

STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT ON PROPOSED CHANGE OF WELL DESIGNATION

Ventura, California

November 12, 1991

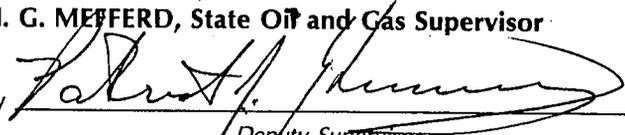
R. D. Phillips, Agent
SOUTHERN CALIFORNIA GAS COMPANY
P.O. Drawer 3249 Mail Location 22G0
Los Angeles, CA 90051-1249

Your request, dated July 24, 1991, proposing to change the designation of well(s) in Sec. 29, T. 3N, R. 16W, S.B. B. & M., Aliso Canyon field, Los Angeles County, District No. 2, has been received.

The proposed change in designation, in accordance with Section 3203, Public Resources Code, is authorized as follows:

<u>FROM</u>	<u>TO</u>
"SFZU" F-2 (037-00665)	"Frew" 2 (037-00665)
"SFZU" F-3 (037-00666)	"Frew" 3 (037-00666)
"SFZU" F-4 (037-00667)	"Frew" 4 (037-00667)
"SFZU" F-5 (037-00668)	"Frew" 5 (037-00668)
"SFZU" F-6 (037-00669)	"Frew" 6 (037-00669)
"SFZU" F-7 (037-00670)	"Frew" 7 (037-00670)
"SFZU" F-8 (037-00671)	"Frew" 8 (037-00671)
"SFZU" F-9 (037-00672)	"Frew" 9 (037-00672)
"SFZU" SS-4 (037-00757)	"Standard Sesnon" 4 (037-00757)
"SFZU" SS-12 (037-00764)	"Standard Sesnon" 12 (037-00764)
"SFZU" SS-4-0 (037-22063)	"Standard Sesnon" 4-0 (037-22063)
"SFZU" SS-10 (037-00040)	"Standard Sesnon" 10 (037-00040)

M. G. MEFFERD, State Oil and Gas Supervisor

By 
Deputy Supervisor
PATRICK J. KINNEAR

SUBMIT IN DUPLICATE
RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
AUG 2 1976

History of Oil or Gas Well

SANTA PAULA, CALIFORNIA

OPERATOR SOUTHERN CALIFORNIA GAS COMPANY FIELD Aliso Canyon

Well No. FREW #6, Sec. 29, T. 3N, R. 16W, S.B. B. & M.

Date July 23, 1976

Signed

P. S. Magruder, Jr.

P. O. Box 3249, Terminal Annex
Los Angeles, California 90051

Title Agent

(Address)

(Telephone Number)

(President, Secretary or Agent)

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

Date	
6-4-76	Spotted 50 barrels of hot oil down tubing. Archer-Reed pulled valve at 8451'. Killed well with 72# of polymer mud. Set tubing plug at 503' and tested with 2000 psi - O.K.
6-5-76	Moving rig to location.
6-7-76	Finished moving rig and equipment to new location. Rigging up and installing Class IV B.O.P.E. lines and equipment.
6-8-76	Rigged up Halliburton pump truck. Pressured B.O.P.E. to test Hydril to 3000 psi for 20 minutes; pipe rams to 4000 psi for 20 minutes and blind rams to 4000 psi for 20 minutes - O.K. Rigged nitrogen truck. Pressured B.O.P.E. to test Hydril to 3000 psi for 20 minutes; pipe rams to 4000 psi for 20 minutes and blind rams to 4000 psi for 20 minutes - O.K. Used Archer-Reed to pull tubing plug at 503'. Pulled packer loose. Circulated bottoms up.
6-9-76	Pulled 2 7/8" tubing and 5" 18# packer out. Made up 7" 29# casing scraper on 2 7/8" tubing. Ran in to top of liner at 8531'.
6-10-76	Ran 4 1/8" bit and 5" 18#. Scraper on 2 3/8" and 2 7/8" tubing to 8893'. No fill. Circulated and conditioned mud to 72#. Pulled out of hole. Laid down 13 joints of 2 3/8" tubing.
6-11-76	Rigged up Dresser Atlas. Ran cement bond log from 8893' to 7500'. Ran Neutron life time log from 8893' to 6900'. Picked up Baker 5" 18# plug; set plug at 8570'.
6-12-76	Rigged up McCullough wire line truck. Shot four 1/2" jet holes at 8498'. Made up Johnston tester on 2 7/8" tubing with 1000' cushion, set packer at 8422' with tail at 8455', opened tool - blew to surface - one minute - light to dead two minutes. Tested for two hours. Pulled packer loose, started out of hole.
6-13-76	Rig idle.

- 6-14-76 Pulled Johnston tester. Charts indicated dry test. Set Baker 7" 29# plug at 240'. Stripped off B.O.P.E. Pulled 7" casing pack off and slips. Made up Midway 7" casing cutter, cut 7" casing at 117'. Pulled and recovered same. Cleaning and removing 12" cement from cellar.
- 6-15-76 Finished removing concrete from cellar. Cut off 13 3/8" surface pipe. Welded on 13 3/8" 54.5# casing with 5000 psi casing head - X-rayed O.K. Made up Midway casing tool with mill control and smoothed top of 7" casing at 117'. Rigged casing jacks.
- 6-16-76 Ran 7" 29# Bowen packer-type casing bowl, latched on stub at 122'. Relanded casing with 200,000# cut off 7" casing. Installed casing seal flange and tubing head. Tested seals to 4500 psi - stripped on 10" B.O.P.E. Installed working platform.
- 6-17-76 Tested B.O.P.E. with mud blind and pipe rams to 4000# for 20 minutes - O.K. Hydril to 3000# for 20 minutes - O.K. Rigged up Newsco, tested B.O.P.E. blind and pipe rams to 4000# for 20 minutes - O.K. Hydril to 3000# for 20 minutes - O.K. Rigged Newsco. Tested Bowen casing bowl to 4000#. Held O.K. Continued testing casing from 750' to surface - 4000# for 20 minutes, 1000' to surface - 3000#, 1500' to surface - 2700#, 2000' to surface - 2500#, 2500' to surface - 2200#, 3000' to surface - 2000#, 4250' to surface - 1600#, 4750' to surface - 1400#. Tested from 8521' to 8571' with 1200 psi. Bled off through shot holes. Broke down 4500 psi/12 cu. ft. per minute. Displaced 5 sacks of 10-16 gravel on top bridge plug at 8571' preparing to squeeze.
- 6-18-76 With Baker 7" 29# fullbore at 8388', mixed and pumped 100 sacks of neat cement 25 cu. ft. of water ahead and five barrels behind closed tool 132 cu. ft. Pumped 92 cu. ft. to 5000 psi. Estimated 50 sacks out of holes at 8498'. Reversed balance out. Cement in place at 9:00 a.m. Pulled out of hole. Broke off Baker equipment. Picked up 6" bit and scraper. Tagged cement at 8388'. Rigged up Midway power swivel. Broke circulation. Closed in well.
- 6-19-76 Rigged up Midway power swivel. Drilled out cement from 8388' to top of liner at 8531'. Pressure tested to 1500 psi. Rigged up McCullough to shoot four holes at 8497'.
- 6-20-76 Rig idle.
- 6-21-76 Rigged up Johnston tester, set packer at 8460' and tail at 8470' - holes at 8497'. Opened tester, light blow to dead in one minute. Tested for two hours, pulled loose. Recovered 32 doubles - fluid, tool failed to close when packer was pulled loose*. Retrieved test tool and made up Baker retrieving head on 2 7/8" tubing. Ran in to top of liner. Installed Guiberson stripper. Shut down until a.m.
- * Charts indicated no fluid entry during test. WSO approved by Company.
- 6-22-76 Cleaned out sand to 8571'. Worked Baker retrieving head over plug. Pulled loose coming out of hole. Laid down 2 7/8" tubing, dropped last two joints of 2 3/8" tubing and Baker plug while breaking connection. Made up Midway 2 3/8" fishing socket, jars and bumper sub.

- 6-23-76 Picked up and measured 2 7/8" tubing in hole. Engaged tubing fish with socket and pulled out of hole. Recovered two joints of 2 3/8" tubing and retrieving tool, but left Baker bridge plug - running back after bridge plug.
- 6-24-76 Pulled tubing and Baker retrieving head. Failed to recover bridge plug. Made up Midway socket jars and bumper sub on 2 3/8" and 2 7/8" tubing. Ran in to top of fish at 8888', but unable to get over fish. Pulled out of hole and broke off Midway tools. Preparing to run Hercules Cement Bailer.
- 6-25-76 Dumped 1 cu. ft. of cement on top of plug at 8888', estimated top cement at 8878'. Rigged up McCullough wire line truck. Made up Otis 7" 29# Permatrieve packer, set packer at 8500'. Rigged up hydrotest. Breaking off all collars, cleaning and doping same. Picking up and running safety and gas lift equipment. Hydrotested tubing to 5000 psi - one minute for each test.
- 6-26-76 Continued to run tubing gas lift valves and safety equipment, stabbed seal assembly into packer at 8500', picked up 30,000# to check latch. Landed doughnut in head with 8000# on packer. Set tubing plug, stripped off B.O.P.E. Installed Christmas tree. Tested seals to 5000 psi. (Tubing details attached.)
- 6-27-76 Rig and crew idle.
- 6-28-76 Rigged up Halliburton and changed over from polymer fluid to lease salt water. Ran Otis wire line. Set standing valve. Pressure tested seals and packer to 2500 psi for 20 minutes - O.K. Rigged down. Released rig at 12:00 noon.

