

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

No. **P 216-0188**

PERMIT TO CONDUCT WELL OPERATIONS

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

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

Ventura, California
 August 9, 2016

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

Your proposal to **Rework** well "Porter" 32B, A.P.I. No. 037-21276, Section 27, T. 03N, R. 16W, SB B. & M., Aliso Canyon field, Any area, Sesnon-Frew pool, Los Angeles County, dated 8/5/2016, received 8/5/2016 has been examined in conjunction with records filed in this office. (Lat: 34.312505 Long: -118.550522 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:
 - a. Class I **Note: work to be completed without the removal of the injection assembly.**
2. Hole fluid of a quality and in sufficient quantity to control all subsurface conditions in order to prevent blowouts shall be used.
3. A pressure test is conducted to demonstrate the mechanical integrity of the 8 5/8" casing.
4. This well is to be taken out of service and isolated from the storage reservoir. The well shall be re-evaluated or abandoned within 1 year of the completion of the pressure testing pursuant to Order #1109 and its amendments.
5. In all other respects, the provisions of Division Order #1109 and its amendments shall remain in effect.
6. This office shall be contacted by phone prior to making any program changes and no changes are made without Division approval.
7. **THIS DIVISION SHALL BE NOTIFIED TO:**
 - a. Witness a pressure test on the 8 5/8" casing and tubing plug.

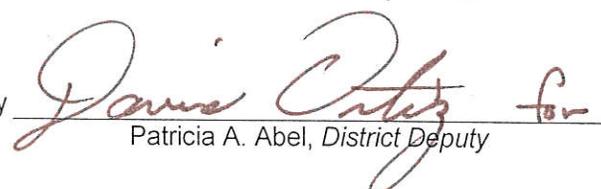
Continued on Next Page

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

Engineer David Ortiz
 Office (805) 654-4761

DO/do

Kenneth A. Harris Jr.
 State Oil and Gas Supervisor

By 
 Patricia A. Abel, District Deputy

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

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Well #: "Porter" 32B

API #: 037-21276

Permit : P 216-0188

Date: August 9, 2016

NOTE:

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

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

cc:

**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.



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

FOR DIVISION USE ONLY		
Bond	Forms	
		OGD114
	CAL WIMS	1151

P216-0188

NOTICE OF INTENTION TO REWORK / REDRILL WELL

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

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to rework / redrill well Porter 32B, API No. 037-21276,
 (Check one)

Sec. 27, 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 and completed work summary.

The total depth is: 7655 feet. The effective depth is: 7643 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.)

The SCGC plans to take this well out of operation and isolate from the gas storage reservoir as per the First Amended Safety Review Testing Regime: Steps 4b-7b.

5b - Set plug set in On/Off tool at 7203' and open SSD at 7176'.

6b - Circulate well with 8.5 ppg KCL brine down tbg. through SSD at 7176' and back to surface to completely fill well.

7b - With casing valve closed, pressure-up on tubing to 500 psi. for 1 hour (will test csg., packer and tubing plug all at same time). Note: Squeezed perfs from 6858'-6860'.

→ vs Table?

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

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

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

Name of Operator Southern California Gas Company			
Address P. O. Box 2300		City/State Chatsworth	Zip Code 91313-2300
Name of Person Filing Notice A.J. Alshammasi	Telephone Number: (818) 700-3887	Signature 	Date 8/5/16
Individual to contact for technical questions: Mike Giuliani	Telephone Number: (805) 290-2074	E-Mail Address: mike.giuliani@interactprojects.com	

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

Rec'd 08-05-16 DOGGR Ventura.

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/

**Well
Porter 32B RD1**

API #: 04-037-21276-01
Sec 27, T3N, R16W

Operator: So. California Gas Co.

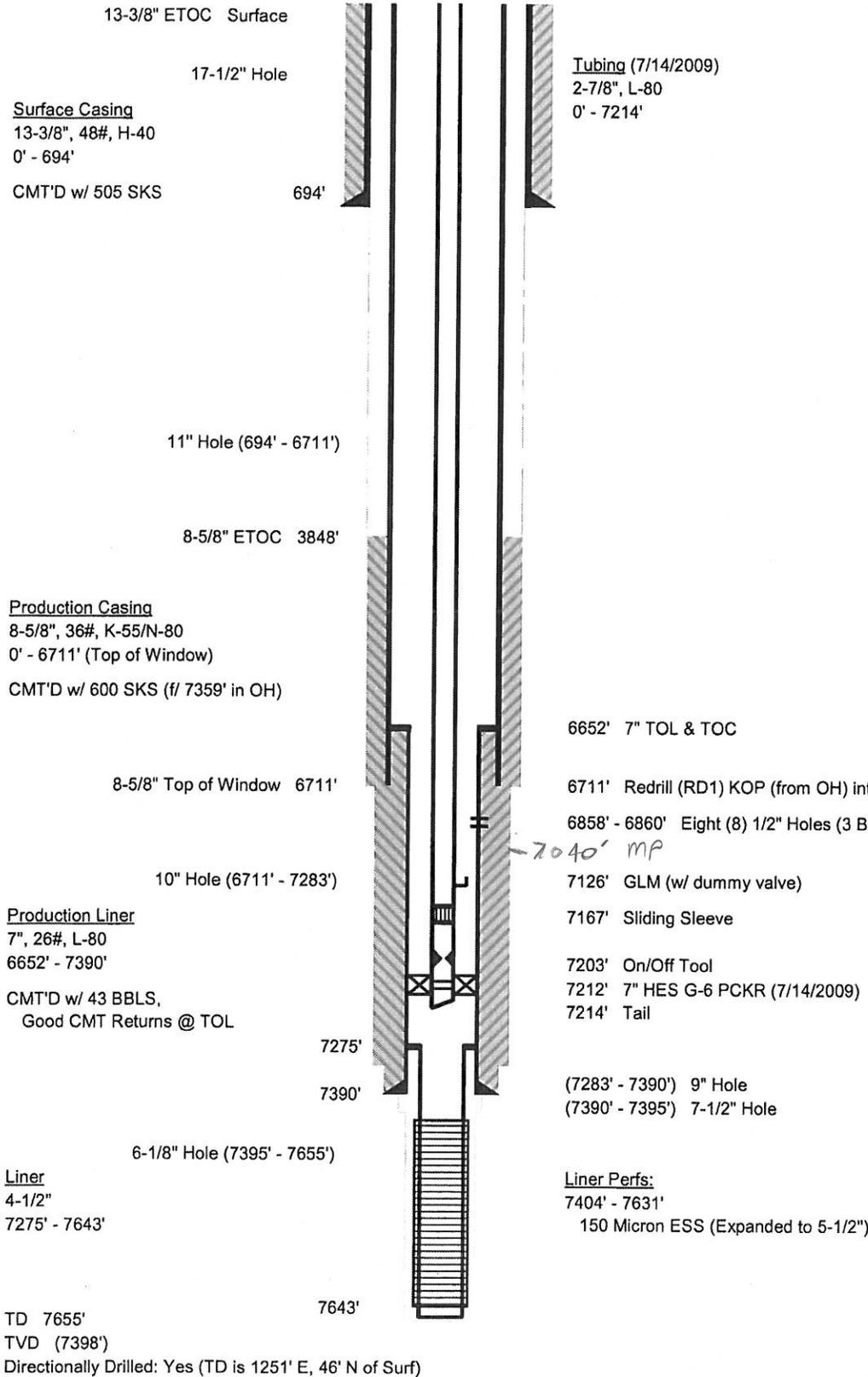
Lease: Porter
Field: Aliso Canyon
Status: Active Gas Storage
BFW:
USDW:

Ground Elevation: 1995' asl
Datum to Ground: 12' KB

Spud Date: 9/12/1972
Redrill (RD1) Kick-off Date: 3/7/2006
Completion Date: 5/5/2006

Junk: None

Wellbore History	
Orig. Hole (OH) TD @ 7582'	(See Porter 32B OH)
Sidetrack KOP @ 7115'	(in attempts for RD)
Sidetrack TD @ 7270'	(See Porter 32B OH)
RD1 KOP @ 6711'	
TD @ 7655'	



Top of Zone Markers md (tvd)		
A1	3895'	(3894')
LP	5502'	(5411')
UDA1	5935'	(5805')
LDA	6650'	(6473')
MP	7040'	(6837')
S1	7302'	(7075')
S4	7391'	(7156')
S8	7475'	(7233')
S14	7576'	(7326')
(Markers of Orig. Hole Completion)		

Prepared by: CAM ()
Rec'd 08-05-16 DOGGR Ventura.
InteAct

Completed Work Summary - Porter 32B		
Step	Work Completed	Date
4b	USIT shows good bond from 7050'-7230' across MP, packer and 72' above S-1	7/1/2009
5b	Packer set at 7212'	7/14/2009

Casing Pressure Test Safety Check (500 psi)

Well		Casing Size/Grade/Weight	Depth MD	Burst PSI	85% of Burst PSI	Pressure at Depth w/500 psi Surface Pressure	Press < 85% of Burst
Porter 32B	7212' / 6905'	8-5/8", 36#, K-55	5800	4460	3791	3064	Yes
		8-5/8", 36#, N-80	6652	6490	5517	3440	Yes
		7", 26#, L-80	7212	7240	6154	3688	Yes
Porter 32D	7293' / 7195'	8-5/8", 36#, K-55	5749	4460	3791	3041	Yes
		8-5/8", 36#, N-80	7293	6490	5517	3724	Yes
Fernando Fee 32B	7350' / 6863'	8-5/8", 36#, K-55	5863	4460	3791	3091	Yes
		8-5/8", 36#, N-80	6810	6490	5517	3510	Yes
		6-5/8", 28#, K-55*	7350	6970	5925	3749	Yes

Revised table from
SEG. Pressure test is
for 500 psi in No. 1.
chart for 1000 psi test
is supplanted by this
one.

D. ORTIZ

Casing Pressure Test Safety Check (1000 psi)

Well	Packer Depth MD/TVD	Casing Size/Grade/Weight	Depth MD	Burst PSI	85% of Burst PSI	Pressure at Depth w/1000 psi Surface Pressure	Press < 85% of Burst
Porter 32F	6980' / 6857'	8-5/8", 36#, K-55	5678	4460	3791	3510	Yes
		8-5/8", 36#, N-80	6980	6490	5517	4085	Yes
Standard Sesnon 44B	8295' / 8019'	8-5/8", 36#, K-55	5741	4460	3791	3538	Yes
		8-5/8", 36#, N-80	8295	6490	5517	4666	Yes
Porter 32B	7212' / 6905'	8-5/8", 36#, K-55	5800	4460	3791	3564	Yes
		8-5/8", 36#, N-80	6652	6490	5517	3940	Yes
		7", 26#, L-80	7212	7240	6154	4188	Yes

*Division of Oil, Gas, and Geothermal Resources
 District 2-Ventura
 Log Report*

Operator Southern Calif. Gas Co.

Well Designation: Porter

32B

API Number: 03721276

Sec. 27 T. 3N R 16W SB

<i>Date Run</i>	<i>Type</i>	<i>Depth from</i>	<i>Depth to</i>
3/31/2006	Caliper Log	7392	7646
10/26/2005	Cement Bond Log	5650	7080
10/9/1972	Compensated Densilog	7349	7588
10/3/1972	Induction-Electrical Log	694	7348
10/9/1972	Induction-Electrical Log	7349	7586
7/6/2009	Perforation Record	6700	7150
9/14/2006	Pressure Survey	0	0
9/24/2001	Static Temperature		
6/5/1991	Temperature	0	0
5/27/1992	Temperature	0	0
7/7/1994	Temperature	0	0
9/9/1995	Temperature	0	0
7/7/1999	Temperature	0	0
7/24/1999	Temperature	0	0
7/24/1999	Temperature	0	0
8/4/2003	Temperature	0	0
8/11/2004	Temperature	0	0
9/14/2006	Temperature	0	0
10/26/2005	Ultrasonic Imager	45	7084
7/11/2009	Ultrasonic Imager Gamma Ray	6653	7145
7/1/2009	Ultrasonic Imager Gamma Ray Corrected Depths	5278	7229

SEP 15 2009

HISTORY OF OIL OR GAS WELL

Operator: Southern California Gas Company
Well: Porter 32 B
A.P.I. No. 037-21276

Field: Aliso Canyon

County: Los Angeles

Surface Location: Sec 27 3N 16W S.B.B.M.

Todd Van de Putte

Title: Sr. Storage Field Eng.

(President, Secretary, or Agent)

Date: 09/15/2009

Signature: *Todd R Van de Putte*

(Person Submitting Report)

Address: PO Box 2300, SC9365, Chatsworth, CA, 91313-2300

Telephone Number: 818-701-3339

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

Start Date	Ops. DOGGR Rpt
06/25/2009	Opened the well with 2650 psig tubing pressure and 2800 psig casing pressure. Rigged up and pumped 50 bbls hi-vis HEC polymer pill and displaced with 43 bbl 10 ppg NaCl brine. Killed the well per schedule with 359 bbl NaCl brine. Installed the back pressure plug and removed the production tree. Nipped up the 5M Class III BOPE. Secured the well.
06/26/2009	Nipped up the 5M Class III BOPE. Rigged up the WEA test unit and pressure tested the choke manifold to 5000 psig. The 3" choke hose leaked (Repaired the choke hose). Pressure tested the blind ram to 5000 psig (1000 psig per minute bleed off). Checked the test unit. Attempted to pressure the pipe rams (1000 psig per minute bleed off). Same results on the Hydril annular preventer. The tubing hanger was found to be leaking. Secured the well.
06/29/2009	Opened the well with 0 psig tubing pressure and 0 psig casing pressure. Filled the well with 17 bbl 10 ppg NaCl brine. Backed out the hold down studs and unlanded the 2-7/8" tubing. Attempted to release the 7" HES G-6 packer (Packer sheared lugs could not go down). Laid down the tubing hanger (One set of packing missing on the donut). Pulled out of the well to 6652'. Picked up and re-dressed the tubing hanger. Tested the blind rams to 5000 psig for twenty minutes, tested pipe rams to 5000 psig. Tested Hydril annular preventer to 3500 psig for twenty minutes and tested the choke manifold and all control valves to 5000 psig for twenty minutes. All BOP equipment tested good. M Davis DOGGR witnessed and approved the BOPE test. Backed out the hold down studs and pulled out of the well to 6000'. Secured the well.
06/30/2009	Filled the well with 2 bbls, 10 ppg brine. Pulled out of the well and laid down the production equipment and the 7" packer. Made up a WEA 7" bridge plug and measured in the well to 7258'. Set and released from the bridge plug and pressure tested to 500 psig. Dumped 6 cu.ft sand on top of the bridge plug. Pulled out of the well to 6000'. Secured the rig and the well overnight.
07/01/2009	Filled the well with 2 bbls 10 ppg brine. Pulled out of the well and laid down the bridge plug retrieving tool. Nipped up the shooting flange. Rigged up the Schlumberger logging unit and made up the 7" USIT tools. Ran in the well with the USIT and logged from 7250' to 5600'. Pulled out of the well with the USIT tools and rigged down the USIT and associated logging equipment. Nipped down the shooting flange. Ran in the well with the 2-7/8" kill string to 3350'. Secured the well.
07/06/2009	The well was standing full. Pulled out of the well with the 2-7/8" kill string and nipped up the shooting flange. Rigged up the Schlumberger wire line unit. Made up a 4" gun with 8 - 1/2" shots and ran in the well to 6860'. Shot (8) - 1/2" holes from 6858' to 6860'. Rigged down the Schlumberger wireline unit and associated equipment. Made up the 7" WEA test packer and ran in the well to 6700'. Set packer and pumped in the perforations at 1/4 bpm at 1000 psig. Secured the well.
07/07/2009	Rigged up the HES cementing equipment and a held safety meeting. Performed a pump test on perforations, rate 1/4 bpm at 1200 psig. Opened the unloader on the 7" test packer. Mixed and pumped 6 bbls (30 sx) class "G" 15.8 ppg squeeze cement and displaced with 31 bbls brine. Closed the unloader on the 7" test packer and squeezed with 10 bbls (3 bbls of cement out the holes. Final squeeze pressure 1800 psig) Shut in the well with 1000 psig on the well. Rigged down the HES cementing equipment and secured the well.
07/08/2009	Released the 7" test packer at 6700' and ran in the well. Tagged cement at 6768', pulled out of the well and laid down the 7" test packer. Made up a 6-1/8" bit and bit sub. Measured and picked up (4) 4-3/4" drill collars with 2-7/8" tubing. Ran in the well to 6800' and nipped up the PGSR. Ran in the well to the top of cement at 6768'. Picked up the power swivel and drilled out cement from 6768' to 6860' (fell through). Reverse circulated the well clean. Pulled out of the well to 6565' and secured the well.
07/09/2009	Pulled out of the well with the 2-7/8" tubing. Made up a 6-1/8" bit, 7" casing scraper and a bumper sub on 2-7/8" tubing. Ran in the well to 7133' and tagged. Cleaned out the 7" casing to 7162' and pulled out of the well to 6553'. Secured the well.
07/10/2009	Rigged down the power swivel and pulled out of the well. Laid down the 7" casing scraper, bumper sub and 6-1/8" bit. Nipped up the shooting flange. Rigged up the Schlumberger wireline unit and made up 7" USIT tools. Started in the well with the USIT tools (Wireline truck broke down). Rigged down the tools and the associated wireline equipment. Secured the well.

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

HISTORY OF OIL OR GAS WELL

Operator: Southern California Gas Company
Well: Porter 32 B
A.P.I. No. 037-21276

Field: Aliso Canyon

County: Los Angeles

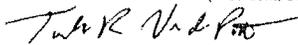
Surface Location: Sec 27 3N 16W S.B.B.M.

Todd Van de Putte

Title: Sr. Storage Field Eng.

(President, Secretary, or Agent)

Date: 09/15/2009

Signature: 

(Person Submitting Report)

Address: PO Box 2300, SC9365, Chatsworth, CA, 91313-2300

Telephone Number: 818-701-3339

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

Start Date	Ops. DOGGR Rpt
07/11/2009	Rigged up the Schlumberger wireline equipment and made up the 7" USIT tools. Ran in the well to 7162' and logged out to 6500'. Rigged down the Schlumberger wireline unit and associated equipment. Made up a 6-1/8" bit, (4) 4-3/4" drill collars on 2-7/8" tubing and ran in the well to 7162'. Cleaned out a cement stringer and sand to 7258'. Circulated the well clean and changed over the well to clean 10 ppg NaCl brine. Pulled out of the well to 6530' and secured the well.
07/12/2009	Pulled out of the well and laid down (4) 4-3/4" drill collars, 6-1/8" bit and the bit sub. Made up a 7" casing scraper and ran in the well to 7248'. Pulled out of the well and laid down the 7" casing scraper. Secured the well.
07/13/2009	Made up a 7" bridge plug retrieving tool and ran in the well. Rigged up and washed down to the 7" bridge plug at 7258'. Released the 7" bridge plug and circulated out a gas kick. Pulled out of the well and laid down the 7" bridge plug. Made up a HES 7" G-6 packer, 6' pup joint, O/O tool (with PXN installed), one joint of 2-7/8" tubing, a sliding sleeve (open), one joint of 2-7/8" tubing, a gas lift mandrel (with dummy valve). Ran in the well to 6587' and secured the well.
07/14/2009	Ran in the hole with the 2-7/8" completion string to 7202'. Ran in the hole and set the 7" HES G-6 packer with on/off tool (plug in place) at 7214'. Released from the on/off tool and spaced out the 2-7/8" L-80 completion string, latched back into the on/off tool and landed hanger in the dount with 10,000 lb compression on the packer. Pressure tested the 7" HES G-6 packer to 500 psig surface pressure for 10 minutes. Packer tested ok. Installed the BPV in the tubing hanger. Nipped down the Class III 5M BOPE. Installed the production tree.
07/15/2009	Cleaned the mud pit, the cellars and rigged down Key #447 and associated equipment. Prepared the baker tanks for move to the P 69E site.

SEP 15 2009

DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

Report on Operations

James D. Mansdorfer, Agent
SOUTHERN CALIFORNIA GAS CO.
9400 Oakdale Ave.
Chatsworth, CA 91313

Ventura, California
July 1, 2009

Your operations at well "Porter" 32B, API No. 037-21276
Sec. 27, T. 3N, R. 16W, SB B. & M. Aliso Canyon
Field in Los Angeles County,
were witnessed on _____ by _____, representative of the supervisor.

Operations Witnessed	Result - Def.	Engineer	Date
BOPE Test	Approved - 0	M. Davis	6/29/2009

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

DECISION: Approved

tkc

By 
Hal Bopp
State Oil and Gas Supervisor

Deputy Supervisor

BLOWOUT PREVENTION EQUIPMENT MEMO

Operator SO. CAL GAS CO. Well "PORTER" 32 B Sec. 27 T. 3N R. 16E
 Field ALISO CANYON County LOS ANGELES Spud Date _____
VISITS: Date Engineer Time Operator's Rep. Title
 1st 6-29-09 M. DAVIS (1500 to 1630) MIKE VOLKMAR CONSULTANT
 2nd _____ (_____ to _____) _____ _____
 Contractor KEY ENERGY SERVICES Rig # 447 Contractor's Rep. & Title _____
 Casing record of well: _____

OPERATION: Testing (inspecting) the blowout prevention equipment and installation. Critical well? Y N
 DECISION: The blowout prevention equipment and its installation on the 8 3/8" casing are approved.

