SS-R-295
Portions of the SS-25 Well File
I.19-06-016
ALJs: Hecht/Poirier
Date Served: May 7, 2021

[redacted] [redacted]

Standard Sesnon 25 Aliso Cyn.
Well History File

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS
RECEIVED
JUN 17 1976
SANTA PAULA, CALIFORNIA

DIVISION OF OIL AND GAS

Notice of Intention to Rework Well

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

FOR DIVISION USE ONLY		
BOND	FORMS	
	114	121
BB	✓	✓

DIVISION OF OIL AND GAS

In compliance with Section 3203, Division 3. Public Resources Code, notice is hereby given that it is our intention to rework well No. STANDARD-SESNON #25, API No. _____,

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

The present condition of the well is as follows:

1. Total depth. 8749'

2. Complete casing record, including plugs and perforations:

11 3/4" cemented 990'

7" cemented 8585', seg 8583', WSO 8475'
perforated 8510'-8559'

189' 5 1/2" landed 8748' slotted 8592'-8748'

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

4. Present zone pressure 3000 New zone pressure -

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

or

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

The proposed work is as follows:

1. Move in rig and kill well. Install B.O.P.E. and pressure test.
2. Pull tubing. Clean out to 8748'.
3. 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
(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. 6/16/76
(Name) (Date)
P. S. Magruder, Jr. Corporation
Type of Organization
(Corporation, Partnership, Individual, etc.)

AC_CPUC_0000024

FORM 103 SUBMIT IN DUPLICATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR Pacific Lighting Service Company FIELD Aliso Canyon

Well No. SFZU SS-25, Sec. 28, T. 3N, R. 16W, S.B. B. & M.

Date September 5, 1973 Signed [signature]

P. O. Box 54790, Terminal Annex
Los Angeles, California 90054 (213) 689-3561 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 1973

5-24 Before moving in California Production Service rig, pumped 50 bbls. of oil heated to 250° into tubing to dewax the well. Rigged up and using McCullough, shot four 3/8" holes in tubing at 8485' with deflecting bullets. Pumped in one 60 bbl. batch of high gel polymer drilling fluid and obtained circulation with 400 bbls. of drilling fluid.

5-25 Circulated out gas and oil from well and bled off trap pressure. Removed X-mas tree and installed B.O.P., including hydril, complete shut-off and tubing rams. Pulled tubing and packer. Ran in hole with 4-5/8" bit and casing scraper.

5-26 Ran 4-5/8" bit and casing scraper and cleaned out bridges 8723'-8748', circulated hole clean recovering carbonate material from drilling fluid. Pulled out of hole and ran Dresser Atlas cement bond log and recorded 8737'-6950'. Ran neutron life-time log and recorded 8742'-8000'.

5-27 Idle.

5-28 Ran Dresser Atlas acoustilog and recorded 8560'-8000'. Ran densilog and recorded 8560'-8000'. Ran 6" bit and casing scraper and cleaned out to 8559'.

5-29 Ran Baker retrievable retainer and using Halliburton cementing truck pressure tested 7" casing as follows:

Pressure Tests

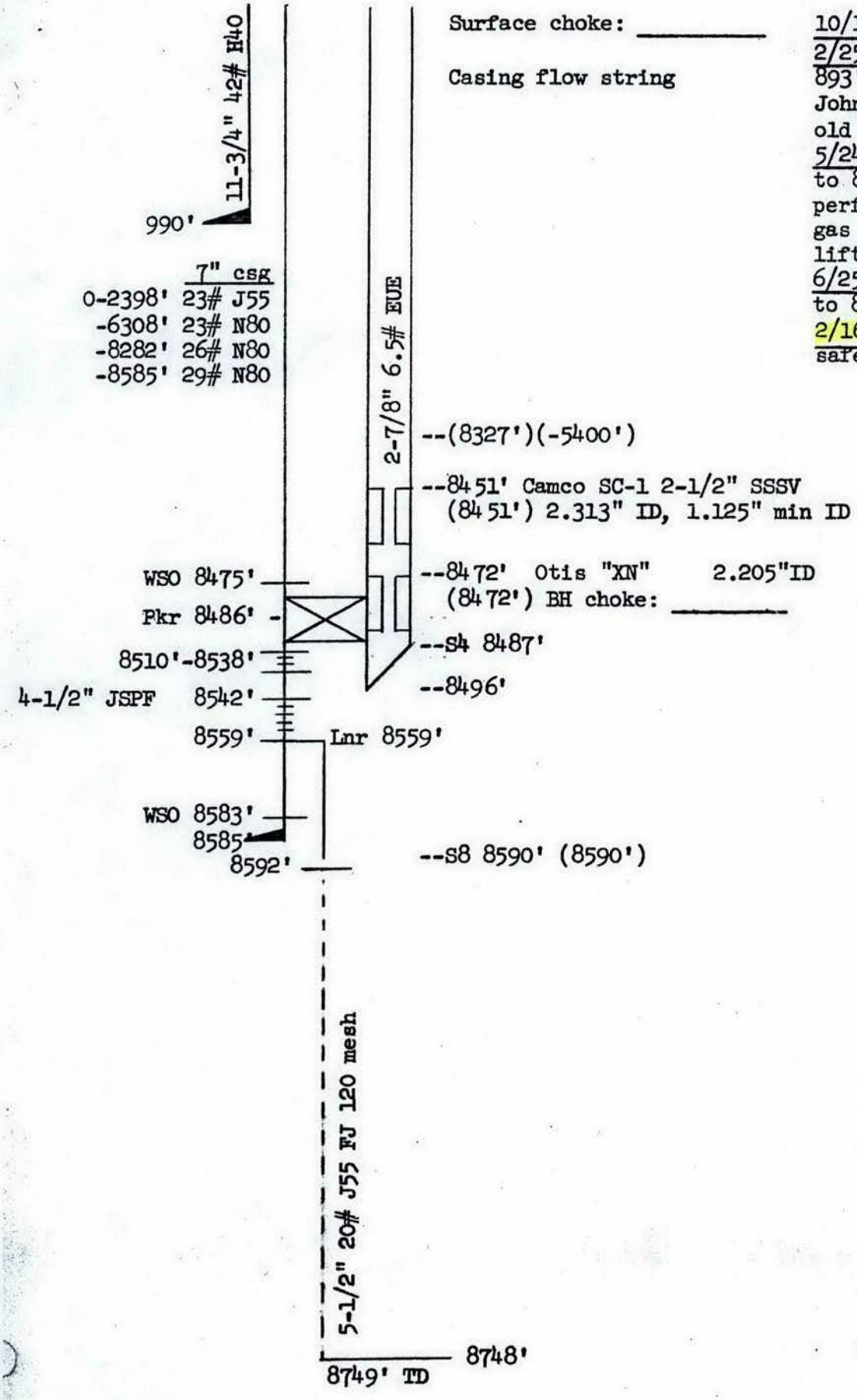
8525'-surface	1500 psi for 23 minutes
6000'-surface	2000 psi for 25 minutes
4500'-surface	2400 psi for 25 minutes
3000'-surface	2800 psi for 27 minutes
2000'-surface	3100 psi for 25 minutes
1000'-surface	3400 psi for 33 minutes

Using Dresser Atlas 4" Golden Jet gun, shot four 1/2" jet holes from 8542'-8538'. Ran Baker bridge plug and set at 8550'.

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Elevation: 2927"
DF: 6'

Standard Sesnon 25



Surface choke: _____

Casing flow string

10/1/53 - Well spud
2/25/54 - Well completed
893' of 4-1/2" drill pipe + Johnston tester side tracked - old TD 4948' plugged back 3860'
5/24/73 - 6/6/73 Cleaned out to 8748', pressure tested csg, perforated for conversion to gas storage, ran tbg with gas lift valves
6/25/76 - 7/9/76 Cleaned out to 8748', ran tbg with SSSV
2/16/79-2/20/79 Replaced safety system

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1973

5-30 Ran Halliburton tester and set packer at 8471' with tail to 8487'. Opened tool at 11:45 A.M. with strong blow and gas to surface in 3 minutes, shut in and turned to trap at 11:53 A.M. Flowed gas at approximate rate of 4 MM cu. ft. per day for 33 minutes. Shut in for 65 minutes to take initial shut in pressure. Re-opened tool at 1:30 P.M. and flowed for 60 minutes through 1/4" surface choke and 5/8" choke in tester at rate of 1.7 MM cu. ft. per day with surface pressure of 1150 psi. Flowed from 2:30 P.M. until 4:00 P.M. through 1/2" surface choke at rate of 4.2 MM cu. ft. per day with surface pressure of 750 psi. Flowed 4:00 P.M. to 7:00 P.M. through 1" surface choke at rate of 4.5 MM cu. ft. per day with surface pressure of 575 psi. Shut in tester at 7:00 P.M. for final static pressure.

5-31 Bled pressure down to 225 psi (trap back pressure). Pulled tester at 8:45 A.M. for final shut in of 11 hours and 45 minutes. Opened backscuttle valve and circulated drilling fluid to pump gas to trap. Pulled out of hole and recovered drilling fluid in bottom 120' of 2-7/8" tubing below backscuttle valve. Recovered no sand in tubing or in tester.

PRESSURE RECORDER DATA:

Hydrostatic	3722 psi
Initial Flow	1338 psi
Initial Shut-in	1461 psi
Initial Flow 1/4"	1442 psi
Flow 1/2" Choke	1386 psi
Flow 1" Choke	1373 psi
Final Shut-in	1459 psi

Ran in with latching tool and found no sand on Baker bridge plug at 8550'. Backscuttled and recovered no sand. Pulled bridge plug to 4975' and reset same.

6-1 Removed casing spool. Removed rings and rubber packing from casing head. Filled 7" x 11-3/4" annulus with 50 bbls. of mud. Using jack hammers, dug concrete out of cellar for 20". Rigged up casing jack and spear and unlanded 7" casing with 196,000 lb. pull. Removed slips. Welder cut off conductor and 11-3/4" surface casing. Leveled and tack welded new casing head on 11-3/4" casing.

6-2 Completed welding casing head and checked weld with Gamma ray. Rigged up casing jacks and spear. Pulled 196,000 lbs. on 7" casing and landed on slips in casing head and installed packing. Cut off 4-1/2" of 7" casing and rebeveled top of casing. Tested casing head packing and secondary flange pack-off, both to 2800 psi for 30 minutes. Reinstalled B.O.P. Started in well with tool to retrieve bridge plug.

6-3 Idle.

6-4 Recovered bridge plug from 4975' and found no sand on bridge plug. Using Dresser Atlas 4" Golden Jet gun, shot four 1/2" holes per foot 8559'-8542' and 8538'-8510'. Ran wire brush perforation cleaner and found 13' of fill circulated and worked brush from 8736'-8592'. Pulled out of well.

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1973

6-5 Ran 2-7/8" tubing, including packer, nipple, sliding sleeve and five gas lift mandrels (details attached). Hydrotested tubing to 5000 psi and found no leaks. Landed tubing on doughnut with bottom of tubing at 8492'. Using Hydrotest, pumped down tubing but obtained circulation. Pulled and reran bottom gas lift valve with piano wire unit. Using rig pump, set packer but apparently could not shear ball seat.

6-6 Pumped water down tubing with hot oil truck and found seat had been sheared with rig pump. Using piano wire unit, shifted sleeve at 8390' to open position. Removed B.O.P., installed new X-mas tree and tested doughnut and tree to 3500 psi, each for 20 minutes. Circulated drilling fluid out of hole with lease water. Displaced water to top gas lift valve with nitrogen. Blew well down to zero pressure and shut-in. Moved out rig.

TUBING DETAILS

Derrick floor to top of tubing	0'-8.35'
160 jts. 2-7/8" 8rd., EUE, J-55	8.35'-4983'
KBMG mandrel w/BK valve 1050 psi	4983'-4995'
30 jts. 2-7/8" tubing	4995'-5914'
KBMG mandrel w/BK valve 1025 psi	5914'-5925'
28 jts. 2-7/8" tubing	5925'-6784'
KBMG mandrel w/BK valve 1000 psi	6784'-6795'
26 jts. 2-7/8" tubing	6795'-7589'
KBMG mandrel w/BK valve 975 psi	7589'-7600'
23 jts. 2-7/8" tubing	7600'-8314'
KBMG mandrel w/BK valve 950 psi	8314'-8325'
2 jts. 2-7/8" tubing	8325'-8387'
Baker model "L" sliding sleeve (open)	8387'-8390'
1 jt. 2-7/8" tubing	8390'-8421'
Baker "F" nipple	8421'-8422'
1 jt. 2-7/8" tubing	8422'-8453'
Baker FH hydrostatic packer	8453'-8460'
1 jt. 2-7/8" tubing	8460'-8491'
Baker ball seat & chamfered collar	8491'-8492'

AC_CPUC_0000028

DIVISION OF OIL AND GAS
RECEIVED
AUG 5 1976
SANTA PAULA, CALIFORNIA

FORM 103

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 Aliso Canyon

Well No. Standard-Sesnon #25, Sec. 28, T. 3N, R. 16W, S. B. B. & M.

Date July 29, 1976 Signed P. S. MAGRUDER, Jr.

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

(213) 689-3561

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

Date	
6-25-76	Killed well with 350 barrels of 72#/cu. ft. IMC brine-polymer drilling fluid.
6-28-76	Moved in rig and equipment from WEZU #30 to Standard Sesnon #25. CPS #D-1 installed back pressure valve in doughnut.
6-29-76	Installed 8" 5000 psi B.O.P.E. - Tested complete shut off rams to 4000 psi for 20 minutes with water. Also tested 2 7/8" pipe rams. Hydril bag tested at 3000 psi for 20 minutes. Tested Hydril to 3000 psi with nitrogen.
6-30-76	Tested complete shut-off rams to 4000 psi with nitrogen for 20 minutes. Pressure tested 2 7/8" tubing rams to 4000 psi for 20 minutes. Pressure tested manifold to 4000 psi for 20 minutes.
7-1-76	Laid down hydrostatic packer, five gas lift valves, No-Go nipple, and Baker valve. Tripped in hole with 4 5/8" bit and 5 1/2" 17# casing scraper. Measured tubing in hole. Cleaned out 5 1/2" liner from 8559' to 8748'. Circulated hole clean.
7-2-76	Ran in with Baker Retrieva-"D" packer on wireline which stopped at 8333'. Ran in hole with 6" mill and 7" 29# casing scraper. Circulated hole clean.
7-3-76	Re-ran Baker packer which stopped at 8338'. Ran in with 6" mill and cleaned out to top of liner at 8359'. Circulated hole clean.
7-4-76	Rig idle.
7-5-76 (Holiday)	Rig idle.
7-6-76	Set Baker Retrieva-"D" packer on wireline at 8480'.

7-7-76 Ran in with 2 7/8" tubing. Removed collars, cleaned pins applying Baker seal and hydrotested tubing to 5000 psi for one minute test.

7-8-76 Landed tubing on packer with 10,000# - Pulled up 15,000# over weight of tubing to check latch. Installed back pressure valve in doughnut. Removed B.O.P.E. and installed Christmas tree. Pressure tested to 5,000 psi - O.K. Circulated drilling fluid out of well with waste lease salt water.

7-9-76 Set plug in No-Go nipple and pressure tested seals and packer to 2500 psi for 20 minutes - O.K. Released rig at 2:00 p.m.

Note: Filing of "Notice" and well history not required by D.O.G.

SUBMIT IN DUPLICATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

Operator Southern CaliforniaGas Company **Field or County** Aliso Canyon
Well S. S. #25, **Sec.** 28, **T** 3N, **R** 16W, sb **B. & M.**
A.P.I. No. **Name** P. S. Magruder, Jr. (Person submitting report) **Title** Agent (President, Secretary or Agent)
Date February 21, 1979 19

Signature P S Magruder Jr

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

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

Date	
	MWO 99574
	Program: to remove and repair or replace and reinstall annular flow safety system
1979	
2-16	1st Day. Killed well with 350 barrels of 63# brine-polymer completion fluid. Moved California Production Service Co. rig #D-4 onto wellsite and rigged up. Removed xmas tree, installed BOPE.
2-17	2nd Day. Tested BOPE, blind rams, and 2 7/8" pipe rams to 3,000 psi, Hydril to 2,000 psi with water and nitrogen. Unlanded tubing pulled up 25,000# over weight of string to check packer. Released from 7" Baker "Retrieva-D" packer at 8,485'. Circulated sand from top of packer. Pulled out of well. Ran in with dummy seals changing collars.
2-18	Rig and crew idle.
2-19	3rd Day. Continued running in well to 8,485' with 2 7/8" tubing and seals, changing collars. Stabbed into 7" Baker "Retrieva-D" packer at 8,485'. Pressured up annulus to 1,500 psi for 20 minutes. Pulled out of well. Ran in with Baker production tube, seals, and latch-in locator Otis 2.205" XN nipple, Camco Annular flow safety system and Camco gas lift mandrel. Hydrotesting to 5,000 psi.
2-20	4th Day. Stabbed into 7" Baker "Retrieva-D" packer at 8,486'. Pulled up 25,000# over weight of string to check latch. Tubing weight on hook 49,000#. Landed with 10,000# on packer. Removed BOPE, installed xmas tree, tested to 5,000 psi. Displaced brine-polymer completion fluid from well with 350 barrels of waste lease salt water. Released rig at 2:00 p.m.

OG103 (6-78-GSRI-10M)

AC_CPUC_0000031

OPERATOR Southern California Gas Co.

WELL # S. S. #25

FIELD Aliso Canyon

COUNTY Los Angeles

STATE California

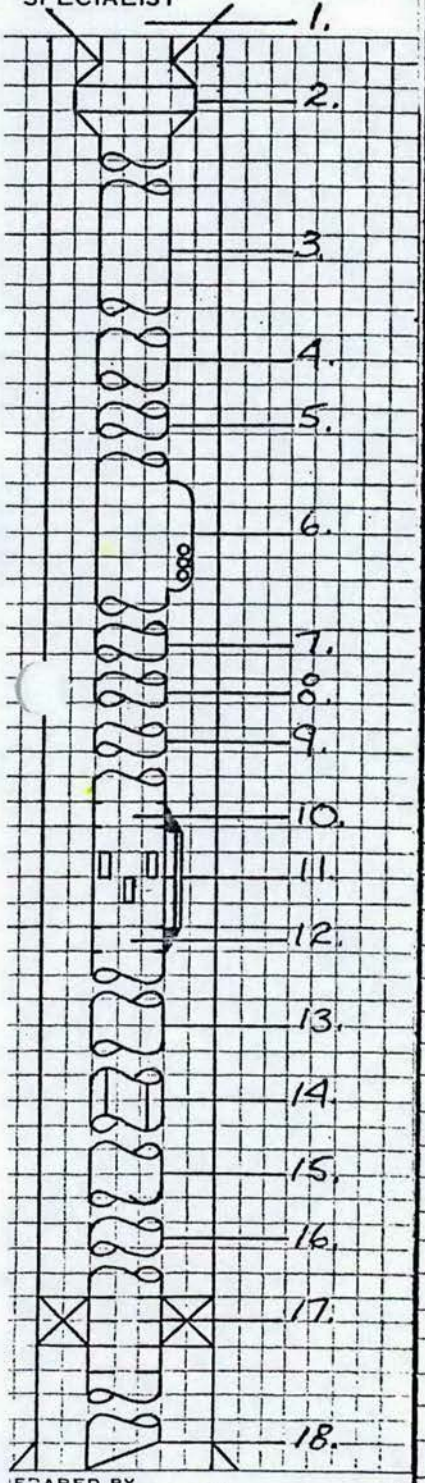
DATE February 21, 1979

☐ NEW COMPLETION ☐ WORKOVER

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

☐ POSAL ☒ INSTALLATION
☐ QUOTATION

RAN BY
☒ CAMCO ☐ CUSTOMER
SPECIALIST



ITEM NO.	TUBING DETAILS	LENGTH	DEPTH
1	Kelly Bushing	6.35	6.3
2	Tubing Hanger	.50	6.8
3	6 Jts. 2 7/8" 8rd EUE N-80 tubing	183.68	190.5
4	265 Jts. 2 7/8" 8rd EUE J-55 tubing	8202.59	8393.1
5	Pup Jt. 2 7/8" 8rd EUE N-80	4.00	8397.1
6	Camco MMG mandrel with DCRT valve	8.43	8405.5
7	Pup Jt. 2 7/8" 8rd EUE N-80	.67	8406.2
8	1 Jt. 2 7/8" 8rd EUE tubing	31.40	8437.6
9	Pup Jt, 2 7/8" 8rd EUE N-80	2.15	8439.7
10	Camco "DS-1" nipple (empty)		
11	Camco "SC-1" safety system	15.27	8455.0
12	Camco "WP-1" nipple (empty)		
13	Camco 20' blast jt.	19.77	8474.8
14	Camco "D" no go nipple 3.000" O.D., 2.205" I.D.	1.17	8475.9
15	Camco 10' blast Jt.	9.67	8485.6
16	Baker Latch-in locator	1.10	8486.7
17	Bkaer Seal Assembly	4.20	8490.9
18	Baker Production tube	5.26	8496.2

- NOTES -

Baker packer set at 8,486+ - wireline measurment
Tubing weight 49,000# landed with 10,000# on packer.
Pulled 20,000# over tubing weight to check latch

PREPARED BY Jeff Shepherd

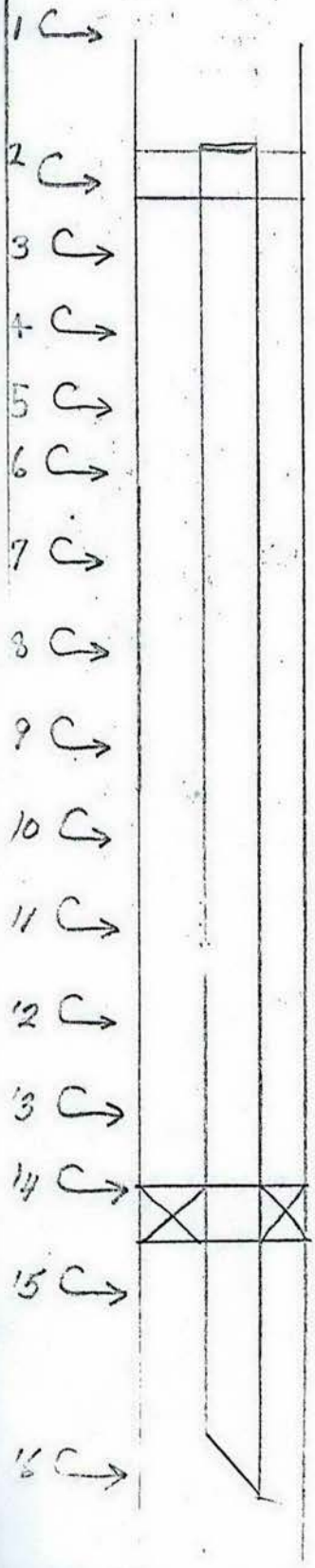
COMMENTS:

F-1

AC_CPUC_0000032

CORRECTED COPY

WELL PROFILE



OPERATOR SO. CALIF. GAS CO.

WELL # STANDARD-SESNON #25

FIELD Aliso Canyon

COUNTY Los Angeles

STATE California

DATE July 30, 1976

☐ NEW COMPLETION ☒ WORKOVER

	CASING	LINER	TUBING 1	TUBING 2	TUBING 3
SIZE	Original K.B.		6.35		
WEIGHT					
GRADE					
THREAD					
DEPTH					

ITEM NO.	TUBING DETAIL	LENGTH	DEPTH
1.	Tubing landed below Kelly Bushing	7.09	7.09
2.	Doughnut (Gulfco) right-hand plug	1.00	8.09
3.	3-8' Pups 2 7/8" N-80 6.5# tubing	24.00	32.09
4.	6-Joints 2 7/8" N-80 6.5# tubing EUE 8rd	187.81	219.90
5.	266-Joints 2 7/8" J-55 6.5# tubing	8165.33	8390.25
6.	1-Pup Joint J-55 6.5# EUE 8rd tubing	4.02	8394.27
7.	MMG Mandrel (empty)	8.44	8402.71
8.	1-Pup Joint J-55 6.5# EUE 8rd tubing	.65	8403.36
9.	1-Joint 2 7/8" 6.5# J-55	31.06	8434.42
10.	D-S Nipple 1/2" Hyd. Control Line SCI-Safety	15.26	8449.68
11.	1-20' Blast joint (Camco)	19.76	8469.44
12.	No-Go Nipple 1.81" I.D. (Camco)	.89	8470.33
13.	1-10' Blast Joint	9.67	8480.00
14.	Baker Retrieva "D" Packer	----	8480.00
15.	Baker Seals	5.35	8485.35
16.	Baker Production Tube	5.30	8490.65

NOTES: #10 - was run in place.

#12 - plug set - CA2 blanking plug.

#14 - pulled up with 15,000# to check latch and set 10,000# in compression.

COMMENTS:

1954

3/9 In 8 hours well flowed on gas lift 29 barrels gross fluid, 29 barrels approximate net oil, 0.1% cut, 21.2 gravity, 16/64" bean, 680# tubing pressure, 1250# casing pressure, 0 MCF gas.

3/10 Shut in. 1300# tubing pressure; 1300# casing pressure.

3/11 Shut in. Let off tubing pressure but well would not flow. 100# tubing pressure; 1400# casing pressure.

3/12 In 8 hours well flowed 76 barrels gross fluid, approximately 74 barrels net oil, 3.0% cut, 21.0 gravity, 16/64" bean, 200# tubing pressure, 1400# casing pressure. Bleeding off pressures. Preparing to install gas flow valves.

3/13 Bleeding off pressure. 200# tubing pressure; 1400# casing pressure.

3/14 Bleeding off pressure. 150# tubing pressure; 700# casing pressure.

3/15 Bleeding off pressure. 200# tubing pressure; 0# casing pressure.

3/16 Bled off pressure and filled hole with dead oil. Will move in mast if weather permits.

3/17 California Production Service moving in with mast.

3/18 Pulled tubing. Ran 7" Guiberson KV-30 wall packer and set at 8525' with 14,000#; included arefive Guiberson gas lift flow valves as follows: 1000# valve - 1965'; 975# valve - 3835'; 950# valve - 5504'; 925# valve - 6973'; 900# valve - 8271' (no ball and check on this valve). Above depths are from tubing head.

3/19 Hooked up tree and began injecting gas. In 15 hours well flowed on gas lift as follows:

	Gross	Net	Cut	Gravity	Bean	Tubing Pressure	Casing Pressure	MCF Gas Inj	MCF Gas Net
	211 gross fluid, of which 171 barrels is formation oil, 166 barrels net oil, cut 3.0%, 50# tubing pressure, 300# casing pressure, 20.3 gravity, 153 MCF injected gas, 47 MCF net.								
3/20	238	232	2.6%	20.3	32/64	100#	700#	217	89
3/21	103	103	0.3%	20.7	32/64	200#	750#	49	88
	Off 13 hours - gas injection line froze.								
3/22	Injection line frozen 3-1/2 hours.								
	190	190	0.2%	21.0	32/64	360#	750#	220	79
3/23	146	143	2.0%	20.6	32/64	140#	750#	211	109
3/24	152	151	0.4%	20.5	32/64	100#	940#	207	109
3/25	130	130	0.2%	20.5	32/64	250#	900#	232	68
	Off 4-1/2 hours - gas injection line frozen.								
3/26	166	166	0.2%	20.5	32/64	250#	900#	232	68
3/27	130	130	0.2%	20.5	32/64	250#	900#	220	118
3/28	119	119	0.2%	20.5	32/64	250#	900#	187	56
	Off 4 hours - gas injection line frozen.								
3/29	70	70	0.3%	20.8	14/64	250#	900#	61	65
	Off 11 hours - gas injection line frozen.								
3/30	95	95	0.3%	20.8	14/64	250#	900#	92	78
3/31	74	74	0.3%	20.8	14/64	250#	900#	145	97
4/1	71	70	0.8%	20.8	14/64	250#	900#	87	53
4/2	97	97	0.8%	20.8	14/64	250#	900#	92	78
4/3	38	38	0.8%	20.8	14/64	250#	900#	150	73

AC_CPUC_0000034

1954

2/12 (cont) of test. Obtained segregation at 8583'. Ran Schlumberger jet perforator and shot four holes at 8475'. Ran Johnston tester on 3-1/2" drill pipe and set packer at 8434' with perforated tailpipe to 8451'. Used 1000' water cushion. Opened tester at 9:40 PM. Had light blow for 1 minute, then dead for balance of 1 hour test. Recovered 30' net rise drilling fluid. Charts confirmed results of test. Water shutoff on holes at 8475' witnessed and approved by Division of Oil and Gas. Mud weight 76#, 46 viscosity, 2.4 c.c. water loss.

2/13 Cleaned out from 8584' to 8585'. Drilled 6" hole from 8585' to 8634'. Mud weight 80#, 59 viscosity, 4.8 c.c. water loss.

2/14 Ran Schlumberger electric log at 8749'. Reamed 6" hole from 8585' to 8749'. Mud weight 79#, 47 viscosity, 4.2 c.c. water loss.

2/15 Landed 189' of 5-1/2" 20# J-55 Youngstown flush joint liner at 8748'. Top of hanger 8559'. Perforations 8592' - 8748'. Details of perforations: 120 Mesh, 12 rows, 2" slots, 6" centers, 6° undercut, by Pacific. Laid down drill pipe and made up tubing.

2/16 Installed Christmas tree and landed 2-7/8" tubing at 8540'. Displaced mud with oil.

8592
8559
33

2/17 Swabbed 12 hours. Fluid level 3200'. Lost swab. Fishing.

2/18 Circulated out swab with oil. Resumed swabbing. Fluid level 1500'. Swabbed out approximately 125 barrels.

2/19 Swabbed 150 barrels gross fluid, all circulating oil. Fluid level 2500'.

2/20 In 12 hours swabbed 107 barrels gross fluid, all formation oil. 94 barrels net oil, 12.0% cut, 18.3 gravity. Swabbed at 6000'. Fluid level 3500'. Released Pike Drilling Contractor at 6:00 PM.

2/21-22 Contractor moving out.

2/23 Shut in. 160# tubing pressure; 325# casing pressure.

2/24 Shut in. 200# tubing pressure; 300# casing pressure.

2/25 Well began flowing at 1:30 PM and in 8-1/2 hours produced 105 barrels gross fluid, 99 barrels net oil, cut 6.0% water, 24/64" bean, 100# tubing pressure, 1600# casing pressure. Well died at 10:00 PM. 6:00 AM tubing pressure 100#; casing pressure 1600#.

2/26 In 3 hours well flowed by heads 39 barrels gross fluid, no cut or gravity, 64/64" bean, 300# tubing pressure, 1475# casing pressure.

2/27 Well dead. 100# tubing pressure, 1400# casing pressure.

2/28 Well dead. Bleeding down casing pressure.

3/1 Rigged up California Production Service hoist and in 16 hours swabbed 82 barrels gross fluid, 78 barrels net oil, 4.4% cut, 19.7 gravity, fluid level remaining from 2500-3000'.

3/2 In 16 hours swabbed 129 barrels gross fluid, 128 barrels net oil, 1.0% cut, 20.6 gravity, 0# tubing pressure, 0# casing pressure. Fluid level 4000'. Released crew 12:00 Midnight.

3/3 Shut in. 350# tubing pressure; 350# casing pressure.

3/4 Shut in. 450# tubing pressure; 300# casing pressure.

3/5 Shut in. 560# tubing pressure; 500# casing pressure.

3/6 Shut in. 560# tubing pressure; 500# casing pressure.

3/7 Shut in. 500# tubing pressure; 560# casing pressure.

3/8 In 17 hours well flowed on gas lift 101 barrels gross fluid, 101 barrels approximate net oil, 0.1% cut, 21.2 gravity, 16/64" bean, 100# tubing pressure, 1350# casing pressure, 0 MCF gas.

AC_CPUC_0000035

1954

1/25 Drilled 10-5/8" hole from 6706' to 7111'. Mud weight 78#, 45 viscosity, 6.3 c.c. water loss.

1/26 Drilled 10-5/8" hole from 7111' to 7227'. Ran Schlumberger Magnetic survey at 7227'.
Mud weight 78#, 48 viscosity, 6.8 c.c. water loss.

1/27 Drilled 10-5/8" hole from 7227' to 7526'. Mud weight 78#, 50 viscosity, 7.2 c.c. water loss.

1/28 Drilled 10-5/8" hole from 7526' to 7594'. Stuck drill pipe 138' off bottom (7594'). Spotted 80 barrels of oil and came loose. Mud weight 78#, 55 viscosity, 8.0 c.c. water loss.

1/29 Drilled 10-5/8" hole from 7594' to 7780'. Attempted to run shoe horn type bit at 7778', facing S 25 Deg. E, but failed to function. Mud weight 76#, 45 viscosity, 6.1 c.c. water loss.

1/30 Drilled 10-5/8" hole from 7780' to 7897'. Mud weight 78#, 50 viscosity, 5.8 c.c. water loss.

1/31 Drilled 10-5/8" hole from 7897' to 7917'. Set conventional whipstock at 7917', facing South 55 Deg. East. Drilled off whipstock with 7-1/2" bit to 7928', then opened hole to 10-5/8" and drilled ahead to 7936'. Mud weight 78#, 45 viscosity, 6.0 c.c. water loss.

2/1 Drilled 10-5/8" hole from 7936' to 8030'. Mud weight 78#, 58 viscosity, 6.6 c.c. water loss.

2/2 Drilled 10-5/8" hole from 8030' to 8093'. Mud weight 74#, 46 viscosity, 5.6 c.c. water loss.

2/3 Reamed off key seat from approximately 3800' to 3900', then reamed remainder of hole. Mud weight 76#, 58 viscosity, 5.2 c.c. water loss.

2/4 Drilled 10-5/8" hole from 8093' to 8177'. Mud weight 79#, 48 viscosity, 4.8 c.c. water loss.

2/5 Drilled 10-5/8" hole from 8177' to 8240'. Mud weight 79#, 45 viscosity, 4.3 c.c. water loss.

2/6 Drilled 10-5/8" hole from 8240' to 8373'. Mud weight 79#, 47 viscosity, 4.2 c.c. water loss.

2/7 Drilled 10-5/8" hole from 8373' to 8544'. Mud weight 80#, 52 viscosity, 3.8 c.c. water loss.

2/8 Drilled 10-5/8" hole from 8544' to 8580'. Ran Schlumberger electric log at 8550'. Drilled ahead to 8580' and ran Schlumberger electric log and Neutron - Self-potential log. Circulated with double three point reamer. Mud weight 80#, 50 viscosity, 4.0 c.c. water loss.

2/9 Drilled 10-5/8" hole from 8580' to 8585'. Mud weight 78#, 44 viscosity, 3.3 c.c. water loss. Running 7" casing.

2/10 Cemented 7" Youngstown, Speedtite casing at 8585' with 600 sacks Colton Hi-temperature cement. Detail of casing is as follows: Surface to 2398' - 23#, J-55; 2398' to 6308' - 23#, N-80; 6308' to 8282' - 26#, N-80; 8282' to 8585' - 29#, N-80. Pressure rose from 1000-1500# when plugs bumped. Time 3:10 AM. B.J. Service (two pump trucks). Used two centralizers and three scratchers on each of bottom three joints. Tested casing 1200# O.K. for 15 minutes. Making up 3-1/2" drill pipe.

2/11 Found top of hard cement at 8537'. Drilled out cement to 8584'. Ran Schlumberger Neutron and collar locator to 8584'. Ran Schlumberger jet gun and shot four holes at 8583'.

2/12 Ran Johnston tester on 3-1/2" drill pipe and set packer at 8522' with perforated tailpipe to 8539' to test jet holes at 8583'. Used 1000' water cushion. Opened tester at 11:05 AM. Had light, steady blow for 5 minutes, then dead for 1 hour test. Recovered 30' net rise of water drilling fluid. Charts checked details

AC_CPUC_0000036

1954

1/6 Drilled 10-5/8" hole from 3929' to 4139'. Mud weight 72#, 45 viscosity, 5.1 c.c. water loss.

1/7 Redrilled 10-5/8" hole from 4139' to 4333'. Mud weight 73#, 45 viscosity, 6.0 c.c. water loss.

1/8 Redrilled 10-5/8" hole from 4333' to 4594'. Mud weight 75#, 55 viscosity, 5.5 c.c. water loss.

1/9 Redrilled 10-5/8" hole from 4594' to 4661', then reduced size of hole to 8-1/2" and drilled to 4770'.

1/10-1/11 Redrilled 8-1/2" hole from 4770' to 4806'. Repaired drilling equipment.

1/12 Redrilled 8-1/2" hole from 4806' to 4840'. Ran Schlumberger electric log at 4840'. Mud weight 75#, 52 viscosity, 3.3 c.c. water loss.

1/13 Opened 8-1/2" hole to 10-5/8" from 4661' to 4680'. Ran Johnston tester on 4-1/2" drill pipe and set packers at 4806' and 4716' with perforated tailpipe to 4840'. Used 500' water cushion. Opened 3/8" bean at 6:45 AM. Had medium blow for 3 minutes, strong, steady blow for 25 minutes, decreasing to dead in 45 minutes. Pulled packers loose after 50 minute test. Gas to surface in 3 minutes. Maximum rate 247 MCF after being open 15 minutes. Recovered net rise of 360' gas-cut drilling fluid. Pressure bomb charts confirmed details of test. Opened 8-1/2" hole to 10-5/8" from 4680' to 4840'. Mud weight 75#, 48 viscosity, 4.4 c.c. water loss.

1/14 Redrilled 10-5/8" hole from 4840' to 4948'. Deepened from 4948' to 4967' with 10-5/8" bit. Mud weight 76#, 50 viscosity, 3.0 c.c. water loss.

1/15 Drilled 10-5/8" hole from 4967' to 5053'. Mud weight 76#, 45 viscosity, 3.2 c.c. water loss.

1/16 Drilled 10-5/8" hole from 5053' to 5160'. Mud weight 78#, 45 viscosity, 3.6 c.c. water loss.

1/17 Drilled 10-5/8" hole from 5160' to 5450'. Mud weight 77#, 48 viscosity, 3.1 c.c. water loss.

1/18 Reduced size of hole to 8-1/2" and drilled from 5450' to 5630'. Ran Schlumberger electric log at 5630'. Opened 8-1/2" hole to 10-5/8" from 5450' to 5520'. Mud weight 78#, 50 viscosity, 3.0 c.c. water loss.

1/19 Drilled 8-1/2" hole from 5630' to 5645'. Ran Johnston formation tester on 4-1/2" drill pipe and set sidewall packers at 5522' and 5527' with bottom of perforated tailpipe to 5645'. Used 500' water cushion. Opened 3/8" bean at 6:50 PM. Had moderate, steady blow for duration of 1 hour test with gas to surface in 10 minutes. Maximum gas rate after 22 minutes, 38 MCF per day. Recovered 570' net rise gassy emulsified heavy oil. No free water. Charts checked details of test. Final maximum pressure 620#. Cleaned out rat hole to 5645' with 8-1/2" bit. Mud weight 78#, 53 viscosity, 3.2 c.c. water loss.

1/20 Drilled 8-1/2" hole from 5645' to 5790'. Ran Schlumberger electric log at 5770'. Mud weight 78#, 50 viscosity, 3.5 c.c. water loss.

1/21 Drilled 8-1/2" hole from 5790' to 5945'. Ran Schlumberger electric log at 5945' and took sidewall samples at 5537', 5567', 5627', 5646', 5668', 5722', 5725', 5734', 5757', 5804', 5819', 5858', 5878' and 5938'. Opened hole to 10-5/8" from 5522' to 5945'. Mud weight 77#, 53 viscosity, 3.6 c.c. water loss.

1/22 Cored 8-1/2" hole from 5945' to 6005' with Mercury conventional core barrel. Opened hole to 10-5/8" from 5945' to 6005'. Mud weight 77#, 44 viscosity, 6.6 c.c. water loss.

1/23 Drilled 10-5/8" hole from 6005' to 6372'. Mud weight 78#, 48 viscosity, 3.6 c.c. water loss.

1/24 Drilled 10-5/8" hole from 6372' to 6706'. Mud weight 77#, 45 viscosity, 5.4 c.c. water loss.

AC_CPUC_0000037

1953

11/9 (cont.) well was producing gas at maximum rate of 1,591,000 CF/D. After 40 minutes, rate decreased to approximately 360,000 CF/D. After 55 minutes, well died. After 60 minutes, had medium to light heading blow for balance of 75 minute test. Recovered 1620' net rise of gas cut drilling mud. Pressure charts showed 1100# pressure.

11/10 Opened 8-1/2" hole to 10-5/8" to 4761', then drilled 8-1/2" hole from 4781' to 4796'.

11/11-13 Drilled 8-1/2" hole from 4796' to 4910'. Ran Schlumberger electric log to 4910'.

11/14 Ran Johnston formation tester on 4-1/2" drill pipe and set sidewall packers at 4787' and 4795' with perforated tailpipe to 4910'. Opened tester at 7:35 AM. Had fair, diminishing to light blow throughout one hour test. Recovered 2590' net rise; top 755' drilling mud, remainder salt water with average salinity of 373 g/g. Bottom hole pressure 1250#. Reran Schlumberger electric log to 4910'. Opened 8-1/2" hole to 10-5/8" from 4761' to 4788'.

11/15-16 Drilled 8-1/2" hole from 4910' to 4948'. Ran Lane-Wells Neutron Ray, Gamma Ray and sidewall sampler.

11/17 Hung 4-1/2" drill pipe and 97' of 2-7/ 8" tubing equipped with scratchers at 4948'. Pumped in 60 sacks Colton Slow cement preceded by 25 cu. ft. of water. Reciprocated and rotated pipe while displacing water and cement. Equalized cement at approximately 4830'. Time 11:30 AM. B.J. Service. Cleaned out to bottom and found no cement.

11/18 Hung 4-1/2" drill pipe and 97' of 2-7/8" tubing equipped with scratchers at 4948' and pumped in 60 sacks Colton Slow cement. Reciprocated and rotated pipe while displacing cement. Time 10:30 AM. B.J. Service. Found top of cement at 4830' and cleaned out to 4860'. Mud weight 74#, 33 viscosity, 3.3 c.c. water loss.

11/19 Ran Johnston tester on 4-1/2" drill pipe and set sidewall packers at 4715' and 4725' with perforated tailpipe to 4860'. Used 500' water cushion. Opened tester at 11:20 AM. Had light, steady blow for 5 minutes, decreasing to faint, intermittent blow throughout balance of 1 hour test. Could not pull tester loose. Jarred for 3 hours without results. Backed off left hand thread below packers and pipe rotated easily. Attempted to pull tester again but would not come loose. Rotated again and twisted off drill pipe, leaving a single, 7 doubles, drill collar and tools in hole (approximately 893' total fish). Backscuttled and recovered fresh water cushion. Ran in with fishing tool, jarred for 3 hours without results.

11/20 Jarred on fish for 4 hours with no results. Pulled out and laid down fishing tools. McAteer Drilling Contractor released at 10:00 AM. Moving out.

11/21-23 Standing idle.

11/24 Finished moving out rotary.

11/25-12/28 Idle.

12/29-31 Moved in and rigged up rotary.

1954

1/1 Replaced Series 600 casing flange with Series 900. Making up drill pipe.

1/2 Cleaned out to top of fish at 3967'. Hung 4-1/2" drill pipe at 3967' and pumped in 150 sacks Colton Slow cement, 20% sand. Time 12:00 Midnight. B.J. Service.

1/3 Found top of cement at 3770'. Cleaned out to solid cement at 3830'. Standing cemented. Mud weight 74#, 68 viscosity, 4.1 c.c. water loss.

1/4 Drilled out solid cement from 3830' to 3860'. Running Eastman "shoe horn type" whipstock. Mud weight 74#, 58 viscosity, 4.2 c.c. water loss.

1/5 Drilled off Eastman "shoe horn type" whipstock from 3860' to 3878' with 7-7/8" bit. Opened hole to 10-5/8" and drilled ahead to 3929'. Deviation at 3900' equals 3.5 degrees. Mud weight 73#, 65 viscosity, 4.2 c.c. water loss.

AC_CPUC_0000038

FORM 103.
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR TIDE WATER ASSOCIATED OIL COMPANY FIELD ALISO CANYON

Well No. Standard-Sesnon 1-#25, Sec. 28, T. 3 N, R. 16 W, S.B. B. & M.

Signed J E Weaver Jr

Date May 28, 1954 Title Agent
(President, Secretary or Agent)

It is of the greatest importance to have a complete history of the well. **Use this form in reporting the history of all important operations at the well, together with the dates thereof, prior to the first production.** Include in your report such information as size of hole drilled to cementing or landing depth of casings, number of sacks of cement used in the plugging, number of sacks or number of feet of cement drilled out of casing, depth at which cement plugs started, and depth at which hard cement encountered. If the well was dynamited, give date, size, position and number of shots. If plugs or bridges were put in to test for water, state kind of material used, position and results of pumping or bailing.

Date

LOCATION: 820.00' South and 5360.00' West from Station #84
ELEVATION: 2927.02' Mat
2933.37' Derrick Floor

1953

9/8-9/28 Grading, digging rat hole and cellar, poured cellar, moved in equipment.

9/29-9/30 Rigged up rotary.

10/1 Spudded 10-5/8" hole at 1:00 PM and drilled to 169'. Lost circulation for 5 hours.

10/2-10/3 Drilled 10-5/8" hole from 169' to 741'. Lost circulation for 3-3/4 hours.

10/4-10/14 Drilled 10-5/8" hole from 741' to 2567'. Ran Schlumberger electric log at 2567'. Opened 10-5/8" hole to 16" from surface to 212'.

10/15-10/18 Opened 10-5/8" hole to 16" from 212' to 990'. Ran and cemented 11-3/4" 42# Youngstown T & C casing at 970' with 600 sacks 1:1 Diamix followed by 100 sacks Neat cement. Lost circulation with 114 cu. ft. of cement slurry to displace. Pressure built up from 200-500# when plugs bumped. Time 9:45 PM. B.J. Service. Cemented around outside of casing with 75 sacks of Neat cement.

10/19 Cemented around outside of casing with additional 60 sacks Neat cement. Cleaned out and found cement at 984'.

10/20-10/22 Cleaned out to 2567'. Drilled 10-5/8" hole from 2567' to 2925'. Twisted off drill collar in hole. Fishing at 2925'.

10/23 Washing over drill collar at 2908'.

10/24 Washed over and recovered drill collar.

10/25-10/26 Drilled 10-5/8" hole from 2925' to 3073'. Twisted off 28 joints of drill pipe and 2 drill collars at 3073'. Recovered same with McCullough socket.

10/27-11/4 Drilled 10-5/8" hole from 3073' to 4362'. Changed to Carbonox mud at 4350'.

11/5 Drilled 10-5/8" hole from 4362' to 4530'.

11/6 Drilled 8-1/2" hole from 4530' to 4630'. Ran Schlumberger electric log at 4630'. Opened 8-1/2" hole to 10-5/8" from 4530' to 4552'.

11/7 Opened 8-1/2" hole to 10-5/8" from 4552' to 4630'. Reduced hole to 8-1/2" and drilled from 4630' to 4685'.

11/8 Drilled 8-1/2" hole from 4685' to 4765'.

11/9 Drilled 8-1/2" hole from 4765' to 4781'. Ran Schlumberger electric log at 4781'. Ran Johnston formation tester on 4-1/2" drill pipe and set packers at 4652' and 4661' with perforated tailpipe to 4781'. Used 500' water cushion. Opened tester at 4:05 PM. Had medium, steady blow for 8 minutes when gas reached surface. Increased to strong, steady blow for next 5 minutes when cushion reached surface. Well unloaded cushion in 12 minutes. After tester was open a total of 20 minutes,

AC_CPUC_0000039

2

FORM 100.
CALIFORNIA STATE PRINTING OFFICE

SUBMIT LOG IN DUPLICATE
FILL THIS BLANK IN WITH TYPEWRITER. WRITE ON ONE SIDE OF PAPER ONLY

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
JUN 7 1954
LOS ANGELES, CALIFORNIA

WELL SUMMARY REPORT

Operator TIDE WATER ASSOCIATED OIL COMPANY Field ALISO CANYON

Well No. Standard-Seaman 1-#25 Sec. 28, T. 3 N, R. 16 W, S.B. B. & M.

Location 820.00' South & 5360.00' West from Station #81 Elevation above sea level 2927.02 feet.

All depth measurements taken from top of derrick floor, which is 6.35 ?? feet above ground.

In compliance with the provisions of Chapter 93, Statutes of 1939, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Date May 28, 1954 Signed J. E. Weaver Jr.

J. R. Bowyar (Engineer or Geologist) O. O. Suman (Superintendent) Title Agent (President, Secretary or Agent)

Commenced drilling October 1, 1953 Completed drilling February 14, 1954 Drilling tools Cable ~~xxx~~ Rotary

Total depth 4948' Plugged depth 3860' & R.D. 8749'

Junk 893' - 4-1/2" drill pipe and Johnston tester 3967'-4860' (Sidetracked)

GEOLOGICAL MARKERS	DEPTH

Commenced producing February 25, 1954 (date) Flowing/gas lift/pumping (cross out unnecessary words)

	Clean Oil bbl. per day	Gravity Clean Oil	Per Cent Water including emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pressure
On gas lift 3/20/54 Initial production	232	20.3	2.6%	89	100#	700#
4/18/54 Production after 30 days	101	20.8	2.0%	35	250#	900#

Casing Record (Present Hole)

Size of Casing (A. P. I.)	Depth of Shoe	Top of Casing	Weight of Casing	New or Second Hand	Seamless or Lapweld	Grade of Casing	Size of Hole Drilled	Number of Sacks of Cement	Depth of Cementing if through perforations
13-3/4"	990'	0'	42#	New	Seamless	H-40	16"	600 Diamix + 235 Neat Cmt	
7"	8585'	0'	23,26,29#	New	Seamless	J-55,N-80	10-5/8"		
5-1/2"	8748'	8559'	20#	New	Seamless	J-55, F.J.	6"		

Perforations

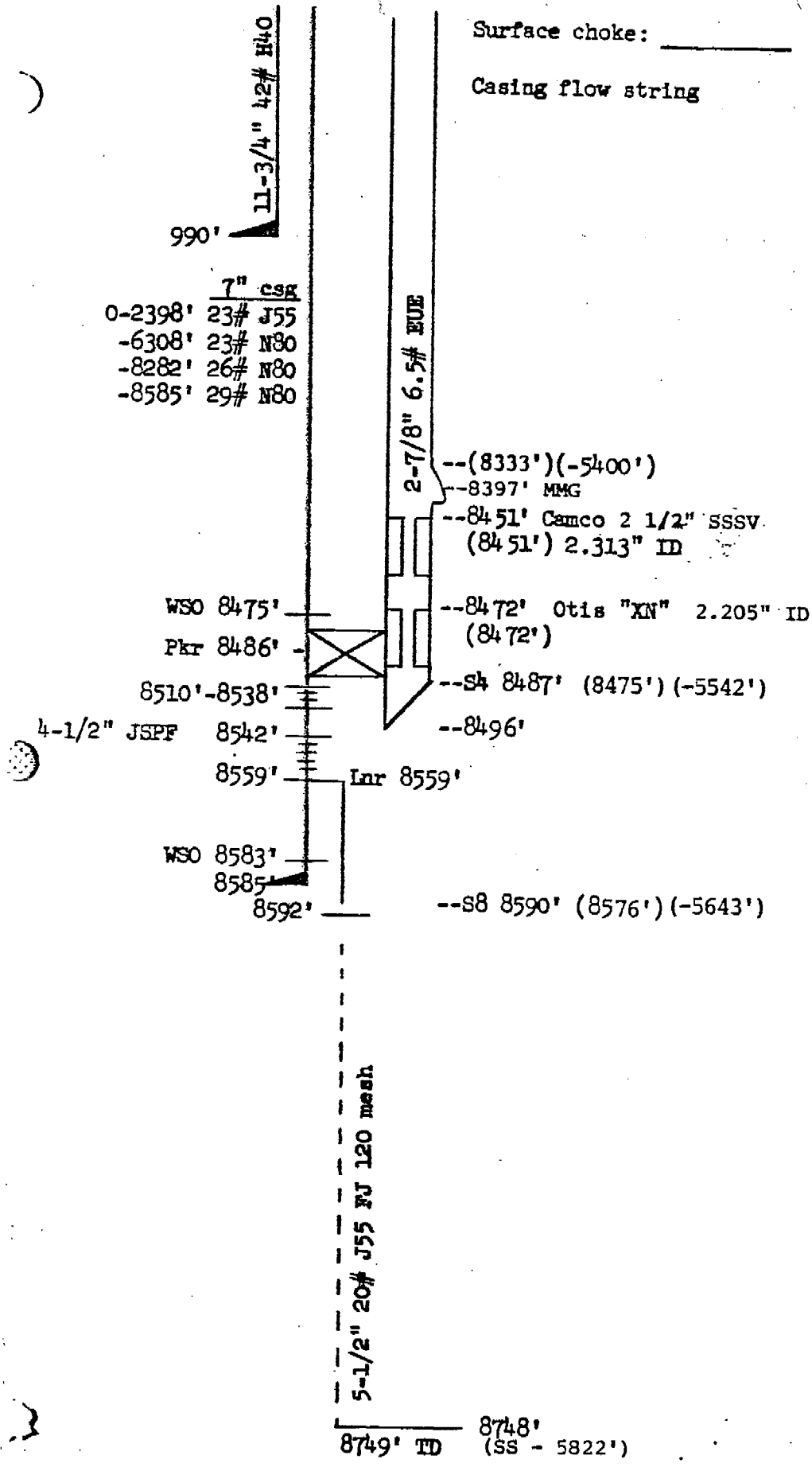
Size of Casing	From	To	Size of Perforations	Number of Rows	Distance Between Centers	Method of Perforations
5-1/2"	8592 ft.	8748 ft.	120 Mesh x 2" Slots	12	6"	60° Undercut by Pacific
	ft.	ft.				
	ft.	ft.				
	ft.	ft.				
	ft.	ft.				

Electrical Log Depths 85'-4909', 3860'-8748' (Attach Copy of Log)

AC_CPUC_0000040

Standard Sesnon 25

DF: 6'



Surface choke: _____

Casing flow string

10/1/53 - Well spud
2/25/54 - Well completed 893' of 4-1/2" drill pipe + Johnston tester side tracked - old TD 4948' plugged back 3860
5/24/73 - 6/6/73 Cleaned out to 8748', pressure tested csg, perforated for conversion to gas storage, ran tbg with gas lift valves
6/25/76 - 7/9/76 Cleaned out to 8748', ran tbg with SSSV
2/16/79-2/20/79 Replaced safety system

NOTE: Unable to use lower nipple - use M-lock for SSSV nipple. See wire-line tickets.

WELL VOLUME

	Cu.Ft.	Bbl.
Tubing	276	49
Csg/Lnr.	37	7
Annulus	1469	262

6-16-86

AC_CPUC_0000041

DEPARTMENT OF CONSERVATION

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

No. T215-0430

REPORT ON OPERATIONS

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

Thomas W. Schroeder
Southern California Gas Company (S4700)
9400 Oakdale Avenue
Chatsworth, CA 91313

Ventura, California
November 10, 2015

Your operations at well **"Standard Sesnon" 25**, A.P.I. No. **037-00776**, Sec. **28**, T. **03N**, R. **16W**, **SB** B. & M., **Aliso Canyon** field, in **Los Angeles** County, were witnessed on **11/5/2015**. **Kris Gustafson**, a representative of the supervisor.

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

DECISION:

APPROVED

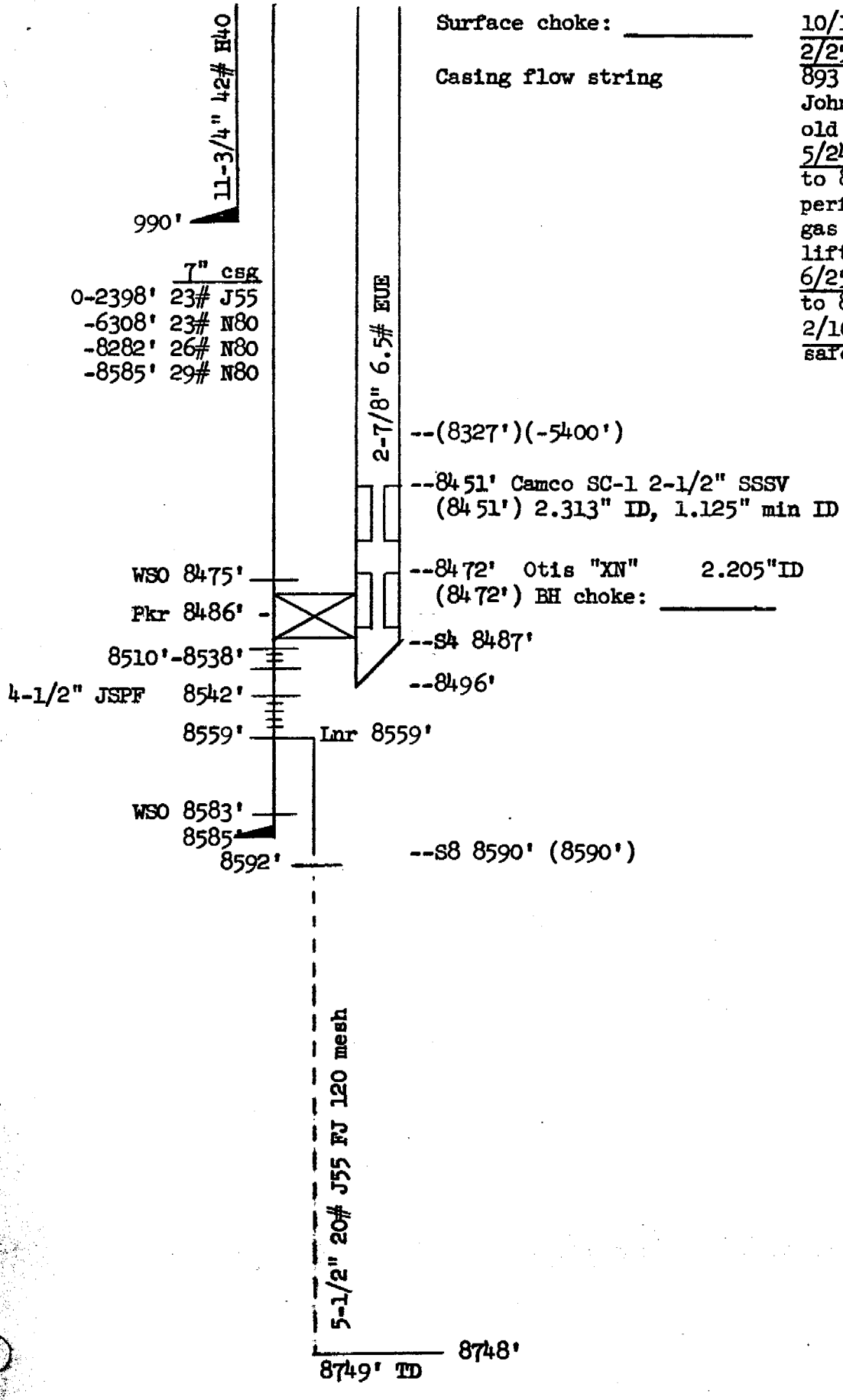
Steven Bohlen
State Oil and Gas Supervisor

By _____
Bruce Hesson
District Deputy

KG/tkc
OG109

Elevation: 2927"
DF: 6'

Standard Sesnon 25



Surface choke: _____

Casing flow string

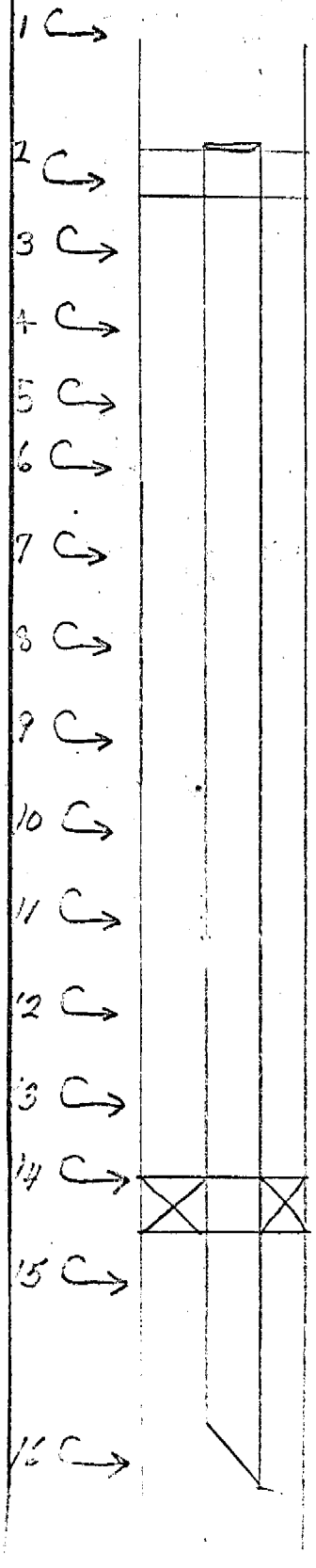
10/1/53 - Well spud
2/25/54 - Well completed
893' of 4-1/2" drill pipe + Johnston tester side tracked - old TD 4948' plugged back 3860'
5/24/73 - 6/6/73 Cleaned out to 8748', pressure tested csg, perforated for conversion to gas storage, ran tbg with gas lift valves
6/25/76 - 7/9/76 Cleaned out to 8748', ran tbg with SSSV
2/16/79-2/20/79 Replaced safety system

4/26/79

AC_CPUC_0000043

CORRECTED COPY

WELL PROFILE



OPERATOR SO. CALIF. GAS CO.

WELL # STANDARD-SESNON #25

FIELD Aliso Canyon

COUNTY Los Angeles

STATE California

DATE July 30, 1976

☐ NEW COMPLETION ☒ WORKOVER

	CASING	LINER	TUBING 1	TUBING 2	TUBING 3
SIZE	Original K.B.		6.35		
WEIGHT					
GRADE					
THREAD					
DEPTH					

ITEM NO.	TUBING DETAIL	LENGTH	DEPTH
1.	Tubing landed below Kelly Bushing	7.09	7.09
2.	Doughnut (Gulfco) right-hand plug	1.00	8.09
3.	3-8' Pups 2 7/8" N-80 6.5# tubing	24.00	32.09
4.	6-Joints 2 7/8" N-80 6.5# tubing EUE 8rd	187.81	219.90
5.	266-Joints 2 7/8" J-55 6.5# tubing	8165.33	8390.25
6.	1-Pup Joint J-55 6.5# EUE 8rd tubing	4.02	8394.27
7.	MMG Mandrel (empty)	8.44	8402.71
8.	1-Pup Joint J-55 6.5# EUE 8rd tubing	.65	8403.36
9.	1-Joint 2 7/8" 6.5# J-55	31.06	8434.42
10.	D-S Nipple 1/2" Hyd. Control Line SCI-Safety	15.26	8449.68
11.	1-20' Blast joint (Camco)	19.76	8469.44
12.	No-Go Nipple 1.81" I.D. (Camco)	.89	8470.33
13.	1-10' Blast Joint	9.67	8480.00
14.	Baker Retrieva "D" Packer	----	8480.00
15.	Baker Seals	5.35	8485.35
16.	Baker Production Tube	5.30	8490.65

NOTES: #10 - was run in place.

#12 - plug set - CA2 blanking plug.

#14 - pulled up with 15,000# to check latch and set 10,000# in compression.

COMMENTS:

BY

TITLE STANDARD SESNON 25

CHECKED

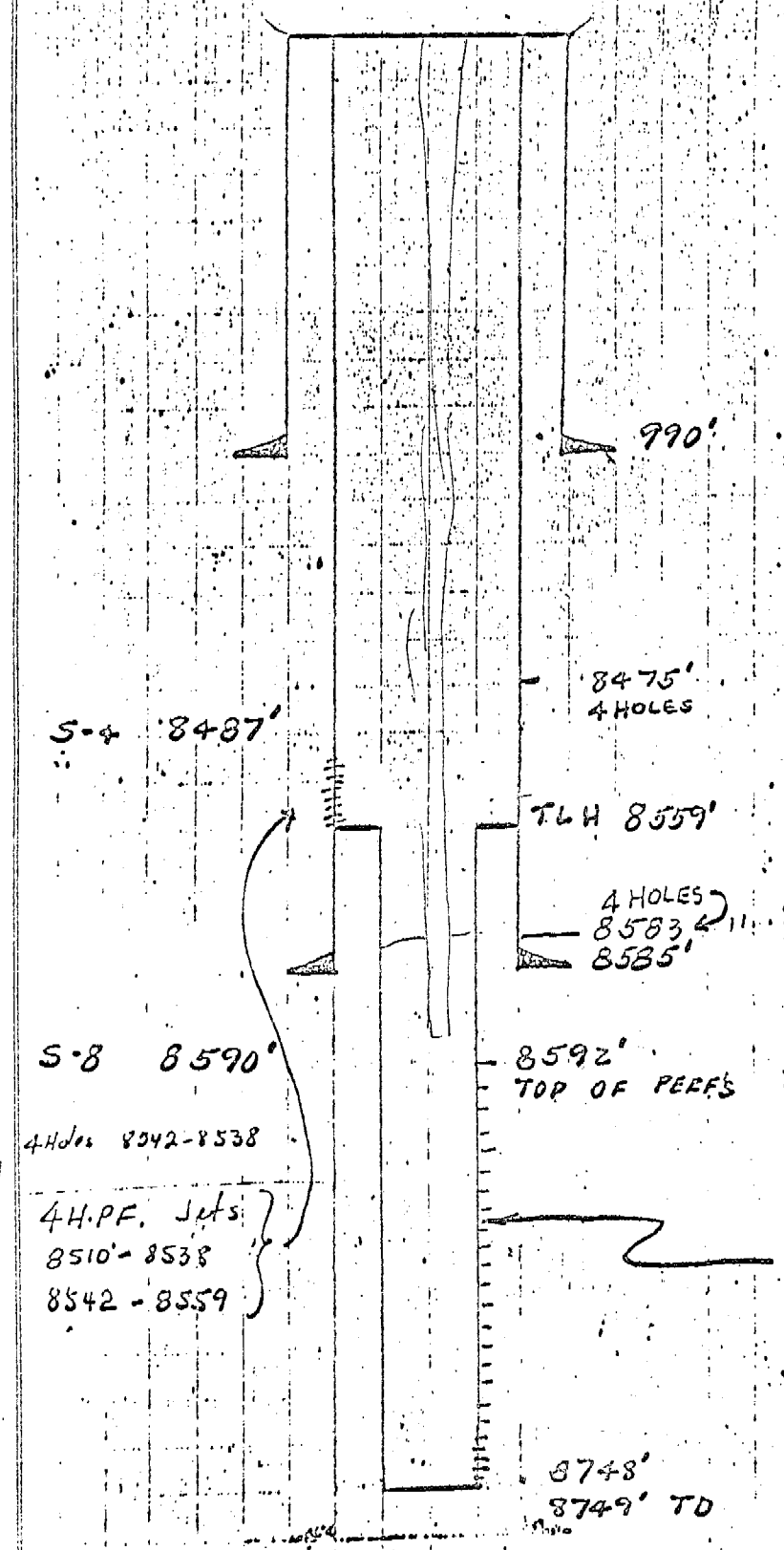
Completed 2-14-54

DATE 11-15-72

ZERO = KB = 6.35' ABOVE MAT,

SHEET NO. OF SHEETS

ELEVATION = 2927' G.L.



11 3/4" 42# H P-40
YOUNGSTOWN T&C
CMT'D WITH 600 SX 1:1 DIAM.
AND 100 SX NEAT CEMENT.
LOST CIRCULATION W/114 CU'S
TO DISPLACE.
CMT'D AROUND CSG W/ 755.
FOLLOWED BY ADD'L 60 SX.

7" YOUNGSTOWN SPEEDTITE
CMT'D W/ 600 COLTON HI-TE
0-2398' 23# J-55
2398-6308' 23# N-80
6308-8282' 26# N-80
8282-8585' 29# N-80

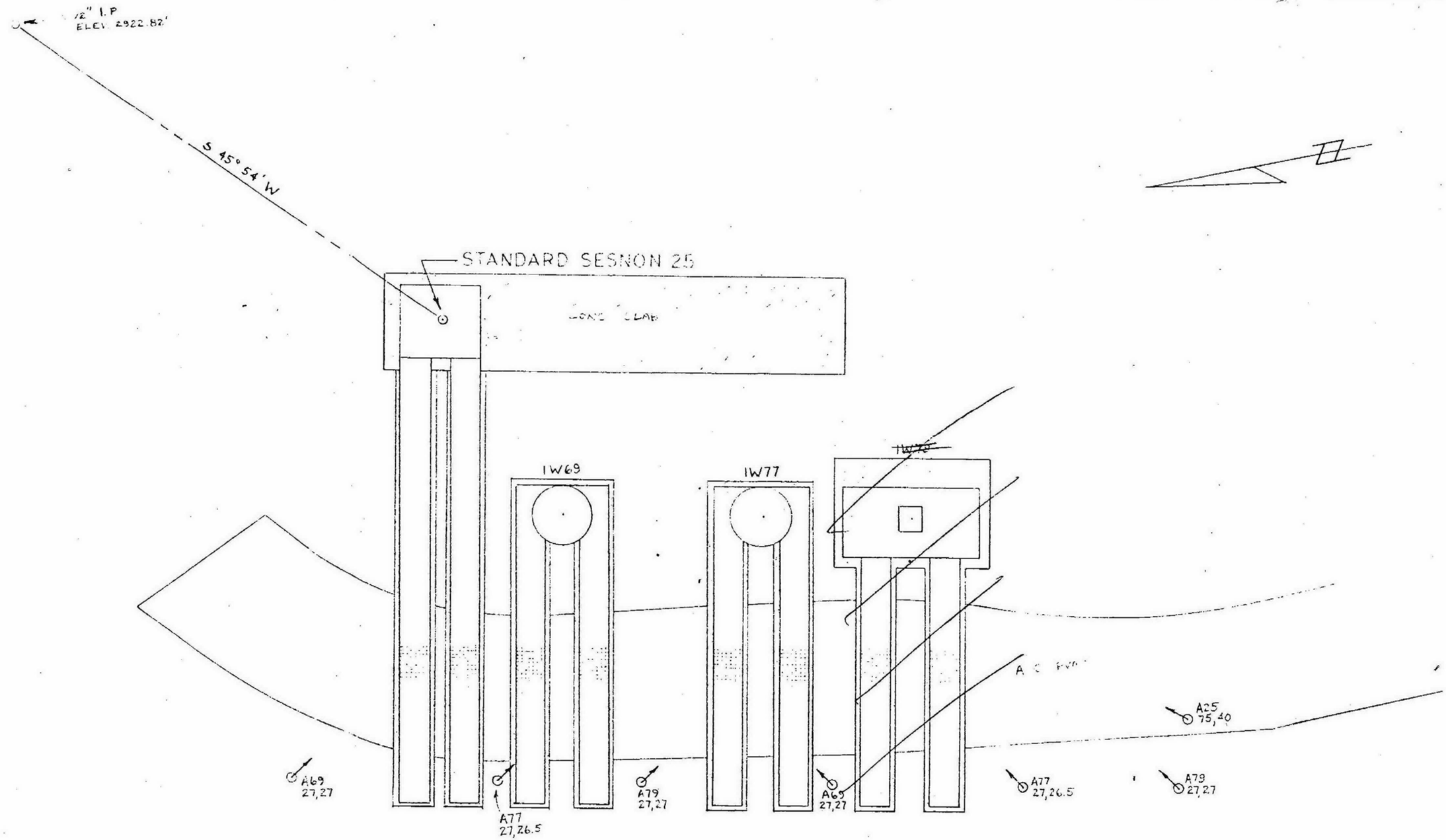
DRILLED CMT TO 8584' & MADE
WSO TEST AT 8583' - 1000' H2O
CUSHION - RECOVERED 30' RISE
VERIFIED SEGREGATION BETWEEN
UPPER & LOWER SESNON.

WSO TEST AT 8475' 1000' H2O
CUSHION - RECOVERED 30' RISE
WSOK - BY DOG.

5½" - 20# J-55 YOUNGSTOWN
FLUSH JOINT - 120 MESH
SLOTS, 2" x 6", 12 ROWS
8592' TO 8748'

JUNK - 893' 4½" D.P. & JOHNSTON TESTER
SIDETRACKED.

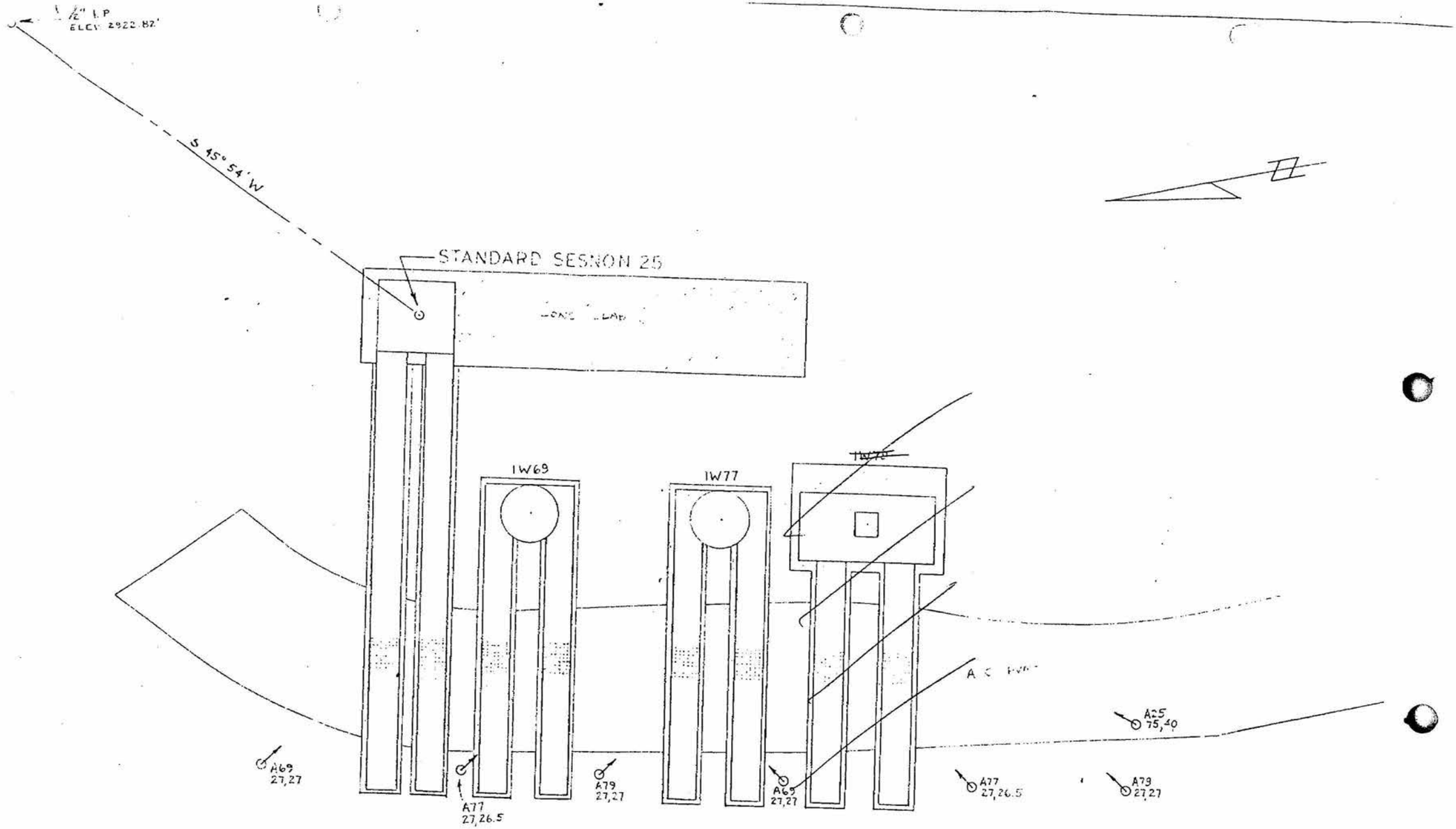
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SCALE: 1" = 10'	SOUTHERN CALIFORNIA GAS COMPANY	DEPT.
DRAWN BY DSS	ALISO CANYON SS-25 DRILLSITE	A. S.
CHECKED BY		
APPROVED:		OPERATING DIVISION
DATE		NO.

SOUTHERN CALIFORNIA GAS CO.–SKETCH FORM–LARGE–2159

AC_CPUC_0000046



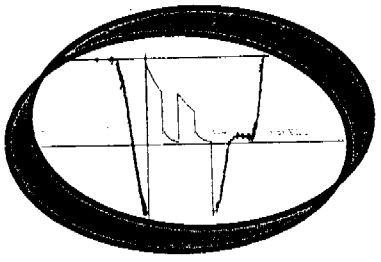
SCALE: 1" = 10'	SOUTHERN CALIFORNIA GAS COMPANY
DRAWN BY: DSS	ALISO CANYON SS-25 DRILLSITE
CHECKED BY:	
APPROVED:	
DATE	

DEPT.
A. B.
OPERATING DIVISION

SOUTHERN CALIFORNIA GAS CO.—SKETCH FORM—LARGE—2159

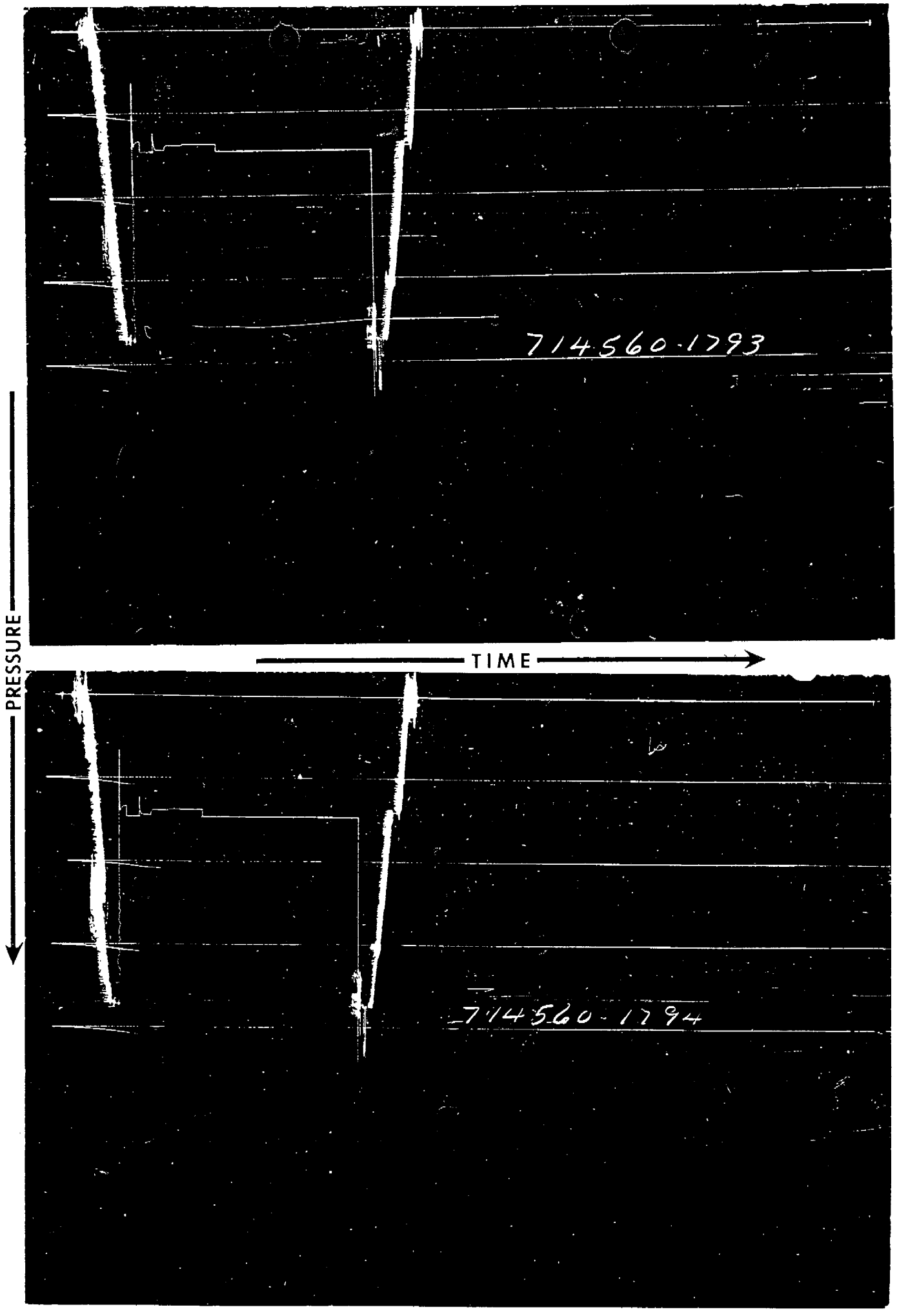
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Formation Testing Service Report



HALLIBURTON SERVICES

DUNCAN, OKLAHOMA

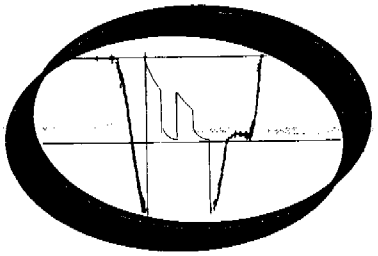


Each Horizontal Line Equal to 1000 p.s.i.

AC_CPUC_0000049

Formation Testing Service Report

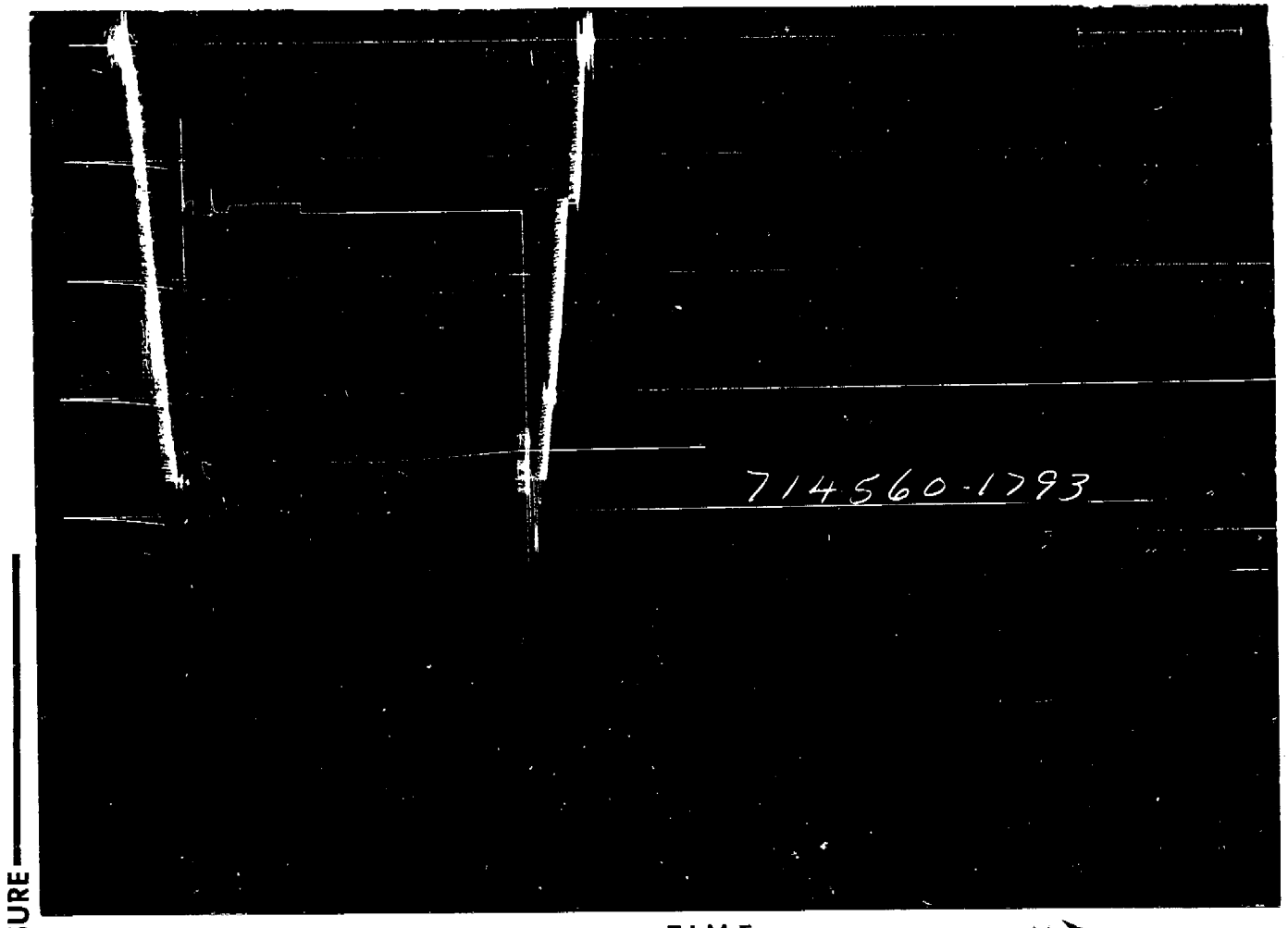
Lease Name	STANDARD SESNON
Well No.	25
Test No.	1
Tested Interval	8471'-8550' - U. SESNON ZONE
Lease Owner/Company Name	SOUTHERN CALIFORNIA GAS COMPANY



HALLIBURTON SERVICES

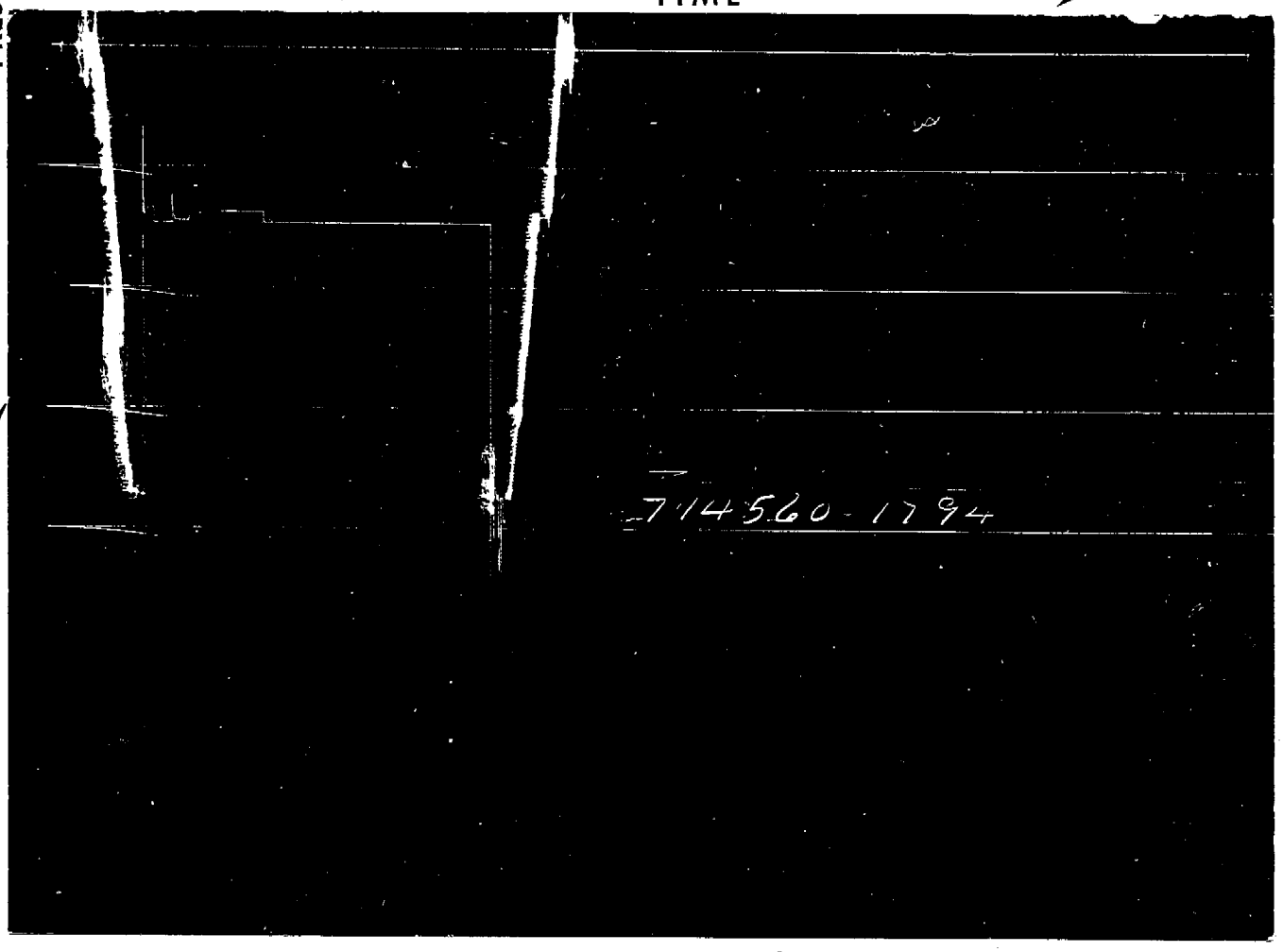
DUNCAN, OKLAHOMA

AC_CPUC_0000050



PRESSURE

TIME



Each Horizontal Line Equal to 1000 p.s.i.

Sampler
Recover
Gravity
Gas/Oil
Recover
Recover
Recover
Mud Pi
Mud Pi
Mud W
Cushion
Recove
Recove
Recove
Recove
Recove
Remar
1"
min
cho
wel
TEM
Est.
Actua
Initial
First Period
Second Period
Third Period
Fina
PRINTED

FLUID SAMPLE DATA

Sampler Pressure _____ P.S.I.G. at Surface
Recovery: Cu. Ft. Gas _____
cc. Oil _____
cc. Water _____
cc. Mud _____
Tot. Liquid cc. _____
Gravity _____ ° API @ _____ °F.
Gas/Oil Ratio _____ cu. ft./bbl.

	RESISTIVITY	CHLORIDE CONTENT
Recovery Water	_____ @ _____ °F.	_____ ppm
Recovery Mud	_____ @ _____ °F.	
Recovery Mud Filtrate	_____ @ _____ °F.	_____ ppm
Mud Pit Sample	_____ @ _____ °F.	
Mud Pit Sample Filtrate	_____ @ _____ °F.	_____ ppm
Mud Weight	_____ vis	_____ cp

Date 5-31-73 Ticket Number 741560
Kind of Job HOOK WALL Halliburton District SANTA FE SPRINGS
Tester MR. PRUITT Witness MR. ABRAHAMSON
Drilling Contractor CALIFORNIA PRODUCTION SERVICE DR S

EQUIPMENT & HOLE DATA

Formation Tested -
Elevation - Ft.
Net Productive Interval 8542'-8538' Ft.
All Depths Measured From 9' Above Mat.
Total Depth 8550' Bridge Plug Ft.
Main Hole/Casing Size 7" 23-26#-29#
Drill Collar Length - I.D. -
Drill Pipe Length 8547' I.D. 2.441"
Packer Depth(s) 8471' Ft.
Depth Tester Valve 8430' Ft.

Cushion TYPE AMOUNT Ft. Depth Back Pres. Valve
Surface Choke Adj. choke Bottom Choke 5/8"

Recovered Feet of
Recovered Feet of
Recovered Feet of
Recovered Feet of
Recovered Feet of

Mea. From Tester Valve

Remarks Opened tool for 40 minute first flow, had a strong blow with 550 PSI through 1" choke. Closed tool for 66 minute first closed in pressure. Reopened tool for 333 minute second flow on 1/4" choke, had 1150 PSI. After 1 hour changed choke to 1/2" choke, had 750 PSI-left on choke 1 hour and changed surface choke to 1", had 575 PSI well making 4.5 MCF/D. Closed tool for 826 minute second closed in pressure.

TEMPERATURE	Gauge No. 1793 Depth: 8480 Ft.	Gauge No. 1794 Depth: 8484 Ft.	Gauge No. Depth: Ft.	TIME
	12 Hour Clock	12 Hour Clock	Hour Clock	Tool Opened 5-30-73 A.M. 11:40 P.M.
Est. 185 °F.	Blanked Off No	Blanked Off Yes	Blanked Off	Tool Closed 5-31-73 A.M. 08:45 P.M.
Actual °F.	Pressures	Pressures	Pressures	

		Field	Office	Field	Office	Field	Office	Reported Minutes	Computed Minutes
Initial Hydrostatic		3703	3722	3757	3724				
First Period	Flow Initial	1359	635	1402	667			———	———
	Flow Final	1317	1338	1360	1342			45	40
	Closed in	1462	1461	1475	1465			65	66
Second Period	Flow Initial	1421	1234	1443	1240			———	———
	Flow Final	1359	1373	1366	1375			330	333
	Closed in	1441	1459	1443	1465	SI PRESS U. SESNON ZONE		825	826
Third Period	Flow Initial							———	———
	Flow Final								
	Closed in								
Final Hydrostatic		3703	3722	3757	3724			———	———

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FORMATION TEST DATA

LITTLE S 30217 10M 2/72

Legal Location Sec. - Twp. - Rng.
Lease Name STANDARD SESNON
Well No. 25
Test No. 1
Tested Interval 8471'-8550' - U. SESNON ZONE
Field Area ALISO CANYON
County LOS ANGELES
State CALIFORNIA
Lease Owner/Company Name SOUTHERN CALIFORNIA GAS COMPANY

4

AC_CPUC_0000052

Gauge No.	1793		Depth	8480'		Clock No.	7911		72 hour	Ticket No.	714560			
	First Flow Period		First Closed In Pressure			Second Flow Period		Second Closed In Pressure			Third Flow Period		Third Closed In Pressure		
	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.
0	.000	635	.000		1338	.000	1234	.000		1373					
1	.0125	1371	.076		1461	.0643	1442*	.915		1459					
2	.0250	1342				(.067	1442C								
3	.0375	1338				.1252	1386								
4	.0450	1338				(.167	1386C								
5						.1861	1371								
6						.2470	1373								
7						.3079	1373								
8						.3690	1373								
9															
10															
11															
12															
13															
14															
15															

Gauge No.	1794				Depth	8484'		Clock No.	7373		72 hour				
0	.000	667	.000		1342	.000	1240	.000		1375					
1	.011	1374	.074		1465	.0646	1446*	.920		1465					
2	.022	1346				(.067	1446C								
3	.033	1342				.1259	1390								
4	.044	1342				(.170	1390C								
5						.1872	1375								
6						.2485	1375								
7						.3098	1375								
8						.3710	1375								
9															
10															
11															
12															
13															
14															
15															
Reading Interval	10					55									Minutes

REMARKS: C-Choke Change * First interval equal to 58 minutes

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SPECIAL PRESSURE DATA

LITTLE'S

AC_CPUC_0000053

741560



	O. D.	I. D.	LENGTH	DEPTH
Reversing Sub	3 7/8"	1.75"	2.50'	
Water Cushion Valve				
Drill Pipe	2 7/8"	2.441"	8547'	
Drill Collars				
Handling Sub & Choke Assembly	2½"	2"	5'	
Dual CIP Valve				
Dual CIP Sampler				
Hydro-Spring Tester	3 7/8"	5/8"	5'	8430'
Multiple CIP Sampler				
Extension Joint 2	3 7/8"	7/8"		
AP Running Case				
Hydraulic Jar	3 7/8"	1.25"	5'	
VR Safety Joint	3 7/8"	3/4"	2.50'	
Pressure Equalizing Crossover				
Packer Assembly	5 3/4"	2 3/8"	3'	8471'
Distributor				
Packer Assembly				
Flush Joint Anchor	2.50"	2"	5'	
Pressure Equalizing Tube				
~~Blanked-Off~~ B.T. Running Case Inside	3 7/8"	3"	4'	8480'
Drill Collars				
Anchor Pipe Safety Joint				
Packer Assembly				
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars				
Flush Joint Anchor				
Blanked-Off B.T. Running Case	3 7/8"	3"	4'	8484'

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EQUIPMENT DATA

LITTLE S

4

AC_CPUC_0000054

NOMENCLATURE

b	= Approximate Radius of Investigation	Feet
b_1	= Approximate Radius of Investigation (Net Pay Zone h_1)	Feet
D.R.	= Damage Ratio	——
El	= Elevation	Feet
GD	= B.T. Gauge Depth (From Surface Reference)	Feet
h	= Interval Tested	Feet
h_1	= Net Pay Thickness	Feet
K	= Permeability	md
K_1	= Permeability (From Net Pay Zone h_1)	md
m	= Slope Extrapolated Pressure Plot (Psi^2/cycle Gas)	psi/cycle
OF_1	= Maximum Indicated Flow Rate	MCF/D
OF_2	= Minimum Indicated Flow Rate	MCF/D
OF_3	= Theoretical Open Flow Potential with/Damage Removed Max.	MCF/D
OF_4	= Theoretical Open Flow Potential with/Damage Removed Min.	MCF/D
P_s	= Extrapolated Static Pressure	Psig.
P_F	= Final Flow Pressure	Psig.
P_{ot}	= Potentiometric Surface (Fresh Water *)	Feet
Q	= Average Adjusted Production Rate During Test	bbls/day
Q_1	= Theoretical Production w/Damage Removed	bbls/day
Q_g	= Measured Gas Production Rate	MCF/D
R	= Corrected Recovery	bbls
r_w	= Radius of Well Bore	Feet
t	= Flow Time	Minutes
t_o	= Total Flow Time	Minutes
T	= Temperature Rankine	°R
Z	= Compressibility Factor	——
μ	= Viscosity Gas or Liquid	CP
Log	= Common Log	

* Potentiometric Surface Reference to Rotary Table When Elevation Not Given, Fresh Water Corrected to 100° F.

AC_CPUC_0000055

Report Date: 03/16/95

DAILY WELL ACTIVITIES SS 25

DATE	ACTIVITY/REMARKS

11/07/91 Ran noise log, almost no noise greater than 2 mV, spike @ 7450', OK (Inv-56.478 BCF)

01/08/92 Sandtest: SIWHP - 1880, FWHP - 1370, FWHT - 95, SC - 1.200, ER - 2.6, Q - 47, Inv - 38.1

04/30/92 Ran temperature survey, cooling break near M-P, similar to 1991 surveys, monitor, PU - 8698' (Inv - 12.8 BCF)

08/04/92 Ran temperature survey, subtle cooling between 7000'-7500', temp. break near 8200', monitor, PU - 8697' (Inv - 43.771 BCF)

09/16/93 Ran temperature survey, temp break near; 1991 noise log was quiet, temp survey similar, OK.

01/25/94 Ran temperature survey, OK

03/07/95 Ran bottom hole pressure survey, TbgP 1590#; CsgP 1590# Inv. 25.2

Report Date: 02/08/90

DAILY WELL ACTIVITIES SS 25

DATE	ACTIVITY/REMARKS
11/13/86	Set blanking plug because of rig work on IW 77
12/10/86	Attempted to pull blanking plug
12/11/86	Pulled blanking plug
12/15/86	Sand tested: SC Open, SIWHP 1520, ER 0.9%, Q 37 MMcf/d
03/19/87	Ran temperature survey, anomaly above S-1 similar to temp ran w/quiet noise log 4/84.
08/24/87	Ran temperature survey, OK
03/03/88	Ran temperature survey, anomaly above shoe similar to temp run w/quiet noise log 4/11/84, will monitor.
04/22/88	Ran pressure survey, FL 8430', P @ S-4 (8475') 2016 psi
10/18/88	Ran temperature survey, anomaly above shoe, plan detail
11/09/88	Ran detail (7500'-8650') temperature survey, OK
01/09/89	Well casing lateral x-rays, OK
01/09/89	Sand tested: SIWHP 1475, FWHP 842, FWHT 88, SC 1.25", ER 1.1%, Q 31 MMcf/d. Well casing lateral X-ray, OK.
01/12/89	Removed 1.25" choke, installed 1.50" choke. Sand tested SIWHP 1400, FWHP 655, FWHT 76, SC 1.50", ER 0.9%, Q 22 MMcf/d
01/17/89	Removed 1.50" choke, installed Open choke. Sand tested SIWHP 1320, FWHP 480, FWHT 81, SC Open, ER 1.6%, Q 25 MMcf/d
04/06/89	Ran temperature survey (waiting results)
04/06/89	Ran temperature survey, anomaly above shoe similar to temp on quiet noise log 4/11/84, will monitor.
04/07/89	Removed Open choke, installed 1.25 choke
09/06/89	Ran temperature survey, temperature breaks above S-1 similar to 4-11-84 noise log, will monitor
12/18/89	Sand test: SIWHP 1610, FWHP 1170, FWHT 97, SC 1.25, ER 2.4%, Q 47 MMcf/d
01/03/90	Removed 1.25 choke, installed 1.35 choke
01/04/90	Sand test: SIWHP 1560, FWHP 920, FWHT 95, SC 1.35, ER 2.1%, Q 36 MMcf/d

WELL ACTIVITY REPORTS FOR SS 25

DATE	ACTIVITY/REMARKS
2/23/83	A noise log was run to check the anomaly at the csg shoe. All four frequencies were quiet above the WSO. No further action recommended.
6/2/83	Ran temperature survey, no anomalies
10/28/83	Ran temperature survey, no anomalies
3/23/84	Ran temperature survey shows anomaly at shoe
4/2/84	Detail temperature shows large cooling at WSO @ 8475'
4/11/84	Noise log ran showed a small amount of gas movement above WSO @ 8475'. Rerun noise log at high inventory
7/18/84	Ran temperature survey which showed cooling at shoe from 8585' up to 8100'. A noise log will follow.
7/27/84	FLo-log ran temperature survey which showed cooling from top of perfs at 8510'-8100'. Noise showed possible gas movement from 8500'-8220'. A R/A survey will follow. Flo-log #285, #3,228.15
7/29/84	Flo-log ran capacitance log which showed fluid level at 8652'. A R/A tracer survey was then run by downhole injecting 100 mc of tracer at 8530' with the well shut-in. Small amount of gas movement was detected from 8510'-8190'. A recommendation is forthcoming. Flo-log #287, $4,707.64
1/31/85	Sand test: SC 1.30, SIWHP 1300 psi, Q 30 MMcf/d, ER 1.21%
2/26/85	Sand test: SC open, SIWHP 1340, ER 2.29%, Q 38 MMcf/d
4/2/85	Ran bottom-hole pressure survey
4/17/85	Ran bottom-hole pressure survey, pressure at datum (8333' TVD) 1546 psi, FL 8525' TVD
4/24/85	Ran temperature survey cooling above shoe less severe than previous survey. July 1984 noise log and tracer indicated small shoe leak. Will monitor at high inventory
7/16/85	Ran temperature survey, anomaly above shoe similar to, but breaks slightly higher than, surveys of past several years. Noise logs 7/84, 4/84, 2/83 and R/A 7/84 indicated no leakage above S-1, will monitor.
12/11/85	Sand testing: SC 1.25, SIWHP 1660, ER 2.1%, Q 38 MMcf/d
12/27/85	Changed choke to 1.35
1/2/86	Sand testing: SC 1.35, SIWHP 1920, ER 2.0%, Q 54 MMcf/d
1/14/86	Sand testing: SC 1.50, SIWHP 1780, ER 1.4%, Q 53 MMcf/d
3/5/86	Ran temperature survey, anomaly above shoe same as temp ran w/quiet noise log 7/27/84.
5/6/86	Ran BHP survey: FL 8460', Datum P 2259 psi, surface pressure not consistent w/deadweight.
8/13/86	Ran temperature survey, anomaly above shoe same as temp ran w/quiet noise log 7/27/84.

WELL ACTIVITY REPORTS FOR SS 25

DATE	ACTIVITY/REMARKS
4/2/81	Fred ran temperature surveys
9/18/81	Pruett pulled BHC. Cost $367.00
9/21/81	Harry ran temperature survey
9/24/81	Pruett ran BHC. Cost $199.00
10/15/81	Pulled BHC and set plug for IW69's rig. Cost $259.00
11/3/81	Pruett pulled plug. Cost $337.50. Tried to set BHC, unable to set
11/4/81	Pruett unable to set BHC
11/5/81	Pruett ran IB, rigged down to get broach for SSSV nipple
11/6/81	Pruett ran broach, still unable to see BHC. Cost $519.00
11/24/81	Triangle ran noise log. Cost $3614.40
11/30/81	Pruett ran BHC
1/8/82	Pruett pulled BHC
1/13/82	Sand testing
1/29/82	Sand testing
2/5/82	Sand testing
2/8/82	Sand testing
3/3/82	Sand testing
3/17/82	Sand testing
10/18/82	Temperature survey. Gradient shift at shoe. Run A/A

WELL ACTIVITY REPORTS FOR SS 25

DATE	ACTIVITY/REMARKS
1/9/80	Camco attempted to fish for tools. Rope swelled up with rain water and would not go thru pulleys. Shut down for day.
1/10/80	Camco fished all tools out of well OK. Set pack-off. Tested SSSV. S/I T 2500; C 2600. Bled tubing to 2000, held OK Bled tubing to 1020, held OK. Bled casing to 2000, valve closed and held OK. Pressure casing to 2500. Pressure tubing to 2460, valve opened OK. Requested instrument department install recording gauge on tubing. Will put well on withdrawal when gauge installed.
1/14/80	Inst. Dept. installed pressure recorder on tubing. Will have well put on withdrawal.
1/22/80	Camco attempted to pull SSSV. Could not latch. Ran in with spear. Slips on spear broke. Ran in with shear and latched onto valve. Unable to pull. Shut down for the night.
1/23/80	Camco pulled SSSV. Fishing neck was flaired out and cracked along side. It had come out of nipple and hit pack-off. Set another SSSV and pack-off. Tested valve. Test no good. Tubing pressure built up 50# in 30 seconds.
1/24/80	Camco pulled pack-off and SSSV. Ran another SSSV and pack-off Tested valve. Bled tubing from 2100 to 1750, pressure rose 50# in one minute. Will test again in morning.
1/25/80	Tested SSSV. Blew tubing pressure to atmosphere, pressure did not get below 350#. Not enough to close valve. Pulled pack-off and SSSV.
1/28/80	Camco ran SSSV and pack-off. Tested valve. Blew tubing down to 550. Open 2" stack, pressure would not go below 280. Bled casing from 2160 to 1900. Pressure rose 50#/min. Valve did not close. Pulled valve and pack-off. System apparently bad.
1/29/80	Archer-Reed ran 1.0 BHC.
2/5/80	Archer-Reed attempted to pull DCRT valve but could not stay latched onto valve. Will try again tomorrow with new pulling tool
2/6/80	Archer-Reed attempted to pull DCRT. Inner core of pulling tool was too long. Could not stay latched on valve. Re-built pulling tool. Will try tomorrow
2/7/80	Archer-Reed pulled DCRT valve. Valve was sheared. Ran another valve
2/11/80	Archer-Reed pulled 1.0 BHC, was not set. Re-ran choke but could not get through SSSV nipple. Pulled out. Re-ran choke and set OK. Tested well. Test no good. Pulled choke, ran scratcher, decided to replace BHC with surface choke.
2/22/80	Gurevich ran temperature survey
7/29/80	Gurevich ran temperature survey
10/20/80	Shut-in BHP survey
10/27/80	Pruett BHP survey
10/29/80	Archer-Reed attempted to set BHC 1.0 no results. Cost $214.00
10/30/80	Archer-Reed continued efforts to set choke, could not get Otis lock through Camco SSSV nipple. Ran broach, still no results. Suspended job. Cost $519.00
10/31/80	Archer-Reed set 1.0 BHC. Cost $196.50
11/3/80	Pruett BHP survey

WELL ACTIVITY REPORTS FOR SS 25

DATE	ACTIVITY/REMARKS
1/15/79	(Inst.) Replaced plug & seat in reg. in safety system
1/24/79	Flow test: 32.1 MM, SIWHP - 2050 psi
2/20/79	Rig removed safety system from well. The control line was gone, exchanged systems with Camco.
3/1/79	Unloaded well. Left S/I. S/I clean-up flow
	WKM valve repaired. Put well on tbg. clean-up flow thru .500 S/C
3/14/79	Ran BHP & temperature survey
3/22/79	Foster shot fluid level. FL 8652 SIWHP 1333
3/26/79	Foster shot fluid level. FL 8652 SIWHP 1370
3/28/79	Foster shot fluid level. FL 8637 SIWHP 1387
4/2/79	Foster shot fluid level. FL 8637 SIWHP 1401
4/4/79	Revised tubing detail; Foser shot fluid level. FL 8637 SIWHP 1415
4/11/79	Foster shot fluid level. FL 8637 SIWHP 1438
4/16/79	Foster shot fluid level. FL 8637 SIWHP 1454
8/3/79	Ran temperature survey, possible shoe leak. (Note: Talked to Bob Hazel today. Both IW 83 and SS 25 had noise logs after these temperature surveys. SS 25 did not show noise. MM 8/14/79)
8/8/79	Ran noise log. No shoe leak
9/18/79	Camco ran gauge ring to DS-1 nipple. Ran into some tight spots. Will run swedge before running valve
10/23/79	Pruett ran BHP survey
11/5/79	Hanson attempted to set BHC. Could not get choke to go through packoff nipple. Left choke in packoff nipple.
11/6/79	Ran BHP survey. Hanson pulled BHC from well. Discovered that backup ring on packing was too large to go through nipple. Changed ring. Set BHC.
11/13/79	Gurevich ran BHP survey. Found that BHC had been set in the safety valve nipple. Pulled loose OK.
11/14/79	Hanson located BHC in safety valve nipple. Pulled choke. Re-dressed choke and attempted to run in but could not get past safety valve nipple. Moved off of well.
11/15/79	Hanson ran in to set BHC but could not get past safety valve nipple.
11/16/79	Hanson again attempted to set BHC. No luck.
11/19/79	Hanson set 1.0 BHC.
11/26/79	Gurevich ran BHP survey
1/4/80	Archer-Reed set CA-2 plug in pack-off nipple. Tested tubing. Pressure held tight. Pulled plug.
1/7/80	Camco pulled 1.0 BHC. Ran in to set SSSV. Could not get valve to stay in nipple. Checked running tool, prong was damaged. Shut down till Monday.
	Camco ran in with broach. Found tight spot at 1356. Beat through. Cleared out tight spot at 3590 and 3608. Continued broaching tight spot at 1346 for remainder of day.
1/8/80	Camco finished broaching tight spot at 1346. Ran and set SSSV. Could not get setting tool to release from valve. Wire broke at counter sheave. Dropped a cutter bar and retreived wire from well. Will change wire and fish for tools tomorrow.

INTEROFFICE CORRESPONDENCE

SOUTHERN CALIFORNIA gas COMPANY

TO J. D. Myers FROM John Melton DATE May 3, 1976

SUBJECT Well Report for SS-25 - Aliso Canyon

On 4-13-76 we tried to pull choke for 5 hours. The latches may be broken. Continuing to pull on choke may break mandrel and render well unsafe to use. Has a Baker choke .516" which will flow 20.8 M^2 CFD at 2640 P.S.I.

We propose to leave well as is and operate on a withdrawal rate of 20.8 M^2 CFD with a surface choke back up.

JLM:ccc

CC: B. F. Jones ✓

xc: REW
RMD SS-25

INTEROFFICE CORRESPONDENCE

SOUTHERN CALIFORNIA gas COMPANY

TO R. W. Weibel FROM M. E. Melton DATE Sept. 2, 1988

SUBJECT Candidate Wells for Casing Inspection, Aliso Canyon Field

Attached is Dave Horstman's recommendations and priorities for inspection of casing flow wells originally completed in the 1940's and 50's.

I agree with Dave's priorities and recommend that all 19 wells listed be logged and pressure tested over the next two year period.

MEM:hr
Attachments

cc: N. W. Buss
J. D. Mansdorfer

INTEROFFICE CORRESPONDENCE

SOUTHERN CALIFORNIA gas COMPANY

TO M. E. Melton FROM D. R. Horstman DATE August 30, 1988

SUBJECT Candidate Wells for Casing Inspection, Aliso Canyon Field

Attached is a listing of all casing flow wells of 1940's and 1950's vintage currently in operation at the subject field. It is recommended that casing inspection surveys (vertilogs) be run to determine the mechanical condition of each well casing. In addition, each well should be pressure tested to identify any leaks at the casing collars.

The wells included on the attached list are prioritized based upon deliverability, operational history, and the length of time since their last workover. Please advise should you have any questions or require additional information.

DRH:hr
Attachments

84-F

Aliso Canyon Casing Flow Wells of 1940's and 1950's Vintage

Well	Completed	Deliverability @ 19.8 Bcf (MMcf/d)	Most Recent Workover	Comments	Priority
P 34	5/45	9	10/77	Casing pressure tested, SSSV run.	High
P 37	8/46	24	9/77	Casing pressure tested, SSSV run.	High
P 44*	1/56	26	4/78	Redrilled from 7805', casing patch set 3971'-4012', SSSV run.	Low
P 46	2/44	35	8/77	Reperf'd 7730'-7920', SSSV run.	High
P 47	8/43	21	6/77	Pulled 2-3/8" liner, squeezed perf's @ various depths. Temp anomaly @ shoe (3/23/88).	Low
SS 2	9/43	16	8/83	Repaired shoe leak, CBL run 7/73.	Low
SS 4	1/45	0(FL)	12/81	Repaired shoe leak, CBL run 11/80.	Low
SS 6	9/45	10	9/82	Repaired shoe leak, CBL and TDT run 5/73.	Low
SS 7	2/46	1	9/77	Casing pressure tested, SSSV run.	Medium
SS 8	8/46	15	7/78	Casing pressure tested, SSSV repaired.	High
SS 9	2/47	15	2/79	Casing pressure tested, SSSV replaced.	High
SS 10*	6/47	25	12/78	Casing patch run 4474'-4516', SSSV replaced.	Low
SS 11	11/47	9	6/80	Repaired shoe leak. CBL and TDT run 7/73. New temp anomaly @ shoe (2/88).	Low
SS 17**	6/51	7	8/77	Casing pressured tested, SSSV run. Well has a shoe leak.	Low

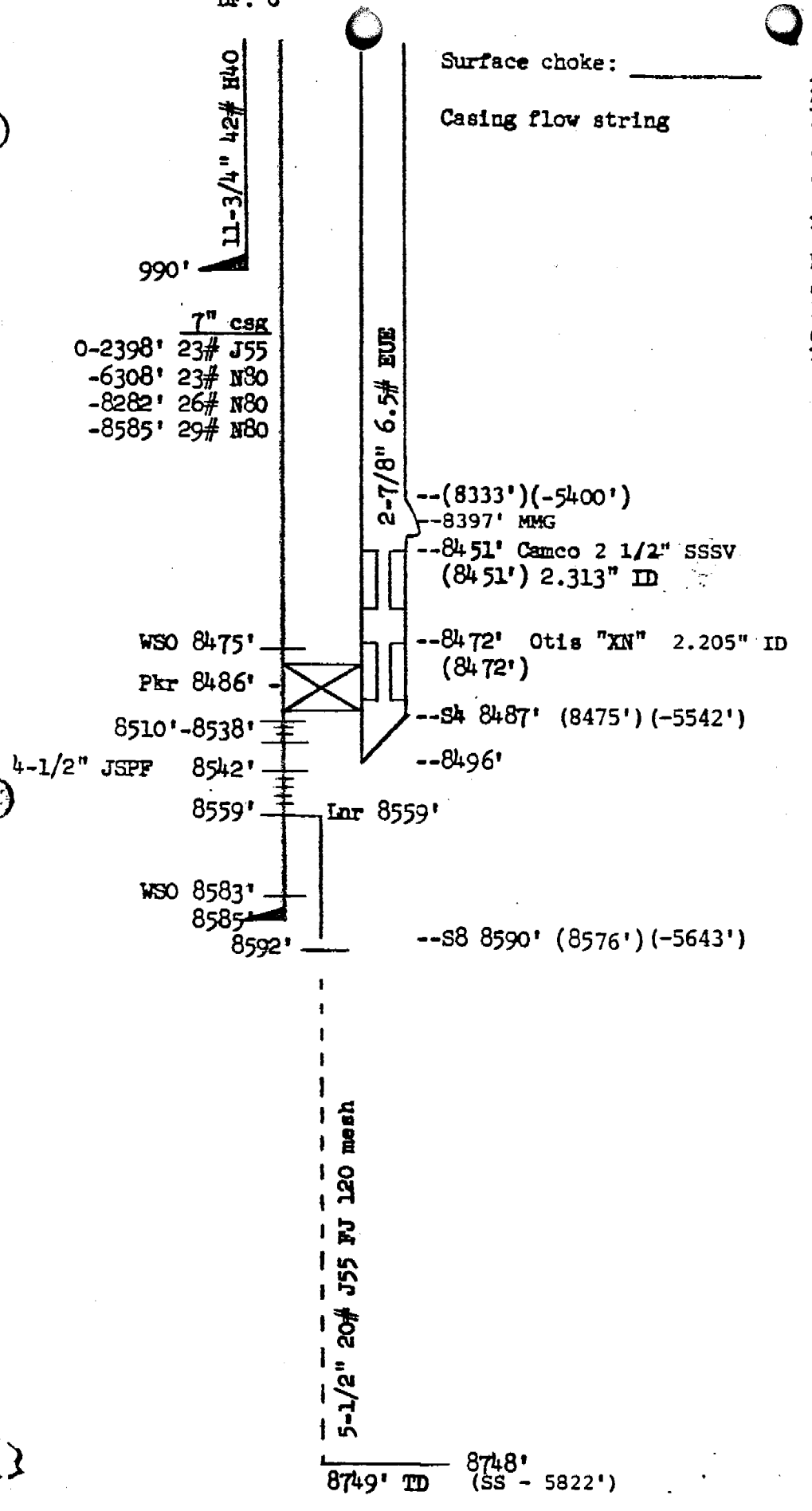
Well	Completed	Deliverability @ 19.8 Bcf (MMcf/d)	Most Recent Workover	Comments	Priority
SS 24	4/53	11	3/85	Repaired shoe leak. CBL run 7/73.	Low
SS 25	2/54	38	2/79	Replaced SSSV. Temp anomaly @ shoe (3/3/88).	Low
SS 29**	9/53	22	3/79	Replaced SSSV and set packer @ 8040'. Well has a shoe leak.	Low
F 2	7/44	1	9/77	Casing pressure tested, SSSV run.	Medium
F 4	1/48	12	9/77	Workover planned for 1988. Will log at that time.	-
F 5	7/48	2	8/77	SSSV run.	Medium

* Equipped with casing patch.
** Identified shoe leak. Casing will be inspected during workover.
FL - Fluid loaded

DRH:hr
8/30/88

Elevation: 2927' G.L.
DF: 6'

Standard Esnon 25



10/1/53 - Well spud
2/25/54 - Well completed 893' of 4-1/2" drill pipe + Johnston tester side tracked - old TD 4948' plugged back 3860'
5/24/73 - 6/6/73 Cleaned out to 8748', pressure tested csg, perforated for conversion to gas storage, ran tbg with gas lift valves
6/25/76 - 7/9/76 Cleaned out to 8748', ran tbg with SSSV
2/16/79-2/20/79 Replaced safety system

NOTE: Unable to use lower nipple - use M-lock for SSSV nipple. See wireline tickets.

WELL VOLUME

	Cu.Ft.	Bbl.
Tubing	276	49
Csg/Lnr.	37	7
Annulus	1469	262

6-16-86

AC_CPUC_0000067

WELLHEAD DESCRIPTION

Well No. SS-25

Field Aliso

Date Prepared 5-11-81

Wellhead Mfgr Shaffer

1. Casing Head Shaffer Size 13-5/8"x11-3/4" Type KD

   Slips & Pack-off 13-5/8" x 7"

   A. Surface Csg. Size 11-3/4" Wt 42# Grade H-40

   B. Casing Head Valve Ma pac Size 2" 3000 psi Fig.No. CSB-790-JN

2. Seal Flange Shaffer Size 13-5/8"x10" 5000 psi

   A. Type Seal Lockscrew Ring BX-160 & R-54

3. Tubing Head Shaffer Size 10"x8" 5000 psi Type

   Ring R-54 & Ring R-50

   Outlets 3" 5000 psi Sec.Seal Lockscrew

   Valve Removal Thrd 2-1/2" API

   A. Tubing Hanger Shaffer Size 8"x2-1/2" Type AJO

   B.P.V. Size 2-7/8" Thrd 4 L.H.

   B. Tubing Head Valves Mc Evoy Size 3" 5000 psi Fig.No. 129

   C. Automatic Csg. Valve WKM Size 3" 5000 psi Fig.No. 114522

4. Adapter Seal Flange Shaffer Size 8" x 2-1/2" Type AJO

   A. Ring Size R-50 & R-27

5. Master Valve Mc Evoy Size 2-1/2" 5000 Fig.No. 129

6. Xmas Tree Cross Shaffer Size 2-9/16"x2-9/16"x 2-1/16"x2-1/16" Bore Thru 2-9/16" Across 2-1/16"

7. Tubing Wing Valves Rockwell Size 2" 5000 psi Fig.No. 21055

   A. Automatic Tbg. Valve WKM Size 2" 5000 psi Fig. No. 114522

8. Unibolt Size 3" 5000 psi Inside Thrds

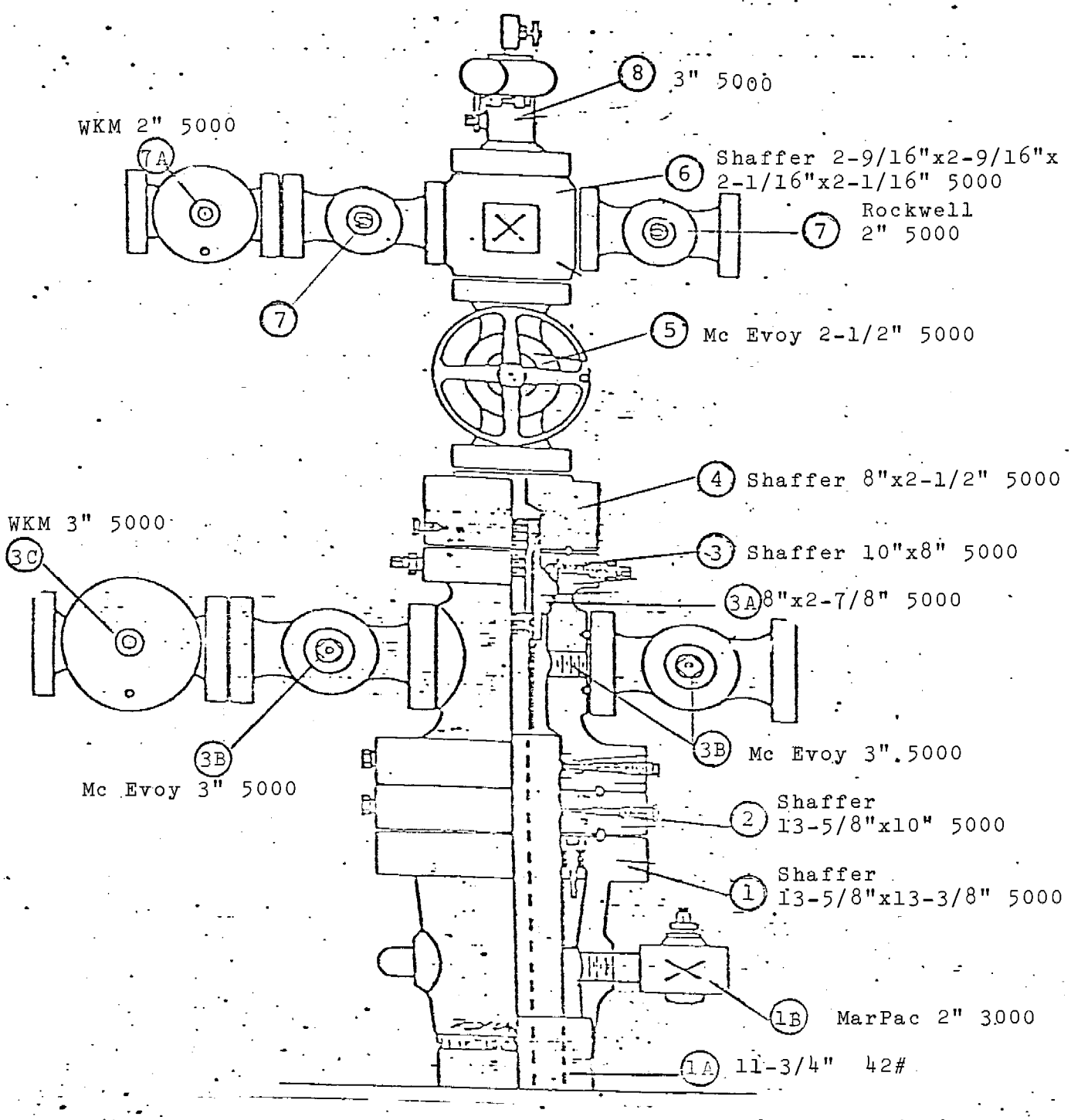
9. Wt. Landed in Csg. Head 190,000 Wt. 23# Grade J-55

10. Wt. Landed on Doughnut 35,000 Wt. 2-7/8" Grade J-55

11. Tubing Head to Ground Level 1.50 Below

AC_CPUC_0000068

TYPE IV



Well Name: SS 25 - Aliso Canyon

Mfgr.: Shaffer

Date Prepared: 12-20-82

MISCELLANEOUS WORK ORDER

99574

M. W. O. NO.

DIVISION North Basin DEPT. Underground Storag COST AREA NO. KZ DATE 1-3-79

THIS M. W. O., WHEN PROPERLY APPROVED, WILL AUTHORIZE A DIRECT EXPENDITURE OF $ 54,000.00

STANDARD SESNON 25 - ALISO CANYON

Replace inoperable subsurface safety system

REASON FOR REQUEST Tests conducted from December 13, through December 20, 1978 Indicate a leak in the safety valve control system and/or production packer. Such leakage renders the safety system inoperable. Priority "B".

ESTIMATE OF DIRECT COST	TOTAL	
Non-Labor	14,000	00
Contract	40,000	00

%	ACCOUNT	AMOUNT	
100	26280.5	54,000	00

ESTIMATED DIRECT EXPENDITURE $		54,000	00
STORES EXP.	% OF MATERIAL FROM STORES		
TOOL EXP.	% OF LABOR		
G.C.C.	% OF LABOR		
TOTAL ESTIMATED COSTS $			

ACCOUNTING APPROVED

TO BE BILLED TO

REMARKS

REFERENCE

REQUESTED BY D.S. SMILEY DATE 1-3-79

APPROVED

APPROVED

APPROVED

NOTICE OF OPERATION (#2 COPY FOR REPORTING)

DATE STARTED

DATE COMPLETED

REPORTED—DATE BY

SOUTHERN CALIFORNIA GAS CO.—3045-A

AC_CPUC_0000070

INTEROFFICE CORRESPONDENCE

SOUTHERN CALIFORNIA gas COMPANY

TMG

TO D. S. Smiley FROM T. M. Giallonardo DATE December 27, 1978

SUBJECT Recommend SS 9, SS 25 and IW 55 for Repair Schedule

Attached are copies of letters just received from J. W. Tenfelder with information concerning subsurface safety system failures in wells SS 9, SS 25, and IW 55.

I already recommended scheduling SS 9 and IW 55 via telephone on 12-20-78. Please add SS 25 to your schedule at this time with a "B" priority. (Please refer to my 12-27-78 Well Mechanical Status Report for priorities.)

The question of replacing the defective Camco systems with Otis systems is under review. Camco should be given a chance to correct their problem before a blanket order to lay down their equipment is issued.

However, if Camco cannot determine the source of their problem and correct it before such time as a rig is ready to complete one of the above wells, then an Otis system should be run.

TMG:bfp

Attachments

cc: B. F. Jones
P. S. Magruder, Jr.

64-D

AC_CPUC_0000071

INTEROFFICE CORRESPONDENCE

SOUTHERN CALIFORNIA GAS COMPANY

7116

TO D. S. Smiley FROM T. M. Giallonardo DATE December 27, 1978

SUBJECT Recommend SS 9, SS 25 and IW 55 for Repair Schedule

Attached are copies of letters just received from J. W. Tenfelder with information concerning subsurface safety system failures in wells SS 9, SS 25, and IW 55.

I already recommended scheduling SS 9 and IW 55 via telephone on 12-20-78. Please add SS 25 to your schedule at this time with a "B" priority. (Please refer to my 12-27-78 Well Mechanical Status Report for priorities.)

The question of replacing the defective Camco systems with Otis systems is under review. Camco should be given a chance to correct their problem before a blanket order to lay down their equipment is issued.

However, if Camco cannot determine the source of their problem and correct it before such time as a rig is ready to complete one of the above wells, then an Otis system should be run.

TMG:bfp

Attachments

cc: B. F. Jones
P. S. Magruder, Jr.

64-D

AC_CPUC_0000072

SOUTHERN CALIFORNIA gas COMPANY

INTEROFFICE CORRESPONDENCE

TO T. M. Giallonardo FROM J. W. Tenfelder DATE December 26, 1978

SUBJECT SS-9 and SS-25

It is recommended that we re-work SS-9 and SS-25. Both wells have Camco 2-1/2" SSSV's that failed during withdrawal. After exhausting all wireline possibilities, tubing-casing communication still exists in both wells. This could be due to a hole in the tubing, a leaking tubing hanger, a broken control line, or a scoured packing bore. In any event a rig is needed to cure our problems. Both of these valves failed by coming unlatched and smashing into the packoff above. Fortunately the packoff held and the valve fell back across the crossover flow ports, where the valve was then partially blocking the flow of gas. The reduction in rate was noticed and the wells were shut-in at the surface.

This is at least the sixth such failure at Aliso for this type valve. Since we use few bottom hole chokes anymore, it is critical to our operation that the SSSV stay in place since it is also our choke in most wells. Therefore it is further recommended that we replace these systems with Otis 2-1/2" SSSV's which have no history of coming loose. We should not buy any Camco systems until Camco determines why their valves are coming loose and corrects their problem.

The following wireline work was performed on the two wells:

SS-9	12/8/78	First attempt to repair valve - Pulled DCRT pump out valve and ran new one. No results.
	12/13	Attempted to pull S.Valve, found valve out of nipple, could not latch on. Will run Spear.
	12/14	Ran spear and pulled valve. Ran another valve, could not shear off.
	12/15	Sheared off, ran packoff, tested, no good. Pulled pack off and ran CSA2 blank plug. Tested, leaked, 165 psi in 6 minutes.
	12/18	Pulled DCRT and ran dummy, still leaked.
	12/21	Pulled S.Valve, plug and dummy DCRT
SS-25	12/12/78	First attempt to repair valve, pulled packoff and attempted to pull valve.
	12/13	Ran spear and pulled valve, found valve out of nipple.
	12/14	Ran another valve and tested, control line leaked off fast.
	12/15	Pulled packoff and set CSA2 blanking plug, tested, still leaking.
	12/16	Pulled DCRT ran new DCRT. No leak. Pulled CSA2 blank plug.
	12/19	Ran blind box to check if S.Valve still in nipple. OK.
	12/20	Pulled S.Valve and ran dummy valve across control line. tested. Good packoff over zone. Ran GS packoff to check communication between casing and tubing. Bled tubing press from 2460 psi to 1550 psi. Well equalized in 22 minutes.

AC_CPUC_0000073

SOUTHERN CALIFORNIA gas COMPANY

INTEROFFICE CORRESPONDENCE

TO D. S. SMILEY FROM G. C. ABRAHAMSON DATE February 2, 1979

SUBJECT WELL PROGRAM FOR STANDARD SESNON #25 - Aliso Canyon - PULL AND REPAIR DOWN-HOLE SAFETY SYSTEM

Please find attached a Program to pull Standard Sesnon #25 and repair or replace the safety system.

We have also attached a Material Request and Budget Cost Estimate. We are estimating 13 8-hour Tours or 8 Calendar Days and a total MWO cost of $ 50,000.

No D.O.G. Notice is required for this work.

This job will follow Porter #32 with California Production Service Rig #D-4 on or about February 26, 1979.

Attachments

GCA/jp

64-D

AC_CPUC_0000074

WORKOVER PROGRAM

OPERATOR: Southern California Gas Company

FIELD: Aliso Canyon

WELL: STANDARD SESNON #25

CONTRACTOR: California Production Service Rig #D-4

APPROXIMATE LOCATION: 820' South and 5360' West of Station #84

ELEVATION: Ground level 2927.02'. Take all measurements from original derrick floor 6.35' above ground level.

SAFETY: Hard hats are to be worn by all personnel on or near a rig. No smoking is permitted within 100' of the wellhead.

PRESENT CONDITIONS: 11 3/4" 42# H-40 ST&C cemented 990'

7" cemented 8585', segregated 8583', WSO 8475'
Shot four 1/2" holes per foot 8559'-8510'

Detail - all Speedtite

Surface-2398'	23#	J-55
2398'-6308'	23#	N-80
6308'-8282'	26#	N-80
8282'-8585'	29#	N-80

159' 5 1/2" 20# J-55 flush-joint, landed 8748', slotted 8748'-8592', top 8559'

Tubing Details:

2 7/8" landed 8491'
Baker production tube
Baker seals (4)
Baker latch-in locator

(continued on Page 2.)

Baker Retrieva-"D" packer 8485'
Camco 10' heavy wall tube
Camco 1.81" "D" nipple
Camco 20' heavy wall tube
Camco 2 7/8" Annular flow safety system
Camco MMG gas lift mandrel

Top 220' N-80, balance J-55

Kill well with 63#/cu.ft. waste salt water HEC polymer completion fluid provided by Professional Drilling Fluid Services. Volume of well = 350 barrels. Pump fluid down tubing at about 3 barrels per minute and bleed off from annulus through Gas Company system. Obtain assistance from Aliso Canyon shift supervisor while killing well. Use Halliburton pumping equipment to kill well.

PROGRAM:

1. Move in and rig up California Production Service Rig #D-4 with Baker tank.

2. Set back-pressure valve in doughnut. Remove Xmas tree.

3. Install H. & H. Oil Tool Co. Inc. 8" Class III 3000 psi B.O.P.E. Equipment to include "GK" Hydril bag and double-gate, both hydraulically operated with 80-gallon 3000 psi accumulator, auxillary nitrogen and dual control stations. Also install 8" x 8" 3000 psi spool with 3000 psi choke and kill manifold with discharges to Gas Company system and Baker tank. Discharge to Gas Company system to include a block valve and bleeder. Kill system to be provided with connections to CPS mud pump. Use new API rings on any untested B.O.P.E. connections.

4. Pressure test blind rams, 2 7/8" pipe rams and choke manifold to 3000 psi with water and nitrogen. Pressure test Hydril bag to 2000 psi with water and nitrogen.

5. Pull 2 7/8" tubing, laying down production equipment, seals, latch-in locator, 10' and 20' blast joints, 1.81" "D" nipple, 2 7/8" annular flow safety system and gas lift mandrel. Camco and Baker to clean, inspect, repair and pressure test for reuse.

6. Run 2 7/8" tubing with seals and locator sub. Change collars, clean pins and apply Baker seal. Use N-80 collars for N-80 tubing and use N-80 or J-55 collars for J-55 tubing. Land tubing on packer with 10,000#. Close pipe rams and pressure test seals and packer to 1500 psi. Keep tubing full and observe for returns.

7. Run 2 7/8" tubing, applying Baker seal to doubles. Also drift and hydrotest to 5000 psi, holding each test for one minute.
Tubing to include:

Baker production tube
Baker seals (4)
Baker latch-in locator
Camco 10' blast joint
Otis 2.205" "XN" nipple
Camco 20' blast joint
Camco 2 7/8" annular flow safety system
One joint 2 7/8" tubing
Camco MMG gas lift mandrel

Top 220' N-80 tubing, balance J-55 (as was in well).

8. Space out and land tubing on packer with up to a maximum of 10,000#. Pull 20,000# over weight of tubing to check latch.

9. Set back-pressure valve in doughnut. Remove B.O.P.E. and install Xmas tree. Pressure test Xmas tree to 5000 psi for 20 minutes.

10. Circulate polymer drilling fluid out of well with waste salt water. Tighten all wellhead bolts. Check all wellhead valves closed. Install blind flanges on wellhead valves.
RELEASE RIG.

GCA
G. C. ABRAHAMSON
February 5, 1979

c.c. Rig Supervisor
Relief Rig Supervisor
Contract Pusher (2)
Book Copy

A. Awalt
D. S. Smiley
T. W. Tenfelder

Well File

GCA/jp

AC_CPUC_0000077

WELL NO. STANDARD SESNON #25

DATE WANTED: February 21, 1979

LOCATION: Aliso Canyon

REQUESTED BY: G. C. ABRAHAMSON

	SIZE	FOOTAGE	DESCRIPTION
CASING			
TUBING			
	2 7/8"	300'	6.5# J-55 8rd EUE - possible replacement
LINER and ACCESSORIES			
	DESCRIPTION		
CASING HEAD			
TUBING HEAD			

NOTE: For MISCELLANEOUS - see Page 2.

WELL NO. STANDARD SESNON #25 DATE WANTED: February 21, 1979

LOCATION: Aliso Canyon REQUESTED BY: G. C. ABRAHAMSON

	DESCRIPTION
MISCELLANEOUS	Baker production tube - existing
	Baker seals (4) - repair or exchange
	Baker latch-in locator - repair or exchange
	Camco 10' heavy wall tube - existing
	Otis 2.205" "XN" nipple - purchase
	Camco 20' heavy wall tube - existing - repair or exchange
	Camco MMG gas lift mandrel with pump-out plug - existing
	10 2 7/8" N-80 8rd EUE tubing collars.
	290 2 7/8" J-55 8rd EUE tubing collars.

SOUTHERN CALIFORNIA GAS COMPANY

February 5, 1979 (GCA/jp)

FIELD: Aliso Canyon WELL: STANDARD SESNON #25

BUDGETED ESTIMATES SUMMARY - RIG WORK

G.W.O. -

M.W.O. 100%

DRILLING OR WORKOVER CONTRACTOR:

201	MOVE IN-MOVE OUT COST	10	Capital Expense Fraction	16 HRS.	$ 7500
202	KILL WELL	10		8	1250
203	INSTALL AND TEST B.O.P.E.	10		8	1250
204	CLEAN OUT	10		8	1250
205	LOG	10		0	0
206	PRESSURE TEST CASING	10		0	0
207	WSO AND DRILL STEM TESTING	10		0	0
208	CEMENT	10		0	0
209	INSTALL NEW WELLHEAD	10		0	0
210	MILL	10		0	0
211	DRILL	10		0	0
212	OPEN HOLE	10		0	0
213	RUN CASING, LINER OR INNER STRING	10		0	0
214	GRAVEL PACK	10		0	0
215	COMPLETE	10		40	6250
216	FISHING	10		0	0
217	DOWNTIME AND STANDBY TIME	10		0	0
218	CONTINGENCY	10		8	1250
219	MISCELLANEOUS	10		16	2500
			SUBTOTAL	104 HRS.	$ 21250

13 8-hour Tours

8 Calendar Days

FORM NO. 2

AC_CPUC_0000080

WELL: STANDARD SESNON #25

B. PURCHASED MATERIAL AND EQUIPMENT

		Capital Expense Fraction	$
2 2 0	WELLHEAD	0	0
2 2 1	CASING	0	0
2 2 2	LINER, LINER EQUIPMENT AND GRAVEL	0	0
2 2 3	INNER STRING	0	0
2 2 4	TUBING	0	3000
2 2 5	PRODUCTION PACKERS	0	0
2 2 6	SAFETY SYSTEM AND PRODUCTION EQUIPMENT	0	3000
2 2 7	PURCHASED DRILL BITS	0	0
2 2 8	DRILLING FLUID	0	0
2 2 9	COMPLETION FLUID	0	3000
2 3 0	FUEL AND WATER	0	0
2 3 1	MISCELLANEOUS	0	0

C. NON-LABOR RENTALS

		Capital Expense Fraction	$
2 3 2	DRILL PIPE AND B.O.P.E.	0	2500
2 3 3	SOLIDS CONTROL EQUIPMENT	0	0
2 3 4	STABILIZERS	0	0
2 3 5	MILLS	0	0
2 3 6	HOLE OPENERS	0	0
2 3 7	MISCELLANEOUS DRILLING TOOLS	0	0
2 3 8	MISCELLANEOUS	0	500

FORM NO. 2

AC_CPUC_0000081

WELL: STANDARD SESNON #25

D. SERVICES AND LABOR

			Capital Expense Fraction	
239	CEMENTING	0 %		0
240	PRESSURE TESTING	0		0
241	DIRECTIONAL WORK	0		0
242	FISHING	0		0
243	LOGGING	0		0
244	PRODUCTION PERFORATING	0		0
245	WIRELINE SERVICES	0		0
246	CASING AND TUBING SERVICES	0		3000
247	GRAVEL PACKING SERVICES	0		0
248	HOLE OPENING SERVICES	0		0
249	MILLING SERVICES	0		0
250	TRUCKING AND CRANE SERVICES	0		500
251	VACUUM TRUCKING AND DUMP	0		1000
252	WELLHEAD SERVICES	0		500
253	WSO AND DRILL STEM TESTING	0		0
254	MUD PLANT COST	0		500
255	CONSULTING ENGINEER SUPERVISION	0		1600
256	COMPANY LABOR	0		0
257	ADMINISTRATION EXPENSE	0		1200
258	CONTINGENCY	0		3145
259	MISCELLANEOUS	0		5000
2	(NO. OF REPORTS)		TOTAL ESTIMATED BUDGET:	$ 50,000
			TOTAL ALLOCATED TO G.W.O.	-
			TOTAL ALLOCATED TO M.W.O.	100%
				$ 50,000

DSS:MAN:eo
3-29-78 (Revised)
FORM NO. 2

AC_CPUC_000082

SUBMIT IN DUPLICATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

Note: Filing of "Notice" and well history not required by D.O.G.

History of Oil or Gas Well

Operator Southern CaliforniaGas Company Field or County Aliso Canyon
Well S. S. #25, Sec. 28, T 3N, R 16W, sb B. & M.
A.P.I. No. Name P. S. Magruder, Jr. (Person submitting report) Title Agent (President, Secretary or Agent)
Date February 21, 1979 19

Signature P S Magruder Jr

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

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

Date	
	MWO 99574
	Program: to remove and repair or replace and reinstall annular flow safety system
1979	
2-16	1st Day. Killed well with 350 barrels of 63# brine-polymer completion fluid. Moved California Production Service Co. rig #D-4 onto wellsite and rigged up. Removed xmas tree, installed BOPE.
2-17	2nd Day. Tested BOPE, blind rams, and 2 7/8" pipe rams to 3,000 psi, Hydril to 2,000 psi with water and nitrogen. Unlanded tubing pulled up 25,000# over weight of string to check packer. Released from 7" Baker "Retrieva-D" packer at 8,485'. Circulated sand from top of packer. Pulled out of well. Ran in with dummy seals changing collars.
2-18	Rig and crew idle.
2-19	3rd Day. Continued running in well to 8,485' with 2 7/8" tubing and seals, changing collars. Stabbed into 7" Baker "Retrieva-D" packer at 8,485'. Pressured up annulus to 1,500 psi for 20 minutes. Pulled out of well. Ran in with Baker production tube, seals, and latch-in locator Otis 2.205" XN nipple, Camco Annular flow safety system and Camco gas lift mandrel. Hydrotesting to 5,000 psi.
2-20	4th Day. Stabbed into 7" Baker "Retrieva-D" packer at 8,486'. Pulled up 25,000# over weight of string to check latch. Tubing weight on hook 49,000#. Landed with 10,000# on packer. Removed BOPE, installed xmas tree, tested to 5,000 psi. Displaced brine-polymer completion fluid from well with 350 barrels of waste lease salt water. Released rig at 2:00 p.m.

OG103 (6-78-GSRI-10M)

AC_CPUC_0000083

WELL PROFILE

OPERATOR: Southern California Gas Co.

WELL #: S. S. #25

FIELD: Aliso Canyon

COUNTY: Los Angeles

STATE: California

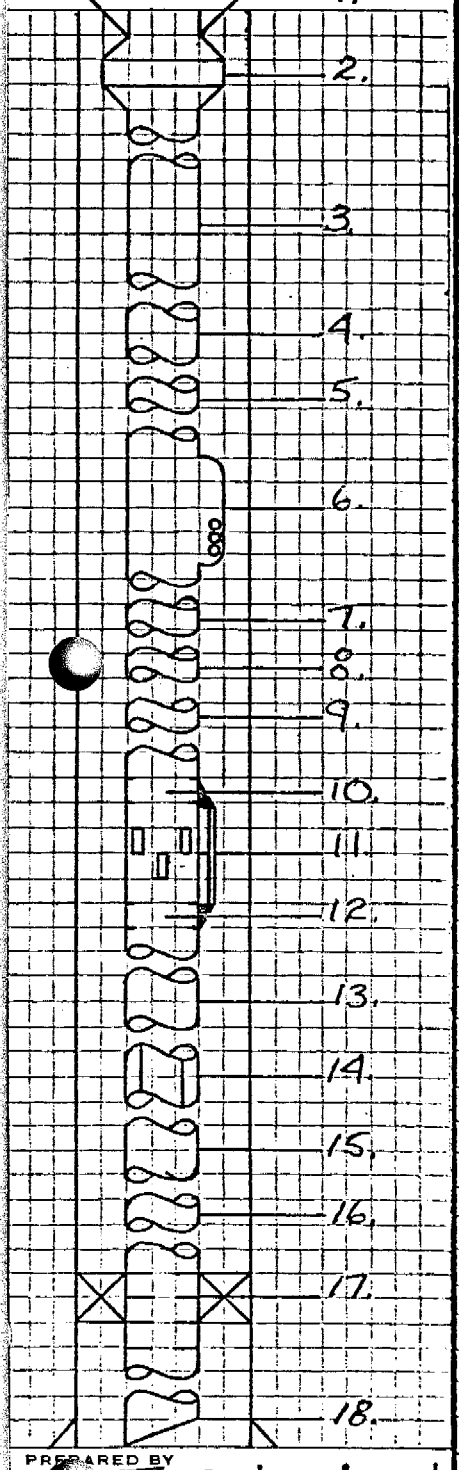
DATE: February 21, 1979

☐ NEW COMPLETION ☐ WORKOVER

☐ DISPOSAL ☒ INSTALLATION
☐ QUOTATION

RAN BY
☒ CAMCO ☐ CUSTOMER SPECIALIST

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



ITEM NO.	TUBING DETAILS	LENGTH	DEPTH
1	Kelly Bushing	6.35	6.35
2	Tubing Hanger	.50	6.85
3	6 Jts. 2 7/8" 8rd EUE N-80 tubing	183.68	190.53
4	265 Jts. 2 7/8" 8rd EUE J-55 tubing	8202.59	8393.12
5	Pup Jt. 2 7/8" 8rd EUE N-80	4.00	8397.12
6	Camco MMG mandrel with DCRT valve	8.43	8405.55
7	Pup Jt. 2 7/8" 8rd EUE N-80	.67	8406.22
8	1 Jt. 2 7/8" 8rd EUE tubing	31.40	8437.62
9	Pup Jt, 2 7/8" 8rd EUE N-80	2.15	8439.77
10	Camco "DS-1" nipple (empty)		
11	Camco "SC-1" safety system	15.27	8455.04
12	Camco "WP-1" nipple (empty)		
13	Camco 20' blast jt.	19.77	8474.81
14	Camco "D" no go nipple 3.000" O.D., 2.205" I.D.	1.17	8475.98
15	Camco 10' blast jt.	9.67	8485.65
16	Baker Latch-in locator	1.10	8486.75
17	Bkaer Seal Assembly	4.20	8490.95
18	Baker Production tube	5.26	8496.21

- NOTES -

Baker packer set at 8,486+ wireline measurment
Tubing weight 49,000# landed with 10,000# on packer.
Pulled 20,000# over tubing weight to check latch

PREPARED BY: Jeff Shepherd

COMMENTS:

MPF-1

AC_CPUC_0000084

FORM 103 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 Aliso Canyon

Well No. Standard-Sesnon #25, Sec. 28, T. 3N, R. 16W, S. B. B. & M.

Date July 29, 1976 Signed P. S. MAGRUDER, Jr.

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

(213) 689-3561

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

Date	
6-25-76	Killed well with 350 barrels of 72#/cu. ft. IMC brine-polymer drilling fluid.
6-28-76	Moved in rig and equipment from WEZU #30 to Standard Sesnon #25. CPS #D-1 installed back pressure valve in doughnut.
6-29-76	Installed 8" 5000 psi B.O.P.E. - Tested complete shut off rams to 4000 psi for 20 minutes with water. Also tested 2 7/8" pipe rams. Hydril bag tested at 3000 psi for 20 minutes. Tested Hydril to 3000 psi with nitrogen.
6-30-76	Tested complete shut-off rams to 4000 psi with nitrogen for 20 minutes. Pressure tested 2 7/8" tubing rams to 4000 psi for 20 minutes. Pressure tested manifold to 4000 psi for 20 minutes.
7-1-76	Laid down hydrostatic packer, five gas lift valves, No-Go nipple, and Baker valve. Tripped in hole with 4 5/8" bit and 5 1/2" 17# casing scraper. Measured tubing in hole. Cleaned out 5 1/2" liner from 8559' to 8748'. Circulated hole clean.
7-2-76	Ran in with Baker Retrieva-"D" packer on wireline which stopped at 8333'. Ran in hole with 6" mill and 7" 29# casing scraper. Circulated hole clean.
7-3-76	Re-ran Baker packer which stopped at 8338'. Ran in with 6" mill and cleaned out to top of liner at 8359'. Circulated hole clean.
7-4-76	Rig idle.
7-5-76 (Holiday)	Rig idle.
7-6-76	Set Baker Retrieva-"D" packer on wireline at 8480'.

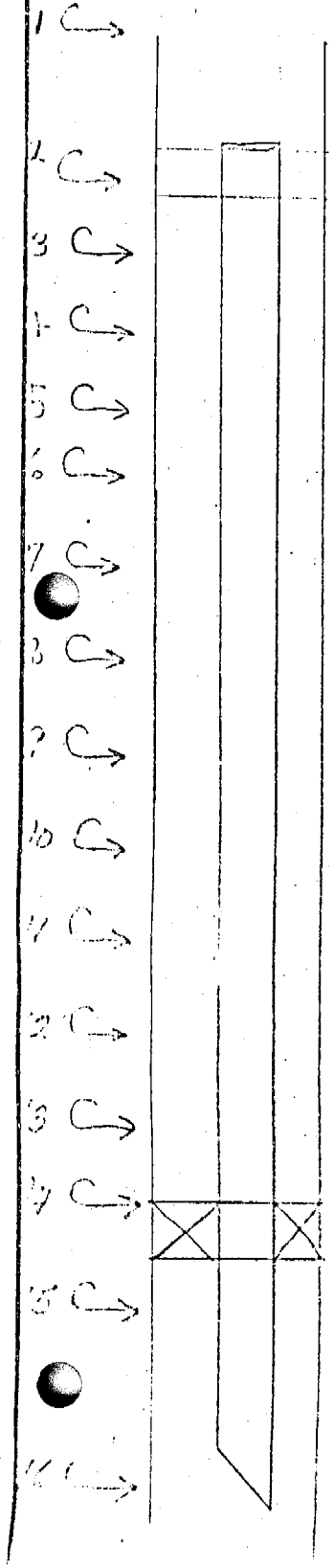
AC_CPUC_0000085

7-7-76 Ran in with 2 7/8" tubing. Removed collars, cleaned pins applying Baker seal and hydrotested tubing to 5000 psi for one minute test.

7-8-76 Landed tubing on packer with 10,000# - Pulled up 15,000# over weight of tubing to check latch. Installed back pressure valve in doughnut. Removed B.O.P.E. and installed Christmas tree. Pressure tested to 5,000 psi - O.K. Circulated drilling fluid out of well with waste lease salt water.

7-9-76 Set plug in No-Go nipple and pressure tested seals and packer to 2500 psi for 20 minutes - O.K. Released rig at 2:00 p.m.

WELL PROFILE



OPERATOR SO. CALIF. GAS COMPANY

WELL # STANDARD SESNON #25

FIELD ALISO CANYON

COUNTY LOS ANGELES

STATE CALIFORNIA

DATE JULY 30, 1976

☐ NEW COMPLETION ☐ WORKOVER

CASING	LINER	1	2	3
SIZE		ORIGINAL KELLY BUSHING		
WEIGHT		GROUND - 6.35		
GRADE				
THREAD				
DEPTH				

ITEM NO.	TUBING DETAIL	LENGTH	DEPTH
1	Tubing landed below Kelly Bushing	7.09	7.09
2	Doughnut Gulfco - Plug Right Hand Thread	1.00	8.09
3	Three 8' Pups 2 7/8", N-80, 6.5# Tubing	24.00	32.09
4	6 Joints 2 7/8", N-80, 6.5# Tubing	287.81	319.90
5	266 Joints 2 7/8", J-55, 6.5# Tubing	8101.75	8335.25
6	Pup Joint, J-55, 6.5# EU 8 Round	4.02	8339.27
7	MMG Mandrel (Empty)	8.44	8347.71
8	Pup Joint, J-55, 6.5#, EU 8 Round	.65	8402.71
9	One Joint 2 7/8", 6.5#, J-55, EU 8 Round	31.06	8403.36
10	D.S. Nipple - 1/2" Hyd. Control Line-SC-1 Safety System	15.26	8434.42
11	Camco 20' Blast Joint	19.76	8449.68
12	Camco No-Go nipple 1.81 (I.D.)	.89	8469.44
13	Camco 10' Blast Joint	9.67	8470.33
14	Baker Retrieva-"D" Packer W/L Set	10.00	8480.33
15	Baker Seals	5.35	8485.35
16	Baker Production Tube	5.30	8490.65

COMMENTS:

#10 of above was run in place

#12 Plug Set in is CA2 Blanking Plug

#14 is Latch in with 15,000# up pull to check and set 10,000# in compression

AC_CPUC_0000087

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

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	
	114	121

DIVISION OF OIL AND GAS

In compliance with Section 3203, Division 3. Public Resources Code, notice is hereby given that it is our intention to rework well No. STANDARD-SESNON #25, API No. _____, Sec. 28, T. 3N, R. 16W, S.B. B. & M., Aliso Canyon Field, Los Angeles County.

The present condition of the well is as follows:

1. Total depth. 8749'

2. Complete casing record, including plugs and perforations:

11 3/4" cemented 990'

7" cemented 8585', seg 8583', WSO 8475'
perforated 8510'-8559'

189' 5 1/2" landed 8748' slotted 8592'-8748'

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

4. Present zone pressure 3000 New zone pressure -

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

or

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

The proposed work is as follows:

1. Move in rig and kill well. Install B.O.P.E. and pressure test.
2. Pull tubing. Clean out to 8748'.
3. 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
(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. 6/16/76
(Name) (Date)
Type of Organization P. S. Magruder, Jr. Corporation
(Corporation, Partnership, Individual, etc.)

OG107 (12-73-GSR1-15M)

AC_CPUC_0000088

FORM 103 SUBMIT IN DUPLICATE Δ OSP

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR Pacific Lighting Service Company FIELD Aliso Canyon

Well No. SFZU SS-25, Sec. 28, T. 3N, R. 16W, S.B. B. & M.

Date September 5, 19 73 Signed W S Magruder Jr

P. O. Box 54790, Terminal Annex
Los Angeles, California 90054 (213) 689-3561 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 1973	
5-24	Before moving in California Production Service rig, pumped 50 bbls. of oil heated to 250° into tubing to dewax the well. Rigged up and using McCullough, shot four 3/8" holes in tubing at 8485' with deflecting bullets. Pumped in one 60 bbl. batch of high gel polymer drilling fluid and obtained circulation with 400 bbls. of drilling fluid.
5-25	Circulated out gas and oil from well and bled off trap pressure. Removed X-mas tree and installed B.O.P., including hydril, complete shut-off and tubing rams. Pulled tubing and packer. Ran in hole with 4-5/8" bit and casing scraper.
5-26	Ran 4-5/8" bit and casing scraper and cleaned out bridges 8723'-8748', circulated hole clean recovering carbonate material from drilling fluid. Pulled out of hole and ran Dresser Atlas cement bond log and recorded 8737'-6950'. Ran neutron life-time log and recorded 8742'-8000'.
5-27	Idle.
5-28	Ran Dresser Atlas acoustilog and recorded 8560'-8000'. Ran densilog and recorded 8560'-8000'. Ran 6" bit and casing scraper and cleaned out to 8559'.
5-29	Ran Baker retrievable retainer and using Halliburton cementing truck pressure tested 7" casing as follows:

8525'-surface	1500 psi for 23 minutes
6000'-surface	2000 psi for 25 minutes
4500'-surface	2400 psi for 25 minutes
3000'-surface	2800 psi for 27 minutes
2000'-surface	3100 psi for 25 minutes
1000'-surface	3400 psi for 33 minutes

Using Dresser Atlas 4" Golden Jet gun, shot four 1/2" jet holes from 8542'-8538'. Ran Baker bridge plug and set at 8550'.

AC_CPUC_0000089

1973

5-30 Ran Halliburton tester and set packer at 8471' with tail to 8487'. Opened tool at 11:45 A.M. with strong blow and gas to surface in 3 minutes, shut in and turned to trap at 11:53 A.M. Flowed gas at approximate rate of 4 MM cu. ft. per day for 33 minutes. Shut in for 65 minutes to take initial shut in pressure. Re-opened tool at 1:30 P.M. and flowed for 60 minutes through 1/4" surface choke and 5/8" choke in tester at rate of 1.7 MM cu. ft. per day with surface pressure of 1150 psi. Flowed from 2:30 P.M. until 4:00 P.M. through 1/2" surface choke at rate of 4.2 MM cu. ft. per day with surface pressure of 750 psi. Flowed 4:00 P.M. to 7:00 P.M. through 1" surface choke at rate of 4.5 MM cu. ft. per day with surface pressure of 575 psi. Shut in tester at 7:00 P.M. for final static pressure.

5-31 Bled pressure down to 225 psi (trap back pressure). Pulled tester at 8:45 A.M. for final shut in of 11 hours and 45 minutes. Opened backscuttle valve and circulated drilling fluid to pump gas to trap. Pulled out of hole and recovered drilling fluid in bottom 120' of 2-7/8" tubing below backscuttle valve. Recovered no sand in tubing or in tester.

PRESSURE RECORDER DATA:

Hydrostatic	3722 psi
Initial Flow	1338 psi
Initial Shut-in	1461 psi
Initial Flow 1/4"	1442 psi
Flow 1/2" Choke	1386 psi
Flow 1" Choke	1373 psi
Final Shut-in	1459 psi

Ran in with latching tool and found no sand on Baker bridge plug at 8550'. Backscuttled and recovered no sand. Pulled bridge plug to 4975' and reset same.

6-1 Removed casing spool. Removed rings and rubber packing from casing head. Filled 7" x 11-3/4" annulus with 50 bbls. of mud. Using jack hammers, dug concrete out of cellar for 20". Rigged up casing jack and spear and unlanded 7" casing with 196,000 lb. pull. Removed slips. Welder cut off conductor and 11-3/4" surface casing. Leveled and tack welded new casing head on 11-3/4" casing.

6-2 Completed welding casing head and checked weld with Gamma ray. Rigged up casing jacks and spear. Pulled 196,000 lbs. on 7" casing and landed on slips in casing head and installed packing. Cut off 4-1/2" of 7" casing and rebeveled top of casing. Tested casing head packing and secondary flange pack-off, both to 2800 psi for 30 minutes. Reinstalled B.O.P. Started in well with tool to retrieve bridge plug.

6-3 Idle.

6-4 Recovered bridge plug from 4975' and found no sand on bridge plug. Using Dresser Atlas 4" Golden Jet gun, shot four 1/2" holes per foot 8559'-8542' and 8538'-8510'. Ran wire brush perforation cleaner and found 13' of fill circulated and worked brush from 8736'-8592'. Pulled out of well.

AC_CPUC_0000090

1973

6-5 Ran 2-7/8" tubing, including packer, nipple, sliding sleeve and five gas lift mandrels (details attached). Hydrotested tubing to 5000 psi and found no leaks. Landed tubing on doughnut with bottom of tubing at 8492'. Using Hydrotest, pumped down tubing but obtained circulation. Pulled and reran bottom gas lift valve with piano wire unit. Using rig pump, set packer but apparently could not shear ball seat.

6-6 Pumped water down tubing with hot oil truck and found seat had been sheared with rig pump. Using piano wire unit, shifted sleeve at 8390' to open position. Removed B.O.P., installed new X-mas tree and tested doughnut and tree to 3500 psi, each for 20 minutes. Circulated drilling fluid out of hole with lease water. Displaced water to top gas lift valve with nitrogen. Blew well down to zero pressure and shut-in. Moved out rig.

TUBING DETAILS

Derrick floor to top of tubing	0'-8.35'
160 jts. 2-7/8" 8rd., EUE, J-55	8.35'-4983'
KBMG mandrel w/BK valve 1050 psi	4983'-4995'
30 jts. 2-7/8" tubing	4995'-5914'
KBMG mandrel w/BK valve 1025 psi	5914'-5925'
28 jts. 2-7/8" tubing	5925'-6784'
KBMG mandrel w/BK valve 1000 psi	6784'-6795'
26 jts. 2-7/8" tubing	6795'-7589'
KBMG mandrel w/BK valve 975 psi	7589'-7600'
23 jts. 2-7/8" tubing	7600'-8314'
KBMG mandrel w/BK valve 950 psi	8314'-8325'
2 jts. 2-7/8" tubing	8325'-8387'
Baker model "L" sliding sleeve (open)	8387'-8390'
1 jt. 2-7/8" tubing	8390'-8421'
Baker "F" nipple	8421'-8422'
1 jt. 2-7/8" tubing	8422'-8453'
Baker FH hydrostatic packer	8453'-8460'
1 jt. 2-7/8" tubing	8460'-8491'
Baker ball seat & chamfered collar	8491'-8492'

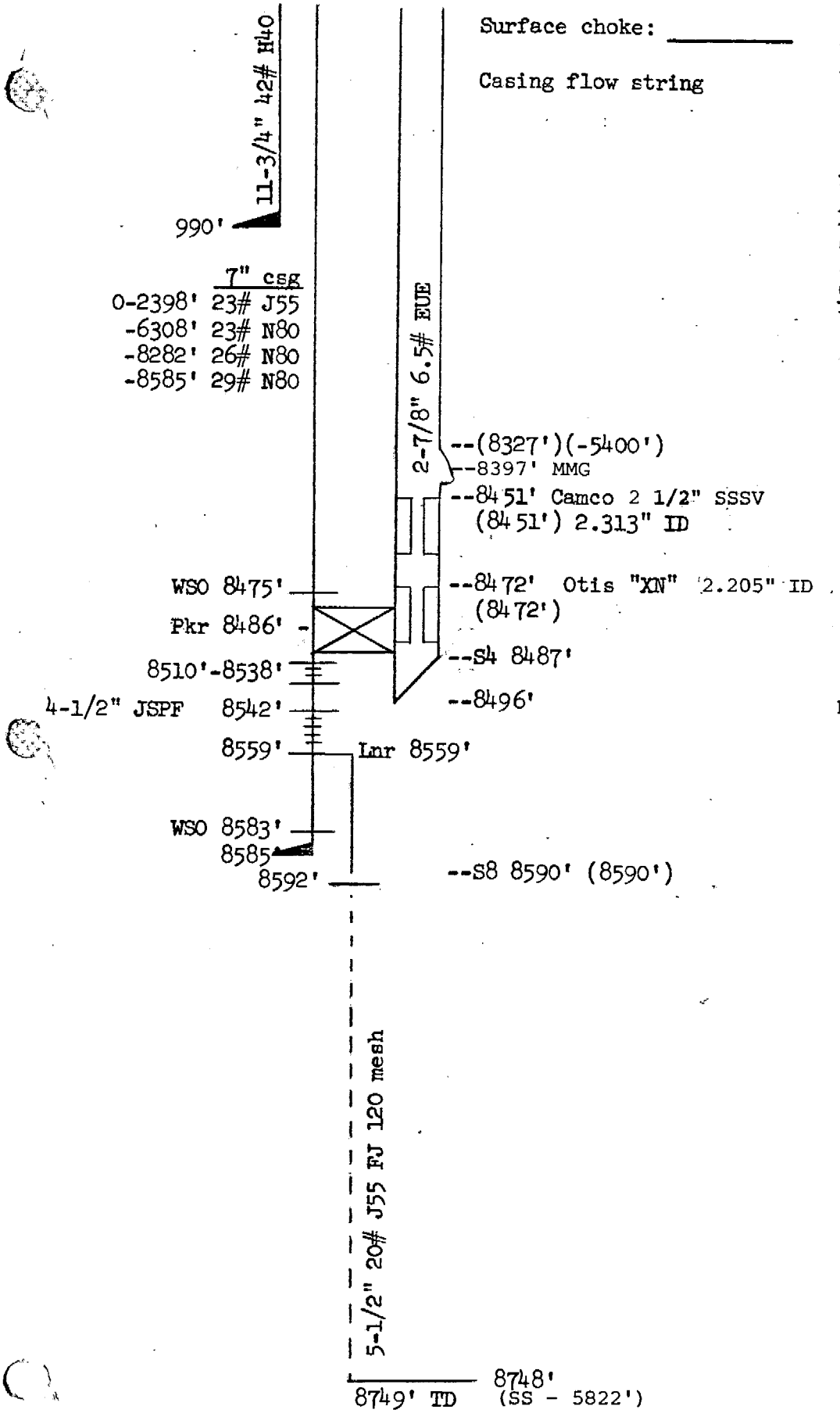
Standard Sesnon 25 Aliso Cyn.
Well History File

SMEAD
No. PC502-5A-2D-BE
UPC 19081
smead.com • Made in USA



Elevation: [illegible]27"
DF: 6'

S[illegible]dard Sesnon 25



Surface choke: _____

Casing flow string

10/1/53 - Well spud
2/25/54 - Well completed 893' of 4-1/2" drill pipe + Johnston tester side tracked - old TD 4948' plugged back 3860'
5/24/73 - 6/6/73 Cleaned out to 8748', pressure tested csg, perforated for conversion to gas storage, ran tbg with gas lift valves
6/25/76 - 7/9/76 Cleaned out to 8748', ran tbg with SSSV
2/16/79-2/20/79 Replaced safety system

NOTE: Unable to use lower nipple - use M-lock for SSSV nipple. See wire-line tickets.

WELL VOLUME

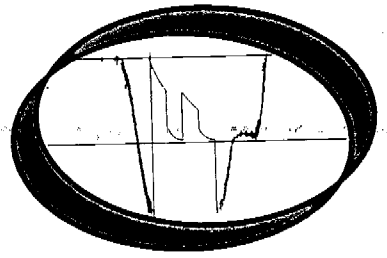
	Cu.Ft.	Bbl.
Tubing	276	49
Csg/Lnr.	37	7
Annulus	1469	262

6/12/84

AC_CPUC_0000093

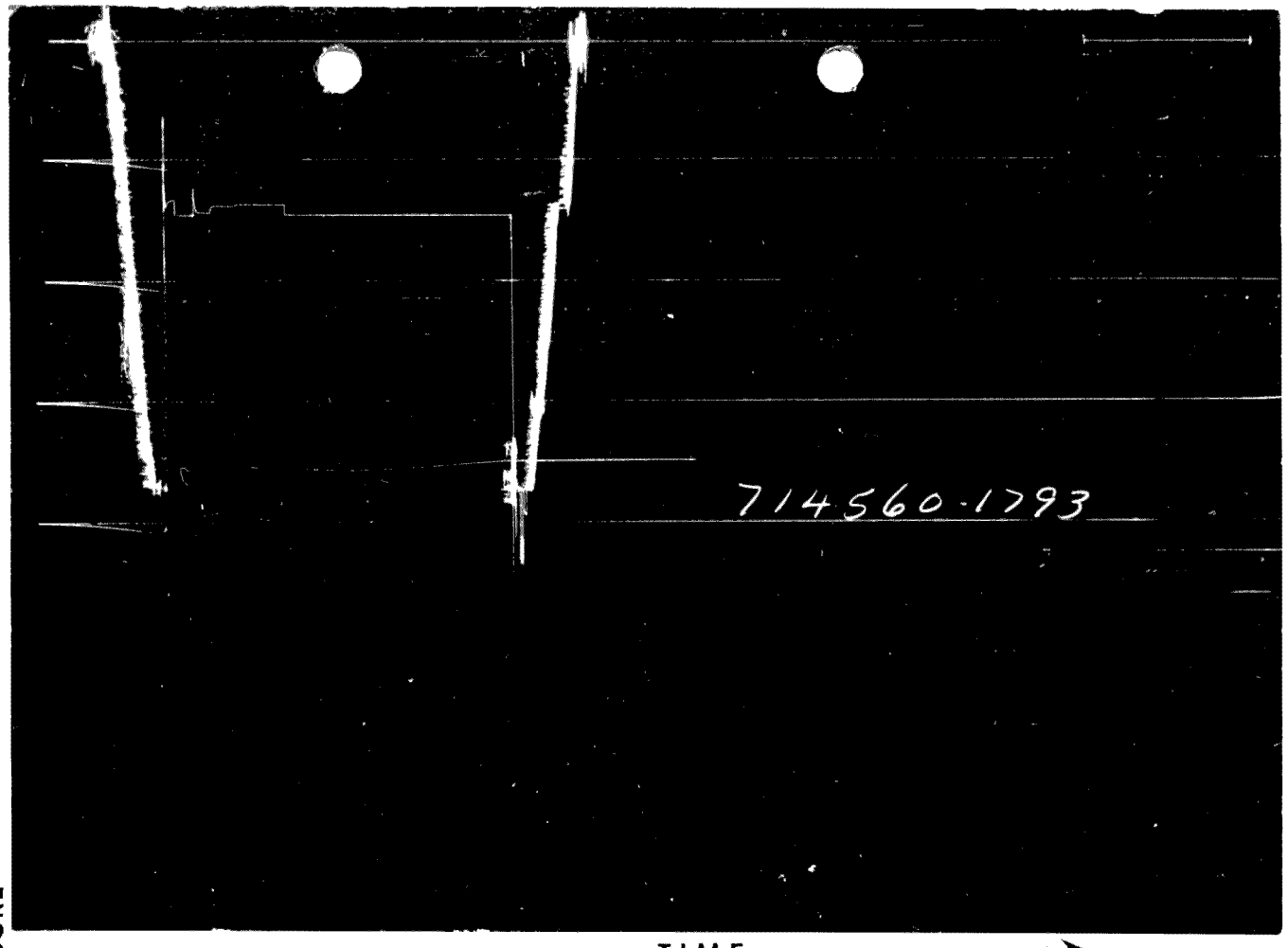
Formation Testing Service Report

Lease Name	STANDARD SESNON
Well No.	25
Test No.	1
Tested Interval	8471'-8550'
Lease Owner/Company Name	SOUTHERN CALIFORNIA GAS COMPANY



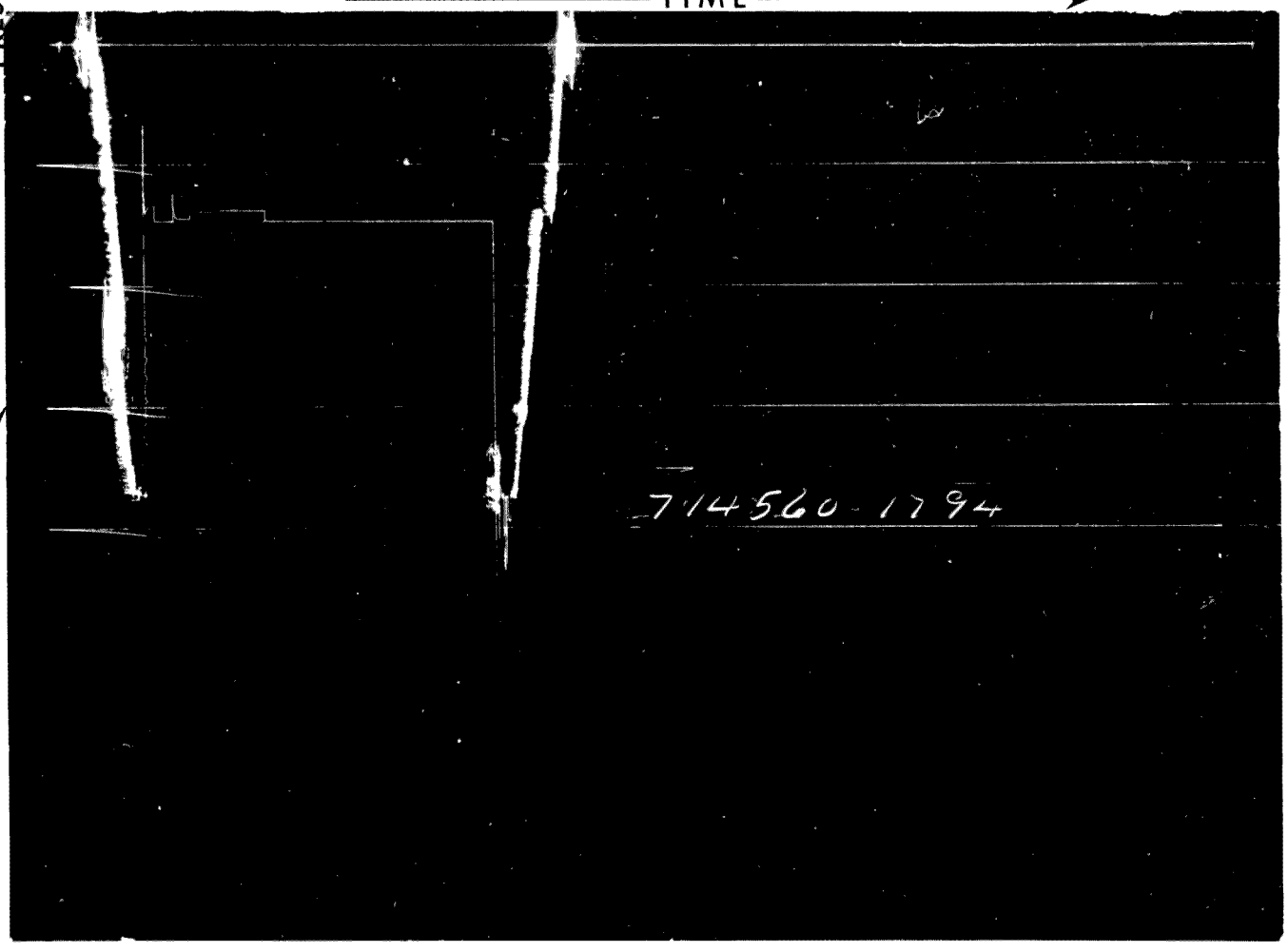
HALLIBURTON SERVICES
DUNCAN, OKLAHOMA

AC_CPUC_0000094



PRESSURE

TIME



Each Horizontal Line Equal to 1000 p.s.i.

Sample
Recove
Gravit
Gas/O
Recove
Recove
Recove
Mud F
Mud F
Mud V
Cushio
Recov
Recov
Recov
Recov
Recov
Rema
1"
min
cho
wel
TEM
Est.
Actua
Initial
Final Period
Second Period
Third Period
Final
PRINTED

FLUID SAMPLE DATA

Sampler Pressure _____ P.S.I.G. at Surface
Recovery: Cu. Ft. Gas _____
cc. Oil _____
cc. Water _____
cc. Mud _____
Tot. Liquid cc. _____
Gravity _____ ° API @ _____ °F.
Gas/Oil Ratio _____ cu. ft./bbl.

	RESISTIVITY		CHLORIDE CONTENT
Recovery Water	____ @ ____	°F.	____ ppm
Recovery Mud	____ @ ____	°F.	
Recovery Mud Filtrate	____ @ ____	°F.	____ ppm
Mud Pit Sample	____ @ ____	°F.	
Mud Pit Sample Filtrate	____ @ ____	°F.	____ ppm
Mud Weight	____	vis ____	cp

Date 5-31-73 Ticket Number 741560
Kind of Job HOOK WALL Halliburton District SANTA FE SPRING
Tester MR. PRUITT Witness MR. ABRAHAMSON
Drilling Contractor CALIFORNIA PRODUCTION SERVICE. DR S

EQUIPMENT & HOLE DATA

Formation Tested	-
Elevation	- Ft.
Net Productive Interval	8542'-8538' Ft.
All Depths Measured From	9' Above Mat.
Total Depth	8550' Bridge Plug Ft.
Main Hole/Casing Size	7" 23-26#-29#
Drill Collar Length	" I.D. -
Drill Pipe Length	8547' I.D. 2.441"
Packer Depth(s)	8471' Ft.
Depth Tester Valve	8430' Ft.

Cushion TYPE AMOUNT Ft. Depth Back Pres. Valve Surface Choke Adj. choke Bottom Choke 5/8"

Recovered Feet of
Recovered Feet of
Recovered Feet of
Recovered Feet of
Recovered Feet of

Remarks Opened tool for 40 minute first flow, had a strong blow with 550 PSI through 1" choke. Closed tool for 66 minute first closed in pressure. Reopened tool for 333 minute second flow on 1/4" choke, had 1150 PSI. After 1 hour changed choke to 1/2" choke, had 750 PSI-left on choke 1 hour and changed surface choke to 1", had 575 PSI well making 4.5 MCF/D. Closed tool for 826 minute second closed in pressure.

TEMPERATURE	Gauge No. 1793 Depth: 8480 Ft.		Gauge No. 1794 Depth: 8484 Ft.		Gauge No. Depth: Ft.		TIME
	12 Hour Clock		12 Hour Clock		Hour Clock		Tool Opened 5-30-73 A.M. 11:40 P.M.
Est. 185 °F.	Blanked Off No		Blanked Off Yes		Blanked Off		Tool Closed 5-31-73 A.M. 08:45 P.M.
Actual °F.	Pressures		Pressures		Pressures		
	Field	Office	Field	Office	Field	Office	Reported Minutes / Computed Minutes
Initial Hydrostatic	3703	3722	3757	3724			
First Period Flow Initial	1359	635	1402	667			—— / ——
First Period Flow Final	1317	1338	1360	1342			45 / 40
First Period Closed in	1462	1461	1475	1465			65 / 66
Second Period Flow Initial	1421	1234	1443	1240			—— / ——
Second Period Flow Final	1359	1373	1366	1375			330 / 333
Second Period Closed in	1441	1459	1443	1465			825 / 826
Third Period Flow Initial							—— / ——
Third Period Flow Final							
Third Period Closed in							
Final Hydrostatic	3703	3722	3757	3724			—— / ——

Legal Location Sec. - Twp. - Rng.
Lease Name: STANDARD SESNON
Well No.: 25
Test No.: 1
Tested Interval: 8471'-8550'
Field Area: ALISO CANYON
Mea. From Tester Valve
County: LOS ANGELES
State: CALIFORNIA
Lease Owner/Company Name: SOUTHERN CALIFORNIA GAS COMPANY

Gauge No.	1793	Depth	8480'	Clock No.	7911	72 hour	Ticket No.	714560

	First Flow Period		First Closed In Pressure			Second Flow Period		Second Closed In Pressure			Third Flow Period		Third Closed In Pressure		
	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.
0	.000	635	.000		1338	.000	1234	.000		1373					
1	.0125	1371	.076		1461	.0643	1442*	.915		1459					
2	.0250	1342				(.067	1442C								
3	.0375	1338				.1252	1386								
4	.0450	1338				(.167	1386C								
5						.1861	1371								
6						.2470	1373								
7						.3079	1373								
8						.3690	1373								
9															
10															
11															
12															
13															
14															
15															

Gauge No.	1794		Depth	8484'		Clock No.	7373	72 hour				
0	.000	667	.000		1342	.000	1240	.000		1375					
1	.011	1374	.074		1465	.0646	1446*	.920		1465					
2	.022	1346				(.067	1446C								
3	.033	1342				.1259	1390								
4	.044	1342				(.170	1390C								
5						.1872	1375								
6						.2485	1375								
7						.3098	1375								
8						.3710	1375								
9															
10															
11															
12															
13															
14															
15															
Reading Interval	10					55									Minutes

REMARKS: C-Choke Change * First interval equal to 58 minutes

PRINTED IN U.S.A.

SPECIAL PRESSURE DATA

LITTLE'S

AC_CPUC_0000097

741560



	O. D.	I. D.	LENGTH	DEPTH
Reversing Sub	3 7/8"	1.75"	2.50'	
Water Cushion Valve				
Drill Pipe	2 7/8"	2.441"	8547'	
Drill Collars				
Handling Sub & Choke Assembly	2½"	2"	5'	
Dual CIP Valve				
Dual CIP Sampler				
Hydro-Spring Tester	3 7/8"	5/8"	5'	8430'
Multiple CIP Sampler				
Extension Joint 2	3 7/8"	7/8"		
AP Running Case				
Hydraulic Jar	3 7/8"	1.25"	5'	
VR Sofety Joint	3 7/8"	3/4"	2.50'	
Pressure Equalizing Crossover				
Packer Assembly	5 3/4"	2 3/8"	3'	8471'
Distributor				
Packer Assembly				
Flush Joint Anchor	2.50"	2"	5'	
Pressure Equalizing Tube				
~~Blanked-Off~~ B.T. Running Case Inside	3 7/8"	3"	4'	8480'
Drill Collars				
Anchor Pipe Safety Joint				
Packer Assembly				
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars				
Flush Joint Anchor				
Blanked-Off B.T. Running Case	3 7/8"	3"	4'	8484'

PRINTED IN U.S.A.

