JRAL RESOURCES AGENCY OF CALIFORN
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 **216-0239**

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 20, 2016

Your operations at well **"Standard Sesnon" 16**, A.P.I. No. **037-00768**, Sec. **28**, T. **03N**, R. **16W**, **SB** B.&M., **Aliso Canyon** field, in **Los Angeles** County, were witnessed on **6/15/2016**, by **Jack Collender**, a representative of the supervisor.

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

DECISION:

APPROVED

JCL/TKC

Kenneth A. Harris Jr.
State Oil and Gas Supervisor

By _____ for
Patricia A. Abel, *District Deputy*

API No. 037-00768 KG615

DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

T 216-0239 # 12,2

BLOWOUT PREVENTION EQUIPMENT MEMO

Operator Southern California Gas Company Well SS 16 Sec. 28 T. 3N R. 16W

Field County Spud Date 9/3/1949

VISITS:	Date	Engineer	Time	Operator's Rep.	Title
1st	6/15/2016	Jack Collender	(1200 to 1245)	Don Baldwin	Well Site Manager
2nd			(to)		

Contractor Ensign Rig # 334 Contractor's Rep. & Title Randy Noble - Rig Supervisor

Casing record of well: 13-3/8" cem 837'; 7" cem 8865', perf 8784' WSO; 5" cem 8790'-9203', perfs @ int 8811'-8990', TD 9205'.

OPERATION: Inspecting the blowout prevention equipment and installation. Critical well? Y ☐ N ☒

DECISION: The blowout prevention equipment and its installation on the 7 " casing are approved.

Proposed Well Opns: Rework . MACP: psi

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

REQUIRED BOPE CLASS: III5M

CASING RECORD OF BOPE ANCHOR STRING					Cement Details	Top of Cement	
Size	Weight(s)	Grade(s)	Shoe at	CP at		Casing	Annulus
7"	23#	N80	8865'				

BOP STACK							TEST DATA						
API Symb.	Ram Size (in.)	Manufacturer	Model or Type	Vert. Bore Size (in.)	Press. Rtg.	Date Last Overhaul	Gal. to Close	Recov. Time (Min.)	Calc. GPM Output	psi Drop to Close	Secs. to Close	Test Date	Test Press.
A	CSO	Hydril	GK	11	5000		10						
Rd	2-7/8"	Shaffer	LXT	11	5000		3						
Rd	CSO	Shaffer	LXT	11	5000		3						

TOTAL: 16

ACTUATING SYSTEM

Accumulator Unit(s) Working Pressure 2800 psi

Total Rated Pump Output gpm Fluid Level

Distance from Well Bore 40 ft. ok

	Accum. Manufacturer	Capacity	Precharge
1	Koomey	80gal.	1000psi
2		gal.	psi

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

	EMERG. BACKUP SYSTEM			Press.	Wkg.
4	N_2 Cylinders	1	L=55 "	2500	9 gal.
	Other:	2	L= 55 "	2600	9 gal.
		3	L= 55 "	2550	9 gal.
		4	L= 55 "	1100	0 gal.
		5	L= "		gal.
		6	L= "		gal.
			TOTAL: 27		gal

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

AUXILIARY EQUIPMENT

		No.	Size (in.)	Rated Press.	Connections Weld	Flange	Thread	Test Press.
	Fill-up Line							
x	Kill Line		2	5000		x		
x	Control Valve(s)	3		5000		x		
x	Check Valve(s)	1		5000		x		
	Aux. Pump Connect.							
x	Choke Line		3	5000		x		
x	Control Valve(s)	7		5000		x		
	Pressure Gauge					x		
	Adjustable Choke(s)	2	2	5000		x		
	Bleed Line		2				x	
	Upper Kelly Cock							
	Lower Kelly Cock							
	Standpipe Valve							
	Standpipe Press.							
2	Pipe Safety Valve		2-7/8	5000				
x	Internal Preventer		2-7/8	5000				

Hole Fluid Type	Weight	Storage Pits (Type & Size)
Polymer	8.5	650 bbl

REMARKS AND DEFICIENCIES: Will replaced 4th nitrogen bottle

OGD9 (3/98)

DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

CHECK LIST-RECORDS RECEIVED AND WELL STATUS

Operator: **Southern California Gas Company** WELL DESIGNATION **"Standard Sesnon" 16**

API No. **03700768** SE **28** T: **3N** R.: **16W** , **SB** B. and M.

County: **Los Angeles** FIELD: **Aliso Canyon**

Type of Notice: **Rework** **Date** **6/14/2016** **Report Number:** **P216-0084**

RECORDS RECEIVED (ATTACH PAGES IF REQUIRED)

	Date	OK	NEED	Remarks
Well Summary (OG100)				
History (OG103)				
E-Log				
Mud Log				
Dipmeter				
Directional				
Core and/or SWS				
BOPE	8/15/16	✓		
Press Test	8/1/16	✓	✓	Need data from SCG

NEW STATUS

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 _____ *(Date)* Calwims DRILL/REDRILL Form _____

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

raw data field needed for P. Test for R. Morlan

RECORDS SCANNED: _____ (Date)

RECORDS APPROVED: _____ (Date and Engineer)

Modified OGD2

AOR Datbase _____

N. JRAL RESOURCES AGENCY OF CALIFORNI
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS & GEOTHERMAL RESOURCES
1000 S. Hill Rd, Suite 116 Ventura, CA 93003 - 4458

OIL, GAS & GEOTHERMAL

No. P 216-0084

Old	New
010	010
FIELD CODE	
00	00
AREA CODE	
30	30
POOL CODE	

PERMIT TO CONDUCT WELL OPERATIONS

Gas Storage

"Sesnon-Frew" - Modelo (Miocene-Eocene) Formation

Ventura, California
June 22, 2016

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

Your proposal to **Rework** well **"Standard Sesnon" 16**, A.P.I. No. **037-00768**, Section **28**, T. **03N**, R. **16W**, **SB** B. & M., **Aliso Canyon** field, **Any** area, **Sesnon-Frew** pool, **Los Angeles** County, dated **6/14/2016**, received **6/14/2016** has been examined in conjunction with records filed in this office. (Lat: **34.309694** Long: **-118.566607** 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: Class **III 5M**
2. Hole fluid of a quality and in sufficient quantity to control all subsurface conditions in order to prevent blowouts shall be used.
3. Blowout prevention practice drills are conducted at least weekly and recorded on the tour sheet. A practice drill may be required at the time of the test/inspection.
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. **A Cement Bond Log** shall be performed from 8760' to surface to demonstrate that competent cement is behind casing at the bridge plug setting depth.
7. This office shall be contacted by phone prior to making any program changes and no changes are made without Division approval.
8. This well is taken out of service and isolated from the storage reservoir and is to be re-evaluated or abandoned within 1 year of the installation of a tubing plug and filling of the annular space with liquid above the packer pursuant to Order #1109 and its amendments.
9. **THIS DIVISION SHALL BE NOTIFIED TO:**
   a. Inspect the installed blowout prevention equipment prior to commencing **rework** operations.
   b. Witness a pressure test of the **7"** casing.

Continued on Next Page

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

Kenneth A. Harris Jr.
State Oil and Gas Supervisor

By _____ for
Patricia A. Abel, *District Deputy*

Engineer Clifford Knight
Office 805-654-4761

CK/ck

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

OG111 (revised 6/2011)

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:

a. Conduct further investigation and demonstrate to the Division's satisfaction that the abnormal finding is not an indicator of a lack mechanical integrity;
b. Remediate the well to the Division's satisfaction; or
c. 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:

a. 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
b. 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.

Rec'd 06-14-16 DOGGR Ventura.

FOR DIVISION USE ONLY			
	Forms		
Bond	~~OGD114~~	OGD121	
	CALV WIMS	115V	

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

OIL, GAS & GEOTHERMAL

NOTICE OF INTENTION TO REWORK / REDRILL WELL

P216-0084

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

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to rework ☒ / redrill ☐ (Check one) well Standard Sesnon 16, API No. 037-00768,

Sec. 28, 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: 9205 feet. The effective depth is: 9203 feet.

Present completion zone(s): Sesnon (Name). Anticipated completion zone(s): Same (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.)

See attached program

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

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: Brian Vlasko	Telephone Number: 714-655-9506	Signature	Date: 06/14/16
Individual to contact for technical questions: Brian Vlasko	Telephone Number: 714-655-9506	E-Mail Address: bvlasko@semprautilities.com	

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

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

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

CRITICAL WELL DEFINITION

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

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

WELL OPERATIONS REQUIRING BONDING

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

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

SoCal Gas Company

SoCalGas
A Sempra Energy utility

Well Operations Procedure

Standard Sesnon 16
Aliso Canyon
Storage Integrity Management Program
6/14/2016 Version 1

Primary Engineer:	Brian Vlasko	818 700-3897 (ofc)/714 655-9506 (mobile)
Alternate Engineer:	Ella Lein	818 700-3676 (ofc)/661 340-4250 (mobile)
Engineering Supervisor:	Jose Iguaz	818 700-3889 (ofc)/661 384-5337 (mobile)
Well Site Supervisor:	Donnie Baldwin	805 434-7529 (mobile)
Well Work Superintendent:	Mike Volkmar	562 685-3810 (mobile)

Well Data:

API #:	037-00768		
Datum:	2386'		
KB to GL:	7'		
MD:	9,205'		
TVD:	9,205'		
PBMD:	9,203'	**Nature of Plug Back:**	Bottom of Liner

Geologic Markers:

UDA1 - 6880' MD / 6880' TVD	S4 - 8884' MD / 8884' TVD
UDA2 - 7280' MD / 7280' TVD	S6 - 8953' MD / 8953' TVD
MDA - 7865' MD / 7865' TVD	S8 - 9019' MD / 9019' TVD
LDA - 8095' MD / 8095' TVD	S10 - 9070' MD / 9070' TVD
MP - 8602' MD / 8602' TVD	S12 - 9123' MD / 9123' TVD
S1 - 8806' MD / 8806' TVD	S14 - 9166' MD / 9166' TVD
S2 - 8838' MD / 8838' TVD	

Casing Data:

Surface Casing:	13-3/8", 54.5#, Cem @ 954'
Intermediate Casing:	7", Cem @ 8,865'
	23#, J55, 0 – 3,665'
	23#, N80, 3,665' – 5,565'
	26#, N80, 5,565' – 7,265'
	29#, N80, 7,265' – 8,865'
Production Liner:	5", 18#, N80, Liner Cem @ 8,790'-9,203'

Tubing Data: See Attached

SoCal Gas Company

SoCalGas
A Sempra Energy utility

Well Operations Procedure

Perforations: 8,811', 8,826', 8,847', 8,860', 8,865', 8,890', 8,950', 8,960', 8,990'
Completed in S1, S2, S4, S6, and S8

Objective: The intent of this program is to pull production tubing, log MP interval for cement integrity, install a retrievable bridge plug for isolation.

Current Status: Idle

Permit Status: Pending

SoCal Gas Company

SoCalGas
A Sempra Energy utility

Well Operations Procedure

PROJECT NOTES

1. BOPE requirements in Gas Company Standard 224.05 shall be fully implemented at all times.

2. The storage reservoir pressures shall be monitored during the workover with a minimum of 300 psig overbalance for well control fluids.

3. Prepare the location by removing all relevant landscaping/lighting fixtures as well as surface piping and electrical components as needed. Locate rig anchors, reinstall if necessary.

4. DOGGR permit must be posted on site. Notify the DOGGR as required for BOPE testing prior to commencing downhole operations as stated on permit. DOGGR Ventura District office (805)-654-4761. If a permit has not been issued contact DOGGR 24 hours prior to rigging up on the well for verbal approval to rig up.

PRE-RIG WORK

1. De-energize and remove all laterals. Install companion flanges for circulating the well.

2. Complete slickline work as required to set-up well for circulation. – needs to be detailed depending on downhole configuration.

3. Ensure correlation log on file or plan for CCL.

WELLWORK PROGRAM

1. Move in production rig and rig pump with tank, shaker, and mixer.

2. Spot 500 bbl Baker tanks and load with 8.5 ppg KCl brine.

   - Connect pump to the tubing and vent the casing through the choke manifold to the SoCalGas withdrawal system.
   - Treat all brine with Biocide, 5 gals/100 bbls

3. Verify the well is dead. If needed, circulate well with 8.5 ppg KCL brine.
   i. The tubing volume is ~ 50 bbls and
   ii. The tubing/casing annulus is ~ 262 bbls.
   iii. *Use HEC polymer as required to minimize lost circulation.*

4. Install BPV in tubing hanger. ND tree.

   NOTE: Send-in wellhead and tree components for inspection.

5. +++Install Class III 5M BOPE per Gas Company Standard 224.05 and in accordance with the DOGGR permit. All connections and valves must be flanged and at least 5000 psig rated. (*Confirm BOPE rating*)

- All tests are to be charted and witnessed by a DOGGR representative.
- Perform a 300 psig low pressure test on the annular preventer, blind rams and pipe rams for 20 minutes. Test all lines and connections to 300 psig.
- Pressure test the Class III 5M annular preventer to 3500 psig for 20 minutes. Test blind rams and the pipe rams to 5000 psig for 20 minutes. Test all lines and connections to 5000 psig.
- Remove BPV.

6. POOH with production equipment. Lay down packer and production tubing.

   a.) Attempt to release seal assembly. If not successful plan for a cut @ 8,714'.

7. RIH with 7, 26# all weight casing scraper to top of packer @ 8,760'. Circulate well clean. POOH.

8. RIH with CBL from 8,760' to surface. Verify RBP setting depth is in competent cement.

9. RIH with RBP. Set and test to 500 psi for 15 mins. Sand off.

10. POOH with RBP setting tool.

11. RIH with circulating string.

12. ND BOPE and RDMO.

~~Rec'd 06-14-16 DOGGR Ventura.~~

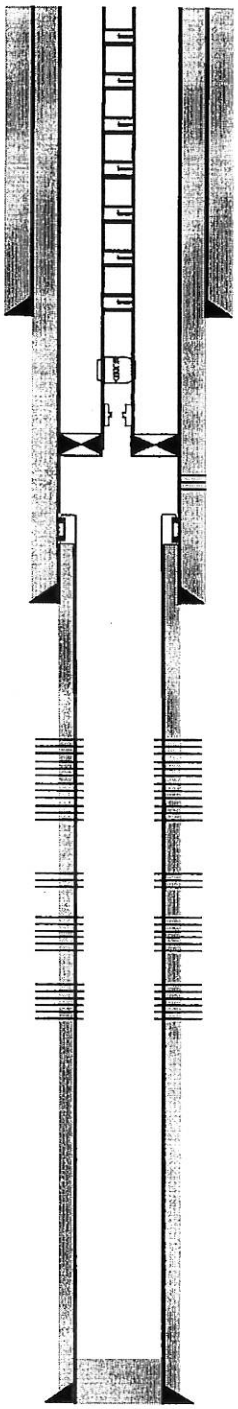
SoCalGas
Sempra Energy utility

SS-16

Sec 28 T3N R16W SBBM Aliso Canyon

API # 03700768

Current



KB: 2393'
GL: 2386'
KB to GL: 7'

2-7/8" 6.5# Tubing to surface

MMA @ 1,587', 3,107', 4,407'
5,614', 6,697', 7,715'
8,673'

13-3/8" 54.5# cmt'd @ 954'

Camco 2-1/2" SSSV (2.313" ID) @ 8,729'

Baker Nipple "R" 1.76" NoGo @ 8,750'
Baker Retrieva "D" Packer @ 8,760'

WSO @ 8,784'

5" 18# N-80 Liner 8,790' to 9,203'

7" cmt'd @ 8,865'
0-3665' 23# J55
3665'-5565' 23# N80
5565'-7265' 26# N80
7265'-8865' 29# N80

Perforations
8811'
8826'
8847'
8860'

8865'

8890'
8950'

8960'
8990'

Geologic Markers (Tops)
UDA1 - 6880' MD / 6880' TVD
UDA2 - 7280' MD / 7280' TVD
MDA - 7865' MD / 7865' TVD
LDA - 8095' MD / 8095' TVD
MP - 8602' MD / 8602' TVD
S1 - 8806' MD / 8806' TVD
S2 - 8838' MD / 8838' TVD
S4 - 8884' MD / 8884' TVD
S6 - 8953' MD / 8953' TVD
S8 - 9019' MD / 9019' TVD
S10 - 9070' MD / 9070' TVD
S12 - 9123' MD / 9123' TVD
S14 - 9166' MD / 9166' TVD

Drawn by B. Vlasko

PBTD: 9203'
TD: 9205'

Rec'd 06-14-10 DOGGR Ventura.

