

NATURAL RESOURCES AGENCY OF CALIFORNIA  
DEPARTMENT OF CONSERVATION  
DIVISION OF OIL, GAS & GEOTHERMAL RESOURCES  
1000 S. Hill Rd, Suite 116 Ventura, CA 93003-4458  
Phone:(805) 654-4761 Fax:(805) 654-4765

No. T 216-0256

## REPORT ON OPERATIONS

GAS STORAGE PROJECT  
"Sesnon-Frew" - Modelo (Miocene-Eocene) Formation

Amy Kitson  
Southern California Gas Company (S4700)  
12801 Tampa Ave., SC9382  
Northridge, CA 91326

Ventura, California  
July 13, 2016

Your operations at well "**Standard Sesnon**" 24, A.P.I. No. **037-00775**, Sec. **29**, T. **03N**, R. **16W**, **SB B.&M.**, **Aliso Canyon** field, in **Los Angeles** County, were witnessed on **6/30/2016**, by **Mike Woods**, a representative of the supervisor.

The operations were performed for the purpose of **determining casing integrity**.

DECISION:

**DEFERRED PENDING REVIEW BY THE DIVISION'S SAFETY TEAM.**

MW/TKC

Kenneth A. Harris Jr.  
\_\_\_\_\_  
State Oil and Gas Supervisor

By   
\_\_\_\_\_  
Patricia A. Abel, District Deputy

EB76.

State of California  
Department of Conservation  
Division of Oil, Gas, and Geothermal Resources

216-0256  
#16,3

No. T \_\_\_\_\_

### MECHANICAL INTEGRITY TEST (MIT)

Operator: <b>Southern California Gas Company</b>				Well: <b>"Standard Sesnon" 24</b>	
Sec. <b>29</b>	T. <b>3N</b>	R. <b>16W</b>	<b>SB B.&amp;M.</b>	API No.: <b>037-00775</b>	Field: <b>Aliso Canyon</b>
County: <b>Los Angeles</b>				<input checked="" type="checkbox"/> Witnessed <input type="checkbox"/> Reviewed on: <b>6/30/2016</b> <i>1430 As per U. Woods 7-14-16.</i>	
<b>M. Woods</b> , representative of the supervisor, was present from <b>1500</b> to <b>1530</b> .					
Also present were: <b>Mike Giuliani, Consultant</b>					
Casing record of the well: <b>2 7/8" landed on packer @ 8690', tubing plug @ 8658', sliding sleeve open @ 8628'.</b>					
The MIT was performed for the purpose of demonstrating the mechanical integrity of the <b>7"</b> casing.					
<input type="checkbox"/> The MIT is approved since the R/A tracer survey indicates that all of the injection fluid is confined to formations below _____ at this time.					
<input checked="" type="checkbox"/> The MIT is approved because the <b>7"</b> casing held a pressure of <b>1100 psi</b> for <b>60</b> minutes.					
<input type="checkbox"/> The MIT is approved since the temperature survey indicates no fluid migration between _____ and the surface.					
<input type="checkbox"/> The MIT is not approved due to the following reasons:					
Comments:  Deficiencies Corrected:  Deficiencies to be Corrected:  Uncorrectable Deficiencies:					
Contractor: <b>Premier Oilfield Service and Oryx Oil Service</b>					

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

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

Operator: Southern California Gas Company WELL DESIGNATION "Standard Sesnon" 24

API No. 03700775 SE 29 T: 3N R.: 16W , SB B. and M.

County: Los Angeles FIELD: Aliso Canyon

Type of Notice: Rework Date 6/16/2016 Report Number: P216-0093

**RECORDS RECEIVED (ATTACH PAGES IF REQUIRED)**

**NEW STATUS**

	Date	OK	NEED	Remarks
Well Summary (OG100)				
History (OG103)				
E-Log				
Mud Log				
Dipmeter				
Directional				
Core and/or SWS				
<i>Press. Test</i>	<i>6/30/16</i>		<i>✓</i>	<i>Need data from SCG</i>

DATE: \_\_\_\_\_

**NOTICE OF RECORDS DUE**

DATE: \_\_\_\_\_

DATE: \_\_\_\_\_

DATE: \_\_\_\_\_

DATE: \_\_\_\_\_

**WELL STATUS INQUIRY**

DATE: \_\_\_\_\_

DATE: \_\_\_\_\_

**Well Stat**

Change Required: \_\_\_\_\_

Change Done: \_\_\_\_\_

**ABANDONMENTS/REABANDONMENTS/DRILLS/REDRILLS**

CalWims Abandonment Form: \_\_\_\_\_ SURFACE INSPECTION NEEDED \_\_\_\_\_ COMPLETED \_\_\_\_\_

Date and Inspector

FINAL LETTER NEEDED \_\_\_\_\_ COMPLETED \_\_\_\_\_ Calwims DRILL/REDRILL Form \_\_\_\_\_

(Date)

**ENGINEER'S CHECK LIST**

T-REPORT(S) ✓ OPERATOR'S NAME ✓ WELL DESIGNATION ✓ SIGNATURE \_\_\_\_\_

Calwims Location ✓ Calwims ELEVATION: \_\_\_\_\_ CONFIDENTIAL RELEASE DATE: \_\_\_\_\_ PERMIT REQUIREMENTS MET \_\_\_\_\_

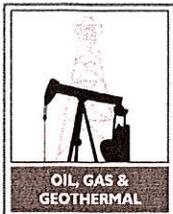
**CLERICAL CHECK LIST**

LOCATION CHANGE (OG165) \_\_\_\_\_ ELEVATION CHANGE (OG165) \_\_\_\_\_ RELEASE OF BOND (OG150) \_\_\_\_\_

**REMARKS**

RECORDS SCANNED: \_\_\_\_\_  
(Date)

RECORDS APPROVED: \_\_\_\_\_  
(Date and Engineer)



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 DEPARTMENT OF CONSERVATION  
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 1000 S. Hill Rd, Suite 116 Ventura, CA 93003 - 4458

No. P 216-0093

**PERMIT TO CONDUCT WELL OPERATIONS**

<u>Old</u>	<u>New</u>
010	010
FIELD CODE	
00	00
AREA CODE	
30	30
POOL CODE	

Corrected Copy

Gas Storage

"Sesnon-Frew" - Modelo (Miocene-Eocene) Formation  
 Plugback and Suspend for One Year

Ventura, California  
 June 30, 2016

Amy Kitson, Agent  
 Southern California Gas Company (S4700)  
 12801 Tampa Ave., SC9382  
 Northridge, CA 91326

Your proposal to Rework well "Standard Sesnon" 24, A.P.I. No. 037-00775, Section 29, T. 03N, R. 16W, SB B. & M., Aliso Canyon field, Any area, Sesnon-Frew pool, Los Angeles County, dated 6/16/2016, received 6/17/2016 has been examined in conjunction with records filed in this office. (Lat: 34.311056 Long: -118.571154 Datum:83)

**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:
2. a. Class I **Note: work to be completed without the removal of the injection assembly.**
3. Hole fluid of a quality and in sufficient quantity to control all subsurface conditions in order to prevent blowouts shall be used.
4. Prior to commencing downhole operations, a pressure test is conducted to demonstrate the mechanical integrity of the 7" casing.
5. Injection shall be through tubing and packer only. Injection or withdrawal through the casing is not permitted.
6. This well is to be taken out of service and isolated from the storage reservoir. The well shall be re-evaluated or abandoned within 1 year of the completion of the pressure testing pursuant to Order #1109 and its amendments.
7. In all other respects, the provisions of Division Order #1109 shall remain in effect.
8. This office shall be contacted by phone prior to making any program changes and no changes are made without Division approval.
9. **THIS DIVISION SHALL BE NOTIFIED TO:**
  - a. Witness a pressure test on the 7" casing and tubing plug.

Continued on Next Page

Blanket Bond Dated: 7/6/1999  
 UIC Project No. 0100006  
 cc:

Engineer Clifford R. Knight  
 Office (805) 654-4761

CRK/crk

Kenneth A. Harris Jr.  
 State Oil and Gas Supervisor

By   
 Patricia A. Abel, District Deputy

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

Well #: "Standard Sesnon" 24

API #: 037-00775

Permit : P 216-0093

Date: June 30, 2016

**NOTE:**

1. The base of the freshwater zone is at 800'±.
2. No operation shall be undertaken or continued that will contaminate or otherwise damage the environment.
3. This permit is being issued as part of Division Order No. 1109 dated March 4, 2016. Any well that fails any of the testing must be taken out of service and isolated from the storage reservoir pursuant to the Safety Review Testing Regime.
4. The required History of Oil or Gas Well (OG103) shall include a complete description of the required pressure testing. **An updated casing and tubing diagram shall be included with the well history.**
5. **A Well Summary Report (Form OG 100)** and **Well History (Form OG 103)** shall to be submitted to the Division within 60 days after the well is drilled, reworked, plugged and abandoned, or if the work is suspended. Any additional well work will require an additional notice to be submitted to this office prior to resuming well operations.

**Enclosure: Attachment 1 to DOGGR Order 1109. Safety Review Testing Regime for the Aliso Canyon Natural Gas Storage Facility**

**ATTACHMENT 1  
TO DOGGR ORDER 1109**

**SAFETY REVIEW TESTING REGIME  
FOR THE ALISO CANYON NATURAL GAS STORAGE FACILITY**

This document identifies the requirements of this comprehensive safety review that shall be completed by the Southern California Gas Company (Operator) and verified by the Department of Conservation, Division of Oil, Gas, and Geothermal Resources (Division). The Operator shall use accepted industry practices and procedures.

The Division has consulted with independent technical experts from the Lawrence Berkeley, Lawrence Livermore, and Sandia National Laboratories ("National Laboratories") to develop the requirements of this facility safety review. The National Laboratories experts independently reviewed and concurred with the testing requirements for the safety review detailed below.

This comprehensive safety review requires that each of the active injection wells in the Aliso Canyon Storage facility either pass a thorough battery of tests in order to resume gas injection or be taken out of operation and isolated from the underground gas storage reservoir. Several steps, detailed below, are required in this safety review. Documentation of all testing required under this comprehensive safety review shall be provided electronically to the Division within 72 hours of completion of a test in digital (i.e. LAS) and printed (i.e. pdf) form. All pressure tests required under this comprehensive safety review shall be witnessed by Division staff. A well that is properly plugged and abandoned in accordance with Public Resources Code section 3208 is not subject to testing under this comprehensive safety review. A well that does not pass all tests must be repaired, retested, and pass all tests, or be plug and abandoned.

**REQUIRED TESTS FOR EACH WELL IN THE FACILITY**

**Step 1:** The Operator shall perform an initial casing assessment on the well consisting of temperature and noise logs.

a. Temperature Log:

A temperature survey shall be run from the surface to the packer to measure the temperature within the wellbore. A temperature survey that demonstrates no unexplained anomalous temperature changes in the well is one indication of casing integrity.

b. Noise Log:

An acoustic sensor survey capable of detecting the sound of fluid flow will be conducted the length of the well above the packer to the surface. The survey will include stops at least every 250 feet and at the midpoint of any anomaly detected by the temperature survey. The absence of anomalous sound above the packer is an indication of well integrity

- Step 2:** The results of the Temperature Logs and Noise Logs will be independently reviewed by Division engineers. Any unexplained abnormal findings in this set of tests shall be addressed by the Operator in one of the following ways:
- Conduct further investigation and demonstrate to the Division's satisfaction that the abnormal finding is not an indicator of a lack mechanical integrity;
  - Remediate the well to the Division's satisfaction; or
  - With Division review and approval, remove the well from operation and isolate the well from the underground gas storage reservoir in accordance with Steps 4b through 7b below.

Necessary actions to remediate any abnormalities revealed by these tests will be reviewed by Division engineers. Once repairs or mitigations are completed, the Temperature Log and Noise Log must then be repeated on the well and reviewed by Division engineers to ensure that there are no additional abnormal test results and to confirm the issue was repaired.

- Step 3:** After these tests are completed on the well, and all required action has been completed, the operator shall either:
- Conduct the additional tests and evaluations on the well, outlined in Steps 4a through 7a below, in order to gain approval for injecting gas through that well; or
  - Remove the well from operation and isolate the well from the underground gas storage reservoir in accordance with Steps 4b through 7b below.

#### **REQUIRED TESTS IF A WELL IS INTENDED TO RESUME OPERATIONS**

If Temperature and Noise Logs have been completed on a well and they indicate well integrity, and the Operator designates the well to return to injection operations, then the Operator shall perform the additional testing outlined in Steps 4a through 7a. The results of these tests will be independently reviewed by Division engineers and posted publicly. Each of the following tests requires that the production tubing be removed from the well.

- Step 4a:** The Operator shall conduct a **Casing Inspection log**.

The Operator shall conduct a Casing Inspection log of the well that measures the thickness of the production casing, from the surface to the bottom of the gas storage reservoir cap rock. If the inspection reveals a reduction in wall thickness, the current minimum strength of the casing will be calculated. If the current minimum strength of the casing has diminished to the point that it cannot withstand authorized operating pressures for the well plus a built-in additional safety factor of pressure, the well has failed this test. *A passing test for a casing inspection log would show no thinning of the casing that diminishes the casing's ability to contain at least 115% of the well's maximum allowable operating pressure as authorized in the current Project Approval Letter.*

- Step 5a:** The Operator shall conduct a **Cement Bond Log** for the well.

The Operator shall conduct a Cement Bond Log (CBL) that measures the bonding between cement and the production casing of the well, and also the bonding between the annular cement and the formation. Cement should be solidly bonded to both the well's production casing and the geologic formation to ensure a seal that prevents fluids from migrating up or down the outside of the well. *A passing test for a cement bond log shows definitive bond, as demonstrated by sonic waveform,*

*between cement and casing and between cement and the gas storage formation and/or cap rock for at least 100 feet above the top of the gas storage reservoir.*

**Step 6a:** The Operator shall conduct a **Multi-Arm Caliper Inspection** of the well.

The operator shall conduct an inspection that measures any internal degradation or significant changes to the well's geometry from the surface to the top of the gas storage reservoir, using a minimum 32-arm caliper tool. If the inspection reveals a thinning or deformity of the casing, the current strength of the casing will be calculated. If the current strength of the casing has diminished, such that it cannot withstand authorized operating pressures plus a built-in safety factor of additional pressure, the well fails this inspection. *A passing test for a Multi-Arm Caliper Inspection would show no deformation or thinning of the casing that diminishes the casing from being able to properly contain at least 115% of each well's maximum operating pressure.*

**Step 7a:** The Operator will conduct a **Pressure Test** of the production casing and of the well once the production tubing has been reinstalled. The Operator may conduct the casing pressure test prior to reinstalling the production tubing. Using a digital recorder, the operator will conduct a liquid-filled positive pressure test within the production tubing of the well, and in the annular space between the production tubing and the casing, to determine the well's ability to withstand normal operating pressures. The production tubing will be isolated and then pressure tested. The annular space between tubing and casing will be pressure tested. This testing also evaluates the integrity of any packers, which seal the annular space between the tubing and casing. The pressure test will be one hour and begin at a pressure of 115% of the maximum operating pressure or the minimum yield strength of the casing and tubing, whichever is less. *A passing pressure test is a pressure loss not exceeding 10% for any 30 minute period during the hour long test.*

After conducting the above tests, the Operator will conduct any indicated remediation so that the well can pass these tests. All remediation will be subject to the review of Division engineers. The well would then be required to undergo the tests once again to demonstrate well integrity.

If the well passes the Casing Wall Thickness Inspection, the Cement Bond Log, the Multi-Arm Caliper inspection and the Pressure Test to the Division's satisfaction, then the Division may clear the well for use for gas injections and withdrawal, once the Division has authorized resumption of injection into the gas storage reservoir. As noted below, wells approved for operation will only be permitted to inject or withdraw gas through the production tubing.

#### **REQUIRED ACTIONS IF THE WELL IS TO BE TAKEN OUT OF OPERATION AND ISOLATED FROM THE GAS STORAGE RESERVOIR:**

If the operator elects to take a well out of service, then the following steps shall be taken to isolate the well from the gas storage reservoir:

**Step 4b:** The Operator shall confirm the presence of cement outside the well's external casing in the section of the well that prevents the movement of gas from the underground gas storage reservoir to shallower geologic zones above the gas storage reservoir. Existing cement bond logs and well construction

records may be used to make this confirmation. This confirmation requires concurrence from Division engineers.

**Step 5b:** The Operator shall install a mechanical seal or “packer” within the well’s production casing and install a mechanical plug within the well’s production tubing, if applicable. These seals shall be set in place near the bottom of the well, within the portion of the well surrounded by cement. This kind of seal is an industry standard practice for isolating a well from reservoir gases or fluids and will further protect the casing from internal gas pressure.

**Step 6b:** The Operator shall fill the well with fluid to the well’s surface in order to create appropriate downward hydrostatic pressure in the well that further contributes to the integrity of the well seal.

These measures will isolate a well from the underground gas reservoir, as confirmed by National Laboratory experts. Each of the above actions is subject to review and approval by Division Engineers.

**Step 7b:** Once the Operator has completed steps 4b, 5b, and 6b, and the seal is in place at the bottom of the well and the well is filled with fluid above the seal, the operator shall:

- a. Conduct daily gas monitoring at the surface of the non-operational well, including monitoring the area around the well perimeter and in the annular space between the plugged casing string and the outmost casing;
- b. Conduct noise log, temperature log and positive pressure test every six months;
- c. Conduct weekly monitoring of fluid levels in the well or, install and operate real-time pressure monitors that provide immediate notification to the operator when pressures deviate from normal in the well’s interior tubing and its annular space.

