



A  Sempira Energy[™] company

March 10, 2010

Mr. Steve Fields
Operations Engineer
California Division of Oil, Gas and Geothermal Resources
1000 S. Hill Rd., Suite 116
Ventura, CA 93003-4458

Re: Porter 69E - USIT log, Aliso Canyon Storage Field, Northridge, CA

Dear Mr. Fields:

Enclosed you will find two (2) copies of the USIT log run in Porter 69E (API# 037-24138) on July 31, 2009. This casing inspection log was run during a non-permit workover performed to repair a wellhead equipment seal. If you have any questions or require additional information, please feel free to contact me at (818) 700-3339.

Sincerely,

A handwritten signature in black ink, appearing to read "Todd R. Van de Putte".

Todd R. Van de Putte
Senior Storage Field Engineer – Workover/Drilling
Southern California Gas Company

MAR 15 2010

Attachments: (2) USIT log – (Interval: 100'-7135')

RECEIVED

API No. 24138

WELL SUMMARY REPORT

JAN 14 1994

Operator Southern California Gas Company	Well Porter 69E
Field Aliso Canyon	County Los Angeles
Location (Give surface location from property or section corner, street center line and/or California coordinates)	
910' South and 3255' West of Station 84	
Elevation of ground above sea level 2366'	

**DIVISION OF OIL, GAS, AND
GEOHERMAL RESOURCES**
VENUE

Commenced drilling (date) 6/23/93	Total depth (1st hole) 7848' (2nd) (3rd) Present effective depth 7836'	Depth measurements taken from top of: <input type="checkbox"/> Derrick Floor <input type="checkbox"/> Rotary Table <input checked="" type="checkbox"/> Kelly Bushing Which is 23.5 feet above ground	GEOLOGICAL MARKERS M-P S-1	DEPTH 6963' 7243'
Completed drilling (date) 8/17/93				
Commenced producing (date)	Junk None	Formation and age at total depth Frew - Eocene		
<input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas lift	Name of producing zone(s) Sesnon Frew			

	Clean Oil (bbl per day)	Gravity Clean Oil	Percent Water including emulsion	Gas (Mcf per day)	Tubing Pressure	Casing Pressure
Initial Production						
Production After 30 day:						

CASING RECORD (Present Hole)

Size of Casing (API)	Top of Casing	Depth of Shoe	Weight of Casing	Grade and Type of Casing	New or Second Hand	Size of Hole Drilled	Number of Sacks or Cubic Feet of Cement	Depth of Cementing (if through perforations)
13-3/8"	Surface	843	54.4	K55, Buttress	New	17-1/2"	995	
9-5/8"	Surface	7289	47	N80, LT&C	New	12-1/4"	2946	
5-1/2"	7208	7836	17	J55, LT&C	Used	15" & 8-1/2"	Gravel Packed	

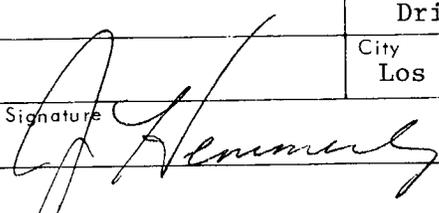
PERFORATED CASING (Size, top, bottom, perforated intervals, size and spacing of perforation and method.)
 5-1/2", 17#, J55, LT&C Liner 7836' - 7208', .030" slots 7836' - 7684', .012" WWS 7666' - 7300', .012" slots 7300' - 7220'. Gravel packed with 388 cu.ft. 20-40 sand.

Was the well directionally drilled? If yes, show coordinates at total depth
 Yes No **1252' North and 466' East of surface location @ 7687' TVD.**

DIL/SP/GR/Caliper 7282' - 843'. Dual Lateralog/Micro SFL/GR 7798' - 7289'.

Other surveys
4-arm caliper /GR 7823' - 7289'.

In compliance with Sec. 3215, Division 3 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.

Name Jim Hemmerly	Title Drilling Engineer
Address Box 3249, M.L. 22G0	City Los Angeles CA
Zip Code 90013	Date January 4, 1994
Telephone Number (213) 244-2687	Signature 

SUBMIT IN DUPLICATE

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

DIVISION OF OIL AND GAS
 RECEIVED
 SEP 21 1993

History of Oil or Gas Well

VENTURA, CALIFORNIA

Operator .. Southern California Gas Company..... Field .. Aliso Canyon... County Los Angeles.....
 Well Porter #69 E....., Sec. 28..., T3N..., R 16W., S.BB. & M.
 A.P.I. No..... 037-24138..... Name .. R. D. Phillips..... Title .. Agent.....
 Date September...14....., 19 93. (Person submitting report) (President, Secretary or Agent)

Signature *J. A. Hemmerly*
 J. A. Hemmerly For R. D. Phillips
 P. O. Box 3249 Los Angeles, CA 90051-1249 (213) 244-2687
(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	
1993	
06/23	Finished rigging up. Spud at 5:00 p.m. and drilled 17-1/2" hole to 340'.
06/24	Drilled 17-1/2" hole to 750'.
06/25	Drilled to 843'. Wiped hole to shoe and conditioned mud for casing. Pulled out of hole. Ran 13-3/8" casing to 843' and cemented with good cement returns to surface. Waiting on cement.
06/26	Finished waiting on cement. Cut off 13-3/8" casing and installed 13-5/8" x 13-3/8" 3000 psi SOW model SD casing wellhead. X-ray and pressure tested welds. Nipped up BOPE and tested choke manifold valves.
06/27	Tested BOPE for D.O.G. Inspected drill collars and replaced with rental collars. Tested casing to 500 psi. Drilled float collar and cement to shoe at 843'.
06/28	Drilled 12-1/4" hole to 1465'. Tripped out to pick up mud motor.
06/29	Directionally drilled to 1586'. Tripped to change kick sub. Directionally drilled to 1929'. Tripping for drilling assembly.
06/30	Ran in hole. Reamed directional run from 1465' to 1929'. Drilled to 2494'. Tripped for new bit. Drilled to 2552'.

DOG 9/22/93
 OQ103 (6/91/GSR1/5M)

- 07/01 Drilled to 2929'. Wiped hole to 1500'. Circulated and leveled rig with jacks. Drilled to 3219'. Pulled out for bit.
- 07/02 Finished trip for bit. Drilled from 3219' to 3980'.
- 07/03 Drilled 3980' to 4487'. Wiped hole to 3450'. Drilled to 4859'. Pulling out for bit and assembly change.
- 07/04 Finished trip for dropping assembly. Drilled from 4859' to 5148'. Tripped for locked up assembly. Drilled to 5210'.
- 07/05 Drilled from 5210 to 5911'. Wiped hole 10 stands. Circulated for trip.
- 07/06 Finished trip. Drilled with steerable motor from 5911' to 6170'.
- 07/07 Drilled with steerable motor to 6330'. Tripped for locked up drilling assembly. Reamed hole from 5158' to 6296'.
- 07/08 Reamed from 6296' to 6330'. Drilled 12-1/4" hole from 6330' to 6960'.
- 07/09 Drilled to 7177'. Built mud weight from 68 pcf to 70 pcf to reduce gas cutting and fill. Drilled to 7290' (T.D.). Wiped hole to shoe. Building mud weight.
- 07/10 Wiped hole and built mud weight to 77 pcf. Pulled out to log. Ran DIL/Sp/GR/Caliper log from 7282' to 843'.
- 07/11 Ran in hole and conditioned mud for casing. Pulled out of hole and rigged up to run casing. Began running 9-5/8", 47#, N80, LT&C casing.
- 07/12 Ran 167 joints. of 9-5/8", 47#, LT&C, N80 casing with differential fill float shoe at 7289', external casing packer from 7243' to 7227', and 15' flag joint from 6910' to 6925'. Cemented casing as follows: Mixed and pumped 20 Bbls mud flush, 10 Bbls water, 2015 cu.ft. Class G cement mixed at 14.2 ppg and foamed with N₂ to 10.8 ppg followed by 931 cu.ft. Class G cement mixed at 15.8 ppg. Dropped top plug after pumping 831 cu.ft. cement leaving 100 cu.ft. above plug for packer inflation. Displaced cement with 36 Bbls H₂O, 472 Bbls mud & 28 Bbls H₂O. Bumped plug and inflated packer with 1-1/2 Bbls cement. Cement in place at 11:55 p.m. Float shoe held. Good foamed cement returns to surface. Squeezed 13-3/8" x 9-5/8" annulus with 115 cu.ft. Class G cement and displaced with 150 cu.ft. H₂O. Cement in place at 12:25 a.m. Waited on cement until 6:00 a.m.
- 07/13 Landed 9-5/8" casing in slips with 265,000 lbs. Installed packing. Laid down drill collars and drill pipe. Removed BOPE. Dressed 9-5/8" casing and installed seal flange.
- 07/14 Installed and tested tubing head to 3500 psi. Released drilling rig at 8:30 a.m.