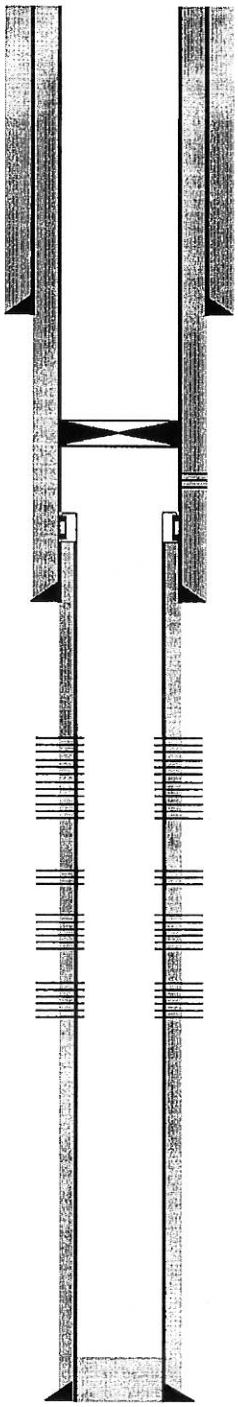
SoCalGas
Sempra Energy utility

SS-16

Sec 28 T3N R16W SBBM Aliso Canyon

API # 03700768

Proposed



KB: 2393'
GL: 2386'
KB to GL: 7'

2-7/8" 6.5# Tubing to surface

13-3/8" 54.5# cmt'd @ 954'

Retrievable Bridge Plug w/ Sand Cap @ 8,700'

WSO @ 8,784'

5" 18# N-80 Liner 8,790' to 9,203'

7" cmt'd @ 8,865'
0-3665' 23# J55
3665'-5565' 23# N80
5565'-7265' 26# N80
7265'-8865' 29# N80

Perforations
8811'
8826'
8847'
8860'

8865'

8890'
8950'

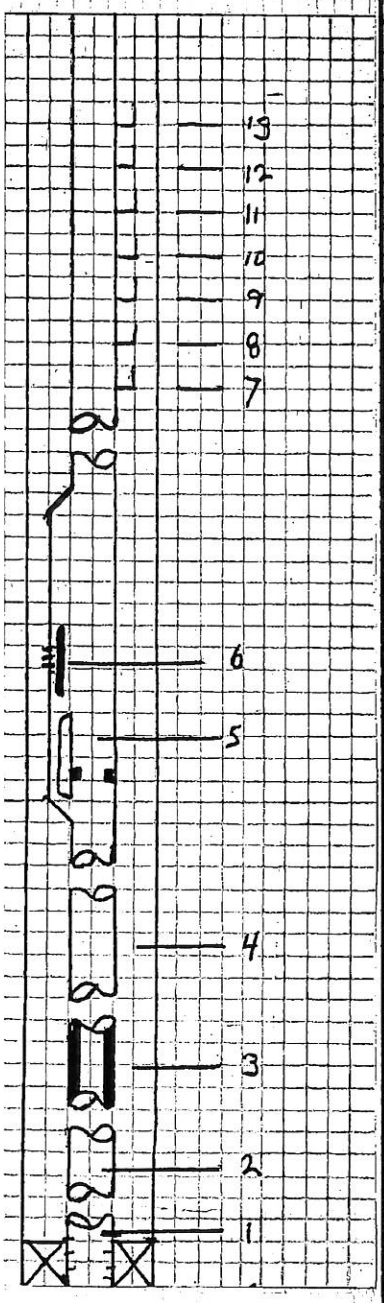
8960'
8990'

Geologic Markers (Tops)
UDA1 - 6880' MD / 6880' TVD
UDA2 - 7280' MD / 7280' TVD
MDA - 7865' MD / 7865' TVD
LDA - 8095' MD / 8095' TVD
MP - 8602' MD / 8602' TVD
S1 - 8806' MD / 8806' TVD
S2 - 8838' MD / 8838' TVD
S4 - 8884' MD / 8884' TVD
S6 - 8953' MD / 8953' TVD
S8 - 9019' MD / 9019' TVD
S10 - 9070' MD / 9070' TVD
S12 - 9123' MD / 9123' TVD
S14 - 9166' MD / 9166' TVD

Drawn by B. Vlasko

PBTD: 9203'
TD: 9205'

WELL PROFILE



OPERATOR: SOUTHERN CALIFORNIA GAS COMPANY

WELL #: STANDARD SESNON #16

FIELD: ALISO CANYON

COUNTY: LOS ANGELES

STATE: CALIFORNIA

DATE: June 22, 1976

☐ NEW COMPLETION ☒ WORKOVER

Rec'd 06-14-16 DOGGR Ventura

	CASING	LINER	TUBING 1	TUBING 2	TUBING 3
SIZE					
WEIGHT					
GRADE					
THREAD					
DEPTH					

QTY	TUBING DETAIL	LENGTH	DEPTH
	K.B.	-0-	11.00
52	Joints Tubing 8rd 2 7/8" (26 N-80 + 26 J-55)	1572.84	1583.84
	Pup Joint	3.62	1587.46
	MMA Mandrel - valve set 975 psi	8.19	1595.65
	Pup Joint	1.89	1597.54
48	Joints Tubing 8rd J-55 2 7/8"	1506.13	3103.67
	Pup Joint	3.60	3107.27
	MMA Mandrel - valve set 925 psi	8.19	3115.46
	Pup Joint	1.77	3117.23
41	Joints Tubing 8rd J-55 2 7/8"	1286.27	4403.50
	Pup Joint	3.65	4407.15
	MMA Mandrel - valve set 910 psi	8.15	4415.30
	Pup Joint	1.70	4417.00
38	Joints Tubing 8rd J-55 2 7/8"	1193.75	5610.75
	Pup Joint	3.63	5614.38
	MMA Mandrel - valve set 895 psi	8.18	5622.56
	Pup Joint	1.70	5624.26
34	Joints Tubing 8rd J-55 2 7/8"	1068.97	6693.23
	Pup Joint	3.60	6696.83
	MMA Mandrel - valve set 880 psi	8.18	6705.01
	Pup Joint	1.69	6706.70
32	Joints Tubing 8rd J-55 2 7/8"	1004.46	7711.16
	Pup Joint	3.65	7714.80
	MMA Mandrel - valve set 865 psi	8.18	7722.98
	Pup Joint	1.69	7724.67
30	Joints Tubing 8rd J-55 2 7/8"	944.77	8669.44
	Pup Joint	3.58	8673.02
	MMA Mandrel - empty - valve set 855 psi	8.18	8681.20
	Pup Joint	1.75	8682.95
1	Joint Tubing 8rd J-55 2 7/8"	31.28	8714.23
	Pup Joint	3.72	8717.95
	KP-4 Safety Valve Mandrel - CAMCO	11.50	8729.45
	CAMCO 20' Blast Joint	19.82	8749.27
	BAKER Nipple I.D. 1.81"	.81	8750.08
	CAMCO 10' Blast Joint	9.12	8759.20
	Locator Seal Assembly	.80	8760.00
	Top of Packer		8760.00

COMMENTS:

TOTAL ESTIMATE

Ran KP-4 Safety System and tested to 5000 psi.
Ran Empty Mandrel for circulating purposes.
Ran 7 MMA Mandrels (Camco) - 6 mandrels loaded with dummy valves.
Tested all tubing to 5000 psi with one minute test on each.

6-18-76

PREPARED BY | OFFICE | PHONE

STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT ON PROPOSED CHANGE OF WELL DESIGNATION

Ventura, California

November 6, 1991

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

Your request, dated July 24, 1991, proposing to change the designation of well(s) in Sec. 28, 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	TO
"SFZU" SS-11 (037-00763)	"Standard Sesnon" 11 (037-00763)
"SFZU" SS-13 (037-00765)	"Standard Sesnon" 13 (037-00765)
"SFZU" SS-14 (037-00766)	"Standard Sesnon" 14 (037-00766)
"SFZU" SS-16 (037-00768)	"Standard Sesnon" 16 (037-00768)
"SFZU" SS-17 (037-00769)	"Standard Sesnon" 17 (037-00769)
"SFZU" SS-25 (037-00776)	"Standard Sesnon" 25 (037-00776)
"SFZU" SS-29 (037-00741)	"Standard Sesnon" 29 (037-00741)
"SFZU" SS-30 (037-00780)	"Standard Sesnon" 30 (037-00780)
"SFZU" SS-31 (037-00781)	"Standard Sesnon" 31 (037-00781)
"SFZU" SS-44 (037-00788)	"Standard Sesnon" 44 (037-00788)
"SFZU" SS-1-0 (037-22058)	"Standard Sesnon" 1-0 (037-22058)

M. G. MEFFERD, State Oil and Gas Supervisor

By Patrick J. Kinnear

Deputy Supervisor
PATRICK J. KINNEAR

OGD157 (10/85/DWRR/1M)

OPERATOR So Calif Gas
LSE & NO SF 24 SS-16
MAP 250

	(1)	(2)	(3)	(4)	(5)	( )
INTENTION	DRILL	REDRILL & DEEPEN	ALTR CSG	ALTR CSG	REWORK & CONVERT TO GAS STOR	
NOTICE DATED	9-22-49	5-5-53	1-8-57	6-7-57		
P-REORT NUMBER	1-47287	153-605	157-53	157-756	276-140	
CHEKED BY/DATE					SPM 6-14-91 OK	
M/ LETTER DATED		N/C	N/C	N/C	—	
SBOL						

	REC'D	NEED	REC'D	NEED	REC'D	NEED	REC'D	NEED	REC'D	NEED	REC'D	NEED
TICE	9-23-49		5-6-53		1-9-57		6-11-57		5-7-76			
ISTORY	3-4-50		10-22-53		9-27-57		3-27-58		6-23-77			
UMMARY	3-4-50		10-22-53									
IES/ELECTRIC LOG												
DIRECTIONAL SURV												
CORE/SWS DESCRIP	4-1-50											
OTHER												
RECORDS COMPLETE	①		②		③		④		⑦			

ENGINEERING CHECK

T-REPORTS _____
OPERATOR'S NAME _____
WELL DESIGNATION _____
LOC & ELEV _____
SIGNATURE _____
SURFACE INSPECTION _____
FINAL LETTER OK _____

CLERICAL CHECK

POSTED TO 121 _____ 170 MAILED _____ FINAL LETTER MAILED _____

RELEASED BOND _____

REMARKS: _____

FORM 103

SUBMIT IN DUPLICATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
JUN 29 1976
SANTA PAULA, CALIFORNIA

History of Oil or Gas Well

OPERATOR SOUTHERN CALIFORNIA GAS COMPANY FIELD Aliso Canyon

Well No. STANDARD SESNON #16, Sec. 28, T. 3N, R. 16W, S.B. B. & M.

Date June 18, 1976 Signed P. S. Magruder, Jr.

P. O. Box 3249, Terminal Annex
Los Angeles, California 90051 Title Agent
(Address) (Telephone Number) (President, Secretary or Agent)
(213) 689-3561

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	
5-11-76	Rig up at Standard Sesnon #16, Aliso Canyon. Rigged up hot oil truck and pumped 50 barrels at 250°F down tubing. Located gas lift valve at 8676'. Latched onto valve with recovery tool. Could not pull valve and could not shear off fish. Cut off wire at fish.
5-12-76	Completed rigging up rig. Ran in hole with 1 3/4" tubing gun. Perforated six holes in 2 7/8" tubing 8640' to 8636'. Started circulating mud down tubing to kill well at 5:00 P.M. Circulated considerable amount of oil out of well. Well dead at 8:00 P.M. Pumped approximately 550 barrels of mud.
5-13-76	(John Muir) Placed 2 7/8" tubing bridge plug at 80' in 2 7/8" tubing. Removed old Christmas tree. Installed B.O.P.E. and hooked up control lines. Tested B.O.P.E. to 3000 psi with water - blind rams, pipe rams and Hydril for 20 minutes each. Hooked up NOWSCO and tested as above with nitrogen gas to 3000 psi.
5-14-76	Filled hole with 180 barrels of mud and established circulation. Displaced 70 barrels of 68# weight, 110 viscosity polymer mud down tubing. Closed rams and squeezed with 50 barrels of mud from storage at 800 psi final pump pressure. Instantaneous shut-in pressure 0 psi. Allowed one hour shut-in time. Filled tubing with 3 barrels of fluid - fluid level approximately 1800'. Pulled packer loose. Waited four hours. Took 24 barrels to fill tubing - fluid level approximately 3500'. Displaced 70 barrels of 71#, 253 viscosity polymer mud down tubing and displaced with 40 barrels. Pill in place at 3:30 P.M. Filled tubing every hour to check fluid level, as follows: First hour.....4 barrels Second hour.....6 barrels Third hour.....4 barrels Fourth hour.....3 barrels Mixed 40 barrels-pill, 66# weight (estimated) 200 viscosity (estimated) and displaced with 35 barrels to perforations at 8590'. Shut well in for the night.

5-15-76 Filled tubing with 18 barrels fluid. Filled casing annulus with 50 barrels fluid. Circulated well. Shut down for one hour. Checked fluid level at 1300' from surface. Mixed LCM pill #4 and displaced through perforations at 8590'. Pulled out with 2 7/8" tubing, laying down old gas lift valves (9). Measured out of hole. Ran 6" bit and 7" scraper to top of 5" liner at 8790' (old K.B.) Spotted LCM pill #5, 40 barrels, and shut well in.

5-16-76 Rig idle.

5-17-76 Finished running in hole with 6" bit and 7" casing scraper. Tagged top of liner at 8790'. Circulated bottoms up. No fluid loss. Pulled out of hole. Made up 4 1/8" bit and 5" casing scraper. Ran in hole, found fill at 8960'. Cleaned out from 8960' to 9200'. Circulated hole clean. Started out of hole.

5-18-76 Filled hole with 12 barrels. Pulled out of hole. Dresser Atlas ran cement bond log. Recorded from 9030' to 6300', bonding satisfactory. Ran Duel Detector Neutron Lifetime log and recorded from 9170' to 7800'. Made up Johnston 5" 18# bridge plug and started in hole.

5-19-76 Filled hole, 24 barrels. Ran in hole to 8800'. Set bridge plug. Using rig pump tested bridge plug and casing under 1200 psi. 15 minutes O.K. Started out of hole with setting tool.

5-20-76 Finished pulling out of hole with 5" bridge plug setting tool. Made up 7" Johnston bridge plug and set at 90' tested surface to 90' under 1500 psi fifteen minutes. O.K. Removed B.O.P.E. and tubing head. Pumped 70 barrels fresh water down 13 3/8" x 7" annulus. Flowed back 35 barrels oily and gassey. Pumped 70 barrels clay base mud down annulus, flowed back 25 barrels annulus head. Removed packing around 7" casing. Unable to unland casing with 240,000# pull. Held 200,000# and cut head off (13 3/8"). Cut off base plate and 13 3/8" surface pipe at cellar floor.

5-21-76 Cut and threaded 7" casing. Installed 7" - 29# extension and tested under 3500 psi twenty minutes - O.K. Jack-hammered cement out of cellar floor. Cut off 13 3/8" casing. Installed new 5000 psi casing head by butt welding to 13 3/8". Heated and wrapped to cool.

5-22-76 X-rayed weld on 13 3/8" casing - O.K. Relanded 7" casing in slips with 200,000# weight. Installed tubing head. Tested seal flange and auxiliary seal flange in four places under 4000 psi for 20 minutes - O.K. Reinstalled B.O.P.E. and tested blind rams under 3000 psi; pipe rams under 3100 psi; Hydril under 2900 psi. Tests made with clear water - each test for 20 minutes and all O.K. Rigged up NOWSCO and tested with nitrogen as follows: Hydril 3100 psi; pipe rams 3000 psi; blind rams 3000 psi - each test for 20 minutes and all O.K. Recovered 7" 29# bridge plug. Made up 7" 29# full bore and started in hole.

5-23-76 Idle.

5-24-76 With packer set at 7000', tested casing to bridge plug at 800' with 2000 psi for 20 minutes. Tested casing 7000' to surface with 2500 psi for 20 minutes. Tested casing 1507' to surface with 3000 psi for 20 minutes. Tested casing 125' to surface with 3500 psi for 20 minutes. Ran in hole. Recovered bridge plug at 8800', started out of hole.

5-25-76 Ran Dresser Atlas 3 1/8" jet gun and collar reference and shot four 1/2"

5-25-76 holes per foot from 8985'-8950' and from 8930'-8875'. Ran in hole with 4 1/8" and set casing scraper to 9200'. Circulated and conditioned polymer drilling fluid 64#/cu.ft., 34 sec.

5-26-76 While pulling out hole took 200 barrels mud. Ran in hole with 4 1/8" bit and casing scraper. Circulated and conditioned mud at 4600'. Ran in to 9200' circulated and conditioned mud. Spotted jel pill on bottom at 9:30 P.M. Let set for 9 1/2 hours - at 7:00 A.M. fluid 64 viscosity, 45 sec.

5-27-76 Filled hole at 8:00 A.M. Hole took 21 barrels drilling fluid. Pulled out hole. Ran Baker "Retrieva D" packer and set at 8760'. Ran production tube, seals, latch-in locator, blast joints, No-Go nipple and Camco safety valve. Run in hole changing 2 7/8" tubing collars, applying Baker seal and hydrotesting tubing to 5000 psi.

5-28-76 Finished running 2 7/8" tubing, changing collars, and applying Baker seal. Hydrotested at 5000 psi for one minute on each test. Landed tubing and stabbed in Baker packer at 8760'. Tubing landed with 9000# on packer.

5-29-76 Removed B.O.P.E. Installed Christmas tree and tested same to 5000 psi for 20 minutes - O.K. Changed over from drilling fluid to lease salt water. Set plug in No-Go nipple at 8749'. Tested seals and packer with 2000' for 20 minutes - O.K. Rigged up and displaced 140 barrels of salt water with nitrogen. Tested lines with 5000 psi - O.K. Tested casing and tubing with 1600 psi. Ran out of nitrogen. Rig shut down at 10:00 P.M.

5-30-76 Rig idle.

5-31-76 Rigged up NOWSCO nitrogen tester - tested lines to 5000 psi - dropped to psi. Repaired lines and tested same to 5000 psi - O.K. Tested 7" casing and 2 7/8" tubing and Christmas tree to 4000 psi - dropped down to 3700 psi in 27-minute test. Rig shut down at 4:30 P.M.

6-1-76 Rigged up NOWSCO nitrogen tester and tested lines to 5000 psi - pressure dropped to 4500 psi. NOWSCO truck broke down - repaired same. Pressure tested 7" casing and 2 7/8" tubing and Christmas tree to 4000 psi for 27 minutes - O.K. Bled off nitrogen through two 1/4" beans.