The above monitoring shall be reported to Division engineers and maintained as a part of the well file. Division engineers will review all submitted information for evaluation on a regular basis to ensure that the well taken out of service has maintained safety, and the operator shall take all necessary steps maintain the safety of the well.

Any well taken out of operation cannot be approved to resume operations and gas injection until the successful completion of the battery of tests outlined above in Steps 4a through 7a (Casing Wall Thickness Inspection, the Cement Bond Log, the Multi-Arm Caliper Extension and the Pressure Test) is completed. Those tests must be successfully completed within one year of completing step 6b. If a well cannot successfully complete all necessary steps required in this safety review after one year of completing step 6b, then the well shall be properly plugged and abandoned in accordance with Public Resources Code section 3208.

#### **REQUIREMENTS FOR WELLS RESUMING OPERATIONS IN ALISO CANYON**

The Division’s authorization to resume injection in the Aliso Canyon Storage Facility will be contingent on the successful completion of this comprehensive safety review. The State Oil and Gas Supervisor must confirm in writing that all wells in the facility have either completed and passed the full battery of tests required in the safety review, been taken out of service and isolated from the underground gas storage reservoir, or been properly plugged and abandoned in accordance with Public Resources Code Section 3208.

**Ortiz, David@DOC**

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**From:** Michael Giuliani <mike.giuliani@interactprojects.com>  
**Sent:** Friday, June 17, 2016 4:56 PM  
**To:** Ortiz, David@DOC  
**Cc:** Neville, Dan; McMahon, Thomas D.; McGurk, Scott@DOC  
**Subject:** Casing Pressure Test Spreadsheet  
**Attachments:** Test Pressure Safety Check Spreadsheet.xlsx

David,

SCGC submitted NOI's on seven wells today: FF-33, Frew 5, P-38, P-46, SS-04, SS-11 and SS-24. The attached spreadsheet demonstrates bottom-hole pressure based on the proposed 1000 psi test pressure for each well is uniformly below 85% of the burst pressure as taken from the Haliburton Red Book. In fact, pressures at the deepest point of each casing grade range from 669 psi to 3687 psi below the 85% of burst limit.

Although the analysis assumes the pipe is new, at a 1000 psi test pressure, there is a fairly large safety factor even beyond the 85% burst limit assumption in that it is also assumed the pipe is hanging in air (zero formation pressure). As you go deeper into the well, and the external casing pressure increases, so does the "hanging in air" safety factor.

Let me know if you have any questions or concerns.

Regards,

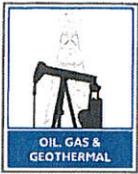
**Mike Giuliani**  
Sr. Petroleum Engineer

**We plan. We engineer. We Deliver. *You succeed.***

**InterAct**  
an **ACTEON** company

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

FOR DIVISION USE ONLY		
Bond	Forms	
		<del>OGD114</del>
	CALV WIMS	115

P216-0093

## NOTICE OF INTENTION TO REWORK / REDRILL WELL

Detailed instructions can be found at: [www.conservation.ca.gov/dog/](http://www.conservation.ca.gov/dog/)

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to

rework  / redrill  well Standard Sesnon 24, API No. 037-00775  
(Check one)

Sec. 29, T. 3N, R. 16W, S.B. B.&M., Aliso Canyon 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 wellbore schematic

The total depth is: 9065 feet. The effective depth is: 9064 feet.  
 Present completion zone(s): Sesnon Anticipated completion zone(s): Same  
(Name) (Name)  
 Present zone pressure: storage psi. Anticipated/existing new zone pressure: storage psi.

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

For redrilling or deepening only, is a California Environmental Quality Act (CEQA) document required by a local agency?  
 Yes  No  If yes, see next page.

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

The SCGC plans to take this well out of operation and isolate from the gas storage reservoir as per the First Amended Safety Review Testing Regime: Steps 4b-7b. Note: Well was filled with 323 Bbls. 8.5 ppg kill fluid on 2/14/16.

4b - Theo. TOC at 7155' as per attached wellbore mechanical.

5b - Packer set at 8690' and plug set in XN nipple at 8658'.

6b - Well was circulated full with 323 Bbls. 8.5 ppg kill fluid on 2/14/16.

7b - With tubing valve closed, pressure test annulus to 1000 psi. for 1 hour.

If well is to be redrilled or deepened, show proposed coordinates (from surface location) and true vertical depth at total depth: \_\_\_\_\_ feet and \_\_\_\_\_ feet Estimated true vertical depth: \_\_\_\_\_  
(Direction) (Direction)

Will the Field and/or Area change? Yes  No  If yes, specify New Field: \_\_\_\_\_ New Area: \_\_\_\_\_

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

Name of Operator Southern California Gas Company		
Address P. O. Box 2300		City/State Chatsworth
		Zip Code 91313-2300
Name of Person Filing Notice Mike Giuliani	Telephone Number: (805) 290-2074	Signature Date 6/16/16
Individual to contact for technical questions: Mike Giuliani	Telephone Number: (805) 290-2074	E-Mail Address: mike.giuliani@interactprojects.com

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

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

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

### CRITICAL WELL DEFINITION

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

- (1) 300 feet of the following:
  - (A) Any building intended for human occupancy that is not necessary to the operation of the well; or
  - (B) Any airport runway.
- (2) 100 feet of the following:
  - (A) Any dedicated public street, highway or the nearest rail of an operating railway that is in general use;
  - (B) Any navigable body of water or watercourse perennially covered by water;
  - (C) Any public recreational facility such as a golf course, amusement park, picnic ground, campground or any other area of periodic high-density population; or
  - (D) Any officially recognized wildlife preserve.

### WELL OPERATIONS REQUIRING BONDING

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

This form may be printed from the DOGGR website at [www.conservation.ca.gov/dog/](http://www.conservation.ca.gov/dog/)

# Well Standard Sesnon 24

API #: 04-037-00775-00  
Sec 29, T3N, R16W

Operator: So. California Gas Co.

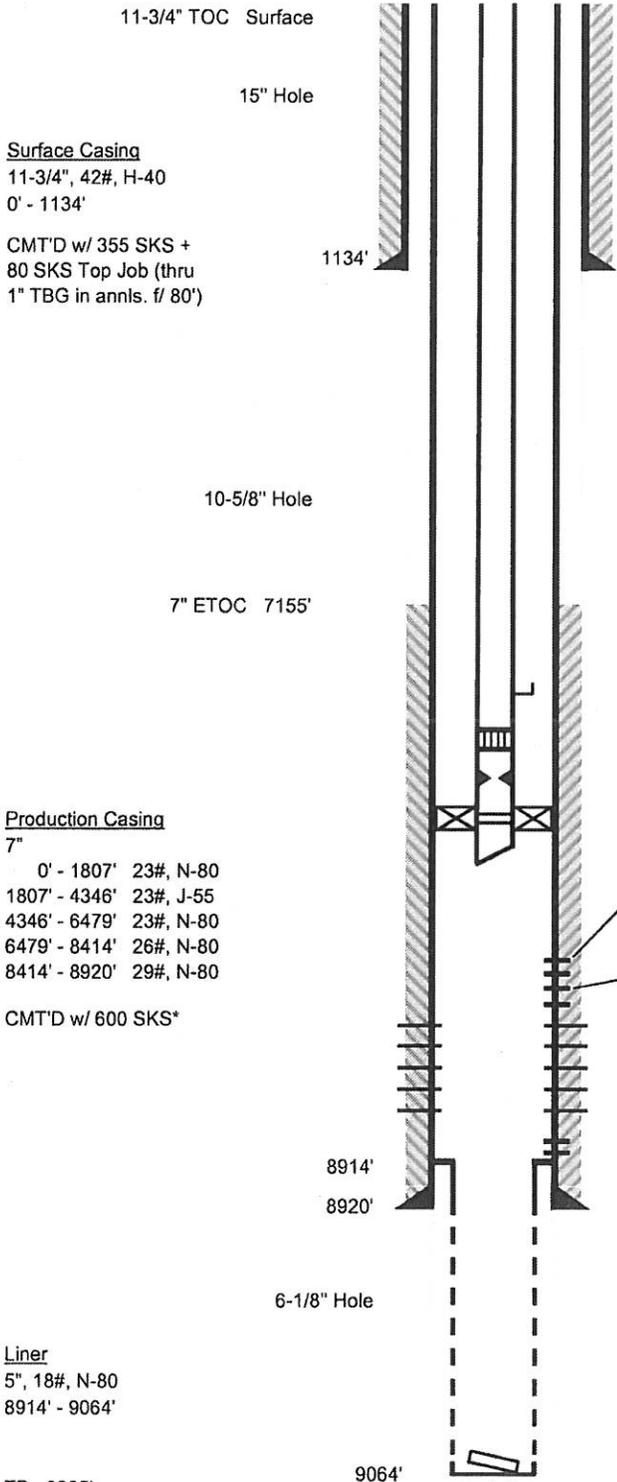
Lease: Standard Sesnon  
Field: Aliso Canyon  
Status: Idle Gas Storage  
BFW:  
USDW:

Ground Elevation: 2539.40' asl  
Datum to Ground: 6.92' DF

Spud Date: 2/7/1953  
Completion Date: 4/15/1953

Junk: Drillable BP milled & pushed to 9050'

**Notes**  
\*Had no circ. while mixing or displacing CMT.



Tubing  
2-7/8", 6.5#, N-80/J-55  
0' - 8696'

Surface Casing  
11-3/4", 42#, H-40  
0' - 1134'  
  
CMT'D w/ 355 SKS +  
80 SKS Top Job (thru  
1" TBG in annls. f/ 80')

Production Casing  
7"  
0' - 1807' 23#, N-80  
1807' - 4346' 23#, J-55  
4346' - 6479' 23#, N-80  
6479' - 8414' 26#, N-80  
8414' - 8920' 29#, N-80  
  
CMT'D w/ 600 SKS\*

8591' MMG GLM  
8625' Otis XD SSD  
8658' Camco No-Go "D" Nipple  
8690' Baker Model "D" PCKR  
8696' Tail

8723' - 8724' (8) 1/2" Holes (39 CF CMT SQZ'D Away, 3/2/1985)  
8729' (4) 1/2" Holes (50 SKS + 4 CF SQZ'D Away, 10/25/1978 + 13 CF CMT SQZ'D Away, 1/26/1985 + 8 CF CMT SQZ'D Away, 2/25/1985)  
8730' (4) 1/2" Holes (Unable to Breakdown, Press. Up to 3600 PSI, 10/23/1978)  
8755' Four (4) 1/2" Holes (4/7/1953) WSO

7" Perfs:  
8795' - 8819', 8828' - 8840', 8850' - 8880' Six (6) 1/2" HPF (4/11/1953)

8904' Four (4) Holes (Seg., 10/19/1955)  
8905' Four (4) 1/2" Holes (Co. WSO Test Ok 4/6/1953, 5 SKS CMT SQZ'D, 10/17/1955)

Liner Perfs:  
8923' - 9064' 2" x 120M, 12R, 6"C Slots

9050' Junk (see desc. Above)

Top of Zone Markers	
PEupth	2162' (384')
FREWupth	2916' (-370')
CRupth	3030' (-484')
K1upth	3059' (-513')
MDA	7714' (-5168')
MP	8483' (-5937')
S1	8737' (-6191')
S4	8800' (-6254')
S8	8910' (-6364')

Liner  
5", 18#, N-80  
8914' - 9064'

TD 9065'  
TD VSS (-6518')  
Directionally Drilled: No

Prepared by: MAM (2/24/2016)

Casing Pressure Test Safety Check (1000 psi)

Well	Packer Depth MD/TVD	Casing Size/Grade/Weight	Depth MD	Burst PSI	85% of Burst PSI	Pressure at Depth w/1000 psi Surface Pressure	Press < 85% of Burst
Fernando Fee 33	7485'/7484'	7", 23#, J-55	4122	4360	3706	2822	Yes
		7", 23#, N-80	5913	6340	5389	3614	Yes
		7", 26#, N-80	7630	7240	6154	4372	Yes
Frew 5	8270'/8270'	7", 23#, N-80	1589	6340	5389	1702	Yes
		7", 23#, J-55	4609	4360	3706	3037	Yes
		7", 23#, N-80	6676	6340	5389	3951	Yes
Porter 38	8257'/8257'	7", 26#, N-80	8360	7240	6154	4695	Yes
		7", 23#, J-55	3383	4360	3706	2495	Yes
		7", 23#, N-80	5059	6340	5389	3236	Yes
Porter 46	7660'/7660'	7", 26#, N-80	6692	7240	6154	3958	Yes
		7", 29#, N-80	8465	8160	6936	4742	Yes
		7", 23#, J-55	3381	4360	3706	2494	Yes
Standard Sesnon 04	8471'/8470'	7", 23#, N-80	5166	6340	5389	3283	Yes
		7", 26#, N-80	6717	7240	6154	3969	Yes
		7", 29#, N-80	7710	8160	6936	4408	Yes
Standard Sesnon 11	8640'/8639'	7", 23#, J-55	3463	4360	3706	2531	Yes
		7", 23#, N-80	5161	6340	5389	3281	Yes
		7", 26#, N-80	6847	7240	6154	4026	Yes
Standard Sesnon 24	8690'/8690'	7", 29#, N-80	8498	8160	6936	4756	Yes
		7", 23#, J-55	3723	4360	3706	2646	Yes
		7", 23#, N-80	5397	6340	5389	3385	Yes
Standard Sesnon 24	8690'/8690'	7", 26#, N-80	7019	7240	6154	4102	Yes
		7", 29#, N-80	8767	8160	6936	4875	Yes
		7", 23#, N-80	1807	6340	5389	1799	Yes
Standard Sesnon 24	8690'/8690'	7", 23#, J-55	4346	4360	3706	2921	Yes
		7", 23#, N-80	6479	6340	5389	3864	Yes
		7", 26#, N-80	8414	7240	6154	4719	Yes
Standard Sesnon 24	8690'/8690'	7", 29#, N-80	8920	8160	6936	4943	Yes

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 22GO  
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:

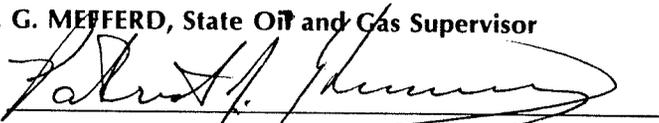
FROM

"SFZU" F-2 (037-00665)  
"SFZU" F-3 (037-00666)  
"SFZU" F-4 (037-00667)  
"SFZU" F-5 (037-00668)  
"SFZU" F-6 (037-00669)  
"SFZU" F-7 (037-00670)  
"SFZU" F-8 (037-00671)  
"SFZU" F-9 (037-00672)  
"SFZU" SS-4 (037-00757)  
"SFZU" SS-12 (037-00764)  
"SFZU" SS-4-0 (037-22063)  
"SFZU" SS-10 (037-00040)  
"SFZU" SS-24 (037-00775)

TO

"Frew" 2 (037-00665)  
"Frew" 3 (037-00666)  
"Frew" 4 (037-00667)  
"Frew" 5 (037-00668)  
"Frew" 6 (037-00669)  
"Frew" 7 (037-00670)  
"Frew" 8 (037-00671)  
"Frew" 9 (037-00672)  
"Standard Sesnon" 4 (037-00757)  
"Standard Sesnon" 12 (037-00764)  
"Standard Sesnon" 4-0 (037-22063)  
"Standard Sesnon" 10 (037-00040)  
"Standard Sesnon" 24 (037-00775)

M. G. MEFFERD, State Oil and Gas Supervisor

By 

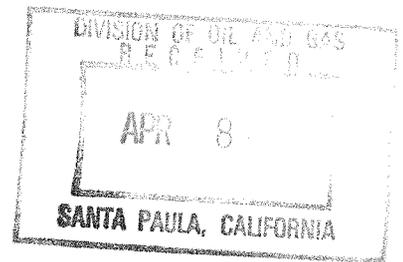
Deputy Supervisor

PATRICK J. KINNEAR





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



**History of Oil or Gas Well**

Operator Southern California Gas Co. Field Aliso Canyon County Los Angeles  
Well Standard Sesnon #24 Sec. 29, T. 3N, R. 16W S.B.B. & M.  
A.P.I. No. 037-00775 Name J. W. Gourley Title Agent  
Date April 2, 1985 (Person submitting report) (President, Secretary or Agent)

Signature

PO Box 3249, Terminal Annex, Los Angeles, CA 90051 (213) 689-3561  
(Address) (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

MWO No.: 99434 was issued to repair casing shoe leak

1985

- 1-14 Loaded out rig from Calkins #3 and moved to SS-24 at Aliso Canyon. Unloaded rig.
- 1-15 Finished rigging up. Pressure in tubing 1700 psi, casing 900 psi. Mixed 100 bbls. of high viscosity polymer completion fluid. Pumped down tubing with no returns.
- 1-16 Pressure in casing 500 psi. Pumped 180 bbls. polymer completion fluid down tubing and circulated gas out of well. Lost one bbl. of fluid per minute. Mixed 60 bbls. high viscosity polymer completion fluid and pumped down tubing. Installed back pressure valve. Removed xmas tree and installed 9" 5000 psi BOPE. Tested blind rams, pipe rams and manifold to 3000 psi. Tested Hydril to 2300 psi. Test approved by DOG.
- 1-17 Attempted to unlatch from packer. Rigged up logging truck. Ran free point to 8700' - tubing free down to packer. Cut 2-7/8" tubing at 8640'. Loaded out logging truck. Filled well with 85 bbls. Pulling tubing out of well.
- 1-18 Finished pulling out of well. Made up Kelly. Picked up four 4-3/4" drill collars. Made up fishing tools and ran in well to 8645'. Latched onto fish. Worked latch in packer. Pulling out of well.