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

REPORT ON PROPOSED OPERATIONS No. P 276-185

Mr. P.S. Magruder, Jr., Agent
Southern California Gas Co.
P.O. Box 54790 Terminal Annex
Los Angeles, Calif. 90054

Santa Paula, Calif.
June 8, 1976

DEAR SIR:

(037-00669)

Your proposal to rework gas storage Well No. "SFZU" F-6
Section 29, T. 3N, R. 16W, S. B. B. & M., Aliso Canyon Field, Los Angeles County,
dated 6/4/76, received 6/7/76, has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

1. The drilling fluid used shall be of a quality and in sufficient quantity to control all subsurface conditions in order to prevent blowouts; and a reserve supply of this material shall be kept on hand to meet any emergency.
2. Blowout prevention equipment, at least of the Division of Oil and Gas Class III rating, shall be installed and maintained in operating condition at all times.
3. THIS DIVISION SHALL BE NOTIFIED TO WITNESS A PRESSURE TEST OF THE BLOWOUT PREVENTION EQUIPMENT BEFORE COMMENCING DOWNHOLE OPERATIONS

NOTE: A COPY OF THIS APPROVAL SHALL BE POSTED AT THE WELL SITE PRIOR TO COMMENCING OPERATIONS.

Blanket Bond
MD:b

HAROLD W. BERTHOLF
JOHN F. MATTHEWS, Jr., State Oil and Gas Supervisor

By Em A. Umsted Chief, Deputy
Em A. Umsted

DIVISION OF OIL AND GAS
RECEIVED
JUN 7 1976

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 null and void.

SANTA ANITA, CALIFORNIA

FOR DIVISION USE ONLY		
BOND	FORMS	
	114	121
Bb	✓	✓

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. FREW #6, API No. _____, Sec. 29, T. 3N, R. 16W, S.B. B. & M., Aliso Canyon Field, Los Angeles County.

The present condition of the well is as follows:

1. Total depth. 8896'

2. Complete casing record, including plugs and perforations:

13 3/8" cemented 748'
7" cemented 8580', WSO 8565'
365' 5" cemented 8896', plug 8893', top 8531'
cp'd 8729' and 8730', seg 8728', no WSO on splice
perforated at intervals 8585'-8878', top 8531'
Baash-Ross casing bowl at 41' - casing 41' to
surface 26# J-55 - 41'-47' Baash-Ross lead seal bowl

3. Present producing zone name SESNON Zone in which well is to be recompleted -

4. Present zone pressure 2900 psi New zone pressure -

5. Last produced Gas Storage Well
(Date) (Oil, B/D) (Water, B/D) (Gas, Mcf/D)

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

The proposed work is as follows:

1. Move in rig, kill well, install B.O.P.E. and pressure test.
2. Pull tubing. Clean out to 8893'. Run Neutron Lifetime and Cement Bond logs. Perform any remedial work indicated.
3. Install new wellheads. Pressure test 7" casing.
4. Perform any remedial work indicated.
5. Run packer, tubing, safety valve and gas lift valves.

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

Address P. O. Box 3249, Terminal Annex
(Street)
Los Angeles California 90051
(City) (State) (Zip)
Telephone Number (213) 689-3561

SOUTHERN CALIFORNIA GAS COMPANY
(Name of Operator)
By P. S. Magruder, Jr. 6/24/76
(Name) (Date)
Type of Organization Corporation
(Corporation, Partnership, Individual, etc.)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE
(Other instructions on
reverse side)

Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

LA 055641-A

SUNDRY NOTICES AND REPORTS ON WELLS RECEIVED

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL GAS WELL OTHER Gas Storage
JUN 10 1976

2. NAME OF OPERATOR
SOUTHERN CALIFORNIA GAS COMPANY SANTA PAULA, CALIFORNIA

3. ADDRESS OF OPERATOR
P. O. Box 3249, Terminal Annex, Los Angeles, California 90051

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*
See also space 17 below.)
At surface
Aliso Canyon Field, Los Angeles County, California
Sec. 29, 3N, 16W S.B. B. & M.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
SESNON-FREW ZONE

8. FARM OR LEASE NAME
FREW

9. WELL NO.
6

10. FIELD AND POOL, OR WILDCAT
Aliso Canyon SF Zone

11. SEC., T., R., M., OR BLK. AND SURVEY OR ARRA
Sec. 29, T3N, R16W

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

12. COUNTY OR PARISH

13. STATE

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF PULL OR ALTER CASING
FRACTURE TREAT MULTIPLE COMPLETE
SHOOT OR ACIDIZE ABANDON*
REPAIR WELL CHANGE PLANS
(Other)

SUBSEQUENT REPORT OF:

WATER SHUT-OFF REPAIRING WELL
FRACTURE TREATMENT ALTERING CASING
SHOOTING OR ACIDIZING ABANDONMENT*
(Other)

(NOTE: Report results of multiple completion or Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

The present conditions of the well are, as follows:

1. Total Depth 8900'
2. 13 3/8" cemented 748'
7" cemented 8580', casing bowl 41', WSO 8565'
365' 5" cemented 8896', top 8531'
segregation test 8728', cp'd 8729', 8730'
perforated at intervals 8585'-8878'

PROPOSED WORK:

1. Move in rig, kill well, install B.O.P.E. and test.
2. Pull tubing. Clean out to 8893'. Run Neutron Lifetime and Cement Bond logs.
3. Perform any indicated remedial work. Install new wellheads.
4. Pressure test 7" casing. Perform any indicated remedial work.
5. Run packer, tubing, safety valve and gas lift valves.

18. I hereby certify that the foregoing is true and correct

SIGNED Guy C. Abrahamson TITLE Consulting Engineers

DATE June 1, 1976

(This space for Federal or State office use)

APPROVED BY D. F. Russell TITLE District Engineer

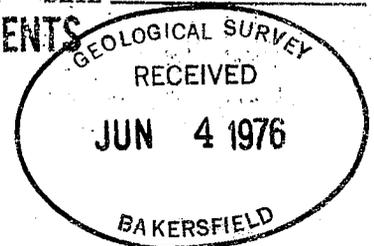
DATE June 7, 1976

CONDITIONS OF APPROVAL, IF ANY: D. F. Russell

SEE ATTACHED CONDITIONS AND REQUIREMENTS

cc: DOG, Long Beach

*See Instructions on Reverse Side



STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT ON PROPOSED CHANGE OF WELL DESIGNATION

830 North La Brea Avenue
Inglewood, California

September 24, 1968

Mr. Mr. C. G. Nelson, Agent
Getty Oil Co., Operator
P. O. Box 811
Agent for Ventura, California 93001

DEAR SIR:

Your requested letter dated August 26, 1968, relative to change in designation of well(s) in Sec. 29, T. 3 N., R. 16 W., S.B.B. & M., Aliso Canyon 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: (formerly owned by Standard Oil Co. of Calif.)

Old Designation	New Designation
"Frew 1" 2	"SFZU" F-2 (037-00665)
" 3	" F-3 (037-00666)
" 4	" F-4 (037-00667)
" 5	" F-5 (037-00668)
" 6	" F-6 (037-00669)
" 7	" F-7 (037-00670)
" 8	" F-8 (037-00671)
" 9	" F-9 (037-00672)

ag
cc: F. E. Kasline
Production Dept.
Conservation Committee

F. E. KASLINE
~~E. R. MURRAY-AARON~~
State Oil and Gas Supervisor

By Wm. C. Baily
Deputy Supervisor

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCESDIVISION OF OIL AND GAS
REPORT ON PROPOSED OPERATIONS

No. P 153-657

Los Angeles 15 Calif.

May 27 19 53

Mr. W C Johnson

Los Angeles Calif.

Agent for STANDARD OIL CO OF CALIFORNIA

DEAR SIR:

Your proposal to deepen Well No. "Frew 1" 6

Section 29, T. 3 N, R. 16 W, S. B. B. & M., Aliso Canyon Field, Los Angeles County,

dated May 22 19 53, received May 25 19 53, 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. Total depth. 8758' Plugs: None Junk: None
2. Complete casing record.
 - 18-5/8" cemented 42'
 - 13-3/8" cemented 748'
 - 7" cemented 8580, W.S.O. 8565'
 - 213' 5" landed 8754' (top 8541') Perf. 8584-8754'
3. Last produced. 195 B/D oil 0 B/D water for 22 days April 1953."

PROPOSAL

"The proposed work is as follows:

1. Install blowout prevention equipment, kill well and drill out liner shoe and recover all 5" liner.
2. Deepen 6" hole to 8900'.
3. Cement 360' of 5" blank liner at 8900' and selectively gun perforate opposite Sesnon Zone.
4. Return well to production."

DECISION

THE PROPOSAL IS APPROVED.

ERMA:OH

cc K B McNamara
United States Geological SurveyC W Gibbs Asst Gen Mgr Producing Dept
Standard Oil Co of California
225 Bush Street
SAN FRANCISCO 20 California

R. D. BUSH

State Oil and Gas Supervisor

By S. H. Messer Deputy

Blanket bond.

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS
RECEIVED

DIVISION OF OIL AND GAS

MAY 25 1953

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

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

La Habra, Calif. May 22, 1953

DIVISION OF OIL AND GAS

Los Angeles, Calif.

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of deepening, ~~redrilling, plugging or altering casing~~ at Well No. Frew 1-#6
(Cross out unnecessary words)

29, Sec. 29, T. 3 N, R. 16 W, S.E. B. & M.
Aliso Canyon Field, Los Angeles County.

The present condition of the well is as follows:

1. Total depth. 8758' Plugs: None Junk: None

2. Complete casing record.

18-5/8" cemented 42'
13-3/8" cemented 748'
7" cemented 8580, W.S.O. 8565'
213' 5" landed 8754' (top 8541')
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(CHECK) (CHECK) (CHECK) (CHECK)

The proposed work is as follows:

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3. Cement 360' of 5" blank liner at 8900' and selectively gun perforate opposite Sesnon Zone.
4. Return well to production.

