

NOV 17 2011

HISTORY OF OIL OR GAS WELL

Div. of Oil, Gas &
Geothermal Resources
Ventura
County: Los Angeles

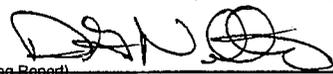
Operator: Southern California Gas Company
Well: Porter 26 C
A.P.I. No. 03721353

Field: Aliso Canyon
Surface Location: Sec. 28, T3N, R28W S.B.B.&M.

Azra Kargar

Title: Storage Field Engineer
(President, Secretary, or Agent)

Date: 11/17/2011

Signature: 
(Person Submitting Report)

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

Telephone Number: 818-360-1245

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
9/22/2011	Rigged up for well kill. Opened well 2600 psi tubing and casing. Pumped 30 bbls of high viscosity pill and displaced with 46 bbls of 9.2 ppg water. Killed the well per schedule with 300 bbls. Installed back pressure plug and nipped down production tree. Nipped up and function test class III BOP.
9/23/2011	Opened well 0 psi and 20 bbls to fill. Rigged up tester unit and tested blind rams, pipe rams, Hydril, choke manifold and all control valves to 3500 psi for twenty minutes; all tested well. (W Biel DOGGR inspected and approved installation of BOPE). Backed out and held down studs, unlanded tubing, released packer at 7833', and pulled out of well to kill string at 5000'.
9/26/2011	Opened well 0 psi, filled well with 19 bbls. Pulled out of well and laid down production equipment. Made up 7" casing scraper and ran in well to 7880' top of liner. Pulled out of well to kill string at 2400'.
9/27/2011	Opened well 0 psi 4 bbls to fill. Pulled out of well with kill string and laid down scraper and bumper sub. Nipped up shooting flange and rigged up Schlumberger wire line. Made up USIT tools. Ran in well to 7880' and ran USIT log from 7880' to 6680'. Made up 7" bridge plug on wire line, ran in well to 7840', and set the plug. Tested bridge plug to 1500 psi for ten minutes. Made up 2' gun with 4 HPF 16 holes. Ran in well to 7822', shot holes from 7822' to 7824', pumped in casing to 1500 psi with no break down. Made up 2' gun with 4 HPF and ran in well to 7819'. Shot from 7819' to 7821', pumped in casing at 1800 psi and establish a rate of 0.5 BPM. Made up 7" retainer on wire line and ran in well to 7809' and set retainer at 7809'. Rigged down wire line.
9/28/2011	Opened well 0 psi 0 bbls to fill. Made up star guide stinger and ran in well to retainer at 7809'. Stabbed in retainer, spaced out, and tested annulus to 1000 psi for twenty minutes. Obtained injection rate 0.25 BPM at 1800 psi. Un-stung from retainer.
9/29/2011	Opened well 0 psi 0 bbls to fill. Rigged up BJ cementers and held safety meeting. Tested lines to 3000 psi, stabbed in retainer at 7809', pumped to 2000 psi with no rate, bleed down to 1500 psi in 30 seconds. Un-stabbed from retainer, mixed and pumped 30 sacks (34 cu.ft) class "G" cement, displaced with 45 bbls, stabbed in retainer, squeezed (with hesitation) to 2200 psi and pumped 2 bbls cement below retainer. Un-stabbed from retainer, reversed, and circulated out 4 bbls cement. Rigged down cementers, pulled out of well, and laid down stab in. Measured and picked 6-1/8" bit, bit sub, (4) 4-3/4" drill collars and ran in well to 2500'.
9/30/2011	Opened well 0 psi 0 bbls to fill. Ran in well with bit to top of retainer at 7809'. Nipped up PGSR, picked up power swivel. Started drilling out retainer, cleaned out 2' and fell through and could not make hole (blew PGSR rubber). Laid down power swivel, and pulled to 6000'.
10/1/2011	Opened well 0 psi 0 bbls to fill. Pulled out of well and inspected bit (good); Ran in well to 7819' and picked up power swivel. Attempted to clean out retainer (could not make hole and no torque). Laid down power swivel and started out of hole to 6000'.
10/3/2011	Opened well 0 psi 0 bbls to fill. Pulled out of well and laid down bit (one cone was locked up). Made up 6-1/8" junk mill and ran in well to 7819'. Cleaned out retainer to 7840'. Tested casing to 2000 psi for twenty minutes (good); Drilled out bridge plug to top of liner at 7880'. Circulated clean and pulled out of well to 4000'.
10/4/2011	Opened well 0 psi 3 bbls to fill. Pulled out of well and laid down mill. Made up 7" casing scraper and bumper sub and ran in well to top of the liner at 7880'. Pulled out of well to kill string at 2400'.
10/5/2011	Opened well 0 psi filled well with 3 bbls. Pulled out of well and laid down casing scraper. Made up shooting flange and rigged up Schlumberger wire line. Made USIT tools and ran in well to 7870'. Logged to 6870', pulled out of well, and rigged down loggers. Laid down (4) 4-3/4" drill collars. Measured and picked up (12) joints 2-3/8" tubing. Ran in well to 3000'.
10/6/2011	Opened well 0 psi 2 bbls to fill. Ran in well to 7880' (the liner top) and attempted to work into the liner. Pulled out of well to kill string at 2500'.
10/7/2011	Opened well 0 psi 3 bbls to fill. Pulled out of well and measured and picked up (4) 3-1/8" drill and 4-1/2" bit. Ran in well to top of liner at 7880' and rigged up power swivel. Cleaned out liner top, fell through, and ran in well to 7954'. Reversed circulated 100 bbls. Pulled out of well to 6500'.

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 26 C
A.P.I. No. 03721353

Azra Kargar

Field: Aliso Canyon

Surface Location: Sec. 28, T3N, R28W S.B.B.&M.

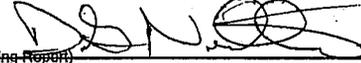
Title: Storage Field Engineer

County: Los Angeles

(President, Secretary, or Agent)

Date: 11/17/2011

Signature:



(Person Submitting Report)

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

Telephone Number: 818-360-1245

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Start Date	Ops. DOGGR Rpt.
10/10/2011	Opened well 0 psi filled well with 5 bbls. Pulled out of well and laid down (4) 4-3/4" drill collars. Made up 2-3/8" mule shoe and ran in well with (12) 2-3/8" Hydril tubing and 2-7/8" tubing to 8196'. Reversed circulated 100 bbls. Pulled out of well to kill string at 2500'.
10/11/2011	Opened well 0 psi 5 bbls to fill. Pulled out of well and laid down (12) Joints 2-3/8" tubing. Made up HES "G-6" packer, 6" pup jt, On/Off tool, 1 jt tubing, sliding sleeve, 1 jt tubing, gas lift mandrel. Ran in well to 7835' and set packer, spaced well, landed in tubing hanger with 10,000 lbs compression. Tested annulus to 500 psi for twenty minutes. Nipped down class III BOPE and nipped up production tree.
10/12/2011	Rigged down hoist and loaded out BOP equipment. Loaded out rig equipment. Installed laterals lines and cleaned location.

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Div. of Oil, Gas &
Geothermal Resources
Ventura

DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

Report on Operations

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

Ventura, California
September 27, 2011

Your operations at well "Porter" 26C, API No. 037-21353
Sec. 28, T. 3N, R. 16W, SB B. & M. Ventura
Field in Ventura County,
were witnessed on 9/23/2011 by W. Beil, representative of the supervisor.

Operations Witnessed	Result - Def.	Engineer	Date
BOPE Inspection	Approved - 0	W. Beil	9/23/2011

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

DECISION: Approved

tkc

By

Elena M. Miller
State Oil and Gas Supervisor



Deputy Supervisor

Operator Southern Cal Gas Co. Well "Porter" 26-C Sec. 28 T. 3N R. 16W
 Field Aliso Canyon County LOS ANGELES Spud Date _____
 VISITS: Date 09-23-11 Engineer W. Beil Time (9:30 to 12:30) Operator's Rep. Mike VOLKMAR Title Consultant
 1st _____ to _____
 2nd _____ to _____
 Contractor ENSTGN Rig # 321 Contractor's Rep. & Title Robert Schrader - Rig Mgr.
 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 5/8" casing are approved.

Proposed Well Opns: Repair 7" CSG MACP: _____ psi REQUIRED BOPE CLASS: III SM
 Hole size: _____ " fr. _____ " to _____ " to _____ " & _____ " to _____ "

CASING RECORD OF BOPE ANCHOR STRING					Cement Details		Top of Cement	
Size	Weight(s)	Grade(s)	Shoe at	CP at			Casing	Annulus
<u>8 5/8"</u>	<u>36#</u>	<u>K-55/N-80</u>	<u>7574'</u>					

BOP STACK							TEST DATA						
API Symb.	Ram Size (in.)	Manufacturer	Model or Type	Vert. Bore Size (in.)	Press. Rtg.	Date Last Overhaul	Gal. to Close	Recov. Time (Min.)	Calc. GPM Output	psi Drop to Close	Secs. to Close	Test Date	Test Press.
<u>A</u>	<u>2 7/8</u>	<u>Hydrill</u>		<u>11"</u>	<u>5K.</u>								
<u>Rd</u>	<u>CSO</u>												

ACTUATING SYSTEM				TOTAL:	AUXILIARY EQUIPMENT						
Accumulator Unit(s) Working Pressure <u>3000</u> psi.					Connections						
Total Rated Pump Output _____ gpm		Fluid Level _____			No.	Size (in.)	Rated Press	Weld	Flange	Thread	Test Press.
Distance from Well Bore <u>60</u> ft.		<u>1/3</u>									
Accum. Manufacturer	Capacity	Precharge	Fill-up Line								
<u>1 VALCON</u>	<u>80 gal.</u>	<u>1600 psi</u>	<u>✓ Kill Line</u>			<u>2"</u>					<u>✓</u>
<u>2 (Weatherford)</u>	<u>gal.</u>	<u>psi</u>	<u>✓ Control Valve(s)</u>		<u>3</u>				<u>✓</u>	<u>✓</u>	
CONTROL STATIONS			Elec.	Hyd.	Pneu.						
<u>✓</u>	Manifold at accumulator unit				<u>✓</u>						
<u>✓</u>	Remote at Driller's station				<u>✓</u>						
	Other:				<u>✓</u>						
EMERG. BACKUP SYSTEM			Press.	Wkg. Fluid							
<u>✓</u>	<u>N2 Cylinders</u>	<u>1 L= " 2050</u>	<u>gal.</u>	<u>✓</u>	<u>Adjustble Choke(s)</u>	<u>2</u>	<u>3"</u>				
	Other:				<u>✓</u>						
	<u>2 L= " 2000</u>	<u>gal.</u>		<u>✓</u>	<u>Bleed Line</u>						
	<u>3 L= " 2100</u>	<u>gal.</u>		<u>✓</u>	<u>Upper Kelly Cock</u>						
	<u>4 L= " 2235</u>	<u>gal.</u>		<u>✓</u>	<u>Lower Kelly Cock</u>						
	<u>5 L= " 2050</u>	<u>gal.</u>		<u>✓</u>	<u>Standpipe Valve</u>						
	<u>6 L= " 2025</u>	<u>gal.</u>		<u>✓</u>	<u>Standpipe Pres. Gau.</u>						
	TOTAL:			<u>gal.</u>	<u>✓</u>	<u>Pipe Safety Valve</u>					
				<u>✓</u>	<u>Internal Preventer</u>		<u>2 7/8</u>				

HOLE FLUID MONITORING EQUIPMENT			Alarm Type		Class	Hole Fluid Type	Weight	Storage Pits (Type & Size)
	Audible	Visual						
Calibrated Mud Pit					A	<u>KCL.</u>	<u>9.0</u>	<u>920 bbls</u>
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 211-306

PERMIT TO CONDUCT WELL OPERATIONS

Gas Storage

<u>010</u>	<u>010</u>
(Old) Field Code	(New)
<u>00</u>	<u>00</u>
(Old) Area Code	(New)
<u>30</u>	<u>30</u>
(Old) Pool Code	(New)

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

Ventura, California
September 20, 2011

Your proposal to **rework** well "**Porter**" **26C**, A.P.I. No. **037-21353**, Section **28**, T. **3N**, R. **16W**, **S.B. B. & M.**, **Aliso Canyon** Field, **Sesnon-Frew** Pools, **Los Angeles** County, dated **09/16/11**, received **09/16/11** 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. MO7, shall be installed and maintained in operating condition and meet the following minimum requirements: **Class III 5M**
2. Hole fluid of a quality and in sufficient quantity is used to control all subsurface conditions in order to prevent blowouts.
3. No program changes are made without Division approval.
4. **THIS DIVISION SHALL BE NOTIFIED TO:**
 - a. Inspect the installed blowout prevention equipment prior to commencing downhole operations.

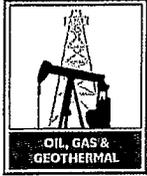
Engineer: Bruce H. Hesson

Phone: (805) 654-4761

Elena M. Miller
State Oil and Gas Supervisor

By 
Bruce H. Hesson, 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 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.



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

FOR DIVISION USE ONLY		
	Forms	
Bond	OGD114	OGD121
1800 004	11N ✓	115 ✓

NOTICE OF INTENTION TO REWORK / REDRILL WELL

Detailed instructions can be found at: www.conservation.ca.gov/dog/ **P211-306**

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to rework / redrill well Porter 26C, API No. 037-21353,
(Check one)

Sec. 28, T. 3N, R. 28W, 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.)

0' - 801', 13-3/8", 48#, K-55, Surface casing (cemented to surface with 340 sxs cement)
0' - 5379', 8-5/8", 36#, K-55, and 5380'-7574', 8-5/8", 36#, N-80, Production Casing (cemented with 1084 cu. ft., Stage collars @ 1684' and 6586' cemented with 620 cu ft cement) Window Milled 7574'-7584'.
4968' - 7950', 7", 26#, L-80, Intermediate Liner (cemented with 339 cu ft, 15.6 ppg cement)
7868' - 8196', 5-1/2" x 4-1/2", 15.5#, L-80, Liner (4-1/2" Expandable screen liner, 150 micron, 7977'-8168')
TD= 8210' MD

The total depth is: 8210 feet. The effective depth is: 8168 feet. **GS**

Present completion zone(s): Seanon-Frew Anticipated completion zone(s): Same
(Name) (Name)

Present zone pressure: 2594 psi. Anticipated/existing new zone pressure: Same 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.)

Kill the well with HEC polymer pill and 3% KCl brine.
Install the test Class III, 5M BOPE.
Pull 2 7/8" tubing string. Run a CLB/casing inspection log in 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 to 1000 psi surface pressure. Rerun and land the redressed G-6 packer with on/off tool in profile at 7800' (+/-). Rerun and pressure test the 2 7/8" tubing. Nipple down BOPE and reg down.

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. **RECEIVED**

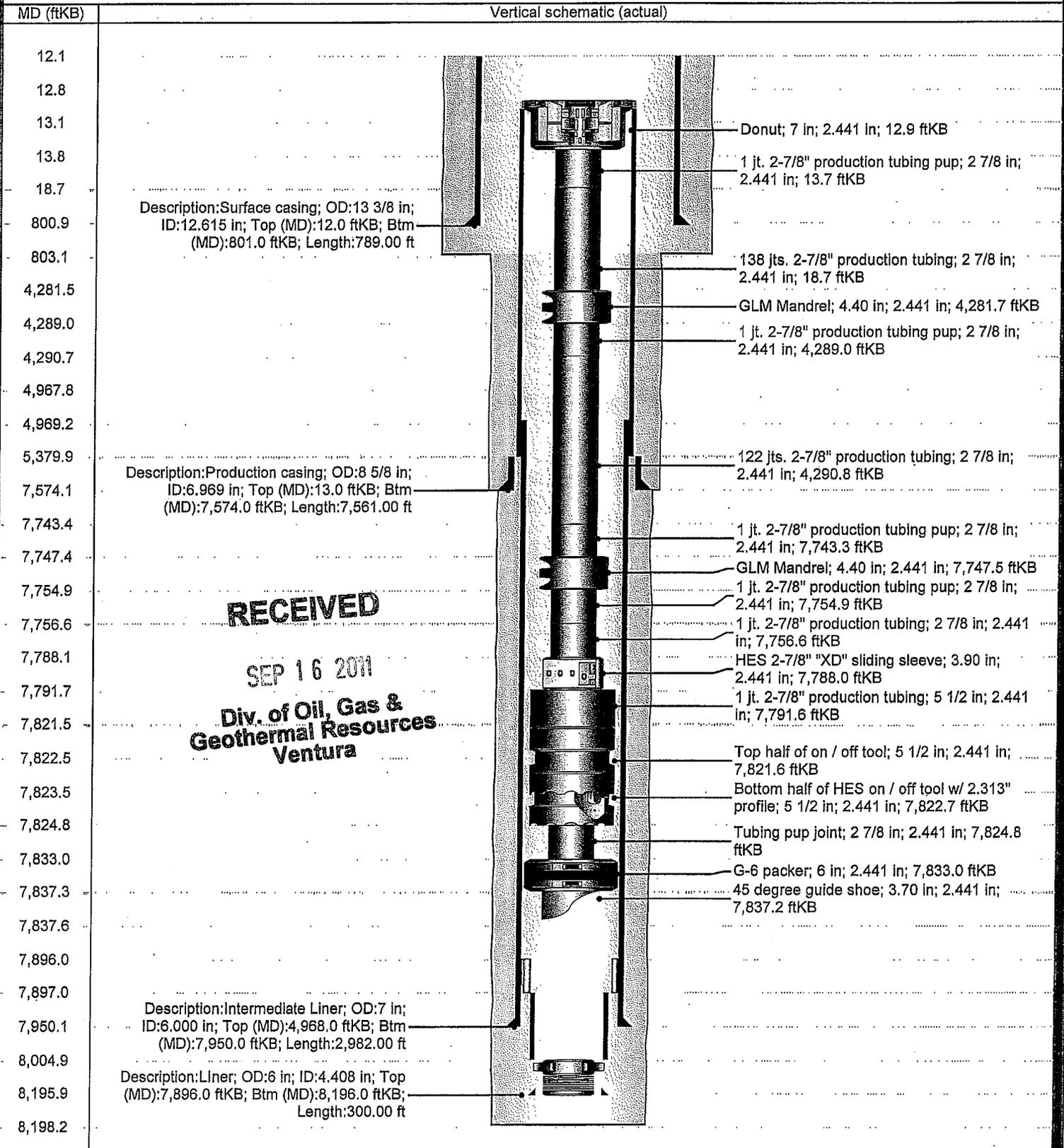
Name of Operator Southern California Gas Company			SEP 16 2011	
Address 12801 Tampa Avenue		City/State Northridge/CA	Zip Code 91326	
Name of Person Filing Notice Azra Kargar	Telephone Number: 818-360-1245	Signature <i>Azra Kargar</i>	Date 9-16-2011	
Individual to contact for technical questions: Dan Neville	Telephone Number: 818-700-3810	E-Mail Address: DNeville@semprautilities.com		

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

Gas Company Schematic

API 03721353	Field Name Aliso Canyon	Operator Southern California Gas Company	County Los Angeles	State California
Ground Elevation (ft)	KB-Ground Distance (ft)		Spud Date	
Job Name Nov 2010 - Casing Patch Installation	Start Date 11/5/2010	End Date 11/24/2010		

Side Track I, 9/16/2011 11:17:17 AM



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Div. of Oil, Gas & Geothermal Resources
Ventura

WORKOVER PROGRAM
Porter 26C – Shoe Leak Repair

DATE: September 16, 2011

OPERATOR: Southern California Gas Company

FIELD: Aliso Canyon

WELL: Porter 26C

CONTRACTOR: Ensign Resources

OBJECTIVE: Repair 7" production casing shoe leak.

API NUMBER: 037-21353

ELEVATION: All measurements from the original KB = 12' above GL.

PRESENT WELLBORE CONDITIONS:

0' – 801'	13-3/8"	48#	K-55	Surface casing (cemented to surface with 340 sxs cement)
0'- 5379'	8-5/8"	36#	K-55	Production Casing (cemented with 1084 cu. ft., Stage collars @ 1684' and 6586' cemented with 620 cu ft cement) Window Milled 7574'-7584'
5380'-7574'	8-5/8"	36#	N-80	
4968'- 7950'	7"	26#	L-80	Intermediate Liner (cemented with 339 cu ft, 15.6 ppg cement)
7868'-8196'	5-1/2"x 4-1/2"	15.5#	L-80	Liner (4-1/2" Expandable screen liner, 150 micron, 7977'-8168') TD= 8210' MD

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

TOP OF ZONES: (S-2): 7947'MD/7543' TVD / (Frew): 8199'MD/7785'TVD

FIELD PRESSURE: 2954 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.

Porter32Bshoeleakrepairprog1.doc - 06/05/2009

WELL WORK PROGRAM

Pre Rig Work:

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Ventura**

1. De-energize and remove laterals. Install companion flanges for killing well.
2. Move in pump with tank, shaker and mixer. The Ensign Resources 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 6" 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:

1. Move in the 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 retrievable packer at 7833' 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 4968' to approximately 7959' (+/-). Circulate the hole clean.
8. Run a USIT inspection log in the cemented 7" production casing to indentify the cement bond behind the 7" casing and into the 4-1/2" ESS liner lap.

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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 7800'. Pressure test the G-6 packer to 1000 psig.
11. Run tubing and accessories as follows and space out as required:
 - 11.1 1 - 2-7/8" HES On/Off tool, top half
 - 11.2. 1 jt- 2-7/8", 6.4#, L-80 tubing
 - 11.3. 1 - 2-7/8" HES, XD Sliding Sleeve
 - 11.4. 1 jt - 2-7/8", 6.4#, L-80 tubing
 - 11.5. 1 jt - 2-7/8" 6.4#, L-80 pup jt.
 - 11.6. 1 - 2-7/8", GLM w/ 1.0" dummy valve
 - 11.7. 1 - 2-7/8", 6.4#, L-80 pup joint
 - 11.8. 122 jts - 2-7/8", 6.4#, L-80 tubing
 - 11.9. 1 - 2-7/8", 6.4#, L-80 pup joint
 - 11.10. 1 - 2-7/8", GLM w/ 1.0" dummy valve
 - 11.11. 138 jts - 2-7/8", 6.4#, L-80 tubing
 - 11.12. 1 - 2-7/8" L-80 pup jts (as required for spacing)
 - 11.13. 1 - 2-7/8" x 9" AJO Tubing Hanger
 - 11.10. Run tubing stretch calculation to verify landing weight.

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11.14. 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.

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.

Azra Kargar

Storage Field Engineer I

Southern California Gas Company

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**Div. of Oil, Gas &
Geothermal Resources
Ventura**

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 26 C
A.P.I. No. 03721353

Field: Aliso Canyon County: Los Angeles
Surface Location: Sec. 28, T3N, R28W S.B.B.&M.

Todd Van de Putte Title: Senior Storage Field...

(President, Secretary, or Agent)

Date: 1/18/2011

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
11/5/2010	Removed the laterals and the blind flange connections. Moved in the Class III, 5M BOP equipment, moved in and rigged up the hoist. Rigged up the pump and piping to kill the well.
11/8/2010	Held safety meeting with the Rival Rig crew. Opened the well with 1900 psig pressure on the tubing and the casing. Rigged up and killed the well with 430 bbl brine. Installed the back pressure plug and nipped down the production tree. Nipped up the 5M Class III BOPE and secured the well.
11/9/2010	Opened the well with 0 psig surface pressure on the tubing and the casing with the well standing full of brine. Rigged up the BOP test pump and tested the blind rams to 300 psig low and 5000 psig high for twenty minutes. Tested the pipe rams 300 psig low and 5000 psig high for twenty minutes. Tested the Hydri annular preventer to 300 psig low and 3000 psig high for twenty minutes. Tested the choke manifold and all the control valves to 300 psig low and 5000 psig high. (M Davis DOGGR waived witness of BOPE test) Backed out the hold down studs and unlanded the tubing. Released from the 2-7/8" on/off tool. Pulled out of the well to 3500' for a kill string and secured the well.
11/10/2010	Pulled out of the well and laid down the 2-7/8" production equipment. Made up a 7" HES bridge plug and ran in the well to 7800' and set the bridge plug. Released and tested the bridge plug to 500 psig surface pressure and dumped lineal feet of 10' sand on top. Pulled out of the well to a kill string at 4000' and secured the well.
11/11/2010	Pulled out of the well and laid down the bridge plug retrieving tool. Made up an 8-5/8" casing scraper and ran in the well to the 7" liner top at 4968'. Pulled out of well the and laid down the 8-5/8" casing scraper. Made up a 7" casing scraper and ran in the well to the top of the sand at 7800' and secured the well.
11/12/2010	Rigged up the Tuboscope tubing scan unit. Pulled the 2-7/8" tubing out of well thru the scan unit (256 joints tested yellow band). Rigged down and moved out the Tuboscope scan unit. Ran in the well with the kill string to 2000' and secured the well.
11/15/2010	Pulled out of the well with the 2-7/8" kill string. Rigged up the Schlumberger wireline unit and made up the USIT tools. Ran in the well to 7800' and logged the 7" and the 8-5/8" casing from 7800' to surface. Rigged down and moved out the wire line unit. Made up an HES 8-5/8" test packer and ran in the well to 1670', set packer and tested the 2-7/8" x 8-5/8" annulus to 2700 psig for twenty minutes. Pressure held steady. Released the 8-5/8" test packer and ran in the well to 1720' and set the packer. Tested the 2-7/8" x 8-5/8" annulus to 2700 psig for twenty minutes. Pressure held steady. Released the 8-5/8" test packer and secured the well.
11/16/2010	Ran in the well to 1800' and set the 8-5/8" test packer. Tested the 2-7/8" x 8-5/8" annulus to 2500 psig for twenty minutes. Pressure held steady. Released the test packer and pulled out of the well and laid down the 8-5/8" test packer. Made up (1) jt of 7-3/8" wash pipe, measured and picked up (2) joints of 4-3/4" drill collars. Ran in the well to 1900' for a gauge run. Pulled out of the well laid down the 7-3/8" wash pipe.
11/17/2010	Made up a 7-3/4" mill and (2), 4-3/4" drill collars. Ran in the well to 1690' and tagged. Rigged up the power swivel and cleaned out from 1665' to 1715'. Rigged down the power swivel and pulled out of the well and laid down the mill. Made up a 8-5/8" Homco casing patch and the setting tools. Ran in the well to 1670' and set the Homco patch from 1670' to 1710' and secured the well.
11/18/2010	Pulled out of the well, laid down and loaded out the setting tools and the drill collars. Made up the 7" bridge plug retrieving tool and Ran in the well to 1670' and tagged the patch. Continued in the well to the top of the sand at 7760'. Nipped up the PGSR and reverse circulated the sand out of the hole and latched the 7" bridge plug. Circulated the hole clean and released the 7" bridge plug. Pulled out of the well to 7500' and secured the well.
11/19/2010	Pulled out of the well and laid down the 7" bridge plug. Made up the top half of the 2-7/8" on/off tool, 1 jt 2-7/8" tubing, HES sliding sleeve, 1jt 2-7/8" tubing, GLMA with dummy valve. Ran in the well to 4800' and secured the well.
11/22/2010	Ran in the well to 7833' with the completion string and latched the 2-7/8" on/off tool. Respaced the 2-7/8" completion string in the well. Landed the 2-7/8" tubing in the tubing hanger in 12,000lb compression. Tested the 2-7/8" x 8-5/8" annulus (with casing patch) to 500 psig surface pressure for twenty minutes. Pressure held. Nipped down the Class III 5M BOP and nipped up the production tree.
11/23/2010	Rigged down the Rival Rig and moved out the hoist. Loaded the BOP equipment and rigged down the Rival Rig. Tested the tree to 5000 psig.
11/24/2010	Installed the laterals, cleaned the rig pump, baker tanks and cleaned the location.

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

No. P 210-273

PERMIT TO CONDUCT WELL OPERATIONS

Gas Storage

010 010
(Old) Field Code (New)
00 00
(Old) Area Code (New)
30 30
(Old) Pool Code (New)

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

Ventura, California
November 15, 2010

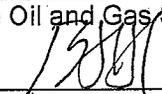
Your proposal to **rework** well "**Porter**" **26C**, A.P.I. No. **037-21353**, Section **28**, T. **3N**, R. **16W**, **S.B. B. & M.**, **Aliso Canyon** Field, **Sesnon-Frew** Pools, **Los Angeles**, County, dated **11/04/10**, received **11/04/10** has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:

1. Blowout prevention equipment, as defined by this Division's publication No. MO7, shall be installed and maintained in operating condition and meet the following minimum requirements: Class III 5M
2. Hole fluid of a quality and in sufficient quantity is used to control all subsurface conditions in order to prevent blowouts.
3. No program changes are made without Division approval.
3. **THIS DIVISION SHALL BE NOTIFIED TO:**
 - a. Inspect the installed blowout prevention equipment prior to commencing downhole operations.

Engineer: Steve Fields

Phone: (805) 654-4761

Elena M. Miller
State Oil and Gas Supervisor
By 
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.



616/00/30

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

FOR DIVISION USE ONLY		
Bond	Forms	
	OGD 114	OGD 121
1000 500	116 ✓	115 ✓

verbal

NOTICE OF INTENTION TO REWORK / REDRILL WELL

Detailed instructions can be found at: www.conservation.ca.gov/dog/ **P210-273**

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to rework / redrill well "Porter" 26C, API No. 037-21353
(Check one)

Sec. 28, T. 3N, R. 28W, S. B B.&M., Aliso Canyon - Storage 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.)

- 13-3/8", 48# K-55 surface casing cemented to surface and set at 801'.
- 8-5/8", 36# K-55/N-80 production casing at 7574' (Cemented with 1084 cu ft, Stage collars @ 1684' and 6586') Window milled: 7574'-7584'.
- 7", 26#, L-80 liner, 4968'-7950' (Cemented with 339 cu ft, 15.6 ppg cement)
- 5-1/2"x4-1/2" 15.5#/11.6# L-80 Liner 7868'-8196' w/4-1/2" 150 micron, expandable screen from 7977'-8168'

GS

The total depth is: 8210 feet.

The effective depth is: 8196 feet.

Present completion zone(s): Frew (Storage)
(Name)

Anticipated completion zone(s): Frew (Storage)
(Name)

Present zone pressure: Varies psi.

Anticipated/existing new zone pressure: Varies psi.

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

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

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

See Attached Program

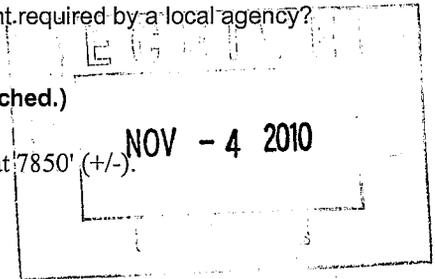
Pull and remove the 2-7/8" tubing string. Install a 7" retrievable bridge plug and sand off at 7850' (+/-).

Pressure test the 8-5/8" x 7" production casing.

Install a new 8-5/8" casing patch at 1684'. Pressure test the production casing/patch.

Remove the 7" retrievable bridge plug.

Run 2-7/8" tubing completion string.



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 9400 Oakdale Ave		City/State Chatsworth, CA	Zip Code 91313
Name of Person Filing Notice Todd Van de Putte	Telephone Number: 818-701-3339	Signature <i>Todd Van de Putte</i>	Date 11-4-10
Individual to contact for technical questions: Todd Van de Putte	Telephone Number: 661-305-5387	E-Mail Address: tvandeputte@semprautilities.com	

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

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

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

CRITICAL WELL DEFINITION

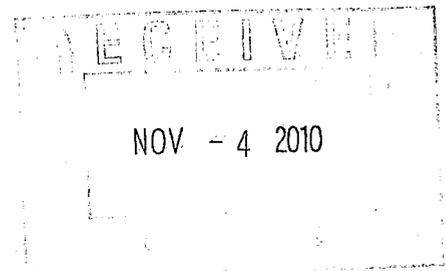
As defined in the California Code of Regulations, Title 14, Section 1720 (a), "Critical well" means a well within:

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

WELL OPERATIONS REQUIRING BONDING

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

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



WORKOVER PROGRAM

Porter 26C – Casing Patch Installation

DATE: November 4, 2010
OPERATOR: Southern California Gas Company
FIELD: Aliso Canyon
WELL: Porter 26C
CONTRACTOR: Rival Well Services
OBJECTIVE: Install a casing patch in the 8-5/8" production casing and re-install the 2-7/8" tubing string.
API NUMBER: 037-21353
ELEVATION: All measurements from the original KB = 12' above GL.

PRESENT WELLBORE CONDITIONS:

0' – 801'	13-3/8"	48#	K-55	Surface casing (cemented to surface with 340 sxs cement)
0' - 5379'	8-5/8"	36#	K-55	Production Casing (cemented with 1084 cu. ft., Stage collars @ 1684'
5380'-7574'	8-5/8"	36#	N-80	and 6586' cemented with 620 cu ft cement) Window Milled 7574'-7584'
4968'- 7950'	7"	26#	L-80	Intermediate Liner (cemented with 339 cu ft, 15.6 ppg cement)
7868'-8196'	5-1/2"x 4-1/2"	15.5#	L-80	Liner (4-1/2" Expandable screen liner, 150 micron, 7977'-8168')

TD= 8210' MD

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

TOP OF ZONES: (S-2): 7947'MD/7543' TVD / (Frew): 8199'MD/7785'TVD

FIELD PRESSURE: 2750 psig (surface)

Notes: BOP requirements in 224.05 should be fully implemented. Class III 5M (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.

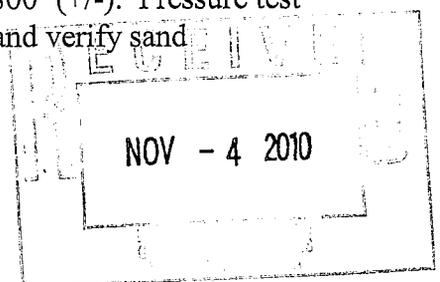
WELL WORK PROGRAM

Pre Rig Work:

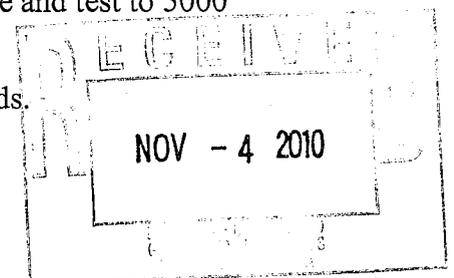
1. De-energize and remove laterals. Install companion flanges for killing well.
2. Move in pump with tank, shaker and mixer. The rig crew to provide the labor for re-killing the well and installing the kill equipment.
3. Spot the 500 bbl Baker tanks and fill with 9.5 ppg KCl or NaCl brine.
 - 3.1. Treat 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. Circulate the well with 9.5 ppg KCl
5. All the annulus valves should be bled of all pressure and standing full of brine before proceeding with the rig work.

Rig Work:

1. Move in the production 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 9" 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 the pipe rams and blind ram to 5000 psig. Test the Annular Preventer to 3500 psig for 15 minutes.
 - 3.2. Perform a low pressure test of the pipe rams, blind rams and annular preventer to 300 psig for 15 minutes.
 - 3.3. Notify the DOGGR prior to the BOPE test and chart both high and low pressure BOP tests.
4. Install a pup joint of 2-7/8" tubing in the 9" x 2-7/8" tubing hanger with a Safety valve in the top. Back out the tubing hanger pins and unland the 2-7/8" tubing string.
5. Release from the 2-7/8" HES On/Off tool at 7822' MD with XN plug in place.
6. Pull out of the well with the 2-7/8" tubing string and top half of the HES On/Off tool and lay down the associated completion equipment.
7. Pick up and run a 7" retrieveable bridge plug to approximately 7800' (+/-). Pressure test the bridge plug to 500 psig. Spot sand on top of the bridge plug and verify sand placement on top of the bridge plug.