1985

- 1-19 Finished pulling out of well. Overshot came off of fish. Changed out jars. Ran in and latched onto fish at 8645'. Jarred on fish and attempted to release from packer. Released overshot and started out of well.
- 1-21 Pulled out of well. Picked up three joints of 5-3/4" wash pipe. Ran in well, washed over fish from 8645'-8700'. Circulated well clean and pulled up to top of fish.
- 1-22 Ran in well and washed over fish to 8700' - no fill. Pulled out of well. Laid down wash pipe. Made up fishing tools and ran in to 8645'. Latched on fish and released same from packer. Pulled out of well. Laid down all fish and fishing tools. Made up packer retrieving tool.
- 1-23 Finished running in well to 8700'. Latched into packer. Released packer and pulled out of well. Laid down packer. Ran in well with 150' 2-3/8" tubing tail to 9030'. Circulated polymer fluid out with lease salt water. Rigged up pump truck and pumped 48 sacks of sand down tubing. Pulled up to 8660'.
- 1-24 Ran in and located top of sand at 8743'. Cleaned out sand to 8750'. Backscuttled clean. Pulled out of well. Using Hercules wireline, capped sand with 10' of cement, top at 8740'. Made up 7" retrievable retainer with 420' 2-7/8" tubing tail. Ran in well, set with tail at 8729'. Equalized 75 cu.ft. 12% HCl 3% HF acid. Obtained breakdown through holes at 8729' of 2.5 cu.ft. per minute at 3000 psi.
- 1-25 Rigged up pump truck. Pumped 75 cu.ft. 12% HCl 3% HF acid. Breakdown at 4.5 cu.ft. per minute. Pumped 75 cu.ft. more acid. Breakdown rate 9 cu.ft. at 1900 psi. Pulled out of well. Rigged up wireline truck and made up drillable cement retainer. Ran in and set at 8678'. Loaded out wireline truck. Made up stab-in tool. Ran in well.
- 1-26 Located retainer at 8677'. Rigged up pump truck and tested lines and tubing to 3500 psi. Pumped 25 cu.ft. 6% HCl 1-1/2% HF acid and 57 cu.ft. Class "G" cement mixed with 0.5% CFR-2 0.6% Halad 9. Squeezed 13 cu.ft. cement out holes at 8729'. Backscuttled out cement. Pulled out of well. Made up 6" bit and ran in well.
- 1-28 Drilled out retainer and cement from 8678'-8740'. (Top of cement cap.) Circulated bottoms up. Closed pipe rams and pressure tested casing at 1800 psi for 20 minutes. Pulled out with bit. Ran 420' of 2-7/8" tubing tail below 7" retrievable retainer. Ran tail to 8727' and set retainer at 8307'. Pressure tested below retainer at 2000 psi for 20 minutes.

1985

- 1-29 Pulled out of well with retrievable retainer. Ran 6" bit on drilling assembly to 8740'. Displaced 63#/cu.ft. lease salt water from well with 325 bbls. of 63#/cu.ft. polymer completion fluid. Drilled out cement cap at 8740' and cleaned out to 8914'. Started out of well with bit.
- 1-30 Finished pulling out of well with 6" bit. Ran 150' of 2-3/8" tubing tail on 2-7/8" tubing and cleaned out from 8914'-9030'. Pulled out of well. Made up 7" annulus operated test tool on 2-7/8" tubing and ran in well. Set tester at 8960'.
- 1-31 Pressure tested test tree, choke manifold and flow lines at 2700 psi. Pressured annulus tool to 1000 psi. Tubing communicated with annulus. Pumped 60 bbls. of fluid before getting returns. Pulled out of well and laid down 2-7/8" tubing. Found a 4' collapsed section in joint at 8250'. Started in well picking up new 2-7/8" EUE 8rd tubing.
- 2-1 Pulled kill string and installed 7" test tool and continued picking up new tubing to 8600'. Set tools, pressure tested test tree, choke manifold and flow lines to 2700 psi. Opened tool at 2:00 p.m. Well did not unload any fluid. Had slight gas blow in one hour; built to 100 psi in 5 minutes. Flowed well for 6 additional hours. Closed well in at choke. Pressure built to 50 psi in 5 minutes. Closed annulus tool.
- 2-2 Opened well to tubing. Found pressure at 350 psi. Opened well to Baker tank. Pressure gradually bled to 0 psi. Closed well in and hooked up lines for injection.
- 2-4 Pressure in tubing 900 psi. Opened downhole tool. Flowed well to Baker tank. Shot fluid level at 4200' at 6:30 a.m.; 1860' at 9:30 a.m.; 11:00 a.m. fluid had dropped to 2294'. Gas Company was unable to get injection gas to well. Closed tool and bled off lines.
- 2-5 Rigged up to swab well. Swabbed fluid out of well from 4800'-8000'. Rigged down swabbing tools. Opened downhole tool and flowed well to Baker tank; total of 6 bbls. of oil out of well. Stopped flowing well.
- 2-6 Pressure in tubing 500 psi. Shot fluid level at 4836'. Swabbed fluid out of tubing from 4836'-8000', 17 bbls. Attempted to flow well to Baker tank 1-1/2 hours. Swabbed well from 5500'-8000', 8 bbls. Attempted to flow well. Flowed 12 bbls. Total fluid out of well 55 bbls.

1985

- 2-7 Pressure in tubing 500 psi. Swabbed fluid out of well from 4800'-8000'. Opened downhole tool and flowed well to Baker tank 1-1/2 hours. Swabbed from 5000'-8000'. Flowed well to Baker tank - 4 bbls.
- 2-8 Pressure on tubing 650 psi. Flowed well to Baker tank.
- 2-9 Pressure in tubing 850 psi. Fluid level at 7750'. Injected gas down tubing at 2700 psi.
- 2-10 Injected gas down tubing at 2300 psi.
- 2-11 Injected gas down tubing at 2300 psi.
- 2-12 Rig shut down. High winds.
- 2-13 Rig shut down. High winds.
- 2-14 Rigged up logging truck. Pressure in tubing 1275 psi. Ran temperature log from 5000' to 5800'. Tool stopped working. Pulled out and reheaded line, ran temperature log to 8900'. Ran noise log from 8900'-8500', pulled out.
- 2-15 Rig down because of high winds.
- 2-16 Rig down because of high winds.
- 2-18 Rig down because of high winds.
- 2-19 Rigged up logging truck and ran temperature and noise logs from 8900'-5000'. Ran background gamma log for RA. Injected RA material. Tracer showed well leaking. Loaded out Flo-Log. Circulated gas out of well. Released packer, pulling out of well.
- 2-20 Finished pulling out of well. Laid down test tools. Ran in open ended with 160' 2-3/8" tubing tail. Located fill at 8944' and cleaned out to 8959'. Changed drilling line. Circulated polymer fluid out of well with lease salt water. Poured 39 sacks of 8-12 sand down tubing. Located top of sand at 8764'.
- 2-21 Located top of sand at 8764'. Poured four sacks of sand down tubing. Located sand at 8748'. Backscuttled well clean at 8750'. Shut rig down because of high winds.

1985

- 2-22 Pulled out of well. Using bailer, capped sand with cement from 8748'-8737'. Ran full bore retainer with 410' 2-7/8" tubing tail to 8729'. Rigged up pump truck. Attempted to break down with water. Equalized 75 cu.ft. of 12% HCl 3% HF acid. Obtained breakdown of 8 cu.ft./minute at 1600 psi. Pulling out of well.
- 2-23 Finished pulling out of well. Rigged up wireline truck. Ran cement retainer and set at 8678'. Pulling wireline out of well. Lost part of rubber from line wiper down well. Made up reverse circulation junk basket. Ran in to 8678'. Circulated and pulled out of well. Tubing tong broke.
- 2-25 Pulled out with junk basket. Recovered wireline stripper. Ran stinger on 2-7/8" tubing to retainer at 8679'. Pumped away 9 cu.ft./minute at 2900 psi. Preceded by 25 cu.ft. of 6% HCl and 1-1/2% HF acid mixed 57 cu.ft. of Neat "G" cement with 0.5% CFR-2 and 0.6% Halad 9, and displaced 8 cu.ft. of cement out holes at 8729' before reaching 2700 psi final pressure. Pulled out with stinger. Ran 6-1/8" bit on drilling assembly in well.
- 2-26 Drilled on retainer at 8679'. Rig pump failed. Pulled 10 stands and secured rig for repairs.
- 2-27 Finished drilling out retainer at 8679' and drilled out cement to 8740'. Circulated well clean.
- 2-28 Pulled out of well with bit. Ran 7" retrievable retainer to 8500'. Set retainer and pressured holes at 8729'-8730' at 2500 psi. Pressure dropped 500 psi in 10 minutes. Released retainer and started to run retainer deeper in well. Drive line in rig went out. Shut down to repair rig.
- 3-1 Ran retainer to 8729' and spotted 75 cu.ft. of 12% HCl and 3% HF acid at 8729'. Set retainer. Holes would not take fluid. Backscuttled acid from well and pulled out with retainer. Rigged up wireline. Shot eight 1/2" bullet holes from 8723'-8724'. Ran 120' of 2-7/8" tubing tail below 7" retrievable retainer with tail at 8734' and retainer at 8614'. Spotted 75 cu.ft. of 12% HCl and 3% HF acid at 8726'. Set tool and displaced 65 cu.ft. out holes from 8723'-8730' at 6 cu.ft./min. with 3000 psi. Released retainer and started out of well.
- 3-2 Finished pulling out with retrievable retainer. Rigged up wireline. Set 7" cement retainer at 8680'. Ran stinger on 2-7/8" tubing to retainer and pumped away 2 cu.ft./min. at 3000 psi. Preceded by 75 cu.ft. of 6% HCl and 1-1/2% HF acid, mixed 57 cu.ft. of Neat "G" cement and displaced 39 cu.ft. out of holes from 8723'-8730' before reaching 2800 psi final pressure. Released stinger and started out of well.

1985

- 3-4 Finished pulling out of well with stinger. Ran new 6" bit on drilling assembly to 8680'. Drilled retainer and cement to 8735'. Tools fell free to 8740' (cement cap). Circulated well, closed pipe rams and pressured casing to 1400 psi for 30 minutes. Started out of well with bit.
- 3-5 Pulled out of well with 6" bit. Ran 7" retrievable retainer with 121' of tail in well. Set retainer at 8602' and tail at 8723'. Pressure tested with pump truck to 2500 psi for 30 minutes. Released retainer and pulled out of well. Made up 6" bit on drilling assembly and started in well.
- 3-6 Displaced 310 bbls. of lease salt water from well with 310 bbls. of 63#/cu.ft. polymer completion fluid. Drilled out cement cap from 8740'-8750', and cleaned out sand to 8914' (top of liner). Pulled out of well with 6" bit. Ran 4-1/8" bit on 2-7/8" tubing to 8900'.
- 3-7 Cleaned out well from 8914'-9030'. Pulled out with 4-1/8" bit. Ran annulus control 7" test tool on 2-7/8" tubing to 8700'; set tool; pressure tested choke manifold, test tree and all lines at 3000 psi for 20 minutes.
- 3-8 Opened annulus control test tool at 7:00 a.m. Had light blow to surface in 3 minutes. Flowed into Baker tank and swabbed 12 bbls. of fluid from well in 14 hours.
- 3-9 Swabbed tubing to test tool at 8700' and continued flowing well for 18-1/2 bbls. Found sand around swab cups. Made feeler run to bottom and found sand fill at 8940'. Continued swabbing and flowing well for an additional 13 bbls. of fluid (total recovered from well 31-1/2 bbls. for day).
- 3-11 Pressure in tubing zero psi. Swabbing and flowing thick oil to Baker tank from 8600'. Swabbed 15 bbls. out of well. Total fluid out of well 58 bbls.
- 3-12 Pressure in tubing 125 psi. Swabbing and flowing thick oil to Baker tank from 8600'. Swabbed 22 bbls. out of well. Total fluid out of well 80 bbls.
- 3-13 Pressure in tubing 250 psi. Swabbing and flowing thick oil and water to Baker tank from 8600'. Flowed well while splicing sand line. Swabbed well from 8600'. Swabbed 20 bbls. out of well. Total fluid out of well 100 bbls.
- 3-14 Pressure in tubing 150 psi. Ran sand line to 8950' - no fill. Swabbing and flowing well to Baker tank. Swabbed 14 bbls. out. Total fluid out of well 114 bbls.

1985

- 3-15 Injecting gas down tubing at 2000 psi.
- 3-16 Injecting gas down tubing at 2000 psi.
- 3-18 Pressure in tubing 1450 psi. Fluid level at 8855'. Rigged up logging truck. Ran temperature, capacitance and noise log from 8890'-7500'. Pulled out of well. Ran gamma ray background log.
- 3-19 Rigged up logging truck. Ran RA tracer log. Tracer log showed no gas leak in well. Loaded out logging truck. Filled tubing and rat hole with 50 bbls. fluid. Pumped out plug and circulated gas out of well. Released packer and pulled out of well. Laid down tools. Made up 4-1/8" bit, 150' of 2-3/8" tubing and ran in well.
- 3-20 Finished running in well. Cleaned out from 8000'-9030' and circulated gas out of well. Pulled out of well. Rigged up wireline, ran Baker 7" 29# Model "D" packer and set at 8690'. Ran test seals and latch-in-locator. Latched into packer at 8690'. Tested seals and packer to 1500 psi. Pulling out of well.
- 3-21 Finished pulling out of well. Laid down 4-3/4" drill collars and Kelly. Made up production equipment on tubing and hydrotested to 5000 psi. Located packer at 8690'. Latched into packer and pulled 20,000# over weight. Spaced out tubing and landed with 14,000# on packer. Removed BOPE and installed 8" x 5000 psi xmas tree. Pressure tested to 5000 psi. Changed over to inhibited lease salt water.
- 3-22 Installed blind flanges on wellhead valves and line. Laid down rig; tear out, load out rig and cleaned location. Released rig at 10:00 a.m., 3-22-85.

DIVISION OF OIL AND GAS

Report on Operations

J. W. Gourley, Agent  
Southern Calif. Gas Co.  
Box 3249 Terminal Annex, Mail Location 511C Santa Paula, Calif.  
Los Angeles, CA 90051 Jan. 23, 1985

Your operations at well "SFZU" SS-24, API No. 037-00775,  
Sec. 29, T. 3N, R. 16W, SB B. & M. Aliso Cyn Field, in Los Angeles County,  
were witnessed on 1/16/85. M. Kratovil, representative of  
the supervisor, was present from 1800 to 1900. There were also present Ed Bradbury,  
workover foreman

Present condition of well: 11 3/4" cem 1134'; 7" cem 8920', cp 8729', 8730', perf 8755' WSO,  
perf at intervals 8795-8880'; 5" ld 8914-9064', slotted 8923-9064'. TD 9065'.

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

DECISION:

THE BLOWOUT PREVENTION EQUIPMENT AND ITS INSTALLATION ON THE 7" CASING ARE APPROVED.

b

M. G. MEFFERD  
*M. G. Mefferd*

# PERMIT TO CONDUCT WELL OPERATIONS

010

(field code)

00

(area code)

--

(new pool code)

30

(old pool code)

J. W. Gourley, Agent  
Southern California Gas Company  
Box 3249 Terminal Annex, Mail Location 511C  
Los Angeles, CA 90051

Santa Paula, California  
October 16, 1984

Your \_\_\_\_\_ proposal to alter casing well "SFZU" SS-24,  
A.P.I. No. 037-00775, Section 29, T. 3N, R. 16W, S.B. B. & M.,  
Aliso Canyon field, any area, Sesnon pool,  
Los Angeles County, dated 10/5/84, received 10/10/84 has been examined in conjunction with records  
filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

1. Hole fluid of sufficient quality and quantity shall be maintained in the hole to control any subsurface condition, and a reserve supply shall be on hand for emergencies.
2. Blowout prevention equipment of at least DOG Class III 3M A shall be installed and maintained in operating condition at all times.
3. This office shall be consulted before initiating any changes or additions to this proposed operation, or if operations are to be suspended.
4. THIS DIVISION SHALL BE NOTIFIED:
  - a. TO WITNESS a pressure test of the blowout prevention equipment before commencing downhole operations.