Deepen

FORMS	
114	121

STANDARD OIL COMPANY OF CALIFORNIA

(Name of Operator)

By W.C. Johnson Jr
W.C. Johnson, Mgr., Prod. Dept., So. Dist.,

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

MAP BOOK CARDS BOND

Blanket

MAR 25 1949

COMPLETION REPORT—NEW V L PRO-18-1D

FIELD ~~AMERICA CALIFORNIA~~
ALISO CANYON

STANDARD OIL COMPANY OF CALIFORNIA

COMPANY

PROPERTY FREN 1

WELL NO. 6 SEC. 29 T. 3-N., R. 16-W., S. B. B & M

From the intersection of the S'ly line of Section 29 & the W'ly line of Ex-Mission San Fernando, 379.14' W'ly along the S'ly section line; thence 300.66' N'ly at right angles. ELEV. 2139.33' D.F. U.S.G.S.

FOLLOWING IS COMPLETE AND CORRECT RECORD OF ALL WORK DONE ON THIS WELL:

COMMENCED: RIGGING UP September 20, 1948
 COMPLETED: RIGGING UP September 20, 1948
 COMMENCED DRILLING September 20, 1948
 COMPLETED DRILLING December 14, 1948
 DEPTH 8758' PLUGGED TO Not
 DATE OF INITIAL PRODUCTION December 15, 1948*
 PRODUCTION (Daily Average last 30 Days) 217 G/L 194 BBL. OIL: 2 BBL. WATER 20.8 PA. P. I.
 GAS PRODUCTION (Daily Average last 30 Days) M. CU. FT. GALS. GASOLINE PER M. CUBIC FEET
 TUBING PRESS. 1043# CASINGHEAD PRESS. 379# FLOW NIPPLE -

CASING RECORD *See history for repair work.

SIZE OF CASING	LENGTH OF CASING	DEPTH LANDED	CEMENTED (Depth if thru part)	WEIGHT PER FOOT	THREADS PER INCH	MAKE OF CASING	SEAMLESS OR LAPWELDED	MAKE OF SHOE
18-5/8"	30	42	Yes	96#	P.H.	Unknown(SH)	S.W.	Welded
13-3/8"	736	748	"	54#	8-rnd.	Ygstrn., J&L & Smith (new)	SMLS.	Larkin
7"	8569	8580	"	23, 26 & 29#	8-rnd.	Spang, Nat'l. Ygstrn. Pittsb. Rep. & Unknown (new)	Smls.	Baker
5"	213	8754	No	18#	8-rnd. & 9-rnd.	Nat'l. (new)	Smls.	Welded

CEMENTING OR OTHER SHUT OFF RECORD

SIZE OF CASING	DEPTH LANDED	DEPTH CEMENTED	No. SACKS USED	No. SACKS TREATED	KIND OF CEMENT	METHOD OUTSIDE	TIME SET DAYS	RESULT OF TEST
18-5/8"	42	42	4 cu. yds.	ready mixed	Type "S"	csg. Plug	33	Not tested.
13-3/8"	748	748	525	None	Type "S"	Plug	4	Not tested.
7"	8580	8580	250	None	Type "S"	Plug	4	WSO on holes at 8565'.

PERFORATION RECORD

SIZE OF CASING	FROM	TO	SIZE OF HOLES OR SLOTS	NUMBER OF ROWS	SPACING (INCHES)	HOW PERFORATED
7"	At	8565	Four 1/2" holes			(Johnston gun)
5"	8584	8754	2" x 80 mesh	16	6	6° undercut Kobe torch-cut slots.

PLUG: None KIND - LENGTH -
 ADAPTER: Yes KIND Burns lead seal SIZE 3' x 5" x 7" SET AT TOP AT 8541'
 ROTARY TOOLS: FROM 0 TO 8758 FEET CABLE TOOLS: FROM TO FEET

SIDETRACKED PIPE AND LOST TOOL RECORD

NONE

MAP	MAP BOOK	CARDS	BOND	FORMS	
				114	121

DRILLERS NAMES ON LAST SHEET

DATE March 21, 1949

STANDARD OIL COMPANY OF CALIFORNIA

BY *J. H. Thatcher*
 J. H. THATCHER, Mgr., Prod. Dept. (30-10-49)

MAR 25 1948

LOS ANGELES, CALIFORNIA

Frew 1-#6
Aliso Canyon

Standard Oil Company of California

2.

From	To	Feet	Formation Drilled and Cored
------	----	------	-----------------------------

Well drilled by Rocky Mountain Drilling Company, contractor, with spark plug equipment and portable steel derrick with the derrick floor 8.7' above the concrete mat.

August 18, 1948, McMillen Construction Company, contractor, moved in and drilled 30" hole to 42':

0	18	18	clay and rock
18	33	15	sand and rock
33	42	9	no formation logged

August 18, 1948, cemented 18-5/8" conductor pipe at 42' with 4 cubic yards of ready mixed concrete.

Casing Detail: All 1 joint, or 42', is 18-5/8", 96%, grade unknown, range 3, secondhand unknown make, electric weld casing, fitted on bottom, or at 42', with a 1/2" x 1/2" steel band welded on for a shoe.

September 20, 1948, spudded in at 11:00 P.M., and drilled 11" hole:

42	52	10	no formation logged
52	85	33	surface shale and boulders
85	161	76	shale broke at 92', soft shale with a little OIL
161	267	106	no formation logged
267	304	37	surface shale and boulders
304	340	36	sand and shale
340	440	100	no formation logged
440	518	78	hard sand and shale
518	801	283	sand and shale
801	1000	199	hard sand and shale

September 26, 1948, ran Schlumberger electric log and recorded from 42-1000'.

Opened 11" hole to 17 1/2" from 42-750'.

September 29, 1948, cemented 13-3/8" casing at 748' where same froze with 525 sacks of type "S" Colton cement, mixed to an average slurry of 118#/cu.ft. Used 1 top plug and a 1/2" x 6" x 10' spacer. Displaced cement with 700 cu. ft. of mud. Working pressure 300%. Plug bumped under 500% final pressure. Casing froze at 748' but good circulation while pumping around shoe. Sixty-five minutes mixing and pumping cement to place. Used Halliburton power equipment and bulk cement.

Casing Detail: All 18 joints, or 748', are 13-3/8", 54%, J-55, range 3, short 8-round thread, new Youngstown, Jones and Laughlin, and A. O. Smith, seamless casing, fitted from 746-748' with a 2" x 13-3/8" Larkin cement float shoe, at 743' and 718' with two Stepp centralizers, and at 745', 735', and 725' with three B & W scratchers.

From	To	Feet	Formation Drilled and Cored
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Cut and recovered 12' of 18-5/8" casing, all of which was below the derrick floor.

Cut and recovered 15' of 13-3/8" casing, 12' of which was below the derrick floor.

October 3, 1948, drilled out cement, plugs and shoe of 13-3/8" casing from 700-748' and cleaned out to 1000'.

Drilled 11" hole:

1000	1100	100	sand and shale
1100	1238	138	hard sand and shale
1238	1344	106	hard shale and streaks sand
1344	1358	14	shale
1358	1865	507	shale and sand
1865	2189	324	sand and shale
2189	2313	124	shale and hard sand
2313	2415	92	shale
2415	2459	44	shale and sand
2459	2489	40	hard shale and conglomerate
2489	2735	246	shale
2735	2782	47	hard sand and shale
2782	2951	169	shale
2951	3036	85	shale and sand
3036	3159	123	sand and shale
3159	3352	193	shale and sand
3352	3564	212	hard sand
3564	3987	423	sand and shale
3987	4092	105	hard sand
4092	4099	7	hard shale
4099	4146	47	hard sand and shale
4146	4178	32	shale
4178	4210	32	hard shale
4210	4253	43	shale
4253	4399	146	hard shale
4399	4655	256	shale
4655	4668	13	hard sand
4668	4795	127	shale
4795	4940	145	hard sand and shale
4940	5013	73	hard sand and streaks of shale
5013	5213	200	hard sand and shale
5213	5337	124	hard shale
5337	5400	63	hard sand and streaks of shale
5400	5875	475	hard shale
5875	5975	100	sand and shale
5975	6158	183	hard shale
6158	6220	62	shale

From To Feet Formation Drilled and Cored

Drilled 11" hole: (Continued)

6220	6378	158	shale and sand
6378	6591	213	hard shale
6591	6633	42	hard sand and shale
6633	6666	33	hard shale
6666	6742	76	sand and shale
6742	6775	33	shale
6775	6973	198	hard shale
6973	7020	47	hard shale and sand
7020	7029	9	hard sand and shale
7029	7099	70	sand and shale
7099	7150	51	hard sand and shale
7150	7188	38	hard shale
7188	7222	34	hard shale and sand
7222	7279	57	hard sand and shale
7279	7291	12	hard sand and conglomerate
7291	7350	59	hard shale
7350	7410	60	conglomerate
7410	7544	134	conglomerate and streaks shale
7544	7655	111	conglomerate and shale
7655	7722	67	shale and streaks of sand
7722	7837	115	shale and sand
7837	7900	63	conglomerate and shale
7900	8036	136	conglomerate
8036	8158	122	shale and conglomerate
8158	8184	26	conglomerate
8184	8312	128	shale and sand
8312	8462	150	hard sand and shale
8462	8491	29	hard shale and conglomerate
8491	8501	10	hard shale
8501	8523	22	hard sand and conglomerate
8523	8585	62	hard shale and conglomerate

November 25, 1948, ran Schlumberger electric log and recorded from 740-8585'.

November 25, 1948, took Homco sidewall samples as follows:

8535'	recovered 3"	soft dark brown massive shale
8298'	recovered 3"	friable silty to fine-grained light gray sand
8290'	recovered 2"	same as in core 8298'
8005'	recovered 2 $\frac{1}{2}$ "	sand, same as in core 8290' w/ paper thin streaks dark gray shale.
7680'	recovered 1 $\frac{1}{2}$ "	friable silty to fine-grained medium gray sand
7168'	recovered 3"	same as in core 8298'

From To Feet Formation Drilled and Cored

November 25, 1948, took Homco sidewall samples as follows: (cont'd.)