6-2-76 Bled off nitrogen. Using piano wire service, recovered dummies from gas lift mandrels at 7714-6696-5614-4407-3107-1587 and plug at 8749'. Ran gas lift valves at 1587-3107-4407-5614-6696-7714-8673. Released rig at 8:00 P.M.

FORM 103

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

RECEIVED
JUN 23 1977
SANTA PAULA, CALIFORNIA

History of Oil or Gas Well

OPERATOR SOUTHERN CALIFORNIA GAS COMPANY FIELD Aliso Canyon

Well No. STANDARD SESNON #16, Sec. 28, T. 3N, R. 16W, S.B. B.

Date June 18, 1976 Signed P. S. Magruder, Jr.

P. O. Box 3249, Terminal Annex
Los Angeles, California 90051 Title Agent
(Address) (Telephone Number) (President, Secretary or A
(213) 689-3561

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 dur drilling and testing of the well or during re-drilling, altering of casing, plugging, or abandonment with the dates thereof. Be sure to include suc as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, shooti initial production data.

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5-12-76	Completed rigging up rig. Ran in hole with 1 3/4" tubing gun. Perforated six holes in 2 7/8" tubing 8640' to 8636'. Started circulating mud down tubing to kill well at 5:00 P.M. Circulated considerable amount of oil out of well. Well dead at 8:00 P.M. Pumped approximately 550 barrels of mud.
5-13-76	(John Muir) Placed 2 7/8" tubing bridge plug at 80' in 2 7/8" tubing. Removed old Christmas tree. Installed B.O.P.E. and hooked up control lines. Tested B.O.P.E. to 3000 psi with water - blind rams, pipe rams and Hydril for 20 minutes each. Hooked up NOWSCO and tested as above with nitrogen gas to 3000 psi.
5-14-76	Filled hole with 180 barrels of mud and established circulation. Displaced 70 barrels of 68# weight, 110 viscosity polymer mud down tubing. Closed rams and squeezed with 50 barrels of mud from storage at 800 psi final pump pressure. Instantaneous shut-in pressure 0 psi. Allowed one hour shut-in time. Filled tubing with 3 barrels of fluid - fluid level approximately 1800'. Pulled packer loose. Waited four hours. Took 24 barrels to fill tubing - fluid level approximately 3500'. Displaced 70 barrels of 71#, 253 viscosity polymer mud down tubing and displaced with 40 barrels. Pill in place at 3:30 P.M. Filled tubing every hour to check fluid level, as follows: First hour.....4 barrels Second hour.....6 barrels Third hour.....4 barrels Fourth hour.....3 barrels Mixed 40 barrels-pill, 66# weight (estimated) 200 viscosity (estimated) and displaced with 35 barrels to perforations at 8590'. Shut well in for the night.

RECEIVED
JUN 23 1977
SANTA BARBARA, CALIFORNIA

5-15-76 Filled tubing with 18 barrels fluid. Filled casing annulus with 50 barrels fluid. Circulated well. Shut down for one hour. Checked fluid level at 1300' from surface. Mixed LCM pill #4 and displaced through perforations at 8590'. Pulled out with 2 7/8" tubing, laying down old gas lift valves (9). Measured out of hole. Ran 6" bit and 7" scraper to top of 5" liner at 8790' (old K.B.) Spotted LCM pill #5, 40 barrels, and shut well in.

5-16-76 Rig idle.

5-17-76 Finished running in hole with 6" bit and 7" casing scraper. Tagged top of liner at 8790'. Circulated bottoms up. No fluid loss. Pulled out of hole. Made up 4 1/8" bit and 5" casing scraper. Ran in hole, found fill at 8960'. Cleaned out from 8960' to 9200'. Circulated hole clean. Started out of hole

5-18-76 Filled hole with 12 barrels. Pulled out of hole. Dresser Atlas ran cement bond log. Recorded from 9030' to 6300', bonding satisfactory. Ran Duel Detector Neutron Lifetime log and recorded from 9170' to 7800'. Made up Johnston 5" 18# bridge plug and started in hole.

5-19-76 Filled hole, 24 barrels. Ran in hole to 8800'. Set bridge plug. Using rig pump tested bridge plug and casing under 1200 psi. 15 minutes O.K. Started out of hole with setting tool.

5-20-76 Finished pulling out of hole with 5" bridge plug setting tool. Made up 7" Johnston bridge plug and set at 90' tested surface to 90' under 1500 psi fifteen minutes. O.K. Removed B.O.P.E. and tubing head. Pumped 70 barrels fresh water down 13 3/8" x 7" annulus. Flowed back 35 barrels oily and gassey. Pumped 70 barrels clay base mud down annulus, flowed back 25 barrels annulus head. Removed packing around 7" casing. Unable to unland casing with 240,000# pull. Held 200,000# and cut head off (13 3/8"). Cut off base plate and 13 3/8" surface pipe at cellar floor.

5-21-76 Cut and threaded 7" casing. Installed 7" - 29# extension and tested under 3500 psi twenty minutes - O.K. Jack-hammered cement out of cellar floor. Cut off 13 3/8" casing. Installed new 5000 psi casing head by butt welding to 13 3/8". Heated and wrapped to cool.

5-22-76 X-rayed weld on 13 3/8" casing - O.K. Relanded 7" casing in slips with 200,000# weight. Installed tubing head. Tested seal flange and auxiliary seal flange in four places under 4000 psi for 20 minutes - O.K. Reinstalled B.O.P.E. and tested blind rams under 3000 psi; pipe rams under 3100 psi; Hydril under 2900 psi. Tests made with clear water - each test for 20 minutes and all O.K. Rigged up NOWSCO and tested with nitrogen as follows: Hydril 3100 psi; pipe rams 3000 psi; blind rams 3000 psi - each test for 20 minutes and all O.K. Recovered 7" 29# bridge plug. Made up 7" 29# full bore and started in hole.

5-23-76 Idle.

5-24-76 With packer set at 7000', tested casing to bridge plug at 8800' with 2000 psi for 20 minutes. Tested casing 7000' to surface with 2500 psi for 20 minutes. Tested casing 1507' to surface with 3000 psi for 20 minutes. Tested casing 125' to surface with 3500 psi for 20 minutes. Ran in hole. Recovered bridge plug at 8800', started out of hole.

5-25-76 Ran Dresser Atlas 3 1/8" jet gun and collar reference and shot four 1/2"

SANTA PAULA, CALIFORNIA

5-25-76 holes per foot from 8985'-8950' and from 8930'-8875'. Ran in hole with 4 1/8" and set casing scraper to 9200'. Circulated and conditioned polymer drilling fluid 64#/cu.ft., 34 sec.

5-26-76 While pulling out hole took 200 barrels mud. Ran in hole with 4 1/8" bit and casing scraper. Circulated and conditioned mud at 4600'. Ran in to 9200' circulated and conditioned mud. Spotted jel pill on bottom at 9:30 P.M. Let set for 9 1/2 hours - at 7:00 A.M. fluid 64 viscosity, 45 sec.

5-27-76 Filled hole at 8:00 A.M. Hole took 21 barrels drilling fluid. Pulled out hole. Ran Baker "Retrieva D" packer and set at 8760'. Ran production tube, seals, latch-in locator, blast joints, No-Go nipple and Camco safety valve. Run in hole changing 2 7/8" tubing collars, applying Baker seal and hydrotesting tubing to 5000 psi.

5-28-76 Finished running 2 7/8" tubing, changing collars, and applying Baker seal. Hydrotested at 5000 psi for one minute on each test. Landed tubing and stabbed in Baker packer at 8760'. Tubing landed with 9000# on packer.

5-29-76 Removed B.O.P.E. Installed Christmas tree and tested same to 5000 psi for 20 minutes - O.K. Changed over from drilling fluid to lease salt water. Set plug in No-Go nipple at 8749'. Tested seals and packer with 2000' for 20 minutes - O.K. Rigged up and displaced 140 barrels of salt water with nitrogen. Tested lines with 5000 psi - O.K. Tested casing and tubing with 1600 psi. Ran out of nitrogen. Rig shut down at 10:00 P.M.

5-30-76 Rig idle.

5-31-76 Rigged up NOWSCO nitrogen tester - tested lines to 5000 psi - dropped to psi. Repaired lines and tested same to 5000 psi - O.K. Tested 7" casing and 2 7/8" tubing and Christmas tree to 4000 psi - dropped down to 3700 psi in 27-minute test. Rig shut down at 4:30 P.M.

6-1-76 Rigged up NOWSCO nitrogen tester and tested lines to 5000 psi - pressure dropped to 4500 psi. NOWSCO truck broke down - repaired same. Pressure tested 7" casing and 2 7/8" tubing and Christmas tree to 4000 psi for 27 minutes - O.K. Bled off nitrogen through two 1/4" beans.

6-2-76 Bled off nitrogen. Using piano wire service, recovered dummies from gas lift mandrels at 7714-6696-5614-4407-3107-1587 and plug at 8749'. Ran gas lift valves at 1587-3107-4407-5614-6696-7714-8673. Released rig at 8:00 P.M.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

REPORT ON PROPOSED OPERATIONS No. P 276-140

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

Santa Paula, Calif.
May 10, 1976

DEAR SIR:

Your rework and convert to proposal to gas storage Well No. (037-00768) "SFZU" SS-16, Section 28, T. 3N, R. 16W, S.B. B. & M., Aliso Canyon Field, Los Angeles County, dated -, received 5/7/76, has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

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

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

Blanket Bond
MD:b

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

By M. G. Mefford, Chief, Deputy

25476-705 7-74 50M ①D OSP

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS
RECEIVED
MAY 7 1976
SANTA PAULA, CALIFORNIA

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 is commenced. If the 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~~ SFZH 35 #16, API No. _____,

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. 9205'

2. Complete casing record, including plugs and perforations:

13 3/8" cemented 837'

7" cemented 8865', WSO 8784'

413' 5" cemented 9203', top liner 8790'

Four 1/2" holes per foot 9030' - 9180'
Scab cemented 8990' - 8811', plug 9200'

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

4. Present zone pressure 2400 psi New zone pressure -

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

or

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

The proposed work is as follows:

1. Move in rig, kill well, install B.O.P.E. and test.
2. Clean out to 9200'. Run TDT and cement bond log. Perform indicated remedial work.
3. Install new well heads. Pressure test 7" casing. Perform any indicated remedial work.
4. Run packer and tubing with safety valve and gas lift valves.
5. Complete as gas storage well.

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. by GAA.
(Name P.S. Magruder, Jr. (Date)
Type of Organization Corporation
(Corporation, Partnership, Individual, etc.)

FORM 157

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 ~~requested~~ 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:

Old Designation		New Designation		
"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:

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

FORM 103

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA

DEPARTMENT OF NATURAL RESOURCES

91818 1-54 77,050 SPO

DIVISION OF OIL AND GAS RECEIVED SEP 27 1957 LOS ANGELES, CALIFORNIA

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR TIDEWATER OIL COMPANY FIELD ALISO CANYON FIELD

Well No. "Standard-Sannon 1-#16", Sec. 28, T. 3N, R. 16W, S.B. B. & M.

Date September 16, 1957, 19 Signed L. A. Braden

(Address) (Telephone Number) Title L. A. Braden, Agent

(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

Before altering casing, the well was idle, and was in the following mechanical condition:

20" C 43'
13-3/8" 54.5# C 837'
7" 23, 26, 29# C 8865' WSO 8774' 4 H/F 8860'-8847'; 8826'-8811'
413' 5" 18# C 9203' Hanger 8790' C.P. 9005'
4 H/F 8811'-8826'; 8847'-8860'; 8890'-8950'; 8960'-8990'; 9030'-9180'

Junk: 5" 18# L 9005' All Pf. Top 8896'

1957

6/25-26 Contractor moved in and rigged up.

6/27 Circulated dead oil. Tore out Christmas tree and installed B.O.P. Pulling tubing.

6/28 Completed pulling tubing and laid down packer. Ran 2-7/8" tubing including 424' of 2-3/8" and spotted 4 bbls. Ken-Pak on bottom. Pulled tubing to 9036' and backscuttled excess Ken-Pak. Pulled tubing.

6/29 Ran Baker magnesium bridge plug and set at 9036' by McCullough. Ran Baker Model "K" magnesium retainer on 2-7/8" and 2-3/8" tubing and set at 8998'. Formation broke down at 1000 psi. Mixed and displaced 36 sacks Victor hi-temp. cement, 36 cu. ft. Sealite, 28 sacks Posmix, mixed with 4% Gel, below retainer. Had partial circulation at all times. Time 4:30 PM. Oil Well Cementers. Pulled tubing 1000' and after 5 hours, found top of cement at 8549'.

6/30 Made up 2-7/8" drill pipe. Ran 6" bit and Baker scraper and cleaned out cement 8549'-8790', top of liner. Ran 4-1/2" bit and Baker scraper.

7/1 Cleaned out firm cement 8790'-9036'. Circulated hole clean. Ran Guiberson GW packer with double opposed cups and set at 9010'. Pressured annulus to 1500 psi for 10 min. with no circulation. Pulled packer. Ran bit and scraper.

7/2 Drilled up bridge plug at 9036' and circulated out Ken-Pak to 9185' with oil. Ran M & T circulating washer and washed perforations from 9030'-9185' with lease crude. Interval 9041'-9045' tight.

7/3 Ran Guiberson KV-30 packer on 2-7/8" and 2-3/8" tubing with Otis side door choke nipple and blank choke above packer and set at 9013'. Pressured annulus to 1500# for 15 min. with no circulation. Tore out B.O.P. Installed Christmas tree. Contractor moving out.

7/4 Contractor moved out.

7/5 Idle.

OPERATOR: TIDEWATER OIL COMPANY

WELL NO.: STANDARD-SESNON 1-#16, Aliso Canyon Field

1957

7/6 Pulled blank choke. Rigged up and swabbed 50 bbls. circulating oil.
7/7 Swabbed 120 bbls. gross, 102 bbls. net, 15% cut, all circulating oil. Fluid level 2000-4000'.
7/8 Swabbed 140 bbls. gross, 112 bbls. net, 20% cut, all circulating oil.
7/9 Swabbed 120 bbls. gross, 96 bbls. net, 20% cut, all circulating oil.
7/10 Swabbed 120 bbls. gross, 96 bbls. net, 20% cut, all circulating oil.
7/11 Swabbed 110 bbls. gross, 86 bbls. net, of which 48 bbls. is formation oil, 22% cut. All circulating oil has been recovered. Fluid level 1000-2000'. 0/150#.
7/12 Swabbed 115 bbls. gross, 89 bbls. net, 23% cut, Fluid level 1000-2000'. 0/325#.
7/13 Swabbed and flowed 110 bbls. gross, 97 bbls. net, 12% cut, Put 1200# gas to casing and swabbed 50-60 bbls. when well started to flow. Well died in 1 hour. Returned to swabbing.
7/14 Swabbed 98 bbls. gross, 85 bbls. net, 13% cut.
7/15 Swabbed and flowed 120 bbls. gross, 104 bbls. net, 13% cut. Fluid level 1500-4500'. 0/900-1200#.
7/16 Swabbed and flowed 123 bbls. gross, 106 bbls. net, 15% cut. Fluid level 2000-3500', 0/900#.
7/17 Rigging up to pull tubing and install gas lift valves.
7/18 Circulated dead oil. Installed B.O.P. Pulling tubing.
7/19 Completed pulling tubing. Running tubing with gas lift valves.
7/20 Completed running 2-7/8" and 2-3/8" tubing and landed on Guiberson KV-30 packer at 9012'. Included 5 Camco valve mandrels w/retrievable valves in tubing string. Installed Christmas tree and placed well on gas lift at 1200 Noon. In 18 hours recovered 250 bbls. gross, 235 bbls. net, of which 35 bbls. is formation oil, 6% cut, 200/1050#, 18/64" bean. All circulating oil has been recovered.
7/21 In 24 hours well produced on gas lift 170 bbls. gross, 155 bbls. net, 9% cut, 200/1050#, 18/64" bean.
7/22 In 24 hours well produced on gas lift 165 bbls. gross, 149 bbls. net, 9.5% cut, 200/1050#, 18/64" bean, 100 MCF net.
7/23 In 24 hours well produced on gas lift 123 bbls. gross, 118 bbls. net, 4% cut, 20.8 gravity, 200/1050#, 14/64" bean, 100 MCF net.
7/24 In 24 hours well produced on gas lift 113 bbls. gross, 108 bbls. net, 4% cut, 19.5 gravity, 300/1050#, 14/64" bean.
7/25 In 24 hours well produced on gas lift 114 bbls. gross, 107 bbls. net, 6% cut, 93 MCF, 877 CF/B GOR, 500/1000#, 14/64" bean.
7/26 In 24 hours well produced on gas lift 15 bbls. gross, 14 bbls. net, 6% cut, 400/1000#, 14/64" bean.
7/27

	Gross	Net	Cut	Bean	Pressures	MCF Net	
7/27	190	160	16%	18/64"	500/1050#	186	
7/28	186	175	6%	18/64"	500/1050#	239	
7/29	185	163	12%	18/64"	500/1000#	239	
7/30	118	104	12%	14/64"	500/1050#	109	1050 GOR
7/31	103	97	6%	14/64"	500/1050#	78	20.1 grav.
8/1	120	113	6%	14/64"	500/1050#		
8/2	120	113	6%	14/64"	500/1050#		
8/3	120	113	6.0%	14/64"	500/1050#		
8/4	120	113	6%	14/64"	500/1050#		
8/5	120	113	6%	14/64"	500/1050#		
8/6	120	113	6%	14/64"	500/1050#		
8/7	120	113	6%	14/64"	500/1050#		
8/8	120	113	6%	14/64"	500/1050#		
8/9	125	117	6%	14/64"	500/1050#		
8/10	125	117	6%	14/64"	500/1050#		

OPERATOR: TIDEWATER OIL COMPANY

WELL NO.: STANDARD-SESNON #1-16, Aliso Canyon Field

1957	Gross	Net	Cut	Bean	Pressures	MCF Net
8/11	125	117	6%	14/64"	500/1050#	
8/12	125	117	6%	14/64"	500/1050#	
8/13	125	117	6%	14/64"	500/1050#	
8/14	125	117	6%	14/64"	500/1050#	
8/15	125	117	6%	14/64"	500/1050#	
8/16	Well produced on gas lift as follows:					
	125	117	6%	14/64"	500/1050#	
8/17	125	117	6%	14/64"	500/1050#	
8/18	119	112	6%	14/64"	500/1050#	
8/19	119	112	6%	14/64"	500/1050#	
8/20	Well removed from gas lift.					
	141	133	6%	16/64"	500/1050#	325
8/21	141	133	6%	16/64"	500/1050"	325
8/22	141	133	6%	16/64"	500/1050#	
8/23	141	133	6%	16/64"	500/1050#	
8/24	141	133	6%	16/64"	500/1050#	
8/25	141	133	6%	16/64"	500/1050#	
8/26	141	133	6%	16/64"	500/1050#	
8/27	55	52	6%	11/64"	500/1050#	
8/28	55	52	6%	11/64"	500/1050#	
8/29	60	54	6%	11/64"	500/1050#	

CASING RECORD

	20"		C	43'	
	13-3/8"	54.5#	C	837'	
	7"	23, 26, 29#	C	8865'	WSO 8774' 4 H/F 8860'-8847'; 8826'-8811'
413'	5"	18#	C	9203'	Hanger 8790' C.P. 9005' 4 H/F 8811'-8826'; 8847'-8860'; 8890'-8950'; 8960'-8990'; 9030'-9180'

Junk: 5" 18# L 9005' All Pf. Top 8896'

TUBING RECORD

2-7/8" & 2-3/8" H w/pkr @ 9012'

FORM 111

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

REPORT ON PROPOSED OPERATIONS

No. P 157-756

Mr. Lawrence A Braden
P O Box Y
LOS NIETOS California
Agent for TIDEWATER OIL CO

Los Angeles 15 Calif.
June 12, 1957

DEAR SIR:

Your proposal to alter casing Well No. "Standard-Sesnon 1" 16

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

dated June 7, 1957, received June 11, 1957, has been examined in conjunction with records filed in this office.

