top of cement at 3989. Drilled out cement and plugs to 4016 and cleaned out to 4021. Water shut off test on 8-5/8" casing at 4016 witnessed and approved by Stolz, of Division of Oil & Gas. Drilled and cored to 4075'.
12-12	-4105	Cored to 4105. Ran Schlumberger Survey. Landed 114' of 6-5/8" 26# Grade "C" casing at 4105', including 90' of 16-2-6 120-mesh Kobe perforated on bottom. Bailed to 1200' and well started flowing by heads.
12-14	4105	Bailed hole clean of mud and sand. Landed 3" upset tubing at 3649'. Ran rods and installed pumping unit. Put well on pump 5:00 P.M. 12-14-37.

FORM 103.
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR UNION OIL COMPANY OF CALIFORNIA FIELD LONG BEACH

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

Signed Henry E Winter

Date Jan. 11, 1938 Title District Engineer
(President, Secretary or Agent)

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

Date

PRODUCTION TEST DATA:

1937	Gross	Net	Grav.	Cut	Status	Bean	T.P.	C.P.	Remarks
12-14	391	203	23.8	48.0	P 10				On pump 5:00 P.M.
12-15	869	854	"	1.7	P 24				
12-16	873	862	"	1.3	"				
12-17	1757	1625	"	7.5	"				Well started to flow in morning.
12-18	0								Sanded up. Killed well. Rigged up to pull.
12-19									Pulled rods and tubing. Ran bailer and found hole open to bottom (4105) Landed 3" upset tubing at 3935.
	355	220	23.8	38.0	F 6	36/64"	260	275	
12-20	1482	1402	"	5.4	F 24	"	330	680	Well started flowing without swabbin
12-21	1129	1109	"	1.8	F 24	"	"	650	
12-22	984	974	"	1.0	"	"	320	600	
12-23	968	958	"	"	"	"	300	510	
12-24	1053	1042	"	"	"	57/64	125	400	
12-25	1117	1101	"	1.4	"	1½"	50	275	No daily gas
12-26	1093	1082	"	1.0	"	1½ & 1½	40	275	
12-27	1027	1015	"	1.2	"	"	35	260	Dec gas 18,573 MCF
12-28	979	966	"	1.3	"	"	35	260	
12-29	973	963	"	1.0	"	"	25	260	
12-30	963	955	"	0.8	"	"	25	260	
12-31	938	929	"	1.0	"	"	25	270	

...RNIA STATE PRINTING OFFICE

SUBMIT LOG IN DUPLICATE

FILL TH NK IN WITH TYPEWRITER. WRITE ON ONE SIDE OF PAF LY

DIVISION OF OIL AND GAS
RECEIVED
JAN 14 1938
LOS ANGELES, CALIFORNIA

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Sun Oil Co. LOG OF OIL OR GAS WELL

Operator Union Oil Company of California Field Long Beach

Well No. Oil Operators 2 NWLBO #8-2 Sec. 13, T. 4-S, R. 13-W, S.B. B. & M.

Location 523' W'ly along the center line of Bixby Road projected from the center of the Pacific Electric Railway Right of Way and thence 45' S'ly at 90° Elevation 56.97

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

Date Jan. 11, 1938 Signed Henry E Winter

Title District Engineer

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

Commenced drilling Nov. 13, 1937 Completed drilling Dec. 14, 1937 Drilling tools ~~Cable~~ Rotary

Total depth 4105 Plugged depth

Junk

Reference to file of data
Maps | Model | Cross Section | Cards | Forms 114 | 121

GEOLOGICAL MARKERS	DEPTH
Wilbur shale	3597-3662
Alamitos shale	3795-3860
"H"	3982
"I"	4017

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

	Clean Oil bbl. per day	Gravity Clean Oil	Per Cent Water including emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pressure
Initial production	854	23.8	1.7			
Production after ~~30~~ 17 days	929	23.8	1.0		25	270

Casing Record (Present Hole)

Size of Casing (A. P. I.)	Depth of Shoe	Top of Casing	Weight of Casing	New or Second Hand	Seamless or Lapweld	Grade of Casing	Size of Hole Casing landed in	Number of Sacks of Cement	Depth of Cementing if through perforations
13-3/8	759	Surface	45.97#	New	Smls.	"C"	17"	350	
8-5/8	4016	Surface	32# & 36#	New	Smls	"C"	12-1/4"	400	
6-5/8	4105	3991	26#	New	Smls	"C"	7-5/8"	-	

Perforations

Size of Casing	From	To	Size of Perforations	Number of Rows	Distance Between Centers	Method of Perforations
6-5/8	4015 ft.	4105 ft.	120 mesh	16	6	Kobe
	ft.	ft.				
	ft.	ft.				
	ft.	ft.				
	ft.	ft.				

Electrical Log Depths Schlumberger from 759 to 4104. (Attach Copy of Log)

FORM 101.
CALIFORNIA STATE PRINTING OFFICE

DIVISION OF OIL AND GAS
RECEIVED
JAN 14 1938
LOS ANGELES, CALIFORNIA

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

LOG AND CORE RECORD OF OIL OR GAS WELL

Operator UNION OIL COMPANY OF CALIFORNIA Field LONG BEACH

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

FORMATIONS PENETRATED BY WELL

Henry E Winter

DEPTH TO Top of Formation	DEPTH TO Bottom of Formation	Thickness	Drilled or Cored	Recovery	DESCRIPTION
0	708	708			Sand and gravel
708	770	62			Shale
770	1171	401			Sand and streaks of shale
1171	1215	44			Shale and streaks of sand
1215	1255	40			Sand and streaks of shale
1255	1277	22			Shale
1277	1425	148			Sand and streaks of shale
1425	1451	26			Shale
1451	1535	84			Sand and streaks of shale
1535	1560	25			Shale
1560	2017	457			Sand and streaks of shale
2017	2044	27			Shale
2044	2153	109			Sand and streaks of shale
2153	2170	17			Shale
2170	2235	65			Sand and streaks of shale
2235	2420	185			Shale and streaks of sand
2420	2526	106			Shale
2526	2877	351			Shale and streaks of sand
2877	2941	64			Shale
2941	2975	34			Shale and streaks of sand
2975	2978	3			Shell
2978	3075	97			Sand and streaks of shale
3075	3105	30			Shale
3105	3245	140			Sand and streaks of shale
3245	3247	2			Shell
3247	3336	89			Sand and streaks of shale
3336	3388	52			Shale and streaks of sand
3388	3390	2			Shell
3390	3480	90			Shale and streaks of sand
3480	3710	230			Sand and streaks of shale
3710	3713	3			Shell
3713	3798	85			Sand and streaks of shale
3798	3896	98			Shale and streaks of sand
3896	3899	3			Shell
3899	3983	84			Sand and shells (See core record)
3983	4101	18			Shale and streaks of sand (See core record)
4101	4105	4			Hard sand

3

FORM 101. 31130 4-36 30M
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

LOG AND CORE RECORD OF OIL OR GAS WELL

Operator UNION OIL COMPANY OF CALIFORNIA Field LONG BEACH

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

FORMATIONS PENETRATED BY WELL

Henry E Winter

DEPTH TO Top of Formation	DEPTH TO Bottom of Formation	Thickness	Drilled or Cored	Recovery	DESCRIPTION
4105	4558	453	Drilled		Shale and sand
4558	4659	101	"		Sand and shale
4659	4749	90	"		Sand and hard shale
4749	4825	76	"		Shale (Note:- see supplementary sheet rec'd. 1/20/42 for core
4825	4853	28	"		Sand and shale taken between 4800-4802 Epina
4853	4957	104	"		Sand
4957	5000	43	"		Shale
5000	5297	297	"		Sand
5297	5360	63	"		Shale
5360	5385	25	"		Sand
5385	5404	19	"		Shale
5404	5471	67	"		Sand
5471	5480	9	"		Shale
					No cores taken.

8A 11-37 8M

UNION OIL COMPANY OF CALIFORNIA

CORE RECORD

DIVISION OF OIL AND GAS
RECEIVED
JAN 14 1938
LOS ANGELES, CALIFORNIA

FIELD: Long Beach | COMPANY: Union Oil | LEASE: Oil Operators | WELL: #2
LOCATION: | ELEVATION: 56.97

Henry E Winter

DATE 1937	CORE NO.	DRILLER SIZE & TYPE BARREL	FROM	TO	TOTAL RECRY.	SHALE	OIL SAND	GRAY SAND	SHELL	DESCRIPTION OF CORE	APPT. DIP	ANGLE OF HOLE
12-3	1	7-5/8" Soll	3965	3983	12.0			12.0		Firm to hard, fine to medium gray sand. Streak of brown shale 4.3 from top. Dip 25°		
12-4	2	7-5/8 Soll	3983	4001	13.0	6.9				Hard dark brown shale, sandy in spots Dip 16°. Fractures of 35° and 37°		
							0.9			Soft fine brown oil sand. Good odor		
						1.4				Hard dark brown shale. Top 0.2 badly fractured		
							0.7			Firm, soft, medium brown oil sand. Shale partings in top 0.2		
						0.2				Hard dark brown shale. Fracture of 43°		
							2.8			Firm soft fine to medium brown oil sand		
						0.1				Hard dark brown shale		
						8.6	4.4					
12-4	3	7-5/8" Soll	4001	4019	16.5	0.8				Hard dark brown shale		
							0.3			Soft fine brown oil sand		
						4.3				Hard dark brown silty shale, inclusions of fine brown oil sand in bottom 0.7		
							0.5			Firm soft fine brown oil sand		
						0.2				Hard dark brown sandy shale		
							0.6			Firm soft fine brown oil sand		
						0.4				Hard dark brown shale		
						0.1	0.4			Firm to hard fine brown oil sand with streaks and inclusions of hard brown shale		
							0.5			Firm soft fine brown oil sand		
						0.4				Hard dark brown shale		
							0.3			Firm soft fine brown oil sand		
						7.8				Hard dark brown shale, sandy in spots Streaks of fine brown oil sand 2.1 from bottom. Dip 15°		
						14.0	2.5					
12-4	4	7-5/8" Soll	4019	4034	14.1		0.9			Firm fine brown oil sand with inclusions of hard brown shale. Good odor and dark amber cut		
						0.2				Hard dark brown shale		
							5.2			Firm, soft, fine to medium brown oil sand. Good odor and dark amber cut		
							1.3			Firm soft coarse brown oil sand		
							0.4			Firm soft fine brown oil sand		
						0.2				Hard dark brown shale		
							3.1			Firm soft medium to coarse brown oil sand. Good odor and dark amber cut		
							2.8			Firm soft fine to medium brown oil sand. Good odor and dark amber cut		
						0.4	13.7					

BA 11-37 8M

UNION OIL COMPANY OF CALIFORNIA

CORE RECORD

Long Beach FIELD Union Oil COMPANY Oil Operators LEASE 2 WELL

LOCATION ELEVATION

DATE 1937	CORE NO.	DRILLER SIZE & TYPE BARREL	FROM	TO	TOTAL RECRY.	SHALE	OIL SAND	GRAY SAND	SHELL	DESCRIPTION OF CORE	APPT. DIP	ANGLE OF HOLE
			4034	4060						Drilled interval Henry E. Winter		
12-10	5	7-5/8" Soll	4060	4075	8.1		0.7			Firm soft fine to medium brown oil sand		
									0.2	Hard calcareous sandstone shell		
						0.1				Hard dark brown shale		
							3.0			Firm soft, medium brown oil sand. Good odor and dark amber cut		
						0.2				Hard dark brown shale		
							1.6			Firm soft fine brown oil sand laminated with mud		
						0.1				Hard dark brown shale		
							0.3			Firm soft fine dark brown argillaceous oil sand. Partings of dark brown shale		
						1.0				Hard dark brown shale with streaks of fine brown oil sand		
						0.3				Hard grayish-brown bentonitic shale laminated with fine brown oil sand		
						0.2				Hard dark brown shale		
							0.1			Fine grayish-brown oil sand. Light amber cut		
						0.3				Shale with streaks of oil sand. Broken and badly burnt		
						2.2	5.7		0.2			
12-11	6-	7-5/8 Soll	4075	4088	11.2		0.1			Firm soft fine brown oil sand		
						7.7	0.5			Hard brown silty shale with inclusions of fine gray sand. Streaks of fine brown oil sand. Fracture of 25° & 29°		
							0.2			Firm soft fine brown oil sand. Good odor and dark amber cut		
						0.2				Hard dark brown sandy shale		
							0.3			Firm soft fine brown oil sand		
						0.2				Hard dark brown sandy shale		
									0.5	Hard slightly calcareous shale shell		
						0.4	0.1			Hard dark brown sandy shale with streaks of fine brown oil sand		
							0.2			Firm soft fine dark brown argillaceous oil sand		
						0.7	0.1			Hard dark brown sandy shale with streaks of fine brown oil sand. Fracture of 24°		
						9.2	1.5		0.5			

8A 11-37 8M

15

UNION OIL COMPANY OF CALIFORNIA

CORE RECORD

Long Beach FIELD Union Oil . COMPANY Oil Operators LEASE 2 WELL

LOCATION 58.97 ELEVATION

DATE 1937	CORE NO.	DRILLER SIZE & TYPE BARREL	FROM	TO	TOTAL RECRY.	SHALE	OIL SAND	GRAY SAND	SHELL	DESCRIPTION OF CORE	APPT. DIP	ANGLE OF HOLE
										Henry E Winter		
12-11	7	7-5/8" Soll	4088	4105	14.4	0.1				Hard dark brown sandy shale		
									0.3	Hard, slightly calcareous, sandy shale shell		
						0.3				Hard brown sandy shale		
							5.2			Firm soft fine to medium brown oil sand Good odor and dark greenish-brown cut		
						0.4	0.1			Hard sandy brown shale with streaks of fine brown oil sand		
							0.4			Firm fine dark brown argillaceous oil sand		
						0.2				Hard dark brown sandy shale		
							0.3			Firm soft fine brown oil sand		
						0.3				Hard brown sandy shale		
							0.4			Firm soft fine brown oil sand		
						0.1				Hard brown silty shale		
							0.5			Firm soft, fine dark brown oil sand. Good odor and dark greenish-brown cut Dip 15°		
						0.7				Hard dark brown silty shale		
							0.7			Soft, loose, fine brown oil sand		
						0.7				Hard dark brown broken shale		
						0.1	0.8			Soft loose, fine to medium brown oil sand with streaks and inclusions of brown shale		
						0.1	0.5			Firm medium brown oil sand with streak of brown shale		
						0.3				Hard brown sandy shale		
							1.0			Firm soft fine to medium brown oil sand Good odor and dark greenish-brown cut Dip 16°		
						0.7	0.2			Hard dark brown silty shale with streak of fine brown oil sand		
						4.0	10.1		0.3			
										Total depth 4105 ft.		

FORM 109-B. 46392 7-37 8750.
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Test of Water Shut-off

No. T 1-33546

Los Angeles, Calif. December 27, 19 37.

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

Agent for UNION OIL COMPANY OF CALIFORNIA

DEAR SIR:

Your well No. "OIL OPERATORS" 2, Sec. 13, T. 4 S., R. 13 W., S.B. B. & M., Long Beach Field, in Los Angeles County, was tested for shut-off of water on December 10 (Time and date), 19 37. Mr F. C. Stels, designated by the supervisor, was present as prescribed in Section 19, Chapter 718, Statutes 1915, as amended, and there were also present R. W. Rampton, Engineer, and J. Kewish, Toolpusher.

Location of water tested above 4016' and normal fluid level not determined.

Depth and manner of water shut-off: 2053 ft. of 8-5/8 in. 32 lb. / 1963 ft. of 8-5/8 in. 36 lb. casing was cemented 12-5-37 ~~landed~~ in shale (Formation) at 4016 ft. with 400 sacks Victor oil well and construction cement by casing method.

Water string was landed in 12¼" rotary (Size, rotary or cable tool) hole.

Casing record of well 13-3/8" cem. 759'; 8-5/8" as above.

Reported total depth of hole 4034 ft. Hole bridged from xx ft. to xx ft. Hole cleaned out to 4021 ft. for this test.

At time of test depth of hole measured See below ft. and bailer brought up sample of xxxxx

At See below (Time and date) oil bailed to xxxx ft., drilling fluid {bailed / swabbed} to xxx ft.

At " " (Time and date) top of oil found at xxxx ft., top of fluid found at xxxx ft.

THE INSPECTOR ARRIVED AT THE WELL AT 9:15 A. M. AND MR. RAMPTON REPORTED THE FOLLOWING:

1. No casing test was made.
2. 27' of set cement was drilled out of the 8-5/8" casing (equivalent to 8 sacks).
3. The Johnston tester was run into the hole on 4" drill pipe.
4. The wall packer was set at 4005'.
5. The tester valve was opened at 8:51 a. m. and remained open for 33 minutes. During this interval there was a medium air blow for 4 minutes, a gas blow by heads for 15 minutes and a light blow for the remaining 11 minutes.

THE INSPECTOR NOTED THE FOLLOWING:

1. When the drill pipe was removed 40' of medium drilling fluid and 1890' of oil and gas was found in the drill pipe above the tester, equivalent to 0.6 and 27.0 bbl.
2. The recording pressure bomb chart showed that the tester valve was open for 33 minutes.

The test was completed at 11:40 a. m.

THE SHUT-OFF IS APPROVED.

R. D. BUSH
State Oil and Gas Supervisor

By E. Hugenbum Deputy

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

629 South Hill Street
Los Angeles, California
November 24, 1937.

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

Gentlemen: Attention Mr. Henry E. Winter.

This will acknowledge receipt of and thank you for your letter dated November 22, 1937, giving the correct elevation and location of your well No. "Oil Operators" 2, Sec. 13, T. 4 S., R. 13 W., S. B. B. & M., Long Beach field, as follows:

Elevation: 56.97' U. S. G. S.

Location: 523 ft. westerly along the center line of Bixby Road projected from the center line of the Pacific Electric Railway Right of Way and thence 45 ft. Southerly at 90°.

Our records have been corrected accordingly.

Yours truly,

Deputy Supervisor.

B:EMS

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

Corrections Made as Follows		By
Well Summaries		
12		
Elev. and Loc. Cards		
Production Reports		
Well Records: Folders		
Well Records: Reports		
Peg Models		
Graphics	20	CHB
Field Maps		

Book
CHB
11/24/37

FORM 401 9-36 70M
PRINTED IN U. S. A.

Union Oil Company of California

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

DIVISION OF OIL AND GAS
RECEIVED
NOV 24 1937
LOS ANGELES, CALIFORNIA

Santa Fe Springs, Calif. Nov. 22, 1937

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

RE: Oil Operators #2

Dear Sir:

The elevation of the Union Oil Company well "Oil Operators #2" at Long Beach (Sec. 13, 4S, 13W) is 56.97 U.S.G.S.

The corrected location is as follows:

523 ft. Westerly along the center line of Bixby Road projected from the center line of the Pacific Electric Railway Right of Way and thence 45 ft. Southerly at 90°

Our records have been corrected accordingly.

Very truly yours,
Henry E Winter
District Engineer.

HEW:S

FORM 109-D. 47172 7-37 15M
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 1-33385

Los Angeles, Calif. November 22, 1937

Mr. Ed Jussen, Jr.,

Los Angeles, Calif.

121

Agent for UNION OIL COMPANY OF CALIFORNIA

DEAR SIR:

Operations at your well No. "OIL OPERATORS" 2 Sec. 13, T. 4S., R. 13W., S. B. B. & M., Long Beach Field, in Los Angeles County, were witnessed by F. C. Stolz, representative of the supervisor, on November 17, 1937. There was also present H. E. Winter, Engineer, and J. Kewish, Drilling Foreman.

Casing Record	Junk
13-3/8" cem. 759'. T. D. 761'.	--

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

and the data and conclusions are as follows:

THE INSPECTOR ARRIVED AT THE WELL AT 3:00 P. M. AND MR. WINTER REPORTED THE FOLLOWING:

1. A 17" rotary hole was drilled from the surface to 761'.
2. 766' of 13-3/8" - 45.97 lb. casing was run into the hole to 759'.

THE INSPECTOR NOTED THE FOLLOWING:

1. The 13-3/8" casing was cemented at the reported depth of 759' with 350 sacks of Monolith Velo cement.
2. The cement was displaced with 674 cubic feet of mud fluid.
3. The final pressure was 500 lb.

The operations were completed at 4:15 p. m.

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

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

E.J.

R. D. BUSH
State Oil and Gas Supervisor

By E. Hugelmire Deputy

FORM 111. 46011 6-37 20M.
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Proposed Operations

No. P 1-31536

Los Angeles, Calif. November 4, 1937.

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

Agent for UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

Your proposal to drill Well No. "OIL OPERATORS" 2,
Section 13, T. 4 S., R. 13 W., S.B. B. & M., Long Beach Field, Los Angeles County,
dated Oct. 28, 1937, received Oct. 29, 1937, has been examined in conjunction with records filed in this office.

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

THE NOTICE STATES:

"The well is ~~580' W'ly along center line of San Antonio from the center line of Del Mar and thence 115' N'ly at right angles~~ ----------
The elevation of the derrick floor above sea level 56.97 ~~will be determined later (Approx. 55')~~
We estimate that the first productive oil or gas sand should be encountered at a depth of about 4000 feet, more or less."

PROPOSAL:

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

Size of Casing	Weight	New or Second Hand	Depth	Landed or Cemented
13-3/8	46	New	700'	Cmtd.
8-5/8	36	New	4000	Cmtd.
6-5/8 Perforated liner		New	4100	Landed

Well is to be drilled with rotary tools.

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

DECISION:

THE PROPOSAL IS APPROVED PROVIDED THAT:

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

* 523 ft. westerly along the center line of Bixby Road projected from the center line of the Pacific Electric Railway Right of Way and thence 45 ft. southerly at 90°. (Correction letter 11-24-37)

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

R. D. BUSH
State Oil and Gas Supervisor

By [signature] Deputy

FORM 105. 24758 9-35 10M
CALIFORNIA STATE PRINTING OFFICE

DIVISION OF OIL AND GAS
RECEIVED
OCT 29 1937
LOS ANGELES, CALIFORNIA

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Notice of Intention to Drill New Well

This notice must be given before drilling begins

037-09793

General Exploration Co. Santa Fe Springs Cal. Oct. 28, 1937

Mr. E. Huguenin,

Deputy State Oil and Gas Supervisor

Los Angeles, Cal. P1-31536

Dear Sir:

In compliance with Section 17, Chapter 718, Statutes of 1915, as amended, notice is hereby given that it is our intention to commence the work of drilling well No. "Oil Operators" #2, Sec. 13, T. 4-S, R. 13-W, S.B. B. & M., Long Beach Oil Field Los Angeles County. CLB

Lease consists of 523 ft. westerly along the center line of Bixby Road projected from the center line of the Pacific Electric Railway Right of Way and thence

The well is 580' W'ly along center line of San Antonio from the center line of Del Mar and thence 115' N'ly at right angles feet N. or S., and feet E. or W. from
(Give location in distance from section corners or other corners of legal subdivision)

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

45 ft. southerly at 90°. Correction letter 11-24-37

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

Size of Casing, Inches	Weight, Lb. Per Foot	New or Second Hand	Depth	Landed or Cemented
13-3/8	46	New	700'	Cmtd.
8-5/8	36	New	4000	Cmtd.
6-5/8 Perforated liner		New	4100	Landed

Well is to be drilled with rotary ~~xxxx~~ tools.

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

We estimate that the first productive oil or gas sand should be encountered at a depth of about 4000 feet, more or less.

Respectfully yours

Address Santa Fe Springs, Calif.

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

Telephone number Whittier 426-87

By Henry E Winter
District Engineer

Reference to file of data

Map	Cross Section	Grade	Forms	
Wildcat-Topog-#54 Wall.				
S.H.R			✓	✓

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

Wildcat Book
CLB
10/29/37

SCHLUMBERGER ELECTRICAL LOGS

RUN No. [illegible]

Union Oil Co.

Oil Operators [illegible]

LOG [illegible]

COMPANY : UNION OIL CO. DATE : 12/2/37

FIELD : Long Beach LOCATION :

WELL : Oil Operators #2 ELEVATION ft.

Casing shoe depth:	Driller	759 ft.	Started run	10:00 p.m.
	Schlumberger	ft.	Finished run	12:45 a.m.
Bottom Depth:	Driller	3859 ft.	Time well occupied by outfit	2 h.
Max. depth reached by lower elect		[illegible] ft.	Time waiting at well	none h.
Max. footage measured (p or S. P.)		[illegible] ft.	Mileage incurred by run	15 M.
Footage missed		[illegible] ft.	Total time incurred by run	[illegible] h.

MUD CHARACTERISTICS

NATURE : Natural VISCOSITY : LEVEL :

DENSITY : 75 RESISTIVITY : [illegible]

DIAMETER OF HOLE

12½"

REMARKS

Device: 20"

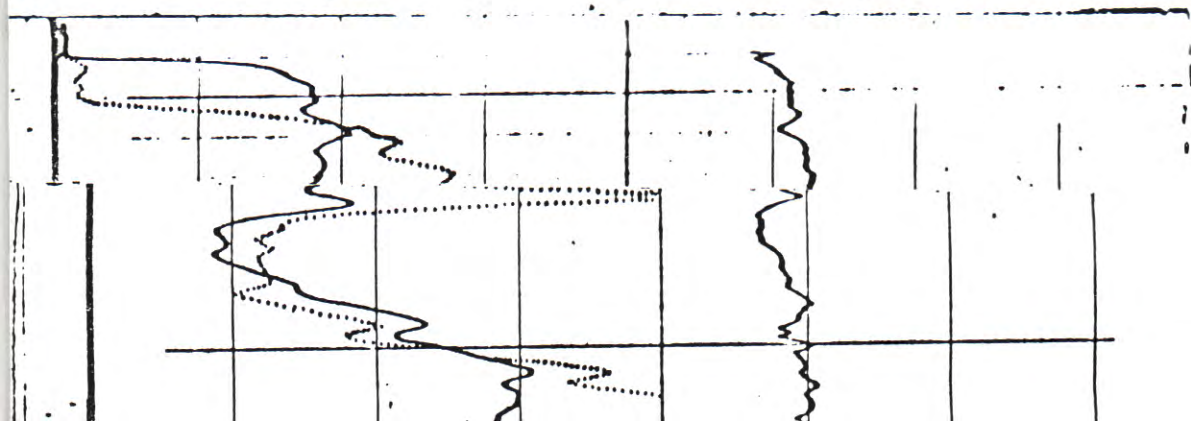
8 - 2

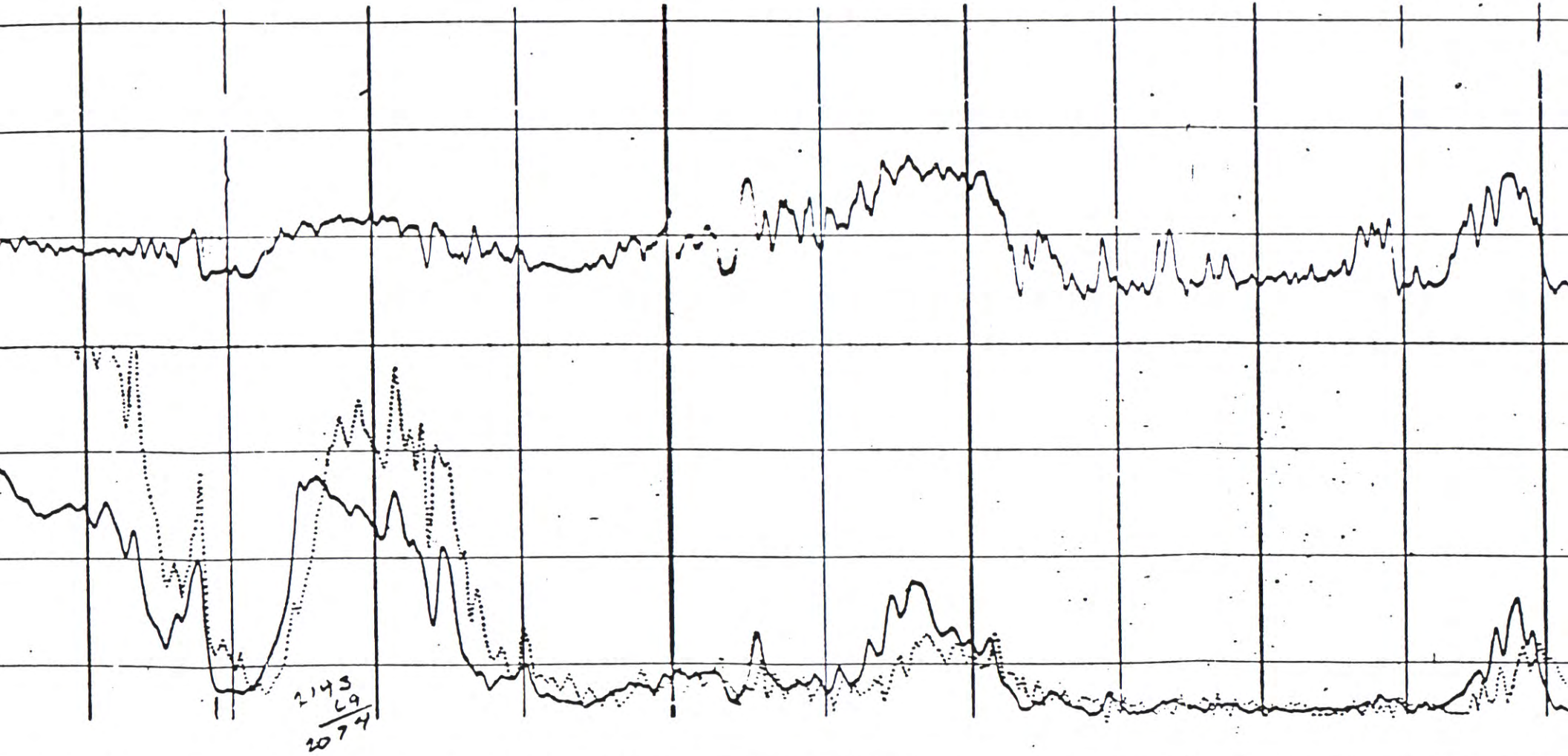
Witnessed By : Mr. Winter

OBSERVERS : [illegible]

EPTH	RESISTIVITY LOG ohms. m²m	POROSITY LOG millivolts

0 15 30 ----------150 Mv.---------





2100 2200 2300 2400 2500 2600

2100

M. O. JOHNSTON OIL FI

DATE. 12-10-37

COMPANY. Union Oil Co

WELL. Oil Operator #2

LOCATION. Long Beach

PACKER SET AT. 4005'

HOLE OPEN TO. 4021'

RECORDER NO. L-12536

CAPACITY. 5000

CALIBRATED. 11-19-37.

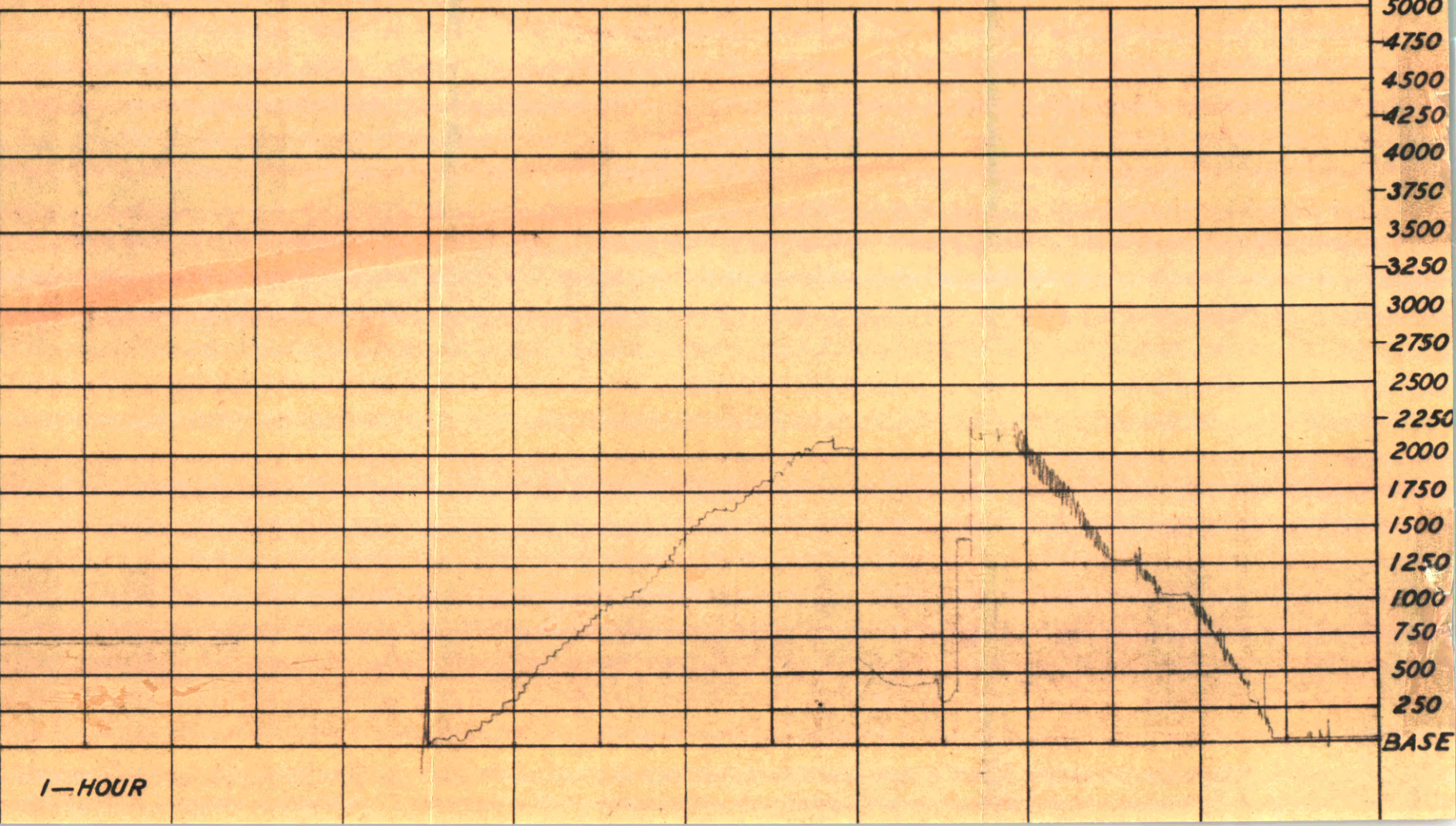
TEMPERATURE. 140°

FLUID RISE. 1885'

FLOW PERIOD. 33 Min.

TICKET NO. 8617

ELD SERVICE CORPORATION.



L.A.

SC[illegible]S

Pacific Energy Resources Ltd.

~~"Oil Operators" 2~~

NWLBU 8-2

Sec. 13-4S-13W.

LONG BEACH

COM[illegible] 937

FIEL[illegible]

WELL : [illegible] Operators #2 ELEVATION : ft.

RUN No. C. 4-373 Oil Operators #2 Union Oil Co. W. LONG BEACH

Casing shoe depth:	Driller	4016 ft.	Started run	9:00 a.m.
	Schlumberger	ft.	Finished run	11:00 a.m.
Bottom Depth:	Driller	4105 ft.	Time well occupied by outfit	2 h.
Max. depth reached by lower elect		4104 ft.	Time waiting at well	-- h.
Max. footage measured (p or S. P.)		72 ft.	Mileage incurred by run	10 M.
Footage missed		1 ft.	Total time incurred by run	3 h.

MUD CHARACTERISTICS

NATURE : natural VISCOSITY : no sample LEVEL :

DENSITY : 72 RESISTIVITY : no sample

DIAMETER OF HOLE

7-5/8"

1- 275

REMARKS

Device: 20"

Cross Section	Cards	Forms 114	Forms 121
			✓

SCHLUMBERGER ELECTRICAL LOGS

COMPANY : UNION OIL CO. DATE : 12/4/37

FIELD : W. Long Beach LOCATION :

WELL : Oil Operators #2 ELEVATION : ft.

RUN No. C-4-330 Oil Operator #2 Union Oil Co. W. LONG BEACH

Casing shoe depth:	Driller	759 ft.	Started run	4:15 p.m.
	Schlumberger	ft.	Finished run	5:45 p.m.
Bottom Depth:	Driller	4034 ft.	Time well occupied by outfit	1½ h.
Max. depth reached by lower elect		4032 ft.	Time waiting at well	none h.
Max. footage measured (p or S. P.)		173 ft.	Mileage incurred by run	15 M.
Footage missed		2 ft.	Total time incurred by run	3 h.

MUD CHARACTERISTICS

NATURE : Natural VISCOSITY : 24 LEVEL :

DENSITY : 75 RESISTIVITY : 3.4

DIAMETER OF HOLE

12¼"--3965 7-5/8"--below

REMARKS

Device: 20"

6

SCHLUMBERGER ELECTRICAL LOGS

LONG BEACH
Union Oil Co.
Oil Operators #2
RUN No. C-4-323

COMPANY : UNION OIL CO. DATE 12/2/37

FIELD : Long Beach LOCATION :

WELL : Oil Operators #2 ELEVATION : ft.

Casing shoe depth:	Driller	759 ft.	Started run	10:00 p.m.
	Schlumberger	ft.	Finished run	12:45 a.m.
Bottom Depth:	Driller	3859 ft.	Time well occupied by outfit	2¾ h.
Max. depth reached by lower elect		3857 ft.	Time waiting at well	none h.
Max. footage measured (p or S. P.)		3098 ft.	Mileage incurred by run	15 M.
Footage missed		2 ft.	Total time incurred by run	3½ h.

MUD CHARACTERISTICS

NATURE : Natural VISCOSITY : LEVEL :

DENSITY : 75 RESISTIVITY : 6.8

DIAMETER OF HOLE

12¼"

REMARKS

Device: 20"

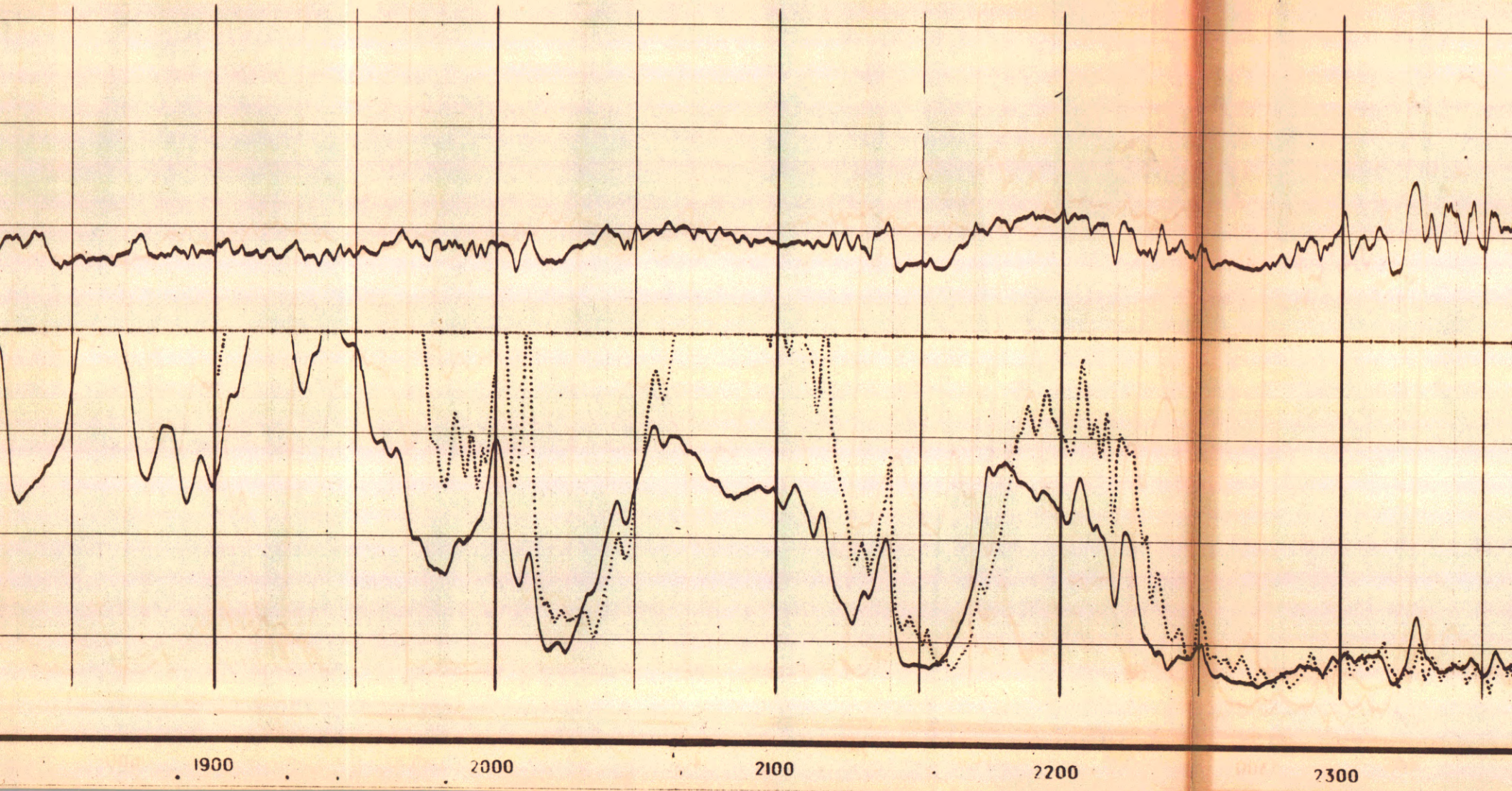
Witnessed By : Mr. Winter

OBSERVERS : F. PEHOUSHEK

DEPTH	RESISTIVITY LOG ohms. m²m	POROSITY LOG millivolts
0	15 30	----------150 Mv.

800
900
1000
1100
1200
P_T 3431

1300
1400
1500
1600
1700
1800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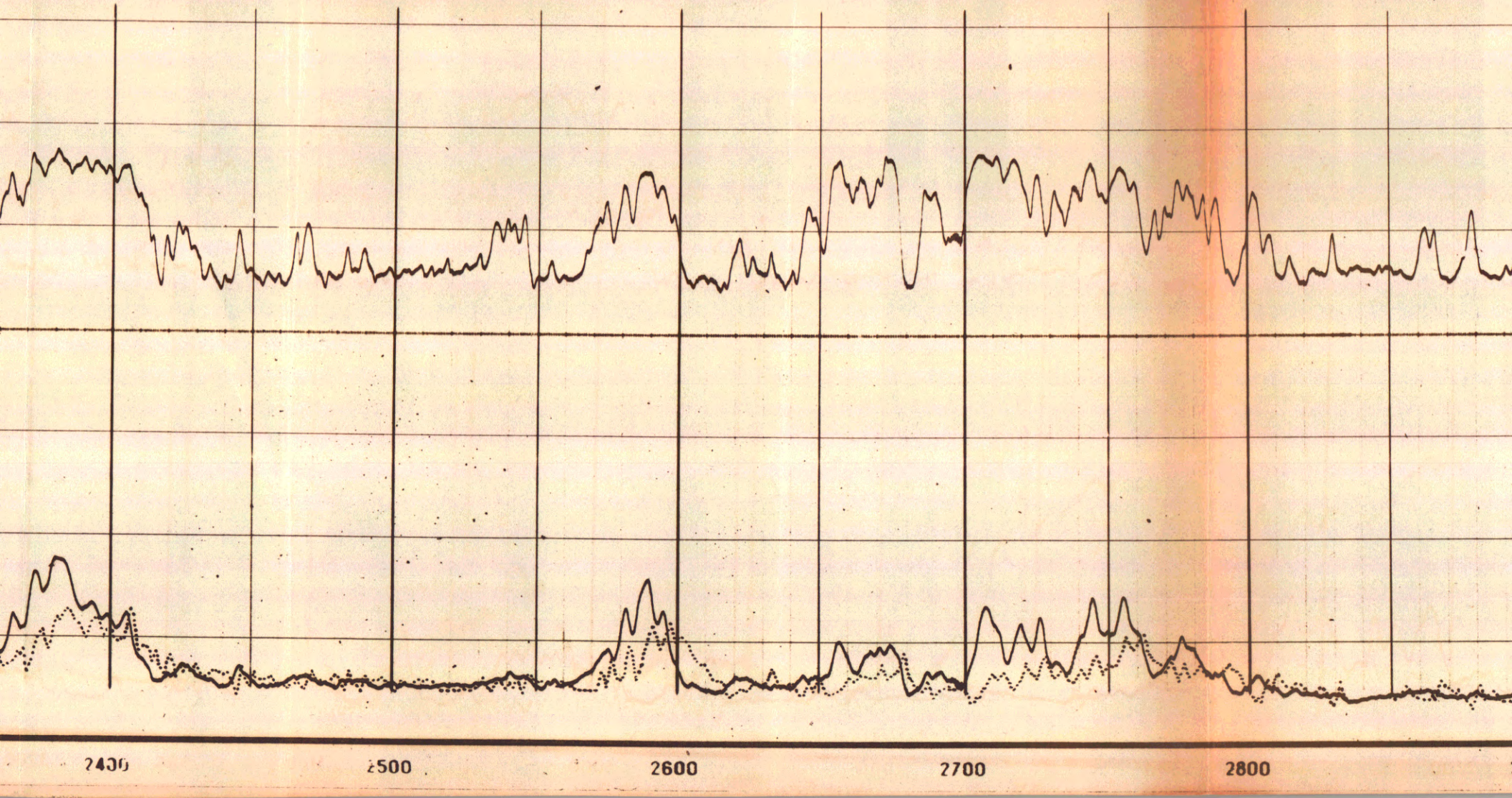
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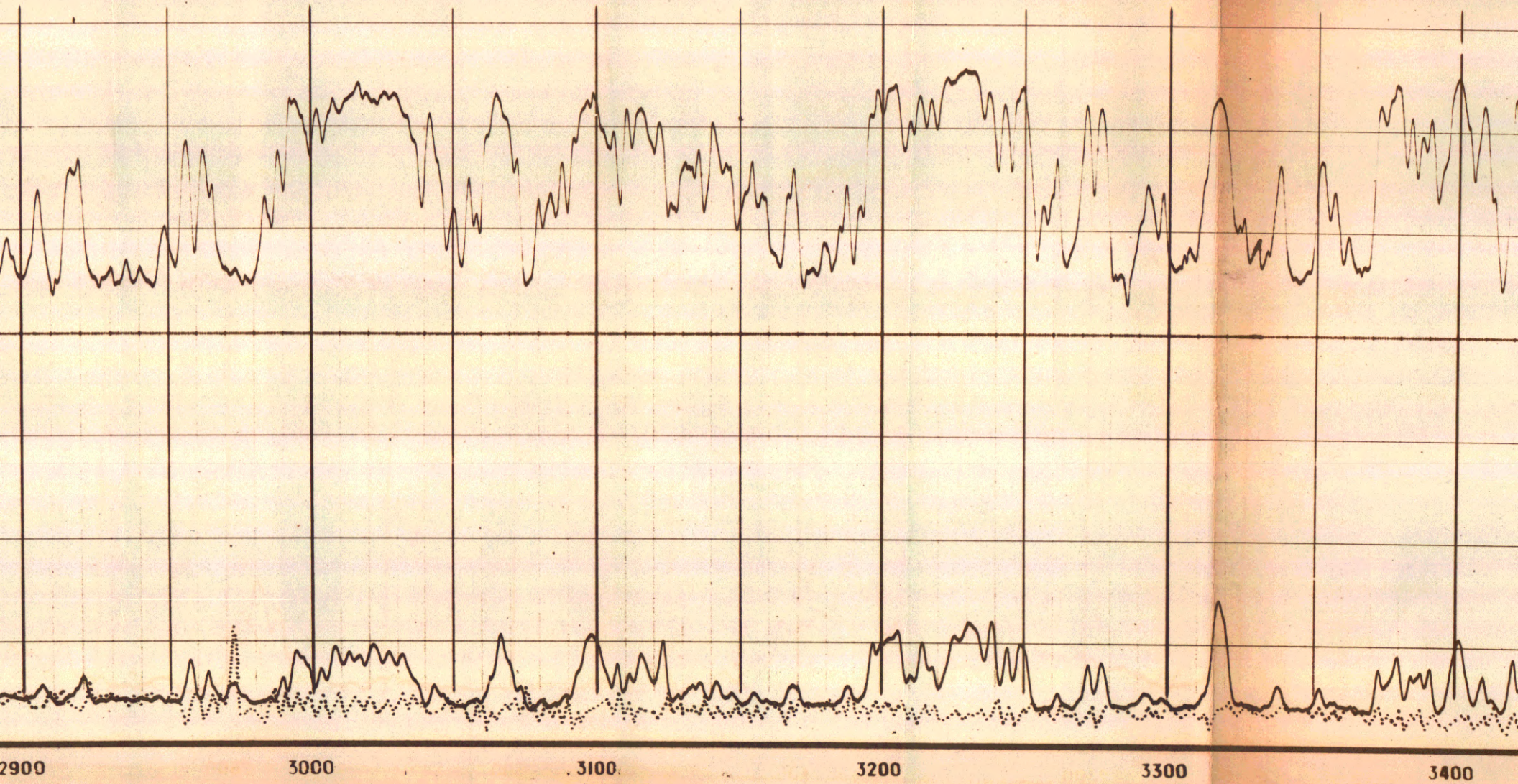
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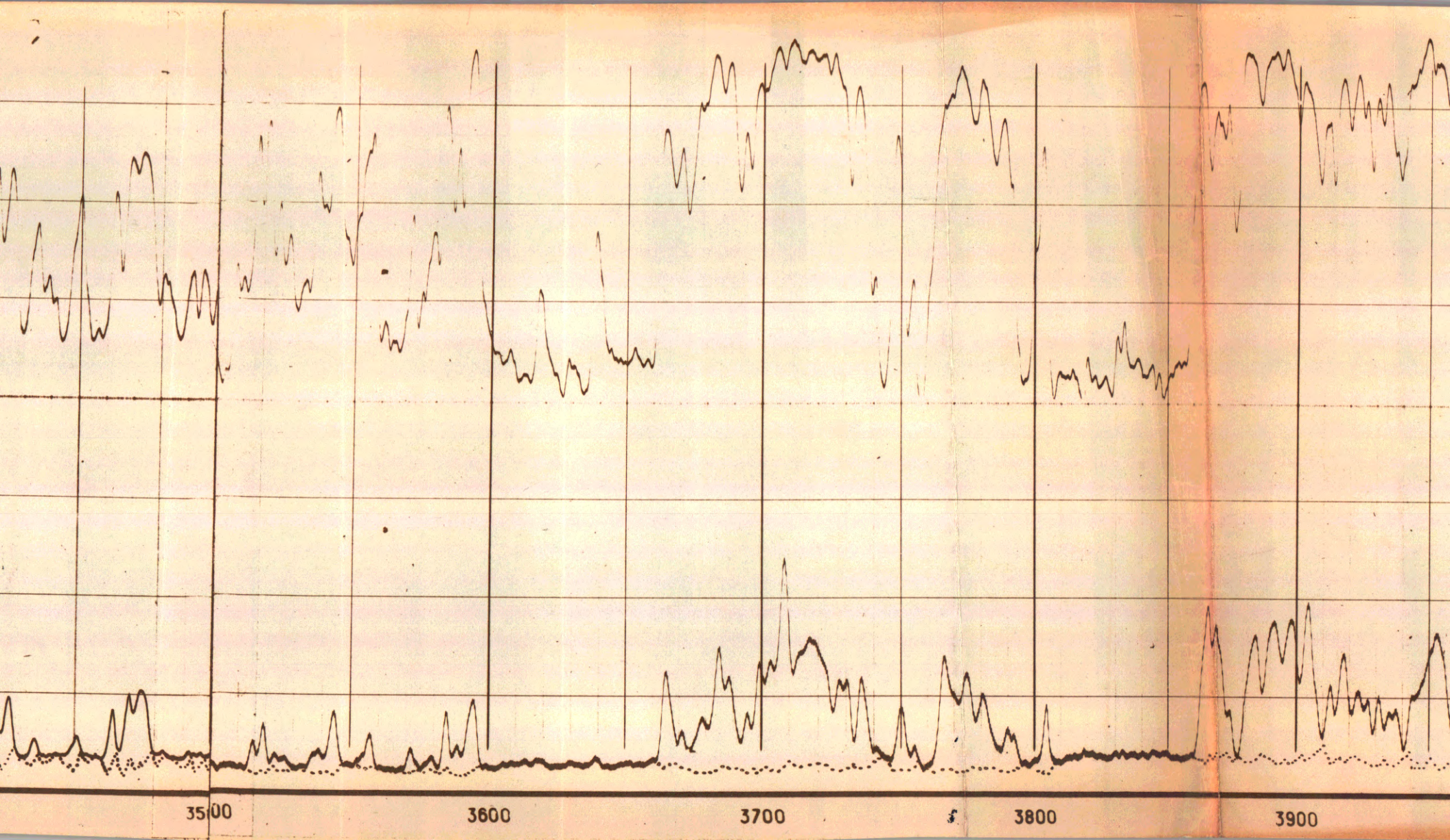
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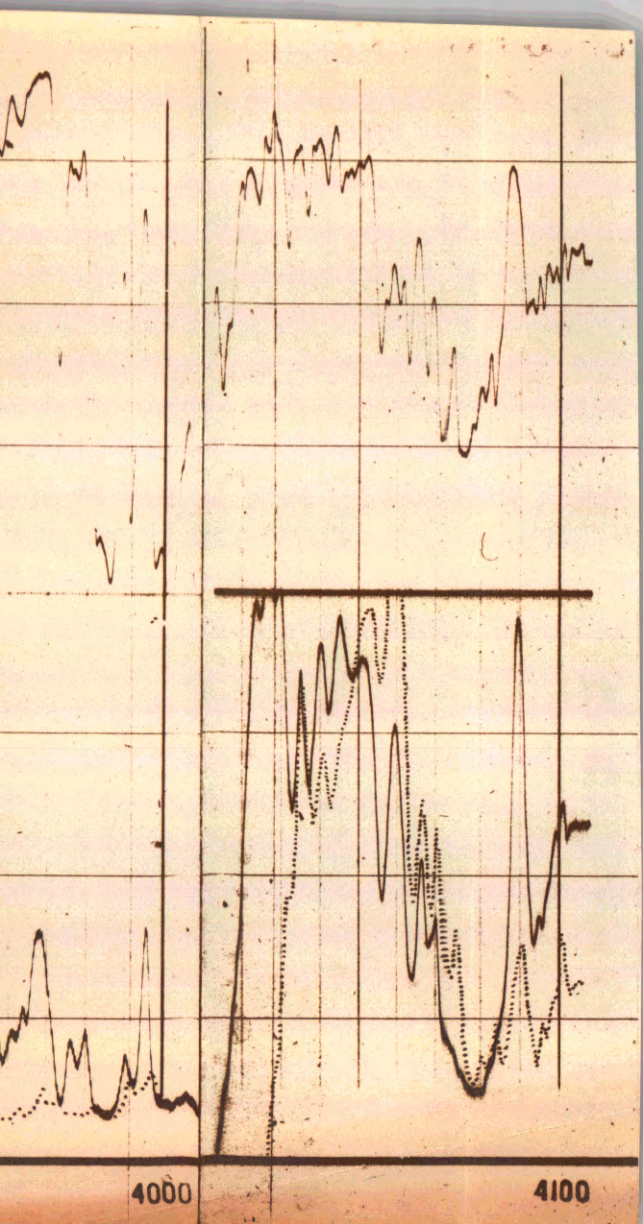
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S[illegible]ERGER

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Pacific Energy Resources Ltd.

[illegible]O.
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LWLBU 8-2
~~"Oil Operators" 2~~
(037-09793)

Sec. 13-4S-13W.

LONG BEACH

CO[illegible]

FIE[illegible]

RECEIVED
OCT 31 1941
LOS ANGELES, CALIFORNIA

WELL: Oil Operators #2

SEC. 13 T. 4 S R. 13 W

COUNTY: Los Angeles STATE: Calif.

ELEV.: 57

COMPANY: UNION OIL CO. OF CALIF.
FIELD: Long Beach
WELL: Oil Operators 2
COUNTY: Los Angeles
FILING NO: C-8-134 C-8-147

RUN	1-D	2-D	3	4	5
Date	10-27-41	10-29-41			
Csg. shoe	4016'	4016'			
Total depth	5235'	5480'			
Depth rchd.	5233'	5477'			
Ft. Meas.	1129'	242'			
Mud Nat.	Natural	Chemical			
Dens	76#	79#			
Visc.	40	40			
Res.	5.3 @ 82°F	5.5 @ 87°F			
Max. Temp.	160°F	175°F			
Meas. from	Top Table	Top Table			
Tension	2000#	1800#			
Rig. Time	2 hrs.	1 hr.			
Mileage	10	10			
Observer	V. Fant	W. Dale			

Witnessed by: Mr. Winter

DIAMETER OF HOLE

7-5/8"

REMARKS

Standard Device 3rd Curve: ----------

Long Device 3rd Curve: .....

DEPTH

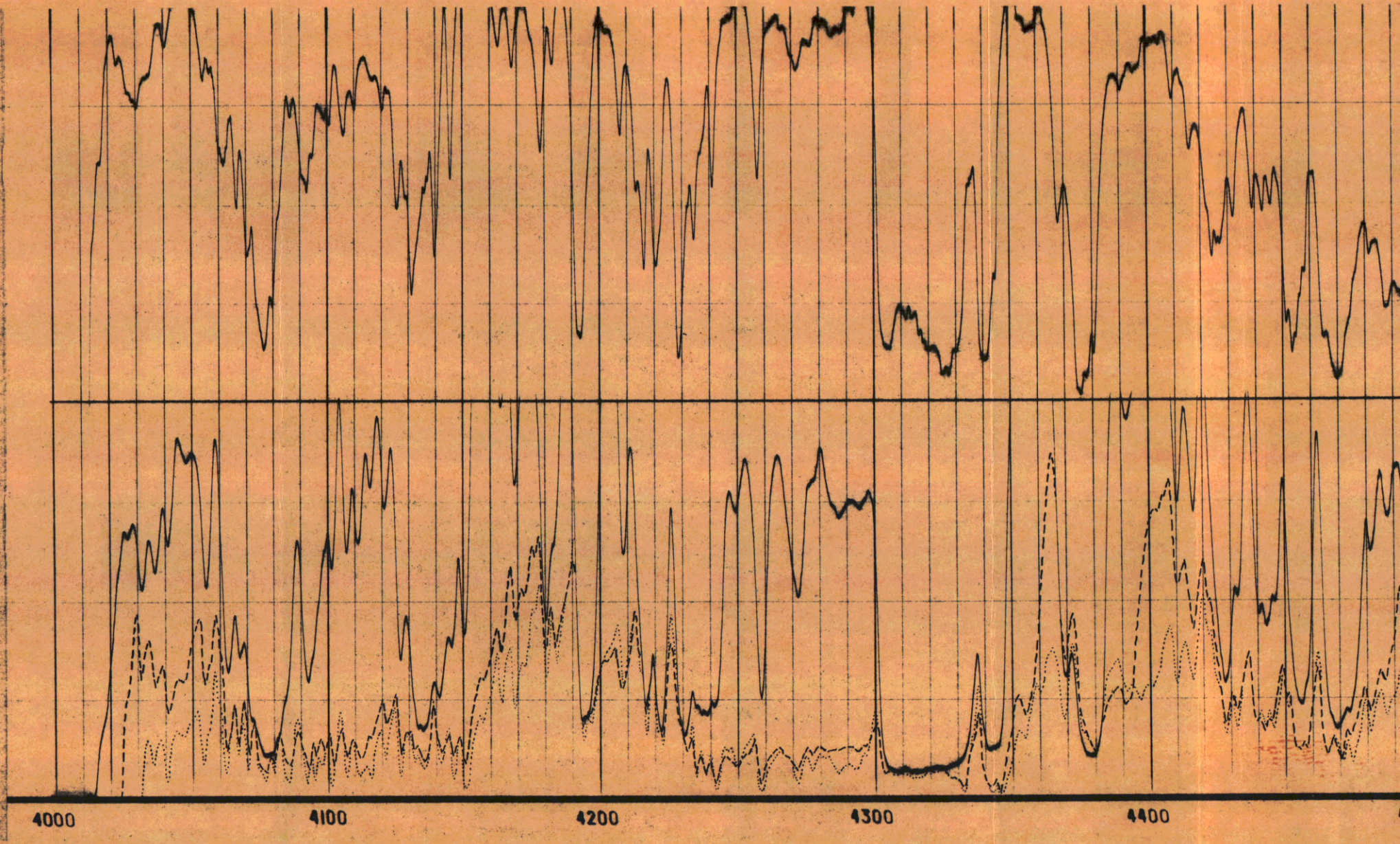
RESISTIVITY

NORMAL CURVE ..... THIRD CURVE

0 ← -ohms m²m → 30

SELF-POTENTIAL

100 ← -millivolts →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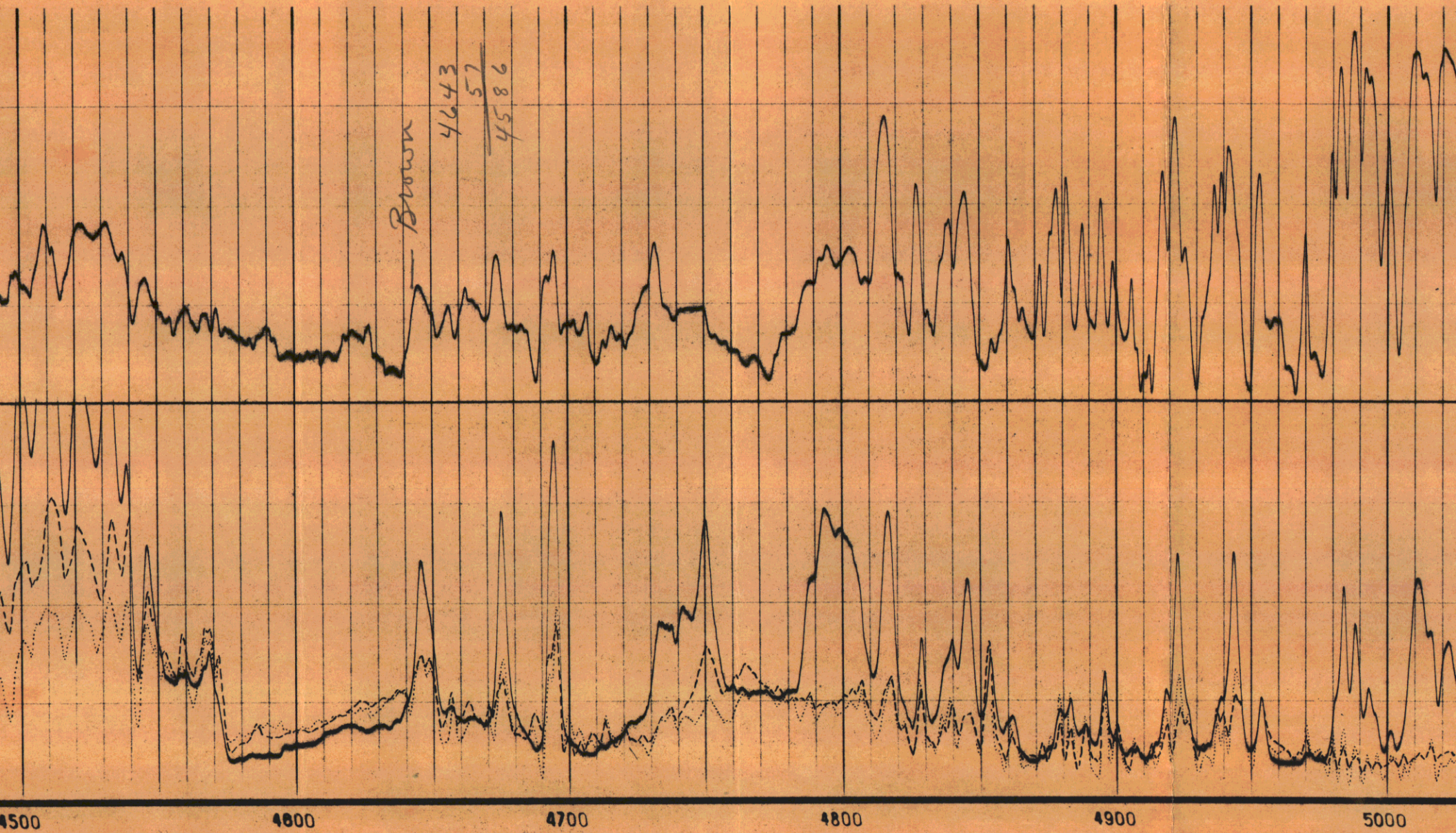
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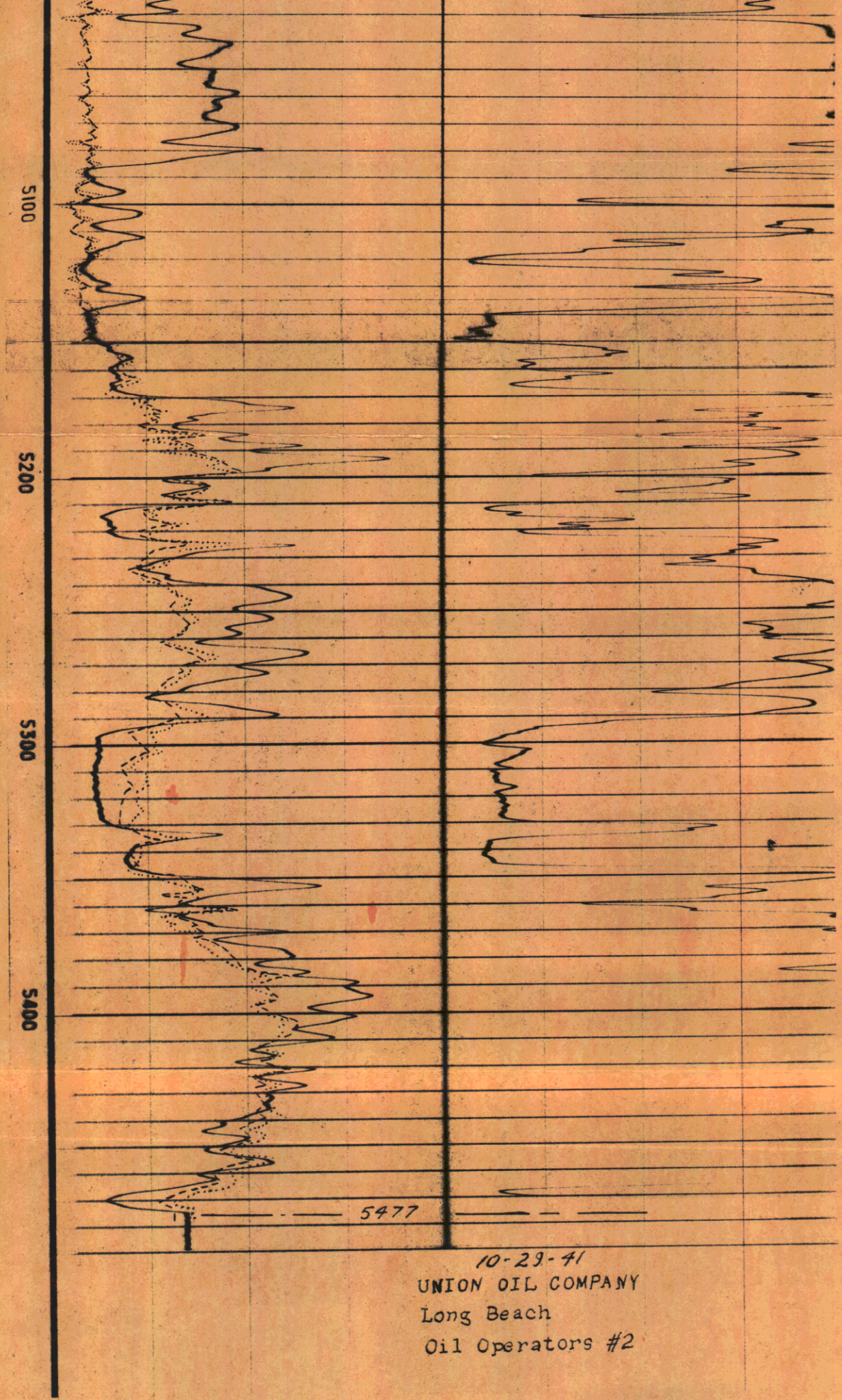


10-29-41
UNION OIL COMPANY
Long Beach
Oil Operators #2

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

REPORT OF PROPERTY AND WELL TRANSFER

Field or county Wilmington, Long Beach, Montebello, Rosecrans, Rosecrans East, Torrance, and Newport West.		District One/Cypress
Former owner Pacific Energy Resources	Operator code P0250	Date 7/10/2007
Name and location of well(s) See Attatchment		
Description of the land upon which the well(s) is (are) located See Attachment		

Date of transfer, sale, assignment, conveyance, or exchange 06/14/2007	New owner Pacific Energy Resources Ltd.	Operator code P0250	Type of organization Partnership
	Address 111 West Ocean Blvd Long Beach, CA 90802		Telephone No. (562) 628-1526

Reported by OG30A Both Signed	
Confirmed by	
New operator new status (status abbreviation) PA	Request designation of agent Darren Katic, Agent
Old operator new status (status abbreviation) NPI	Remarks See Operator File

	Deputy Supervisor R.K. Baker	Signature Kenneth Carlson Ken Carlson Associate Engineer

OPERATOR STATUS ABBREVIATIONS

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

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121	—	—	Map and book		
Form OGD140	—	—	Notice to be cancelled	—	—
New well cards			Bond status	VM	7-11-07
Well records			EDP files		
Electric logs			Computer Files	VM	7-11-07
Production reports	—	—			

OGD156 (5/98)

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

REPORT OF WELL PLUGGING AND ABANDONMENT

Long Beach, California

November 27, 1996

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

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

NOTES:

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

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

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

DEC:df

NO BOND REQUIRED

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

OG159

DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

CHECK LIST - RECORDS RECEIVED AND WELL STATUS

Company ~~North Side Oil Corp~~ Pacific Energy Resources Well No. NWL BU 8-2

API No. 037-09793 Sec. 13, T. 4S, R. 13W, S.B. B. & M.

County Los Angeles Field Wilmington

RECORDS RECEIVED	DATE
Well Summary (Form OG100)	
History (Form OG103)	11-22-96
Core Record (Form OG101)	
Directional Survey	
Sidewall Samples	
Other	
Date final records received	
Electric Logs:	

STATUS		STATUS	
Producing - Oil	___	Water Disposal	___
Idle - Oil	___	Waterflood	___
Abandoned - Oil	X	Steamflood	___
Drilling - Idle	___	Fire Flood	___
Abandoned - Dry Hole	___	Air Injection	___
Producing - Gas	___	Gas Injection	___
Idle - Gas	___	CO_2 Injection	___
Abandoned - Gas	___	LPG Injection	___
Gas - Open to Oil Zone	___	Observation	___
Gas Storage	___	Waterflood Source	___

DATE 10-21-96 "E" well Yes ___ No X

RECOMPLETED

REMARKS

ENGINEERS CHECK LIST

1. Summary, History, & Core Record (dupl.) JM
2. Electric Log
3. Operator's Name
4. Signature
5. Well Designation
6. Location
7. Elevation
8. Notices
9. "T" Reports
10. Casing Record
11. Plugs
12. Directional Survey
13. Production
14. E Well on Prod., enter EDP
15. Surface Inspection OK 11-26-96

CLERICAL CHECK LIST

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

ABANDON OK

RECORDS NOT APPROVED

Reason:

RECORDS APPROVED JM 11/96 -C-

RELEASE BOND

Date Eligible

(Use date last needed records were received.)

MAP AND MAP BOOK # 137 MS 11/27/96

OGD2 (5/96)

SUBMIT IN DUPLICATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

Operator ~~NORTH SIDE OIL CORP~~. Pacific Energy Resources Field Wilmington County Los Angeles
Well NWLBU 8-2, Sec. 13, T 4S, R 13W, SB B. & M.
A.P.I. No. 037-09793 Name Steve Graner (Person submitting report) Title President (President, Secretary or Agent)
Date November, 1996

Signature

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

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

Date 1996	
10/ 7	MIRU. RIH with 1-1/2" C.T.. Tagged top of lines at 3948'. Tagged fill at 4071'. Bottom of lines at 5065'. POOH. Secured well. MO.
10/14	MIRU. Filled well with water. Pressured casing to 500psi and held for 10 minutes. RIH with 1-1/2" C.T. to 3946'. Unable to go deeper. POOH. Secured well.
10/15	MIRU. RIH with 1-1/2" C.T. to 3946'. Spotted 5 barrels water followed by 181 cf of cement. Estimated TOC at 3417'. POOH. Filled hold with water. Pressured up casing to 500psi and held for 5 minutes. Squeezed 8-1/2 cf away. Estimate TOC at 3442'.
10/16	MIRU. RIH with 1-1/2" C.T. Tagged TOC at 3400'. Mudded hole with 72% mud from 3400' to 2575'. POOH. Rigged up Primo wireline and shot cavity shot at 2575'. RIH with 1-1/2" C.T. to 2575'. Spotted 5 barrels water followed by 152 cf of cement. Estimate top at 2132'. POOH. Filled hole with water. Downsqueezed 11 cf with 550psi and held for 5 minutes. Estimate TOC at 2164'.
10/17	MIRU. RIH with 1-1/2" CT and tagged TOC at 2177'. Mudded hole with 133 barrels of 72% mud from 2177' to surface. POOH. Secured well.
10/19	MIRU. Cut 8-5/8" casing at 70'. MO. MIRU. RIH with 1-1/2" C.T. to 70'. Spotted 5 barrels water followed by 242 cf of cement. Cement to surfact. POOH. Cement top fell. Cement with 97 cf of cement to surface.
10/21	Welded steel plate on casing. Well abandoned.

RECEIVED
NOV 2 2 1996
DIVISION OF OIL, GAS
& GEOTHERMAL RESOURCES
LONG BEACH

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

No. T 196-750

REPORT ON OPERATIONS

Long Beach, California
November 22, 1996

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

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

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

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

DECISION: APPROVED.

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

DEFICIENCIES: None.

Surface Inspection Approved 11-26-96

CONTRACTOR: Fleet Cementers, Inc.

DEC:df

cc: Update
Pacific Energy Resources

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

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

OG109

NWLBU – 8-2
View W. west, 10-21-96
Photo - Bill F. with R. Manuel

EDP 11-15-96 NORTH SIDE OIL CORP.

DEL 11/96 OK

-C-

196-750

ION OF OIL, GAS, AND GEOTHERMAL RESOURCES

CEMENTING/PLUGGING MEMO

Operator Pacific Energy Resources / Well No. NWLBU 8-2

API No. 037-09793 Sec. 13, T. 4 S, R. 13 W, S.B. B&M

Field Long Beach, County Los Angeles, On 10-21-96,

Mr. / Ms. Bill Fedasko, representative of the supervisor, was present from 1530 to 1600.

There were also present Steve Graner, PRESIDENT

Casing record of well: 13 3/8" cem 759'; 8 5/8" cem 4016' WSO, cav shot 2575' ①; 5 1/2" cem 3950'-5475', perf 4869' WSO, perf ③ 4118'-4228', 4640-4700, @ int 4835-4945, ~~@ int~~ 5165'-5245' & 5345'-5395' ②.

The operations were performed for the purpose of (L)

TD 5480'. Plugged w/cem 5475-5456', 5415-5065, 3946-3400, 2575'-2177', 70'-5'.

①, PULLED FR 70'
②, COLLAPSED 3980'±
③, 4018'-4055'

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

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

Hole size: _____" fr. _____' to _____', _____" to _____' & _____" to _____'

Casing				Cemented			Top of Fill		Squeezed Away	Final Press.	Perfs.
Size	Wt.	Top	Bottom	Date	MO-Depth	Volume	Annulus	Casing			
8 5/8"	32	0	4016'	10/15/96	SURF. SQZ.	181cf	form?	~~3400 3442~~	~~0 8.5~~	500*	4018'-5475'
5 1/2	17	3950'		10/16	POOH & dwn sqz	152cf	"	~~2177 2153±~~	~~19cf 71cf~~	550	2575 cs
								* = locked up		tight	

(.3422) Cav shot 2575'

Casing/tubing recovered: 8 5/8" shot/cut at 70', _____', _____' pulled fr. 70';

_____" shot/cut at _____', _____', _____' pulled fr. _____'.

Junk (in hole): _____

Hole fluid (bailed to) at _____'. Witnessed by _____

Mudding	Date	bbls.	Displaced	Poured	Fill	Engr.
pass	10/16/96	51	tbg 3400'		2575'±	Hebein
72 pcf	10/17	133	" 2177		surface	R. Navia

NOTE: (L) 8-2A 10/14/96 5 1/2" collapsed (?) @ 3950'

Cement Plugs		Placing	Placing Witnessed		Top Witnessed			
Date	Sx./cf	MO & Depth	Time	Engr.	Depth	Wt/Sample	Date & Time	Engr.
10/15/96	181cf	tbg 3946'	rptd. L.	Bowen	3400'	2000#	10/16/96 1430	Hebein
10/16	152cf	" 2575	1930	R. Navia	2177'	"	10/17 1200	R. Navia
10/19	239 cf	T70	—	Rptd & S. Graner	5'	Visual	10-21-96 1600	B. Fedasko

OGD10 (12/94/GSR1/5M) Printed on recycled paper

coiled tubing only into 3946'

c/o to 3970' (O'KD by D.C.) - conventional rig

DEFICIENCIES NOTED AND CORRECTED:

None

DEFICIENCIES NOTED AND TO BE CORRECTED:

None

UNCORRECTABLE DEFICIENCIES:

None

CONTRACTOR:

Fleet Cementing, Inc

API No. 03709793 DIVISION OF OIL AND GAS T_____

BLOWOUT PREVENTION EQUIPMENT MEMO

Operator Pacific Energy Res. Well "NWLBU" 8-2

Field _____ County _____ Spud Date _____

VISITS:

	Date	Engineer	Time	Operator's Rep.	Title
1st	10/14/95	R. Navia	(0900 to 0915)		
2nd			(to)		

Contractor Fleet Cementers, Inc Rig # ____ Contractor's Rep. & Title L. Bowen, RF

Casing record of well: MEMO

OPERATION: ~~Testing~~ (inspecting) the blowout prevention equipment and installation.

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

Proposed Well Opns: Abd . MACP: _____ psi

Hole size: ____ " fr. ____ ' to ____ ' , ____ " to ____ ' & ____ " to ____ '

REQUIRED BOPE CLASS: II-2M

CASING RECORD OF BOPE ANCHOR STRING					Cement Details	Top of Cement	
Size	Weight(s)	Grade(s)	Shoe at	CP at		Casing	Annulus

BOP STACK

API Symb.	Ram Size (in.)	Manufacturer	Model or Type	Vert. Bore Size (in.)	Press. Rtg.	Date Last Overhaul
A	1 1/2	Bell Rubber Co	HL-HD	1 3/4	3000	
A	CSO	Hangwell	B	4	4000	
A	1 1/2	Bell Rubber Co	HL-HD	1 3/4	3000	

TEST DATA

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

TOTAL:

ACTUATING SYSTEM

Accumulator Unit(s) Working Pressure _____ psi

Total Rated Pump Output _____ gpm

Distance From Well Bore _____ ft.

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

	CONTROL STATIONS	Elec.	Hyd.	Pneu.
	Manifold at accumulator unit			
X	Remote at Driller's station		✓	
	Other:			

	EMERG. BACKUP SYSTEM		Press.	Wkg. Fluid
	N_2 Cylinders	1 L= "		gal.
	Other:	2 L= "		gal.
		3 L= "		gal.
		4 L= "		gal.
		5 L= "		gal.
		6 L= "		gal.
		TOTAL:		gal.

AUXILIARY EQUIPMENT

		No.	Size (in.)	Rated Press.	Connections Weld	Connections Flange	Connections Thread	Test Press.
	Fill-up Line							
X	Kill Line		2"	2000			✓	
	Control Valve(s)							
	Check Valve(s)							
	Aux. Pump Connect.							
	Choke Line							
	Control Valve(s)							
	Pressure Gauge							
	Adjustable Choke(s)							
	Bleed Line							
	Upper Kelly Cock							
	Lower Kelly Cock							
	Standpipe Valve							
	Standpipe Press. Gauge							
X	Pipe Safety Valve		1 1/2	2000				
	Internal Preventer							

	HOLE FLUID MONITORING EQUIPMENT	Alarm Type Audible	Alarm Type Visual	Class
	Calibrated Mud Pit			A
	Pit Level Indicator			B
	Pump Stroke Counter			B
	Pit Level Recorder			C
	Flow Sensor			C
	Mud Totalizer			C
	Calibrated Trip Tank			
	Other:			

Hole Fluid Type	Weight	Storage Pits (Type & Size)
Clay base mud		

REMARKS AND DEFICIENCIES: _____

OGD9 (8/92/GSR1/3M)

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

No. P 196-1138

412
(Field Code)

PERMIT TO CONDUCT WELL OPERATIONS

03
(Area Code)

--
(New Pool Code)

00
(Old Pool Code)

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

Long Beach, California
September 16, 1996

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

THE PROPOSAL IS APPROVED PROVIDED:

1. Blowout prevention equipment equivalent to this Division's Class **II2M** requirements, or better, shall be installed and maintained in operating condition.
2. All portions of the well not plugged with cement shall be filled with clay base mud having a minimum density of 72 lb/cu ft and a minimum gel-shear strength of 25 lb/100 sq ft.
3. The well shall be plugged with cement from **3918'** to **3850'**.
4. The cement plug proposed to be placed to **2410'** shall extend to at least **2375'** outside and inside the casing.
5. This Division shall be consulted and a Supplementary Notice may be required before making any changes in the proposed program.
6. **THIS DIVISION SHALL BE NOTIFIED TO:**
   a. Inspect the installed blowout prevention equipment prior to commencing downhole operations.
   b. Witness the placing, location and hardness of the cement plug from **5065'** to **3850'**.
   c. Witness the mudding of the hole.
   d. Witness the placing, location and hardness of the cement plug from **2575'** to **2375'**.
   e. Witness the placing, location and hardness of the cement plug from **70'** to **6'**.
   f. Inspect and approve the cleanup of the well site within 60 days after placement of the surface plug.

NOTE:

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

10/11/96 STEVE GRANER / CURTIS - 5½ COLLAPSED @ 3980'±, WILL DOWN SQZ w/ EXCESS CEMENT - OK

DEC:dc

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

NO BOND REQUIRED

Engineer: D. E. Curtis

Phone: 310/590-5311

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

By R.C. Manuel
For R. K. Baker, *Deputy Supervisor*

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

OG 111

412
NWB 03 F OG
00

STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

Notice of Intention to Abandon Well

File in Duplicate

P196-1138

FOR DIVISION USE ONLY			
CARDS	BOND AL	FORMS	
		OGD114	OGD121
9/13/96	BB	9/13/96	9/13/96

DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon well (North Side Oil Company 8-2) NWLBU 8-2, API No. 037-09793, Sec. 13 T. 4S, R. 13W, SB B. & M., Long Beach Field, Los Angeles County, commencing work on October 10, 19 96.