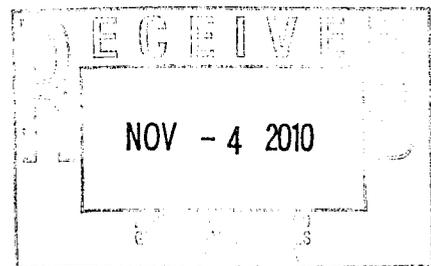
8. Pick up and run a 8-5/8" casing scraper and run in the hole to 4950'(+/-). Pull out of the hole and lay down the 8-5/8" casing scraper. Circulate the hole clean. Run in the hole with a 7" casing scraper to 7800'(+/-). Pull out of the hole and lay down the 7" casing scraper.
9. Pick up an inflatable test packer and pressure test the 8-5/8" casing to 2500 psig surface pressure to verify and locate the casing leak. Note: The 7" x 8-5/8" liner lap was previously tested to 1100 psig surface pressure.
10. If the 8-5/8" production casing does not test, install an 8-5/8" Homco type patch in the production casing at the verified leak location. Install patch per Weatherford's installation recommendation. Pressure test the 8-5/8" casing patch to 500 psig for 15 minutes.
11. Run in the hole with the 2-7/8" workstring and clean out the sand above the 7" bridge plug.
12. Run in the hole and retrieve the 7" bridge plug. Circulate the hole clean. Make sure well is flat with 0 psig wellhead pressure after the 7" bridge plug is removed.
13. Run tubing and accessories as follows and space out as required:
 - 13.1. 1 -2-7/8" HES On/Off tool, top half
 - 13.2. 1 jt- 2-7/8", 6.4#, L-80 tubing
 - 13.3. 1 - 2-7/8" HES, XD Sliding Sleeve
 - 13.4. 1 jt - 2-7/8", 6.4#, L-80 tubing
 - 13.5. 1 jt - 2-7/8" 6.4#, L-80 pup jt.
 - 13.6. 1 - 2-7/8", GLM w/ 1.0" dummy valve
 - 13.7. 1 - 2-7/8", 6.4#, L-80 pup joint
 - 13.8. 122 jts - 2-7/8", 6.4#, L-80 tubing
 - 13.9. 1 - 2-7/8", 6.4#, L-80 pup joint
 - 13.10. 1 - 2-7/8", GLM w/ 1.0" dummy valve
 - 13.11. 138 jts - 2-7/8", 6.4#, L-80 tubing
 - 13.12. 1 - 2-7/8" L-80 pup jts (as required for spacing)
 - 13.13. 1 - 2-7/8" x 9" AJO Tubing Hanger
 - 13.14. Run tubing stretch calculation to verify landing weight.
 - 13.15. Pressure test the tubing/casing annulus to confirm integrity of packer and seals to 500 psig for 10 minutes.
14. Install the BPV and remove the 9", Class III 5M BOPE. Install the tree and test to 5000 psig. Remove the BPV.
15. Clean the pits, the location and properly dispose of any well work fluids.



Post Rig Work:

1. Unload the well and close the sliding sleeve.
2. Retrieve the XN plug from the On/Off tool.
3. Place well on tubing withdrawal to clean up water from completion interval. Clean up the location.

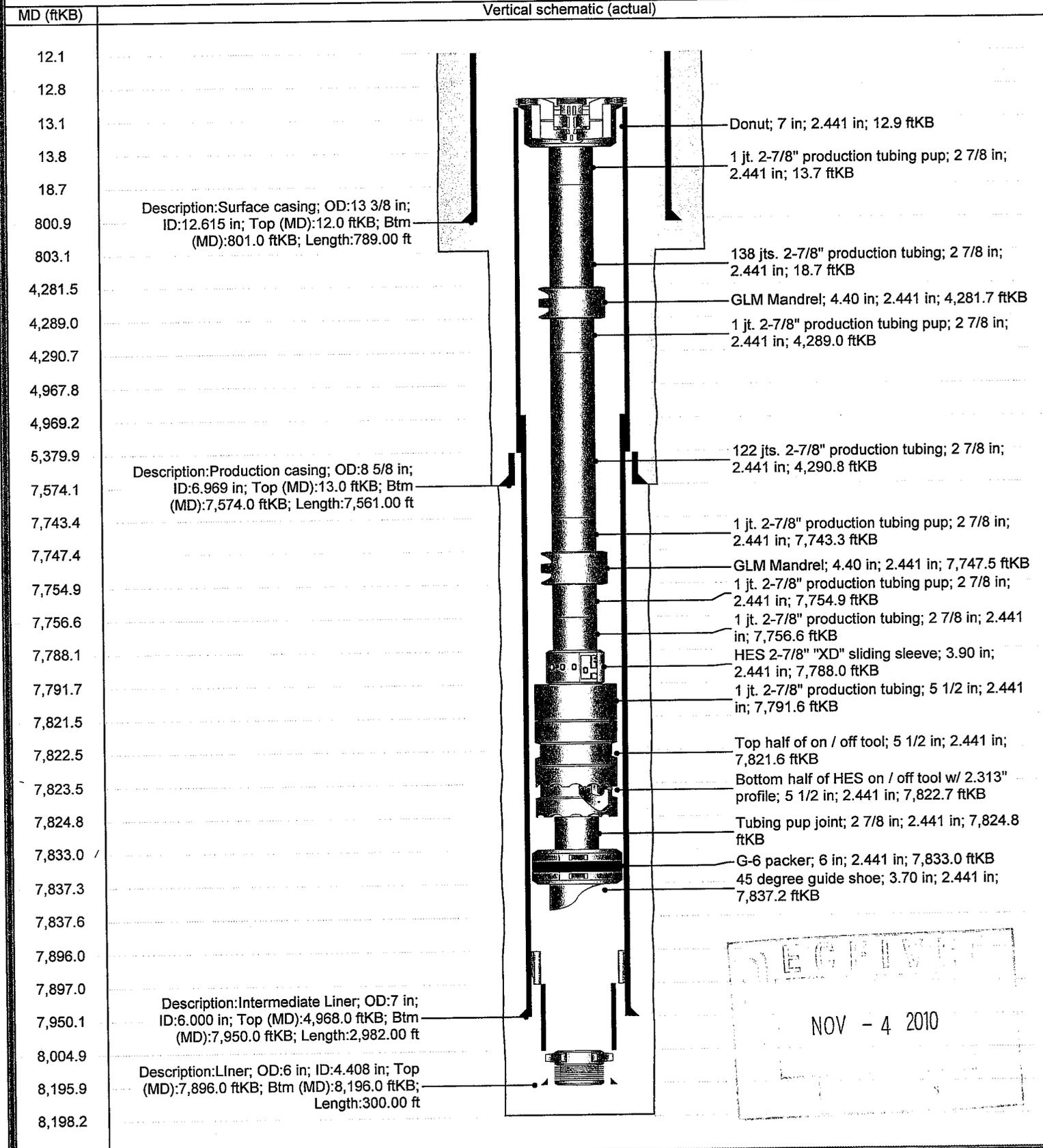
Todd Van de Putte



Gas Company Schematic

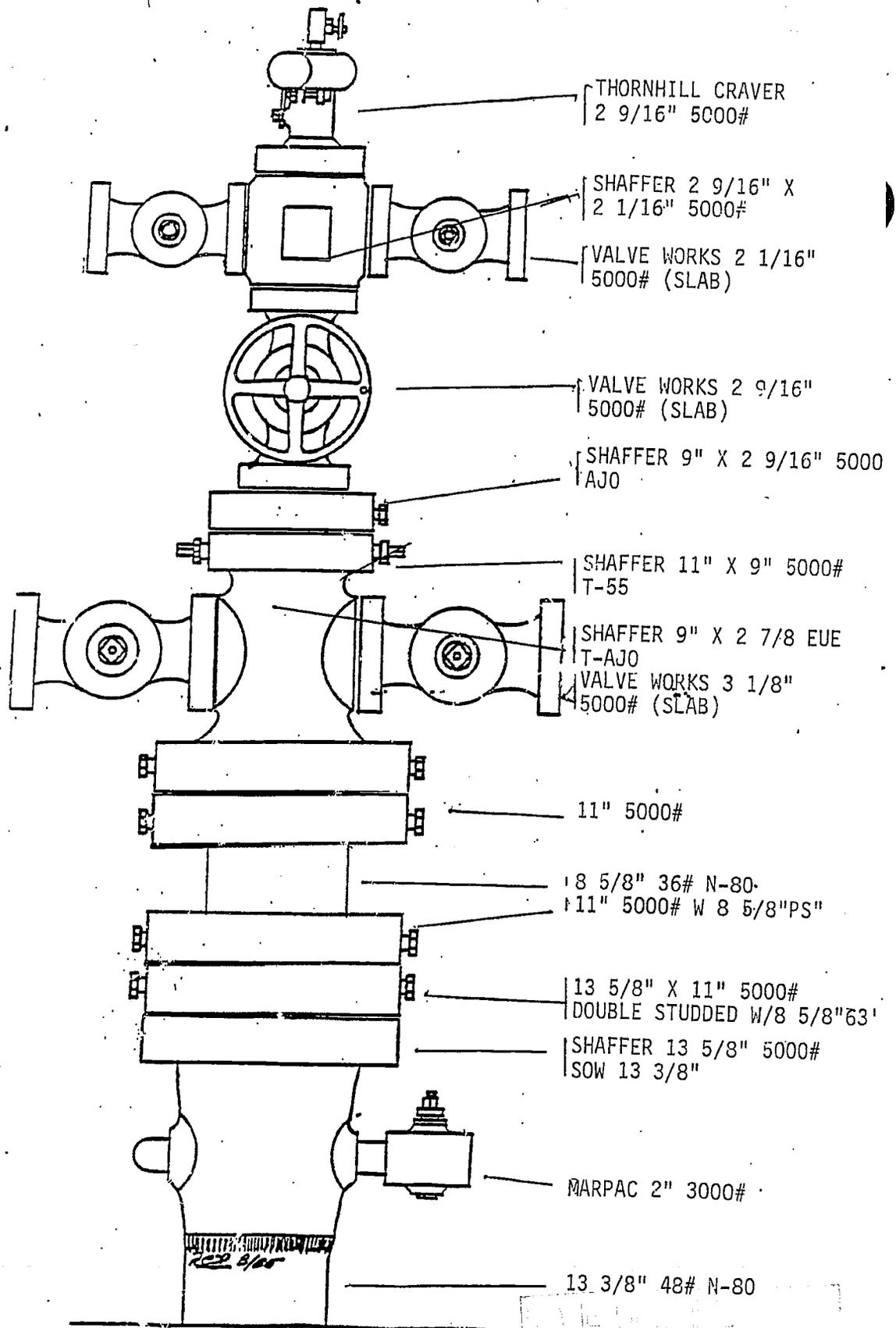
API 03721353	Field Name Aliso Canyon	Operator Southern California Gas Company	County Los Angeles	State California
Ground Elevation (ft)		KB-Ground Distance (ft)	Spud Date	

Main Hole, 11/4/2010 10:30:38 AM



RECEIVED

NOV - 4 2010



WELL NAME PORTER 26-C

MFCR: SHAFFER OIL TOOL

DATE PREPARED: 1/16/06

NOV - 4 2010

PORTER 26-C

WELLHEAD DESCRIPTION
(TYPE IV & VI)

Well No. PORTER 21 Date Prepared 1/16/06
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 K-55
 - B. Casing Head Valve MARPAC Size 2" LP Fig No. _____
2. Seal Flange SHAFFER Size 13 5/8" X 11" 5000# DOUBLE 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 L1
Ring BOTTOM RX-54 & TOP RX-50
Outlets 3 1/8" 5000# Sec. Seal NO SEAL BORED TO 7 7/8"
Valve Removal Thrd 2 1/2" LP
 - A. Tubing Hanger SHAFFER Size 9" X 2 7/8" EUE Type T-55 AJO
B.P.V. Size SHAFFER 2 7/8"
 - B. Tubing Head Valves VALVE WORKS Size 2 1/16" 5000# Fig.No. (SLAB)
 - C. Automatic Csg. Valve N/A Size _____ Fig.No. _____
4. Adapter Seal Flange SHAFFER Size 9" X 2 9/16" 5000# Type AJO
 - 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" 5000#
Bore: Thru 2 9/16" Across 2 1/16"
7. Tubing Wing Valves VALVE WORKS Size 2 1/16" 5000# Fig.No. (SLAB)
 - A. Automatic Tbg. Valve N/A Size _____ Fig.No. _____
8. Unibolt Size 2 9/16" 5000# Inside Thrds 2 7/8" EUE
9. Size Landed in Csg. Head 8 5/8" Wt 36# Grade N-80
10. Size Landed on Doughnut 2 7/8" EUE Wt _____ Grade _____
11. Tubing Head to Ground Level 11 1/4" BELOW GROUND LEVEL

NOV - 4 2010

SOUTHERN CALIF. GAS
 OPERATOR _____
 LSE & NO 2-112-65
 MAP NO. 750

INTENTION	<i>1/1</i>	<i>REWORK 2</i>	<i>alter cog in 36.5</i>	<i>alter cog in 46.5</i>	<i>alter cog in 56.5</i>
NOTICE DATED	<i>2-13-73</i>	<i>6-25-76</i>	<i>1-12-79</i>	<i>-</i>	<i>7-30-80</i>
P-REPORT NUMBER	<i>273-107</i>	<i>276-227</i>	<i>279-54</i>	<i>280-15</i>	<i>280-273</i>
CHECKED BY/DATE					
MAP LETTER DATED	<i>3-3-73 loc</i>	<i>N/C</i>	<i>N/C</i>	<i>N/C</i>	<i>N/C</i>
SYMBOL	<i>⊙ G</i>				

	<i>6-27-76</i>		<i>1-31-79</i>		<i>7-10-80</i>		<i>8-6-80</i>	
	REC'D	NEED	REC'D	NEED	REC'D	NEED	REC'D	NEED
NOTICE								
HISTORY	<i>11-5-73</i>		<i>8-13-76</i>		<i>12-7-79</i>		<i>-</i>	<i>12-8-80</i>
SUMMARY	<i>11-5-73</i>						<i>-</i>	
IES/ELECTRIC LOG	<i>10-27-75</i>						<i>-</i>	
DIRECTIONAL SURV.	<i>9-21-75</i>						<i>-</i>	
CORE/SWS DESCRIP.							<i>-</i>	
DIPMETER RESULTS							<i>-</i>	
OTHER							<i>-</i>	
RECORDS COMPLETE	<i>Ⓢ</i>		<i>Ⓢ</i>		<i>Ⓢ</i>		<i>Ⓢ</i>	<i>JK</i>

ENGINEERING CHECK		CLERICAL CHECK		
T-REPORTS		POSTED TO 121	170 MAILED	FINAL LETTER
OPERATOR'S NAME	<i>7/7</i>	_____	_____	MAILED _____
WELL DESIGNATION	<i>7/7</i>	_____	_____	_____
LOC. & ELEV.	<i>7/7</i>	_____	_____	RELEASE _____
SIGNATURE	<i>7/7</i>	_____	_____	BOND _____
SURFACE INSPECTION	<i>7/7</i>	_____	_____	_____
LINAL LETTER OK	<i>7/7</i>	_____	_____	_____

REMARKS: *has been made 12/27/75 no notes required* *history part 7-4-82*

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 26C
A.P.I. No. 037-21353

Field: Aliso Canyon County: Los Angeles
Surface Location: Sec. 28, T3N, R28W S.B.B.&M.
Mark Kuncir Title: Storage Field Engineer
(President, Secretary, or Agent)

Date: 06/30/2006

Signature: *mk*
(Person Submitting Report)

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

Telephone Number: 818-700-3810

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
04/10/2006	Prepared well site for WO rig.
04/12/2006	RU Spicer W/L. Ran an set 'PXN' plugs in the tbg in wells P26, P26A, P26D and P26E. RD W/L.
04/13/2006	Installed blind flanges on surface lines @ P26C. Removed well cellar handrails and placed steel plates on top of adjacent well cellars. ND prod tree @ P26C and installed tbg hanger w/ valve.
04/14/2006	NU Class III 5M BOPE. Set-in subbase, pit and mud pump. MIRU Key Rig #447 (Manny Armenta, Toolpusher).
04/17/2006	Continued to RU equipment and NU BOP (Ricardo Zamarron, Toolpusher).
04/19/2006	Bled-down tbg and csg pressure and checked for H2S and CO. Changed pipe rams on BOP from 2-7/8" to 3-1/2". PU kelly and swivel. Pressure tested blind rams and 3-1/2" pipe rams - unable to get the DOGGR to witness BOPE test at this time.
04/20/2006	Cont. testing BOPE. Tested 3-1/2" pipe rams to 5000 psi and Hydril to 3500 psi. Installed BPV and tested blind rams to 5000 psi. Tested all surface equipment to 5000 psi (BOPE test witnessed and approved by Mark Davis, DOGGR Inspector). PU retrieving tool and RIH 20' and released the 8-5/8" bridge plug (BP) and POOH. MU 8-5/8" 36# csg scraper, 8-5/8" string mill, 10' 4-3/4" lead collar, 8-5/8" string mill, (6) 4-3/4" drill collars (DCs) and (20) jts 3-1/2" heavy weight drill pipe (HWDP) on 3-1/2" drill pipe (DP) and RIH.
04/21/2006	0 psi on tbg and csg. Cont. MIH w/ 3-1/2" DP. Tagged-down @ 5052' (134 jts). PU kelly and attempted to rotate through a tight spot (dogleg) in the 8 5/8" csg. Stood-back kelly and POOH w/ 3-1/2" DP to 2500'. Mud: 3% KCL.
04/26/2006	Started 24 hour operations. 0 psi on DP and csg. Opened and function tested BOP - OK. Filled well w/ 80 bbls of lease water. POOH w/ scraper and mills. MU 7-3/4" string mill, 10' 4-3/4" lead collar, 7-3/4" string mill, bumper sub (BS), jars, (6) 4-3/4" DCs and (20) jts 3-1/2" HWDP on 3-1/2" DP. RIH and set down @ tight spot in 8-5/8" csg @ 5026'. PU kelly and broke circulation and reamed csg from 5026' to 5161'. Mud: 3% KCL.
04/27/2006	Cont. 24 hr operations. Tagged @ 7740'. POOH and LD milling assembly and stood back HWDP. MU 8-5/8" csg scraper and RIH to 7552'. PU kelly and broke circulation and rotated pipe through the tight spot in 8-5/8" csg. RIH to 7740'. POOH and LD csg scraper. PU 8-5/8" retrievable BP on 3-1/2" DP and RIH. Mud: 3% KCL.
04/28/2006	Cont. 24 hr operations. Set BP @ 5325'. PU kelly and pressure tested backside to 1800 psi for 10 minutes loosing 100 psi. POOH and LD BP. RU Schlumberger W/L. MU 8-5/8" CIBP and collar locator. RIH and set CIBP @ 7597'. RD W/L. RU Scientific Drilling (SDI). PU Weatherford (WEA) 8-5/8" whipstock, (1) jt 3-1/2" DP, MWD, (6) 4-3/4" DCs and (20) jts 3-1/2" HWDP on 3-1/2" DP and RIH slowly to 5050'. Set-down w/ whipstock while GIH. POOH and LD whipstock and MWD tools. MU 7-5/8" string mill, 10' lead collar, 7-5/8" string mill, 4-3/4" DCs and (20) jts 3-1/2" HWDP on 3-1/2" DP. Mud: 3% KCL.
04/29/2006	Cont. 24 hr operations. RIH to 5050'. PU kelly and rotated through 8-5/8" csg and RIH to 7600'. Changed hole over to 8.7 ppg Gel/Pak mud (464 bbls) and POOH w/ 3-1/2" DP. MU 7-5/8" string mill, 7-3/4" string mill, 7-5/8" string mill, 10' 4-3/4" lead collar, 7-5/8" string mill, (6) 4-3/4" DCs and (20) jts 3-1/2" HWDP on 3-1/2" DP. RIH and tagged down @ 5051'. PU kelly and reamed through tight spot in 8-5/8" csg from 5051' to 5136'. RIH w/ milling assembly to 7593' and reverse circulated 112 bbls. POOH w/ DP and LD milling BHA. Mud: 8.7 ppg Gel/Pac, 65 s/qt FV, 8.0 cc/30 min FL, 2% solids.
04/30/2006	Cont. 24 hr operations. PU 8-5/8" whipstock, 7-5/8" starting mill, (1) jt 3-1/2" DP, MWD, (6) 4-3/4" DCs and (20) jts 3-1/2" HWDP on 3-1/2" DP. RIH slowly to 7560' taking 2 to 3 minutes per stand. PU kelly and oriented whipstock and lowered to the whipstock to the setting depth @ 7597' and milled-off lug w/ starting mill. Mud: 8.8 ppg Gel/Pac, 65 s/qt FV, 10.0 cc/30 min FL, 2% solids.
05/01/2006	Cont. 24 hr operations. POOH and stood-back (3) 4-3/4" DCs and LD starting mill. MU window milling BHA consisting of 7-5/8" window mill, 7-5/8" string mill, 5-3/4" bit sub, (1) jt 3-1/2" DP, (3) 4-3/4" DCs and (20) jts 3-1/2" HWDP on 3-1/2" DP and RIH to 7564'. RU kelly and broke circulation (well giving water @ 5 to 10 BPH). POOH and LD window milling BHA. MU 8-5/8" CIBP and RIH and set the BP @ 5110' and POOH w/ 3-1/2" DP. Mud: 8.6 ppg Gel/Pac, 48 s/qt FV, 10.0 cc/30 min FL, 2% solids.

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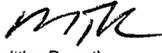
RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

HISTORY OF OIL OR GAS WELL

Operator: Southern California Gas Company
Well: Porter 26C
A.P.I. No. 037-21353

Field: Aliso Canyon
Surface Location: Sec. 28, T3N, R28W S.B.B.&M.
Mark Kuncir
Title: Storage Field Engineer
(President, Secretary, or Agent)

Date: 06/30/2006

Signature: 
(Person Submitting Report)

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

Telephone Number: 818-700-3810

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
05/02/2006	Cont. 24 hr operations. MU 8-5/8" test pkr on 3-1/2" DP. RIH and set pkr @ 4910' and pressure tested the annulus to 1000 psi - held OK. Pumped down 3-1/2" DP @ 1200 psi w/ 8.7 ppg gel mud @ 1.2 BPM to establish injection rate through the hole in 8-5/8" csg. Released pkr and POOH. MU 8-5/8" WEA cmt retainer and RIH and set the retainer @ 4900'. Pressure tested the annulus to 1000 psi - held OK. MIRU Halliburton (HES). Pressure tested lines to 2500 psi. Unstabbed 3-1/2" DP from the cmt retainer and mixed and pumped 10 bbls of water followed by 100 CF (75 sks) of Premium Plus Type III cmt w/ 0.75% Halad 322, 0.3% Super CBL and 1% CC. Stabbed into the retainer and displaced cmt w/ 22 bbls of mud (Est. 42 CF of cmt out hole in 8-5/8" csg). Pulled out of the retainer and reversed 100 bbls and POOH w/ 3-1/2" DP. MU 7-5/8" drill bit, (6) 4-3/4" DCs and (20) jts 3-1/2" HWDP on 3-1/2" DP. RIH to the top of the cmt retainer @ 4900'. Mud: 8.6 ppg Gel/Pac, 46 s/qt FV, 10.0 cc/30 min FL, 2% solids.
05/03/2006	Cont. 24 hr operations. Drilled-out cmt retainer @ 4900' and hard cmt to 5113'. Closed annulus and checked for flow up 3-1/2" DP - no flow. Pressure tested backside to 500 psi for 10 minutes - held OK. Milled-over CIBP @ 5110' and pushed junk downhole to 7574'. Circulated hole clean and POOH and LD bit. Mud: 8.7 ppg Gel/Pac, 49 s/qt FV, 11.0 cc/30 min FL, 2% solids.
05/04/2006	Cont. 24 hr operations. MU 7-5/8" window mill, 7-5/8" watermelon mill, (1) jt 3-1/2" DP, (6) 4-3/4" DCs and (20) jts 3-1/2" HWDP on 3-1/2" DP and RIH to 7574'. PU kelly and circulated hole for 1.75 hrs and then started milling a window through 8-5/8" csg @ 7574' but did not make hole because of junk (retainer and CIBP). POOH and LD 7-5/8" watermelon mill. Ran back in hole to 7573' and resumed milling window in 8-5/8" csg. Mud: 8.7 ppg Gel/Pac, 95 s/qt FV, 7.8 cc/30 min FL, 2% solids.
05/05/2006	Cont. 24 hr operations. Unable to continue milling due to problem w/ Key Rig #447 subbase hydraulic motor. Raised window milling BHA to 7000'. Shutdown rig and closed in well.
05/14/2006	Repaired hydraulics on subbase. Bled DP and csg to 0 psi. Function tested BOPE - OK. RIH w/ window milling assembly and tagged @ 7574'. PU kelly and broke circulation and resumed milling operations. Milled from 7574' to 7575'. POOH to change the window mill. RIH w/ window milling BHA on 3-1/2" DP and tagged @ 7574'. Broke circulation and attempted to mill window. Unable to continue milling because the subbase started to torque-up. Shutdown to repair rig subbase. Mud: 8.6 ppg Gel/Pac, 61 s/qt FV, 8.0 cc/30 min FL, 2% solids.
05/15/2006	Cont. 24 hr operations. PU power swivel. Resumed milling window in 8-5/8" csg @ 7574' but unable to continue due to junk in hole. RD power swivel and POOH. MU 6-1/8" bit, (3) 4-3/4" DCs and (10) stands of 3-1/2" HWDP on 3-1/2" DP and RIH. PU power swivel and circulated for 1.5 hrs. Mud: 8.6 ppg Gel/Pac, 61 s/qt FV, 8.0 cc/30 min FL, 2% solids.
05/16/2006	Cont. 24 hr operations. POOH w/ window milling BHA. MU 6-1/8" bit, (3) 4-3/4" DCs and (10) stands of 3-1/2" HWDP on 3-1/2" DP. RIH and milled junk to the top of the whipstock and circulated the hole clean for 2.0 hrs. RD power swivel and POOH and LD 6-1/8" bit. RIH w/ 3-1/2" DP open-ended to 7573' and reversed hole clean. Mud: 8.6 ppg Gel/Pac, 66 s/qt FV, 8.4 cc/30 min FL, 2% solids.
05/17/2006	Cont. 24 hour operations. Tagged the whipstock @ 7574' w/ 3-1/2" DP. Circulated for 1.0 hr and POOH. MU 7-5/8" window mill, 7-5/8" watermelon mill, (1) jt 3-1/2" DP and (6) 4-3/4" DCs on 3-1/2" DP. RIH to the top of the whipstock @ 7574'. PU power swivel and resumed milling operations (unable to mill because the power swivel would not provide enough torque). Shutdown rig and secured well. Planned to restart operations after the subbase motor is repaired properly. Mud: 8.65 ppg Gel/Pac, 43 s/qt FV, 10.4 cc/30 min FL, 2% solids.
05/18/2006	Shutdown for rig repairs.
05/19/2006	Repaired subbase. 0 psi on DP and csg. Function tested BOPE - OK. RIH w/ milling assembly on 3-1/2" DP and tagged the whipstock @ 7574'. Milled window in 8-5/8" csg from 7574' to 7585'. Drilled ahead to 7594' and circulated the well clean for 3 hrs. POOH w/ 3-1/2" DP and LD mills. MU 7-5/8" bit, 5-3/8" bit sub, 7-1/2" stabilizer, 4-11/16" MM, 7-1/2" stabilizer, MWD tools, 4-5/8" X-over, 4-11/16" NMDC, (4) jts 3-1/2" HWDP, 4-3/4" jars and (16) jts 3-1/2" HWDP on 3-1/2" DP. Mud: 8.6 ppg Gel/Pac, 73 s/qt FV, 9.6 cc/30 min FL, 2% solids.
05/20/2006	Resumed 24 hr operations. RIH to the top of the window @ 7573' and broke circulation. Directionally drilled 7-5/8" hole from 7594' to 7610'. POOH to change BHA. Mud: 8.65 ppg Gel/Pac, 78 s/qt FV, 8.8 cc/30 min FL, 2% solids.

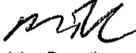
RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

HISTORY OF OIL OR GAS WELL

Operator: Southern California Gas Company
Well: Porter 26C
A.P.I. No. 037-21353

Field: Aliso Canyon
Surface Location: Sec. 28, T3N, R28W S.B.B.&M.
Mark Kuncir
Title: Storage Field Engineer
(President, Secretary, or Agent)

Date: 06/30/2006

Signature: 
(Person Submitting Report)

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

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Start Date	Ops. DOGGR Rpt
05/21/2006	Cont. 24 hr operations. MU 7-5/8" bit, watermelon mill, (6) 4-3/4" DCs and (20) 3-1/2" HWDP on 3-1/2" DP and RIH to 7575' but could not get through the window. POOH and found part of the bottom cone of a Pengo patch wrapped around the mill (fish). Broke out the 7-5/8" bit. MU 7-5/8" window mill, 7-5/8" watermelon mill, (6) 4-3/4" DCs and (20) jts 3-1/2" HWDP on 3-1/2" DP. RIH to 7575' and milled down to 7604'. POOH and LD mills. MU 7-5/8" bit, 5-3/8" bit sub, MM, 5-5/8" X-over, MWD tools, (3) jts 3-1/2" HWDP, 4-3/4" jars and (17) jts 3-1/2" HWDP on 3-1/2" DP. RIH to 7610' and directionally drilled 7-5/8" hole to 7630'. Mud: 8.65 ppg Gel/Pac, 78 s/qt FV, 8.8 cc/30 min FL, 2% solids.
05/22/2006	Cont. 24 hr operations. Directionally drilled 7-5/8" hole from 7630' to 7818'. Made wiper trip to window @ 7585'. Mud: 8.65 ppg Gel/Pac, 85 s/qt FV, 7.6 cc/30 min FL, 2% solids.
05/23/2006	Cont. 24 hour operations. RIH to 7818' and then POOH w/ 5 stands. RU SDI W/L. RIH w/ 3-1/2" DP and tagged 4' above drilled depth. RU kelly and circulated wellbore. Held 5 minute H&S meeting. Ran gyro-survey to 7818' which showed that the new wellbore was approximately 6' from the abandoned wellbore (too close). RD W/L. POOH w/ 3-1/2" DP and stood-back directional drilling BHA. RIH w/ 3-1/2" DP open-ended to 7757'. MIRU HES cementers. Mud: 8.8 ppg Gel/Pac, 56 s/qt FV, 7.8 cc/30 min FL, 2% solids.
05/24/2006	Cont. 24 hr operations. Held H&S meeting. Pressure tested surface lines to 2500 psi. Mixed and pumped 109 CF of Class 'G' cmt w/ 35% SSA, 1.5% microlite and 0.75% CFR-3 and displaced w/ 58 bbls of mud. CIP @ 12:30 AM. POOH to 7100' and circulated 110 bbls w/ no cmt returns. POOH w/ 3-1/2" DP. WOC. MU 7-5/8" bit, (6) 4-3/4" DCs and (20) jts 3-1/2" HWDP on 3-1/2" DP and RIH to TOC @ 7750'. PU kelly and cleaned out cmt from 7559' to 7585'. Started to POOH w/ 3-1/2" DP and stopped to change-out drilling line. Cont. POOH w/ 3-1/2" DP and stood back (3) 4-3/4" DCs and broke out 7-5/8" bit. MU new 7-5/8" bit, 5-3/8" bit sub, 7-1/2" stabilizer, MM, 7-1/2" stabilizer, MWD tools, 4-5/8" X-over, 4-11/16" NMDC, (3) jts 3-1/2" HWDP, 4-3/4" jars and (17) jts 3-1/2" HWDP on 3-1/2" DP. RIH and tagged @ 7580'. PU kelly and attempted to break circulation. Shutdown for 4 hrs to service mud pump. Mud: 8.75 ppg Gel/Pac, 55 s/qt FV, 8.4 cc/30 min FL, 3% solids.
05/25/2006	Cont. 24 hr operations. Directionally drilled 7-5/8" hole from 7580' to 7590' @ 1.0-ft/hr ROP. Mud: 8.8 ppg Gel/Pac, 56 s/qt FV, 8.4 cc/30 min FL, 3.5% solids.
05/26/2006	Cont. 24 hr operations. Directionally drilled 7-5/8" hole from 7590' to 7640' @ 2.0-ft/hr ROP. Mud: 8.9 ppg Gel/Pac, 48 s/qt FV, 8.9 cc/30 min FL, 4% solids.
05/27/2006	Cont. 24 hr operations. RU SDI W/L. Ran gyro-survey to 7640'. RD W/L. Directionally drilled 7-5/8" hole from 7640' to 7688'. Held H&S meeting. POOH w/ 3-1/2" DP to change drill bit. RIH w/ new 7-5/8" bit and same BHA to 7688'. Mud: 8.9 ppg Gel/Pac, 48 s/qt FV, 8.9 cc/30 min FL, 4% solids.
05/28/2006	Cont. 24 hr operations. Directionally drilled 7-5/8" hole from 7688' to 7748'. RU SDI W/L and ran gyro-survey. RD W/L. Drilled ahead to 7811'. Mud: 9.0 ppg Gel/Pac, 55 s/qt FV, 7.4 cc/30 min FL, 4.5% solids.
05/29/2006	Cont. 24 hr operations. Directionally drilled 7-5/8" hole from 7811' to 7938'. Held H&S meeting. RU SDI W/L and ran gyro-survey. RD W/L. Mud: 9.0 ppg Gel/Pac, 62 s/qt FV, 8.0 cc/30 min FL, 4.5% solids.
05/30/2006	Cont. 24 hr operations. Directionally drilled 7-5/8" hole ahead to 7955'. Held H&S meeting. RU SDI W/L and ran gyro-survey. RD W/L. POOH and LD directional BHA. MU 7-5/8" window mill, 7-5/8" watermelon mill, (6) 4-3/4" DCs, and (20) jts 3-1/2" HWDP on 3-1/2" DP. RIH to top of window @ 7573' and reamed hole to 7593'. Circulated the well clean and POOH and LD mills. MU 7-5/8" x 10" underreamer, 4-5/8" bit sub, 4-3/4" shock sub, (6) 4-3/4" DCs, (2) jts 3-1/2" HWDP, 4-3/4" jars and (18) jts 3-1/2" HWDP on 3-1/2" DP. Mud: 9.10 ppg Gel/Pac, 58 s/qt FV, 7.8 cc/30 min FL, 5% solids.
05/31/2006	Cont. 24 hr operations. RIH w/ hole opener to the top of window @ 7573' and broke circulation. Passed through the window @ 7573' and opened hole section to 10" from the window to 7850'. Mud: 9.1 ppg Gel/Pac, 49 s/qt FV, 7.4 cc/30 min FL, 5% solids.
06/01/2006	Cont. 24 hr operations. Opened hole to 10" from 7850' to 7955'. Circulated the hole clean and POOH and LD hole opener. PU (2) jts of 7" washpipe, (6) 4-3/4" DCs, (2) jts 3-1/2" HWDP, 4-3/4" jars and (18) jts 3-1/2" HWDP on 3-1/2" DP. RIH to 7955' (no fill). Mud: 9.1 ppg Gel/Pac, 48 s/qt FV, 7.8 cc/30 min FL, 5% solids.

HISTORY OF OIL OR GAS WELL

Operator: Southern California Gas Company

Field: Aliso Canyon

County: Los Angeles

Well: Porter 26C

Surface Location: Sec. 28, T3N, R28W S.B.B.&M.