Proposed Well Opns: CASING REPAIR . MACP: _____ psi **REQUIRED BOPE CLASS:** II SM
 Hole size: _____ " fr. _____ ' to _____ ' & _____ " to _____ ' _____

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

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 Pressure
A	—	HYDOLIC		9"	5M	6-09						6-29	35
Rd	2 7/8"	SHAFFER		9"	"	"						6-29	50
Rd	CSO	"		9"	"	"						6-29	50

ACTUATING SYSTEM				TOTAL:		AUXILIARY EQUIPMENT							
Accumulator Unit(s) Working Pressure <u>2700</u> psi						Connections							
Total Rated Pump Output _____ gpm				Fluid Level _____		No.	Size (in.)	Rated Press.	Weld	Flange	Thread	Test Pressure	
Distance from Well Bore <u>50</u> ft.				Precharge _____									
Accum. Manufacturer		Capacity	Precharge	Fill-up Line									
1	KOONEY	gal.	1500 psi	X	Kill Line		2"	5M		X		5M	
2		gal.	psi	X	Control Valve(s)	2		5M		X			
CONTROL STATIONS				Elec.	Hyd.	Pneu.	X	Check Valve(s)	2		5M		
Manifold at accumulator unit					X		X	Aux. Pump Connect.					
Remote at Driller's station						X	X	Choke Line			3"	5M	
Other:							X	Control Valve(s)	8		5M		
EMERG. BACKUP SYSTEM				Press.	Wkg. Fluid	X	X	Pressure Gauge				X	
X	N ₂ Cylinders	1 L=	"	2250	gal.	X	X	Adjustable Choke(s)	2	2"			1M
	Other:	2 L=	"	2250	gal.			Bleed Line					
		3 L=	"	2400	gal.			Upper Kelly Cock					
		4 L=	"	2650	gal.			Lower Kelly Cock					
		5 L=	"		gal.			Standpipe Valve					
		6 L=	"		gal.			Standpipe Press. Gau.					
TOTAL:					ga	X	X	Pipe Safety Valve		2 7/8	5M		5M
								Internal Preventer					

HOLE FLUID MONITORING			Alarm Type		Class	Hole Fluid Type		Weight	Storage Pits (Type & Size)	
	Audible	Visual								
Calibrated Mud Pit					A	WATER BRINE	10#	600 BBL		
Pit Level Indicator					B					
Pump Stroke Counter					C					
Pit Level Recorder										
Flow Sensor										
Mud Totalizer										
Calibrated Trip Tank										
Other:										

REMARKS AND DEFICIENCIES: _____

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

No. P 209-140

PERMIT TO CONDUCT WELL OPERATIONS

010 010
(Old) Field Code (New)

00 00
(Old) Area Code (New)

30 30
(Old) Pool Code (New)

Gas Storage

James D. Mansdorfer, Agent
Southern California Gas Company
9400 Oakdale Ave.
Chatsworth CA 91311

Ventura, California
Month Day Year

Your proposal to **rework** well "**Porter**" **32B**, A.P.I. No. **037-21276**, Section **27**, T. **3N**, R. **16W**, **S.B.** B. & M., Field, **Aliso Canyon** Area, _____ and _____ Pools, **Los Angeles**, County, dated **06/05/09**, received **06/08/09** has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:

1. Blowout prevention equipment, as defined by this Division's publication No. M07, shall be installed and maintained in operating condition and meet the following minimum requirements: III 5M with hydraulic controls
2. Hole fluid of a quality and in sufficient quantity is used to control all subsurface condition in order to prevent blowouts.
3. No program changes are made without prior Division approval.
4. **THIS DIVISION SHALL BE NOTIFIED TO:**
 - a. Witness a test of the installed blowout prevention equipment prior to commencing downhole operations .

Engineer: Steve Fields

Phone: (805) 654-4761

Hal Bopp
State Oil and Gas Supervisor

By Bruce Hesson
Bruce Hesson, Deputy Supervisor

A copy of this permit and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after the work is completed or the operations have been suspended. Issuance of this permit does not preclude the recipient from the obligation of being in compliance with all applicable Federal, State and Local laws, regulations and ordinances.

710
 30
 31
 Sesnon-Frew

NOTICE OF INTENTION TO REWORK / REDRILL WELL 209-140

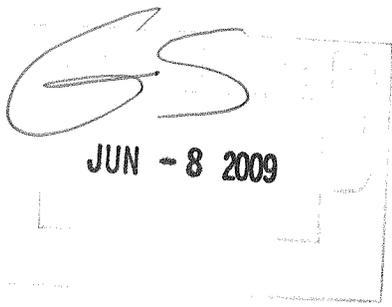
C.E.Q.A. INFORMATION (when redrilling or deepening only)			
Exempt <input type="checkbox"/>	Neg. Dec. <input type="checkbox"/>	E.I.R. <input type="checkbox"/>	Document not required by local jurisdiction <input type="checkbox"/>
Class _____	S.C.H. No. _____	S.C.H. No. _____	
See Reverse Side			

FOR DIVISION USE ONLY			
Bond	Forms		EDP Well File
	OGD 114	OGD 121	
1000 000	111 ✓	115 ✓	

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

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to rework/redrill well _____ Porter 32B API No. 037-21276
 (Circle one) (Well designation)

Sec. 27 T. 3N R. 16W S.B. B&M. Aliso Canyon Field – Gas Storage
Los Angeles County



1. The complete casing record of the well (present hole), including plugs and perforations, is as follows:
 (See attached program)
 13-3/8", 40#, H-40 surface casing cemented at 694'. (cemented w/505 sacks)
 8-5/8", 36#, N-80, LT&C production casing at 6711'. (top of window/cemented w/ 600 sacks)
 7", 26#, L-80, Hunting SLF casing cemented from 6652' to 7391' (cemented w/ 43 bbls, 15.5 ppg slurry)
 4-1/2", Expandable Screen liner from 7275'-7637' (150 Micron screen from 7404'-7631')

2. The total depth is: 7655 feet. The effective depth is: 7643 feet.

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

4. Present zone pressure: Storage zone – variable psi. Anticipated/existing new zone pressure: Same psi.

5. Last produced: _____
 (Date) (Oil, B/D) (Water, B/D) (Gas, Mcf/D)

(or)

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

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

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

Kill the well with HEC polymer pill and 3% KCl brine.
 Install and test Class III, 5M BOPE.
 Pull 2-7/8" completion string. Run a CBL/casing inspection log in the 7" production casing. Pressure test and verify leak in 7" production casing.
 Perforate the 7" casing and squeeze cement behind the 7" production casing. Pressure test the 7" casing repair to 1000 psig surface pressure.
 Rerun and land the redressed G-6 retrieveable packer with on/off tool (plug in place) in profile at 7218'(+/-).
 Re-run and pressure test the 2-7/8", 6.5#, L-80 tubing, with gas lift mandrels, HES on/off tool and HES sliding sleeve.
 Nipple down BOPE, rig down and move out.

For redrilling or deepening: _____
 (Proposed bottom-hole coordinates) (Estimated true vertical depth)

The division must be notified if changes to this plan become necessary.

Name of Operator Southern California Gas Company	Telephone Number 818 701 3339
Address 9400 Oakdale Ave.	City Chatsworth
Name of Person Filing Notice Todd Van de Putte, Senior Storage Field Engineer	Signature <i>Todd R Van de Putte</i>
	Zip Code 91311
	Date 6-05-2009

File In Duplicate



C.E.Q.A. INFORMATION



Information for compliance with the California Environmental Quality Act of 1970 (C.E.Q.A.).

If an environmental document has been prepared by the lead agency, please submit a copy of the document with this notice or supply the following information:

Lead Agency: _____

Lead Agency Contact Person: _____

Address: _____

Phone: _____

FOR DIVISION USE ONLY

District review of environmental document (if applicable)? Yes No

Remarks: _____

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

Exceptions or additions to this definition may be established by the State Oil and Gas Supervisor upon his or her own judgment or upon written request of an operator. The written request must contain justification for such an exception.

WELL OPERATIONS REQUIRING BONDING

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

JUN - 8 2009

WORKOVER PROGRAM

Porter 32B – Shoe Leak Repair

DATE: June 4, 2009
OPERATOR: Southern California Gas Company
FIELD: Aliso Canyon
WELL: Porter 32B
CONTRACTOR: Key – Rig #447
OBJECTIVE: Repair 7" production casing shoe leak.
API NUMBER: 037-21276
ELEVATION: All measurements from the original KB = 12' above GL.

JUN - 8 2009

PRESENT WELLBORE CONDITIONS:

0' – 694'	13-3/8"	40#	H-40	Surface casing (cemented w/505 sacks)
0' - 6711'	8-5/8"	36#	N-80	Production Casing (cemented with 600 sacks) Top of window @ 6711'
6652'-7390'	7"	26#	L-80	Liner – Cemented with 43 bbl, 15.5 ppg cement
7275'- 7643'	4-1/2"			Expandable Screen Liner (expanded to 6" from 7404'- 7637' / 150 Micron screen from 7404'- 7631')

(See attached Schematic and Well Data Sheet for Additional Wellbore Details)

TOP OF ZONES: (S-4): 7402'
FIELD PRESSURE: 2700 psig (surface)

Notes: BOP requirements in 224.05 should be fully implemented. Class III 5,000 psig (minimum) requirements should be followed. Field reservoir inventory and pressures should be monitored during the workover with a 300 psig minimum overbalance on well control fluids.

WELL WORK PROGRAM

Pre Rig Work:

1. De-energize and remove laterals. Install companion flanges for killing well.
2. Move in pump with tank, shaker and mixer. The Key #447 crew to provide the labor for killing the well and installing the kill equipment.
3. Spot the 500 bbl Baker tanks and fill with 8.5 ppg KCl brine.
 - 3.1. Treat the kill fluids with biocide, 5 gal/100 barrels concentration.
 - 3.2. Connect the rig pump to the tubing and vent the casing through the choke manifold to the Gas Company system.
 - 3.3. Verify the current field pressure and confirm the correct weight of kill fluid.
4. Pump a heavy HEC polymer pill into the 5-1/2" ESS liner interval from the surface. Displace the polymer pill with minimum one tubing volume approximately 45 bbl.
5. All the annulus valves should be bled of all pressure and standing full of brine before proceeding with the rig work.

Rig Work:

JUN - 8 2009

1. Move in the Key #447 rig with the rig pump and mud pit.
2. Install BPV. Remove the tree and install a 9" Class III – 5M BOPE (minimum) as per Gas Company Procedure on the tubing head.
 - 2.1. Fit the 5M BOPE with 2-7/8" pipe rams and CSO.
 - 2.2. The 5M BOPE must have connection and valve below the blind rams. Fit with 5000 psig minimum rated valve.
3. Test the 5M BOPE system to assure the integrity of connections.
 - 3.1. Test to 4000 psig minimum. Test the Annular Preventer to 4000 psig.
 - 3.2. Notify the DOGGR prior to the BOPE test.
4. Install a pup joint of 2-7/8" tubing in the 9" x 2-7/8" AJO tubing hanger with a Safety valve in the top. Back out the tubing hanger pins and unland the 2-7/8" tubing.
5. Release the 7" HES G-6 retrieveable packer at 7218' MD.
6. Pull out of the well with the 2-7/8" tubing string and lay down the 2-7/8" and completion equipment.
7. Pick up a 7" casing scraper on 2-7/8" tubing and make a scraper run in the 7" production casing to from 6652' to approximately 7320'(+/-). Circulate the hole clean.
8. Run a USIT inspection log in the cemented 7" production casing to identify the cement bond behind the 7" casing and into the 4-1/2" ESS liner lap.
9. Based on the results of the 7" CBL/casing inspection log, squeeze cement into the leak area.

- 9.1. Install a retrievable bridge plug below squeeze area. Pressure test the bridge plug to 1000 psig. Spot sand on top of the bridge plug.
- 9.2. Perforate the 7" casing at the designated depth in the 7" liner.
- 9.3. Pick up and run a 7" test packer on 2-7/8" tubing with an aluminum tail and squeeze cement into the perforations. Release the 7" test packer and pull 1500' above the squeeze holes and clear the tubing. Wait on the cement.
- 9.4. Lay down the 7" test packer and pick up and run a 6-1/8" bit and clean out the cement squeeze in the 7" liner to the top of the sand plug.
- 9.5. Pressure test the 7" casing to verify the casing integrity.
- 9.6. Repeat squeeze and/or perforating as necessary.
- 9.7. Verify the cement bond with a repeat USIT log in the 7" production casing and 4-1/2" liner lap area.
10. Pick up and run a redressed 7" HES G-6 mechanical set packer, and the bottom half of the 2-7/8" HES on/off tool (plug in place) and install at approximately 7200'. Pressure test the G-6 packer to 1000 psig.
11. Run tubing and accessories as follows and space out as required:
 - 11.1. 1 – upper half of HES on/off tool with XN no-go
 - 11.2. 1jt - 2-7/8", L-80 tubing
 - 11.3. 1 – 2-7/8" Sliding Sleeve
 - 11.4. 1jt – 2-7/8", L-80 tubing
 - 11.5. 1 – 2-7/8" L-80 pup jt.
 - 11.6. 1 – 2-7/8" BST Gas lift mandrel (w/dummy valve in place)
 - 11.7. 2-7/8", L-80 tubing to surface
 - 11.8. 1 – 2-7/8" L-80 pup jts (as required for spacing)
 - 11.9. 1 - 2-7/8" x 9" Tubing Hanger
 - 11.10. Run tubing stretch calculation to verify landing weight.
 - 11.11. Pressure test the tubing/casing annulus to confirm integrity of packer and seals to 1000 psig for 10 minutes.
12. Install the BPV and remove the 9", Class III 5M BOPE. Install the tree and test to 5000 psig. Remove the BPV.
13. Clean the pits, the location and properly dispose of any well work fluids.

JUN - 8 2009

Post Rig Work:

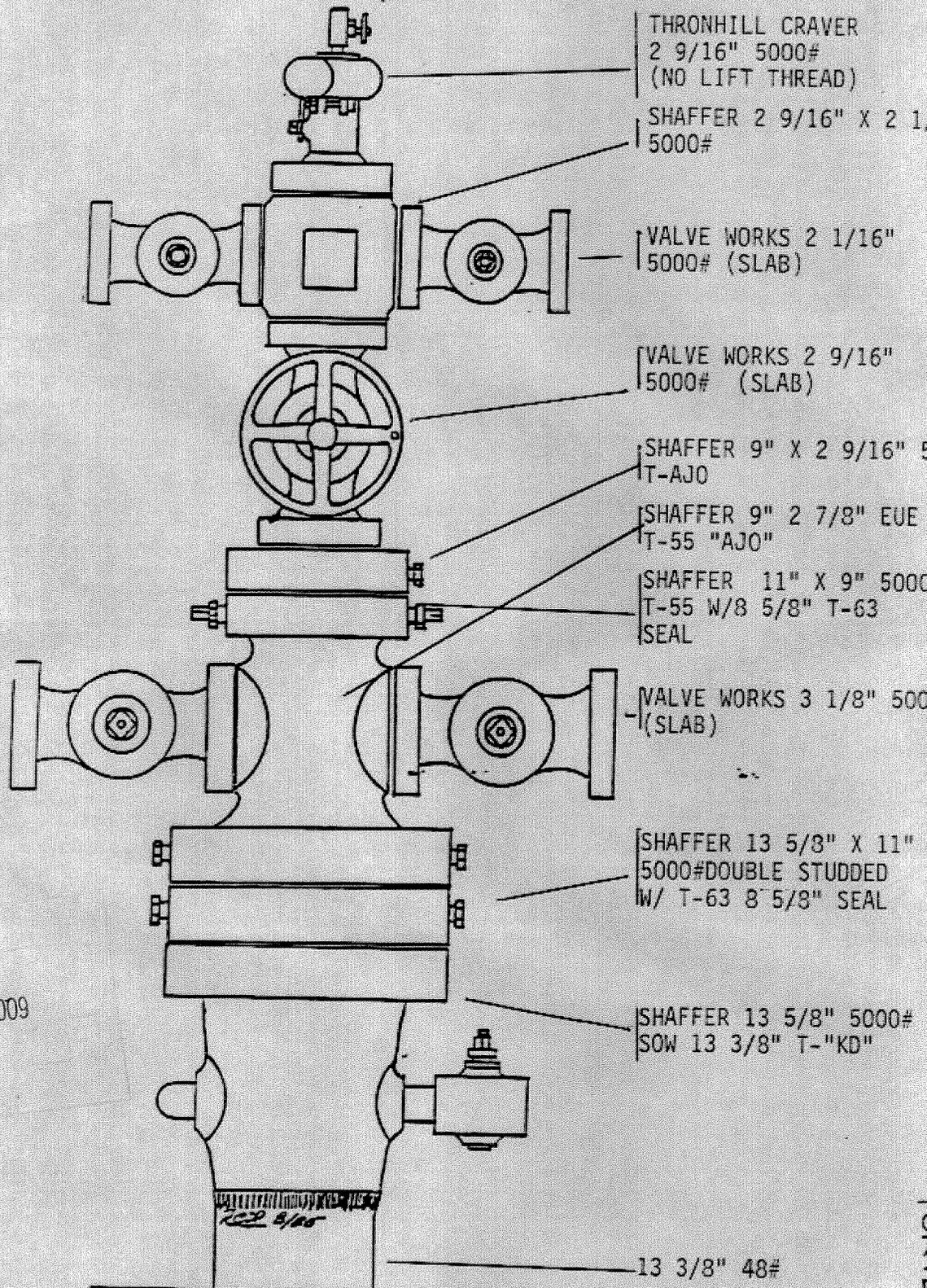
1. Replace the laterals and the instrumentation.

2. Unload the well and close the sliding sleeve.
3. Place well on tubing withdrawal to clean up water from completion interval. Clean up the location.

Todd Van de Putte

Approved: J. Mansdorfer

JUN - 8 2009



WELL NAME PORTER 32-B

MFGR: SHAFFER OIL TOOL

DATE PREPARED: 1/27/06

**WELLHEAD DESCRIPTION
(TYPE IV & VI)**

Well No. PORTER 32-B Date Prepared 1/27/06

Field ALISO CANYON Prepared By _____

Wellhead Mfr. SHAFFER OIL TOOL

1. Casing Head SHAFFER Size 13 5/8" 5000# Type "KD"

Slips & Pack-off 13 5/8" X 8 5/8"

A. Surface Csg. Size 13 3/8" Wt 48# Grade H-40

B. Casing Head Valve MARPAC Size 2" L.P. Fig No. _____

2. Seal Flange SHAFFER Size 13 5/8" X 11" SBL STUDDED

A. Type Seal 8 5/8" T-63 Ring BOTTOM BX-160 & TOP RX-54

3. Tubing Head SHAFFER Size 11" X 9" 5000# Type T-55 11

Ring BOTTOM RX-54 & TOP RX-50

Outlets 3 1/8" 5000# Sec. Seal 8 5/8" T-63

JUN - 8 2009

Valve Removal Thrd 2 1/2" L.P.

A. Tubing Hanger SHAFFER Size 9" X 2 7/8" EUE Type T-55"AJ0"

B.P.V. Size SHAFFER 2 7/8"

B. Tubing Head Valves VALVE WORKS Size 3 1/8" 5000# Fig.No. (SLAB)

C. Automatic Csg. Valve N/A Size _____ Fig.No. _____

4. Adapter Seal Flange SHAFFER Size 9" X 2 9/16" 5M Type "AJ0"

A. Ring Size BOTTOM RX-50 & TOP RX-27

5. Master Valve VALVE WORKS Size 2 9/16" 5000# Fig.No. (SLAB)

6. Xmas Tree Cross SHAFFER Size 2 9/16" X 2 1/16" 5000#

Bore: Thru 2 9/16" Across 2 1/16"

7. Tubing Wing Valves VALVE WORKS Size 2 1/16" 5M Fig.No. (SLAB)

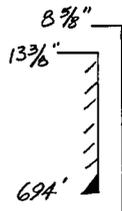
A. Automatic Tbg. Valve N/A Size _____ Fig.No. _____

8. Unibolt Size THORNHILL CRAVER Inside Thrds NONE

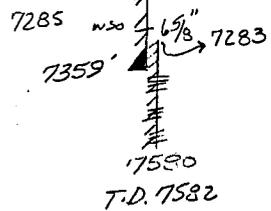
9. Size Landed in Csg. Head 8 5/8" Wt 36# Grade K-55

10. Size Landed on Doughnut 2 7/8" EUE Wt _____ Grade _____

11. Tubing Head to Ground Level 30" ABOVE GROUND LEVEL



CTF 3467'



OPERATOR Pac Life
 LSE & NO. 7W 60
 MAP NO. 150 254

	Drill	rework 300 20230	plug back of core to & observation	Redrill	PREP FOR DRILL	
INTENTION						
NOTICE DATED	7-10-72	7-15-77	7-13-82	7-18-01	10/20/2005	
P-REPORT DATED	172-853	277-262	282-262	201-199	P205-158	
CHECKED BY/DATE	PRW/6-12-73		RLH 8/29/82			
MAP LETTER DATED	6-16-73	NC	8-28-82			
SYMBOL	●		⊙		NC	
	REC'D	NEED	REC'D	NEED	REC'D	NEED
NOTICE	7-13-72	7-21-77 ✓	7-16-82	9-6-01	10/20/05 ✓	
HISTORY	6-11-73	9-17-77 X	8-20-82		12/3/05	
SUMMARY	6-11-73					
IES/ RECORDED LOG	6-11-73					
DIRECTIONAL SURV.	6-11-73					
CORE/SWS DESCRIPT.	—					
DIPMETER RESULTS	—					
OTHER	—	BOPE 1-21-77				
FDC	2-1-74					
RECORDS COMPLETE	6-12-73 PRW	9-21-77 ANC	RLH 12/17/82			

ENGINEERING CHECK	CLERICAL CHECK
T-REPORTS _____	POSTED TO 121 _____ 170 MAILED _____
OPERATOR'S NAME _____	FINAL LETTER MAILED _____
WELL DESIGNATION _____	RELEASE _____
LOC. & ELEVATION _____	BOND _____
SIGNATURE _____	
SURFACE INSPECTION _____	
FINAL LETTER OK _____	

REMARKS

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

HISTORY OF OIL OR GAS WELL

Operator: Southern California Gas Company

Field: Aliso Canyon

County: Los Angeles

Well: Porter 32 B

Surface Location: Sec 27 3N 16W S.B.B.M.