The present condition of the well is:

1. Total depth 5480'
2. Complete casing record, including plugs and perforations (present hole)

see over

3. Last produced 8/93 (Date) 5 (Oil, B/D) 0 (Gas, Mcf/D) 460 (Water, B/D)

(or)

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

Additional data for dry hole (show depths):

5. Oil or gas shows
6. Stratigraphic markers
7. Formation and age at total depth
8. Base of freshwater sands 2225' 2250

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

The proposed work is as follows:

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

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

Address P O Box 16007 (Street)
Long Beach (City) CA (State) 90807 (Zip)
Telephone Number (310) (Area Code) (Number)

North Side Oil Corp. (Name of Operator)
By Steve Graner, President (Print Name)
[signature] (Signature) 9/12/96 (Date)

OG108 (1/95/GSR1/5M) Printed on recycled paper.

CRITICAL WELL

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

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

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

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

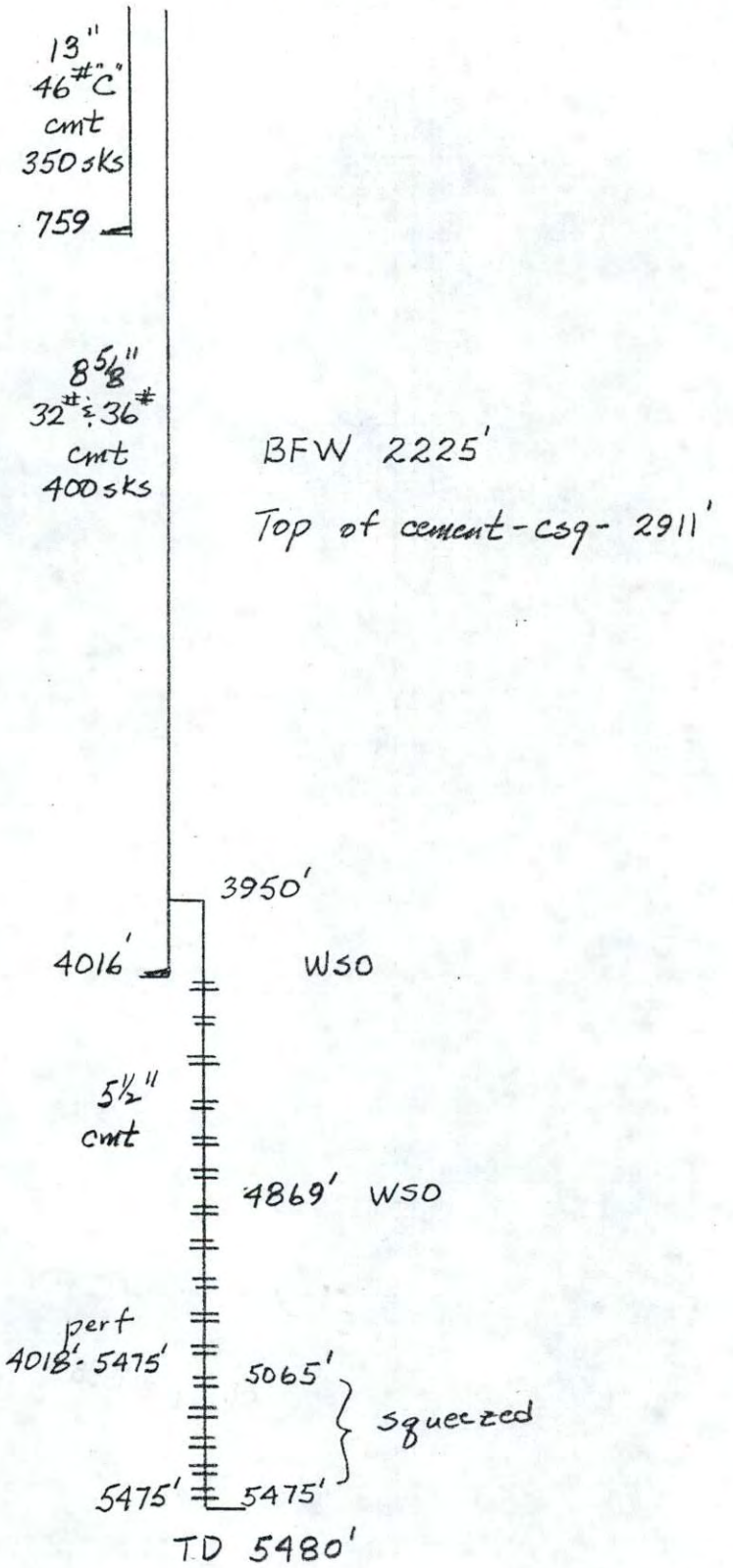
2. 13-3/8" cmt @ 759'; 8-5/8" cmt @ 4016' (WSO); 5-1/2" cmt @ 5475' top @ 3950'; perf 4869' WSO; perf 4018'-5395'; perfs plugged 5065'-5415' and 5456'-5475'.

RECEIVED
SEP 12 1996
DIVISION OF OIL, GAS
& GEOTHERMAL RESOURCES
LONG BEACH

NORT IDE OIL COMPAI

NWLBU 8-2

API No. 037-09793



RECEIVED
SEP 12 1996
GEOTHERMAL RESOURCES
LONG BEACH

WELL TRANSFER NOTICE

EFFEC MAY 9, 1994, PETRO RESOURCES, INC.
TRANS LONG BEACH NWLBU WELLS
TO PACIFIC ENERGY ~~CORP~~. Resources
SEE OGD156 DATED 5-13-94

DIVISION OF OIL AND GAS
CHECK LIST - RECORDS RECEIVED AND WELL STATUS

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

RECORDS RECEIVED	DATE
Well Summary (Form OG100)	
History (Form OG103)	3-15-84
Core Record (Form OG101)	
Directional Survey	
Sidewall Samples	
Other	
Date final records received	
Electric logs:	

STATUS		STATUS	
Producing - Oil	/	Water Disposal	
Idle - Oil		Water Flood	
Abandoned - Oil		Steam Flood	
Drilling - Idle		Fire Flood	
Abandoned - Dry Hole		Air Injection	
Producing - Gas		Gas Injection	
Idle - Gas		CO_2 Injection	
Abandoned - Gas		LPG Injection	
Gas-Open to Oil Zone		Observation	
Water Flood Source			

DATE
RECOMPLETED 2/15/84
REMARKS

ENGINEER'S CHECK LIST

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

CLERICAL CHECK LIST

1. Location change ____ (F-OGD165)
2. Elevation change ____ (F-OGD165)
3. Form OGD121
4. Form OG159 (Final Letter)
5. Form OGD150b (Release of Bond)
6. Duplicate logs to archives
7. Notice of Records due (F-OGD170)

UPDATE CENTER 5/30/84

RECORDS NOT APPROVED
Reason:

RECORDS APPROVED HO 5/9/84

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

LONG BEACH OFFICE - USE REVERSE SIDE

OGD2 (12/80/DWRR/5M)

SUBMIT IN DUPLICATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

Operator Petro Resources, INC Field Long Beach County Los Angeles
Well NWLBU 8-2, Sec. 13, T 4S, R 13W, SB B. & M.
A.P.I. No. 037-09793 Name Joe D. Rose (Person submitting report) Title Agent (President, Secretary or Agent)
Date March 14, 19 84

Signature

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

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

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

RECEIVED
MAR 15 1 35 PM '84
DIV OF OIL AND GAS
LONG BEACH, CA.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

No. T 184-507

DIVISION OF OIL AND GAS

Report on Operations

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

Long Beach, Calif.
March 22, 1984

Your operations at well NWLBU 8-2, API No. 037-09793, Sec. 13, T. 4S, R. 13W, S.B. B.& M. Long Beach Field, in Los Angeles County, were witnessed on 2-15-84. G. Muggelberg, Engineer, representative of the supervisor, was present from 0810 to 0820. There were also present Joe Rose, Agent

Present condition of well: 13-3/8" cem 761'; 8-5/8" cem 4016' WSO; 5½" cem 3950'-5475', perf 4869' WSO, perf 4118'-4228', 4640'-4700', @ int 4835'-4945', @ int 5165'-5245' & 5345'-5395'. TD 5480'. Plugged w/ cem 5456'-5475' & 5415'-5065'.

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

DECISION: APPROVED.

NOTE: DEFICIENCIES TO BE CORRECTED
NONE

DEFICIENCIES CORRECTED
Low pressure valve on kill line.

CONTRACTOR: Graner Oil Co.

GM:mh

cc: Update

M. G. MEFFERD
State Oil and Gas Supervisor

Deputy Supervisor
V. F. Gaede

OG109 (9/83/GSR1/15M)

DIVISION OF OIL AND GAS

BLOWOUT PREVENTION EQUIPMENT MEMO

Rg 2-21-84

T 184-507

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

VISITS:	Date	Engineer	Time	Operator's Rep.	Title
1st	2-15-84	G. Muggelberg	0810 to 0820	Joe Rose	Agent
2nd			to		

Casing record of well: 13 3/8" cem 761'; 8 5/8" cem 4016' WSO; 5 1/2" cem 3950'-5475', perf 4869' WSO, perf 4118'-4228', 4640'-4700', @ int 4835'-4945', @ int 5165'-5245' & 5345'-5395'. TD 5480'. Plugged w/cem 5456'-5475' & 5415'-5065'.

OPERATION: Testing (inspecting) the blowout prevention equipment and installation.
DECISION: The blowout prevention equipment and its installation on the 8 5/8 "casing are approved.

REQUIRED BOPE CLASS: II 2M

Proposed Well Opns: alter casing MPSP: _____ psi
Hole size: _____ " fr. _____ ' to _____ ' , _____ " to _____ ' & _____ " to _____ '

CASING RECORD (BOPE ANCHOR STRING ONLY)					Cement Details	Top of Cement	
Size	Weight(s)	Grade(s)	Shoe at	CP at		Casing	Annulus

BOP STACK							a	b	a/b	TEST DATA			
API Symb.	Ram Sz.	Mfr.	Model or Type	Size (in.)	Press. Rtg.	Date Last Overhaul	Gal. to Close	Rec.Time (Min.)	Calc. GPM Output	psi Drop to Close	Secs. to Close	Test Date	Test Press.
Rd	2 7/8"	Shaffer	E	6	3000	–						–	
Rd	CSO	Shaffer	E	6	3000	–						–	

ACTUATING SYSTEM

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

	Mfr.	Accum. Cap.	Precharge
1		gal.	psi
2		gal.	psi

CONTROL STATIONS	Elec.	Hyd.
Manif. at accum. unit		
Remote at Drlr's. stn.		
Other:		

EMERG. BACKUP SYST.			Press.	Wkg. Fl.
N2 Cyl	No:	Type:	1	gal.
✓ Other:			2	gal.
Hand Pump			3	gal.
			4	gal.
			5	gal.
			6	gal.

AUXILIARY EQUIPMENT

		No.	Sz. (in.)	Rated Press.	Connections Weld	Flan.	Thrd.	
	Fill-Up Line							
✓	Kill Line		2	2000			✓	–
✓	Control Valve(s)	1		2000			✓	–
	Check Valve(s)							
	Auxil. Pump Connec.							
	Choke Line							
	Control Valve(s)							
	Pressure Gauge							
	Adjustable Choke(s)							
	Bleed Line							
	Upper Kelly Cock							
	Lower Kelly Cock							
	Standpipe Valve							
	Standpipe Pressure Ga.							
✓	Pipe Safety Valve		2 7/8	2000				–
	Internal Preventer							

HOLE FLUID MONITORING EQUIPMENT

		Alarm Aud.	Alarm Vis.	Class
	Calibrated Mud Pit			A
	Pit Level Indicator			B
	Pump Stroke Counter			B
	Pit Level Recorder			C
	Flow Sensor			C
	Mud Totalizer			C
	Calibrated Trip Tank			C
	Other:			

REMARKS:

Hole Fluid Type	Weight	Storage Pits
Water		

OGD9 (3/83/DWRR/3M)

DEFICIENCIES—TO BE CORRECTED

None

DEFICIENCIES—CORRECTED

① Low pressure valve on kill line

CONTRACTOR

Graner Oil Co.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

No. P 184-93

412
(field code)
03
(area code)
00
(new pool code)
00
(old pool code)

PERMIT TO CONDUCT WELL OPERATIONS

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

Long Beach, California
February 8, 1984

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

THE PROPOSAL IS APPROVED PROVIDED:

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

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

RCM:mh

cc: Update

BLANKET BOND

Engineer Richard C. Manuel

Phone (213) 590-5311

M. G. MEFFERD, State Oil and Gas Supervisor

By _____
V. F. Gaede, Deputy Supervisor

A copy of this report and the proposal must be posted at the well site prior to commencing operations.

Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.

OG111 (9/83/GSR1/5M)

0/5

OG107 (8/79)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

Notice of Intention to Rework Well

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

FOR DIVISION USE ONLY		
BOND	FORMS	
	OGD114	OGD121
Blanket	2-2-84	2-2-84

DIVISION OF OIL AND GAS

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

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

The present condition of the well is as follows:

1. Total depth 5480

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

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

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

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

   (or)

   Last injected -not- (Date) ____ (Water, B/D) ____ (Gas, Mcf/D) ____ (Surface pressure, psig)

The proposed work is as follows:

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

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

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

Petro Resources, Inc. (Name of Operator)
By Joe D. Rose (Print Name)
Joe D. Rose (Signature) (Date)

RECEIVED
JAN 31 1 15 PM '84
DIV. OF OIL AND GAS
LONG BEACH, CA.

FORM OGD156 (5-80)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF PROPERTY AND WELL TRANSFER

Field or county	District
Long Beach	1
Former owner	**Date**
Sun Exploration & Production Co.	June 15, 1983

Name and location of well(s)

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

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

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

Date of transfer, sale, assignment, conveyance, or exchange	New owner	Type of organization
May 1, 1983	Petro Resources, Inc.	Corp.
	Address: 4200 Easton Drive, Suite 16, Bakersfield, CA 94309	Telephone No. 805/323-4118

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

Confirmed by
Letter form Petro Resources, Inc., dated 5-18-83.

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

Deputy Supervisor	Signature
V. F. Gaede	Richard L. Manuel

OPERATOR STATUS ABBREVIATIONS

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

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121	CP	7-7-83	Map and book	137	7/12/83
Form ODG140	NONE		Notice to be cancelled		
New well cards	CP	7-7-83	Bond status		
Well records	CP	7-7-83	EDP files		
Electric logs	CP	7-7-83	Update Conservation Committee		
Production reports			L. A. Assessors		

Name change from Sun Oil Co. to SUN EXPLORATION & PRODUCTION CO.

1-1-82, Form 156 dated 1-21-82. See ownership file.

FORM 157

STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT ON PROPOSED CHANGE OF WELL DESIGNATION

Long Beach, California

Oct. 4, 1979

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

DEAR SIR:

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

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

the proposed change in designation is hereby authorized as follows:

Old Designation	API	New Designation
"Oil Operators" 1	037-09792 (See)	NWLBU 8-1
" " 2	037-09793	NWLBU 8-2
" " 3	037-06496	NWLBU 8-3
" " 4	037-06415	NWLBU 8-4
"Pool" 1	037-09795	NWLBU 5-1
" 2	037-00397	NWLBU 5-2
" 3	037-09796	NWLBU 5-3
" 4	037-09797	NWLBU 5-4
"Amebco" 1	037-09788	NWLBU 6-1
" 2	037-09789	NWLBU 6-2
"Flood Control" 2	037-13525	NWLBU 9-2
" " 3	037-09791	NWLBU 9-3
" " 4	037-00392	NWLBU 9-4
" " 5	037-00142	NWLBU 9-5
" " 6	037-00393	NWLBU 9-6

Map 137 & Book PMC 11/6/79

M. G. Mefferd
~~JOHN F. MATTHEWS, JR.~~
State Oil and Gas Supervisor

RWS:sc

By Richard W. Stehl /
Acting *Deputy Supervisor*
R. A. Ybarra

cc: Update Center
EDP
Conservation Committee

57998-705 11-71 3M ⓘ OSP

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF PROPERTY AND WELL TRANSFER

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

Name and location of well(s)

Sec. 11-4S-13W

"Dominguez" 2-10 (037-11859)

Sec. 13-4S-13W

"Amebco" 1 (037-09788)
"Amebco" 2 (037-09789)
"Flood Control" 2 (037-13525)
"Flood Control" 3 (037-09791)
"Flood Control" 4 (037-00392)
"Flood Control" 5 (037-00142)
"Flood Control" 6 (037-00393)
"Oil Operators" 1 (037-09792)
"Oil Operators" 2 (037-09793)
"Oil Operators" 3 (037-06496)
"Oil Operators" 4 (037-06415)
"Pool" 1 (037-09795)
"Pool" 2 (037-00397)
"Pool" 3 (037-09796)
"Pool" 4 (037-09797)

Sec. 14-4S-13W

"Dominguez" 1 (037-11858)

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

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

Reported by: Former operator

Confirmed by: New operator

New operator new status (status abbreviation): PA	Request designation of agent
Old operator new status (status abbreviation): AB	Remarks

Deputy Supervisor: for M. B. Albright

Signature: Eleanor Bricker

OPERATOR STATUS ABBREVIATIONS

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

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121			Map and book	PR	2-16-79
Form OGD148			Notice to be sent in		
New well cards			Bond status		
Well records			EDP [illegible]		
Electric logs					
Production reports					

ara
cc: EDP Update
Conservation Committee
Update Center

(213) 590-5311

May 21, 1976

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

Dear Sir:

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

Sincerely,

ADS

A. D. Stockton
Associate Oil and Gas Engineer

ADS:dr

FORM 156

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

REPORT OF PROPERTY AND WELL TRANSFER

Field or County: Long Beach — District: 1

Former Owner: Union Oil Co. of California — Date: January 17, 1961

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

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

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

Telephone No.

Type of Organization: Corporation
Reported by: Union Oil Co. of California (Letter of January 6, 1961)
Confirmed by: General Exploration Co. of California (Letter of January 11, 1961)
New Operator New Status: PA, Old Operator New Status: PA
Request designation of agent: No

Remarks:

eb
CC- Mr. E. H. Nusser
Prod. Dept.
Conservation Committee

Wm. C. Bailey
Deputy Supervisor

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

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

96785 4-59 4500 ② SPO

Form 10

CLERK

Date Received 11-19-59 Form 100 ____ 101 ____ 103 ____

Elec. Log _____ Radio Log _____

Direct. Surv. _____ Other Data History

Location _____

_____

Elevation _____ Clerk Scott

Prod. Repts. _____ Clerk _____

COMPLETED PRODUCING ON 10-27-59 ENGINEER

ABANDONED ON _____

BOND blanket Release ____ Date Elig. _____ 150b ____

End Prem. year ____ Release Requested ____ Superseded ____

Aband. _____

HOLD BOND _____ Reason _____

_____

Data Needed _____

_____ Final Letter ____ Eng. RC

RECEIPT FOR

10

____ New Well Records

____ Subsequent Work

Well Summary _____ (100)

Drillers Log _____ (101)

Core Record _____ (101)

History ✓ (103)

Elec.Log _____

Other _____

_____

Redrill _____

Deepen _____

Plug _____

Alter Csg. ✓

Abandon _____

IN U.S.A.

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

(10)

WELL NO. "Oil Operators #2"

Long Beach (FIELD)

Los Angeles (COUNTY)

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

UNION OIL COMPANY of California

History of Oil or Gas Well

REPAIR REPORT

Port. Hoist - Contract (TOOLS)

October 26, 1959 (PERIOD ENDING)

CASING RECORD

See below (NOTE INEFFECTIVE CASING)

DIVISION OF OIL AND GAS
RECEIVED
NOV 1 9 1959
INGLEWOOD, CALIFORNIA

NO. TOURS	DATE 1959	DEPTH	EFFECTIVE DEPTH	REMARKS
				CHARGE: ER-AFE 59359, Job 539 PROPOSED WORK: Add perforations in the Alamitos Zone. PRODUCTION BEFORE REPAIR: 7 Gross - 6 Net - 21.8° - 12.1% ZERO POINT FOR THIS JOB: 1' above derrick floor.
				CASING RECORD AT START OF WORK: 13-3/8" C 759' 8-5/8" C 4016' WSO. ~~114' 6-5/8" H 4105' incl. 90' pfs.~~, pulled. 1525' 5-1/2" C 5475'. Splice test OK. Bullet pf & plgd. ~~5165-5205', 5220-5245', 5345-5395'~~. Test holes 4869' OK. Bullet pf 4640-4700', 4835-4845', 4870-4945'. Perf & Repf 4915-4945'.
				CASING RECORD AT COMPLETION OF WORK: 13-3/8" C 759' 8-5/8" C 4016' WSO ~~114' 6-5/8" H 4105' incl. 90' pfs.~~, pulled. 1525' 5-1/2" C 5475'. Splice test OK. Bullet pf & plgd., ~~5165-5205', 5220-5245', 5345-5395'~~. Test holes 4869' OK. Bullet pf 4118-4228', 4640-4700', 4835-4845', 4870-4945'. Pf & repf 4915-4945'.
1	10-20	5480	Plug 5065	Contractor moved in and strung up 2 new tubing lines. Pulled rods and pump. Rigged to pull tubing. Could not get twist out of line. Strung 4 lines.
1	10-21	"	" "	Pulled tubing. Strung in with 2-5/8" Cavins sand pump and found top of sand fill at 4995'. Ran in 4-1/2" impression block - stopped at 4995'. Tried to break off 8-5/8" production head - unable to do so.
1	10-22	"	" "	Ran 8-5/8" washer cup on 2 joints of 2-1/2" tubing. Backed out 8-5/8" production riser. Replaced with new 8-5/8" production riser. Pulled and laid down 2 joints of tubing and 8-5/8" washer. Installed blow-out preventer.
1	10-23	"	" "	Gun perforated 5-1/2" casing from 4228-4118' with two 1/2" bullets per foot. Used B-J wire line equipment. Fluid level at start 4450' - at finish 1200'. Very good blow of gas. Had approximately 400' of sand fill from 4900' to 4500'. Cleaned out to 4880' with 2-5/8" Cavins sand pump going through bridge.
	10-24			Crew off.
	10-25			" "
	10-26	"	" "	Ran 2-5/8" Cavins sand pump and cleaned out sand from 4720' to 4780'. Laid down excess tubing. Ran tubing. Laid down excess rods. Ran rods and pump. Spaced pump. Loaded out tools. Fluid level at 700'.

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

Vaughn S. Moyer
DISTRICT ENGINEER

12

N.U.S.A.

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

UNION OIL COMPANY of California

History of Oil or Gas Well

REPAIR REPORT

WELL NO. Oil Operators #2

Long Beach
(FIELD)

Los Angeles
(COUNTY)

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

Port. Hoist - Contract
(TOOLS)

November 8, 1959
(PERIOD ENDING)

CASING RECORD

13-3/8" C 759'
8-5/8" C 4016' WSO
Plld ~~114'. 6-5/8" H 4105' inc. 90' pf.~~
1525' 5½" C 5475'. Splice test
OK. ~~Bullet pf & plg 5165-5205',~~
~~5220-5245, 5345-5395'. WSO 4869'~~
Bullet pf 4118-4228, 4640-4700, 4835-
4845', 4870-
4945'. Pf & repf 4915-4945'.
(NOTE INEFFECTIVE CASING)

NO. TOURS	DATE 1959	DEPTH	EFFECTIVE DEPTH	REMARKS
1	10-27	5480	Plug 5065	Spooled tubing line off of derrick. Loaded out tools. Contractor moved out.

PRODUCTION DATA

	Hrs	Gross	Net	Cut	Grav.	Mcf	Remarks
10-27	-						Mvd in & assembled large pumping unit.
10-28	16	289	29	90.0		4	
10-29	24	502	15	97.0		4	
10-30	24	579	12	98.0		3	
10-31	24	576	12	98.0		3	
11-1	24	593	12	98.0		3	
11-2	24	583	15	97.0		3	
11-3	24	581	15	97.0		3	
11-4	24	597	24	96.0	22.8	3	
11-5	24	583	17	97.0	22.3	3	
11-6	24	591	18	97.0	22.3	3	
11-7	24	590	18	97.0	22.3	3	
11-8	24	583	23	96.0	22.3	3	

DIVISION OF OIL AND GAS
RECEIVED
NOV 19 1959
INGLEWOOD, CALIFORNIA

rjh

NAMES OF DRILLERS/HEAD WELL PULLERS:

Terminal Drilling Co. - Contractor

Vaughn S. Moyer
DISTRICT ENGINEER

COMPLETED PRODUCING ON 10-27-59

ABANDONED ON _____

FORM 111

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

REPORT ON PROPOSED OPERATIONS

No. P 159-886

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

Inglewood 3, Calif.
October 21, 1959

DEAR SIR:

Your proposal to alter casing Well No. "Oil Operators" 2,

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

dated Oct. 19, 1959, received Oct. 20, 1959, has been examined in conjunction with records filed in this office.

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

RECORDS IN ADDITION TO, OR AT VARIANCE WITH, THOSE SHOWN IN THE NOTICE.
5-1/2" cem. 3950'-5475', perf. at intervals 5395'-5165', perf. 4869', W.S.O., plugged with cement 5480'-5456', 5417'-5065'.

THE NOTICE STATES
"The present condition of the well is as follows:
1. Total depth. 5480' Plug 5065'
2. Complete casing record.
13-3/8" C 759'
8-5/8" C 4016' WSO
~~114' 6-5/8" H 4105' incl. 90' pfs.~~, pulled.
1525' 5-1/2" C 5475'. Splice test OK.
Bullet pf & plgd ~~5165-5205'~~, ~~5220-5245'~~, ~~5345-5395'~~.
Test holes 4869' OK
Bullet pf 4640-4700', 4835-4845', 4870-4945'.
Repf. 4915-4945'.
3. Last produced. Sept. 1959 (Date) 6 B/D (Net Oil) 21.8° (Gravity) 12.1% (Cut)"

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

DECISION
THE PROPOSAL IS APPROVED.

RC:omh
cc Vaughn S. Moyer

E. H. MUSSER, State Oil and Gas Supervisor

By John C. Bailey, Deputy

Blanket Bond

58444 7-57 60M SPO

FORM 107.

DIVISION OF OIL AND GAS
RECEIVED
OCT 20 1959
INGLEWOOD, CALIFORNIA

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

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

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

Santa Fe Springs, Calif. October 19, 1959

DIVISION OF OIL AND GAS

Inglewood, Calif.

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of ~~deepening, redrilling, plugging or~~ altering casing at Well No. OIL OPERATORS #2
(Cross out unnecessary words)

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

Long Beach, Field, Los Angeles County.

The present condition of the well is as follows:

1. Total depth. 5480' Plug 5065'

2. Complete casing record.
   13-3/8" C 759'
   8-5/8" C 4016' WSO
   ~~114' 6-5/8" H 4105' incl. 90' pfs.~~, pulled.
   1525' 5-1/2" C 5475'. Splice test OK.
   Bullet pf & plgd ~~5165-5205', 5220-5245', 5345-5395'~~.
   Test holes 4869' OK
   Bullet pf 4640-4700', 4835-4845', 4870-4945'.
   Repf. 4915-4945'.

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

The proposed work is as follows:

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

alter casing

MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121
			Blanket	EB	EB

Union Oil Company of California
(Name of Operator)

By V.S. Moyer R.J.H.
Vaughn S. Moyer, Division Engr.

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

rjh

STENOGRAPHER

Date Received 10-21-53 Form 100 ____ 101 ____ 103 ____

Elec. Log ____ Radio Log ____

Direct. Surv. ____ Other Data History

Location ____

Elevation ____ Steno. PCW

ENGINEER

BOND Blanket Release ____ Date Elig. ____ 150b ____

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

HOLD BOND ____ Reason ____

Data Needed None

Final Letter ____ Eng. ____

unsigned OK JLW JLW 11-3-53

RECEIPT FOR

16

Well Summary ____

Drillers Log ____

Core Record ____

History ✓ (2)

Elec. Log ____

Radio Log ____

Direct.Surv. ____

Redrill ____

Deepen ____

Plug ✓

Alter Csg. ✓

Abandon ____

10

DIVISION OF OIL AND GAS
RECEIVED
OCT 21 1953
LOS ANGELES, CALIFORNIA

8

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

UNION ~~OIL COMPANY~~ of California

History of Oil or Gas Well

REPAIR REPORT

WELL NO. Oil Operators #2

Long Beach
(FIELD)

Los Angeles
(COUNTY)

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

Prod. Hoist - Contract
(TOOLS)

September 10, 1953
(PERIOD ENDING)

CASING RECORD

See below

(NOTE INEFFECTIVE CASING)

NO. TOURS	DATE 1953	DEPTH	EFFECTIVE DEPTH	REMARKS
				CHARGE: B.R.-A.F.E. 51528 Job 240-D
				PROPOSED WORK: Plug with cement to 5100'. Test for WSO at 4869'. Gun perf 4870-4945'. Test on production.
				PRODUCTION BEFORE REPAIR: June, 1953 - 4 B/D Net - 23.8° - 83.0%
				ZERO POINT for this job: 12" above derrick floor.
				Casing Record at Start of Work: T.D. 4105' Deepen 5480' 13-3/8" C 759' 8-5/8" C 4016' WSO. ~~114' 6-5/8" H 4105' ine 90' pf.~~ Pulled 1525' 5½" C 5475'. Splice test OK Bullet pf 5165-5205', 5220-5245', 5345-5395'.
				Casing Record at Completion of Work: T.D. 5480'. Plug 5065'. 13-3/8" C 759'. 8-5/8" C 4016' WSO. ~~114' 6-5/8" H 4105' ine 90' pf.~~ Pulled 1525' 5½" C 5475'. Splice test OK. Bullet perf & plgd ~~5165-5205', 5220-5245', 5345-5395'~~. Test holes 4369' OK. Bullet perf 4640-4700', 4835-4845', 4870-4945'. Reperf 4915-4945'.
1	9-2	5480	Plug 5456	CALIFORNIA PRODUCTION SERVICE, Contractor, moved in and rigged up. Pulled rods and tubing.
				CLEAN OUT AND PLUG
1	9-3	"	" 5270	Bailed with 3-1/8" Cavins sand pump from 5390' to 5415'. Ran 4-3/4" impression block to 5415'. Fluid level at 4060'. Dumped 16 sacks of Blue Diamond construction cement in 4 hours from 5415' to 5270'.
1	9-4	"	" 5065	Found top of cement at 5263'. Fluid level at 3950'. Dumped 18 sacks of Blue Diamond construction cement. Fluid level 3910'. Top of cement at 5065'. Witnessed by Division of Oil and Gas representative - OK.
1	9-5	"	" "	Found fluid level at 3905'.
				WSO & PERFORATING
1	9-8	"	" "	Ran in with McCullough 3-1/2" o.d., 4 shot gun. Checked fluid level at 3920'. Shot four 1/2" holes at 4869'. Let set four hours (7:15 a.m. to 11:15 a.m.) No fluid rise. Water shut-off witnessed and approved by Division of Oil and Gas representative. Ran in with 3-1/2" o.d., 20 shot gun and perforated 5-1/2" casing with four 1/2" holes per foot from 4945' to 4870'. Fluid level after perforating 3870'.
1	9-9	"	" "	Checked fluid at 3840', fill at 5047'. Cleaned out sand with 3-1/3" Cavins sand pump from 5047' to 5065'. Ran tubing.
1	9-10	"	" "	Ran rods. Put well on production. California Production Service, Contractor, moved out.

NAMES OF DRILLERS/HEAD WELL PULLERS: California Production Service, Contractor

Vaughn S. Moyer,
DISTRICT ENGINEER

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED 169
OCT 21 1953
LOS ANGELES, CALIFORNIA

UNION OIL COMPANY of California
History of Oil or Gas Well

REPAIR REPORT

WELL NO. Oil Operators #2

(FIELD) Long Beach

(COUNTY) Los Angeles

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

(TOOLS) Prod. Hoist - Contract

(PERIOD ENDING) September 26, 1953

CASING RECORD

See next page.

(NOTE INEFFECTIVE CASING)

NO. TOURS	DATE 1953	DEPTH	EFFECTIVE DEPTH	REMARKS
		5480	Plug 5065	

PRODUCTION DATA

	Hours	Gross	Net	Cut	Remarks
9-10	16	24	0	100.0	
9-11	24	6	3	50.0	
9-12	24	6	5	20.0	
9-13	24	6	5	20.0	
9-14	24	6	1	80.0	
9-15	-				Pulled rods & tubing. Ran bailer.
9-16	15	31	6	80.0	Lowered tubing 61'
9-17	24	12	4	66.0	Pumped off
9-18	24	7	1	80.0	
9-19	24	6	1	80.0	
9-20	24	6	1	80.0	
9-21	24	6	5	13.0	
9-22	24	6	5	13.0	
9-23	24	5	4	13.0	

NO. TOURS	DATE	DEPTH	EFFECTIVE DEPTH	REMARKS
1	9-24	"	"	CALIFORNIA PRODUCTION SERVICE, Contractor, moved in and rigged up. Pulled rods and tubing. Found fluid level at 3680', no fill. 4¾" impression block went to bottom - 5065'.
1	9-25	"	"	PERFORATING Ran in with 4" o.d., Lane-Wells A-2 gun perforator and checked fluid level at 3750' at 7:45 a.m. Shot four 1/2" holes per foot from 4945' to 4915'. Very light gas blow on 5th run. Fluid level at 3710'. at 10:20 a.m. Perforated from 4845' to 4835' with light to medium gas blow. Perforated from 4700' to 4640' with light to moderate blow. Total holes shot - 400. Fluid level 3450' at 1:50 p.m. Net fluid rise 300'. No fill.
1	9-26	"	"	Checked fluid level at 3445', no fill. Ran tubing and rods. Put well on production. California Production Service, Contractor, moved out. Well completed pumping in the Brown Zone.

NAMES OF DRILLERS/HEAD WELL PULLERS: California Production Service, Contractor.

Vaughn S. Moyer,
DISTRICT ENGINEER

10

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS of California

UNION OIL COMPANY

History of Oil or Gas Well
REPAIR REPORT

WELL NO. Oil Operators #2

Long Beach
(FIELD)

Los Angeles
(COUNTY)

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

Prod. Hoist - Contract
(TOOLS)

October 6, 1953
(PERIOD ENDING)

CASING RECORD 13-3/8" C 739', 8-5/8" C 4016' WSO. ~~3341' 6-5/8" H 4105' tne 90' pf~~ Pulled. 1525' 5½" C 5475'. Splice test OK. Bullet pf & plgd ~~5265-5285'~~, ~~5220-5245'~~, ~~5345-5395'~~. Test holes 4869' OK. Bullet pf 4640-4700', ~~4835-4845'~~, ~~4870-4945'~~.
(NOTE INEFFECTIVE CASING)

REMARKS Repf 4915-4945'.

NO. TOURS	DATE 1953	DEPTH	EFFECTIVE DEPTH
		5480	Plug 5065

DIVISION OF OIL AND GAS
RECEIVED
OCT 21 1953
LOS ANGELES, CALIFORNIA

PRODUCTION DATA

	Hours	Gross	Net	Cut	Remarks
9-26	17	39	0	100.0	
9-27	24	47	6	87.0	
9-28	24	12	10	15.0	
9-29	24	9	8	12.0	
9-30	24	9	6	3.5	
10-1	24	8	7	8.0	
10-2	24	7	6	8.0	
10-3	24	7	6	8.0	
10-4	24	7	6	8.0	
10-5	24	6	6	2.8	
10-6	24	6	6	3.0	

bg
fs

NAMES OF DRILLERS/HEAD WELL PULLERS: California Production Service, Contractor

Vaughn S. Moyer,
DISTRICT ENGINEER

FORM 109-B (10-49)

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Test of Water Shut-off
(BAILING)

No. T 153-1095

Los Angeles 15 Calif. September 16 1953

Mr. W S Eggleston
Los Angeles 17 Calif.
Agent for UNION OIL CO OF CALIFORNIA

DEAR SIR:

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

Shut-off data: 5-1/2 in. 15 lb. casing was cemented at 5475 ft. on October 29, 1941 in 7-5/8 hole with 275 sacks of cement of which xxx sacks was left in casing.

Casing record of well: 13-3/8" cem. 759'; 8-5/8" cem. 4016', W.S.O.; 5-1/2" cem. 3950'-5475', perf. 5395'-5345', 5245'-5220', 5205'-5165', four 1/2" holes 4869', W.S.O., plugged with cement 5480'-5456' and 5417'-5065'

Reported total depth 5480 ft. ~~Bridged~~ Plugged with cement from 5417 ft. to 5065 ft. Cleaned out to 5065 ft. for this test.

~~Casing test data~~:

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

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

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

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

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

WCB:ES

cc Long Beach
Mr C F Bowden

E/G

R. D. BUSH, State Oil and Gas Supervisor

By R. N. Walling, Deputy

16586 10-49 100 PADS SPO

FORM 109-D

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 153-1094

Los Angeles 15 Calif. September 16 1953

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

121

DEAR SIR:

Operations at your well No. "Oil Operators" 2 Sec. 13, T. 4 S, R. 13 W, S B B. & M., Long Beach Field, in Los Angeles County, were witnessed by G C Hazenbush, Inspector, representative of the supervisor, on September 4, 19 53. There was also present A Fowks, Foreman
W Bradford, Well Puller

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

Junk xxx

The operations were performed for the purpose of testing the location and hardness of a cement plug placed from 5417' to 5065', in the process of plugging back.

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

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

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

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

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

GCH:ES

cc Long Beach

Mr C F Bowden Div Eng
Union Oil Co of California
9645 S Santa Fe Springs Rd
Whittier California

R. D. BUSH
State Oil and Gas Supervisor

By R. N. Walling Deputy

82547 7-53 17,850 ② SPO

FORM 111 (1-49)

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

REPORT ON PROPOSED OPERATIONS

No. P 153-1075

Los Angeles 15 Calif. August 25 1953

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

Agent for UNION OIL CO OF CALIFORNIA

DEAR SIR: "Oil Operators"

Your proposal to plug & alter casing Well No. 2,

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

dated Aug. 20 1953, received Aug. 21 1953, has been examined in conjunction with records filed in this office.

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

RECORDS IN ADDITION TO, OR AT VARIANCE WITH, THOSE SHOWN IN THE NOTICE:
The hole is plugged with cement from 5480'-5456'.

THE NOTICE STATES
"The present condition of the well is as follows:
1. Total depth.
4105' Deepen 5480'
2. Complete casing record.
13-3/8" C 759'
8-5/8" C 4016' W.S.O.
~~1141 6-5/8" H 4105' including 90' perforations.~~ Pulled.
1525' 5-1/2" C 5475', splice test O.K.
Bullet perforate 5165-5205, 5220-5245, 5345-5395'.

3. Last produced. June 1953 (Date) 4 B/D (Net Oil) 23.8° (Gravity) 83.0% (Cut)"

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

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

JLW:OH

cc Long Beach

Records Filed
100
101
103 ✓ 10-21-53 JLW
E. Loc.

F/K

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

R. D. BUSH
State Oil and Gas Supervisor

By E. H. Musser Deputy

53076 11-51 25,500 SPO

Blanket bond.

FORM 107. 36140 11-50 10M SPO

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
AUG 21 1953
LOS ANGELES, CALIFORNIA

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

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

Whittier Calif. August 20, 1953 19

DIVISION OF OIL AND GAS

Los Angeles Calif.

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of ~~deepening, redrilling, plugging or~~ altering casing at Well No. Oil Operators #2
(Cross out unnecessary words)

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

Long Beach Field, Los Angeles County.

The present condition of the well is as follows:

1. Total depth.

4105' Deepen 5480'

2. Complete casing record.

13-3/8" C 759'
8-5/8" C 4016' W.S.O.
~~114' 6-5/8" H 4105' including 90' perforations.~~ Pulled.
1525' 5-1/2" C 5475', splice test O.K.
Bullet perforate 5165-5205, 5220-5245, 5345-5395'

3. Last produced. June 1953 (Date) 4 B/D (Net Oil) 23.8° (Gravity) 83.0% (Cut)

The proposed work is as follows:

1. Plug with cement to 5100'.
2. Test for water shut-off at 4869'.
3. Gun perforate interval 4870' to 4945'.
4. Test on production.

Plug + alter casing

MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121
			Blanket		

UNION OIL COMPANY OF CALIFORNIA
(Name of Operator)

By C. F. Bowden
C. F. Bowden, Division Engineer

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

FORM 102.

SUBMIT IN DUPLICATE
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL & GAS
RECEIVED
DEC 10 1941
LOS ANGELES, CALIFORNIA

Subsequent Work Report

OPERATOR UNION OIL COMPANY OF CALIFORNIA FIELD LONG BEACH

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

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

Reference to file of data

Cards | Forms

SIGNED Henry E Winter

Date December 5, 1941

Title DIVISION ENGINEER.
(President, Secretary or Agent)

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

Date	CASING RECORD AT BEGINNING OF WORK	CASING RECORD AT PRESENT
1941	13-3/8" C 759' 8-5/8" C 4016' O.K. 114' of 6-5/8" L 4105' incl 90' perf.	13-3/8" C 759' 8-5/8" C 4016' O.K. 1525' of 5-1/2" C 5475' Gun Perforated 5165-5205' 5220-5245' 5345-5395'

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

6

FORM 102.

SUBMIT IN DUPLICATE
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Subsequent Work Report

OPERATOR UNION OIL COMPANY OF CALIFORNIA FIELD LONG BEACH

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

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

SIGNED Henry E Winter

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

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

Date 1941	DEPTH	EFF. DEPTH	REMARKS
11-4	5480'	Plug 5456'	Cleaned to 5456' (cement from 3945-3970'). Bailed fluid to 3000', stood eight hours. Splice test OK by Division of Oil and Gas. No rise.
11-6	5480'	Plug 5456'	Replaced mud with oil and perforated 5-1/2" casing with Lane-Wells gun, 1/2" holes, as follows 5165-5205', 81 holes 5220-5245', 49 holes 5345-5395', 100 holes
11-7			Ran 5313' 2-1/2" tubing and rods and put on pump. Pumping unit broke after pumping 18 barrels of oil.
11-8			Repairing pumping unit.
11-9			Repairing pumping unit.
11-10			Repairing pumping unit.
11-11			Production - 116 net, 2.5% cut, P 15 hours
11-12			" 88 net, 23.8° gravity, 2.8% cut, P 24 hours
11-22			" 74 net, 25.4° gravity, 4.6% cut, P 24 hours
11-30			" 56 net, 25.4° gravity, 2.4% cut, P 24 hours

November Production - 1,317 barrels in 20 days.

101. 31130 4-36 30M
FORNIA STATE PRINTING OFFICE

16

DIVISION OF OIL & GAS
RECEIVED
JAN 20 1942
LOS ANGELES, CALIFORNIA

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

LOG AND CORE RECORD OF OIL OR GAS WELL

Operator UNION OIL COMPANY OF CALIFORNIA Field LONG BEACH

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

FORMATIONS PENETRATED BY WELL

Henry E Wirth

DEPTH TO Top of Formation	DEPTH TO Bottom of Formation	Thickness	Drilled or Cored	Recovery	DESCRIPTION
4800	4802				Took 0.8 core of oil stained, medium, coarse gray sand with a basket while fishing for pieces of a disc bit.

FORM 109-D.
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 1-40317

Los Angeles, Calif. November 7, 1941

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

DEAR SIR:

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

Casing Record	Junk
13-3/8" cem. 759', 8-5/8" cem. 4016' W. S. O.; 5-1/2" cem. 3950'-5475'. T. D. 5480', plugged with cement 5480'-5456'.	None

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

and the data and conclusions are as follows:

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

1. All of the 6-5/8" casing was pulled out of the hole.
2. A 7-5/8" rotary hole was drilled from 4105' to 5480'.
3. On October 29, 1941, 1525' of 5-1/2" - 15 lb. casing was cemented at 5475' with 275 sacks of Slow Colton cement.
4. The 8-5/8" - 5-1/2" casing splice tested wet.
5. On November 2, 1941, the 8-5/8" - 5-1/2" casing splice was cemented with a Halliburton cementer set at 3911' with 100 sacks of Cement. It was estimated that 84 sacks of cement was forced away under a 1375 lb. final pressure.
6. Cement was drilled out of the 8-5/8" and 5-1/2" casings from 3905' to 3970' (equivalent to 16 sacks) and the casing was cleaned out to 5456'.
7. The fluid in the hole was bailed to 3000' at 10:00 a. m. on November 4, 1941.

THE INSPECTOR NOTED THE FOLLOWING:

1. No fluid entered the well while standing 8 hr. for test.
2. The hole was open to 5456'.

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

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

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

R. D. BUSH
State Oil and Gas Supervisor

By E. H. Musser Deputy

FORM 111.
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Proposed Operations

No. P 1-36864

Los Angeles, Calif. September 15, 1941.

MR. W. S. Eggleston,
Los Angeles, Calif.
Agent for UNION OIL COMPANY OF CALIFORNIA

121

DEAR SIR:

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

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

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

THE NOTICE STATES:

"The present condition of the well is as follows:
Total Depth 4105
13-3/8 cmtd. 759
8-5/8 cmtd. 4016 O.K.
114- 6-5/8 landed 4105 inc. 90 perforated.
It is desired to deepen to the R S & T Zones
Last Production August, 1941 - 1481 oil - 29224 water - 31 days."

PROPOSAL:

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

DECISION:

THE PROPOSAL IS APPROVED PROVIDED THAT:

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

cc- H. E. Winter
Long Beach
ABH:OH
R lat

R. D. BUSH
State Oil and Gas Supervisor

By E. H. Meusser Deputy

FORM 107. 42649 3-37 10M
CALIFORNIA STATE PRINTING OFFICE

DIVISION OF OIL & GAS
RECEIVED
SEP 12 1941
LOS ANGELES, CALIFORNIA

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

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

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

Santa Fe Springs, Calif. September 11, 1941

DIVISION OF OIL AND GAS

Los Angeles, Calif.

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

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

Long Beach Field, Los Angeles County.

The present condition of the well is as follows:

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

It is desired to deepen to the R S & T Zones
Last Production August, 1941 - 1481 oil - 29224 water - 31 days

The proposed work is as follows:

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

Deepen

Union Oil Company of California
(Name of Operator)

By Henry E Winter
Division Engineer

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

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

No. 2792

DIVISION OF OIL AND GAS

LOS ANGELES

Calif. 1/13 1938

Union Oil Co of Calif.
Name of Operator

LOS ANGELES

Address

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

Logs

History

Core record

Subsequent work Elec Log - Oil Operators 2 - 12/11/37

R. D. BUSH, *State Oil and Gas Supervisor*

DUPLICATE

By [signature] *Deputy*

FORM 127. 46818 7-37 3M

CALIFORNIA STATE PRINTING OFFICE

FORM 103.
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
JAN 14 1938
LOS ANGELES, CALIFORNIA

History of Oil or Gas Well

OPERATOR UNION OIL COMPANY OF CALIFORNIA FIELD LONG BEACH

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

Signed Henry C Winter

Date Jan. 11, 1938 Title District Engineer
(President, Secretary or Agent)

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

Date		
	CASING RECORD AT START OF WORK:	CASING RECORD AT END OF WORK:
	New well	13-3/8" C 759' 8-5/8" C 4016' 114' 6-5/8" L 4105', inc 90' perf.

Copy to file of data
Section | Cards | 114 | 121

1937	Depth	Remarks
11-13	78	Spudded in and drilled with 17" rotary bit.
11-17	761	Drilled with 17" rotary bits to 761'. Cemented new 13-3/8" 45.97# National seamless slipjoint casing at 759' with 350 sx Monolith Velo cement. Cementing operations witnessed and approved by Stolz, of Division of Oil & Gas.
11-19	1070	Found top of cement at 747'. Cleaned out cement and plugs and drilled ahead with 12-1/4" bits.
12-2	3859	Drilled with 12-1/4" bits to 3859'. Ran Schlumberger Survey.
12-5	4034	Drilled with 12-1/4" bits to 3965' and cored with 7-5/8" core barrels to 4034'. Ran Schlumberger Survey. Reamed out core hole with 12-1/4" bit to 4016'. Cemented 8-5/8" 32# Grade "C" (1963' of 36# Grade "C" on bottom) 8-thread rounded seamless casing at 4016' with 400 sx cement (200 sx Victor oil well and 200 sx Victor construction).
12-10	4075	Found top of cement at 3989. Drilled out cement and plugs to 4016 and cleaned out to 4021. Water shut off test on 8-5/8" casing at 4016 witnessed and approved by Stolz, of Division of Oil & Gas. Drilled and cored to 4075'.
12-12	-4105	Cored to 4105. Ran Schlumberger Survey. Landed 114' of 6-5/8" 26# Grade "C" casing at 4105', including 90' of 16-2-6 120-mesh Kobe perforated on bottom. Bailed to 1200' and well started flowing by heads.
12-14	4105	Bailed hole clean of mud and sand. Landed 3" upset tubing at 3649'. Ran rods and installed pumping unit. Put well on pump 5:00 P.M. 12-14-37.

FORM 103.
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR UNION OIL COMPANY OF CALIFORNIA FIELD LONG BEACH

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

Signed Henry E Winter

Date Jan. 11, 1938 Title District Engineer
(President, Secretary or Agent)

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

Date

PRODUCTION TEST DATA:

1937	Gross	Net	Grav.	Cut	Status	Bean	T.P.	C.P.	Remarks
12-14	391	203	23.8	48.0	P 10				On pump 5:00 P.M.
12-15	869	854	"	1.7	P 24				
12-16	873	862	"	1.3	"				
12-17	1757	1625	"	7.5	"				Well started to flow in morning.
12-18	0								Sanded up. Killed well. Rigged up to pull.
12-19									Pulled rods and tubing. Ran bailer and found hole open to bottom (4105) Landed 3" upset tubing at 3935.
	355	220	23.8	38.0	F 6	36/64"	260	275	
12-20	1482	1402	"	5.4	F 24	"	330	680	Well started flowing without swabbin
12-21	1129	1109	"	1.8	F 24	"	"	650	
12-22	984	974	"	1.0	"	"	320	600	
12-23	968	958	"	"	"	"	300	510	
12-24	1053	1042	"	"	"	57/64	125	400	
12-25	1117	1101	"	1.4	"	1½"	50	275	No daily gas
12-26	1093	1082	"	1.0	"	1½ & 1½	40	275	
12-27	1027	1015	"	1.2	"	"	35	260	Dec gas 18,573 MCF
12-28	979	966	"	1.3	"	"	35	260	
12-29	973	963	"	1.0	"	"	25	260	
12-30	963	955	"	0.8	"	"	25	260	
12-31	938	929	"	1.0	"	"	25	270	

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SUBMIT LOG IN DUPLICATE

FILL TH NK IN WITH TYPEWRITER. WRITE ON ONE SIDE OF PAF LY

DIVISION OF OIL AND GAS
RECEIVED
JAN 14 1938
LOS ANGELES, CALIFORNIA

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Sun Oil Co.

LOG OF OIL OR GAS WELL

Operator Union Oil Company of California Field Long Beach

Well No. Oil Operators 2 NWLBO #8-2 Sec. 13, T. 4-S, R. 13-W, S.B. B. & M.

Location 523' W'ly along the center line of Bixby Road projected from the center of the Pacific Electric Railway Right of Way and thence 45' S'ly at 90° Elevation 56.97

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

Date Jan. 11, 1938 Signed Henry E Winter

Title District Engineer

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

Commenced drilling Nov. 13, 1937 Completed drilling Dec. 14, 1937 Drilling tools ~~Cable~~ Rotary

Total depth 4105 Plugged depth

Junk

Reference to file of data

Maps	Model	Cross Section	Cards	Forms 114	121

GEOLOGICAL MARKERS	DEPTH
Wilbur shale	3597-3662
Alamitos shale	3795-3860
"H"	3982
"I"	4017

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

	Clean Oil bbl. per day	Gravity Clean Oil	Per Cent Water including emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pressure
Initial production	854	23.8	1.7			
Production after ~~30~~ 17 days	929	23.8	1.0		25	270

Casing Record (Present Hole)

Size of Casing (A. P. I.)	Depth of Shoe	Top of Casing	Weight of Casing	New or Second Hand	Seamless or Lapweld	Grade of Casing	Size of Hole Casing landed in	Number of Sacks of Cement	Depth of Cementing if through perforations
13-3/8	759	Surface	45.97#	New	Smls.	"C"	17"	350	
8-5/8	4016	Surface	32# & 36#	New	Smls	"C"	12-1/4"	400	
6-5/8	4105	3991	26#	New	Smls	"C"	7-5/8"	-	

Perforations

Size of Casing	From	To	Size of Perforations	Number of Rows	Distance Between Centers	Method of Perforations
6-5/8	4015 ft.	4105 ft.	120 mesh	16	6	Kobe
	ft.	ft.				
	ft.	ft.				
	ft.	ft.				
	ft.	ft.				

Electrical Log Depths Schlumberger from 759 to 4104. (Attach Copy of Log)

FORM 101.
CALIFORNIA STATE PRINTING OFFICE

DIVISION OF OIL AND GAS
RECEIVED
JAN 14 1938
LOS ANGELES, CALIFORNIA

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

LOG AND CORE RECORD OF OIL OR GAS WELL

Operator UNION OIL COMPANY OF CALIFORNIA Field LONG BEACH

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

FORMATIONS PENETRATED BY WELL

Henry E Winter

DEPTH TO Top of Formation	DEPTH TO Bottom of Formation	Thickness	Drilled or Cored	Recovery	DESCRIPTION
0	708	708			Sand and gravel
708	770	62			Shale
770	1171	401			Sand and streaks of shale
1171	1215	44			Shale and streaks of sand
1215	1255	40			Sand and streaks of shale
1255	1277	22			Shale
1277	1425	148			Sand and streaks of shale
1425	1451	26			Shale
1451	1535	84			Sand and streaks of shale
1535	1560	25			Shale
1560	2017	457			Sand and streaks of shale
2017	2044	27			Shale
2044	2153	109			Sand and streaks of shale
2153	2170	17			Shale
2170	2235	65			Sand and streaks of shale
2235	2420	185			Shale and streaks of sand
2420	2526	106			Shale
2526	2877	351			Shale and streaks of sand
2877	2941	64			Shale
2941	2975	34			Shale and streaks of sand
2975	2978	3			Shell
2978	3075	97			Sand and streaks of shale
3075	3105	30			Shale
3105	3245	140			Sand and streaks of shale
3245	3247	2			Shell
3247	3336	89			Sand and streaks of shale
3336	3388	52			Shale and streaks of sand
3388	3390	2			Shell
3390	3480	90			Shale and streaks of sand
3480	3710	230			Sand and streaks of shale
3710	3713	3			Shell
3713	3798	85			Sand and streaks of shale
3798	3896	98			Shale and streaks of sand
3896	3899	3			Shell
3899	3983	84			Sand and shells (See core record)
3983	4101	18			Shale and streaks of sand (See core record)
4101	4105	4			Hard sand

3

FORM 101. 31130 4-36 30M
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

LOG AND CORE RECORD OF OIL OR GAS WELL

Operator UNION OIL COMPANY OF CALIFORNIA Field LONG BEACH

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

FORMATIONS PENETRATED BY WELL

Henry E Winter

DEPTH TO Top of Formation	DEPTH TO Bottom of Formation	Thickness	Drilled or Cored	Recovery	DESCRIPTION
4105	4558	453	Drilled		Shale and sand
4558	4659	101	"		Sand and shale
4659	4749	90	"		Sand and hard shale
4749	4825	76	"		Shale (Note:- see supplementary sheet rec'd. 1/20/42 for core
4825	4853	28	"		Sand and shale taken between 4800-4802 Epina
4853	4957	104	"		Sand
4957	5000	43	"		Shale
5000	5297	297	"		Sand
5297	5360	63	"		Shale
5360	5385	25	"		Sand
5385	5404	19	"		Shale
5404	5471	67	"		Sand
5471	5480	9	"		Shale
					No cores taken.

8A 11-37 8M

UNION OIL COMPANY OF CALIFORNIA

CORE RECORD

DIVISION OF OIL AND GAS
RECEIVED
JAN 14 1938
LOS ANGELES, CALIFORNIA

FIELD: Long Beach | COMPANY: Union Oil | LEASE: Oil Operators | WELL: #2
LOCATION: | ELEVATION: 56.97

Henry E Winter

DATE 1937	CORE NO.	DRILLER SIZE & TYPE BARREL	FROM	TO	TOTAL RECRY.	SHALE	OIL SAND	GRAY SAND	SHELL	DESCRIPTION OF CORE	APPT. DIP	ANGLE OF HOLE
12-3	1	7-5/8" Soll	3965	3983	12.0			12.0		Firm to hard, fine to medium gray sand. Streak of brown shale 4.3 from top. Dip 25°		
12-4	2	7-5/8 Soll	3983	4001	13.0	6.9				Hard dark brown shale, sandy in spots Dip 16°. Fractures of 35° and 37°		
							0.9			Soft fine brown oil sand. Good odor		
						1.4				Hard dark brown shale. Top 0.2 badly fractured		
							0.7			Firm, soft, medium brown oil sand. Shale partings in top 0.2		
						0.2				Hard dark brown shale. Fracture of 43°		
							2.8			Firm soft fine to medium brown oil sand		
						0.1				Hard dark brown shale		
						8.6	4.4					
12-4	3	7-5/8" Soll	4001	4019	16.5	0.8				Hard dark brown shale		
							0.3			Soft fine brown oil sand		
						4.3				Hard dark brown silty shale, inclusions of fine brown oil sand in bottom 0.7		
							0.5			Firm soft fine brown oil sand		
						0.2				Hard dark brown sandy shale		
							0.6			Firm soft fine brown oil sand		
						0.4				Hard dark brown shale		
						0.1	0.4			Firm to hard fine brown oil sand with streaks and inclusions of hard brown shale		
							0.5			Firm soft fine brown oil sand		
						0.4				Hard dark brown shale		
							0.3			Firm soft fine brown oil sand		
						7.8				Hard dark brown shale, sandy in spots Streaks of fine brown oil sand 2.1 from bottom. Dip 15°		
						14.0	2.5					
12-4	4	7-5/8" Soll	4019	4034	14.1		0.9			Firm fine brown oil sand with inclusions of hard brown shale. Good odor and dark amber cut		
						0.2				Hard dark brown shale		
							5.2			Firm, soft, fine to medium brown oil sand. Good odor and dark amber cut		
							1.3			Firm soft coarse brown oil sand		
							0.4			Firm soft fine brown oil sand		
						0.2				Hard dark brown shale		
							3.1			Firm soft medium to coarse brown oil sand. Good odor and dark amber cut		
							2.8			Firm soft fine to medium brown oil sand. Good odor and dark amber cut		
						0.4	13.7					

BA 11-37 8M

UNION OIL COMPANY OF CALIFORNIA

CORE RECORD

Long Beach FIELD Union Oil COMPANY Oil Operators LEASE 2 WELL

LOCATION ELEVATION

DATE 1937	CORE NO.	DRILLER SIZE & TYPE BARREL	FROM	TO	TOTAL RECRY.	SHALE	OIL SAND	GRAY SAND	SHELL	DESCRIPTION OF CORE	APPT. DIP	ANGLE OF HOLE
			4034	4060						Drilled interval Henry E. Winter		
12-10	5	7-5/8" Soll	4060	4075	8.1		0.7			Firm soft fine to medium brown oil sand		
									0.2	Hard calcareous sandstone shell		
						0.1				Hard dark brown shale		
							3.0			Firm soft, medium brown oil sand. Good odor and dark amber cut		
						0.2				Hard dark brown shale		
							1.6			Firm soft fine brown oil sand laminated with mud		
						0.1				Hard dark brown shale		
							0.3			Firm soft fine dark brown argillaceous oil sand. Partings of dark brown shale		
						1.0				Hard dark brown shale with streaks of fine brown oil sand		
						0.3				Hard grayish-brown bentonitic shale laminated with fine brown oil sand		
						0.2				Hard dark brown shale		
							0.1			Fine grayish-brown oil sand. Light amber cut		
						0.3				Shale with streaks of oil sand. Broken and badly burnt		
						2.2	5.7		0.2			
12-11	6-	7-5/8 Soll	4075	4088	11.2		0.1			Firm soft fine brown oil sand		
						7.7	0.5			Hard brown silty shale with inclusions of fine gray sand. Streaks of fine brown oil sand. Fracture of 25° & 29°		
							0.2			Firm soft fine brown oil sand. Good odor and dark amber cut		
						0.2				Hard dark brown sandy shale		
							0.3			Firm soft fine brown oil sand		
						0.2				Hard dark brown sandy shale		
									0.5	Hard slightly calcareous shale shell		
						0.4	0.1			Hard dark brown sandy shale with streaks of fine brown oil sand		
							0.2			Firm soft fine dark brown argillaceous oil sand		
						0.7	0.1			Hard dark brown sandy shale with streaks of fine brown oil sand. Fracture of 24°		
						9.2	1.5		0.5			

8A 11-37 8M

15

UNION OIL COMPANY OF CALIFORNIA

CORE RECORD

Long Beach FIELD Union Oil . COMPANY Oil Operators LEASE 2 WELL

LOCATION 58.97 ELEVATION

DATE 1937	CORE NO.	DRILLER SIZE & TYPE BARREL	FROM	TO	TOTAL RECRY.	SHALE	OIL SAND	GRAY SAND	SHELL	DESCRIPTION OF CORE	APPT. DIP	ANGLE OF HOLE
										Henry E Winter		
12-11	7	7-5/8" Soll	4088	4105	14.4	0.1				Hard dark brown sandy shale		
									0.3	Hard, slightly calcareous, sandy shale shell		
						0.3				Hard brown sandy shale		
							5.2			Firm soft fine to medium brown oil sand Good odor and dark greenish-brown cut		
						0.4	0.1			Hard sandy brown shale with streaks of fine brown oil sand		
							0.4			Firm fine dark brown argillaceous oil sand		
						0.2				Hard dark brown sandy shale		
							0.3			Firm soft fine brown oil sand		
						0.3				Hard brown sandy shale		
							0.4			Firm soft fine brown oil sand		
						0.1				Hard brown silty shale		
							0.5			Firm soft, fine dark brown oil sand. Good odor and dark greenish-brown cut Dip 15°		
						0.7				Hard dark brown silty shale		
							0.7			Soft, loose, fine brown oil sand		
						0.7				Hard dark brown broken shale		
						0.1	0.8			Soft loose, fine to medium brown oil sand with streaks and inclusions of brown shale		
						0.1	0.5			Firm medium brown oil sand with streak of brown shale		
						0.3				Hard brown sandy shale		
							1.0			Firm soft fine to medium brown oil sand Good odor and dark greenish-brown cut Dip 16°		
						0.7	0.2			Hard dark brown silty shale with streak of fine brown oil sand		
						4.0	10.1		0.3			
										Total depth 4105 ft.		

FORM 109-B. 46392 7-37 8750.
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Test of Water Shut-off

No. T 1-33546

Los Angeles, Calif. December 27, 19 37.

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

Agent for UNION OIL COMPANY OF CALIFORNIA

DEAR SIR:

Your well No. "OIL OPERATORS" 2, Sec. 13, T. 4 S., R. 13 W., S.B. B. & M., Long Beach Field, in Los Angeles County, was tested for shut-off of water on December 10 (Time and date), 19 37. Mr F. C. Stels, designated by the supervisor, was present as prescribed in Section 19, Chapter 718, Statutes 1915, as amended, and there were also present R. W. Rampton, Engineer, and J. Kewish, Toolpusher.

Location of water tested above 4016' and normal fluid level not determined.

Depth and manner of water shut-off: 2053 ft. of 8-5/8 in. 32 lb. / 1963 ft. of 8-5/8 in. 36 lb. casing was cemented 12-5-37 ~~landed~~ in shale (Formation) at 4016 ft. with 400 sacks Victor oil well and construction cement by casing method.

Water string was landed in 12¼" rotary (Size, rotary or cable tool) hole.

Casing record of well 13-3/8" cem. 759'; 8-5/8" as above.

Reported total depth of hole 4034 ft. Hole bridged from xx ft. to xx ft. Hole cleaned out to 4021 ft. for this test.

At time of test depth of hole measured See below ft. and bailer brought up sample of xxxxx

At See below (Time and date) oil bailed to xxxx ft., drilling fluid {bailed / swabbed} to xxx ft.

At " " (Time and date) top of oil found at xxxx ft., top of fluid found at xxxx ft.

THE INSPECTOR ARRIVED AT THE WELL AT 9:15 A. M. AND MR. RAMPTON REPORTED THE FOLLOWING:

1. No casing test was made.
2. 27' of set cement was drilled out of the 8-5/8" casing (equivalent to 8 sacks).
3. The Johnston tester was run into the hole on 4" drill pipe.
4. The wall packer was set at 4005'.
5. The tester valve was opened at 8:51 a. m. and remained open for 33 minutes. During this interval there was a medium air blow for 4 minutes, a gas blow by heads for 15 minutes and a light blow for the remaining 11 minutes.

THE INSPECTOR NOTED THE FOLLOWING:

1. When the drill pipe was removed 40' of medium drilling fluid and 1890' of oil and gas was found in the drill pipe above the tester, equivalent to 0.6 and 27.0 bbl.
2. The recording pressure bomb chart showed that the tester valve was open for 33 minutes.

The test was completed at 11:40 a. m.

THE SHUT-OFF IS APPROVED.

R. D. BUSH
State Oil and Gas Supervisor

By E. Hugenbum Deputy

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

629 South Hill Street
Los Angeles, California
November 24, 1937.

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

Gentlemen: Attention Mr. Henry E. Winter.

This will acknowledge receipt of and thank you for your letter dated November 22, 1937, giving the correct elevation and location of your well No. "Oil Operators" 2, Sec. 13, T. 4 S., R. 13 W., S. B. B. & M., Long Beach field, as follows:

Elevation: 56.97' U. S. G. S.

Location: 523 ft. westerly along the center line of Bixby Road projected from the center line of the Pacific Electric Railway Right of Way and thence 45 ft. Southerly at 90°.

Our records have been corrected accordingly.

Yours truly,

Deputy Supervisor.

B:EMS

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

Corrections Made as Follows		By
Well Summaries		
12		
Elev. and Loc. Cards		
Production Reports		
Well Records: Folders		
Well Records: Reports		
Peg Models		
Graphics	20	CHB
Field Maps		

Book
CHB
11/24/37

FORM 401 9-36 70M
PRINTED IN U. S. A.

Union Oil Company of California

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

DIVISION OF OIL AND GAS
RECEIVED
NOV 24 1937
LOS ANGELES, CALIFORNIA

Santa Fe Springs, Calif. Nov. 22, 1937

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

RE: Oil Operators #2

Dear Sir:

The elevation of the Union Oil Company well "Oil Operators #2" at Long Beach (Sec. 13, 4S, 13W) is 56.97 U.S.G.S.

The corrected location is as follows:

523 ft. Westerly along the center line of Bixby Road projected from the center line of the Pacific Electric Railway Right of Way and thence 45 ft. Southerly at 90°

Our records have been corrected accordingly.

Very truly yours,
Henry E Winter
District Engineer.

HEW:S

FORM 109-D. 47172 7-37 15M
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 1-33385

Los Angeles, Calif. November 22, 1937

Mr. Ed Jussen, Jr.,

Los Angeles, Calif.

121

Agent for UNION OIL COMPANY OF CALIFORNIA

DEAR SIR:

Operations at your well No. "OIL OPERATORS" 2 Sec. 13, T. 4S., R. 13W., S. B. B. & M., Long Beach Field, in Los Angeles County, were witnessed by F. C. Stolz, representative of the supervisor, on November 17, 1937. There was also present H. E. Winter, Engineer, and J. Kewish, Drilling Foreman.

Casing Record	Junk
13-3/8" cem. 759'. T. D. 761'.	--

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

and the data and conclusions are as follows:

THE INSPECTOR ARRIVED AT THE WELL AT 3:00 P. M. AND MR. WINTER REPORTED THE FOLLOWING:

1. A 17" rotary hole was drilled from the surface to 761'.
2. 766' of 13-3/8" - 45.97 lb. casing was run into the hole to 759'.

THE INSPECTOR NOTED THE FOLLOWING:

1. The 13-3/8" casing was cemented at the reported depth of 759' with 350 sacks of Monolith Velo cement.
2. The cement was displaced with 674 cubic feet of mud fluid.
3. The final pressure was 500 lb.

The operations were completed at 4:15 p. m.

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

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

E.J.

R. D. BUSH
State Oil and Gas Supervisor

By E. Hugelmire Deputy

FORM 111. 46011 6-37 20M.
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Proposed Operations

No. P 1-31536

Los Angeles, Calif. November 4, 1937.

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

Agent for UNION OIL COMPANY OF CALIFORNIA

Dear Sir:

Your proposal to drill Well No. "OIL OPERATORS" 2,
Section 13, T. 4 S., R. 13 W., S.B. B. & M., Long Beach Field, Los Angeles County,
dated Oct. 28, 1937, received Oct. 29, 1937, has been examined in conjunction with records filed in this office.

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

THE NOTICE STATES:

"The well is ~~580' W'ly along center line of San Antonio from the center line of Del Mar and thence 115' N'ly at right angles~~ ----------
The elevation of the derrick floor above sea level 56.97 ~~will be determined later (Approx. 55')~~
We estimate that the first productive oil or gas sand should be encountered at a depth of about 4000 feet, more or less."

PROPOSAL:

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

Size of Casing	Weight	New or Second Hand	Depth	Landed or Cemented
13-3/8	46	New	700'	Cmtd.
8-5/8	36	New	4000	Cmtd.
6-5/8 Perforated liner		New	4100	Landed

Well is to be drilled with rotary tools.

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

DECISION:

THE PROPOSAL IS APPROVED PROVIDED THAT:

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

* 523 ft. westerly along the center line of Bixby Road projected from the center line of the Pacific Electric Railway Right of Way and thence 45 ft. southerly at 90°. (Correction letter 11-24-37)

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

R. D. BUSH
State Oil and Gas Supervisor

By [signature] Deputy

FORM 105. 24758 9-35 10M
CALIFORNIA STATE PRINTING OFFICE

DIVISION OF OIL AND GAS
RECEIVED
OCT 29 1937
LOS ANGELES, CALIFORNIA

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Notice of Intention to Drill New Well

This notice must be given before drilling begins

037-09793

General Exploration Co. Santa Fe Springs Cal. Oct. 28, 1937

Mr. E. Huguenin,

Deputy State Oil and Gas Supervisor

Los Angeles, Cal. P1-31536

Dear Sir:

In compliance with Section 17, Chapter 718, Statutes of 1915, as amended, notice is hereby given that it is our intention to commence the work of drilling well No. "Oil Operators" #2, Sec. 13, T. 4-S, R. 13-W, S.B. B. & M., Long Beach Oil Field Los Angeles County. CLB

Lease consists of 523 ft. westerly along the center line of Bixby Road projected from the center line of the Pacific Electric Railway Right of Way and thence

The well is 580' W'ly along center line of San Antonio from the center line of Del Mar and thence 115' N'ly at right angles feet N. or S., and feet E. or W. from
(Give location in distance from section corners or other corners of legal subdivision)

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

45 ft. southerly at 90°. Correction letter 11-24-37

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

Size of Casing, Inches	Weight, Lb. Per Foot	New or Second Hand	Depth	Landed or Cemented
13-3/8	46	New	700'	Cmtd.
8-5/8	36	New	4000	Cmtd.
6-5/8 Perforated liner		New	4100	Landed

Well is to be drilled with rotary ~~xxxx~~ tools.

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

We estimate that the first productive oil or gas sand should be encountered at a depth of about 4000 feet, more or less.

Respectfully yours

Address Santa Fe Springs, Calif.

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

Telephone number Whittier 426-87

By Henry E Winter
District Engineer

Reference to file of data

Map	Cross Section	Grade	Forms	
Wildcat-Topog-#54 Wall.				
S.H.R			✓	✓

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

Wildcat Book
CLB
10/29/37

Name change from Sun Oil Co. to SUN EXPLORATION & PRODUCTION CO.

1-1-82, Form 156 dated 1-21-82. See ownership file.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF WELL ABANDONMENT

Long Beach, California

October 7, 1981

L. B. Carroll, Jr., Agent
SUN OIL COMPANY
P. O. Box 55060
Valencia, CA 91355

Your report of abandonment of well NWLBU 8-5
(Name and number)

A.P.I. No. 037-22295, Section 13, T. 4S, R. 13W, S. B. B. & M.,

Long Beach field, Los Angeles County,

dated 9-2-81, received 9-4-81, has been

examined in conjunction with records filed in this office, and we have determined that all of the requirements of this Division have been fulfilled.

HO:dh

cc: Update
Los Angeles County Planning Comm.
Fire Prevention Bureau
L. A. County Assessor
Dept. of Bldg. & Safety
Fire Dept.
Conservation Committee
Blanket Bond

M. G. MEFFERD
State Oil and Gas Supervisor

By Hermanys Delany
Deputy Supervisor

For R. A. YBARRA

OG159 (10/80/8M)

DIVISION OF OIL AND GAS
CHECK LIST - RECORDS RECEIVED AND WELL STATUS

Company Sun Oil Company Well No. NWLBU 8-5
API No. 037-22295 Sec. 13, T. 4S, R. 13W, S.B. B.&M.
County _____ Field Long Beach

RECORDS RECEIVED	DATE
✓ Well Summary (Form OG100)	9-4-81 (2)
✓ History (Form OG103)	9-4-81 (2)
Core Record (Form OG101)	
Directional Survey	
Sidewall Samples	
Other	
Date final records received	
Electric logs:	

STATUS		STATUS	
Producing - Oil	___	Water Disposal	___
Idle - Oil	___	Water Flood	___
Abandoned - Oil	___	Steam Flood	___
Drilling - Idle	___	Fire Flood	___
Abandoned - Dry Hole	✓	Air Injection	___
Producing - Gas	___	Gas Injection	___
Idle - Gas	___	CO_2 Injection	___
Abandoned - Gas	___	LPG Injection	___
Gas-Open to Oil Zone	___	Observation	___
Water Flood Source	___		

DATE 8/22/81
RECOMPLETED
REMARKS

ENGINEER'S CHECK LIST

1. Summary, History, & Core record (dupl.) ✓
2. Electric Log
3. Operator's Name ✓
4. Signature ✓
5. Well Designation ✓
6. Location ✓
7. Elevation ✓
8. Notices ✓
9. "T" Reports ✓
10. Casing Record ✓
11. Plugs ✓
12. Surface Inspection need
13. Production
14. E Well on Prod. Dir. Sur.

CLERICAL CHECK LIST

1. Location change ____ (F-OGD165)
2. Elevation change ____ (F-OGD165)
3. Form OGD121 10-7-81
4. Form OG159 (Final Letter) 10-7-81 DA
5. Form OGD150b (Release of Bond)
6. Duplicate logs to archives
7. Notice of Records due (F-OGD170)

surface inspection 8-17-81 okay. hg

UPDATE CENTER 10-14-81

surface insp & return to HO

Final Letter
— 9/17/81 —
BM

RECORDS NOT APPROVED
Reason: need surface insp

RECORDS APPROVED

RELEASE BOND
Date Eligible
(Use date last needed records were received.)
MAP AND MAP BOOK maps 137 & book 9-17-81 hg
81-4965

LONG BEACH OFFICE - USE REVERSE SIDE

OGD2 (12/80/DWRR/5M)

Form OG100 (7/79)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

API No. 037-22295

WELL SUMMARY REPORT

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

Location (Give surface location from property or section corner, street center line and/or California coordinates): 534.81' N & 762.8' W frm intersection of C/L of San Antonio Dr. & Del Mar Ave.

Elevation of ground above sea level: 45.5

Commenced drilling (date): 7/30/81

Completed ~~drilling (date)~~ P&A: 8/20/81

Commenced producing (date): N/A

☐ Flowing ☐ Pumping ☐ Gas lift

Name of producing zone(s): Lower Alamitos

Total depth: (1st hole) 4965' (2nd) (3rd)

Present effective depth: N/A

Junk: None

Depth measurements taken from top of: ☐ Derrick Floor ☐ Rotary Table ☒ Kelly Bushing

Which is ± 10 feet above ground

GEOLOGICAL MARKERS: N/A

DEPTH:

Formation and age at total depth: Brown

	Clean Oil (bbl per day)	Gravity Clean Oil	Percent Water including emulsion	Gas (Mcf per day)	Tubing Pressure	Casing Pressure
Initial Production	N/A					
Production After 30 days						

CASING RECORD (Present Hole)

Size of Casing (API)	Top of Casing	Depth of Shoe	Weight of Casing	Grade and Type of Casing	New or Second Hand	Size of Hole Drilled	Number of Sacks or Cubic Feet of Cement	Depth of Cementing (if through perforations)
13 3/8"	Surface	662'	48#	K-55	New	17½"	903 Sacks CL "G" cmt	-

PERFORATED CASING (Size, top, bottom, perforated intervals, size and spacing of perforation and method.)

None

Was the well directionally drilled? If yes, show coordinates at total depth

☒ Yes ☐ No 415' N & 115' W

Electrical log depths: N/A

Other surveys: N/A

In compliance with Sec. 3215, Division 3 of the Public Resources Code, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Name: L.B. Carroll, Jr.	Title: District Engineer	
Address: P.O. Box 55060	City: Valencia	Zip Code: 91355
Telephone Number: 805-257-6200	Signature: L.B. Carroll Jr by JHJ	Date: 9/3/81

SUBMIT IN DUPLICATE

RECEIVED
SEP 4 11 51 AM '81
DIV. OF OIL AND GAS
LONG BEACH, CA.

SUBMIT IN DUPLICATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

Operator SUN OIL COMPANY (DELAWARE) Field or County Long Beach
Well North Wilmington Long Beach Unit 8-5, Sec. 13, T4S, R13W, SB B. & M.
A.P.I. No. 037-22295 Name L. B. CARROLL, JR. (Person submitting report) Title Agent (President, Secretary or Agent)
Date 9/2/81, 19

Signature L B Carroll Jr by DMD

P. O. Box 55060, Valencia, California 91355 (Address) (805) 257-6200 (Telephone Number)

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

Date	
1981	
7/30	5826 TVD/"V" SANDS/IR/ATLANTIC OIL/LA CA/WI 1.00/ SURF LOC: 534.81' N & 762.8' W FRM INTERSECTION OF C/L OF SAN ANTONIO DR & DEL MAR AVE; BHL: 415' N & 115' W FRM SURF LOC/ 475 SD SH D (420) DRLG/MIRU ATLANTIC OIL CO RIG #3/SPUD @ 7 AM/ DRLG 17½" HOLE FRM 55-65'/SHUT DN 2½ HR WAITING ON DP ELEVATORS/ INST SOUND PROOFING ARND MUD PMPS/DRLG 17½" HOLE FRM 65-475'/ MW 68/VIS 55/
7/31	665 SD SH D (190) WOC/DRLG 17½" HOLE FRM 475-665/PREP HOLE TO RUN CSG/RAN 18 JTS (669) 13-3/8" 48#, H40, ST-C w GUIDE SHOE @ 662, FLOAT CLR @ 622/HALIB PMP 903 CF CL "G" CMT w 2% $CaCl_2$/DISP w 573 CF DRLG MUD/DID NOT BMP PLUG/CIP @ 1:55 AM/225 CF CMT RTNS TO SURF/ WOC 4 HRS/SURV @ 665 ¼°/MW 70/VIS 47/
8/3	8-1/665 SD SH RIH w 12¼" BIT/CUT OFF CONDUCTOR & CLN CELLAR/WELD ON 13-3/8" CSG HD/INST & TST BOE TO 1000 PSI, OK/MU BHA & RIH/ MW 66/VIS 42/8-2/1239 SD GR D (574) DRLG/RIH w 12¼" BIT & TAG CMT @ 343/TST CSG & BOE TO 1000 PSI, OK/WAIT ON DOG 1 HR/CO CMT FRM 343-622/TST CSG & BOE, OK/DRLG FLOAT, CMT & SHOE TO 662/DRLG 12¼" HOLE FRM 662-1239/MW 70/VIS 44/8-3/1768 SD SH D (529) DRLG/DRLG & DYNA DRL 12¼" HOLE FRM 1239-1768/SURV @ 1692 9°15' N40°30'W/TVD 1690.50/SEC. 23.26/N-21.10/E-10.94/MW 69/VIS 42/
8/4	2062 SD SH D (294) DRLG/DRLG & DYNA DRL 12¼" HOLE FRM 1768-2062/ SURV @ 2031 10°30' N37°W/TVD 2023.60/SEC.81.77/N-71.50/W-48.16/ MW 70/VIS 40/
8/5	2498 SD SH D (436) TRIP FOR DYNA DRL/DRLG 12¼" HOLE FRM 2062-2498/ SURV @ 2488 13°45' N32°W/TVD 2469.26/SEC.176.82/N-154.17/W-105.73/ MW 68/VIS 37/
8/6	2760 SD SH D (262) DRLG/DRLG & DYNA DRL FRM 2498-2760/SURV @ 2669' 12°30' N 08°30' W/TVD 2645.77/SEC.216.84/N-192.52/W-176.42/MW 68/ VIS 39/
8/7	3337 SD SH D (577) TRIP/DRLG 12¼" HOLE FRM 2760-3337/TRIP FOR BIT/ DRL PIPE VERY TIGHT/SURV @ 3307/10°30'/N 05°30' W/TVD 3272.09/SEC. 336.52/N-313.02/W-130.54/MW 68/VIS 39/

DIVISION OF OIL & GAS
History of Well

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

1981

8/8 3524 SD SH D (187) TRIP FOR BHA/FINISH TRIP SERVISING ALL TOOL JTS/DRL 12¼" HOLE FRM 337-3524/SURV @ 3518' 6°30'/N 0°30' W/ TVD 3480.77/SEC.366.91/N-343.87/W-133.02/MW 69/VIS 39/

8/9 3940 SD SH D (416) DRLG/DRLG 12¼" HOLE FRM 3524-3940/SURV @ 3940 5°/N 0°30' E/TVD 3900.77/SEC.406.94/N-384.81/W-135.14/MW 69/ VIS 38/

8/10 4040 SD SH D (100) DRLG/TRIP TO CHG TOOLS TO 8-3/4"/DRLG 8-3/4" HOLE FRM 3940-4028, SURV LINE BROKE, TRIP TO RETRIEVE SURV & LINE/DRLG 8-3/4" HOLE FRM 4028-4040/SURV @ 4028 4°30'/N 2°30' W/ TVD 3988.46/SEC.413.99/N-392.10/W-135.27/MW 68/VIS 40/

8/11 4432 SD SH D (392) REPR SWIVEL/DRLG 8-3/4" HOLE FRM 4040-4432/REPR SWIVEL 2 HRS/SURV @ 4390 3°/N 17°30' E/TVD 4349.88/SEC.433.32/ N-412.11/W-135.46/MW 69/VIS 37/

8/12 4432 PREPNG RIG/REPR SWIVEL/TRIP FOR NEW BIT/REPR ROTARY CLUTCH/ REPR HOOK ON BLOCKS/MW 68/VIS 35/

8/13 4669 SD SH D (237) DRLG/COMPLETE THE RIG REPR/DRLG 8-3/4" HOLE FRM 4432-4669/SURV @ 4578' 1°45', N09°E/TVD 4537.71/SEC.440.46/N-419.95/W-133.88/MW 68/VIS 42/

8/14 4822 SD SH D (158) REAMING/DRLG 8-3/4" HOLE FRM 4669-4700/REPR RIG FOR 2½ HRS/DRLG FRM 4700-4822/TRIP FOR BIT & BHA/REAM FRM 4690-4822/ SURV @ 4822, 0°30', N-39°-E/TVD 4781.66/SEC.444.70/N-424.55/W-133.17/ MW 68/VIS 37/

8/15 4965 SD SH D (183) ATTMPT TO FREE STUCK PIPE/DRLG 8-3/4" HOLE FRM 4822-4965/LOST RTNS @ 4965/PU TO 4790; PIPE STUCK/WRK STUCK DP & PMP TOT OF 1700 BBLS MUD & LCM w NO RTNS/MW 68/VIS 30/

8/16 4965 SD SH FISHING DP/ATTMPT TO FILL HOLE;COULD NOT FILL/ MIRU DIA-LOG/RAN FREE POINT/FREE POINT SHOWD PIPE STUCK @ 703 & 826/PIPE FREE @ 638 INSIDE 13-3/8" SURF CSG/STG SHOT TOOL JT @ 638/ COULD NOT BACK OFF/RESHOT @ 638/BK OFF DP @ 638/PULLED 130,000# DN DP FRM 638-577/POH w DP/BTM JT COVERD w CMT/MU FISHING TOOLS & RIH w OVERSHOT, BMPR SUB, JARS, DC's/TAG FILL @ 538 w TOP OF FISH @ 638/CO FILL TO TOP OF FISH @ 638 w NO RTNS/ATTMPT TO GET OVR FISH/ PUSHD FISH DN HOLE/CK TO SEE FISHING TOOLS FREE, OK/TOP OF FISH @ 726; BTM @ 4878/MW 68/VIS 70/

8/17 4965 SD SH FISHING DP/ATTMPT TO WASH DN OVR 4" DP w 7-5/8" OVERSHOT TO 842 w NO RTNS/POH & LD FISHING TOOLS/RIH w 12¼" BIT DC's & BMPR SUB/STPD @ 539/POH & MU 9-5/8" OVERSHOT, BMPR SUB, JARS, DC's & ACCELERATOR/RIH & WRK THRU TIGHT SPOT @ 539-542/CO TO 870 w NO RTNS/PREP TO CALIPER 13-3/8" CSG; POSSIBLY COLLAPSD OR PARTD/MW 70/ VIS 85/

8/18 4965 POH w IB/RIG UP DIA LOG & RUN CSG INSP LOG/CSG PARTED @ 544/ RIH w 1 CONE 12¼" BIT, UNABL TO GET INTO CSG, RUN DN BESIDE 13-3/8 TO 677'/WAIT ON I.B./RUN 11½" IB TO 544, SET DN 10,000#/POH w IB/

DIVISION OF OIL & GAS
History of Well

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

1981

8/19 4965 PREPNG TO PMP TEMP BLOCK "60" PILL/RIH OPN ENDED TO 544'/ MIX & PMP 300 BBLS OF LCM, 200 BBLS w 27# PER BBL OF LCM, 100 BBLS w 15-17# PER BBL OF LCM, NO RTNS/RIH w 10¾" IB w 12¼ STAB ABOV IT, TO 544/IB SHOWS CSG IS 5"± OUT IN HOLE/RIH OPN ENDED TO 544, PREP TO MIX TEMP BLOCK "60"/

8/20 4965 PREPNG TO P&A/MX & PMP 60 BBLS OF TEMP BLOCK 61 @ 518/POH WAIT 2 HRS, ATTMPT TO FILL HOLE, HOLE WD NOT FILL/RIH TO 518, PMP 30 BBLS OF TEMP BLOCK 61, POH/RIH w 4-3/4" SWEDGE, 1 JT CROOKED 4" DP, 8-3/4" STAB ON 5 - 6" D.C./ATTMPT TO GET INTO SHIFTED CSG/UNABL TO DO SO/RUN 10-1/4" IB TO 544, POH IB SHOWS CSG 4 - 5" INSIDE/LD ALL TOOLS & PREP TO P&A/

8/21 4965 TD WOC/w OPN ENDED DP @ 564, HALIB PMP 100 SX "G" CMT w .25% THIX SET "A", .25% THIX SET "B", 25# PER SX GIL, ¼# PER SX FLOCELE w 2% $CaCl_2$/WOC 4 HRS, RIH TO 564 NO PLUG/PMP 4, 50 SX PLUGS, 1 EVERY 2 HRS/WOC FOR 4 HRS/RIH 541, PMP 50 CF FLO-CHECK, 100 SX CMT PLUG/POH & WOC/

8/22 4965 TD, PSA ON 8-21-81/TAG CMT PLUG @ 301, WITNESS & APPRVD BY D.O.G./SPOT CMT FRM 181-SURF/PULL BOP,CUT OFF WELL HD & CSG 5' BELOW GRND LEVEL/RIG DN RIG PREP TO MOVE TO NWLBU #8-7/

RECEIVED
SEP 4 11 51 AM '81
DIV. OF OIL AND GAS
LONG BEACH, CA.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

No. T 181-883

DIVISION OF OIL AND GAS

Report on Operations

L. B. Carroll, Jr., Agent
SUN OIL COMPANY
P. O. Box 55060
Valencia, CA 91355

Long Beach Calif.
September 14, 1981

Your operations at well NWLBU 8-5, API No. 037-22295, Sec. 13, T4S, R. 13W S.B. B.& M. Long Beach Field, in Los Angeles County, were witnessed on 8-21-81. G. W. Stark, Engineer, representative of the supervisor, was present from 0810 to 0940. There were also present D. Rodgers, Drilling Foreman.