EQUIPMENT DATA

LITTLE'S

4

AC_CPUC_0000098

NOMENCLATURE

b	= Approximate Radius of Investigation	Feet
b_1	= Approximate Radius of Investigation (Net Pay Zone h_1)	Feet
D.R.	= Damage Ratio	——
El	= Elevation	Feet
GD	= B.T. Gauge Depth (From Surface Reference)	Feet
h	= Interval Tested	Feet
h_1	= Net Pay Thickness	Feet
K	= Permeability	md
K_1	= Permeability (From Net Pay Zone h_1)	md
m	= Slope Extrapolated Pressure Plot (Psi^2/cycle Gas)	psi/cycle
OF_1	= Maximum Indicated Flow Rate	MCF/D
OF_2	= Minimum Indicated Flow Rate	MCF/D
OF_3	= Theoretical Open Flow Potential with/Damage Removed Max.	MCF/D
OF_4	= Theoretical Open Flow Potential with/Damage Removed Min.	MCF/D
P_s	= Extrapolated Static Pressure	Psig.
P_f	= Final Flow Pressure	Psig.
P_{ot}	= Potentiometric Surface (Fresh Water *)	Feet
Q	= Average Adjusted Production Rate During Test	bbls/day
Q_1	= Theoretical Production w/Damage Removed	bbls/day
Q_g	= Measured Gas Production Rate	MCF/D
R	= Corrected Recovery	bbls
r_w	= Radius of Well Bore	Feet
t	= Flow Time	Minutes
t_o	= Total Flow Time	Minutes
T	= Temperature Rankine	°R
Z	= Compressibility Factor	——
μ	= Viscosity Gas or Liquid	CP
Log	= Common Log	

* Potentiometric Surface Reference to Rotary Table When Elevation Not Given, Fresh Water Corrected to 100° F.

AC_CPUC_0000099

SS25 Well Pressures

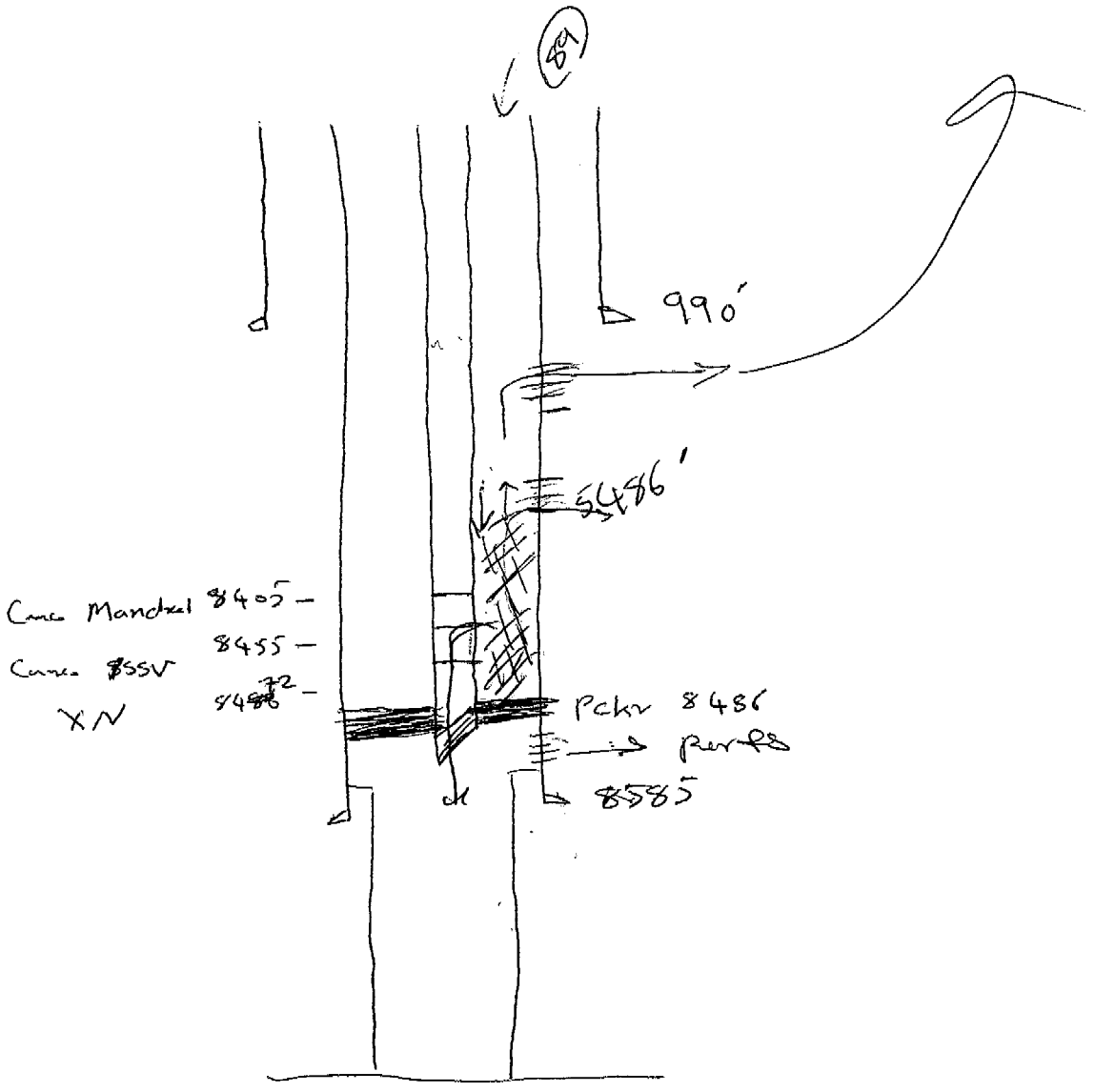
Ref #	Date	Time	Casing Pressure	Tubing Pressure	Surface Csg	Events	Notes
1	Normal Operation		2700	2700	Should be Zero	Well normally operates on casing injection and casing WD. It may be operated on dual flow	Well on injection - heard noise in wellhead
2	Friday, October 23, 2015	4:00 PM	270	1700	140	Ops noticed leaking Annulus fitting on well. They responded by closing 2 inch surface annulus valve and noticed 140 psi on gauge	When Ops closed injection header valve, the WKM SSV on casing closed almost immediately by low pressure pilot (setpoint is 270-300 psi). It was at that time Ops noticed sound of gas flow in wellhead.
3	Friday, October 23, 2015	4:10 PM	270	1700	140	Well shut-in by Ops	We initially suspected an up/down wellhead seal leak between the 7 inch casing and he 11-3/4 surface casing - Called Cameron
	Saturday, October 24, 2015	6:00 AM	270	1700	140	Cameron began repairing wellhead seals	Cameron initially tested both seals to 1200 psi, both bled down to 600. They then pumped 14 tubes of plastic into primary seal cavity.
4	Saturday, October 24, 2015	12:27 PM	290	1700	140	Haliburton circulating down tubing	Pumped 11.8 barrels of 10# polymer brine. Pressure on tubing rose to 3500. Shut down. 7 inch casing pressure remained at 290. Surface casing remained at 140. Monitored tubing pressure for 20 minutes. Tubing pressure bled to 2700.
	Saturday, October 24, 2015	2:00 PM	290	2700		Decided to pump and bleed down 7 inch casing to fill casing using 8.6# lease water.	
	Saturday, October 24, 2015	1:20 PM				Shut in tubing with 2700 psi on it	
	Saturday, October 24, 2015	1:30 PM		50		Put the well on Tubing flow to frac tank for few mintues and bled tubing down to 50 psi	
5	Saturday, October 24, 2015	2:07 PM	290	50	140	Haliburton began pumping 8.6 lb lease water down 7 inch casing	Started pumping 8.6# lease waster at a rate of 1.5 b/m. At 20 barrels increased rate to 2.5 b/m , at 33 barrels increase to 3.5 b/m, Began monitoring location for gas. Inspected the wellhead, noticed the noise and vibraton had subsided. Continuted pumped. At 89 barrels gas broke through surface at location and surrounding location. Continuted Monitoring
	Saturday, October 24, 2015	2:30 AM	400			When we shut down after 89 barrels and gas came to surface and we shut down, 7 inch casing pressure increased to 400 psi	
6	Saturday, October 24, 2015						
7	Saturday, October 24, 2015	5:00 PM	306	177			
8	Saturday, October 24, 2015	5:23 PM	307	200			
9	Saturday, October 24, 2015	5:30 PM	309	210			
	Saturday, October 24, 2015	5:40 PM	310	218			
	Saturday, October 24, 2015	5:50 PM	311	226			
	Saturday, October 24, 2015	6:00 PM	312	232			
	Saturday, October 24, 2015	6:10 PM	314	239			
	Saturday, October 24, 2015	6:30 PM	316	251			
	Saturday, October 24, 2015	7:00 PM	318	262			
	Saturday, October 24, 2015	7:30 PM	322	274			
	Sunday, October 25, 2015	8:45 AM	377	616	450		

3:00 401 674 459

4-10 Bbls to tbg

11.8

1:50


990'
5486'
Cmco Mandrel 8405
8455
Cmco SSSV
XN
8472
Pckr 8486
Perfs
8585

Report Date: 08/20/97

DAILY WELL ACTIVITIES SS 25

DATE	ACTIVITY/REMARKS
11/07/91	Ran noise log, almost no noise greater than 2 mV, spike @ 7450', OK (Inv-56.478 BCF)
01/08/92	Sandtest: SIWHP - 1880, FWHP - 1370, FWHT - 95, SC - 1.200, ER - 2.6, Q - 47, Inv - 38.1
04/30/92	Ran temperature survey, cooling break near M-P, similar to 1991 surveys, monitor, PU - 8698' (Inv - 12.8 BCF)
08/04/92	Ran temperature survey, subtle cooling between 7000'-7500', temp. break near 8200', monitor, PU - 8697' (Inv - 43.771 BCF)
09/16/93	Ran temperature survey, temp break near; 1991 noise log was quiet, temp survey similar, OK.
01/25/94	Ran temperature survey, OK
03/07/95	Ran bottom hole pressure survey, TbgP 1590#; CsgP 1590# Inv. 25.2
10/12/95	Ran temperature survey, OK, TbgP 2560; CsgP 2560; Inv. 61.5 Bcf.
12/12/95	Sandtest: SIWHP 2520, FWHP 2350, FWHT 102, SC 1.00, Q 40 MMcf/d. Inv. 66.5 Bcf.
12/26/95	Sandtest: SIWHP 1980, FWHP 1750, FWHT 97, SC 1.00, ER 4.0, Q 40 MMcf/d. Inv. 56 Bcf.
01/20/96	Sandtest: SIWHP 1320, FWHP 1185, FWHT 103, SC 1.00, ER 2.8%, Q 30 MMcf/d. Inv. 43.3 Bcf.
01/30/96	Sandtest: SIWHP 1320, FWHP 1185, FWHT 103, SC 1.00, ER 2.8%, Q 30 MMcf/d. Inv. 31.5 Bcf.
02/02/96	Removed 1.00 Merla choke, installed 1.20 Merla choke, back in service. Inv. 28.2 Bcf.
03/06/96	Ran sampler and tagged bottom @ 8660', Tbg/CsgP 1300#, Inv, 19.6 Bcf.
03/08/96	Assisted Santa Paula wireline in bailing out sand, bottom @ 8749'. Tbg/CsgP 1300#; Inv. 19.6 Bcf.
03/11/96	Assisted Santa Paula wireine in bailing out sand. Got to bottom 8749' without any more sand. Tbg./CsgP 1300# Inv. 20.2 Bcf.
09/24/96	Ran temperature survey, OK, TbgP 1580#; CsgP 1580#; P/U 8700'. Inv. 27.8 Bcf.
02/05/97	Removed 1.20" Merla casing choke, installed Open choke, back in service.
02/17/97	Removed 1.20" Open Merla casing choke, installed Open Merla casing choke, back in service.
05/12/97	Removed Open Merla casing choke, installed 1.20" choke, back in service.
07/21/97	Removed 1.20" casing Merla choke, installed 1.00" choke. Back in service.
12/20/97	Removed 1.00" casing choke, installed 1.20" Merla casing choke, back in service.

Report Date: 02/26/93

DAILY WELL ACTIVITIES SS 25

DATE	ACTIVITY/REMARKS
11/13/86	Set blanking plug because of rig work on IW 77
12/10/86	Attempted to pull blanking plug
12/11/86	Pulled blanking plug
12/15/86	Sand tested: SC Open, SIWHP 1520, ER 0.9%, Q 37 MMcf/d
03/19/87	Ran temperature survey, anomaly above S-1 similar to temp ran w/quiet noise log 4/84.
08/24/87	Ran temperature survey, OK
03/03/88	Ran temperature survey, anomaly above shoe similar to temp run w/quiet noise log 4/11/84, will monitor.
04/22/88	Ran pressure survey, FL 8430', P @ S-4 (8475') 2016 psi
10/18/88	Ran temperature survey, anomaly above shoe, plan detail
11/09/88	Ran detail (7500'-8650') temperature survey, OK
01/09/89	Sand tested: SIWHP 1475, FWHP 842, FWHT 88, SC 1.25", ER 1.1%, Q 31 MMcf/d. Well casing lateral X-ray, OK.
01/12/89	Removed 1.25" choke, installed 1.50" choke. Sand tested SIWHP 1400, FWHP 655, FWHT 76, SC 1.50", ER 0.9%, Q 22 MMcf/d
01/17/89	Removed 1.50" choke, installed Open choke. Sand tested SIWHP 1320, FWHP 480, FWHT 81, SC Open, ER 1.6%, Q 25 MMcf/d
04/06/89	Ran temperature survey, anomaly above shoe similar to temp on quiet noise log 4/11/84, will monitor.
04/07/89	Removed Open choke, installed 1.25 choke
09/06/89	Ran temperature survey, temperature breaks above S-1 similar to 4-11-84 noise log, will monitor
12/18/89	Sand test: SIWHP 1610, FWHP 1170, FWHT 97, SC 1.25, ER 2.4%, Q 47 MMcf/d
01/03/90	Removed 1.25 choke, installed 1.35 choke
01/04/90	Sand test: SIWHP 1560, FWHP 920, FWHT 95, SC 1.35, ER 2.1%, Q 36 MMcf/d
01/18/90	Removed 1.35 casing sc, installed 1.50 sc
01/19/90	Sand tested: SIWHP 1520, FWHP 770, FWHT 97, sc 1.50, ER 2.2%, Q 25 MMcf/d
02/08/90	Removed 1.50 casing choke, installed 1.75 choke
02/09/90	Sand tested: SIWHP 1560, FWHP 670, FWHT 93, SC 1.75, ER 2.6%, Q 34 MMcf/d
04/12/90	Ran temperature survey, same anomaly above shoe as seen in previous surveys, continue to monitor, PU - 8675'
09/20/90	Ran temperature survey, same as 4/12/90 survey, continue to monitor, PU - 8700'
02/07/91	Sand test: SIWHP 1690, FWHP 940, FWHT 98, SC 1.350, ER 2.1, Q 40 MMcf/d
04/23/91	Ran temperature survey, temp. gradient breaks @ 8250' OK, re-survey at high inventory, PU - 8700'
08/12/91	Ran temperature survey, straight line cooling from below S-1 to above M-P, PU - 8700', ran detail (8150'-8700'),saw repeat of straight-line cooling from 8150' 8550', plan N.L. (Inv - 60.3 BCF)

WELL ACTIVITY REPORTS FOR SS 25

DATE	ACTIVITY/REMARKS
2/23/83	A noise log was run to check the anomaly at the csg shoe. All four frequencies were quiet above the WSO. No further action recommended.
6/2/83	Ran temperature survey, no anomalies
10/28/83	Ran temperature survey, no anomalies
3/23/84	Ran temperature survey shows anomaly at shoe
4/2/84	Detail temperature shows large cooling at WSO @ 8475'
4/11/84	Noise log ran showed a small amount of gas movement above WSO @ 8475'. Rerun noise log at high inventory
7/18/84	Ran temperature survey which showed cooling at shoe from 8585' up to 8100'. A noise log will follow.
7/27/84	FLo-log ran temperature survey which showed cooling from top of perfs at 8510'-8100'. Noise showed possible gas movement from 8500'-8220'. A R/A survey will follow. Flo-log #285, #3,228.15
7/29/84	Flo-log ran capacitance log which showed fluid level at 8652'. A R/A tracer survey was then run by downhole injecting 100 mc of tracer at 8530' with the well shut-in. Small amount of gas movement was detected from 8510'-8190'. A recommendation is forthcoming. Flo-log #287, $4,707.64
1/31/85	Sand test: SC 1.30, SIWHP 1300 psi, Q 30 MMcf/d, ER 1.21%
2/26/85	Sand test: SC open, SIWHP 1340, ER 2.29%, Q 38 MMcf/d
4/2/85	Ran bottom-hole pressure survey
4/17/85	Ran bottom-hole pressure survey, pressure at datum (8333' TVD) 1546 psi, FL 8525' TVD
4/24/85	Ran temperature survey cooling above shoe less severe than previous survey. July 1984 noise log and tracer indicated small shoe leak. Will monitor at high inventory
7/16/85	Ran temperature survey, anomaly above shoe similar to, but breaks slightly higher than, surveys of past several years. Noise logs 7/84, 4/84, 2/83 and R/A 7/84 indicated no leakage above S-1, will monitor.
12/11/85	Sand testing: SC 1.25, SIWHP 1660, ER 2.1%, Q 38 MMcf/d
12/27/85	Changed choke to 1.35
1/2/86	Sand testing: SC 1.35, SIWHP 1920, ER 2.0%, Q 54 MMcf/d
1/14/86	Sand testing: SC 1.50, SIWHP 1780, ER 1.4%, Q 53 MMcf/d
3/5/86	Ran temperature survey, anomaly above shoe same as temp ran w/quiet noise log 7/27/84.
5/6/86	Ran BHP survey: FL 8460', Datum P 2259 psi, surface pressure not consistent w/deadweight.
8/13/86	Ran temperature survey, anomaly above shoe same as temp ran w/quiet noise log 7/27/84.

WELL ACTIVITY REPORTS FOR SS 25

DATE	ACTIVITY/REMARKS
4/2/81	Fred ran temperature surveys
9/18/81	Pruett pulled BHC. Cost $367.00
9/21/81	Harry ran temperature survey
9/24/81	Pruett ran BHC. Cost $199.00
10/15/81	Pulled BHC and set plug for IW69's rig. Cost $259.00
11/3/81	Pruett pulled plug. Cost $337.50. Tried to set BHC, unable to set
11/4/81	Pruett unable to set BHC
11/5/81	Pruett ran IB, rigged down to get broach for SSSV nipple
11/6/81	Pruett ran broach, still unable to see BHC. Cost $519.00
11/24/81	Triangle ran noise log. Cost $3614.40
11/30/81	Pruett ran BHC
1/8/82	Pruett pulled BHC
1/13/82	Sand testing
1/29/82	Sand testing
2/5/82	Sand testing
2/8/82	Sand testing
3/3/82	Sand testing
3/17/82	Sand testing
10/18/82	Temperature survey. Gradient shift at shoe. Run A/A

WELL ACTIVITY REPORTS FOR SS 25

DATE	ACTIVITY/REMARKS
1/9/80	Camco attempted to fish for tools. Rope swelled up with rain water and would not go thru pulleys. Shut down for day.
1/10/80	Camco fished all tools out of well OK. Set pack-off. Tested SSSV. S/I T 2500; C 2600. Bled tubing to 2000, held OK Bled tubing to 1020, held OK. Bled casing to 2000, valve closed and held OK. Pressure casing to 2500. Pressure tubing to 2460, valve opened OK. Requested instrument department install recording gauge on tubing. Will put well on withdrawal when gauge installed.
1/14/80	Inst. Dept. installed pressure recorder on tubing. Will have well put on withdrawal.
1/22/80	Camco attempted to pull SSSV. Could not latch. Ran in with spear. Slips on spear broke. Ran in with shear and latched onto valve. Unable to pull. Shut down for the night.
1/23/80	Camco pulled SSSV. Fishing neck was flaired out and cracked along side. It had come out of nipple and hit pack-off. Set another SSSV and pack-off. Tested valve. Test no good. Tubing pressure built up 50# in 30 seconds.
1/24/80	Camco pulled pack-off and SSSV. Ran another SSSV and pack-off Tested valve. Bled tubing from 2100 to 1750, pressure rose 50# in one minute. Will test again in morning.
1/25/80	Tested SSSV. Blew tubing pressure to atmosphere, pressure did not get below 350#. Not enough to close valve. Pulled pack-off and SSSV.
1/28/80	Camco ran SSSV and pack-off. Tested valve. Blew tubing down to 550. Open 2" stack, pressure would not go below 280. Bled casing from 2160 to 1900. Pressure rose 50#/min. Valve did not close. Pulled valve and pack-off. System apparently bad.
1/29/80	Archer-Reed ran 1.0 BHC.
2/5/80	Archer-Reed attempted to pull DCRT valve but could not stay latched onto valve. Will try again tomorrow with new pulling tool
2/6/80	Archer-Reed attempted to pull DCRT. Inner core of pulling tool was too long. Could not stay latched on valve. Re-built pulling tool. Will try tomorrow
2/7/80	Archer-Reed pulled DCRT valve. Valve was sheared. Ran another valve
2/11/80	Archer-Reed pulled 1.0 BHC, was not set. Re-ran choke but could not get through SSSV nipple. Pulled out. Re-ran choke and set OK. Tested well. Test no good. Pulled choke, ran scratcher, decided to replace BHC with surface choke.
2/22/80	Gurevich ran temperature survey
7/29/80	Gurevich ran temperature survey
10/20/80	Shut-in BHP survey
10/27/80	Pruett BHP survey
10/29/80	Archer-Reed attempted to set BHC 1.0 no results. Cost $214.00
10/30/80	Archer-Reed continued efforts to set choke, could not get Otis lock through Camco SSSV nipple. Ran broach, still no results. Suspended job. Cost $519.00
10/31/80	Archer-Reed set 1.0 BHC. Cost $196.50
11/3/80	Pruett BHP survey

WELL ACTIVITY REPORTS FOR SS 25

DATE	ACTIVITY/REMARKS
1/15/79	(Inst.) Replaced plug & seat in reg. in safety system
1/24/79	Flow test: 32.1 MM, SIWHP - 2050 psi
2/20/79	Rig removed safety system from well. The control line was gone, exchanged systems with Camco.
3/1/79	Unloaded well. Left S/I. S/I clean-up flow
	WKM valve repaired. Put well on tbg. clean-up flow thru .500 S/C
3/14/79	Ran BHP & temperature survey
3/22/79	Foster shot fluid level. FL 8652 SIWHP 1333
3/26/79	Foster shot fluid level. FL 8652 SIWHP 1370
3/28/79	Foster shot fluid level. FL 8637 SIWHP 1387
4/2/79	Foster shot fluid level. FL 8637 SIWHP 1401
4/4/79	Revised tubing detail; Foser shot fluid level. FL 8637 SIWHP 1415
4/11/79	Foster shot fluid level. FL 8637 SIWHP 1438
4/16/79	Foster shot fluid level. FL 8637 SIWHP 1454
8/3/79	Ran temperature survey, possible shoe leak. (Note: Talked to Bob Hazel today. Both IW 83 and SS 25 had noise logs after these temperature surveys. SS 25 did not show noise. MM 8/14/79)
8/8/79	Ran noise log. No shoe leak
9/18/79	Camco ran gauge ring to DS-1 nipple. Ran into some tight spots. Will run swedge before running valve
10/23/79	Pruett ran BHP survey
11/5/79	Hanson attempted to set BHC. Could not get choke to go through packoff nipple. Left choke in packoff nipple.
11/6/79	Ran BHP survey. Hanson pulled BHC from well. Discovered that backup ring on packing was too large to go through nipple. Changed ring. Set BHC.
11/13/79	Gurevich ran BHP survey. Found that BHC had been set in the safety valve nipple. Pulled loose OK.
11/14/79	Hanson located BHC in safety valve nipple. Pulled choke. Re-dressed choke and attempted to run in but could not get past safety valve nipple. Moved off of well.
11/15/79	Hanson ran in to set BHC but could not get past safety valve nipple.
11/16/79	Hanson again attempted to set BHC. No luck.
11/19/79	Hanson set 1.0 BHC.
11/26/79	Gurevich ran BHP survey
1/4/80	Archer-Reed set CA-2 plug in pack-off nipple. Tested tubing. Pressure held tight. Pulled plug.
1/7/80	Camco pulled 1.0 BHC. Ran in to set SSSV. Could not get valve to stay in nipple. Checked running tool, prong was damaged. Shut down till Monday.
	Camco ran in with broach. Found tight spot at 1356. Beat through. Cleared out tight spot at 3590 and 3608. Continued broaching tight spot at 1346 for remainder of day.
1/8/80	Camco finished broaching tight spot at 1346. Ran and set SSSV. Could not get setting tool to release from valve. Wire broke at counter sheave. Dropped a cutter bar and retreived wire from well. Will change wire and fish for tools tomorrow.

SOUTHERN CALIFORNIA GAS COMPANY
SUB-SURFACE PRESSURE SURVEY

FIELD ALISO WELL 55-25 DATE

RECORDER NO. RUN NO. SHEET NO. OF SHEETS BY

CLOCK HOURS TIME CLOCK STARTED TIME RUN COMPLETED

WELL CONDITION DURING RUN, SHUT-IN FLOWING INJECTION

HOURS WELL, SHUT-IN FLOWING INJECTION BEFORE RUN

WELL HEAD PRESSURE

TUBING

CASING

FLOW RATE

GAS MCF/D

OIL BBL'S/D

WATER BBL'S/D

GOR

MAXIMUM TEMPERATURE

ZERO POINT 6' @ M/V

PICK-UP

DATUM 8342' (8333')

	SIZE	DEPTH
TUBING	2 7/8	8496
CASING	7	8585
CASING SHOE		
LINER	5 1/2	
TOP		8559
BOTTOM		8748
PERFORATION		
TOP		8592
BOTTOM		8748

SURVEY DATA

DEPTH		STYLUS DEFLECTION	PRESSURE	GRADIENT PSI/100 FT
VERTICAL	MEASURED			
0	0			
5000	5000			
6000	6000			
7000	7000			
8000	8000			
8333	8342 DAT			
8475	8487 5-4			
8576	8590 5-8			
8675	8689			

SPECIAL INSTRUCTIONS: TBG TAIL 8496
TD 8748

BY

REMARKS:

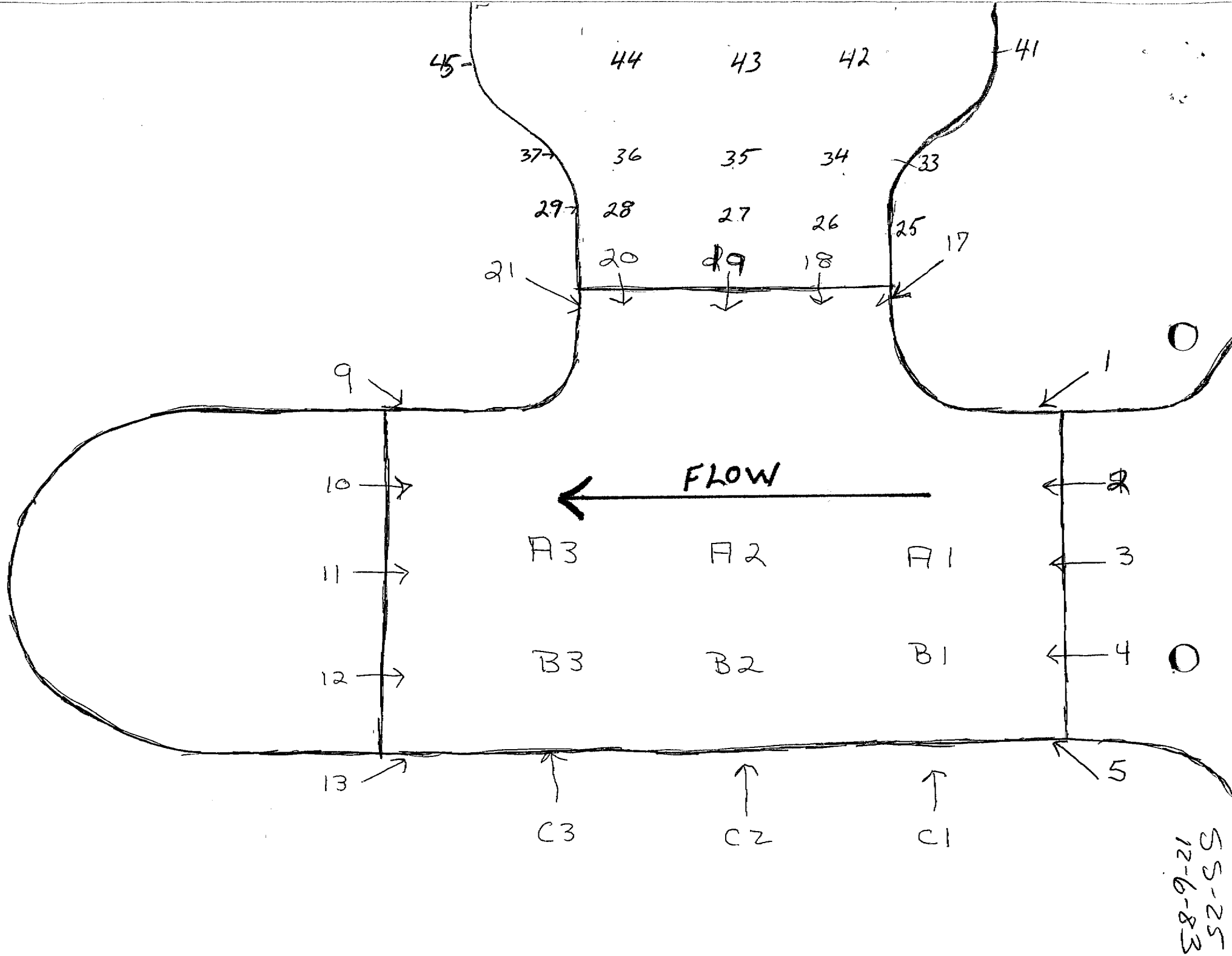
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FIELD OPERATOR

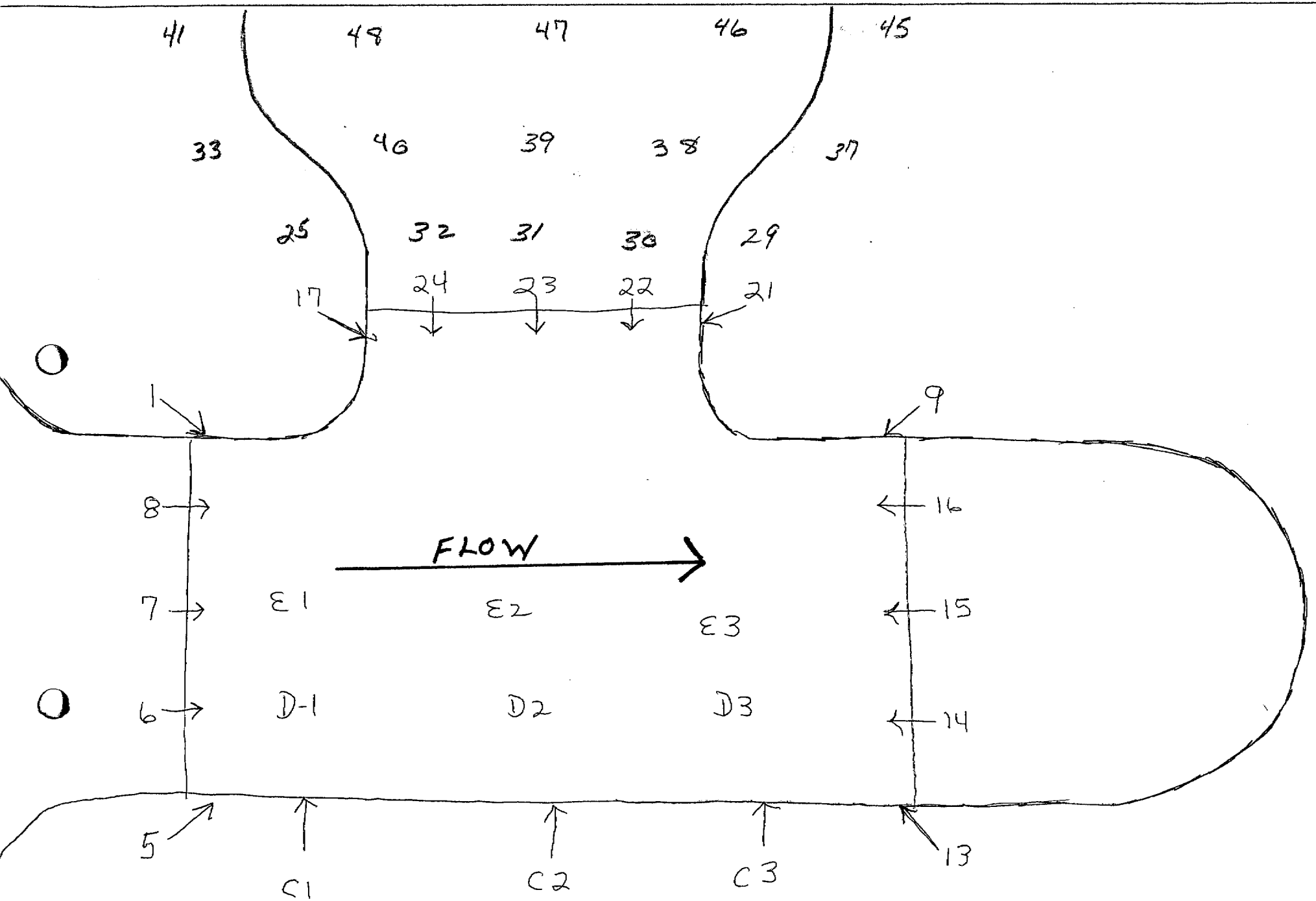
CHART READ BY

SOUTHERN CALIFORNIA GAS CO.—4296

AC_CPUC_0000108



AC_CPUC_0000109



AC_CPUC_0000110

SS-85 THICKNESS READINGS

CASING W/D FIRST TEE

LOCATION #	THICKNESS
1	N/A
2	N/A
3	.576
4	.555
5	.549
6	.582
7	.561
8	N/A
9	N/A
10	N/A
11	.679
12	.671
13	.677
14	.654
15	.577
16	N/A
17	N/A
18	N/A
19	.508
20	N/A
21	N/A
22	N/A
23	N/A
24	N/A
A1	.684
A2	.717
A3	.710
B1	.646
B2	.632
B3	.729
C1	.628
C2	.685
C3	.663
D1	.608
D2	.663
D3	.673
E1	.669
E2	.658
E3	.643

SS-85 THICKNESS READING

LOCATION	THICKNESS
25	.383
26	.448
27	.519
28	.475
29	.425
30	.448
31	.503
32	.419
33	.613
34	.614
35	.614
36	.604
37	.603
38	.606
39	.617
40	.613
41	.551
42	.558
43	.549
44	.540
45	.546
46	.549
47	.543
48	.544

BAKER TANKS

2346 E. 17TH STREET • P.O. BOX 9335 • LONG BEACH, CALIFORNIA 90810
LONG BEACH (213) 436-6251 • VENTURA (805) 525-1710 • BAKERSFIELD (805) 589-0251

RENTAL AGREEMENT 22332

	RENTED TO So. Cal. Gas	YOUR ORDER NO.	DATE 11/10/83
BRANCH		FIELD Aliso	
JOB NO.		WELL NO. SS 25	
CUST. NO.		LEASE NAME S-S	

MOVE OUR 500 BBL. MOBILE TANK(S)

- [x] OPEN TOP NO.(S) 648M
- [ ] CLOSED TOP NO.(S) _____
  - DECK NO. (S) _____
  - COILS NO.(S) _____
- [ ] SPECIAL TANK(S) NO. (S) _____ TYPE _____

- [ ] TO ABOVE WELL OR LOCATION. START RENT DATE _____
- [ ] TRANSFER FROM _____ TO ABOVE LOCATION
- [x] TO BAKER YARD. STOP RENT DATE 11-2-83

1. TANK NEEDS CLEANING [x] YES [ ] NO.
   IF YES, HOW MUCH FLUID 2" DESCRIPTION B/S
2. DAMAGE OR MISSING EQUIPMENT OF TANK(S) [ ] YES [x] NO
   DESCRIBE: _____

EQUIPMENT NO. 39 START _____ STOP _____ NET TIME _____

I HAVE INSTALLED GUARD RAILS & LADDER IN SAFE CONDITION & P. V. VALVE WHEN APPLICABLE.

OPERATOR: Wayne

Lessee agrees to rent the Baker Portable Tank(s) described in this Rental Agreement under the terms and conditions set forth on the face and on the reverse side hereof, for a term beginning on the date hereof and ending on written or oral notice of termination given by either party to the other.

Lessee will not store or inject any form of acid or acid solution or other corrosive materials (hereinafter collectively referred to as "corrosive materials") in any Baker Tank(s) without first obtaining the prior written consent of Baker Tanks, Inc. ("Baker") which consent may or may not be given by Baker, in his sole discretion.

Lessee has inspected the tank(s) rented pursuant to this Rental Agreement after their installation by Baker Tanks, Inc., acknowledges that the tank(s) are in good condition and that the installation is accepted by Lessee.

BY _____ TITLE _____ FOR _____
COMPANY NAME

NL McCULLOUGH

TYPE OF SURVEY: Noise Log

	DATE	TIME
Arrived Location	2-23	8:00
Start Operation	↓	9:30
Complete Operation		12:00
Complete Tool Strings		

Tools No.# on tool string C/L 265 I/J T354 S F C/L NOISE002 T

No# of sinker bars on tool string 4 Type of bars Steal Bars

No# of extra bars 2 Steal 2 Short Type of bars 3' Bars

Extra tools & No# 1 Temp 1 CCL 3 Noise Tools

Noise Panel # 6C Extra noise panel 1 Extra

Stand by time Date: Time:

Reason none none

Lost Time Date: Time:

Reason: none none

Changed cable Date: 2-18-83 Time: 1:30 PM

Amount of line cut 200' Reason for cable head change Shop Dmg

Wells Completed 1 Well No# Completed SS #25

Wells Incomplete Well No# Incomplete

Survey Completed Good ✓ Satisfactory Unsatisfactory

Signed by Customer

Comment by Customer

Unsatisfactory must be signed by customer (with comments)

**Gloves must be worn when handling R/A. Was gloves worn Yes No . If not reason

**Any alteration, by the customer, of normal survey requirements must be noted and signed by the customer.

When tools are stuck in hole call supervisor before trying to pull out of cable head. Note what customer wants to do and have the statement signed.

SOUTHERN CALIFORNIA gas COMPANY

INTEROFFICE CORRESPONDENCE

TO D. S. SMILEY FROM G. C. ABRAHAMSON DATE February 2, 1979

SUBJECT WELL PROGRAM FOR STANDARD SESNON #25 - Aliso Canyon - PULL AND REPAIR DOWN-HOLE SAFETY SYSTEM

Please find attached a Program to pull Standard Sesnon #25 and repair or replace the safety system.

We have also attached a Material Request and Budget Cost Estimate. We are estimating 13 8-hour Tours or 8 Calendar Days and a total MWO cost of $ 50,000.

No D.O.G. Notice is required for this work.

This job will follow Porter #32 with California Production Service Rig #D-4 on or about February 26, 1979.

Attachments

GCA/jp

64-D

AC_CPUC_0000115

WORKOVER PROGRAM

OPERATOR: Southern California Gas Company

FIELD: Aliso Canyon

WELL: STANDARD SESNON #25

CONTRACTOR: California Production Service Rig #D-4

APPROXIMATE LOCATION: 820' South and 5360' West of Station #84

ELEVATION: Ground level 2927.02'. Take all measurements from original derrick floor 6.35' above ground level.

SAFETY: **Hard hats are to be worn by all personnel on or near a rig. No smoking is permitted within 100' of the wellhead.**

PRESENT CONDITIONS:

11 3/4" 42# H-40 ST&C cemented 990'

7" cemented 8585', segregated 8583', WSO 8475'
Shot four 1/2" holes per foot 8559'-8510'

Detail - all Speedtite

Surface-2398'	23#	J-55
2398'-6308'	23#	N-80
6308'-8282'	26#	N-80
8282'-8585'	29#	N-80

159' 5 1/2" 20# J-55 flush-joint, landed 8748', slotted 8748'-8592', top 8559'

Tubing Details:

2 7/8" landed 8491'
Baker production tube
Baker seals (4)
Baker latch-in locator

(continued on Page 2.)

Baker Retrieva-"D" packer 8485'
Camco 10' heavy wall tube
Camco 1.81" "D" nipple
Camco 20' heavy wall tube
Camco 2 7/8" Annular flow safety system
Camco MMG gas lift mandrel

Top 220' N-80, balance J-55

Kill well with 63#/cu.ft. waste salt water HEC polymer completion fluid provided by Professional Drilling Fluid Services. Volume of well = 350 barrels. Pump fluid down tubing at about 3 barrels per minute and bleed off from annulus through Gas Company system. Obtain assistance from Aliso Canyon shift supervisor while killing well. Use Halliburton pumping equipment to kill well.

PROGRAM:

1. Move in and rig up California Production Service Rig #D-4 with Baker tank.

2. Set back-pressure valve in doughnut. Remove Xmas tree.

3. Install H. & H. Oil Tool Co. Inc. 8" Class III 3000 psi B.O.P.E. Equipment to include "GK" Hydril bag and double-gate, both hydraulically operated with 80-gallon 3000 psi accumulator, auxillary nitrogen and dual control stations. Also install 8" x 8" 3000 psi spool with 3000 psi choke and kill manifold with discharges to Gas Company system and Baker tank. Discharge to Gas Company system to include a block valve and bleeder. Kill system to be provided with connections to CPS mud pump. Use new API rings on any untested B.O.P.E. connections.

4. Pressure test blind rams, 2 7/8" pipe rams and choke manifold to 3000 psi with water and nitrogen. Pressure test Hydril bag to 2000 psi with water and nitrogen.

5. Pull 2 7/8" tubing, laying down production equipment, seals, latch-in locator, 10' and 20' blast joints, 1.81" "D" nipple, 2 7/8" annular flow safety system and gas lift mandrel. Camco and Baker to clean, inspect, repair and pressure test for reuse.

6. Run 2 7/8" tubing with seals and locator sub. Change collars, clean pins and apply Baker seal. Use N-80 collars for N-80 tubing and use N-80 or J-55 collars for J-55 tubing. Land tubing on packer with 10,000#. Close pipe rams and pressure test seals and packer to 1500 psi. Keep tubing full and observe for returns.

7. Run 2 7/8" tubing, applying Baker seal to doubles. Also drift and hydrotest to 5000 psi, holding each test for one minute.
Tubing to include:

Baker production tube
Baker seals (4)
Baker latch-in locator
Camco 10' blast joint
Otis 2.205" "XN" nipple
Camco 20' blast joint
Camco 2 7/8" annular flow safety system
One joint 2 7/8" tubing
Camco MMG gas lift mandrel

Top 220' N-80 tubing, balance J-55 (as was in well).

8. Space out and land tubing on packer with up to a maximum of 10,000#. Pull 20,000# over weight of tubing to check latch.

9. Set back-pressure valve in doughnut. Remove B.O.P.E. and install Xmas tree. Pressure test Xmas tree to 5000 psi for 20 minutes.

10. Circulate polymer drilling fluid out of well with waste salt water. Tighten all wellhead bolts. Check all wellhead valves closed. Install blind flanges on wellhead valves.
RELEASE RIG.

GCA
G. C. ABRAHAMSON
February 5, 1979

c.c. Rig Supervisor
Relief Rig Supervisor
Contract Pusher (2)
Book Copy

A. Awalt
D. S. Smiley
T. W. Tenfelder

Well File

GCA/jp

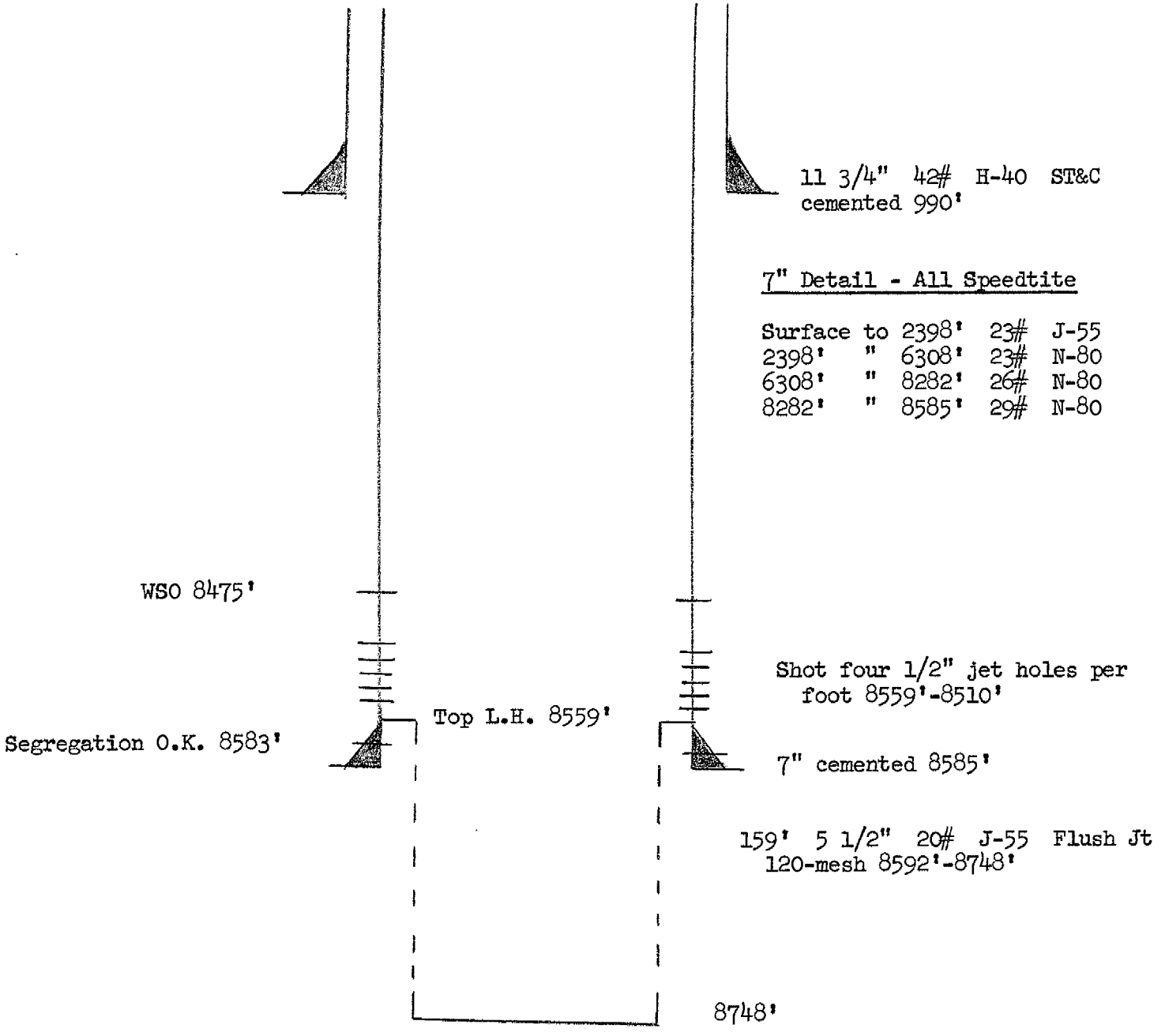
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STANDARD SESNON #25 - Aliso Canyon

February 2, 1979

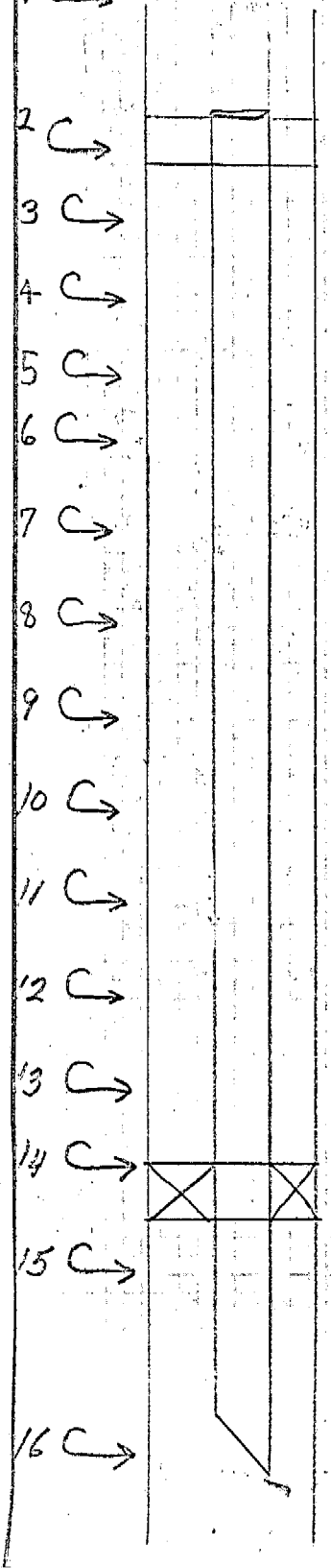
LOCATION: 820' South and 5360' West of Station #84.

ELEVATION: Ground level 2927'.02'. Take all measurements from original derrick floor 6.35' above ground.



AC_CPUC_0000119

WELL PROFILE



OPERATOR SO. CALIF. GAS CO.

WELL # STANDARD-SESNON #25

FIELD Aliso Canyon

COUNTY Los Angeles

STATE California

DATE July 30, 1976

☐ NEW COMPLETION ☒ WORKOVER

	CASING	LINER	TUBING 1	TUBING 2	TUBING 3
SIZE			Original K.B. 6.35		
WEIGHT					
GRADE					
THREAD					
DEPTH					

ITEM NO.	TUBING DETAIL	LENGTH	DEPTH
1.	Tubing landed below Kelly Bushing	7.09	7.09
2.	Doughnut (Gulfco) right-hand plug	1.00	8.09
3.	3-8' Pups 2 7/8" N-80 6.5# tubing	24.00	32.09
4.	6-Joints 2 7/8" N-80 6.5# tubing EUE 8rd	187.81	219.90
5.	266-Joints 2 7/8" J-55 6.5# tubing @170.35	8170.35	8390.25
6.	1-Pup Joint J-55 6.5# EUE 8rd tubing	4.02	8394.27
7.	MMG Mandrel (empty)	8.44	8402.71
8.	1-Pup Joint J-55 6.5# EUE 8rd tubing	.65	8403.36
9.	1-Joint 2 7/8" 6.5# J-55	31.06	8434.42
10.	D-S Nipple 1/2" Hyd. Control Line SCI-Safety	15.26	8449.68
11.	1-20' Blast joint (Camco)	19.76	8469.44
12.	No-Go Nipple 1.81" I.D. (Camco)	.89	8470.33
13.	1-10' Blast Joint	9.67	8480.00
14.	Baker Retrieva "D" Packer	----	8480.00
15.	Baker Seals	5.35	8485.35
16.	Baker Production Tube	5.30	8490.65

NOTES: #10 - was run in place.

#12 - plug set - CA2 blanking plug.

#14 - pulled up with 15,000# to check latch and set 10,000# in compression.

Corrected Copy

COMMENTS:

WELL NO. STANDARD SESNON #25 DATE WANTED: February 21, 1979

LOCATION: Aliso Canyon REQUESTED BY: G. C. ABRAHAMSON

	SIZE	FOOTAGE	DESCRIPTION
CASING			
TUBING			
	2 7/8"	300'	6.5# J-55 8rd EUE - possible replacement
LINER and ACCESSORIES			

	DESCRIPTION
CASING HEAD	
TUBING HEAD	

NOTE: For MISCELLANEOUS - see Page 2.

WELL NO. STANDARD SESNON #25 DATE WANTED: February 21, 1979

LOCATION: Aliso Canyon REQUESTED BY: G. C. ABRAHAMSON

	DESCRIPTION
MISCELLANEOUS	Baker production tube - existing
	Baker seals (4) - repair or exchange
	Baker latch-in locator - repair or exchange
	Camco 10' heavy wall tube - existing
	Otis 2.205" "XN" nipple - purchase
	Camco 20' heavy wall tube - existing - repair or exchange
	Camco MMG gas lift mandrel with pump-out plug - existing
	10 2 7/8" N-80 8rd EUE tubing collars.
	290 2 7/8" J-55 8rd EUE tubing collars.

SOUTHERN CALIFORNIA GAS COMPANY

February 5, 1979 (GCA/jp)

FIELD: Aliso Canyon WELL: STANDARD SESNON #25

BUDGETED ESTIMATES SUMMARY - RIG WORK

G.W.O. -

M.W.O. 100%

DRILLING OR WORKOVER CONTRACTOR:

201	MOVE IN-MOVE OUT COST	100	Capital Expense Fraction	16 HRS.	$ 7500
202	KILL WELL	100		8	1250
203	INSTALL AND TEST B.O.P.E.	100		8	1250
204	CLEAN OUT	100		8	1250
205	LOG	100		0	0
206	PRESSURE TEST CASING	100		0	0
207	WSO AND DRILL STEM TESTING	100		0	0
208	CEMENT	100		0	0
209	INSTALL NEW WELLHEAD	100		0	0
210	MILL	100		0	0
211	DRILL	100		0	0
212	OPEN HOLE	100		0	0
213	RUN CASING, LINER OR INNER STRING	100		0	0
214	GRAVEL PACK	100		0	0
215	COMPLETE	100		40	6250
216	FISHING	100		0	0
217	DOWNTIME AND STANDBY TIME	100		0	0
218	CONTINGENCY	100		8	1250
219	MISCELLANEOUS	100		16	2500
			SUBTOTAL	104 HRS.	$ 21250

13 8-hour Tours

8 Calendar Days

FM NO. 2

AC_CPUC_0000123

WELL: STANDARD SESNON #25

B. PURCHASED MATERIAL AND EQUIPMENT

		Capital Expense Fraction	
220	WELLHEAD	0	$ 0
221	CASING	0	0
222	LINER, LINER EQUIPMENT AND GRAVEL	0	0
223	INNER STRING	0	0
224	TUBING	0	3000
225	PRODUCTION PACKERS	0	0
226	SAFETY SYSTEM AND PRODUCTION EQUIPMENT	0	3000
227	PURCHASED DRILL BITS	0	0
228	DRILLING FLUID	0	0
229	COMPLETION FLUID	0	3000
230	FUEL AND WATER	0	0
231	MISCELLANEOUS	0	0

C. NON-LABOR RENTALS

		Capital Expense Fraction	
232	DRILL PIPE AND B.O.P.E.	0	$ 2500
233	SOLIDS CONTROL EQUIPMENT	0	0
234	STABILIZERS	0	0
235	MILLS	0	0
236	HOLE OPENERS	0	0
237	MISCELLANEOUS DRILLING TOOLS	0	0
238	MISCELLANEOUS	0	500

FORM NO. 2

AC_CPUC_0000124

WELL: STANDARD SESNON #25

D. SERVICES AND LABOR

2390	CEMENTING	40%	$ 10
2400	PRESSURE TESTING	0	0
2401	DIRECTIONAL WORK	0	0
2402	FISHING	0	0
2403	LOGGING	0	0
2404	PRODUCTION PERFORATING	0	0
2405	WIRELINE SERVICES	0	0
2406	CASING AND TUBING SERVICES	0	3000
2407	GRAVEL PACKING SERVICES	0	0
2408	HOLE OPENING SERVICES	0	0
2409	MILLING SERVICES	0	0
2500	TRUCKING AND CRANE SERVICES	0	500
2501	VACUUM TRUCKING AND DUMP	0	1000
2502	WELLHEAD SERVICES	0	500
2503	WSO AND DRILL STEM TESTING	0	0
2504	MUD PLANT COST	0	500
2505	CONSULTING ENGINEER SUPERVISION	0	1600
2506	COMPANY LABOR	0	0
2507	ADMINISTRATION EXPENSE	0	1200
2508	CONTINGENCY	0	3450
2509	MISCELLANEOUS	0	5000
2	(NO. OF REPORTS)		

Capital Expense Fraction

TOTAL ESTIMATED BUDGET: $ 50,000

TOTAL ALLOCATED TO G.W.O. -

TOTAL ALLOCATED TO M.W.O. 100% $ 50,000

DSS:MAN:eo
3-29-78 (Revised)
FORM NO. 2

AC_CPUC_0000125

SOUTHERN CALIFORNIA GAS COMPANY

FIELD: Aliso Canyon WELL: Standard Sesnon #25

BUDGETED ESTIMATES SUMMARY - RIG WORK

G.W.O. _____

M.W.O. 100%

DRILLING OR WORKOVER CONTRACTOR: Truck & Crane $5,000

201	MOVE IN-MOVE OUT COST	0	Capital Expense Fraction	16 HRS.	$ 7500
202	KILL WELL	0		8	1250
203	INSTALL AND TEST B.O.P.E.	0		8	1250
204	CLEAN OUT	0		8	1250
205	LOG	0		0	0
206	PRESSURE TEST CASING	0		0	0
207	WSO AND DRILL STEM TESTING	0		0	0
208	CEMENT	0		0	0
209	INSTALL NEW WELLHEAD	0		0	0
210	MILL	0		0	0
211	DRILL	0		0	0
212	OPEN HOLE	0		0	0
213	RUN CASING, LINER OR INNER STRING	0		0	0
214	GRAVEL PACK	0		0	0
215	COMPLETE	0		40	6250
216	FISHING	0		0	0
217	DOWNTIME AND STANDBY TIME	0		0	0
218	CONTINGENCY	0		8	1250
219	MISCELLANEOUS	0		16	2500
			SUBTOTAL	136 HRS.	$ 21,250

13- 8hr. Tours

8 calendar Days

FORM NO. 2

AC_CPUC_0000126

WELL: SS #25

B. PURCHASED MATERIAL AND EQUIPMENT

		Capital Expense Fraction	$
220	WELLHEAD	0	0
221	CASING	0	0
222	LINER, LINER EQUIPMENT AND GRAVEL	0	0
223	INNER STRING	0	0
224	TUBING	0	0
225	PRODUCTION PACKERS	0	3000
226	SAFETY SYSTEM AND PRODUCTION EQUIPMENT	0	0
227	PURCHASED DRILL BITS	0	3000
228	DRILLING FLUID	0	0
229	COMPLETION FLUID	0	0
230	FUEL AND WATER	0	3000
231	MISCELLANEOUS	0	0
			0

C. NON-LABOR RENTALS

		Capital Expense Fraction	$
232	DRILL PIPE AND B.O.P.E.	0	2500
233	SOLIDS CONTROL EQUIPMENT	0	0
234	STABILIZERS	0	0
235	MILLS	0	0
236	HOLE OPENERS	0	0
237	MISCELLANEOUS DRILLING TOOLS	0	0
238	MISCELLANEOUS	0	500

FORM NO. 2

AC_CPUC_0000127

WELL: SS #25

D. SERVICES AND LABOR

239	CEMENTING	40	Capital Expense Fraction	$ 0
240	PRESSURE TESTING	0		0
241	DIRECTIONAL WORK	0		0
242	FISHING	0		0
243	LOGGING	0		0
244	PRODUCTION PERFORATING	0		0
245	WIRELINE SERVICES	0		0
246	CASING AND TUBING SERVICES	0		3000
247	GRAVEL PACKING SERVICES	0		0
248	HOLE OPENING SERVICES	0		0
249	MILLING SERVICES	0		0
250	TRUCKING AND CRANE SERVICES	0		500
251	VACUUM TRUCKING AND DUMP	0		1000
252	WELLHEAD SERVICES	0		500
253	WSO AND DRILL STEM TESTING	0		0
254	MUD PLANT COST	0		500
255	CONSULTING ENGINEER SUPERVISION	0		1600
256	COMPANY LABOR	0		0
257	ADMINISTRATION EXPENSE	0		1200
258	CONTINGENCY	0		3450
259	MISCELLANEOUS	0		5000
21	(NO. OF REPORTS)			

TOTAL ESTIMATED BUDGET: $ 50,000

TOTAL ALLOCATED TO G.W.O. _____

TOTAL ALLOCATED TO M.W.O. 50,000

DSS:MAN:eo
3-29-78 (Revised)
FORM NO. 2

AC_CPUC_0000128

SS# 25

11 3/4" C 990' 42# H-40 ST&C

7" C 8585'

S - 2398' 23# J-55 (Speed Tite)

2398' - 6308' 23# N-80

6308' - 8282' 26# "

8282' - 8585' 29# "

8583' seg o.k.

8475' wso by 006.

189' 5 1/2" 20# J-55 F. Joint 8748', Top 8559'

Slotted 8592' - 8748' (120 mesh)

1973 work

Perfd 4-1/2" Jet holes per foot 8542' - 38'

" " " " " " 8559' - 8542'

8538' - 8510' -

1976 work

RTAD 8480'

Camco Mdg

Camco S.S. A.F.

blast jts - 1.81" NOGO

Note: Filing of "Notice" and well history not required by D.O.G.

SUBMIT IN DUPLICATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

Operator Southern CaliforniaGas Company Field or County Aliso Canyon
Well S. S. #25, Sec. 28, T 3N, R 16W, sb B. & M.
A.P.I. No. Name P. S. Magruder, Jr. (Person submitting report) Title Agent (President, Secretary or Agent)
Date February 21, 1979 19

Signature P. S. Magruder Jr.

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

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

Date	MWO 99574
	Program: to remove and repair or replace and reinstall annular flow safety system
1979	
2-16	1st Day. Killed well with 350 barrels of 63# brine-polymer completion fluid. Moved California Production Service Co. rig #D-4 onto wellsite and rigged up. Removed xmas tree, installed BOPE.
2-17	2nd Day. Tested BOPE, blind rams, and 2 7/8" pipe rams to 3,000 psi, Hydril to 2,000 psi with water and nitrogen. Unlanded tubing pulled up 25,000# over weight of string to check packer. Released from 7" Baker "Retrieva-D" packer at 8,485'. Circulated sand from top of packer. Pulled out of well. Ran in with dummy seals changing collars.
2-18	Rig and crew idle.
2-19	3rd Day. Continued running in well to 8,485' with 2 7/8" tubing and seals, changing collars. Stabbed into 7" Baker "Retrieva-D" packer at 8,485'. Pressured up annulus to 1,500 psi for 20 minutes. Pulled out of well. Ran in with Baker production tube, seals, and latch-in locator Otis 2.205" XN nipple, Camco Annular flow safety system and Camco gas lift mandrel. Hydrotesting to 5,000 psi.
2-20	4th Day. Stabbed into 7" Baker "Retrieva-D" packer at 8,486'. Pulled up 25,000# over weight of string to check latch. Tubing weight on hook 49,000#. Landed with 10,000# on packer. Removed BOPE, installed xmas tree, tested to 5,000 psi. Displaced brine-polymer completion fluid from well with 350 barrels of waste lease salt water. Released rig at 2:00 p.m.

OPERATOR Southern California Gas Co.

WELL S. S. #25

FIELD Aliso Canyon

COUNTY Los Angeles

STATE California

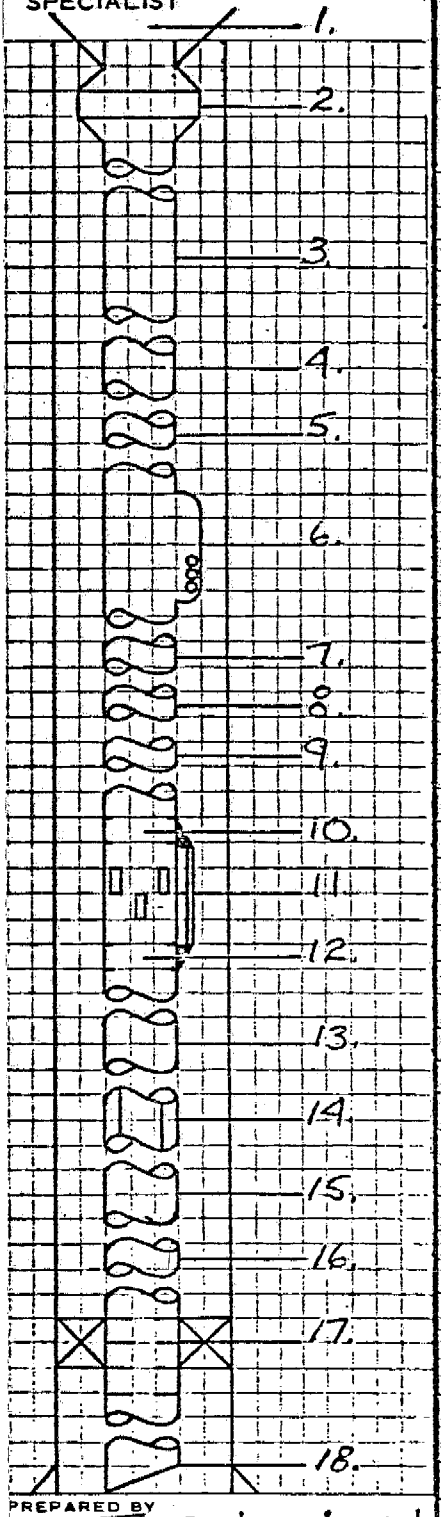
DATE February 21, 1979

☐ NEW COMPLETION ☐ WORKOVER

☐ PROPOSAL ☒ INSTALLATION
☐ QUOTATION

RAN BY
☒ CAMCO SPECIALIST ☐ CUSTOMER

	CASING	LINER	1	2	3
SIZE					
WEIGHT					
GRADE					
THREAD					
DEPTH					



ITEM NO.	TUBING DETAILS	LENGTH	DEPTH
1	Kelly Bushing	6.35	6.35
2	Tubing Hanger	.50	6.85
3	6 Jts. 2 7/8" 8rd EUE N-80 tubing	183.68	190.53
4	265 Jts. 2 7/8" 8rd EUE J-55 tubing	8202.59	8393.12
5	Pup Jt. 2 7/8" 8rd EUE N-80	4.00	8397.12
6	Camco MMG mandrel with DCRT valve	8.43	8405.55
7	Pup Jt. 2 7/8" 8rd EUE N-80	.67	8406.22
8	1 Jt. 2 7/8" 8rd EUE tubing	31.40	8437.62
9	Pup Jt, 2 7/8" 8rd EUE N-80	2.15	8439.77
10	Camco "DS-1" nipple (empty)		
11	Camco "SC-1" safety system	15.27	8455.04
12	Camco "WP-1" nipple (empty)		
13	Camco 20' blast jt.	19.77	8474.81
14	~~Camco "S"~~ "XN" no go nipple 3.000" O.D., 2.205" I.D.	1.17	8475.98
15	Camco 10' blast jt.	9.67	8485.65
16	Baker Latch-in locator	1.10	8486.75
17	~~Bkaer Seal Assembly~~	~~4.20~~	~~8490.95~~
18	Baker Production tube	5.26	8496.21

NOTES

Baker packer set at 8,486- wireline measurment
Tubing weight 49,000# landed with 10,000# on packer.
Pulled 20,000# over tubing weight to check latch

PREPARED BY Jeff Shepherd

COMMENTS:

MPF-1

AC_CPUC_0000131

EQUIPMENT INSTALLATION REPORT

05159

CAMCO
7010 ARDMORE
HOUSTON, TEXAS 77021
PHONE 713-747-4000

☐ PROPOSAL ☒ INSTALLATION
☐ QUOTATION

RAN BY
☒ CAMCO ☐ CUSTOMER SPECIALIST

COMPANY	PREPARED FOR
So. Cal. Gas Co.	ED LANCASTER

LEASE	WELL NO.	FIELD	CO./PARISH	STATE	COUNTRY
'SS	#25	Aliso Canyon	L. A.	Calif.	U.S.A.

	COATING	SIZE	WT./FT.	GRADE	THREAD	TOTAL DEPTH
CASING						
TUBING LONG STRING						
TUBING SHORT STRING						

TUBING SERVICE 1-NORMAL 2-SLIGHTLY CORROSIVE 3-HIGHLY CORROSIVE 4-OTHER

☐ WORKOVER ☐ NEW COMPLETION

COMPLETION FLUID #/GAL. | BHP | BHT

ITEM NO.	O.D.	I.D.	Length	EQUIP. RAN	Depth
1.			6.35	K.B. OR ELEVATION	6.35
2.		2.441	.50	Tubing HANGER	6.85
3.	2.875	2.441	183.68	6 Jts, 2 7/8 "8Rd EUE N-80 TBG.	190.53
4.	2.875	2.441	8202.59	265 Jts. 2 7/8 "8Rd EUE J-55 TBG.	8393.12
5.	2.875	2.441	4.00	PUP Jt. 2 7/8 "8Rd EUE N-80	8397.12
6.	5.250	2.347	8.43	CAMCO MMG-MANDREL (w/ DCRT-V1V.)	8405.55
7.	2.875	2.441	.67	PUP Jt. 2 7/8 "8Rd EUE N-80	8406.22
8.	2.875	2.441	31.40	1 Jt. 2 7/8 8Rd EUE TBG.	8437.62
9.	2.875	2.441	2.15	PUP Jt. 2 7/8 "8Rd EUE N-80	8439.77
10.	5.500	2.313		CAMCO DS-1 NIPPLE (EMPTY)	
11.	5.500	2.313	15.27	CAMCO SC-1 Safety Sys.	8455.04
12.	5.500	2.313		CAMCO WF-1 NIPPLE (EMPTY)	
13.	3.000	2.441	19.77	CAMCO 20' Blast Jt.	8474.81
14.	3.000	2.205	1.17	CAMCO "D" NO go NIPPLE	8475.98
15.	2.800	2.441	9.67	CAMCO 10' Blast Jt.	8485.65
16.			1.10	BAKER Latch in LOCATOR	8486.75
17.			4.20	BAKER SEAL Assy	8490.95
18.			5.26	BAKER Prod. Tube	8496.21

TOTAL COST OF EQUIPMENT →

COMPLETION PROCEDURE BAKER PKR. SET @ 8486' + WIRELINE MEASURMENT. ~~CORRECTION FACTOR~~ = Tubing WEIGHT = 49,000# LANDED with 10,000# ON PKR. Pulled 20,000# OVER tubing weight to check Latch in. NOTE: CAMCO SC-1 SAFETY SYS. WAS RAN with Both nipples empty. Camco MMG-MANDREL WAS RAN with DCRT-V1V. in POCKET.

PREPARED BY	DISTRICT	DELIVERY TICKET NO.	DATE
JEFF Shepherd.	Calif. #66		2/20/79

MPF-1

CUSTOMER

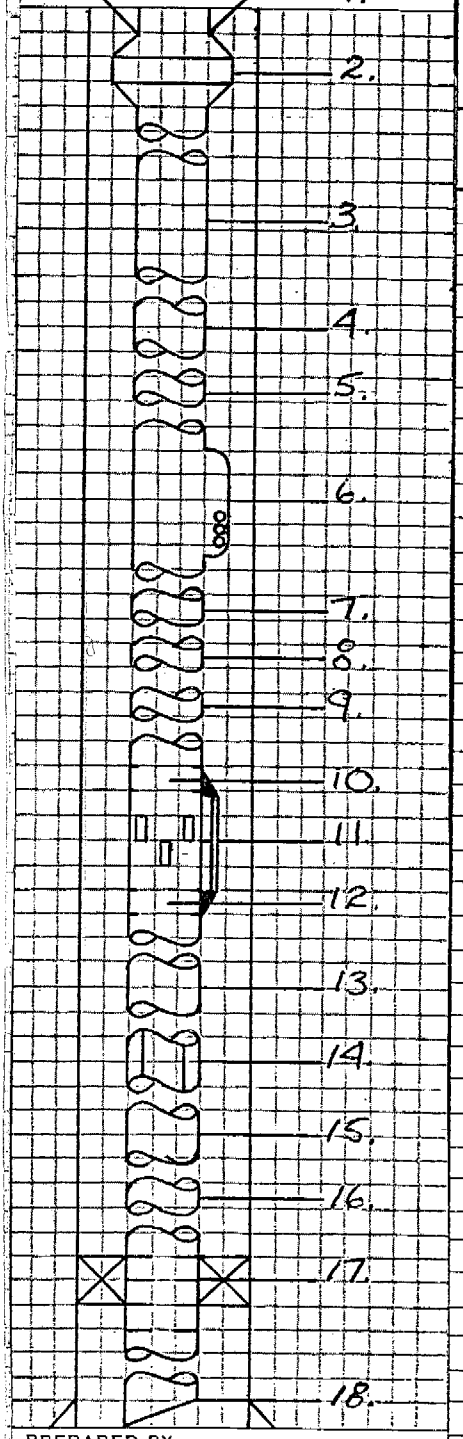
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WELL PROFILE

☐ PROPOSAL ☒ INSTALLATION
☐ QUOTATION

RAN BY
☒ CAMCO ☐ CUSTOMER

SPECIALIST



PREPARED BY Jeff Shepherd

MPF-1

OPERATOR Southern California Gas Co.

WELL # S. S. #25

FIELD Aliso Canyon

COUNTY Los Angeles

STATE California

DATE February 21, 1979

☐ NEW COMPLETION ☐ WORKOVER

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

ITEM NO.	TUBING DETAILS	LENGTH	DEPTH
1	Kelly Bushing	6.35	6.35
2	Tubing Hanger	.50	6.85
3	6 Jts. 2 7/8" 8rd EUE N-80 tubing	183.68	190.53
4	265 Jts. 2 7/8" 8rd EUE J-55 tubing	8202.59	8393.12
5	Pup Jt. 2 7/8" 8rd EUE N-80	4.00	8397.12
6	Camco MMG mandrel with DCRT valve	8.43	8405.55'
7	Pup Jt. 2 7/8" 8rd EUE N-80	.67	8406.22
8	1 Jt. 2 7/8" 8rd EUE tubing	31.40	8437.62
9	Pup Jt, 2 7/8" 8rd EUE N-80	2.15	8439.77
10	Camco "DS-1" nipple (empty)		
11	Camco "SC-1" safety system	15.27	8455.04
12	Camco "WP-1" nipple (empty)		
13	Camco 20' blast jt.	19.77	8474.81
14	Camco "D" no go nipple 3.000" O.D., 2.205" I.D.	1.17	8475.98
15	Camco 10' blast jt.	9.67	8485.65
16	Baker Latch-in locator	1.10	8486.75
17	Bkaer Seal Assembly	4.20	8490.95
18	Baker Production tube	5.26	8496.21

- NOTES -

Baker packer set at 8,486+ wireline measurment
Tubing weight 49,000# landed with 10,000# on packer.
Pulled 20,000# over tubing weight to check latch

COMMENTS:

AC_CPUC_0000133

INTEROFFICE SOUTHERN CALIFORNIA gas COMPANY CORRESPONDENCE

TO T. M. Giallonardo FROM J. W. Tenfelder DATE December 26, 1978

SUBJECT SS-9 and SS-25

It is recommended that we re-work SS-9 and SS-25. Both wells have Camco 2-1/2" SSSV's that failed during withdrawal. After exhausting all wireline possibilities, tubing-casing communication still exists in both wells. This could be due to a hole in the tubing, a leaking tubing hanger, a broken control line, or a scoured packing bore. In any event a rig is needed to cure our problems. Both of these valves failed by coming unlatched and smashing into the packoff above. Fortunately the packoff held and the valve fell back across the crossover flow ports, where the valve was then partially blocking the flow of gas. The reduction in rate was noticed and the wells were shut-in at the surface.

This is at least the sixth such failure at Aliso for this type valve. Since we use few bottom hole chokes anymore, it is critical to our operation that the SSSV stay in place since it is also our choke in most wells. Therefore it is further recommended that we replace these systems with Otis 2-1/2" SSSV's which have no history of coming loose. We should not buy any Camco systems until Camco determines why their valves are coming loose and corrects their problem.

The following wireline work was performed on the two wells:

SS-9	12/8/78	First attempt to repair valve - Pulled DCRT pump out valve and ran new one. No results.
	12/13	Attempted to pull S.Valve, found valve out of nipple, could not latch on. Will run Spear.
	12/14	Ran spear and pulled valve. Ran another valve, could not shear off.
	12/15	Sheared off, ran packoff, tested, no good. Pulled pack off and ran CSA2 blank plug. Tested, leaked, 165 psi in 6 minutes.
	12/18	Pulled DCRT and ran dummy, still leaked.
	12/21	Pulled S.Valve, plug and dummy DCRT
SS-25	12/12/78	First attempt to repair valve, pulled packoff and attempted to pull valve.
	12/13	Ran spear and pulled valve, found valve out of nipple.
	12/14	Ran another valve and tested, control line leaked off fast.
	12/15	Pulled packoff and set CSA2 blanking plug, tested, still leaking.
	12/16	Pulled DCRT ran new DCRT. No leak. Pulled CSA2 blank plug.
	12/19	Ran blind box to check if S.Valve still in nipple. OK.
	12/20	Pulled S.Valve and ran dummy valve across control line. tested. Good packoff over zone. Ran GS packoff to check communication between casing and tubing. Bled tubing press from 2460 psi to 1550 psi. Well equalized in 22 minutes.

64-D

AC_CPUC_0000134

FORM 103

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 Aliso Canyon

Well No. Standard-Sesnon #25, Sec. 28, T. 3N, R. 16W, S. B. B. & M.

Date July 29, 1976 Signed P. S. MAGRUDER, Jr.

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

(213) 689-3561

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

Date	
6-25-76	Killed well with 350 barrels of 72#/cu. ft. IMC brine-polymer drilling fluid.
6-28-76	Moved in rig and equipment from WEZU #30 to Standard Sesnon #25. CPS #D-1 installed back pressure valve in doughnut.
6-29-76	Installed 8" 5000 psi B.O.P.E. - Tested complete shut off rams to 4000 psi for 20 minutes with water. Also tested 2 7/8" pipe rams. Hydril bag tested at 3000 psi for 20 minutes. Tested Hydril to 3000 psi with nitrogen.
6-30-76	Tested complete shut-off rams to 4000 psi with nitrogen for 20 minutes. Pressure tested 2 7/8" tubing rams to 4000 psi for 20 minutes. Pressure tested manifold to 4000 psi for 20 minutes.
7-1-76	Laid down hydrostatic packer, five gas lift valves, No-Go nipple, and Baker valve. Tripped in hole with 4 5/8" bit and 5 1/2" 17# casing scraper. Measured tubing in hole. Cleaned out 5 1/2" liner from 8559' to 8748'. Circulated hole clean.
7-2-76	Ran in with Baker Retrieva-"D" packer on wireline which stopped at 8333'. Ran in hole with 6" mill and 7" 29# casing scraper. Circulated hole clean.
7-3-76	Re-ran Baker packer which stopped at 8338'. Ran in with 6" mill and cleaned out to top of liner at 8359'. Circulated hole clean.
7-4-76	Rig idle.
7-5-76 (Holiday)	Rig idle.
7-6-76	Set Baker Retrieva-"D" packer on wireline at 8480'.

Sent to Magruder 8/3/76

AC_CPUC_0000135

7-7-76 Ran in with 2 7/8" tubing. Removed collars, cleaned pins applying Baker seal and hydrotested tubing to 5000 psi for one minute test.

7-8-76 Landed tubing on packer with 10,000# - Pulled up 15,000# over weight of tubing to check latch. Installed back pressure valve in doughnut. Removed B.O.P.E. and installed Christmas tree. Pressure tested to 5,000 psi - O.K. Circulated drilling fluid out of well with waste lease salt water.

7-9-76 Set plug in No-Go nipple and pressure tested seals and packer to 2500 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 276-204

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

Santa Paula, Calif.
June 21, 1976

DEAR SIR:

Your proposal to rework gas storage Well No. "SFZU" SS-25 (037-00770),
Section 28, T. 3N, R. 16W, S.B. B. & M., Aliso Canyon Field, Los Angeles County,
dated 6/16/76, received 6/17/76, has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

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

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

Blanket Bond
MD:b

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

By [signature] Chief, Deputy

AC_CPUC_0000137

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

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	
	114	121

DIVISION OF OIL AND GAS

In compliance with Section 3203, Division 3. Public Resources Code, notice is hereby given that it is our intention to rework well No. STANDARD-SESNON #25, API No. _____, Sec. 28, T. 3N, R. 16W, S.B. B. & M., Aliso Canyon Field, Los Angeles County.

The present condition of the well is as follows:

1. Total depth. 8749'

2. Complete casing record, including plugs and perforations:

11 3/4" cemented 990'

7" cemented 8585', seg 8583', WSO 8475'
perforated 8510'-8559' 4 JNTS

189' 5 1/2" landed 8748' slotted 8592'-8748'

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

4. Present zone pressure 3000 New zone pressure -

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

or

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

The proposed work is as follows:

1. Move in rig and kill well. Install B.O.P.E. and pressure test.
2. Pull tubing. Clean out to 8748'.
3. 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
(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. 6/16/71
(Name) (Date)
P. S. Magruder, Jr.
Type of Organization Corporation
(Corporation, Partnership, Individual, etc.)

OGD87 (REV 8-69) 5M

AC_CPUC_0000138

FORM 103

SUBMIT IN DUPLICATE

Δ OSP

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR Pacific Lighting Service Company FIELD Aliso Canyon

Well No. SFZU SS-25, Sec. 28, T. 3N, R. 16W, S.B. B. & M.

Date ____, 19____ Signed ____

P. O. Box 54790, Terminal Annex
Los Angeles, California 90054 (213) 689-3561 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 1973	
5-24	Before moving in California Production Service rig, pumped 50 bbls. of oil heated to 250° into tubing to dewax the well. Rigged up and using McCullough, shot four 3/8" holes in tubing at 8485' with deflecting bullets. Pumped in one 60 bbl. batch of high gel polymer drilling fluid and obtained circulation with 400 bbls. of drilling fluid.
5-25	Circulated out gas and oil from well and bled off trap pressure. Removed X-mas tree and installed B.O.P., including hydril, complete shut-off and tubing rams. Pulled tubing and packer. Ran in hole with 4-5/8" bit and casing scraper.
5-26	Ran 4-5/8" bit and casing scraper and cleaned out bridges 8723'-8748', circulated hole clean recovering carbonate material from drilling fluid. Pulled out of hole and ran Dresser Atlas cement bond log and recorded 8737'-6950'. Ran neutron life-time log and recorded 8742'-8000'.
5-27	Idle.
5-28	Ran Dresser Atlas acoustilog and recorded 8560'-8000'. Ran densilog and recorded 8560'-8000'. Ran 6" bit and casing scraper and cleaned out to 8559'.
5-29	Ran Baker retrievable retainer and using Halliburton cementing truck pressure tested 7" casing as follows:

8525'-surface	1500 psi for 23 minutes
6000'-surface	2000 psi for 25 minutes
4500'-surface	2400 psi for 25 minutes
3000'-surface	2800 psi for 27 minutes
2000'-surface	3100 psi for 25 minutes
1000'-surface	3400 psi for 33 minutes

Using Dresser Atlas 4" Golden Jet gun, shot four 1/2" jet holes from 8542'-8538'. Ran Baker bridge plug and set at 8550'.

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1973

5-30 Ran Halliburton tester and set packer at 8471' with tail to 8487'. Opened tool at 11:45 A.M. with strong blow and gas to surface in 3 minutes, shut in and turned to trap at 11:53 A.M. Flowed gas at approximate rate of 4 MM cu. ft. per day for 33 minutes. Shut in for 65 minutes to take initial shut in pressure. Re-opened tool at 1:30 P.M. and flowed for 60 minutes through 1/4" surface choke and 5/8" choke in tester at rate of 1.7 MM cu. ft. per day with surface pressure of 1150 psi. Flowed from 2:30 P.M. until 4:00 P.M. through 1/2" surface choke at rate of 4.2 MM cu. ft. per day with surface pressure of 750 psi. Flowed 4:00 P.M. to 7:00 P.M. through 1" surface choke at rate of 4.5 MM cu. ft. per day with surface pressure of 575 psi. Shut in tester at 7:00 P.M. for final static pressure.

5-31 Bled pressure down to 225 psi (trap back pressure). Pulled tester at 8:45 A.M. for final shut in of 11 hours and 45 minutes. Opened backscuttle valve and circulated drilling fluid to pump gas to trap. Pulled out of hole and recovered drilling fluid in bottom 120' of 2-7/8" tubing below backscuttle valve. Recovered no sand in tubing or in tester.

PRESSURE RECORDER DATA:

Hydrostatic	3722 psi
Initial Flow	1338 psi
Initial Shut-in	1461 psi
Initial Flow 1/4"	1442 psi
Flow 1/2" Choke	1386 psi
Flow 1" Choke	1373 psi
Final Shut-in	1459 psi

Ran in with latching tool and found no sand on Baker bridge plug at 8550'. Backscuttled and recovered no sand. Pulled bridge plug to 4975' and reset same.

6-1 Removed casing spool. Removed rings and rubber packing from casing head. Filled 7" x 11-3/4" annulus with 50 bbls. of mud. Using jack hammers, dug concrete out of cellar for 20". Rigged up casing jack and spear and unlanded 7" casing with 196,000 lb. pull. Removed slips. Welder cut off conductor and 11-3/4" surface casing. Leveled and tack welded new casing head on 11-3/4" casing.

6-2 Completed welding casing head and checked weld with Gamma ray. Rigged up casing jacks and spear. Pulled 196,000 lbs. on 7" casing and landed on slips in casing head and installed packing. Cut off 4-1/2" of 7" casing and rebeveled top of casing. Tested casing head packing and secondary flange pack-off, both to 2800 psi for 30 minutes. Reinstalled B.O.P. Started in well with tool to retrieve bridge plug.

6-3 Idle.

6-4 Recovered bridge plug from 4975' and found no sand on bridge plug. Using Dresser Atlas 4" Golden Jet gun, shot four 1/2" holes per foot 8559'-8542' and 8538'-8510'. Ran wire brush perforation cleaner and found 13' of fill circulated and worked brush from 8736'-8592'. Pulled out of well.

AC_CPUC_0000140

1973

6-5 Ran 2-7/8" tubing, including packer, nipple, sliding sleeve and five gas lift mandrels (details attached). Hydrotested tubing to 5000 psi and found no leaks. Landed tubing on doughnut with bottom of tubing at 8492'. Using Hydrotest, pumped down tubing but obtained circulation. Pulled and reran bottom gas lift valve with piano wire unit. Using rig pump, set packer but apparently could not shear ball seat.

6-6 Pumped water down tubing with hot oil truck and found seat had been sheared with rig pump. Using piano wire unit, shifted sleeve at 8390' to open position. Removed B.O.P., installed new X-mas tree and tested doughnut and tree to 3500 psi, each for 20 minutes. Circulated drilling fluid out of hole with lease water. Displaced water to top gas lift valve with nitrogen. Blew well down to zero pressure and shut-in. Moved out rig.

TUBING DETAILS

Derrick floor to top of tubing	0'-8.35'
160 jts. 2-7/8" 8rd., EUE, J-55	8.35'-4983'
KBMG mandrel w/BK valve 1050 psi	4983'-4995'
30 jts. 2-7/8" tubing	4995'-5914'
KBMG mandrel w/BK valve 1025 psi	5914'-5925'
28 jts. 2-7/8" tubing	5925'-6784'
KBMG mandrel w/BK valve 1000 psi	6784'-6795'
26 jts. 2-7/8" tubing	6795'-7589'
KBMG mandrel w/BK valve 975 psi	7589'-7600'
23 jts. 2-7/8" tubing	7600'-8314'
KBMG mandrel w/BK valve 950 psi	8314'-8325'
2 jts. 2-7/8" tubing	8325'-8387'
Baker model "L" sliding sleeve (open)	8387'-8390'
1 jt. 2-7/8" tubing	8390'-8421'
Baker "F" nipple	8421'-8422'
1 jt. 2-7/8" tubing	8422'-8453'
Baker FH hydrostatic packer	8453'-8460'
1 jt. 2-7/8" tubing	8460'-8491'
Baker ball seat & chamfered collar	8491'-8492'

AC_CPUC_0000141

FORM 111

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

REPORT ON PROPOSED OPERATIONS No. P 273-180

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

Santa Paula Calif.
April 25, 1973

DEAR SIR:

Your proposal to alter casing Well No. "SFZU" SS-25 (037-00776),
Section 28, T. 3N, R. 16W, S.B. B. & M., Aliso Canyon Field, Los Angeles County,
dated 4/19/73, received 4/25/73, has been examined in conjunction with records filed in this office.

Note: Four 1/2" holes @ 8583', company WSO.

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

Blanket Bond
ALL:r
cc: Operator

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

By _____, Deputy

69207-705 12-72 36M ⓑ OSP

AC_CPUC_0000142

FORM 107

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

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

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

Los Angeles Calif. April 19, 1973

DIVISION OF OIL AND GAS

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of ~~deepening, redrilling, plugging or~~ altering casing at Well No. SFZU SS 25
(Cross out unnecessary words)

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

Aliso Canyon Field, Los Angeles County.

The present condition of the well is as follows:

1. Total depth. 8749'

2. Complete casing record, including plugs:

11-3/4" c. 990'
7" c. 8585'
5-1/2" 8559' to 8748'
4 holes 8475' WSO
Perforations 120m slots 8592' to 8748'

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

The proposed work is as follows:

Jet perforate 2 HPF and/or 4 HPF as required from 8487' to 8748' to convert well to a gas storage well.

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

(213) 689-3561
(Telephone No.)

Pacific Lighting Service Company
(Name of Operator)

By J. S. Maguire Jr.

46086-705 11-70 15M OSP

AC_CPUC_0000143

SFZU 55-25
(Std. Sesnon 1-No. 25)
Aliso Canyon Field
~~Tidewater~~ Getty Oil Company
~~(Lower Sesnon Zone)~~

REVISED

Depth: T.D. (Rd. & De.) 8749'
(Orig. Compltn.)

Casing: 11 3/4" 42# c 990'
7" 23, 26 & 29# c 8585'
WSO 4 h's 8475'*
Seg. 4 h's 8583'
189' -5 1/2" 20# L 8748'
Pf: 8592'-8748'
(120 M x 2" slots, 12 rows, 6" centers)
T.L.H. 8559'
*Witnessed & Approved by D.O.G.

Tubing: March 19, 1954

8525' - 2 7/8", tbg. incl. Guiberson valves and packer spaced as shown:

Valve	Press.	Depth
1	1000#	1,965'
2	975#	3,835'
3	950#	5,504'
4	925#	6,973'
5	900#	8,271'
		(no check)

Guiberson 2 7/8" x 7" KV-30 Packer at 8525'

(Tbg. landed on an unequal flange w/stripper bug on top joint)

Depth Reference: D.F., 6.35' above mat

Junk:

893' - 4 1/2" D.P. & Johnston Tester, ST'd 3967-4860'

Cleanout: None

No Derrick

History Card
Comp.

9-19-64
brm

REMARKS: 8-1-68
Included in Sesnon Frew Zone (Unit, Getty Oil Co., Oper.
Changed Designation to SFZU 55-25

AC_CPUC_0000144

17-601

Included in Lemon Tract Zone Unit:
Getty Oil Co. – Opr.

New Designation: SFZU SS-25

SFZU SS-25
(Standard Lemon 1 No. 25)
Alice Canyon Field
Tidewater Oil Company

Original Completion - February 25, 1954

Depth: T.D. (Rd-DE) 8749'

Casing: 11 3/4" 42# @ 940'
7" 23, 26 & 29# @ 8585'
WSO 4 H'le 8475' *
Leg 4 H'le 8583'
189' - 5 1/2" 20# @ 8748'
Pf: 8592' - 8748'
(120 M x 2" Slots, 1 Row, 6" Centers)
T.L.H. 8559'

* Wil & Appd. D.O.G.

Depth Ref: D.F., 6.35' above mat

Junk:
893' - 4 1/2" D.P. & Johnston Tester, Sq'd. 3961' - 4860'

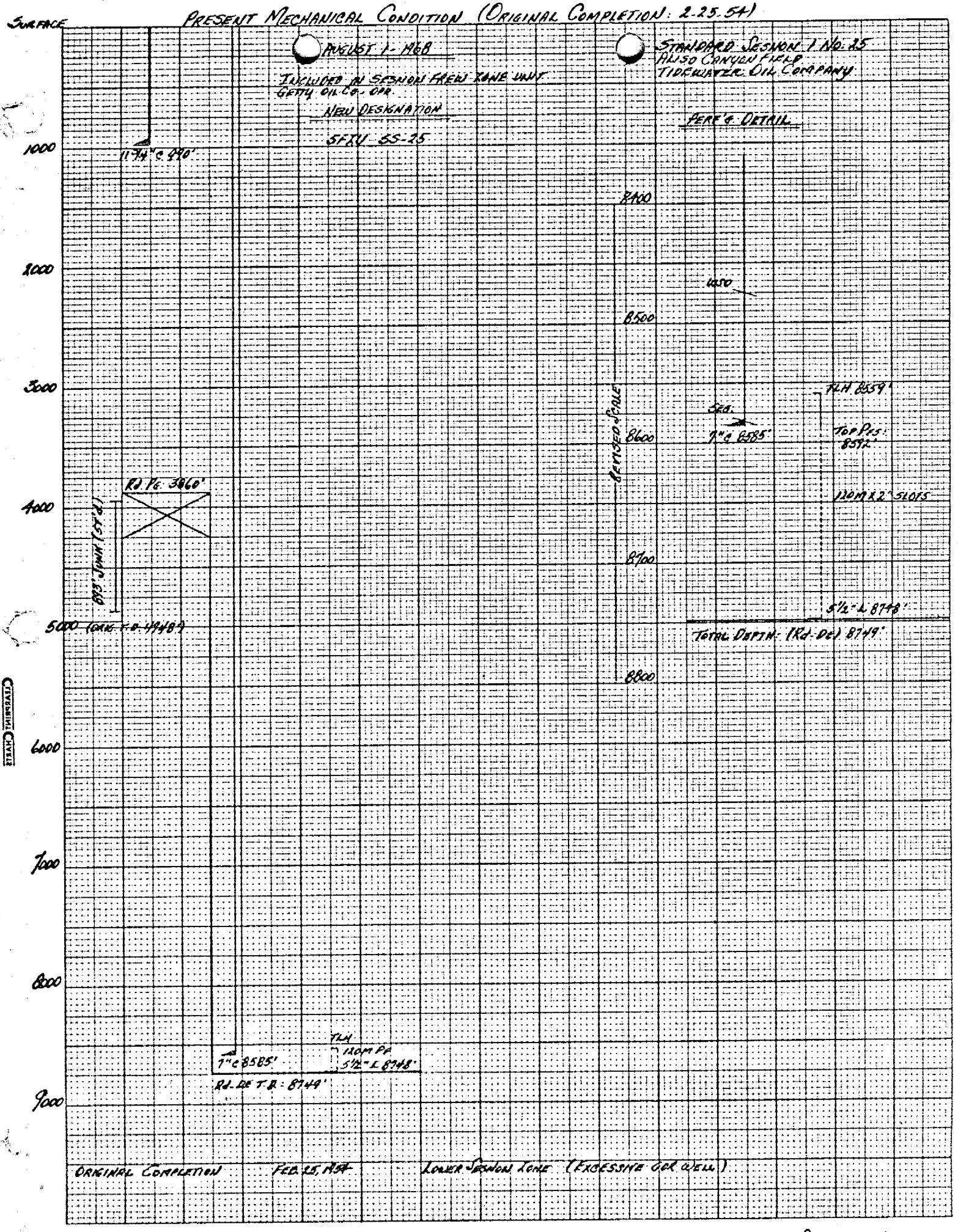
Hole Data: Original T.D. 4948'
Pg. 3860'; Redrilled & deepened to 8749'

Casing Detail (7"):
Surface - 2398': 23# J-55
2398' - 6308': 23# N-80
6308' - 8282': 26# N-80
8282' - 8585': 29# N-80

Penetrated Alice Zone: Non-Productive
Porter Zone: Sub-Commercial
Lemon Zone: Completion

Original Completion: February 25, 1954
Lower Lemon Zone

AC_CPUC_0000145



AC_CPUC_0000146

FORM 100
CALIFORNIA STATE PRINTING OFFICE

SUBMIT LOG IN DUPLICATE

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

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

WELL SUMMARY REPORT

Operator TIDE WATER ASSOCIATED OIL COMPANY Field ALISO CANYON

Well No. Standard-Season 1-#25 Sec. 20, T. 3 N, R. 16 W, S.B. B. & M.

Location 820.00' South & 5360.00' West from Station #1

Elevation above sea level 2927.02 feet.

All depth measurements taken from top of derrick floor, which is 6.35 feet above ground.

In compliance with the provisions of Chapter 93, Statutes of 1939, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Date May 28, 1954 Signed J. E. Weaver By

J. R. Beyrer (Engineer or Geologist) O. O. Sumner (Superintendent) Title Agent (President, Secretary or Agent)

Commenced drilling October 1, 1953 Completed drilling February 14, 1954 Drilling tools Cable or Rotary

Total depth 4048' Plugged depth 3860' / R.D. 3747'

Junk 893' - 1-1/2" drill pipe and Johnston tester 3967'-4060' (Sidetracked) 3967

GEOLOGICAL MARKERS — DEPTH

Commenced producing February 25, 1954 (date) Flowing/gas lift/pumping (cross out unnecessary words)

	Clean Oil bbl. per day	Gravity Clean Oil	Per Cent Water including emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pressure
On gas lift 3/20/54 Initial production	232	30.3	2.6%	89	100#	700#
4/30/54 Production after 30 days	101	30.8	2.0%	35	250#	900#

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 Cement if through perforati
11-3/4"	999'	0'	42#	New	Seamless	H-40	16"	600 Ideal & 225 Neat Cmt	
7"	3865'	0'	23,26,29#	New	Seamless	J-55, N-80	10-5/8"		
5-1/2"	3748'	3538'	20#	New	Seamless	J-55, Reg.	6"		

Perforations

Size of Casing	From	To	Size of Perforations	Number of Rows	Distance Between Centers	Method of Perforations
5-1/2"	8592 ft.	3748 ft.	120 Vees x 2" Slots	12	6"	6" Underreamed by Pacific
	ft.	ft.				
	ft.	ft.				
	ft.	ft.				
	ft.	ft.				

Sqz. 10 sks. 3860'-3747' (Attach Copy of Log)

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FORM 101
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

LOG AND CORE RECORD OF OIL OR GAS WELL

Operator TIDE WATER ASSOCIATED OIL COMPANY Field ALISO CANYON

Well No. Standard-Seanon 1-#25 Sec. 28, T. 3 N, R. 16 W, S.B. B. & M.

FORMATIONS PENETRATED BY WELL

DEPTH TO Top of Formation	DEPTH TO Bottom of Formation	Thickness	Drilled or Cored	Recovery	DESCRIPTION
1-1/4" LANE-WELLS SIDEWALL SAMPLES					
3415'				3/4"	Soft, greenish-gray siltstone containing forams. Faint cut and odor.
3490'				No Recovery.	
3537'				1/2"	Soft, fine grained greenish-brown sandy siltstone. Faint cut, good oder.
3600'				1-1/4"	Soft, greenish-gray siltstone. Faint cut, no odor.
4630'				1-1/4"	Soft, greenish-brown silty shale with occasional forams. Slight cut, good odor.
4665'				No recovery.	
4705'				1/2"	Soft, light brown, coarse grained oil sand. Good cut and odor. Pebbles to 1/2".
4725'				3/4"	As above.
4767'				No recovery.	
4798'				3/4"	As above.
4820'				1-1/4"	As above.
4820'				1/2"	As above.
4820'				No recovery.	
4835'				1"	As above.
4860'				1"	Firm, coarse to medium grained, light brown oil sand with occasional shell fragments. Good cut and odor. Has grayish cast.
4860'				1/2"	As above.
4880'				No Recovery.	
4902'				1"	Soft, medium grained oil sand. Good cut & odor.
4902'				1/4"	As above.

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STATE OF CALIFORNIA
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DIVISION OF OIL AND GAS

LOG AND CORE RECORD OF OIL OR GAS WELL

Operator TIDE WATER ASSOCIATED OIL COMPANY Field ALISO CANYON

Well No. Standard-Sagnon 1-25 Sec. 28, T. 3 N, R. 16 W, S.B. B. & M.

FORMATIONS PENETRATED BY WELL

DEPTH TO Top of Formation	DEPTH TO Bottom of Formation	Thickness	Drilled or Cored	Recovery	DESCRIPTION
SCHLUMBERGER SIDEWALL SAMPLES:					
5530'				Fragment	Soft, medium grained, light brown oil sand.
5537'				1/2"	Firm, coarse grained, light brown oil sand.
5567'				3/4"	Firm, medium grained, dark brown oil sand. Good cut and odor.
5627'				No recovery - cup in hole.	
5616'				1/2"	Firm, greenish gray siltstone.
5668'				1"	As above.
5722'				3/4"	As above.
5725'				1/2"	As above.
5734'				1/2"	As above.
5757'				3/4"	Firm, greenish gray siltstone with occasional megafossils.
5804'				1/2"	Firm, greenish gray oil stained siltstone. Fair cut and odor.
5819'				3/4"	Oil stained as above.
5858'				1/2"	Firm, greenish gray siltstone.
5878'				1/2"	As above.
5938'				1/2"	Firm, light brown, silty oil sand with occasional megafossils. Good cut and odor.
8-1/2" MERCURY CONVENTIONAL CORE BARREL:					
5945'	5975'			15'	15' Oil Stained Sand. Variegated, greenish gray and brown, very fine grained to clayey siltstone. Generally firm but friable to mushy where core was disturbed in removing from barrel; fair topoor permeability and

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FORM 10F
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

LOG AND CORE RECORD OF OIL OR GAS WELL

Operator TIDE WATER ASSOCIATED OIL COMPANY Field ALISO CANYON

Well No. ~~Standard-Sesnon 1-#25~~ Sec. ~~28~~, T. ~~3 N~~, R. ~~16 W~~, ~~S.B.~~ B. & M.

FORMATIONS PENETRATED BY WELL

DEPTH TO Top of Formation	DEPTH TO Bottom of Formation	Thickness	Drilled or Cored	Recovery	DESCRIPTION
8-1/2" MIRCSEM CONVENTIONAL CORE BARREL: (cont.)					
5915'	5975' (cont.)				porosity, staining is irregular with reddish brown oil, strong gasoline odor, dark brown cuts, estimated 50% oil stained. Core looks wet. Occasional thin streaks of claystone (green). Shows slick places with black oil on surfaces. Sand grains look fresh and are chiefly quartz.
5975'	6005'			12'	12' Gray Sand. Greenish-gray, very fine grained, silty, well sorted, firm but friable, fair permeability and porosity. No cut, stain or odor except for 3" spotty staining at 6002' where core has mottled appearance (20% saturation), good odor, light amber cut. Sand grains are fresh, chiefly quartz with scattered biotite. Core is definitely wet.

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FORM 103.
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR ~~TIDE WATER ASSOCIATED OIL COMPANY~~ FIELD ~~ALISO CANYON~~

Well No. ~~Standard-Sesnon 1-#25~~, Sec. ~~28~~, T. ~~3 N~~, R. ~~16 W~~, ~~S.B.~~ B. & M.

Signed J E Weaver Jr.

Date ~~May 28, 1954~~ Title ~~Agent~~
(President, Secretary or Agent)

It is of the greatest importance to have a complete history of the well. Use this form in reporting the history of all important operations at the well, together with the dates thereof, prior to the first production. Include in your report such information as size of hole drilled to cementing or landing depth of casings, number of sacks of cement used in the plugging, number of sacks or number of feet of cement drilled out of casing, depth at which cement plugs started, and depth at which hard cement encountered. If the well was dynamited, give date, size, position and number of shots. If plugs or bridges were put in to test for water, state kind of material used, position and results of pumping or bailing.

Date

LOCATION: 820.00' South and 5360.00' West from Station #84
ELEVATION: 2927.02' Mat
2933.37' Derrick Floor

To be drilled on first line Aliso Zone
Location Etc - Lines 5 Sta

1953

9/8-9/28 Grading, digging rat hole and cellar, poured cellar, moved in equipment.

9/29-9/30 Rigged up rotary.

10/1 Spudded 10-5/8" hole at 1:00 PM and drilled to 169'. Lost circulation for 5 hours.

10/2-10/3 Drilled 10-5/8" hole from 169' to 741'. Lost circulation for 3-3/4 hours.

10/4-10/14 Drilled 10-5/8" hole from 741' to 2567'. Ran Schlumberger electric log at 2567'. Opened 10-5/8" hole to 16" from surface to 212'.

10/15-10/18 Opened 10-5/8" hole to 16" from 212' to 990'. Ran and cemented 11-3/4" 42# Youngstown T & C casing at 990' with 600 sacks 1:1 Diamix followed by 100 sacks Neat cement. Lost circulation with 114 cu. ft. of cement slurry to displace. Pressure built up from 200-500# when plugs bumped. Time 9:45 PM. B.J. Service. Cemented around outside of casing with 75 sacks of Neat cement.

10/19 Cemented around outside of casing with additional 60 sacks Neat cement. Cleaned out and found cement at 984'.

10/20-10/22 Cleaned out to 2567'. Drilled 10-5/8" hole from 2567' to 2925'. Twisted off drill collar in hole. Fishing at 2925'.

10/23 Washing over drill collar at 2908'.

10/24 Washed over and recovered drill collar.

10/25-10/26 Drilled 10-5/8" hole from 2925' to 3073'. Twisted off 28 joints of drill pipe and 2 drill collars at 3073'. Recovered same with McCullough socket.

10/27-11/4 Drilled 10-5/8" hole from 3073' to 4362'. Changed to Carbonox mud at 4350'.

11/5 Drilled 10-5/8" hole from 4362' to 4530'.

11/6 Drilled 8-1/2" hole from 4530' to 4630'. Ran Schlumberger electric log at 4630'. Opened 8-1/2" hole to 10-5/8" from 4530' to 4552'.

11/7 Opened 8-1/2" hole to 10-5/8" from 4552' to 4630'. Reduced hole to 8-1/2" and drilled from 4630' to 4685'.

11/8 Drilled 8-1/2" hole from 4685' to 4765'.

11/9 Drilled 8-1/2" hole from 4765' to 4781'. Ran Schlumberger electric log at 4781'. Ran Johnston formation tester on 4-1/2" drill pipe and set packers at 4652' and 4661' with perforated tailpipe to 4781'. Used 500' water cushion. Opened tester at 4:05 PM. Had medium, steady blow for 8 minutes when gas reached surface. Increased to strong, steady blow for next 5 minutes when cushion reached surface. Well unloaded cushion in 12 minutes. After tester was open a total of 20 minutes,

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1953

11/9 (cont.) well was producing gas at maximum rate of 1,591,000 CF/D. After 40 minutes, rate decreased to approximately 360,000 CF/D. After 55 minutes, well died. After 60 minutes, had medium to light heading blow for balance of 75 minute test. Recovered 1620' net rise of gas cut drilling mud. Pressure charts showed 1100# pressure.

11/10 Opened 8-1/2" hole to 10-5/8" to 4761', then drilled 8-1/2" hole from 4781' to 4796'.

11/11-13 Drilled 8-1/2" hole from 4796' to 4910'. Ran Schlumberger electric log to 4910'.

11/14 Ran Johnston formation tester on 4-1/2" drill pipe and set sidewall packers at 4787' and 4795' with perforated tailpipe to 4910'. Opened tester at 7:35 AM. Had fair, diminishing to light blow throughout one hour test. Recovered 2590' net rise; top 755' drilling mud, remainder salt water with average salinity of 373 g/g. Bottom hole pressure 1250#. Reran Schlumberger electric log to 4910'. Opened 8-1/2" hole to 10-5/8" from 4761' to 4788'.

11/15-16 Drilled 8-1/2" hole from 4910' to 4948'. Ran Lane-Wells Neutron Ray, Gamma Ray and sidewall sampler.

11/17 Hung 4-1/2" drill pipe and 97' of 2-7/ 8" tubing equipped with scratchers at 4948'. Pumped in 60 sacks Colton Slow cement preceded by 25 cu. ft. of water. Reciprocated and rotated pipe while displacing water and cement. Equalized cement at approximately 4830'. Time 11:30 AM. B.J. Service. Cleaned out to bottom and found no cement.

11/18 Hung 4-1/2" drill pipe and 97' of 2-7/8" tubing equipped with scratchers at 4948' and pumped in 60 sacks Colton Slow cement. Reciprocated and rotated pipe while displacing cement. Time 10:30 AM. B.J. Service. Found top of cement at 4830' and cleaned out to 4860'. Mud weight 74#, 33 viscosity, 3.3 c.c. water loss.

11/19 Ran Johnston tester on 4-1/2" drill pipe and set sidewall packers at 4715' and 4725' with perforated tailpipe to 4860'. Used 500' water cushion. Opened tester at 11:20 AM. Had light, steady blow for 5 minutes, decreasing to faint, intermittent blow throughout balance of 1 hour test. Could not pull tester loose. Jarred for 3 hours without results. Backed off left hand thread below packers and pipe rotated easily. Attempted to pull tester again but would not come loose. Rotated again and twisted off drill pipe, leaving a single, 7 doubles, drill collar and tools in hole (approximately 893' total fish). Backscuttled and recovered fresh water cushion. Ran in with fishing tool, jarred for 3 hours without results.

11/20 Jarred on fish for 4 hours with no results. Pulled out and laid down fishing tools. McAteer Drilling Contractor released at 10:00 AM. Moving out.

11/21-23 Standing idle.

11/24 Finished moving out rotary.

11/25-12/28 Idle.

12/29-31 Moved in and rigged up rotary.

1954

1/1 Replaced Series 600 casing flange with Series 900. Making up drill pipe.

1/2 Cleaned out to top of fish at 3967'. Hung 4-1/2" drill pipe at 3967' and pumped in 150 sacks Colton Slow cement, 20% sand. Time 12:00 Midnight. B.J. Service.

1/3 Found top of cement at 3770'. Cleaned out to solid cement at 3830'. Standing cemented. Mud weight 74#, 68 viscosity, 4.1 c.c. water loss.

1/4 Drilled out solid cement from 3830' to 3860'. Running Eastman "shoe horn type" whipstock. Mud weight 74#, 58 viscosity, 4.2 c.c. water loss.

1/5 Drilled off Eastman "shoe horn type" whipstock from 3860' to 3878' with 7-7/8" bit. Opened hole to 10-5/8" and drilled ahead to 3929'. Deviation at 3900' equals 3.5 degrees. Mud weight 73#, 65 viscosity, 4.2 c.c. water loss.

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1954

1/6 Drilled 10-5/8" hole from 3929' to 4139'. Mud weight 72#, 45 viscosity, 5.1 c.c. water loss.

1/7 Redrilled 10-5/8" hole from 4139' to 4333'. Mud weight 73#, 45 viscosity, 6.0 c.c. water loss.

1/8 Redrilled 10-5/8" hole from 4333' to 4594'. Mud weight 75#, 55 viscosity, 5.5 c.c. water loss.

1/9 Redrilled 10-5/8" hole from 4594' to 4661', then reduced size of hole to 8-1/2" and drilled to 4770'.

1/10-1/11 Redrilled 8-1/2" hole from 4770' to 4806'. Repaired drilling equipment.

1/12 Redrilled 8-1/2" hole from 4806' to 4840'. Ran Schlumberger electric log at 4840'. Mud weight 75#, 52 viscosity, 3.3 c.c. water loss.

1/13 Opened 8-1/2" hole to 10-5/8" from 4661' to 4680'. Ran Johnston tester on 4-1/2" drill pipe and set packers at ~~4656'~~ 4706' and 4716' with perforated tailpipe to 4840'. Used 500' water cushion. Opened 3/8" bean at 6:45 AM. Had medium blow for 3 minutes, strong, steady blow for 25 minutes, decreasing to dead in 45 minutes. Pulled packers loose after 50 minute test. Gas to surface in 3 minutes. Maximum rate 247 MCF after being open 15 minutes. Recovered net rise of 360' gas-cut drilling fluid. Pressure bomb charts confirmed details of test. Opened 8-1/2" hole to 10-5/8" from 4680' to 4840'. Mud weight 75#, 48 viscosity, 4.4 c.c. water loss.

Retest of Aliso Zone Sands

1/14 Redrilled 10-5/8" hole from 4840' to 4948'. Deepened from 4948' to 4967' with 10-5/8" bit. Mud weight 76#, 50 viscosity, 3.0 c.c. water loss.

1/15 Drilled 10-5/8" hole from 4967' to 5053'. Mud weight 76#, 45 viscosity, 3.2 c.c. water loss.

1/16 Drilled 10-5/8" hole from 5053' to 5160'. Mud weight 78#, 45 viscosity, 3.6 c.c. water loss.

1/17 Drilled 10-5/8" hole from 5160' to 5450'. Mud weight 77#, 48 viscosity, 3.1 c.c. water loss.

1/18 Reduced size of hole to 8-1/2" and drilled from 5450' to 5630'. Ran Schlumberger electric log at 5630'. Opened 8-1/2" hole to 10-5/8" from 5450' to 5520'. Mud weight 78#, 50 viscosity, 3.0 c.c. water loss.

1/19 Drilled 8-1/2" hole from 5630' to 5645'. Ran Johnston formation tester on 4-1/2" drill pipe and set sidewall packers at 5522' and 5527' with bottom of perforated tailpipe to 5645'. Used 500' water cushion. Opened 3/8" bean at 6:50 PM. Had moderate, steady blow for duration of 1 hour test with gas to surface in 10 minutes. Maximum gas rate after 22 minutes, 38 MCF per day. Recovered 570' net rise gassy emulsified heavy oil. No free water. Charts checked details of test. Final maximum pressure 620#. Cleaned out rat hole to 5645' with 8-1/2" bit. Mud weight 78#, 53 viscosity, 3.2 c.c. water loss.

Test of Upper Aliso Water Zone

1/20 Drilled 8-1/2" hole from 5645' to 5790'. Ran Schlumberger electric log at 5770'. Mud weight 78#, 50 viscosity, 3.5 c.c. water loss.

1/21 Drilled 8-1/2" hole from 5790' to 5945'. Ran Schlumberger electric log at 5945' and took sidewall samples at 5537', 5567', 5627', 5646', 5668', 5722', 5725', 5734', 5757', 5804', 5819', 5858', 5878' and 5938'. Opened hole to 10-5/8" from 5522' to 5945'. Mud weight 77#, 53 viscosity, 3.6 c.c. water loss.

Test Lower Aliso Zone

Insert 10 Aliso Zone

1/22 Cored 8-1/2" hole from 5945' to 6005' with Mercury conventional core barrel. Opened hole to 10-5/8" from 5945' to 6005'. Mud weight 77#, 44 viscosity, 6.6 c.c. water loss.

1/23 Drilled 10-5/8" hole from 6005' to 6372'. Mud weight 78#, 48 viscosity, 3.6 c.c. water loss.

1/24 Drilled 10-5/8" hole from 6372' to 6706'. Mud weight 77#, 45 viscosity, 5.4 c.c. water loss.

1954

1/25 Drilled 10-5/8" hole from 6706' to 7111'. Mud weight 78#, 45 viscosity, 6.3 c.c. water loss.

1/26 Drilled 10-5/8" hole from 7111' to 7227'. Ran Schlumberger Magnetic survey at 7227'.
Mud weight 78#, 48 viscosity, 6.8 c.c. water loss.

1/27 Drilled 10-5/8" hole from 7227' to 7526'. Mud weight 78#, 50 viscosity, 7.2 c.c. water loss.

1/28 Drilled 10-5/8" hole from 7526' to 7594'. Stuck drill pipe 138' off bottom (7594'). Spotted 80 barrels of oil and came loose. Mud weight 78#, 55 viscosity, 8.0 c.c. water loss.

1/29 Drilled 10-5/8" hole from 7594' to 7780'. Attempted to run shoe horn type bit at 7778', facing S 25 Deg. E, but failed to function. Mud weight 76#, 45 viscosity, 6.1 c.c. water loss.

1/30 Drilled 10-5/8" hole from 7780' to 7897'. Mud weight 78#, 50 viscosity, 5.8 c.c. water loss.

1/31 Drilled 10-5/8" hole from 7897' to 7917'. Set conventional whipstock at 7917', facing South 55 Deg. East. Drilled off whipstock with 7-1/2" bit to 7928', then opened hole to 10-5/8" and drilled ahead to 7936'. Mud weight 78#, 45 viscosity, 6.0 c.c. water loss.

2/1 Drilled 10-5/8" hole from 7936' to 8030'. Mud weight 78#, 58 viscosity, 6.6 c.c. water loss.

2/2 Drilled 10-5/8" hole from 8030' to 8093'. Mud weight 74#, 46 viscosity, 5.6 c.c. water loss.

2/3 Reamed off key seat from approximately 3800' to 3900', then reamed remainder of hole. Mud weight 76#, 58 viscosity, 5.2 c.c. water loss.

2/4 Drilled 10-5/8" hole from 8093' to 8177'. Mud weight 79#, 48 viscosity, 4.8 c.c. water loss.

2/5 Drilled 10-5/8" hole from 8177' to 8240'. Mud weight 79#, 45 viscosity, 4.3 c.c. water loss.

2/6 Drilled 10-5/8" hole from 8240' to 8373'. Mud weight 79#, 47 viscosity, 4.2 c.c. water loss.

2/7 Drilled 10-5/8" hole from 8373' to 8544'. Mud weight 80#, 52 viscosity, 3.8 c.c. water loss.

2/8 Drilled 10-5/8" hole from 8544' to 8580'. Ran Schlumberger electric log at 8550'. Drilled ahead to 8580' and ran Schlumberger electric log and Neutron - Self-potential log. Circulated with double three point reamer. Mud weight 80#, 50 viscosity, 4.0 c.c. water loss.

2/9 Drilled 10-5/8" hole from 8580' to 8585'. Mud weight 78#, 44 viscosity, 3.3 c.c. water loss. Running 7" casing.

2/10 Cemented 7" Youngstown, Speedtite casing at 8585' with 600 sacks Colton Hi-temperature cement. Detail of casing is as follows: Surface to 2398' - 23#, J-55; 2398' to 6308' - 23#, N-80; 6308' to 8282' - 26#, N-80; 8282' to 8585' - 29#, N-80. Pressure rose from 1000-1500# when plugs bumped. Time 3:10 AM. B.J. Service (two pump trucks). Used two centralizers and three scratchers on each of bottom three joints. Tested casing 1200# O.K. for 15 minutes. Making up 3-1/2" drill pipe.

2/11 Found top of hard cement at 8537'. Drilled out cement to 8584'. Ran Schlumberger Neutron and collar locator to 8584'. Ran Schlumberger jet gun and shot four holes at 8583'.

2/12 Ran Johnston tester on 3-1/2" drill pipe and set packer at 8522' with perforated tailpipe to 8539' to test jet holes at 8583'. Used 1000' water cushion. Opened tester at 11:05 AM. Had light, steady blow for 5 minutes, then dead for 1 hour test. Recovered 30' net rise of water drilling fluid. Charts checked details

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1954

2/12 (cont) of test. Obtained segregation at 8583'. Ran Schlumberger jet perforator and shot four holes at 8475'. Ran Johnston tester on 3-1/2" drill pipe and set packer at 8434' with perforated tailpipe to 8451'. Used 1000' water cushion. Opened tester at 9:40 PM. Had light blow for 1 minute, then dead for balance of 1 hour test. Recovered 30' net rise drilling fluid. Charts confirmed results of test. Water shutoff on holes at 8475' witnessed and approved by Division of Oil and Gas. Mud weight 76#, 46 viscosity, 2.4 c.c. water loss.

2/13 Cleaned out from 8584' to 8585'. Drilled 6" hole from 8585' to 8634'. Mud weight 80#, 59 viscosity, 4.8 c.c. water loss.

2/14 Ran Schlumberger electric log at 8749'. Reamed 6" hole from 8585' to 8749'. Mud weight 79#, 47 viscosity, 4.2 c.c. water loss.

2/15 Landed 189' of 5-1/2" 20# J-55 Youngstown flush joint liner at 8748'. Top of hanger 8559'. Perforations 8592' - 8748'. Details of perforations: 120 Mesh, 12 rows, 2" slots, 6" centers, 6° undercut, by Pacific. Laid down drill pipe and made up tubing.

2/16 Installed Christmas tree and landed 2-7/8" tubing at 8540'. Displaced mud with oil.

2/17 Swabbed 12 hours. Fluid level 3200'. Lost swab. Fishing.

2/18 Circulated out swab with oil. Resumed swabbing. Fluid level 1500'. Swabbed out approximately 125 barrels.

2/19 Swabbed 150 barrels gross fluid, all circulating oil. Fluid level 2500'.

2/20 In 12 hours swabbed 107 barrels gross fluid, all formation oil. 94 barrels net oil, 12.0% cut, 18.3 gravity. Swabbed at 6000'. Fluid level 3500'. Released Pike Drilling Contractor at 6:00 PM.

2/21-22 Contractor moving out.

2/23 Shut in. 160# tubing pressure; 325# casing pressure.

2/24 Shut in. 200# tubing pressure; 300# casing pressure.

2/25 Well began flowing at 1:30 PM and in 8-1/2 hours produced 105 barrels gross fluid, 99 barrels net oil, cut 6.0% water, 24/64" bean, 100# tubing pressure, 1600# casing pressure. Well died at 10:00 PM. 6:00 AM tubing pressure 100#; casing pressure 1600#.

2/26 In 3 hours well flowed by heads 39 barrels gross fluid, no cut or gravity, 64/64" bean, 300# tubing pressure, 1475# casing pressure.

2/27 Well dead. 100# tubing pressure, 1400# casing pressure.

2/28 Well dead. Bleeding down casing pressure.

3/1 Rigged up California Production Service hoist and in 16 hours swabbed 82 barrels gross fluid, 78 barrels net oil, 4.4% cut, 19.7 gravity, fluid level remaining from 2500-3000'.

3/2 In 16 hours swabbed 129 barrels gross fluid, 128 barrels net oil, 1.0% cut, 20.6 gravity, 0# tubing pressure, 0# casing pressure. Fluid level 4000'. Released crew 12:00 Midnight.

3/3 Shut in. 350# tubing pressure; 350# casing pressure.

3/4 Shut in. 450# tubing pressure; 300# casing pressure.

3/5 Shut in. 560# tubing pressure; 500# casing pressure.

3/6 Shut in. 560# tubing pressure; 500# casing pressure.

3/7 Shut in. 500# tubing pressure; 560# casing pressure.

3/8 In 17 hours well flowed on gas lift 101 barrels gross fluid, 101 barrels approximate net oil, 0.1% cut, 21.2 gravity, 16/64" bean, 100# tubing pressure, 1350# casing pressure, 0 MCF gas.

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1954

3/9 In 8 hours well flowed on gas lift 29 barrels gross fluid, 29 barrels approximate net oil, 0.1% cut, 21.2 gravity, 16/64" bean, 680# tubing pressure, 1250# casing pressure, 0 MCF gas.

3/10 Shut in. 1300# tubing pressure; 1300# casing pressure.

3/11 Shut in. Let off tubing pressure but well would not flow. 100# tubing pressure; 1400# casing pressure.

3/12 In 8 hours well flowed 76 barrels gross fluid, approximately 74 barrels net oil, 3.0% cut, 21.0 gravity, 16/64" bean, 200# tubing pressure, 1400# casing pressure. Bleeding off pressures. Preparing to install gas flow valves.

3/13 Bleeding off pressure. 200# tubing pressure; 1400# casing pressure.

3/14 Bleeding off pressure. 150# tubing pressure; 700# casing pressure.

3/15 Bleeding off pressure. 200# tubing pressure; 0# casing pressure.

3/16 Bled off pressure and filled hole with dead oil. Will move in mast if weather permits.

3/17 California Production Service moving in with mast.

3/18 Pulled tubing. Ran 7" Guiberson KV-30 wall packer and set at 8525' with 14,000#; included arefive Guiberson gas lift flow valves as follows: 1000# valve - 1965'; 975# valve - 3835'; 950# valve - 5504'; 925# valve - 6973'; 900# valve - 8271' (no ball and check on this valve). Above depths are from tubing head.

3/19 Hooked up tree and began injecting gas. In 15 hours well flowed on gas lift as follows:

	Gross	Net	Cut	Gravity	Bean	Tubing Pressure	Casing Pressure	MCF Gas Inj	MCF Gas Net
	211 gross fluid, of which 171 barrels is formation oil, 166 barrels net oil, cut 3.0%, 50# tubing pressure, 300# casing pressure, 20.3 gravity, 153 MCF injected gas, 47 MCF net.								
3/20	238	232	2.6%	20.3	32/64	100#	700#	217	89
3/21	103	103	0.3%	20.7	32/64	200#	750#	49	88
	Off 13 hours - gas injection line froze.								
3/22	Injection line frozen 3-1/2 hours.								
	190	190	0.2%	21.0	32/64	360#	750#	220	79
3/23	146	143	2.0%	20.6	32/64	140#	750#	211	109
3/24	152	151	0.4%	20.5	32/64	100#	940#	207	109
3/25	130	130	0.2%	20.5	32/64	250#	900#	232	68
	Off 4-1/2 hours - gas injection line frozen.								
3/26	166	166	0.2%	20.5	32/64	250#	900#	232	68
3/27	130	130	0.2%	20.5	32/64	250#	900#	220	118
3/28	119	119	0.2%	20.5	32/64	250#	900#	187	56
	Off 4 hours - gas injection line frozen.								
3/29	70	70	0.3%	20.8	14/64	250#	900#	61	65
	Off 11 hours - gas injection line frozen.								
3/30	95	95	0.3%	20.8	14/64	250#	900#	92	78
3/31	74	74	0.3%	20.8	14/64	250#	900#	145	97
4/1	71	70	0.8%	20.8	14/64	250#	900#	87	53
4/2	97	97	0.8%	20.8	14/64	250#	900#	92	78
4/3	38	38	0.8%	20.8	14/64	250#	900#	150	73

OPERATOR: TIDE WATER ASSOCIATED OIL COMPANY

WELL NO.: Standard-Sesnon 1-#25, Aliso Canyon Field

1954	Gross	Net	Cut	Gravity	Bean	Tubing Pressure	Casing Pressure	MCF Gas Inj	MCF Gas Net
4/4	184	183	0.8%	20.8	14/64	250#	900#	220	87
4/5	103	102	0.8%	20.8	14/64	250#	900#	89	56
4/6	97	96	0.8%	20.8	14/64	250#	900#	49	89
4/7	141	140	0.8%	20.8	14/64	250#	900#	95	87
4/8	124	123	0.8%	20.8	14/64	250#	900#	119	110
4/9	107	106	0.8%	20.8	14/64	250#	900#	120	102
4/10	114	113	0.8%	20.8	14/64	250#	900#	122	124
4/11	92	91	0.8%	20.8	14/64	250#	900#	64	86
4/12	103	102	0.8%	20.8	14/64	250#	900#	44	96
4/13	103	102	0.8%	20.8	14/64	250#	900#	134	84
4/14	62	61	2.0%	20.8	14/64	250#	900#	55	43
	Off 13 hours.								
4/15	103	101	2.0%	20.8	14/64	250#	900#	122	72
4/16	113	111	2.0%	20.8	14/64	250#	900#	128	52
4/17	92	91	2.0%	20.8	14/64	250#	900#	168	40
4/18	103	101	2.0%	20.8	14/64	250#	900#	154	35
4/19-21	Shut in for pressure survey.								

Grant 6 - Bonds
Thru 9-30-57

CASING RECORD

	11-3/4"	42#	C	990'	
	7"	23, 26, 29#	C	8585'	4 H 8583', 8475'
189'	5-1/2"	20#	L	8748'	Top 8559' Pf. 8592'-8748'

JUNK

893' 4-1/2" drill pipe and Johnston tester 3967'-4860'

TUBING RECORD

2-7/8" L 8540'

4448. Pg. 3860

8749 T.D.

AC_CPUC_0000157

FORM 109-A

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

RECEIVED
FEB 23 1954
LOS NIETOS

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

No. T 154-208

Mr. F C Foster
Box "Y"
Los Nietos California
Agent for TIDE WATER ASSOCIATED OIL CO

Los Angeles Calif.
February 19 1954

DEAR SIR:

Your well No. "Standard-Sesnon 1" 25, Sec. 28, T. 3 N, R. 16 W, S B B & M. Aliso Canyon Field, in Los Angeles County, was tested for water shut-off on February 13, 1954. Mr. V F Gaede, Inspector, designated by the supervisor was present from 12:25 a.m. to 2:30 a.m. as prescribed by law; there were also present E Shuler, Engineer R Frantz, Drilling foreman

Shut-off data: 7 in. 23, 29 lb. casing was cemented xxx at 8585 ft. on February 10, 1954 in 10-5/8 in. hole with 600 ~~xxxxx~~ sacks of cement xxx calculated to fill behind casing to 6628 ft. below surface.

Casing record of well: 11-3/4" cem. 990'; 7" cem. 8585', four 1/2" holes 8583'; four 1/2" holes 8475', W.S.O.; Junk: T.D. (1st hole) 4948'

Present depth 8585 ft. cmt. bridge 8585 ft. to 8584 ft. Cleaned out cmt. 8547 ft. to 8584 ft. for test. A pressure of 1200 lb. was applied to the inside of casing for 15 min. without loss after cleaning out to 8547 ft. A Johnston tester was run into the hole on 3-1/2 in. drill pipe ~~xxxxx~~ with 1000 ft. of water-~~xxx~~ cushion, and packer set at 8434 ft. with tailpiece to 8451 ft. Tester valve, with 3/8 in. bean, was opened at 9:40 p.m., February 12, 1954 and remained open for 1 hr. and xxx min. During this interval there was a light steady blow for 1 minute, then no blow thereafter.

Mr. Shuler reported:

1. A 10-5/8" rotary hole was drilled 990'-4948'.
2. Lost Johnston tester and 4-1/2" drill pipe in hole from 4860' to 3967'.
3. On January 3, 1954, 150 sacks of cement mixed with 20% sand was pumped into the hole through 4-1/2" drill pipe hanging at 3967', filling to 3770'.
4. Cement was drilled out of the hole from 3770' to 3860'.
5. A whipstock was set at 3860'.
6. A 10-5/8" rotary hole was drilled 3860' to 8585'.
7. The 7" casing was cemented as noted above.
8. The 7" casing was shot-perforated with four 1/2" holes at 8583' for company test of shut-off.
9. The above perforations tested dry.
10. The 7" casing was shot-perforated with four 1/2" holes at 8475'.
11. A Johnston tester was run as noted above.

THE INSPECTOR NOTED THE FOLLOWING:

1. When the drill pipe was removed, a net recovery of 30' of drilling fluid was found in the drill pipe above the tester, equivalent to 0.2 bbl.
2. The recording pressure bomb chart showed that the tester valve was open 1 hour.

THE 7" SHUT-OFF AT 8475' IS APPROVED.

VFG:ES

cc T L Wark
R S Curl
J R Bovyer (2)

R. D. BUSH, State Oil and Gas Supervisor

By R. J. Walling, Deputy

87212 10-53 26,500 SPO

AC_CPUC_0000158

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

RECEIVED
JAN 22 1954
LOS NIETOS

REPORT ON PROPOSED OPERATIONS

No. P 154-111

Los Angeles 15, Calif. January 21, 19 54

Mr. F C Foster
Box "Y"
Los Nietos, Calif.

Agent for TIDE WATER ASSOCIATED OIL CO

Dear Sir:

Your supplementary proposal to drill "Standard-Sesnon 1" Well No. 25, Section 28, T. 3 N, R. 16 W, S B B. & M., Aliso Canyon Field, Los Angeles County, dated Jan 18 19 54, received Jan 20 19 54, has been examined in conjunction with records filed in this office.

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

THE NOTICE STATES:
"The new conditions are as follows:
1. Drilled to 2567' and cemented 11-3/4" 42# casing at 990' with 600 sacks Diamix and 100 sacks Neat cement.
2. Drilled to 4948' T.D. (Tested 4661'-4781'; 4795'-4910'.) Plugged to 4860'.
3. Left 893' of fish (including Johnston tester with two sidewall packers and 135' of tailpipe) in hole from 3967' to 4860'.
4. Parted 4-1/2" drill pipe while jarring, took hold of fish and resumed jarring, but could not recover."

PROPOSAL:
"New Program:
1. Move in larger rotary. Plug interval ffom 3860' to 3967'.
2. Set whipstock and redrill to 4840'.
3. Test interval from approximately 4710' to 4840'.
4. Redrill to 5630' and test interval from 5450' to 5630'.
5. Redrill to approximately 5755' and test interval from 5630' to 5755'. If commercial well indicated, cement 7" casing with water shutoff to be witnessed by D.O.G.
6. If well is not commercial, drill to approximately 8575'.
7. Cement 7" casing at point below the top of the Lower Sesnon Zone.
8. Test for segregation between Upper and Lower Sesnon Zones.
9. Test for water shutoff at top of Upper Sesnon Zone, to be witnessed by Division of Oil and Gas.
10. Drill thfough Lower Sesnon interval and land 5-1/2" liner."

DECISION: THE PROPOSAL IS APPROVED PROVIDED THAT in all other respects, the well is redrilled in accordance with the requirements outlined in our report No. P 153-1294 dated October 20, 1953.

FEK:ES

cc T L Wark
Jos Jensen
J R Bovyer (2)

Blanket bond.

R. D. BUSH
State Oil and Gas Supervisor

By R. V. Nelling Deputy

26499 6-50 15M SPC

AC_CPUC_0000159

File

FORM 123. 36347 7-44 7500
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Supplementary Notice

Los Nietos Calif. January 18, 19 54

DIVISION OF OIL AND GAS

Los Angeles Calif.

Our notice to you dated October 1, 19 53, stating our intention to

Redrill (Drill, deepen, redrill, abandon) well No. Standard-Sesnon 1-#25,

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

County, must be amended on account of changed or recently discovered conditions.

The new conditions are as follows:

1. Drilled to 2567' and cemented 11-3/4" 42# casing at 990' with 600 sacks Diamix and 100 sacks Neat cement.
2. Drilled to 4948' T.D. (Tested 4661'-4781'; 4795'-4910'.) Plugged to 4860'.
3. Left 893' of fish (including Johnston tester with two sidewall packers and 135' of tailpipe) in hole from 3967' to 4860'.
4. Parted 4-1/2" drill pipe while jarring, took hold of fish and resumed jarring, but could not recover.

New Program:

1. Move in larger rotary. Plug interval from 3860' to 3967'.
2. Set whipstock and redrill to 4840'.
3. Test interval from approximately 4710' to 4840'.
4. Redrill to 5630' and test interval from 5450' to 5630'.

We now propose

5. Redrill to approximately 5755' and test interval from 5630' to 5755'. If commercial well indicated, cement 7" casing with water shutoff to be witnessed by D.O.G.
6. If well is not commercial, drill to approximately 8575'.
7. Cement 7" casing at point below the top of the Lower Sesnon Zone.
8. Test for segregation between Upper and Lower Sesnon Zones.
9. Test for water shutoff at top of Upper Sesnon Zone, to be witnessed by Division of Oil and Gas.
10. Drill through Lower Sesnon interval and land 5-1/2" liner.

TIDE WATER ASSOCIATED OIL COMPANY
(Name of Operator)

By J. E. Weaver B.
Agent

AC_CPUC_0000160

FORM 109-D

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

RECEIVED
NOV 18 1953
LOS NIETOS

Special Report on Operations Witnessed

No. T 153-1352

Los Angeles 15, Calif. November 17, 1953

Mr F C Foster
Box X
Los Nietos, Calif.
Agent for TIDE WATER ASSOCIATED OIL CO

DEAR SIR: "Standard-Seaton 1"

Operations at your well No. 25, Sec. 28, T. 3 E, R. 16 W, S B B. & M., Aliso Canyon Field, in Los Angeles County, were witnessed by O. J. Borkovich, Inspector, representative of the supervisor, on November 9, 1953. There was also present R. Butler, Driller; J. Hanson, Derrickman.

Casing Record	Junk
11-3/4" cem. 990'. T.D. 3628'.	None

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

The inspector arrived at the well at 12:40 p.m. and Mr. Butler reported:

1. A 10-5/8" rotary hole was drilled from the surface to 2572' and opened up to 16" hole to 990'.
2. On October 18, 1953, 11-3/4", 42 lb. casing was cemented at 990' with 600 cu. ft. 1:1 mix cement and diamix.
3. Cement returned to the surface.
4. A 10-5/8" rotary hole was drilled from 2572' to 3628'.

THE INSPECTOR NOTED THAT THE WELL WAS EQUIPPED WITH THE FOLLOWING BLOWOUT PREVENTION EQUIPMENT:

1. A Hegan blowout preventer for closing in the well with the drill pipe out of the hole.
2. A Hegan blowout preventer for closing around the 4-1/2" drill pipe.
3. The controls for the above equipment were located outside the derrick.
4. A 2" mud fill-up line with a 2" high pressure stopcock into the 11-3/4" casing below the above equipment.

The inspection was completed at 1:20 p.m.

THE BLOWOUT PREVENTION EQUIPMENT AND INSTALLATION ARE APPROVED.

OJB:CK

CC J R Boyer (2)

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

Mr Joe Jensen
c/o Tide Water Associated Oil Co
888 Pacific Electric Bldg

R. D. BUSH
State Oil and Gas Supervisor

By O. J. Borkovich Deputy

82547 7-53 10M A&S OLM 14

AC_CPUC_0000161

FORM 111 (1-49)

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

RECEIVED
OCT 21 1953
LOS NIETOS

REPORT ON PROPOSED OPERATIONS

No. P 153-1294

Los Angeles 15 Calif. October 20 1953

Mr. F C Foster
Box Y
Los Nietos Calif.

Agent for TIDE WATER ASSOCIATED OIL CO

DEAR SIR:

Your proposal to drill Well No. "Standard-Gennon 1" 25

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

dated Oct. 1 1953, received Oct. 15 1953, has been examined in conjunction with records filed in this office.

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

THE MOTION STATES

"The well is 820.00 feet S. and 5360.00 feet W. from Station #84
Elevation of ground above sea level 2927.02 feet.
All depth measurements taken from top of Derrick Floor, which is 6.35 feet above ground.
We estimate that the first productive oil or gas sand should be encountered at a depth of about 4550 feet."

PROPOSAL

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

Size of Casing	Weight	Grade and Type	Depth	Landed or Cemented
11-3/4"	42 & 47#	H-40, J-55	2500'±	Cemented
7"	23#	S & C, J-55	4775'	Cemented
5"	18#	J-55 F.J.	4900'	Landed

"The 11-3/4" casing will be set between 1000'-2500', depending upon lost circulation.
It is understood that if changes in this plan become necessary we are to notify you before cementing or landing casing."

DECISION

THE PROPOSAL IS APPROVED PROVIDED THAT

1. Adequate blowout prevention equipment shall be installed and maintained in operating condition at all times.
2. Any hole to be sidetracked in any oil or gas zone shall be filled with cement, if possible.
3. THIS DIVISION SHALL BE NOTIFIED AS FOLLOWS:
   (a) To inspect the installed blowout prevention equipment before drilling below 3000'.
   (b) To witness a test of the effectiveness of the 7" shut-off.

FEE: OK

cc J R Dwyer (2)

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

Jos. Jensen c/o Tide Water Assoc. Oil Co.
555 Pac. Elec. Bldg
Los Angeles 14

Blanket Bond.

R. D. BUSH
State Oil and Gas Supervisor

By R. O. Kelley Deputy

AC_CPUC_0000162

File

FORM 105 (2.49)
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Notice of Intention to Drill New Well

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

Los Nietos, Calif. October 1 1953

DIVISION OF OIL AND GAS

Los Angeles Calif.

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of drilling well No. Standard-Seanon 1 #25, Sec. 28, T 3 W, R. 16 W, S.B. B. & M., Alico Canyon Field, Los Angeles County.

Legal description of lease: Standard-Seanon 1

The well is 820.00 feet N. or S., and 5360.00 feet E. or W. from Station #24
(Give location in distance from section corners or other corners of legal subdivision)

Elevation of ground above sea level 2927.02 feet.

All depth measurements taken from top of Derrick Floor, which is 8.35 feet above ground.

We estimate that the first productive oil or gas sand should be encountered at a depth of about 4550' feet.

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

Size of Casing, Inches	Weight, Lb. Per Foot	Grade and Type	Depth	Landed or Cemented
11-3/4"	42 & 47#	R&C, H-40, J-55	2500' *	Cemented
7"	23#	T & C, J-55	4775'	Cemented
5"	18#	J-55 F.J.	4500'	Landed

*The 11-3/4" casing will be set between 1000'-2500', depending upon lost circulation.

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

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

Telephone number OXford 91051

TIDE WATER ASSOCIATED OIL COMPANY
(Name of Operator)

By J. C. Foster
Agent

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

AC_CPUC_0000163

Your Company Name - See Input defaults

Well PERFORMance Analysis © 2001

System Graph

Well: SS-25
Loc:
Desc:
File: SS-25.PF3

Date: 04-06-2001

Type: Gas Well
Analysis: System Analysis
Node: Separator



Inflow (1)
Outflow (A)
Case 2 (B)
Case 3 (C)

Outflow

(A) 500.0
(B) 400.0
(C) 300.0

Outflow

Separator Pressure, psig

Reg Ortwein - SoCalGas

Case 1 Input Data

Fluid

Water Cut	**0.2000**	%
Oil Grav	**20.5**	°API
SG Gas	**0.610**	
GOR/Yield	**0.1300**	bbl/MMcf
SG Water	**1.070**	

Resv - Darcy

Resv BHP	**1080.0**	psia
Resv Temp	**180**	°F
Resv Perm	**50.0000**	md
Resv Thick	**250**	ft
Resv Skin	**0.000**	
Turbulence	**0.000000**	1/mscfd
Wellbore Rad	**10.630**	in
Resv Rad	**1000**	ft

Compl- Open Hole

Tbg - Gray (1974)

Perf Top	**8510**	ft
Csg ID	**4.778**	in
Tbg ID	**2.441**	in

FlowIn - Fundamental Flow Adj

Sep Press	**500.0**	psig
Pipe ID	**3.000**	in

WB Heat - Linear Gradient

WH Temp	**100**	°F

FL Heat - Linear Gradient

Sep Temp	**80**	°F

Your Company Name - See Input defaults

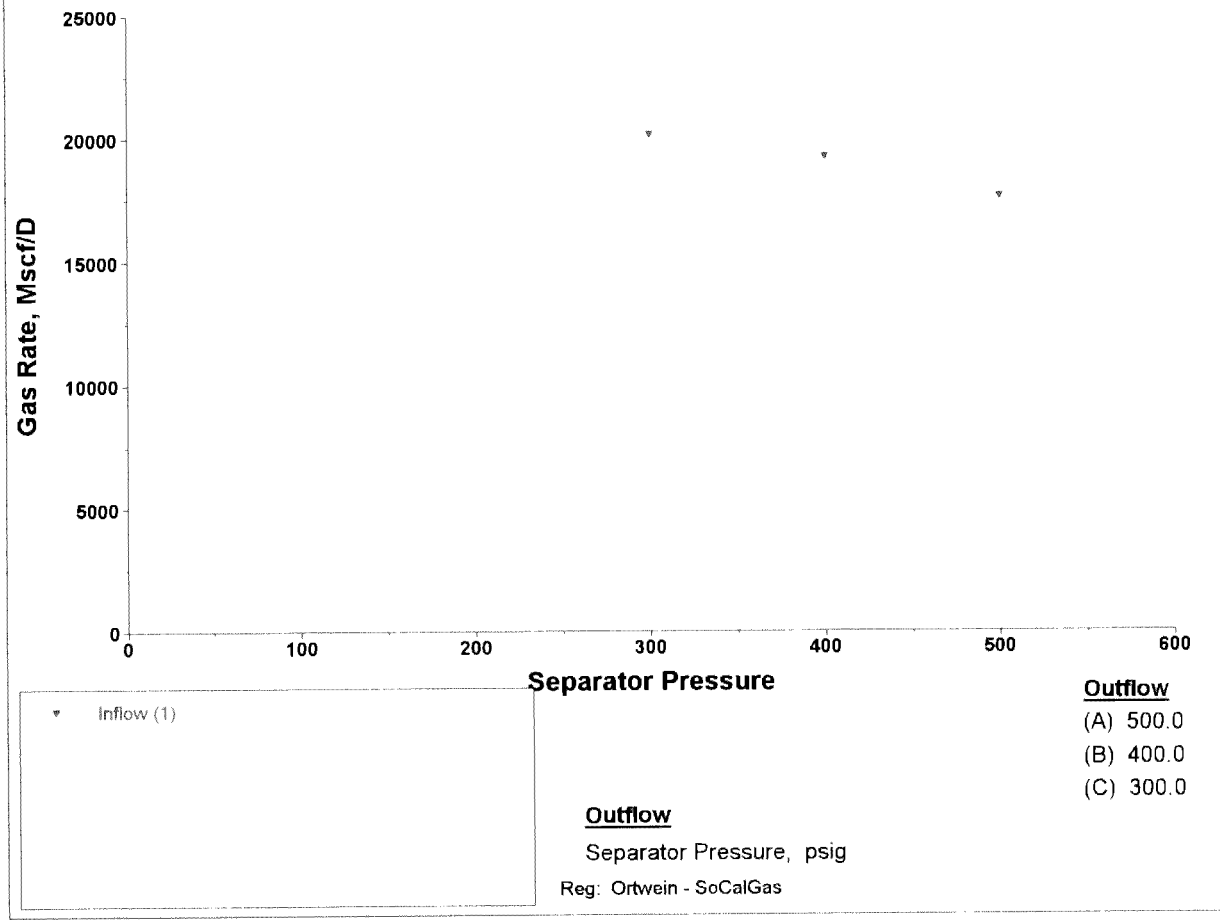
Well PERFORMance Analysis © 2001

Outflow Sensitivity Graph

Well: SS-25
Loc:
Desc:
File: SS-25.PF3

Date: 04-06-2001

Type: Gas Well
Analysis: System Analysis
Node: Separator



Case 1 Input Data

Fluid

Water Cut	**0.2000**	%
Oil Grav	**20.5**	°API
SG Gas	**0.610**	
GOR/Yield	**0.1300**	bbl/MMcf
SG Water	**1.070**	

Resv - Darcy

Resv BHP	**1080.0**	psia
Resv Temp	**180**	°F
Resv Perm	**50.0000**	md
Resv Thick	**250**	ft
Resv Skin	**0.000**	
Turbulence	**0.000000**	1/mscfd
Wellbore Rad	**10.630**	in
Resv Rad	**1000**	ft

Compl- Open Hole

Tbg - Gray (1974)

Perf Top	**8510**	ft
Csg ID	**4.778**	in
Tbg ID	**2.441**	in

FlowIn - Fundamental Flow Adj

Sep Press	**500.0**	psig
Pipe ID	**3.000**	in

WB Heat - Linear Gradient

WH Temp	**100**	°F

FL Heat - Linear Gradient

Sep Temp	**80**	°F

Ortwein, Matt - TPMXO

From: Cardiff, Steve G. - TPSGC
Sent: Thursday, April 05, 2001 11:08 AM
To: Mansdorfer, Jim - TP3JDM; Ortwein, Matt - TPMXO
Subject: West Field BP Reduction Including SS 25 Site

I reviewed the SS 25 site sand tests and the latest flow rates from Matt for the 2000-2001 withdrawal season and plotted the data to determine C and n-exponent values for each of the wells. For SS 25 A and B I forced the n exponent to be 1.0 (the slope of the BP plots were less than 1) and solved for C by averaging the results from two low inventory sand tests for each well. For SS 25, the data plotted pretty well and the C and n values were found from two points on a trend line through the backpressure plot.

I also plotted the shut-in well head pressures for each well and versus inventory and extrapolated the data to -7 Bcf - these values were used as the shut-in pressure to estimate deliverabilities at -7 Bcf. I estimated the wells' deliverability at -7 Bcf with 500 psig FWHP and a 300 FWHP. Here are the results for the SS 25 site:

At -7 Bcf with 500 psig FWHP:

SS 25: 15 MMcf/d

SS 25A: 24 MMcf/d

SS 25B: 11 MMcf/d
Total: 50 MMcf/d

At -7 Bcf with 300 psig FWHP:

SS 25: 20 MMcf/d

SS 25A: 27 MMcf/d

SS 25B: 17 MMcf/d
Total: 64 MMcf/d

The net increase by reducing the FWHP from 500 psig to 300 psig is 14 MMcf/d.

The total west field deliverability at -7 Bcf would be 124 MMcf/d at 500 psig FWHP and 178 MMcf/d at 300 psig FWHP or an increase of 54 MMcf/d.

Let me know if you want me to look at any other cases.

Steve

AC_CPUC_0000166

blue => sand test

WELL SS 25

DATE	WD MODE (T/C/D)	FIELD or SI WHP (PSIG)	INVENTORY (BCF)	CHOKE SIZE (INCHES)	RATE (MMCFPD)	FLOWING DELTA P (PSIG)
10/13/1999	C	2590	61.5	0.9	48	2220 - 500
12/12/1995	C	2520	66.4	1.00	49	500
10/02/1997	C	2280	49.6	0.90	55	2090-480
11/02/2000	C	2130	39.9	1.00	40	
12/26/1995	C	1980	56.0	1.00	45	1550-500
08/25/2000	C	1900	38.8	1.00	32	
01/12/1999	C	1880	48.6	1.00	43	
01/20/1996	C	1640	42.4	1.00	35	1060-510
01/09/2001	C	1540	28.7	1.00	25	
12/27/2000	C	1440	27.3	1.00	30	
01/30/1996	C	1320	31.5	1.00	28	950-500
01/06/1998	C	1320	25.4	1.10	23	950 - 510
01/31/2001	C	*1280*	16.2	1.30	25	715-500
03/04/1998	C	890	6.5	1.40	20	520 - 480
02/27/1998	C	870	7.3	1.40	20	540 - 500
03/01/2001	C	960	6.0	1.25	16	

Your Company Name - See Input defaults

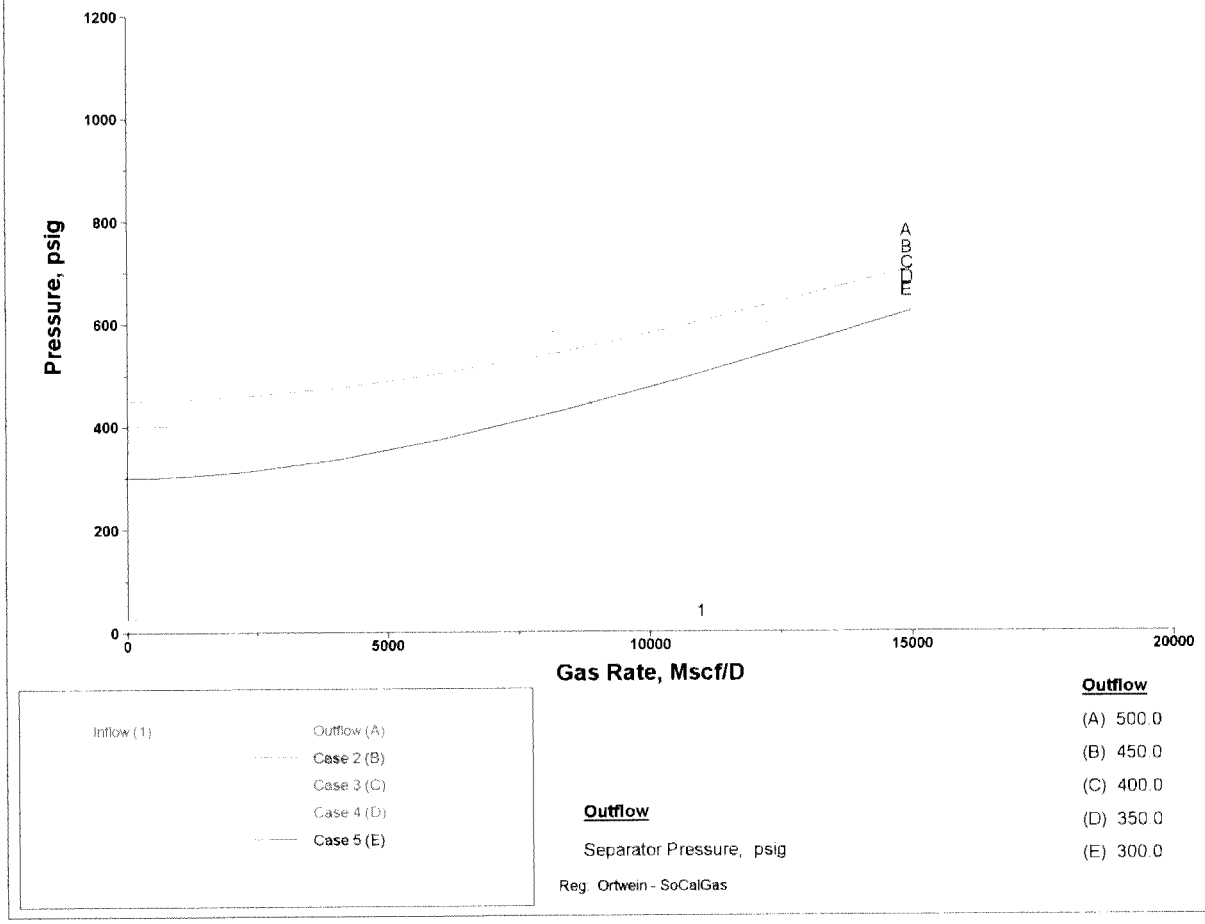
Well PERFORMance Analysis © 2001

System Graph

Well: SS-25
Loc:
Desc:
File: SS-25.PF3

Date: 04-06-2001

Type: Gas Well
Analysis: System Analysis
Node: Wellhead



Case 1 Input Data

Fluid

Water Cut	**0.2000**	%
Oil Grav	**20.5**	°API
SG Gas	**0.610**	
GOR/Yield	**0.1300**	bbl/MMcf
SG Water	**1.070**	

Resv - Darcy

Resv BHP	**1300.0**	psia
Resv Temp	**180**	°F
Resv Perm	**20.0000**	md
Resv Thick	**250**	ft
Resv Skin	**1.000**	
Turbulence	**0.000000**	1/mscfd
Wellbore Rad	**10.630**	in
Resv Rad	**500**	ft

Compl- Open Perf

Perf Intrvl	**239**	ft
Perf Density	**4.0**	SPF
Perf Dia	**0.500**	in
Perf Len	**6.000**	in
Horz Perm	**20.0000**	md
KcKf	**1.000**	

Tbg - Gray (1974)

Perf Top	**8510**	ft
Csg ID	**4.778**	in
Tbg ID	**2.441**	in

FlowIn - Fundamental Flow Adj

Sep Press	**500.0**	psig
Pipe ID	**3.000**	in

WB Heat - Linear Gradient

WH Temp	**100**	°F

FL Heat - Linear Gradient

Sep Temp	**80**	°F

SOLUTION POINTS

Solution Point Flow Rates [Mscf/D]

Separator Pressure [psig]

	(A) 500.0	(B) 450.0	(C) 400.0	(D) 350.0	(E) 300.0
(1)	8179.94	8369.77	8549.24	8717.82	8873.46

Solution Point Pressures [psig]

Separator Pressure [psig]

	(A) 500.0	(B) 450.0	(C) 400.0	(D) 350.0	(E) 300.0
(1)	582.9	544.8	508.8	475.0	443.7

Completion Pressure Drop at Solution Points [psi]

Separator Pressure [psig]

	(A) 500.0	(B) 450.0	(C) 400.0	(D) 350.0	(E) 300.0
(1)	7.4	7.6	7.8	8.0	8.3

Standard Sesnon 25 Aliso Cyn.
Well Log File

AC_CPUC_0000170

PERMANENT DATUM	6' K.B.
LOG MEASURED FROM	6' BOVE
TOTAL DEPTH	8748'
TOP OF LOGGED INTERVAL	200
TYPE OF FLUID IN HOLE	GAS
LOG RECORDED BY	CLARK & HELMS

ELEVATION	2927'
CORRECTED TO	TUBING @ SL
OBSERVED DEPTH (Driller)	8709
BOTTOM LOGGED INTERVAL	8709
FLUID LEVEL	0
WITNESSED BY	BRET LANE

CASING AND TUBING RECORD

Size	Weight	From	To
11-3/4"	42	0	990
7	23	0	8585
5-1/2	20	8559	8748

TUBING SIZE	2-7/8	DEPTH 8496
PACKER(S)		8491
MANDREL(S)		8405
PERFORATIONS	8510-38, 8542-8559'	
	8592-8748'	

WELL STATUS SHUT-IN GAS STORAGE

	Pressure	Flowing	Injecting	Shut-in
	TBG			1595
	CSG			1595

INJ. RATE TYPE

OBS. RATE

PRODUCTION	Oil	Gravity API
	Water	
	Gas	

BOTTOM TEMPERATURE

LOGGING UNIT	711
TOOLS USED	5' BAR 5' BAR 5' BAR CCL TEMP NOISE
TOOL NUMBERS	A030
DIAMETER	1-3/8"

LINE SIZE 3/16" LINE LENGTH 20,000'

RESULTS AND REMARKS: POSSIBLE SLIGHT SHOE LEAKAGE MIGRATING HIGHER THAN 8440' (NOTE TEMPERATURE BREAK AROUND 6800'.)

COMPANY SOUTHERN CALIFORNIA GAS
WELL NO. STANDARD SESSION No. 25
FIELD ALISO CANYON
COUNTY LOS ANGELES STATE CAL.
DATE 4-11-84

PURPOSE OF SURVEY: CHECK FOR SHOE LEAK.

NOISE AND TEMPERATURE SURVEY

FLO-LOG INC.

FLO-LOG INC.
NOISE LOG

S.S. No. 25
4-11-84

200 Hz 1000 600 200 Hz.

1-3/4" @ 8510'

TEMPERATURE

75° 80° 200'
90° 100° 110° 120° 800'
140° 150° 160° 5200'

WEIGHT

AC_CPUC_0000171

R8-26-92

FLO-LOG INC.

NOISE AND TEMPERATURE SURVEY

COMPANY Southern Cal. Gas FIELD Aliso Canyon WELL NAME & NO. Standard Scenom 25

SURVEY DATA

DATE OF SURVEY	11-7-91
WELL STATUS	GAS STORAGE
TYPE OF FLUID	GAS WATER
FLUID RATE (S)	
EFFECTIVE DEPTH	8748'
LOGGERS DEPTH (PICKUP)	8700'
AMOUNT OF FILL	48'
LOG WITNESSED BY	B. HAZEL
LOG RECORDED BY	M. FINDLAY
REASON FOR SURVEY	CHECK FOR POTENTIAL LEAKAGE PAST SHOE AS HIGH AS 8150'
RESULTS AND REMARKS	FIELD INVENTORY WAS 56.478 Bcf. WELL AND FIELD SHUTIN 6 DAYS PRIOR TO SURVEY. HEARD DISTANT NOISE ABOVE 7200'. AT 500', BLED CASING KILL LINE ON WELL 25 A AND HEARD EVEN HIGHER ACTIVITY.

WELLBORE DATA

CASING AND TUBING RECORD

SIZE	WEIGHT	FROM	TO	PRESSURE	FLUID LEVEL
11-3/4"	42#	0'	990'		
7"	23,26,29#	0'	8585'	2460 PSI	
5-1/2"	20#	8559'	8748'		
2-7/8"	TUBING	0'	8496'	2600 PSI NONE OBS	

PACKER (S) 8486' MANDREL (S) MMG 8397', RSSV 8451'

PERFORATIONS 8510-8538', 8542-8545', JSPF 8592-8748' SLOTTED

LOGGING UNIT 712 LINE SIZE 3/16" LINE LENGTH 24,600 NOISE TOOL NO. 7107

DIAGRAM OF TOOLS USED

DIAMETER OF TOOLS 1-3/8"

3-60" BARS, COLLAR LOCATOR, TEMPERATURE, NOISE

MEASUREMENT DATUM 6' K.B.

DEPTH REFERENCE TUBING TAIL

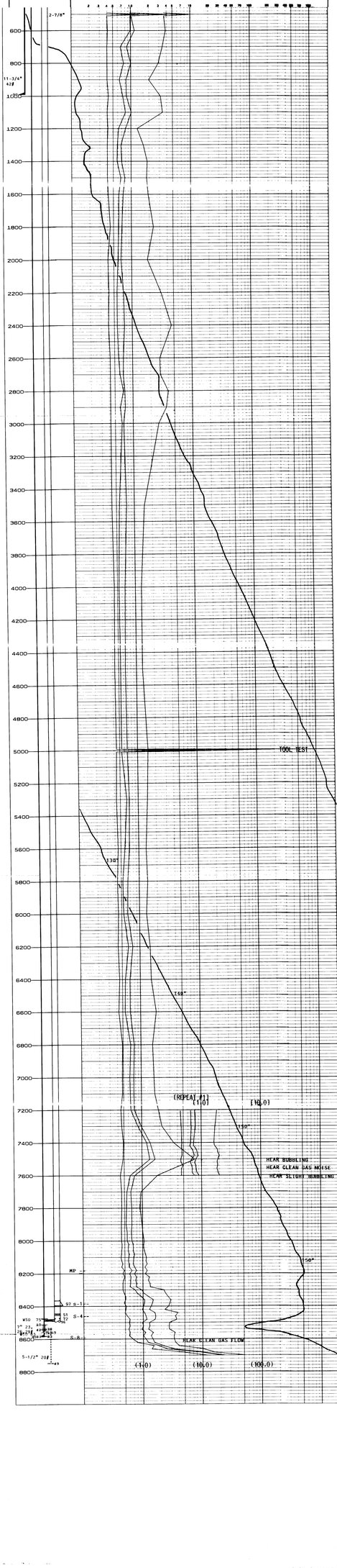
TEMPERATURE

90° 95° 100° 105° 110° 115° 120°

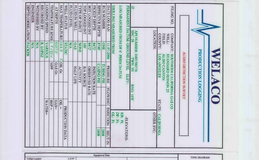
FREQUENCY RESPONCE: (HI FREQUENCY) 2000 HERTZ 1000 HERTZ 600 HERTZ 200 HERTZ (LO FREQUENCY)

MILLIVOLTS

2 3 4 5 6 7 10 20 30 40 50 60 70 80 90 100



AC_CPUC_0000172


WELACO
PRODUCTION LOGGING
PRODUCTION PROFILE
PRODUCTION PROFILE
PRODUCTION PROFILE

SCHLUMBERGER WELL SURVEYING CORPORATION

HOUSTON, TEXAS

Electrical Log

COUNTY LOS ANGELES
FIELD or LOCATION ALISO CANYON
WELL 28 - 3N - 16W
COMPANY STANDARD SESNON NO. 1-25
COMPANY TIDE WATER ASSOC. OIL COMPANY

COMPANY TIDE WATER ASSOC. OIL COMPANY
WELL STANDARD SESNON NO. 1-25 R.D (+ Orig)
FIELD ALISO CANYON
LOCATION 28 - 3N - 16W
(52)
COUNTY LOS ANGELES
STATE CALIFORNIA

Location of Well
820.00 S & 5360.00 W
STA. 84

Elevation: D.F.: 2933.37
K.B.:
or G.L.:

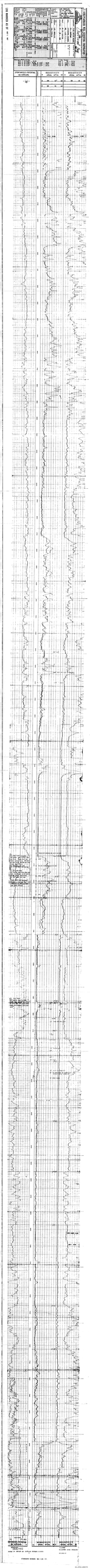
FILING No.

RUN No.	1	2	3	4	
Date	10-14-53	11-6-53	11-9-53	11-13-53	
First Reading	2575	4629	4782	4909	
Last Reading	85	2575	4629	4782	
Feet Measured	2490	2054	153	127	
Csg. Schlum.	----	----	----	----	
Csg. Driller	40	990	990	990	
Depth Reached	2576	4630	4783	4910	
Bottom Driller	2572	4630	4781	4910	
Depth Datum	K.B.	K.B.	K.B.	K.B.	
Mud Nat.	Clay+Gel	Carbonox	Carb+Oil	Carb+Oil	Emul
" Density	74	76	78	80	
" Viscosity	"	"	"	45	
" Resist.	5			2@ 56 °F	@ °F
" Res. BHT	4			4@107 °F	@ °F
" pH	8			0@ 56 °F	@ °F
" Wtr. Loss	9			CC 30 min.	CC 30 min.
Max. Temp. °F				07 °F.	
Bit Size				marks	
Spcgs.—AM				16"-M	
A 0—				10	
AQ..				19	
Opr. Rig Time				1/2	
Truck No.	NI			-1732	
Recorded By	HL			ckJPound	
Witness By	Herron	Turscn		Boyver	

checking in 559

LOG MARKED AS OF OCT 1 1967

AC_CPUC_0000174



TRIANGLE SERVICE, INC.

AUDIO ANALYZER SURVEY

COMPANY SOUTHERN CALIFORNIA GAS

WELL S.S. 25 FIELD ALISO

COUNTY LOS ANGELES STATE CA.

OTHER SERVICES:

ELEVATIONS:
KB.
DF.
GL.

WELL DATA

		Casing and Tubing Record			
		Size	Wgt.	From	To
Date	12/11/78				
Run No.					
Type Log	A/A				
Depth — Drill	7795' (B.P.)				
Depth — Log (Pick-up)	7780'				
Bottom Logged Interval	7780'				
Top Logged Interval	5800'				
Type Hole Fluid		Packer @			
Fluid Level		Tbg. Tail to			
Max. Rec. Temp. °F.		Perforations			
Recorded By	Helms, Davis				
Witnessed By	Bob Hazel	Measurement Reference MAT			

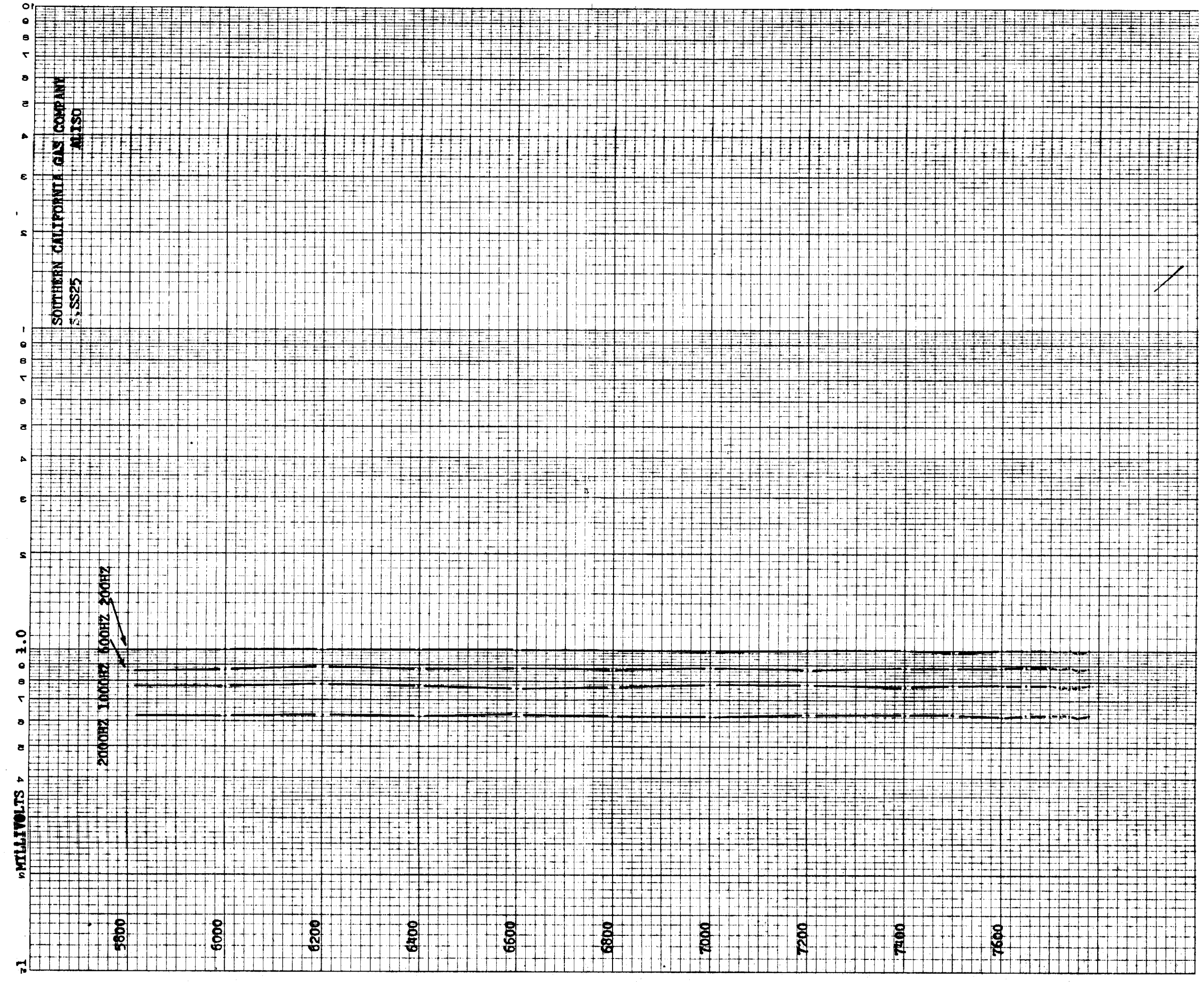
EQUIPMENT and TEST DATA

Run No.		Truck No.	1455
Well Status	Shut In	Tool No.	
Production — Oil, b/d		Tool Size	1"
Water, b/d		Line Dia	3/16"
Gas, mcf		Line Length	21,000'
Injection Rate			
Pressure — TBG. psi	0		
CSG. psi	0		
Log Speed — fpm			
Temp. Sens. °F./inch		R/A Sens.	
Diff. Sens.		R/A Spacing	
T.C.			

SURVEY RESULTS: No apparent leak.

REMARKS:

Form 128



AC_CPUC_0000176

TRIANGLE SERVICE, INC.

AUDIO ANALYZED SURVEY

COMPANY SOUTHERN CALIFORNIA GAS COMPANY

WELL S.S. 25 FIELD ALISO CANYON

COUNTY LOS ANGELES STATE CALIFORNIA

OTHER SERVICES

WELL DATA

Run No.		Date	Recorded By	Witnessed By
1	Temp. Log	5-6-72	Hanks, Davis & Waterfield	Mr. Bond
2	Temp. Log	5-12-72	Hanks, Davis & Waterfield	Mr. Bond
3	Temp. Log	5-12-72	Hanks, Davis & Waterfield	Mr. Bond

Run No.	Type Log	Depth-Driller	Depth-Logger	Bottom Logged Interval	Top Logged Interval	Type Fluid in Hole	Salinity, PPM Cl	Density Lb/Gal.	Level	Max. Rec. Temp. F.	Equip. Location	Recorded By	Witnessed By
1	Temp. Log	8414'	8414'	8414'	0	Gas			Surface	160°	1505	Hanks, Davis & Waterfield	Mr. Bond
2	Temp. Log	8702'	8702'	8702'	8400'	Gas			Surface	160°	1505	Hanks, Davis & Waterfield	Mr. Bond
3	Temp. Log	8702'	8702'	8702'	0	Gas			Surface	160°	1505	Hanks, Davis & Waterfield	Mr. Bond

Run No.	Bit Size	Casing Size	Wt. & Grade	From	To
1	11-1/4	7"	23#	0	8400'
2	6-1/8"	4-1/2"	9.5#	8400'	8702'
3	6-1/8"	4-1/2"	9.5#	8400'	8702'

EQUIPMENT and SERVICES USED

Run No.	Type Log	Truck No.	Engineer
1	Temp. Log	1505	Hanks, Davis & Waterfield
2	Temp. Log	1505	Hanks, Davis & Waterfield
3	Temp. Log	1505	Hanks, Davis & Waterfield

Run No. 1

Type Log Temp. Log

Depth-Driller 8414'

Depth-Logger 8414'

Bottom Logged Interval 8414'

Top Logged Interval 0

Type Fluid in Hole Gas

Salinity, PPM Cl

Density Lb/Gal.

Level Surface

Max. Rec. Temp. F. 160°

Equip. Location 1505

Recorded By Hanks, Davis & Waterfield

Witnessed By Mr. Bond

Run No. 2

Type Log Temp. Log

Depth-Driller 8702'

Depth-Logger 8702'

Bottom Logged Interval 8702'

Top Logged Interval 8400'

Type Fluid in Hole Gas

Salinity, PPM Cl

Density Lb/Gal.

Level Surface

Max. Rec. Temp. F. 160°

Equip. Location 1505

Recorded By Hanks, Davis & Waterfield

Witnessed By Mr. Bond

Run No. 3

Type Log Temp. Log

Depth-Driller 8702'

Depth-Logger 8702'

Bottom Logged Interval 8702'

Top Logged Interval 0

Type Fluid in Hole Gas

Salinity, PPM Cl

Density Lb/Gal.

Level Surface

Max. Rec. Temp. F. 160°

Equip. Location 1505

Recorded By Hanks, Davis & Waterfield

Witnessed By Mr. Bond

EQUIPMENT and SERVICES USED

Run No.	Type Log	Truck No.	Engineer
1	Temp. Log	1505	Hanks, Davis & Waterfield
2	Temp. Log	1505	Hanks, Davis & Waterfield
3	Temp. Log	1505	Hanks, Davis & Waterfield

SON Signal Measurement Reference A.G.L.

One 6SPCMD Tool Size 1-1/8"

Three 10Kx Tool Type 3/4" OD

Three 10Ks Lines (Cable) 24,000'

5950 Max. Rec. Temp. F.

Deg. F. Sens. N/A

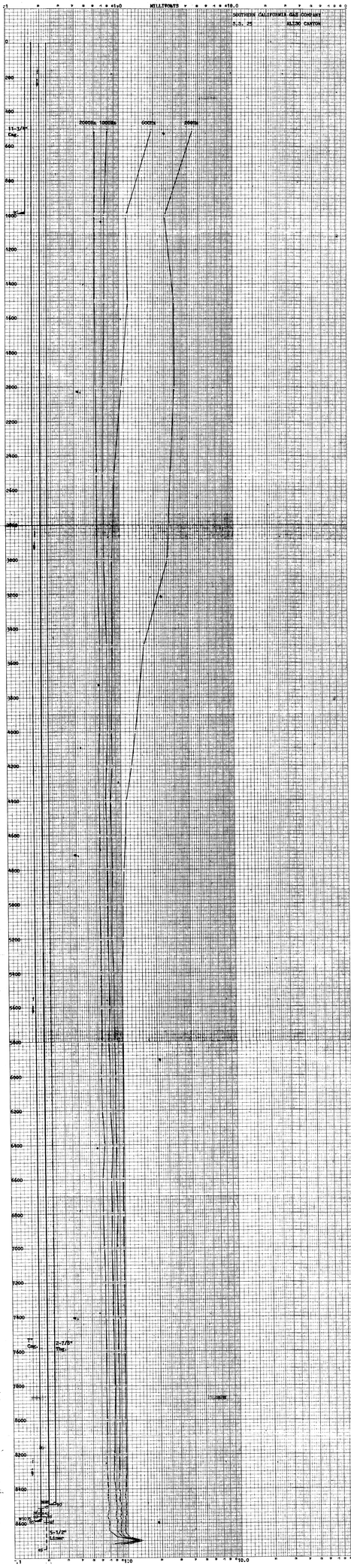
Temp. Sens. - Inch N/A

Spacing

SURVEY RESULTS: No apparent flow take.

REMARKS: Standard Pressure Chart Dated 5-30-72

Thank You



AC_CPUC_0000177

PERMANENT DATUM	G.L.	ELEVATION	4221'
LOG MEASURED FROM	K.B. 16.5'	CORRECTED TO	CASING TOP
TOTAL DEPTH	8709	OBSERVED DEPTH (Pickup)	8695
TOP OF LOGGED INTERVAL	200	BOTTOM LOGGED INTERVAL	8695
TYPE OF FLUID IN HOLE	GAS	FLUID LEVEL	N/A
LOG RECORDED BY	CLARK & BAILEY	WITNESSED BY	F. GRUEVICH

CASING AND TUBING RECORD

	Weight	From	To
13-3/8"	48#	0	990
7	23,26,29	0	8585
4-1/2	11	8559	8749

TUBING SIZE	2-7/8	DEPTH	8496'
PACKER(S)			8486
MANDREL(S)			8397
PERFORATIONS	8511-8769		

LOGGING UNIT	#12	LINE SIZE	5/16"
TOOLS USED	3½-5" GAR	CHECK LOCATOR	TEMPERATURE
TOOL NUMBERS			
DIAMETER	1-3/8"		

WELL STATUS: SHUT-IN GAS STORAGE

	Flowing	Injecting	Shut-in
TBG			2390
CSG			2390
INJ. RATE		TYPE	
OBS. RATE			

PRODUCTION: Oil / Water / Gas — Gravity — °API

BOTTOM TEMPERATURE 155.2°

LOGGING UNIT #12 — LINE SIZE 5/16" — LINE LENGTH 25,000'

TOOLS USED 3½-5" GAR — CHECK LOCATOR — TEMPERATURE — NOISE

TOOL NUMBERS 5055

DIAMETER 1-3/8"

RESULTS AND REMARKS: NO INDICATION OF ANY GAS LEAKAGE.

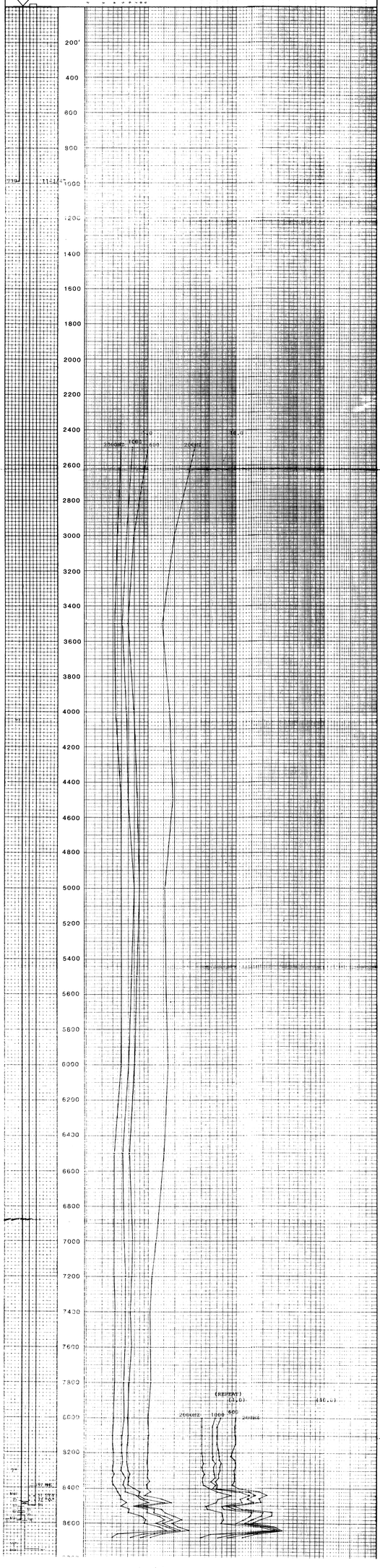
COMPANY SOUTHERN CALIFORNIA GAS CO.
WELL NO. STANDARD SESNON 25
FIELD ALISO CANYON
COUNTY LOS ANGELES STATE CA
DATE 7-27-84

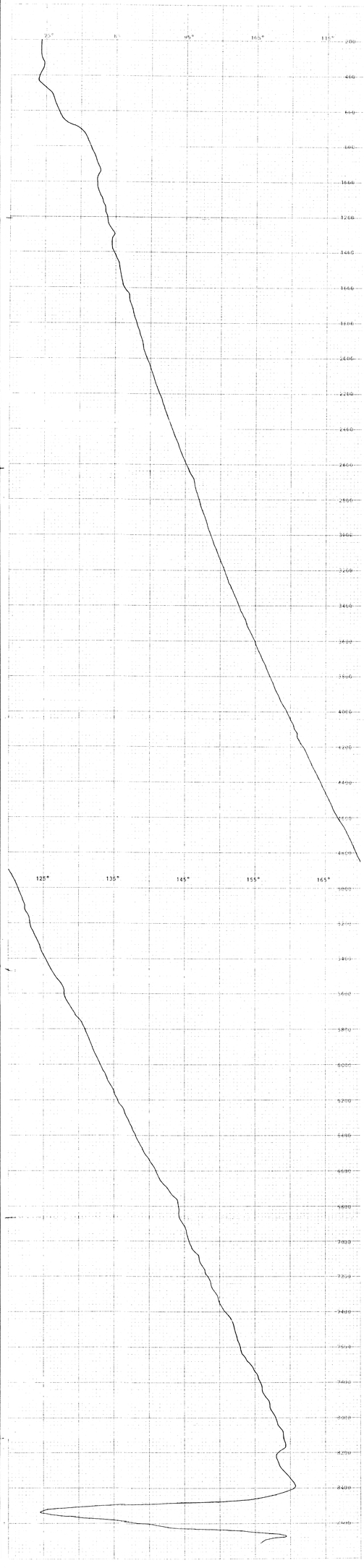
PURPOSE OF SURVEY
TO CHECK FOR GAS LEAKAGE AT THE CASING SHOE AND/OR TOP OF CMT.