A.P.I. No. 037-21353

Mark Kuncir

Title: Storage Field Engineer

(President, Secretary, or Agent)

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Signature: 

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Start Date	Ops. DOGGR Rpt
06/02/2006	Cont. 24 hr operations. POOH and LD 7" washpipe. RU WEA csg tongs and Jam unit. MU 7" float shoe and float collar and PU (57) jts 7" 26# L80 SFL csg crossed-over to 10 jts of 7" 26# L80 Hydril 511 csg on top. MU 7" x 8-5/8" liner hanger and running tools on 3-1/2" DP and RIH to 4968' filling the DP every 15 stands. Set liner hanger @ 4968' w/ csg shoe @ 7950'. MIRU HES. Held H&S meeting. MU cementing head and pressure tested surface lines to 4000 psi. Circulated and conditioned mud. Mixed and pumped 30 bbls of Mud Flush followed by 20 bbl dual spacer and 339 CF (213 sks) of 15.6 ppg Class 'G' cement w/ 35% SSA, 1.3% KCL, 0.8% Halad-322, 0.25% Halad-344, 0.25% Halad-413, 0.5% D-AIR 3000L and 0.25 % Super CBL. Shutdown and dropped DP dart and pumped 5.0 bbl water spacer behind cmt and displaced cmt w/ drilling mud (143 bbls). Bumped plug @ 1600 psi. CIP @ 6:58 PM. Released 3-1/2" DP and running tools from liner hanger and raised DP to 4350' and reversed 60 bbls w/ no cmt returns to surface. POOH and LD liner running tools. Mud: 9.2 ppg Gel/Pac, 44 s/qt FV, 7.8 cc/30 min FL, 6% solids.
06/03/2006	Cont. 24 hr operations. MU 7-5/8" bit and 8-5/8" csg scraper, (3) 4-3/4" DCs, BS and (10) stands 3-1/2" HWDP on 3-1/2" DP. RIH and tagged TOC @ 4647'. Drilled out cmt from 4647' to the top of the 7" csg @ 4968' and circulated clean. Pressured tested the liner lap to 1100 psi for 20 minutes (pressure test witnessed and approved by Mark Davis, DOGGR Inspector). POOH and LD 7-5/8" bit and scraper. MU 6-1/8" bit and 7" csg scraper and BS on 3-1/2" tbg. RIH to the liner top and drilled out cmt from inside the 7" csg to the top of the float collar @ 7940'. Pressure tested the float collar to 500 psi - OK. Mud: 9.2 ppg Gel/Pac, 46 s/qt FV, 9.8 cc/30 min FL, 6% solids.
06/04/2006	Cont. 24 hr operations. Changed the hole over to 9.4 ppg Flo Pro mud and cleaned the mud pits. Hauled used drilling mud to well MA-1A. RU SDI W/L. Ran gyro survey from 7940' to surface. RD W/L. POOH and LD 6-1/8" bit and 7" csg scraper. RU Schlumberger W/L. RIH w/ CBL tool and logged 7" csg from 7940' to 4968'. RD W/L. Mud: 9.4 ppg Flo Pro, 55 s/qt FV, 4.2 cc/30 min FL, 7% solids.
06/05/2006	Cont. 24 hr operations. MU 6-1/8" bit, 6-1/8" near-bit stabilizer, (1) 4-3/4" DC, 6-1/8" stabilizer, (5) 4-3/4" DCs, 4-3/4" jars and (20) jts 3-1/2" HWDP on 3-1/2" DP and RIH to 7000'. Closed well in and secured rig. Suspended operations.
06/09/2006	Bled down DP and csg. Checked for H2S and CO - OK. Function tested BOPE - OK. RIH w/ 3-1/2" DP to 7950' and broke circulation. POOH w/ 3-1/2" DP and broke out BHA. Measured and PU (50) 4-1/8" DCs. Mud: 9.4 ppg Flo Pro, 56 s/qt FV, 4.2 cc/30 min FL, 7% solids.
06/10/2006	Resumed 24 hr operations. MU 6-1/8" bit, 6-1/8" near-bit stabilizer, (1) 4-3/4" DC, 6-1/8" stabilizer, (5) 4-3/4" DCs and 10 stands 3-1/2" HWDP on 3-1/2" DP. RIH to 7950' and broke circulation and drilled out the 7" csg shoe @ 7950' and drilled ahead to 8210'. Circulated wellbore clean and wiped hole to 7" csg shoe. Ran back in hole to 8210' (no fill). Circulated and conditioned mud. Mud: 9.4 ppg Flo Pro, 47 s/qt FV, 4.2 cc/30 min FL, 7% solids.
06/11/2006	Cont. 24 hr operations. POOH w/ 3-1/2" DP and stood back BHA. Held H&S meeting. MIRU Schlumberger W/L. RIH w/ six-arm caliper tool and logged 6-1/8" hole from 8210' to 7950'. RD W/L. MU 6-1/8" bit, 6-1/8" near-bit stabilizer, (1) 4-3/4" DC, 6-1/8" stabilizer, (5) 4-3/4" DCs and (20) jts 3-1/2" HWDP on 3-1/2" DP and RIH to 8210' (no fill). Circulated well clean. Sheared Solids Free Flo-Pro system in tanks. Mud: 9.4 ppg Flo Pro, 50 s/qt FV, 5.0 cc/30 min FL, 7% solids.
06/12/2006	Cont. 24 hr operations. Continued circulating Solids Free Flo-Pro system through shear chamber. RIH w/ 3-1/2" DP to 8210' to check for fill (no fill). Changed the hole over to Solids Free Flo-Pro by pumping 80 bbls @ 3 BPM. Raised 3-1/2" DP to 7" csg shoe @ 7950' and changed-over the remainder of the hole to Solids Free Flo-Pro. Cleaned-up mud pits and circulated well and sheared mud for PST test. Mud: 9.1 ppg Solids Free Flo-Pro, 38 s/qt FV, 16.8 cc/30 min FL, tr solids.

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County: Los Angeles

Well: Porter 26C

Surface Location: Sec. 28, T3N, R28W S.B.B.&M.

A.P.I. No. 037-21353

Mark Kuncir

Title: Storage Field Engineer

(President, Secretary, or Agent)

Date: 06/30/2006

Signature: 

(Person Submitting Report)

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

Telephone Number: 818-700-3810

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
06/13/2006	<p>Cont. 24 hr operations. Continued to shear mud for PST. POOH and LD BHA. Held H&S meeting. MIRU WEA. MU Expandable Sand Screen (ESS) liner, hanger and running tool and (20) jts 3-1/2" HWDP on 3 1/2" DP and RIH. Mud: 9.1 ppg Solids Free Flo-Pro, 36 s/qt FV, 18.8 cc/30 min FL, tr solids.</p> <p>KB @ 12'. 7868.15' (7.260') 7" x 5 1/2" EXP Hanger; 7875.41' (19.850') 5 1/2" 15.5# FJL; 7895.26' (39.760') 5 1/2" 15.5# FJL; 7935.02' (39.780') 5 1/2" 15.5# FJL; 7974.80' (2.680') ESS ETC (X-over); 7977.48' (37.740') 4 1/2" ESS (150 micron); 8015.22' (37.740') 4 1/2" ESS; 8052.96' (37.740') 4 1/2" ESS; 8090.70' (37.740') 4 1/2" ESS; 8128.44' (37.740') 4 1/2" ESS; 8166.18' (20.040') 4 1/2" ESS; 8186.22' (9.800') 4 1/2" ESS EBC; 8196.02' (0.980') 4 1/2" ESS Bullnose; TD @ 8210'.</p>
06/14/2006	<p>Cont. 24 hr operations. Cont. RIH w/ ESS liner filling the DP every 3 stands. Landed liner @ 8197' and dropped 1-3/4" ball down the DP. RU WEA test truck and pressured-up the 3-1/2" DP to set the liner hanger @ 7868'. PU and rotated the DP to the right to release the running tool. RD WEA testing unit and POOH w/ 3-1/2" DP and LD running tools. MU ACE ESS expansion tool, 2-7/8" IF Box x 2-7/8" Rg Pin X-over, 4-5/8" straight-blade centralizer, 4-1/8" pony DC, 4-5/8" straight-blade centralizer, (50) 4-1/8" 39.7# DCs, 3-1/2" IF Box x 2-7/8" IF Pin X-over and 4-3/4" circulating sub on 3-1/2" DP. RIH to the top of the ESS @ 7977' and expanded the liner from 7997' to 8197'. POOH w/ expansion tool and 3-1/2" DP. Mud: 9.1 ppg Solids Free Flo-Pro, 36 s/qt FV, 18.8 cc/30 min FL, tr solids.</p>
06/15/2006	<p>Cont. 24 hr operations. LD 3-1/2" DP, 3-1/2" HWDP, 4-3/4" DCs, (50) 4-1/8" DCs and ESS expansion tools. LD kelly and swivel and changed pipe rams in BOP from 3-1/2" to 2-7/8". PU and RIH w/ (12) jts 2-3/8" Hydril tbg crossed-over to 253 jts of 2-7/8" 6.4# L-80 EU 8rd tbg. Mud: 9.1 ppg Solids Free Flo-Pro, 37 s/qt FV, 18.6 cc/30 min FL, tr solids.</p>
06/16/2006	<p>Cont. 24 hr operations. Tagged bottom of ESS liner @ 8178' and raised tbg to 8154'. RU and pumped 10 bbls high vis "lead spacer", 20 bbls low vis "turbulent flow spacer", 10 bbls high vis "tail spacer" followed by 20 bbls of breaker fluid and displaced breaker system w/ 44 bbls of Solids Free Flo-Pro spotted across the liner. POOH and LD 2-3/8" Hydril tbg. MU 7" HES G-6 pkr, 6' 2-7/8" pup jt and On/Off tool w/ X-profile nipple fitted w/ 'PXN' plug and RIH. Set pkr @ 7833' and release from On/Off tool. Pressure tested the pkr to 500 psi for 10 minutes - OK. POOH w/ top section of On/Off tool and 2-7/8" tbg.</p>

HISTORY OF OIL OR GAS WELL

Operator: Southern California Gas Company

Field: Aliso Canyon

County: Los Angeles

Well: Porter 26C

Surface Location: Sec. 28, T3N, R28W S.B.B.&M.

A.P.I. No. 037-21353

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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.

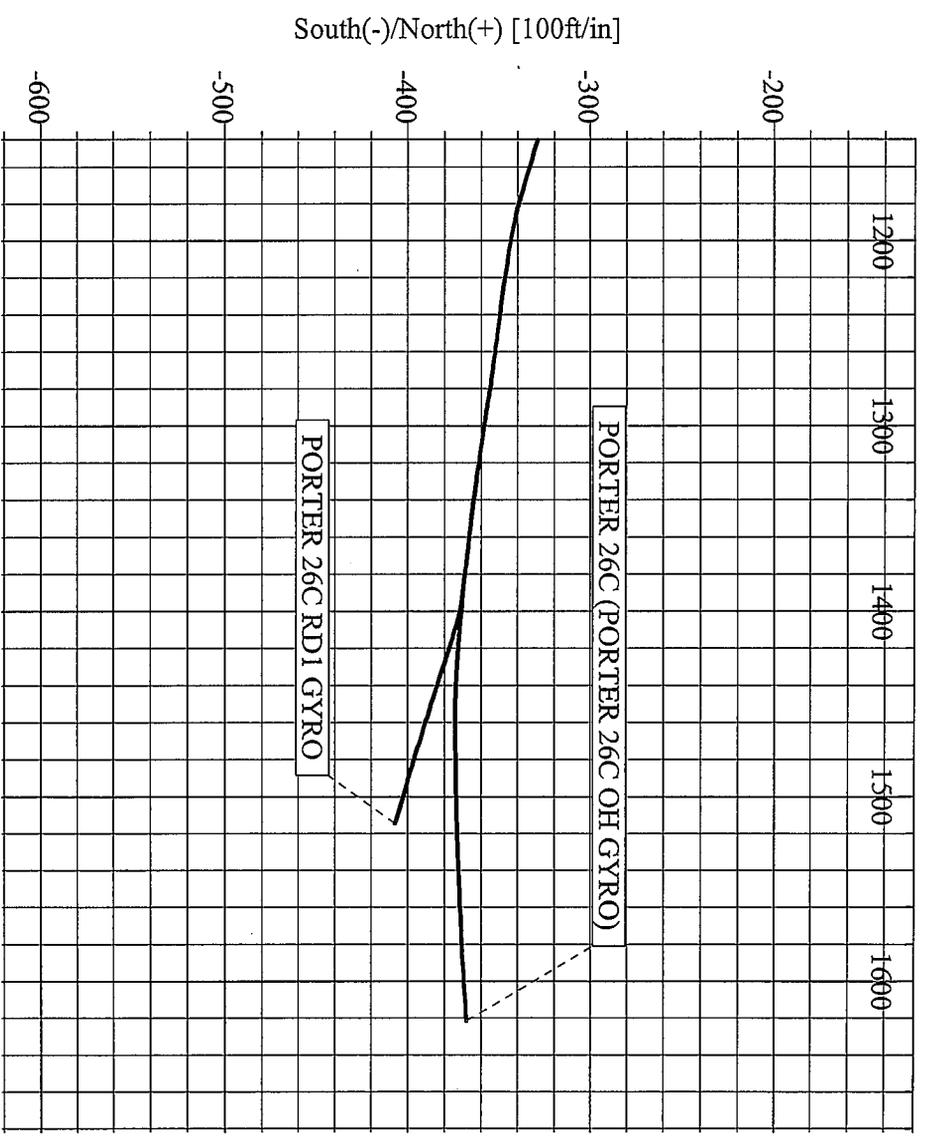
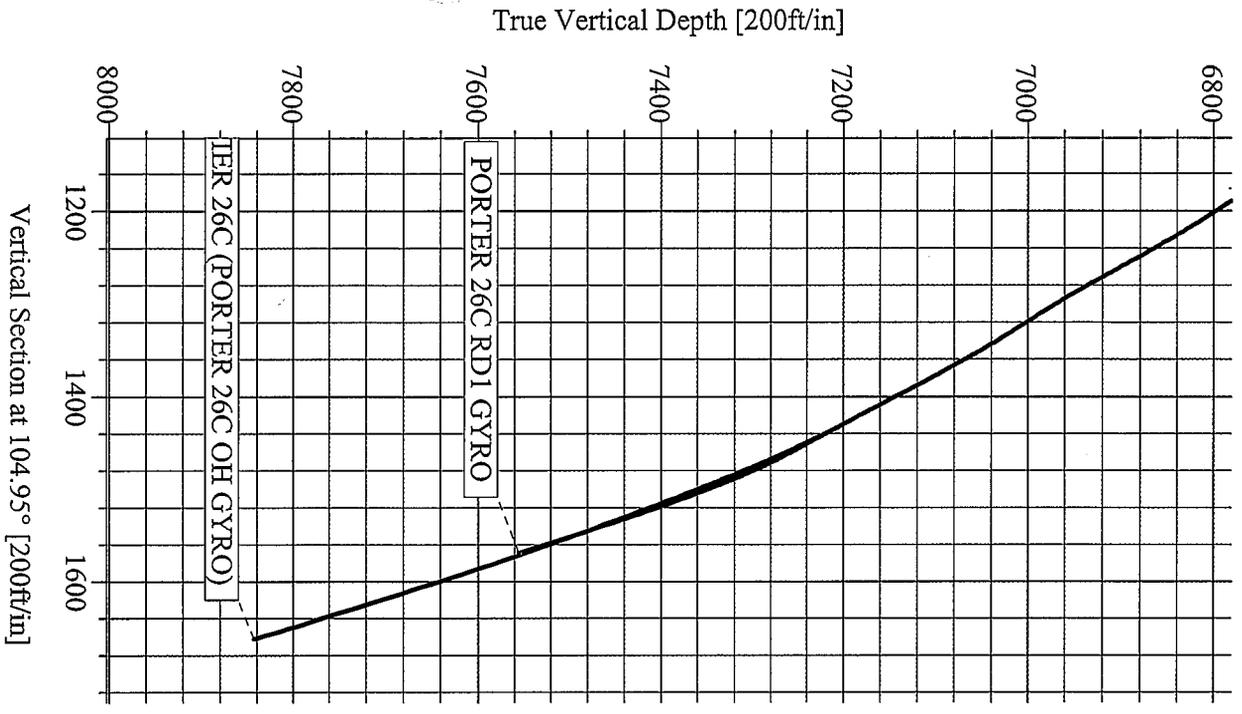
Start Date	Ops. DOGGR Rpt
06/17/2006	<p>Cont. 24 hr operations. MU top half of On/Off tool, (1) jt 2-7/8" tbg, HES 'XD' SSD, (1) jt 2-7/8" tbg, 2-7/8" GLM w/ 1" dummy valve in place, (112) jts 2-7/8" 6.4# L-80 tbg, 2-7/8" GLM w/ 1" dummy valve and (138) jts 2-7/8" 6.4# L-80 tbg and RIH. Spaced out tbg and MU hanger and landed the tbg in 12,000# compression. Pulled over 10,000# to verify that the On/Off tool was latched. Pressure tested annulus to 500 psi for 20 minutes - OK. RU PPS slickline unit. RIH to 7789' and shifted the SSD open. RD W/L. Changed the well over to 3% KCL. Shutdown and closed in the well. End of 24 hr operations.</p> <p>KB @ 12'</p> <p>14.10' (0.75') Donut; 14.85' (4263.69') 138 jts 2-7/8" 6.4# L80 EUE 8rd tbg (2.441"); 4278.54' (7.39') 2-7/8" GLM w/ 1.0" dummy valve; 4290.10' (1.71') 2-7/8" 6.4# L80 EUE 8rd pup jt (2.441"); 4291.81' (3452.53') 122 jts 2-7/8" 6.4# L80 EUE 8rd tbg (2.441"); 7744.34' (4.20') 2-7/8" 6.4# L80 EUE 8rd pup jt (2.441"); 7748.54' (7.39') 2-7/8" GLM w/ 1.0" dummy valve; 7755.93' (1.72') 2-7/8" 6.4# L80 EUE 8rd pup jt (2.441"); 7757.65' (31.36') 1jt 2-7/8" 6.4# L80 EUE 8rd tbg (2.441"); 7789.01' (3.60') 2-7/8" HES 'XD' SSD; 7792.61' (30.04') 1jt 2-7/8" 6.4# L80 EUE 8rd tbg (2.441"); 7822.65' (2.20') 2-7/8" HES On/Off tool w/ 2.313" 'XN' No-Go; 7824.85' (8.15') 2-7/8" 6.4# L80 EUE 8rd pup jt (2.441"); 7833.00' (4.15') 7" HES G-6 22-26# pkr (2.441"); 7837.15' (0.38') 45 degree guide shoe. BHA = 7837.53'</p>
06/19/2006	0 psi on tbg and csg. RD equipment and working floor. Removed subbase. ND Class III BOPE. NU prod tree. RD mast.
06/20/2006	RDMO hoist.
06/21/2006	Cleaned-up location. Pumped 400 bbls of water @ FF 30 using mud pump.
06/22/2006	Loaded out mud pump, pit and subbase.

FINAL PLOT

Field: ALISO CANYON NAD 83
 Site: ALISO CANYON
 Well: PORTER 26C
 Wellpath: PORTER 26C OH GYRO
 Survey: PORTER 26C OH GYRO

WELLPATH DETAILS
 PORTER 26C RD1 GYRO
 Rig: CO. RIG
 Ref. Datum: PORTER 26C
 V. Section Angle: 104.95°
 Origin +N/S: 0.00
 Origin +E/W: 0.00
 Starting From TVD: 7785.00

Azimuths to Grid North
 True North: 0.31°
 Magnetic North: 13.53°
 Magnetic Field Strength: 48019nT
 Dip Angle: 59.09°
 Date: 5/30/2006
 Model: igrt2005



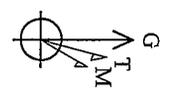
RECEIVED
 JUL - 3 2006
 PORTER 26C OH GYRO
 Vertical Section A

FINAL PLOT

Field: ALISO CANYON NAD 83
 Site: ALISO CANYON
 Well: PORTER 26C
 Wellpath: PORTER 26C OH GYRO
 Survey: PORTER 26C OH GYRO

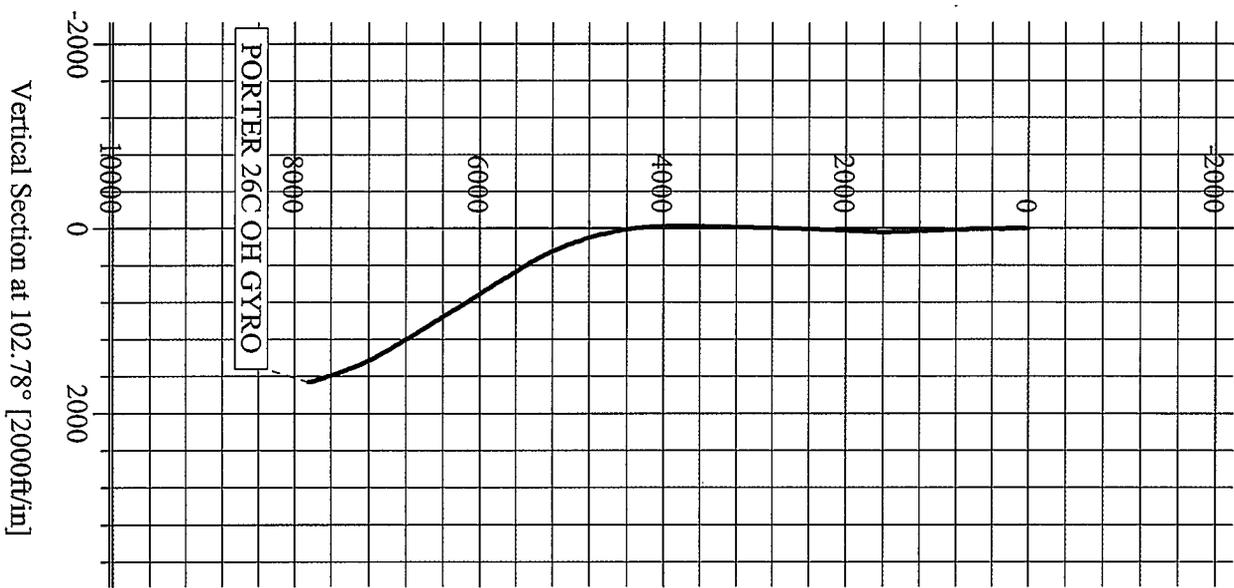
WELLPATH DETAILS

Ref. Datum:	CO. RIG	Starting From TVD
V. Section Angle	PORTER 26C	2517.00ft
102.78°	0.00	0.00
Origin +N/-S	Origin +E/W	0.00



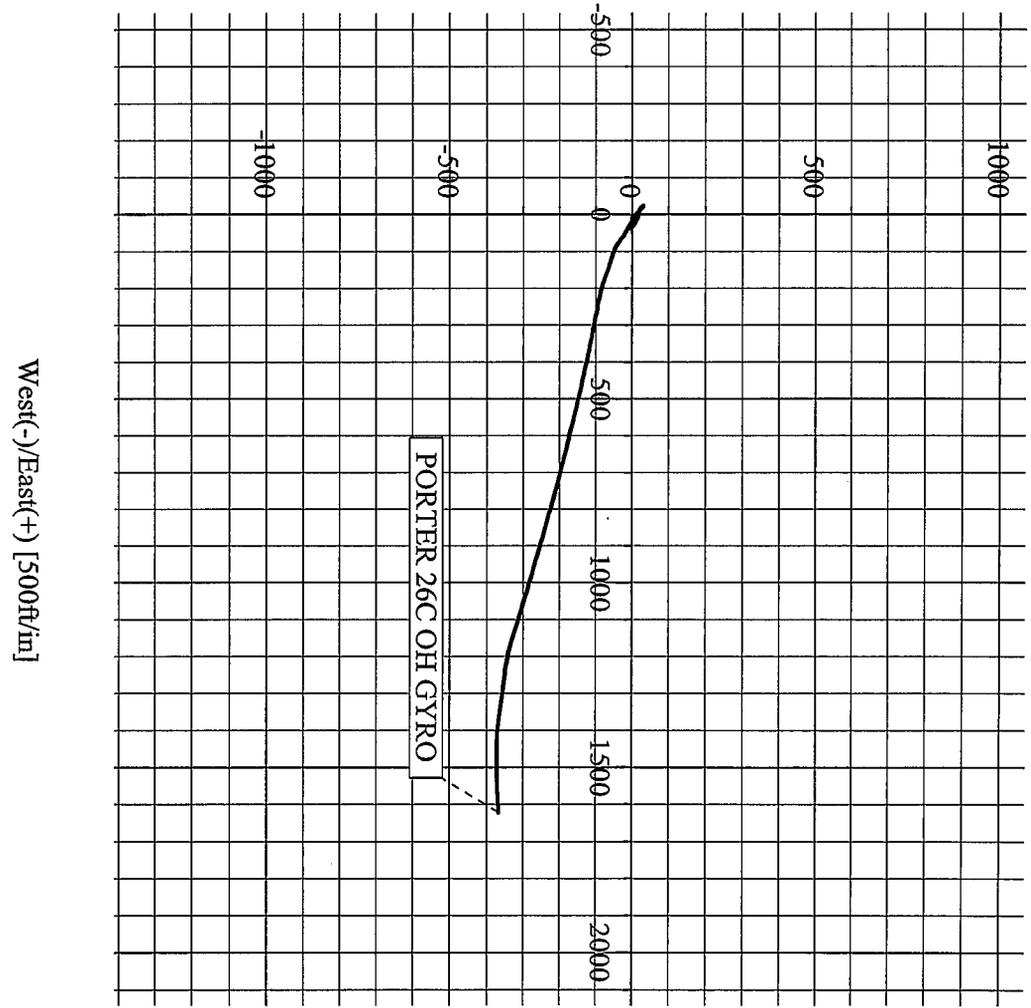
Azimuths to Grid North
 True North: 0.31°
 Magnetic North: 13.53°
 Magnetic Field Strength: 48019nT
 Dip Angle: 59.09°
 Date: 5/30/2006
 Model: igrT2005

True Vertical Depth [2000ft/in]



Vertical Section at 102.78° [2000ft/in]

South(-)/North(+) [500ft/in]



West(-)/East(+) [500ft/in]



Scientific Drilling
 West Coast Operations



Scientific Drilling FINAL REPORT



Company: THE GAS COMPANY	Date: 5/30/2006	Time: 14:56:38	Page: 1
Field: ALISO CANYON NAD 83	Co-ordinate(NE) Reference: Well: PORTER 26C, Grid North		
Site: ALISO CANYON	Vertical (TVD) Reference: PORTER 26C 2517.0		
Well: PORTER 26C	Section (VS) Reference: Well (0.00N,0.00E,104.95Azi)		
Wellpath: PORTER 26C RD1 GYRO	Survey Calculation Method: Minimum Curvature	Db: Sybase	

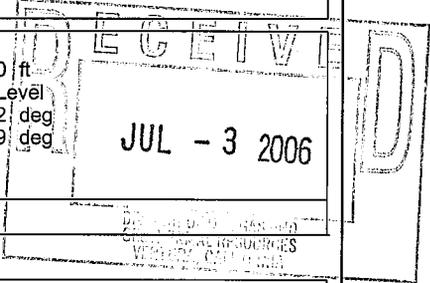
Survey: PORTER 26C RD1 GYRO GYRO MS TO 7560', GYRO SS BELOW	Start Date: 5/30/2006
Company: Scientific Drilling	Engineer: CHRIS CIERLEY
Tool: Keeper;Keeper Gyro	Tied-to: From Surface

Field: ALISO CANYON NAD 83 ALISO CANYON CALIFORNIA	Map Zone: California, Zone V
Map System: US State Plane Coordinate System 1983	Coordinate System: Well Centre
Geo Datum: GRS 1980	Geomagnetic Model: igrf2005
Sys Datum: Mean Sea Level	

Site: ALISO CANYON CALIFORNIA, U.S.A. ALISO CANYON	
Site Position: Northing: 1937000.00 ft	Latitude: 34 18 49.216 N
From: Map Easting: 6394000.00 ft	Longitude: 118 33 19.065 W
Position Uncertainty: 0.00 ft	North Reference: Grid
Ground Level: 0.00 ft	Grid Convergence: -0.31 deg

Well: PORTER 26C SUR. N 1937747.50, E 6393406.42 ARCH.	Slot Name:
Well Position: +N/-S 747.50 ft	Latitude: 34 18 56.578 N
+E/-W -593.58 ft	Longitude: 118 33 26.191 W
Position Uncertainty: 0.00 ft	

Wellpath: PORTER 26C RD1 GYRO	Drilled From: Surface	
Current Datum: PORTER 26C	Tie-on Depth: 0.00 ft	
Magnetic Data: 5/30/2006	Above System Datum: Mean Sea Level	
Field Strength: 48019 nT	Declination: 13.22 deg	
Vertical Section: Depth From (TVD)	Mag Dip Angle: 59.09 deg	
ft	+N/-W	Direction
	ft	deg
7785.00	0.00	104.95



Survey

Stn	CLen ft	MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	ClsD ft	ClsA deg
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	25.00	25.00	0.20	64.55	25.00	0.03	0.02	0.04	0.80	0.80	0.00	0.04	64.55
3	25.00	50.00	0.39	64.55	50.00	0.13	0.07	0.16	0.76	0.76	0.00	0.17	64.55
4	25.00	75.00	0.59	64.55	75.00	0.29	0.17	0.35	0.80	0.80	0.00	0.39	64.55
5	25.00	100.00	0.78	64.55	100.00	0.52	0.29	0.62	0.76	0.76	0.00	0.69	64.55
6	25.00	125.00	0.84	82.30	124.99	0.82	0.39	0.95	1.03	0.24	71.00	1.03	67.66
7	25.00	150.00	0.82	71.18	149.99	1.14	0.47	1.30	0.65	-0.08	-44.48	1.39	70.02
8	25.00	175.00	0.91	80.40	174.99	1.47	0.57	1.67	0.66	0.36	36.88	1.76	71.30
9	25.00	200.00	1.06	83.32	199.99	1.86	0.63	2.10	0.63	0.60	11.68	2.19	73.39
10	25.00	225.00	1.13	76.11	224.98	2.29	0.71	2.56	0.62	0.28	-28.84	2.66	74.50
11	25.00	250.00	1.15	78.70	249.98	2.73	0.82	3.05	0.22	0.08	10.36	3.16	74.96
12	25.00	275.00	1.11	80.08	274.97	3.18	0.91	3.53	0.19	-0.16	5.52	3.65	75.55
13	25.00	300.00	1.08	85.42	299.97	3.62	0.97	4.01	0.43	-0.12	21.36	4.12	76.38
14	25.00	325.00	0.92	88.45	324.96	4.04	1.00	4.44	0.67	-0.64	12.12	4.55	77.37
15	25.00	350.00	0.77	99.85	349.96	4.40	0.97	4.81	0.90	-0.60	45.60	4.91	78.57
16	25.00	375.00	0.71	101.53	374.96	4.72	0.91	5.13	0.26	-0.24	6.72	5.21	79.91
17	25.00	400.00	1.00	117.57	399.95	5.09	0.78	5.47	1.49	1.16	64.16	5.53	81.88
18	25.00	425.00	1.18	115.54	424.95	5.55	0.57	5.90	0.74	0.72	-8.12	5.92	84.50
19	25.00	450.00	1.15	109.19	449.95	6.05	0.37	6.37	0.53	-0.12	-25.40	6.38	86.63
20	25.00	475.00	1.11	106.71	474.94	6.55	0.22	6.84	0.25	-0.16	-9.92	6.84	88.13
21	25.00	500.00	1.10	103.93	499.94	7.03	0.10	7.30	0.22	-0.04	-11.12	7.30	89.25
22	25.00	525.00	1.13	103.89	524.93	7.51	-0.02	7.77	0.12	0.12	-0.16	7.77	90.16
23	25.00	550.00	1.03	102.80	549.93	7.99	-0.13	8.23	0.41	-0.40	-4.36	8.23	90.91
24	25.00	575.00	0.95	103.33	574.92	8.42	-0.23	8.65	0.32	-0.32	2.12	8.65	91.51

Scientific Drilling FINAL REPORT

Company: THE GAS COMPANY	Date: 5/30/2006	Time: 14:56:38	Page: 2
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Site: ALISO CANYON	Vertical (TVD) Reference:	PORTER 26C 2517.0	
Well: PORTER 26C	Section (VS) Reference:	Well (0.00N,0.00E,104.95Azi)	
Wellpath: PORTER 26C RD1 GYRO	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Survey

Stn	CLen ft	MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	ClsD ft	ClsA deg
25	25.00	600.00	0.88	107.91	599.92	8.82	-0.33	9.04	0.40	-0.28	18.32	9.04	92.12
26	25.00	625.00	0.85	107.12	624.92	9.19	-0.45	9.40	0.13	-0.12	-3.16	9.41	92.73
27	25.00	650.00	0.83	105.03	649.91	9.56	-0.55	9.75	0.15	-0.08	-8.36	9.76	93.23
28	25.00	675.00	0.82	102.40	674.91	9.92	-0.64	10.10	0.16	-0.04	-10.52	10.12	93.60
29	25.00	700.00	0.92	100.37	699.91	10.30	-0.71	10.47	0.42	0.40	-8.12	10.49	93.88
30	25.00	725.00	1.05	97.35	724.90	10.73	-0.78	10.89	0.56	0.52	-12.08	10.92	94.07
31	25.00	750.00	1.21	93.33	749.90	11.21	-0.82	11.38	0.71	0.64	-16.08	11.41	94.12
32	25.00	775.00	1.41	91.24	774.89	11.77	-0.84	11.96	0.82	0.80	-8.36	11.99	94.03
33	25.00	800.00	1.58	86.48	799.89	12.39	-0.83	12.61	0.84	0.68	-19.04	12.63	93.76
34	25.00	825.00	1.56	87.12	824.88	13.05	-0.79	13.29	0.11	-0.08	2.56	13.31	93.40
35	25.00	850.00	1.66	85.53	849.87	13.71	-0.74	13.99	0.44	0.40	-6.36	14.01	93.04
36	25.00	875.00	1.78	84.06	874.85	14.41	-0.68	14.74	0.51	0.48	-5.88	14.75	92.62
37	25.00	900.00	1.91	84.43	899.84	15.17	-0.59	15.54	0.52	0.52	1.48	15.55	92.19
38	25.00	925.00	1.90	82.21	924.83	15.94	-0.50	16.37	0.30	-0.04	-8.88	16.37	91.74
39	25.00	950.00	1.95	87.76	949.81	16.73	-0.43	17.20	0.77	0.20	22.20	17.21	91.42
40	25.00	975.00	2.09	89.36	974.80	17.57	-0.40	18.08	0.60	0.56	6.40	18.09	91.28
41	25.00	1000.00	2.10	88.54	999.78	18.45	-0.39	19.00	0.13	0.04	-3.28	19.00	91.17
42	25.00	1025.00	2.13	97.19	1024.76	19.35	-0.43	19.91	1.28	0.12	34.60	19.92	91.25
43	25.00	1050.00	2.07	95.03	1049.75	20.26	-0.53	20.83	0.40	-0.24	-8.64	20.83	91.46
44	25.00	1075.00	2.12	96.45	1074.73	21.16	-0.62	21.73	0.29	0.20	5.68	21.74	91.64
45	25.00	1100.00	2.34	97.03	1099.71	22.12	-0.74	22.70	0.88	0.88	2.32	22.71	91.86
46	25.00	1125.00	2.29	93.07	1124.69	23.12	-0.83	23.71	0.67	-0.20	-15.84	23.72	92.00
47	25.00	1150.00	2.29	91.93	1149.67	24.09	-0.87	24.70	0.18	0.00	-4.56	24.72	92.02
48	25.00	1175.00	2.06	90.32	1174.65	25.01	-0.89	25.65	0.95	-0.92	-6.44	25.67	91.99
49	25.00	1200.00	1.97	94.25	1199.64	25.87	-0.92	26.53	0.66	-0.36	15.72	26.55	91.99
50	25.00	1225.00	1.79	95.52	1224.62	26.68	-0.99	27.35	0.74	-0.72	5.08	27.37	92.08
51	25.00	1250.00	1.75	95.92	1249.61	27.44	-1.07	28.12	0.17	-0.16	1.60	28.14	92.18
52	25.00	1275.00	1.82	98.82	1274.60	28.21	-1.17	28.89	0.46	0.28	11.60	28.91	92.32
53	25.00	1300.00	1.81	100.05	1299.59	29.00	-1.30	29.67	0.16	-0.04	4.92	29.70	92.51
54	25.00	1325.00	1.87	100.82	1324.58	29.80	-1.45	30.46	0.26	0.24	3.08	30.49	92.72
55	25.00	1350.00	2.04	103.56	1349.56	30.65	-1.63	31.29	0.78	0.68	10.96	31.33	92.98
56	25.00	1375.00	2.09	99.63	1374.54	31.55	-1.81	32.17	0.60	0.20	-15.72	32.22	93.21
57	25.00	1400.00	2.04	102.14	1399.53	32.45	-1.98	33.06	0.41	-0.20	10.04	33.12	93.42
58	25.00	1425.00	1.85	99.57	1424.51	33.30	-2.14	33.89	0.84	-0.76	-10.28	33.96	93.61
59	25.00	1450.00	1.74	101.64	1449.50	34.08	-2.28	34.66	0.51	-0.44	8.28	34.74	93.77
60	25.00	1475.00	1.80	112.05	1474.49	34.84	-2.51	35.40	1.31	0.24	41.64	35.48	94.05
61	25.00	1500.00	1.83	115.65	1499.48	35.63	-2.83	36.12	0.47	0.12	14.40	36.23	94.47
62	25.00	1525.00	1.95	114.49	1524.46	36.44	-3.17	36.87	0.50	0.48	-4.64	37.00	94.92
63	25.00	1550.00	1.84	111.84	1549.45	37.26	-3.50	37.63	0.56	-0.44	-10.60	37.79	95.31
64	25.00	1575.00	0.58	89.63	1574.44	37.78	-3.65	38.13	5.29	-5.04	-88.84	38.30	95.47
65	25.00	1600.00	1.25	306.37	1599.44	37.64	-3.49	38.03	7.00	2.68	-573.04	38.19	95.24
66	25.00	1625.00	1.49	299.45	1624.44	37.08	-3.16	37.53	1.16	0.96	-27.68	37.66	94.82
67	25.00	1650.00	1.73	300.81	1649.43	36.40	-2.81	36.92	0.97	0.96	5.44	37.03	94.35
68	25.00	1675.00	1.85	301.47	1674.41	35.65	-2.41	36.25	0.49	0.48	2.64	36.33	93.80
69	25.00	1700.00	2.18	306.04	1699.40	34.82	-1.92	35.53	1.47	1.32	18.28	35.58	93.09
70	25.00	1725.00	2.54	306.57	1724.38	33.86	-1.31	34.70	1.44	1.44	2.12	34.72	92.16
71	25.00	1750.00	2.67	308.05	1749.35	32.81	-0.62	33.79	0.59	0.52	5.92	33.80	91.05
72	25.00	1775.00	2.78	307.97	1774.32	31.72	0.11	32.86	0.44	0.44	-0.32	32.86	89.80
73	25.00	1800.00	2.93	308.26	1799.29	30.57	0.88	31.88	0.60	0.60	1.16	31.89	88.41
74	25.00	1825.00	2.96	305.57	1824.26	29.38	1.65	30.85	0.57	0.12	-10.76	30.89	86.93
75	25.00	1850.00	2.91	303.69	1849.23	28.17	2.38	29.80	0.43	-0.20	-7.52	29.89	85.43
76	25.00	1875.00	2.71	303.70	1874.20	27.01	3.06	28.78	0.80	-0.80	0.04	28.94	83.93