7000'	recovered 2"	friable, silty to fine-grained light gray sand with pebbles up to 1/16".
6840'	recovered 4"	massive medium gray shale
6620'	recovered 3"	friable fine-grained slightly OIL STAINED gray sand. Light amber cut. No odor
6390'	recovered 4"	friable silty very fine-grained light gray sand
6110'	recovered 1 1/2"	friable silty fine-grained light gray slightly OIL STAINED sand. Light amber cut. No odor
4240'	recovered 1"	massive medium-gray shale
3930'	recovered 3"	soft friable fine-grained light gray sand with occasional faint OIL STAINS. No odor
3822'	recovered 3"	friable fine to coarse-grained OIL STAINED gray sand. Light amber cut. No odor
3820'	recovered 1"	friable silty very fine-grained gray slightly OIL STAINED SAND. Light amber cut. No odor

Drilled 11" hole:

8585	8683	98	sand and shale
8683	8685	2	shale

November 28, 1948, ran Schlumberger electric log and recorded from 748-8685'.

Cleaned out hole from 8600-8685' with an 11" bit.

December 1, 1948, cemented 7" casing at 8580' with 250 sacks of type "S" Colton cement, mixed to an average 118#/cu.ft. slurry. Used 1 top plug and 1 bottom plug. Displaced cement with mud under 900# working pressure. Plugs bumped under 1400# final pressure. Moved casing between 8570' and 8580' while cement was being displaced around shoe. Pipe free and good circulation throughout. Forty-four minutes mixing and pumping cement to place. Used International Cementers power equipment and bulk cement.

Casing Detail:

Bottom	9 joints, or 228'	are 7", 29#, N-80, range 3, long 8-round thread, new National seamless casing. Fitted from 8578' to 8580' with a 2' x 7" Baker cement float shoe, from 8535' to 8537' with a 2' x 7" Baker cement float collar at 8575' and 8550' with 2 Stepp centralizers, and at 8577', 8567', and 8557' with 3 B & W scratchers.
Next	43 joints, or 1760'	are 7", 26#, N-80, range 3, long 8-round thread, new Youngstown, seamless casing.
Next	46 joints, or 1970'	are 7", 23#, N-80, range 3, long 8-round thread, new make unknown, seamless casing.
Next	96 joints, or 3760'	are 7", 23#, J-55, range 3, short 8-round thread, new Pittsburgh & Republic, seamless casing.
Top	20 joints, or 862'	are 7", 23#, N-80, range 3, long 8-round thread, new Youngstown, seamless casing.
Total	214 joints, or 8580'.	

Cut and recovered 29' of 7" casing, 12' of which was below the derrick floor.

December 5, 1948, drilled out cement and plugs from 8521-8570'.

December 6, 1948, Johnston Water Shut-Off Test on Gun Holes in 7" Casing at 8565': Ran combination gun and tester and shot four 1/2" holes at 8565'. Set packer at 8537'; tail to 8559'. Open seventy-five minutes. Fair steady blow of air for twenty minutes increasing after twenty minutes to strong blow for twenty minutes, then after tool opened forty minutes decreasing to fair steady blow of air. Recovered 5975' rise: 91' medium gassy drilling fluid, 91' oily gassy drilling fluid, 5743' oil (which blew out in stages), bottom 20' muddy water. No free water. Test witnessed and water shut-off approved by Inspector Paul Betts of the Division of Oil and Gas.

From To Feet Formation Drilled and Cored

Tool Assembly: 6" packer, 3/8" bean, 2 1/2" x 22" tail (top 2' blank, 6' perforated, 6' two pressure recorders, and bottom 8' gun).

December 7, 1948, drilled out cement and shoe of 7" casing from 8570-8580' and cleaned out to 8685' with a 6" bit.

Drilled 6" hole:

8685 8758 73 sand

December 8, 1948, ran Schlumberger electric log and recorded from 8685-8750'.

Scraped 11" hole from 8580-8685'.

Reamed 6" hole from 8685-8758'.

December 10, 1948, landed 213' of 5" liner at 8754'. Perforated from 8584-8754'.

Liner and Perforation Detail:

Bottom 5 joints, or 170',	are 5", 18#, J-55, range 2, 8-round thread, Security flush joint, new National seamless liner, perforated from 8584' to 8754' with 16 rows, 2" x 80 mesh. 6" centers. 6" undercut Kobe torch-cut slots welded on bottom or at 8754' with a steel plate for a shoe.
Top 2 joints, or 43',	are 5", 18#, J-55, range 1 & 2, short 8-round thread new National seamless blank liner. Fitted from 8541' to 8544' with a 3" x 5" x 7" Burns lead seal liner hanger.
<hr/>	
Total 7 joints, or 213'.	

December 12, 1948, hung 2 1/2" tubing (including 219' of 2" on bottom) at 8657', with a pump shoe at 6995'.

Tubing Detail:

Bottom 7 joints, or 219',	are 2", 4.7#, J-55, range 2, 8-round thread, Youngstown new, seamless blank tubing. Fitted from 8655' to 8657' with a 2" x 2" swab shoe and from 8438' to 8439' with a 1" x 2" x 2 1/2" crossover.
Top 305 joints, or 8438',	are 2 1/2", 6.5#, J-55, range 2, 8-round thread, National new seamless blank tubing. Fitted from 6994' to 6995' with a 1" x 2 1/2" pump shoe and from 5983' to 5987' with a 4" x 2 1/2" Guiberson tubing catcher.
<hr/>	
Total 312 joints, or 8657'.	

Installed Christmas tree and circulated hole clean.

Displaced drilling mud in hole with oil.

Crew released at 8:00 a.m., December 14, 1948.

December 13, 1948, injected gas from 8:00 a.m. to 11:30 a.m. and well flowed by heads to sump. Injected gas and oil intermittently from 11:30 a.m. December 13, to 12:01 a.m. December 14. Injected gas from 12:01 a.m. to 3:00 a.m. and flowed to sump. Turned to tanks at 3:00 a.m., and flowed 8 barrels gross to 5:30 a.m. when well died. Injected gas through tubing and flowed through casing at estimated 10 barrels/hour rate. Total 14 hours gas lifting and flowing. Used 360 barrels of circulating oil and recovered 176 barrels, gravity 21.0°, 23.0% cut (mud), casing pressure 0-500#, tubing pressure 700-2700#.

TREND OF PRODUCTION

<u>1948</u> <u>Date</u>	<u>Hrs.</u> <u>G/L</u>	<u>B/D</u> <u>Oil</u>	<u>B/D</u> <u>Wtr.</u>	<u>°API</u> <u>Grav.</u>	<u>%</u> <u>Cut</u>	<u>#</u> <u>C.P.</u>	<u>#</u> <u>T.P.</u>	<u>MCF/D</u> <u>Gas.</u>
12-15	8	106	1	20.7	0.7	-	-	-
Well was shut in from 12-16 to 12-18.								
12-19	13	212	1	21.2	0.4	440	1100	-
20	24	314	9	20.1	2.8	400	1075	-
21	24	212	0	21.7	0.2	275	1100	-
22	24	274	1	21.1	0.2	400	1000	300
23	24	265	-	21.2	0.1	420	1000	361

During December, 1948, well averaged 194 B/D oil, 2 B/D water, 217 MCF/D gas, 379# casing pressure, 1043# tubing pressure, 20.8° gravity, for 8 days. (Pro 20 figures)

Discussion

This well produced from the Sesnon Zone by injecting gas into the tubing and flowing through the tubing-casing annulus until December 26 when it died. Well would not flow when attempting to gas lift in the conventional manner and injected gas went away at 800# pressure.

On December 29, the 7" casing took gas at a 1200 M/D rate for five hours at 200# pressure. It was observed that the pressure on the 13-3/8" surface string was 190# during this injection and quickly equalized at 170# with 7" whenever injection was stopped.

As a result of these data, there is no doubt that communication exists between the 7" and 13-3/8" casings due to either a leak in the casing head or a hole in the 7" casing. Depthograph showed a negative echo inside and outside the 7" casing near 810' which suggested a hole at that depth. Thermometric surveys were not definite as to the point of communication, but indicated that gas was going away above 1000'.

Proposal (dated 1-5-49)

1. Kill well with emulsion mud by circulating through tubing and out annulus.
2. Unflange and pick up Christmas tree and inspect casing head for leaks.
3. If no leaks found in head, pull tubing and install Class III blowout prevention equipment.
4. Take strain on 7" casing and recover same if parted and set together with lead seal casing bowl.
5. Pressure test 7" casing under 2500#, using straddle tool if necessary.
6. Rerun tubing and return well to production.

Work Done

January 14, 1949, California Production Service, contractor, moved in portable hoist and rigged up.

January 15-17, pumped in 72# lubesal mud and killed well. Checked casing packing - all O.K. Pulled tubing.

January 18, found that 7" casing had dropped through cameron slips in landing flange and dropped down hole 21". Ran Baash-Ross 7" bowl casing socket and took hold of 7" casing, but was unable to pull casing up into landing flange.

January 19, ran Baash-Ross casing cutter and made unsuccessful attempt to cut 7" casing.

January 20, cut and recovered 7" casing at 36' with Baash-Ross casing cutter. Ran 7" casing bowl and set on stub of 7" casing but lead seal packer failed to hold.

January 21, ran Baash-Ross mill and milled on stub of 7" casing at 36'. Ran 7" casing bowl and set over stub of 7" casing - slips failed to hold. Ran Baash-Ross cutter and cut and recovered 7" casing from 41'.

January 22, 1949, ran 47' of 7" casing, including a 6' x 7-1/8" Baash-Ross casing bowl on bottom, and set over stub of 7" casing at 41'.