- 07/28** Moved in. Rig up CPS #M72.
- 07/29** Installed Class III 11" 5000 psi BOPE. Tested blind rams, pipe rams and choke manifold to 4000 psi. Tested annular preventer to 3500 psi. BOPE test witnessed by Steve Mulqueen of the D.O.G. Installed wear bushing in tubing head. Made up 8-1/2" bit on drilling assembly. Picked up 3-1/2" drill pipe. Ran in well and tagged top of cement at 6838'.
- 07/30** Drilled out cement from 6838' to 7269'. Changed well over to clean 67 pcf XC polymer fluid in 3% KCl. Pressure tested 9-5/8" casing to 1500 psi. Drilled out casing shoe at 7289'. Drilled from 7289' to 7338'.
- 07/31** Pulled out of well. Ran in well with 8-1/2" bit (Hughes ATJ-114) to 2000'. Rig down for one hour to repack rotary swivel. Ran in well to 7338'. Drilled to 7429'. Surveyed at 7429'. Drilled from 7429' to 7469'.
- 08/01** Drilled ahead from 7469' to 7563'. Surveyed at 7584'. Drilled and surveyed from 7584' to 7635'. Pulled up to 6987'. Shut well in. Rig down at 9:00 p.m. for repairs (3 hours to change out air compressor on rig engine). Pulled out of well.
- 08/02** Pulled out of well. Checked bit (o.k.). Reran 8-1/2" bit #2 in well. Drilled from 7635' to 7677'. Surveyed at 7677'. Drilled from 7677' to 7800'. Circulated well clean. Surveyed at 7800'. Pulled up to 7429' and surveyed. Ran in well to 7800'. Pulled out of well.
- 08/03** Pulled out of well. Installed shooting flange and lubricator. Using Schlumberger, ran Dual Laterlog/Micro-SFL/GR from 7798' to 7289'. Ran in well with 8-1/2" bit #3. Drilled from 7800' to 7845'. Circulated hole clean. Surveyed at 7831'. Pulled out of well.
- 08/04** Pulled out of well. Made up TriState 15" x 8-3/4" OD hole opener on 182' of 6" OD drill collars. Ran in well to 7289'. Opened 8-1/2" hole to 15" from 7289' to 7387'.
- 08/05** Opened 8-1/2" hole to 15" from 7387' to 7411'. Found 1 cone frozen up and 1 cone loose. Ran in well with TriState hole opener #2 to 7411'. Opened 8-1/2" hole to 15" from 7411' to 7456'.
- 08/06** Opened 8-1/2" hole to 15" from 7456' to 7478'. Pulled out of well. Ran in well with hole opener #3 to 7478'. Opened 8-1/2" hole to 15" from 7478' to 7511'.
- 08/07** Opened 8-1/2" hole to 15" from 7511' to 7551'. Pulled out of well. Ran in well with hole opener #4 to 7551'. Opened 8-1/2" hole to 15" from 7551' to 7567'.
- 08/08** Opened 8-1/2" hole to 15" from 7567' to 7624'. Pulled out of well. Ran in well with hole opener #5 to 7624'. Opened 8-1/2" hole to 15" from 7624' to 7650'.
- 08/09** Pulled out of well. Ran in well with 8-1/2" bit and tagged fill at 7745'. (100' of fill). Cleaned out to 7845'. Circulated well clean. Pulled out of well. Installed shooting flange and lubricator. Ran Schlumberger four arm caliper and Gamma Ray. Tagged fill at 7823' (22' of fill on bottom). Logged from 7823' to 7289'. Ran in well with 8-1/2" bit to 7823'. Cleaned out to 7848'.

- 08/10** With bit at 7845', changed over to clean 67 pcf XC polymer. Pulled up to 7289'. Waited one hour. Ran in well and tagged fill at 7832'. Pulled out of well. Made up and ran 628' of 5-1/2" 17# J-55 LT&C .012" wrapped and slotted liner. Set bottom of liner at 7836' with top landing nipple at 7208'. Set packer at 7200'. Pressure tested packer to 500 psi. Mixed and pumped 40 sacks of 20-40 resin coated sand followed by 443 sacks of 20-40 sand. Placed 252 sacks behind liner. Pressured up to 1000 psi. Backscuttled 153 cu.ft. sand out. Mixed and pumped 78 cu.ft. of 20-40 sand. Placed 78 cu.ft. of sand behind liner for a total of 330 cu.ft. in place.
- 08/11** Mixed and pumped 87 cu.ft. of 20-40 sand. Placed 58 cu.ft. of sand behind liner. Pressured up to 1300 psi. Backscuttled 29 cu.ft. of sand out. Total of 388 cu.ft. in place behind liner. Waited 3 hours for sand to pack. Attempted unsuccessfully to establish pumping rate. Pressured up to 1000 psi. Shut well in.
- 08/12** Backscuttled one drill pipe volume. Tested packer to 500 psi. Established pump rate of 1100 psi at 1/4 BPM. Decided not to repack due to low pump rate at relatively high pressure. Released from liner. Made up Baker lead seal drive over adapter. Set adapter at 7205'. Pulled out of well.
- 08/13** Pulled out of well. Ran in well with 647' of 2-7/8" CS Hydril tubing on 3-1/2" drill pipe to 7836' with no fill. Changed over to 65 pcf 2% KCl water with 5 gal/ 100 Bbl Ucarcide, 5 gal/ 100 Bbl HIB-19 and 2.5 gal/ 100 Bbl COS. Pulled out of well laying down 3-1/2" drill pipe.
- 08/14** Laid down 3-1/2" drill pipe. Laid down 6" drill collars and 3-1/2" OD kelly. Pulled wear bushing from tubing head. Changed pipe rams to 2-7/8". Measured and picked up 2-7/8" 6.5# J-55 yellow band tubing. Shut well in with 3116' 2-7/8" tubing in well.
- 08/15** Rig shut down.
- 08/16** Pulled kill string. Installed shooting flange. Using Dialog, ran and set Guiberson 9-5/8" 47# Magnum H packer at 7155'. Ran production string as per program. Spaced out tubing string. Landed tubing with 10,000 lbs on packer and 34,000 lbs on tubing hanger. Tested packer and seals to 1500 psi for 20 minutes.
- 08/17** Installed back pressure valve in tubing hanger. Removed BOPE. Installed x-mas tree. Tested tree to 5000 psi. Removed back pressure valve. Closed in all valves on x-mas tree. Released rig for move.