Scientific Drilling FINAL REPORT



Company: THE GAS COMPANY
Field: ALISO CANYON NAD 83
Site: ALISO CANYON
Well: PORTER 26C
Wellpath: PORTER 26C RD1 GYRO

Date: 5/30/2006 **Time:** 14:56:38 **Page:** 3
Co-ordinate(NE) Reference: Well: PORTER 26C, Grid North
Vertical (TVD) Reference: PORTER 26C 2517.0
Section (VS) Reference: Well (0.00N,0.00E,104.95Azi)
Survey Calculation Method: Minimum Curvature **Db:** Sybase

Survey

Stn	CLen ft	MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	ClsD ft	ClsA deg
77	25.00	1900.00	2.74	305.65	1899.17	25.90	3.74	27.80	0.39	0.12	7.80	28.05	82.34
78	25.00	1925.00	2.78	305.00	1924.14	24.77	4.43	26.82	0.20	0.16	-2.60	27.18	80.61
79	25.00	1950.00	2.83	304.46	1949.11	23.62	5.13	25.81	0.23	0.20	-2.16	26.32	78.76
80	25.00	1975.00	2.95	304.72	1974.08	22.43	5.85	24.77	0.48	0.48	1.04	25.45	76.72
81	25.00	2000.00	3.13	303.26	1999.04	21.18	6.59	23.68	0.78	0.72	-5.84	24.57	74.45
82	25.00	2025.00	3.08	299.90	2024.00	19.88	7.30	22.52	0.75	-0.20	-13.44	23.67	72.05
83	25.00	2050.00	2.92	298.57	2048.97	18.61	7.93	21.38	0.70	-0.64	-5.32	22.81	69.64
84	25.00	2075.00	2.63	298.96	2073.94	17.44	8.52	20.32	1.16	-1.16	1.56	22.03	67.26
85	25.00	2100.00	2.56	299.99	2098.92	16.34	9.07	19.33	0.34	-0.28	4.12	21.36	64.86
86	25.00	2125.00	2.45	301.97	2123.89	15.29	9.64	18.40	0.56	-0.44	7.92	20.77	62.36
87	25.00	2150.00	2.32	302.97	2148.87	14.30	10.19	17.52	0.55	-0.52	4.00	20.27	59.81
88	25.00	2175.00	2.39	305.04	2173.85	13.33	10.77	16.67	0.44	0.28	8.28	19.84	57.13
89	25.00	2200.00	2.27	303.12	2198.83	12.37	11.34	15.83	0.57	-0.48	-7.68	19.47	54.38
90	25.00	2225.00	2.22	304.81	2223.81	11.44	11.89	15.01	0.33	-0.20	6.76	19.15	51.63
91	25.00	2250.00	2.28	302.11	2248.79	10.51	12.43	14.20	0.49	0.24	-10.80	18.87	48.80
92	25.00	2275.00	2.25	297.94	2273.77	9.56	12.92	13.34	0.67	-0.12	-16.68	18.57	45.92
93	25.00	2300.00	2.01	295.65	2298.75	8.65	13.34	12.51	1.02	-0.96	-9.16	18.29	43.17
94	25.00	2325.00	1.75	294.03	2323.74	7.84	13.69	11.77	1.06	-1.04	-6.48	18.05	40.69
95	25.00	2350.00	1.74	296.28	2348.73	7.09	14.01	11.08	0.28	-0.04	9.00	17.86	38.34
96	25.00	2375.00	1.76	298.68	2373.72	6.35	14.36	10.40	0.30	0.08	9.60	17.73	35.92
97	25.00	2400.00	1.87	299.72	2398.70	5.58	14.75	9.71	0.46	0.44	4.16	17.66	33.36
98	25.00	2425.00	1.90	298.90	2423.69	4.78	15.15	8.99	0.16	0.12	-3.28	17.62	30.70
99	25.00	2450.00	1.96	297.64	2448.68	3.96	15.55	8.25	0.29	0.24	-5.04	17.60	27.96
100	25.00	2475.00	1.91	291.53	2473.66	3.13	15.90	7.49	0.85	-0.20	-24.44	17.57	25.21
101	25.00	2500.00	1.80	286.55	2498.65	2.33	16.16	6.72	0.78	-0.44	-19.92	17.51	22.58
102	25.00	2525.00	1.74	286.55	2523.64	1.55	16.38	5.98	0.24	-0.24	0.00	17.44	20.06
103	25.00	2550.00	1.47	281.64	2548.63	0.85	16.56	5.30	1.21	-1.08	-19.64	17.39	17.76
104	25.00	2575.00	1.46	282.90	2573.62	0.22	16.69	4.68	0.13	-0.04	5.04	17.34	15.66
105	25.00	2600.00	1.44	286.28	2598.61	-0.42	16.85	4.07	0.35	-0.08	13.52	17.34	13.57
106	25.00	2625.00	1.44	288.63	2623.60	-1.04	17.04	3.47	0.24	0.00	9.40	17.39	11.50
107	25.00	2650.00	1.45	291.54	2648.59	-1.67	17.26	2.88	0.30	0.04	11.64	17.50	9.46
108	25.00	2675.00	1.49	294.71	2673.59	-2.31	17.51	2.29	0.36	0.16	12.68	17.66	7.44
109	25.00	2700.00	1.58	293.55	2698.58	-2.97	17.78	1.68	0.38	0.36	-4.64	17.86	5.38
110	25.00	2725.00	1.64	288.66	2723.57	-3.67	18.04	1.02	0.60	0.24	-19.56	18.06	3.24
111	25.00	2750.00	1.66	285.36	2748.56	-4.38	18.25	0.33	0.39	0.08	-13.20	18.25	1.05
112	25.00	2775.00	1.60	277.94	2773.55	-5.09	18.39	-0.36	0.88	-0.24	-29.68	18.39	358.87
113	25.00	2800.00	1.56	274.34	2798.54	-5.77	18.46	-1.05	0.43	-0.16	-14.40	18.49	356.75
114	25.00	2825.00	1.45	270.83	2823.53	-6.42	18.49	-1.70	0.57	-0.44	-14.04	18.57	354.74
115	25.00	2850.00	1.39	272.78	2848.52	-7.02	18.51	-2.32	0.31	-0.24	7.80	18.66	352.85
116	25.00	2875.00	1.31	271.07	2873.51	-7.59	18.53	-2.91	0.36	-0.32	-6.84	18.76	351.08
117	25.00	2900.00	1.32	277.32	2898.51	-8.15	18.58	-3.48	0.57	0.04	25.00	18.90	349.38
118	25.00	2925.00	1.43	281.56	2923.50	-8.75	18.67	-4.07	0.60	0.44	16.96	19.11	347.70
119	25.00	2950.00	1.55	280.57	2948.49	-9.40	18.80	-4.71	0.49	0.48	-3.96	19.38	345.93
120	25.00	2975.00	1.63	275.30	2973.48	-10.09	18.89	-5.40	0.67	0.32	-21.08	19.65	344.06
121	25.00	3000.00	1.60	271.97	2998.47	-10.78	18.94	-6.10	0.39	-0.12	-13.32	19.90	342.15
122	25.00	3025.00	1.61	272.16	3023.46	-11.46	18.96	-6.80	0.05	0.04	0.76	20.15	340.27
123	25.00	3050.00	1.55	275.20	3048.45	-12.14	19.01	-7.49	0.41	-0.24	12.16	20.43	338.50
124	25.00	3075.00	1.43	276.69	3073.44	-12.78	19.07	-8.13	0.50	-0.48	5.96	20.74	336.91
125	25.00	3100.00	1.43	281.27	3098.44	-13.40	19.17	-8.75	0.46	0.00	18.32	21.07	335.47
126	25.00	3125.00	1.42	287.67	3123.43	-14.02	19.33	-9.35	0.64	-0.04	25.60	21.47	334.18
127	25.00	3150.00	1.46	292.51	3148.42	-14.64	19.54	-9.94	0.51	0.16	19.36	21.93	333.04
128	25.00	3175.00	1.55	294.79	3173.41	-15.29	19.81	-10.54	0.43	0.36	9.12	22.44	331.98
129	25.00	3200.00	1.56	295.61	3198.40	-15.96	20.10	-11.16	0.10	0.04	3.28	22.98	330.96

Scientific Drilling FINAL REPORT

Company: THE GAS COMPANY
Field: ALISO CANYON NAD 83
Site: ALISO CANYON
Well: PORTER 26C
Wellpath: PORTER 26C RD1 GYRO

Date: 5/30/2006 Time: 14:56:38 Page: 4
Co-ordinate(N/E) Reference: Well: PORTER 26C, Grid North
Vertical (TVD) Reference: PORTER 26C 2517.0
Section (VS) Reference: Well (0.00N,0.00E,104.95Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey

Stn	CLen ft	MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	ClsD ft	ClsA deg
130	25.00	3225.00	1.56	296.42	3223.39	-16.63	20.39	-11.77	0.09	0.00	3.24	23.55	330.02
131	25.00	3250.00	1.60	295.42	3248.38	-17.31	20.70	-12.39	0.19	0.16	-4.00	24.12	329.10
132	25.00	3275.00	1.54	293.38	3273.38	-17.98	20.98	-13.01	0.33	-0.24	-8.16	24.69	328.19
133	25.00	3300.00	1.55	291.78	3298.37	-18.65	21.24	-13.63	0.18	0.04	-6.40	25.24	327.30
134	25.00	3325.00	1.48	290.08	3323.36	-19.31	21.47	-14.25	0.33	-0.28	-6.80	25.77	326.43
135	25.00	3350.00	1.42	293.53	3348.35	-19.93	21.71	-14.84	0.42	-0.24	13.80	26.29	325.65
136	25.00	3375.00	1.35	298.15	3373.34	-20.53	21.97	-15.38	0.53	-0.28	18.48	26.82	325.01
137	25.00	3400.00	1.33	302.90	3398.34	-21.09	22.27	-15.88	0.45	-0.08	19.00	27.35	324.50
138	25.00	3425.00	1.43	310.82	3423.33	-21.65	22.63	-16.36	0.86	0.40	31.68	27.93	324.13
139	25.00	3450.00	1.55	310.98	3448.32	-22.23	23.05	-16.86	0.48	0.48	0.64	28.56	323.83
140	25.00	3475.00	1.67	312.54	3473.31	-22.86	23.52	-17.38	0.51	0.48	6.24	29.25	323.54
141	25.00	3500.00	1.72	314.26	3498.30	-23.51	24.03	-17.92	0.29	0.20	6.88	29.97	323.29
142	25.00	3525.00	1.67	312.70	3523.29	-24.16	24.54	-18.45	0.27	-0.20	-6.24	30.70	323.06
143	25.00	3550.00	1.67	312.75	3548.28	-24.80	25.03	-18.99	0.01	0.00	0.20	31.42	322.82
144	25.00	3575.00	1.73	313.36	3573.27	-25.46	25.54	-19.53	0.25	0.24	2.44	32.15	322.60
145	25.00	3600.00	1.71	309.58	3598.26	-26.13	26.04	-20.09	0.46	-0.08	-15.12	32.89	322.34
146	25.00	3625.00	1.75	307.58	3623.24	-26.82	26.51	-20.68	0.29	0.16	-8.00	33.62	322.04
147	25.00	3650.00	1.85	307.23	3648.23	-27.54	26.98	-21.31	0.40	0.40	-1.40	34.38	321.71
148	25.00	3675.00	1.86	305.88	3673.22	-28.30	27.47	-21.96	0.18	0.04	-5.40	35.16	321.36
149	25.00	3700.00	1.94	305.84	3698.20	-29.07	27.95	-22.63	0.32	0.32	-0.16	35.96	321.01
150	25.00	3725.00	1.97	308.22	3723.19	-29.86	28.47	-23.31	0.35	0.12	9.52	36.79	320.69
151	25.00	3750.00	1.52	327.20	3748.18	-30.50	29.01	-23.82	2.91	-1.80	75.92	37.54	320.61
152	25.00	3775.00	1.08	349.40	3773.17	-30.85	29.52	-24.05	2.64	-1.76	88.80	38.08	320.83
153	25.00	3800.00	0.87	0.56	3798.17	-31.00	29.94	-24.09	1.13	-0.84	44.64	38.43	321.18
154	25.00	3825.00	0.34	35.62	3823.17	-31.02	30.19	-24.04	2.49	-2.12	140.24	38.60	321.47
155	25.00	3850.00	0.89	135.47	3848.17	-30.82	30.11	-23.86	4.02	2.20	399.40	38.42	321.60
156	25.00	3875.00	1.24	131.37	3873.16	-30.42	29.80	-23.53	1.43	1.40	-16.40	37.96	321.71
157	25.00	3900.00	1.50	128.43	3898.15	-29.87	29.41	-23.07	1.08	1.04	-11.76	37.38	321.90
158	25.00	3925.00	1.76	127.18	3923.14	-29.22	28.98	-22.50	1.05	1.04	-5.00	36.69	322.17
159	25.00	3950.00	2.01	124.20	3948.13	-28.45	28.50	-21.84	1.07	1.00	-11.92	35.90	322.54
160	25.00	3975.00	2.45	123.02	3973.11	-27.53	27.96	-21.03	1.77	1.76	-4.72	34.99	323.06
161	25.00	4000.00	2.65	124.54	3998.09	-26.47	27.34	-20.10	0.84	0.80	6.08	33.94	323.68
162	25.00	4025.00	2.79	125.42	4023.06	-25.36	26.66	-19.13	0.58	0.56	3.52	32.82	324.34
163	25.00	4050.00	2.95	128.17	4048.03	-24.20	25.91	-18.13	0.84	0.64	11.00	31.62	325.03
164	25.00	4075.00	2.96	128.93	4072.99	-23.02	25.11	-17.12	0.16	0.04	3.04	30.39	325.71
165	25.00	4100.00	3.24	131.64	4097.96	-21.80	24.24	-16.09	1.26	1.12	10.84	29.09	326.42
166	25.00	4125.00	3.87	134.04	4122.91	-20.43	23.18	-14.95	2.59	2.52	9.60	27.59	327.17
167	25.00	4150.00	4.38	134.99	4147.84	-18.86	21.92	-13.67	2.06	2.04	3.80	25.83	328.04
168	25.00	4175.00	4.77	134.97	4172.76	-17.14	20.51	-12.26	1.56	1.56	-0.08	23.90	329.12
169	25.00	4200.00	5.18	132.33	4197.67	-15.24	19.01	-10.69	1.88	1.64	-10.56	21.81	330.65
170	25.00	4225.00	5.73	130.17	4222.56	-13.10	17.45	-8.91	2.35	2.20	-8.64	19.59	332.96
171	25.00	4250.00	6.18	129.57	4247.42	-10.75	15.79	-6.91	1.82	1.80	-2.40	17.23	336.35
172	25.00	4275.00	6.66	128.97	4272.27	-8.20	14.02	-4.75	1.94	1.92	-2.40	14.80	341.28
173	25.00	4300.00	7.11	127.68	4297.09	-5.45	12.16	-2.40	1.90	1.80	-5.16	12.39	348.84
174	25.00	4325.00	7.55	125.81	4321.88	-2.49	10.25	0.16	2.00	1.76	-7.48	10.25	0.88
175	25.00	4350.00	7.88	123.29	4346.65	0.67	8.35	2.92	1.89	1.32	-10.08	8.85	19.29
176	25.00	4375.00	8.67	123.10	4371.39	4.09	6.38	5.93	3.16	3.16	-0.76	8.71	42.92
177	25.00	4400.00	9.05	121.63	4396.10	7.76	4.32	9.19	1.77	1.52	-5.88	10.15	64.80
178	25.00	4425.00	9.58	121.35	4420.77	11.64	2.21	12.64	2.13	2.12	-1.12	12.83	80.09
179	25.00	4450.00	10.15	120.10	4445.40	15.76	0.02	16.32	2.44	2.28	-5.00	16.32	89.92
180	25.00	4475.00	10.80	120.26	4469.98	20.15	-2.26	20.25	2.60	2.60	0.64	20.37	96.38
181	25.00	4500.00	11.32	120.44	4494.52	24.77	-4.69	24.39	2.08	2.08	0.72	24.83	100.88

Scientific Drilling FINAL REPORT

Company: THE GAS COMPANY	Date: 5/30/2006	Time: 14:56:38	Page: 5
Field: ALISO CANYON NAD 83	Co-ordinate(NE) Reference:	Well: PORTER 26C, Grid North	
Site: ALISO CANYON	Vertical (TVD) Reference:	PORTER 26C 2517.0	
Well: PORTER 26C	Section (VS) Reference:	Well (0.00N,0.00E,104.95Azi):	
Wellpath: PORTER 26C RD1 GYRO	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Survey

Stn	CLen ft	MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	ClsD ft	ClsA deg
182	25.00	4525.00	11.83	120.47	4519.01	29.60	-7.23	28.71	2.04	2.04	0.12	29.61	104.13
183	25.00	4550.00	12.42	121.01	4543.45	34.66	-9.91	33.22	2.40	2.36	2.16	34.67	106.62
184	25.00	4575.00	13.08	121.67	4567.83	39.95	-12.78	37.94	2.70	2.64	2.64	40.03	108.62
185	25.00	4600.00	13.58	121.95	4592.16	45.47	-15.82	42.83	2.02	2.00	1.12	45.66	110.27
186	25.00	4625.00	14.07	122.92	4616.43	51.16	-19.03	47.88	2.17	1.96	3.88	51.52	111.67
187	25.00	4650.00	14.52	123.72	4640.66	57.02	-22.42	53.03	1.97	1.80	3.20	57.58	112.92
188	25.00	4675.00	14.95	124.71	4664.84	63.02	-25.99	58.29	1.99	1.72	3.96	63.82	114.03
189	25.00	4700.00	15.40	125.28	4688.97	69.17	-29.75	63.65	1.90	1.80	2.28	70.26	115.05
190	25.00	4725.00	15.57	125.50	4713.06	75.43	-33.61	69.09	0.72	0.68	0.88	76.84	115.94
191	25.00	4750.00	15.81	124.25	4737.13	81.78	-37.48	74.64	1.66	0.96	-5.00	83.52	116.66
192	25.00	4775.00	16.19	121.59	4761.16	88.33	-41.22	80.42	3.30	1.52	-10.64	90.37	117.14
193	25.00	4800.00	16.97	117.22	4785.12	95.24	-44.72	86.64	5.88	3.12	-17.48	97.50	117.30
194	25.00	4825.00	16.85	113.80	4809.04	102.38	-47.85	93.20	4.01	-0.48	-13.68	104.76	117.18
195	25.00	4850.00	17.35	111.59	4832.94	109.67	-50.68	99.98	3.28	2.00	-8.84	112.09	116.88
196	25.00	4875.00	17.90	109.63	4856.76	117.20	-53.34	107.06	3.24	2.20	-7.84	119.62	116.48
197	25.00	4900.00	18.33	108.29	4880.52	124.95	-55.87	114.41	2.39	1.72	-5.36	127.33	116.03
198	25.00	4925.00	18.79	107.73	4904.22	132.90	-58.33	121.98	1.97	1.84	-2.24	135.21	115.56
199	25.00	4950.00	19.18	107.51	4927.86	141.02	-60.79	129.73	1.59	1.56	-0.88	143.27	115.11
200	25.00	4975.00	19.47	107.86	4951.45	149.29	-63.30	137.62	1.25	1.16	1.40	151.48	114.70
201	25.00	5000.00	19.91	108.58	4974.99	157.70	-65.94	145.62	2.01	1.76	2.88	159.85	114.36
202	25.00	5025.00	20.23	109.59	4998.47	166.25	-68.74	153.72	1.89	1.28	4.04	168.39	114.09
203	25.00	5050.00	20.71	110.11	5021.90	174.96	-71.71	161.95	2.05	1.92	2.08	177.11	113.88
204	25.00	5075.00	21.17	110.65	5045.24	183.86	-74.82	170.32	2.00	1.84	2.16	186.03	113.72
205	25.00	5100.00	21.48	110.66	5068.53	192.90	-78.03	178.83	1.24	1.24	0.04	195.11	113.57
206	25.00	5125.00	21.65	108.82	5091.78	202.06	-81.13	187.48	2.79	0.68	-7.36	204.28	113.40
207	25.00	5150.00	21.75	106.06	5115.01	211.29	-83.90	196.29	4.10	0.40	-11.04	213.47	113.14
208	25.00	5175.00	22.15	104.30	5138.20	220.64	-86.35	205.31	3.08	1.60	-7.04	222.73	112.81
209	25.00	5200.00	22.87	103.14	5161.29	230.20	-88.62	214.61	3.38	2.88	-4.64	232.19	112.44
210	25.00	5225.00	23.60	102.14	5184.27	240.06	-90.77	224.23	3.32	2.92	-4.00	241.91	112.04
211	25.00	5250.00	24.33	101.41	5207.11	250.20	-92.84	234.17	3.15	2.92	-2.92	251.91	111.63
212	25.00	5275.00	24.82	101.21	5229.85	260.57	-94.88	244.37	1.99	1.96	-0.80	262.14	111.22
213	25.00	5300.00	25.21	101.17	5252.50	271.12	-96.93	254.74	1.56	1.56	-0.16	272.56	110.83
214	25.00	5325.00	25.73	101.16	5275.07	281.85	-99.02	265.29	2.08	2.08	-0.04	283.16	110.47
215	25.00	5350.00	26.38	101.12	5297.53	292.81	-101.14	276.06	2.60	2.60	-0.16	294.00	110.12
216	25.00	5375.00	26.99	101.21	5319.87	304.01	-103.31	287.07	2.45	2.44	0.36	305.10	109.79
217	25.00	5400.00	27.52	101.28	5342.09	315.43	-105.54	298.30	2.12	2.12	0.28	316.43	109.48
218	25.00	5425.00	28.14	101.31	5364.20	327.08	-107.83	309.75	2.48	2.48	0.12	327.98	109.19
219	25.00	5450.00	28.69	101.42	5386.19	338.95	-110.18	321.41	2.21	2.20	0.44	339.77	108.92
220	25.00	5475.00	29.08	101.66	5408.08	351.01	-112.59	333.24	1.63	1.56	0.96	351.75	108.67
221	25.00	5500.00	29.67	101.95	5429.86	363.25	-115.10	345.25	2.43	2.36	1.16	363.93	108.44
222	25.00	5525.00	30.12	102.08	5451.54	375.70	-117.69	357.43	1.82	1.80	0.52	376.31	108.23
223	25.00	5550.00	30.52	102.05	5473.12	388.30	-120.33	369.78	1.60	1.60	-0.12	388.86	108.03
224	25.00	5575.00	30.89	102.13	5494.61	401.05	-123.01	382.26	1.49	1.48	0.32	401.56	107.84
225	25.00	5600.00	31.18	101.96	5516.04	413.92	-125.70	394.86	1.21	1.16	-0.68	414.39	107.66
226	25.00	5625.00	31.29	102.17	5537.41	426.87	-128.41	407.54	0.62	0.44	0.84	427.29	107.49
227	25.00	5650.00	31.63	102.11	5558.74	439.90	-131.15	420.30	1.37	1.36	-0.24	440.28	107.33
228	25.00	5675.00	31.42	102.30	5580.05	452.96	-133.91	433.07	0.93	-0.84	0.76	453.31	107.18
229	25.00	5700.00	31.42	102.47	5601.38	465.98	-136.71	445.80	0.35	0.00	0.68	466.29	107.05
230	25.00	5725.00	31.37	102.46	5622.72	478.99	-139.52	458.52	0.20	-0.20	-0.04	479.28	106.92
231	25.00	5750.00	31.33	102.77	5644.07	491.99	-142.36	471.21	0.66	-0.16	1.24	492.25	106.81
232	25.00	5775.00	31.26	102.93	5665.43	504.96	-145.25	483.87	0.43	-0.28	0.64	505.20	106.71
233	25.00	5800.00	31.28	103.04	5686.80	517.93	-148.16	496.52	0.24	0.08	0.44	518.15	106.62
234	25.00	5825.00	31.37	103.25	5708.16	530.92	-151.12	509.17	0.57	0.36	0.84	531.13	106.53



Scientific Drilling FINAL REPORT



Company: THE GAS COMPANY	Date: 5/30/2006	Time: 14:56:38	Page: 6
Field: ALISO CANYON NAD 83	Co-ordinate(NE) Reference: Well: PORTER 26C, Grid North		
Site: ALISO CANYON	Vertical (TVD) Reference: PORTER 26C 2517.0		
Well: PORTER 26C	Section (VS) Reference: Well (0.00N,0.00E,104.95Azi)		
Wellpath: PORTER 26C RD1 GYRO	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Survey

Stn	CLen ft	MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	ClSD ft	ClSA deg
235	25.00	5850.00	31.33	103.43	5729.51	543.93	-154.12	521.83	0.41	-0.16	0.72	544.11	106.45
236	25.00	5875.00	31.32	103.70	5750.86	556.92	-157.17	534.47	0.56	-0.04	1.08	557.10	106.39
237	25.00	5900.00	31.31	103.75	5772.22	569.91	-160.25	547.09	0.11	-0.04	0.20	570.07	106.33
238	25.00	5925.00	31.36	103.90	5793.58	582.91	-163.36	559.71	0.37	0.20	0.60	583.06	106.27
239	25.00	5950.00	31.41	104.01	5814.92	595.93	-166.50	572.35	0.30	0.20	0.44	596.07	106.22
240	25.00	5975.00	31.36	103.97	5836.26	608.94	-169.65	584.98	0.22	-0.20	-0.16	609.08	106.17
241	25.00	6000.00	31.25	104.08	5857.62	621.93	-172.79	597.58	0.50	-0.44	0.44	622.06	106.13
242	25.00	6025.00	31.36	104.14	5878.98	634.92	-175.96	610.18	0.46	0.44	0.24	635.05	106.09
243	25.00	6050.00	31.43	104.17	5900.32	647.94	-179.15	622.81	0.29	0.28	0.12	648.06	106.05
244	25.00	6075.00	31.48	104.17	5921.65	660.99	-182.34	635.46	0.20	0.20	0.00	661.10	106.01
245	25.00	6100.00	31.33	104.24	5942.98	674.01	-185.54	648.09	0.62	-0.60	0.28	674.12	105.98
246	25.00	6125.00	31.44	104.29	5964.33	687.03	-188.74	660.71	0.45	0.44	0.20	687.14	105.94
247	25.00	6150.00	31.57	104.48	5985.64	700.10	-191.99	673.36	0.65	0.52	0.76	700.20	105.91
248	25.00	6175.00	31.59	104.56	6006.94	713.19	-195.27	686.03	0.19	0.08	0.32	713.28	105.89
249	25.00	6200.00	31.65	104.70	6028.23	726.29	-198.58	698.72	0.38	0.24	0.56	726.39	105.87
250	25.00	6225.00	31.76	104.88	6049.50	739.43	-201.94	711.42	0.58	0.44	0.72	739.52	105.85
251	25.00	6250.00	31.60	104.78	6070.77	752.56	-205.30	724.11	0.67	-0.64	-0.40	752.65	105.83
252	25.00	6275.00	31.70	104.92	6092.05	765.68	-208.66	736.79	0.50	0.40	0.56	765.77	105.81
253	25.00	6300.00	31.84	105.00	6113.31	778.84	-212.06	749.51	0.58	0.56	0.32	778.93	105.80
254	25.00	6325.00	31.79	105.24	6134.55	792.02	-215.49	762.23	0.54	-0.20	0.96	792.11	105.79
255	25.00	6350.00	31.83	105.23	6155.80	805.20	-218.96	774.95	0.16	0.16	-0.04	805.28	105.78
256	25.00	6375.00	31.80	105.50	6177.04	818.38	-222.45	787.65	0.58	-0.12	1.08	818.46	105.77
257	25.00	6400.00	31.76	105.71	6198.29	831.54	-225.99	800.34	0.47	-0.16	0.84	831.63	105.77
258	25.00	6425.00	31.70	105.79	6219.56	844.69	-229.56	812.99	0.29	-0.24	0.32	844.78	105.77
259	25.00	6450.00	31.81	105.84	6240.81	857.85	-233.15	825.65	0.45	0.44	0.20	857.94	105.77
260	25.00	6475.00	31.77	105.95	6262.06	871.02	-236.75	838.32	0.28	-0.16	0.44	871.11	105.77
261	25.00	6500.00	31.82	105.96	6283.31	884.19	-240.37	850.98	0.20	0.20	0.04	884.28	105.77
262	25.00	6525.00	31.85	106.06	6304.55	897.37	-244.01	863.66	0.24	0.12	0.40	897.46	105.78
263	25.00	6550.00	31.70	106.12	6325.80	910.53	-247.66	876.30	0.61	-0.60	0.24	910.63	105.78
264	25.00	6575.00	31.66	106.22	6347.08	923.66	-251.32	888.91	0.26	-0.16	0.40	923.76	105.79
265	25.00	6600.00	31.57	106.33	6368.37	936.76	-254.99	901.49	0.43	-0.36	0.44	936.86	105.79
266	25.00	6625.00	31.59	106.25	6389.67	949.85	-258.66	914.06	0.19	0.08	-0.32	949.95	105.80
267	25.00	6650.00	31.63	106.30	6410.96	962.95	-262.33	926.64	0.19	0.16	0.20	963.06	105.81
268	25.00	6675.00	31.75	106.43	6432.23	976.08	-266.03	939.24	0.55	0.48	0.52	976.19	105.81
269	25.00	6700.00	31.41	106.30	6453.53	989.17	-269.72	951.80	1.39	-1.36	-0.52	989.28	105.82
270	25.00	6725.00	31.07	106.50	6474.90	1002.13	-273.38	964.24	1.42	-1.36	0.80	1002.25	105.83
271	25.00	6750.00	31.32	106.57	6496.29	1015.07	-277.07	976.65	1.01	1.00	0.28	1015.19	105.84
272	25.00	6775.00	31.73	106.64	6517.60	1028.14	-280.80	989.18	1.65	1.64	0.28	1028.26	105.85
273	25.00	6800.00	31.98	106.78	6538.83	1041.33	-284.60	1001.82	1.04	1.00	0.56	1041.46	105.86
274	25.00	6825.00	31.96	106.85	6560.04	1054.56	-288.43	1014.49	0.17	-0.08	0.28	1054.69	105.87
275	25.00	6850.00	31.94	106.92	6581.25	1067.78	-292.27	1027.15	0.17	-0.08	0.28	1067.92	105.88
276	25.00	6875.00	31.66	106.96	6602.50	1080.94	-296.11	1039.75	1.12	-1.12	0.16	1081.09	105.90
277	25.00	6900.00	31.52	107.05	6623.80	1094.03	-299.94	1052.27	0.59	-0.56	0.36	1094.18	105.91
278	25.00	6925.00	31.46	107.14	6645.11	1107.08	-303.78	1064.75	0.30	-0.24	0.36	1107.24	105.92
279	25.00	6950.00	31.54	107.18	6666.43	1120.13	-307.63	1077.24	0.33	0.32	0.16	1120.30	105.94
280	25.00	6975.00	31.45	107.42	6687.75	1133.18	-311.51	1089.71	0.62	-0.36	0.96	1133.36	105.95
281	25.00	7000.00	31.34	107.50	6709.09	1146.19	-315.42	1102.13	0.47	-0.44	0.32	1146.38	105.97
282	25.00	7025.00	31.48	107.42	6730.42	1159.21	-319.33	1114.56	0.58	0.56	-0.32	1159.40	105.99
283	25.00	7050.00	31.34	107.55	6751.76	1172.23	-323.25	1126.98	0.62	-0.56	0.52	1172.43	106.00
284	25.00	7075.00	31.22	107.68	6773.13	1185.19	-327.17	1139.36	0.55	-0.48	0.52	1185.40	106.02
285	25.00	7100.00	31.20	107.65	6794.51	1198.13	-331.10	1151.70	0.10	-0.08	-0.12	1198.35	106.04
286	25.00	7125.00	31.15	107.07	6815.90	1211.06	-334.97	1164.05	1.22	-0.20	-2.32	1211.29	106.05



Scientific Drilling FINAL REPORT



Company: THE GAS COMPANY	Date: 5/30/2006	Time: 14:56:38	Page: 7
Field: ALISO CANYON NAD 83	Co-ordinate(NE) Reference: Well: PORTER 26C, Grid North		
Site: ALISO CANYON	Vertical (TVD) Reference: PORTER 26C 2517.0		
Well: PORTER 26C	Section (VS) Reference: Well (0.00N,0.00E,104.95Azi)		
Wellpath: PORTER 26C RD1 GYRO	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Survey

Stn	CLen ft	MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	ClsD ft	ClsA deg
287	25.00	7150.00	30.52	105.32	6837.36	1223.87	-338.54	1176.36	4.38	-2.52	-7.00	1224.10	106.06
288	25.00	7175.00	29.97	102.54	6858.96	1236.46	-341.57	1188.57	6.02	-2.20	-11.12	1236.68	106.03
289	25.00	7200.00	28.94	100.10	6880.73	1248.73	-343.99	1200.62	6.32	-4.12	-9.76	1248.93	105.99
290	25.00	7225.00	29.24	98.74	6902.58	1260.82	-345.98	1212.61	2.90	1.20	-5.44	1261.01	105.92
291	25.00	7250.00	29.65	98.00	6924.35	1273.03	-347.77	1224.77	2.19	1.64	-2.96	1273.19	105.85
292	25.00	7275.00	30.58	97.62	6945.97	1285.48	-349.47	1237.20	3.80	3.72	-1.52	1285.61	105.77
293	25.00	7300.00	31.62	97.38	6967.38	1298.28	-351.16	1250.00	4.19	4.16	-0.96	1298.39	105.69
294	25.00	7325.00	32.30	97.66	6988.59	1311.40	-352.89	1263.12	2.78	2.72	1.12	1311.49	105.61
295	25.00	7350.00	32.02	98.51	7009.75	1324.61	-354.76	1276.30	2.13	-1.12	3.40	1324.68	105.53
296	25.00	7375.00	31.24	98.83	7031.04	1337.65	-356.74	1289.26	3.19	-3.12	1.28	1337.70	105.47
297	25.00	7400.00	30.28	98.58	7052.52	1350.36	-358.67	1301.90	3.87	-3.84	-1.00	1350.40	105.40
298	25.00	7425.00	28.92	98.41	7074.26	1362.63	-360.50	1314.11	5.45	-5.44	-0.68	1362.66	105.34
299	25.00	7450.00	29.04	97.94	7096.13	1374.66	-362.22	1326.10	1.03	0.48	-1.88	1374.68	105.28
300	25.00	7475.00	27.96	97.23	7118.10	1386.49	-363.79	1337.92	4.53	-4.32	-2.84	1386.50	105.21
301	25.00	7500.00	27.73	96.70	7140.21	1398.05	-365.21	1349.51	1.35	-0.92	-2.12	1398.06	105.14
302	10.00	7510.00	27.74	96.69	7149.06	1402.66	-365.75	1354.14	0.11	0.10	-0.10	1402.66	105.11
303	10.00	7520.00	27.60	96.39	7157.91	1407.25	-366.28	1358.75	1.98	-1.40	-3.00	1407.25	105.09
304	10.00	7530.00	27.48	96.31	7166.78	1411.82	-366.79	1363.34	1.26	-1.20	-0.80	1411.82	105.06
305	10.00	7540.00	27.79	96.59	7175.64	1416.41	-367.31	1367.95	3.36	3.10	2.80	1416.41	105.03
306	10.00	7550.00	28.55	97.35	7184.45	1421.08	-367.89	1372.64	8.40	7.60	7.60	1421.08	105.00
307	10.00	7560.00	28.71	97.77	7193.23	1425.83	-368.52	1377.39	2.57	1.60	4.20	1425.84	104.98
308	25.00	7585.00	27.22	95.23	7215.31	1437.43	-369.85	1389.03	7.63	-5.96	-10.16	1437.43	104.91
309	35.00	7620.00	28.56	106.28	7246.27	1453.69	-372.93	1405.05	15.24	3.83	31.57	1453.70	104.86
310	61.00	7681.00	23.58	108.93	7301.05	1480.46	-380.98	1430.60	8.38	-8.16	4.34	1480.46	104.91
311	59.00	7740.00	20.47	107.34	7355.73	1502.55	-387.88	1451.62	5.37	-5.27	-2.69	1502.55	104.96
312	95.00	7835.00	17.95	107.20	7445.44	1533.78	-397.17	1481.46	2.65	-2.65	-0.15	1533.78	105.01
313	37.00	7872.00	17.50	106.43	7480.68	1545.04	-400.42	1492.25	1.37	-1.22	-2.08	1545.04	105.02
314	78.00	7950.00	17.50	106.43	7555.07	1568.48	-407.06	1514.74	0.00	0.00	0.00	1568.48	105.04

Annotation

MD	TVD

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

No. T206-130

Report on Operations

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

Ventura, California
June 21, 2006

Your operations at well "Porter" 26C, API No. 037-21353, Sec. 28, T. 3N, R.16W, S.B.B.&M. Aliso Canyon Field, in Los Angeles County, were witnessed on 06-3-2006. Mark Davis, representative of the supervisor, was present from 1630 to 1700. There were also present Mike Volkmar.