Blanket Bond  
MS:ljg

Engineer Michael Stettner

Phone (805) 525-2105

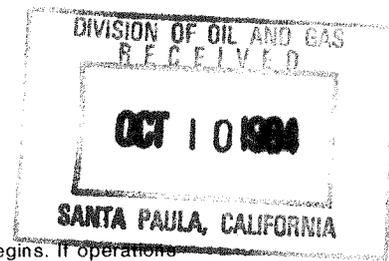
M. G. MEFFERD, State Oil and Gas Supervisor

By Michael Stettner  
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.**

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	
	OGD 114	OGD 121
<i>BB</i>	✓	✓

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 Standard Sesnon #24 "SF20" SS-24, API No. 037-00775  
(Well designation)

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:

- Total depth 9065'
- Complete casing record, including plugs and perforations (present hole)
  - 11-3/4" cemented 1134'
  - 7" cemented 8920', segregation 8905', WSO 8755'  
squeezed with cement 8730' and 8729', perforated 8880' - 8850', 8840' - 8828' and 8819' - 8795'.
  - 150' 5" landed 9064', top 8914', slotted 9064' - 8923'

3. Present producing zone name Sesnon; Zone in which well is to be recompleted \_\_\_\_\_

4. Present zone pressure 2800 psi; New zone pressure \_\_\_\_\_

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

(or)

Last injected \_\_\_\_\_  
(Date) (Water, B/D) (Gas, Mcf/D) (Surface pressure, psig)

6. Is this a critical well according to the definition on the reverse side of this form?  (Yes)  (No)

The proposed work is as follows:

- Move in and rig up. Kill well. Install BOPE and pressure test.
- Pull tubing and recover packer. Set bridge plug at 8650', shoot holes 8615- - 8614' and squeeze with cement. Test and run audio analyzer log.
- Set packer and run tubing. Return well to gas storage service.

Note: If well is to be redrilled, show proposed new bottom-hole coordinates and true vertical depth.

**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 JW Morley 10/5/84  
(Name) (Date)

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

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

DIVISION OF OIL AND GAS  
RECEIVED

FEB 9 1979

**History of Oil or Gas Well**

SANTA PAULA, CALIFORNIA

Operator Southern California Gas Company Field or County Aliso Canyon  
Well Standard Sesnon #24 Sec. 29, T. 3N, R. 16W S.B.B. & M.  
A.P.I. No. 037-00775 Name P.S. Magruder, Jr. Title Agent  
Date December 1, 1978 (Person submitting report) (President, Secretary or Agent)

*P.S.*  
Signature P.S. Magruder, Jr.

P.O. Box 3249, Terminal Annex, Los Angeles, CA 90051 (Address) (213) 689-3561 (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	
<u>1978</u>	<u>MWO 99536</u> (Repair Shoe Leak)
10-13	<u>0 Day</u> Killed well with 320 barrels of 70#/cu.ft. polymer mud.
10-17	<u>0 Day</u> Moving in California Production Service Rig #D-4.
10-18	<u>1st Day</u> Finished rigging up. Circulated gas cut mud. Installed B.O.P.E.
10-19	<u>2nd Day</u> Tested B.O.P.E. with water and nitrogen as per program. Test witnessed and approved by D.O.G. Unlanded 2-7/8" tubing. Circulated gas out of well. Pulling out of well.
10-20	<u>3rd Day</u> Finished pulling out of well. Laid down Camco safety system. Ran in well with Baker packer plucker. Recovered Model "D" Baker packer. Running in well with 6" bit 7" scraper.
10-21	<u>4th Day</u> Cleaned out well to 8914'. Ran in well with Baker Model "N" drillable bridge plug on Welex wireline - set at 8775'. Ran in hole with Baker fullbore - set at 8765'. Tested with 3000# for 20 minutes. Pulling out of well.
10-22	Rig and crew idle.
10-23	<u>5th Day</u> Finished pulling out of well. Ran in well with Baker fullbore and 300' of 2-7/8" tubing tail. Failed to obtain breakdown through old W.S.O. holes at 8755' with 3000 psi. Pulled out of well. Ran in well with wireline and shot

1978      Daily Well Report For Standard Sesnon #24 - Aliso Canyon

10-23      four 1/2" holes at 8730'. Ran in well with Baker fullbore and 300' of 2-7/8" tubing tail.

10-24      6th Day

Tested four 1/2" shot holes at 8730' with 3600 psi. Failed to breakdown. Spotted 50 cu.ft. of 12-1/2 % Hcl and 2-1/2 % Hf acid. Holding 3600 psi. Backscuttled acid.

10-25      7th Day

Spotted 50 cu.ft. of 12-1/2 % Hcl. and 2-1/2 HF acid at 8734'. Pulled out of well. Ran in well with wire line shot four 1/2" holes at 8729'. Obtained breakdown with 2800 psi. Squeezed away 50 sacks of Class "G" cement. Pressure stabilized at 1400 psi after 15 minutes.

10-26      8th Day

Pressured up to 2900 psi - pumped away at 5 cu.ft. per minute. Mixed 50 sacks of Class "G" cement, squeezed away 4 cu.ft., held 3000 psi for four minutes. Released pressure and pulled out of well. Ran in well with six 4-3/4" drill collars, 6" bit and casing scraper and cleaned out to 8720'.

10-27      9th Day

Cleaned out well from 8720' to 8765'. Circulated well clean. Tested perforations at 8729' with 2200 psi for 20 minutes - O.K. Pulled out of well. Ran Audio Analyzer from 8765' to 6700'.

10-28      10th Day

Ran in well to 8775' with Baker plug plucker. Attempted to stab into Baker Model "N" drillable bridge plug - no success. Pulled out of well. Ran in well with 6" Economill, milled plug up and pushed to top of liner at 8914'.

10-29      Rig and crew idle.

10-30      11th Day

Pulled out of well. Ran in well with 4-1/2" Economill and junk sub to 8914'. Milled on junk with no success. Pulled out of well. Ran in well with 4-1/8" Economill and 5' of 3-1/2" O.D. subs and six drill collars.

10-31      12th Day

Milled and pushed junk with 4-1/8" Economill to 8919'. Pulled out of well. Ran in well with 4-1/8" Economill on 2-7/8" tubing. Milled and pushed junk to 9050'. Circulated clean and pulled out of well to 2000'.

11-1      13th Day

Finished pulling out of well. Made up Halliburton production test tool.

1978Daily Well Report For Standard Sesnon #24 - Aliso Canyon

11-1 Ran in well to 8700'. Tubing filled up with fluid - opened backscuttle valve and backscuttled bottoms up. Pulling out of well.

11-2 14th Day

Finished pulling out of well and found one joint of 2-7/8" tubing collapsed. Ran back in well with Halliburton production tester to 8703' with 1000' of cushion. Set packer. Took 30 minute initial flow and 30 minute initial shut-in. Stabilized flow at 430 psi surface pressure thru 1/2" bean. Backscuttled and shut in over night.

11-3 15th Day

Attempted to run Audio Analyzer Log to 8620'. Unable to record Log due to instrument failure.

11-4 16th Day

Ran Audio Analyzer from 8675' to 7900'. Well took 12 barrels of fluid. Pulled out of well. Ran "Retrieva- D" Baker packer with wireline. Set packer at 8700'. Ran in well open-ended to 2000'.

11-5 Rig and crew idle.

11-6 17th Day

Pulled out of well. Made up Baker seal assembly and latch-in locator. Ran in well changing collars. Stabbed into Baker packer at 8700'. Picked up 20,000# over weight of tubing. Closed pipe rams and tested seals and packer with 2000 psi for 20 minutes - O.K. Circulated gas cut completion fluid. Pulled up to 2000'.

11-7 18th Day

Pulled out of well. Ran Baker production tube, Baker Seals (4) and latch-in Locator, Camco 2-7/8" Annular flow safety system. Hydrotested tubing into well with 5000 psi. Stabbed into packer at 8700'. Pulled up 25,000# over weight of tubing to check latch. Set back-pressure valve in doughnut. Landed tubing. Removed B.O.P.E. and installed Xmas tree.

11-8 19th Day

Tested Xmas tree with 5000 psi for 20 minutes. Circulated polymer completion fluid out with waste salt water. Re-tightened bolts. Installed blind flanges on wellhead valves.

RELEASED RIG at 11:00 P.M. on November 8, 1978.

DIVISION OF OIL AND GAS

Report on Operations

Mr. P. S. Magruder, Jr., Agent  
Southern Calif. Gas Co.  
P.O. Box 54799 Terminal Annex  
Los Angeles, CA. 90054

Santa Paula, Calif.  
Oct. 30, 1978

Your operations at well USF201 SS-24, API No. 037-00775, Sec. 29, T. 3W R. 16W  
S.D., B. & M. Aliso Canyon Field, in Los Angeles County, were witnessed  
on 10/19/78 by T.E. Adams, representative of the supervisor, was  
present from 1100 to 1300. There were also present Mr. Lancaster, company foreman.

Present condition of well: No additions to the casing record since proposal dated 10/19/78.

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

DECISION:

THE BLOWOUT PREVENTION EQUIPMENT AND INSTALLATION ARE APPROVED.

b

By M. G. MEYERD  
State Oil and Gas Supervisor  
John L. Hardoin  
Deputy Supervisor  
John L. Hardoin

# REPORT ON PROPOSED OPERATIONS

Santa Paula, California

Oct. 25, 1978

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

Your proposal to alter casing in gas storage well "SFZU" SS-24  
(Name and number)

, A.P.I. No. 037-00775, Section 29, T. 3N, R. 16W

S.B. B. & M., Aliso Canyon field, Los Angeles County,

dated 10/19/78, received 10/23/78, has been examined in conjunction with records filed in this office.

**THE PROPOSAL IS APPROVED PROVIDED THAT:**

1. Hole fluid of sufficient quality and quantity shall be maintained in the hole to control any subsurface condition, and a reserve supply shall be on hand for emergencies.
2. Blowout prevention equipment of at least DOG Class III 3M, shall be installed and maintained in operating condition at all times.
3. THIS DIVISION SHALL BE NOTIFIED TO INSPECT THE INSTALLED BLOWOUT PREVENTION EQUIPMENT BEFORE COMMENCING DOWNHOLE OPERATIONS.

**NOTE: A COPY OF THIS APPROVAL SHALL BE AVAILABLE AT THE WELL SITE DURING THE PROPOSED OPERATIONS.**

Blanket Bond  
MD:b

M. G. MEFFERD  
State Oil and Gas Supervisor

By

*John L. Hardoin*  
Deputy Supervisor

John L. Hardoin

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

**REPORT OF CORRECTION OR CANCELLATION**

Santa Paula California

July 18, 1978

Mr. P. S. Magruder, Jr.  
Southern California Gas Co.  
P. O. Box a54790 Terminal Annex  
Los Angeles, CA 90051

In accordance with the corrected projected section lines on the new  
Division map No. 254

the following change pertaining to your well "SFZU" SS-24 (037-00775),

Aliso Canyon field, Los Angeles County,

Sec. 28, T. 3N, R. 16W, S. B. B. & M., is being made in our records:

The corrected location is Section 29, T. 3N., R. 16W., S.B.B. & M.

The corrected elevation is \_\_\_\_\_

Report No. \_\_\_\_\_, dated \_\_\_\_\_, has been corrected as follows: \_\_\_\_\_

Your notice to \_\_\_\_\_ dated \_\_\_\_\_, (Drill, abandon, etc.) and our report No. P. \_\_\_\_\_, issued in answer thereto, are hereby cancelled inasmuch as the work will not be done. If you have a drilling bond on file covering this notice it will be returned. No request for such return is necessary.

Other: \_\_\_\_\_

FORMS					
MAP	MAP BOOK	CARDS	BOND	114	121
—	—	—	—	—	✓

*E-log Wheel file*  
*EDP*

State Oil and Gas Supervisor

By John L. Hardoin  
John L. Hardoin, Deputy Supervisor

OCT 23 1978

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.

SANTA ANA, CALIFORNIA

FOR DIVISION USE ONLY		
BOND	OGD114	OGD121
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. Standard Sesnon #24, API No. \_\_\_\_\_, Sec. 29, T. 38N, R. 16W, S.B. B. & M., Aliso Canyon Field, Los Angeles County.

The present condition of the well is as follows:

- Total depth. 9065'
- Complete casing record, including plugs and perforations:
  - 11 3/4" C 1134'
  - 7" C 8920', WSO 8905' & 8755'
  - 6 1/2" holes per ft. 8890' - 8850', 8840' - 8828' & 8819' - 8795'
  - 150' 5" L 9064', slotted 9064' - 8923'

- Present producing zone name Sesnon Zone in which well is to be recompleted --
- Present zone pressure 3400 psi New zone pressure --
- Last produced \_\_\_\_\_ (Date) \_\_\_\_\_ (Oil, B/D) \_\_\_\_\_ (Water, B/D) \_\_\_\_\_ (Gas, Mcf/D)  
or
- Last injected \_\_\_\_\_ (Date) \_\_\_\_\_ (Water, B/D) \_\_\_\_\_ (Gas, Mcf) \_\_\_\_\_ (Surface pressure, psig.)

The proposed work is as follows:

- Move in & rig up. Kill well. Install B.O.P.E. & pressure test.
- Pull tubing & recover packer. Set bridge plug 8775'. Squeeze WSO holes at 8755' with cement & pressure test. Run Audio analyzer log to determine gas leakage has stopped. Shoot new holes at 8730' if necessary to squeeze cement away.
- Run packer. Rerun tubing with down hole safety system.
- Return well to gas storage service.

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

Address PO Box 3249 Terminal Annex  
(Street)  
Los Angeles CA, 90051  
(City) (State) (Zip)

Southern California Gas Company  
(Name of Operator)  
By P.S. Magruder, Jr. 10/19/78  
(Name) (Date)

Telephone Number 213-689-3561

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

Work Over Program

DIVISION OF OIL AND GAS  
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SANTA PAULA, CALIFORNIA

Operator: Southern California Gas Company  
Field: Aliso Canyon  
Well: Standard Sesnon #24  
Contractor: California Production Service Rig #D-4  
Location: 2284.11' South and 7499.16' West of Station #84  
Elevation: 2546.32' original derrick floor. Take all measurements from original derrick floor, 6.92' above ground.  
Safety: Hard hats are to be worn by all personnel on or near rig. No smoking is permitted within 100' of the wellhead.

Present conditions:

1 3/4" cemented 1134'  
7" cemented 8920', WSO 8905', WNSO 8755'  
unable squeeze with 5000 psi, WSO by DOG

7" Detail	Burst	Collapse	D.D.
8920' - 414' 29# N-80	8160	7020	6.059"
8414' - 6479' 26# N-80	7240	5410	6.151"
6479' - 4346' 23# N-80	6340	3830	6.241"
4346' - 1807' 23# J-55	4360	3270	6.241"
1807' surface 23# N-80	6340	3830	6.241"

150' 5" 18# N-80 landed 9064', Top 8914'  
slotted 9064' - 8923'  
6 1/2" holes per foot 8890' - 8850', 8840' - 8828' and 8819' - 8795'

Tubing detail:

2 7/8" landed 8763'  
Baker Retrieval - D packer 8730'  
Baker seals, production tube, latch-in-locator,  
Camco 2 7/8" annular flow safety system with  
10' and 20' heavy wall tubes, 1.81" "D" nipple,  
Camco MM mandrel. All wire line equipment removed.

Program:

1. Move in and rig up California Production Service rig #D-4 with Baker tank.
2. Using Dowell Services kill well with 70#/cu.ft. sodium chloride - HEC polymer completion fluid provided by professional drilling fluid services. Pump down tubing at 3 bbls/min. and bleed gas through casing kill line to gas company system. Contact Aliso Canyon shift supervisor one day in advance for assistance. Volume of well = 360 bbls
3. Set back pressure valve in doughnut and remove Xmas tree.
4. Install H & H oil tool 8", Class III, 5000 psi B.O.P.E. Equipment to include GK Hydril and double gate, both hydraulically operated with 1500 psi 80-gallon accumulator, auxiliary nitrogen and dual control stations. Also install 5000 psi choke manifold with discharges to gas company kill system and Baker tank. Use new API rings on any untested B.O.P.E. connection. Do NOT use hoses.
5. Pressure test blind rams, pipe rams and choke manifold to 4000 psi with water and nitrogen. Pressure test Hydril bag to 3000 psi with water and nitrogen. The Division of Oil and Gas to be given sufficient notice of B.O.P.E. testing to allow a witness to be present.
6. Remove back pressure valve and unland tubing. Release from Baker packer by pulling 3000# to 5000# over weight of tubing reported as 50,000# and rotating 14 turns to the right at the packer. Use Baker serviceman for assistance if necessary.
7. Pull tubing and lay down Baker and Camco production equipment. Baker and Camco to clean, inspect, pressure test and repair respective equipment as necessary for reuse in this well.
8. Pick up six 4 3/4" drill collars and run Baker retrieving tool. Using Baker serviceman recover 7" Retrieva-D packer from 8730'. Send packer to Baker for repairs to reuse in this well.
9. Run 6" bit and casing scraper clean out to top of 5" liner at 8914'.
10. Using reference collars at 8708', 8753', 8795', 8829', 8875' and top of liner 8912' run Baker model "N" drillable bridge plug on Wellex wire line and set at 8775'. Use attached Neutron lifetime logs run July 5, 1973, for above reference collars.

Program - cont'd.