FLO-LOG INC.
NOISE & TEMPERATURE SURVEY

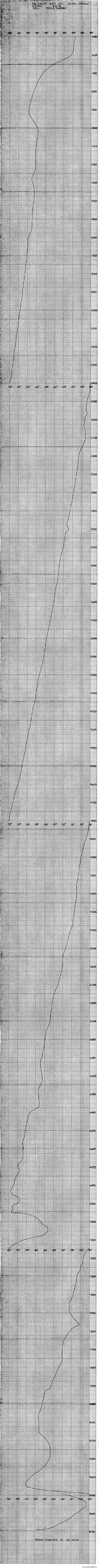
FLO-LOG

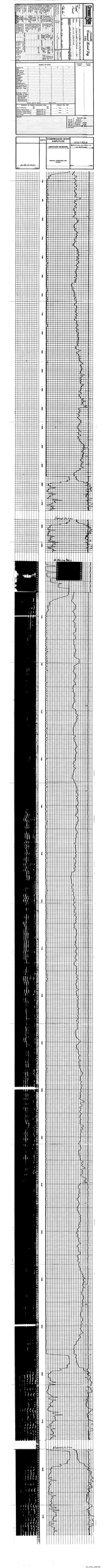
WELL NO. STANDARD SESNON 25 DATE 7-27-84





AC_CPUC_0000178


TERRA SURVEY IS 30 HIGH



Dresser Atlas

Dresser

Formation Density Log

Company Shenandoah Oil Co.

Well Stanolind Fee

Field Wildcat

County Gaines

State Texas

Other Services

Permanent Datum: Ground Level

Elevation: K.B. 3227 D.F. 3226 G.L. 3217

Log Measured From: K.B. 10 Ft. Above Perm. Datum

Drilling Measured From: K.B.

Run No. One

Date 12-14-61

Depth-Driller 10,000

Depth-Logger 9998

Bottom Logged Interval 9998

Top Logged Interval 3000

Type Fluid in Hole Salt Gel

Salinity, P.P.M. Cl 150,000

Density 10.0

Level Full

Max. Rec. Temp. Deg. F. 180

Operating Rig Time 12 Hrs.

Recorded By Hall

Witnessed By Mr. Hall

Run No.	Bit From	Bit To	Size	Type	Size	Type	Weight	Viscosity	Fluid Loss	Source of Sample	Rm @ Meas. Temp.	Rmf @ Meas. Temp.	Rmc @ Meas. Temp.	Source of Rmf & Rmc	Rm @ BHT	Time Since Circ.	Max. Rec. Temp. Deg. F.	Equip. Location
One	3000	9998	7 7/8	Open			10.0	45	6.4	Flowline	.22 @ 80°	.18 @ 80°	.28 @ 80°	Calc.	.10 @ 180°	12 Hrs.	180	Andrews-Texas

Density Tool Type: Compensated

Caliper Arm Size: 7 7/8

Caliper Arm Spring Tension: 25

Source Strength: 50 mc

Detector Spacing: 16"

Density Tool Number: 1

Caliper Number: 1

Density Tool Serial No.: 1

Caliper Serial No.: 1

Density Tool Calibrated: 12-14-61

Caliper Calibrated: 12-14-61

Density Tool Checked: 12-14-61

Caliper Checked: 12-14-61

Density Tool Standardized: 12-14-61

Caliper Standardized: 12-14-61

Density Tool Standard Reading: 1.72

Caliper Standard Reading: 7 7/8"

Dresser Atlas

Formerly

COMPANY SCHLUMBERGER WELL SERVICES, INC.
WELL ELLIS COUNTY STATE #1
FIELD WILDCAT
COUNTY ELLIS STATE KANSAS
LOCATION 1320' FSL & 1320' FEL Sec. 5-T14S-R19W
Other Services DIL, BHC, MEL, ML
Permanent Datum GROUND ELEV.
Log Measured From KB 10 Ft. Above Perm. Datum
Drilling Measured From KB
Date 7-31-78
Run No. ONE
Depth-Driller 3900
Depth-Logger 3900
Bottom Logged Interval 3900
Top Logged Interval 3000
Type Fluid in Hole CHEMICAL
Salinity, PPM Cl 1,400
Density 9.2
Level FULL
Max. Rec. Temperature Deg. F 110
Operating Rig Time 5 HRS
Recorded By R. SMITH
Witnessed By MR. BOWERS

	Bit No.	From	To	Size	Type	Amount	Condition
Rm @ Meas. Temp.	1	SURF.	3900	7 7/8	HTC		
Rmf @ Meas. Temp.							
Rmc @ Meas. Temp.							
Source: Rmf & Rmc							
Rm @ BHT							
Time Since Circ.							
Max. Rec. Temp. Deg. F							
Equip. Location							
Recorded By							
Witnessed By							

Data recorded and this operation is not subject to any liability whatsoever beyond cost of service.

REMARKS

Equipment Used
Type No. ONE
Type No. SONDE
Type No. 3 1/2 XO
Type No. 3 1/2 XO
Type No. 3 1/2 XO
Type No.

Equipment Data
Mud Type Chemical Mud Properties Other

Changes in Mud Type or Additional Samples
Time Sample No. Depth
Depth Driller
Last Fluid in Hole

Time Changes
Type Log | Depth | Depth Dr. Hole | Scale Change Made

Recorded Data
Run | Log Type | Depth | Depth Dr. Hole | Scale Change Made
1 | DIL | 3900 | 3900 | 2"
1 | BHC | 3900 | 3900 | 2"
1 | MEL | 3900 | 3900 | 2"
1 | ML | 3900 | 3900 | 2"

Recorded Data
Run | Log Type | Depth | Depth Dr. Hole | Scale Change Made
1 | DIL | 3900 | 3900 | 2"
1 | BHC | 3900 | 3900 | 2"
1 | MEL | 3900 | 3900 | 2"
1 | ML | 3900 | 3900 | 2"

S.P. or G/R & Caliper

millivolts

HOLE SIZE - INCHES
7 9 11 13 15

DEPTH

ACOUSTILOG
T___X___X___X___

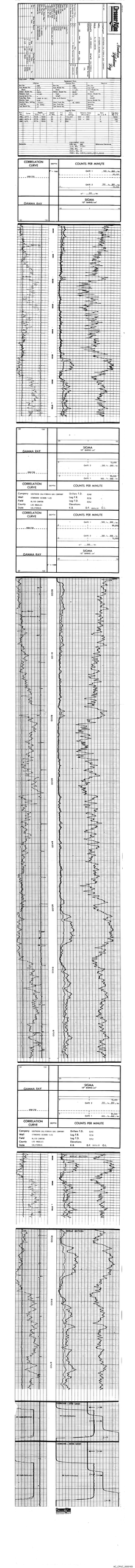
SPECIFIC ACOUSTIC TIME
Micro Seconds Per Foot
140 40

1' SPACING ---------- 3' SPACING

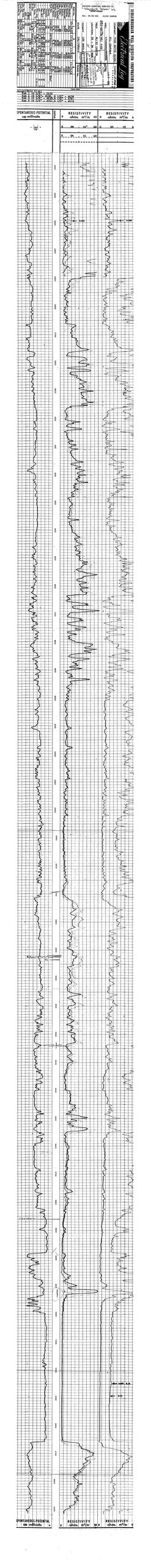
Gyro Survey

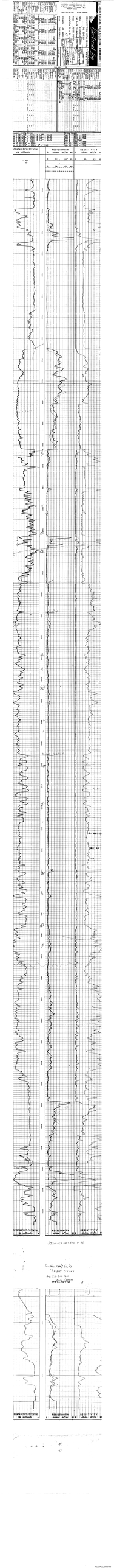
Gyro Survey

AC_CPUC_0000182



CORRELATION CURVE
DEPTH
COUNTS PER MINUTE
GAMMA RAY
SIGMA
Company SOHIO ALASKA PETROLEUM COMPANY
Well STANDARD SOHIO 1-15
Field BLUE CANYON
County LIC MAGILL
State ALASKA
Drillers T.D. 9240
Log T.D. 9246
Elevations: K.B. 0.F. 0.G.L.


SCHLUMBERGER WELL SURVEYING CORPORATION
Electrical log
COMPANY
WELL
FIELD
COUNTY
STATE
LOCATION
Other Services
Permanent Datum
Log Measured From
Drilling Measured From
Date
Run No.
Depth-Driller
Depth-Logger
Bottom Logged Interval
Top Logged Interval
Type Fluid in Hole
Salinity, PPM Cl
Density
Level
Max. Rec. Temp. Deg. F
Operating Rig Time
Recorded By
Witnessed By
Run No.
Bit Size
Type Bit
Size
Wt.
Depth
Type
Wt.
Depth
Type
Wt.
Depth
Source of Sample
Rm @ Meas. Temp.
Rmf @ Meas. Temp.
Rmc @ Meas. Temp.
Source of Rmf and Rmc
Rm @ BHT
Time Since Circ.
Max. Rec. Temp. Deg. F
Equip. Location
Recorded By
Witnessed By
RUN NO.
DATE
TYPE LOG
DEPTH-DRILLER
DEPTH-LOGGER
BTM. LOG INTERVAL
TOP LOG INTERVAL
CASING-DRILLER
CASING-LOGGER
BIT SIZE
TYPE FLUID IN HOLE
DENSITY
VISCOSITY
PH
FLUID LOSS
SOURCE OF SAMPLE
RM @ MEAS. TEMP.
RMF @ MEAS. TEMP.
RMC @ MEAS. TEMP.
SOURCE RMF
SOURCE RMC
RM @ BHT
TIME CIRC.
MAX. REC. TEMP.
EQUIP. LOCATION
RECORDED BY
WITNESSED BY
RUN BIT @ CSG @ TYPE FLUID IN HOLE @ DENSITY @ VISCOSITY @ PH @ FLUID LOSS @
RUN BIT @ CSG @ TYPE FLUID IN HOLE @ DENSITY @ VISCOSITY @ PH @ FLUID LOSS @
RUN BIT @ CSG @ TYPE FLUID IN HOLE @ DENSITY @ VISCOSITY @ PH @ FLUID LOSS @
SPONTANEOUS-POTENTIAL
100 millivolts
RESISTIVITY
ohms m²/m
RESISTIVITY
ohms m²/m
SPONTANEOUS-POTENTIAL
100 millivolts
RESISTIVITY
ohms m²/m
RESISTIVITY
ohms m²/m


SPONTANEOUS POTENTIAL
RESISTIVITY
RESISTIVITY

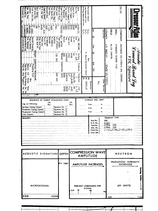


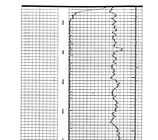
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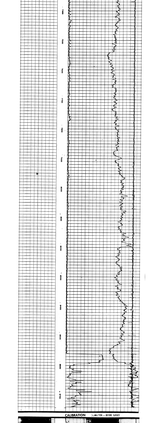
Standard Sesnon 25 Aliso Cyn.
Well Log File

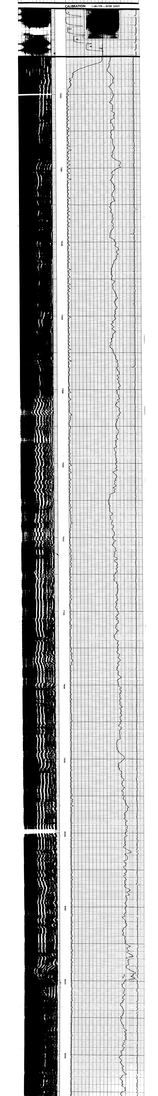
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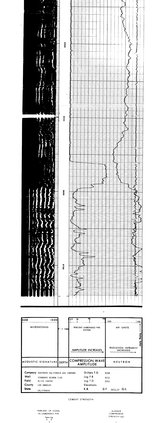


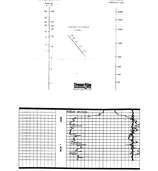

Dresser Atlas
Well Services
Log of Well
Company
Well
Field
County
State
Location
Other Services
Permanent Datum
Log Measured From
Drilling Measured From
Elevation
Date
Run No.
Depth-Driller
Depth-Logger
Bottom Logged Interval
Top Logged Interval
Type Fluid in Hole
Salinity
Density
Viscosity
Fluid Loss
Source of Sample
Rm @ Meas. Temp.
Rmf @ Meas. Temp.
Rmc @ Meas. Temp.
Source of Rmf and Rmc
Rm @ BHT
Time Since Circ.
Max. Rec. Temp.
Equip. No. and Location
Recorded By
Witnessed By

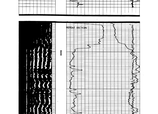

DIFFERENTIAL TEMPERATURE
COMPENSATED SONIC AMPLITUDE
ARRAY SONIC
WAVEFORMS
SONIC CEMENT BOND LOG
API UNITS
DIFFERENTIAL TEMPERATURE
COMPENSATED SONIC AMPLITUDE
SONIC WAVEFORMS
CEMENT BOND LOG

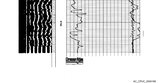

CALIBRATION

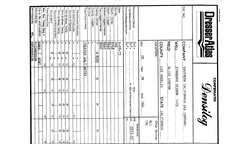


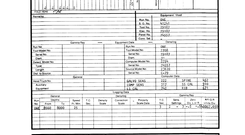


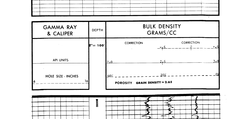

Company
Well
Field
County
State
Location
Other Services
Permanent Datum
Log Measured From
Drilling Measured From
Elevation
Date
Run No.
Depth-Driller
Depth-Logger
Bottom Logged Interval
Top Logged Interval
Type Fluid in Hole
Salinity
Density
Viscosity
Fluid Loss
Source of Sample
Rm @ Meas. Temp.
Rmf @ Meas. Temp.
Rmc @ Meas. Temp.
Source of Rmf and Rmc
Rm @ BHT
Time Since Circ.
Max. Rec. Temp.
Equip. No. and Location
Recorded By
Witnessed By
CEMENT EVALUATION
Dresser Atlas


SONIC WAVES
Dresser Atlas


SONIC WAVES
Dresser Atlas






Run No.
Date
Type Log
Depth-Driller
Depth-Logger
Bottom Logged Interval
Top Logged Interval
Casing-Driller
Casing-Logger
Bit Size
Type Fluid in Hole
Density
Viscosity
Ph

Drawer Alita

BHC Sonicalog

COMPANY SOUTHERN CALIFORNIA GAS COMPANY
WELL STANDARD SESNON 1-25
FIELD ALISO CANYON
COUNTY LOS ANGELES
STATE CALIFORNIA

LOCATION: OTHER SERVICES

SEC. TWP. RGE.

PERMANENT DATUM: GROUND LEVEL
ELEV.: K.B. 2925.37 D.F. 2915.37 G.L. 2906.37

LOG MEASURED FROM: K.B. 10 FT. ABOVE PERM. DATUM
DRILLING MEASURED FROM: K.B.

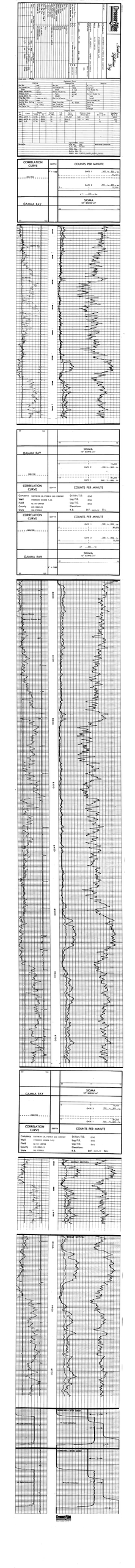
RUN NO.	ONE	TWO	THREE
DATE	7-7-61		
TYPE LOG	BHC		
DEPTH-DRILLER	8260		
DEPTH-LOGGER	8260		
BTM. LOG INTERVAL	8255		
TOP LOG INTERVAL	2400		
CASING-DRILLER	13 3/8 @ 2400		
CASING-LOGGER	2400		
BIT SIZE	12 1/4		
TYPE FLUID IN HOLE	LIGNOSULFONATE		
DENSITY	10.0		
VISCOSITY	45		
PH	11.5		
FLUID LOSS	6.4		
SOURCE OF SAMPLE	FLOWLINE		
RM @ MEAS. TEMP.	.46 @ 80		
RMF @ MEAS. TEMP.	.38 @ 80		
RMC @ MEAS. TEMP.	.60 @ 80		
SOURCE OF RMF & RMC	MEASURED		
RM @ BHT	.18 @ 172		
TIME SINCE CIRC.	12 HRS.		
MAX. REC. TEMP.	172		
EQUIP. LOCATION	1-1		
RECORDED BY	R. WILLIAMS		
WITNESSED BY	MR. MOORE		

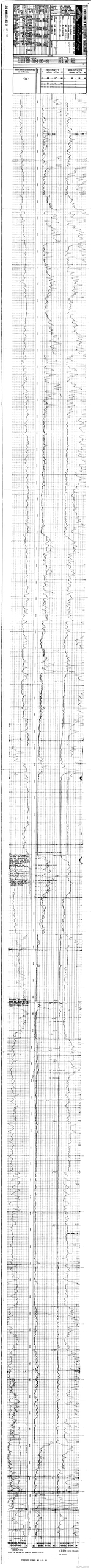
REMARKS: LOG

Equipment Used
Run No.
Type Log
Depth-Driller
Depth-Logger
Btm. Log Interval
Top Log Interval
Casing-Driller
Casing-Logger
Bit Size
Type Fluid in Hole
Density
Viscosity
PH
Fluid Loss
Source of Sample
Rm @ Meas. Temp.
Rmf @ Meas. Temp.
Rmc @ Meas. Temp.
Source of Rmf & Rmc
Rm @ BHT
Time Since Circ.
Max. Rec. Temp.
Equip. Location
Recorded By
Witnessed By

Equipment Data
Run No. | Type Log | Depth-Driller | Depth-Logger | Btm. Log Interval | Top Log Interval | Casing-Driller | Casing-Logger | Bit Size | Type Fluid in Hole | Density | Viscosity | PH | Fluid Loss | Source of Sample | Rm @ Meas. Temp. | Rmf @ Meas. Temp. | Rmc @ Meas. Temp. | Source of Rmf & Rmc | Rm @ BHT | Time Since Circ. | Max. Rec. Temp. | Equip. Location | Recorded By | Witnessed By

Recorded Data
Run No. | Type Log | Depth-Driller | Depth-Logger | Btm. Log Interval | Top Log Interval | Casing-Driller | Casing-Logger | Bit Size | Type Fluid in Hole | Density | Viscosity | PH | Fluid Loss | Source of Sample | Rm @ Meas. Temp. | Rmf @ Meas. Temp. | Rmc @ Meas. Temp. | Source of Rmf & Rmc | Rm @ BHT | Time Since Circ. | Max. Rec. Temp. | Equip. Location | Recorded By |


Dresser Atlas
Interpretation Services
Company
Well
Field
County
State
Location
Elevations
Permanent Datum
Log Measured From
Drilling Measured From
Date
Run No.
Depth-Driller
Depth-Logger
Bottom Logged Interval
Top Logged Interval
Type Fluid in Hole
Salinity, PPM Cl
Density
Viscosity
pH
Fluid Loss
Source of Sample
Rm @ Meas. Temp.
Rmf @ Meas. Temp.
Rmc @ Meas. Temp.
Source of Rmf and Rmc
Rm @ BHT
Time Since Circulation
Max. Rec. Temp. Deg. F
Equip. Location
Recorded By
Witnessed By
Run No.
Bit No.
Type
Size
From
To
Size
Wgt.
Type
Grade
From
To
Number
Make
Size
Type
Serial No.
Shots/Ft.
Top
Bottom
Min. Diameter
Max. Diameter
Average Diameter
Casing Driller
Casing Logger
Bit Size
Type Joint
Top Logged Interval
Remarks
Engineer's Name
Witness's Name
Logging Time
Unit Number
Location
Recorded By
Witnessed By
CORRELATION CURVE
DEPTH
COUNTS PER MINUTE
GAMMA RAY
SIGMA
GAMMA RAY
CORRELATION CURVE
DEPTH
COUNTS PER MINUTE
CORRELATION CURVE
DEPTH
COUNTS PER MINUTE
GAMMA RAY
SIGMA
Company
Well
Field
County
State
Drillers T.D.
Log T.D.
Top Log Interval
Casing-Driller
Casing-Logger
Bit Size
Type Fluid in Hole
Density
Viscosity
Ph
Fluid Loss
Source of Sample
Rm @ Meas. Temp.
Rmf @ Meas. Temp.
Rmc @ Meas. Temp.
Source of Rmf and Rmc
Rm @ BHT
Time Since Circulation
Max. Rec. Temp.
Equipment Number
Location
Recorded By
Witnessed By
Run No.
Type Log
Depth-Driller
Depth-Logger
Bottom Logged Interval
Top Logged Interval
Type Fluid in Hole
Salinity, PPM Cl
Density
Viscosity
pH
Fluid Loss
Source of Sample
Rm @ Meas. Temp.
Rmf @ Meas. Temp.
Rmc @ Meas. Temp.
Source of Rmf and Rmc
Rm @ BHT
Time Since Circulation
Max. Rec. Temp. Deg. F
Equip. Location
Recorded By
Witnessed By
Run No.
Bit No.
Type
Size
From
To
Size
Wgt.
Type
Grade
From
To
Number
Make
Size
Type
Serial No.
Shots/Ft.
Top
Bottom
Min. Diameter
Max. Diameter
Average Diameter
Casing Driller
Casing Logger
Bit Size
Type Joint
Top Logged Interval
Remarks
Engineer's Name
Witness's Name
Logging Time
Unit Number
Location
Recorded By
Witnessed By
Company
Well
Field
County
State
Location
Elevations
Permanent Datum
Log Measured From
Drilling Measured From
Date
Run No.
Depth-Driller
Depth-Logger
Bottom Logged Interval
Top Logged Interval
Type Fluid in Hole
Salinity, PPM Cl
Density
Viscosity
pH
Fluid Loss
Source of Sample
Rm @ Meas. Temp.
Rmf @ Meas. Temp.
Rmc @ Meas. Temp.
Source of Rmf and Rmc
Rm @ BHT
Time Since Circulation
Max. Rec. Temp. Deg. F
Equip. Location
Recorded By
Witnessed By
Run No.
Bit No.
Type
Size
From
To
Size
Wgt.
Type
Grade
From
To
Number
Make
Size
Type
Serial No.
Shots/Ft.
Top
Bottom
Min. Diameter
Max. Diameter
Average Diameter
Casing Driller
Casing Logger
Bit Size
Type Joint
Top Logged Interval
Remarks
Engineer's Name
Witness's Name
Logging Time
Unit Number
Location
Recorded By
Witnessed By
CORRELATION CURVE
DEPTH
COUNTS PER MINUTE
GAMMA RAY
SIGMA



LOG
FILE

TRIANGLE SERVICE, INC.

AUDIO ANALYZER SURVEY

COMPANY SOUTHERN CALIFORNIA GAS

WELL S.S. 25 **FIELD** ALISO

COUNTY LOS ANGELES **STATE** CA.

OTHER SERVICES:

ELEVATIONS:
KB.
DF.
GL.

WELL DATA

Date	12/11/78
Run No.	
Type Log	A/A
Depth — Drill	7795' (B.P.)
Depth — Log (Pick-up)	7780'
Bottom Logged Interval	7780'
Top Logged Interval	5800'
Type Hole Fluid	
Fluid Level	
Max. Rec. Temp. °F.	
Recorded By	Helms, Davis
Witnessed By	Bob Hazel

Casing and Tubing Record

Size	Wgt.	From	To

Packer @
Tbg. Tail to
Perforations
Measurement Reference MAT

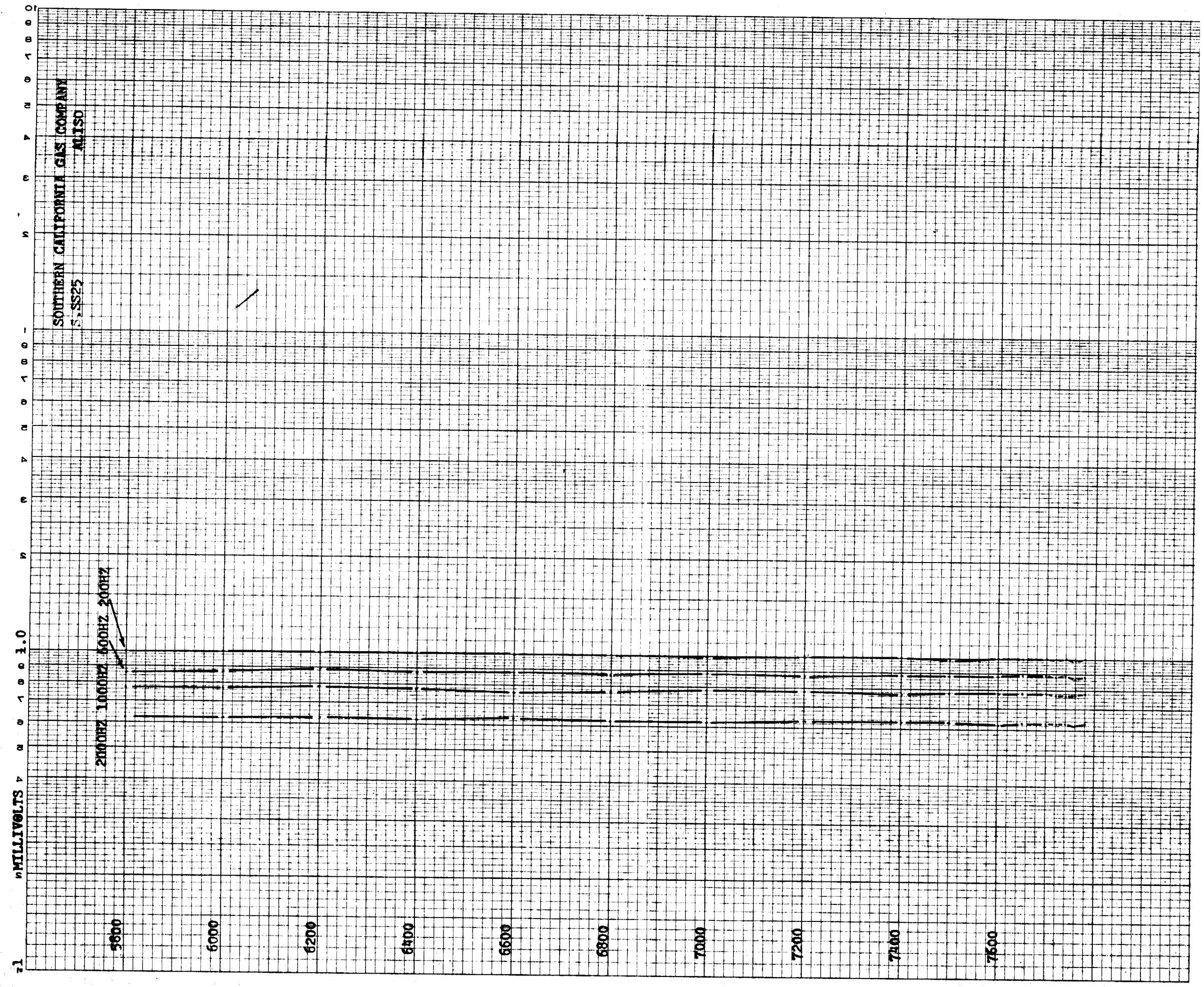
EQUIPMENT and TEST DATA

Run No.		Truck No.	1455
Well Status	Shut In	Tool No.	
Production — Oil, b/d		Tool Size	1"
Water, b/d		Line Dia	3/16"
Gas, mcf		Line Length	21,000'
Injection Rate			
Pressure — TBG. psi	0		
CSG. psi	0		
Log Speed — fpm			
Temp. Sens. °F./inch		R/A Sens.	
Diff. Sens.		R/A Spacing	
T.C.			

SURVEY RESULTS: No apparent leak.

REMARKS:

Form 128



AC_CPUC_0000194

FLO-LOG INC.

Company So. Calif. Gas Co.
Type of Survey RIA - Tracer
Date of Survey 7-29-84
Lease, Well No. St. Sesnon #25
Field Aliso Canyon

FLO-LOG

PRODUCTION LOGGING SURVEY DATA SHEET

COMPANY So. Calif. Gas Co DATE 7-29-84

WELL NO. Standard Season 25 FIELD Aliso Canyon

COUNTY Los Angeles STATE CA

REPRESENTATIVE Joe Bret Lane SURVEY CREW Findlay & Sturgess

TYPE OF SURVEY R/A - Tracer

PURPOSE OF SURVEY Check for leakage at or above the shoe

CASING AND TUBING RECORD

SIZE	WEIGHT	FROM	TO
7"	23, 26, 29	0	8585
5½"	20	8559	8748

Effective Depth 8748
Perforations 8592-8748
8510-8542

W.S.O. _____ C.P. _____

Tubing Size 2-7/8 Depth 8496
Packer(s) _____
Mandrel(s) 8405

Measurement Datum _____
Reference Point _____

WELL STATUS Shut-in Gas Storage

Meter Rate _____ BWPD Oil Rate _____ b/d
Flow Loss _____ BWPD Oil Gravity _____ °
Obs. Rate _____ BWPD Gas Rate _____ Mcf/d
Reported Tbg Press. 2300 psi Obs. _____
Reported Csg Press. _____ psi Obs. _____

Pickup 8692 Fill _____
Bottom Temp. _____ °F Fluid Level 8654 (capacit)

SPINNER STATS

Depth	Counts	Rate	Depth	Counts	Rate

Reset Depth (from) _____ (to) _____
Depth Corrected to Liner Top

Logging Unit 712 Line Size 3/16" Line Length 25,000'
Tools Used 3-5' Bars Gamma Collar Locator Capacitance (Injector)
Tool Numbers _____
Tool Diameter 1-3/8"

Time Arrived on Location 7:30 Off Location 5:30 Total Hours 10

Time of Run	Run No.	Type of Survey	Survey Calib.	Line Speed	Direction	Logged Interval (from)	(to)
9:30	1	Capacitance	100 cps	90	UP	8690	8400
9:50	2	Gamma Background		90	UP	8690	7300'
Pull out - load injector			tool w/	100 mc	I-131	Gas Tracer	
11:50	3	Shoot Tracer	- pull	out to	remove	injector	tool.
1:05 pm	3b	Resume tracer	logging				

REMARKS: Possible slight leakage behind pipe from Top Perf at 8510' up to around 8430 and 8190'.

KING PRINTING CO., 2684 DAWSON AVE., LONG BEACH, CA 90806, (213) 595-6565, FORM 13938, REV. 5/83

FLO-LOG
TRACER DATA SHEET

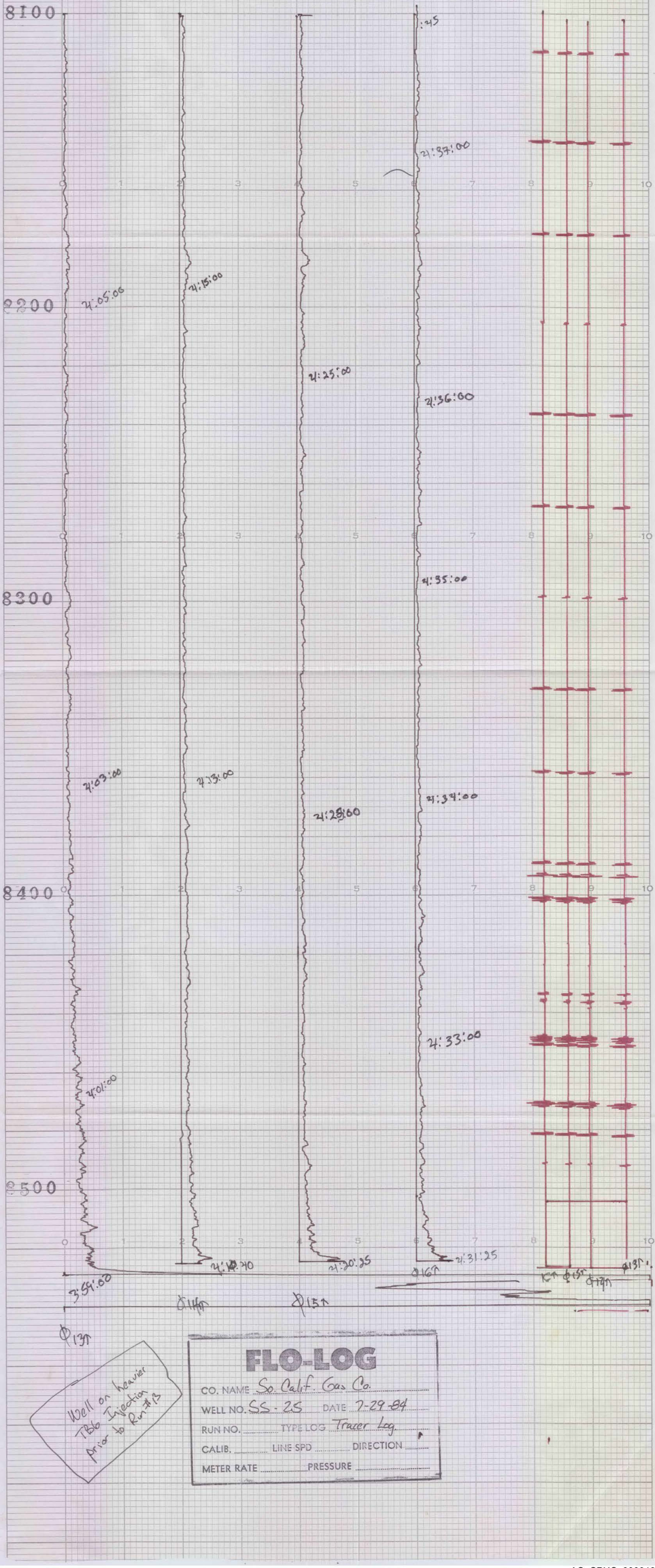
WELL NO. SS 25
PAGE NO. (1)

SPACING 4' INJECTOR TO DETECTOR, DETECTOR TO DETECTOR _____ TOOL DIAMETER _____

PIPE SIZE _____ CONSTANT _____	PIPE SIZE _____ CONSTANT _____	PIPE SIZE _____ CONSTANT _____
PIPE WT. _____ WITH TOOL _____	PIPE WT. _____ WITH TOOL _____	PIPE WT. _____ WITH TOOL _____

SHOT NO.	DEPTH	RUN NO.	PEAK DEPTH	TIME MIN. & SEC. = TOTAL SEC.	△ DISTANCE / △ TIME (SEC)	RATE (B/D)
1	Down hole inject 100 mx. of I-131 @ 8530 @					11:50 A.M.
	Pulled	out	to remove	tracer = ejector	tool 1	
	Resume	logging		=	1 @	1:05
	Well	off	injection	(had been = on injection just prior to shooting)		
		1up	thru 5up	: log zone		
	Inject	down	tubing	for about 3 minutes @ 100 PSI over press.		
		6up	thru 7up	: log zone		
	Inject	down	casing	for about 3 minuts @ 100 PSI over-		
		8up	; 9up	: log zone		
	Inject	down	tubing			
		10up thru 12up	log up	moderate during injection		
	Inject	down	tubing	even heavier		
		13up	thru 16up	while injecting		
				=	1	
				=	1	
				=	1	
				=	1	
				=	1	
				=	1	
				=	1	
				=	1	
				=	1	

KING PRINTING CO., 2684 DAWSON AVENUE, LONG BEACH, CA 90806, (213) 595-6565, FORM 13936



Well on heavier TBG Injection Prior to Run #3

FLO-LOG

CO. NAME So. Calif. Gas Co.

WELL NO. SS - 25 DATE 7-29-84

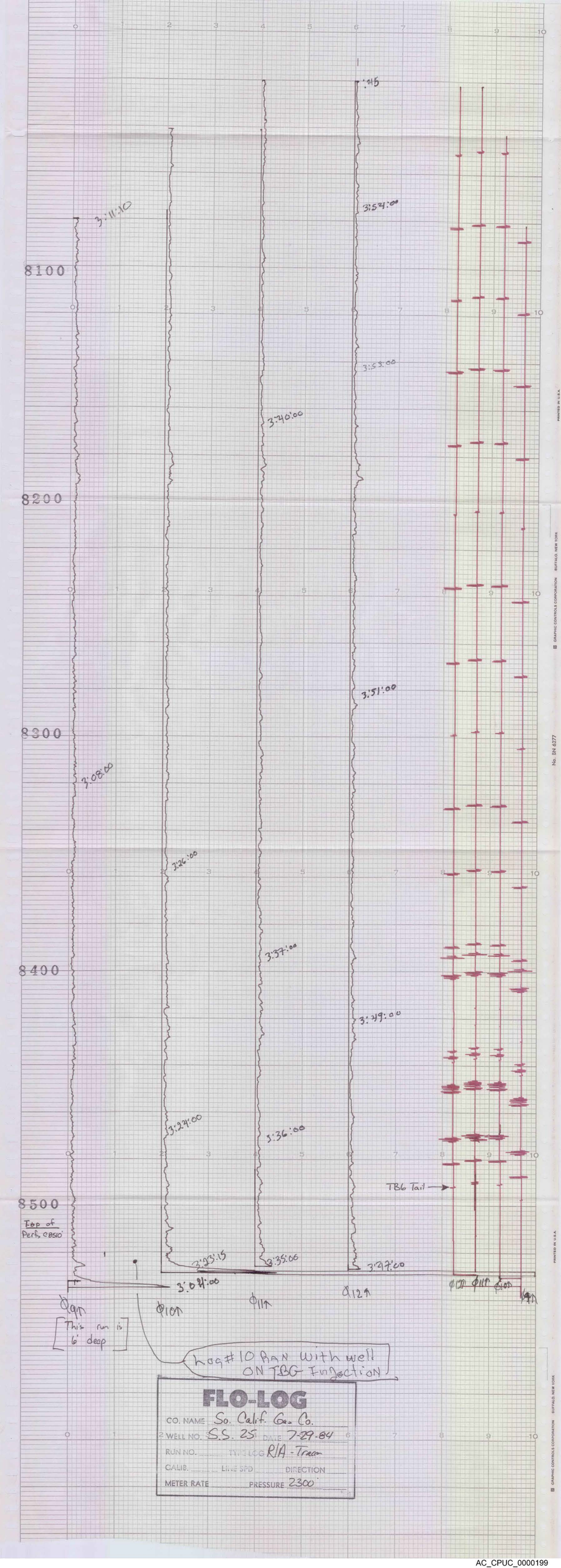
RUN NO. ..... TYPE LOG Tracer Log.

CALIB. ..... LINE SPD ..... DIRECTION .....

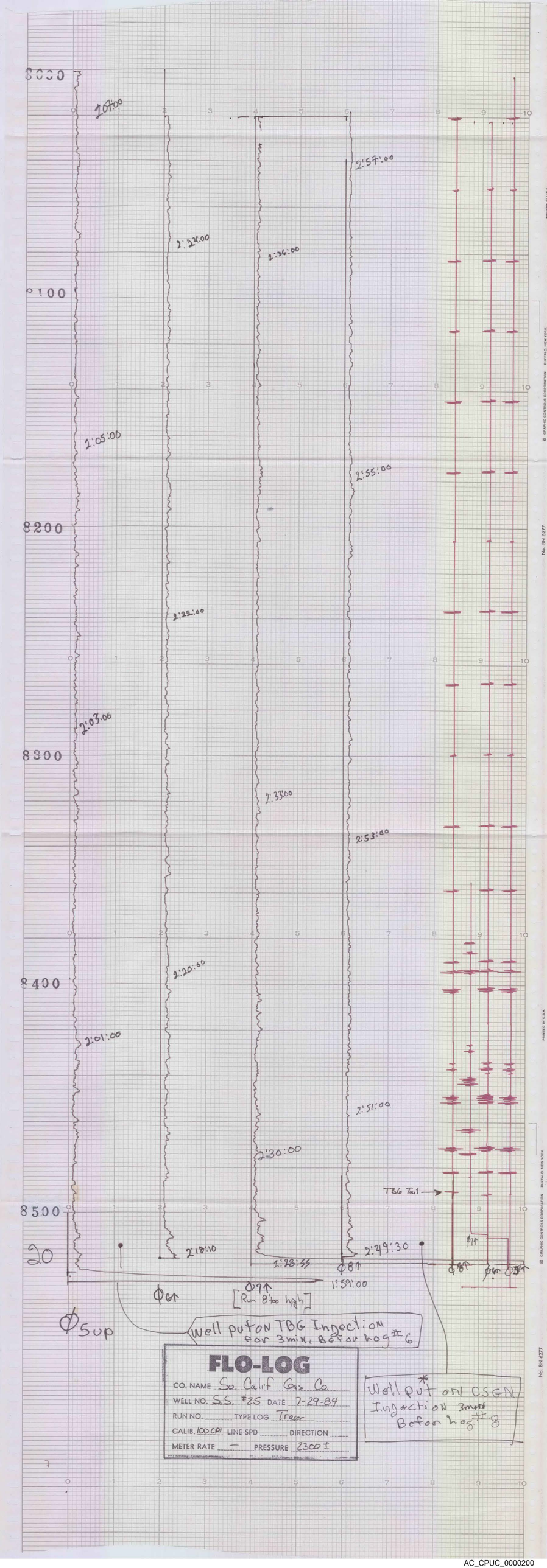
METER RATE ..... PRESSURE .....

PRINTED IN U.S.A. GRAPHIC CONTROLS CORPORATION BUFFALO, NEW YORK No. BN 6277

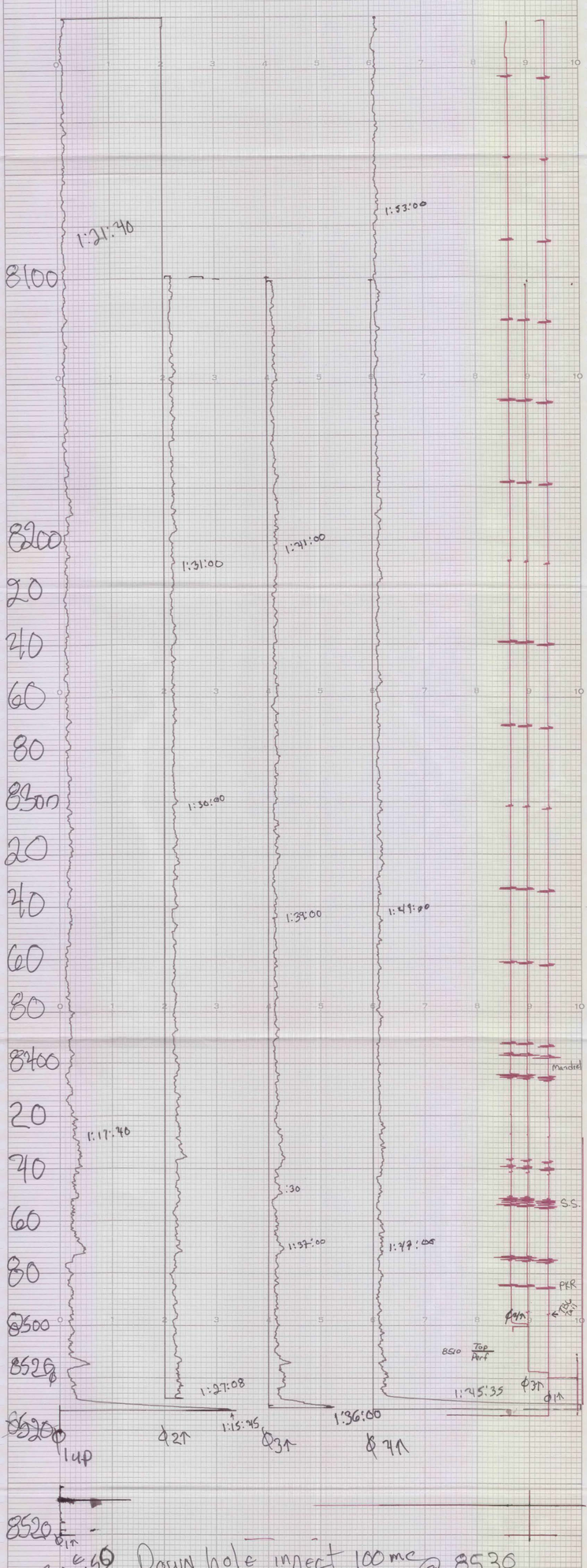
AC_CPUC_0000198



AC_CPUC_0000199



AC_CPUC_0000200



Time @ 11:56 Down hole inject 100 mc @ 8530

Then pulled out and removed tracer ejector

12 - $5

FLO-LOG

CO. NAME So. Calif. Gas Co

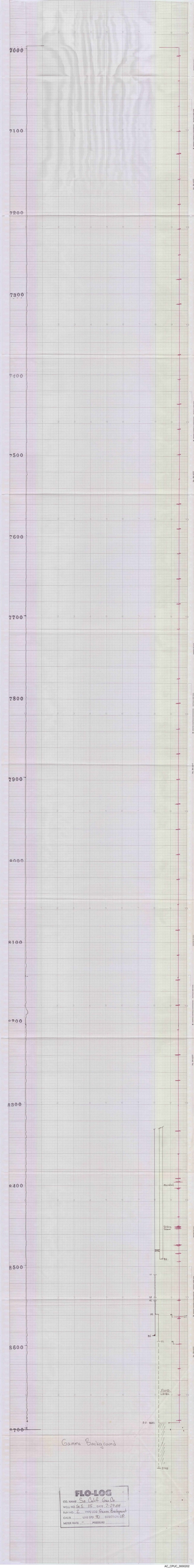
WELL NO. S.S. 25 DATE 7-29-84

RUN NO. 2 TYPE LOG TRACER

CALIB. 100 CPI LINE SPD 80 DIRECTION UP

METER RATE ..... PRESSURE .....

AC_CPUC_0000201



AC_CPUC_0000352

FLO-LOG

CO. NAME So. Calif. Gas Co.

WELL NO. SS. 25 DATE 7-29-84

RUN NO. 1 TYPE LOG Capacitance

CALIB. 100 H/m LINE SPD 90 DIRECTION UP

METER RATE – PRESSURE –

8400

8500

8600

8700

TBG Tail

Liner Top @ 54'

Fluid Level

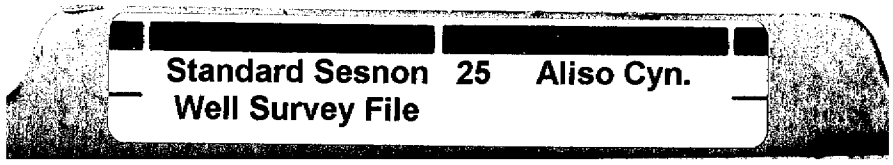
Water

Oil

2000 2100 2200 2300 2400 2500 2600

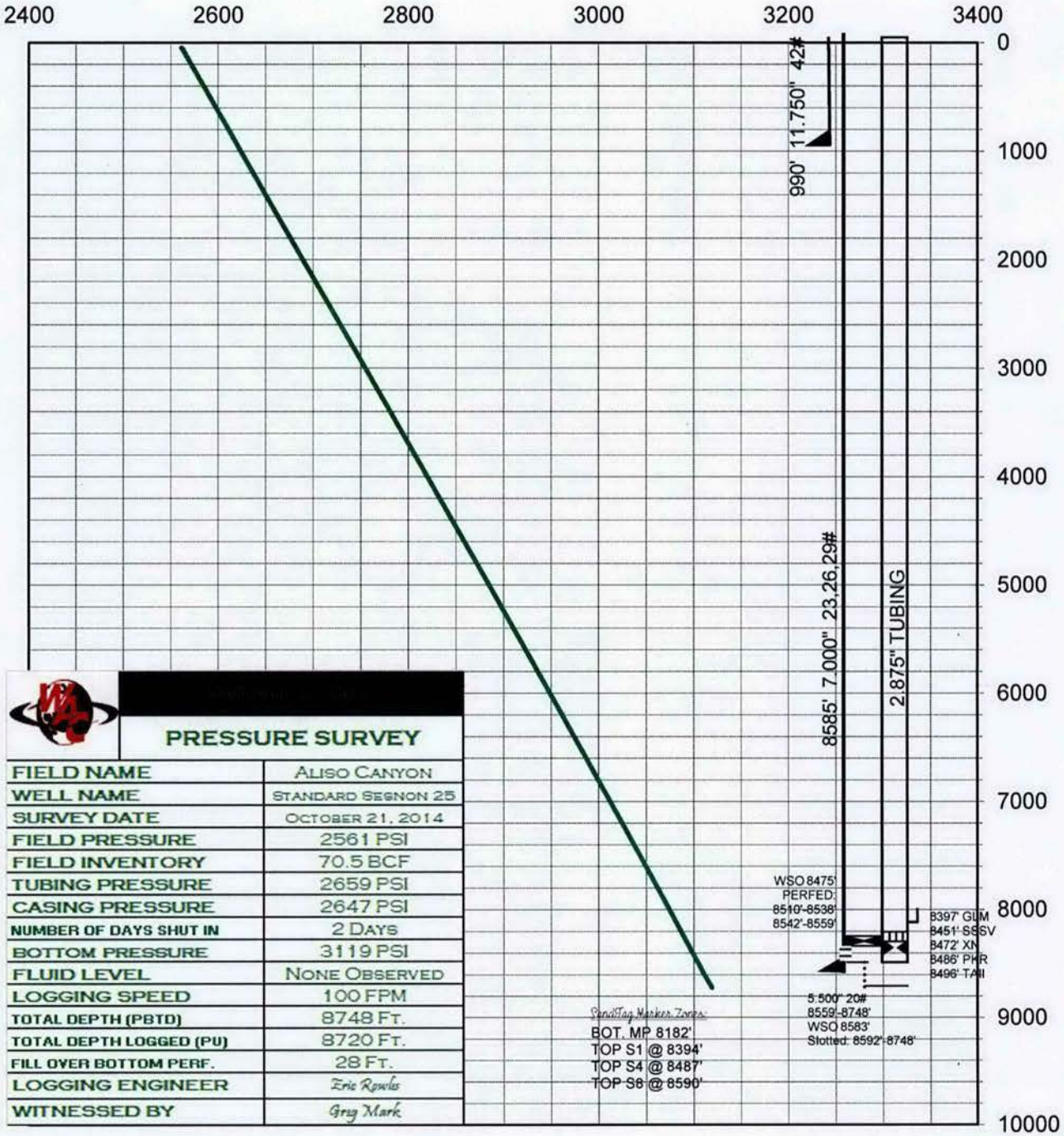
0 1 2 3 4 5 6 7 8 9 10

GRAPHIC CONTROLS CORPORATION BUFFALO, NEW YORK
No. BN 6277
PRINTED IN U.S.A.
77



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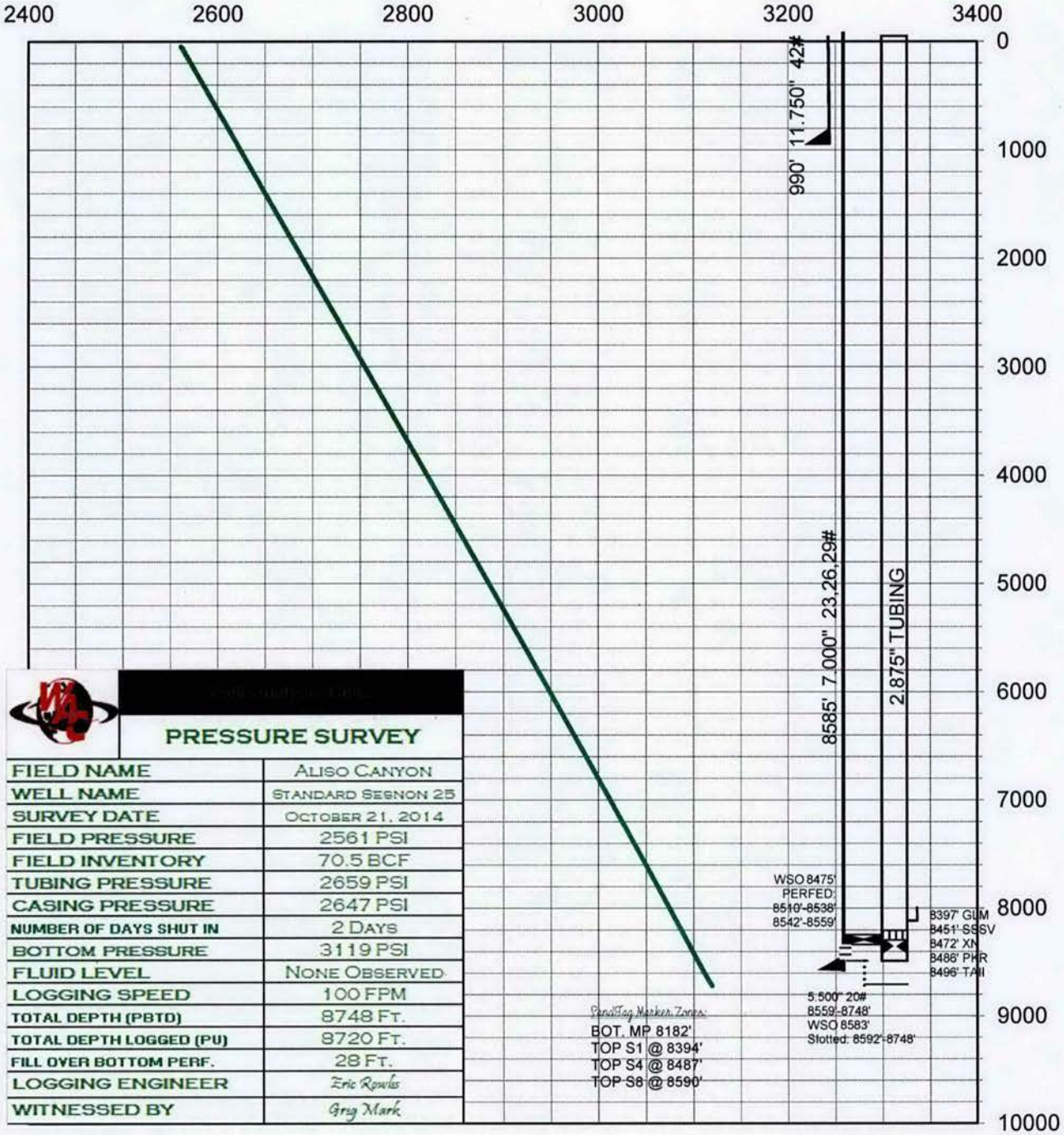
03700776_Survey_Pressure_10-21-2014(SS25)



PRESSURE SURVEY

FIELD NAME	ALISO CANYON
WELL NAME	STANDARD SESNON 25
SURVEY DATE	OCTOBER 21, 2014
FIELD PRESSURE	2561 PSI
FIELD INVENTORY	70.5 BCF
TUBING PRESSURE	2659 PSI
CASING PRESSURE	2647 PSI
NUMBER OF DAYS SHUT IN	2 DAYS
BOTTOM PRESSURE	3119 PSI
FLUID LEVEL	NONE OBSERVED
LOGGING SPEED	100 FPM
TOTAL DEPTH (PBTD)	8748 FT.
TOTAL DEPTH LOGGED (PU)	8720 FT.
FILL OVER BOTTOM PERF.	28 FT.
LOGGING ENGINEER	Eric Rowles
WITNESSED BY	Greg Mark

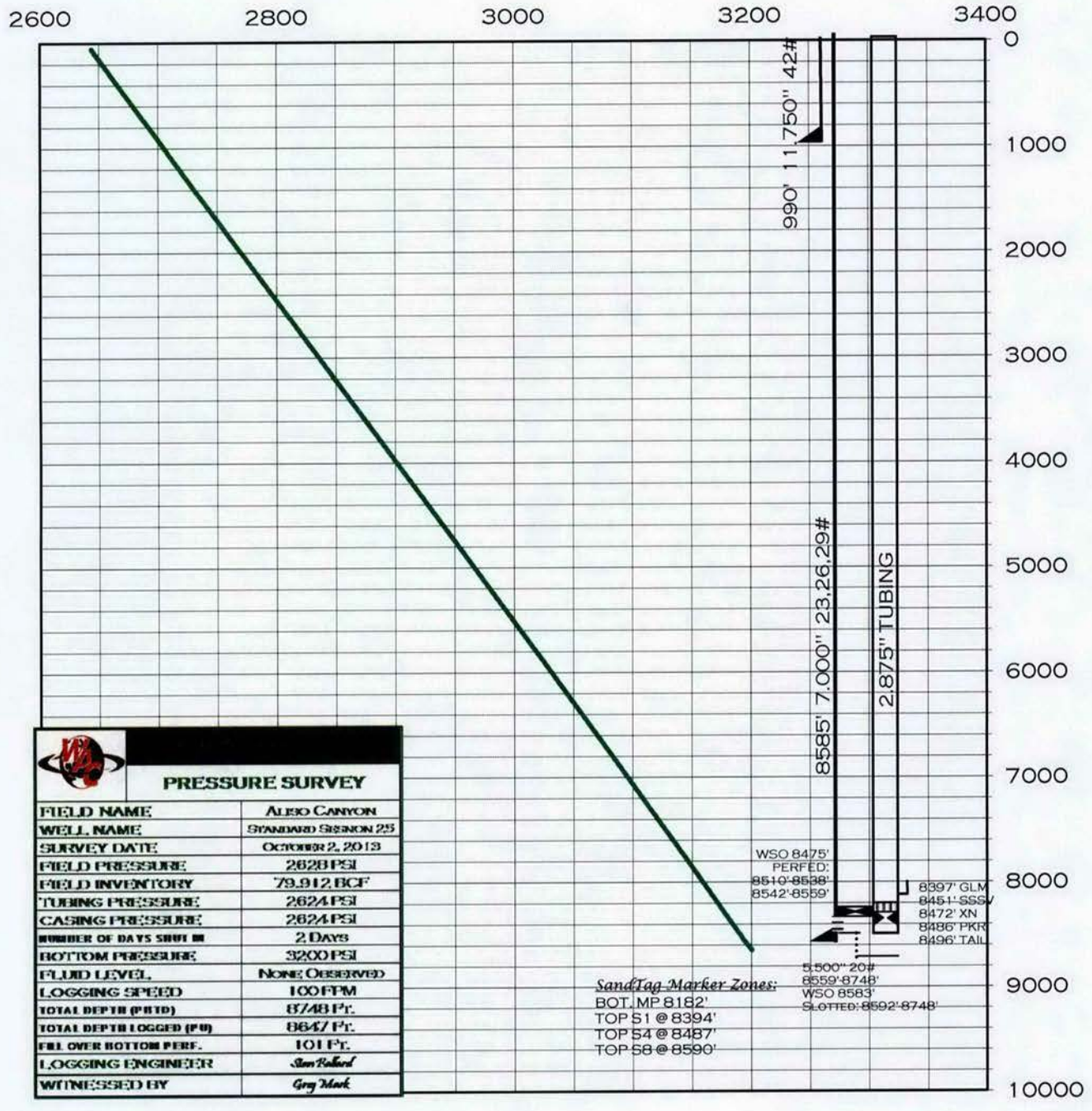
03700776_Survey_Pressure_10-21-2014(SS25)



PRESSURE SURVEY

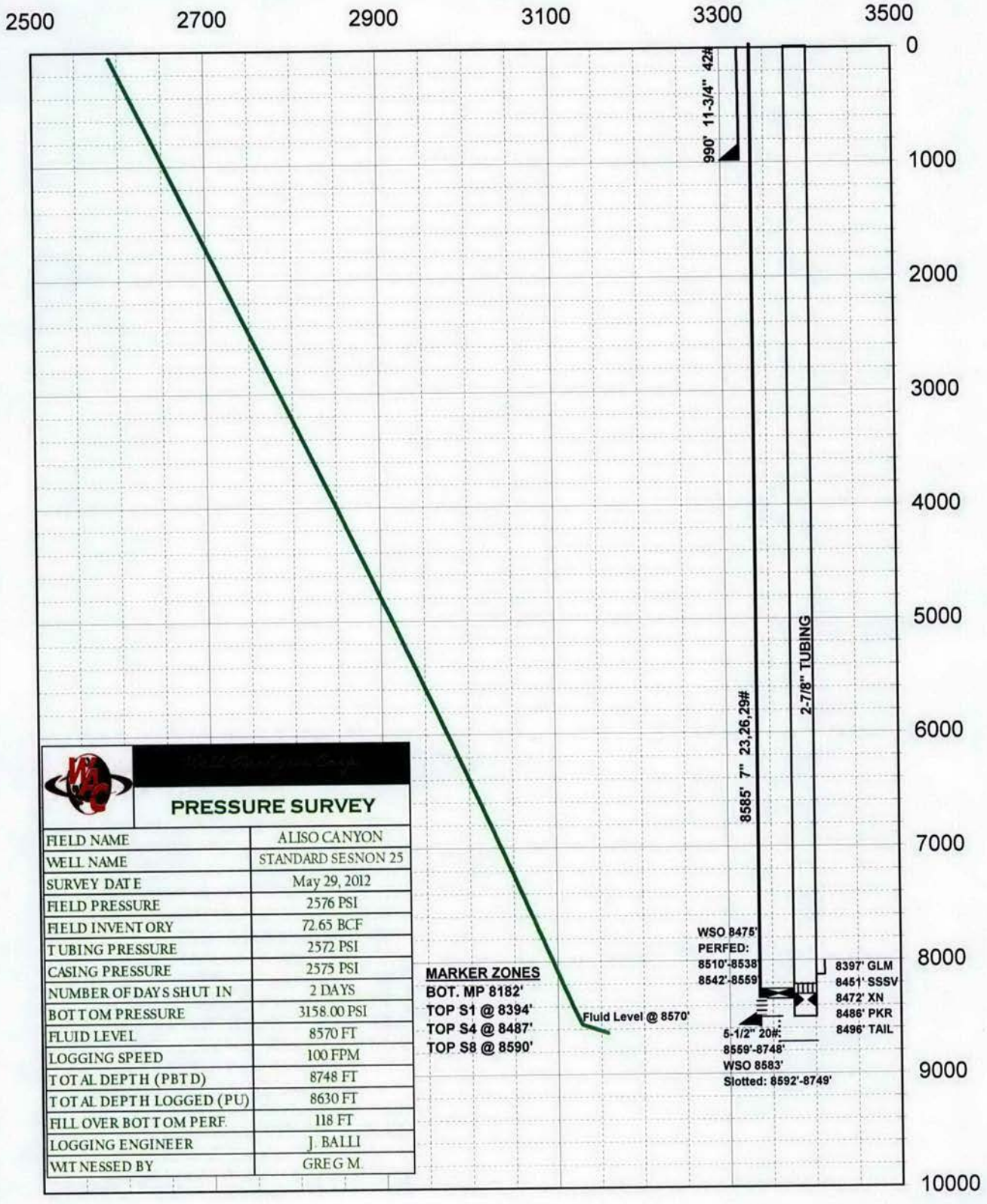
FIELD NAME	ALISO CANYON
WELL NAME	STANDARD SESNON 25
SURVEY DATE	OCTOBER 21, 2014
FIELD PRESSURE	2561 PSI
FIELD INVENTORY	70.5 BCF
TUBING PRESSURE	2659 PSI
CASING PRESSURE	2647 PSI
NUMBER OF DAYS SHUT IN	2 DAYS
BOTTOM PRESSURE	3119 PSI
FLUID LEVEL	NONE OBSERVED
LOGGING SPEED	100 FPM
TOTAL DEPTH (PBTD)	8748 FT.
TOTAL DEPTH LOGGED (PU)	8720 FT.
FILL OVER BOTTOM PERF.	28 FT.
LOGGING ENGINEER	Eric Rowles
WITNESSED BY	Greg Mark

03700776_SURVEY_PRESSURE_10-02-2013(SS25)



PRESSURE SURVEY	
FIELD NAME	ALEJO CANYON
WELL NAME	STANDARD SESSION 25
SURVEY DATE	OCTOBER 2, 2013
FIELD PRESSURE	2628 PSI
FIELD INVENTORY	79,912 BCF
TUBING PRESSURE	2624 PSI
CASING PRESSURE	2624 PSI
NUMBER OF DAYS SHUT IN	2 DAYS
BOTTOM PRESSURE	3200 PSI
FLUID LEVEL	NONE OBSERVED
LOGGING SPEED	100 FPM
TOTAL DEPTH (PBTD)	8748 FT.
TOTAL DEPTH LOGGED (PBD)	8647 FT.
FBL OVER BOTTOM PERF.	101 FT.
LOGGING ENGINEER	*Stan Rutherford*
WITNESSED BY	*Greg Mack*

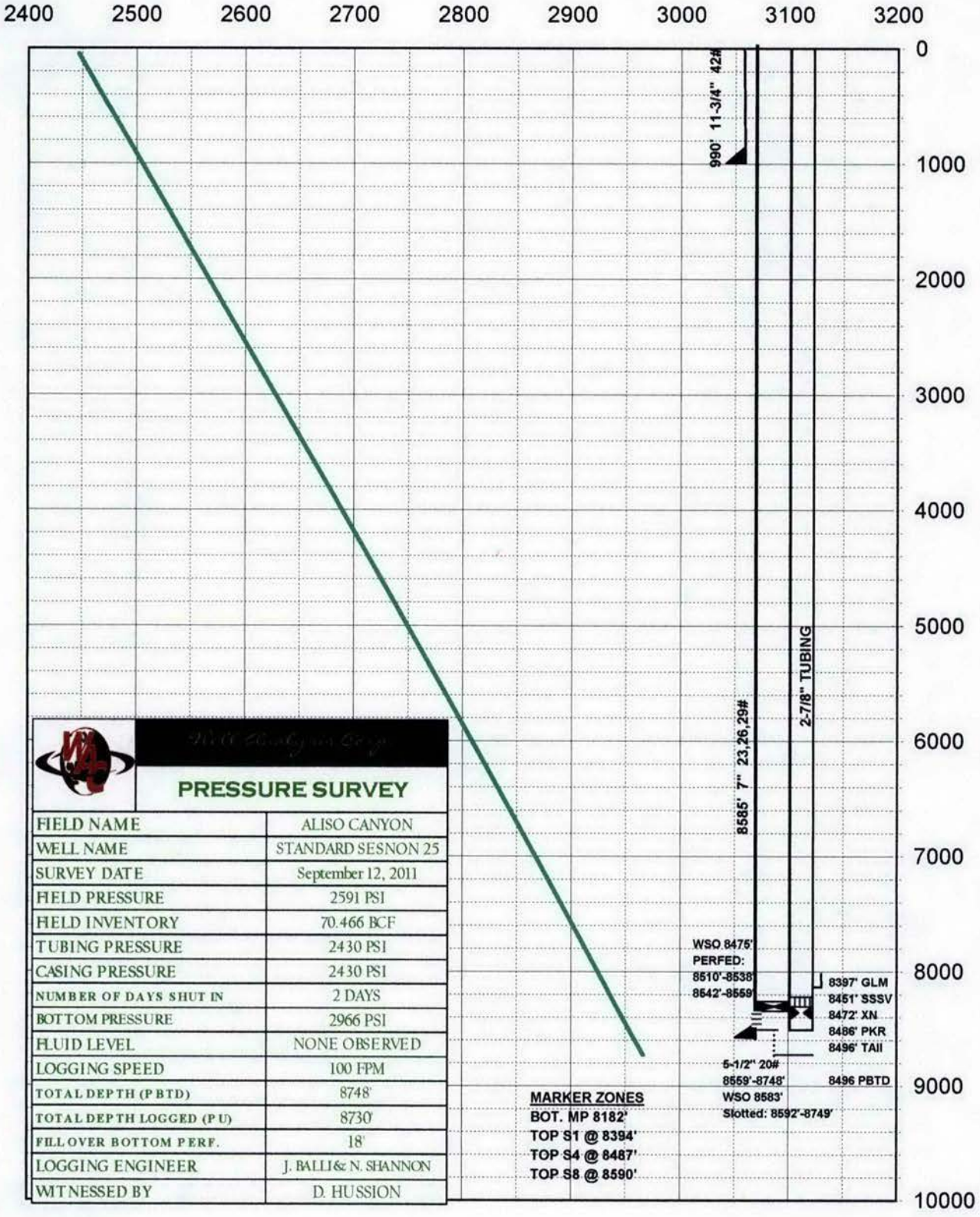
03700776_SURVEY_PRESSURE_05-29-2012(SS25)



PRESSURE SURVEY

FIELD NAME	ALISO CANYON
WELL NAME	STANDARD SESNON 25
SURVEY DATE	May 29, 2012
FIELD PRESSURE	2576 PSI
FIELD INVENTORY	72.65 BCF
TUBING PRESSURE	2572 PSI
CASING PRESSURE	2575 PSI
NUMBER OF DAYS SHUT IN	2 DAYS
BOTTOM PRESSURE	3158.00 PSI
FLUID LEVEL	8570 FT
LOGGING SPEED	100 FPM
TOTAL DEPTH (PBTD)	8748 FT
TOTAL DEPTH LOGGED (PU)	8630 FT
FILL OVER BOTTOM PERF.	118 FT
LOGGING ENGINEER	J. BALLI
WITNESSED BY	GREG M.

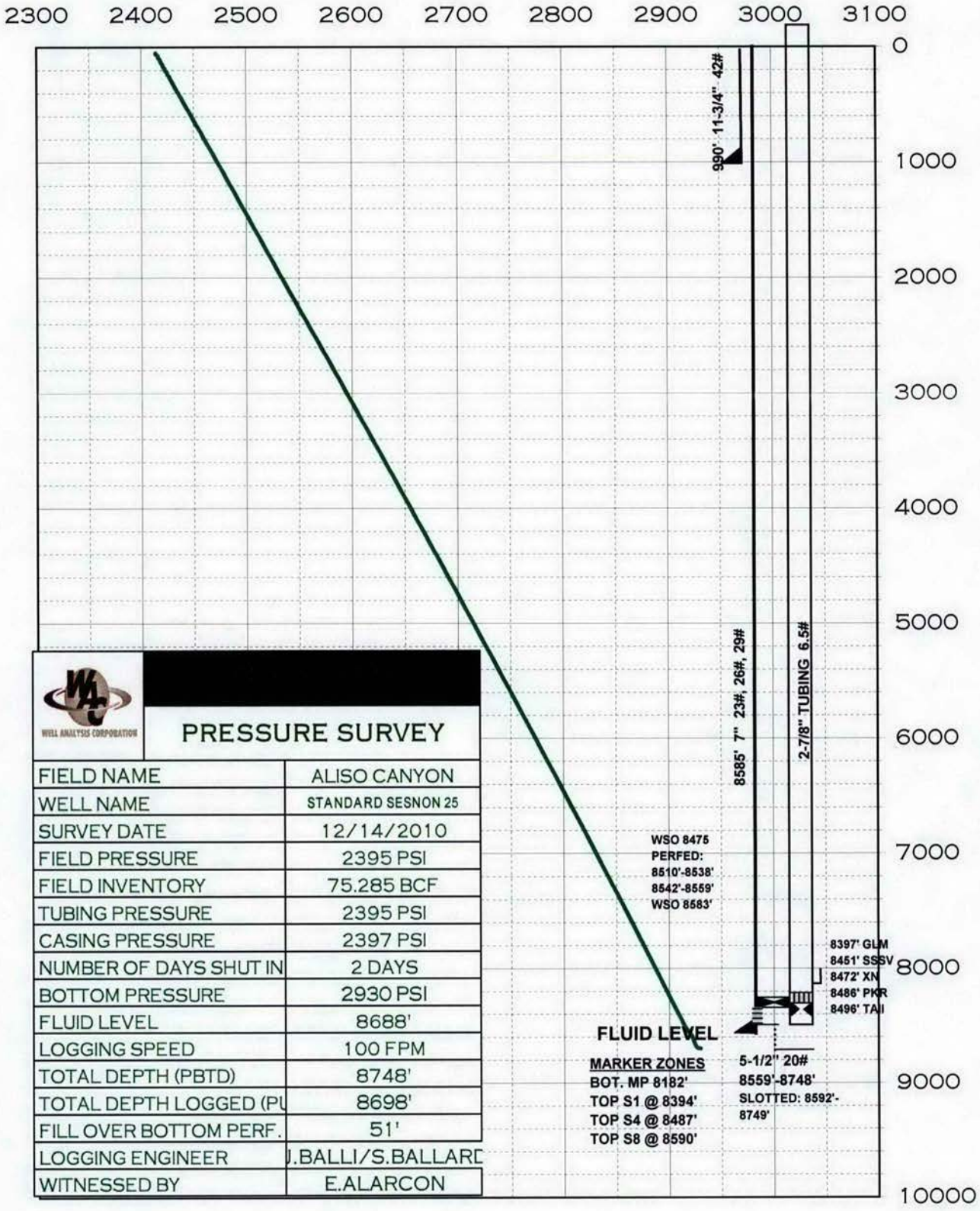
03700776_SURVEY_PRESSURE_09-12-2011(SS25)



PRESSURE SURVEY

FIELD NAME	ALISO CANYON
WELL NAME	STANDARD SESNON 25
SURVEY DATE	September 12, 2011
FIELD PRESSURE	2591 PSI
FIELD INVENTORY	70.466 BCF
TUBING PRESSURE	2430 PSI
CASING PRESSURE	2430 PSI
NUMBER OF DAYS SHUT IN	2 DAYS
BOTTOM PRESSURE	2966 PSI
FLUID LEVEL	NONE OBSERVED
LOGGING SPEED	100 FPM
TOTAL DEPTH (PBTD)	8748'
TOTAL DEPTH LOGGED (PU)	8730'
FILL OVER BOTTOM PERF.	18'
LOGGING ENGINEER	J. BALLI & N. SHANNON
WITNESSED BY	D. HUSSION

03700776_SURVEY_PRESSURE_12-14-2010(SS25)

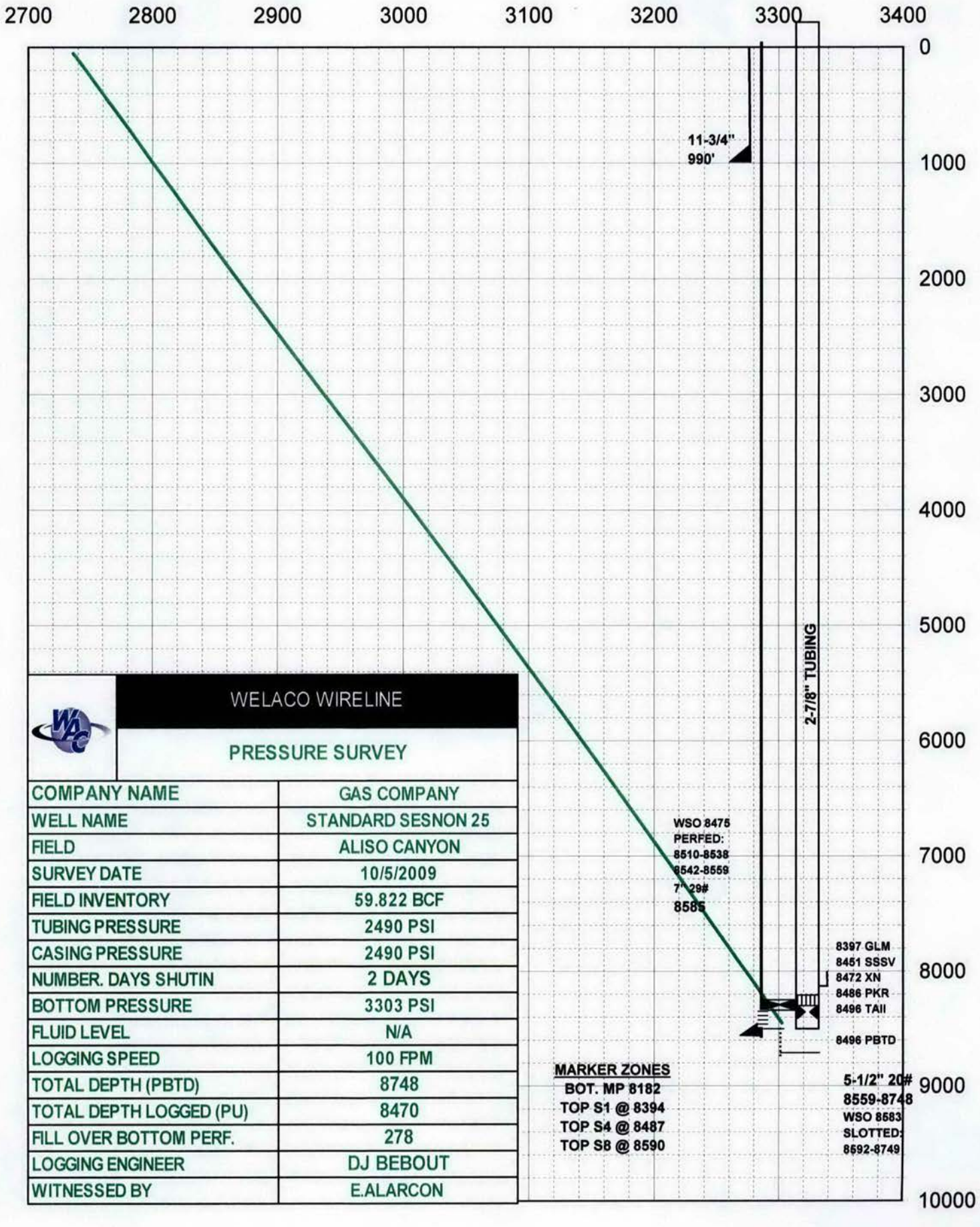


WELL ANALYSIS CORPORATION

PRESSURE SURVEY

FIELD NAME	ALISO CANYON
WELL NAME	STANDARD SESNON 25
SURVEY DATE	12/14/2010
FIELD PRESSURE	2395 PSI
FIELD INVENTORY	75.285 BCF
TUBING PRESSURE	2395 PSI
CASING PRESSURE	2397 PSI
NUMBER OF DAYS SHUT IN	2 DAYS
BOTTOM PRESSURE	2930 PSI
FLUID LEVEL	8688'
LOGGING SPEED	100 FPM
TOTAL DEPTH (PBTD)	8748'
TOTAL DEPTH LOGGED (PU	8698'
FILL OVER BOTTOM PERF.	51'
LOGGING ENGINEER	J.BALLI/S.BALLARD
WITNESSED BY	E.ALARCON

037.00776_SURVEY_PRESSURE_10.05.2009

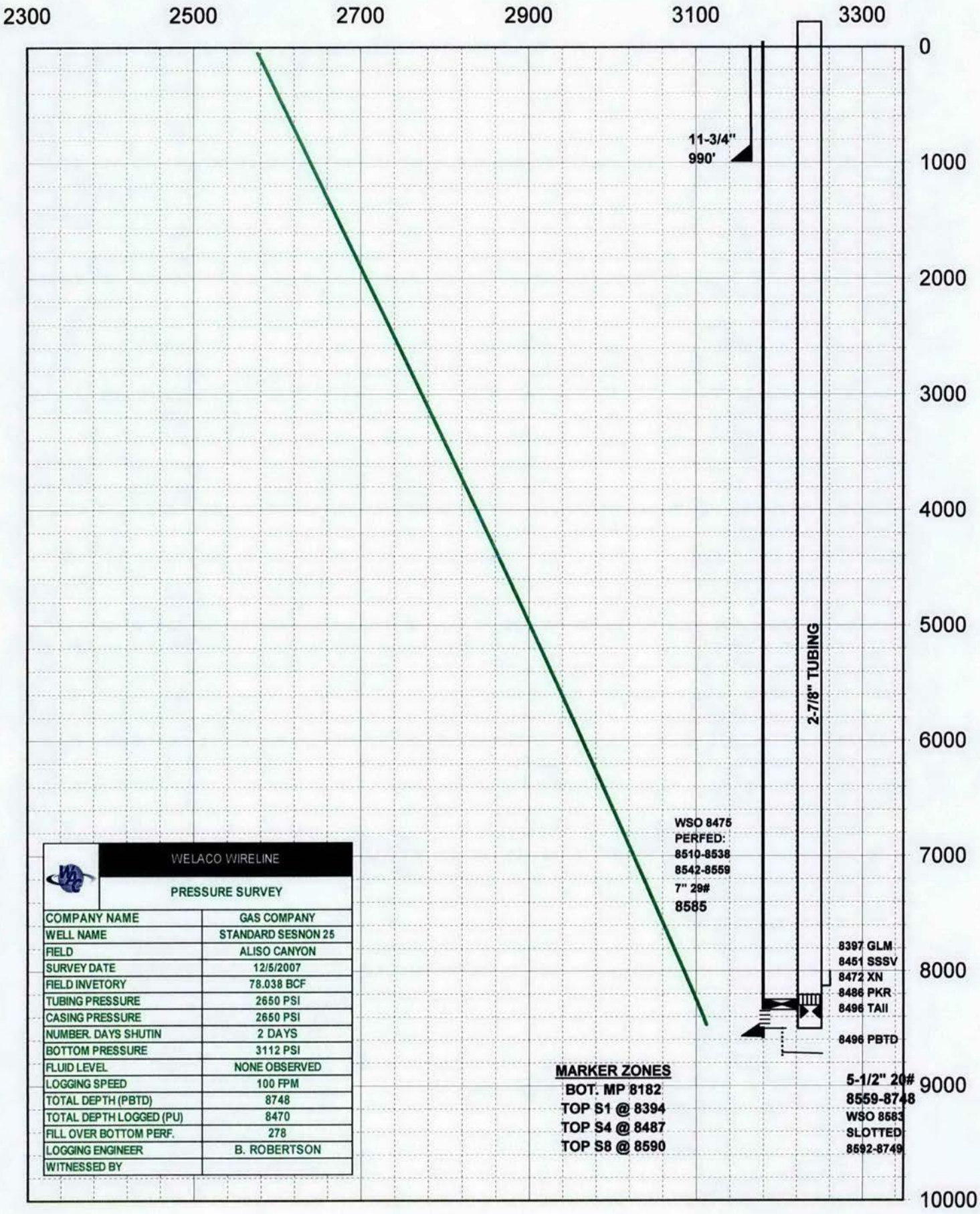


WELACO WIRELINE

PRESSURE SURVEY

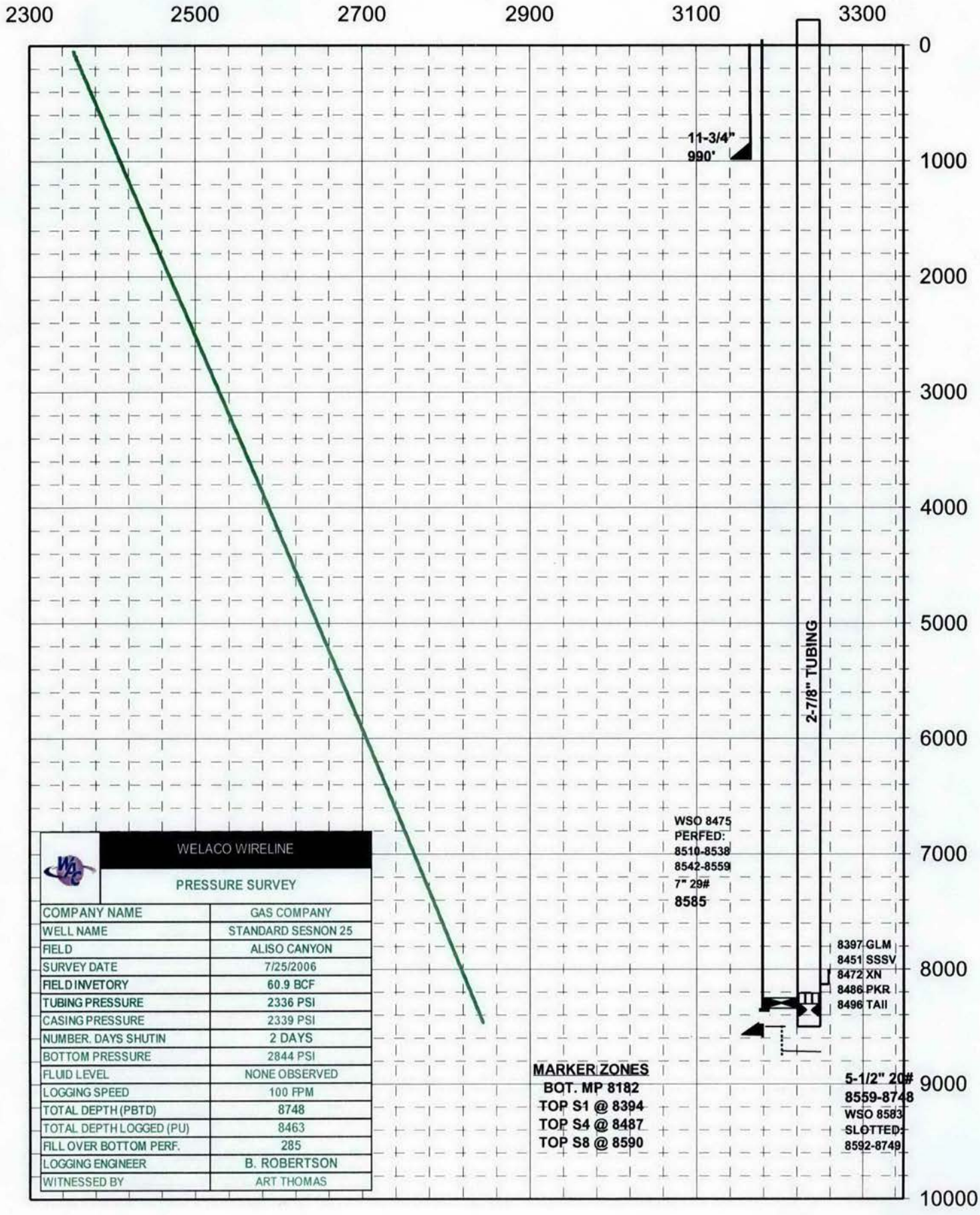
COMPANY NAME	GAS COMPANY
WELL NAME	STANDARD SESNON 25
FIELD	ALISO CANYON
SURVEY DATE	10/5/2009
FIELD INVENTORY	59.822 BCF
TUBING PRESSURE	2490 PSI
CASING PRESSURE	2490 PSI
NUMBER. DAYS SHUTIN	2 DAYS
BOTTOM PRESSURE	3303 PSI
FLUID LEVEL	N/A
LOGGING SPEED	100 FPM
TOTAL DEPTH (PBTD)	8748
TOTAL DEPTH LOGGED (PU)	8470
FILL OVER BOTTOM PERF.	278
LOGGING ENGINEER	DJ BEBOUT
WITNESSED BY	E.ALARCON

037.00776_SURVEY_PRESSURE_2007.12.05



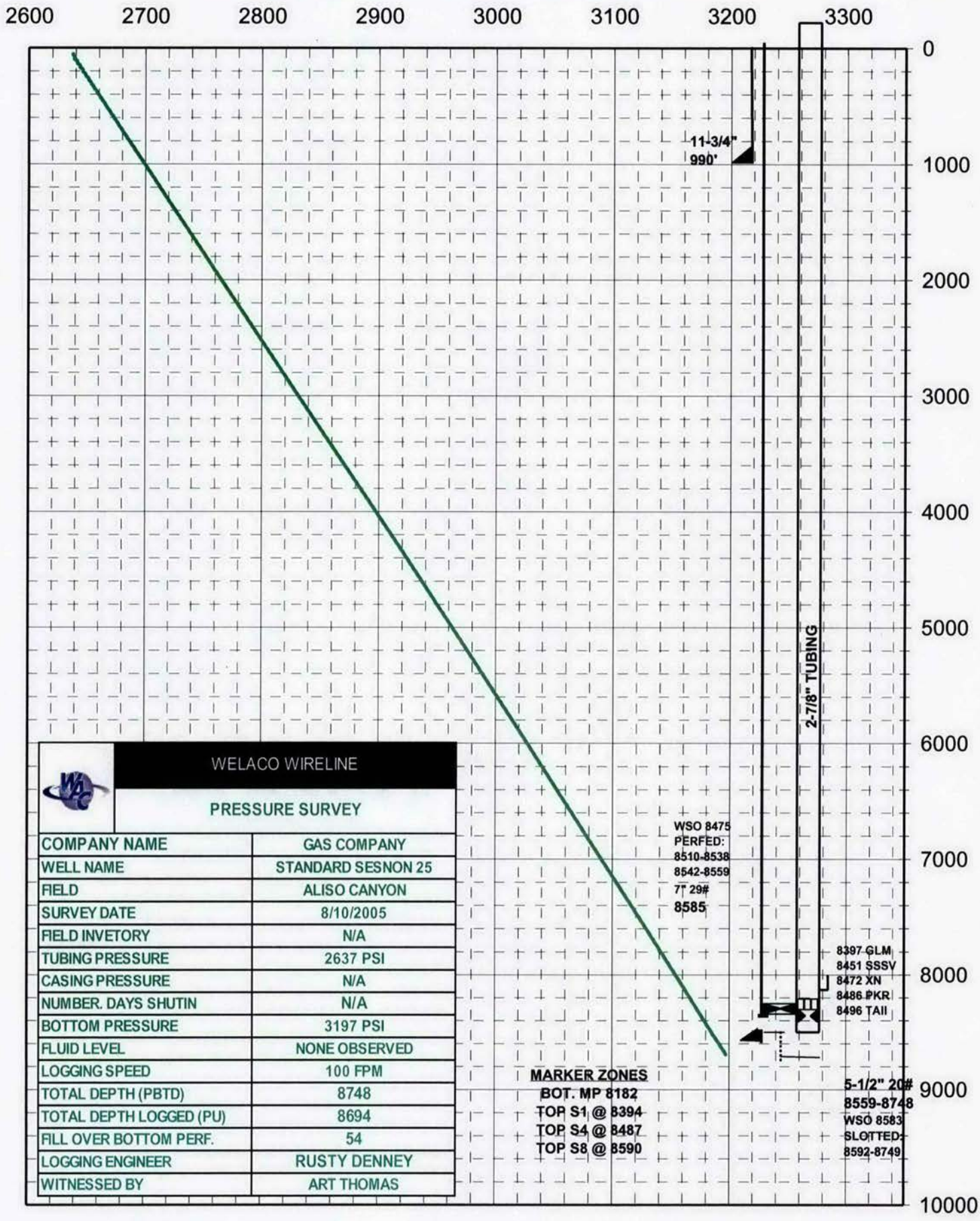
WELACO WIRELINE	
PRESSURE SURVEY	
COMPANY NAME	GAS COMPANY
WELL NAME	STANDARD SESNON 25
FIELD	ALISO CANYON
SURVEY DATE	12/5/2007
FIELD INVETORY	78.038 BCF
TUBING PRESSURE	2650 PSI
CASING PRESSURE	2650 PSI
NUMBER. DAYS SHUTIN	2 DAYS
BOTTOM PRESSURE	3112 PSI
FLUID LEVEL	NONE OBSERVED
LOGGING SPEED	100 FPM
TOTAL DEPTH (PBTD)	8748
TOTAL DEPTH LOGGED (PU)	8470
FILL OVER BOTTOM PERF.	278
LOGGING ENGINEER	B. ROBERTSON
WITNESSED BY	

037.00776_SURVEY_PRESSURE_2006.07.25



WELACO WIRELINE	
PRESSURE SURVEY	
COMPANY NAME	GAS COMPANY
WELL NAME	STANDARD SESNON 25
FIELD	ALISO CANYON
SURVEY DATE	7/25/2006
FIELD INVETORY	60.9 BCF
TUBING PRESSURE	2336 PSI
CASING PRESSURE	2339 PSI
NUMBER. DAYS SHUTIN	2 DAYS
BOTTOM PRESSURE	2844 PSI
FLUID LEVEL	NONE OBSERVED
LOGGING SPEED	100 FPM
TOTAL DEPTH (PBTD)	8748
TOTAL DEPTH LOGGED (PU)	8463
FILL OVER BOTTOM PERF.	285
LOGGING ENGINEER	B. ROBERTSON
WITNESSED BY	ART THOMAS

037.00776_SURVEY_PRESSURE_2005.08.10



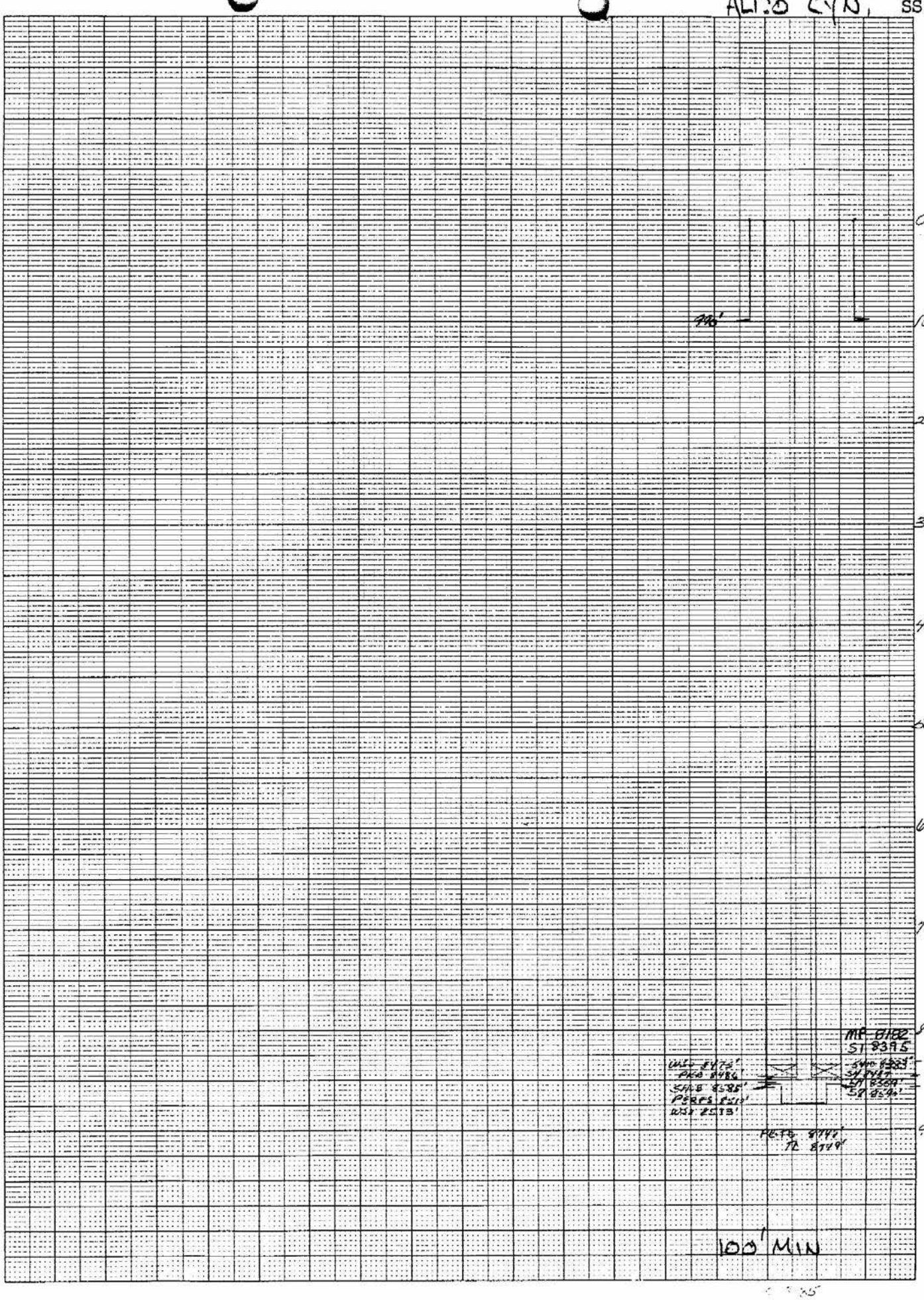
WELACO WIRELINE

PRESSURE SURVEY

COMPANY NAME	GAS COMPANY
WELL NAME	STANDARD SESNON 25
FIELD	ALISO CANYON
SURVEY DATE	8/10/2005
FIELD INVETORY	N/A
TUBING PRESSURE	2637 PSI
CASING PRESSURE	N/A
NUMBER. DAYS SHUTIN	N/A
BOTTOM PRESSURE	3197 PSI
FLUID LEVEL	NONE OBSERVED
LOGGING SPEED	100 FPM
TOTAL DEPTH (PBTD)	8748
TOTAL DEPTH LOGGED (PU)	8694
FILL OVER BOTTOM PERF.	54
LOGGING ENGINEER	RUSTY DENNEY
WITNESSED BY	ART THOMAS

ALISO CANYON SS-25 PRESSURE SURVEY
PRESSURE (PSI)
1000
1400
1800
2200
2600
3000
DEPTH (TRUE VERTICAL FEET)
0
1000
2000
3000
4000
5000
6000
7000
8000
9000
10000
ARTHUR THOMAS
TBG.1590#
CSG.1590#
INV.25.2m3
ELEM.#13978
P/U 8689 FT.
46 1510
K&E 10 X 10 TO THE CENTIMETER 18 X 25 CM
KEUFFEL & ESSER CO. MADE IN U.S.A.

OK
3/8/95



461510

10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

****
* The Gas Company *
* Aliso Canyon *
* (805) 253-7086 *
****

COMPANY NAME..: SO. CAL. GAS
DATE .....: 03/07/95
WELL I.D. ....: SS-25
FIELD I.D. ...: ALISO CYN.
RUN # .....: 1
ENGINEER .....: A. THOMAS
ZERO REFERENCE: K.B.
START DATE ...: 03/07/95
START TIME ...: 00:00:00
WELL STATUS...: S.I.
GAUGE INFO:
I.D. .....: KPG
SERIAL #....: 13978
RANGE.....: 4125

COMMENTS .....: TBG. 1590
CSG. 1590
FILE # .....: 2

STATISTICS:
DEPTH(min): 0.00
DEPTH(max): 8675.00
PRESSURE(min): 1577.21
PRESSURE(max): 1937.98

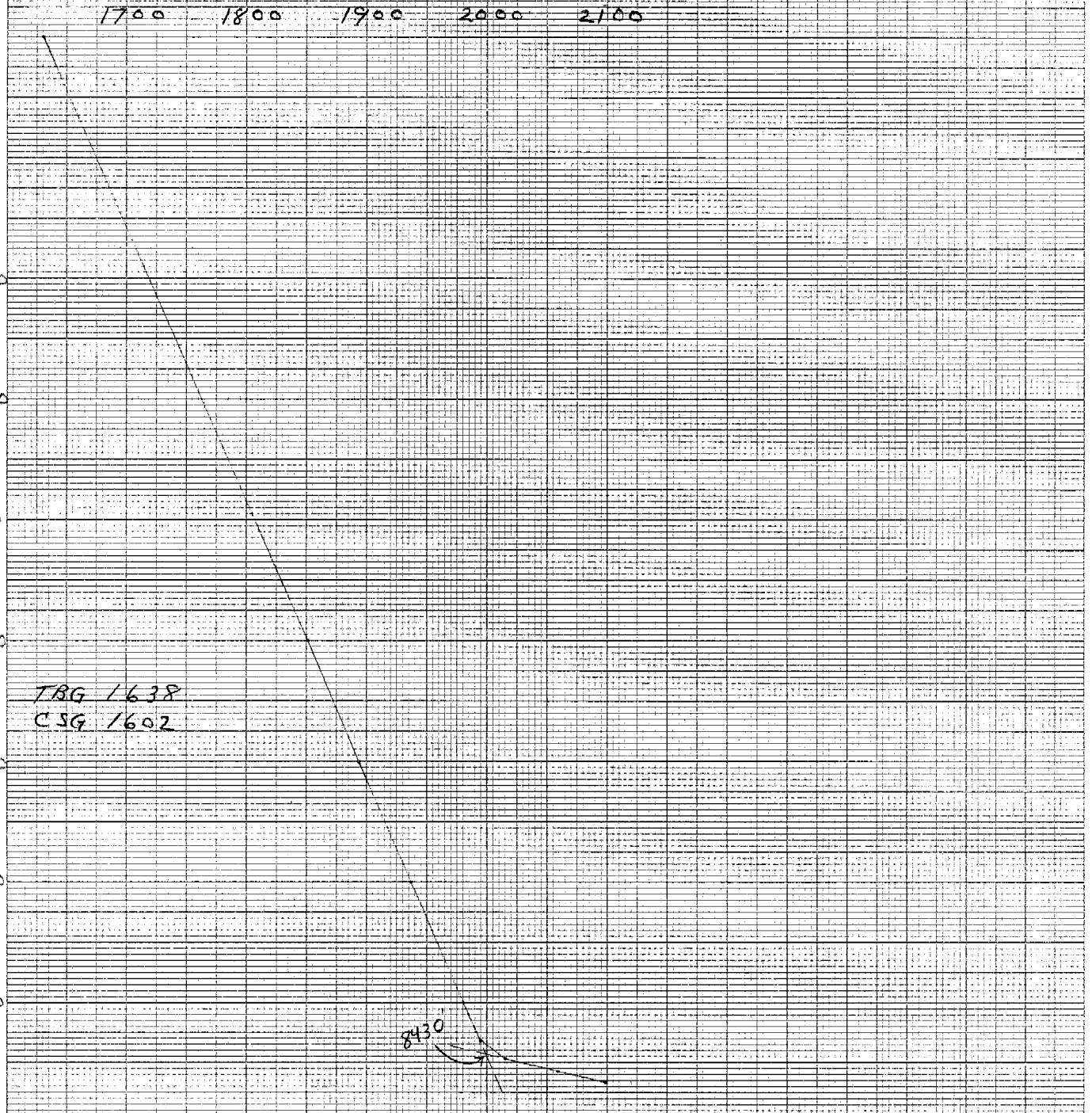
NO.	DEPTH DEFL(IN)	DEPTH FEET	PRESSURE DEFL(IN)	PRESSURE PSI	GRADIENT
1	-2.9835	0.000	0.7606	1577.21	0.0000
2	-2.9836	5000.000	0.8525	1768.36	0.0382
3	-2.9836	6000.000	0.8701	1804.83	0.0365
4	-2.9837	7000.000	0.8875	1840.89	0.0361
5	-2.9836	8000.000	0.9046	1876.25	0.0354
6	-2.9837	8333.000	0.9105	1888.39	0.0365
7	-2.9835	8475.000	0.9113	1890.04	0.0116
8	-2.9835	8576.000	0.9241	1916.37	0.2607
9	-2.9833	8675.000	0.9346	1937.98	0.2182

***** end data *****

SHUT IN 4-4-88 PRIOR TO SURVEY.
INJ. 256.58 HRS PRIOR TO SHUT IN.

1

SS-25 4-22-88



TBG 1638
CSG 1602

FLUID LEVEL 8430', PRESS
AT 5.4 (8475') = 2016 PSI

RUN RM
READ FG
PLOT RM

46 1510
10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0000218

SOUTHERN CALIFORNIA GAS COMPANY
SUB-SURFACE PRESSURE SURVEY

FIELD ALISO WELL 55-25 DATE 9-22-88

RECORDER NO. 850930 RUN NO. ____ SHEET NO. ____ OF ____ SHEETS BY RM

CLOCK HOURS ____ TIME CLOCK STARTED ____ TIME RUN COMPLETED ____

WELL CONDITION DURING RUN, SHUT-IN X FLOWING ____ INJECTION ____

HOURS WELL, SHUT-IN ____ FLOWING ____ INJECTION ____ BEFORE RUN ____

WELL HEAD PRESSURE

TUBING 1638

CASING 1602

FLOW RATE

GAS MCF/D ____

OIL BBL'S/D ____

WATER BBL'S/D ____

GOR ____

MAXIMUM TEMPERATURE ____

ZERO POINT 6' @ M/V

PICK-UP ____

DATUM 8342' (8333')

	SIZE	DEPTH
TUBING	2 7/8	8496
CASING	7	8585
CASING SHOE		
LINER	5 1/2	
TOP		8559
BOTTOM		8748

PERFORATION

TOP 8592

BOTTOM 8748

SURVEY DATA

DEPTH VERTICAL	DEPTH MEASURED	STYLUS DEFLECTION	PRESSURE	GRADIENT PSI/100 FT
0	0 ✓	.791	1630.9	
5000	5000 ✓	.899	1851.7	.0442
6000	6000 ✓	.920	1894.7	.0430
7000	7000 ✓	.941	1937.6	.0429
8000	8000 ✓	.962	1980.6	.0430
8333	8342 DAT ✓	.969	1994.9	.0429
8475	8487 5-4 ✓	.980	2016.4	.1514
8576	8590 5-8 ✓	1.001	2059.3	.4248
~~8675~~	~~8689~~			
8669	8683 T.D.	1.020	2098.2	.4183

SPECIAL INSTRUCTIONS: TBG TAIL 8496

~~TD 8748~~ 8683

BY ____

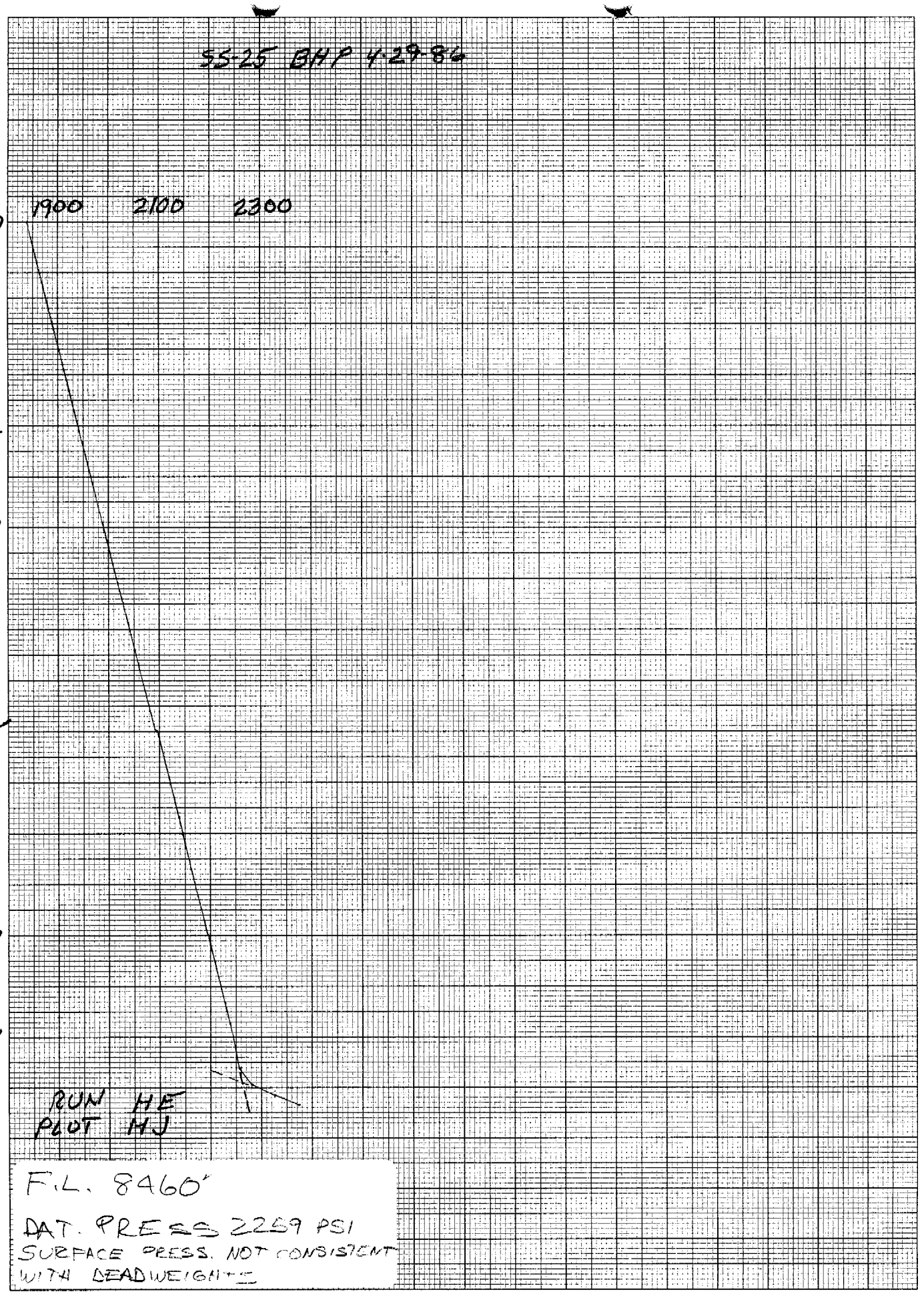
REMARKS: ____

JDM 9-23-86

FIELD OPERATOR ____

CHART READ BY ____

SOUTHERN CALIFORNIA GAS CO.—4296



AC_CPUC_0000220

SOUTHERN CALIFORNIA GAS COMPANY

SUB-SURFACE PRESSURE SURVEY

FIELD ALISO CANYON WELL 55-25 DATE 4-29-86

RECORDER NO. 28538 RUN NO. 1 SHEET NO. 1 OF 1 SHEETS BY Vernon Pruett

CLOCK HOURS 3 TIME CLOCK STARTED _____ TIME RUN COMPLETED _____

WELL CONDITION DURING RUN, SHUT-IN ✓ FLOWING _____ INJECTION _____

HOURS WELL, SHUT-IN _____ FLOWING _____ INJECTION _____ BEFORE RUN _____

WELL HEAD PRESSURE

TUBING 1735

CASING 1780

FLOW RATE

GAS MCF/D _____

OIL BBL'S/D _____

WATER BBL'S/D _____

GOR _____

MAXIMUM TEMPERATURE _____

ZERO POINT 6 @ M/V

PICK-UP _____

DATUM 8342 (8333) (-5400)

	SIZE	DEPTH
TUBING	2 7/8	8496
CASING	7	8585
CASING SHOE		
LINER	5 1/2	
TOP		8559
BOTTOM		8748

PERFORATION

TOP	8592
BOTTOM	8748

SURVEY DATA

DEPTH VERTICAL	DEPTH MEASURED	STYLUS DEFLECTION	PRESSURE	GRADIENT PSI/100 FT
0	0	.684	1836.0	
5000	5000 ✓	.781	2096.1	.0520
6000	6000 ✓	.800	2146.8	.0507
7000	7000 ✓	.818	2194.9	.0481
8000	8000 ✓	.836	2242.9	.0480
8333	8342 ✓	.842	2258.9	.0480
8475	8487 ✓ 84	.850	2280.3	.1507
8576	8590 58	.866	2323.0	.4227
8686	8700	.884	2371.0	.4444

SPECIAL INSTRUCTIONS: TBG TAIL 8496
TD 8748

BY MACNEIL

REMARKS: SET 5 MIN AT START & FINISH, 3 MAIN STOPS, 2 MIN RUNS

FIELD OPERATOR _____

CHART READ BY _____

SOUTHERN CALIFORNIA GAS CO.—4296

AC_CPUC_0000221

PRUETT INDUSTRIES INC
8915 ROSEDALE HWY. BAKERSFIELD.CA. 93308
(805) 589-2768

SUB-SURFACE PRESSURE SURVEY

CO. SO CAL GAS CO	RUN 02 FIELD ALISO CANYON	WELL SS25
EFF DEPTH 8748'	WELL STAT STATIC	TOOL HUNG
CASING 7" TO -8585'	CASING PRESS	ON BOTTOM 14:31
LINER 5 1/2"8559'-8748'	TUBING PRESS	OFF BOTTOM 14:34
DATE 041785	ELEMENT RANGE 0 - 5390	ZERO POINT 6'
ELEVATION	ZONE	SHUT-IN
MAX TEMP	PICK-UP	ON-PROD
PERF 8592'-8748'	CAL SER NO. 15905	MPP
TUBING 2 7/8" TO -8496'		
UNITS ENGLISH	PURPOSE PRESSURE GRADIENT 4/17/85	

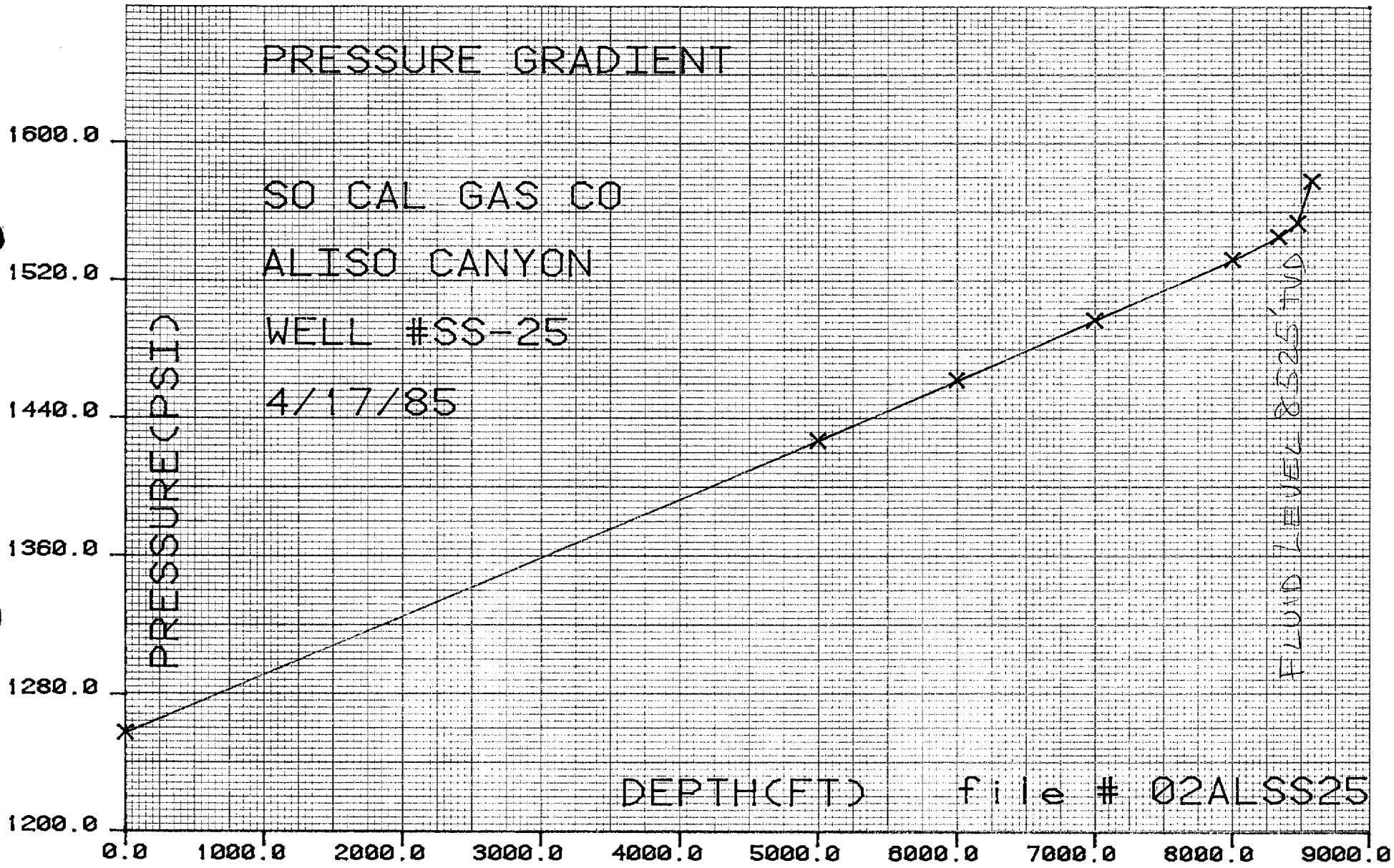
SURVEY DATA

CO. SO CAL GAS CO RUN 02 FIELD ALISO CANYON WELL SS25

TIME	DEPTH	P/T	GRAD	TIME	DEPTH	P/T	GRAD
1:00	0	1257.5	0.000	1:00	8000	1532.0	.035
1:00	5000	1427.0	.034	1:00	8333	1545.5	.040
1:00	6000	1462.0	.035	1:00	8475	1553.5	.057
1:00	7000	1497.0	.035	1:00	8575	1577.8	.240

BY T.DRIVER JR.& SR.

BAKERSFIELD, CA
(805) 589-2768
10 x 10 TO ½ INCH
6 x 9 INCHES



AC_CPUC_0000223

PRUETT INDUSTRIES INC
8915 ROSEDALE HWY, BAKERSFIELD, CA. 93308
(805) 589-2768

SUB-SURFACE PRESSURE SURVEY

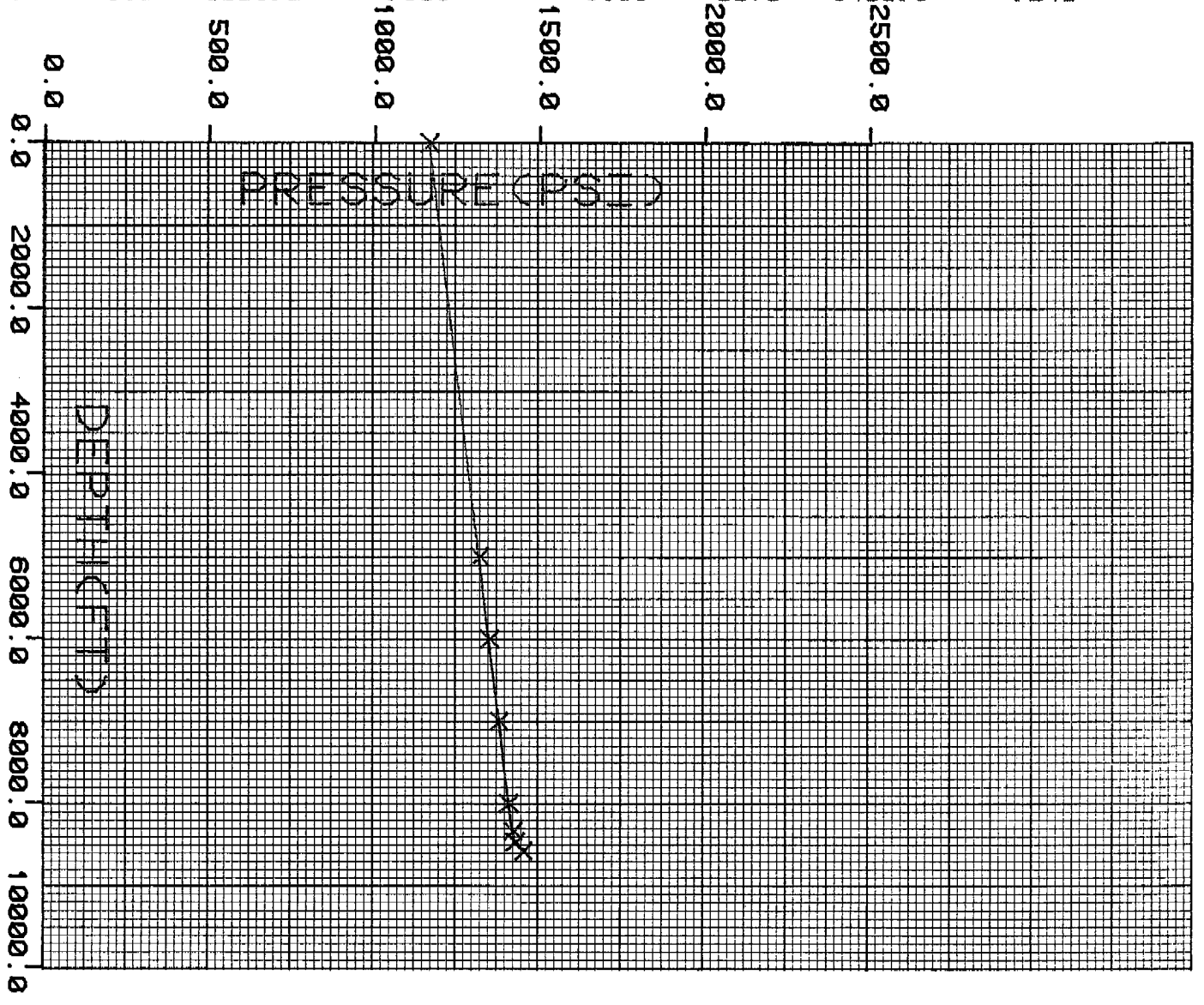
CO. SO CAL GAS CO	RUN 01 FIELD ALISO CANYON	WELL SS25
EFF DEPTH 8748'	WELL STAT STATIC	TOOL HUNG
CASING 7" TO -8585'	CASING PRESS	ON BOTTOM 15:09
LINER 5 1/2" 8559'-8748'	TUBING PRESS 1300	OFF BOTTOM 15:12
DATE 040285	ELEMENT RANGE 0 - 3127	ZERO POINT 6'
ELEVATION	ZONE	SHUT-IN
MAX TEMP	PICK-UP	ON-PROD
PERF 8592'-8748'	CAL SER NO. 20265	MPP
TUBING 2 7/8" TO -8496'		
UNITS ENGLISH	PURPOSE PRESSURE GRADIENT 4/2/85	

SURVEY DATA

BY E. MARQUEZ/G. MARQUEZ

CO. SO CAL GAS CO — RUN 01 FIELD ALISO CANYON — WELL SS25

TIME	DEPTH	P/T	GRAD	TIME	DEPTH	P/T	GRAD
1:00	0	1164.3	0.000	1:00	8000	1410.0	.030
1:00	5000	1318.3	.031	1:00	8333	1424.0	.042
1:00	6000	1349.4	.031	1:00	8475	1430.2	.044
1:00	7000	1380.5	.031	1:00	8576	1455.1	.246



BAKER
PRODUCTION SERVICES
SUB-SURFACE DATA

COMPANY: SO.CAL.GAS CO. DATE: 21 MAR 84

WELL I.D.....:	SS-25
FIELD I.D.....:	ALISO CYN
TUBING PSI .....:	
CASING PSI .....:	
PURPOSE .....:	PRESSURE GRADIENT
STATUS .....:	SHUT IN
DEPTH of INSTRUMENT ...:	GRADIENT
ZERO .....:	DONUT
PICKUP .....:	
TEMPERATURE .....:	
CASING SIZE .....:	
LINER SIZE .....:	
TOP .....:	
BOTTOM .....:	
PERFORATIONS .....:	
TUBING .....:	
DATE1(arr/lev) .....:	03-21-84 ARR
DATE2(arr/lev) .....:	03-21-84 LEV
INST1(no./size) .....:	3925N/3525 PSI
INST2(no./size) .....:	
CLOCK1(no./Hrs) .....:	
CLOCK2(no./Hrs) .....:	
STYLUS MARKED(am/pm) ...:	10:32
PRESSURE ON(am/pm) .....:	
AT DEPTH(date/time) ....:	03-21-84 @ 11:18
OFF DEPTH(date/time) ...:	03-21-84 @ 11:21
SHUTIN(date/time) .....:	
START PRESS(Tbg/Csg) ...:	
FINAL PRESS(Tbg/Csg) ...:	
PRODUCTION TIME .....:	0.0

	MAX	MIN	DELTA
Depth.....:	8584.00	0.00	8584.00
Pressure.....:	1719.30	1393.62	325.68
Temperature..:	0.00	0.00	0.00

Data status..:SORTED

AC_CPUC_0000225

BAKER
PRODUCTION SERVICES
SUB-SURFACE DATA

Company...: SO.CAL.GAS CO.
Field I.D.: ALISO CYN
Purpose...: PRESSURE GRADIENT

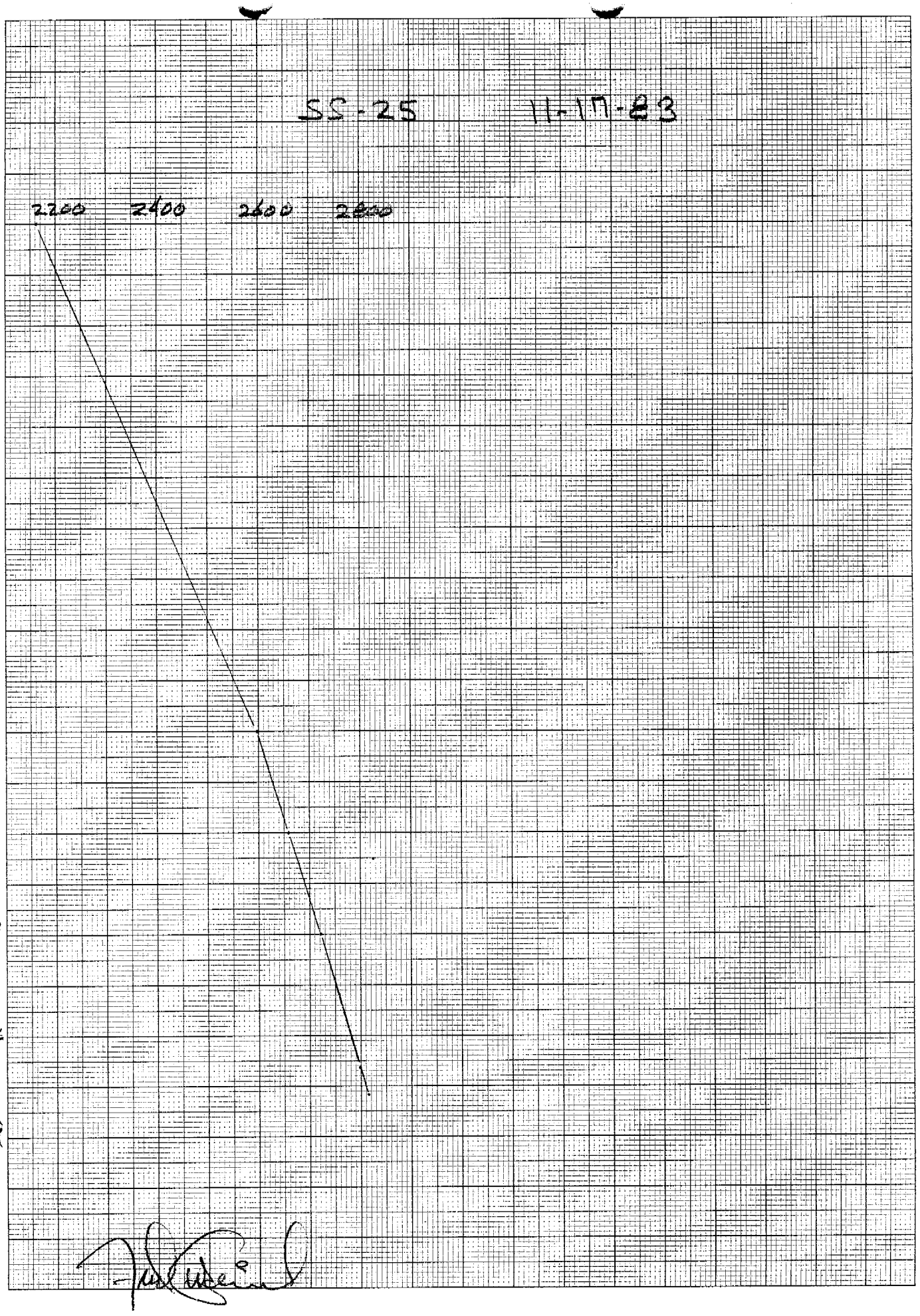
Date.....: 21 MAR 84
Well I.D..: SS-25
Prod. time: 0.0

DATA #	DEPTH	PSI	GRAD(psi)	TEMP(deg-F)	GRAD(T)
1	0.00	1393.62			
2	4994.00	1582.46	0.04		
3	5994.00	1617.54	0.04		
4	6494.00	1633.33	0.03		
5	6994.00	1650.88	0.04		
6	7494.00	1664.91	0.03		
7	7994.00	1680.70	0.03		
8	8321.00	1689.40	0.03		
9	8584.00	1719.30	0.11		

********** END OF DATA **********

AC_CPUC_0000226

CLEARPRINT PAPER CO
C4S. 10 DIVISIONS PER INCH BOTH WAYS. 150 X 100 DIVISIONS.
TED IN U.S.A. ON CLEARPRINT TECHNICAL PAPER NO. 1015
BAKER
PRODUCTION SERVICES
(805) 642-7061
Company SO.CAL.GAS CO.
Well #: SS-25
Date: 21 MAR 84
Field : ALISO CYN
DEPTH(ft.)
PRESSURE (psi)
9000
8400
7800
7200
6600
6000
5400
4800
4200
3600
3000
2400
1800
1200
600
0
1740
1700
1660
1620
1580
1540
1500
1460
1420



46 1512
K+E 10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

SUB-SURFACE PRESSURE SURVEY

FIELD _____ WELL SS25 DATE 11-17-83

RECORDER NO. L4180 RUN NO. ___ SHEET NO. ___ OF ___ SHEETS BY R. McDonald

CLOCK HOURS _____ TIME CLOCK STARTED _____ TIME RUN COMPLETED _____

WELL CONDITION DURING RUN, SHUT IN X FLOWING _____ INJECTION _____

HOURS WELL, SHUT-IN _____ FLOWING _____ INJECTION _____ BEFORE RUN _____

WELL HEAD PRESSURE

TUBING 2280

CASING 2285

FLOW RATE

GAS MCF/D _____

OIL BBL'S/D _____

WATER BBL'S/D _____

GOR _____

MAXIMUM TEMPERATURE _____

ZERO POINT KB 6'

PICK-UP _____

DATUM 8327

	SIZE	DEPTH
TBG		
CASING		
CASING SHOE		
LINER		
TOP		
BOTTOM		
PERFORATION		
TOP		
BOTTOM		

SURVEY DATA

DEPTH MEASURED	DEPTH VERTICAL	STYLUS DEFLECTION	PRESSURE	GRADI PSI/10
0	3	1.000	2061.9	
5000	2	1.259	2597.1	.1070
6000	2	1.289	2659.1	.062
7000	2	1.319	2721.1	.062
8327	2	1.357	2799.6	.0591
8590	3	1.365	2816.1	.0627
	Anchored		.0877	

SPECIAL INSTRUCTIONS: TBG. 8496'
TD 8746

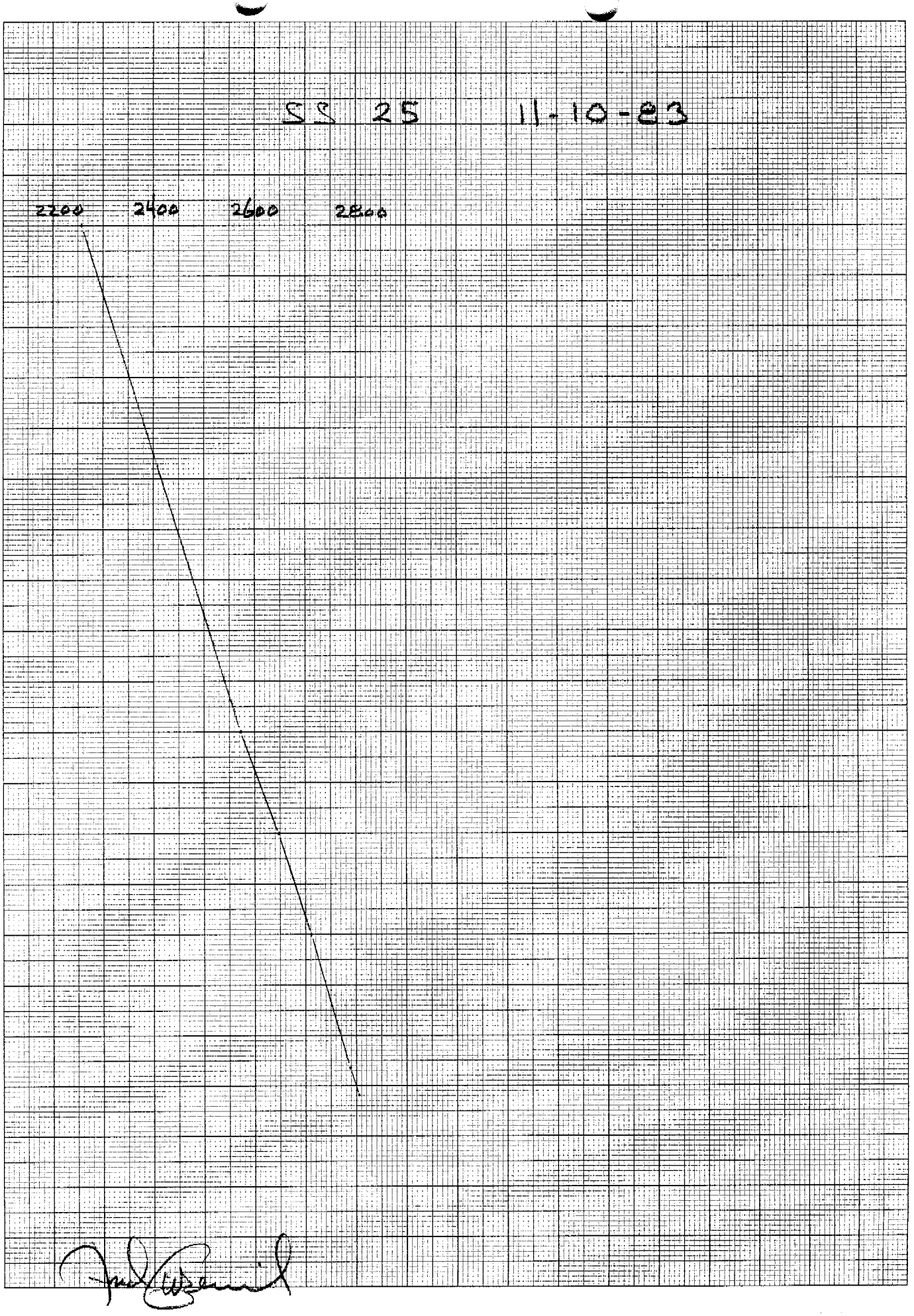
BY _____

REMARKS: STOPPED AT 8540 INSTEAD OF 8590
MADE LAST STOP AT 8590

SS-25

FIELD OPERATOR _____

AC_CPUC_0000229



46 1512
10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

SUB-SURFACE PRESSURE SURVEY

FIELD _____ WELL SS 25 DATE 11-10-83

RECORDER NO. 14180 RUN NO. ___ SHEET NO. ___ OF ___ SHEETS BY R McDonald

CLOCK HOURS _____ TIME CLOCK STARTED _____ TIME RUN COMPLETED _____

WELL CONDITION DURING RUN, SHUT IN X FLOWING _____ INJECTION _____

HOURS WELL, SHUT-IN _____ FLOWING _____ INJECTION _____ BEFORE RUN _____

WELL HEAD PRESSURE

TUBING 2320

CASING —

FLOW RATE

GAS MCF/D _____

OIL BBL'S/D _____

WATER BBL'S/D _____

GOR _____

MAXIMUM TEMPERATURE _____

ZERO POINT KB 6'

PICK-UP _____

DATUM 8327

	SIZE	DEPTH
TBG		
CASING		
CASING SHOE		
LINER		
TOP		
BOTTOM		
PERFORATION		
TOP		
BOTTOM		

SURVEY DATA

DEPTH MEASURED	DEPTH VERTICAL	STYLUS DEFLECTION	PRESSURE	GRADI PSI/10
0	3	1.095	2258.3	
5000	2	1.253	2582.6	.0464
6000	2	1.284	2648.8	.0662
7000	2	1.314	2710.7	.0619
8327	2	1.352	2789.2	.0591
8590	3	1.360	2805.8	.0631
	Ave	Grad	.0637	

SPECIAL INSTRUCTIONS: TBG. 8496'
TD 8748

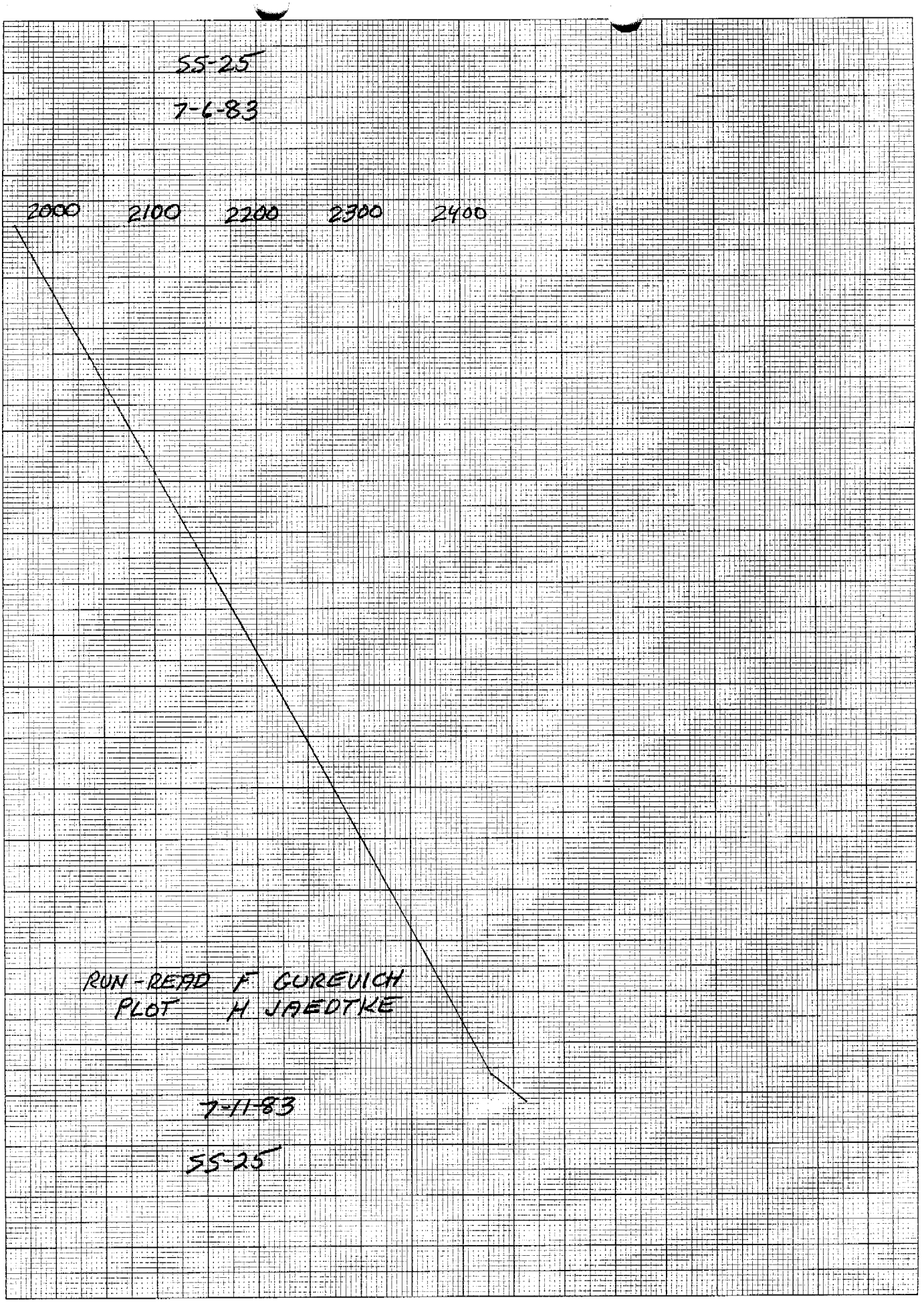
BY _____

REMARKS: _____

SS-25

FIELD OPERATOR _____

AC_CPUC_0000231



46 1512
KE 10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

FIELD _____ WELL SS 25 DATE 7-6-83

RECORDER NO. _____ RUN NO. ___ SHEET NO. ___ OF ___ SURVEY RUN BY TG

CLOCK HOURS _____ TIME CLOCK STARTED _____ TIME RUN COMPLETED _____

WELL CONDITION DURING RUN, SHUT IN _____ FLOWING _____ INJECTION _____

HOURS WELL, SHUT-IN _____ FLOWING _____ INJECTION _____ BEFORE RUN _____

WELL HEAD PRESSURE

TUBING _____

CASING _____

FLOW RATE

GAS MCF/D _____

OIL BBL'S/D _____

WATER BBL'S/D _____

GOR _____

MAXIMUM TEMPERATURE _____

ZERO POINT KB 6'

PICK-UP _____

DATUM 8327

	SIZE	DEPTH
TBG		
CASING		
CASING SHOE		
LINER		
TOP		
BOTTOM		
PERFORATION		
TOP		
BOTTOM		

SURVEY DATA

DEPTH MEASURED	DEPTH VERTICAL	STYLUS DEFLECTION	PRESSURE	GRADI PSI/I
0	2	.1913	1962.66	
5000	2	1.079	2245.83	.0566
6000	2	1.106	2302.08	.0563
7000	2	1.132	2356.25	.0542
8327	2	1.166	2427.0	.0857
8590	2	1.184	2464.5	.1426
		AVE GRAD	.0791	

SPECIAL INSTRUCTIONS: TBG. 8496'
TD 8748

BY _____

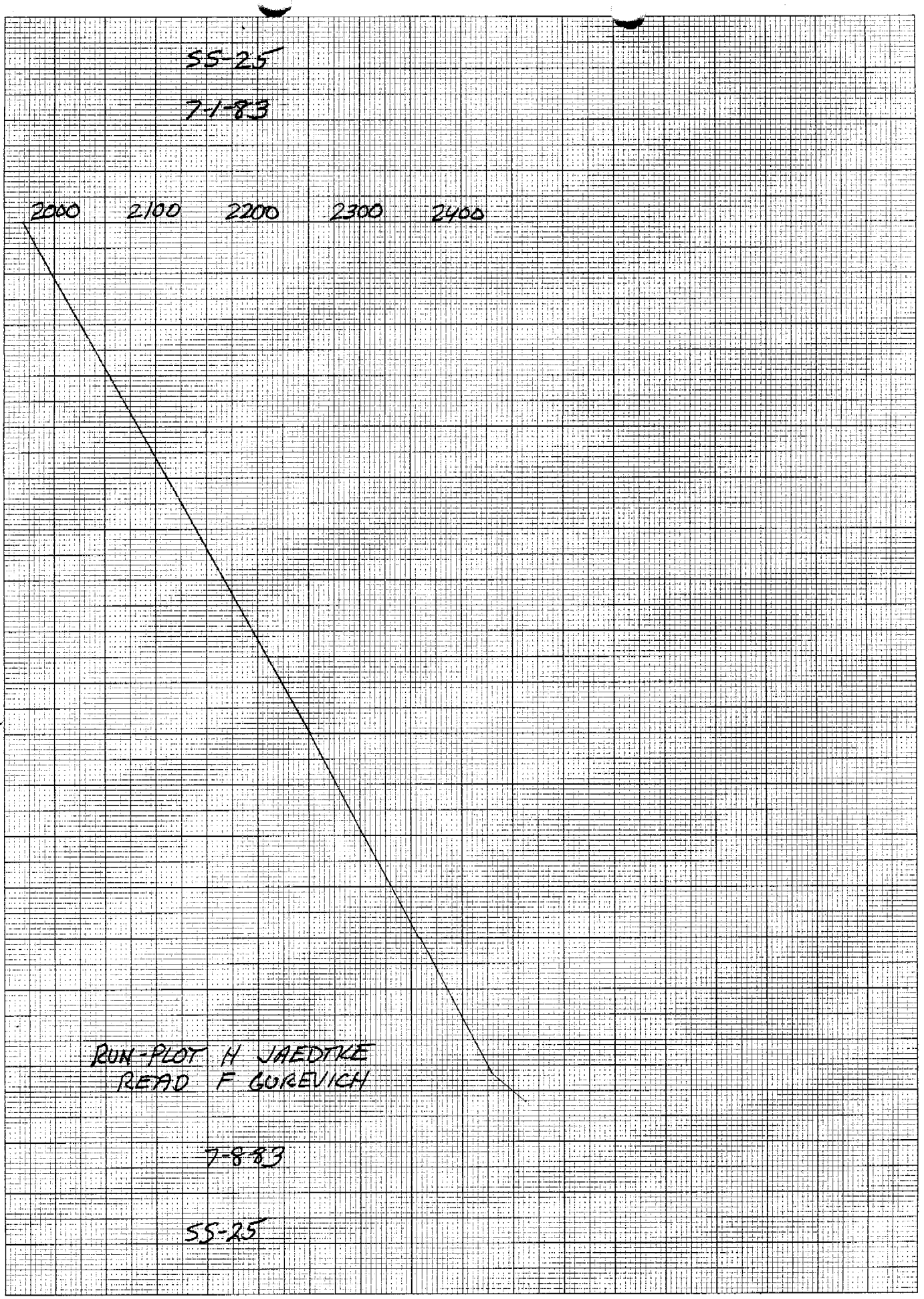
REMARKS:

55-25

FIELD OPERATOR _____

CHART READ BY _____

AC_CPUC_0000233



46 1512
KE 10 X 10 TO THE CENTIMETER 18 X 25 CM
KEUFFEL & ESSER CO. MADE IN U.S.A.

FIELD _____ WELL SS 25 DATE 7-1-83

RECORDER NO. 13978 RUN NO. ___ SHEET NO. ___ OF ___ SHEETS BY HFJ

CLOCK HOURS _____ TIME CLOCK STARTED _____ TIME RUN COMPLETED _____

WELL CONDITION DURING RUN, SHUT IN X FLOWING _____ INJECTION _____

HOURS WELL, SHUT-IN _____ FLOWING _____ INJECTION _____ BEFORE RUN _____

WELL HEAD PRESSURE

TUBING 1970

CASING N/A

FLOW RATE

GAS MCF/D _____

OIL BBL'S/D _____

WATER BBL'S/D _____

GOR _____ 527

MAXIMUM TEMPERATURE _____ 203

ZERO POINT KB 6'

PICK-UP _____

DATUM 8327

	SIZE	DEPTH
TBG		
CASING		
CASING SHOE		
LINER		
TOP		
BOTTOM		
PERFORATION		
TOP		
BOTTOM		

SURVEY DATA

DEPTH MEASURED	DEPTH VERTICAL	STYLUS DEFLECTION	PRESSURE	GRAD PSI/I
0	3	.945	1966.80	
5000	3	1.081	2250.00	.0566
6000	3	1.107	2304.17	.0542
7000	3	1.133	2358.33	.0542
8327	3	1.167	2429.17	.0217
8590	3	1.184	2464.58	.0135
		AVE. GRAD	.0400	

SPECIAL INSTRUCTIONS: TBG. 8496'
TD 8748

BY _____

REMARKS: _____

SS-25

FIELD OPERATOR _____

CHART READ BY _____

AC_CPUC_0000235

PRUETT INDUSTRIES, INC.
8915 ROSEDALE HWY. BAKERSFIELD, CA. 93308
(805) 589-2768

SUB-SURFACE PRESSURE SURVEY

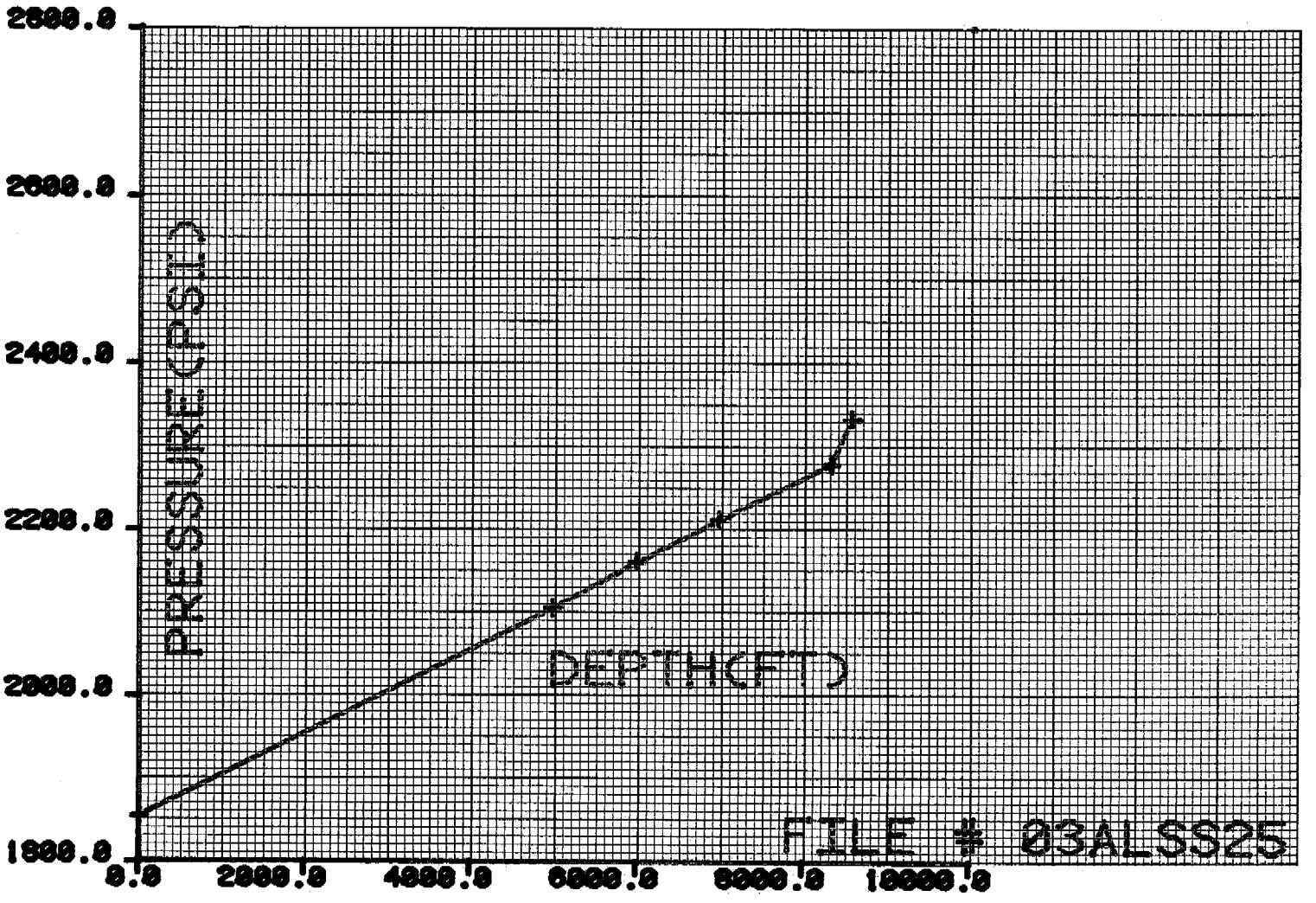
COMPANY	SO CAL GAS	RUN 03	FIELD ALISO CYN	WELL NAME	SS25
EFF DEPTH	8748'	WELL STAT	STATIC	TOOL HUNG	
CASING	-	CASING PRESS		ON BOTTOM	8:52AM
LINER	-	TUBING PRESS		OFF BOTTOM	8:53AM
DATE	031683	ELEMENT RANGE	0 - 5067	ZERO POINT	6'
ELEVATION		ZONE		SHUT-IN	
MAX TEMP		PICK-UP		ON-PROD	
PERF	-	CAL SER NO.	25132	MPP	
TUBING	-8496'				
UNITS	ENGLISH	PURPOSE	PRESSURE GRADIENT 3/16		

SURVEY DATA

COMPANY SO CAL GAS RUN 03 FIELD ALISO CYN WELL NAME SS25

TIME	DEPTH	P/T	GRAD	TIME	DEPTH	P/T	GRAD
1.00	0	1854.1	0.000	1.00	7000	2212.0	.050
1.00	5000	2106.0	.050	1.00	8327	2280.1	.051
1.00	6000	2161.5	.056	1.00	8590	2333.2	.202

BY E.MARQUEZ/R.MARQUEZ



PRUETT INDUSTRIES INC
8915 ROSEDALE HWY, BAKERSFIELD,CA. 93308
(805) 589-2768

SUB-SURFACE PRESSURE SURVEY

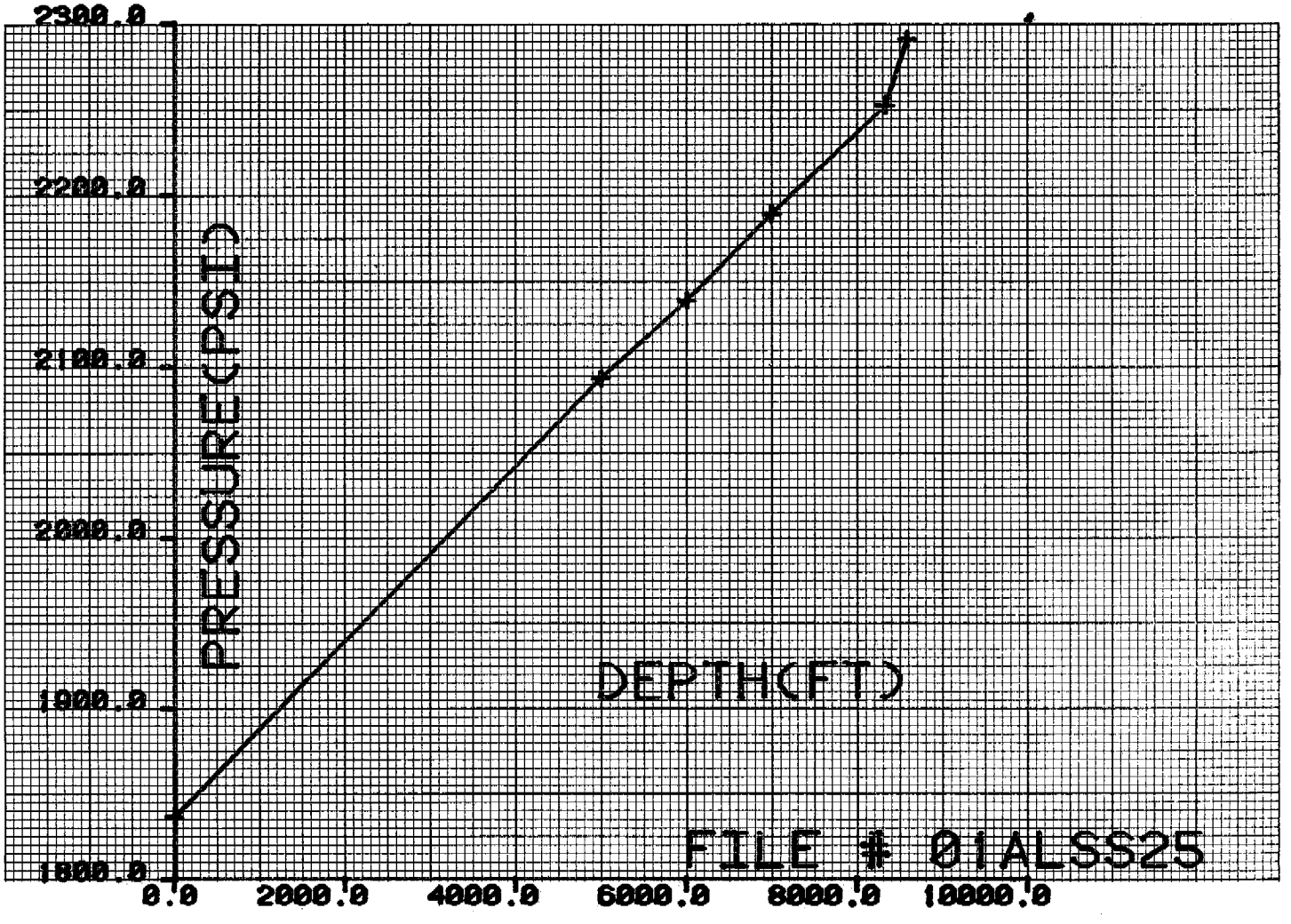
COMPANY	SO CAL GAS	RUN 02	FIELD AL	WELL NAME	SS25
EFF DEPTH	8748'	WELL STAT	STATIC	TOOL HUNG	
CASING	-	CASING PRESS		ON BOTTOM	8:18
LINER	-	TUBING PRESS		OFF BOTTOM	8:20
DATE	030983	ELEMENT RANGE	0 - 5067	ZERO POINT	6'
ELEVATION		ZONE		SHUT-IN	
MAX TEMP		PICK-UP		ON-PROD	
PERF	-	CAL SER NO.	25132	MPP	
TUBING	-8496'				
UNITS	ENGLISH	PURPOSE	PRESSURE GRADIENT		

SURVEY DATA

COMPANY SO CAL GAS RUN 02 FIELD AL WELL NAME SS25

TIME	DEPTH	P/T	GRAD	TIME	DEPTH	P/T	GRAD
1.00	0	1844.2	0.000	1.00	7000	2197.0	.048
1.00	5000	2101.2	.051	1.00	8327	2262.6	.049
1.00	6000	2149.1	.048	1.00	8590	2313.1	.192

BY MARQUEZ / MARQUEZ



PRUETT INDUSTRIES INC
8915 ROSEDALE HWY, BAKERSFIELD,CA. 93308
(805) 589-2768

SUB-SURFACE PRESSURE SURVEY

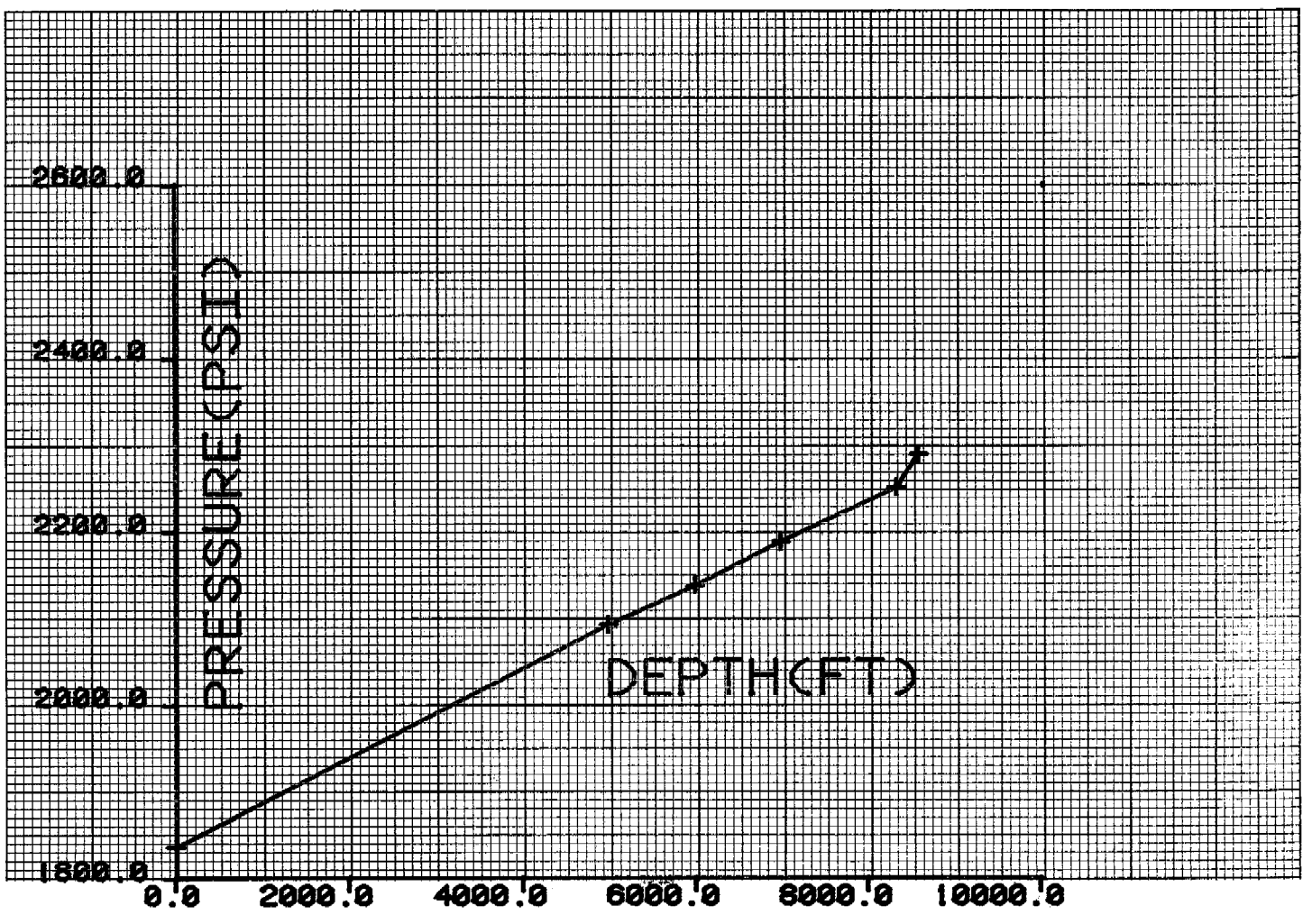
COMPANY SO CAL GAS		RUN 01 FIELD ALISO CYN		WELL NAME SS25	
EFF DEPTH 8748'		WELL STAT	STATIC	TOOL HUNG	
CASING	-	CASING PRESS		ON BOTTOM	10:16
LINER	-	TUBING PRESS		OFF BOTTOM	10:18
DATE	030383	ELEMENT RANGE	0 - 5067	ZERO POINT	6'
ELEVATION		ZONE		SHUT-IN	
MAX TEMP		PICK-UP	NONE MADE	ON-PROD	
PERF	-	CAL SER NO.	25132	MPP	
TUBING	-8496'				
UNITS	ENGLISH	PURPOSE	PRESSURE GRADIENT		

SURVEY DATA

COMPANY SO CAL GAS RUN 01 FIELD ALISO CYN WELL NAME SS25

TIME	DEPTH	P/T	GRAD	TIME	DEPTH	P/T	GRAD
1.00	0	1836.7	0.000	1.00	7000	2189.4	.050
1.00	5000	2093.6	.051	1.00	8327	2252.5	.048
1.00	6000	2139.0	.045	1.00	8590	2290.4	.144

BY WILSON / IRISH



PRUETT WIRELINE SERVICE

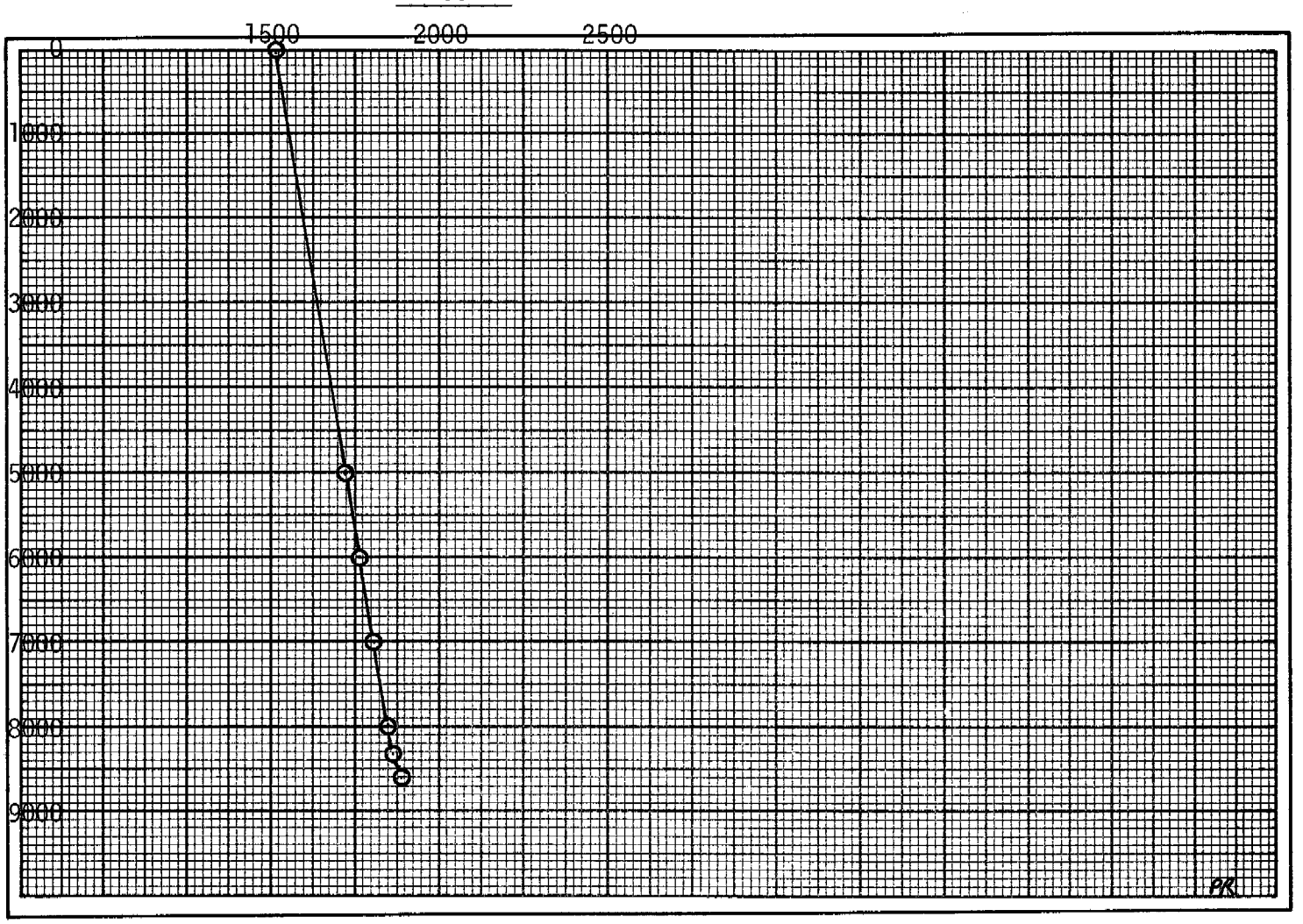
8915 Rosedale Hwy, Bakersfield, Ca. 93308
(805) 589-2768

Pruett Wireline

SUB—SURFACE PRESSURE SURVEY

COMPANY Southern California Gas **FIELD** Aliso Canyon **WELL NAME** SS 25

TOTAL DEPTH		WELL STATUS	Static	BOMB HUNG @	none	DATE	4-20-82
CASING		CASING PRESSURE		TIME ON BOTTOM	2:39	ELEMENT RANGE	4050 PSI
LINER		TUBING PRESSURE		TIME OFF BOTTOM	2:42	ZERO POINT	6.35'
PERFORATIONS		ZONE		SHUT IN		ELEVATION	
MPP		MAX. °F.		ON PRODUCTION		PICKUP	none made
TUBING DETAIL	8496'			PURPOSE	Pressure Gradient		



DEPTH	PRESSURE	GRADIENT
0	1514	
5000	1726	.042
6000	1768	.042
7000	1810	.042
8000	1848	.038
8327	1866	.055
8590	1890	.091

SURVEY DATA

Eddie M

AC_CPUC_0000239

INSTRUMENT SERVICE

2960 N. Ventura Avenue
Ventura, California 93001
Phone 805-649-2228
Bakersfield 805-832-8980
Garden Grove 714-638-4794

SONIC FLUID LEVEL TESTING

COMPANY So Cal Gas Co FIELD Aliso Canyon

WELL NO.	FLUID LEVEL	FLUID OVER Tubing Tubing Tbg. Int.	Fluid below Tbg. Int.	STROKES PER MINUTE	LENGTH OF STROKE	CAS. PSI	TUB. PSI
F-6	7433	1080				1293	1293
F-8	7127	1477				1475	1475
IW 83	4344	4740				347	587
SS-2	8563		62			1487	1487
SS-4	6488	2539				1590	1590
SS-6	8507		78			1915	1915
SS-7	8514	368				1915	1915
SS-8	8668		87			N/A	1840
SS-11	8695		37			1863	1863
SS-13	7698	1207				1680	1680
SS-16	8836		76			1882	1882
SS-29	7998	51				1497	1497
SS-31	8871	47				1318	1616
SF-1	6824	2235				1791	1791
SF-3	8890	18				1780	1780
SF-4	9063		110			1931	1931
SF-8	7233	1730				1955	1955
SS-25	8476	20				1480	1480

Stan Pitts DATE 4-13-82

AC_CPUC_0000240

INSTRUMENT SERVICE

2960 N. Ventura Avenue
Ventura, California 93001
Phone 805-649-2228
Bakersfield 805-832-8980
Garden Grove 714-638-4794

SONIC FLUID LEVEL TESTING

COMPANY

FIELD

WELL NO.	FLUID LEVEL	FLUID OVER Intake	Fluid below Intake	STROKES PER MINUTE	LENGTH OF STROKE	CAS. PSI	TUB. PSI	
F-6	7433	1080					1310	
F-8	7127	1477					1485	
IW-83	4340	4740					605	
SF-1	6824	2235					1805	
SF-3	8890	18					1800	
SF-4	9131		178				1955	
SF-8	7233	1730					1985	
SS-2	8563		62				1495	
SS-4	6736	2291					1660	
SS-6	8507		78				1945	
SS-7	8514	368					1915	
SS-8	8494		87				1810	
SS-13	7698	1207					1685	
SS-16	8836		76				1900	
SS-25	8476	20					1465	
SS-29	7998	51					1500	

Stan Pitts DATE 4-9-82

AC_CPUC_0000241

INSTRUMENT SERVICE
2960 N. Ventura Avenue
Ventura, California 93001
Phone 805-649-2228
Bakersfield 805-832-8980
Garden Grove 714-638-4794

SONIC FLUID LEVEL TESTING

COMPANY So Cal Gas Co FIELD Aliso Canyon

WELL NO.	FLUID LEVEL	FLUID OVER Intake	Fluid below Intake	STROKES PER MINUTE	LENGTH OF STROKE	CAS. PSI	TUB. PSI	
F-6	7433	1080				1280	1290	
F-8	7127	1477				1465	1475	
SF-1	6824	2235				1790	1775	
SF-3	8890	18				1780	1760	
SF-4	9071		118			Wing Valve Closed	1920	Csg Wing Valve Closed
SF-8	7233	1730				1965	1955	
SS-2	8563		62			1445	1465	
SS-4	6913		No Mechanical Detail			—	1705	Csg SSV Closed
SS-6	8507		71	~~No Mechanical~~				
SS-7	8514	368				1855	1855	
SS-8			87	No Mechanical Detail		Valve Closed	1790	
SS-13	7698	1207				1680	1660	
SS-16	8836		76			1885	1865	
SS-25	8476	20				1385	1420	
SS-29	7998	51				1425	1405	
IW 83	4340			No Mechanical Detail		1460	595	
IW 55	2000±							

Stan R. Hs DATE 4-6-82

AC_CPUC_0000242

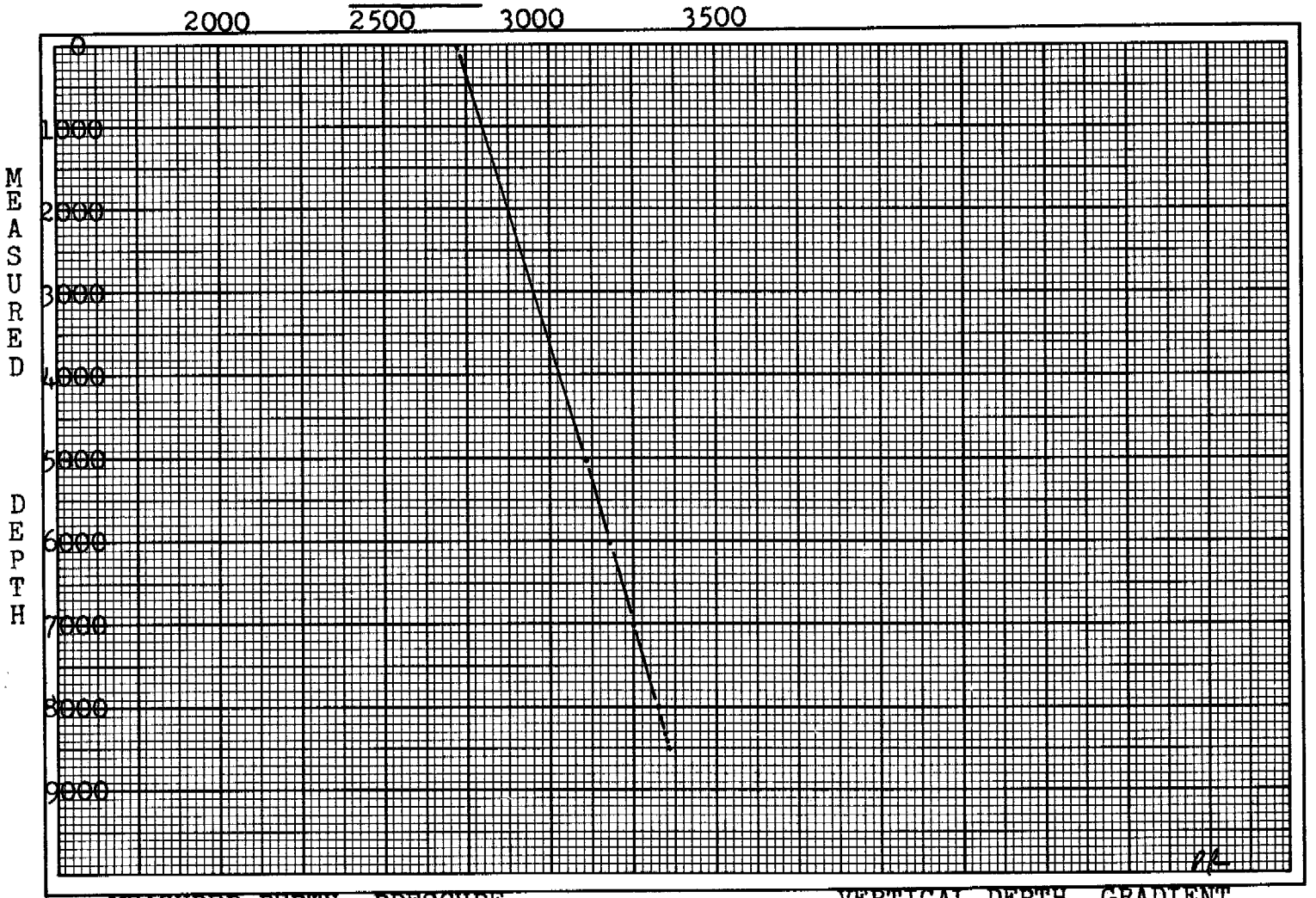
PRUETT WIRELINE SERVICE

8915 Rosedale Hwy, Bakersfield, Ca. 93308
(805) 589-2768

SUB—SURFACE PRESSURE SURVEY

COMPANY Southern California Gas **FIELD** Aliso Canyon **WELL NAME** SS 25

TOTAL DEPTH 8749'	WELL STATUS Static	BOMB HUNG @ none	DATE 11-3-80
CASING 7" @ 8585'	CASING PRESSURE --	TIME ON BOTTOM 8:54	ELEMENT RANGE 5300 PSI
LINER 5½"@8559'-8748'	TUBING PRESSURE --	TIME OFF BOTTOM 8:56	ZERO POINT 6' --
PERFORATIONS ---	ZONE --	SHUT IN --	ELEVATION
MPP ---	MAX. °F. --	ON PRODUCTION --	PICKUP none
TUBING DETAIL 2 7/8" @ 8496', Pkr @ 8486'		PURPOSE Pressure Gradient Survey	



MEASURED DEPTH	PRESSURE	VERTICAL DEPTH	GRADIENT
0	2728		
5000	3115		.077
6000	3185		.070
7000	3255		.070
8000	3324		.069
8327	3349		.076
8472	3359		.069

SURVEY DATA

Tom

AC_CPUC_0000243

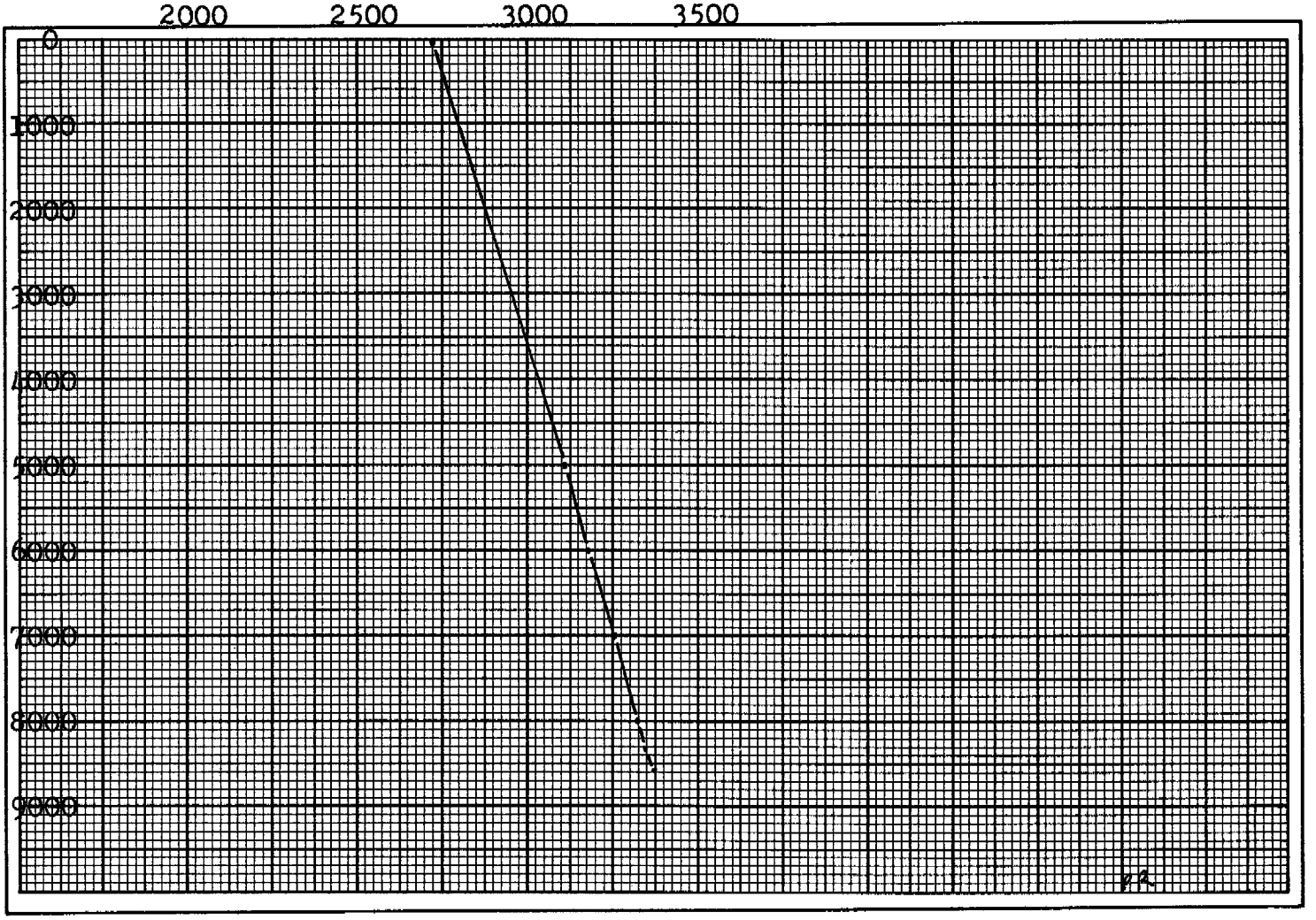
PRUETT WIRELINE SERVICE

8915 Rosedale Hwy, Bakersfield, Ca. 93308
(805) 589-2768

SUB—SURFACE PRESSURE SURVEY

COMPANY Southern California Gas **FIELD** Aliso Canyon **WELL NAME** SS 25

TOTAL DEPTH	8749'	WELL STATUS	Static	BOMB HUNG @	none	DATE	10-27-80
CASING	7" @ 8585'	CASING PRESSURE	---	TIME ON BOTTOM	8:57	ELEMENT RANGE	5300 PSI
LINER	5½"@8559'-8748'	TUBING PRESSURE	---	TIME OFF BOTTOM	8:59	ZERO POINT	6.35'
PERFORATIONS	--	ZONE		SHUT IN	---	ELEVATION	--
MPP	--	MAX °F	---	ON PRODUCTION	---	PICKUP	none
TUBING DETAIL	2 7/8" @ 8496', Pkr @ 8486'			PURPOSE	Pressure Gradient Survey		



MEASURED DEPTH	PRESSURE		VERTICAL DEPTH	GRADIENT
0	2723			
5000	3113	**SURVEY DATA**		.078
6000	3185			.072
7000	3255			.070
8000	3327			.072
8327	3349			.067
8590	3370			.080

Tom

AC_CPUC_0000244

PRUETT WIRELINE SERVICE

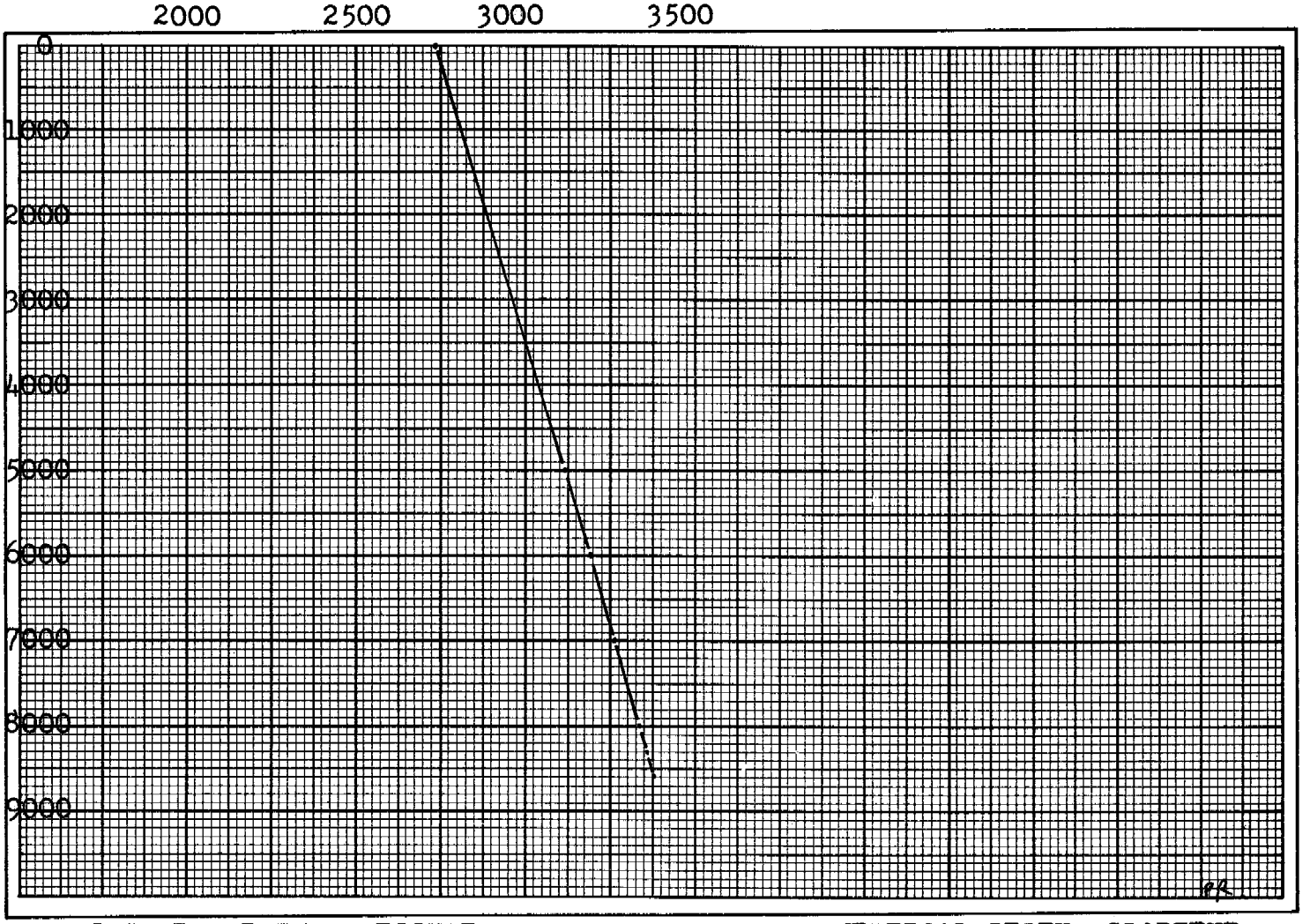
8915 Rosedale Hwy, Bakersfield, Ca. 93308
(805) 589-2768

Pruett Wireline

SUB—SURFACE PRESSURE SURVEY

COMPANY Southern California Gas FIELD Aliso Canyon WELL NAME SS-25

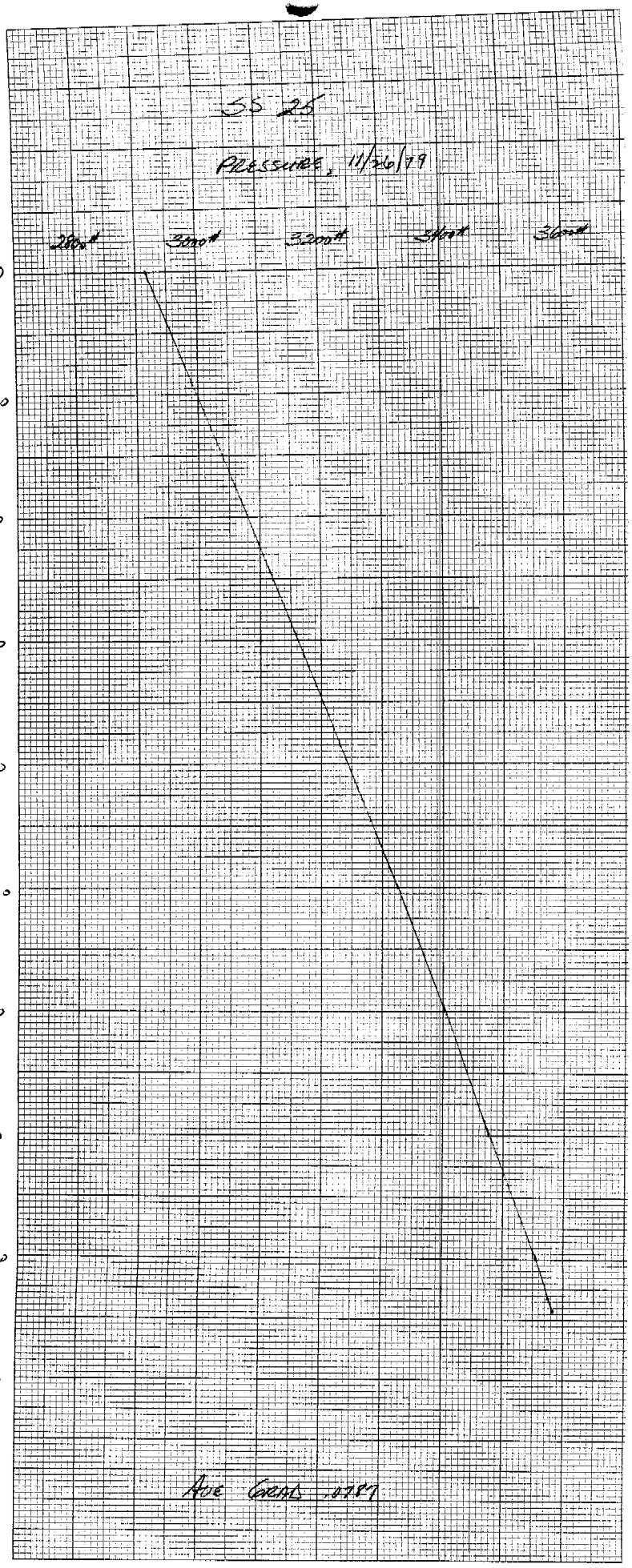
TOTAL DEPTH	8749'	WELL STATUS	Static	BOMB HUNG @	none	DATE	10-20-80
CASING	7" @ 8585'	CASING PRESSURE	--	TIME ON BOTTOM	9:04	ELEMENT RANGE	5300 PSI
LINER	5½" @ 8559'-8748'	TUBING PRESSURE	--	TIME OFF BOTTOM	9:06	ZERO POINT	6.3'
PERFORATIONS	---	ZONE	--	SHUT IN	--	ELEVATION	--
MPP	---	MAX °F.	--	ON PRODUCTION	--	PICKUP	none
TUBING DETAIL	2 7/8" @ 8496', Pkr @ 8486'			PURPOSE	Pressure Gradient Survey		



MEASURED DEPTH	PRESSURE		VERTICAL DEPTH	GRADIENT
0	2737			
5000	3120	SURVEY DATA		.077
6000	3196			.076
7000	3265			.069
8000	3338			.073
8327	3362			.073
8590	3381			.072

Tom

AC_CPUC_0000245



46 1512
KE 10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

SS 25

PRESSURE, 11/20/79

0
1000
2000
3000
4000
5000
6000
7000
8000
9000

46 1512
10 X 10 TO THE CENTIMETER
KEUFFEL & ESSER CO. MADE IN U.S.A.
18 X 25 CM.