Casing Detail: All 1 joint, or 47', is 7", 26#, J-55, range 3, short 8-round thread, new Spang seamless casing, fitted from 41-47' with a 6' x 7-1/8" Baash-Ross lead seal casing bowl.

Cut and recovered 11' of 7" casing, all of which was below the derrick floor.

Made unsuccessful attempt to test 7" casing as rams would not close.

January 23, ran Hitchings straddle tester and set in 7" casing at 1100' - applied 2500# and same held for 10 minutes. Reset straddle tester at 8300' and tested 7" casing - held O.K. under 2500# pressure.

January 24, 1949, reran 2 1/2" tubing, including 210' of 2" on bottom, at 8657'. See detail dated December 12, 1948.

Crew released at 8:00 p.m., January 24, 1949.

January 25, tested Christmas tree and circulated mud out of hole with oil.

PRODUCTION TREND

1949 Date	Hrs. Prods.	B/D Oil	B/D Wtr.	°API Grav.	% Cut	# C.P.	# T.P.	Inch Bean
1-26	6 G/L	73*	0	-	-	15	2250	
27	(8 G/L (11 Flwg thru (tbg.	68*	1	-	-	-	-	35/64"
28	2h Flwg.	172*	7	-	4.0	1575	220	48/64"
29	2h "	165*	2	-	-	1300	200	-
30	2h "	(78* (88	4	-	-	1150	260	-
31	2h "	160	0	20.3	0.2	1050	170	-

During January, 1949, well averaged 50 B/D oil, 3 B/D water, 85 MCF/D gas, 1268# casing pressure, 213# tubing pressure, 20.8° gravity, for 5 days. (Pro 20 figures)

Note: *Recovered a total of 556 barrels circulating oil.

During February, 1949, well averaged 154 B/D oil, 1 B/D water, 53 MCF/D gas, 22.4° gravity, for 28 days. (Pro 20 figures)

Frew 1-#6
Aliso Canyon

Standard Oil Company of California

11.

S U M M A R Y

Total Depth: 8758⁰.

Plugs: None

<u>Casing:</u>	18-5/8"	cemented	42 ⁰ .	Not tested.
	13-3/8"	froze & "	748 ⁰ .	Not tested.
	7"	"	8580 ⁰ .	W.S.O. on holes at 8565 ⁰ .
213 ⁰	5"	landed	8754 ⁰ .	Perforated 8584-8754 ⁰ .

Junk: None

Perforation Detail:

7" - At 8565⁰ - four 1/2" holes (Johnston gun) W.S.O. by D.O.G.

5" - 8584-8754⁰, 16 rows, 2"x30 mesh, 6" centers, 6" undercut
Kobe torch-cut slots.

Contractor: Rocky Mountain Drilling Company

<u>Drillers:</u>	L. M. Glass	Huston West
	G. E. Parker	Virgil Badberg
	L. N. Ferguson	F. P. Remy
	F. S. Western	F. P. Ramirez

California Production Service (contractor for repair casing job)

Drillers: J. Sheeler
W. E. Darnon

B. RICHARDS

Ba/rd/ba
March 21, 1949

MAP	TRAP BOOK	CARDS	BCND	FORMS	
				114	121
					E

DOG-2
CWG
HCB
MC-File
Rev. File

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RE-COMPLETION OR ABANDONMENT REPORT PRO-319-D

DIVISION OF OIL AND GAS
RECEIVED

STANDARD OIL COMPANY OF CALIFORNIA

MAY 8 - 1954

FIELD: Aliso Canyon

PROPERTY: Frew 1

LOS ANGELES, CALIFORNIA

WELL NO: 6

Sec. 29, T. 3-N., R. 16-W., S.B. B.&M.

Following is complete and correct record of all work done on the well since the previous report dated March 21, 1949.

PURPOSE OF WORK: Deepen to Lower Sesnon Zone.

DATE OF REPORT: April 20, 1954

By W. C. JOHNSON
Manager, ~~Prod.~~ Dept., So. District

WORK DONE BY: Rushing Drilling Company, and California Production Service, contractors, using portable equipment.

COMMENCED OPERATIONS: May 17, 1953

COMPLETED OPERATIONS: August 2, 1953

DATE WELL LAST PRODUCED: May 14, 1953

DATE RETURNED TO PROD: August 1, 1953

PRODUCTION:	*22 DAY AVERAGE PRIOR TO WORK		**30 DAY AVERAGE AFTER WORK	
Oil	195	B/D.	172	B/D
Water	0	B/D.	8	B/D
Gas	175	Mcf/D.	259	Mcf/D
Gravity	20.8	°API	20.8	°API
Tubing	275	PSIG	167	PSIG
Casing	763	PSIG	772	PSIG
Method of Production:				
Pumping.				
Flowing.				
Gas Lift	X		X	

*April '53 Pro-420 figures.

**Sept. '53 Pro-420 figures.

S U M M A R Y

TOTAL DEPTH: 8900'.

PLUGS: Present Hole - None

REDRILLED: 8620-8758'.

Original Hole - 8620-8645',
cement bridge.

DEEPEMED: 8758-8900'.

(Summary continued next page)

Frew 1-#6
Aliso Canyon

Standard Oil Company of California
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S U M M A R Y (Continued)

INGLEWOOD, CALIFORNIA

CASING:

18-5/8" cemented 42' Not tested.
 13-3/8" cemented 748' with 525 sacks. Not tested. 17-1/2" hole.
 (froze)
 7" cemented 8580' with 250 sacks. W.S.O. on holes at 8565'
 by D.O.G. 11" hole.
 365' 5" hung 8896' Cemented shoe with 50 sacks. Gun Holes at
 8729' and 8730' squeezed with 25 sacks.
 Gas segregation on holes at 8728' by Company
 test. Perforated 8585-8628', 8645-8698',
 8708-8720', 8740-8808' and 8816-8878'. Re-
 perforated 8585-8625', 8650-8680', 8740-
 8805', 8816-8830' and 8850-8875'. 6" hole.

PERFORATIONS:

7" gun perforated with four 1/2" holes at 8565' (W.S.O.),
 Johnston gun.
 5" gun perforated with four 1/2" holes at 8728' (gas
 segregation), Johnston gun; at *8729',
 Johnston gun, and at *8730', McCullough
 gun. *Squeezed with cement.
 5" gun perforated with four 1/2" holes/foot from 8585-8628',
 8645-8698', 8708-8720', 8740-8808' and
 8816-8878'.
 5" jet reperforated with two 1/2" holes/foot from 8585-
 8625', 8650-8680', 8740-8805', 8816-8830'
 and 8850-8875', Byron Jackson jet perforator.

JUNK:

Present Hole - None

Original Hole- 112' of 5" perforated liner from 8642-8754',
cemented in place and sidetracked.

DIVISION OF OIL AND GAS
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MAY 8 - 1954

Frew 1-#6
Aliso Canyon

Standard Oil Company of California

LOS ANGELES, CALIFORNIA

Discussion

Frew 1-#6 is currently producing 119/0 B/D from the Upper Sesnon zone. It is proposed to deepen well in the Lower Sesnon zone.

Proposal (Dated May 22, 1953)

1. Install blowout prevention equipment, kill well and drill out liner shoe and recover all 5" liner.
2. Deepen 6" hole to 8900'.
3. Cement 360' of 5" blank liner at 8900' and selectively gun perforate opposite Sesnon zone.
4. Return well to production.

Work Done

May 17, 1953, Rushing Drilling Company, contractor, using portable equipment, commenced work at 1:45 p.m.

May 18, 1953, filled hole with emulsion fluid.

May 19, 1953, circulated drilling fluid to kill well.

May 20, 1953, pulled tubing and installed and tested Class III B.O.P. under 1000# - held O.K.

May 21, 1953, cleaned out to 8752', drilled out shoe of 5" liner from 8752' to 8754' and conditioned emulsion fluid.

May 22, 1953, spotted oil opposite perforations in 5" liner and washed perforations from 8584' to 8754' with a Yewell suction type washer.

May 23, 1953, speared 5" liner at 8541' but unable to work liner free. Ran inside cutter and cut 5" liner at 8559'.

May 24, 1953, speared and recovered 16' of 5" liner, leaving 197' of 5" liner in hole from 8557' to 8754'.

May 25-26, 1953, spotted oil opposite perforations and washed perforations from 8584' to 8746'. Speared liner at 8557' but unable to jar liner loose from cut at 8559'.

Frew 1-#6
Aliso Canyon

Standard Oil Company of California

May 27, 1953, cut and recovered 5" liner from 8600', leaving 162' of 5" liner in hole from 8592' to 8754'.

May 28, 1953, cleaned out to 8756' with a 4-1/8" bit and cut 5" liner at 8680'.

May 29, 1953, speared 5" liner at 8592' but unable to jar loose. Ran inside cutter and cut 5" liner at 8620'.

May 30, 1953, recovered 24' of 5" liner, leaving 138' of 5" liner in hole from 8616' to 8754'. Ran inside cutter and cut and recovered 26' of 5" liner from 8642', leaving 112' of 5" liner in hole from 8642' to 8754'.

May 31, 1953, cleaned out to 8757' with a 4-1/8" bit.

June 1, 1953, ran inside cutter and cut 5" liner at 8725' and 8700'. Speared liner at 8642' but was unable to jar liner loose. Ran inside cutter and cut 5" liner at 8665'.

June 2, 1953, speared liner at 8642' but was unable to jar loose.

Wallscraped hole from 8442' to 8580'.

To Bridge Hole with Cement: June 2, 1953, pumped 20 sacks of type "D" cement through 3-1/2" drill pipe and 2" tubing hanging at 8750'. Displaced cement with 347' of drilling fluid. Good circulation throughout. Pulled to 8575' and circulated hole clean. Finished job at 10:00 p.m. Used Oil Well Cementing Company power equipment and bulk cement.