Present condition of well: 20" cem 56'; 13-3/8" cem 662', parted @ 544', Junk below 648'. TD 4965'. Plugged w/cem 548'-301' & 185'-8'+.

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

surface inspection 9-17-81 okay.mg

DECISION: APPROVED.

NOTE: DEFICIENCIES TO BE CORRECTED
NONE

DEFICIENCIES CORRECTED
NONE

CONTRACTOR: Atlantic Oil Company

GWS:dh

cc: Update
EDP

M. G. MEFFERD
State Oil and Gas Supervisor

By [signature]
Deputy Supervisor

R. A. YBARRA

OG109(12-80-15M)

DIVISION OF OIL AND GAS
Cementing/Plugging Memo

151-878 181-883

Operator Sun Oil Company Well No. NWLBU 8-5
API No. 037-22295 Sec. 13, T. 4s, R. 13w, SB B&M
Field Long Beach, County Los Angeles. On 8-21-81,
Mr. GW Stark, representative of the supervisor was present from 0810 to 0940
There were also present D. Rodgers DF

Casing record of well: 20" cem 56'; 13 3/8" cem 662, parted @ 544', Junk below 648'. TD 4965'. plugged w/ cem 548'-301', & 185'-8'.

The operations were performed for the purpose of (L)

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

☐ The location and hardness of the cement plug @_____' is approved.

Hole size:_____" fr._____' to_____', _____" to_____' & _____" to_____'

Casing				Cemented			Top of Fill		Squeezed Away	Final Press.	Perfs.
Size	Wt.	Top	Bottom	Date	MO-Depth	Volume	Annulus	Casing			

Casing/tubing recovered:_____" shot/cut at_____', _____', _____' pulled fr._____';
_____" shot/cut at_____', _____', _____' pulled fr._____'.

Junk (in hole):

Hole fluid (bailed to) at_____'. Witnessed by

Mudding	Date	Bbls.	Displaced	Poured	Fill	Engr.
Existing Hole mud used to fill Space 301-185'.						
weight 72#cf Vis 50 w/ Lost circulation material Added.						

Cement Plugs		Placing	Placing Witnessed		Top Witnessed			
Date	Sx./cf	MO & Depth	Time	Engr.	Depth	Wt/Sample	Date & Time	Engr.
8/20/81	500 SX	DP @ 548	8/20/81	Reported by Rodgers.	301'	all dp wt	8-21-81 0830	GW Stark
8/21/81	100 SX	DP @ 185	0910	GW Stark	8'	Visual	8-21-81 0940	GW Stark

OGD10 (2-75-GSR1-6M)

Deficiencies corrected
none

Deficiencies to be corrected
none.

Contractor Atlantic Oil Company

FORM OG111 (7/80)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

No. P 181-689

412 (field code)
03 (area code)
00 (pool code)

REPORT ON PROPOSED OPERATIONS

L. B. Carroll, Jr., Agent
SUN OIL COMPANY
P. O. Box 55060
Valencia, CA 91355

Long Beach, California
August 31, 1981

Your _____ proposal to abandon well NWLBU 8-5,
A.P.I. No. 037-22295, Section 13, T. 4S, R. 13W, S. B. B. & M.,
Long Beach field, Northwest Extension area, - - - pool,
Los Angeles County, dated 8-20-81, received 8-21-81 has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:

1. All portions of the hole not plugged with cement shall be filled with clay base mud fluid having a minimum density of 72 lb/ cu ft and a minimum gel-shear strength of 25 lb/ 100 sq ft.
2. THIS DIVISION SHALL BE NOTIFIED:
   a. To witness the placing, location and hardness of the cement plug from 648' to 440'.
   b. To witness the placing of the cement surface plug .
   c. To inspect and approve the clean-up of the well site before approval of abandonment will be issued.

HO:dh

cc: Update

Blanket Bond

M. G. MEFFERD, State Oil and Gas Supervisor

By [signature]
for R. A. YBARRA, Deputy Supervisor

A copy of this report and the proposal must be posted at the well site prior to commencing operations.

Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.

STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

06 / Dry

Notice of Intention to Abandon Well

This notice must be given at least five days before work is to begin.

FOR DIVISION USE ONLY			
CARDS	BOND	FORMS 114	FORMS 121
8-24-81	Blanket	8-24-81	8-24-81

DIVISION OF OIL AND GAS

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon Well No. NWLBU #8-5, API No. 037-22295, Sec. 13, T. 4S, R. 13W, SB B. & M., Long Beach Field, Los Angeles County. commencing work on August 20, 19 81.

The present condition of the well is:

1. Total depth: 4965' (8 3/4" Hole)

2. Complete casing record, including plugs and perforations:

13 3/8", 48#,H-40, ST&C csg shoe @ 662'; cmt'd w/903 CF CL 'G' cmt w/2% $CaCl_2$ 13 3/8" csg parted @ 540';4" DP Fish from 638' to 4790'

3. Last produced Never Produced
(Date) (Oil, B/D) (Gas, Mcf/D) (Water, B/D)

or

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

Additional data for dry hole (show depths)
Well never logged or tested - stuck drill pipe

5. Oil or gas shows

N/A

6. Stratigraphic markers:

N/A

7. Formation and age at total depth: N/A

8. Base of fresh water sands: N/A

The proposed work is as follows:

(1) RIH w/4" D P open-ended to 540'
(2) Spot 300 sx of CL 'G' cmt w/0.25% Thix-set 'A', 0.25% Thix-set 'B', 25#/sx Gilsonite, ¼#/sx Flocele, & 2% $CaCl_2$
(3) Tag TOC @ 440' or higher
(4) Spot column of 68PCF fresh water-gel mud to 100' from surface
(5) Spot additional cement plug from 100' to surface
(6) Cut off 13 3/8" casing
(7) RDMO
(8) Restore surface to original conditions

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

Address 25322 West Rye Canyon Road
(Street)
Valencia California 91355
(City) (State) (Zip)
Telephone Number (805) 257-6200

Sun Production Company
(Name of Operator)
By L.B. Carroll Jr. 8-20-81
(Name) L.B. CARROLL, JR. (Date)
Type of Organization Corporation
(Corporation, Partnership, Individual, etc.)

OG108 (12-73-GSR1-15M)

RECEIVED
AUG 21 2 33 PM '81
DIV. OF OIL AND GAS
LONG BEACH, CA.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

No. T 181-834

DIVISION OF OIL AND GAS

Report on Operations

L. B. Carroll, Jr., Agent
SUN OIL COMPANY
P. O. Box 55060
Valencia, CA 91355

Long Beach Calif.
September 14, 1981

Your operations at well NWLBU 8-5, API No. 037-22295, Sec. 13, T. 4S, R. 13W, S.B.B.& M. Long Beach Field, in Los Angeles County, were witnessed on 8-1-81. W. E. Brannon, Engineer, representative of the supervisor, was present from 0600 to 1100. There were also present D. Rodgers, Drilling Foreman.

Present condition of well: 20" cem 56'; 13-3/8" cem 662'. TD 665'.

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

DECISION: APPROVED.

NOTE: DEFICIENCIES TO BE CORRECTED
NONE

DEFICIENCIES CORRECTED
1. Pressure guage was on kill line.
2. Pump unable to hold pressure above 500#.
3. Adjustable choke had slow leak.
4. Remote control box was not hooked up.
5. First test failed.

CONTRACTOR: Atlantic Oil Company

WEB:dh

cc: Update
Dispatcher Clerk

M. G. MEFFERD
State Oil and Gas Supervisor

By [signature]
Deputy Supervisor
R. A. YBARRA

OG109(12-80-15M)

DIVISION OF OIL AND GAS
BLOWOUT PREVENTION EQUIPMENT MEMO

#10

T 81-834

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

VISITS:	Date	Engineer	Time	Operator's Rep.	Title
1st	8-1-81	W.E. Brannon	0600 to 1100	D. Rodgers	DF
2nd	8-1-81	" " "	1100 to 1300	" "	"

Casing record of well: 20" Cem 56'; 13 3/8" Cem 662' TD 665'

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

Proposed Well Opns: drill MPSP: _____ psi

REQUIRED BOPE CLASS: III B 3M

Hole size: 24 " fr. 0 ' to 20 ', 17 1/2 " to 665 ' & _____ " to _____ '

CASING RECORD (BOPE ANCHOR STRING ONLY)					Cement Details	Top of Cement	
Size	Weight(s)	Grade (s)	Shoe at	CP at		Casing	Annulus
13 3/8	48#	H-STC	662		905 cf did not bump plug	3433	0

BOP STACK							a	b	a/b	TEST DATA			
API Symb.	Ram Sz.	Mfr.	Model or Type	Size In.	Press. Rtg.	Date Last Overhaul	Gal. to Close	Rec. Time Min.	Calc. GPM Output	psi Drop to Close	Secs. to Close	Test Date	Test Press.
A	12	Hydril	GK	12	3000							8/1/81	1200
Rd	4	Shaffer	B	12	3000							8/1/81	1300
Rd	050	Shaffer	B	12	3000						Rpt b D. Rodger		1000

ACTUATING SYSTEM

Accum. Unit(s) Wkg. Press. 1500 psi
Total Rated Pump Output _____ gpm
Distance From Well Bore 75 ft.

	Mfr.	Accum. Cap.	Precharge
1	Hydril	80 gal.	750 psi
2		gal.	psi

CONTROL STATIONS	Elec.	Hyd.
X Manif. at accum. unit		X
X Remote at Drlr's stn.	X	
Other:		

EMERG. BACKUP SYST.	Press.	Wkg. Fl.
X N2 Cyl No: 3 Tpe: G	12700	gal
Other:	22400	gal
	32600	gal
	4	gal
	5	gal
	6	gal

AUXILIARY EQUIPMENT

		No.	Sz. (in)	Rated Press.	Connections Weld	Flan.	Thrd.	
X	Fill-Up Line							
X	Kill Line		2"	3000			X	1200
X	Control Valve(s)	1		3000			X	—
X	Check Valve(s)	1		3000			X	1200
X	Auxil. Pump Connec.			3000			X	1200
X	Choke Line		2"	3000			X	1200
X	Control Valve(s)	1		3000			X	1200
X	Pressure Gauge						X	
X	Adjustable Choke(s)	1	2"	3000			X	—
X	Bleed Line		2"				X	
X	Upper Kelly Cock							
—	Lower Kelly Cock		—	—				—
X	Standpipe Valve							—
X	Standpipe Pressure Ga.							
X	Pipe Safety Valve		4	3000				1200
X	Internal Preventer		4	3000				—

HOLE FLUID MONITORING EQUIPMENT		Alarm Aud.	Alarm Vis.	Class
X	Calibrated Mud Pit	X	X	A
X	Pit Level Indicator	X	X	B
X	Pump Stroke Counter	X	X	B
	Pit Level Recorder			C
	Flow Sensor			C
	Mud Totalizer			C
	Calibrated Trip Tank			
	Other:			

REMARKS:

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

OGD 9 (10/80/3M)

DEFICIENCIES—TO BE CORRECTED NONE

DEFICIENCIES—CORRECTED
1- Pressure guage was on kill line
2- Pump unable to hold pressure above 500#
3- Adjustable choke had slow leak
4- Remote control box was not hooked up.
5- First test failed

CONTRACTOR Atlantic Oil Co

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF CORRECTION OR CANCELLATION

Long Beach, California

June 25, 1981

L. B. Carroll, Jr., Agent
SUN OIL COMPANY
25322 W. Rye Canyon Road
Valencia, CA 91355

In accordance with your notice of June 8, 1981

the following change pertaining to your well NWLBU 8-5 (037-22295),

Long Beach field, Los Angeles County,

Sec. 13, T. 4S, R. 13W, S.B. B. & M., is being made in our records:

☐ The corrected location is

☐ The corrected elevation is

☐ Report No. , dated , has been corrected as follows:

☐ Your notice to (Drill, abandon, etc.) dated , and our report No. P , issued in answer thereto, are hereby cancelled inasmuch as the work will not be done. If you have a drilling bond on file covering this notice it will be returned. No request for such return is necessary.

☒ Other: Bottom Hole Location: 415' North and 115' West from surface location.

HO:eb

cc: Update Center
EDP

Blanket Bond

State Oil and Gas Supervisor

By Deputy Supervisor

for: R. A. Ybarra

OG 165 (1-77-GSR1-3M)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

SUPPLEMENTARY NOTICE of Bottom Hole Location

FOR DIVISION USE ONLY			
BOND	FORMS		EDP WELL FILE
	OGD114	OGD121	
Blanket			

DIVISION OF OIL AND GAS

LONG BEACH Calif.

A notice to you dated November 25, 19 80, stating the intention to

Drill (Drill, rework, abandon), NW LONG BEACH UNIT #8-5 (Well name and number), API No. 037-22295,

Sec. 13, T. 4S, R. 13W, B. & M., LONG BEACH Field,

Los Angeles County, should be amended because of changed conditions.

The present condition of the well is as follows: The well has not been drilled as yet.

Total depth

Complete casing record including plugs and perforations:

We now propose BHL: 415' North & 115' West from surface location.

Write on form OGD 165

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

Address 25322 W. Rye Canyon Road (Street)

Valencia (City) California (State) 91355 (Zip)

Telephone Number 805/257-6200

Sun Oil Company (Delaware) (Name of Operator)

Type of Organization Corporation (Corporation, Partnership, Individual, etc.)

By L. B. Carroll, Jr. (Name) 6/8/81 (Date)

Signature L. B. Carroll, Jr. by JAB

OG123 (7-76-GSR1-5M)

RECEIVED
JUN 9 11 1 AM '81
DIV. OF OIL AND GAS
LONG BEACH, CA.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF CORRECTION OR CANCELLATION

Long Beach, California

December 1, 1980

Mr. L. B. Carroll, Jr., Agent
SUN OIL COMPANY
23928 Lyons Avenue
Newhall, CA 91321

In accordance with your (corrected copy) Notice of Intention to Drill

the following change pertaining to your well No. NWLBU 8-5 (037-22295),

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

Los Angeles County, District No. _____, is being made in our records:

[XX] The corrected location is 535' North & 763' West @ Right Angle from intersection C/L San Antonio Drive & Del Mar Ave.

[ ] The corrected elevation is _____

[ ] Report No. _____, dated _____, has been corrected as follows: _____

CORRECTIONS MADE AS FOLLOWS:	BY WHOM
FORM 1(a)	
" 1(b)	
" 1(c)	cp
" 1(d)	
CARDS	
PRODUCTION REPORTS	
WELL RECORDS (FOLDERS	
(REPORTS	
FIELD MAPS	
MAP BOOK	

[ ] Your notice to _____ dated _____,
(Drill, abandon, etc.)
and our report No. P_____, issued in answer thereto, are hereby cancelled inasmuch as the work will not be done. If you have a drilling bond on file covering this notice it will be returned. No request for such return is necessary.

[XX] Other: Proposed coordinates from surface location @ TD 393' S & 439' E

HO/bd

cc: Update Center - EDP
Sun Oil Co.

Blanket Bond

State Oil and Gas Supervisor

By Herman Dohlan
for Y. A. Ybarra, Deputy Supervisor

OGD165 (8-75—GSRI—3M)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

Notice of Intention to Drill New Well

*CORRECTED COPY

C.E.Q.A. INFORMATION			
EXEMPT ☐ CLASS____	NEG. DEC. ☒ ND 64-77 S.C.H. NO.____	E.I.R. ☐ S.C.H. NO.____	DOCUMENT NOT REQUIRED BY LOCAL JURISDICTION ☐
See Reverse Side			

FOR DIVISION USE ONLY					
MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to commence drilling well NW LONG BEACH UNIT #8-5, API No.____ (Assigned by Division),

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

Legal description of mineral-right lease, consisting of 149 acres, is as follows:____ (Attach map or plat to scale)

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

Location of well 535 feet North (Direction) ~~along section/property line~~ (Cross out one) and 763 feet West (Direction)

at right angles ~~to said line~~ from the ~~corner of section/property~~ (Cross out one) ~~or~~

intersection of centerlines of San Antonio Drive & Del Mar Avenue

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

* If well is to be directionally drilled, show proposed coordinates (from surface location) at total depth: ~~393~~ 415 feet ~~South~~ North (Direction) and ~~439~~ 115 feet ~~East~~ West (Direction)

Correction dated 6/25/81

Elevation of ground above sea level 45.5 feet.

All depth measurements taken from top of Kelly Bushing (Derrick Floor, Rotary Table, or Kelly Bushing) that is 10 feet above ground.

PROPOSED CASING PROGRAM

SIZE OF CASING INCHES API	WEIGHT	GRADE AND TYPE	TOP	BOTTOM	CEMENTING DEPTHS	CALCULATED FILL BEHIND CASING
10-3/8"	48#	H-40	Surface	650'	650'	Surface
9-5/8"	36#	K-55; S-80	Surface	5950'	5950'	1500'

(A complete drilling program is preferred and may be submitted in lieu of the above program.)

Intended zone(s) of completion Lower Alamitos @ 4311'TVD; Brown @ 4726' TVD (Name, depth, and expected pressure) Estimated total depth 5876' TVD

Pres. ≈ 800 PSI

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

Name of Operator	Type of Organization (Corporation, Partnership, Individual, etc.)	
SUN OIL COMPANY (DELAWARE)	CORPORATION	
Address	**City**	**Zip Code**
23928 LYONS AVENUE	NEWHALL, CALIFORNIA	91321
Telephone Number / Name of Person Filing Notice	**Signature**	**Date**
805/259-2440 L. B. CARROLL DISTRICT ENGINEER	L. B. Carroll by JAB	11-25-80

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

OG105 (2-79-DWRR-10M)

Information for compliance with the California Environmental Quality Act of 1970 (C.E.Q.A.).

If an environmental document has been prepared by the lead agency, please submit a copy of the document with this notice *or* supply the following information:

Lead Agency: City of Long Beach

Contact Person: G. H. Felgemaker

Address: 333 West Ocean Blvd.

Long Beach, California 90802

Phone: (213) 590-6894

FOR DIVISION USE ONLY
District review of environmental document (if applicable)? Yes ☐ No ☐
Remarks:

CRITICAL WELL

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

(1) 300 feet of the following:
(A) Any building intended for human occupancy that is not necessary to the operation of the well; or
(B) Any airport runway.
(2) 100 feet of the following:
(A) Any dedicated public street, highway, or nearest rail of an operating railway that is in general use;
(B) Any navigable body of water or watercourse perennially covered by water;
(C) Any public recreational facility such as a golf course, amusement park, picnic ground, campground, or any other area of periodic high-density population; or
(D) Any officially recognized wildlife preserve.

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

RECEIVED
NOV 28 12 51 PM '80
DIV. OF OIL AND GAS
LONG BEACH CA

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

Notice of Intention to Drill New Well

*CORRECTED COPY

C.E.Q.A. INFORMATION			
EXEMPT ☐ CLASS____	NEG. DEC. ☒ ND 64-77 S.C.H. NO.____	E.I.R. ☐ S.C.H. NO.____	DOCUMENT NOT REQUIRED BY LOCAL JURISDICTION ☐
See Reverse Side			

FOR DIVISION USE ONLY					
MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to commence drilling well NW LONG BEACH UNIT #8-5, API No.____ (Assigned by Division),

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

Legal description of mineral-right lease, consisting of 149 acres, is as follows:____ (Attach map or plat to scale)

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

Location of well 535 feet North (Direction) ~~along section/property line~~ (Cross out one) and 763 feet West (Direction)

at right angles to ~~said line~~ from the ~~corner of section/property~~ (Cross out one) ~~or~~

intersection of centerlines of San Antonio Drive & Del Mar Avenue

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

* If well is to be directionally drilled, show proposed coordinates (from surface location) at total depth: 393 feet South (Direction) and 439 feet East (Direction)

Elevation of ground above sea level 45.5 feet.

All depth measurements taken from top of Kelly Bushing (Derrick Floor, Rotary Table, or Kelly Bushing) that is 10 feet above ground.

PROPOSED CASING PROGRAM

SIZE OF CASING INCHES API	WEIGHT	GRADE AND TYPE	TOP	BOTTOM	CEMENTING DEPTHS	CALCULATED FILL BEHIND CASING
10-3/8"	48#	H-40	Surface	650'	650'	Surface
9-5/8"	36#	K-55; S-80	Surface	5950'	5950'	1500'

(A complete drilling program is preferred and may be submitted in lieu of the above program.)

Intended zone(s) of completion Lower Alamitos @ 4311'TVD; Brown @ 4726' TVD (Name, depth, and expected pressure) Estimated total depth 5876' TVD

Pres. ≈ 800 PSI

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

Name of Operator	Type of Organization (Corporation, Partnership, Individual, etc.)	
SUN OIL COMPANY (DELAWARE)	CORPORATION	
Address	**City**	**Zip Code**
23928 LYONS AVENUE	NEWHALL, CALIFORNIA	91321
Telephone Number / **Name of Person Filing Notice**	**Signature**	**Date**
805/259-2440 L. B. CARROLL	L. B. Carroll	11-25-80
257 4702 DISTRICT ENGINEER	by JSB	

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

OG105 (2-79-DWRR-10M)

Information for compliance with the California Environmental Quality Act of 1970 (C.E.Q.A.).

If an environmental document has been prepared by the lead agency, please submit a copy of the document with this notice *or* supply the following information:

Lead Agency: City of Long Beach

Contact Person: G. H. Felgemaker

Address: 333 West Ocean Blvd.

Long Beach, California 90802

Phone: (213) 590-6894

FOR DIVISION USE ONLY
District review of environmental document (if applicable)? Yes ☐ No ☐
Remarks:

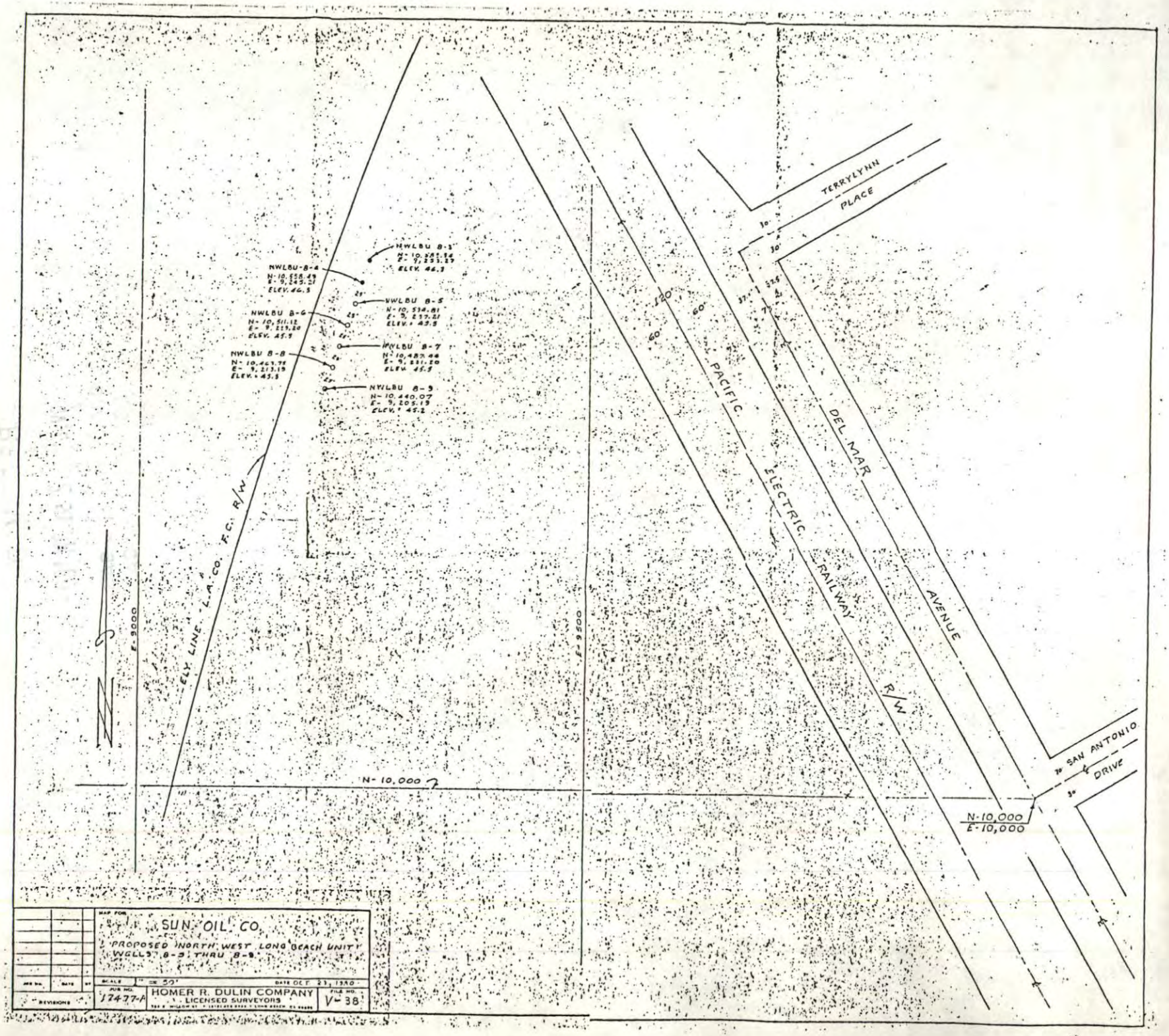
CRITICAL WELL

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

(1) 300 feet of the following:
(A) Any building intended for human occupancy that is not necessary to the operation of the well; or
(B) Any airport runway.
(2) 100 feet of the following:
(A) Any dedicated public street, highway, or nearest rail of an operating railway that is in general use;
(B) Any navigable body of water or watercourse perennially covered by water;
(C) Any public recreational facility such as a golf course, amusement park, picnic ground, campground, or any other area of periodic high-density population; or
(D) Any officially recognized wildlife preserve.

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

RECEIVED
NOV 28 12 51 PM '80
DIV. OF OIL AND GAS
LONG BEACH, CA.



NWLBU 8-3
N- 10,585.34
E- 9,253.27
ELEV. 46.3
NWLBU-8-4
N-10,558.49
E- 9,245.21
ELEV. 46.5
NWLBU 8-5
N-10,534.81
E- 9,237.21
ELEV. 45.5
NWLBU 8-6
N- 10,511.12
E- 9,229.20
ELEV. 45.5
NWLBU 8-7
N- 10,487.44
E- 9,221.20
ELEV. 45.5
NWLBU 8-8
N- 10,463.75
E- 9,213.19
ELEV. 45.5
NWLBU 8-9
N- 10,440.07
E- 9,205.19
ELEV. 45.2
ELY LINE L.A. CO. F.C. R/W
E-9000
E-9500
N-10,000
TERRYLYNN PLACE
DEL MAR AVENUE
PACIFIC ELECTRIC RAILWAY R/W
120'
60'
60'
30'
30'
37.5'
37.5'
SAN ANTONIO DRIVE
N-10,000
E-10,000
MAP FOR
SUN OIL CO.
PROPOSED NORTH WEST LONG BEACH UNIT
WELLS 8-3 THRU 8-9
SCALE 1" = 50'
DATE OCT 23, 1980
JOB NO. 17477-A
HOMER R. DULIN COMPANY
LICENSED SURVEYORS
FILE NO. V-38
REVISIONS

RECEIVED
Nov 28 12 51 PM '80
DIV. OF OIL AND GAS
LONG BEACH, CA.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

No. P 180-824

REPORT ON PROPOSED OPERATIONS

412
(field code)
~~06~~ 03
(area code)
~~25~~ 00
(pool code)

Mr. L. B. Carroll, Jr., Agent
SUN OIL CO.
23928 Lyons Ave.
Newhall, CA 91321

Long Beach, California
Nov. 3, 1980

Your _____ proposal to drill well NWLBU 8-5,
A.P.I. No. 037-22295, Section 13, T. 4S, R. 13W, S.B. B. & M.,
Long Beach field, Old area, -- pool,
Los Angeles County, dated 10/23/80, received 10/24/80 has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:

1. Blowout prevention equipment, equivalent to this division's Class III B, 3M requirements, or better, shall be installed and maintained in operating condition.
2. Drilling fluid of a quality and in sufficient quantity to control all subsurface conditions in order to prevent blowouts shall be used.
3. Sufficient cement shall be used to fill back of the 9-5/8" casing to a depth of 1500' or cemented through cementing ports at approx. 1700' with sufficient cement to fill to a depth of 1500'.
4. A directional survey shall be made and filed with this division.
5. THIS DIVISION SHALL BE NOTIFIED TO WITNESS:
   a. A test of the installed blowout prevention equipment prior to drilling out cement in the shoe of the 13-3/8" casing.
   b. A test of the effectiveness of the 9-5/8" shutoff above the lower Alamitos zone.

HO:d

cc Update Center - EDP
Sun Oil Co.

Blanket Bond

Fred Allen / R. Manuel 8/20/81
13 3/8" parted @ 662'. Top of 4" fish @ 638'
OK to plug to surf. will send
notice.

M. G. MEFFERD, State Oil and Gas Supervisor

By Richard F. Carter
Deputy Supervisor

R. A. YBARRA

A copy of this report and the proposal must be posted at the well site prior to commencing operations.

06

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

Notice of Intention to Drill New Well

C.E.Q.A. INFORMATION			
EXEMPT ☐ CLASS____	NEG. DEC. ☒ No. 64-77 S.C.H. NO.____	E.I.R. ☐ S.C.H. NO.____	DOCUMENT NOT REQUIRED BY LOCAL JURISDICTION ☐
See Reverse Side			

FOR DIVISION USE ONLY					
MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121
137	10-30-80	10-29-80	Blanket	10-29-80	10-29-80

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to commence drilling well NW LONG BEACH UNIT #8-5, API No. 037-22295 (Assigned by Division),

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

Legal description of mineral-right lease, consisting of 149 acres, is as follows: (Attach map or plat to scale)

- See Attached -

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

Location of well ~~535~~ 534 feet North (Direction) ~~along section/property line~~ (Cross out one) and ~~763~~ 767 feet West (Direction)

at right angles ~~to said line~~ from the ~~corner of section/property~~ (Cross out one)

intersection of San Antonio Drive & Del Mar Avenue

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

If well is to be directionally drilled, show proposed coordinates (from surface location) at total depth:
~~393~~ ~~324~~ 415 feet ~~South~~ North (Direction) and ~~439~~ ~~449~~ 115 feet ~~East~~ West (Direction)
Correction dated 11-25-80 bd
" " 6-25-81

Elevation of ground above sea level ~~46~~ 45.5 feet.

All depth measurements taken from top of Kelly Bushing (Derrick Floor, Rotary Table, or Kelly Bushing) that is 10 feet above ground.

PROPOSED CASING PROGRAM

SIZE OF CASING INCHES API	WEIGHT	GRADE AND TYPE	TOP	BOTTOM	CEMENTING DEPTHS	CALCULATED FILL BEHIND CASING
~~13-3/8"~~ 10 3/8"	48#	K-55	Surface	650'	650'	Surface
9-5/8"	36#	K-55 & S-80	Surface	5900'	5900'	1500'

(A complete drilling program is preferred and may be submitted in lieu of the above program.)

Intended zone(s) of completion Lower Alamitos @ ~~4315'~~ 4311 TVD, Brown @ ~~4730'~~ 4726 TVD (Name, depth, and expected pressure) Press ≈ 800 PSI. Estimated total depth ~~5860'~~ 5876' TVD

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

Name of Operator	Type of Organization (Corporation, Partnership, Individual, etc.)	
SUN OIL COMPANY (DELAWARE)	Corporation	
Address	City	Zip Code
23928 Lyons Avenue	Newhall, California	91321

Telephone Number	Name of Person Filing Notice	Signature	Date
805/259-2440	L.B. CARROLL, JR.	L. B. Carroll (by MGM)	10/23/80

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

OG105 (2-79-DWRR-10M)

Producer

Information for compliance with the California Environmental Quality Act of 1970 (C.E.Q.A.).

If an environmental document has been prepared by the lead agency, please submit a copy of the document with this notice *or* supply the following information:

Lead Agency: CITY OF LONG BEACH

Contact Person: G. H. FELGEMAKER

Address: 333 WEST OCEAN BLVD.

LONG BEACH, CALIFORNIA 90802

Phone: (213) 590-6894

FOR DIVISION USE ONLY
District review of environmental document (if applicable)? Yes ☐ No ☐
Remarks:

CRITICAL WELL

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

(1) 300 feet of the following:
(A) Any building intended for human occupancy that is not necessary to the operation of the well; or
(B) Any airport runway.
(2) 100 feet of the following:
(A) Any dedicated public street, highway, or nearest rail of an operating railway that is in general use;
(B) Any navigable body of water or watercourse perennially covered by water;
(C) Any public recreational facility such as a golf course, amusement park, picnic ground, campground, or any other area of periodic high-density population; or
(D) Any officially recognized wildlife preserve.

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

RECEIVED
OCT 24 8 40 AM '80
DIV. OF OIL AND GAS
LONG BEACH, CA

Name change from Sun Oil Co. to SUN EXPLORATION & PRODUCTION CO.

1-1-82, Form 156 dated 1-21-82. See ownership file.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF WELL ABANDONMENT

Long Beach, California

October 7, 1981

L. B. Carroll, Jr., Agent
SUN OIL COMPANY
P. O. Box 55060
Valencia, CA 91355

Your report of abandonment of well NWLBU 8-5
(Name and number)

A.P.I. No. 037-22295, Section 13, T. 4S, R. 13W, S. B. B. & M.,

Long Beach field, Los Angeles County,

dated 9-2-81, received 9-4-81, has been

examined in conjunction with records filed in this office, and we have determined that all of the requirements of this Division have been fulfilled.

HO:dh

cc: Update
Los Angeles County Planning Comm.
Fire Prevention Bureau
L. A. County Assessor
Dept. of Bldg. & Safety
Fire Dept.
Conservation Committee
Blanket Bond

M. G. MEFFERD
State Oil and Gas Supervisor

By Hermanys Delany
Deputy Supervisor

For R. A. YBARRA

OG159 (10/80/8M)

DIVISION OF OIL AND GAS
CHECK LIST - RECORDS RECEIVED AND WELL STATUS

Company Sun Oil Company Well No. NWLBU 8-5
API No. 037-22295 Sec. 13, T. 4S, R. 13W, S.B. B.&M.
County _____ Field Long Beach

RECORDS RECEIVED	DATE
✓ Well Summary (Form OG100)	9-4-81 (2)
✓ History (Form OG103)	9-4-81 (2)
Core Record (Form OG101)	
Directional Survey	
Sidewall Samples	
Other	
Date final records received	
Electric logs:	

STATUS		STATUS	
Producing - Oil	___	Water Disposal	___
Idle - Oil	___	Water Flood	___
Abandoned - Oil	___	Steam Flood	___
Drilling - Idle	___	Fire Flood	___
Abandoned - Dry Hole	✓	Air Injection	___
Producing - Gas	___	Gas Injection	___
Idle - Gas	___	CO_2 Injection	___
Abandoned - Gas	___	LPG Injection	___
Gas-Open to Oil Zone	___	Observation	___
Water Flood Source	___		

DATE 8/22/81
RECOMPLETED
REMARKS

ENGINEER'S CHECK LIST

1. Summary, History, & Core record (dupl.) ✓
2. Electric Log
3. Operator's Name ✓
4. Signature ✓
5. Well Designation ✓
6. Location ✓
7. Elevation ✓
8. Notices ✓
9. "T" Reports ✓
10. Casing Record ✓
11. Plugs ✓
12. Surface Inspection need
13. Production
14. E Well on Prod. Dir. Sur.

CLERICAL CHECK LIST

1. Location change ____ (F-OGD165)
2. Elevation change ____ (F-OGD165)
3. Form OGD121 10-7-81
4. Form OG159 (Final Letter) 10-7-81 DA
5. Form OGD150b (Release of Bond)
6. Duplicate logs to archives
7. Notice of Records due (F-OGD170)

surface inspection 8-17-81 okay. hg

UPDATE CENTER 10-14-81

surface insp & return to HO

Final Letter
— 9/17/81 —
BM

RECORDS NOT APPROVED
Reason: need surface insp

RECORDS APPROVED

RELEASE BOND
Date Eligible
(Use date last needed records were received.)
MAP AND MAP BOOK maps 137 & book 9-17-81 hg
81-4965

LONG BEACH OFFICE - USE REVERSE SIDE

OGD2 (12/80/DWRR/5M)

Form OG100 (7/79)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

API No. 037-22295

WELL SUMMARY REPORT

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

Location (Give surface location from property or section corner, street center line and/or California coordinates): 534.81' N & 762.8' W frm intersection of C/L of San Antonio Dr. & Del Mar Ave.

Elevation of ground above sea level: 45.5

Commenced drilling (date): 7/30/81

Completed ~~drilling (date)~~ P&A: 8/20/81

Commenced producing (date): N/A

☐ Flowing ☐ Pumping ☐ Gas lift

Name of producing zone(s): Lower Alamitos

Total depth: (1st hole) 4965' (2nd) (3rd)

Present effective depth: N/A

Junk: None

Depth measurements taken from top of: ☐ Derrick Floor ☐ Rotary Table ☒ Kelly Bushing

Which is ± 10 feet above ground

GEOLOGICAL MARKERS: N/A

DEPTH:

Formation and age at total depth: Brown

	Clean Oil (bbl per day)	Gravity Clean Oil	Percent Water including emulsion	Gas (Mcf per day)	Tubing Pressure	Casing Pressure
Initial Production	N/A					
Production After 30 days						

CASING RECORD (Present Hole)

Size of Casing (API)	Top of Casing	Depth of Shoe	Weight of Casing	Grade and Type of Casing	New or Second Hand	Size of Hole Drilled	Number of Sacks or Cubic Feet of Cement	Depth of Cementing (if through perforations)
13 3/8"	Surface	662'	48#	K-55	New	17½"	903 Sacks CL "G" cmt	-

PERFORATED CASING (Size, top, bottom, perforated intervals, size and spacing of perforation and method.)

None

Was the well directionally drilled? If yes, show coordinates at total depth

☒ Yes ☐ No 415' N & 115' W

Electrical log depths: N/A

Other surveys: N/A

In compliance with Sec. 3215, Division 3 of the Public Resources Code, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Name: L.B. Carroll, Jr.	Title: District Engineer	
Address: P.O. Box 55060	City: Valencia	Zip Code: 91355
Telephone Number: 805-257-6200	Signature: L.B. Carroll Jr by JHJ	Date: 9/3/81

SUBMIT IN DUPLICATE

RECEIVED
SEP 4 11 51 AM '81
DIV. OF OIL AND GAS
LONG BEACH, CA.

SUBMIT IN DUPLICATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

Operator SUN OIL COMPANY (DELAWARE) Field or County Long Beach
Well North Wilmington Long Beach Unit 8-5, Sec. 13, T4S, R13W, SB B. & M.
A.P.I. No. 037-22295 Name L. B. CARROLL, JR. (Person submitting report) Title Agent (President, Secretary or Agent)
Date 9/2/81, 19

Signature L B Carroll Jr by DMD

P. O. Box 55060, Valencia, California 91355 (Address) (805) 257-6200 (Telephone Number)

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

Date	
1981	
7/30	5826 TVD/"V" SANDS/IR/ATLANTIC OIL/LA CA/WI 1.00/ SURF LOC: 534.81' N & 762.8' W FRM INTERSECTION OF C/L OF SAN ANTONIO DR & DEL MAR AVE; BHL: 415' N & 115' W FRM SURF LOC/ 475 SD SH D (420) DRLG/MIRU ATLANTIC OIL CO RIG #3/SPUD @ 7 AM/ DRLG 17½" HOLE FRM 55-65'/SHUT DN 2½ HR WAITING ON DP ELEVATORS/ INST SOUND PROOFING ARND MUD PMPS/DRLG 17½" HOLE FRM 65-475'/ MW 68/VIS 55/
7/31	665 SD SH D (190) WOC/DRLG 17½" HOLE FRM 475-665/PREP HOLE TO RUN CSG/RAN 18 JTS (669) 13-3/8" 48#, H40, ST-C w GUIDE SHOE @ 662, FLOAT CLR @ 622/HALIB PMP 903 CF CL "G" CMT w 2% $CaCl_2$/DISP w 573 CF DRLG MUD/DID NOT BMP PLUG/CIP @ 1:55 AM/225 CF CMT RTNS TO SURF/ WOC 4 HRS/SURV @ 665 ¼°/MW 70/VIS 47/
8/3	8-1/665 SD SH RIH w 12¼" BIT/CUT OFF CONDUCTOR & CLN CELLAR/WELD ON 13-3/8" CSG HD/INST & TST BOE TO 1000 PSI, OK/MU BHA & RIH/ MW 66/VIS 42/8-2/1239 SD GR D (574) DRLG/RIH w 12¼" BIT & TAG CMT @ 343/TST CSG & BOE TO 1000 PSI, OK/WAIT ON DOG 1 HR/CO CMT FRM 343-622/TST CSG & BOE, OK/DRLG FLOAT, CMT & SHOE TO 662/DRLG 12¼" HOLE FRM 662-1239/MW 70/VIS 44/8-3/1768 SD SH D (529) DRLG/DRLG & DYNA DRL 12¼" HOLE FRM 1239-1768/SURV @ 1692 9°15' N40°30'W/TVD 1690.50/SEC. 23.26/N-21.10/E-10.94/MW 69/VIS 42/
8/4	2062 SD SH D (294) DRLG/DRLG & DYNA DRL 12¼" HOLE FRM 1768-2062/ SURV @ 2031 10°30' N37°W/TVD 2023.60/SEC.81.77/N-71.50/W-48.16/ MW 70/VIS 40/
8/5	2498 SD SH D (436) TRIP FOR DYNA DRL/DRLG 12¼" HOLE FRM 2062-2498/ SURV @ 2488 13°45' N32°W/TVD 2469.26/SEC.176.82/N-154.17/W-105.73/ MW 68/VIS 37/
8/6	2760 SD SH D (262) DRLG/DRLG & DYNA DRL FRM 2498-2760/SURV @ 2669' 12°30' N 08°30' W/TVD 2645.77/SEC.216.84/N-192.52/W-176.42/MW 68/ VIS 39/
8/7	3337 SD SH D (577) TRIP/DRLG 12¼" HOLE FRM 2760-3337/TRIP FOR BIT/ DRL PIPE VERY TIGHT/SURV @ 3307/10°30'/N 05°30' W/TVD 3272.09/SEC. 336.52/N-313.02/W-130.54/MW 68/VIS 39/

DIVISION OF OIL & GAS
History of Well

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

1981

8/8 3524 SD SH D (187) TRIP FOR BHA/FINISH TRIP SERVISING ALL TOOL JTS/DRL 12¼" HOLE FRM 337-3524/SURV @ 3518' 6°30'/N 0°30' W/ TVD 3480.77/SEC.366.91/N-343.87/W-133.02/MW 69/VIS 39/

8/9 3940 SD SH D (416) DRLG/DRLG 12¼" HOLE FRM 3524-3940/SURV @ 3940 5°/N 0°30' E/TVD 3900.77/SEC.406.94/N-384.81/W-135.14/MW 69/ VIS 38/

8/10 4040 SD SH D (100) DRLG/TRIP TO CHG TOOLS TO 8-3/4"/DRLG 8-3/4" HOLE FRM 3940-4028, SURV LINE BROKE, TRIP TO RETRIEVE SURV & LINE/DRLG 8-3/4" HOLE FRM 4028-4040/SURV @ 4028 4°30'/N 2°30' W/ TVD 3988.46/SEC.413.99/N-392.10/W-135.27/MW 68/VIS 40/

8/11 4432 SD SH D (392) REPR SWIVEL/DRLG 8-3/4" HOLE FRM 4040-4432/REPR SWIVEL 2 HRS/SURV @ 4390 3°/N 17°30' E/TVD 4349.88/SEC.433.32/ N-412.11/W-135.46/MW 69/VIS 37/

8/12 4432 PREPNG RIG/REPR SWIVEL/TRIP FOR NEW BIT/REPR ROTARY CLUTCH/ REPR HOOK ON BLOCKS/MW 68/VIS 35/

8/13 4669 SD SH D (237) DRLG/COMPLETE THE RIG REPR/DRLG 8-3/4" HOLE FRM 4432-4669/SURV @ 4578' 1°45', N09°E/TVD 4537.71/SEC.440.46/N-419.95/W-133.88/MW 68/VIS 42/

8/14 4822 SD SH D (158) REAMING/DRLG 8-3/4" HOLE FRM 4669-4700/REPR RIG FOR 2½ HRS/DRLG FRM 4700-4822/TRIP FOR BIT & BHA/REAM FRM 4690-4822/ SURV @ 4822, 0°30', N-39°-E/TVD 4781.66/SEC.444.70/N-424.55/W-133.17/ MW 68/VIS 37/

8/15 4965 SD SH D (183) ATTMPT TO FREE STUCK PIPE/DRLG 8-3/4" HOLE FRM 4822-4965/LOST RTNS @ 4965/PU TO 4790; PIPE STUCK/WRK STUCK DP & PMP TOT OF 1700 BBLS MUD & LCM w NO RTNS/MW 68/VIS 30/

8/16 4965 SD SH FISHING DP/ATTMPT TO FILL HOLE;COULD NOT FILL/ MIRU DIA-LOG/RAN FREE POINT/FREE POINT SHOWD PIPE STUCK @ 703 & 826/PIPE FREE @ 638 INSIDE 13-3/8" SURF CSG/STG SHOT TOOL JT @ 638/ COULD NOT BACK OFF/RESHOT @ 638/BK OFF DP @ 638/PULLED 130,000# DN DP FRM 638-577/POH w DP/BTM JT COVERD w CMT/MU FISHING TOOLS & RIH w OVERSHOT, BMPR SUB, JARS, DC's/TAG FILL @ 538 w TOP OF FISH @ 638/CO FILL TO TOP OF FISH @ 638 w NO RTNS/ATTMPT TO GET OVR FISH/ PUSHD FISH DN HOLE/CK TO SEE FISHING TOOLS FREE, OK/TOP OF FISH @ 726; BTM @ 4878/MW 68/VIS 70/

8/17 4965 SD SH FISHING DP/ATTMPT TO WASH DN OVR 4" DP w 7-5/8" OVERSHOT TO 842 w NO RTNS/POH & LD FISHING TOOLS/RIH w 12¼" BIT DC's & BMPR SUB/STPD @ 539/POH & MU 9-5/8" OVERSHOT, BMPR SUB, JARS, DC's & ACCELERATOR/RIH & WRK THRU TIGHT SPOT @ 539-542/CO TO 870 w NO RTNS/PREP TO CALIPER 13-3/8" CSG; POSSIBLY COLLAPSD OR PARTD/MW 70/ VIS 85/

8/18 4965 POH w IB/RIG UP DIA LOG & RUN CSG INSP LOG/CSG PARTED @ 544/ RIH w 1 CONE 12¼" BIT, UNABL TO GET INTO CSG, RUN DN BESIDE 13-3/8 TO 677'/WAIT ON I.B./RUN 11½" IB TO 544, SET DN 10,000#/POH w IB/

DIVISION OF OIL & GAS
History of Well

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

1981

8/19 4965 PREPNG TO PMP TEMP BLOCK "60" PILL/RIH OPN ENDED TO 544'/ MIX & PMP 300 BBLS OF LCM, 200 BBLS w 27# PER BBL OF LCM, 100 BBLS w 15-17# PER BBL OF LCM, NO RTNS/RIH w 10¾" IB w 12¼ STAB ABOV IT, TO 544/IB SHOWS CSG IS 5"± OUT IN HOLE/RIH OPN ENDED TO 544, PREP TO MIX TEMP BLOCK "60"/

8/20 4965 PREPNG TO P&A/MX & PMP 60 BBLS OF TEMP BLOCK 61 @ 518/POH WAIT 2 HRS, ATTMPT TO FILL HOLE, HOLE WD NOT FILL/RIH TO 518, PMP 30 BBLS OF TEMP BLOCK 61, POH/RIH w 4-3/4" SWEDGE, 1 JT CROOKED 4" DP, 8-3/4" STAB ON 5 - 6" D.C./ATTMPT TO GET INTO SHIFTED CSG/UNABL TO DO SO/RUN 10-1/4" IB TO 544, POH IB SHOWS CSG 4 - 5" INSIDE/LD ALL TOOLS & PREP TO P&A/

8/21 4965 TD WOC/w OPN ENDED DP @ 564, HALIB PMP 100 SX "G" CMT w .25% THIX SET "A", .25% THIX SET "B", 25# PER SX GIL, ¼# PER SX FLOCELE w 2% $CaCl_2$/WOC 4 HRS, RIH TO 564 NO PLUG/PMP 4, 50 SX PLUGS, 1 EVERY 2 HRS/WOC FOR 4 HRS/RIH 541, PMP 50 CF FLO-CHECK, 100 SX CMT PLUG/POH & WOC/

8/22 4965 TD, PSA ON 8-21-81/TAG CMT PLUG @ 301, WITNESS & APPRVD BY D.O.G./SPOT CMT FRM 181-SURF/PULL BOP,CUT OFF WELL HD & CSG 5' BELOW GRND LEVEL/RIG DN RIG PREP TO MOVE TO NWLBU #8-7/

RECEIVED
SEP 4 11 51 AM '81
DIV. OF OIL AND GAS
LONG BEACH, CA.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

No. T 181-883

DIVISION OF OIL AND GAS

Report on Operations

L. B. Carroll, Jr., Agent
SUN OIL COMPANY
P. O. Box 55060
Valencia, CA 91355

Long Beach Calif.
September 14, 1981

Your operations at well NWLBU 8-5, API No. 037-22295, Sec. 13, T4S, R. 13W S.B. B.& M. Long Beach Field, in Los Angeles County, were witnessed on 8-21-81. G. W. Stark, Engineer, representative of the supervisor, was present from 0810 to 0940. There were also present D. Rodgers, Drilling Foreman.

Present condition of well: 20" cem 56'; 13-3/8" cem 662', parted @ 544', Junk below 648'. TD 4965'. Plugged w/cem 548'-301' & 185'-8'+.

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

surface inspection 9-17-81 okay.mg

DECISION: APPROVED.

NOTE: DEFICIENCIES TO BE CORRECTED
NONE

DEFICIENCIES CORRECTED
NONE

CONTRACTOR: Atlantic Oil Company

GWS:dh

cc: Update
EDP

M. G. MEFFERD
State Oil and Gas Supervisor

By [signature]
Deputy Supervisor

R. A. YBARRA

OG109(12-80-15M)

DIVISION OF OIL AND GAS
Cementing/Plugging Memo

151-878 181-883

Operator Sun Oil Company Well No. NWLBU 8-5
API No. 037-22295 Sec. 13, T. 4s, R. 13w, SB B&M
Field Long Beach, County Los Angeles. On 8-21-81,
Mr. GW Stark, representative of the supervisor was present from 0810 to 0940
There were also present D. Rodgers DF

Casing record of well: 20" cem 56'; 13 3/8" cem 662, parted @ 544', Junk below 648'. TD 4965'. plugged w/ cem 548'-301', & 185'-8'.

The operations were performed for the purpose of (L)

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

☐ The location and hardness of the cement plug @_____' is approved.

Hole size:_____" fr._____' to_____', _____" to_____' & _____" to_____'

Casing				Cemented			Top of Fill		Squeezed Away	Final Press.	Perfs.
Size	Wt.	Top	Bottom	Date	MO-Depth	Volume	Annulus	Casing			

Casing/tubing recovered:_____" shot/cut at_____', _____', _____' pulled fr._____';
_____" shot/cut at_____', _____', _____' pulled fr._____'.

Junk (in hole):

Hole fluid (bailed to) at_____'. Witnessed by

Mudding	Date	Bbls.	Displaced	Poured	Fill	Engr.
Existing Hole mud used to fill Space 301-185'.						
weight 72#cf Vis 50 w/ Lost circulation material Added.						

Cement Plugs		Placing	Placing Witnessed		Top Witnessed			
Date	Sx./cf	MO & Depth	Time	Engr.	Depth	Wt/Sample	Date & Time	Engr.
8/20/81	500 SX	DP @ 548	8/20/81	Reported by Rodgers.	301'	all dp wt	8-21-81 0830	GW Stark
8/21/81	100 SX	DP @ 185	0910	GW Stark	8'	Visual	8-21-81 0940	GW Stark

OGD10 (2-75-GSR1-6M)

Deficiencies corrected
none

Deficiencies to be corrected
none.

Contractor Atlantic Oil Company

FORM OG111 (7/80)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

No. P 181-689

412 (field code)
03 (area code)
00 (pool code)

REPORT ON PROPOSED OPERATIONS

L. B. Carroll, Jr., Agent
SUN OIL COMPANY
P. O. Box 55060
Valencia, CA 91355

Long Beach, California
August 31, 1981

Your _____ proposal to abandon well NWLBU 8-5,
A.P.I. No. 037-22295, Section 13, T. 4S, R. 13W, S. B. B. & M.,
Long Beach field, Northwest Extension area, - - - pool,
Los Angeles County, dated 8-20-81, received 8-21-81 has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:

1. All portions of the hole not plugged with cement shall be filled with clay base mud fluid having a minimum density of 72 lb/ cu ft and a minimum gel-shear strength of 25 lb/ 100 sq ft.
2. THIS DIVISION SHALL BE NOTIFIED:
   a. To witness the placing, location and hardness of the cement plug from 648' to 440'.
   b. To witness the placing of the cement surface plug .
   c. To inspect and approve the clean-up of the well site before approval of abandonment will be issued.

HO:dh

cc: Update

Blanket Bond

M. G. MEFFERD, State Oil and Gas Supervisor

By [signature]
for R. A. YBARRA, Deputy Supervisor

A copy of this report and the proposal must be posted at the well site prior to commencing operations.

Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.

STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

06 / Dry

Notice of Intention to Abandon Well

This notice must be given at least five days before work is to begin.

FOR DIVISION USE ONLY			
CARDS	BOND	FORMS 114	FORMS 121
8-24-81	Blanket	8-24-81	8-24-81

DIVISION OF OIL AND GAS

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon Well No. NWLBU #8-5, API No. 037-22295, Sec. 13, T. 4S, R. 13W, SB B. & M., Long Beach Field, Los Angeles County. commencing work on August 20, 19 81.

The present condition of the well is:

1. Total depth: 4965' (8 3/4" Hole)

2. Complete casing record, including plugs and perforations:

13 3/8", 48#,H-40, ST&C csg shoe @ 662'; cmt'd w/903 CF CL 'G' cmt w/2% $CaCl_2$ 13 3/8" csg parted @ 540';4" DP Fish from 638' to 4790'

3. Last produced Never Produced
(Date) (Oil, B/D) (Gas, Mcf/D) (Water, B/D)

or

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

Additional data for dry hole (show depths)
Well never logged or tested - stuck drill pipe

5. Oil or gas shows

N/A

6. Stratigraphic markers:

N/A

7. Formation and age at total depth: N/A

8. Base of fresh water sands: N/A

The proposed work is as follows:

(1) RIH w/4" D P open-ended to 540'
(2) Spot 300 sx of CL 'G' cmt w/0.25% Thix-set 'A', 0.25% Thix-set 'B', 25#/sx Gilsonite, ¼#/sx Flocele, & 2% $CaCl_2$
(3) Tag TOC @ 440' or higher
(4) Spot column of 68PCF fresh water-gel mud to 100' from surface
(5) Spot additional cement plug from 100' to surface
(6) Cut off 13 3/8" casing
(7) RDMO
(8) Restore surface to original conditions

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

Address 25322 West Rye Canyon Road
(Street)
Valencia California 91355
(City) (State) (Zip)
Telephone Number (805) 257-6200

Sun Production Company
(Name of Operator)
By L.B. Carroll Jr. 8-20-81
(Name) L.B. CARROLL, JR. (Date)
Type of Organization Corporation
(Corporation, Partnership, Individual, etc.)

OG108 (12-73-GSR1-15M)

RECEIVED
AUG 21 2 33 PM '81
DIV. OF OIL AND GAS
LONG BEACH, CA.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

No. T 181-834

DIVISION OF OIL AND GAS

Report on Operations

L. B. Carroll, Jr., Agent
SUN OIL COMPANY
P. O. Box 55060
Valencia, CA 91355

Long Beach Calif.
September 14, 1981

Your operations at well NWLBU 8-5, API No. 037-22295, Sec. 13, T. 4S, R. 13W, S.B.B.& M. Long Beach Field, in Los Angeles County, were witnessed on 8-1-81. W. E. Brannon, Engineer, representative of the supervisor, was present from 0600 to 1100. There were also present D. Rodgers, Drilling Foreman.

Present condition of well: 20" cem 56'; 13-3/8" cem 662'. TD 665'.

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

DECISION: APPROVED.

NOTE: DEFICIENCIES TO BE CORRECTED
NONE

DEFICIENCIES CORRECTED
1. Pressure guage was on kill line.
2. Pump unable to hold pressure above 500#.
3. Adjustable choke had slow leak.
4. Remote control box was not hooked up.
5. First test failed.

CONTRACTOR: Atlantic Oil Company

WEB:dh

cc: Update
Dispatcher Clerk

M. G. MEFFERD
State Oil and Gas Supervisor

By [signature]
Deputy Supervisor
R. A. YBARRA

OG109(12-80-15M)

DIVISION OF OIL AND GAS
BLOWOUT PREVENTION EQUIPMENT MEMO

#10

T 81-834

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

VISITS:	Date	Engineer	Time	Operator's Rep.	Title
1st	8-1-81	W.E. Brannon	0600 to 1100	D. Rodgers	DF
2nd	8-1-81	" " "	1100 to 1300	" "	"

Casing record of well: 20" Cem 56'; 13 3/8" Cem 662' TD 665'

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

Proposed Well Opns: drill MPSP: _____ psi

REQUIRED BOPE CLASS: III B 3M

Hole size: 24 " fr. 0 ' to 20 ', 17 1/2 " to 665 ' & _____ " to _____ '

CASING RECORD (BOPE ANCHOR STRING ONLY)					Cement Details	Top of Cement	
Size	Weight(s)	Grade (s)	Shoe at	CP at		Casing	Annulus
13 3/8	48#	H-STC	662		905 cf did not bump plug	3433	0

BOP STACK							a	b	a/b	TEST DATA			
API Symb.	Ram Sz.	Mfr.	Model or Type	Size In.	Press. Rtg.	Date Last Overhaul	Gal. to Close	Rec. Time Min.	Calc. GPM Output	psi Drop to Close	Secs. to Close	Test Date	Test Press.
A	12	Hydril	GK	12	3000							8/1/81	1200
Rd	4	Shaffer	B	12	3000							8/1/81	1300
Rd	050	Shaffer	B	12	3000						Rpt b D. Rodger		1000

ACTUATING SYSTEM

Accum. Unit(s) Wkg. Press. 1500 psi
Total Rated Pump Output _____ gpm
Distance From Well Bore 75 ft.

	Mfr.	Accum. Cap.	Precharge
1	Hydril	80 gal.	750 psi
2		gal.	psi

CONTROL STATIONS	Elec.	Hyd.
X Manif. at accum. unit		X
X Remote at Drlr's stn.	X	
Other:		

EMERG. BACKUP SYST.	Press.	Wkg. Fl.
X N2 Cyl No: 3 Tpe: G	12700	gal
Other:	22400	gal
	32600	gal
	4	gal
	5	gal
	6	gal

AUXILIARY EQUIPMENT

		No.	Sz. (in)	Rated Press.	Connections Weld	Flan.	Thrd.	
X	Fill-Up Line							
X	Kill Line		2"	3000			X	1200
X	Control Valve(s)	1		3000			X	—
X	Check Valve(s)	1		3000			X	1200
X	Auxil. Pump Connec.			3000			X	1200
X	Choke Line		2"	3000			X	1200
X	Control Valve(s)	1		3000			X	1200
X	Pressure Gauge						X	
X	Adjustable Choke(s)	1	2"	3000			X	—
X	Bleed Line		2"				X	
X	Upper Kelly Cock							
—	Lower Kelly Cock		—	—				—
X	Standpipe Valve							—
X	Standpipe Pressure Ga.							
X	Pipe Safety Valve		4	3000				1200
X	Internal Preventer		4	3000				—

HOLE FLUID MONITORING EQUIPMENT		Alarm Aud.	Alarm Vis.	Class
X	Calibrated Mud Pit	X	X	A
X	Pit Level Indicator	X	X	B
X	Pump Stroke Counter	X	X	B
	Pit Level Recorder			C
	Flow Sensor			C
	Mud Totalizer			C
	Calibrated Trip Tank			
	Other:			

REMARKS:

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

OGD 9 (10/80/3M)

DEFICIENCIES—TO BE CORRECTED NONE

DEFICIENCIES—CORRECTED
1- Pressure guage was on kill line
2- Pump unable to hold pressure above 500#
3- Adjustable choke had slow leak
4- Remote control box was not hooked up.
5- First test failed

CONTRACTOR Atlantic Oil Co

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF CORRECTION OR CANCELLATION

Long Beach, California

June 25, 1981

L. B. Carroll, Jr., Agent
SUN OIL COMPANY
25322 W. Rye Canyon Road
Valencia, CA 91355

In accordance with your notice of June 8, 1981

the following change pertaining to your well NWLBU 8-5 (037-22295),

Long Beach field, Los Angeles County,

Sec. 13, T. 4S, R. 13W, S.B. B. & M., is being made in our records:

☐ The corrected location is

☐ The corrected elevation is

☐ Report No. , dated , has been corrected as follows:

☐ Your notice to (Drill, abandon, etc.) dated , and our report No. P , issued in answer thereto, are hereby cancelled inasmuch as the work will not be done. If you have a drilling bond on file covering this notice it will be returned. No request for such return is necessary.

☒ Other: Bottom Hole Location: 415' North and 115' West from surface location.

HO:eb

cc: Update Center
EDP

Blanket Bond

State Oil and Gas Supervisor

By Deputy Supervisor

for: R. A. Ybarra

OG 165 (1-77-GSR1-3M)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

SUPPLEMENTARY NOTICE of Bottom Hole Location

FOR DIVISION USE ONLY			
BOND	FORMS		EDP WELL FILE
	OGD114	OGD121	
Blanket			

DIVISION OF OIL AND GAS

LONG BEACH Calif.

A notice to you dated November 25, 19 80, stating the intention to

Drill (Drill, rework, abandon), NW LONG BEACH UNIT #8-5 (Well name and number), API No. 037-22295,

Sec. 13, T. 4S, R. 13W, B. & M., LONG BEACH Field,

Los Angeles County, should be amended because of changed conditions.

The present condition of the well is as follows: The well has not been drilled as yet.

Total depth

Complete casing record including plugs and perforations:

We now propose BHL: 415' North & 115' West from surface location.

Write on form OGD 165

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

Address 25322 W. Rye Canyon Road (Street)

Valencia (City) California (State) 91355 (Zip)

Telephone Number 805/257-6200

Sun Oil Company (Delaware) (Name of Operator)

Type of Organization Corporation (Corporation, Partnership, Individual, etc.)

By L. B. Carroll, Jr. (Name) 6/8/81 (Date)

Signature L. B. Carroll, Jr. by JAB

OG123 (7-76-GSR1-5M)

RECEIVED
JUN 9 11 1 AM '81
DIV. OF OIL AND GAS
LONG BEACH, CA.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF CORRECTION OR CANCELLATION

Long Beach, California

December 1, 1980

Mr. L. B. Carroll, Jr., Agent
SUN OIL COMPANY
23928 Lyons Avenue
Newhall, CA 91321

In accordance with your (corrected copy) Notice of Intention to Drill

the following change pertaining to your well No. NWLBU 8-5 (037-22295),

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

Los Angeles County, District No. _____, is being made in our records:

[XX] The corrected location is 535' North & 763' West @ Right Angle from intersection C/L San Antonio Drive & Del Mar Ave.

[ ] The corrected elevation is _____

[ ] Report No. _____, dated _____, has been corrected as follows: _____

CORRECTIONS MADE AS FOLLOWS:	BY WHOM
FORM 1(a)	
" 1(b)	
" 1(c)	cp
" 1(d)	
CARDS	
PRODUCTION REPORTS	
WELL RECORDS (FOLDERS	
(REPORTS	
FIELD MAPS	
MAP BOOK	

[ ] Your notice to _____ dated _____,
(Drill, abandon, etc.)
and our report No. P_____, issued in answer thereto, are hereby cancelled inasmuch as the work will not be done. If you have a drilling bond on file covering this notice it will be returned. No request for such return is necessary.

[XX] Other: Proposed coordinates from surface location @ TD 393' S & 439' E

HO/bd

cc: Update Center - EDP
Sun Oil Co.

Blanket Bond

State Oil and Gas Supervisor

By Herman Dohlan
for Y. A. Ybarra, Deputy Supervisor

OGD165 (8-75—GSRI—3M)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

Notice of Intention to Drill New Well

*CORRECTED COPY

C.E.Q.A. INFORMATION			
EXEMPT ☐ CLASS____	NEG. DEC. ☒ ND 64-77 S.C.H. NO.____	E.I.R. ☐ S.C.H. NO.____	DOCUMENT NOT REQUIRED BY LOCAL JURISDICTION ☐
See Reverse Side			

FOR DIVISION USE ONLY					
MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to commence drilling well NW LONG BEACH UNIT #8-5, API No.____ (Assigned by Division),

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

Legal description of mineral-right lease, consisting of 149 acres, is as follows:____ (Attach map or plat to scale)

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

Location of well 535 feet North (Direction) ~~along section/property line~~ (Cross out one) and 763 feet West (Direction)

at right angles ~~to said line~~ from the ~~corner of section/property~~ (Cross out one) ~~or~~

intersection of centerlines of San Antonio Drive & Del Mar Avenue

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

* If well is to be directionally drilled, show proposed coordinates (from surface location) at total depth: ~~393~~ 415 feet ~~South~~ North (Direction) and ~~439~~ 115 feet ~~East~~ West (Direction)

Correction dated 6/25/81

Elevation of ground above sea level 45.5 feet.

All depth measurements taken from top of Kelly Bushing (Derrick Floor, Rotary Table, or Kelly Bushing) that is 10 feet above ground.

PROPOSED CASING PROGRAM

SIZE OF CASING INCHES API	WEIGHT	GRADE AND TYPE	TOP	BOTTOM	CEMENTING DEPTHS	CALCULATED FILL BEHIND CASING
10-3/8"	48#	H-40	Surface	650'	650'	Surface
9-5/8"	36#	K-55; S-80	Surface	5950'	5950'	1500'

(A complete drilling program is preferred and may be submitted in lieu of the above program.)

Intended zone(s) of completion Lower Alamitos @ 4311'TVD; Brown @ 4726' TVD (Name, depth, and expected pressure) Estimated total depth 5876' TVD

Pres. ≈ 800 PSI

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

Name of Operator	Type of Organization (Corporation, Partnership, Individual, etc.)	
SUN OIL COMPANY (DELAWARE)	CORPORATION	
Address	**City**	**Zip Code**
23928 LYONS AVENUE	NEWHALL, CALIFORNIA	91321
Telephone Number / Name of Person Filing Notice	**Signature**	**Date**
805/259-2440 L. B. CARROLL DISTRICT ENGINEER	L. B. Carroll by JAB	11-25-80

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

OG105 (2-79-DWRR-10M)

Information for compliance with the California Environmental Quality Act of 1970 (C.E.Q.A.).

If an environmental document has been prepared by the lead agency, please submit a copy of the document with this notice *or* supply the following information:

Lead Agency: City of Long Beach

Contact Person: G. H. Felgemaker

Address: 333 West Ocean Blvd.

Long Beach, California 90802

Phone: (213) 590-6894

FOR DIVISION USE ONLY
District review of environmental document (if applicable)? Yes ☐ No ☐
Remarks:

CRITICAL WELL

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

(1) 300 feet of the following:
(A) Any building intended for human occupancy that is not necessary to the operation of the well; or
(B) Any airport runway.
(2) 100 feet of the following:
(A) Any dedicated public street, highway, or nearest rail of an operating railway that is in general use;
(B) Any navigable body of water or watercourse perennially covered by water;
(C) Any public recreational facility such as a golf course, amusement park, picnic ground, campground, or any other area of periodic high-density population; or
(D) Any officially recognized wildlife preserve.

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

RECEIVED
NOV 28 12 51 PM '80
DIV. OF OIL AND GAS
LONG BEACH CA

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

Notice of Intention to Drill New Well

*CORRECTED COPY

C.E.Q.A. INFORMATION			
EXEMPT ☐ CLASS____	NEG. DEC. ☒ ND 64-77 S.C.H. NO.____	E.I.R. ☐ S.C.H. NO.____	DOCUMENT NOT REQUIRED BY LOCAL JURISDICTION ☐
See Reverse Side			

FOR DIVISION USE ONLY					
MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to commence drilling well NW LONG BEACH UNIT #8-5, API No.____ (Assigned by Division),

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

Legal description of mineral-right lease, consisting of 149 acres, is as follows:____ (Attach map or plat to scale)

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

Location of well 535 feet North (Direction) ~~along section/property line~~ (Cross out one) and 763 feet West (Direction)

at right angles to ~~said line~~ from the ~~corner of section/property~~ (Cross out one) ~~or~~

intersection of centerlines of San Antonio Drive & Del Mar Avenue

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

* If well is to be directionally drilled, show proposed coordinates (from surface location) at total depth: 393 feet South (Direction) and 439 feet East (Direction)

Elevation of ground above sea level 45.5 feet.

All depth measurements taken from top of Kelly Bushing (Derrick Floor, Rotary Table, or Kelly Bushing) that is 10 feet above ground.

PROPOSED CASING PROGRAM

SIZE OF CASING INCHES API	WEIGHT	GRADE AND TYPE	TOP	BOTTOM	CEMENTING DEPTHS	CALCULATED FILL BEHIND CASING
10-3/8"	48#	H-40	Surface	650'	650'	Surface
9-5/8"	36#	K-55; S-80	Surface	5950'	5950'	1500'

(A complete drilling program is preferred and may be submitted in lieu of the above program.)

Intended zone(s) of completion Lower Alamitos @ 4311'TVD; Brown @ 4726' TVD (Name, depth, and expected pressure) Estimated total depth 5876' TVD

Pres. ≈ 800 PSI

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

Name of Operator	Type of Organization (Corporation, Partnership, Individual, etc.)	
SUN OIL COMPANY (DELAWARE)	CORPORATION	
Address	**City**	**Zip Code**
23928 LYONS AVENUE	NEWHALL, CALIFORNIA	91321
Telephone Number / **Name of Person Filing Notice**	**Signature**	**Date**
805/259-2440 L. B. CARROLL	L. B. Carroll	11-25-80
257 4702 DISTRICT ENGINEER	by JSB	

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

OG105 (2-79-DWRR-10M)

Information for compliance with the California Environmental Quality Act of 1970 (C.E.Q.A.).

If an environmental document has been prepared by the lead agency, please submit a copy of the document with this notice *or* supply the following information:

Lead Agency: City of Long Beach

Contact Person: G. H. Felgemaker

Address: 333 West Ocean Blvd.

Long Beach, California 90802

Phone: (213) 590-6894

FOR DIVISION USE ONLY
District review of environmental document (if applicable)? Yes ☐ No ☐
Remarks:

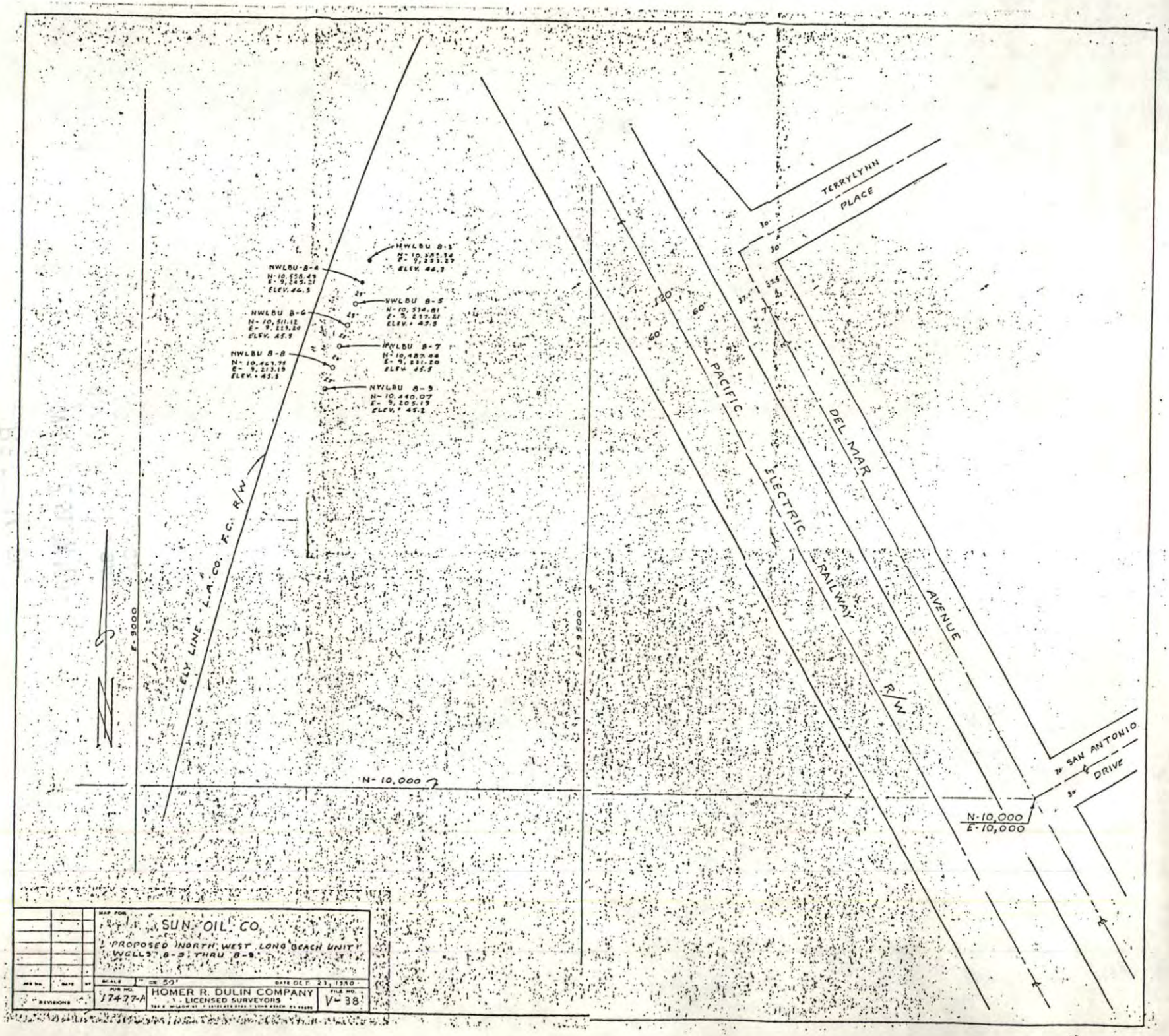
CRITICAL WELL

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

(1) 300 feet of the following:
(A) Any building intended for human occupancy that is not necessary to the operation of the well; or
(B) Any airport runway.
(2) 100 feet of the following:
(A) Any dedicated public street, highway, or nearest rail of an operating railway that is in general use;
(B) Any navigable body of water or watercourse perennially covered by water;
(C) Any public recreational facility such as a golf course, amusement park, picnic ground, campground, or any other area of periodic high-density population; or
(D) Any officially recognized wildlife preserve.

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

RECEIVED
NOV 28 12 51 PM '80
DIV. OF OIL AND GAS
LONG BEACH, CA.



NWLBU 8-3
N- 10,585.34
E- 9,253.27
ELEV. 46.3
NWLBU-8-4
N-10,558.49
E- 9,245.21
ELEV. 46.5
NWLBU 8-5
N-10,534.81
E- 9,237.21
ELEV. 45.5
NWLBU 8-6
N- 10,511.12
E- 9,229.20
ELEV. 45.5
NWLBU 8-7
N- 10,487.44
E- 9,221.20
ELEV. 45.5
NWLBU 8-8
N- 10,463.75
E- 9,213.19
ELEV. 45.5
NWLBU 8-9
N- 10,440.07
E- 9,205.19
ELEV. 45.2
ELY LINE L.A. CO. F.C. R/W
E-9000
E-9500
N-10,000
TERRYLYNN PLACE
DEL MAR AVENUE
PACIFIC ELECTRIC RAILWAY R/W
120'
60'
60'
30'
30'
37.5'
37.5'
SAN ANTONIO DRIVE
N-10,000
E-10,000
MAP FOR
SUN OIL CO.
PROPOSED NORTH WEST LONG BEACH UNIT
WELLS 8-3 THRU 8-9
SCALE 1" = 50'
DATE OCT 23, 1980
JOB NO. 17477-A
HOMER R. DULIN COMPANY
LICENSED SURVEYORS
FILE NO. V-38
REVISIONS

RECEIVED
Nov 28 12 51 PM '80
DIV. OF OIL AND GAS
LONG BEACH, CA.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

No. P 180-824

REPORT ON PROPOSED OPERATIONS

412
(field code)
~~06~~ 03
(area code)
~~25~~ 00
(pool code)

Mr. L. B. Carroll, Jr., Agent
SUN OIL CO.
23928 Lyons Ave.
Newhall, CA 91321

Long Beach, California
Nov. 3, 1980

Your _____ proposal to drill well NWLBU 8-5,
A.P.I. No. 037-22295, Section 13, T. 4S, R. 13W, S.B. B. & M.,
Long Beach field, Old area, -- pool,
Los Angeles County, dated 10/23/80, received 10/24/80 has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:

1. Blowout prevention equipment, equivalent to this division's Class III B, 3M requirements, or better, shall be installed and maintained in operating condition.
2. Drilling fluid of a quality and in sufficient quantity to control all subsurface conditions in order to prevent blowouts shall be used.
3. Sufficient cement shall be used to fill back of the 9-5/8" casing to a depth of 1500' or cemented through cementing ports at approx. 1700' with sufficient cement to fill to a depth of 1500'.
4. A directional survey shall be made and filed with this division.
5. THIS DIVISION SHALL BE NOTIFIED TO WITNESS:
   a. A test of the installed blowout prevention equipment prior to drilling out cement in the shoe of the 13-3/8" casing.
   b. A test of the effectiveness of the 9-5/8" shutoff above the lower Alamitos zone.