AC_CPUC_0000247

PACIFIC LIGHTING SERVICE COMPANY

SUB-SURFACE PRESSURE SURVEY

FIELD _____ WELL 55-25 DATE 11-26-79

RECORDER NO. 862 RUN NO. ___ SHEET NO. ___ OF ___ SHEETS BY JG

CLOCK HOURS _____ TIME CLOCK STARTED 9A TIME RUN COMPLETED _____

WELL CONDITION DURING RUN, SHUT IN _____ FLOWING _____ INJECTION _____

HOURS WELL, SHUT-IN _____ FLOWING _____ INJECTION _____ BEFORE RUN _____

WELL HEAD PRESSURE

TUBING _____

CASING _____

FLOW RATE

GAS MCF/D _____

OIL BBL'S/D _____

WATER BBL'S/D _____

GOR _____

MAXIMUM TEMPERATURE _____

ZERO POINT 6,35'

PICK-UP _____

DATUM ~~5220'~~ 8327

	SIZE	DEPTH
TUBING		
CASING		
CASING SHOE		
LINER		
TOP		
BOTTOM		
PERFORATION		
TOP		
BOTTOM		

SURVEY DATA

DEPTH MEASURED	DEPTH VERTICAL	STYLUS DEFLECTION	PRESSURE	GRADIE PSI/100
0 3		1.250	2918.41	
5000 3		1.425	3325.58	.0814
6000 3		1.458	3402.32	.0767
7000 3		1.490	3476.74	.0744
8000 3		1.523	3553.48	.0767
~~5470'~~		—		
8327 3		1.531	3572.09	.0569
~~5440~~ 8425 3		1.535	3581.39	.0949
		~~End Lg 5496~~		
		BH. CHOKE 8472		
		for G.L.M.	.0767	

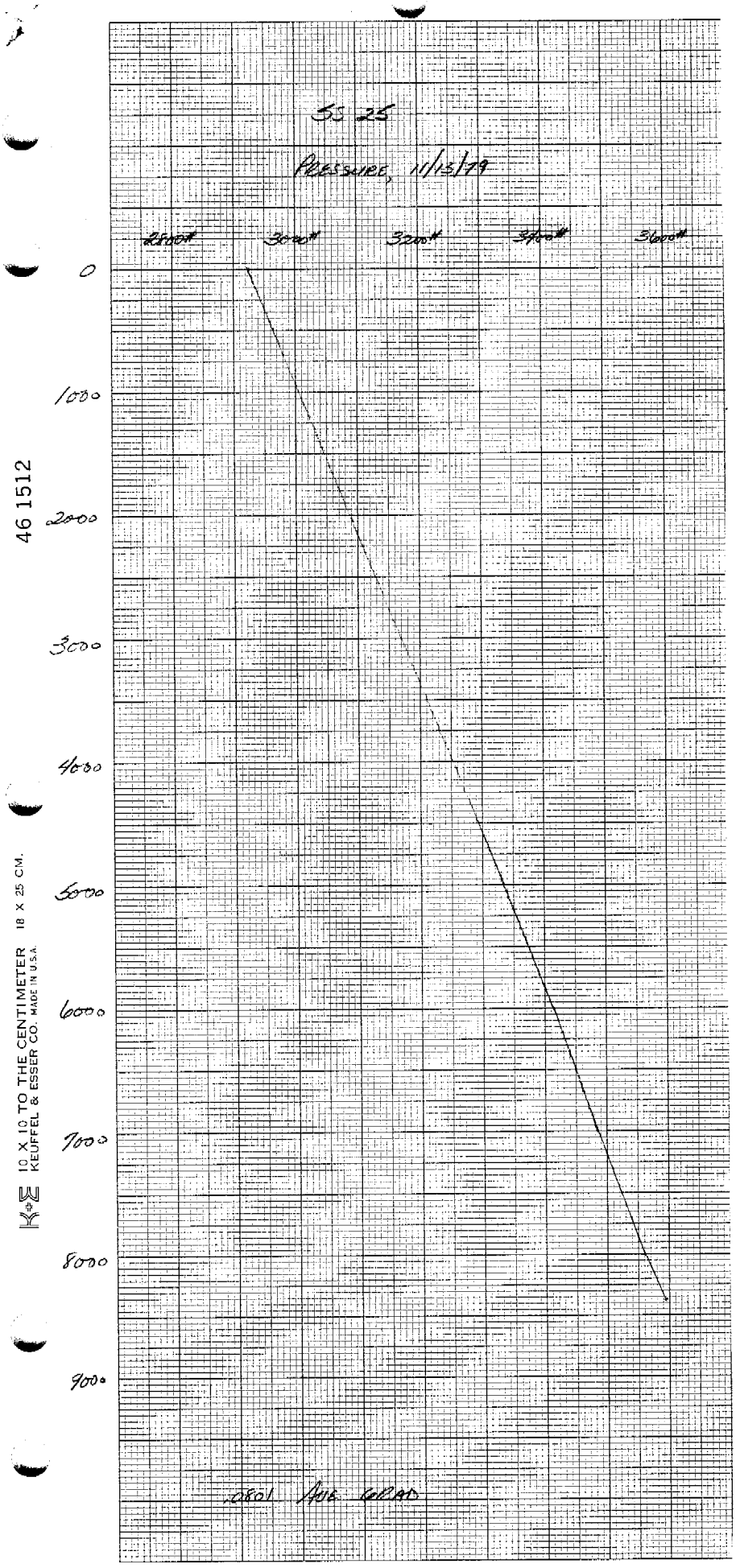
SPECIAL INSTRUCTIONS: ~~This~~ "T" Valve Set

BY _____

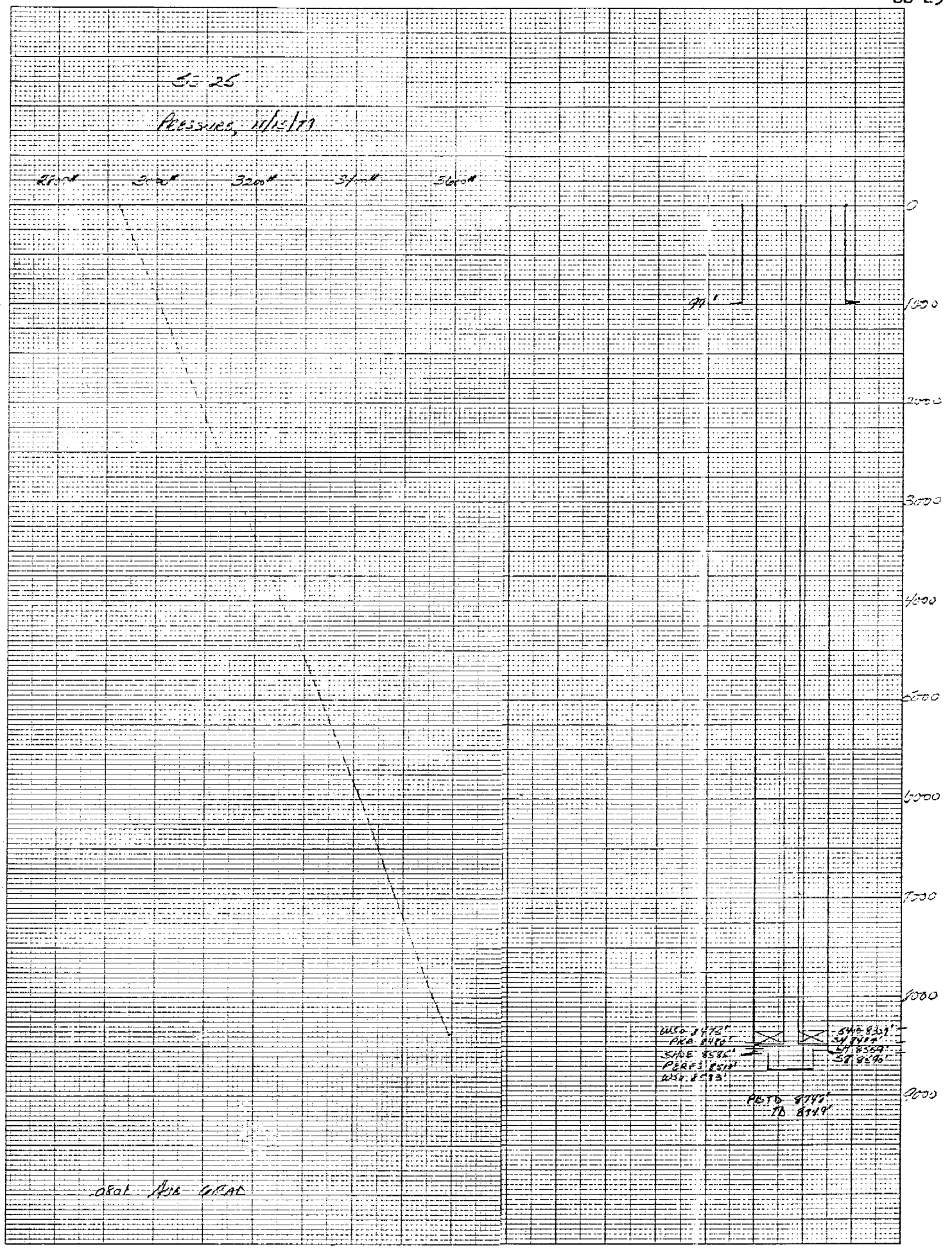
REMARKS: _____

FIELD OPERATOR

AC_CPUC_0000248



AC_CPUC_0000249



46 1512

K+E 10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

PACIFIC LIGHTING SERVICE COMPANY

SUB-SURFACE PRESSURE SURVEY

FIELD _____ WELL 55-25 DATE 11-13-79

RECORDER NO. 8562 RUN NO. ____ SHEET NO. ____ OF ____ SHEETS BY JG

CLOCK HOURS _____ TIME CLOCK STARTED 843 TIME RUN COMPLETED 940

WELL CONDITION DURING RUN, SHUT IN _____ FLOWING _____ INJECTION _____

HOURS WELL, SHUT-IN _____ FLOWING _____ INJECTION _____ BEFORE RUN _____

WELL HEAD PRESSURE

TUBING _____

CASING 2895

FLOW RATE

GAS MCF/D _____

OIL BBL'S/D _____

WATER BBL'S/D _____

GOR _____

MAXIMUM TEMPERATURE _____

ZERO POINT 6,35'

PICK-UP _____

DATUM ~~8420'~~ 8327

	SIZE	DEPTH
TUBING		
CASING		
CASING SHOE		
LINER		
TOP		
BOTTOM		
PERFORATION		
TOP		
BOTTOM	162°	

SURVEY DATA

DEPTH MEASURED	DEPTH VERTICAL	STYLUS DEFLECTION	PRESSURE	GRADIENT PSI/100
0 3	1.253		2925.40	
5000 3	1.428		3332.55	.0814
6000 3	1.463		3413.95	.0814
7000 3	1.494		3486.04	.0721
8000 3	1.526		3560.46	.0744
~~8440'~~				
8361 3	1.541		3595.34	.0950
~~8440~~ 8440				
END Tbg		8496		
BH. CHOKE		8472		
(E)	8440		AVE GRAD	.0801

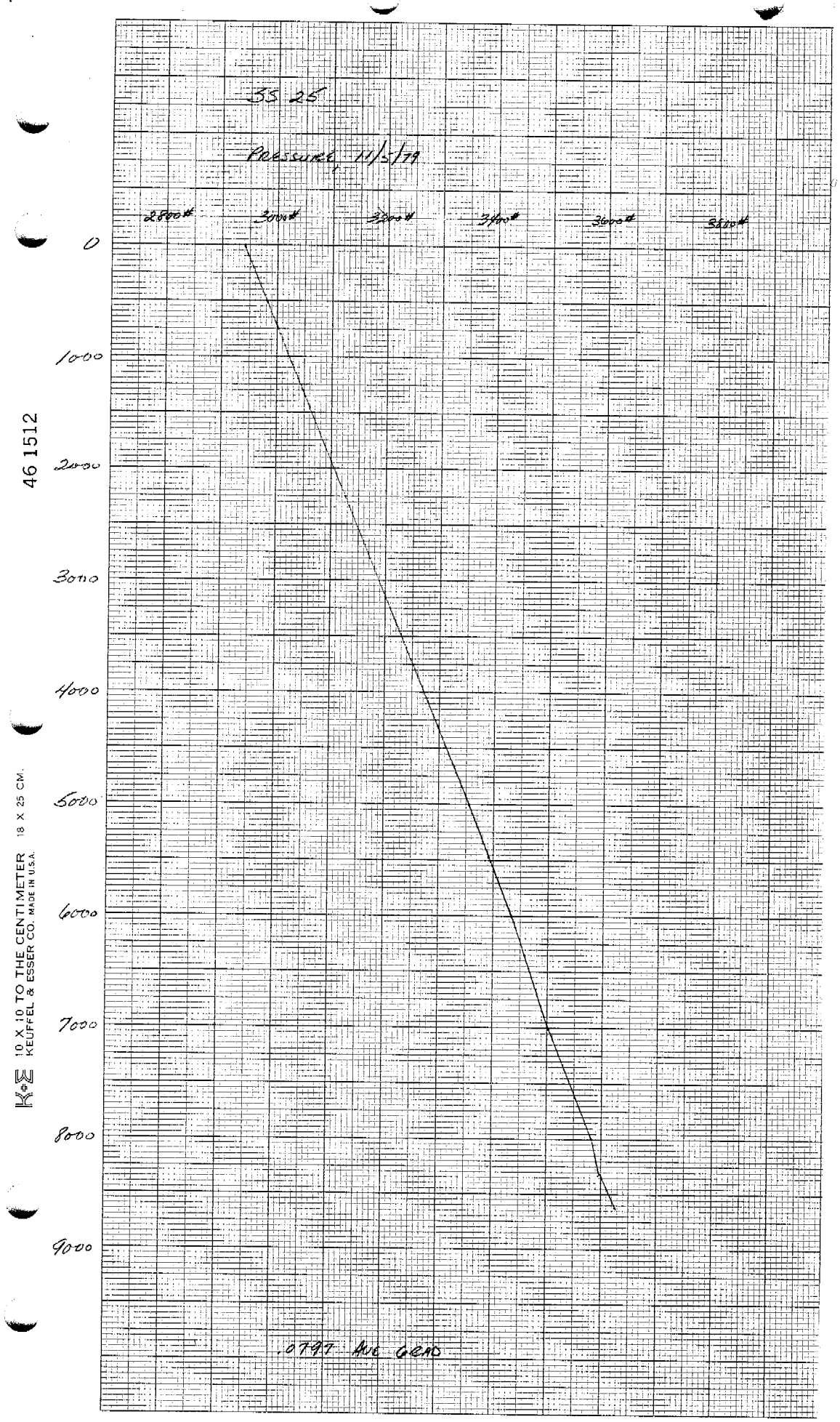
SPECIAL INSTRUCTIONS: ~~This "I" Value Extra~~ (STOP AT 8440)

BY _____

REMARKS: _____

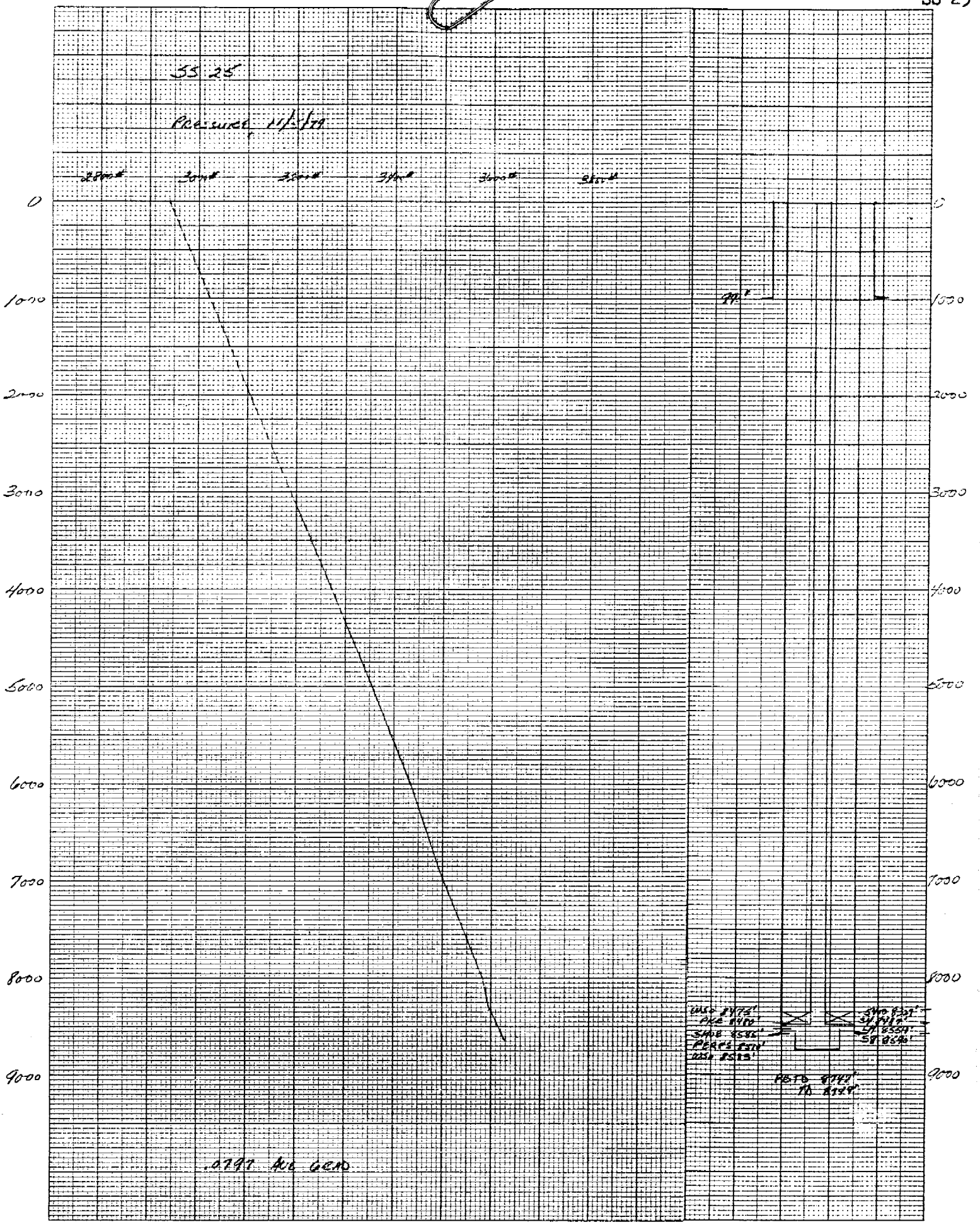
FIELD OPERATOR

AC_CPUC_0000251



46 1512

K+E 10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.



46 1512
K&E 10 X 10 TO THE CENTIMETER 16 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0000253

PACIFIC LIGHTING SERVICE COMPANY

SUB-SURFACE PRESSURE SURVEY

FIELD _____ WELL 55-25 DATE 11-5-79

RECORDER NO. 8562 RUN NO. ____ SHEET NO. ____ OF ____ SHEETS BY JG

CLOCK HOURS _____ TIME CLOCK STARTED 8:42 TIME RUN COMPLETED 9:51

WELL CONDITION DURING RUN, SHUT IN _____ FLOWING _____ INJECTION _____

HOURS WELL, SHUT-IN _____ FLOWING _____ INJECTION _____ BEFORE RUN _____

WELL HEAD PRESSURE

TUBING _____

CASING 2900

FLOW RATE

GAS MCF/D _____

OIL BBL's/D _____

WATER BBL's/D _____

GOR _____

MAXIMUM TEMPERATURE _____

ZERO POINT 6.35'

PICK-UP _____

DATUM ~~8420'~~ 8327

	SIZE	DEPTH
TUBING		
CASING		
CASING SHOE		
LINER		
TOP		
BOTTOM		
PERFORATION		
TOP		
BOTTOM		1580

SURVEY DATA

DEPTH		STYLUS DEFLECTION	PRESSURE	GRADIENT PSI/100
MEASURED	VERTICAL			
0	3	1.2600	2941.72	
5000	3	1.438	3355.81	.0828
6000	3	1.471	3432.55	.0767
7000	3	1.501	3502.32	.0698
8000	3	1.536	3583.72	.0814
~~8420'~~				
8327	3	1.542	3597.67	.0427
~~8590~~ 8610	5	1.565	3627.90	.1068
	END Adj 8496'			
		Ave Grad	.0797	

SPECIAL INSTRUCTIONS: ~~This "I" Value 8421'~~

BY _____

REMARKS: _____

FIELD OPERATOR

AC_CPUC_0000254

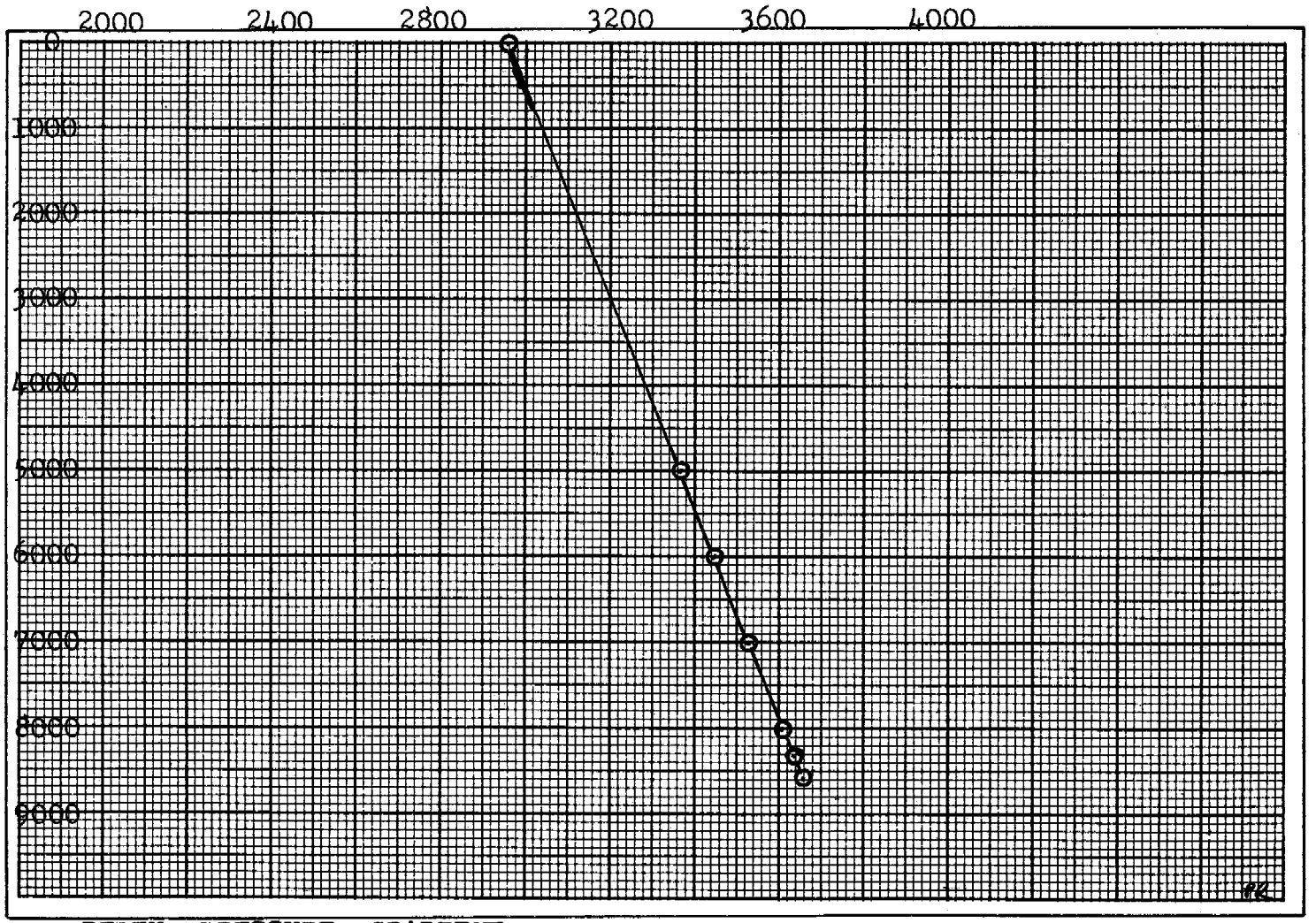
PRUETT WIRELINE SERVICE

8915 Rosedale Hwy, Bakersfield, Ca. 93308
(805) 589-2768

SUB—SURFACE PRESSURE SURVEY

COMPANY Southern California Gas **FIELD** Aliso Canyon **WELL NAME** SS-25

TOTAL DEPTH	---	WELL STATUS	Static	BOMB HUNG @	none	DATE	10-23-79
CASING	---	CASING PRESSURE	---	TIME ON BOTTOM	---	ELEMENT RANGE	5000 PSI
LINER	---	TUBING PRESSURE	---	TIME OFF BOTTOM	---	ZERO POINT	6.35'
PERFORATIONS	---	ZONE	none	SHUT IN	none	ELEVATION	none
MPP	---	MAX. °F.	146	ON PRODUCTION	none	PICKUP	none made
TUBING DETAIL	8496' end tubing			PURPOSE	Pressure Gradient Survey		



DEPTH	PRESSURE	GRADIENT
0	2960	
5000	3373	.083
6000	3453	.080
7000	3533	.080
8000	3610	.077
-5400 8327	3635	.076
8590	3658	.087

SURVEY DATA

S Wilson

AC_CPUC_0000255

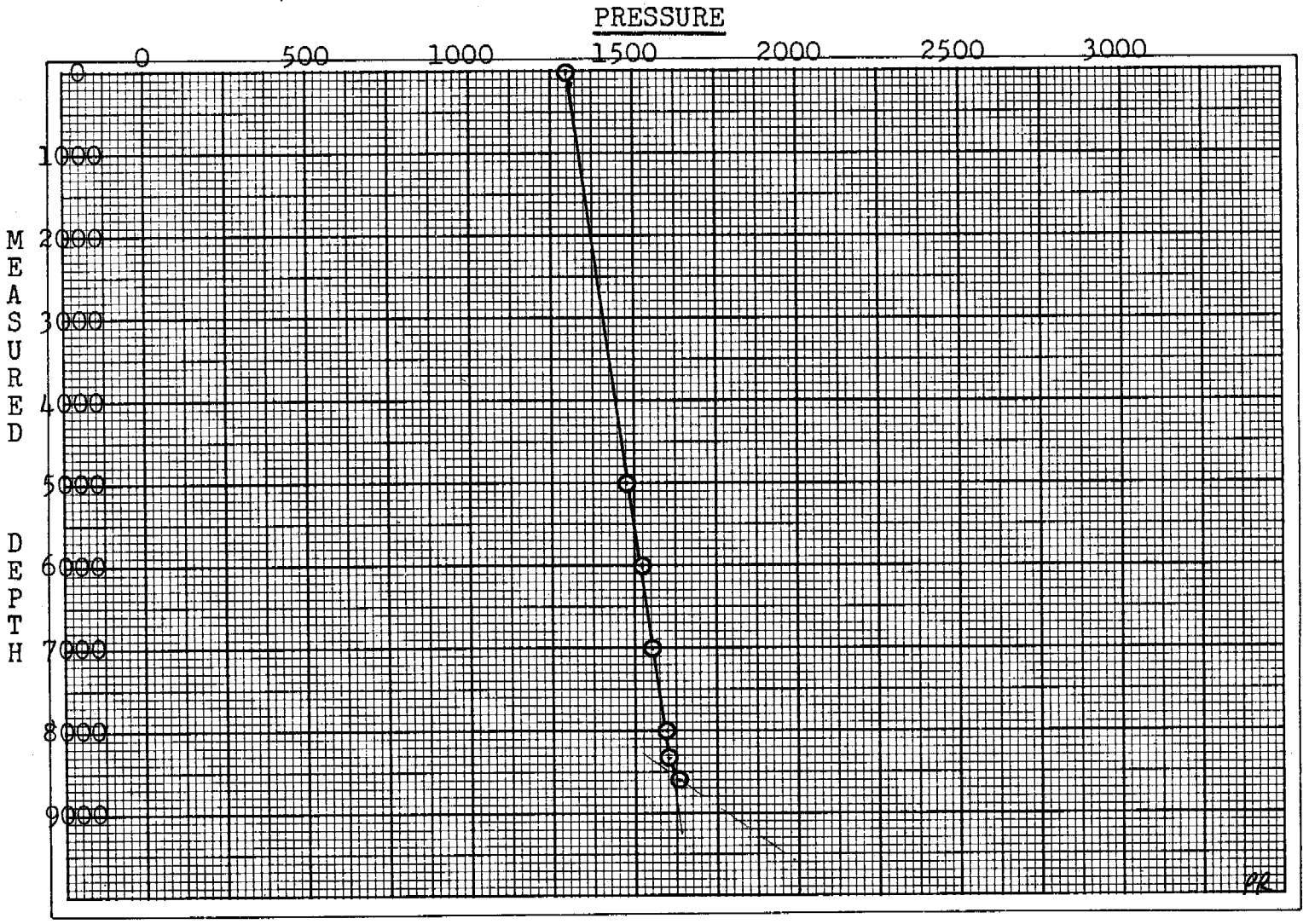
PRUETT WIRELINE SERVICE

8915 Rosedale Hwy, Bakersfield, Ca. 93308
(805) 589-2768

SUB—SURFACE PRESSURE SURVEY

COMPANY Southern California Gas **FIELD** Aliso Canyon **WELL NAME** SS-25

TOTAL DEPTH --	WELL STATUS Static	BOMB HUNG @ none	DATE 3-14-79
CASING --	CASING PRESSURE --	TIME ON BOTTOM 11:18am	ELEMENT RANGE 5350 PSI
LINER --	TUBING PRESSURE --	TIME OFF BOTTOM 11:20am	ZERO POINT 7'
PERFORATIONS --	ZONE none	SHUT IN none	ELEVATION none
MPP --	MAX. °F. 164.4°	ON PRODUCTION none	PICKUP none made
TUBING DETAIL 2 7/8" @ 8491' **		PURPOSE Pressure Gradient Survey	



MEASURED DEPTH	PRESSURE	VERTICAL DEPTH	GRADIENT
0	1304		
5000	1483		.036
6000	1520		.037
7000	1557		.037
8000	1592		.035
8327	1603		.034
8590	1637		.129

SURVEY DATA

** Packer @ 8480'
No-Go @ 8470'

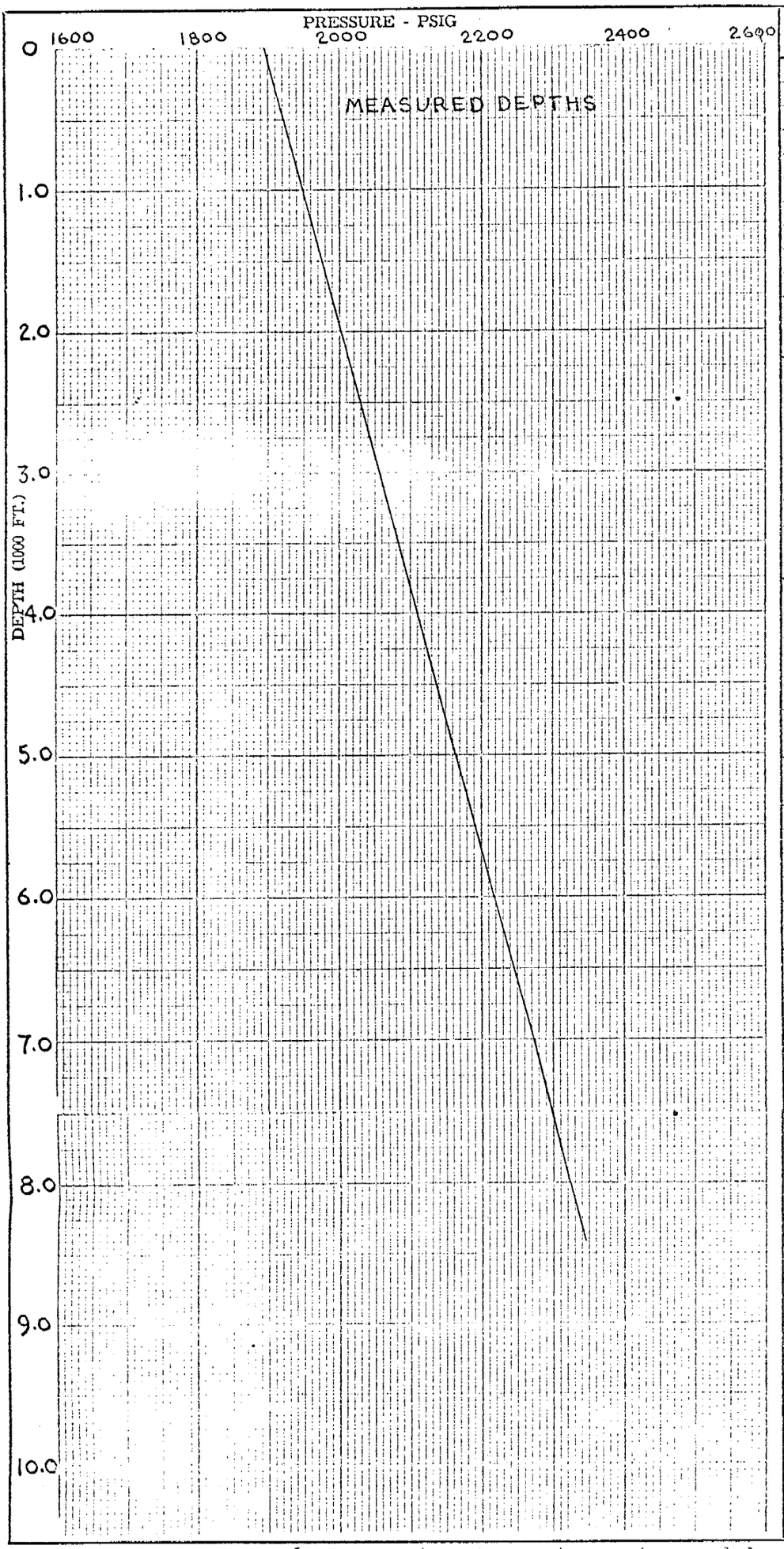
G Doolan

TECHNICAL SERVICE CO.
801 West 14th Street
Long Beach, California 90813

Phones: 24 Hours
Long Beach - 436-9901

SUB-SURFACE PRESSURE DATA

Company: So. California Gas Co. Field: Aliso Date: 4-30-75 Run No.:
Well: S. S. 25 Zone: Elev.: D. F. 8.35'
Purpose: Static Pressure Gradient Survey Status: Shut In
Total Depth: Effect. Depth:
Casing Size: Depth: Liner Size: Top: Bottom:
Perforations:
Tubing: 2-7/8" EUE to 8492', KBMG G. L. Mandrels @ 4983', 5914', 6784', 7589', 8314', "L" Sliding Sleeve (open) @ 8387', Baker "FH" Packer @ 8455'



OBSERVATIONS

Stabilization Period - Hrs.	
Gross Oil Rate - B/D	
Net Oil Rate - B/D	
Formation Gas MCF/D	
Formation Gas-Oil Ratio CFT/BBL	
Circulated Gas MCF/D	
Oil Dry Gravity - °A.P.I.	
Casinghead Pressure - PSIG	
Tubinghead Pressure - PSIG	1895
Casing Fluid Level - Ft.	

RESULTS

Gross Productivity Index	B/D PSI
Net Productivity Index	B/D PSI
Static M.E.P. - Run No.	PSI
Static M.E.P. - Projected	PSI
Gross Absolute Potential	B/D
Net Absolute Potential	B/D
Datum Pressures:	

Traverse Depth MD Feet	Pressure PSIG	Gradient PSI/FT
0	1895	
5000	2164	0.054
6000	2218	0.054
7000	2273	0.055
8000	2323	0.050
8410	2345	0.054

COMMENTS: Zero: Mat + 6.35'. Maximum temperature not recorded.

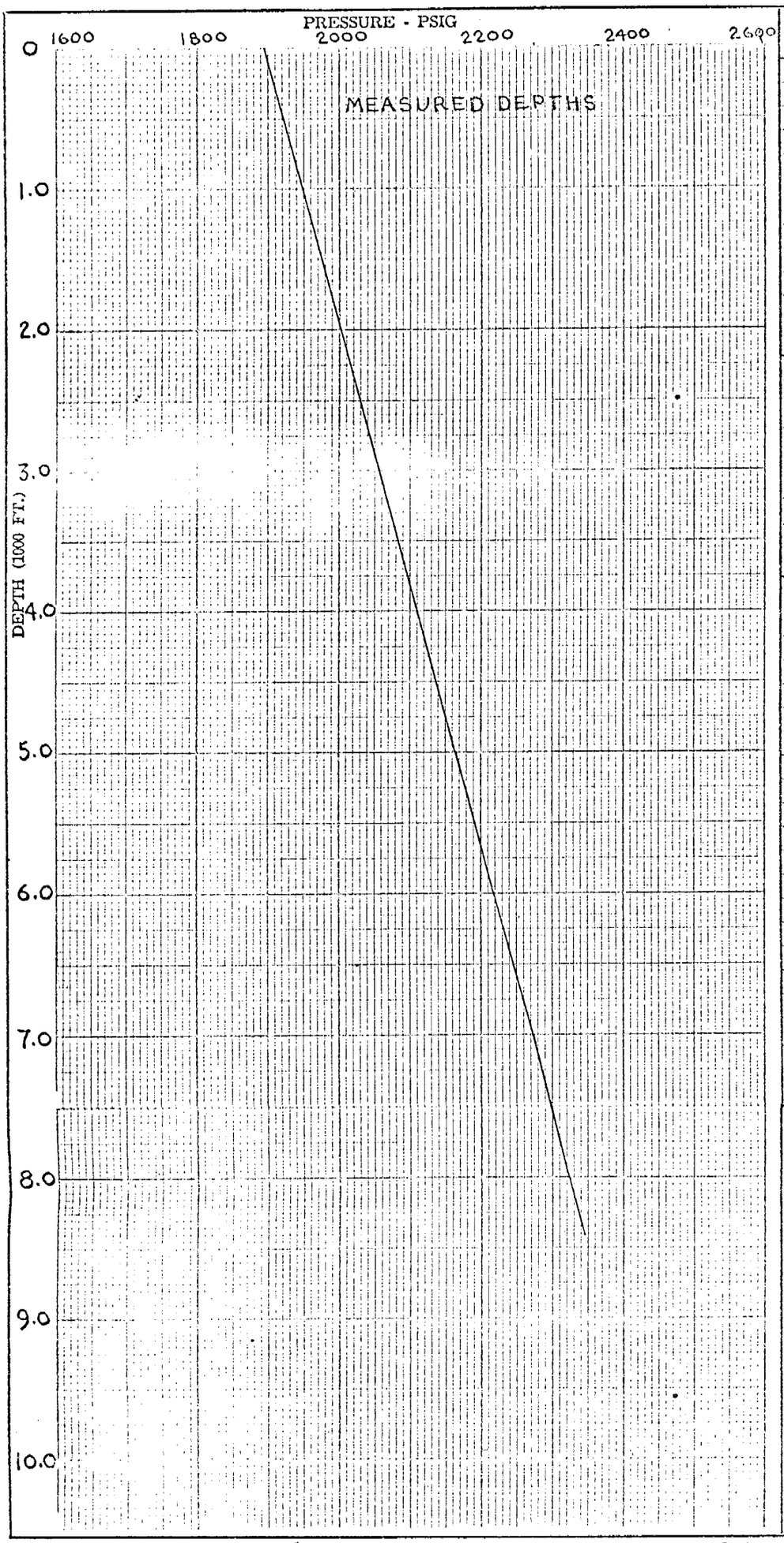
AC_CPUC_0000257

TECHNICAL SERVICE CO.
801 West 14th Street
Long Beach, California 90813

Phones: 24 Hours
Long Beach - 436-9901

SUB-SURFACE PRESSURE DATA

Company: So. California Gas Co. Field: Aliso Date: 4-30-75 Run No.:
Well: S. S. 25 Zone: Elev.: D. F. 8.35'
Purpose: Static Pressure Gradient Survey Status: Shut In
Total Depth: Effect. Depth:
Casing Size: Depth: Liner Size: Top: Bottom:
Perforations:
Tubing: 2-7/8" EUE to 8492', KBMG G. L. Mandrels @ 4983', 5914', 6784', 7589', 8314', "L" Sliding Sleeve (open) @ 8387', Baker "FH" Packer @ 8455'



OBSERVATIONS

Stabilization Period - Hrs.	
Gross Oil Rate - B/D	
Net Oil Rate - B/D	
Formation Gas MCF/D	
Formation Gas-Oil Ratio CFT/BBL	
Circulated Gas MCF/D	
Oil Dry Gravity - °A.P.I.	
Casinghead Pressure - PSIG	
Tubinghead Pressure - PSIG	1895
Casing Fluid Level - Ft.	

RESULTS

Gross Productivity Index	B/D PSI
Net Productivity Index	B/D PSI
Static M.E.P. - Run No.	PSI
Static M.E.P. - Projected	PSI
Gross Absolute Potential	B/D
Net Absolute Potential	B/D
Datum Pressures:	

Traverse Depth MD Feet	Pressure PSIG	Gradient PSI/FT
0	1895	
5000	2164	0.054
6000	2218	0.054
7000	2273	0.055
8000	2323	0.050
8410	2345	0.054

COMMENTS: Zero: Mat + 6.35'. Maximum temperature not recorded.

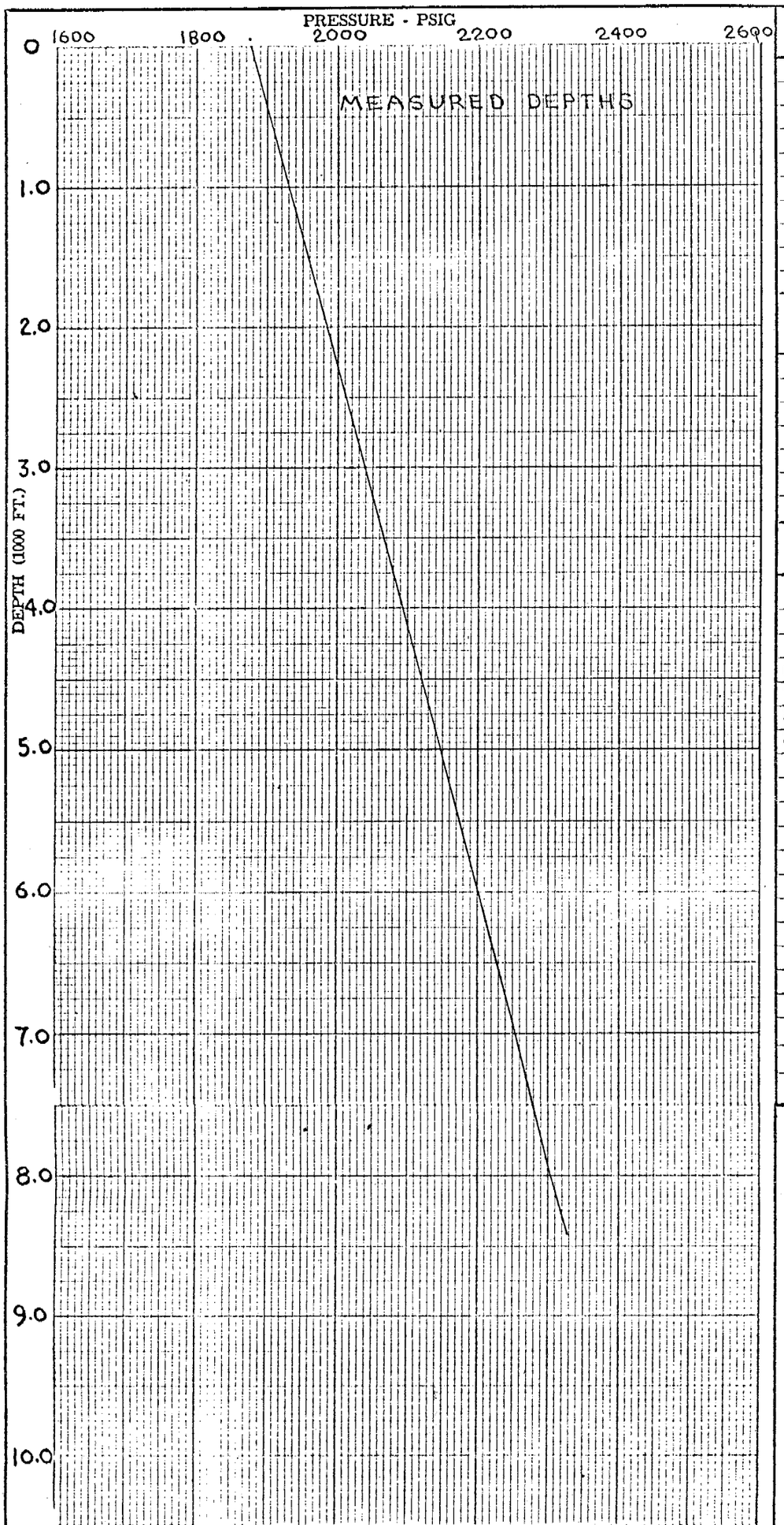
AC_CPUC_0000258

TECHNICAL SERVICE CO
801 West 14th Street
Long Beach, California 90813

Phones: 24 Hours
Long Beach - 436-9901

SUB-SURFACE PRESSURE DATA

Company: So. California Gas Co. Field: Aliso Canyon Date: 4-23-75 Run No.:
Well: S. S. 25 Zone: Elev.: D. F. 8.35'
Purpose: Static Pressure Gradient Survey Status: Shut In
Total Depth: Effect. Depth:
Casing Size: Depth: Liner Size: Top: Bottom:
Perforations:
Tubing: 2-7/8" EUE to 8492', KBMG Gas Lift Mandrels @ 4983', 5914', 6784', 7589', 8314', "L" Sliding Sleeve (open) 8387', Baker "FH" Packer @ 8455'



OBSERVATIONS

Stabilization Period - Hrs.	
Gross Oil Rate - B/D	
Net Oil Rate - B/D	
Formation Gas MCF/D	
Formation Gas-Oil Ratio CFT/BBL	
Circulated Gas MCF/D	
Oil Dry Gravity - °A.P.I.	
Casinghead Pressure - PSIG	
Tubinghead Pressure - PSIG	1878
Casing Fluid Level - Ft.	

RESULTS

Gross Productivity Index	B/D PSI
Net Productivity Index	B/D PSI
Static M.E.P. - Run No.	PSI
Static M.E.P. - Projected	PSI
Gross Absolute Potential	B/D
Net Absolute Potential	B/D
Datum Pressures:	

Traverse Depth MD Feet	Pressure PSIG	Gradient PSI/FT
0	1878	
5000	2147	0.054
6000	2200	0.053
7000	2254	0.054
8000	2303	0.049
8410	2328	0.061

COMMENTS: Zero: Mat + 6.35' Maximum temperature 200° F.

AC_CPUC_0000259

SOUTHERN CALIFORNIA GAS COMPANY

SUB-SURFACE PRESSURE SURVEY

FIELD Aliso Canyon WELL SS 25 DATE 4-2-75

RECORDER NO. 12827 RUN NO. SHEET NO. 1 OF 2 SHEETS BY Wishon

CLOCK HOURS 36 TIME CLOCK STARTED 2:05 TIME RUN COMPLETED

WELL CONDITION DURING RUN, SHUT-IN FLOWING INJECTION

HOURS WELL, SHUT-IN FLOWING INJECTION BEFORE RUN

WELL HEAD PRESSURE

TUBING

CASING

FLOW RATE

GAS MCF/D

OIL BBL'S/D

WATER BBL'S/D

GOR

MAXIMUM TEMPERATURE 176°

ZERO POINT 6.35 KB

PICK-UP

DATUM

	SIZE	DEPTH
TUBING		
CASING		
CASING SHOE		
LINER		
TOP		
BOTTOM		
PERFORATION		
TOP		
BOTTOM		

SURVEY DATA

DEPTH		STYLUS DEFLECTION	PRESSURE	GRADIENT PSI/100 FT
VERTICAL	~~MEASURED~~			
8350'	2:26 Pm	.986	1906.98	
	3:26	.990	1914.73	
	4:26	.994	1922.48	
	5:06	.994	1922.48	
	5:05	1.129	2183.40	
	5:10	1.130	2185.33	
	5:15	1.134	2193.05	
	5:26	1.135	2194.98	
	6:26	1.137	2198.84	
	7:26	1.139	2202.70	
	8:26	1.139	"	
	9:26	1.140	2204.63	
	10:26 Pm.	1.141	2206.56	
	11:26	1.141	"	
	12:26	1.142	2208.49	
	1:26 Am	1.142	"	
	2:26	1.143	2210.42	
	3:26	1.143	"	
	4:26	1.145	2214.29	
	5:26	1.145	"	

SPECIAL INSTRUCTIONS:

Set @ 8350' 2:26 PM 4-2-75

off 8350' 8:52 AM 4-3-75

BY

REMARKS: On flow 9:25 AM 4-2-75

Shut-in 5:00 PM 4-2-75

FIELD OPERATOR

CHART READ BY

SOUTHERN CALIFORNIA GAS CO.—4295

AC_CPUC_0000260

SUB-SURFACE PRESSURE SURVEY

FIELD Aliso Canyon WELL SS-25 DATE 4-2-75

RECORDER NO. 12827 RUN NO. ____ SHEET NO. 2 OF 2 SHEETS BY Wilson

CLOCK HOURS 36 TIME CLOCK STARTED ____ TIME RUN COMPLETED ____

WELL CONDITION DURING RUN, SHUT-IN ____ FLOWING ____ INJECTION ____

HOURS WELL, SHUT-IN ____ FLOWING ____ INJECTION ____ BEFORE RUN ____

WELL HEAD PRESSURE

TUBING ____

CASING ____

FLOW RATE

GAS MCF/D ____

OIL BBL'S/D ____

WATER BBL'S/D ____

GOR ____

MAXIMUM TEMPERATURE ____

ZERO POINT ____

PICK-UP ____

DATUM ____

	SIZE	DEPTH
TUBING		
CASING		
CASING SHOE		
LINER		
TOP		
BOTTOM		
PERFORATION		
TOP		
BOTTOM		

SURVEY DATA

DEPTH		STYLUS DEFLECTION	PRESSURE	GRADIENT PSI/100 FT
VERTICAL	~~MEASURED~~ Time			
8350'	6:26	1.147	2218.15	
	7:26	1.147		
	8:26	1.147		
	8:52	1.147		

SPECIAL INSTRUCTIONS: ____

BY ____

REMARKS: ____

FIELD OPERATOR ____

SOUTHERN CALIFORNIA GAS CO.—4296

Page 2

CHART READ BY ____

CHART READ BY ____

AC_CPUC_0000261

SOUTHERN CALIFORNIA GAS COMPANY
SUB-SURFACE TEMPERATURE SURVEY

FIELD Aliso Canyon WELL S. Sesnon 25 DATE 4-2-75

RECORDER NO. 3079 RUN NO. ____ SHEET NO. 1 OF 1 SHEETS BY Wilson

CLOCK HOURS 1225 TIME CLOCK STARTED ____ TIME RUN COMPLETED ____

WELL CONDITION DURING RUN, SHUT-IN ____ FLOWING ____ INJECTION ____

HOURS WELL, SHUT-IN ____ FLOWING ____ INJECTION ____ BEFORE RUN ____

WELL HEAD PRESSURE

TUBING ____

CASING ____

FLOW RATE

GAS MCF/D ____

OIL BBL'S/D ____

WATER BBL'S/D ____

GOR ____

AMBIENT TEMPERATURE ____

ZERO POINT 6.35' KB.

PICK-UP ____

DATUM ____

FLUID LEVEL ____

	SIZE	DEPTH
TUBING	2 7/8	8402'
CASING		
CASHING SHOE		
LINER		
TOP		
BOTTOM		

PERFORATION

TOP ____

BOTTOM ____

SPECIAL INSTRUCTIONS

Set 30 min @ 359.
w/o Valve &
30 mins @ 3350

____ BY ____

REMARKS – USE REVERSE SIDE

FIELD OPERATOR

CHART READ BY

SOUTHERN CALIFORNIA GAS CO.—4295

SURVEY DATA

DEPTH		TIME	STYLUS DEFLECTION	TEMPERATURE
MEASURED	VERTICAL			
Csg w/ o Valve		1230 (30 mins)	.152	79.84
3350'		136 PM (30 mins)	.681	158.06

AC_CPUC_0000262

General Offices: Belt Line Rd. at [illegible]
P. O. Box 34380, Dallas, Texas 7[illegible]

PRESSURE SURVEY

COMPANY	MSO NUMBER	DATE RUN
Southern California Gas Co.	599567	12-20-74

FIELD	LEASE	WELL	SAND
Aliso Canyon		SS 25	

COUNTY OR PARISH	STATE
Los Angeles	California

DESCRIPTION

ELEVATION	DATUM	PERFORATION			T.D.
	8410				

HOURS	FLUID LEVEL	DEPTH REACHED	TUBING PRESSURE	
☒ SHUT-IN ☐ FLOWING 3				☐ DWT ☐ GAUGE

SURFACE TEMP. °F	MAX. TEMP. °F	TUBING IN.	TUBING DEPTH	PACKER DEPTH	SLANT HOLE

DEPTH ~~GAUGE~~	~~PRESSURE~~ Deflection	PRESSURE ~~CHANGE~~ PSI	GRADIENT PSI / FT
Datum	0.923	2608	
5000	1.058	2986	
6000	1.086	3064	
7000	1.111	3133	
8000	1.133	3194	
8410	1.144	3225	

INSTRUMENT NUMBER	REMARKS
7374	

PREVIOUS SURVEY

LAST CALIBRATION DATE	DATE OF LAST SURVEY	LAST MAXIMUM	THIS MAXIMUM	CHANGE SINCE LAST SURVEY
12-3-74				

CALCULATED BY
D. Lewis

AC_CPUC_0000263

PRESSURE SURVEY

General Offices: Bell Lines Building
P. O. Box 34380, Dallas, Texas 75234

COMPANY	MSO NUMBER	DATE RUN
Southern California Gas Co.	599567	12-20-74

FIELD	LEASE	WELL	SAND
Aliso Canyon		SS 25	

COUNTY OR PARISH	STATE
Los Angeles	California

INFORMATION

ELEVATION	DATUM	PERFORATION			T.D.
	8410				

HOURS	FLUID LEVEL	DEPTH REACHED	TUBING PRESSURE	
☒ SHUT-IN ☐ FLOWING 3				☐ DWT ☐ GAUGE

SURFACE TEMP.	MAX. TEMP.	TUBING	TUBING DEPTH	PACKER DEPTH	SLANT HOLE
°F	°F	IN.			

DEPTH ~~CHANGE~~	~~PRESSURE CHANGE~~ Deflection	PRESSURE ~~CHANGE~~ PSI	GRADIENT PSI / FT
Lub	0.945	2612	
5000	1.087	3006	
6000	1.113	3077	
7000	1.140	3152	
8000	1.162	3213	
8410	1.170	3235	

INSTRUMENT NUMBER	REMARKS
7519	
L...F CALIBRATION DATE: 12-3-74	

PREVIOUS SURVEY

DATE OF LAST SURVEY	
LAST MAXIMUM	
THIS MAXIMUM	
CHANGE SINCE LAST SURVEY	

CALCULATED BY: D. Lewis

SUB-SURFACE PRESSURE SURVEY

FIELD Aliso WELL 55-25 DATE 10-24-74

RECORDER NO. 12827 RUN NO. ___ SHEET NO. 1 OF 1 SHEETS BY Wishon

CLOCK HOURS 1½ TIME CLOCK STARTED 1043 TIME RUN COMPLETED ___

WELL CONDITION DURING RUN, SHUT IN ___ FLOWING ___ INJECTION ___

HOURS WELL, SHUT-IN ___ FLOWING ___ INJECTION ___ BEFORE RUN ___

WELL HEAD PRESSURE :

TUBING 2760 psi

CASING ___

FLOW RATE

GAS MCF/D ___

OIL BBL's/D ___

WATER BBL's/D ___

GOR ___

MAXIMUM TEMPERATURE ___

ZERO POINT 6.35'

PICK-UP ___

DATUM 8590'

	SIZE	DEPTH
TUBING	___	___
CASING	___	___
CASING SHOE		___
LINER	___	
TOP		___
BOTTOM		___
PERFORATION		
TOP		___
BOTTOM		___

SURVEY DATA

DEPTH MEASURED	DEPTH VERTICAL	STYLUS DEFLECTION	PRESSURE	GRADIENT PSI/100 F
0		1.425	2754.83	.0
5000		1.614	3119.69	.0729
6000		1.646	3181.47	.062
7000		1.685	3256.76	.075
8000		1.734	3351.35	.094
8410'		1.742	3366.80	.037
8590			3377.06	

Avg .057

SPECIAL INSTRUCTIONS: Otis "J" Value 8421'

BY ___

REMARKS: ___

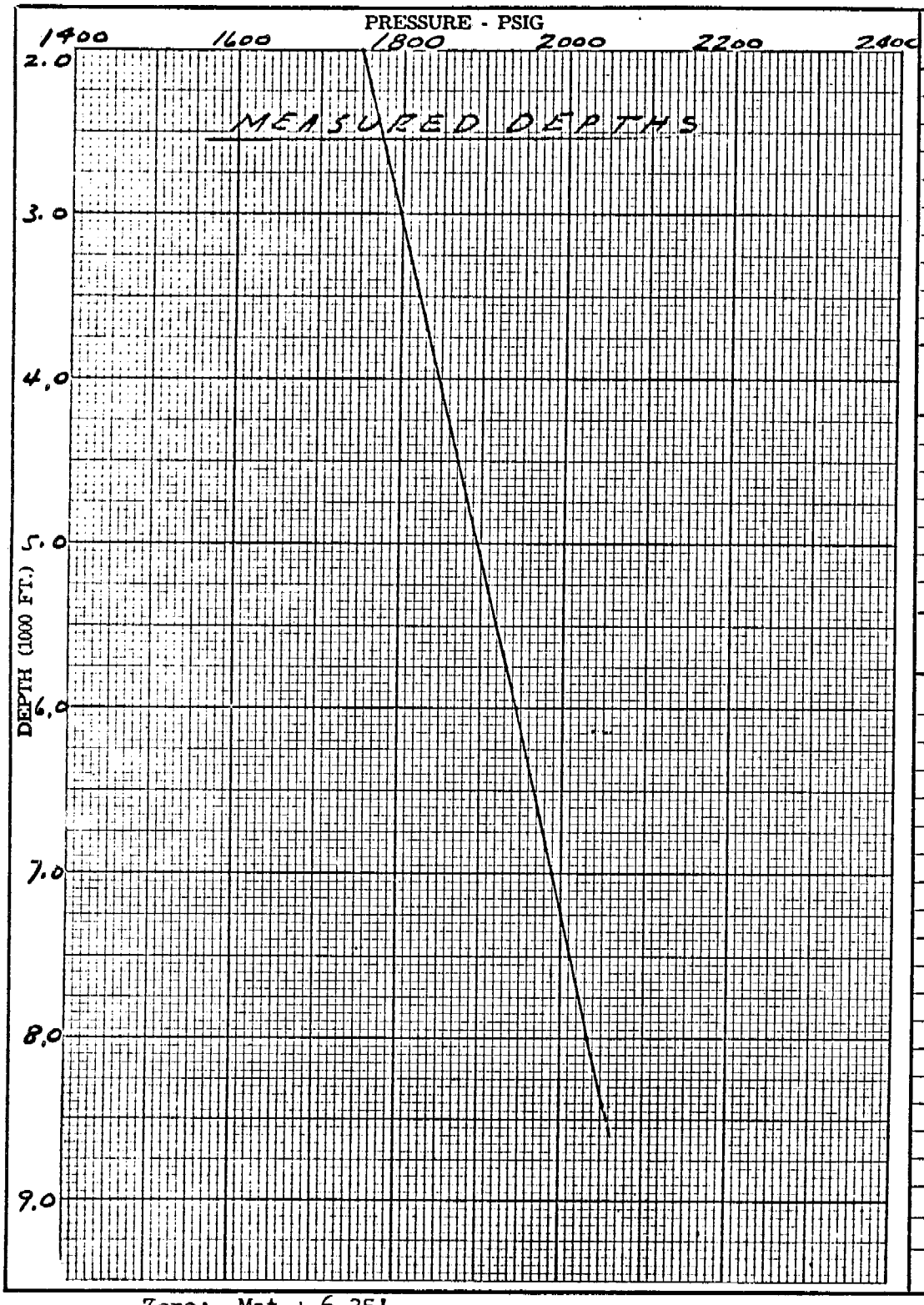
AC_CPUC_0000265

TECHNICAL SERVICE CO.
801 West 14th Street
Long Beach, California 90813

Phones: 24 Hours
Long Beach - 436-9901

SUB-SURFACE PRESSURE DATA

Company: So. California Gas Co. Field: Aliso Canyon Date: 1-15-74 Run No.:
Well: S. S. #25 Zone: Elev.: Mat + 6.35'
Purpose: Static Pressure Gradient Survey Status: Shut In
Total Depth: Effect. Depth:
Casing Size: Depth: Liner Size: Top: Bottom:
Tubing: 2-7/8" J-55 Tubing to 8492'. "KBMG" Gas Lift Mandrels @ 4995', 5925', 6795', 7600', & 8325'. Baker Model "L" Sliding Sleeve (open) @ 8390' Baker "FH" Packer @ 8460', Otis "J" Valve @ 8421'



OBSERVATIONS

Stabilization Period - Hrs.	
Gross Oil Rate - B/D	
Net Oil Rate - B/D	
Formation Gas MCF/D	
Formation Gas-Oil Ratio CFT/BBL	
Circulated Gas MCF/D	
Oil Dry Gravity - °A.P.I.	
Casinghead Pressure - PSIG	
Tubinghead Pressure - PSIG	1659
Casing Fluid Level - Ft.	

RESULTS

Gross Productivity Index	B/D PSI
Net Productivity Index	B/D PSI
Static M.E.P. - Run No.	PSI
Static M.E.P. - Projected	PSI
Gross Absolute Potential	B/D
Net Absolute Potential	B/D
Datum Pressures:	

Traverse Depth VD Feet MD	Pressure PSIG	Gradient PSI/FT MD
0	1659	
5000	1895	0.047
6000	1944	0.049
7000	1990	0.046
8000	2032	0.042
8410	2552	0.048
Datum Extrapolated		
8590	2060	0.044

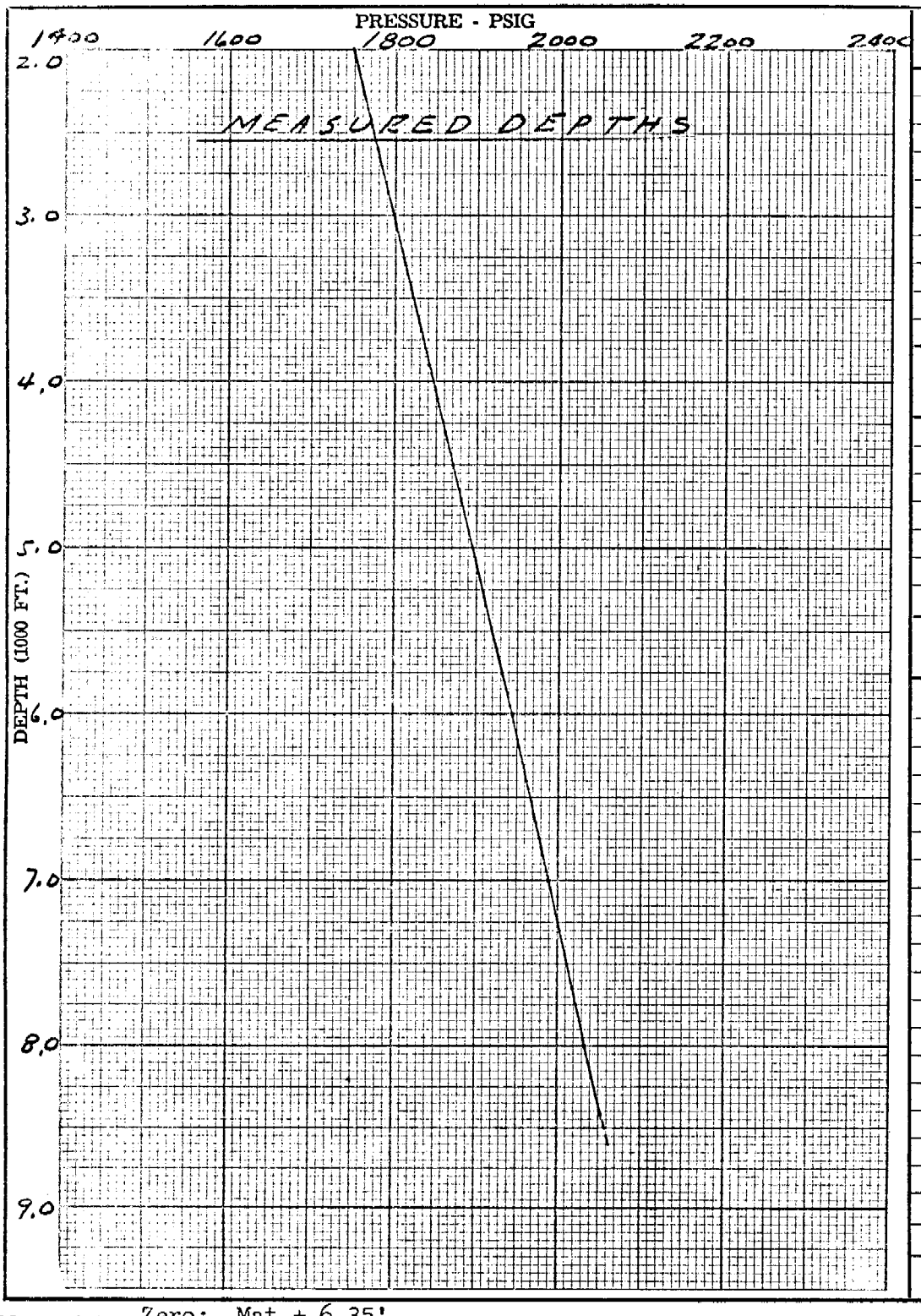
COMMENTS: Zero: Mat + 6.35'
Maximum Temperature 212° F.

By: Snider - Pate - Homer

TECHNICAL SERVICE CO.
801 West 14th Street
Long Beach, California 90813
Phone: 24 Hour
Long Beach - 436-7[illegible]

SUB-SURFACE PRESSURE DATA

Company: So. California Gas Co. Field: Aliso Canyon Date: 1-15-74 Run No.:
Well: S. S. #25 Zone: Elev.: Mat + 6.35'
Purpose: Static Pressure Gradient Survey Status: Shut In
Total Depth: Effect. Depth:
Casing Size: Depth: Liner Size: Top: Bottom:
Tubing: 2-7/8" J-55 Tubing to 8492'. "KBMG" Gas Lift Mandrels @ 4995', 5925', 6795', 7600', & 8325'. Baker Model "L" Sliding Sleeve (open) @ 8390' Baker "FH" Packer @ 8460'. Otis "J" Valve @ 8421'



OBSERVATIONS

Stabilization Period - Hrs.	
Gross Oil Rate - B/D	
Net Oil Rate - B/D	
Formation Gas MCF/D	
Formation Gas-Oil Ratio CFT/BBL	
Circulated Gas MCF/D	
Oil Dry Gravity - °A.P.I.	
Casinghead Pressure - PSIG	
Tubinghead Pressure - PSIG	1659
Casing Fluid Level - Ft.	

RESULTS

Gross Productivity Index	B/D PSI
Net Productivity Index	B/D PSI
Static M.E.P. - Run No.	PSI
Static M.E.P. - Projected	PSI
Gross Absolute Potential	B/D
Net Absolute Potential	B/D
Datum Pressures:	

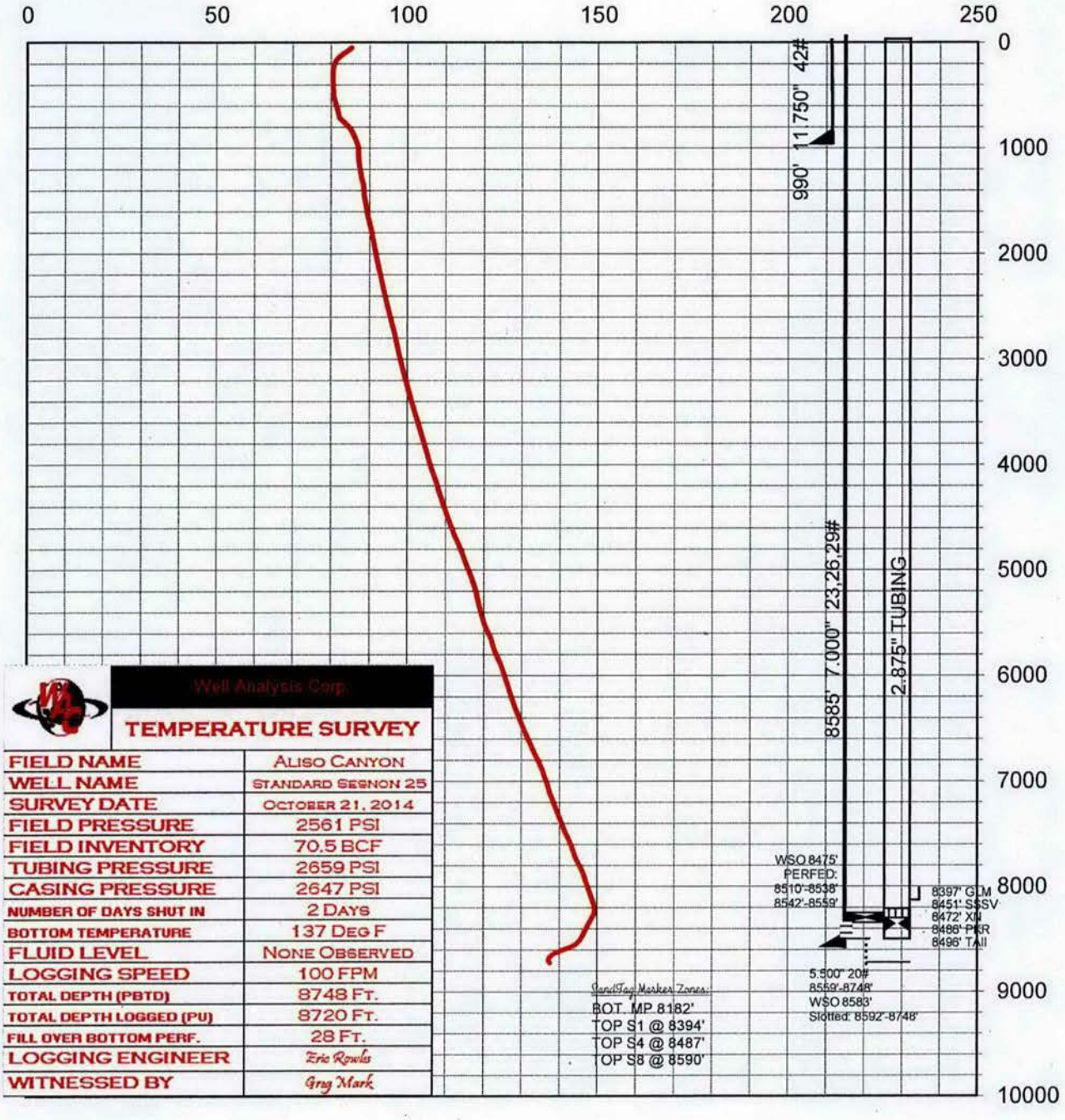
Traverse Depth Feet	Pressure PSIG	Gradient PSI/FT
0	1659	
5000	1895	0.047
6000	1944	0.049
7000	1990	0.046
8000	2032	0.042
8410	2552	0.048
Datum Extrapolated		
8590	2060	0.044

COMMENTS: Zero: Mat + 6.35'
Maximum Temperature 212° F.

By: Snider - Pate - Homer

AC_CPUC_0000267

03700776_Survey_Temperature_10-21-2014(SS25)

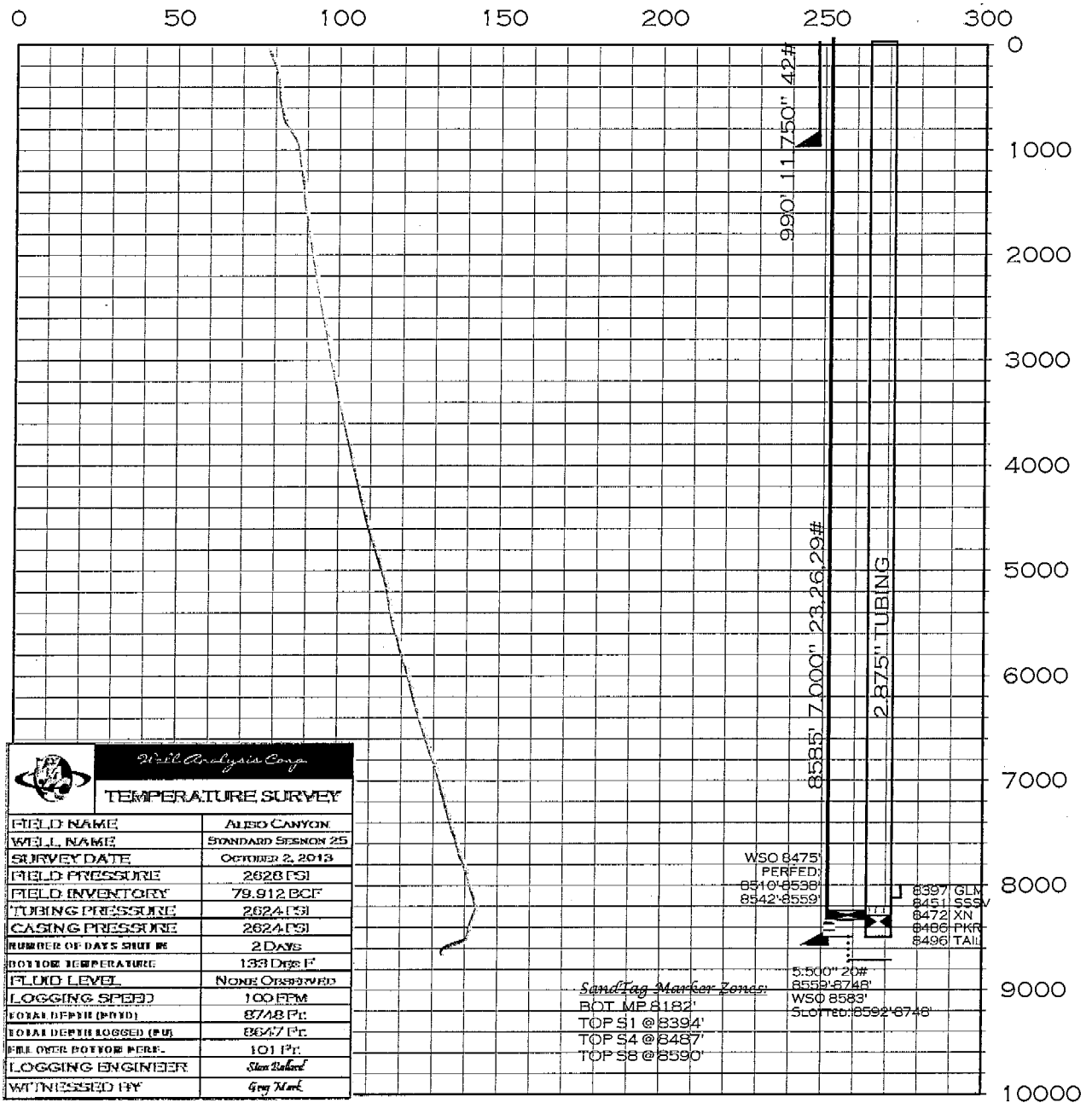


Well Analysis Corp.

TEMPERATURE SURVEY

FIELD NAME	ALISO CANYON
WELL NAME	STANDARD SEGNON 25
SURVEY DATE	OCTOBER 21, 2014
FIELD PRESSURE	2561 PSI
FIELD INVENTORY	70.5 BCF
TUBING PRESSURE	2659 PSI
CASING PRESSURE	2647 PSI
NUMBER OF DAYS SHUT IN	2 DAYS
BOTTOM TEMPERATURE	137 DEG F
FLUID LEVEL	NONE OBSERVED
LOGGING SPEED	100 FPM
TOTAL DEPTH (PBTD)	8748 FT.
TOTAL DEPTH LOGGED (PU)	8720 FT.
FILL OVER BOTTOM PERF.	28 FT.
LOGGING ENGINEER	Eric Rowles
WITNESSED BY	Greg Mark

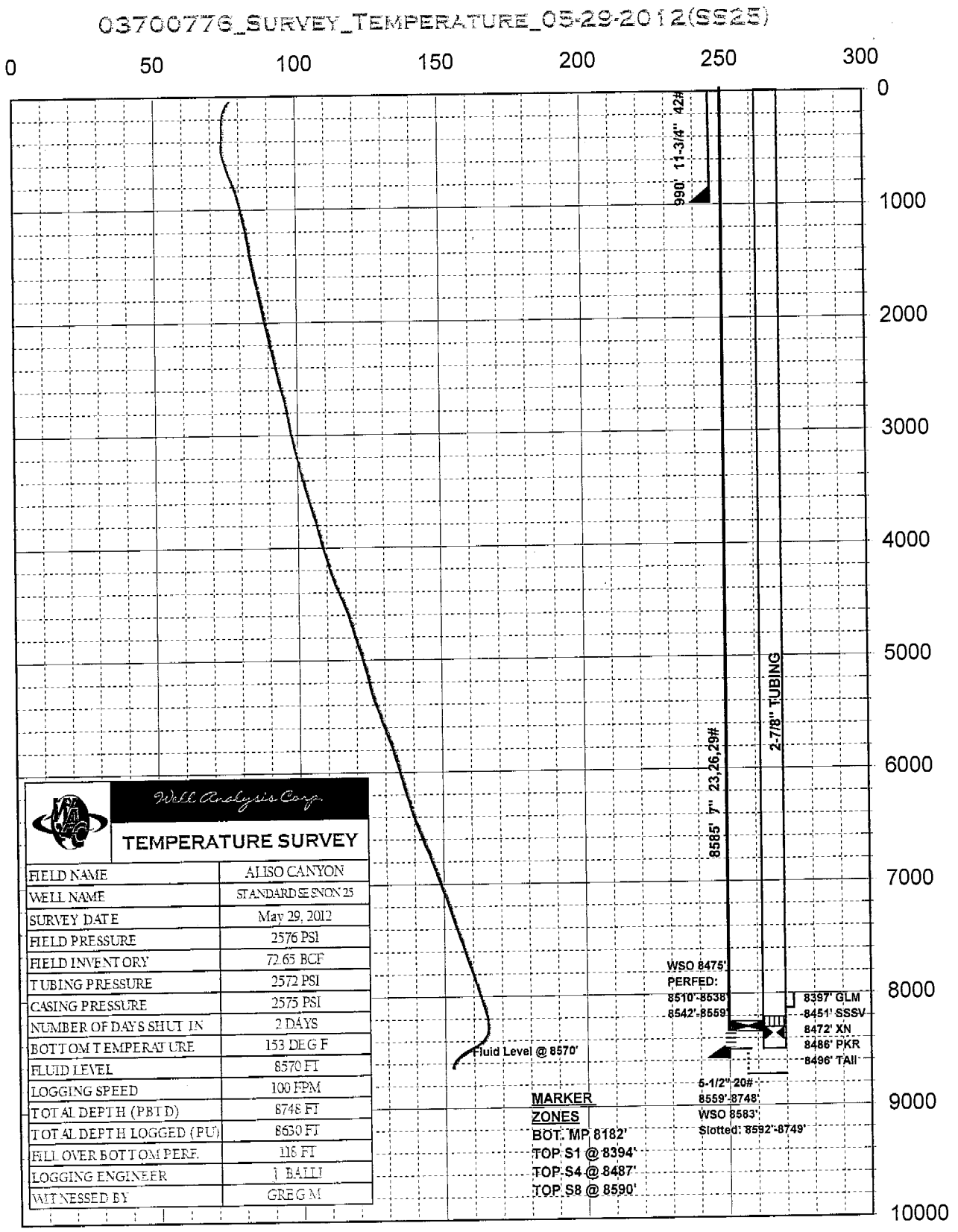
03700776_SURVEY_TEMPERATURE_10-02-2013(SS25)



Well Analysis Corp.

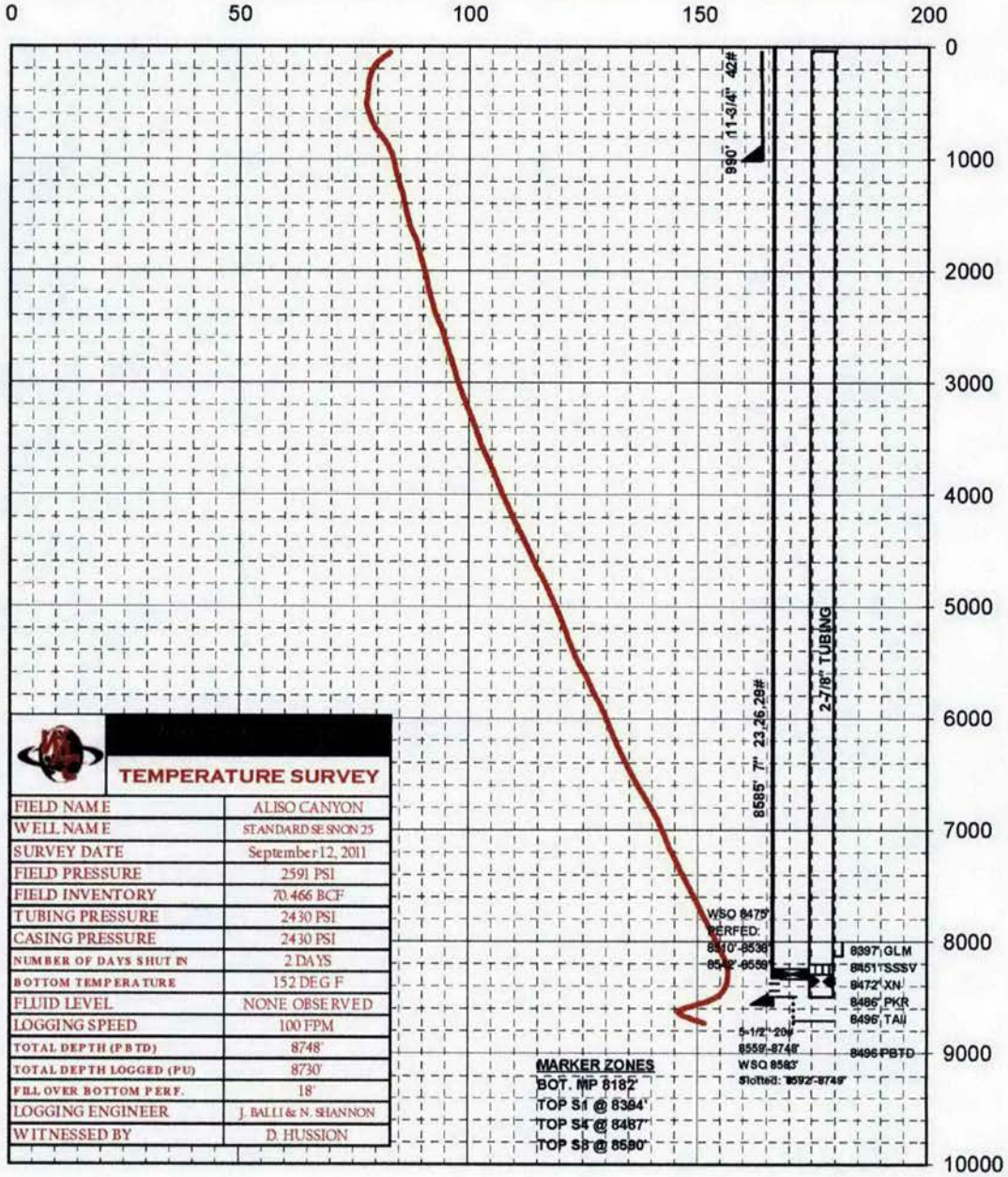
TEMPERATURE SURVEY

FIELD NAME	ALISO CANYON
WELL NAME	STANDARD SESNON 25
SURVEY DATE	OCTOBER 2, 2013
FIELD PRESSURE	2628 PSI
FIELD INVENTORY	79.912 BCF
TUBING PRESSURE	2624 PSI
CASING PRESSURE	2624 PSI
NUMBER OF DAYS SHUT IN	2 DAYS
BOTTOM TEMPERATURE	133 DEG F
FLUID LEVEL	NONE OBSERVED
LOGGING SPEED	100 FPM
TOTAL DEPTH (DRVR)	8748 FT
TOTAL DEPTH LOGGED (FT)	8647 FT
FEET OVER BOTTOM PERF.	101 FT
LOGGING ENGINEER	Stan Ballard
WITNESSED BY	Greg Mark


03700776_SURVEY_TEMPERATURE_05-29-2012(SS25)
0
50
100
150
200
250
300
0
1000
2000
3000
4000
5000
6000
7000
8000
9000
10000
990' 11-3/4" 42#
8565' 7" 23,26,29#
2-7/8" TUBING
WSO 8475'
PERFED:
8510'-8538'
8542'-8559'
8397' GLM
8451' SSSV
8472' XN
8486' PKR
8496' TAIL
5-1/2" 20#
8559'-8748'
WSO 8583'
Slotted: 8592'-8749'
Fluid Level @ 8570'
MARKER
ZONES
BOT. MP 8182'
TOP S1 @ 8394'
TOP S4 @ 8487'
TOP S8 @ 8590'
Well Analysis Corp.
TEMPERATURE SURVEY
FIELD NAME ALISO CANYON
WELL NAME STANDARD SESNON 25
SURVEY DATE May 29, 2012
FIELD PRESSURE 2576 PSI
FIELD INVENTORY 72.65 BCF
TUBING PRESSURE 2572 PSI
CASING PRESSURE 2575 PSI
NUMBER OF DAYS SHUT IN 2 DAYS
BOTTOM TEMPERATURE 153 DEG F
FLUID LEVEL 8570 FT
LOGGING SPEED 100 FPM
TOTAL DEPTH (PBTD) 8748 FT
TOTAL DEPTH LOGGED (PU) 8630 FT
FILL OVER BOTTOM PERF. 116 FT
LOGGING ENGINEER J. BALLI
WITNESSED BY GREG M

Well Analysis Corporation

03700776_SURVEY_TEMPERATURE_09-12-2011(SS25)

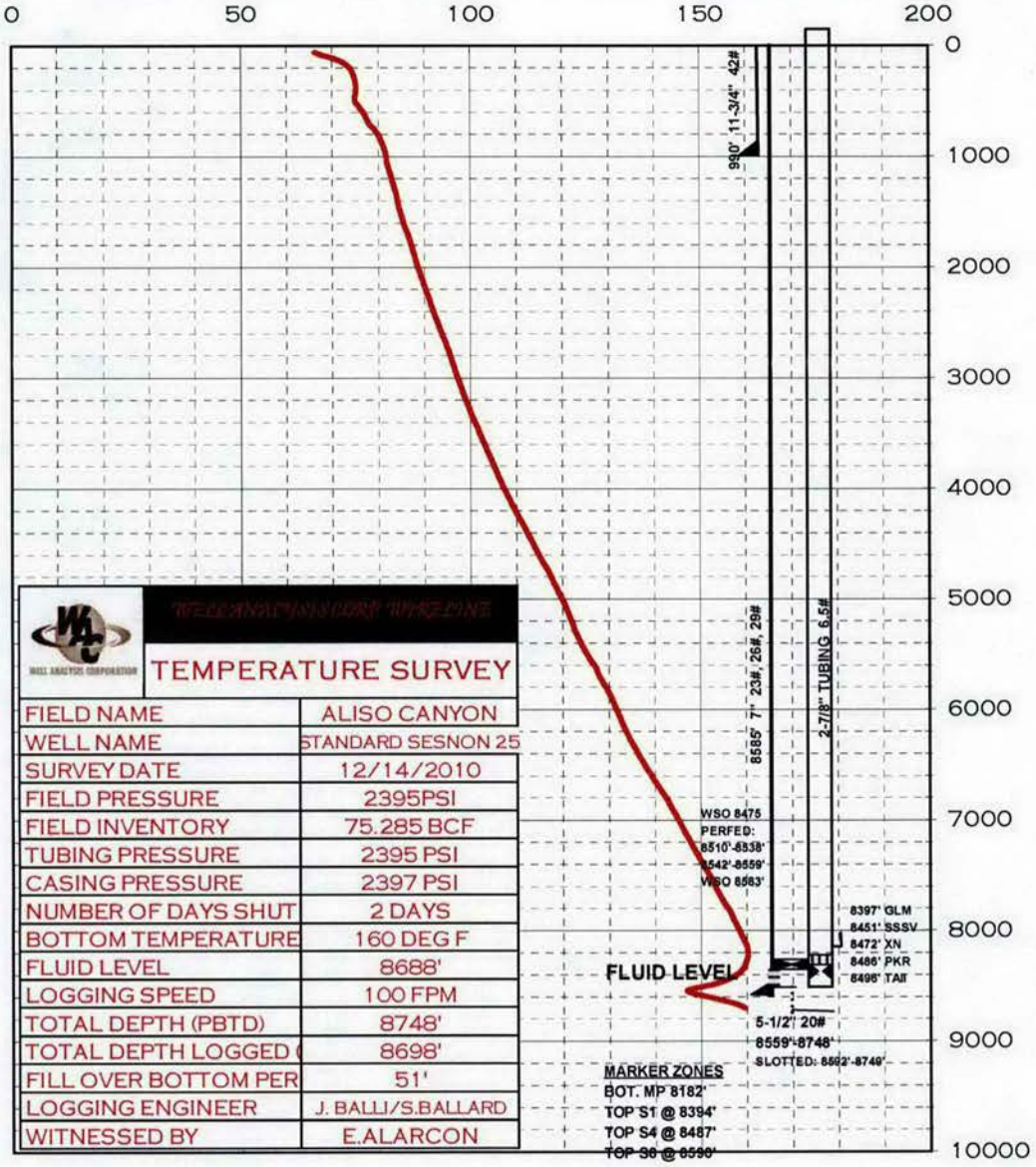


TEMPERATURE SURVEY	
FIELD NAME	ALISO CANYON
WELL NAME	STANDARD SESNON 25
SURVEY DATE	September 12, 2011
FIELD PRESSURE	2591 PSI
FIELD INVENTORY	70.466 BCF
TUBING PRESSURE	2430 PSI
CASING PRESSURE	2430 PSI
NUMBER OF DAYS SHUT IN	2 DAYS
BOTTOM TEMPERATURE	152 DEG F
FLUID LEVEL	NONE OBSERVED
LOGGING SPEED	100 FPM
TOTAL DEPTH (PBTD)	8748'
TOTAL DEPTH LOGGED (PU)	8730'
FILL OVER BOTTOM PERF.	18'
LOGGING ENGINEER	J. BALLI & N. SHANNON
WITNESSED BY	D. HUSSION

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WELL ANALYSIS CORPORATION

03700776_SURVEY_TEMPERATURE_12-14-2010(SS25)

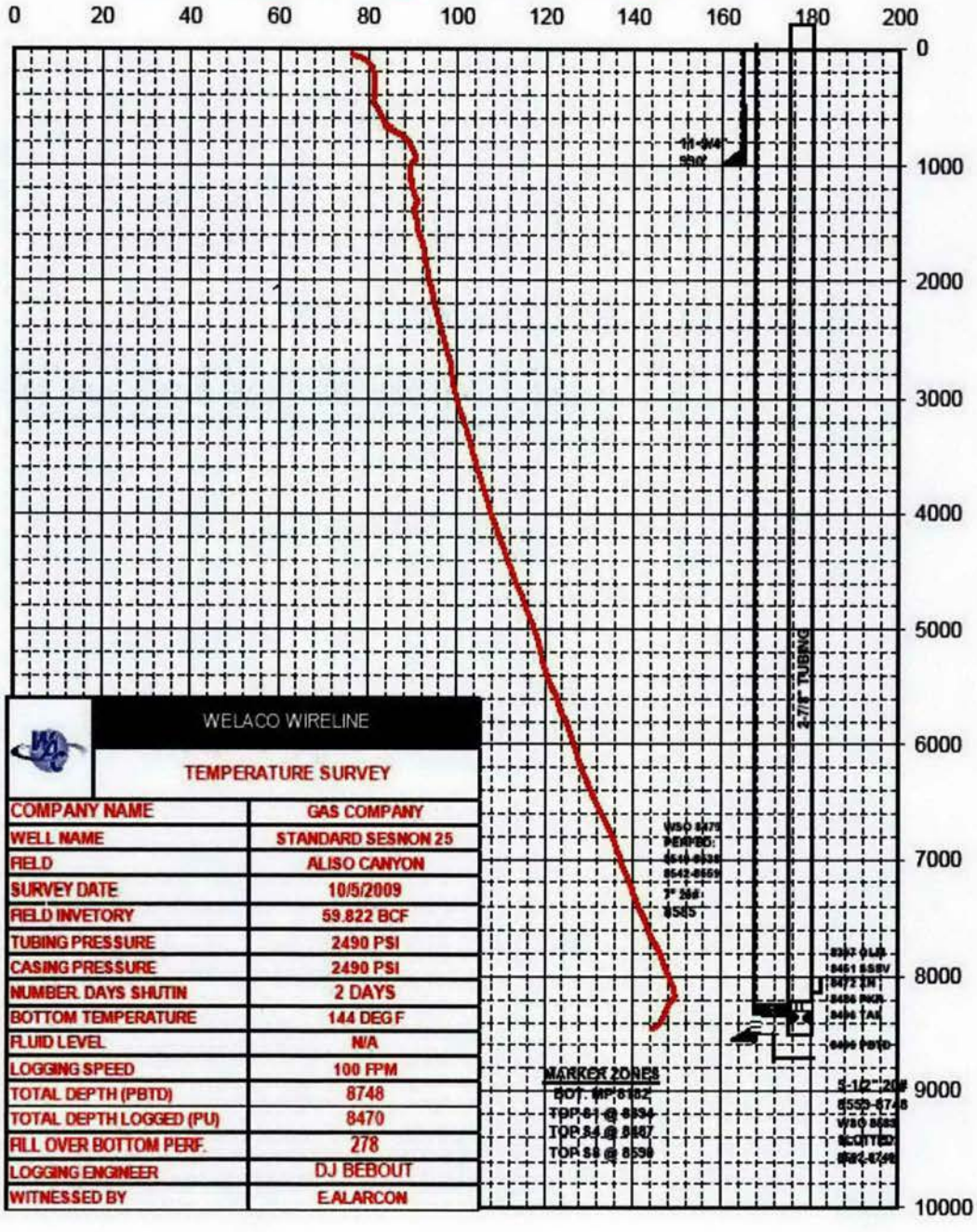


TEMPERATURE SURVEY	
FIELD NAME	ALISO CANYON
WELL NAME	STANDARD SESNON 25
SURVEY DATE	12/14/2010
FIELD PRESSURE	2395PSI
FIELD INVENTORY	75.285 BCF
TUBING PRESSURE	2395 PSI
CASING PRESSURE	2397 PSI
NUMBER OF DAYS SHUT	2 DAYS
BOTTOM TEMPERATURE	160 DEG F
FLUID LEVEL	8688'
LOGGING SPEED	100 FPM
TOTAL DEPTH (PBTD)	8748'
TOTAL DEPTH LOGGED	8698'
FILL OVER BOTTOM PER	51'
LOGGING ENGINEER	J. BALLI/S.BALLARD
WITNESSED BY	E.ALARCON

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WELL ANALYSIS CORPORATION

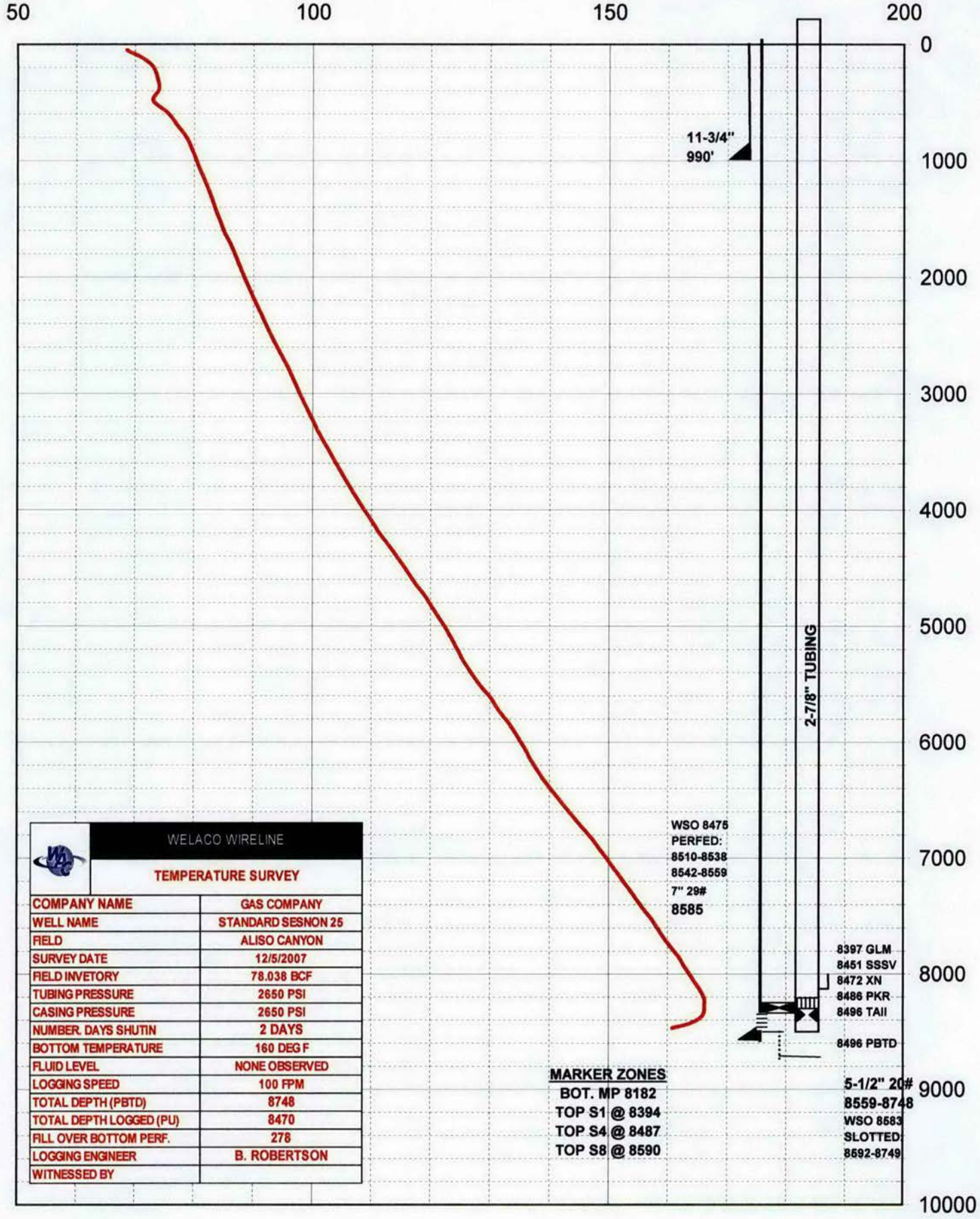
037.00776_SURVEY_TEMPERATURE_10.05.2009



WELACO WIRELINE	
TEMPERATURE SURVEY	
COMPANY NAME	GAS COMPANY
WELL NAME	STANDARD SESNON 25
FIELD	ALISO CANYON
SURVEY DATE	10/5/2009
FIELD INVETORY	59.822 BCF
TUBING PRESSURE	2490 PSI
CASING PRESSURE	2490 PSI
NUMBER DAYS SHUTIN	2 DAYS
BOTTOM TEMPERATURE	144 DEG F
FLUID LEVEL	N/A
LOGGING SPEED	100 FPM
TOTAL DEPTH (PBTD)	8748
TOTAL DEPTH LOGGED (PU)	8470
FILL OVER BOTTOM PERF.	278
LOGGING ENGINEER	DJ BEBOUT
WITNESSED BY	E.ALARCON

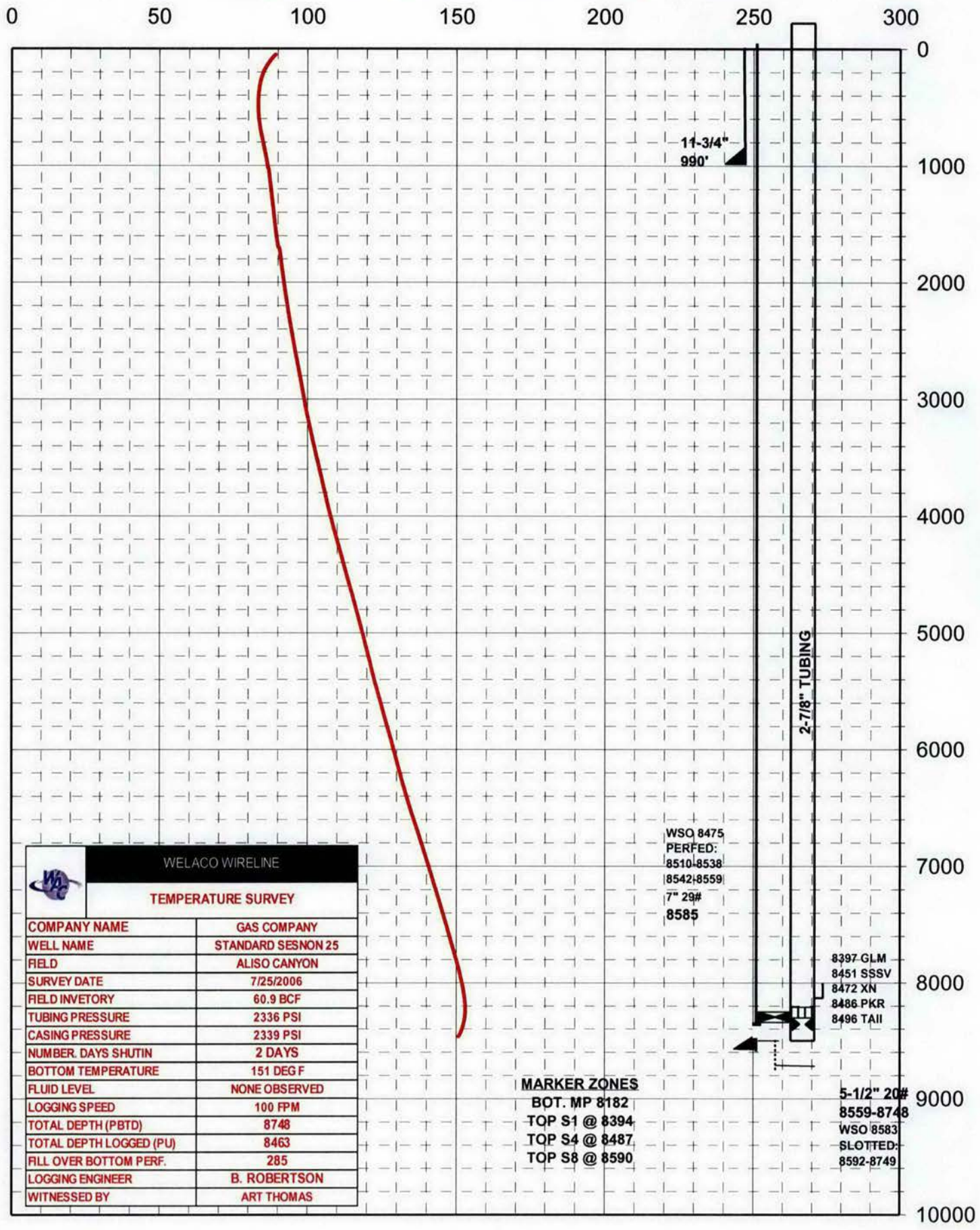
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037.00776_SURVEY_TEMPERATURE_2007.12.05



WELACO WIRELINE	
TEMPERATURE SURVEY	
COMPANY NAME	GAS COMPANY
WELL NAME	STANDARD SESNON 25
FIELD	ALISO CANYON
SURVEY DATE	12/5/2007
FIELD INVETORY	78.038 BCF
TUBING PRESSURE	2650 PSI
CASING PRESSURE	2650 PSI
NUMBER. DAYS SHUTIN	2 DAYS
BOTTOM TEMPERATURE	160 DEG F
FLUID LEVEL	NONE OBSERVED
LOGGING SPEED	100 FPM
TOTAL DEPTH (PBTD)	8748
TOTAL DEPTH LOGGED (PU)	8470
FILL OVER BOTTOM PERF.	278
LOGGING ENGINEER	B. ROBERTSON
WITNESSED BY	

037.00776_SURVEY_TEMPERATURE_2006.07.25

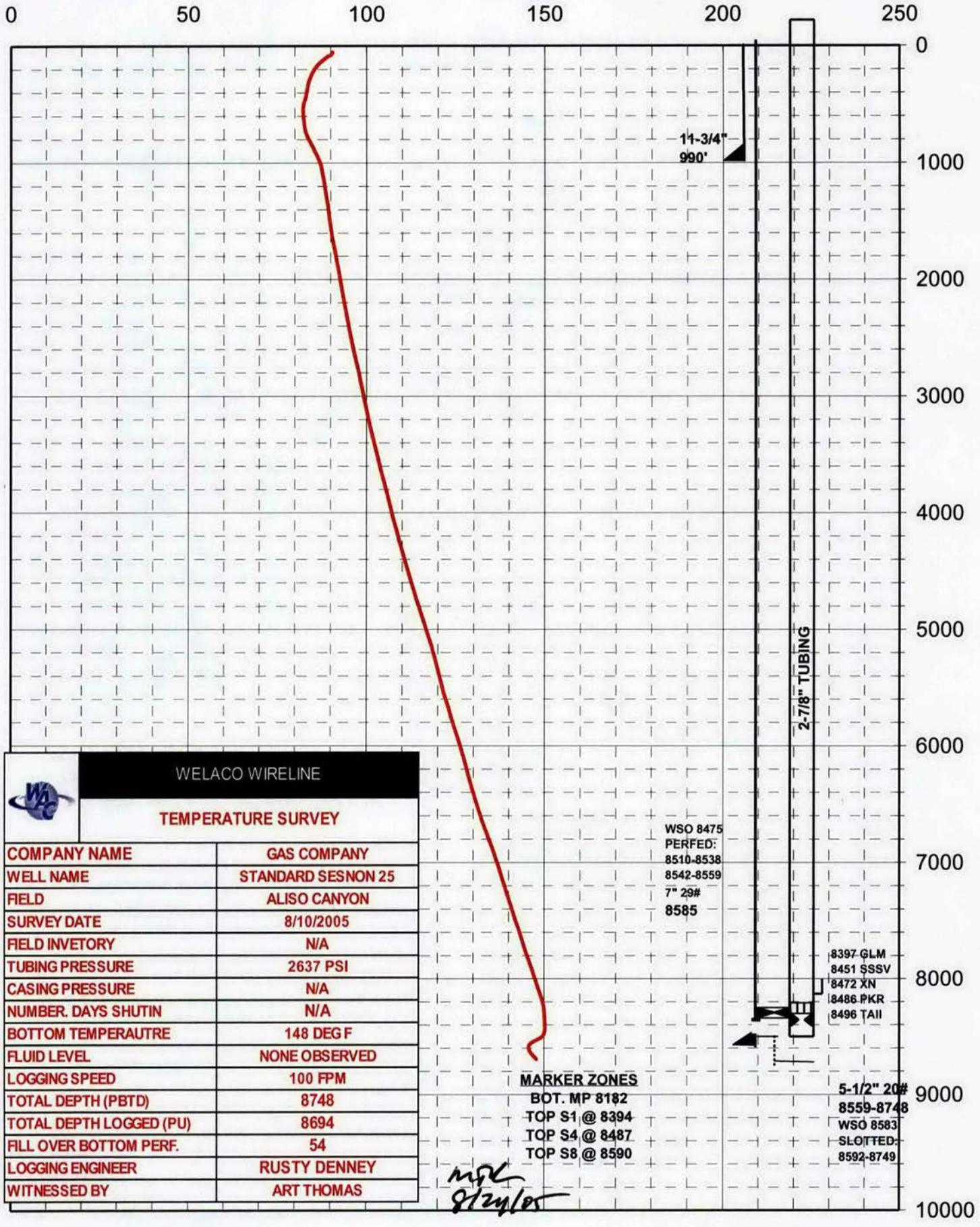


WELACO WIRELINE

TEMPERATURE SURVEY

COMPANY NAME	GAS COMPANY
WELL NAME	STANDARD SESNON 25
FIELD	ALISO CANYON
SURVEY DATE	7/25/2006
FIELD INVETORY	60.9 BCF
TUBING PRESSURE	2336 PSI
CASING PRESSURE	2339 PSI
NUMBER. DAYS SHUTIN	2 DAYS
BOTTOM TEMPERATURE	151 DEG F
FLUID LEVEL	NONE OBSERVED
LOGGING SPEED	100 FPM
TOTAL DEPTH (PBTD)	8748
TOTAL DEPTH LOGGED (PU)	8463
FILL OVER BOTTOM PERF.	285
LOGGING ENGINEER	B. ROBERTSON
WITNESSED BY	ART THOMAS

037.00776_SURVEY_TEMPERATURE_2005.08.10



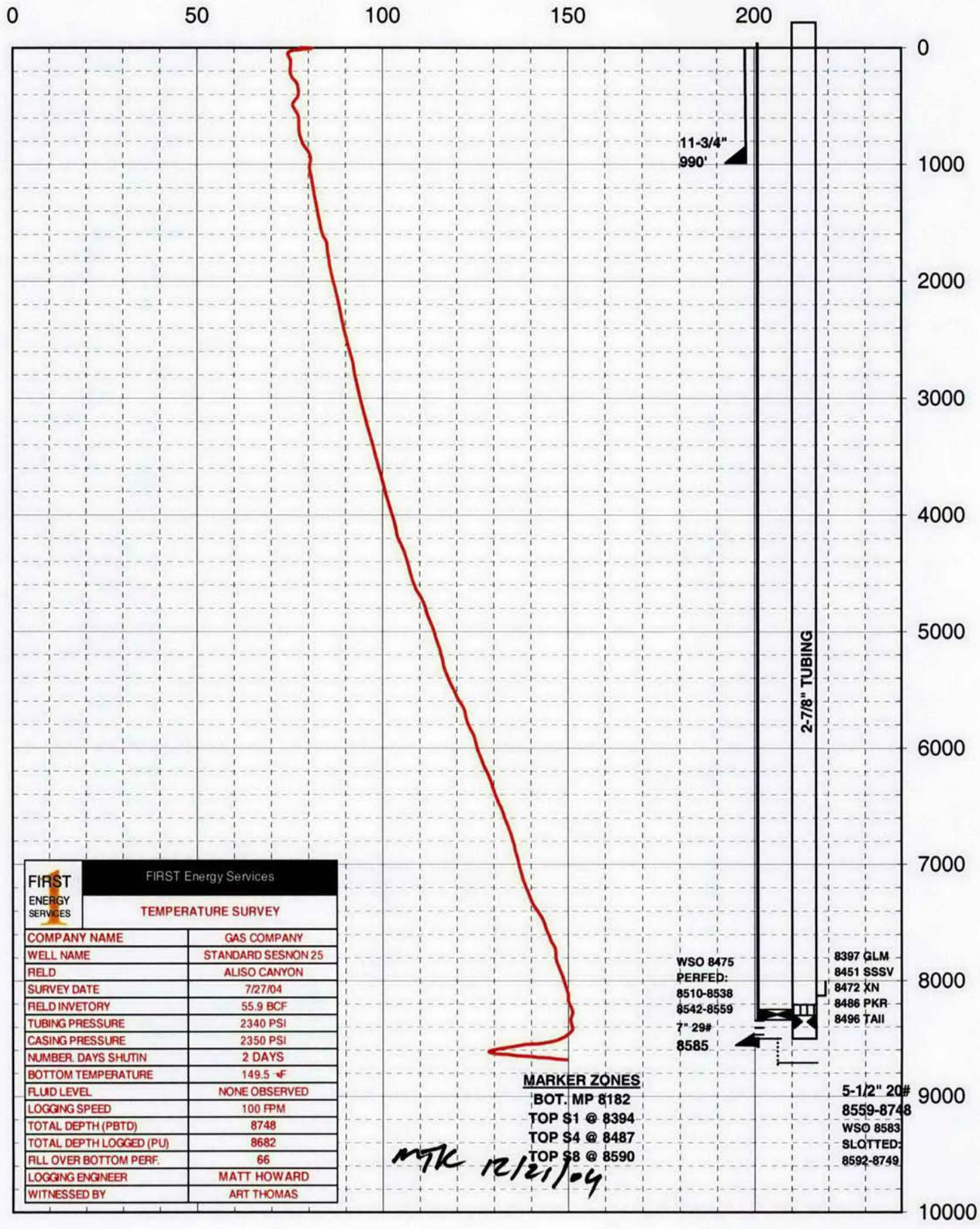
WELACO WIRELINE

TEMPERATURE SURVEY

COMPANY NAME	GAS COMPANY
WELL NAME	STANDARD SESNON 25
FIELD	ALISO CANYON
SURVEY DATE	8/10/2005
FIELD INVETORY	N/A
TUBING PRESSURE	2637 PSI
CASING PRESSURE	N/A
NUMBER. DAYS SHUTIN	N/A
BOTTOM TEMPERAUTRE	148 DEG F
FLUID LEVEL	NONE OBSERVED
LOGGING SPEED	100 FPM
TOTAL DEPTH (PBTD)	8748
TOTAL DEPTH LOGGED (PU)	8694
FILL OVER BOTTOM PERF.	54
LOGGING ENGINEER	RUSTY DENNEY
WITNESSED BY	ART THOMAS

MSL 8/24/05

037.00776_SURVEY_TEMPERATURE_2004.07.27



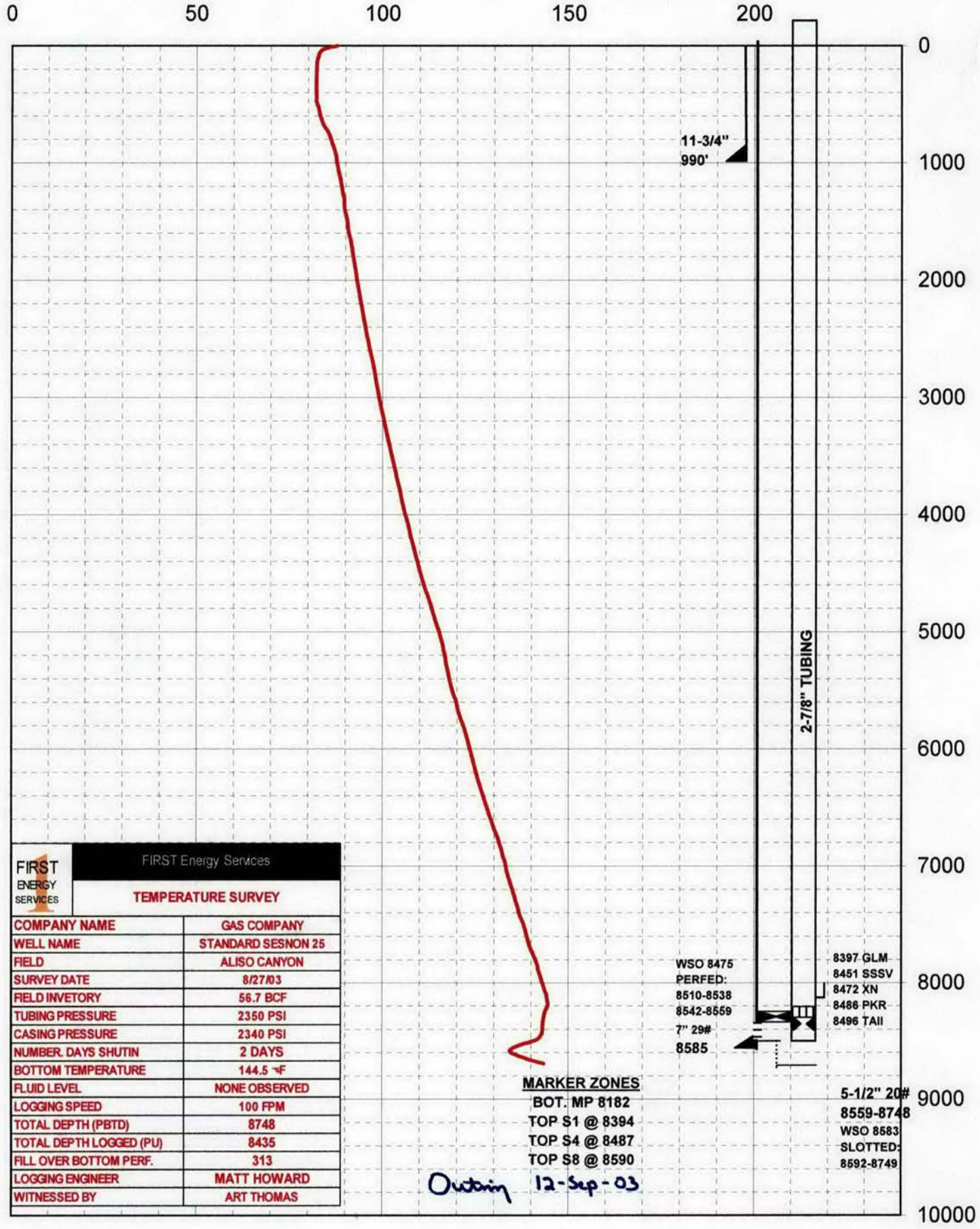
FIRST ENERGY SERVICES

FIRST Energy Services

TEMPERATURE SURVEY

COMPANY NAME	GAS COMPANY
WELL NAME	STANDARD SESNON 25
FIELD	ALISO CANYON
SURVEY DATE	7/27/04
FIELD INVETORY	55.9 BCF
TUBING PRESSURE	2340 PSI
CASING PRESSURE	2350 PSI
NUMBER. DAYS SHUTIN	2 DAYS
BOTTOM TEMPERATURE	149.5 °F
FLUID LEVEL	NONE OBSERVED
LOGGING SPEED	100 FPM
TOTAL DEPTH (PBTD)	8748
TOTAL DEPTH LOGGED (PU)	8682
FILL OVER BOTTOM PERF.	66
LOGGING ENGINEER	MATT HOWARD
WITNESSED BY	ART THOMAS

037.00776_SURVEY_TEMPERATURE_2003.08.27

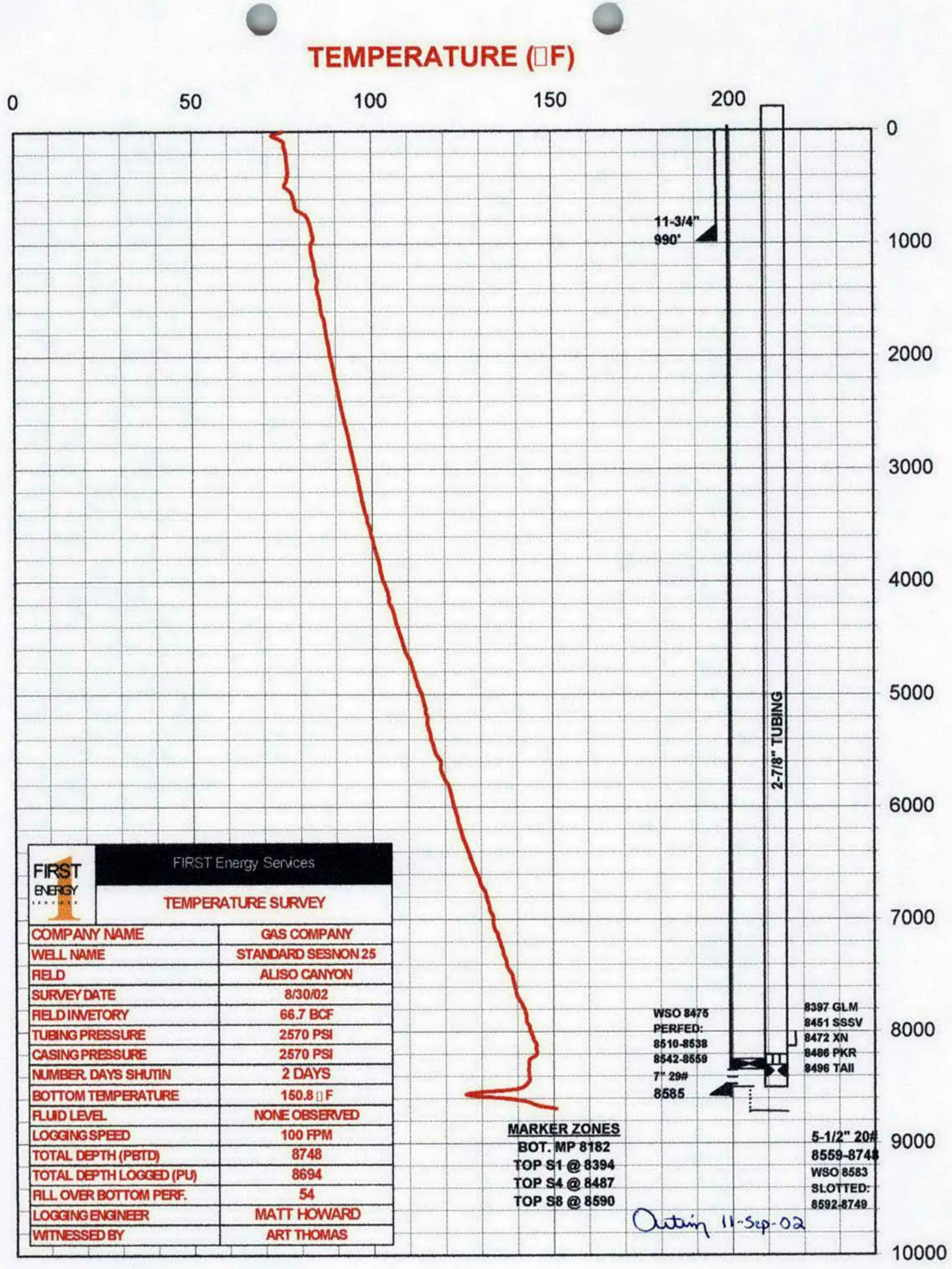


FIRST ENERGY SERVICES

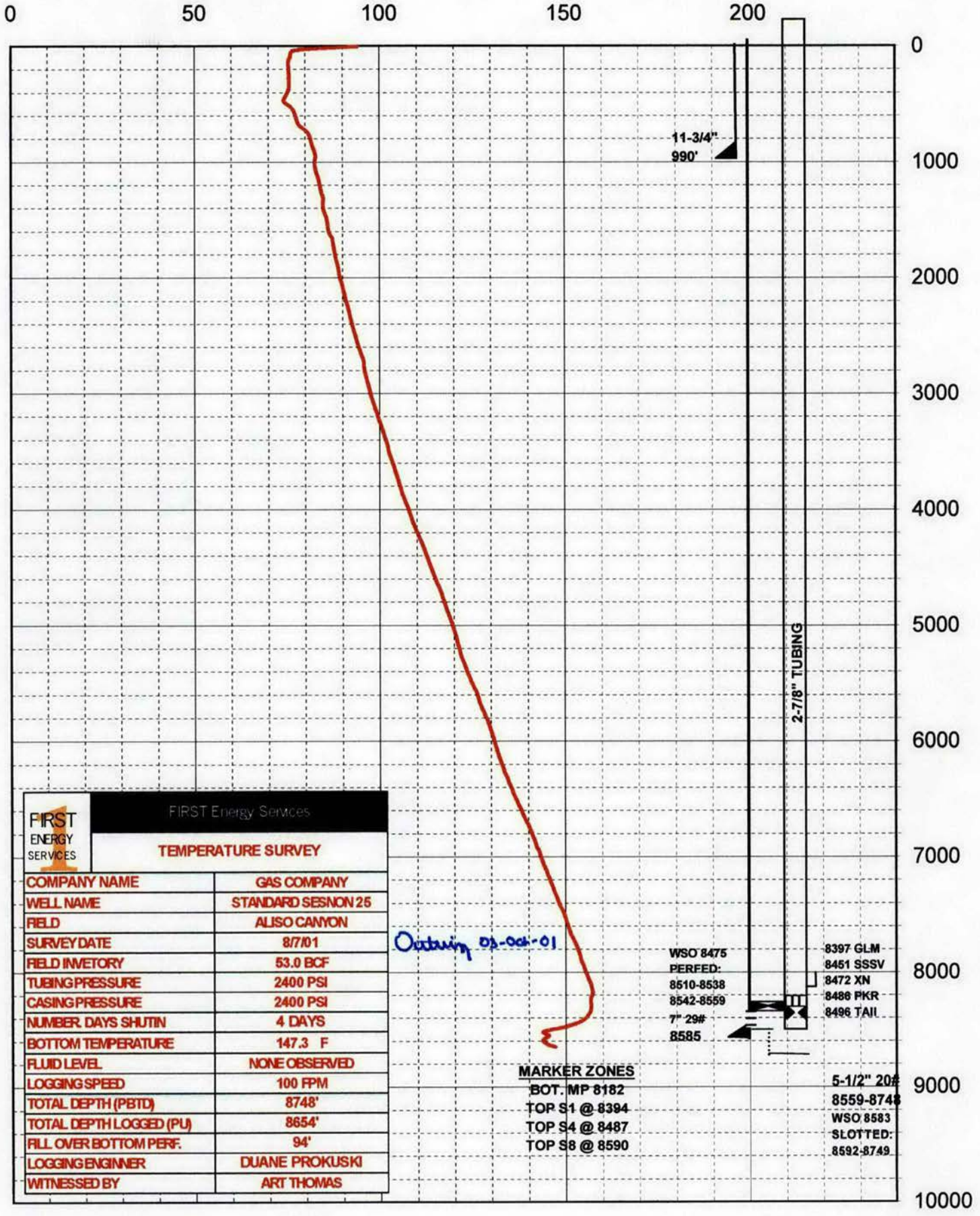
FIRST Energy Services

TEMPERATURE SURVEY

COMPANY NAME	GAS COMPANY
WELL NAME	STANDARD SESNON 25
FIELD	ALISO CANYON
SURVEY DATE	8/27/03
FIELD INVETORY	56.7 BCF
TUBING PRESSURE	2350 PSI
CASING PRESSURE	2340 PSI
NUMBER. DAYS SHUTIN	2 DAYS
BOTTOM TEMPERATURE	144.5 °F
FLUID LEVEL	NONE OBSERVED
LOGGING SPEED	100 FPM
TOTAL DEPTH (PBTD)	8748
TOTAL DEPTH LOGGED (PU)	8435
FILL OVER BOTTOM PERF.	313
LOGGING ENGINEER	MATT HOWARD
WITNESSED BY	ART THOMAS


TEMPERATURE (□F)
0
50
100
150
200
0
1000
2000
3000
4000
5000
6000
7000
8000
9000
10000
11-3/4"
990'
2-7/8" TUBING
WSO 8475
PERFED:
8510-8538
8542-8559
7" 29#
8585
8397 GLM
8451 SSSV
8472 XN
8486 PKR
8496 TAIl
5-1/2" 20#
8559-8748
WSO 8583
SLOTTED:
8592-8749
MARKER ZONES
BOT. MP 8182
TOP S1 @ 8394
TOP S4 @ 8487
TOP S8 @ 8590
Outside 11-Sep-02
FIRST Energy Services
TEMPERATURE SURVEY
COMPANY NAME GAS COMPANY
WELL NAME STANDARD SESNON 25
FIELD ALISO CANYON
SURVEY DATE 8/30/02
FIELD INVETORY 66.7 BCF
TUBING PRESSURE 2570 PSI
CASING PRESSURE 2570 PSI
NUMBER DAYS SHUTIN 2 DAYS
BOTTOM TEMPERATURE 150.8 □F
FLUID LEVEL NONE OBSERVED
LOGGING SPEED 100 FPM
TOTAL DEPTH (PBTD) 8748
TOTAL DEPTH LOGGED (PU) 8694
ALL OVER BOTTOM PERF. 54
LOGGING ENGINEER MATT HOWARD
WITNESSED BY ART THOMAS

TEMPERATURE (F)



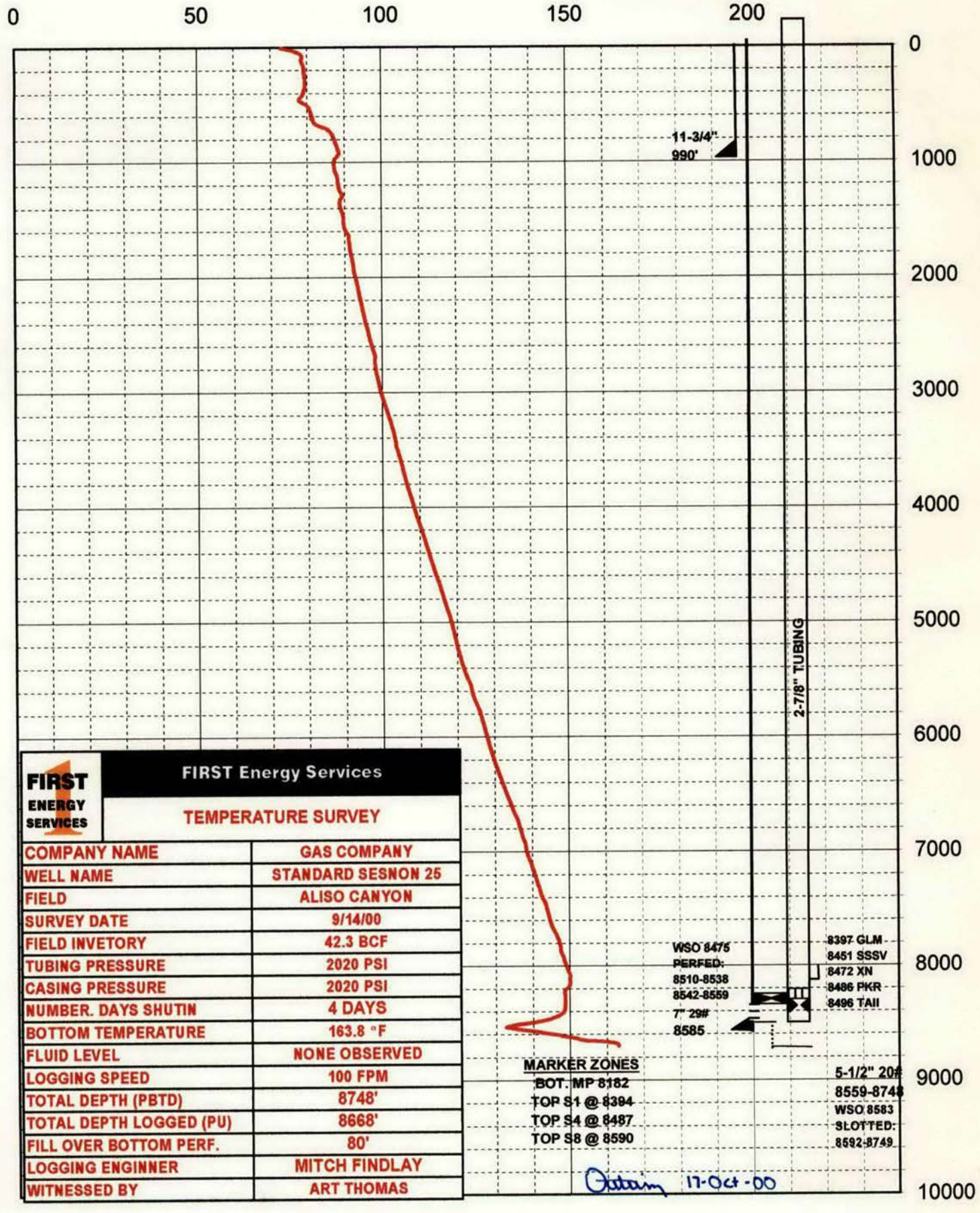
FIRST ENERGY SERVICES

FIRST Energy Services

TEMPERATURE SURVEY

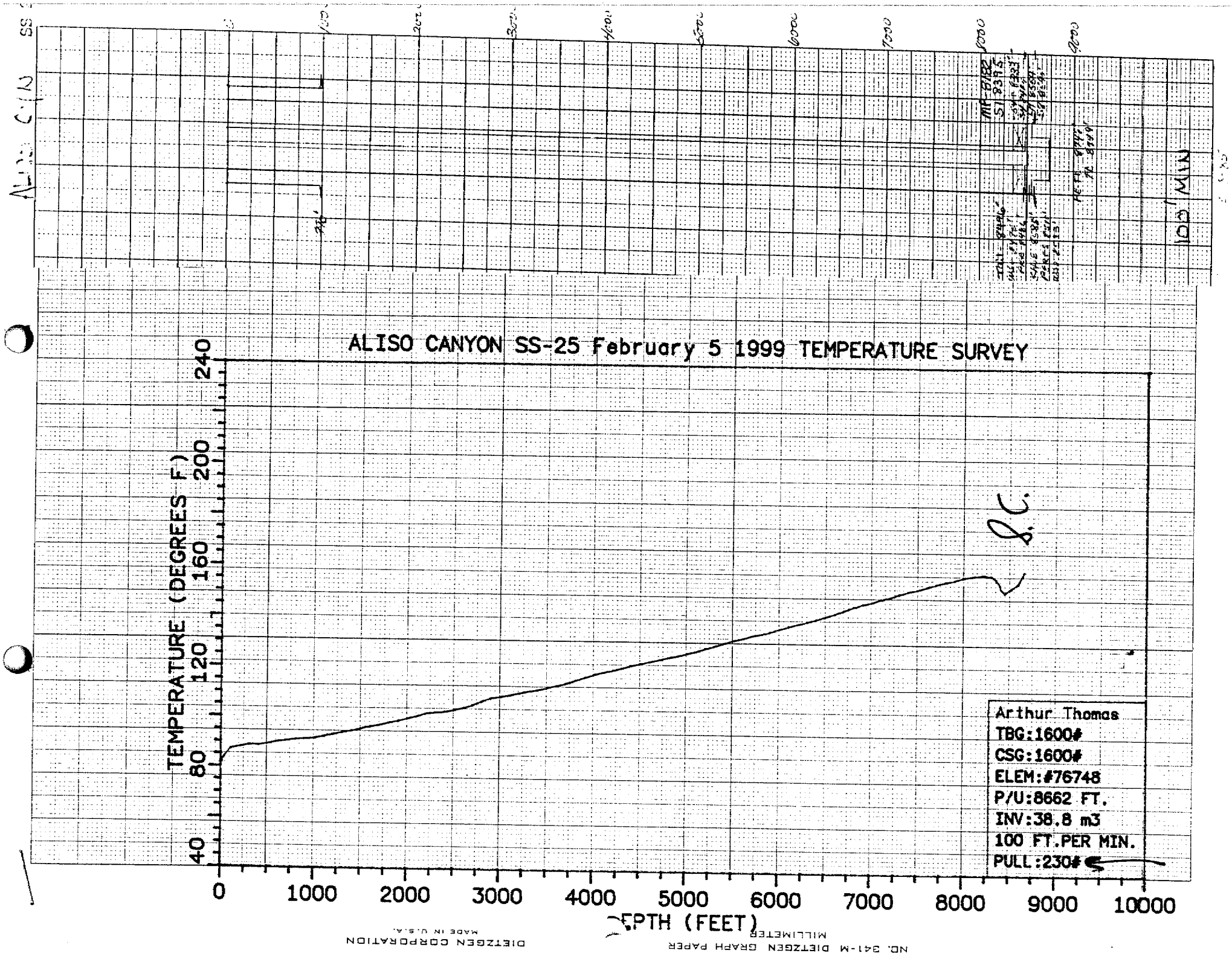
COMPANY NAME	GAS COMPANY
WELL NAME	STANDARD SESNON 25
FIELD	ALISO CANYON
SURVEY DATE	8/7/01
FIELD INVETORY	53.0 BCF
TUBING PRESSURE	2400 PSI
CASING PRESSURE	2400 PSI
NUMBER DAYS SHUTIN	4 DAYS
BOTTOM TEMPERATURE	147.3 F
FLUID LEVEL	NONE OBSERVED
LOGGING SPEED	100 FPM
TOTAL DEPTH (PBTD)	8748'
TOTAL DEPTH LOGGED (PU)	8654'
FILL OVER BOTTOM PERF.	94'
LOGGING ENGINNER	DUANE PROKUSKI
WITNESSED BY	ART THOMAS

TEMPERATURE (°F)

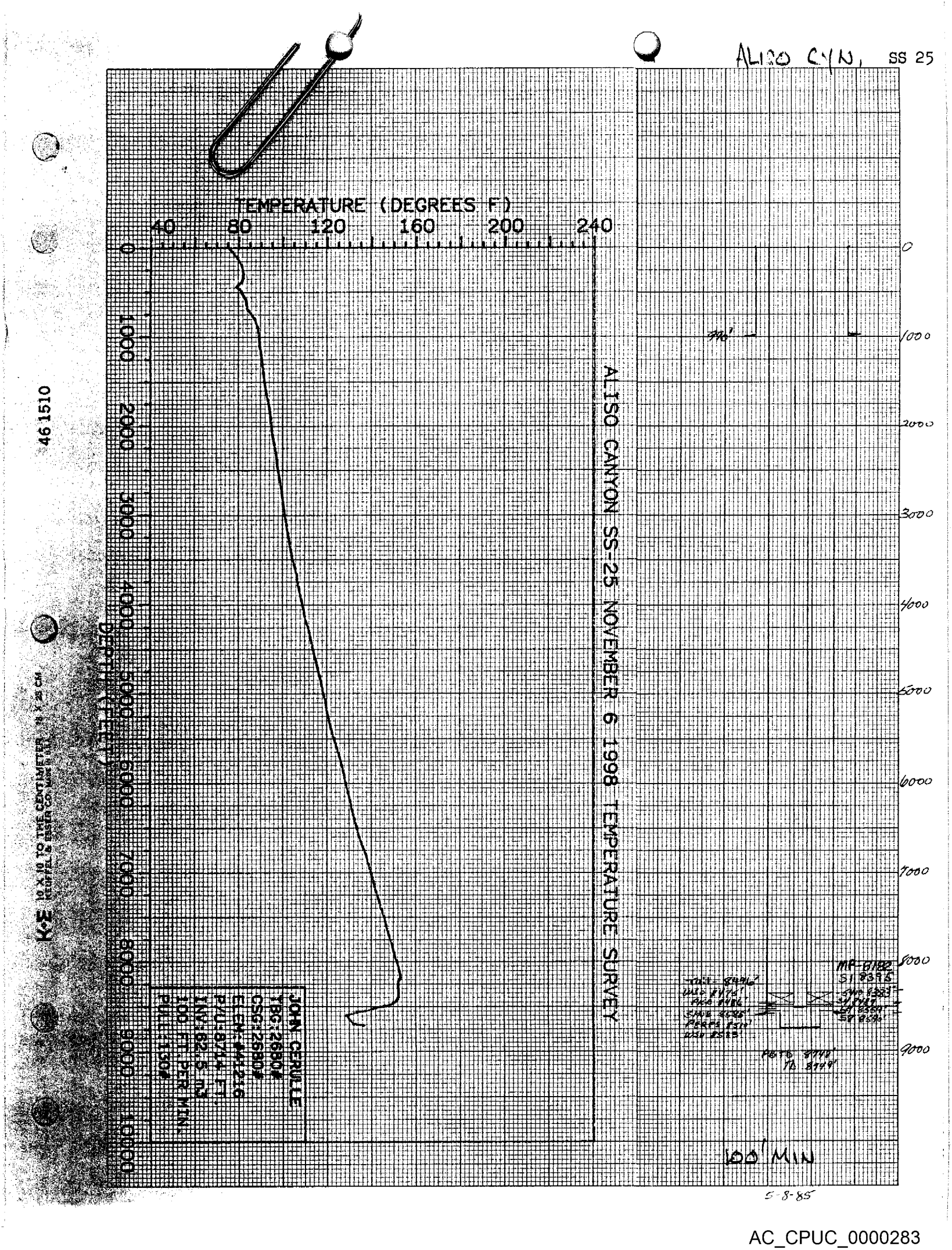


FIRST ENERGY SERVICES	FIRST Energy Services
	TEMPERATURE SURVEY

COMPANY NAME	GAS COMPANY
WELL NAME	STANDARD SESNON 25
FIELD	ALISO CANYON
SURVEY DATE	9/14/00
FIELD INVETORY	42.3 BCF
TUBING PRESSURE	2020 PSI
CASING PRESSURE	2020 PSI
NUMBER. DAYS SHUTIN	4 DAYS
BOTTOM TEMPERATURE	163.8 °F
FLUID LEVEL	NONE OBSERVED
LOGGING SPEED	100 FPM
TOTAL DEPTH (PBTD)	8748'
TOTAL DEPTH LOGGED (PU)	8668'
FILL OVER BOTTOM PERF.	80'
LOGGING ENGINNER	MITCH FINDLAY
WITNESSED BY	ART THOMAS



AC_CPUC_0000282



AC_CPUC_0000283

Maximo 37

ALISO CANYON SS-25 NOVEMBER 5, 1997 TEMPERATURE SURVEY

TEMPERATURE (DEGREES F)

40 80 120 160 200 240

0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000

DEPTH (FEET)

46 1510

K&E 10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

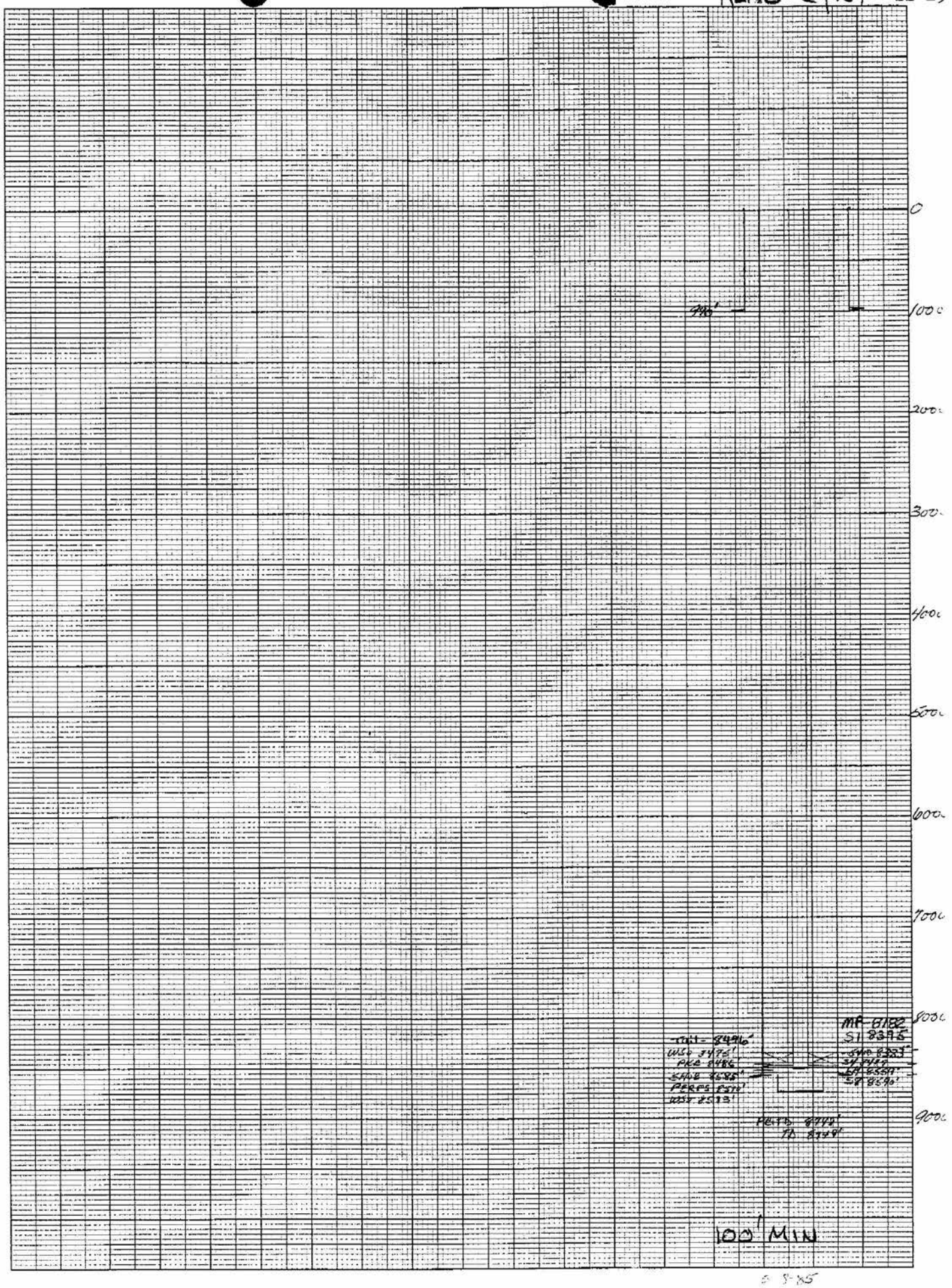
ARTHUR THOMAS
TBG:2520#
CSG:2520#
ELEM:#70770
P/U:8708 FT.
INV:56.5 m3
100 FT.PER MIN.
ASPHALTINES ON BOMB, MAX. P/U WT. 230#

MP

} ASPHALTENES. MAY STIM pending FLOW TEST.

S.C. 11/13/97

AC_CPUC_0000284



461510
10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

****
* The Gas Company *
* Aliso Canyon *
* (805) 253-7086 *
****

COMPANY NAME..: SO. CAL. GAS CO.
DATE .....: 11/06/97
WELL I.D. ....: SS-25
FIELD I.D. ...: ALISO CYN.
RUN # .....: 1
ENGINEER .....: A. THOMAS
ZERO REFERENCE: K.B.
START DATE ...: 11/05/97
START TIME ...: 00:00:00
WELL STATUS...: S.I.(ASPHALTINES ON BOMB)
GAUGE INFO:
I.D. .....: RT-7 H.R.
SERIAL #....: 70770
RANGE.....: 33-246

COMMENTS .....: TBG. 2520
CSG. 2520
FILE # .....: 5

STATISTICS:
DEPTH(min): 0.00
DEPTH(max): 8708.00
TEMPERATURE(min): 90.92
TEMPERATURE(max): 157.94

	DEPTH		TEMPERATURE		
NO.	DEFL(IN)	FEET	DEFL(IN)	DEGF	GRADIENT
1	0.0000	0.000	0.1785	90.92	0.0000
2	0.0274	101.480	0.1895	93.58	0.0263
3	0.0535	198.145	0.1866	92.88	-0.0073
4	0.0805	298.143	0.1903	93.78	0.0090
5	0.1084	401.475	0.1952	94.96	0.0115
6	0.1347	498.880	0.2008	96.32	0.0139
7	0.1612	597.027	0.2094	97.82	0.0153
8	0.1888	699.247	0.2160	98.96	0.0112
9	0.2161	800.357	0.2187	99.43	0.0046
10	0.2428	899.244	0.2203	99.71	0.0028
11	0.2702	1000.724	0.2231	100.19	0.0048
12	0.2980	1103.685	0.2247	100.47	0.0027
13	0.3250	1203.683	0.2261	100.71	0.0024
14	0.3502	1297.015	0.2286	101.14	0.0046
15	0.3784	1401.458	0.2310	101.55	0.0040
16	0.4046	1498.493	0.2354	102.31	0.0078
17	0.4322	1600.714	0.2379	102.75	0.0042
18	0.4586	1698.490	0.2402	103.14	0.0041
19	0.4850	1796.266	0.2423	103.51	0.0037
20	0.5122	1897.005	0.2458	104.11	0.0060
21	0.5395	1998.114	0.2478	104.46	0.0034
22	0.5660	2096.261	0.2501	104.85	0.0040
23	0.5939	2199.592	0.2531	105.37	0.0050
24	0.6209	2299.591	0.2569	106.03	0.0066
25	0.6484	2401.441	0.2608	106.70	0.0066
26	0.6748	2499.217	0.2652	107.46	0.0078

****
* The Gas Company *
****

Company ..: SO. CAL. GAS CO.
Well I.D..: SS-25
Field I.D.: ALISO CYN.

Date: 11/06/97
Run#: 1

NO.	DEPTH DEFL(IN)	DEPTH FEET	TEMPERATURE DEFL(IN)	TEMPERATURE DEGF	GRADIENT
27	0.7015	2598.104	0.2692	108.15	0.0070
28	0.7283	2697.362	0.2720	108.64	0.0049
29	0.7551	2796.619	0.2767	109.45	0.0082
30	0.7824	2897.728	0.2806	110.12	0.0067
31	0.8103	3001.060	0.2852	110.92	0.0077
32	0.8378	3102.910	0.2875	111.32	0.0039
33	0.8645	3201.797	0.2927	112.22	0.0091
34	0.8905	3298.092	0.2970	112.96	0.0077
35	0.9168	3395.498	0.3014	113.71	0.0077
36	0.9450	3499.940	0.3047	114.20	0.0047
37	0.9719	3599.568	0.3093	114.89	0.0069
38	0.9997	3702.530	0.3169	116.02	0.0110
39	1.0259	3799.565	0.3224	116.83	0.0084
40	1.0538	3902.897	0.3283	117.71	0.0085
41	1.0806	4002.154	0.3319	118.25	0.0054
42	1.1059	4095.856	0.3366	118.95	0.0075
43	1.1330	4196.225	0.3421	119.77	0.0082
44	1.1606	4298.445	0.3498	120.91	0.0112
45	1.1890	4403.629	0.3559	121.82	0.0086
46	1.2150	4499.923	0.3619	122.71	0.0093
47	1.2424	4601.403	0.3677	123.57	0.0085
48	1.2688	4699.179	0.3751	124.68	0.0113
49	1.2962	4800.659	0.3813	125.60	0.0091
50	1.3235	4901.768	0.3857	126.25	0.0065
51	1.3503	5001.026	0.3916	127.13	0.0088
52	1.3772	5100.654	0.3968	127.91	0.0078
53	1.4040	5199.912	0.4008	128.50	0.0060
54	1.4301	5296.577	0.4058	129.14	0.0067
55	1.4579	5399.538	0.4122	129.96	0.0079
56	1.4847	5498.795	0.4202	130.98	0.0103
57	1.5132	5604.349	0.4272	131.88	0.0085
58	1.5389	5699.533	0.4340	132.75	0.0091
59	1.5666	5802.124	0.4444	134.08	0.0130
60	1.5940	5903.603	0.4504	134.84	0.0076
61	1.6198	5999.157	0.4562	135.58	0.0078
62	1.6462	6096.933	0.4636	136.53	0.0097
63	1.6742	6200.635	0.4702	137.37	0.0081
64	1.7013	6301.004	0.4796	138.58	0.0120
65	1.7272	6396.928	0.4866	139.47	0.0093
66	1.7546	6498.408	0.4992	141.08	0.0159
67	1.7825	6601.740	0.5080	142.09	0.0097
68	1.8088	6699.145	0.5185	143.25	0.0120
69	1.8357	6798.773	0.5275	144.25	0.0100
70	1.8625	6898.031	0.5372	145.32	0.0108
71	1.8895	6998.029	0.5470	146.41	0.0109
72	1.9178	7102.842	0.5540	147.19	0.0074
73	1.9433	7197.285	0.5636	148.25	0.0113
74	1.9714	7301.357	0.5738	149.38	0.0109
75	1.9982	7400.615	0.5831	150.41	0.0104
76	2.0249	7499.502	0.5935	151.57	0.0117

****
* The Gas Company *
****

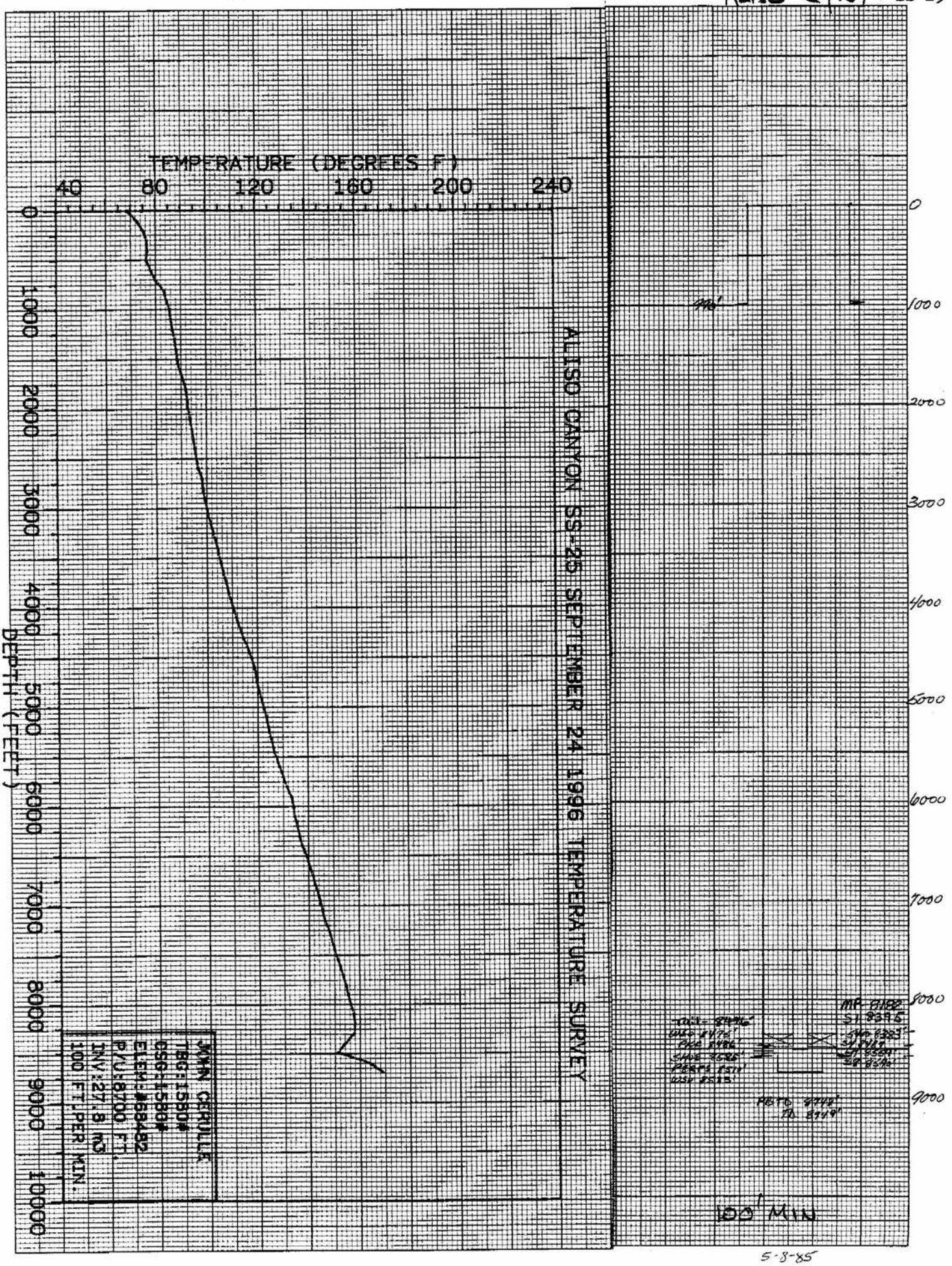
Company ..: SO. CAL. GAS CO. Date: 11/06/97
Well I.D..: SS-25 Run#: 1
Field I.D.: ALISO CYN. Page: 3

NO.	DEPTH DEFL(IN)	DEPTH FEET	TEMPERATURE DEFL(IN)	TEMPERATURE DEGF	GRADIENT
77	2.0516	7598.389	0.6007	152.37	0.0081
78	2.0786	7698.388	0.6153	153.84	0.0148
79	2.1065	7801.719	0.6239	154.71	0.0084
80	2.1333	7900.977	0.6319	155.52	0.0081
81	2.1595	7998.012	0.6441	156.75	0.0127
82	2.1868	8099.121	0.6520	157.55	0.0079
83	2.2005	8149.861	0.6559	157.94	0.0078
84	2.2089	8180.972	0.6477	157.12	-0.0266
85	2.2142	8200.602	0.6489	157.24	0.0062
86	2.2196	8220.601	0.6467	157.02	-0.0111
87	2.2292	8256.156	0.6482	157.17	0.0043
88	2.2400	8296.155	0.6493	157.28	0.0028
89	2.2406	8298.377	0.6500	157.35	0.0318
90	2.2569	8358.747	0.6482	157.17	-0.0030
91	2.2684	8401.339	0.6324	155.57	-0.0375
92	2.2706	8409.487	0.6369	156.03	0.0558
93	2.2882	8474.671	0.5620	148.07	-0.1220
94	2.2956	8502.077	0.5036	141.60	-0.2363
95	2.3084	8549.484	0.4784	138.42	-0.0670
96	2.3220	8599.854	0.5175	143.14	0.0937
97	2.3486	8698.370	0.6385	156.19	0.1324
98	2.3512	8708.000	0.6426	156.60	0.0430

***** end data *****

ALISO CANYON SS-25 SEPTEMBER 24 1996 TEMPERATURE SURVEY
TEMPERATURE (DEGREES F)
40
80
120
160
200
240
DEPTH (FEET)
0
1000
2000
3000
4000
5000
6000
7000
8000
9000
10000
JOHN CERULLE
TBG:1580#
CSG:1580#
ELEM:#68482
P/U:8700 FT.
INV:27.8 m3
100 FT.PER MIN.
9/25/96
46 1510
K+E 10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

ALISO CYN, SS 25



46 1510

K&E 10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

****
* The Gas Company *
* Aliso Canyon *
* (805) 253-7086 *
****

COMPANY NAME..: GAS CO.
DATE .....: 9/24/96
WELL I.D. ....: SS-25
FIELD I.D. ...: ALISO
RUN # .....: 1
ENGINEER .....: JOHN CERULLE
ZERO REFERENCE: KB
START DATE ...: 09/24/96
START TIME ...: 09:30:00
WELL STATUS...: S/I
GAUGE INFO:
I.D. .....: RT-7
SERIAL #....: 68482
RANGE.....: 51-286

COMMENTS .....: T-1580#
C-1580#
FILE # .....: 4

STATISTICS:
DEPTH(min): 0.00
DEPTH(max): 8700.00
TEMPERATURE(min): 68.52
TEMPERATURE(max): 169.37

NO.	DEPTH DEFL(IN)	DEPTH FEET	TEMPERATURE DEFL(IN)	TEMPERATURE F	GRADIENT
1	0.0000	0.000	0.0435	68.52	0.0000
2	0.0293	103.584	0.0531	72.47	0.0382
3	0.0572	202.219	0.0593	75.03	0.0259
4	0.0844	298.379	0.0629	76.51	0.0154
5	0.1143	404.084	0.0636	76.80	0.0027
6	0.1419	501.658	0.0623	76.26	-0.0055
7	0.1695	599.232	0.0666	78.04	0.0182
8	0.1989	703.170	0.0712	79.93	0.0182
9	0.2276	804.632	0.0793	83.27	0.0329
10	0.2559	904.681	0.0818	84.30	0.0103
11	0.2831	1000.841	0.0850	85.62	0.0137
12	0.3109	1099.122	0.0862	86.11	0.0050
13	0.3394	1199.878	0.0878	86.77	0.0065
14	0.3667	1296.392	0.0894	87.43	0.0068
15	0.3958	1399.269	0.0910	88.09	0.0064
16	0.4235	1497.196	0.0925	88.71	0.0063
17	0.4521	1598.305	0.0941	89.37	0.0065
18	0.4798	1696.233	0.0977	90.85	0.0152
19	0.5093	1800.524	0.1003	91.88	0.0099
20	0.5385	1903.755	0.1025	92.48	0.0058
21	0.5659	2000.622	0.1041	92.92	0.0045
22	0.5934	2097.842	0.1066	93.60	0.0070
23	0.6233	2203.547	0.1094	94.37	0.0072
24	0.6506	2300.061	0.1117	94.99	0.0065
25	0.6783	2397.989	0.1134	95.46	0.0047
26	0.7066	2498.037	0.1157	96.09	0.0063

****
* The Gas Company *
****

Company ..: GAS CO.
Well I.D..: SS-25
Field I.D.: ALISO

Date: 9/24/96
Run#: 1
Page: 2

NO.	DEPTH DEFL(IN)	DEPTH FEET	TEMPERATURE DEFL(IN)	TEMPERATURE F	GRADIENT
27	0.7344	2596.318	0.1182	96.77	0.0069
28	0.7639	2700.610	0.1237	98.27	0.0144
29	0.7913	2797.477	0.1258	98.84	0.0059
30	0.8205	2900.707	0.1273	99.25	0.0040
31	0.8485	2999.695	0.1305	100.13	0.0088
32	0.8769	3100.098	0.1342	101.14	0.0101
33	0.9050	3199.439	0.1379	102.15	0.0102
34	0.9335	3300.195	0.1419	103.24	0.0108
35	0.9607	3396.355	0.1461	104.39	0.0119
36	0.9908	3502.767	0.1493	105.26	0.0082
37	1.0179	3598.574	0.1528	106.21	0.0100
38	1.0468	3700.744	0.1565	107.22	0.0099
39	1.0743	3797.964	0.1601	108.21	0.0101
40	1.1030	3899.427	0.1642	109.33	0.0110
41	1.1319	4001.597	0.1687	110.56	0.0120
42	1.1595	4099.171	0.1729	111.70	0.0118
43	1.1874	4197.806	0.1784	113.20	0.0152
44	1.2160	4298.915	0.1829	114.43	0.0122
45	1.2437	4396.843	0.1892	116.15	0.0176
46	1.2735	4502.194	0.1949	117.71	0.0148
47	1.3013	4600.475	0.1996	118.99	0.0131
48	1.3295	4700.171	0.2030	119.70	0.0071
49	1.3574	4798.805	0.2064	120.39	0.0069
50	1.3855	4898.147	0.2117	121.45	0.0107
51	1.4141	4999.256	0.2180	122.72	0.0125
52	1.4418	5097.184	0.2226	123.64	0.0094
53	1.4698	5196.172	0.2270	124.53	0.0089
54	1.4980	5295.867	0.2306	125.25	0.0073
55	1.5264	5396.270	0.2359	126.32	0.0106
56	1.5550	5497.379	0.2407	127.28	0.0095
57	1.5839	5599.549	0.2488	128.91	0.0159
58	1.6120	5698.891	0.2549	130.13	0.0123
59	1.6414	5802.828	0.2627	131.70	0.0151
60	1.6689	5900.049	0.2708	133.33	0.0167
61	1.6969	5999.037	0.2759	134.36	0.0104
62	1.7257	6100.853	0.2788	134.94	0.0057
63	1.7535	6199.134	0.2835	135.88	0.0096
64	1.7819	6299.537	0.2883	136.85	0.0096
65	1.8104	6400.293	0.2929	137.77	0.0092
66	1.8384	6499.281	0.3017	139.47	0.0171
67	1.8663	6597.915	0.3085	140.54	0.0109
68	1.8950	6699.378	0.3174	141.95	0.0139
69	1.9234	6799.781	0.3237	142.94	0.0099
70	1.9517	6899.829	0.3313	144.15	0.0120
71	1.9796	6998.464	0.3377	145.16	0.0103
72	2.0079	7098.513	0.3430	145.99	0.0084
73	2.0359	7197.501	0.3508	147.23	0.0124
74	2.0650	7300.378	0.3604	148.74	0.0147
75	2.0932	7400.073	0.3676	149.88	0.0114
76	2.1228	7504.718	0.3751	151.07	0.0113

****
* The Gas Company *
****

Company ..: GAS CO.
Well I.D..: SS-25
Field I.D.: ALISO

Date: 9/24/96
Run#: 1
Page: 3

NO.	DEPTH DEFL(IN)	FEET	TEMPERATURE DEFL(IN)	F	GRADIENT
77	2.1501	7601.231	0.3835	152.39	0.0138
78	2.1786	7701.987	0.3915	153.66	0.0125
79	2.2073	7803.450	0.3990	154.84	0.0117
80	2.2356	7903.499	0.4044	155.63	0.0079
81	2.2631	8000.719	0.4116	156.66	0.0106
82	2.2908	8098.647	0.4204	157.92	0.0129
83	2.3191	8198.696	0.4226	158.23	0.0031
84	2.3478	8300.158	0.4209	157.99	-0.0024
85	2.3766	8401.975	0.3964	154.43	-0.0349
86	2.4044	8500.256	0.3761	151.22	-0.0326
87	2.4329	8601.012	0.4601	163.59	0.1228
88	2.4609	8700.000	0.5006	169.37	0.0584

***** end data *****

ALISO CANYON SS-25. OCTOBER 12 1995 TEMPERATURE SURVEY
TEMPERATURE (DEGREES F)
40
80
120
160
200
240
DEPTH (FEET)
0
1000
2000
3000
4000
5000
6000
7000
8000
9000
10000
ARTHUR THOMAS
TBG:2560#
CSG:2560#
ELEM:#88482
P/U:8675 FT.
INV:61.5 m3
100 FT.PER MIN.
10/30/95
46 1510
K&E 10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

ALISO CYN, SS 2

461510

K+E 10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

0
100
200
300
400
500
600
700
800
900

100' MIN

5-5-85

AC_CPUC_0000295

****
* The Gas Company *
* Aliso Canyon *
* (805) 253-7086 *
****

COMPANY NAME..: SO. CAL. GAS
DATE .....: 10/19/95
WELL I.D. ....: SS-25
FIELD I.D. ...: ALISO CYN.
RUN # .....: 1
ENGINEER .....: A. THOMAS
ZERO REFERENCE: K.B.
START DATE ...: 10/12/95
START TIME ...: 00:00:00
WELL STATUS...: S.I.
GAUGE INFO:
I.D. .....: RT-7
SERIAL #....: 68482
RANGE.....: 51-286

COMMENTS .....: TBG. 2560
CSG. 2560
FILE # .....: 3

STATISTICS:
DEPTH(min): 0.00
DEPTH(max): 8675.00
TEMPERATURE(min): 69.79
TEMPERATURE(max): 167.16

NO.	DEPTH DEFL(IN)	DEPTH FEET	TEMPERATURE DEFL(IN)	TEMPERATURE F	GRADIENT
1	0.0000	0.000	0.0453	69.79	0.0000
2	0.0282	100.338	0.0518	72.55	0.0275
3	0.0563	200.321	0.0567	74.63	0.0208
4	0.0844	300.304	0.0587	75.48	0.0085
5	0.1125	400.286	0.0533	73.19	-0.0229
6	0.1406	500.269	0.0601	76.07	0.0289
7	0.1688	600.607	0.0644	77.90	0.0182
8	0.1968	700.234	0.0696	80.10	0.0221
9	0.2249	800.216	0.0731	81.59	0.0149
10	0.2530	900.199	0.0753	82.52	0.0093
11	0.2812	1000.537	0.0767	83.12	0.0059
12	0.3092	1100.164	0.0794	84.26	0.0115
13	0.3373	1200.147	0.0816	85.19	0.0093
14	0.3654	1300.129	0.0830	85.79	0.0059
15	0.3937	1400.823	0.0851	86.68	0.0088
16	0.4217	1500.450	0.0874	87.65	0.0098
17	0.4497	1600.077	0.0897	88.63	0.0098
18	0.4779	1700.415	0.0919	89.56	0.0093
19	0.5060	1800.398	0.0945	90.67	0.0110
20	0.5341	1900.380	0.0965	91.52	0.0085
21	0.5621	2000.007	0.0985	92.36	0.0085
22	0.5904	2100.701	0.1008	93.22	0.0085
23	0.6184	2200.328	0.1031	93.84	0.0062
24	0.6466	2300.667	0.1054	94.46	0.0062
25	0.6746	2400.293	0.1078	95.11	0.0065
26	0.7028	2500.632	0.1103	95.78	0.0067

****
* The Gas Company *
****

Company ..: SO. CAL. GAS
Well I.D..: SS-25
Field I.D.: ALISO CYN.

Date: 10/19/95
Run#: 1

NO.	DEPTH DEFL(IN)	DEPTH FEET	TEMPERATURE DEFL(IN)	TEMPERATURE F	GRADIENT
27	0.7309	2600.614	0.1131	96.54	0.0076
28	0.7589	2700.241	0.1159	97.29	0.0076
29	0.7870	2800.224	0.1193	98.21	0.0092
30	0.8151	2900.206	0.1218	98.89	0.0068
31	0.8432	3000.189	0.1236	99.37	0.0049
32	0.8714	3100.527	0.1274	100.40	0.0102
33	0.8995	3200.510	0.1312	101.42	0.0103
34	0.9277	3300.848	0.1350	102.45	0.0102
35	0.9556	3400.119	0.1385	103.40	0.0095
36	0.9837	3500.102	0.1419	104.31	0.0092
37	1.0119	3600.440	0.1463	105.50	0.0118
38	1.0400	3700.422	0.1505	106.64	0.0113
39	1.0680	3800.049	0.1547	107.77	0.0114
40	1.0961	3900.032	0.1587	108.85	0.0108
41	1.1244	4000.726	0.1626	109.90	0.0105
42	1.1525	4100.709	0.1678	111.31	0.0140
43	1.1806	4200.691	0.1744	113.09	0.0178
44	1.2086	4300.318	0.1810	114.87	0.0179
45	1.2368	4400.656	0.1858	116.17	0.0129
46	1.2649	4500.639	0.1914	117.68	0.0151
47	1.2930	4600.621	0.1970	119.19	0.0151
48	1.3211	4700.604	0.1997	119.92	0.0073
49	1.3492	4800.587	0.2053	121.06	0.0114
50	1.3772	4900.213	0.2101	122.02	0.0096
51	1.4053	5000.196	0.2139	122.78	0.0076
52	1.4335	5100.534	0.2191	123.82	0.0104
53	1.4617	5200.873	0.2228	124.56	0.0074
54	1.4897	5300.499	0.2286	125.72	0.0116
55	1.5177	5400.126	0.2327	126.54	0.0082
56	1.5458	5500.109	0.2415	128.30	0.0176
57	1.5741	5600.803	0.2473	129.46	0.0115
58	1.6021	5700.430	0.2528	130.56	0.0110
59	1.6301	5800.056	0.2604	132.08	0.0153
60	1.6582	5900.039	0.2666	133.32	0.0124
61	1.6865	6000.733	0.2717	134.34	0.0101
62	1.7146	6100.716	0.2788	135.76	0.0142
63	1.7426	6200.342	0.2848	136.96	0.0120
64	1.7707	6300.325	0.2920	138.40	0.0144
65	1.7989	6400.663	0.2990	139.80	0.0140
66	1.8270	6500.646	0.3080	141.30	0.0150
67	1.8551	6600.629	0.3171	142.79	0.0148
68	1.8831	6700.255	0.3250	144.08	0.0129
69	1.9113	6800.594	0.3325	145.30	0.0122
70	1.9395	6900.932	0.3408	146.65	0.0135
71	1.9674	7000.203	0.3484	147.89	0.0125
72	1.9955	7100.186	0.3557	149.08	0.0119
73	2.0236	7200.168	0.3626	150.20	0.0112
74	2.0518	7300.507	0.3715	151.65	0.0145
75	2.0800	7400.845	0.3791	152.89	0.0123
76	2.1080	7500.472	0.3858	153.99	0.0110

****
* The Gas Company *
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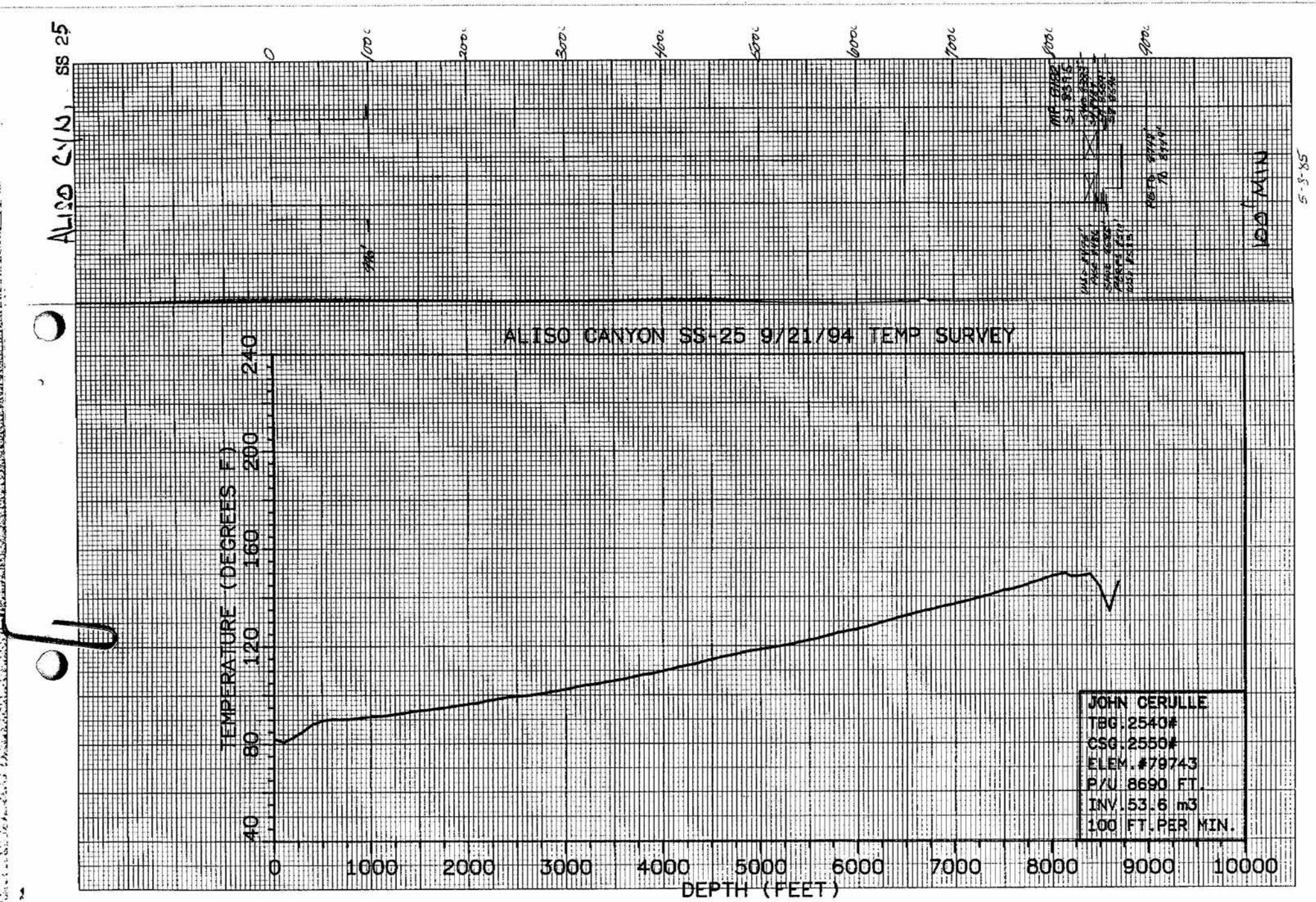
Company ..: SO. CAL. GAS
Well I.D..: SS-25
Field I.D.: ALISO CYN.