Present condition of well: 13 3/8" cem 801'; 8 5/8" cem 8247', cp 1648', 6586', 6606' & 7600', milled thru 7830'-7850', 7" cem 4968'-7950'. TD 7950'.

7574-7585

Note @ 4900-5110' (cem off)

The LAP Test was performed for the purpose of demonstrating that no fluid has access to the well through the seal between the 8 5/8" & 7" casings.

DECISION:

The operations as reported and witnessed are approved as indication that no fluid has access to the well through the seal between the 8 5/8" & 7" casing

**PRESSURE TESTED LINER LAP TO 1100 PSI, HELD FOR 5 MIN. WITH NO BLEED OFF.
4968' TOP OF 7" CASING. TOP OF CEMENT 7900'.**

tkc

Hal Bopp
State Oil and Gas Supervisor

By



Bruce H. Hesson
Deputy Supervisor

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

No. T206-108

Report on Operations

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

Ventura, California
May 15, 2006

Your operations at well "Porter" 26C, API No. 037-21353, Sec. 28, T. 3N, R.16W, S.B.B.&M. Aliso Canyon Field, in Los Angeles County, were witnessed on 04-20-2006. Mark Davis, representative of the supervisor, was present from 0730 to 1200. There were also present Mike Volkmar.

Present condition of well: 13 3/8" cem 801' 8 5/8" cem 8247', cp 1684', 6586', 6606' & 7600', milled window 7830'-7850'. TD 8255'. ED 7695'.

hole

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

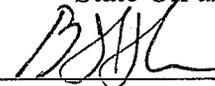
DECISION:

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

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
March 23, 2006

Your _____ proposal to _____ redrill _____ well "Porter" 26C
A.P.I. No. 037-21353-01 field, _____ Sec. 28, T. 3N, R. 16W, SB B.&M.,
Aliso Canyon area, _____ Sesnon-Frew pool
Los Angeles County, dated 03/01/2006 received 03/03/2006 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.

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.

NOTICE OF INTENTION TO REWORK / REDRILL WELL

610
DD
30-Sesnon - free

P206-73
~~428~~

C.E.Q.A. INFORMATION (when re-drilling 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	
	OGD114 ✓	OGD121 ✓	File
1000 000	111 ✓	115 ✓	

This notice and an indemnity or cash bond must be filed, and approval given, before the rework/re-drill 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 26C (Well designation) API No. 03721353 -01

Sec. 28 T. 3N R. 16W S.B.&M. Aliso Canyon Gas Storage Field
Los Angeles County.

1. The complete casing record of the well (present hole), including plugs and perforations, is as follows:
0-801' 13-3/8" 48# K-55 csg;
0-5379' 8-5/8" 36# K-55 csg;
5379-8247' 8-5/8" 36# N-80 csg;
Squeezed thru packer @ 7947';
Section of 8-5/8" csg cut from 7830-7850' and opened to 15".
Window cemented w/ top of cement @ 7695'.

GS

2. The total depth is: 8255 feet. The effective depth is: 7695 feet.

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

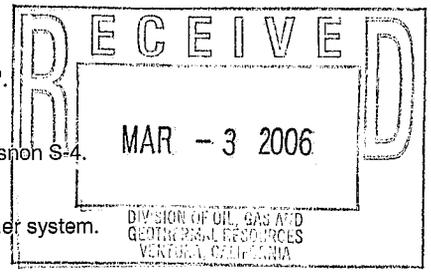
4. Present zone pressure: N/A psi. Anticipated/existing new zone pressure: 2700 psi.

5. Last produced: 5/1981 0 0 5,980
(Date) (Oil, B/D) (Water, B/D) (Gas, Mcf/D)

(or)
Last injected: N/A N/A N/A N/A
(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.)
1/ MIRU workover rig. Install and test Class III BOPE;
2/ PU section mill and RIH to TOC @ 7695'. Change hole over to gel mud and section mill from 7690' to 7730'.
3/ PU 13" hole opener and open hole from 7690' to 7730';
4/ RIH w/ DP open-ended and equalize cement plug w/ top inside 8-5/8" csg to 7600';
5/ PU 7-5/8" bit and clean out cmt to top of window @ ~7690'. Exit well and drill past csg stub to the top of Sesnon S-4.
6/ Run & cmt 7" 26# FJ csg from top of Sesnon S-4 to 5900' above known holes in 8-5/8" csg.
7/ PU 7-5/8" bit and 8-5/8" scraper and clean out to top of 7" liner. Pressure test lap and run CBL. ✓
8/ PU 6-1/8" bit and drill out 7" liner shoe. Drill ahead ~300' into gas-storage zone. Change hole over to polymer system.
9/ Run 5-1/2" ESS liner across interval. Run pkr and prod. tbg.
10/ RDMO.



For re-drilling or deepening: Planned side-track. Coordinates to be determined. N/A
(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 818.700.3810
Address 12801 Tampa Avenue	City Northridge
Name of Person Filing Notice Mark T. Kuncir	Signature <i>Mark T. Kuncir</i>
	Zip Code 91326
	Date 3/1/06

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

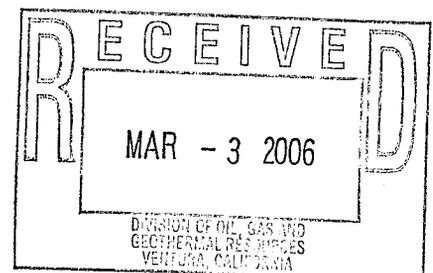
As defined in the California Code of Regulations, Title 14, Section 1720 (a), "Critical well" means a well within:

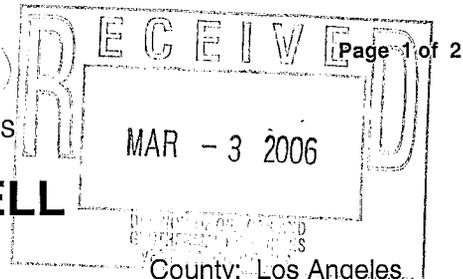
1. 300 feet of the following:
 - a. Any building intended for human occupancy that is not necessary to the operation of the well; or
 - b. Any airport runway.
2. 100 feet of the following:
 - a. Any dedicated public street, highway, or nearest rail of an operating railway that is in general use;
 - b. 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.





HISTORY OF OIL OR GAS WELL

Operator: Southern California Gas Company
Well: Porter 26 C
A.P.I. No. 03721353

Field: Aliso Canyon
Surface Location: Sec. 28, T3N, R28W S.B.B.&M.
Mark Kuncir
Title: Storage Field Engineer
(President, Secretary, or Agent)

Date: 03/01/2006

Signature: 
(Person Submitting Report)

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

Telephone Number: 818-700-3810

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
11/03/2005	MIRU Torch Rig #21 (Larry Garcia, Toolpusher). Held safety meeting. Covered adjacent well cellar w/ steel plates. Moved in 500 bbl fluid tanks, mud pump and equipment. RU and guyed-out mast. ND Xmas tree and removed studs from wellhead flange. Secured well.
11/04/2005	NU riser spool & Class II BOPE and function tested the BOP. RU mud pump and filled the hole w/ 126 bbls of lease water. Pressure tested csg to 1000 psi and lost 100 psi in 5 minutes and 200 psi in 10 minutes. Retested csg to 1000 psi and lost 75 psi in 15 minutes. Bled off pressure and secured well.
11/07/2005	Filled hole w/ 4 bbls of lease water. Pressure tested csg to 1000 psi. Held pressure for 20 minutes and lost 200 psi. Bled off pressure. RU Tuboscope and scanned out 2-7/8" tbg: 102 jts yellow-band, 145 jts blue-band, and 1 jt of red-band. Crimped 7 jts. RD Tuboscope. MU 7-5/8" bit, 8-5/8" 36# csg scraper and bumper sub (BS) on 2-7/8" tbg. RIH to 1500'. Closed well in.
11/08/2005	0 psi on csg. Continued RIH w/ tbg to 7693'. Installed PGSR stripper and RU Power swivel. Cleaned out to hard cement @ 7742'. Circulated well clean and changed hole over to 3% KCL. POOH 30 stands to 5800'. Loaded out Power swivel. Closed well in and secured rig.
11/09/2005	0 psi on tbg & csg. POOH w/ tbg and LD csg scraper, BS and bit. RU Schlumberger W/L. RIH w/ USIT-CBL tools and logged the 8-5/8" csg from 7742' to surface. RD W/L and closed well in.
11/10/2005	0 psi on tbg & csg. POOH w/ 2-7/8" tbg. MU 8-5/8" bridge plug (BP) and test packer (pkr) and RIH to 5070'. Set the BP and raised tbg to 5039' and set pkr. Pressure tested the csg btwn BP & pkr and the annulus to 1320 psi. Held pressure for 20 minutes - tested OK. Released pkr and retrieved BP and RIH and set BP @ 6623'. Raised the tbg and set pkr @ 6554' and pressure tested the csg btwn the tools to 1050 psi - held pressure for 20 minutes and lost 50 psi. Tested annulus to 1050 psi for 20 minutes - tested OK. Released pkr and BP. Closed well in and secured rig.
11/11/2005	0 psi on tbg & csg. RIH and set BP @ 7722'. Raised tbg and set pkr @ 7550' and pressure tested csg @ 800 psi from 7722' to 7550' and lost 50 psi in 20 minutes. Released pkr and RIH and pulled the BP up to 7560'. Set the pkr @ 7114' and pressure tested the csg @ 800 psi from 7560' to 7114' and lost 150 psi in 20 minutes and got returns up the annulus. Raised pkr to 7083' and pressure tested the csg annulus to 800 psi and lost 150 psi and got returns. Pulled up to 6626' and set the pkr and pressure tested the annulus & pkr to 1050 psi - tested OK. RIH and retrieved the BP and pulled up hole to 7093'. Attempted to reset the BP but it came off the running tool. Chased the BP to 7742' and tried to recover the running tool. POOH w/ 20 stands to 6502' and closed the well in and secured rig.
11/14/2005	0 psi on tbg & csg. POOH w/ tbg and pkr and found that the nipple on the bottom of the pkr had backed-off leaving the BP and running tool in the hole. MU 7-1/4" overshot w/ 2-7/8" grapple and BS. RIH to 7727' and latched onto the BP. Pulled 3,000# over string weight to come off bottom. POOH and LD BP and fishing tools. Closed well in and secured rig.
11/15/2005	0 psi on tbg & csg. PU 8-5/8" test pkr on 2 7/8" tbg and RIH to 3000'. Set pkr and pressure tested the annulus to 2220 psi for 20 minutes - tested OK. Raised and set pkr @ 1000' and pressure tested the annulus to 2950 psi for 20 minutes - tested OK. POOH and LD pkr. Broke down all tools. PU 8-5/8" test pkr and RIH to 5900'. Closed well in and secured rig.
11/16/2005	0 psi on tbg & csg. RU Weatherford test unit w/ chart. Set pkr @ 5900' and pressure tested the csg annulus to 1200 psi for 20 minutes - tested OK. Raised pkr to 5350' and pressure tested the csg annulus to 1800 psi for 20 minutes - tested OK. Raised pkr to 4600' and pressure tested the csg annulus to 2020 psi for 20 minutes - tested OK. Raised pkr to 3800' and pressure tested the csg annulus to 2400 psi for 20 minutes - tested OK. Raised pkr to 2800' and pressure tested the csg annulus to 2750 psi for 20 minutes - tested OK. Raised pkr to 1600' and pressure tested the csg annulus to 3308 psi for 20 minutes - tested OK. POOH and LD pkr. RIH open-ended w/ 241 jts (7454') of 2-7/8" tbg. Landed tbg in wellhead. Closed well in and secured rig.
11/17/2005	ND BOPE and riser spool. NU tree and secured well. Removed steel plates @ well cellars P26A & B. Re-installed cellar handrails. Loaded-out equipment. Unable to RD due to high winds.
11/18/2005	Serviced rig for road trip. Still unable to RD due to high winds.
11/19/2005	RDMO.

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 26 C
 A.P.I. No. 03721353

Field: Aliso Canyon County: Los Angeles
 Surface Location: Sec. 28, T3N, R28W S.B.B.&M.
 Mark Kuncir Title: Storage Field Engineer
(President, Secretary, or Agent)

Date: 03/01/2006

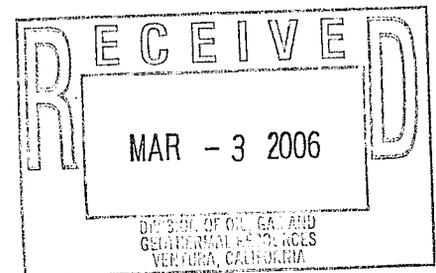
Signature:
(Person Submitting Report)

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

Telephone Number: 818-700-3810

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
12/14/2005	Moved Torch Rig #21 from Montebello to Aliso Canyon. Removed cellar handrails and installed steel plates over wells P26A & B. 0 psi on tbg and csg. RU and tied down mast and ND Xmas tree. NU and function tested Class II BOPE. Unlanded tbg and removed tbg hanger and LD 25 jts 2-7/8" tbg. Closed well in and secured rig.
12/15/2005	0 psi on tbg & csg. LD balance of 241 jts of 2-7/8" tbg. Service bolts on XO csg seal spool. Ran 8-5/8" retrievable BP to 20'. Set BP and filled the hole w/ fluid and pressure tested the BP & csg to 2500 psi - tested OK. Removed BOP, tbg head and double studded seal flange from wellhead. Installed riser spool w/ 2-7/8" tapped valved flange. Closed well in and RD mast.
12/16/2005	Loaded out rig, tbg head, Xmas tree and seal flange. Loaded 241 joints of 2 7/8" tbg on trailers. Removed steel plates from well cellars and installed handrails. RDMO.
01/19/2006	Opened well and removed csg spool. Replaced primary seal and MU seal flange w/ new PS seals. NU tbg head and Xmas tree.
01/20/2006	NU and pressure tested wellhead.



PERMIT TO CONDUCT WELL OPERATIONS

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

Observation

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

Ventura, California
November 1, 2005

Your proposal to evaluate for redrill well "Porter" 26C, A.P.I. No. 037-21353 Sec. 28, T. 3N, R. 16W, SB B.&M., Aliso Canyon field, area, Sesnon Frew pool Los Angeles County, dated 10/27/2005 received 10/27/2005 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.

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.

*D/D
ED
99-OBSERVANT*

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

NOTICE OF INTENTION TO REWORK / REDRILL WELL **P205-192**

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		
	Forms	BDP Well File
Bond	OGD114 ✓	OGD121 ✓
1,000,000	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 26C (TW 55) API No. 037-21353
(Circle one) (Well designation)

Sec. 28 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:
0'-801' 13-3/8" 48# K-55 casing.
0'-8255' 8-5/8" 36# N-80 & K-55 LT&C casing
Squeezed thru packer at 7947' Cut section 77830-7850' Opened to 15' cemented window with top of cement at 7695.

GS

2. The total depth is: 8255' feet. The effective depth is: 7695' 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)

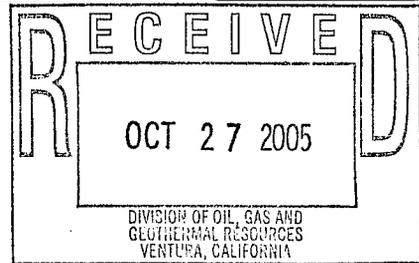
(or)

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



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 818 701-3251
Address 9400 Oakdale Ave	City Chatsworth
Name of Person Filing Notice Richard Jackson	Signature <i>Richard Jackson</i>
	Zip Code 91313
	Date 10/27/05

File in Duplicate

October 14, 2005

Engineer: Richard Jackson

Porter 26C

Evaluation Prior to Redrill

Operator: Southern California Gas Company

Field: Aliso Canyon Gas Storage Field

Well: Porter 26C (IW 55)

API Number: 037-21353

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 -
Elevation:	All depths based on original KB, which is 12.00' above tubing hanger.
Max hole angle:	(7557'TVD) Use this depth for kill/fluid calcs.
Effective clean out depth:	7690' to top of cement. Top of window at 7830'.
Casing Record:	0' - 801' 13-3/8", 48#, K-55 casing 0' - 8255' 8-5/8", 36#, N-80 & K-55 LT&C casing Well was abandoned below cement at 7695'. With window cut 7830'-7850'.
Tubing Record:	0 - 7690' 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 = 7960' MD (7557' 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.

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 7-5/8" open bit below scraper and tag cement plug at 7690'. Drill out to hard cement and reverse circulate clean. Do not drill below 7700' 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
10-26-2005

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

REPORT OF CORRECTION OR CANCELLATION

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

Ventura, California
December 17, 2003

In accordance with your reply to our Well Status Inquiry dated _____

the following change pertaining to your well "Porter" 26C
(Well designation)
Aliso Canyon field, Los Angeles County,

Sec. 28, 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.)

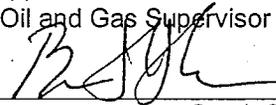
and our report No. P 201-190, issued in answer thereto, are hereby cancelled

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: _____

Hal Bopp
State Oil and Gas Supervisor

By 
Deputy Supervisor
Bruce H. Hesson

tkc

OK

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

Ventura, Calif.

November 25, 2003

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

In a notice dated 07/18/2001, you propose to redrill and convert to gas storage
Well "Porter" 26C API number 037-21353
Field Aliso Canyon, County Los Angeles, Sec. 28, 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

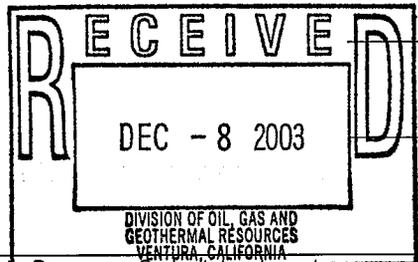
ms

By B. Hesson
SAC

- 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
dated _____

OTHER: _____



(Signature)

(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 cancellation, file a Supplementary Notice with the division.)

PERMIT TO CONDUCT WELL OPERATIONS

010
(field code)
00
(area code)
30
(new pool code)
99
(old pool code)

Gas Storage Project

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

Ventura, California
August 10, 2001

Your proposal to redrill and convert to gas storage well "Porter" 26C,
A.P.I. No. 037-21353-01 Sec. 28, T: -3N, R. 16W, SB B.&M.,
Aliso Canyon field, ----- area, Sesnon-Frew pool
Los Angeles County, dated 7/18/2001 Receive 8/6/2001 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 IIIB 5M equipment on the 8-5/8" casing and maintained in operating condition at all times during redrilling.
2. Drilling fluid of a quality and in sufficient quantity is used to control all subsurface condition in order to prevent blowouts.
3. An approved blowout prevention and control plan shall be available during the proposed operations.
4. Any sump used during these operations shall be thoroughly cleaned and filled with earth as soon as operations are completed.
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 sidetracking the well or running any additional casing.
7. This office shall be consulted before initiating any changes or additions to this proposed operation, or operations are to be suspended.
8. Requirements specified in our approval of the Gas Storage project dated July 26, 1989 shall apply.
9. **THIS DIVISION SHALL BE NOTIFIED:**
 - a. To witness a pressure test of the blowout prevention equipment prior to drilling out 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

SAF:sf
Super Blanket Bond

Engineer Steven A. Fields

Phone (805) 654-4761

WILLIAM F. GUERRARD, JR., 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.

010
 DD
 99 → 30

P201-190

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

NOTICE OF INTENTION TO REWORK / REDRILL WELL

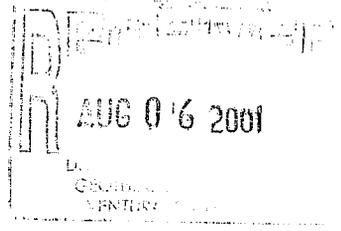
C.E.Q.A. INFORMATION (when redrilling or deepening only)			
Exempt <input type="checkbox"/>	Neg. Dec. <input type="checkbox"/>	E.I.R. <input type="checkbox"/>	Document not required by local jurisdiction <input type="checkbox"/>
Class _____	S.C.H. No. _____	S.C.H. No. _____	
See Reverse Side			

FOR DIVISION USE ONLY			
Bond	Forms		EDP Well
	OGD114	OGD121	File
1,000,000	<input checked="" type="checkbox"/>	<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 No. 26 C / IW 55 POSTER 26 C / IW 55 API No. 037-21353
 (Circle one) (Well designation)
 Sec. 28 T. 3N R. 16W S.B. & M. Allso 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: 8247' feet. The effective depth is: 7695' 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, 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: 737' South and 1632' East of the surface location. 7837'
 (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 91313
Name of Person Filing Notice Dan Neville	Signature <i>Dan Neville</i>	Date 7/15/01

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. Reentering an abandoned well having no bond.

Southern California Gas Company
Aliso Canyon Field
Porter No. 26 / IW-55 Redrill No. 1
Section 28, T3N, R16W
Los Angeles County, California
API No. 037-21353

REDRILL PROCEDURE

May 22, 2001

Surface Location: From Station #84, 575.22' South and 3292.97' West

Existing Bottom Hole Location: 737.47' South and 1632.5' 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: 8230' MD

Date of Original Hole: 4-3-73

Elevation: 2505'

Kelly Bushing: 12'

Existing Casing Program:

13 3/8", 48#, K-55, ST& C	0-801'
8 5/8", 36#, K-55 & N-80, LT&C	0-8247'

The 8 5/8" casing was cemented through a DV Tool at 6586' and 1684'.

Existing Perforations:

6606', 7833', 7834', 7851', 7854' and 7894'
7941'-7944'
7940' WSO
7980'-8020' (4HPF)
8044'-8100' (4HPF)
8104'-8111' (4HPF)
8116'-8146' (4HPF)
8180'-8184' (4HPF)

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 7750' to 8230'

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 7695'. Drill out the existing cement plug to 7750' 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 8230'. 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 8230' (or as instructed be 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) +/-480' 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. Pick up a 40' casing patch and run in the hole to the DV tool and perforations at 6586' and 6606'. set the 40' patch across both the DV tool and perforations from 6616' to 6576'. Pull out of the hole and lay down the setting tools.

15. 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

16. 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.

17. 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.

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

19. Release the rig.

13-3/8" 48# K-88 csg.

2-7/8" 6.8# EUE Tbg.

801'

1684'

8-5/8" 36# csg.
0'-5379' K-55
-8247' N-80

DU Tool 6386'
Part. 6606'

7690' Tubing Tail

7695' Top of cement

7830'

15" window

Season

7850'

TOC unknown

Fews 8180-8184'

7947' Otis packer

7980'

8020'

8044'

7960' (7557') Top of S4
8063' (7654') MPP
8180' (7766') Top of S8
8338' (7917') (-5400')

8100'

8104'

8111'

8116'

8146'

8180'

8184'

8200'

8255' TD

1W-55
ALISO CANYON FIELD

Elevation: 2506' GL; KB 12';
MV 16'
Status: Observation Well

4/8/73-5/15/73: Well drilled,
115' fish sidetracked 5316'-
5431'. Cmt'd 150 SX to 8039',
drilled out to 8297',
directionally redrilled to 8255'.

7/18/76: Well cleaned out and
tubing rerun with 99SV.

12/29/78-2/22/79: Replaced
safety system, set packer at
7850'.

7/19/80-9/23/80: Perforated and
squeezed cement at 6606', 7833',
7834', 7850', 7851' and 7854'.
Gas movement could not be
stopped. Perforated and squeezed
furfuryl mixture at 7600' and
7800'. Gas movement stopped.
Installed a casing patch at
6564'-6606'.

7/6/82-7/23/82: Squeezed storage
zone through packer at 7947'.
Recovered casing patch 6564'-
6606'. Cut section 7830'-7850'
and opened to 16". Cemented
window and completed as plugged
back observation well.

S-1 7864'

S-4 7980 (Top Perf)

S-12 8146 (Ota Perf)

	Volume# Cu. Ft.	Bbls.
Tubing	250	45
Csg/Liner		
Annulus	2223	396
Total	2473	441

JDH:cm
8/13/87

PERMIT TO CONDUCT WELL OPERATIONS

010
(field code)
00
(area code)
99
(new pool code)
30
(old pool code)

Observation

James D. Mansdorfer, Agent
Southern California Gas Company
22245 Placerita Canyon Road ML9181
Newhall, CA 91322-1124

Ventura, California
July 6, 1999

Your proposal to convert to observation well "Porter" 26C,
A.P.I. No. 037-21353, Section 28, T. 3N, R. 16W, S.B. B.&M.,
Aliso Canyon field, ----- area, Observation pool,
Los Angeles County, dated 6/16/99, received 6/18/99, has been examined in
conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

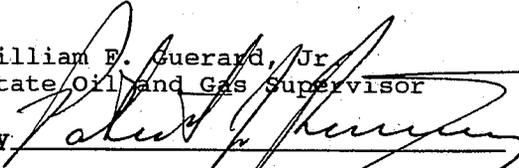
1. The well must be securely capped at the surface while in an observation status.
2. Annual temperature surveys are submitted to this office on an annual basis.

Blanket Bond
SAF:sf

Engineer Steven A. Fields

Phone (805) 654-4761

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

By 

Patrick J. Kinnear
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

NOTICE OF INTENTION TO REWORK / REDRILL WELL

30 → 99 (92)
30 Sesnon - Free

RECEIVED
JUN 18 1999
DIV. OF GEOTHERMAL RESOURCES
VENTURA CALIFORNIA

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	
BB	✓	✓	

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 See Below. This notice is provided to update well statuses in response to the Division's idle well API No. See Below program for 1999.

(Circle one) S Sec. 27, 28, 34 T. 3 N R. 16 W 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:
Per Steve Fields, all casing records are in the District office and details are waived for this section.

2. The total depth is: _____ feet. The effective depth is: _____ feet.

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

4. Present zone pressure: _____ psi. Anticipated/existing new zone pressure: _____ 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.) Listed below are the updated well statuses for Aliso Canyon:

- Mission Adrian Fee 1 037 00691 Water disposal (idle), Del Aliso and Porter completion, waterflood project. Well pressure is monitored monthly.
- Porter 26C 037 21353 Observation, plugged back storage zone well, no completion interval. Weekly well pressure, annual temperature survey.
- Porter 33 037 00720 Observation. Idle water injector, Porter completion, waterflood project. Well pressure monitored monthly.
- Porter 40 037 00727 Active withdrawal well, Sesnon completion, gas storage project. Annual temperature survey.
- Porter 58 037 00743 Observation, Aliso completion, waterflood project. Well pressure is monitored monthly.
- Standard Sesnon 5 037 00758 Observation (may be produced if needed), Sesnon completion, gas storage project. Ann. Temp. survey, daily pressure.
- Standard Sesnon 44 037 00788 Observation, plugged back gas storage well, no completion interval. Weekly well pressure, annual temperature survey.
- Ward 3 037 00192 Observation, plugged back gas storage well, no completion interval. Quarterly pressure surveys, annual temp. survey.

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 805 253-7077
Address 22245 Placerita Canyon Road	City Newhall
Name of Person Filing Notice Steve Cardiff	Signature 
	Zip Code 91321
	Date June 16, 1999

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.

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

No. T292-134

REPORT ON OPERATIONS

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

Ventura, California
August 27, 1992

Your operations at well "Porter" 26C _____, API No. 037-21353,
Sec. 28T. 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 1300 to 1400. There were also
present Randy Patterson.

Present condition of well: 13 3/8" cem 801'; 8 5/8" cem 8247', perf 7940'
WSO, cp 1684', 6586', 6606', 7600', 7800', 7833', 7851', 7854', 7894', perfs
7941'-7944' (cem off), perfs @ int 7983'-8187', casing patch 6514'-6606',
milled 7800'-7830'. TD 8255. Plugged w/cem 8255'-8200' & 7830'-7695'.

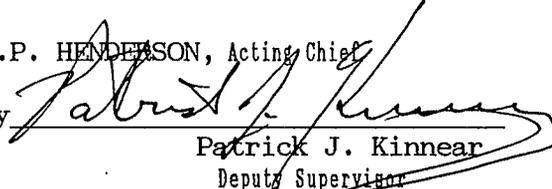
The ADA Pressure Test was performed for the purpose of demonstrating
mechanical integrity on the 8 5/8" casing.

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 well in Sec. 28, 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 54 (037-21319)	"Porter" 26E (037-21319)
IW 55 (037-21353)	"Porter" 26C (037-21353)
IW 65 (037-21320)	"Porter" 26D (037-21320)
IW 69 (037-21322)	"Standard Sesnon" 25A (037-21322)
IW 74 (037-21357)	"Porter" 26B (037-21357)
IW 79 (037-21361)	"Standard Sesnon" 44B (037-21361)
IW 80 (037-21362)	"Porter" 26A (037-21362)
IW 83 (037-21455)	"Standard Sesnon" 44A (037-21455)

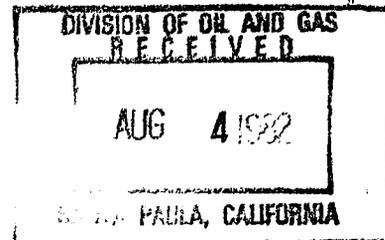
bb

M.G. MEFFERD, State Oil and Gas Supervisor

By 
Patrick J. Kinnear, Deputy Supervisor

PW

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 #55, Sec. 28., T. 3N., R. 16W., SB. B. & M.
A.P.I. No. 037-21353 Name J. P. Anand Title Agent
Date July 30, 1982 (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 #98866 was issued to plug off storage zone and convert to observation well.

982

7-06

1st Day. Unloaded rig.

7-07

2nd Day. Rigged up while changing flanges on rig. Raised mast. Bled gas off annulus at 1000 psi. Found 2700 psi on tubing with no fluid in tubing. Rigged up Archer Reed and shot two 3/8" holes at 7850'.

7-08

3rd Day. Rigged up Howco. Killed well with 76#/cu. ft. polymer completion fluid. Installed back pressure valve in doughnut and removed xmas tree. Installed 8" x 5000 psi BOPE equipment. Using H&H test pump, tested blind rams and 2-7/8" pipe rams to 4000 psi. Tested Hydril and manifold to 3000 psi. Unlatched from packer.

7-09

4th Day. Circulated gas out of well. Measured out of well. Dimple on tubing at 7850'. A 3/8" hole in tubing at 7898'. Ran in well with Otis 4 seals and locator sub on 2-7/8" tubing and stabbed into packer at 7947'. Obtained breakdown of 12 cu. ft. per minute at 1500 psi. Using Howco stabbed in and squeezed perforations with 100 sacks Class "G" cement mixed with 0.5% CFR-2 and 0.6% Halad 9 with rate of 3 cu. ft. per minute starting at 850 psi with final pressure of 1400 psi. Placed 25 sacks on top of packer and back scuttled 3 cu. ft. Pulling out of well.

7-10

5th Day. Finished pulling out of well. Made up spear, jars, bumper sub and eight 4-3/4" drill collars on 2-7/8" tubing. Ran in well. Recovered top swedge from Pengo patch at 6564'. Ran in well to 6603' and jarred casing patch loose. Pulling out of well.

- 12 6th Day. Finished pulling out of well with casing patch. When released spear, the bottom 30' of patch fell back in the well. Recovered top 10'. Ran in well to top of casing patch at 5258'. Pulled out of well and recovered 5' of casing patch. Ran in well with spear, no recovery. Changed grapple on spear. Ran in well and worked into fish with spear. Pulling out of well.
- 13 7th Day. Finished pulling out of well. No recovery. Changed grapples on spear. Ran in well and set spear in fish. Pulled 14,000# over weight of string. Pulled out of well and recovered 5' joint. Ran in well with spear and worked through tight spot in casing from 5168' to 5175'. Ran in to 5870'. Pulling out of well.
- 14 8th Day. Finished pulling out of well. Redressed spear and set stop sub 18' above spear. Ran in well to top of fish at 6626' and set spear in fish. Pulled out of well and recovered all 20' of casing patch. Ran in well with 7-5/8" Servco junk mill on eight 4-3/4" drill collars on 2-7/8" tubing. Milled bottom seal and swedge at 6604'. Pushed to 7870'. Pulled out of well with junk mill. Made up Tri-State 8-5/8" section mill on drill collars and 2-7/8" tubing.
- 15 9th Day. Finished running in the well with Tri-State 8-5/8" section mill. Cutting section in 8-5/8" 36# N-80 casing from 7830' to 7839'. Shut down to repair rig.
- 16 10th Day. Ran 10 stands back in well. Milling at 7839'. Tubing parted. Pulled out of well. Recovered 48 stands of tubing and tubing collar. "Pin looking up in well". Ran in well with Tri-State overshot on 2-7/8" tubing - 2569'. Pulled out of well with fish. Changed 8-5/8" section mill and ran in well with 121 stands.
- 17 11th Day. Continued milling from 7839' to 7842'. Rate 3" per hour with 4000# at 74 RPM. Pulled up after milling 50 minutes for 10 minutes. Pulling out of well with mill #2.
- 19 12th Day. Finished pulling out with Tri-State section mill #2. Inspected mill and found 80% of cutting material still on tool. Reran mill #2 in well and continued milling 8-5/8" casing from 7842' to 7848'.
- 20 13th Day. Milled 8-5/8" casing from 7848' to 7850' with mill #2. Pulled out with mill. Ran 7-5/8" x 15" Tri-State hole opener in well and opened hole from 7830'-7850' to 15". Displaced 76#/cu. ft. polymer completion fluid from well with 510 bbls of 63#/cu. ft. lease salt water.

-21

14th Day. Pulled out with hole opener. Ran Howco 8-5/8" RTTS retainer to 7830'. Equalized 75 cu. ft. of 12% HCL and 3% HF acid at 7830'. Pulled RTTS up to 7605'. Squeezed 25 cu. ft. of 7-1/2% HCL and 1-1/2% HF acid, 57 cu. ft. "G" cement with 0.5% CFR-2 and 0.6% Halad 9 and displaced cement top down to 7730' with final pressure of 2100 psi. Shut well in for 4 hours. Located cement at 7695'. Witnessed by Division of Oil and Gas. Pulled out of well with RTTS retainer.

-22

15th Day. Ran 2-7/8" EUE 8Rd tubing in well to 7678' when doughnut was landed in tubing head. Drifted tubing with 2" drift. Using Triangle, ran Audio analyzer log from 7660' to surface. Showed no gas leakage.

-23

16th Day. Installed back pressure valve in doughnut. Removed BOPE and installed xmas tree. Pressure tested xmas tree and doughnut seals at 5000 psi. Released rig at 2:00 P.M., 7-23-82.

fw

DIVISION OF OIL AND GAS

Report on Operations

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

Santa Paula, Calif.
July 23, 1982

Your operations at well IW 55, API No. 037-21353,
Sec. 28, T. 3NR 16W SB B. & M. Aliso Canyon Field, in Los Angeles County,
were witnessed on 7/21/82 by M. Stettner, representative of
the supervisor, was present from 1700 to 1815. There were also present Gene Bradbury

Present condition of well: 13 3/8" cem 801'; 8 5/8" cem 8247', cp'd at 1684', 6586', 6606',
7600', 7800', 7833', 7851', 7854', 7894', 7941-7944', (all cem off), perf 7940' WSO,
perfs (at intervals) 7983-8187', csg patch 6514-6606', window 7800-7830', T.D. 8255'.
Plugged with cem 8255-8200', and 7830-7695',

The operations were performed for the purpose of plugging back and converting to an observation well.

DECISION:

THE LOCATION AND HARDNESS OF THE CEMENT PLUG AT 7695' IS APPROVED.

b

M. G. MEFFERD

State Oil and Gas Supervisor

By

Murray W. Dosch

Deputy Supervisor

Murray W. Dosch

pu

REPORT ON PROPOSED OPERATIONS

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

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

Santa Paula, California
July 2, 1982

Your _____ proposal to plug back and suspend well IW 55,
A.P.I. No. 037-21353, Section 28, T. 3N, R. 16W, SB B. & M.,
Aliso Canyon field, any _____ area, Sesnon-Frew pool,
Los Angeles County, dated 7/2/82, received 7/2/82 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 2M A, shall be installed and maintained in operating condition at all times.
3. The hole shall be plugged with cement from 7775' to 7675'.
4. THIS DIVISION SHALL BE NOTIFIED TO WITNESS:
 - a. A pressure test of the blowout prevention equipment before commencing downhole
 - b. The location and hardness of the cement plug at 7675' or above.

*BLH./Bill Kilbrew 7/2/82 1900hrs
Waive BOPE NEA
MS @ Dentist, FT in Field
RSH's car in repair shop*

Blanket Bond
MD: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.**

pw

DIVISION OF OIL AND GAS

Notice of Intention to Rework Well

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

FOR DIVISION USE ONLY		
BOND	FORMS	
	OGD114	OGD121
BB	✓	✓

DIVISION OF OIL AND GAS

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to rework well IW #55 (Well designation), API No. 037-21353
Sec. 28, T. 3N, R. 16W, SB B. & M., Aliso Canyon Field, Los Angeles County.