June 3, 1953, cleaned out to top of liner stub at 8642' without locating cement.

To Bridge Hole with Cement: June 4, 1953, pumped 30 sacks of type "D" cement, treated with 20% sand, through 3-1/2" drill pipe and 2-1/2" tubing (equipped with rotating scratchers) hanging at 8646'. Displaced cement with 348 cubic feet of drilling fluid. Rotated pipe while mixing and pumping cement to place. Good circulation throughout. Pulled up to 8570' and circulated hole clean. Finished job at 3:20 p.m. Used Oil Well Cementing Company power equipment and bulk cement.

June 5-6, 1953, drilled out cement from 8560' to 8615'. Wallscraped 6-1/8" hole from 8580' to 8615' and cleaned out to 8642' without locating cement.

To Bridge Hole with Cement: June 6, 1953, pumped 60 sacks of type "D" cement through 4-1/2" drill pipe and 2-7/8" tubing (equipped with rotating scratchers) hanging at 8645'. Preceded cement with 50 cubic feet of water. Dis-

Frew 1-#6
Aliso Canyon

Standard Oil Company of California

placed cement with 305 cubic feet of drilling fluid. Rotated pipe while mixing and pumping cement to place. Good circulation throughout. Pulled up to 8350' and circulated hole clean. Finished job at 11:30 a.m. Used Oil Cementing Company power equipment and bulk cement.

June 7, 1953, drilled out cement from 8450' to 8620'.

June 8-9, 1953, set retrievable whipstock (#1) at 8620' and directionally redrilled 4-3/4" hole to 8624'.

Opened 4-3/4" hole to 6" from 8620' to 8624'.

June 9, 1953, set retrievable whipstock (#2) at 8624' and directionally redrilled 4-3/4" hole to 8637'.

Opened 4-3/4" hole to 5-3/4" from 8624' to 8637' and 5-3/4" hole to 6" from 8624' to 8637'.

June 10-13, 1953, directionally redrilled 6" hole from 8637' to 8758' and drilled and deepened 6" hole from 8758' to 8900'.

June 13, 1953, ran Schlumberger electric log and recorded from 8620' to 8897'.

June 14, 1953, hung 365' of 5" liner at 8896' and cemented with 50 sacks of type "D" cement, mixed to an average 115#/cu.ft. slurry. Preceded cement with 50 cubic feet of water. Displaced cement with 345 cubic feet of drilling fluid. Good circulation throughout. Seven minutes mixing and twelve minutes displacing cement. Finished job at 2:43 a.m. Used Oil Well Cementing Company power equipment and bulk cement.

Liner Detail: All 11 joints, or 365', are 5", 18#, J-55, range 2, Security flush joint, new National and Spang seamless blank casing. Fitted from 8896' to 8898' with a 2' x 5" Baker cement float shoe and from 8533' to 8534' with a 1' x 5" x 7" Burns plain liner hanger grooved for cementing.

June 15, 1953, drilled out cement from 8528' to 8888'.

June 15, 1953, Johnston Gas Segregation Test on Gun Holes in 5" Liner at 8729': Ran combination gun and tester and shot four 1/2" holes at 8729'. Set packer at 8678' with tail to 8697'. Open sixty minutes. Used 600' water cushion. Gas to surface in fifteen minutes. Medium blow for fifteen minutes increasing to heavy steady blow for thirty minutes, then medium steady blow for remainder of test.

JUL 2 1959

Corrected Copy

INGLEWOOD, CALIFORNIA

16.

Frew 1-#6
Aliso Canyon

Standard Oil Company of California

Recovered 3180' gross rise in 3-1/2" and 2-3/8" drill pipe: Top 600' water cushion, next 2470' muddy, gassy OIL grading to clean, gassy OIL, bottom 110' OILY mud testing 308 G/G. Charts indicated tool open. Gas segregation test not approved.

Tool Assembly: 3/8" bean, 5" Olympic packer, 19' tail (top 3' blank, next 6' perforated, bottom 10' blank including gun and two pressure recorders).

June 16, 1953, set retrievable retainer at 8660' and pressure tested casing under 2000# - held O.K. Ran McCullough gun perforator and shot four 1/2" holes in 5" liner at 8730'.

To Squeeze Gun Holes in 5" Liner at 8729' and 8730' with Cement: June 17, 1953, set a Baker retrievable retainer in 5" liner at 8690'. Applied pressure and formation broke down and took fluid under 4000# pressure. Pumped in 25 sacks of type "D" cement and squeezed an estimated 22 sacks of cement through holes under 4000# final pressure. Backscuttled excess cement out of hole. Finished job at 5:30 a.m. Used Oil Well Cementing Company power equipment and bulk cement.

June 17, 1953, drilled out cement from 8697' to 8730' and cleaned out to 8888'.

June 18, 1953. Johnston Gas Segregation Test on Gun Holes in 5" Liner at 8728': Ran combination gun and tester and shot four 1/2" holes at 8728'. Set packer at 8685' with tail to 8704'. Open sixty minutes. Used 600' water cushion. Light blow for one minute, then dead remainder of test. Recovered 615' gross in 3-1/2" drill pipe: Top 600' water cushion, bottom 15' muddy water grading to OILY drilling fluid at tool. Samples 600' and 330' above tool tested 21 and 55 G/G, respectively. Gas segregation approved by Company test.

Tool Assembly: 3/8" bean, Olympic packer, 19' tail (top 3' blank, next 6' perforated, bottom 10' blank including gun and two pressure recorders).

June 18, 1953, drilled out cement from 8888' to 8893' and spotted 15 barrels of oil base drilling fluid at 8893'.

June 19, 1953, ran McCullough gun perforator and perforated 5" liner with four 1/2" holes/foot from 8585' to 8628', 8645' to 8698', 8708' to 8720', 8740' to 8808' and 8816' to 8878'.

Scraped 5" liner from 8585' to 8893'.

Frew 1-#6
Aliso Canyon

Standard Oil Company of California

June 21, 1953, hung 2-1/2" tubing (including 401' of 2" on bottom) at 8819' with a swab shoe at 8819' and tubing catcher at 6014'.

Tubing Detail:

Bottom 13 joints, or 401', are 2", 4.7#, J-55, range 2, short 8-round thread, new and secondhand French and unknown make, seamless blank tubing. Fitted from 8818' to 8819' with a 1' x 2" swab shoe.

Top 303 joints, or 8418', are 2-1/2", 6.5#, J-55 and unknown grade, range 2, short 8-round thread, new and secondhand French and unknown make seamless blank tubing. Fitted from 8417' to 8418' with a 1' x 2" x 2-1/2" crossover and from 6011' to 6014' with a 3' x 2-1/2" x 7" tubing catcher.

Total 316 joints, or 8819'

June 21, 1953, installed Christmas tree and tested under 1000# pressure - held O.K.

Displaced emulsion fluid with oil.

Injected gas and well commenced to flow.

Crew released at 10:00 a.m., June 22, 1953.

Well recompleted in the Sesnon zone.

During July, 1953 well averaged 141 B/D oil, 7 B/D water, 96 MCF/D gas, 20.8° gravity, for 24 days. (Pro-420 figures)

Proposal (Dated July 21, 1953)

1. Move in portable hoist and mast.
2. Fill hole with 80# oil base mud, install Class II B.O.P. and pull tubing.
3. Run push-out type washer on dry tubing. Fill tubing every 1000' with crude oil. Wash all perforations to determine plugged intervals.
4. Perforate with jet gun, two 1/2" holes/foot through following intervals:

8585-8625'
8650-8680'
8740-8805'

8815-8830'
8850-8875'

Frew 1-#6
Aliso Canyon

Standard Oil Company of California

5. After re-perforating, re-hang 2" and 2-1/2" tubing through B.O.P. at 8817' with a Guiberson catcher at 6011' and with eight Garrett O.C.F. type valves equipped with check valves installed at the following depths and set to operate at pressure shown:

<u>Depth of Valve</u>	<u>Valve Operating Pressure</u>
8000'	800#
7740'	890#
7370'	900#
6900'	910#
6280'	920#
5140'	930#
3700'	940#
2000'	950#

DIVISION OF OIL AND GAS
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JUL 2 1959

INGLEWOOD, CALIFORNIA

6. Re-install Xmas tree. Displace oil base mud with oil, salvaging as much mud as possible. Pump down the tubing while displacing oil base mud.
7. Place well on gas lift.

Work Done

July 27, 1953, California Production Service, contractor, using portable equipment commenced work at 5:30 a.m. Displaced oil in hole with oil base drilling fluid and installed Class II B.O.P.

July 28, 1953, pulled tubing. Ran in hole with Yowell washer, filling hole with oil every 1000'.

July 29-30, 1953, washed perforations with oil from 8585' to 8628', 8645' to 8698', 8708' to 8720', 8740' to 8808' and 8816' to 8878', using a Yowell push-out type washer. All perforations open except from 8856' to 8857'. Re-washed perforations from 8740' to 8808' - all perforations open. Ran 2-7/8" Fletcher sand pump and bailed sand and mud from 8847' to 8898'.

July 31-August 1, 1953, ran Byron Jackson jet perforator and re-perforated 5" liner with two 1/2" jet holes/foot from 8585' to 8625', 8650' to 8680', 8740' to 8805', 8816' to 8830' and 8850' to 8875'.

Ran 2-7/8" Fletcher sand pump and bailed sand and mud from 8854' to 8898'.

August 1, 1953, reran and hung 2" tubing (including 401' of 2" on bottom) at 8829' with a swab shoe at 8829', tubing catcher at 5960' and Garrett H valves at

Frew 1-#6
Aliso Canyon

Standard Oil Company of California

2018', 3705', 5132', 6286', 6899', 7390', 7741' and 8019'.

Displaced oil base drilling fluid with oil.

Crew released at 2:00 p.m., August 2, 1953.