11. Run Baker full bore, retainer and set at 8765'. Pressure test Model "N" bridge plug to 3000 psi.
12. Rerun Baker full bore with 300' of 2 7/8" tubing tail. Obtain breakdown through old WSO holes at 8755', do not exceed 3000 psi. Use Dowell pump truck. If holes at 8755' will not breakdown shoot 4 1/2" holes at 8730' using reference collars.
13. Hang tubing tail at approximately 8765' equalize no more than 50 sacks of Class "G" cement with 1% D-65 using fresh water ahead and behind cement. Pull a minimum of six doubles and backscuttle a minimum of 350 cu.ft. Set fullbore and squeeze away cement but do not exceed 3000 psi; use Dowell services.
14. Run 6" bit and casing scraper with six - 4 3/4" drill collars. Let cement set a minimum of 16 hours. Drill out cement and clean out to bridge plug at 8765'. Circulate clear.
15. Close pipe rams and test squeezed perforations at 2200 psi for 20 minutes with Dowell pump truck. If holes take fluid resqueeze and repressure test until holes will hold pressure.
16. Run triangle Audio analyzer to determine if gas leakage has stopped. If log still indicates gas leakage and unable to breakdown holes, shoot 4 1/2" holes at 8729', resqueeze, retest and relog until gas leakage has stopped.
17. Run economill with six 4 3/4" drill collars and drill out Model "N" bridge plug at 8765'. Run 4 1/8" bit and casing scraper on tubing and clean out to 9064'.
18. Run Lynes 4 way testing tools with 3 recorders and backscuttle valve. Set packer near 8700' and make production test. Take 30 minute initial flow and 30 minute initial shut-in. Flow well 12 - 15 hrs. to gas company system - Notify Aliso Canyon supervisor for assistance during test - record surface pressures and gas flow rates. Open backscuttle valve and fill tubing with drilling fluid. Leave well shut-in overnight. Pull tester.
19. Rerun Triangle Audio analyzer to determine that gas leakage is not occurring. If gas is leaking - set bridge plug, squeeze, pressure test and rerun Audio analyzer log until gas leakage has stopped.

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Program - cont'd.DIVISION OF OIL AND GAS  
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SANTA PAULA, CALIFORNIA

20. Using welex wire line and refernce collars set Baker Retrieva-D packer and set near 8700' but do not set packer in a collar. Reuse packer recovered from the well if same can be repaired and reused.
21. Run Baker dummy seal assembly and latch in locator. Change collars, clean pins and apply Baker seal while running in well. Use N-80 collars on N-80, use either N-80 or J-55 collars on J-55 tubing. Stab into packer at 8700' and pickup 20,000# over weight of tubing to check latch. Close pipe rams and pressure annulus to 2000 psi for 20 minutes to test seals and packer. Keep tubing full and observe any tubing returns during test.
22. Run 2 7/8" 6.5# 8rd EUE J-55 and N-80 tubing. Clean pins on doubles, apply Baker seal and Hydrotest tubing to 5000 psi holding each pressure test for one minute.

Tubing to include:

Baker Production tube  
 Baker 4 seals  
 Baker Latch-in-locator  
 Camco 10' heavy wall tube - 2 7/8" threads  
 Camco 1.81" "D" nipple w/ 2 7/8" threads  
 Camco 20' heavy wall tube - 2 7/8" threads  
 Camco 2 7/8" annular flow safety system  
 One joint 2 7/8" tubing  
 Camco gas lift mandrel with pump out plug in place

Note: Run the 30 joints of N-80 tubing on top as was in the well - balance J-55 tubing.

23. Space out and land tubing on packer with up to a maximum of 10,000# on packer. Pull 20,000# over weight of tubing to check latch.
24. Set back pressure valve in doughnut. Remove B.O.P.E. and install Xmas tree. Pressure test Xmas tree to 5000 psi for 20 minutes.
25. Circulate polymer completion fluid out of well with waste salt water. Tighten all wellhead bolts. Check all well valves closed. Install bind flanges on all wellhead valves. Release rig.

GCA/kab

(G.A.)  
 G. C. Abrahamson  
 October 6, 1978

CC:

Standard Sesnon #24

Aliso Canyon

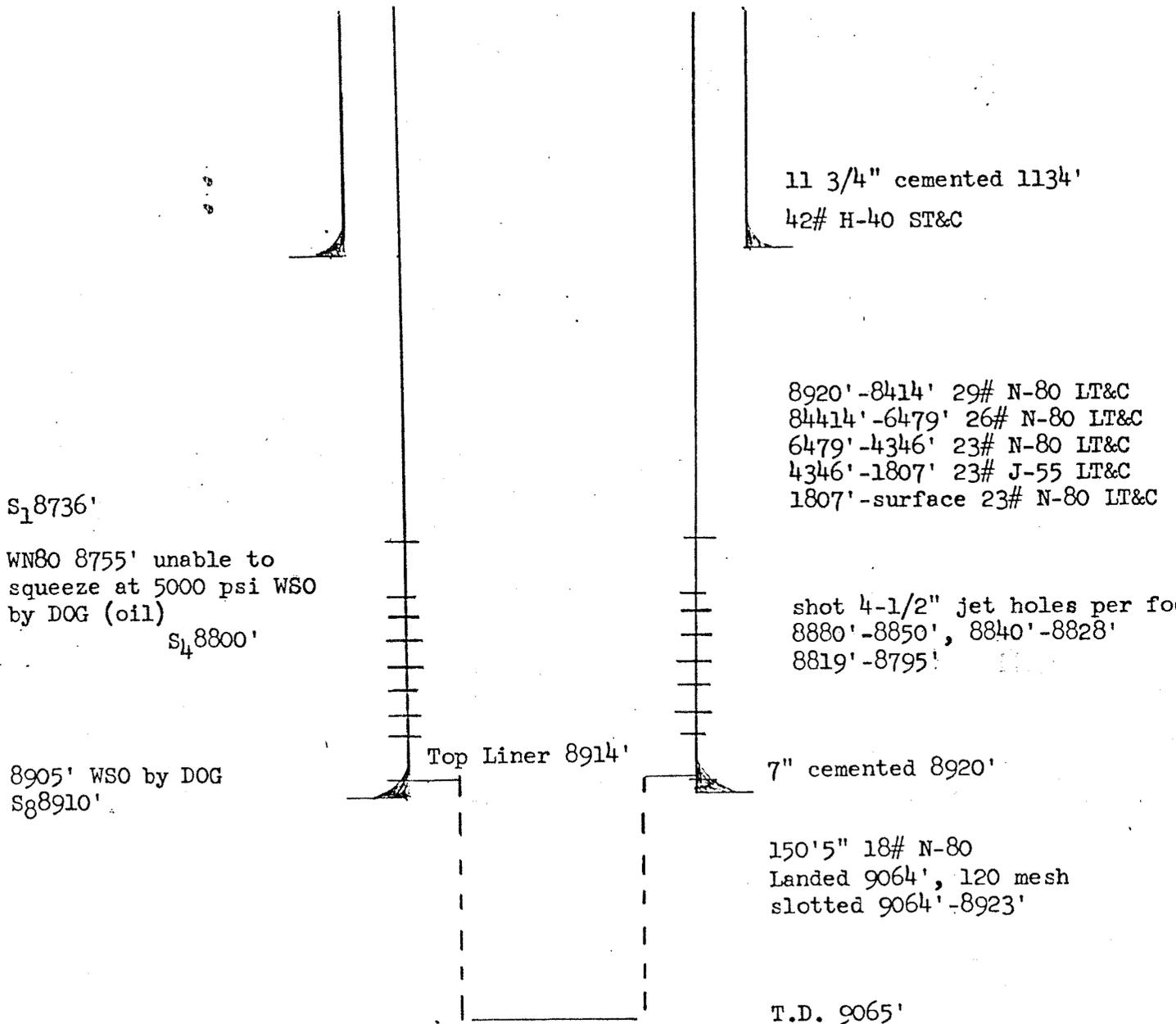
Location: 2284.11' South and 7499.16' West of Station #84

Elevation: 2546.32' original derrick floor. Take all measurements from original derrick floor, 6.92' above ground.

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SANTA PAULA, CALIFORNIA



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

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 SANTA PAULA, CALIFORNIA

**History of Oil or Gas Well**

Operator SOUTHERN CALIFORNIA GAS COMPANY Field or County Aliso Canyon  
 Well name and No. STANDARD SESNON #24, Sec. 28, T 3N, R 16W, S. B. & M.  
 A.P.I. well No. 037-00770 Name P. S. Magruder, Jr. Title Agent  
 Date September 22, 1977 (Person submitting report) (President, Secretary or Agent)

Signature *P.S. Magruder, Jr.*

P. O. Box 3249, Terminal Annex, Los Angeles, California 90051 (213) 689-3561  
 (Address) (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    |  |
| 8-13-77 | Moved from S.S. #17 to S.S. #24 (C.P.S. Rig #M-28). Started rigging up. Circulated well for two hours. Removed Christmas tree and installed Class III 5000 psi B.O.P.E. Tested blind rams with 4000 psi using water for 20 minutes. Tested Hydril with 3000 psi using water for 20 minutes. The pipe rams would not hold pressure.   |
| 8-14-77 | Rig and crew idle.   |
| 8-15-77 | Installed New 2 7/8" pipe rams in B.O.P.E. and made final water test. 4000 psi 20 minutes - O.K. Made the following nitrogen test.   |
|         | Blind rams 4000 psi - 20 MINUTES - O.K.  |
|         | Pipe " " " " " - O.K.  |
|         | Hydril 3000 " " " - O.K.   |
|         | Removed back pressure valve from doughnut and attempted to pull Otis Hydrostatic packers with no success. Using McCullough free point indicator. Could not get below 8701'.  |
| 8-16-77 | Using Archer-Reed Wireline, attempted to pull Otis choke from X-nipple at 8701' but would not come out. Released tools from choke and adapted McCullough wireline to Archer-Reed. Pulled tools and retrieved choke from nipple. Using McCullough, free pointed and made chemical cut in tubing at 8881' (15' above bottom hydrostatic packer). Started out of hole with tubing and top packer. |
| 8-17-77 | Finished pulling out of well. Recovered five Camco gas lift mandrels, two 2.313" Otis sliding sleeves, one Otis 2.313" X-nipple and top Otis hydraulic packer. Made up 5 3/16" washover shoe on 2 7/8" tubing and cleaned out to 8896'...top of Otis packer.   |
| 8-18-77 | Finished pulling out of hole with washover shoe. Ran Fishing assembly using four 4 3/4" drill collars, bumper sub and 2 7/8" Bowen overshot. Recovered Otis packer from 8897' and tubing. Made up 6" bit and casing scraper with float valve and cleaned out to 8905'.   |

- 8-19-77 Finished pulling 6" bit and casing scraper out of well. Ran 4 1/8" bit and casing scraper to 9039' top of fill. Drilled out sand and hard asphalt fill to 9064'.
- 8-20-77 Finished pulling out of hole. Ran Halliburton Lok-Set bridge plug to 8870'. Set and pressure tested to 1500 psi. Displaced polymer drilling fluid with fresh water treated with surface tension agent. Pulled tubing out of well. Ran Halliburton RTTS retrievable retainer to 4000'.
- 8-21-77 Rig and crew iddle.
- 8-22-77 Using Halliburton calibrated pressure chart and pressure gauge, made the following tests:
- |       |    |         |    |          |     |            |
|-------|----|---------|----|----------|-----|------------|
| 4000' | to | 8770'   | at | 2500 psi | for | 60 minutes |
| 4000' | to | Surface | at | 2600 psi | for | 60 minutes |
| 3500' | "  | "       | "  | 2800 psi | "   | 60 "       |
| 3000' | "  | "       | "  | 3500 psi | "   | 60 "       |
| 1700' | "  | "       | "  | 4000 psi | "   | 60 "       |
- All above test O.K.
- Pulled Halliburton retrievable retainer out of well. Ran tubing in hole to break off collars. Attempted to break collars off 14 joints of tubing, galling the threads on all joints. Unable to removed collars.
- 8-23-77 Displaced fresh water from well with 71# polymer mud. Laid down 8810' of 2 7/8" tubing because collars could not be removed. Unloaded 8400' of used tubing from Pico Rivera and started in hole, breaking collars off the pins, cleaning same, Baker sealing pins and installing inspected collars. Laid down 29 joints of bad tubing.
- 8-24-77 Finished changing out tubing collars. Released Halliburton retrievable bridge plug and started out of well.
- 8-25-77 Finished pulling Halliburton bridge plug out of well. Ran Baker 7" Retrieva-"D" packer on GO-International electric line to 8730' and set. Made up Baker production tube, anchor seal assembly, Camco 2 7/8" x 10' blast joint, Camco 2 7/8" x 1.81" NO-GO nipple, Camco 2 7/8" x 20' blast joint and tested to 5000 psi for one minute. Started in hole testing tubing at 5000 psi for one minute. Landed and spaced out tubing, pulled 25,000# over weight of tubing to check latch 75,000# total; 50,000# = tubing weight; landed with 8000# on packer.
- 8-26-77 Installed plug in doughnut. Removed sub base. Removed B.O.P.E. Installed and pressure tested tree and doughnut to 4000 psi, 1 hour. Displaced polymer mud with lease water. Ran blanking plug to Camco NO-GO nipple and pressure tested packer 2000 psi - 20 minutes. Released rig.

DIVISION OF OIL AND GAS

Report on Operations

No. T 277-212

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

Santa Ana, Calif.  
Aug. 26, 1977

DEAR SIR:

Operations at well No. "SFZU" SS-24, API No. 037-00770, Sec. 28, T. 3N, R. 16W,  
S.B., B & M. Aliso Canyon Field, in Los Angeles County, were witnessed  
on 8/16/77. Mr. P.R. Wygle, representative of the supervisor was  
present from 0900 to 1000. There were also present R. Bradbury, foreman

Present condition of well: No additions to the casing record since proposal dated  
7/30/77.

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

DECISION:

**THE BLOWOUT PREVENTION EQUIPMENT AND INSTALLATION ARE APPROVED.**

b

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

By John L. Gordon Deputy

PW

# REPORT ON PROPOSED OPERATIONS

Santa Paula, California

Aug. 8, 1977

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

Your proposal to rework gas storage well "SFZU" SS-24  
(Name and number)

, A.P.I. No. 037-0077, Section 28, T. 3N, R. 16W

S.B. B. & M., Aliso Canyon field, Los Angeles County,

dated 7-30-77, received 8-4-77, 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, 3M 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.

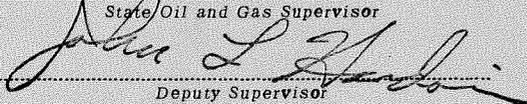
NOTE: A COPY OF THIS APPROVAL SHALL BE POSTED AT THE WELL SITE PRIOR TO COMMENCING OPERATIONS.

Blanket Bond  
MD:b

M. G. MEFFERD

State Oil and Gas Supervisor

By



Deputy Supervisor

John L. Hardoin

DIVISION OF OIL AND GAS  
RECEIVED

AUG 4 1977

### DIVISION OF OIL AND GAS Notice of Intention to Rework Well

SANTA ANA, CALIFORNIA

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	
	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. STANDARD SESNON #24, API No. \_\_\_\_\_, Sec. 29, T3N, R. 16W, S.B.B. & M., Aliso Canyon Field, Los Angeles County.

The present condition of the well is as follows:

- Total depth. 9064'
- Complete casing record, including plugs and perforations:
  - 11 3/4" cemented 1134'
  - 7" " 8920', WSO 8755' - segregation 8905'
  - Perforated 8880' - 8795'
  - 150'5" landed 9064', top 8714'
  - Slotted 9823' - 9064'

- Present producing zone name Sesnon Zone in which well is to be recompleted --
- Present zone pressure 3600 New zone pressure --
- Last produced \_\_\_\_\_ (Date) Gas Storage Well (Oil, B/D) \_\_\_\_\_ (Water, B/D) \_\_\_\_\_ (Gas, Mcf/D)  
or
- Last injected \_\_\_\_\_ (Date) \_\_\_\_\_ (Water, B/D) \_\_\_\_\_ (Gas, Mcf) \_\_\_\_\_ (Surface pressure, psig.)

The proposed work is as follows:

- Move in and R.U. Kill well. Install and pressure test.
- Pull tubing and packers. Clean out to 9764'.
- Set bridge plug at 8770' and pressure test 7" casing.
- Perform any remedial work indicated by pressure testing.
- Run packer and tubing with down hole safety system.
- Return well to gas storage operations.

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.  
(Name) (Date) 7-30-77  
Type of Organization Corporation  
(Corporation, Partnership, Individual, etc.)

STANDARD SESNON #24 - ALISO CANYON

Program to replace packer, pressure test casing and install new down hole safety system.

CASING WITHDRAWAL AND INJECTION

Take all measurements from original derrick floor 6.92' above ground.

PRESENT CONDITIONS:

11 3/4" cemented 1134' 42# H-40  
7" cemented 8920', WSO 8755'  
Segregation 8905'  
Perforated 8880' - 8795'  
150' 5" landed 9064', top 8914'  
Slotted 8923' - 9064', 18# N-80

7" CASING DETAIL

0 - 1807' 23# N-80  
1807' - 4346' 23# J-55  
4346' - 6479' 23# N-80  
5479' - 8414' 26# N-80  
8414' - 8920' 29# N-80

	<u>100% Safety Factor</u>	
	<u>BURST</u>	<u>COLLAPSE</u>
	6340	4300
	4360	3290
	6340	4300
	7240	5320
	8160	6370

TUBING DETAIL:

Otis hydrostatic packer 8897' 7"  
Otis hydrostatic packer 8736' 7"  
2 7/8" 8rd EUE J-55 landed 8900'  
Otis XN nipple 8898'  
Otis sliding sleeve 2 7/8" 8862 (open)  
Otis X nipple 8702'  
Otis sliding sleeve 2 7/8" 8670 (open)  
Five Camco gas lift mandrels with valves

PROGRAM:

1. Move in and rig up. Pressure test wellhead seals.
2. Kill well with 72#/cu. ft. brine polymer drilling fluid. Check bottom hole pressure before moving in rig. Volume of well = 360 barrels.
3. Set back pressure valve in doughnut. Remove Xmas tree and install class III 5000 psi BOPE. Pressure test complete shut off rams and pipe rams to 4000 psi with water and nitrogen. Also pressure test Hydril bag to 3000 psi with water and nitrogen. Use float valve.
4. Unseat both hydrostatic packers and pull tubing - do not exceed 90,000# pull. If necessary run free point and chemical tubing cutter to free packers.