The present condition of the well is as follows:

- Total depth 8255'
- Complete casing record, including plugs and perforations
13-3/8" cemented 801'
8-5/8" cemented 8247', plug 8200', cp'd 6586' & 1684'
squeezed 6606', 7941'-7944', WSO 7940'
squeezed 7894', 7851', 7854', 7834', 7833', 7800'
and 7600'.
Perforated at intervals 8187'-7983',
casing patch 6606'-6514'
- Present producing zone name Sesnon; Zone in which well is to be recompleted -
- Present zone pressure 1900 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 tubing. Recover casing patch. Squeeze perforations by using packer as squeeze tool. Locate cement.
- Cut section 7830'-7850' and open hole to 15". Set retainer near 7775' and squeeze with cement.
- Land tubing near 7700' and suspend 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) Southern California Gas Company (Name of Operator)
LA (City) CA (State) 90051 (Zip) By J. P. Anand (Print Name)
 Telephone Number (213) 689-3925 J. P. Anand (Signature) 7-2-82 (Date)
 OG107 (6/81/GSR1/5M) by GCA

010

(field code)

00

(area code)

30

(new pool code)

30

(old pool code)

REPORT ON PROPOSED OPERATIONS

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

Santa Paula, California
June 21, 1982

Your _____ proposal to plug back and convert
to observation well well IW 55,
A.P.I. No. 037-21353, Section 28, T. 3N, R. 16W, SB B. & M.,
Aliso Canyon field, any area, Sesnon-Frew pool,
Los Angeles County, dated 6/17/82, received 6/18/82 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. Blowout prevention practice drills shall be conducted at least weekly for each crew, and recorded in the log book.
4. This office shall be consulted before initiating any changes or additions to this proposed operation.
5. THIS DIVISION SHALL BE NOTIFIED TO WITNESS:
 - a. A pressure test of the blowout prevention equipment before commencing downhole operations.
 - b. the cementing operations.

Blanket Bond
RLH:b

M. G. MEFFERD, State Oil and Gas Supervisor

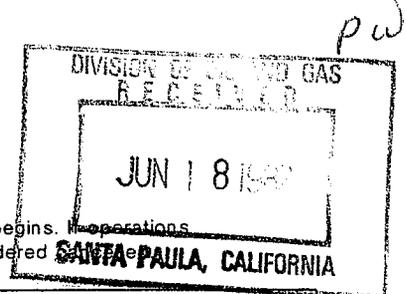
By Murray W. Dosch
Murray W. Dosch, Deputy Supervisor

**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.**

DIVISION OF OIL AND GAS

Notice of Intention to Rework Well

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



FOR DIVISION USE ONLY		
BOND	FORMS	
	OGD 114	OGD 121
55	✓	✓

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 #55 (Well designation), API No. 037-21353

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

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and 7600'.
Perforated at intervals 8187'-7983',
casing patch 6606'-6514'
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- Present zone pressure 1900 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:

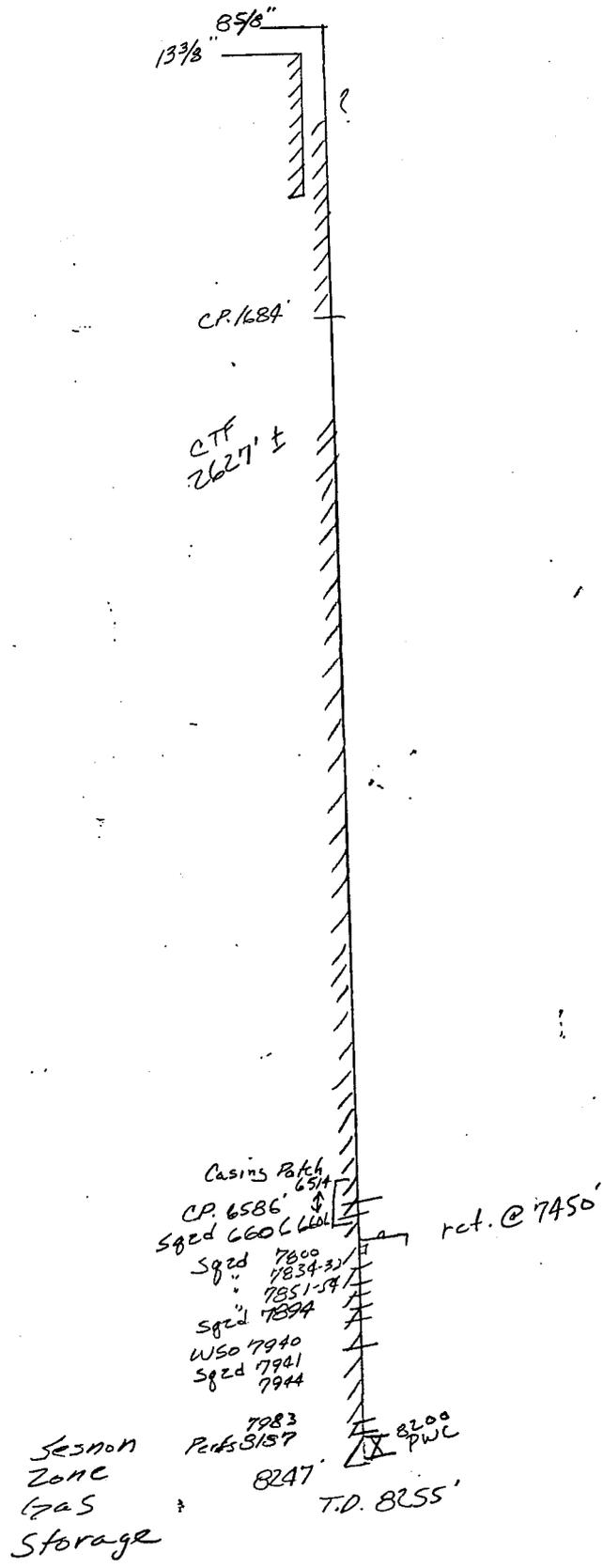
- Move in and rig up. Kill well. Install BOPE & pressure test.
- Pull tubing. Recover casing patch. Recover packer from 7947'.
- Plug with cement 8200'-7900'. Cut section 7560'-7580' and open hole to 15". Set retainer near 7450' and squeeze with cement.
- Land tubing near 7400' and suspend well.

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

Address P.O. Box 3249 Terminal Annex Southern California Gas Company
(Street) (Name of Operator)

LA CA 90051 By J.P. Anand
(City) (State) (Zip) (Print Name)

Telephone Number (213) 689-3925 J. P. Anand 6-17-82
(Signature) (Date)



RLH/J.P. Anand 6-1882
 Propose to suspend well indefinitely
 lest the gas somehow find its way
 out of the zone and use the
 casing as a conduit. Propose
 using the well as an observation
 well.

PW

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

DIVISION OF OIL AND GAS
RECEIVED

DEC 8 1980

History of Oil or Gas Well

SANTA PAULA, CALIFORNIA

Operator Southern California Gas Co. Field or County Aliso Canyon
Well IW #55, Sec. 28, T. 3N, R. 16W, S. BB. & M.
A.P.I. No. 037-21353 Name P. S. Magruder, Jr. Title Agent
Date October 7, 1980. (Person submitting report) (President, Secretary or Agent)

Signature *P. S. Magruder, Jr.*

P.O. Box 3249 Terminal Annex, Los Angeles, Cal. 90051 (213) 689-3561
(Address) (Telephone Number)

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

Date

- 1980
- 7.16. Moved in California Production Service Rig #D-4 and started rigging up.
- 7.17. Continued rigging up. Increased density of polymer completion fluid to 82#/cu.ft. Removed xmas tree. Installed BOPE.
- 7.18. Pressure tested blind rams, pipe rams and manifold to 4,000 psi with water for 20 minutes. Pressure tested Hydril to 3,000 psi with water for 20 minutes. Released tubing from packer. Installed bit guide. Ran in hole with bridge plug.
- 7.19. Bridge plug stopped at 5,115'. Found top rubber damaged. Ran 7 5/8" bit and casing scraper to 7,850'.
- 7.20. Rig and crew idle.
- 7.21. Ran and set bridge plug at 6,650'. Equalized 10 sacks of sand. Waited for two hours and located sand at 6,636'. Ran fullbore. Located top of sand at 6,625'.
- 7.22. Circulated out polymer with lease salt water. Set fullbore at 6,515'. No breakdown. Pulled out of well. Ran 300' of 2 7/8" tubing below retainer. Equalized 50 cu.ft. 12% HCL and 3% HF acid at 6,586'. Set packer at 5,988'. Held 2,500 psi on casing for 40 minutes. Reversed out acid.

- 7.23. Checked sand at 6,621', stage collar at 6,601'. Shot four 1/2" holes at 6,606'. Ran retrievable retainer with 420' tubing tail. Obtained breakdown with 2,500 psi at 12 cu.ft./minute. With tail at 6,609', equalized 100 sacks class "G" cement plus 0.75% D-65, mixed at 116#/cu.ft. Pulled 420' and reversed out. Set fullbore at 5,769' with tail at 6,189'. Squeezed 3 cu.ft. cement out of holes. Held 2,500 psi for 10 minutes. Ran 7 5/8" bit and casing scraper.
- 7.24. Drilled out cement from 6,342' to 6,621'. Pressure tested holes at 6,606' with 2,000 psi for 20 minutes.
- 7.25. Ran retrieving tool. Changed from lease water to polymer. Recovered Bridge plug.
- 7.26. Ran tester and set packer at 7,822'. Packer would not hold.
- 7.27. Rig and crew idle.
- 7.28. Ran new packer and set at 7,821'. Tested lines with 4,000 psi. Tool open from 8:40 am to 11:45 am. Rate 12,000,000 cu.ft./day. Ran Noise log from 7,797' to 6,000' which indicated gas leakage.
- 7.29. Ran in with jars, drill collars and "J" latch. Jarred packer free. Pulled out of well with packer.
- 7.30. Ran junk basket to 8,000'. Ran and set bridge plug at 7,925'. Ran retrievable retainer with 2-7/8" tubing tail.
- 7.31. Set retainer at 7,684'. Tried to obtain breakdown with 3,000 psi - pressure bled off 100 psi in 10 minutes. Equalized 50 cu.ft. 12% HCL and 3% HF acid. Set retainer. With 1,000 psi on casing, obtained breakdown at 2,200 psi and 20 cu.ft. minute.
- 8.01. Set drillable retainer at 7,850'. Displaced 100 sacks of latex cement out holes with 2,200 psi clearing holes. Mixed 75 sacks of self-stress cement. Displaced 100 cu.ft. through holes with final pressure of 3,000 psi (total volume 115 cu.ft.).
- 8.02. Ran in well with 7 5/8" mill, two junk subs and four 4 3/4" drill collars. Milled retainer at 7,850' and cement to 7,860'.
- 8.03. Rig and crew idle.
- 8.04. Milled junk and cement from 7,860' to 7,924'. Pressure tested 8 5/8" casing with 2,000 psi for 25 minutes. Noise log malfunctioned.

- 8.05. Ran Noise log from 7,840' to 6,800'. Ran junk mill and recovery tool and milled junk from 7,919' to 7,921'.
- 8.06. Ran 7 5/8" junk mill with two junk subs on four 4 3/4" drill collars and milled on junk and bridge plug from 7,925' to 7,930'. Cleaned out to 8,200'. Hydraulic tubing tongs failed. Secured well at 9:00 am.
- 8.07. Ran tester. Set packer at 7,869' with tail to 7,878'. Pressure tested lines to 4,000 psi with water. Flowed well clean. Ran Noise log from 7,690' - 6,800' which indicated gas movement,
- 8.08. Set packer at 7,950' with tail at 7,963'. Pressure tested lines to 2,250 psi. Flowed well clean. Ran Noise log from 7,900' to 6,800' which indicated gas movement.
- 8.09. Ran bridge plug and set at 7,865'. Ran tubing to 7,865'. Displaced 82#/cu.ft. brine-polymer with waste lease salt water.
- 8.10. Rig and crew idle.
- 8.11. Shot four 1/2" jet holes from 7,850' to 7,851'. Set cement retainer at 7,800'. Obtained breakdown of 13 cu.ft./minute at 2,800 psi. Pumped 20 cu.ft. 12% HCL and 3% HF acid ahead of 10 cu.ft. water, followed by 111 cu.ft. PCF self-stress cement, 10 cu.ft. water and 92 cu.ft. hole fluid. Stabbed into retainer and displaced with 258 cu.ft. hole fluid, leaving 15 cu.ft. cement inside casing with 96 cu.ft. out holes at 7,850' at a final pressure of 2,600 psi.
- 8.12. Ran in hole to 7,800' and located top of retainer at 7,801'. Milled on retainer and cement inside 8 5/8" casing to 7,858'.
- 8.13. Pressure tested with 2,000 psi for 10 minutes. No leakage. Ran and set packer at 7,831'. Opened test tool and recovered no fluid. Ran Noise log from 7,800' to 6,800'.
- 8.14. Ran in well with junk mill. Located bottom at 7,859'. Changed from salt water to polymer. Milled cement and bridge plug to 7,865'. Milled junk at 8,200'. Circulated well clean.

- 8.15. Ran and set packer at 7,956'. Pressure tested all lines to 4,000 psi with water. Flowed well clean. Ran Noise log which indicated gas leak behind casing. Bled down tubing via Gas Company line to 500 psi. Bled remaining pressure to Baker tank. Dropped bar, opened backscuttle valve and reverse circulated for two hours.
- 8.16. Bled off pressure on annulus. Removed pitcher nipple flow line. Set bridge plug at 7,862'. Located bridge plug with tubing at 7,862'. Pulled up to 7,830' and pressured up to 2,000 psi, lost 50 psi in 10 minutes.
- 8.17. Rig and crew idle.
- 8.18. Changed over from polymer brine to lease salt water. Shot four holes at 7,834' and four holes at 7,854' with 4" casing gun. Set retainer on wire line at 7,843'. Made up stab-in tool and ran in to 7,843'. Stabbed into retainer and pressured up to 2,000 psi. Pressure bled to zero in 1 minute.
- 8.19. Stabbed into retainer. Obtained nearly full returns through upper holes at approximately 1.5 cu.ft./minute at 1,400 - 1,900 psi. Displaced 60 cu.ft. of 12% HCL and 3% HF acid inhibited with HAI-75 to 20 cu.ft. above retainer. Squeezed acid into formation with 2,000 psi maximum without breakdown. Increased pump pressure to 2,400 psi. Pumped at 15 gallon/minute and obtained 1 gallon/minute returns. Pressured up on annulus to 1,500 psi. No breakdown or pressure loss. Pumped down tubing. No breakdown. Able to pump in at 3,000 psi. Squeezed 30 cu.ft. acid at 2,600 psi. No breakdown. Squeezed 50 sacks class "G" cement and 0.6% CFR-2 and 0.5% Halad 9 at final pressure of 2,300 psi. Squeezed 75 sacks, 100 sacks, 125 sacks in three stages at final pressure of 2,500 psi. Bled down to 2,100 psi.
- 8.20. Unable to stab into retainer. Equalized 100 gallons acid above retainer and pulled out of well. Ran in with retainer with 10' tail. Set packer at 7,767' and established breakdown of 3 bbls/minute at 2,700 psi. Pumped 20 cu.ft. freshwater, 75 sacks class "G" cement, 10 cu.ft. freshwater, displaced to retainer. Closed bypass, squeezed until cement at bottom of retainer. Staged six times with final pressure of 2,600 psi with 76 cu.ft. away.
- 8.21. Pulled retainer out of well. Ran 7 5/8" bit with two junk subs and casing scraper. Drilled out cement from 7,735' to retainer at 7,840'. Pressure tested to 2,000 psi. Drilled on retainer to 7,844'.
- 8.22. Ran in well with 7 5/8" junk mill and milled to 7,858'. Circulated well clean. Closed pipe rams and pressure tested to 2,100 psi with rig pump. Bled off 150 psi in 20 minutes.

- 8.23. Ran in well with retainer to 7,857'. Equalized 100 gallons of 12% HCL and 3% HF acid. Pulled retainer to 7,770'. Pressure tested to 2,000 psi but unable to obtain breakdown. Ran to 7,808' and set retainer. Pressure to 1,700 psi and attempted to breakdown by pumping down tubing - noticed communication. Restabbed into retainer - still had communication. Retainer held 2,300 psi with no pressure loss. Backscuttled. Hydrotested tubing to 5,000 psi. No leaks.
- 8.24. Rig and crew idle.
- 8.25. Obtained breakdown with 2,900 psi at 3 cu.ft./minute. Equalized 150 gallons acid at bottom of stinger and obtained breakdown with 2,800 psi at 5 cu.ft./minute. Pumped 20 cu.ft. acid, 50 sacks cement, 10 cu.ft. fresh water and squeezed 40 cu.ft. away with final pressure of 3,000 psi.
- 8.26. Located retainer at 7,802': Milled on retainer to 7,803' and drilled out cement to 7,858'. Pressure tested casing to 2,200 psi. Ran Audio Noise log. Pressure tested casing to 2,150 psi for 20 minutes. No pressure loss.
- 8.27. Shot 1/2" holes at 7,833'. Ran in well with retainer on tubing to 7,858'. Equalized 15 cu.ft. of acid. Set retainer at 7,800'. Squeezed 4 cu.ft. at 2,500 psi to establish breakdown. Pulled out of retainer. Circulated 24 cu.ft. acid to stinger. Stabbed into retainer and squeezed 14 cu.ft. at 2,500 psi (1 cu.ft./minute).
- 8.28. Established breakdown with 2,100 psi - 5 cu.ft./minute. Mixed and pumped 20 cu.ft. acid, 50 sacks cement, followed by 10 cu.ft. fresh water. Squeezed away at 2 cu.ft./minute. Final pressure 2,700 psi, after pumping away 45 - 50 cu.ft. Ran in with junk mill, junk subs and drill collars to 7,750'.
- 8.29. Milled retainer from 7,800' to 7,858'. Pressure tested casing to 2,100 psi for 10 minutes. No pressure loss. Ran Audio Noise log which showed very little gas movement.
- 8.30. Ran in with junk subs and four drill collars. Located fill at 7,858'. Changed over to polymer brine. Milled on junk from 7,858' to 7,860'.
- 8.31. Rig and crew idle.
- 9.01. Rig and crew idle.

DEC 8 1980

SANTA PAULA, CALIFORNIA

- 9.02. Milled out bridge plug from 7,862' to 8,200'. Pumped 100 bbls of 86#/cu.ft. Calcium Chloride water to weight up system to 83#/cu.ft.
- 9.03. Ran in well with tester and set packer at 7,963'. Pressure tested choke manifold and lines to 4,000 psi with water. Packer would not hold. Changed packer and ran in well to 7,945'.
- 9.04. Pressure tested manifold and lines to 4,000 psi. Set packer at 7,953'. Flowed well to clear tubing. Shut in well with 2,750 psi. Ran Audio Noise log. Gas leaked through safety valve and pressure built to 300 psi. Bled down pressure and changed safety valve. Pressured up tubing to 2,500 psi. Safety valve leaked. Bled down tubing. Released packer and pulled to 2,000'.
- 9.05. Changed shut-in tool and ran in well with packer to 7,951'. Pressure tested safety valve and lines to 4,000 psi. Flowed tubing until cleared of fluid. Flowing tubing pressure at 2,600 psi, shut in pressure at 2,750 psi. Ran Noise log. High noise at bottom. Tubing pressure started to increase and finally stabilized at 3,275 psi. Possible tubing leak. Bled tubing down to Baker tank.
- 9.06. Ran Noise log. No noise detected. Released packer and observed no fluid drop in the annulus. Backscuttled and pulled out of well. Rigged up hydrotester and tested tubing going in well to 5,000 psi. No tubing leak detected. Packer at 7,803'.
- 9.07. Rig and crew idle.
- 9.08. Pressure tested surface lines and safety valve to 4,000 psi. Ran Audio Analyzer log which indicated gas movement. Filled tubing. Pulled packer free and circulated well clean.
- 9.09. Ran and set drillable bridge plug at 7,820'. Made up 4" OD, four shots per foot gun, three shots fired at 7,800', two shots fired at 7,600'. Redressed gun and reshot at 7,800' and 7,600'. Total seven holes at 7,800' and six holes at 7,600'. Located bridge plug at 7,806'. Changed over from polymer fluid to lease salt water. Made up 8 5/8" drillable retainer on tubing and ran in well.

- 9.10. Located bridge plug at 7,805'. Set retainer at 7,750'. Pressured up annulus to 1,500 psi to check packer. Obtained breakdown at 2,600 psi at 10 gallons/minute while holding 1,500 psi back pressure. Mixed and displaced 35 gallons diesel, 450 gallons Furfuryl mixture, 110 gallons diesel and 80 gallons methanol. Displaced by 27.5 bbls lease water to bottom of tubing. Stabbed into retainer and squeezed 14 barrels with final pressure of 2,940 psi at 8 gallons/minute. Pulled out of retainer. Bled down tubing. Pulled to 7,630'. Backscuttled well clean. Recovered 1 bbl Furfuryl.
- 9.11. Ran and set retainer at 7,545'. Obtained breakdown at 13 cu.ft./minute with 2,900 psi. Pumped 7 cu.ft. diesel, 88 cu.ft. Furfuryl mixture, 13.5 cu.ft. diesel and 13.5 cu.ft. Methanol and displaced lead diesel to bottom of stinger with 123 cu.ft. lease water. Squeezed 56 cu.ft. and approximately 28 cu.ft. of Furfuryl into formation. Final pressure 3,300 psi. Pumped 52 cu.ft. to balance Furfuryl. Pulled out of well. Made up 7 5/8" junk mill, two junk subs, four 4 3/4" drill collars and ran in hole to 5,960'.
- 9.12. Located fill at 7,350'. Drilled out to top retainer at 7,545'. Retainer was moving down well. Worked pipe and circulated out Furfuryl solids. Drilled and worked retainer down well to top of bottom retainer. Retainer went down well. Drilled to 7,770'.
- 9.13. Changed 7 5/8" mill. Closed pipe rams and tested shot holes to 2,000 psi for 15 minutes. Circulated salt water out of well with polymer drilling fluid. Drilled on plug and worked down to 8,124'.
- 9.14. Rig and crew idle.
- 9.15. Changed mill. Dropped mill, junk subs and four 4 3/4" drill collars in well. Ran in well with 2 7/8" tubing and screwed into drill collars. Milled on bridge plug to 8,193'. Pulled out of well and ran in with mill and casing scraper.
- 9.16. Circulated bottoms up. Pressure tested all lines to 4,000 psi with water. Set packer at 7,950'. Flowed well clean, shut-in pressure of 2,700 psi. Ran Audio Log from 7,798' to 4,000' which showed gas leakage.
- 9.17. Ran and set packer at 7,950'. Pressure tested all lines to 4,000 psi. Open tester 3:50 pm and flowed well with 1,700 psi for 15 minutes. Shut well in with 2,700 psi. Ran Audio Analyzer log from 7,900' to 5,000', which indicated no gas movement.
- 9.18. Circulated gas cut drilling fluid out of well. Ran packer on wire line and set at 7,950'. Made up and ran casing patch to 6,564' with bottom at 6,606'.

- 9.19. Ran in well with locator and two seals. Pressure tested seals and packer to 1,500 psi for 15 minutes. Laid down 2 7/8" tubing.
- 9.20. Finished laying down 2 7/8" tubing. Picked up 2 7/8" tubing, drifting and hydrotesting to 5,000 psi. 180 joints in well.
- 9.21. Rig and crew idle.
- 9.22. Landed tubing on packer with 10,000#. Pulled 30,000# over tubing weight to check latch. Installed back pressure valve and removed BOPE. Installed xmas tree and tested with 5,000 psi. Unloaded drilling fluid from well with gas.
- 9.23. Flowed well to Baker tank. Surface pressure 2,200 psi. Ran Audio Analyzer log from 7,885' to 600' which indicated no gas movement. Released rig at 10:00 pm.

DIVISION OF OIL AND GAS
RECEIVED

DEC 8 1980

SANTA PAULA, CALIFORNIA

pw

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

No. P 280-273

REPORT ON PROPOSED OPERATIONS

010
(well code)
03
(area code)
30
(pool code)

J. W. Tenfelder, Agent
So. Calif. Gas Co.
12801 Tampa Avenue
Northridge, CA 91324

Santa Paula, California
Aug. 11, 1980

Your _____ proposal to alter casing well IW 55,
A.P.I. No. 037-21353, Section 28, T. 3N, R. 16W, S.B. B. & M.,
Aliso Canyon field, Main area, Seanon-Frew pool,
Los Angeles County, dated 7/30/80, received 8/6/80 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 B, 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.

Blanket Bond
MD:b

M. G. MEFFERD, State Oil and Gas Supervisor

By *John E. Hardoin*
John E. Hardoin, Deputy Supervisor

POJ

DIVISION OF OIL AND GAS
Notice of Intention to Rework Well

AUG 6 1980

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	OGD114	OGD121
	✓	✓

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. IW #55, API No. 037-21353

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

The present condition of the well is as follows:

1. Total depth.
8,255'

2. Complete casing record, including plugs and perforations:

13 3/8" cemented 801'
8 5/8" cemented 8,247', plug 8,200', cp'd 6,586' and 1,684',
squeezed 6,606', 7,941' - 7,944', WSO 7,940', squeezed
7,894'.
Perf'd at intervals: 8,184' - 7,980'.

3. Present producing zone name Seson Zone in which well is to be recompleted _____

4. Present zone pressure 3,600 psi New zone pressure _____

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

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

The proposed work is as follows: (Confirming conversation Dosch - Abrahamson)

After squeeze cementing through holes at 6,606', made test and ran Audio Analyzer log which showed gas leakage.

- Set bridge plug 7,925'. Squeeze holes at 7,894'. Pressure test and run Audio Analyzer log. Make production test and rerun Audio Analyzer log.
- Set casing patch 6,616' - 6,576'.
- Run tubing with down hole safety system and return well to gas storage service.

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

Address P.O. Box 3249 Terminal Annex Southern California Gas Company
(Street) (Name of Operator)
Los Angeles California 90051
(City) (State) (Zip)
By P.S. Magruder 7/30/80
(Name) (Date)
Telephone Number (213) 689-3561 Type of Organization Corporation
(Corporation, Partnership, Individual, etc.)

pat

DIVISION OF OIL AND GAS

Report on Operations

Mr. J. W. Tenfelder, Agent
Southern Calif. Gas Co.
12801 Tampa Avenue
Northridge, CA 91324

Santa Paula, Calif.
July 28, 1980

Your operations at well TW 55, API No. 037-21353, Sec. 28, T. 3N, R. 16W
S.B., B. & M. Aliso Canyon Field, in Los Angeles County, were witnessed
on 7/17/80 by Ed Hickey, representative of the supervisor, was
present from 1800 to 2030. There were also present A. Smith, foreman

Present condition of well: No additions to the casing record since proposal received 7/10/80.

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

DECISION:

THE BLOWOUT PREVENTION EQUIPMENT AND INSTALLATION ARE APPROVED.

b

M. G. HILFARD

State Oil and Gas Supervisor

By

Deputy Supervisor

John L. Hardoin

210

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

No. P. 280-215

REPORT ON PROPOSED OPERATIONS

010
(field code)
03
(area code)
30
(pool code)

Mr. J. W. Tenfelder, Agent
Southern California Gas Co.
12801 Tampa Avenue
Northridge, CA 91324

Santa Paula, California
July 10, 1980

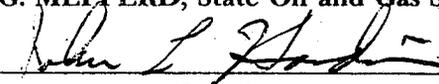
Your proposal to alter casing in gas storage well IW 55
A.P.I. No. 037-21353, Section 28, T. 3N, R. 16W, S.B. B. & M.,
Aliso Canyon field, Main area, Sesnon-Frew pool,
Los Angeles County, dated --, received 7/10/80 has been examined in conjunction with records
filed in this office.

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 B 3M 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.

Blanket Bond
MWD:r

M. G. MEEFERD, State Oil and Gas Supervisor

By 
Deputy Supervisor

JUL 10 1980

DIVISION OF OIL AND GAS

Notice of Intention to Rework Well

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

SANTA ANA, CALIFORNIA

FOR DIVISION USE ONLY		
BOND		
	OGD114	OGD121
BB	✓	✓

DIVISION OF OIL AND GAS

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to rework well No. IW #55, API No. 037-21353,

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

The present condition of the well is as follows:

1. Total depth.
8,255'

2. Complete casing record, including plugs and perforations:

13 3/8" cemented 801'
8 5/8" cemented 8,247', plug 8,200', cp'd 6,586' and 1,684'
squeezed 7,941' - 44', WSO 7,940'
perf'd at intervals 8,184' - 7,980'

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

4. Present zone pressure 3,600 psi New zone pressure -

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

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

The proposed work is as follows:

1. Move in and rig up. Kill well. Install BOPE and pressure test.
2. Pull tubing.
3. Set bridge plug near 6,650' and cap with sand. Squeeze cement leaking stage collar at 6,586' and pressure test.
4. Set casing patch from 6,566' - 6,606'. Run tubing and return well to Gas Storage Service.

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

Address P.O. Box 3249 Terminal Annex Southern California Gas Company
(Street) (Name of Operator)
Los Angeles Calif. 90051
(City) (State) (Zip)
By P.S. Magruder, Jr.
P.S. (Name) Magruder, Jr. (Date)
Telephone Number (213) 689-3561 Type of Organization Corporation
(Corporation, Partnership, Individual, etc.)

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

REPORT OF CORRECTION OR CANCELLATION

Santa Paula, California

Mr. J. W. Tenfelder, Agent _____
Southern California Gas Co. _____
12801 Tampa Avenue _____
Northridge, CA 91324 _____

July 23, 1980

In accordance with Notice filed on 7/10/80

the following change pertaining to your well IW 55,

Aliso Canyon field, Los Angeles County,

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

The corrected location is _____

The corrected elevation is _____

Report No. _____, dated _____, has been corrected as follows: _____

Your notice to alter casing dated 6/26/80,
(Drill, abandon, etc.)
and our report No. P 280-209, issued in answer thereto, are hereby cancelled inasmuch as the work will not be done. If you have a drilling bond on file covering this notice it will be returned. No request for such return is necessary.

Other: _____

MAP	MAP BOOK	CARDS	BOND	FORMS	
				114	121

State Oil and Gas Supervisor

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

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

No. P. 280-209

REPORT ON PROPOSED OPERATIONS

010
(field code)
03
(area code)
30
(pool code)

Mr. J. W. Tenfelder, Agent
So. Calif. Gas Company
12801 Tampa Avenue
Northridge, CA 91324

Santa Paula, California
June 30, 1980

Your proposal to alter casing well IW 55',
A.P.I. No. 037-21323, Section 28, T. 3N, R. 16W, S.B. B. & M.,
Aliso Canyon field, area, pool,
Los Angeles County, dated ---, received 6/26/80 has been examined in conjunction with records
filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

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

Blanket Bond
MD:b

Approved

M. G. MEEFERD, State Oil and Gas Supervisor

By John L. Harkin
John L. Harkin, Deputy Supervisor

DIVISION OF OIL AND GAS
RECEIVED

DIVISION OF OIL AND GAS

Notice of Intention to Rework Well

JUN 26 1961

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

SANTA PAULA, CALIFORNIA

FOR DIVISION USE ONLY		
BOND	OGD114	OGD121
	✓	✓

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. IW #55, API No. _____, Sec. 28, T. 3N, R. 16W, S.B.B. & M., Aliso Canyon Field, Los Angeles County.

The present condition of the well is as follows:

- Total depth. 8,255'
- Complete casing record, including plugs and perforations:
13 3/8" cemented 801'
8 5/8" cemented 8,247', plug 8,200', cp'd 6,586' and 1,684'
squeezed 7,941' - 44', WSO 7,940'
perf'd at intervals 8,184' - 7,980'

- Present producing zone name Sesnon Zone in which well is to be recompleted -
- Present zone pressure 3,600 psi New zone pressure -
- Last produced _____ (Date) _____ (Oil, B/D) _____ (Water, B/D) _____ (Gas, Mcf/D)
or
- Last injected _____ (Date) _____ (Water, B/D) _____ (Gas, Mcf) _____ (Surface pressure, psig.)

The proposed work is as follows:

- Move in and rig up. Kill well. Install BOPE and pressure test.
- Pull tubing.
- Set bridge plug near 6,650' and cap with sand. Squeeze cement leaking stage collar at 6,586' and pressure test.
- Set casing patch from 6,566' - 6,606'. Run tubing and return well to Gas Storage Service.

Cancelled

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

Address P.O. Box 3249 Terminal Annex Southern California Gas Company
(Street) (Name of Operator)
Los Angeles Calif. 90051
(City) (State) (Zip)
 Telephone Number (213) 689-3561
 By P.S. Magruder, Jr. (Date)
 Type of Organization Corporation
(Corporation, Partnership, Individual, etc.)

PW

DIVISION OF OIL AND GAS
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DEC 7 1979

SANTA PAULA, CALIFORNIA

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 Company..... Field or County..Aliso Canyon.....
Well.....I.W. #55....., Sec. 28..., T...3N..., R...16W., SB. B. & M.
A.P.I. No. 037-21353..... Name.....P.S. Magruder, Jr..... Title...Agent.....
Date...March 1, 1979....., 19.....
(Person submitting report) (President, Secretary or Agent)

Signature PSM/ P.S. Magruder, Jr.

P.O. Box 3249 Terminal Annex, Los Angeles Ca. 90051..... (213) 689-3561.....
(Address) (Telephone Number)

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

- | Date | MWO 99571 |
|--------|---|
| 1978 | Initial Program: Replace or repair inoperative safety system.
Supplemental program: Squeeze with cement the hole at 7,940' to 7,944' and 7,894', pressure test these holes and run Noise Logs to confirm leak stoppage. Conduct a production test and rerun Noise Logs for final confirmation. Re-complete and return well to gas storage storage service. |
| 12-29 | 0 Day. Killed well with 500 barrels of 72# brine-polymer fluid. |
| 12-30 | 1st Day. Moved California Production Service Co. rig #D-3 onto wellsite and began rigging up. |
| 12-31 | Rig and crew idle. |
| 1-1-79 | Rig and crew idle. |
| 1-2 | 2nd Day. Rigging up. Took 24 barrels of brine-polymer fluid to fill well. Circulated. Could not raise mast due to high winds. |
| 1-3 | 3rd Day. Raised mast. Completed rigging up. Installed back pressure valve in tubing hanger. Removed xmas tree. Installed BOPE. |
| 1-4 | 4th Day. Tested blind rams and pipe rams with water to 4,000 psi and Hydril "GK" to 2,600 psi - repeated tests with nitrogen. Measured out of hole. Laid down production equipment. |
| 1-5 | 5th Day. Ran in hole with Otis packer test tool (J latch and 2 seals). Changed tubing collars, cleaned pins and applied Baker seal thread lubricant. Latched into packer at 7,960'. Tested packer with 10,000# compression and 25,000# tension over weight of string. Rigged up H & H and tried to test packer, packer did not test. |
| 1-6 | 6th Day. Measured out of hole. Ran 8 5/8" Baker "Fullbore" cement retainer to 1,746' and set tool. It did not work. Pulled out of well and removed unloader valve. Reset tool at 180' and circulated through tubing. Ran Johnston 8 5/8" "Positrieve" cement retainer to 1,746' and tested |

1979 History of well Report for I. W. #55, Aliso Canyon

1-6 continued

at 1,500 psi for 20 minutes, OK. Reset tool at 6,645' and tested casing at 1,500 psi for 20 minutes, OK. Ran in and found packer at 7,974'. Set tool and pumped away fluid at 1,250 psi. Pulled tool up to 7,914'. Set and tested casing at 1,500 psi for 20 minutes, OK. Pulled up to 7,600'.

1-7 Rig and crew idle.

1-8 7th Day. Pulled out of hole. Ran Otis packer retrieving tool to 7,974' and latched into packer. Jarred packer loose and pulled 9 stands.

1-9 8th Day. Continued out of hole. Laid down 8 5/8" Otis "Permatrrieve" packer. Ran in hole with 7 5/8" bit and 8 5/8" casing scraper to 8,200' (top of fill) and circulated hole. Pulled out of hole. Laid down bit and scraper. Started in hole with 8 5/8" Lynes 4-way tester.

1-10 9th Day. Ran in and set 8 5/8" Lynes packer at 7,867' (tail to 7,889'). Took 30 minute initial flow test, 30 minute initial shut in and 7 1/2 hour flow test. Shut tool in, dropped bar, backscuttled tubing.

1-11 10th Day. Ran Audio Analyzer which indicated a casing leak. Pulled Lynes packer.

1-12 11th Day. Ran and set 8 5/8" Johnston drillable bridge plug at 7,965'. Mixed 5 sacks of 20 mesh sand with water and spotted at 7,961'. Found top of sand at 7,950'. Circulated down to 7,953'. Backscuttled excess sand to surface. Pulled one stand.

1-13 12th Day. Tagged sand at 7,954'. With open end tubing at 7,953', pumped 44 cu.ft. of water, 50 cu.ft. of acid (12% HCL and 3% HF), 6 cu.ft. of water and 252 cu.ft. of brine-polymer fluid. Broke off Halliburton head and had 15 cu.ft. back flow. Pulled out of hole. Shot four 1/2" bullet holes at 7,894'. Made up 8 5/8" Johnston drillable cement retainer on tubing. Ran in to 7,789'. Unable to set retainer. Closed pipe rams. Displaced acid into formation (35 cu.ft.). Pump rate 30 cu.ft. per minute at 2,000 psi. Pulled slowly out of hole. Retainer was not on tubing.