HO:d

cc Update Center - EDP
Sun Oil Co.

Blanket Bond

Fred Allen / R. Manuel 8/20/81
13 3/8" parted @ 662'. Top of 4" fish @ 638'
OK to plug to surf. will send
notice.

M. G. MEFFERD, State Oil and Gas Supervisor

By Richard F. Carter
Deputy Supervisor

R. A. YBARRA

A copy of this report and the proposal must be posted at the well site prior to commencing operations.

06

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

Notice of Intention to Drill New Well

C.E.Q.A. INFORMATION			
EXEMPT ☐ CLASS____	NEG. DEC. ☒ No. 64-77 S.C.H. NO.____	E.I.R. ☐ S.C.H. NO.____	DOCUMENT NOT REQUIRED BY LOCAL JURISDICTION ☐

See Reverse Side

FOR DIVISION USE ONLY					
MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121
137	10-30-80	10-29-80	Blanket	10-29-80	10-29-80

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to commence drilling well NW LONG BEACH UNIT #8-5, API No. 037-22295 (Assigned by Division),

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

Legal description of mineral-right lease, consisting of 149 acres, is as follows: (Attach map or plat to scale)

- See Attached -

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

Location of well ~~535~~ 534 feet North (Direction) ~~along section/property line~~ (Cross out one) and ~~763~~ 767 feet West (Direction)

at right angles ~~to said line~~ from the ~~corner of section/property~~ (Cross out one)

intersection of San Antonio Drive & Del Mar Avenue

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

If well is to be directionally drilled, show proposed coordinates (from surface location) at total depth: ~~393~~ ~~324~~ 415 feet ~~South~~ North (Direction) and ~~439~~ ~~449~~ 115 feet ~~East~~ West (Direction)

Correction dated 11-25-80 bd
" " 6-25-81

Elevation of ground above sea level ~~46~~ 45.5 feet.

All depth measurements taken from top of Kelly Bushing (Derrick Floor, Rotary Table, or Kelly Bushing) that is 10 feet above ground.

PROPOSED CASING PROGRAM

SIZE OF CASING INCHES API	WEIGHT	GRADE AND TYPE	TOP	BOTTOM	CEMENTING DEPTHS	CALCULATED FILL BEHIND CASING
~~13-3/8"~~ 10 3/8"	48#	K-55	Surface	650'	650'	Surface
9-5/8"	36#	K-55 & S-80	Surface	5900'	5900'	1500'

(A complete drilling program is preferred and may be submitted in lieu of the above program.)

Intended zone(s) of completion Lower Alamitos @ 4315' (4311) TVD, Brown @ 4730' (4726) TVD (Name, depth, and expected pressure) Press ≈ 800 PSI. Estimated total depth 5860' (5876') TVD

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

Name of Operator	Type of Organization (Corporation, Partnership, Individual, etc.)	
SUN OIL COMPANY (DELAWARE)	Corporation	
Address	**City**	**Zip Code**
23928 Lyons Avenue	Newhall, California	91321
Telephone Number / **Name of Person Filing Notice**	**Signature**	**Date**
805/259-2440 / L.B. CARROLL, JR.	L. B. Carroll (by MGM)	10/23/80

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

OG105 (2-79-DWRR-10M)

Producer

Information for compliance with the California Environmental Quality Act of 1970 (C.E.Q.A.).

If an environmental document has been prepared by the lead agency, please submit a copy of the document with this notice *or* supply the following information:

Lead Agency: CITY OF LONG BEACH

Contact Person: G. H. FELGEMAKER

Address: 333 WEST OCEAN BLVD.

LONG BEACH, CALIFORNIA 90802

Phone: (213) 590-6894

FOR DIVISION USE ONLY
District review of environmental document (if applicable)? Yes ☐ No ☐
Remarks:

CRITICAL WELL

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

(1) 300 feet of the following:
(A) Any building intended for human occupancy that is not necessary to the operation of the well; or
(B) Any airport runway.
(2) 100 feet of the following:
(A) Any dedicated public street, highway, or nearest rail of an operating railway that is in general use;
(B) Any navigable body of water or watercourse perennially covered by water;
(C) Any public recreational facility such as a golf course, amusement park, picnic ground, campground, or any other area of periodic high-density population; or
(D) Any officially recognized wildlife preserve.

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

RECEIVED
OCT 24 8 40 AM '80
DIV. OF OIL AND GAS
LONG BEACH, CA

SUN PRODUCTION COMPANY
N.W.L.B.U. #8-7 037-22512
LONG BEACH, CALIFORNIA

C.R.G. Properties, Ltd.

JOB NUMBER 35-881
AUG.- SEPT., 1981
ELEVATION 56 FT.

DECL. CORR. 14 DEG. 30 MIN. EAST

MEAS. DEPTH	DRIFT ANGLE	DRIFT BEARING	VERTICAL DEPTH	VERTICAL SUB-SEA	TOTAL COORDINATES	
125	0015	N64 00E	125.0	-69.0	.1 N	.2 E
215	0015	N14 00E	215.0	-159.0	.4 N	.5 E
306	0015	S18 00W	306.0	-250.0	.5 N	.1 E
417	0015	N36 00W	417.0	-361.0	.5 N	.4 W
507	0015	N49 00E	507.0	-451.0	.8 N	.3 W
600	0015	N60 00W	600.0	-544.0	1.3 N	.4 W
693	0015	N34 00E	693.0	-637.0	1.6 N	.5 W
783	0015	N09 30E	783.0	-727.0	2.0 N	.3 W
875	0015	N80 00E	875.0	-819.0	2.3 N	0.0 W
965	0030	S05 00E	965.0	-909.0	1.9 N	.4 E
1120	0030	N73 00W	1120.0	-1064.0	1.1 N	.6 W
1192	0030	N15 00W	1192.0	-1136.0	1.5 N	1.0 W
1286	0000	N00 00E	1286.0	-1230.0	1.9 N	1.2 W
1386	0015	N21 00W	1386.0	-1330.0	2.1 N	1.2 W
1428	0245	N01 00W	1428.0	-1372.0	3.2 N	1.4 W
1489	0415	N14 00W	1488.9	-1432.9	6.9 N	1.9 W
1549	0600	N29 00W	1548.6	-1492.6	11.9 N	3.9 W
1611	0730	N24 00W	1610.2	-1554.2	18.4 N	7.1 W
1672	0930	N17 00W	1670.5	-1614.5	26.9 N	10.3 W
1735	1115	N11 00W	1732.5	-1676.5	37.9 N	13.0 W
1766	1215	N13 00W	1762.8	-1706.8	44.0 N	14.4 W
1894	1330	N25 00W	1887.6	-1831.6	71.0 N	23.6 W
1989	1315	N23 30W	1980.0	-1924.0	91.1 N	32.7 W
2081	1315	N22 00W	2069.6	-2013.6	110.5 N	40.8 W
2173	1315	N25 30W	2159.1	-2103.1	129.8 N	49.3 W
2264	1300	N30 30W	2247.8	-2191.8	148.0 N	59.0 W
2357	1230	N25 30W	2338.5	-2282.5	166.2 N	68.7 W
2404	1330	N21 00W	2384.3	-2328.3	175.9 N	72.8 W
2465	1330	N05 00W	2443.6	-2387.6	189.8 N	76.0 W
2571	1300	N02 00E	2546.8	-2490.8	214.0 N	76.7 W
2663	1300	N02 00E	2636.4	-2580.4	234.7 N	75.9 W
2754	1245	N03 00E	2725.1	-2669.1	255.0 N	75.1 W
2848	1230	N03 00E	2816.8	-2760.8	275.5 N	74.0 W
2938	1215	N05 30E	2904.7	-2848.7	294.7 N	72.6 W
3022	1200	N04 30E	2986.9	-2930.9	312.3 N	71.0 W

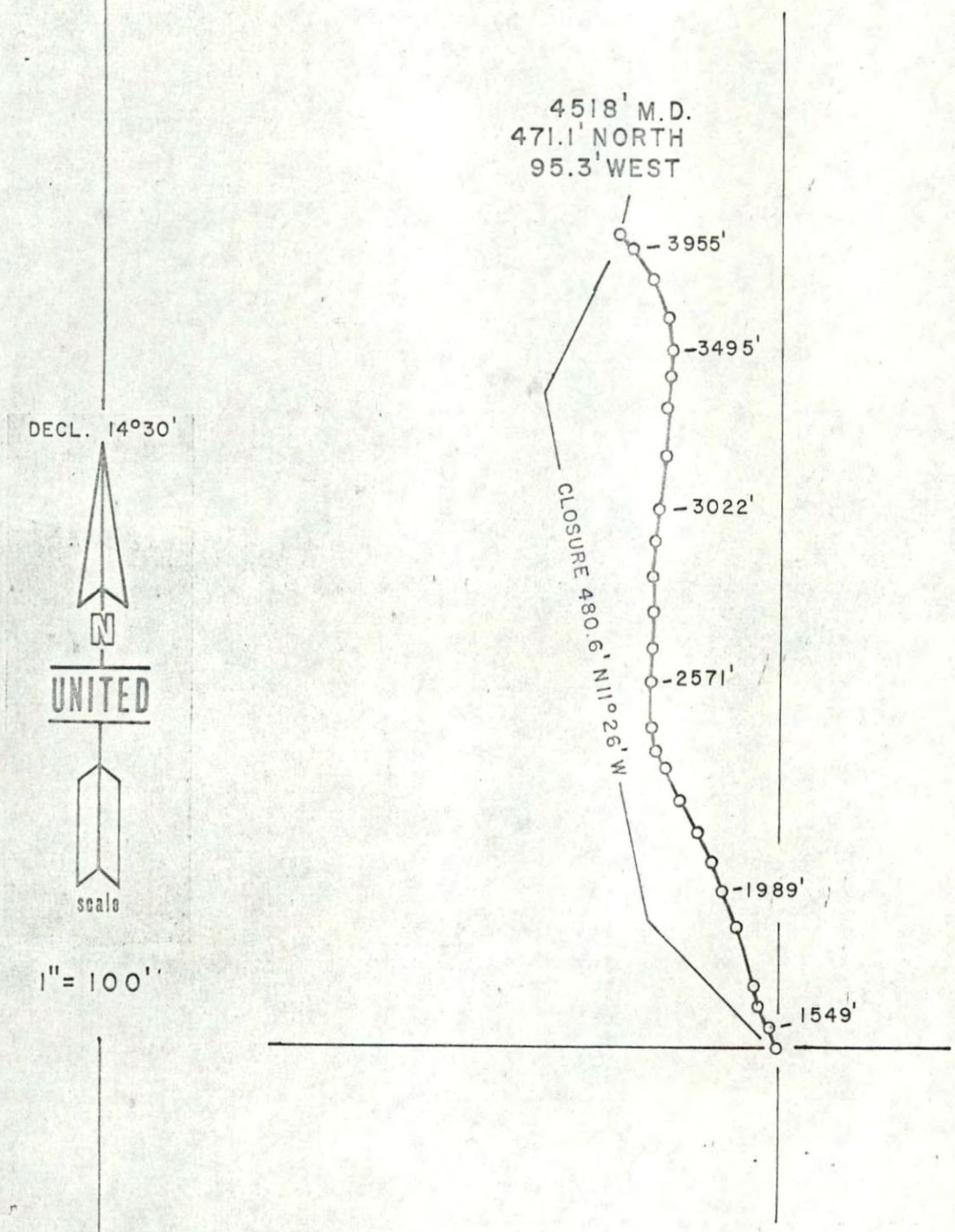
UNITED DIRECTIONAL SERVICES, INC.
SIGNAL HILL, CALIFORNIA

RECEIVED
MAY 19 11 51 AM '83
DIV OF OIL & GAS
LONG BEACH, CALIF.

MEAS. DEPTH	DRIFT ANGLE	DRIFT BEARING	VERTICAL DEPTH	VERTICAL SUB-SEA	TOTAL COORDINATES	
3175	1200	N04 30E	3136.5	-3080.5	344.0 N	68.5 W
3207	1200	N04 30E	3167.8	-3111.8	350.7 N	68.0 W
3310	1130	N03 30E	3268.7	-3212.7	371.6 N	66.5 W
3404	1130	N04 30E	3360.8	-3304.8	390.3 N	65.2 W
3495	1045	N05 00E	3450.1	-3394.1	407.8 N	63.8 W
3575	1330	N11 00W	3528.3	-3472.3	424.6 N	64.7 W
3635	1200	N25 00W	3586.8	-3530.8	437.1 N	68.7 W
3696	0930	N34 00W	3646.7	-3590.7	447.1 N	74.3 W
3758	0615	N43 00W	3708.2	-3652.2	453.7 N	79.6 W
3863	0330	N41 00W	3812.8	-3756.8	460.3 N	85.6 W
3955	0215	N41 00W	3904.7	-3848.7	463.8 N	88.6 W
4047	0200	N42 00W	3996.6	-3940.6	466.4 N	90.9 W
4139	0115	N40 00W	4088.6	-4032.6	468.3 N	92.6 W
4235	0115	N69 00W	4184.5	-4128.5	469.6 N	94.3 W
4332	0045	N54 00W	4281.5	-4225.5	470.4 N	95.8 W
4427	0015	N34 00E	4376.5	-4320.5	471.2 N	95.9 W
4518	0030	S26 00E	4467.5	-4411.5	471.1 N	95.3 W

CLOSURE: 480.6 FEET N 11 DEG. 26 MIN. W

COMPUTED USING THE AVERAGED ANGLE METHOD



N.W.L.B.U. WELL No. 8-7

Schlumberger

DUAL INDUCTION - LATEROLOG WITH LINEAR CORRELATION LOG

2" FINAL PRINT

C.R.G. Properties, Ltd.

037-22512

COUNTY	LOS ANGELES
FIELD	LONG BEACH
LOCATION	
WELL	NWLBU 8-7
COMPANY	SUN PRODUCTION COMPANY

COMPANY

WELL NWLBU 8-7

FIELD LONG BEACH

COUNTY LOS ANGELES STATE CALIFORNIA

LOCATION: 487.44'N & 778.80'W FROM C/L SAN ANTONIO DR. & DEL MAR AVE.

Other Services: FDC/CNL/GR, HDT, DLL-MSFL

API SERIAL NO.	SEC.	TWP.	RANGE
	13	4 S	13 W

Permanent Datum: GL, Elev.: 45.5

Log Measured From: KB 10.5 Ft. Above Perm. Datum

Drilling Measured From: KB

Elev.: K.B. 56, D.F. --, G.L. 45.5

Date	9-13-81			
Run No.	ONE			
Depth—Driller	4906			
Depth—Logger	4906			
Btm. Log Interval	4900			
Top Log Interval	1115			
Casing—Driller	13 3/8@ 1122	@	@	@
Casing—Logger	1115			
Bit Size	8 3/4			
Type Fluid in Hole	GEL			
Dens. | Visc.	69 | 40			
pH | Fluid Loss	9.0 | 6.0 ml	ml	ml	ml
Source of Sample	MUD PIT			
Rm @ Meas. Temp.	2.15 @ 85 °F	@ °F	@ °F	@ °F
Rmf @ Meas. Temp.	1.93 @ 85 °F	@ °F	@ °F	@ °F
Rmc @ Meas. Temp.	2.33 @ 85 °F	@ °F	@ °F	@ °F
Source: Rmf | Rmc	M | M			
Rm @ BHT	1.32 @ 139 °F	@ °F	@ °F	@ °F
Circulation Stopped	0800 9-13			
Logger on Bottom	0800 9-13			
Max. Rec. Temp.	139 °F	°F	°F	°F
Equip. | Location	8178 | 4404			
Recorded By	ALLUZZI			
Witnessed By	VANSICKLE			

FOLD HERE

The well name, location and borehole reference data were furnished by the customer.

Run No.	ONE
Service Order No.	221943
Fluid Level	FULL
Salinity - PPM CL.	500
Speed - F.P.M.	60

EQUIPMENT DATA

Panel No.	IEM-BC-513
Cart No.	IC-384
Sonde No.	IS-333
Mem. Panel No.	CPU-2003
G.R. Panel No.	NLM-BC-571
G.R. Cart. No.	SGC-JC-2663
Tape Recorder - (TTR)	MTU-2836
Depth Encoder - (DRE)	---
Pressure Wheel (CPW)	---
Type Centralizers	FINS
Stand Off - Inches	1.5"

CALIBRATION DATA

Sonde Error - ILM	11.05
Sonde Error - ILD	-0.95
G.R. BKG. - CPS.	32.31
G.R. Source - CPS	203.5

LOGGING DATA

S.E. Log - ILM	11.05
S.E. Log - ILD	-0.95
S.E. - Set in Hole - Depth	---
S.E. Corr. - Hole Size	---
G.R. Scale per 100 Div.	150
G.R. - T.C.	---
G.R. Sens.	165

SCALE CHANGES

Type Log	Depth	Scale Up Hole	Scale Down Hole

REMARKS

All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to Clause 4 of our General Terms and Conditions as set out in our current Price Schedule.

TENS(LB) 5000. 0.0 | ILD (OHMM) 0.0 30.00
GR (GAPI) 0.0 150.0 | LL8A(OHMM) 0.0 6.000
SP (MV) -120.0 -20.00 | LL8A(OHMM) 0.0 30.00 | CILD(MMHO) 1000. 0.0

FILE 103

FILE 103

TENS(LB) 5000. 0.0 | ILD (OHMM) 0.0 30.00
GR (GAPI) 0.0 150.0 | LL8A(OHMM) 0.0 6.000
SP (MV) -120.0 -20.00 | LL8A(OHMM) 0.0 30.00 | CILD(MMHO) 1000. 0.0

SENSOR MEASURE POINT TO TENSION REFERENCE POINT

ILD	9.4 FEET		GR	34.5	FEET
LL8	5.7 FEET		ILM	5.8	FEET
SPAR	5.7 FEET		SP	5.7	FEET
TENS	.0 FEET				

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
DSEC	-0.9500	MMHO	BS	8.750	IN
MSEC	11.05	MMHO	SBR	1.000	OHMM
DO	0.0		BHS	OPEN	

COMPANY SUN PRODUCTION COMPANY

WELL NWLBU 8-7

FIELD LONG BEACH

COUNTY LOS ANGELES STATE CALIFORNIA

SCHL. FR 4900
SCHL. TD 4906
DRLR. TD 4906

Elev. KB 56
DF ---
GL 45.5

2. Field Print

Schlumberger

SIMULTANEOUS
DUAL LATEROLOG MICRO-SFL

COMPANY C.R.C. Prospecting Ltd., CO

WELL NWLBH 8-7 037-22512

FIELD LONG BEACH

COUNTY LOS ANGELES STATE CALIFORNIA

LOCATION: 4 MILES S OF SAN ANTONIO DR. & LOCUST AVE. — PACIFIC & 2128 SEC. 4 T4S R12W

COUNTY ..... FIELD ..... LOCATION ..... WELL ..... COMPANY .....

Other Services: BHC, DIL, SNL, CDL, CNL

Permanent Datum: GL — Elev. 35.5
Log Measured from KB — 11 ft Above Perm. Datum
Drilling Measured from KB — Elev.: K.B. 56.5, D.F. 55.5, G.L. 35.5

Run No.	TWO			
Depth - Driller	7,186.81			
Depth - Logger	7,185.5			
Bottom Log Interval	7,181			
Top Log Interval	6,350			
Casing - Driller	9 7/8 @ 475'			
Casing - Logger	475			
Bit Size	7 7/8			
Type Fluid in Hole	SALT WATER			
Dens. / Visc.	9.4 / 41			
pH / Fluid Loss	9.5 / 4.4			
Source of Sample	FLOWLINE			
Rm @ Meas. Temp.	.51 @ 87 F			
Rmf @ Meas. Temp.	.42 @ 87 F			
Rmc @ Meas. Temp.	.65 @ 87 F			
Rm @ BHT	.26 @ 143 F			
Circulation Stopped	6:00			
Logger on Bottom	9:00			
Max. Rec. Temp.	143 F			
Equipment - Location	5361 - LONG BEACH			
Recorded by	BELLAGIO			
Witnessed by	VANSICKLE			

	Run 1	Run 2	Run 3	Run 4
Tool Number	DIL-SNL-CDL-CNL-BHC-4			
Bit Size	7 7/8			
Bit Type	STD			
Hole Deviation	4			
Max. Rec. Temp.	143			
Equipment - Location	5361 - LONG BEACH			
Recorded by	BELLAGIO			
Witnessed by	VANSICKLE			

FOLD HERE

The well name, location and borehole reference data were furnished by the customer.

Run No.	TWO			
Service Order No.	251727			
Fluid Level	FULL			
Salinity, PPM Cl	60			
EQUIPMENT DATA				
Panel (DLP)	DLM 996			
Panel (SRP)	MGM 0956			
Cartridge (DLC)	DLC-8-781			
Cartridge (SRE)	—			
Sonde (DLS)	DLS-BA-711			
Sonde (SRS)	—			
Lower Electrode (DLE)	—			
Memorizer Panel	—			
Tape Recorder (TTR)	—			
Depth Encoder (DRE)	—			
Pressure Wheel (CPW)	—			
Centralizers	Type	NONE		
Enter Spring	No.	0		
Bow Spring Sidewalls or None	S.O. Inches	0		
CALIBRATION DATA				
GR	BKG. CPS			
	Source CPS			
LOGGING DATA				
GR	Sensitivity	105		
	Scale-100 Div.	120		
	T. C. - sec	AUTO		
Speed FPM		60		
BOTTOM HOLE TEMPERATURE				
Time Entering Hole				
Time Bottom Reached				
Time Last Off Bottom				
Time Out of Hole				
Distance TD to Therm.				
Thermometer #1	F	F	F	F
Thermometer #2	F	F	F	F
Thermometer #3	F	F	F	F
Rw FROM DRILL-STEM TEST				
DST #1 - Rw @ 100 °F	Ω/M	Ω/M	Ω/M	Ω/M
DST #2 - Rw @ 100 °F	Ω/M	Ω/M	Ω/M	Ω/M

SCALE CHANGES			
Type Log	Depth	Scale Up Hole	Scale Down Hole

ABBREVIATION ABOVE GRAMMO ON RECORD IS 10". COMPANY REP. GAVE FIGURE OF 11.

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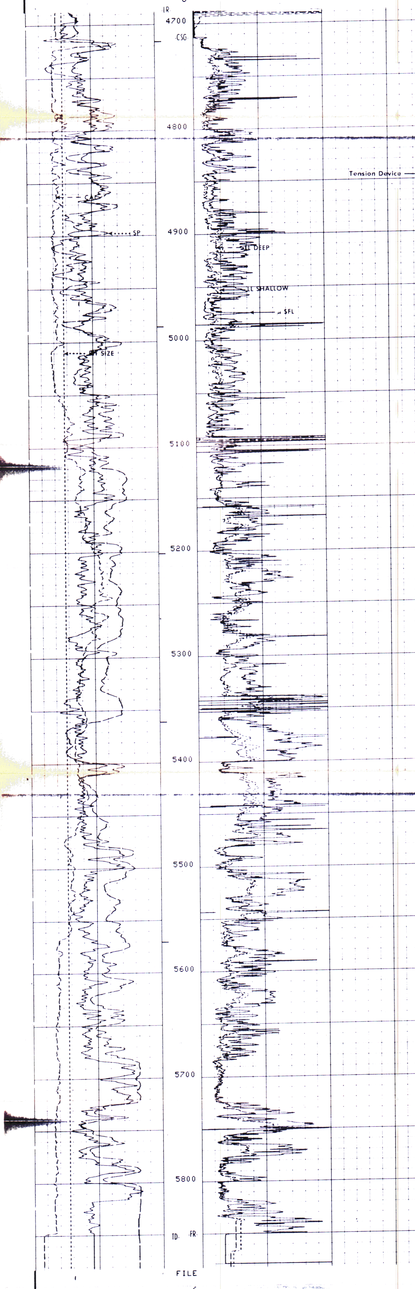
BS (IN) 6.000 — 16.00	LLS (OHMM) 0.0 — 30.00
CALI(IN) 6.000 — 16.00	MSFL(OHMM) 0.0 — 30.00
GR (GAPI) 0.0 — 150.0	LLD (OHMM) 0.0 — 30.00
SP (MV) -80.00 — 20.00	TENS(LB) 10000. — 0.0

FILE 6



FILE 6

BS (IN) 6.000 — 16.00	LLS (OHMM) 0.0 — 30.00
CALI(IN) 6.000 — 16.00	MSFL(OHMM) 0.0 — 30.00
GR (GAPI) 0.0 — 150.0	LLD (OHMM) 0.0 — 30.00
SP (MV) -80.00 — 20.00	TENS(LB) 10000. — 0.0

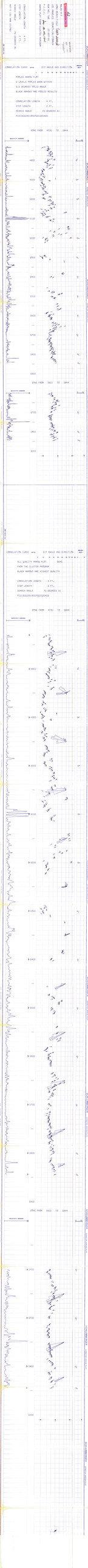
SENSOR MEASURE POINT TO TENSION REFERENCE POINT

SPAR	47.1	FEET	SP	47.1	FEET
CALI	3.7	FEET	GR	33.9	FEET
D190	14.6	FEET	DV90	14.6	FEET
S190	14.6	FEET	SV90	14.6	FEET
D10	14.6	FEET	DV0	14.6	FEET
S10	14.6	FEET	SV0	14.6	FEET
LLS	14.6	FEET	TENS	.0	FEET
CMSF	1.7	FEET	LLD	14.6	FEET
I1	1.7	FEET			

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
SPT	STAN		BS	8.750	IN
DO	0.0		BHS	OPEN	

RECEIVED
JUN 7 12 01 PM '83
DIVISION OF OIL AND GAS
LONG BEACH, CA



CONVOLUTION CURVE
STP ANGLE AND DIRECTION
FOLIO WARN PLOT
2 LARGE FOLIO WARN WITHIN
3.5 DEGREES SPLIG ANGLE
BLACK WARNING AND FOLIO RESULTS
CONVOLUTION LENGTH 4 FT.
STEP LENGTH 2 FT.
SEARCH ANGLE 75 DEGREES X1
P1S1S0S0S1S0S0P0S1S0S0S0
ZONE FROM 4730 TO 5844
ZONE FROM 5601 TO 5844
ALL QUALITY WARN PLOT 5844
FROM THE CLUSTER PROGRAM
BLACK WARNING AND HIGHEST QUALITY
CONVOLUTION LENGTH 4 FT.
STEP LENGTH 2 FT.
SEARCH ANGLE 75 DEGREES X1
P1S1S0S0S1S0S0P0S1S0S0S0
ZONE FROM 4730 TO 5844
ZONE FROM 5601 TO 5844

SCHLUMBERGER

HIGH RESOLUTION DIPMETER

CLUSTER LISTING

RECEIVED OCT 1991

C.H.C. Properties, Ltd.

(037-22513)

Sec. 13-4S-13W

LONG BEACH

LOS ANGELES, CALIFORNIA

RUN NO. TWO JOB NO. 5645

CLUSTER RESULTS ONLY

4 FT. CORR. - 2 FT. STEP

70 DEG. X1 SEARCH ANGLE

Schlumberger

SUN PRODUCTION CO.

DEPTH	FORMATION DIP	FORMATION DIP AZI.	BOREHOLE DEV.	BOREHOLE DEV. AZI.	DIAM 1-3	DIAM 2-4	QUAL. INDEX BEST
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

tiger

9 5/8" RADII BOND LOG W/ GR & CCL

Company	ALLEN CO	Country	USA
Well	NWLBU 8-7		
Field	LONG BEACH		
County	LOS ANGELES		
State	CALIFORNIA		

Location:			
Company	ALLEN CO		
Well	NWLBU 8-7		
Field	LONG BEACH		
County	LOS ANGELES		
State	CALIFORNIA	Country	USA
API #	NO API#		

Other Services

Date	DEC 06 2013		
Depth Driller	2'10'		
Depth Logger	2'10'		
Bottom Logged Interval	2'10'		
Top Log Interval	8'		
Open Hole Size	7 7/8"		
Density / Viscosity	N/A		
Max Recorded Temp	N/A		
Estimated Cement Top	8'		
Time Well Ready	7:00		
Equipment Number	UNIT #10		
Location	LEASE WATER		
Recorded By	Cesar Rosales		
Witnessed By	IVAN SANCOVAL		

Run Number

Bit / From / To / Size / Weight / From / To

Casing Record / Liner / Production String / Size / Weight / Top / Bottom

Permanent Datum / Log Measured From / Drilling Measured From

SEC / TWP / RGE

GROUND LEVEL / K.B. @ G.L. / Elevation

K.B. / G.L. / Elevation

<<< Fold Here >>>

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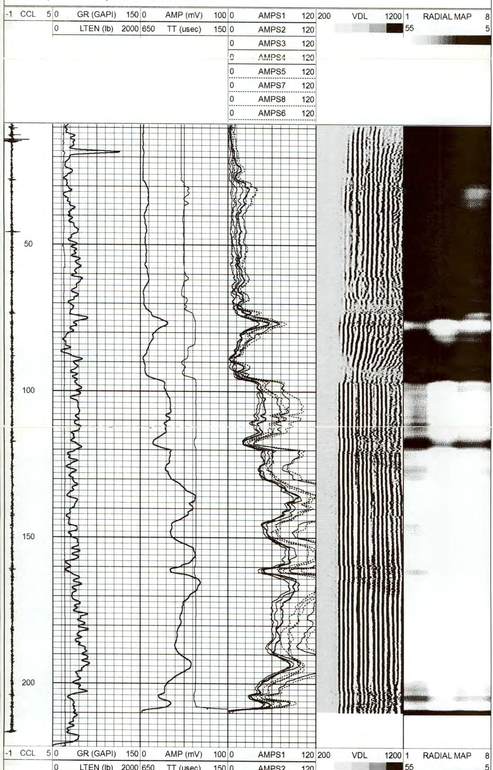
Comments

LOG DEPTHS BASED ON TIGER WIRELINE MEASUREMENTS

Sensor	Offset (ft)	Description	Len (ft)	OD (in)	Wt (lb)
		CHD-AES (000001) Cable Head	1.04	1.38	2.00
		PRC-034 (C1161) Production Roller Centralizer (4 Arm)	2.77	2.38	13.00
WVF3FT	13.17	RBT-Probe (060119_9.625) Probe Radii Bond Tool with Digital Telemetry	9.17	2.75	90.00
WVFCAL	13.17				
WVFS1	13.17				
WVFS2	13.17				
WVFS3	13.17				
WVFS4	13.17				
WVFS5	13.17				
WVFS6	13.17				
WVFS7	13.17				
WVFS8	13.17				
WVF5FT	12.08				
		PRC-034 (C1162) Production Roller Centralizer (4 Arm)	2.77	2.38	13.00
CCL	4.52	CCL-PRO (060312) probe 2.75" & magnet ccl	2.71	2.75	
GR	0.79	GR-PTS (060508) PROBE 2.75" GR/ WITH ATTATCHABLE DUAL OR 6 MAGNET CCL	3.35	2.75	

Dataset: allenconwbu7-8cbl.db: field/well/run1/pass5
Total Length: 21.81 ft
Total Weight: 118.00 lb
O.D. 2.75 in

Database File: allenconwbu7-8cbl.db
Dataset Pathname: pass5
Presentation Format: rbt
Dataset Creation: Fri Dec 06 08:32:17 2013 by Log SCH 120430
Charted by: Depth in Feet scaled 1:240



tiger

9 5/8" RADII BOND LOG W/ GR & CCL

Company	ALLEN CO
Well	NWLBU 7-8
Field	LONG BEACH
County	LOS ANGELES
State	CALIFORNIA
Country	USA

Location: API # : NO API#

Company	ALLEN CO		
Well	NWLBU 7-8		
Field	LONG BEACH		
County	LOS ANGELES		
State	CALIFORNIA	Country	USA

Date	DEC 06 2013		
Run Number	1		
Depth Driller	210'		
Depth Logger	210'		
Bottom Logged Interval	210'		
Top Log Interval	6'		
Open Hole Size	N/A		
Type Fluid	LEASE WATER		
Density / Viscosity	N/A		
Max Rec Temp	N/A		
Estimated Cement Top	94'		
Time Well Ready	7:00		
Time Logger on Bottom	8:00		
Equipment Number	UNIT #10		
Location	SIGNAL HILL		
Recorded By	Cesar Rosalcaba		
Witnessed By	IVAN SANDOVAL		

Permanent Datum	SEC	TWP	RGE
Log Measured From	GROUND LEVEL	Elevation	
Drilling Measured From	0' K.B. @ G.L.		

Other Services			
Elevation	K.B.	D.F.	G.L.

Run Number	Borehole Record			Tubing Record		
	Bit	From	To	Size	Weight	From	To
Casing Record							
Surface String							
Prot. String							
Production String							
Liner							

<<< Fold Here >>>

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Dataset Creation: Fri Dec 06 08:32:17 2013 by Log SCH 120430
Charted by: Depth in Feet scaled 1:240

DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS & GEOTHERMAL RESOURCES
5816 Corporate Ave., Suite 100 Cypress, CA 90630-4731
Phone:(714) 816-6847 Fax:(714) 816-6853

REPORT OF WELL ABANDONMENT

Cypress, California
March 27, 2017

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

Your report of abandonment of well **"Nwlbu" 9-2**, A.P.I. No. **037-13525**, Section **13**, T. **04S**, R. **13W**, **SB** B.&M., **Long Beach** field, **Los Angeles** County, dated **4/21/2014**, received **5/6/2014**, has been examined in conjunction with records filed in this office. We have determined that the requirements of this Division have been fulfilled relative to plugging and abandonment of the well, removal of well equipment and junk, and filing of well records. The plugging and abandonment of the well is **approved**.

The determination of this well plugging and abandonment is based on the following information, consistent with California Public Resources Code (PRC), and the California Code of Regulations (CCR):

1. Surface plugging completed on 1/7/2014.

2. Site inspection made and approved on 1/15/2014.

Kenneth A. Harris Jr.
State Oil and Gas Supervisor

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

By
For Daniel J. Dudak, *District Deputy*

EPM:epm

cc: Long Beach Dept. of Gas & Oil

OG159

DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

CHECK LIST – RECORDS RECEIVED AND WELL STATUS

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

RECORDS RECEIVED	DATE
Well Summary (Form OG100)	
History (Form OG103)	**1/8/2014 (2)**
Core Record (Form OG101)	
Directional Survey	
Sidewall Samples	
Date final records received.	
Electric Logs:	
Other:	

STATUS

Producing	☐	Drilling	☐
Abandoned	☒	Idle	☐
Reabandoned	☐	Other	☐

WELL TYPE

Oil	☒	Waterflood	☐
Gas	☐	Water Disposal	☐
Water Source	☐	Cyclic Steam	☐
Observation	☐	Steam Flood	☐
Exploratory	☐	Fire Flood	☐
Dry Hole	☐	Other	☐

EFFECTIVE DATE: 12/24/13

REMARKS: Abandoned

	ENGINEERS CHECK LIST	CLERICAL CHECK LIST
☒	Summary, History & Core Record (Dupl.)	Location change
☐	Electric Log	Elevation change
☒	Operator's Name	Form OGD121
☒	Signature	Form OGD150b (Release of Bond)
☒	Well Designation	Duplicate logs to archives
☒	Location	Notice of Records Due
☐	Elevation	EDP MC 5-2-14
☐	Notices	District Date Base
☒	"T" Reports	Final Letter (OG159)
☐	Casing Record	Update Center MC 5-2-14
☐	Plugs	
☐	Directional Survey	
☒	Production/Injection (FAP Codes: 412-03- —)	
☐	E Well on Prod., enter EDP	**FIELD CHECK LIST**
☒	Surface Inspection Required	Date Surface Inspection Completed: 12/19/2013
☐	Surface inspection Waived (Island)	Other:
☐	Well site restoration deferred (common cellar)	
☒	Final Letter Required AB: ☒ REAB: ☐	
☐	Other:	

RECORDS NOT APPROVED	RECORDS APPROVED BCL 4/30/14
(Reason:)	*(Signature)*
~~Need T Reports BOPE, Cement~~	RELEASE BOND
~~Well Summary (OG 100)~~	Date Eligible
~~Casing Record final~~	*(Use date last needed records received.)*
	MAP AND MAP BOOK

OGD2 5/16/01 CYPRESS

JRAL RESOURCES AGENCY OF CALIFORI
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS & GEOTHERMAL RESOURCES
5816 Corporate Ave., Suite 200 Cypress, CA 90630-4731
Phone:(714) 816-6847 Fax:(714) 816-6853

No. T **114-0090**

REPORT ON OPERATIONS

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

Cypress, California
January 29, 2014

Your operations at well **"Nwlbu" 8-7**, A.P.I. No. **037-22512**, Sec. **13**, T. **04S**, R. **13W**, **SB** B.&M., **Long Beach** field, in **Los Angeles** County, were witnessed on **12/24/2013**, by **Cary Wicker**, a representative of the supervisor.

The operations were performed for the purpose of **re-abandonment**.

DECISION: **APPROVED**

NOTE: **The required Class II3M blowout prevention equipment was inspected and approved on 11/20/2013.**

DEFICIENCIES NOTED AND CORRECTED: **None**

BI/kj

cc: Update
AllenCo

Tim Kustic
State Oil and Gas Supervisor

By
for Daniel J. Dudak, *District Deputy*

OG109 (Rev. 10/2011)

T# 114-0090

DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

CEMENTING/PLUGGING MEMO

Operator C.R.G. Properties, LTD Well No. "Nwlbu" 8-7
API No. 037-22512 Sec. 13 T. 04 S R. 13 W , SB B&M
Field Long Beach , County Los Angeles . On 12-24-2013 ,
Mr. / Ms. Cary Wicker representative of the supervisor, was present from 0900 to 1215 .

There were also present Mick Beyer (Allenco)

Casing record of well: 13 3/8" cem 1122'; 9 5/8" cem 4715', CP 100', 210', and 2440'; 7" ld 4626'-5847'. TD 5850'. Plugged w/ cem 5425' – 3522', 3058' - 2852', 2440' – 2136', 214' – 6'.

The operations were performed for the purpose of: 3 (Re-abandon)

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

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

Hole size: 17 1/2 " fr. 50 ' to 1122 ', 12 1/4 " to 4715 ' & 11 " to 5850 '

Casing				Cemented			Top of Fill		Squeezed Away	Final Pressure	Perforations
Size	Wt.	Top	Bottom	Date	MO-Depth	Volume	Annulus	Casing			
9 5/8"	36#	0'	4715'	12/3/2013	tbg@2440'	180 cf	2218'±	2136'	71 cf	1600 psi	2440'-2450'
9 5/8"	36#	0'	4715'	12/6/2013	tbg@214'	234 cf	6'	6	143 cf	600 psi	100'-110', 210'

Casing/tubing recovered: _____ " Shot/cut at _____ ', _____ ', _____ ', Pulled fr. _____ ';
_____ " Shot/cut at _____ ', _____ ', _____ ', Pulled fr. _____ '.
_____ " Shot/cut at _____ ', _____ ', _____ ', Pulled fr. _____ '.

Junk (in hole):

Hole fluid (bailed to) at _____ '. Witnessed by _____

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

Mudding	Date	bbls	Displaced	Poured	Fill	Engineer
72 / 25 #	12/2/2013	32	3580'*		3069'*	P. Kaufman
72/27	12/3/2013	31	2852'		2450'	R. Morlan
72/35	12/4/2013	146	2136'		250'	T. Tyler

Note: 12 II3M – ZA 11/20/13 **C/O @ 5425'; 11-26-2014; M. Chavez (w/ B. Irick approval).**

Cement Plugs		Placing	Placing Witnessed		Top Witnessed			
Date	Sx./cf	MO & Depth	Time	Engineer	Depth	Wt/Sample	Date & Time	Engineer
11-27-2013	346 CF	Tbg@5425'	1545	M. Chavez	3580'	2000#	12/2/13 0715	P. Kaufman
12/2/2013 **	25 cf	tbg @ 3580'	1100	P. Kaufman	3522'	----	----	ETOC – not tagged
12/2/2013	78 cf	tbg @ 3058'	1115	P. Kaufman	2852'	2000#	12/3/13 0745	R. Morlan
12/3/2013	180 cf	Tbg @ 2440'	1200	R. Morlan	2136'	2000#	12/4/13 0720	T. Tyler
12/6/2013	234 cf	tbg @ 214'	1345	P. Kaufman	6'	visual	12/24/2013 1030	C. Wicker

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

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

HISTORY OF OIL OR GAS WELL

Operator C.R.G. Properties, LTD Field Long Beach County Los Angeles
Well "NWLBU" 8-7 Sec. 13 T. 04S R. 13w sbB.&M.
A.P.I. No. 037-22512 Name Mick Beyer (Person submitting report) Title Operations Manager (President, Secretary, or Agent)
Date 12-15-13 (Month, day, year) Signature M. B
Address 2109 Gundry Ave. Signal Hill, Ca. 90755 Telephone Number 562 989-6100

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

11-20-13	M.I.R.U. – Installed and tested BOPE–Witnessed by Z. Amilhussin w/DOGGR - Secured Well
11-21-13	R.I.H. W/5 ½" Scraper on 2 7/8" tbg. tagged down at 4110' - Circ.with water w/returns of oily water and gas – Witnessed by Z. Amilhussin w/ DOGGR – P.O.H. - Secured well
11-22-13	R.I.H.W/Tbg. Tagged fill at 4110' Cleaned out sand to 4250' unable to work deeper – P.O.H.– Secured
11-25-13 to 11-26-13	R.I.H. W/ 4 1/8" Drill bit Tagged fill at 4250' drilled hard formation, gravel and cement to 4490' dropped to 5423' circ. Hole clean – P.O.H. Witnessed by T. Tyler w/DOGGR - Secured well.
11-27-13	R.I.H. W/ 5 ½" scraper on 2 7/8" tbg. Stopped at 4250' unable to work deeper – P.O.H. – R.I.H. W/Tbg. To 5425' Mixed and pumped 346 cu/ft. (304 sxs) class G cement in 5 stages – All witnessed by M. Chavez w/ DOGGR – Secured well
12-02-13	R.I.H.Tagged cement plug at 3580' – Pumped 30 bbls. of 73# mud – W/Tbg. Tail at 3580' mixed and pumped 25 cu/ft.(22 sxs) class G cement – P.O.H.- W/Tbg. Tail at 3060' Mixed and pumped 78 cu/ft.(68 sxs) class G cement - P.O.H. – All Witnessed by P. Kaufman w/ DOGGR – Secured well
12-03-13	R.I.H. Tagged cement at 2850' – Pump 30 bbls. 73# mud – Prs. Tested csg. At 1000 psi good – P.O.H. - Shot perforations from 2450' to 2440' – P.O.H.- R.I.H.w/ Tbg. Tail at 1914' mixed and pumped 183 cu/ft (161 sxs) class G cement squeezed away 54 cu/ft.(47 sxs) unable to squeeze any more (s.i.prs.1500 psi) Witnessed by R. Morlan w/ DOGGR - secured well
12-04-13	R.I.H. Tagged cement 2136' – Pumped 130 bbls, 73# mud – P.O.H. – R.I.H. Cut 9" casing at 210' – P.O.H. – R.I.H. W/Spear unable to pull casing – Removed B.O.P.E. – Welder cut wellhead bowl – Witnessed by T. Tyler w/DOGGR – Secured well
12-05-13 TO 12-06-13	Attempted to pull casing at 80k unable to pull free – R.I.H. W/Cement bond log found cement between casings from 95' to surface - Shot perforation from 110' to 100' – R.I.H. W/tbg. Tail at 210' mixed and pumped 140 cu/ft.(123 sxs) class G cement – cement to surface – P.O.H.- installed wellhead flange and mixed and pumped 95 cu/ft.(83 sxs) Total of 235 cu/ft (s.i. prs.600 psi) Witnessed by P. Kaufman w/DOGGR - R.D.M.O.
12-24-13	Dug down around well and cut casing ' below surface – C. Wicker w/DOGGR witnessed surface tag and welding of I.D.Plate - Backfilled well location - Job complete.

DOGGR
Received
JAN - 8 2014

SUBMIT IN DUPLICATE

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

HISTORY OF OIL OR GAS WELL

Operator C.R.G. Properties, LTD Field Long Beach County Los Angeles
Well "NWLBU" 8-7 Sec. 13 T. 04S R. 13w sbB.&M.
A.P.I. No. 037-22512 Name Mick Beyer (Person submitting report) Title Operations Manager (President, Secretary, or Agent)
Date 12-15-13 (Month, day, year)
Signature M. B
Address 2109 Gundry Ave. Signal Hill, Ca. 90755 Telephone Number 562 989-6100

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11-22-13	R.I.H.W/Tbg. Tagged fill at 4110' Cleaned out sand to 4250' unable to work deeper – P.O.H.– Secured
11-25-13 to 11-26-13	R.I.H. W/ 4 1/8" Drill bit Tagged fill at 4250' drilled hard formation, gravel and cement to 4490' dropped to 5423' circ. Hole clean – P.O.H. Witnessed by T. Tyler w/DOGGR - Secured well.
11-27-13	R.I.H. W/ 5 ½" scraper on 2 7/8" tbg. Stopped at 4250' unable to work deeper – P.O.H. – R.I.H. W/Tbg. To 5425' Mixed and pumped 346 cu/ft. (304 sxs) class G cement in 5 stages – All witnessed by M. Chavez w/ DOGGR – Secured well
12-02-13	R.I.H.Tagged cement plug at 3580' – Pumped 30 bbls. of 73# mud – W/Tbg. Tail at 3580' mixed and pumped 25 cu/ft.(22 sxs) class G cement – P.O.H.- W/Tbg. Tail at 3060' Mixed and pumped 78 cu/ft.(68 sxs) class G cement - P.O.H. – All Witnessed by P. Kaufman w/ DOGGR – Secured well
12-03-13	R.I.H. Tagged cement at 2850' – Pump 30 bbls. 73# mud – Prs. Tested csg. At 1000 psi good – P.O.H. - Shot perforations from 2450' to 2440' – P.O.H.- R.I.H.w/ Tbg. Tail at 1914' mixed and pumped 183 cu/ft (161 sxs) class G cement squeezed away 54 cu/ft.(47 sxs) unable to squeeze any more (s.i.prs.1500 psi) Witnessed by R. Morlan w/ DOGGR - secured well
12-04-13	R.I.H. Tagged cement 2136' – Pumped 130 bbls, 73# mud – P.O.H. – R.I.H. Cut 9" casing at 210' – P.O.H. – R.I.H. W/Spear unable to pull casing – Removed B.O.P.E. – Welder cut wellhead bowl – Witnessed by T. Tyler w/DOGGR – Secured well
12-05-13 TO 12-06-13	Attempted to pull casing at 80k unable to pull free – R.I.H. W/Cement bond log found cement between casings from 95' to surface - Shot perforation from 110' to 100' – R.I.H. W/tbg. Tail at 210' mixed and pumped 140 cu/ft.(123 sxs) class G cement – cement to surface – P.O.H.- installed wellhead flange and mixed and pumped 95 cu/ft.(83 sxs) Total of 235 cu/ft (s.i. prs.600 psi) Witnessed by P. Kaufman w/DOGGR - R.D.M.O.
12-24-13	Dug down around well and cut casing ' below surface – C. Wicker w/DOGGR witnessed surface tag and welding of I.D.Plate - Backfilled well location - Job complete.

DOGGR
Received
JAN -8 2014

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

SUBMIT IN DUPLICATE

Irick, Barry@DOC

To: Abdulrahman, Abdulmageed@DOC
Subject: RE: Well NWLBU 8-7

For cementing in well NWLBU 8-7 per the program contained in the Corrected Permit of July 22, 2013:

The bottom plug was to be above the 7" liner. Top of liner @ 4626'. Bottom plug was to be from 3831'-4626' within a 9 5/8" 36# casing.

4626'-3831' = 795' linear
9 5/8" 36# casing conversion factor: 0.4340 cf/lf
795lf x 0.4340cf/lf = **345cf**

346cf was pumped on 11/27/2013.
25cf was pumped on top of 3580' tag on 12/02/2013.

HOWEVER

Tubing tail was at 5423'.
5423'-4626' (TOL) = 797' in 7" casing
7" 26# casing conversion factor: 0.2148 cf/lf
797lf x 0.2148 cf/lf = 171cf in 7" casing

346cf-171cf = 175cf in 9 5/8" casing
9 5/8" 36# casing conversion factor: 2.3038 lf/cf
175cf x 2.3038 lf/cf = 403lf
4626'-403' = 4223'

4223' SHOULD have been the tag after pumping of 346cf.
4223' – 3580' (actual tag) = 643'
643lf x 0.4340cf/lf = 279cf (where is this from?)

OLD PLUG FROM 4242'-4423' IN 9 5/8" CASING
4423'-4242' = 181'
181lf x 0.4340 cf/lf = 78cf (78.5cf) volume of plug

4 1/8" drill bit used to drill through plug.
4 1/8" hole conversion: 0.0928cf/lf or 10.7752 lf/cf
181lf x 0.0928 cf/lf = 17cf (16.8cf) volume of hole drilled through plug
78cf-17cf = 61cf cement left in hole from plug.

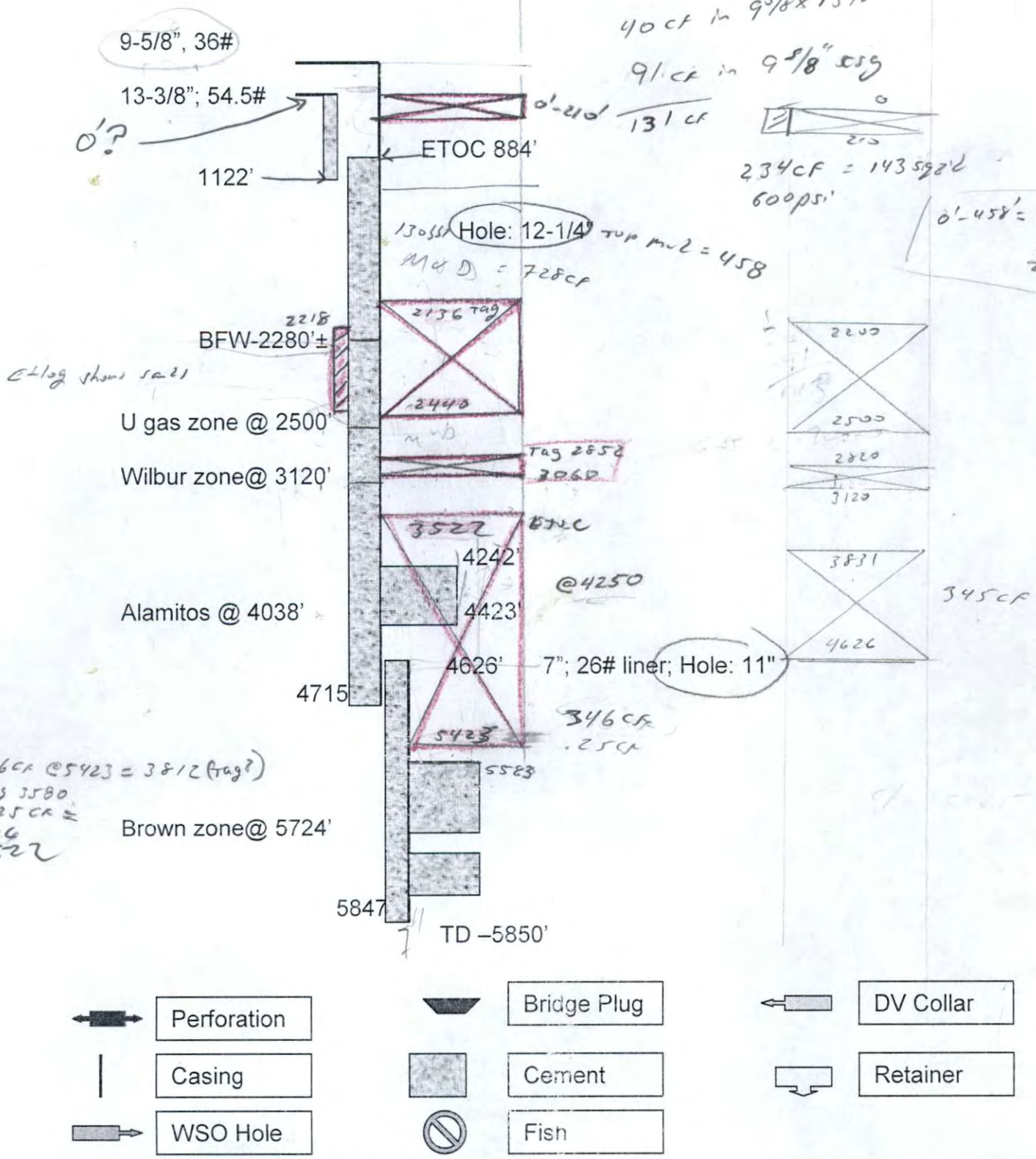
279cf-61cf = 218cf (fill/cement ?) unaccounted for in casing.

From: Abdulrahman, Abdulmageed@DOC
Sent: Thursday, December 12, 2013 9:06 AM
To: Irick, Barry@DOC
Subject: FW: Well NWLBU 8-7

395cf

"Nwbu" 8-7
API: 037-22512

HAM
Well Class – Oil
12/05/2013



Perf: 5724-5777, 4356-4412, 4038-40119

API No. 037-13525 DIVI I OF OIL, GAS, AND GEOTHERMAL RESOURCES T

BLOWOL . PREVENTION EQUIPME MEMO

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

VISITS:	Date	Engineer	Time	Operator's Rep.	Title
1st	11/20/13	Z. Amilhussin	(1630 to 1700)		
2nd			(to)		

Contractor Allenco Rig # 2 Contractor's Rep. & Title I. Sandoval, Rig Manager
Casing record of well: memo

OPERATION: Testing (inspecting) the blowout prevention equipment and installation. Critical well? Y ☒ N ☐
DECISION: The blowout prevention equipment and its installation on the 9 " casing are approved.

Proposed Well Opns: 1. . MACP: psi
Hole size: " fr. ' to ', " to ' & " to '

REQUIRED BOPE CLASS: II3M

CASING RECORD OF BOPE ANCHOR STRING					Cement Details	Top of Cement	
Size	Weight(s)	Grade(s)	Shoe at	CP at		Casing	Annulus

BOP STACK							TEST DATA						
API Symb.	Ram Size (in.)	Manufacturer	Model or Type	Vert. Bore Size (in.)	Press. Rtg.	Date Last Overhaul	Gal. to Close	Recov. Time (Min.)	Calc. GPM Output	psi Drop to Close	Secs. to Close	Test Date	Test Press.
Rd	2 7/8	Townsend	81	9	3M		1						
Rd	cso	Townsend	81	9	3M		1						

TOTAL: 2

ACTUATING SYSTEM

Accumulator Unit(s) Working Pressure psi
Total Rated Pump Output gpm Fluid Level
Distance from Well Bore 25 ft. ok

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

CONTROL STATIONS	Elec.	Hyd.	Pneu.
Manifold at accumulator unit			
Remote at Driller's station			
Other: hand pump		x	

EMERG. BACKUP SYSTEM			Press.	Wkg.Fluid
N_2 Cylinders	1	L= 55 "	2,750psi	10 gal.
Other:	2	L= "		gal.
	3	L= "		gal.
	4	L= "		gal.
	5	L= "		gal.
	6	L= "		gal.
		TOTAL: 10		gal.

HOLE FLUID MONITORING EQUIPMENT	Alarm Type Audible	Visual	Class
Calibrated Mud Pit			A
Pit Level Indicator			B
Pump Stroke Counter			
Pit Level Recorder			
Flow Sensor			C
Mud Totalizer			
Calibrated Trip Tank			
Other:			

AUXILIARY EQUIPMENT

		No.	Size (in.)	Rated Press	Connections Weld	Flange	Thread	Test Press.
	Fill-up Line							
x	Kill Line		2	3M			x	
x	Control Valve(s)	2		3M			x	
	Check Valve(s)							
	Aux. Pump Cnnct.							
	Choke Line							
	Control Valve(s)							
	Pressure Gauge							
	Adjstble Choke(s)							
	Bleed Line							
	Upper Kelly Cock							
	Lower Kelly Cock							
	Standpipe Valve							
	Stndpipe Pres. Gau.							
x	Pipe Safety Valve		2.88	3M				
	Internal Preventer							

Hole Fluid Type	Weight	Storage Pits (Type & Size)
lease water		50 bbl pump, 250 bbl spare

REMARKS AND DEFICIENCIES:

OGD9 (9/06)

CONTRACTOR: Allenco

UNCORRECTABLE DEFICIENCIES:

DEFICIENCIES NOTED AND TO BE CORRECTED:

DEFICIENCIES NOTED AND CORRECTED:

none

NATURAL RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS & GEOTHERMAL RESOURCES
5816 Corporate Ave., Suite 200 Cypress, CA 90630 - 4731

No. P 113-0598

Old	New
412	412
FIELD CODE	
03	03
AREA CODE	
00	--
POOL CODE	

PERMIT TO CONDUCT WELL OPERATIONS

CRITICAL WELL
CORRECTED COPY

Cypress, California
July 22, 2013

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

Your proposal to **(Re) Abandon** well **"Nwlbu" 8-7**, A.P.I. No. **037-22512**, Section **13**, T. **04S**, R. **13W**, **SB** B. & M., **Long Beach** field, **Northwest Extension** area, **Brown** pool, **Los Angeles** County, dated **7/10/2013**, received **7/10/2013** has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:

1. Blowout prevention equipment, as defined by this Division's publication No. M07, shall be installed and maintained in operating condition and meet the following minimum requirements:
   a. Class **II3M,** with hydraulic controls, during **abandonment** operations.
   b. A **3M lubricator** for **wire line** operations.
2. Blowout prevention practice drills are conducted at least weekly and recorded on the tour sheet. A practice drill may be required at the time of the test/inspection.
3. The well is cleaned out to **4626'**.
4. The well is plugged with cement from **4626'** to **3831'**.
5. The proposed cement plug from **2600'** to **2180'** shall extend from **2500'** to at least **2200'.**
6. All portions of the well not plugged with cement are filled with inert mud fluid having a minimum density of **72** lbs/cu.ft and a minimum gel shear strength of **25** lbs./100 sq. ft.
7. Prior to shooting any perforations for braidenhead squeezes, a pressure test of the **9-5/8"** casing shall be made to ensure casing integrity. If casing integrity is not demonstrated, a retainer or packer is required for squeeze operations.
8. All casing must be removed from between 5' and 10' below ground level.
9. Well site restoration shall be completed within 60 days following the completion of plugging operations.
10. A steel plate, at least as thick as the outer well casing and bearing the last five digits of the API number, shall be tack welded around the top circumference of the outer casing.
11. The well location shall be surveyed prior to burying the well, and the survey shall be filed with this office. Latitude and longitude shall be in decimal degrees, to six decimal places, in NAD83.
12. No program changes are made without prior Division approval.

(Continue on page 2)

No Bond Required Bond
cc: Update
EDP
AllenCo.
DOGGR – Dist. 1 (Cypress)

Tim Kustic
State Oil and Gas Supervisor

Engineer Ellen Moser
Office (714) 816-6847

By _____
For: Daniel J. Dudak, *District Deputy*

GN/gn

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.

13. THIS DIVISION SHALL BE NOTIFIED TO:
    a. Inspect the installed blowout prevention equipment prior to commencing **downhole** operations.
    b. Witness the clean-out depth at **4426'**.
    c. Witness the placing, location and hardness of the cement plug from **4626'** to **3831'**.
    d. Witness the mudding operations.
    e. Witness the placing, location and hardness of the cement plug from **3120'** to **2820'**.
    f. Witness the placing, location and hardness of the cement plug from **2500'** to **2200'**.
    g. Witness the cement squeeze through the **perforations** at **200'** or through a retainer or packer (if casing integrity is not demonstrated).
    h. Witness the placing, location and hardness of the cement plug from **210'** to **0'**.
    i. Inspect the restored well site.

NOTE:

1. The well abandonment history (History of Oil or Gas Well - form OG103), must include a description of the removal or abandonment of the well flowline and any associated piping.
2. Upon completion of the proposed work, a History of Oil or Gas Well (form OG103) shall be submitted to this office.
3. Hydrogen sulfide gas (H_2S) is known to be present in this area, adequate safety precautions shall be taken prior to and during well operations.
4. The operator shall isolate the following zones:
    a. **Base of the Freshwater Sand 2280'**
    b. **Top of the Upper Gas Zone 2500'**
    c. **Top of the Wilbur Zone 3120'**
    d. **Top of the Alamitos Zone 4038'**
    e. **Top of the Brown Zone 5724'**

    Failure to achieve adequate zonal isolation may have negative impacts on current and future operations. In addition, failure to achieve adequate zonal isolation will also be noted on the Report of Operations (OG 109).

ATURAL RESOURCES AGENCY OF CALIFO
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS & GEOTHERMAL RESOURCES
5816 Corporate Ave., Suite 200 Cypress, CA 90630 - 4731

No. P 113-0598

Old	New
412	412
FIELD CODE	
03	03
AREA CODE	
00	--
POOL CODE	

PERMIT TO CONDUCT WELL OPERATIONS

CRITICAL WELL

Cypress, California
July 22, 2013

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

Your proposal to **(Re) Abandon** well **"Nwlbu" 8-7**, A.P.I. No. **037-22512**, Section **13**, T. **04S**, R. **13W**, **SB** B. & M., **Long Beach** field, **Northwest Extension** area, **Brown** pool, **Los Angeles** County, dated **7/10/2013**, received **7/10/2013** has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:

1. Blowout prevention equipment, as defined by this Division's publication No. M07, shall be installed and maintained in operating condition and meet the following minimum requirements:
   a. Class **II3M,** with hydraulic controls, during **abandonment** operations.
   b. A **3M lubricator** for **wire line** operations.
2. Blowout prevention practice drills are conducted at least weekly and recorded on the tour sheet. A practice drill may be required at the time of the test/inspection.
3. A diligent effort shall be made to clean out to **4242'**.
4. All portions of the well not plugged with cement are filled with inert mud fluid having a minimum density of 72 lbs/cu.ft and a minimum gel shear strength of **25** lbs./100 sq. ft.
5. Prior to shooting any perforations for braidenhead squeezes, a pressure test of the **9-5/8"** casing shall be made to ensure casing integrity. If casing integrity is not demonstrated, a retainer or packer is required for squeeze operations.
6. The proposed cement plug from **3120'** to **2920'** shall extend from **3130'** to at least **2930'**.
7. All casing must be removed from between 5' and 10' below ground level.
8. Well site restoration shall be completed within 60 days following the completion of plugging operations.
9. A steel plate, at least as thick as the outer well casing and bearing the last five digits of the API number, shall be tack welded around the top circumference of the outer casing.
10. The well location shall be surveyed prior to burying the well, and the survey shall be filed with this office Latitude and longitude shall be in decimal degrees, to six decimal places, in NAD83.
11. No program changes are made without prior Division approval.
    a. Inspect the installed blowout prevention equipment prior to commencing **downhole** operations.

(Continue on page 2)

No Bond Required Bond
cc: Update
EDP
AllenCo.
DOGGR – Dist. 1 (Cypress)

Tim Kustic
State Oil and Gas Supervisor

By _____
For: Daniel J. Dudak, *District Deputy*

Engineer Ellen Moser
Office (714) 816-6847

GN/gn

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

b. Witness the clean-out depth at **4242'**.
c. Witness the placing, location and hardness of the cement plug from **3130'** to **2930'**.
d. Witness the mudding operations.
e. Witness the placing, location and hardness of the cement plug from **2600'** to **2180'**.
f. Witness the cement squeeze through the **perforations** at **200'** or through a retainer or packer (if casing integrity is not demonstrated).
g. Witness the placing, location and hardness of the cement plug from **210'** to **0'**.
h. Inspect the restored well site.

NOTE:

1. The well abandonment history (History of Oil or Gas Well - form OG103), must include a description of the removal or abandonment of the well flowline and any associated piping.
2. Upon completion of the proposed work, a History of Oil or Gas Well (form OG103) shall be submitted to this office.
3. Hydrogen sulfide gas (H_2S) is known to be present in this area, adequate safety precautions shall be taken prior to and during well operations.
4. The operator shall isolate the following zones:
   a. **Base of the Freshwater Sand 2280'**
   b. **Top of the Upper Gas Zone 2500'**
   c. **Top of the Wilbur Zone 3120'**
   d. **Top of the Alamitos Zone 3930'**
   e. **Top of the Brown Zone 4380'**

   Failure to achieve adequate zonal isolation may have negative impacts on current and future operations. In addition, failure to achieve adequate zonal isolation will also be noted on the Report of Operations (OG 109).

I# 113-0598 OG/EL

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

FOR DIVISION USE ONLY			
	Forms		
Bond	OGD114	OGD121	
BB	7/13/13	7/10/13	RF

NOTICE OF INTENTION TO ABANDON / RE-ABANDON WELL

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

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon ☒ / re-abandon ☐ (Check one) well "Nwlbu" 8-7, API No. 037-22512,

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

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

The total depth is: 5847 feet. The effective depth is: 4243 feet.

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

Oil or gas shows: see attachment (Name and depth) feet. Depth to base of fresh water: 2280 feet.

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

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

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

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

Name of Operator			
C.R.G. Properties, Ltd			
Address: 2109 GUNDRY AVE.		City/State: SIGNAL HILL	Zip Code: 90755
Name of Person Filing Notice: MICK BEYER	Telephone Number: 562 989-6100	Signature: M. B	Date: 07-10-13
Individual to contact for technical questions: MICK BEYER	Telephone Number: 310 505-9787	E-Mail Address: Mbeyer@allencoca.com	

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

DOGGR Received- JUL 10 2013 bEl ox 7/10/13

OG108 (1/09)

CRITICAL WELL DEFINITION

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

(1) 300 feet of the following:
  (A) Any building intended for human occupancy that is not necessary to the operation of the well; or
  (B) Any airport runway.
(2) 100 feet of the following:
  (A) Any dedicated public street, highway or the nearest rail of an operating railway that is in general use;
  (B) Any navigable body of water or watercourse perennially covered by water;
  (C) Any public recreational facility such as a golf course, amusement park, picnic ground, campground or any other area of periodic high-density population; or
  (D) Any officially recognized wildlife preserve.

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

EXHIBIT A – Attachment II (continued)
WELL CONDITIONS AND ABANDONMENT SPECIFICATIONS

C.R.G. Properties, Ltd. Well "Nwlbu" 8-7 (037-22512), Sec.13, Twn. 4S, Rge. 13W, S.B. B&M, Long Beach Oil Field

According to Division records, the present condition of the well is as follows:

1. **Location:** See map Exhibit A - Attachment II
2. **Accessibility:**
3. **Status:** Idle deserted
4. **Total Depth:** 5847' **Effective Depth:** 4243, **Elevation of Kelly Bushing (KB) above sea level:** 55.5'.
5. **Casing: 13-3/8"**cemented at 1122'; **9 5/8"** casing cemented at 4715', cemented to 884' behind pipe; 7" casing landed from 4626' to 5847, perf @ int. 5724-5777',perf 4038'-4119 & perf int @ 4356-4412..TD 5847'.Plugged w/cem 5777'-5583'& 4423'-4242'.
6. **Tubing:** Unknown **Rods:** Unknown
7. **Base of Fresh Water (BFW):** 2280'
8. **Producing Zone(s):** Brown
9. **Hole Fluid:** Unknown
10. **Junk:** Unknown
11. **Plugs:** 5777'-5583' & 4423'-4242'.
12. **Comments:** Top of Brown zone 4380', top of Alamitos zone 3930', top of Wilbur zone 3120', and top of Upper Gas zone 2500'.

The following operations are necessary to plug and abandon the well:

1. A Notice of Intention to Abandon (form OG 108) is to be filed with this Division at least 10 days prior to commencing work. Work is not to begin until a Permit to Conduct Well Operations (Form OG 111) has been issued. All well operations are to be witnessed by a representative of this Division as directed in the Permit to Conduct Well Operations.

2. The abandonment contractor will review job safety programs (JSP) with all crewmembers prior to work startup and/or if conditions change. Monitor well for any leaking gas. Position gas monitors and ventilation fans, if warranted before moving in any other equipment or personnel.

3. Adequate blowout prevention equipment, as defined in Division's publication No. M07, shall be installed and maintained in operating condition at all times. The minimum requirements are:

   a. A 3M rod Reagan or equivalent BOPE for pulling rods and pump operations.
   b. A Class II3M, with hydraulic controls, during abandonment operations.
   c. A 3M lubricator for wire line operations.

4. All portions of the well not plugged with cement are filled with inert mud fluid having a minimum density of 72 lbs/cu ft and a minimum gel shear strength of 25 lbs. /100 sq. ft. All cement plugs are to have a minimum compressive strength of 1000 psi and maximum liquid permeability of 0.1 md. All depths noted are from the KB.

5. Hole fluid of a quality and in sufficient quantity to control all subsurface conditions in order to prevent blowouts shall be used.

6. Kill well. Install and function test rod Reagan or equivalent BOPE. Pull out of the hole with rods and pump.

EXHIBIT A – Attachment II (continued)
WELL CONDITIONS AND ABANDONMENT SPECIFICATIONS

7. Remove rod Reagan. Install and function test Class II3M BOPE (function test BOPE each day thereafter).
8. Pull out all production tubing.
9. Use appropriate combination tools to clean out to 4243'.
10. Run in scraper. Scrape the 7" casing.
11. Run in hole with tubing (if tag high, clean out fill to 4243).
12. The well shall be plugged with cement from 4243' to3730'
13. The well shall be plugged with cement from 3120' to 2920.
14. The well shall be plugged with cement from 2600' to 2180.
15. Prior to shooting any perforations for braidenhead squeezes, a pressure test of the casing shall be made to ensure casing integrity. If casing integrity is not demonstrated, a packer is required for squeeze operations.
16. The 9-5/8" casing shall be perforated from 210 to 200'. Get an injection rate or a breakdown.
17. Sufficient cement shall be squeezed into the perforations to fill to surface.
18. The well shall be plugged with cement from 210' to surface.
19. All casing must be removed from between 5' and 10' below ground level.
20. A steel plate, at least as thick as the outer well casing and bearing the last five digits of the API number, shall be tack welded around the top of the outer casing.
21. Cellar, production pads and pipelines shall be removed and the resulting excavations filled with earth and compacted properly to prevent settling.
22. Remaining buried pipelines that cannot be removed shall be purged with clean water. Abandon line by pumping approved cement slurry mixture, weld steel cap on both ends of the line and bury.
23. All equipment, casing, or junk that requires removal to implement restoration to lawful conditions shall be removed and properly disposed of in accordance with environmental laws and in accordance with instructions from the Division of Oil and Gas. All liquid wastes shall be removed and properly disposed.
24. A well History (Form OG 103) shall be filed in duplicate with the Division within 60 days of completing the work and must include a description of the removal or abandonment of the well flow line and any associated piping.

DEPARTMENT OF CONSERVATION
Legal Office
801 K Street
Sacramento, California
Telephone (916) 323-6733
Facsimile (916) 445-9916

STATE OF CALIFORNIA

NATURAL RESOURCES AGENCY

DEPARTMENT OF CONSERVATION

DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

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

NO. 1032

Dated: October 17, 2012

Operator: C.R.G. Properties, Ltd. (C0250)

BY

Tim Kustic

STATE OIL AND GAS SUPERVISOR

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

REPORT OF CANCELLATION

Cypress, California
March 29, 2010

J. W. Scott
6191 Point Loma
Huntington Beach, CA 92647

In accordance with **the expiration of Permit to Conduct Well Operations** the following change pertaining to your well **C.R.G. Properties Ltd/"Nwlbu" 8-7**, API. No. **037-22512**, **Long Beach** Field, **Los Angeles** County, Sec. **13**, T. **4**S, R. **13**W, S.B. B. & M., is being made in our records:

Your notice to **abandon** dated **02/18/2009**, and our report No. P **109-0096** issued in answer thereto, is hereby **cancelled** inasmuch as the work will not be done. If you have an individual bond on file covering this notice, it will be returned. No request for such return is necessary.

Elena M. Miller
State Oil and Gas Supervisor

By Ellen P. Moser
Associate Engineer

CANCELLATION/ CORRECTION made:	Date/Initial
Form 121	3-29-2010
Form 177	/
Form 140	/
WELL Reports	3-29-2010
RECORDS: Log Fld	
EDP	4-1-10 vm
BOND	/
FIELD MAP	/
MAP BOOK	/

cc: Update
City of Signal Hill
C.R.G. Properties, Ltd.

OG165 3-17-99

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

No. P 109-0096

412
(Field Code)

PERMIT TO CONDUCT WELL OPERATIONS

03
(Area Code)

--
(New Pool Code)

00
(Old Pool Code)

J. W. Scott
6191 Point Loma
Huntington Beach, CA 92647

Cypress, California
March 4, 2009

Your proposal to **abandon** well **C.R.G. Properties, Ltd./"Nwlbu" 8-7**, A.P.I. No. **037-22512**, Section **13**, T. **4S**, R. **13W**, **S.B.** B. & M., **Long Beach** Field, **Northwest Extension** area, -- pool, **Los Angeles** County, dated **2/18/2009**, received **2/19/2009** has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:

1. Blowout prevention equipment with hydraulic controls, equivalent to this Division's Class **II3M** requirements, or better, shall be installed and maintained in operating condition.
2. All portions of the well not plugged with cement shall be filled with clay base mud having a minimum density of 72 lb/cu ft and a minimum gel-shear strength of 25 lb/100 sq ft.
3. The well shall be plugged with cement from **2600'** to **2500'**, and **2330'** to **2230'**.
4. All uncemented casing annuli shall be cemented from **30'** to **5'**.
5. This Division shall be consulted and a Supplementary Notice may be required before making any changes in the proposed program.
6. **THIS DIVISION SHALL BE NOTIFIED TO:**
   a. Inspect the installed blowout prevention equipment prior to commencing downhole operations.
   b. Witness the clean-out depth
   c. Witness the location and hardness of the cement plug at **2835'**.
   d. Witness the mudding of the well.
   e. Witness the placing, location and hardness of the cement plug from **2600'** to **2500'**.
   f. Witness the placing, location and hardness of the cement plug from **2330'** to **2230'**.
   g. Witness the placing, location and hardness of the cement plug from **100'** to **5'**.
   h. Inspect and approve the cleanup of the well site within 60 days after placement of the surface plug.

NOTE:

1. A crew drill may be required at the time of the blowout prevention equipment inspection.
2. The proposed surface plug shall not contain rock or gravel.
3. The base of freshwater sands is at **2270'±**.
4. This division does not pass upon your right to enter the property, but merely approves the proposal as conforming to our requirements.

JCH:jch

cc: Update
City of Signal Hill
C.R.G. Properties, Ltd.
BLANKET BOND

Cancelled 3-29-2010

Hal Bopp
State Oil and Gas Supervisor

Engineer: John Huff

Phone: 714/816-6847

By _____
For William E. Brannon, *Deputy Supervisor*

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

OG 111

P#109-0096

09/GB

NATURAL RESOURCES AGENCY OF CALIFORNIA

DEPARTMENT OF CONSERVATION

DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

FOR DIVISION USE ONLY			
	Forms		
Bond	OGD114	OGD121	
BB	2-28-09 KJ	2-24-09 KJ	

NOTICE OF INTENTION TO ABANDON / RE-ABANDON WELL

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

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon ☒ / re-abandon ☐ well NWLBU 8-7, API No. 037-22512
(Check one)

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

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

The total depth is: 5837 feet. The effective depth is: 4243 feet.

Present completion zone(s): Upper Alamitos (Name). Present zone pressure: 800 psi.

Oil or gas shows: _____ (Name and depth) feet. Depth to base of fresh water: 2935 feet.

Top of uppermost hydrocarbon zone (which may be behind unperforated casing): 3670 (Depth of interval) feet.

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

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

Cancelled 3-29-2010

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

Name of Operator CRG Properties			
Address 6191 Point Loma		City/State Huntington Beach, CA	Zip Code 92647
Name of Person Filing Notice J.W. Scott	Telephone Number: (714) 290-9190	Signature J.W. Scott	Date 2/18/09
Individual to contact for technical questions: J.W. Scott	Telephone Number: (714-290-9190	E-Mail Address: JScott16@socal.rr.com	

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

CRITICAL WELL

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

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

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

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

ABANDONMENT PROGRAM
Well NWLBU (A)

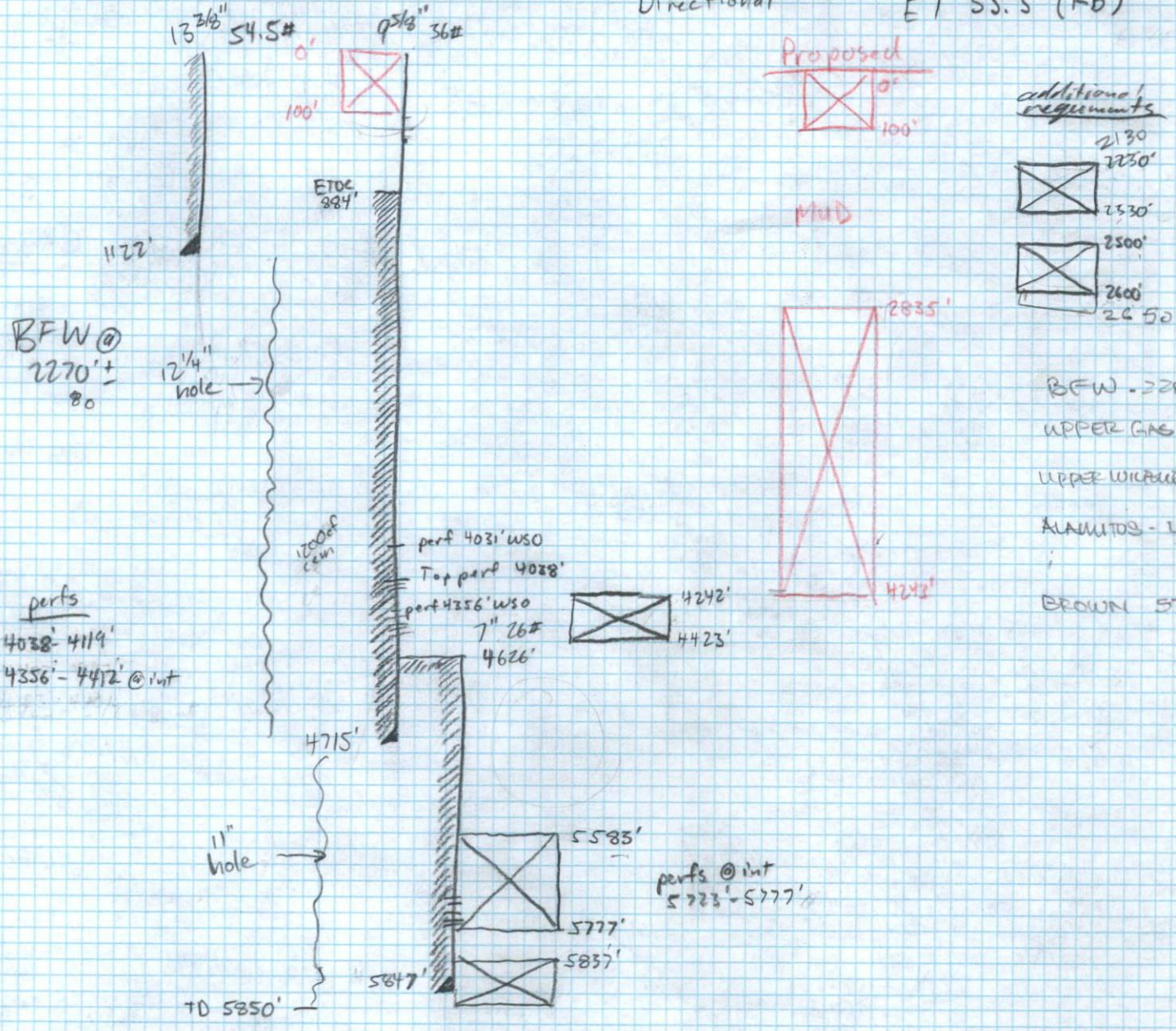
A 8-7

1. MIRU. Install and test class III 3 M BOPE.
2. PU and RIH with 2 7/8" workstring and cleanout to 4243'(TD). POOH.
3. MU and RIH with cementers. Cement from TD to 2835' to 611 cf class G cement. PU.
4. .RIH and tag for top of cement.
5. Mud well from TOC to surface @ 219 bbls of 72 pcf cude.
6. RIH with tbq and cement 7" casing and 7" x 10 3/34" annulus from 100' to surface with 80 cf of class G cement. RDMO.
7. Cut recover csqs 8' below surface. Weld or plate on largest diameter csq.
8. Remove cellar. Cleanup well site.

wlbu 8-7 (037-22512)

Directional

El 55.5' (KB)



9 5/8" csg cem w/ 1276 cf cem w/ 26 cf cem
left in shoe & 1200 cf cem in 9 5/8" x 12 1/4" annulus

JCH
3/2/2004

TOPS FORM 33101
MADE IN U. S. A.