PRODUCTION TREND

1953 Date	Hrs. G/L	B/D Oil	B/D Wtr.	% Cut	°API Grav.	MCF/D Gas	# C.P.	# T.P.	Remarks
8- 1	8	#57	6	9.0		0	750	50	
8- 2	18	#42	2	5.0		0	1250	320	Reversed gas injection to start kick-off valves.
8- 3	24	*139	3	2.0		30	840	100	6 1/2" bean.
8- 4	24	*243) 2)	2	0.9		30	820	160	
8- 5	24	195	2	1.0	20.2		820	130	
8- 6	24	178	12	6.1	18.9		820	180	
8- 7	24	162	14	8.0		95	810	175	
8- 8	24	162	14	8.0		105	800	220	
8- 9	24	176	17	9.0	19.3	105	800	280	
8-10	24	172	21	11.0	20.4		820	160	
8-11	24	179	11	6.0		85	820	75	
8-12	24	161	7	4.0		105	820	150	
8-13	24	172	2	1.3		110	820	120	
8-14	24	114	2			110	800	50	

*Recoverable oil.

Well averaged 167 B/D oil, 10 B/D water, 19.7° gravity, 102 MCF/D gas, for ten days.

During September, 1953 well averaged 172 B/D oil, 8 B/D water, 259 MCF/D gas, 20.8° gravity for 30 days. (Pro-h2O figures)

DRILLING FLUID HISTORY

1953 Date	Interval	Type of Fluid	Weight	Viscosity	Filter Loss
5/20-6/21	8620-8900'	Emulsion	78-84pcf	60-120 sec.	3-5 cc (API)
7/27-8/1	-	Jel-Oil oil base	80	120	0

RECEIVED

MAY 3 - 1954

LOS ANGELES, CALIFORNIA

Frow 1-#6
Aliso Canyon

Standard Oil Company of California

Contractor: Rushing Drilling Company

California Production Service

Drillers: J. E. Clark
L. J. Johns
G. E. Shannon
A. J. Nassalroad
F. R. Burnaugh
R. W. Beck

L. B. Malkin
L. Huckaby
C. A. Bradford

M. TVERELL

WT:lj
April 20, 1954

MEMORANDUM GO-144

TO _____ 194

FROM _____

SUBJECT: S.O. Co. OUR FILE

Frew 1401-6

YOUR FILE

Sec. 29 3N, 16W.

Aliso Canyon

Homco Sidewall Cores

#11
 #240 ± 3/4" chewed length dk gy hd sh. w/ thin light gy. fine silt lamina
 & argill. ± 1/4" of formation remainder dk gy mud cake

#17
 6840 ± 1 1/2" chewed length dk lead gy. silt w/ occas. pcs.
 lead gy. biotitic silty sh. slight greenish cast
 Few ^{Miocepe} L pcs. dk br. hd. sh. w/ sponge spicules,
 in mud cake

#1
 8535 ± 2" chewed length dk gy. crumbly argill. siltstone
 w/ scattered fish bone frags. and sponge
 spicules. = basal Tp or Tm.

12) Std - Frew 6 (29, 3N, 16W) Hard conglomerate at 2440' etc must
represent Frew zone condol's. Highest sample is at
4240' & contains *Inoceramus Primus* & bronze micas.
Correlation by E-log would place the Tertiary (Frew
zone) / Cretaceous contact at 2480' ±

Core Analysis Data From 1-6
Alisa Canyon

Depth	Perm	Porosity	Water	Oil
3822'	18 md.	30.0%	71	0
3930'	17	26.9	58	13
6110	73	30.2	49	14
6620	5.5	28.0	82	5
7000	19	26.6	72	3
7168	16	34.0	52	0
7680	28	37.8	60	0
8005	30	28.0	75	0
8298	14	26.1	71	7

PETROLEUM TECHNOLOGISTS, INC.

PRODUCTION RESEARCH - CORE ANALYSIS

SECONDARY RECOVERY

868 TRUCKWAY

MONTEBELLO, CALIFORNIA

PARKVIEW 1-5338

March 14, 1955

NORRIS JOHNSTON
PRESIDENT

REC'D
MAR 21 1955
PROD. RESEARCH
C. H.
ADM. O.
ADM. INCO
CONV. SERV.
EXP. INCO
FIN.
GEN. MGMT.
INSTR. DEPT.
M. S. D.
M. S. P.
M. S. S.
M. S. T.
M. S. U.
M. S. V.
M. S. W.
M. S. X.
M. S. Y.
M. S. Z.
MAIL ROOM

Field: Aliso Canyon
Well: Frow 1 #7
Oil: 28-23°API
Mud: Water Base
Samples: Schlumberger
Sidewalls
No. 1 RW 1 #36

Mr. Frank Colohan
Standard Oil Company
Box 1211
Ventura, California

Dear Mr. Colohan:

Herewith are data on the analysis of sidewall core samples from your Aliso Canyon well Frow 1 #7 in the depth interval 7816 to 8745.

Depth	% Porosity	md. Air Permeability	G/W Ratio	Saturation of Pore Space		
				% Oil	% Water	Total Liquid
7816	24.7	47	.40	26.6	66.7	93.3
8679	30.4	640	.70	22.6	32.2	54.8
8694	25.2	83	0	0	79.2	79.2
8745	23.7	304	.69	5.4	61.4	66.8

The sample at 7816 indicates clean oil production, though the permeability is only fair and the high total saturation suggests low solution gas content. The sample at 8679 is highly satisfactory in all respects, and should have high solution gas content. The sample at 8694 had medium permeability but no oil content. The total saturation was not low enough to suggest gas production, so this depth should be wet. The sample at 8745 had good porosity and permeability but rather low oil content. However, in view of the low total saturation and the type of core, this may be a clean producer.

Sincerely,

Norris Johnston
Norris Johnston

100/100

FAUNAL INFORMATION REPORT

(For Graphic Well Logs)

FEB 8, 1955.

Company STANDARD OIL CO. Well No. FREW 1-#7

Field FLISO CANYON Elevation 2418.7' DF

Faunal Marker	In Hole Depth	Sub-Sea Depth
Eocene on lithology only	Sidewall Samples 2600' through 2792'	
Modelo on lithology	Sidewall Sample 2825'	
Upper Miocene, Lower Mohnian	Lithology & forams cores: 7855-69; 7869-84'	
Eocene on lithology & forams	Sidewall Sample 3625'	
* Eocene on lithology & forams	Sidewall Sample 3673'	
Eocene on lithology only	Sidewall Sample 3673'	

* Called A.V.W. on this sample
(on which there was no recovery)
she said this info. shown was in error
& delete same. K.A.E. 5-16-55

Faunal Information by: AVW

March 29, 1955

FBI

TO: MR. RJN

Jan 1962

FROM: MR. RCBSUBJECT: Std - Frow 1-7 29-3N-16W Review

OUR FILE:

YOUR FILE:

8520' Ditch - Paleocene Santa Susana? forams possibly reworked into Sesnon zone, however their abundance suggests that these are other than reworked & indicate penetration of Paleocene sediments.

SWC at 8625' appears to be in Eocene or Cretaceous from lithology, as does SWC at 8673' (1k gy. fr. grained, siltst's).
Ditch Samples 8700-20' & 8720-40' carry multi-colored sd's & red porphyry & Paleocene forams, suggestive of Frow zone.

8720-40' Ditch - last sample received

Faunal Review - S.O. - Frow 1-7
Ten Sidewalls, Two Cores & Four Ditch

see Paleo-log dated 6-17-55 - only suggestion of change would be to suspect that Model's lith in Sidewall 2825' be due to mud-coke on sample.

MEMORANDUM GO-144

TO Eik Feb. 4 1955
 FROM AVUS

SUBJECT: Frew #1-7 S.O.C. Dry Exam Schlumberger Sidewalls OUR FILE Sec. 29 T3N R16W

YOUR FILE

- 2600' Rec $\pm 2'$ Firm, v. compact, massive, med. gray, micaceous siltst
 No fossils noted. Tar in pockets gives brn staining
 RR minute "rusty" looking grains. x Fish bone?
- 2614' Rec $\pm 1\frac{1}{2}''$ Fairly friable, compact, massive, med. lt. gray mic finely sandy
 siltst. Including one pebble $\approx \frac{3}{4}'' \times \frac{1}{2}'' \times \frac{1}{4}''$ igneous or metamorphic?
 Siltst med brn in color w/ var feldspar crystal. Also 3 small
 chips med greenish-gray igneous? material
- 2680' Rec $\pm 1''$ Finely sandy, well sorted ^{gr}silt v. green & red grains. looks Ec
- 2699' Rec $\pm \frac{3}{4}''$ Sdy silt as above. poorly sorted, v. friable
- 2770' Rec $\pm 2''$ Fairly firm claystone - med gray - dries to lt gray, massive
 worm-tracked? Fr silty stringers - almost white. Carbonaceous streaks
- 2792' Rec $\pm 1''$ Finely sandy, well sorted silt. v. green & red grains.
- 2825' Rec $\pm \frac{3}{4}''$ V. tough blk. gray-brn siltst
- 2825' Rec $\pm \frac{1}{4}''$ Soft badly mud cut crumbly med gray siltst. Few fr. grains
 scattered throughout

MEMORANDUM GO-144

TO File

Feb 4

1955

FROM AVW

SUBJECT: Dry Exam S.O. Co. Frowl-7 Sidewalls (cont'd)

OUR FILE Sec 29.73N R16W

YOUR FILE

⁵²
~~8673~~ Rec $\pm 1/4$ " Muddy lumps

8673 Rec $1/2$ " Med out soft w/ fr. grained siltst mic. st gray

IBM

MEMORANDUM GO-144

TO File January 17 1955
 FROM AWL

SUBJECT:

OUR FILE Sec. 29 T.3N R16W

YOUR FILE

7855-69 Rec. $\pm 8"$ V. bed, brittle \pm laminated (?) slickensided, slightly
 Top 10' nodular (w/ faint nodular odor) dk brown-blk, foraminiferal sh.
 Forams abundant & partially crushed, incl. *Bul* of *B60*, *Bul* sp of *L*,
 Fractures \pm vertical on some pees
 Also one v. thin ($\pm 1/8"$) laminae of slickensided bentonite, Dip
 taken @ well along this laminae = $\pm 35^\circ$

7855-69 Rec. $\pm 6"$ As above - no bentonite. One perfect *Bul* 742
 Bot. 2'

7869-84 Rec. $\pm 6"$ As above - no bentonite
 Top 10'

7869-84 Rec. $\pm 6"$ As above - no bentonite
 Bot. 5'

IBM

MEMORANDUM GO-144

TO File

1-14

1955

FROM WR Davidson

SUBJECT: Cox Description: S.O.C. Frew 1-7

OUR FILE:

YOUR FILE:

9 7/8' Reese Conv. Core

Core #1

7855-7869' (14') 12' Rec.