A.P.I. No. 037-21276

Mike Dozier

Title: Technical Specialist

(President, Secretary, or Agent)

Date: 5/11/2007

Signature: *Mike Dozier*
(Person Submitting Report)

Address: PO Box 2300, SC9365, Chatsworth, CA, 91313-2300

Telephone Number: 818-701-3235

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

Start Date	Ops. DOGGR Rpt
10/18/2005	Prepare location. Move in and rig up.
10/19/2005	Move in and rig up
10/20/2005	Shot fluid level 2061'. Filled tubing with 110 bbls. Tested 8-5/8" casing to 1000 psi. for twenty minutes.
10/21/2005	Circulated out oil pad. Installed back pressure plug, removed production tree. Nipped up and function tested class II BOP. Steve Field CA. DOGGR waived inspection of BOP and DOGGR Notice of Intent.
10/24/2005	Rig up Scan-la-og. Pulled out of well thru scan unit scan results 50 yellow, 158 blue, 14 green, 4 red, rigged down scan unit and ran in well with kill string.
10/25/2005	Pulled out of well with kill string. made up 7-5/8" bit on 8/5/8" casing scraper and bumper sub. Ran in well to 7030' tagged cement. Nipped up circulating head and picked up power swivel. Cleaned out cement stringer to 7053'. Drilled out cement to 7093'. Changed over well to 3% KCL. Pulled out of well to 4500'.
10/26/2005	Pulled out of well laid down bit and casing scraper. Rigged up Schlumberger loggers. Ran USIT log from 7093' to surface. Made up cement bond tool and logged from 7093' to 5650'. Rigged down loggers. Made up bit and casing scraper and ran in well to 1000'.
10/27/2005	Ran in well with bit to 7053'. Picked up power swivel, drilled out cement from 7053' to 7190' Circulated well clean. Pulled out of well to 5300'.
10/28/2005	Pulled out of well with kill string. Made WEA 8-5/8" test packer ran in well to 5190'. Set packer and tested below packer to cement at 7190' to 930 psi. for twenty minutes. Tested from 5190' to surface to 1765 psi. for twenty minutes. Pulled to 3190', tested from 3190' to surface at 2340 psi. for twenty minutes. Pulled to 1190' tested from 1190' to surface to 2450 psi. for twenty minutes. Pulled to 500' tested from 500' to surface to 3150 psi. for twenty minutes. Pulled out of well and laid down packer. Ran in well with kill string.
10/31/2005	Ran in well with 214 joints and landed tubing in tubing hanger at 6643'. Nipped down BOP, nipped up production tree.
11/1/2005	Nipped up production tree. Loaded out equipment, rigged down and move equipment to Porter 26 C.
1/17/2006	Rig is at a different well.
1/18/2006	Rig is at a different well
1/19/2006	Rig is at a different well
1/20/2006	Rig is at a different well
1/21/2006	Rig is at a different well
1/22/2006	Rigged up equipment.
1/23/2006	Removed primary seal, replaced seal. Installed cross over flange on well head. Installed double gate, nipped up B.O.P.E.
1/24/2006	Nipple up B.O.P.E.
1/25/2006	Tested pipe rams to 5000 psi., blind rams to 5000 psi., mud cross and choke manifold to 5000 psi., all tests 20 min. Test hydril to 3500 psi. for 20 minutes all OK. DOGGR Mark witnessed test. Pulled out of well with (170) jts. of 2-7/8" tubing.
1/26/2006	Pulled out of well laying down tubing, 44 joints of 2-7/8" tubing. Changed to 3-1/2" pipe rams. Picked up 2 jts. of 7", 511 wash pipe.
1/27/2006	Tested stand pipe to 3,000 psi. for 20 minutes. Tested upper and lower kelly valves 5,000 psi. for 20 minutes all OK. Ran in well with 165 joints of 3-1/2" drill pipe, 2 joints of 7" wash pipe and bumper sub.
1/28/2006	Ran in well with 7" wash pipe. Tagged cement @ 7186'. dover to gel mud system 386 bbls. pulled out of well, laid down wash pipe. Picked up section mill. Ran in well with section mill and six 6-3/4" drill collars to 4954'.
1/29/2006	Ran in well with 7-1/4" section mill. Tagged cement @ 7186' Located collar @ 7112', start cutting @ 7115'. Cut to 7125' tool not performing properly. Circulated gel sweep. Still very little metal. Pulled out of hole.
1/30/2006	Pulled out of well with 7-1/4" section mill. Found blade locked and bent. Picked up replacement. Ran in well to 7115'.
1/31/2006	Milled with 7-1/4" section mill from 7115' to 7133'. Pulled into cased hole. Very little metal returns. Lost 30 bbls. of mud to formation.
2/1/2006	No fluid loss. Continue milling on casing with 7-1/4" section mill. Milled from 7133' to 7155'. Circulated well clean. Pulled out of well to 1730'.

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

HISTORY OF OIL OR GAS WELL

Operator: Southern California Gas Company
Well: Porter 32 B
A.P.I. No. 037-21276

Field: Aliso Canyon

County: Los Angeles

Surface Location: Sec 27 3N 16W S.B.B.M.

MAY 21 2007

Mike Dozier

Title: Technical Specialist

(President, Secretary, or Agent)

Date: 5/11/2007

Signature:

(Person Submitting Report)

Address: PO Box 2300, SC9365, Chatsworth, CA, 91313-2300

Telephone Number: 818-701-3235

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Start Date	Ops. DOGGR Rpt
2/2/2006	Pulled out with 7-1/4" section mill. Picked up and ran in hole with 13" hole opener. Attempted to circulate @ 7115', pipe plugged. Reverse circulate at minimum pressure to clear drill pipe no loss in fluids. Reverse 90 bbls. OK. Circulate and open hole to 13" from 7115' to 7155'. Circulate well and pulled out of hole to 5000'.
2/3/2006	Pulled out of hole with 3-1/2" drill pipe and 4-3/4" drill collars. Laid down 13" hole opener. Ran in hole with open ended with drill pipe. Attempt to enter 8-5/8" casing stub @ 7155', could not enter. Rigid up Halliburton cementers. Test lines 3,000 psi. Pumped cement job as follows, 12 bbls. fresh water ahead, 18 bbls. cement as per program, 2 bbls. fresh water behind, followed by 48 bbls. of gel mud. Max pressure 1300 psi. Pulled 10 stands to 6525'. Reverse circulated two volumes of drill pipe. Rigid up cementers, attempted to squeeze cement with 600 psi. at surface. Lost 1/2 bbl. at most. Pressure holding. Bleed well.
2/6/2006	Well standing full of gel mud. Ran in hole with 3-1/2" drill pipe. Tagged top of cement @ 6946'. Pulled out of hole. Make up 7-5/8" bit on 4-3/4" mud motor and ran in hole with six 4-3/4" drill collars and 3-1/2" drill pipe. Tagged cement @ 6946'.
2/7/2006	Well standing full of fluid. Cleaned out cement from 6946' to 7115'. Circulate hole clean.
2/8/2006	Rigged up Scientific Drilling wire line unit. Ran gyro orienting survey. High side tool face 228 degrees. Hole direction 90 degrees azimuth. Orient tool face 110 to right of hole direction. Directional drill from 7115' to 7145'. Rotate tool with rotary table from 7145' to 7160' as directed by directional man to minimize dog leg severity. Circulate well, pulled out of hole to 2000'.
2/9/2006	Pull out of hole stand back drill collars laid down mud motor. Made up 7-5/8" drill bit w/ 3-10 jets. Run 7-5/8" near bit stab, lead collar, 7-5/8" near bit stab, one 4-3/4" drill collar, 7-5/8" string stab, five 4-3/4" drill collars. Ran in hole to 7115', circulate and ream f/ 7115' to 7155' hit top of 8-5/8" casing stub. Circulated and pulled out of hole for cement. Run in hole w/ open end 3-1/2" drill pipe to 1500'.
2/10/2006	Ran in hole with drill pipe to cement. Tagged @ 7160'. Rigged up Halliburton cementers. Test line and equipment to 2,000 psi. O.K. Pumped 12 bbls. of fresh water ahead followed by 25 sacks of 6 bbl. slurry cement with 0.75% cfr-3.35% ssa-1.5% microlite-.05% ucs-.1/4 #sks flocele. Follow with 2 bbls. of fresh water and displace with 50 bbls. of gel mud. Pulled 10 stands 600', to 6530'. Reverse out two drill pipe volumes 100 bbls. Very little cement returns.
2/11/2006	Move in additional equipment.
2/13/2006	Run in hole tag cement @ 7088'. Pulled out of hole. Picked up 7-5/8" bit with 4-3/4" mud motor with 1-1/2 degree kick sub and six 4-3/4" drill collars. Continue to fill pipe while running in hole. Clean out cement stringers f/ 6890' to 7088'. Drill hard cement f/ 7088' to kick off point @ 7115' Circulate well rig to single shot well.
2/14/2006	Ran single shot survey. Orient mud motor to exit right side of high side of well bore. Directional drill f/ 7115' to 7155'. Drilling stopped due possible casing stub incounter. Run survey, showed 1/8 degree drop to right side of well. Pulled out of hole to change drilling assembly. Make up new 7-5/8 MX-20G bit #5093274, 3-12 jets. Ran in hole to 7087'. Attempt to circulate, pipe plugged. Reverse circulate and clean out bit. Circulate to 7115'
2/15/2006	Clean out tool run from 7115' to 7056' hit casing stub. Pull 20,000 pounds over to pull out of window. Pull out of hole laid down drill assembly. Picked up 13" hole opener. Run in hole, stop @ 7080'. Ran into 7115', open hole from 7115' to 7150'. Circulate 2 hours. Pull out of hole. Laid down underreamer.
2/16/2006	Ran in hole with open end drill pipe for cementing operations. Ran to 7155', circulate well. Rig up cementers. Test line and equipment to 2,500 psi, O.K. Pumped 12 bbls. of fresh water ahead follow with 24 bbls. of 17ppg. cement slurry. Pumped 2 bbls. of fresh water behind and displace with 48 bbls of 8.6 ppg. gel mud. Pulled 12 stands to 6400'. Reverse circulate two drill pipe volumes. Rig up Halliburton pressure up to 1000 psi. surface pressure and 4085 psi. max bottom hole pressure. Pumped 1.7bbl. Close in well with 500 psi. on drill pipe. Cement mix, 0.75% CFR-3/35%SSA-1.5% Microlite-0.5%, UCS-1/4#SX Foccele. Wait 12 hours, taged cement @ 6834'. Pulled out of hole. Made up 7-5/8" bit with 7-5/8" 36# positive scraper and hydraulic bumper sub with six, 4-3/4" drill collars.
2/17/2006	Continue running in hole with 7-5/8" bit and 8-5/8" positive scraper. Tagged @ 6834'. Drilled out cement from 6834' to 7110'. Circulate well clean, pulled out of hole. Lais down tools and make up 7-5/8" MX-20G bit and 1-3/4 degree bent housing mud motor, six, 4-3/4" drill collars. Ran in hole. Test mud motor 20 stands in hole.

RESOURCES AGENCY OF CALIFORNIA
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Operator: Southern California Gas Company
Well: Porter 32 B
A.P.I. No. 037-21276

Field: Aliso Canyon

County: Los Angeles

Surface Location: Sec 27 3N 16W S.B.B.M.

Mike Dozier

Title: Technical Specialist

(President, Secretary, or Agent)

Date: 5/11/2007

Signature:

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Start Date	Ops. DOGGR Rpt
2/18/2006	Continue running in hole with 1-3/4 degree mud motor. Stop @ 7115' run single shot survey. Orient tool face to 145 degrees to left side of hole direction. Time drill from 7115' to 7154'.
2/19/2006	Continue drilling with mud motor 7202' to 7265'. Unable to drill passed 7265'. Pulled out of hole with mud motor.
2/20/2006	Continue pulling out of hole. Laid down mud motor. Check out bit and motor. Could not find any evidence of failure. Make up 7-5/8" bit and stabilizers. 'Bit, 1 drill collar stabilizer, one drill collar, stabilizer, four 4-3/4" drill collars. Run in hole. Attempt to drill at 7265'. Drill pipe plugged. Pulled out of hole. Found scale on top of bit. Run in hole
2/21/2006	Continue running in hole with drill assembly. Drilling from 7265' to 7270'. Drilling stopped. Pull out of hole laid down drill assembly. Run in hole with 2500' open end drill pipe
2/22/2006	Called DOGGR and talked to Steve Fields, gave verbal O.K. to pump cement from 7250' to estimated kick off point at 6742'. Continue running in hole with open end drill pipe to 7147' circulate well and condition mud. Rig up Halliburton cementers. Test lines to 2,500 psi. O.K. Mix and pump cement. Pump 12 bbls. of fresh water ahead followed by 135 sacks of 32 bbl. cement slurry 17 ppg. Pump 2 bbls. of fresh water behind followed by 47 bbls. of 8.7 ppg. gel mud to balance out plug. Pull 20 stands to 5987'. Reverse out two drill pipe volumes 98 bbl. Rigid up Halliburton and test lines to 2500psi O.K. Attempt to squeeze cement. Pump in stages from 400 psi to 1000psi. max bottom hole pressure 4085 psi. Close in well with 500 psi. Did not squeeze any cement away. Estimated top of cement 6708'. Cement mix as follows: 0.75% CFR-3/35% SSA-1/5% Microlite, 0.5% USC, 1/4# Flocele, 0.25% super CBL.
2/27/2006	Ran in hole tagged cement plug at 6771'. Circulate and condition mud three hours. Well cleaned up, pull out of hole with 3-1/2" drill pipe for wire line bridge plug. Rig up Schlumberger. Make up 8-5/8" wire set bridge plug and run in hole. Tagged at 6050' work down to 6650'. Tagged two more times and pulled out of hole. Tools hung up at 4000'. Work plug "no success". Note, called DOGGR, Steve Fields gave verbal O.K. for top of cement at 6771' and to place bridge plug for kick off point at 6742'.
2/28/2006	Continue working stuck bridge plug at 4000'. Set bridge plug and pulled out with setting tool. Make up 7-5/8" bit and 8-5/8" positive casing scraper with hydraulic bumper sub. Ran in hole, tagged plug at 4000' and start drilling up plug. Pushing plug down hole.
3/1/2006	Continue circulating and pushing bridge plug down hole. Stopped at 6767'. Circulate 2 hours. Reverse circulate 2 hours. Start pulling out of hole. Scraper hanging up on casing collars. Work free and continue pulling 5 stands. Run in hole to 6767' to push junk ahead of scraper to bottom. Pulling out of hole free. Rig up Schlumberger wire line. Run in hole with gage ring and junk basket to 6767'. Pulled out of hole and make up 8-5/8" bridge plug and running tools. Ran in hole. Correlate depth and casing collars. Set bridge plug at 6737'. Pulled out of hole and rig down. Made up 8-5/8" bottom trip whipstock and orienting key sub with starting mill and six 4-3/4" drill collars.
3/2/2006	Continue running in hole with whipstock. Orient whipstock at 6736' with single shot and set 70 degrees to right side of high side of well. Set down to engage slips and shear pin. Start drilling with starting mill to open window. Drill 18 inches. Pulled out of hole. Made up window mill and string mill run in hole. Break circulation and start milling at 6711'.
3/3/2006	Continue drilling out window at 6711'.
3/6/2006	Repair rig equipment.
3/7/2006	Well full of 9.3 ppg gell mud. Function test B.O.P.E. O.K. Start milling on window at 6712' to 6729'. Returns show metal, sandy formation very little cement. Circulate well, drop survey and pull out of hole. Held B.O.P. drill while pulling out of hole. Laid down mills and make up 7-1/2" #5077191 bit and mud motor. Run in hole.
3/8/2006	Continue running in hole with 1-3/4 degree mud motor. Mud weight 9.3 ppg. Tagged bottom of window at 6726'. Circulate well. Made up single shot survey and run in on sand line. Retrieve survey and orient tool face 140 degrees to right side of hole direction. Held B.O.P. drill.

RESOURCES AGENCY OF CALIFORNIA
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MAY 21 2007

HISTORY OF OIL OR GAS WELL

Operator: Southern California Gas Company
Well: Porter 32 B
A.P.I. No. 037-21276

Field: Aliso Canyon

County: Los Angeles

Surface Location: Sec 27 3N 16W S.B.B.M.

MAY 21 2007 Mike Dozier

Title: Technical Specialist
(President, Secretary, or Agent)

Date: 5/11/2007

Signature:

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Start Date	Ops. DOGGR Rpt
3/9/2006	Start drilling with 1-3/4 degree, 4-3/4" O.D.bent housing mud motor. Drill and slide from 6725' to 6789'. Run single shot survey on sand line. Found increase in hole angle from 20-1/2 degees to 22 degrees. Rotate mud motor from 6789' to 6822' stop drilling. Circulate to pull out of hole. Pull out of hole. Found bit balled with clay shale. Clean bit and make up drill assembly with near bit 7-1/2 stabilizer and two drill collars and one string 7-1/2" stab. Four drill collars and 20 joints 3 1/2 H.W. 26# drill pipe. Run in hole. attempt to rotate, bottom stab hung up in bottom of window. Pulled loose and rotate and ream from 6711' to 6822'.
3/10/2006	Circulate well for survey. Rig up Tiger wire line and run WELNAV multi shot Gyro-survey from 6822' to 6711'. Found well departed from exsiting well bore at 22 degrees angle and 111 degrees azimuth. Estimated slightly lower and 2-3 feet to right of exsiting well bore at 6822'. Rig out wire line and start drilling 7-1/2" hole from 6822' to 6935'.
3/11/2006	Contnue drilling from 6935' to 6966'. Aprox 10 feet per hour. Ran single stot survey found 25 degree angle. Pull out of hole to change drill assembly. Clean stabilizer and bit " heavy shale clay". Ran in hole with near bit stabilizer and string stabilizer at 30'. Ran in to window at 6711'. Ream window and run to 6866'. Start drilling from 6866' to 6998'
3/12/2006	Continue drilling from 6998' to 7038'. Drilling hard. Pulled to shoe at 6711". Ran in hole tagged at 6730'. Drill from 7038' to 7094'.
3/13/2006	Ciculate for survey at 7285'. Ran single shot survey at 7076' found 28 degrees in Easterly direction. Continue drilling from 7085' to 7349'. Circulate for survey. Survey at 7340' found 25 degrees and Easterly direction. Continue drilling from 7349' to 7395'. Circulate and condition mud. Pull out of hole for underreamer. Mud wieght 9 ppg,visc 49, sand .25%.
3/14/2006	Continue pulling out of hole with 7-1/2 drill assembly. Laid down stabilizer and bit. Pick up and make up 7" x 10" hole opener. Ran in hole. Start drilling at 6729' bottom of window. Drill from 6729' to 6917'. Drilling stopped. Attempt to work down hole. Pulled out of hole. Mud , 9.3ppg, visc 49, sand .15%.
3/15/2006	Continue pulling out of hole with 7" x 10" hole opener. Found cone off shank and in bull nose on opener. Run in hole with new hole opener. Start opening hole from 6983' to 7160'. Pull out of hole. Held B.O.P. drill. Make complete test on B.O.P.E. Check nitrogen unit and train all crew members on operations.
3/16/2006	Continue pulling out of hole with hole opener. Laid down opener, found cone stuck in bull nose. Run in hole with new 7" x10" hole opener. Start drilling 7160' to 7283'. Stopped drilling, pulled out of hole. Found cone again inside bull nose. Make up new 9" hole opener run in hole
3/17/2006	Continue running in hole with 9" hole opener. Start drilling at 7275' to 7390'. Circulated and pulled out of hole. Laid down hole opener make up 2 joints 7" flush joint wash pipe with bull nose shoe and bumper sub. Ran in hole to 7390' circulate. Pump high visc 20 bbl. sweep, circulate bottoms up. Pull out for 7" casing run. Drag with 7" wash pipe in window at 6711' to 6729', 2-3,000lbs.
3/18/2006	Continue pulling out of hole with wash pipe, Laid down 7" wash pipe. Rig up to run 7", 16 joints 7" 26# L-80 seal lock flush joint. Run in hole baker lock first joint, rabbit all drill pipe. Rigged up Weatherford casing jam unit and recorded all casing make up. Ran in to 7391', rig up cementers. Held safety meeting and test lines to 2500 psi. O.K. Pump 20 bbls. of mud flush followed by 30 bbls. spacer followed by 43 bbls. of 15.5 ppg. slurry. Release dart and displace with 76 bbls. of 9.3 ppg. mud. Lach wiper and dart into landing collar with 1500 psi. Check for flow back, very little. Reciprocate casing while cementing. Release running tool, pull 600' 10 stands and reverse out two drill pipe volumes. Pulled out of hole for 7-5/8" bit and scraper. Estimated top of cement 6539' w/ 25% excess.
3/19/2006	Continue pulling out of hole. Laid down casing running tool. Make up 8-5/8 positive scraper with 7-5/8 bit. Ran in hole. Tagged at 6317'. Drill cement stringers f/ 6317' to 6635'. Drill hard cement f/ 6635' to 6652' top of 7" casing. Test 7" casing lap to 1000 psi. for 20 minutes O.K.. Pulled 120'. DOGGR Steve Fields gave verble O.K. to wave obsevation of test on 7" lap. Test will be charted.
3/22/2006	Pull out of hole. Laid down 7" scraper and 7-5/8" bit. Make up 6-1/8" bit and 6-1/8" mill with 7" positive scraper. Ran in hole to top 7" casing at 6652'. Drilled from 6652' to 6670' . Continue running in hole to float collar.

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Start Date	Ops. DOGGR Rpt
3/23/2006	Continue running in hole to 7340'. Drill out float collar and cement from 7340' to shoe at 7390' Drill shoe out and drill to 7396' pressure test and chart shoe test to 1000 psi for 20min. O.K. Laid down excess drill pipe and pull out of hole.
3/24/2006	Continued pulling out of hole. Laid down 7" scraper and mill. Make up 6-1/8" drill assembly. Ran in hole, picked up fifty 4-1/8" drill collars. Ran in hole.
3/27/2006	Continue running in hole with 6-1/8" drill assembly. Attempt to drill 6-1/8" hole. Hole drag due to 4-1/8" drill collars very excessive. 108,000 down 208,000 up. Pull out of hole set back 4-1/8" collars.
3/28/2006	Continue pulling out of hole with drill assembly standing back 4-1/8" drill collar. Run in hole with 6-1/8" drill assembly to 7390'. Change over to Flow Pro mud 9.3 ppg., 500 bbl. Start drilling 6-1/8" hole from 7395' to 7456'.
3/29/2006	Continue drilling 6-1/8" hole from 7456' to 7655'. Circulate hole and condition mud. Make 260' wiper trip to shoe. Slide to 7655'. Rig up Tiger wire line for Gyro-Single shot surveys. Survey from 7601' back to 6600'. Pull to shoe.
3/30/2006	Flo-Pro system with 3% KCL, mud failed Weatherfords solids test. Pump mud through rig choke at 2500 psi. to shear mud for 12 hours. Mud tested O.K. Ran in hole to 7655'. Changing over to no solids system.
3/31/2006	Continue changing over, pump 100 bbls. Pulled to 6845'. Continue changing over to Flo-Pro and KCL no solids system. Pulled out of hole for expandable screen. Laid down 4-3/4" drill collars and 6 1/8 stabilizers. Bit and all stabilizers in gage. Rig up Schlumberger wire line unit. Run in hole with 6 arm caliper log. Log from 7650 to 7390'. E.O.T.
4/1/2006	Rig out wire line. Rig to run E.S.S. system. Pick up expandable 4-1/2" liner. Run in hole, tagged at 7643'. Pulled to 7642' drop ball and set liner with 4000 psi. Pulled out of hole for liner expanding tool.
4/2/2006	Continue pulling out of hole. Laid down hanger setting tools. Picked up liner expansion tool. Run in hole with fifty 4-1/8" drill collars to expand liner. Open liner to 5-1/2" from 7402' to 7655'.
4/3/2006	Continue pulling out of hole laying down 3-1/2" drill pipe and 4-1/8" drill collars. Change pipe rams to 2-7/8" and pick up 10 jts. 2-3/8" CS Hydrill tubing with bull plug and perforated pup joint. Run in hole to 7640'. Pumped 10 bbl. spacer, followed by 20 bbls. of turbulent flow spacer, followed by 10 bbl. spacer, followed by 21 bbls. of breaker. Displaced with 39.7 bbls. of Flo-Pro mud. Pulled out of hole.
4/4/2006	Continue pulling out of hole. Laid down 2-3/8" CS Hydrill tubing. Picked up 7", 26# ,HES G-6 Packer. Run sliding sleeve, ,XN profile with plug in place, two gas lift mandrels with dummy valves. Set packer with 10,000 compression @ 7220' pressure test packer down annulus to 500 psi. O.K.
4/5/2006	Nipple down B.O.P.E. Nipple up production tree. Rig up Spicer wire line. Run in hole, open sliding sleeve. Pulled out of hole, rig out wire line. Change over to 3% K.C.L. Change over 430 bbls. 3 % KCL.
4/6/2006	Move out equipment.
4/10/2006	Move out.
4/11/2006	Cleaned location and cellars.
4/12/2006	Cleaned cellars and pipe trenches.
4/19/2006	MIRU Spicer W/L. RIH w/ pulling tool and closed the SSD @ 7174'. Continued to RIH and POOH the equalizing prong from the 'PXN' plug in the 'X'N' profile nipple @ 7209'. RIH and POOH w/ the 2.313" PXN plug body. RD W/L.
5/5/2006	MIRU Spicer W/L. RIH w/ 1.75" sample bailer and tagged fluid @ 5960'. Continued RIH to 6300'. POOH w/ fluid sample. Ran back in hole w/ 2.31" fluid sample bailer to collect more sample. Made a total of 4 runs recovering about 1-liter of fluid. RDMO.