5. Run 6" bit and casing scraper. Clean out to top of 5" liner at 8914'. Run 4 1/8" bit and casing scraper. Clean out to 9064'. Note amount and type of fill.
6. Set bridge plug at 8770' and test with rig pump. Circulate out polymer drilling fluid with fresh water treated with surface tension agent. Pressure test casing using cement retainer and cement pump truck equipped with calibrated pressure chart and pressure gauge, as follows:

4000' to 8900'	with 2500 psi for 60 minutes
4000' " Surface	" 2600 psi " 60 "
3500' " "	" 2800 psi " 60 "
3000' " "	" 3500 psi " 60 "
1700' " "	" 4000 psi " 60 "

Change to polymer drilling fluid.

7. Perform any remedial work indicated by pressure testing. Pull bridge plug from 8770'.
8. Run Baker Retrieval-"D" 7" packer on wireline and using reference collars set packer near 8730'. Do NOT set packer in a collar.
9. Run 2 7/8" tubing, change collars, clean pins, apply Baker Seal and hydrotest to 5000 psi holding each test for one minute.  
Tubing to include:

Baker Production Tube  
Baker Seals (4)  
Baker Latch-in Locator  
Camco 10' Heavy Wall Tube  
Camco 1.81" NO-GO Nipple with 2 7/8" threads  
Camco 20' Heavy Wall Tube  
Camco Annular Flow Safety System 2 7/8"  
One joint 2 7/8" Tubing  
Camco Gas Lift Mandrel (EMPTY)  
800' of 2 7/8" N-80 8rd EUE Tubing on top

10. Land tubing on packer with up to a maximum weight of 10,000#. Pull up 25,000# over weight of tubing to check latch.

Standard Sesnon #24 - Aliso Canyon

PROGRAM: (Concluded)

11. Set back pressure valve in doughnut. Remove BOPE and reinstall Xmas tree. Pressure test Xmas tree to 5000 psi.
  
12. Circulate brine polymer drilling fluid out of well with waste salt water. Set tubing plug in "NOGO" nipple and pressure test seals and packer to 2000 psi. Remove tubing plug and release rig.

G. C. ABRAHAMSON  
January 6, 1977  
(Revised July 25, 1977)

cc: Rig Supervisor  
Contract Pusher (2)  
Relief Rig Supervisor

Division of Oil & Gas ✓

B. Jones  
D. Smiley  
J. Melton  
D. Justice )  
M. Grijalva )

Well File  
Book Copy  
Spare Copy

## STANDARD SESNON #24

## TUBING DETAIL

<u>No.</u>	<u>Jts.</u>	<u>Item</u>	<u>Length</u>	<u>Depth</u>
		K. B. to mat	6.92	
		Mat to tubing head	2.00	
		2-7/8" EU 8 thd. donut & fatigue nipple	1.25	
169		2-7/8" EU 8 thd. J-55 tubing	5191.14	
		2-7/8" EU 8 thd. N-80 pup jt.	4.02	5205.33
		2-7/8" Camco KBMG mandrel w/1/4" port BK valve 1050#	8.05	5213.38
29		2-7/8" EU 8 thd. J-55 tubing	868.59	
		2-7/8" EU 8 thd. N-80 pup jt.	4.07	6086.04
		2-7/8" Camco KBMG mandrel w/1/4" port BK valve 1025#	8.05	6094.09
28		2-7/8" EU 8 thd. J-55 tubing	855.23	
		2-7/8" EU 8 thd. N-80 pup jt.	4.06	6953.38
		2-7/8" Camco KBMG mandrel w/1/4" port BK valve 1000#	8.05	6961.43
29		2-7/8" EU 8 thd. J-55 tubing	887.52	
		2-7/8" EU 8 thd. N-80 pup jt.	4.07	7853.02
		2-7/8" Camco KBMG mandrel w/1/4" port BK valve 975#	8.03	7861.05
25		2-7/8" EU 8 thd. J-55 tubing	762.10	
		2-7/8" EU 8 thd. N-80 pup jt.	4.05	8627.20
		2-7/8" Camco mandrel w/1/4" port BK valve 950#	8.00	8635.20
1		2-7/8" EU 8 thd. J-55 tubing	31.24	
		2-7/8" x 2.313" Otis sliding sleeve	3.20	8669.64
1		2-7/8" EU 8 thd. J-55 tubing	31.25	
		2-7/8" x 2.313" Otis X landing nipple	1.05	8701.94
1		2-7/8" EU 8 thd. J-55 tubing	30.02	
		2-7/8" x 7" 29# Otis Hydrostatic set packer	4.28	8736.24
4		2-7/8" EU 8 thd. J-55 tubing	122.07	
		2-7/8" x 2.313" Otis sliding sleeve	3.20	8861.51
1		2-7/8" EU 8 thd. J-55 tubing	30.80	
		2-7/8" x 7" 29# Otis Hydrostatic set packer	4.28	8896.59
		2-7/8" x 2.313" XN landing nipple, 2.205 No-Go	1.17	8897.76
		2-7/8" EU 8 thd. N-80 pup jt.	2.00	8899.76

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

REPORT ON PROPOSED OPERATIONS No. P 276-204

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

Santa Paula, Calif.  
June 21, 1976

DEAR SIR:

Your proposal to rework gas storage Well No. "SFZU" SS-24  
Section 28, T. 3N, R. 16W, S.B. B. & M., Aliso Canyon Field, Los Angeles County,  
dated 6/16/76, received 6/17/76, 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 E. MATTHEWS, Jr., State Oil and Gas Supervisor

By M. J. Maffei Chief, Deputy

RESOURCES AGENCY OF CALIFORNIA  
DEPARTMENT OF CONSERVATION

## DIVISION OF OIL AND GAS

## History of Oil or Gas Well

OPERATOR Pacific Lighting Service Company FIELD Aliso CanyonWell No. SS-24, Sec. 28, T. 3N, R. 16W, S.B. B. & M.Date August 20, 19 73Signed P. S. Magruder, Jr.P. O. Box 54790, Terminal AnnexLos Angeles, California 90054 (213) 689-3561Title Agent

(Address)

(Telephone Number)

(President, Secretary or Agent)

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

Date									
1973									
7-2	Moved in California Production service rig, pump and shaker tank at 9:30 AM. Rigged up and circulated well with 330 barrels brine-polymer workover fluid, first 60 barrels with 50 lb/bbl carbonates. Installed and tested Class III B.O.P.E.								
7-3	Filled hole with 3 barrels, but tubing gassy. Opened valve on KV-30 packer and circulated out all gas. Pulled tubing and packers. Ran 7" scraper to 7240'.								
7-4	Hole standing full. Checked top of 5" liner at 8912' with scraper. Circulated bottoms up, no gas, no mud loss. Ran 4-1/8" bit, 5" scraper and wire brush. Hit top of fill at 9049'. Wire brushed 5" perfs. Circulated out fill from 9049' and checked bottom at 9060'.								
7-5	Pulled bit and scraper. Ran Dresser-Atlas CBL, NLL, CDL and CNL logs.								
7-6	Set 7" bridge plug at 8780'. Tested plug and 7" casing from 8780' to surface at 1600 psi for 30 minutes--Ok. Pulled tubing and shut down until Monday, 7-9-73.								
7-9	Ran 7" packer and pressure tested 7" casing, as below, all for 20 minutes--Ok.								
	<table border="0"> <tr> <td>4017' to 8780'</td> <td>1800 psi</td> </tr> <tr> <td>4017' to surface</td> <td>2200 psi</td> </tr> <tr> <td>2998' to surface</td> <td>2600 psi</td> </tr> <tr> <td>2008' to surface</td> <td>3100 psi</td> </tr> </table>	4017' to 8780'	1800 psi	4017' to surface	2200 psi	2998' to surface	2600 psi	2008' to surface	3100 psi
4017' to 8780'	1800 psi								
4017' to surface	2200 psi								
2998' to surface	2600 psi								
2008' to surface	3100 psi								
	Removed B.O.P.E. and tubing head. Unlanded 7" casing with 185,000 pounds. Cut off old 11-3/4" casing head.								
7-10	Dug out 13" of concrete cellar floor. Prepared 11-3/4" casing for welding. Shut-down at 1:30 PM, waiting on new casing head.								

SS-24 History (Cont'd)

Page 2

1973

- 7-11 Installed 11-3/4" casing head by making butt weld in 11-3/4" casing. X-rayed weld--Ok. Relanded 7" casing with 196,000 pounds. Shut down at 4:00 PM until 6:00 AM, 9-13-73, waiting for delivery of tubing head.
- 7-13 Installed tubing head and tested seals to 3800 psi for 20 minutes--Ok. Re-installed and tested B.O.P.E. Started pulling bridge plug from 8780' but plug came loose and dropped back to 6000' two times.
- 7-14 Retrieved bridge plug. Ran completion tubing, testing to 5000 psi. Changed over to lease salt water.
- 7-15 Idle.
- 7-16 Ran Otis XN plug and set in nipple at 8898'. Pressured tubing and set packers. Tested top packer at 1500 psi--Ok. Removed B.O.P.E. Installed and tested production head at 3400 psi for 20 minutes--Ok. Moved out and released rig at 5:00 PM.

NOTE: The Sesnon Zone was not jet perforated, as proposed in the Notice of Intention to Alter Casing, dated June 5, 1973.

## STANDARD SESNON #24

## TUBING DETAIL

<u>No. Jts.</u>	<u>Item</u>	<u>Length</u>	<u>Depth</u>
	K. B. to mat	6.92	
	Mat to tubing head	2.00	
169	2-7/8" EU 8 thd. donut & fatigue nipple	1.25	
	2-7/8" EU 8 thd. J-55 tubing	5191.14	
	2-7/8" EU 8 thd. N-80 pup jt.	4.02	5205.33
29	2-7/8" Camco KBMG mandrel w/1/4" port BK valve 1050#	8.05	5213.38
	2-7/8" EU 8 thd. J-55 tubing	868.59	
	2-7/8" EU 8 thd. N-80 pup jt.	4.07	6086.04
28	2-7/8" Camco KBMG mandrel w/1/4" port BK valve 1025#	8.05	6094.09
	2-7/8" EU 8 thd. J-55 tubing	855.23	
	2-7/8" EU 8 thd. N-80 pup jt.	4.06	6953.38
29	2-7/8" Camco KBMG mandrel w/1/4" port BK valve 1000#	8.05	6961.43
	2-7/8" EU 8 thd. J-55 tubing	887.52	
	2-7/8" EU 8 thd. N-80 pup jt.	4.07	7853.02
25	2-7/8" Camco KBMG mandrel w/1/4" port BK valve 975#	8.03	7861.05
	2-7/8" EU 8 thd. J-55 tubing	762.10	
	2-7/8" EU 8 thd. N-80 pup jt.	4.05	8627.20
	2-7/8" Camco mandrel w/1/4" port BK valve 950#	8.00	8635.20
1	2-7/8" EU 8 thd. J-55 tubing	31.24	
	2-7/8" x 2.313" Otis sliding sleeve	3.20	8669.64
1	2-7/8" EU 8 thd. J-55 tubing	31.25	
	2-7/8" x 2.313" Otis X landing nipple	1.05	8701.94
1	2-7/8" EU 8 thd. J-55 tubing	30.02	
	2-7/8" x 7" 29# Otis Hydrostatic set packer	4.28	8736.24
4	2-7/8" EU 8 thd. J-55 tubing	122.07	
	2-7/8" x 2.313" Otis sliding sleeve	3.20	8861.51
1	2-7/8" EU 8 thd. J-55 tubing	30.80	
	2-7/8" x 7" 29# Otis Hydrostatic set packer	4.28	8896.59
	2-7/8" x 2.313" XN landing nipple, 2.205 No-Go	1.17	8897.76
	2-7/8" EU 8 thd. N-80 pup jt.	2.00	8899.76

## DIVISION OF OIL AND GAS

REPORT ON PROPOSED OPERATIONS No. P 273-252

Mr. P. S. Magruder, Jr.  
Pacific Lighting Service Co.  
P O Box 54790, Terminal Annex  
Los Angeles, California 90054

Santa Paula Calif.  
June 13, 1973

DEAR SIR:

Your proposal to alter casing Well No. (037-00770) "SFZU" SS-24,  
 Section 28, T. 3N, R. 16W, S.B B. & M., Aliso Canyon Field, Los Angeles County,  
 dated 6/5/73, received 6/11/73, has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT ADEQUATE BLOWOUT PREVENTION EQUIPMENT SHALL BE  
 INSTALLED AND MAINTAINED IN OPERATING CONDITION AT ALL TIMES.

Blanket Bond  
 DER:a  
 cc: Operator

JOHN F. MATTHEWS, JR., State Oil and Gas Supervisor

By LOP Riggs, Deputy

DIVISION OF OIL AND GAS

JUN 11 1973

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

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

SANTA PAULA, CALIFORNIA

Los Angeles

Calif.

June 5,

19 73

DIVISION OF OIL AND GAS

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of deepening, redrilling, plugging or altering casing at Well No. SFZU SS 24

(Cross out unnecessary words)

, Sec. 28

, 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. 9065'

2. Complete casing record, including plugs:

- 11-3/4", 42#, c. 1134'
7", 23, 26, 29# c. 8920'
WSO 4 h's 8755'\*
Seg. 4 h's 8904'
cmtd 4 h's 8905'
J.P. 6 HPF 8795'-8819', 8828'-8840'
8850'-8880'
159' - 5", 18#, L 9064'
Perf: 8923'-9064' (120M, 2" slots, 12 rows, 6" c.)
TLH 8905'

\* Witnessed & approved by D.O.G.

3. Last produced.

(Date)

(Oil, B/D)

(Water, B/D)

(Gas, Mcf/D)

The proposed work is as follows:

Jet perforate 4 holes per foot and/or
reperforate 2 holes per foot in the Sesnon Zone to convert well to a gas storage well. 8798-9064

Table with columns: MAP, MAP, Casing, and FORMS (116, 921). Includes handwritten signature 'BB' and checkmarks.

P. O. Box 54790, Terminal Annex
Los Angeles, California 90054

(Address)

(213) 689-3561

(Telephone No.)

Pacific Lighting Service Company

(Name of Operator)

By P. S. Magruder, Jr. - Agent

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 23, 1968

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

DEAR SIR:

Your request dated letter dated August 26, 1968, relative to change in designation of well(s) in Sec. 28, 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:

See attached list.

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

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

By *Wm. C. Bailey*  
Deputy Supervisor

Proposed Changes in Designation

Sec. 28:

<u>Old Designation</u>		<u>New Designation</u>
"Standard-Sesnon 1"	1	"SFZU" SS-1 (037-00754)
"	2	" SS-2 (037-00755)
"	3	" SS-3 (037-00756)
"	5	" SS-5 (037-00758)
"	6	" SS-6 (037-00759)
"	7	" SS-7 (037-00760)
"	8	" SS-8 (037-00761)
"	9	" SS-9 (037-00762)
"	11	" SS-11 (037-00763)
"	13	" SS-13 (037-00765)
"	14	" SS-14 (037-00766)
"	16	" SS-16 (037-00768)
"	17	" SS-17 (037-00769)
"	24	" SS-24 (037-00770)
"	25	" SS-25 (037-00776)
"	29	" SS-29 (037-00041)
"	30	" SS-30 (037-00780)
"	31	" SS-31 (037-00781)
"	44	" SS-44 (037-00788)

Sec. 29:

<u>Old Designation</u>		<u>New Designation</u>
"Standard-Sesnon 1"	4	"SFZU" SS-4 (037-00757)
"	10	" SS-10 (037-00040)
"	12	" SS-12 (037-00764)

SFZU 55-24

DIVISION OF OIL AND GAS

WELL SUMMARY REPORT

FEB 29 1956

SUBMIT IN DUPLICATE 11

LOS ANGELES, CALIFORNIA

Operator TIDE WATER ASSOCIATED OIL CO.

Well No. Standard-Season 1 - #24

Sec. 28, T. 3 N, R. 16 W, S. B. B. & M. ALISO CANYON Field Los Angeles County.

Location 2284.11' South and 7499.16' West from Station #81

(Give location from property or section corner, or street center lines)

Elevation of ground above sea level 2539.40 feet

All depth measurements taken from top of derrick floor which is 6.92 feet above ground.  
(Derrick Floor, Rotary Table or Kelly Bushing)

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

Date February 3, 1956

Signed Thomas E. Weaver

R. M. Burns  
(Engineer or Geologist)

W. D. Goold  
(Superintendent)

Title T. E. Weaver, Agent  
(President, Secretary or Agent)

Commenced Rework drilling 10-12-55  
Completed Rework drilling 10-23-55

GEOLOGICAL MARKERS

DEPTH

Total depth 9065' Plugged depth \_\_\_\_\_

Junk \_\_\_\_\_

Geologic age at total depth: Miocene

Recompleted  
Commenced producing 10-25-55  
(Date)

Flowing gas lift/pumping  
(Cross out unnecessary words)

Name of producing zone Season

10-27-55 Initial production  
Production after 30 days

Clean Oil bbl. per day	Gravity Clean Oil	Per Cent Water including emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pressure
39	21.2	45.0	374	450#	2050#
56	21.2	25.0	208	300#	2250#

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 Drilled	Number of Sacks of Cement	Depth of Cementing if through perforation
11 3/4"	1134	0	42#	New	Seamless	N-40	15"	435	
7"	8920	0	23, 26, 29	"	"	N-80, J-55	10-5/8"	600	
5"	9064	8914	18#	"	"	N-80	6-1/8"		

PERFORATED CASING

(Size, top, bottom, perforated intervals, size and spacing of perforation and method.)