Date: 10/19/95
Run#: 1

NO.	DEPTH DEFL(IN)	DEPTH FEET	TEMPERATURE DEFL(IN)	TEMPERATURE F	GRADIENT
77	2.1361	7600.454	0.3934	155.22	0.0124
78	2.1643	7700.793	0.4013	156.48	0.0125
79	2.1923	7800.419	0.4111	157.84	0.0137
80	2.2205	7900.758	0.4190	158.94	0.0109
81	2.2484	8000.029	0.4285	160.26	0.0133
82	2.2765	8100.011	0.4366	161.39	0.0113
83	2.3048	8200.705	0.4409	161.99	0.0059
84	2.3328	8300.332	0.4396	161.80	-0.0018
85	2.3373	8316.344	0.4380	161.58	-0.0139
86	2.3510	8365.090	0.4257	159.87	-0.0351
87	2.3609	8400.314	0.3996	156.23	-0.1033
88	2.3692	8429.847	0.3874	154.25	-0.0673
89	2.3891	8500.653	0.4044	156.91	0.0376
90	2.4172	8600.636	0.4506	163.33	0.0642
91	2.4381	8675.000	0.4781	167.16	0.0514

***** end data *****

AC_CPUC_0000299



KE 10 X 10 TO THE CENTIMETER 18 X 25 CM
KEUFFEL & ESSER CO. MADE IN U.S.A.
46 1510

AC_CPUC_0000300

Southern California Gas Company
Aliso Canyon

Well 55-25 Date 9/21/94 Element No. 79743 Clock Hours 3

Tubing Press. 2540 Status S/I Time Clock Started 9:30 A Time Clock Off 12:00p

Casing Press. 2550 Pick-Up 8690- Operator JC 100 ' per Minute

Time Press. on 9:40 A Time Start Down 9:45 A Zero Point 6'

Depth	Elapse Time	Deflection	Temp.	Depth	Elapse Time	Deflection	Temp.
0	5			5000	55		
250	7.5			5250	57.5		
500	10			5500	60.		
750	12.5			5750	62.5		
1000	15			6000	65		
1250	17.5			6250	67.5		
1500	20			6500	70		
1750	22.5			6750	72.5		
2000	25			7000 ft	75		
2250	27.5			7250	77.5		
2500	30			7500	80		
2750	32.5			7750	82.5		
3000	35			8000	85		
3250	37.5			8250	87.5		
3500	40			8500	90.		
3750	42.5		plug	8690	86.90		
4000	45			8750	92.5		
4250	47.5			9000	95.		
4500	50						
4750	52.5						

****
* SO CALIFORNIA GAS COMPANY *
* ALISO CANYON *
* (805)253-7077 *
****

COMPANY NAME..: THE GAS COMPANY
DATE .....: 09/22/94
WELL I.D. ....: SS-25
FIELD I.D. ...: ALISO CANYON
RUN # .....: 1
ENGINEER .....: JOHN CERULLE
ZERO REFERENCE: KB
START DATE ...: 09/21/94
START TIME ...: 09:45:00
WELL STATUS...: S/I
GAUGE INFO:
I.D. .....: rt-7 temperature
SERIAL #....: 79743
RANGE.....: 50-250f

COMMENTS .....: TBG.PRESS.2540#
CSG.PRESS.2550#
FILE # .....: 1

STATISTICS:
DEPTH(min): 0.00
DEPTH(max): 8690.00
TEMPERATURE(min): 80.74
TEMPERATURE(max): 149.96

	DEPTH		TEMPERATURE		
NO.	DEFL(IN)	FEET	DEFL(IN)	F	GRADIENT
1	0.0000	0.000	0.1254	82.21	0.0000
2	0.0266	100.314	0.1185	80.74	-0.0147
3	0.0531	200.251	0.1288	82.93	0.0220
4	0.0796	300.188	0.1401	85.34	0.0241
5	0.1061	400.125	0.1543	88.37	0.0303
6	0.1328	500.817	0.1608	89.75	0.0137
7	0.1591	600.000	0.1634	90.30	0.0056
8	0.1858	700.691	0.1629	90.20	-0.0011
9	0.2123	800.628	0.1644	90.52	0.0032
10	0.2388	900.565	0.1662	90.90	0.0038
11	0.2654	1000.879	0.1685	91.39	0.0049
12	0.2919	1100.816	0.1694	91.58	0.0019
13	0.3183	1200.376	0.1717	92.07	0.0049
14	0.3448	1300.313	0.1747	92.71	0.0064
15	0.3714	1400.628	0.1778	93.37	0.0066
16	0.3978	1500.187	0.1802	93.88	0.0051
17	0.4244	1600.502	0.1820	94.27	0.0038
18	0.4508	1700.062	0.1847	94.84	0.0058
19	0.4775	1800.753	0.1872	95.37	0.0053
20	0.5039	1900.313	0.1902	96.01	0.0064
21	0.5305	2000.627	0.1933	96.67	0.0066
22	0.5571	2100.941	0.1953	97.10	0.0042
23	0.5834	2200.124	0.1992	97.93	0.0084
24	0.6100	2300.438	0.2035	98.70	0.0077
25	0.6365	2400.375	0.2077	99.42	0.0072
26	0.6631	2500.690	0.2096	99.75	0.0033

****
* SO CALIFORNIA GAS COMPANY *
****

Company ..: THE GAS COMPANY
Well I.D..: SS-25
Field I.D.: ALISO CANYON

Date: 09/22/94
Run#: 1

NO.	DEPTH DEFL(IN)	DEPTH FEET	TEMPERATURE DEFL(IN)	TEMPERATURE F	GRADIENT
27	0.6895	2600.250	0.2113	100.04	0.0029
28	0.7162	2700.941	0.2144	100.58	0.0053
29	0.7427	2800.878	0.2183	101.25	0.0067
30	0.7691	2900.438	0.2220	101.88	0.0064
31	0.7956	3000.375	0.2265	102.66	0.0077
32	0.8221	3100.312	0.2317	103.55	0.0089
33	0.8487	3200.626	0.2367	104.41	0.0086
34	0.8752	3300.563	0.2392	104.84	0.0043
35	0.9017	3400.500	0.2433	105.55	0.0071
36	0.9281	3500.060	0.2475	106.27	0.0073
37	0.9547	3600.375	0.2511	106.89	0.0062
38	0.9812	3700.312	0.2560	107.73	0.0084
39	1.0077	3800.249	0.2617	108.71	0.0098
40	1.0343	3900.563	0.2651	109.30	0.0058
41	1.0609	4000.877	0.2704	110.21	0.0091
42	1.0873	4100.437	0.2760	111.17	0.0097
43	1.1138	4200.374	0.2813	112.08	0.0091
44	1.1404	4300.688	0.2861	112.91	0.0082
45	1.1668	4400.248	0.2917	113.87	0.0097
46	1.1933	4500.185	0.2983	115.01	0.0114
47	1.2199	4600.500	0.3042	115.92	0.0091
48	1.2465	4700.814	0.3096	116.72	0.0080
49	1.2729	4800.374	0.3157	117.62	0.0091
50	1.2994	4900.311	0.3215	118.48	0.0086
51	1.3260	5000.625	0.3261	119.16	0.0068
52	1.3526	5100.939	0.3300	119.74	0.0058
53	1.3789	5200.122	0.3348	120.45	0.0072
54	1.4054	5300.059	0.3393	121.12	0.0067
55	1.4321	5400.750	0.3452	121.99	0.0087
56	1.4585	5500.310	0.3515	122.92	0.0094
57	1.4851	5600.624	0.3561	123.60	0.0068
58	1.5116	5700.562	0.3639	124.76	0.0116
59	1.5382	5800.876	0.3714	125.87	0.0111
60	1.5647	5900.813	0.3765	126.62	0.0076
61	1.5911	6000.373	0.3817	127.39	0.0077
62	1.6177	6100.687	0.3881	128.34	0.0094
63	1.6442	6200.624	0.3958	129.48	0.0114
64	1.6707	6300.561	0.4040	130.62	0.0114
65	1.6971	6400.121	0.4130	131.79	0.0118
66	1.7237	6500.435	0.4212	132.86	0.0106
67	1.7503	6600.749	0.4291	133.88	0.0102
68	1.7767	6700.309	0.4373	134.95	0.0107
69	1.8033	6800.624	0.4430	135.69	0.0074
70	1.8297	6900.184	0.4517	136.82	0.0114
71	1.8563	7000.498	0.4572	137.54	0.0071
72	1.8828	7100.435	0.4646	138.50	0.0096
73	1.9093	7200.372	0.4732	139.62	0.0112
74	1.9359	7300.686	0.4812	140.66	0.0104
75	1.9624	7400.623	0.4896	141.75	0.0109
76	1.9889	7500.560	0.5001	143.11	0.0136

****
* SO CALIFORNIA GAS COMPANY *
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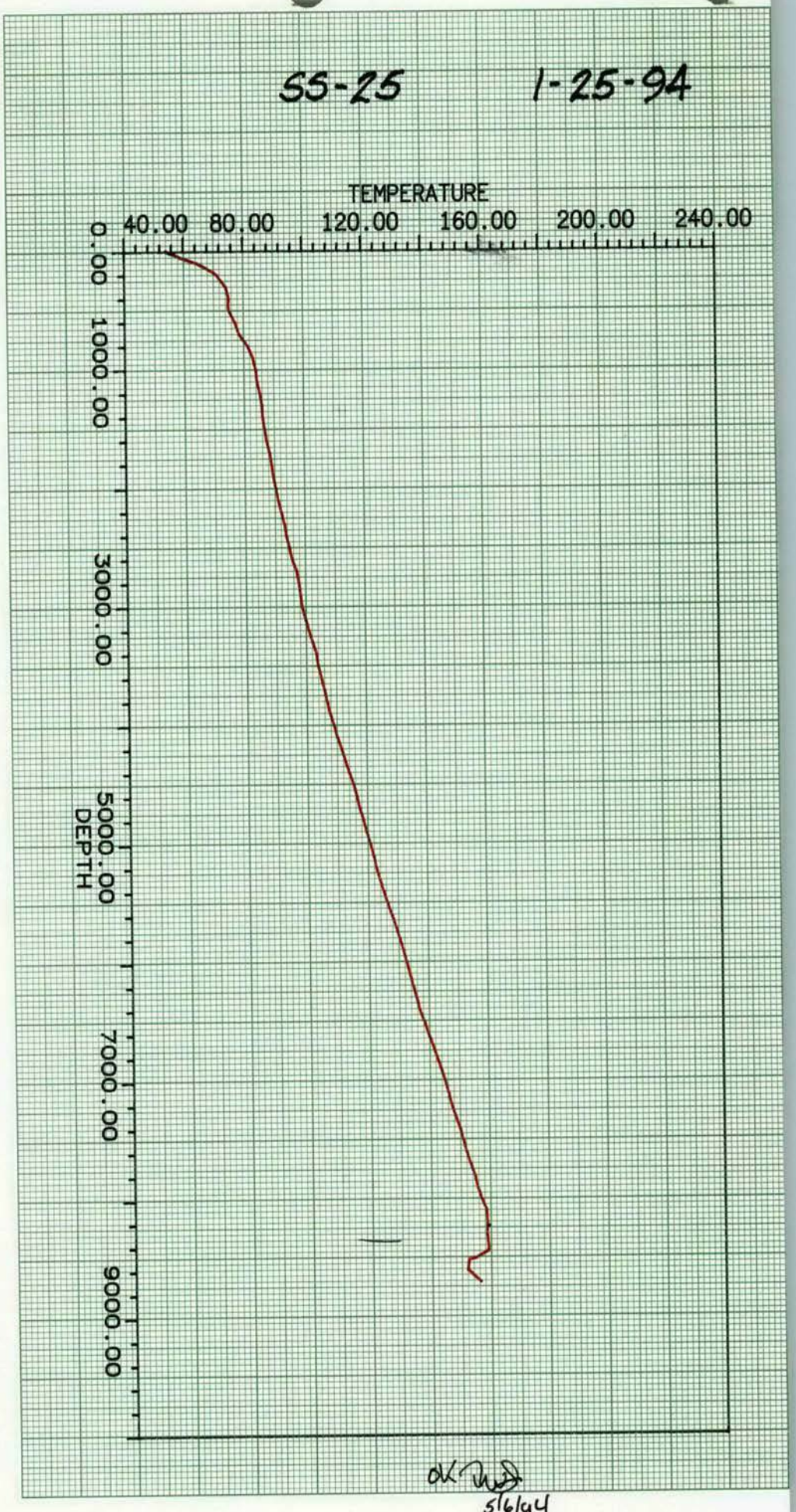
Company ..: THE GAS COMPANY
Well I.D..: SS-25
Field I.D.: ALISO CANYON

Date: 09/22/94
Run#: 1
Page: 3

NO.	DEPTH DEFL(IN)	DEPTH FEET	TEMPERATURE DEFL(IN)	TEMPERATURE F	GRADIENT
77	2.0155	7600.874	0.5057	143.77	0.0065
78	2.0418	7700.057	0.5151	144.87	0.0111
79	2.0684	7800.371	0.5274	146.31	0.0143
80	2.0950	7900.686	0.5385	147.60	0.0129
81	2.1215	8000.623	0.5495	148.89	0.0129
82	2.1481	8100.937	0.5575	149.83	0.0093
83	2.1607	8148.454	0.5586	149.96	0.0027
84	2.1744	8200.120	0.5488	148.81	-0.0222
85	2.2009	8300.057	0.5506	149.02	0.0021
86	2.2275	8400.371	0.5568	149.75	0.0072
87	2.2540	8500.308	0.5113	144.42	-0.0533
88	2.2805	8600.245	0.4338	134.49	-0.0993
89	2.3043	8690.000	0.5270	146.26	0.1311

***** end data *****

SS-25 1-25-94



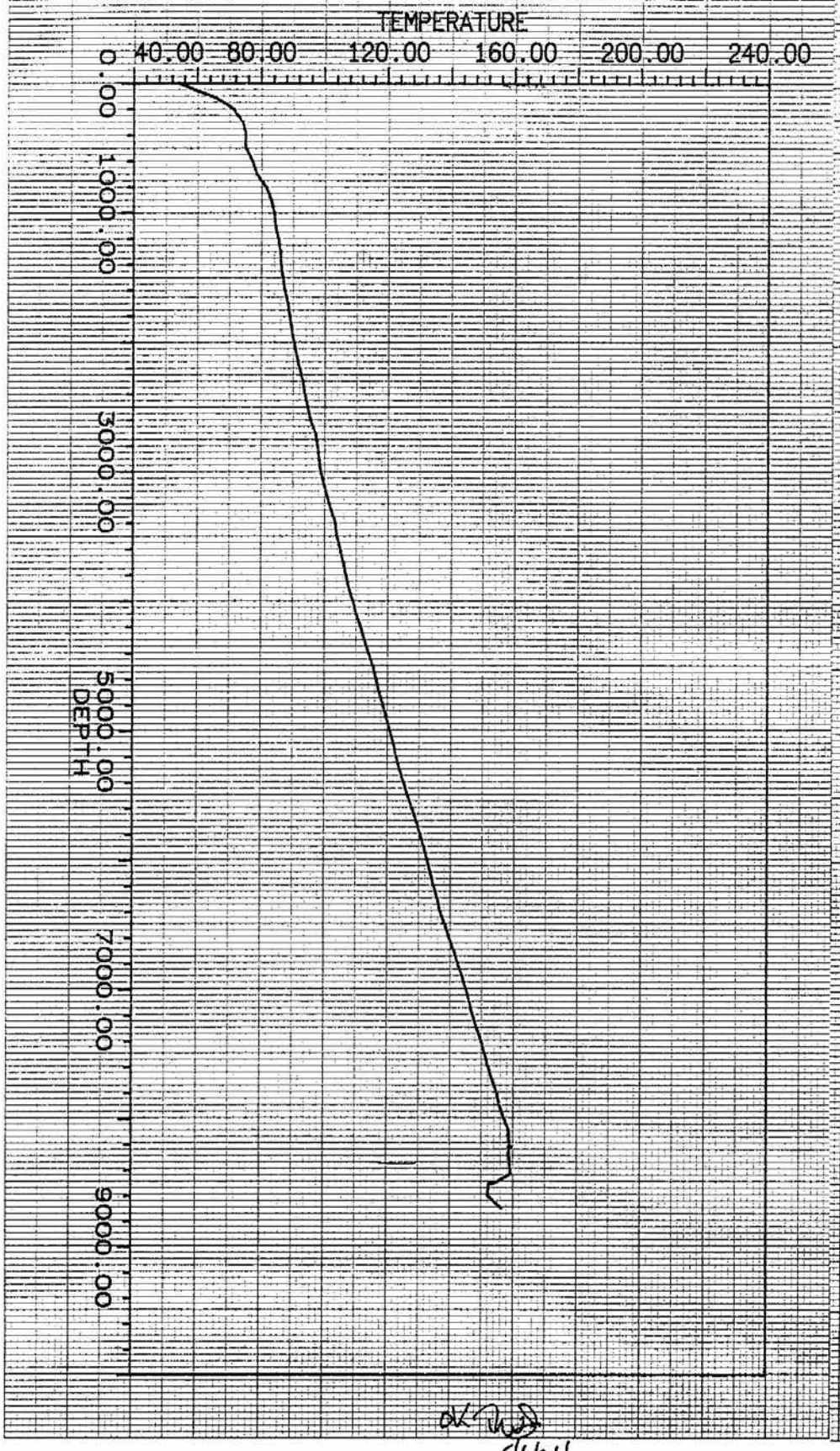
5/6/94

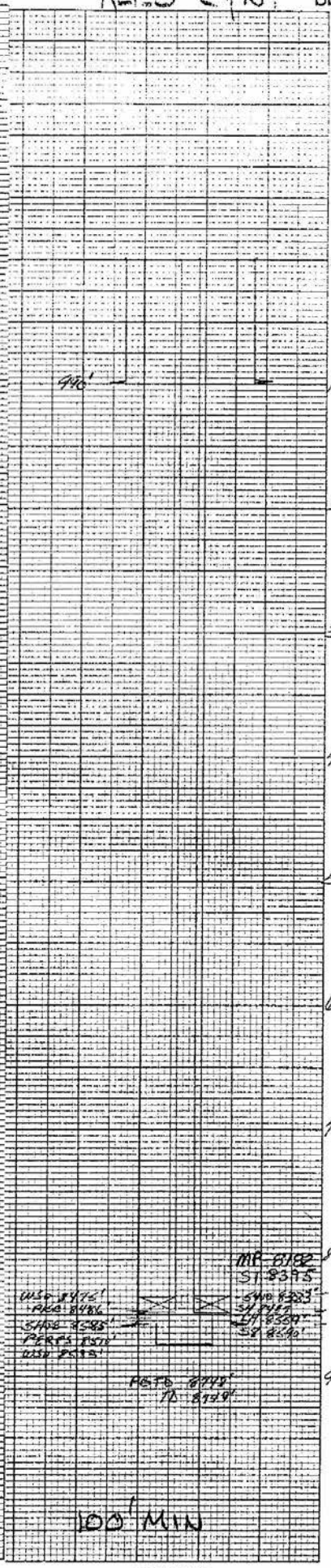
46 1510

K&E 10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

ALISO CYN. SS 25

SS-25 1-25-94





5/6/94

46 1510

K&E 10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

****
* SO CALIFORNIA GAS COMPANY *
* ALISO CANYON *
* (805)253-7077 *
****

COMPANY NAME..: GAS CO
DATE .....: 1/25/94
WELL I.D. ....: SS25
FIELD I.D. ...: ALISO
RUN # .....: 1
ENGINEER .....: RON MACNEIL
ZERO REFERENCE: M.V.
START DATE ...: 01/25/94
WELL STATUS...: S/I
GAUGE INFO:
I.D. .....: rt-7 temperature
SERIAL #....: 79743
RANGE.....: 50-250f

COMMENTS .....: PSIG N/A

FILE # .....: 19

STATISTICS:
DEPTH(min): 0.00
DEPTH(max): 8697.00
TEMPERATURE(min): 54.06
TEMPERATURE(max): 159.53

NO.	DEPTH DEFL(IN)	DEPTH FEET	TEMPERATURE DEFL(IN)	TEMPERATURE F	GRADIENT
1	0.0000	0.000	0.0205	54.06	0.0000
2	0.0196	70.369	0.0443	60.87	0.0967
3	0.0279	100.168	0.0563	64.30	0.1152
4	0.0308	110.579	0.0596	65.25	0.0906
5	0.0501	179.871	0.0770	70.22	0.0718
6	0.0558	200.335	0.0804	71.19	0.0475
7	0.0687	246.650	0.0850	72.51	0.0284
8	0.0836	300.144	0.0910	74.23	0.0321
9	0.0892	320.250	0.0919	74.48	0.0128
10	0.1057	379.488	0.0941	75.11	0.0106
11	0.1114	399.953	0.0943	75.17	0.0028
12	0.1319	473.553	0.0939	75.06	-0.0016
13	0.1393	500.121	0.0945	75.23	0.0065
14	0.1672	600.288	0.1023	77.29	0.0206
15	0.1937	695.430	0.1084	78.59	0.0137
16	0.1950	700.097	0.1082	78.55	-0.0091
17	0.2229	800.265	0.1221	81.51	0.0296
18	0.2507	900.073	0.1299	83.17	0.0166
19	0.2786	1000.241	0.1345	84.15	0.0098
20	0.3064	1100.050	0.1362	84.51	0.0036
21	0.3343	1200.218	0.1407	85.47	0.0096
22	0.3622	1300.385	0.1439	86.15	0.0068
23	0.3900	1400.194	0.1446	86.30	0.0015
24	0.4179	1500.362	0.1478	86.98	0.0068
25	0.4457	1600.170	0.1506	87.58	0.0060
26	0.4736	1700.338	0.1550	88.51	0.0094
27	0.5014	1800.147	0.1582	89.20	0.0068

****
* SO CALIFORNIA GAS COMPANY *
****

Company ..: GAS CO
Well I.D..: SS25
Field I.D.: ALISO

Date: 1/25/94
Run#: 1
Page: 2

NO.	DEPTH DEFL(IN)	DEPTH FEET	TEMPERATURE DEFL(IN)	TEMPERATURE F	GRADIENT
28	0.5293	1900.315	0.1608	89.75	0.0055
29	0.5571	2000.123	0.1644	90.52	0.0077
30	0.5850	2100.291	0.1682	91.33	0.0081
31	0.6129	2200.459	0.1726	92.26	0.0094
32	0.6407	2300.268	0.1775	93.31	0.0105
33	0.6686	2400.435	0.1806	93.97	0.0066
34	0.6964	2500.244	0.1850	94.90	0.0094
35	0.7242	2600.052	0.1890	95.76	0.0085
36	0.7521	2700.220	0.1964	97.33	0.0157
37	0.7799	2800.029	0.1995	97.99	0.0066
38	0.8078	2900.197	0.2025	98.53	0.0054
39	0.8357	3000.365	0.2053	99.01	0.0048
40	0.8635	3100.173	0.2116	100.10	0.0109
41	0.8914	3200.341	0.2179	101.18	0.0108
42	0.9193	3300.509	0.2251	102.42	0.0124
43	0.9471	3400.317	0.2327	103.72	0.0131
44	0.9750	3500.485	0.2356	104.22	0.0050
45	1.0028	3600.294	0.2414	105.22	0.0100
46	1.0306	3700.103	0.2473	106.24	0.0102
47	1.0585	3800.270	0.2523	107.10	0.0086
48	1.0864	3900.438	0.2577	108.02	0.0093
49	1.1142	4000.247	0.2652	109.31	0.0129
50	1.1420	4100.055	0.2712	110.35	0.0103
51	1.1699	4200.223	0.2795	111.77	0.0143
52	1.1978	4300.391	0.2869	113.05	0.0127
53	1.2256	4400.200	0.2944	114.34	0.0129
54	1.2534	4500.008	0.3029	115.73	0.0140
55	1.2813	4600.176	0.3100	116.78	0.0105
56	1.3092	4700.344	0.3162	117.70	0.0092
57	1.3370	4800.152	0.3243	118.90	0.0120
58	1.3649	4900.320	0.3315	119.96	0.0106
59	1.3927	5000.129	0.3393	121.12	0.0116
60	1.4207	5100.655	0.3470	122.26	0.0113
61	1.4484	5200.105	0.3522	123.03	0.0077
62	1.4763	5300.273	0.3602	124.21	0.0118
63	1.5042	5400.440	0.3686	125.45	0.0124
64	1.5320	5500.250	0.3773	126.74	0.0129
65	1.5600	5600.776	0.3866	128.12	0.0137
66	1.5878	5700.585	0.3957	129.46	0.0135
67	1.6156	5800.394	0.4042	130.65	0.0118
68	1.6435	5900.561	0.4140	131.92	0.0127
69	1.6713	6000.370	0.4218	132.93	0.0102
70	1.6991	6100.179	0.4297	133.96	0.0103
71	1.7270	6200.346	0.4379	135.03	0.0106
72	1.7548	6300.155	0.4466	136.16	0.0113
73	1.7828	6400.682	0.4540	137.12	0.0096
74	1.8105	6500.131	0.4660	138.68	0.0157
75	1.8384	6600.299	0.4760	139.98	0.0130
76	1.8663	6700.467	0.4876	141.49	0.0151
77	1.8941	6800.276	0.4977	142.80	0.0132

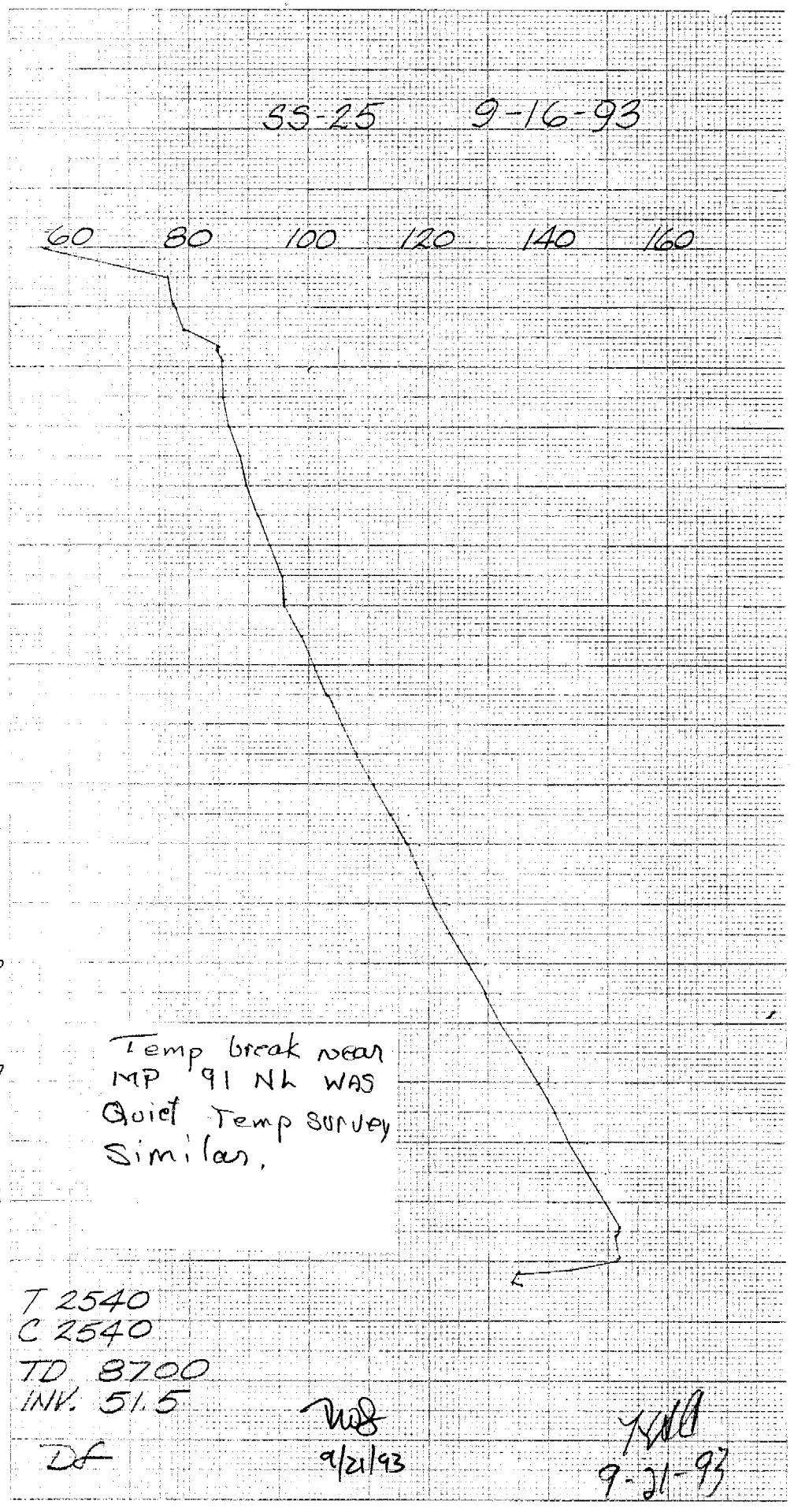
****
* SO CALIFORNIA GAS COMPANY *
****

Company ..: GAS CO
Well I.D..: SS25
Field I.D.: ALISO

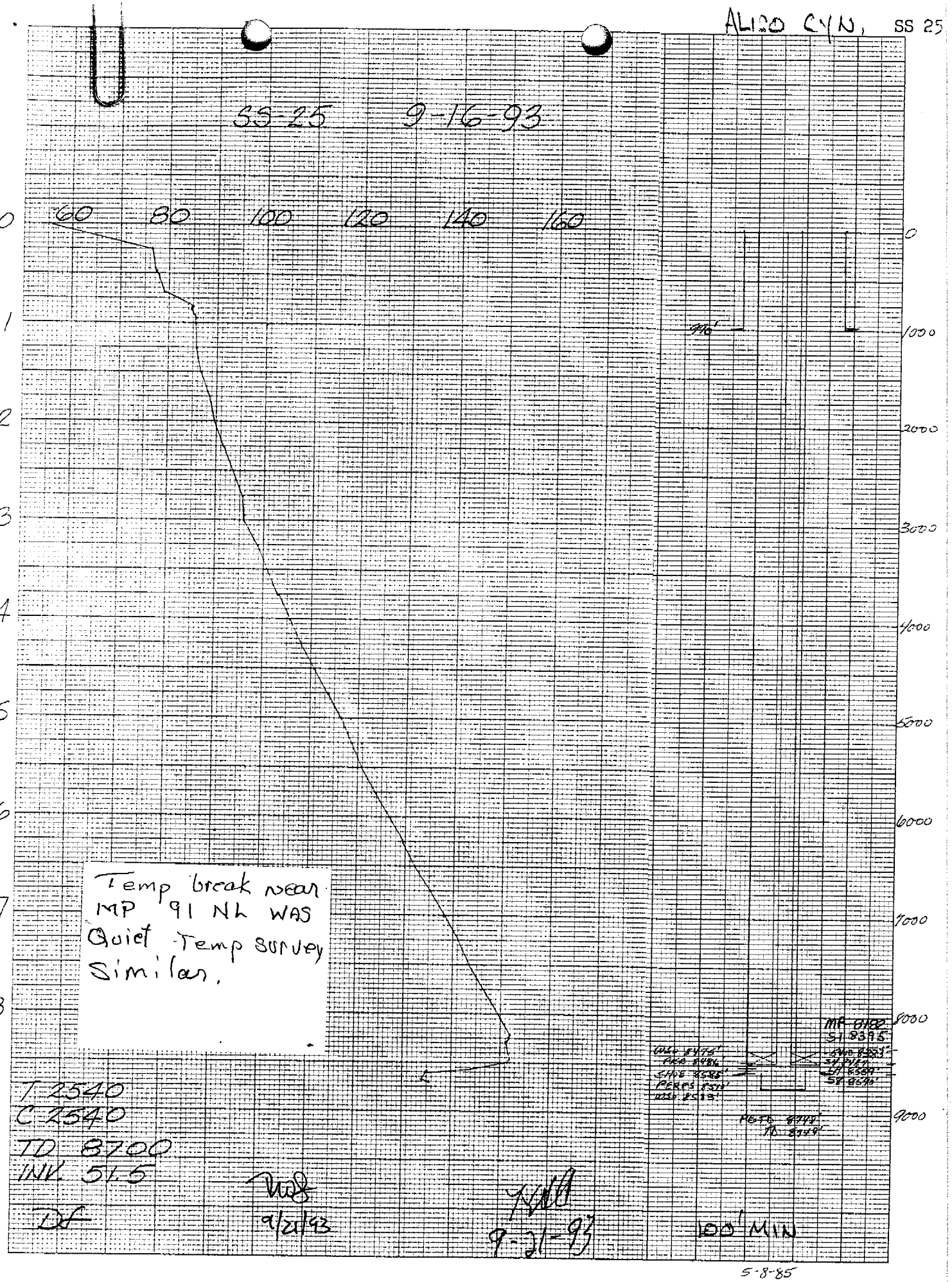
Date: 1/25/94
Run#: 1
Page: 3

NO.	DEPTH DEFL(IN)	DEPTH FEET	TEMPERATURE DEFL(IN)	TEMPERATURE F	GRADIENT
78	1.9219	6900.084	0.5091	144.16	0.0137
79	1.9498	7000.252	0.5203	145.48	0.0131
80	1.9776	7100.061	0.5295	146.55	0.0108
81	2.0055	7200.229	0.5379	147.53	0.0098
82	2.0334	7300.396	0.5491	148.84	0.0131
83	2.0613	7400.564	0.5613	150.27	0.0143
84	2.0891	7500.373	0.5708	151.38	0.0111
85	2.1170	7600.541	0.5799	152.45	0.0106
86	2.1448	7700.349	0.5910	153.75	0.0130
87	2.1727	7800.517	0.6039	155.21	0.0146
88	2.2006	7900.685	0.6123	156.08	0.0087
89	2.2283	8000.134	0.6253	157.43	0.0136
90	2.2520	8085.223	0.6392	158.88	0.0170
91	2.2562	8100.302	0.6393	158.89	0.0007
92	2.2840	8200.110	0.6421	159.18	0.0029
93	2.3119	8300.278	0.6405	159.01	-0.0017
94	2.3397	8400.087	0.6455	159.53	0.0052
95	2.3502	8437.784	0.6442	159.40	-0.0036
96	2.3676	8500.255	0.6015	154.96	-0.0711
97	2.3715	8514.257	0.5823	152.73	-0.1590
98	2.3955	8600.423	0.5790	152.34	-0.0045
99	2.4224	8697.000	0.6184	156.71	0.0453

***** end data *****



46 1512
10 X 10 TO THE CENTIMETER 19 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.


ALICO CYN, SS 25
SS-25 9-16-93
60 80 100 120 140 160
0 1 2 3 4 5 6 7 8
0 1000 2000 3000 4000 5000 6000 7000 8000 9000
Temp break near MP 91 NL WAS Quiet Temp survey Similar.
T 2540
C 2540
TD 8700
INV. 51.5
9/21/93
9-21-93
100' MIN
5-8-85
46 1512
10 X 10 TO THE CENTIMETER
KEUFFEL & ESSER CO. MADE IN U.S.A.

Southern California Gas Company
Aliso Canyon

Well SS-25 Date 9/16/93 Element No. 69452 Clock Hours _____

Tubing Press. 2540 Status _____ Time Clock Started _____ Time Clock Off _____

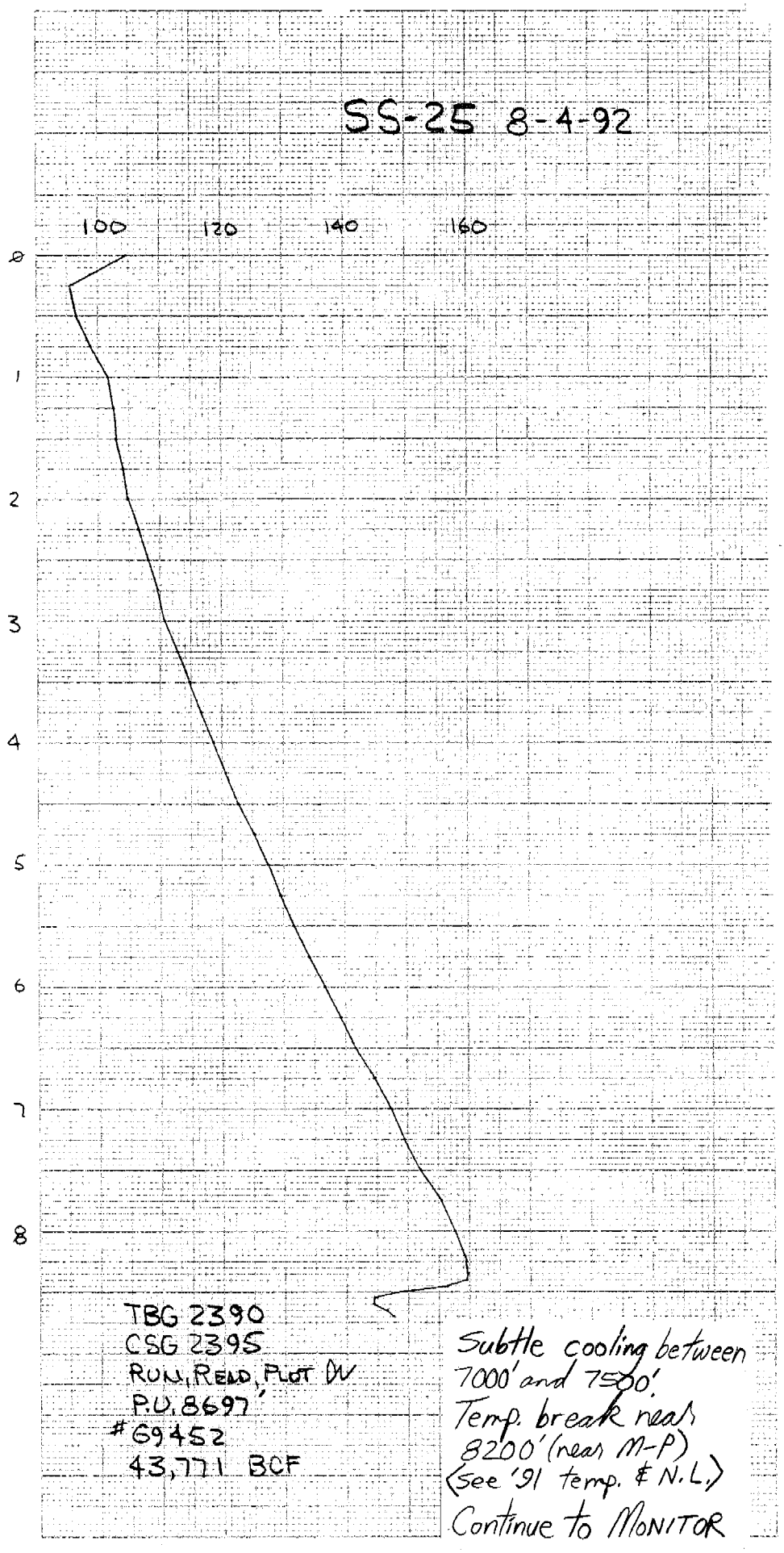
Casing Press. 2540 Pick-Up _____ Operator DS/FG _____' per Minute

Time Press. on _____ Time Start Down _____ Zero Point 6

Depth	Elapse Time	Deflection	Temp.	Depth	Elapse Time	Deflection	Temp.
0	5	.055	55.96	5000	55	.323	116.68
250	7.5	.128	76.72	5250	57.5	.335	118.60
500	10	.132	77.68	5500	60.	.349	120.84
750	12.5	.150	82.00	5750	62.5	.366	123.56
1000	15	.165	85.60	6000	65	.386	126.76
1250	17.5	.165	85.60	6250	67.5	.402	129.42
1500	20	.170	86.80	6500	70	.422	132.06
1750	22.5	.177	88.48	6750	72.5	.445	135.26
2000	25	.182	89.68	7000	75	.467	138.31
2250	27.5	.190	91.60	7250	77.5	.487	141.09
2500	30	.199	93.76	7500	80	.506	143.61
2750	32.5	.209	95.71	7750	82.5	.532	146.71
3000	35	.215	96.85	8000	85	.557	149.68
3250	37.5	.226	98.94	8250	87.5	.575	151.83
3500	40	.237	101.03	8500	90.	.570	151.23
3750	42.5	.248	103.12	8700 8750	92 92.5	.447	135.53
4000	45	.262	105.78	9000	95.		
4250	47.5	.274	108.06				
4500	50	.289	110.91				
4750	52.5	.305	113.80				

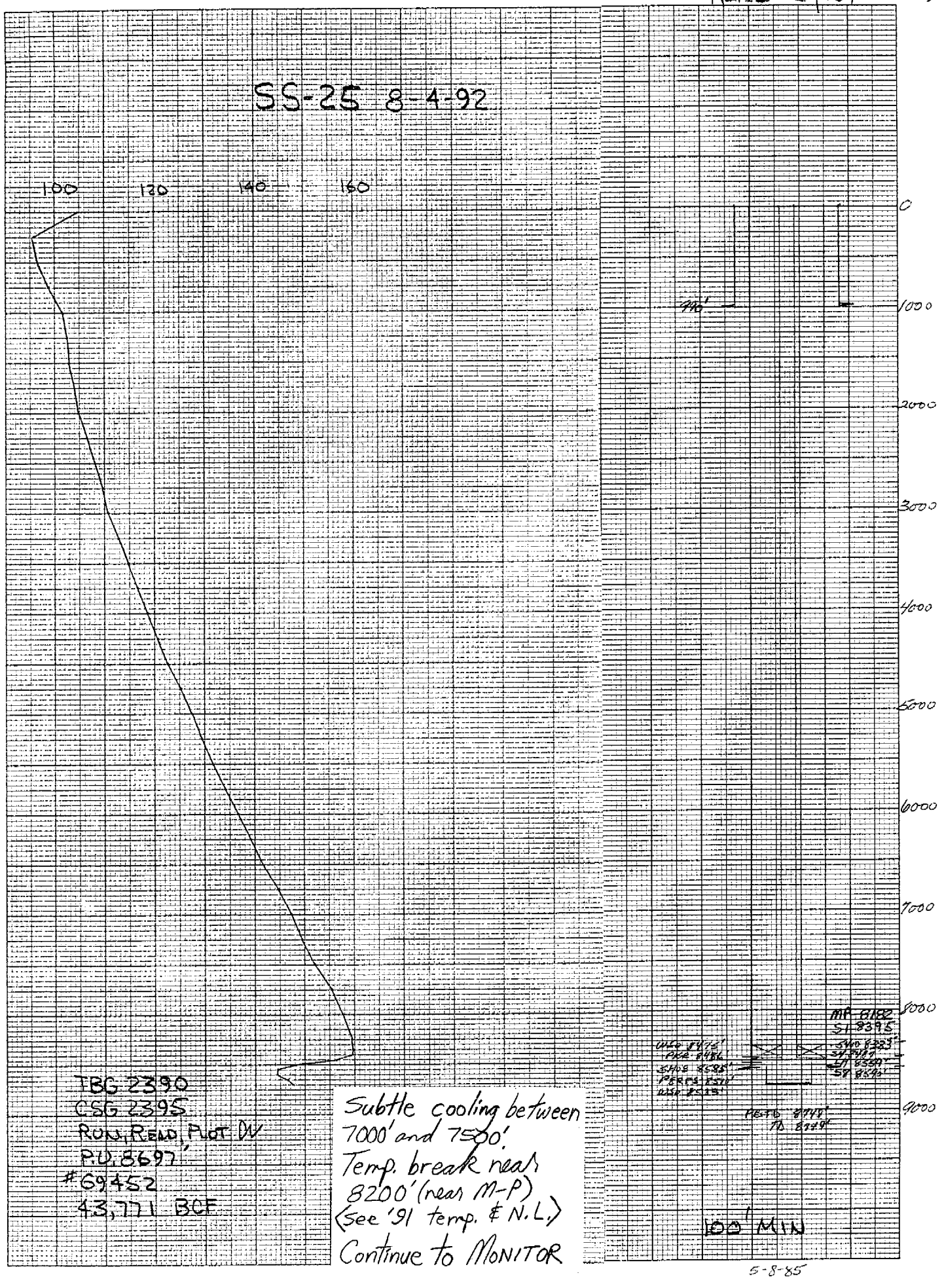
TD 8700

470	9.7	.130	77.20
690	11.9	.139	79.36
860	13.6	.162	84.88
945	14.45	.165	85.60
8200	87	.576	151.94
8265	87.65	.569	151.11
8475	89.75	.576	151.94
8565	90.65	.506	143.61
8600	91	.443	134.98
8675	91.75	.437	134.14


SS-25 8-4-92
100
120
140
160
0
1
2
3
4
5
6
7
8
46 1512
10 X 10 TO THE CENTIMETER
KEUFFEL & ESSER CO. MADE IN U.S.A.
TBG 2390
CSG 2395
RUN, REED, PLOT DW
P.U. 8697'
#69452
43,771 BCF
Subtle cooling between 7000' and 7500'.
Temp. break near 8200' (near M-P)
(see '91 temp. & N.L.)
Continue to MONITOR

ALISO CYN, SS 25

SS-25 8-4-92



TBG 2390
CSG 2395
RUN, READ, PLOT DV
P.U. 8697'
#69452
43,771 BCF

Subtle cooling between 7000' and 7500'.
Temp. break near 8200' (near M-P)
(See '91 temp. & N.L.)
Continue to MONITOR

46 1512
10 X 10 TO THE CENTIMETER
KEUFFEL & ESSER CO. MADE IN U.S.A.
18 X 25 CM.

DOEF. 02787

Southern California Gas Company
Aliso Canyon

Well SS-25 Date 8-4-92 Element No. 69452 Clock Hours _____

Tubing Press. 2390 Status S/I Time Clock Started _____ Time Clock Off _____

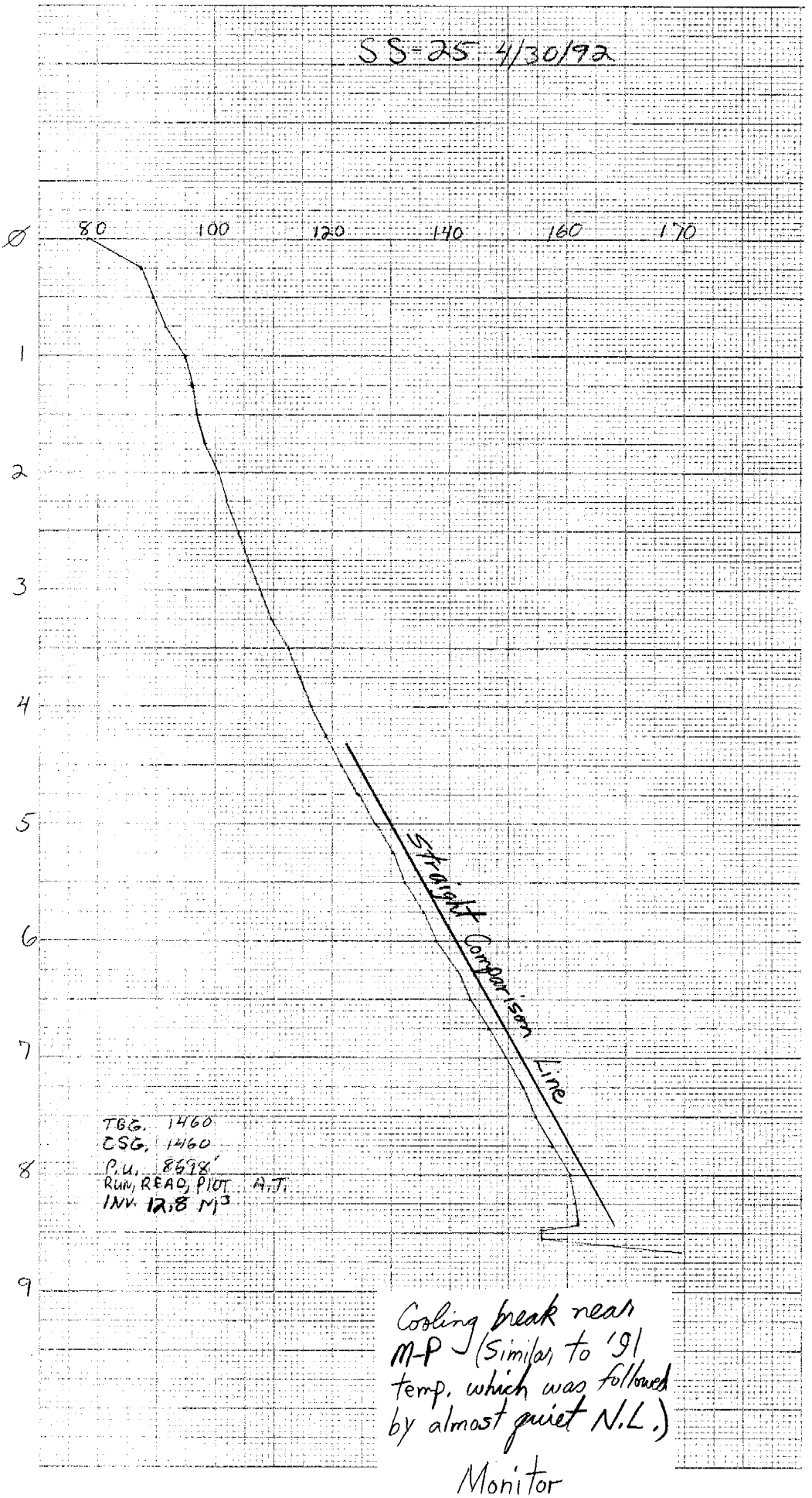
Casing Press. 2395 Pick-Up 8697 Operator W 100' per Minute

Time Press. on _____ Time Start Down _____ Zero Point 6' @ MV

Depth	Elapse Time	Deflection	Temp.	Depth	Elapse Time	Deflection	Temp.
0	5	.249	104.6	5000	55.0	.384	127.4
250	7.5	.202	95.6	5250	57.5	.397	129.5
500	10.0	.205	96.2	5500	60.0	.411	131.5
750	12.5	.218	98.7	5750	62.5	.429	134.0
1000	15.0	.233	101.5	6000	65.0	.448	136.7
1250	17.5	.237	102.3	6250	67.5	.465	139.1
1500	20.0	.240	102.9	6500	70.0	.483	141.6
1750	22.5	.246	104.0	6750	72.5	.506	144.7
2000	25.0	.251	104.9	7000	75.0	.526	147.1
2250	27.5	.258	106.3	7250	77.5	.545	149.4
2500	30.0	.267	108.0	7500	80	.566	152.0
2750	32.5	.276	109.7	7750	82.5	.592	155.2
3000	35.0	.282	110.8	8000	85.	.615	157.8
3250	37.5	.293	112.9	8250	87.5	.630	159.4
3500	40.0	.304	114.9	8500	90. OVER	.545	149.4
3750	42.5	.315	116.6	8697 8750	91.97 92.5	.529	147.5
4000	45.0	.327	118.5	9000	95.		
4250	47.5	.340	120.5				
4500	50.0	.353	122.6				
4750	52.5	.369	125.1				

$\frac{2.564}{91.97}$ .02787

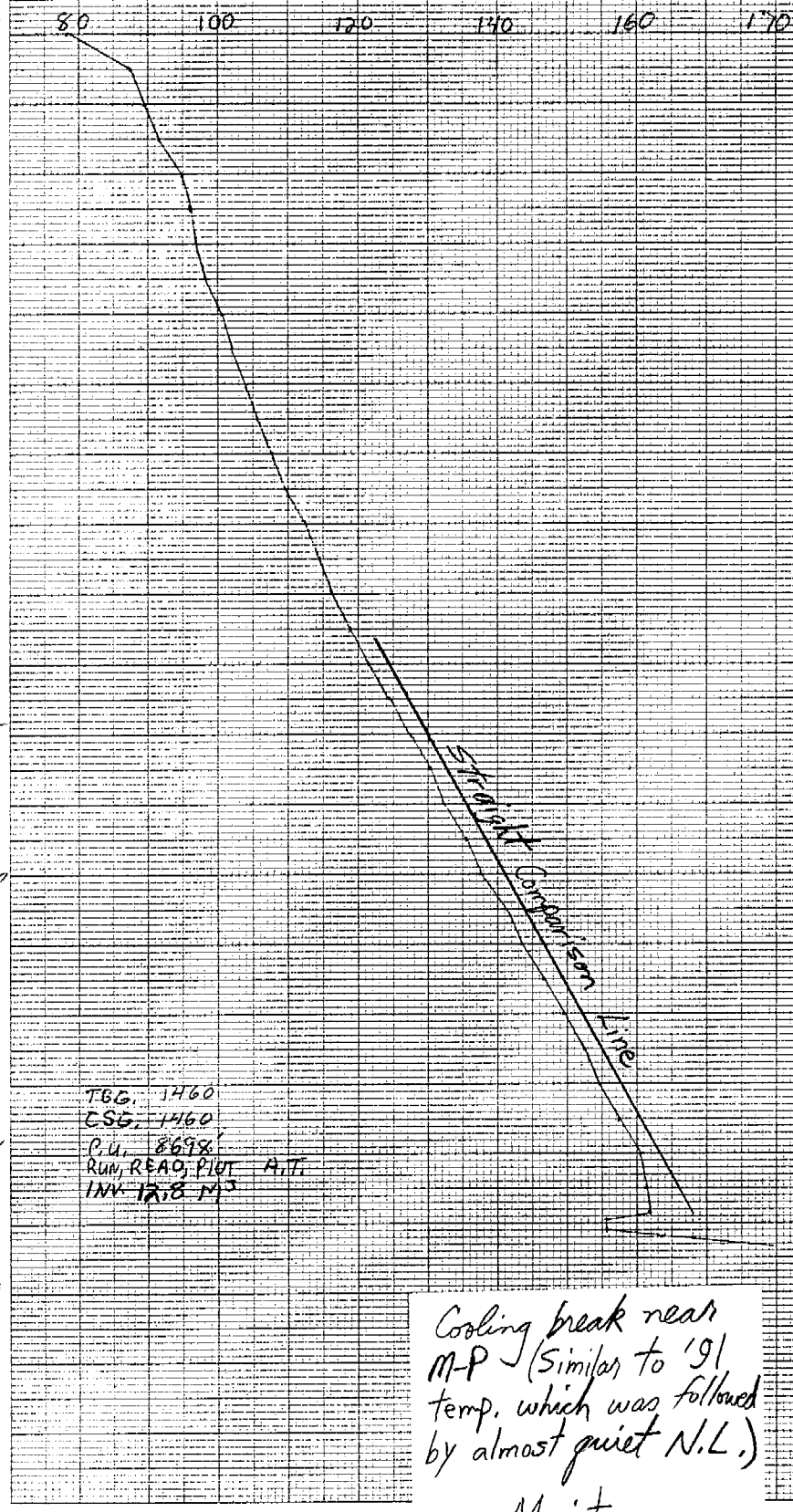
	8300	88.0	.633	159.7
	8350	88.5	.634	159.8
	8400	89.0	.631	159.5
	8450	89.5	.600	156.2
	~~8500~~			
	8550	90.5	.506	144.7
*	8600	91.0	.504	144.4
	8650	91.5	.519	146.3



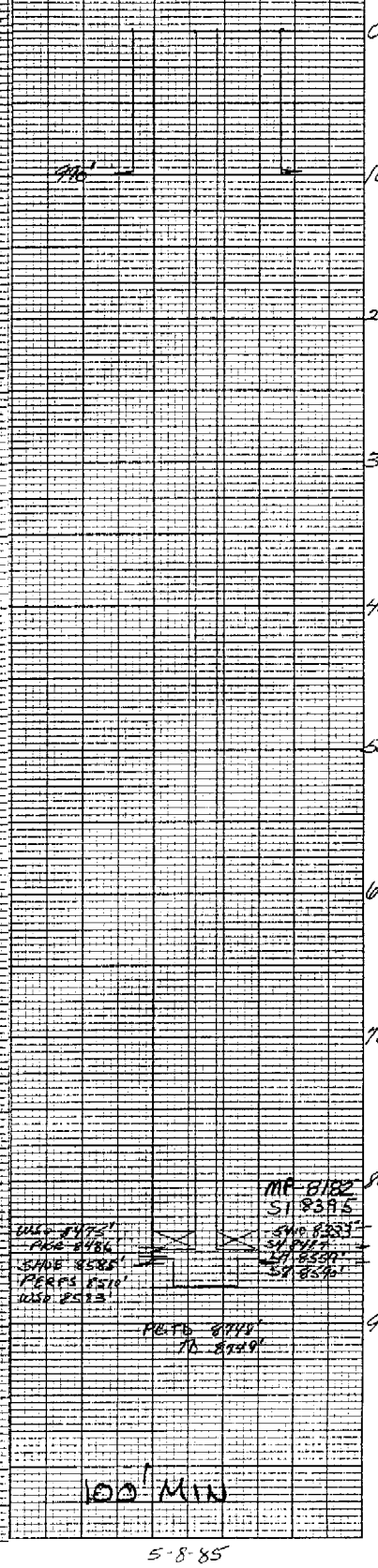
46 1512
10 X 10 TO THE CENTIMETER 10 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

ALISO CYN, SS 25

SS-25 4/30/92



TBG. 1460
CSG. 1460
P.U. 8698'
RUN, READ, PLOT A.T.
INV. 12.8 M³



Cooling break near M-P (Similar to '91 temp. which was followed by almost quiet N.L.)

Monitor

5-8-85

46 1512

10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0000319

Southern California Gas Company
Aliso Canyon

Well SS-25 Date 30 April, 1992 Element No. 69452 Clock Hours 3

Tubing Press. 1460 Status S/I Time Clock Started _____ Time Clock Off _____

Casing Press. 1460 Pick-Up 8698' Operator AT 100 ' per Minute

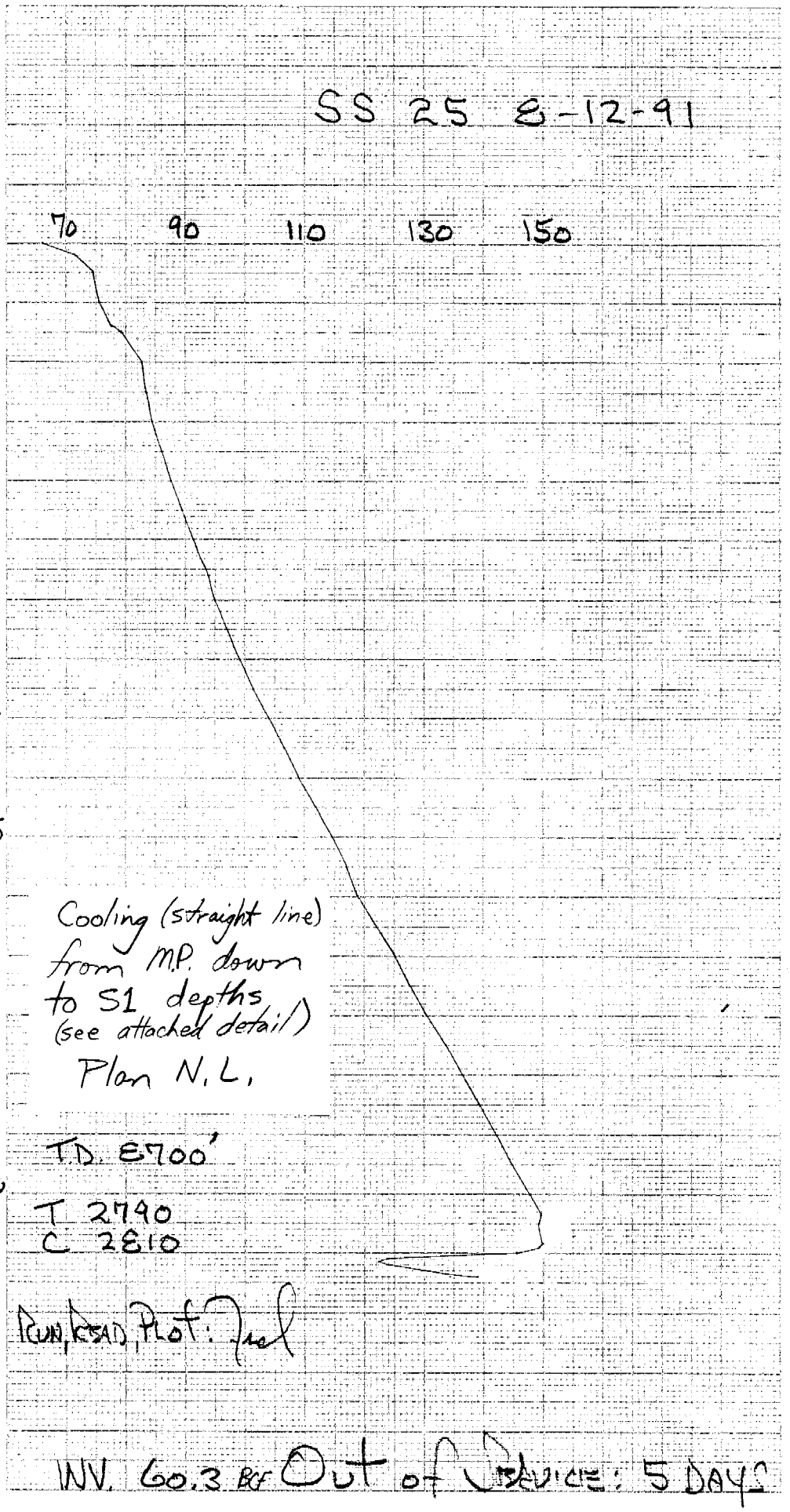
Time Press. on _____ Time Start Down _____ Zero Point 6'

12.8 M^3

Depth	Elapse Time	Deflection	Temp.	Depth	Elapse Time	Deflection	Temp.
0	5	.133	78.2	5000	55	.383	127.6
250	7.5	.171	87.3	5250	57.5	.399	130.1
500	10	.180	89.4	5500	60.	.413	132.3
750	12.5	.190	91.7	5750	62.5	.434	135.4
1000	15	.205	95.0	6000	65	.451	137.9
1250	17.5	.211	96.3	6250	67.5	.475	141.2
1500	20	.215	97.1	6500	70	.494	143.7
1750	22.5	.220	98.1	6750	72.5	.518	146.8
2000	25	.231	100.4	7000	75	.539	149.5
2250	27.5	.239	102.0	7250	77.5	.562	152.3
2500	30	.249	104.1	7500	80	.585	154.9
2750	32.5	.258	105.8	7750	82.5	.611	157.8
3000	35	.268	107.7	8000	85	.634	160.3
3250	37.5	.277	109.4	8250	87.5 over	.640	161.0
3500	40	.292	112.3	8500	90.		
3750	42.5	.304	114.5	8698 8750	91.98 2.5% 92.5	.718	169.0
4000	45	.317	116.7	9000	95.		
4250	47.5	.330	119.0				
4500	50	.346	121.7				
4750	52.5	.362	124.3				

8425	89.25	.647	161.8
8492	89.92	.588	155.2
8550	90.50	.588	155.2





46 1512

KEUFFEL & ESSER CO. MADE IN U.S.A. 10 X 10 TO THE CENTIMETER 25 X 25 CM

AC_CPUC_0000322

Southern California Gas Company
Aliso Canyon

Well SS25 Date 8-12-91 Element No. 6981.2 Clock Hours _____

Tubing Press. 2790 Status _____ Time Clock Started _____ Time Clock Off _____

Casing Press. 2810 Pick-Up _____ Operator TG _____' per Minute

Time Press. on _____ Time Start Down _____ Zero Point 6'

Depth	Elapse Time	Deflection	Temp.	Depth	Elapse Time	Deflection	Temp.
0	5	.087	66.1	5000	55	291	114.6
250	7.5	.116	74.7	5250	57.5	304	117.0
500	10	.120	75.2	5500	60.	315	118.9
750	12.5	.132	79.2	5750	62.5	332	121.9
1000	15	.146	82.8	6000	65	350	125.1
1250	17.5	149	83.5	6250	67.5	366	127.7
1500	20	153	84.5	6500	70	383	130.4
1750	22.5	159	86.0	6750	72.5	404	133.8
2000	25	166	87.7	7000	75	422	136.5
2250	27.5	173	89.4	7250	77.5	440	134.3
2500	30	181	91.3	7500	80	460	142.1
2750	32.5	190	93.5	7750	82.5	480	144.8
3000	35	196	94.9	8000	85	502	147.8
3250	37.5	205	97.0	8250	87.5	514	149.3
3500	40	215	99.1	8500	90.	484	145.4
3750	42.5	225	101.3	8700 8750	92.0 92.5	432	139.0
4000	45	237	103.9	9000	95		
4250	47.5	249	106.5				
4500	50	262	109.0				
4750	52.5	277	111.9				

TD 8700'

100' 6.0 .105 - 71.5

700' 12.0 .126 - 77.6

E175' E6.75 .518 - 149.E

E225' E7.25 .515 - 149.4

E425' E9.25 .519 - 149.9

E450' E9.5 .515 - 149.4

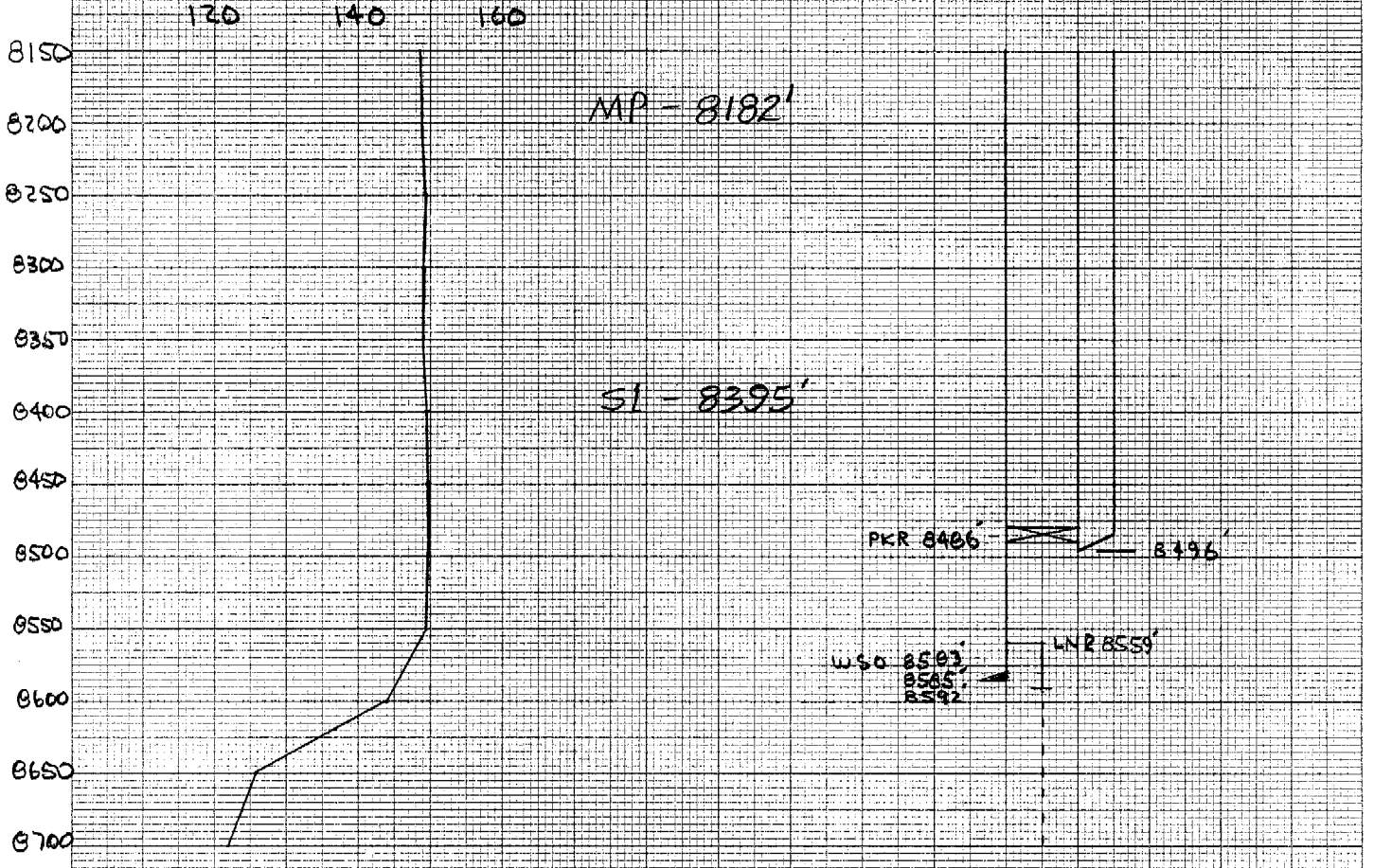
E550' 90.5 .343 - 123.9

E575' 90.75 .334 - 122.3

E600' 91, .344 - 124.0

E675' 91.75 .402 133.5

SS-25 8-12-91
DETAIL 8150' - TD 8700'
ORIG. CHART



TBG 2790
CSG 2610
RUN F.G.
READ & PLOT DN

Straight line cooling above S1.
Plan N.L.

46 1512
10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

Southern California Gas Company
Aliso Canyon

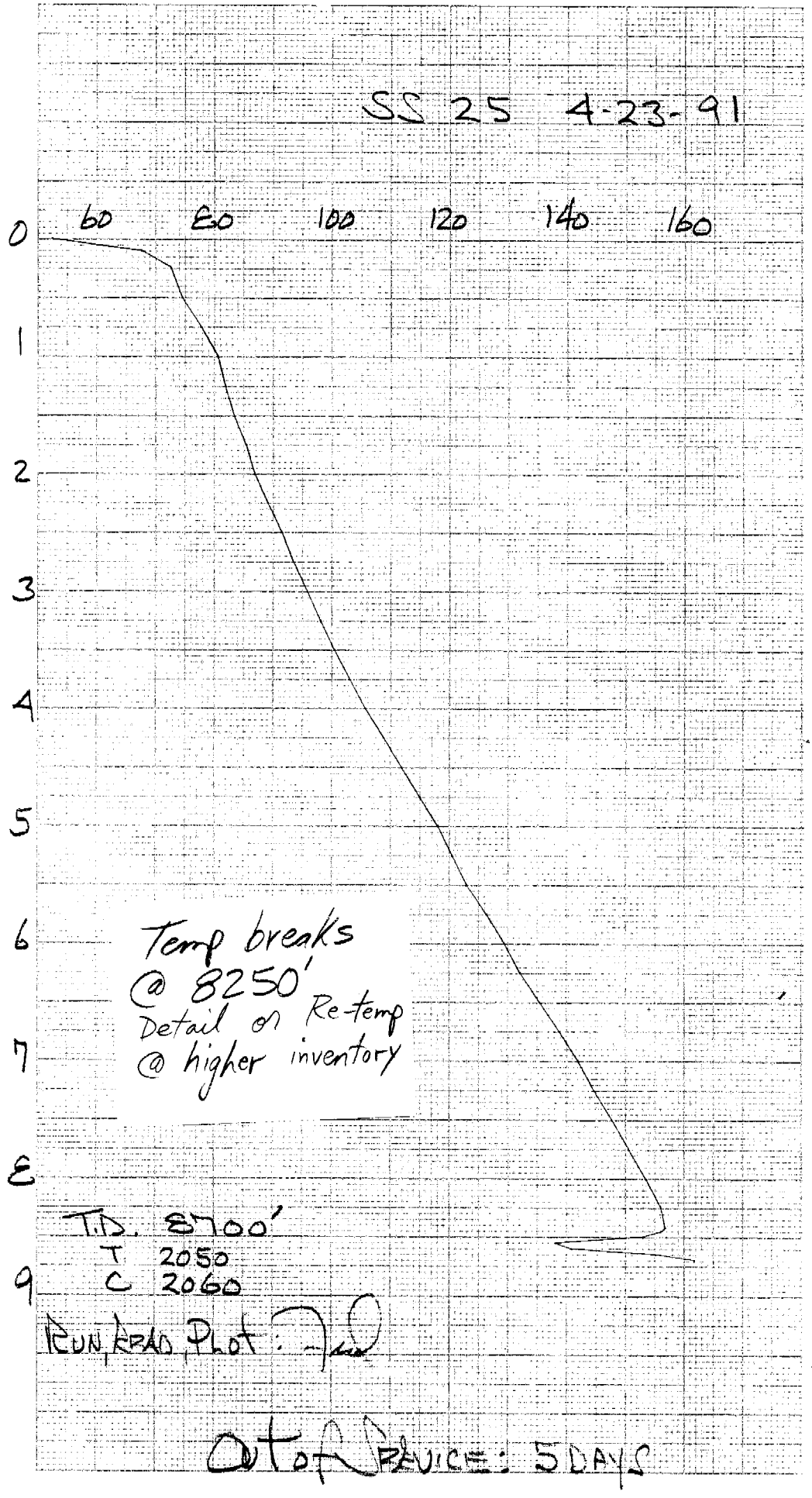
Well SS-25 Date 8-12-91 Element No. 69812 Clock Hours _____

Tubing Press. 2790 Status S/I Time Clock Started _____ Time Clock Off _____

Casing Press. 2810 Pick-Up 8700 Operator F.G. 100 ' per Minute

Time Press. on _____ Time Start Down _____ Zero Point 6' @ MW

Depth	Elapse Time	Deflection	Temp.	Depth	Elapse Time	Deflection	Temp.
8150	86.5	.506	148.3				
8200	87.0	.511	148.9				
8250	87.5	.514	149.3				
8300	88.0	.513	149.2				
8350	88.5	.512	149.0				
8400	89.0	.514	149.3				
8450	89.5	.515	149.4				
8500	90.0	.518	149.8				
8550	90.5	.513	149.2				
8600	91.0	.474	144.0				
8650	91.5	.355	125.9				
8700	92.0	.332	121.9				



46 1512
10 X 10 TO THE CENTIMETER 10 X 15 CM
KEUFFEL & ESSER CO. MADE IN U.S.A.

0283

Southern California Gas Company
Aliso Canyon

Well SS25 Date 4-23-91 Element No. 69812 Clock Hours _____

Tubing Press. 2050 Status _____ Time Clock Started _____ Time Clock Off _____

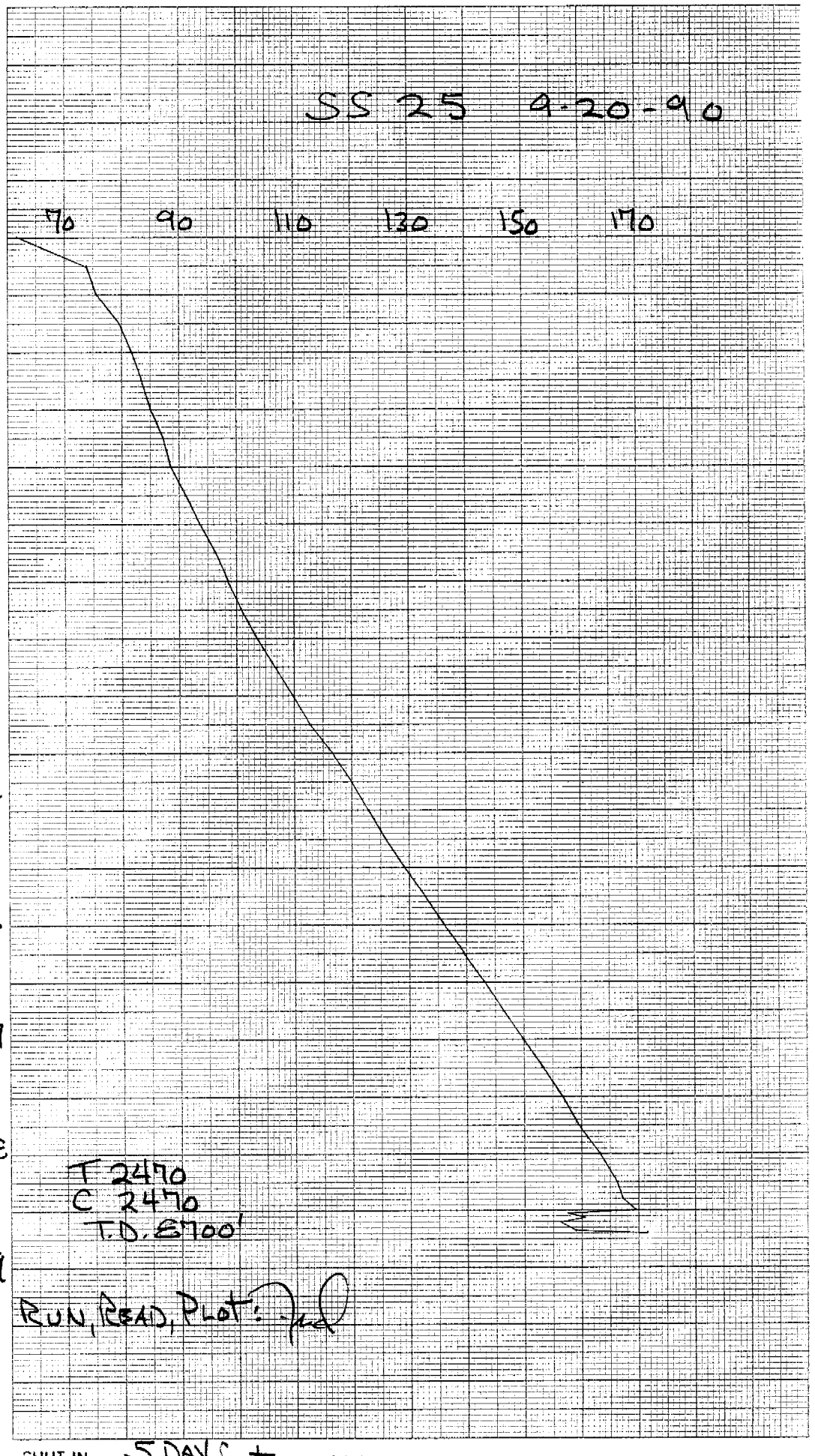
Casing Press. 2060 Pick-Up _____ Operator JB _____ ' per Minute

Time Press. on _____ Time Start Down _____ Zero Point 6'

Depth	Elapse Time	Deflection	Temp.	Depth	Elapse Time	Deflection	Temp.
0	5 OVER	.048	52.6	5000	55	310	118.1
250	7.5	.109	72.7	5250	57.5	323	120.3
500	10	.115	74.4	5500	60.	338	123.0
750	12.5	127	77.8	5750	62.5	357	126.2
1000	15	137	80.5	6000	65	376	129.3
1250	17.5	143	82.0	6250	67.5	393	132.1
1500	20	148	83.3	6500	70	414	135.3
1750	22.5	156	85.3	6750	72.5	437	138.8
2000	25	163	86.9	7000	75	458	141.9
2250	27.5	172	89.1	7250	77.5	478	144.6
2500	30	181	91.3	7500	80	501	147.6
2750	32.5	190	93.5	7750	82.5	523	150.4
3000	35	200	95.9	8000	85	545	153.3
3250	37.5	210	98.1	8250	87.5	567	156.0
3500	40	221	100.4	8500	90. OVER	.543	153.0
3750	42.5	233	103.0	~~8700~~ ~~8750~~	~~92.0~~ ~~92.5~~	.616	161.8
4000	45	246	105.8	9000	95.		
4250	47.5	261	108.8				
4500	50	277	111.9				
4750	52.5	293	115.0				

TD 8700

100'	6.0	.093 –	68.0
8425'	89.25	.572 –	156.6
8450'	89.5	.567 –	156.0
8550'	90.5	.432 –	138.1
8600'	91.	.450 –	140.8
8650'	91.5	.560 –	155.1



46 1512

10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

SHUT IN 5 DAYS + PRIOR TO SURVEY.

INJ/WD. _____ HOURS PRIOR TO SHUT IN

AC_CPUC_0000330

ALISO CYN, SS 25

SS 25 9-20-90

70 90 110 130 150 170

0 1 2 3 4 5 6 7 8 9

SHIFT ABOVE S-1 (8395')
@ ~ 8250'
AS LAST SURVEY

Possible Noise
Log candidate?
continue to monitor

T 2470
C 2470
TD. 8700'

RUN, READ, PLOT: DLO

0 1000 2000 3000 4000 5000 6000 7000 8000 9000

980'

ST 8395'
UNSQ 8395'
SQZ 8486'
PERFS 8511'
USQ 8513'

PERFS 8744'
TD 8749'

100' MIN

5-8-85

SHUT IN 5 DAYS + PRIOR TO SURVEY.
INJ/WD _____ HOURS PRIOR TO SHUT IN

AC_CPUC_0000331

0213

Southern California Gas Company
Aliso Canyon

Well SS25 Date 9-20-90 Element No. 69E12 Clock Hours _____

Tubing Press. 2470 Status _____ Time Clock Started _____ Time Clock Off _____

Casing Press. 2470 Pick-Up _____ Operator TG _____' per Minute

Time Press. on _____ Time Start Down _____ Zero Point 6'

Depth	Elapse Time	Deflection	Temp.	Depth	Elapse Time	Deflection	Temp.
0	5	.074	61.8	5000	55	338	123.0
250	7.5	.113	73.9	5250	57.5	355	125.9
500	10	.119	75.6	5500	60.	375	129.2
750	12.5	.134	79.9	5750	62.5	398	132.9
1000	15	.142	81.8	6000 ✓	65	420	136.2
1250	17.5	.149	83.5	6250	67.5	441	139.4
1500	20	.155	85.0	6500	70	467	143.1
1750	22.5	.164	87.2	6750	72.5	492	146.4
2000	25	.171	88.9	7000	75	519	149.9
2250	27.5	.180	91.1	7250	77.5	545	153.3
2500	30	.191	93.7	7500	80	574	156.8
2750	32.5	.202	96.3	7750	82.5	597	159.6
3000	35	212	98.5	8000	85	628	163.2
3250	37.5	223	100.9	8250	87.5	.655	166.2
3500	40	236	103.7	8500	90.	OVER .596	159.5
3750 ✓	42.5	250	106.7	8700 8750	92.0 92.5	.614	161.6
4000 ✓	45	266	109.8	9000	95.		
4250	47.5	282	112.8				
4500	50	301	116.5	UP95			
4750	52.5	321	120.0				

TD 8700'

AC_CPUC_0000332

E400' E9.00 .664 - 167.2

E525' 90.25 .582 - 157.8

E560' 90.6 .603 - 160.3

E600' 91.0 .571 - 156.5

E675' 91.75 .592 - 159.0

SS 25 4-12-90

60 100 120 140 160

T 1770
C 1770

RUN, READ, PLOT: JMQ

46 1512

K&E 10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0000334

ALISO CYN. SS

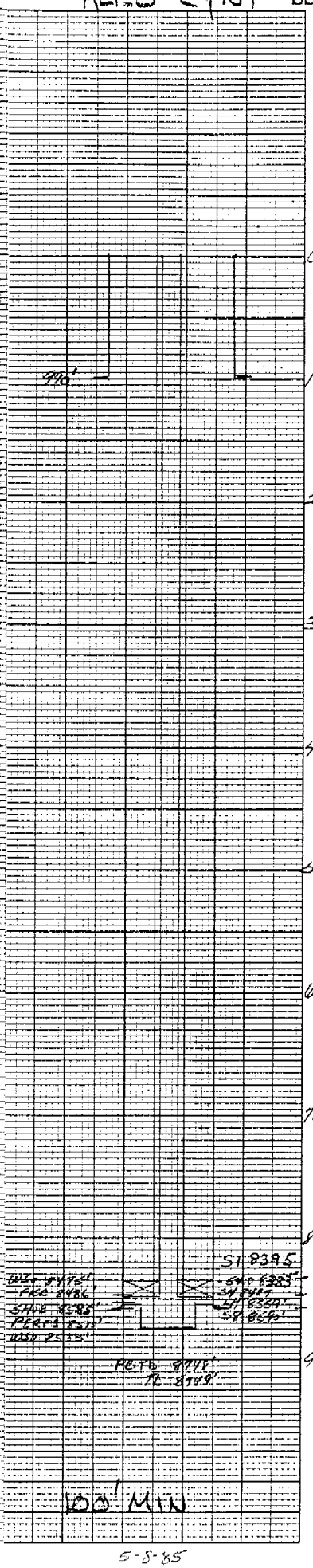
SS 25 4-12-90

60 100 120 140 160

0
1
2
3
4
5
6
7
8
9

T 1770
C 1770

RUN, READ, PLOT!



100' MIN

46 1512

10 X 10 TO THE CENTIMETER
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0000335

.028

Southern California Gas Company
Aliso Canyon

Well SS25 Date 4-12-90 Element No. 69212 Clock Hours _____

Tubing Press. 1770 Status _____ Time Clock Started _____ Time Clock Off _____

Casing Press. 1770 Pick-Up _____ Operator JG _____' per Minute

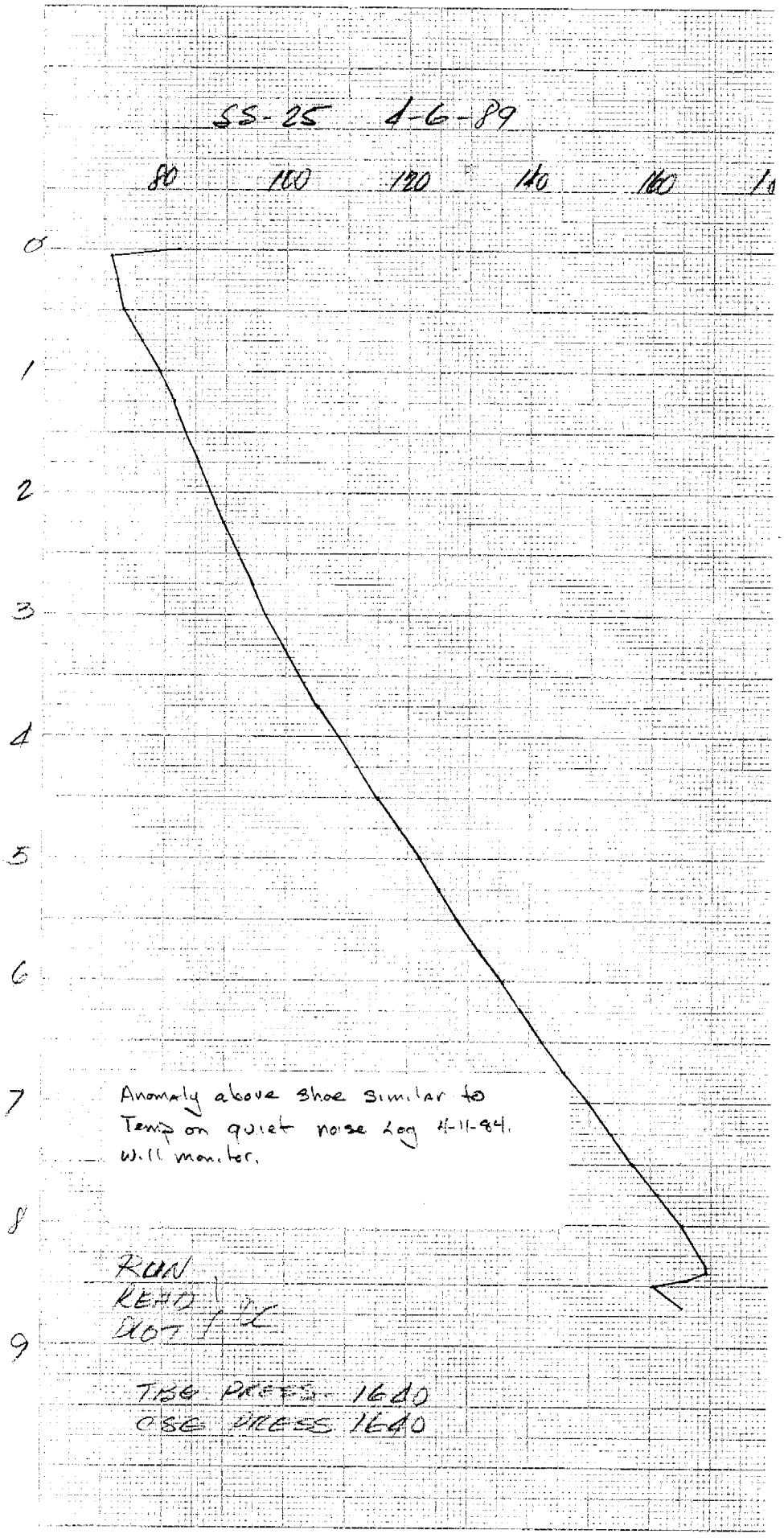
Time Press. on _____ Time Start Down _____ Zero Point 6'

Depth	Elapse Time	Deflection	Temp.	Depth	Elapse Time	Deflection	Temp.
0	5	130	78.7	5000	55	349	124.9
250	7.5	124	77.0	5250	57.5	366	127.7
500	10	128	78.1	5500	60.	386	130.9
750	12.5	132	80.7	5750	62.5	410	134.7
1000	15	150	83.8	6000 ✓	65	433	138.2
1250	17.5	157	85.5	6250	67.5	455	141.5
1500	20	163	86.9	6500	70	479	144.7
1750	22.5	171	88.9	6750	72.5	505	148.1
2000	25	179	90.8	7000	75	535	151.9
2250	27.5	188	93.0	7250	77.5	562	155.4
2500	30	198	95.4	7500	80	602	160.2
2750	32.5	210	98.1	7750	82.5	633	163.8
3000	35	219	100.0	8000	85	662	167.0
3250	37.5	232	102.8	8250	87.5	681	169.0
3500	40	247	106.1	8500	90.	637	164.2
3750	42.5	260	108.6	~~8675~~ 8750	~~91.75~~ 92.5	647	165.4
4000 ✓	45	275	111.5	9000	95.		
4250	47.5	293	115.0				
4500	50	311	118.2				
4750	52.5	331	121.8				

E300'	88.0	.684 -	169.4
E400'	89.0	.681 -	169.0
E450'	89.5	.678 -	168.7
E550'	90.5	.618 -	162.1
E575'	90.75	.632 -	163.6
E625'	91.25'	.614 -	161.6
E650'	91.50	.618 -	162.1

AC_CPUC_0000337

SHUT IN 304 days PRIOR TO SURVEY.
INJ/WD _____ HOURS PRIOR SHUT IN.



46 1512

KEUFFEL & ESSER CO. MADE IN U.S.A. 10 X 10 TO THE CENTIMETER 25 X 25 CM.

SHUT IN 30+ days PRIOR TO SURVEY.
INJ/WD _____ HOURS PRIOR TO SHUT IN.

ALISO CYN, SS 25

SS-25 1-6-89

80 100 120 140 160 1

0 1 2 3 4 5 6 7 8 9

0 1000 2000 3000 4000 5000 6000 7000 8000 9000

940'

Anomaly above shoe similar to Temp on quiet noise log 1-11-84. Will monitor.

RUN READ & DUT

TBG. PRESS. 1620
CSG PRESS. 1640

WSO 8475'
PKR 8486'
SHOE 8585'
PERFS 8511'
WSO 8518'

SI 8375
SHOE 8325'
SI 8580'
SI 8670'

PBTD 8745'
TD 8749'

100' MIN

46 1512

10 X 10 TO THE CENTIMETER
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0000339

.02794
.0699

Southern California Gas Company
Aliso Canyon

Well SS-25 Date 4/6/89 Element No. 3929 Clock Hours 3

Tubing Press. 1640 Status _____ Time Clock Started 10:41 Time Clock Off ___

Casing Press. 1640 Pick-Up _____ Operator DE 10 per Minute

Time Press. on 10:46 (36) 87.88 Time Start Down 12'7 Zero Point 6'

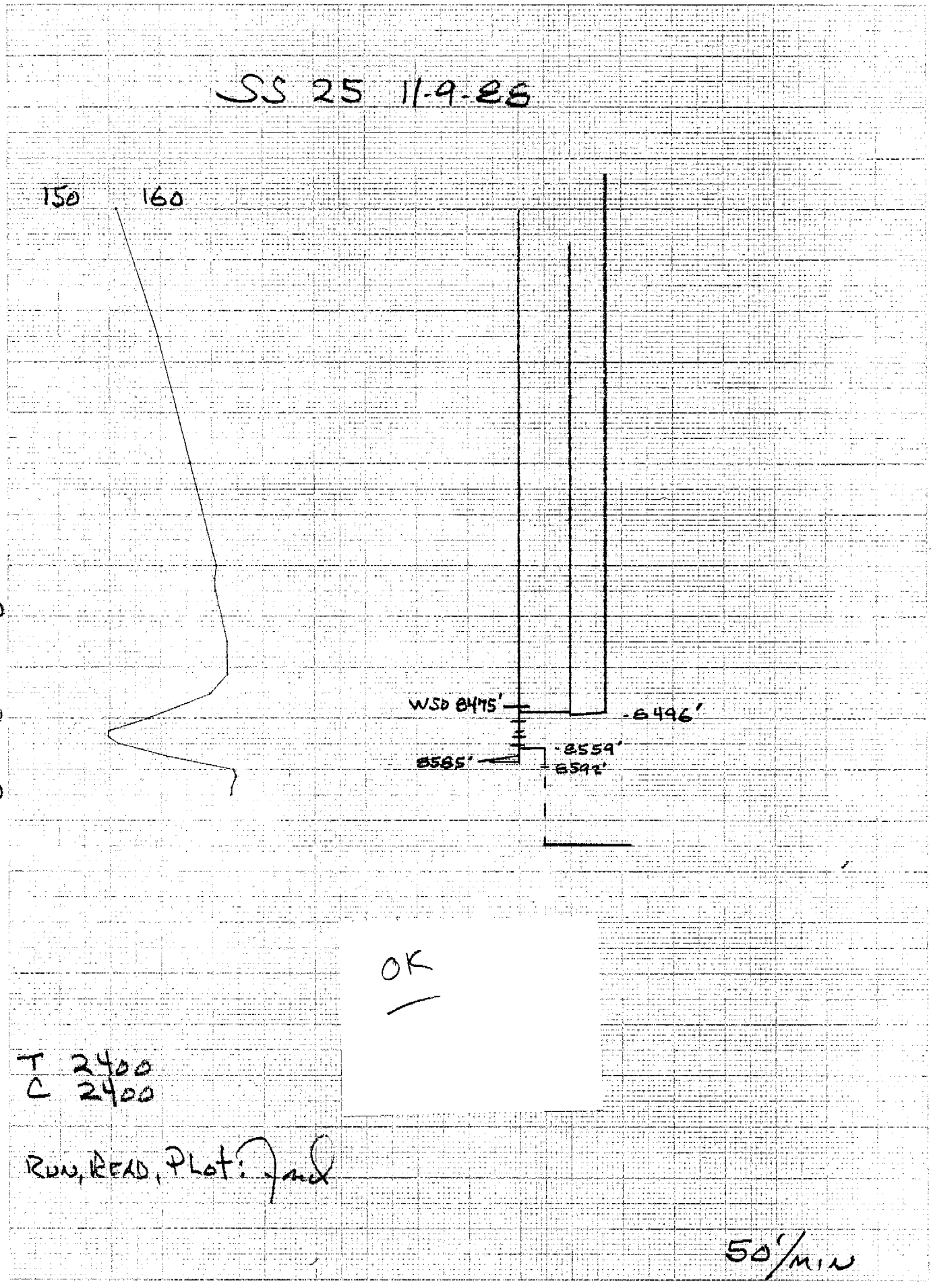
Depth	Elapse Time	Deflection	Temp.	Depth	Elapse Time	Deflection	Temp.
0	5	.186	82.58	5000	55.0 ✓	.460 1.398	122.0
250	7.5	.143	72.09	5250	57.5	.422	125.15
500	10.0	.147	73.07	5500	60.0	.444	128.29
750	12.5	.160	76.24	5750	62.5	.469	131.87
1000	15.0 ✓	.172	79.17	6000	65.0	.496	135.73
1250	17.5	.181	81.36	6250	67.5	.519	138.7
1500	20.0	.188	83.07	6500	70.0	.547	142.27
1750	22.5	.198	85.51	6750	72.5	.576	145.91
2000	25.0	.208	87.57	7000	75.0 ✓	.608 1.8572	149.92
2250	27.5	.219	89.72	7250	77.5	.639	153.49
2500	30.0	.231	92.08	7500	80	.672	157.28
2750	32.5	.244	94.62	7750	82.5	.706	161.12
3000	35.0 ✓	.255 1.8388	96.78	8000	85 ✓	.746 2.2368	165.28
3250	37.5	.269	99.52	8250	87.5	.773	168.09
3500	40.0	.283	102	8500	90	.699	160.39
3750	42.5	.300	105.6	[illegible]	[illegible]		
4000	45.0	.319	108.72	[illegible]	[illegible]		
4250	47.5	.338	111.83	8689	91.99	.748	165.49
4500	50.0	.358	115.11	TD			
4750	52.5	.380	118.72				

.01398

50 - .139 - 7.12

8350 — .784 — 169.26
8400 — 786 — 169.46
8450 — 757 — 166.43
2.3766v 8500 — 699 — 160.39
8550 — 711 — 161.66
8600 723 — 162.89
2.4185v 8650 — 705 — 160.15
8700 — 748 — 165.09

AC_CPUC_0000341



46 1512
10 X 10 TO THE CENTIMETER 10 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

Southern California Gas Company
Aliso Canyon

Well 5525 Date 11-9-22 Element No. 6452 Clock Hours _____

Tubing Press. 2400 Status _____ Time Clock Started _____ Time Clock Off _____

Casing Press. 2400 Pick-Up _____ Operator JG _____' per Minute

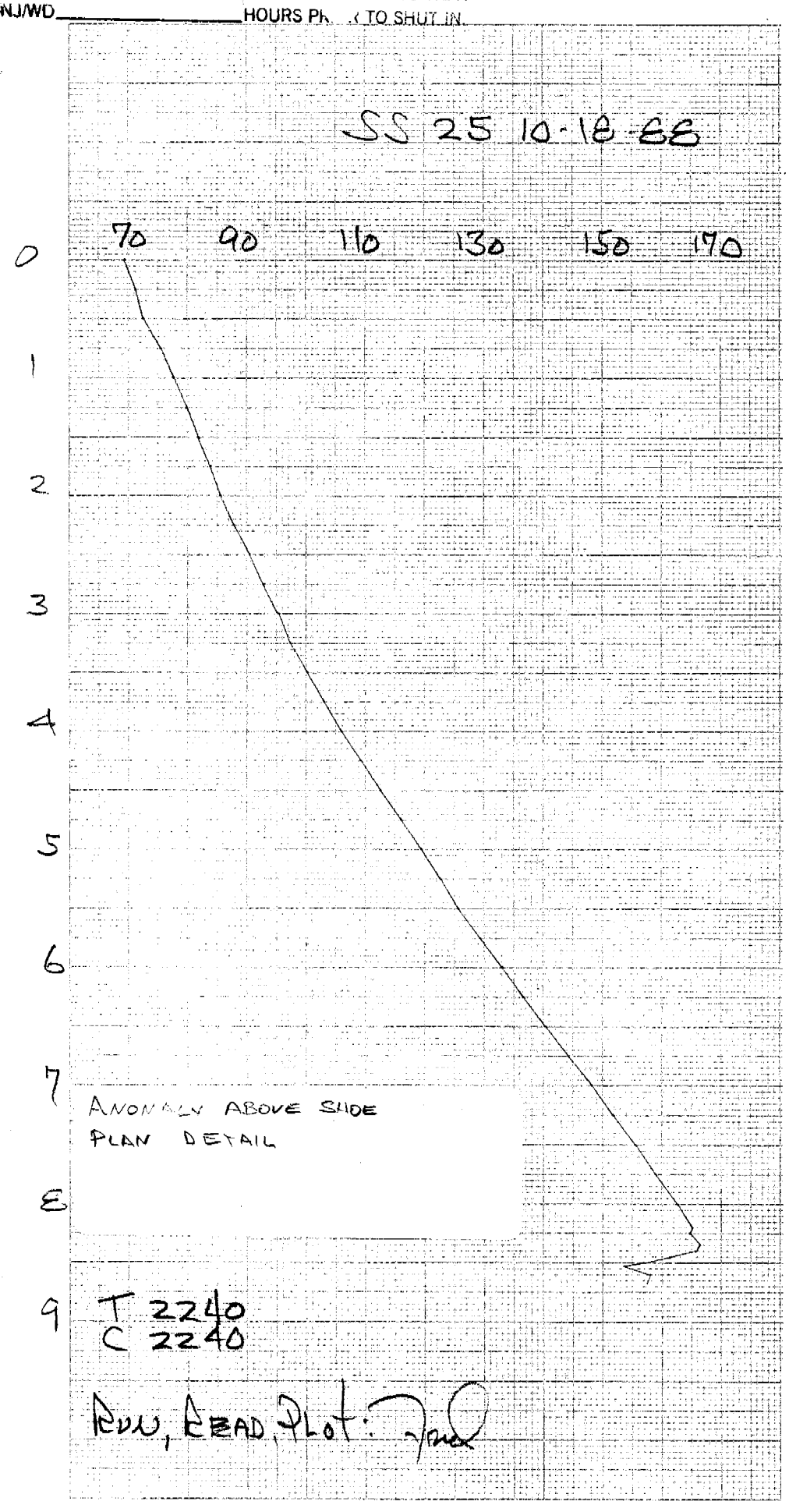
Time Press. on _____ Time Start Down _____ Zero Point 6'

Depth	Elapse Time	Deflection	Temp.	Depth	Elapse Time	Deflection	Temp.
0	5 3			5000	55		
250	7.5			5250	57.5		
500	10			5500	60.		
750	12.5			5750	62.5		
1000	15			6000	65		
1250	17.5			6250	67.5		
1500	20			6500	70		
1750	22.5			6750	72.5		
2000	25			7000 (2.0	75		
2250	27.5			~~7250~~	~~77.5~~		
2500	30			7500	20 80	.593	155.8
2750	32.5			7750	25 82.5	.628	159.7
3000	35			8000	30 85	.658	162.9
3250	37.5			~~8250~~	35 87.5	.681	165.3
3500	40			~~8500~~	40 90.	.620	158.8
3750	42.5			~~8650~~ ~~8750~~	43.0 ~~92.5~~	.647	161.8
4000	45			~~9000~~	~~95.~~		
4250	47.5						
4500	50						
4750	52.5						

E200'	34.	.682 –	165.4
E225'	34.5	.680 –	165.2
E250	37.	.693 –	166.5
E412'	38.25	.693 –	166.5
E450	39.	.676 –	164.8
E525'	40.5	.585 –	154.9
E537	40.75	.585 –	154.9
E550'	41.	.594 –	155.9
E575	41.5	.636 –	160.6
E600'	42.	.650 –	162.1
E612'	42.25	.652 –	162.3
E637	42.75	.648 –	161.9

SHUT IN 30+ DAY PRIOR TO SURVEY.

INJ/WD HOURS PRIOR TO SHUT IN.



46 1512

KEUFFEL & ESSER CO. NEW YORK 10 X 10 TO THE CENTIMETER 13 X 18 CM.

SHUT IN 30+ DAY PRIOR TO SURVEY.

INJ/WD HOURS PRIOR TO SHUT IN.

ALISO CYN, SS 25

SS 25 10-18-88

70 90 110 130 150 170

ANOMALY ABOVE SHOE

PLAN DETAIL

T 2240

C 2240

REVD, READ, PLOT, YOK

100' MIN

5-8-85

46 1512

10 X 10 TO THE CENTIMETER
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0000346

0278

Southern California Gas Company
Aliso Canyon

Well SS 25 Date 10-18-88 Element No 69452 Clock Hours _____

Tubing Press. 2240 Status _____ Time Clock Started _____ Time Clock Off _____

Casing Press. 2240 Pick-Up _____ Operator JG _____' per Minute

Time Press. on _____ Time Start Down _____ Zero Point 6'

Depth	Elapse Time	Deflection	Temp.	Depth	Elapse Time	Deflection	Temp.
0	5	.100	69.4	5000	55	331	119.6
250	7.5	.107	71.3	5250	57.5	349	122.7
500	10	.111	72.4	5500	60.	369	125.8
750	12.5	.122	75.5	5750	62.5	393	129.5
1000	15	.130	77.7	6000	65	418	133.2
1250	17.5	.138	79.9	6250	67.5	443	136.8
1500	20	.145	81.8	6500	70	469	140.4
1750	22.5	.153	83.9	6750	72.5	498	144.3
2000	25	160	85.5	7000	75	528	148.1
2250	27.5	170	87.8	7250	77.5	558	151.9
2500	30	181	90.4	7500	80	590	155.7
2750	32.5	192	92.9	7750	82.5	614	159.0
3000	35	203	95.4	8000	85	.652	162.7
3250	37.5	212	97.3	8250	87.5	.671	164.8
3500	40	226	100.2	8500	90.	.600	1569
3750	42.5	240	103.0	~~8675~~	~~92.5~~	.605	157.5
4000	45	255	106.0	~~9000~~	95.		
4250	47.5	273	109.3				
4500	50	291	112.6				
4750	52.5	310	116.0				

8200' 87. .674 - 165.1

8375' 88.75 .684 - 166.2

8400' 89. .681 - 165.8

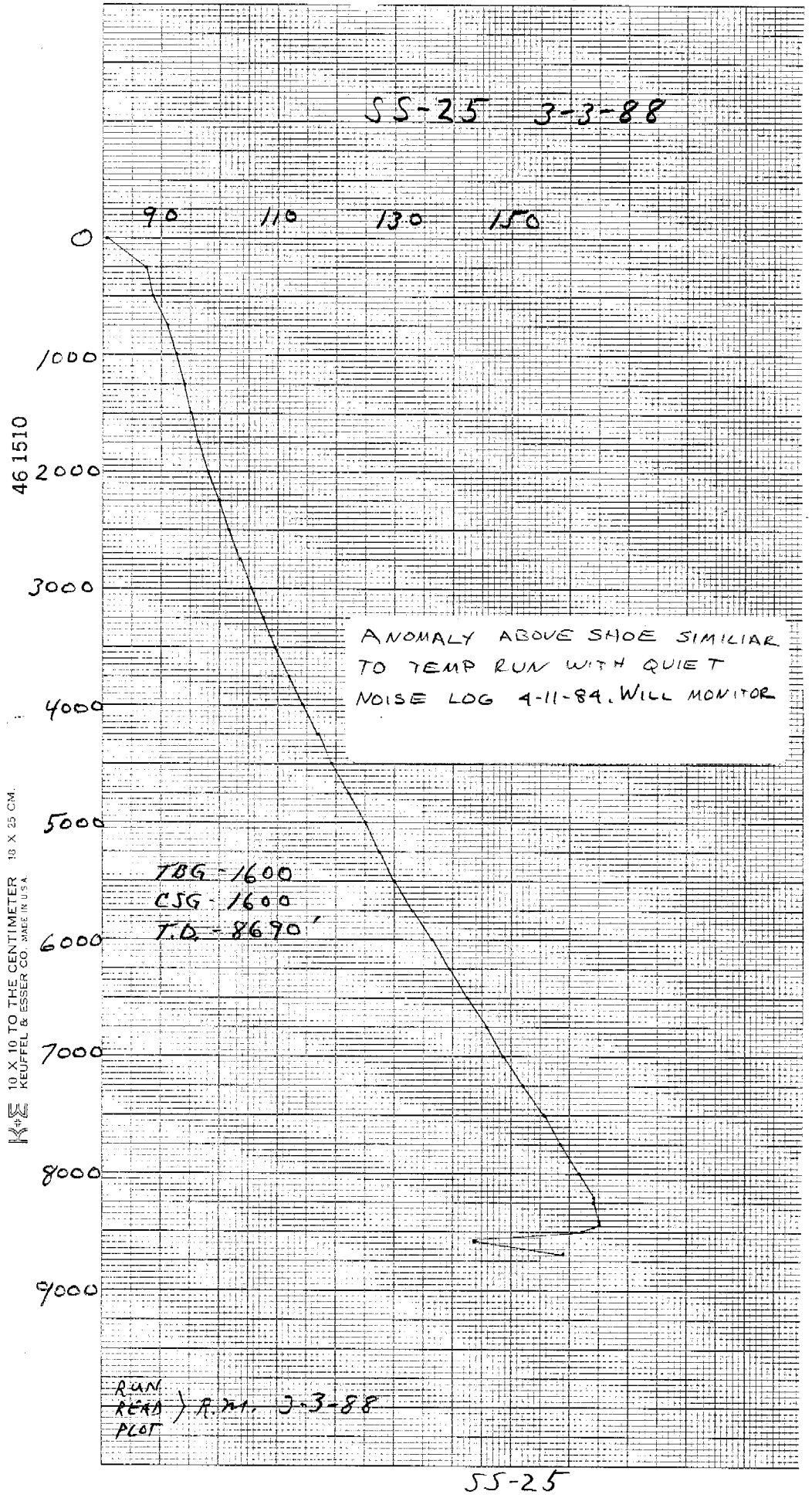
8450' 89.5 .640 - 161.4

8525' 90.25 .542 - 153.5

8600 91. .610 - 158.0

AC_CPUC_0000348

SHUT IN 2-26-88 PRIOR TO SURVEY.
5.58 HRS PRIOR TO SHUT IN.



46 1510
10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

55-25

AC_CPUC_0000349

SHUT IN 2-26-88 PRIOR TO SURVEY.

(RUN) 5.58 HRS PRIOR TO SHUT IN.

ALISO CYN, SS 25

SS-25 3-3-88

90 110 130 150

0 1000 2000 3000 4000 5000 6000 7000 8000 9000

ANOMALY ABOVE SHOE SIMILIAR TO TEMP RUN WITH QUIET NOISE LOG 4-11-84. WILL MONITOR

TBG - 1600
CSG - 1600
T.D. - 8690'

RUN
READ } R.M. 3-3-88
PLOT

100' MIN

SS-25

5-8-85

46 1510

10 X 10 TO THE CENTIMETER 18 X 25 CM
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0000350

Southern California Gas Company
Aliso Canyon

Well 55-25 Date 3-3-88 Element No. 39139 Clock Hours _____

Tubing Press. 1600 Status S/IN Time Clock Started _____ Time Clock Off ____

Casing Press. 1600 Pick-Up _____ Operator RM 100' per Minute @ M/N

Time Press. on _____ Time Start Down _____ Zero Point 6'

Depth	Elapse Time	Deflection	Temp.	Depth	Elapse Time	Deflection	Temp.
0	5	.236	80.7	5000 ✓	55.0	.524	125.0
250	7.5	.277	87.3	5250	57.5	.542	127.5
500	10.0	.285	88.6	5500	60.0	.560	130.0
750	12.5	.300	91.1	5750	62.5	.583	133.2
1000	15.0	.310	92.7	6000	65.0	.607	136.5
1250	17.5	.318	94.0	6250	67.5	.630	139.7
1500	20.0	.325	95.1	6500	70.0	.656	142.7
1750	22.5	.333	96.4	6750	72.5	.684	145.8
2000	25.0	.343	98.1	7000 ✓	75.0	.710	148.7
2250	27.5	.354	99.9	7250	77.5	.738	151.9
2500	30.0	.365	101.6	7500	80.0	.770	155.5
2750	32.5	.376	103.4	7750	82.5	.801	158.6
3000 ✓	35.0	.389	105.5	8000	85.0	.832	161.7
3250	37.5	.402	107.6	8250	87.5	.855	164.0
3500	40.0	.415	109.6	8500	90.0	.837	162.2
3750	42.5	.430	111.8	8690	91.9	.803	158.8
4000	45.0	.447	114.3				
4250	47.5	.465	116.8	UP	95.0		
4500	50.0	.483	119.3				
4750	52.5	.504	122.2				

8211 – 87.41 – .857 – 164.2

8411 – 89.11 – .865 – 165.0

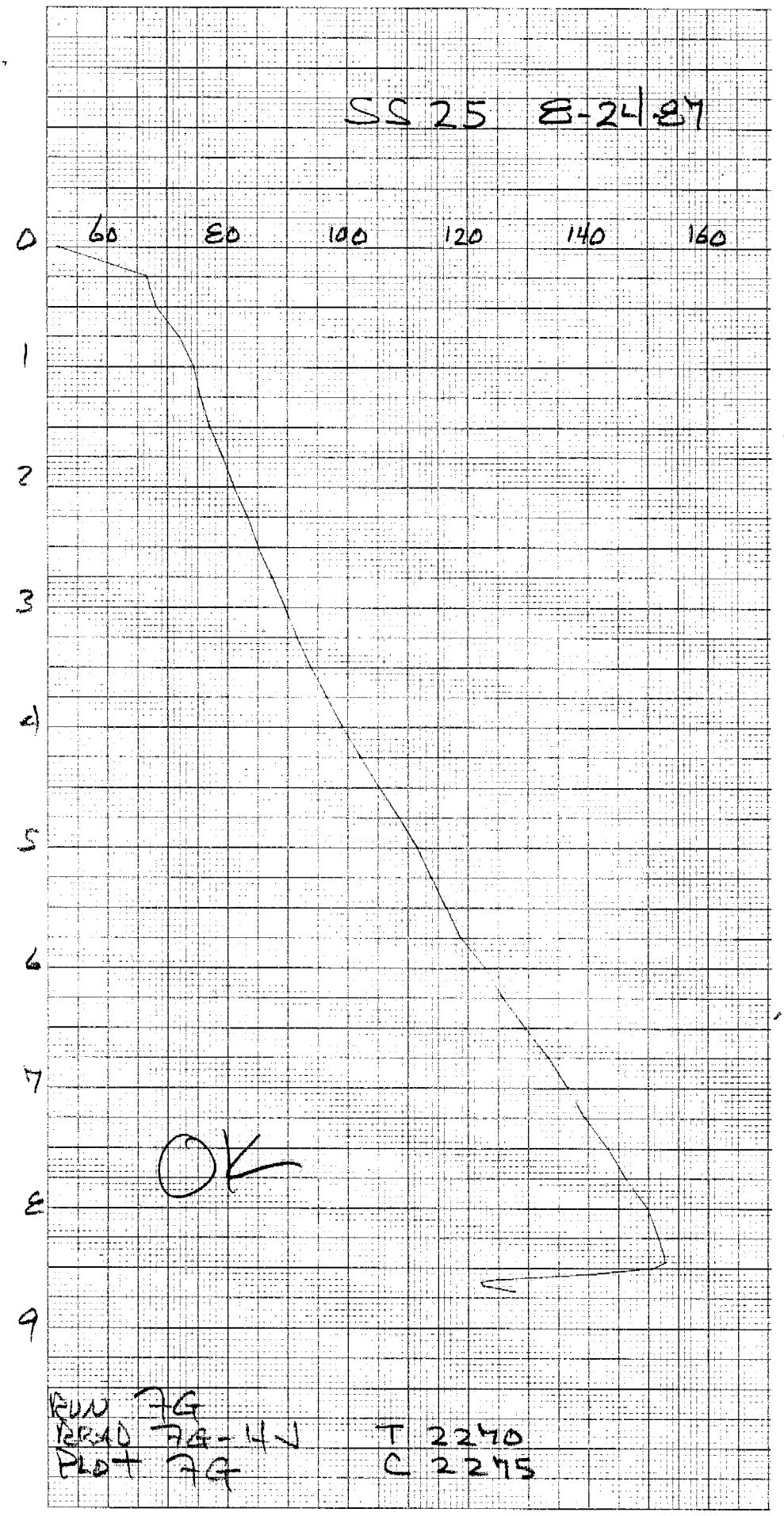
8442 – 89.42 – .866 – 165.1

8464 – 89.64 – .857 – 164.2

8571 – 90.71 – .665 – 143.7

8596 – 90.96 – .664 – 143.6

SHUT IN 7 DAYS PRIOR TO SURVEY.
INJ/WD INJ 200 HOURS PRIOR TO SHUT IN.

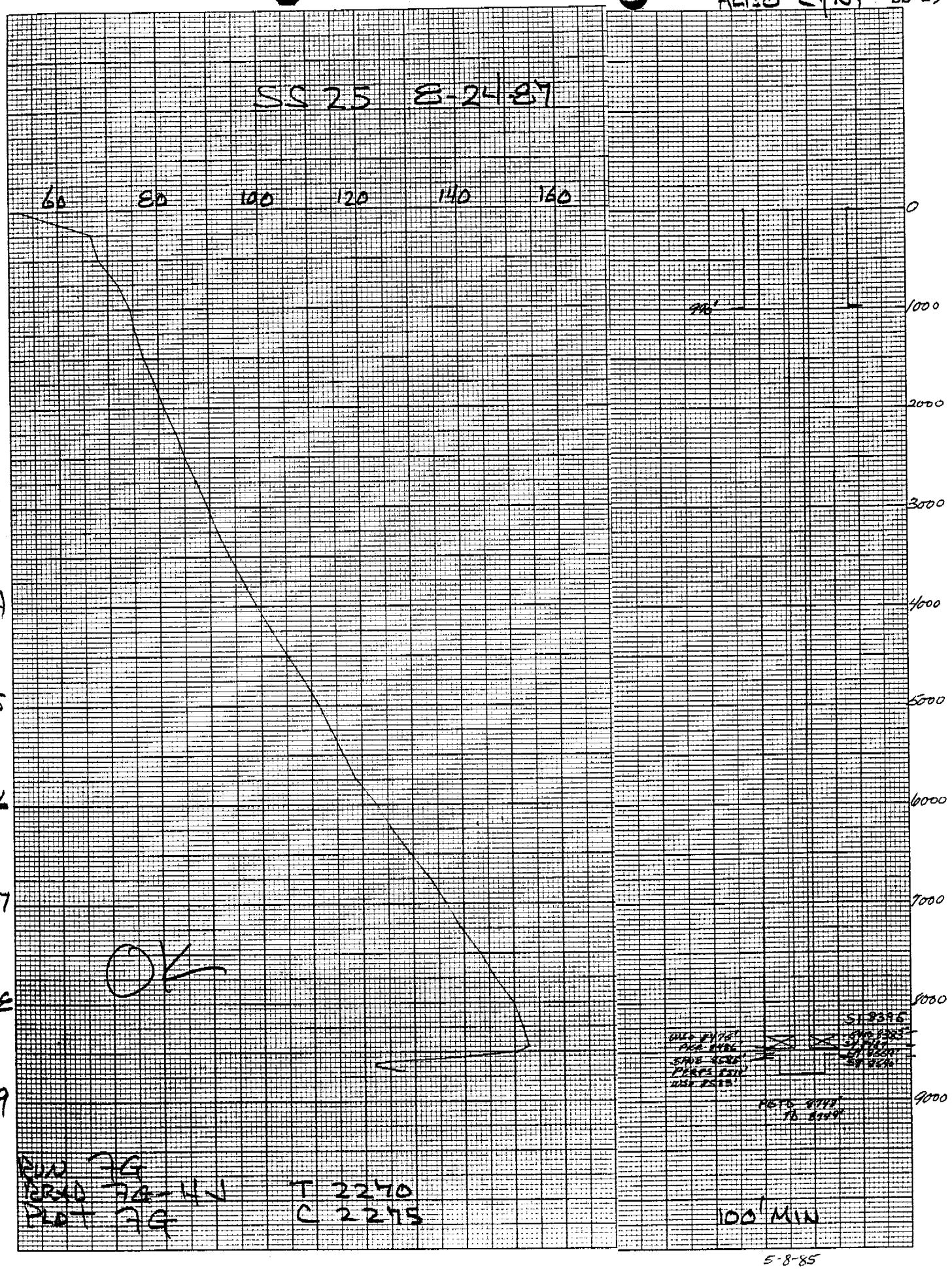


46 1512

K&E 10 X 10 TO THE CENTIMETER 10 X 25 CM
KEUFFEL & ESSER CO. MADE IN U.S.A.

SHUT IN 7 DAYS PRIOR TO SURVEY.
INJ/WD INJ 200 HOURS PRIOR TO SHUT IN.

ALISO CYN, SS 25



RUN TG
REXD TG-HN
PLOT TG

5-8-85

46 1512

K+E 10 X 10 TO THE CENTIMETER 18 X 25 CM
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0000354

Southern California Gas Company
Aliso Canyon

Well SS25 Date 8-24-87 Element No. 68482 Clock Hours _____

Tubing Press. 2270 Status _____ Time Clock Started _____ Time Clock Off _____

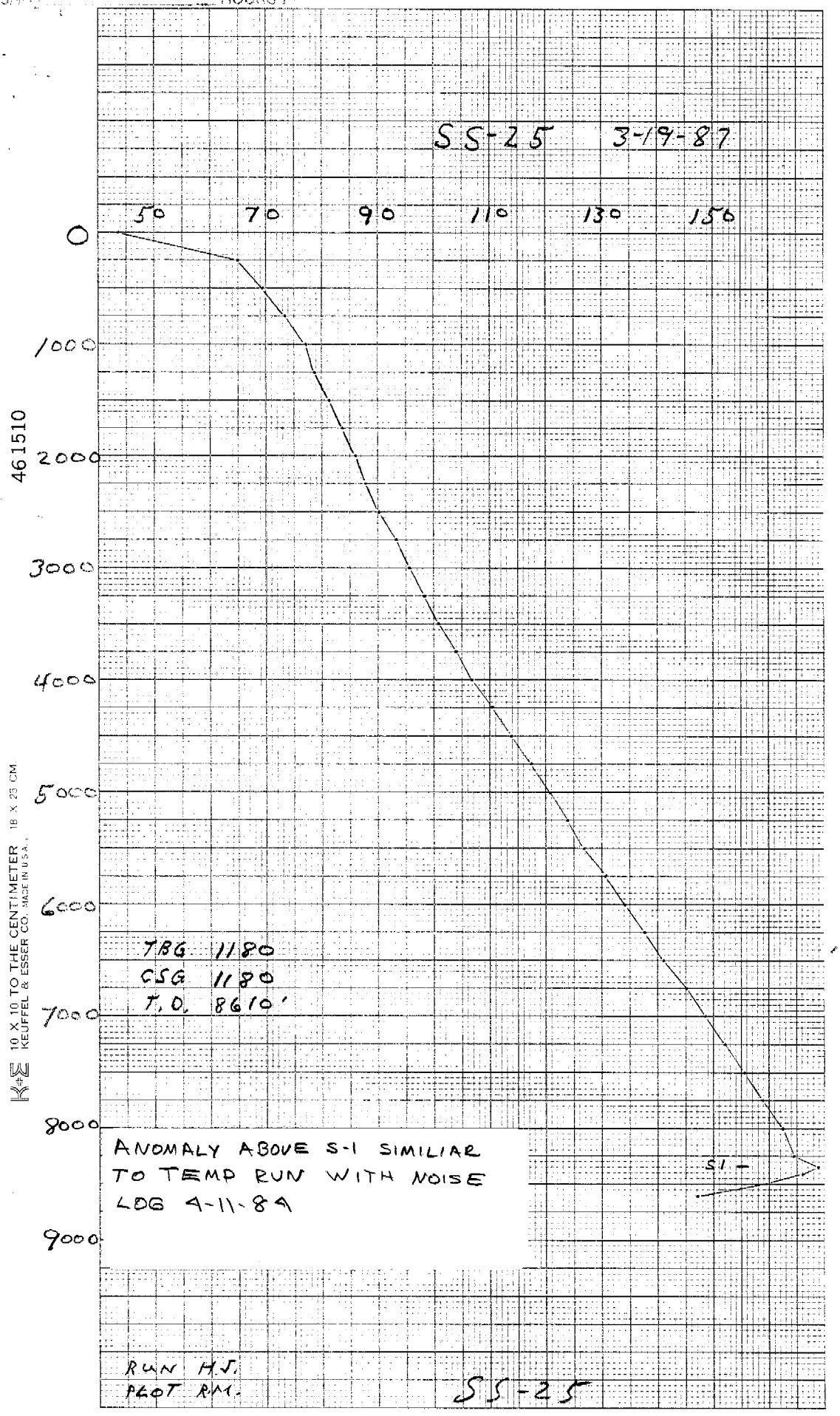
Casing Press. 2275 Pick-Up _____ Operator JG _____ per Minute

Time Press. on _____ Time Start Down _____ Zero Point 6'

Depth	Elapse Time	Deflection	Temp.	Depth	Elapse Time	Deflection	Temp.
0	5	.049	52.0	5000	55.	.287	111.5
250	7.5	.091	66.6	5250	57.5	.300	113.9
500	10.	.095	68.0	5500	60.	.315	116.4
750	12.5	.108	71.9	5750	62.5	.330	118.9
1000	15.	.117	74.3	6000 ✓	65.	.353	122.8
1250	17.5	.122	75.6	6250	67.5	.372	125.8
1500	20	.127	77.0	6500	70.	.395	129.5
1750	22.5	.135	79.1	6750	72.5	.420	133.3
2000 ✓	25.	.142	81.0	7000	75.	.441	136.5
2250	27.5	.150	83.2	7250	77.5	.462	139.5
2500	30	.158	85.0	7500	80.	.490	143.3
2750	32.5	.168	87.3	7750	82.5	.512	146.2
3000	35.	.178	89.6	8000 ✓	85.	.541	149.9
3250	37.5	.187	91.6	8250	87.5	.556 OVER	151.8
3500	40.	.197	93.9	8500	90.	.546	150.6
3750	42.5	.209	96.4 TD	8695	91.95	.384	127.7
4000 ✓	45	.222	99.	up	-96-		
4250	47.5	.236	101.9				
4500	50.	.252	105.1				
4750	52.5	.270	108.4				

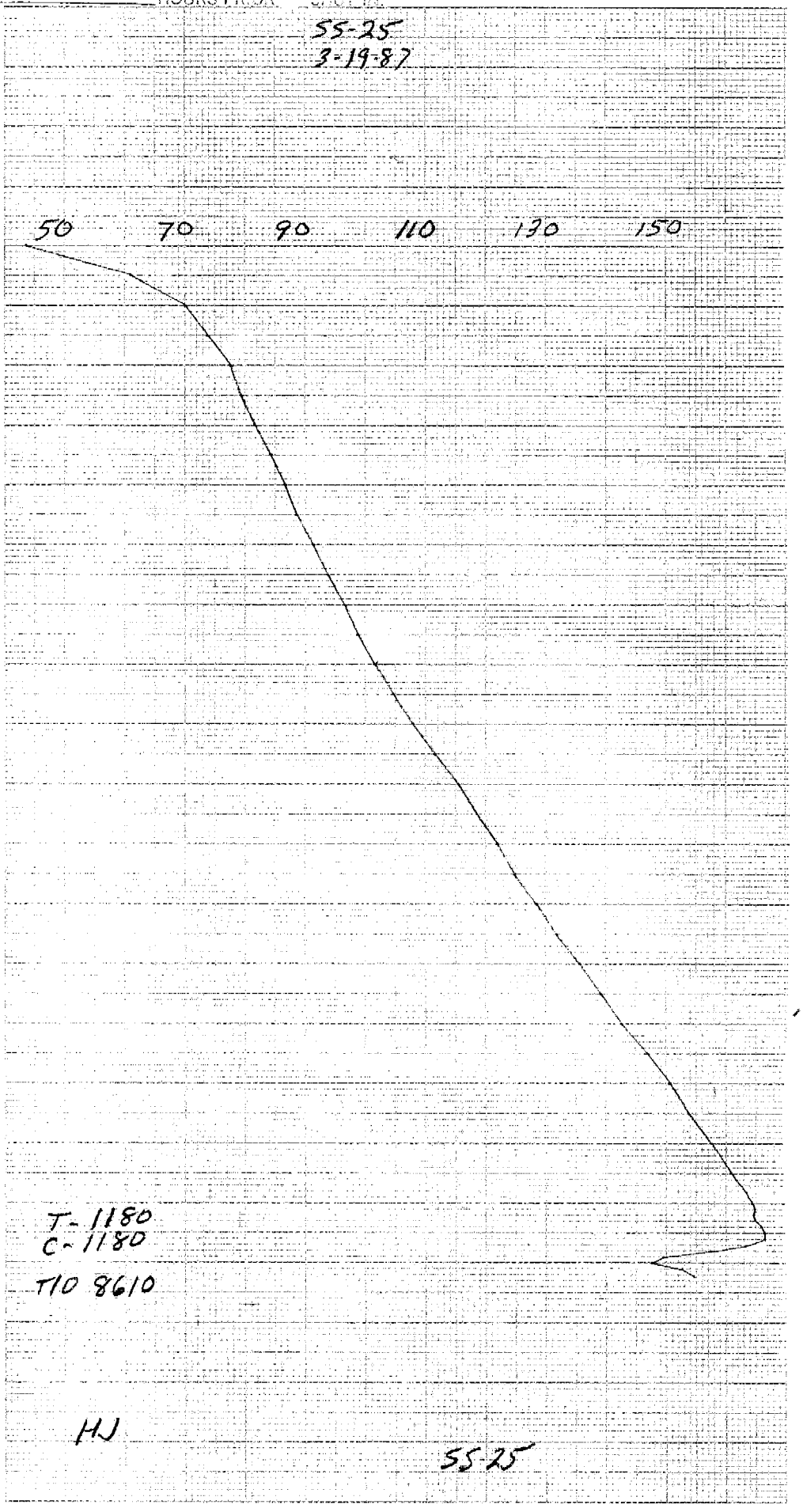
8400	89.0	.56—	152.7
8450	89.5	.565—	152.9
8550	90.5	.471—	140.8
8600	91.0	.366—	124.9
8625	91.25	.349—	122.1
8650	91.5	.352—	122.6

SHUT IN 23 days PRIOR TO SURVEY.
PUMPED HOURS PRIOR TO



AC_CPUC_0000357

SHUT IN 23 days PRIOR TO SURVEY.
INJ/WD. _____ HOURS PRIOR SHUT IN



46 1512

10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0000358

SHUT IN 23 days PRIOR TO SURVEY
HOURS PRIOR

SS 25

SS-25 3-19-87

50 70 90 110 130 150

0 1000 2000 3000 4000 5000 6000 7000 8000 9000

461510

TBG 11180
CSG 11180
T.D. 8610'

ANOMALY ABOVE S-1 SIMILIAR TO TEMP RUN WITH NOISE LOG 4-11-89

S-1

5-8-85

RUN H.S.
PLOT RM.

SS-25

K&E 10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

Southern California Gas Company
Aliso Canyon

Well 55-25 Date 3-19-87 Element No. 69452 Clock Hours 3

Tubing Press. 1180 Status S/I Time Clock Started _____ Time Clock Off _____

Casing Press. 1180 Pick-Up _____ Operator HFJ 100 ' per Minute

Time Press. on _____ Time Start Down _____ Zero Point 6

Depth	Elapse Time	Deflection	Temp.	Depth	Elapse Time	Deflection	Temp.
0	5	.030	43.4	5000 ✓	55.0	.345	122.0
250	7.5	.090	66.0	5250	57.5	.363	124.9
500	10.0	.102	70.0	5500	60.0	.384	128.1
750	12.5	.116	73.8	5750	62.5	.409	131.9
1000 ✓	15.0	.128	77.1	6000 ✓	65.0	.434	135.5
1250	17.5	.136	79.3	6250	67.5	.459	139.0
1500	20.0	.144	81.5	6500	70.0	.486	142.7
1750	22.5	.154	84.1	6750	72.5	.519	147.0
2000 ✓	25.0	.164	86.4	7000 ✓	75.0	.545	150.3
2250	27.5	.173	88.5	7250	77.5	.573	153.7
2500	30.0	.184	91.1	7500	80.0	.604	157.3
2750	32.5	.195	93.6	7750	82.5	.633	160.6
3000 ✓	35.0	.208	96.4	8000 ✓	85.0	OVER .667	164.3
3250	37.5	.219	98.7	8250	87.5	OVER .684	166.2
3500	40.0	.232	101.4	8500	90.0	OVER .522	147.4
3750	42.5	.247	104.5	8610 TD	91.10	.583	154.9
4000 ✓	45.0	.265	107.9				
4250	47.5	.283	111.2				
4500	50.0	.305	115.2	UP	95		
4750	52.5	.325	118.6				

8050	85.5	.674 – 164.8
8100	86.0	.669 – 164.6
8150	86.5	.670 – 164.7
8200	87.0	.680 – 165.7
8300	88.0	.684 – 166.2
8350	88.5	.656 – 163.1
8400	89.0	.603 – 157.2
8450	89.5	.537 – 149.3
8550	90.5	.564 – 152.6

Southern California Gas Company
Aliso Canyon

Well 55-25 Date 3-19-87 Element No. 69452 Clock Hours 3

Tubing Press. 1180 Status S/I Time Clock Started _____ Time Clock Off _____

Casing Press. 1180 Pick-Up _____ Operator HFJ 100' per Minute

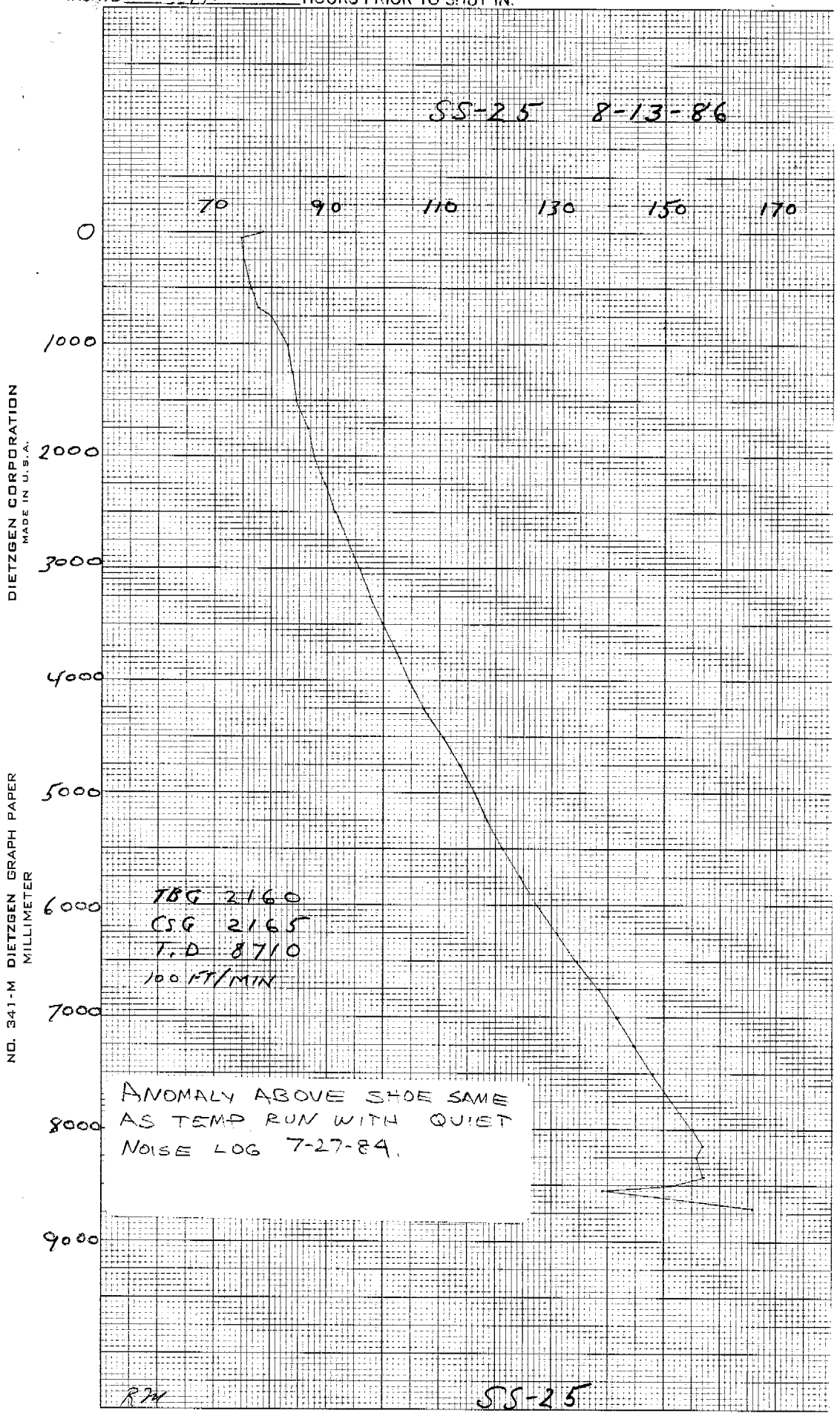
Time Press. on _____ Time Start Down _____ Zero Point 6

Depth	Elapse Time	Deflection	Temp.	Depth	Elapse Time	Deflection	Temp.
0	5	.030	43.4	5000 ✓	55.0	.338	120.8
250	7.5	.087	64.9	5250	57.5	.357	124.0
500	10.0	.100	69.4	5500	60.0	.376	126.9
750	12.5	.115	73.5	5750	62.5	.401	130.7
1000 ✓	15.0	.128	77.1	6000 ✓	65.0	.425	134.2
1250	17.5	.134	78.8	6250	67.5	.449	137.7
1500	20.0	.143	81.3	6500	70.0	.474	141.1
1750	22.5	.152	83.7	6750	72.5	.505	145.2
2000 ✓	25.0	.162	86.0	7000 ✓	75.0	.532	148.6
2250	27.5	.170	87.8	7250	77.5	.560	152.1
2500	30.0	.180	90.2	7500	80.0	.589	155.6
2750	32.5	.193	93.2	7750	82.5	.617	158.8
3000 ✓	35.0	.204	95.6	8000 ✓	85.0	.649	162.4
3250	37.5	.217	98.3	8250	87.5	.667	164.3
3500	40.0	.229	100.8	8500	90.0	.623	159.5
3750	42.5	.244	103.9	8610	91.10	.521	147.2
4000 ✓	45.0	.259	106.8	[illegible]	[illegible]		
4250	47.5	.278	110.3				
4500	50.0	.298	113.9				
4750	52.5	.318	117.4	UP	95-		

8100 - 86.0 - .664 - 164

8410 - 89.1 - .684 - 166.2

SHUT IN 4 days PRIOR TO SURVEY.
INJWD 194.2 HOURS PRIOR TO SHUT IN.



DIETZGEN CORPORATION MADE IN U.S.A.

NO. 341-M DIETZGEN GRAPH PAPER MILLIMETER

SHUT IN 4 days PRIOR TO SURVEY.
INJ WD 24 HOURS PRIOR TO SHUT IN.

SS 2

SS-25 8-13-86

70 90 110 130 150 170

0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000

TBG 2160
CSG 2165
T.D 8710
100 FT/MIN

ANOMALY ABOVE SHOE SAME AS TEMP RUN WITH QUIET NOISE LOG 7-27-89.

RJM SS-25

5-8-85

DIETZGEN CORPORATION MADE IN U.S.A.

NO. 341-M DIETZGEN GRAPH PAPER MILLIMETER

AC_CPUC_0000365

Southern California Gas Company
Aliso Canyon

Well SS-25 Date 8-13-86 Element No. 69452 Clock Hours _____

Tubing Press. 2160 Status SI/W Time Clock Started _____ Time Clock Off _____

Casing Press. 2165 Pick-Up _____ Operator RM 100' per Minute

Time Press. on _____ Time Start Down _____ Zero Point 6 @ MV

Depth	Elapse Time	Deflection	Temp.	Depth	Elapse Time	Deflection	Temp.
0	5	.133	78.5	5000	55.0	.311	116.2
250	7.5	.120	74.9	5250	57.5	.325	118.6
500	10.0	.125	76.3	5500	60.0	.340	121.2
750	12.5	.138	79.9	5750	62.5	.362	124.7
1000	15.0	.149	82.9	6000	65.0	.381	127.7
1250	17.5	.152	83.7	6250	67.5	.402	130.9
1500	20.0	.156	84.6	6500	70.0	.426	134.3
1750	22.5	.164	86.4	6750	72.5	.456	138.6
2000	25.0	.169	87.6	7000	75.0	.477	141.3
2250	27.5	.177	89.5	7250	77.5	.500	144.6
2500	30.0	.185	91.3	7500	80.0	.527	148.0
2750	32.5	.195	93.6	7750	82.5	.554	151.4
3000	35.0	.204	95.6	8000	85.0	.584	155.0
3250	37.5	.213	97.5	8250	87.5	.592	155.9
3500	40.0	.225	99.9	8500	90.0	.553	157.3
3750	42.5	.236	102.2	8710	92.1	.680	165.7
4000	45.0	.247	104.5				
4250	47.5	.261	107.1	UP	96.0	.705	168.4
4500	50.0	.280	110.6				
4750	52.5	.295	113.4				

50 – 5.5 – .119 — 74.6

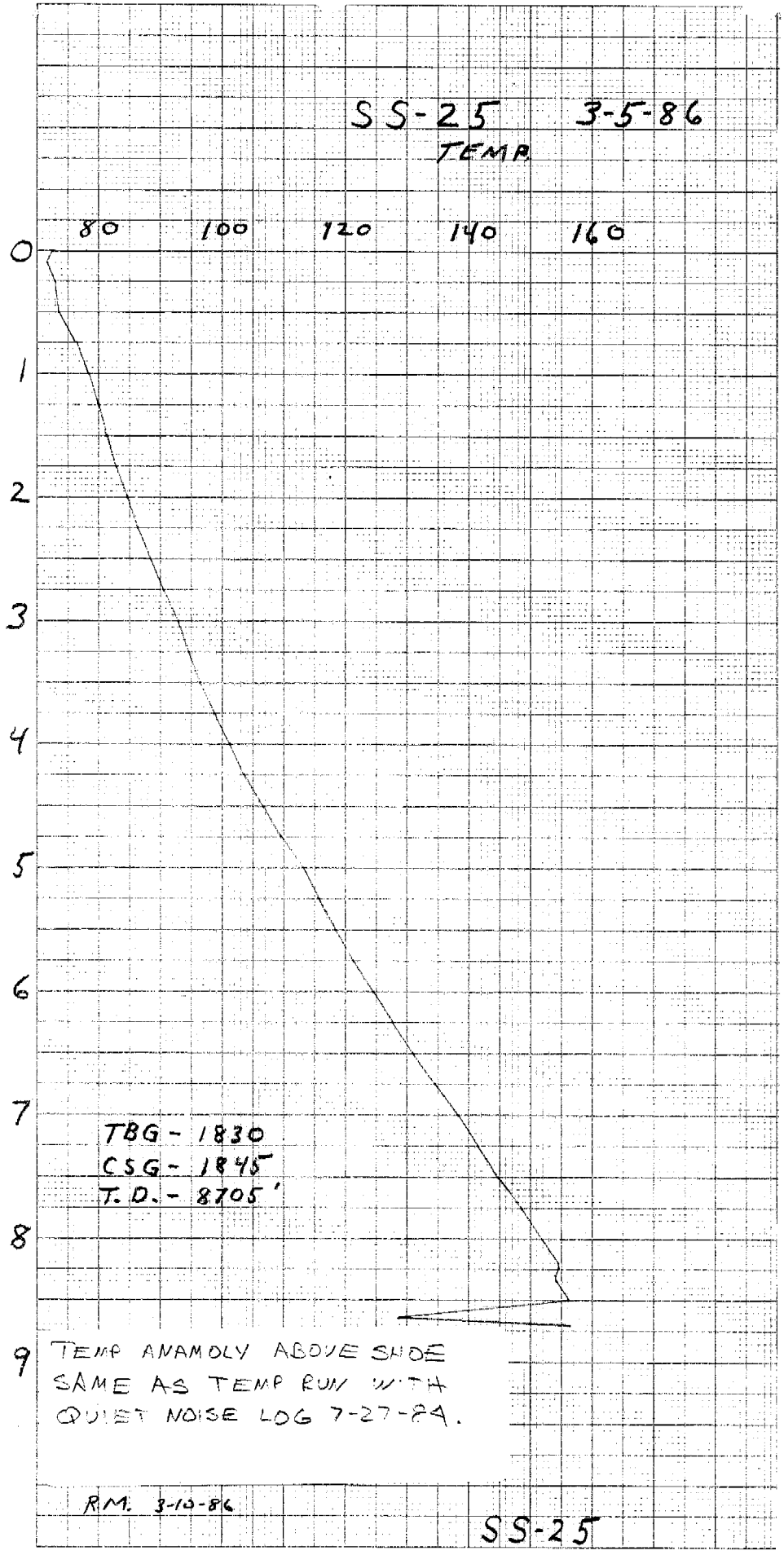
675 – 11.75 – .130 — 77.7

8150 – 86.5 – .600 — 156.9

8425 – 89.25 – .609 – 157.9

8550 – 90.5 — .461 – 139.3

SHUT IN 7 days PRIOR TO SURVEY.
INJ/WD _____ HOURS PRIC) SHUT IN.



46 1512

10 X 10 TO THE CENTIMETER
KEUFFEL & ESSER CO MADE IN U.S.A.

AC_CPUC_0000368

SHUT IN 7 days PRIOR TO SURVEY.
U/WD _____ HOURS PRIOR TO SHUT IN.

SS 25

SS-25 3-5-86
TEMP

80 100 120 140 160

0 1 2 3 4 5 6 7 8 9

0 1000 2000 3000 4000 5000 6000 7000 8000 9000

TBG - 1830
CSG - 1845'
T.D. - 8705'

TEMP ANAMOLY ABOVE SHOE
SAME AS TEMP RUN WITH
QUIET NOISE LOG 7-27-89.

KM 5-10-86

SS-25

5-8-85

46 1512

K&E 10 X 10 TO THE CENTIMETER
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0000369

.028180

Southern California Gas Company
Aliso Canyon

Well SS-25 Date 3-5-86 Element No. 41216 Clock Hours _____

Tubing Press. 1830 Status S/IN Time Clock Started _____ Time Clock Off _____

Casing Press. 1845 Pick-Up _____ Operator RM 100' per Minute

Time Press. on _____ Time Start Down _____ Zero Point 6' @ M/V

Depth	Elapse Time	Deflection	Temp.	Depth	Elapse Time	Deflection	Temp.
0	5	.089-.071	72.3-67.6	5000 ✓	55.0	.318	113.1
250	7.5 OVER	.091	72.9	5250	57.5	.335	115.6
500	10.0	.093	73.4	5500	60.0	.353	118.3
750	12.5	.106	76.4	5750	62.5	.374	121.4
1000	15.0	.117	78.5	6000	65.0	.396	124.7
1250	17.5	.125	80.1	6250	67.5	.418	127.6
1500	20.0	.132	81.4	6500	70.0	.443	130.9
1750	22.5	.140	82.9	6750 ✓	72.5	.469	134.4
2000	25.0	.149	84.7	7000 ✓	75.0	.498	138.2
2250	27.5	.157	86.2	7250	77.5	.524	141.4
2500	30.0	.168	88.3	7500	80.0	.552	144.8
2750 ✓	32.5	.179	90.4	7750	82.5	.582	148.5
3000 ✓	35.0	.192	92.9	8000 ✓	85.0	.611	151.9
3250	37.5	.201	94.6	8250	87.5 OVER	.634	154.5
3500	40.0	.212	96.4	8500	90.0	.648	156.1
3750 ✓	42.5	.227	98.8	8705	92.05	.693	161.3
4000 ✓	45.0	.242	101.2				
4250	47.5	.258	103.7	UP	105.0		
4500	50.0	.277	106.8				
4750	52.5	.296	109.8				

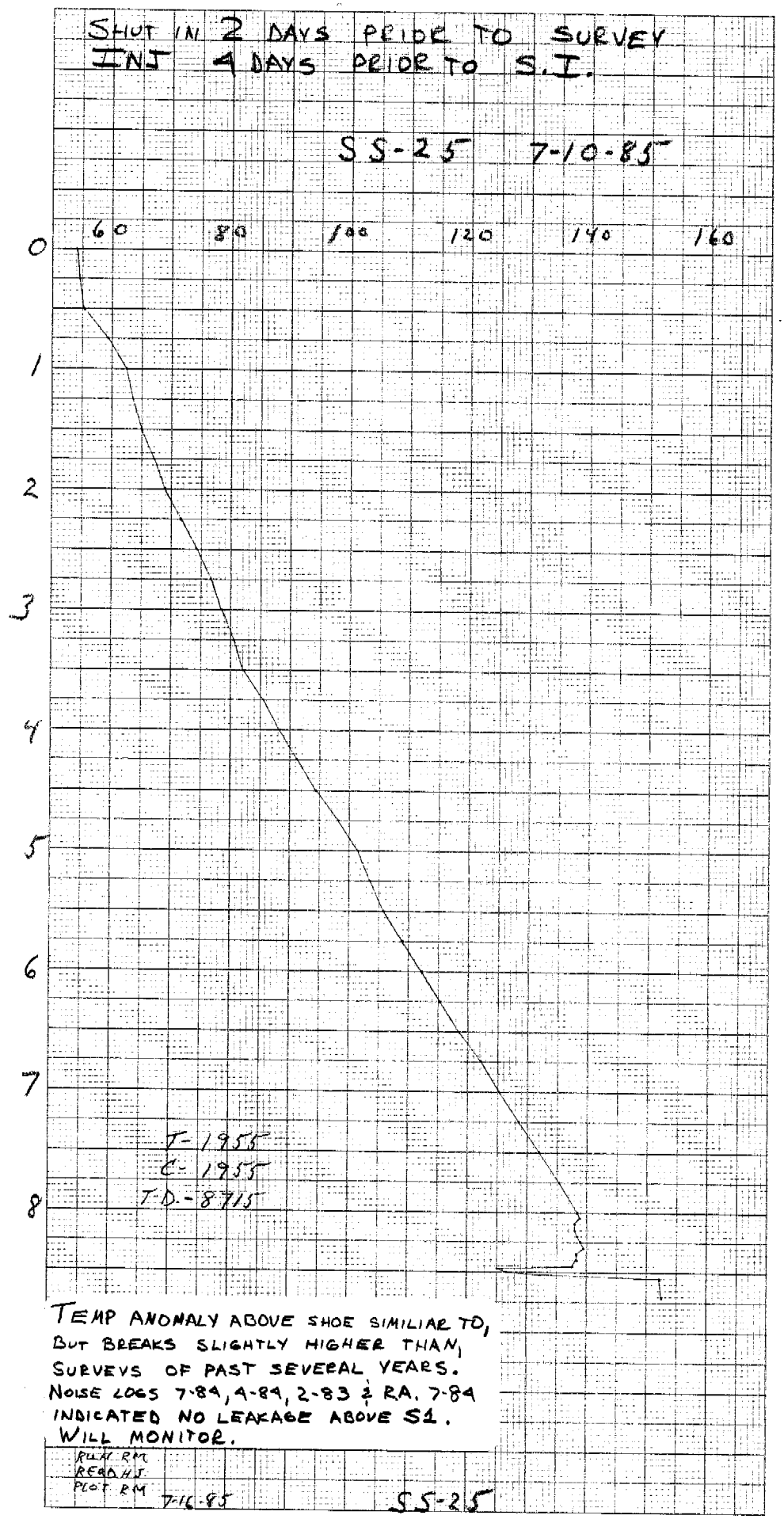
1000 - 6.0 - .086 — 71.5

8200 - 87.0 - .634 — 154.5

8300 - 88.0 - .630 — 154.1

8350 - 88.5 — .631 — 154.2

8650 — 91.5 — .426 — 128.7



46 1512

K&E 10 X 10 TO THE CENTIMETER 18 X 25 CM
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0000372

SHUT IN 2 DAYS PRIOR TO SURVEY
INJ 4 DAYS PRIOR TO S.I.

SS-25 7-10-85

60 80 100 120 140 160

0 1 2 3 4 5 6 7 8

0 1000 2000 3000 4000 5000 6000 7000 8000 9000

T-1955
C-1955
PD-8715

TEMP ANOMALY ABOVE SHOE SIMILIAR TO, BUT BREAKS SLIGHTLY HIGHER THAN, SURVEYS OF PAST SEVERAL YEARS. NOISE LOGS 7-84, 4-84, 2-83 & RA. 7-84 INDICATED NO LEAKAGE ABOVE S1. WILL MONITOR.

PUMP RM
RECEIVE
PLOT RM 7-16-85

SS-25

5-8-85

46 1512
10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.
K&E

Southern California Gas Company
Aliso Canyon

Well 55-25 Date 7-10-85 Element No. 29138 Clock Hours _____

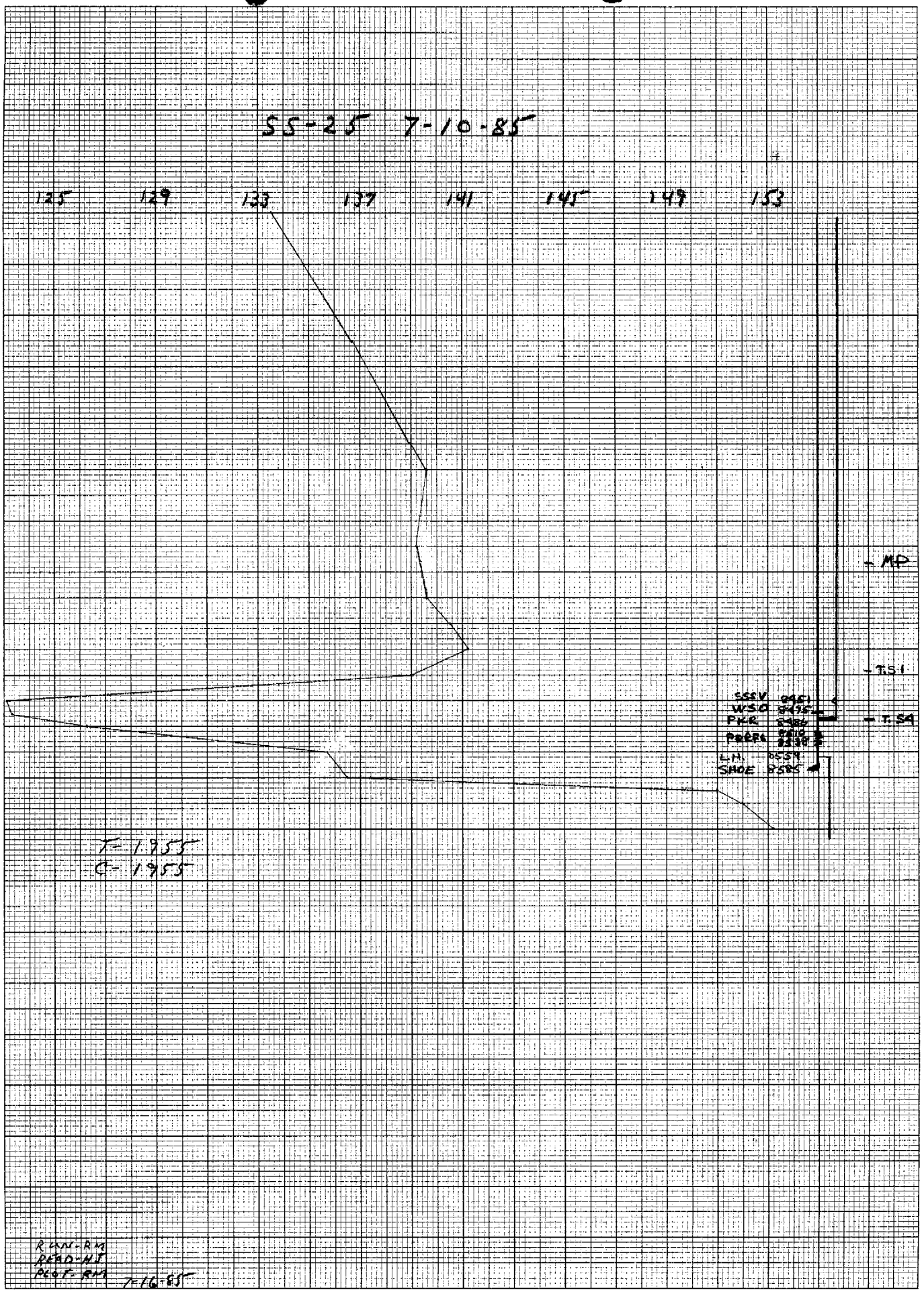
Tubing Press. 1955 Status S/IN Time Clock Started _____ Time Clock Off _____

Casing Press. 1963 Pick-Up _____ Operator RM 100' per Minute

Time Press. on _____ Time Start Down _____ Zero Point 6' @ MV

Depth	Elapse Time	Deflection	Temp.	Depth	Elapse Time	Deflection	Temp.
0	5	.066	54.1	5000	55.0	.281	101.5
250	7.5	.068	54.6	5250	57.5	.295	103.5
500	10.0	.070	55.2	5500	60.0	.312	105.9
750	12.5	.085	59.2	5750	62.5	.333	109.0
1000	15.0	.097	62.5	6000	65.0	.356	112.3
1250	17.5	.101	63.6	6250	67.5	.376	115.2
1500	20.0	.106	65.0	6500	70.0	.400	118.6
1750	22.5	.114	67.1	6750	72.5	.425	122.3
2000	25.0	.121	69.0	7000	75.0	.447	125.3
2250	27.5	.130	71.5	7250	77.5	.475	128.6
2500	30.0	.140	74.2	7500	80.0	.505	132.0
2750	32.5	.152	76.8	7750	82.5	.535	135.4
3000	35.0	.161	78.5	8000	85.0	.562 OVER	138.5
3250	37.5	.171	80.5	8250	87.5	.566 OVER	139.0
3500	40.0	.183	82.8	8500	90.0	.455 OVER	126.6
3750	42.5	.197	85.6	8715	92.15	.689	152.6
4000	45.0	.211	88.3				
4250	47.5	.227	91.4	UP	96.0		
4500	50.0	.243	94.5				
4750	52.5	.262	98.2				

8050	85.5	.565 – 138.9
8100	86.0	.557 – 138.0
8150	86.5	.557 – 138.0
8200	87.0	.561 – 138.4
8300	88.0	.571 – 139.6
8350	88.5	.560 – 138.3
8400	89.0	.561 – 138.4
8450	89.5	.556 – 137.8
8475	89.75	.443 – 125.0
8525	90.25	.507 – 132.2
8550	90.5	.684 – 152.1
8700	92.0	.688 – 152.5



46 1512

10 X 10 TO THE CENTIMETER 18 X 25 CM
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0000376

Southern California Gas Company
Aliso Canyon

Well 55-25 Date 7-10-85 Element No. 39138 Clock Hours _____

Tubing Press. 1955 Status S/IN Time Clock Started _____ Time Clock Off _____

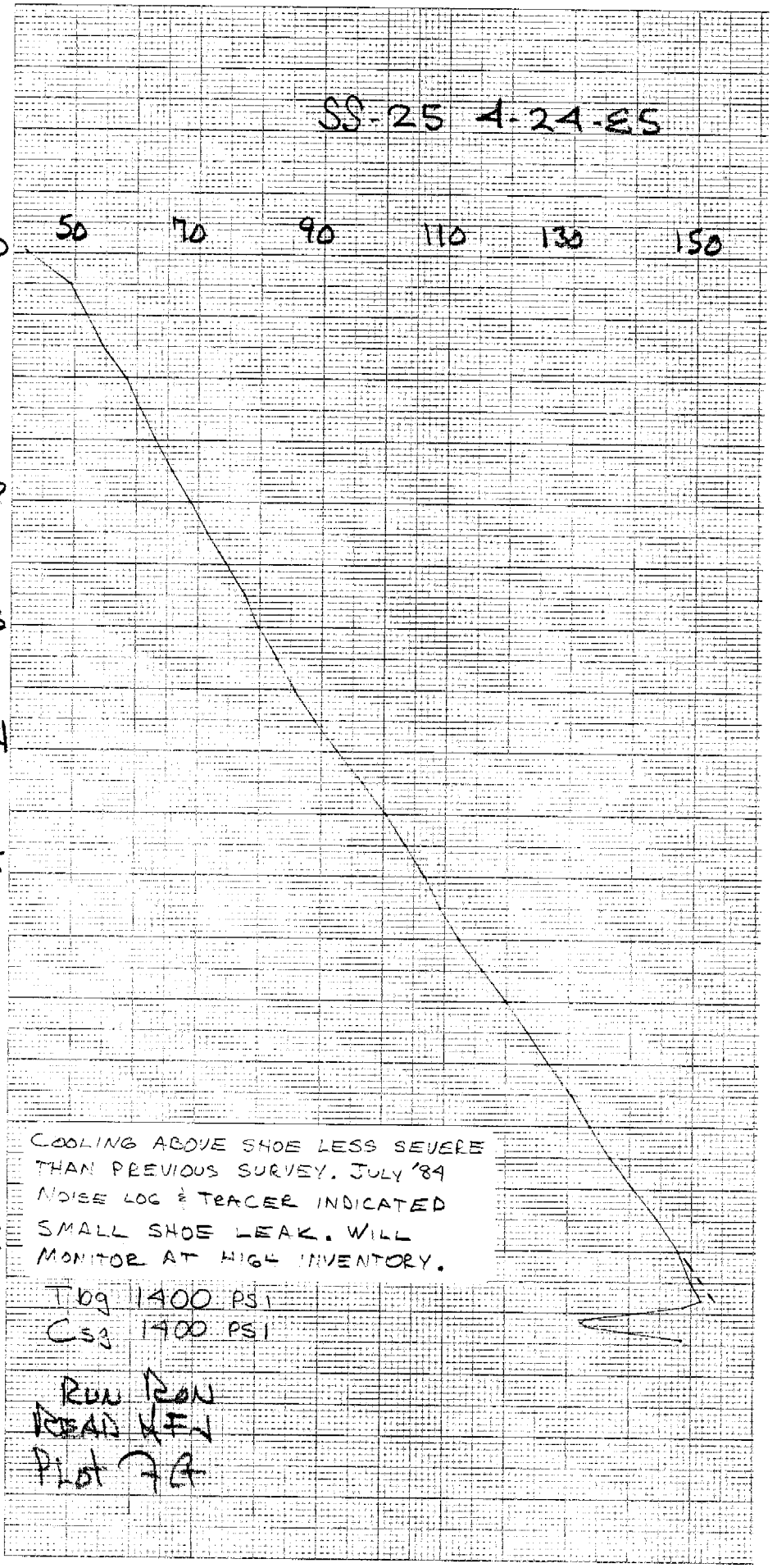
Casing Press. 1955 Pick-Up _____ Operator RM 50 ' per Minute

Time Press. on _____ Time Start Down _____ Zero Point 6 ' @ M/N

Depth	Elapse Time	Deflection	Temp.	Depth	Elapse Time	Deflection	Temp.
0	5			5000	55.0		
250	7.5			5250	57.5		
500	10.0			5500	60.0		
750	12.5			5750	62.5		
1000	15.0			6000	65.0		
1250	17.5			6250	67.5		
1500	20.0			6500	70.0		
1750	22.5			6750	72.5		
2000	25.0			7000	75.0		
2250	27.5			7250			
2500	30.0			7500	STOP 99.0 START 105.0	.517 .518	133.5
2750	32.5			7750	110.0	.546	136.7
3000	35.0			7950 8000	114.0 115.0	.566 OVER .571	139.0 139.6
3250	37.5			8210	120.0	.571 OVER	139.6
3500	40.0			8500	125.0	.455 OVER	126.3
3750	42.5			8700	129.0	.695	153.2
4000	45.0						
4250	47.5			4P	132.0		
4500	50.0						
4750	52.5						

AC_CPUC_0000377

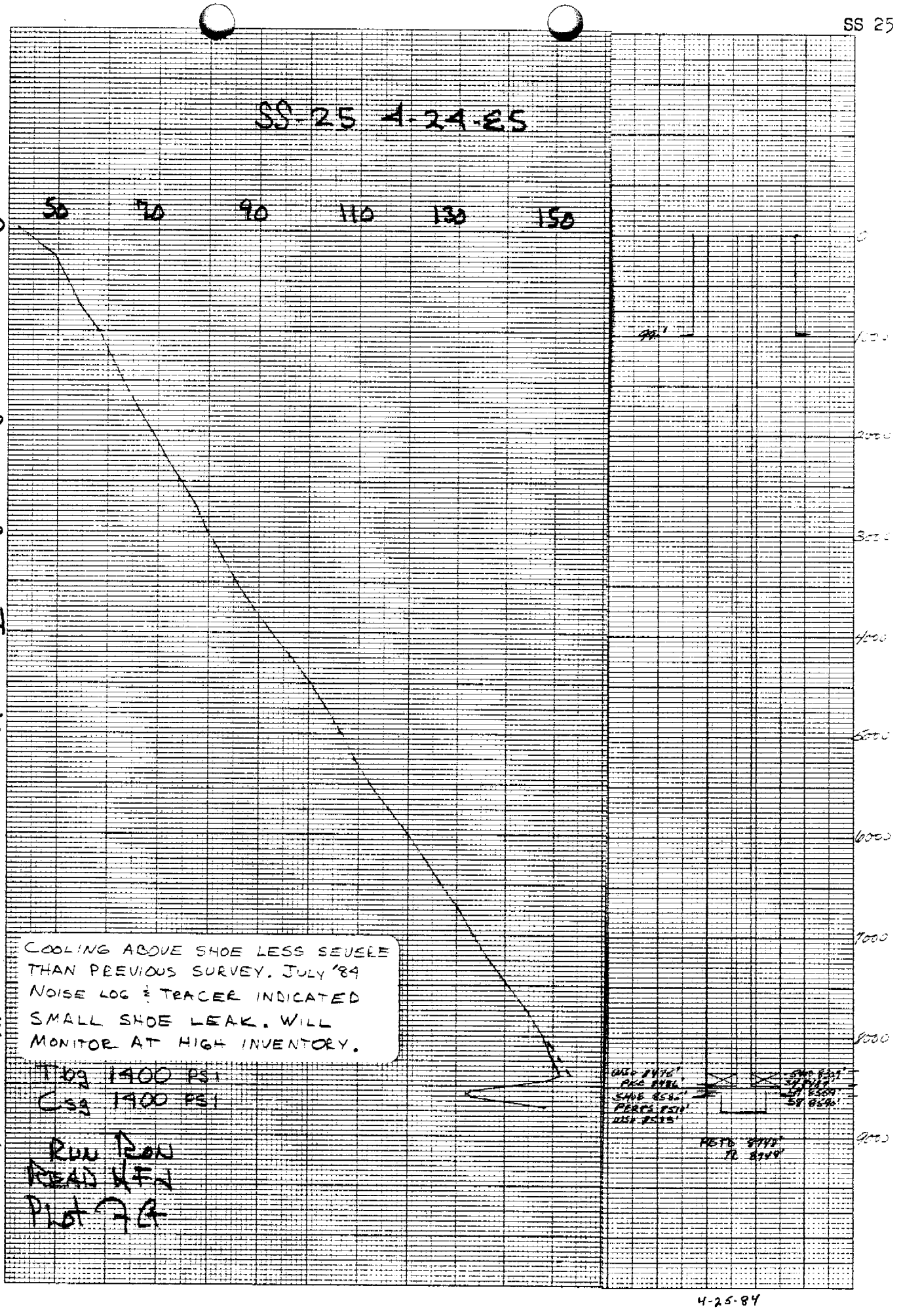
8150	118.0	.568 — 139.2
8300	121.0	.579 — 140.5
8350	122.0	.585 — 141.2
8400	123.0	.566 — 139.0
8450	124.0	.431 — 123.1
8475	124.5	.432 — 123.3
8550	126.0	.537 — 135.7
8600	127.0	.644 — 136.5
8625	127.5	.672 — 151.0
8650	128.0	.683 — 152.0



46 1512

10 X 10 TO THE CENTIMETER 18 X 25 CM
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0000379



46 1512
KOE 10 X 10 TO THE CENTIMETER 18 X 25 CM. KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0000380

.02835-

Southern California Gas Company
Aliso Canyon

Well SS-25 Date 4-24-85 Element No. 39138 Clock Hours _____

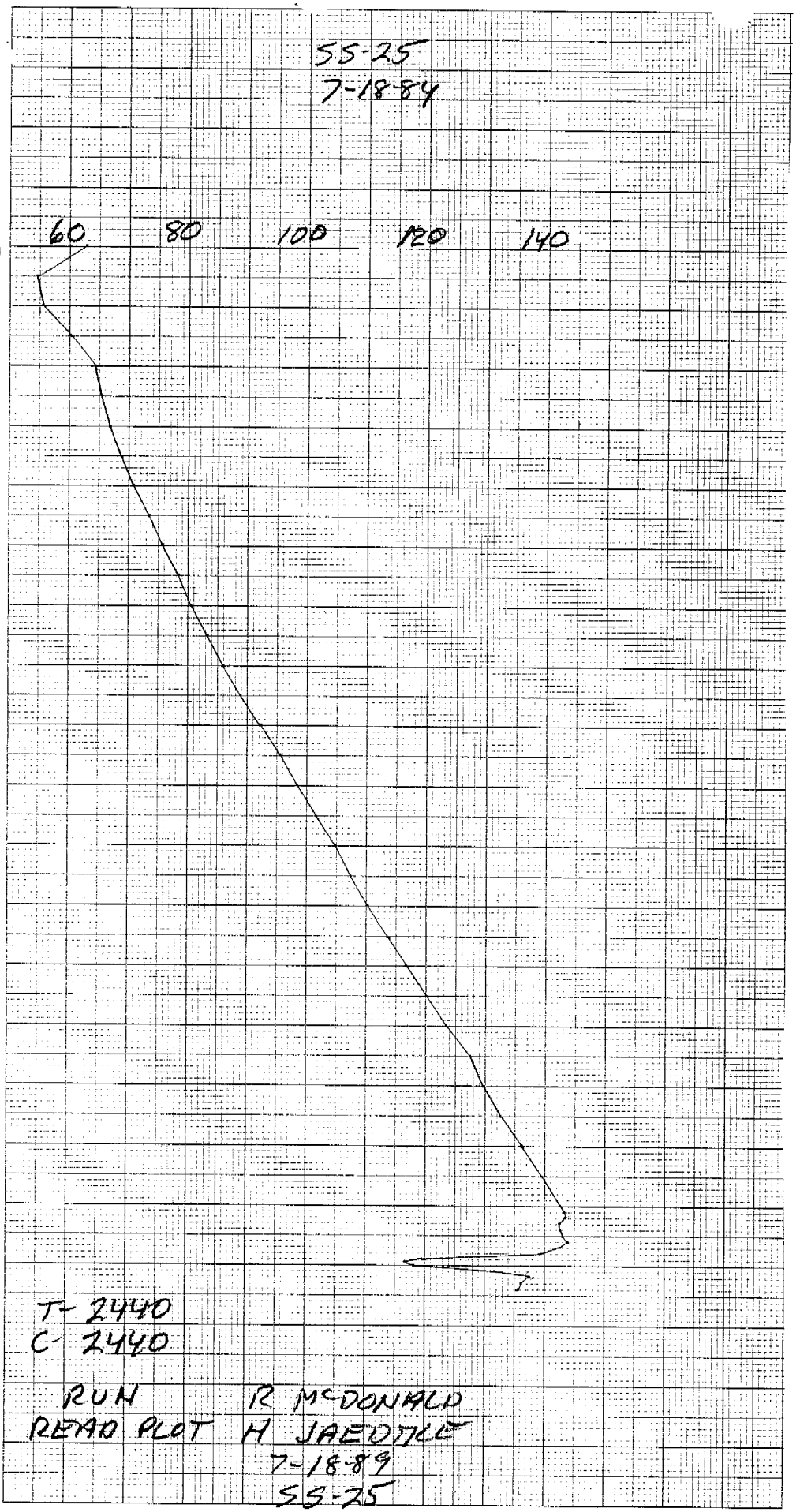
Tubing Press. 1400 Status S/IN Time Clock Started _____ Time Clock Off _____

Casing Press. 1400 Pick-Up _____ Operator RM 100' per Minute

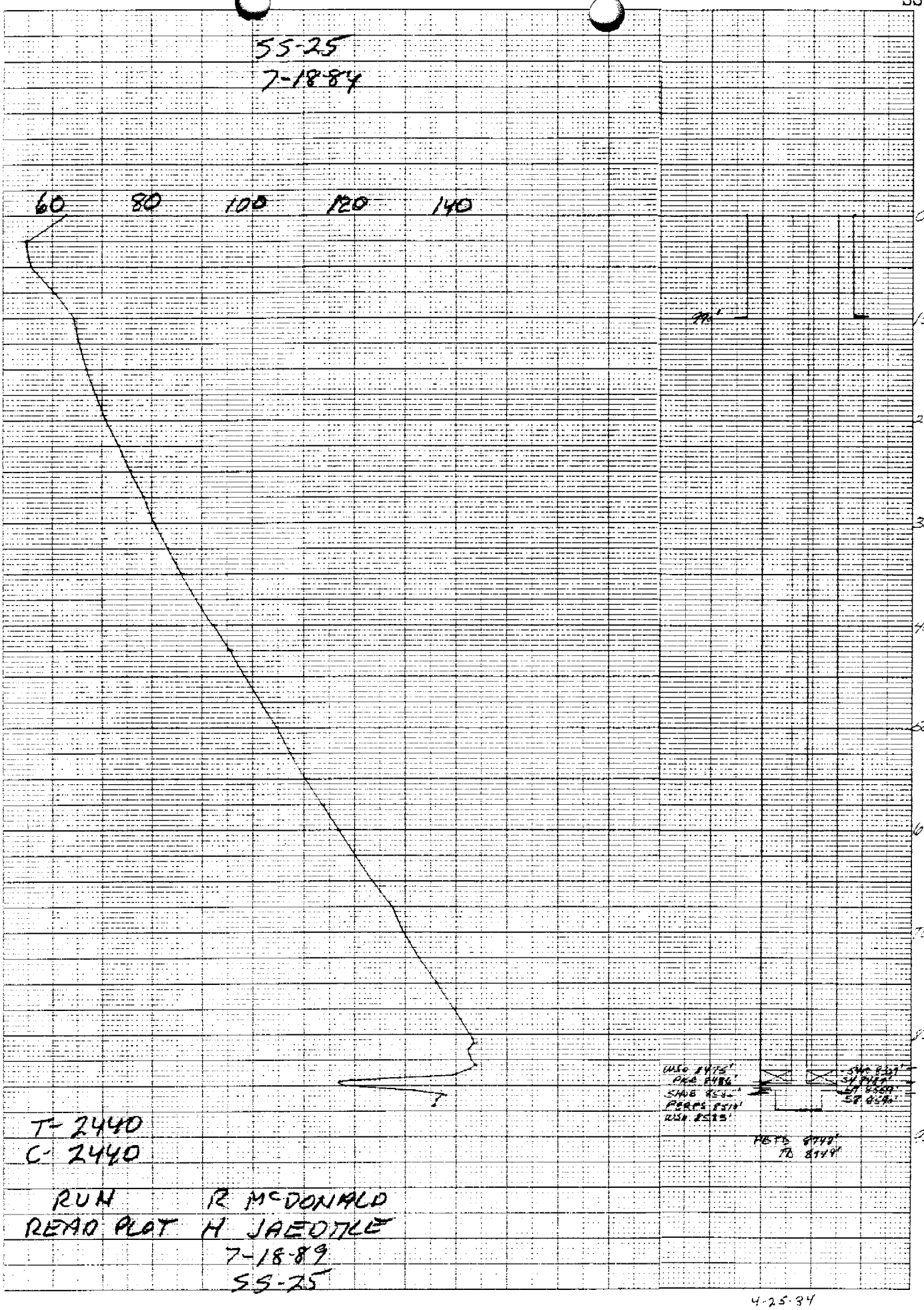
Time Press. on _____ Time Start Down _____ Zero Point 6

Depth	Elapse Time	Deflection	Temp.	Depth	Elapse Time	Deflection	Temp.
0	5	.029	42.2	5000	55.0	.317	106.6
250	7.5	.049	49.3	5250	57.5	.335	109.2
500	10.0	.058	51.9	5500	60.0	.356	112.3
750	12.5	.068	54.6	5750	62.5	.382	116.0
1000	15.0	.082	58.4	6000	65.0	.409	119.9
1250	17.5	.090	60.6	6250	67.5	.433	123.4
1500	20.0	.099	63.0	6500	70.0	.460	126.8
1750	22.5	.109	65.8	6750	72.5	.493	130.6
2000	25.0	.120	68.7	7000	75.0	.519	133.6
2250	27.5	.130	71.5	7250	77.5	.547	136.8
2500	30.0	.142	74.7	7500	80.0	.580	140.6
2750	32.5	.156	77.5	7750	82.5	.613	144.4
3000	35.0	.168	79.9	8000	85.0	.644	147.9
3250	37.5	.183	82.8	8250	87.5	.662 OVER	150.0
3500	40.0	.198	85.7	8500	90.0	.588 OVER	141.5
3750	42.5	.214	88.9	8707 TD	92.07	.647	148.3
4000	45.0	.233	92.6				
4250	47.5	.254	96.7		96.0		
4500	50.0	.273	100.3				
4750	52.5	.296	103.6				

8300	88.0	.6	– 150.5
8350	88.5	.673	– 151.1
8400	89.0	677	– 151.5
8450	89.5	.651	– 148.7
8550	90.5	.513	– 132.9
8575	90.75	.507	– 132.2
8600	91.0	.514	– 133.0



46 1512
10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.



46 1512
10 X 10 TO THE CENTIMETER
KEUFFEL & ESSER CO. MADE IN U.S.A.