WELLBORE NAVIGATION, INC.
TUSTIN, CALIFORNIA

JOB NUMBER:

WELL NAME: 32-I

INRUN SURVEY
BY MINIMUM CURVATURE

MEAS. DEPTH	VERT. DEPTH	VERT. SECT.	L/R CLOS.	INCL	BEARING AZIMUTH	COORDINATES LATITUDE DEPARTURE		D-LEG /100	D-LEG /CL	STATION DISPLACEMENT DISP. DIRECTION	
6600.0	6433.54	827.87	0.000	19.39	089.37	17.14 N	827.70 E	0.67		827.88 AT	088.81
6630.0	6461.85	837.72	12.534	19.31	088.85	17.29 N	837.64 E	0.63	0.19	837.82 AT	088.82
6660.0	6490.15	847.66	12.768	19.39	089.76	17.41 N	847.58 E	1.04	0.31	847.76 AT	088.82
6690.0	6518.43	857.67	13.008	19.60	088.91	17.53 N	857.59 E	1.18	0.35	857.77 AT	088.83
6720.0	6546.72	867.61	13.760	19.30	095.71	17.13 N	867.55 E	7.61	2.28	867.72 AT	088.87
6750.0	6575.04	877.44	15.038	19.27	095.04	16.21 N	877.42 E	0.74	0.22	877.57 AT	088.94
6780.0	6603.27	887.53	16.010	20.25	091.95	15.59 N	887.54 E	4.77	1.43	887.67 AT	088.99
6810.0	6631.34	898.12	16.536	21.16	089.70	15.45 N	898.14 E	4.03	1.21	898.28 AT	089.01
6840.0	6659.23	909.17	16.795	22.06	088.93	15.58 N	909.19 E	3.15	0.94	909.32 AT	089.02
6870.0	6686.92	920.70	16.922	23.15	088.26	15.86 N	920.72 E	3.73	1.12	920.85 AT	089.01
6900.0	6714.36	932.82	16.857	24.50	087.08	16.36 N	932.82 E	4.77	1.43	932.97 AT	089.00
6930.0	6741.55	945.49	16.558	25.49	086.15	17.11 N	945.48 E	3.55	1.07	945.64 AT	088.96
6960.0	6768.52	958.62	16.161	26.47	086.31	17.97 N	958.59 E	3.28	0.98	958.76 AT	088.93
6990.0	6795.30	972.14	15.760	27.11	086.21	18.86 N	972.08 E	2.14	0.64	972.26 AT	088.89
7020.0	6821.96	985.89	15.273	27.48	085.66	19.83 N	985.81 E	1.49	0.45	986.01 AT	088.85
7050.0	6848.57	999.73	14.786	27.52	086.23	20.81 N	999.62 E	0.89	0.27	999.84 AT	088.81
7080.0	6875.16	1013.63	14.384	27.69	086.37	21.71 N	1013.50 E	0.61	0.18	1013.73 AT	088.77
7110.0	6901.71	1027.58	13.950	27.78	085.99	22.64 N	1027.43 E	0.66	0.20	1027.68 AT	088.74
7140.0	6928.32	1041.43	13.399	27.25	085.37	23.68 N	1041.25 E	2.01	0.60	1041.52 AT	088.70
7170.0	6955.05	1055.02	12.650	26.70	084.23	24.91 N	1054.80 E	2.52	0.75	1055.09 AT	088.65
7200.0	6981.96	1068.25	11.683	25.80	083.31	26.35 N	1067.99 E	3.29	0.99	1068.31 AT	088.59
7230.0	7009.05	1081.10	10.638	25.11	083.32	27.85 N	1080.79 E	2.30	0.69	1081.16 AT	088.52
7260.0	7036.27	1093.68	9.685	24.61	083.93	29.25 N	1093.33 E	1.87	0.56	1093.72 AT	088.47
7290.0	7063.57	1106.08	8.815	24.37	083.97	30.56 N	1105.69 E	0.80	0.24	1106.11 AT	088.42
7320.0	7090.90	1118.43	8.017	24.35	084.56	31.80 N	1118.01 E	0.81	0.24	1118.46 AT	088.37
7350.0	7118.24	1130.75	7.282	24.22	084.53	32.97 N	1130.29 E	0.44	0.13	1130.77 AT	088.33
7380.0	7145.59	1143.05	6.516	24.32	084.26	34.18 N	1142.56 E	0.50	0.15	1143.07 AT	088.29
7410.0	7172.93	1155.38	5.676	24.32	083.87	35.46 N	1154.85 E	0.54	0.16	1155.39 AT	088.24
7440.0	7200.31	1167.60	4.735	23.92	083.24	36.83 N	1167.03 E	1.59	0.48	1167.61 AT	088.19
7470.0	7227.71	1179.77	3.765	24.11	083.56	38.23 N	1179.16 E	0.77	0.23	1179.79 AT	088.14
7500.0	7255.15	1191.88	2.839	23.64	083.62	39.59 N	1191.23 E	1.57	0.47	1191.88 AT	088.10
7530.0	7282.66	1203.79	1.931	23.30	083.50	40.92 N	1203.10 E	1.13	0.34	1203.80 AT	088.05
7560.0	7310.26	1215.52	1.049	22.87	083.74	42.22 N	1214.79 E	1.45	0.43	1215.52 AT	088.01
7590.0	7337.92	1227.11	0.206	22.71	083.86	43.48 N	1226.34 E	0.56	0.17	1227.11 AT	087.97

WELLBORE NAVIGATION, INC.
TUSTIN, CALIFORNIA

JOB NUMBER:

WELL NAME: 32-B

INRUN SURVEY
BY MINIMUM CURVATURE

MEAS. DEPTH	VERT. DEPTH	VERT. SECT.	L/R CLOS.	INCL	BEARING AZIMUTH	COORDINATES LATITUDE	DEPARTURE	D-LEG /100	D-LEG /CL	STATION DISP.	DISPLACEMENT DIRECTION
7601.0	7348.07	1231.34	-0.098	22.65	083.84	43.93 N	1230.56 E	0.55	0.06	1231.35	AT 087.96

 * THE HORIZONTAL DISPLACEMENT AT THE DEPTH OF *
 * 7601.0 FEET EQUALS 1231.35 FEET AT 087.96 *

SURVEY RECORD

JOB NO _____ TW-60 DATE 9-12-72

MEASURED DEPTH	DRIFT ANGLE	TRUE VERTICAL DEPTH	COURSE DEVIATION	DRIFT DIRECTION	RECTANGULAR COORDINATES				REMARKS	
					NORTH	SOUTH	EAST	WEST		
1	.30	145	00	S 76 W		30		1	22	Survey Data submitted by Operator
2	1.0	235	99	S 70 W		84		2	70	
3	1.30	312	96	S 55 W	2	00		4	36	
4	1.30	395	93	S 46 W	3	51		5	92	
5	1.0	498	91	S 42 W	4	84		7	13	
6	.30	592	91	S 20 W	5	61		7	41	
7	1.0	685	90	S 13 W	7	18		7	77	
8	.30	749	90	S 26 W	7	68		8	02	
9	.30	850	90	S 68 W	8	01		8	84	
10	1.45	970	84	S 50 W	10	36		11	65	
11	1.45	1060	80	S 46 W	12	27		13	63	
12	1.30	1150	77	S 70 W	13	07		15	85	
13	1.45	1254	72	S 66 W	14	36		18	75	
14	1.30	1346	69	S 48 W	15	97		20	54	
15	1.30	1436	66	S 62 W	17	08		22	63	
16	1.15	1532	64	S 51 W	18	40		24	25	
17	1.0	1625	63	S 22 E	19	90		23	65	
18	1.0	1740	61	S 27 E	21	69		22	74	
19	2.0	1835	55	S 64 E	23	15		19	75	
20	2.0	1936	49	S 57 E	25	06		16	79	
21	2.15	2030	42	S 60 E	26	91		13	59	
22	2.0	2125	36	S 58 E	28	67		10	78	
23	2.0	2219	30	S 63 E	30	16		7	86	
24	1.15	2336	28	S 44 E	32	00		6	09	
25	.45	2437	27	S 64 E	32	58		4	90	
26	.45	2530	26	N 63 E	32	03		3	81	
27	.30	2625	26	N 36 E	31	36		3	32	
28	.45	2715	25	S 66 W	31	84		4	39	
29	.45	2800	24	N 88 W	31	81		5	50	
30	.30	2970	24	S 48 W	32	80		5	60	
31	1.15	3143	20	S 89 W	32	86		10	37	
32	1.0	3283	17	N 83 W	32	87		11	81	

SURVEY RECORD

JOB NO. _____ I.W.-60 DATE 9-12-72

MEASURED DEPTH	DRIFT ANGLE	TRUE VERTICAL DEPTH	COURSE DEVIATION	DRIFT DIRECTION	RECTANGULAR COORDINATES				REMARKS	
					NORTH	SOUTH	EAST	WEST		
33	3422	3421	17	N 74 W		32	23	13	97	
34	3527	3526	17	N 82 W		32	04	15	31	
35	3784	3783	15	N 60 W		30	68	17	65	
36	3930	3929	14	N 64 W		29	84	19	37	
37	4092	4091	11	S 45 W		31	84	21	37	
38	4123	4122	11	N 60 W		31	77	21	50	
39	4153	4152	10	N 56 E		31	33	20	85	
40	4185	4184	06	N 59 E		30	46	19	42	
41	4215	4213	97	N 76 E		29	58	17	25	
42	4293	4291	43	N 76 E		27	36	8	34	
43	4385	4382	36	N 74 E		5	28	12		
44	4510	4504	85	N 71 E		23	50	51	12	
45	4602	4593	61	N 68 E		5	56	78	01	
46	4696	4682	88	N 66 E		6	33	51	12	
47	4742	4726	37	N 71 E	5	65		92	18	
48	4771	4753	79	N 76 E	10	53		101	34	
49	4880	4855	55	N 82 E	9	16		140	05	
50	4960	4928	20	N 81 E	18	26		173	10	
51	5050	5006	92	N 81 E	23	50		216	19	
52	5165	5107	50	N 81 E	30	33		271	25	
53	5257	5188	35	N 81 E	39	05		314	61	
54	5444	5354	59	N 82 E	45	92		399	40	
55	5630	5523	16	N 83 E	52	84		477	43	
56	5818	5695	52	N 83 E	67	42		551	83	
57	6019	5880	93	N 85 E	76	56		629	27	
58	6230	6072	58	N 86 E	83	33		705	55	
59	6430	6266	68	N 86 E	88	66		770	51	
60	6530	6360	94	N 87 E	93	20		803	84	
61	6848	6659	29	N 86 E	94	95		913	64	
62	6979	6780	10	N 89 E	102	63		964	29	
63	7048	6842	64	N 89 E	103	51		993	45	
64	7227	7005	19	N 86 E	104	02		1068	21	

Alliso Canyon Well Positions (NAD83zones5,srvy-ft)			
Well	Nothing	Easting	Elevation at
			Well Head
			of Deck,Pit,or Ground
			Elevation at Top
PORTER 26 D	1937757.30	6393430.63	2516
PORTER 26 E	1937763.20	6393449.30	2514
PORTER 27	1937197.00	6393340.96	
PORTER 28	1937275.00	6394036.86	
PORTER 3	1938448.20	6395060.35	
PORTER 30	1935421.80	6396576.29	1806
PORTER 32	1936596.90	6395402.87	2083
PORTER 32 A	1936580.80	6395415.85	2089
PORTER 32 B	1936564.70	6395429.02	2088
PORTER 32 C	1936549.50	6395451.33	2080
PORTER 32 D	1936537.40	6395459.82	2077
PORTER 32 E	1936525.30	6395468.73	2077
PORTER 32 F	1936513.30	6395477.56	2077
PORTER 33	1936911.20	6394908.57	
PORTER 34	1935915.00	6394469.33	2020
PORTER 35	1936248.40	6393797.61	2095
PORTER 36	1935495.60	6394859.27	2929
PORTER 37	1935490.60	6395432.02	1905
PORTER 37 A	1935462.80	6395343.87	1909
PORTER 38	1936559.00	6392249.44	2619
PORTER 39	1936557.40	6392560.94	2597
PORTER 40	1935679.10	6392243.68	2656
PORTER 41	1935655.20	6392914.16	
PORTER 42 A	1935713.50	6394294.71	1977
PORTER 42 B	1935660.10	6394176.41	1976
PORTER 42 C	1935771.50	6394184.25	1984
PORTER 44	1936611.20	6393708.48	2201
PORTER 45	1935816.90	6395780.51	1900
PORTER 46	1936907.00	6393478.01	2257
PORTER 47	1937027.00	6392520.98	2491
PORTER 50	1937354.70	6396473.06	
PORTER 50 A	1937321.40	6396460.88	1946
PORTER 52	1936701.20	6394263.28	
PORTER 53	1936759.50	6395527.39	
PORTER 54	1937124.10	63922757.32	
PORTER 57	1937254.00	6394660.74	
PORTER 58	1937262.30	6395362.14	
PORTER 6	1938821.40	6393808.37	
PORTER 60	1937115.80	6392151.04	
PORTER 61	1937576.20	6394353.83	
PORTER 63	1938725.00	6393209.03	
PORTER 65	1938739.00	6392734.02	
PORTER 66	1938894.00	6392190.01	
PORTER 68	1937917.20	6395435.38	
PORTER 68 A	1937823.30	6395318.98	2092
PORTER 68 B	1937892.40	6395352.16	2093
PORTER 69	1937443.90	6393642.96	
PORTER 69 A	1937423.90	6393532.06	2378
PORTER 69 B	1937474.40	6393527.24	2380
PORTER 69 C	1937468.60	6393477.41	2380
			2373
			2373
			2372
			2371
			2085
			2085
			2809
			2617
			2773
			2325
			2582
			2884
			2096
			2128
			2404
			1996
			2120
			1940
			1939
			2492
			2258
			1978
			1970
			2453
			2354
			2599
			2620
			1903
			1903
			2097
			2020
			2136
			2079
			2079
			2079
			2082
			2082
			2082
			1800
			2295
			2371
			2334
			2507
			2507

PERMIT TO CONDUCT WELL OPERATIONS

010
(field code)
00
(area code)
30
(new pool code)
30
(old pool code)

James D. Mansdorfer, Agent
Southern California Gas Company
9400 Oakdale Ave.
Chatsworth CA 91313

Ventura, California
March 2, 2006

Your supplementary proposal to redrill well "Porter" 32B,
A.P.I. No. 037-21276 Sec. 27, T. 3N, R. 16W, SB B.&M.,
Aliso Canyon field, ----- area, Sesnon pool
Los Angeles County, dated 02/22/2006 received 02/22/2006 has been examined in conjunction
with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

1. Requirements specified in permit No. P205-238, dated December 14, 2006 shall apply.

SAF:sf

Engineer Steven A. Fields
Phone (805) 654-4761

Hal Bopp, State Oil and Gas Supervisor

By 
Deputy Supervisor

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

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

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

2006-63 1,000,000
BOND
OGI
OG 1121
EDP WELL FILE

SUPPLEMENTARY NOTICE

A notice to the Division of Oil, Gas, and Geothermal Resources, dated 10/20/2005, stating the intention to

redrill well Porter 32B (IW 60) API No. 037-212 6
(Drill, rework, abandon) (Well designation)

Sec. 27 , T. 3N , R. 13W , SB B.&M., Aliso Canyon Field,

Los Angeles County County, should be amended because of changed conditions.

1. The complete casing record of the well (present hole), including plugs and perforations, is as follows:
0'-694' 13-3/8" 40# H-40 casing cemented with 505 sx.
0'-7359' 8-5/8" 36# N-80 LT&C casing cemented with 600 sx
7283'-7582' 6-5/8" 28# J-55 FJ liner
7/27/82 Plugged w/ 7582'-7152' squeezed holes at 7207' 7259' 7228'. Cut window w/ 7260'-7280' and squeezed with 10 cu. Ft. with top of cement at 7053.
10/27/2005 Drilled out to hard cement at 7190'. Casing tested OK to top of cement.
Section milled in 8-5/8" casing 7115 to 7150' hole opened to 13" and cemented for side track - hit stub, cemented and again hit stub, cemented and attempted to side track again and hit stub of previous window at 7280'.

2. The total depth is: 7666' feet. The effective depth is: 7280' feet.

3. Present completion zone (s): Well is plugged above Sesnon . Anticipated completion zone (s): Sesnon
(Name) (Name)

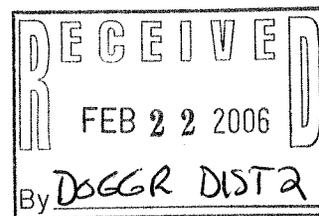
4. Present zone pressure: _____ psi. Anticipated/existing new zone pressure: 3000 psi.

We now propose: (A complete program is preferred and may be attached.)

Place gas control abandonment cement plug from 7280' to 6700'. Polish off to 6750'
Place bridge plug at 6740' with wireline to have full joint for whipstock. Orient and set whip stack for bottom exit.
Mill window in 8-5/8" casing. Drill 7-5/8" hole to approximately 7350'. Approximately 50' above top of S-4 sand.
Cement 7" liner from 7350 to 6700'.

Return to steps outlined in previous notices:

Drill out cement in 8-5/8" casing and test lap. Drill out cement to shoe of 7" casing and drill ahead to hard zone at approximately 7650'.
Run Expandable Sand Screen with 5-1/2" blank on top to 7650' with Hanger at 7300'.
Run production tubing with accessories, set packer at 7100'.
Unload well and return to production/injection.



Note: If the well is to be redrilled, show proposed bottom-hole coordinates and estimated true vertical depth. The Division must be notified if changes to this plan become necessary.

Name of Operator Southern California Gas Company		Telephone Number 818 701 3251	
Address 9400 Oakdale Ave		City Northridge	Zip Code 91311
Name of Person Filing Notice Richard Jackson		Signature <i>Richard Jackson</i>	Date 02/22/2006

File In Duplicate

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

No. T206-076

Report on Operations

James D. Mansdorfer, Agent
SOUTHERN CALIFORNIA GAS COMPANY
9400 Oakdale Ave.
Chatsworth, CA 91313

Ventura, California
February 3, 2006

Your operations at well "**Porter**" 32B, API No. 037-21276, Sec. 27, T. 3N, R.16W, S.B.B.&M. **Aliso Canyon** Field, in **Los Angeles** County, were witnessed on 01-25-2006. **Mark Davis**, representative of the supervisor, was present from 0730 to 1230. There were also present **Mike Volkmar**.

Present condition of well: 13 3/8" cem 694'; 8 5/8" cem 7359', cp 7207' 7250' & 7278', milled window 7260'-7280', perf 7285' WSO, 6 5/8" ld 7283'-7582', perfs @ int 7416'-7580'. TD 7582'. Plugged w/ cem 7582'-7190'.

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

DECISION:

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

tkc

Hal Bopp
State Oil and Gas Supervisor
By 
Bruce H. Hesson
Deputy Supervisor

PERMIT TO CONDUCT WELL OPERATIONS

010
(field code)
00
(area code)
30
(new pool code)
30
(old pool code)

Gas Storage

James D. Mansdorfer, Agent
Southern California Gas Company
9400 Oakdale Ave.
Chatsworth CA 91313

Ventura, California
December 14, 2005

Your supplementary proposal to redrill well "Porter" 32B,
A.P.I. No. 037-21276 Sec. 27, T. 3N, R. 16W, SB B.&M.,
Aliso Canyon field, ----- area, Sesnon pool
Los Angeles County, dated 12/13/2005 received 12/13/2005 has been examined in conjunction
with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

1. Blowout prevention equipment conforming to DOGGR Class III B 5M requirements is installed and maintained in operating condition at all times during redrilling operations
2. Hole fluid of a quality and in sufficient quantity is used to control all subsurface conditions in order to prevent blowouts.
3. An approved blowout prevention and control plan shall be available during the proposed operations.
4. Blowout prevention practice drills are conducted at least weekly and recorded on the tour sheet.
5. A pressure test shall be conducted after cleaning out below the top of the liner to demonstrate that no fluid has access to the well from the annulus between the 7" and 8-5/8" casings.
5. If extensive, unplanned drill pipe operations occur (such as fishing, milling, etc.) and there is a possibility of casing damage, the casing must be pressure tested prior to resuming normal operations. This Division must be notified to witness the tests.
6. This office shall be consulted before initiating any changes or additions to this proposed operation or if operations are to be suspended.
7. **THIS DIVISION SHALL BE NOTIFIED:**
 - a. To witness a pressure test of the blowout prevention equipment prior to drilling out of the window of the 8-5/8" casing. Prior to notifying the Division engineer to witness the test, the blind rams must be tested. Information on the blind rams test must be entered on the tour sheet along with the signature of the person in charge.
 - b. To witness a pressure test of the 7" x 8-5/8" casing lap prior to drilling out of the shoe of the 7" casing. - *WAIVED*

Note:

In the event that the BOPE is reinstalled at any time during the redrilling of the well, this Division shall be contacted to re-test the BOPE.

SAF:sf

Engineer Steven A. Fields

Phone (805) 654-4761

Hal Böpp, State Oil and Gas Supervisor

By *[Signature]*
Deputy Supervisor

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

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

DID
3D

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

1,000,000 BOND
111V 115V ~~OGS-114~~
OGS 1121V
EDP WELL FILE

SUPPLEMENTARY NOTICE

P205-236

A notice to the Division of Oil, Gas, and Geothermal Resources, dated 10/20/2005, stating the intention to

redrill well Porter 32B (IW 60), API No. 037-212:6-01
(Drill, rework, abandon) (Well designation)

Sec. 27 T. 3N R. 13W SB B.&M., Aliso Canyon Field,

Los Angeles County County, should be amended because of changed conditions.

1. The complete casing record of the well (present hole), including plugs and perforations, is as follows:
0'-694' 13-3/8" 40# H-40 casing cemented with 505 sx.
0'-7359' 8-5/8" 36# N-80 LT&C casing cemented with 600 sx
7283'-7582' 6-5/8" 28# J-55 FJ liner
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10/27/2005 Drilled out to hard cement at 7190'. New effective depth. Casing tested OK to top of cement.