alliburton Drilling System

RECEIVED

SOUTHERN CALIFORNIA GAS COMPANY
 WELL: PORTER #69E
 FIELD: ALISO CANYON
 LOS ANGELES COUNTY

Calculated by Minimum Curvature Method
 Vert Sect Planes: N 19.79 E

FINAL PRINT

DEC 15 1994

DIVISION OF OIL, GAS, AND
 GEOTHERMAL RESOURCES
 VENTURA, CALIFORNIA

- RECORD OF SURVEY -

MEASURED DEPTH (FT)	INCL ANGLE (DEG)	D R I F T DIRECTION (DEG)	COURSE LENGTH (FT)	TRUE VERTICAL DEPTH	T O T A L		VERTICAL SECTION (FT)	C L O S U R E		DOGLEG SEVERITY (DG/100')
					RECTANGULAR	COORDINATES		DISTANCE	DIRECTION	
0.00	0.00	N 0.00 E	0.00	0.00	0.00	N 0.00 E	0.00	0.00	N 0.00 E	0.00
136.00	1.50	S 17.00 E	136.00	135.98	1.70	S 0.52 E	-1.43	1.78	S 17.00 E	1.10
222.00	1.50	S 20.00 E	86.00	221.95	3.84	S 1.23 E	-3.19	4.03	S 17.84 E	0.09
342.00	1.50	S 10.00 E	120.00	341.91	6.86	S 2.04 E	-5.76	7.16	S 16.60 E	0.22
462.00	1.00	S 12.00 W	120.00	461.89	9.43	S 2.10 E	-8.16	9.66	S 12.55 E	0.57
582.00	1.25	S 25.00 E	120.00	581.86	11.64	S 2.43 E	-10.13	11.89	S 11.81 E	0.63
743.00	1.25	S 47.00 E	161.00	742.83	14.43	S 4.46 E	-12.07	15.10	S 17.18 E	0.30
935.00	1.25	S 78.00 E	192.00	934.78	16.29	S 8.04 E	-12.61	18.17	S 26.27 E	0.35
1118.00	0.75	N 19.00 E	183.00	1117.76	15.58	S 10.38 E	-11.14	18.72	S 33.69 E	0.75
1242.00	1.00	N 48.00 E	124.00	1241.75	14.08	S 11.45 E	-9.38	18.15	S 39.11 E	0.40
1364.00	1.50	N 50.00 E	122.00	1363.72	12.35	S 13.47 E	-7.06	18.27	S 47.49 E	0.41
1453.00	1.50	N 76.00 E	89.00	1452.69	11.32	S 15.49 E	-5.40	19.18	S 33.85 E	0.76
1484.00	1.50	N 48.00 E	31.00	1483.68	10.95	S 16.18 E	-4.82	19.54	S 55.93 E	2.34
1514.00	1.50	N 20.00 E	30.00	1513.67	10.31	S 16.61 E	-4.08	19.35	S 58.16 E	2.42
1546.00	2.00	N 8.00 E	32.00	1545.65	9.37	S 16.01 E	-3.12	19.24	S 60.88 E	2.06
1577.00	2.75	N 4.00 W	31.00	1576.63	8.09	S 16.82 E	-1.91	18.66	S 64.32 E	2.76
1608.00	3.50	N 11.00 W	31.00	1607.58	6.41	S 16.58 E	-0.42	17.78	S 68.85 E	2.71
1640.00	4.50	N 15.00 W	32.00	1639.50	4.26	S 16.07 E	1.45	16.62	S 75.21 E	3.24
1671.00	5.50	N 13.00 W	31.00	1670.39	1.62	S 15.42 E	3.70	15.51	S 84.00 E	3.27
1702.00	6.75	N 12.00 W	31.00	1701.21	1.61	N 14.71 E	6.49	14.80	N 83.76 E	4.05
1733.00	7.75	N 13.00 W	31.00	1731.96	5.43	N 13.86 E	9.80	14.89	N 68.62 E	3.25
1765.00	8.50	N 6.00 W	32.00	1763.64	9.88	N 13.13 E	13.74	16.43	N 53.03 E	3.88
1796.00	9.00	N 1.00 E	31.00	1794.28	16.59	N 12.93 E	18.10	19.49	N 41.56 E	3.79
1828.00	9.50	N 9.00 E	32.00	1825.86	19.70	N 13.39 E	23.07	23.82	N 34.21 E	4.31
1859.00	10.25	N 14.00 E	31.00	1856.40	24.90	N 14.46 E	28.32	28.79	N 30.14 E	3.67
1889.00	11.25	N 12.00 E	30.00	1885.88	30.35	N 15.71 E	33.88	34.18	N 27.37 E	3.56
1984.00	14.25	N 11.00 E	95.00	1978.53	50.90	N 19.87 E	54.62	54.64	N 21.32 E	3.17
2108.00	14.00	N 10.00 E	126.00	2098.78	80.65	N 25.39 E	84.48	84.55	N 17.47 E	0.28
2262.00	14.50	N 10.00 E	154.00	2248.04	117.98	N 31.97 E	121.84	122.24	N 15.16 E	0.32
2414.00	14.50	N 11.00 E	152.00	2395.20	155.40	N 38.90 E	159.40	160.20	N 14.05 E	0.16
2569.00	14.50	N 11.00 E	155.00	2545.26	193.50	N 46.31 E	197.75	198.06	N 13.46 E	0.00
2723.00	14.50	N 10.00 E	154.00	2694.35	231.41	N 53.34 E	235.80	237.48	N 12.98 E	0.16

Survey Ref: Well Head Closure Ref: Well Head
 Tue Jul 13 1993 15:17:43

Vert Sect Ref: Well Head
 Files: sc69ea0.dat

Liburton Drilling System

SOUTHERN CALIFORNIA GAS COMPANY
 WELL: PORTER #69E
 FIELD: ALISO CANYON
 LOS ANGELES COUNTY

Calculated by Minimum Curvature Method
 Vert. Sect Plane: N 19.79 E

- RECORD OF SURVEY -

MEASURED DEPTH (FT)	INCL ANGLE (DEG)	D R I F T DIRECTION (DEG)	COURSE LENGTH (FT)	TRUE VERTICAL DEPTH	T O T A L RECTANGULAR COORDINATES (FT)		VERTICAL SECTION (FT)	C L O S U R E DISTANCE DIRECTION (FT) (DEG)		DOGLEG SEVERITY (DD/100')
2876.00	14.25	N 11.00 E	153.00	2842.56	268.76 N	60.25 E	273.28	275.43 N	12.64 E	0.23
2938.00	14.25	N 11.00 E	62.00	2902.66	283.74 N	63.17 E	288.37	290.68 N	12.55 E	0.00
3094.00	14.25	N 10.00 E	156.00	3053.86	321.49 N	70.16 E	326.26	329.06 N	12.31 E	0.16
3155.00	14.50	N 10.00 E	61.00	3112.95	336.41 N	72.79 E	341.19	344.19 N	12.21 E	0.41
3347.00	15.00	N 9.00 E	192.00	3298.62	384.62 N	80.86 E	389.28	393.03 N	11.87 E	0.29
3576.00	15.00	N 9.00 E	229.00	3519.82	443.16 N	90.13 E	447.58	452.23 N	11.50 E	0.00
3804.00	15.00	N 8.00 E	228.00	3740.05	501.52 N	98.85 E	505.37	511.17 N	11.15 E	0.11
4059.00	16.00	N 8.00 E	255.00	3985.77	569.00 N	108.33 E	572.08	579.22 N	10.78 E	0.39
4400.00	15.75	N 13.00 E	341.00	4313.78	660.64 N	125.29 E	664.04	672.41 N	10.74 E	0.41
4554.00	15.75	N 15.00 E	156.00	4463.92	701.72 N	135.53 E	706.16	714.69 N	10.93 E	0.35
4743.00	16.00	N 15.00 E	187.00	4643.79	751.13 N	148.77 E	757.14	765.72 N	11.20 E	0.13
4928.00	14.25	N 17.00 E	185.00	4822.38	797.54 N	162.02 E	805.29	813.83 N	11.48 E	0.99
4959.00	14.00	N 16.00 E	31.00	4852.44	804.79 N	164.17 E	812.84	821.36 N	11.53 E	1.13
5052.00	12.25	N 16.00 E	93.00	4943.01	825.09 N	169.99 E	833.91	842.42 N	11.64 E	1.88
5113.00	11.25	N 17.00 E	61.00	5002.73	837.00 N	173.52 E	846.31	854.80 N	11.71 E	1.67
5237.00	11.50	N 17.00 E	124.00	5124.29	860.39 N	180.67 E	870.74	879.15 N	11.86 E	0.20
5421.00	11.50	N 18.00 E	184.00	5304.60	895.37 N	191.70 E	907.39	915.66 N	12.08 E	0.11
5668.00	11.75	N 17.00 E	247.00	5546.53	942.84 N	206.66 E	957.12	965.22 N	12.36 E	0.13
5853.00	11.75	N 18.00 E	185.00	5727.65	978.77 N	217.99 E	994.77	1002.75 N	12.56 E	0.11
5908.00	11.75	N 18.00 E	55.00	5781.50	989.42 N	221.45 E	1005.94	1013.90 N	12.62 E	0.00
5933.00	12.40	N 19.60 E	25.00	5805.95	994.37 N	223.14 E	1011.19	1019.10 N	12.65 E	2.92
5964.00	12.70	N 23.50 E	31.00	5836.21	1000.63 N	225.61 E	1017.92	1025.75 N	12.71 E	2.90
5996.00	12.50	N 24.90 E	32.00	5867.44	1007.00 N	228.47 E	1024.88	1032.59 N	12.78 E	1.14
6026.00	12.60	N 28.40 E	30.00	5896.72	1012.82 N	231.40 E	1031.35	1038.92 N	12.87 E	2.56
6056.00	12.40	N 31.20 E	30.00	5926.01	1018.45 N	234.62 E	1037.74	1045.13 N	12.97 E	2.13
6087.00	12.20	N 34.70 E	31.00	5956.30	1023.99 N	238.21 E	1044.17	1051.34 N	13.10 E	2.49
6117.00	11.90	N 38.60 E	30.00	5985.64	1029.02 N	241.94 E	1050.16	1057.08 N	13.23 E	2.89
6147.00	11.70	N 41.40 E	30.00	6015.01	1033.72 N	245.89 E	1055.92	1062.56 N	13.38 E	2.02
6179.00	11.40	N 42.50 E	32.00	6046.36	1038.48 N	250.17 E	1061.85	1068.19 N	13.54 E	1.16
6210.00	11.20	N 44.90 E	31.00	6076.76	1042.87 N	254.36 E	1067.40	1073.45 N	13.71 E	1.65
6241.00	10.60	N 48.50 E	31.00	6107.20	1046.90 N	258.62 E	1072.63	1078.37 N	13.88 E	2.93
6262.00	10.40	N 50.90 E	21.00	6127.85	1049.37 N	261.54 E	1075.95	1081.47 N	14.00 E	2.29
6477.00	10.25	N 48.50 E	215.00	6339.37	1074.28 N	290.93 E	1109.34	1112.98 N	15.15 E	0.21