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

REPORT OF PROPERTY AND WELL TRANSFER

Field or County	District
Long Beach	District 1 (Cypress, California)
Former owner: Pacific Energy Res. P0252	Date: July 26, 2000

Well Name	API Number	Section Township Range
"Nwlbu" 5-2	037-00397	Sec. 13-4S-13W
"Nwlbu" 5-3	037-09796	Sec. 13-4S-13W
"Nwlbu" 5-4	037-09797	Sec. 13-4S-13W
"Nwlbu" 8-3	037-06496	Sec. 13-4S-13W
"Nwlbu" 8-4	037-06415	Sec. 13-4S-13W
"Nwlbu" 8-7	037-22512	Sec. 13-4S-13W
"Nwlbu" 9-2	037-13525	Sec. 13-4S-13W
"Nwlbu" 9-3	037-09791	Sec. 13-4S-13W
"Nwlbu" 9-4	037-00392	Sec. 13-4S-13W
"Nwlbu" 9-5	037-00142	Sec. 13-4S-13W
"Nwlbu" 9-6	037-00393	Sec. 13-4S-13W

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

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

OPERATOR STATUS ABBREVIATIONS	Deputy Supervisor	Signature
PA – Producing Active	R. K. Baker	Floyd M. Leeson Operations Engineer
NPA- No potential, Active		
PI- Potential Inactive		
NPI-No potential, Inactive		
Ab-Abandoned or No More Wells		

FORM AND RECORD CHECK LIST

Form or Record	Initials	Date	Form or Record	Initials	Date
Form OGD121	N/A		Map and Book		
Operator Card			Notice cancellations	N/A	
Well Records	SR	7/27/2000	Bond Status BB/FML	SR	7/26/2000
Log Records	SR	7/31/2000	EDP	SR	7/27/2000
Production Repts	N/A		Data Base	SR	7/27/2000

cc: Update; Envir Dsk; File
Conservation Committee
Harold W. Bertholf, Inc.
LA County Assessor
Sacramento EDP
Cypress EDP

OGD156 12-2-98 Cypress

WELL TRANSFER NOTICE

EFFEC MAY 9, 1994, PETRO RESOURCES, INC.
TRANS LONG BEACH NWLBU WELLS
TO PACIFIC ENERGY ~~CORP~~ Resources
SEE OGD156 DATED 5-13-94

FORM OGD156 (5-80)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF PROPERTY AND WELL TRANSFER

Field or county	District
Long Beach	1
Former owner	**Date**
Sun Exploration & Production Co.	June 15, 1983

Name and location of well(s)

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

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

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

Date of transfer, sale, assignment, conveyance, or exchange	New owner	Type of organization
May 1, 1983	Petro Resources, Inc.	Corp.
	Address: 4200 Easton Drive, Suite 16, Bakersfield, CA 94309	Telephone No. 805/323-4118

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

Confirmed by
Letter form Petro Resources, Inc., dated 5-18-83.

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

Deputy Supervisor	Signature
V. F. Gaede	Richard L. Manuel

OPERATOR STATUS ABBREVIATIONS

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

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121	CP	7-7-83	Map and book	137	7/12/83
Form OGD140	NONE		Notice to be cancelled		
New well cards	CP	7-7-83	Bond status		
Well records	CP	7-7-83	EDP files		
Electric logs	CP	7-7-83	Update Conservation Committee		
Production reports			L. A. Assessors		

DIVISION OF OIL AND GAS

CHECK LIST - RECORDS RECEIVED AND WELL STATUS

Company Sun Oil Company Well No. NWLBU 8-7

API No. 037-22512 Sec. 13, T. 4S, R. 13W, S.B. B.&M.

County _____ Field Long Beach

RECORDS RECEIVED	DATE	
Well Summary (Form OG100)	11/2/82	(2)
History (Form OG103)	11/2/82	(2)
Core Record (Form OG101)		
Directional Survey	5/19/83	(2)
Sidewall Samples		
Other		
Date final records received		
Electric logs:		
Dipmeter (Cluster)	10-21-81	(2)
Approx Plot (Cluster)	10-21-81	(2)
Dual Ind.	5/27/83	(2)
Comp. Neutron	5/27/83	(2)
Dual Ind.	5/27/83	(2)
Cement Bond	5/27/83	(2)

STATUS		STATUS	
Producing - Oil		Water Disposal	
Idle - Oil	✓	Water Flood	
Abandoned - Oil		Steam Flood	
Drilling - Idle		Fire Flood	
Abandoned - Dry Hole		Air Injection	
Producing - Gas		Gas Injection	
Idle - Gas		CO_2 Injection	
Abandoned - Gas		LPG Injection	
Gas-Open to Oil Zone		Observation	
Water Flood Source			

DATE 5-14-82

RECOMPLETED _____

REMARKS _____

ENGINEER'S CHECK LIST

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

Dipmeter ✓

" ✓

R. Manuel/Vicky Grupp 5-18-83 will send D.S. & E-log right away.

CLERICAL CHECK LIST

1. Location change ____ (F-OGD165) _____
2. Elevation change ____ (F-OGD165) _____
3. Form OGD121
4. Form OG159 (Final Letter)
5. Form OGD150b (Release of Bond)
6. Duplicate logs to archives
7. Notice of Records due (F-OGD170)

No. P 182-109

Cont. Dipmeter 5/27/83 (2)

Hold for rest of records 10/23/81

BB UPDATE CENTER 6/7/83

RECORDS NOT APPROVED 12-2-82

Reason: Need E-log, dir survey

RECORDS APPROVED TM

RELEASE BOND _____

Date Eligible _____

(Use date last needed records were received.)

MAP AND MAP BOOK 137 6/7/83

LONG BEACH OFFICE - USE REVERSE SIDE

OGD2 (12/80/DWRR/5M)

Form OG100 (7/79)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

API No. 037-22512

WELL SUMMARY REPORT

Operator	Well
SUN EXPLORATION AND PRODUCTION COMPANY	NWLBU #8-7

Field	County	Sec.	T.	R.	B.&M.
LONG BEACH	LOS ANGELES	13	4S	13W	SB

Location (Give surface location from property or section corner, street center line and/or California coordinates): 487.44' N & 778.80' W OF SAN ANTONIO DRIVE & DEL MAR AVENUE

Elevation of ground above sea level: 45.5

Commenced drilling (date): 8/25/81

Completed drilling (date) TA: 5/14/82

Commenced producing (date): N/A

☐ Flowing ☐ Pumping ☐ Gas lift

Name of producing zone(s): LOWER ALAMITOS BROWN "I"

Total depth: (1st hole) 5837' (2nd) (3rd)

Present effective depth: 4243'

Junk: NONE

Depth measurements taken from top of: ☐ Derrick Floor ☐ Rotary Table ☒ Kelly Bushing

Which is 10± feet above ground

GEOLOGICAL MARKERS	DEPTH
UPPER ALAMITOS I_1	4038'
I_2	4080'
LOWER ALAMITOS K_1	4367'
BROWN ZONE V	5724'

Formation and age at total depth: LOWER ALAMITOS

	Clean Oil (bbl per day)	Gravity Clean Oil	Percent Water including emulsion	Gas (Mcf per day)	Tubing Pressure	Casing Pressure
Initial Production	N/A					
Production After 30 days	N/A					

CASING RECORD (Present Hole)

Size of Casing (API)	Top of Casing	Depth of Shoe	Weight of Casing	Grade and Type of Casing	New or Second Hand	Size of Hole Drilled	Number of Sacks or Cubic Feet of Cement	Depth of Cementing (if through perforations)
13 3/8"	SURFACE	1122'	54.5#	K-55, BT&C	NEW	17 1/2"	1456 CF POZ MIX "A" & 100 CF CL "G"	
9 5/8"	SURFACE	4715'	36.0#	K-55, LT&C S-80, ST&C	NEW	12 1/4"	1076 CF CL "G" & 200 CF CL "G"	
7"	4626'	5847'	26.0#	K-55, BT&C	NEW	8 3/4"	468 CF POZ MIZ "A" & 100 CF CL "G"	

PERFORATED CASING (Size, top, bottom, perforated intervals, size and spacing of perforation and method.)
4- 1/2" HPF 4119'-4109': 143 SHOTS W/4-1/2" HPF 4412'-4402'; 4401'-4383': 4-1/2" H @ 4356': PERF'D 4-1/2" HPF 4412'-4402'; 4401'-4383': WSO 4-3/8" H @ 4031': 4-.43" HPF 5757'-5749', 5748'-5738', 5736.5'-5734.5', 5733'-5723.5'

Was the well directionally drilled? If yes, show coordinates at total depth
☒ Yes ☐ No 460' N & 82" W

Electrical log depths
FDC-CNL-GR-CAL-TEN 4902'-3000': DLL-GR-TEN 5850'-4713': FDC-CNL-GR-CAL-TEN 5850'-4713'

Other surveys
GAMMA RAY 4500'-4000': GAMMA RAY CMT BOND LOG 4200'-3348': DIPMETER

In compliance with Sec. 3215, Division 3 of the Public Resources Code, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Name	Title
L. B. CARROLL, JR.	DISTRICT ENGINEER

Address	City	Zip Code
P O BOX 55060	VALENCIA	91355-0560

Telephone Number	Signature	Date
805/257-6200	L B Carroll Jr	10/28/82

SUBMIT IN DUPLICATE

SUBMIT IN DUPLICATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

Sun Exploration & Production Co.

Operator Sun Production Division Field or County Long Beach
Well Northwest Long Beach Unit #8-7, Sec. 13, T 4S, R 13W, SB B. & M.
A.P.I. No. 037-22512 Name L.B. Carroll, Jr. (Person submitting report) Title Agent (President, Secretary or Agent)
Date October 28, 1982, 19

Signature L B Carroll Jr.

PO Box 55060, Valencia, CA 91355 0560 (Address) (805) 257-6200 (Telephone Number)

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

Date 1981	
8/25	5826 TVD/"V"/IR/ATLANTIC/LA CA/WI 1.00/SURF LOC: 487.44' N & 778.80' W OF SANTONIO DR & DEL MAR AVE/BHL: 463 N, 100' W OF SURF LOC/ 370' SD SH D (320) MXNG LCM/MIRU ATLANTIC OIL RIG #3/SPUD @ 2 PM 8-24-81/DRLG 17½" HOLE FRM 50-370, LOST COMPLETE RTNS/WRK TIGHT PIPE OUT OF HOLE/MW 68/VIS 45/
8/26	370 DRLG OUT CMT/MX & PMP 100 BBLS OF 18# PER BBL LCM,NO RTNS/w DP @ 240, PMP 8 YDS OF 3-1 MX CMT/DISP w 22 CF DRLG MUD/POH/WOC 12 HRS, TAG SOFT CMT @ 85/CO MED HRD CMT TO 105 w FULL RTNS/MW 66/VIS 38/
8/27	965 SD SH D (595) LOST CIRC/DRLG CMT & CLND OUT TO 370 w FULL RTNS/ DRLG 17½ HOLE FRM 370-965 LOST COMPLET RTNS/POH/MW 70/VIS 43/
8/28	1120 SD SH D (155) PREPNG TO RUN 13-3/8" CSG/MX LCM PILL, RIH TO 945 w OPN ENDED DP/PMP 100 BBLS OF 18# PER BBL LCM, REGAIN FULL CIRC/ TRIP FOR BIT, HAD 15' FILL, NO FLUID LOSS/DRLG 17½" HOLE FRM 965-1120/CIRC & WIPE HOLE TO RUN CSG/MW 71/VIS 57/
8/31	8-29/1122 SD SH INST CSG HD/CIRC & COND MUD,POH/RAN 28 JTS (1125) 13-3/8" 54.5# K-55 BT&C CSG w SHOE @ 1122, FLOAT CLR @ 1076/B.J. PMPD 150 CF SODIUM SILICATE FOLLOWD BY 1456 CF POZ "A" 1-1 PERLITE w 4% GEL & 2% $CaCl_2$ FOLOWD BY 100 CF CL "G" CMT w 2% $CaCl_2$/DISP w 940 CF DRLG MUD/BMPD PLUG w 1000 PSI, BLED TO 0/440 CF CMT RTNS/CIP @ 10:45 PM/WOC 4 HRS/LND CSG/MW 68/VIS 40/8-30/1122 SD SH RIH w 12¼" BIT/CUT OFF CONDUCTOR & CLN CELLAR/WELD ON 13-3/8" CSG HD/INST BOE/RIH w 12¼" BIT TO TST CSG & BOE/MW 68/VIS 35/8-31/1503 SD SH D (381) DD/TST CL III BOP & CK BY DOG/DRLG PLUGS, FLOAT CLR, CMT & SHOE @ 1122/DRLG 12P" HOLE FRM 1122-1503/SURV @ 1428, 2°45', N01W/TVD 1427.97/SEC. 3.45/N-3.22/W-1.44/MW 68/VIS 36/
9/1	2233 SD SH D (730) DRLG/DRLG 12¼" HOLE FRM 1503-2233/SURV @ 2173 13°15', N25°30'W/TVD 2159.14/SEC.137.22/N-129.80/W-49.32/MW 67/VIS 42/
9/2	2425 SD SH D (192) FISHING D.C. SLIPS OUT OF BOP/3 HRS DN TIME REPAIRNG HOOK/DRLG & DYNA DRLG 12¼" HOLE FRM 2233-2455/UNABL TO GET SURV/TRIP TO CHG ORIENTATION SUB/DROP D.C. SLIPS IN BOP/FISHING OUT SAME/SURV @ 2357, 12°30', N25°30'W/TVD 2338.47/SEC.176.81/N-166.17/ W-68.65/MW 69/VIS 38/

DIVISION OF OIL & GAS
History of Oil or Gas Well

NWLBU #8-7
Sec. 13, T4S, R13W

1981

9/3	2714 SD SH D (289) DRLG/FISHED SLIPS OUT OF BOP/DRLG 12¼" HOLE FRM 2425-2714/RIG OFF DAY WORK FOR 7½ HRS FISHING OUT SLIPS/ SURV @ 2663, 13°, N02E/TVD 2637.37/SEC.245.62/N-234.85/W-76.00/ MW 69/VIS 36/
9/4	2950 SD SH D (236) RIH/DRLG 12¼" HOLE FRM 2714-2950/WIPE 12¼" HOLE TO 1100, HOLE TIGHT/CIRC COND MUD/TRIP FOR 8-3/4" BHA/SURV @ 2938, 12°15', N05°30'E/TVD 2905.72/SEC.303.61/N-294.96/W-72.61/MW 70/ VIS 37/
9/5	3495 SD SH D (545) TRIP FOR DD/DRLG 8-3/4" HOLE FRM 2950-3495/ TRIP FOR DD/SURV @ 3495, 10°45', N5°E/TVD 3451.05/SEC.412.36/N-408.54/ W-63.83/MW 70/VIS 40/
9/6	3822 SD SH DD (327) TRIP FOR BHA/TRIP FOR DD/DD 8-3/4" HOLE FRM 3495-3822/POH/SURV @ 3758, 6°15', N43°W/TVD 3709.13/SEC.460.58/N-453.93/W-79.69/MW 70/VIS 38/
9/7	3822 SD SH FISHING/POH & LAY DN DD/RIH w NEW BHA TO 3640/REAM 8-3/4" HOLE FRM 3640-3792/WRK ON PMP & POH LOOKNG FOR WASHOUT/LEFT DBL PIN XO, MONEL, & 8-3/4" BIT IN HOLE/WO FISHNG TOOLS 5 HRS/RIH w NEW DBL BOX XO & ATTMPT TO SCREW INTO FISH/MW 69/VIS 38/
9/8	3996 SD SH D (174) DRLG/POH, REC ALL FISH/RIH, REAM DYNA DRL RUN FRM 3733-3822/DRLG 9-7/8" HOLE FRM 3822-3996/SURV @ 3955, 2°15', N41W/TVD 3905.66/SEC.471.79/N-463.97/W-88.40/MW 68/VIS 38/
9/9	4170 SD SH D (174) REPAIRNG SWIVEL/DRLG 8-3/4" HOLE FRM 3996-4095/REPAIR SWIVEL FOR 7 HRS/DRLG 8-3/4" HOLE FRM 4095-4170/REPAIR SWIVEL FOR 4 HRS/MW 68/VIS 45/SURV @ 4139, 1°15', N40W/TVD 4089.56/ SEC.477.22/N-468.24/W-92.37/
9/10	4297 SD SH D (127) DRLG/REPAIR SWVL 1 HR/DRLG 8-3/4" HOLE FRM 4170-4235/TRIP FOR NEW BIT & TWO D.C./DRLG FRM 4235-4297/SURV @ 4235, 1°15', N69W/TVD 4185.59/SEC.478.76/N-496.46/W-94.08/MW 68/ VIS 44/
9/11	4483 SD SH D (186) REPAIRNG PMP/DRLG 8-3/4" HOLE FRM 4297-4379/REPAIR SWIVEL 3 HRS/DRLG 8-3/4" HOLE FRM 4379-4483/REPAIR MUD PMP FOR 7 HRS/SURV @ 4427, 0°15', N34°E/TVD 4377.52/SEC.480.69/ N-471.08/W-95.71/MW 70/VIS 37/
9/12	4673 SD SH D (190) DRLG/REPAIR MUD PMP 1½ HRS/DRLG 8-3/4" HOLE FRM 4483-4548/TRIP FOR NEW BIT/DRLG 8-3/4" HOLE FRM 4548-4673/ SURV @ 4610, 0° VERT/TVD 4560.52/SEC.480.14/N-470.68/W-94.94/MW 68/ VIS 38/
9/13	4906 SD SH D (233) PREP TO LOG/DRLG 8-3/4" HOLE FRM 4673-4906/CIRC HOLE & COND MUD/WIPE HOLE FOR LOGS, NO FILL/POH FOR LOGS/ SURV @ 4906 1°, S81°E/TVD 4856.49/SEC.478.56/N-469.82/W-91.45/MW 69/ VIS 40/

DIVISION OF OIL & GAS
History of Oil or Gas Well

NWLBU #8-7
Sec. 13, T4S, R13W

1981

9/14 4906 TD OH 3234 SD SH OH (284) OH/SCHLUM RAN DLL-GR-TEN FRM 4906-1122/FDC-CNL-GR-CAL-TEN FRM 4902-3000/DIPMETER FRM 4903-3000/ TOOK SWC FRM 4607-4006, SHOT 57, REC 42/OPN 8-3/4" HOLE TO 12¼" FRM 2950-3234/MW 69/VIS 40/

9/15 4906 TD OH 4095 SD SH OH (861) OH/OPN 8-3/4" HOLE TO 12¼" FRM 3234-3451/CIRC & COND HOLE FOR LOG/POH/SCHLUM RAN DIPMETER/UNABL TO GET LOG TOOL BELOW 3482/TRIP FOR DRLG ASSY/OPN 8-3/4" HOLE TO 12¼" FRM 3451-4095/MW 70/VIS 43/

9/16 4905 TD OH 4406 SD SH OH (311) OH/OPN 8-3/4" HOLE TO 12¼" FRM 4095-4406/MW 69/VIS 37/

9/17 4906 TD OH 4528 SD SH OH (122) OH/OPN 8-3/4" HOLE FRM 4406-4499/POH & REPAIR BRAKES FOR 4½ HRS/OPN HOLE FRM 4499-4528/MW 69/VIS 39/

9/18 4906 TD OH 4685 SD SH OH (157) OH/OPN 8-3/4" HOLE TO 12¼" FRM 4528-4685/MW 69/VIS 40/

9/19 4906 TD OH 4725 SD SH OH (40) RUNNING 9-5/8" CSG/OPN 8-3/4" HOLE TO 12¼" FRM 4685-4725/COND HOLE FOR LOG/WO SCHLUM 3½ HRS/SCHLUM RAN DIPMETER FRM 4725-3000/CIRC FOR CSG/RUNNING 9-5/8" CSG/MW 69/ VIS 40/

9/20 4906 TD PRES TSTG WELL HD/RAN TOT OF 108 JTS (4718) w 56 JTS 9-5/8" 36# S-80 ST&C ON BTM & 52 JTS 9-5/8" 36# K-55 LT&C ON TOP/DFC @ 4670/DFS @ 4715/DOWELL PMPD 1076 CF CL 'G' CMT w 1-1 POZ, 0.5% CFR-2, 2% GEL, 3% KCL FOLLOWD BY 200 CF CL 'G' CMT w 0.75% CFR-2 & 3% KCL/DISP w 2060 CF DRLG MUD/DID NOT BMP PLUG/BLED TO 0/40 CF CMT RTNS TO SURF/CIP @ 2:23 PM/REM BOE/INST 9-5/8" PKNG/CUT OFF CSG & WELD ON CSG HD/WAIT ON HD TO COOL/TSTG HD/

9/21 4906 WSO TSTG/TST WELL HD TO 5000 PSI OK/INST CL III BOP & TST TO 1000 PSI OK/RIH, TAG PLUG @ 4540/TST PIPE RAMS & BAG, WITNESS BY D.O.G. OK/DRLG PLUGS, CMT & FLOAT CLR TO 4705/CIRC CLN/TRIP FOR WSO TOOL/SHOT 4 - ½" HOLES @ 4693, SET SLIPS & OPN TOOL @ 6:27 AM w LIGHT BLOW/MW 69/VIS 35/

9/22 5090 SD SH D (184) DRLG/REL PKR, POH w WSO & REC 30' DRLG MUD/ IH 2200 PSI, FH 2190, IF 57, FF 57/TST OK & WITNESS BY D.O.G./PU BHA RIH INST NEW RUBBERS ON EVERY JT OF DP/DRLG OUT SHOE & CLN OUT TO 4906/DRLG 8-3/8" HOLE FRM 4906-5090/SURV @ 5007, 1°30', S89°E/TVD 4957.81/SEC.477.81/N-469.31/W-89.27/MW 68/

DIVISION OF OIL & GAS
HISTORY OF Oil or Gas Well

NWLBU #8-7
Sec. 13, T4S, R13W

1981

9/23 5200 SD SH D (110) DRLG/DRLG 8-3/4" HOLE FRM 5090-5164/ TRIP FOR LOCKED BHA/REAM FRM 4830-5164/DRLG FRM 5164-5200/SURV @ 5200, 1°, S65°E/TVD 5150.44/SEC.475.87/N-468.23/W-85.74/MW 68/ VIS 40/

9/24 5360 SD SH D (160) DRLG/DRLG 8-3/4" HOLE FRM 5200-5360/SURV @ 5290, 0°45', S05E/TVD 5242.42/SEC.474.58/N-467.13/W-84.93/MW 68/ VIS 38/

9/25 5580 SD SH D (220) DRLG/LOST 50 BBLS MUD @ 5360/PULL TO SHOE, MX 50 BBLS LCM/RIH TO 5360, SPOT LCM PILL/DRLG w FULL RTNS FRM 5360-5580/SURV @ 5447, 1°15', S06E/TVD 5397.40/SEC.471.40/ N-464.44/W-84.68/MW 68/VIS 38/

9/26 5784 SD SH D (204) DRLG/DRLG 8-3/4" HOLE FRM 5580-5600/TRIP FOR NEW BIT A PK SWIVEL/2½ HRS DN TIME/DRLG FRM 5600-5784/SURV @ 5754 3/4°, S41E/TVD 5704.38/SEC.468.28/N-461.00/W-83.47/MW 69/VIS 41/

9/27 5850 SD SH D (66) LOGGING/DRLG 8-3/4" HOLE FRM 5784-5850/ WIPE HOLE TO 9-5/8" CSG/CIRC FOR LOGS/RU SCHLUM & STRTD LOGGNG/SURV @ 5850, 1°15', S70E/TVD 5800.35/SEC.467.22/N-460.00/W-82.26/MW 69/ VIS 41/

9/28 5850 TD HO 4730 SD-SH OH (15) OH/SCHLUM RAN DLL-GR-TEN FRM 5850-4713/FDC-CNL-GR-CAL-TEN FRM 5850-4713/DIPMETER FRM 5850-4713/TOOK 57 SWC FRM 4727-5845, REC 35/RD SCHLUM/RIH w 11" HO/OPN HOLE FRM 8-3/4" TO 11" FRM 4715-4730/MW 69/VIS 39/

9/29 5850 TD OH 4999 SD-SH OH (269) OH/OPN 8-3/4" HOLE TO 11" FRM 4730-4999/ MW 68/VIS 42/

9/30 5850 TD OH 5450 SD-SH OH (460') REPAIRING SWIVEL/OPEN 8-3/4" HOLE TO 11" FRM 4999 TO 5459/PULL TO SHOE TO REPAIR SWIVEL/4-1/2 HRS DOWNTIME/MW 68/VIS 38/

10/1 5850 TD OH 5725 SD SH OH (266) OH/REPLACE SWIVEL, 4½ HRS DN/OPN 8-3/4" HOLE TO 11" FRM 5459-5725/MW 67/VIS 40/

10/2 5850 TD, OH 5832 SD SH OH (107) OH/GAUGE 11" HOLE FRM 4715-5725/OPN 8-3/4" HOLE TO 11" FRM 5725-3832/MW 67/VIS 41/

10/3 5850 PREPNG TO CMT 7" CSG/OPN 8-3/4" HOLE TO 11" FRM 5832-5850/PULL TO SHOE, WAIT ½ HR, RIH TO 5850 (NO FILL)/POH/RAN 30 JTS (1217) 7" 26# K-55 BT-C w SHOE @ 5847, FLOAT 5802/CIRC CSG 1 HR WRKNG CSG 40'/MW 67/VIS 41/

1981

10/4 5850 TD 5847 PBTD, CLNG OUT 7" LNR/PMP 468 CF POZ-MIX "A" CMT 1-1 w .5% CFR-2, 2% GEL, 3% KCL FOLLOWD BY 100 CF CL "G" w .75% CFR-2, 3% KCL/DISP w 640 CF MUD/BMP PLUG w 1400 PSI, BLEED TO 0/SET & REL FRM LNR/CIRC OUT 50 CF OF EXCESS CMT/POH, PU 8-3/4" BIT w 9-5/8" 36# CSNG SCRPR/RIH, CO TO 4626 TOP OF LNR HANGER/ TRIP FOR 6-1/8" BIT, 4 - 4-3/4" DC ON 3½" DP TO CO LNR/MW 67/VIS 40/

10/5 5850 TD, 5847 PBTD PREPNG TO PULL BOP/CO TO 5801/TST CSG TO 1000 PSI FOR 15 MIN, OK/DRL PLUG, FLOAT CLR, CMT TO 5837, 10' ABOV SHOE/CHG OVR TO 5% KCL WTR/LD 4½" DP & TOOLS/PREP TO PULL BOP/

10/6 5837 PBTD REL RIG @ 1:30 PM 10-5-81/PULL BOP/INST TBG HD/ REL RIG/DROP FRM REPORT PENDING COMPLETION/

10/10 5837 PBTD/RIG UP SCHLUM & RAN CBL FRM 5815-4000/RIG DN SCHLUM & MOVE OUT/

10/16 5837 PBTD/MIRU ALLIED PROD RIG/INST BOP/PU BELL NIP ON BTM OF 9-5/8" 36# FB/RIH TO 3211/SET FB/RU & SWAB FLUID LEVL DN TO 700'/OPENING BYPASS EVERY OTHER RUN TO EQUALIZE FLUID IN ANNULUS/SIFN/

10/17 5837 PBTD/CONT SWABNG FLUID FRM 700-2920/CLOSE IN WELL/

10/18 5837 PBTD/RU McCULLOUGH & SHOT 4 - 1/3" JHPF FRM 5777-5764, HAD 25' FLUID RISE AFTR 1 HR/POH w FB/RAN SNKR BAR TAG BTM @ 5837 (BTM)/RAN 500 KILL STG/SIFN/

10/19 5837 PBTD/PULL KILL STG/MAKE UP GAS ANCHOR & RIH ON 180 JTS OF 2-7/8" TBG w TAIL @ 5766/RAN 2½x1½x12'x15' PMP ON 123 3/4" RODS & 66 7/8" RODS/SIFN/

10/20 5837 PBTD/SPACD OUT BH PMP/FILLED TBG STG w LSE PROD WTR/CLND LOCATN/RDMO/PUT WELL ON PROD/IN TST 17 HRS/0 BO, 124 BW/TBG 32#, CSG 0#/12.5 SPMx72" LOS/FL 4341, OP 1392/

10/21 7 HRS/0 BO, 25 BW/TBG 32#/CSG 0#/12.5 SPMx72" LOS/FL 5733 @ PMP/NOTE! BH PMP SANDED UP, STUCK IN OPN POSSITION @ 2:00 PM 10-21-81/SHUT PU DN/SHOT FL @ 5:00 AM 10-22-81, FL @ 5733, NO FLUID ENTRY/

10/22 WELLTECK MIRU/FND BH PMP STUCK, UNABL TO WRK LOOSE/REL ON & OFF TOOL POH w RODS/INSTLD BOE/REL BKR 7" 26# ANCHOR-CATCHER, LOWERD TBG TO 5837 (TD)/PULLING OUT HOLE w TBG WET/SIFN/

1981

10/23 CONTD PULLING TBG OUT OF HOLE, PULLING WET/FLUID ABOV PMP SHOE WAS MUDDY WTR w NO SD/FLUID SAMPLE FRM PMP & MUD ANCHOR TSTD 40% SOLIDS & CLORIDES OF 3600 PPM+, OR EQUAL TO 5% KCL WTR, LEFT IN HOLE, NO FORMATION WTR IN EVIDENCE/SENT BH PMP TO SHOP, PMP PLGR STUCK IN PMP BARREL w BUILD UP OF A CARBON TYPE MATERIAL ON PLGR WHICH COULD BE REMOVD w KNIFE/RIH w 2-1/8" BAILER, BAILD UNSET & CONTAMINATD CMT FRM 5826-5841 (7" SHOE @ 5847)/RIH w 9-5/8 36# BKR FB ON 101 JTS 2-7/8" TBG TO 3211/PMPD 171 BBLS OF 5% KCL WTR DN TBG, SHOT FL TOP OF KCL WTR @ 2892/SET FB/SIFN/

10/24 RU SCHLUM, INSTLD LUBRICATR/RAN 2-1/8" DOMED SCALLOP THRU TBG GUN w 6.5 GM CHG, 0.32" EH, 0° PHASE, DECENTRALIZD, 13' 52 SHOTS, RIH, 1ST RUN CLR LOCATR SHORTD OUT/2ND & 3RD RUNS, FAULTY CLR LOCATR/REMOVD LUBRICATR/REL SCHLUM/SHUT WELL IN TILL AM 10/26/81/

10/26 RU SCHLUM & FULL LUBRICATOR/MU 2-1/8" OD DOMED SCALLOP THRU TBG GUN (6.5 GRM CHG, 0.32" EH); 0° PHASE; DECENTRALIZED; 13'-53 SHOTS w CLR LOCATR, RIH, LOCATD CLRS @ 5723, 5764 & 5810 (NOTE FL INSIDE TBG @ 2888) SHOT HOLES FRM 5764½ TO 5777½/WAITD 15 MIN & FND FL INSIDE TBG @ 2370 (518 FLUID RISE)/REL SCHLUM/REL FB PKR & POH w TBG/MEAS IN HOLE w TBG & BKR "B-2" 7" 26# ANCHOR CATCHER, REMOVD BOE & SET ANCHOR w TOP @ 5317.92, LANDED TBG w ST @ 5703.14/RAN 2½"x1-3/4"x25' 3 - TUBE PMP ON 123 - 3/4" & 65 - 7/8"x30' SUCKER RODS/SEATED & SPACD PMP/FILLED TBG w 16 BBLS WTR/ PUT WELL ON PROD INTO BKR TANK/RDMO/NOTE: SHOT FL BEFORE PRODUCNG WELL @ 2770/NO TEST, FND PU DN THIS AM 10-27-81, MURPHY HI-LO FLOWLINE PRESSURE SWITCH, SHUT WELL DN/

10/27 14 HRS/0 BO, 165 BW/TBG 42# CSG 0#/12½ SPMx72" LOS/FL 5671, @ PMP/SHUT WELL IN 1 HR/FL 5589, OP 82'/POP WELL PMPD OFF IN 30 MIN/SHUT IN 9 HRS/FL 5589, OP 82/POP, WELL PMPD OFF IN 30 MIN/ SWI, POUNDING FLUID/FL 5671 @ PMP/

10/28 WELLTECK MIRU/SHOT FL @ 5637 (34' OVR PMP)/UNSEATD 3 TUBE PMP, EQUALIZD FLUID, SHOT FL @ 4847 (824' OVR PMP)/POH/INSTLD BOE/REL BKR ANCHOR CATCHER, LOWERD TBG, TAGGED BTM @ 5737 (NO FILL)/LD DN EXCESS TBG/SFT TBG ANCHOR CATCHER w TBG ST @ 5766.68', PMP SHOE @ 5734.33/ RAN OILWELL 1 -½"x1-3/4"x25' 3 TUBE PMP & RODS/FILLED TBG w 21 BBLS PROD LSE WTR/POP @ 7:40 PM 10-28-81, IN TEST/SHOT FL PRIOR TO PRODUCNG FL 4809' (924' OVR PMP)/9 HRS/0 BO, 28 BW/TBG 25#, CSG 0#/11 SPMx72" LOS/FL 5733, @ PMP/SHUT WELL IN @ 5:00 AM 10-29-81/

DIVISION OF OIL & GAS
History of Oil or Gas Well

NWLBU #8-7
Sec. 13, T4S, R13W

1981

10/29	24 HR SI BUILD UP TST/TBO#/CSG 5#/FL 5637, OP 96/
10/30	½ HR/1.2 BO, .3 BW/TBG 18#/CSG 0#/11 SPMx72" LOS/ FL 5650, OP 83'/
10/31	½ HR/1.8 BO, .2 BW/TBG 16#/CSG 0#/11 SPMx72" LOS/ FL 5662, OP 71'/
11/1	½ HR/1.8 BO, .2 BW/TBG 15#/CSG 0#/11 SPMx72" LOS/ FL 5656, OP 77'/
11/2	½ HR/.96 BO, .04 BW/TBG 15/CSG 0/11 SPMx72# LOS/FL 5662, OP 71/
11/3	NO REPORT/WELL SHUT IN FOR STATIC BUILD UP TEST/
11/4	NO REPORT/WELL SHUT IN FOR STATIC BUILD-UP TEST/
11/5	NO REPORT/WELL SHUT IN FOR STATIC BUILD-UP TST/
11/6	NO REPORT/WELL SI FOR STATIC BUILD UP TST/
11/7	NO REPORT/WELL SI FOR STATIC BUILD UP TST/
11/8	NO REPORT/WELL SI FOR STATIC BUILD UP TST/
11/9	NO REPORT/WELL SI FOR STATIC BUILD UP TST/
11/10	CP 52/FL 5298, OP 435/
11/11	CP 60#/FL 5263, OP 470/
11/12	SICP 68#/STATIC FL 5212/OP 521/
11/13	SICP 73#/STATIC FL 5176, OP 557/
11/14	NO REPORT/
11/15	SICP 82#/WTATIC FL 5086', OP 647'/
11/16	SICP 92#/STATIC FL 5032, OP 701/
11/17	WELL TECK MIRU/INSTLD ROD REGAN/POH w 66 - 6/8" & 125 - 3/4" x 30' SUCKER RODS & 3 - TUBE PMP/UNLANDED TBG, REL BKR TBG ANCHOR, INSTLD BOE/POH w 180 JTS 2-7/8" TBG/MU 1¼" SNKR BAR, RIH ON SD LINE TO 5837, NO FILL/MU 2-3/8" x 1-3/4"x16'x28'x32' "THE" PMP BARREL BELOW 7" - 26# BKR FB PKR ON 160 JTS 2-7/8" TBG, RIH TO 4560/SIFN/
11/18	CONTD IN HOLE w 7" 26# FB PKR & 2-7/8" TBG, SET FB @ 5697, w BTM OF "THE" PMP BARREL @ 5737/RU DOWELL/FILLED ANNULUS w 340 BBLS OF 65# 5% KCL WTR/PRESS ANNULUS TO 500 PSI/PMPD 1000 GALS "MSR" ACID w 40# FLAX 4 DIVERTING AGENT & 92 GALS 15% HCL ACID w MUTUAL SOLVENT DN TBG/SQZD TOT 378 GALS ACID AWAY IN 4 HRS w MAX PRESS OF 2000#, BLEEDING BK TO 1000 PSI IN 3 MIN, FORMATION TIGHT/OPEND UNLOADR REV CIRC ACID OUT OF TBG w 35 BBLS OF 5% KCL WTR/SIFN/

DIVISION OF OIL & GAS
History of Oil or Gas Well

NWLBU #8-7
Sec. 13, T4S, R13W

1981

11/19 REL FB/REV CIRC w 5% KCL, RECOVERD 10 BBLS CRUDE OIL FRM ANNULUS/LOWERD TBG FRM 5737-5835, REV CIRC 1 HR NO ACID IN RTNS/ PU TO 5737/SHUT WELL IN TILL AM 11/20/81/

11/20 LOWERD TBG TO 5780 (3' BELOW PERFS)/DISPL TBG w 45 BBLS OF KCL WTR, RECOVERD 20 BBLS CRUDE OIL FRM ANNULUS/RU DOWELL, PMPD 100 GALS 12% HCL-3% HF ACID w INHIBITORS & SURFACTANT ADDED, FOLOWD w 1344 GALS 5% KCL WTR, SPOTTED ACID ACROSS PERFS (5764-5777½')/PU SET FB @ 5675 w BTM OF "THE" PMP BARREL @ 5716/TSTD ANNULUS TO 800 PSI, OK/OPEND UNLOADR, PMPD DN TBG w 150 GALS 12-3 MUD ACID, FOLOWD w 1000 GALS "MSR" ACID w 40# FLAX 4 DIVERTR, FOLOWD w 190 GALS 15% HCL ACID w 10% MUTUAL SOLVENT, CLOSD UNLOADER/PRESSURD ANNULUS TO 800 PSI/SQZD ACID AWAY w 810 GALS 15% HCL ACID, FOLOWD w 1450 GALS KCL WTR, PRESSURE & RATE STAYD CONSTANT THRUOUT SQZ 2750 PSI @ ¼ BBL PER MIN/ACID IN PLACE @ 3:00 PM, SHUT IN PRESS 2750#/BLED DN TO 500# IN 15 MIN, 0# IN 30 MIN, NO FLEED BK/MU & RAN STDG VALVE & PMP PLGR & RODS/STROKD PMP w RIG FOR 1½ HRS, RECOVERD 6 BBLS KCL WTR (APPARENT LOW FLUID ENTRY) LET SET 1 HR, STROKD AGAIN FOR 1 HR, RECOVERD 5 BBLS KCL WTR, PMPD OFF/PULLD STDG VALVE, PLGR & 150' OF ROD UP HOLE/DISPL 12 BBLS KCL WTR DN TBG @ 1000 PSI/SIFN/

11/21 SEATD STDG VALVE, FILLED TBG w 1½ BBLS 5% KCL WTR, STROKD PMP w RIG/WELL PMPD OFF AFTR 1½ BBLS RTNS/LET SET FOR 15 MIN, PMPD ½ BBL/PULLED STDG VALVE, POH w RODS & PMP PLGR/RELSD FB & LOWERD TBG TO 5830/FILLED HOLE w 8 BBLS 5% KCL WTR, REV CIRC, GOT pH OF 3 AFTR 30 BBLS, pH OF 7 AFTR 75 BBLS RTNS/PULLED TBG w TAIL TO 5500/SHUT WELL IN TILL AM 11-23-81/

11/23 LOWERD TBG FRM 5500-5837, NO FILL/POH w TBG, LD "THE" PMP BARREL/MU 2½" API T/L PMP SHOE ON 3½" OD MUD ANCHOR, RIH ON 11 JTS 2-7/8" TBB, ON BKR 7" ANCHOR CATCHER, ON 169 JTS 2-7/8" TBG/REMOVD BOE/SET ANCHOR @ 5383.84 & LANDED TBG w TBG ST @ 5766.68/RAN 2½"x1-3/4"x25 3-TUBE PMP ON 125 - 3/4 & 66 - 7/8"x30' SUCKER RODS/SEATED & SPACD PMP, HUNG WELL ON/RDMO/WELL SHUT IN/ DROP FRM REPORT/

1981

12/1	CPS MIRU/POH w RODS & 3 TUBE PMP/REL BKR TENSION PKR/INSTLD BOE/SIFN/
12/2	POH w 180 JTS 2-7/8" TBG/MU BROWN 7" 26#, 4 CUP w 1' SPACING BETWN CUPS, RIH ON 2-7/8" TBG TO 4500/RU BJ HUGHES/LONG BEACH CITY INSPECTOR SHUT RIG DN DUE TO HIGH NOISE LEVEL IN AREA/MADE WELL SECURE/SIFN/
12/3	WITH 7" 26# BROWN 4 CUP PKR @ 4500 (IN 9-5/8 CSG) BJ HUGHES FILLED HOLE w 162 BBLS OF 5% KCL WTR/LOWERD PKR TO 5700, BLANKD TOOL IN 7" CSG @ 3500 PSI/ LOWERD TOOL TO 5777, PMPD 2 BPM IN PERFS @ 1000 PSI @ 5776' 2 BBLS PER MIN @ 1000#, 5775' 2 BPM @ 500#, 5774' 2 BPM @ 500#, 5773' 2 BPM @ 500#, 5772' 2 BPM @ 500#, 5771 2 BPM @ 400#, 5770'2 BPM @ 500#, 5769 - 2 BPM @ 600#, 5768' 2 BPM @ 600#, 5767' - 2 BPM @ 800#, 5766' - 1 BPM @ 1000#, 5765' - 2 BPM @ 1200#, 5764' - 2 BPM @ 1300 PSI/POH/RU DRESSER ATLAS, PERFORATED THE FOLOWNG INTERVLS w 4" O.D. CSG GUNS, 4 - .43" HOLES/FT, 22 - ½ GRAM JUMBO JET CHG, 15.07" PENETRATION, FRM 5757-5749, 5748-5738, 5736.5'-5734.5'/5733-5723.5'/ REL DRESSER ATLAS/RIH w 2-7/8" TBG, REMOVD BOE, SET BKR ANCHOR-CATCHER w 2500# TENSION, PMP SHOE @ 5737/SIFN/
12/4	20 HRS/0 BO, 224 BW/TBG 32#/CSG 0#/11 SPMx72" LOS/FL 3398, OP 2335/WELL OWES 130 BBLS OF KCL LOAD WTR/
12/5	24 HRS/0 BO, 153.5 BW, 1.5 BBLS MUD/TBG 30#/CSG 0#/11 SPMx72" LOS/FL 5478, OP 255/WELL PD BK ALL LOAD WTR PLUS 35 BBLS FRM WELL/
12/6	3.5 HRS/.2 BO, 10.3 BW/TBG 20#, CSG 0#/11 SPMx72" LOS/FL 5624, OP 109/WELL NOT PRODUCING/SHUT DN FOR STATIC BUILD UP, 13½ HRS, FL 5323, OP 510/
12/7	22 HRS/0 BO, 33 BW/TBG 9#/CSG 0# (VENTED TO BKR TANK)/11 SPMx72" LOS/FL 5695, OP 39/LOW FLUID ENTRY/
12/8	6.5 HRS/0 BO, 5 BW/TBG 9#/CSG 0# (VENTED TO BKR TANK)/11 SPMx72" LOS/WELL PMPD OFF @ 3:30 PM/SHUT DN PU/FLUID LEVEL AFTR 15 HRS WAS 5365, OP 368/ APPROX 11 BBLS ENTRY/
12/9	3 HRS/0 BO, 13 BW/TBG 9/CSG 0 (VENTED TO BKR TANK)/11 SPMx72" LOS/FL 5644, OP 89/WELL QUIT PMPNG (PMPD OFF)/SHUT WELL IN @ 10:30 AM 12-9-81 FOR FL BUILD UP TST/7:30 AM 12-10-81/21 HRS/FL 5282, OP 451/CSG 14#/
12/10	SHUT IN 24 HRS FOR FLUID LEVEL BUILD UP TST/CSG 24#/FL 4935, OP 798/
12/11	SHUT IN 24 HRS FOR FLUID LEVEL BUILD UP TST/CSG 32#/FL 4650, OP 1083/
12/12	SHUT IN 24 HRS FOR FLUID LEVEL BUILD UP TST/CSG 38#/FL 4490, OP 1243/DROP FRM REPORT UNTIL TST IS COMPLETE/
1/15	FLUID LEVEL BUILD UP TST COMPLETE/RESUME OPERATIONS TO ACIDZ PERFORATD INTERVLS 5724-5736 & 5738-5756 TO REMOV SUSPECTD CLAY SWELLING & EMULSION BLOCKAGE IN FORMATN/CPS MIRU/INSTLD SD PROOFNG SCRN AROUND RIG & EQUIP/ STAKD OUT RODS FILLED TBG w LSE WTR, TBG OK/POH w 65 - 7/8, 123 - 3/4"x30' SUCKER RODS & PMP/RELSD BKR TENSION ANCHOR-CATCHER/INSTLD BOP/POH w 167 JTS 2-7/8" TBG & CATCHER/SIFN

1981

1/16 POH w KILL STG/MU BKR 7" 26# CSG SCRPR ON 2-7/8" TBG, HYDROTESTNG TBG IN HOLE @ 5000 PSI (NO LEAKS) TO 5780, NO RESTRICTNS/POH/MU BKR 7" 26# MOD "C" BRIDGE PLUG ON BKR 7" 26# FULLBORE PKR, ON 2-7/8" TBG, RIH TO 4500/CLOSD WELL IN TILL AM 1-18-82/

1/17 CONTD RIH w BKR BP & FB PKR/SET BP @ 5760/PU w FB @ 5755, FILLED HOLE w 277 BBLS PRODUCED WTR/RU BJ HUGHES, PMPD 33 BBLS OF 2% AM-CL WTR ON TBG/ PULLED FB UP & SET @ 5650/TSTD SURF LINES TO 4000 PSI/PMPD PRODUCED WTR IN ANNULUS, PRESSURE UP TO 1000 PSI/OBTAINED BRK DN w 20 FT^3 OF AM-CL WTR @ 1 BBL PER MIN @ 2700 PSI/OPND UNLOADER & PMPD 600 GALS 15% HCL ACID w 2 GALS INHIBITOR & IRON CHELANT, PLUS 300 GALS OF 12% WTR, 3% HF ACID w ADDITIVES DN TBG/CLOSD UNLOADER, PRESS ANNULUS TO 800 PSI/SQZD w 600 GALS OF 12% HCL 3% HF ACID @ 1 BBL PER MIN @ 2500 PSI, AFTR PMPNG 1500 GALS PRESSURE DRPD FRM 2500# TO 1750 PSI @ 2.5 BBL PER MIN RATE REMAINING CONSTANT THRU OUT JOB/CONTD SQZNG AWAY w REMAINING 300 GALS OF 12-3 ACID FOLOWD w 600 GALS OF 15% HCL ACID & 1200 GALS OF DIESEL w 1% J-10 SURFACTANT/DISPL TBG w 25 BBLS 2% AM-CL WTR/ REL FB, LOWERD TBG & RETRIEVD BP/POH w TBG & TOOLS/RIH w 179 JTS TBG/SIFN/

1/19 COMPLETD RIH w 2-7/8" TBG/REMOVD BOE/SET BKR ANCHOR-CATCHER @ 5350 w 12,000# TENSION, PMP SHOE @ 5703 & BTM OF MUD ANCHOR @ 5734.82/RAN 2¼"x1½"x 12'x13' RHA PMP ON 123 - 3/4" & 65 - 7/8"x30' SUCKER RODS/SEATED & SPACD PMP, FILLED TBG w WTR/REMOVD SOUND SCREEN/RDMO/POP/IN TST 15 HRS/0 BO, 102 BW/ TBG 42#/CSG 0#/11 SPMx72" LOS/FL 2677, OP 3008/pH OF 7/WELL OWES 260 BBLS OF LOAD WTR & ACID/

1/20 24 HRS/0 BO, 160 BW/TBG 40/CSG 39/11 SPMx72" LOS/FL 4431, OP 1254/ pH of 7/ WELL OWES 100 BBLS OF LOAD WTR & ACID/

1/21 9½ HRS/0 BO, 56 BW/TBG 40/CSG 66/11 SPMx74" LOS/FL 5685, OP @ PMP/SHUT WELL DN @ 4:30 PM, PMPD OFF/WELL OWES 44 BBLS OF LOAD WTR & ACID/

1/22 POP @ 9:30 AM/TBG 65#/CSG 80#/FL 4928, OP 757/PRODUCED UNTIL PMP OFF/5½ HRS/14 BBLS OF DIESEL w TRACE OF OIL, 16 BBLS WTR w MUD TYPE SEDIMENT/11 SPMx72" LOS/FL 5685, OP @ PMP/SHUT IN UNTIL 7 AM 1-23-82/7:00 AM 1-23-82/ CSG 58#/FL 5054, OP 631/WELL OWES 14 BBLS OF LOAD WTR & ACID/

1/23 POP @ 9:30 AM/TBG 65#/CSG 58#/FL 5054/OP 631/PRODUCED UNTIL PMP-OFF 6 HRS/ 0 BO, 29 BW/TBG 63/CSG 63/11 SPMx72" LOS/FL 5685, OP @ PMP/SHUT IN TILL AM 1-24-82/WELL HAS PD BK 14 BBLS OF LOAD WTR & ACID, PLUS 15 BBLS FRM WELL/ 7:00 AM 1-24-82/CSG 90#/FL 5126, OP 559/

1/24 POP @ 7 AM/TBG 65/CSG 90/FL 5126, OP 559/PRODUCED UNTIL PMP-OFF/5 HRS/1 BO, 24 BW/TBG 65/CSG 90/11 SPMx72" LOS/FL 5685, OP @ PMP/SHUT IN TILL AM/8:00 AM 1-25082 CSG 80/FL 5001, OP 684/

1/25 5½ HRS/0 BO, 31 BW/TBG 68/CSG 15/11 SPMx72" LOS/FL 5685 @ PMP/7:00 AM 1-26-82/STATIC BUILD UP/18½ HRS/CSG 15/FL 5102, OP 583/

1/26 4 HRS/0 BO, 20 BW/TBG 58/CSG 16/11 SPMx72" LOS/FL 5685 W PMP/7:00 AM 1-27-82/STATIC BUILD UP/20 HRS/CSG 16/FL 5023, OP 662/DROP FRM REPORT/ AWAIT APPROVAL ON RECOMPLETION PROGRAM/

1981

2/2 RESUME w RECOMPLETION OF WELL AS RECOMMENDED & APROVD TO PLUG EXISTING PERFORATIONS & RECOMPLETE WELL IN THE "K" SAND/
WELLTECK MIRU/POH w RODS & PMP/rel tbg anchor-CATCHER, INSTLD BOE, POH w 2-7/8" TBG, PMP SHOE & MUD ANCHOR/RIH w 2-7/8" TBG, OPN ENDED TO 5777/RU HALIB, FILLED HOLE w 300 BBLS LSE WTR/(RECOVERD 8 BBLS OIL) HALIB MXD & PMPD 50 FT^3 CL "G" CMT w 2% $CaCl_2$ ACROSS PERFS @ 5777-5724, DISPLACD w 178 FT^3 LSE WTR/POH TO 4450, LEAVING EST TOC @ 5544/PLACING CMT PLUG FRM 5777, WITNESSED BY D.O.G. REP, MR. G. W. STACK/SIFN/

2/3 RIH, TAGD TOC PLUG @ 5583/POH/MEAS & PU LYNES 9-5/8" SHOOT & TST TOOL w 2'x4" JET PERF GUN, CONTAINING 4 - ½" CHARGES, RIH ON 4-3/4" D.C. ON 132 JTS OF 2-7/8" TBG TO 4356/ROTATD TBG TO ACTIVATE GUN, PU & SET PKR @ 4296, OPENED TOOL, HAD FAINT BLOW FOR 10 MIN, DEAD FOR REST OF 1 HR TST/POH w TBG & TOOLS, HAD 120' OF FLUID IN TBG/INSPECTION SHOWD THAT GUN HAD NOT FIRED/TORE DN TOOLS & SENT TO SHOP/RIH w KILL STG/(NOTE: D.O.G. REP, G.W. STARK WITNESSED TOP OF CMT PLUG @ 5583)/SIFN/

2/4 RIH w LYNES 9-5/8" SHOOT & TST TOOK, w 2'x4" GUN LOADED w 4 - ½" SHOTS, ON 4 - 4-3/4" DC's ON 132 JTS 2-7/8" TBG/SHOT 4 HOLES @ 4356/PU & SET PKR @ 4296 w TAIL @ 4324/HAD SLIGHT BLOW FOR 14 MIN, DEAD FOR REMAINDER OF 1 HR TST/ REL PKR, POH, RECOVERD 120' OF WTR IN TBG/READ CHARTS, L.H. - 1850#, FH 1851#, I.F. 43#, F.F. 55#/RU DRESSER ATLAS, RAN GAMMA RAY COR LOG FRM 4500-4000/ PERFD 4412-4402, 4401-4391, 4391-4383, 4368-4376, TOT OF 143 SHOTS w 4" JUMBO JET II HOLLOW STEEL CARRIER GUNS w 4 - ½" HPF w 24.2 GRAM CHARGES/REL DRESSER ATLAS/NOTE: UNABL TO DETECT ANY FLUID RISE AFTR SHOOTING/RIH w 156' OF 2-7/8" TBG TAIL BELOW BKR 9-5/8" 36# FB PKR ON 75 JTS 2-7/8" TBG TO 2548/SIFN/

2/5 BLED WELL DN, HAD SLIGHT VAC ON CSG/CONTD IN HOLE w FB/RU HALIB, FILLED HOLE w 30 BBLS OF LSE WTR/SET FB @ 4205, ATMPTD TO TST ANNULUS @ 700#, WD NOT TST/PU & SET FB @ 4011, PMPD AWAY DN ANNULUS @ 14 FT^3 MIN @ 350 PSI/RESET FB @ FOLLOWNG DEPTHS w SAME RESULTS 2005, 992/SET FB @ 105, PMPD AWAY @ 14 FT^3 MIN @ 350 PSI w RTNS FRM TBG/SET FB @ 100', TSTD ANNULUS TO 1000# OK/ LOWERD FB TO 112, PMPD AWAY @ 14 FT^3 MIN @ 350 PSI w NO COMMUNICATN THRU TBG/POH w FB/RAN KILL STG/SIFN/

2/6 MU BKR 9-5/8" 36# BP ON BKR 9-5/8" 36# FULLBORE PKR ON 2-7/8" TBG, RIH TO 4300/SET BP/PU TO 2003, SET FB & TST 9-5/8" CSG @ 500 PSI OK/RECOVERD BP, PU HOLE TO 110, SET FB, TSTD 9-5/8" TO 500 PSI OK/SET BP @ 135, PU SET FB @ 80', PMPD AWAY @ 12 FT^3 MIN @ 300 PSI/REL FB/POH/DMPD 5 SX SIL SD, WAITD ½ HR, RIH & TAGD TOP OF SD @ 121/PU SET FB @ 80'/OPEND VALVE ON 13-3/8" ACHIEVD CIRC IMMEDIATELY, MXD & PMPD 60 FT^3 API CL "G" CMT w 2% $CaCl_2$, GOT CMT TO SURF, CLOSD 13-3/8" VALVE & PMPD 113 FT^3 OF CMT AWAY @ 14 FT^3 OF CMT AWAY @ 14 FT^3 MIN @ 350 PSI/SHUT PMP DN, TBG WENT ON A VAC/PMPD REMAINDR OF 200 SX, 57 FT^3 @ SAME RATE & PRESS/CLEARD TOOLS & CSG w 20 FT^3 OF FRSH WTR/SHUT WELL IN TILL AM 2-8-82/

1981

2/8 REL FB/LOWERD FB TAGGED TOC @ 95'/POH/MU 8-3/4" BIT ON 9-5/8, 36# ROTOVERT SCRPR ON 2 - 4-3/4" O.D. DCs, DRLD OUT CMT FRM 95-121 (TOP SD PLUG)/POH/ MU 9-5/8 36# FB, RIH TO 80, SET FB, PUT 500# ON BK SIDE, PMPD DN TBG, ESTABLISHD BRK DN OF ½ BBL PER MIN @ 500 PSI, OPEND VALVE BETWN 13-3/8" & 9-5/8" ANNULAR SPACE, NO COMMUNICATNS/RELSD FB/POH/RAN 2-7/8 TBG OPN ENDED TO 105, PMPD 25 FT^3 CL "G" CMT w 2% $CaCl_2$, DISPL w 1.5 FT^3 FRSH WTR/POH/ CLOSD BLIND RAMS & VALVE ON 13-3/8"/STRTD BRADENHEAD SQZ @ 5 PM/SQZD AWAY 6 FT^3 @ 6:30 PM, DID NOT EXCEED 500 PSI/SIFN/

2/9 BLED WELL DN, HAD 200 PSI ON ANNULUS/RIH w 8-3/4" BIT ON 9-5/8" 36# ROTO VERT SCRPR ON 1 - 4-3/4 DC/DRLD OUT CMT FRM 57-106, CMT STGRS TO 111'/PRESS TSTD 9-5/8" CSG TO 500 PSI, HELD FOR 15 MIN OK/POH LAYNG DN DC SCRPR & BIT/ MU BRIDGE PLUG RETRIEVNG HD, RIH ON 2-7/8" TBG, CIRC OUT SD FRM 121-135, RETRIEVD 9-5/8" 36# BP/POH/LOADED OUT POWER SWIVEL & TOOLS/RIH w 158' of 2-7/8 TBG TAIL ON 9-5/8" 36# FB PKR ON 2-7/8" TBG TO 200'/SIFN/

2/10 CONTD RIH w 2-7/8 TBG TAIL @ 4411, PMPD & SPOTD 1200 GALS 15% HCL ACID w ADDITIVES ACROSS PERFS FRM 4411-4368/PUH, SET FB @ 4204 & TBG TAIL @ 4364, PRESS ANNULUS ABOV PKR w 500 PSI/HALIB PMPD REMAINING 600 GALS OF 15% HCL ACID AWAY INTO PERFS w MAX RATE OF 56 GALS MIN @ 2500 PSI/FOLOWD w 1800 GALS OF 12% HCL, 3% HF ACID & REQUIRED ADDITIVES, w MIN PMPNG RATE OF 56 GALS MIN @ 2000 PSI @ STRT, TO MAX PMP RATE OF 95 GALS MIN @ 1600 PSI/FOLOWD ACID w 25 BBLS 2% AM CL WTR, DISPL TBG w 25 BBLS LSE PROD WTR @ 95 GAL MIN RATE @ 1600 PSI @ FINISH/REL FB/POH LAYNG DN 48 JTS OF 2-7/8 TBG & FB/MU & RAN 3½" OD MUD ANCHOR, 2½" API T/L PMP SHOE, 4 JTS 2-7/8 TBG, 2-7/8x9-5/8" 36# PAGE "R" TBG ANCHOR, 1 JT 2-7/8 TBG, PAGE "R" TBG DRAIN ON 25 JTS 2-7/8 TBG/SIFN/

2/11 CONTD RIH w 106 JTS 2-7/8" TBG/LANDED TBG w ST @ 4393.29, PMP SHOE @ 4360.66/REMOVD BOE/PU OILWELL 2½"x1½"x10'x13' ACID PMP ON 107 - 3/4x30 & 36 7/8x30' SUCKER RODS/SEATED & SPACD OUT PMP/FILLED TBG w LSE PROD WTR/RDMO/ WELL OWES 498 BBLS LOAD WTR & ACID/PUT WELL ON PRODUCTION INTO BKR TK @ 4:30 PM/IN TST 14 HRS/0 BO, 133 BW/TBG 50/CSG 0/11 SPMx72" LOS/FL 1536, OP 2813/pH 2/WELL OWES 365 BBLS LOAD WTR & ACID/

2/12 24 HRS/0 BO, 187 BW/TBG 50/CSG 3/11 SPMx72" LOS/FL 3656, OP 693/pH 5/WELL OWES 178 BBLS OF LOAD WTR & ACID/

2/13 11½ HRS/0 BO, 59 BW/TBG 35/CSG 18/11 SPMx72" LOS/FL 4349 @ PMP/WELL OWES 119 BBLS OF LOAD WTR & ACID/SHUT WELL DN 6:30 PM 2-13-82/PMPD OFF/

2/14 WELL SHUT IN FOR STATIC FLUID BUILD UP/

2/15 WELL SI FOR 36.5 HRS, STATIC BUILD UP/FL 3698, OP 651, PRIOR TO STRT UP @ 7:20 AM 2-15-82/PMPD 4 HRS/0 BO, 41 BW/11 SPMx72" LOS/FL 4349 @ PMP/SHUT WELL IN @ 11:20 AM 2-15-82/

2/16 WELL SI FOR 20½ HRS, FLUID BUILD UP/FL 4123, OP 226, (226' RISE)/POP @ 8:00 AM/1 HR 45 MIN/0 BO, 11 BW/CSG 16/FL 4349 @ PMP/SHUT WELL DN,PMPD OFF/

1981

2/17 WELL SI FOR 22 HRS, FLUID BUILD UP (125') FL 4224, OP 125/CSG 16/POP @ 8:00 AM 1 HR 15 MIN/0 BO, 7 BW/CSG 16/FL 4349 @ PMP/SHUT WELL DN @ 9:15 AM, PMPD OFF/DROP FRM REPORT/

2-24 RESUME w RECOMPLETION OF WELL AS RECOMMENDED & APPROVD/TO PLUG EXISTING PERFORATIONS IN THE "K" SD & RECOMPLETE IN THE "I" SD/CPS MIRU/PULLED 36 - 7/8" & 107 - 3/4x30' SUCKER RODS & PMP/INSTLD BOP/POH w 136 JTS 2-7/8" TBG (4328)/RIH w SINKER BAR ON SD LINE TO 5500 (83' FILL)/CMT PLUG @ 5583/RIH w 136 JTS OF 2-7/8" TBG, OPN ENDED TO 4328/SIFN/

2-25 LOWERD TBG TO 4423/RU CIRC PMP, FILLED HOLE w 325 BBLS OF PROD WTR/ RU HALIB MXD & PMPD 75 FT^3 GLASS "G" CMT w 2% $CaCl_2$, DISPL w 24 BBLS PROD WTR/CMT IN PLACE @ 11:20 AM/PU TO 4225, REV CIRC w 50 BBLS OF PROD WTR/ MR. W. SANTIAGO w D.O.G. WITNESSED PLACEMENT OF PLUG/POH w 10 STDS/SIFN/

2-26 LOWERD TBG & LOCATD TOP OF CMT PLUG @ 4243/WITNESSED & APROVD BY D.O.G./POH w TBG/MU JOHNSTON SHOOT & TST TOOLS ON 2-7/8" TBG, SHOT 4 - 3/8" HOLES @ 4031/MADE 1 HR WSO TST w PKR SET @ 3959 & TAIL TO 3988, HAD MED TO LIGHT BLOW FOR 25 MIN, DEAD REMAINDER OF TST/PULLED TBG & TST TOOLS, HAD 64' FLUID RISE IN TBG, INITIAL HYDRO 1733, INITIAL FLOW 40.5, FINAL FLOW - 46, FINAL HYDRO 1704/WSO WITNESSED & APROVD BY D.O.G. REP WILLIAM E. BRANNON/RU DRESSER ATLAS/RIH w CENTRALIZD 4" OD JUMBO JET II HOLLOW STEEL CARRIER GUNS w 22.5 GRAM CHARGE, PERFD 9-5/8" CSG w 4 - ½" HPF, @ 4119-4109, 4108-4091, 4069-4059, 4058-4038, TOT OF 234 HOLES, HAD 10 MIS FIRES ON BTM OF 1st GUN RUN/REL DRESSER ATLAS/RIH w 600' KILL STG TBG/SIFN/

2-27 POH w KILL STG/RAN SNKR BAR TO 4243, NO FILL/RIH w 9-5/8" 36# BKR FB PKR w 160' OF 2-7/8" TAIL ON 2-7/8" TBG, W TAIL @ 4048, FILLED HOLE w 40 BBLS LSE WTR/SET PKR @ 3888, TSTD ANNULUS TO 500 PSI, OK/REL FB & LOWERD TBG, TBG TAIL TO 4118/HALIB SPOTTED 1000 GALS OF 15% HCL PAD ACID ACROSS PERFS 4118-4038/PU & SET FB PKR @ 3878 w TAIL @ 4038, PRESS ANNULUS w 500#/HALIB SQZD AWAY 300 GALS 12% HCL - 3% HF ACID @ 13 FT^3 PER MIN @ 1250 PSI, PMPD 125# BENZOIC FLAKES, FOLOWD w 500 GALS 12-3 ACID @ 17 FT^3 PER MIN @ 1500# PSI, 125# BENZOIC FLAKES, 500 GALS 12-3 ACID @ 17 FT^3 PER MIN @ 1500 PSI, 125# BENZOIC FLAKES, 500 GALS 12-3 ACID @ 24 FT^3 PER MIN, @ 1250 PSI, 125# BENZOIC FLAKES, 500 GALS OF 12-3 ACID @ 24 FT^3 PER MIN @ 1200 PSI, 125# BENZOIC FLAKES, 500 GALS OF 12-3 ACID, @ 24 FT^3 PER MIN @ 1200 PSI, OVERFLSHD ACID w 1001 GALS OF 2% AM/CL WTR @ 24 FT^3 PER MIN @ 1100 PSI/POH w GAS ANCHOR, PMP SHOE ON 40 STDS OF 2-7/8" TBG/SIFN/(NOTE: WELL OWES TOT OF 509 BBLS OF LOAD WTR & ACID)/

2-28 CONTD RIH w 2-7/8 PROD STG TBG (125 JTS TOT)/REMOVD BOE & LANDED TBG @ 4033, w SHOE @ 4001', & PAGE 2-7/8x9-5/8-36# ANCHOR @ 3873/RAN OILWELL 2½"x1½"x10'x13' RHA ACID PMP ON 98 - 3/4"x30' & 33 - 7/8"x30' SUCKER RODS/ SEATED & SPACD PMP FILLED TBG w LSE WTR/POP THRU PORTABLE TSTR INTO BKR TK/ RDMO/IN TEST 17 HRS/Ø BO, 166 BW/TBG 12#/CSG 0#/11 SPMx72" LOS/FL 607, OP 3393/WELL OWES 343 BBLS OF LOAD WTR & ACID/pH 4/

3-1 24 HRS/0 BO, 226 BW/TBG 12#/CSG 33#/11 SPMx72" LOS/FL 722, OP 3278/ WELL OWES 117 BBLS OF LOAD WTR & ACID/pH 5/

1982

3-2 24 HRS/Ø BO, 195 BW/TBG 12/CSG 25/11 SPMx72" LOS/FL 701, OP 3300/WELL HAS PAID BK ALL LOAD WTR & ACID, PLUS 78 BBLS FRM WELL pH 5/

3-3 24 HRS/0 BO, 233 BW/TBG 12/CSG 16/11 SPMx72" LOS/FL 672, OP 3329/pH 5/

3-2 24 HRS/Ø BO, 195 BW/TBG 12/CSG 25/11 SPMx72" LOS/FL 701, OP 3300/WELL HAS PAID BK ALL LOAD WTR & ACID, PLUS 78 BBLS FRM WELL pH 5/

3-3 24 HRS/Ø BO, 233 BW/TBG 12/CSG 16/11 SPMx72" LOS/FL 672, OP 3329/pH 5/

3-4 24 HRS/Ø BO, 195 BW/TBG 12/CSG 16/11 SPMx72" LOS/FL 755, OP 3246/pH 5/

3-5 24 HRS/0 BO, 208 BW/TBG 12/CSG 16/11 SPMx72"LOS/FL 736, OP 3265/pH 5.5/

3-6 24 HRS/0 BO, 212 BW/TBG 19/CSG 16/11 SPMx72"LOS/pH 5.5/

3-7 24 HRS/0 BO, 208 BW/TBG 19/CSG 16/11 SPMx72"LOS/FL 736, OP 3265/pH 5.5/

3-8 24 HRS/0 BO, 239 BW/TBG 38/CSG 16/11 SPMx72" LOS/FL 723, OP 3278/ pH 7/

3-9 24 HRS/0 BO, 234 BW/TBG 30/CSG 16/11 SPMx72" LOS/FL 745, OP 3256/pH 7/

3-10 24 HRS/0 BO, 200 BW/TBG 19/CSG 16/11 SPMx72" LOS/FL 735, OP 3265/pH 7/

3-11 WELLTECK MIRU/POH w RODS & PMP/UNLANDED TBG/INSTLD BOP/POH w TBG/MU BKR 9-5/8" 36# FULLBORE PKR, RIH TO 4025, FILLED HOLE w 60 BBLS OF LSE PROD WTR (RECVRD APPROX 25 BBLS CRUDE OIL FRM ANNULUS)/SET FB @ 4035, HAD COMMUNICATION PUMPNG DN ANNULUS & DN TBG/RESET FB @ 4028.68', HAD COMM/RESET FB @ 4026.68 PRESS UP ANNULUS @ 500 PSI HELD OK/RIH TO 4121, SET FB, PMPD DN TBG, PRESS TO 700 PSI, HELD OK/PU TSTNG 1' @ A TIME @ 4116' HAD COMM/REL FB PUH TO 3468/

3-12 MEASURED PULLING OUT OF HOLE, TBG TALLEYS OK/RIH w KILL STG/SHUT WELL IN TILL AM 3-15-82/WAIT ON PROGRAM & APPROVAL/

3-15 BLED WELL DN/POH w KILL STG/TAGGED FILL @ 4233, CLND FINES TO 4237 (COULDNT GET DPR)/PBD 4243, PU TO 4232 TO SPOT SD/RU HALIB, PLUGGED BOTH PMPS ON TRUCK w SD, REPLACMENT TRK BROKE DN ON FREEWAY, PMP TRK ARIVD @ 3 PM/SPOTD 90 FT^3 SILICA SD IN FOUR STGS FRM 4237-4030 (EST) TOP OF SD/PU TO 3022/SIFN/

1982

3-16 BLED WELL DN/LOWER TBG, TAG SD @ 4040/POH, RAN SCHLUM DMP BAILER, TAG SD @ 4034/BHT 140°/POH, MX ½ SX HYDROMITE SET FOR 160°/RIH SET TOOL OFF @ 4034/POH, HYDROMITE SAT UP IN BAILER/RIH w 9-5/8" FB TO 3760/FILLED HOLE w 26 BBLS LSE WTR/SET FB, PRES TO 500 PSI ON CSG/EST BRK DN OF 2 BPM @ 550 PSI/ PMP 25 SX THIXOTROPIC CMT FOLOWD BY 75 SX CL "G" CMT w 2% $CaCl_2$ & 6/10 OF 1% HALAD 9, DISP w 154 CF LSE WTR, PRES TO 1400 PSI/WAIT 20 MIN, DISP 22 CF @ 1675 PSI/EST TOP OF CMT @ 3883/CLOSE WELL IN w 1500 PSI ON TBG/PMP 51 CF CMT OUT HOLES/

3-17 BLED WELL DN/(HAD 150 PSI, SHUT IN PRESS ON TBG)/REL FB PKR/POH/MU 4 - 4-3/4" OD DRL CLRS ON 8-3/4" BIT, RIH ON 118 JTS OF 2-7/8" TBG, TAGD TOC @ 3885/RIGGED UP POWER SWIVEL, DRLD OUT CMT TO 4020 LEAVNG 11' CMT ABOV WSO HOLES @ 4031/POH, LAYD DN 21 JTS 2-7/8" TBG/BIT @ 3694/SIFN/

3-18 BLED WELL DN/REMOVD BOE/LANDED TBG w BIT @ 3707/RIH w RODS/LD DN 7 - 3/4", 6 - 7/8"x30' SUCKER RODS/CLND LOCATN/RDMO/WOC BEFORE CLN OUT & LOGGING/ DROP FRM REPORT/

3-22 WELLTECH MIRU/BLED WELL DN/POH w RODS/UNLANDED TBG/INSTLD BOE/PICKED UP 11 JTS 2-7/8" TBG, RIH/DRLD OUT CMT FRM 4020-4025/BEGAN TSTNG TO 700 PSI EVERY 1' TO 4033, TSTS ALL OK/DRLD THRU CMT @ 4040/CLND OUT SD TO 4110/PUH TO 3523/SIFN/

3-23 BLED WELL DN/(VAC ON TBG) LOWERD 8-3/4" BIT TO 4110/FILLED HOLE w 7 BBLS LSE WTR, CONTD CLEANING OUT SD FRM 4110-4237/POH/RAN 8-3/4 BIT ON 9-5/8" 36# BKR CSG SCRPR TO 4235, CIRC OUT FINE CMT TO 4237/POH/RIGGED UP SCHLUM RAN GAMMA RAY - CMT BOND LOG FRM 4200-3348/SIFN/

3-24 BLED WELL DN/LD DN 4-3/4" DC/MU 9-5/8" 36# BKR CIRC WASH TOOL w 2' CUP SPACING, RIH ON 2-7/8" TBG TO 4007, TSTD TOOL, BLANKD OFF @ 1000 PSI/ CONTD IN HOLE w TOOL TO 4121-4119, BLANKD OFF @ 1000 PSI/PU TO 4118-4116 & TSTD PERFS EVERY 2' w AVG MAX BRK DN OF 500 PSI @ 15 FT^3 PER MIN RATE & AVG FINAL PRESS OF 500 PSI @ 15 FT^3 PER MIN RATE, THROUGHOUT PERFD INTERVL/FOLOWNG INTERVLS BLANKD OFF @ 1000 PSI, 4094-4092, 4086-4074, 4050-4048, 4046-4078/ POH, LD DN TOOL/RIH w KILL STG/SIFN/

3-25 BLED WELL DN/POH w KILL STG/RAN PROD TBG STG w PAGE TBG ANCHOR @ 3829, API T/L PMP SHOE @ 3957 & BTM OF MUD ANCHOR @ 3989.59/REMOVD BOE/LANDED TBG/RIH w OILWELL 3 TUBE 2½"x1-3/4"x25' PMP ON 97 - 3/4 & 32 - 7/8"x30' "EL" SUCKER RODS/SEATED & SPACD PMP/FILLED TBG w LSE PROD WTR/POP INTO BKR TK/ RDMO/WELL OWES 154 BBLS WTR/IN TST 19 HRS/0 BO, 207 BW/TBG 5#/CSG 0#/11 SPMx 72" LOS/FL 2636, OP 1322/(FLOWLINE CUT CONTAINED 1% MUD)/WELL PAID BK LOAD WTR, PLUS 53 BBLS FRM WELL)/

1982

3-26	10 HRS/0 BO, 90 BW/TBG 5#/CSG 17#/11 SPMx72" LOS/WELL PMPD OFF @ 5:00 PM 3-26-82/SHUT WELL IN/FL 3956 @ PMP/FL @ 7:00 AM, 3-27-82 3602', OP 354'/
3-27	5 HRS/0 BO, 28 BW/TBG 12#/CSG 16#/11 SPMx72" LOS/FL 3956 @ PMP/SHUT WELL IN/
3-28	2 HRS/0 BO, 14 BW/TBG 12#/CSG 16#/11 SPMx72" LOS/FL 3956 @ PMP/SHUT WELL IN/
3-29	1½ HRS/Ø BO, 8 BW/TBG 12#/CSG 16#/11 SPMx72" LOS/FL 3956 @ PMP/SHUT WELL IN 3-30-82/FLUID RISE 20 HRS, 114'/DROP FRM REPORT/WELL TO BE SHUT IN 7 DAYS FOR BUILD UP/
5-3	14 HRS/98 BO, 60 BW/TBG 7#/CSG 19#/11 SPMx72" LOS/FL 3957 @ PMP/ NOTE: WELL HAS BEEN SHUT-IN FOR BUILD UP SINCE 3-29-82/FLUID LEVEL PRIOR TO PUTTING ON PROD, 1723', OP 2234'/
5-4	NO ACTIVITY/DROP FRM REPORT/
5-14	WELL SHUT-IN PENDING EVALUATION FOR STIMULATION PROGRAM/DROP FRM REPORT/
9-7	WELL TA'D 5-14-82/FINAL REPORT/

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

No. T 182-248

DIVISION OF OIL AND GAS

Report on Operations

L.B. Carroll, Jr. Agent
SUN EXPLORATION & PRODUCTION CO.
P.O. Box 55060
Valencia, CA 91355

Long Beach Calif.
April 20, 1982

Your operations at well NWLBU 8-7, API No. 037-22512, Sec. 13, T4S, R13W, S.B. B.& M. LOng Beach Field, in Los Angeles County, were witnessed on 2/26/82. W.E. Brannon, Engineer, representative of the supervisor, was present from 1400 to 1600. There were also present J. Icardone

Present condition of well: 20" cem 50' 13-3/8" cem 1122'. 9-5/8" cem 4715', perf 4031' & 4356' & 4693' WSO, perf 4368-4412'; 7" cem 4626-5847', perf @ int. 5724-5777', TD 5847 Plugged w/cem 5777-5583' & 4423-4242'.

The operations were performed for the purpose of Testing the 9-5/8" shut-off at 4031' with a formation tester.

DECISION: APPROVED

NOTE: DEFICIENCIES TO BE CORRECTED
NONE

DEFICIENCIES CORRECTED
NONE

CONTRACTOR: California Production Service, Inc.

WEB:csw

cc: Update

Blanket Bond

M.G. MEFFERD
State Oil and Gas Supervisor

By [signature]
Deputy Supervisor
J.L. HARDOIN

Form OGD8 (8/80)

DIVISION OF OIL AND GAS

WATER SHUTOFF TEST

Rg 3-23-82

No. T 182-248

Operator Sun Exploration & Production Co

Well designation NWLBU 8-7 Sec. 13, T. 4S, R. 13W, SB B.&M.

Field Long Beach, County Los Angeles was tested for water shutoff on 2-26-82. (Name) W.E. Brannon, representative of the supervisor, was present from 1400 to 1600. Also present were J. Icardone

Casing record of well: 20" cem 50'; 13 3/8" cem 1122'; 9 5/8" cem 4715', perf 4031' & 4356 & 4693' wso, perf 4368-4412; 7" cem 4626'-5847, perf @ int 5724-5777, TD 5847 Plugged w/cem 5777-5583, & 4423'-4242'.

The operations were performed for the purpose of D-1 - 9 5/8" - 4031

[X] The 9 5/8" shutoff at 4031' is approved.

[ ] The seal between the _____" and _____" casings is approved.

[ ] The operations are approved as indicating that all of the injection fluid is confined to the formations below _____' at this time.

4693 wso

Hole size: _____" fr. _____' to _____'; _____" to _____'; & _____" to _____'

Casing				Cemented			Top of Fill		Sqd. Away	Final Press	Test psi/min. Perfs.
Size	Wt.	Top	Bottom	Date	MO-Depth	Volume	Annulus	Casing			

Depth or interval tested 4 - 1/2" holes @ 4031'.

The hole was open to 4243' for test.

FORMATION TEST:

Packer(s) 3459' & _____' Tail 3988' Bean size 3/4" Cushion None

IHP 1733 IFP 41 FFP 46 FHP 1704

Blow Medium blow for 10 min., light blow for 20 min. Then dead remainder of test.

Open for test One Hr. — min. Fluid entry 60 feet oil & water

BAILING TEST:

The hole fluid was bailed to _____', at _____ on _____ 19__.

The hole fluid was found at _____', at _____ (time) on _____ 19__.

PRODUCTION TEST:

Gauge/meter reading _____ on _____ 19__, at _____ pump depth _____' Engr. _____

Gauge/meter reading _____ on _____ 19__, at _____ Engr. _____

Fluid level _____' surveyed on _____ 19__, reviewed (witnessed) by _____

Total fluid produced, Bbls. _____ Net oil _____ Water _____

Rate: _____ B/D oil, _____ B/D water, _____ % water cut

INJECTION SURVEY:

RA/Spinner/Temperature survey run at _____ B/D & _____ psi on _____ 19__, fluid confined below _____' (Packer depth _____')

DEFICIENCIES—TO BE CORRECTED NONE

DEFICIENCIES—CORRECTED NONE

CONTRACTOR California Production Service, Inc.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

No. T 182-250

DIVISION OF OIL AND GAS

Report on Operations

L. B. Carroll, Jr., Agent
SUN EXPLORATION & PRODUCTION CO.
P. O. Box 55060
Valencia, CA 91355

Long Beach Calif.
April 23, 1982

Your operations at well NWLBU 8-7, API No. 037-22512, Sec. 13, T4S, R. 13W S.B.B.& M. Long Beach Field, in Los Angeles County, were witnessed on 2-25-82. E. Santiago, Engineer, representative of the supervisor, was present from 1030 to 1130. There were also present J. Incardone, Drilling Foreman.

Present condition of well: 20" cem 50'; 13-3/8" cem 1122'; 9-5/8" cem 4715', perf 4356' WSO & 4693' WSO; 7" cem 4626'-5847', perf @ int 5724' - 5777' & 4368' - 4412'. TD 5847'. Plugged w/cem 5777'-5583' & 4423'-4242'.

The operations were performed for the purpose of Witnessing the plugging operations in the process of plugging back to abandon lower zone.

DECISION: APPROVED.

NOTE: DEFICIENCIES TO BE CORRECTED
NONE

DEFICIENCIES CORRECTED
NONE

CONTRACTOR: California Production Service, Inc.

ES:da

cc: Update

Blanket Bond

M. G. MEFFERD
State Oil and Gas Supervisor

By V. Dade
Deputy Supervisor

Form OGD10 (6/80)

DIVISION OF OIL AND GAS
Cementing/Plugging Memo

Pg 3-23-82

182-250

Operator Sun Oil Exploration & Production Co. Well No. NWLBU 8-7
API No. 037-22512 Sec. 13, T. 4S, R. 13, SB B&M
Field Long Beach, County L.A. On 2/25/82,
Mr. E. Santiago, representative of the supervisor was present from 1030 to 1130.
There were also present Joe Incardone

Casing record of well: 20" cem 50'; 13 3/8" cem 1122; 9 5/8" cem 4715, perf 4356' w/so & 4693' w/so; 7" cem 4626'-5847', perf @ int. 5724'-5777' & 4368'-4412. TD 5847'. Plugged w/cem 5777'-5583' & 4423'-4242'.

The operations were performed for the purpose of (N) plugging back to abandon lower zone.

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

☐ The location and hardness of the cement plug @_____' is approved.

Hole size:_____" fr._____' to_____', _____" to_____' & _____" to_____'

Casing				Cemented			Top of Fill		Squeezed Away	Final Press.	Perfs.
Size	Wt.	Top	Bottom	Date	MO-Depth	Volume	Annulus	Casing			
9 5/8	36	0	4715	2/23/82	THE			5582			

Casing/tubing recovered:_____" shot/cut at_____', _____', _____' pulled fr._____';
_____" shot/cut at_____', _____', _____' pulled fr._____'.

Junk (in hole):

Hole fluid (bailed to) at_____'. Witnessed by

Mudding	Date	Bbls.	Displaced	Poured	Fill	Engr.

Cement Plugs		Placing	Placing Witnessed		Top Witnessed			
Date	Sx./~~cf~~	MO & Depth	Time	Engr.	Depth	Wt/Sample	Date & Time	Engr.
2/2/82	50 cf	Tub @ 5777'	1960	GW Stark	5583	12000#	2-3-82 0730	GW Stark
2/25/82	65 sx	Tub @ 4423	1030	E Santiago	4242	10000#	2/26/82 0730	GW Stark

DEFICIENCIES—TO BE CORRECTED

NONE

DEFICIENCIES—CORRECTED

NONE

CONTRACTOR CALIFORNIA PRODUCTION SERVICE, INC.

FORM OG111(10/81/DWRR/5M)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

No. P 182-161

412
(field code)
03
(area code)
00
(new pool code)
00
(old pool code)

REPORT ON PROPOSED OPERATIONS

L. B. Carroll, Jr., Agent
SUN EXPLORATION & PRODUCTION CO.
P. O. Box 55060
Valencia, CA 91355

Long Beach, California
March 3, 1982

Your _____ proposal to Rework well NWLBU 8-7, A.P.I. No. 037-22512, Section 13, T. 4S, R. 13W, S.B. B. & M., Long Beach field, Northwest Extension area, Brown pool, Los Angeles County, dated 2-22-82, received 2-23-82 has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:

1. Blowout prevention equipment, equivalent to this division's Class II 2M requirements, or better, shall be installed and maintained in operating condition.
2. This division shall be consulted and a supplementary notice may be required before making any changes in the proposed program.
3. THIS DIVISION SHALL BE NOTIFIED:
   - ✓a. To inspect the installed blowout prevention equipment prior to commencing downhole operations.
   - b. To witness a test of the effectiveness of the 9-5/8" shut-off at 4030'.
   - c. To witness the location and hardness of the cement plug at 4250'.