7855-7867' (12') Shale, silty, hard, massive, very dark gray brown to black, phosphatic, fossiliferous (fish scales), occasional slickensided fracture plane. Thin bentonitic, slickensided layer (probable bedding plane) shows good dip of 35°. Oil on fractures and outer surface of core probably from oil emulsion mud.

7867-7869' (2') No recovery.

Core #2

7869-7884' (15') 15' Rec.

Shale, silty, hard, massive, phosphatic, fossiliferous (fish scales), chocolate brown to black, ^{fair} 37 to 40° dips on layered phosphatic nodules. Rotten odor. Oil on ^{occasional} fractures and outer surface of core probably from oil emulsion mud.

IBM

2	RW
2	CANARD

FAUNAL INFORMATION REPORT

(For Graphic Well Logs)

JULY 11, 1955

Company STANDARD OIL CO Well No. FREW 1-28

Field HILSD CANYON Elevation 3316.28' DE

Faunal Marker	In Hole Depth	Sub-Sea Depth
<i>Sidewall Cores as follows:</i>		
<u>UPPER PLIOCENE-PICO</u>	<u>1580 to 6995 inclusive</u>	
<u>Non-diagnostic</u>	<u>7565</u>	
<u>Probably UPPER MIOCENE-Lower Mahonian</u>	<u>7800 (bedly mudcut)</u>	
<u>EOCENE - LLA VAS (lower)</u>	<u>7950</u>	
<u>EOCENE - SANTA SUSANA</u>	<u>8080</u>	
<u>Non-diagnostic</u>	<u>8095</u>	
<u>Probably PIOCENE-PICO</u>	<u>8417 (bedly mudcut)</u>	

Faunal Information by: [Signature]
7-13-, 1955

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Test of Water Shut-off
(FORMATION TESTER)No. T 1-49104Los Angeles 15, Calif. December 15, 19 48Mr. W. C. Johnson
Los Angeles 54, Calif.
Agent for STANDARD OIL COMPANY OF CALIFORNIA

DEAR SIR:

Your well No. "Frew 1" 6, Sec. 29, T. 3 N., R. 16 W., S. B. B & M.
Aliso Canyon Field, in Los Angeles County, was tested for water shut-off
on December 6, 19 48. Mr. Paul Betts, Inspector, designated by the supervisor,
was present as prescribed in Secs. 3222 and 3223, Ch. 93, Stat. 1939; there were also presentR. C. Gentry, Engineer; H. A. Stripling, Drilling Foreman.
Shut-off data: 7 in. 23, 26, 29b. casing was cemented xxxx at 8580 ft.
on December 1, 19 48 in 11 in. hole with 250 sacks of cement
xxxx of which 11 sacks was left in casing.
Casing record of well: 20" cem. 40'; 13-3/8" cem. 748'; 7" cem. 8580'; four 1/2" test holes
at 8565', W. S. O.Present depth 8685 ft. Bridged with cement from 8580 ft. to 8570 ft. Cleaned out to 8570 ft. for test.
A pressure of xxx lb. was applied to the inside of casing for xxx min. without loss after cleaning out to xxx ft.
A Johnston gun and tester was run into the hole on 3-1/2 in. drill pipe ~~with~~
with 1561 ft. of water ~~and~~ cushion, and packer set at 8537 ft. with tailpiece to 8559 ft.
Tester valve, with 3/16 in. bean, was opened at 3:16 p.m. and remained
open for 1 hr. and 15 min. During this interval there was a fair, steady blow for 20 min.,
a strong blow for 20 min., and a fair, steady blow for the balance of the test.

THE INSPECTOR ARRIVED AT THE WELL AT 9:15 P. M. AND MR. GENTRY REPORTED:

1. An 11" rotary hole was drilled from 748' to 8685'.
2. Electrical core readings showed the top of the "Sesnon" zone at 8585'.
3. The 7" casing was run into the hole and cemented as noted above.
4. Cement was drilled out of the 7" casing from 8521' to 8570' (equivalent to 8 sacks), and the casing was cleaned out to 8570'.
5. The 7" casing was shot-perforated with four 1/2" holes at 8565' for this test.
6. A Johnston gun and tester was run as noted above.

THE INSPECTOR NOTED:

1. When the drill pipe was removed, a net rise of 5975' consisting of 91' of medium drilling fluid, 91' of oily drilling fluid, 5773' of clean oil, and 20' of fresh water was found in the drill pipe above the tester, equivalent to 49 bbl.
2. The recording pressure bomb chart showed that the tester valve was open for the duration of the test.

The test was completed at 1:00 a.m., December 7, 1948.

THE WATER SHUT-OFF ABOVE THE PERFORATIONS AT 8565' IS APPROVED.

PWB:OH

cc- United States Geological Survey
J. E. Toussaint
M. W. Morris

R. D. BUSH, State Oil and Gas Supervisor

By E. H. Musser, Deputy

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

Special Report on Operations Witnessed

No. T 1-48909

Los Angeles 15, Calif. November 1, 1948

Mr. W. C. Johnson
Los Angeles 54, Calif.
Agent for STANDARD OIL COMPANY OF CALIFORNIA

DEAR SIR:

Operations at your well No. "Frew 1" 6 Sec. 29, T. 3 N., R. 16 W., S.B. B. & M.,
Aliso Canyon Field, in Los Angeles County, were witnessed by
J. L. White, Inspector, representative of the supervisor,
on October 19, 19 48. There was also present G. E. Parker, Driller;
M. Wade, Derrickman.

Casing Record <u>20" cem. 40'; 13-3/8" cem. 748'.</u>	Junk <u>None</u>
<u>T. D. 4997'.</u>	

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

The inspector arrived at the well at 8:10 p.m. and Mr. Parker reported:

1. An 11" rotary hole was drilled from 40' to 1000' (opened to 17-1/2", 40'-750').
2. On September 30, 1948, 13-3/8", 54 lb. casing was cemented at 748' with 525 sacks of cement.
3. An 11" rotary hole was drilled from 1000' to 4997'.

THE INSPECTOR NOTED THAT THE WELL WAS EQUIPPED WITH THE FOLLOWING BLOWOUT PREVENTION EQUIPMENT:

1. A Shaffer double cellar control gate for closing in the well with the drill pipe out of the hole and for closing around the 4-1/2" drill pipe.
2. A Hydril blowout preventer for closing around the 4-1/2" drill pipe.
3. The controls for the above equipment were located outside the derrick.
4. A 2" mud fill-up line with a 2" high pressure stopcock into the 13-3/8" casing below the above equipment.

The inspection was completed at 8:30 p.m.

THE BLOWOUT PREVENTION EQUIPMENT AND INSTALLATION ARE APPROVED.

JLW:OH

cc- United States Geological Survey
J. E. Toussaint
M. W. Morris

BW

R. D. BUSH
State Oil and Gas Supervisor

By *S. H. Messer* Deputy

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

Report on Proposed Operations

No. P 1-45514

Los Angeles 15, Calif. September 1, 1948

Mr. W. C. Johnson
Los Angeles 54, Calif.
Agent for STANDARD OIL COMPANY OF CALIFORNIA

171

DEAR SIR:

Your proposal to drill Well No. "Frew 1" 6,
Section 29, T. 3 N., R. 16 W., S.B. B. & M., Aliso Canyon Field, Los Angeles County,
dated Aug. 26, 1948, received Aug. 27, 1948, has been examined in conjunction with records filed in this office.

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

THE NOTICE STATES:

"From the intersection of the Southerly line of Section 29 and the Westerly Line of Mission San Fernando, 379.14' Westerly along the Southerly Section Line; thence 300.66' Northerly at right angles. (Final)
Elevation of derrick floor above sea level 2139.33 feet (Final)
All depth measurements taken from top of Derrick Floor, which is 8.7 feet above ground. We estimate that the first productive oil or gas sand should be encountered at a depth of about _____ feet."

PROPOSAL:

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

Size of Casing	Weight	Grade and Type	Depth	Landed or Cemented
18 5/8"	Conductor		40'	Cemented
13 3/8"	54.5	J-55	1000±	"
7"	23, 26 & 29	J-55 & N-80	8600±	"
220' of 5"	18#	J-55	8800±	Landed, Perf. Liner.

Note: Derrick may be removed and well serviced with portable mast if necessary 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. 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. Blowout prevention equipment, sufficient to provide a complete close-in of the well under pressure at any time, shall be installed.
3. Any hole to be sidetracked in any oil or gas zone shall be filled with cement, if possible.
4. THIS DIVISION SHALL BE NOTIFIED AS FOLLOWS:
(a) To inspect the installed blowout prevention equipment before drilling below 1500'.
(b) To witness a test of the effectiveness of the 7" shut-off.

ABH:OH

cc- United States Geological Survey
J. E. Toussaint
M. W. Morris

R. D. BUSH
State Oil and Gas Supervisor

By E. H. Mussen Deputy

Blanket bond.