Halliburton Drilling System

SOUTHERN CALIFORNIA GAS COMPANY
 WELL: PORTER #59E
 FIELD: ALISO CANYON
 LOS ANGELES COUNTY

Calculated by Minimum Curvature Method
 Vert Sect Plane: N 19.79 E

- RECORD OF SURVEY -

MEASURED DEPTH (FT)	INCL ANGLE (DEG)	D R I F T DIRECTION (DEG)	COURSE LENGTH (FT)	TRUE VERTICAL DEPTH	T O T A L		VERTICAL SECTION (FT)	C L O S U R E		DOGLEG SEVERITY (DG/100')
					RECTANGULAR COORDINATES (FT)			DISTANCE (FT)	DIRECTION (DEG)	
6492.00	9.50	N 49.00 E	219.00	6551.18	1098.60	N 318.64 E	1141.60	1143.88	N 16.17 E	0.35
6904.00	9.75	N 51.00 E	212.00	6760.19	1121.38	N 345.80 E	1172.23	1173.48	N 17.14 E	0.20
7122.00	11.00	N 40.00 E	218.00	6974.65	1148.93	N 373.52 E	1207.54	1208.12	N 18.01 E	1.07
7216.00	11.00	N 42.00 E	94.00	7066.92	1162.46	N 385.28 E	1224.25	1224.65	N 18.34 E	0.41



alliburton Drilling System

SOUTHERN CALIFORNIA GAS COMPANY
 WELL: PORTER #69E
 FIELD: ALISO CANYON
 LOS ANGELES COUNTY

Calculated by Minimum Curvature Method
 Vert Sect Planes N 19.79 E

FINAL PRINT

DIVISION OF OIL, GAS, AND
 GEOTHERMAL RESOURCES
 VENTURA, CALIFORNIA

- RECORD OF SURVEY -

MEASURED DEPTH (FT)	INCL ANGLE (DEG)	D R I F T DIRECTION (DEG)	COURSE LENGTH (FT)	TRUE VERTICAL DEPTH	T O T A L RECTANGULAR COORDINATES (FT)		VERTICAL SECTION (FT)	C L O S U R E DISTANCE (FT) DIRECTION (DEG)		DOGLEG SEVERITY (DG/100')
					N	E		N	E	
0.00	0.00	N 0.00 E	0.00	0.00	0.00	0.00	0.00	0.00	N 0.00 E	0.00
136.00	1.50	S 17.00 E	136.00	135.98	1.70	0.52	-1.43	1.78	S 17.00 E	1.10
222.00	1.50	S 20.00 E	86.00	221.95	3.84	1.23	-3.19	4.03	S 17.84 E	0.09
342.00	1.50	S 10.00 E	120.00	341.91	6.86	2.04	-5.76	7.16	S 16.60 E	0.22
462.00	1.00	S 12.00 W	120.00	461.89	9.43	2.10	-8.16	9.66	S 12.55 E	0.57
582.00	1.25	S 25.00 E	120.00	581.86	11.64	2.43	-10.13	11.89	S 11.81 E	0.63
743.00	1.25	S 47.00 E	161.00	742.83	14.43	4.46	-12.07	15.10	S 17.18 E	0.30
935.00	1.25	S 78.00 E	192.00	934.78	16.29	8.04	-12.61	18.17	S 26.27 E	0.35
1118.00	0.75	N 19.00 E	183.00	1117.76	15.58	10.38	-11.14	18.72	S 33.69 E	0.75
1242.00	1.00	N 48.00 E	124.00	1241.75	14.08	11.45	-9.38	18.15	S 39.11 E	0.40
1364.00	1.50	N 50.00 E	122.00	1363.72	12.35	13.47	-7.06	18.27	S 47.49 E	0.41
1453.00	1.50	N 76.00 E	89.00	1452.69	11.32	15.49	-5.40	19.18	S 53.85 E	0.76
1484.00	1.50	N 48.00 E	31.00	1483.68	10.95	16.18	-4.82	19.54	S 55.93 E	2.34
1514.00	1.50	N 20.00 E	30.00	1513.67	10.31	16.61	-4.08	19.33	S 58.16 E	2.42
1546.00	2.00	N 4.00 E	32.00	1545.65	9.37	16.81	-3.12	19.24	S 60.88 E	2.04
1577.00	2.75	N 4.00 W	31.00	1576.63	8.09	16.82	-1.91	18.66	S 64.32 E	2.76
1608.00	3.50	N 11.00 W	31.00	1607.58	6.41	16.58	-0.42	17.78	S 68.85 E	2.71
1640.00	4.50	N 15.00 W	32.00	1639.50	4.24	16.07	1.45	16.62	S 75.21 E	3.24
1671.00	5.50	N 13.00 W	31.00	1670.39	1.62	15.42	3.70	15.51	S 84.00 E	3.27
1702.00	6.75	N 12.00 W	31.00	1701.21	1.61	14.71	6.49	14.80	N 83.76 E	4.05
1733.00	7.75	N 13.00 W	31.00	1731.96	5.43	13.86	9.80	14.89	N 68.62 E	3.25
1765.00	8.50	N 6.00 W	32.00	1763.64	9.88	13.13	13.74	16.43	N 53.03 E	3.88
1796.00	9.00	N 1.00 E	31.00	1794.28	14.59	12.93	18.10	19.49	N 41.56 E	3.79
1828.00	9.50	N 9.00 E	32.00	1825.86	19.70	13.39	23.07	23.82	N 34.21 E	4.31
1859.00	10.25	N 14.00 E	31.00	1856.40	24.90	14.46	28.32	28.79	N 30.14 E	3.67
1889.00	11.25	N 12.00 E	30.00	1885.88	30.35	15.71	33.88	34.18	N 27.37 E	3.56
1984.00	14.25	N 11.00 E	95.00	1978.53	50.90	19.87	54.62	54.64	N 21.32 E	3.17
2108.00	14.00	N 10.00 E	124.00	2098.78	80.65	25.39	84.48	84.55	N 17.47 E	0.28
2262.00	14.50	N 10.00 E	154.00	2248.04	117.98	31.97	121.84	122.24	N 15.16 E	0.32
2414.00	14.50	N 11.00 E	152.00	2395.20	155.40	38.90	159.40	160.20	N 14.05 E	0.16
2569.00	14.50	N 11.00 E	155.00	2545.26	193.50	46.31	197.75	198.96	N 13.46 E	0.00
2723.00	14.50	N 10.00 E	154.00	2694.35	231.41	53.34	235.80	237.48	N 12.98 E	0.16