RM:da

cc: Update

Blanket Bond

M. G. MEFFERD, State Oil and Gas Supervisor

By J. L. HARDOIN, *Deputy Supervisor*

A copy of this report and the proposal must be posted at the well site prior to commencing operations.

Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

O&G
rework

Notice of Intention to Rework Well

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

FOR DIVISION USE ONLY		
BOND	OGD114	OGD121
Blanket	2-23-82 CP	2-23-82 CP

DIVISION OF OIL AND GAS

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to rework well No. NWLBU #8-7, API No. 037-22512,

Sec. 13, T. 4S, R. 13W, SB B. & M., LONG BEACH Field, LOS ANGELES County.

The present condition of the well is as follows:

1. Total depth. 5847' PBTD 5583'

2. Complete casing record, including plugs and perforations:

13 3/8", 54.5# CSG 0-1122'
9 5/8", 36# CSG 0-4715' (3.247 GALLONS/FT)
7", 26# CSG 4626- 5847' (1.607 GALLONS/FT)
TD 5847'; PBTD 5583'
PERFS: 4-1/2" JHPF FROM 4368-4376' & 4383-4412'
WSO @ 4356'
2 7/8", 6.5# TBG 0-4393' (.2431 GALLONS/FT)

3. Present producing zone name BROWN "K" Zone in which well is to be recompleted BROWN "I"

4. Present zone pressure 1150 PSI New zone pressure 1150 PSI

5. Last produced 2/16/82 (Date) 0 (Oil, B/D) 11 (Water, B/D) 0 (Gas, Mcf/D)

or

6. Last injected — (Date) — (Water, B/D) — (Gas, Mcf) — (Surface pressure, psig.)

The proposed work is as follows:

1. MIRU
2. SPOT CMT PLUG FROM 4423-4250': DOG TO WITNESS AND APPROVE
3. SHOOT WSO @ 4031. DOG TO WITNESS.
4. SQUEEZE CMT W/+50 SX IF REQD. RE SHOOT WSO @ 4030.
5. PERFORATE FROM 4118-4041', 4087-4080', AND 4068-4038' W/4-1/2" JHPF
6. ACIDIZE W/1000 GAL 15% HCL AND 3000 GAL 12% HCL 3% HF ACID
7. RETURN WELL TO PRODUCTION.

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

Address 25322 W RYE CANYON ROAD (Street)
VALENCIA CALIFORNIA 91355-5060 (City) (State) (Zip)
Telephone Number 805/257-6200

SUN EXPLORATION AND PRODUCTION COMPANY
SUN PRODUCTION DIVISION (Name of Operator)
By L B Carroll Jr. (Name) 2/22/82 (Date)
Type of Organization CORPORATION (Corporation, Partnership, Individual, etc.)

OG107 (8-75—GSRI—15M)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

No. T 182-249

DIVISION OF OIL AND GAS

Report on Operations

L. B. Carroll, Jr., Agent
SUN EXPLORATION & PRODUCTION CO.
P. O. Box 55060
Valencia, CA 91355

Long Beach Calif.
April 23, 1982

Your operations at well NWLBU 8-7, API No. 037-22512, Sec. 13, T. 4S, R. 13W S.B.B.& M. Long Beach Field, in Los Angeles County, were witnessed on 2-4-82. G. W. Stark, Engineer, representative of the supervisor, was present from 1250 to 1330. There were also present J. Incardone, Drilling Foreman.

Present condition of well: 20" cem 50'; 13-3/8" cem 1122'; 9-5/8" cem 4715', perf 4356', WSO & 4693' WSO; 7" cem 4626'-5847', perf @ int 5724'-5777'. TD 5847'. Plugged w/cem 5777'-5583'.

The operations were performed for the purpose of Testing the 9-5/8" shut-off at 4356' with a formation tester.

DECISION: APPROVED.

NOTE: DEFICIENCIES TO BE CORRECTED
NONE

DEFICIENCIES CORRECTED
NONE

CONTRACTOR: Well Tech, Inc.

GWS:da

cc: Update

Blanket Bond

M. G. MEFFERD
State Oil and Gas Supervisor

By [signature]
Deputy Supervisor

Form OGD8 (8/80)

DIVISION OF OIL AND GAS

WATER SHUTOFF TEST

No. T 82-349

Operator Sun ~~Oil Company~~ EXPLORATION & PRODUCTION CO.

Well designation NWLBU 8-7 Sec. 13, T. 4s, R. 13w, SB B.&M.

Field Long Beach, County Los Angeles was tested for water shutoff on 2-4-82. (Name) GW Stark, representative of the supervisor, was present from 1250 to 1330. Also present were J. Incardone PF

Casing record of well: 20" cem 50'; 13 3/8" cem 1122'; 9 5/8" cem 4715', perf 4356' WSO & 4693' WSO; 7" cem 4626'-5847', perf @ int. 5724'-5777'. TD 5847'. Plugged w/cem 5777'-5583'.

The operations were performed for the purpose of (D) - 1 4356'

- [x] The 9 5/8" shutoff at 4356' is approved.
- [ ] The seal between the _____" and _____" casings is approved.
- [ ] The operations are approved as indicating that all of the injection fluid is confined to the formations below _____' at this time.

Hole size: _____" fr. _____' to _____'; _____" to _____'; & _____" to _____'

Casing				Cemented			Top of Fill		Sqd. Away	Final Press	Test psi/min. Perfs.
Size	Wt.	Top	Bottom	Date	MO-Depth	Volume	Annulus	Casing			

Depth or interval tested 4 - 1/2" holes @ 4356'

The hole was open to ——— ' for test.

FORMATION TEST:

Packer(s) 4298' & _____' Tail 4326' Bean size 3/4" Cushion ~~0~~

IHP 1850 IFP 43 FFP 55 FHP 1851

Blow 6 min light decreasing to dead in 14 min

Open for test 1 Hr. 0 min. Fluid entry 70' hole fluid.

BAILING TEST:

The hole fluid was bailed to _____', at _____ on _____ 19__.

The hole fluid was found at _____', at _____ (time) on _____ 19__.

PRODUCTION TEST:

Gauge/meter reading _____ on _____ 19__, at _____ pump depth _____' Engr. _____

Gauge/meter reading _____ on _____ 19__, at _____ Engr. _____

Fluid level _____' surveyed on _____ 19__, reviewed (witnessed) by _____

Total fluid produced, Bbls. _____ Net oil _____ Water _____

Rate: _____ B/D oil, _____ B/D water, _____ % water cut

INJECTION SURVEY:

RA/Spinner/Temperature survey run at _____ B/D & _____ psi on _____ 19__, fluid confined below _____' (Packer depth _____')

Deficiencies corrected
none
Deficiencies to be corrected
none
Contractor: Well Tech, Inc.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

No. T 182-251

DIVISION OF OIL AND GAS

Report on Operations

L. B. Carroll, Jr., Agent
SUN EXPLORATION & PRODUCTION CO.
P. O. Box 55060
Valencia, CA 91355

Long Beach Calif.
April 23, 1982

Your operations at well NWLBU 8-7, API No. 037-22512, Sec. 13, T. 4S, R. 13W S.B.B.& M. Long Beach Field, in Los Angeles County, were witnessed on 2-3-82. G. W. Stark, Engineer, representative of the supervisor, was present from 1800 to 1830. There were also present D. Wang, Drilling Foreman.

Present condition of well: 20" cem 50'; 13-3/8" cem 1122'; 9-5/8" cem 4715', perf 4693' WSO; 7" cem 4626'-5847', perf @ intervals 5724'-5777'. TD 5847'.

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

DECISION: APPROVED.

NOTE: DEFICIENCIES TO BE CORRECTED
NONE

DEFICIENCIES CORRECTED
NONE

CONTRACTOR: Well Tech, Inc.

GWS:da

cc: Update

Blanket Bond

M. G. MEFFERD
State Oil and Gas Supervisor

By [signature]
Deputy Supervisor

T. T. HARDOIN

DIVISION OF OIL AND GAS
BLOWOUT PREVENTION EQUIPMENT MEMO

Rn 3-23-82

T 182-251

Operator SUN ~~Oil Company~~ EXPLORATION & PRODUCTION CO. Well "NWULB"8-7 Field Long Beach County LA

VISITS:	Date	Engineer	Time	Operator's Rep.	Title
1st	2-3-82	G W Stark	1800 to 1830	D. Wang	DF
2nd			to		

Casing record of well: 20" Cem 50'; 13 3/8" Cem 1122'; 9 5/8" Cem 4715', perf 4693 WSO; 7" Cem 4626'-5847', perf @ intervals 5724'-5777'. TD 5847'.

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

Proposed Well Opns: Perf New zone MPSP: _____ psi

REQUIRED BOPE CLASS: II zm

Hole size: 1 " fr. Surf ' to 2000 ', _____ " to _____ ' & _____ " to _____ '

CASING RECORD (BOPE ANCHOR STRING ONLY)					Cement Details	Top of Cement	
Size	Weight(s)	Grade (s)	Shoe at	CP at		Casing	Annulus
			1000				

BOP STACK							a	b	a/b	TEST DATA			
API Symb.	Ram Sz.	Mfr.	Model or Type	Size In.	Press. Rtg.	Date Last Overhaul	Gal. to Close	Rec.Time Min.	Calc.GPM Output	psi Drop to Close	Secs.to Close	Test Date	Test Press.
Rd	2 1/2	Shaffer	mech	8	3000	—							
"	CSO	"	"	"	"	—							

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

	Mfr.	Accum. Cap.	Precharge
1		gal.	psi
2		gal.	psi

CONTROL STATIONS	Elec.	Hyd.
Manif. at accum.unit		
Remote at Drlr's stn.		
Other:		

EMERG. BACKUP SYST.	Press.	Wkg.Fl.
N2 Cyl No: Tpe:	1	gal
Other:	2	gal
	3	gal
Hand wheels.	4	gal
	5	gal
	6	gal

AUXILIARY EQUIPMENT	No.	Sz. (in)	Rated Press.	Connections Weld	Flan.	Thrd.
Fill-Up Line						
Kill Line						
Control Valve(s)						
Check Valve(s)						
Auxil. Pump Connec.			Well Head Valves only			
Choke Line						
Control Valve(s)						
Pressure Gauge						
Adjustable Choke(s)						
Bleed Line						
Upper Kelly Cock						
Lower Kelly Cock						
Standpipe Valve						
Standpipe Pressure Ga.						
Pipe Safety Valve						
Internal Preventer						

HOLE FLUID MONITORING EQUIPMENT	Alarm Aud.	Alarm Vis.	Class
Calibrated Mud Pit			A
Pit Level Indicator			B
Pump Stroke Counter			
Pit Level Recorder			C
Flow Sensor			
Mud Totalizer			
Calibrated Trip Tank			
Other:			

REMARKS:

Hole Fluid Type	Weight	Storage-Pits

OGD 9 (10/80/3M)

DEFICIENCIES—TO BE CORRECTED

none

DEFICIENCIES—CORRECTED

none

CONTRACTOR Well Tech, Inc.

FORM OG111(10/81/DWRR/5M)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

No. P 182-109

412
(field code)
03
(area code)
00
(new pool code)
00
(old pool code)

REPORT ON PROPOSED OPERATIONS

L. B. Carroll, Jr., Agent
SUN EXPLORATION & PRODUCTION CO.
P. O. Box 55060
Valencia, CA 91355

Long Beach, California
February 17, 1982

Your _____ proposal to Rework well NWLBU 8-7, A.P.I. No. 037-22512, Section 13, T. 4S, R. 13W, S.B. B. & M., Long Beach field, Northwest Extension area, Brown pool, Los Angeles County, dated 2-3-82, received 2-4-82 has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:

1. Blowout prevention equipment, equivalent to this division's Class II 2M requirements, or better, shall be installed and maintained in operating condition.
2. This division shall be consulted and a supplementary notice may be required before making any changes in the proposed program.
3. THIS DIVISION SHALL BE NOTIFIED:
   a. To inspect the installed blowout prevention equipment prior to commencing downhole operations.
   b. To witness the location and hardness of the cement plug at 5620'.

RM:da

cc: Update

Blanket Bond

M. G. MEFFERD, State Oil and Gas Supervisor

By [signature]
for J. L. HARDOIN, *Deputy Supervisor*

A copy of this report and the proposal must be posted at the well site prior to commencing operations.

Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

O&G
rework

DIVISION OF OIL AND GAS

Notice of Intention to Rework Well

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

FOR DIVISION USE ONLY		
BOND	OGD114	OGD121
Blanket	2-10-82 CP	2-10-82

DIVISION OF OIL AND GAS

In compliance with Section 3203, Division 3. Public Resources Code, notice is hereby given that it is our intention to rework well No. NWLB UNIT #8-7 (NWLB 8-7), API No. 037-22512,

Sec. 13, T. 4S, R. 13W, SB B. & M., LONG BEACH Field, LOS ANGELES County.

The present condition of the well is as follows:

1. Total depth. 5847' PBTD 5837'

2. Complete casing record, including plugs and perforations:

13 3/8", 54.5# CSG 0-1122'
9 5/8", 36# CSG 0-4715' (3.247 GALLONS/FT)
7", 26# CSG 4626-5847' (1.607 GALLONS/FT)
T.D. 5847'; PBTD 5837'
PERFS: 8- .33" JHPF FROM 5764' - 5777'
4- 1/2" JHPF FROM 5724' - 5736' AND 5738' - 5756'

3. Present producing zone name BROWN - "V" Zone in which well is to be recompleted BROWN - "K"

4. Present zone pressure 1200 PSI New zone pressure 1200 PSI

5. Last produced 1/26/82 (Date) 0 (Oil, B/D) 20 (Water, B/D) 0 (Gas, Mcf/D)

or

6. Last injected _____ (Date) _____ (Water, B/D) _____ (Gas, Mcf) _____ (Surface pressure, psig.)

The proposed work is as follows:

1. MIRU
2. SPOT CMT PLUG FROM 5777'-5620'. DOG TO WITNESS PLACEMENT AND LOCATION OF PLUG.
3. PERFORATE WELL FROM 4383'-4411' AND FROM 4368'-4376' W/4 1/2" JHPF.
4. ACIDIZE AS FOLLOWS: 1800 GALLONS 15% HCR, 1800 GALLONS 12% HCI-3% HF, 25 BBL 2% AM-CL WATER.
5. RIH W/RODS, TBG, AND ACID PUMP. RTP.

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

Address 25322 W RYE CANYON ROAD (Street)
VALENCIA (City) CALIFORNIA (State) 91355-0560 (Zip)
Telephone Number 805/257-6200

SUN EXPLORATION AND PRODUCTION COMPANY
SUN PRODUCTION DIVISION (Name of Operator)
By L B Carroll Jr. (Name) 2/3/82 (Date)
Type of Organization CORPORATION (Corporation, Partnership, Individual, etc.)

OG107 (8-75—GSRI—15M)

GENE WINN
BASIN SEGMENT

RECEIVED
FEB 4 9 11 AM '82
DIV. OF OIL AND GAS
LONG BEACH, CA.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

No. T 181-1079

DIVISION OF OIL AND GAS

Report on Operations

L. B. Carroll, Jr., Agent
SUN OIL COMPANY
P. O. Box 55060
Valencia, CA 91355

Long Beach Calif.
October 21, 1981

Your operations at well NWLBU 8-7, API No. 037-22512, Sec. 13, T. 4S, R. 13W, S.B. B.& M. Long Beach Field, in Los Angeles County, were witnessed on 9-21-81. R. Manuel, Engineer, representative of the supervisor, was present from 1145 to 1215. There were also present Don Rodgers, Drilling Foreman.

Present condition of well: 20" cem 50'; 13-3/8" cem 1122'; 9-5/8" cem 4715', perf 4693' WSO. TD 4906' (Drilling).

The operations were performed for the purpose of Testing the 9-5/8" shut-off at 4693' with a formation tester.

DECISION: APPROVED.

NOTE: DEFICIENCIES TO BE CORRECTED
NONE

DEFICIENCIES CORRECTED
NONE

CONTRACTOR: Atlantic Oil Company

RM:dh

cc: Update

TM / D. Daniels (Sun) 2-2-82
7" cem 4626'-5841', perfs @ int 5724'-5777'.
OK to plug from 5777' to 5620'. Will send
Report on proposed operations
immediately.

M. G. MEFFERD
State Oil and Gas Supervisor

By [signature]
Deputy Supervisor

for R. A. YBARRA

OG109(12-80-15M)

Form OGD8 (8/80)

DIVISION OF OIL AND GAS
WATER SHUTOFF TEST

No. T 1079

Operator Sun Oil Company

Well designation NWLBU 8-7 Sec. 13, T. 4S, R. 13W, SB B.&M.

Field Long Beach, County L.A. was tested for water shutoff on 9-21-81. (Name) R. Manuel, representative of the supervisor, was present from 1145 to 1215. Also present were Don Rodgers - D.F.

Casing record of well: 20" cem 50'; 13 3/8" cem 1122'; 9 5/8" cem 4715', perf 4693' WSO. TD 4906' (drilling).

The operations were performed for the purpose of (D-1) 9 5/8" @ 4693'

☒ The 9 5/8" shutoff at 4693' is approved.

☐ The seal between the _____" and _____" casings is approved.

☐ The operations are approved as indicating that all of the injection fluid is confined to the formations below _____' at this time.

Hole size: 12 1/4" fr. 1122' to 4725'; 8 3/4" to 4906';& _____" to _____'

Casing				Cemented			Top of Fill		Sqd. Away	Final Press	Test psi/min. Perfs.
Size	Wt.	Top	Bottom	Date	MO-Depth	Volume	Annulus	Casing			
9 5/8	36	0	4715'	9-17-81	thru shoe	1276cf	Surf	4487'		1000	

Depth or interval tested 4-1/2" holes @ 4693'

The hole was open to 4705' for test.

FORMATION TEST:

Packer(s) 4641' & _____' Tail 4669' Bean size 3/4" Cushion 0

IHP 2200 IFP 57 FFP 57 FHP 2190

Blow light throughout test

Open for test 1 Hr. 0 min. Fluid entry 30' mud

BAILING TEST:

The hole fluid was bailed to _____', at _____ on _____ 19__.

The hole fluid was found at _____', at _____ on _____ 19__.
(time)

PRODUCTION TEST:

Gauge/meter reading _____ on _____ 19__, at _____ pump depth _____' Engr. _____

Gauge/meter reading _____ on _____ 19__, at _____ Engr. _____

Fluid level _____' surveyed on _____ 19__, reviewed (witnessed) by _____

Total fluid produced, Bbls. _____ Net oil _____ Water _____

Rate: _____ B/D oil, _____ B/D water, _____ % water cut

INJECTION SURVEY:

RA/Spinner/Temperature survey run at _____ B/D & _____ psi on _____ 19__, fluid confined below _____' (Packer depth _____')

DEFICIENCIES—TO BE CORRECTED

None

DEFICIENCIES—CORRECTED

None

CONTRACTOR

Atlantic Oil Co.

SUN PRODUCTION COMPANY
N.W.L.B.U. #8-7 037-22512
LONG BEACH, CALIFORNIA

C.R.G. Properties, Ltd.

JOB NUMBER 35-881
AUG.- SEPT., 1981
ELEVATION 56 FT.

DECL. CORR. 14 DEG. 30 MIN. EAST

MEAS. DEPTH	DRIFT ANGLE	DRIFT BEARING	VERTICAL DEPTH	VERTICAL SUB-SEA	TOTAL COORDINATES	
125	0015	N64 00E	125.0	-69.0	.1 N	.2 E
215	0015	N14 00E	215.0	-159.0	.4 N	.5 E
306	0015	S18 00W	306.0	-250.0	.5 N	.1 E
417	0015	N36 00W	417.0	-361.0	.5 N	.4 W
507	0015	N49 00E	507.0	-451.0	.8 N	.3 W
600	0015	N60 00W	600.0	-544.0	1.3 N	.4 W
693	0015	N34 00E	693.0	-637.0	1.6 N	.5 W
783	0015	N09 30E	783.0	-727.0	2.0 N	.3 W
875	0015	N80 00E	875.0	-819.0	2.3 N	0.0 W
965	0030	S05 00E	965.0	-909.0	1.9 N	.4 E
1120	0030	N73 00W	1120.0	-1064.0	1.1 N	.6 W
1192	0030	N15 00W	1192.0	-1136.0	1.5 N	1.0 W
1286	0000	N00 00E	1286.0	-1230.0	1.9 N	1.2 W
1386	0015	N21 00W	1386.0	-1330.0	2.1 N	1.2 W
1428	0245	N01 00W	1428.0	-1372.0	3.2 N	1.4 W
1489	0415	N14 00W	1488.9	-1432.9	6.9 N	1.9 W
1549	0600	N29 00W	1548.6	-1492.6	11.9 N	3.9 W
1611	0730	N24 00W	1610.2	-1554.2	18.4 N	7.1 W
1672	0930	N17 00W	1670.5	-1614.5	26.9 N	10.3 W
1735	1115	N11 00W	1732.5	-1676.5	37.9 N	13.0 W
1766	1215	N13 00W	1762.8	-1706.8	44.0 N	14.4 W
1894	1330	N25 00W	1887.6	-1831.6	71.0 N	23.6 W
1989	1315	N23 30W	1980.0	-1924.0	91.1 N	32.7 W
2081	1315	N22 00W	2069.6	-2013.6	110.5 N	40.8 W
2173	1315	N25 30W	2159.1	-2103.1	129.8 N	49.3 W
2264	1300	N30 30W	2247.8	-2191.8	148.0 N	59.0 W
2357	1230	N25 30W	2338.5	-2282.5	166.2 N	68.7 W
2404	1330	N21 00W	2384.3	-2328.3	175.9 N	72.8 W
2465	1330	N05 00W	2443.6	-2387.6	189.8 N	76.0 W
2571	1300	N02 00E	2546.8	-2490.8	214.0 N	76.7 W
2663	1300	N02 00E	2636.4	-2580.4	234.7 N	75.9 W
2754	1245	N03 00E	2725.1	-2669.1	255.0 N	75.1 W
2848	1230	N03 00E	2816.8	-2760.8	275.5 N	74.0 W
2938	1215	N05 30E	2904.7	-2848.7	294.7 N	72.6 W
3022	1200	N04 30E	2986.9	-2930.9	312.3 N	71.0 W

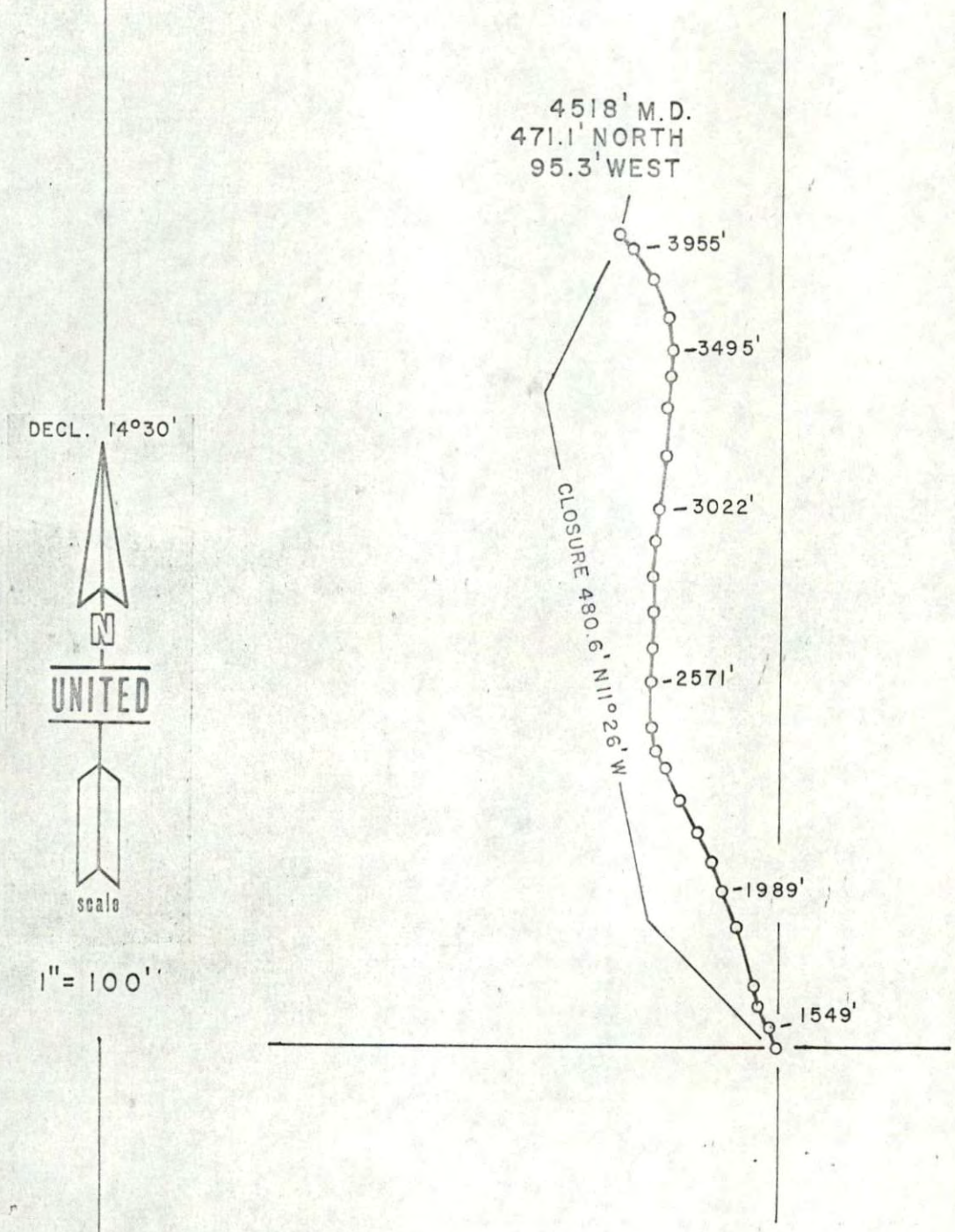
UNITED DIRECTIONAL SERVICES, INC.
SIGNAL HILL, CALIFORNIA

RECEIVED
MAY 19 11 51 AM '83
DIV OF OIL & GAS
LONG BEACH, CALIF.

MEAS. DEPTH	DRIFT ANGLE	DRIFT BEARING	VERTICAL DEPTH	VERTICAL SUB-SEA	TOTAL COORDINATES	
3175	1200	N04 30E	3136.5	-3080.5	344.0 N	68.5 W
3207	1200	N04 30E	3167.8	-3111.8	350.7 N	68.0 W
3310	1130	N03 30E	3268.7	-3212.7	371.6 N	66.5 W
3404	1130	N04 30E	3360.8	-3304.8	390.3 N	65.2 W
3495	1045	N05 00E	3450.1	-3394.1	407.8 N	63.8 W
3575	1330	N11 00W	3528.3	-3472.3	424.6 N	64.7 W
3635	1200	N25 00W	3586.8	-3530.8	437.1 N	68.7 W
3696	0930	N34 00W	3646.7	-3590.7	447.1 N	74.3 W
3758	0615	N43 00W	3708.2	-3652.2	453.7 N	79.6 W
3863	0330	N41 00W	3812.8	-3756.8	460.3 N	85.6 W
3955	0215	N41 00W	3904.7	-3848.7	463.8 N	88.6 W
4047	0200	N42 00W	3996.6	-3940.6	466.4 N	90.9 W
4139	0115	N40 00W	4088.6	-4032.6	468.3 N	92.6 W
4235	0115	N69 00W	4184.5	-4128.5	469.6 N	94.3 W
4332	0045	N54 00W	4281.5	-4225.5	470.4 N	95.8 W
4427	0015	N34 00E	4376.5	-4320.5	471.2 N	95.9 W
4518	0030	S26 00E	4467.5	-4411.5	471.1 N	95.3 W

CLOSURE: 480.6 FEET N 11 DEG. 26 MIN. W

COMPUTED USING THE AVERAGED ANGLE METHOD



N.W.L.B.U. WELL No. 8-7

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

No. T 181-1080

DIVISION OF OIL AND GAS

Report on Operations

L. B. Carroll, Jr., Agent
SUN OIL COMPANY
P. O. Box 55060
Valencia, CA 91355

Long Beach Calif.
October 21, 1981

Your operations at well NWLBU 8-7, API No. 037-22512, Sec. 13, T. 4S R. 13W, S.B. B.& M. Long Beach Field, in Los Angeles County, were witnessed on 8-30-81. W. E. Brannon, Engineer, representative of the supervisor, was present from 0300 to 0700. There were also present D. Rodgers, Drilling Foreman.

Present condition of well: 20" cem 50'; 13-3/8" cem 1122' TD 1122' (Drilling).

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

DECISION: APPROVED.

NOTE: DEFICIENCIES TO BE CORRECTED
NONE

DEFICIENCIES CORRECTED
1. Elbows on choke and kill lines.
2. Pipe safety valve was defective.
3. Driller did not know how to close upper kelley cock.
4. No tool available to close upper kelly cock.
5. Accumulator took too long to pressure up.
6. Leak in choke line.
7. No "P" report at drill site.

CONTRACTOR: Atlantic Oil Company

WEB:dh

cc: Update

M. G. MEFFERD
State Oil and Gas Supervisor

By [signature]
Deputy Supervisor
R. A. YBARRA

OG109(12-80-15M)

DIVISION OF OIL AND GAS
BLOWOUT PREVENTION EQUIPMENT MEMO

#10

T 1080

Operator Sun Oil Company Well NWLBU 8-7 Field Long Beach County Los Angeles

VISITS:	Date	Engineer	Time	Operator's Rep.	Title
1st	8-30-81	W.E. Brannon	0300 to 0700	D. Rodgers	DF
2nd			to		

Casing record of well: 20" Cem 50'; 13 3/8" Cem 1122 TD 1122 (drilling)

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

Proposed Well Opns: drill MPSP: _____ psi

REQUIRED BOPE CLASS: III B 3M

Hole size: 24 " fr. 0 ' to 50 ', 17 1/2 " to 1122 ' & _____ " to _____ '

CASING RECORD (BOPE ANCHOR STRING ONLY)					Cement Details	Top of Cement	
Size	Weight(s)	Grade (s)	Shoe at	CP at		Casing	Annulus
13 3/8	54 #	K-55	1122		1556 Bumped Plug w/1000#	1076	0

BOP STACK							a	b	a/b	TEST DATA			
API Symb.	Ram Sz.	Mfr.	Model or Type	Size In.	Press. Rtg.	Date Last Overhaul	Gal. to Close	Rec. Time Min.	Calc. GPM Output	psi Drop to Close	Secs. to Close	Test Date	Test Press.
A	12	Hydril	GK	12	3000							8/29	1200
Rd	4 1/2	Shaffer	B	12	3000							8/29	1000
Rd	CSO	Shaffer	B	12	3000							8/29	1200

ACTUATING SYSTEM

Accum. Unit(s) Wkg. Press. 1500 psi
Total Rated Pump Output _____ gpm
Distance From Well Bore 75 ft.

	Mfr.	Accum. Cap.	Precharge
1	Hydril	80 gal.	600 psi
2		gal.	psi

CONTROL STATIONS	Elec.	Hyd.
X Manif. at accum. unit		X
X Remote at Drlr's stn.	X	
Other:		

EMERG. BACKUP SYST.	Press.	Wkg. Fl.
X N2 Cyl No: 3 Type: G	2500	gal
Other:	2 2300	gal
	3 2400	gal
	4	gal
	5	gal
	6	gal

AUXILIARY EQUIPMENT

		No.	Sz. (in)	Rated Press.	Connections Weld	Flan.	Thrd.	
X	Fill-Up Line							
X	Kill Line		2	3000			X	1200
X	Control Valve(s)	1		3000			X	—
X	Check Valve(s)	1		3000			X	1200
X	Auxil. Pump Connec.			3000			X	1200
X	Choke Line		2"	3000			X	1200
X	Control Valve(s)	3		3000			X	1200
X	Pressure Gauge						X	
X	Adjustable Choke(s)	1	2"	3000			X	1200
X	Bleed Line		2"				X	
X	Upper Kelly Cock							—
—	Lower Kelly Cock		—	—				—
X	Standpipe Valve							1200
X	Standpipe Pressure Ga.							
X	Pipe Safety Valve		4 1/2	3000				—
X	Internal Preventer		4 1/2	3000				—

HOLE FLUID MONITORING EQUIPMENT		Alarm Aud.	Alarm Vis.	Class
X	Calibrated Mud Pit			A
X	Pit Level Indicator	X	X	B
X	Pump Stroke Counter	X	X	B
	Pit Level Recorder			C
	Flow Sensor			C
	Mud Totalizer			C
	Calibrated Trip Tank			
	Other:			

REMARKS:

Hole Fluid Type	Weight	Storage-Pits
Clay base mud	70#	770 Bbl

OGD 9 (10/80/3M)

DEFICIENCIES—TO BE CORRECTED None

DEFICIENCIES—CORRECTED
1- elbows on choke and kill lines
2- pipe safty valve was defective
3- driller did not know how to close upper Kelley Cock
4- No tool available to close upper Kelly cock
5- accumulator took too long to pressure up.
6- leak in choke line
7- No "P" report at drill site

CONTRACTOR

Atlantic Oil Co.

FORM OG111 (7/80)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

No. P 181-690

412 (field code)
03 (area code)
00 (pool code)

REPORT ON PROPOSED OPERATIONS

L. B. Carroll, Jr., Agent
SUN OIL COMPANY
P. O. Box 55060
Valencia, CA 91355

Long Beach, California
August 28, 1981

Your _____ proposal to Drill well NWLBU 8-7, A.P.I. No. 037-22512, Section 13, T. 4S, R. 13W, S. B. B. & M., Marine & Long Beach field, Northwest Extension area, L. Alamitos, Brown pool, Los Angeles County, dated 8-20-81, received 8-21-81 has been examined in conjunction with records filed in this office.

1. Blowout prevention equipment, equivalent to this division's Class 4 III B, 3M requirements or better, shall be installed and maintained in operating condition.
2. Drilling fluid of a quality and in sufficient quantity to control all subsurface conditions in order to prevent blowouts shall be used.
3. All oil, gas or fresh water sands behind the 9-5/8" casing shall be protected by either lifting cement or by multiple stage cementing.
4. A directional survey shall be made and filed with this division.
5. THIS DIVISION SHALL BE NOTIFIED:
   a. To witness a test of the installed blowout prevention equipment prior to drilling out cement in the shoe of the 10-3/8" casing.
   b. To witness a test of the effectiveness of the 9-5/8" shut-off above the lower Alamitos zone.

HO:dh

cc: Update
EDP

Blanket Bond

M. G. MEFFERD, State Oil and Gas Supervisor

By Verne F. Daede
for R. A. YBARRA, Deputy Supervisor

A copy of this report and the proposal must be posted at the well site prior to commencing operations.

Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.

O&G News

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

Notice of Intention to Drill New Well

C.E.Q.A. INFORMATION			
EXEMPT ☐ CLASS____	NEG. DEC. ☒ 64-77 S.C.H. NO.____	E.I.R. ☐ S.C.H. NO.____	DOCUMENT NOT REQUIRED BY LOCAL JURISDICTION ☐
See Reverse Side			

FOR DIVISION USE ONLY					
MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121
137	8/25/81	8-25-81	Bond	8-25-81	8-25-81

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to commence drilling well NW LONG BEACH UNIT #8-7, API No. 037-22512 (Assigned by Division),

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

Legal description of mineral-right lease, consisting of 149 acres, is as follows: (Attach map or plat to scale)

see attached

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

Location of well 487 feet North (Direction) ~~along section/property line~~ (Cross out one) and 779 feet West (Direction)

at right angles to said line from the ~~corner of section/property~~ (Cross out one)

intersection of centerline of San Antonio Drive & Del Mar Avenue

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

If well is to be directionally drilled, show proposed coordinates (from surface location) at total depth:
463 feet North (Direction) and 100 feet West (Direction)

Elevation of ground above sea level 45.5 feet.

All depth measurements taken from top of Kelly Bushing (Derrick Floor, Rotary Table, or Kelly Bushing) that is ±10 feet above ground.

PROPOSED CASING PROGRAM

SIZE OF CASING INCHES API	WEIGHT	GRADE AND TYPE	TOP	BOTTOM	CEMENTING DEPTHS	CALCULATED FILL BEHIND CASING
13 3/8"	54.5#	K-55; BT & C	Surface	1100'	1100'	1528 CF=200% to surf
9 5/8"	36#	K-55; ST & C	Surface	2900'	2900'	705 CF=125% to 13 3/8" shoe
7"	26#	K-55; ST & C	2700'	5900'	5900'	1473 CF=125% to 9 5/8" shoe

(A complete drilling program is preferred and may be submitted in lieu of the above program.)

Intended zone(s) of completion Lower Alamitos @ 3946' TVD; Brown @ 4626' TVD; Marine @ 5196' TVD; Pressure = 800 PSI (Name, depth, and expected pressure) Estimated total depth 5826' TVD

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

Name of Operator	Type of Organization (Corporation, Partnership, Individual, etc.)	
SUN OIL COMPANY (DELAWARE)	CORPORATION	
Address: P O BOX 55060	City: VALENCIA, CA	Zip Code: 91355
Telephone Number: 805/257-6200	Name of Person Filing Notice: L. B. Carroll, Jr.	Signature: L B Carroll Jr.	Date: 8/20/81

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

OG105 (7-78-GSR1-3M)

Information for compliance with the California Environmental Quality Act of 1970 (C.E.Q.A.).

If an environmental document has been prepared by the lead agency, please submit a copy of the document with this notice *or* supply the following information:

Lead Agency: City of Long Beach

Contact Person: G. H. Felgemaker

Address: 333 West Ocean Blvd.

Long Beach, CA 90802

Phone: (805) 590-6894

FOR DIVISION USE ONLY
District review of environmental document (if applicable)? Yes ☐ No ☐
Remarks:

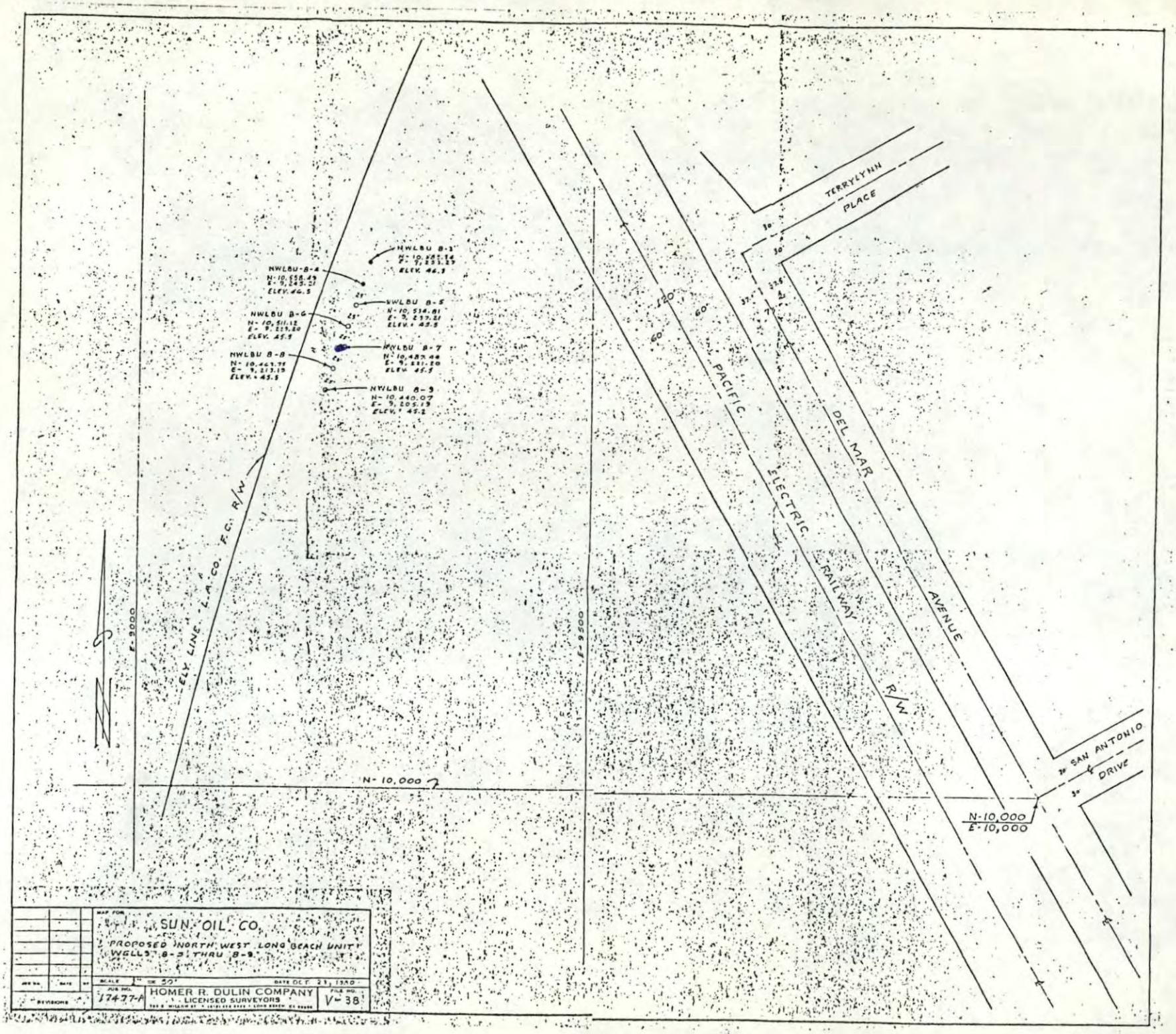
CRITICAL WELL

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

(1) 300 feet of the following:
(A) Any building intended for human occupancy that is not necessary to the operation of the well; or
(B) Any airport runway.
(2) 100 feet of the following:
(A) Any dedicated public street, highway, or nearest rail of an operating railway that is in general use;
(B) Any navigable body of water or watercourse perennially covered by water;
(C) Any public recreational facility such as a golf course, amusement park, picnic ground, campground, or any other area of periodic high–density population; or
(D) Any officially recognized wildlife preserve.

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

RECEIVED
AUG 21 2 33 PM '81
DIV. OF OIL AND GAS
LONG BEACH, CA.



NWLBU 8-3
N- 10,582.34
E- 9,233.27
ELEV. 46.3
NWLBU-8-4
N-10,558.49
E- 9,245.21
ELEV. 46.5
NWLBU 8-5
N-10,534.81
E- 9,237.21
ELEV. 45.5
NWLBU 8-6
N- 10,511.12
E- 9,229.20
ELEV. 45.5
NWLBU 8-7
N- 10,487.44
E- 9,221.20
ELEV. 45.5
NWLBU 8-8
N- 10,463.75
E- 9,213.19
ELEV. 45.5
NWLBU 8-9
N- 10,440.07
E- 9,205.19
ELEV. 45.2
ELY LINE - L.A. CO. F.C. R/W
E-9000
E-9500
N- 10,000
TERRYLYNN PLACE
PACIFIC ELECTRIC RAILWAY R/W
DEL MAR AVENUE
SAN ANTONIO DRIVE
N-10,000
E-10,000
120'
60'
60'
30'
30'
37.5'
37.5'
25'
25'
25'
25'
25'
MAP FOR
SUN OIL CO.
PROPOSED NORTH WEST LONG BEACH UNIT
WELLS 8-3 THRU 8-9
SCALE 1" = 50'
DATE OCT. 23, 1980
JOB NO. 17477-A
HOMER R. DULIN COMPANY
LICENSED SURVEYORS
FILE NO. V-38
REVISIONS

RECEIVED
AUG 21 2 30 PM '81
DIV. OF OIL AND GAS
LONG BEACH, CA.

NORTHWEST LONG BEACH UNIT

SURFACE RIGHTS

Block 1 (Lease 800388 - W. T. McDonald)

No surface rights

Block 2 (Lease 800389 - Atlantic Richfield)

No surface rights

Block 3 (Unleased - Los Cerritos Park)

No surface rights

Block 4 (Lease 800390 - Amebco)

Sun's surface rights cover only Lot 39 in Block G of Los Cerritos and do not include acreage south of the Westerly prolongation of the Northerly line of Bixby Road

Block 5 (Leases 800391 and 800392 - Pacific Electric Ry. Co. and Southern Pacific Trans. Co.)

Sun has no surface rights south of the Easterly prolongation of the Southerly line of Wilmington (Baker, 223rd) Street. As to the remainder, Sun's surface rights are limited to those areas shaded in red on the attached Exhibit "A".

Block 6 (Lease 800390 - Amebco)

Sun has surface rights over this entire Block save for that portion thereof quitclaimed to the State of California on August 11, 1961 for the construction of the San Diego Freeway.

Block 7 (Lease 800392 - Southern Pacific)

No surface rights

Block 8 (Lease 800393 - Oil Operators)

Sun has surface rights over the entire Block save for that portion thereof quitclaimed to the State of California on April 17, 1958 for the construction of the San Diego Freeway.

Block 9 (Lease 800394 - Los Angeles County Flood Control District)

Sun has surface rights over all of this Block save for a five-acre strip on the Southwest portion thereof which was quitclaimed to the Flood Control District on June 29, 1962 and is presently occupied by the Long Beach and San Diego Freeways and their access roads. Paragraph 2 of this lease does provide that Lessee's operations shall neither be so located nor so conducted as to interfere with the Flood Control Channel and further provides that no structures shall be placed between or upon the tops of the channel levees without the approval of Lessor's Chief Engineer.

Block 10 (Lease 800392 - Southern Pacific)

No surface rights.

RECEIVED
AUG 21 2 33 PM '81
DIV. OF OIL AND GAS
LONG BEACH, CA.

EXHIBIT A

DESCRIPTION OF LEASES

BLOCK 1 - 15.06 Acres

Oil and Gas Lease dated March 1, 1977, by and between W. T. McDonald, as Lessor, and General Exploration Company, as Lessee, covering the following described lands:

All of Tract No. 9117 shown on map recorded in Book 181, Page 47 of the Map Records of Los Angeles County, California, and all of Lot 40 and that portion of Lot 41 in Block "G" of Los Cerritos, as shown on map recorded in Book 12, Pages 198 and 199 of Map Records of Los Angeles County, California, described as follows:

All that portion of said Lot 41 lying Southerly of a line which is the prolongation Easterly of the center line of Wilmington Street Extension, now known as 223rd Street, as said street is shown on map of the aforesaid Tract No. 9117.

BLOCK 2 - 7.94 Acres

Oil and Gas Lease by and between Atlantic Richfield Company, as Lessor, and General Exploration Company, as Lessee, dated March 9, 1977, covering the following described lands:

Lots 42, 44, 45, 46, 47 and that portion of Lot 41, all in Block "G" of Los Cerritos, in the City of Long Beach, County of Los Angeles, State of California, as per map recorded in Book 12, Pages 198 and 199 of Maps, in the office of the County Recorder of said County, included within the following described premises:

Beginning at the point of intersection of the center line of Wilmington Street Extension with the Northeasterly line of the right-of-way of the Pacific Electric Railway Company, as shown on map of Los Cerritos, recorded in Map Book 12, Pages 198 and 199, Records of Los Angeles County, thence East along the prolongation East of said center line of Wilmington Street Extension to its intersection with the Southwesterly line of Lincoln Avenue, as shown on map of Los Cerritos; thence Northwesterly along the Southwesterly line of said Lincoln Avenue to the Northeasterly line of Lot 42 in Block "G", as shown on said map of Los Cerritos; thence Southwesterly along the Northwesterly line of said Lot 42 in Block "G"; and its prolongation Southwesterly to its intersection with the Northeasterly line of said right-of-way of the Pacific Electric Railway Company; thence in a Southeasterly direction along the Northeasterly line of said right-of-way to the point of beginning.

BLOCK 3 - 2.43 Acres

That portion of Rancho Los Cerritos as shown as Los Cerritos Park on that certain map of Los Cerritos filed for record in Book 12, Pages 198 and 199, Map Records of the County of Los Angeles, State of California, being more particularly described as follows:

Beginning at the point of intersection of the Westerly line of Country Club Drive, formerly known as Lincoln Avenue, with the Northwesterly boundary line of Tract 30977; being also the Northwesterly line of Lot 42 of Block "G" of Los Cerritos, as shown on map thereof in Book 12, Pages 198 and 199, Map Records of Los Angeles County, State of California; thence South 60° 51' 30" West 373.64 feet to the Easterly Boundary line of the right-of-way of the Pacific Electric Railway Company, as shown on the map of Tract 1400, filed for record in Book 18, Page 96 of the Map Records of said county; thence along the Easterly line of said right-of-way North 29° 08' 30" West to its intersection with the Westerly prolongation of the Southeasterly line of Lot 43 of Block "G" of Los Cerritos, as shown on map thereof in Book 12, Page 198 et seq., Map Records of said County; thence on and along said Westerly prolongation and the Southeasterly line of said Lot 43 of Block "G" of Los Cerritos to its intersection with the Westerly line of Country Club Drive; thence on and along the Westerly line of Country Club Drive to the point of beginning.

BLOCK 4 - 6.65 Acres

Oil and Gas Lease dated May 24, 1934, Recorded in Book 13539, Page 1 of the Official Records of Los Angeles County, California, from Amelia M. E. Bixby Company, as Lessor, to C. G. Willis, as Lessee, insofar as said lease covers the following described lands:

All of Lot 43 in Block "G" of Los Cerritos, as shown on map recorded in Book 12, Pages 198 and 199 of the Map Records of the County of Los Angeles, State of California, and those portions of the Rancho Los Cerritos in the City of Long Beach, Los Angeles County, California described as follows:

Beginning at the intersection of the Northerly line of Bixby Road with the Easterly line of the 120 foot right-of-way of the Pacific Electric Railway Company, as shown on a map of Los Cerritos recorded in Book 12, Pages 198 and 199, Map Records of Los Angeles County, California; thence along the Easterly line of said right-of-way North 29° 08' 30" West 85.31 feet to its intersection with the Southeasterly line of San Antonio Drive, as shown on a map of Tract 2612, recorded in Book 27, Page 28 of said map records; thence along said

San Antonio Drive North 60° 46' East 648.15 feet to its intersection with the Westerly line of Magnolia Avenue (formerly Lincoln Avenue), as shown on map of said Los Cerritos; thence along said Avenue South 5° 34' East 391.34 feet to the intersection of the Westerly line of said Magnolia Avenue with the Northerly line of said Bixby Road; thence Westerly along said road 562.11 feet to the point of beginning.

Excepting from the above described parcel of land that portion described as follows:

Beginning at the intersection of the Northerly line of Bixby Road with the Westerly line of Magnolia Avenue (formerly Lincoln Avenue), as shown on the map of Los Cerritos recorded in Book 12, Pages 198 and 199 of said Map Records; thence along the Westerly line of said Magnolia Avenue North 5° 34' West 193.26 feet; thence Westerly parallel with said Bixby Road 155 feet; thence South 5° 34' East 193.26 feet to a point in the Northerly line of said Bixby Road; thence Easterly along said Northerly line 155 feet to the point of beginning.

BLOCK 5 - 9.20 Acres

Oil and Gas Lease dated April 30, 1937, by and between Pacific Electric Railway Company, as Lessor, and Cornelius G. Willis, as Lessee, Recorded in Book 15573, Page 167 of the Official Records of Los Angeles County, California and Oil and Gas Lease by and between Southern Pacific Transportation Company, as Lessor, and General Exploration Company, as Lessee, dated March 31, 1977, covering the following described lands:

Those certain lands lying, situated and being in the County of Los Angeles, State of California, described as follows:

That portion of the former Pacific Electric Railway Company 120 foot strip of land as conveyed by Deed dated October 29, 1912, by George H. Bixby and wife, to Pacific Electric Railway Company, and recorded November 8, 1913, in Book 5596, Page 175 of Deeds, Los Angeles County Records, extending from the Easterly prolongation of the Southerly line of 223rd Street (formerly Wilmington Street), as shown on map of Tract 1400, recorded in Book 18, Page 96 of Maps in Los Angeles County Records, Northwesterly to the intersection with the Westerly prolongation of the Southerly line of San Antonio Drive, as shown on Tract 2612 recorded in Map Book 27, Page 28, Los Angeles County Records.

BLOCK 6 - 12.69 Acres

Oil and Gas Lease dated May 24, 1934, Recorded in Book 13539, Page 1 of the Official Records of Los Angeles County, California, from Amelia M. E. Bixby Company, as Lessor, to C. G. Willis, as Lessee, insofar as said lease covers the following described lands:

A part of Lot 4, Tract 1400, as shown on Map recorded in Book 18, Page 96 of Maps, Records of the County of Los Angeles, State of California, described as follows:

Beginning at the Southeasterly corner of said Lot 4, thence South 89° 49' West along the Southerly line of said Lot 4, a distance of 571.84 feet to the Southeast corner of that certain property described in Deed to Gregorio Encinas, recorded in Deed Book 7086, Page 273, records of said Los Angeles County; thence North 0° 09' 30" West 535.00 feet along the Easterly line of said property; thence South 89° 49' West, along the Northerly line of said property to the Easterly line of the right-of-way of the Pacific Electric Railway Company, 70.00 feet wide; thence in a Northerly direction along the Easterly line of said right-of-way to its intersection with the Northeasterly line of said Lot 4; thence in a Southeasterly direction along said Northeasterly line of Lot 4 to the point of beginning.

BLOCK 7 - 2.68 Acres

Oil and Gas Lease by and between Southern Pacific Transportation Company, as Lessor, and General Exploration Company, as Lessee, dated March 31, 1977, covering the following described lands:

That certain strip of land described as "SECOND" hereinafter, lying between the center line of Wilmington Street and the Southwesterly line of the former Pacific Electric Railway Company's 120 foot right of way, to wit:

Those certain strips of land situated in the County of Los Angeles, being portions of Lots 3, 4 and 7 of Tract No. 1400, as per map recorded on Page 96 in Book 18 of Maps, Records of Los Angeles County and portion of Tract No. 2220 as per map recorded on Page 97 in Book 22 of Maps, Records of said County, said strips of land being described as follows:

FIRST: A strip of land 60 feet in width, being 21.75 feet on the Southwesterly and Westerly side, and 38.25 feet on the Northeasterly and Easterly side of the following described line:

Commencing at a point in the center line of Wardlow Road, distant Easterly thereon 364.71 feet from the Southerly prolongation of the center line of Golden Avenue as shown on Map of Tract No. 2220 recorded on Page 97 in Book 22 of Maps, Records of said County; thence North 33° 54' 10" West, 607.02 feet to the beginning of a tangent curve concave to the Northeast and having a radius of 5729.61 feet; thence Northwesterly along said curve, 30 feet to point of compound curve concave to the Northeast and having a radius of 2864.84 feet; thence Northwesterly along last mentioned curve 30 feet to point of compound curve concave to the Northeast and having a radius of 1909.91 feet; thence

Northwesterly along last mentioned curve, 30 feet to point of compound curve concave to the Northeast and having a radius of 1432.47 feet; thence Northwesterly along last mentioned curve, 30 feet to point of compound curve concave to the Northeast and having a radius of 1146.01 feet; thence Northwesterly along last mentioned curve, 30 feet to point of compound curve concave to the East and having a radius of 955.04 feet; thence Northerly along last mentioned curve, 612.57 feet to a point of compound curve concave to the East and having a radius of 1146.01 feet; thence Northeasterly along last mentioned curve, 30 feet to point of compound curve concave to the East and having a radius of 1432.47 feet; thence Northeasterly along last mentioned curve, 30 feet to point of compound curve concave to the East and having a radius of 1909.91 feet; thence Northeasterly along last mentioned curve, 30 feet to point of compound curve concave to the East and having a radius of 2864.84 feet; thence Northeasterly along last mentioned curve, 30 feet to point of compound curve concave to the East and having a radius of 5729.61 feet; thence Northeasterly along last mentioned curve, 30 feet to the end of said curve; thence Northeasterly, tangent to last mentioned curve, 309.18 feet to a point in the center line of Wilmington Street, distant Westerly along said center line, 79.64 feet from the Northerly prolongation of the center line of Golden Avenue as shown on said map of Tract No. 2220. The side lines of said 60 foot strip of land terminating in the center line of Wilmington Street on the North, and in the center of Wardlow Road on the South.

SECOND: A strip of land 70 feet in width, being 26.75 feet on the Westerly side and 43.25 feet on the Easterly side of the following described line:

Commencing at above mentioned point in the center line of Wilmington Street, distant Westerly along said center line 79.64 feet from the Northerly prolongation of the center line of Golden Avenue as shown on said map of Tract No. 2220; thence Northeasterly continuing along last mentioned tangent to curve 5729.61 feet radius in the above described 60 foot strip of land, 1221.20 feet to the beginning of a tangent curve concave to the West and having a radius of 1146.01 feet; thence Northerly along last mentioned curve, 452.45 feet to a point in the Southwesterly line of that certain strip of land 120 feet in width conveyed by Geo. H. Bixby, et ux to Pacific Electric Railway Company, by Deed recorded on Page 175 in Book 5596 of Deeds, Los Angeles County Records, said last mentioned point being distant Southeasterly along said Southwesterly line, 360.21 feet from the West line of above mentioned Lot 4 of Tract No. 1400. The Westerly line of said 70 foot strip of land being extended, and the Easterly line thereof shortened to terminate

in the center line of Wilmington Street on the South, and in the Southwesterly line of above mentioned 120 foot strip of land on the North. Excepting from above described strip of land 70 feet in width any portion thereof included within the lines of the 6.49 acre tract conveyed by Amelia M. E. Bixby to Gregorio Encinas by Deed recorded on Page 273 in Book 7086 of Deeds, Los Angeles County Records. Subject to the rights of the public in those portions of above described 60 foot strip and 70 foot strip included within the lines of Wardlow Road, Golden Avenue and Wilmington Street.

The base of bearings for this description is the South line of Powers Street, having a bearing of East, as shown on map of Tract No. 4351, recorded on Pages 94 and 95 in Book 53 of Maps, Los Angeles County Records.

BLOCK 8 - 23.89 Acres

Oil and Gas Lease dated December 1, 1935, from Oil Operators Incorporated, as Lessor, to Union Oil Company of California, as Lessee, Recorded in Book 14010, Page 66, Official Records of Los Angeles County, California, insofar as said lease covers the following described lands:

Those portions of Lots 3 and 4 of Tract 1400, in the County of Los Angeles, State of California, as per map recorded in Book 18, Page 96 of Maps, Records of said County, described as follows:

Beginning at the point of intersection of the Southerly line of said Lot 3 with the Westerly line of the Pacific Electric Railway Company's 70 foot right-of-way, as described in Deed recorded in Book 3991, Page 88, Official Records; thence Westerly along the Southerly line of said Lot 3 to its intersection with the Easterly line of the Los Angeles County Flood Control Channel; thence Northerly along the Easterly line of Flood Control Channel to its intersection with the Southwesterly line of Pacific Electric Railway Company's 120 foot right-of-way, as described in Deed recorded in Book 5596, Page 175 of Deeds; thence Southeasterly along aforesaid Southwesterly line of right-of-way to its intersection with the Westerly line of Pacific Electric Railway Company's 70 foot right-of-way, as described in Deed recorded in Book 3991, Page 88, Official Records; thence Southerly and Westerly along aforesaid Westerly line of 70 foot right-of-way to the point of beginning, Excepting from the lands hereinabove described that portion of said Lot 4 included within the land described in Deed from Amelia M. E. Bixby to Gregorio Encinas, recorded May 18, 1920 in Book 7086, Page 273 of Deeds of said County.

BLOCK 9 - 67.63 Acres

Oil and Gas Lease dated October 7, 1935, from Los Angeles County Flood Control District, as Lessor, to Cornelius G. Willis, as Lessee, recorded in Book 13784, Page 4, Official Records of Los Angeles County, California, insofar as said lease covers the following described property:

(1) That portion of Lot 3 of said Tract No. 1400, described as follows:

Beginning at a point in the Southerly line of said Lot 3 distant East thereon 30.00 feet from the Southwesterly corner thereof; thence East along the Southerly line of said Lot 3 a distance of 720.00 feet; thence Northerly along a 1° curve concave to the East, 2241.33 feet to the Northeasterly line of said Lot 3; thence Northerly along said Northeasterly line 318.47 feet to the most Northerly corner of said Lot 3; thence along the Northerly line of said Lot 3 the following courses and distances: S 40° 43' 45" W 146.46 feet; S 68° 43' 45" W 321.42 feet; S 47° 28' 45" W 458.04 feet and S 61° 43' 45" W 298.92 feet; thence Southerly in a direct line 1788.59 feet to the point of beginning.

Also that portion of Wilmington Street, a vacated street, as shown on said map that accrues to said portion of Lot 3 by reason of said vacation.

(2) That portion of Lot 5 in Block "F" of the Subdivision of a part of the Rancho San Pedro, known as the Dominguez Colony as shown on Partition Map filed in Case No. 3284 of the Superior Court of the State of California in and for the County of Los Angeles, and on a map recorded in Book 1, Pages 601 and 602, of Miscellaneous Records of said County, described as follows:

Beginning at the intersection of the Northerly line of said Lot 5 with the Westerly line of the strip of land 120 feet wide as conveyed to the Pacific Electric Railway Company by a Deed recorded in Book 1549, Page 61, of Deeds, records of said County; thence West along the Northerly line of said Lot 5 a distance of 698.15 feet; thence S 0° 02' 11" W 1216.28 feet, more or less, to the Northerly line of the aforesaid Lot 3 of Tract No. 1400; thence along the Northerly line of said Lot 3 the following courses and distances: N 61° 43' 45" E 298.92 feet; N 47° 28' 45" E 458.04 feet; N 68° 43' 45" E 321.42 feet and N 40° 43' 45" E 146.46 feet to said Westerly line of said 120 foot strip; thence Northerly along said Westerly line 618.27 feet to the point of beginning.

Also that portion of the South half of Carson Street, a vacated street, as shown on said map which accrues to said portion of Lot 5 by reason of said vacation.

(3) That portion of Lot 6 in Block "E" of said Subdivision of a part of the Rancho San Pedro, known as the Dominguez Colony, described as follows:

Beginning at the intersection of the Southerly line of said Lot 6 with the Westerly line of the strip of land 120 feet wide as conveyed to the Pacific Electric Railway Company by a Deed recorded in Book 1540, Page 218 of Deeds Records of said County; thence Northerly along the Westerly line of said 120 foot strip of land 1376.14 feet to the North line of said Lot 6; thence Westerly along said Northerly line 182.24 feet; thence South 1287.00 feet to a point on the Southerly line of said Lot 6 distant West thereon 664.17 feet from the point of beginning; thence East along said Southerly line 664.17 feet to the point of beginning.

Also that portion of the North half of Carson Street, a vacated street, as shown on said map that accrues to said portion of Lot 6 by reason of said vacation.

Excepting therefrom that portion thereof within the Southern California Edison Company, Ltd., right-of-way as shown on Licensed Surveyor's Map filed in Book 30, Page 24, of Record of Surveys on file in the office of the Recorder of Los Angeles County.

BLOCK 10 - 5.72 Acres

Oil and Gas Lease by and between Southern Pacific Transportation Company, as Lessor, and General Exploration Company, as Lessee, dated March 31, 1977, covering the following described lands:

That portion of the former Pacific Electric Railway Company's 120 foot strip of land as conveyed by Deed dated October 29, 1912, by George H. Bixby and wife to Pacific Electric Railway Company, and recorded November 8, 1913, in Book 5596, Page 175 of Deeds, Los Angeles County Records, 60 feet on either side of the center line of said land and extending northwesterly from the intersection with westerly prolongation of southerly line of San Antonio Drive as shown on Tract No. 2612, recorded in Map Book 27, Page 28, Los Angeles County Records, a distance of 2,000 feet along the center line of said strip of land.

RECEIVED
AUG 21 2 33 PM '81
DIV. OF OIL AND GAS
LONG BEACH, CA.

SUN PRODUCTION COMPANY
N.W.L.B.U. #8-7 037-22512
LONG BEACH, CALIFORNIA

C.R.G. Properties, Ltd.

JOB NUMBER 35-881
AUG.- SEPT., 1981
ELEVATION 56 FT.

DECL. CORR. 14 DEG. 30 MIN. EAST

MEAS. DEPTH	DRIFT ANGLE	DRIFT BEARING	VERTICAL DEPTH	VERTICAL SUB-SEA	TOTAL COORDINATES	
125	0015	N64 00E	125.0	-69.0	.1 N	.2 E
215	0015	N14 00E	215.0	-159.0	.4 N	.5 E
306	0015	S18 00W	306.0	-250.0	.5 N	.1 E
417	0015	N36 00W	417.0	-361.0	.5 N	.4 W
507	0015	N49 00E	507.0	-451.0	.8 N	.3 W
600	0015	N60 00W	600.0	-544.0	1.3 N	.4 W
693	0015	N34 00E	693.0	-637.0	1.6 N	.5 W
783	0015	N09 30E	783.0	-727.0	2.0 N	.3 W
875	0015	N80 00E	875.0	-819.0	2.3 N	0.0 W
965	0030	S05 00E	965.0	-909.0	1.9 N	.4 E
1120	0030	N73 00W	1120.0	-1064.0	1.1 N	.6 W
1192	0030	N15 00W	1192.0	-1136.0	1.5 N	1.0 W
1286	0000	N00 00E	1286.0	-1230.0	1.9 N	1.2 W
1386	0015	N21 00W	1386.0	-1330.0	2.1 N	1.2 W
1428	0245	N01 00W	1428.0	-1372.0	3.2 N	1.4 W
1489	0415	N14 00W	1488.9	-1432.9	6.9 N	1.9 W
1549	0600	N29 00W	1548.6	-1492.6	11.9 N	3.9 W
1611	0730	N24 00W	1610.2	-1554.2	18.4 N	7.1 W
1672	0930	N17 00W	1670.5	-1614.5	26.9 N	10.3 W
1735	1115	N11 00W	1732.5	-1676.5	37.9 N	13.0 W
1766	1215	N13 00W	1762.8	-1706.8	44.0 N	14.4 W
1894	1330	N25 00W	1887.6	-1831.6	71.0 N	23.6 W
1989	1315	N23 30W	1980.0	-1924.0	91.1 N	32.7 W
2081	1315	N22 00W	2069.6	-2013.6	110.5 N	40.8 W
2173	1315	N25 30W	2159.1	-2103.1	129.8 N	49.3 W
2264	1300	N30 30W	2247.8	-2191.8	148.0 N	59.0 W
2357	1230	N25 30W	2338.5	-2282.5	166.2 N	68.7 W
2404	1330	N21 00W	2384.3	-2328.3	175.9 N	72.8 W
2465	1330	N05 00W	2443.6	-2387.6	189.8 N	76.0 W
2571	1300	N02 00E	2546.8	-2490.8	214.0 N	76.7 W
2663	1300	N02 00E	2636.4	-2580.4	234.7 N	75.9 W
2754	1245	N03 00E	2725.1	-2669.1	255.0 N	75.1 W
2848	1230	N03 00E	2816.8	-2760.8	275.5 N	74.0 W
2938	1215	N05 30E	2904.7	-2848.7	294.7 N	72.6 W
3022	1200	N04 30E	2986.9	-2930.9	312.3 N	71.0 W

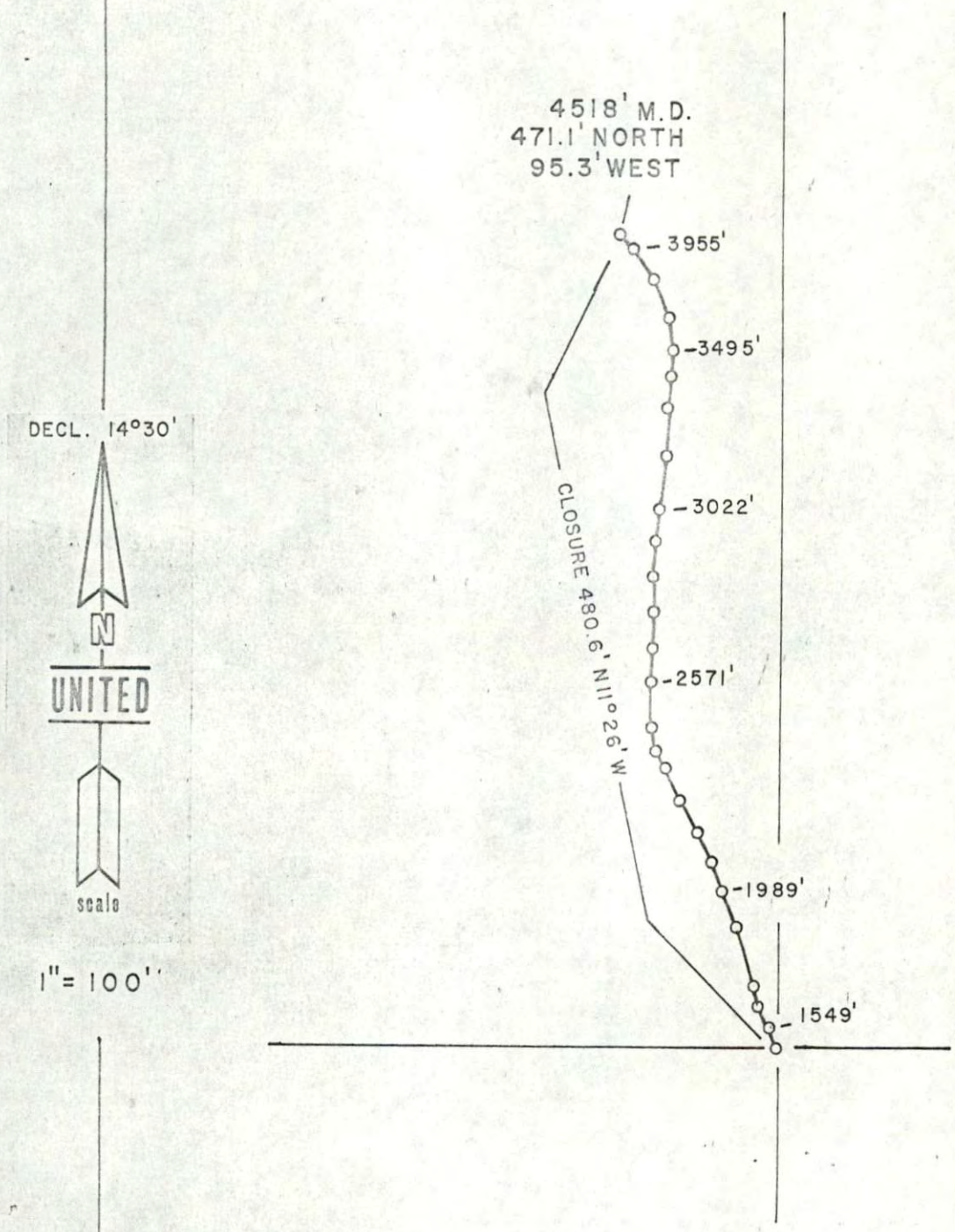
UNITED DIRECTIONAL SERVICES, INC.
SIGNAL HILL, CALIFORNIA

RECEIVED
MAY 19 11 51 AM '83
DIV OF OIL & GAS
LONG BEACH, CALIF.

MEAS. DEPTH	DRIFT ANGLE	DRIFT BEARING	VERTICAL DEPTH	VERTICAL SUB-SEA	TOTAL COORDINATES	
3175	1200	N04 30E	3136.5	-3080.5	344.0 N	68.5 W
3207	1200	N04 30E	3167.8	-3111.8	350.7 N	68.0 W
3310	1130	N03 30E	3268.7	-3212.7	371.6 N	66.5 W
3404	1130	N04 30E	3360.8	-3304.8	390.3 N	65.2 W
3495	1045	N05 00E	3450.1	-3394.1	407.8 N	63.8 W
3575	1330	N11 00W	3528.3	-3472.3	424.6 N	64.7 W
3635	1200	N25 00W	3586.8	-3530.8	437.1 N	68.7 W
3696	0930	N34 00W	3646.7	-3590.7	447.1 N	74.3 W
3758	0615	N43 00W	3708.2	-3652.2	453.7 N	79.6 W
3863	0330	N41 00W	3812.8	-3756.8	460.3 N	85.6 W
3955	0215	N41 00W	3904.7	-3848.7	463.8 N	88.6 W
4047	0200	N42 00W	3996.6	-3940.6	466.4 N	90.9 W
4139	0115	N40 00W	4088.6	-4032.6	468.3 N	92.6 W
4235	0115	N69 00W	4184.5	-4128.5	469.6 N	94.3 W
4332	0045	N54 00W	4281.5	-4225.5	470.4 N	95.8 W
4427	0015	N34 00E	4376.5	-4320.5	471.2 N	95.9 W
4518	0030	S26 00E	4467.5	-4411.5	471.1 N	95.3 W

CLOSURE: 480.6 FEET N 11 DEG. 26 MIN. W

COMPUTED USING THE AVERAGED ANGLE METHOD



N.W.L.B.U. WELL No. 8-7

2" FINAL PRINT

Schlumberger

DUAL INDUCTION - LATEROLOG WITH LINEAR CORRELATION LOG

COMPANY: SUN PRODUCTION COMPANY C.R.G. Properties, Ltd.
WELL: NWLBU 8-7 037-22512
FIELD: LONG BEACH
COUNTY: LOS ANGELES STATE: CALIFORNIA
LOCATION: 487.44'N & 778.80'W FROM C/L SAN ANTONIO DR. & DEL MAR AVE.
API SERIAL NO. | SEC. 13 | TWP. 4 S | RANGE 13 W
Other Services: FDC/CNL/GR, HDT, DLL-MSFL

Permanent Datum: GL Elev.: 45.5
Log Measured From: KB 10.5 Ft. Above Perm. Datum
Drilling Measured From: KB
Elev.: K.B. 56, D.F. --, G.L. 45.5

Date	9-13-81
Run No.	ONE
Depth—Driller	4906
Depth—Logger	4906
Btm. Log Interval	4900
Top Log Interval	1115
Casing—Driller	13 3/8 @ 1122
Casing—Logger	1115
Bit Size	8 3/4
Type Fluid in Hole	GEL
Dens. / Visc.	69 / 40
pH / Fluid Loss	9.0 / 6.0 ml
Source of Sample	MUD PIT
Rm @ Meas. Temp.	2.15 @ 85 °F
Rmf @ Meas. Temp.	1.95 @ 85 °F
Rmc @ Meas. Temp.	2.33 @ 85 °F
Source: Rmf / Rmc	M / M
Rm @ BHT	1.32 @ 139 °F
Circulation Stopped / Time	0800 / 9-13
Logger on Bottom / Time	0800 / 9-13
Max. Rec. Temp.	139 °F
Equip. / Location	8178 / 4404
Recorded By	ALUZRI
Witnessed By	VANSICKLE

FOLD HERE The well name, location and borehole reference data were furnished by the customer.

Run No.	ONE
Service Order No.	221943
Fluid Level	FULL
Salinity - PPM CL.	500
Speed - F.P.M.	60

EQUIPMENT DATA

Panel No.	IEM-BC-513
Cart No.	IC-384
Sonde No.	IS-333
Mem. Panel No.	CPU-2003
G.R. Panel No.	NLM-BC-571
G.R. Cart. No.	SGC-JC-2663
Tape Recorder - (TTR)	MTU-2836
Depth Encoder - (DRE)	---
Pressure Wheel (CPW)	---
Type Centralizers	FINS
Stand Off - Inches	1.5"

CALIBRATION DATA

Sonde Error - ILM	11.05
Sonde Error - ILD	-0.95
G.R. BKG. - CPS.	32.31
G.R. Source - CPS	203.5

LOGGING DATA

S.E. Log - ILM	11.05
S.E. Log - ILD	-0.95
S.E. - Set in Hole - Depth	---
S.E. Corr. - Hole Size	---
G.R. Scale per 100 Div.	150
G.R. - T.C.	---
G.R. Sens.	165

SCALE CHANGES

Type Log	Depth	Scale Up Hole	Scale Down Hole

REMARKS

All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to Clause 4 of our General Terms and Conditions as set out in our current Price Schedule.

TENS (LB) 5000. — 0.0	ILD (OHMM) 0.0 — 30.00	
GR (GAPI) 0.0 — 150.0	LL8A (OHMM) 0.0 — 6.000	
SP (MV) -120.0 — -20.00	LL8A (OHMM) 0.0 — 30.00	CILD (MMHO) 1000. — 0.0

FILE 103

FILE 103

TENS (LB) 5000. — 0.0	ILD (OHMM) 0.0 — 30.00	
GR (GAPI) 0.0 — 150.0	LL8A (OHMM) 0.0 — 6.000	
SP (MV) -120.0 — -20.00	LL8A (OHMM) 0.0 — 30.00	CILD (MMHO) 1000. — 0.0

SENSOR MEASURE POINT TO TENSION REFERENCE POINT

ILD	9.4 FEET		GR	34.5	FEET
LL8	5.7 FEET		ILM	5.8	FEET
SPAR	5.7 FEET		SP	5.7	FEET
TENS	.0 FEET				

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
DSEC	-0.9500	MMHO	BS	8.750	IN
MSEC	11.05	MMHO	SBR	1.000	OHMM
DO	0.0		BHS	OPEN	

COMPANY SUN PRODUCTION COMPANY
WELL NWLBU 8-7
FIELD LONG BEACH
COUNTY LOS ANGELES STATE CALIFORNIA

SCHL. FR 4900
SCHL. TD 4906
DRLR. TD 4906
Elev: KB 56, DF ---, GL 45.5

2. Field Print

Schlumberger

SIMULTANEOUS
DUAL LATEROLOG MICRO-SFL

COMPANY C.R.C. Prospecting Ltd., CO

WELL NWLBH 8-7 037-22512

FIELD LONG BEACH

COUNTY LOS ANGELES STATE CALIFORNIA

LOCATION: 4 MILES S OF SAN ANTONIO DR. & LOCUST AVE. — PACIFIC & 2128 SEC. 4 T4S R12W

COUNTY ..... FIELD ..... LOCATION ..... WELL ..... COMPANY .....

Other Services: BHC, DIL, SNL, CDL, CNL

Permanent Datum: GL — Elev. 35.5
Log Measured from KB — 11 ft Above Perm. Datum
Drilling Measured from KB — Elev.: K.B. 56.5, D.F. 55.5, G.L. 35.5

Run No.	TWO			
Depth - Driller	7,186.81			
Depth - Logger	7,185.5			
Bottom Log Interval	7,181			
Top Log Interval	6,350			
Casing - Driller	9 7/8 @ 475'			
Casing - Logger	475			
Bit Size	7 7/8			
Type Fluid in Hole	SALT WATER			
Dens. / Visc.	9.4 / 41			
pH / Fluid Loss	9.5 / 4.4			
Source of Sample	FLOWLINE			
Rm @ Meas. Temp.	.51 @ 87 F			
Rmf @ Meas. Temp.	.42 @ 87 F			
Rmc @ Meas. Temp.	.65 @ 87 F			
Rm @ BHT	.26 @ 143 F			
Circulation Stopped	6:00			
Logger on Bottom	9:00			
Max. Rec. Temp.	143 F			
Equipment - Location	5361 - LONG BEACH			
Recorded by	BELLAGIO			
Witnessed by	VANSICKLE			

	Run 1	Run 2	Run 3	Run 4
Tool Number	DIL-SNL-CDL-CNL-BHC-4			
Bit Size	7 7/8			
Bit Type	STD			
Hole Deviation	4			
Max. Rec. Temp.	143			
Equipment - Location	5361 - LONG BEACH			
Recorded by	BELLAGIO			
Witnessed by	VANSICKLE			

FOLD HERE

The well name, location and borehole reference data were furnished by the customer.

Run No.	TWO			
Service Order No.	251727			
Fluid Level	FULL			
Salinity, PPM Cl	60			
EQUIPMENT DATA				
Panel (DLP)	DLM 996			
Panel (SRP)	MGM 0956			
Cartridge (DLC)	DLC-8-781			
Cartridge (SRE)	—			
Sonde (DLS)	DLS-BA-711			
Sonde (SRS)	—			
Lower Electrode (DLE)	—			
Memorizer Panel	—			
Tape Recorder (TTR)	—			
Depth Encoder (DRE)	—			
Pressure Wheel (CPW)	—			
Centralizers	Type	NONE		
Enter Spring	No.	0		
Bow Spring Sidewalls or None	S.O. Inches	0		
CALIBRATION DATA				
GR	BKG. CPS			
	Source CPS			
LOGGING DATA				
GR	Sensitivity	105		
	Scale-100 Div.	120		
	T. C. - sec	AUTO		
Speed FPM		60		
BOTTOM HOLE TEMPERATURE				
Time Entering Hole				
Time Bottom Reached				
Time Last Off Bottom				
Time Out of Hole				
Distance TD to Therm.				
Thermometer #1	F	F	F	F
Thermometer #2	F	F	F	F
Thermometer #3	F	F	F	F
Rw FROM DRILL-STEM TEST				
DST #1 - Rw @ 100 °F	Ω/M	Ω/M	Ω/M	Ω/M
DST #2 - Rw @ 100 °F	Ω/M	Ω/M	Ω/M	Ω/M

SCALE CHANGES			
Type Log	Depth	Scale Up Hole	Scale Down Hole

ABBREVIATION ABOVE GRAMMO ON RECORD IS 10". COMPANY REP. GAVE FIGURE OF 11.