1-14 Rig and crew idle.

1-15 13th Day. Ran in and found retainer at 7,954'. Equalized 30 cu.ft. of 12% HCL and 3% HF acid. Pulled out of hole. Ran Johnston drillable retainer and set at 7,817'. Pumped 50 cu.ft. of 12% HCL and 3% HF acid at 29 cu.ft. per minute at 2,200 psi. Mixed and pumped in 100 sacks of class "G" cement, 0.75% "CFR-2". Had no pressure increase. Maximum pressure 1,350 psi. Cleared holes with 35 cu.ft. of water. Backscuttled tubing.

1-16 14th Day. Stabbed into retainer at 7,818' and could not pump with 3,000 psi. Held 3,000 psi for 20 minutes. Pulled out of hole. Ran 7 5/8" bit and drilled on retainer from 7,818' to 7,824'. Retainer fell free to 7,888'. Drilled to 7,891'.

1979 Hist of well Report for I. W. #55, Liso Canyon

- 1-17 15th Day. Drilled cement from 7,891' to 7,945'. Pulled out and closed rams, pumped into formation with 1,900 psi at 15 cu.ft. per minute. Ran to 7,198' with Johnston retainer.
- 1-18 16th Day. Ran to 7,945' and spotted 100 cu.ft. of fresh water. Pumped 10.5 cu.ft. per minute at 2,000 psi. Pulled to 7,853'. Unable to set retainer. Pulled out of hole without retainer. Ran 7 5/8" bit. Drilled retainer from 7,856' to 7,859'. Retainer fell to 7,944', cleaned out to 7,950'. Circulated hole clean.
- 1-19 17th Day. Equalized 100 cu.ft. of fresh water at 7,943'. Obtained break-down at 2,000 psi and 11 cu. ft. per minute. Pulled out and ran Johnston drillable retainer and set at 7,818'. Mixed 100 sacks of class "G" cement with 0.75% "CFR-2". Squeezed cement from 900 psi to 1,200 psi. Displaced cement 15 cu.ft. below retainer at 7,818'. Final pressure was 2,000 psi. Reversed out tubing. Pulled out and ran 7 5/8" bit.
- 1-20 18th Day. Drilled on retainer from 7,818' to 7,822'. Cleaned out cement from 7,835' to 7,900'. Tested holes with 2,000 psi. Lost 500 psi in 5 minutes. Circulated hole clean. Pulled bit. Started in hole with Johnston retrievable cementer.
- 1-21 Rig and crew idle.
- 1-22 19th Day. Ran in and set Johnston retainer at 7,714' with tail to 7,867'. Spotted 50 cu.ft. of water. Set retainer and pumped in 40 cu.ft. in 1-1/2 hours at 3,000 psi. With retainer at 7,722' and tail at 7,875', pumped in 50 cu.ft. of 12% HF acid at 7 cu.ft. per minute at 3,000 psi. With tail at 7,875' spotted 30 sacks of class "G" cement. Pulled tail to 7,625' and reversed out tubing. Set retainer at 7,528' and squeezed 30 cu.ft. of cement out of casing at final pressure of 2,200 psi. Pulled packer and ran 7 5/8" bit to 6,735'.
- 1-23 20th Day. Ran 7 5/8" bit. Tagged cement at 7,800'. Cleaned out stringers of cement to 7,830' and hard cement to 7,905'. Tested holes at 7,894' with 2,000 psi which bled off to 1,750 psi in 15 minutes. Held 2,000 psi for 20 minutes by pumping 2 cu.ft. Circulated hole clean. Pulled out of hole.
- 1-24 21st Day. Ran bit and scraper to 7,905'. Circulated hole clean. 12 hours down time for rig repairs.
- 1-25 22nd Day. Rig repaired at 12:15 p.m. Suspended operations to permit wireline work on I. W. #74.
- 1-26 23rd Day. Spotted 30 cu. ft. of 15% acid (12% HCL and 3% HF) at 7,903'. Pulled bit and scraper. Ran Johnston drillable retainer. Could not set retainer. Pulled out without retainer. Ran in with 7 5/8" bit and pushed retainer from 7,809' to 7,832'. Drilled on retainer at 7,832'.

1979

- 1-27 24th Day. Spotted 30 cu.ft. of 15% acid (12% HCL and 3% HF) at 7,900'. Pulled out of hole. Ran cement retainer which was set at 7,849'. Pumped away 50 cu.ft. of acid at 2,300 psi and 22 cu.ft. per minute. With retainer at 7,849', pumped away 100 sacks of class "G" cement with 0.75% "CFR-2". Cleared perforations with 2,200 psi. Mixed 100 sacks of class "G" cement with 0.75% "CFR-2" and displaced to retainer, final pressure 2,500 psi which held. Started out of hole after reversing out tubing.
- 1-28 Rig and crew idle.
- 1-29 25th Day. Pulled setting tool out of hole. Ran 7 5/8" bit. Found top of cement at 7,844'. Cleaned out to top of retainer at 7,847'. Drilling retainer at 7,848'.
- 1-30 26th Day. Pulled 7 5/8" bit. Ran 7 5/8" Servco Junk Mill. Milled retainer from 7,848' to 7,849.5'. Tubing parted at 1,580'. Ran overshot and pulled fish into table.
- 1-31 27th Day. Pulled out to check tubing, one joint bent. Ran 7 5/8" mill back in hole. Milled for five hours.
- 2-1 28th Day. Pulled 7 5/8" junk mill. Ran 7 5/8" bit. Drilled on retainer from 7,849' to 7,901'. Halliburton tested holes with 2,000 psi. Pipe rams leaked. Changed to new rams which also leaked. Drilled to 7,902'.
- 2-2 29th Day. Changed pipe rams in BOPE. Pressure tested holes at 7,894' and lost 100 psi in 5 minutes. Pulled bit and ran retrievable cement retainer. Set retainer at 7,585' with tail to 7,895'. Pumped in 60 cu.ft. of 12% HCL and 3% HF. Pumped acid at 3 cu.ft per minute with 3,000 psi. Equalized 75 sacks of class "G" cement with 0.75% "CFR-2" at 7,895'. Set retainer at 7,275' and tail to 7,585', reversed out tubing. Squeezed 10.5 cu.ft. of cement out-of holes at 3,000 psi. Closed well in with 3,000 psi.
- 2-3 30th Day. Bled off pressure. Pulled out of hole and laid down retrievable cementer. Ran in with 7 5/8" bit and found top of cement at 7,711'. Cleaned out cement to 7,902'. Closed pipe rams and tested casing at 2,000 psi for 20 minutes, OK. Circulated hole.
- 2-4 Rig and crew idle.
- 2-5 31st Day. Pulled out of hole and laid down bit and scraper. Ran in hole with used 7 5/8" bit to top of fill at 7,902'. Cleaned out to 7,918' when pipe parted. Pulled out of hole. Top of fish at 7,221'.
- 2-6 32nd Day. Ran in hole with 3 3/32" grapple and latched onto fish at 7,221'. Recovered fish. Ran in with new 7 5/8" bit. Adjusted pipe measurements. Cleaned out cement from 7,903' to 7,906'. Pipe parted at 7,634'. Ran in hole with 3 3/32" grapple.
- 2-7 33rd Day. Latched onto fish at 7,634'. Recovered fish. Ran in hole open ended. Pulled out of hole laying down tubing in singles. Loaded out tubing (old tubing). Unloaded new tubing.

1979 Hi. ry of Well Report for I. W. #5. Aliso Canyon

- 2-8 34th Day. Ran in hole with 7 5/8" bit #4, new 2 7/8" 6.5# N-80 tubing to 7,894' and cleaned out cement from 7,894' to 7,904'. Circulated hole. Pressure tested casing from surface to 7,904' (holes at 7,894') at 2,000 psi for 20 minutes, OK.
- 2-9 35th Day. Cleaned out cement from 7,904' to 7,950'. Tested casing from surface to 7,950' at 2,000 psi for 20 minutes, OK. Ran Audio Analyzer and recorded from 7,920' to 5,900'. No indication of gas leakage. Drilling on junk at 7,950'.
- 2-10 36th Day. Drilled out cement and retainers from 7,950' to 7,961'. Tubing parted at 1,481'. Ran in hole with 3 3/32" grapple and latched onto and recovered fish.
- 2-11 Rig and crew idle.
- 2-12 37th Day. Drilled on bridge plug from 7,962' to 7,966'. Tubing parted at 1,511'. Ran overshot and engaged fish at 1,636'. Pulled out of hole recovering all fish, changed bits. Ran 7 5/8" bit.
- 2-13 38th Day. Drilled on junk from 8,076' to 8,192'.
- 2-14 39th Day. Circulated hole clean. Ran Lynes packer to 7,835'.
- 2-15 40th Day. Set Lynes packer at 7,830' with tail to 7,856'. Took 30 minute initial flow and 30 minute initial shut in. Opened tool at 8:20 a.m.. Closed tool at 8:00 p.m. and reversed gas from tubing.
- 2-16 41st Day. Ran Audio Analyzer from 7,838' to 7,638'. Pulled Lynes tools, Schlumberger ran junk basket to 7,900' and checked collars. Ran Otis "Permatrrieve" packer which was inadvertently set at 7,435'. Started in hole with retrieving tool for packer.
- 2-17 42nd Day. Found packer at 7,435'. Recovered packer.
- 2-18 Rig and crew idle.
- 2-19 43rd Day. Ran Otis "Permatrrieve" packer and set at incorrect depth of 8,150'. Recovered packer. Set Otis "Permatrrieve" at 7,850'.
- 2-20 44th Day. Ran in hole changing collars. Latched into packer. Set down 10,000# and pulled 25,000# over weight of tubing to check latch. Tested packer and seals with 1,500 psi for 20 minutes. Started out of hole.
- 2-21 45th Day. Continued pulling out of hole. Assembled Otis annular flow safety system and ran in hole hydrotesting to 5,000 psi. Landed tubing string with 10,000# on packer at 7,850'. Pulled 25,000# over weight of tubing to check latch. Removed BOPE and installed xmas tree. Pressure tested tree to 5,000 psi.
- 2-22 46th Day. Displaced 68# brine-polymer completion fluid from well with waste lease salt water. Installed blind flanges on wellhead. Released rig at 10:00 a.m.

REPORT ON PROPOSED OPERATIONS

Santa Paula, California

Feb. 6, 1979

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

POOL CODE: 30

Your proposal to alter casing in gas storage well IW 55
(Name and number)

A.P.I. No. 037-21353, Section 28, T. 3N, R. 16W

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

dated 1-12-79, received 1-31-79, has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

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

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

Blanket Bond
MD:b

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

John L. Hardoin

JAN 31 1979

pw

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	OGD114	OGD121
	<i>Bb</i>	✓

DIVISION OF OIL AND GAS

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to rework well No. I.W. 55, API No. 037-21353, Sec. 28, T. 3N, R. 16W, S.B. B. & M., Aliso Canyon Field, Los Angeles County.

The present condition of the well is as follows:

- Total depth. 8255'
- Complete casing record, including plugs and perforations:

13 3/8" cemented 801'

8 5/8" cemented 8247', plug 8200', cp'd 6586' and 1684' squeezed with cement 7541'-7944', WSO 7940' shot four 1/2" holes per foot 8184'-8180', 8146'-8116', 8111'-8104', 8100'-8044' and 8020'-7980'

- Present producing zone name: SESNON Zone in which well is to be recompleted -
- Present zone pressure 2600 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: Confirming telephone conversation between Hardoin-Abrahamson.
New Conditions Determined During Well Pulling Operations.

- Set bridge plug at 7960', shoot holes at 7894'. Set retainer at 7800' and squeeze holes with cement. Drill out cement and run Noise Log.
- Drill out bridge plug, make production test and re-run Noise Log.
- Set packer and run tubing with down-hole safety system.

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) P.S. Magruder, Jr. (Date) 1/12/79
Type of Organization Corporation
(Corporation, Partnership, Individual, etc.)

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

30981-705 2-75 10M (2) OSP

DIVISION OF OIL AND GAS
 RECEIVED
 AUG 13 1976
 SANTA PAULA, CALIFORNIA

History of Oil or Gas Well

OPERATOR SOUTHERN CALIFORNIA GAS COMPANY FIELD Aliso Canyon

Well No. I.W. #55, Sec. 28, T. 3N, R. 16W, S.E. B. & M.

Date August 3, 1976

Signed P. S. Magruder, Jr.

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

P. S. MAGRUDER, Jr.

(Address) (213) 689-3561 (Telephone Number) Title Agent (President, Secretary or Agent)

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

Date

- 7- 6-76 Rigged up Pool #26. Installed safety plug in doughnut. Removed Christmas tree. Installed and hooked up Class III 5000 psi B.O.P.E.
- 7- 7-76 Tested blind rams with water under 4000 psi for 20 minutes - O.K. Also tested pipe rams with water under 4000 psi and Hydril under 3000 psi - both tests O.K. Each of the above also tested with nitrogen - O.K. Worked Brown Husky "M-1" packer loose. Circulated and conditioned gas cut drilling fluid. Pulling out of hole.
- 7- 8-76 Finished pulling tubing and Brown packer. Ran in hole with 7 5/8" bit and 8 5/8" casing scraper and float sub. Cleaned out to 8219'. Circulated and conditioned drilling fluid. Pulling out to run Dresser Atlas Carbon Log.
- 7- 9-76 Ran Dresser Atlas Carbon Log from 8215' to 7000' and Level Log from 8215' to 8004'.
- 7-10-76 Ran Dresser Atlas Carbon Log and Level Log from 8004' to 7100'. Ran in hole with Baker fullbore to test 8 5/8" casing.
- 7-11-76 Idle.
- 7-12-76 Tested 8 5/8" casing with Baker 8 5/8" fullbore packer and Halliburton truck, as follows:

7960'	to surface	under	1500 psi	for 20 minutes)
4500'	"	"	1800 psi	" " ")
4000'	"	"	2100 psi	" " ")
3500'	"	"	2400 psi	" " ")
2750'	"	"	2700 psi	" " ")
2000'	"	"	3000 psi	" " ")
1500'	"	"	3300 psi	" " ")
1000'	"	"	3600 psi	" " ")
500'	"	"	4000 psi	" " ")

All tests O.K.

7-13-76

Ran Dresser Atlas Neutron Lifetime Log and ran Otis 8 5/8" packer - set at 7960'. Made up Otis seals, 10' blast joint, No-Go nipple, 20' blast joint and safety valve. Ran 2 7/8" tubing. Changing collars, using Baker lock seal - hydrotesting under 5000 psi.

7-14-76

Ran 2 7/8" tubing, changing collars and using Baker seal lock, stabbed in Otis Permatrieve packer at 7960'. Landed tubing with 7,000# on packer - pulled 15,000# on packer. Installed plug in doughnut, removed B.O.P.E. Installed Christmas tree....tested same with 5000 psi - O.K. Hydrotested tubing under 5000 psi for one minute per stand.

7-15-76

Changed over from polymer drilling fluid to lease salt water. Ran Otis wireline. Pulled side door plug out of safety valve. Ran Otis plug and set in No-Go nipple at 7929'. Tested Otis packer and seals at 7960' with Halliburton pump truck under 1800 psi for 20 minutes - O.K. Released rig at 2:00 P.M.

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

REPORT ON PROPOSED OPERATIONS No. P 276-227

Mr. P.S. Magruder, Jr., Agent
Southern California Gas Co.
P.O. Box 54790 Terminal Annex
Los Angeles, Calif. 90024

Santa Paula, Calif.
July 9, 1976

DEAR SIR:

(037-21353)

Your proposal to rework gas storage Well No. IW 55
Section 28, T.3N, R.16W, S.B. B. & M., Aliso Canyon Field, Los Angeles County,
dated 6/25/76, received 6/29/76, has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

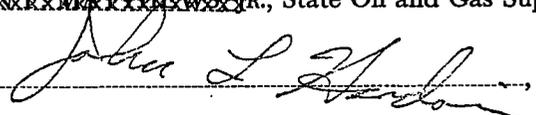
1. The drilling fluid used shall be of a quality and in sufficient quantity to control all subsurface conditions in order to prevent blowouts; and a reserve supply of this material shall be kept on hand to meet any emergency.
2. Blowout prevention equipment, at least of the Division of Oil and Gas Class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

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

Blanket Bond
MD:b

HAROLD W. BERTHOLF

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

By  Deputy

JUN 29 1976

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
BB	✓	✓

DIVISION OF OIL AND GAS

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to rework well No. I.W. #55, API No. _____, Sec. 28, T. 3N, R. 16W, S.B. B. & M., Aliso Canyon Field, Los Angeles County.

The present condition of the well is as follows:

- Total depth. 8255'
- Complete casing record, including plugs and perforations:
 - 13 3/8" cemented 801'
 - 8 5/8" cemented 8247', plug 8225'
stage collars 6586' and 1684'
squeezed with cement 7944', 7943', 7942' and 7941', WSO 7940'
Shot four 1/2" holes per foot:
8184'-8180' 8100'-8044'
8146'-8116' 8020'-7980'
8111'-8104'
- 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 test.
- Pull tubing and packer. Clean out to 8225'.
- Pressure test 8 5/8" casing. Perform any remedial work as indicated by pressure testing.
- Run packer, tubing and safety valve.

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

Address P. O. Box 3249, Terminal Annex SOUTHERN CALIFORNIA GAS COMPANY
(Street) (Name of Operator)
Los Angeles, California 90051 By P. S. Magruder, Jr. 6/25/76
(City) (State) (Zip) (Name) (Date)
Telephone Number (213) 689-3561 Type of Organization Corporation
(Corporation, Partnership, Individual, etc.)

DIVISION OF OIL AND GAS

NOTICE OF RECORDS DUE

Santa Paula _____ Calif.

August 14, 1975 _____

MR. P. S. Magruder, Jr.
Southern California Gas Company
P. O. Box 54790, Terminal Annex
Los Angeles, California 90054

In accordance with Division 3 of the Public Resources Code of California the following records are due, covering the _____ notice to drill, dated Feb. 13, 1975

of your well(s) No. IW 55 (037-21353) _____

Sec. 28, Tp. 3N, R. 16W, S.B. B. & M., Aliso Canyon _____
(Field or County)

- Well summary (Form 100)
- Drillers log (Form 101) NOTE: Not required if electric log is filed.
- Core record (Form 101)
- History (Form 103)
- Electric log: One copy each, 1" = 50 ft. and 1" = 100 ft.
- Production report (Form 110) for months of _____
- Other: Directional survey _____

These records should be submitted *in duplicate* as soon as possible.

Please be sure that the records are signed in the spaces provided.

r

1000 R. Jones

Deputy Supervisor

DIVISION OF OIL AND GAS
 RECEIVED

DIVISION OF OIL AND GAS

DEC 27 1973

History of Oil or Gas Well

OPERATOR Pacific Lighting Service Co. FIELD Aliso Canyon SANTA PAULA, CALIFORNIA

Well No. I.W. #55, Sec. 28, T. 3N, R. 16W, S.B. B. & M.

Date December 20, 1973

Signed

P. S. Magruder, Jr.

P. O. Box 54790, Terminal Annex
Los Angeles, Ca. 90054 (213) 689-3561

P. S. Magruder, Jr.
Agent

(Address)

(Telephone Number)

(President, Secretary or Agent)

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

Date	
1973	The following is for the well file only and not to be submitted to DOG.
11-28	Moved California Production Service rig to I.W. #55. Pumped 300 barrels of polymer drilling fluid down tubing of I.W. 55, bleeding off gas to Getty system from 1:30 P.M. to 3:00 P.M. Let gas bleed off until 5:00 P.M. while unloading I.W. 80. Pumped an additional 250 barrels into tubing of I.W. 55 and obtained full returns, losing 50 barrels. Circulated for three hours. Shut well in for the night.
11-29	Set Shaffer plug in doughnut and removed Xmas tree. Installed B.O.P.E. and tested to 1500 psi. Removed plug. Mixed 240 barrels of polymer drilling fluid. Unseated Brown M-1 packer and pulled tubing. Recovered all 7600' of piano wire and wireline tools. Pulled out of well. Ran back in well with sawtooth collar to 7900' and shut well in for the night.
11-30	Ran in well to effective depth of 8225' and found no fill. Pulled out of well. Ran back in well with reconditioned Brown M-1 packer, landing nipple and ported nipple. Landed packer at 7946' with 10,000# compression. Drifted tubing while running with 2.346" broach. Also measured tubing. Set Shaffer plug in doughnut, removed B.O.P.E. and installed Xmas tree. Tested tree to 4000 psi for 30 minutes. Removed plug. Hauled 400 barrels of polymer drilling fluid to storage tank.
12-1	Displaced polymer drilling fluid with nitrogen down tubing. Bled off nitrogen. Shut well in at 11:00 A.M. because of low clouds and rain. Layed down mast.
12-2	Idle.
12-3	Moved out California Production Service rig & pump. Blew down I.W. 55 from both annulus and tubing to purge well of nitrogen. Lost 50 barrels of polymer drilling fluid.

TUBING DETAIL

11-30-73 IW - 55

<u>ITEM</u>	<u>LENGTH</u>	<u>DEPTH</u>
Below K.B.	18.00	18.00
250 Jts 2-1/2" N-80 8RD Tubing	7852.27	7870.27
Udell Ported Nipple	3.80	7874.07
1 Jt. 2-1/2" N-80 8RD Tubing	31.50	7905.57
Udell Landing Nipple	2.30	7907.87
1 Jt. 2-1/2" N-80 8RD Tubing	31.60	7939.47
2-1/2" X 3-1/2" 8RD X-Over	1.00	7940.47
8-5/8" Brown Husky M-1 Packer	5.91	7946.38

Packer landed W/ 10,000 # compression

Tubing string weighs 50,000# coming up.
40,000 # Going down.

DIVISION OF OIL AND GAS

WELL SUMMARY REPORT

SUBMIT IN DUPLICATE

Operator Pacific Lighting Service Company Well No. IW 55

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

Location From Station 84 575.22' South and 3292.97' West
(Give location from property or section corner, or street center lines)

Elevation of ground above sea level 2505 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 October 31, 1973 Signed P.S. Magruder, Jr.

E. A. Olson B. F. Jones Title Agent
(Engineer or Geologist) (Superintendent) (President, Secretary or Agent)

Commenced drilling	Completed drilling	Total depth	Plugged depth	Junk	GEOLOGICAL MARKERS	DEPTH
<u>April 18, 1973</u>	<u>May 15, 1973</u>	<u>8255'</u>	<u>8255'-8225'</u>	<u>115' of fish 5316-5431 sidetracked</u>	<u>Top Sesnon S-4</u>	<u>7960</u>

Geologic age at total depth: MIOCENE

Commenced producing _____ Flowing/gas lift/pumping _____ Name of producing zone SESNON
(Date) (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
<u>13-3/8</u>	<u>801</u>	<u>sfc</u>	<u>48#</u>	<u>N</u>	<u>S</u>	<u>H</u>	<u>17-1/2"</u>	<u>340</u>	
<u>8-5/8</u>	<u>8247</u>	<u>sfc</u>	<u>36#</u>	<u>N</u>	<u>S</u>	<u>K&N</u>	<u>11"</u>	<u>346</u> <u>422</u>	<u>shoe</u> <u>6586</u>
								<u>598</u>	<u>1684</u>

PERFORATED CASING

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

8-5/8" - Four 1/2" jet holes per foot 7983-7999, 8001-8023, 8047-8067, 8071-8103,
8107-8114, 8119-8127, 8131-8149, 8183-8187.

Four 1/2" jet holes per foot 7942*, 7943*, 7941*, 7944* & 7940.

* Squeezed with cement.

Was the well directionally drilled? yes Electrical Log Depths 8255 (Attach Copy of Log)

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR Pacific Lighting Service Company FIELD Aliso CanyonWell No. I.W. 55, Sec. 28, T. 3N, R. 16W, S.B. B. & M.Date October 31, 19 73

Signed

P. S. Magruder, Jr.
P. S. Magruder, Jr.

P. O. Box 54790, Terminal Annex

Los Angeles, California 90054 (213) 689-3561Title Agent

(Address)

(Telephone Number)

(President, Secretary or Agent)

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

Date
1973

- 4-8 Well drilled by Camay Drilling Company, Contractor, Rig #18. All measurements taken from top of kelly bushing which was 12' above mat. Spudded well at 12:30 PM & drilled and surveyed 11" hole to 240'. Hole taking fluid-about 100 barrels. Mud: 69#, 65 sec.
- 4-9 Drilled and surveyed 11" hole to 788'. Hole taking fluid approximately 100 barrels. Circulation broke through around conductor pipe. Mud: 69#, 54 sec.
- 4-10 Recemented around conductor with 2 sacks cement. Opened 11" hole to 17-1/2" from 12' to 297'. Mud: 71#, 55 sec., 8.8 cc.
- 4-11 Open 11" hole to 17-1/2" hole 297'-570' with circulation in cellar around conductor pipe. Clean cellar to rework conductor. Mud: 72#, 53 sec., 9.8 cc.
- 4-12 Weld 1" steel plate around conductor, install pack-off rubber and turnbuckles to seal around conductor pipe. Circulation then commenced to flow from mouse hole opening in cellar floor. Cleaned out mouse hole and cemented same. Wait on cement 5 hours. Open 11" hole to 17-1/2" from 570'-631'. Mud: 72#, 57 sec.
- 4-13 Opened 11" hole to 17-1/2" from 631' to 788' and drilled 17-1/2" hole to 803'. TO CEMENT 13-3/8" SURFACE CASING: Ran 20 joints or 810.14' of 13-3/8", 48#, K-55, 8rd., ST&C, R-3, new seamless blank casing and cemented same at 801' with 494 cu. ft. of 93.5#/cu. ft. of slurry consisting of 240 sacks of Class "G" cement, 451# of lodense, followed by 100 sacks of Class "G" treated with 3% calcium chloride. Moved casing 5' and circulated 20 minutes prior to cementing and for 30 minutes while mixing and displacing cement. Displaced cement with 728 cu. ft. of mud. Did not bump plug as casing hydrauliced up hole 5'. Cement in place at 8:40 PM under 200# final pressure. Full circulation throughout job. No cement to surface.

1973

4-13 One hour five minutes mixing and displacing cement to surface. Used Byron-Jackson (cont'd) bulk cement and power. TOP CEMENT JOB: Pumped in 5 cubic yards of ready mix pea gravel down 13-3/8" x 17-1/2" annulus to bring cement to cellar floor. Cement in place at 8:40 PM. Used Active Concrete Pumping Service.

CASING DETAIL:

All 20 joints or 810.14 feet, 13-3/8" fitted on bottom with Baker float shoe and with TIW centralizers at 757' & 158'. Cement basket at 156'.

- 4-14 Cut and recover 31' of 13-3/8" casing, 9' of which was above K. B. Weld on Shaffer 13", 5000# casing head and tested same Ok with 3500 psi for 15 minutes. Install hydraulic GK Hydril and double Shaffer B.O.P.
- 4-15 Test B.O.P.E., rams and casing to 1000 psi--Ok. Witnessed and approved by Engineer for Division of Oil & Gas. Drilled & surveyed 11" hole to 1113'. Mud: 64#, 34 sec., 6.4 cc., 1-1/2% solids.
- 4-16 Directionally drilled 11" hole to 1414'. Mud: 66#, 38 sec., 6.2 cc., 2% solids.
- 4-17 Drilled and surveyed 11" hole to 1581'. Dyna Drill #1, 11" hole to 1661'. Ream 1550'-1572'. Mud: 69#, 35 sec., 6.8 cc., 3% solids.
- 4-18 Reamed 1572' to 1661' and directionally drilled 11" hole to 2268'. Mud: 68-1/2#, 35 sec., 6 cc., 2-1/2% solids.
- 4-19 Directionally drilled 11" hole to 2636'. Mud: 69#, 36 sec., 5.6 cc., 3% solids.
- 4-20 Directionally drilled 11" hole to 3205'. Found washout between drill collar and stabilizer. Mud: 69#, 36 sec., 7.4 cc., 4% solids.
- 4-21 Directionally drilled 11" hole to 3763'. Mud: 69#, 35 sec., 7.8 cc., 5% solids.
- 4-22 Dyna-Drill #2, 11" hole to 3912'. Mud: 68-1/2#, 34 sec., 6.2 cc., 4% solids.
- 4-23 Reamed 3763'-3912' and directionally drilled 11" hole to 4333'. Mud: 69-1/2#, 36 sec., 7.6 cc., 6% solids.
- 4-24 Directionally drilled 11" hole to 4520'. Down for repairs 11-1/2 hours. Mud: 68-1/2#, 34 sec., 6.2 cc., 4% solids.
- 4-25 Down 24 hours for repairs to compound. Mud: 69#, 34 sec., 6.2 cc., 4% solids.

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- 4-26 Directionally drilled 11" hole to 4808'. Dyna-Dril #3, 11" hole to 4931'.
Mud: 69#, 35 sec., 5.2 cc., 4% solids.
- 4-27 Directionally drilled 11" hole to 5202'. Dyna-Dril #4, 11" hole to 5400'.
Mud: 69#, 36 sec., 8 cc., 6% solids.
- 4-28 Dyna-Dril #4, 11" hole to 5431'. While pulling out of hole, tools stuck in Dyna-Dril interval 1581'-1661'. Spotted 60 barrels of oil in stages around bit and worked pipe and same would not come free.
Ran Dia-Log free point indicator and back-off shot. Pipe free to top of tools. Attempted to back-off top of first joint of drill pipe above tools and above Dyna-Dril interval but same did not back off. Second back-off shot backed off, leaving 115' of fish in hole. Top at 1562'.
Ran Brown Oil tools, jars, bumper sub and safety joint on 5" drill pipe and attempted to screw into fish. No success.
Mud: 70#, 35 sec., 6 cc., 6% solids.
- 4-29 Reran Brown tools as before with bent joint of drill pipe on bottom and attempted to screw into fish. No success.
Ran Brown tools as before with overshot with 6-3/8" crown slips but could not get over fish. Changed grapple and fish fell down hole. Chased fish to 5259' and attempted to engage fish. While pulling out of hole, tools stuck at 1654'. Place bumper sub on top of string and bumped pipe loose.
Mud: 67#, 37 sec., 6.2 cc., 5% solids.
- 4-30 Work tools through tight hole at 1654'. Work tools and ream 1600' to 1700'. Ream 1500' to 1600'.
Ran Dresser-Atlas Induction Electrolog, Caliper log to determine hole condition and possible location of fish. Log stopped at 5265'. Fish below 5265'.
Run bit to 5265 and condition hole.
Mud: 67#, 34 sec. 5.4 cc., 5% solids.
- 5-1 Ran Brown Oil tool overshot, jars and bumper sub, engaged fish and jarred on same for 6-1/2 hours. Fish could not be worked up or down hole. Released from fish and pulled out.
Ran 86' of 9-5/8" O.D. wash pipe on drill string. Worked through tight hole at 4865' to 4995' and washed over fish from 5265' to 5352'.
Mud: 68#, 38 sec., 5.8 cc., 6% solids.
- 5-2 Ran Brown Oil tool overshot, engaged fish, jarred on same and acted as if fish came loose. Pulled. No recovery.
Ran Brown Oil tool grapple and jarred on fish 2 hours. Fish did not come loose and grapple would slip off. 115' of fish in hole from 5316'-5431' ± consisting of bit, Dyna-Dril, Gammaloy, 1-7/8" drill collar and one joint of 5" heavy wall drill pipe.
TO BRIDGE HOLE WITH CEMENT: Ran 5265' of 5" drill pipe and pumped in 150 sacks Class "G" cement, treated with 20% sand and 2% calcium chloride. Preceded cement with 20 cu. ft. water and displaced to equalization with 487 cu. ft. of mud. Circulated throughout. Cement in place at 10:30 PM. Used Byron Jackson power and bulk cement.
Mud: 68#, 39 sec., 6.2 cc., 6% solids.

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- 5-3 Rig out fishing tools, run 11" bit to top of cement at 5039' after standing 11 hours. Drilled out to firm cement at 5070'.
Ran Dyna-Dril #5 and redrilled 11" hole to 5145'.
Mud: 67-1/2#, 38 sec., 8.8 cc., 5% solids.
- 5-4 Dyna-Dril #5, redrilled 11" hole to 5297' and directionally redrilled 11" hole to 5431' and directionally drilled 11" hole to 5538'.
Mud: 68#, 38 sec., 9.6 cc.
- 5-5 Directionally drilled 11" hole to 6105'.
Mud: 69#, 40 sec., 7 cc.
- 5-6 Directionally drilled 11" hole to 6794'.
Mud: 69-1/2#, 38 sec., 6.2 cc., 6% solids.
- 5-7 Directionally drilled 11" hole to 7155'.
Mud: 70#, 38 sec., 8 cc., 7% solids.
- 5-8 Ran Dyna-Dril #6 with Sperry Sun steering tool and drilled 11" hole to 7211'.
Mud: 69#, 37 sec., 6.6 cc., 6% solids.
- 5-9 Dyna-Dril #6A & 6B with Sperry Sun tool, 11" hole to 7225'.
Ream Dyna-Dril interval 7155' to 7225' and directionally drilled 11" hole to 7228'.
Mud: 69-1/2#, 38 sec., 6 cc., 6% solids.
- 5-10 Directionally drilled 11" hole to 7446'.
Mud: 69#, 38 sec., 5.6 cc., 6% solids.
- 5-11 Directionally drilled 11" hole to 7567'. Pulled tight off bottom.
Mud: 70#, 40 sec., 7 cc., 7% solids.
- 5-12 Directionally drilled 11" hole to 7749'.
Mud: 68-1/2#, 40 sec., 6.2 cc., 6% solids.
- 5-13 Directionally drilled 11" hole to 8073'. Measured pipe.
Mud: 70#, 40 sec., 6.2 cc., 7% solids.
- 5-14 Directionally drilled 11" hole to 8202'.
Mud: 68-1/2#, 39 sec., 6 cc., 6% solids.
- 5-15 Directionally drilled 11" hole to 8255', TOTAL DEPTH.
Ran Welex Induction Electric log, Compensated Density log with Gamma ray & hole caliper, Sidewall Neutron log and Acoustic Velocity log.
Mud: 69#, 39 sec., 5 cc., 6% solids.
- 5-16 Condition hole for casing and commence running 8-5/8" casing.
Mud: 69-1/2#, 40 sec., 5.2 cc., 6% solids.

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5-17 TO CEMENT 8-5/8" CASING: Ran 198 joints or 8274' of 8-5/8", 36#, K-55 & N-80, buttress thread, R-3, new seamless blank casing and cemented same at 8247' with 400 cu. ft. of 93.5 cu. ft. slurry consisting of 180 sacks Class "G" cement, 338# Lodense A and 338# gel, followed by 300 cu. ft. of 116-118# 1 cu. ft. slurry consisting of 166 sacks of Class "G" cement, 166 cu. ft. of Perf-A-Lite, 312# gel and 2490# of Gilsonite. Preceded cement with 100 cu. ft. of water and displaced with 2970 cu. ft. of mud (8% excess). Plug did not bump. Final pressure, 950 psi. Cement in place at 3:00 AM. Good circulation throughout job.

SECOND STAGE: Dropped opening plug for Baker stage collar at 6586'. Opened collar and pumped in 1015 cu. ft. of 93.5# 1 cu. ft. slurry consisting of 422 sacks Class "G" cement, 793# Lodense A and 1586# gel. Displaced with 2322 cu. ft. of mud (5.5% excess) to bump plug and close collar under 2000 psi final pressure. Cement in place at 5:30 AM. Good circulation throughout job.

THIRD STAGE: Dropped opening plug for Baker stage collar at 1684'. Opened collar and pumped in 1440 cu. ft. of 93.5#/cu. ft. slurry, consisting of 598 sacks Class "G" cement, 1124# Lodense A and 2248# of gel. Displaced with 590 cu. ft. of mud (4.6% excess) to bump plug and close collar under 2000 psi final pressure. Cement in place at 7:20 AM. Good circulation throughout job. Used Byron-Jackson power and bulk cement.

CASING DETAIL:

Bottom 68 joints or 2868' (8247-5379) N-80 fitted on bottom with TIW fill-up float shoe, at 8205' with TIW fill-up float collar, at 7773' with Lynes external casing packer, at 6586' with Davis-Lynch stage cement collar with centralizer above and TIW cement basket below. TIW centralizers 10' above shoe and at top of 2, 4, 5, 6, 7, 8, & 12th joints.

Next 130 joints or 5379' (5379-sfc) K-55 fitted at 1684' with Davis-Lynch stage cement collar with centralizer above & TIW cement basket below.

Total 198 joints or 8247'

Cut and recover 8-5/8" casing, install packing and reinstall BOP.

5-18 Ran 7-5/8" bit with casing scraper above and drilled out stage collar at 1684'. Closed rams and casing held 1500 psi Ok. Drilled out stage collar at 6584', closed rams and tested casing with 1500 psi. Pressure bled off through 8-5/8" packing. Ran Welex MSG and Neutron logs with collar locator. Removed BOP and tightened packing and installed 8-5/8" bit guide. Test Ok with 1500 psi. Ran Welex 4" O.D. carrier with D.P. charges and shot 4 HPF at 7942', MSG log depth. Closed rams and pumped fluid away with rig pump under 1400 psi.