Survey Refs: Well Head Closure Refs: Well Head
 Tue Jul 13 1993 15:17:43

Vert Sect Refs: Well Head
 File: sc69es0.dat

Willburton Drilling System

SOUTHERN CALIFORNIA GAS COMPANY
 WELL: PORTER #69E
 FIELD: ALISO CANYON
 LOS ANGELES COUNTY

Calculated by Minimum Curvature Method
 Vert. Sect Plane: N 19.79 E

- RECORD OF SURVEY -

MEASURED DEPTH (FT)	INCL ANGLE (DEG)	D R I F T DIRECTION (DEG)	COURSE LENGTH (FT)	TRUE VERTICAL DEPTH	TOTAL RECTANGULAR COORDINATES (FT)	VERTICAL SECTION (FT)	CLOSURE DISTANCE (FT)	DIRECTION (DEG)	DOCLED SEVERITY (DG/100')
2876.00	14.25	N 11.00 E	153.00	2842.56	268.76 N 60.25 E	273.28	275.43	N 12.64 E	0.23
2938.00	14.25	N 11.00 E	62.00	2902.66	283.74 N 63.17 E	288.37	290.68	N 12.55 E	0.00
3094.00	14.25	N 10.00 E	156.00	3053.86	321.49 N 70.16 E	326.26	329.06	N 12.31 E	0.16
3155.00	14.50	N 10.00 E	61.00	3112.95	336.41 N 72.79 E	341.19	344.19	N 12.21 E	0.41
3347.00	15.00	N 9.00 E	192.00	3298.62	384.62 N 80.86 E	389.28	393.03	N 11.87 E	0.29
3576.00	15.00	N 9.00 E	229.00	3519.82	443.16 N 90.13 E	447.50	452.23	N 11.50 E	0.00
3804.00	15.00	N 8.00 E	228.00	3740.05	501.52 N 98.85 E	505.37	511.17	N 11.15 E	0.11
4059.00	16.00	N 8.00 E	255.00	3985.77	569.00 N 108.33 E	572.08	579.22	N 10.78 E	0.39
4400.00	15.75	N 13.00 E	341.00	4313.78	660.64 N 125.29 E	664.04	672.41	N 10.74 E	0.41
4554.00	15.75	N 15.00 E	156.00	4463.92	701.72 N 135.53 E	706.16	714.69	N 10.93 E	0.35
4743.00	16.00	N 15.00 E	187.00	4643.79	751.13 N 148.77 E	757.14	765.72	N 11.20 E	0.13
4928.00	14.25	N 17.00 E	185.00	4822.38	797.54 N 162.02 E	805.29	813.83	N 11.48 E	0.99
4959.00	14.00	N 16.00 E	31.00	4852.44	804.79 N 164.17 E	812.84	821.36	N 11.53 E	1.13
5052.00	12.25	N 16.00 E	93.00	4943.01	825.09 N 169.99 E	833.91	842.42	N 11.64 E	1.88
5113.00	11.25	N 17.00 E	61.00	5002.73	837.00 N 173.52 E	846.31	854.80	N 11.71 E	1.67
5237.00	11.50	N 17.00 E	124.00	5124.29	860.39 N 180.67 E	870.74	879.15	N 11.86 E	0.20
5421.00	11.50	N 18.00 E	184.00	5304.60	895.37 N 191.70 E	907.39	915.64	N 12.08 E	0.11
5668.00	11.75	N 17.00 E	247.00	5546.33	942.84 N 206.66 E	957.12	965.22	N 12.36 E	0.13
5853.00	11.75	N 18.00 E	185.00	5727.65	978.77 N 217.99 E	994.77	1002.75	N 12.56 E	0.11
5908.00	11.75	N 18.00 E	55.00	5781.50	989.42 N 221.45 E	1005.96	1013.90	N 12.62 E	0.00
5933.00	12.40	N 19.60 E	25.00	5805.95	994.37 N 223.14 E	1011.19	1019.10	N 12.65 E	2.92
5964.00	12.70	N 23.50 E	31.00	5836.21	1000.63 N 225.61 E	1017.92	1025.75	N 12.71 E	2.90
5996.00	12.50	N 24.90 E	32.00	5867.44	1007.00 N 228.47 E	1024.88	1032.59	N 12.78 E	1.14
6026.00	12.60	N 28.40 E	30.00	5896.72	1012.82 N 231.40 E	1031.35	1038.92	N 12.87 E	2.56
6056.00	12.40	N 31.20 E	30.00	5926.01	1018.45 N 234.62 E	1037.74	1045.13	N 12.97 E	2.13
6087.00	12.20	N 34.70 E	31.00	5956.30	1023.99 N 238.21 E	1044.17	1051.34	N 13.10 E	2.49
6117.00	11.90	N 38.60 E	30.00	5985.64	1029.02 N 241.94 E	1050.16	1057.08	N 13.23 E	2.89
6147.00	11.70	N 41.40 E	30.00	6015.01	1033.72 N 245.89 E	1055.92	1062.56	N 13.38 E	2.02
6179.00	11.40	N 42.50 E	32.00	6046.36	1038.48 N 250.17 E	1061.85	1068.19	N 13.54 E	1.16
6210.00	11.20	N 44.90 E	31.00	6076.76	1042.87 N 254.36 E	1067.40	1073.45	N 13.71 E	1.65
6241.00	10.60	N 48.50 E	31.00	6107.20	1046.90 N 258.62 E	1072.63	1078.37	N 13.88 E	2.93
6262.00	10.40	N 50.90 E	21.00	6127.85	1049.37 N 261.54 E	1075.95	1081.47	N 14.00 E	2.29
6477.00	10.25	N 48.50 E	215.00	6339.37	1074.28 N 290.93 E	1109.34	1112.98	N 15.15 E	0.21

Halliburton Drilling System

SOUTHERN CALIFORNIA GAS COMPANY
 WELL: PORTER #69E
 FIELD: ALISO CANYON
 LOS ANGELES COUNTY

Calculated by Minimum Curvature Method
 Vert Sect Plane: N 19.79 E

- RECORD OF SURVEY -

MEASURED DEPTH (FT)	INCL ANGLE (DEG)	D R I F T DIRECTION (DEG)	COURSE LENGTH (FT)	TRUE VERTICAL DEPTH	T O T A L		VERTICAL SECTION (FT)	C L O S U R E		DOOLEY SEVERITY (DG/100')
					RECTANGULAR COORDINATES (FT)			DISTANCE (FT)	DIRECTION (DEG)	
6492.00	9.50	N 49.00 E	215.00	6551.18	1098.60 N	318.64 E	1141.60	1143.88 N	16.17 E	0.35
6904.00	9.75	N 51.00 E	212.00	6760.19	1121.38 N	345.80 E	1172.23	1173.48 N	17.14 E	0.20
7122.00	11.00	N 40.00 E	218.00	6974.65	1148.93 N	373.52 E	1207.54	1208.12 N	18.01 E	1.07
7216.00	11.00	N 42.00 E	94.00	7066.92	1162.46 N	385.28 E	1224.25	1224.65 N	18.34 E	0.41