5" casing, perf. from 8923'-9064', 120 Mesh, 2" Slots, 12 Rows, 6" centers 6" Undercut by Pacific  
7" casing, perf. from 8795'-8819', 8828'-8840', 8850'-8880', Jet P: 6 Holes/ft by McCullough

## DIVISION OF OIL AND GAS

FEB 29 1956

## History of Oil or Gas Well

LOS ANGELES, CALIFORNIA

OPERATOR WIDE WATER ASSOCIATED OIL COMPANY FIELD ALISO CANYONWell No. Standard-Season 1-#24, Sec 28, T. 3 N, R. 16 W, S. B. B. & M.Date \_\_\_\_\_, 19\_\_\_\_ Signed Thomas P. WeaverFebruary 3, 1956Title T. P. Weaver, Agent

(Address)

(Telephone Number)

(President, Secretary or Agent)

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

Date

1955

- 10/12 Filled well with salt water. Pulled packer loose. Tore out Christmas tree. Found liner bridged 8' below top of perforations (8931').
- 10/13 Installed blowout preventor. Circulated salt water. Pulled tubing and packer.
- 10/14 Made up and measured in 2-7/8" drill-tubing. Found sand fill from 9038'-9062'. Cleaned out to bottom of liner (9064') and circulated hole clean.
- 10/15 Ran Bowen cutter and cut 5" liner at 8914'. Ran Bowen spear and recovered 9.09' of 5" 18# liner and liner hanger.
- 10/16 Broke down fishing tools. Ran Baash-Ross slipon type adaptor and set on top of 5" stub at 8914'. Ran tubing to 9062' and spotted 6 barrels Ken Pak on bottom. Pulled tubing to 8914' and backscuttled an estimated 2 barrels of Ken Pak.
- 10/17 Ran bit and scraper to 8914'. Ran Baker Model "K" bridging plug and set at 8910'. Ran Baker Model "K" cement retainer and set at 8885'. Applied pressure and formation broke down at 1600# with circulation in annulus, indicating communication between segregation holes at 8905' and perforations at 8880'. Mixed 30 sacks Colton Hi-temp. cement and with rams closed, displaced 23 sacks below retainer. Final pressure 3000#. Backed off retainer and backscuttled an estimated 25 sacks. Time 5:40 AM (10-18-55). B.J. Service.
- 10/18 Ran bit and scraper with junk bowl and drilled out retainer at 8885'. Cleaned out to 8895'. Drilled out hard cement from 8895' to 8910'.
- 10/19 Ran Baker retrievable retainer and set at 8888'. Pressure tested interval 8888'-8910' with 1500# for 15 minutes. Pulled retainer. Segregation 8904'; Ran Johnston combination gun and tester on 2-7/8" drill-tubing with 2000' water cushion and shot four jet holes at 8904'. Set packer at 8886'. Opened tester at 6:00 PM. Had faint blow for 2 min. then dead for balance of one hour test. Recovered 30' net rise of hole fluid. Pressure bomb charts confirmed results of test.
- 10/20 Ran 1-1/8" bit, scraper and junk bowl and drilled out retainer at 8910'. Changed from salt water to oil and cleaned out very viscous Ken Pak from 8910' to 9064'. Pulled out of liner. Changed from oil to salt water.
- 10/21 Ran M & T circulating washer to top of liner. Changed from salt water to oil. Washed perforations in 5" liner from 8923'-9064'. Washed twice all perforations open. Pulled out of liner. Changed from oil to salt water.
- 10/22 Laid down 2-7/8" drill-tubing. Ran 2-7/8" tubing with KV-30 packer and set at 8894'. Pressured annulus and had circulation through tubing. Reset packer but would not hold. Pulled and replaced packer and set at 8896'. Pressured annulus and had circulation through tubing. Pulled packer into blank 7" casing and set at 8720'. Pressured annulus and had circulation through tubing, indicating hole in tubing.

OPERATOR: TIDE WATER ASSOCIATED OIL COMPANY  
 WELL NO.: Standard-Sesnon 1-#24, Aliso Canyon Field

1955

10/23 Hydrotested tubing and found one split joint, five leaking collars and 2-7/8" choke leaking. Changed to 2" choke with swedges. Reran tubing and set packer at 8898' with 12,000#. Pressure tested annulus with 1500# for one hour without circulation. Pulled blank choke and hooked up Christmas tree.

10/24 Started swabbing at 10:00 AM. In 20 hours swabbed 165 barrels circulating salt water. 700# casing pressure. Fluid level 2500'.

10/25 Swabbed 140 barrels circulating salt water in 9 hours. Well started flowing by heads at 3:30 PM. Installed 5/64" bottom hole choke which killed well. Swabbed an additional 60 barrels and well started flowing at 6:30 AM 10-26-55 through a 16/64" surface bean. Tubing pressure 900#; casing pressure 2100#.

10/26 In 24 hours well flowed 60 barrels gross, 33 barrels net, 45.0% cut, 5/64" bottom hole choke, 16/64" surface bean, 425/ 2050#, estimated 200 MCF. Released C.P.S. at 10:00 AM. Moving out.

10/27 In 24 hours well flowed as follows:

	Gross	Net	Wet Gravity	Cut	Bean	Tubing Pressure	Casing Pressure	MCF Gas	GOR
	71	39	(5/64" choke)	45.0%	16/64"	450#	2050#	374	939
10/28	7	4	" "	45.0%	10/64"	450#	2050#	400	1000
	Flowed 7 hours. Shut in at 2:00 PM due to excessive GOR.								
10/29	Shut in - high GOR.								
10/30	Shut in. Excessive GOR. Preparing to replace 5/64" choke with 3/64" choke.								
10/31	Pulled 5/64" bottom hole choke and replaced with 3/64" choke. In 19 hours well flowed:								
	44	22	15.6	50.0%	15/64"	250#	2200#	156	7100
11/1	65	40	16.8	38.0%	18/64"	225#	2200#	172	4300
	Changed from 15/64" to 18/64" bean at 11:00 AM.								
11/2	75	44	16.8	41.0%	24/64"	200#	2200#	182	4137
	Changed from 18/64" to 24/64" bean at 12:00 Noon.								
11/3	81	39	16.8	52.0%	24/64"	100#	2200#	195	5000
11/4	66	51		23.0%	13/64"	400#	2200#	198	3887
	Changed from 24/64" to 13/64" bean at 9:00 AM								
11/5	65	44		25.0%	13/64"	350#	2200#	196	4000
11/6	59	44		25.0%	13/64"	350#	2200#	197	4447
11/7	65	39	40.	40.0%	13/64"	350#	2200#	200	5129
11/8	82	57		31.0%	16/64"	250#	2200#	214	3754
	Changed from 13/64" to 16/64" bean at 9:00 AM								
11/9	70	52		26.0%	16/64"	250#	2200#	224	4118
11/10	76	55	21.2 (dry)	28.0%	16/64"	250#	2250#	227	4127
11/11	70	54	21.2	23.0%	16/64"	250#	2250#	218	4037
11/12	75	56	21.2	25.0%	16/64"	250#	2250#	217	3875
11/13	76	56	21.2	26.0%	16/64"	250#	2250#	212	3736
11/14	71	53	21.2	26.0%	16/64"	250#	2250#	213	4019
11/15	76	50	21.2	28.0%	16/64"	250#	2250#	212	4240
11/16	76	55	21.2	28.0%	16/64"	250#	2250#	222	4036
11/17	75	54	21.2	28.0%	16/64"	250#	2250#	212	3926
11/18	71	53	21.2	25.0%	16/64"	250#	2250#	235	4434
11/19	70	51	21.2	27.0%	16/64"	250#	2250#	222	4353
11/20	71	51	21.2	27.0%	16/64"	250#	2250#	202	3961
11/21	70	50	21.2	27.0%	16/64"	250#	2250#	193	3860
11/22	71	52	21.2	27.0%	16/64"	250#	2250#	198	3808
11/23	71	52	21.2	27.0%	16/64"	250#	2250#	202	3875

FEB 29 1956

LOS ANGELES, CALIFORNIA

OPERATOR: TIDE WATER ASSOCIATED OIL COMPANY

WELL NO.: Standard-Sesnon 1-#24, Aliso Canyon Field

Page 3

<u>1955</u>	<u>Gross</u>	<u>Net</u>	<u>Cut</u>	<u>Gravity</u>	<u>Bean</u>	<u>Tubing Pressure</u>	<u>Casing Pressure</u>	<u>MCF Gas</u>	<u>GOR</u>
11/24	71	54	24.0%	21.2	16/64"	300#	2250#	205	3796
11/25	75	56	25.0%	21.2	16/64"	300#	2250#	208	3714
11/26	71	54	24.0%	21.2	16/64"	300#	2250#	218	4037
11/27	70	52	25.5%	21.2	16/64"	300#	2250#	219	4212
11/28	76	56	26.0%	21.2	16/64"	300#	2250#	221	3946
11/29	70	53	24.3%	21.2	16/64"	300#	2250#	211	3981
11/30	70	53	25.0%	21.2	16/64"	300#	2250#	207	3887

CASING RECORD

11-3/4" 12# C 1134'  
 7" 23, 26, 29# C 8920' 4 H 8904' & 8755' C.P. 8905'  
 6 H/F 8880'-8850';  
 8810'-8828'; 8819'-8795'  
 149' 5" 18# L 9064' inc. 111' Pfs. Top 8914'

TUBING RECORD

2-7/8" H w/pkr @ 8898'

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

No. P 155-1540

Mr. Thomas E Weaver  
Box Y  
Los Nietos California  
Agent for TIDE WATER ASSOCIATED OIL COLos Angeles 15  
September 29 Calif.  
19 55

DEAR SIR:

Your ..... proposal to alter casing Well No. "Standard Sesnon 1" 24,  
Section 28, T. 3 N, R. 16 W, S B B. & M., Aliso Canyon Field, Los Angeles County,  
dated Sept. 27 19 55, received Sept. 28 19 55, has been examined in conjunction with records filed in this office.

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

**THE NOTICE STATES****"The present condition of the well is as follows:**

1. Total depth. 9065'
2. Complete casing record.
 

11-3/4" 42#	C 1134'	
7" 23, 26, 29#	C 8920'	WSO 8755' 4 H 8905' Pr. 8795'-8819'; 8828'-8840'; 8850'-8880'
158' 5" 18#	L 9064'	Pr. 8923'-9064' Top 8905'.
3. Last produced. 

June, 1955	38	21.7	6.0%
(Date)	(Net Oil)	(Gravity)	(Cut)"

**PROPOSAL****"The proposed work is as follows:**

1. Cut and recover 5" liner from 8914' and set adaptor on top of 5" stub.
2. Fill 5" liner with Ken Pak and set bridge plug at 8910' in 7" casing.
3. Squeeze cement segregation holes at 8905', and pressure test.
4. When holes hold pressure, shoot four holes at 8904' and retest for segregation. Squeeze cement, if necessary.
5. Drill out bridge plug and clean out liner to bottom.
6. Wash perforations in 5" liner.
7. Run packer on 2-1/2" tubing and set at approximately 8897'. Test effectiveness of packer and complete well."

**DECISION****THE PROPOSAL IS APPROVED.**

FEK:OH

cc F W Hertel  
R S Curl  
R M Burns (2)

E. H. MUSSER, State Oil and Gas Supervisor

By R. N. Halling, Deputy

STATE OF CALIFORNIA  
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS  
RECEIVED

SEP 28 1955

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

Los Nietos Calif. Sept. 27 19 55

DIVISION OF OIL AND GAS

MAP	MAP BOOK	CARDS	BOND	FORMS	
				114	121

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. Standard-Sanson 1-#24

Sec. 28, T. 3 N, R. 16 W, S. B. B. & M. Field, Los Angeles County.

The present condition of the well is as follows:

- Total depth. 9065'
- Complete casing record.

11-3/4"	42#	C	1134'		
7"	23, 26, 29#	C	8920'	WSO 8755'	4 W 8905'
				Pf. 8795'-8819';	8828'-8840';
				8850'-8880'	
158'	5"	18#	L 9064'	Pf. 8923'-9064'	Top 8905'

3. Last produced. June, 1955 (Date) 38 (Net Oil) 21.7 (Gravity) 6.0% (Cut)

The proposed work is as follows:

1. Cut and recover 5" liner from 8914' and set adaptor on top of 5" stub.
2. Fill 5" liner with Ken Pak and set bridge plug at 8910' in 7" casing.
3. Squeeze cement segregation holes at 8905', and pressure test.
4. When holes hold pressure, shoot four holes at 8904' and retest for segregation. Squeeze cement, if necessary.
5. Drill out bridge plug and clean out liner to bottom.
6. Wash perforations in 5" liner.
7. Run packer on 2-1/2" tubing and set at approximately 8897'. Test effectiveness of packer and complete well.

TIDE WATER ASSOCIATED OIL COMPANY  
(Name of Operator)

By Thomas E. Weaver  
T. E. Weaver, Agent

DIVISION OF OIL AND GAS

JUN 17 1953

WELL SUMMARY REPORT

LOS ANGELES, CALIFORNIA

Operator TIDE WATER ASSOCIATED OIL COMPANY Field ALISO CANYON  
Well No. Standard-Season 11424 Sec. 20, T. 3 N, R. 16 W, S. B. B. & M.  
Location 2204.11' S & 7199.16' W from Station #31 Elevation above sea level 2539.40 feet.  
All depth measurements taken from top of derrick floor, which is 6.92 feet above ground.

In compliance with the provisions of Chapter 93, Statutes of 1939, 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 May 1, 1953 Signed \_\_\_\_\_  
W. T. Perkon (Engineer or Geologist) R. S. Guel (Superintendent) Title Agent (President, Secretary or Agent)

Commenced drilling Feb. 7, 1953 Completed drilling April 11, 1953 Drilling tools Cable Rotary  
Total depth 9065' Plugged depth \_\_\_\_\_ GEOLOGICAL MARKERS \_\_\_\_\_ DEPTH \_\_\_\_\_  
Junk \_\_\_\_\_

Commenced producing April 15, 1953 Flowing/gas lift/pumping  
(date) (cross out unnecessary words)

4/27/53  
Initial production  
4/29/53  
Production after 30 days:

Clean Oil bbl. per day	Gravity Clean Oil	Per Cent Water including emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pressure
450	21.3	3.0%	232	400#	250#
309	21.2	1.0%	295	650#	2100#

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 Drilled	Number of Sacks of Cement	Depth of Cementing if through perforations
11-3/4"	1134'	0'	42#	New	Seamless	N-10	15"	435	-
7"	8920'	0'	23,26,29#	New	Seamless	N-80, J-55	10-5/8"	600	
5"	9061'	8905'	18#	New	Seamless	N-80	6-1/8"		

PERFORATIONS

Size of Casing	From	To	Size of Perforations	Number of Rows	Distance Between Centers	Method of Perforations
5"	8923 ft.	9061 ft.	120 mesh, 2" slots	12	6"	6° Undercut - Pacific
7"	8795 ft.	8819 ft.	Jet Pfl: 6 holes/ft.			McCullough
7"	8828 ft.	8840 ft.	Jet Pfl: 6 holes/ft.			McCullough
7"	8850 ft.	8880 ft.	Jet Pfl: 6 holes/ft.			McCullough

Electrical Log Depths 1134 to 9060' (Attach Copy of Log)

DIVISION OF OIL AND GAS

JUN 17 1953

LOS ANGELES, CALIFORNIA

History of Oil or Gas Well

OPERATOR TIDE WATER ASSOCIATED OIL COMPANY FIELD ALISO CANYON

Well No. "Standard-Resnon #1424", Sec. 28, T. 3 N, R. 16 W, S. 4, B. & M.