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

RECORDS IN ADDITION TO, OR AT VARIANCE WITH, THOSE SHOWN IN THE NOTICE
7" cem. 8865', W.S.O., perf. 8784', W.S.O.

THE NOTICE STATES
"The present condition of the well is as follows:
1. Total depth.
9010'; R.D. 9205'; Pg. 9195'
2. Complete casing record.
20" C 43'
13-3/8" 54.5# C 837"
7" 23, 26, 29# C 8865'
413' 5" 18# C 9203' WSO 8774' CP 9005 Hanger 8790' J.P. 8811'-8826'; 8847'-8860' G.P. 8890'-8950'; 8960'-8990'; 9030'-9180'
Sidetracked Casing: 109' 5" 18# L 9005' Top 8896'

3. Last produced. 3/56 (Date) 114 B/D (Net Oil) (Gravity) 1% (Cut)"

PROPOSAL
"The proposed work is as follows:
1. Spot Geopak from 9195' to 9036' and set bridge plug at 9036'.
2. Set retainer and squeeze perforations at 9030' to 9036', and 9005' with 100 sacks of cement.
3. Clean out to 9033' and pressure test to 1500# with squeeze tool set at 8995'.
4. Clean out to 9195' and wash perforations.
5. Run tubing with packer and complete well."

DECISION
THE PROPOSAL IS APPROVED.

History for this P is in & OK 9/27/57

DER:OH

cc Mr F W Hertel c/o Tidewater Oil Co.
79 New Montgomery Street
San Francisco 20 California

E. H. MUSSER, State Oil and Gas Supervisor

By [signature], Deputy

J/P

Blanket bond.

FORM 107.

DIVISION OF OIL AND GAS
RECEIVED
JUN 11 1957
LOS ANGELES, CALIFORNIA

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

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

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

Los Nietos Calif. June 7 1957

DIVISION OF OIL AND GAS

Los Angeles Calif.

In compliance with Section 3203, Public Resources Code, notice is hereby given that it is our intention to commence the work of ~~deepening, redrilling, plugging or~~ altering casing at Well No. Standard-Sesnon 1-#16
(Cross out unnecessary words)

, Sec. 28, T. 3 N, R. 16 W, S.B. B. & M.

Aliso Canyon Field, Los Angeles County.

The present condition of the well is as follows:

1. Total depth. 9010'; R.D. 9205'; Pg. 9195'

2. Complete casing record.

	20"		C	43'	
	13-3/8"	54.5#	C	837'	
	7"	23, 26,29#	C	8865'	
413'	5"	18#	C	9203'	WSO 8774' CP 9005' Hanger 8790' J.P. 8811'-8826'; 8847'-8860' G.P. 8890'-8950'; 8960'-8990'; 9030'-9180

Sidetracked Casing: 109' 5" 18# L 9005' Top 8896'

3. Last produced. 3/56 (Date) 114 B/D (Net Oil) (Gravity) 1% (Cut)

The proposed work is as follows:

1. Spot Geopak from 9195' to 9036' and set bridge plug at 9036'.
2. Set retainer and squeeze perforations at 9030' to 9036', and 9005' with 100 sacks of cement.
3. Clean out to 9033' and pressure test to 1500# with squeeze tool set at 8995'.
4. Clean out to 9195' and wash perforations.
5. Run tubing with packer and complete well.

Alter Casing

MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121
			Blanket	EB	

TIDEWATER OIL COMPANY
(Name of Operator)

By L. A. Braden
L. A. Braden, Agent

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

FORM 103

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
MAR 27 1958
LOS ANGELES, CALIFORNIA

History of Oil or Gas Well

OPERATOR TIDEWATER OIL COMPANY, Operator FIELD ALISO CANYON FIELD

Well No. "Standard-Semon 1-#16", Sec. 28, T. 3N, R. 16W, S.B. B. & M.

Date March 24, 1958 Signed R. M. Burns

P. O. Box Y, Los Nietos (Address) OX 9-1051 (Telephone Number) Title R. M. Burns, Agent (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

Before altering casing, the well was flowing 95 B/D net, 6.0% cut, 385 MCF gas, 4190 CF/B GOR, and was in the following mechanical condition:

	20"		C	43'	
	13-3/8"	54.5#	C	837'	
	7"	23, 26, 29#	C	8865'	WSO Shoe
413'	5"	18#	C	9203'	G.P. 9005' Hanger 8790'

G.P. 8890'-8950'; 8960'-8990'; 9030-9180' (4 - 1/2" H/F)

T.D. 9010"; R.D. 9205'

1957
1/11 Pulled side door choke. Preparing to kill well in preparation to perforating S-1 to S-4 interval.

1/12-13 Idle.

1/14 Killed well with 374 barrels oil.

1/15 California Production Service moved in and rigged up. Installed B.O.P. Pulled tubing and packer. Attempted to run Neutron log by McCullough. Line too short.

1/16 Ran McCullough Neutron log and collar locator from 9172' to 7600'. Log indicated top of liner 8802-03'. Shot four jet holes at 8774' by McCullough. Water Shutoff 8774': Ran Johnston straddle tester on 2-7/8" tubing with 1800' water cushion and set multi-ring packer at 8768' and bobtail packer at 8800'. Opened 3/4" bean at 9:00 PM. Had faint puff, then dead for balance of 2 hr. 15 min. test., Recovered 10' net rise. Charts confirmed results of test. WSO witnessed and approved by D.O.G.

1/17 Installed lubricator and jet perforated four 1/2" holes per foot from 8860' to 8847' and 8826'-8811' by McCullough. Scraped casing from 8811' to 8860'. Lowered scraper and found tight spot at 8905'. Running tubing.

1/18 Completed running 2-7/8" tubing including 6 gas lift valves and landed on packer at 8758'. Installed Christmas tree and hooked up injection line.

1/19 In 24 hours well produced on gas lift 206 bbls., all circulating oil.

1/20 In 24 hours well produced 292 bbls. gross, 292 bbls. net of which 37 bbls. is formation oil. Injection gas shut off at 10:00 AM and bean reduced from 18/64" to 12/64". 750/1200#.

1/21 In 24 hours well flowed 130 bbls. gross, 122 bbls. net, 6% cut, 1200/1200#, 433 MCF, 3549 GOR. Reduced bean from 12/64" to 10/64" at 3:00 PM.

1/22 In 24 hours well flowed 103 bbls. gross, 101 bbls. net, 2% cut, 429 MCF, 4248 GOR, 1150 /1150#, 10/64" bean.

1/23 In 24 hours well flowed 103 bbls. gross, 102 bbls. net, 1.0% cut, 21.6 gravity, 448 MCF, 4392 GOR, 1150/1150#, 10/64" bean.

1/24 In 24 hours well flowed 130 bbls. gross, 129 bbls. net, 0.8% cut, 21.4 gravity, 528 MCF, 4095 GOR, 1100/1100#, 12/64" bean.

OPERATOR: TIDEWATER OIL COMPANY, Operator

WELL NO.: STANDARD-SESNON 1-#16, Aliso Canyon Field

1957	Gross	Net	Cut	Gravity	Bean	Tubing Pressure	Casing Pressure	MCF Gas	GOR
1/25	130	129	0.8%	21.8	12/64"	1100#	1100#	519	4023
1/26	120	119	0.8%	21.8	12/64"	1100#	1100#	521	4376
1/27	129	128	0.8%	21.8	12/64"	1100#	1100#	560	4376
1/28	129	128	0.8%	21.8	12/64"	1100#	1100#		
1/29	129	128	0.8%	21.8	12/64"	1100#	1100#		
1/30	129	128	0.8%	21.8	12/64"	1100#	1100#		
1/31	129	128	0.8%	21.8	12/64"	1100#	1100#		
2/1-13	Shut in due to high gas-oil ratio.								
2/14	In 16 hours well flowed:								
	124	123	0.8%	21.8	14/64"	1000#	1000#	279	2268
2/15	175	172	2.0%	21.8	14/64"	1000#	1000#	613	3553
2/16	132	131	0.8%	21.8	14/64"	1000#	1000#	662	5053
2/17	152	151	0.8%	21.8	14/64"	1000#	1000#	684	4530
2/18	144	143	0.8%	21.8	14/64"	1000#	1000#	682	4767
2/19	165	164	0.8%	21.8	16/64"	1000#	1000#		
2/20	175	174	0.8%	21.8	16/64"	1000#	1000#	778	4471
2/21	165	164	0.8%	21.8	16/64"	1000#	1000#	777	4738
2/22	164	163	0.8%	21.8	16/64"	1000#	1000#	830	5073
2/23	In 11 hours well flowed:								
	83	82	0.8%	21.8	16/64"	1000#	1000#		

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2/24-3/12 Shut in.

3/13 Contractor moved in and rigged up. Pulled tubing and laid down flow valves and packer. Preparing to test S-1 to S-4 sand.

3/14 J.C.T. 8811'-8860': Ran Johnston straddle tester on 2-7/8" tubing with 60' air cushion. Set hook wall packer at 8873' and sidewall packer at 8761'. Opened 3/4" bean at 4:10 PM for 20 min. initial shut in test. Opened disc valve at 4:30 PM. Had gas to surface in 1 min. and fluid to surface in 45 min. In 12 hours well flowed 141 bbls. oil, 304 MCF gas, 2164 CF/B GOR. Bean reduced to 32/64" at 7:00 PM and 24/64" at 10:00 PM. Gas rate at 6:00 AM, 902 MCF/D.

3/15 On test well flowed in 5-1/2 hours, 80 bbls. gross, 78 bbls. net, 2% cut, 18.2 gravity, 24/64" bean. Final gas rate 1043 MCF/D. Pulled tester loose at 11:00 AM after 17-1/2 hours test when pressure started to build up in annulus. Loaded well with dead oil. Pulled tester.

3/16 Completed pulling tester. Initial shut in pressure 2500#. Final flow pressure 1700 psi. Charts indicated packer leaking. Ran 2-7/8" and 2-3/8" tubing including 6 gas lift valves and landed on packer at 8877'. Bottom hole choke nipple and perforated nipple above packer.

3/17 In 24 hours recovered on gas lift155 bbls. circulating oil.

3/18 In 24 hours recovered 141 bbls. circulating oil. Shut off gas lift gas at 11:00 AM and reduced bean from 16/64" to 12/64". Gas rate 434 MCF/D, 1050/1100#.

3/19 In 24 hours well flowed 142 bbls. gross, 141 bbls. net, of which 47 bbls. is formation oil, 21.8 gravity, 1150/1150#, 12/64" bean. Gas rate 640 MCF/D.

3/20 In 24 hours well flowed 109 bbls. gross, 108 bbls. net, 0.8% cut, 680 MCF, 6296 CF/B GOR, 1150/1150#, 12/64" bean.

3/21 Well produced 3 hours - no gauge. Shut well in at 9:00 AM because of excessive gas-oil ratio. Preparing to install bottom hole choke.

3/22 Changing lead line.

3/23 Ran blank bottom hole choke. In 19 hours well flowed 49 bbls. gross, 49 bbls. net, 0.8% cut, 1150/1150#, 12/64" bean.

3/24 In 24 hours well flowed 104 bbls. gross, 103 bbls. net, 0.8% cut, 661 MCF, 6417 CF/B GOR, 1180/1150#, 12/64" bean.

3/25 In 24 hours well flowed 115 bbls. gross, 114 bbls. net, 0.8% cut, 835 MCF, 7324 C/FB GOR. Increased bean from 12/64" to 14/64" at 12:00 Noon.

3/26 Shut well in to equalize. Preparing to pull and check bottom hole choke.

3/27 Attempting to pull bottom hole choke.

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LOS ANGELES, CALIFORNIA

OPERATOR: TIDEWATER OIL COMPANY Operator

WELL NO.: STANDARD-SESNON 1-#16

3/28 Pulled bottom hole choke. Packing in good condition, showing no signs of leaking.
3/29 Killed well with oil.
3/30 Pulled tubing. Packer rubbers O.K. Pumped in 80 bbls. dead oil when well started to flow.
3/31 Ran 2-7/8" and 2-3/8" tubing including 6 gas lift valves and landed on packer at 8866'. Bottom hole choke nipple with blank choke installed and perforated nipple above packer.
4/1 Recovered 10 bbls. circulating oil attempting to unload well on gas lift.
4/2 In 20 hours recovered 195 bbls. circulating oil, 950/1200#, 14/64" bean. Shut off injection gas at 2:00 PM.
4/3 In 13 hours well flowed 103 bbls. circulating oil, 1100/1300#, 14/64" bean. At 7:00 PM, with gas rate at 728 MCF/D, well suddenly stopped flowing and pressures dropped to 0/900#. Pressures at 6:00 AM, 200/900#.
4/4 Put well on gas lift and recovered 41 bbls. circulating oil when flow ceased and gas started circulating. 700/750#. Injection rate 360 MCF/D.
4/5 Shut well in at 6:00 AM. Ran pressure bomb and found fluid level at approximately 8500', 100/200#.
4/6-11 Shut in.
4/12-18 Shut in.

CASING RECORD

	20"		C	43'		
	13-3/8"	54.5#	C	837'		
	7"	23, 26, 29#	C	8865'	WSO 8774'	4 H/F 8860-8847; 8826-8811'
413'	5"	18#	C	9203'	Hanger 8790'	C.P. 9005'

4 H/F 8811'-8826'; 8847-8860'; 8890'-8950'; 8960'-8990'; 9030'-9180'

Junk: 5" 18# L 9005' All Pf. Top 8896'

TUBING RECORD

2-7/8" & 2-3/8" L w/pkr. @ 8866' incl. 6 gas lift valves

FORM 109-A

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Test of Water Shut-off

(FORMATION TESTER)

No. T 157-108

Mr. Lawrence A Braden
P O Box "Y"
Los Nietos California
Agent for TIDEWATER OIL COMPANY

Los Angeles 15 Calif.
January 21, 1957

DEAR SIR:

Your well No. "Standard-Sesnon 1" 16, Sec. 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 January 16, 1957. Mr. J. Hardoin, Engineer, designated by the supervisor was present from 3:00 to 4:00 a.m. as prescribed by law; there were also present A. P. Babylon, Engineer
C. R. McBride, Drilling Foreman

Shut-off data: 7 in. 23, 26, 29 lb. casing was xx cemented xxxxxxxxxxxx at 8865 ft. on December 6, 1949 in 11 in. hole with 500 ~~xxxx~~ sacks of cement calculated to fill behind casing to 7437 ft. below surface.

Casing record of well: 13-3/8" cem. 837'; 7" cem. 8865', W.S.O., four ½" test holes 8784', W.S.O., 5" cem. 8790'-9203', c.p. 9005', perf. 8990'-8890' and 9180'-9030'.

Present depth 9205 ft. cmt. bridge 9203 ft. to 9195 ft. Cleaned out cmt. xxx ft. to xxx ft. for test. A Johnston gun and tester was run into the hole on 2-7/8 in. drill pipe-~~xxxxx~~ with 2000 ft. of water-~~xxx~~ cushion, and packers set at 8790', 8735' ~~xxx~~ with tailpiece to xxx ft. Tester valve, with 1/2 in. bean, was open for 2 hr. and xxx min. During this interval there was a light puff and no blow thereafter.