OPERATOR: SOUTHERN CALIFORNIA GAS CO.
 WELL: PORTER 69E
 LOCATION: LOS ANGELES CA
 FIELD: ALISO CANYON

(Completion Interval)

MCV (SPE-3362) PROPOSED DIRECTION 200

SUR NO.	MD	INC	TRUE	TVD	N-S	E-W	SECT	DLS/ 100
			AZM		<i>(South & West in Parenthesis)</i>			
0	7,122	11.0	40.0	6,974.7	1,148.9	373.5	-1207.4	0.0
1	7,216	11.0	42.0	7,066.9	1,162.5	385.3	-1224.1	0.4
2	7,429	10.0	44.0	7,276.4	1,190.9	411.7	-1259.9	0.5
3	7,584	10.0	45.0	7,429.0	1,210.1	430.6	-1284.4	0.1
4	7,677	9.8	47.0	7,520.6	1,221.1	442.1	-1298.7	0.5
5	7,800	9.8	48.0	7,641.8	1,235.3	457.5	-1317.2	0.1
6	7,831	9.0	49.0	7,672.4	1,238.6	461.3	-1321.7	2.6
TD	7850 7848'	9.0 est. 49.0		7691.2 7689.2	1240.6'N	463.5'E	1324.4'	

SP (SP)
(MV) -40.0

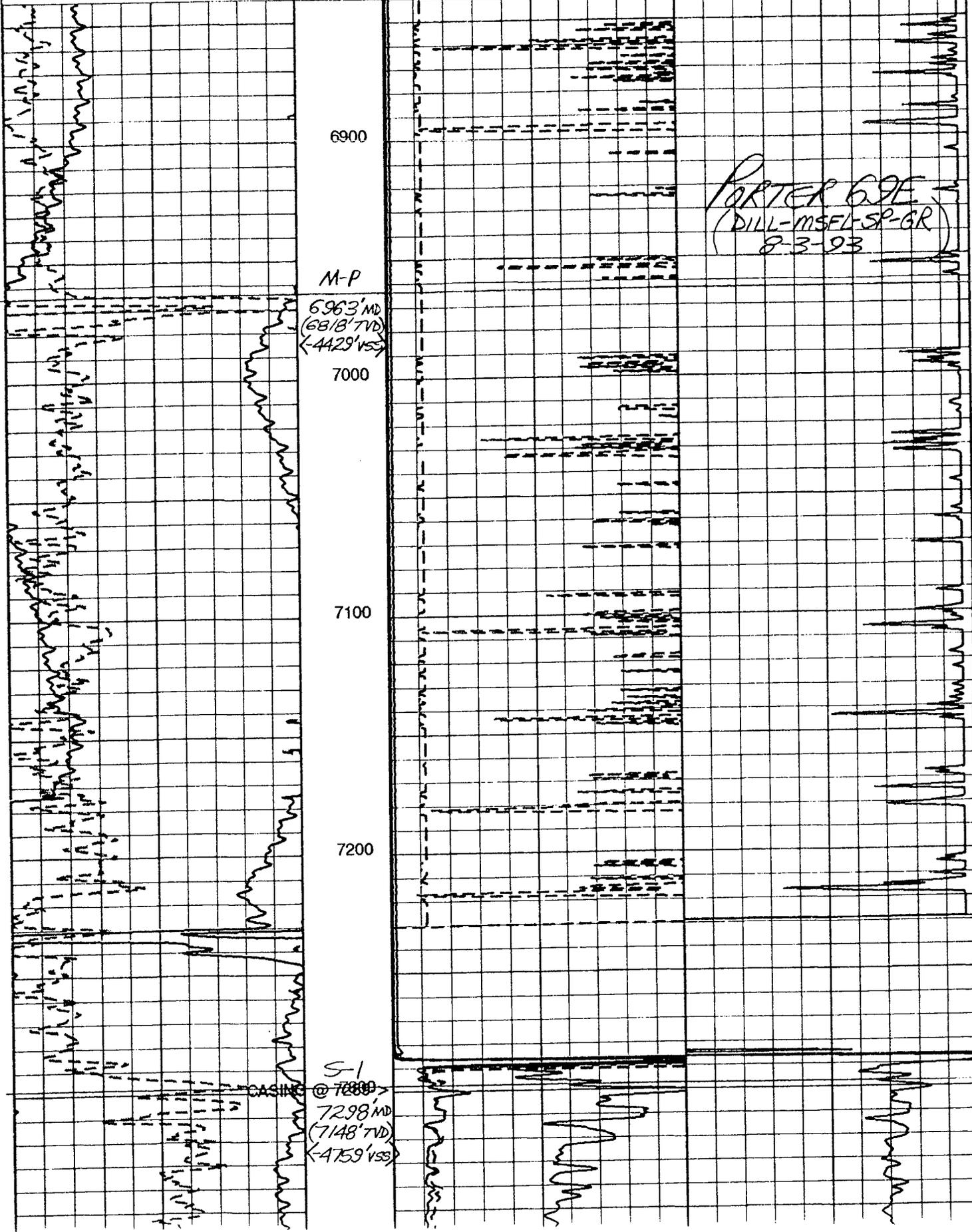
Gamma Ray (GR)
(GAPI) 200.0

Laterolog Shallow Resistivity (LLS)
(OHMM) 10.0

Laterolog Shallow Resistivity (LL_s)
(OHMM) 50.0

Laterolog Deep Resistivity (LLD)
(OHMM) 50.0

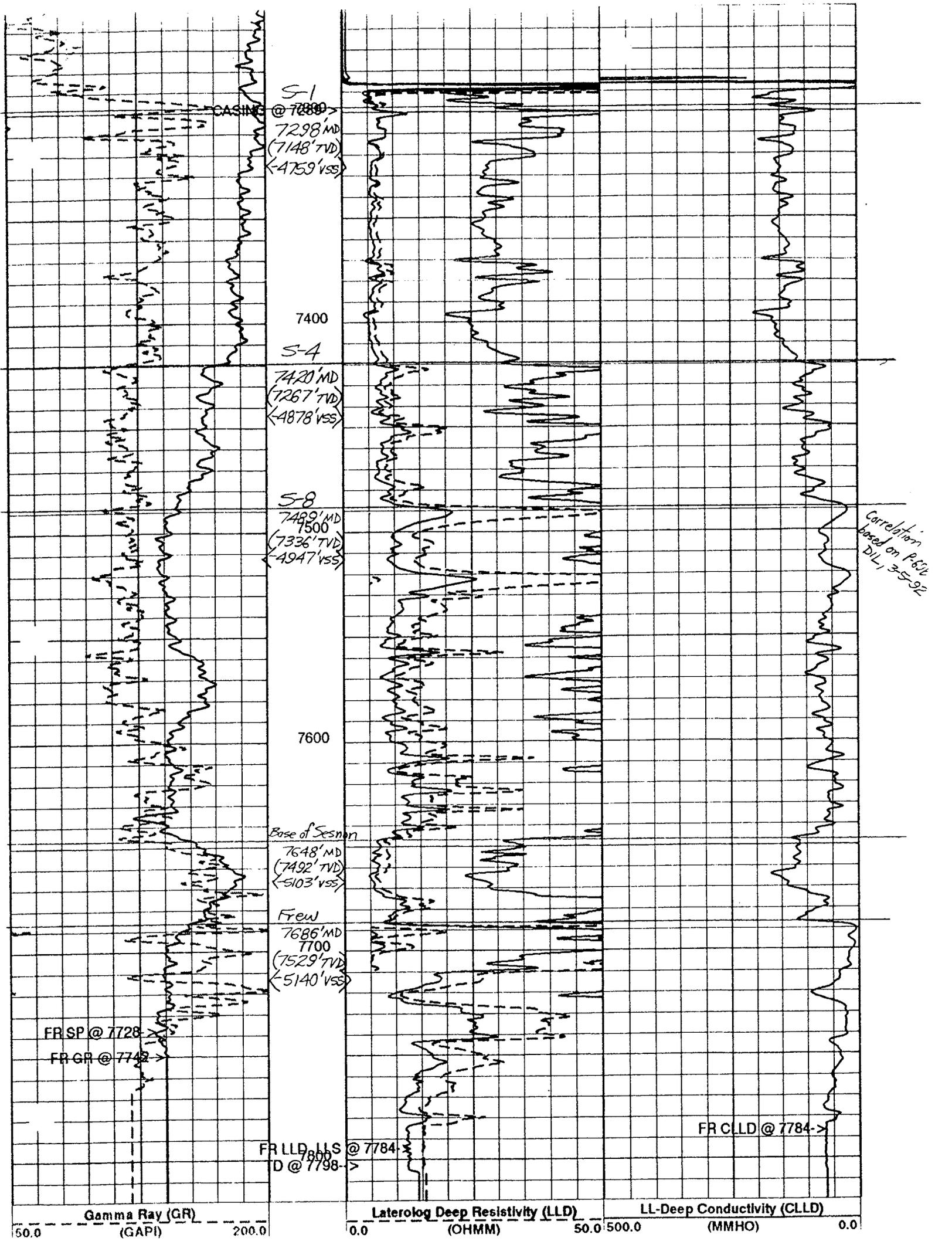
LL-Deep Conductivity (CLLD)
(MMHO) 0.0



PORTER G. J. E.
(DILL-MSEL-SP-GR)
8-3-93

M-P
6963' MD
(6818' TVD)
<44.29' VSS

S-1
© 72889
7298' MD
(7148' TVD)
<47.59' VSS



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

No. T293-185

REPORT ON OPERATIONS

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

Ventura, California
August 6, 1993

Your operations at well "Porter" 69E, API No. 037-24138,
Sec. 28, T. 3N, R. 16W, S.B.B.&M. Aliso Canyon Field, in Los Angeles
County, were witnessed on 7-29-93. S. Mulqueen, representative of
the supervisor, was present from 1600 to 1800. There were also present
Jim Dayton, Drilling Foreman.

Present condition of well: 13 3/8" cem 843'; 9 5/8" cem 7289'. TD 7290'
(Drilling).

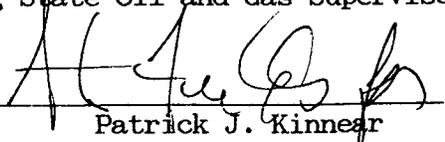
The operations were performed for the purpose of testing the blowout equipment
and installation.

DECISION:

The blowout prevention equipment and its installation on the 9 5/8" casing are
approved.

PK:FN:nr

WILLIAM F. GUERARD, Jr.
Acting State Oil and Gas Supervisor

By 
Patrick J. Kinnear
Deputy Supervisor

API No. 037-24138

DIVISION OF OIL AND GAS

CP

T 293-185

BLOWOUT PREVENTION EQUIPMENT MEMO

Operator SOUTHERN CALIFORNIA GAS CO. Well "PORTER" 69E
 Field ALISO CANYON County LOS ANGELES Spud Date _____

VISITS: Date Engineer Time Operator's Rep. Title
 1st 7-29-93 S. MULQUEEN (1600 to 1800) JIM DAYTON DRILLING FOREMAN
 2nd _____ (_____ to _____)

Contractor CPS Rig # M 72 Contractor's Rep. & Title BOB OLSON
 Casing record of well: 13 3/8" cem 843'; 9 5/8" cem 7289'. TD 7290' (DRILLING).

OPERATION: Testing (inspecting) the blowout prevention equipment and installation.
 DECISION: The blowout prevention equipment and its installation on the 9 5/8" casing are approved.

Proposed Well Opns: DRILL MACP: _____ psi
 Hole size: _____" fr. _____" to _____" to _____" & _____" to _____"
 REQUIRED BOPE CLASS: III B 3M