Southern California Gas Company
Aliso Canyon

Well SS-25 Date 7-18-84 Element No. 39138 Clock Hours _____

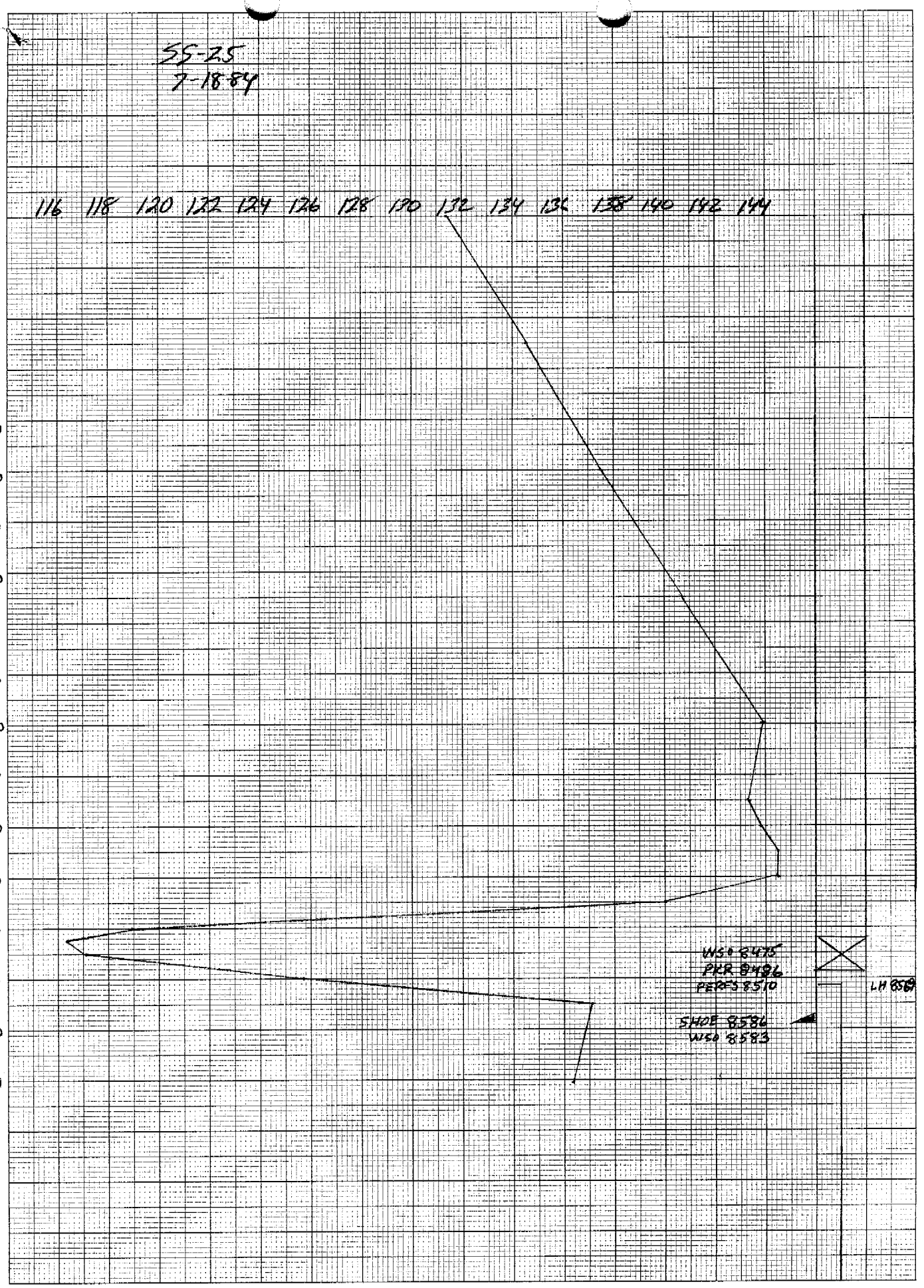
Tubing Press. 2440 Status S/IN Time Clock Started _____ Time Clock Off _____

Casing Press. 2440 Pick-Up _____ Operator RON 100' per Minute

Time Press. on _____ Time Start Down _____ Zero Point 6'

Depth	Elapse Time	Deflection	Temp.	Depth	Elapse Time	Deflection	Temp.
0	5'	.094	62.9	5000	55.0	.301	104.9
250	7.5	.066	54.6	5250	57.5	.316	107.2
500	10.0	.069	55.5	5500	60.0	.336	110.1
750	12.5'	.085	60.2	5750	62.5'	.361	113.7
1000	15.0	.098	64.1	6000	65.0	.383	116.8
1250	17.5'	.103	65.4	6250	67.5	.406	120.0
1500	20.0	.109	66.9	6500	70.0	.431	123.2
1750	22.5	.117	68.8	6750	72.5'	.463	127.3
2000	25 0	.125	70.8	7000	75.0	.482	129.6
2250	27.5'	.135	73.2	7250	77.5	.507	132.6
2500	30.0	.145	75.7	7500	80.0	.536	136.0
2750	32.5'	.157	78.3	7750	82.5	.566	139.4
3000	35.0	.167	80.4	8000	85.0	OVER .594	142.5
3250	37.5'	.180	83.1	8250	87.5	OVER .598	143.0
3500	40.0	.194	86.0	8500	90.0.	OVER .392	118.1
3750	42.5'	.209	88.9	8705	T.P. 92.05	.534	135.7
4000	45.0	.226	92.1				
4250	47.5'	.243	95.3	UP	99.0		
4500	50.0	.260	98.2				
4750	52.5'	.281	101.7				

8050	85.5	.600	143.2
8100	86.0	.601	143.3
8150	86.5	.593	142.4
8200	87.0	.595	142.6
8300	88.0	.606	143.9
8350	88.5	.596	142.8
8400	89.0	.564	139.2
8450	89.5	.402	119.5
8475	89.75	.383	116.8
8550	90.5	.457	126.6
8600	91.0	.546	137.1
8650	91.5	.536	136.0



AC_CPUC_0000387

Southern California Gas Company
Aliso Canyon

Well SS-25 Date 7-18-84 Element No. 39138 Clock Hours _____

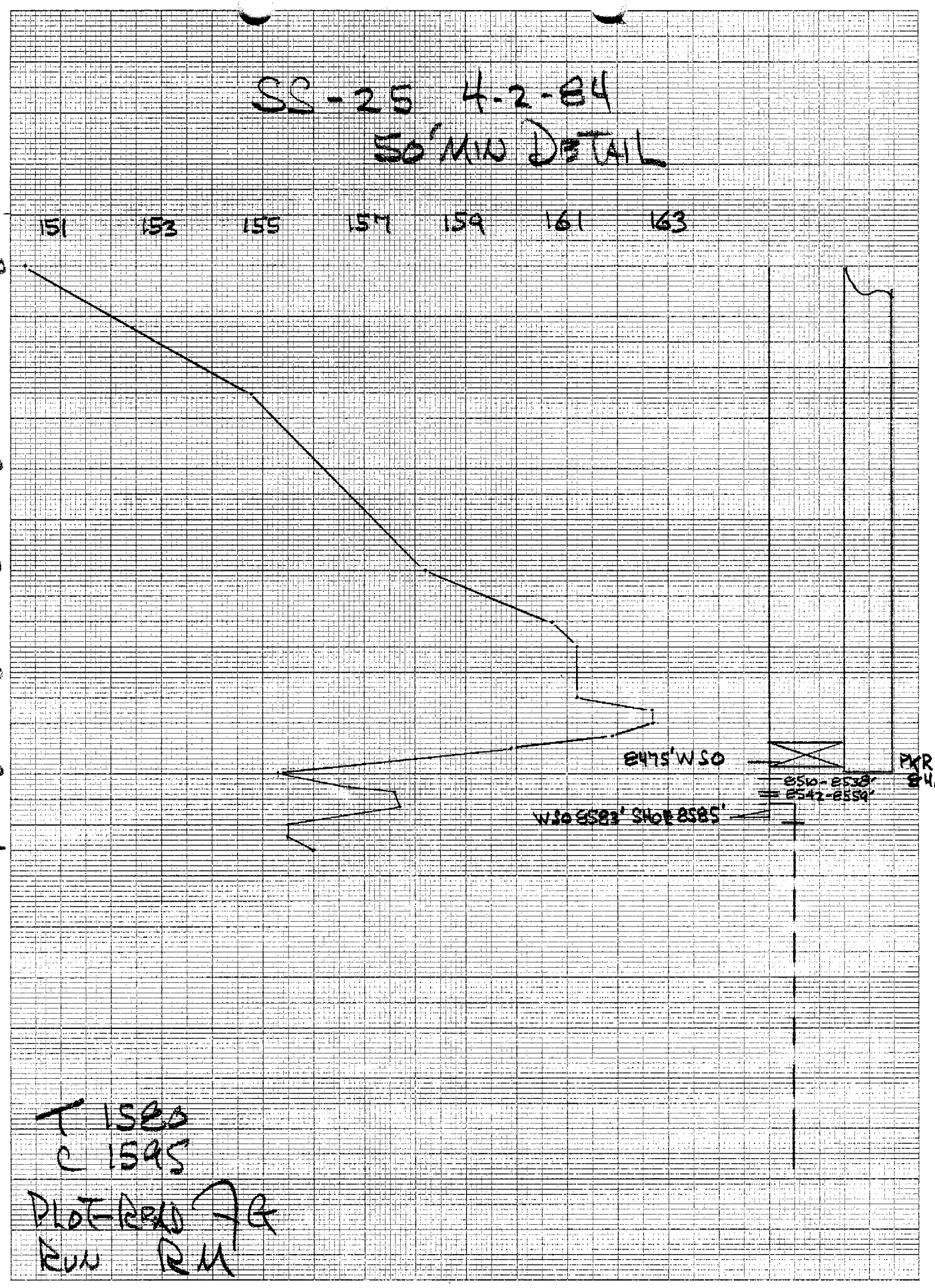
Tubing Press. 2440 Status S/IN Time Clock Started _____ Time Clock Off _____

Casing Press. 2440 Pick-Up _____ Operator RON 50' per Minute

Time Press. on _____ Time Start Down _____ Zero Point _____

Depth	Elapse Time	Deflection	Temp.	Depth	Elapse Time	Deflection	Temp.
0				5000			
250				5250			
500				5500			
750				5750			
1000				6000			
1250				6250			
1500				6500			
1750				6750			
2000				7000	STOP 102.58 SNAP-105 START 110.0	.497	131.4
2250				7250	115.0	.523	134.5
2500				7500	120.0	.549	137.5
2750				7750	125.0	.578	140.7
3000				8000	130.0	OVER .607	144.0
3250				8250	135.0	OVER .612	144.5
3500				8500	140.0	OVER .450	125.7
3750				8705	144.08	.539	136.3
4000							
4250				UP-	148.0		
4500							
4750							

8100	132	.600	1432
8150	133	.601	143.3
8200	134	.605	143.8
8300	136	.612	144.5
8350	137	.571	140.0
F400	138	.398	118.9
F425	138.5	.379	116.3
8450	139	.385	117.1
8550	141	.552	137.8



46 1512
10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

Southern California Gas Company
Aliso Canyon

Well SS-25 Date 4-2-84 Element No. 39138 Clock Hours _____

Tubing Press. 1580 Status S/IN Time Clock Started _____ Time Clock Off _____

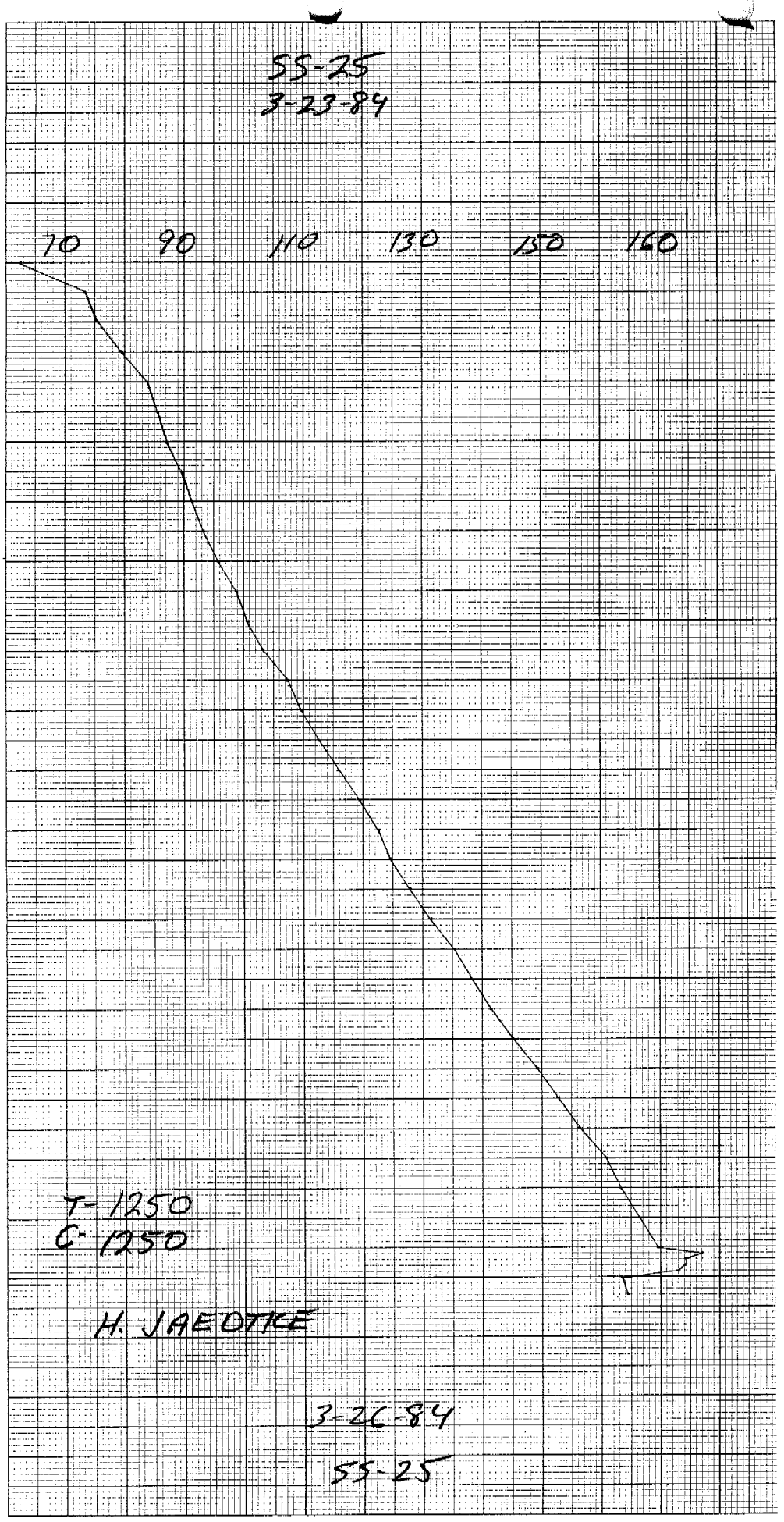
Casing Press. 1595 Pick-Up _____ Operator RM 50 ' per Minute

Time Press. on _____ Time Start Down _____ Zero Point 6

Depth	Elapse Time	Deflection	Temp.	Depth	Elapse Time	Deflection	Temp.
0	5			5000			
250				5250			
500				5500			
750				5750			
1000				6000			
1250				6250			
1500				6500			
1750				6750			
2000				7000			
2250				7250	STOP 15.72		
2500				* 7500	20.0	.665	150.3
2750				7750	25.0	.709	154.8
3000				8000 ✓	30.0	.742	158.2
3250				8250	35.0 OVER	.772	161.2
3500				8500 ✓	40.0	.714	155.3
3750				8650	43.0	.721	156.0
4000							
4250				UP	46.0		
4500							
4750							

E200'	34.0	.767	160.7
E350'	37.0	.772	161.2
E375'	37.5	.778	162.7
E400'	38.0	.778	162.7
E425	38.5	.780	161.9
E450	39.0	.759	159.9
E525'	40.5	.727	156.7
E537'	40.75	.736	157.6
E562	41.25	.737	157.7
E600	42.0	.716	155.5
E625	42.5	.716	155.5

AC_CPUC_0000392



46 1512
10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

55-25
3-23-84

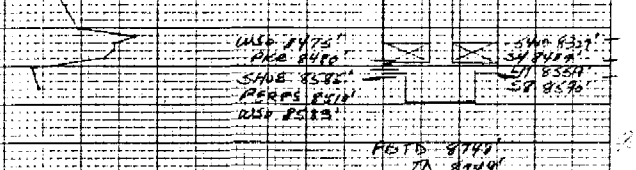
70 90 110 130 150 160

0
1
2
3
4
5
6
7
8
9

T-1250
C-1250

H. JAEOTICE

3-26-84
55-25



46 1512

KEUFFEL & ESSER CO. 10 X 10 TO THE CENTIMETER 18 X 25 CM

Southern California Gas Company
Aliso Canyon

Well 55-25 Date 3-23-84 Element No. 39139 Clock Hours _____

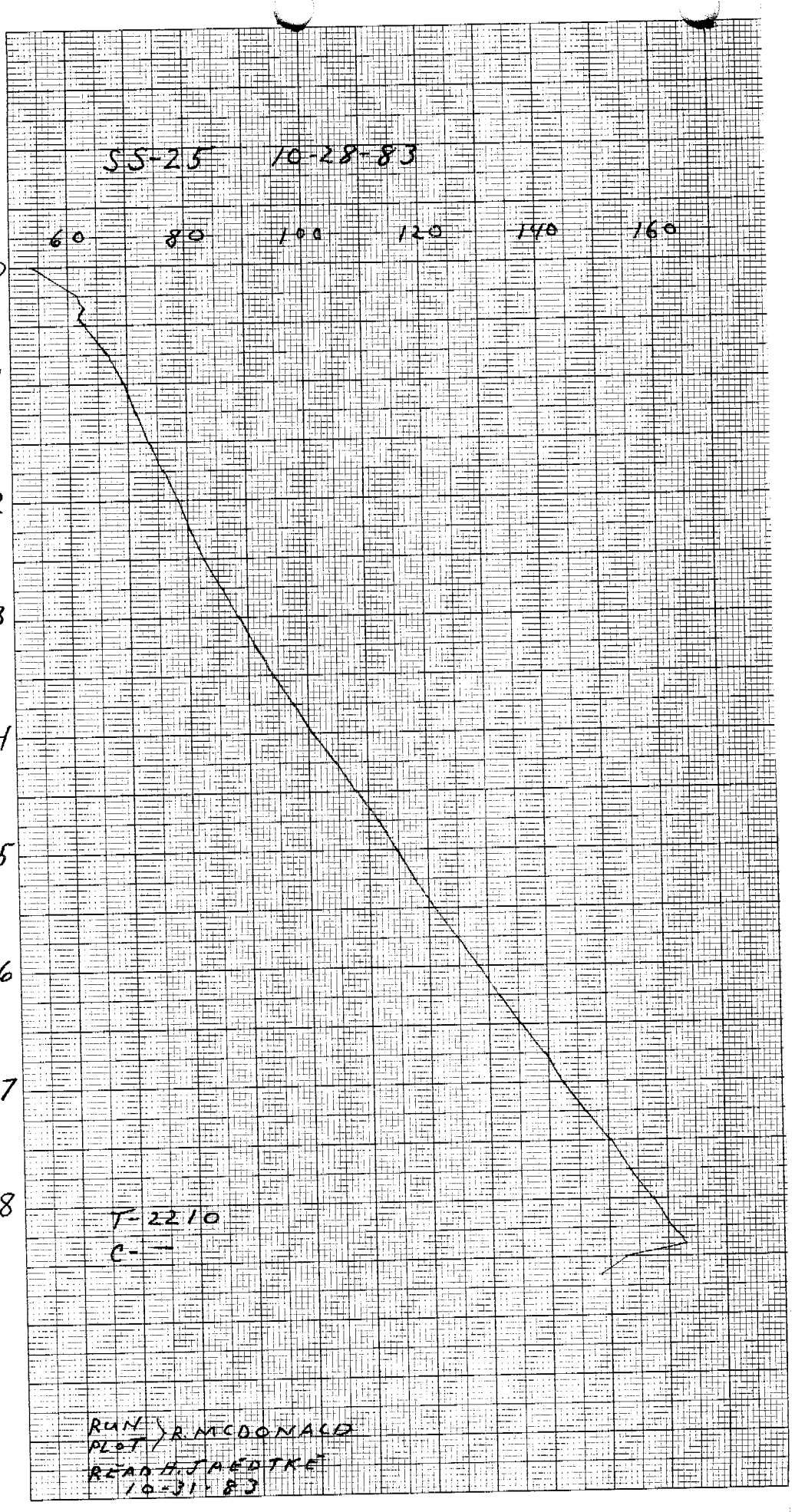
Tubing Press. 1250 Status _____ Time Clock Started _____ Time Clock Off _____

Casing Press. 1250 Pick-Up _____ Operator HFJ 100 ' per Minute

Time Press. on _____ Time Start Down _____ Zero Point 6

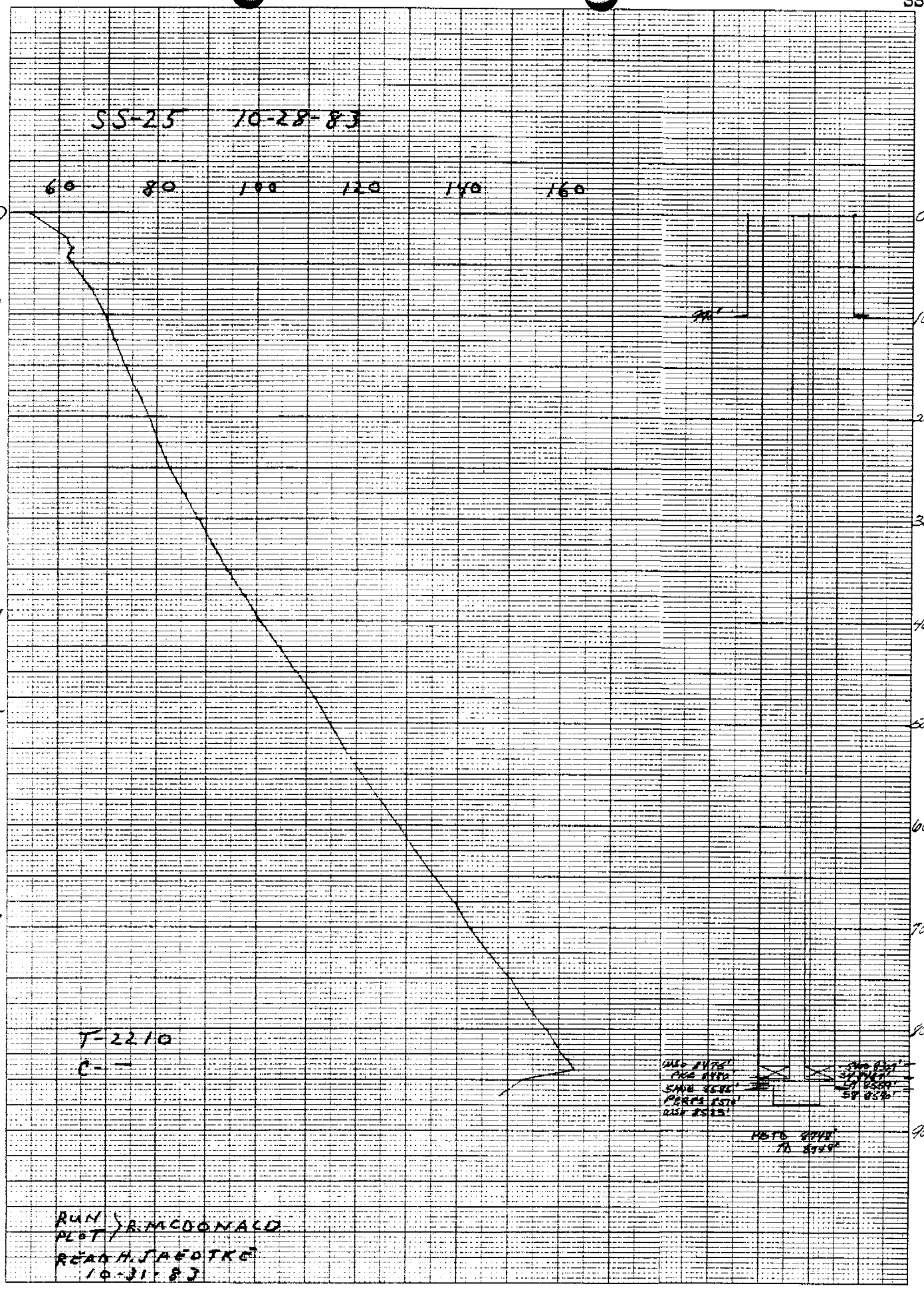
Depth	Elapse Time	Deflection	Temp.	Depth	Elapse Time	Deflection	Temp.
0	5—	.090	62.7	5000 ✓	55.0	.409	124.8
250	7.5	.130	73.2	5250	57.5	.432	128.0
500	10.0	.138	75.2	5500	60.0	.458	131.5
750	12.5	.156	79.5	5750	62.5	.487	135.3
1000 ✓	15.0	.176	83.9	6000 ✓	65.0	.511	138.3
1250	17.5	.183	85.5	6250	67.5	.537	141.5
1500	20.0	.190	87.0	6500	70.0	.567	145.1
1750	22.5	.201	89.4	6750	72.5	.602	149.2
2000 ✓	25.0	.211	91.4	7000 ✓	75.0	.632	152.6
2250	27.5	.221	93.4	7250	77.5	.663	156.1
2500	30.0	.233	95.8	7500	80.0	.709	160.9
2750	32.5	.248	98.8	7750	82.5	.733	163.3
3000 ✓	35.0	.259	100.8	8000 ✓	85.0	.767	166.7
3250	37.5	.272	103.1	8250	87.5	.795	169.5
3500	40.0	.295	107.1	8500	90.0	OUCH .734	163.4
3750	42.5	.310	109.6	8650	91.5	.743	164.3
4000 ✓	45.0	.328	112.5				
4250	47.5	.349	115.9				
4500	50.0	.372	119.4	UP	95—		
4750	52.5	.393	122.6				

8300	88.0	.770	– 167.0
8350	88.5	.741	– 164.1
8400	89.0	.742	– 164.2
8450	89.5	.730	– 163.0



46 1512

10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.



46 1512
10 X 10 TO THE CENTIMETER 18 X 25 CM
KEUFFEL & ESSER CO. MADE IN U.S.A.

Southern California Gas Company
Aliso Canyon

Well SS-25 Date 10-28-83 Element No. 39138 Clock Hours _____

Tubing Press. 2210 Status S/IN Time Clock Started _____ Time Clock Off _____

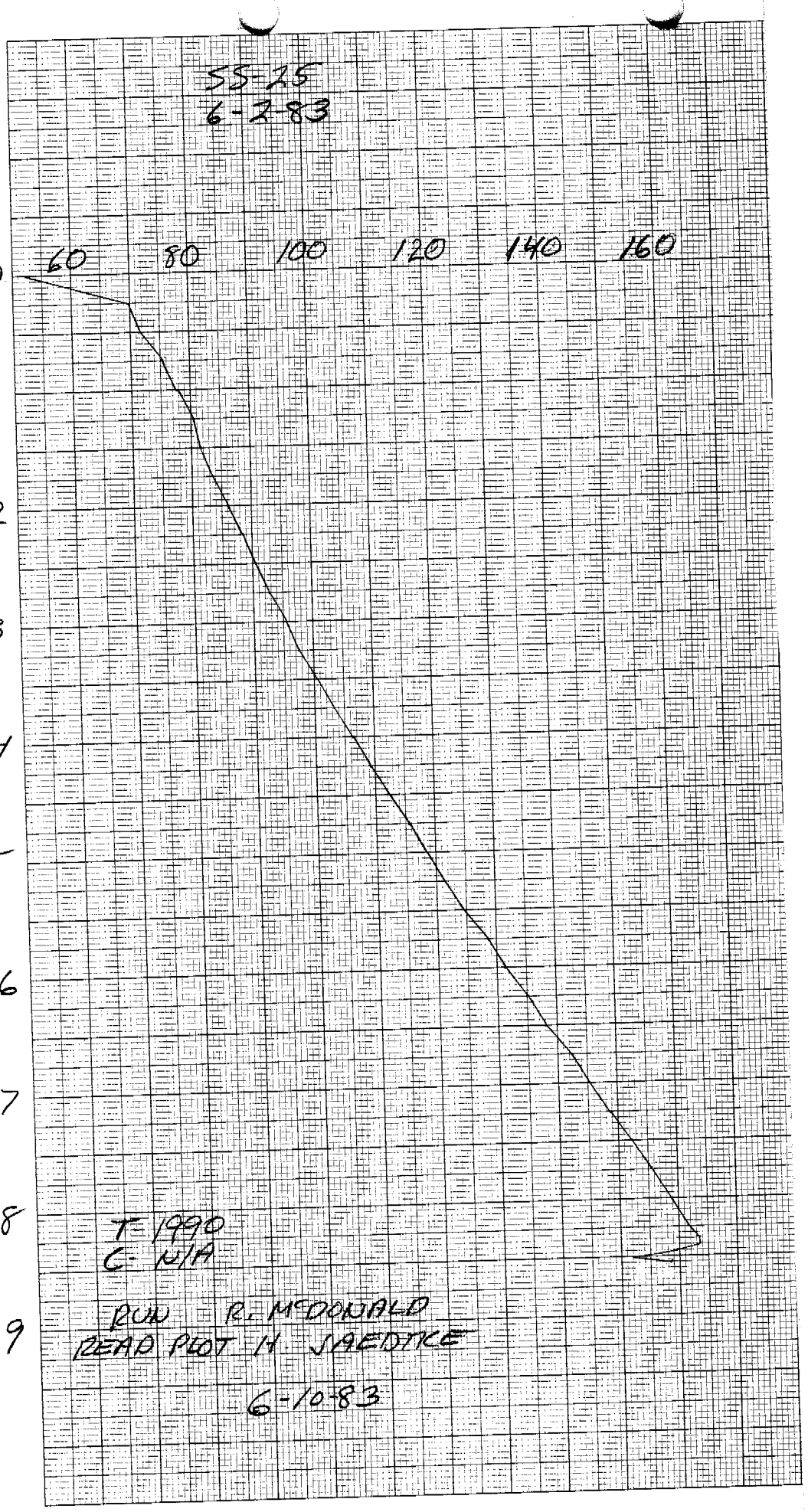
Casing Press. — Pick-Up _____ Operator RM 100' per Minute

Time Press. on _____ Time Start Down _____ Zero Point 6

Depth	Elapse Time	Deflection	Temp.	Depth	Elapse Time	Deflection	Temp.
0	5 —	.063	53.7	5000 ✓	55.0	.368	114.7
250	7.5 —	OVER .090	61.7	5250	57.5	.388	117.5
500	10.0	.093	62.6	5500	60.0	.414	121.0
750	12.5 —	.108	66.7	5750	62.5 —	.444	124.9
1000 ✓	15.0	.118	69.1	6000 ✓	65.0	.473	128.5
1250	17.5 —	.127	71.3	6250	67.5	.500	131.8
1500	20.0	.135	73.5	6500	70.0	.531	135.4
1750	22.5	.146	75.9	6750	72.5	.566	139.4
2000 ✓	25.0	.157	78.3	7000 ✓	75.0	.596	142.8
2250	27.5 —	.166	80.2	7250	77.5	.629	146.4
2500	30.0	.178	82.7	7500	80.0	.669	150.7
2750	32.5 —	.193	85.8	7750	82.5	.700	153.9
3000 ✓	35.0	.206	88.3	8000 ✓	85.0	.737	157.7
3250	37.5	.221	91.1	8250	87.5	OVER .769	160.9
3500	40.0	.236	94.0	8500	90.0	.682	152.1
3750	42.5	.255	97.4	8650	91.5	.649	148.7
4000 ✓	45.0	.274	100.5				
4250	47.5 —	.298	104.5	up	93.5		
4500	50.0	.321	107.9				
4750	52.5	.345	111.5				

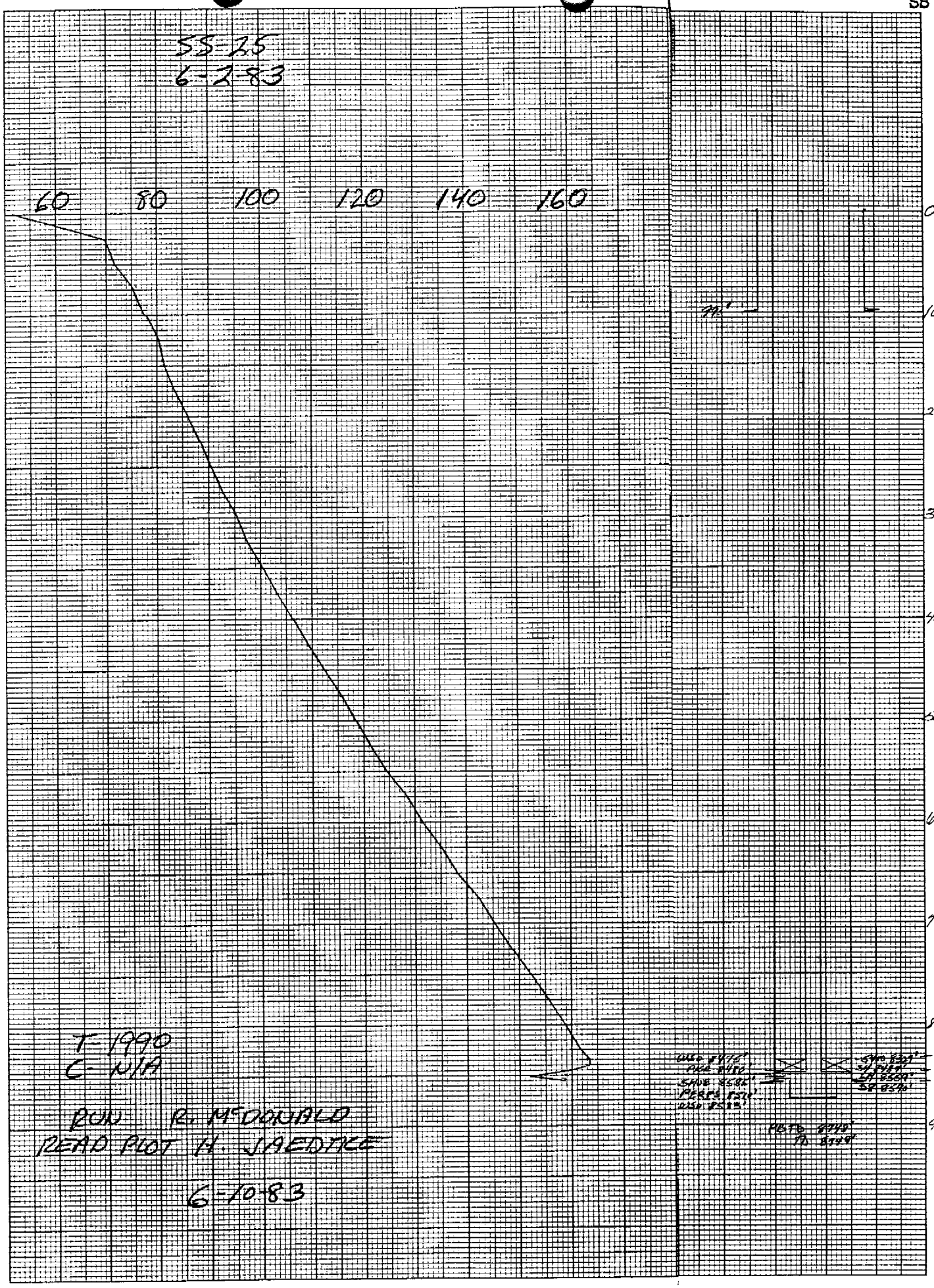
300	8.0	.091	62.0
350	8.5	.093	62.6
400	9.0	.091	62.0
450	9.5	.090	61.7

8300	88.0	.778	161.7
8350	88.5	.788	162.7
8400	89.0	.791	163.0
8450	89.5	.741	158.1



46 1512
10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO MADE IN U.S.A.

55-25
6-2-83



T-1990
C-N/A

RUN R. McDONALD
READ PLOT H. JAEDICKE

6-10-83

46 1512
K+E 10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

Southern California Gas Company
Aliso Canyon

Well SS-25 Date 6-2-83 Element No. 39138 Clock Hours _____

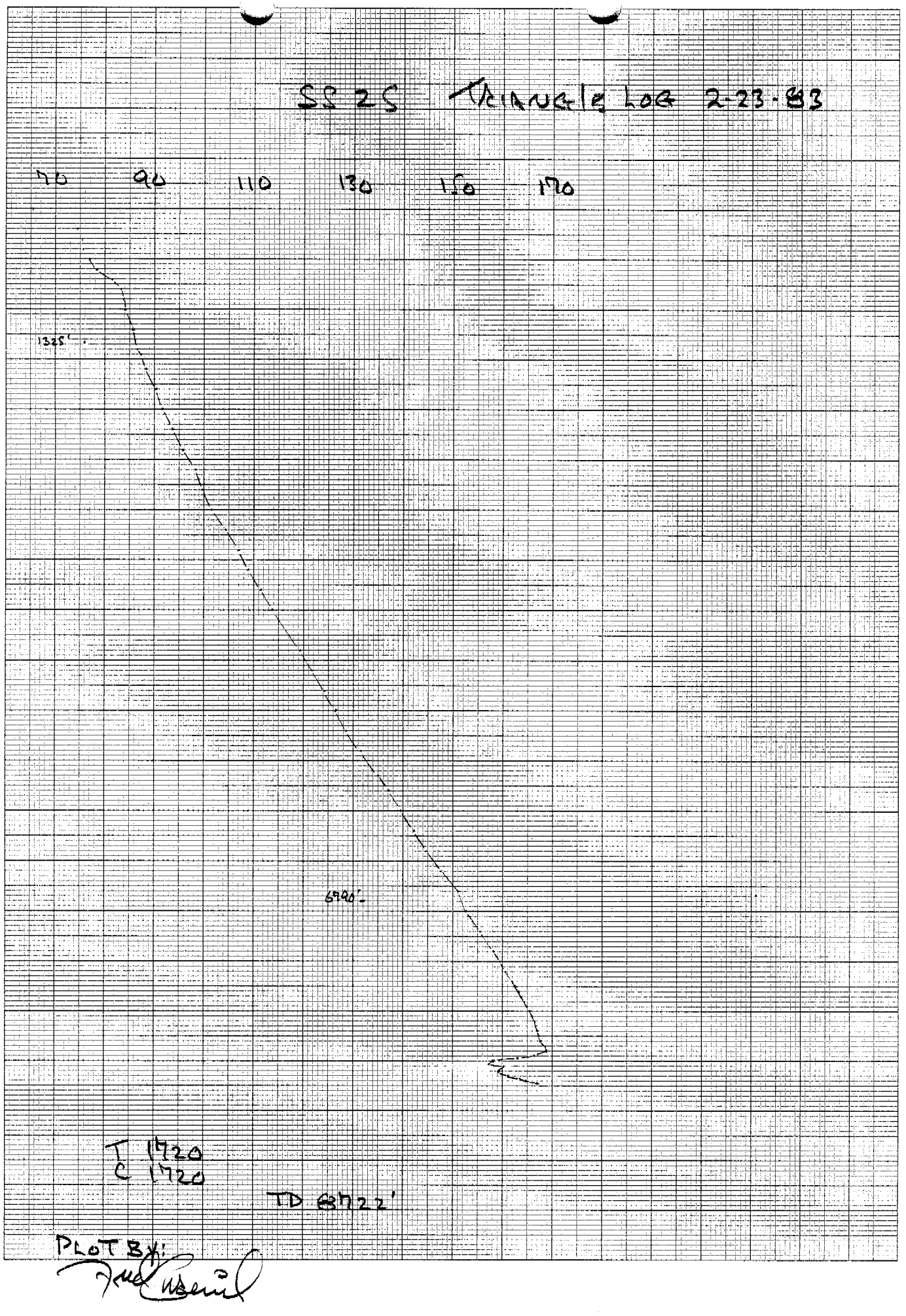
Tubing Press. 1990 Status _____ Time Clock Started _____ Time Clock Off _____

Casing Press. N/A Pick-Up _____ Operator RM 100' per Minute

Time Press. on _____ Time Start Down _____ Zero Point 6'

Depth	Elapse Time	Deflection	Temp.	Depth	Elapse Time	Deflection	Temp.
0	5'	.055	51.3	5000	55.0	.396	118.6
250	7.5	.121	69.8	5250	57.5	.417	121.4
500	10.0	.128	71.5	5500	60.0	.442	124.7
750	12.5	.143	75.2	5750	62.5	.471	128.3
1000	15.0	.155	77.9	6000	65.0	.499	131.7
1250	17.5	.166	80.2	6250	67.5	.528	135.0
1500	20.0	.173	81.6	6500	70.0	.554	138.0
1750	22.5	.182	83.5	6750	72.5	.590	142.1
2000	25.0	.194	86.0	7000	75.0	.619	145.3
2250	27.5	.205	88.1	7250	77.5	.651	148.9
2500	30.0	.216	90.2	7500	80.0	.685	152.4
2750	32.5	.230	92.8	7750	82.5	.718	155.7
3000	35.0	.242	95.1	8000	85.0	.748	158.8
3250	37.5	.256	97.6	8250	87.5	OVER .778	161.7
3500	40.0	.274	100.5	8500	90.0	.681	152.0
3750	42.5	.290	103.2	8600	91.0	.636	147.2
4000	45.0	.310	106.3				
4250	47.5	.329	109.1	UP	94.0		
4500	50.0	.352	112.5				
4750	52.5	.375	115.7				

8350	88.5	.794 —	163.3
8400	89.0	.795 —	163.4
8450	89.5	.758 —	159.8
8550	90.5	.647 —	148.5



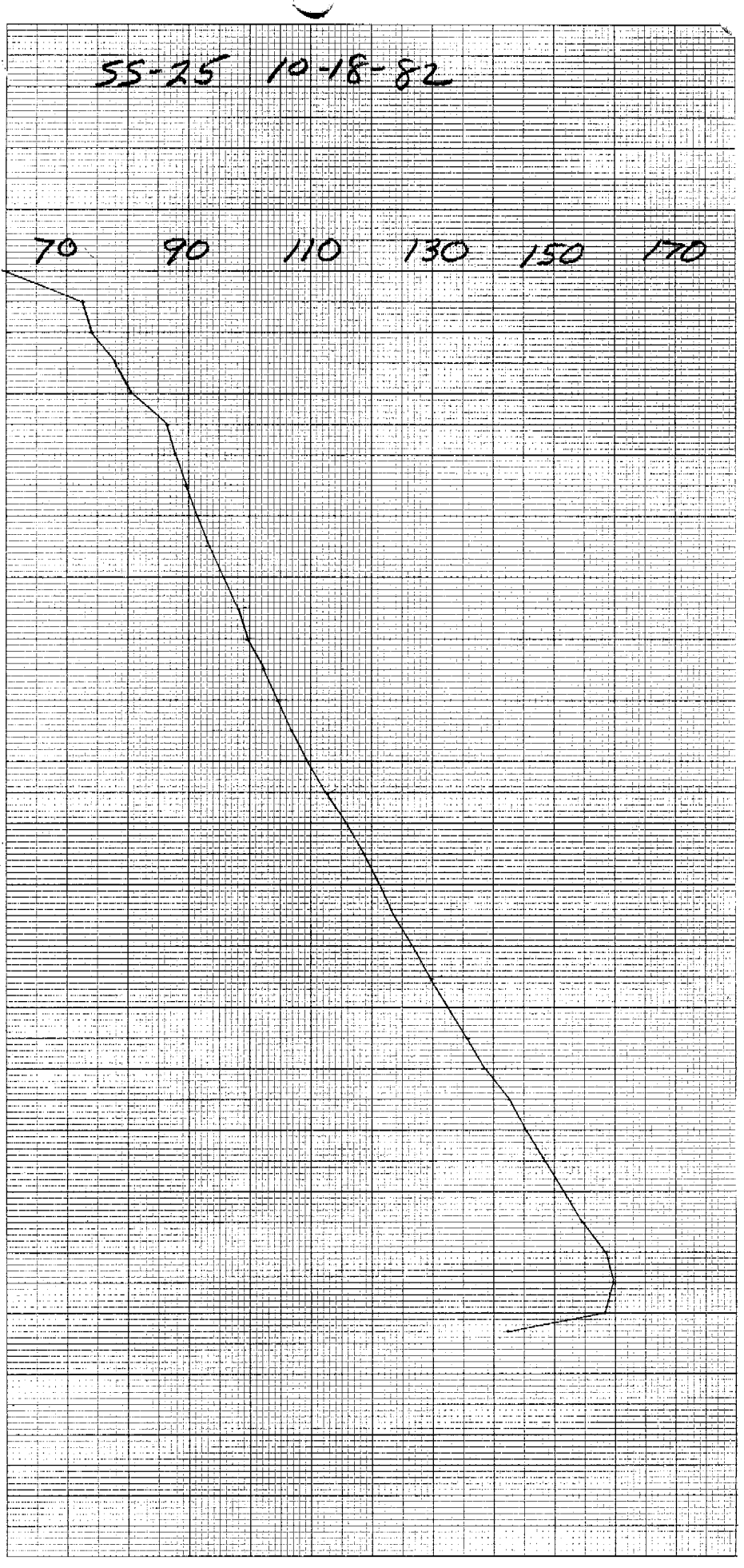
46 1512
10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

SS-25 2-23-83

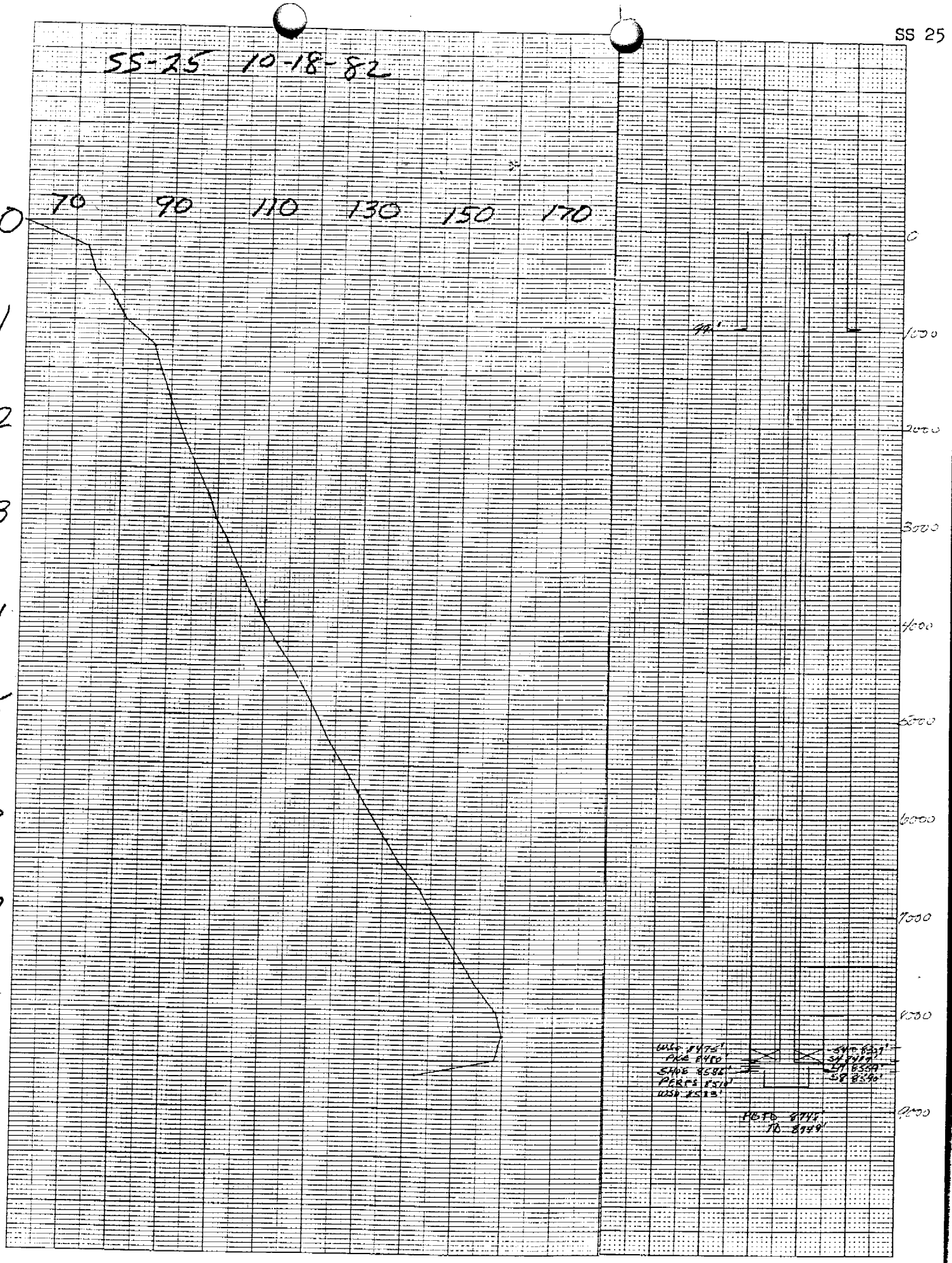
SUB-E'

0	65.4
~~100~~	
200	74.4
300	75.2
400	75.5
500	77.0
600	78.5
700	81.4
800	83.1
900	83.9
1000	84.0
1200	85.6
(1325)	
1400	86.6
1450	87.2
1600	88.2
1800	90.2
2000	91.8
2200	93.8
2400	95.8
2600	98.2
2800	99.8
3000	101.6
3200	104.3
3400	107.0
3600	109.0
3800	111.3
4000	113.8
4200	-
4400	119.2
4600	121.8
4800	124.2
5000	126.5
5200	128.8
5400	131.5
5650	135.0
5800	137.1
6000	139.6
6200	142.1
6400	144.8
6600	147.6
(6790) 6800	151.1
7000	152.8
7200	155.5
7400	158.1
7500	159.6
7600	160.6
7700	162.0
7750	162.6
7800	163.2
7850	163.8
7900	164.3
7950	165.0
8000	165.4
8050	166.
8100	166.5
8150	-
8200	167.1
8250	167.2
8275	167.5
8300	167.8
8325	168.2
8350	168.6
8375	169.0
8400	168.9
8425	168.2
8450	166.3
was 8475	163.0
8500	158.0
8525	157.2
8550	160.1
8575	160.0
8600	159.2
8625	159.7
8650	161.1
8675	163.4
8700	164.8
8722	167. TD

AC_CPUC_0000406


55-25 10-18-82
70
90
110
130
150
170
0
1
2
3
4
5
6
7
8
9
46 1512
10 X 10 TO THE CENTIMETER
KEUFFEL & ESSER CO. MADE IN U.S.A.
18 X 25 CM.

55-25 10-18-82



46 1512
10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0000408

Southern California Gas Company
Aliso Canyon

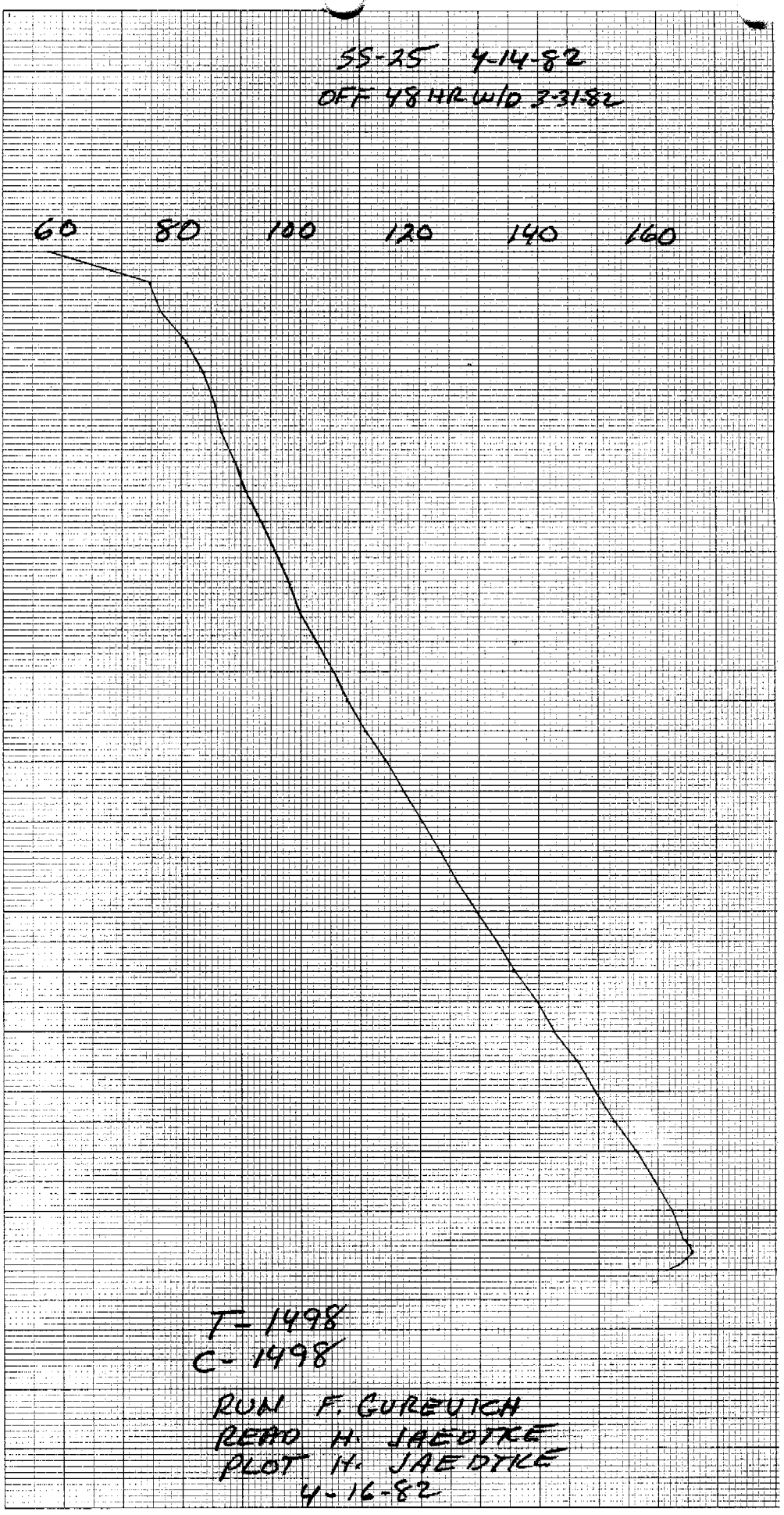
Well 55-25 Date 10-18-82 Element No. 39138 Clock Hours _____

Tubing Press. 2850 Status _____ Time Clock Started _____ Time Clock Off _____

Casing Press. 2850 Pick-Up _____ Operator TG _____ ' per Minute

Time Press. on _____ Time Start Down _____ Zero Point 7

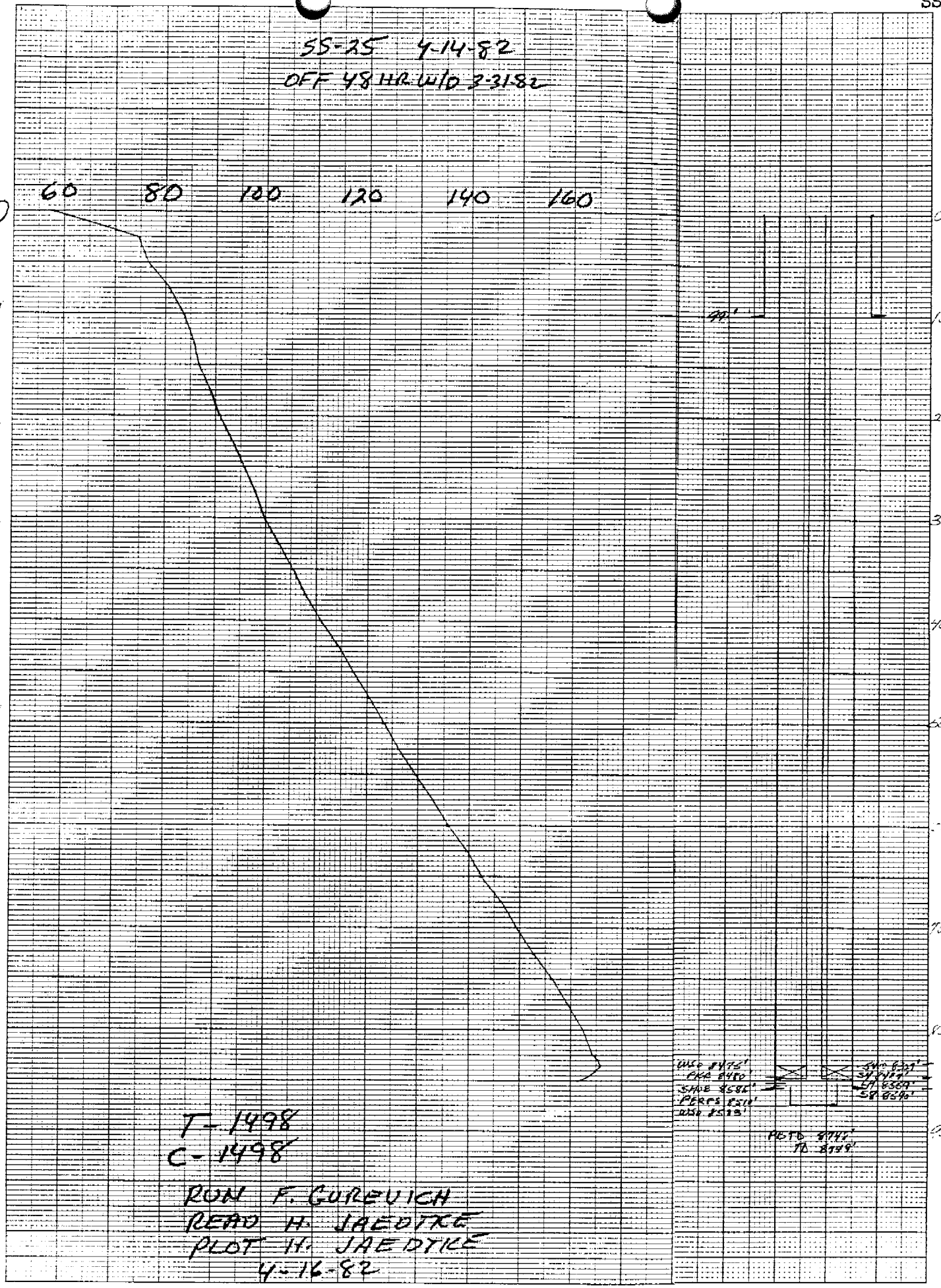
Depth	Elapse Time	Deflection	Temp.	Depth	Elapse Time	Deflection	Temp.
0	5:00	.113	69.2	5000 ✓	55.0	.395	121.2
250	7.5	.146	77.8	5250	57.5	.412	123.6
500	10.	.151	79.0	5500	60.	.432	126.4
750	12.5	.170	83.0	5750	62.5	.457	129.8
1000 ✓	15.0	.181	85.3	6000 ✓	65.0	.480	132.7
1250	17.5	.187	86.6	6250	67.5	.503	135.7
1500	20.	.193	87.8	6500	70.	.526	138.5
1750	22.5	.202	89.7	6750	72.5	.558	142.4
2000 ✓	25.0	.210	91.2	7000 ✓	75.0	.583	145.3
2250	27.5	.221	93.3	7250	77.5	.608	148.2
2500	30.	.233	95.6	7500	80.	.639	151.7
2750	32.5	.246	98.0	7750	82.5	.667	154.8
3000 ✓	35.0	.257	99.9	8000 ✓	85.0	.699	158.3
3250	37.5	.270	102.1	8250	87.5	.714	159.8
3500	40.	.286	104.7	8500	90.	.697	158.1
3750	42.5	.300	107.0	8650	91.5	.557	142.3
4000	45.0	.316	109.5				
4250	47.5	.336	112.6		93.5		
4500	50.	.356	115.7				
4750	52.5	.376	118.5				



46 1512

10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

SS-25 4-14-82
OFF 48 HR W/D 3-31-82



T-1498
C-1498

RUN F. GUREVICH
READ H. JAEDTKE
PLOT H. JAEDTKE
4-16-82

461512
10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

Southern California Gas Company
Aliso Canyon

Well SS-25 Date 4-14-82 Element No. 39138 Clock Hours 3

Tubing Press. 1498 Status _____ Time Clock Started _____ Time Clock Off _____

Casing Press. 1498 Pick-Up _____ Operator TG _____' per Minute

Time Press. on _____ Time Start Down 500 Zero Point 6

Depth	Elapse Time	Deflection	Temp.	Depth	Elapse Time	Deflection	Temp.
0	500	.074	57.8	5000 ✓	550	.410	123.3
250	7.5	.132	74.1	5250	57.5	.431	126.2
500	10.	.140	76.2	5500	60.	.454	129.4
750	12.5	.160	80.9	5750	62.5	.482	133.0
1000 ✓	15.0	.172	83.4	6000 ✓	65.0	.506	136.0
1250	17.5	.180	85.1	6250	67.5	.533	139.4
1500	20.	.188	86.8	6500	70.	.559	142.5
1750	22.5	.198	88.9	6750	72.5	.593	146.5
2000 ✓	25.0	.208	90.8	7000 ✓	75.0	.618	149.4
2250	27.5	.220	93.1	7250	77.5	.646	152.5
2500	30.	.232	95.4	7500	80.	.680	156.2
2750	32.5	.246	98.0	7750	82.5	.710	159.4
3000 ✓	35.0	.257	99.9	8000 ✓	85.0	.739	162.4
3250	37.5	.272	102.4	8250	87.5	OVER .764	164.8
3500	40.	.289	105.2	8500	90.	.728	161.3
3750	42.5	.305	107.8	8600	91.00	.710	159.4
4000 ✓	45.0	.324	110.7				
4250	47.5	.345	114.0		— 93.5		
4500	50.	.366	117.1				
4750	52.5	.389	120.3				

8300	88.0	.769	165.3
8350	88.5	.773	165.7
8400	89.0	.765	164.9
8450	89.5	.750	163.5

AC_CPUC_0000414

SS-25
9-21-81
OFF INJ. 9-17-81

80 100 120 140 160

T- 2780
C- 2780

9-24-81 Harry Jacobs

46 1512
K+E 10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0000415

I 9-17

Southern California Gas Company
Aliso Canyon

Well 55-25 Date 9-21-81 Element No. 39139 Clock Hours _____

Tubing Press. 2780 Status S/I Time Clock Started _____ Time Clock Off _____

Casing Press. 2780 Pick-Up _____ Operator HJ 100 ' per Minute

Time Press. on _____ Time Start Down _____ Zero Point 6'

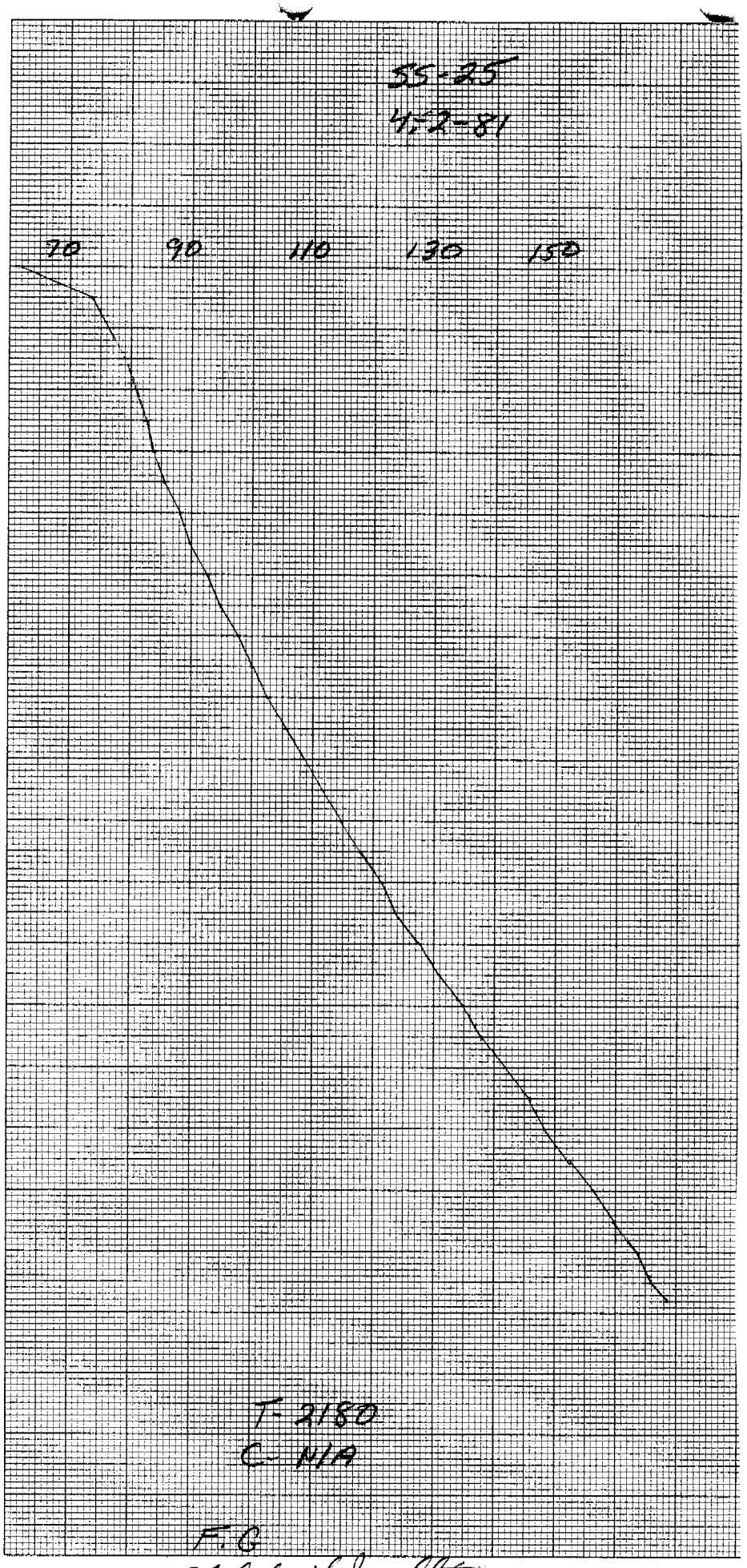
Depth	Elapse Time	Deflection	Temp.	Depth	Elapse Time	Deflection	Temp.
0	5 —	.164	78.1	5000 ✓	55.0	.372	116.5
250	7.5	.154	75.9	5250	57.5	.386	118.7
500	10.0	.156	76.3	5500	60.0	.402	121.1
750	12.5	.177 OVER	80.9	5750	62.5	.424	124.2
1000 ✓	15.0	.188	83.4	6000 ✓	65.0	.446	127.3
1250	17.5	.191	84.0	6250	67.53	.469	130.3
1500	20.0	.197	85.3	6500	70.0	.489	132.8
1750	22.5	.203	86.6	6750	72.5	.520 OVER	136.6
2000 ✓	25.0	.210	88.0	7000 ✓	75.0	.542	139.2
2250	27.5	.219	89.8	7250	77.5	.566	142.1
2500	30.0	.229	91.9	7500	80.0	.594	145.4
2750	32.5	.239	93.9	7750	82.5	.620	148.4
3000 ✓	35.0	.250	96.1	8000 ✓	85.0	.653 OVER	152.1
3250	37.5	.261	98.1	8250	87.5	.665 OVER	153.4
3500	40.0	.274	100.4	8500	90.0	.608 OVER	147.0
3750	42.5	.287	102.7	8700	92.0	.546	139.7
4000 ✓	45.0	.302	105.3				
4250	47.5	.317	107.8				
4500	50.0	.333	110.4	UP	95 —		
4750	52.5	.353	113.7				

800 - 13.0 - .182	82.0
850 - 13.5 - .184	82.5
900 - 14.0 - .187	83.1
950 - 14.5 - .188	83.4

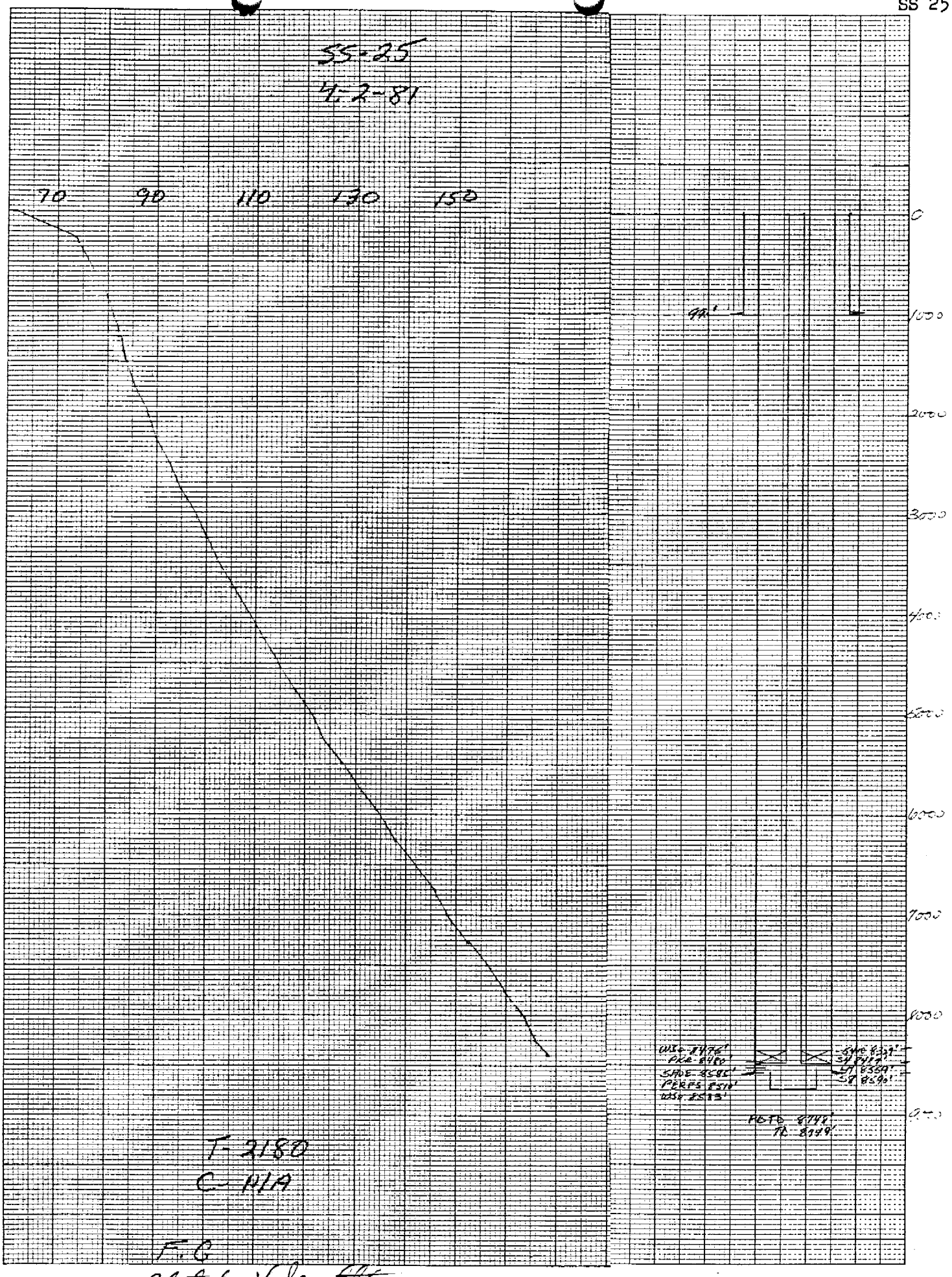
6775 - 72.75 - .525	137.2
6800 - 73.0 - .529	137.7
6850 - 73.5 - .532	138.0
6900 - 74.0 - .535	138.4
6950 - 74.5 - .540	139.0

8050 - 85.5 - .656	152.4
8100 - 86.0 - .666	153.5
8150 - 86.5 - .669	153.8
8200 - 87.0 - .668	153.7
8250 - 87.5 - .665	153.4
8300 - 88 - .665	153.4
8350 - 88.5 - .670	153.9
8400 - 89 - .686	155.5
8450 - 89.5 - .690	156.0

8550 - 90.5 - 504	134.7
8600 - 91 - 495	133.6
8650 - 91.5 - 513	135.8



46 1512
K+E 10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.



46 1512

10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0000419

.027929411176

Southern California Gas Company
Aliso Canyon

Well 5525 Date 4-2-81 Element No. 39134 Clock Hours _____

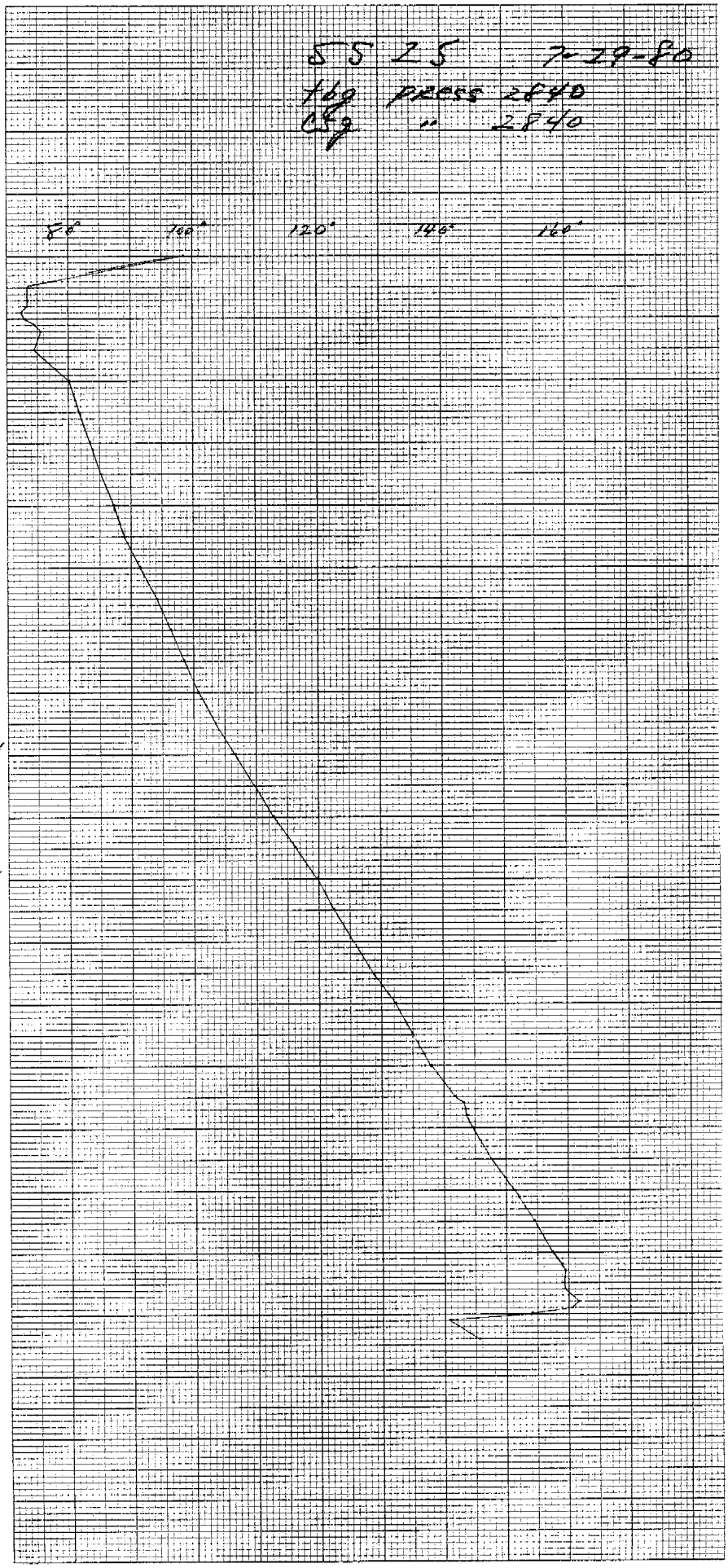
Tubing Press. 2180 Status _____ Time Clock Started _____ Time Clock Off _____

Casing Press. N/A Pick-Up _____ Operator JG _____' per Minute

Time Press. on _____ Time Start Down _____ Zero Point 6

Depth	Elapse Time	Deflection	Temp.	Depth	Elapse Time	Deflection	Temp.
0	5:30	.085	61.2	5000 ✓	55.0	.395	121.2
250	4.5	.129	73.3	5250	57.5	.411	123.4
500	10.0	.133	74.4	5500	60.	.438	127.2
750	12.5	.147	78.0	5750	62.5	.466	130.9
1000 ✓	15.0	.151	79.0	6000 ✓	65.	.496	134.8
1250	17.5	.165	82.0	6250	67.5	.520	137.8
1500	20.	.173	83.6	6500	70.	.551	141.6
1750	22.5	.183	85.7	6750	72.5	.586	145.7
2000 ✓	25.0	.194	88.0	7000 ✓	75.	.606	148.0
2250	27.	.202	89.7	7250	77.5	.645	152.4
2500	30.	.217	92.5	7500	80.	.679	156.1
2750	32.5	.229	94.8	7750	82.5	.713	159.7
3000 ✓	35.0	.245	97.9	8000 ✓	85.0	OVER .747	163.2
3250	37.5	.257	99.9	8250	87.5	.772	165.6
3500	40.0	.271	102.2	8400	89.0	.801	168.4
3750	42.5	.289	105.2	—	91 —		
4000 ✓	45.0	.309	108.4				
4250	47.5	.327	111.2				
500	50.03	.348	114.5				
50	52.52	.372	117.9				

8200 87.0 .772 165.6



46 1512
KE 10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

5 5 2 5 7-29-50

Hrs Feet 2440

Bit " 2440

80° 100° 120° 140° 160°

0 1 2 3 4 5 6 7 8 9

1000 2000 3000 4000 5000 6000 7000 8000

UNC 8475'
PKR 8480'
SAND 8588'
PERFS 8611'
DISC 8618'

SAND 8737'
SH 8742'
BT 8864'
SH 8890'

PBTD 8943'
TD 8949'

46 1512
K&E 10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0000423

SOUTHERN CALIFORNIA GAS COMPANY
SUB-SURFACE TEMPERATURE SURVEY

FIELD 171.50 WELL 5525 DATE 7-29-80

RECORDER NO. 39139 RUN NO. ____ SHEET NO. ____ OF ____ SHEETS BY ____

CLOCK HOURS 3 TIME CLOCK STARTED 1146 1/2 TIME RUN COMPLETED ____

WELL CONDITION DURING RUN, SHUT-IN ✓ FLOWING ____ INJECTION ____

HOURS WELL, SHUT-IN 7days FLOWING ____ INJECTION ____ BEFORE RUN ____

WELL HEAD PRESSURE

TUBING 2840

CASING 2840

FLOW RATE

GAS MCF/D ____

OIL BBL'S/D ____

WATER BBL'S/D ____

GOR ____

AMBIENT TEMPERATURE ____

ZERO POINT 6' M Value

PICK-UP ____

DATUM ____

FLUID LEVEL ____

	SIZE	DEPTH
TUBING	____	8491'
CASING	____	____
CASHING SHOE		____
LINER	____	
TOP		____
BOTTOM		____

PERFORATION

TOP ____

BOTTOM ____

SPECIAL INSTRUCTIONS ____

____ BY ____

REMARKS – USE REVERSE SIDE

FIELD OPERATOR

CHART READ BY

SOUTHERN CALIFORNIA GAS CO.—4295

SURVEY DATA

DEPTH MEASURED	DEPTH VERTICAL	TIME (3.0 Start Pick up 2nd time)	STYLUS DEFLECTION	TEMPERATURE
0		3.0	.264	98.6
250		5.60	.143 OVER	73.3
500		8.22	.142	73.0
750		10.78	.148	74.5
1000 ✓		13.25	.173	80.1
1250		15.83	.181	81.8
1500		18.35	.188	83.4
1750		20.82	.196	85.1
2000 O		23.35	206	87.2
2250		25.85	215	89.0
2500		28.42	.227	91.5
2750		30.95	240	94.1
3000 ✓		33.47	251	96.3
3250		36.05	263	98.4
3500		38.60	277	100.9
3750		41.10	292	103.6
4000 ✓		43.67	310	106.6
4250		46.17	329	109.8
4500		48.68	348	112.9
4750		51.15	370	116.2
5000 ✓		53.63	394	119.9
5250		56.18	411	122.4
5500		58.63	433	125.5
5750		61.15	457	128.8
6000 O		63.62	484	132.2
6250		66.10	507	135.0
6500		68.55	532	138.0
6750		70.98	564 OVER	141.9
7000 ✓		73.47	589	144.8
7250		75.80	613	147.6
7500		78.18	646	151.3
7750		80.50	675	154.4
8000 ✓		82.82	705 OVER	157.5
8250		85.35	722 OVER	159.2
8500		87.80	671 OVER	154.0
8700		89.80	596	145.6
		94.0		

AC_CPUC_0000424

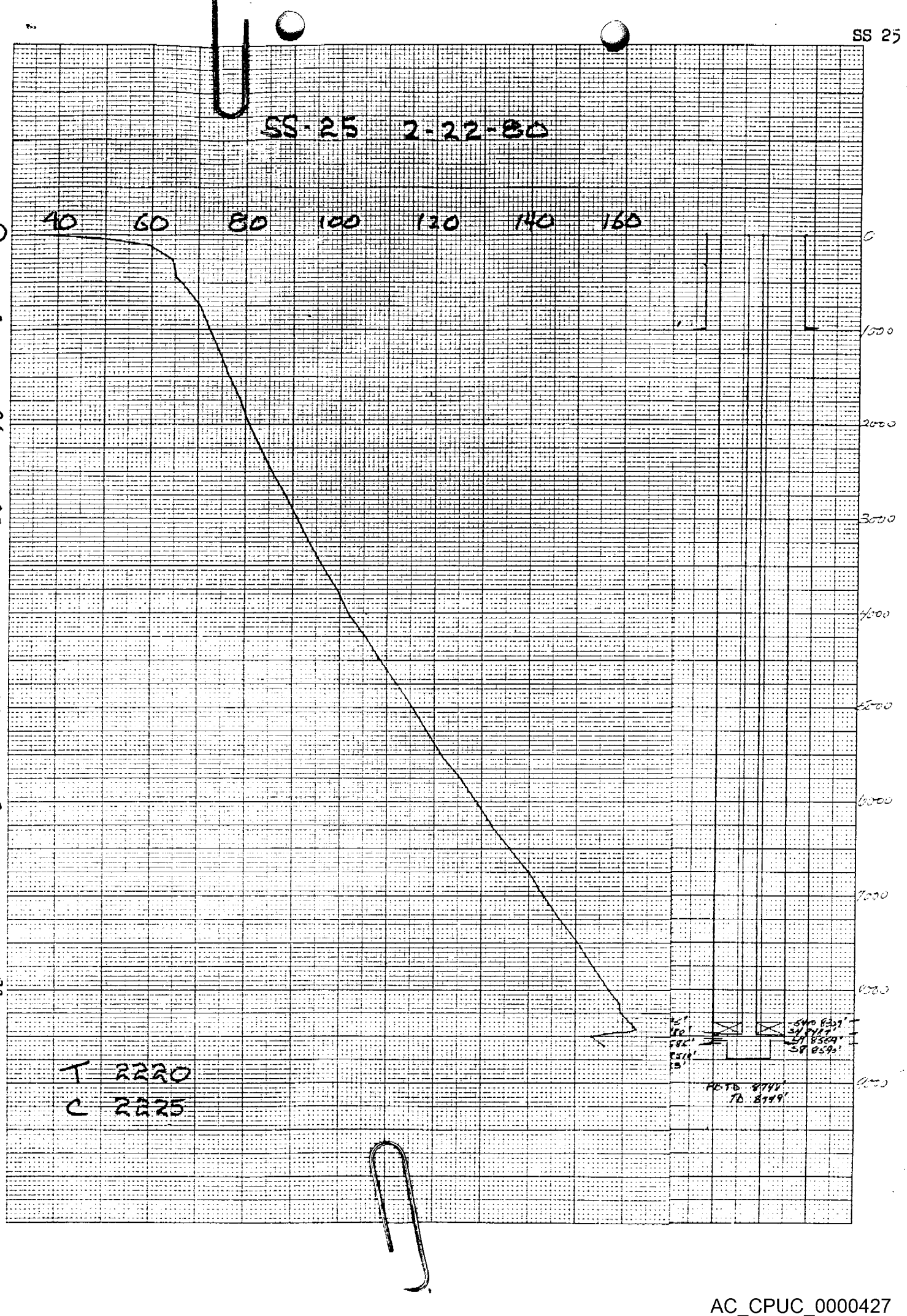
350 - .143 - 73.
400 - .144 - 73.5
450 - .140 - 72.5
550 - .148 - 74.5
600 - .153 - 75.7

6800 - .575 - 143.2
6850 - .577 - 143.4
6900 - .580 - 143.7

8100 - .720 - 159.0
8150 - .724 - 159.4
8200 - .723 - 159.3
8300 - .726 - 159.7
8400 - .746 - 161.7
8450 - .733 - 160.4
8550 - .555 - 140.8

AC_CPUC_0000425

SS-25 2-22-80
40
60
80
100
120
140
160
0
1
2
3
4
5
6
7
8
T 2220
C 2225
46 1512
K+E 10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.



46 1512
10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0000427

2796703296

Southern California Gas Company
Aliso Canyon

Well SS-25 Date 2-22-8 Element No. 3938 Clock Hours 3

Tubing Press. _____ Status SI Time Clock Started 8:41 Time Clock Off 11:36

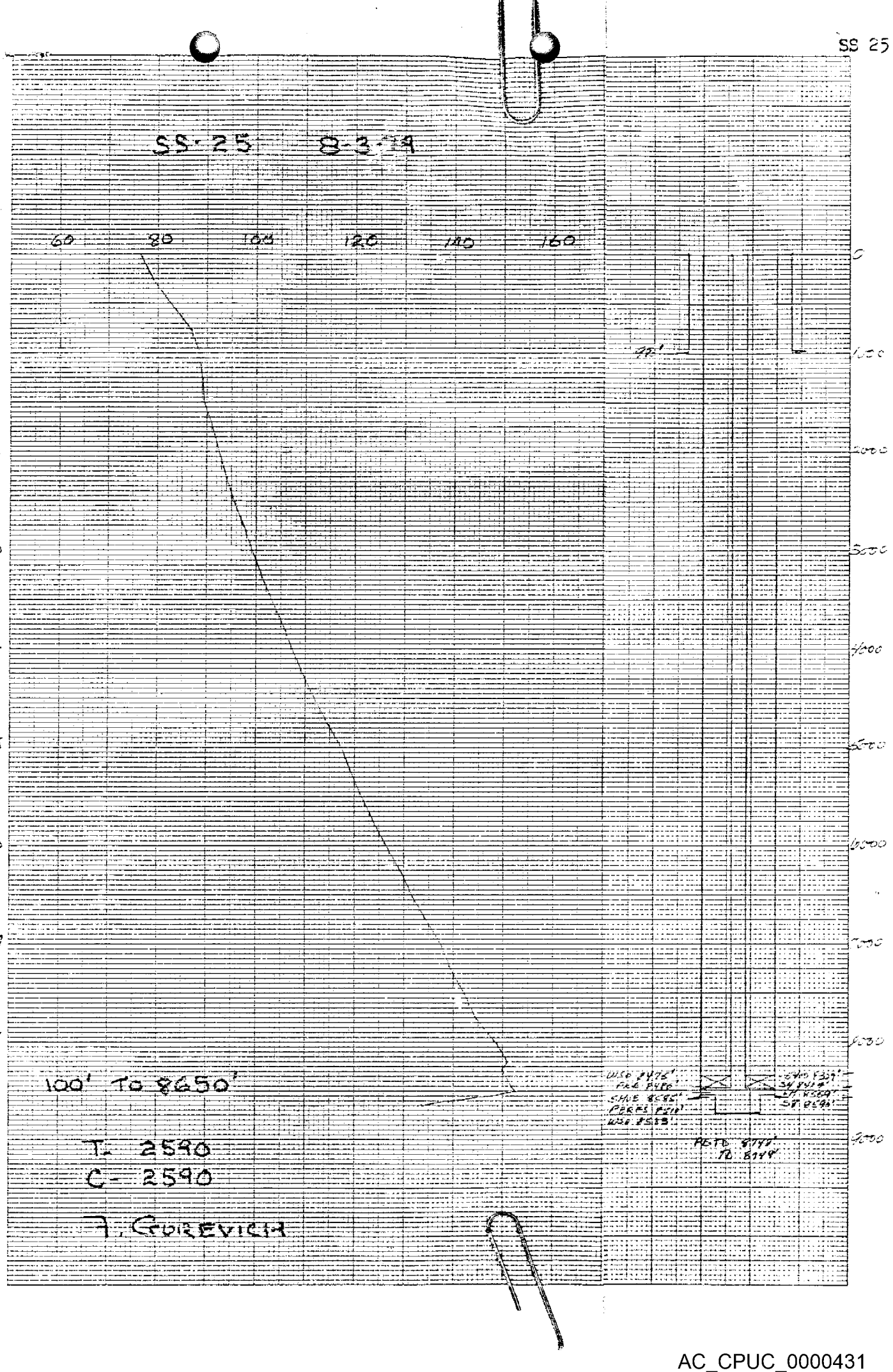
Casing Press. _____ Pick-Up _____ Operator JG _____' per Minute

Time Press. on 845 Time Start Down _____ Zero Point 6

Depth	Elapse Time	Deflection	Temp.	Depth	Elapse Time	Deflection	Temp.
0	5:00	.009	35.6	5000 ✓	55.0	.356	115.7
250	7.50	OVER .095	64.3	5250	57.52	.375	118.4
500	10.0	OVER .104	66.8	5500	60.0	.397	121.5
750	12.5	.117	70.2	5750	62.5	.424	125.3
1000 ✓	15.0	.125	72.3	6000 ✓	65.0	.451	129.0
1250	17.5	.134	74.6	6250	67.5	.476	132.2
1500	20.02	.141	76.5	6500	70.0	.506	136.0
1750	22.5	.151	79.0	6750	72.5	OVER .538	140.0
2000 ✓	25.0	.160	80.9	7000 ✓	75.0	.564	143.1
2250	27.5	.171	83.2	7250	77.52	.594	146.6
2500	30.0	.183	85.7	7500	80.02	.626	150.3
2750	32.5	.196	88.5	7750	82.5	.657	153.8
3000 ✓	35.0	.209	91.0	8000 ✓	85.0	.688	157.1
3250	37.5	.222	93.5	8250	87.5	OVER .714	159.8
3500	40.0	.236	96.1	8500	90.0	OVER .653	153.3
3750	42.5	.253	99.3	8600	91.0	.679	156.1
4000 ✓	45.0	.269	101.9		95.0		
4250	47.5	.290	105.4				
4500	50.0	.312	108.9				
4750	52.5	.333	112.1				

50'	5.5	.047	49.4
100'	6.0	.078	59.1
450	9.5	.098	65.2
6700'	72.0	.531	139.1
6800	73.0	.548	141.3
6900'	74.0	.554	142.0
8175	86.75	.711	159.5
8200	87.0	.711	159.5
8400'	84.0	.738	162.3
8425'	89.25	.742	162.7
8450'	89.50	.730	161.5
8475'	89.75	.680	156.2
8550'	90.5	.673	155.5

AC_CPUC_0000430



46 1512
10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO MADE IN U.S.A.

SUB-SURFACE TEMPERATURE SURVEY

FIELD Aliso Cyn WELL 55-25 DATE 8-3-79

RECORDER NO. 41020 RUN NO. ___ SHEET NO. ___ OF ___ SHEETS BY ___

CLOCK HOURS 3 TIME CLOCK STARTED 8 40 TIME RUN COMPLETED ___

WELL CONDITION DURING RUN, SHUT-IN X FLOWING ___ INJECTION ___

HOURS WELL, SHUT-IN ___ FLOWING ___ INJECTION ___ BEFORE RUN ___

.029190497 14

WELL HEAD PRESSURE

TUBING 2590

CASING 2590

FLOW RATE

GAS MCF/D ___

OIL BBL'S/D ___

WATER BBL'S/D ___

GOR ___

AMBIENT TEMPERATURE ___

ZERO POINT 6' surface

PICK-UP ___

DATUM ___

FLUID LEVEL ___

	SIZE	DEPTH
TUBING		
CASING		
CASHING SHOE		
LINER		
TOP		
BOTTOM		

PERFORATION

TOP ___

BOTTOM ___

SPECIAL INSTRUCTIONS ___

100' per Min.

PRESS ON - 8 46

BY ___

REMARKS.- USE REVERSE SIDE

FIELD OPERATOR

SURVEY DATA

DEPTH MEASURED	DEPTH VERTICAL	Read from PRESS on TIME	STYLUS DEFLECTION	TEMPER.
0	St Dn	6.5	.153	76.5
250		12:75	.164	79.0
500		15:32	.180	82.6
750		17.2	.197	86.5
1000 ✓		20:28	.206	88.4
1250		22:75	.210	89.1
1500		25:25	.213	89.7
1750		27.78	.220	91.1
2000 ✓		30:30	.228	92.6
2250		32.89	.235	94.0
2500		35:47	.244	95.7
2750		38.02	.254	97.6
3000 ✓		40:57	.262	99.1
3250		43.04	.273	101.1
3500		45:50	.284	103.1
3750		47.97	.296	105.3
4000 ✓		50:48	.307	107.2
4250		52.97	.321	109.6
4500		55:50	.335	112.0
4750		58.06	.350	114.6
5000 ✓		60:62	.368	117.4
5250		63.09	.380	119.3
5500		65:55	.394	121.5
5750		68.06	.411	124.0
6000 ✓		70:57	.430	126.8
6250		73.36	.447	129.3
6500		75:57	.465	131.8
6750		78.195	.485	134.5
7000 ✓		80:82	.506	137.4
7250		83.32	.524	139.7
7500		85:82	.543	142.5
7750		88.37	.564	144.8
8000 ✓		90:92	.589	147.9
8250	OVER -	93:45	.610	150.4
8500		96:00	.631	152.9
8650.		97:52	.479	133.7
		102.0		

AC_CPUC_0000432

8100' - 91.92 - .606 - 150.0

8150' - 92.45 - .611 - 150.6

8200 - 92.95 - .615 - 151.0

8275 - 93.7 - .606 - 150.0

8300 - 93.95 - .607 - 150.1

8450 - 95.5 - .623 - 151.9

8550 - 96.5 - .584 - 147.3

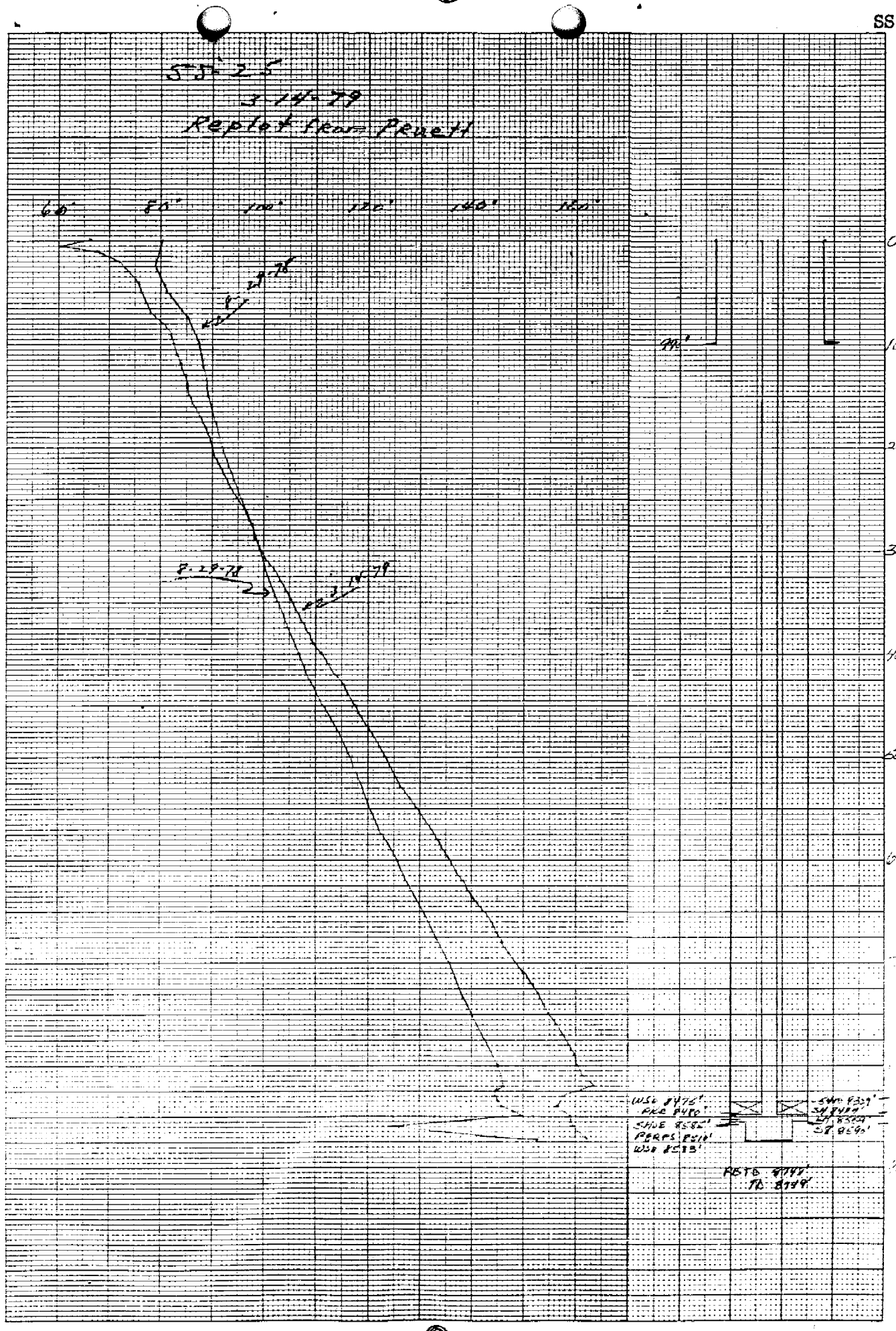
8600 - 97.02 - .520 - 139.2

AC_CPUC_0000433

46 1512

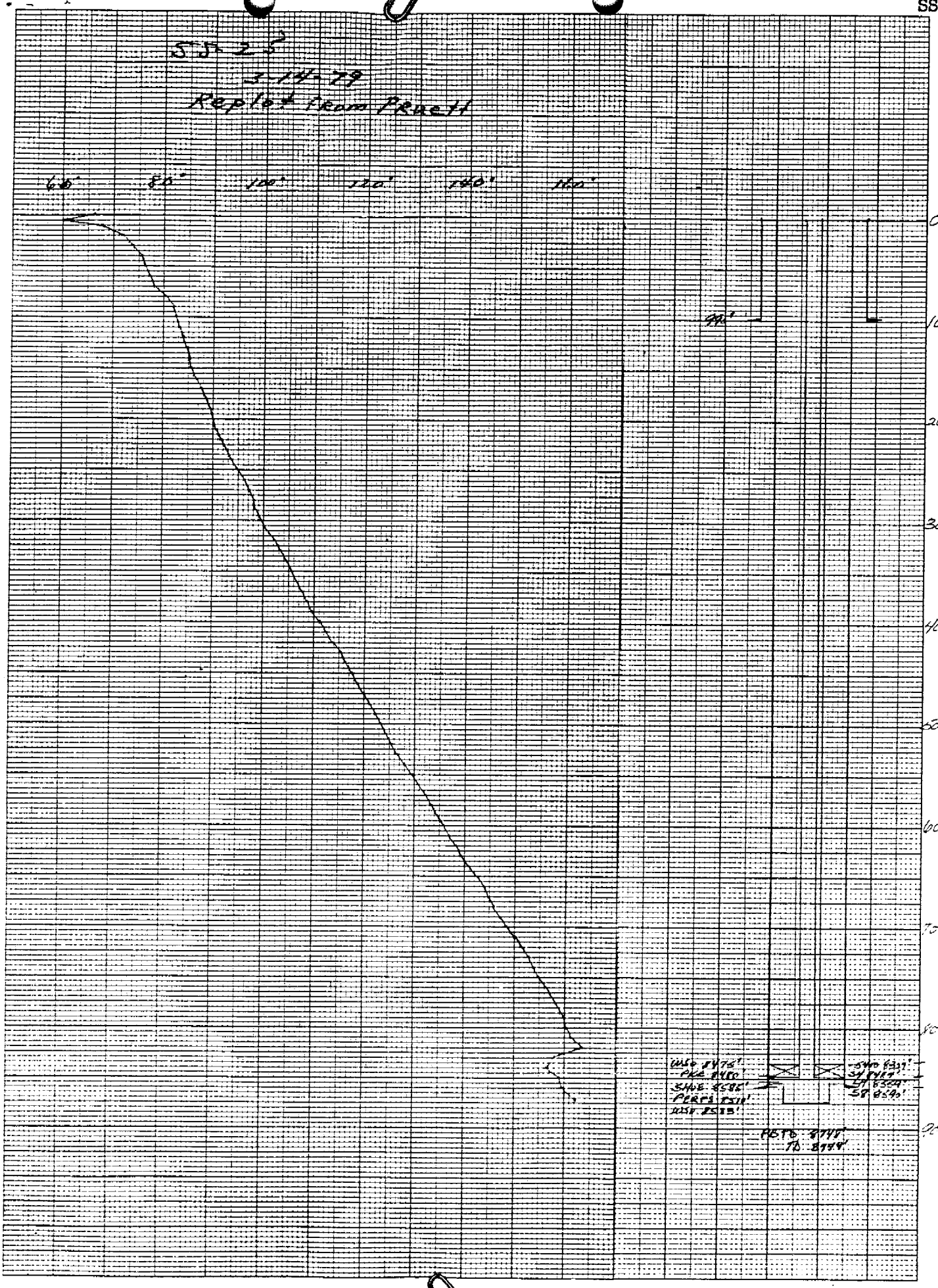
10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0000434



46 1512
10 X 10 TO THE CENTIMETER 25 X 25 CM
KEUFFEL & ESSER CO MADE IN U.S.A.

55-25
3-14-79
Replot from Pearl



46 1512
K+E 10 X 10 TO THE CENTIMETER 18 X 25 CM
KEUFFEL & ESSER CO. MADE IN U.S.A.

PRUETT WIRELINE SERVICE

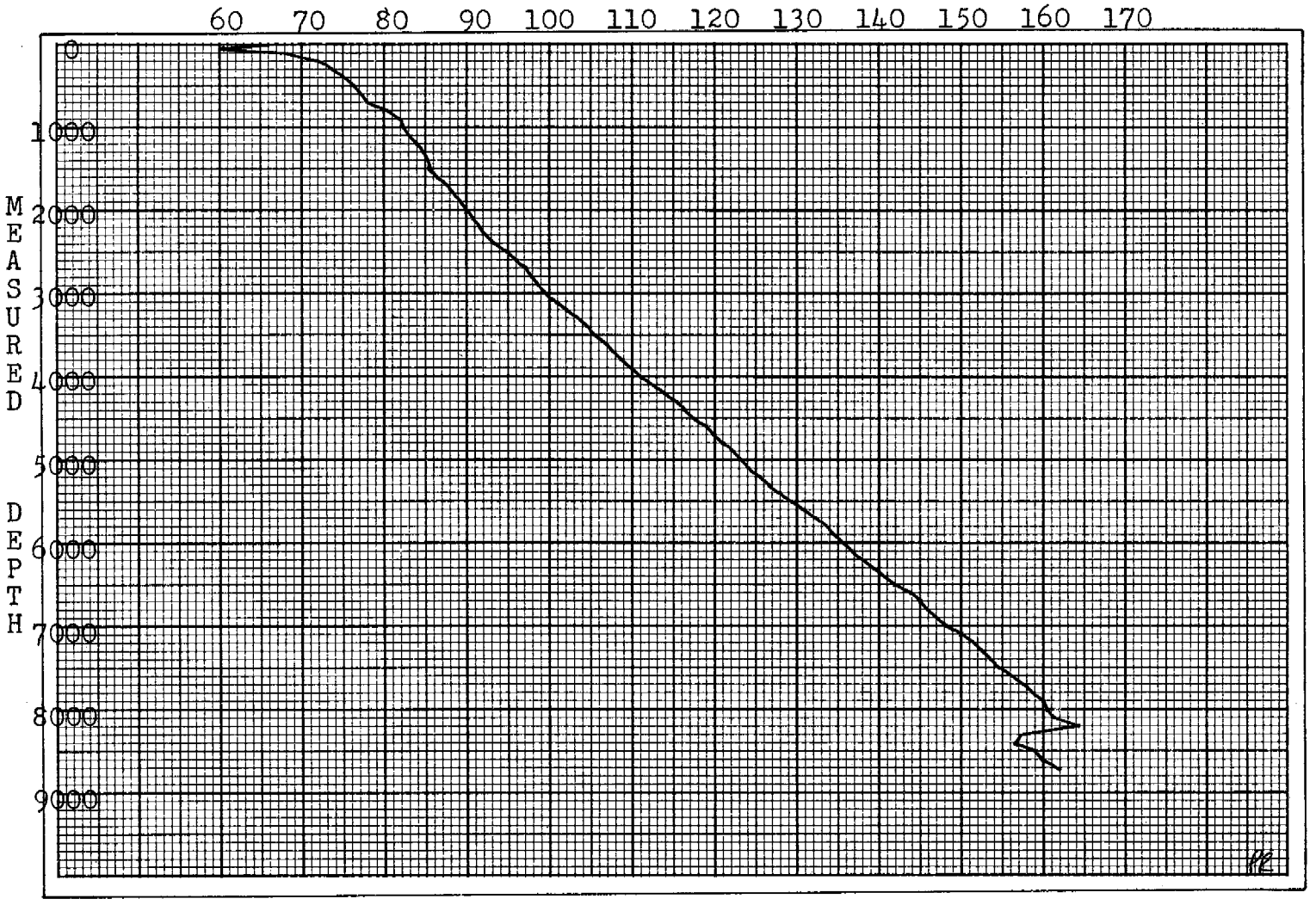
8915 Rosedale Hwy, Bakersfield, Ca. 93308
(805) 589-2768

SUB—SURFACE TEMPERATURE SURVEY

COMPANY Southern California Gas **FIELD** Aliso Canyon **WELL NAME** SS-25

TOTAL DEPTH	--	WELL STATUS	Static	BOMB HUNG @	none	DATE	3-14-79
CASING	--	CASING PRESSURE	--	TIME ON BOTTOM	10:32am	ELEMENT RANGE	32-250°
LINER	--	TUBING PRESSURE	--	TIME OFF BOTTOM	10:35am	ZERO POINT	7'
PERFORATIONS	--	ZONE	none	SHUT IN	none	ELEVATION	none
MPP	--	MAX. °F.	164.4°	ON PRODUCTION	none	PICKUP	8720'
TUBING DETAIL	2 7/8" @ 8491' **			PURPOSE	Traverse Temperature Survey		

TEMPERATURE



SURVEY DATA

SEE ATTACHED

** Packer @ 8480'
No-Go @ 8470'

G Doolan

PRUETT WIRELINE SERVICE

8915 Rosedale Hwy, Bakersfield, Ca. 93308
(805) 589-2768

SUB—SURFACE TEMPERATURE SURVEY

COMPANY Southern California Gas FIELD Aliso Canyon WELL NAME SS-25

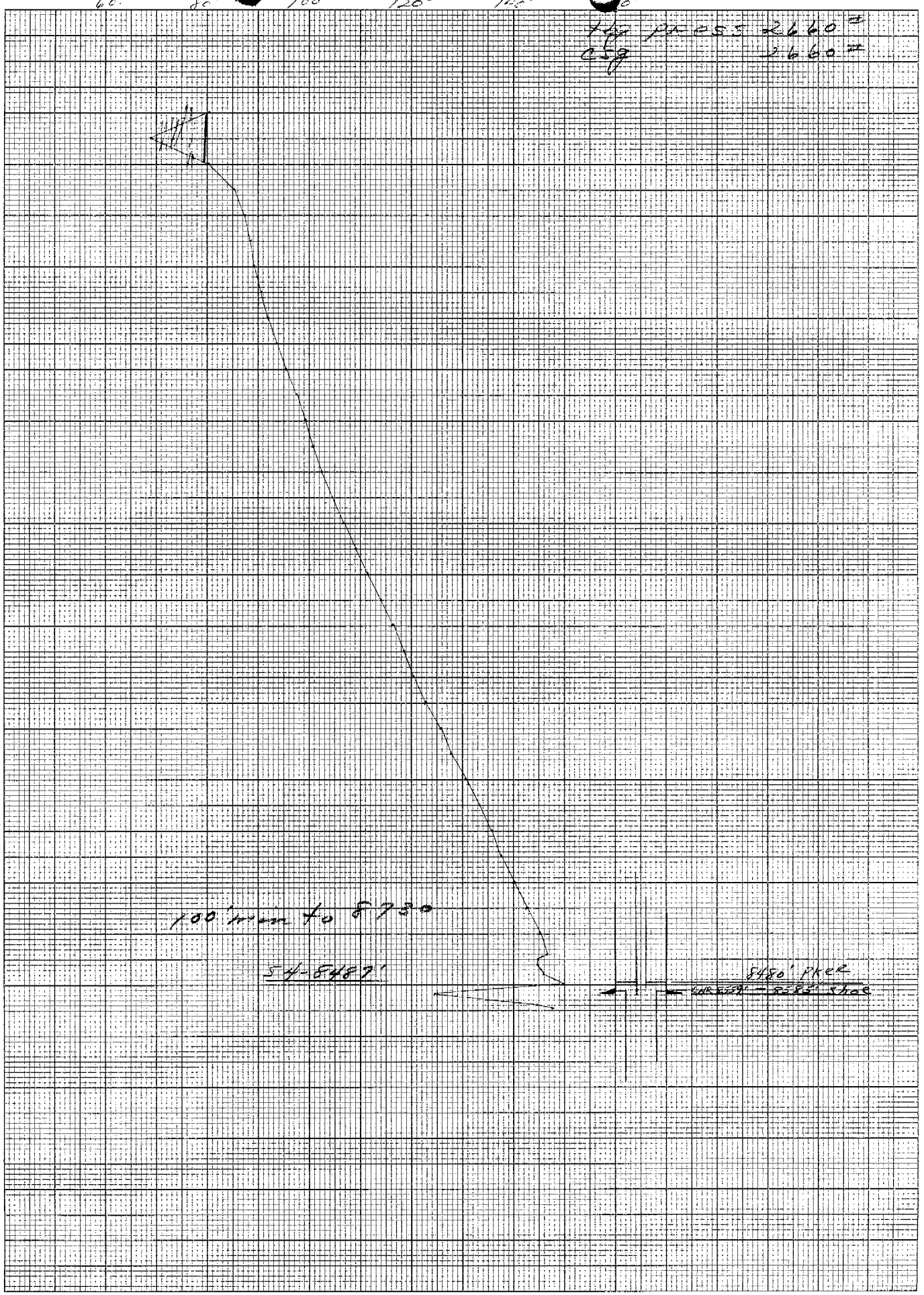
TOTAL DEPTH --	WELL STATUS Static	BOMB HUNG @ none	DATE 3-14-79
CASING --	CASING PRESSURE --	TIME ON BOTTOM ~~10:32am~~	ELEMENT RANGE 32-250°
LINER --	TUBING PRESSURE --	TIME OFF BOTTOM ~~10:35am~~	ZERO POINT 7'
PERFORATIONS --	ZONE none	SHUT IN none	ELEVATION none
MPP --	MAX. °F 164.4°	ON PRODUCTION none	PICKUP 8720'
TUBING DETAIL 2 7/8" @ 8491'		PURPOSE Traverse Temperature Survey	

SURVEY DATA

DEPTH	TEMPERATURE	DEPTH	TEMPERATURE	DEPTH	TEMPERATURE
0	66.2	2800	98.0	5700	132.2
50	60.5	2900	98.7	5800	133.5
100	67.7	3000	99.6	5900	134.5
200	71.9	3100	100.7	6000	135.8
300	73.7	3200	102.1	6100	137.0
400	75.4	3300	103.3	6200	138.3
500	76.4	3400	104.5	6300	139.4
600	77.2	3500	105.5	6400	140.8
700	78.1	3600	106.8	6500	142.1
800	80.4	3700	107.7	6600	144.0
900	82.0	3800	108.7	6700	144.9
1000	82.4	3900	109.9	6800	145.9
1100	83.1	4000	111.1	6900	147.2
1200	84.0	4100	112.5	7000	148.5
1300	84.7	4200	113.9	7100	150.0
1400	85.2	4300	115.3	7200	151.5
1500	85.6	4400	116.3	7300	152.7
1600	86.5	4500	117.7	7400	153.7
1700	87.7	4600	118.9	7500	154.8
1800	88.6	4700	120.0	7600	156.2
1900	89.4	4800	121.0	7700	157.4
2000	90.0	4900	122.3	7800	158.7
2100	90.7	5000	123.3	7900	159.9
2200	91.7	5100	124.2	8000	160.2
2300	92.6	5200	125.5	8100	161.3
2400	93.6	5300	126.7	8200	164.4
2500	94.9	5400	128.0	8300	157.6
2600	96.1	5500	129.4	8400	156.6
2700	97.2	5600	130.8	8500	159.0
				8600	159.7
				8720	162.1

Instrument Serial No. 39139, calibrated 8-31-76.
Survey traversed 100' per minute.

G Doolan



AC_CPUC_0000439

0277789 4736

SUB-SURFACE TEMPERATURE SURVEY

FIELD Aliso Cyn WELL 55-25 DATE 8-29-78

RECORDER NO. 3939 RUN NO. ___ SHEET NO. ___ OF ___ SHEETS BY Smith

CLOCK HOURS 3 TIME CLOCK STARTED 1031 TIME RUN COMPLETED 1240

WELL CONDITION DURING RUN, SHUT-IN X FLOWING ___ INJECTION ___

HOURS WELL, SHUT-IN 48+ FLOWING ___ INJECTION ___ BEFORE RUN ___

WELL HEAD PRESSURE

TUBING 2660

CASING 2660

FLOW RATE

GAS MCF/D ___

OIL BBL'S/D ___

WATER BBL'S/D ___

GOR ___

AMBIENT TEMPERATURE ___

ZERO POINT 7'

PICK-UP ___

DATUM ___

FLUID LEVEL ___

	SIZE	DEPTH
TUBING	___	___
CASING	___	___
CASHING SHOE		8585
LINER	___	
TOP		8559
BOTTOM		___

PERFORATION

TOP ___

BOTTOM ___

SPECIAL INSTRUCTIONS ___

100' per Min.

PRESS ON - 1037

BY ___

REMARKS.- USE REVERSE SIDE

FIELD OPERATOR

SURVEY DATA

DEPTH MEASURED		DEPTH VERTICAL	TIME	STYLUS DEFLECTION	TEMPERATURE
0		St Dn	1045	.163	80.3
250			2:61	.157	79.0
500	X		5:22	.162	80.1
750			7.67	.185	85.2
1000	X		10:12	.195	87.4
1250			12.595	.200	88.5
1500			15:07	.203	89.1
1750			17.535	.211	90.7
2000	X		20:00	.218	92.0
2250			22.525	.226	93.6
2500			25:05	.235	95.4
2750			27.46	.246	97.5
3000	X		29:87	.255	99.2
3250			32.385	.264	100.7
3500			34:90	.275	102.6
3750			37.41	.286	104.5
4000	X		39:92	.300	106.9
4250			42.42	.313	109.0
4500			44:92	.327	111.3
4750			47.4	.344	114.0
5000	X		49:88	.360	116.6
5250	"		52.53	.373	118.6
5500			55:18	.384	120.3
5750			57.715	.400	122.8
6000	X		60:25	.421	125.8
6250			62.75	.436	127.9
6500			65:25	.455	130.6
6750			67.735	.475	133.3
7000	X		70:22	.494	135.9
7250			72.75	.506	137.4
7500			75:28	.527	140.0
7750			77.855	.548	142.7
8000	X		80:43	.568	145.1
8250			82.98	.567	144.9
8500			85:53	.608	149.8
8730			87:92	.590	147.7
			90:00		

FORM 57-55

AC_CPUC_0000440

F000 - $0.43 -

F200 - $2.[illegible] - .582 - 146.[illegible]

F225 - $2.68 - .572 - 145.5

~~F250 - $2.98 - .567~~

F300 - $3.48 - .567 - 144.9

F350 - $3.98 - .569 - 145.2

F400 - $4.48 - .575 - 145.9

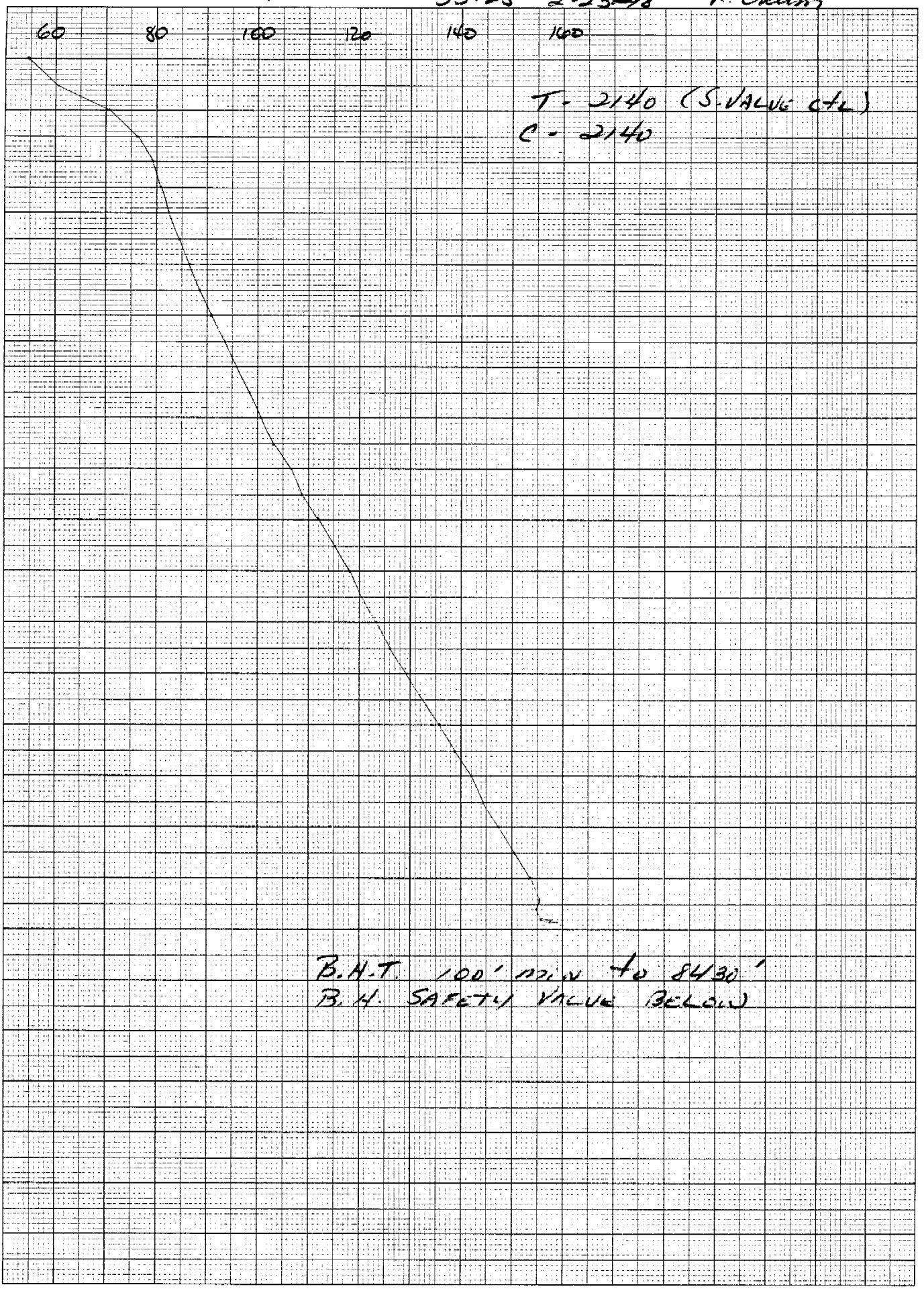
F450 - $4.98 - .594 - 148.2

~~F500~~

F600 - $6.63 - .412 - 124.5

F700 - $7.92 .566 - 144.8

SS. 25 2-23-98 R Orum



No. R-247-C (19-0610) 10 div. to a cm. • Made in U.S.A.
VERNON ROYAL INC., ELIZABETH, N.J. 07208

SUB-SURFACE TEMPERATURE SURVEY

FIELD Aliso Cyn WELL SS-25 DATE 2-23-78

RECORDER NO. 3938 RUN NO. ___ SHEET NO. ___ OF ___ SHEETS BY Orum

CLOCK HOURS 3 TIME CLOCK STARTED 7:59 TIME RUN COMPLETED 9:59

WELL CONDITION DURING RUN, SHUT-IN X FLOWING ___ INJECTION ___ .0278

HOURS WELL, SHUT-IN ___ FLOWING ___ INJECTION ___ BEFORE RUN ___

WELL HEAD PRESSURE

TUBING 2140

CASING 2140

FLOW RATE

GAS MCF/D ___

OIL BBL'S/D ___

WATER BBL'S/D ___

GOR ___

AMBIENT TEMPERATURE ___

ZERO POINT 7' M' VALVE

PICK-UP 8430 B.H. S/V

DATUM ___

FLUID LEVEL ___

	SIZE	DEPTH
TUBING		
CASING		
CASHING SHOE		
LINER		
TOP		
BOTTOM		
PERFORATION		
TOP		
BOTTOM		

SPECIAL INSTRUCTIONS ___

100' per Min.

PRESS ON - 8:08

BY ___

REMARKS.- USE REVERSE SIDE

Burns

FIELD OPERATOR

SURVEY DATA

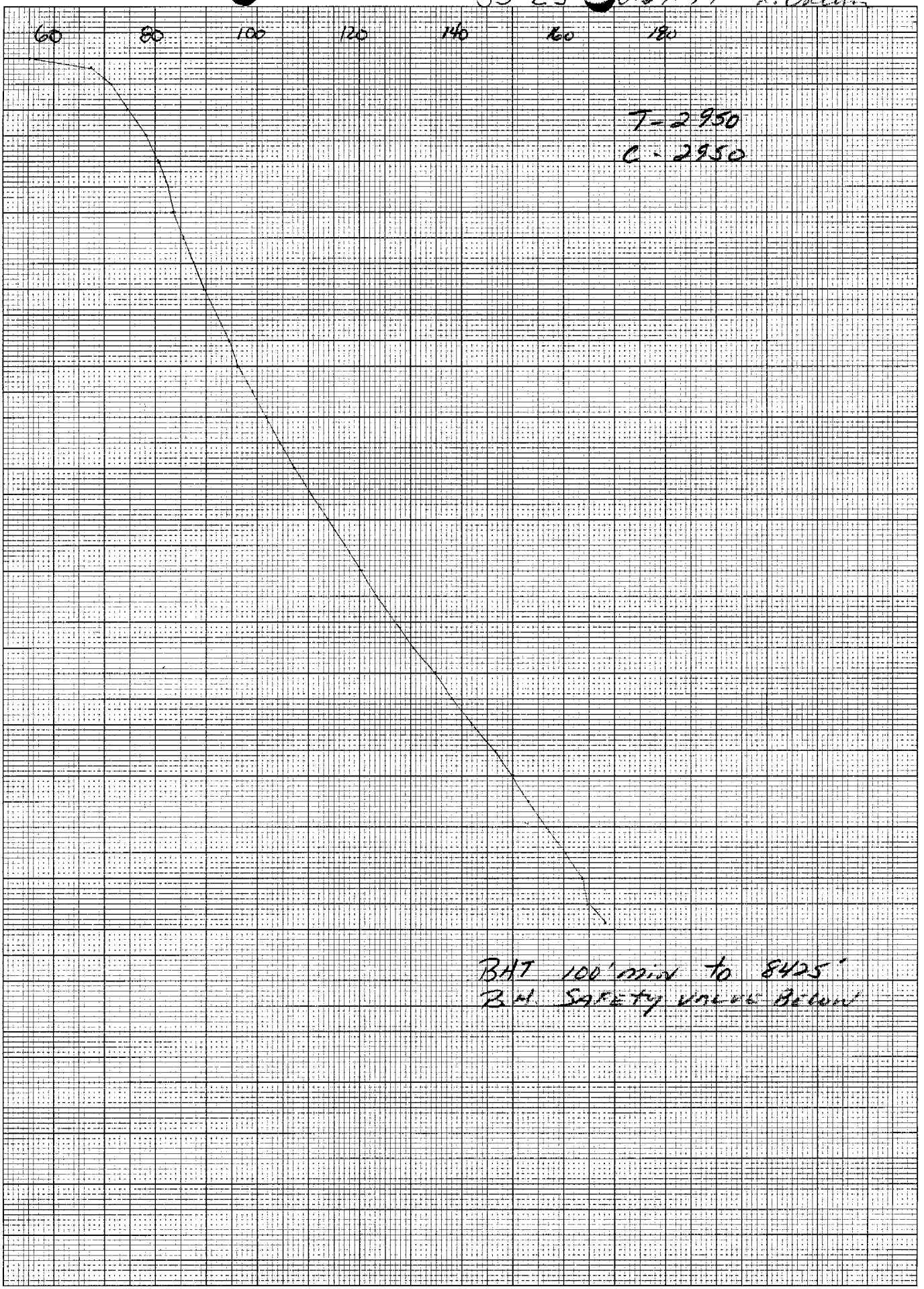
DEPTH MEASURED	DEPTH VERTICAL	TIME	STYLUS DEFLECTION	TEMPERATURE
0	St Dn	8:13	.063	54.5
250	2.42	8:15 05 Sec	.083	60.6
500	4.88	8:17 53 Sec	.119	70.7
750	7.44		.140	76.2
1000 ~	10	8:23	.152	79.2
1250	12.415		.160	80.9
1500	14.83	8:27 50 Sec	.167	82.4
1750	17.415		.178	84.7
2000 ~	20	8:33	.187	86.6
2250	22.415		.196	88.5
2500	24.83	8:37 50 Sec	.208	90.8
2750	27.455		.222	93.5
3000 ~	30.08	8:43 5 Sec	.234	95.8
3250	32.575		.248	98.4
3500	35.07	8:48 4 Sec	.261	100.6
3750	37.535		.276	103.1
4000 ~	40	8:53	.298	106.7
4250	42.415		.311	108.7
4500	44.83	8:57 50 Sec	.332	112
4750	47.29		.353	115.2
5000 ~	49.75	9:02 3/4	.373	118.1
5250 ~	52.125		.391	120.6
5500	54.5	9:07 1/2	.410	123.3
5750	56.915		.430	126.1
6000 ~	59.33	9:12 20 Sec	.455	129.5
6250	61.75		.478	132.5
6500	64.17	9:17 10 Sec	.504	135.8
6750	66.67		.528	138.8
7000 ~	69.17	9:22 10 Sec	.554	142
7250	71.71		.575	144.4
7500	74.25	9:27 1/4	.601	147.4
7750	76.79		.629	150.6
8000 ~	79.33	9:32 20 Sec	.656	153.6
8230	81.75	9:34 3/4	OVER	
8430	83.58	9:36 35 Sec	.692	157.5
	90	9:43	.706	159

OSS FORM 55

AC_CPUC_0000443

Depth	Dens.	Temp
8200	.671	155.3
8225	.671	155.3
8250	.670	155.2
8300	.668	154.9
8400	.676	155.8

SS-25 10-27-77 R. Dreus



461510

10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0000445

PACIFIC LIGHTING SERVICE COMPANY

SUB-SURFACE TEMPERATURE SURVEY

FIELD Aliso WELL SS 25 DATE 10-27-77

RECORDER NO. 41020 RUN NO. ___ SHEET NO. ___ OF ___ SHEETS BY Smith

CLOCK HOURS 3 TIME CLOCK STARTED 8 27 TIME RUN COMPLETED 10 27

WELL CONDITION DURING RUN, SHUT-IN ___ FLOWING ___ INJECTION ___ .027734

HOURS WELL, SHUT-IN ___ FLOWING ___ INJECTION ___ BEFORE RUN ___

WELL HEAD PRESSURE

TUBING 2950 5 Valve Control

CASING 2950

FLOW RATE

GAS MCF/D ___

OIL BBL'S/D ___

WATER BBL'S/D ___

GOR ___

AMBIENT TEMPERATURE ___

ZERO POINT (7) Manifold Valve

PICK-UP ___

DATUM ___

FLUID LEVEL ___

	SIZE	DEPTH
TUBING	___	___
CASING	___	___
CASHING SHOE		___
LINER	___	
TOP		___
BOTTOM		___

PERFORATION

TOP ___

BOTTOM ___

SPECIAL INSTRUCTIONS 100' min

@ 8425' 5. Valve at 8449

___ BY ___

REMARKS - USE REVERSE SIDE

FIELD OPERATOR

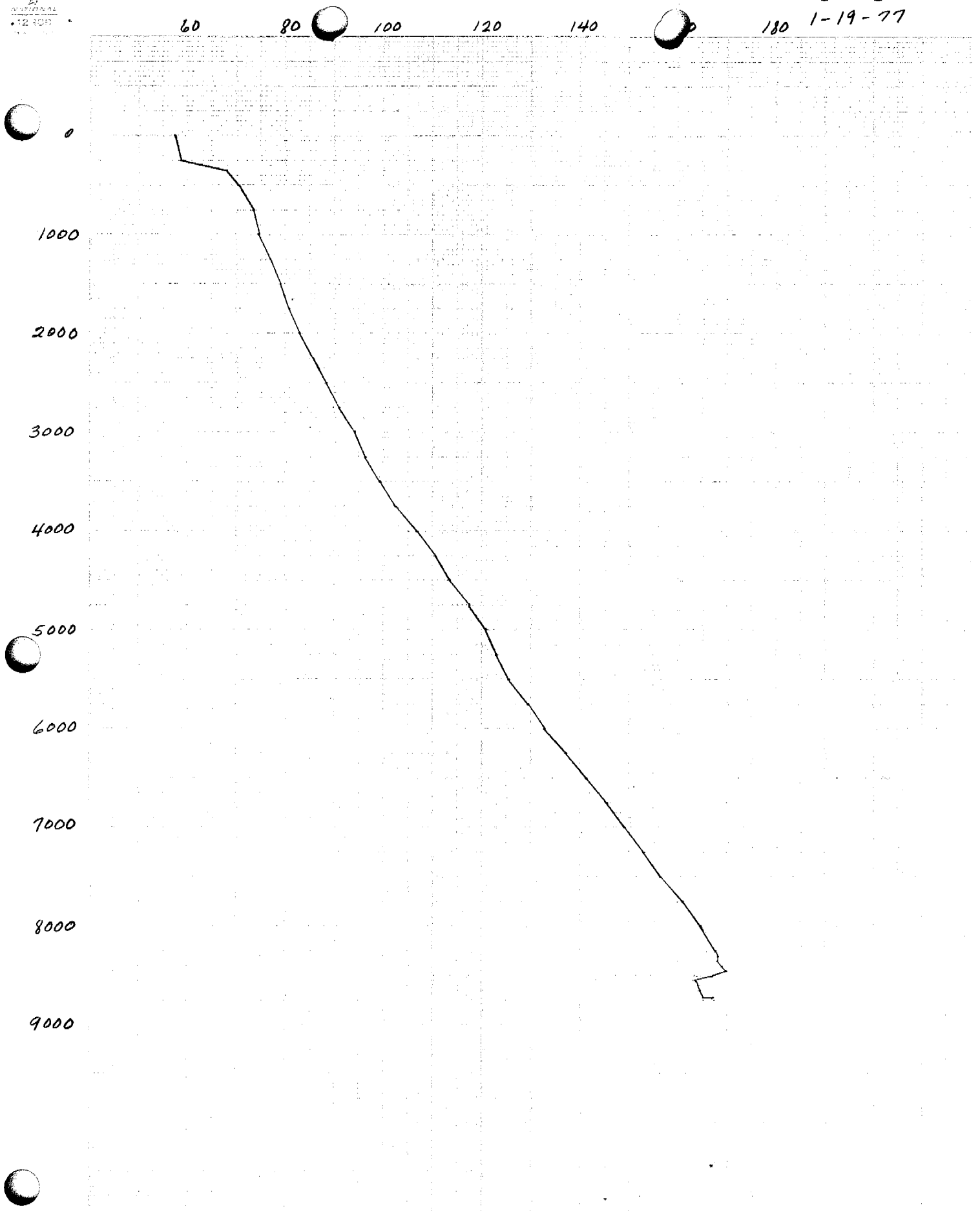
SURVEY DATA

DEPTH MEASURED	DEPTH VERTICAL	TIME	STYLUS DEFLECTION	TEMPERATURE
0/100	54 dn	8 42	.066/.111	55.1/67.7
250	2.375		.125	71.2
500	4.75	8 44 3/4	.138	74.4
750	7.375		.154	78.3
1000 x	10	8 52	.165	80.6
1250	12.5		.173	82.4
1500	15	8 57	.179	83.7
1750	17.5		.188	85.6
2000 x	20	9 02	.197	87.6
2250	22.375		.207	89.6
2500	24.75	9 04 3/4	.219	92
2750	27.25		.231	94.4
3000 x	2975	9 11 3/4	.240	96.2
3250	32.25		.255	99.1
3500	34.75	9 16 3/4	.270	101.8
3750	37.25		.285	104.6
4000 x	39.75	9 21 3/4	.300	107.3
4250	42.25		.320	110.6
4500	44.75	9 26 3/4	.340	113.9
4750	47.25		.360	117.2
5000 x	4975	9 31 3/4	.380	120.4
5250	52.25		.400	123.6
5500	54.75	9 36 3/4	.423	127
5750	57.25		.448	130.6
6000 x	59.75	9 41 3/4	.479	134.8
6250	62.375		.502	138
6500	65	9 47	.534	142.1
6750	67.5		.573	146.8
7000 x	70	9 52	.600	150
7250	72.5		.629	153.1
7500	75	9 57	.663	156.8
7750	77.625		.697	160.4
8000	80.25	10 02 1/4	.731	163.7
8250	82.75		.742	164.8
8425	84.5	10 06 1/2	.777	168.1
	89.5	10 16 1/2	.778	168.2

SS FORM 500

AC_CPUC_0000448

55-25
1-19-77



AC_CPUC_0000449

SOUTHERN CALIFORNIA GAS COMPANY
SUB-SURFACE TEMPERATURE SURVEY

FIELD Aliso WELL 5525 DATE 1-19-77

RECORDER NO. 39139 RUN NO. ____ SHEET NO. ____ OF ____ SHEETS BY Crum

CLOCK HOURS 3 TIME CLOCK STARTED 8:58 TIME RUN COMPLETED 11:21

WELL CONDITION DURING RUN, SHUT-IN ✓ FLOWING ____ INJECTION ____

HOURS WELL, SHUT-IN ____ FLOWING ____ INJECTION ____ BEFORE RUN ____

WELL HEAD PRESSURE

TUBING 2060 #

CASING 2070 #

FLOW RATE

GAS MCF/D ____

OIL BBL'S/D ____

WATER BBL'S/D ____

GOR ____

AMBIENT TEMPERATURE ____

ZERO POINT Master Valve - 8'

PICK-UP ____

DATUM ____

FLUID LEVEL ____

	SIZE	DEPTH
TUBING		
CASING		
CASHING SHOE		
LINER		
TOP		
BOTTOM		

PERFORATION

TOP ____

BOTTOM ____

SPECIAL INSTRUCTIONS

Press on 9:19

Press off 11:14

BY ____

REMARKS — USE REVERSE SIDE 88

FIELD OPERATOR

CHART READ BY

SOUTHERN CALIFORNIA GAS CO.—4295

SURVEY DATA

DEPTH MEASURED	DEPTH VERTICAL	TIME	STYLUS DEFLECTION	TEMPERATURE
0	St Dn. 0	9:21	.075	57.6
250	2	9:23	.079	58.7
500	5	9:26	.121	70.2
750	8	9:29	.134	73.4
1000 ✓	10	9:31	.139	74.7
1250	12.5	9:33.5	.148	76.9
1500	15	9:36	.157	79.0
1750	17.5		.165	80.8
2000 ✓	20	9:41	.174	82.9
2250	22.5		.186	85.6
2500	25	9:46	.198	88.3
2750	27.6		.211	90.9
3000 ✓	30	9:51	.227	94.0
3250	32.5		.239	96.3
3500	35	9:56	.255	99.3
3750	38	9:59	.274	102.6
4000 ✓	41	10:02	.299	106.9
4250	43.5	10:04.5	.321	110.4
4500	46	10:07	.347	113.7
4750	48.5	10:09.5	.368	117.6
5000 ✓	51	10:12	.390	120.8
5250	53	10:14	.405	122.9
5500	55	10:16	.424	125.5
5750	57.5		.453	129.4
6000 ✓	60	10:21	.480	132.8
6250	63		.515	137.2
6500	66	10:27	.550	141.4
6750	68½	10:29.5	.585	145.5
7000 ✓	71	10:32	.617	149.1
7250	73.5	10:34.5	.651	152.9
7500	76	10:37	.681	156.6
7750	78.5	10:39.5	.729	160.8
8000 ✓	81	10:42	.764	164.3
8250	83.5	10:44.5	.797	167.6
8500	86	10:47	Over	
8713	ON Bottom 88	10:49		
	OFF Bottom	10:52		

8300	84	–	.803	168.2
8350	84½		.801	168
8400	85		.810	168.8
8450	85½		.822	170.0
8500	– 86		.792	167.1
8550	86½		.757	163.6
8600	87		.760	163.9
8650	87½		.763	164.2
8713	88		.771	~~165.0~~
—	90		.793	167.2

INSTRUMENT SERVICE

Gary Foster
2960 N. Ventura Ave.
Ventura, California 93001
Phone 805-649-2228
Bakersfield 805-324-2208

So. Calif. Gas Co.

Aliso Canyon

Company So. Calif. Gas Co. Field Aliso Canyon Date 4-20-76 /

Well SS-25 Tubing PSI / Casing PSI /

Purpose BHT Survey @ 100' per min. Status Shut in

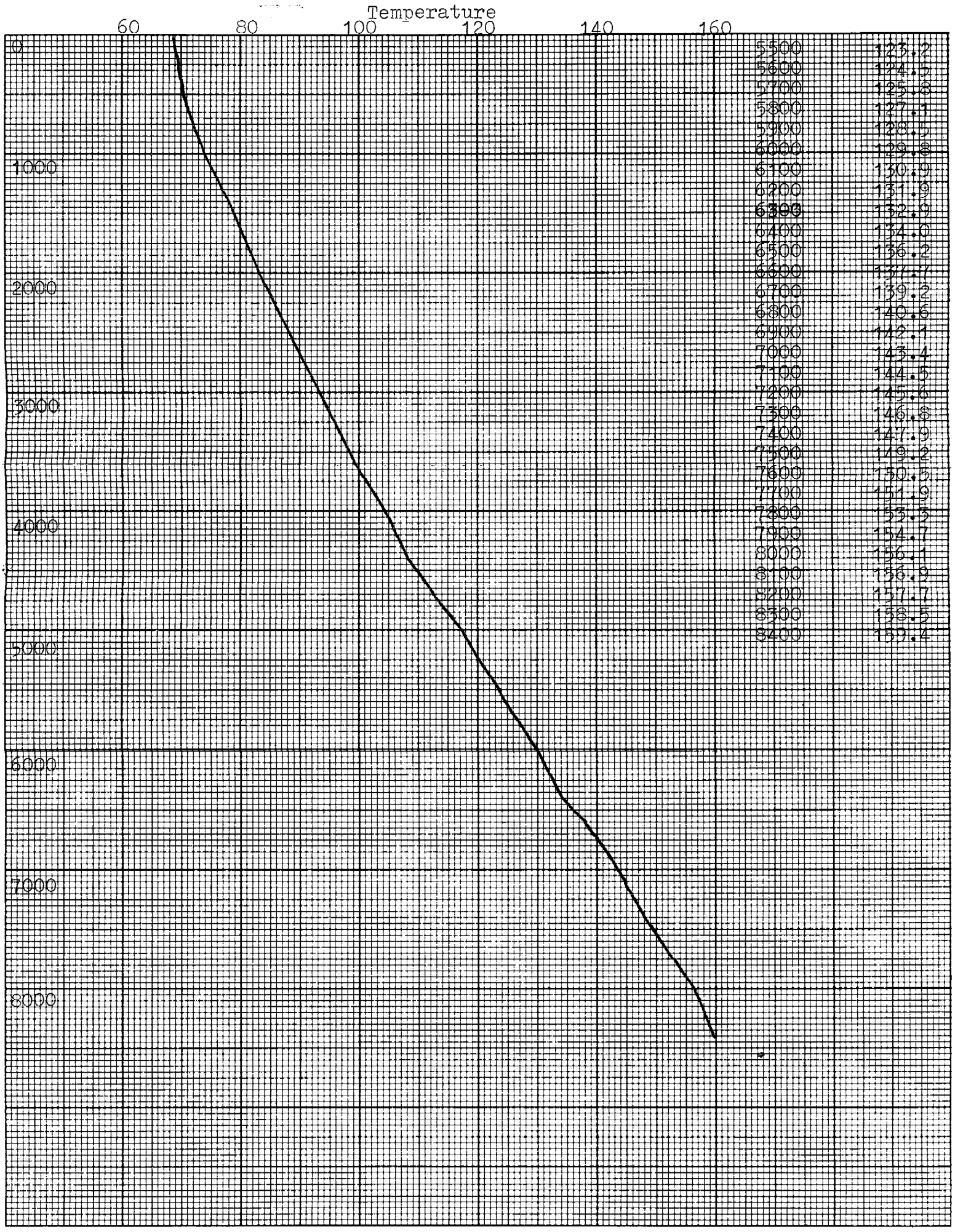
Total Depth Zero

Casing Size Depth Liner Size Top Bottom

Perforations

Tubing 2 7/8" Hung to 8492

Depth	Temp.	1300	77.0	2700	90.2	4100	105.3
0	68.8	1400	78.1	2800	91.1	4200	106.2
100	69.1	1500	79.0	2900	92.3	4300	107.3
200	69.5	1600	79.8	3000	93.3	4400	108.1
300	69.8	1700	80.7	3100	94.4	4500	109.5
400	70.1	1800	81.5	3200	95.3	4600	111.0
500	70.3	1900	82.4	3300	96.4	4700	112.5
600	71.1	2000	83.2	3400	97.2	4800	114.0
700	71.8	2100	84.1	3500	98.2	4900	115.6
800	72.6	2200	85.2	3600	99.4	5000	117.1
900	73.4	2300	86.2	3700	100.6	5100	118.3
1000	74.0	2400	87.2	3800	101.9	5200	119.5
1100	75.0	2500	88.1	3900	103.1	5300	120.8
1200	76.2	2600	89.1	4000	104.3	5400	122.0

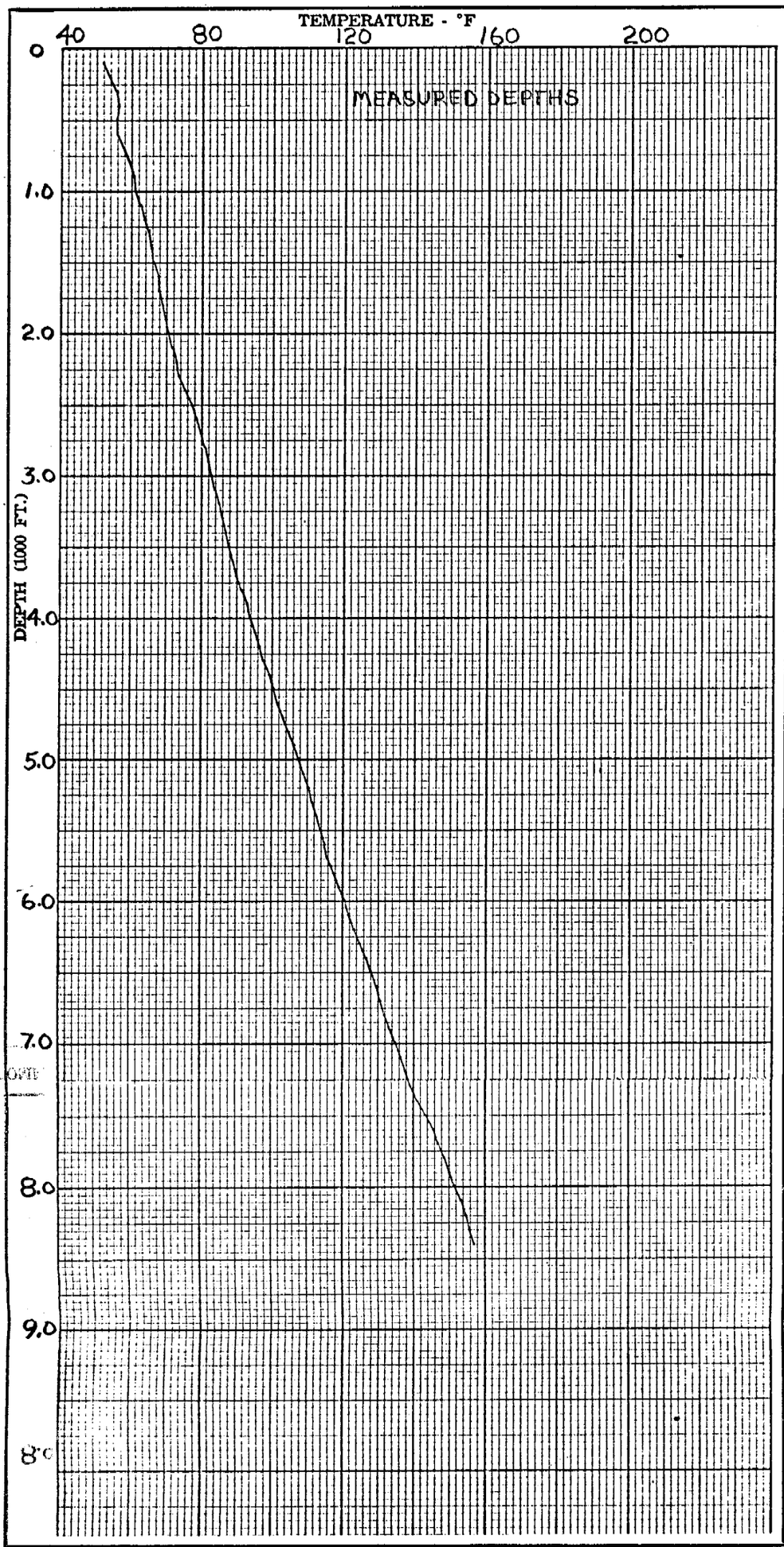


TECHNICAL SERVICE CO.
801 West 14th Street
Long Beach, California 90813

Phones: 24 Hours
Long Beach - 436-9901
Ventura - - 642-3794

SUB-SURFACE TEMPERATURE DATA

Company: So. California Gas Co. Field: Aliso Canyon Date: March 14, 1974 Run No.:
Well: Standard Sesnon #25 Zone: Elev.: D. F. 8.35'
Purpose: Static Temperature Survey Status: Shut In
Total Depth: Effect. Depth:
Casing Size: Depth: Liner Size: Top: Bottom:
Perforations:
Tubing: 2-7/8" EUE To 8492', KBMG Gas Lift Mandrels @ 4995', 5925', 6795', 7600', 8325', "L" Sliding Sleeve (open) 8390', Baker "FH" Packer @ 8460', Otis "J" Valve 8421'



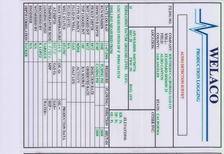
OBSERVATIONS	
Stabilization Period - Hrs.	
Gross Oil Rate - B/D	
Net Oil Rate - B/D	
Formation Gas MCF/D	
Formation Gas-Oil Ratio CFT/BBL	
Circulated Gas MCF/D	
Oil Dry Gravity - °A.P.I.	
Casinghead Pressure - PSIG	
Tubinghead Pressure - PSIG	
Casing Fluid Level - Ft.	

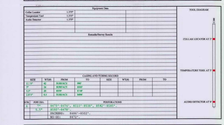
Traverse Depth Feet	Temperature °F	Traverse Depth Feet	Temperature °F
100	51.8	5100	108.8
200	53.8	5200	110.1
300	55.8	5300	111.3
400	56.2	5400	112.4
500	55.5	5500	113.7
600	55.8	5600	115.0
700	57.5	5700	115.8
800	59.2	5800	117.5
900	60.6	5900	118.8
1000	60.6	6000	120.1
1100	62.3	6100	121.8
1200	63.3	6200	123.3
1300	64.7	6300	124.9
1400	65.7	6400	126.3
1500	66.0	6500	128.0
1600	67.4	6600	129.4
1700	67.7	6700	130.5
1800	68.7	6800	131.9
1900	69.4	6900	133.3
2000	70.4	7000	134.8
2100	71.5	7100	136.3
2200	72.5	7200	137.6
2300	73.5	7300	138.9
2400	75.2	7400	141.0
2500	76.9	7500	143.8
2600	78.3	7600	145.9
2700	79.6	7700	146.6
2800	80.6	7800	148.5
2900	81.4	7900	150.0
3000	82.6	8000	151.8
3100	83.8	8100	153.9
3200	84.8	8200	154.5
3300	86.0	8300	155.7
3400	86.8	8400	156.9
3500	87.4		
3600	88.6		
3700	89.6		
3800	90.8		
3900	92.7		
4000	93.5		
4100	95.0		
4200	96.2		
4300	97.5		
4400	99.2		
4500	100.2		
4600	101.7		
4700	102.8		
4800	104.4		
4900	106.1		
5000	107.4		

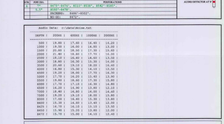
COMMENTS: Zero: Mat + 6.35'

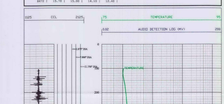
By: Worley - Willson - Smith

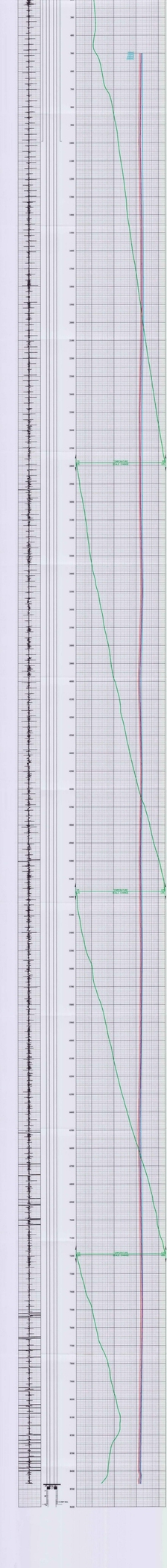
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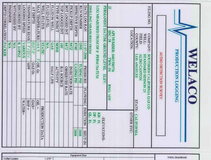








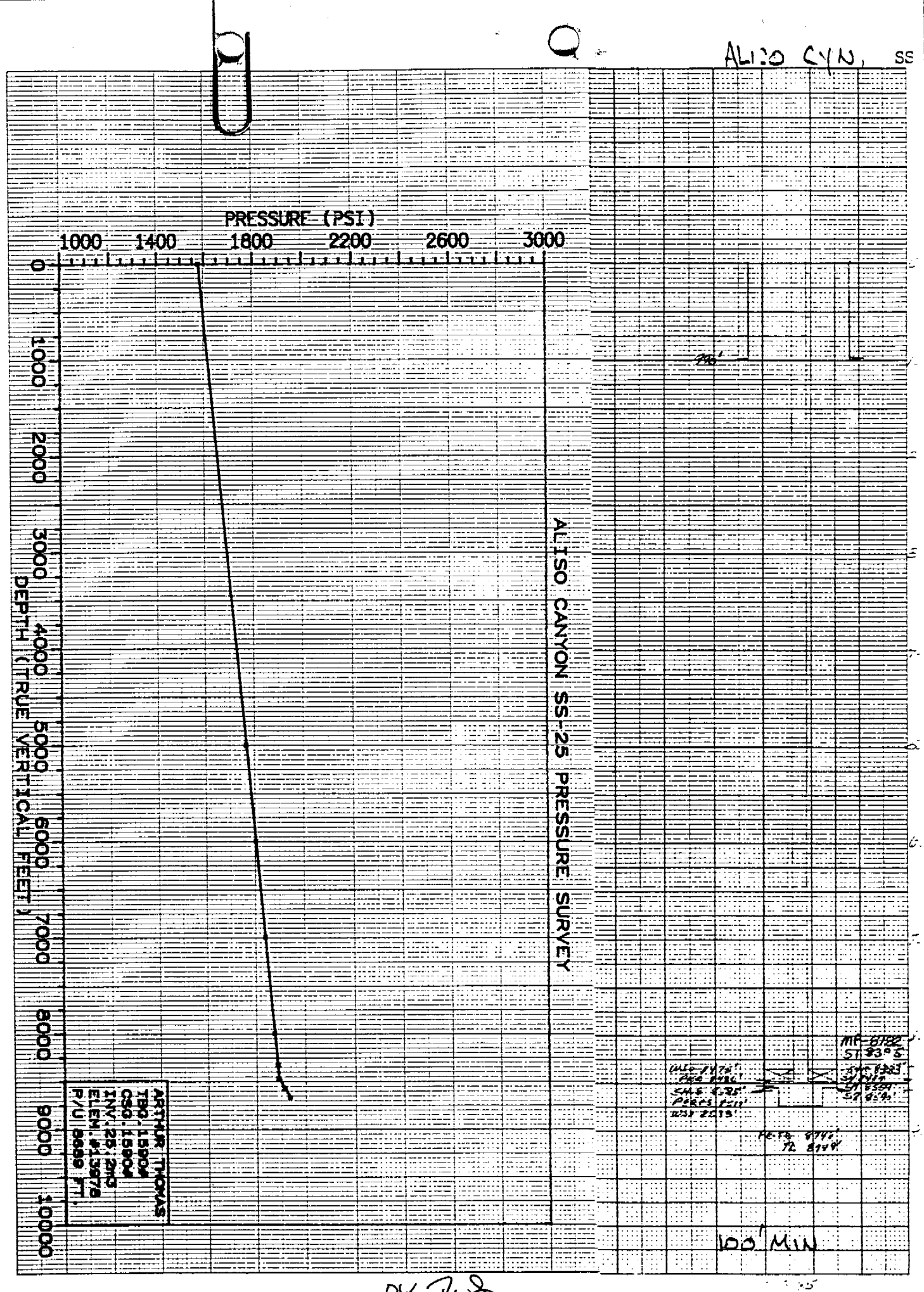
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WELACO
PRODUCTION LOGGING
PRODUCTION LOGGING
PRODUCTION LOGGING

Standard Sesnon 25 Aliso Cyn.
Well Survey File

AC_CPUC_0000456

Smead
UPC 19081
No. PC502-5A-2D-BE
HASTINGS, MN



46 1510

10 X 10 TO THE CENTIMETER
KEUFFEL & ESSER CO. MADE IN U.S.A.

OK Rob
3/8/95

SOUTHERN CALIFORNIA GAS COMPANY
SUB-SURFACE PRESSURE SURVEY

FIELD ALISO WELL SS-25 DATE

RECORDER NO. RUN NO. SHEET NO. OF SHEETS BY

CLOCK HOURS TIME CLOCK STARTED TIME RUN COMPLETED

WELL CONDITION DURING RUN, SHUT-IN FLOWING INJECTION

HOURS WELL, SHUT-IN FLOWING INJECTION BEFORE RUN

WELL HEAD PRESSURE

TUBING

CASING

FLOW RATE

GAS MCF/D

OIL BBL'S/D

WATER BBL'S/D

GOR

MAXIMUM TEMPERATURE

ZERO POINT 6' @ M/V

PICK-UP

DATUM 8342 (8333)(-5400)

	SIZE	DEPTH
TUBING	2 7/8	8496
CASING	7	8585
CASING SHOE		
LINER	5 1/2	
TOP		8559
BOTTOM		8748

PERFORATION

TOP	8592
BOTTOM	8748

SURVEY DATA

DEPTH		STYLUS DEFLECTION	PRESSURE	GRADIENT PSI/100 FT
VERTICAL	MEASURED			
0	0			
5000	5000			
6000	6000			
7000	7000			
8000	8000			
8333	8342 OAT			
8475	8487 5-4			
8576	8590 5-8			
8675	8689			

SPECIAL INSTRUCTIONS: TBG TAIL 8496
TD 8748

BY

REMARKS:

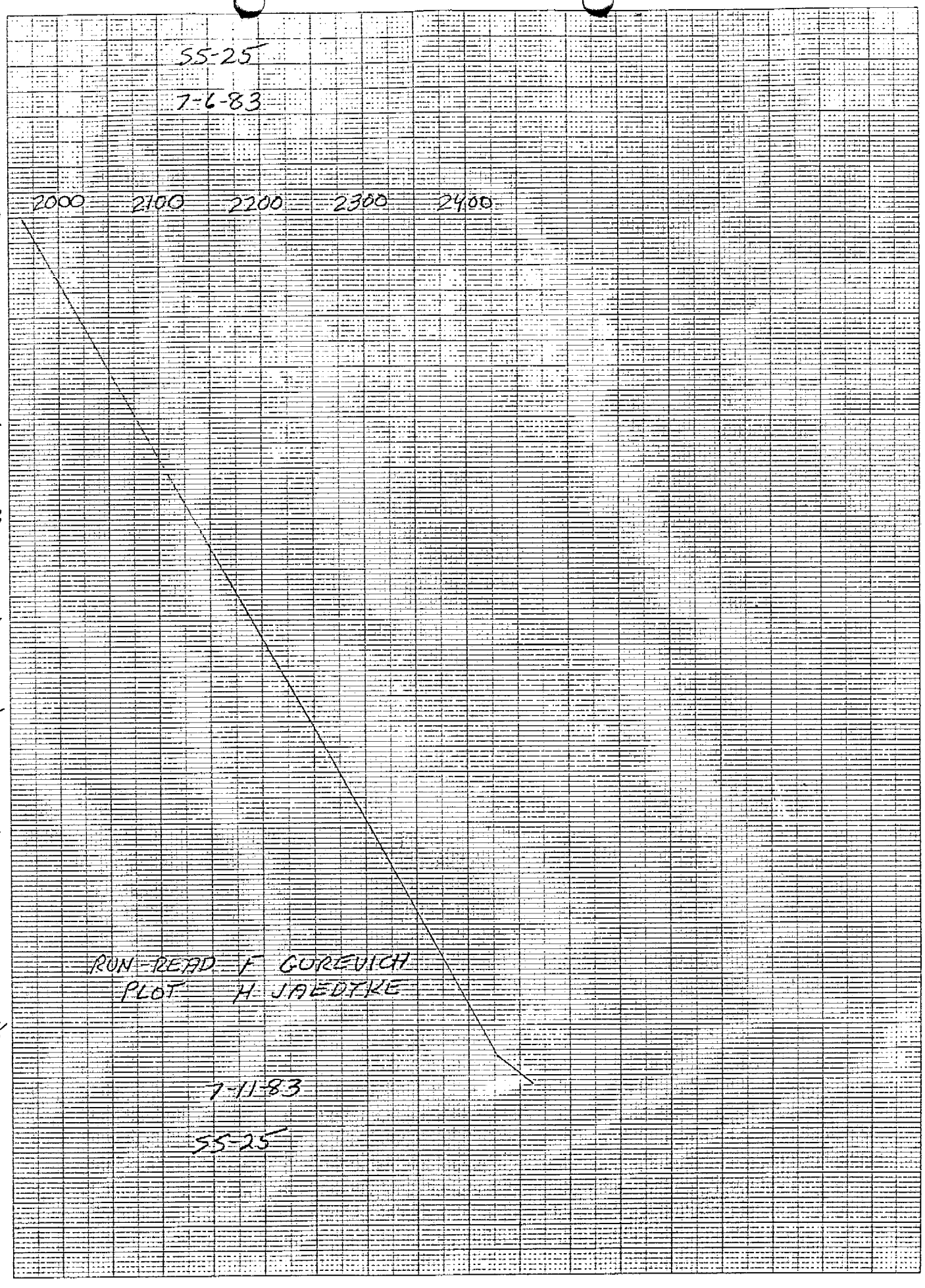
NOTE: REVISED PRESSURE SURVEY SHEET, BASED ON TEMPERATURE SURVEY
MOVED UP SOME BOTTOM STOPS, ADDED A COUPLE STOPS NEAR BOTTOM (JDM: 6/86)

FIELD OPERATOR

CHART READ BY

SOUTHERN CALIFORNIA GAS CO.—4296

AC_CPUC_0000458



46 1512
10 X 10 TO THE CENTIMETER 16 X 25 CM
KEUFFEL & ESSER CO. MADE IN U.S.A.

FIELD _____ WELL SS 25 DATE 7-6-83

RECORDER NO. _____ RUN NO. _____ SHEET NO. _____ OF _____ RUN BY TG

CLOCK HOURS _____ TIME CLOCK STARTED _____ TIME RUN COMPLETED _____

WELL CONDITION DURING RUN, SHUT IN _____ FLOWING _____ INJECTION _____

HOURS WELL, SHUT-IN _____ FLOWING _____ INJECTION _____ BEFORE RUN _____

WELL HEAD PRESSURE

TUBING _____

CASING _____

FLOW RATE

GAS MCF/D _____

OIL BBL'S/D _____

WATER BBL'S/D _____

GOR _____

MAXIMUM TEMPERATURE _____

ZERO POINT KB 6'

PICK-UP _____

DATUM 8327

	SIZE	DEPTH
TBG		
CASING		
CASING SHOE		
LINER		
TOP		
BOTTOM		
PERFORATION		
TOP		
BOTTOM		

SURVEY DATA

DEPTH MEASURED	DEPTH VERTICAL	STYLUS DEFLECTION	PRESSURE	GRA PSI/
0	2	.1943	1962.66	
5000	2	1.079	2245.83	.0564
6000	2	1.106	2302.08	.0563
7000	2	1.132	2356.25	.0542
8327	2	1.166	2427.0	.0857
8590	2	1.184	2464.5	.1426
		AVE GRAD	.0791	

SPECIAL INSTRUCTIONS: TBG. 8496'
TD 8748

BY _____

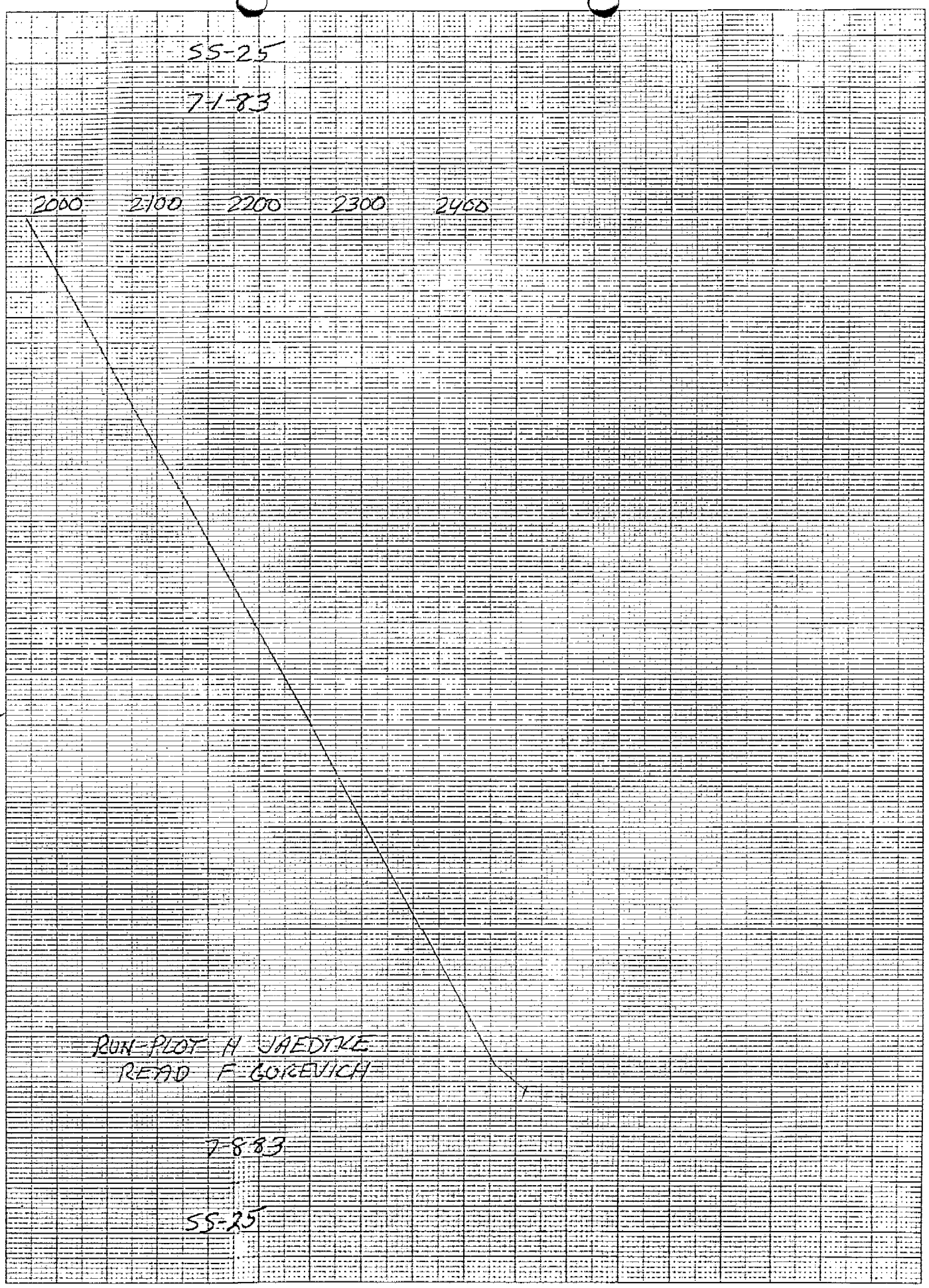
REMARKS:

55-25

FIELD OPERATOR _____

CHART READ BY _____

AC_CPUC_0000460



46 1512
10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

FIELD: _____ WELL SS 25 DATE 7-1-83

RECORDER NO. 13978 RUN NO. ___ SHEET NO. ___ OF ___ SHEETS BY HFJ

CLOCK HOURS _____ TIME CLOCK STARTED _____ TIME RUN COMPLETED _____

WELL CONDITION DURING RUN, SHUT IN X FLOWING _____ INJECTION _____

HOURS WELL, SHUT-IN _____ FLOWING _____ INJECTION _____ BEFORE RUN _____

WELL HEAD PRESSURE

TUBING 1970

CASING N/A

FLOW RATE

GAS MCF/D _____

OIL BBL'S/D _____

WATER BBL'S/D _____

GOR _____ 527

MAXIMUM TEMPERATURE _____ 203

ZERO POINT KB 6'

PICK-UP _____

DATUM 8327

	SIZE	DEPTH
TBG		
CASING		
CASING SHOE		
LINER		
TOP		
BOTTOM		
PERFORATION		
TOP		
BOTTOM		

SURVEY DATA

DEPTH MEASURED	DEPTH VERTICAL	STYLUS DEFLECTION	PRESSURE	GRA PSI/
0	3	.945	1966.80	
5000	3	1.081	2250.00	.056
6000	3	1.107	2304.17	.0542
7000	3	1.133	2358.33	.054
8327	3	1.167	2429.17	.0217
8590	3	1.184	2464.58	.0135
		AVE. GRAD	.0400	

SPECIAL INSTRUCTIONS: TBG. 8496'
TD 8748

BY _____

REMARKS: _____

55-25

FIELD OPERATOR _____

CHART READ BY _____

AC_CPUC_0000462

PRUETT WIRELINE SERVICE

8915 Rosedale Hwy, Bakersfield, Ca. 93308
(805) 589-2768

SUB—SURFACE PRESSURE SURVEY

COMPANY Southern California Gas FIELD Aliso Canyon WELL NAME SS 25

TOTAL DEPTH 8749' WELL STATUS Static BOMB HUNG @ none DATE 11-3-80

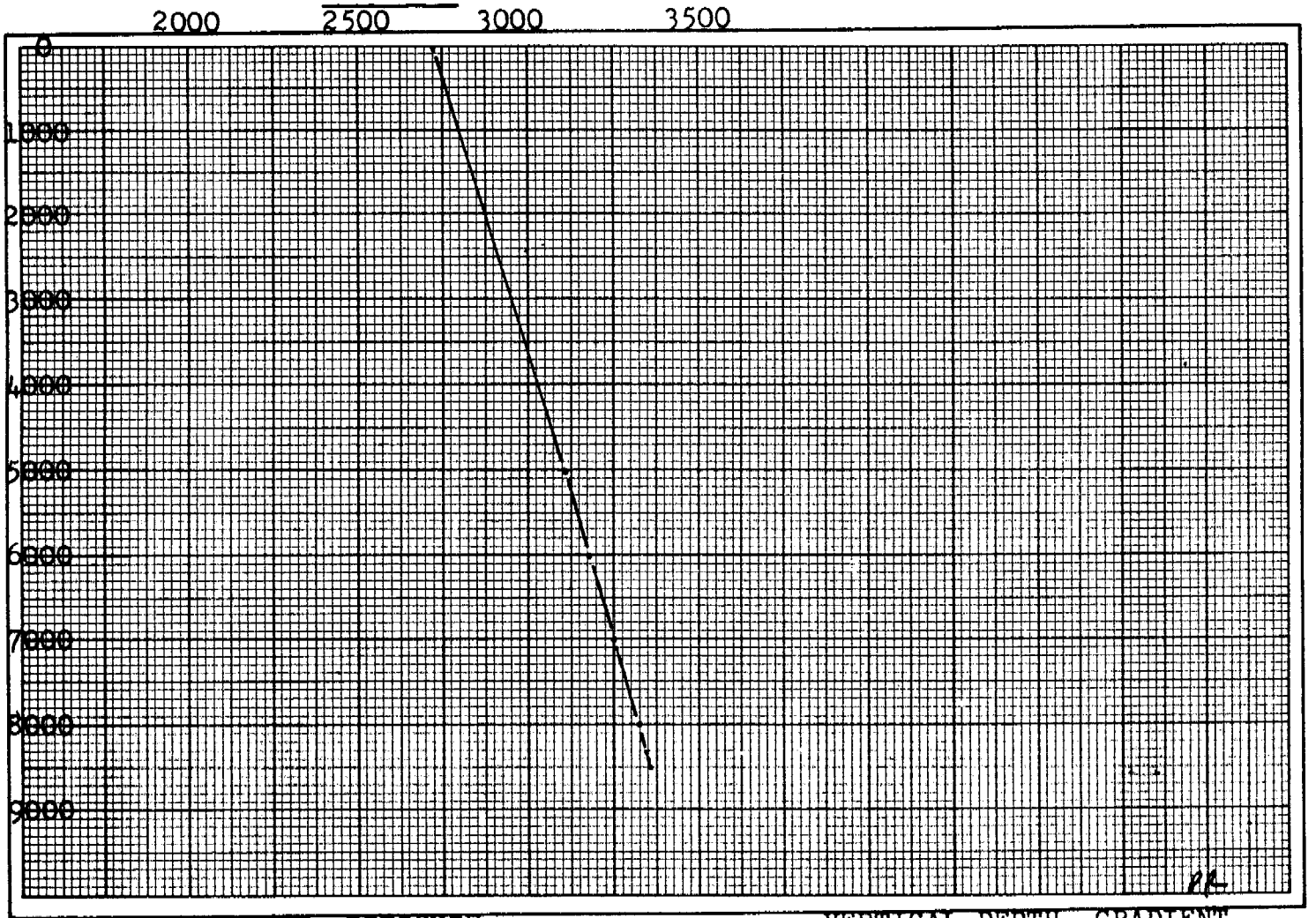
CASING 7" @ 8585' CASING PRESSURE -- TIME ON BOTTOM 8:54 ELEMENT RANGE 5300 PSI

LINER 5½" @ 8559'-8748' TUBING PRESSURE -- TIME OFF BOTTOM 8:56 ZERO POINT 6'

PERFORATIONS --- ZONE --- SHUT IN -- ELEVATION --

MPP --- MAX. °F. -- ON PRODUCTION -- PICKUP none

TUBING DETAIL 2 7/8" @ 8496', Pkr @ 8486' PURPOSE Pressure Gradient Survey



MEASURED DEPTH	PRESSURE		VERTICAL DEPTH	GRADIENT
0	2728			
5000	3115	SURVEY DATA		.077
6000	3185			.070
7000	3255			.070
8000	3324			.069
8327	3349			.076
8472	3359			.069

Tom

AC_CPUC_0000463

PRUETT WIRELINE SERVICE

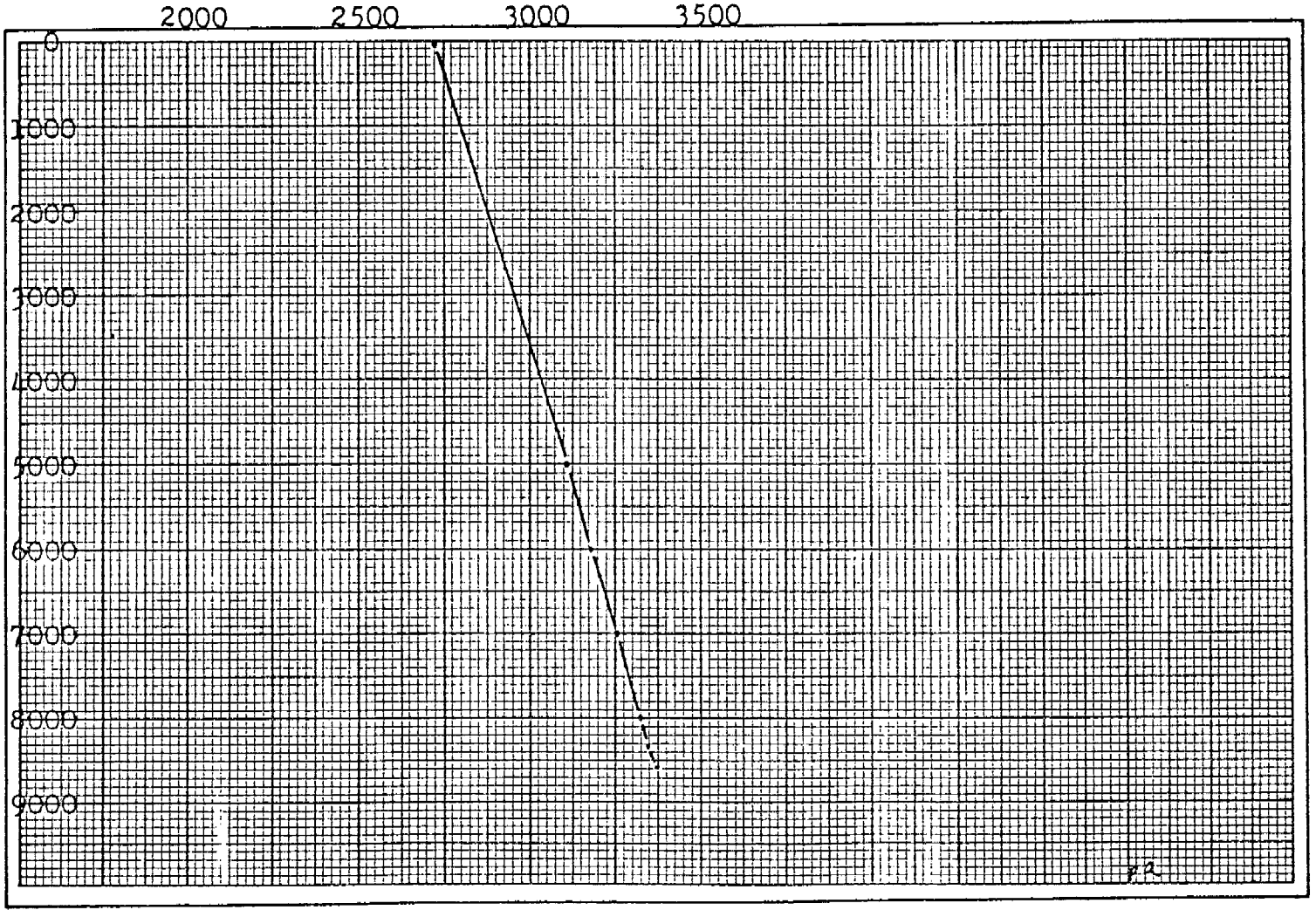
8915 Rosedale Hwy, Bakersfield, Ca. 93308
(805) 589-2768

Pruett Wireline

SUB—SURFACE PRESSURE SURVEY

COMPANY Southern California Gas FIELD Aliso Canyon WELL NAME SS 25

TOTAL DEPTH	8749'	WELL STATUS	Static	BOMB HUNG @	none	DATE	10-27-80
CASING	7" @ 8585'	CASING PRESSURE	---	TIME ON BOTTOM	8:57	ELEMENT RANGE	5300 PSI
LINER	5½"@8559'-8748'	TUBING PRESSURE	---	TIME OFF BOTTOM	8:59	ZERO POINT	6.35'
PERFORATIONS	--	ZONE	---	SHUT IN	---	ELEVATION	--
MPP	--	MAX. °F.	---	ON PRODUCTION	---	PICKUP	none
TUBING DETAIL	2 7/8" @ 8496', Pkr @ 8486'			PURPOSE	Pressure Gradient Survey		



MEASURED DEPTH	PRESSURE		VERTICAL DEPTH	GRADIENT
0	2723			
5000	3113	SURVEY DATA		.078
6000	3185			.072
7000	3255			.070
8000	3327			.072
8327	3349			.067
8590	3370			.080

Tom

AC_CPUC_0000464

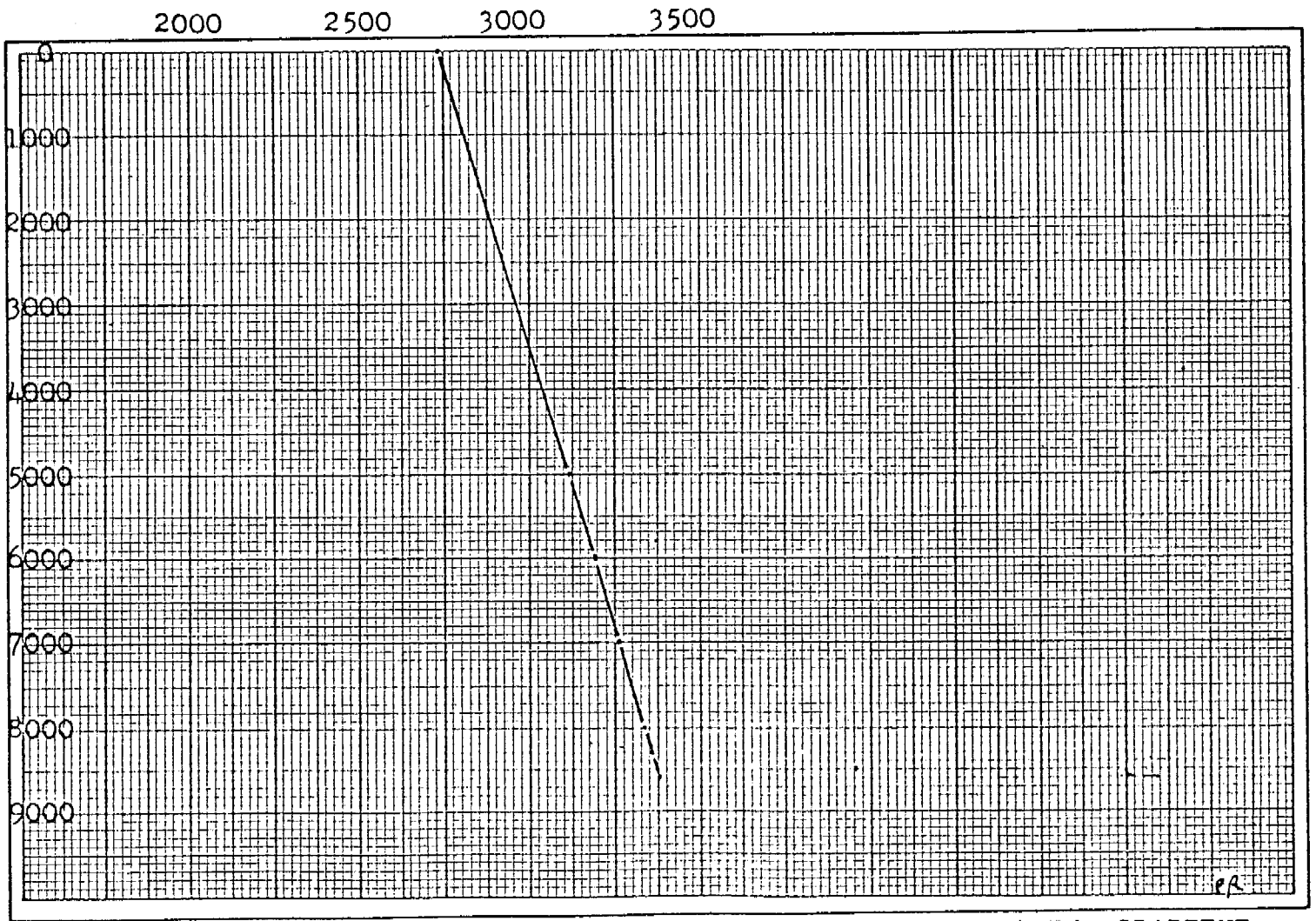
PRUETT WIRELINE SERVICE

8915 Rosedale Hwy, Bakersfield, Ca. 93308
(805) 589-2768

SUB—SURFACE PRESSURE SURVEY

COMPANY Southern California Gas FIELD Aliso Canyon WELL NAME SS-25

TOTAL DEPTH	8749'	WELL STATUS	Static	BOMB HUNG @	none	DATE	10-20-80
CASING	7" @ 8585'	CASING PRESSURE	--	TIME ON BOTTOM	9:04	ELEMENT RANGE	5300 PSI
LINER	5½" @ 8559'-8748'	TUBING PRESSURE	--	TIME OFF BOTTOM	9:06	ZERO POINT	6.3'
PERFORATIONS	---	ZONE	---	SHUT IN	--	ELEVATION	--
MPP	---	MAX. IF.	--	ON PRODUCTION	--	PICKUP	none
TUBING DETAIL	2 7/8" @ 8496', Pkr @ 8486'			PURPOSE	Pressure Gradient Survey		



MEASURED DEPTH	PRESSURE	VERTICAL DEPTH	GRADIENT
0	2737		
5000	3120		.077
6000	3196		.076
7000	3265		.069
8000	3338		.073
8327	3362		.073
8590	3381		.072

SURVEY DATA

Tom

AC_CPUC_0000465

SS 25

SS 24

RIG RELEASE: 11/30/79

0

1000

2000

3000

4000

5000

6000

7000

8000

9000

0

1000

2000

3000

4000

5000

6000

7000

8000

9000

99'

WSO 8478'
PKR 8470'
SHOE 8586'
PERFS 8510'
WSO 8513'

SHOE 8797'
SH 8773'
SH 8559'
SH 8536'

PBTD 8797'
TD 8829'

ACE Card .0787

46 1512

K+E 10 X 10 TO THE CENTIMETER 10 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0000466

PACIFIC LIGHTING SERVICE COMPANY

SUB-SURFACE PRESSURE SURVEY

FIELD _____ WELL 55-25 DATE 11-26-74

RECORDER NO. 8562 RUN NO. ____ SHEET NO. ____ OF ____ SHEETS BY JG

CLOCK HOURS _____ TIME CLOCK STARTED 8:55 TIME RUN COMPLETED _____

WELL CONDITION DURING RUN, SHUT IN _____ FLOWING _____ INJECTION _____

HOURS WELL, SHUT-IN _____ FLOWING _____ INJECTION _____ BEFORE RUN _____

WELL HEAD PRESSURE:

TUBING _____

CASING _____

FLOW RATE

GAS MCF/D _____

OIL BBL'S/D _____

WATER BBL'S/D _____

GOR _____

MAXIMUM TEMPERATURE _____

ZERO POINT 6.35' _____

PICK-UP _____

DATUM ~~8220'~~ 8327 _____

	SIZE	DEPTH
TUBING		
CASING		
CASING SHOE		
LINER		
TOP		
BOTTOM		
PERFORATION		
TOP		
BOTTOM		

SURVEY DATA

DEPTH MEASURED	DEPTH VERTICAL	STYLUS DEFLECTION	PRESSURE	GRADI PSI/IC
0 3		1.250	2918.41	
5000 3		1.425	3325.58	.0814
6000 3		1.458	3402.32	.0767
7000 3		1.490	3476.74	.0744
8000 3		1.523	3553.48	.0767
~~8,470'~~		—		
8327 3		1.531	3572.09	.0569
~~8490~~ 8425 3		1.535	3581.39	.0949
~~End Log~~		~~8496~~		
BH. CHOKE		8472		
		Ave Grads	.0787	
Act M 8590	3597 ✓			

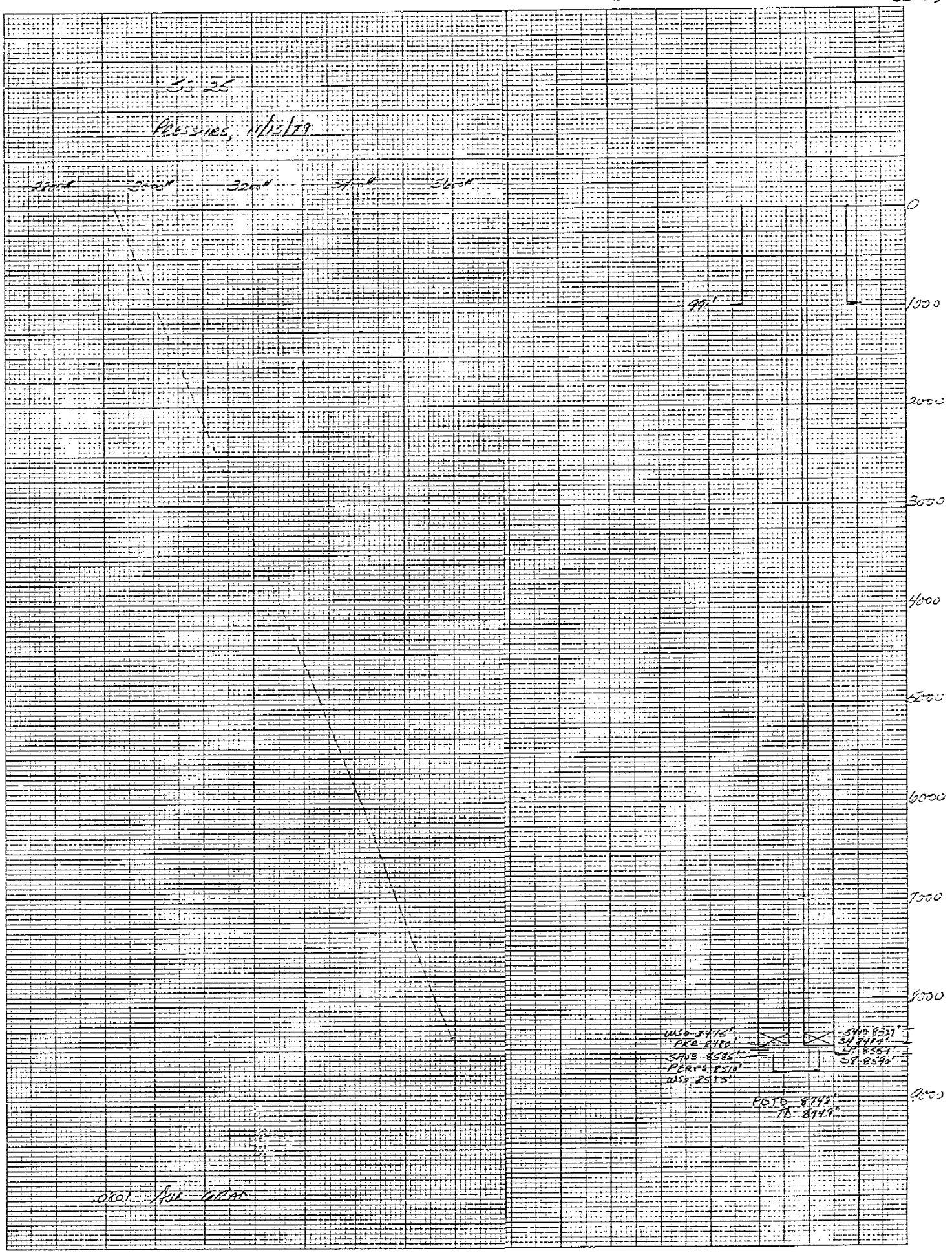
SPECIAL INSTRUCTIONS: ~~Chs "T" Valve Shut~~

BY _____

REMARKS: _____

AC_CPUC_0000467

SS 25



46 1512

10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO MADE IN U.S.A.