Mr. Babylon reported:

1. The 7" casing was shot-perforated with four ½" holes at 8784'.
2. A Johnston tester was run as noted above.

THE ENGINEER NOTED

1. When the tubing was removed, a net rise of 10' of normal drilling fluid was found in the tubing above the tester, equivalent to 0.01 bbl.
2. The recording pressure bomb chart showed that the tester valve was open 2 hour.

THE 7" SHUT-OFF AT 8784' IS APPROVED.

JH:ys

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

4/4

E. H. MUSSER
State Oil and Gas Supervisor

By R. N. Walling Deputy

39720 7-56 17M ② SPO

FORM 111 (1-49)

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

REPORT ON PROPOSED OPERATIONS

No. P 157-53

Mr. Lawrence A Braden
P O Box Y
LOS NIETOS California
Agent for TIDEWATER OIL CO

Los Angeles 15 Calif.
January 10 19 57

DEAR SIR:

Your "Standard-Sesnon" proposal to alter casing Well No. 1-16,

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

dated Jan. 8, 1957, received Jan. 9, 1957, 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. 9010'; R.D. 9205'; Pg. 9195'
2. Complete casing record.

20"		C 43'	
13-3/8"	54.5#	C 837'	
7"	23, 26, 29#	C 8865'	WSO shoe
413' 5"	18#	C 9203'	Hanger 8790' C.P. 9005' C.P. 8890'-8950'; 8960'-8990'; 9030'-9180' (4 - 1/2" H/F)

3. Last produced. Dec., 1956 (Date) 86 B/D (Net Oil) 20.0 (Gravity) 60% (Cut)"

PROPOSAL
"The proposed work is as follows:
1. Run neutron log and shoot four jet holes at 8784'.
2. Run straddle tester and test for water shutoff at 8784'.
3. Jet perforate four 1/2" holes/foot at intervals from 8806'-8855'. Scrape casing.
4. Run tubing on packer and complete well."

DECISION
THE PROPOSAL IS APPROVED.

FEK:OH

cc Messrs R S Curl
R M Burns (2)

Mr F W Hertel
c/o Tidewater Oil Co
79 New Montgomery Street
San Francisco 20 California

History for this & report in 4 OK 3/27/58

4/17

E. H. MUSSER, State Oil and Gas Supervisor

By R. N. Walling, Deputy

11210 1-55 30M SPO
Blanket bond

FORM 107.

DIVISION OF OIL AND GAS
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JAN 9 1957
LOS ANGELES, CALIFORNIA

JAN 9 1957
LOS ANGELES, CALIFORNIA

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

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

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

Los Nietos, Calif. January 8 1957

DIVISION OF OIL AND GAS

Los Angeles Calif.

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of ~~deepening, redrilling, plugging~~ or altering casing at Well No. Standard-Sesnon 1-#16
(Cross out unnecessary words)

, Sec. 28, T. 3 N, R. 16 W, S.B. B. & M.

Aliso Canyon Field, Los Angeles County.

The present condition of the well is as follows:

1. Total depth. 9010'; R.D. 9205'; PB. 9195'

2. Complete casing record.

	20"		C	43'	
	13-3/8"	54.5#	C	837'	
	7"	23, 26, 29#	C	8865'	WSO shoe
413'	5"	18#	C	9203'	Hanger 8790' C.P. 9005'

C.P. 8890'-8950'; 8960'-8990'; 9030'-9180' (4 - 1/2" H/F)

3. Last produced.

Date	Net Oil	Gravity	Cut
Dec., 1956	86 B/D	20.0	60%

The proposed work is as follows:

1. Run neutron log and shoot four jet holes at 8784'.
2. Run straddle tester and test for water shutoff at 8784'.
3. Jet perforate four 1/2" holes/foot at intervals from 8806'-8855'. Scrape casing.
4. Run tubing on packer and complete well.

alter casing

All/~~MAP~~	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121
			Blanket		

TIDEWATER OIL COMPANY
(Name of Operator)

By D. A. Brazeau, Agent

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

FORM 100.
CALIFORNIA STATE PRINTING OFFICE

SUBMIT LOG IN DUPLICATE

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

DIVISION OF OIL AND GAS
RECEIVED
OCT 22 1953
LOS ANGELES, CALIFORNIA

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

WELL SUMMARY REPORT

Operator: TIDE WATER ASSOCIATED OIL COMPANY Field: ALIMO CANYON

Well No.: Standard-Sesnon 1-#16 Sec. 28, T. 3 N, R. 26 W, S.B. B. & M.

Location: 2778.07' S & 6130.04' W from Station #84 Elevation above sea level: 2386.13 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: October 21, 1953 Signed: [illegible]

A. C. Tutschulte (Engineer or Geologist) O. O. Suman (Superintendent) Title: Agent (President, Secretary or Agent)

Commenced ~~drilling~~ redrilling 6-30-53 Completed ~~drilling~~ 7-27-53 (redrilling) Drilling tools ~~Cable~~ Rotary

Total depth 9010' Plugged depth 8888'; R.D. 9205'

Junk 109' 5" 18# L 9005'
All pf. Top 8896'

GEOLOGICAL MARKERS	DEPTH

~~Commenced producing~~ Recompleted July 31, 1953 (date) Flowing/~~gas lift~~/pumping (cross out unnecessary words)

	Clean Oil bbl. per day	Gravity Clean Oil	Per Cent Water including emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pressure
8/24/53 Initial production	659 Bbls.18 hrs. (878 B/D rate)	19.1	2.4%	297/18 hrs.	200#	1500#
Production after 30 days	384	20.3	2.0%	213	350#	300#

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
13-3/8"	837'	0'	54.5#	New	Seamless	J-55	17-1/2"	550	
7"	8865'	0'	23,26,29#	New	Seamless	J-55,N-80	11"	500	
5"	9203'	8790'	18#	New	Seamless	N-80, F.J.	6"	75	
								273 sx. + 126 cf LWA	C.P.9005

PERFORATIONS

Size of Casing	From	To	Size of Perforations	Number of Rows	Distance Between Centers	Method of Perforations
5"	8890 ft.	8950 ft.	4 - 1/2" holes/foot			Gun perfs.
	8960 ft.	8990 ft.	4 - 1/2" holes/foot			Gun perfs.
	9030 ft.	9180 ft.	4 - 1/2" holes/foot			Gun perfs.
	ft.	ft.				
	ft.	ft.				

Electrical Log Depths 8887' - 9202' (Attach Copy of Log)

FORM 103.
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
OCT 22 1953
LOS ANGELES, CALIFORNIA

History of Oil or Gas Well

OPERATOR: TIDE WATER ASSOCIATED OIL COMPANY FIELD: ALISO CANYON

Well No.: Standard-Sesnon 1-#16, Sec.: 28, T.: 3 N, R.: 16 W, S.B. B. & M.

Signed: J. C. Fitton

Date: October 21, 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	
1953	
6/23-6/25	Moved in and rigged up rotary.
6/26	Killed well with salt water.
6/27-6/29	Displaced salt water with Ken Oil. Conditioned Ken Oil. Pulled tubing. Made up 3-1/2" drill pipe.
6/30	Cleaned out liner to 9005'. Going in with cutter.
7/1	Made cut #1 at 8861' and recovered 11', including hanger of 5" liner. Made cut #2 at 8885'.
7/2	Recovered 5" liner from 8885'. Made cut #3 at 8896' and recovered liner.
7/3	Hung 3-1/2" drill pipe with 2" tubing stringer at 8995' and pumped in 25 sacks Colton Hi-temperature cement. Final pressure 950#. Time 4:40 PM. B.J. Service. Located top of cement at 8892'. Cleaned out cement to top of liner at 8896'.
7/4	Cleaned out cement in liner to 8905'. Ran and cemented whipstock oriented by Eastman directly south at 8890'. Pumped in 50 sacks Colton Hi-temperature cement. Final pressure 1600#. Time 2:30 AM - 7-5-53. B.J. Service.
7/5	Found top of cement at 8783' and cleaned out to 8886'.
7/6	Drilled by top of whipstock from 8886' to 8888'.
7/7	Redrilled 6" hole from 8888' to 8896'. Hole is taking 70# fluid.
7/8	Redrilled 6" hole from 8896' to 9027'. Hole lost approximately 250 barrels of 70# drilling fluid.
7/9	Redrilled 6" hole from 9027' to 9033'. Ran Schlumberger Mono-Electrode and Induction log. Losing Ken Oil to formation.
7/10-7/11	Redrilled 6" hole from 9033' to 9205'. Ran Schlumberger electric log at 9205'.
7/15	Reamed 6" hole to 9205'. Ran 413' 5" 18# N-80 F.J. Youngstown blank liner and landed at 9203'. Top of hanger at 8790'. Hung 3-1/2" drill pipe at 8813', with oriented swab cups on bottom, and cemented liner with 75 sacks Colton Hi-temperature cement. Final pressure 1900#. Time 4:10 AM 7-16-53. B.J. Service.
7/16	Drilled out cement plug to 8790'. Top of plug 8760'.
7/17	Cleaned out cement in liner to 9200'. Ran McCullough Gamma Ray. Shot four jet holes at 9005'. Ran Johnston tester on 3-1/2" drill pipe. Set packer at 8850' with tailpipe to 8865' to test holes at 9005'. Used 500' water cushion. Opened valve at 10:22 PM and had fair, diminishing to faint blow. Closed valve at 11:42 PM. Had gas to surface in 20 minutes. Recovered net rise of 5050' clean oil, most of which blew from drill pipe. Charts checked details of test with pressure rise of 1300-1800#.

DIVISION OF OIL AND GAS
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OCT 22 1953
LOS ANGELES, CALIFORNIA

OPERATOR: TIDE WATER ASSOCIATED OIL COMPANY

WELL NO.: Standard-Sesnon 1-#16, Aliso Canyon Field

1953

7/18 Ran three inverted Guiberson swab rubbers on 3-1/2" drill pipe and set at 8820'. Formation took fluid at the rate of 14 cu. ft. per minute at 1500# pressure. Pumped in 50 sacks Colton Hi-temperature cement through four holes at 9005'. Final pressure 1500#. Maximum pressure 2200#. Time 10:30 PM. B.J. Service.

7/19 Ran 3 inverted swab rubbers on 3-1/2" drill pipe and set at 8820'. Formation took fluid at a rate of 12 cu. ft. per minute at 1200# pressure through holes at 9005'. Pumped 50 sacks Colton Hi-temperature cement through holes at 9005'. Final pressure 1200#. Maximum pressure 1500#. Time 11:05 PM. B.J. Service.

7/20 Tested holes at 9005'. Broke down formation at 1400# and took fluid at 1100#.

7/21 Ran three inverted Guiberson swab rubbers on 2-7/8" tubing and set at 8825'. Formation took fluid at the rate of 12 cu. ft. per minute at 1800# through holes at 9005'. Pumped in 50 sacks Colton Hi-temperature cement. Final pressure 1200#. Time 1:30 PM. B.J. Service.

7/22 Cleaned out cement from 9050' to 9158'. Ran three inverted swab rubbers on 3-1/2" drill pipe and set at 9020'. Held 1500# for 30 minutes. Set tool at 8990'. Formation took fluid readily at 1250# through holes at 9005'. Time 10:30 PM.

7/23 Ran Baker Model "K" retainer on 3-1/2" drill pipe and set at 8733'. Formation took fluid at the rate of 10 cu. ft. per minute at 1700#. Pumped in approximately 22 sacks Colton Hi-temperature cement mixed with approximately 22 cu. ft. Strata-Crete and 4% Gel. Placed all of mix below retainer. Final pressure 1800#. Time 10:00 AM. B.J. Service. Milled on retainer.

7/24 Cleaned out to 9135' and found no cement. Holes at 9005' took fluid readily at 1250# Time 9:00 AM. Ran Baker Model "K" retainer with top ball on 3-1/2" drill pipe and set at 8723'. Formation took fluid at 10 cu. ft. per minute rate at 1800# pressure. Pumped in 50 sacks Colton Hi-temperature cement mixed with 52 cu. ft. Strata-Crete and 4% Gel and displaced all cement below retainer. Dropped ball and held 2500# pressure. Final pressure 2500#. Time 6:50 PM. B.J. Service.

7/25 Drilled out retainer and cleaned out cement from 8950' to 9008'. Formation took fluid readily at 1250# pressure.

7/26 Ran Baker Model "K" retainer with top ball on 3-1/2" drill pipe and set at 8715'. Formation took fluid at 12 cu. ft. per minute rate at 1600#. Pumped in 50 sacks Colton Hi-temperature cement mixed with 52 cu. ft. Strata-Crete and 4% Gel. Displaced all cement below retainer. Final pressure 1850#. Time 1:40 PM. B.J. Service. Top ball did not hold.

7/27 Cleaned out cement from 8870' to 9028'. Tested holes at 9005' with 1500# O.K. for 30 minutes.

7/28 Gun perforated four holes per foot by McCullough from 8990' to 8960'; 8950' to 8890'.

7/29 Unable to get tester in liner.

7/30 Ran Johnston formation tester on 2-7/8" tubing and set packer at 8680' with tailpipe to 8705'. Set Guiberson gas lift valves at 18, 38, 56, 73 and 89 stands. Opened tester at 11:45 AM. Had no blow. Injected gas at 12:05 PM. Fluid came around at 1215 PM to 6:00 AM 7-31-53. Gas lifted approximately 175 barrels Ken Oil. Gas pressure 920#. Flowing Ken Oil by heads.

7/31 Shut off gas lift at 12:00 Noon, as gas was going around. Bled off pressure in annulus. Pulled packer loose at 2:15 PM. Second and third valves were defective and did not hold set pressure.

8/1 Ran Johnston tester on 2-7/8" drill pipe and set packer at 8680' with tailpipe to 8705'. Displaced Ken Oil with crude oil and lost approximately 100 barrels to formation. Gas lift valves set at following stands: 18, 38, 56, 73 and 89. Set packer at 1:45 PM. Started gas lift at 2:00 PM.

RECEIVED
OCT 22 1953
LOS ANGELES, CALIFORNIA

OPERATOR: TIDE WATER ASSOCIATED OIL COMPANY

WELL NO.: Standard-Sesnon 1-#16, Aliso Canyon Field

1953

8/2 Shut off gas lift at 10:00 AM with a pressure of 920#. Gas was blowing around. Recovered 165 barrels crude oil. Pulled packer loose at 12:00 Noon. Cleaned out 5" liner to gun perforate Lower Zone.

8/3 Gun perforated by McCullough four 1/2" holes per foot from 9030' to 9180'. Cleaned out and scraped 5" liner.

8/4 Landed 2-7/8" tubing with Guiberson double opposed cup packer at 9015', including bottom 9 joints of 2-3/8" tubing.

8/5 Displaced Ken oil with crude oil through Otis Choke above packer. In 16 hours well produced on gas lift 103 barrels, all circulating oil; 140# tubing pressure, 1550# casing pressure; 64/64" bean. Released rig at 5:00 PM.

8/6 In 2 hours well produced on gas lift 21 barrels of circulating oil, 150# tubing pressure, 1550# casing pressure, 16/64" bean. Dead since 8:00 AM.

8/7-8/9 Shut in. Tearing out and cleaning equipment.

8/10 Shut in. Tubing pressure 150#; casing pressure 1600#. Tearing out rotary equipment.

8/11 Swabbed 50 barrels of very heavy Ken Oil in 6 hours. Fluid level 1800'. Casing pressure 1240#.

8/12 Swabbed 20 barrels of heavy Ken Oil and Baroid in 6 hours. Fluid level approximately 1000'. Built up casing pressure with compressor to 1420#.

8/13 Swabbed 20 barrels heavy Ken Oil and Baroid in 3 hours. Fluid level approximately 1000'. Casing pressure 1380#. Repaired hoist.

8/14 Swabbed well in at 12:00 Noon. In 18 hours well flowed 675 barrels gross (900 rate); 659 barrels net (878 rate); 48-24/64" bean; 200# tubing pressure; 1500# casing pressure; cut 1.2% water; 1.2% mud, total 2.4%; gravity 19.1; gas-oil ratio 450. Changed from 48/64" to 24/64" bean at 10:00 PM and shut off injection gas.