CASING RECORD OF BOPE ANCHOR STRING					Cement Details		Top of Cement	
Size	Weight(s)	Grade(s)	Shoe at	CP at			Casing	Annulus
<u>13 3/8"</u>	<u>54.5 #</u>	<u>K-55</u>	<u>843'</u>					<u>SURFACE</u>
<u>9 5/8"</u>	<u>47 #</u>	<u>N-80</u>	<u>7289'</u>		<u>INFL. PARKER @ 7227' FLAG RUP 6909</u>			<u>SURFACE</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	Recovery Time (Min.)	Calc. GPM Output	psi Drop to Close	Secs. to Close	Test Date	Test Press.
<u>A</u>	<u>-</u>	<u>HYDRIL</u>	<u>GK</u>	<u>11</u>	<u>5000</u>							<u>7-29</u>	<u>3500</u>
<u>RD</u>	<u>3 1/2</u>	<u>SHAFFER</u>	<u>LWS</u>	<u>11</u>	<u>5000</u>							<u>7-29</u>	<u>4250</u>
<u>RD</u>	<u>CSO</u>	<u>"</u>	<u>LWS</u>	<u>11</u>	<u>"</u>							<u>7-29</u>	<u>4100</u>

ACTUATING SYSTEM				TOTAL:		AUXILIARY EQUIPMENT						
Accumulator Unit(s) Working Pressure <u>3000</u> psi										Connections		Test Press.
Total Rated Pump Output _____ gpm						No.	Size (in.)	Rated Press.	Weld	Flange	Thread	
Distance From Well Bore <u>85</u> ft.												
Accum. Manufacturer	Capacity	Precharge		X	Fill-up Line							
<u>1</u>	<u>KOOMEY</u>	<u>120 gal.</u>	<u>1000 psi</u>	X	Kill Line		<u>3</u>	<u>6000</u>		<u>✓</u>	<u>✓</u>	<u>4200</u>
<u>2</u>		gal.	psi	X	Control Valve(s)	<u>2</u>		"		<u>✓</u>		<u>4200</u>
				X	Check Valve(s)	<u>1</u>		"		<u>✓</u>		<u>4200</u>
				X	Aux. Pump Connect.			"			<u>✓</u>	<u>4200</u>
				X	Choke Line		<u>3</u>	<u>5000</u>		<u>✓</u>	<u>✓</u>	<u>4100</u>
				X	Control Valve(s)	<u>10</u>		"		<u>✓</u>		<u>4100</u>
				X	Pressure Gauge						<u>✓</u>	
				X	Adjustable Choke(s)	<u>2</u>	<u>3</u>	"		<u>✓</u>	<u>✓</u>	
				X	Bleed Line		<u>2</u>				<u>✓</u>	
				X	Upper Kelly Cock							
				X	Lower Kelly Cock		<u>3 1/2</u>	<u>5000</u>				
				X	Standpipe Valve							
				X	Standpipe Press. Gauge							
				X	Pipe Safety Valve		<u>3 1/2</u>	<u>5000</u>				
				X	Internal Preventer		<u>3 1/2</u>	"				

HOLE FLUID			Alarm Type		Hole Fluid Type		Weight		Storage Pits (Type & Size)	
MONITORING EQUIPMENT	Audible	Visual	Class							
X Calibrated Mud Pit		<u>✓</u>	<u>A</u>		<u>10 # CLAY GEL</u>	<u>10 #</u>	<u>700 BBL</u>	<u>POLYMER</u>		
X Pit Level Indicator		<u>✓</u>	<u>B</u>							
X Pump Stroke Counter		<u>✓</u>	<u>B</u>							
Pit Level Recorder			<u>C</u>							
Flow Sensor										
Mud Totalizer										
Calibrated Trip Tank										
Other:										

REMARKS AND DEFICIENCIES:
* UNABLE TO TEST WITH TEST PLUG

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

No. T293-154

REPORT ON OPERATIONS

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

Ventura, California
July 13, 1993

Your operations at well "Porter" 69E _____, API No. 037-24138,
Sec. 28, T. 3N, R. 16W, S.B.B.&M. Aliso Canyon Field, in Los Angeles
County, were witnessed on 6-27-93. Fariba Neese, representative of
the supervisor, was present from 0700 to 2000. There were also present
Bill Melcher, Rig Supervisor.