AC_CPUC_0000468

PACIFIC LIGHTING SERVICE COMPANY

SUB-SURFACE PRESSURE SURVEY

FIELD _____ WELL 55-25 DATE 11-13-79

RECORDER NO. 8562 RUN NO. ___ SHEET NO. ___ OF ___ SHEETS BY JG

CLOCK HOURS _____ TIME CLOCK STARTED 843 TIME RUN COMPLETED 940

WELL CONDITION DURING RUN, SHUT IN _____ FLOWING _____ INJECTION _____

HOURS WELL, SHUT-IN _____ FLOWING _____ INJECTION _____ BEFORE RUN _____

WELL HEAD PRESSURE:

TUBING _____

CASING 2895

FLOW RATE

GAS MCF/D _____

OIL BBL'S/D _____

WATER BBL'S/D _____

GOR _____

MAXIMUM TEMPERATURE _____

ZERO POINT 6.35' _____

PICK-UP _____

DATUM ~~8220~~ 8327

	SIZE	DEPTH
TUBING		
CASING		
CASING SHOE		
LINER		
TOP		
BOTTOM		
PERFORATION		
TOP		
BOTTOM		8162'

SURVEY DATA

DEPTH MEASURED	DEPTH VERTICAL	STYLUS DEFLECTION	PRESSURE	GRADI PSI/IC
0 3	1.253		2925.40	
5000 3	1.428		3332.55	.0814
6000 3	1.463		3413.95	.0814
7000 3	1.494		3486.04	.0721
8000 3	1.526		3560.46	.0744
~~8400'~~				
8367 3	1.541		3595.34	.0955
~~8440-8442~~				
	End Log	8496		
	BH. CHOKE	8472		
(5)	8440		AVE GRAD	.0801
MPP 8590	3617 V			

SPECIAL INSTRUCTIONS: ~~This "I" value Edit~~ (STOP AT 8440)

BY _____

REMARKS: _____

SS 25

SS 25

Pressure 11-1-79

2800 psi 3000 psi 3300 psi 3400 psi 3600 psi 3800 psi

0 1000 2000 3000 4000 5000 6000 7000 8000 9000

99'

0 1000 2000 3000 4000 5000 6000 7000 8000 9000

WLSO 8475'
PKR 8480'
SAND 8585'
PERFS 8618'
BASE PERFS 8633'

SAND 8533'
SN 8567'
ST 8569'
SB 8595'

PBTD 8744'
TD 8749'

8797 Ave Geo

46 1512

KEUFFEL & ESSER CO. MADE IN U.S.A. 10 X 10 TO THE CENTIMETER 10 X 25 CM.

AC_CPUC_0000470

PACIFIC LIGHTING SERVICE COMPANY

SUB-SURFACE PRESSURE SURVEY

FIELD _____ WELL 55-25 DATE 11-5-79

RECORDER NO. 8562 RUN NO. ____ SHEET NO. ____ OF ____ SHEETS BY JG

CLOCK HOURS _____ TIME CLOCK STARTED 2[42] TIME RUN COMPLETED 951

WELL CONDITION DURING RUN, SHUT IN _____ FLOWING _____ INJECTION _____

HOURS WELL, SHUT-IN _____ FLOWING _____ INJECTION _____ BEFORE RUN _____

WELL HEAD PRESSURE:

TUBING _____

CASING 2900

FLOW RATE

GAS MCF/D _____

OIL BBL'S/D _____

WATER BBL'S/D _____

GOR _____

MAXIMUM TEMPERATURE _____

ZERO POINT 6,35' _____

PICK-UP _____

DATUM ~~8570~~ 8327 _____

	SIZE	DEPTH
TUBING		
CASING		
CASING SHOE		
LINER		
TOP		
BOTTOM		
PERFORATION		
TOP		
BOTTOM	158°	

SURVEY DATA

DEPTH MEASURED	DEPTH VERTICAL	STYLUS DEFLECTION	PRESSURE	GRADIENT PSI/100
0	3	1.260	2941.72	
5000	3	1.438	3353.81	.0822
6000	3	1.471	3432.55	.0767
7000	3	1.501	3502.32	.0698
8000	3	1.536	3583.72	.0814
~~8470'~~				
8327	3	1.542	3597.67	.0427
~~8590~~ 8610	5	1.555	3627.90	.1068
	END Adj 8496'			
		Avg Grad	.0797	
MPP 8590	3626			

SPECIAL INSTRUCTIONS: ~~Chg "T" Value 5427'~~

BY _____

REMARKS: _____

FIELD OPERATOR

AC_CPUC_0000471

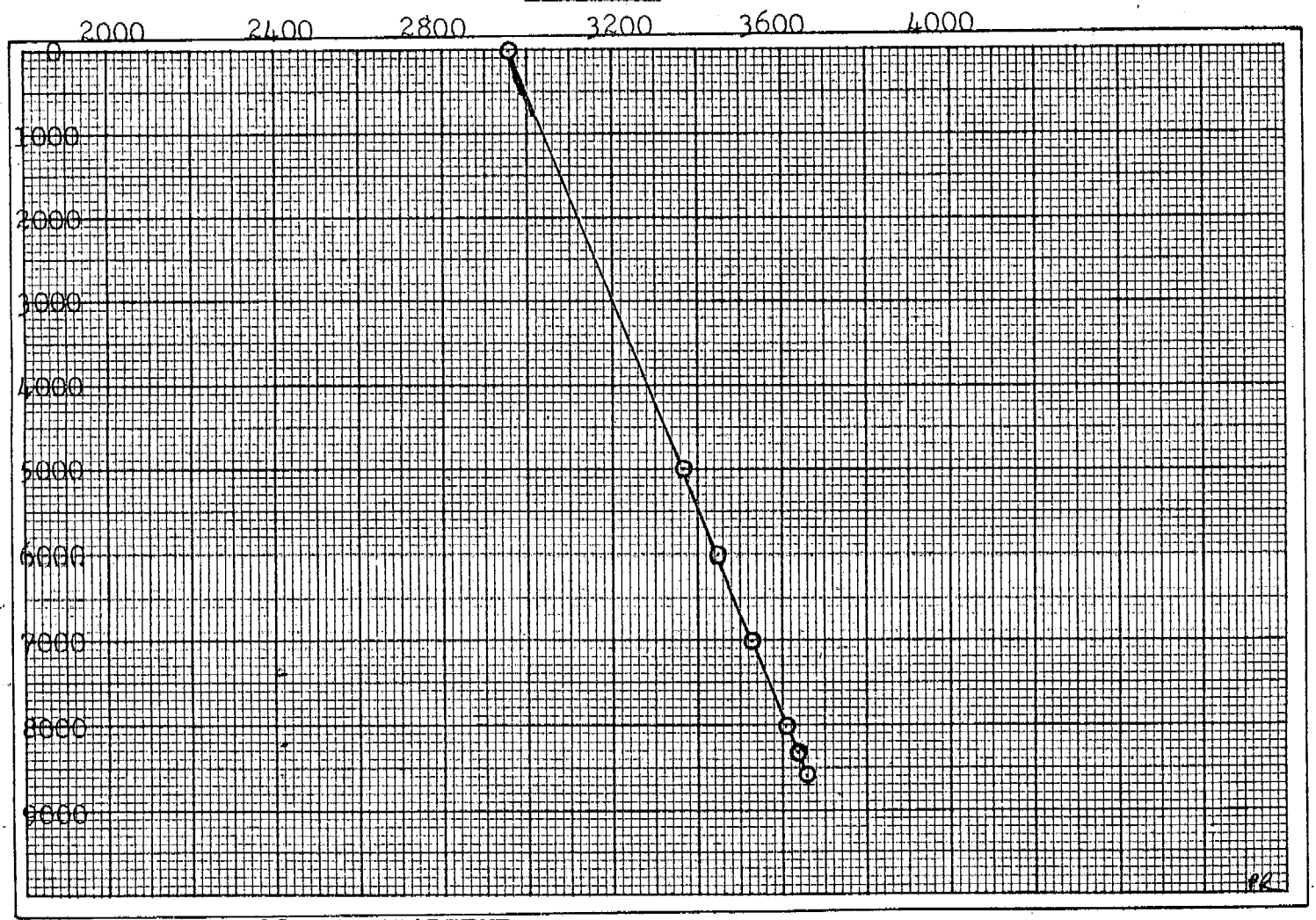
PRUETT WIRELINE SERVICE

8915 Rosedale Hwy, Bakersfield, Ca. 93308
(805) 589-2768

SUB—SURFACE PRESSURE SURVEY

COMPANY Southern California Gas FIELD Aliso Canyon WELL NAME SS-25

TOTAL DEPTH ---	WELL STATUS Static	BOMB HUNG @ none	DATE 10-23-79
CASING ---	CASING PRESSURE ---	TIME ON BOTTOM ---	ELEMENT RANGE 5000 PSI
LINER ---	TUBING PRESSURE ---	TIME OFF BOTTOM ---	ZERO POINT 6.35'
PERFORATIONS ---	ZONE none	SHUT IN none	ELEVATION none
MPP ---	MAX. °F. 146	ON PRODUCTION none	PICKUP none made
TUBING DETAIL 8496' end tubing		PURPOSE Pressure Gradient Survey	



DEPTH	PRESSURE	GRADIENT
0	2960	
5000	3373	.083
6000	3453	.080
7000	3533	.080
8000	3610	.077
~~5400~~ 8327	~~3635~~	.076
8590	3658 ✓	.087

SURVEY DATA

S Wilson

MPP 8590

AC_CPUC_0000472

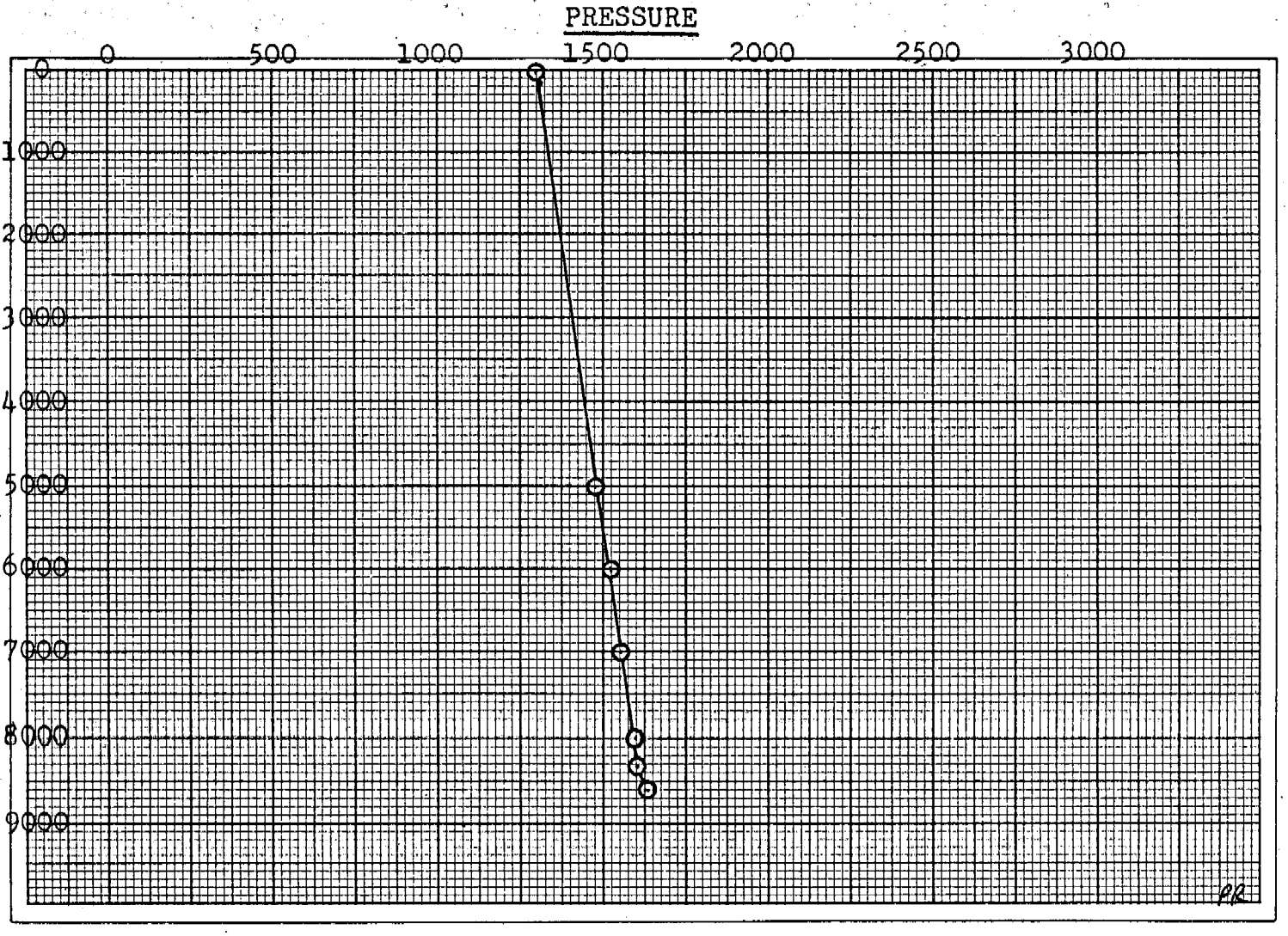
PRUETT WIRELINE SERVICE

8915 Rosedale Hwy, Bakersfield, Ca. 93308
(805) 589-2768

SUB—SURFACE PRESSURE SURVEY

COMPANY Southern California Gas **FIELD** Aliso Canyon **WELL NAME** SS-25

TOTAL DEPTH	--	WELL STATUS	Static	BOMB HUNG @	none	DATE	3-14-79
CASING	--	CASING PRESSURE	--	TIME ON BOTTOM	11:18am	ELEMENT RANGE	5350 PSI
LINER	--	TUBING PRESSURE	--	TIME OFF BOTTOM	11:20am	ZERO POINT	7'
PERFORATIONS	--	ZONE	none	SHUT IN	none	ELEVATION	none
MPP	--	MAX. °F	164.4°	ON PRODUCTION	none	PICKUP	none made
TUBING DETAIL	2 7/8" @ 8491' **			PURPOSE	Pressure Gradient Survey		



MEASURED DEPTH	PRESSURE		VERTICAL DEPTH	GRADIENT
0	1304	**SURVEY DATA**		
5000	1483			.036
6000	1520	** Packer @ 8480'		.037
7000	1557	No-Go @ 8470'		.037
8000	1592			.035
8327	1603			.034
8590	1637			.129
MPP (5-8) → 8590	1637			G Doolan

Measured depth

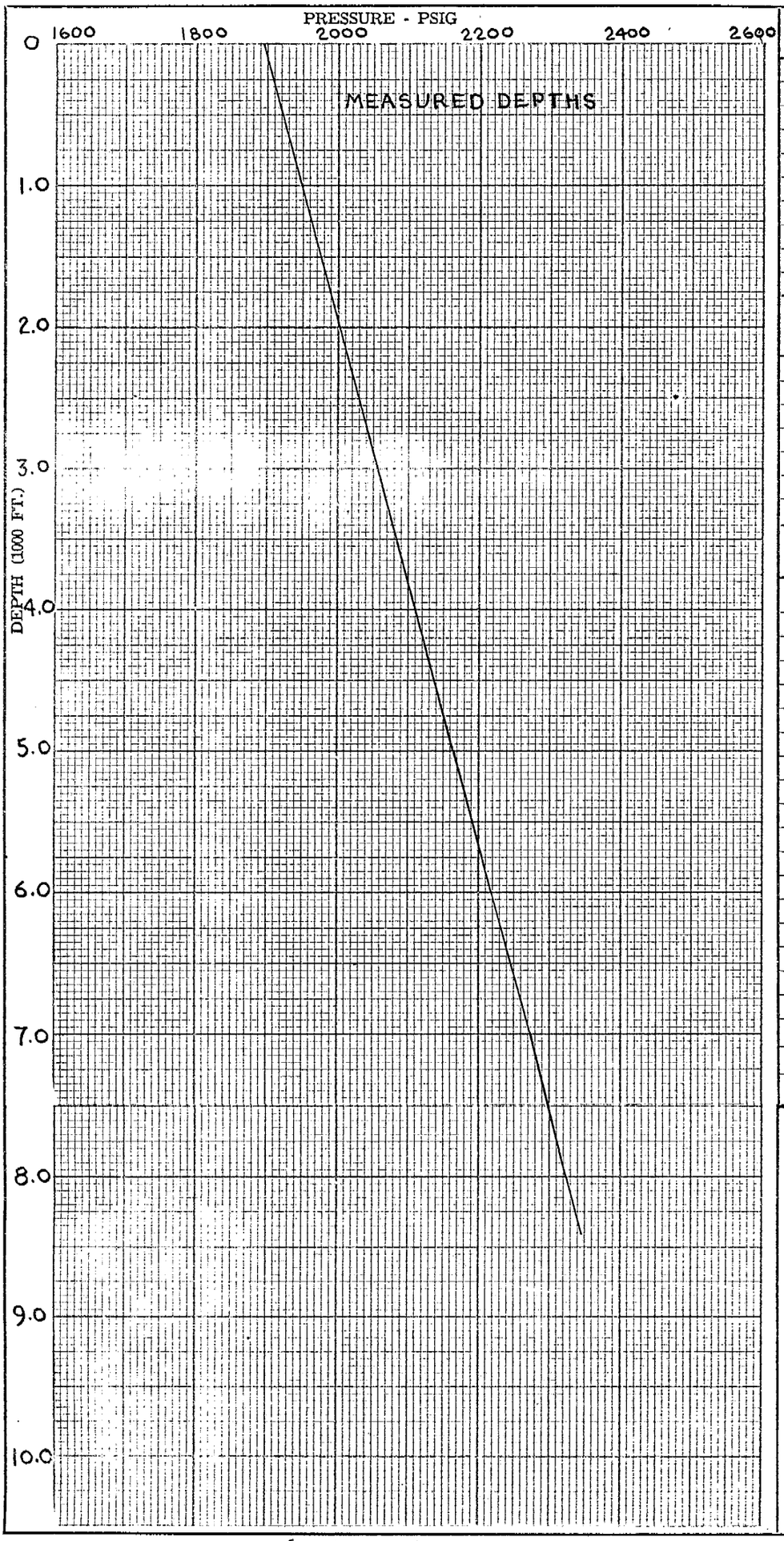
M Mishop
3/25/79

TECHNICAL SERVICE CO.
801 West 14th Street
Long Beach, California 90813

Phones: 24 Hours
Long Beach - 436-9901

SUB-SURFACE PRESSURE DATA

Company: So. California Gas Co. Field: Aliso Date: 4-30-75 Run No.:
Well: S. S. 25 Zone: Elev.: D. F. 8.35'
Purpose: Static Pressure Gradient Survey Status: Shut In
Total Depth: Effect. Depth:
Casing Size: Depth: Liner Size: Top: Bottom:
Perforations:
Tubing: 2-7/8" EUE to 8492', KBMG G. L. Mandrels @ 4983', 5914', 6784', 7589', 8314', "L" Sliding Sleeve (open) @ 8387', Baker "FH" Packer @ 8455'



OBSERVATIONS

Stabilization Period - Hrs.	
Gross Oil Rate - B/D	
Net Oil Rate - B/D	
Formation Gas MCF/D	
Formation Gas-Oil Ratio CFT/BBL	
Circulated Gas MCF/D	
Oil Dry Gravity - °A.P.I.	
Casinghead Pressure - PSIG	
Tubinghead Pressure - PSIG	1895
Casing Fluid Level - Ft.	

RESULTS

Gross Productivity Index	B/D PSI
Net Productivity Index	B/D PSI
Static M.E.P. - Run No.	PSI
Static M.E.P. - Projected	PSI
Gross Absolute Potential	B/D
Net Absolute Potential	B/D
Datum Pressures:	

Traverse Depth MD Feet	Pressure PSIG	Gradient PSI/FT
0	1895	
5000	2164	0.054
6000	2218	0.054
7000	2273	0.055
8000	2323	0.050
8410	2345	0.054

COMMENTS: Zero: Mat + 6.35'. Maximum temperature not recorded.

By: Snider - Smith

AC_CPUC_0000474

PACIFIC LIGHTING SERVICE COMPANY
SUB-SURFACE PRESSURE SURVEY

FIELD Aliso Canyon WELL Standard Sesnon 25 DATE 4-30-75

RECORDER NO. 4770 RUN NO. ____ SHEET NO. ____ OF ____ SHEETS BY ____

CLOCK HOURS 3 TIME CLOCK STARTED ____ TIME RUN COMPLETED ____

WELL CONDITION DURING RUN, SHUT IN ____ FLOWING ____ INJECTION ____

HOURS WELL, SHUT-IN ____ FLOWING ____ INJECTION ____ BEFORE RUN ____

WELL HEAD PRESSURE

TUBING 1895

CASING ____

FLOW RATE

GAS MCF/D ____

OIL BBL'S/D ____

WATER BBL'S/D ____

GOR ____

MAXIMUM TEMPERATURE --

ZERO POINT 6.35'

PICK-UP ____

DATUM 8590'

	SIZE	DEPTH
TUBING		
CASING		
CASING SHOE		
LINER		
TOP		
BOTTOM		
PERFORATION		
TOP		
BOTTOM		

SURVEY DATA

DEPTH		STYLUS DEFLECTION	PRESSURE	GRADIENT PSI/100 F
MEASURED	VERTICAL			
0		.991	1895	
5000		1.132	2164	0.054
6000		1.160	2218	0.054
7000		1.189	2273	0.055
8000		1.215	2323	0.050
8410		1.227	2345	0.054

SPECIAL INSTRUCTIONS: ____

BY ____

REMARKS: Unit 1 Survey sequence #7

FIELD OPERATOR Snider

CHART READ BY Smith

PLS FORM 501

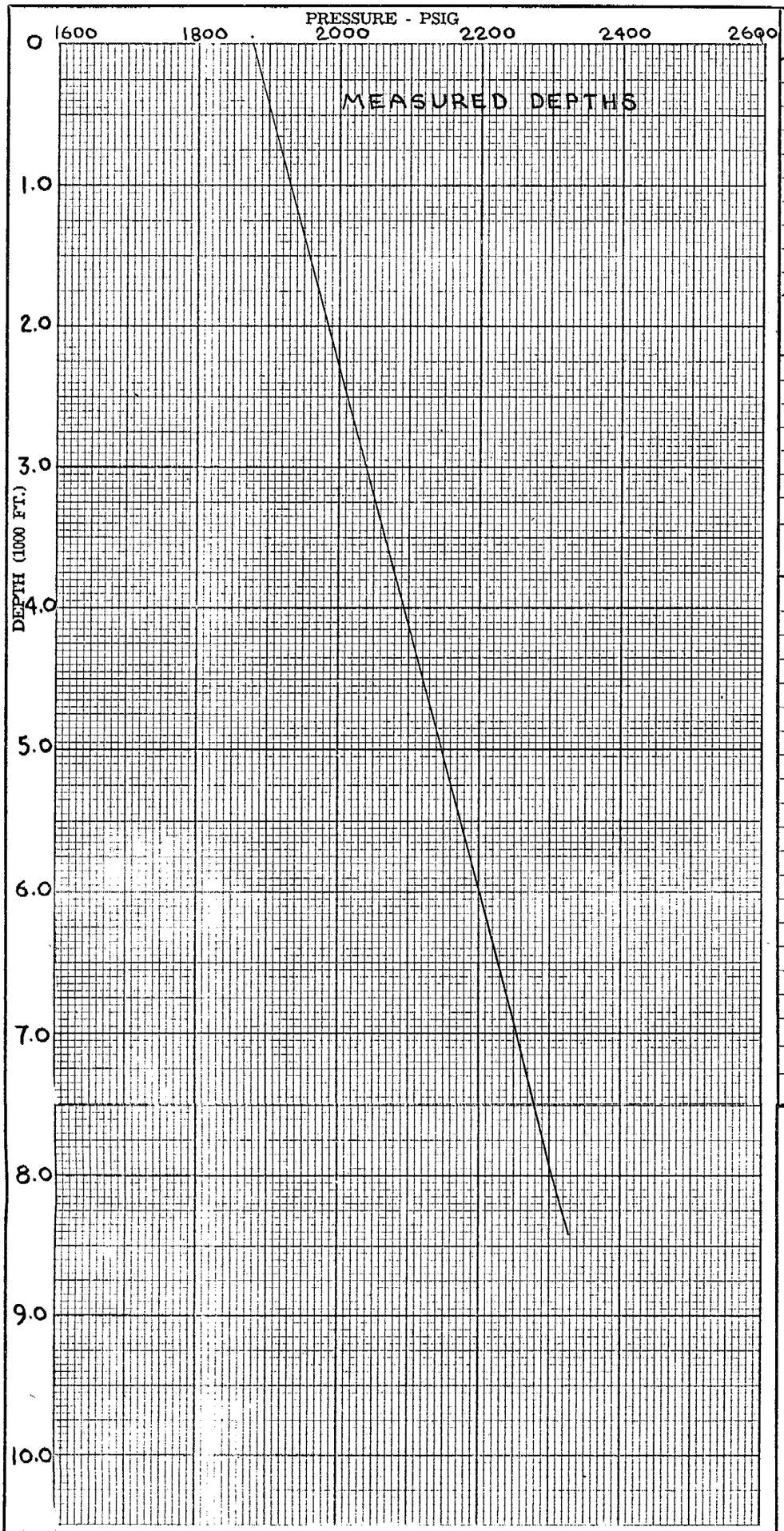
AC_CPUC_0000475

TECHNICAL SERVICE CO.
801 West 14th Street
Long Beach, California 90813

Phones: 24 Hours
Long Beach - 436-9901

SUB-SURFACE PRESSURE DATA

Company: So. California Gas Co. Field: Aliso Canyon Date: 4-23-75 Run No.:
Well: S. S. 25 Zone: Elev.: D. F. 8.35'
Purpose: Static Pressure Gradient Survey Status: Shut In
Total Depth: Effect. Depth:
Casing Size: Depth: Liner Size: Top: Bottom:
Perforations:
Tubing: 2-7/8" EUE to 8492', KBMG Gas Lift Mandrels @ 4983', 5914', 6784', 7589', 8314', "L" Sliding Sleeve (open) 8387', Baker "FH" Packer @ 8455'



OBSERVATIONS

Stabilization Period - Hrs.	
Gross Oil Rate - B/D	
Net Oil Rate - B/D	
Formation Gas MCF/D	
Formation Gas-Oil Ratio CFT/BBL	
Circulated Gas MCF/D	
Oil Dry Gravity - °A.P.I.	
Casinghead Pressure - PSIG	
Tubinghead Pressure - PSIG	1878
Casing Fluid Level - Ft.	

RESULTS

Gross Productivity Index	B/D PSI
Net Productivity Index	B/D PSI
Static M.E.P. - Run No.	PSI
Static M.E.P. - Projected	PSI
Gross Absolute Potential	B/D
Net Absolute Potential	B/D
Datum Pressures:	

Traverse Depth MD Feet	Pressure PSIG	Gradient PSI/FT
0	1878	
5000	2147	0.054
6000	2200	0.053
7000	2254	0.054
8000	2303	0.049
8410	2328	0.061

COMMENTS: Zero: Mat + 6.35' Maximum temperature 200° F.

By: Worley - Smith

AC_CPUC_0000476

PACIFIC LIGHTING SERVICE COMPANY

SUB-SURFACE PRESSURE SURVEY

FIELD Aliso Canyon WELL Standard Sesnon 25 DATE 4-23-75

RECORDER NO. 4770 RUN NO. ____ SHEET NO. ____ OF ____ SHEETS BY ____

CLOCK HOURS 3 TIME CLOCK STARTED ____ TIME RUN COMPLETED ____

WELL CONDITION DURING RUN, SHUT IN ____ FLOWING ____ INJECTION ____

HOURS WELL, SHUT-IN ____ FLOWING ____ INJECTION ____ BEFORE RUN ____

WELL HEAD PRESSURE

TUBING 1878

CASING ____

FLOW RATE

GAS MCF/D ____

OIL BBL'S/D ____

WATER BBL'S/D ____

GOR ____

MAXIMUM TEMPERATURE 200° F.

ZERO POINT 6.35'

PICK-UP ____

DATUM 8590'

	SIZE	DEPTH
TUBING		
CASING		
CASING SHOE		
LINER		
TOP		
BOTTOM		
PERFORATION		
TOP		
BOTTOM		

SURVEY DATA

DEPTH		STYLUS DEFLECTION	PRESSURE	GRADIENT PSI/100 F
MEASURED	VERTICAL			
0		.982	1878	
5000		1. 123	2147	0.054
6000		1.151	2200	0.053
7000		1.179	2254	0.054
8000		1.205	2303	0.049
8410		1.218	2328	0.061

SPECIAL INSTRUCTIONS: ____

BY ____

REMARKS: Unit 2 Survey sequence #2

FIELD OPERATOR Worley

CHART READ BY Smith

PLS FORM 501

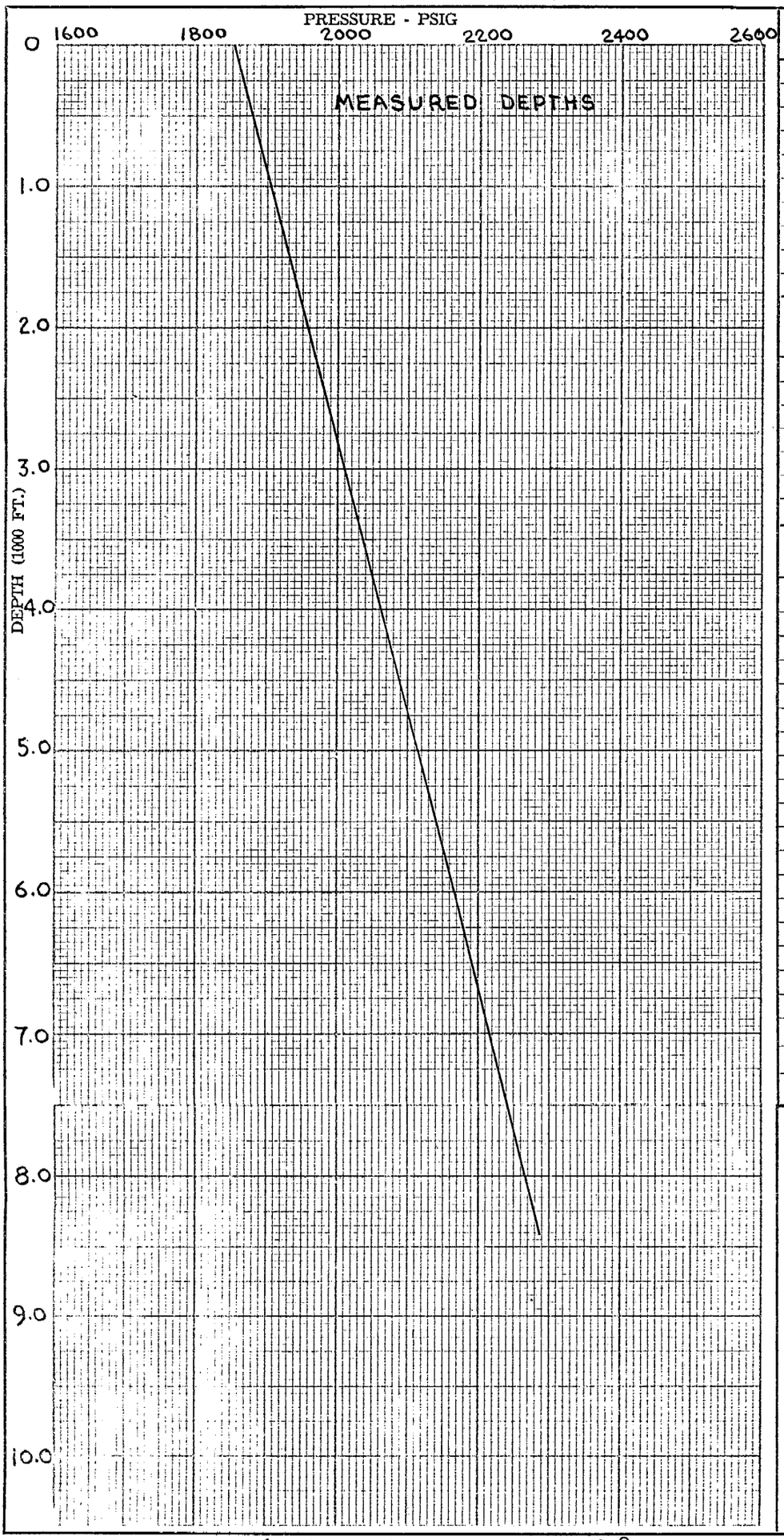
AC_CPUC_0000477

TECHNICAL SERVICE CO.
801 West 14th Street
Long Beach, California 90813

Phones: 24 Hours
Long Beach - 436-9901

SUB-SURFACE PRESSURE DATA

Company: So. California Gas Co. Field: Aliso Canyon Date: 4-11-75 Run No.:
Well: Standard Sesnon 25 Zone: Elev.: D. F. 8.35'
Purpose: Static Pressure Gradient Survey Status: Shut In
Total Depth: Effect. Depth:
Casing Size: Depth: Liner Size: Top: Bottom:
Perforations:
Tubing: 2-7/8" EUE to 8492', KBMG Gas Lift Mandrels @ 4983', 5914', 6784', 7589', 8314', "L" Sliding Sleeve (open) 8387', Baker "FH" Packer @ 8455',



OBSERVATIONS

Stabilization Period - Hrs.	
Gross Oil Rate - B/D	
Net Oil Rate - B/D	
Formation Gas MCF/D	
Formation Gas-Oil Ratio CFT/BBL	
Circulated Gas MCF/D	
Oil Dry Gravity - °A.P.I.	
Casinghead Pressure - PSIG	
Tubinghead Pressure - PSIG	1853
Casing Fluid Level - Ft.	

RESULTS

Gross Productivity Index	B/D PSI
Net Productivity Index	B/D PSI
Static M.E.P. - Run No.	PSI
Static M.E.P. - Projected	PSI
Gross Absolute Potential	B/D
Net Absolute Potential	B/D
Datum Pressures:	

Traverse Depth MD Feet	Pressure PSIG	Gradient PSI/FT
0	1853	
5000	2115	0.052
6000	2166	0.051
7000	2216	0.050
8000	2265	0.049
8410 ✓	2286	0.051

DATUM: 8590 P= 2295

COMMENTS: Zero: Mat + 6.35'. Maximum temperature 180° F.

By: Snider - Smith

AC_CPUC_0000478

PACIFIC LIGHTING SERVICE COMPANY
SUB-SURFACE PRESSURE SURVEY

FIELD Aliso Canyon WELL Standard Sesnon 25 DATE 4-11-75

RECORDER No. 4770 RUN No. ____ SHEET No. ____ OF ____ SHEETS BY ____

CLOCK HOURS 3 TIME CLOCK STARTED ____ TIME RUN COMPLETED ____

WELL CONDITION DURING RUN, SHUT IN ____ FLOWING ____ INJECTION ____

HOURS WELL, SHUT-IN ____ FLOWING ____ INJECTION ____ BEFORE RUN ____

WELL HEAD PRESSURE

TUBING 1853

CASING ____

FLOW RATE

GAS MCF/D ____

OIL BBL'S/D ____

WATER BBL'S/D ____

GOR ____

MAXIMUM TEMPERATURE 180° F.

ZERO POINT 6.35'

PICK-UP ____

DATUM 8590'

	SIZE	DEPTH
TUBING		
CASING		
CASING SHOE		
LINER		
TOP		
BOTTOM		
PERFORATION		
TOP		
BOTTOM		

SURVEY DATA

DEPTH		STYLUS DEFLECTION	PRESSURE	GRADIENT PSI/100 F
MEASURED	VERTICAL			
0		.969	1853	
5000		1.106	2115	0.052
6000		1.133	2166	0.051
7000		1.159	2216	0.050
8000		1.185	2265	0.049
8410		1.196	2286	0.051

SPECIAL INSTRUCTIONS: ____

BY ____

REMARKS: Survey sequence #3 Unit 1

FIELD OPERATOR Snider

CHART READ BY Smith

PLS FORM 501

AC_CPUC_0000479

TECHNICAL SERVICE CO

801 West 14th Street
Long Beach, California 90813

Phones: 24 Hours
Long Beach - 436-9901

SUB-SURFACE PRESSURE DATA

Company: So. California Gas Co. Field: Aliso Canyon Date: 4-11-75 Run No.:
Well: Standard Sesnon 25 Zone: Elev.: D. F. 8.35'
Purpose: Static Pressure Gradient Survey Status: Shut In
Total Depth: Effect. Depth:
Casing Size: Depth: Liner Size: Top: Bottom:
Perforations:
Tubing: 2-7/8" EUE to 8492', KBMG Gas Lift Mandrels @ 4983', 5914', 6784', 7589', 8314', "L" Sliding Sleeve (open) 8387', Baker "FH" Packer @ 8455',

OBSERVATIONS

Stabilization Period - Hrs.	
Gross Oil Rate - B/D	
Net Oil Rate - B/D	
Formation Gas MCF/D	
Formation Gas-Oil Ratio CFT/BBL	
Circulated Gas MCF/D	
Oil Dry Gravity - °A.P.I.	
Casinghead Pressure - PSIG	
Tubinghead Pressure - PSIG	1853
Casing Fluid Level - Ft.	

RESULTS

Gross Productivity Index	B/D PSI
Net Productivity Index	B/D PSI
Static M.E.P. - Run No.	PSI
Static M.E.P. - Projected	PSI
Gross Absolute Potential	B/D
Net Absolute Potential	B/D
Datum Pressures:	

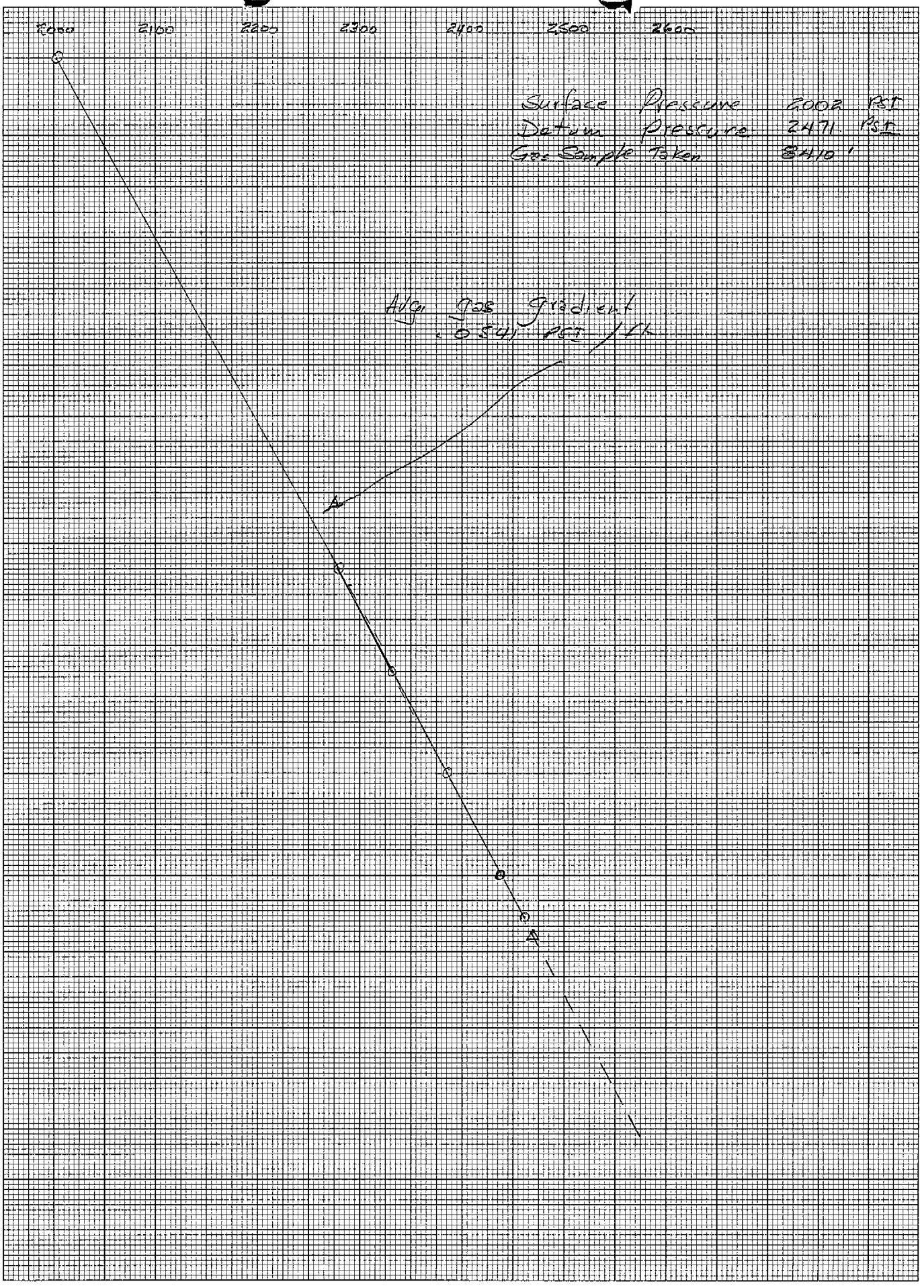
Traverse Depth MD Feet	Pressure PSIG	Gradient PSI/FT
0	1853	
5000	2115	0.052
6000	2166	0.051
7000	2216	0.050
8000	2265	0.049
8410	2286	0.051

COMMENTS: Zero: Mat + 6.35'. Maximum temperature 180° F.

Snider - Smith

AC_CPUC_0000480

Aliso Canyon. 2-6-75 B.H.P. SS-25



461510

K&E 10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

PACIFIC LIGHTING SERVICE COMPANY
SUB-SURFACE PRESSURE SURVEY

FIELD Aliso Canyon WELL 55-25 DATE 2-6-75

RECORDER NO. 12827 RUN NO. ___ SHEET NO. 1 OF 1 SHEETS BY Wishon

CLOCK HOURS 1½ TIME CLOCK STARTED 9.58 TIME RUN COMPLETED ___

WELL CONDITION DURING RUN, SHUT IN ___ FLOWING ___ INJECTION ___

HOURS WELL, SHUT-IN ___ FLOWING ___ INJECTION ___ BEFORE RUN ___

WELL HEAD PRESSURE
- TUBING ___
- CASING ___

FLOW RATE
- GAS MCF/D ___
- OIL BBL'S/D ___
- WATER BBL'S/D ___
- GOR ___

MAXIMUM TEMPERATURE 166°

ZERO POINT 6.35'

PICK-UP ___

DATUM 8390'

	SIZE	DEPTH
TUBING	___	___
CASING	___	___
CASING SHOE		___
LINER	___	
TOP		___
BOTTOM		___
PERFORATION		
TOP		___
BOTTOM		___

SURVEY DATA

DEPTH MEASURED	DEPTH VERTICAL	STYLUS DEFLECTION	PRESSURE	GRADIE PSI/100
0		1.035	2001.93	
5000		1.179	2279.92	.0556
6000		1.206	2332.05	.0521
7000		1.234	2386.10	.0541
8000		1.261	2438.22	.0521
8410'		1.273	2461.39	.0565
		Avg. Gas Gradient		.0541
			2471.09	

SPECIAL INSTRUCTIONS: Otis "J" Value 8421' 180

BY ___

REMARKS: 21 min on clock
Same Sampler
11:31 Start
11:52 Sample Taken @ 8410' 2 Samples #1 1310 PSI
Well Shut-in 1:30 PM. 2-5-75 #2 710 PSI

FIELD OPERATOR Reed

CHART READ BY Wishon

PLS FORM 501

AC_CPUC_0000482

PRESSURE SURVEY

OTIS ENGINEERING CORPORATION
General Offices: Belt Line Rd. at Webb Chapel
P. O. Box 34380, Dallas, Texas 75234

COMPANY: Southern California Gas Co.		MSO NUMBER: 599567	DATE RUN: 12-20-74
FIELD: Aliso Canyon	LEASE:	WELL: SS 25	SAND:
COUNTY OR PARISH: Los Angeles		STATE: California	

DESCRIPTION

ELEVATION	DATUM: 8410	PERFORATION			T.D.
[X] SHUT-IN [ ] FLOWING	HOURS: 3	FLUID LEVEL	DEPTH REACHED	TUBING PRESSURE	[ ] DWT [ ] GAUGE
SURFACE TEMP. °F	MAX. TEMP. °F	TUBING IN.	TUBING DEPTH	PACKER DEPTH	SLANT HOLE

DEPTH ~~XXXXX~~	~~XXXXXXXXXX~~ Deflection	PRESSURE ~~CHANGE~~ psi	GRADIENT PSI / FT
Lub	0.923	2608	
5000	1.058	2986	
6000	1.086	3064	
7000	1.111	3133	
8000	1.133	3194	
8410	1.144	3225	

INSTRUMENT NUMBER: 7374

LAST CALIBRATION DATE: 12-3-74

PRESSURE SURVEY

DATE OF LAST SURVEY	
LAST MAXIMUM	
THIS MAXIMUM	
CHANGE SINCE LAST SURVEY	

CALCULATED BY: D. Lewis

REMARKS

OEC-156-C

PRINTED IN U.S.A.

AC_CPUC_0000483

PRESSURE SURVEY

OTIS ENGINEERING CORPORATION
General Offices: Belt Line Rd. at Webb Chapel
P. O. Box 34380, Dallas, Texas 75234

COMPANY	MSO NUMBER	DATE RUN
Southern California Gas Co.	599567	12-20-74

FIELD	LEASE	WELL	SAND
Aliso Canyon		SS 25	

COUNTY OR PARISH	STATE
Los Angeles	California

DESCRIPTION

ELEVATION	DATUM	PERFORATION			T.D.
	8410				
[X] SHUT-IN [ ] FLOWING HOURS: 3		FLUID LEVEL	DEPTH REACHED	TUBING PRESSURE	[ ] DWT [ ] GAUGE
SURFACE TEMP. °F	MAX. TEMP. °F	TUBING IN.	TUBING DEPTH	PACKER DEPTH	SLANT HOLE

DEPTH ~~CHANGE~~	~~PRESSURE~~ Deflection	PRESSURE ~~CHANGE~~ psi	GRADIENT PSI / FT
Lub	0.945	2612	
5000	1.087	3006	0.0788
6000	1.113	3077	0.0710
7000	1.140	3152	0.0750
8000	1.162	3213	0.0610
8410	1.170	3235	0.0537
8590 Datum		3245 (calculated)	

INSTRUMENT NUMBER: 7519

LAST CALIBRATION DATE: 12-3-74

PRESSURE SURVEY

DATE OF LAST SURVEY

LAST MAXIMUM

THIS MAXIMUM

CHANGE SINCE LAST SURVEY

CALCULATED BY: D. Lewis

REMARKS

SUB-SURFACE PRESSURE SURVEY

FIELD Aliso WELL 55-25 DATE 10-24-74

RECORDER NO. 12827 RUN NO. ___ SHEET NO. 1 OF 1 SHEETS BY Wishon

CLOCK HOURS 1½ TIME CLOCK STARTED 1043 TIME RUN COMPLETED ___

WELL CONDITION DURING RUN, SHUT IN ___ FLOWING ___ INJECTION ___

HOURS WELL, SHUT-IN ___ FLOWING ___ INJECTION ___ BEFORE RUN ___

WELL HEAD PRESSURE:

TUBING 2760 PSI.

CASING ___

FLOW RATE

GAS MCF/D ___

OIL BBL'S/D ___

WATER BBL'S/D ___

GOR ___

MAXIMUM TEMPERATURE ___

ZERO POINT 1.35'

PICK-UP ___

DATUM 5590'

	SIZE	DEPTH
TUBING	___	___
CASING	___	___
CASING SHOE		___
LINER	___	
TOP		___
BOTTOM		___
PERFORATION		
TOP		___
BOTTOM		___

SURVEY DATA

DEPTH MEASURED	DEPTH VERTICAL	STYLUS DEFLECTION	PRESSURE	GRADIENT PSI/100 F
0		1.425	2754.83	.0
5000		1.614	3119.69	.0729
6000		1.646	3181.47	.062
7000		1.685	3256.76	.075
8000		1.734	3351.35	.094
8410'		1.742	3366.80	.037
8590			3377.06	
			Avg. .057	

SPECIAL INSTRUCTIONS: Otis "J" Value 8421'

BY ___

REMARKS: ___

FIELD OPERATOR ___

CHART READ BY ___

PLS FORM 501

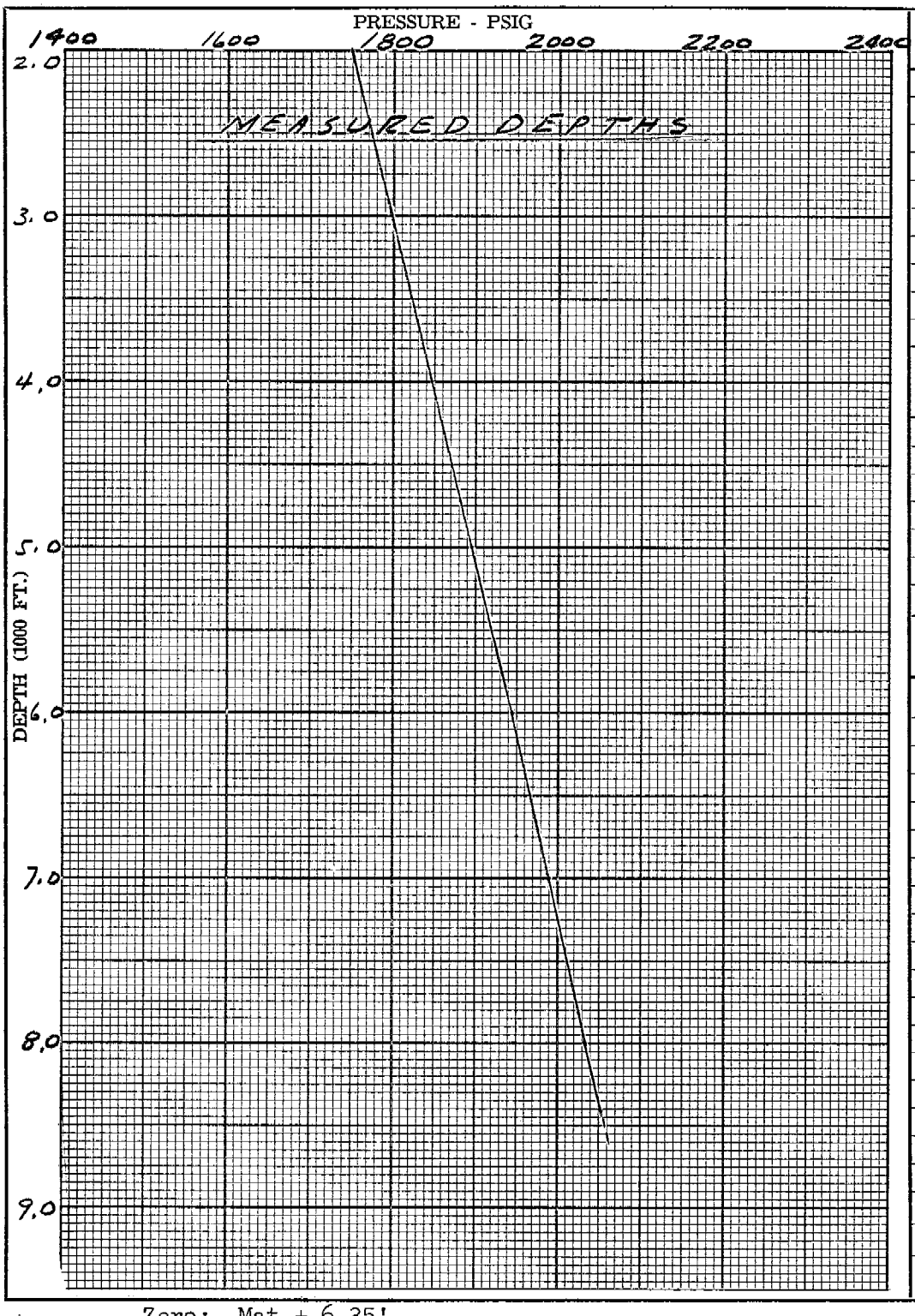
AC_CPUC_0000485

TECHNICAL SERVICE CO.
801 West 14th Street
Long Beach, California 90813

Phones: 24 Hours
Long Beach - 436-9901

SUB-SURFACE PRESSURE DATA

Company: So. California Gas Co. Field: Aliso Canyon Date: 1-15-74 Run No.:
Well: S. S. #25 Zone: Elev.: Mat + 6.35'
Purpose: Static Pressure Gradient Survey Status: Shut In
Total Depth: Effect. Depth:
Casing Size: Depth: Liner Size: Top: Bottom:
Tubing: 2-7/8" J-55 Tubing to 8492'. "KBMG" Gas Lift Mandrels @ 4995', 5925', 6795', 7600', & 8325'. Baker Model "L" Sliding Sleeve (open) @ 8390' Baker "FH" Packer @ 8460'. Otis "J" Valve @ 8421'



OBSERVATIONS

Stabilization Period - Hrs.	
Gross Oil Rate - B/D	
Net Oil Rate - B/D	
Formation Gas MCF/D	
Formation Gas-Oil Ratio CFT/BBL	
Circulated Gas MCF/D	
Oil Dry Gravity - °A.P.I.	
Casinghead Pressure - PSIG	
Tubinghead Pressure - PSIG	1659
Casing Fluid Level - Ft.	

RESULTS

Gross Productivity Index	B/D PSI
Net Productivity Index	B/D PSI
Static M.E.P. - Run No.	PSI
Static M.E.P. - Projected	PSI
Gross Absolute Potential	B/D
Net Absolute Potential	B/D
Datum Pressures:	

Traverse Depth VD Feet MD	Pressure PSIG	Gradient PSI/FT MD
0	1659	
5000	1895	0.047
6000	1944	0.049
7000	1990	0.046
8000	2032	0.042
8410	2052	0.048
Datum Extrapolated		
8590	2060	0.044

COMMENTS: Zero: Mat + 6.35'
Maximum Temperature 212° F.

By: Snider - Pate - Homer

AC_CPUC_0000486

SS 25
6-6-73

1973

6-5 Ran 2-7/8" tubing, including packer, nipple, sliding sleeve and five gas lift mandrels (details attached). Hydrotested tubing to 5000 psi and found no leaks. Landed tubing on doughnut with bottom of tubing at 8492'. Using Hydrotest, pumped down tubing but obtained circulation. Pulled and reran bottom gas lift valve with piano wire unit. Using rig pump, set packer but apparently could not shear ball seat.

6-6 Pumped water down tubing with hot oil truck and found seat had been sheared with rig pump. Using piano wire unit, shifted sleeve at 8390' to open position. Removed B.O.P., installed new X-mas tree and tested doughnut and tree to 3500 psi, each for 20 minutes. Circulated drilling fluid out of hole with lease water. Displaced water to top gas lift valve with nitrogen. Blew well down to zero pressure and shut-in. Moved out rig.

TUBING DETAILS

Derrick floor to top of tubing	0'-8.35'
160 jts. 2-7/8" 8rd., EUE, J-55	8.35'-4983'
KBMG mandrel w/BK valve 1050 psi	4983'-4995'
30 jts. 2-7/8" tubing	4995'-5914'
KBMG mandrel w/BK valve 1025 psi	5914'-5925'
28 jts. 2-7/8" tubing	5925'-6784'
KBMG mandrel w/BK valve 1000 psi	6784'-6795'
26 jts. 2-7/8" tubing	6795'-7589'
KBMG mandrel w/BK valve 975 psi	7589'-7600'
23 jts. 2-7/8" tubing	7600'-8314'
KBMG mandrel w/BK valve 950 psi	8314'-8325'
2 jts. 2-7/8" tubing	8325'-8387'
Baker model "L" sliding sleeve (open)	8387'-8390'
1 jt. 2-7/8" tubing	8390'-8421'
Baker "F" nipple	8421'-8422'
1 jt. 2-7/8" tubing	8422'-8453'
Baker FH hydrostatic packer	8453'-8460'
1 jt. 2-7/8" tubing	8460'-8491'
Baker ball seat & chamfered collar	8491'-8492'

~~Effective Depth 8448 = 52 Holes~~

Hang Bombs in F nipple sleeve

AC_CPUC_0000487

PRESSURE SURVEY

OTIS ENGINEERING CORPORATION
General Offices: Belt Line Rd. at Webb Chapel
P. O. Box 34380, Dallas, Texas 75234

COMPANY		MSO NUMBER	DATE RUN
Southern California Gas Co.		599567	12-20-74
FIELD	**LEASE**	**WELL**	**SAND**
Aliso Canyon		SS 25	
COUNTY OR PARISH		**STATE**	
Los Angeles		California	

DESCRIPTION

ELEVATION	DATUM	PERFORATION			T.D.
	8410				
[X] SHUT-IN [ ] FLOWING	HOURS: 3	FLUID LEVEL	DEPTH REACHED	TUBING PRESSURE	[ ] DWT [ ] GAUGE
SURFACE TEMP. °F	MAX. TEMP. °F	TUBING IN.	TUBING DEPTH	PACKER DEPTH	SLANT HOLE

DEPTH ~~XXXXXX~~	~~XXXXXXXXXXXX~~ Deflection	PRESSURE ~~CHANGE~~ psi	GRADIENT PSI / FT
Lub	0.923	2608	
5000	1.058	2986	
6000	1.086	3064	
7000	1.111	3133	
8000	1.133	3194	
8410	1.144	3225	

INSTRUMENT NUMBER: 7374

LAST CALIBRATION DATE: 12-3-74

PRESSURE SURVEY

DATE OF LAST SURVEY

LAST MAXIMUM

THIS MAXIMUM

CHANGE SINCE LAST SURVEY

CALCULATED BY: D. Lewis

REMARKS

OEC-156-C

PRINTED IN U.S.A.

AC_CPUC_0000488

OTIS ENGINEERING CORPORATION
General Offices: Belt Line Rd. at Webb Chapel
P. O. Box 34380, Dallas, Texas 75234

PRESSURE SURVEY

COMPANY	MSO NUMBER	DATE RUN
Southern California Gas Co.	599567	12-20-74

FIELD	LEASE	WELL	SAND
Aliso Canyon		SS 25	

COUNTY OR PARISH	STATE
Los Angeles	California

DESCRIPTION

ELEVATION	DATUM	PERFORATION			T.D.
	8410				
[X] SHUT-IN [ ] FLOWING HOURS: 3		FLUID LEVEL	DEPTH REACHED	TUBING PRESSURE	[ ] DWT [ ] GAUGE
SURFACE TEMP. °F	MAX. TEMP. °F	TUBING IN.	TUBING DEPTH	PACKER DEPTH	SLANT HOLE

DEPTH ~~CHANGE~~	~~PRESSURE~~ Deflection	PRESSURE ~~CHANGE~~ psi	GRADIENT PSI / FT
Lub	0.945	2612	0.0788
5000	1.087	3006	0.0710
6000	1.113	3077	0.0750
7000	1.140	3152	0.0610
8000	1.162	3213	0.0537
8410	1.170	3235	
8590 Datum		3245 (Calculated)	

INSTRUMENT NUMBER: 7519

LAST CALIBRATION DATE: 12-3-74

PRESSURE SURVEY

DATE OF LAST SURVEY	
LAST MAXIMUM	
THIS MAXIMUM	
CHANGE SINCE LAST SURVEY	

CALCULATED BY: D. Lewis

REMARKS

OEC-156-C

PRINTED IN U.S.A.

AC_CPUC_0000489

INSTRUMENT SERVICE
Gary Foster
2960 N. Ventura Ave.
Ventura, California 93001
Phone 805-649-2228
Bakersfield 805-324-2208

So. Calif. Gas Co.

Aliso Canyon

Company So. Calif. Gas Co. Field Aliso Canyon Date 4-20-76 /

Well SS-25 Tubing PSI / Casing PSI /

Purpose BHT Survey @ 100' per min. Status Shut in

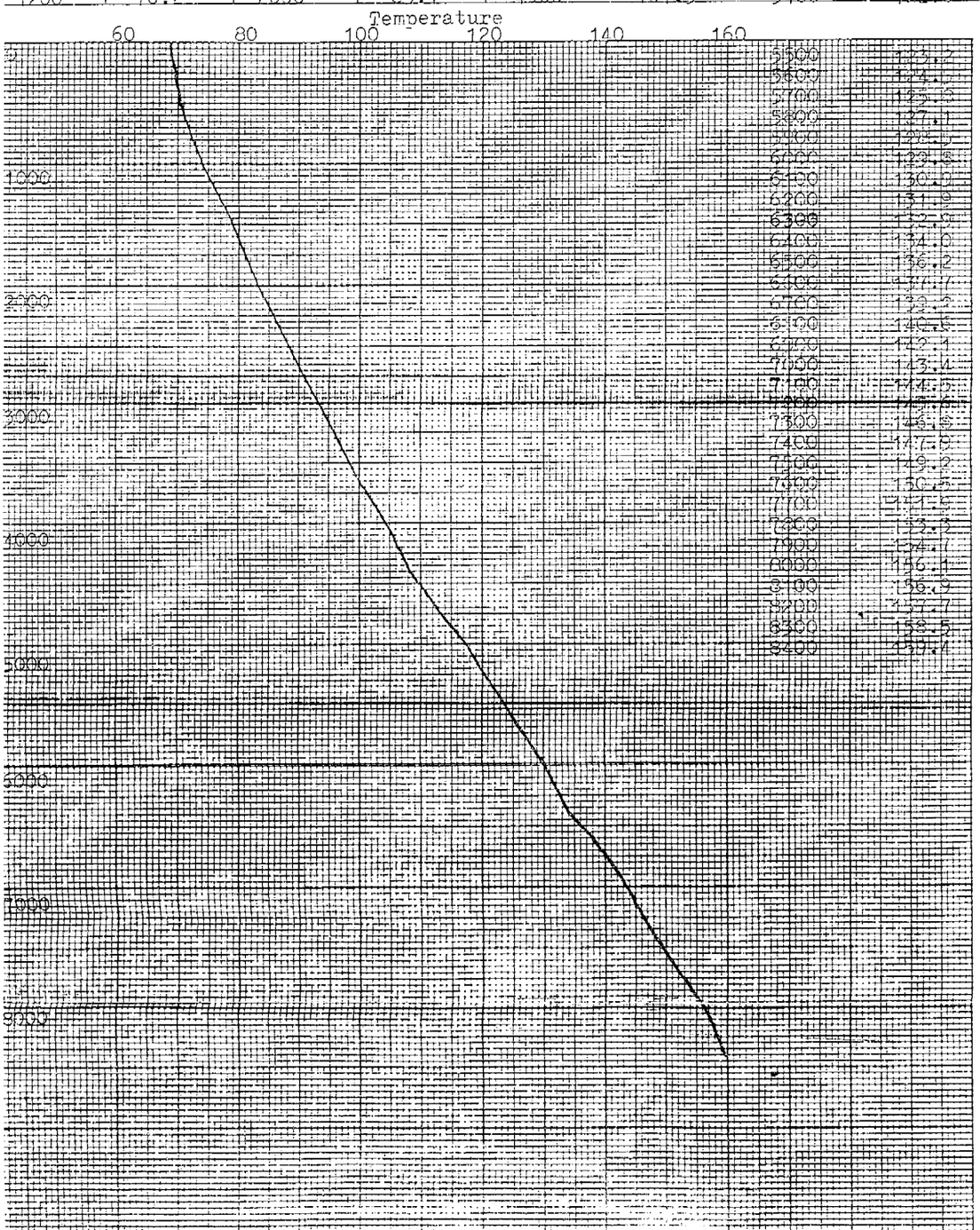
Total Depth Zero

Casing Size Depth Liner Size Top Bottom

Perforations

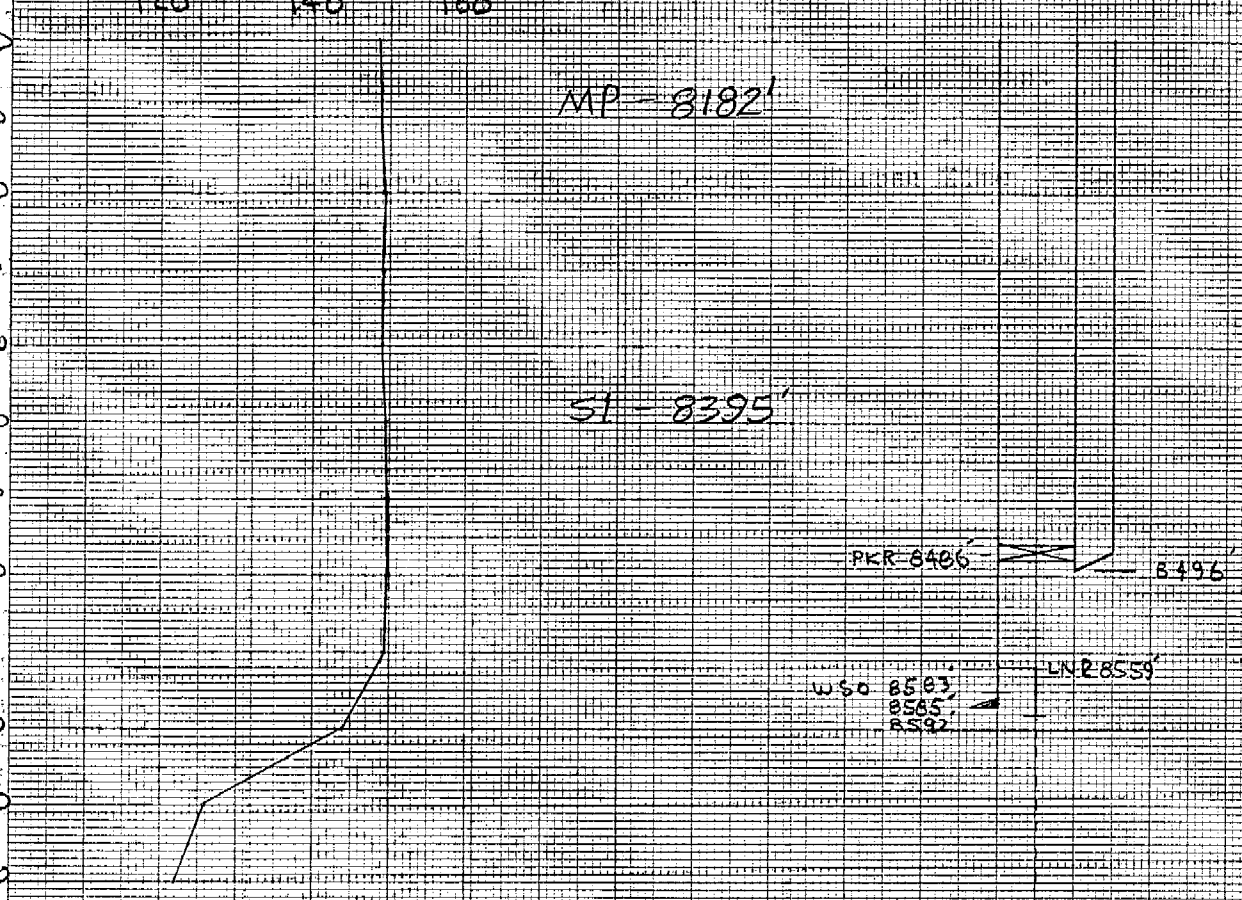
Tubing 2 7/8" Hung to 8492

Depth	Temp.	1300	77.0	2700	90.2	4100	105.3
0	68.8	1400	78.1	2800	91.1	4200	106.2
100	69.1	1500	79.0	2900	92.3	4300	107.3
200	69.5	1600	79.8	3000	93.3	4400	108.1
300	69.8	1700	80.7	3100	94.4	4500	109.5
400	70.1	1800	81.5	3200	95.3	4600	111.0
500	70.3	1900	82.4	3300	96.4	4700	112.5
600	71.1	2000	83.2	3400	97.2	4800	114.0
700	71.6	2100	84.1	3500	98.2	4900	115.6
800	72.6	2200	85.2	3600	99.4	5000	117.1
900	73.4	2300	86.2	3700	100.6	5100	118.3
1000	74.0	2400	87.2	3800	101.9	5200	119.5
1100	75.0	2500	88.1	3900	103.1	5300	120.8
1200	76.2	2600	89.1	4000	104.3	5400	122.0



AC_CPUC_0000490

SS-25 8-12-91
DETAIL 8150' - TD 8700'
ORIG. CHART



TBG 2790
CSG 2610
RUN F.G.
READ & PLOT Vv

Straight line cooling above S1.
Plan N.L.

46 1512
10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

ALISO CYN, SS 25

SS 25 E-12-91

70 90 110 130 150

0 1 2 3 4 5 6 7 8 9

0 1000 2000 3000 4000 5000 6000 7000 8000 9000

998'

Cooling (straight line) from M.P. down to S1 depths (see attached detail)

Plan N.L.

N/C OF 11/7/91 SHOWED SOME NOISE ACTIVITY TO BASE OF MP W/ TEMP BREAK @ TOP OF MP. PROBABLY SMALL GAS LEAK.

T.D. 8700'

T 2790
C 2810

MP-8182
SI 8376

WSO 8376'
PKR 8486'
SWOE 8585'
PERFS 8511'
WSO 8535

SWO 8383'
SI PKR
SI 8550'
SO 8570'

PB-TD 8745'
TD 8749'

RUN CBL, PERF. ETC.

100' MIN

INV. 60.3 BCF OUT OF SERVICE: 5 DAYS

5-8-85

46 1512

K&E 10 X 10 TO THE CENTIMETER 18 X 25 CM. KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0000492

ALISO CYN, SS

SS 25 4-23-91

60 80 100 120 140 160

0 1 2 3 4 5 6 7 8 9

Temp breaks @ 8250'
Detail on Re-temp @ higher inventory

T.D. 8700'
T 2050
C 2060

RUN, READ, PLOT

OTOT PRICE: 5 DAYS

100' MIN

5-8-85

46 1512

K+E 10 X 10 TO THE CENTIMETER 25 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0000493

ALICO CYN, SS 25

SS 25 9-20-90

70 90 110 130 150 170

SHIFT ABOVE S-1 (8395')
@ ~ 8250'
AS LAST SURVEY
Possible Noise
Log candidate?
continue to monitor

T 2470
C 2470
T.D. 8700'

RUN, READ, PLOT: JLQ

SHUT IN 5 DAYS + PRIOR TO SURVEY.
INJ/WD _____ HOURS PRIOR TO SHUT IN

5-8-85

AC_CPUC_0000494

ALICO CYN, SS

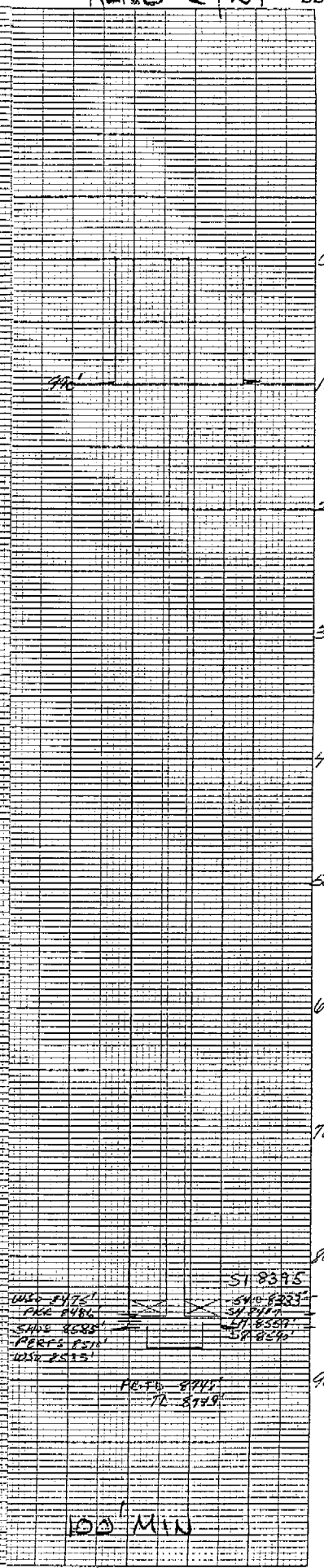
SS 23 4-12-90

60 100 120 140 160

0 1 2 3 4 5 6 7 8 9

T 1770
C 1770

RUN, READ, PLOT



REG 6/1/90 5-8-85

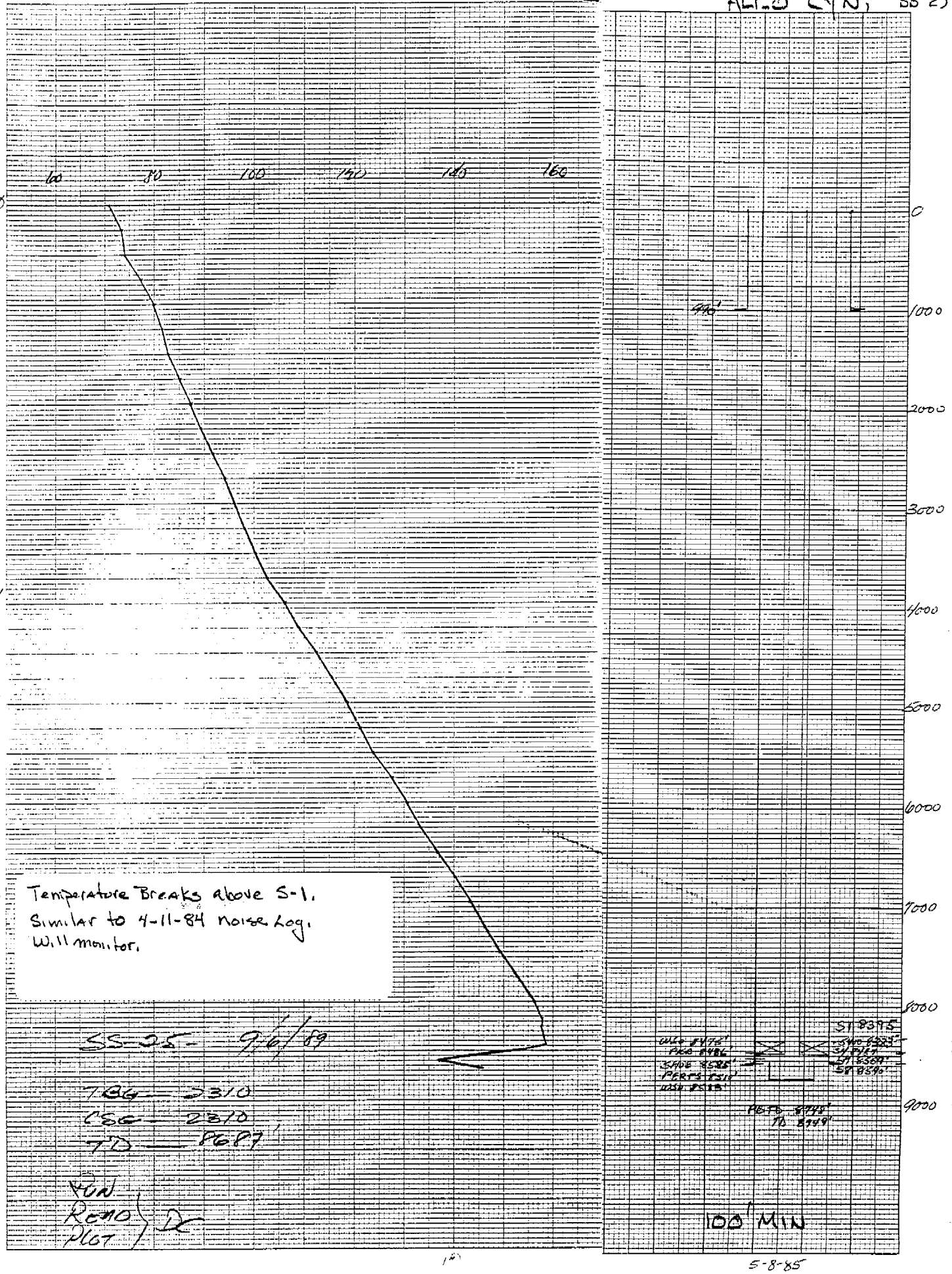
46 1512

10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0000495

SHUT IN 5 days PRIOR TO SURVEY.
HOURS PRIOR TO SHUT IN

ALICO CYN, SS 25



46 1512

10 X 10 TO THE CENTIMETER
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0000496

SHUT IN 30+ days PRIOR TO SURVEY.
INJ/WD _____ HOURS PRIOR TO SHUT IN.

ALICO CYN, SS 25

SS-25 1-6-89

80 100 120 140 160 1

0 1 2 3 4 5 6 7 8 9

0 1000 2000 3000 4000 5000 6000 7000 8000 9000

940'

Anomaly above shoe similar to Temp on quiet noise log 4-11-84, will monitor.

RUN
HEAD
SHOT

TBG PRESS 1620
CSG PRESS 1640

WSO 8476'
PKR 8486'
SHOE 8585'
PERFS 8515'
WSO 8515'

S1 8395'
SND 8323'
S1 8469'
S1 8369'
S1 8549'

PERFS 8745'
TD 8749'

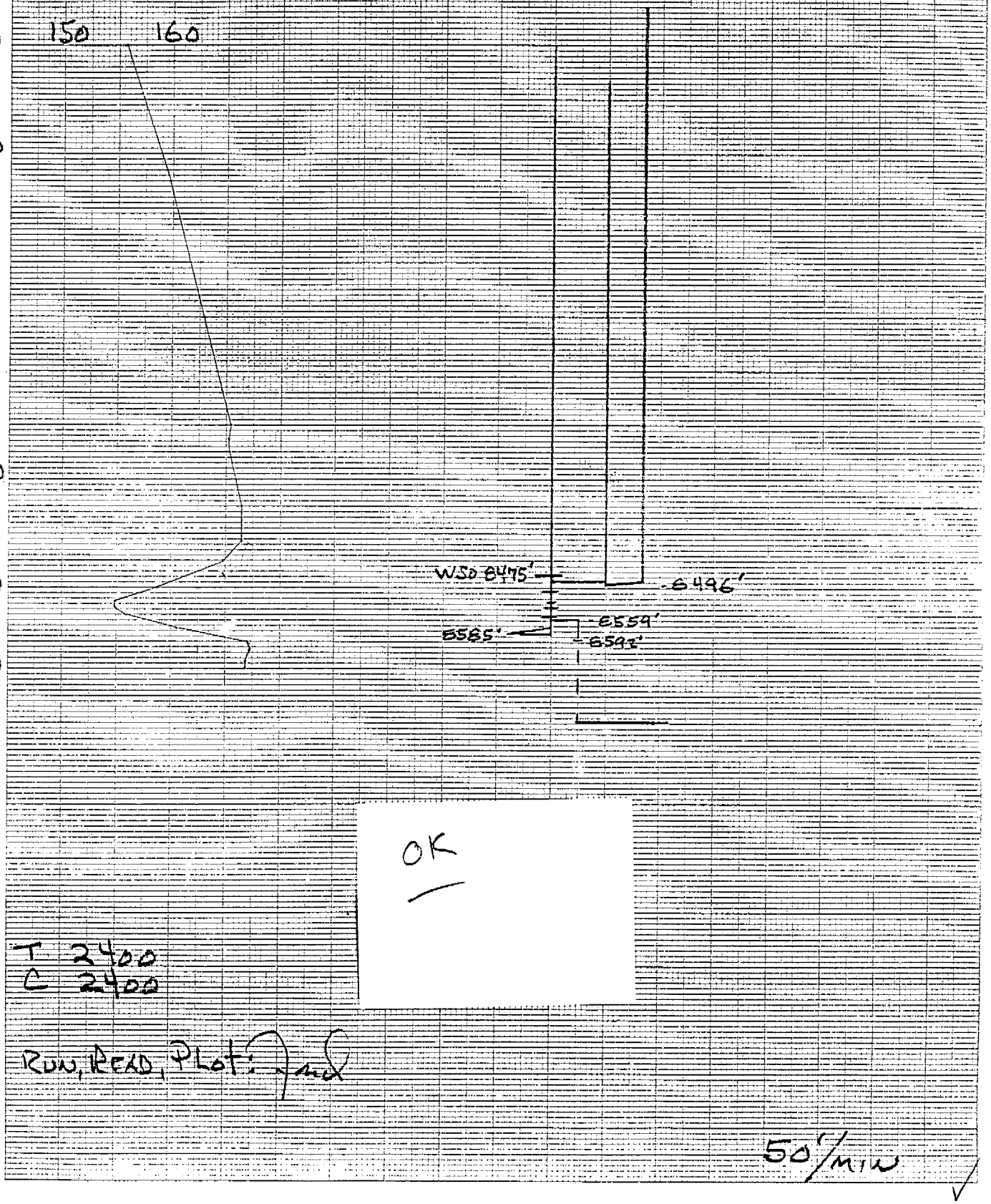
100' MIN

46 1512

10 X 10 TO THE CENTIMETER
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0000497

SS 25 11-9-88



OK

T 2400
C 2400

RUN, READ, PLOT: 7 ea

50'/min

46 1512
10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

SHUT IN 30+ DAY PRIOR TO SURVEY.

INJ/WD _____ HOURS PRIOR TO SHUT IN.

ALISO CYN, SS 25

SS 25 10-18-85

70 90 110 130 150 170

0 1 2 3 4 5 6 7 8 9

0 1000 2000 3000 4000 5000 6000 7000 8000 9000

990'

SI 8395
SWC 8389'
SI 8414'
SI 8559'
SI 8596'

WSO 7475'
PKR 8486'
SHOE 8588'
PERFS 8618'
WSO 8625'

PBTD 8748'
TD 8949'

100' MIN

5-8-85

T 2240
C 2240

RUN, READ, PLOT, ETC

46 1512

10 X 10 TO THE CENTIMETER
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0000499

2-26-88 PRIOR TO SURVEY.

5.58 HRS PRIOR TO SHUT IN.

ALICO CYN, SS 25

SS-25 3-3-88

90 110 130 150

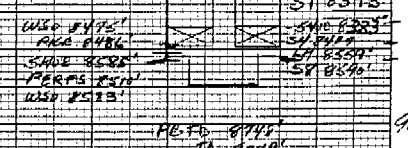
0 1000 2000 3000 4000 5000 6000 7000 8000 9000

ANOMALY ABOVE SHOE SIMILIAR TO TEMP RUN WITH QUIET NOISE LOG 4-11-84. WILL MONITOR

TBG - 1600

CSG - 1600

T.D. - 8690'



RUN READ & PLOT F.M. 3-3-88

100' MIN

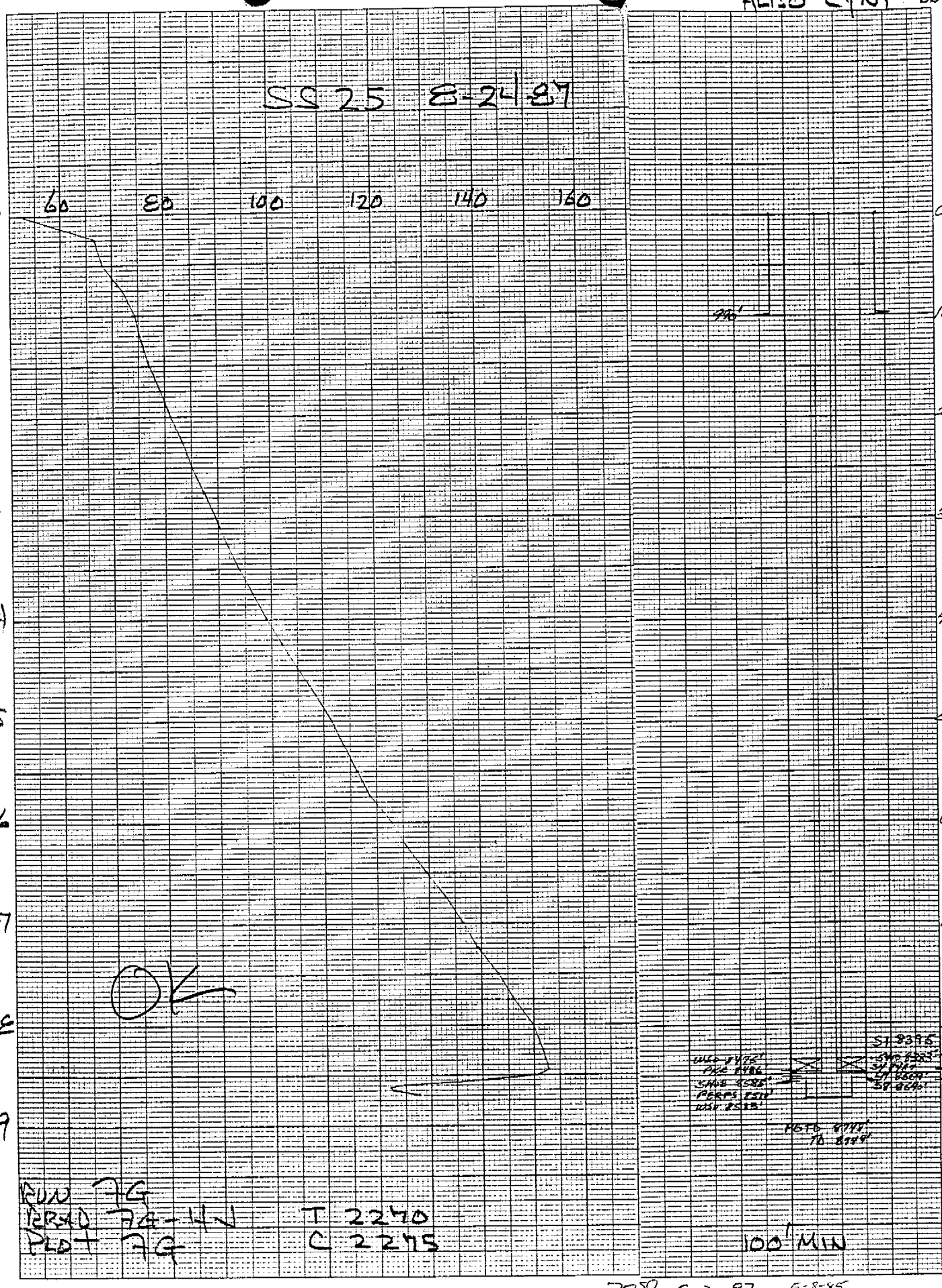
55-25 3/28/88 5-8-85

AC_CPUC_0000500

SHUT IN 7 DAYS PRIOR TO SURVEY.
INJ/WD INJ 200 HRS PRIOR TO SHUT IN.

ALISO CYN, SS 25

SS 25 8-24-87



RUN AG
READ AA-HV T 2270
PLOT AG C 2275

100' MIN

ROS 9-2-87 5-8-85

46 1512

K&E 10 X 10 TO THE CENTIMETER 18 X 25 CM. KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0000501

SHUT IN 23 days PRIOR SURVEY.
HOURS PRIOR

SS 25

SS-25 3-19-87

50 70 90 110 130 150

0 1000 2000 3000 4000 5000 6000 7000 8000 9000

TBG 11780
CSG 11780
T.O. 8670'

ANOMALY ABOVE S-1 SIMILIAR TO TEMP RUN WITH NOISE LOG 4-11-84

S-1

99'

S1 8395
SWD 8331'
SP 8349'
SI 8359'
SB 8376'

CASE 8472'
PKR 8486'
SAND 8546'
PERFS 8611'
WSO 8713'

HETB 8745'
TD 8749'

RUN H.J.
PLOT RM.

SS-25

5-5-85

4/15/87

46 1510
K&E 10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0000502

SHUT IN _____ PRIOR TO SURVEY.

IN/AVD 194.2 HOUR[illegible]IOR TO SHUT IN..

SS 2

SS-25 8-13-86

70 90 110 130 150 170

0 1000 2000 3000 4000 5000 6000 7000 8000 9000

DIETZGEN CORPORATION MADE IN U.S.A.

NO. 341-M DIETZGEN GRAPH PAPER MILLIMETER

TBG 2160
CSG 2165
T.D 8710
100 FT/MIN

ANOMALY ABOVE SHOE SAME AS TEMP RUN WITH QUIET NOISE LOG 7-27-84.

WSO 8476'
PKR 8486'
SAND 8532'
PERFS 8511'
WSO 8513'

SWO 8539'
SN 8543'
EOT 8550'
SB 8540'

PBTD 8748'
TD 8748'

RM SS-25

5-8-85

AC_CPUC_0000503

SHUT IN 7 days PRIOR TO SURVEY.
INJ.WD _____ HOURS PRIOR TO SHUT IN.

SS 25

SS-25 3-5-86
TEMP

80 100 120 140 160

0 1 2 3 4 5 6 7 8 9

TBG - 1830
CSG - 1845
T.D. - 8705'

TEMP ANAMOLY ABOVE SHOE
SAME AS TEMP RUN WITH
QUIET NOISE LOG 7-27-84.

RM 3-10-86

SS-25

0 1000 2000 3000 4000 5000 6000 7000 8000 9000

5-8-85

46 1512

KE 10 X 10 TO THE CENTIMETER 10 X 25 CM
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0000504

SHUT IN 2 DAYS PRIOR TO SURVEY
INJ 4 DAYS PRIOR TO S.I.

SS-25 7-10-85

60 80 100 120 140 160

0 1 2 3 4 5 6 7 8

0 1000 2000 3000 4000 5000 6000 7000 8000 9000

T-1955
C-1955
TD-8715

TEMP ANOMALY ABOVE SHOE SIMILIAR TO, BUT BREAKS SLIGHTLY HIGHER THAN, SURVEYS OF PAST SEVERAL YEARS. NOISE LOGS 7-84, 4-84, 2-83 & RA. 7-84 INDICATED NO LEAKAGE ABOVE S1. WILL MONITOR.

RUN RM
REGAIN
PLOT RM VIC-85

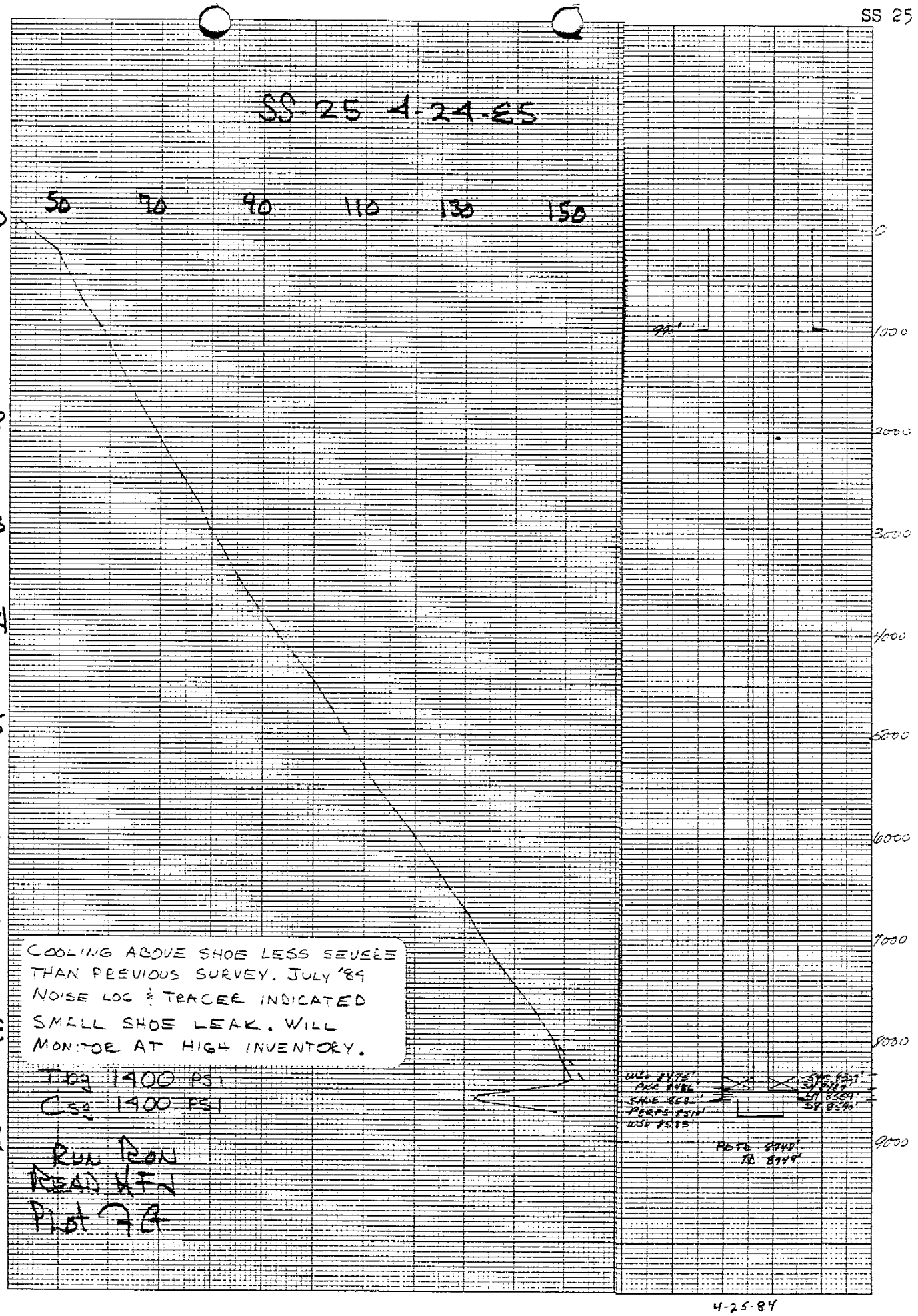
SS-25

5-8-85

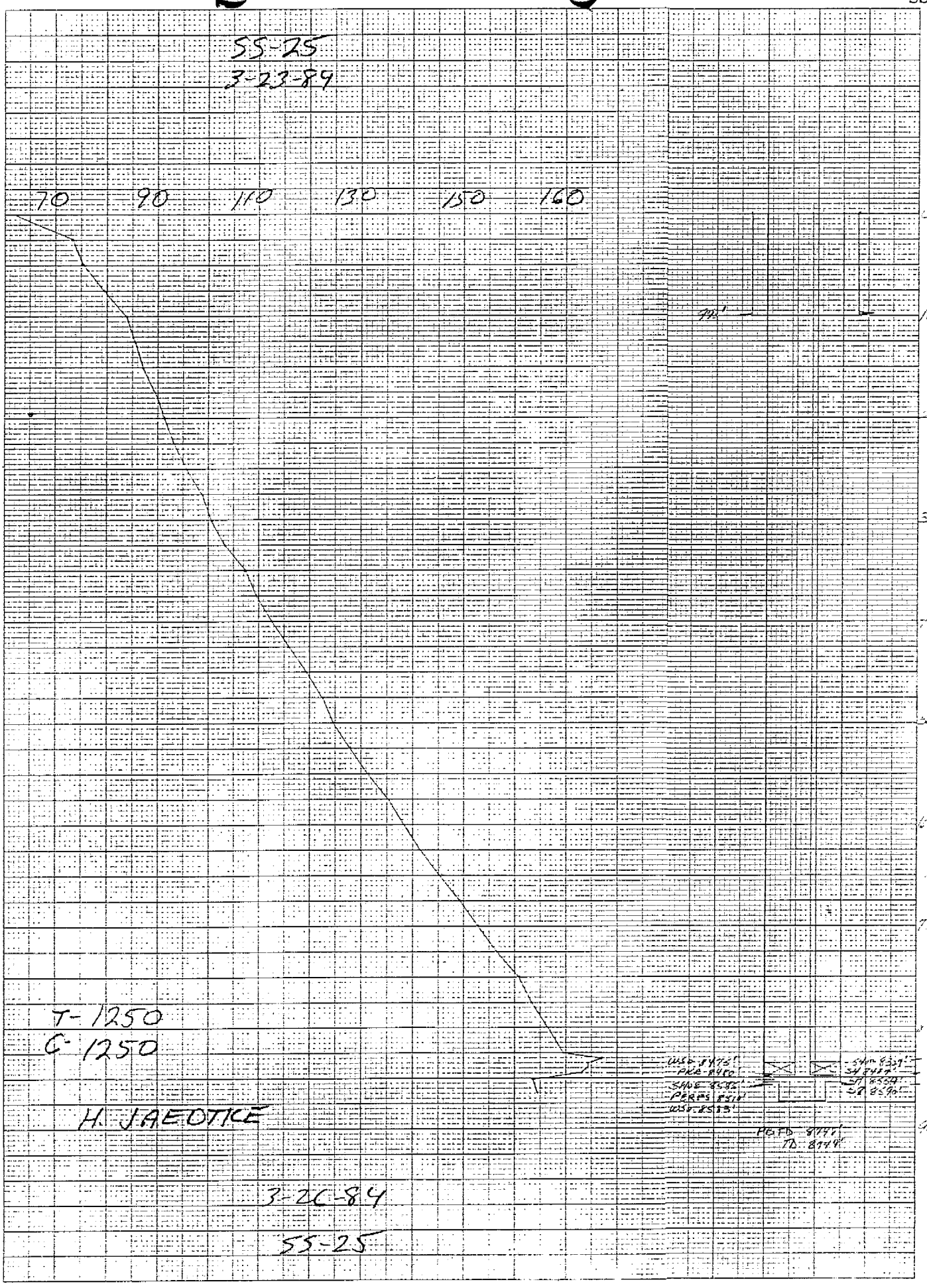
46 1512

K+E 10 X 10 TO THE CENTIMETER 16 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0000505

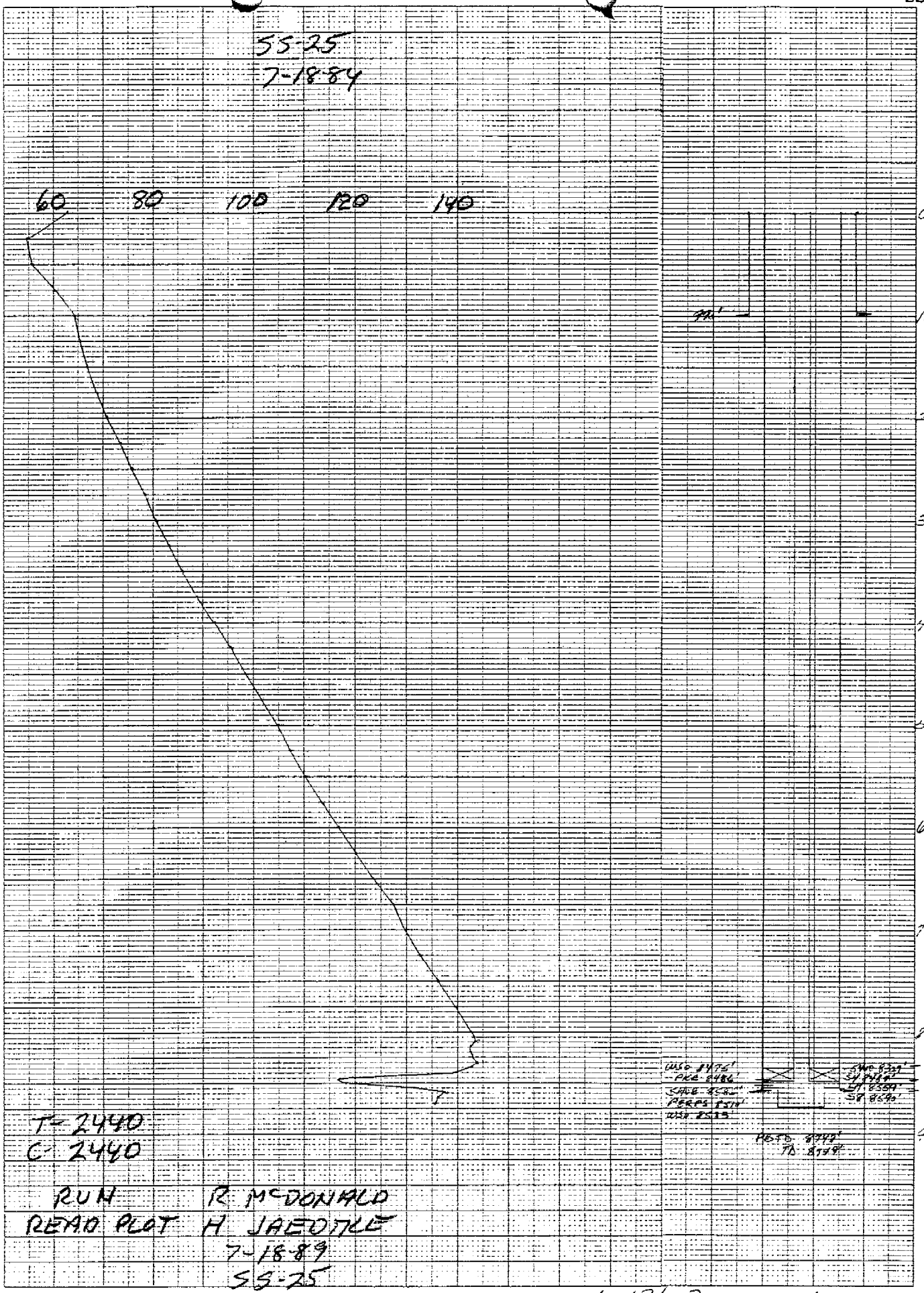


46 1512
K&E 10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.



46 1512
10 X 10 TO THE CENTIMETER 18 X 25 CM
KEUFFEL & ESSER CO. MADE IN U.S.A.

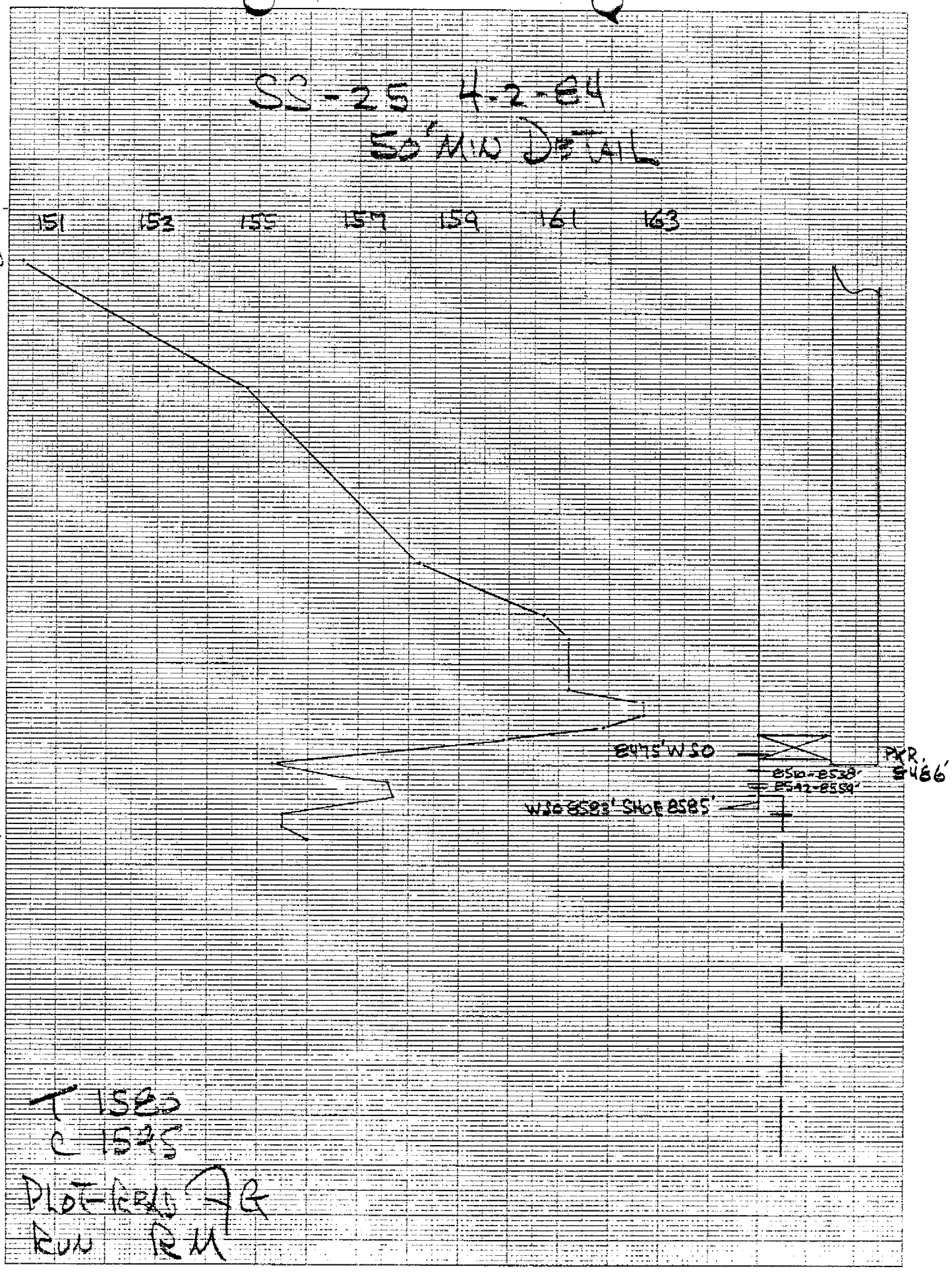
AC_CPUC_0000507



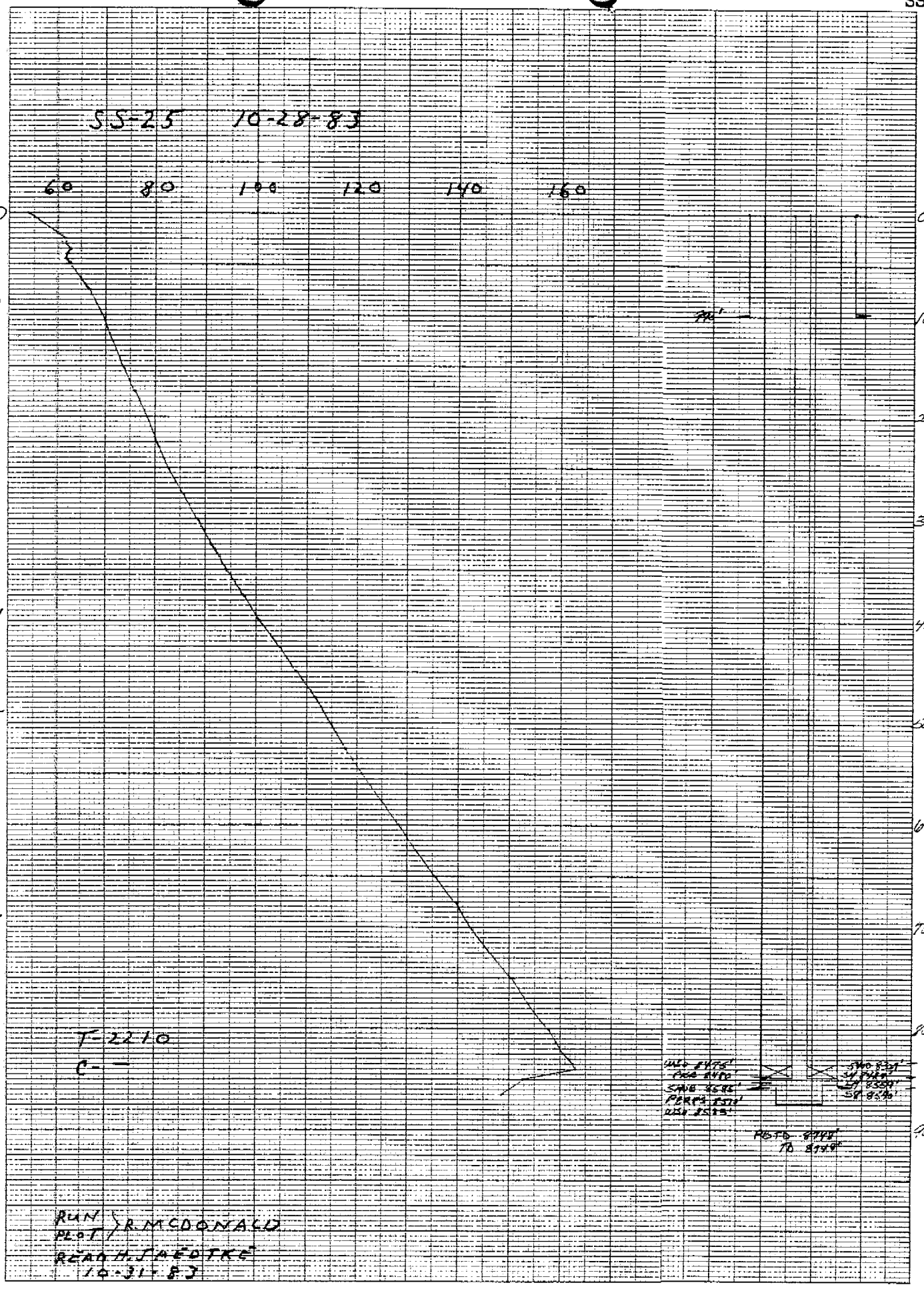
A/D & R/A Run 4-25-84

8/84 RCP

AC_CPUC_0000508



46 1512
10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.



46 1512
KE 10 X 10 TO THE CENTIMETER 18 X 25 CM
KEUFFEL & ESSER CO. MADE IN U.S.A.

55-25
6-2-83

60 80 100 120 140 160

0 1 2 3 4 5 6 7 8 9

0 1000 2000 3000 4000 5000 6000 7000 8000 9000

98'

USD 8475'
CKB 8460'
SHOE 8582'
PERFS 8510'
USD 8515'

SHD 8337'
SH 8419'
SN 8559'
SB 8596'

PBTD 8744'
TD 8749'

T= 1990
C= N/A

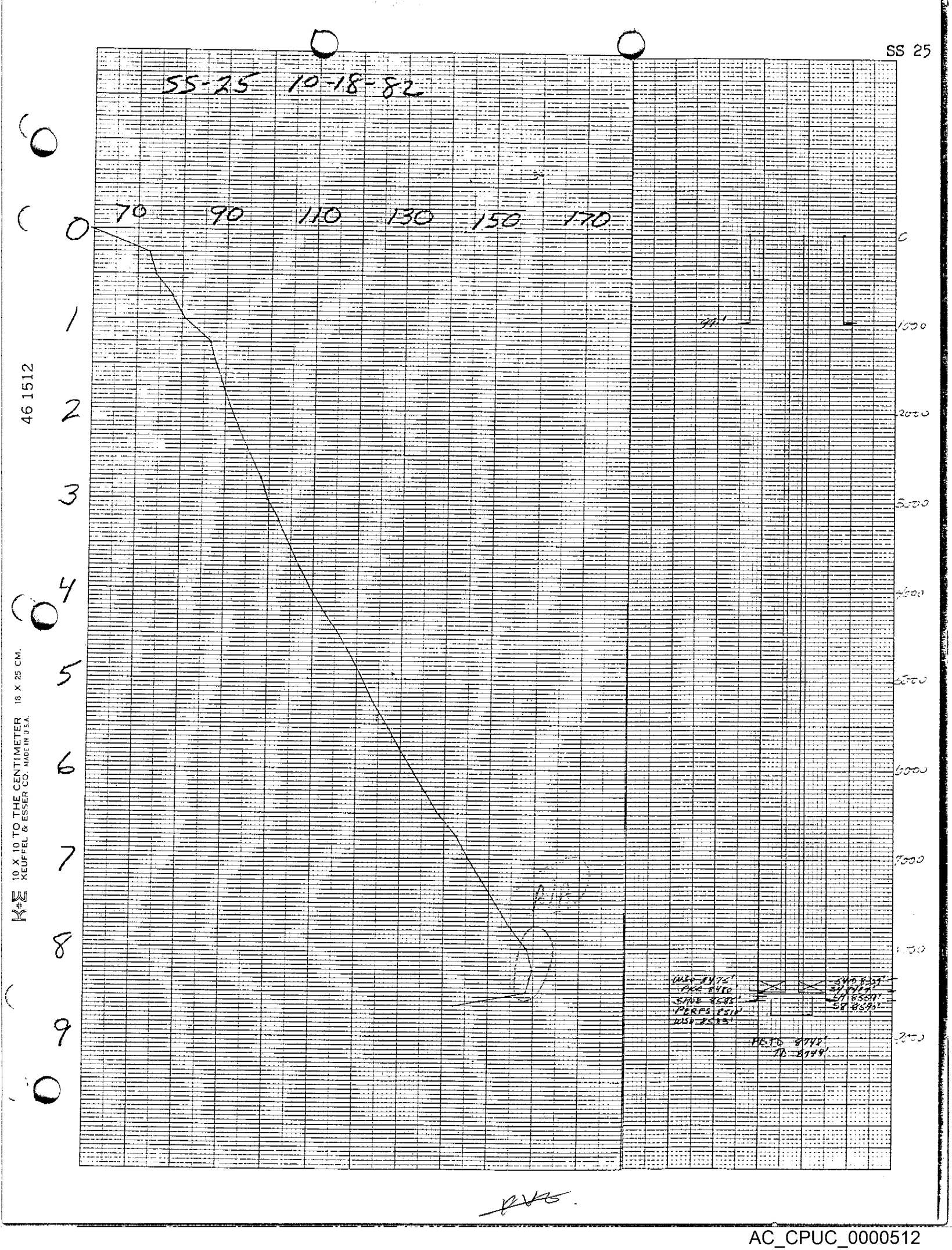
RUN R. MCDONALD
READ PLOT H. JAEDICKE

6-10-83

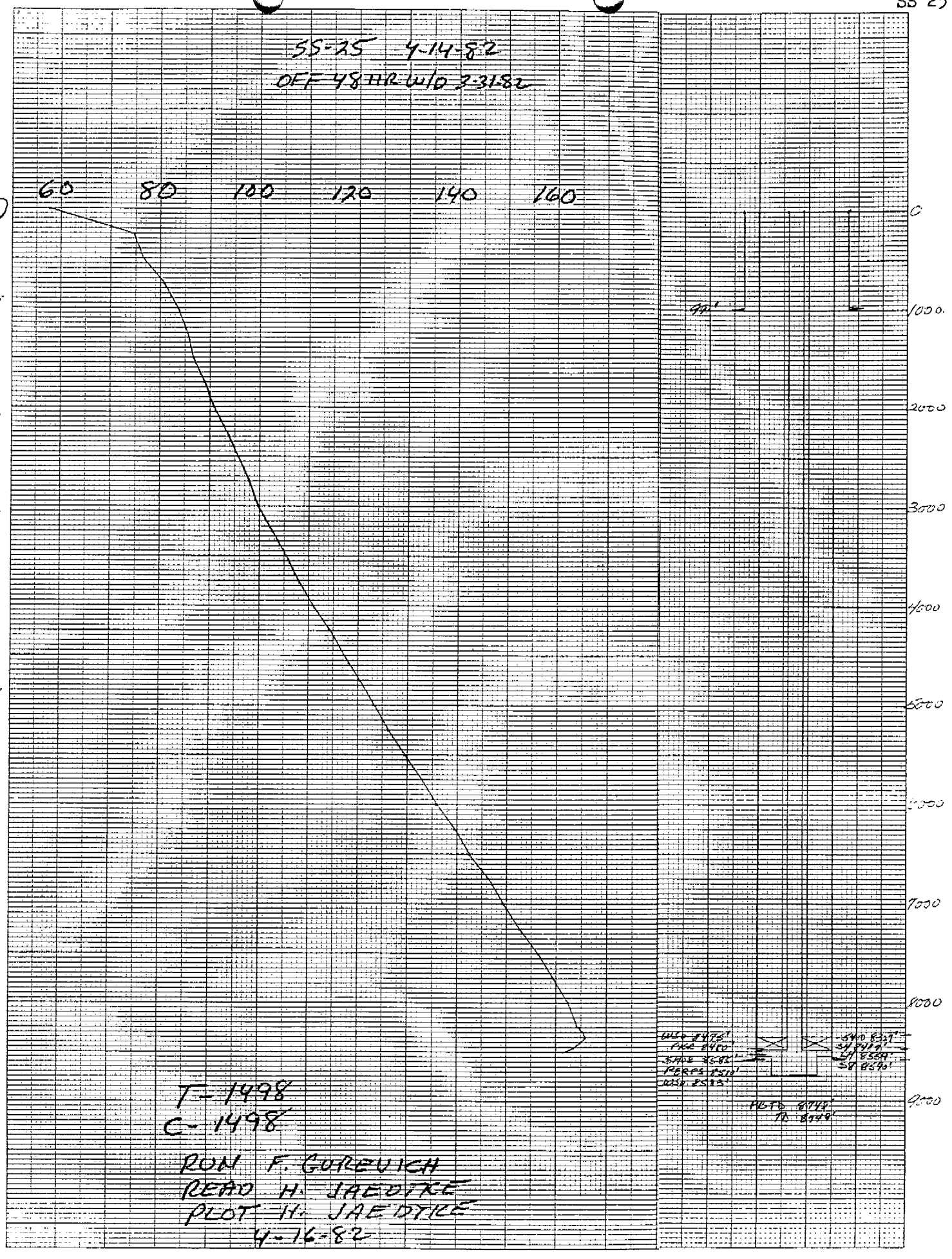
46 1512

10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0000511



AC_CPUC_0000512



46 1512
10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

SS-25
9-21-81
OFF INJ. 9-17-81

80 100 120 140 160

T-2780
C-2780

9-24-81 Harry Jacobs

RCS 9/30/81

46 1512
K&E 10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0000514

SS 25

55-25

4-2-81

70 90 110 130 150

0 1 2 3 4 5 6 7 8

0 1000 2000 3000 4000 5000 6000 7000 8000 9000

WSS 8375'
PKR 8411'
SAND 8502'
PERFS 8511'
WSO 8513'

SAND 8733'
SV 8734'
SAND 8743'
SV 8744'

PBTD 8744'
TD 8748'

T-2180
C-119

F-6

Plot by W Jarrett

4/16/81 RCK

46 1512

10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

K&E

AC_CPUC_0000515

Southern California Gas Company .027929411176
Aliso Canyon

ell 5525 Date 4-2-81 Element No. 39134 Clock Hours _____

ubing Press. 2180 Status _____ Time Clock Started _____ Time Clock Off _____

asing Press. N/A Pick-Up _____ Operator JG _____' per Minute

ime Press. on _____ Time Start Down _____ Zero Point 6

epth	Elapse Time	Deflection	Temp.	Depth	Elapse Time	Deflection	Temp.
0	5[illegible]	.085	61.2	5000 ✓	55.0	.395	121.2
250	4.[illegible]	.129	73.3	5250	57.5	.411	123.4
500	[illegible]00	.133	74.4	5500	60.	.438	127.2
750	12.5	.147	78.0	5750	62.5	.466	130.9
1000 ✓	15.0	.151	79.0	6000 ✓	65	.496	134.8
1250	17.5	.165	82.0	6250	67.5	.520	137.8
1500	20.	.173	83.6	6500	70.	.551	141.6
1750	22.5	.183	85.7	6750	72.5	.586	145.7
2000 ✓	25.0	.194	88.0	7000 ✓	75	.606	148.0
2250	27.	.202	89.7	7250	77.5	.645	152.4
2500	30.	.217	92.5	7500	80.	.679	156.1
2750	32.5	.229	94.8	7750	82.5	.713	159.7
3000 ✓	35.0	.245	97.9	8000 ✓	85.0	.747 OVER	163.2
3250	37.5	.257	99.9	8250	87.5	.772	165.6
3500	40.0	.271	102.2	8400	89.0	.801	168.4
3750	42.5	.289	105.2	—	91 —		
4000 ✓	45.0	.309	108.4				
4250	47.5	.327	111.2				
4500	50.03	.348	114.5				
4750	52.52	.372	117.9				

5515 7-29-80

460 press 2840

462 " 2240

8.0° 160° 120° 116° 160°

0 1 2 3 4 5 6 7 8

0 1000 2000 3000 4000 5000 6000 7000 8000

99'

USG 8476'
PKR 8490'
SHOE 8586'
PERFS 8510'
USH 8515'

SWO 8539'
SN 8542'
EOT 8560'
SF 8596'

PBTD 8748'
TD 8749'

46 1512

10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0000517

SS-25 8-3-79

60 80 100 120 140 160

0 1000 2000 3000 4000 5000 6000 7000 8000 9000

Noise log run subsequently to find flow movement around 'A' (shoe) did not show movement, as confirmed by Bob Hazel.

U. Uschuk
8/16/79

100' TO 8650'

T- 2590
C- 2590

J. Gurevich

]A

46 1512
10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

AC_CPUC_0000518

SS-25 2-22-80

40 60 80 100 120 140 160

0 1 2 3 4 5 6 7 8

0 1000 2000 3000 4000 5000 6000 7000 8000

Talked to JWT about A
looking at A.
The leak was investigated in 1978-79 was found to be negligible
M. Mrs mD
3-5-80

T 2220
C 2225

AC_CPUC_0000519

PRUETT WIRELINE SERVICE

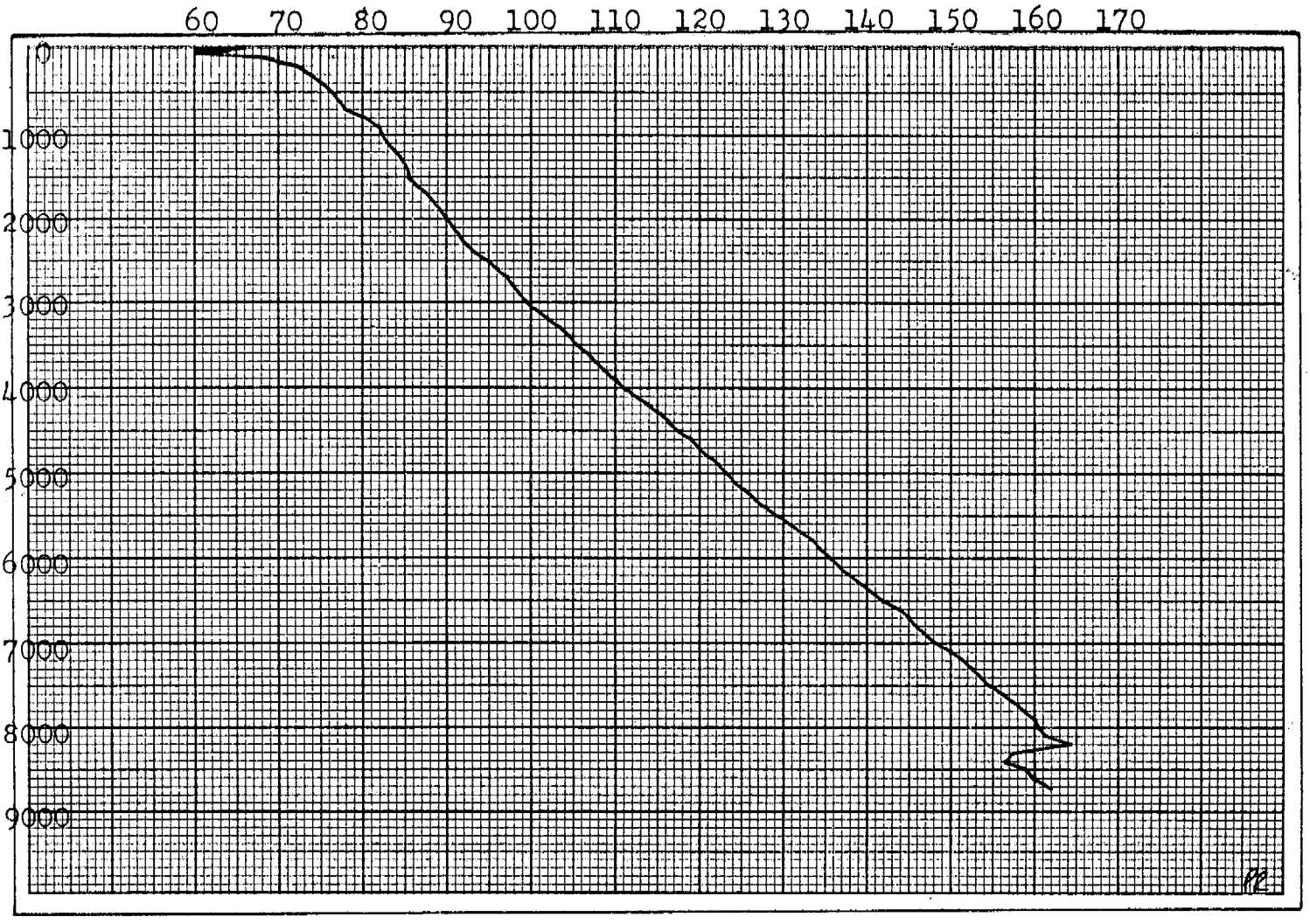
8915 Rosedale Hwy, Bakersfield, Ca. 93308
(805) 589-2768

SUB—SURFACE TEMPERATURE SURVEY

COMPANY Southern California Gas **FIELD** Aliso Canyon **WELL NAME** SS-25

TOTAL DEPTH	--	WELL STATUS	Static	BOMB HUNG @	none	DATE	3-14-79
CASING	--	CASING PRESSURE	--	TIME ON BOTTOM	10:32am	ELEMENT RANGE	32-250°
LINER	--	TUBING PRESSURE	--	TIME OFF BOTTOM	10:35am	ZERO POINT	7'
PERFORATIONS	--	ZONE	none	SHUT IN	none	ELEVATION	none
MPP	--	MAX. °F.	164.4°	ON PRODUCTION	none	PICKUP	8720'
TUBING DETAIL	2 7/8" @ 8491' **			PURPOSE	Traverse Temperature Survey		

TEMPERATURE



SURVEY DATA

SEE ATTACHED

** Packer @ 8480'
No-Go @ 8470'

G Doolan

PRUETT WIRELINE SERVICE

8915 Rosedale Hwy, Bakersfield, Ca. 93308
(805) 589-2768

SUB—SURFACE TEMPERATURE SURVEY

COMPANY Southern California Gas **FIELD** Aliso Canyon **WELL NAME** SS-25

TOTAL DEPTH	--	WELL STATUS	Static	BOMB HUNG @	none	DATE	3-14-79
CASING	--	CASING PRESSURE	--	TIME ON BOTTOM	10:32am	ELEMENT RANGE	32-250°
LINER	--	TUBING PRESSURE	--	TIME OFF BOTTOM	10:35am	ZERO POINT	7'
PERFORATIONS	--	ZONE	none	SHUT IN	none	ELEVATION	none
MPP	--	MAX. °F.	164.4°	ON PRODUCTION	none	PICKUP	8720'
TUBING DETAIL	2 7/8" @ 8491'			PURPOSE	Traverse Temperature Survey		

SURVEY DATA

DEPTH	TEMPERATURE	DEPTH	TEMPERATURE	DEPTH	TEMPERATURE
0	66.2	2800	98.0	5700	132.2
50	60.5	2900	98.7	5800	133.5
100	67.7	3000	99.6	5900	134.5
200	71.9	3100	100.7	6000	135.8
300	73.7	3200	102.1	6100	137.0
400	75.4	3300	103.3	6200	138.3
500	76.4	3400	104.5	6300	139.4
600	77.2	3500	105.5	6400	140.8
700	78.1	3600	106.8	6500	142.1
800	80.4	3700	107.7	6600	144.0
900	82.0	3800	108.7	6700	144.9
1000	82.4	3900	109.9	6800	145.9
1100	83.1	4000	111.1	6900	147.2
1200	84.0	4100	112.5	7000	148.5
1300	84.7	4200	113.9	7100	150.0
1400	85.2	4300	115.3	7200	151.5
1500	85.6	4400	116.3	7300	152.7
1600	86.5	4500	117.7	7400	153.7
1700	87.7	4600	118.9	7500	154.8
1800	88.6	4700	120.0	7600	156.2
1900	89.4	4800	121.0	7700	157.4
2000	90.0	4900	122.3	7800	158.7
2100	90.7	5000	123.3	7900	159.9
2200	91.7	5100	124.2	8000	160.2
2300	92.6	5200	125.5	8100	161.3
2400	93.6	5300	126.7	8200	164.4
2500	94.9	5400	128.0	8300	157.6
2600	96.1	5500	129.4	8400	156.6
2700	97.2	5600	130.8	8500	159.0
				8600	159.7
				8720	162.1

Instrument Serial No. 39139, calibrated 8-31-76.
Survey traversed 100' per minute.

G Doolan

SS 25

SJ-25

3-14-79

Replot from Prev'l

60' 80' 100' 120' 140' 160'

0 1 2 3 4 5 6 7 8

0 1000 2000 3000 4000 5000 6000 7000 8000

46 1512



3-14-79

AC_CPUC_0000522

D

SS.25 2-2028 RC2WW

60 — 80 — 100 — 120 — 140 — 160

T - 2140 (S. VALVE CL)

C - 2140

1000 -

2000 -

3000 -

4000 -

5000 -

6000 -

7000 -

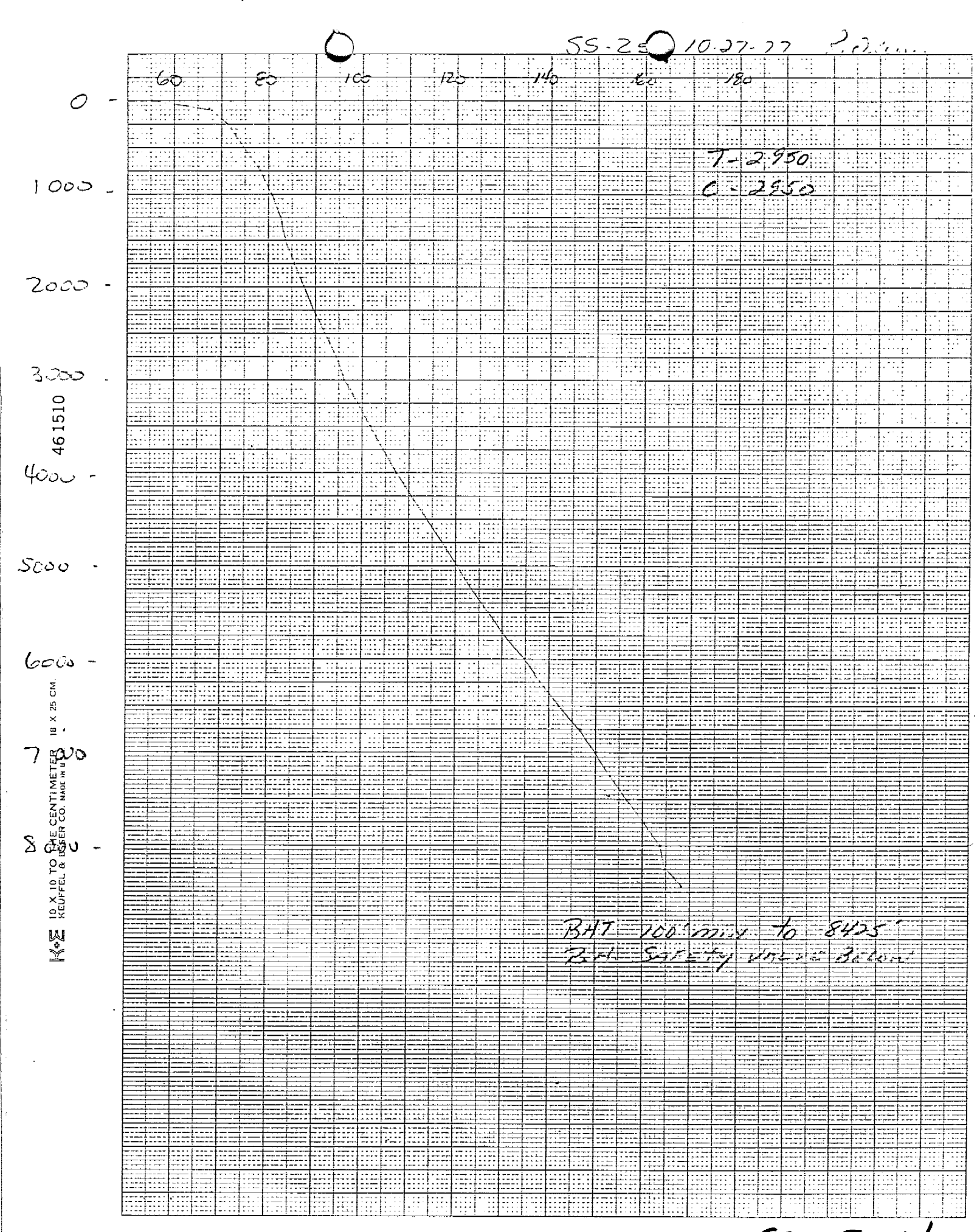
8120 -

B.H.T. 100' MIN. TO 8430'

B.H. SAFETY VALVE BELOW

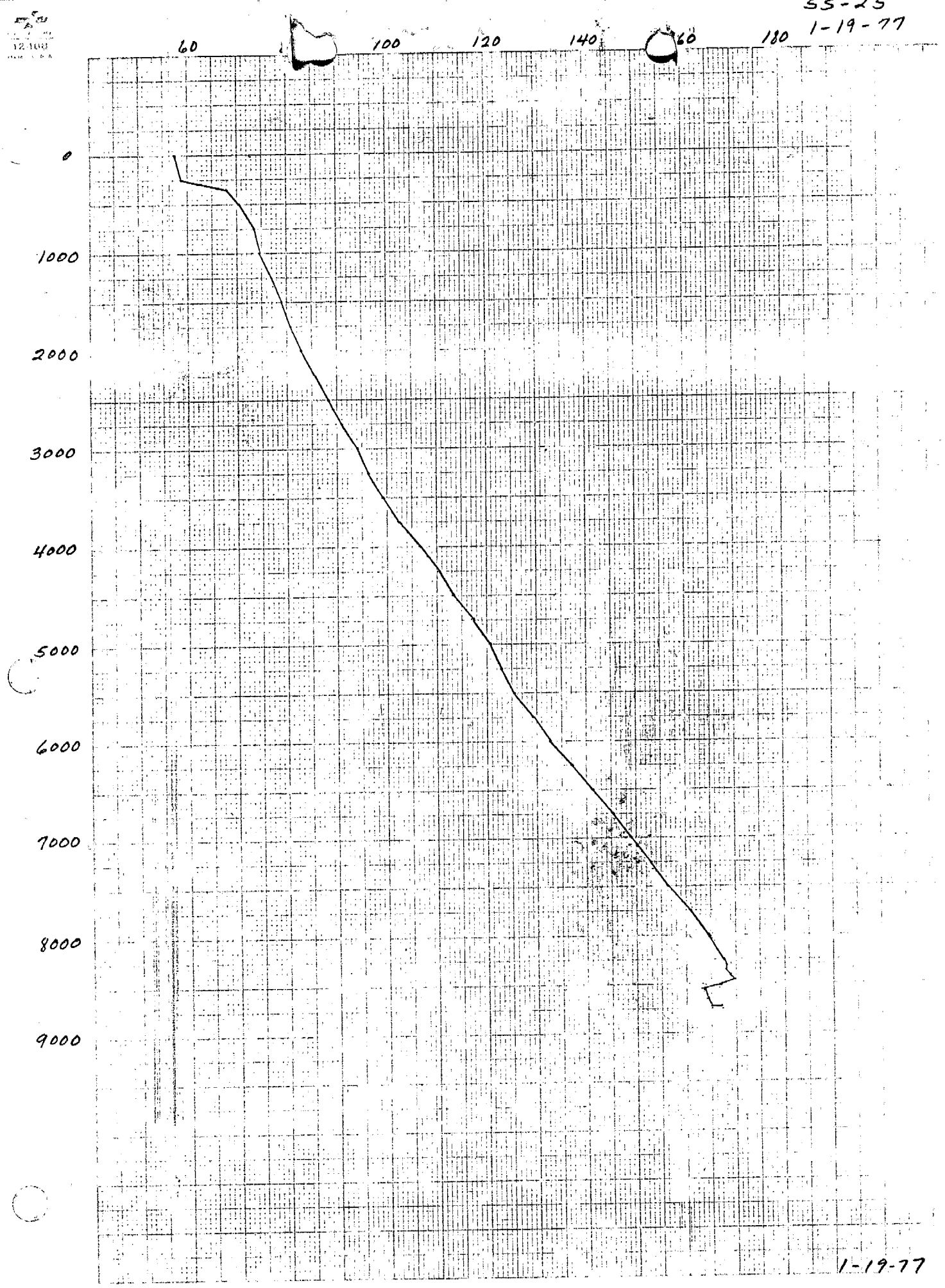
SS-25 (2-23-78)

AC_CPUC_0000523



SS-25 10/27/77

AC_CPUC_0000524



AC_CPUC_0000525

INSTRUMENT SERVICE
Gary Foster
2960 N. Ventura Ave.
Ventura, California 93001
Phone 805-649-2228
Bakersfield 805-324-2208

So. Calif. Gas Co.

Aliso Canyon

Company So. Calif. Gas Co. Field Aliso Canyon Date 4-20-76

Well SS-25 Tubing PSI / Casing PSI /

Purpose BHT Survey @ 100' per min. Status Shut in

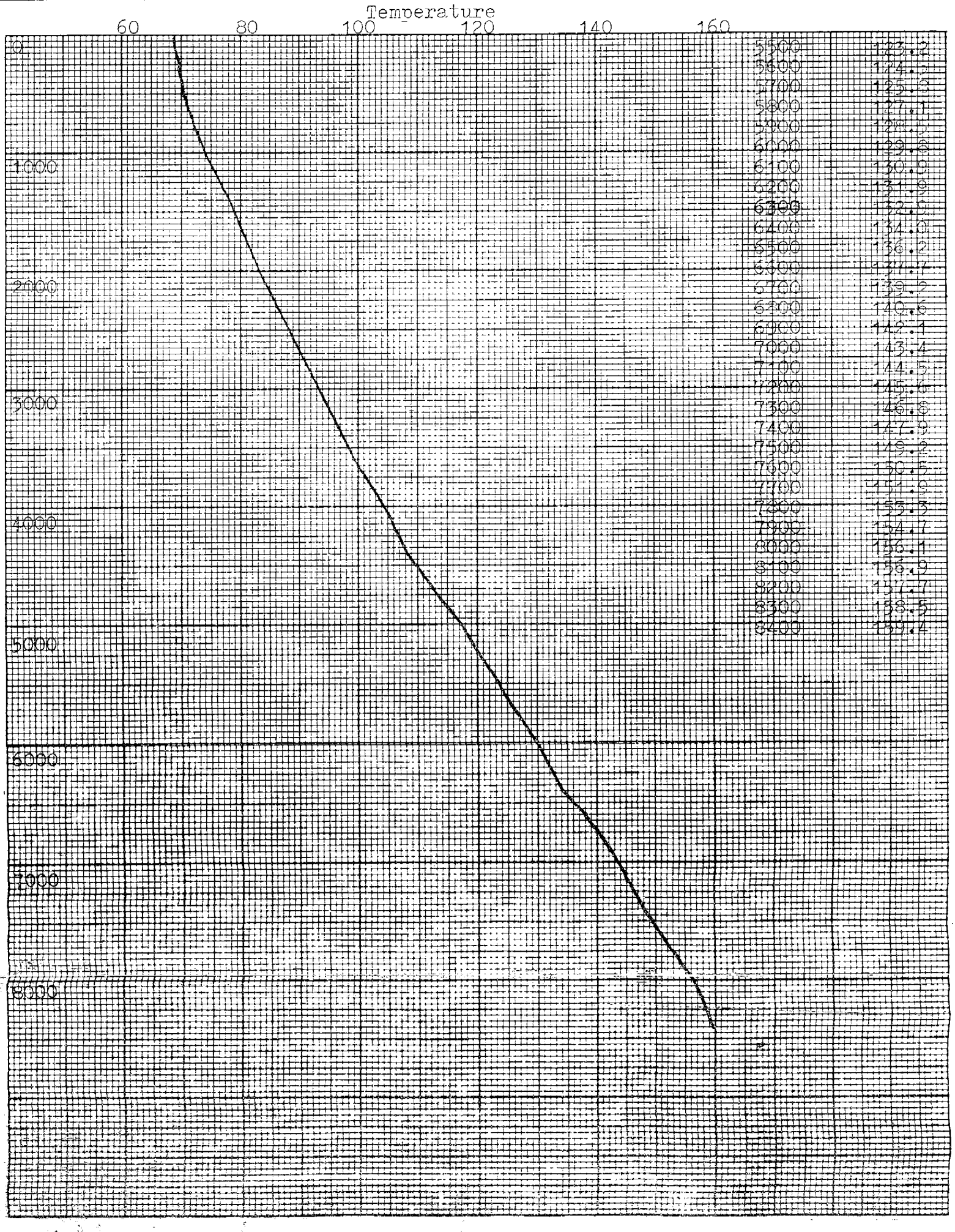
Total Depth Zero

Casing Size Depth Liner Size Top Bottom

Perforations

Tubing 2 7/8" Hung to 8492

Depth	Temp.	1300	77.0	2700	90.2	4100	105.3
0	68.8	1400	78.1	2800	91.1	4200	106.2
100	69.1	1500	79.0	2900	92.3	4300	107.3
200	69.5	1600	79.8	3000	93.3	4400	108.1
300	69.8	1700	80.7	3100	94.4	4500	109.5
400	70.1	1800	81.5	3200	95.3	4600	111.0
500	70.3	1900	82.4	3300	96.4	4700	112.5
600	71.1	2000	83.2	3400	97.2	4800	114.0
700	71.8	2100	84.1	3500	98.2	4900	115.6
800	72.6	2200	85.2	3600	99.4	5000	117.1
900	73.4	2300	86.2	3700	100.6	5100	118.3
1000	74.0	2400	87.2	3800	101.9	5200	119.5
1100	75.0	2500	88.1	3900	103.1	5300	120.8
1200	76.2	2600	89.1	4000	104.3	5400	122.0



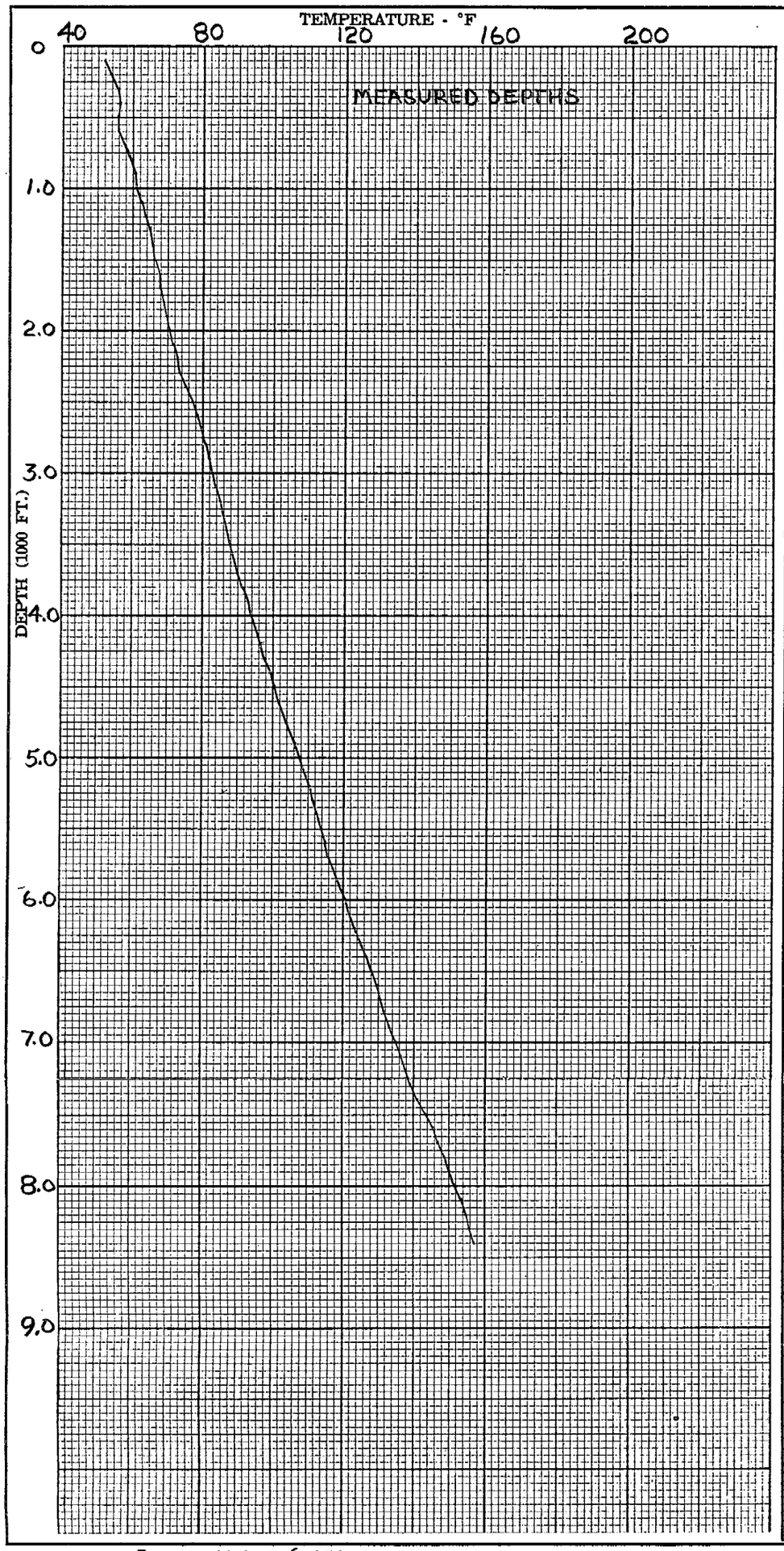
AC_CPUC_0000526

TECHNICAL SERVICE CO.
801 West 14th Street
Long Beach, California 90813

Phones: 24 Hours
Long Beach - 436-9901
Ventura - - 642-3794

SUB-SURFACE TEMPERATURE DATA

Company: So. California Gas Co. Field: Aliso Canyon Date: March 14, 1974 Run No.:
Well: Standard Sesnon #25 Zone: Elev.: D. F. 8.35'
Purpose: Static Temperature Survey Status: Shut In
Total Depth: Effect. Depth:
Casing Size: Depth: Liner Size: Top: Bottom:
Perforations:
Tubing: 2-7/8" EUE To 8492', KBMG Gas Lift Mandrels @ 4995', 5925', 6795', 7600', 8325', "L" Sliding Sleeve (open) 8390', Baker "FH" Packer @ 8460', Otis "J" Valve 8421'



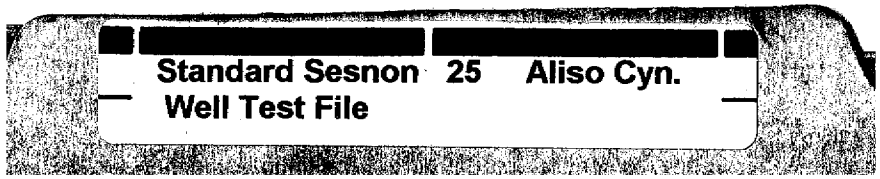
OBSERVATIONS	
Stabilization Period - Hrs.	
Gross Oil Rate - B/D	
Net Oil Rate - B/D	
Formation Gas MCF/D	
Formation Gas-Oil Ratio CFT/BBL	
Circulated Gas MCF/D	
Oil Dry Gravity - °A.P.I.	
Casinghead Pressure - PSIG	
Tubinghead Pressure - PSIG	
Casing Fluid Level - Ft.	

Traverse Depth Feet	Temperature °F	Traverse Depth Feet	Temperature °F
100	51.8	5100	108.8
200	53.8	5200	110.1
300	55.8	5300	111.3
400	56.2	5400	112.4
500	55.5	5500	113.7
600	55.8	5600	115.0
700	57.5	5700	115.8
800	59.2	5800	117.5
900	60.6	5900	118.8
1000	60.6	6000	120.1
1100	62.3	6100	121.8
1200	63.3	6200	123.3
1300	64.7	6300	124.9
1400	65.7	6400	126.3
1500	66.0	6500	128.0
1600	67.4	6600	129.4
1700	67.7	6700	130.5
1800	68.7	6800	131.9
1900	69.4	6900	133.3
2000	70.4	7000	134.8
2100	71.5	7100	136.3
2200	72.5	7200	137.6
2300	73.5	7300	138.9
2400	75.2	7400	141.0
2500	76.9	7500	143.8
2600	78.3	7600	145.9
2700	79.6	7700	146.6
2800	80.6	7800	148.5
2900	81.4	7900	150.0
3000	82.6	8000	151.8
3100	83.8	8100	153.9
3200	84.8	8200	154.5
3300	86.0	8300	155.7
3400	86.8	8400	156.9
3500	87.4	8491	159.2
3600	88.6		
3700	89.6		
3800	90.8		
3900	92.7		
4000	93.5		
4100	95.0		
4200	96.2		
4300	97.5		
4400	99.2		
4500	100.2		
4600	101.7		
4700	102.8		
4800	104.4		
4900	106.1		
5000	107.4		

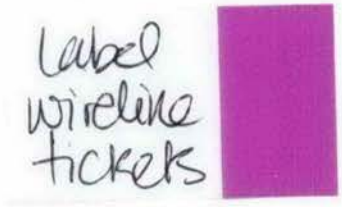
COMMENTS: Zero: Mat + 6.35'

By: Worley - Willson - Smith

AC_CPUC_0000527



AC_CPUC_0000528


Label
wireline
tickets

JOB TICKET NO: 48617

P.O. Box 20008
Bakersfield, CA 93390-0008

WELL ANALYSIS CORPORATION Wireline

CUSTOMER: So CAL Gas DATE: 11-17-2014

WELL NO(S): SS-44B, 25A, 25B, 25 FIELD LOCATION Also Canyon

CONTRACT NO: _____ ORDERED BY: _____

DESCRIPTION OF WORK PERFORMED

ON LOCATION _____ OFF LOCATION _____ TOTAL HOURS 8 hrs

Ran Gradients on SS-44B, SS-25A, SS 25-B, SS-25

EOT: _____

PB: _____

RIG UP CHARGE: 300.00 x 4
HOURLY CHARGE: 90.00 x 8
LINE TRUCK MILEAGE: (RT) 202 MILES X $ 2.75 /PER MILE:
CHASE VEHICLE MILEAGE: (RT) 202 MILES X $ 1.25 /PER MILE:
EQUIPMENT CHARGES: Download 80.00 x 4
Batt. 25.00 x 4
P.P.E. 40.00 per day
Per. Diem
Gauge 100.00 x 4

WL01	1200.00
WL02	720.00
WL31	454.50
WL32	252.50
	320.00
	100.00
	40.00
	370.00
	400.00
	~~$3857.00~~

$3857.00

TOTAL AMOUNT DUE:

SAFETY EQUIPMENT: _____

FUEL SURCHARGE: _____

ENGINEER Joe Thompson Joe T WAC Wireline APPROVAL: _____ CUSTOMER

JOB TICKET NO: 8587

P.O. Box 20008
Bakersfield, CA 93390-0008

WELL ANALYSIS CORPORATION Wireline

CUSTOMER: Socal Gas DATE: 10-21-14

WELL NO(S): FIELD LOCATION: Aliso

CONTRACT NO: ORDERED BY: Greg

DESCRIPTION OF WORK PERFORMED

ON LOCATION OFF LOCATION TOTAL HOURS

Porter 37A

ran survey to pick up @ 7839' T-2655
C-2655

Ft 35E

ran survey to pick up @ 7338' T-2666
C-2666

SS 25

ran survey to pick up @ 8316 T-2650
C-2647

EOT: East FP = 2634
West FP = 2561

PB: PNV 70.5

RIG UP CHARGE: 1341

HOURLY CHARGE:

LINE TRUCK MILEAGE: (RT) ..... MILES X $ ..... /PER MILE:

CHASE VEHICLE MILEAGE: (RT) ..... MILES X $ ..... /PER MILE:

EQUIPMENT CHARGES: perf. em 185 x 2 370

SAFETY EQUIPMENT:

FUEL SURCHARGE:

TOTAL AMOUNT DUE: $ 1711

ENGINEER: Eric Rowles APPROVAL:

WAC Wireline CUSTOMER

JOB TICKET NO: 48587

P.O. Box 20008
Bakersfield, CA 93390-0008

WELL ANALYSIS CORPORATION Wireline

CUSTOMER: SoCal Gas DATE: 10-21-14

WELL NO(S): FIELD LOCATION: Aliso

CONTRACT NO: ORDERED BY: Greg

DESCRIPTION OF WORK PERFORMED

ON LOCATION OFF LOCATION TOTAL HOURS

Porter 37A

ran survey to pick up @ 7839' T-2655
C-2655

Porter 35E

ran survey to pick up @ 7338' T-2666
C-2666

SS 25

ran survey to pick up @ 8316 T-2650
C-2647

EOT: East SP 2634
West SP 2561

PB: TAU 10.5

RIG UP CHARGE: 2472.20 1347

HOURLY CHARGE:

LINE TRUCK MILEAGE: (RT) ..... MILES X $ ..... /PER MILE:

CHASE VEHICLE MILEAGE: (RT) ..... MILES X $ ..... /PER MILE:

EQUIPMENT CHARGES: perf. em 185 x 2 370

SAFETY EQUIPMENT:

FUEL SURCHARGE:

TOTAL AMOUNT DUE: $1,717

ENGINEER: Eric Rowles
WAC Wireline

APPROVAL:
CUSTOMER

JOB TICKET NO: 48587

P.O. Box 20008
Bakersfield, CA 93390-0008

WELL ANALYSIS CORPORATION Wireline

CUSTOMER: Socal Gas DATE: 10-21-14

WELL NO(S): FIELD LOCATION: Aliso

CONTRACT NO: ORDERED BY: Greg

DESCRIPTION OF WORK PERFORMED

ON LOCATION OFF LOCATION TOTAL HOURS

Porter 374 ran survey to Pick up @ 7839' T- 2655
C- 2655

SF 356 ran survey to pick up @ 7338' T- 2666
C- 2666

SS 25 ran survey to pick up @ 8316 T- 2650
C- 2647

EOT: West FP = 2561

PB: INV 10.5

RIG UP CHARGE: 1/2 1/2 1/2

HOURLY CHARGE

LINE TRUCK MILEAGE: (RT) ..... MILES X $ ..... /PER MILE:

CHASE VEHICLE MILEAGE: (RT) ..... MILES X $ ..... /PER MILE:

EQUIPMENT CHARGES: perdiem 185 x 2 370

SAFETY EQUIPMENT:

FUEL SURCHARGE:

TOTAL AMOUNT DUE: $ 1,711

ENGINEER: Eric Rowles
WAC Wireline

APPROVAL:
CUSTOMER

JOB TICKET NO 44608

P.O. Box 20008
Bakersfield, CA 93390-0008

WELL ANALYSIS CORPORATION Wireline

CUSTOMER: SoCAL GAS DATE: 3-19-14

WELL NO(S): LIST BELOW FIELD LOCATION ALISO CANYON

CONTRACT NO: ORDERED BY: AZRA KARGAR

DESCRIPTION OF WORK PERFORMED

ON LOCATION 6:30 OFF LOCATION TOTAL HOURS

PORTER 42B * RAN GRADIENT DOWN TO 7381' SAT FOR 5MIN P.O.O.H.

PORTER 57A * RAN GRADIENT DOWN TO 7565' W/5MIN STOP @ 7412 P.O.O.H.

MISSION HILLS 1-B * RAN GRADIENT DOWN TO 7451' SAT DOWN WAIT 5MIN P.O.O.H.

FF 34A * RAN GRADIENT DOWN TO 7713' W/5MIN STOP P.O.O.H.

SS-75 * RAN GRADIENT DOWN TO 8487' W/5MIN @ 8342' P.O.O.H.

EOT:

PB:

RIG UP CHARGE: 5 @ 200.00 EA
HOURLY CHARGE: 8 @ 90.00 4 @ 135.00

LINE TRUCK MILEAGE: (RT) 110 MILES X $ 2.25 /PER MILE:

CHASE VEHICLE MILEAGE: (RT) 110 MILES X $ 1.25 /PER MILE:

EQUIPMENT CHARGES:

5 - PT SURVEY RWS @ 100.00 EA	BHP 260	1,000.00
5 - DOWNLOADS @ 80.00 EA	BHP 261	1,360.00
5 - TIMES WITH IN BATT. @ 25.00 EA	WL 32	247.50
1 - DIESEL PER DAY	WL 31	137.50
2 - PRE DRIVE @ 185.00 EA PER DAY	BHP 264	500.00
	BHP 265	400.00
	BHP 263	125.00
	EWL 38	25.00
		370.00

4,065.00

SAFETY EQUIPMENT:

FUEL SURCHARGE:

TOTAL AMOUNT DUE: # 3,695.00

ENGINEER: HUBERT R. APPROVAL:

WAC Wireline CUSTOMER

JOB TICKET #: 49103

P.O. Box 20008
Bakersfield, CA 93390-0008

WELL ANALYSIS CORPORATION Wireline

CUSTOMER: SoCal Gas DATE: 12-2-13

WELL NO(S): S.S. 25, S.S. 25B, S.S. 25H FIELD LOCATION ALISO

CONTRACT NO: _____ ORDERED BY: Greg Pratt

DESCRIPTION OF WORK PERFORMED

ON LOCATION _____ OFF LOCATION _____ TOTAL HOURS _____

S.S. 25 - Ran a Traverse survey down to 3646
T: 2624 C: 2624

S.S. 25B - Ran a Traverse survey down to 3641
T: 2638 C: 2638

S.S. 25H - Ran a Traverse survey down to 2260
T: 2417 C: 697

EOT: _____

PB: _____

RIG UP CHARGE: _____

HOURLY CHARGE: _____

LINE TRUCK MILEAGE: (RT) .....MILES X $ ..... /PER MILE: _____

CHASE VEHICLE MILEAGE: (RT).....MILES X $ ..... /PER MILE: _____

EQUIPMENT CHARGES: 10% / Person x 3 37%

10% / Person x 3 13%

SAFETY EQUIPMENT: _____

FUEL SURCHARGE: _____

TOTAL AMOUNT DUE:

ENGINEER: _____ APPROVAL: _____

WAC Wireline CUSTOMER

WELACO Well Analysis Corp.

PRODUCTION LOGGING
P.O. Box 20008
Bakersfield, CA 93390-0008
(661) 589-0760

Well Survey Report

Company: So. Cal. Gas Co., Aliso Cyn

Tubing Pressure: 2508

Date: 6.1.12 Time: _____

Casing Pressure: 2554

Contact Person: Greg Mark Check In? ☒ yes ☐ no

Meter Rate: N/A

Well No: Standard Sesnon #25

Observed Rate: N/A

Logging Engineer: R. Lyra

~~Tagged Depth~~ B.L.I.: 8600

Witnessed By: Greg Mark

Top Perf Check: ☐ Pass ☐ Fail

Location left in same condition as arrived? ☒ yes ☐ no

Packer Check: ☐ Pass ☐ Fail

Comments: Survey indicates no Above normal activity

M99CS000795 04/10

JOB TICKET NO: 34050

P.O. Box 20008
Bakersfield, CA 93390-0008

WELL ANALYSIS CORPORATION Wireline

CUSTOMER: SoCal gas DATE: 5-29-12

WELL NO(S): S.S. 31, S.S. 25A, SS. 25 FIELD LOCATION Avila

CONTRACT NO: _____ ORDERED BY: Greg M.

DESCRIPTION OF WORK PERFORMED

ON LOCATION _____ OFF LOCATION _____ TOTAL HOURS _____

SS. 31 - 9113 T - 2855
C - 2345
(Rerun No Charge)

S.S. 25A - 8221' T - 1995
C - 500

S.S. 25 - 8630' T - 2572
C - 2575

EOT: FP - 2576

PB: TNV - 7212.65

RIG UP CHARGE:

HOURLY CHARGE:

LINE TRUCK MILEAGE: (RT) .....MILES X $ ..... /PER MILE:

CHASE VEHICLE MILEAGE: (RT).....MILES X $ ..... /PER MILE:

EQUIPMENT CHARGES:

447 per well x2 $894.00

185 per person per day x2 $370.00

$1264.00

SAFETY EQUIPMENT:

FUEL SURCHARGE:

TOTAL AMOUNT DUE:

ENGINEER: _____ APPROVAL: _____

WAC Wireline CUSTOMER

JOB TICKET NO. 2149

P.O. Box 20008
Bakersfield, CA 93390-0008

WELL ANALYSIS CORPORATION Wireline

CUSTOMER: The Gas Co DATE: 9/12/11

WELL NO(S): S.S. 25B, S.S. 25, S.S. 31 FIELD LOCATION Aliso Canyon

CONTRACT NO: ORDERED BY: Dennis

DESCRIPTION OF WORK PERFORMED

ON LOCATION OFF LOCATION TOTAL HOURS

S.S. 25B - Rigged up Ran P/T Traverse Down to pick up @ 8420' pulled out of Hole. TBG pressure 2442, CSG pressure 2442

S.S 25 - Rigged up Ran P/T traverse Down to pick up @ 8730 Pulled out of Hole. TBG pressure 2730 CSG pressure 2430

S.S 31 - Rigged up Ran P/T traverse Down to pick up @ 8[illegible] pulled out of Hole TBG pressure 2238, CSG pressure 640

EOT:

PB:

RIG UP CHARGE:

HOURLY CHARGE:

LINE TRUCK MILEAGE: (RT) .....MILES X $ ...../PER MILE:

CHASE VEHICLE MILEAGE: (RT).....MILES X $ ...../PER MILE:

EQUIPMENT CHARGES:

$447- per well x 3 $1341-

$185- per man per day $370-

SAFETY EQUIPMENT: $1711-

FUEL SURCHARGE:

TOTAL AMOUNT DUE:

ENGINEER: Nick Shannon APPROVAL:

WAC Wireline CUSTOMER

Nick Shannon

JOB TICKET NO. 9037

P.O. Box 20008
Bakersfield, CA 93390-0008

WELL ANALYSIS CORPORATION Wireline

CUSTOMER: [illegible] DATE: [illegible]

WELL NO(S): SS 25 SS25B

FIELD LOCATION: [illegible] CUSTOMER ORDER NO:

CONTRACT NO: ORDERED BY:

DESCRIPTION OF WORK PERFORMED

[illegible] P/T [illegible] T. [illegible]
TBC 2395 OC.C 2390

[illegible] P/T [illegible] T. [illegible]
TIG [illegible] CSG [illegible]
2411 1411

EOT: INV 7.1
PB: [illegible]

RIG UP CHARGE:
HOURLY CHARGE:
LINE TRUCK MILEAGE: (RT) .....MILES X $ ..... /PER MILE:
CHASE VEHICLE MILEAGE: (RT).....MILES X $ ..... /PER MILE:
EQUIPMENT CHARGES:

SAFETY EQUIPMENT:
FUEL SURCHARGE:

TOTAL AMOUNT DUE:

ENGINEER: APPROVAL:
WAC Wireline CUSTOMER

Sorrys

JOB TICKET NO: 26251

P.O. Box 20008
Bakersfield, CA 93390-0008

WELL ANALYSIS CORPORATION Wireline

CUSTOMER: SoCal Gas DATE: 10-5-09

WELL NO(S): S.S. 25, S.S. 25B, S.S. 9

FIELD LOCATION: Aliso CUSTOMER ORDER NO:

CONTRACT NO: ORDERED BY: Ed

DESCRIPTION OF WORK PERFORMED

S.S. 25 Ran a P/T Traverse Survey until Pickup at 8470'

S.S. 25B Ran a P/T Traverse Survey until Pickup at 8675'

S.S. 9 Ran a P/T Traverse Survey until Pickup at 8842'

EOT:

PB:

RIG UP CHARGE:

HOURLY CHARGE:

LINE TRUCK MILEAGE: (RT) .....MILES X $ ..... /PER MILE:

CHASE VEHICLE MILEAGE: (RT).....MILES X $ ..... /PER MILE:

EQUIPMENT CHARGES:

SAFETY EQUIPMENT:

FUEL SURCHARGE:

TOTAL AMOUNT DUE:

ENGINEER: WAC Wireline APPROVAL: CUSTOMER

KERN BUSINESS FORMS MFG. (661) 325-5818 - K-2760-1

JOB TICKET NO: 23508

WELL ANALYSIS CORPORATION Wireline

P.O. Box 20008
Bakersfield, CA 93390-0008

CUSTOMER: S. Cal. Gas DATE: 7/23/08

WELL NO(S): 55.25; 55.25B; 55.9

FIELD LOCATION: Aliso Canyon CUSTOMER ORDER NO:

CONTRACT NO: ORDERED BY: ED

DESCRIPTION OF WORK PERFORMED

55.25;
Ran a P/L Temp survey down to pick up at 8470.

55.25B;
Ran a P/L temp survey down to pick up at 8698.

55.9;
Ran a P/L temp survey down to pick up at 8842.

MINIMUM RATE:
ADDITIONAL HOURLY CHARGE (EXCESS OF MINIMUM):
MILEAGE:.....MILES X $ ..... /PER MILE:
.....MILES X $ ..... /PER MILE:
EQUIPMENT CHARGES:

TOTAL AMOUNT DUE:

ENGINEER: _____ APPROVAL: _____
WAC Wireline Customer

1-23-08

Aliso Canyon
Standard Session 25

So Cal Gas Co

Ed Alarcon

Los Angeles

25B | C Rawson K Fabricius Bakersfield

2	2310	Intestine Additional Hrs (2 men @ 63.00	126.00	252.00
1	3920	Fuel Surcharge 10%		27.00
1	9303	1½" Hydraulic Jars		150.00
1	9337	2½" GS p/t		115.00

* move from P-32B - Tailgate Safety Mtg: Rig up: run 2½" GS p/t - latched & pulled XN choke @ 8472' - pooh - Rig down

XN choke damaged/ flow cut -
Suspect XN nipple damaged

Sub total	544.00
8.25% tax	21.96
	565.96

AC_CPUC_0000542

11-21-07

From Alisa Canyon
Standard Session 2S

So Cal Gas Co

La Habra

Los Angeles

		253	KTrucking	Baker Hughes	
5	2310	Install Additional Hrs Connect	136 00	680	00
4	2311	Overtime Hours	88 00	352	00
1	9303	1½" Hydraulic Shear		150	00
1	9333	2½" X Running Tool		150	00
1	9337	1½" GS pulling tool		115	00
100	2393	Pickup Mileage	1 50	150	00
		Fuel Surcharge 10%		15	00

Rig Recess XN choke with 6.25" orifice; Tailgate Safety Meeting; Rig up; Run 2.31 XN choke; Start down in SSSV @ 8451', Shallow of pooh; Run 2½" GS plug catcher & pulled Choke from SSSV; pooh; Re Run XN choke & XN @ 8472', SET choke; pooh; Rig down

Sub Total	1612 00
8.25% tax	46 61
TOTAL	1658.61

AC_CPUC_0000543

PACIFIC PROCESS SYSTEMS, INC.

WHERE QUALITY SERVICE AND EQUIPMENT ARE #1

7401 ROSEDALE HWY.
BAKERSFIELD, CA 93308
Ph: (661) 589-8844 Fax: (661) 589-8330

FIELD TICKET

32542

DATE: 11-1-07

PAGE: OF

Lease: Aliso Canyon

Well No.: Seminole Springs 25

Also STORAGE O+M

Sold To:

L. Cal Gas Co

Contact: Victor Dorame

County: Los Angeles

TERMS 1/2% 10 DAYS, 30 DAYS NET.

PO AFE Number	Depart.	PPS Job No.	PPS Representative	PPS Supervisor	F.O.B.
	250		R. Lopez	C. Fagundes	Bakersfield

QTY.	UNIT	Stock or Equip. #	EMP #	Description and Dates of Services	UNIT PRICE	AMOUNT
2		41502		Wireless Modem (per year)		250 00
1		4110		Prev. Maint. Hours (2 men @ 4hrs/ea)	196 00	196 00
100		1998		Pick up Mileage	1 00	100 00
195		1997		Veh. Mileage	1 00	195 00
1		7000		Fuel Surcharge		20 00
1		1001		Environmental		20 00
1		1003		Miscellaneous		20 00
1		7000		Fuel Surcharge 11%		40 00
1		1998		Hazard Waste Fee		10 00
1		4500		31 PM pump services		125 00

To travel to Lease & calculate Static monitoring pressure Bleed off Gas Install Pulsar signaling device from well plug Call PPS for approval 24 hr Call back Pull + attach + calibrate pressure gauge Record Plug Valves + Call Gas

RECEIVED BY

TOTAL

THANK YOU

PACIFIC PROCESS SYSTEMS, INC.

WHERE QUALITY SERVICE AND EQUIPMENT ARE #1

7401 ROSEDALE HWY.
BAKERSFIELD, CA 93308
Ph: (661) 589-8844 Fax: (661) 589-8330

FIELD TICKET

30031

DATE: 1-28-07

PAGE: OF

Lease:

Well No.:

Sold To:

Contact:

County:

TERMS: 1/2% 10 DAYS, 30 DAYS NET.

PO/AFE Number	Depart.	PPS Job No.	PPS Representative	PPS Supervisor	F.O.B.
	058				

QTY.	UNIT	Stock or Equip. #	EMP #	Description and Dates of Services	UNIT PRICE	AMOUNT

JOB TICKET NO. 22103

WELACO

Wireline, LLC P.O. Box 20008 Bakersfield, CA 93390-0008

CUSTOMER: The Gas Co. DATE: 12-5-07

WELL NO(S): S.S. 25, S.S. 25B, F.F. 32E

FIELD LOCATION: Aliso CUSTOMER ORDER NO:

CONTRACT NO: ORDERED BY: ED

DESCRIPTION OF WORK PERFORMED:

S.S. 25 Traversed to mag. b.o.c. at 8472 ft.
T. 2656 C. 7650
S.S. 25A Traversed to plug at 8769 ft.
T. 2486 C. 2586
F.F. 32E Traversed to plug at 7359 ft.
T. 2710 C. 498

MINIMUM RATE: Inv: 78038 F.F. 25B2

ADDITIONAL HOURLY CHARGE (EXCESS OF MINIMUM): F.F. w 2555

MILEAGE: MILES X $ /PER MILE:

MILES X $ /PER MILE:

EQUIPMENT CHARGES:

TOTAL AMOUNT DUE:

ENGINEER: WELACO Wireline, LLC APPROVAL: Customer

JOB TICKET NO

WELACO

Wireline, LLC P.O. Box 20008 Bakersfield, CA 9

CUSTOMER: The Gas Co. DATE: 2-25

WELL NO(S): SC 949, 55, #03, SE 1, 2, 3, 24

FIELD LOCATION: Ant. Sp. CUSTOMER ORDER NO:

CONTRACT NO: ORDERED BY:

DESCRIPTION OF WORK PERFORMED:

SC 949 Tagged @ 2414 ft 4½ csg @ 4495
Perf @ 2350 circulated

SC 949 Set 7" CIBP @ 2346 Load hole
E 2334 C 2346 Run GR-CCL
SE 1 Squeezed to 2½ at 2402 PSI
E 2270 C 2200 Run GR-CCL
SC 949 Pulled tbg to 2111 ft
E 2336 C. 2330 Run GR-CCL

MINIMUM RATE:
ADDITIONAL HOURLY CHARGE (EXCESS OF MINIMUM):
MILEAGE:_____MILES X $_____/PER MILE:
_____MILES X $_____/PER MILE:
EQUIPMENT CHARGES:

TOTAL AMOUNT DUE:

ENGINEER: APPROVAL:

WELACO Wireline, LLC Customer

SPICER
WIRELINE SERVICE INC.

7778 South Union Ave. • Bakersfield, CA 93307
(661) 835-9473 • Fax (661) 835-9472
E-mail: spicerwireline@msn.com

COMPANY So Cal Gas
ADDRESS
PHONE

DATE 7-20-06
WELL # SS 25
FIELD # Aliso Canyon

15674

DATE	SERVICE	TOTAL UNIT	TOTAL PRICE	AMOUNT Column 1
	SERVICE MINIMUM CHARGE	Min		300.00
	ADDITIONAL SERVICE HOURS			
	PREMIUM OVERTIME RATE (AS PER CALIF. LAW)			
	DOUBLE TIME RATE (AS PER CALIF. LAW)			
	Fuel Surcharge	3	3.50	10.50
D	**TOOL RENTALS**			**AMOUNT**
	2.30" gauge ring	1		50.00
	X line running tool 2 3/4"	1		125.00
	1 5/8" Hydro jars	1		150.00

UNIT	PICK-UP AND WIRELINE UNIT MILEAGE	MILES	UNIT $	AMOUNT
	FROM: TO:			
	FROM: TO:			
			TOTAL COLUMN 1	

NAME	EMPLOYEE SIGNATURE	START TIME	END TIME	WORK HOURS	TRAVEL	DOWN	TOTAL HOURS
SW	S Wilson	10:30	1:30	3			3
BS	Brandon Spicer	10:30	1:30	3			3
PL	Pete Lopez	10:30	1:30	3			3

TOTAL from column 1

DATE	MATERIALS SOLD AND/OR DESCRIPTION	TOTAL UNITS	UNIT PRICE	AMOUNT
	Arrived on location rig up ran 2.30 gauge ring to tag nipple. Tagged nipple @ 8472' pooh ran 2 3/4" x line running tool to set 2 3/4" XN Choke in nipple @ 8472' pooh rdmo.			
	2 3/4" XN Choke with 6.6" orFice			
	Thanks Art T.			

CREW S Wilson B Spicer P Lopez
UNIT 0659 5703
APPROVED:

SUB TOTAL
TAX
TOTAL 635.50

FIELD TICKET

AC_CPUC_0000548

14212

SPICER
WIRELINE SERVICE INC.
7778 South Union Ave. • Bakersfield, CA 93307
(661) 835-9473 • Fax (661) 835-9472
E-mail: spicerwireline@msn.com

COMPANY So Cal Gas
ADDRESS
PHONE

DATE 3-22-06
WELL # Sesnon 25
FIELD # Aliso Canyon

DATE	SERVICE	TOTAL UNIT	TOTAL PRICE	AMOUNT Column 1
	SERVICE MINIMUM CHARGE			
	ADDITIONAL SERVICE HOURS	2.5	96	240 00
	PREMIUM OVERTIME RATE (AS PER CALIF. LAW)	.5	42	21 00
	DOUBLE TIME RATE (AS PER CALIF. LAW)			

DATE	TOOL RENTALS			AMOUNT
	2½" GS	1		75 00

DATE	PICK-UP AND WIRELINE UNIT MILEAGE			AMOUNT
	FROM: TO:			
	FROM: TO:			

TOTAL COLUMN 1

NAME	EMPLOYEE SIGNATURE	START TIME	END TIME	WORK HOURS	TRAVEL	DOWN	TOTAL HOURS
JW		1:30		2.5			2.5
DA	David Adms	1:30		2.5			2.5

DATE	MATERIALS SOLD AND/OR DESCRIPTION	TOTAL from column 1 TOTAL UNIT	UNIT PRICE	AMOUNT
	Arrived on location sig up for 2½" GS to latch + pull XN Choke @ 8472' set down + latched choke head up set down 5 times came free pooh rd mo rm			

CREW Tom Watkins | David Adms
UNIT 0659 | T206
APPROVED:

SUBTOTAL	
TAX	
TOTAL	336 00

FIELD TICKET

AC_CPUC_0000549

JOB TICKET NO 17931

WELACO

Wireline, LLC P.O. Box 20008 Bakersfield, CA 93390-0008

CUSTOMER: The Gas Co. DATE: 8-10-05

WELL NO(S): S.S. 9, SS. 29, SS25

FIELD LOCATION: Aliso Cyn. CUSTOMER ORDER NO:

CONTRACT NO: ORDERED BY: Art Thomas

DESCRIPTION OF WORK PERFORMED:

S.S. 9 - Run Temp Survey as requested.