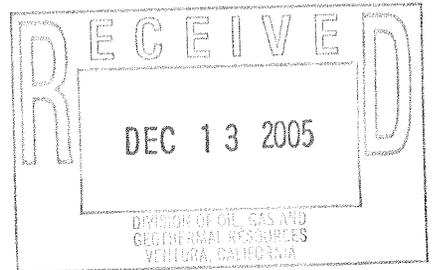
2. The total depth is: 7666' feet. The effective depth is: 7190' feet.

3. Present completion zone (s): Well is plugged above Sesnon. Anticipated completion zone (s): Sesnon
(Name) (Name)

4. Present zone pressure: 3000 psi. Anticipated/existing new zone pressure: 3000 psi.

We now propose: (A complete program is preferred and may be attached.)
Install class III 5000psi. Mill window in casing from 7050 to 7090' Open hole in window and cement.
Directionally drill to 7350' and cement 7" liner from 7350 to 7000'. (drop out low side of hole to vertical)
Drill out cement in 8-5/8' casing and test lap. Drill out cement to shoe of 7" casing and drill ahead to hard zone at approximately 7650'.
Run Expandable Sand Screen with 5-1/2" blank on top to 7650' with Hanger at 7300'.
Run production tubing with accessories, set packer at 7100'.
Unload well and return to production/injection.

See Redrill program accompanying this notice.



Note: If the well is to be redrilled, show proposed bottom-hole coordinates and estimated true vertical depth. The Division must be notified if changes to this plan become necessary.

Name of Operator Southern California Gas Company	Telephone Number 818 701 3251
Address 9400 Oakdale Ave	City Northridge
Name of Person Filing Notice Richard Jackson	Signature <i>Richard Jackson</i>
	Zip Code 91313
	Date 12/13/2005

File In Duplicate

October 14, 2005

Engineer: Richard Jackson

Porter 32B

Program to sidetrack and cement casing Complete with Expandable Screen

Operator: Southern California Gas Company
 Field: Aliso Canyon Gas Storage Field
 Well: Porter 32B (IW 60)
 Date: 10-14-2005
 Revisions: 11-1-2005RJ, 11-22-2005RJ, 12-05-2005RJ

API Number: 037-21276

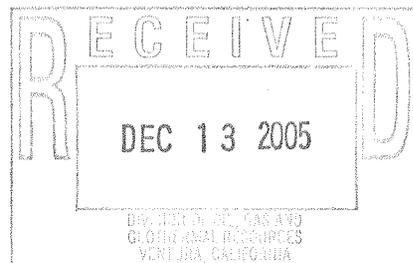
Objective: Mill window in 8-5/8" casing and drill to top of Sesnon Storage Zone and cement 7" casing. Complete well in storage zone with expandable screen as injection/withdrawal well.

WELL STATUS

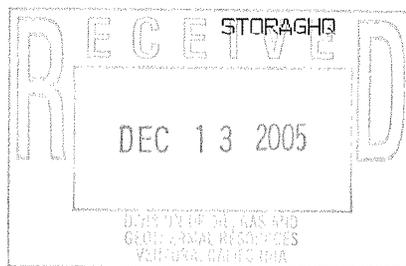
Current Status:	Well shut in as pressure observation well
Elevation:	All depths based on original KB, which is 12.00' above tubing hanger.
Max hole angle:	29° S1 is at 7304' drilled depth (7068' TVD) Use this depth for kill/fluid calc.
Effective clean out depth:	7193' to top of cement. Top of window at 7260'.
Casing Record:	0' - 694' 13-3/8", 40#, H-40 casing cemented with 505sx. 0' - 7359' 8-5/8", 36#, N-80 LT&C casing, cemented with 600sx. Well was abandoned below cement at 7053'. With window cut 7260-7280'. Cement was cleaned out to 7193' - current effective depth.
Tubing Record:	0 - 7039' 2-7/8" 6.5# N-80 8rd tubing
Fluid in hole:	KCl water.

Well Kill Requirements:

- Top of producing zone = 7304' MD (7068' TVD).
- Estimated bottom hole pressure: Hydrostatic at maximum inventory.
- Calculated fluid density to provide 500 psi overbalance at storage zone = 10 ppg
- **Weighted fluid of 10#/gallon may be required on this phase of well work depending on field inventory. Check field inventory with storage field engineer.**



October 14, 2005



Engineer: Richard Jackson

WELLWORK PROGRAM:

- Notes:**
1. Due to other projects taking place in the immediate vicinity, stay in contact with construction foreman to coordinate equipment moves.
 2. Install plugs in XN profile of all adjacent wells that will be covered with plates during this phase of work.
 3. Aliso Canyon is a Title V Facility. Check with the onsite environmental specialist, John Clarke, confirm that all required permits and procedures are properly recorded.

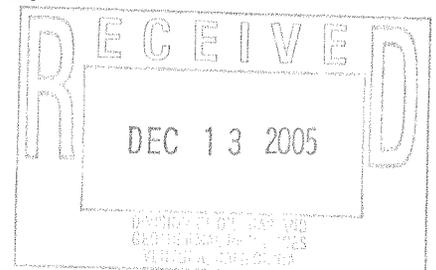
PROCEDURE:

- 1) Bleed all casings to atmospheric pressure.
- 2) MIRU workover rig with rotary table.
- 3) Remove tree. Install pup joint with TIW valve in tubing hanger.
- 4) Replace seals in tubing head, DS flange and primary seals. Replace DS and tubing head and inflate seals/test.
- 5) Install and test Class III BOPE. (well is isolated from storage zone by cement plug)
- 6) Lay down all tubing.
- 7) Make dummy run with 7" O.D. wash pipe.
- 8) Pick up Section mill and collars on 3-1/2 drill pipe and run in to top of cement plug at 7193'. Change hole over to Gel mud system. Do not move or rotate tool during change over.
- 9) Locate casing collar with section mill at approximately 7115'. Drop just below collar and mill section from 7115' to 7155'. Mill additionally if milling rate is over 2'/hr to 7165' or end of tour.
- 10) Pump sweep and circulate out cuttings. Pull out of well.
- 11) Pick up 13" hole opener and open hole from 7115' to 7155' or top of stub.
- 12) Run open end drill pipe to top of stub and equalize densified cement plug with top at 7050'. Pull to 7050' and reverse out excess cement. (see attached HES cementing recommendation) Pull out of well.
- 13) Pick up 7-5/8" bit and clean out cement to top of window at 7115'. Orient 1-1/2 degree sub to 110degrees right and exit well. (See attached SDI well exit plan). Drill to 7160' (5' past top of stub).
- 14) Drill to top of Sesnon S-4 at 7390' with "locked up assembly with 7-5/8" bit.
 - a) Specify stabilizers
- 15) Open hole to 10" from 7115' to 7390'.
- 16) Run 7"- 26# flush joint casing to 7390' with top at 6800'. Casing is to be inspected and lubricated with manufacturers recommended thread lubricant in the inspection yard.

October 14, 2005

Engineer: Richard Jackson

- a) FJ float shoe tack welded on bottom
 - b) 1 jt 7" 26# FJ
 - c) FJ float collar - At top of first full jt.
 - d) FJ Landing Collar with latch
 - e) 350'+- of 7" casing
 - f) 7" X 8-5/8" Cement adapter with rt hand release.
 - g) Running Tools to include liner wiper plug (mechanical rt hand release)
 - h) See attached WEA hookup drawing.
 - i) Run WEA JAM unit on all connections.
- 17) Cement with 65sx of Super CBL as follows (See attached HES cementing recommendation):
- a) Reciprocate pipe when cement passes shoe
 - b) 10bbl of DEispersant mud flush spacer
 - c) 20bbl SD Weighted spacer
 - d) 90 sacks of Super CBL
 - e) Drop drill pipe wiper plug (place small amount of cement on top of dart)
 - f) Displace with mud to liner wiper plug / shear pins and displace to bump and latch plug in landing collar.
 - g) Check float. Watch for back flow. Set on bottom and release from liner.
 - h) Pull 10 stands and reverse out any excess – pull out of hole.
- 18) Pick up 7-5/8" bit with 8-5/8" scraper and clean out cement to top of cemented 7" liner @6800'.
- 19) Test lap to 1000psi for 20 minutes. POOH
- 20) Pick up 6-1/8" bit with 7" 26# positive scraper and drill out cement to shoe of 7" at 7390'. Test lap and liner to 1000psi for 20 minutes
- 21) Clean pits and tanks and change over from Bentonite clay base mud to 9.5ppg (300 to 500psi over current reservoir pressure) FloPro with Safecarb as defined by MI. Change shaker screen to 40 mesh or finer as recommended by MI.
- 22) Pick up 6 1/8" HTC MX 1 bit with 2 near bit tandem stabilizers. Use additional stabilizers at 30 and 60' above bit on 4-3/4" collars. Drill ahead approximately 300' to hard zone at aprox. 7650'. Back ream to shoe of 7". Slide to TD. Condition hole for logging. Pull out and run E-logs/caliper.
- 23) Run in wiper trip to TD with drilling assembly from before. Slide to bottom. Caliper all components in hole and replace if under gage.
- 24) Place clean high viscosity, no solids, pill across open hole with top at 6800'. Pull to 6800' and change over to lightly mixed FloPro system in KCl (3%) and NaCl salt water for weight as needed per MI recommended program attached. Slide to TD. to assure hole has remained open.
- 25) Pull out and run ESS:
- a) Shoe at 7645' as directed by WEA on site supervisor.
 - b) 150 micron screen from 7645 to 7390'
 - c) 5-1/2" blank pipe from 7390' to 7300'.
 - d) 7" X 5-1/2" liner hanger/packer.
- 26) Set liner hanger and release.



October 14, 2005

Engineer: Richard Jackson

27) Pull out and run expansion tools and expand liner:

28) Run production tubing:

- a) 8-5/8" production packer at 6750'
- b) 6' pup joint
- c) LH release on/off tool with XN profile
- d) 1jt 2-7/8 EUE 8R N-80 tubing
- e) XD sliding sleeve
- f) 1jt 2-7/8 EUE 8R N-80 tubing
- g) Gas Lift mandrel with Dummy valve
- h) 2-7/8 EUE 8R N-80 tubing to surface with a second GLM at approximately 3500'.

29) Land tubing, remove BOPE and install tree.

30) RDMO workover rig. Clean location.

31) Pull out and run completion packer and tubing with plug set in no/go nipple.

Post rig:

Unload well above plug.

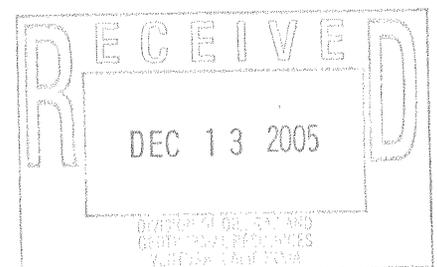
Equalize with gas pressure at plug and remove plug.

With coiled tubing: Place breaker (per MI recommendation) across zone and allow to break polymer and dissolve CC.

Unload well adding nitrogen from bottom of liner to lift all liquid from well. Use tubing flow for clean up and test separator to remove liquids to tank.

Richard Jackson

11-1-2005



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

HISTORY OF OIL OR GAS WELL

Operator: Southern California Gas Company
Well: Porter 32 B
A.P.I. No. 037-21276

Field: Aliso Canyon
Surface Location: Sec 27 3N 16W S.B.B.M.
County: Los Angeles

Richard Jackson
(Person Submitting Report)

Title: STORAGE ENGINEER
(President, Secretary, or Agent)

Date: 12/12/2005

Signatures

Richard Jackson

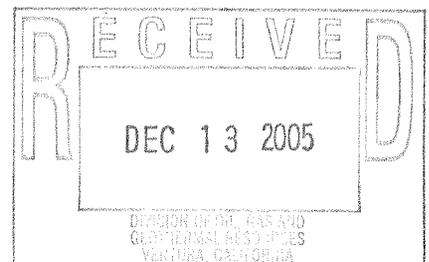
818-701-3251

Telephone Number:

Address: PO Box 2300, SC9365, Chatsworth, CA, 91313-2300

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

Start Date	Ops. DOGGR Rpt
10/18/2005	Prepare location, Move in and rig up.
10/19/2005	Move in and rig up
10/20/2005	Set steel plates, spot mud pump and Baker tanks. Move in rig rigged up and tied down hoist. Shot fluid level 2061. Filled tubing with 110 bbls. Tested 8-5/8 casing to 1000 psi for twenty minutes. Secured well.
10/21/2005	Open well 0 psi well standing full. Circulated out oil pad. Installed back pressure plug removed production tree (tree bolts in) Nippled up and function tested class II BOP. (Steve Field DOGGR waived inspection of BOP And DOGGR notice of intent) Secured well
10/24/2005	Open well 0 psi well standing full. Rig up Scan-log. Pulled out of well thru scan unit (scan results 50 yellow, 158 blue, 14 green, 4 red) rigged down scan unit ran in well with kill string.
10/25/2005	Open well 0 psi well standing full. Pulled out of well with kill string made up 7-5/8" bit on 8/5/8" casing scraper and bumper sub. Ran in well to 7030' tagged cement. Nippled up circulating head and picked up power swivel. Cleaned out cement stringer to 7053' Drilled out cement to hard cement at 7093'. Changed over well to 3% KCL. Loaded out power swivel and pulled out of well to 4500'. Secured well.
10/26/2005	Open well 0 psi. Pulled out of well layed down bit and casing scraper. Rigged up Schlumberger loggers. Made up JSIT tool ran in well ran USIT log from 7093' to surface. Made up cement bond tool ran in well logged from 7093' to 5650'. Rigged down loggers. Made up bit and casing scraper and ran in well to 1000'. secured well.
10/27/2005	Open well 0 psi Ran in well with bit to 7053'. Picked up power swivel drilled out cement from 7053' to 7190' Circulated well clean. Pulled out of well to 5300' secured well.
10/28/2005	Open well 0 psi pulled out of well with kill string. Made WEA 8-5/8" test packer ran in well to 5190'. Set packer test id below packer to cement at 7190' to 930 psi for twenty minutes. Tested form 5190' to surface to 1765 psi for twenty minutes. Pulled to 3190' tested from 3190' to surface to 2340 psi for twenty minutes. Pulled to 1190' tested from 1190' to surface to 2450 psi for twenty minutes. Pulled to 500' tested from 500' to surface to 3150 psi for twenty minutes. Pulled out of well and layed down packer. ran in well with kill string. Secured well.
10/31/2005	Open well 0 psi ran in well with 214 joints landed tubing in tubing hanger at 6643'. Nippled down BOP nippled up production tree. Secured well.
11/01/2005	Nippled up production tree. Loaded out equipment rigged down and move equipment to Porter 26C.



PERMIT TO CONDUCT WELL OPERATIONS

010
(field code)

00
(area code)

30
(new pool code)

30
(old pool code)

Gas Storage

James D. Mansdorfer, Agent
Southern California Gas Company
9400 Oakdale Ave.
Chatsworth CA 91313

Ventura, California
October 21, 2005

Your _____ proposal to _____ prepare for redrill _____ well "Porter" 32B _____,
A.P.I. No. 037-21276 _____ Sec. 27, T. 3N, R. 16W, SB B.&M.,
Aliso Canyon _____ field, _____ area, Sesnon-Frew Pool
Los Angeles _____ County, dated 10/20/2005 received 10/20/2005 has been examined in conjunction
with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

1. Blowout prevention equipment conforming to DOGGR Class II 2M requirements shall be installed and maintained in operating conditions at all times.
2. Hole fluid of a quality and in sufficient quantity is used to control all subsurface conditions in order to prevent blowouts.
3. This office shall be consulted before initiating any changes or additions to this proposed operation, or if operations are to be suspended.

Note: This "Permit" is being issued for the work to determine if this is a possible candidate for redrill. If the well is not redrilled after drilling out the cement plug below 7182', then the plug may not fulfill the abandonment of the lower portion of the hole without further considerations.

SAF:sf

Engineer Steven A. Fields
Phone (805) 654-4761

Hal Bopp, State Oil and Gas Supervisor
By  Deputy Supervisor

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

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

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

NOTICE OF INTENTION TO REWORK / REDRILL WELL **P205-188**

C.E.Q.A. INFORMATION (when redrilling or deepening only)			
Exempt <input type="checkbox"/>	Neg. Dec. <input type="checkbox"/>	E.I.R. <input type="checkbox"/>	Document not required by local jurisdiction <input type="checkbox"/>
Class _____	S.C.H. No. _____	S.C.H. No. _____	
<small>See Reverse Side</small>			

FOR DIVISION USE ONLY			
	Forms		EDP Well
Bond	OGD114 <input checked="" type="checkbox"/>	OGD121 <input checked="" type="checkbox"/>	File
11000/000	111 <input checked="" type="checkbox"/>	115 <input checked="" type="checkbox"/>	

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

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to rework/redrill well Porter 32B (IW 60) API No. 037-21276
(Circle one) (Well designation)

Sec. 27 T. 3N R. 16W S.B.B.&M. Aliso Canyon Field

Los Angeles County,

GS

1. The complete casing record of the well (present hole), including plugs and perforations, is as follows:
0'-694' 13-3/8" 40# H-40 casing cemented with 505 sx,
0'-7359' 8-5/8" 36# N-80 LT&C casing cemented with 600 sx
7283'-7582' 6-5/8" 28# J-55 FJ liner
7/27/82 Plugged w/ 7582'-7152' squeezed holes at 7207' 7259' 7228'. Cut window w/ 7260'-7280' and squeezed with 10 cu. Ft. with top of cement at 7053.

2. The total depth is: 7666' feet. The effective depth is: 7053' feet.

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

4. Present zone pressure: 3000' psi. Anticipated/existing new zone pressure: 3000 psi.

5. Last produced: 6-96 Storage
(Date) (Oil, B/D) (Water, B/D) (Gas, MCF/D)

(or)
Last injected: _____
(Date) (Water, B/D) (Gas, MCF/D) (Surface pressure, psi)

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

The proposed work is as follows: (A complete program is preferred and may be attached.)
Move in Hoist, install class II BPOE. Test casing to 1000psi. Clear wellbore to aprox 7100'. Run casing evaluation/Cement bond log.
Remove BOPE and Rig down hoist.

For redrilling or deepening: 100' N 900' E from surface location 7400' (-5400)
(Proposed bottom-hole coordinates) (Estimated true vertical depth)

The division must be notified if changes to this plan become necessary.

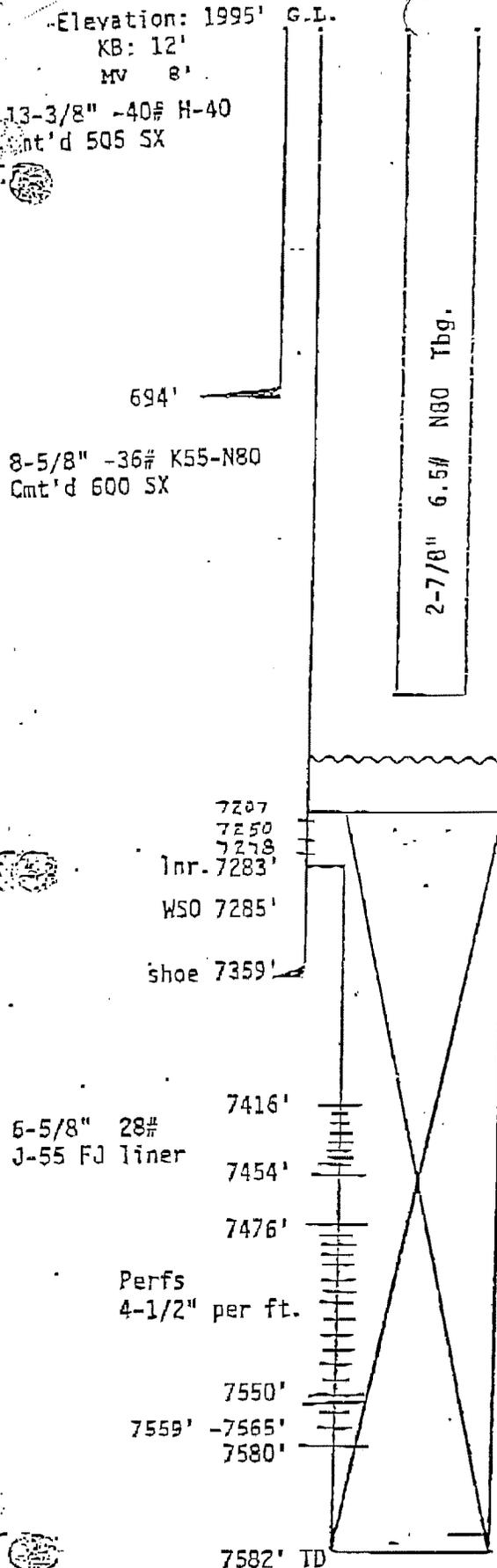
Name of Operator Southern California Gas Company	Telephone Number 818 701-3251
Address 9400 Oakdale Ave	City Chatsworth Zip Code 91311
Name of Person Filing Notice Richard Jackson	Signature <i>Richard Jackson</i> Date 10/20 2005

File In Duplicate

WORKING COPY
IW-60

Observation Well

9/12/72 - Well spud.
 11/14/72 - Well completed.
 7/26/77 - Well pulled and tubing replaced - run with downhole safety system.
 7/27/82-8/12/82 - Plugged back and converted to an Observation Well.
 Plugged with cement from 7582' - 7152'. Squeezed holes in casing at 7207', 7250', 7278'. Cut window from 7260' - 7280' and squeezed with 10 cu. ft. cement. Ran tubing open-ended and located top of cement at 7053'.



---7039'
 ---Top of cement 7053'
 ---7152'
 ---S4 7390' (7154')
 ---S8 7475' (7232')
 7666' (7407') (-5400') -

S1 - Top 7304' (7048')

390
 154
 236

	Volume	Cu. Ft.	BEL
Tubing	-	229	40.7
Annulus	-	2038	362.9
Total	-	2267	403.6

October 14, 2005

Engineer: Richard Jackson

Porter 32B

Evaluation Prior to Redrill

Operator: Southern California Gas Company

Field: Aliso Canyon Gas Storage Field

Well: Porter 32B (IW 60)

API Number: 037-21276

Objective: Pull and inspect tubing. Scrape and drill out to locate hard cement. Run casing evaluation log to determine condition of well casing prior to redrill and conversion from observation well to injection/withdrawal well in gas storage field.

WELL STATUS

Current Status:	Well shut in as pressure observation well – pressure has been noted.
Elevation:	All depths based on original KB, which is 12,00' above tubing hanger.
Max hole angle:	29° S1 is at 7304' drilled depth (7068' TVD) Use this depth for kill/fluid calc's.
Effective clean out depth:	7053' to top of cement. Top of window at 7260'.
Casing Record:	0' – 694' 13-3/8", 40#, H-40 casing cemented with 505sx. 0' – 7359' 8-5/8", 36#, N-80 LT&C casing cemented with 600sx. Well was abandoned below cement at 7053'. With window cut 7260-7280'.
Tubing Record:	0 – 7039' 2-7/8" 6.5# N-80 8rd tubing
Fluid in hole:	Not clear in files - assumed to be water.