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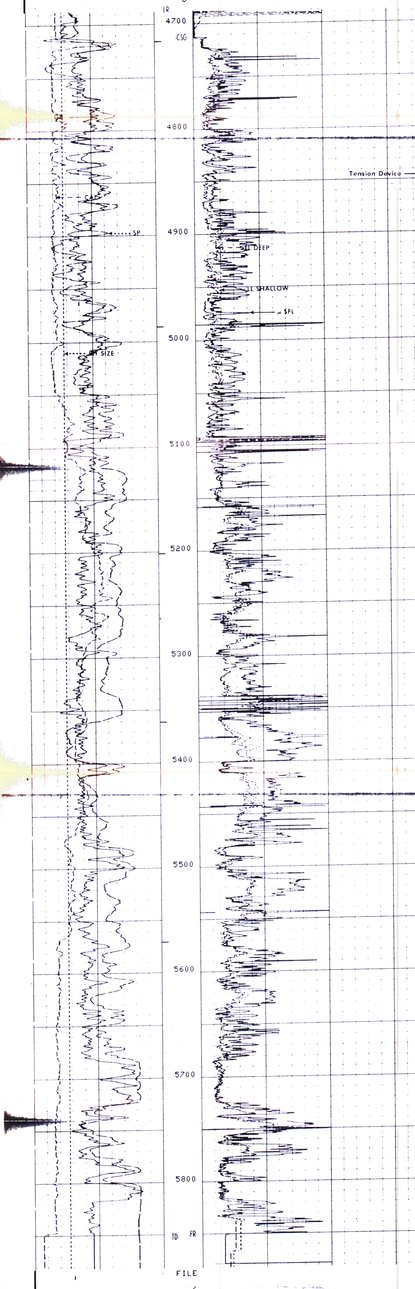
BS (IN) 6.000 — 16.00	LLS (OHMM) 0.0 — 30.00
CALI(IN) 6.000 — 16.00	MSFL(OHMM) 0.0 — 30.00
GR (GAPI) 0.0 — 150.0	LLD (OHMM) 0.0 — 30.00
SP (MV) -80.00 — 20.00	TENS(LB) 10000. — 0.0

FILE 6



FILE 6

BS (IN) 6.000 — 16.00	LLS (OHMM) 0.0 — 30.00
CALI(IN) 6.000 — 16.00	MSFL(OHMM) 0.0 — 30.00
GR (GAPI) 0.0 — 150.0	LLD (OHMM) 0.0 — 30.00
SP (MV) -80.00 — 20.00	TENS(LB) 10000. — 0.0

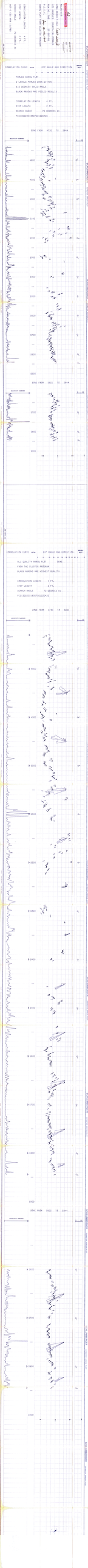
SENSOR MEASURE POINT TO TENSION REFERENCE POINT

SPAR	47.1	FEET	SP	47.1	FEET
CALI	3.7	FEET	GR	33.9	FEET
D190	14.6	FEET	DV90	14.6	FEET
S190	14.6	FEET	SV90	14.6	FEET
D10	14.6	FEET	DV0	14.6	FEET
S10	14.6	FEET	SV0	14.6	FEET
LLS	14.6	FEET	TENS	.0	FEET
CMSF	1.7	FEET	LLD	14.6	FEET
I1	1.7	FEET			

PARAMETERS

NAME	VALUE	UNIT	NAME	VALUE	UNIT
SPT	STAN		BS	8.750	IN
DO	0.0		BHS	OPEN	

RECEIVED
JUN 7 12 01 PM '83
DIVISION OF OIL AND GAS
LONG BEACH, CA



CONVOLUTION CURVE
STP ANGLE AND DIRECTION
FOLIO WARN PLOT
2 LARGE FOLIO WARN WITHIN
3.5 DEGREES SPLIG ANGLE
BLACK WARNING AND FOLIO RESULTS
CONVOLUTION LENGTH 4 FT.
STEP LENGTH 2 FT.
SEARCH ANGLE 75 DEGREES X1
P1S1S0S0S1S0S0P0S1S0S0S0
ZONE FROM 4730 TO 5844
ZONE FROM 5601 TO 5844
ALL QUALITY WARN PLOT 5844
FROM THE CLUSTER PROGRAM
BLACK WARNING AND HIGHEST QUALITY
CONVOLUTION LENGTH 4 FT.
STEP LENGTH 2 FT.
SEARCH ANGLE 75 DEGREES X1
P1S1S0S0S1S0S0P0S1S0S0S0
ZONE FROM 4730 TO 5844
ZONE FROM 5601 TO 5844

SCHLUMBERGER

HIGH RESOLUTION

DIPMETER

CLUSTER LISTING

RECEIVED
OCT 1991

C.H.C. Properties, Ltd.

(037-22513)

Sec. 13 - 4S - 13W

LONG BEACH

LOS ANGELES , CALIFORNIA

NELSON-4-7

RUN NO. TWO JOB NO. 5645

CLUSTER RESULTS ONLY

4 FT. CORR. - 2 FT. STEP

70 DEG. X1 SEARCH ANGLE

tiger

9 5/8" RADII BOND LOG W/ GR & CCL

Company	ALLEN CO	Country	USA
Well	NWLBU 8-7		
Field	LONG BEACH		
County	LOS ANGELES		
State	CALIFORNIA		

Location:			
Company	ALLEN CO		
Well	NWLBU 8-7		
Field	LONG BEACH		
County	LOS ANGELES		
State	CALIFORNIA	Country	USA
API #	NO API#		

Other Services

Date	DEC 06 2013		
Depth Driller	2'10'		
Depth Logger	2'10'		
Bottom Logged Interval	2'10'		
Top Log Interval	8'		
Open Hole Size	7 7/8"		
Density / Viscosity	N/A		
Max Recorded Temp	N/A		
Estimated Cement Top	8'		
Time Well Ready	7:00		
Equipment Number	UNIT #10		
Location	LEASE WATER		
Recorded By	Cesar Rosales		
Witnessed By	IVAN SANCOVAL		

Run Number

Bit / From / To / Size / Weight / From / To

Casing Record / Liner / Production String / Size / Weight / Top / Bottom

Permanent Datum / Log Measured From / Drilling Measured From

SEC / TWP / RGE

GROUND LEVEL / K.B. @ G.L. / Elevation

K.B. / G.L. / Elevation

<<< Fold Here >>>

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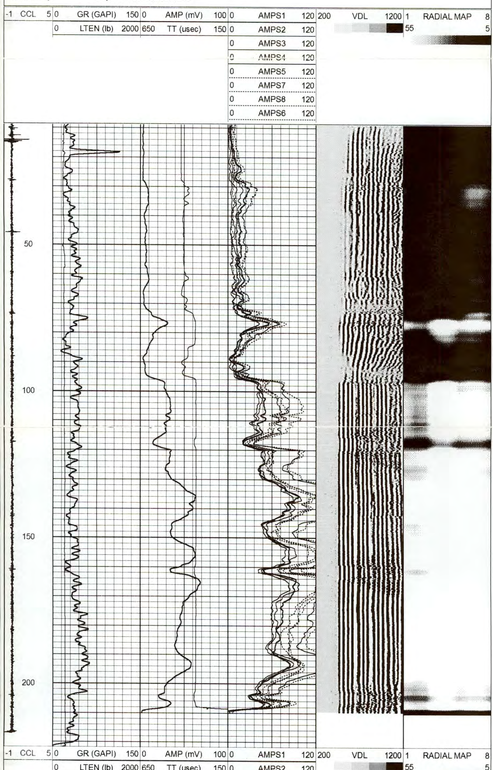
Comments

LOG DEPTHS BASED ON TIGER WIRELINE MEASUREMENTS

Sensor	Offset (ft)	Description	Len (ft)	OD (in)	Wt (lb)
		CHD-AES (000001) Cable Head	1.04	1.38	2.00
		PRC-034 (C1161) Production Roller Centralizer (4 Arm)	2.77	2.38	13.00
WVF3FT	13.17	RBT-Probe (060119_9.625) Probe Radii Bond Tool with Digital Telemetry	9.17	2.75	90.00
WVFCAL	13.17				
WVFS1	13.17				
WVFS2	13.17				
WVFS3	13.17				
WVFS4	13.17				
WVFS5	13.17				
WVFS6	13.17				
WVFS7	13.17				
WVFS8	13.17				
WVF5FT	12.08				
		PRC-034 (C1162) Production Roller Centralizer (4 Arm)	2.77	2.38	13.00
CCL	4.52	CCL-PRO (060312) probe 2.75" & magnet ccl	2.71	2.75	
GR	0.79	GR-PTS (060508) PROBE 2.75" GR/ WITH ATTATCHABLE DUAL OR 6 MAGNET CCL	3.35	2.75	

Dataset: allenconwbu7-8cbl.db: field/well/run1/pass5
Total Length: 21.81 ft
Total Weight: 118.00 lb
O.D. 2.75 in

Database File: allenconwbu7-8cbl.db
Dataset Pathname: pass5
Presentation Format: rbt
Dataset Creation: Fri Dec 06 08:32:17 2013 by Log SCH 120430
Charted by: Depth in Feet scaled 1:240



tiger

9 5/8" RADII BOND LOG W/ GR & CCL

Company	ALLEN CO
Well	NWLBU 7-8
Field	LONG BEACH
County	LOS ANGELES
State	CALIFORNIA
Country	USA

Location: API # : NO API#

Company	ALLEN CO		
Well	NWLBU 7-8		
Field	LONG BEACH		
County	LOS ANGELES		
State	CALIFORNIA	Country	USA

Date	DEC 06 2013		
Run Number	1		
Depth Driller	210'		
Depth Logger	210'		
Bottom Logged Interval	210'		
Top Log Interval	6'		
Open Hole Size	N/A		
Type Fluid	LEASE WATER		
Density / Viscosity	N/A		
Max Rec. Temp.	N/A		
Estimated Cement Top	94'		
Time Well Ready	7:00		
Time Logger on Bottom	8:00		
Equipment Number	UNIT #10		
Location	SIGNAL HILL		
Recorded By	Cesar Rosalcaba		
Witnessed By	IVAN SANDOVAL		

Permanent Datum	SEC	TWP	RGE	Elevation	Other Services
Log Measured From	GROUND LEVEL				
Drilling Measured From	0' K.B. @ G.L.				

Elevation	
K.B.	
D.F.	
G.L.	

Run Number	Borehole Record Bit	From	To	Size	Tubing Record Weight	From	To

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String				
Prot. String				
Production String				
Liner				

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Comments

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Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			CHD-AES (000001) Cable Head	1.04	1.38	2.00
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Charted by: Depth in Feet scaled 1:240

DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS & GEOTHERMAL RESOURCES
5816 Corporate Ave., Suite 100 Cypress, CA 90630-4731
Phone:(714) 816-6847 Fax:(714) 816-6853

REPORT OF WELL ABANDONMENT

Cypress, California
March 27, 2017

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

Your report of abandonment of well **"Nwlbu" 9-2**, A.P.I. No. **037-13525**, Section **13**, T. **04S**, R. **13W**, **SB** B.&M., **Long Beach** field, **Los Angeles** County, dated **4/21/2014**, received **5/6/2014**, has been examined in conjunction with records filed in this office. We have determined that the requirements of this Division have been fulfilled relative to plugging and abandonment of the well, removal of well equipment and junk, and filing of well records. The plugging and abandonment of the well is **approved**.

The determination of this well plugging and abandonment is based on the following information, consistent with California Public Resources Code (PRC), and the California Code of Regulations (CCR):

1. Surface plugging completed on 1/7/2014.

2. Site inspection made and approved on 1/15/2014.

Kenneth A. Harris Jr.
State Oil and Gas Supervisor

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

By
For Daniel J. Dudak, *District Deputy*

EPM:epm

cc: Long Beach Dept. of Gas & Oil

OG159

DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

CHECK LIST – RECORDS RECEIVED AND WELL STATUS

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

RECORDS RECEIVED	DATE
Well Summary (Form OG100)	
History (Form OG103)	**1/8/2014 (2)**
Core Record (Form OG101)	
Directional Survey	
Sidewall Samples	
Date final records received.	
Electric Logs:	
Other:	

STATUS

Producing	☐	Drilling	☐
Abandoned	☒	Idle	☐
Reabandoned	☐	Other	☐

WELL TYPE

Oil	☒	Waterflood	☐
Gas	☐	Water Disposal	☐
Water Source	☐	Cyclic Steam	☐
Observation	☐	Steam Flood	☐
Exploratory	☐	Fire Flood	☐
Dry Hole	☐	Other	☐

EFFECTIVE DATE: 12/24/13

REMARKS: Abandoned

	ENGINEERS CHECK LIST	CLERICAL CHECK LIST
☒	Summary, History & Core Record (Dupl.)	Location change
☐	Electric Log	Elevation change
☒	Operator's Name	Form OGD121
☒	Signature	Form OGD150b (Release of Bond)
☒	Well Designation	Duplicate logs to archives
☒	Location	Notice of Records Due
☐	Elevation	EDP MC 5-2-14
☐	Notices	District Date Base
☒	"T" Reports	Final Letter (OG159)
☐	Casing Record	Update Center MC 5-2-14
☐	Plugs	
☐	Directional Survey	
☒	Production/Injection (FAP Codes: 412-03- —)	
☐	E Well on Prod., enter EDP	**FIELD CHECK LIST**
☒	Surface Inspection Required	Date Surface Inspection Completed: 12/19/2013
☐	Surface inspection Waived (Island)	Other:
☐	Well site restoration deferred (common cellar)	
☒	Final Letter Required AB: ☒ REAB: ☐	
☐	Other:	

RECORDS NOT APPROVED	RECORDS APPROVED BCL 4/30/14
(Reason:)	*(Signature)*
~~Need T Reports BOPE, Cement~~	RELEASE BOND
~~Well Summary (OG 100)~~	Date Eligible
~~Casing Record final~~	*(Use date last needed records received.)*
	MAP AND MAP BOOK

OGD2 5/16/01 CYPRESS

JRAL RESOURCES AGENCY OF CALIFORI
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS & GEOTHERMAL RESOURCES
5816 Corporate Ave., Suite 200 Cypress, CA 90630-4731
Phone:(714) 816-6847 Fax:(714) 816-6853

No. T **114-0090**

REPORT ON OPERATIONS

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

Cypress, California
January 29, 2014

Your operations at well **"Nwlbu" 8-7**, A.P.I. No. **037-22512**, Sec. **13**, T. **04S**, R. **13W**, **SB** B.&M., **Long Beach** field, in **Los Angeles** County, were witnessed on **12/24/2013**, by **Cary Wicker**, a representative of the supervisor.

The operations were performed for the purpose of **re-abandonment**.

DECISION: **APPROVED**

NOTE: **The required Class II3M blowout prevention equipment was inspected and approved on 11/20/2013.**

DEFICIENCIES NOTED AND CORRECTED: **None**

BI/kj

cc: Update
AllenCo

Tim Kustic
State Oil and Gas Supervisor

By
for Daniel J. Dudak, *District Deputy*

OG109 (Rev. 10/2011)

T# 114-0090

DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

CEMENTING/PLUGGING MEMO

Operator C.R.G. Properties, LTD Well No. "Nwlbu" 8-7
API No. 037-22512 Sec. 13 T. 04 S R. 13 W , SB B&M
Field Long Beach , County Los Angeles . On 12-24-2013 ,
Mr. / Ms. Cary Wicker representative of the supervisor, was present from 0900 to 1215 .

There were also present Mick Beyer (Allenco)

Casing record of well: 13 3/8" cem 1122'; 9 5/8" cem 4715', CP 100', 210', and 2440'; 7" ld 4626'-5847'. TD 5850'. Plugged w/ cem 5425' – 3522', 3058' - 2852', 2440' – 2136', 214' – 6'.

The operations were performed for the purpose of: 3 (Re-abandon)

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

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

Hole size: 17 1/2 " fr. 50 ' to 1122 ', 12 1/4 " to 4715 ' & 11 " to 5850 '

Casing				Cemented			Top of Fill		Squeezed Away	Final Pressure	Perforations
Size	Wt.	Top	Bottom	Date	MO-Depth	Volume	Annulus	Casing			
9 5/8"	36#	0'	4715'	12/3/2013	tbg@2440'	180 cf	2218'±	2136'	71 cf	1600 psi	2440'-2450'
9 5/8"	36#	0'	4715'	12/6/2013	tbg@214'	234 cf	6'	6	143 cf	600 psi	100'-110', 210'

Casing/tubing recovered: _____ " Shot/cut at _____ ', _____ ', _____ ', Pulled fr. _____ ';
_____ " Shot/cut at _____ ', _____ ', _____ ', Pulled fr. _____ '.
_____ " Shot/cut at _____ ', _____ ', _____ ', Pulled fr. _____ '.

Junk (in hole):

Hole fluid (bailed to) at _____ '. Witnessed by _____

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

Mudding	Date	bbls	Displaced	Poured	Fill	Engineer
72 / 25 #	12/2/2013	32	3580'*		3069'*	P. Kaufman
72/27	12/3/2013	31	2852'		2450'	R. Morlan
72/35	12/4/2013	146	2136'		250'	T. Tyler

Note: 12 II3M – ZA 11/20/13 **C/O @ 5425'; 11-26-2014; M. Chavez (w/ B. Irick approval).**

Cement Plugs		Placing	Placing Witnessed		Top Witnessed			
Date	Sx./cf	MO & Depth	Time	Engineer	Depth	Wt/Sample	Date & Time	Engineer
11-27-2013	346 CF	Tbg@5425'	1545	M. Chavez	3580'	2000#	12/2/13 0715	P. Kaufman
12/2/2013 **	25 cf	tbg @ 3580'	1100	P. Kaufman	3522'	----	----	ETOC – not tagged
12/2/2013	78 cf	tbg @ 3058'	1115	P. Kaufman	2852'	2000#	12/3/13 0745	R. Morlan
12/3/2013	180 cf	Tbg @ 2440'	1200	R. Morlan	2136'	2000#	12/4/13 0720	T. Tyler
12/6/2013	234 cf	tbg @ 214'	1345	P. Kaufman	6'	visual	12/24/2013 1030	C. Wicker

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

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

HISTORY OF OIL OR GAS WELL

Operator C.R.G. Properties, LTD Field Long Beach County Los Angeles
Well "NWLBU" 8-7 Sec. 13 T. 04S R. 13w sbB.&M.
A.P.I. No. 037-22512 Name Mick Beyer (Person submitting report) Title Operations Manager (President, Secretary, or Agent)
Date 12-15-13 (Month, day, year) Signature M. B
Address 2109 Gundry Ave. Signal Hill, Ca. 90755 Telephone Number 562 989-6100

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

11-20-13	M.I.R.U. – Installed and tested BOPE–Witnessed by Z. Amilhussin w/DOGGR - Secured Well
11-21-13	R.I.H. W/5 ½" Scraper on 2 7/8" tbg. tagged down at 4110' - Circ.with water w/returns of oily water and gas – Witnessed by Z. Amilhussin w/ DOGGR – P.O.H. - Secured well
11-22-13	R.I.H.W/Tbg. Tagged fill at 4110' Cleaned out sand to 4250' unable to work deeper – P.O.H.– Secured
11-25-13 to 11-26-13	R.I.H. W/ 4 1/8" Drill bit Tagged fill at 4250' drilled hard formation, gravel and cement to 4490' dropped to 5423' circ. Hole clean – P.O.H. Witnessed by T. Tyler w/DOGGR - Secured well.
11-27-13	R.I.H. W/ 5 ½" scraper on 2 7/8" tbg. Stopped at 4250' unable to work deeper – P.O.H. – R.I.H. W/Tbg. To 5425' Mixed and pumped 346 cu/ft. (304 sxs) class G cement in 5 stages – All witnessed by M. Chavez w/ DOGGR – Secured well
12-02-13	R.I.H.Tagged cement plug at 3580' – Pumped 30 bbls. of 73# mud – W/Tbg. Tail at 3580' mixed and pumped 25 cu/ft.(22 sxs) class G cement – P.O.H.- W/Tbg. Tail at 3060' Mixed and pumped 78 cu/ft.(68 sxs) class G cement - P.O.H. – All Witnessed by P. Kaufman w/ DOGGR – Secured well
12-03-13	R.I.H. Tagged cement at 2850' – Pump 30 bbls. 73# mud – Prs. Tested csg. At 1000 psi good – P.O.H. - Shot perforations from 2450' to 2440' – P.O.H.- R.I.H.w/ Tbg. Tail at 1914' mixed and pumped 183 cu/ft (161 sxs) class G cement squeezed away 54 cu/ft.(47 sxs) unable to squeeze any more (s.i.prs.1500 psi) Witnessed by R. Morlan w/ DOGGR - secured well
12-04-13	R.I.H. Tagged cement 2136' – Pumped 130 bbls, 73# mud – P.O.H. – R.I.H. Cut 9" casing at 210' – P.O.H. – R.I.H. W/Spear unable to pull casing – Removed B.O.P.E. – Welder cut wellhead bowl – Witnessed by T. Tyler w/DOGGR – Secured well
12-05-13 TO 12-06-13	Attempted to pull casing at 80k unable to pull free – R.I.H. W/Cement bond log found cement between casings from 95' to surface - Shot perforation from 110' to 100' – R.I.H. W/tbg. Tail at 210' mixed and pumped 140 cu/ft.(123 sxs) class G cement – cement to surface – P.O.H.- installed wellhead flange and mixed and pumped 95 cu/ft.(83 sxs) Total of 235 cu/ft (s.i. prs.600 psi) Witnessed by P. Kaufman w/DOGGR - R.D.M.O.
12-24-13	Dug down around well and cut casing ' below surface – C. Wicker w/DOGGR witnessed surface tag and welding of I.D.Plate - Backfilled well location - Job complete.

DOGGR
Received
JAN - 8 2014

SUBMIT IN DUPLICATE

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

HISTORY OF OIL OR GAS WELL

Operator C.R.G. Properties, LTD Field Long Beach County Los Angeles
Well "NWLBU" 8-7 Sec. 13 T. 04S R. 13w sbB.&M.
A.P.I. No. 037-22512 Name Mick Beyer (Person submitting report) Title Operations Manager (President, Secretary, or Agent)
Date 12-15-13 (Month, day, year)
Signature M. B
Address 2109 Gundry Ave. Signal Hill, Ca. 90755 Telephone Number 562 989-6100

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

11-20-13	M.I.R.U. – Installed and tested BOPE–Witnessed by Z. Amilhussin w/DOGGR - Secured Well
11-21-13	R.I.H. W/5 ½" Scraper on 2 7/8" tbg. tagged down at 4110' - Circ.with water w/returns of oily water and gas – Witnessed by Z. Amilhussin w/ DOGGR – P.O.H. - Secured well
11-22-13	R.I.H.W/Tbg. Tagged fill at 4110' Cleaned out sand to 4250' unable to work deeper – P.O.H.– Secured
11-25-13 to 11-26-13	R.I.H. W/ 4 1/8" Drill bit Tagged fill at 4250' drilled hard formation, gravel and cement to 4490' dropped to 5423' circ. Hole clean – P.O.H. Witnessed by T. Tyler w/DOGGR - Secured well.
11-27-13	R.I.H. W/ 5 ½" scraper on 2 7/8" tbg. Stopped at 4250' unable to work deeper – P.O.H. – R.I.H. W/Tbg. To 5425' Mixed and pumped 346 cu/ft. (304 sxs) class G cement in 5 stages – All witnessed by M. Chavez w/ DOGGR – Secured well
12-02-13	R.I.H.Tagged cement plug at 3580' – Pumped 30 bbls. of 73# mud – W/Tbg. Tail at 3580' mixed and pumped 25 cu/ft.(22 sxs) class G cement – P.O.H.- W/Tbg. Tail at 3060' Mixed and pumped 78 cu/ft.(68 sxs) class G cement - P.O.H. – All Witnessed by P. Kaufman w/ DOGGR – Secured well
12-03-13	R.I.H. Tagged cement at 2850' – Pump 30 bbls. 73# mud – Prs. Tested csg. At 1000 psi good – P.O.H. - Shot perforations from 2450' to 2440' – P.O.H.- R.I.H.w/ Tbg. Tail at 1914' mixed and pumped 183 cu/ft (161 sxs) class G cement squeezed away 54 cu/ft.(47 sxs) unable to squeeze any more (s.i.prs.1500 psi) Witnessed by R. Morlan w/ DOGGR - secured well
12-04-13	R.I.H. Tagged cement 2136' – Pumped 130 bbls, 73# mud – P.O.H. – R.I.H. Cut 9" casing at 210' – P.O.H. – R.I.H. W/Spear unable to pull casing – Removed B.O.P.E. – Welder cut wellhead bowl – Witnessed by T. Tyler w/DOGGR – Secured well
12-05-13 TO 12-06-13	Attempted to pull casing at 80k unable to pull free – R.I.H. W/Cement bond log found cement between casings from 95' to surface - Shot perforation from 110' to 100' – R.I.H. W/tbg. Tail at 210' mixed and pumped 140 cu/ft.(123 sxs) class G cement – cement to surface – P.O.H.- installed wellhead flange and mixed and pumped 95 cu/ft.(83 sxs) Total of 235 cu/ft (s.i. prs.600 psi) Witnessed by P. Kaufman w/DOGGR - R.D.M.O.
12-24-13	Dug down around well and cut casing ' below surface – C. Wicker w/DOGGR witnessed surface tag and welding of I.D.Plate - Backfilled well location - Job complete.

DOGGR
Received
JAN -8 2014

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

SUBMIT IN DUPLICATE

Irick, Barry@DOC

To: Abdulrahman, Abdulmageed@DOC
Subject: RE: Well NWLBU 8-7

For cementing in well NWLBU 8-7 per the program contained in the Corrected Permit of July 22, 2013:

The bottom plug was to be above the 7" liner. Top of liner @ 4626'. Bottom plug was to be from 3831'-4626' within a 9 5/8" 36# casing.

4626'-3831' = 795' linear
9 5/8" 36# casing conversion factor: 0.4340 cf/lf
795lf x 0.4340cf/lf = **345cf**

346cf was pumped on 11/27/2013.
25cf was pumped on top of 3580' tag on 12/02/2013.

HOWEVER

Tubing tail was at 5423'.
5423'-4626' (TOL) = 797' in 7" casing
7" 26# casing conversion factor: 0.2148 cf/lf
797lf x 0.2148 cf/lf = 171cf in 7" casing

346cf-171cf = 175cf in 9 5/8" casing
9 5/8" 36# casing conversion factor: 2.3038 lf/cf
175cf x 2.3038 lf/cf = 403lf
4626'-403' = 4223'

4223' SHOULD have been the tag after pumping of 346cf.
4223' – 3580' (actual tag) = 643'
643lf x 0.4340cf/lf = 279cf (where is this from?)

OLD PLUG FROM 4242'-4423' IN 9 5/8" CASING
4423'-4242' = 181'
181lf x 0.4340 cf/lf = 78cf (78.5cf) volume of plug

4 1/8" drill bit used to drill through plug.
4 1/8" hole conversion: 0.0928cf/lf or 10.7752 lf/cf
181lf x 0.0928 cf/lf = 17cf (16.8cf) volume of hole drilled through plug
78cf-17cf = 61cf cement left in hole from plug.

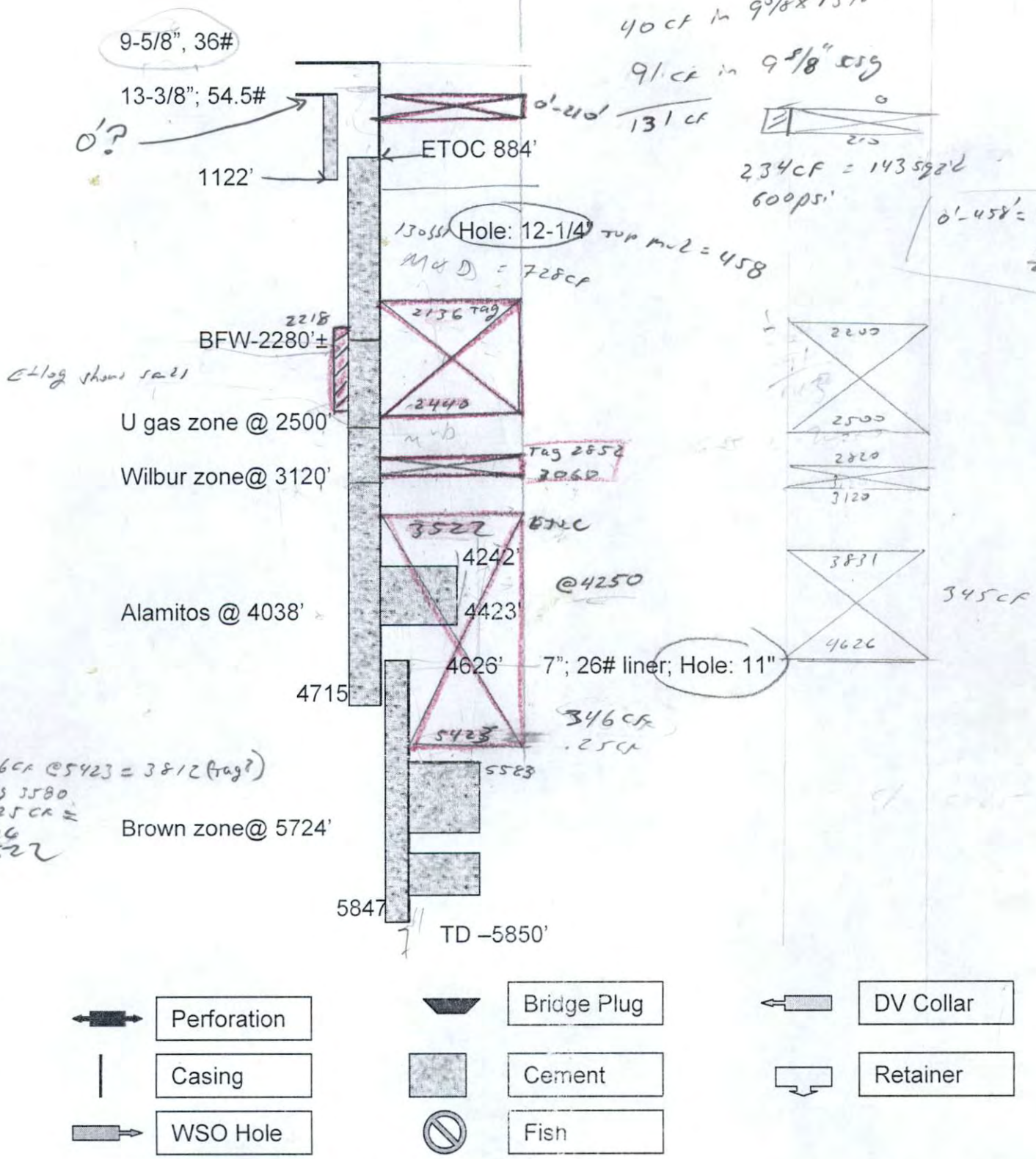
279cf-61cf = 218cf (fill/cement ?) unaccounted for in casing.

From: Abdulrahman, Abdulmageed@DOC
Sent: Thursday, December 12, 2013 9:06 AM
To: Irick, Barry@DOC
Subject: FW: Well NWLBU 8-7

395cf

"Nwbu" 8-7
API: 037-22512

HAM
Well Class – Oil
12/05/2013



Perf: 5724-5777, 4356-4412, 4038-40119

API No. 037-13525 DIVI I OF OIL, GAS, AND GEOTHERMAL RESOURCES T

BLOWOL . PREVENTION EQUIPME MEMO

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

VISITS:	Date	Engineer	Time	Operator's Rep.	Title
1st	11/20/13	Z. Amilhussin	(1630 to 1700)		
2nd			(to)		

Contractor Allenco Rig # 2 Contractor's Rep. & Title I. Sandoval, Rig Manager
Casing record of well: memo

OPERATION: Testing (inspecting) the blowout prevention equipment and installation. Critical well? Y ☒ N ☐
DECISION: The blowout prevention equipment and its installation on the 9 " casing are approved.

Proposed Well Opns: 1. . MACP: psi
Hole size: " fr. ' to ', " to ' & " to '

REQUIRED BOPE CLASS: II3M

CASING RECORD OF BOPE ANCHOR STRING					Cement Details	Top of Cement	
Size	Weight(s)	Grade(s)	Shoe at	CP at		Casing	Annulus

BOP STACK							TEST DATA						
API Symb.	Ram Size (in.)	Manufacturer	Model or Type	Vert. Bore Size (in.)	Press. Rtg.	Date Last Overhaul	Gal. to Close	Recov. Time (Min.)	Calc. GPM Output	psi Drop to Close	Secs. to Close	Test Date	Test Press.
Rd	2 7/8	Townsend	81	9	3M		1						
Rd	cso	Townsend	81	9	3M		1						

TOTAL: 2

ACTUATING SYSTEM

Accumulator Unit(s) Working Pressure psi
Total Rated Pump Output gpm Fluid Level
Distance from Well Bore 25 ft. ok

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

CONTROL STATIONS	Elec.	Hyd.	Pneu.
Manifold at accumulator unit			
Remote at Driller's station			
Other: hand pump		x	

EMERG. BACKUP SYSTEM			Press.	Wkg.Fluid
N_2 Cylinders	1	L= 55 "	2,750psi	10 gal.
Other:	2	L= "		gal.
	3	L= "		gal.
	4	L= "		gal.
	5	L= "		gal.
	6	L= "		gal.
		TOTAL: 10		gal.

HOLE FLUID MONITORING EQUIPMENT	Alarm Type Audible	Visual	Class
Calibrated Mud Pit			A
Pit Level Indicator			B
Pump Stroke Counter			
Pit Level Recorder			
Flow Sensor			C
Mud Totalizer			
Calibrated Trip Tank			
Other:			

AUXILIARY EQUIPMENT

		No.	Size (in.)	Rated Press	Connections Weld	Flange	Thread	Test Press.
	Fill-up Line							
x	Kill Line		2	3M			x	
x	Control Valve(s)	2		3M			x	
	Check Valve(s)							
	Aux. Pump Cnnct.							
	Choke Line							
	Control Valve(s)							
	Pressure Gauge							
	Adjstble Choke(s)							
	Bleed Line							
	Upper Kelly Cock							
	Lower Kelly Cock							
	Standpipe Valve							
	Stndpipe Pres. Gau.							
x	Pipe Safety Valve		2.88	3M				
	Internal Preventer							

Hole Fluid Type	Weight	Storage Pits (Type & Size)
lease water		50 bbl pump, 250 bbl spare

REMARKS AND DEFICIENCIES:

OGD9 (9/06)

CONTRACTOR: Allenco

UNCORRECTABLE DEFICIENCIES:

DEFICIENCIES NOTED AND TO BE CORRECTED:

DEFICIENCIES NOTED AND CORRECTED:

none

NATURAL RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS & GEOTHERMAL RESOURCES
5816 Corporate Ave., Suite 200 Cypress, CA 90630 - 4731

No. P 113-0598

Old	New
412	412
FIELD CODE	
03	03
AREA CODE	
00	--
POOL CODE	

PERMIT TO CONDUCT WELL OPERATIONS

CRITICAL WELL
CORRECTED COPY

Cypress, California
July 22, 2013

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

Your proposal to **(Re) Abandon** well **"Nwlbu" 8-7**, A.P.I. No. **037-22512**, Section **13**, T. **04S**, R. **13W**, **SB** B. & M., **Long Beach** field, **Northwest Extension** area, **Brown** pool, **Los Angeles** County, dated **7/10/2013**, received **7/10/2013** has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:

1. Blowout prevention equipment, as defined by this Division's publication No. M07, shall be installed and maintained in operating condition and meet the following minimum requirements:
   a. Class **II3M,** with hydraulic controls, during **abandonment** operations.
   b. A **3M lubricator** for **wire line** operations.
2. Blowout prevention practice drills are conducted at least weekly and recorded on the tour sheet. A practice drill may be required at the time of the test/inspection.
3. The well is cleaned out to **4626'**.
4. The well is plugged with cement from **4626'** to **3831'**.
5. The proposed cement plug from **2600'** to **2180'** shall extend from **2500'** to at least **2200'.**
6. All portions of the well not plugged with cement are filled with inert mud fluid having a minimum density of **72** lbs/cu.ft and a minimum gel shear strength of **25** lbs./100 sq. ft.
7. Prior to shooting any perforations for braidenhead squeezes, a pressure test of the **9-5/8"** casing shall be made to ensure casing integrity. If casing integrity is not demonstrated, a retainer or packer is required for squeeze operations.
8. All casing must be removed from between 5' and 10' below ground level.
9. Well site restoration shall be completed within 60 days following the completion of plugging operations.
10. A steel plate, at least as thick as the outer well casing and bearing the last five digits of the API number, shall be tack welded around the top circumference of the outer casing.
11. The well location shall be surveyed prior to burying the well, and the survey shall be filed with this office. Latitude and longitude shall be in decimal degrees, to six decimal places, in NAD83.
12. No program changes are made without prior Division approval.

(Continue on page 2)

No Bond Required Bond
cc: Update
EDP
AllenCo.
DOGGR – Dist. 1 (Cypress)

Tim Kustic
State Oil and Gas Supervisor

Engineer Ellen Moser
Office (714) 816-6847

By _____
For: Daniel J. Dudak, *District Deputy*

GN/gn

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.

13. THIS DIVISION SHALL BE NOTIFIED TO:
    a. Inspect the installed blowout prevention equipment prior to commencing **downhole** operations.
    b. Witness the clean-out depth at **4426'**.
    c. Witness the placing, location and hardness of the cement plug from **4626'** to **3831'**.
    d. Witness the mudding operations.
    e. Witness the placing, location and hardness of the cement plug from **3120'** to **2820'**.
    f. Witness the placing, location and hardness of the cement plug from **2500'** to **2200'**.
    g. Witness the cement squeeze through the **perforations** at **200'** or through a retainer or packer (if casing integrity is not demonstrated).
    h. Witness the placing, location and hardness of the cement plug from **210'** to **0'**.
    i. Inspect the restored well site.

NOTE:

1. The well abandonment history (History of Oil or Gas Well - form OG103), must include a description of the removal or abandonment of the well flowline and any associated piping.
2. Upon completion of the proposed work, a History of Oil or Gas Well (form OG103) shall be submitted to this office.
3. Hydrogen sulfide gas (H_2S) is known to be present in this area, adequate safety precautions shall be taken prior to and during well operations.
4. The operator shall isolate the following zones:
    a. **Base of the Freshwater Sand 2280'**
    b. **Top of the Upper Gas Zone 2500'**
    c. **Top of the Wilbur Zone 3120'**
    d. **Top of the Alamitos Zone 4038'**
    e. **Top of the Brown Zone 5724'**

    Failure to achieve adequate zonal isolation may have negative impacts on current and future operations. In addition, failure to achieve adequate zonal isolation will also be noted on the Report of Operations (OG 109).

ATURAL RESOURCES AGENCY OF CALIFO
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS & GEOTHERMAL RESOURCES
5816 Corporate Ave., Suite 200 Cypress, CA 90630 - 4731

No. P 113-0598

Old	New
412	412
FIELD CODE	
03	03
AREA CODE	
00	--
POOL CODE	

PERMIT TO CONDUCT WELL OPERATIONS

CRITICAL WELL

Cypress, California
July 22, 2013

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

Your proposal to **(Re) Abandon** well **"Nwlbu" 8-7**, A.P.I. No. **037-22512**, Section **13**, T. **04S**, R. **13W**, **SB** B. & M., **Long Beach** field, **Northwest Extension** area, **Brown** pool, **Los Angeles** County, dated **7/10/2013**, received **7/10/2013** has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:

1. Blowout prevention equipment, as defined by this Division's publication No. M07, shall be installed and maintained in operating condition and meet the following minimum requirements:
   a. Class **II3M,** with hydraulic controls, during **abandonment** operations.
   b. A **3M lubricator** for **wire line** operations.
2. Blowout prevention practice drills are conducted at least weekly and recorded on the tour sheet. A practice drill may be required at the time of the test/inspection.
3. A diligent effort shall be made to clean out to **4242'**.
4. All portions of the well not plugged with cement are filled with inert mud fluid having a minimum density of 72 lbs/cu.ft and a minimum gel shear strength of **25** lbs./100 sq. ft.
5. Prior to shooting any perforations for braidenhead squeezes, a pressure test of the **9-5/8"** casing shall be made to ensure casing integrity. If casing integrity is not demonstrated, a retainer or packer is required for squeeze operations.
6. The proposed cement plug from **3120'** to **2920'** shall extend from **3130'** to at least **2930'**.
7. All casing must be removed from between 5' and 10' below ground level.
8. Well site restoration shall be completed within 60 days following the completion of plugging operations.
9. A steel plate, at least as thick as the outer well casing and bearing the last five digits of the API number, shall be tack welded around the top circumference of the outer casing.
10. The well location shall be surveyed prior to burying the well, and the survey shall be filed with this office Latitude and longitude shall be in decimal degrees, to six decimal places, in NAD83.
11. No program changes are made without prior Division approval.
    a. Inspect the installed blowout prevention equipment prior to commencing **downhole** operations.

(Continue on page 2)

No Bond Required Bond
cc: Update
EDP
AllenCo.
DOGGR – Dist. 1 (Cypress)

Tim Kustic
State Oil and Gas Supervisor

By _____
For: Daniel J. Dudak, *District Deputy*

Engineer Ellen Moser
Office (714) 816-6847

GN/gn

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

b. Witness the clean-out depth at **4242'**.
c. Witness the placing, location and hardness of the cement plug from **3130'** to **2930'**.
d. Witness the mudding operations.
e. Witness the placing, location and hardness of the cement plug from **2600'** to **2180'**.
f. Witness the cement squeeze through the **perforations** at **200'** or through a retainer or packer (if casing integrity is not demonstrated).
g. Witness the placing, location and hardness of the cement plug from **210'** to **0'**.
h. Inspect the restored well site.

NOTE:

1. The well abandonment history (History of Oil or Gas Well - form OG103), must include a description of the removal or abandonment of the well flowline and any associated piping.
2. Upon completion of the proposed work, a History of Oil or Gas Well (form OG103) shall be submitted to this office.
3. Hydrogen sulfide gas (H_2S) is known to be present in this area, adequate safety precautions shall be taken prior to and during well operations.
4. The operator shall isolate the following zones:
   a. **Base of the Freshwater Sand 2280'**
   b. **Top of the Upper Gas Zone 2500'**
   c. **Top of the Wilbur Zone 3120'**
   d. **Top of the Alamitos Zone 3930'**
   e. **Top of the Brown Zone 4380'**

   Failure to achieve adequate zonal isolation may have negative impacts on current and future operations. In addition, failure to achieve adequate zonal isolation will also be noted on the Report of Operations (OG 109).

I# 113-0598 OG/EL

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

FOR DIVISION USE ONLY			
	Forms		
Bond	OGD114	OGD121	
BB	7/13/13	7/10/13	RF

NOTICE OF INTENTION TO ABANDON / RE-ABANDON WELL

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

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon ☒ / re-abandon ☐ (Check one) well "Nwlbu" 8-7, API No. 037-22512,

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

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

The total depth is: 5847 feet. The effective depth is: 4243 feet.

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

Oil or gas shows: see attachment (Name and depth) feet. Depth to base of fresh water: 2280 feet.

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

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

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

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

Name of Operator			
C.R.G. Properties, Ltd			
Address: 2109 GUNDRY AVE.		City/State: SIGNAL HILL	Zip Code: 90755
Name of Person Filing Notice: MICK BEYER	Telephone Number: 562 989-6100	Signature: M. B	Date: 07-10-13
Individual to contact for technical questions: MICK BEYER	Telephone Number: 310 505-9787	E-Mail Address: Mbeyer@allencoca.com	

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

DOGGR Received- JUL 10 2013 bEl ox 7/10/13

OG108 (1/09)

CRITICAL WELL DEFINITION

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

(1) 300 feet of the following:
  (A) Any building intended for human occupancy that is not necessary to the operation of the well; or
  (B) Any airport runway.
(2) 100 feet of the following:
  (A) Any dedicated public street, highway or the nearest rail of an operating railway that is in general use;
  (B) Any navigable body of water or watercourse perennially covered by water;
  (C) Any public recreational facility such as a golf course, amusement park, picnic ground, campground or any other area of periodic high-density population; or
  (D) Any officially recognized wildlife preserve.

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

EXHIBIT A – Attachment II (continued)
WELL CONDITIONS AND ABANDONMENT SPECIFICATIONS

C.R.G. Properties, Ltd. Well "Nwlbu" 8-7 (037-22512), Sec.13, Twn. 4S, Rge. 13W, S.B. B&M, Long Beach Oil Field

According to Division records, the present condition of the well is as follows:

1. **Location:** See map Exhibit A - Attachment II
2. **Accessibility:**
3. **Status:** Idle deserted
4. **Total Depth:** 5847' **Effective Depth:** 4243, **Elevation of Kelly Bushing (KB) above sea level:** 55.5'.
5. **Casing: 13-3/8"**cemented at 1122'; **9 5/8"** casing cemented at 4715', cemented to 884' behind pipe; 7" casing landed from 4626' to 5847, perf @ int. 5724-5777',perf 4038'-4119 & perf int @ 4356-4412..TD 5847'.Plugged w/cem 5777'-5583'& 4423'-4242'.
6. **Tubing:** Unknown **Rods:** Unknown
7. **Base of Fresh Water (BFW):** 2280'
8. **Producing Zone(s):** Brown
9. **Hole Fluid:** Unknown
10. **Junk:** Unknown
11. **Plugs:** 5777'-5583' & 4423'-4242'.
12. **Comments:** Top of Brown zone 4380', top of Alamitos zone 3930', top of Wilbur zone 3120', and top of Upper Gas zone 2500'.

The following operations are necessary to plug and abandon the well:

1. A Notice of Intention to Abandon (form OG 108) is to be filed with this Division at least 10 days prior to commencing work. Work is not to begin until a Permit to Conduct Well Operations (Form OG 111) has been issued. All well operations are to be witnessed by a representative of this Division as directed in the Permit to Conduct Well Operations.

2. The abandonment contractor will review job safety programs (JSP) with all crewmembers prior to work startup and/or if conditions change. Monitor well for any leaking gas. Position gas monitors and ventilation fans, if warranted before moving in any other equipment or personnel.

3. Adequate blowout prevention equipment, as defined in Division's publication No. M07, shall be installed and maintained in operating condition at all times. The minimum requirements are:

   a. A 3M rod Reagan or equivalent BOPE for pulling rods and pump operations.
   b. A Class II3M, with hydraulic controls, during abandonment operations.
   c. A 3M lubricator for wire line operations.

4. All portions of the well not plugged with cement are filled with inert mud fluid having a minimum density of 72 lbs/cu ft and a minimum gel shear strength of 25 lbs. /100 sq. ft. All cement plugs are to have a minimum compressive strength of 1000 psi and maximum liquid permeability of 0.1 md. All depths noted are from the KB.

5. Hole fluid of a quality and in sufficient quantity to control all subsurface conditions in order to prevent blowouts shall be used.

6. Kill well. Install and function test rod Reagan or equivalent BOPE. Pull out of the hole with rods and pump.

EXHIBIT A – Attachment II (continued)
WELL CONDITIONS AND ABANDONMENT SPECIFICATIONS

7. Remove rod Reagan. Install and function test Class II3M BOPE (function test BOPE each day thereafter).
8. Pull out all production tubing.
9. Use appropriate combination tools to clean out to 4243'.
10. Run in scraper. Scrape the 7" casing.
11. Run in hole with tubing (if tag high, clean out fill to 4243).
12. The well shall be plugged with cement from 4243' to3730'
13. The well shall be plugged with cement from 3120' to 2920.
14. The well shall be plugged with cement from 2600' to 2180.
15. Prior to shooting any perforations for braidenhead squeezes, a pressure test of the casing shall be made to ensure casing integrity. If casing integrity is not demonstrated, a packer is required for squeeze operations.
16. The 9-5/8" casing shall be perforated from 210 to 200'. Get an injection rate or a breakdown.
17. Sufficient cement shall be squeezed into the perforations to fill to surface.
18. The well shall be plugged with cement from 210' to surface.
19. All casing must be removed from between 5' and 10' below ground level.
20. A steel plate, at least as thick as the outer well casing and bearing the last five digits of the API number, shall be tack welded around the top of the outer casing.
21. Cellar, production pads and pipelines shall be removed and the resulting excavations filled with earth and compacted properly to prevent settling.
22. Remaining buried pipelines that cannot be removed shall be purged with clean water. Abandon line by pumping approved cement slurry mixture, weld steel cap on both ends of the line and bury.
23. All equipment, casing, or junk that requires removal to implement restoration to lawful conditions shall be removed and properly disposed of in accordance with environmental laws and in accordance with instructions from the Division of Oil and Gas. All liquid wastes shall be removed and properly disposed.
24. A well History (Form OG 103) shall be filed in duplicate with the Division within 60 days of completing the work and must include a description of the removal or abandonment of the well flow line and any associated piping.

DEPARTMENT OF CONSERVATION
Legal Office
801 K Street
Sacramento, California
Telephone (916) 323-6733
Facsimile (916) 445-9916

STATE OF CALIFORNIA

NATURAL RESOURCES AGENCY

DEPARTMENT OF CONSERVATION

DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

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

NO. 1032

Dated: October 17, 2012

Operator: C.R.G. Properties, Ltd. (C0250)

BY

Tim Kustic

STATE OIL AND GAS SUPERVISOR

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

REPORT OF CANCELLATION

Cypress, California
March 29, 2010

J. W. Scott
6191 Point Loma
Huntington Beach, CA 92647

In accordance with **the expiration of Permit to Conduct Well Operations** the following change pertaining to your well **C.R.G. Properties Ltd/"Nwlbu" 8-7**, API. No. **037-22512**, **Long Beach** Field, **Los Angeles** County, Sec. **13**, T. **4**S, R. **13**W, S.B. B. & M., is being made in our records:

Your notice to **abandon** dated **02/18/2009**, and our report No. P **109-0096** issued in answer thereto, is hereby **cancelled** inasmuch as the work will not be done. If you have an individual bond on file covering this notice, it will be returned. No request for such return is necessary.

Elena M. Miller
State Oil and Gas Supervisor

By Ellen P. Moser
Associate Engineer

CANCELLATION/ CORRECTION made:	Date/Initial
Form 121	3-29-2010
Form 177	/
Form 140	/
WELL Reports	3-29-2010
RECORDS: Log Fld	
EDP	4-1-10 vm
BOND	/
FIELD MAP	/
MAP BOOK	/

cc: Update
City of Signal Hill
C.R.G. Properties, Ltd.

OG165 3-17-99

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

No. P 109-0096

412
(Field Code)

PERMIT TO CONDUCT WELL OPERATIONS

03
(Area Code)

--
(New Pool Code)

00
(Old Pool Code)

J. W. Scott
6191 Point Loma
Huntington Beach, CA 92647

Cypress, California
March 4, 2009

Your proposal to **abandon** well **C.R.G. Properties, Ltd./"Nwlbu" 8-7**, A.P.I. No. **037-22512**, Section **13**, T. **4S**, R. **13W**, **S.B.** B. & M., **Long Beach** Field, **Northwest Extension** area, -- pool, **Los Angeles** County, dated **2/18/2009**, received **2/19/2009** has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:

1. Blowout prevention equipment with hydraulic controls, equivalent to this Division's Class **II3M** requirements, or better, shall be installed and maintained in operating condition.
2. All portions of the well not plugged with cement shall be filled with clay base mud having a minimum density of 72 lb/cu ft and a minimum gel-shear strength of 25 lb/100 sq ft.
3. The well shall be plugged with cement from **2600'** to **2500'**, and **2330'** to **2230'**.
4. All uncemented casing annuli shall be cemented from **30'** to **5'**.
5. This Division shall be consulted and a Supplementary Notice may be required before making any changes in the proposed program.
6. **THIS DIVISION SHALL BE NOTIFIED TO:**
   a. Inspect the installed blowout prevention equipment prior to commencing downhole operations.
   b. Witness the clean-out depth
   c. Witness the location and hardness of the cement plug at **2835'**.
   d. Witness the mudding of the well.
   e. Witness the placing, location and hardness of the cement plug from **2600'** to **2500'**.
   f. Witness the placing, location and hardness of the cement plug from **2330'** to **2230'**.
   g. Witness the placing, location and hardness of the cement plug from **100'** to **5'**.
   h. Inspect and approve the cleanup of the well site within 60 days after placement of the surface plug.

NOTE:

1. A crew drill may be required at the time of the blowout prevention equipment inspection.
2. The proposed surface plug shall not contain rock or gravel.
3. The base of freshwater sands is at **2270'±**.
4. This division does not pass upon your right to enter the property, but merely approves the proposal as conforming to our requirements.

JCH:jch

cc: Update
City of Signal Hill
C.R.G. Properties, Ltd.
BLANKET BOND

Cancelled 3-29-2010

Hal Bopp
State Oil and Gas Supervisor

Engineer: John Huff

Phone: 714/816-6847

By _____
For William E. Brannon, *Deputy Supervisor*

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

OG 111

P#109-0096

09/GB

NATURAL RESOURCES AGENCY OF CALIFORNIA

DEPARTMENT OF CONSERVATION

DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

FOR DIVISION USE ONLY			
	Forms		
Bond	OGD114	OGD121	
BB	2-28-09 KJ	2-24-09 KJ	

NOTICE OF INTENTION TO ABANDON / RE-ABANDON WELL

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

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon ☒ / re-abandon ☐ well NWLBU 8-7, API No. 037-22512
(Check one)

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

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

The total depth is: 5837 feet. The effective depth is: 4243 feet.

Present completion zone(s): Upper Alamitos (Name). Present zone pressure: 800 psi.

Oil or gas shows: _____ (Name and depth) feet. Depth to base of fresh water: 2935 feet.

Top of uppermost hydrocarbon zone (which may be behind unperforated casing): 3670 (Depth of interval) feet.

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

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

Cancelled 3-29-2010

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

Name of Operator CRG Properties			
Address 6191 Point Loma		City/State Huntington Beach, CA	Zip Code 92647
Name of Person Filing Notice J.W. Scott	Telephone Number: (714) 290-9190	Signature J.W. Scott	Date 2/18/09
Individual to contact for technical questions: J.W. Scott	Telephone Number: (714-290-9190	E-Mail Address: JScott16@socal.rr.com	

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

CRITICAL WELL

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

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

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

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

ABANDONMENT PROGRAM
Well NWLBU (A)

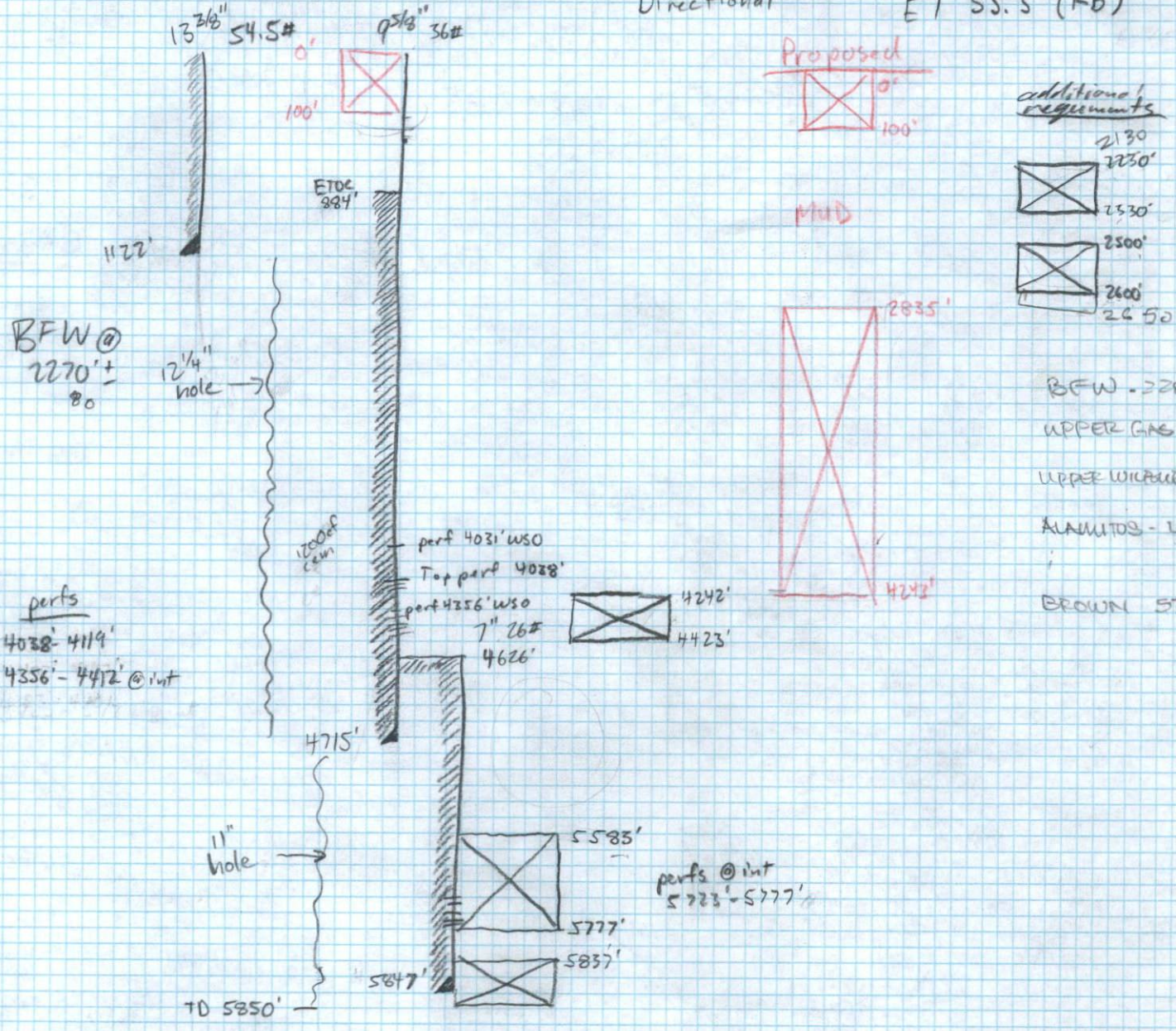
A 8-7

1. MIRU. Install and test class III 3 M BOPE.
2. PU and RIH with 2 7/8" workstring and cleanout to 4243'(TD). POOH.
3. MU and RIH with cementers. Cement from TD to 2835' to 611 cf class G cement. PU.
4. .RIH and tag for top of cement.
5. Mud well from TOC to surface @ 219 bbls of 72 pcf cude.
6. RIH with tbq and cement 7" casing and 7" x 10 3/34" annulus from 100' to surface with 80 cf of class G cement. RDMO.
7. Cut recover csqs 8' below surface. Weld or plate on largest diameter csq.
8. Remove cellar. Cleanup well site.

wlbu 8-7 (037-22512)

Directional

El 55.5' (KB)



9 5/8" csg cem w/ 1276 cf cem w/ 26 cf cem
left in shoe & 1200 cf cem in 9 5/8" x 12 1/4" annulus

JCH
3/2/2004

TOPS FORM 33101
MADE IN U. S. A.

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

REPORT OF PROPERTY AND WELL TRANSFER

Field or County	District
Long Beach	District 1 (Cypress, California)
Former owner: Pacific Energy Res. P0252	Date: July 26, 2000

Well Name	API Number	Section Township Range
"Nwlbu" 5-2	037-00397	Sec. 13-4S-13W
"Nwlbu" 5-3	037-09796	Sec. 13-4S-13W
"Nwlbu" 5-4	037-09797	Sec. 13-4S-13W
"Nwlbu" 8-3	037-06496	Sec. 13-4S-13W
"Nwlbu" 8-4	037-06415	Sec. 13-4S-13W
"Nwlbu" 8-7	037-22512	Sec. 13-4S-13W
"Nwlbu" 9-2	037-13525	Sec. 13-4S-13W
"Nwlbu" 9-3	037-09791	Sec. 13-4S-13W
"Nwlbu" 9-4	037-00392	Sec. 13-4S-13W
"Nwlbu" 9-5	037-00142	Sec. 13-4S-13W
"Nwlbu" 9-6	037-00393	Sec. 13-4S-13W

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

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

OPERATOR STATUS ABBREVIATIONS	Deputy Supervisor	Signature
PA – Producing Active	R. K. Baker	Floyd M. Leeson Operations Engineer
NPA- No potential, Active		
PI- Potential Inactive		
NPI-No potential, Inactive		
Ab-Abandoned or No More Wells		

FORM AND RECORD CHECK LIST

Form or Record	Initials	Date	Form or Record	Initials	Date
Form OGD121	N/A		Map and Book		
Operator Card			Notice cancellations	N/A	
Well Records	SR	7/27/2000	Bond Status BB/FML	SR	7/26/2000
Log Records	SR	7/31/2000	EDP	SR	7/27/2000
Production Repts	N/A		Data Base	SR	7/27/2000

cc: Update; Envir Dsk; File
Conservation Committee
Harold W. Bertholf, Inc.
LA County Assessor
Sacramento EDP
Cypress EDP

OGD156 12-2-98 Cypress

WELL TRANSFER NOTICE

EFFEC MAY 9, 1994, PETRO RESOURCES, INC.
TRANS LONG BEACH NWLBU WELLS
TO PACIFIC ENERGY ~~CORP~~ Resources
SEE OGD156 DATED 5-13-94

FORM OGD156 (5-80)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF PROPERTY AND WELL TRANSFER

Field or county	District
Long Beach	1
Former owner	**Date**
Sun Exploration & Production Co.	June 15, 1983

Name and location of well(s)

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

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

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

Date of transfer, sale, assignment, conveyance, or exchange	New owner	Type of organization
May 1, 1983	Petro Resources, Inc.	Corp.
	Address: 4200 Easton Drive, Suite 16, Bakersfield, CA 94309	Telephone No. 805/323-4118

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

Confirmed by
Letter form Petro Resources, Inc., dated 5-18-83.

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

Deputy Supervisor	Signature
V. F. Gaede	Richard L. Manuel

OPERATOR STATUS ABBREVIATIONS

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

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Form OGD121	CP	7-7-83	Map and book	137	7/12/83
Form OGD140	NONE		Notice to be cancelled		
New well cards	CP	7-7-83	Bond status		
Well records	CP	7-7-83	EDP files		
Electric logs	CP	7-7-83	Update Conservation Committee		
Production reports			L. A. Assessors		

DIVISION OF OIL AND GAS

CHECK LIST - RECORDS RECEIVED AND WELL STATUS

Company Sun Oil Company Well No. NWLBU 8-7

API No. 037-22512 Sec. 13, T. 4S, R. 13W, S.B. B.&M.

County _____ Field Long Beach

RECORDS RECEIVED	DATE	
Well Summary (Form OG100)	11/2/82	(2)
History (Form OG103)	11/2/82	(2)
Core Record (Form OG101)		
Directional Survey	5/19/83	(2)
Sidewall Samples		
Other		
Date final records received		
Electric logs:		
Dipmeter (Cluster)	10-21-81	(2)
Approx Plot (Cluster)	10-21-81	(2)
Dual Ind.	5/27/83	(2)
Comp. Neutron	5/27/83	(2)
Dual Ind.	5/27/83	(2)
Cement Bond	5/27/83	(2)

STATUS		STATUS	
Producing - Oil		Water Disposal	
Idle - Oil	✓	Water Flood	
Abandoned - Oil		Steam Flood	
Drilling - Idle		Fire Flood	
Abandoned - Dry Hole		Air Injection	
Producing - Gas		Gas Injection	
Idle - Gas		CO_2 Injection	
Abandoned - Gas		LPG Injection	
Gas-Open to Oil Zone		Observation	
Water Flood Source			

DATE 5-14-82

RECOMPLETED _____

REMARKS _____

ENGINEER'S CHECK LIST

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

Dipmeter ✓

" ✓

R. Manuel/Vicky Grupp 5-18-83 will send D.S. & E-log right away.

CLERICAL CHECK LIST

1. Location change ____ (F-OGD165) _____
2. Elevation change ____ (F-OGD165) _____
3. Form OGD121
4. Form OG159 (Final Letter)
5. Form OGD150b (Release of Bond)
6. Duplicate logs to archives
7. Notice of Records due (F-OGD170)

No. P 182-109

Cont. Dipmeter 5/27/83 (2)

Hold for rest of records 10/23/81

BB UPDATE CENTER 6/7/83

RECORDS NOT APPROVED 12-2-82

Reason: Need E-log, dir survey

RECORDS APPROVED TM

RELEASE BOND _____

Date Eligible _____

(Use date last needed records were received.)

MAP AND MAP BOOK 137 6/7/83

LONG BEACH OFFICE - USE REVERSE SIDE

OGD2 (12/80/DWRR/5M)

Form OG100 (7/79)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

API No. 037-22512

WELL SUMMARY REPORT

Operator	Well
SUN EXPLORATION AND PRODUCTION COMPANY	NWLBU #8-7

Field	County	Sec.	T.	R.	B.&M.
LONG BEACH	LOS ANGELES	13	4S	13W	SB

Location (Give surface location from property or section corner, street center line and/or California coordinates): 487.44' N & 778.80' W OF SAN ANTONIO DRIVE & DEL MAR AVENUE

Elevation of ground above sea level: 45.5

Commenced drilling (date): 8/25/81

Completed drilling (date) TA: 5/14/82

Commenced producing (date): N/A

☐ Flowing ☐ Pumping ☐ Gas lift

Name of producing zone(s): LOWER ALAMITOS BROWN "I"

Total depth: (1st hole) 5837' (2nd) (3rd)

Present effective depth: 4243'

Junk: NONE

Depth measurements taken from top of: ☐ Derrick Floor ☐ Rotary Table ☒ Kelly Bushing

Which is 10± feet above ground

GEOLOGICAL MARKERS	DEPTH
UPPER ALAMITOS I_1	4038'
I_2	4080'
LOWER ALAMITOS K_1	4367'
BROWN ZONE V	5724'

Formation and age at total depth: LOWER ALAMITOS

	Clean Oil (bbl per day)	Gravity Clean Oil	Percent Water including emulsion	Gas (Mcf per day)	Tubing Pressure	Casing Pressure
Initial Production	N/A					
Production After 30 days	N/A					

CASING RECORD (Present Hole)

Size of Casing (API)	Top of Casing	Depth of Shoe	Weight of Casing	Grade and Type of Casing	New or Second Hand	Size of Hole Drilled	Number of Sacks or Cubic Feet of Cement	Depth of Cementing (if through perforations)
13 3/8"	SURFACE	1122'	54.5#	K-55, BT&C	NEW	17 1/2"	1456 CF POZ MIX "A" & 100 CF CL "G"	
9 5/8"	SURFACE	4715'	36.0#	K-55, LT&C S-80, ST&C	NEW	12 1/4"	1076 CF CL "G" & 200 CF CL "G"	
7"	4626'	5847'	26.0#	K-55, BT&C	NEW	8 3/4"	468 CF POZ MIZ "A" & 100 CF CL "G"	

PERFORATED CASING (Size, top, bottom, perforated intervals, size and spacing of perforation and method.)
4- 1/2" HPF 4119'-4109': 143 SHOTS W/4-1/2" HPF 4412'-4402'; 4401'-4383': 4-1/2" H @ 4356': PERF'D 4-1/2" HPF 4412'-4402'; 4401'-4383': WSO 4-3/8" H @ 4031': 4-.43" HPF 5757'-5749', 5748'-5738', 5736.5'-5734.5', 5733'-5723.5'

Was the well directionally drilled? If yes, show coordinates at total depth
☒ Yes ☐ No 460' N & 82" W

Electrical log depths
FDC-CNL-GR-CAL-TEN 4902'-3000': DLL-GR-TEN 5850'-4713': FDC-CNL-GR-CAL-TEN 5850'-4713'

Other surveys
GAMMA RAY 4500'-4000': GAMMA RAY CMT BOND LOG 4200'-3348': DIPMETER

In compliance with Sec. 3215, Division 3 of the Public Resources Code, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Name	Title
L. B. CARROLL, JR.	DISTRICT ENGINEER

Address	City	Zip Code
P O BOX 55060	VALENCIA	91355-0560

Telephone Number	Signature	Date
805/257-6200	L B Carroll Jr	10/28/82

SUBMIT IN DUPLICATE

SUBMIT IN DUPLICATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

Sun Exploration & Production Co.

Operator Sun Production Division Field or County Long Beach
Well Northwest Long Beach Unit #8-7, Sec. 13, T 4S, R 13W, SB B. & M.
A.P.I. No. 037-22512 Name L.B. Carroll, Jr. (Person submitting report) Title Agent (President, Secretary or Agent)
Date October 28, 1982, 19

Signature L B Carroll Jr.

PO Box 55060, Valencia, CA 91355 0560 (Address) (805) 257-6200 (Telephone Number)

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

Date 1981	
8/25	5826 TVD/"V"/IR/ATLANTIC/LA CA/WI 1.00/SURF LOC: 487.44' N & 778.80' W OF SANTONIO DR & DEL MAR AVE/BHL: 463 N, 100' W OF SURF LOC/ 370' SD SH D (320) MXNG LCM/MIRU ATLANTIC OIL RIG #3/SPUD @ 2 PM 8-24-81/DRLG 17½" HOLE FRM 50-370, LOST COMPLETE RTNS/WRK TIGHT PIPE OUT OF HOLE/MW 68/VIS 45/
8/26	370 DRLG OUT CMT/MX & PMP 100 BBLS OF 18# PER BBL LCM,NO RTNS/w DP @ 240, PMP 8 YDS OF 3-1 MX CMT/DISP w 22 CF DRLG MUD/POH/WOC 12 HRS, TAG SOFT CMT @ 85/CO MED HRD CMT TO 105 w FULL RTNS/MW 66/VIS 38/
8/27	965 SD SH D (595) LOST CIRC/DRLG CMT & CLND OUT TO 370 w FULL RTNS/ DRLG 17½ HOLE FRM 370-965 LOST COMPLET RTNS/POH/MW 70/VIS 43/
8/28	1120 SD SH D (155) PREPNG TO RUN 13-3/8" CSG/MX LCM PILL, RIH TO 945 w OPN ENDED DP/PMP 100 BBLS OF 18# PER BBL LCM, REGAIN FULL CIRC/ TRIP FOR BIT, HAD 15' FILL, NO FLUID LOSS/DRLG 17½" HOLE FRM 965-1120/CIRC & WIPE HOLE TO RUN CSG/MW 71/VIS 57/
8/31	8-29/1122 SD SH INST CSG HD/CIRC & COND MUD,POH/RAN 28 JTS (1125) 13-3/8" 54.5# K-55 BT&C CSG w SHOE @ 1122, FLOAT CLR @ 1076/B.J. PMPD 150 CF SODIUM SILICATE FOLLOWD BY 1456 CF POZ "A" 1-1 PERLITE w 4% GEL & 2% $CaCl_2$ FOLOWD BY 100 CF CL "G" CMT w 2% $CaCl_2$/DISP w 940 CF DRLG MUD/BMPD PLUG w 1000 PSI, BLED TO 0/440 CF CMT RTNS/CIP @ 10:45 PM/WOC 4 HRS/LND CSG/MW 68/VIS 40/8-30/1122 SD SH RIH w 12¼" BIT/CUT OFF CONDUCTOR & CLN CELLAR/WELD ON 13-3/8" CSG HD/INST BOE/RIH w 12¼" BIT TO TST CSG & BOE/MW 68/VIS 35/8-31/1503 SD SH D (381) DD/TST CL III BOP & CK BY DOG/DRLG PLUGS, FLOAT CLR, CMT & SHOE @ 1122/DRLG 12P" HOLE FRM 1122-1503/SURV @ 1428, 2°45', N01W/TVD 1427.97/SEC. 3.45/N-3.22/W-1.44/MW 68/VIS 36/
9/1	2233 SD SH D (730) DRLG/DRLG 12¼" HOLE FRM 1503-2233/SURV @ 2173 13°15', N25°30'W/TVD 2159.14/SEC.137.22/N-129.80/W-49.32/MW 67/VIS 42/
9/2	2425 SD SH D (192) FISHING D.C. SLIPS OUT OF BOP/3 HRS DN TIME REPAIRNG HOOK/DRLG & DYNA DRLG 12¼" HOLE FRM 2233-2455/UNABL TO GET SURV/TRIP TO CHG ORIENTATION SUB/DROP D.C. SLIPS IN BOP/FISHING OUT SAME/SURV @ 2357, 12°30', N25°30'W/TVD 2338.47/SEC.176.81/N-166.17/ W-68.65/MW 69/VIS 38/

DIVISION OF OIL & GAS
History of Oil or Gas Well

NWLBU #8-7
Sec. 13, T4S, R13W

1981

9/3	2714 SD SH D (289) DRLG/FISHED SLIPS OUT OF BOP/DRLG 12¼" HOLE FRM 2425-2714/RIG OFF DAY WORK FOR 7½ HRS FISHING OUT SLIPS/ SURV @ 2663, 13°, N02E/TVD 2637.37/SEC.245.62/N-234.85/W-76.00/ MW 69/VIS 36/
9/4	2950 SD SH D (236) RIH/DRLG 12¼" HOLE FRM 2714-2950/WIPE 12¼" HOLE TO 1100, HOLE TIGHT/CIRC COND MUD/TRIP FOR 8-3/4" BHA/SURV @ 2938, 12°15', N05°30'E/TVD 2905.72/SEC.303.61/N-294.96/W-72.61/MW 70/ VIS 37/
9/5	3495 SD SH D (545) TRIP FOR DD/DRLG 8-3/4" HOLE FRM 2950-3495/ TRIP FOR DD/SURV @ 3495, 10°45', N5°E/TVD 3451.05/SEC.412.36/N-408.54/ W-63.83/MW 70/VIS 40/
9/6	3822 SD SH DD (327) TRIP FOR BHA/TRIP FOR DD/DD 8-3/4" HOLE FRM 3495-3822/POH/SURV @ 3758, 6°15', N43°W/TVD 3709.13/SEC.460.58/N-453.93/W-79.69/MW 70/VIS 38/
9/7	3822 SD SH FISHING/POH & LAY DN DD/RIH w NEW BHA TO 3640/REAM 8-3/4" HOLE FRM 3640-3792/WRK ON PMP & POH LOOKNG FOR WASHOUT/LEFT DBL PIN XO, MONEL, & 8-3/4" BIT IN HOLE/WO FISHNG TOOLS 5 HRS/RIH w NEW DBL BOX XO & ATTMPT TO SCREW INTO FISH/MW 69/VIS 38/
9/8	3996 SD SH D (174) DRLG/POH, REC ALL FISH/RIH, REAM DYNA DRL RUN FRM 3733-3822/DRLG 9-7/8" HOLE FRM 3822-3996/SURV @ 3955, 2°15', N41W/TVD 3905.66/SEC.471.79/N-463.97/W-88.40/MW 68/VIS 38/
9/9	4170 SD SH D (174) REPAIRNG SWIVEL/DRLG 8-3/4" HOLE FRM 3996-4095/REPAIR SWIVEL FOR 7 HRS/DRLG 8-3/4" HOLE FRM 4095-4170/REPAIR SWIVEL FOR 4 HRS/MW 68/VIS 45/SURV @ 4139, 1°15', N40W/TVD 4089.56/ SEC.477.22/N-468.24/W-92.37/
9/10	4297 SD SH D (127) DRLG/REPAIR SWVL 1 HR/DRLG 8-3/4" HOLE FRM 4170-4235/TRIP FOR NEW BIT & TWO D.C./DRLG FRM 4235-4297/SURV @ 4235, 1°15', N69W/TVD 4185.59/SEC.478.76/N-496.46/W-94.08/MW 68/ VIS 44/
9/11	4483 SD SH D (186) REPAIRNG PMP/DRLG 8-3/4" HOLE FRM 4297-4379/REPAIR SWIVEL 3 HRS/DRLG 8-3/4" HOLE FRM 4379-4483/REPAIR MUD PMP FOR 7 HRS/SURV @ 4427, 0°15', N34°E/TVD 4377.52/SEC.480.69/ N-471.08/W-95.71/MW 70/VIS 37/
9/12	4673 SD SH D (190) DRLG/REPAIR MUD PMP 1½ HRS/DRLG 8-3/4" HOLE FRM 4483-4548/TRIP FOR NEW BIT/DRLG 8-3/4" HOLE FRM 4548-4673/ SURV @ 4610, 0° VERT/TVD 4560.52/SEC.480.14/N-470.68/W-94.94/MW 68/ VIS 38/
9/13	4906 SD SH D (233) PREP TO LOG/DRLG 8-3/4" HOLE FRM 4673-4906/CIRC HOLE & COND MUD/WIPE HOLE FOR LOGS, NO FILL/POH FOR LOGS/ SURV @ 4906 1°, S81°E/TVD 4856.49/SEC.478.56/N-469.82/W-91.45/MW 69/ VIS 40/

DIVISION OF OIL & GAS
History of Oil or Gas Well

NWLBU #8-7
Sec. 13, T4S, R13W

1981

9/14 4906 TD OH 3234 SD SH OH (284) OH/SCHLUM RAN DLL-GR-TEN FRM 4906-1122/FDC-CNL-GR-CAL-TEN FRM 4902-3000/DIPMETER FRM 4903-3000/ TOOK SWC FRM 4607-4006, SHOT 57, REC 42/OPN 8-3/4" HOLE TO 12¼" FRM 2950-3234/MW 69/VIS 40/

9/15 4906 TD OH 4095 SD SH OH (861) OH/OPN 8-3/4" HOLE TO 12¼" FRM 3234-3451/CIRC & COND HOLE FOR LOG/POH/SCHLUM RAN DIPMETER/UNABL TO GET LOG TOOL BELOW 3482/TRIP FOR DRLG ASSY/OPN 8-3/4" HOLE TO 12¼" FRM 3451-4095/MW 70/VIS 43/

9/16 4905 TD OH 4406 SD SH OH (311) OH/OPN 8-3/4" HOLE TO 12¼" FRM 4095-4406/MW 69/VIS 37/

9/17 4906 TD OH 4528 SD SH OH (122) OH/OPN 8-3/4" HOLE FRM 4406-4499/POH & REPAIR BRAKES FOR 4½ HRS/OPN HOLE FRM 4499-4528/MW 69/VIS 39/

9/18 4906 TD OH 4685 SD SH OH (157) OH/OPN 8-3/4" HOLE TO 12¼" FRM 4528-4685/MW 69/VIS 40/

9/19 4906 TD OH 4725 SD SH OH (40) RUNNING 9-5/8" CSG/OPN 8-3/4" HOLE TO 12¼" FRM 4685-4725/COND HOLE FOR LOG/WO SCHLUM 3½ HRS/SCHLUM RAN DIPMETER FRM 4725-3000/CIRC FOR CSG/RUNNING 9-5/8" CSG/MW 69/ VIS 40/

9/20 4906 TD PRES TSTG WELL HD/RAN TOT OF 108 JTS (4718) w 56 JTS 9-5/8" 36# S-80 ST&C ON BTM & 52 JTS 9-5/8" 36# K-55 LT&C ON TOP/DFC @ 4670/DFS @ 4715/DOWELL PMPD 1076 CF CL 'G' CMT w 1-1 POZ, 0.5% CFR-2, 2% GEL, 3% KCL FOLLOWD BY 200 CF CL 'G' CMT w 0.75% CFR-2 & 3% KCL/DISP w 2060 CF DRLG MUD/DID NOT BMP PLUG/BLED TO 0/40 CF CMT RTNS TO SURF/CIP @ 2:23 PM/REM BOE/INST 9-5/8" PKNG/CUT OFF CSG & WELD ON CSG HD/WAIT ON HD TO COOL/TSTG HD/

9/21 4906 WSO TSTG/TST WELL HD TO 5000 PSI OK/INST CL III BOP & TST TO 1000 PSI OK/RIH, TAG PLUG @ 4540/TST PIPE RAMS & BAG, WITNESS BY D.O.G. OK/DRLG PLUGS, CMT & FLOAT CLR TO 4705/CIRC CLN/TRIP FOR WSO TOOL/SHOT 4 - ½" HOLES @ 4693, SET SLIPS & OPN TOOL @ 6:27 AM w LIGHT BLOW/MW 69/VIS 35/

9/22 5090 SD SH D (184) DRLG/REL PKR, POH w WSO & REC 30' DRLG MUD/ IH 2200 PSI, FH 2190, IF 57, FF 57/TST OK & WITNESS BY D.O.G./PU BHA RIH INST NEW RUBBERS ON EVERY JT OF DP/DRLG OUT SHOE & CLN OUT TO 4906/DRLG 8-3/8" HOLE FRM 4906-5090/SURV @ 5007, 1°30', S89°E/TVD 4957.81/SEC.477.81/N-469.31/W-89.27/MW 68/

DIVISION OF OIL & GAS
HISTORY OF Oil or Gas Well

NWLBU #8-7
Sec. 13, T4S, R13W

1981

9/23 5200 SD SH D (110) DRLG/DRLG 8-3/4" HOLE FRM 5090-5164/ TRIP FOR LOCKED BHA/REAM FRM 4830-5164/DRLG FRM 5164-5200/SURV @ 5200, 1°, S65°E/TVD 5150.44/SEC.475.87/N-468.23/W-85.74/MW 68/ VIS 40/

9/24 5360 SD SH D (160) DRLG/DRLG 8-3/4" HOLE FRM 5200-5360/SURV @ 5290, 0°45', S05E/TVD 5242.42/SEC.474.58/N-467.13/W-84.93/MW 68/ VIS 38/

9/25 5580 SD SH D (220) DRLG/LOST 50 BBLS MUD @ 5360/PULL TO SHOE, MX 50 BBLS LCM/RIH TO 5360, SPOT LCM PILL/DRLG w FULL RTNS FRM 5360-5580/SURV @ 5447, 1°15', S06E/TVD 5397.40/SEC.471.40/ N-464.44/W-84.68/MW 68/VIS 38/

9/26 5784 SD SH D (204) DRLG/DRLG 8-3/4" HOLE FRM 5580-5600/TRIP FOR NEW BIT A PK SWIVEL/2½ HRS DN TIME/DRLG FRM 5600-5784/SURV @ 5754 3/4°, S41E/TVD 5704.38/SEC.468.28/N-461.00/W-83.47/MW 69/VIS 41/

9/27 5850 SD SH D (66) LOGGING/DRLG 8-3/4" HOLE FRM 5784-5850/ WIPE HOLE TO 9-5/8" CSG/CIRC FOR LOGS/RU SCHLUM & STRTD LOGGNG/SURV @ 5850, 1°15', S70E/TVD 5800.35/SEC.467.22/N-460.00/W-82.26/MW 69/ VIS 41/

9/28 5850 TD HO 4730 SD-SH OH (15) OH/SCHLUM RAN DLL-GR-TEN FRM 5850-4713/FDC-CNL-GR-CAL-TEN FRM 5850-4713/DIPMETER FRM 5850-4713/TOOK 57 SWC FRM 4727-5845, REC 35/RD SCHLUM/RIH w 11" HO/OPN HOLE FRM 8-3/4" TO 11" FRM 4715-4730/MW 69/VIS 39/

9/29 5850 TD OH 4999 SD-SH OH (269) OH/OPN 8-3/4" HOLE TO 11" FRM 4730-4999/ MW 68/VIS 42/

9/30 5850 TD OH 5450 SD-SH OH (460') REPAIRING SWIVEL/OPEN 8-3/4" HOLE TO 11" FRM 4999 TO 5459/PULL TO SHOE TO REPAIR SWIVEL/4-1/2 HRS DOWNTIME/MW 68/VIS 38/

10/1 5850 TD OH 5725 SD SH OH (266) OH/REPLACE SWIVEL, 4½ HRS DN/OPN 8-3/4" HOLE TO 11" FRM 5459-5725/MW 67/VIS 40/

10/2 5850 TD, OH 5832 SD SH OH (107) OH/GAUGE 11" HOLE FRM 4715-5725/OPN 8-3/4" HOLE TO 11" FRM 5725-3832/MW 67/VIS 41/

10/3 5850 PREPNG TO CMT 7" CSG/OPN 8-3/4" HOLE TO 11" FRM 5832-5850/PULL TO SHOE, WAIT ½ HR, RIH TO 5850 (NO FILL)/POH/RAN 30 JTS (1217) 7" 26# K-55 BT-C w SHOE @ 5847, FLOAT 5802/CIRC CSG 1 HR WRKNG CSG 40'/MW 67/VIS 41/