Signed J. C. Foster

Date June 9, 1953 Title Agent  
(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

LOCATION: 2281.11' South and 7199.16' West of Station #84

ELEVATION: 2539.40' Mat  
2546.32' Derrick Floor

1953

- 1/15-2/2 Ggraded rig site, dug rat hole for conductor pipe, dug cellar, built foundation forms, poured foundation concrete, erected derrick, built casing racks.
- 2/3-2/6 Moved in and rigged up rotary equipment.
- 2/7 Spudded 10-5/8" hole at 12:00 Noon and drilled to 167'.
- 2/8-2/12 Drilled 10-5/8" hole from 167' to 2455'.
- 2/13-2/14 Opened 10-5/8" hole to 15" from surface to 1135'. Reamed 15" hole from surface to 750'.
- 2/15 Reamed 15" hole from 750' to 1135'. Ran and cemented 11-3/4" 42# T & C, H-10, Youngstown casing at 1134' with 355 sacks Colton construction cement mixed with 355 cu. feet of Strata-Crete and 1/2 Gal. Pressure increased from 200-800# when plugs bumped. No cement returns to surface. Time 7:15 PM. B.J. Service. Pumped in 80 sacks of cement on outside of casing.
- 2/16 Installed cellar connections and tested with 750# pressure for 30 minutes. Located top of cement at 1129' and cleaned out stringers of cement to 1175'. Circulated and cleaned out to 2455'.
- 2/17-3/4 Drilled 10-5/8" hole from 2455' to 5816'. Lost circulation while drilling at 5816'. Regained after 16 hours, using hulls and gel.
- 3/5-3/12 Drilled 10-5/8" hole from 5816' to 7007'. Lost circulation while drilling at 7000'. Regained after 8 hours with hulls and gel.
- 3/13-3/17 Drilled 10-5/8" hole from 7007' to 7796'. Converted to carbonox oil emulsion mud.
- 3/18-4/1 Drilled 10-5/8" hole from 7796' to 8925'. Ran Schlumberger electric log and took sidewall samples.
- 4/2 Ran and cemented 7" 23, 26 & 29# casing at 8920' with 600 sacks Colton Hi-temperature cement. Pressure increased from 1000-1500# when plugs bumped. Time 9:00 PM. Had no circulation while mixing or displacing cement. Casing detail is as follows:

Bottom	506'	29#	N-80
	1935'	26#	N-80
	2133'	23#	N-80
	2539'	23#	J-55
Balance		23#	N-80

All long T & C Japanese end Youngstown casing. First and fourth joint of casing equipped with two centralizers each.

JUN 17 1953

OPERATOR: TIDE WATER ASSOCIATED OIL COMPANY

WELL NO.: "Standard-Sesnon #1-24, Aliso Canyon Field

LOS ANGELES, CALIFORNIA Page 2

1953

4/3 Standing cemented. Landed casing. Laid down 4-1/2" drill pipe.  
 4/4 Made up 2-7/8" drill pipe.  
 4/5 Located top of cement at 8475'. Cleaned out cement to 8910'.  
 4/6 Ran combination Johnston tester and gun on 2-7/8" drill pipe with 800' of water cushion. Shot 4 holes at 8905' and set packer at 8845'. Opened tester at 2:20 PM. Had one puff, then dead. Opened equalizing valve 4 times during 1 hour test without further blow. Pulled tester and recovered 100' of drilling mud. Pressure bomb charts indicated test O.K. Test of water shutoff not witnessed by Division of Oil and Gas. Ran combination Johnston tester and gun on 2-7/8" drill pipe with 800' of water cushion. Shot 4 holes at 8755' and set packer at 8721'.  
 4/7 Opened tester at 12:15 AM. Had a fair blow, diminishing to a weak blow at end of 1 hour and 5 minute test. Had gas to surface in 10 minutes. Pulled tester and recovered 72 stands (6550') of new fluid consisting of clean oil, most of which blew out of drill pipe while pulling. Sample 7 stands from bottom cut 1% emulsion; 1% water and 6.8% mud. Sample from drill collar cut 1% emulsion; 1% water and 5.8% mud. Test of water shutoff witnessed and approved by Division of Oil and Gas. Made up tubing to re-cement.  
 4/8 Ran Baker Model "K" retainer on 2-1/2" tubing and set at 8695'. Applied 5000# pressure to holes at 8755' but formation would not break down. Time 12:00 Midnight.  
 4/9 Drilled up Baker retainer at 8695'. Drilled out cement from 8910' to 8925' and drilled ahead with 6-1/8" bit to 8950'.  
 4/10 Drilled 6-1/8" hole from 8950' to 9065'. Ran Schlumberger electric log at 9060'.  
 4/11 Reamed 6-1/8" hole. Ran 158' of 5" inserted liner including 141' of perforated and landed at 9064'. 5" liner is 18#, N-80. Top of liner hanger 8905'. Perforations are 120 mesh, 12 rows, 2" slots, 6" centers with 6° undercut. Ran McCullough jet perforator and shot 6 holes per foot from 8880' to 8850'; 8840' to 8828'; 8819' to 8795'.  
 4/12 Ran bit and scraper to 8905'. Ran 2-1/2" upset 8 Rd. Thd. tubing with Guiberson #KV-30 slip type packer with 2-1/2" Otis choke above packer and set at 8897'. Installed Christmas tree.  
 4/13 Installed Christmas tree and circulated out mud with oil. Rigged up to swab.  
 4/14 Swabbed daylight tour only. Recovered 150 barrels, all circulating oil. Fluid level 1250'. Laid down drill pipe.  
 4/15 Swabbed and well started flowing at 7:00 AM. In 23 hours well flowed 360 barrels gross fluid, of which 160 barrels is circulating oil and 200 barrels formation oil; cut 3.0%; 21.0 gravity; 2 1/2" bean; 300# tubing pressure; 0# casing pressure; 12 1/2 MCF gas.

	<u>Gross</u>	<u>Net</u>	<u>Cut</u>	<u>Gravity</u>	<u>Bean</u>	<u>Tubing Pressure</u>	<u>Casing Pressure</u>	<u>MCF Gas</u>
4/16	303	295	2.4%	21.3	2 1/2"	300#	0#	112
4/17	463	450	3.0%	20.7	2 1/2"	400#	250#	232
4/18	481	474	1.5%	21.4	2 1/2"	400#	525#	250
4/19	587	576	2.0%	21.2	2 1/2"	400#	700#	402
4/20	644	633	1.8%	21.4	2 1/2"	475#	1075#	440
4/21	Installed Otis choke at 12:00 Noon. Well producing soley from Lower Zone. In 22 hours well flowed;							
	519	509	1.9%	21.4	2 1/2"	450#	1550#	311
4/22	652	639	2.0%	21.4	2 1/2"	750#	575#	450
	Shut in tubing. Opened casing. Producing from Upper Sesnon Zone.							

OPERATOR: TIDE WATER ASSOCIATED OIL COMPANY

JUN 17 1953

WELL NO.: Standard-Sesnon #1-24, Aliso Canyon Field

Page 3

LOS ANGELES, CALIFORNIA

1953	Gross	Net	Cut	Gravity	Bean	Tubing Pressure	Casing Pressure	MCF Gas
4/23	In 24 hours well flowed through casing from Upper Sesnon Zone as follows:							
	762	754	1.1%	20.6	24/64	640#	1140#	700
4/24	In 7 hours well flowed through casing from Upper Sesnon Zone as follows:							
	268	264	1.7%	21.7				
	Shut in casing and opened tubing and in 17 hours well flowed from Lower Zone:							
	257	256	0.4%	20.5	24/64	350#	1050#	400
4/25	374	370	1.1%	20.6	17/64	550#	1700#	276
4/26	330	328	0.8%	21.2	16/64	725#	2075#	295
4/27	340	333	2.0%	21.2	16/64	650#	2075#	295
4/28	309	306	1.0%	21.2	15/64	675#	2100#	267
4/29	309	306	1.0%	21.2	15/64	650#	2100#	251
4/30	292	289	1.0%	21.2	15/64	650#	2100#	261
5/1	301	298	1.0%	21.2	15/64	650#	2100#	265
5/2	306	303	1.0%	21.2	15/64	650#	2100#	268
5/3	309	306	1.0%	21.2	15/64	650#	2100#	280
5/4	303	300	1.0%	21.2	15/64	675#	2100#	274
5/5	309	306	1.0%	21.2	15/64	775#	2100#	291
5/6	300	297	1.0%	21.2	15/64	775#	2100#	284
5/7	325	322	1.0%	21.2	15/64	700#	2100#	282
5/8	325	322	1.0%	21.2	15/64	700#	2100#	284
5/9	299	296	1.0%	21.2	15/64	700#	2100#	292
5/10	291	288	1.0%	21.2	15/64	700#	2100#	292
5/11	301	298	1.0%	21.2	15/64	700#	2100#	299
5/12	359	355	1.0%	21.2	15/64	700#	2100#	288
5/13	308	305	1.0%	21.2	15/64	700#	2100#	294

CASING RECORD

11-3/4" 42# C 1134'  
 7" 23, 26 & 29# C 8920' 4 H 8905' & 8755'  
 6 H/F 8880'-8850';  
 8840'-8828'; 8819'-8795'.  
 158' 5" 18# L 9064' inc. 141' pfs. Top 8905'.

TUBING RECORD

2-1/2" Upset w/pkr L 8897' & Otis Choke above packer.

STATE OF CALIFORNIA  
DEPARTMENT OF NATURAL RESOURCES

## DIVISION OF OIL AND GAS

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

No. T 153-460

Mr F C Foster

Los Angeles

XX Box "Y"

Calif. April 17 19 53

Los Nietos Calif.

Agent for TIDE WATER ASSOCIATED OIL CO

DEAR SIR:

Your well No. "Standard-Sesnon 1" 24, Sec. 28-28, T. 3 N, R. 16 W, S. B B & M.  
Aliso Canyon Field, in Los Angeles County, was tested for water shut-off  
on April 7, 19 53. Mr. Paul Betts, Inspector, designated by the supervisor,  
was present as prescribed in Secs. 3222 and 3223, Ch. 93, Stat. 1939; there were also present John Boyyer, Engineer;  
W Herrian, Drilling Foreman

Shut-off data: 7 in. 23, 26, 29b. casing was cemented xxx at 8920 ft.  
on April 2, 19 53 in. 10-5/8 in. hole with 600 sacks of cement  
xxx of which 79 sacks was left in casing.

Casing record of well: 11-3/4" cem. 1135'; 7" cem. 8920'; 4, 1/2" test holes at 8925'; 4,  
1/2" test holes at 8905', W.S.O. 8905

Present depth 8925 ft. Bridged with cement from 8920 ft. to 8915 ft. Cleaned out to 8915 ft. for test.  
A pressure of 2500 lb. was applied to the inside of casing for 30 min. without loss after cleaning out to 8915 ft.  
A Johnston gun and tester was run into the hole on 2-7/8" ~~in~~ drill pipe ~~casing~~  
with 800 ft. of water-mud cushion, and packer set at 8721 ft. with tailpiece to 8744 ft.  
Tester valve, with 3/8 in. bean, was opened at 12:15 a.m. and remained  
open for 1 hr. and 5 min. During this interval there was a fair to weak blow for 1 hour and  
5 minutes. Gas to the surface in 10 minutes.

THE INSPECTOR ARRIVED AT THE WELL AT 4:30 A.M. AND MR BOYER REPORTED THE FOLLOWING:

1. A 10-5/8" rotary hole was drilled 1135' to 8925'.
2. Electrical log readings showed the top of the upper Sesnon zone at 8797'.
3. The 7" casing was shot-perforated with 4, 1/2" holes at 8925'. 8905
4. The above perforations tested dry by company test.
5. The 7" casing was shot-perforated with 4, 1/2" holes at 8905'. 8755

THE INSPECTOR NOTED THE FOLLOWING:

1. When the drill pipe was removed, a net rise of 6550' of oil was found in the drill pipe above the tester, equivalent to 30 bbl.
2. The recording pressure bomb chart showed that the tester valve was open 1 hour and 5 minutes.

The test was completed at 6:00 a.m.

THE 7" SHUT-OFF AT 8905' IS APPROVED.

cc T L Wark  
Jos Jensen  
Wm E Perkes

FB:ES

B  
G

R. D. BUSH, State Oil and Gas Supervisor

By E. H. Messer, Deputy

STATE OF CALIFORNIA  
DEPARTMENT OF NATURAL RESOURCES

**DIVISION OF OIL AND GAS**

**Special Report on Operations Witnessed**

No. T 153-267

Los Angeles Calif. March 3 1953  
 Mr. F C Foster  
 Los Nietos Calif.  
 Agent for TIDE WATER ASSOCIATED OIL CO

DEAR SIR: "Standard-Sesnon 1" 29  
 Operations at your well No. 24 Sec. 28, T. 3 N., R. 16 W., S. B. B. & M.,  
 Aliso Canyon Field, in Los Angeles County, were witnessed by  
 J F Matthews, Inspector, representative of the supervisor,  
 on February 18, 1953. There was also present W Herianing, Drilling Foreman  
 F Wollverton, Driller  
 Casing Record 11-3/4" cem. 1135'; T.D. 2766' Junk None

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

The inspector arrived at the well at 4:35 p.m. and Mr. Herianing reported:

1. A 15" rotary hole was drilled from surface to 1135'.
2. On February 15, 1953, 11-3/4" 42 lb. casing was cemented at 1135' with 350 sacks of cement and 88 sacks of Stratacrete.
3. Eighty sacks of cement was pumped into the annulus through a 1" pipe hung at 80'.
4. A 10-5/8" rotary hole was drilled 1135' to 2766'.

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. The controls for the equipment were located outside the derrick.
3. A 2" mud fill-up line with a 2" high pressure stopcock into the 11-3/4" casing below the equipment.
4. A high pressure 6" stopcock on the kelly.

The inspection was completed at 4:50 p.m.

THE BLOWOUT PREVENTION EQUIPMENT AND INSTALLATION ARE APPROVED.

cc T L Wark  
 Jos Jensen  
 Wm E Perkes

w/B

JFM:ES

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  
REPORT ON PROPOSED OPERATIONS

No. P 153-157

Los Angeles 15 Calif. February 3 19 53

Mr. F C Foster  
Box Y  
LOS NIETOS Calif.

121

Agent for TIDE WATER ASSOCIATED OIL CO

DEAR SIR:

"Standard-Sesnon 1"

Your 29 proposal to drill Well No. 24

Section 28-28, T. 3 N, R. 16 W, S. B B. & M., Aliso Canyon Field, Los Angeles County,

dated Jan 27 19 53, received Jan 28 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:

THE NOTICE STATES

"Location of Well: 2284.11 feet South 7499.16 feet West at right angles to said line from Station #84

Elevation of ground above sea level approx. 2540 feet Mat datum

All depth measurements taken from top of Derrick Floor which is 6.92 feet above ground.

PROPOSAL

"PROPOSED CASING PROGRAM

Size of Casing

Inches A.P.I.	Weight	Grade and Type	Top	Bottom	Cementing Depths
11-3/4"	42#	H-40, T & G	0'	1000'	1000'
7"	23, 26, 29	J-55, N-80 T & G	0'	8950'	8950'
5"	18#	J-55, F.J.	8925'	9100'	

Intended zone or zones of completion: Sesnon Zone

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

DECISION

THE PROPOSAL IS APPROVED PROVIDED THAT

1. Blowout prevention equipment, sufficient to provide a complete close-in of the well under pressure at any time, shall be installed and approved by this division.
2. Any hole to be sidetracked in any oil or gas zone shall be filled with cement, if possible.
3. 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.

ERMA:OH

M/B

cc Wm E Perkes (2)

T L Wark  
c/o Tide Water Associated Oil Co  
79 New Montgomery St  
San Francisco California

R. D. BUSH

State Oil and Gas Supervisor -

Joe Jensen

By

*E. Amusser*

Deputy

STATE OF CALIFORNIA  
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS  
RECEIVED

13

JAN 28 1953

LOS ANGELES, CALIFORNIA

DIVISION OF OIL AND GAS

Notice of Intention to Drill New Well

This notice and surety bond must be filed before drilling begins

~~037-00770~~  
037-00775

Los Nietos Calif. January 27 1953

DIVISION OF OIL AND GAS

In compliance with Section 3203, Division III, Article 4, Public Resources Code, notice is hereby given that it is our intention to commence the work of drilling well No. ~~Standard-Season 1~~ <sup>"</sup> ~~1-24~~ <sup>"</sup> ~~28~~ <sup>29</sup>, T. 3 N.

R. 16 W, S. 2. B. & M., ~~Aliso Canyon~~ Field, Los Angeles County.

Legal description of lease ~~Standard-Season 1~~  
(Attach map or plat to scale)

ph. conversation w/ Mr. Perkes wba  
Location of Well: ~~2284.11~~ <sup>2284.11</sup> feet South ~~along section line~~ <sup>PROPERTY</sup> ~~7499.16~~ <sup>7499.16</sup> feet West  
(Direction) ~~Station #4~~ <sup>Station #4</sup> ~~author of section~~ <sup>PROPERTY</sup>  
at right angles to said line from the

Elevation of ground above sea level ~~approx. 2540~~ <sup>approx. 2540</sup> feet ~~Mat~~ datum.

All depth measurements taken from top of ~~Derrick Floor~~ <sup>Derrick Floor</sup> which is ~~6.92~~ <sup>6.92</sup> feet above ground.  
(Derrick Floor, Rotary Table or Kelly Bushing)

PROPOSED CASING PROGRAM

SIZE OF CASING INCHES A.P.I.	WEIGHT	GRADE AND TYPE	TOP	BOTTOM	CEMENTING DEPTHS
11-3/4"	42#	H-40, T & C	0'	1000'	1000'
7"	23, 26, 29	J-55, H-80	0'	6950'	6950'
5"	18#	J-55, P.J.	6925'	9100'	

Intended zone or zones of completion: ~~Season Zone~~

MAP	BOOK	CARDS	BOND	FORMS	
				114	121
18A	MBA	EB	Blanket	EB	EB

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

Address ~~P.O. Box "Y", Los Nietos, Calif.~~ <sup>P.O. Box "Y", Los Nietos, Calif.</sup> ~~THE WATER ASSOCIATED OIL COMPANY~~

Telephone Number ~~Oxford 91051~~ <sup>Oxford 91051</sup> By ~~J. E. Foster~~ <sup>J. E. Foster</sup>  
Agent

SEND ONE COPY OF NOTICE TO DIVISION OFFICE IN DISTRICT WHERE WELL IS LOCATED  
\*Correction letter 9-2-54. mv