Well Kill Requirements:

- Top of producing zone = 7304' MD (7068' TVD).
- Estimated bottom hole pressure: Hydrostatic.
- Calculated fluid density to provide 500 psi overbalance at storage zone
- **No weighted fluid should be required on this phase of well work**

WELLWORK PROGRAM:

- Notes:**
1. Due to other projects taking place in the immediate vicinity, stay in contact with construction foreman to coordinate equipment moves. Repair/upgrade lower access road to allow for pipe support access.
 2. Well has been idle since 1982 and gas vented may contain H2S, an H2S monitor and air pack must be maintained on location at all times during wellwork. Remotely vent gas through tank.
 3. Install plugs in XN profile of all adjacent wells that will be covered with plates during this phase of work.

OLD
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 30

October 14, 2005

Engineer: Richard Jackson

4. Aliso Canyon is a Title V Facility. Check with the onsite environmental specialist, John Clarke, that all required permits and procedures are properly recorded.

PROCEDURE:

1. Bleed all casings to atmospheric pressure. Monitor for H₂S. If large volumes are noted, shoot fluid level prior to proceeding.
2. Fill well. Pressure test casing against cement plug to 1000psi for 20 minutes.
3. MIRU workover rig.
4. Remove tree. Install pup joint with TIW valve in tubing hanger.
5. Install and test Class II BOPE. (well is isolated from storage zone by cement plug and if pressure test of casing is OK Class III is not warranted)

Pull and Inspect:

6. Rig up Tuboscope and inspect 2-7/8" tubing while pulling out of hole. Lay down all red and green band tubing.

Run 8-5/8" casing scraper:

7. RIH with 8-5/8" 36# positive casing scraper (set at drift diameter) on 2-7/8" tubing. Use 8-1/2" open bit below scraper and tag cement plug at 7053'. Drill out to hard cement and reverse circulate clean. Do not drill below 7200' unless there is no firm cement. Uniform water is required for USIT logging.

Run 8-5/8" casing evaluation log:

8. Rig up Schlumberger and run USIT log from top of cement plug to surface. Include standard CBL presentation. Correlate to original open hole logging depths.
9. Run tubing in well. Remove BOPE. Install and test tree against cement plug to pressure to be determined after reviewing log.
10. RDMO workover rig. Clean location.

Richard Jackson
10-14-2005

REPORT OF CORRECTION OR CANCELLATION

Ventura, California

December 22, 2004

James D. Mansdorfer, Agent
SOUTHERN CALIFORNIA GAS CO.
9400 Oakdale Ave.
Chatsworth, CA 91313

In accordance with your reply to our Well Status Inquiry dated November 22, 2004.

the following change pertaining to your well "Porter" 32B (037-21276)
(Well designation)
Ventura field, Ventura County,

Sec. 27, T. 3N, R. 16W, SB B. &M., is being made to our records:

The corrected location is

The corrected elevation is

Report No. , dated , has been

Corrected as follows:

Your notice to redrill dated July 18, 2001
(Drill, abandon, etc.)

and our report No. P201-188, issued in answer thereto, are hereby cancelled

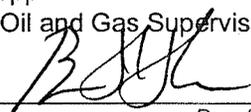
Inasmuch as the work will not be done. If you have an individual bond on file covering this notice, it will be returned.

No request for such return is necessary.

Other:

tkc

Hal Bopp
State Oil and Gas Supervisor

By 

Deputy Supervisor

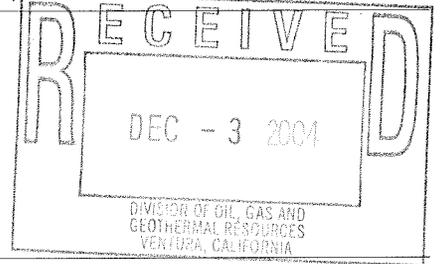
Bruce H. Hesson

OK

The Resources Agency of California
Department of Conservation
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES
WELL STATUS INQUIRY

Ventura, Calif.

November 22, 2004



To: James D. Mansdorfer, Agent
Southern California Gas Co.
9400 Oakdale Ave.
Chatsworth CA 91313

In a notice dated 07/18/2001, you propose to redrill
Well "Porter" 32B API number 037-21276
Field Aliso Canyon, County Los Angeles, Sec. 27, T. 3N, R. 16W, SB B.&M.

Please indicate below the conditions or intentions regarding this proposed work, and return the completed form to this office within 10 days.

Hal Bopp,
State Oil and Gas Supervisor

ms

By

[Handwritten signature] for B. Hessa

- PROPOSED WORK HAS BEEN DONE. (If you check this box, please file the required well records on this work in duplicate within 60 days after work was completed.*)
- PROPOSED WORK IS IN PROGRESS AND SHOULD BE COMPLETED ABOUT _____ (date)
- PROPOSED WORK HAS NOT BEEN DONE, BUT WE STILL INTEND TO DO THE WORK.**
 - SUPPLEMENTARY NOTICE (Form OG123) ATTACHED.
 - PLEASE CONSIDER THIS FORM AS A SUPPLEMENTARY NOTICE.

WE DO NOT INTEND TO DO THE PROPOSED WORK. Please cancel our notice to redrill
Porter 32B, dated 7/18/2001

OTHER: _____
James Mansdorfer
(Signature)
Storage Engineering Mngr.
(Name and title)

* Division 3 of the *Public Resources Code* states, in part:
Section 3215, ...Well records shall be filed 60 days after completion or suspension of proposed work.
** Section 3203, ...If operations have not commenced within one year of receipt of the notice, the notice will be considered canceled.
(To prevent cancelation, file a Supplementary Notice with the division.)

NOTICE OF INTENTION TO REWORK / REDRILL WELL

910
00
30-930

C.E.Q.A. INFORMATION (when redrilling or deepening only)			
Exempt <input type="checkbox"/>	Neg. Dec. <input type="checkbox"/>	E.I.R. <input type="checkbox"/>	Document not required by local jurisdiction <input type="checkbox"/>
Class _____	S.C.H. No. _____	S.C.H. No. _____	
See Reverse Side			

FOR DIVISION USE ONLY			
Bond	Forms		EDP Well File
	OGD114	OGD121	
1,000,000	✓	✓	

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

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to rework/redrill well Porter No. 32-B / IW-60 (Circle one) (Well designation) API No. 037-21276 - 01

Sec. 27 T. 3N R. 16W S.B.B.&M. Aliso Canyon Field

Los Angeles County.

1. The complete casing record of the well (present hole), including plugs and perforations, is as follows:
See Attached



2. The total depth is: 7582' feet. The effective depth is: 7053' feet.

3. Present completion zone (s): NA (Name) Anticipated completion zone (s): Sesnon (Name)

4. Present zone pressure: NA psi. Anticipated/existing new zone pressure: NA; Gas Storage psi.

5. Last produced: NA (Date) (Oil, B/D) (Water, B/D) (Gas, Mcf/D)

(or)

Last injected: NA (Date) (Water, B/D) Gas Storage (Gas, Mcf/D) (Surface pressure, psig)

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

The proposed work is as follows: (A complete program is preferred and may be attached.)
Redrill and Gravel Pack complete the well for gas storage (see attached).

For redrilling or deepening: 120' North and 1210' East of the surface location 7330'
(Proposed bottom-hole coordinates) (Estimated true vertical depth)

The division must be notified if changes to this plan become necessary.

Name of Operator Southern California Gas Company	Telephone Number 818-701-3251
Address 9400 Oakdale Ave.	City Chatsworth
Name of Person Filing Notice Dan Neville	Signature
	Zip Code 91313
	Date 7/18/01

File In Duplicate

C.E.Q.A. INFORMATION

Information for compliance with the California Environmental Quality Act of 1970 (C.E.Q.A.).

If an environmental document has been prepared by the lead agency, please submit a copy of the document with this notice or supply the following information:

Lead Agency: _____

Lead Agency Contact Person: _____

Address: _____

Phone: _____

FOR DIVISION USE ONLY

District review of environmental document (if applicable)? Yes No

Remarks: _____

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

Exceptions or additions to this definition may be established by the State Oil and Gas Supervisor upon his or her own judgment or upon written request of an operator. The written request must contain justification for such an exception.

WELL OPERATIONS REQUIRING BONDING

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

Southern California Gas Company
Aliso Canyon Field
Porter No. 32 B / IW-60 Redrill No. 1
Section 27, T3N, R16W
Los Angeles County, California
API No. 037-21276

REDRILL PROCEDURE

May 23, 2001

Surface Location: From Station #84, 1753' South and 1281' West

Existing Bottom Hole Location: 119.23' North and 1210.82' East from the surface location.

Proposed Bottom Hole Location: Kick off and move far enough away to avoid interference from the original well.

Proposed Total Depth: 7640' MD

Date of Original Hole: 9-12-72

Elevation: 1995'

Kelly Bushing: 12'

Existing Casing Program:

13 3/8", 40#, H-40, ST& C

0-801'

8 5/8", 36#, K-55 & N-80, LT&C

0-7359'

6 5/8", 28#, J-55, FJ Liner

7283'-7582'

Existing Perforations:

7207', 7250', 7287'
7285' WSO
7567'-7559'
7550'-7476'
7416'-7454'

I. Pre Drilling Activities

- A. Pull and production tubing and any equipment in the well. Rig up wireline and run a casing inspection log. Evaluate the log to determine the condition of the casing.
- B. Prepare the location for the specific drilling rig.
- C. Secure the necessary state and local permits to allow a 24 hour drilling operation.

II. Drill Production Hole (7 7/8") from 7150' to 7640'

1. Move in and rig up the drilling rig.
2. Install a Class III, 3M BOPE to the 13 3/8" casing spool. Test the BOPE equipment to the Southern California Gas Company specifications.
3. Pick up a 7 7/8" bit, 4 1/2" HWDP and 4 1/2" drill pipe and run in the hole to the top of the cement at 7053'. Drill out the existing cement plug to 7150' and circulate the well clean. Measure out of the hole.
4. Make up 8 5/8", 36# bottom trip whipstock and run in the hole to 40' above the cement plug. Rig up wireline and run a gyro tool to orient the whipstock. Once the whipstock is oriented, set down on the cement plug and set the whipstock. Shear off the whipstock with the starting mill and begin mill through the casing. Maintain higher viscosity in the drilling fluid during the milling operation and sweep the hole with saw dust to remove the casing cuttings.

5. Pull out of the hole and pick up the watermelon mill and run in and finish cutting the window. Pull out of the hole and pick up the string mills to clean the window up. Run in the hole and dress off the window. Pull out of the hole and begin drilling operations.
6. Pick up a 7 7/8" bit and locked-up rotary drilling assembly and run in the hole. Side track the existing wellbore and continue drilling to the total depth of 7640'. Take single shot surveys at 250' intervals.
7. At total depth, circulate and condition the mud for electric logging. Wipe the hole to the 8 5/8" casing window.
8. Measure out of the hole for logging. Run a standard Platform Express logs consisting of AIT/LDT/CNL/GR and Caliper. Monitor the flowline while logging.
9. Rig down the loggers and run in the hole with a bit and BHA to the total depth of the well. Circulate and change the well over to a clean XC polymer completion fluid with CaCL as necessary for weight. Weight of the fluid to provide 300 PSI overbalance at the current reservoir pressure. Pull out of the hole and lay down the clean out assembly.

Note: Clean and wash the pit while logging. Build the new XC polymer drill in fluid.

10. Run in the hole with a 15" hole opener. Open the hole from the shoe of the 8 5/8" casing to the total depth through the Sesnon zone to 7640' (or as instructed by the Drilling Engineer). Circulate the well and lay a pill of clean polymer across the open hole interval. Pull out of the hole and prepare to run the gravel pack liner.
11. Rig up to run the 5 1/2", 17#, J-55 LT&C WWSS screen liner as follows:
 - A) +/-490' of 5 1/2", 0.012", 90 wire WWSS screen. Bow type centralizers will be run on all connections.
 - B) 30' of 5 1/2" casing, flush joint, slotted with 0.012" x 2", 12R, 6" c slots.
 - C) 30' of 5 1/2" flush joint casing

D) Landing Nipple

E) Baker SC-1 Gravel Pack Packer, 8 5/8" x 5 1/2"

With the gravel pack liner on bottom change the well over to clean CaCl water to do the gravel packing.

12. Gravel pack the 5 1/2" WWSS liner with 20-40 U.S. mesh re-screened gravel as per the attached gravel packing program. After the gravel packing is completed pull out of the hole and lay down the gravel pack tools.

13. Run in the hole with 2 7/8" tubing stinger and clean out any excess gravel inside the 5 1/2" liner. Pull out of the hole and lay down the 4 1/2" drill pipe.

14. Run the 2 7/8", 6.4#, N-80, 8rd, EUE tubing as below. Use Teflon impregnated pipe dope.

A) Seals (2) and shear-out latch w/ locator sub

B) One joint of tubing

C) Otis "XN" No-Go nipple

D) One joint of tubing

E) Otis "SSXO" sliding sleeve

F) One joint of tubing

G) "MMA" Gas Lift Valve w/ dummy on "RA" latch

E) 2 7/8" tubing and pups as required to surface

15. Space out and land the tubing with 10,000 lbs. down weight on the packer. Pull 15,000 lbs. over the string weight to check the latch. Install equalizing back pressure valve in the tubing hanger. Remove the BOPE.

16. Install the tree. Test the seal, seal flange and tubing head to 5000 PSI for 20 minutes. Tighten all wellhead bolts. Verify that all wellhead valves are closed.

17. Open the sliding sleeve and circulate the well clean with 2% KCL water with inhibitor.

18. Release the rig.

Elevation: 1995' G.L.

KB: 12'

MV 8'

13-3/8" -40# H-40

Int'd 505 SX

694'

8-5/8" -36# K55-N80

Cmt'd 600 SX

Observation Well

IW-60

9/12/72 - Well spud.
 11/14/72 - Well completed.
 7/26/77 - Well pulled and tubing replaced - run with downhole safety system.
 7/27/82-8/12/82 - Plugged back and converted to an Observation Well.
 Plugged with cement from 7582'-7152'. Squeezed holes in casing at 7207', 7250', 7278'. Cut window from 7260'-7280' and squeezed with 10 cu. ft. cement. Ran tubing open-ended and located top of cement at 7053'.

2-7/8" 6.5# N80 Tbg.

---7039'

---Top of cement 7053' S₁-Top 7304'

7207
7250
7278

Inr. 7283'

WSO 7285'

shoe 7359'

---7152'

cut section in 8 5/8" underneath to 15" 7260-7280

---S4 7390' (7154')

---S8 7475' (7232')

7416'

7454'

7476'

Perfs
4-1/2" per ft.

7550'

7559' -7565'

7580'

7582' TD

	<u>Volume</u>	<u>Cu. Ft.</u>	<u>BBL</u>
Tubing	-	229	40.7
Annulus	-	2038	362.9
Total	-	2267	403.6

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

No. T292-133

REPORT ON OPERATIONS

R.D. Phillips, Agent
Southern Calif. Gas Company
810 S. Flower St.
Los Angeles, CA. 90017

Ventura, California
August 26, 1992

Your operations at well "Porter" 32B, API No. 037-21276, Sec. 27T. 3N,R. 16W, S.B.B.&M. Aliso Canyon Field, in Los Angeles County, were witnessed on 6-23-92. Stephen Mulqueen, representative of the supervisor, was present from 1200 to 1300. There were also present Randy Patterson.

Present condition of well: 13 3/8" cem 694'; 8 5/8" cem 7359', perf 7285' WSO; 6 5/8" ld 7283'-7580', perfs @ int 7416'-7550', milled 7260'-7280', holes 7207', 7250' & 7278' (all cem off), casin' splice 7559'-7567' (cem off). TD 7582'. Plugged w/cem 7587'-7152'.

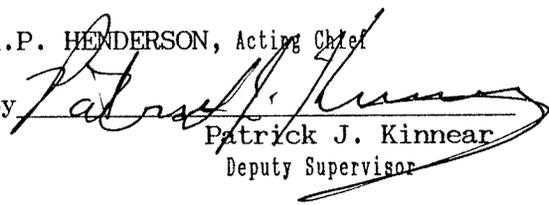
The ADA Pressure Test was performed for the purpose of demonstrating mechanical integrity of the 8 5/8" casing.

DECISION:

The ADA Pressure Test is approved.

K.P. HENDERSON, Acting Chief

By


Patrick J. Kinnear
Deputy Supervisor

STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT ON PROPOSED CHANGE OF WELL DESIGNATION

R.D. Phillips, Agent
Southern Calif. Gas Company
810 S. Flower St.
Los Angeles, CA. 90017

Ventura, California
February 23, 1990

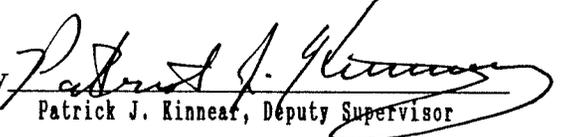
Your request, dated February 13, 1990, proposing to change the designation of wells in Sec. 27, T. 3N, R. 16W, SB B.&M., Aliso Canyon field Los Angeles County, District No. 2, has been received.

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

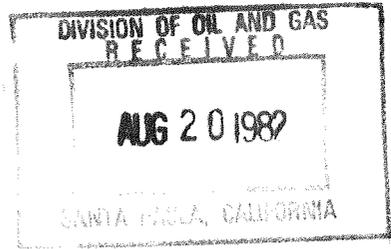
From:	To:
IW 56 (037-21354)	"Porter" 32F (037-21354)
IW 57 (037-21355)	"Porter" 32D (037-21355)
IW 58 (037-21321)	"Fernando Fee" 32E (037-21321)
IW 60 (037-21276)	"Porter" 32B (037-21276)
IW 61 (037-21277)	"Porter" 32A (037-21277)
IW 62 (037-21313)	"Fernando Fee" 32F (037-21313)
IW 73 (037-21358)	"Fernando Fee" 32B (037-21358)
IW 75 (037-21356)	"Fernando Fee" 32D (037-21356)
IW 76 (037-21359)	"Fernando Fee" 32C (037-21359)
IW 77 (037-21323)	"Standard Sesnon" 25B (037-21323)
IW 78 (037-21360)	"Porter" 32C (037-21360)
IW 81 (037-21363)	"Porter" 32E (037-21363)

bb

M.G. MEFFERD, State Oil and Gas Supervisor

By 
Patrick J. Kinneaf, Deputy Supervisor

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



History of Oil or Gas Well

Operator Southern California Gas Co. Field Aliso Canyon County Los Angeles
Well IW #60, Sec. 27, T. 3N., R. 16W., SB. B. & M.
A.P.I. No. 037-21276 Name J. P. Anand Title Agent
Date August 16, 19 82 (Person submitting report) (President, Secretary or Agent)

Signature J. P. Anand

P.O. Box 3249 Terminal Annex, Los Angeles, CA 90051 (213) 689-3925
(Address) (Telephone Number)

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

Date	
	GWO #98868 was issued to plug off storage zone and convert to Observation well.
<u>1982</u>	
7-27	1st Day. Moved CPS #D-4 rig from IW #55 to IW #60 and started rigging up.
7-28	2nd Day. Displaced 76#/cu. ft. gas cut polymer completion fluid from well with 83#/cu. ft. polymer completion fluid. Installed back pressure valve in doughnut. Removed xmas tree and installed 8" 5000 psi Class III BOPE. Pressure tested with water as follows: Pipe rams, blind rams and choke manifold at 4000 psi for 20 minutes. Hydril at 3000 psi for 20 minutes. All held satisfactory. <u>Witnessed by Mr. Habel with Division of Oil and Gas.</u> Removed back pressure valve from doughnut. Released latch-in-locator from packer at 7250' and removed doughnut.
7-29	3rd Day. Circulated well and pulled out with tubing. Layed down Camco gas lift mandrel, Otis annulus flow safety system and Baker latch-in-locator. Ran Baker Retrieva-d pulling tool to 7250'. Attached to packer and pulled out of well. Made up 5-5/8" bit on 6-5/8" 28# casing scraper and started in well.
7-30	4th Day. Finished running in well with casing scraper. Cleaned out hard fill from 7538' to 7570'. Started out with bit and casing scraper.
7-31	5th Day. Finished pulling out with casing scraper. Using Dialog ran casing profile caliper log from 7283' to surface. Showed 2, possibly 3 holes in 8-5/8" casing 7207', 7250' and 7278'. Ran 2-7/8" tubing open ended to 7557'. Preceded by 30 cu. ft. and followed by 10 cu. ft. of fresh water, mixed, spotted and balanced 57 cu. ft. of Neat "G" cement with 0.75% CFR-2. Pulled 10 stands out of well and waited 4 hours. Ran tubing in well. Found cement top at 7415'. Circulated well.

- 8-02 6th Day. Ran into top of cement at 7423'. Rigged up Dowell. Mixed 22 sacks of Class "G" cement with 0.75% CFR-2 and equalized cement plug. Back scuttled at 7297'. Waited on cement. Located top of plug at 7297'. Pulled out of well. Picked up Tri-State 8-5/8" 36# section mill and eight 4-3/4" drill collars. Ran in well on 2-7/8" tubing. Mill stopped at 6877'. Pulled out of well. Layed down mill. Picked up 7-5/8" bit and 8-5/8" 36# casing scraper. Running in well.
- 8-03 7th Day. Finished running in to 6877'. Drilled cement from 6877' to 6892'. Drilled out cement stringers from 6892' to 7253'. Drilled cement from 7253' to 7283' and pulled out of well. Layed down 7-5/8" bit and 8-5/8" 36# casing scraper. Ran in well with 5-5/8" bit and two 4-3/4" drill collars on 2-7/8" tubing. Cleaned out 6-5/8" from 7283' to 7300'. Back scuttled. Pulling out of well.
- 8-04 8th Day. Finished pulling out of well with 5-5/8" bit. Made up 8-5/8" 36# Tri-State section mill on eight 4-3/4" drill collars. Ran in well to 7260'. Cut section from 7260' to 7269'. Total milling time 10 hours.
- 8-05 9th Day. Continued cutting section in 8-5/8" 36# casing with Tri-State section mill from 7269' to 7280'. Total milling time 10 hours. Pulled Tri-State mill with 40% wear on cutting material. Made up 8-5/8" x 15" hole opener on eight 4-3/4" drill collars on 2-7/8" tubing. Running in well.
- 8-06 10th Day. Finished running in well with Tri-State hole opener. Opened hole to 15" from 7260' to 7280'. Circulated well clean. Circulated polymer completion fluid out of well with clean salt water. Pulled out of well. Layed down hole opener. Ran in well with Howco RTTS retrievable retainer with 300' of 2-7/8" tubing tail. Obtained breakdown of 5 cu. ft. per minute at 1500 psi.
- 8-07 11th Day. Equalized 10 cu. ft. of 6% HCL and 1-1/2% HF acid, 75 sacks of Class "G" cement mixed with 0.75% CFR-2 and 0.6% Halad 9 at 7280' followed by 10 cu. ft. of fresh water. Pulled 5 stands. Set retainer at 6972'. Squeezed cement at 3 cu. ft. per minute with final pressure of 2600 psi. Waited 4 hours. Located top of cement at 7152'. Witnessed by Division of Oil and Gas. Pulled out of well. Layed down Howco retainer. drill collars and Kelly. Ran in well with production tube.
- 8-09 12th Day. Finished running in well with 2-7/8" N-80 tubing and production tube. Restriction in tubing at 6980'. Pumped 800 psi to break circulation and back scuttled. Rigged up Triangle and ran noise log. Located top of cement at 7053', noise log satisfactory. Removed BOPE and installed xmas tree. Pressure tested xmas tree to 5000 psi and tested satisfactory. Installed blind flanges.
- 8-10 13th Day. Rig on stand-by.
- 8-11 14th Day. Rig on stand-by.
- 8-12 15th Day. Rig released at 12 noon, 8-12-82.