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5-19 TO SQUEEZE HOLES IN 8-5/8" CASING AT 7942' (MSG LOG DEPTH) WITH CEMENT: Ran Johnston retrievable cement tool on 5", 19.5# drill pipe and set same at 7717'. Holes took fluid at 16 cu.ft. per minute rate under 1700 psi. Preceded cement with 20 cu. ft. of water. Pumped in 50 sacks Class "G" cement treated with 2% calcium chloride mixed to an average 118#/cu. ft. slurry. Displaced with 5 cu. ft. water and 673 cu. ft. of mud, then closed tool and displaced an additional 158 cu. ft. of mud in stages to squeeze estimated 35 sacks away under 2600 psi final pressure. Bled back 6 cu. ft. for total displacement of 830 cu. ft. Hold 1000 psi on annulus. Three minutes mixing and 1 hour 10 minutes displacing cement to place at 3:40 AM. Used Byron-Jackson bulk cement and power.

After standing cemented 11 hours, located top of cement at 7846' and drilled out medium hard cement to 7976' and cleaned out to 8200'.

5-20 Ran 4" O.D. carrier with collar locator, deep penetration charges and shot 4 holes at 7943' MSG log measurement. Closed rams and holes took fluid under 1500-1700 psi rig pump pressure.

TO SQUEEZE HOLES IN 8-5/8" CASING AT 7943' (MSG LOG DEPTH) WITH CEMENT: Ran Johnston retrievable cement tool on 5", 19.5# drill pipe and set same at 7720'. Holes took fluid at 22 cu. ft. per minute rate under 1500 psi pressure. Preceded cement with 20 cu. ft. of water. Pumped in 150 sacks Class "G" cement treated with 2% calcium chloride mixed to an average 118#/cu. ft. slurry. Displaced with 5 cu. ft. water and 520 cu. ft. of mud, then closed tool and displaced an additional 305 cu. ft. of mud in stages to squeeze estimated 132 sacks away under 3250 psi final pressure. Closed in at tool for 2 hours. Held 1500 psi pressure on annulus. Ten minutes mixing and 45 minutes displacing cement to place at 7:10 AM. Used Byron-Jackson bulk cement and power.

5-21 After standing cemented 16 hours, ran 7-5/8" bit and casing scraper. Located top of cement at 7896' and drilled out to 7943' and cleaned out to 8200'. Ran Wellex 4" O.D. carrier and shot 4 holes at 7941' MSG log depth. Closed rams and holes took fluid under 1400 psi rig pump pressure.

TO SQUEEZE HOLES IN 8-5/8" CASING AT 7941' (MSG LOG DEPTH) WITH CEMENT: Ran Johnston retrievable cement tool on 5", 19.5# drill pipe and set same at 7717'. Holes took fluid at 24 cu. ft. per minute rate under 1400 psi. Preceded cement with 30 cu. ft. of water. Pumped in 150 sacks Class "G" cement treated with 2% calcium chloride mixed to an average 118#/cu. ft. slurry. Displaced with 517 cu. ft. of mud, then closed tool and displaced an additional 311 cu. ft. of mud in stages to squeeze estimated 125 sacks away under 3500 psi final pressure. Held pressure for 2 hours before releasing pressure. Held 1500 psi on annulus. Eleven minutes mixing and 37 minutes displacing cement to place at 12:35 PM. Used Byron-Jackson bulk cement and power.

5-22 Ran 7-5/8" bit and casing scraper after standing cemented 16 hours. Located top of cement at 7741' and drilled out to 7950'. Wellex ran 4" O.D. carrier with collar locator and D.P. charges. Shot 4 holes at 7944' MSG log depth. Closed rams and holes held 1800 psi for 5 minutes.

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5-22 TO TEST WATER SHUT-OFF ON HOLES IN 8-5/8" CASING AT 7944' (MSG DEPTH): Ran
 Cont. Johnston tester on 5", 19.5# drill pipe. Set packer at 7889' with tail to 7905'.
 Opened tool at 2:07 PM for 13 minute test. Light blow 8 minutes increasing to
 hard blow end of test. Gas to surface. Dropped bar and opened backscuttle
 valve and backscuttled out gas. Charts showed tool functioned properly.
 Water shut-off witnessed and not approved by Company test. See Johnston Re-
 port 02610C.

5-23 TO SQUEEZE HOLES IN 8-5/8" CASING AT 7944' (MSG DEPTH) WITH CEMENT: Ran
 Johnston retrievable cement tool on 5", 19.5# drill pipe and set same at 7717'.
 Holes took fluid at 24 cu. ft. per minute rate under 1600 psi pressure. Preceded
 cement with 200 gallons of mud sweep. Pumped in 100 sacks Class "G" cement
 treated with 2% calcium chloride and 0.5% D-19 mixed to an average 118#/cu. ft.
 slurry. Displaced with 10 cu. ft. water and 620 cu. ft. of mud, then closed
 tool and displaced an additional 223 cu. ft. of mud in stages to squeeze esti-
 mated 125 sacks away under 3050 psi final pressure. Held pressure 2 hours
 before releasing. Hold 1500 psi pressure on annulus. Eight minutes mixing and
 40 minutes displacing cement to place at 2:55 AM. Used Byron-Jackson bulk
 cement and power.

After standing cemented 16 hours, ran 7-5/8" bit and casing scraper and located
 cement at 7873'. Drilled out hard cement to 7945' and cleaned out to 8200'.
 Closed rams and casing held 1500 psi for 15 minutes.

5-24 Ran Welex MSG log, recording from 8200'-7700'.
 Ran Welex 4" O.D. carrier and shot 4 holes at 7940' MSG log depth run 5/18/73.
 Closed rams and casing held 1500 psi.

TO TEST WATER SHUT-OFF ON HOLES IN 8-5/8" CASING AT 7940': Ran Johnston tester
 on 5", 19.5# drill pipe. Set packer at 7914' with tail to 7930'. Opened tool
 at 8:15 AM for one hour test. Light to faint blow throughout test. No gas to
 surface. Recovered 120' rise of drilling fluid testing 260 grains per gallon
 sodium chloride. Hole fluid tested 285 grams/gallon. Charts showed tool func-
 tioned properly. Water shut-off witnessed and approved by engineer for Division
 of Oil & Gas.

Ran Welex 4" O.D. carrier which stopped at 8176', 8' above desired shooting
 depth.

Ran 7-5/8" bit and casing scraper and circulated hole clean at 8200'.

5-25 Ran Welex 4" O.D. carrier with collar locator and deep penetration charges.
 Shot four holes per foot 8180'-8184' MSG log run 5/18/73.

PRODUCTION TEST #1 ON PERFORATIONS IN THE INTERVAL 8180'-8184' MSG DEPTH: Ran
 Johnston tester with MFE tool on 5" drill pipe with 500' of fresh water cushion.
 Set packer at 8144' with tail to 8160'. Opened tester at 5:20 AM on 1/4" surface
 bean, 1/2" tool bean. Light blow increasing to hard blow in 3 minutes. Flowed
 well total of 4 hours 10 minutes. Gas to surface in 9 minutes. Shut-in at tool
 or surface at 5:30 AM for 4 hour 25 minute initial shut-in. Charts showed tool
 functioned properly throughout test. Connected well to Getty flow line through

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5-25 Cont. IW 54 tree. Inserted brass bar stock in flow line to check sand flow. No marks on bar. Dropped bar to shear disc and open backscuttle valve. Backscuttled hole free of gas. Recovered 183' of fluid in 5" drill pipe consisting of water cushion and drilling fluid and 15' of sand above tool. Sample chamber contained gas, trace of water and 1/2 gallon of sand.

<u>HRS. OPEN</u>	<u>SFC BEAN</u>	<u>FLOW PRESSURE PSIG</u>		<u>RATE MCF/D</u>
		<u>SURFACE</u>	<u>AT TOOL</u>	
1 hr. 45 minutes	12/64	950		2900
4 hours	12/64	975		2600
TOTAL FLUID	25.9 bbls.			
Less Wtr. Cush.	19.3 bbls.			
Gross Fluid	16.3 bbls.			
Net Oil	6.0 bbls.			
Water	10.3 bbls.			
Cut	61%			

PRESSURE RECORDER DATA PSIG

	<u>INSIDE (8156')</u>	<u>OUTSIDE</u>
INITIAL HYDRO	3781	Clock Stopped
INITIAL FLOW	364	
INITIAL SHUT-IN	1477	
FINAL FLOW	1416	
FINAL SHUT-IN	1480	
FINAL HYDRO	3790	

See Johnston Report #19998B

5-26 Ran 7-5/8" bit and scraper and cleaned out to 8200'.
 Ran Welex feeler and checked bottom at 8193'.
 Ran Baker Model "N" bridge plug on Welex wireline and set same at 8160' MSG depth.

PRODUCTION TEST #2 ON PERFORATIONS IN THE INTERVAL 8122'-8124' MSG DEPTH: Ran Johnston tester with MFE tool on 5" drill pipe with 500' of fresh water cushion. Set packer at 8085' with tail to 8101'. Opened tester at 1:19 PM on 6/64" surface bean and 1/2" tool bean. Flowed well total of 2 hours 55 minutes. No wear on brass bar in flow line. Gas to surface. Shut-in at tool or surface at 1:48 PM for 29 minute initial shut-in. Charts showed tool functioned properly throughout test. Dropped bar to shear disc and open backscuttle valve. Backscuttled hole free of gas. Recovered 183' of fluid in 5" drill pipe consisting of water cushion and drilling fluid with 10' of sand above tool. Sample chamber contained gas and trace of water and sand.

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5-26
Cont'd.

	HRS. OPEN	SFC BEAN	FLOW PRESSURE PSIG		RATE
			SURFACE	AT TOOL	MCF/D
1		questionable 2/64	790		2600
2 hrs. 25min.		"	850		2900
TOTAL FLUID		28.5 bbls.			
Less Wtr. Cush.		9.3 bbls.			
Gross Fluid		19.2 bbls.			
Net Oil		5.8 bbls.			
Water		13.4 bbls.			
Cut		70 %			

PRESSURE RECORDER DATA PSIG

	<u>INSIDE (8099')</u>	<u>OUTSIDE (8106')</u>
INITIAL HYDRO	3651	3668
INITIAL FLOW	263	296
INITIAL SHUT-IN	1469	1481
FINAL FLOW	1347	1362
FINAL SHUT-IN	1472	1475
FINAL HYDRO	3653	3664

See Johnston Report #02612C.

5-27 Ran 7-5/8" bit and casing scraper and ran in to 8150'. Hole took 100 bbls. of mud.
Welex checked fill at 8158' or 2' above bridge plug at 8160'.
Ran Baker Model "N" bridge plug on Welex wireline and set at 8110'.
Ran Welex 4" O.D. carrier with collar locator and shot 4 HPF with deep penetration charges from 8064'-8068' MSG depth.
Ran Johnston tester on 5" drill pipe and packer failed to set. NO TEST.

5-28 PRODUCTION TEST #3 ON PERFORATIONS IN THE INTERVAL 8064'-8068' MSG DEPTH: Ran Johnston tester with MFE tool on 5" drill pipe with 500' of fresh water cushion. Set packer at 8008' with tail to 8034'. Opened tester at 6:10 AM on 8/64" surface bean and 1/2" tool bean. Immediate blow. Flowed well total of 4 hours 49 minutes. No wear on brass bar in flow line. Gas to surface. Shut-in at tool or surface at 6:35 AM for 30 minute initial shut-in. Charts showed tool functioned properly throughout test. Dropped bar to shear disc and open backscuttle valve. Backscuttled hole free of gas. Recovered 183' of fluid in 5" drill pipe consisting of water cushion and drilling fluid and one pint of sand above tool. Sample chamber contained gas and trace of water and sand.

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5-28

Cont'd.

HRS. OPEN	SFC BEAN	FLOW PRESSURE PSIG		RATE MCF/D
		SURFACE	AT TOOL	
2 hrs.	12/64	850		700
4 hrs.	18/64	700		1517

TOTAL FLUID	26.5 bbls.
Less Wtr. Cush.	9.3 bbls.
Gross Fluid	17.2 bbls.
Net Oil	5.4 bbls.
Water	11.8 bbls.
Cut	69 %

PRESSURE RECORDER DATA PSIG

	<u>INSIDE (8040')</u>	<u>OUTSIDE (8044')</u>
INITIAL HYDRO	3644	3641
INITIAL FLOW	1475	1485
INITIAL SHUT-IN	545	526
SECOND FLOW	1474	1474
FINAL FLOW	1457	1459
FINAL SHUT-IN	1485	1482
FINAL HYDRO	3634	3640

See Johnston Report #02613C.

Ran 7-5/8" bit and casing scraper and circulated hole clean at 8100'.

5-29

Welex rechecked bridge plug at 8109' and set Johnston bridge plug at 8050'.
Ran Welex 4" O.D. carrier, collar locator and deep penetration charges and shot four holes per foot 7996'-7998' MSG depth.

PRODUCTION TEST #4 ON PERFORATIONS IN THE INTERVAL 7996'-7998' MSG DEPTH: Ran Johnston tester with MPE tool on 5" drill pipe with 500' of fresh water cushion. Set packer at 7963' with tail to 7979'. Opened tester at 7:38 AM on unknown surface bean and 1/2" tool bean. Immediate blow. Flowed well total of 2 hours 53 minutes. No wear on brass bar in flow line. Gas to surface in 8 minutes. Shut-in at tool or surface at 8:03 AM for 1 hour 9 minute initial shut-in. Charts showed tool functioned properly throughout test. Dropped bar to shear disc and open backscuttle valve. Backscuttled hole free of gas. Recovered 183' of fluid in 5" drill pipe consisting of water cushion and drilling fluid and 10' of sand above tool. Sample chamber contained 6.92 cu. ft. of gas at 1100 psig trace of water and sand. Mandrel in tool severely sand blasted. More sand than in 3 previous tests.

HRS. OPEN	SFC BEAN	FLOW PRESSURE PSIG		RATE MCF/D
		SURFACE	AT TOOL	
1 hr.	-	950		948
2 hrs.	-	940		1580

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5-29	TOTAL FLUID	6.1 bbls.
Cont'd.	Less Wtr. Cush.	9.3 bbls.
	Gross Fluid	-
	Net Oil	1.3 bbls.
	Water	-
	Cut	0 %

PRESSURE RECORDER DATA PSIG

	<u>INSIDE (7970')</u>	<u>OUTSIDE (7974')</u>
INITIAL HYDRO	3394	3554
INITIAL FLOW	821	768
INITIAL SHUT-IN	1421	1454
SECOND FLOW	1385	1415
FINAL FLOW	1421	1446
FINAL SHUT-IN	1425	1455
FINAL HYDRO	3408	3554

See Johnston Report #19999B.

Ran 7-5/8" bit with tandem junk subs and drilled up bridge plug at 8050.

5-30 Drilled up bridge plugs 8050', 8110', 8160' and drilled up float collar and drilled out cement to 8225'.

PRODUCTION TEST #5 ON PERFORATIONS IN THE INTERVAL 8064'-8068', 8120'-8124' AND 8180'-8184' MSG DEPTH: Ran Lynes tester with sample tool on 5" drill pipe with 500' of fresh water cushion. Set packer at 8013' with tail to 8031'. Opened tester at 9:02 PM 5/30/73 on 8/64" surface bean and 3/4" tool bean. Immediate blow. Flowed well total of 16 hours 25 minutes. Maximum rate, 5222 MCF/D. No wear on brass bar in flow line. Gas to surface. Shut-in at tool or surface at 1:25 PM 5/31/73 for final shut-in. Charts showed tool functioned properly throughout test. Fluid rise checked by Depthograph at end of test. Fluid at 8000', no fluid rise. Dropped bar to shear disc and open backscuttle valve. Backscuttled hole free of gas. Recovered 183' of fluid in 5" drill pipe consisting of water cushion and drilling fluid. Maximum salinity 370 grains per gallon sodium chloride. Hole fluid checked at 265 grains per gallon. Sample chamber contained gas only.

TOTAL FLUID	37.9 bbls.
Less rat hole	
& water cush.	19.2 bbls.
Gross Fluid	18.7 bbls.
Net Oil	8.8 bbls.
Water	9.9 bbls.
Cut	53 %

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5-30 PRESSURE RECORDER DATA PSIG

	<u>INSIDE (8028')</u>	<u>OUTSIDE (8033')</u>
INITIAL HYDRO	3659	3676
INITIAL FLOW	811	828
FINAL FLOW	1258	1269
FINAL SHUT-IN	1491	1509
FINAL HYDRO	3650	3670

See Lynes report dated 5/30/73.

- 5-31 Ran Gas Company slick line to 8212'. 3' above drillers clean out depth.
- 6-1 Layed down drill collars and heavy wall drill pipe. Set Johnston retrievable bridge plug at 7902'.
Layed down drill pipe and removed BOP.
- 6-2 Cut off 8-5/8" casing, reinstall packing and install Shaffer 10", 5000# tubing head. Test Ok under 3500 psi.
Pick up 2-7/8" tubing, measure in hole to unseat bridge plug.
- 6-3 Ran tubing to 8200' and displaced drilling fluid in hole with lease salt water treated with KCl and polymer for lost circulation control.
Took hold of bridge plug and pulled out of hole. Bridge plug not retrieved.
Reran retrieving tool and recovered bridge plug.
- 6-4 Ran Welex 4" O.D. carrier with collar locator and Super Dyna plus 19 gram jet charges and shot 4 holes per foot as follows: 8128'-8146', 8116'-8120', 8104'-8111', 8068'-8100', 8044'-8064', 7998'-8020' and 7980'-7996' MSG log depth 5/18/73.
Welex ran in with spent gun and checked bottom at 8223'.
Ran 2-7/8", 6.5#, N-80, 8 rd. EUE new seamless tubing and landed same at 7979'.

TUBING DETAIL:

	<u>LENGTH</u>	<u>DEPTH</u>
K. B. to doughnut	18.00	18.00
251 jts. 2-7/8" tubing	7884.66	7902.66
Udell ported nipple	3.80	7906.46
1 jt. 2-7/8" tubing	31.50	7937.96
Landing nipple	2.30	7940.26
1 jt. 2-7/8" tubing	31.60	7971.86
Crossover	1.04	7972.90
Brown Oil Tool Husky M-1 packer	5.91	7978.81

Removed BOP, installed Shaffer 8", 5000# tree and tested same to 3000 psi Ok.

RIG RELEASED 5 PM, 6/4/73.

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED

DEC 27 1973

History of Oil or Gas Well

OPERATOR Pacific Lighting Service Co. FIELD Aliso Canyon, CALIFORNIAWell No. I.W. #55, Sec. 28, T. 3N, R. 16W, S.B. B. & M.Date December 20, 1973Signed P. S. Magruder, Jr.P. O. Box 54790, Terminal Annex
Los Angeles, Ca. 90054 (213) 689-3561

P. S. Magruder, Jr.

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	Description
1973	The following is for the well file only and not to be submitted to DOG.
11-28	Moved California Production Service rig to I.W. #55. Pumped 300 barrels of polymer drilling fluid down tubing of I.W. 55, bleeding off gas to Getty system from 1:30 P.M. to 3:00 P.M. Let gas bleed off until 5:00 P.M. while unloading I.W. 80. Pumped an additional 250 barrels into tubing of I.W. 55 and obtained full returns, losing 50 barrels. Circulated for three hours. Shut well in for the night.
11-29	Set Shaffer plug in doughnut and removed Xmas tree. Installed B.O.P.E. and tested to 1500 psi. Removed plug. Mixed 240 barrels of polymer drilling fluid. Unseated Brown M-1 packer and pulled tubing. Recovered all 7600' of piano wire and wireline tools. Pulled out of well. Ran back in well with sawtooth collar to 7900' and shut well in for the night.
11-30	Ran in well to effective depth of 8225' and found no fill. Pulled out of well. Ran back in well with reconditioned Brown M-1 packer, landing nipple and ported nipple. Landed packer at 7946' with 10,000# compression. Drifted tubing while running with 2.346" broach. Also measured tubing. Set Shaffer plug in doughnut, removed B.O.P.E. and installed Xmas tree. Tested tree to 4000 psi for 30 minutes. Removed plug. Hauled 400 barrels of polymer drilling fluid to storage tank.
12-1	Displaced polymer drilling fluid with nitrogen down tubing. Bled off nitrogen. Shut well in at 11:00 A.M. because of low clouds and rain. Layed down mast.
12-2	Idle.
12-3	Moved out California Production Service rig & pump. Blew down I.W. 55 from both annulus and tubing to purge well of nitrogen. Lost 50 barrels of polymer drilling fluid.

TUBING DETAIL

11-30-73 IW - 55

<u>ITEM</u>	<u>LENGTH</u>	<u>DEPTH</u>
Below K.B.	18.00	18.00
250 Jts 2-1/2" N-80 8RD Tubing	7852.27	7870.27
Udell Ported Nipple	3.80	7874.07
1 Jt. 2-1/2" N-80 8RD Tubing	31.50	7905.57
Udell Landing Nipple	2.30	7907.87
1 Jt. 2-1/2" N-80 8RD Tubing	31.60	7939.47
2-1/2" X 3-1/2" 8RD X-Over	1.00	7940.47
B-5/8" Brown Husky M-1 Packer	5.91	7946.38

Packer landed W/ 10,000 # compression

Tubing string weighs 50,000# coming up.
40,000 # Going down.

SURVEY RECORD

575-S @ 3293-W from station 84
 JOB NO IM-55 1 DATE 4-8-1973

Mett----- 2505
 K.B.----- 12
 Elev----- 2517

MEASURED DEPTH	DRIFT ANGLE	TRUE VERTICAL DEPTH	COURSE DEVIATION	DIRECTION	RECTANGULAR COORDINATES				REMARKS
					NORTH	SOUTH	EAST	WEST	
100	.45	99	1 31	N 61 E	63		1 14		
220	1.00	219	2 10	N 68 E	1 42		3 08		
340	1.15	339	2 62	S 69 E	48		5 53		
466	1.00	465	2 20	S 58 E			7 40		
618	1.00	617	2 66	S 72 E			9 93		
865	1.30	861	6 47	N 76 E		1 51	16 21		
959	1.45	958	2 87	N 85 E			19 07		
1051	2.00	1050	3 21	EAST			22 28		
1144	2.30	1143	4 06	S 85 E			26 32		
1208	2.15	1207	2 51	S 78 E			28 78		
1270	1.45	1269	1 89	S 81 E			30 55		
1331	1.30	1330	1 60	S 80 E		1 16	32 22		
1394	2.00	1393	2 20	N 89 E		1 13	34 42		
1487	1.45	1486	2 84	S 60 E		2 55	36 88		
1580	2.15	1579	3 65	S 60 E		4 38	40 04		
1631	2.30	1630	3 45	N 54 W		4 12	39 68		
1713	2.45	1712	3 93	N 53 W		7 75	40 04		
1804	2.45	1803	3 37	N 54 W	82		36 54		
1868	2.45	1867	3 07	N 54 W	2		33 00		
2046	2.45	2044	8 54	N 56 W	7		30 23		
2202	2.15	2200	6 13	N 59 W	10		18 18		
2357	1.30	2355	4 06	N 65 W	12		14 50		
2482	1.30	2480	3 27	N 74 W	13		11 36		
2635	1.30	2634	3 03	N 74 W	14		7 48		
2792	1.30	2790	4 09	N 88 W	14		3 39		
2951	1.30	2949	4 16	N 86 W	14				
3108	1.30	3106	4 11	N 70 W	16				
3262	1.30	3260	4 03	N 57 W	18				
3419	1.15	3417	3 42	N 42 W	20				
3577	1.45	3575	4 82	N 52 W	23				
3732	1.45	3730	4 73	N 44 W	27				
3787	2.00	3785	1 92	N 13 W	29				

DIVISION OF OIL AND GAS
 RECEIVED
 AUG 21 1975
 SANTA PAULA, CALIFORNIA

SURVEY RECORD

JOB NO. 1W-55 2 DATE 1-8-1973

MEASURED DEPTH	DRIFT ANGLE	TRUE VERTICAL DEPTH	COURSE DEVIATION	DRIFT DIRECTION	RECTANGULAR COORDINATES					REMARKS	
					NORTH	SOUTH	EAST	WEST			
33	1.30	3817	22	N 16 E	29	91					
34	1.30	3849	22	N 30 W	30	14					
35	1.15	3882	21	S 26 W	29	49					
36	2.00	3961	16	S 61 E	28	15					
37	2.30	4024	10	S 60 E	26	77					
38	2.15	4085	03	S 58 E	25	22					
39	4.00	4178	80	S 43 E	20	47					
40	5.30	4236	52	S 46 E	16	47					
41	7.00	4329	82	S 55 E	9	84					
42	9.15	4455	17	S 59 E			67	7	24	27	
43	11.00	4514	07	S 62 E			6	34	59	87	
44	13.15	4634	51	S 57 E			22	09	59	58	
45	15.30	4752	07	S 53 E			41	71	85	62	
46	16.30	4822	06	S 64 E			50	80	104	26	
47	16.45	4851	74	S 64 E			54	72	112	29	
48	18.00	4881	22	S 69 E			58	16	121	23	
49	20.30	5016	10	S 71 E			74	58	168	92	
50	21.30	4069	13	S 71 E			81	38	188	67	
51	22.00	5097	87	S 69 E			85	54	199	51	
52	22.00	5155	36	S 75 E			91	55	221	95	
53	23.45	5212	11	S 79 E			96	32	246	46	
54	27.00	5324	38	S 78 E			108	21	302	41	
55	29.30	5437	53	S 78 E			121	52	365	02	
56	31.45	5652	68	S 78 E			149	20	495	24	
57	31.45	5812	55	S 76 E			173	14	591	23	
58	31.45	6077	97	S 75 E			216	06	751	44	
59	32.00	6128	85	S 75 E			224	29	782	15	
60	32.00	6392	58	S 74 E			269	71	940	57	
61	32.00	6550	31	S 73 E			298	52	1034	83	
62	31.30	6815	47	S 72 E			348	73	1189	39	
63	30.30	6888	03	S 77 E			355	70	1219	56	
64	30.00	6941	64	S 81 W			362	35	1261	54	

SURVEY RECORD

JOB NO. IW-55 _____ 3 _____ DATE 4-8-1973

	MEASURED DEPTH	DRIFT ANGLE	TRUE VERTICAL DEPTH	COURSE DEVIATION	DRIFT DIRECTION	RECTANGULAR COORDINATES				REMARKS	
						NORTH	SOUTH	EAST	WEST		
65	7344	32.15	6994	33	S 83 E		366	45	1294	91	
66	7440	30.15	7077	48	S 81 E		374	02	1342	68	
67	7503	29.00	7132	30	S 83 E		377	75	1373	00	
68	7595	27.00	7214	41	S 85 E		381	39	1414	61	
69	7749	22.00	7357	57	EAST		381	39	1472	30	
70	7960	19.30	7556	70	N 88 E		378	93	1542	69	
71	8110	18.15	7699	46	N 87 E		376	47	1589	60	
72	8255	17.15	7837	43	N 86 E		373	47	1632	50	
			HORIZONTAL	DEPARTURE	1674.98	S 77.07 E					

SURVEY RECORD

Matt----- 2505
 K.B.----- 12
 Elev----- 2517

575-S @ 3293-W from station 84
 JOB NO 1W-55 DATE 4-8-1973

MEASURED DEPTH	DRIFT ANGLE	TRUE VERTICAL DEPTH	COURSE DEVIATION	DRIFT DIRECTION	RECTANGULAR COORDINATES				REMARKS
					NORTH	SOUTH	EAST	WEST	
1	100	99	1 31	N 61 E					
2	220	219	2 10	N 68 E	63				
3	340	339	2 62	S 69 E	1 42				
4	466	465	2 20	S 58 E	48				
5	618	617	2 66	S 72 E		1	51		
6	865	861	6 47	N 76 E	05				
7	959	958	2 87	N 85 E	30				
8	1051	1050	3 21	EAST	30				
9	1144	1143	4 06	S 85 E			06		
10	1208	1207	2 51	S 78 E			59		
11	1270	1269	1 89	S 81 E			89		
12	1331	1330	1 60	S 80 E		1	16		
13	1394	1393	2 20	N 89 E			13		
14	1487	1486	2 84	S 60 E			55		
15	1580	1579	3 65	S 60 E			38		
16	1631	1630	3 45	S 54 W			12		
17	1713	1712	3 93	N 53 W	82				
18	1804	1803	4 37	N 54 W					
19	1868	1867	3 07	N 54 W	2	62			
20	2016	2014	8 54	N 56 W	7	39			
21	2202	2200	6 13	N 59 W	10	55			
22	2357	2355	4 06	N 65 W	12	27			
23	2482	2480	3 27	N 74 W	13	17			
24	2636	2634	4 03	N 74 W	14	28			
25	2792	2790	4 09	N 88 W	14	42			
26	2951	2949	4 16	N 86 W	14	71			
27	3108	3106	4 11	N 70 W	16	12			
28	3262	3260	4 03	N 57 W	18	32			
29	3419	3417	3 42	N 42 W	20	86			
30	3577	3575	4 82	N 52 W	23	82			
31	3732	3730	4 73	N 44 W	27	23			
32	3767	3785	1 92	N 13 W	29	10			

DIVISION OF OIL AND GAS
 RECEIVED
 AUG 21 1975
 SANTA PAULA, CALIFORNIA

SURVEY RECORD

JOB NO. IM-55 2 DATE 4-8-1973

MEASURED DEPTH	DRIFT ANGLE	TRUE VERTICAL DEPTH	COURSE DEVIATION	DRIFT DIRECTION	RECTANGULAR COORDINATES						REMARKS		
					NORTH	SOUTH	EAST	WEST					
33	1.30	3817	84	N 16 E	29	91							
34	0.30	3847	26	N 30 W	30	14							
35	1.15	3880	72	S 26 W	29	49							
36	2.00	3959	2 76	S 61 E	28	15							
37	2.30	4022	2 75	S 60 E	26	77							
38	2.15	4083	2 93	S 58 E	25	22							
39	4.00	4175	6 49	S 43 E	20	47							
40	5.30	4236	5 85	S 46 E	16	17							
41	7.00	4329	11 46	S 55 E	9	84							
42	9.15	4455	20 42	S 59 E			67						
43	11.00	4514	11 45	S 62 E			6	04					
44	13.15	4634	29 47	S 57 E			22	09					
45	15.30	4752	32 60	S 53 E			41	71					
46	16.30	4822	20 73	S 64 E			50	80					
47	16.45	4851	8 93	S 64 E			54	72					
48	18.00	4881	9 58	S 69 E			58	16					
49	20.30	5016	50 43	S 71 E			74	58					
50	21.30	5069	20 89	S 71 E			81	38					
51	22.00	5097	11 61	S 69 E			85	54					
52	22.00	5155	23 23	S 75 E			91	55					
53	23.45	5212	24 97	S 79 E			96	32					
54	27.00	5324	57 20	S 78 E			108	21					
55	29.30	5437	64 01	S 78 E			121	52					
56	31.45	5652	133 13	S 78 E			149	20					
57	31.45	5812	98 93	S 76 E			173	14					
58	31.45	6077	165 86	S 75 E			216	06					
59	32.00	6128	31 80	S 75 E			224	29					
60	32.00	6392	164 80	S 74 E			269	71					
61	32.00	6550	98 56	S 73 E			298	52					
62	31.30	6815	162 50	S 73 E			348	73					
63	30.30	6868	30 96	S 77 E			355	70					
64	30.00	6944	42 50	S 81 E			362	35					

SURVEY RECORD

JOB NO IW-55 3

DATE 4-8-1973

MEASURED DEPTH	DRIFT ANGLE	TRUE VERTICAL DEPTH	COURSE DEVIATION	DRIFT DIRECTION	RECTANGULAR COORDINATES				REMARKS	
					NORTH	SOUTH	EAST	WEST		
65	32.15	6994	33	S 83 E		366	45	1294	91	
66	30.15	7077	48	S 81 E		374	02	1342	68	
67	29.00	7132	30	S 83 E		377	75	1373	00	
68	27.00	7214	41	S 85 E		381	39	1414	61	
69	22.00	7357	57	EAST		381	39	1472	30	
70	19.30	7556	70	N 88 E		378	93	1542	69	
71	18.15	7699	46	N 87 E		376	47	1589	60	
72	17.15	7837	43	N 86 E		373	47	1632	50	
		HORIZONTAL	DEPARTURE	1674.98		S 77.07	E			

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

Report on Operations

No. T 273-258

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

Santa Paula Calif.
May 25, 1973

DEAR SIR:

Operations at well No. IW 55, API No. 037-21353, Sec. 28, T. 3N, R. 16W,
S.B., B & M. Aliso Canyon Field, in Los Angeles County, were witnessed
 on May 24, 1973. Mr. Larry Bright, engineer, representative of the supervisor was
 present from 1130 to 1230. There were also present O. Olsen, foreman

Present condition of well: 13 3/8" cem. 798'; 8 5/8" cem. 8255', c.p. 1684', 6586', 7941',
7942', 7943' and 7944', perf. 7940' WSO. T.D. 8255', plugged with cement 8255-8200'.

The operations were performed for the purpose of testing the 8 5/8" shut-off by means of a
formation tester.

DECISION:

THE 8 5/8" SHUT-OFF AT 7940' IS APPROVED.

a

cc: Operator

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

By [Signature] Deputy

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

Report on Operations

No. T 273-215

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

Santa Paula Calif.
April 19, 1973

DEAR SIR:

Operations at well No. IW 55, API No. (037-21353), Sec. 28, T. 3N, R. 16W,
S.B. B & M. Aliso Canyon Field, in Los Angeles County, were witnessed
on April 15, 1973. Mr. Larry Bright, engineer, representative of the supervisor was
present from 0900 to 1100. There were also present C. Lemke, drilling foreman

Present condition of well: 13 3/8" cem. 798'. T.D. 8031.

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

DECISION:

THE BLOWOUT PREVENTION EQUIPMENT AND INSTALLATION ARE APPROVED.

a
cc: Operator

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

By *DC Fitzgibbon* Deputy

DIVISION OF OIL AND GAS

REPORT ON PROPOSED OPERATIONS No. P 273-107

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

Santa Paula Calif.
March 5, 1973

DEAR SIR:

(037-21353)

Your proposal to drill Well No. IW 55
Section 28, T. 3N, R. 16W, S.B. B. & M., Aliso Canyon Field, Los Angeles County,
dated 2/13/73, received 2/27/73, has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

1. Sufficient cement shall be pumped back of the 13 3/8" casing to fill from the shoe to the surface.
2. Drilling fluid of proper weight and consistency shall be used to keep the well under control at all times; and a reserve supply of this material shall be kept on hand to meet any emergency. NO CONTAMINATES OR TOXIC MATERIAL SHALL BE USED IN ANY DRILLING FLUID THAT IS TO BE PLACED IN AN UNLINED SUMP.
3. Blowout prevention equipment, at least of the Division of Oil and Gas Class III rating, shall be installed and maintained in operating condition at all times.
4. Fresh waters and oil or gas zones back of the 8 5/8" casing shall be protected with cement.
5. A directional survey shall be filed with this Division, if one is made.
6. THIS DIVISION SHALL BE NOTIFIED TO WITNESS:
 - a. A pressure test of the blowout prevention equipment before drilling out of the shoe of the 13 3/8" casing.
 - b. A test of the 8 5/8" water shut-off above the Sesnon zone.

Blanket Bond
ALL:r

cc: Operator

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

By 1080 Riggins, Deputy

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

Porter No. 26 site

037-21353

RECEIVED
FEB 27 1973
SANTA FE, CALIF.
9

Los Angeles, Calif. February 13, 1973

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. IW55, Sec. 28, 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: _____
(Attach map or plat to scale)
(as per plat previously filed)

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

Location of Well: 575.22 feet South ~~PROPERTY~~ along section line and 3292.97 feet West
(Direction) (Direction)

at right angles to said line from ~~the~~ Station No. 84 ~~corner of section~~ ~~PROPERTY~~

(reference: Metrex Aerial Surveys Co. drawing no. L.D. 11728 - sheet 2 of 4)

Elevation of ground above sea level 2505 feet U.S.G.S. datum.

All depth measurements taken from top of kelly bushing which is 12 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 sm.s.	0'	800'	800'
8-5/8	36#	K-55 & N-80 sm.s.	0'	7675'	7675' & 3000'
6-5/8	27.65#	K-55 sm.s.	7575'	8075'	8075'

Intended zone(s) of completion: Seson 7775', 8075' Estimated total depth 8075'
(Name) (Depth, top and bottom)

GAS STORAGE WELL	MAP	WELL	Casing	Notes	FORM 105	
					11#	28#
	150	3-3-73	✓	BBB	✓	✓

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

Address P.O. Box 54790 T.A.

Pacific Lighting Service Company

Los Angeles, Calif. 90054

By P.L. Magallon Jr.

Telephone Number (213) 689-3621 or (213) 689-3561

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