1953	Gross	Net	Cut	Bean	Gravity	Tubing Pressure	Casing Pressure	MCF Gas	Gas-Oil Ratio
8/15	In 24 hours well flowed:								
	391	384	1.7%	18/64	19.8	350#	1580#	175	448
	Cut includes 0.7% water and 1.0% mud.								
8/16	391	386	1.3%	18/64	20.0	420#	1570#	226	578
	Cut includes 0.5% water and 0.8% mud.								
8/17	394	388	1.4%	18/64	19.9	420#	1570#	218	553
	Cut includes 0.5% water and 0.9% mud.								
8/18	381	377	1.0%	18/64	20.0	420#	1570#	222	583
	Total cut is 1.0% mud.								
8/19	360	356	1.0%	18/64	20.0	420#	1550#	217	603
	Total cut is 1.0% mud.								
8/20	In 7 hours well flowed through tubing as follows:								
	121	116	4.0%	18/64	(Cut includes 2.0% mud and 2.0% water)				
	Ran pressure bomb. Bled down casing pressure for three hours. At 4:00 PM shut in tubing and began flowing well through casing with both Zones open.								
	In 17 hours well flowed as follows:								
	294	282	4.0%	24/64		390#	400#	413	
8/21	390	389	0.4%	18/64	20.6	550#	400#	200	
8/22	351	351	0.3%	18/64	20.5	600#	400#	211	
8/23	361	361	0.2%	18/ 64	21.1	700#	400#	212	
8/24	351	350	0.5%	18/64	19.9	700#	400#	212	
8/25	391	385	1.6%	18/64	20.4	725#	400#	220	
8/26	340	336	1.0%	18/64	20.0	725#	400#	212	

DIVISION OF OIL AND GAS
RECEIVED
OCT 22 1953
LOS ANGELES, CALIFORNIA

OPERATOR: TIDE WATER ASSOCIATED OIL COMPANY

WELL NO.: Standard-Sesnon 1-#16, Aliso Canyon Field

1953	Gross	Net	Cut	Bean	Gravity	Tubing Pressure	Casing Pressure	MCF Gas
8/27	351	350	0.4%	24/64	20.0	200#	250#	194
	Installed Otis blank bean at 2:00 PM. Well would not flow through tubing but continued to flow through casing.							
8/28	412	411	0.3%	24/64	20.0	350#	350#	220
8/29	406	404	0.4%	24/64	20.0	350#	350#	216
8/30	418	417	0.2%	20/64	20.0	350#	350#	232
8/31	444	443	0.3%	24/64	19.9	350#	350#	251
9/1	422	418	1.0%	24/64	20.0	300#	350#	250
9/2	422	415	1.6%	24/64	20.0	300#	350#	252
9/3	406	397	2.3%	24/64	20.9	360#	350#	241
9/4	410	403	1.7%	24/64	20.0	350#	350#	249
9/5	412	408	0.9%	24/64	20.2	325#	350#	242
9/6	412	406	1.4%	24/64	20.2	325#	350#	245
9/7	411	406	1.1%	24/64	20.3	325#	350#	248
9/8	402	394	2.0%	24/64	20.3	300#	350#	246
9/9	515	505	2.0%	24/64	20.3	300#	350#	364
9/10	484	474	2.0%	24/64	20.3	100#	350#	290
9/11	434	425	2.0%	24/64	20.3	100#	300#	272
9/12	281	275	2.0%	24/64	20.3	100#	300#	247
9/13	371	364	2.0%	24/64	20.3	150#	250#	244
9/14	402	394	2.0%	24/64	20.3	250#	250#	237
9/15	382	374	2.0%	24/64	20.3	300#	250#	230
9/16	392	384	2.0%	24/64	20.3	350#	300#	213

CASING RECORD

	20"		C	43'	
	13-3/8"	54.5#	C	837'	
	7"	23, 26, 29#	C	8865'	
413'	5"	18#	L	9203'	C.P. 9005' Top 8790'

G.P. 4 H/Ft. 8890'-8950'; 8960'-8990'; 9030'-9180'

ABANDONED CASING

109'	5"	18#	L	9005'	All Pf. Top 8896'

TUBING RECORD

2-7/8" & 2-3/8" L w/pkr. 9015'

FORM 111 (1-49)

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

REPORT ON PROPOSED OPERATIONS

No. P 153-605

Los Angeles 15 Calif. May 14 1953

MR. F C Foster
Box Y
Los Nietos Calif.

Agent for TIDE WATER ASSOCIATED OIL CO

DEAR SIR:

Your proposal to redrill & deepen Well No. "Standard-Sesnon 1" 16,

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

dated May 5 1953, received May 6 1953, has been examined in conjunction with records filed in this office.

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

RECORDS IN ADDITION TO, OR AT VARIANCE WITH, THOSE SHOWN IN THE NOTICE

The 7" shut-off was approved.

THE NOTICE STATES

"The present condition of the well is as follows:

1. Total depth. 9010'
2. Complete casing record.

	13-3/8" 54.5#	G	837'	
	7" 23, 26, 29#	C	8865'	
156'	5" 18#	L	9005'	Top 8850'
		Pf.	8881' - 9005'	

3. Last produced. Producing (Date) — 149 (Net Oil) — 20.8 (Gravity) — 2.0% (Cut)"

PROPOSAL

"The proposed work is as follows:

1. Plug with cement from 9005' to 8890'.
2. Recover or mill liner to 8885'.
3. Redrill and deepen to 9160'.
4. Cement 5" blank liner on bottom.
5. Test segregation between Upper and Lower Sesnon Zones.
6. Perforate Upper and Lower Zones and run tubing with packers."

DECISION

THE PROPOSAL IS APPROVED.

ERMA:OH

Jos Jensen

cc Mr Wm E Perkes (2)

Mr T L Wark
c/o Tide Water Assoc Oil Co
79 New Montgomery Street
San Francisco California

R. D. BUSH
State Oil and Gas Supervisor

By

FORM 107. 50672 9-51 15M SPO

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS RECEIVED
MAY 6 1953
LOS ANGELES, CALIFORNIA

DIVISION OF OIL AND GAS

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

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

Los Nietos Calif. May 5, 1953 19

DIVISION OF OIL AND GAS

Los Angeles Calif.

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of deepening, redrilling, plugging or altering casing at Well No. Standard-Seanon #1-16
(Cross out unnecessary words)

, Sec. 28, T. 3 N, R. 16 W, S.B. B. & M.

Aliso Canyon Field, Los Angeles County.

The present condition of the well is as follows:

1. Total depth. 9010'

2. Complete casing record.

	13-3/8"	54.5#	C	837'	
	7"	23, 26, 29#	C	8865'	
156'	5"	18#	L	9005'	Top 8850'
			Pf.	8881' - 9005'	

3. Last produced. Producing (Date) 149 (Net Oil) 20.8 (Gravity) 2.0% (Cut)

The proposed work is as follows:

1. Plug with cement from 9005' to 8890'.
2. Recover or mill liner to 8885'.
3. Redrill and deepen to 9160'.
4. Cement 5" blank liner on bottom.
5. Test segregation between Upper and Lower Seanon Zones.
6. Perforate Upper and Lower Zones and run tubing with packers.

Redrill & deepen

MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121
			Blanket	EB	EB

TIDE WATER ASSOCIATED OIL COMPANY
(Name of Operator)

By J. C. Foster
Agent

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

FORM 100. 7-48
CALIFORNIA STATE PRINTING OFFICE

SUBMIT LOG IN DUPLICATE

FILL BLANK IN WITH TYPEWRITER. WRITE ON ONE SIDE OF P. ...N ONLY

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

RECEIVED
MAR 4 1950
LOS ANGELES

WELL SUMMARY REPORT

Operator: Tide Water Associated Oil Company Field: Aliso Canyon Field

Well No.: Standard Sesnon (#14-16 Sec. 28, T. 3 N, R. 16W S. B. B. & M.

Location: 2778.07' S & 6130.04' W. from Station #84. Elevation above sea level: Derrick floor feet.
All depth measurements taken from top of Derrick floor, which is 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: 3-1-50 Signed:

W. E. Perkes (Engineer or Geologist) E. S. Carl (Superintendent) Title: Agent (President, Secretary or Agent)

Commenced drilling: 9/30/49 Completed drilling: 12/14/49 Drilling tools: Cable / Rotary

Total depth: 9010' Plugged depth:

Junk:

GEOLOGICAL MARKERS	DEPTH

Commenced producing: 12/17/49 (date) Flowing/gas lift/pumping (cross out unnecessary words)

	Clean Oil bbl. per day	Gravity Clean Oil	Per Cent Water including emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pressure
Initial production	325 16 hrs.	20.4	1.0	-	0	0
Production after 30 days	145	20.6	0.6	89	400	1550

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
13-3/8"	837	0	54.5#	New	Seamless	J-55	17-1/2"	500	
7"	8865	0	23, 26, 29#	New	Seamless	J-55, N-80	11"	500	
5"	9005	8850	18#	New	Seamless	J-55	6"	0	

Perforations

of Casing	From	To	Size of Perforations	Number of Rows	Distance Between Centers	Method of Perforations
5"	8861 ft.	9005 ft.	80 H. 5" slots	12	5"	Pacific underreat
	ft.	ft.				
	ft.	ft.				
	ft.	ft.				
	ft.	ft.				

Electrical Log Depths: 837' - 2005' (Attach Copy of Log)

FORM 103
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

History of Oil or Gas Well

LAFAYETTE, LOUISIANA
RECEIVED
MAR 4 1950
LOS ANGELES

OPERATOR TIDE WATER ASSOCIATED OIL COMPANY FIELD ALISO CANYON

Well No. STANDARD-SESNON (#1-16, Sec. 28, T. 3 N, R. 16 W, S.B. B. & M.

Signed [signature]

Date 3-1-50 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: 2778.07' South and 6130.04' West from Station #84.

ELEVATION: 2395.05' Derrick floor.

1949

8/31-9/8 Grading road and rig site. Digging ditch for culvert and installing.
9/9 Finished grading rig site. Drilled hole for conductor pipe to 43' and landed 20" conductor at 43'.
9/10 Set rat hole pipe.
9/11 Idle.
9/12 Cemented 20" conductor pipe at 43' with 4 yards of ready mix concrete.
9/13 Built foundation forms.
9/14 Poured foundation concrete and graded road.
9/15 Poured rig foundation and graded road.
9/16 Graded road and moved in derrick steel.
9/17-18 Idle.
9/19 Erected derrick.
9/20 Erected sub-base and built casing racks.
9/21 Moved in rotary equipment. Built casing racks.
9/22-23 Moved in rotary equipment.
9/24-25 Idle.
9/26-29 Rigged up rotary equipment.
9/30 Spudded 12-1/4" hole at 4:00 P.M. and drilled to 165'.
10/1-4 Drilled 12-1/4" hole from 165' to 1845'.
10/5 Drilled 12-1/4" hole from 1845' to 2040'. Opened 12-1/4" hole to 17-1/2" from surface to 140'.
10/6 Opened 12-1/4" hole to 17-1/2" from 140' to 782'.
10/7 Opened 12-1/4" hole to 17-1/2" from 782' to 837'. Ran and cemented 13-3/8", 54.5# Youngstown J-55, T&C casing at 837', with 550 sacks of Colton Construction cement. Treated first and last 150 sacks with quick setting chemical. Pressure increased from 100# to 250# when plugs bumped. Had good cement returns to surface. Time 11:30 A.M. International Bulk Method.
10/8 Standing cemented. Cleaned out cement and plugs from 825' to 837'.
10/9 Drilled 12-1/4" hole from 2040' to 2135'. Drilled 11" hole from 2135' to 2180'.

FORM 103.
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL & GAS
RECEIVED
MAR 4 1950
LOS ANGELES,

History of Oil or Gas Well

OPERATOR TIDE WATER ASSOCIATED OIL COMPANY FIELD ALISO CANYON

Well No. "STANDARD-SESNON (#)1-16", Sec. 28, T. 3 N, R. 16 W, S.B. B. & M.

Signed F. C. [illegible]

Date 3-1-50 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	
10/10-17	Drilled 11" hole from 2180' to 4678'.
10/18	Drilled 11" hole from 4678' to 4665'. Lost circulation while drilling at 4665' and stuck drill pipe. Mixed rice hulls with mud and worked stuck pipe.
10/19	Mixed rice hulls and mud but could not regain circulation. Ran Hercules string shot and backed off 4-1/2" drill pipe and recovered 7-1/3 stands. Top of fish 646'. Made up 482' of 7-5/8" wash pipe.
10/20	Washed over 4-1/2" drill pipe from 646' to 1063'. Cut and recovered drill pipe at 1070'. Washed over from 1070' to 1253'.
10/21	Washed over 4-1/2" drill pipe from 1063' to 1412'.
10/22	Washed over 4-1/2" drill pipe from 1412' to 1514'. Cut and recovered drill pipe at 1514'.
10/23	Washed over 4-1/2" drill pipe from 1514' to 1959'. Cut and recovered drill pipe at 1916'. Washed over from 1916' to 2185'.
10/24	Washed over 4-1/2" drill pipe from 2185' to 2367'. Cut and recovered drill pipe at 2338'. Washed over from 2338' to 2464'.
10/25	Washed over 4-1/2" drill pipe from 2464' to 2780'. Cut and recovered drill pipe from 2759'. Washed over drill pipe from 2759' to 3065'.
10/26	Washed over 4-1/2" drill pipe from 3065' to 3210'. Cut and recovered drill pipe from 3178'. Washed over drill pipe from 3178' to 3630' and cut and recovered drill pipe from 3601'.
10/27	Washed over 4-1/2" drill pipe from 3610' to 4047'. Cut and recovered drill pipe at 4025'. Washed over drill pipe from 4025' to 4300'.
10/28	Washed over 4-1/2" drill pipe from 4300' to 4480'. Cut and recovered drill pipe at 4447'.
10/29	Reamed 11" hole from 1050' to 2337' with Grant reamer and bit.
10/30	Reamed 11" hole from 2337' to top of fish at 4446'.
10/31	Washed over 4-1/2" drill pipe fish from 4447' to 4537'.
11/1	Washed over 4-1/2" drill pipe fish from 4537' to 4654'. Lost circulation while washing over at 4650'. Trying to regain circulation.
11/2	Regained circulation at 4650'. Going in with wash pipe.
11/3	Washed over 4-1/2" drill pipe fish from 4447' to 4665'. Ran socket and jars and recovered fish leaving hole clean.
11/4	Drilled 11" hole from 4665' to 4735'.
11/5	Drilled 11" hole from 4735' to 4869'. Mixed rice hulls and jet to prevent loss of mud.

FORM 103.
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
MAR 4 1950
LOS ANGELES

History of Oil or Gas Well

OPERATOR TIDE WATER ASSOCIATED OIL COMPANY FIELD ALISO CANYON

Well No. "STANDARD-SIMSON(#1)-16, Sec. 28, T. 3 N, R. 16 W, S.B. B. & M.

Signed T. C. Fox

Date 3-1-50 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	
11/6	Drilled 11" hole from 4869' to 5069'. Mixed rice hulls and jel and added to mud.
11/7-9	Drilled 11" hole from 5069' to 5595'.
11/10	Drilled 11" hole from 5595' to 5780'. Lost circulation while drilling at 5780', but regained.
11/11-12-4	Drilled 11" hole from 5780' to 8804'.
12/5	Drilled 11" hole from 8804' to 8850'. Ran Schlumberger electric log at 8850'.
12/6	Drilled 11" hole from 8850' to 8865'. Ran and cemented 7" 23, 26, 29# Youngstown Speedtite casing at 8865' swith 500 sacks Colton Hi-Temperature cement. Pressure increased from 950# to 1400# when plugs bumped. Time: 7:00 p.m. International Bulk Method.
12/7	8865' - 0 Standing cemented. Landed 7" casing.
12/8	Standing cemented. Made up 2-7/8" drill pipe.
12/9	Located top of cement at 8818'. Cleaned out cement to 8865' and drilled 6" hole from 8865' to 8870'.
12/10	Ran Johnston tester on 2-7/8" drill pipe with 940' water cushion and set packer at 8838' with tail pipe to 8856'. Opened tester at 7:20 a.m. Had a slight steady blow for 10 minutes then dead for 70 minutes. Opened equalizing valve to see if tester had plugged. Fluid dropped approximately 10 feet in 13-3/8" casing. Closed equalizing valve. Had a light blow decreasing until dead in 5 minutes, then dead for balance of 1 hour 10 minutes test. Pulled packer loose at 8:30 a.m. after being open for 1 hour 10 minutes. Recovered 496' (2.2 bbls.) of new fluid, consisting of gas cut drilling fluid with trace of oil. Estimated 1.5 bbl. entered tester when equalizing valve was opened. Water sample 375' above tester, tested 41 g/g. Sample 184' tester tested 68 g/g. Sample 93' above tester 68 g/g. Pressure bomb charts checked details of test. Test witnessed and approved by Division of Oil and Gas.
12/11	Replaced drilling mud with Ken oil drilling fluid and cored 6" hole from 8870' to 8898'.
12/12	Cored 6" hole from 8898' to 8942'.
12/13	Cored 6" hole from 8942' to 8990'.
12/14	Cored 6" hole from 8990' to 9010'. Ran Schlumberger electric log at 9010'.
12/15	Ran 156' of 5", 18# J-55 flush joint liner including 124' perforated and landed at 9009'. Top of Burns liner hanger 8850'. Perforations are 80 mesh, 2" slots, 6" centers with 6" undercut. Running tubing.

FORM 103.
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
MAR 4 1950
LOS ANGELES

History of Oil or Gas Well

OPERATOR TIDE WATER ASSOCIATED OIL COMPANY FIELD ALISO CANYON

Well No. "STANDARD-SIMON #1-16", Sec. 23, T. 3 N, R. 16 W, S.B. B. & M.

Signed F. C. Foster

Date 3-1-50 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	
12/16	Ran 2-1/2" 6.5# J-55 Upset round thread tubing with bottom 227' 2" 4.7# Upset tubing and hung at 8956'. Installed Christmas tree and circulated with Ken oil mud with 375 bbls. oil.
12/17	Rigged up to swab and started swabbing at 4:00 p.m. Swabbed to 1500' and well started flowing to mud tanks at 11:00 p.m.
12/18	Well flowed to mud tanks 375 bbls., all circulating oil, and was turned into trap at 11:00 p.m. and died. Well made one flow of 20 bbls. after turning to traps.
12/19	In 16 hours well swabbed and flowed by heads 328 bbls. gross fluid, 325 bbls. approximate net oil, 48/64 bean, cut 1.0% 20.4 gravity, 0# tubing pressure, 0# casing pressure.
12/20	Swabbed and flowed by heads 196 bbls. gross fluid, 193 approximate net oil, cut 1.4 water, 0.6 mud, 20.1 gravity, 48/64 bean, 80 mcf gas.
12/21	In 24 hours well flowed 166 bbls. gross fluid, 161 bbls. approximate net oil. Cut 2.3 water and 0.5 mud, 20.6 gravity, 40/64 bean, 0# tubing pressure, 500# casing pressure.
12/22	In 24 hours well flowed 186 bbls. gross fluid, 184 bbls. approximate net oil, cut 1.1%, 40/64 bean, 20.5 gravity, 0# tubing pressure, 625# casing pressure.
12/23	In 24 hours well flowed 331 bbls. gross fluid, 329 bbls. approximate net oil, cut 0.5%, 40/64 bean, 20.6 gravity, 0# tubing pressure, 600# casing pressure.
12/24	In 24 hours well flowed 59 bbls. gross fluid, 59 bbls. approximate net oil, 0.3% cut, 40/64 bean, 20.5 gravity, 0# tubing pressure, 950# casing pressure.
12/25	In 24 hours well flowed 155 bbls. gross fluid, 154 bbls. approximate net oil, 0.3% cut, 30/64 bean, 20.3 gravity, 0# tubing pressure, 1000# casing pressure.
12/26	In 24 hours well flowed 209 bbls. gross fluid, 208 bbls. approximate net oil, 0.4% cut, 30/64 bean, 20.9 gravity, 0# tubing pressure, 1100# casing pressure.