DIVISION OF OIL AND GAS

Report on Operations

Mr. J. P. Anand, Agent
So. Calif. Gas Co.
P.O. Box 3249 Terminal Annex
Los Angeles, CA 90051

Santa Paula, Calif.
Aug. 18, 1982

Your operations at well IW 60, API No. 037-21276,
Sec. 27, T. 3N R. 16W SB B. & M. Aliso Canyon Field, in Los Angeles County,
were witnessed on 8/7/82 by F. Taylor, representative of
the supervisor, was present from 1600 to 1700. There were also present Dave Killebrew,
Company representative

Present condition of well: 13 3/8" cem 694'; 8 5/8" cem 7359', perf 7285' WSO (cem off)
6 5/8" ld. 7283-7580', perf 7416-7454', 7476-7550', 7559-7567' squeezed splice w/cem
T.D. 7582', plugged w/cem 7587-7152'.

The operations were performed for the purpose of plugging back to convert to observation well.

DECISION:

THE LOCATION AND HARDNESS OF THE CEMENT PLUG AT 7152' IS APPROVED.

b

M. G. MEFFERD

State Oil and Gas Supervisor

By

Deputy Supervisor

Murray W. Dosch

DIVISION OF OIL AND GAS

Report on Operations

Mr. J. P. Anand, Agent
So. Calif. Gas Company
P. O. Box 3249 Terminal Annex
Los Angeles, CA 90051

Santa Paula Calif.
July 29, 1982

Your operations at well IW 60, API No. 037-21276,
Sec. 27, T. 3N, R. 16W, S. B., B. & M. Aliso Canyon Field, in Los Angeles County,
were witnessed on 7/28/82 by R. Habel, representative of
the supervisor, was present from 1730 to 2030. There were also present Ed Bradberry,
SoCal Gas rep.

Present condition of well: 13 3/8" cem 694'; 8 5/8" cem 7359', perf. 7285' WSO (cem off),
6 5/8" ld. 7283-7580', perf. 7416-7454', 7476-7550', 7559-7567' squeezed splice
w/cem. TD 7582', plugged w/cem 7587-7570'. Effec. depth 7570'.

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

DECISION:

THE BLOWOUT PREVENTION EQUIPMENT AND INSTALLATION ARE APPROVED.

W. G. MEFFERD

State Oil and Gas Supervisor

By Murray W. Dosch

Deputy Supervisor

Murray W. Dosch

REPORT ON PROPOSED OPERATIONS

010
(field code)
00
(area code)
30
(new pool code)
30
(old pool code)

J. P. Anand, Agent
So. Calif. Gas Co.
P.O. Box 3249 Terminal Annex
Los Angeles, CA 90051

Santa Paula, California
July 19, 1982

Your _____ proposal to plug back & convert
to observation well well IW 60
A.P.I. No. 037-18276, Section 27, T. 3N, R. 16W, SB B. & M.,
Aliso Canyon field, any area, Sesnon-Frew pool,
Los Angeles County, dated 7/13/82, received 7/16/82 has been examined in conjunction with records

filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

1. Hole fluid of sufficient quality and quantity shall be maintained in the hole to control any subsurface condition, and a reserve supply shall be on hand for emergencies.
2. Blowout prevention equipment of at least DOG Class III 3M, shall be installed and maintained in operating condition at all times.
3. This office shall be consulted before initiating any changes or additions to this proposed operation, or if operations are to be suspended.
4. THIS DIVISION SHALL BE NOTIFIED TO WITNESS:
 - a. A pressure test of the blowout prevention equipment before commencing downhole operations.
 - b. The location and hardness of the cement plug at 7100'.

Blanket Bond
RLH:b

M. G. MEFFERD, State Oil and Gas Supervisor

By Murray W. Dosch
Murray W. Dosch, Deputy Supervisor

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

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

Notice of Intention to Rework Well

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

FOR DIVISION USE ONLY		
BOND	FORMS	
	OGD 114	OGD 121
SB	✓	✓

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 IW #60, API No. 037-18276
 (Well designation)
 Sec. 27, T. 3N, R. 16W, SB.B. & M., Aliso Canyon Field, Los Angeles County.

The present condition of the well is as follows:

- Total depth 7582'
- Complete casing record, including plugs and perforations
 13-3/8" cemented 694'
 8-5/8" cemented 7359', WSO 7285' squeezed with cement
 297' 6-5/8" cemented 7580', Top 7283', plug 7570'
 Perforated 7567'-7559', 7550'-7476' and
 7454'-7416'
- Present producing zone name Sesnon; Zone in which well is to be recompleted -
- Present zone pressure 3200 psi; New zone pressure _____
- Last produced Gas Storage Well
 (Date) (Oil, B/D) (Water, B/D) (Gas, Mcf/D)
 (or)
 Last injected _____
 (Date) (Water, B/D) (Gas, Mcf/D) (Surface pressure, psig)

The proposed work is as follows:

- Move in & rig up. Kill well. Install BOPE & pressure test.
- Pull 2-7/8" tubing. Recover packer from 7250'. Plug with cement from 7570'-7300'. Cut section in 8-5/8" casing 7260'-7280', open hole to 15". Set retainer near 7200' and squeeze section with cement leaving top of cement at 7100'. Land tubing near 7050' and convert well to plugged back observation 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)
LA CA 90051
 (City) (State) (Zip)
 Telephone Number (213) 689-3925

Southern California Gas Company
 (Name of Operator)
 By J. P. Anand
 (Print Name)
J. P. Anand 7-13-88
 (Signature) (Date)

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

DIVISION OF OIL AND GAS
RECEIVED

SEP 15 1977

History of Oil or Gas Well

SANTA PAULA, CALIFORNIA

Operator SOUTHERN CALIFORNIA GAS COMPANY Field or County Aliso Canyon
Well name and No. I.W. #60, Sec. 27, T 3N, R 13W, S.B.B. & M.
A.P.I. well No. 037-21276 Name P. S. Magruder, Jr. Title Agent
Date August 25, 1977. (Person submitting report) (President, Secretary or Agent)

P.S. Magruder, Jr.
Signature Agent

P.O. Box 3249, Terminal Annex, Los Angeles, California 91324 (Address) (213) 689-3561 (Telephone Number)

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

Date

1977

- 4-26 Killed I.W. #60 with 450 barrels of 70# polymer drilling fluid.
- 7-19 Moved California Production Service Rig #D-3 from I.W. #81 to I.W. #60.
- 7-20 Finished rigging up California Production Service Rig #D-3. Checked pressure on well at 400 psi. Circulated out 70#/cu.ft. drilling fluid with 82#/cu.ft. drilling fluid.
- 7-21 Bled pressure off well and filled with 7 barrels of brine-polymer drilling fluid. Circulated well. Installed Class III B.O.P.E. Tested blind rams to 4000 psi for 37 minutes. Bled off 100 psi. Tested pipe rams to 4000 psi for 40 minutes. Bled off 150 psi. Tested Hydril bag to 3000 psi for 40 minutes. Bled off 200 psi. No outside leaks. All tests madw with water. Tests O.K.'d by T. M. Callaway of Division Oil and Gas.
- 7-22 Tested B.O.P.E. with nitrogen. Tested bag to 3000 psi for 28 minutes - O.K. Tested pipe rams to 4000 psi - would not hold. Changed pipe rams. Tested to 4000 psi for 20 minutes - now O.K. Tested choke manifold with water to 2300 psi for 23 minutes - O.K. Rigged up to pull and lay down tubing. Pulled 2 7/8" seal-lock tubing and laid down same.
- 7-23 Loaded out seal-lock tubing. Unloaded 2 7/8" 6.5# EUE 8rd J-55 tubing on racks. Picked up and measured in hole with 7 5/8" bit and casing scraper. Located packer at 7272'.
- 7-24 Rig and crew idle.
- 7-25 Circulated bottoms up at 7270'. Pulled out of well with 7 5/8" bit and casing scraper. Ran in well with DR plug. Could not stab in packer. Pulled

1977

History of Well I.W. #60 - Aliso Canyon

PAGE 2.

out of well with DR plug. Ran in well with 10 joints of 2 3/8" tubing and 1/2 joint with sawtooth collar on 2 7/8" tubing to 7272'.

7-26 Ran through Model "D" packer at 7272' with sawtooth collar on 2 3/8" tubing. Located fill at 7432'. Cleaned out fine sand to 7580'. Circulated hole clean. Pulled out of well. Picked up Baker DR plug. Ran in well and set plug in Model "D" packer at 7272'. Tested plug to 1200 psi - would not hold pressure.

7-27 Started out of well with retrieving tool. Ran back in to 7272'. Latched on to DR plug, pulled out of well - no recovery. Ran in well to 7272'. Latched on to DR plug, pulled out of well - no recovery. Ran back in well with new retrieving tool. Latched on to DR plug.

7-28 Pulled out of well with DR plug. Repaired rig. Ran in well with Baker Model "B" bridge plug. Set at 7260'. Tested bridge plug with 1300 psi for 30 minutes - O.K. Changed over to fresh water with surface tension agent. Pulled out of well to run squeeze tool.

7-29 Ran Baker Retrieva-"A"-Matic Lok-Set packer. Pressure tested 8 5/8" casing, as follows:

5300'	to	7260'	at	2000	psi	for	60	minutes
5300'	"	Surface	at	2100	psi	for	60	minutes
4800'	"	"	"	2300	psi	"	60	"
4400'	"	"	"	2500	psi	"	60	"
4000'	"	"	"	2700	psi	"	60	"
3500'	"	"	"	2900	psi	"	60	"
3000'	"	"	"	3100	psi	"	60	"
2500'	"	"	"	3300	psi	"	60	"
2000'	"	"	"	3500	psi	"	60	"

All above tests O.K.

7-30-77 Continued pressure testing 8 5/8" casing. Tested 800' to surface at 4000 psi for 60 minutes - O.K. Pulled out of well and ran Baker Retrieving tool. Recovered Baker "B" bridge plug from 7260'. Ran Baker latch and seal assembly and latched into Baker Model "D" packer at 7272'. Pressure tested packer at 1300 psi with rig pump. Pressure bled to 0 repeatedly. Unlatched from packer and started out of well.

7-31-77 Rig and crew idle.

8- 1-77 Pulled out and broke down seal assembly. Ran in with 8 5/8" packer mill, two junk subs, Bowen jars, 120' x 4 3/4" drill collars. Rigged up Guiberson stripper and power swivel. Milled 2 1/2" on Baker Model "D" packer at 7272'. Jarred on packer twice. Unlatched from packer and started out of hole.

- 8-2-77 Pulled out of hole. Ran in with new mill shoe on 8 5/8" packer mill, two junk subs, 3 1/2" Bowen jars, 120' x 4 3/4" drill collars. Milled for 5-1/2 hours. Plucker not latched in. Started out of hole.
- 8-3-77 Pulled out of hole. Repaired Baker packer milling tool. Ran in hole with 8 5/8" Baker packer milling tool, two junk subs, 3 1/2" Bowen jars, 120' x 4 3/4" drill collars and milled 6". Rigged up Halliburton and circulated hole to clear junk.
- 8-4-77 Milled on packer. Jarred on packer. Packer released and pulled tight. Pulled out of hole, recovering 8 5/8" Baker Model "D" packer - bore of packer damaged. Ran in hole with 7 5/8" bit and 8 5/8" Shorty casing scraper to 7072'. Rotated on obstruction at 7072'.
- 8-5-77 Pulled out of hole and laid down Shorty casing scraper. Ran in hole with 7.700" Servco tapered mill, 2 junk baskets, bumper sub, 3 1/2" Bowen jars, 120' x 3/4" drill collars and milled up junk 7072'-7283' (top of liner).
- 8-6-77 Circulated hole. Pulled out, laid down milling tools. Ran in hole with 7 5/8" bit and 8 5/8" Shorty casing scraper to 7283' (top of liner). Pulled out of hole. Ran in hole with 5 5/8" bit and 6 5/8" casing scraper to 7293' (top of liner at 7283').
- 8-7-77 Rig and crew idle.
- 8-8-77 Continued drilling out junk in 6 5/8" liner from 7293'-7469' - unable to clean out any deeper. Pulled out and ran in well with 5 5/8" Servco Economill and junk sub to top of 6 5/8" liner.
- 8-9-77 Milled on junk with Servco 5 5/8" Economill from 7469' to 7476' and cleaned out sand fill from 7476' to 7570'. Circulated hole clean.
- 8-10-77 Pulled out of hole. Rigged up GO-Wireline, ran gauge and feeler and ran to top of 6 5/8" liner. Ran Baker Retrieva-"D" Lok-Set packer and set same in 8 5/8" casing at 7269'-7277'. Laid down drill collars and 12 joints of tubing. Tested Camco bottom hole assembly at 5000 psi. Running in hole with 2 7/8" tubing, changing couplings, applying Baker seal and hydrotesting tubing at 5000 psi.
- 8-11-77 Continued running and hydrotesting tubing at 5000 psi with Camco annular safety flow system. Spaced out and latched in Baker Retrieva-"D" packer at 7269'. Pulled 25,000# over weight of tubing to check latch-in. Landed with 10,000# on packer. Tubing weight on hook 42,000#. Removed B.O.P.E. and installed Christmas tree.
- 8-12-77 Tested between upper and lower seals on tubing hanger at 5000 psi - O.K.

Tested above upper seals on hanger and Christmas tree at 5000 psi - O.K. Changed over from polymer drilling fluid to lease salt water. Rigged up Archer-Reed Wireline Unit. Ran and set blanking plug in NO-GO nipple. Pressure tested packer and seals but fluid pumped away. Pulled and re-ran Camco blanking plug, but fluid also pumped away.

8-13-77

Using Archer-Reed Wireline Unit, ran and set Camco "A" circulating plug above "D" nipple at 7264'. Pressure tested annulus to 2000 psi and leaked off to 1400 psi in 10 minutes. Pulled both tubing plugs. Changed back from lease water to 81# polymer drilling fluid. Circulated out gas-cut mud and added 60 barrels of 85#/cu.ft. polymer drilling fluid. Installed plug in doughnut. Removed Christmas tree. Reinstalled B.O.P.E.

8-14-77

Rig and crew idle.

8-15-77

Tested B.O.P.E. with water using H. & H. pump as follows:

Blind rams	at 4000 psi for 20 minutes -
2 7/8" pipe rams	" 4000 psi " 20 "
Hydril bag	" 3000 psi " 20 "

Tested B.O.P.E. with nitrogen using NOWSCO as follows:

Blind rams	at 4000 psi for 20 minutes
2 7/8" pipe rams	" 4000 psi " 20 "
Hydril bag	" 3000 psi " 20 "

All above tests O.K.

Unlatched from 8 5/8" Retrieva-"D" packer at 7269' and pulled tubing. Ran in hole with Baker 8 5/8" packer retrieving tool and latched into packer at 7269'. Pulled packer loose and started out of hole.

8-16-77

Recovered Baker 8 5/8" Retrieva-"D" packer (two rubber seals missing). Rigged up McCullough Wireline Service and made junk basket run. Recovered 1 3/4" packer rubber seals. Ran and set 8 5/8" Baker Retrieva-"D" packer at 7245' (bottom at 7253'). Rigged up hydrottest. Tested seal assembly at 5000 psi for three minutes. Ran 2 7/8" EUE tubing using Baker seal, drifting and hydrottesting to 5000 psi for one minute.

8-17-77

Completed drifting and hydrottesting 2 7/8" EUE tubing in hole (5000 psi - one minute). Spaced out tubing. Latched into Baker 8 5/8" packer at 7245'. Pulled 25,000# over tubing weight and checked latch. Landed tubing with 8000# compression. Removed B.O.P.E. Installed Christmas tree. Tested Christmas tree at 5000 psi for 20 minutes - O.K. Circulated drilling fluid with waste lease salt water. Using Archer-Reed, ran and set Camco "CA" plug in "D" nipple at 7234'. Using H. & H. pump truck, tested packer and seals at 1800 psi for 20 minutes - O.K. Bled down casing and pulled "CA" plug. Hook load as landed = 34,000#.

RIG RELEASED at 10:00 P.M.

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

Report on Operations

No. T 277-168

Mr. P. S. Magruder, Jr., Agent
Southern California Gas Company
P. O. Box 3249
Los Angeles, California 90051

Santa Paula Calif.
July 26, 1977

DEAR SIR:

Operations at well No. IW 60, API No. 037-21276, Sec. 27, T. 3N, R. 16W,
S.B., B & M. Aliso Canyon Field, in Los Angeles County, were witnessed
on 7-21-77 by Ms. Toni Callaway, representative of the supervisor was
present from 1900 to 2300. There were also present Mr. O. Osbourne, consulting
engineer

Present condition of well: No additions to casing record since proposal dated
July 18, 1977.

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

DECISION:

THE BLOWOUT PREVENTION EQUIPMENT AND INSTALLATION ARE APPROVED.

r

M. G. MEFFERD
~~XXXXXXXXXXXXXXXXXXXX~~
Acting State Oil and Gas Supervisor

By [Signature] Deputy

REPORT ON PROPOSED OPERATIONS

Santa Paula, California

July 26, 1977

Mr. P. S. Magruder, Jr., Agent
Southern California Gas Company
P. O. Box # 3249
Los Angeles, CA 90051

Your proposal to rework gas storage well IW 60
(Name and number)
A.P.I. No. 037-21276, Section 27, T. 3N, R. 16W
S.B. B. & M., Aliso Canyon field, Los Angeles County,
dated 7-18-77, received 7-21-77, has been examined in conjunction
with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

1. The hole fluid used shall be of a quality and in sufficient quantity to control all subsurface conditions in order to prevent blowouts; and a reserve supply of this material shall be kept on hand to meet any emergency.
2. Blowout prevention equipment, at least of the Division of Oil and Gas Class III, 3M rating, shall be installed and maintained in operating condition at all times.
3. THIS DIVISION SHALL BE NOTIFIED TO WITNESS a pressure test of the blowout prevention equipment before commencing downhole operations.

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

Blanket Bond
MWD:ir

M. G. MEFFERD (acting)
State Oil and Gas Supervisor
By John L. Hardoin
Deputy Supervisor
John L. Hardoin

JUL 21 1977

DIVISION OF OIL AND GAS
Notice of Intention to Rework Well

SANTA PAULA, CALIFORNIA

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

FOR DIVISION USE ONLY		
BOND	FORMS	
	114	121
73B	✓	✓

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. I. W. #60, API No. _____, Sec. 27, T. 3N, R. 16W, S.B. B. & M., Aliso Canyon Field, Los Angeles County.

The present condition of the well is as follows:

- Total depth. 7582'
- Complete casing record, including plugs and perforations:
 - 13 3/8" cemented 694'
 - 8 5/8" cemented 7359', WSO four 1/2" holes 7285', squeezed with 83 sacks - pressure test 1500 psi (did not re-test)
 - 297' 6 5/8" cemented 7580' - top 7283'. Squeezed lap at 7283' with 50 sacks - pressure tested to 1100 psi (did not test WSO)

- Present producing zone name SESNON Zone in which well is to be recompleted _____
- Present zone pressure 3300 psi New zone pressure _____
- Last produced Gas Storage Well
(Date) (Oil, B/D) (Water, B/D) (Gas, Mcf/D)
or
- Last injected _____
(Date) (Water, B/D) (Gas, Mcf) (Surface pressure, psig.)

The proposed work is as follows:

- Move in and rig up. Kill well. Install B.O.P.E. and pressure test.
- Pull and lay down seal lock tubing. Pick up 2 7/8" 8rd EUE and clean out to 7272'. Pressure test 8 5/8" casing.
- Perform any remedial work indicated by pressure testing.
- Run tubing with down-hole safety system.
- Return well to gas storage.

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

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

SOUTHERN CALIFORNIA GAS COMPANY
(Name of Operator)
By P. S. Magruder, Jr.
(Name) (Date) 7-18-77
Type of Organization Corporation
(Corporation, Partnership, Individual, etc.)

JUL 21 1977

I.W. #60 - Aliso Canyon

PROGRAM

SANTA PAULA, CALIFORNIA

PRESSURE TEST - RUN DOWN HOLE SAFETY SYSTEM - REPLACE TUBING

PRESENT CONDITIONS:

	13 3/8"	cemented 694'
	8 5/8"	cemented 7359', WSO 7285'
297'	6 5/8"	cemented 7580', top 7283' shot four 1/2" holes per foot at intervals 7416' - 7567'
	2 7/8"	seal lock tubing with Page safety valve and 1/4" control line to Baker Model "D" packer at 7272'

PROGRAM

1. Move in and rig up.
2. Kill well with 78#/cu.ft. brine-polymer drilling fluid. Pressure test well head.
3. Install back-pressure valve in doughnut, remove Christmas tree and install B.O.P.E. Class III 5000 psi. Pressure test complete shut-off and pipe rams with water and nitrogen to 4000 psi. Pressure test Hydril with water and nitrogen to 3000 psi. Use float valve in tubing.
4. Unlatch tubing from packer. Lay down seal lock tubing. Pick up 2 7/8" 8RD EUE. Run 7 5/8" bit and casing scraper. Clean out to 7272'. Set plug in Model "D" packer at 7272'. Test plug with rig pump.
5. Circulate polymer fluid out of well with fresh water treated with surface tension agent. Pressure test casing using cement retainer and cement pump truck equipped with calibrated pressure chart and pressure gauge, as follows:

5300' to 7272' with 2000 psi for 60 minutes					
Surface to 5300' with 2100 psi for 60 minutes					
"	"	4800'	"	2300 psi	" 60 "
"	"	4400'	"	2500 psi	" 60 "
"	"	4000'	"	2700 psi	" 60 "
"	"	3500'	"	2900 psi	" 60 "
"	"	3000'	"	3100 psi	" 60 "
"	"	2500'	"	3300 psi	" 60 "
"	"	2000'	"	3500 psi	" 60 "
"	"	800'	"	4000 psi	" 60 "

Change to polymer fluid.