Present condition of well: 13 5/8" cem 843'. TD 843'.

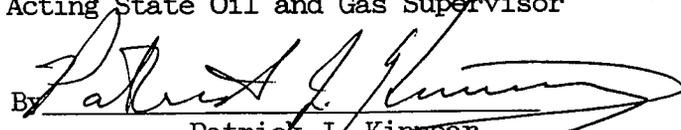
The operations were performed for the purpose of testing the blowout
prevention equipment and installation.

DECISION:

The blowout prevention equipment and its installation on the 13 3/8" casing
are approved.

PK:FN:nr

WILLIAM F. GUERARD, Jr.
Acting State Oil and Gas Supervisor

By 
Patrick J. Kinnear
Deputy Supervisor

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

No. P293-171
Field Code 010
Area Code 00
New Pool Code 30
Old Pool Code --

PERMIT TO CONDUCT WELL OPERATIONS
GAS STORAGE

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

Ventura, California
June 14, 1993

Your proposal to drill well "Porter" 69E, A.P.I. No. 037-24138, Section 28, T. 3 N, R. 16W, S.B. B.&M., Aliso Canyon field, --- Area, Sesnon-Frew pool, Los Angeles County, dated 6-09-93, received 6-14-93, has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

1. Blowout prevention equipment conforming to DOG Class IIIB ~~5M~~ ^{3M} requirements on the 13 3/8" casing and maintained in operating condition at all times. DOG Class IIIB 5M requirements on the 9 5/8" casing.
2. Drilling fluid of a quality and in sufficient quantity is used to control all subsurface conditions in order to prevent blowouts.
3. Blowout prevention practice drills are conducted at least weekly and recorded on the tour sheet.
4. 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 test.

Continued on Page 2

Blanket Bond
PK:SF:nr

Engineer Steve Fields
Phone (805) 654-4761

WILLIAM F. GUERARD, Jr.
Acting State Oil and Gas Supervisor
By Patrick J. Kinnear
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.

OG111

5. This office shall be consulted before sidetracking the well or running any additional casing.
6. The 13 3/8" casing is cemented with sufficient cement to fill behind this casing from the shoe to the ground surface.
7. The 9 5/8" casing is cemented with sufficient cement to fill behind this casing to at least 500 feet above the uppermost oil and/or gas zone or anomalous pressure interval, whichever is higher.
8. Requirements specified in our approval of the gas storage project dated July 26, 1986 shall apply.
9. This office shall be consulted before initiating any changes or additions to this proposed operation, or if operations are to be suspended.
10. THIS DIVISION SHALL BE NOTIFIED:
 - a. To witness a pressure test of the blowout prevention equipment prior to drilling out the shoe of the 13 3/8" and 9 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 M.I.T. Survey within three months after injection has commenced.

JUN 14 1993

DIVISION OF OIL AND GAS
Notice of Intention to Drill New Well

VENTURA, CALIFORNIA

C.E.Q.A. INFORMATION			
EXEMPT CLASS <input type="checkbox"/>	NEG. DEC. S.C.H. NO. <input type="checkbox"/>	E.I.R. S.C.H. NO. <input type="checkbox"/>	DOCUMENT NOT REQUIRED BY LOCAL JURISDICTION <input type="checkbox"/>
See Reverse Side			

FOR DIVISION USE ONLY				
MAP	MAP BOOK	CARDS	BOND	FORMS
				114 121
254	6293	✓	BB	6993 ✓

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to commence drilling well Porter 69E, well type _____, API No. _____, (Assigned by Division) Sec. 28, T. 3N, R. 16W, SB B. & M., Aliso Canyon Field, Los Angeles County. Legal description of mineral-right lease, consisting of _____ acres, is as follows: _____ (Attach map or plat to scale) Not applicable, owned by Southern California Gas in fee.

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

Location of well _____ feet _____ along section/property line and _____ feet _____ (Direction) (Cross out one) (Direction)

at right angles to said line from the _____ corner of section/property _____ or (Cross out one)

Approximately 865' South and 3375' West of Station 84, Section 28, T3N, R16W. Exact coordinates to be determined by surveyors.

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

If well is to be directionally drilled, show proposed coordinates (from surface location) at total depth: 1150 feet North and 550 feet East (Direction) (Direction)

Elevation of ground above sea level 2365.62 feet.

All depth measurements taken from top of Kelly Bushing that is 23.5 feet above ground. (Derrick Floor, Rotary Table, or Kelly Bushing)

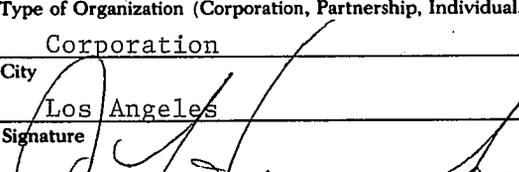
PROPOSED CASING PROGRAM

SIZE OF CASING INCHES API	WEIGHT	GRADE AND TYPE	TOP	BOTTOM	CEMENTING DEPTHS	CALCULATED FILL BEHIND CASING (Linear Feet)
13-3/8	54.5	K55	Surface	800	800	800
9-5/8	47	N80	Surface	7800	7800	7000
5-1/2	17	J55	7700	8200	Gravel	Gravel

(A complete drilling program is preferred and may be submitted in lieu of the above program.)

Intended zone(s) of completion Sesnon, 7800', 2600 psi Estimated true vertical depth 7000 (Name, depth, and expected pressure)

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

Name of Operator <u>Southern California Gas Company</u>	Type of Organization (Corporation, Partnership, Individual, etc.) <u>Corporation</u>
Address <u>Box 3249</u>	City <u>Los Angeles</u>
Telephone Number <u>213-244-2687</u>	Zip Code <u>90017</u>
Name of Person Filing Notice <u>Jim Hemmerly</u>	Signature 
	Date <u>6/9/93</u>

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

DIVISION OF OIL AND GAS

Notice of Intention to Drill New Well

C.E.Q.A. INFORMATION			
EXEMPT CLASS <input type="checkbox"/>	NEG. DEC. S.C.H. NO. <input type="checkbox"/>	E.I.R. S.C.H. NO. <input type="checkbox"/>	DOCUMENT NOT REQUIRED BY LOCAL JURISDICTION <input type="checkbox"/>
See Reverse Side			

FOR DIVISION USE ONLY					
MAP	MAP BOOK	CARDS	BOND	FORMS	
				114	120
254	6-12-93	✓	AB	6/9/93	✓

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to commence drilling well Porter 69E, well type GS, API No. 037-24138 (Assigned by Division)
 Sec. 28, T. 3N, R. 16W, SB B. & M., Aliso Canyon Field, Los Angeles County.
 Legal description of mineral-right lease, consisting of _____ acres, is as follows: _____ (Attach map or plat to scale)
Not applicable, owned by Southern California Gas in fee.

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

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at right angles to said line from the _____ corner of section/property _____ or (Cross out one)

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

If well is to be directionally drilled, show proposed coordinates (from surface location) at total depth:
1150 feet North and 550 feet East (Direction) (Direction)

Elevation of ground above sea level 2365.62 feet.

All depth measurements taken from top of Kelly Bushing that is 23.5 feet above ground. (Derrick Floor, Rotary Table, or Kelly Bushing)

PROPOSED CASING PROGRAM

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 (Name, depth, and expected pressure)

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Name of Operator <u>Southern California Gas Company</u>		Type of Organization (Corporation, Partnership, Individual, etc.) <u>Corporation</u>	
Address <u>Box 3249</u>		City <u>Los Angeles</u>	Zip Code <u>90017</u>
Telephone Number <u>213-244-2687</u>	Name of Person Filing Notice <u>Jim Hemmerly</u>	Signature 	Date <u>6/9/93</u>

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