1981

10/4 5850 TD 5847 PBTD, CLNG OUT 7" LNR/PMP 468 CF POZ-MIX "A" CMT 1-1 w .5% CFR-2, 2% GEL, 3% KCL FOLLOWD BY 100 CF CL "G" w .75% CFR-2, 3% KCL/DISP w 640 CF MUD/BMP PLUG w 1400 PSI, BLEED TO 0/SET & REL FRM LNR/CIRC OUT 50 CF OF EXCESS CMT/POH, PU 8-3/4" BIT w 9-5/8" 36# CSNG SCRPR/RIH, CO TO 4626 TOP OF LNR HANGER/ TRIP FOR 6-1/8" BIT, 4 - 4-3/4" DC ON 3½" DP TO CO LNR/MW 67/VIS 40/

10/5 5850 TD, 5847 PBTD PREPNG TO PULL BOP/CO TO 5801/TST CSG TO 1000 PSI FOR 15 MIN, OK/DRL PLUG, FLOAT CLR, CMT TO 5837, 10' ABOV SHOE/CHG OVR TO 5% KCL WTR/LD 4½" DP & TOOLS/PREP TO PULL BOP/

10/6 5837 PBTD REL RIG @ 1:30 PM 10-5-81/PULL BOP/INST TBG HD/ REL RIG/DROP FRM REPORT PENDING COMPLETION/

10/10 5837 PBTD/RIG UP SCHLUM & RAN CBL FRM 5815-4000/RIG DN SCHLUM & MOVE OUT/

10/16 5837 PBTD/MIRU ALLIED PROD RIG/INST BOP/PU BELL NIP ON BTM OF 9-5/8" 36# FB/RIH TO 3211/SET FB/RU & SWAB FLUID LEVL DN TO 700'/OPENING BYPASS EVERY OTHER RUN TO EQUALIZE FLUID IN ANNULUS/SIFN/

10/17 5837 PBTD/CONT SWABNG FLUID FRM 700-2920/CLOSE IN WELL/

10/18 5837 PBTD/RU McCULLOUGH & SHOT 4 - 1/3" JHPF FRM 5777-5764, HAD 25' FLUID RISE AFTR 1 HR/POH w FB/RAN SNKR BAR TAG BTM @ 5837 (BTM)/RAN 500 KILL STG/SIFN/

10/19 5837 PBTD/PULL KILL STG/MAKE UP GAS ANCHOR & RIH ON 180 JTS OF 2-7/8" TBG w TAIL @ 5766/RAN 2½x1½x12'x15' PMP ON 123 3/4" RODS & 66 7/8" RODS/SIFN/

10/20 5837 PBTD/SPACD OUT BH PMP/FILLED TBG STG w LSE PROD WTR/CLND LOCATN/RDMO/PUT WELL ON PROD/IN TST 17 HRS/0 BO, 124 BW/TBG 32#, CSG 0#/12.5 SPMx72" LOS/FL 4341, OP 1392/

10/21 7 HRS/0 BO, 25 BW/TBG 32#/CSG 0#/12.5 SPMx72" LOS/FL 5733 @ PMP/NOTE! BH PMP SANDED UP, STUCK IN OPN POSSITION @ 2:00 PM 10-21-81/SHUT PU DN/SHOT FL @ 5:00 AM 10-22-81, FL @ 5733, NO FLUID ENTRY/

10/22 WELLTECK MIRU/FND BH PMP STUCK, UNABL TO WRK LOOSE/REL ON & OFF TOOL POH w RODS/INSTLD BOE/REL BKR 7" 26# ANCHOR-CATCHER, LOWERD TBG TO 5837 (TD)/PULLING OUT HOLE w TBG WET/SIFN/

1981

10/23 CONTD PULLING TBG OUT OF HOLE, PULLING WET/FLUID ABOV PMP SHOE WAS MUDDY WTR w NO SD/FLUID SAMPLE FRM PMP & MUD ANCHOR TSTD 40% SOLIDS & CLORIDES OF 3600 PPM+, OR EQUAL TO 5% KCL WTR, LEFT IN HOLE, NO FORMATION WTR IN EVIDENCE/SENT BH PMP TO SHOP, PMP PLGR STUCK IN PMP BARREL w BUILD UP OF A CARBON TYPE MATERIAL ON PLGR WHICH COULD BE REMOVD w KNIFE/RIH w 2-1/8" BAILER, BAILD UNSET & CONTAMINATD CMT FRM 5826-5841 (7" SHOE @ 5847)/RIH w 9-5/8 36# BKR FB ON 101 JTS 2-7/8" TBG TO 3211/PMPD 171 BBLS OF 5% KCL WTR DN TBG, SHOT FL TOP OF KCL WTR @ 2892/SET FB/SIFN/

10/24 RU SCHLUM, INSTLD LUBRICATR/RAN 2-1/8" DOMED SCALLOP THRU TBG GUN w 6.5 GM CHG, 0.32" EH, 0° PHASE, DECENTRALIZD, 13' 52 SHOTS, RIH, 1ST RUN CLR LOCATR SHORTD OUT/2ND & 3RD RUNS, FAULTY CLR LOCATR/REMOVD LUBRICATR/REL SCHLUM/SHUT WELL IN TILL AM 10/26/81/

10/26 RU SCHLUM & FULL LUBRICATOR/MU 2-1/8" OD DOMED SCALLOP THRU TBG GUN (6.5 GRM CHG, 0.32" EH); 0° PHASE; DECENTRALIZED; 13'-53 SHOTS w CLR LOCATR, RIH, LOCATD CLRS @ 5723, 5764 & 5810 (NOTE FL INSIDE TBG @ 2888) SHOT HOLES FRM 5764½ TO 5777½/WAITD 15 MIN & FND FL INSIDE TBG @ 2370 (518 FLUID RISE)/REL SCHLUM/REL FB PKR & POH w TBG/MEAS IN HOLE w TBG & BKR "B-2" 7" 26# ANCHOR CATCHER, REMOVD BOE & SET ANCHOR w TOP @ 5317.92, LANDED TBG w ST @ 5703.14/RAN 2½"x1-3/4"x25' 3 - TUBE PMP ON 123 - 3/4" & 65 - 7/8"x30' SUCKER RODS/SEATED & SPACD PMP/FILLED TBG w 16 BBLS WTR/ PUT WELL ON PROD INTO BKR TANK/RDMO/NOTE: SHOT FL BEFORE PRODUCNG WELL @ 2770/NO TEST, FND PU DN THIS AM 10-27-81, MURPHY HI-LO FLOWLINE PRESSURE SWITCH, SHUT WELL DN/

10/27 14 HRS/0 BO, 165 BW/TBG 42# CSG 0#/12½ SPMx72" LOS/FL 5671, @ PMP/SHUT WELL IN 1 HR/FL 5589, OP 82'/POP WELL PMPD OFF IN 30 MIN/SHUT IN 9 HRS/FL 5589, OP 82/POP, WELL PMPD OFF IN 30 MIN/ SWI, POUNDING FLUID/FL 5671 @ PMP/

10/28 WELLTECK MIRU/SHOT FL @ 5637 (34' OVR PMP)/UNSEATD 3 TUBE PMP, EQUALIZD FLUID, SHOT FL @ 4847 (824' OVR PMP)/POH/INSTLD BOE/REL BKR ANCHOR CATCHER, LOWERD TBG, TAGGED BTM @ 5737 (NO FILL)/LD DN EXCESS TBG/SFT TBG ANCHOR CATCHER w TBG ST @ 5766.68', PMP SHOE @ 5734.33/ RAN OILWELL 1 -½"x1-3/4"x25' 3 TUBE PMP & RODS/FILLED TBG w 21 BBLS PROD LSE WTR/POP @ 7:40 PM 10-28-81, IN TEST/SHOT FL PRIOR TO PRODUCNG FL 4809' (924' OVR PMP)/9 HRS/0 BO, 28 BW/TBG 25#, CSG 0#/11 SPMx72" LOS/FL 5733, @ PMP/SHUT WELL IN @ 5:00 AM 10-29-81/

DIVISION OF OIL & GAS
History of Oil or Gas Well

NWLBU #8-7
Sec. 13, T4S, R13W

1981

10/29	24 HR SI BUILD UP TST/TBO#/CSG 5#/FL 5637, OP 96/
10/30	½ HR/1.2 BO, .3 BW/TBG 18#/CSG 0#/11 SPMx72" LOS/ FL 5650, OP 83'/
10/31	½ HR/1.8 BO, .2 BW/TBG 16#/CSG 0#/11 SPMx72" LOS/ FL 5662, OP 71'/
11/1	½ HR/1.8 BO, .2 BW/TBG 15#/CSG 0#/11 SPMx72" LOS/ FL 5656, OP 77'/
11/2	½ HR/.96 BO, .04 BW/TBG 15/CSG 0/11 SPMx72# LOS/FL 5662, OP 71/
11/3	NO REPORT/WELL SHUT IN FOR STATIC BUILD UP TEST/
11/4	NO REPORT/WELL SHUT IN FOR STATIC BUILD-UP TEST/
11/5	NO REPORT/WELL SHUT IN FOR STATIC BUILD-UP TST/
11/6	NO REPORT/WELL SI FOR STATIC BUILD UP TST/
11/7	NO REPORT/WELL SI FOR STATIC BUILD UP TST/
11/8	NO REPORT/WELL SI FOR STATIC BUILD UP TST/
11/9	NO REPORT/WELL SI FOR STATIC BUILD UP TST/
11/10	CP 52/FL 5298, OP 435/
11/11	CP 60#/FL 5263, OP 470/
11/12	SICP 68#/STATIC FL 5212/OP 521/
11/13	SICP 73#/STATIC FL 5176, OP 557/
11/14	NO REPORT/
11/15	SICP 82#/WTATIC FL 5086', OP 647'/
11/16	SICP 92#/STATIC FL 5032, OP 701/
11/17	WELL TECK MIRU/INSTLD ROD REGAN/POH w 66 - 6/8" & 125 - 3/4" x 30' SUCKER RODS & 3 - TUBE PMP/UNLANDED TBG, REL BKR TBG ANCHOR, INSTLD BOE/POH w 180 JTS 2-7/8" TBG/MU 1¼" SNKR BAR, RIH ON SD LINE TO 5837, NO FILL/MU 2-3/8" x 1-3/4"x16'x28'x32' "THE" PMP BARREL BELOW 7" - 26# BKR FB PKR ON 160 JTS 2-7/8" TBG, RIH TO 4560/SIFN/
11/18	CONTD IN HOLE w 7" 26# FB PKR & 2-7/8" TBG, SET FB @ 5697, w BTM OF "THE" PMP BARREL @ 5737/RU DOWELL/FILLED ANNULUS w 340 BBLS OF 65# 5% KCL WTR/PRESS ANNULUS TO 500 PSI/PMPD 1000 GALS "MSR" ACID w 40# FLAX 4 DIVERTING AGENT & 92 GALS 15% HCL ACID w MUTUAL SOLVENT DN TBG/SQZD TOT 378 GALS ACID AWAY IN 4 HRS w MAX PRESS OF 2000#, BLEEDING BK TO 1000 PSI IN 3 MIN, FORMATION TIGHT/OPEND UNLOADR REV CIRC ACID OUT OF TBG w 35 BBLS OF 5% KCL WTR/SIFN/

DIVISION OF OIL & GAS
History of Oil or Gas Well

NWLBU #8-7
Sec. 13, T4S, R13W

1981

11/19 REL FB/REV CIRC w 5% KCL, RECOVERD 10 BBLS CRUDE OIL FRM ANNULUS/LOWERD TBG FRM 5737-5835, REV CIRC 1 HR NO ACID IN RTNS/ PU TO 5737/SHUT WELL IN TILL AM 11/20/81/

11/20 LOWERD TBG TO 5780 (3' BELOW PERFS)/DISPL TBG w 45 BBLS OF KCL WTR, RECOVERD 20 BBLS CRUDE OIL FRM ANNULUS/RU DOWELL, PMPD 100 GALS 12% HCL-3% HF ACID w INHIBITORS & SURFACTANT ADDED, FOLOWD w 1344 GALS 5% KCL WTR, SPOTTED ACID ACROSS PERFS (5764-5777½')/PU SET FB @ 5675 w BTM OF "THE" PMP BARREL @ 5716/TSTD ANNULUS TO 800 PSI, OK/OPEND UNLOADR, PMPD DN TBG w 150 GALS 12-3 MUD ACID, FOLOWD w 1000 GALS "MSR" ACID w 40# FLAX 4 DIVERTR, FOLOWD w 190 GALS 15% HCL ACID w 10% MUTUAL SOLVENT, CLOSD UNLOADER/PRESSURD ANNULUS TO 800 PSI/SQZD ACID AWAY w 810 GALS 15% HCL ACID, FOLOWD w 1450 GALS KCL WTR, PRESSURE & RATE STAYD CONSTANT THRUOUT SQZ 2750 PSI @ ¼ BBL PER MIN/ACID IN PLACE @ 3:00 PM, SHUT IN PRESS 2750#/BLED DN TO 500# IN 15 MIN, 0# IN 30 MIN, NO FLEED BK/MU & RAN STDG VALVE & PMP PLGR & RODS/STROKD PMP w RIG FOR 1½ HRS, RECOVERD 6 BBLS KCL WTR (APPARENT LOW FLUID ENTRY) LET SET 1 HR, STROKD AGAIN FOR 1 HR, RECOVERD 5 BBLS KCL WTR, PMPD OFF/PULLD STDG VALVE, PLGR & 150' OF ROD UP HOLE/DISPL 12 BBLS KCL WTR DN TBG @ 1000 PSI/SIFN/

11/21 SEATD STDG VALVE, FILLED TBG w 1½ BBLS 5% KCL WTR, STROKD PMP w RIG/WELL PMPD OFF AFTR 1½ BBLS RTNS/LET SET FOR 15 MIN, PMPD ½ BBL/PULLED STDG VALVE, POH w RODS & PMP PLGR/RELSD FB & LOWERD TBG TO 5830/FILLED HOLE w 8 BBLS 5% KCL WTR, REV CIRC, GOT pH OF 3 AFTR 30 BBLS, pH OF 7 AFTR 75 BBLS RTNS/PULLED TBG w TAIL TO 5500/SHUT WELL IN TILL AM 11-23-81/

11/23 LOWERD TBG FRM 5500-5837, NO FILL/POH w TBG, LD "THE" PMP BARREL/MU 2½" API T/L PMP SHOE ON 3½" OD MUD ANCHOR, RIH ON 11 JTS 2-7/8" TBB, ON BKR 7" ANCHOR CATCHER, ON 169 JTS 2-7/8" TBG/REMOVD BOE/SET ANCHOR @ 5383.84 & LANDED TBG w TBG ST @ 5766.68/RAN 2½"x1-3/4"x25 3-TUBE PMP ON 125 - 3/4 & 66 - 7/8"x30' SUCKER RODS/SEATED & SPACD PMP, HUNG WELL ON/RDMO/WELL SHUT IN/ DROP FRM REPORT/

1981

12/1	CPS MIRU/POH w RODS & 3 TUBE PMP/REL BKR TENSION PKR/INSTLD BOE/SIFN/
12/2	POH w 180 JTS 2-7/8" TBG/MU BROWN 7" 26#, 4 CUP w 1' SPACING BETWN CUPS, RIH ON 2-7/8" TBG TO 4500/RU BJ HUGHES/LONG BEACH CITY INSPECTOR SHUT RIG DN DUE TO HIGH NOISE LEVEL IN AREA/MADE WELL SECURE/SIFN/
12/3	WITH 7" 26# BROWN 4 CUP PKR @ 4500 (IN 9-5/8 CSG) BJ HUGHES FILLED HOLE w 162 BBLS OF 5% KCL WTR/LOWERD PKR TO 5700, BLANKD TOOL IN 7" CSG @ 3500 PSI/ LOWERD TOOL TO 5777, PMPD 2 BPM IN PERFS @ 1000 PSI @ 5776' 2 BBLS PER MIN @ 1000#, 5775' 2 BPM @ 500#, 5774' 2 BPM @ 500#, 5773' 2 BPM @ 500#, 5772' 2 BPM @ 500#, 5771 2 BPM @ 400#, 5770'2 BPM @ 500#, 5769 - 2 BPM @ 600#, 5768' 2 BPM @ 600#, 5767' - 2 BPM @ 800#, 5766' - 1 BPM @ 1000#, 5765' - 2 BPM @ 1200#, 5764' - 2 BPM @ 1300 PSI/POH/RU DRESSER ATLAS, PERFORATED THE FOLOWNG INTERVLS w 4" O.D. CSG GUNS, 4 - .43" HOLES/FT, 22 - ½ GRAM JUMBO JET CHG, 15.07" PENETRATION, FRM 5757-5749, 5748-5738, 5736.5'-5734.5'/5733-5723.5'/ REL DRESSER ATLAS/RIH w 2-7/8" TBG, REMOVD BOE, SET BKR ANCHOR-CATCHER w 2500# TENSION, PMP SHOE @ 5737/SIFN/
12/4	20 HRS/0 BO, 224 BW/TBG 32#/CSG 0#/11 SPMx72" LOS/FL 3398, OP 2335/WELL OWES 130 BBLS OF KCL LOAD WTR/
12/5	24 HRS/0 BO, 153.5 BW, 1.5 BBLS MUD/TBG 30#/CSG 0#/11 SPMx72" LOS/FL 5478, OP 255/WELL PD BK ALL LOAD WTR PLUS 35 BBLS FRM WELL/
12/6	3.5 HRS/.2 BO, 10.3 BW/TBG 20#, CSG 0#/11 SPMx72" LOS/FL 5624, OP 109/WELL NOT PRODUCING/SHUT DN FOR STATIC BUILD UP, 13½ HRS, FL 5323, OP 510/
12/7	22 HRS/0 BO, 33 BW/TBG 9#/CSG 0# (VENTED TO BKR TANK)/11 SPMx72" LOS/FL 5695, OP 39/LOW FLUID ENTRY/
12/8	6.5 HRS/0 BO, 5 BW/TBG 9#/CSG 0# (VENTED TO BKR TANK)/11 SPMx72" LOS/WELL PMPD OFF @ 3:30 PM/SHUT DN PU/FLUID LEVEL AFTR 15 HRS WAS 5365, OP 368/ APPROX 11 BBLS ENTRY/
12/9	3 HRS/0 BO, 13 BW/TBG 9/CSG 0 (VENTED TO BKR TANK)/11 SPMx72" LOS/FL 5644, OP 89/WELL QUIT PMPNG (PMPD OFF)/SHUT WELL IN @ 10:30 AM 12-9-81 FOR FL BUILD UP TST/7:30 AM 12-10-81/21 HRS/FL 5282, OP 451/CSG 14#/
12/10	SHUT IN 24 HRS FOR FLUID LEVEL BUILD UP TST/CSG 24#/FL 4935, OP 798/
12/11	SHUT IN 24 HRS FOR FLUID LEVEL BUILD UP TST/CSG 32#/FL 4650, OP 1083/
12/12	SHUT IN 24 HRS FOR FLUID LEVEL BUILD UP TST/CSG 38#/FL 4490, OP 1243/DROP FRM REPORT UNTIL TST IS COMPLETE/
1/15	FLUID LEVEL BUILD UP TST COMPLETE/RESUME OPERATIONS TO ACIDZ PERFORATD INTERVLS 5724-5736 & 5738-5756 TO REMOV SUSPECTD CLAY SWELLING & EMULSION BLOCKAGE IN FORMATN/CPS MIRU/INSTLD SD PROOFNG SCRN AROUND RIG & EQUIP/ STAKD OUT RODS FILLED TBG w LSE WTR, TBG OK/POH w 65 - 7/8, 123 - 3/4"x30' SUCKER RODS & PMP/RELSD BKR TENSION ANCHOR-CATCHER/INSTLD BOP/POH w 167 JTS 2-7/8" TBG & CATCHER/SIFN

1981

1/16 POH w KILL STG/MU BKR 7" 26# CSG SCRPR ON 2-7/8" TBG, HYDROTESTNG TBG IN HOLE @ 5000 PSI (NO LEAKS) TO 5780, NO RESTRICTNS/POH/MU BKR 7" 26# MOD "C" BRIDGE PLUG ON BKR 7" 26# FULLBORE PKR, ON 2-7/8" TBG, RIH TO 4500/CLOSD WELL IN TILL AM 1-18-82/

1/17 CONTD RIH w BKR BP & FB PKR/SET BP @ 5760/PU w FB @ 5755, FILLED HOLE w 277 BBLS PRODUCED WTR/RU BJ HUGHES, PMPD 33 BBLS OF 2% AM-CL WTR ON TBG/ PULLED FB UP & SET @ 5650/TSTD SURF LINES TO 4000 PSI/PMPD PRODUCED WTR IN ANNULUS, PRESSURE UP TO 1000 PSI/OBTAINED BRK DN w 20 FT^3 OF AM-CL WTR @ 1 BBL PER MIN @ 2700 PSI/OPND UNLOADER & PMPD 600 GALS 15% HCL ACID w 2 GALS INHIBITOR & IRON CHELANT, PLUS 300 GALS OF 12% WTR, 3% HF ACID w ADDITIVES DN TBG/CLOSD UNLOADER, PRESS ANNULUS TO 800 PSI/SQZD w 600 GALS OF 12% HCL 3% HF ACID @ 1 BBL PER MIN @ 2500 PSI, AFTR PMPNG 1500 GALS PRESSURE DRPD FRM 2500# TO 1750 PSI @ 2.5 BBL PER MIN RATE REMAINING CONSTANT THRU OUT JOB/CONTD SQZNG AWAY w REMAINING 300 GALS OF 12-3 ACID FOLOWD w 600 GALS OF 15% HCL ACID & 1200 GALS OF DIESEL w 1% J-10 SURFACTANT/DISPL TBG w 25 BBLS 2% AM-CL WTR/ REL FB, LOWERD TBG & RETRIEVD BP/POH w TBG & TOOLS/RIH w 179 JTS TBG/SIFN/

1/19 COMPLETD RIH w 2-7/8" TBG/REMOVD BOE/SET BKR ANCHOR-CATCHER @ 5350 w 12,000# TENSION, PMP SHOE @ 5703 & BTM OF MUD ANCHOR @ 5734.82/RAN 2¼"x1½"x 12'x13' RHA PMP ON 123 - 3/4" & 65 - 7/8"x30' SUCKER RODS/SEATED & SPACD PMP, FILLED TBG w WTR/REMOVD SOUND SCREEN/RDMO/POP/IN TST 15 HRS/0 BO, 102 BW/ TBG 42#/CSG 0#/11 SPMx72" LOS/FL 2677, OP 3008/pH OF 7/WELL OWES 260 BBLS OF LOAD WTR & ACID/

1/20 24 HRS/0 BO, 160 BW/TBG 40/CSG 39/11 SPMx72" LOS/FL 4431, OP 1254/ pH of 7/ WELL OWES 100 BBLS OF LOAD WTR & ACID/

1/21 9½ HRS/0 BO, 56 BW/TBG 40/CSG 66/11 SPMx74" LOS/FL 5685, OP @ PMP/SHUT WELL DN @ 4:30 PM, PMPD OFF/WELL OWES 44 BBLS OF LOAD WTR & ACID/

1/22 POP @ 9:30 AM/TBG 65#/CSG 80#/FL 4928, OP 757/PRODUCED UNTIL PMP OFF/5½ HRS/14 BBLS OF DIESEL w TRACE OF OIL, 16 BBLS WTR w MUD TYPE SEDIMENT/11 SPMx72" LOS/FL 5685, OP @ PMP/SHUT IN UNTIL 7 AM 1-23-82/7:00 AM 1-23-82/ CSG 58#/FL 5054, OP 631/WELL OWES 14 BBLS OF LOAD WTR & ACID/

1/23 POP @ 9:30 AM/TBG 65#/CSG 58#/FL 5054/OP 631/PRODUCED UNTIL PMP-OFF 6 HRS/ 0 BO, 29 BW/TBG 63/CSG 63/11 SPMx72" LOS/FL 5685, OP @ PMP/SHUT IN TILL AM 1-24-82/WELL HAS PD BK 14 BBLS OF LOAD WTR & ACID, PLUS 15 BBLS FRM WELL/ 7:00 AM 1-24-82/CSG 90#/FL 5126, OP 559/

1/24 POP @ 7 AM/TBG 65/CSG 90/FL 5126, OP 559/PRODUCED UNTIL PMP-OFF/5 HRS/1 BO, 24 BW/TBG 65/CSG 90/11 SPMx72" LOS/FL 5685, OP @ PMP/SHUT IN TILL AM/8:00 AM 1-25082 CSG 80/FL 5001, OP 684/

1/25 5½ HRS/0 BO, 31 BW/TBG 68/CSG 15/11 SPMx72" LOS/FL 5685 @ PMP/7:00 AM 1-26-82/STATIC BUILD UP/18½ HRS/CSG 15/FL 5102, OP 583/

1/26 4 HRS/0 BO, 20 BW/TBG 58/CSG 16/11 SPMx72" LOS/FL 5685 W PMP/7:00 AM 1-27-82/STATIC BUILD UP/20 HRS/CSG 16/FL 5023, OP 662/DROP FRM REPORT/ AWAIT APPROVAL ON RECOMPLETION PROGRAM/

1981

2/2 RESUME w RECOMPLETION OF WELL AS RECOMMENDED & APROVD TO PLUG EXISTING PERFORATIONS & RECOMPLETE WELL IN THE "K" SAND/
WELLTECK MIRU/POH w RODS & PMP/rel tbg anchor-CATCHER, INSTLD BOE, POH w 2-7/8" TBG, PMP SHOE & MUD ANCHOR/RIH w 2-7/8" TBG, OPN ENDED TO 5777/RU HALIB, FILLED HOLE w 300 BBLS LSE WTR/(RECOVERD 8 BBLS OIL) HALIB MXD & PMPD 50 FT^3 CL "G" CMT w 2% $CaCl_2$ ACROSS PERFS @ 5777-5724, DISPLACD w 178 FT^3 LSE WTR/POH TO 4450, LEAVING EST TOC @ 5544/PLACING CMT PLUG FRM 5777, WITNESSED BY D.O.G. REP, MR. G. W. STACK/SIFN/

2/3 RIH, TAGD TOC PLUG @ 5583/POH/MEAS & PU LYNES 9-5/8" SHOOT & TST TOOL w 2'x4" JET PERF GUN, CONTAINING 4 - ½" CHARGES, RIH ON 4-3/4" D.C. ON 132 JTS OF 2-7/8" TBG TO 4356/ROTATD TBG TO ACTIVATE GUN, PU & SET PKR @ 4296, OPENED TOOL, HAD FAINT BLOW FOR 10 MIN, DEAD FOR REST OF 1 HR TST/POH w TBG & TOOLS, HAD 120' OF FLUID IN TBG/INSPECTION SHOWD THAT GUN HAD NOT FIRED/TORE DN TOOLS & SENT TO SHOP/RIH w KILL STG/(NOTE: D.O.G. REP, G.W. STARK WITNESSED TOP OF CMT PLUG @ 5583)/SIFN/

2/4 RIH w LYNES 9-5/8" SHOOT & TST TOOK, w 2'x4" GUN LOADED w 4 - ½" SHOTS, ON 4 - 4-3/4" DC's ON 132 JTS 2-7/8" TBG/SHOT 4 HOLES @ 4356/PU & SET PKR @ 4296 w TAIL @ 4324/HAD SLIGHT BLOW FOR 14 MIN, DEAD FOR REMAINDER OF 1 HR TST/ REL PKR, POH, RECOVERD 120' OF WTR IN TBG/READ CHARTS, L.H. - 1850#, FH 1851#, I.F. 43#, F.F. 55#/RU DRESSER ATLAS, RAN GAMMA RAY COR LOG FRM 4500-4000/ PERFD 4412-4402, 4401-4391, 4391-4383, 4368-4376, TOT OF 143 SHOTS w 4" JUMBO JET II HOLLOW STEEL CARRIER GUNS w 4 - ½" HPF w 24.2 GRAM CHARGES/REL DRESSER ATLAS/NOTE: UNABL TO DETECT ANY FLUID RISE AFTR SHOOTING/RIH w 156' OF 2-7/8" TBG TAIL BELOW BKR 9-5/8" 36# FB PKR ON 75 JTS 2-7/8" TBG TO 2548/SIFN/

2/5 BLED WELL DN, HAD SLIGHT VAC ON CSG/CONTD IN HOLE w FB/RU HALIB, FILLED HOLE w 30 BBLS OF LSE WTR/SET FB @ 4205, ATMPTD TO TST ANNULUS @ 700#, WD NOT TST/PU & SET FB @ 4011, PMPD AWAY DN ANNULUS @ 14 FT^3 MIN @ 350 PSI/RESET FB @ FOLLOWNG DEPTHS w SAME RESULTS 2005, 992/SET FB @ 105, PMPD AWAY @ 14 FT^3 MIN @ 350 PSI w RTNS FRM TBG/SET FB @ 100', TSTD ANNULUS TO 1000# OK/ LOWERD FB TO 112, PMPD AWAY @ 14 FT^3 MIN @ 350 PSI w NO COMMUNICATN THRU TBG/POH w FB/RAN KILL STG/SIFN/

2/6 MU BKR 9-5/8" 36# BP ON BKR 9-5/8" 36# FULLBORE PKR ON 2-7/8" TBG, RIH TO 4300/SET BP/PU TO 2003, SET FB & TST 9-5/8" CSG @ 500 PSI OK/RECOVERD BP, PU HOLE TO 110, SET FB, TSTD 9-5/8" TO 500 PSI OK/SET BP @ 135, PU SET FB @ 80', PMPD AWAY @ 12 FT^3 MIN @ 300 PSI/REL FB/POH/DMPD 5 SX SIL SD, WAITD ½ HR, RIH & TAGD TOP OF SD @ 121/PU SET FB @ 80'/OPEND VALVE ON 13-3/8" ACHIEVD CIRC IMMEDIATELY, MXD & PMPD 60 FT^3 API CL "G" CMT w 2% $CaCl_2$, GOT CMT TO SURF, CLOSD 13-3/8" VALVE & PMPD 113 FT^3 OF CMT AWAY @ 14 FT^3 OF CMT AWAY @ 14 FT^3 MIN @ 350 PSI/SHUT PMP DN, TBG WENT ON A VAC/PMPD REMAINDR OF 200 SX, 57 FT^3 @ SAME RATE & PRESS/CLEARD TOOLS & CSG w 20 FT^3 OF FRSH WTR/SHUT WELL IN TILL AM 2-8-82/

1981

2/8 REL FB/LOWERD FB TAGGED TOC @ 95'/POH/MU 8-3/4" BIT ON 9-5/8, 36# ROTOVERT SCRPR ON 2 - 4-3/4" O.D. DCs, DRLD OUT CMT FRM 95-121 (TOP SD PLUG)/POH/ MU 9-5/8 36# FB, RIH TO 80, SET FB, PUT 500# ON BK SIDE, PMPD DN TBG, ESTABLISHD BRK DN OF ½ BBL PER MIN @ 500 PSI, OPEND VALVE BETWN 13-3/8" & 9-5/8" ANNULAR SPACE, NO COMMUNICATNS/RELSD FB/POH/RAN 2-7/8 TBG OPN ENDED TO 105, PMPD 25 FT^3 CL "G" CMT w 2% $CaCl_2$, DISPL w 1.5 FT^3 FRSH WTR/POH/ CLOSD BLIND RAMS & VALVE ON 13-3/8"/STRTD BRADENHEAD SQZ @ 5 PM/SQZD AWAY 6 FT^3 @ 6:30 PM, DID NOT EXCEED 500 PSI/SIFN/

2/9 BLED WELL DN, HAD 200 PSI ON ANNULUS/RIH w 8-3/4" BIT ON 9-5/8" 36# ROTO VERT SCRPR ON 1 - 4-3/4 DC/DRLD OUT CMT FRM 57-106, CMT STGRS TO 111'/PRESS TSTD 9-5/8" CSG TO 500 PSI, HELD FOR 15 MIN OK/POH LAYNG DN DC SCRPR & BIT/ MU BRIDGE PLUG RETRIEVNG HD, RIH ON 2-7/8" TBG, CIRC OUT SD FRM 121-135, RETRIEVD 9-5/8" 36# BP/POH/LOADED OUT POWER SWIVEL & TOOLS/RIH w 158' of 2-7/8 TBG TAIL ON 9-5/8" 36# FB PKR ON 2-7/8" TBG TO 200'/SIFN/

2/10 CONTD RIH w 2-7/8 TBG TAIL @ 4411, PMPD & SPOTD 1200 GALS 15% HCL ACID w ADDITIVES ACROSS PERFS FRM 4411-4368/PUH, SET FB @ 4204 & TBG TAIL @ 4364, PRESS ANNULUS ABOV PKR w 500 PSI/HALIB PMPD REMAINING 600 GALS OF 15% HCL ACID AWAY INTO PERFS w MAX RATE OF 56 GALS MIN @ 2500 PSI/FOLOWD w 1800 GALS OF 12% HCL, 3% HF ACID & REQUIRED ADDITIVES, w MIN PMPNG RATE OF 56 GALS MIN @ 2000 PSI @ STRT, TO MAX PMP RATE OF 95 GALS MIN @ 1600 PSI/FOLOWD ACID w 25 BBLS 2% AM CL WTR, DISPL TBG w 25 BBLS LSE PROD WTR @ 95 GAL MIN RATE @ 1600 PSI @ FINISH/REL FB/POH LAYNG DN 48 JTS OF 2-7/8 TBG & FB/MU & RAN 3½" OD MUD ANCHOR, 2½" API T/L PMP SHOE, 4 JTS 2-7/8 TBG, 2-7/8x9-5/8" 36# PAGE "R" TBG ANCHOR, 1 JT 2-7/8 TBG, PAGE "R" TBG DRAIN ON 25 JTS 2-7/8 TBG/SIFN/

2/11 CONTD RIH w 106 JTS 2-7/8" TBG/LANDED TBG w ST @ 4393.29, PMP SHOE @ 4360.66/REMOVD BOE/PU OILWELL 2½"x1½"x10'x13' ACID PMP ON 107 - 3/4x30 & 36 7/8x30' SUCKER RODS/SEATED & SPACD OUT PMP/FILLED TBG w LSE PROD WTR/RDMO/ WELL OWES 498 BBLS LOAD WTR & ACID/PUT WELL ON PRODUCTION INTO BKR TK @ 4:30 PM/IN TST 14 HRS/0 BO, 133 BW/TBG 50/CSG 0/11 SPMx72" LOS/FL 1536, OP 2813/pH 2/WELL OWES 365 BBLS LOAD WTR & ACID/

2/12 24 HRS/0 BO, 187 BW/TBG 50/CSG 3/11 SPMx72" LOS/FL 3656, OP 693/pH 5/WELL OWES 178 BBLS OF LOAD WTR & ACID/

2/13 11½ HRS/0 BO, 59 BW/TBG 35/CSG 18/11 SPMx72" LOS/FL 4349 @ PMP/WELL OWES 119 BBLS OF LOAD WTR & ACID/SHUT WELL DN 6:30 PM 2-13-82/PMPD OFF/

2/14 WELL SHUT IN FOR STATIC FLUID BUILD UP/

2/15 WELL SI FOR 36.5 HRS, STATIC BUILD UP/FL 3698, OP 651, PRIOR TO STRT UP @ 7:20 AM 2-15-82/PMPD 4 HRS/0 BO, 41 BW/11 SPMx72" LOS/FL 4349 @ PMP/SHUT WELL IN @ 11:20 AM 2-15-82/

2/16 WELL SI FOR 20½ HRS, FLUID BUILD UP/FL 4123, OP 226, (226' RISE)/POP @ 8:00 AM/1 HR 45 MIN/0 BO, 11 BW/CSG 16/FL 4349 @ PMP/SHUT WELL DN,PMPD OFF/

1981

2/17 WELL SI FOR 22 HRS, FLUID BUILD UP (125') FL 4224, OP 125/CSG 16/POP @ 8:00 AM 1 HR 15 MIN/0 BO, 7 BW/CSG 16/FL 4349 @ PMP/SHUT WELL DN @ 9:15 AM, PMPD OFF/DROP FRM REPORT/

2-24 RESUME w RECOMPLETION OF WELL AS RECOMMENDED & APPROVD/TO PLUG EXISTING PERFORATIONS IN THE "K" SD & RECOMPLETE IN THE "I" SD/CPS MIRU/PULLED 36 - 7/8" & 107 - 3/4x30' SUCKER RODS & PMP/INSTLD BOP/POH w 136 JTS 2-7/8" TBG (4328)/RIH w SINKER BAR ON SD LINE TO 5500 (83' FILL)/CMT PLUG @ 5583/RIH w 136 JTS OF 2-7/8" TBG, OPN ENDED TO 4328/SIFN/

2-25 LOWERD TBG TO 4423/RU CIRC PMP, FILLED HOLE w 325 BBLS OF PROD WTR/ RU HALIB MXD & PMPD 75 FT^3 GLASS "G" CMT w 2% $CaCl_2$, DISPL w 24 BBLS PROD WTR/CMT IN PLACE @ 11:20 AM/PU TO 4225, REV CIRC w 50 BBLS OF PROD WTR/ MR. W. SANTIAGO w D.O.G. WITNESSED PLACEMENT OF PLUG/POH w 10 STDS/SIFN/

2-26 LOWERD TBG & LOCATD TOP OF CMT PLUG @ 4243/WITNESSED & APROVD BY D.O.G./POH w TBG/MU JOHNSTON SHOOT & TST TOOLS ON 2-7/8" TBG, SHOT 4 - 3/8" HOLES @ 4031/MADE 1 HR WSO TST w PKR SET @ 3959 & TAIL TO 3988, HAD MED TO LIGHT BLOW FOR 25 MIN, DEAD REMAINDER OF TST/PULLED TBG & TST TOOLS, HAD 64' FLUID RISE IN TBG, INITIAL HYDRO 1733, INITIAL FLOW 40.5, FINAL FLOW - 46, FINAL HYDRO 1704/WSO WITNESSED & APROVD BY D.O.G. REP WILLIAM E. BRANNON/RU DRESSER ATLAS/RIH w CENTRALIZD 4" OD JUMBO JET II HOLLOW STEEL CARRIER GUNS w 22.5 GRAM CHARGE, PERFD 9-5/8" CSG w 4 - ½" HPF, @ 4119-4109, 4108-4091, 4069-4059, 4058-4038, TOT OF 234 HOLES, HAD 10 MIS FIRES ON BTM OF 1st GUN RUN/REL DRESSER ATLAS/RIH w 600' KILL STG TBG/SIFN/

2-27 POH w KILL STG/RAN SNKR BAR TO 4243, NO FILL/RIH w 9-5/8" 36# BKR FB PKR w 160' OF 2-7/8" TAIL ON 2-7/8" TBG, W TAIL @ 4048, FILLED HOLE w 40 BBLS LSE WTR/SET PKR @ 3888, TSTD ANNULUS TO 500 PSI, OK/REL FB & LOWERD TBG, TBG TAIL TO 4118/HALIB SPOTTED 1000 GALS OF 15% HCL PAD ACID ACROSS PERFS 4118-4038/PU & SET FB PKR @ 3878 w TAIL @ 4038, PRESS ANNULUS w 500#/HALIB SQZD AWAY 300 GALS 12% HCL - 3% HF ACID @ 13 FT^3 PER MIN @ 1250 PSI, PMPD 125# BENZOIC FLAKES, FOLOWD w 500 GALS 12-3 ACID @ 17 FT^3 PER MIN @ 1500# PSI, 125# BENZOIC FLAKES, 500 GALS 12-3 ACID @ 17 FT^3 PER MIN @ 1500 PSI, 125# BENZOIC FLAKES, 500 GALS 12-3 ACID @ 24 FT^3 PER MIN, @ 1250 PSI, 125# BENZOIC FLAKES, 500 GALS OF 12-3 ACID @ 24 FT^3 PER MIN @ 1200 PSI, 125# BENZOIC FLAKES, 500 GALS OF 12-3 ACID, @ 24 FT^3 PER MIN @ 1200 PSI, OVERFLSHD ACID w 1001 GALS OF 2% AM/CL WTR @ 24 FT^3 PER MIN @ 1100 PSI/POH w GAS ANCHOR, PMP SHOE ON 40 STDS OF 2-7/8" TBG/SIFN/(NOTE: WELL OWES TOT OF 509 BBLS OF LOAD WTR & ACID)/

2-28 CONTD RIH w 2-7/8 PROD STG TBG (125 JTS TOT)/REMOVD BOE & LANDED TBG @ 4033, w SHOE @ 4001', & PAGE 2-7/8x9-5/8-36# ANCHOR @ 3873/RAN OILWELL 2½"x1½"x10'x13' RHA ACID PMP ON 98 - 3/4"x30' & 33 - 7/8"x30' SUCKER RODS/ SEATED & SPACD PMP FILLED TBG w LSE WTR/POP THRU PORTABLE TSTR INTO BKR TK/ RDMO/IN TEST 17 HRS/Ø BO, 166 BW/TBG 12#/CSG 0#/11 SPMx72" LOS/FL 607, OP 3393/WELL OWES 343 BBLS OF LOAD WTR & ACID/pH 4/

3-1 24 HRS/0 BO, 226 BW/TBG 12#/CSG 33#/11 SPMx72" LOS/FL 722, OP 3278/ WELL OWES 117 BBLS OF LOAD WTR & ACID/pH 5/

1982

3-2 24 HRS/Ø BO, 195 BW/TBG 12/CSG 25/11 SPMx72" LOS/FL 701, OP 3300/WELL HAS PAID BK ALL LOAD WTR & ACID, PLUS 78 BBLS FRM WELL pH 5/

3-3 24 HRS/0 BO, 233 BW/TBG 12/CSG 16/11 SPMx72" LOS/FL 672, OP 3329/pH 5/

3-2 24 HRS/Ø BO, 195 BW/TBG 12/CSG 25/11 SPMx72" LOS/FL 701, OP 3300/WELL HAS PAID BK ALL LOAD WTR & ACID, PLUS 78 BBLS FRM WELL pH 5/

3-3 24 HRS/Ø BO, 233 BW/TBG 12/CSG 16/11 SPMx72" LOS/FL 672, OP 3329/pH 5/

3-4 24 HRS/Ø BO, 195 BW/TBG 12/CSG 16/11 SPMx72" LOS/FL 755, OP 3246/pH 5/

3-5 24 HRS/0 BO, 208 BW/TBG 12/CSG 16/11 SPMx72"LOS/FL 736, OP 3265/pH 5.5/

3-6 24 HRS/0 BO, 212 BW/TBG 19/CSG 16/11 SPMx72"LOS/pH 5.5/

3-7 24 HRS/0 BO, 208 BW/TBG 19/CSG 16/11 SPMx72"LOS/FL 736, OP 3265/pH 5.5/

3-8 24 HRS/0 BO, 239 BW/TBG 38/CSG 16/11 SPMx72" LOS/FL 723, OP 3278/ pH 7/

3-9 24 HRS/0 BO, 234 BW/TBG 30/CSG 16/11 SPMx72" LOS/FL 745, OP 3256/pH 7/

3-10 24 HRS/0 BO, 200 BW/TBG 19/CSG 16/11 SPMx72" LOS/FL 735, OP 3265/pH 7/

3-11 WELLTECK MIRU/POH w RODS & PMP/UNLANDED TBG/INSTLD BOP/POH w TBG/MU BKR 9-5/8" 36# FULLBORE PKR, RIH TO 4025, FILLED HOLE w 60 BBLS OF LSE PROD WTR (RECVRD APPROX 25 BBLS CRUDE OIL FRM ANNULUS)/SET FB @ 4035, HAD COMMUNICATION PUMPNG DN ANNULUS & DN TBG/RESET FB @ 4028.68', HAD COMM/RESET FB @ 4026.68 PRESS UP ANNULUS @ 500 PSI HELD OK/RIH TO 4121, SET FB, PMPD DN TBG, PRESS TO 700 PSI, HELD OK/PU TSTNG 1' @ A TIME @ 4116' HAD COMM/REL FB PUH TO 3468/

3-12 MEASURED PULLING OUT OF HOLE, TBG TALLEYS OK/RIH w KILL STG/SHUT WELL IN TILL AM 3-15-82/WAIT ON PROGRAM & APPROVAL/

3-15 BLED WELL DN/POH w KILL STG/TAGGED FILL @ 4233, CLND FINES TO 4237 (COULDNT GET DPR)/PBD 4243, PU TO 4232 TO SPOT SD/RU HALIB, PLUGGED BOTH PMPS ON TRUCK w SD, REPLACMENT TRK BROKE DN ON FREEWAY, PMP TRK ARIVD @ 3 PM/SPOTD 90 FT^3 SILICA SD IN FOUR STGS FRM 4237-4030 (EST) TOP OF SD/PU TO 3022/SIFN/

1982

3-16 BLED WELL DN/LOWER TBG, TAG SD @ 4040/POH, RAN SCHLUM DMP BAILER, TAG SD @ 4034/BHT 140°/POH, MX ½ SX HYDROMITE SET FOR 160°/RIH SET TOOL OFF @ 4034/POH, HYDROMITE SAT UP IN BAILER/RIH w 9-5/8" FB TO 3760/FILLED HOLE w 26 BBLS LSE WTR/SET FB, PRES TO 500 PSI ON CSG/EST BRK DN OF 2 BPM @ 550 PSI/ PMP 25 SX THIXOTROPIC CMT FOLOWD BY 75 SX CL "G" CMT w 2% $CaCl_2$ & 6/10 OF 1% HALAD 9, DISP w 154 CF LSE WTR, PRES TO 1400 PSI/WAIT 20 MIN, DISP 22 CF @ 1675 PSI/EST TOP OF CMT @ 3883/CLOSE WELL IN w 1500 PSI ON TBG/PMP 51 CF CMT OUT HOLES/

3-17 BLED WELL DN/(HAD 150 PSI, SHUT IN PRESS ON TBG)/REL FB PKR/POH/MU 4 - 4-3/4" OD DRL CLRS ON 8-3/4" BIT, RIH ON 118 JTS OF 2-7/8" TBG, TAGD TOC @ 3885/RIGGED UP POWER SWIVEL, DRLD OUT CMT TO 4020 LEAVNG 11' CMT ABOV WSO HOLES @ 4031/POH, LAYD DN 21 JTS 2-7/8" TBG/BIT @ 3694/SIFN/

3-18 BLED WELL DN/REMOVD BOE/LANDED TBG w BIT @ 3707/RIH w RODS/LD DN 7 - 3/4", 6 - 7/8"x30' SUCKER RODS/CLND LOCATN/RDMO/WOC BEFORE CLN OUT & LOGGING/ DROP FRM REPORT/

3-22 WELLTECH MIRU/BLED WELL DN/POH w RODS/UNLANDED TBG/INSTLD BOE/PICKED UP 11 JTS 2-7/8" TBG, RIH/DRLD OUT CMT FRM 4020-4025/BEGAN TSTNG TO 700 PSI EVERY 1' TO 4033, TSTS ALL OK/DRLD THRU CMT @ 4040/CLND OUT SD TO 4110/PUH TO 3523/SIFN/

3-23 BLED WELL DN/(VAC ON TBG) LOWERD 8-3/4" BIT TO 4110/FILLED HOLE w 7 BBLS LSE WTR, CONTD CLEANING OUT SD FRM 4110-4237/POH/RAN 8-3/4 BIT ON 9-5/8" 36# BKR CSG SCRPR TO 4235, CIRC OUT FINE CMT TO 4237/POH/RIGGED UP SCHLUM RAN GAMMA RAY - CMT BOND LOG FRM 4200-3348/SIFN/

3-24 BLED WELL DN/LD DN 4-3/4" DC/MU 9-5/8" 36# BKR CIRC WASH TOOL w 2' CUP SPACING, RIH ON 2-7/8" TBG TO 4007, TSTD TOOL, BLANKD OFF @ 1000 PSI/ CONTD IN HOLE w TOOL TO 4121-4119, BLANKD OFF @ 1000 PSI/PU TO 4118-4116 & TSTD PERFS EVERY 2' w AVG MAX BRK DN OF 500 PSI @ 15 FT^3 PER MIN RATE & AVG FINAL PRESS OF 500 PSI @ 15 FT^3 PER MIN RATE, THROUGHOUT PERFD INTERVL/FOLOWNG INTERVLS BLANKD OFF @ 1000 PSI, 4094-4092, 4086-4074, 4050-4048, 4046-4078/ POH, LD DN TOOL/RIH w KILL STG/SIFN/

3-25 BLED WELL DN/POH w KILL STG/RAN PROD TBG STG w PAGE TBG ANCHOR @ 3829, API T/L PMP SHOE @ 3957 & BTM OF MUD ANCHOR @ 3989.59/REMOVD BOE/LANDED TBG/RIH w OILWELL 3 TUBE 2½"x1-3/4"x25' PMP ON 97 - 3/4 & 32 - 7/8"x30' "EL" SUCKER RODS/SEATED & SPACD PMP/FILLED TBG w LSE PROD WTR/POP INTO BKR TK/ RDMO/WELL OWES 154 BBLS WTR/IN TST 19 HRS/0 BO, 207 BW/TBG 5#/CSG 0#/11 SPMx 72" LOS/FL 2636, OP 1322/(FLOWLINE CUT CONTAINED 1% MUD)/WELL PAID BK LOAD WTR, PLUS 53 BBLS FRM WELL)/

1982

3-26	10 HRS/0 BO, 90 BW/TBG 5#/CSG 17#/11 SPMx72" LOS/WELL PMPD OFF @ 5:00 PM 3-26-82/SHUT WELL IN/FL 3956 @ PMP/FL @ 7:00 AM, 3-27-82 3602', OP 354'/
3-27	5 HRS/0 BO, 28 BW/TBG 12#/CSG 16#/11 SPMx72" LOS/FL 3956 @ PMP/SHUT WELL IN/
3-28	2 HRS/0 BO, 14 BW/TBG 12#/CSG 16#/11 SPMx72" LOS/FL 3956 @ PMP/SHUT WELL IN/
3-29	1½ HRS/Ø BO, 8 BW/TBG 12#/CSG 16#/11 SPMx72" LOS/FL 3956 @ PMP/SHUT WELL IN 3-30-82/FLUID RISE 20 HRS, 114'/DROP FRM REPORT/WELL TO BE SHUT IN 7 DAYS FOR BUILD UP/
5-3	14 HRS/98 BO, 60 BW/TBG 7#/CSG 19#/11 SPMx72" LOS/FL 3957 @ PMP/ NOTE: WELL HAS BEEN SHUT-IN FOR BUILD UP SINCE 3-29-82/FLUID LEVEL PRIOR TO PUTTING ON PROD, 1723', OP 2234'/
5-4	NO ACTIVITY/DROP FRM REPORT/
5-14	WELL SHUT-IN PENDING EVALUATION FOR STIMULATION PROGRAM/DROP FRM REPORT/
9-7	WELL TA'D 5-14-82/FINAL REPORT/

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

No. T 182-248

DIVISION OF OIL AND GAS

Report on Operations

L.B. Carroll, Jr. Agent
SUN EXPLORATION & PRODUCTION CO.
P.O. Box 55060
Valencia, CA 91355

Long Beach Calif.
April 20, 1982

Your operations at well NWLBU 8-7, API No. 037-22512, Sec. 13, T4S, R13W, S.B. B.& M. LOng Beach Field, in Los Angeles County, were witnessed on 2/26/82. W.E. Brannon, Engineer, representative of the supervisor, was present from 1400 to 1600. There were also present J. Icardone

Present condition of well: 20" cem 50' 13-3/8" cem 1122'. 9-5/8" cem 4715', perf 4031' & 4356' & 4693' WSO, perf 4368-4412'; 7" cem 4626-5847', perf @ int. 5724-5777', TD 5847 Plugged w/cem 5777-5583' & 4423-4242'.

The operations were performed for the purpose of Testing the 9-5/8" shut-off at 4031' with a formation tester.

DECISION: APPROVED

NOTE: DEFICIENCIES TO BE CORRECTED
NONE

DEFICIENCIES CORRECTED
NONE

CONTRACTOR: California Production Service, Inc.

WEB:csw

cc: Update

Blanket Bond

M.G. MEFFERD
State Oil and Gas Supervisor

By [signature]
Deputy Supervisor
J.L. HARDOIN

Form OGD8 (8/80)

DIVISION OF OIL AND GAS

WATER SHUTOFF TEST

Rg 3-23-82

No. T 182-248

Operator Sun Exploration & Production Co

Well designation NWLBU 8-7 Sec. 13, T. 4S, R. 13W, SB B.&M.

Field Long Beach, County Los Angeles was tested for water shutoff on 2-26-82. (Name) W.E. Brannon, representative of the supervisor, was present from 1400 to 1600. Also present were J. Icardone

Casing record of well: 20" cem 50'; 13 3/8" cem 1122'; 9 5/8" cem 4715', perf 4031' & 4356 & 4693' wso, perf 4368-4412; 7" cem 4626'-5847, perf @ int 5724-5777, TD 5847 Plugged w/cem 5777-5583, & 4423'-4242'.

The operations were performed for the purpose of D-1 - 9 5/8" - 4031

[X] The 9 5/8" shutoff at 4031' is approved.

[ ] The seal between the _____" and _____" casings is approved.

[ ] The operations are approved as indicating that all of the injection fluid is confined to the formations below _____' at this time.

4693 wso

Hole size: _____" fr. _____' to _____'; _____" to _____'; & _____" to _____'

Casing				Cemented			Top of Fill		Sqd. Away	Final Press	Test psi/min. Perfs.
Size	Wt.	Top	Bottom	Date	MO-Depth	Volume	Annulus	Casing			

Depth or interval tested 4 - 1/2" holes @ 4031'.

The hole was open to 4243' for test.

FORMATION TEST:

Packer(s) 3459' & _____' Tail 3988' Bean size 3/4" Cushion None

IHP 1733 IFP 41 FFP 46 FHP 1704

Blow Medium blow for 10 min., light blow for 20 min. Then dead remainder of test.

Open for test One Hr. — min. Fluid entry 60 feet oil & water

BAILING TEST:

The hole fluid was bailed to _____', at _____ on _____ 19__.

The hole fluid was found at _____', at _____ (time) on _____ 19__.

PRODUCTION TEST:

Gauge/meter reading _____ on _____ 19__, at _____ pump depth _____' Engr. _____

Gauge/meter reading _____ on _____ 19__, at _____ Engr. _____

Fluid level _____' surveyed on _____ 19__, reviewed (witnessed) by _____

Total fluid produced, Bbls. _____ Net oil _____ Water _____

Rate: _____ B/D oil, _____ B/D water, _____ % water cut

INJECTION SURVEY:

RA/Spinner/Temperature survey run at _____ B/D & _____ psi on _____ 19__, fluid confined below _____' (Packer depth _____')

DEFICIENCIES—TO BE CORRECTED NONE

DEFICIENCIES—CORRECTED NONE

CONTRACTOR California Production Service, Inc.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

No. T 182-250

DIVISION OF OIL AND GAS

Report on Operations

L. B. Carroll, Jr., Agent
SUN EXPLORATION & PRODUCTION CO.
P. O. Box 55060
Valencia, CA 91355

Long Beach Calif.
April 23, 1982

Your operations at well NWLBU 8-7, API No. 037-22512, Sec. 13, T4S, R. 13W S.B.B.& M. Long Beach Field, in Los Angeles County, were witnessed on 2-25-82. E. Santiago, Engineer, representative of the supervisor, was present from 1030 to 1130. There were also present J. Incardone, Drilling Foreman.

Present condition of well: 20" cem 50'; 13-3/8" cem 1122'; 9-5/8" cem 4715', perf 4356' WSO & 4693' WSO; 7" cem 4626'-5847', perf @ int 5724' - 5777' & 4368' - 4412'. TD 5847'. Plugged w/cem 5777'-5583' & 4423'-4242'.

The operations were performed for the purpose of Witnessing the plugging operations in the process of plugging back to abandon lower zone.

DECISION: APPROVED.

NOTE: DEFICIENCIES TO BE CORRECTED
NONE

DEFICIENCIES CORRECTED
NONE

CONTRACTOR: California Production Service, Inc.

ES:da

cc: Update

Blanket Bond

M. G. MEFFERD
State Oil and Gas Supervisor

By V. Dade
Deputy Supervisor

Form OGD10 (6/80)

DIVISION OF OIL AND GAS
Cementing/Plugging Memo

Pg 3-23-82

182-250

Operator Sun Oil Exploration & Production Co. Well No. NWLBU 8-7
API No. 037-22512 Sec. 13, T. 4S, R. 13, SB B&M
Field Long Beach, County L.A. On 2/25/82,
Mr. E. Santiago, representative of the supervisor was present from 1030 to 1130.
There were also present Joe Incardone

Casing record of well: 20" cem 50'; 13 3/8" cem 1122; 9 5/8" cem 4715, perf 4356' w/so & 4693' w/so; 7" cem 4626'-5847', perf @ int. 5724'-5777' & 4368'-4412. TD 5847'. Plugged w/cem 5777'-5583' & 4423'-4242'.

The operations were performed for the purpose of (N) plugging back to abandon lower zone.

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

☐ The location and hardness of the cement plug @_____' is approved.

Hole size:_____" fr._____' to_____', _____" to_____' & _____" to_____'

Casing				Cemented			Top of Fill		Squeezed Away	Final Press.	Perfs.
Size	Wt.	Top	Bottom	Date	MO-Depth	Volume	Annulus	Casing			
9 5/8	36	0	4715	2/23/82	THE			5582			

Casing/tubing recovered:_____" shot/cut at_____', _____', _____' pulled fr._____';
_____" shot/cut at_____', _____', _____' pulled fr._____'.

Junk (in hole):

Hole fluid (bailed to) at_____'. Witnessed by

Mudding	Date	Bbls.	Displaced	Poured	Fill	Engr.

Cement Plugs		Placing	Placing Witnessed		Top Witnessed			
Date	Sx./~~cf~~	MO & Depth	Time	Engr.	Depth	Wt/Sample	Date & Time	Engr.
2/2/82	50 cf	Tub @ 5777'	1960	GW Stark	5583	12000#	2-3-82 0730	GW Stark
2/25/82	65 sx	Tub @ 4423	1030	E Santiago	4242	10000#	2/26/82 0730	GW Stark

DEFICIENCIES—TO BE CORRECTED

NONE

DEFICIENCIES—CORRECTED

NONE

CONTRACTOR CALIFORNIA PRODUCTION SERVICE, INC.

FORM OG111(10/81/DWRR/5M)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

No. P 182-161

412
(field code)
03
(area code)
00
(new pool code)
00
(old pool code)

REPORT ON PROPOSED OPERATIONS

L. B. Carroll, Jr., Agent
SUN EXPLORATION & PRODUCTION CO.
P. O. Box 55060
Valencia, CA 91355

Long Beach, California
March 3, 1982

Your _____ proposal to Rework well NWLBU 8-7, A.P.I. No. 037-22512, Section 13, T. 4S, R. 13W, S.B. B. & M., Long Beach field, Northwest Extension area, Brown pool, Los Angeles County, dated 2-22-82, received 2-23-82 has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:

1. Blowout prevention equipment, equivalent to this division's Class II 2M requirements, or better, shall be installed and maintained in operating condition.
2. This division shall be consulted and a supplementary notice may be required before making any changes in the proposed program.
3. THIS DIVISION SHALL BE NOTIFIED:
   - ✓a. To inspect the installed blowout prevention equipment prior to commencing downhole operations.
   - b. To witness a test of the effectiveness of the 9-5/8" shut-off at 4030'.
   - c. To witness the location and hardness of the cement plug at 4250'.

RM:da

cc: Update

Blanket Bond

M. G. MEFFERD, State Oil and Gas Supervisor

By J. L. HARDOIN, *Deputy Supervisor*

A copy of this report and the proposal must be posted at the well site prior to commencing operations.

Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

O&G
rework

Notice of Intention to Rework Well

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

FOR DIVISION USE ONLY		
BOND	OGD114	OGD121
Blanket	2-23-82 CP	2-23-82 CP

DIVISION OF OIL AND GAS

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to rework well No. NWLBU #8-7, API No. 037-22512,

Sec. 13, T. 4S, R. 13W, SB B. & M., LONG BEACH Field, LOS ANGELES County.

The present condition of the well is as follows:

1. Total depth. 5847' PBTD 5583'

2. Complete casing record, including plugs and perforations:

13 3/8", 54.5# CSG 0-1122'
9 5/8", 36# CSG 0-4715' (3.247 GALLONS/FT)
7", 26# CSG 4626- 5847' (1.607 GALLONS/FT)
TD 5847'; PBTD 5583'
PERFS: 4-1/2" JHPF FROM 4368-4376' & 4383-4412'
WSO @ 4356'
2 7/8", 6.5# TBG 0-4393' (.2431 GALLONS/FT)

3. Present producing zone name BROWN "K" Zone in which well is to be recompleted BROWN "I"

4. Present zone pressure 1150 PSI New zone pressure 1150 PSI

5. Last produced 2/16/82 (Date) 0 (Oil, B/D) 11 (Water, B/D) 0 (Gas, Mcf/D)

or

6. Last injected — (Date) — (Water, B/D) — (Gas, Mcf) — (Surface pressure, psig.)

The proposed work is as follows:

1. MIRU
2. SPOT CMT PLUG FROM 4423-4250': DOG TO WITNESS AND APPROVE
3. SHOOT WSO @ 4031. DOG TO WITNESS.
4. SQUEEZE CMT W/+50 SX IF REQD. RE SHOOT WSO @ 4030.
5. PERFORATE FROM 4118-4041', 4087-4080', AND 4068-4038' W/4-1/2" JHPF
6. ACIDIZE W/1000 GAL 15% HCL AND 3000 GAL 12% HCL 3% HF ACID
7. RETURN WELL TO PRODUCTION.

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

Address 25322 W RYE CANYON ROAD (Street)
VALENCIA CALIFORNIA 91355-5060 (City) (State) (Zip)
Telephone Number 805/257-6200

SUN EXPLORATION AND PRODUCTION COMPANY
SUN PRODUCTION DIVISION (Name of Operator)
By L B Carroll Jr. (Name) 2/22/82 (Date)
Type of Organization CORPORATION (Corporation, Partnership, Individual, etc.)

OG107 (8-75—GSRI—15M)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

No. T 182-249

DIVISION OF OIL AND GAS

Report on Operations

L. B. Carroll, Jr., Agent
SUN EXPLORATION & PRODUCTION CO.
P. O. Box 55060
Valencia, CA 91355

Long Beach Calif.
April 23, 1982

Your operations at well NWLBU 8-7, API No. 037-22512, Sec. 13, T. 4S, R. 13W S.B.B.& M. Long Beach Field, in Los Angeles County, were witnessed on 2-4-82. G. W. Stark, Engineer, representative of the supervisor, was present from 1250 to 1330. There were also present J. Incardone, Drilling Foreman.

Present condition of well: 20" cem 50'; 13-3/8" cem 1122'; 9-5/8" cem 4715', perf 4356', WSO & 4693' WSO; 7" cem 4626'-5847', perf @ int 5724'-5777'. TD 5847'. Plugged w/cem 5777'-5583'.

The operations were performed for the purpose of Testing the 9-5/8" shut-off at 4356' with a formation tester.

DECISION: APPROVED.

NOTE: DEFICIENCIES TO BE CORRECTED
NONE

DEFICIENCIES CORRECTED
NONE

CONTRACTOR: Well Tech, Inc.

GWS:da

cc: Update

Blanket Bond

M. G. MEFFERD
State Oil and Gas Supervisor

By [signature]
Deputy Supervisor

Form OGD8 (8/80)

DIVISION OF OIL AND GAS

WATER SHUTOFF TEST

No. T 82-349

Operator Sun ~~Oil Company~~ EXPLORATION & PRODUCTION CO.

Well designation NWLBU 8-7 Sec. 13, T. 4s, R. 13w, SB B.&M.

Field Long Beach, County Los Angeles was tested for water shutoff on 2-4-82. (Name) GW Stark, representative of the supervisor, was present from 1250 to 1330. Also present were J. Incardone PF

Casing record of well: 20" cem 50'; 13 3/8" cem 1122'; 9 5/8" cem 4715', perf 4356' WSO & 4693' WSO; 7" cem 4626'-5847', perf @ int. 5724'-5777'. TD 5847'. Plugged w/cem 5777'-5583'.

The operations were performed for the purpose of (D) - 1 4356'

- [x] The 9 5/8" shutoff at 4356' is approved.
- [ ] The seal between the _____" and _____" casings is approved.
- [ ] The operations are approved as indicating that all of the injection fluid is confined to the formations below _____' at this time.

Hole size: _____" fr. _____' to _____'; _____" to _____'; & _____" to _____'

Casing				Cemented			Top of Fill		Sqd. Away	Final Press	Test psi/min. Perfs.
Size	Wt.	Top	Bottom	Date	MO-Depth	Volume	Annulus	Casing			

Depth or interval tested 4 - 1/2" holes @ 4356'

The hole was open to ——— ' for test.

FORMATION TEST:

Packer(s) 4298' & _____' Tail 4326' Bean size 3/4" Cushion ~~0~~

IHP 1850 IFP 43 FFP 55 FHP 1851

Blow 6 min light decreasing to dead in 14 min

Open for test 1 Hr. 0 min. Fluid entry 70' hole fluid.

BAILING TEST:

The hole fluid was bailed to _____', at _____ on _____ 19__.

The hole fluid was found at _____', at _____ (time) on _____ 19__.

PRODUCTION TEST:

Gauge/meter reading _____ on _____ 19__, at _____ pump depth _____' Engr. _____

Gauge/meter reading _____ on _____ 19__, at _____ Engr. _____

Fluid level _____' surveyed on _____ 19__, reviewed (witnessed) by _____

Total fluid produced, Bbls. _____ Net oil _____ Water _____

Rate: _____ B/D oil, _____ B/D water, _____ % water cut

INJECTION SURVEY:

RA/Spinner/Temperature survey run at _____ B/D & _____ psi on _____ 19__, fluid confined below _____' (Packer depth _____')

Deficiencies corrected
none
Deficiencies to be corrected
none
Contractor: Well Tech, Inc.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

No. T 182-251

DIVISION OF OIL AND GAS

Report on Operations

L. B. Carroll, Jr., Agent
SUN EXPLORATION & PRODUCTION CO.
P. O. Box 55060
Valencia, CA 91355

Long Beach Calif.
April 23, 1982

Your operations at well NWLBU 8-7, API No. 037-22512, Sec. 13, T. 4S, R. 13W S.B.B.& M. Long Beach Field, in Los Angeles County, were witnessed on 2-3-82. G. W. Stark, Engineer, representative of the supervisor, was present from 1800 to 1830. There were also present D. Wang, Drilling Foreman.

Present condition of well: 20" cem 50'; 13-3/8" cem 1122'; 9-5/8" cem 4715', perf 4693' WSO; 7" cem 4626'-5847', perf @ intervals 5724'-5777'. TD 5847'.

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

DECISION: APPROVED.

NOTE: DEFICIENCIES TO BE CORRECTED
NONE

DEFICIENCIES CORRECTED
NONE

CONTRACTOR: Well Tech, Inc.

GWS:da

cc: Update

Blanket Bond

M. G. MEFFERD
State Oil and Gas Supervisor

By [signature]
Deputy Supervisor

T. T. HARDOIN

DIVISION OF OIL AND GAS
BLOWOUT PREVENTION EQUIPMENT MEMO

Rn 3-23-82

T 182-251

Operator SUN ~~Oil Company~~ EXPLORATION & PRODUCTION CO. Well "NWULB"8-7 Field Long Beach County LA

VISITS:	Date	Engineer	Time	Operator's Rep.	Title
1st	2-3-82	G W Stark	1800 to 1830	D. Wang	DF
2nd			to		

Casing record of well: 20" Cem 50'; 13 3/8" Cem 1122'; 9 5/8" Cem 4715', perf 4693 WSO; 7" Cem 4626'-5847', perf @ intervals 5724'-5777'. TD 5847'.

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

Proposed Well Opns: Perf New zone MPSP: _____ psi

REQUIRED BOPE CLASS: II zm

Hole size: 1 " fr. Surf ' to 2000 ', _____ " to _____ ' & _____ " to _____ '

CASING RECORD (BOPE ANCHOR STRING ONLY)					Cement Details	Top of Cement	
Size	Weight(s)	Grade (s)	Shoe at	CP at		Casing	Annulus
			1000				

BOP STACK							a	b	a/b	TEST DATA			
API Symb.	Ram Sz.	Mfr.	Model or Type	Size In.	Press. Rtg.	Date Last Overhaul	Gal. to Close	Rec.Time Min.	Calc.GPM Output	psi Drop to Close	Secs.to Close	Test Date	Test Press.
Rd	2 1/2	Shaffer	mech	8	3000	—							
"	CSO	"	"	"	"	—							

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

	Mfr.	Accum. Cap.	Precharge
1		gal.	psi
2		gal.	psi

CONTROL STATIONS	Elec.	Hyd.
Manif. at accum.unit		
Remote at Drlr's stn.		
Other:		

EMERG. BACKUP SYST.	Press.	Wkg.Fl.
N2 Cyl No: Tpe:	1	gal
Other:	2	gal
	3	gal
Hand wheels.	4	gal
	5	gal
	6	gal

AUXILIARY EQUIPMENT	No.	Sz. (in)	Rated Press.	Connections Weld	Flan.	Thrd.
Fill-Up Line						
Kill Line						
Control Valve(s)						
Check Valve(s)						
Auxil. Pump Connec.			Well Head Valves only			
Choke Line						
Control Valve(s)						
Pressure Gauge						
Adjustable Choke(s)						
Bleed Line						
Upper Kelly Cock						
Lower Kelly Cock						
Standpipe Valve						
Standpipe Pressure Ga.						
Pipe Safety Valve						
Internal Preventer						

HOLE FLUID MONITORING EQUIPMENT	Alarm Aud.	Alarm Vis.	Class
Calibrated Mud Pit			A
Pit Level Indicator			B
Pump Stroke Counter			
Pit Level Recorder			C
Flow Sensor			
Mud Totalizer			
Calibrated Trip Tank			
Other:			

REMARKS:

Hole Fluid Type	Weight	Storage-Pits

OGD 9 (10/80/3M)

DEFICIENCIES—TO BE CORRECTED

none

DEFICIENCIES—CORRECTED

none

CONTRACTOR Well Tech, Inc.

FORM OG111(10/81/DWRR/5M)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

No. P 182-109

412
(field code)
03
(area code)
00
(new pool code)
00
(old pool code)

REPORT ON PROPOSED OPERATIONS

L. B. Carroll, Jr., Agent
SUN EXPLORATION & PRODUCTION CO.
P. O. Box 55060
Valencia, CA 91355

Long Beach, California
February 17, 1982

Your _____ proposal to Rework well NWLBU 8-7, A.P.I. No. 037-22512, Section 13, T. 4S, R. 13W, S.B. B. & M., Long Beach field, Northwest Extension area, Brown pool, Los Angeles County, dated 2-3-82, received 2-4-82 has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:

1. Blowout prevention equipment, equivalent to this division's Class II 2M requirements, or better, shall be installed and maintained in operating condition.
2. This division shall be consulted and a supplementary notice may be required before making any changes in the proposed program.
3. THIS DIVISION SHALL BE NOTIFIED:
   a. To inspect the installed blowout prevention equipment prior to commencing downhole operations.
   b. To witness the location and hardness of the cement plug at 5620'.

RM:da

cc: Update

Blanket Bond

M. G. MEFFERD, State Oil and Gas Supervisor

By [signature]
for J. L. HARDOIN, *Deputy Supervisor*

A copy of this report and the proposal must be posted at the well site prior to commencing operations.

Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

O&G
rework

DIVISION OF OIL AND GAS

Notice of Intention to Rework Well

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

FOR DIVISION USE ONLY		
BOND	OGD114	OGD121
Blanket	2-10-82 CP	2-10-82

DIVISION OF OIL AND GAS

In compliance with Section 3203, Division 3. Public Resources Code, notice is hereby given that it is our intention to rework well No. NWLB UNIT #8-7 (NWLB 8-7), API No. 037-22512,

Sec. 13, T. 4S, R. 13W, SB B. & M., LONG BEACH Field, LOS ANGELES County.

The present condition of the well is as follows:

1. Total depth. 5847' PBTD 5837'

2. Complete casing record, including plugs and perforations:

13 3/8", 54.5# CSG 0-1122'
9 5/8", 36# CSG 0-4715' (3.247 GALLONS/FT)
7", 26# CSG 4626-5847' (1.607 GALLONS/FT)
T.D. 5847'; PBTD 5837'
PERFS: 8- .33" JHPF FROM 5764' - 5777'
4- 1/2" JHPF FROM 5724' - 5736' AND 5738' - 5756'

3. Present producing zone name BROWN - "V" Zone in which well is to be recompleted BROWN - "K"

4. Present zone pressure 1200 PSI New zone pressure 1200 PSI

5. Last produced 1/26/82 (Date) 0 (Oil, B/D) 20 (Water, B/D) 0 (Gas, Mcf/D)

or

6. Last injected _____ (Date) _____ (Water, B/D) _____ (Gas, Mcf) _____ (Surface pressure, psig.)

The proposed work is as follows:

1. MIRU
2. SPOT CMT PLUG FROM 5777'-5620'. DOG TO WITNESS PLACEMENT AND LOCATION OF PLUG.
3. PERFORATE WELL FROM 4383'-4411' AND FROM 4368'-4376' W/4 1/2" JHPF.
4. ACIDIZE AS FOLLOWS: 1800 GALLONS 15% HCR, 1800 GALLONS 12% HCI-3% HF, 25 BBL 2% AM-CL WATER.
5. RIH W/RODS, TBG, AND ACID PUMP. RTP.

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

Address 25322 W RYE CANYON ROAD (Street)
VALENCIA (City) CALIFORNIA (State) 91355-0560 (Zip)
Telephone Number 805/257-6200

SUN EXPLORATION AND PRODUCTION COMPANY
SUN PRODUCTION DIVISION (Name of Operator)
By L B Carroll Jr. (Name) 2/3/82 (Date)
Type of Organization CORPORATION (Corporation, Partnership, Individual, etc.)

OG107 (8-75—GSRI—15M)

GENE WINN
BASIN SEGMENT

RECEIVED
FEB 4 9 11 AM '82
DIV. OF OIL AND GAS
LONG BEACH, CA.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

No. T 181-1079

DIVISION OF OIL AND GAS

Report on Operations

L. B. Carroll, Jr., Agent
SUN OIL COMPANY
P. O. Box 55060
Valencia, CA 91355

Long Beach Calif.
October 21, 1981

Your operations at well NWLBU 8-7, API No. 037-22512, Sec. 13, T. 4S, R. 13W, S.B. B.& M. Long Beach Field, in Los Angeles County, were witnessed on 9-21-81. R. Manuel, Engineer, representative of the supervisor, was present from 1145 to 1215. There were also present Don Rodgers, Drilling Foreman.

Present condition of well: 20" cem 50'; 13-3/8" cem 1122'; 9-5/8" cem 4715', perf 4693' WSO. TD 4906' (Drilling).

The operations were performed for the purpose of Testing the 9-5/8" shut-off at 4693' with a formation tester.

DECISION: APPROVED.

NOTE: DEFICIENCIES TO BE CORRECTED
NONE

DEFICIENCIES CORRECTED
NONE

CONTRACTOR: Atlantic Oil Company

RM:dh

cc: Update

TM / D. Daniels (Sun) 2-2-82
7" cem 4626'-5841', perfs @ int 5724'-5777'.
OK to plug from 5777' to 5620'. Will send
Report on proposed operations
immediately.

M. G. MEFFERD
State Oil and Gas Supervisor

By [signature]
Deputy Supervisor

for R. A. YBARRA

OG109(12-80-15M)

Form OGD8 (8/80)

DIVISION OF OIL AND GAS
WATER SHUTOFF TEST

No. T 1079

Operator Sun Oil Company

Well designation NWLBU 8-7 Sec. 13, T. 4S, R. 13W, SB B.&M.

Field Long Beach, County L.A. was tested for water shutoff on 9-21-81. (Name) R. Manuel, representative of the supervisor, was present from 1145 to 1215. Also present were Don Rodgers - D.F.

Casing record of well: 20" cem 50'; 13 3/8" cem 1122'; 9 5/8" cem 4715', perf 4693' WSO. TD 4906' (drilling).

The operations were performed for the purpose of (D-1) 9 5/8" @ 4693'

☒ The 9 5/8" shutoff at 4693' is approved.

☐ The seal between the _____" and _____" casings is approved.

☐ The operations are approved as indicating that all of the injection fluid is confined to the formations below _____' at this time.

Hole size: 12 1/4" fr. 1122' to 4725'; 8 3/4" to 4906';& _____" to _____'

Casing				Cemented			Top of Fill		Sqd. Away	Final Press	Test psi/min. Perfs.
Size	Wt.	Top	Bottom	Date	MO-Depth	Volume	Annulus	Casing			
9 5/8	36	0	4715'	9-17-81	thru shoe	1276cf	Surf	4487'		1000	

Depth or interval tested 4-1/2" holes @ 4693'

The hole was open to 4705' for test.

FORMATION TEST:

Packer(s) 4641' & _____' Tail 4669' Bean size 3/4" Cushion 0

IHP 2200 IFP 57 FFP 57 FHP 2190

Blow light throughout test

Open for test 1 Hr. 0 min. Fluid entry 30' mud

BAILING TEST:

The hole fluid was bailed to _____', at _____ on _____ 19__.

The hole fluid was found at _____', at _____ on _____ 19__.
(time)

PRODUCTION TEST:

Gauge/meter reading _____ on _____ 19__, at _____ pump depth _____' Engr. _____

Gauge/meter reading _____ on _____ 19__, at _____ Engr. _____

Fluid level _____' surveyed on _____ 19__, reviewed (witnessed) by _____

Total fluid produced, Bbls. _____ Net oil _____ Water _____

Rate: _____ B/D oil, _____ B/D water, _____ % water cut

INJECTION SURVEY:

RA/Spinner/Temperature survey run at _____ B/D & _____ psi on _____ 19__, fluid confined below _____' (Packer depth _____')

DEFICIENCIES—TO BE CORRECTED

None

DEFICIENCIES—CORRECTED

None

CONTRACTOR

Atlantic Oil Co.

SUN PRODUCTION COMPANY
N.W.L.B.U. #8-7 037-22512
LONG BEACH, CALIFORNIA

C.R.G. Properties, Ltd.

JOB NUMBER 35-881
AUG.- SEPT., 1981
ELEVATION 56 FT.

DECL. CORR. 14 DEG. 30 MIN. EAST

MEAS. DEPTH	DRIFT ANGLE	DRIFT BEARING	VERTICAL DEPTH	VERTICAL SUB-SEA	TOTAL COORDINATES	
125	0015	N64 00E	125.0	-69.0	.1 N	.2 E
215	0015	N14 00E	215.0	-159.0	.4 N	.5 E
306	0015	S18 00W	306.0	-250.0	.5 N	.1 E
417	0015	N36 00W	417.0	-361.0	.5 N	.4 W
507	0015	N49 00E	507.0	-451.0	.8 N	.3 W
600	0015	N60 00W	600.0	-544.0	1.3 N	.4 W
693	0015	N34 00E	693.0	-637.0	1.6 N	.5 W
783	0015	N09 30E	783.0	-727.0	2.0 N	.3 W
875	0015	N80 00E	875.0	-819.0	2.3 N	0.0 W
965	0030	S05 00E	965.0	-909.0	1.9 N	.4 E
1120	0030	N73 00W	1120.0	-1064.0	1.1 N	.6 W
1192	0030	N15 00W	1192.0	-1136.0	1.5 N	1.0 W
1286	0000	N00 00E	1286.0	-1230.0	1.9 N	1.2 W
1386	0015	N21 00W	1386.0	-1330.0	2.1 N	1.2 W
1428	0245	N01 00W	1428.0	-1372.0	3.2 N	1.4 W
1489	0415	N14 00W	1488.9	-1432.9	6.9 N	1.9 W
1549	0600	N29 00W	1548.6	-1492.6	11.9 N	3.9 W
1611	0730	N24 00W	1610.2	-1554.2	18.4 N	7.1 W
1672	0930	N17 00W	1670.5	-1614.5	26.9 N	10.3 W
1735	1115	N11 00W	1732.5	-1676.5	37.9 N	13.0 W
1766	1215	N13 00W	1762.8	-1706.8	44.0 N	14.4 W
1894	1330	N25 00W	1887.6	-1831.6	71.0 N	23.6 W
1989	1315	N23 30W	1980.0	-1924.0	91.1 N	32.7 W
2081	1315	N22 00W	2069.6	-2013.6	110.5 N	40.8 W
2173	1315	N25 30W	2159.1	-2103.1	129.8 N	49.3 W
2264	1300	N30 30W	2247.8	-2191.8	148.0 N	59.0 W
2357	1230	N25 30W	2338.5	-2282.5	166.2 N	68.7 W
2404	1330	N21 00W	2384.3	-2328.3	175.9 N	72.8 W
2465	1330	N05 00W	2443.6	-2387.6	189.8 N	76.0 W
2571	1300	N02 00E	2546.8	-2490.8	214.0 N	76.7 W
2663	1300	N02 00E	2636.4	-2580.4	234.7 N	75.9 W
2754	1245	N03 00E	2725.1	-2669.1	255.0 N	75.1 W
2848	1230	N03 00E	2816.8	-2760.8	275.5 N	74.0 W
2938	1215	N05 30E	2904.7	-2848.7	294.7 N	72.6 W
3022	1200	N04 30E	2986.9	-2930.9	312.3 N	71.0 W

UNITED DIRECTIONAL SERVICES, INC.
SIGNAL HILL, CALIFORNIA

RECEIVED
MAY 19 11 51 AM '83
DIV OF OIL & GAS
LONG BEACH, CALIF.

MEAS. DEPTH	DRIFT ANGLE	DRIFT BEARING	VERTICAL DEPTH	VERTICAL SUB-SEA	TOTAL COORDINATES	
3175	1200	N04 30E	3136.5	-3080.5	344.0 N	68.5 W
3207	1200	N04 30E	3167.8	-3111.8	350.7 N	68.0 W
3310	1130	N03 30E	3268.7	-3212.7	371.6 N	66.5 W
3404	1130	N04 30E	3360.8	-3304.8	390.3 N	65.2 W
3495	1045	N05 00E	3450.1	-3394.1	407.8 N	63.8 W
3575	1330	N11 00W	3528.3	-3472.3	424.6 N	64.7 W
3635	1200	N25 00W	3586.8	-3530.8	437.1 N	68.7 W
3696	0930	N34 00W	3646.7	-3590.7	447.1 N	74.3 W
3758	0615	N43 00W	3708.2	-3652.2	453.7 N	79.6 W
3863	0330	N41 00W	3812.8	-3756.8	460.3 N	85.6 W
3955	0215	N41 00W	3904.7	-3848.7	463.8 N	88.6 W
4047	0200	N42 00W	3996.6	-3940.6	466.4 N	90.9 W
4139	0115	N40 00W	4088.6	-4032.6	468.3 N	92.6 W
4235	0115	N69 00W	4184.5	-4128.5	469.6 N	94.3 W
4332	0045	N54 00W	4281.5	-4225.5	470.4 N	95.8 W
4427	0015	N34 00E	4376.5	-4320.5	471.2 N	95.9 W
4518	0030	S26 00E	4467.5	-4411.5	471.1 N	95.3 W

CLOSURE: 480.6 FEET N 11 DEG. 26 MIN. W

COMPUTED USING THE AVERAGED ANGLE METHOD