FORM 103.
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
MAR 4 1950
LOS ANGELES

History of Oil or Gas Well

OPERATOR TIDE WATER ASSOCIATED OIL COMPANY FIELD ALISO CANYON

Well No. "STANDARD-SESSION" #1-16, Sec. 28, T. 3 N, R. 16 W, S.B. B. & M.

Signed T. C. Foster

Date 3-1-50 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	Gross Fluid	Net Oil	Cut	Gravity	Bean	Tubing Pressure	Casing Pressure	MCF Gas
12/27	138	137	1.0	20.1	30/64	0-50#	1800	40
12/28	238	236	1.0	20.1	30/64	0-50#	1850	70
12/29	116	115	1.0	20.1	30/64	0-50#	1550	40
12/30	197	195	1.0	20.1	30/64	0-50#	1600	50
12/31	100	99	1.0	20.1	30/64	0-50#	1350	35
1/1/50	196	194	1.0	20.1	30/64	0-50#	1450	60
1/2	109	108	1.0	20.1	30/64	0-50#	1550	40
1/3	163	161	1.0	20.1	30/64	0-50#	1300	54
1/4	138	137	1.0	20.1	30/64	0-50#	1575	43
1/5	168	166	1.0	20.3	30/64	0-50#	1600	56
1/6	132	131	1.0	20.3	30/64	0-50#	450	44
1/7	181	179	1.0	20.3	30/64	0-50#	850	40
1/8	106	105	1.0	20.3	30/64	0-50#	1100	36
1/9	168	166	1.0	20.3	24/64	0-50#	1100	56
1/10	116	115	1.0	20.3	24/64	0-50#	1100	53
1/11	156	154	1.0	20.3	24/64	0-50#	1100	64

FORM 103.
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
MAR 4 1950
LOS ANGELES

History of Oil or Gas Well

OPERATOR TIDE WATER ASSOCIATED OIL COMPANY FIELD ALISO CANYON

Well No. "STANDARD SESNON #17-16", Sec. 28, T. 3 N, R. 16 W, S.B. B. & M.

Signed J. C. Fowler

Date 3-1-50 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	Gross Fluid	Net Oil	Cut	Gravity	Bean	Tubing Pressure	Casing Pressure	MCF Gas
1/12	185	183	1.0	20.8	24/64	200	1100	85
1/13	147	146	0.6	20.8	24/64	200	1500	88
1/14	192	191	0.6	20.8	24/64	250	1500	86
1/15	122	121	0.6	20.8	24/64	250	1500	88
1/16	84	83	0.6	20.8	24/64	100	1850	48
1/17	100	99	0.6	20.8	15/64	200	2000	42
1/18	100	99	0.6	20.8	15/64	550	2025	49
1/19	149	148	0.6	20.6	16/64	400	1850	89
1/20	119	118	0.6	20.6	16/64	300	1850	60
1/21	98	97	0.6	20.6	16/64	100	1950	42
1/22	144	143	0.6	20.6	16/64	250	1900	82
1/23	146	145	0.6	20.6	16/64	300	1850	81
1/24	141	140	0.6	20.6	16/64	250	1800	84
1/25	124	123	0.6	20.6	16/64	300	1800	79
1/26	139	138	0.6	20.8	16/64	300	1825	81
1/27	137	136	0.6	20.8	16/64	275	1800	74
1/28	113	112	0.6	20.8	16/64	300	1800	76
1/29	80	79	0.6	20.8	16/64	500	2000	51
1/30	121	120	0.6	20.8	16/64	-	1925	83
1/31	122	121	0.6	20.8	16/64	275	1950	73
2/1	132	131	0.6	20.8	16/64	275	1875	96

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STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL & GAS
RECEIVED
APR 1 1950
LOS ANGELES

LOG AND CORE RECORD OF OIL OR GAS WELL

Operator TIDE WATER ASSOCIATED OIL COMPANY Field ALISO CANYON

Well No. "STANDARD-SESNON #1-16" Sec. 28, T. 3N, R. 16W, S.B. B. & M.

FORMATIONS PENETRATED BY WELL

DEPTH TO Top of Formation	DEPTH TO Bottom of Formation	Thickness	Drilled or Cored	Recovery	DESCRIPTION
8870'	8890'	20'	Cored	15'	Hard gray sandy siltstone. No cut and odor.
8890'	8910'	20'	Cored	0'-6"	Hard but friable, poorly sorted, silty oil sand. Good cut and odor.
8910'	8930'	20'	Cored	20'	5'-0" Hard fine grain, poorly sorted oil sand. Good cut and odor. 1'-0" Very hard, fine to medium grain, poorly sorted, calcareous oil sand. Good cut and odor. 5'-0" Loosely compacted, fine grained oil sand. Good cut and odor. Well saturated. 9'-0" Fine, friable, silty oil sand. Good cut and odor. Well saturated.
8930'	8950'	20'	Cored	18'	2'-0" Firm frimble, poorly sorted, fine to medium grained oil sand. Good cut and odor. 13'-0" Badly crushed, hard, silty oil sand Good cut and fair odor. 2'-0" Hard, gray, sandy siltstone. 1'-0" Crushed hard, silty oil sand. Good cut and odor.
8950'	8970'	20'	Cored	20'	1'-6" Hard fractured sandy siltstone. 7'-0" Very hard sandy siltstone. No cut or odor. 6'-6" Hard silty oil sand. Good cut and fair odor. 1'-6" Hard medium grained poorly sorted oil sand. Good cut and odor. Well saturated. 2'-0" Hard silty oil sand. Good cut and fair odor. 0'-3" Shell 1'-3" Hard medium grained poorly sorted oil sand. Good cut and odor.

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SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

LOG AND CORE RECORD OF OIL OR GAS WELL

Operator TIDE WATER ASSOCIATED OIL COMPANY Field ALISO CANYON

Well No. "STANDARD-SESNON #1-16" Sec. 28, T. 3N, R. 16W, S.B. B. & M.

FORMATIONS PENETRATED BY WELL

DEPTH TO Top of Formation	DEPTH TO Bottom of Formation	Thickness	Drilled or Cored	Recovery	DESCRIPTION
Cont'd.					
8970'	8990'	20'	Cored	18'	1'-0" Loosely consolidated, medium grained poorly sorted oil sand. Good cut and odor. 2'-6" Hard silty oil sand. Good cut and fair odor. 1'-0" Shell 11'-6" Hard silty oil sand. Good cut and fair odor. 1'-0" Shell 1'-0" Crushed, hard silty oil sand. Good cut and fair odor.
8990'	9010'	20'	Cored	10'	1'-3" Very hard gray sandy siltstone. No cut or odor. 1'-6" Very hard oil stained sandy siltsto 4'-3" Badly broken and crushed sandy siltstone and shell. 3'-0" Very hard gray sandy siltstone, almost a shell. No cut or odor.

PETROLEUM TECHNOLOGISTS, INC.
PRODUCTION RESEARCH – CORE ANALYSIS
RESERVOIR ENGINEERING
868 TRUCKWAY
MONTEBELLO, CALIFORNIA
UNION 1-5338

NORRIS JOHNSTON
PRESIDENT

N. VAN WINGEN
VICE PRESIDENT

December 27, 1949

COMPLETE CORE ANALYSIS REPORT

Mr. Joseph Jensen
Tide Water Associated Oil Company
888 Pacific Electric Building
610 South Main Street
Los Angeles, California

Sesnon Well No. 16
Aliso Canyon Field

Depth	Porosity	Air Permeability		G/W Ratio	Saturation of Pore Space %Oil	%Water	Total Liquid
8890	23.8	146		3.00	56.3	18.8	75.1
8910	20.4	103		1.63	53.0	32.4	85.4
8911	21.0	114		2.02	55.1	27.3	82.4
8912	21.3	396	350	2.03	55.4	27.3	82.7
8912.5	20.7	252		1.59	51.6	32.4	84.0
8913	25.5	885		2.85	61.2	21.5	82.7
8914	24.8	1033		3.20	68.4	21.4	89.8
8914.5	25.8	1393	1292	3.50	65.0	18.6	83.6
8915	26.1	1450		3.75	70.5	18.8	89.3
8916	Unconsolidated	–		1.70	–	–	–
8917	21.4	–		1.78	47.4	32.0	79.4
8918	26.4	372		1.56	45.2	28.9	74.1
8918.5	26.2	194	305	1.61	46.0	28.5	74.5
8919.5	21.8	349		2.13	64.1	31.1	95.2
8921	24.5	2040		2.23	56.2	25.2	81.4
8922	23.6	610		1.76	62.1	35.3	97.4
8923	25.8	365		1.67	43.0	25.9	68.9
8924	24.9	98		1.90	52.3	27.5	79.8
8925	24.7	182	145	1.72	47.9	27.9	75.8
8926	26.6	169		2.43	54.8	22.6	77.4
8927	18.8	97		2.26	64.7	30.8	95.5
8928	28.2	17		3.25	56.0	17.3	73.3
8929	Unconsolidated	–		2.96	–	–	–
8930	26.5	129		2.00	49.2	24.6	73.8
8930.5	Unconsolidated	–		2.50	–	–	–
8931.5	Unconsolidated	–		1.45	–	–	–
8932.5	18.5	25		.18	10.4	58.7	69.1
8937	18.2	17		.09	5.8	68.5	74.3
8939	20.8	13		.26	16.3	62.7	79.0
8940	20.4	19		.19	11.7	63.5	75.2
8941	Shell Not Run	–		–	–	–	–
8943	Shell Not Run	–		–	–	–	–
8945	19.8	10		.12	7.7	66.2	73.9
8947.5	20.7	11		.16	10.3	63.0	73.3

COMPLETE CORE ANALYSIS REPORT

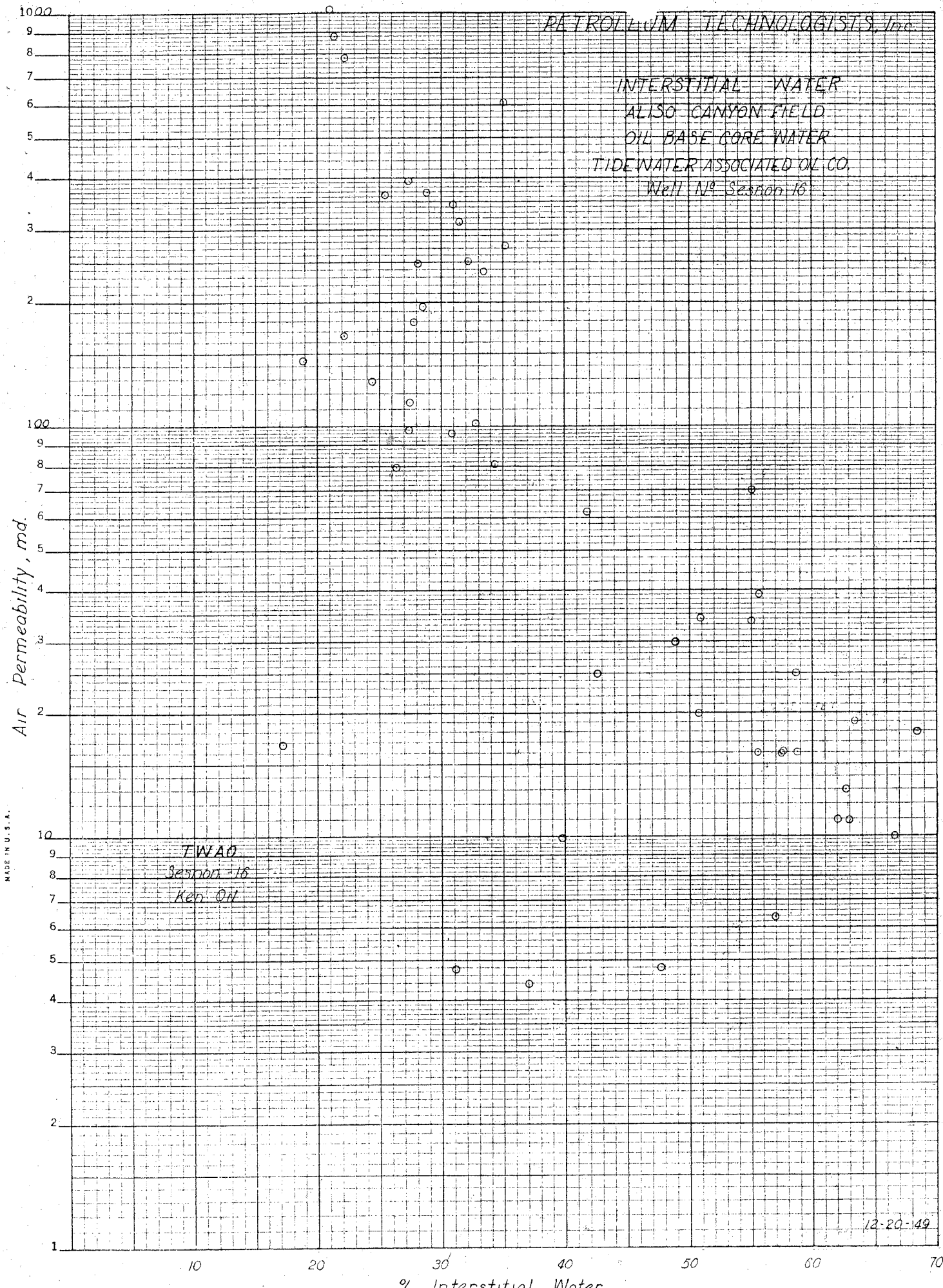
Tide Water Associated Oil Company

December 27, 1949
Sesnon Well No. 16
Aliso Canyon Field

Depth	Porosity	Air Permeability		O/W Ratio	Saturation of Pore Space %Oil	%Water	Total Liquid
		21					
8959	20.8	34		0.28	15.6	55.6	71.2
8960	19.7	11		0.22	13.7	62.0	75.7
8962	20.4	16		0.21	12.1	58.8	70.9
8963	20.1	16	46	0.22	12.3	55.3	67.6
8964	20.8	70		0.33	18.2	55.0	73.2
8965	18.8	34		0.31	15.8	50.8	66.6
8966	17.3	20		0.39	19.9	50.7	70.6
8967	18.9	248		1.58	44.8	28.4	73.2
8968	20.8	4.4		0.48	17.7	36.9	54.6
8969	17.5	82		0.84	28.8	34.3	63.1
8970.5	21.6	789		0.29	65.0	22.3	87.3
8971.5	19.6	320		0.16	49.0	31.2	80.2
8972	24.9	238		1.47	49.5	33.5	83.0
8973	22.2	62		1.12	46.7	41.8	88.5
8974	25.7	277		1.19	42.3	35.5	77.8
8975	22.1	25		0.59	25.2	42.5	67.7
8977	26.8	80		0.83	21.8	26.3	48.1
8978	25.7	10	72	0.68	27.0	39.7	66.7
8979	24.6	30		0.52	25.4	48.8	74.2
8980.5	21.7	38		0.23	12.8	55.4	68.2
8982.5	21.1	16		0.20	11.5	57.7	69.2
8984	22.1	6.4		0.23	12.8	56.9	69.7
8985	25.0	5.8		0.41	12.8	31.2	44.0
8986	23.0	5.8		0.29	13.8	47.6	61.4
8987	24.5	9.2		0.33	16.7	50.0	66.7
8988.5	18.2	18		0.20	11.4	57.0	68.4
8991.5	30.0	11		0.10	4.5	45.0	49.5

Norris Johnston

Norris Johnston



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SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

LOG AND CORE RECORD OF OIL OR GAS WELL

Operator: TIDE WATER ASSOCIATED OIL COMPANY Field: ALISO CANYON

Well No.: Standard-Seaman #1-17 Sec. 28, T. 3 N, R. 16 W, S.B. B. & M.