6. Perform any remedial work indicated by pressure testing. Recover plug from Model "D" packer.
7. Run 2 7/8" 8RD EUE tubing, change collars, clean pins, apply Baker Seal and hydrotest tubing to 5000 psi for one minute.
Tubing to include:
 - Baker production tube
 - 4 Baker Seals
 - Baker latch-in locator
 - Camco 10' blast joint
 - Camco "No-Go" nipple 1.81" 2 7/8" 8RD threads
 - Camco 20' blast joint
 - Camco annular flow safety valve
 - One Joint 2 7/8" tubing
 - Camco empty gas lift mandrel
8. Land tubing on packer with a maximum of 10,000#. Pull 25,000# over weight of tubing to check latch.
9. Set plug in doughnut. Remove B.O.P.E. and reinstall Christmas tree. Pressure test Christmas tree to 5000 psi.
10. Circulate drilling fluid out of well with waste salt water. Set tubing plug in "No-Go" nipple. Pressure test seals and packer to 1800 psi. Remove plug and release rig.

G. C. ABRAHAMSON
July 16, 1977

Rig Supervisor
Relief Supervisor
Contract Pusher (2)

Division of Oil & Gas ✓

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

Well Copy
Spare Copy

JUL 21 1977

SANTA PAULA, CALIFORNIA

TUBING DETAILS (11-13-72)

I.W. #60

Aliso Canyon

2 7/8" N-80 6.4# Seal-Lock pup joint	4.14'
10 Joints of 2 7/8" N-80 6.4# R-2 Seal-Lock	308.11'
222 Joints of 2 7/8" J-55 6.4# R-2 Seal-Lock	6953.39'
2 7/8" Seal-Lock by 2 7/8" 8rd X-Over	.95'
3 1/2" Page RTL tubing safety valve with special ported nipples	5.70'
2 7/8" x 3 1/2" X-Over	1.15'
Baker Locator sub	1.10'
	<hr/>
Over-all Total	7274.54'

Splices in 1/4" control line at 1501' and 3636'

DIVISION OF OIL AND GAS

WELL SUMMARY REPORT

SUBMIT IN DUPLICATE

Operator Pacific Lighting Service Co. Well No. IW 60
 Sec. 27, T. 3N, R. 16W, SB B. & M. Aliso Canyon Field Los Angeles County.
 Location From Station 84, 1753' South and 1281' West
(Give location from property or section corner, or street center lines)

Elevation of ground above sea level 1995 feet USGS

All depth measurements taken from top of Kelly Bushing which is 12 feet above ground.
(Derrick Floor, Rotary Table or Kelly Bushing)

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

Date June 8, 1973

Signed *P. S. Magruder*
 Title Agent
(President, Secretary or Agent)

E. A. Olson
(Engineer or Geologist)

B. F. Jones
(Superintendent)

Commenced drilling September 12, 1972 GEOLOGICAL MARKERS DEPTH

Completed drilling October 3, 1972 Sesnon Zone S4 7390

Total depth 7360 Plugged depth 7570

Junk None

Geologic age at total depth: Miocene

Commenced producing (Date) Flowing/gas lift/pumping Name of producing zone Sesnon
(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		GAS	STORAGE	WELL		
Production after 30 days						

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	694	Sfc	48#	N	S	H-40	17-1/2"	505	
8-5/8	7359	Sfc	36#	N	S	K-55 N-80	11"	600	
6-5/8	7580	7283	28#	N	S	K-55	7-5/8"	50	

PERFORATED CASING

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

8-5/8" - Four 1/2" jet holes at 7285' WSO, squeezed with cement.
6-5/8" - Four 1/2" jet holes per foot at 7567-7559', 7550-7476' & 7454-7416'.

Was the well directionally drilled? Yes Electrical Log Depths 7600 (Attach Copy of Log)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR Pacific Lighting Service Company FIELD Aliso Canyon
 Well No. IW 60, Sec. _____, T. _____, R. _____, B. & M. _____
 Date June 8, 19 73 Signed R. S. Maguder, Jr.
P. O. Box 54790, Terminal Annex
Los Angeles, Calif. 90054 (213) 689-3651 Title Agent
 (Address) (Telephone Number) (President, Secretary or Agent)

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

Date

Well drilled by Camay Drilling Company, rig #18.
 All measurements taken from top of kelly bushing which was
 12' above concrete mat.

- 9-12 Spudded 11" hole at 12:00 noon and drilled to 312'.
- 9-13 Drilled 11" hole to 749' and opened 11" hole to 17-1/2" from 33' to 372'.
- 9-14 Opened 11" hole to 17-1/2" to 694'. TO CEMENT 13-3/8" SURFACING CASING: Ran 17 joints or 697' of 13-3/8", 48#, H-40, 8 rd., ST&C, R-3, new seamless blank casing and cemented same at 694' with 505 sacks of Class "G" cement. Cement in place at 1:05 PM. Used Howco bulk cement and power. Cut and recovered 13-3/8" casing, installed Shaffer head and tested to 3500# psig for 15 minutes OK.
- 9-15 Installed GK Hydrill and double Shaffer hydraulic BOP and tested same OK for Division of Oil & Gas.
 Drilled and surveyed 11" hole to 900'.
- 9-16 Drilled and surveyed 11" hole to 1657'.
- 9-17 Drilled and surveyed 11" hole to 2260'.
- 9-18 Drilled and surveyed 11" hole to 2694'.
- 9-19 Drilled and surveyed 11" hole to 3283'.
- 9-20 Drilled and surveyed 11" hole to 3298'. Down 18 hours repairing equipment.
- 9-21 Drilled and surveyed 11" hole to 3836'.
- 9-22 Drilled and surveyed 11" hole to 4102' and Pow-R-Drill #1 to 4168'.
- 9-23 Pow-R-Drill #1 & 1A to 4254'. Left all bit cones in hole.
 Run Globe junk basket and reamed 4157' to 4254'.

1972

- 9-24 Drilled over fish and recovered all cones.
Reamed 4102'-4254' and drilled and surveyed 11" hole to 4491'.
- 9-25 Drilled and surveyed 11" hole to 4704'.
- 9-26 Pow-R-Drill 11" hole 4704'-4806'. Ream 4704'-4806' and directionally drilled 11" hole to 5071'. Work pipe through tight hole.
- 9-27 Ream 4980'-5071' and directionally drilled 11" hole to 5475'.
- 9-28 Directionally drilled 11" hole to 5948'.
- 9-29 Directionally drilled 11" hole to 6329'.
- 9-30 Directionally drilled 11" hole to 6758'.
- 10-1 Directionally drilled 11" hole to 7012'. Reamed 6820'-6848'. Tight hole at 6750'.
- 10-2 Directionally drilled 11" hole to 7291'.
- 10-3 Directionally drilled 11" hole to 7360'.
Ran Dresser Atlas Induction Electrolog and recorded from 7348'-694'.
- 10-4 TO CEMENT 8-5/8" CASING: Ran 175 joints or 7362.53 feet of 8-5/8", 36#, K-55 and N-80, Buttress thread, R-3, new seamless blank casing and cemented same at 7359 feet with 600 sacks Class "G" cement, mixed with 4% gel and 0.2% HR7. Displaced with 2484 cu. ft. mud to bump plug to place at 3:30 PM under 1500# final pressure. No circulation after displacing 2300 cu. ft. Davis-Lynch float shoe at 7359' and float collar at 7317'. Used Howco bulk cement and power.
- 10-5 Cut and recover 8-5/8" casing, install secondary 8-5/8" packing and install GK Hydril and double Shaffer hydraulic BOP.
Tested BOP to 1000# for 15 minutes OK.
Drilled out cement 7301'-7316'.
- 10-6 TO TEST WATER SHUT-OFF ON HOLES IN 8-5/8" CASING AT 7285': Ran Halliburton combination gun and tester on 5" 19.5# drill pipe and shot four 1/2" jet holes at 7285'. Set packer at 7256' with tail to 7277'. Opened tool at 3:15 AM for one hour test. Recovered 687' of gas cut mud. Charts showed tool functioned properly. Water shut-off witnessed and approved by ENGINEER FOR DIVISION OF OIL AND GAS. Water not SHUT-OFF by company test.
- TO SQUEEZE HOLES IN 8-5/8" CASING AT 7285' WITH CEMENT: Ran Baker retrievable cement tool on 5" 19.5# drill pipe and set same at 7182'. Pumped in 100 sacks Class "G" cement treated with 0.2% HR-7. Displaced with 10 cu. ft. of water and 720 cu. ft. of mud in stages to squeeze estimated 83 sacks away under 2200# final pressure. Cement to place at 3:25 PM. Used Howco bulk cement and power.

1972

- 10-7 Drilled out cement from 7196' to 7316'. Pressure test casing to 1500# pressure for 15 minutes OK.
Drilled 7-5/8" hole to 7563'.
- 10-8 Clean out fill 7530' to 7563' and drilled 7-5/8" hole to 7576' where drill pipe backed off at 1933'.
Pulled and reran drill pipe and screwed onto fish and recovered same. Left one bit cone in hole.
Ran Globe Junk basket and drilled over fish to 7577'. No recovery.
- 10-9 Ran 7-5/8" bit with junk sub and drilled on fish from 7577'-7582'
Ran Dresser Atlas Induction Electrolog, Densilog and Sidewall Neutron log and sidewall cores.
- 10-10 Ran 7 joints or 297' of 6-5/8", 27.65# Security Flush Joint K-55, R3 new seamless bank casing as liner. Hung liner at 7283' with bottom at 7580'. Lost circulation while cementing. Pulled out of hole.
- 10-11 Cemented 6-5/8" liner with 50 sacks Class "G" cement. Cement in place at 6:35 AM
Located top of cement at 7550' and cleaned out to 7570'. 6-5/8" x 8-5/8" lap took fluid at 400 psig.
- 10-12 Set Halliburton squeeze tool at 7192' and squeezed lap with 50 sacks Class "G" treated with 0.2% HR-7. Cement in place at 8:00 AM.
Located top of cement at 7249' and cleaned out to top of liner at 7283'.
- 10-13 Ran 5-5/8" bit and casing scraper and drilled out cement 7283' to 7295' and cement stringers to 7490'. Run in to 7570' and pressure test lap OK under 1100 psi for 15 minutes.
Displaced mud in hole with lease salt water treated with 3#/bbl. DMS.
- 10-14 Ran Dresser-Atlas cement bond log.
Removed BOP.
- 10-15 Trimmed 8-5/8" casing stub, installed secondary packing and flanged up Christmas tree.
Rig released at 3:00 AM.
- 11-6 Moved in CPS "D" type rig. Hole full of lease salt water.
- 11-7 Removed tubing head and seal flange finding 8-5/8" casing cut off 5-1/2" to short to pack off in secondary packing. Cut off 8-5/8" casing 2" above 13-3/8" casing head flange and welded on 9-1/2" 8-5/8" casing extension. X-rayed weld OK. Re-installed tubing head and seal flange and tested seals to 4500 psi OK.
- 11-8 Picked up 7580' 2-7/8" seal-lock tubing running 5-5/8" bit and 6-5/8" scraper and checked hole clean to bottom at 7580'. Ran Neutron Lifetime Log.

1972

- 11-9 Ran Baker full bore packer to 4000' to pressure test 8-5/8" casing from 4000' to surface but packer failed. Started running second packer when crew dropped packer and 16 stands 2-7/8" Seal-lock tubing. Ran Socket and recovered tubing and packer which had stopped at top of 6-5/8" liner at 7283'. Ran same packer and set at 4000' and attempted to pressure test 8-5/8" casing without success as Seal-lock tubing leaked.
- 11-10 Ran Baker full bore packer number 3 with bottom plugged and set at 4000'. Pressure tested 8-5/8" casing from 4000' to surface with 3200 psi for 15 minutes OK.
- 11-11 Using Dresser-Atlas 4" gun and NCF IV 17 gram charge Golden Jet, perforated four 0.45" holes per foot from 7567-7559', 7550-7476' and 7454-7416'. Checked hole clean to 7567' with last gun. Set Baker 8-5/8" model "D" packer with expendable plug at 7268'.
- 11-12 Idle
- 11-13 Ran 2-7/8" tubing with 1/4" control line, 5 Baker seal units and Page 3-1/2" RTL tubing safety valve with special ported nipple. Stabbed into packer pushing out expendable plug and landed tubing with 18,000 pounds on packer.

TUBING DETAIL

2-7/8" N-80 6.4# Seal-lock pup joint	4.14'
10 Joints 2-7/8" N-80 6.4# R-2 Seal-lock	308.11
222 Joints 2-7/8" J-55 6.4# R-2 Seal-lock	6953.39
2-7/8" Seal-lock by 2-7/8" 8-R X-over	.95
3-1/2" Page RTL tubing safety-valve with special ported nipple	5.70
2-7/8" x 3-1/2" X-over	1.15
Baker Locator Sub	<u>1.10</u>

Over-all total 7274.54'

Splices in 1/4" control line at 1501' and 3636'.

- 11-14 Installed and tested production head to 4500 psi OK.
- Tested 1/4" control line to 5000 psi OK.
- Using nitrogen, unloaded fluid from well down to packer at 7268'.
- Released rig.
- Well idle, awaiting installation of flow lines.

SURVEY RECORD

JOB NO. IM-60 DATE 9-12-72

MEASURED DEPTH	DRIFT ANGLE	TRUE VERTICAL DEPTH	COURSE DEVIATION	DRIFT DIRECTION	RECTANGULAR COORDINATES				REMARKS												
					NORTH	SOUTH	EAST	WEST													
1 145	•30	145		S 76 W				30													
2 235	1.0	234		S 70 W				84													
3 312	1.30	311		S 55 W				00													
4 395	1.30	394		S 46 W				51													
5 498	1.0	497		S 42 W				64													
6 592	•30	591		S 20 W				61													
7 685	1.0	684		S 13 W				18													
8 749	•30	748		S 26 W				68													
9 850	•30	849		S 68 W				01													
10 970	1.45	969		S 50 W				36													
11 1060	1.45	1059		S 46 W				27													
12 1150	1.30	1149		S 70 W				07													
13 1254	1.45	1253		S 66 W				36													
14 1346	1.30	1345		S 48 W				97													
15 1436	1.30	1435		S 62 W				08													
16 1532	1.15	1531		S 51 W				40													
17 1625	1.0	1624		S 22 E				90													
18 1740	1.0	1739		S 27 E				69													
19 1835	2.0	1834		S 64 E				21													
20 1933	2.0	1935		S 57 E				05													
21 2030	2.15	2029		S 60 E				15													
22 2125	2.0	2124		S 58 E				05													
23 2219	2.0	2218		S 63 E				16													
24 2325	1.15	2335		S 44 E				00													
25 2437	•45	2436		S 64 E				03													
26 2530	•45	2529		N 63 E				05													
27 2625	•30	2624		N 36 E				03													
28 2715	•45	2714		S 66 W				36													
29 2800	•45	2799		N 88 W				84													
30 2970	•30	2969		S 88 W				81													
31 3143	1.15	3142		S 48 W				80													
32 3283	1.0	3282		S 89 W				85													
				N 85 W				32													
								57													

Survey data
submitted by
Operator

SURVEY RECORD

JOB NO. _____

IN-60

DATE 9-12-72

MEASURED DEPTH	DRIFT ANGLE	TRUE VERTICAL DEPTH	COURSE DEVIATION	DRIFT DIRECTION	RECTANGULAR COORDINATES				REMARKS	
					NORTH	SOUTH	EAST	WEST		
33	34.22	34.21	17	N 74 W.		32.25		13	97	
34	35.27	35.76	17	N 82 W		32.04		15	31	
35	37.84	37.83	15	N 60 W		30.68		17	65	
36	39.30	39.29	14	N 64 W		29.84		19	37	
37	40.92	40.91	11	S 45 W		31.84		21	50	
38	41.23	41.22	11	N 60 W		31.77		21	37	
39	41.53	41.52	10	N 56 E		31.33		20	85	
40	41.85	41.84	06	N 59 E		30.46		19	42	
41	42.15	42.13	97	N 68 E		29.58		17	25	
42	42.93	42.91	43	N 76 E		27.36		8	34	
43	43.85	43.82	36	N 74 E		23.50		5	12	
44	45.10	45.04	85	N 71 E		23.56		28	68	
45	46.02	45.93	61	N 68 E		51.12		51	12	
46	46.96	46.82	88	N 66 E		78.01		78	01	
47	47.42	47.26	37	N 71 E	5	65		92	18	
48	47.71	47.53	70	N 76 E	10	53		101	24	
49	48.80	48.55	55	N 82 E	18	26		140	05	
50	49.60	49.28	80	N 81 E	23	50		173	10	
51	50.50	50.06	92	N 81 E	30	33		216	19	
52	51.65	51.07	50	N 81 E	30	05		271	25	
53	52.57	51.88	35	N 81 E	45	92		314	61	
54	54.44	53.54	59	N 82 E	57	84		399	40	
55	56.30	55.23	16	N 83 E	67	42		477	43	
56	58.18	56.95	57	N 83 E	76	55		551	85	
57	60.19	58.80	93	N 85 E	83	33		629	27	
58	62.30	60.77	58	N 86 E	88	66		705	55	
59	64.30	62.66	68	N 86 E	93	20		770	51	
60	65.30	63.60	94	N 87 E	94	95		803	84	
61	68.48	66.59	29	N 86 E	102	63		913	64	
62	69.79	67.80	10	N 89 E	103	51		964	29	
63	70.48	68.42	64	N 89 E	104	02		993	45	
64	72.27	70.05	19	N 85 E	109	25		1068	21	

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

Report on Operations

No. T 172-1245

Mr. P. S. Magruder, Jr., Agent
PACIFIC LIGHTING SERVICE CO.
P.O. Box 54790, Terminal Annex
Los Angeles, CA 90054

Inglewood, Calif.
October 25, 1972

DEAR SIR:

Operations at well No. IW 60 (037-21276), Sec. 27, T. 3N, R. 16W, S.B. B & M.
Aliso Canyon Field, in Los Angeles County, were witnessed
on Sept. 15, 1972. Mr. G. Ledingham, Engineer, representative of the supervisor was
present from 1230 to 1530. There were also present V. Gardner, Drilling Foreman.

Present condition of well: 13-3/8" cem. 694' T.D. 749'.

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

Mr. ---- reported:

THE BLOWOUT-PREVENTION EQUIPMENT AND INSTALLATION ARE APPROVED.

GL:dr

cc Company

de p...

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

By W. L. Ingram Deputy

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

Report on Operations

No. T 172-1193

Mr. P. S. Magruder, Jr., Agent
PACIFIC LIGHTING SERVICE CO.
P.O. Box 54790, Terminal Annex
Los Angeles, CA 90054

Inglewood, Calif.
October 11, 1972

DEAR SIR:

Operations at well No. IW 60 (037-21276), Sec. 27, T. 3N, R. 16W, S.B. B & M.
Aliso Canyon Field, in Los Angeles County, were witnessed
on Oct. 6, 1972. Mr. R. Dreessen, Jr., Engineer, representative of the supervisor was
present from 0700 to 0800. There were also present J. Delano, pusher.

Present condition of well: 13-3/8" cem. 694'; 8-5/8" cem. 7359', perf. 7285' WSO. T.D.
7360'.

The operations were performed for the purpose of testing the water shut off with a formation
tester.

Mr. ---- reported:

THE 8-5/8" SHUT-OFF AT 7285' IS APPROVED.

RD:dr

cc Company

dr/ew

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

By W. L. Ingram, Jr. Deputy

DIVISION OF OIL AND GAS

REPORT ON PROPOSED OPERATIONS No. P 172-853

Mr. P. S. Magruder, Jr., Agent
 PACIFIC LIGHTING SERVICE COMPANY
 P. O. Box 54790, Terminal Annex
 Los Angeles, CA 90054

Inglewood, Calif.
 July 20, 1972

DEAR SIR:

Your _____ proposal to drill _____ Well No. W 60 (037-21276),
 Section 27, T.3N _____, R. 16W _____, S.B. B. & M., Aliso Canyon Field, Los Angeles County,
 dated 7-10-72, received 7-12-72, has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:

1. A COPY OF THIS REPORT SHALL BE POSTED AT THE WELL SITE PRIOR TO COMMENCING OPERATIONS.
2. The surface casing shall be cemented in competent beds and blowout prevention equipment, conforming to this Division's Class III requirements, shall be installed and maintained in operating condition at all times.
3. Sufficient cement shall be used to fill back of the 13-3/8" casing to fill back of the casing to the surface.
4. Sufficient cement shall be used to fill all the space back of the 8-5/8" casing to above the top of any oil, gas, or salt water-bearing formations, or the casing shall be cemented also through ports at a point below the base of the fresh water-bearing formations with sufficient cement to fill above such base.
5. THIS DIVISION SHALL BE NOTIFIED:
 - a. To inspect and witness a test of the blowout prevention equipment prior to drilling out cement in the shoe of the 13-3/8" casing.
 - b. To witness a test of the effectiveness of the 8-5/8" shut-off above the Sennon zone.

ADS:rah

cc: Company

Blanket Bond

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

By W. L. Ingram, Deputy

DIVISION OF OIL AND GAS
RECEIVED
Rec'd. 7-17-72 ab
JUL 18 1972

037-21276

DIVISION OF OIL AND GAS
Notice of Intention to Drill New Well
This notice and surety bond must be filed before drilling begins

INGLEWOOD, CALIFORNIA
July 10, 1972

Los Angeles, Calif.

DIVISION OF OIL AND GAS

In compliance with Section 3203, Division III, Article 4, Public Resources Code, notice is hereby given that it is our intention to commence drilling well No. IW 60 (037-21276), Sec. 27, T. 3N, R. 16W, S.B. B. & M., Aliso Canyon Field, Los Angeles County.

Legal description of mineral-right lease, consisting of 431.5 acres, is as follows: Porter lease
(Attach map or plat to scale)
(See attached plat)

Do mineral and surface leases coincide? Yes No If answer is no, attach legal description of both surface and mineral leases, and map or plat to scale.

Location of Well: 1745.31 feet south along section line and 1286.74 feet West
(Direction) (Direction)
at right angles to said line from the Station 84 property corner of section.

Elevation of ground above sea level 2075.47 feet Per Metrex A.S. Co. datum.

All depth measurements taken from top of K.B. which is 12.0 feet above ground.
(Derrick Floor, Rotary Table or Kelly Bushing)

PROPOSED CASING PROGRAM

SIZE OF CASING INCHES A.P.I.	WEIGHT	GRADE AND TYPE	TOP	BOTTOM	CEMENTING DEPTHS
13 3/8	48#	H-40	0'	700'	700'
8 5/8	36#	K-55 & N-80	0'	7470'	7470'

Intended zone(s) of completion: Seson & Frew 7270', 7470' Estimated total depth 7470'
(Name) (Depth, top and bottom)

MAP	MAP BOOK	CARDS	BOND	FORMS	
				114	121
	<u>R-20</u>	<u>ARG</u>	<u>B</u>	<u>ARG</u>	<u>ARG</u>

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

Address 720 West Eighth St. Pacific Lighting Service Co.
Los Angeles, California 90017 (Name of Operator)
By P. S. Magruder, Jr.
Telephone Number 213-689-3561 Type of Organization Corporation
(Corporation, Partnership, Individual, etc.)