FORMATIONS PENETRATED BY WELL

DEPTH TO Top of Formation	DEPTH TO Bottom of Formation	Thickness	Drilled or Cored	Recovery		DESCRIPTION
			7-5/8" Reed Conventional Cores			
8995'	9013'.			15'0"	5'0"	Firm to hard, dark grey to well saturated, sandy siltstone. No to good cut and odor. (Well saturated parts almost fine silty oil sand.)
					0'6"	Firm, medium oil sand. Good cut and odor. (Unable to get representative sample for testing.)
					1'6"	Firm, very sandy siltstone. Good cut and odor.
					1'0"	Firm, medium oil sand. Good cut and odor. (Unable to get good representative sample.)
					7'0"	Firm, sandy siltstone with very sandy streaks. Generally good cut and odor.
			7-5/8" Reed Wire Line Cores			
9013'	9022'.			7'0"	6'3"	Firm, fine oil sand. Good cut and burned odor.
					0'9"	Shell.
9022'	9032'.			10'0"	0'3"	Shell.
					2'9"	Firm to fairly hard, fairly fine oil sand with numerous biscuit partings. Good cut and burned odor.
					6'9"	Hard to very fine oil sand. Good cut and burned odor. (Looks tight, may be oil saturated sandy siltstone.)
					0'3"	Shell.
9032'	9033'.			0'2"	0'2"	Shell.
9033'	9034'.			0'3"	0'3"	Shell.
9034'	9044'.			3'0"	2'9"	Fairly hard, oil saturated, sandy siltstone. Fair cut and burned odor. (In part, may be fine silty oil sand.)
					0'3"	Shell.
9044'	9054'.			10'0"	10'0"	Fairly hard oil saturated sandy siltstone with numerous biscuit partings showing free oil. Occasional grayish spots in harder portion of core. Fair cut & burned odor. (In part, may be fine silty oil sand.)

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DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

LOG AND CORE RECORD OF OIL OR GAS WELL

Operator TIDE WATER ASSOCIATED OIL COMPANY Field ALISO CANYON

Well No. Standard-Seamon #1-17 Sec. 26, T. 3 N, R. 16 W, S.B. B. & M.

FORMATIONS PENETRATED BY WELL

DEPTH TO Top of Formation	DEPTH TO Bottom of Formation	Thickness	Drilled or Cored	Recovery	DESCRIPTION
9054'	9064'			10'0"	10'0" Fairly hard, oil stained, sandy siltstone with grey mottlings. Fair cut and burned odor.
9064'	9074'			10'0"	8'3" Firm, generally well saturated, sandy siltstone with numerous biscuit partings and occasional grey spots. Generally fair cut and burned odor. Sandy portions may be fine silty oil sand. (3" of shell 2' from top.) 0'3" Shell. 1'6" Hard, dark grey, sandy siltstone. No cut or odor.
9074'	9084'			10'0"	10'0" Hard, dark grey, oil stained sandy siltstone. No to fair cut and burned odor.
9084'	9092'			0'9"	0'6" Hard, oil saturated, sandy siltstone. Fair cut and burned odor. 0'3" Shell.
9092'	9097'			4'6"	3'0" Firm, oil saturated, very sandy siltstone with numerous biscuit parting planes. Fair cut and burned odor. (May be very fine oil sand.) 1'6" Hard, dark grey, oil stained sandy siltstone. No to slight cut and burned odor.
9097'	9099'			3'0"	1'0" Hard, dark grey, slightly oil stained sandy siltstone. No to slight cut and burned odor. 0'6" Fairly hard, fine grey sand. No cut or odor. 0'6" Firm, medium oil sand. Fair cut and burned odor. 1'0" Hard, oil saturated, sandy siltstone. Fair cut and burned odor.
9099'	9109'			1'0"	1'0" Fairly hard, oil saturated, sandy siltstone. Fair cut and odor.

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DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

LOG AND CORE RECORD OF OIL OR GAS WELL

Operator TIDE WATER ASSOCIATED OIL COMPANY Field ALISO CANYON

Well No. Standard-Seaman #1-17 Sec. 28, T. 3 N, R. 16 W, S.B. B. & M.

FORMATIONS PENETRATED BY WELL

DEPTH TO Top of Formation	DEPTH TO Bottom of Formation	Thickness	Drilled or Cored	Recovery	DESCRIPTION	
9101'	9119'			10'0"	10'0"	Sandy siltstone as above.
9119'	9129'			10'0"	3'0" 7'0"	Sandy siltstone as above. Firm, well sorted, medium oil sand. Good cut and fair to burned odor.
9129'	9134'			4'6"	3'6" 0'10" 0'2"	Oil sand as above. Hard, fine, grey sand. No cut and odor. (Probably too tight to be wet) Shell.
9134'	9138'			0'3"	0'3"	Shell.
9138'	9146'			6'0"	1'0" 2'0" 1'0" 2'0"	Hard, mottled, oil stained, dark grey, sandy siltstone. No to fair cut and burned odor. Fairly hard, oil saturated, very sandy siltstone with streaks of silty oil sand. Fair cut and burned odor. Shell. Hard, oil saturated, sandy siltstone. Fair cut and burned odor.
9146'	9156'			11'0" (Picked up 1' from above.)	5'0"	Hard, oil saturated, sandy siltstone as above. Grades to 6'0" hard, dark grey, sandy siltstone with 1'6" shell in middle. No cut and odor.
9156'	9160'			2'0"	2'0"	Shell. (Very hard, liney, dark grey shale with light streaks - Rocame or hard zone.)
9160'	9163'			1'0"	1'0"	As above.
9163'	9164' X			No recovery		
9565'	9574'			7'0"	7'0"	Fairly hard to hard, generally fine, grey sand. No cut and odor. Top 4" shows biscuit partings. Looks tight, in part almost a shell. Pyritic Micaceous. Several angle pebbles to 1/4".

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STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

LOG AND CORE RECORD OF OIL OR GAS WELL

Operator TIDE WATER ASSOCIATED OIL COMPANY Field ALISO CANYON

Well No. Standard-Seamon #1-17 Sec. 26, T. 3 N, R. 16 W, S.B. B. & M.

FORMATIONS PENETRATED BY WELL

DEPTH TO Top of Formation	DEPTH TO Bottom of Formation	Thickness	Drilled or Cored	Recovery	DESCRIPTION
9574'	9579'.			5'0"	3'6" Grey sand, as above No cut and odor 1'6" Firm, generally fine, grey sand with slight oil staining. Slight cut and burned odor. Shows some fluorescence.
9579'	9584'.			3'0"	3'0" Hard, fine to coarse, poorly sorted, silty grey sand. No cut and odor. Almost a shell. Shows very slight fluorescence near bottom. Possible dip 15°.
9584'	9593'.			10'0"	4'0" Firm, fine, silty, grey sand. No cut and odor. Shows considerable mud contamination. 5'0" Hard, fine, silty, grey sand. No cut and odor. Occasional pebbles to 1/4". 1'0" Shell. (Very hard, limey, fine sandstone.)
9593'	9603'.			2'0"	2'0" Hard, generally fine, silty, grey sand. No cut and odor. Poorly sorted, with pebbles to 1/4". In part, a shell.
		Schlumberger Sidewall Samples - 8-1/2 Gram Gun			
9210'				No Recovery	
9250'				"	
9280'				"	
9330'				1/2"	Pieces soft blue-grey siltstone.
9397'				1"	Firm, fine silty grey sand. No fluorescence 1/8" streak siltstone or shale. Low dip suggested.
9450'				3/4"	Pieces blue-grey siltstone and grey streak as above.

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STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

LOG AND CORE RECORD OF OIL OR GAS WELL

Operator: THE WATER ASSOCIATED OIL COMPANY Field: ALISO CANYON

Well No.: Standard-Seenon 21-17 Sec.: 28, T.: 3 N, R.: 16 W, S.B. B. & M.

FORMATIONS PENETRATED BY WELL

DEPTH TO Top of Formation	DEPTH TO Bottom of Formation	Thickness	Drilled or Cored	Recovery	DESCRIPTION
			Schlumberger Sidewall Samples - 6-1/2 Gym Gun		
9,750'				No Recovery	
10,117'				"	
10,245'				"	
10,522'				"	
10,740'				"	
10,895'				"	
10,965'				"	
11,112'				"	
11,162'				"	
			7-5/8" Reed Conventional Core		
11,807'	11,822'			15'0"	15'0" Hard, dark grey shale. Parting planes 12° to 15°, average 14°. Occasional megafossils.
12,173'	12,186'			3'3"	3'0" Hard, dark grey shale with sandy streaks. No out or odor. 75-90° dips. 70° fracture planes with slickensides.
					0'3" Fragments of fine, grey sand at top of core. No out or odor. Slight fluorescence.
12,186'	12,201'			8'0"	8'0" Hard, dark grey shale with sandy streaks. No out or odor. 70° fracture planes with slickensides. Dips 65°.
12,278'	12,292'			10'0"	10'0" Hard, dark grey shale with sandy streaks. Badly fractured and slickensided in part. Good dips - 40-60°.

IRM

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SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

LOG AND CORE RECORD OF OIL OR GAS WELL

Operator: TIDE WATER ASSOCIATED OIL COMPANY Field: ALISO CANYON

Well No.: Standard-Seaman #1-17 Sec.: 28, T.: 3 N, R.: 16 W, S.B. B. & M.

FORMATIONS PENETRATED BY WELL

DEPTH TO Top of Formation	DEPTH TO Bottom of Formation	Thickness	Drilled or Cored	Recovery	DESCRIPTION
				Hemco Sidewall Samples	
11,225'				1"	Firm, fine kaolinitic grey sand. No cut or odor.
11,180'				No recovery - Tried twice.	
10,805'				1"	Grey sand as above.
10,740'				1"	Hard, broken, dark grey shale.
10,540'				2"	Firm, fine grey sand as at 11,225'.
10,523'				2"	Hard, broken dark grey shale. (As at 10,740')
10,310'				1"	Firm, fine grey sand. No cut or odor.
10,245'				No recovery	
10,030'				1-1/2"	Firm, fine kaolinitic grey sand. No cut or odor.
				7-5/8" Reed Conventional Core	
12,405'	12,417'			10'0"	Very hard, dark grey to black, brittle shale with occasional sandy streaks badly fractured and slickensided. Megafossils. Good 32-37° dips. Fractured planes at all angles.
				Hemco Sidewall Samples	
9,165'				1"	Firm, medium kaolinitic grey sand. No cut or odor.
9,210'				1"	As above.
9,250'				2"	Firm, mottled, dark grey shale with some very fine sand. No cut or odor.
9,375'				1-1/2"	Soft, mottled, dark grey shale with some very fine sand. No cut or odor. (Looks more like sandy siltstone.)
9,450'				2"	Firm, fine kaolinitic grey sand. No cut or odor.
10,055'				1-1/2"	Firm, medium kaolinitic grey sand. No cut or odor.
10,260'				1"	As above.

FORM 109-A (10-48)

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

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

No. T 1-50621

Los Angeles 15, Calif. December 15, 1949

Mr. F. C. Foster
Los Nietos, Calif.
Agent for TIDE WATER ASSOCIATED OIL COMPANY
"Standard-Sesnon 1"

DEAR SIR:

Your well No. 16, Sec. 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 December 10, 1949. Mr. N. N. Sampson, Inspector, designated by the supervisor, was present as prescribed in Secs. 3222 and 3223, Ch. 93, Stat. 1939; there were also present G. Larter, Engineer; W. Merian, Drilling Foreman

Shut-off data: 7 in. 23,26,29 lb. casing was cemented xxx at 8865 ft. on December 6, 1949 in 11 in. hole with 500 sacks of cement xxx of which 8 sacks was left in casing.

Casing record of well: 13-3/8" cem. 837'; 7" cem. 8865', W.S.O.

Present depth 8870 ft. Bridged with cement from xxx ft. to xxxx ft. Cleaned out to 8870 ft. for test. A pressure of 1000 lb. was applied to the inside of casing for 15 min. without loss after cleaning out to 8870 ft. A Johnston tester was run into the hole on 2-7/8 in. drill pipe with 940 ft. of water-mud cushion, and packer set at 8838 ft. with tailpiece to 8856 ft. Tester valve, with 3/8 in. bean, was opened at 7:20 a.m. and remained open for 1 hr. and xxx min. During this interval there was a light blow for 5 minutes and no blow thereafter.

THE INSPECTOR ARRIVED AT THE WELL AT 12:00 NOON AND MR. LARTER REPORTED THE FOLLOWING:

1. An 11" rotary hole was drilled from 837' to 8865'.
2. Cement was drilled out of the 7" casing from 8818' to 8865', equivalent to 8 sacks, and the casing was cleaned out to 8865', and a 6-1/8" hole was drilled to 8870'.
3. A total of 496' of fluid was recovered in the drill pipe.
4. When the packer was set, the fluid dropped 10' between the drill pipe and casing, equivalent to 296' of fluid.

THE INSPECTOR NOTED THE FOLLOWING:

1. When the drill pipe was removed, 200' net rise of gassy oil-cut drilling fluid was found in the drill pipe above the tester, equivalent to 1.0 bbl.
2. The recording pressure bomb chart showed that the tester valve was open 60 minutes.

The test was completed at 1:10 p.m.

THE SHUT-OFF IS APPROVED.

cc - T. L. Wark
Joseph Jensen
Wm. E. Perkes (2)

NNS:ES

R. D. BUSH, State Oil and Gas Supervisor

By E. H. Musser, Deputy

FORM 109-D

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 1-50493

Los Angeles 15, Calif. November 17, 1949

Mr. F. C. Foster
Los Nietos, Calif.
Agent for TIDE WATER ASSOCIATED OIL COMPANY

(2)

DEAR SIR:

Operations at your well No. "Standard-Sesnon 1" 16 Sec. 28, T. 3 N.R. 16 W., S. B. B. & M., Aliso Canyon Field, in Los Angeles County, were witnessed by J. F. Foster, Inspector, representative of the supervisor, on November 7, 1949. There was also present J. D. Stine, Driller
G. T. Loper, Derrickman

Casing Record	Junk
13-3/8" cem. 837'; T.D. 5149'	xxx

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

The inspector arrived at the well at 9:45 a.m. and Mr. Stine reported:

1. A 17-1/2" rotary hole was drilled from surface to 837'.
2. On October 7, 1949, 13-3/8" 54.5 lb. casing was cemented at 837' with 550 sacks of cement.
3. Cement returned to the surface.
4. A 12-1/4" rotary hole was drilled from 837' to 2135' and an 11" rotary hole from 2135' to 5149'.

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 above equipment were located outside the derrick.
3. A 2" mud fill-up line, with a 2" high pressure gate valve and 2" stopcock into the 13-3/8" casing, below the above equipment.
4. A Hosmer type blowout preventer with p acker to fit the 4-1/2" drill pipe.
5. An 8" shut-off gate on the mud discharge line.

The inspection was completed at 10:15 a.m.

THE BLOWOUT PREVENTION EQUIPMENT AND INSTALLATION ARE APPROVED.

JFF:ES

W/ME

cc - T. L. Wark
Joseph Jensen
Wm. E. Perkes (2)

R. D. BUSH
State Oil and Gas Supervisor

By E. H. Meesser Deputy

86681 2-48 16,250 SPO

FORM 111 (1-49)

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

REPORT ON PROPOSED OPERATIONS

No. P 1-47287

Los Angeles 15, Calif. September 27, 19 49

MR. F. C. Foster

Los Nietos, Calif.

Agent for TIDE WATER ASSOCIATED OIL COMPANY

DEAR SIR:

Your "Standard-Sesnon 1" proposal to drill Well No. 16, Section 28, T. 3 N., R. 16 W., S.B. B. & M., Aliso Canyon Field, Los Angeles County, dated Sept. 22, 19 49, received Sept. 23, 19 49, has been examined in conjunction with records filed in this office.

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

THE NOTICE STATES:

"The well is 2778.07 feet S. and 6130.04 feet W. from Station #84
Elevation of ground above sea level 2386.13 feet.
All depth measurements taken from top of derrick floor, which is 6.92 feet above ground.
We estimate that the first productive oil or gas sand should be encountered at a depth of about _____ feet."

PROPOSAL:

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

Size of Casing	Weight	Grade and Type		Depth	Landed or Cemented
13-3/8"	54.5#	T&C	J-55	800'	Cemented
7"	23,26, 29#	Speedtite	J-55, N-80	8950'	Cemented
5"	18#	J-55	F.J.	9050'	Landed

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

DECISION:

THE PROPOSAL IS APPROVED PROVIDED THAT

1. Blowout prevention equipment, sufficient to provide a complete close-in of the well under pressure at any time, shall be installed.
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

T. L. Wark
cc- Jos. Jensen
Wm. E. Perkes (2)

W/B

R. D. BUSH
State Oil and Gas Supervisor

By E. H. Messer Deputy

2402 1-49 36,500 SPO
Blanket bond.

FORM 105.
CALIFORNIA STATE PRINTING OFFICE

14

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL & GAS
RECEIVED
SEP 23 1949
LOS ANGELES, CALIFORNIA

037-00768

Notice of Intention to Drill New Well

This notice must be given and surety bond filed before drilling begins

Los Nietos, Calif. September 22, 1949

DIVISION OF OIL AND GAS

Los Angeles, Calif.

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of drilling well No. "Standard-Sesnon" #1-16, Sec. 28, T. 3 N, NN R. 16 W, S.B. B. & M., Aliso Canyon Field, Los Angeles County.

Legal description of lease Sesnon

The well is 2778.07 feet ~~N.~~ S., and 6130.04 feet ~~E.~~ W. from Station #84
(Give location in distance from section corners or other corners of legal subdivision)

Elevation of ground above sea level 2386.13 feet.

All depth measurements taken from top of derrick floor, which is 6.92 feet above ground.

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

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

Size of Casing, Inches	Weight, Lb. Per Foot	Grade and Type	Depth	Landed or Cemented
13-3/8"	54.5#	T&C J-55	800'	Cemented
7"	23, 26, 29#	Speedtite J-55, N-80	8950'	Cemented
5"	18#	J-55, F.J.	9050'	Landed

MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121
OK Ernest 18a	NMS	EB	Blanket	EB	EB

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

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

Address P. O. Box "Y", Los Nietos, Calif.

TIDE WATER ASSOCIATED OIL COMPANY
(Name of Operator)

Telephone number Whittier 42-043

By F. C. Foster
Agent

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