S.S. 29 - Run Temp Survey as requested

S.S. 25 - Run Temp Survey as requested.

MINIMUM RATE:

ADDITIONAL HOURLY CHARGE (EXCESS OF MINIMUM):

MILEAGE: MILES X $ /PER MILE:

MILES X $ /PER MILE:

EQUIPMENT CHARGES:

TOTAL AMOUNT DUE: Thanks!

ENGINEER: R. Denney
WELACO Wireline, LLC

APPROVAL:
Customer

SPICER WIRELINE SERVICE INC.

7778 South Union Ave. • Bakersfield, CA 93307
(661) 835-9473 • Fax (661) 835-9472
E-mail: spicerwireline@msn.com

COMPANY So. Cal. Gas
ADDRESS
PHONE
DATE 11/29/05
WELL # Various
FIELD # Aliso Canyon

13045

DATE	SERVICE	TOTAL UNIT	TOTAL PRICE	AMOUNT Column 1
	SERVICE MINIMUM CHARGE			330 00
	ADDITIONAL SERVICE HOURS	4	96 00	384 00
	PREMIUM OVERTIME RATE (AS PER CALIF. LAW)	3	42 00	126 00
	DOUBLE TIME RATE (AS PER CALIF. LAW)			
	Drive Time, per man, per hour	~~9~~ 6	20 00	180 00
	TOOL RENTALS			**AMOUNT**
	2.250" Impression Block			75 00
	1.500" Sample Bailer			85 00
	Additional Lubricator			50 00
	Extended Mast			200 00
	2½" X Line Running Tool			125 00

	PICK-UP AND WIRELINE UNIT MILEAGE	MILES	UNIT $	AMOUNT
2270	FROM: Bakersfield TO: Bakersfield	200	1.50	300 00
1206	FROM: TO: Bakersfield	100	1.95	195 00
			TOTAL COLUMN 1	2050 00

NAME	EMPLOYEE SIGNATURE	START TIME	END TIME	WORK HOURS	TRAVEL	DOWN	TOTAL HOURS
S.K.C.	Steve Charlton	08:00	15:00	7	4		11
J.G.	Jerry Gonzalez	08:00	15:00	7	4		11

Standard Sesnon 11

DATE zero mat — MATERIALS SOLD AND/OR DESCRIPTION

Continue operation from 11/28/05. Run 2¼" I.B., impression appears to show No Go in XN nipple @ 8607'. Ran 2"x 1½" sample bailer. Tools passed through nipple. Retrieved sample of fill from 8936'. Suspect a "dog leg" in tbg. between S.S.D. sleeve @ 8572' and XN nipple @ 8607'. Shorter tool string enabled tools to pass through. Rigged down.

Standard Sesnon 25
Rigged up, ran & set 2½" X lock choke in XN nipple @ 8473'.
Rigged down.

CREW Steve Charlton | Jerry Gonzalez
UNIT 1206
APPROVED:

	TOTAL UNITS	UNIT PRICE	AMOUNT
TOTAL from column 1			2050 00
SUB TOTAL			
TAX			
TOTAL			2050 00

FIELD TICKET

AC_CPUC_0000551

ELCO INCORPORATED
Bakersfield, CA

4315 Yeager Way
Bakersfield, CA 93313
(661) 837-4980
(661) 837-8073 Fax

Field Service Order

No. 28893

SOLD TO: The Gas Company

RECEIVED BY: [signature]

DATE: 6/22/05

RIG #: [illegible] Rig

CUST. DATE	CUST. ORDER NO.	AFE #	SHIPPED FROM F.O.B.	TERMS
6/22/05			ELCO #40	30 Day NET

LEASE OR LOCATION	WELL NAME/NUMBER	ORDERED BY	DELIVERY TICKET NO.
Aliso Canyon	[illegible]	Art Thomas	28873

SHIPPED VIA	DATE SHIPPED	TIME IN	TIME OUT	SERVICEMAN'S SIGNATURE
ELCO #40	6/22/05	2:30 PM	10:00 PM	Tim Cowan

ITEM #	QTY.	PART NO.	DESCRIPTION	PRICE	DISC	EXTENSION
1	3	Hours	Serviceman to Service Well (Overtime Rate)	50.00		150.00
2	5	Hours	[illegible]	35.00		175.00
3	1	[illegible]	[illegible]	125.00		125.00
4	1	Rental	[illegible]	150.00		150.00
5	1	Rental	Sealant Pump	150.00		150.00
6	28	lbs	Grease	4.50		171.00
7	18	oz	Sealant	2.00		36.00
8	4	—	Ball Check Fitting	15.00		60.00
				Tax		17.50
9	2	[illegible]	[illegible]	10.00		20.00
				PARTS SUB TOTAL		

TESTING RESULTS

PIPERAMS	1-2 X 11" A 5M/5000 psi	
BAG		
BLIND RAMS	Tubing head 5M/5000 psi	
MANIFOLD		
UPPER & LOWER SAFETY VALVE	1 Valve Gate 5M/5000 psi	
ADAPTER & SECONDARY SEAL		
CHRISTMAS TREE		
		TESTING SUB TOTAL
		TOTAL ▶ 1156.50

A **Finance Charge** of 1½% per month which is an **Annual Percentage Rate** of 18% will be added to unpaid balance more than 30 days old.

1. AR FILE — White 2. INVOICE COPY — Yellow 3. SHIPPING COPY — Pink 4. CUSTOMER COPY — Gold

M00CS000194M 8/02

JOB TICKET NO 18715

WELACO

Wireline, LLC P.O. Box 20008 Bakersfield, CA 93390-0008

CUSTOMER: THE GAS CO. DATE: 3-13-05

WELL NO(S): 55-25B & 55-25

FIELD LOCATION: ALISO CANYON CUSTOMER ORDER NO:

CONTRACT NO: ORDERED BY: ART THOMAS.

DESCRIPTION OF WORK PERFORMED:

TRAVEL TO LOC ARRIVE 12:00. SAFETY MEETING. MIRU. RIH TO 8372' LATCH BHC. JAR FOR 1.5 HRS. START TO FLOW WELL. CONTINUE JARRING NO LUCK. SHEAR OFF POOH. MOVE TO 55-25.

MIRU. RIH W/ GS TO 8372. LATCH BHC. TOOL SHEARED POOH LAYIN TOOL. RIH. LATCH PKR BHC. RDMO

MINIMUM RATE: 3 HR	300 —
ADDITIONAL HOURLY CHARGE (EXCESS OF MINIMUM): 3 X 90	270 —
MILEAGE W/L 200 MILES X $ 1.75 /PER MILE:	350 —
MCKUID 200 MILES X $ 1.50 /PER MILE:	300 —
EQUIPMENT CHARGES:	
GS PULL TOOL 2 X 130 —	260 —
1.75 HYD JARS	175 —
TOTAL AMOUNT DUE: THANK YOU!	1655 —

ENGINEER: J HANSON / DENNEY APPROVAL:

WELACO Wireline, LLC Customer

SPICER
WIRELINE SERVICE INC.

7778 South Union Ave. • Bakersfield, CA 93307
(661) 835-9473 • Fax (661) 835-9472
E-mail: spicerwireline@msn.com

COMPANY So Calif Gas Co

ADDRESS

PHONE

DATE 10-27-04

08885

WELL # Standard Season 25

FIELD # Aliso Canyon

DATE	SERVICE	TOTAL UNIT	TOTAL PRICE	AMOUNT Column 1
	SERVICE MINIMUM CHARGE			
	ADDITIONAL SERVICE HOURS 13:00/15:30	2	96.00	192.00
	PREMIUM OVERTIME RATE (AS PER CALIF. LAW) 4 hrs	4	42.00	168.00
	DOUBLE TIME RATE (AS PER CALIF. LAW)			

DATE	TOOL RENTALS	AMOUNT
	Extra Lubricator	50.00
	2 1/2" X Running tool	150.00
	1 1/2" Hydraulic Jars	125.00

UNIT	PICK-UP AND WIRELINE UNIT MILEAGE	MILES	UNIT $	AMOUNT
25	FROM: TO: Shop	100	1.50	150.00
120	FROM: TO:			

TOTAL COLUMN 1

NAME	EMPLOYEE SIGNATURE	START TIME	END TIME	WORK HOURS	TRAVEL	DOWN	TOTAL HOURS
KA	Kevin Antunez	13:30	17:30	2.0	2.0		4.0
MC	Mike Coryell	13:00	17:30	2.0	2.0		4.0

TOTAL from column 1

DATE	MATERIALS SOLD AND/OR DESCRIPTION	TOTAL UNITS	UNIT PRICE	AMOUNT
	Rig up: RAN 2.31 XN choke to SET @ 8472'. SET choke POOH. Rig DOWN			
	Drive to Montebello			
	Thankyou! John Carrillo			

APPROVED:

SUB TOTAL	
TAX	
TOTAL	835.00

FIELD TICKET

AC_CPUC_0000554

FIRST ENERGY SERVICE

FIRST Energy Service, Inc.

P. O. Box 80844 • Bakersfield, CA 93308-0844
Phone (661) 587-6277 • Fax (661) 587-9978

SERVICE TICKET

3587

COMPANY So. Cal. Gas		DATE 7-27-01
ADDRESS		
CITY [illegible]	STATE CA.	ZIP CODE
CONTRACT # [illegible]	AFE #	P.O. #
SAP #	PN #	LOGGNG CODE #
WELL NAME	FIELD	
PS-42 P.40. SS 25 B, SS 25		A1,50

WELLSITE ACTION REPORT

DATE	TIME	COMMENTS
		MIRU.
		RDMO
		Inventory SS-41
Engineer		Ward
Crew		Mr. Arana
Crew		
Crew		
TOTAL FIELD HOURS		7
TOTAL OPR. HOURS		4
TOTAL STANDBY HOURS		
TOTAL LOST TIME		
TOTAL TRAVEL TIME		4
REMARKS		Gen started at 7:30 Shut Down at 4:30

SIGNATURE OF CUSTOMER OR AUTHORIZED REPRESENTATIVE

X

SERVICE CHARGES

QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
	PS-42		
1	Temp		
	T- 1810		
	C- 1470		
	P.U.- 8664		
	[illegible]		
1	Temp		
	T- 1630		
	C- 1630		
	P.U.- 9112		
	SS 43		
1	Temp		
	T- 1324		
	C- 1330		
	P.U.- 8682		
	SS-23		
1	Temp		
	T-		
	C-		
	P.U.- 8691		
	SUBTOTAL		
	% SURCHARGE or % DISCOUNT		
	TOTAL $		

The undersigned, hereinafter referred to as "Customer", agrees to pay FIRST Energy Service, Inc. for the service(s) specified above (including leased equipment) and any additional service(s) requested, in U.S. dollars, at the office of FIRST Energy Service, Inc. at 21025 Burgess Court, Bakersfield, California 93312, in accordance with the applicable provisions of FIRST ENERGY SERVICE, INC.'s current price schedule. If this document is executed by an agent on behalf of the Customer, said agent represents that he has full authority from his principle, the Customer, to execute the same. In the absence of such authority, the party executing this document agrees that he shall be obligated hereunder as Customer.

SPICER WIRELINE SERVICE INC.

South Union Ave. • Bakersfield, CA 93307
(661) 835-9473 • Fax (661) 835-9472
E-mail: spicerwireline@msn.com

COMPANY So Cal Gas Co

ADDRESS

PHONE

DATE 10-2-03

4533

WELL # Honor Farm 25 # 11

FIELD # Aliso Canyon

ATE	SERVICE	TOTAL UNIT	TOTAL PRICE	AMOUNT Column 1
	SERVICE MINIMUM CHARGE			
	ADDITIONAL SERVICE HOURS 10:00/14:00	4	88.00	352.00
	PREMIUM OVERTIME RATE (AS PER CALIF. LAW)			
	DOUBLE TIME RATE (AS PER CALIF. LAW)			

ATE	TOOL RENTALS	AMOUNT
	1½" Sample Bailer	N/C

IT	PICK-UP AND WIRELINE UNIT MILEAGE	MILES	UNIT $	AMOUNT
5	FROM: TO: Shop	150	1.30	195.00
	FROM: TO:			
	TOTAL COLUMN 1			

ME	EMPLOYEE SIGNATURE	START TIME	END TIME	WORK HOURS	TRAVEL	DOWN	TOTAL HOURS
F		10:00	16:00	4	2		6.0
H		10:00	16:00	4	2		6.0

DATE	MATERIALS SOLD AND/OR DESCRIPTION	TOTAL from column 1 TOTAL UNITS	UNIT PRICE	AMOUNT
	SS 25 Rig up: run 1½" Sample Bailer to tag Fill @ 8220', Start to Recover Sample - pull - Rig Down			
	SS 11 Rig up: run 1½" Sample Bailer to tag Fill - Set down @ 8955' - Start to recover sample - pull - Rig Down			

APPROVED:

SUB TOTAL	
TAX	
TOTAL	482.00

FIELD TICKET

AC_CPUC_0000556

FIRST ENERGY SERVICE

FIRST Energy Service, Inc.

P. O. Box 80844 • Bakersfield, CA 93308-0844
Phone (661) 587-6277 • Fax (661) 587-9978

SERVICE TICKET

3239

COMPANY So. Cal. Gas		DATE 8-27-03
ADDRESS		
CITY Arvin	STATE CA	ZIP CODE
CONTRACT # 5600846	AFE #	P.O. #
SAP #	PN #	LOGGNG CODE #

WELL NAME: SS-29, SS25, SS25A — FIELD: A-150

WELLSITE ACTION REPORT

DATE	TIME	COMMENTS
8-27	4:00	M.I.R.U. run surveys on wells listed
	5:00	R.D.M.O.

Engineer M. Howard
Crew M. Alcaraz
Crew
Crew

TOTAL FIELD HOURS	13½
TOTAL OPR. HOURS	8
TOTAL STANDBY HOURS	1½
TOTAL LOST TIME	0
TOTAL TRAVEL TIME	4

REMARKS

SIGNATURE OF CUSTOMER OR AUTHORIZED REPRESENTATIVE

X

SERVICE CHARGES

QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
	SS29		
1	Temp Survey		
	T-2320		
	C-460		
	P.U.-9005		
	SS25		
1	Temp Survey		
	T-2350		
	C-2740		
	P.U.-8694		
	SS25A		
1	Temp Survey		
	T-2340		
	C-1100		
	P.U.-8435		
	Valve sealing on SS-29		-0-
	SUBTOTAL		
	% SURCHARGE or % DISCOUNT		
	TOTAL $		

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FIRST ENERGY SERVICES

FIRST Energy Services, Inc.

P.O. Box 80844
Bakersfield, CA. 93380-0844
Phone: (661) 387-9300
Fax: (661) 387-9100

SERVICE TICKET

2950

COMPANY So Cal Gas		DATE 8/30/02
ADDRESS		
CITY	STATE	ZIP CODE
CONTRACT # 5600002296	AFE #	P.O. #
SAP #	PN #	LOGGNG CODE #
WELL NAME		FIELD
S.S. 25A, 5525		Aliso Cyn

WELLSITE ACTION REPORT

DATE	TIME	COMMENTS
	7:00	ON JOB MIRU RUN TBG
		SURVEY ON WELLS LISTED
		RIG
		POOH RDMO
	10:00	JOB LOCATION
		Field Inv. 66.7 BCF

Engineer Sam Pellegrino / Matt Howard
Crew
Crew
Crew
TOTAL FIELD HOURS 5
TOTAL OPR. HOURS 5
TOTAL STANDBY HOURS
TOTAL LOST TIME
TOTAL TRAVEL TIME 1
REMARKS

SERVICE CHARGES

QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
	STANDARD SESNON 25A		
1	TEMP SURVEY		
	TOOLS TO 2450		
	PICK UP @ 8438'		
	STANDARD SESNON 25		
1	TEMP SURVEY		
	TIE 2570		
	PICK UP @ 8694		
	SUBTOTAL		
	% SURCHARGE or % DISCOUNT		
	TOTAL $		

SIGNATURE OF CUSTOMER OR AUTHORIZED REPRESENTATIVE

X

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FIRST ENERGY SERVICES

FIRST Energy Services, Inc.

P.O. Box 80844
Bakersfield, CA. 93380-0844
Phone: (661) 387-9300
Fax: (661) 387-9100

SERVICE TICKET

2107

COMPANY The Gas Company		DATE 8-7-2001
ADDRESS		
CITY	STATE	ZIP CODE
CONTRACT # 5600062296	AFE #	P.O. #
SAP #	PN #	LOGGNG CODE #
WELL NAME S.S. 25, S.S. 9, S.S. 29	FIELD Aliso Canyon	

WELLSITE ACTION REPORT

DATE	TIME	COMMENTS
	7:00	On location to run Temp Survey on wells listed to run.
	3:00	off location
		F-1 Inv 55.0

Engineer	Diane Proctor
Crew	Terry Thomas
Crew	
Crew	
TOTAL FIELD HOURS	11 hr
TOTAL OPR. HOURS	7 hr
TOTAL STANDBY HOURS	
TOTAL LOST TIME	
TOTAL TRAVEL TIME	2 hr.
REMARKS	

SIGNATURE OF CUSTOMER OR AUTHORIZED REPRESENTATIVE

X

SERVICE CHARGES

QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
	Standard Survey 25		
1	~~Aa~~ Temp survey		
	T-C 2400 psi		
	pick up 8654'		
	Standard Survey 9		
1	Temp survey		
	T-350° C-2600 psi		
	Pick up 8857'		
	Standard Survey 29		
1	Temp survey		
	T-350 C-925 psi		
	pick up 9776'		
	SUBTOTAL		
	% SURCHARGE or % DISCOUNT		
	TOTAL $		

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FIRST ENERGY SERVICES

FIRST Energy Services, Inc.

P.O. Box 80844
Bakersfield, CA. 93380-0844
Phone: (661) 387-9300
Fax: (661) 387-9100

SERVICE TICKET P1173

COMPANY Sentinel Energy		DATE 9/14/2006
ADDRESS		
CITY	STATE	ZIP CODE
CONTRACT # Steam 2006	AFE #	P.O. #
SAP #	PN #	LOGGNG CODE #
WELL NAME Poso 44	FIELD Placerita	

WELLSITE ACTION REPORT

DATE	TIME	COMMENTS
	6:30	on Location P 44
		mob Location
		on Location SS25
	11:00	on Location SS25A
	1:10	off Location
	1:15	On location SS25B
	3:15	off Location

Engineer Sam Pellegrino
Crew
Crew Mitch Fullerton
Crew
TOTAL FIELD HOURS
TOTAL OPR. HOURS
TOTAL STANDBY HOURS
TOTAL LOST TIME
TOTAL TRAVEL TIME
REMARKS

SIGNATURE OF CUSTOMER OR AUTHORIZED REPRESENTATIVE

X

SERVICE CHARGES

QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
	Poso #44		
1	Temp Survey		
	T/C 2020 PSI		
	Pump @ 8220'		
	SS25		
1	Temp Survey		
	T/C 2020 PSI		
	Pump @ 8668'		
	SS25A		
1	Temp Survey		
	2000 @ 11:00		
	Pump @ 9137		
1	SS25B		
	Temp Survey		
	T/C 2020		
	Pump @ 6627		

SUBTOTAL	
% SURCHARGE or % DISCOUNT	
TOTAL $	

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SANTA PAULA WIRELINE
~~301 OJAI ROAD #194~~ 535 E Main St. # 194
SANTA PAULA CA 93060
TEL. (805) 650-8618

INVOICE

INVOICE NO: 1649

INVOICE DATE: 3/12/96

SOLD TO: Southern California Gas Company
Aliso Canyon Storage Field
12801 Tampa Ave.
Northridge, California 91324

Contract # 4206
Engineer - Tom Schroeder

REFERENCE	DESCRIPTION	AMOUNT
1649	Well No. Sc -25	
	Performed Wireline Work as Directed on well.	$595.00
	Mileage Charge	$100.00
	Mast Unit	$ 75.00
	Tool Rental	$200.00
	832.020 3/13/96	
	SUB-TOTAL	$970.00
	7 1/4 % Calif. Rental.....TAX	$ 14.50
	TOTAL	$984.50

AC_CPUC_0000561

SANTA PAULA WIRELINE

1649

535 E. MAIN ST., #194
SANTA PAULA CA 93060
TEL. (805) 650-8618

WIRE LINE AGREEMENT AND OPERATIONS SERVICE RECORD

Service charges include mileage and use of Santa Paula Wireline men and equipment on the well. If it is necessary to transport Santa Paula Wireline equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. Santa Paula Wireline personnel will exert its best efforts to perform work requested but results are not guaranteed and Santa Paula Wireline reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If Santa Paula Wireline personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by Santa Paula Wireline, it may be returned for full credit, less cost, if any, of reconditioning. When Santa Paula Wireline equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So Cal. Gas (WACS) LOCATION Aliso Cyn DATE 3/12/96

FIELD _____ LEASE _____ WELL NO. 5525

CASING SIZE _____ TUBING SIZE 2 7/8" RECEIVED BY _____

DATE		MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
		TO LOCATION	Shop	Location	50	1.00	50.00
		FROM LOCATION	Location	Shop	50	1.00	50.00

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	AMOUNT
MIRU RIH with 1 3/4" Drive Down Bailer. Bail Sand	7:00 AM/PM	10:00 AM/PM	3	2.00	210 00
1st Run 8690-8696, 8722-8726, 8732-8737 Y-4	10:00 AM/PM	3:30 AM/PM	5 1/2	70	385 00
2nd Run 8716-8720, 8734-8740 2.4# returns	AM/PM	AM/PM			
Bailer with Flapper instead of Ball seat.	AM/PM	AM/PM			
3rd Run 8716-8732 8735-8737 Gas returns	AM/PM	AM/PM			
4th Run 8716-8720, 8735-8737, 8746-8748, 2.4# returns	AM/PM	AM/PM			
5th Run 8735-8746, 2.4# returns	AM/PM	AM/PM			
6th Run 8745-8748 2.4# returns	AM/PM	AM/PM			
7th Run 8746-8748 2.4# returns R.D.M.O.	AM/PM	AM/PM			
	AM/PM	AM/PM			
	AM/PM	AM/PM			
	AM/PM	AM/PM			
1 3/4" Drive Down BAILER					100 00
1 1/2" Hydraulic JARS					100 00
MAST Unit					75 00
7 1/4% Co. Rental Tax					14 50
TOTAL					Total 984.50

OPERATOR Pellegrine / Dollahite TRUCK NO. 7 CUSTOMER'S ORDER NO. _____

REMARKS _____

B32.020 C1 3/15/96

SANTA PAULA WIRELINE

~~301 OJAI ROAD, #194~~ 535 E main St. #194

SANTA PAULA CA 93060

TEL. (805) 650-8618

INVOICE

INVOICE NO: 1648

INVOICE DATE: 3/11/96

SOLD TO: Southern California Gas Company
Aliso Canyon Storage Field
12801 Tampa Ave.
Northridge, California 91324

Contract # 4206
Engineer - Tom Schroeder

REFERENCE	DESCRIPTION	AMOUNT
1648	Well No. SS - 25	
	Performed Wireline Work as Directed on well.	$665.00
	Mileage Charge	$100.00
	Unit Charge	$ 75.00
	Tool Rental	$200.00

SANTA PAULA WIRELINE

1648

535 E. MAIN ST., #194
SANTA PAULA CA 93060
TEL. (805) 650-8618

WIRE LINE AGREEMENT AND OPERATIONS SERVICE RECORD

Service charges include mileage and use of Santa Paula Wireline men and equipment on the well. If it is necessary to transport Santa Paula Wireline equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. Santa Paula Wireline personnel will exert its best efforts to perform work requested but results are not guaranteed and Santa Paula Wireline reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If Santa Paula Wireline personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by Santa Paula Wireline, it may be returned for full credit, less cost, if any, of reconditioning. When Santa Paula Wireline equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So Cal Gas (UGS) LOCATION Alisa Cyn DATE 3/11/96

FIELD _____ LEASE _____ WELL NO. SS 25

CASING SIZE _____ TUBING SIZE 2 7/8" RECEIVED BY _____

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
	TO LOCATION Pickup	~~Plant~~ Shop	Location	50	1.00	50.00
	FROM LOCATION Pickup	Location	Shop	50	1.00	50.00

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE		
MIRU Bail Sand from 1st Run 8683-8686, 8725-	7:00 AM PM	10:00 AM PM	3	2nd Hr	210	00
8736, and Tag Btm @ 8748' Good returns	10:00 AM PM	4:30 AM PM	6½	70	455	00
2nd Run 8695-8700, 8717-8720, 8732-8737 Good Returns	AM PM	AM PM				
3rd Run 8712-8716, 8727-8732. Good returns	AM PM	AM PM				
4th Run 8711-8712, 8720-8721, 8740-8744 (Logged)	AM PM	AM PM				
5th Run 8710-8712, 8732-8736, 8743-8745 Good Returns	AM PM	AM PM				
6th Run 8710-8712, 8732-8746 Good Returns	AM PM	AM PM				
7th Run 8712-8713, 8737-8748' Good Returns	AM PM	AM PM				
8th Run 8710-8711, 8746-8748' Good Returns	AM PM	AM PM				
	AM PM	AM PM				
1½" Hydraulic Jacks	AM PM	AM PM			100	00
2"x6' Pump Bailer	AM PM	AM PM			100	00
Mast Unit					75	00
7" & Lg. Portal Fan					14	50
		TOTAL			1054	50

OPERATOR Pellegrini / Dalrahite TRUCK NO. 1 CUSTOMER'S ORDER NO. _____

REMARKS _____

832.020 C1 3/12/96

SANTA PAULA WIRELINE
~~901 OJAI ROAD, #194~~ 535 E Main St. #194
SANTA PAULA CA 93060
TEL (805) 650-8618

INVOICE

INVOICE NO: 1646

INVOICE DATE: 3/8/96

SOLD TO: Southern California Gas Company
Aliso Canyon Storage Field
12801 Tampa Ave.
Northridge, California 91324

Contract # 4206
Engineer - Tom Schroeder

REFERENCE	DESCRIPTION	AMOUNT
1646	Well No. SS -25	
	Performed Wireline Work as Directed on well.	$695.00
	Mast Unit	$ 75.00
	Tool Rental	$240.00
	Mileage Charge	$100.00
	832.020 CI 3/14/96	
	SUB-TOTAL	$1,110.00
	7 1/4 % Calif. Rental.....TAX	$ 17.40
	TOTAL	$1,127.40

SANTA PAULA WIRELINE

1646

535 E. MAIN ST., #194
SANTA PAULA CA 93060
TEL. (805) 650-8618

WIRE LINE AGREEMENT AND OPERATIONS SERVICE RECORD

Service charges include mileage and use of Santa Paula Wireline men and equipment on the well. If it is necessary to transport Santa Paula Wireline equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. Santa Paula Wireline personnel will exert its best efforts to perform work requested but results are not guaranteed and Santa Paula Wireline reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If Santa Paula Wireline personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by Santa Paula Wireline, it may be returned for full credit, less cost, if any, of reconditioning. When Santa Paula Wireline equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So Cal. Gas (USGS) LOCATION Alisa Can DATE 3/5/96

FIELD _____ LEASE _____ WELL NO. SS 25

CASING SIZE _____ TUBING SIZE 2 7/8" RECEIVED BY _____

DATE		MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
		TO LOCATION	Shop	Location	50	1.00	50.00
		FROM LOCATION	Location	Shop	50	1.00	50.00

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	AMOUNT
Mobil Run 1st Sample Bailer to Tag @ 8660'	7:30 AM PM	10:00 AM PM	3	80.00	240 00
Load Returns Run 2 1/2" Pump Bailer & Bail Sand	10:00 AM PM	4:30 AM PM	6 1/2	70	455 00
1st Run 8699-8641', 2nd Run 8641-8646, 3rd Run 8646-8647' 8710-8712, 8720-8721, 8730-8731 & 8744.	AM PM	AM PM			
4th Run 8676-8690 Load Returns	AM PM	AM PM			
5th Run 8650-8654, 8716-8719, 8733-8735 6th Run	AM PM	AM PM			
8694-8698, 8730-8732, 8743-8747' 7th Run	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
Mast Unit	AM PM	AM PM			75 00
1 1/2" Sample Bailer	AM PM	AM PM			100 00
1" Sample bailer	AM PM	AM PM			40 00
2 1/2" Pump bailer					100 00
7" Gauge Ring Run					17 40
		TOTAL			$ 1127 40

OPERATOR Bill Dolbert TRUCK NO. 1 CUSTOMER'S ORDER NO. _____

REMARKS _____

832.020 C1 3/12/96

SANTA PAULA WIRELINE

301 OJAI ROAD, #194
SANTA PAULA CA 93060
TEL: (805) 650-8618

0788

WIRE LINE AGREEMENT AND OPERATIONS SERVICE RECORD

Service charges include mileage and use of Santa Paula Wireline men and equipment on the well. If it is necessary to transport Santa Paula Wireline equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. Santa Paula Wireline personnel will exert its best efforts to perform work requested but results are not guaranteed and Santa Paula Wireline reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If Santa Paula Wireline personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by Santa Paula Wireline, it may be returned for full credit, less cost, if any, of reconditioning. When Santa Paula Wireline equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So Cal Gas (UGS) LOCATION Alise Cyn DATE 12/31/93

FIELD _____ LEASE _____ WELL NO. SS-25

CASING SIZE _____ TUBING SIZE _____ RECEIVED BY [signature]

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
	TO LOCATION Pickup	Shop	Location	50	1 00	50 00
	FROM LOCATION					

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE		
Ran down & pulled XN Plug.	7:00 AM PM	9:30 AM PM	2½	70 00	175	00
1½ Hydralic JARS					50	00
2½ GS Pulling tl					50	00
7¼% CA Rental Tax					7	25
TOTAL					332	25

OPERATOR Dallas Leffers TRUCK NO. _____ CUSTOMER'S ORDER NO. _____

REMARKS [signature]

APPROVAL SIGNATURE [signature]

TYPE OR PRINT NAME TOM SCHROEDER

1/5/94

ACCT. NO. 020 832.004DX DATE 12/31/93

ORIGINIAL

AC_CPUC_0000567

SANTA PAULA WIRELINE

0739

301 OJAI ROAD, #194
SANTA PAULA CA 93060
TEL. (805) 650-8618

WIRE LINE AGREEMENT AND OPERATIONS SERVICE RECORD

Service charges include mileage and use of Santa Paula Wireline men and equipment on the well. If it is necessary to transport Santa Paula Wireline equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. Santa Paula Wireline personnel will exert its best efforts to perform work requested but results are not guaranteed and Santa Paula Wireline reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If Santa Paula Wireline personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by Santa Paula Wireline, it may be returned for full credit, less cost, if any, of reconditioning. When Santa Paula Wireline equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So Cal Gas (UGS) LOCATION Aliso Cyn DATE 12/2/93

FIELD _____ LEASE _____ WELL NO. SS-25

CASING SIZE _____ TUBING SIZE 2 7/8 RECEIVED BY Charles Jones

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
	TO LOCATION Pickup	Shop	Location	50	1 00	50 00
	FROM LOCATION					

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE		
Attempted to run 2 1/2" XN Plug unable to get by Camco SV nipple. Reran & set XN Plug in XN nipple.	6:00 (AM) PM	AM PM				
	AM PM	9:00 (AM) PM	3	70 00	210	00
	AM PM	AM PM				
	AM PM	AM PM				
	AM PM	AM PM				
	AM PM	AM PM				
	AM PM	AM PM				
	AM PM	AM PM				
	AM PM	AM PM				
	AM PM	AM PM				
	AM PM	AM PM				
	AM PM	AM PM				
	AM PM	AM PM				
				TOTAL	$ 260	00

Tom W Schroeder
832004 DX
Tom W Schroeder

OPERATOR Dollahite Leffler TRUCK NO. _____ CUSTOMER'S ORDER NO. _____

REMARKS _____

ORIGINAL

AC_CPUC_0000568

Instrument Service Inc.

2100 N. Ventura Avenue
Ventura, California 93001
Phone 805-653-6609
Bakersfield 805-325-0502
R & R Supply 805-653-1485

6338

DATE 11-12-92

CUSTOMER'S ORDER NO.

COMPANY The Gas Co.

FIELD LEASE Aliso Cyn. WELL NO. Fluid Level

On SES, 2 shots on P-40, SS-3, SS-11, SS-17, SS-24, SS-25-43, SS-31, SS-44A,

Service charges include mileage and use of I.S. men and equipment. If it is necessary to transport I.S. equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. I.S. personnel will exert its best efforts to perform work requested but results are not guaranteed and I.S. reserves the right to move off of the well at any time, if in its opinion, well conditions render such action advisable. The same charges will be made regardless of results obtained.

In the event any of I.S. instruments or equipment are lost in the well, you shall either recover same without cost to us, or pay for such instruments or equipment, and should any such instruments or equipment be recovered in a damaged condition, you agree to pay for all such damage. In case it is necessary for you to "fish" for any of our instruments or equipment, you assume the entire responsibility for such operations. None of our employees are authorized to do anything other than advise and consult with you in connection with such "fishing" operations.

QUANTITY	UNIT	DESCRIPTION	UNIT PRICE	AMOUNT
17	shots	minimum charge per shot	13.50	229.50
		Service Charge		40.00
		2 hrs Trad Time	40.00	80.00
		Larry Krohmer		
		26115.5 DX		
Thank You				

SALESMAN	AUTHORIZED BY	DATE REQUIRED	TOTAL
Pat Foster	Larry Krohmer	11-12-92	349.50

FLO-LOG INC.

Service Order 4877

14101 Orange Avenue
Paramount, CA 90723
Phone: (213) 408-1500

Job Date 11-7-91

Customer: So. Calif. Gas Co.	Type of Job: Noise & Temp.
Mailing Address:	Well Name & No. Standard Sesnon 25
Ordered By: Randy Patterson	Lease: Standard Sesnon
Job No.	Field: Aliso Cyn.
Service Contract No.	County: LA State: CA

	Product Code	Description	Price
GENERAL CHARGES	1000	SERVICE CHARGE	600 00
	1005	Arrival Time 7:30 a.m. p.m. Departure Time 3:00 a.m. p.m. Time on Location ____ Hours OVERTIME: ____ hours in excess of ____ hours @ $ ____ per hour	N/A
	1015	MILEAGE: ____ miles in excess of ____ miles @ $ ____ per mile	
EQUIPMENT CHARGES	2061	PRESSURE CONTROL: Water Head, Wellhead Pressure ____ PSI	
	2062	PRESSURE CONTROL: Grease Head, Wellhead Pressure 2460 PSI	800 00
	2065	BLOW-OUT PREVENTOR	100 00
	2075 2076 2077	RADIOACTIVE TRACER: Chemical Base ____ Amount used ____ mc Minimum of ____ mc @ $ ____ plus ____ mc @ $ ____ each mc	
SURVEY CHARGES	4000	MULTIPLE WELL CHARGE for ____ services	
	3000	SINGLE WELL CHARGE for two services	

Type of Log(s)	TOTAL DEPTH	UNIT PRICE	DEPTH CHARGE	OPERATION CHARGE	
Noise & Temperature	8700	× .17 =	1479	250	1729 00
		× =			
		× =			
		× =			

SUBTOTAL	3279 00
STATE SALES TAX	
CITY/COUNTY TAX	
TOTAL	
-35%	1130 15
Total	2098 85
1% Discount	
Invoice Total	

APPROVAL SIGNATURE R Patterson

TYPE OR PRINT NAME

I hereby acknowledge receipt of the above services.

RANDY PATTERSON
CUSTOMER'S REPRESENTATIVE

X R. C. Hagel
Signature

Print Name

ACCT NO. 26280.005 DX

DATE: 11/7/91

FLO-LOG'S REPRESENTATIVE Mitch Findlay UNIT No. 711

TERMS: Net 30, 1% discount when paid within 15 days of invoice date

WHITE - ORIGINAL BLUE - CUSTOMER BLUE - CUSTOMER CANARY - FILE

AC_CPUC_0000570

PRUETT INDUSTRIES, INC.

8915 ROSEDALE HWY BAKERSFIELD, CA 93312

(805) 589-2768

13624

COMPANY SoCal Gas Co WELL NO. SS-25 DATE 12/10/86 12/11/86

ADDRESS FIELD Aliso Cyn

CUSTOMER ORDER NO.

DATE	SERVICE & RENTAL CHARGES	TOTAL UNITS	UNIT PRICE	AMOUNT
	FIELD Aliso Cyn			
	WELL NO. SS-25			
	SUBSURFACE PRESSURE, TEMPERATURE, (WIRE LINE) DYNO			
12/10/86	FIELD SERVICE CHARGES INCLUDES 1ST 3 HRS			200.00
12/10/86	3½ ADDITIONAL HOURS @ 60 PER HOUR			210.00
12/10/86	1½ Hydralic JARS			62.50
12/10/86	2½" GS Pulling TL			37.50
12/11/86	3 additional hrs 60 per hr.			180.00
	PICK-UP MILEAGE FROM MILES TO MILES			
12/10/86	UNIT MILEAGE FROM Shop MILES 50 TO MILES	50	1.30	65.00

PART NO. OR DATE	MATERIAL SOLD AND/OR DESCRIPTION OF OPERATION	QTY.	UNIT PRICE	AMOUNT
12/10/86	Rigged up, ran in hole JARRED on 2½" XN Plug for 6 hrs unable to pull, finally sheared off. Shut down for day W/L Trk STARTED running bad, @ Depth 8472'			
12/11/86	JARRED on 2½" XN Plug finally pulled Plug came out with sand on it.			

ACCT. NO. 99722 OK

ITEM 001 ELEMENT 3

AMOUNT $755

APPROVED Manager DATE 12/12/86

SUB	
TAX	
TOTAL	$755.00

OPERATOR: Dollahite Sundberg

HELPER:

UNIT NO: APPROVED BY:

FIELD TICKET

AC_CPUC_0000571

PRUETT INDUSTRIES INC.

12969

8915 ROSEDALE HWY BAKERSFIELD, CA 93312

(805) 589-2768

COMPANY So Cal Gas Co WELL NO. SS 25 DATE 11/13/84

ADDRESS _____ FIELD Aliso Cyn

CUSTOMER ORDER NO. _____

DATE	SERVICE & RENTAL CHARGES	TOTAL UNITS	UNIT PRICE	AMOUNT
	FIELD			
	WELL NO.			
	SUBSURFACE PRESSURE, TEMPERATURE, WIRE LINE, DYNO			
	FIELD SERVICE CHARGES INCLUDES 1ST _____ HRS			
	3 1/2 ADDITIONAL HOURS @ 60.00 PER HOUR			210.00
	2 1/2" X Line running TC			62.50
	PICK-UP MILEAGE FROM _____ MILES TO _____ MILES			
	UNIT MILEAGE FROM _____ MILES TO shop MILES 50	50	1.30	65.00

PART NO. OR DATE	MATERIAL SOLD AND/OR DESCRIPTION OF OPERATION	QTY.	UNIT PRICE	AMOUNT
	Rigged up Standby to move OT. d no-go SV Hung down at machine shop. Ran 2 1/2" XN Plug with pump out sub. 8469' (WLM) 210			
	NOTE: EQUALIZING SUB. ANCHORED DOWN @ 2,290' & SAME FOR ONE RUN TO SET XN PLUG.			

OPERATOR: _____

HELPER: _____

UNIT NO: _____ APPROVED BY: _____

FIELD TICKET

AC_CPUC_0000572

664

INSTRUMENT SERVICE INC.

2100 N. Ventura Avenue
Ventura, California 93001
Phone 805-649-2228
Bakersfield 805-832-8980
Garden Grove 714-638-4794

DATE 11-2, 11-8, 11-15 -84

CUSTOMER'S ORDER NO. _____

COMPANY S.C. Gas

FIELD Aliso Cyn LEASE West Field WELL NO. SS-3, SS4, SS5 SS7, SS9, SS10, SS-11, SS24, [redacted] SS29 SS31, SS44, P38, PS42, F6, F7,

Service charges include mileage and use of I.S. men and equipment. If it is necessary to transport I.S. equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. I.S. personnel will exert its best efforts to perform work requested but results are not guaranteed and I.S. reserves the right to move off of the well at any time, if in its opinion, well conditions render such action advisable. The same charges will be made regardless of results obtained.

In the event any of I.S. instruments or equipment are lost in the well, you shall either recover same without cost to us, or pay for such instruments or equipment, and should any such instruments or equipment be recovered in a damaged condition, you agree to pay for all such damage. In case it is necessary for you to "fish" for any of our instruments or equipment, you assume the entire responsibility for such operations. None of our employees are authorized to do anything other than advise and consult with you in connection with such "fishing" operations.

QUANTITY	UNIT	DESCRIPTION	UNIT PRICE	AMOUNT
		Service Charge		
		11-2		35.00
		11-8		35.00
		11-15		35.00
16	Ea	*Production Fluid Levels 11-2	13.50	216.00
16		11-8	13.50	216.00
16		11-15	13.50	216.00
		* Above Two Thousand PSI +20%		129.60
3	hr	Min Travel Time 11-2	25.00	75.00
3		11-8	25.00	75.00
3		11-15	25.00	75.00

ACCT. NO. 2615.5DX
ITEM 002 ELEMENT 9
AMOUNT 1107.60
APPROVED [signature] DATE 11/15/84

SALESMAN	AUTHORIZED BY	DATE REQUIRED	TOTAL
T. Vail	[signature]		1107.60

AC_CPUC_0000573

FLO-LOG INC.

Service Order X 287
Invoice

2750-C ROSE AVE.
SIGNAL HILL, CA 90806
(213) 424-1661 424-8181

Job Date 7-29-84
Invoice Date

Customer So. Calif. Gas Co.
Mailing Address
Ordered By Joe Bret Lane
Job No.
Service Contract No.

Type of Job: RIA Tracer
Well Name & No. Standard Sesnon #25
Lease Aliso Canyon
Field
County L.A. State CA

	Product Code	Description	Price
GENERAL CHARGES	GC-301	SERVICE CHARGE	600 00
	GC-302	Arrival Time 7:30 a.m./p.m. Departure Time 5:30 a.m./p.m. Time on Location 10 Hours OVERTIME: 4 hours in excess of 5 hours @ $ 95 per hour	380 00
	GC-304	MILEAGE: _____ miles in excess of _____ miles @ $ _____ per mile	
EQUIPMENT CHARGES	EC-403	PRESSURE CONTROL: Water Head, Wellhead Pressure _____ PSI	
	EC-433	PRESSURE CONTROL: Grease Head, Wellhead Pressure 2300 PSI	800 00
	EC-404	BLOW-OUT PREVENTOR	100 00
		RADIOACTIVE TRACER: Chemical Base alcohol Amount used 100 mc Minimum of 10 mc @ $ 200 plus 90 mc @ $ 10 each mc	1100 00

MULTIPLE WELL CHARGE for _____ services
SINGLE WELL CHARGE for two services

SURVEY CHARGES

Type of Log(s)	TOTAL DEPTH	UNIT PRICE	LOGGED FOOTAGE	UNIT PRICE	
Gamma Ray (2-runs)	8692	0.17			1477 64
Capacitance (find fluid level)				min	250 00

SUBTOTAL	4707 64
STATE SALES TAX	
CITY/COUNTY TAX	
TOTAL	4707 64
1% Discount	
Invoice Total	

I hereby acknowledge receipt of the above services.

CUSTOMER'S REPRESENTATIVE X _____ Signature

_____ Print Name

FLO-LOG'S REPRESENTATIVE Mitch Fadley UNIT No. 712

TERMS: Net 30, 1% discount when paid within 15 days of invoice date

WHITE - ORIGINAL BLUE - CUSTOMER BLUE - CUSTOMER CANARY - FILE

AC_CPUC_0000574

FLO-LOG INC.

Service Order / Invoice 285

2750-C ROSE AVE.
SIGNAL HILL, CA 90806
(213) 424-1661 424-8181

Job Date 7-27-84

Invoice Date

Customer SoCAL GAS Co

Mailing Address

Ordered By J. B. LANE

Job No.

Service Contract No.

Type of Job: TEMP & NOISE LOG

Well Name & No. STANDARD SESNON 25

Lease ALISO CANYON (NORTH BASIN DIV)

Field ALISO CANYON

County L.A State CAL

	Product Code	Description	Price
GENERAL CHARGES	GC-301	SERVICE CHARGE	600 00
	GC-302	Arrival Time 0800 a.m. p.m. Departure Time 1800 a.m. p.m. Time on Location 5 Hours OVERTIME: 10 hours in excess of 5 hours @ $ 0 per hour	N/C
	GC-304	MILEAGE: _____ miles in excess of _____ miles @ $ _____ per mile	
EQUIPMENT CHARGES	EC-403	PRESSURE CONTROL: Water Head, Wellhead Pressure _____ PSI	
	EC-433	PRESSURE CONTROL: Grease Head, Wellhead Pressure 2390 PSI	800 00
	EC-404	BLOW-OUT PREVENTOR	100 00
		RADIOACTIVE TRACER: Chemical Base _____ Amount used _____ mc Minimum of _____ mc @ $ _____ plus _____ mc @ $ _____ each mc	
SURVEY CHARGES		MULTIPLE WELL CHARGE for _____ services	
		SINGLE WELL CHARGE for TWO services	

Type of Log(s)	TOTAL DEPTH	UNIT PRICE	LOGGED FOOTAGE	UNIT PRICE	
TEMP & NOISE LOG	8695	.17			1178 15
			1600	.15 MIN	250 00

I hereby acknowledge receipt of the above services.

CUSTOMER'S REPRESENTATIVE X _____ Signature

_____ Print Name

FLO-LOG'S REPRESENTATIVE _____ UNIT No. 712

SUBTOTAL	3228 15
STATE SALES TAX	0
CITY/COUNTY TAX	0
TOTAL	3228 15
1% Discount	
Invoice Total	

TERMS: Net 30, 1% discount when paid within 15 days of invoice date

WHITE - ORIGINAL BLUE - CUSTOMER BLUE - CUSTOMER CANARY - FILE

FLO-LOG INC.

2750-C ROSE AVE.
SIGNAL HILL, CA 90806
(213) 424-1661 424-8181

ACCT. NO.
ITEM ELEMENT
AMOUNT
APPROVED DATE

Service Order X 205
Invoice

Job Date 4-10-84
Invoice Date

Customer SoCal Gas Co
Mailing Address

Type of Job: Temp & Noise Log
Well Name & No. Standard Season 25

Ordered By J. Brett Lane
Job No.
Service Contract No.

Lease Aliso Canyon (North Basin)
Field Aliso Canyon
County L.A. State Cal

	Product Code	Description	Price
GENERAL CHARGES	GC-301	SERVICE CHARGE	600 00
	GC-302	Arrival Time 8:00 a.m. p.m. Departure Time 2:00 a.m. p.m. Time on Location 1 Hours OVERTIME: 1 hours in excess of 5 hours @ $ 95 per hour	95 00
	GC-304	MILEAGE: _____ miles in excess of _____ miles @ $ _____ per mile	
EQUIPMENT CHARGES	EC-403	PRESSURE CONTROL: Water Head, Wellhead Pressure _____ PSI	
	EC-433	PRESSURE CONTROL: Grease Head, Wellhead Pressure 1600 PSI	600 00
	EC-404	BLOW-OUT PREVENTOR	100 00
		RADIOACTIVE TRACER: Chemical Base _____ Amount used _____ mc Minimum of _____ mc @ $ _____ plus _____ mc @ $ _____ each mc	
SURVEY CHARGES		MULTIPLE WELL CHARGE for _____ services	
		SINGLE WELL CHARGE for _____ services	

Type of Log(s)	TOTAL DEPTH	UNIT PRICE	LOGGED FOOTAGE	UNIT PRICE	
Temp & Noise Log	8709	.17			1180 53
Noise Logging Charge			1400	.15 min 250 00	

I hereby acknowledge receipt of the above services.

CUSTOMER'S REPRESENTATIVE X _____
Signature

Print Name

FLO-LOG'S REPRESENTATIVE _____ UNIT No. 711

SUBTOTAL	3125 53
STATE SALES TAX	0
CITY/COUNTY TAX	0
TOTAL	3125 53
1% Discount	
Invoice Total	

TERMS: Net 30, 1% discount when paid within 15 days of invoice date

WHITE - ORIGINAL BLUE - CUSTOMER BLUE - CUSTOMER CANARY - FILE

Archer - Reed

WIRE LINE SERVICE

P. O. Box 5069 Ventura, California 93003

33334

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So Cal Gas LOCATION Aliso Canyon DATE 3/21/84

FIELD Aliso Canyon LEASE WELL NO. 55 25

CASING SIZE TUBING SIZE RECEIVED BY Ron McDonald

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
	TO LOCATION					
	FROM LOCATION					

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE		
ALL + RAH JSB² SURVEY AS PER PROGRAM	10 AM PM	AM PM				
RD	AM PM	11:30 AM PM	1½	77.00	115	50
	AM PM	AM PM				
	AM PM	AM PM				
	AM PM	AM PM				
	AM PM	AM PM				
	AM PM	AM PM				
	AM PM	AM PM				
	AM PM	AM PM				
	AM PM	AM PM				
BAP INSTRUMENT	AM PM	AM PM		80.00	80	00
CHART CORRECTION	AM PM	AM PM	2	40.00	80	00
				TOTAL		

OPERATOR D J Zurcher TRUCK NO. CUSTOMER'S ORDER NO.

REMARKS J Brennan

DIVISION COPY

AC_CPUC_0000577

№ 20351

W/C VACUUM TRUCKING, INC.

11050 AZAHAR • VENTURA, CA 93003

(805) 647-6020 • (805) 659-3189 • MOBIL UNIT 6656 • MOBIL UNIT 6558

DATE 11-14-83 JOB

COMPANY SO. CAL. GAS CO. ORDER NO.

ADDRESS 12501, TAMPA / NORTHRIDGE

LEASE SS WELL NO. 25

VACUUM TRUCK PROVIDED FOR THE FOLLOWING SERVICES:

WASH OUT BAKER TANK & DUMP IN WC STORAGE WASH OUT TRUCK & RETURN TO YARD

AUTHORIZED SIGNATURE: J. B. LANE TANKS LeRoy

ACCOUNT #: 4102628 0.50X DATE: 11/21/83

NO. BBLS. DUMPED 40 NO. BBLS. HAULED 40

START 7:00 a.m. p.m. STOP 12:00 a.m. p.m. TOTAL TIME 5 HOURS

DRIVER LEROY WELCH TRUCK # 11

ORDERED BY

RECEIVED BY

5 HRS AT $ 41.00 PER HOUR $ 205.00

$

$

TOTAL CHARGES: $

DETAIL REPORT OF VACUUM TRUCKING

TASK	Elapsed Time From	To	Non-Chargeable Time (Hours, Minutes
TIME LEFT YARD	7:00	8:00	
ARRIVED AT LOCATION	8:00		
~~JOB DESCRIPTION~~ WASH BAKER TANK	8:00	11:00	
LEFT LOCATION	11:00	12:00	
ARRIVED AT DUMPSITE			
LEFT DUMPSITE			
ARRIVED AT YARD	12:00		

Total Elapsed Time: 5

Non-Chargeable Time: 0

Chargeable Time: 5

Rate: $ 41.00

Total Charge: $ 205.00

Trucking Company: W/C VACUUM TRUCK #11

Driver: LEROY WELCH

Date 11-14-83

Archer - Reed

WIRE LINE SERVICE

P. O. Box 5069 — Ventura, California 93003

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

33659

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY SoCal Gas Co. LOCATION Aliso Cyn. DATE 5-6-83

FIELD LEASE Standard Season WELL NO. 25

CASING SIZE TUBING SIZE 2 7/8 RECEIVED BY

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
5-6-83	TO LOCATION	Shop	Location	60	2.10	126.00
5-6-83	FROM LOCATION	Location	Shop	60	2.10	126.00

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	
Arrived on Location Rigged up. Ran 2 7/8" pulling tool to 3451' pulled Cyanco "M" sack with knockout type equalizing sub. Rigged down moved to Porter 34	7:00 AM PM	10:00 AM PM	3	77	231.00
2 7/8 Pulling tool 1 1/2 Bore Hyd JAR				120	00
				118	00

TOTAL

OPERATOR Cornell / Roman TRUCK NO. 2000 CUSTOMER'S ORDER NO.

REMARKS

DIVISION COPY

AC_CPUC_0000580

Archer - Reed

WIRE LINE SERVICE

P. O. Box 5069 Ventura, California 93003

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD **33643**

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, it then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY SoCAL Gas Co LOCATION Aliso Cyn. DATE 4-11-83

FIELD LEASE 55 WELL NO 25

CASING SIZE TUBING SIZE 2 7/8 RECEIVED BY [signature]

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
4-11 83	TO LOCATION	Shop	Location	60	2.10	126.00
4-11 83	FROM LOCATION	Location	Shop	60	2.10	126.00

ON LOCATION CHARGES: DESCRIPTION OF OPERATION

TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	
7:30 AM PM	10:30 AM PM	3	Min	20.00
10:30 AM PM	3:30 AM PM	5½	17.00	93.50
AM PM	AM PM			
AM PM	AM PM			
AM PM	AM PM			
AM PM	AM PM			
AM PM	AM PM			
AM PM	AM PM			
AM PM	AM PM			
AM PM	AM PM			
AM PM	AM PM			
AM PM	AM PM			

Arrived on Location, Rigged-up Ran Scratcher (Coated nipples) Ran 2½ Otis XN Plug in Selective Position. Could not get thru - Safety Valve nipple. Pooh. Ran Camco Plug - "M Lock" in Selective position. Set Plug in Safety Valve nipple. Rigged-down.

20" prong required to equalize Plug. Knuck-but P Sub

TOTAL

OPERATOR Correll/Roman TRUCK NO CUSTOMER'S ORDER NO

REMARKS Definite Restriction in Safety Valve Nipple. Camco plug is .020 smaller than Otis.

DIVISION COPY

AC_CPUC_0000581

Service Order and Delivery Receipt

NL McCullough/NL Industries, Inc.
P.O. Box 4305, Houston, Texas 77210

MC- 192204

NL McCullough is hereby instructed to deliver the equipment or perform the services ordered, or as orally directed, under the terms and conditions printed on reverse side of this order and which I accept as Customer or as Customer's Authorized Agent.

Date: 2-23-83

Customer: So. Cal Gas Co Support Services
Mailing Address: Supervisor P.O. Box 640
City: New Hall State: CA. Zip:
Customer Code:

Ordered by: Joe Bret Lane
Customer Order No.:
Well Name & No.: SS # 2<
County / Parish: LA. Field: Aliso Canyon
State: CA. Price List Zone No.:

PRODUCT CODE	DESCRIPTION	DEPTH OR ZONE SERVICED	LOGGING FOOTAGE SHOTS FIRED	UNIT PRICE	PRICE
702-005-000	SERVICE CHARGE				$ 500.00
703-005-000	MILEAGE CHARGE				
702-025-000	CREW & EQUIP. CHARGE				
704-015-000	PORTABLE DERRICK CHARGE				225.00
	PRESSURE CONTROL CHARGE	(1790 psi)			800.00
	DEPTH CHG	8714' @ .20 pFt			$ 1742.80
	Logging CHG	' @ 20 pFt min			$ 410.00
	EXCESSIVE DEPTH CHG OVER 8<.0'				300.00
	B.O.P				105.00
	DRAFTING				30.00
	Complete Noise Log				
	Sub Total =				$ 4112.00

CHECK ONE BOX IN EACH SECTION

- ☐ PIPE RECOVERY
- ☐ PRODUCTION SERVICES
- ☐ COMPLETION SERVICES
- ☐ OPEN HOLE LOGGING
- ☐ DRILLING RIG ☐ WORKOVER RIG
- ☐ NEW WELL ☐ RE-COMPLETION
- ☐ LAND ☐ OIL
- ☐ INLAND WATER ☐ GAS
- ☐ OFFSHORE ☐ OTHER

Serviced By: Sanders
Bailey
Vargas

CODE	TOTAL
9701-000-000	2.42% Texas Occupation Tax
	County / Parish Sales Tax
	State Sales Tax
	Total Invoice Amount - Net Cash

EQUIPMENT LEFT ON LOCATION AT CUSTOMER REQUEST YES ☒ NO ☐

For other charges refer to Service Orders
#
#

I hereby acknowledge receipt of the service and/or material described above.

Customer: So. Cal. Gas Co
By: X [signature] CUSTOMER'S AUTHORIZED AGENT
Bret Lane PRINT AGENT'S NAME

DISTRICT: Long Beach 754 (CODE)
WIRELINE UNIT NO.: 1650 (CODE)
POWER UNIT: (CODE)

MC-7010-A

CUSTOMER COPY

AC_CPUC_0000582

MAPCO WIRELINE SERVICE

1062

DIVISION OF PRUETT INDUSTRIES

8915 ROSEDALE HWY BAKERSFIELD, CA 93308

(805) 589-2768

COMPANY So Cal Gas Co WELL NO. SS-25 DATE 8 Jan 82

ADDRESS _____ FIELD Aliso Cyn

_____ CUSTOMER ORDER NO. _____

DATE	SERVICE & RENTAL CHARGES	TOTAL UNITS	UNIT PRICE	AMOUNT
	FIELD			
	WELL NO.			
	SUBSURFACE PRESSURE, TEMPERATURE, (WIRE LINE), DYNO			
	FIELD SERVICE CHARGES INCLUDES 1ST _____ HRS			
	4 ADDITIONAL HOURS @ 60.00 PER HOUR			240.00
	2½" Camco JDC Pulling tool			25.00
	PICK-UP MILEAGE FROM _____ MILES TO shop MILES 1.0	100	1.10	110.00
	UNIT MILEAGE FROM _____ MILES TO _____ MILES			

PART NO. OR DATE	MATERIAL SOLD AND/OR DESCRIPTION OF OPERATION	QTY.	UNIT PRICE	AMOUNT
	Pulled modified GS Packoff with 2-6 Lock made into side door choke at 9450 (wlm)			
	20% discount on parts $315.00			252.00
	50% discount on mileage $110			55.00

PRUETT WIRE LINE SERVICE

4922

8915 ROSEDALE HWY BAKERSFIELD, CA 93308
(805) 589-2768

COMPANY So Cal Gas Co WELL NO. SS-25 DATE 30 Nov 81

ADDRESS _____ FIELD Aliso Cyn

_____ CUSTOMER ORDER NO. _____

(MAPCO)

DATE	SERVICE & RENTAL CHARGES	TOTAL UNITS	UNIT PRICE	AMOUNT
	FIELD			
	WELL NO.			
	SUBSURFACE PRESSURE, TEMPERATURE (WIRE LINE), DYNO			
	FIELD SERVICE CHARGES INCLUDES 1ST 3 HRS			215 00
	1 ADDITIONAL HOURS @ 60 PER HOUR			60 00
	WC-1 selective running tool			140 00
	PICK-UP MILEAGE FROM shop MILES TO MILES	50	1 10	55 00
	UNIT MILEAGE FROM MILES TO MILES			

PART NO. OR DATE	MATERIAL SOLD AND/OR DESCRIPTION OF OPERATION	QTY.	UNIT PRICE	AMOUNT
	Raw 2½" modified B-6 lock GS Packoff made into side door choke to 8451 (Wm)			
	20% discount w/L work & Tools @ 415 00			332 00
	mileage			55 00
	SUB			387 00
	TAX			
	TOTAL			

OPERATOR: Dallalite Castaneda

HELPER: _____

UNIT NO: 15

APPROVED BY: _____

Speedipy ® MCP ® Patented

AC_CPUC_0000584

Service Order and Delivery Receipt

NL McCullough/NL Industries, Inc.
P.O. Box 4305, Houston, Texas 77210

MC- 123358

NL McCullough is hereby instructed to deliver the equipment or perform the services ordered, or as orally directed, under the terms and conditions printed on reverse side of this order and which I accept as Customer or as Customer's Authorized Agent.

Date: 11-24-81

Customer: So Cal Gas Co
Mailing Address: Support Services Supervisor
P.O Box 640
City: Newhall State: Calif. Zip: 91322
Customer Code:

Ordered by: Keen Guppy
Customer Order No.:
Well Name & No.: SS #25
County / Parish: Los Angeles Field: ALISO
State: Calif. Price List Zone No.:

PRODUCT CODE	DESCRIPTION	DEPTH OR ZONE SERVICED	LOGGING FOOTAGE SHOTS FIRED	UNIT PRICE	PRICE
702-005-000	SERVICE CHARGE				$ 450.00
703-005-000	MILEAGE CHARGE				
702-025-000	CREW & EQUIP. CHARGE				
704-015-000	PORTABLE ~~DERRICK~~ mast CHARGE				$ 200.00
	PRESSURE CONTROL CHARGE				$ 1050.00
	Depth Chrg	8705'	@.20 -		$ 1741.00
	Logging "	1500'	@.20 -	Min.	$ 450.00
	DRAFTING		—		$ 30.00
	B.O.P.		—		$ 95.00

CHECK ONE BOX IN EACH SECTION

- ☐ PIPE RECOVERY
- ☒ PRODUCTION SERVICES
- ☐ COMPLETION SERVICES
- ☐ OPEN HOLE LOGGING
- ☐ DRILLING RIG ☐ WORKOVER RIG
- ☐ NEW WELL ☒ RE-COMPLETION
- ☒ LAND ☐ OIL
- ☐ INLAND WATER ☒ GAS
- ☐ OFFSHORE ☐ OTHER

Serviced By: B Bailey
B. Erlandson

CODE	TOTAL	$ 4016.00
9701-000-000	2.42% Texas Occupation Tax	
	County / Parish Sales Tax	
Less 10% Discount	State Sales Tax	$ 401.60
	Total Invoice Amount - Net Cash	$ 3614.40

EQUIPMENT LEFT ON LOCATION AT CUSTOMER REQUEST YES ☒ NO ☐

For other charges refer to Service Orders
#_____
#_____

I hereby acknowledge receipt of the service and/or material described above.
Customer: So Cal Gas Co

By: X _____
CUSTOMER'S AUTHORIZED AGENT

Keen Guppy
PRINT AGENT'S NAME

DISTRICT: Compton 759 (CODE)

WIRELINE UNIT NO.: 1650 (CODE)

POWER UNIT: (CODE)

MC-7010-A

CUSTOMER COPY

AC_CPUC_0000585

PRUETT WIRE LINE SERVICE

4900

8915 ROSEDALE HWY BAKERSFIELD, CA 93308
(805) 589-2768

COMPANY So Cal Gas Co WELL NO. SS-25 DATE 6 Jan 81

ADDRESS _____ FIELD Also Cyn

CUSTOMER ORDER NO. _____

MARCO

DATE	SERVICE & RENTAL CHARGES	TOTAL UNITS	UNIT PRICE	AMOUNT
	FIELD			
	WELL NO.			
	SUBSURFACE PRESSURE, TEMPERATURE, WIRE LINE, DYNO			
	FIELD SERVICE CHARGES INCLUDES 1ST 3 HRS			215.00
	2 ADDITIONAL HOURS @ 60.00 PER HOUR			120.00
	X-Line running tool			45.00
	2.300 Broach			100.00
	1½ Hydraulic JARS			100.00
	PICK-UP MILEAGE FROM Shop MILES 50 TO MILES	50	1.10	55.00
	UNIT MILEAGE FROM MILES TO MILES			

PART NO. OR DATE	MATERIAL SOLD AND/OR DESCRIPTION OF OPERATION	QTY.	UNIT PRICE	AMOUNT
	RAN 2.30 Broach by Camco Safety System still couldn't set B,H choke OT.s 2½" couldn't get by Safety Valve nipple - rigged down			
	20% discount w/o work & Tools $580			464.00
	mileage			55.00

SUB			519.00
TAX			
TOTAL			

OPERATOR: Wellwhite Castaneda

HELPER: _____

UNIT NO: 15

APPROVED BY: Harry Jacobs

Speedi-ply • MCP • Patented

AC_CPUC_0000586

PRUETT WIRE LINE SERVICE

4899

8915 ROSEDALE HWY BAKERSFIELD, CA 93308
(805) 589-2768

COMPANY So Cal Gas Co WELL NO. SS-25 DATE 5/10/81

ADDRESS _____ FIELD Aliso Cyn

CUSTOMER ORDER NO. _____

(MAPCO)

DATE	SERVICE & RENTAL CHARGES	TOTAL UNITS	UNIT PRICE	AMOUNT
	FIELD			
	WELL NO.			
	SUBSURFACE PRESSURE, TEMPERATURE, WIRE LINE, DYNO			
	FIELD SERVICE CHARGES INCLUDES 1ST 3 HRS			215.00
	2½ ADDITIONAL HOURS @ 60.00 PER HOUR			150.00
	X-hvie running tool	6#		45.00
	1½ Hydraulic JARS			190.00
	PICK-UP MILEAGE FROM Shop MILES 50 TO MILES	50	1.10	55.00
	UNIT MILEAGE FROM MILES TO MILES			

PART NO. OR DATE	MATERIAL SOLD AND/OR DESCRIPTION OF OPERATION	QTY.	UNIT PRICE	AMOUNT
	ATTEMPTED to set 2½" OTIS B. H choke couldn't get by Camco Safety System. tried running choke in nonselective, selective, and with out packing, and without locking Keys. Shut down to go to Bakersfield for branch set.			
	travel @ 200 miles $1.10 per mile			220.00
	20% discount on tools & w/e work $510			408.00
	mileage to Aliso			55.00

SUB			683.00
TAX			
TOTAL			

OPERATOR: Dollahite Castaneda

HELPER: _____

UNIT NO: _____ APPROVED BY: Harry Jarrett

Speedipy • MCP • Patented

AC_CPUC_0000587

PRUETT WIRE LINE SERVICE

4898

8915 ROSEDALE HWY BAKERSFIELD, CA 93308
(805) 589-2768

COMPANY So Cal Gas Co WELL NO. SS 25 DATE 4-11-91

ADDRESS _____ FIELD Aliso Cyn

_____ CUSTOMER ORDER NO. _____

(MAPCO)

DATE	SERVICE & RENTAL CHARGES	TOTAL UNITS	UNIT PRICE	AMOUNT
	FIELD			
	WELL NO.			
	SUBSURFACE PRESSURE, TEMPERATURE, WIRE LINE, DYNO			
	FIELD SERVICE CHARGES INCLUDES 1ST 3 HRS			215.00
	5 ADDITIONAL HOURS @ 60.00 PER HOUR			300.00
	X-Line running tool			45.00
	GS Pulling Tool			75.00
	1½ Hydraulic JARS			100.00
	PICK-UP MILEAGE FROM shop MILES 50 TO shop MILES 50	100	1.10	110.00
	UNIT MILEAGE FROM MILES TO MILES			

PART NO. OR DATE	MATERIAL SOLD AND/OR DESCRIPTION OF OPERATION	QTY.	UNIT PRICE	AMOUNT
	ATTEMPTED TO SET B.H. OTIS			
	2½" choke couldn't get by Camco			
	Safety System.			
	20% discount w/L work & Tools $735.00			588.00
	mileage			110.00
	SUB			698.00
	TAX			
	TOTAL			

OPERATOR: Dellabite Castaneda

HELPER: _____

UNIT NO: 15

APPROVED BY: Kerry Pruett

Speediply ® MCP ® Patented

AC_CPUC_0000588

PRUETT WIRE LINE SERVICE

4897

8915 ROSEDALE HWY BAKERSFIELD, CA 93308
(805) 589-2768

COMPANY SoCalGasCo WELL NO. SS-25 DATE 3Nov81

ADDRESS _____ FIELD Aliso Cyn

_____ CUSTOMER ORDER NO. _____

(MAPCO)

DATE	SERVICE & RENTAL CHARGES	TOTAL UNITS	UNIT PRICE	AMOUNT
	FIELD			
	WELL NO.			
	SUBSURFACE PRESSURE, TEMPERATURE (WIRE LINE), DYNO			
	FIELD SERVICE CHARGES INCLUDES 1ST _____ HRS			
	5 ADDITIONAL HOURS @ 60.00 PER HOUR			300.00
	X-Line running tool			45.00
	PICK-UP MILEAGE FROM MILES TO Shop MILES 55	55	1.10	60.50
	UNIT MILEAGE FROM MILES TO MILES			

PART NO. OR DATE	MATERIAL SOLD AND/OR DESCRIPTION OF OPERATION	QTY.	UNIT PRICE	AMOUNT
	Pulled 2½" B.H. Plug OTIS			
6	ATTEMPTED TO Set B.H. choke			
	Couldn't get by SAFETY System.			
	Shear off choke. RAN in & pulled			
	choke reran couldn't get by SAFETY			
	System came out of hole with choke.			
	30% discount on tools & w/c work #345.00			277.00
	mileage			60.50

SUB			337.50
TAX			
TOTAL			

OPERATOR: Dollahite Castaneda

HELPER: _____

UNIT NO: _____ APPROVED BY: Harry F Jacobs

Speediply • MCP • Patented

AC_CPUC_0000589

PRUETT WIRE LINE SERVICE

4858

8915 ROSEDALE HWY BAKERSFIELD, CA 93308
(805) 589-2768

COMPANY So Cal Gas Co WELL NO. SS-25 DATE 15 Oct 81
ADDRESS _____ FIELD Aliso Cyn
_____ CUSTOMER ORDER NO. _____

DATE	SERVICE & RENTAL CHARGES	TOTAL UNITS	UNIT PRICE	AMOUNT
	FIELD			
	WELL NO.			
	SUBSURFACE PRESSURE, TEMPERATURE, WIRE LINE, DYNO			
	FIELD SERVICE CHARGES INCLUDES 1ST _____ HRS			
	3½ ADDITIONAL HOURS @ 60.00 PER HOUR			210.00
	2½" GS Pulling tool			45.00
	PICK-UP MILEAGE FROM _____ MILES TO Shop MILES 100	100	1.10	110.00
	UNIT MILEAGE FROM _____ MILES TO _____ MILES			

PART NO. OR DATE	MATERIAL SOLD AND/OR DESCRIPTION OF OPERATION	QTY.	UNIT PRICE	AMOUNT
	Pulled 2½" B.H choke at 8472'(WLM)			
	Ran 2½ OTIS X-Plug to 8472'(WLM)			
	20% discount on W/L Tools & WORK $255.00			204.00
	50% discount on mileage $110.00			55.00

SUB			259.00
TAX			
TOTAL			

OPERATOR: Dellahite Castaneda

HELPER: _____

UNIT NO: 15

APPROVED BY: _____

Speedipy • MCP • Patented

AC_CPUC_0000590

PRUETT WIRE LINE SERVICE

4796

8915 ROSEDALE HWY BAKERSFIELD, CA 93308
(805) 589-2768

COMPANY So Cal Gas Co WELL NO. SS-25 DATE 24 Sept 91

ADDRESS _____ FIELD _____

_____ CUSTOMER ORDER NO. _____

MAPCO

DATE	SERVICE & RENTAL CHARGES	TOTAL UNITS	UNIT PRICE	AMOUNT
	FIELD			
	WELL NO.			
	SUBSURFACE PRESSURE, TEMPERATURE, WIRE LINE, DYNO			
	FIELD SERVICE CHARGES INCLUDES 1ST _____ HRS			
	3 ADDITIONAL HOURS @ 60 PER HOUR			180
	PICK-UP MILEAGE FROM _____ MILES TO Shop MILES 100	100	1.10	110.00
	UNIT MILEAGE FROM _____ MILES TO _____ MILES			

PART NO. OR DATE	MATERIAL SOLD AND/OR DESCRIPTION OF OPERATION	QTY.	UNIT PRICE	AMOUNT
	RAN 2½" OTIS B.H choke to 8471 (WLM)			
	20% w/o Tools & work $150.00			144.00
	50% off on mileage $110.00			55.00

	SUB			199.00
	TAX			
	TOTAL			

OPERATOR: Dollahite Ward

HELPER: _____

UNIT NO: 15

APPROVED BY: _____

Speedipy * MCP * Patented

AC_CPUC_0000591

PRUETT WIRE LINE SERVICE

4791

8915 ROSEDALE HWY BAKERSFIELD, CA 93308
(805) 589-2768

COMPANY SoCalGasCo WELL NO. SS-25 DATE 18 Sept 1

ADDRESS _____ FIELD _____

_____ CUSTOMER ORDER NO. _____

MARCO

DATE	SERVICE & RENTAL CHARGES	TOTAL UNITS	UNIT PRICE	AMOUNT
	FIELD			
	WELL NO.			
	SUBSURFACE PRESSURE, TEMPERATURE, WIRE LINE, DYNO			
	FIELD SERVICE CHARGES INCLUDES 1ST 3 HRS			215 00
	_____ ADDITIONAL HOURS @ _____ PER HOUR			
	1 1/2 Hydraulic JARS			100 00
	2 1/2 OTIS Pulling tool			75 00
	PICK-UP MILEAGE FROM Shop MILES 100 TO _____ MILES	100	1 10	110 00
	UNIT MILEAGE FROM _____ MILES _____ TO _____ MILES			

PART NO. OR DATE	MATERIAL SOLD AND/OR DESCRIPTION OF OPERATION	QTY.	UNIT PRICE	AMOUNT
	Pulled 2 1/2" B.H. choke OTIS at 8471 (WLM)			
	20% off on tools & W/L work $390 00			312 00
	50% off on mileage $110 00			55 00
	SUB			367 00
	TAX			
	TOTAL			

OPERATOR: D. White BARNES

HELPER: _____

UNIT NO: _____ APPROVED BY: _____

Speediply ® MCP ® Patented

AC_CPUC_0000592

Archer - Reed

WIRE LINE SERVICE

26995

P. O. Box 5069 Ventura, California 93003

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY SoCal Gas Co LOCATION Aliso Cyn DATE 31 Oct 80

FIELD LEASE SS WELL NO. 25

CASING SIZE TUBING SIZE RECEIVED BY

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
	TO LOCATION					
31 Oct 80	FROM LOCATION	The Location	Shop	35	1.40	49.00

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	
Ran 2½ OTIS Bottom hole choke in selective position to 6470' (WLM) 1.00" Orifice	11:00 AM	1:30 AM	2½	55.00	137.50
2½" X-Line					10.00
				TOTAL	196.50

OPERATOR Dolhite Romay TRUCK NO. 5 CUSTOMER'S ORDER NO.

REMARKS

DIVISION COPY

AC_CPUC_0000593

Archer - Reed

WIRE LINE SERVICE

26990

P. O. Box 5069 Ventura, California 93003

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So Cal Gas Co LOCATION Aliso Cyn DATE 29 Oct 80

FIELD LEASE 55 WELL NO. 25

CASING SIZE TUBING SIZE RECEIVED BY [illegible]

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
	TO LOCATION					
29 Oct 80	FROM LOCATION	Location	Shop	35	1.40	49.00

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	
Ran bottom hole choke 2½ OTIS 1.00" Orifice could'n get pass DS-1 Camco nipple. Ran scratcher Ran choke stiff couldn't get by DS-1 nipple secure well.	~~AM~~ PM	230 AM PM	3	55.00	165.00
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
		TOTAL			214.00

OPERATOR Dellahite Roman TRUCK NO. 5 CUSTOMER'S ORDER NO.

REMARKS Rush

DIVISION COPY

AC_CPUC_0000594

Archer - Reed

WIRE LINE SERVICE

26991

P. O. Box 5069 Ventura, California 93003

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So Cal Gas Co LOCATION Aliso Cyn DATE 30 Oct 80

FIELD LEASE SS WELL NO. 25

CASING SIZE TUBING SIZE RECEIVED BY Ted Wilson

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
30 Oct 80	TO LOCATION	Shop	Location	35	140	49 00
	FROM LOCATION					

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	
RAN 2.25" Broach ran throught DS-1 nipple. Ran Bottom hole choke couldnt get pass DS nipple. RAN broach again. RAN choke couldnt get pass DS nipple. Pulled choke at 8436'(WLM)	7:30 AM	1:30 PM	6	55 00	330 00
X-Line running tool					10 00
2 1/4 Broach					100 00
GS Pulling					10 00
1 1/2 Hydraulics JARS					20 00
				TOTAL	519 00

OPERATOR Dollahite Roman TRUCK NO. 5 CUSTOMER'S ORDER NO.

REMARKS

DIVISION COPY

AC_CPUC_0000595

MERCHANDISE AND SERVICE ORDER
OEC-110G

OTIS

Otis Engineering Corporation
A HALLIBURTON Company

P. O. BOX 34380 · DALLAS, TEXAS 75234
AREA CODE 214-242-8668

INVOICE TO: So. Calif. Gas Co.
P.O. Box 3249
Terminal Annex
Los Angeles, Calif. 90017

ORDER NO. 356635
SEE ORDER NO. (ACCT. ONLY)

We hereby request OTIS ENGINEERING CORPORATION to come to the well location of

OWNER NAME: So. Calif. Gas Co.
WORK ORDER BY (SIGNATURE):
LEASE | API WELL NO.:
FIELD OR AREA: Aliso Canyon
OWNER WELL NO. | STATE: Calif.
FEDERAL WATERS: ☐ YES ☒ NO | COUNTY PARISH: Los Angeles

and hereby agree that its work shall be performed under the terms & conditions on reverse side hereof.

(ACCOUNT ONLY) | DATE: 8-11-80
SALES CREDIT: 443 | ST. | INV. CR.: 443 | TAX
CUSTOMER ORDER NO.: 6003-1 AC
END USE CODE: 101601

SUB SURFACE SAFETY VALVE WAS:
☐ PULLED & RERUN ☐ PULLED ☐ RUN

TYPE LOCK | DEPTH | TYPE VALVE
BEAN SIZE | SPACERS
TUBING PRESSURE | CASING PRESSURE
TUBING SIZE | WELL DEPTH
TREE CONNECTION
TYPE OF EQUALIZING SUB.
UNIT OR VIA

SERVICE CODE	SERVICE, RENTAL AND THIRD PARTY CHARGES	TL UNITS	UNIT PRICE	AMOUNT
	~~$428.80~~			
	(Cont. from MSO # 356634)			
	FROM: TO LOCATION OR DOCK — MILES — TO: FROM LOCATION OR DOCK — MILES			

MATERIAL FURNISHED AND/OR DESCRIPTION OF OPERATION

CODE	PART NUMBER OR DATE	SIZE, TYPE AND DESCRIPTION	QTY.	UNIT PRICE	AMOUNT
	91V318	VEE-Packing	12	4.20	50.40
	1051162	MAIE Packing ADPT.	1	27.00	27.00
	105222	FEM Packing Adpt.	2	16.00	32.00
	10X124	Fishing Neck 2 1/2	1	90.00	90.00
	91Q1125-H	O-Rings SS-25	4	2.10	8.40
	10X127	Exp. Sleeve IW-5T	1	196.00	196.00
	90T242	Springs	4	6.25	25.00
		($214.40/ea)			

CUSTOMER'S FIELD COPY

SERVICE PERFORMED AND/OR MERCHANDISE DELIVERED BY:

EMPLOYEE	HRS	EMPLOYEE	HRS
Sawyer	0	O'Malley	0

CUSTOMER NAME: So. Calif. Gas Co.
APPROVED BY: X
OFF. MGR. APPROVAL | INVOICE NO. | INVOICE DATE

AC_CPUC_0000596

RECEIPT OF DELIVERY
AND SALES CONFIRMATION

CAMCO

7010 ARDMORE • P. O. BOX 14484
HOUSTON, TEXAS 77021
PHONE 747-4000 AC 713

SOLD TO
SOUTHERN CALIFORNIA GAS COMPANY
P.O. BOX 3249, TERMINAL ANNEX
LOS ANGELES, CA 90051 M.L. 57

SHIP TO
CUSTOMER OR FIELD: ALISO CANYON
ADDRESS OR LEASE: SS
CITY OR WELL NO.: 25

SCH. WEEK OF	SHIP VIA	SHIPPING DATE	SALES ORD. NO.	CAMCO CODE NO.	PURCHASE ORDER NO.	INVOICE NO.	N.V. LOC.	DIST.
		1/31/80	88828		4021		66	66

QUAN. ORDERED	QUAN. SHIPPED	DESCRIPTION	STK. REPL. DESIRED Y/N	ACCT. CODE	DISC %	PART NUMBER ASSY.	SUB	VARIANCE	TAX	UNIT PRICE	EXT. AMOUNT
		REPAIR 2-1/2" PC-4 SN: HR-678 (PARTS USED):									
	12	PACKING				10242	012	04000	6%	3 02	36 24
	3	GR RING				20062	016	04000	6%	7 03	21 09
	6	BACK UP RING				20601	012	04000	6%	6 02	36 12
	1	GT RING				20062	017	04000	6%	7 03	7 03
	2	BACK UP RING				40164	005	04000	6%	6 92	13 84
	1	O RING				35321	002	04000	6%	2 10	2 10
	1	O RING				20094	010	04000	6%	2 12	2 12
	1	1 - SOFT SEAT				20605	016	04000	6%	4 13	4 13
	1	TAIL PLUG				02370	003	04000	6%	34 71	34 71
	1	COPPER GASKET				02370	004	03000	6%	60	60
	4	HOURS SHOP TIME SERVICE CHG.		258						25 00	100 00
		MILEAGE									

$257.98

I, THE UNDERSIGNED, DO HEREBY CERTIFY THAT I HAVE FULL AUTHORITY TO OBTAIN THE ABOVE LISTED EQUIPMENT, THAT I HAVE EXAMINED ALL OF THE ABOVE LISTED EQUIPMENT AND FOUND IT TO BE IN GOOD SERVICEABLE CONDITION AND THAT I ACCEPT IT WITH FULL UNDERSTANDING OF AND AGREEMENT TO ALL OF THE TERMS AND CONDITIONS OF SALE SET FORTH ON THE REVERSE SIDE HEREOF.

PURCHASER _____ BY _____

EXTRA COPY

DELIVERED BY: _____

TERMS AND CONDITIONS OF SALE
SEE REVERSE SIDE

PAGE 1 OF 1

MPF-35

AC_CPUC_0000597

RECEIPT OF DELIVERY
AND SALES CONFIRMATION

CAMCO

7010 ARDMORE • P.O. BOX 14484
HOUSTON, TEXAS 77021
PHONE 747-4000 AC 713

SOLD TO: SOUTHERN CALIFORNIA GAS COMPANY
P.O. BOX 3249, TERMINAL ANNEX
LOS ANGELES, CA 90051 M.L. 57

SHIP TO
CUSTOMER OR FIELD: ALISO CANYON
ADDRESS OR LEASE: SS
CITY OR WELL NO.: 25

SCH. WEEK OF	SHIP VIA	SHIPPING DATE	SALES ORD. NO.	CAMCO CODE NO.	PURCHASE ORDER NO.	INVOICE NO.	INV. LOC.	DIST.
		1/31/80	87767		4021		66	66

QUAN. ORDERED	QUAN. SHIPPED	DESCRIPTION	STK. REPL. DESIRED R.	ACCT. CODE	DISC %	PART NUMBER ASSY.	SUB	VARIANCE	TAX DIRECTION	UNIT PRICE DOLLARS	UNIT PRICE CENTS	EXT. AMOUNT DOLLARS	EXT. AMOUNT CENTS
	1	REPAIR 2-1/2" GS PACKOFF (PARTS USED):											
	12	PACKING				10242	012	04000	6%	3	02	36	24
	1	BACK UP RING				20621	012	04000	6%	18	14	18	14
	1	RETAINER RING				20621	013	04000	6%	24	58	24	58
		ENT PICKED UP											
		HOURS SHOP TIME SERVICE CHG.		258					X	25	00	50	00
		MILEAGE											

SIGNED, DO HEREBY CERTIFY THAT I HAVE FULL AUTHORITY TO OBTAIN THE ABOVE LISTED EQUIPMENT, EXAMINED ALL OF THE ABOVE LISTED EQUIPMENT AND FOUND IT TO BE IN GOOD SERVICEABLE CONDI- AT I ACCEPT IT WITH FULL UNDERSTANDING OF AND AGREEMENT TO ALL OF THE TERMS AND CONDI- E SET FORTH ON THE REVERSE SIDE HEREOF.

$120.96

BY _____

DELIVERED BY: _____

EXTRA COPY

TERMS AND CONDITIONS OF SALE
SEE REVERSE SIDE

PAGE 1 OF 1

MPF-35

AC_CPUC_0000598

Archer - Reed

WIRE LINE SERVICE

25864

P. O. Box 5069 Ventura, California 93003

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So. Calif. Gas Co. LOCATION DATE 2-11-80

FIELD Aliso Cyn. LEASE S.S. WELL NO. 25

CASING SIZE TUBING SIZE RECEIVED BY W. E. Smith

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
	TO LOCATION					
2-11	FROM LOCATION	Well	Shop	55	1.25	68.75

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	
Rigged up. Pulled 2½" Otis choke from 8480' Ran choke could not get through safety valve nipple at 8447' Pulled choke from 8447' Reran & set choke at 8480' Stood by to test - choke did not stay in nipple Pulled choke from 8480' Ran 2½" wire scratcher to 8490' Shut down for night.	10:30 AM	3:30 PM	5	50.00	250.00
	AM / PM	AM / PM			
	AM / PM	AM / PM			
	AM / PM	AM / PM			
	AM / PM	AM / PM			
	AM / PM	AM / PM			
	AM / PM	AM / PM			
	AM / PM	AM / PM			
	AM / PM	AM / PM			
	AM / PM	AM / PM			
	AM / PM	AM / PM			
		TOTAL			

OPERATOR Marsh - Coryell TRUCK NO. CUSTOMER'S ORDER NO.

Meadow

REMARKS

DIVISION COPY

AC_CPUC_0000599

Archer - Reed

WIRE LINE SERVICE

25810

P. O. Box 5069 Ventura, California 93003

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So. Calif. Gas Co. LOCATION _____ DATE 2-7-80

FIELD Aliso Cyn. LEASE S.S. WELL NO. 25

CASING SIZE _____ TUBING SIZE _____ RECEIVED BY Wm. O. Reed

DATE		MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
2-7		TO LOCATION	SHOP	WELL	55	1.25	68.75
		FROM LOCATION					

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	
Rigged up. Pulled DCRT from mandrel	7:30 AM ~~PM~~	AM PM			
At 8408' valve shifted. Ran DCRT &	AM PM	AM PM			
to 8408. Rigged down.	AM PM	11:30 AM ~~PM~~	4	50.00	200.00
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
		TOTAL			

OPERATOR Myers - Conyers TRUCK NO. _____ CUSTOMER'S ORDER NO. _____

REMARKS Meador

DIVISION COPY

AC_CPUC_0000600

Archer - Reed

WIRE LINE SERVICE

25807

P. O. Box 5069 Ventura, California 93003

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So. Calif. Gas Co. LOCATION DATE 2-5-80

FIELD Aliso Cyn. LEASE S.S. WELL NO. 25

CASING SIZE TUBING SIZE RECEIVED BY

DATE		MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
		TO LOCATION					
		FROM LOCATION					

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	AMOUNT
Rigged up. Ran in to pull DCRT from	10:30 AM PM	AM PM			
8408 could not stay latched on.	AM PM	AM PM			
Rigged down.	AM PM	12:30 PM	2	50.00	100.00
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
		TOTAL			

OPERATOR Marsh - Rikert TRUCK NO. CUSTOMER'S ORDER NO.

REMARKS

DIVISION COPY

AC_CPUC_0000601

Archer - Reed

WIRE LINE SERVICE

25800

P. O. Box 5069 Ventura, California 93003

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So. Calif. Gas Co. LOCATION DATE 1-29-80

FIELD Aliso Cyn. LEASE S.S. WELL NO. 25

CASING SIZE TUBING SIZE RECEIVED BY W. P. Smith

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
	TO LOCATION					
1-29	FROM LOCATION	Well	Shop	55	1.25	68.75

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	
Rigged up. Ran 2 1/2" OTIS Choke to 8482	~~AM~~ 1:30 PM	AM PM			
Shut Down for night	AM PM	~~AM~~ 4:00 PM	2 1/2	50.00	125.00
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
		TOTAL			

OPERATOR Marsh-Smith TRUCK NO. CUSTOMER'S ORDER NO.

REMARKS

DIVISION COPY

AC_CPUC_0000602

SERVICE & SALES AGREEMENT
PHONE 713 / 747-4000

CAMCO

CAMCO WIRELINE, INC.
7010 ARDMORE
P. O. BOX 14484
HOUSTON, TEXAS 77021

NAME So. Cal. Gas Co.	FIELD Aliso Cyn.
ADDRESS P.O. Box 3249, Term. Annex	LEASE S.S.
CITY L.A., Calif. 90051	WELL # 25

DATE	DELIVERY TICKET NO.	CAMCO CODE NUMBER	CAMCO UNIT NUMBER	PURCHASE ORDER NUMBER	INVOICE NUMBER	DISTRICT
1-28-80	43295					55

ON LOCATION CHARGES: Set up - Ran 2½" Camco PC-4 Safety Valve (HT-934, F/O @ 550#, F/C 350# @ 60#), and set @ 8444'. Ran 2½" Camco GS-Packoff and set @ 8434'. Stand by for test. Did not test good. Set up - Pulled GS-Packoff @ 8434'. Pulled Safety Valve @ 8444'. Rig Down

TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE
7:30 AM	AM		
AM	AM		
AM	11:30 AM	4	Minimum Charge
11:30 AM	AM		
AM	AM		
AM	3:30 PM	4	48 00
AM	AM		
AM	AM		
AM	AM		
AM	AM		
AM	AM		

QUANTITY	DESCRIPTION OF OPERATION	ACC. CODE	DISC. %	PART NUMBER: ASSY.	SUB.	VARIANCE	TAX	UNIT PRICE	EXT. AMT.
120	MILEAGE CHARGE FROM Shop LOCATION / TO Shop LOCATION	432						1 00	120 00
4	HOURS SERVICE CHARGE	401						48 00	192 00
4	Hrs Minimum Charge	401						50 00	200 00
3	Hrs Travel time	432						48	144 00
1	1½" Hyd. Jars Rental	452						60 00	60 00
								TOTAL	716 00

TERMS AND CONDITIONS OF SERVICES AND SALES
See Reverse Side

I, the undersigned, do hereby certify that I have full authority to obtain the above listed services and equipment, that I have examined all of the above listed equipment and found it to be in good serviceable condition and that I accept it and the services to be performed with full understanding of and agreement to all of the terms and conditions of sale set forth on the reverse side hereof.

Total charges approved:
By _____

Purchaser:
S.C.G.
By _____

CAMCO WIRELINE, INC. PERSONNEL
E. Cole
M. Ferguson

FORM #7003W B

CUSTOMER COPY

AC_CPUC_0000603

SERVICE & SALES AGREEMENT

PHONE 713 / 747-4000

CAMCO

CAMCO WIRELINE, INC.
7010 ARDMORE
P. O. BOX 14484
HOUSTON, TEXAS 77021

NAME So. Cal. Gas Co.	FIELD Aliso Cyn.
ADDRESS P.O. Box 3249, Term. Annex	LEASE S.S.
CITY L.A., Calif. 90051	WELL # 25

DATE	DELIVERY TICKET NO.	CAMCO CODE NUMBER	CAMCO UNIT NUMBER	PURCHASE ORDER NUMBER	INVOICE NUMBER	DISTRICT
1-25-80	43294		1			55

ON LOCATION CHARGES:	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE
Standby For Retest. Did Not test good. Set up — Pulled GS-Packoff @ 8434'.	7:30 AM	11:30 AM	4	Min Charge
Redressed & Reran Packoff, set @ 8434'. Standby	11:30 AM	AM		
For test. Did not test good. Set up And Pulled	AM	AM		
GS-Packoff @ 8434'. Pulled Safety Valve @ 8444'	AM	AM		
Shut down	AM	3:00 PM	3½	48.00
	AM	AM		
	AM	AM		
	AM	AM		
	AM	AM		
	AM	AM		
	AM	AM		

Note: Encountered tight spot @ 3587' Every Run.

QUANTITY	DESCRIPTION OF OPERATION	ACCT. CODE	SPEC. %	PART NUMBER	TAX	UNIT PRICE	EXT. AMT.
120	MILEAGE CHARGE FROM Shop LOCATION / TO LOCATION Shop	432				1 00	120 00
3½	HOURS SERVICE CHARGE	401				48 00	168 00
4	HRS Minimum CHARGE	401				50 00	200 00
1	1½" Hyd. JARS RENTAL	452				60 00	60 00
2½	HRS TRAVEL time	432				48 00	120 00
						TOTAL	668 00

TERMS AND CONDITIONS OF SERVICES AND SALES

See Reverse Side

I, the undersigned, do hereby certify that I have full authority to obtain the above listed services and equipment, that I have examined all of the above listed equipment and found it to be in good serviceable condition and that I accept it and the services to be performed with full understanding of and agreement to all of the terms and conditions of sale set forth on the reverse side hereof.

Total charges approved:

By W. R. Cain

Purchaser:

S.G.G.

By W. R. Cain

CAMCO WIRELINE, INC. PERSONNEL

E. Cole

M. Ferguson

FORM #7003W B

CUSTOMER COPY

AC_CPUC_0000604

CAMCO

SERVICE & SALES AGREEMENT
PHONE 713 / 747-4000

CAMCO WIRELINE, INC.
7010 ARDMORE
P. O. BOX 14484
HOUSTON, TEXAS 77021

NAME So. Cal. Gas Co.	FIELD Aliso Cyn.
ADDRESS P.O. Box 3249, Term. Annex	LEASE S.S.
CITY L.A., Calif. 90051	WELL # 25

DATE	DELIVERY TICKET NO.	CAMCO CODE NUMBER	CAMCO UNIT NUMBER	PURCHASE ORDER NUMBER	INVOICE NUMBER	DISTRICT
1-24-80	43293					55

ON LOCATION CHARGES:	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE
Set up - Pulled 2½" Camco GS-Packoff @ 8434'. Pulled 2½" Camco PC-4 Safety Valve @ 8444'. Redressed Safety Valve and Reran, set @ 8444'. Redressed & Reran GS-Packoff. Set @ 8434'. Standby for test. Did not test good.	7:30 AM	AM PM		
	AM PM	11:30 AM PM	4	M.N. Charge
	11:30 AM	AM PM		
	AM PM	AM PM		
Shut down for the Day	AM PM	2:00 PM	2½	48.00
	AM PM	AM PM		
	AM PM	AM PM		
	AM PM	AM PM		
	AM PM	AM PM		
	AM PM	AM PM		
Note: Encountered tight spot @ 3587' every run.	AM PM	AM PM		

QUANTITY	DESCRIPTION OF OPERATION	ACC. CODE	DISC %	PART NUMBER ASS'Y	PART NUMBER REV.	PART NUMBER VARIANCE	TAX	UNIT PRICE	EXT. AMT.
120	MILEAGE CHARGE FROM Shop LOCATION / TO Shop LOCATION	452						1 00	120 00
2½	HOURS SERVICE CHARGE	401						48 00	120 00
4	Hrs Minimum Charge	401						50 00	200 00
1	1½" Hyd. Jars Rental	452						60 00	60 00
2½	Hrs Travel time	432						48 00	120 00
								TOTAL	620 00

TERMS AND CONDITIONS OF SERVICES AND SALES
See Reverse Side

I, the undersigned, do hereby certify that I have full authority to obtain the above listed services and equipment, that I have examined all of the above listed equipment and found it to be in good serviceable condition and that I accept it and the services to be performed with full understanding of and agreement to all of the terms and conditions of sale set forth on the reverse side hereof.

Total charges approved:
By W. D. Cole

Purchaser:
S.C.G.
By W. D. Cole

CAMCO WIRELINE, INC. PERSONNEL
E. Cole
M. Ferguson

FORM #7003W B

CUSTOMER COPY

AC_CPUC_0000605

CAMCO WIRELINE, INC.
7010 ARDMORE
P. O. BOX 14484
HOUSTON, TEXAS 77021

SERVICE & SALES AGREEMENT

PHONE 713 / 747-4000

NAME So. CAL. GAS Co.	FIELD Aliso Cyn
ADDRESS P.O. Box 3249, Term. Annex	LEASE S.S.
CITY L.A., CALIF. 90051	WELL # 25

DATE	DELIVERY TICKET NO.	CAMCO CODE NUMBER	CAMCO UNIT NUMBER	PURCHASE ORDER NUMBER	INVOICE NUMBER	DISTRICT
1-23-80	43292					55

ON LOCATION CHARGES: SET up — RAN in AND hooked Fish @8440'. RAN 2½" CAMCO PC-4 SAFETY VALVE & Could not beat through Top (DS-1) NIPPLE, CAME out and checked tool & VALVE. RERAN SAME AND SET @8444'. RAN 2½" CAMCO GS-PACKOFF AND SET @8434', STANDBY FOR test. Did not test good. SHUT down

TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE
7:30 AM	11:30 AM	4	MIN CHARGE
11:30 AM	AM PM		
AM PM	AM PM		
AM PM	AM PM		
AM PM	AM PM		
AM PM	3:30 PM	4	48.00
AM PM	AM PM		
AM PM	AM PM		
AM PM	AM PM		
AM PM	AM PM		

NOTE: ENCOUNTERED light spot @ 3589' EVERY RUN.

QUANTITY	DESCRIPTION OF OPERATION	ACC'T CODE	DISC'T	PART NUMBER	TAX	UNIT PRICE	EXTENSION
120	MILEAGE CHARGE FROM SHOP LOCATION TO LOCATION SHOP	432				1 00	120 00
4	HOURS SERVICE CHARGE	401				48 00	192 00
4	HRS MINIMUM CHARGE	401				50 00	200 00
1	1½" Hyd. JARS RENTAL	452				60 00	60 00
2½	HRS TRAVEL time	432				48 00	120 00
						TOTAL	692 00

TERMS AND CONDITIONS OF SERVICES AND SALES

See Reverse Side

I, the undersigned, do hereby certify that I have full authority to obtain the above listed services and equipment, that I have examined all of the above listed equipment and found it to be in good serviceable condition and that I accept it and the services to be performed with full understanding of and agreement to all of the terms and conditions of sale set forth on the reverse side hereof.

Total charges approved:

By W. D. Rawlins

Purchaser:

S.C.G.

By W. D. Rawlins

CAMCO WIRELINE, INC. PERSONNEL

E. Cole

M. FERGUSON

FORM #7003W B

CUSTOMER COPY

AC_CPUC_0000606

CAMCO WIRELINE, INC.
7010 ARDMORE
P. O. BOX 14484
HOUSTON, TEXAS 77021

SERVICE & SALES AGREEMENT

PHONE 713 / 747-4000

NAME So. Cal. Gas Co.	FIELD Aliso Cyn.
ADDRESS P.O. Box 3249, Term. Annex	LEASE S.S.
CITY L.A., Calif. 90051	WELL # 25

DATE	DELIVERY TICKET NOS.	CAMCO CODE NUMBER	CAMCO UNIT NUMBER	PURCHASE ORDER NUMBER	INVOICE NUMBER	DISTRICT
1-22-80	43291					55

ON LOCATION CHARGES: Rigged up — Pulled 2½" Camco GS-Packoff @ 8434', nose on packoff indicates safety valve came uphole and struck packoff. Ran inner fishing spear and hooked valve, jarred on until slips pulled off. Replaced slips and reran spear, could not hook came out and checked tool. Marks on bottom of spear indicate slips were previously still inside fish neck. Reran spear ~~and~~ on 2" jar and spud into fish neck. Shut down f/ the day.

TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE
8:00 AM	AM PM		
AM PM	AM PM		
AM PM	AM PM		
AM PM	12:00 AM PM	4	Min Charge
12:00 AM PM	AM PM		
AM PM	AM PM		
AM PM	AM PM		
AM PM	3:30 AM PM	3½	48.00
AM PM	AM PM		
AM PM	AM PM		
AM PM	AM PM		

QUANTITY	DESCRIPTION OF OPERATION	ACC. CODE	DISC %	PART NUMBER VARIANCE	TAXX	UNIT PRICE	EXT. AMT.
120	MILEAGE CHARGE FROM Shop LOCATION / TO LOCATION Shop	432				1 50	180 00
3½	HOURS SERVICE CHARGE	401				48 00	168 00
4	Hrs Minimum Charge	401				50 00	200 00
1	1½" Hyd. Jars Rental 1st Day	452				125 00	125 00
2½	Hrs Travel time	432				48 00	120 00
						TOTAL	793 00

TERMS AND CONDITIONS OF SERVICES AND SALES

See Reverse Side

I, the undersigned, do hereby certify that I have full authority to obtain the above listed services and equipment, that I have examined all of the above listed equipment and found it to be in good serviceable condition and that I accept it and the services to be performed with full understanding of and agreement to all of the terms and conditions of sale set forth on the reverse side hereof.

Total charges approved:

By W.D. [illegible]

Purchaser:

S.C.G.

By W.D. [illegible]

CAMCO WIRELINE, INC. PERSONNEL

E. Cole

M. Ferguson

FORM #7003W B

CUSTOMER COPY

AC_CPUC_0000607

RECEIPT OF DELIVERY AND SALES CONFIRMATION

CAMCO

7010 ARDMORE • P.O. BOX 14484
HOUSTON, TEXAS 77021
PHONE 747-4000 AC 713

SOLD TO: SOUTHERN CALIFORNIA GAS COMPANY
P.O. BOX 3249, TERMINAL ANNEX
LOS ANGELES, CA 90051 M.L. 57

SHIP TO:
CUSTOMER OR FIELD: ALISO CANYON
ADDRESS OR LEASE: SS
CITY OR WELL NO.: 25

SCH. WEEK OF	SHIP VIA	SHIPPING DATE	SALES ORD. NO.	CAMCO CODE NO.	PURCHASE ORDER NO.	INVOICE NO.	INV. LOC.	DIST.
		1/4/80	87714		4021		66	66

QUAN. ORDERED	QUAN. SHIPPED	DESCRIPTION	STK/ REPL. DESIRED R	ACC. CODE	DISC %	PART NUMBER ASSY.	SUB	VARIANCE	TAX	UNIT PRICE	EXTENSION AMOUNT
	1	REPAIR 2-1/2" A-2 BLANKING PLUG (PARTS USED):									
	12	PACKING				20006	008	04000	6%	2 38	28 56
	6	PACKING				10242	012	04000	6%	3 02	18 12
	1	O RING				01009	007	01000	6%	1 11	1 11
	1	RATCHET				10208	E00	04000	6%	32 24	32 24
		EQUIPMENT PICKED UP									
	2	HOURS SHOP TIME SERVICE CHG.		258						25 00	50 00
		MILEAGE									

$130.03

I, THE UNDERSIGNED, DO HEREBY CERTIFY THAT I HAVE FULL AUTHORITY TO OBTAIN THE ABOVE LISTED EQUIPMENT, THAT I HAVE EXAMINED ALL OF THE ABOVE LISTED EQUIPMENT AND FOUND IT TO BE IN GOOD SERVICEABLE CONDITION AND THAT I ACCEPT IT WITH FULL UNDERSTANDING OF AND AGREEMENT TO ALL OF THE TERMS AND CONDITIONS OF SALE SET FORTH ON THE REVERSE SIDE HEREOF.

DELIVERED BY: _____

PURCHASER _____ BY _____

TERMS AND CONDITIONS OF SALE SEE REVERSE SIDE

PAGE 1 OF 1

EXTRA COPY

MPF-35

AC_CPUC_0000608

SERVICE & SALES AGREEMENT
PHONE 713 / 747-4000

CAMCO

CAMCO WIRELINE, INC.
7010 ARDMORE
P. O. BOX 14484
HOUSTON, TEXAS 77021

NAME So. Cal Gas Co.	FIELD Aliso Cyn.
ADDRESS P.O. Box 3249, Term. Annex	LEASE SS
CITY L.A., Calif. 90051	WELL #25

DATE	DELIVERY TICKET NO.	CAMCO CODE NUMBER	CAMCO UNIT NUMBER	PURCHASE ORDER NUMBER	INVOICE NUMBER	DISTRICT
1-10-80	43288					55

ON LOCATION CHARGES:	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE
Set up 3 sections Lubricator And Fished Cutter bar @ 8428'. Fished out tool string @ 8430'. Ran 2½" Camco GS-Packoff And Hung up @ 3590', Jarred through. Set @ 8434' Tested Good. Rigged Down	7:30 AM	11:30 AM		
	11:30 AM	AM PM		
	AM PM	AM PM		
	AM PM	3:30 PM		
	AM PM	AM PM		
	AM PM	AM PM		
	AM PM	AM PM		
	AM PM	AM PM		
	AM PM	AM PM		
	AM PM	AM PM		

QUANTITY	DESCRIPTION OF OPERATION	ACC. CODE	DISC %	PART NUMBER ASSY.	PART NUMBER SUF.	PART NUMBER VARIANCE	TAX	UNIT PRICE	EXTENSION
120	MILEAGE CHARGE FROM: Shop LOCATION / TO: LOCATION Shop	432						1 00	120 00
4	HOURS SERVICE CHARGE	401						48 00	192 00
1	1½" Hyd. JARS Rental	452						60 00	60 00
4	HRS. MINIMUM CHARGE	401						200 00	200 00
2½	HRS TRAVEL TIME	432						48 00	120 00
								TOTAL	692 00

TERMS AND CONDITIONS OF SERVICES AND SALES
See Reverse Side

I, the undersigned, do hereby certify that I have full authority to obtain the above listed services and equipment, that I have examined all of the above listed equipment and found it to be in good serviceable condition and that I accept it and the services to be performed with full understanding of and agreement to all of the terms and conditions of sale set forth on the reverse side hereof.

Total charges approved:
By W. D. Rankin

Purchaser:
S.C.G.
By W. D. Rankin

CAMCO WIRELINE, INC. PERSONNEL
E. Cole
M. Ferguson

FORM #7003W B

CUSTOMER COPY

AC_CPUC_0000609

SERVICE & SALES AGREEMENT

PHONE 713 / 747-4000

CAMCO

CAMCO WIRELINE, INC.
7010 ARDMORE
P. O. BOX 14484
HOUSTON, TEXAS 77021

NAME So. Cal. Gas Co.	FIELD Aliso Cyn.
ADDRESS P.O. Box 3249, Term. Annex	LEASE SS
CITY L.A., Calif. 90051	WELL # 25

DATE	DELIVERY TICKET NO.	CAMCO CODE NUMBER	CAMCO UNIT NUMBER	PURCHASE ORDER NUMBER	INVOICE NUMBER	DISTRICT
1-9-80	43287					55

ON LOCATION CHARGES: NO Production

TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE
AM PM	AM PM		
AM PM	AM PM		
AM PM	AM PM		
AM PM	AM PM		
AM PM	AM PM		
AM PM	AM PM		
AM PM	AM PM		
AM PM	AM PM		
AM PM	AM PM		
AM PM	AM PM		
AM PM	AM PM		

QUANTITY	DESCRIPTION OF OPERATION	ACC. CODE	DISC %	PART NUMBER ASSY	SUB	VARIANCE	TAX	UNIT PRICE	EXT. AMT.
120	MILEAGE CHARGE FROM: 5 Hop LOCATION / TO: 5 Hop LOCATION	432						1 00	120 00
	HOURS SERVICE CHARGE								
3	Hrs TRAVEL time	432						48 00	144 00
								TOTAL	264 00

TERMS AND CONDITIONS OF SERVICES AND SALES

See Reverse Side

I, the undersigned, do hereby certify that I have full authority to obtain the above listed services and equipment, that I have examined all of the above listed equipment and found it to be in good serviceable condition and that I accept it and the services to be performed with full understanding of and agreement to all of the terms and conditions of sale set forth on the reverse side hereof.

Total charges approved:

By _____

Purchaser:

S.C.G.

By _____

CAMCO WIRELINE, INC. PERSONNEL

E. Cole

M. Ferguson

FORM #7003W B

CUSTOMER COPY

AC_CPUC_0000610

SERVICE & SALES AGREEMENT

PHONE 713 / 747-4000

CAMCO

CAMCO WIRELINE, INC.
7010 ARDMORE
P. O. BOX 14484
HOUSTON, TEXAS 77021

NAME So. Cal. Gas Co.	FIELD Aliso Cyn
ADDRESS P.O. Box 3249, Term. Annex	LEASE SS
CITY L.A., Calif. 90051	WELL #25

DATE	DELIVERY TICKET NO.	CAMCO CODE NUMBER	CAMCO UNIT NUMBER	PURCHASE ORDER NUMBER	INVOICE NUMBER	DISTRICT
1-8-80	43286					55

ON LOCATION CHARGES: Set up & Ran Tandom 2.347 Tubing Broaches to tight spot @ 1346'. Broached until tools would go both ways easily. Ran 2½" Camco PC-4 safety valve, Hung up @ 3589' and jarred through. Set safety valve @ 8443', had hard time trying to shear off. Parted line at counter wheel shiv, pulled line tight and dropped cutter bar. Fished all wire out. Shut down f/day.

TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE
7:30 AM	AM		
AM	AM		
AM	11:30 AM	4	50.00
11:30 AM	AM		
AM	AM		
AM	AM		
AM	3:00 PM	3½	48.00
AM	AM		
AM	AM		
AM	AM		
AM	AM		

QUANTITY	DESCRIPTION OF OPERATION	ACCT. CODE	SEC. NO.	PART NUMBER ACCT.	PART NUMBER SUB	PART NUMBER VARIANCE	TAX	UNIT PRICE	EXT. AMT.
120	MILEAGE CHARGE FROM Shop LOCATION TO LOCATION Shop	432						1 00	120 00
3½	HOURS SERVICE CHARGE	401						48 00	168 00
4	HRS minimum charge @ $50.00 per hr	401						50 00	200 00
2½	HRS TRAVEL TIME	432						48 00	120 00

TOTAL 608 00

TERMS AND CONDITIONS OF SERVICES AND SALES

See Reverse Side

I, the undersigned, do hereby certify that I have full authority to obtain the above listed services and equipment, that I have examined all of the above listed equipment and found it to be in good serviceable condition and that I accept it and the services to be performed with full understanding of and agreement to all of the terms and conditions of sale set forth on the reverse side hereof.

Total charges approved:

By W. O. Carver

Purchaser:

S. CGC.

W. O. Carver

CAMCO WIRELINE, INC. PERSONNEL

E. Cole

M. Ferguson

#7003W B

CUSTOMER COPY

AC_CPUC_0000611

SERVICE & SALES AGREEMENT
PHONE 713 / 747-4000

CAMCO

CAMCO WIRELINE, INC.
7010 ARDMORE
P. O. BOX 14484
HOUSTON, TEXAS 77021

NAME So. Cal. Gas Co.	FIELD Aliso Cyn.
ADDRESS P.O. Box 3249, Term. Annex	LEASE SS.
CITY L.A., Calif. 90051	WELL # 25

DATE	DELIVERY TICKET NO.	CAMCO CODE NUMBER	CAMCO UNIT NUMBER	PURCHASE ORDER NUMBER	INVOICE NUMBER	DISTRICT
1-7-80	43285					55

ON LOCATION CHARGES:	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE
Set up & ran tandom broaches	7:30 AM PM	AM PM		
2.347 O.D. to tight spot @ 1346' and beat				
through. Ran into tight spots @ 3590' & 3608' and				
broached clear, ran down and tagged DJ-1 nipple @				
8434'. Came up and broached tight spot @ 1346'.				
Stuffing box blew out, came out & repacked.				
Reran tandom broaches to 1346' and continued				
broaching tight spot @ 1346'. Shut down f/ the day-		3:30 PM	8	Min. Charge

QUANTITY	DESCRIPTION OF OPERATION	ACC. CODE	DISC. %	PART NUMBER ASSY.	SUB.	VARIANCE	TAX	UNIT PRICE	EXT. AMT.
120	MILEAGE CHARGE FROM Shop LOCATION TO Site LOCATION	432						1 00	120 00
8	HOURS SERVICE CHARGE Minimum Charge	401						384 00	384 00
3	HRS TRUCK time	432						48 00	144 00
								TOTAL	648 00

TERMS AND CONDITIONS OF SERVICES AND SALES
See Reverse Side

I, the undersigned, do hereby certify that I have full authority to obtain the above listed services and equipment, that I have examined all of the above listed equipment and found it to be in good serviceable condition and that I accept it and the services to be performed with full understanding of and agreement to all of the terms and conditions of sale set forth on the reverse side hereof.

Total charges approved:
BY

Purchaser:
P.G.

CAMCO WIRELINE, INC. PERSONNEL
E. Cole
M. Ferguson

#7003W B

CUSTOMER COPY

AC_CPUC_0000612

SERVICE & SALES AGREEMENT
PHONE 713 / 747-4000

CAMCO

CAMCO WIRELINE, INC.
7010 ARDMORE
P. O. BOX 14484
HOUSTON, TEXAS 77021

NAME So. Cal. Gas Co.	FIELD Aliso Cyn.
ADDRESS P.O. Box 3249, Term. Annex	LEASE [redacted] 'SS'
CITY L.A., Calif. 90051	WELL #25

DATE	DELIVERY TICKET NO.	CAMCO CODE NUMBER	CAMCO UNIT NUMBER	PURCHASE ORDER NUMBER	INVOICE NUMBER	DISTRICT
1-4-80	43284					55

ON LOCATION CHARGES: MOVED ONTO LOCATION - Rigged up. Set up to pull OTIS Choke. Pulled choke @ 8465'. Ran 2½" CAMCO PC-4 SAFETY VALVE and Hit Tight spots @ 3589 AND 3608, JARRED through. Attempted to SET in WP-1 nipple, but valve Kept Falling back through Nipple. CAME out & checked WK-1 Running tool AND HAD Damaged 'CORE. Shut down. Pkg. Minimum CHARGE

TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE
730 AM	AM		
AM	AM		
AM	AM		
AM	AM		
AM	AM		
AM	PM		
AM	AM		
AM	AM		
AM	AM		
AM	AM		
AM	AM		

QUANTITY	DESCRIPTION OF OPERATION	ACC. CODE	DISC. %	PART NUMBER	TAX	UNIT PRICE	EXT. AMT.
120	MILEAGE CHARGE FROM Shop LOCATION / TO LOCATION Shop	432				1 00	120 00
8	HOURS SERVICE CHARGE Minimum CHARGE	401				384 00	384 00
1	1½" Hyd. JARS Rental	452				60 00	60 00
1	HR TRAVEL TIME	432				48 00	48 00
						TOTAL	612 00

TERMS AND CONDITIONS OF SERVICES AND SALES
See Reverse Side

I, the undersigned, do hereby certify that I have full authority to obtain the above listed services and equipment, that I have examined all of the above listed equipment and found it to be in good serviceable condition and that I accept it and the services to be performed with full understanding of and agreement to all of the terms and conditions of sale set forth on the reverse side hereof.

Total charges approved:
By W. D. Carmichael

Purchaser:
S.C.G.
By W. D. Carmichael

CAMCO WIRELINE, INC. PERSONNEL
E. Cole
M. Ferguson

FORM #7003W B

CUSTOMER COPY

AC_CPUC_0000613

Archer - Reed

WIRE LINE SERVICE

25716

P. O. Box 5069 Ventura, California 93003

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So. Calif. Gas Co. LOCATION _____ DATE ~~1-3-80~~ 1-3-80

FIELD Aliso Cyn. LEASE S.S. WELL NO. 25

CASING SIZE _____ TUBING SIZE _____ RECEIVED BY Wm P. Smith

DATE		MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
1-3		TO LOCATION	SHOP	WELL	55	1.25	68.75
1-3		FROM LOCATION	WELL	SHOP	55	1.25	68.75

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	AMOUNT
RAN 2½" WIRE SCRATCHER TO 8460' RAN 2½" CAMCO CA-2 PLUG TO 8445' STOOD BY TO TEST TUBING - TEST GOOD PULLED 2½" PLUG FROM 8445' RIGGED DOWN.	7~~00~~ AM PM	AM 1300 PM	4½	50.00	225.00
MACHINE SHOP CHARGES FOR SUB MADE TO X-OVER - 'D' MANDREL TO X EQUIV. SUB.					67.50
				TOTAL	

OPERATOR MARSH - COMBEL TRUCK NO. _____ CUSTOMER'S ORDER NO. _____

REMARKS _____

DIVISION COPY

AC_CPUC_0000614

HANSON WIRE LINE COMPANY

P. O. Box 1911 Ventura, California 93001
Telephone (805) 648-1780

94716

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

TERMS AND CONDITIONS OF WORK

We have requested Hanson Wire Line Service to come to the location of Southern Calif Gas Co. (OWNER) Standard Sesnon 85 (LEASE) (WELL NO.) well in the Los Angeles (NAME OF FIELD) Basin (STATE) field and hereby agree that its work shall be performed under the following terms and conditions:

Service charges include mileage and use of Hanson men and equipment on the well. If it is necessary to transport Hanson equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. Hanson personnel will exert its best efforts to perform work requested but results are not guaranteed and Hanson reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If Hanson personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by Hanson it may be returned for full credit, less cost, if any of reconditioning. When Hanson equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

BILLING ADDRESS _____ SIGNED _____ (NAME OF COMPANY)

_____ BY _____ (COMPANY REPRESENTATIVE)

DATE 197	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
11 12	TO LOCATION	Steam	Sesnon	35	1.00	70.00
11 12	FROM LOCATION	Sesnon	Steam	35	1.00	70.00

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	
Run GR-CCL Check and Tie	AM PM	AM PM	3	40.00	120.00
Run Temp Log at 850' and			1	30.00	30.00
Tubing and Seal Assembly					
Steel					

TOTAL 220.00

OPERATOR Weyland Y TRUCK NO. _____ CUSTOMER'S ORDER NO. 4052

REMARKS T.D.

_____ RECEIVED BY

OFFICE COPY

AC_CPUC_0000615

HANSON WIRE LINE COMPANY

P. O. Box 1911 Ventura, California 93001
Telephone (805) 648-1780

00714

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

TERMS AND CONDITIONS OF WORK

We have requested Hanson Wire Line Service to come to the location of Southern Cal Gas Co (OWNER) Sentinel Canyon 25 (LEASE) (WELL NO.) well in the Sentinel Canyon (NAME OF FIELD) California (STATE) field and hereby agree that its work shall be performed under the following terms and conditions:

Service charges include mileage and use of Hanson men and equipment on the well. If it is necessary to transport Hanson equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. Hanson personnel will exert its best efforts to perform work requested but results are not guaranteed and Hanson reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If Hanson personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by Hanson it may be returned for full credit, less cost, if any of reconditioning. When Hanson equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

BILLING ADDRESS _____ SIGNED _____ (NAME OF COMPANY)

_____ BY _____ (COMPANY REPRESENTATIVE)

DATE 1973	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
11 16	TO LOCATION	Shop	Sentinel	55	2.00	110.00
11 16	FROM LOCATION	Sentinel	Shop	55	2.00	110.00

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	
Rigged up Otis Block 750 on 2 1/2" Tbg.	AM PM	3:30 AM PM	2	250	500.00
Ran 8150' 2 1/2" Tbg. Shifting					
Tbg. and 2 1/2" Tbg. Block to Clear					
Road with swab Mandrel with 2					
8150 and 8180' Gauge Cutter of					
1 1/8 wire line Ran 2 1/2" Otis Block Lowered					
Tbg. with 2 8150' and 8180'					
Set 2 1/2" Otis Block in Nipple					
Rigged down Lines					
Control Charge - for 2 1/2" Tbg. Block					30.00
TOTAL					530.00

OPERATOR Maitland T. TRUCK NO. _____ CUSTOMER'S ORDER NO. 4052

REMARKS T & A

_____ RECEIVED BY

OFFICE COPY

AC_CPUC_0000616

HANSON WIRE LINE COMPANY

P. O. Box 1911 Ventura, California 93001
Telephone (805) 648-1780

00713

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

TERMS AND CONDITIONS OF WORK

We have requested Hanson Wire Line Service to come to the location of Southern Pacific Co. (OWNER) Sentinel Tower 25 (LEASE) (WELL NO.) well in the Midway (NAME OF FIELD) California (STATE) field and hereby agree that its work shall be performed under the following terms and conditions:

Service charges include mileage and use of Hanson men and equipment on the well. If it is necessary to transport Hanson equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. Hanson personnel will exert its best efforts to perform work requested but results are not guaranteed and Hanson reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If Hanson personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by Hanson it may be returned for full credit, less cost, if any of reconditioning. When Hanson equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

BILLING ADDRESS _____ SIGNED _____ (NAME OF COMPANY)

_____ BY _____ (COMPANY REPRESENTATIVE)

DATE 197	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
	TO LOCATION					
4 15	FROM LOCATION	Coalinga	Shop	55	Inc	55.00

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	
Recovered wire 3 1/2 to 3	~~AM~~ PM	AM PM 5:50	2 1/2	Incl	Incl
Ope. choke and recovered bait					
sampler and pulled swab					
valve up to Eyse					
TOTAL					Incl

OPERATOR Powell & TRUCK NO. _____ CUSTOMER'S ORDER NO. _____

REMARKS T & F

U.C.S.
RECEIVED BY

OFFICE COPY

AC_CPUC_0000617

HANSON WIRE LINE COMPANY

P. O. Box 1911 Ventura, California 93001
Telephone (805) 648-1780

99716

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

TERMS AND CONDITIONS OF WORK

We have requested Hanson Wire Line Service to come to the location of Southern Gold Corp (OWNER) Federal Lease 25 (LEASE) (WELL NO.) well in the Elsa Canyon (NAME OF FIELD) California (STATE) field and hereby agree that its work shall be performed under the following terms and conditions:

Service charges include mileage and use of Hanson men and equipment on the well. If it is necessary to transport Hanson equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. Hanson personnel will exert its best efforts to perform work requested but results are not guaranteed and Hanson reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If Hanson personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by Hanson it may be returned for full credit, less cost, if any of reconditioning. When Hanson equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

BILLING ADDRESS _____ SIGNED _____ (NAME OF COMPANY)

_____ BY _____ (COMPANY REPRESENTATIVE)

DATE 197	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
	TO LOCATION					
4 Mar	FROM LOCATION	Ventura	Elsa	55	1.00	55.00

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	
Rig in and located 3½" tbg.	4:30 AM PM	3:30 AM PM	5	Hour Rate	
Pick up and Fish Sinker Bar					
Work unsuccessfully to latch					
Bar. Pull out of Hole with					
Sinker Bar and Fish. Secured					
Hole and Rig down Shut in					
Hole and Secure Well					
for night					
TOTAL					

OPERATOR Mayfield & TRUCK NO. _____ CUSTOMER'S ORDER NO. Verbal

REMARKS T & A

_____ RECEIVED BY

OFFICE COPY

AC_CPUC_0000618

HANSON WIRE LINE COMPANY

P. O. Box 1911 Ventura, California 93001
Telephone (805) 648-1780

00600

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

TERMS AND CONDITIONS OF WORK

We have requested Hanson Wire Line Service to come to the location of Southern Calif Gas Co. (OWNER) Standard Season #5 (LEASE) (WELL NO.) well in the Elsie Canyon (NAME OF FIELD) Oil Town (STATE) field and hereby agree that its work shall be performed under the following terms and conditions:

Service charges include mileage and use of Hanson men and equipment on the well. If it is necessary to transport Hanson equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. Hanson personnel will exert its best efforts to perform work requested but results are not guaranteed and Hanson reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If Hanson personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by Hanson it may be returned for full credit, less cost, if any of reconditioning. When Hanson equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

BILLING ADDRESS _____ SIGNED _____ (NAME OF COMPANY)

_____ BY _____ (COMPANY REPRESENTATIVE)

DATE 197	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
11 6	TO LOCATION	Shop	well	55	1.00	55.00
11 6	FROM LOCATION	well	Shop	55	1.00	55.00

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	
Lubricator 2½" Oil choke	7:30 AM PM	3:30 AM PM	8	Flat Rate	
Tag. Swab Tester Valve w/					
Lubricator and recap Coupling 2-1/2					
through Tester Valve w/ Pulled					
and recap New 2½" Oil					
choke work through Tester					
Valve w/ swab Tag at Fluid					

HANSON WIRE LINE COMPANY

00598

P. O. Box 1911 Ventura, California 93001
Telephone (805) 648-1780

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

TERMS AND CONDITIONS OF WORK

We have requested Hanson Wire Line Service to come to the location of Southern Cal. Gas Co. (OWNER) Sholem Simon 25 (LEASE) (WELL NO.) well in the Ojai (NAME OF FIELD) Ventura (STATE) field and hereby agree that its work shall be performed under the following terms and conditions:

Service charges include mileage and use of Hanson men and equipment on the well. If it is necessary to transport Hanson equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. Hanson personnel will exert its best efforts to perform work requested but results are not guaranteed and Hanson reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If Hanson personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by Hanson it may be returned for full credit, less cost, if any of reconditioning. When Hanson equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

BILLING ADDRESS _____ SIGNED _____ (NAME OF COMPANY)

_____ BY _____ (COMPANY REPRESENTATIVE)

DATE 197	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
	TO LOCATION					
11 5	FROM LOCATION	Ojai	Sholem	35	1.05	39.20

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	
Set up Hot Shot	1630 AM PM	1700 AM PM	5	5.00	25.00
Load and Set Tubing Valve with 2 Cut Out Heads & Screen Set at Four Hundred Feet					
TOTAL					64.20

OPERATOR Hoyland & TRUCK NO. _____ CUSTOMER'S ORDER NO. Verbal

REMARKS Jeff

_____

_____

_____

_____

_____

RECEIVED BY

OFFICE COPY

AC_CPUC_0000620

CAMCO WIRELINE, INC.
7010 ARDMORE
P. O. BOX 14484
HOUSTON, TEXAS 77021

SERVICE & SALES AGREEMENT

PHONE 713 / 747-4000

NAME So. Cal. Gas Co.	FIELD Aliso Cyn
ADDRESS P.O. Box 3249, Term. Annex	LEASE Sesnon
CITY L.A., Calif. 90051	WELL 55 #25

DATE	DELIVERY TICKET NO.	CAMCO CODE NUMBER	CAMCO UNIT NUMBER	PURCHASE ORDER NUMBER	INVOICE NUMBER	DISTRICT
9-18-79	19519					55

ON LOCATION CHARGES: Rigged up - Ran 2.347 Gauge Ring to tight spot @ 1345', Jarred through and Ran to DS-1 nipple @ 8427'. Rigged Down

TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE
12:30 AM PM	AM PM		
AM PM	3:00 AM PM	2½	minimum
AM PM	AM PM		
AM PM	AM PM		
AM PM	AM PM		
AM PM	AM PM		
AM PM	AM PM		
AM PM	AM PM		
AM PM	AM PM		
AM PM	AM PM		
AM PM	AM PM		

QUANTITY	DESCRIPTION OF OPERATION	ACC. CODE	DISC %	PART NUMBER ASSY.	PART NUMBER INV.	PART NUMBER VARIANCE	TAX	UNIT PRICE	EXT. AMT.
N/A	MILEAGE CHARGE FROM — LOCATION TO — LOCATION								
8	HOURS SERVICE CHARGE Total minimum CHARGE @ 48.00 P/Hour	401						384 00	384 00
2½	HRS Driving time	432						48 00	120 00
								TOTAL	504 00

TERMS AND CONDITIONS OF SERVICES AND SALES

See Reverse Side

I, the undersigned, do hereby certify that I have full authority to obtain the above listed services and equipment, that I have examined all of the above listed equipment and found it to be in good serviceable condition and that I accept it and the services to be performed with full understanding of and agreement to all of the terms and conditions of sale set forth on the reverse side hereof.

Total charges approved:

By _____

Purchaser: S.C.G.

By _____

CAMCO WIRELINE, INC. PERSONNEL

E. Cole

M. Ferguson

FORM #7003W B

CUSTOMER COPY

AC_CPUC_0000621

RECEIPT OF DELIVERY
AND SALES CONFIRMATION

CAMCO

7010 ARDMORE • P. O. BOX 14484
HOUSTON, TEXAS 77021
PHONE 747-4000 AC 713

SOLD TO: SOUTHERN CALIFORNIA GAS COMPANY
P.O. BOX 3249, TERMINAL ANNEX
LOS ANGELES, CA 90051 M.L. 57

SHIP TO:
CUSTOMER OR FIELD: ALISO CANYON
ADDRESS OR LEASE: 35
CITY OR WELL NO.: 25

MDR # 175727

FOR WEEK OF	SHIP VIA	SHIPPING DATE	SALES ORDER NO.	CAMCO CODE NO.	PURCHASE ORDER NO.	INVOICE NO.	INV. LOC.	DIST.
		1/18/79	78751		4021		66	66

QUAN. ORDERED	QUAN. SHIPPED	DESCRIPTION	SERIAL NO. RECD	ACC. CODE	DISC %	PART NUMBER ASSY.	SUB	VARIANCE	TAX CODE	UNIT PRICE	EXT. AMOUNT
	1	PC-4 SAFETY VALVE REPAIR (PARTS USED):									
	1	MODIFICATION TO LOCK HOUSING								N/C	N/C
	1	NEW TOP FOR LOCK								N/C	N/C
	1	RATCHET SET				10208	E00	04000	6%	N/C	N/C
	1	EXPANDER TUBE								N/C	N/C
	12	PACKING				10242	012	04000	6%	2 76	33 36
	6	GT BACK UP RINGS				20601	012	04000	6%	7 42	44 52
	3	GT RINGS				20062	016	04000	6%	6 48	19 44
		EQUIPMENT PROVIDED:									
	1	GT RING				20062	017	04000	6%	6 48	6 48
	2	GT BACK UP RINGS				40164	005	04000	6%	6 38	12 76
	1	BILL VALVE CORE				01001	010	04000	6%	89	89
	1	COPPER GASKET				02378	004	04000	6%	55	55
		HOURS SHOP CHARGES LISTED ON PAGE 2 SERVICE CHG.									
		MILEAGE									

I, THE UNDERSIGNED, DO HEREBY CERTIFY THAT I HAVE FULL AUTHORITY TO OBTAIN THE ABOVE LISTED EQUIPMENT, THAT I HAVE EXAMINED ALL OF THE ABOVE LISTED EQUIPMENT AND FOUND IT TO BE IN GOOD SERVICEABLE CONDITION AND THAT I ACCEPT IT WITH FULL UNDERSTANDING OF AND AGREEMENT TO ALL OF THE TERMS AND CONDITIONS OF SALE SET FORTH ON THE REVERSE SIDE HEREOF.

DELIVERED BY: _____

PURCHASER _____ BY _____

TERMS AND CONDITIONS OF SALE
SEE REVERSE SIDE

FORM 7002

EXTRA COPY

AC_CPUC_0000622

RECEIPT OF DELIVERY
AND SALES CONFIRMATION

CAMCO

7010 ARDMORE • P.O. BOX 14484
HOUSTON, TEXAS 77021
PHONE 747-4000 AC 713

SOLD TO: SOUTHERN CALIFORNIA GAS COMPANY
P.O. BOX 3249, TERMINAL ANNEX
LOS ANGELES, CA 90051 M.L. 57

SHIP TO:
CUSTOMER OR FIELD: ALISO CANYON
ADDRESS OR LEASE: SS
CITY OR WELL NO.: 25

MDR # 175777

SCH. WEEK OF	SHIP VIA	SHIPPING DATE	SALES ORD. NO.	CAMCO CODE NO.	PURCHASE ORDER NO.	INVOICE NO.	INV. LOC.	DIST.
		1/18/78	19[illegible]52		4021		66	66

QUANT. ORDERED	QUANT. SHIPPED	DESCRIPTION	STK/ REPL DESIRED R/	ACC. CODE	DISC %	CAMCO PART NUMBER ASSY	SUB	VARIANCE	TAX	UNIT PRICE	EXTENSION AMOUNT
	1	TAIL PLUG				02370	003	04000	6%	31 99	31 99
	1	O RING				35321	002	04000	6%	1 94	1 94
	1	SEAT INSERT				20605	015	04000	6%	43 98	43 98
	1	O RING				20094	010	04000	6%	1 95	1 95
	1	SOFT SEAT				20605	016	04000	6%	3 81	3 81
	1	LOCK ADAPTOR				20605	008	03000	6%	366 03	366 03
	1	REPAIR 2-1/2" GS PACKOFF (PARTS USED):									
	12	PACKING				10242	012	04000	6%	2 78	33 36
		[illegible]									
	1	O RING				20094	009	04000	6%	1 95	1 95
	2	KOBE KNOCKOUTS		277					6%	7 50	15 00
	8	HOURS SHOP TIME SERVICE CHG.		258						20 00	160 00
		MILEAGE									

I, THE UNDERSIGNED, DO HEREBY CERTIFY THAT I HAVE FULL AUTHORITY TO OBTAIN THE ABOVE LISTED EQUIPMENT, THAT I HAVE EXAMINED ALL OF THE ABOVE LISTED EQUIPMENT AND FOUND IT TO BE IN GOOD SERVICEABLE CONDITION AND THAT I ACCEPT IT WITH FULL UNDERSTANDING OF AND AGREEMENT TO ALL OF THE TERMS AND CONDITIONS OF SALE SET FORTH ON THE REVERSE SIDE HEREOF.

778.01

DELIVERED BY: _____

PURCHASER _____ BY _____

TERMS AND CONDITIONS OF SALE
SEE REVERSE SIDE

PAGE 2 OF 2

FORM 7002

EXTRA COPY

AC_CPUC_0000623

RECEIPT OF DELIVERY AND SALES CONFIRMATION

CAMCO

7010 ARDMORE • P.O. BOX 14484
HOUSTON, TEXAS 77021
PHONE 747-4000 AC 713

SOLD TO: So. Cal. Gas Co.
P.O. Box 3249, Term. Annex
Los Angeles, Ca. 90051
M.L. 227

SHIP TO: CUSTOMER OR FIELD: Aliso Canyon
ADDRESS OR LEASE: 55
CITY OR WELL NO.: 25
MDR 175770

SCH. WEEK OF	SHIP VIA	SHIPPING DATE	SALES ORD. NO.	CAMCO CODE NO.	PURCHASE ORDER NO.	INVOICE NO.	INV. LOC.	DIST.
	CAMCO	12/26/78	78782		4021		66	66

QUAN. ORDERED	QUAN. SHIPPED	DESCRIPTION	STK. REPL. DESIRED	ACC. CODE	DISC. %	PART NUMBER ASSY.	SUB	VARIANCE	TAX	UNIT PRICE	EXTENSION QTY	AMOUNT
		Repair 2½ PC-4 S.V. :										
	12	Packing				10242	012	04000		2 78	33	36
	3	GT Rings				20062	016	04000		6 48	19	44
	6	Back-up Rings				20601	012	04000		7 42	44	52
	1	GT Ring				20062	017	04000		6 48	6	48
	2	Back-up Rings				40164	005	04000		6 38	12	76
	1	'O' Ring				20094	010	04000		1 95	1	95
	1	'O' Ring				35321	002	04000		1 94	1	94
EQUIPMENT PICKED-UP		1 Soft Seat				20605	016	04000		3 81	3	81
	1	Lock Adapter				20605	008	03000		366 03	366	03
	1	Used M Lock				X605001	0000			362 62	362	62
	12	65 - Back-off Repair — Packing				10242	012	04000		2 78	33	36
	2	Kobe Knock-Outs		277						7 32	14	64
	5	HOURS Shop Time SERVICE CHG.		257						20 00	100	00
	2	~~MILEAGE~~ Hours Machine Shop (Tkt #8123)		257						20 00	40	00

1040.91

I, THE UNDERSIGNED, DO HEREBY CERTIFY THAT I HAVE FULL AUTHORITY TO OBTAIN THE ABOVE LISTED EQUIPMENT, THAT I HAVE EXAMINED ALL OF THE ABOVE LISTED EQUIPMENT AND FOUND IT TO BE IN GOOD SERVICEABLE CONDITION AND THAT I ACCEPT IT WITH FULL UNDERSTANDING OF AND AGREEMENT TO ALL OF THE TERMS AND CONDITIONS OF SALE SET FORTH ON THE REVERSE SIDE HEREOF.

PURCHASER So. Cal. Gas Co. BY

DELIVERED BY:

TERMS AND CONDITIONS OF SALE SEE REVERSE SIDE

PAGE 1 OF 1

FORM 7002

EXTRA COPY

AC_CPUC_0000624

Archer - Reed

WIRE LINE SERVICE

205 Baldwin Ave. Ventura, California 93003

24187

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY SO CAL GAS CO LOCATION ALISO DATE 21 DEC 78

FIELD _____ LEASE SS WELL NO. 25

CASING SIZE _____ TUBING SIZE 2 7/8 RECEIVED BY _____

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
21 Dec	TO LOCATION	Shop	Location	50	$1.00	$50
21 Dec	FROM LOCATION	Location	Shop	50	$1.00	$50.00

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	AMOUNT	
Pulled Camco Pack off 2½ SM 7439, Pulled	7:30 AM PM	AM PM				
Camco Safety Valve 2½ SM 7451, RAN	AM PM	AM PM				
Camco Dummy Safety Valve 2½ WC-1 7451,	AM PM	AM PM				
RAN Camco Packoff 2½ D-Tool 7439, Pulled	AM PM	AM PM				
off tubing to 1900# suspected control Line	AM PM	AM PM				
Leak, RAN equalizing prong Knock out	AM PM	AM PM				
plugs on 2½ Camco Pack off, Pulled 2½	AM PM	AM PM				
Camco Packoff, RAN equalizing prong	AM PM	AM PM				
Knock out plugs on 2½ Camco Safety Valve	AM PM	AM PM				
Pulled Safety Valve, Rigged down	AM PM	8:00 AM PM	12½	45.00	562	50
	AM PM	AM PM				
	AM PM	AM PM				
				TOTAL	562	50

OPERATOR Lincoln, DoLLahite TRUCK NO. _____ CUSTOMER'S ORDER NO. _____

REMARKS _____

CUSTOMER'S FIELD COPY

AC_CPUC_0000625

RECEIPT OF DELIVERY AND SALES CONFIRMATION

CAMCO

7010 ARDMORE • P. O. BOX 14484
HOUSTON, TEXAS 77021
PHONE 747-4000 AC 713

SOLD TO — SOUTHERN CALIFORNIA GAS COMPANY
P.O. BOX 3249, TERMINAL ANNEX
LOS ANGELES, CA 90051 M.L. 277 ,

SHIP TO — CUSTOMER OR FIELD: ALISO CANYON
ADDRESS OR LEASE: 38
CITY OR WELL NO.: 25

NDR # 175774

SOLD TO WORK ORDER	SHIP VIA	SHIPPING DATE	SALES ORD. NO.	CAMCO CODE NO.	PURCHASE ORDER NO.	INVOICE NO.	INV. LOC.	DUE
		10/10/78	78771		3021		66	66

QUAN. ORDERED	QUAN. SHIPPED	DESCRIPTION	SER. PART DESIRED	ACC. CODE	DISC %	PART NUMBER (ASSY)	SUB	VARIANCE	TAX %	UNIT PRICE	EXT. COMPUTED
	1	REPAIR 2-1/2" OS PACKOFF:									
	12	PACKING				10242	012	04000	6%	2 78	33 36
	2	KOBE KNOCKOUTS		277					6%	7 32	14 64
	1	O RING				01698	014	04000	6%	1 17	1 17
	1	NO GO NECK				10232	004	04000	6%	87 31	87 31

EQUIPMENT PICKED UP

	2½	HOURS SHOP TIME	SERVICE CHG.	257						20 00	50 00
		MILEAGE									

I, THE UNDERSIGNED, DO HEREBY CERTIFY THAT I HAVE FULL AUTHORITY TO OBTAIN THE ABOVE LISTED EQUIPMENT, THAT I HAVE EXAMINED ALL OF THE ABOVE LISTED EQUIPMENT AND FOUND IT TO BE IN GOOD SERVICEABLE CONDITION AND THAT I ACCEPT IT WITH FULL UNDERSTANDING OF AND AGREEMENT TO ALL OF THE TERMS AND CONDITIONS OF SALE SET FORTH ON THE REVERSE SIDE HEREOF.

186.48

DELIVERED BY: _____

PURCHASER _____ BY _____

TERMS AND CONDITIONS OF SALE SEE REVERSE SIDE

PAGE 1 OF 1

EXTRA COPY

FORM 7002

AC_CPUC_0000626

RECEIPT OF DELIVERY AND SALES CONFIRMATION

CAMCO

7010 ARDMORE • P.O. BOX 14484
HOUSTON, TEXAS 77021
PHONE 747-4000 AC 713

SOLD TO: So. Cal Gas Co.
P.O. Box 3249 Terminal Annex
Los Angeles, Ca. 90051

SHIP TO: CUSTOMER OR FIELD: Aliso Cyn.
ADDRESS OR LEASE: SS
CITY OR WELL NO.: 25

ML - 277 MDR = 175773

SCH. WEEK OF	SHIP VIA	SHIPPING DATE	SALE ORD. NO.	CAMCO CODE NO.	PURCHASE ORD. NO.	INVOICE NO.	INV. LOC.	DIST.
	CAMCO	12/19/75	78773		4021		66	66

QUAN. ORDERED	QUAN. SHIPPED	DESCRIPTION	STK. REF. DESIRED	ACC. CODE	DISC. %	PART NUMBER ASSY.	SUB	VARIANCE	TAX	UNIT PRICE	AMOUNT
	1	REPAIR 2½" PC + S.V.									
	12	Packing				10242	012	04000		2 78	33 36
	3	GT Rings				20062	016	04000		6 48	19 44
	6	Back-up Rings				20601	012	04000		7 42	44 52
	1	GT Ring				20062	017	04000		6 48	6 48
	2	Back up Rings				40164	005	04000		6 38	12 76
	1	O Ring (Seat)				20094	010	04000		1 95	1 95
	1	O Ring				35381	002	04000		1 94	1 94
EQUIPMENT PICKED UP											
	1	Soft Seat				20605	016	04000		3 81	3 81
	1	REPAIR 6S - PACK OFF 2½"									
	12	Packing				10242	012	04000		2 78	33 36
	2	Kobe knock-outs		277						7 32	14 64
	5	HOURS Shop Time SERVICE CHG.		257						20 00	100 00
		MILEAGE									

I, THE UNDERSIGNED, DO HEREBY CERTIFY THAT I HAVE FULL AUTHORITY TO OBTAIN THE ABOVE LISTED EQUIPMENT, THAT I HAVE EXAMINED ALL OF THE ABOVE LISTED EQUIPMENT AND FOUND IT TO BE IN GOOD SERVICEABLE CONDITION AND THAT I ACCEPT IT WITH FULL UNDERSTANDING OF AND AGREEMENT TO ALL OF THE TERMS AND CONDITIONS OF SALE SET FORTH ON THE REVERSE SIDE HEREOF.

DELIVERED BY: CAMCO 272.26

PURCHASER So. Cal. Gas Co. BY _____

TERMS AND CONDITIONS OF SALE SEE REVERSE SIDE

PAGE 1 OF 1

EXTRA COPY

FORM 7002

AC_CPUC_0000627

Archer - Reed

WIRE LINE SERVICE

205 Baldwin Ave. Ventura, California 93003

24186

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So Cal Gas Co LOCATION Alisо Cyn DATE 12-19-78

FIELD LEASE SS WELL NO. 25

CASING SIZE TUBING SIZE 2 3/4" RECEIVED BY Wm L. Smith

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
12-19	TO LOCATION	Shop	Location	50	1.00	50.00
12-19	FROM LOCATION	Location	Shop	50	1.00	50.00

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	AMOUNT
#1 Ran 2 3/4" Blind Box To 8451' To Tag Safty Valve & Make Sure in Place	7:30 AM PM	AM 8:30 PM	1	45.00	45.00
#2 Weight Indicator To Broke - Send By for New one	8:30 AM PM	AM 2:30 PM			NC
#3 Ran Pack-off To 8441' Test No good	1:00 AM PM	AM 4:00 PM	1½		67.50
				TOTAL	212.50

OPERATOR Collahite TRUCK NO. CUSTOMER'S ORDER NO.

REMARKS Lincoln

DIVISION COPY

AC_CPUC_0000628

Archer - Reed

WIRE LINE SERVICE

205 Baldwin Ave. Ventura, California 93003

24029

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So Cal Gas Co LOCATION Aliso Cyn DATE 12-18-78

FIELD LEASE 55 WELL NO. 25

CASING SIZE TUBING SIZE 2 7/8" RECEIVED BY W. P. Smith

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
12-18	TO LOCATION	Shop	Location	50	1.00	50.00
12-18	FROM LOCATION	Location	Shop	50	1.00	50.00

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	AMOUNT
Pulled Camco OCRT from 8400' - Ran New OCRT to 8400' - Bleed. TBG to 1800 PSI - "No Leake" - pull 2 3/4" Camco CA-2 Blanking Plug from 8439'	4:00 PM	4:00 AM	8 1/2	$45.00	$382.50

Archer - Reed

WIRE LINE SERVICE

205 Baldwin Ave. Ventura, California 93003

24028

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So Cal Gas Co LOCATION Aliso Cyn DATE 12-15-78

FIELD _____ LEASE 55 WELL NO. 25

CASING SIZE _____ TUBING SIZE 2 7/8" RECEIVED BY W. P. Smith

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
12-15	TO LOCATION	Shop	Location	50	1.00	50.00
12-15	FROM LOCATION	Location	Shop	50	1.00	50.00

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	
Pulled Pack-off From 8441'	~~3 PM~~	AM PM			
Ran CA-2 Blanking Plug To 8441' — Press up 2 Lbs — Small Leaks	AM PM	~~4 PM~~ AM PM	8 1/2	45	382 50
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
		TOTAL			482 50

OPERATOR Linder TRUCK NO. _____ CUSTOMER'S ORDER NO. _____

REMARKS Larsen

DIVISION COPY

AC_CPUC_0000630

Archer - Reed

WIRE LINE SERVICE

205 Baldwin Ave. Ventura, California 93003

24027

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So Cal Gas Co LOCATION Mission Cyn DATE 12-14-78

FIELD _____ LEASE 55 WELL NO. 25

CASING SIZE _____ TUBING SIZE 2 7/8" RECEIVED BY _____

DATE		MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
		TO LOCATION					
		FROM LOCATION					

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	
Ran 2½" Camco Safety Valve to 8452' Ran 2½" Camco Pack off to 8442' - Test No good	AM PM	AM PM	5½	45.00	$247.50
2¼" x 1 5/32" Spear "Inside" 4K Slips	AM PM	AM PM			$165.00
		TOTAL			412

OPERATOR Lincoln Lawson TRUCK NO. _____ CUSTOMER'S ORDER NO. _____

REMARKS _____

CUSTOMER'S FIELD COPY

AC_CPUC_0000631

Archer - Reed

WIRE LINE SERVICE

205 Baldwin Ave. Ventura, California 93003

24025

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So Cal Gas Co LOCATION Aliso Cyn DATE 12-13-78

FIELD _____ LEASE 55 WELL NO. 25

CASING SIZE _____ TUBING SIZE 2 7/8" RECEIVED BY [illegible]

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
12-13	TO LOCATION	Shop	Location	50	$1.00	$50.00
12-13	FROM LOCATION	Location	Shop	50	$1.00	$50.00

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	
Ran 2¼" OD x 1 5/32" Slips to Fish Safty Valve at 8441' Fish 2½" Camco Safty Valve	12 PM	3:00 PM	3	$45.00	$135.00
TOTAL					235

OPERATOR Lincoln Larsen TRUCK NO. _____ CUSTOMER'S ORDER NO. _____

REMARKS _____

CUSTOMER'S FIELD COPY

AC_CPUC_0000632

Archer - Reed

WIRE LINE SERVICE

205 Baldwin Ave. Ventura, California 93003

24024

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So Cal Gas Co LOCATION Mesa Cyn DATE 12-12-78

FIELD _____ LEASE 55 WELL NO. 25

CASING SIZE _____ TUBING SIZE 2 3/8" RECEIVED BY [illegible]

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
12-12	TO LOCATION	Shop	Location	50	1.00	50.00
12-12	FROM LOCATION	Location	Shop	50	1.00	50.00

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	
Pulled 2½" Camco "G5" Pack-off	7 AM PM	AM PM			
From 8439' - Made Several Attempts	AM PM	3 AM PM	6	45.00	270.00
To pull 2½" Camco Safety Valve	AM PM	AM PM			
From 8441' Could not Latch on.	AM PM	AM PM			
Ran 2" Imp B/K To 8441'	AM PM	AM PM			
Showed Flanged Fishing Neck	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
			TOTAL .		370

OPERATOR Lincoln Karsch TRUCK NO. _____ CUSTOMER'S ORDER NO. _____

REMARKS _____

CUSTOMER'S FIELD COPY

AC_CPUC_0000633

RECEIPT OF DELIVERY AND SALES CONFIRMATION

CAMCO

7010 ARDMORE • P. O. BOX 14484
HOUSTON, TEXAS 77021
PHONE 747-4000 AC 713

SOLD TO: SOUTHERN CALIFORNIA GAS COMPANY
P.O. Box 3249, Terminal Annex
LOS ANGELES, CA 90051
M.L. 57

SHIP TO:
CUSTOMER OR FIELD: ALISO CANYON
ADDRESS OR LEASE: SS
CITY OR WELL NO.: 25
MDR # 165580

SCH. WEEK OF	SHIP VIA	SHIPPING DATE	SALES ORD. NO.	CAMCO CODE NO.	PURCHASE ORDER NO.	INVOICE NO.	INV. LOC.	DIST.
		11/15/78	68877		4021		66	66

QUAN. ORDERED	QUAN. SHIPPED	DESCRIPTION	STK. REPL. DESIRED R.	ACC. CODE	DISC %	PART NUMBER ASSY.	SUB	VARIANCE	TAX	UNIT PRICE	EXT. AMOUNT
		REPAIR 2-1/2" GS PACKOFF W/LOCK:									
	2	SHEAR DOGS				10232	007	03000	6	75 19	150 38
	1	EXPANDER TUBE				20062	012	03000	6	320 96	320 96
	12	PACKING				10242	012	04000	6	2 78	33 36
	2	KOBE KNOCKOUTS		277					6	7 32	14 64
EQUIPMENT PICKED UP											
	3	HOURS SHOP TIME SERVICE CHG.								20 00	60 00
		MILEAGE									

I, THE UNDERSIGNED, DO HEREBY CERTIFY THAT I HAVE FULL AUTHORITY TO OBTAIN THE ABOVE LISTED EQUIPMENT, THAT I HAVE EXAMINED ALL OF THE ABOVE LISTED EQUIPMENT AND FOUND IT TO BE IN GOOD SERVICEABLE CONDITION AND THAT I ACCEPT IT WITH FULL UNDERSTANDING OF AND AGREEMENT TO ALL OF THE TERMS AND CONDITIONS OF SALE SET FORTH ON THE REVERSE SIDE HEREOF.

579.34

PURCHASER _____ BY _____

DELIVERED BY: _____

TERMS AND CONDITIONS OF SALE SEE REVERSE SIDE

PAGE 1 OF 1

EXTRA COPY

FORM 7002

AC_CPUC_0000634

SERVICE & SALES AGREEMENT

PHONE 713 / 747-4000

CAMCO

CAMCO WIRELINE, INC.
7010 ARDMORE
P. O. BOX 14484
HOUSTON, TEXAS 77021

NAME [illegible]	FIELD [illegible]
ADDRESS	LEASE [illegible]
CITY	WELL [illegible]

DATE	DELIVERY TICKET NO.	CAMCO CODE NUMBER	CAMCO UNIT NUMBER	PURCHASE ORDER NUMBER	INVOICE NUMBER	DISTRICT
11-7-77	43116					[illegible]

ON LOCATION CHARGES:	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE
[illegible]	AM/PM	AM/PM		
[illegible]	AM/PM	AM/PM	4½	41.00
	AM/PM	AM/PM		
	AM/PM	AM/PM		
	AM/PM	AM/PM		
	AM/PM	AM/PM		
	AM/PM	AM/PM		
	AM/PM	AM/PM		
	AM/PM	AM/PM		
	AM/PM	AM/PM		

QUANTITY	DESCRIPTION OF OPERATION	ACC. CODE	DISC. %	PART NUMBER ASSY.	PART NUMBER SUB.	PART NUMBER VARIANCE	TAX	UNIT PRICE	EXT. AMT.
	MILEAGE CHARGE FROM [ ] LOCATION / TO [ ] LOCATION								
4½	HOURS SERVICE CHARGE	401						41.00	184.50

TOTAL 184.50

TERMS AND CONDITIONS OF SERVICES AND SALES

See Reverse Side

I, the undersigned, do hereby certify that I have full authority to obtain the above listed services and equipment, that I have examined all of the above listed equipment and found it to be in good serviceable condition and that I accept it and the services to be performed with full understanding of and agreement to all of the terms and conditions of sale set forth on the reverse side hereof.

Total charges approved:

By _____

Purchaser:

By [signature]

CAMCO WIRELINE, INC. PERSONNEL

[illegible]

FORM #7003W B

EXTRA COPY

AC_CPUC_0000635

RECEIPT OF DELIVERY AND SALES CONFIRMATION

CAMCO

7010 ARDMORE • P. O. BOX 14484
HOUSTON, TEXAS 77021
PHONE 747-4000 AC 713

SOLD TO: Southern California Gas Co
Bof 3249 Term Annex
L. A. Ca. 90051
Att. Payroll Mr. 57

SHIP TO: CUSTOMER OR FIELD: Aliso Canyon
ADDRESS OR LEASE: 55
CITY OR WELL NO.: 25
MDR 162547

SCH. WEEK OF	SHIP VIA	SHIPPING DATE	SALES ORD. NO.	CAMCO CODE NO.	PURCHASE ORDER NO.	INVOICE NO.	INV. LOC.	DIST.
		9/13/78	80790		4021		66	66

QUAN. ORDERED	QUAN. SHIPPED	DESCRIPTION	STK. REPL. DESIRED	ACC. CODE	DISC. %	PART NUMBER ASSY.	SUB	VARIANCE	TAX	UNIT PRICE	EXT. AMOUNT
		Repair 2½" GS pack-off:									
12		packing				10242	92	03000	6	278	33 36
1		machine shop charge		277						32 50	32 50
		Repair 2½" GS lock									
6		packing				10204	93	04000	6	223	13 38
1		ratchet				10204	E00	04000	6	2854	28 54
		EQUIPMENT PICKED UP									
2½		HOURS SERVICE CHG.		257						20 00	50 00
		MILEAGE									

I, THE UNDERSIGNED, DO HEREBY CERTIFY THAT I HAVE FULL AUTHORITY TO OBTAIN THE ABOVE LISTED EQUIPMENT, THAT I HAVE EXAMINED ALL OF THE ABOVE LISTED EQUIPMENT AND FOUND IT TO BE IN GOOD SERVICEABLE CONDITION AND THAT I ACCEPT IT WITH FULL UNDERSTANDING OF AND AGREEMENT TO ALL OF THE TERMS AND CONDITIONS OF SALE SET FORTH ON THE REVERSE SIDE HEREOF.

151.78

PURCHASER W. D. Clark BY

DELIVERED BY:

TERMS AND CONDITIONS OF SALE SEE REVERSE SIDE

PAGE 1 OF 1

CUSTOMER COPY

FORM 7002

AC_CPUC_0000636

RECEIPT OF DELIVERY AND SALES CONFIRMATION

CAMCO

7010 ARDMORE • P. O. BOX 14484
HOUSTON, TEXAS 77021
PHONE 747-4000 AC 713

SOLD TO: Southern California Gas Co.
Box 3249 Term. Annex
L. A. Ca. 90051
Attn: Mr. Sy

SHIP TO: CUSTOMER OR FIELD: Aliso Canyon
ADDRESS OR LEASE: S.S.
CITY OR WELL NO.: 25
MDR 162547

P. SCH. WEEK OF	TRANSPORTATION VIA	SHIPPING DATE	SALES ORDER NO.	CAMCO CODE NO.	PURCHASE ORDER NO.	INVOICE NO.	INV. LOC.	DIST.
		9/13/78	80791		4021		66	66

QUAN. ORDERED	QUAN. SHIPPED	DESCRIPTION	STK. REF. DESIRED	PART ACC. CODE	DISC %	PART NUMBER OF ASSY.	SUF.	VARIANCE	UNIT	UNIT PRICE	EXT. AMOUNT
		Repair 2½" PC-4:									
12		Packing				10242	P12	04000		2 78	33 36
1		Soft Seat				20605	P16	04000		7 10	7 10
3		GT rings				20062	P16	04000		6 48	19 44
6		back-up rings				20601	P12	04000		7 42	44 52
1		O ring				35321	P02	04000		1 94	1 94
1		seat insert				20605	045	04000		43 98	43 98
1		GT ring				20062	017	04000		6 48	6 48
EQUIPMENT PICKED UP											
2		back-up ring				40164	05	04000		6 38	12 76
1		flapper				20605	006	04000		95 20	95 20
1		flapper springs				20056	008	04000		7 72	7 72
4		HOURS SERVICE CHG.		257						20 00	80 00
		MILEAGE									352 50

I, THE UNDERSIGNED, DO HEREBY CERTIFY THAT I HAVE FULL AUTHORITY TO OBTAIN THE ABOVE LISTED EQUIPMENT, THAT I HAVE EXAMINED ALL OF THE ABOVE LISTED EQUIPMENT AND FOUND IT TO BE IN GOOD SERVICEABLE CONDITION AND THAT I ACCEPT IT WITH FULL UNDERSTANDING OF AND AGREEMENT TO ALL OF THE TERMS AND CONDITIONS OF SALE SET FORTH ON THE REVERSE SIDE HEREOF.

DELIVERED BY: _____

PURCHASER W. O. Davis BY _____

TERMS AND CONDITIONS OF SALE SEE REVERSE SIDE

PAGE 1 OF 1

FORM 7002

CUSTOMER COPY

AC_CPUC_0000637

TRIANGLE SERVICE

BAROID DIVISION
N L INDUSTRIES, Inc.
P. O. Box 2575
HOUSTON, TEXAS 77001
(713) 672-2461

SERVICE ORDER

35496

SERVICE ORDER:

Order Date: 9-8-78

Customer: Southern Calif. Gas Co
Ordered by: Bob Hazel
Mailing Address:
Customer Order No.:
Well Name & No.: SS. 25
City: State: Zip:
County / Parish: Los Angeles State: Calif
Customer Code:
Truck No.: 1455
District: Long Beach

TYPE OF SURVEY: Audio Analyzer + Temp./CCL
PRODUCT CODE No.: 1617

REMARKS:

Triangle Service is hereby instructed to deliver the equipment or perform the services ordered, or as orally directed, under the terms and conditions printed on reverse side of this order and which I accept as Customer or as Customer's Authorized Agent.

By _____
(SIGNATURE OF CUSTOMER OR AUTHORIZED REPRESENTATIVE)

(TITLE AND ADDRESS IF EXECUTED BY CUSTOMER'S REPRESENTATIVE)

THE ESTIMATED CHARGES SHOWN BELOW ARE SUBJECT TO CORRECTION

Service Charge		$275.00
Group Charge		
Depth Chg. 8720 Ft. @ .17 / Ft.		1482.40
Depth Chg. 2000 Ft. @ .17 / Ft. MIN.		320.00
Drafting Chg. 1 Wells @ 15.00 / Well		15.00
EQUIPMENT CHARGES:		
St 1070 Mast		$150.00
St 1020 Control Head		50.00
St 1130 Grease "		225.00
St 1150 BOP		30.00
St 1110 Pressure		125.00
Sub Total		2672.40

Add'l. Descent	Ft. @ / Ft.	
Add'l Time	Hrs. @ / Hr.	
Mileage	Miles @ / Mi.	
R/A Tracer	Wells @ / Well	
Rental Equipment		
R/A Material	MC	
Miscellaneous		
Sub Total		2672.40
Sales Tax		
Less 15% ~~Sub Total~~		400.85
TOTAL		2271.55

DELIVERY RECEIPT: Above described service/material has been received:

Service Completed by: TRIANGLE ENGINEER Randolph L Helms AM PM
Customer: South Calif Gas Co.
Date: September 8, 1978
By: R. Fisher
CUSTOMER
Customer's Authorized Representative

BR7201 9/76 ABF

AC_CPUC_0000638

1 HR - 99502 CC
9 HRS 6280.5 DX

Archer - Reed

WIRE LINE SERVICE

23462

205 Baldwin Ave. Ventura, California 93003

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY Tenneco Oil Co LOCATION DATE 8 11 82

FIELD Mission Canyon LEASE Sinclair-Ferrell WELL NO. 53 35

CASING SIZE TUBING SIZE RECEIVED BY J Dillon

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
	TO LOCATION	Shop	ea-11	30	1.00	30.00
	FROM LOCATION	ea-11	Shop	30	1.00	30.00

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	
Pulled Chem-Set Safety	7:30 AM PM	AM PM			
Run Lead Seal	AM PM	11:30 AM PM	3 hrs.	175.00	
Pulled Comm-Set Safety Valve	AM PM	AM PM			
Valve Lead Seal 6150'	AM PM	5:00 AM PM	7 Hrs.	315.00	
Pulled Comm-Set Choke	AM PM	AM PM			
Lead Seal 5173'	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
Choke 1 Hr.					
		TOTAL			590

OPERATOR Maitland Fox TRUCK NO. CUSTOMER'S ORDER NO.

REMARKS

CUSTOMER'S FIELD COPY

AC_CPUC_0000639

Archer - Reed

WIRE LINE SERVICE

205 Baldwin Ave. Ventura, California 93003

22768

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So. Cal. Gas Co. LOCATION DATE 2-21-78

FIELD Aliso LEASE WELL NO. SS-25

CASING SIZE TUBING SIZE RECEIVED BY R. O'Rear

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
	TO LOCATION					
	FROM LOCATION					

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	AMOUNT
Repair of B-6 lock.	AM/PM	AM/PM	2	16.50	33 00
Machine shop charges	AM/PM	AM/PM			10 00
	AM/PM	AM/PM			
	AM/PM	AM/PM			
	AM/PM	AM/PM			
	AM/PM	AM/PM			
	AM/PM	AM/PM			
	AM/PM	AM/PM			
	AM/PM	AM/PM			
	AM/PM	AM/PM			
	AM/PM	AM/PM			
	AM/PM	AM/PM			
	AM/PM	AM/PM			
	AM/PM	AM/PM			
TOTAL					43 00

OPERATOR Reese TRUCK NO. CUSTOMER'S ORDER NO.

REMARKS

DIVISION COPY

AC_CPUC_0000640

Archer - Reed

WIRE LINE SERVICE

205 Baldwin Ave. Ventura, California 93003

22765

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So. Cal. Gas Co. LOCATION DATE 2-13-28

FIELD Aliso LEASE WELL NO. SS-25

CASING SIZE TUBING SIZE 2"8" RECEIVED BY R. Olsen

DATE		MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
		TO LOCATION					
		FROM LOCATION					

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	AMOUNT
1 Bulldog Spear (made to fish Camco Safety Valve)	AM PM	AM PM			177 64
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
TOTAL					177 64

OPERATOR Reese TRUCK NO. CUSTOMER'S ORDER NO.

REMARKS

DIVISION COPY

AC_CPUC_0000641

Archer - Reed

WIRE LINE SERVICE

22874

205 Baldwin Ave. Ventura, California 93003

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So. Cal. Gas Co. LOCATION DATE 2-3-78

FIELD Aliso LEASE WELL NO. SS-25

CASING SIZE TUBING SIZE 2⅜" RECEIVED BY R Orr

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
2-3 78	TO LOCATION	SHOP	LOCATION	50	1.00	50.00
2-3 78	FROM LOCATION	LOCATION	SHOP	50	1.00	50.00

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	
RIGGED UP & RAN IN WITH 1 7/16" OVERSHOT TO 8433'; PULLED 2½ CAMCO SAFETY VALVE; RAN 2½ SCRATCHER TO 8460; RAN 2½ IMPRESSION BLOCK TO 8470 SET 2½ CAMCO SAFETY VALVE @ 8448 SET 2½ OS PACKOFF @ 8433; TESTED SAFETY SYSTEM; TESTED GOOD, FLOWED WELL; TESTED GOOD; RIGGED DOWN	7:30 AM	2:00 PM	6½	600	260.00
2½ WC-1 RUNNING TOOL					75.00
2½ D RUNNING TOOL					75.00
1 7/16" OVERSHOT					75.00
1½ HYDRAULIC JARS					35.00
		TOTAL			620

OPERATOR Reese & Kelso TRUCK NO. CUSTOMER'S ORDER NO.

REMARKS SAFETY VALVE SET TO OPEN @ 1800 #'S IMPRESSION BLOCK ~~SHOWED~~ SHOWED NO JUNK ON TOP OF CHOKE;

DIVISION COPY

AC_CPUC_0000642

Archer - Reed

WIRE LINE SERVICE

22873

205 Baldwin Ave. Ventura, California 93003

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So. Cal. Gas Co. LOCATION DATE 2-2-78

FIELD Aliso LEASE WELL NO. SS-25

CASING SIZE TUBING SIZE 2⅞" RECEIVED BY P. O'Rum

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
2-2 78	TO LOCATION	SHOP	LOCATION	50	1.00	50.00
2-2 78	FROM LOCATION	LOCATION	SHOP	50	1.00	50.00

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	
RIGGED UP. RAN IN WITH BULLDOG SPEAR, LATCHED SAFETY VALVE FROM 8440' JARRED FOR 4 HOURS & SHEARED PIN. RAN IN & PULLED SAFETY VALVE FROM 8440 & LOST SAFETY VALVE @ 5000 FT. TOOL SWIVELED OFF. STAYED RIGGED UP.	7:30 AM	2:00 PM	6½	400	2600 00
1½ HYDRAULIC JARS					35 00
2" SM PULLING TOOL					75 00
		TOTAL			470

OPERATOR TRUCK NO. CUSTOMER'S ORDER NO.

REMARKS

DIVISION COPY

AC_CPUC_0000643

Archer - Reed

WIRE LINE SERVICE

205 Baldwin Ave. Ventura, California 93003

22760

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So. Cal. Gas Co. LOCATION DATE 2-1-78

FIELD Aliso LEASE WELL NO. SS-25

CASING SIZE TUBING SIZE 2 7/8 RECEIVED BY R Chan

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
2-1 78	TO LOCATION	SHOP	LOCATION	50	1.00	50.00
2-1 78	FROM LOCATION	LOCATION	SHOP	50	1.00	50.00

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	
RIGGED UP & RAN 2½ SCRATCHER TO ATTEMPT TO PICK UP RING @ 8442 CAME OUT & HAD NOTHING, RAN 2½ IMPRESSION BLOCK TO 8442, RAN 2" IMPRESSION BLOCK TO 8442. DETERMINED SAFETY VALVE HIT BOTTOM OF RACKOFF & MUSHROOMED THE LOCK ON SAFETY VALVE; STAYED RIGGED UP.	1:30 AM PM	AM PM	5	40.00	200.00
REDRESS 2" IMPRESSION BLOCK					15.00
REDRESS 2½" IMPRESSION BLOCK					15.00
TOTAL					330

OPERATOR Reese & Kelso TRUCK NO. CUSTOMER'S ORDER NO.

REMARKS

DIVISION COPY

AC_CPUC_0000644

Archer - Reed

WIRE LINE SERVICE

22739

205 Baldwin Ave. Ventura, California 93003

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So. Calif. Gas Co. LOCATION Aliso Cyn DATE 1-31-78

FIELD LEASE Standard - Sesnon WELL NO. 25

CASING SIZE TUBING SIZE RECEIVED BY R. Ole

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
	TO LOCATION					
1-31 78	FROM LOCATION	WELL	SHOP	50	1 00	50 00

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	
Rigged up. Ran ~~1 1/4~~ 2 1/4" Impression Block	~~AM~~ 10:00 PM	AM PM			
to Safety Valve at 8480' - No picture	AM PM	AM PM			
added more weight Ran again with	AM PM	AM PM			
2 1/4" Impression Block to Camco Safety	AM PM	AM PM			
Valve at 8480' got impression of	AM PM	AM PM			
Possible Broken Back up Ring Shut	AM PM	AM PM			
Down for night.	AM PM	AM 3:30 PM	3 1/2	40 00	140 00
	AM PM	AM PM			
Repair of Imp Block -	AM PM	AM PM			15 00
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
		TOTAL			205

OPERATOR Marsh Dollahite TRUCK NO. CUSTOMER'S ORDER NO.

REMARKS

DIVISION COPY

AC_CPUC_0000645

Archer - Reed

WIRE LINE SERVICE

205 Baldwin Ave. Ventura, California 93003

22759

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So. Cal. Gas Co. LOCATION DATE 1-30-78

FIELD Aliso LEASE WELL NO. SS-25

CASING SIZE TUBING SIZE 2⅞" RECEIVED BY P Olsen

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
1-30 78	TO LOCATION	SHOP	LOCATION	50	1.00	50.00
1-30 78	FROM LOCATION	LOCATION	SHOP	50	1.00	50.00

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	
RIGGED UP; RAN IN & ATTEMPTED TO LATCH CAMCO ~~VZ½ GLS PATCH~~ SAFETY VALVE @ 2440	AM 12:00 PM	AM PM			
3 TIMES BUT COULD NOT GET A HOLD OF. STAND RIGGED UP.	AM 2:00 PM	AM PM			
	AM PM	AM PM	3-hours minimum	1500	150.00
	AM PM	AM 3:30 PM	½	4000	20.00
2½ SM Pulling Tool					75.00
1½ Hydraulic Jars					75.00
		TOTAL			420

OPERATOR Reese & Kelso TRUCK NO. CUSTOMER'S ORDER NO.

REMARKS

DIVISION COPY

AC_CPUC_0000646

Archer - Reed

WIRE LINE SERVICE

205 Baldwin Ave. Ventura, California 93003

22757

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So. Cal. Gas Co. LOCATION DATE 1-27-78

FIELD Aliso LEASE WELL NO. SS-25

CASING SIZE TUBING SIZE 2⅞ RECEIVED BY R Crum

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
1-27 78	TO LOCATION	SHOP	LOCATION	50	1.00	50.00
1-27 78	FROM LOCATION	LOCATION	SHOP	50	1.00	50.00

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	
RIGGED UP & RAN IN & MADE 4 ATTEMPTS	1:30 AM PM	AM PM			
TO PULL GS PACKOFF FROM 8433	AM PM	3 AM PM	7½	1.00	300.00
Pulled GS Packoff from 8433	AM PM	AM PM			
Made 3 attempts to pull Camco Sidky	AM PM	AM PM			
Valve with prong Could not latch	AM PM	AM PM			
Happee Chazel	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
1½ HYDRAULIC JARS					35.00
2½ @ SM ROLLING TOOL					75.00
		TOTAL			510

OPERATOR Roese & Kelso TRUCK NO. CUSTOMER'S ORDER NO.

REMARKS Camco

DIVISION COPY

AC_CPUC_0000647

RECEIPT OF DELIVERY AND SALES CONFIRMATION

CAMCO

7010 ARDMORE • P.O. BOX 14484
HOUSTON, TEXAS 77021
PHONE 747-4000 AC 713

SOLD TO: Southern California Gas Company
P. O. Box 3249, Terminal Annex
Los Angeles, California 90051

SHIP TO:
CUSTOMER OR FIELD: Aliso Canyon
ADDRESS OR LEASE: INVENTORY
CITY OR WELL NO.: [illegible]

SCH. WEEK OF	SHIP VIA	SHIPPING DATE	SALES ORD. NO.	CAMCO CODE NO.	PURCHASE ORDER NO.	INVOICE NO.	INV. LOC.	DIST.
	CAMCO		37021		6004			66

QUAN. ORDERED	QUAN. SHIPPED	DESCRIPTION	STK. REPL. DESIRED R.	ACC. CODE	DISC. %	PART NUMBER ASSY.	PART NUMBER SUB	PART NUMBER VARIANCE	TAX	UNIT PRICE	EXT. AMOUNT
	~~1~~	Minor Repairs DCRT Kill Valves		~~260~~						~~120 00~~	~~120 00~~
	3	Major Repairs DCRT Kill Valves		260						140 00	420 00
	3	DCRT Nozzles for Major Repairs				01348	028	04000	6	334 38	103 13
EQUIPMENT PICKED UP											
	6	HOURS Shop SERVICE CHG. f/ Major Repairs		260						20 00	120 00
		MILEAGE									

643.13

I, THE UNDERSIGNED, DO HEREBY CERTIFY THAT I HAVE FULL AUTHORITY TO OBTAIN THE ABOVE LISTED EQUIPMENT, THAT I HAVE EXAMINED ALL OF THE ABOVE LISTED EQUIPMENT AND FOUND IT TO BE IN GOOD SERVICEABLE CONDITION AND THAT I ACCEPT IT WITH FULL UNDERSTANDING OF AND AGREEMENT TO ALL OF THE TERMS AND CONDITIONS OF SALE SET FORTH ON THE REVERSE SIDE HEREOF.

DELIVERED BY: _____

PURCHASER: Southern California Gas Company BY _____

TERMS AND CONDITIONS OF SALE SEE REVERSE SIDE

FORM 7002

EXTRA COPY

AC_CPUC_0000648

RECEIPT OF DELIVERY AND SALES CONFIRMATION

CAMCO

7010 ARDMORE • P.O. BOX 14484
HOUSTON, TEXAS 77021
PHONE 747-4000 AC 713

SOLD TO: Southern California Gas Company
P. O. Box 3249, Terminal Annex
Los Angeles, CA 90051

SHIP TO:
CUSTOMER OR FIELD: Aliso Canyon
ADDRESS OR LEASE: SS
CITY OR WELL NO.: 25

SCH. WEEK OF	SHIP VIA	SHIPPING DATE	SALES ORD. NO.	CAMCO CODE NO.	PURCHASE ORDER NO.	INVOICE NO.	INV. LOC	DIST.
	CAMCO	7-1-77	37006		6004			66

QUAN. ORDERED	QUAN. SHIPPED	DESCRIPTION	STK. REPL. DESIRED R.	ACC. CODE	DISC. %	PART NUMBER ASSY.	SUB	VARIANCE	TAX	UNIT PRICE	EXT AMOUNT
	1	Minor Repair 2 1/2" PC-4 Safety Valve		260						260 00	260 00
		EQUIPMENT PICKED UP									
	4	HOURS Shop Time SERVICE CHG. f/ Repair		260						20 00	120 00
		MILEAGE									

I, THE UNDERSIGNED, DO HEREBY CERTIFY THAT I HAVE FULL AUTHORITY TO OBTAIN THE ABOVE LISTED EQUIPMENT, THAT I HAVE EXAMINED ALL OF THE ABOVE LISTED EQUIPMENT AND FOUND IT TO BE IN GOOD SERVICEABLE CONDITION AND THAT I ACCEPT IT WITH FULL UNDERSTANDING OF AND AGREEMENT TO ALL OF THE TERMS AND CONDITIONS OF SALE SET FORTH ON THE REVERSE SIDE HEREOF.

DELIVERED BY: 380

PURCHASER: Southern California Gas Company BY

TERMS AND CONDITIONS OF SALE
SEE REVERSE SIDE

PAGE 1 OF 1

FORM 7002

EXTRA COPY

AC_CPUC_0000649

Archer - Reed

WIRE LINE SERVICE

21550

205 Baldwin Ave. Ventura, California 93003

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So Cal Gas Co LOCATION Piru Cyn DATE June 30, 1977

FIELD _____ LEASE 55 WELL NO. 25

CASING SIZE _____ TUBING SIZE 2 3/8" RECEIVED BY R. O'Rear

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
6-30	TO LOCATION	Shop	Location	50	$1.00	$50.00
6-30	FROM LOCATION	Location	Shop	50	$1.00	$50.00

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	
Pulled G.S. Pack-off at 8454'	3 PM	AM PM			
Pulled RC-4 Flapper Valve at 8465'	AM PM	3 PM	5	$40.00	$200.00
Ran New RC-4 Safety Valve to 8465'	AM PM	AM PM			
Ran Repacked G.S. Packoff to 8454'	AM PM	AM PM			
1½" Hyd. Jars	AM PM	AM PM			$35.00
WC-1 Running Tool	AM PM	AM PM			$25.00
"O" Running Tool	AM PM	AM PM			$50.00
2½" Pulling Tool	AM PM	AM PM			$50.00
		TOTAL			630

OPERATOR Lincoln TRUCK NO. _____ CUSTOMER'S ORDER NO. _____

REMARKS Wait 2½

DIVISION COPY

AC_CPUC_0000650

Archer - Reed

WIRE LINE SERVICE

205 Baldwin Ave. Ventura, California 93003

21549

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So Cal Gas Co LOCATION Aliso Cyn DATE June 29, 1972

FIELD _____ LEASE 315 WELL NO. 25

CASING SIZE _____ TUBING SIZE 2 7/8" RECEIVED BY R. O'Rue

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
6-29	TO LOCATION	Shop	Location	30	1.00	30.00
6-29	FROM LOCATION	Location	Shop	30	1.00	30.00

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	AMOUNT
Ran 6.5. Pack-off to 5454'	3 PM	AM PM			
Tight Spot at 1348'	AM PM	3 PM	8	40.00	320.00
Ran OCRT to mid Monterey at 5415'	AM PM	AM PM			
System did not test	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
1 1/2" Hyd Jars	AM PM	AM PM			35.00
A.D. #1 Running Tool	AM PM	AM PM			50.00
"R" Releasing Tool	AM PM	AM PM			100.00
	AM PM	AM PM			
	AM PM	AM PM			
TOTAL					605

OPERATOR Lincoln TRUCK NO. _____ CUSTOMER'S ORDER NO. _____

REMARKS Waits

DIVISION COPY

AC_CPUC_0000651

Archer - Reed

WIRE LINE SERVICE

205 Baldwin Ave. Ventura, California 93003

97877 CC

21548

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So Cal Gas Co LOCATION Aliso Cyn DATE June 28, 1977

FIELD LEASE 55 WELL NO. 25

CASING SIZE TUBING SIZE 2 3/8" RECEIVED BY R. Dunn

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
6-28	TO LOCATION	Shop	Location	30	$1.00	$30.00
6-28	FROM LOCATION	Location	Shop	50	$1.00	$50.00

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	AMOUNT
Pulled 2" 1.81 Camco Choke from 2488' - Ran .510 RO choke to 2488' - Tested ok 20 min OK Ran Camco 2.31 Hydro Valve to 8464' - Could not get it down with 6.5 Pack-off Ran 2.38 Broach	AM PM	AM PM			
	AM PM	AM PM	3	$140.00	$420.00
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
1 1/2" Hyd Jars	AM PM	AM PM			$35.00
2" pulling tool	AM PM	AM PM			$25.00
2" "B" Running tool	AM PM	AM PM			$50.00
2 1/2" W-1	AM PM	AM PM			$35.00
TOTAL					655.00

OPERATOR Linsdell TRUCK NO. CUSTOMER'S ORDER NO.

REMARKS Waits

DIVISION COPY

AC_CPUC_0000652

Archer - Reed

WIRE LINE SERVICE

9787 CC

21547

205 Baldwin Ave. · Ventura, California 93003

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So Cal Gas Co LOCATION Aliso Cyn DATE June 27, 1977

FIELD _____ LEASE 55 WELL NO. 25

CASING SIZE _____ TUBING SIZE 2⅜" RECEIVED BY R Dunn

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
6-27	TO LOCATION	Shop	Location	50	1.00	50.00
6-27	FROM LOCATION	Location	Shop	50	1.00	50.00

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	AMOUNT
Fished 1.81 Camco Choke with Inside Spear	3 AM PM	AM PM			
Ran New 1.81 Choke .560 ID	AM PM	3 AM PM	8	40.00	320.00
to 8488' Tested at 23 mcf	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
1½" Hyd Jars	AM PM	AM PM			35.00
2" pulling Tool	AM PM	AM PM			25.00
.825 Inside Spear	AM PM	AM PM			50.00
2" Running Tool	AM PM	AM PM			50.00
	AM PM	AM PM			
	AM PM	AM PM			
TOTAL					630.00

OPERATOR Lincoln TRUCK NO. _____ CUSTOMER'S ORDER NO. _____

REMARKS Skeetown

DIVISION COPY

AC_CPUC_0000653

SERVICE & SALES AGREEMENT

PHONE 713 / 747-4000

file

CAMCO

99877 C C

CAMCO WIRELINE, INC.
7010 ARDMORE
P. O. BOX 14484
HOUSTON, TEXAS 77021

NAME So. Cal Gas Co	FIELD Aliso
ADDRESS	LEASE
CITY	WELL SS-25

DATE	DELIVERY TICKET NO.	CAMCO CODE NUMBER	CAMCO UNIT NUMBER	PURCHASE ORDER NUMBER	INVOICE NUMBER	DISTRICT
6-27-77	19488					55

ON LOCATION CHARGES:	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE
DELIVERED 2 C-LOCKS - CUSTOMER STOCK	AM PM	AM PM		
NO-CHARGE	AM PM	AM PM		
	AM PM	AM PM		
	AM PM	AM PM		
	AM PM	AM PM		
	AM PM	AM PM		
	AM PM	AM PM		
	AM PM	AM PM		
	AM PM	AM PM		
	AM PM	AM PM		
	AM PM	AM PM		

QUANTITY	DESCRIPTION OF OPERATION	ACC. CODE	DISC. %	PART NUMBER ASSY.	PART NUMBER SUB	PART NUMBER VARIANCE	TAX	UNIT PRICE	EXT. AMT.
110	MILEAGE CHARGE FROM SHOP LOCATION TO LOCATION SHOP	420						.60	66 00
	HOURS SERVICE CHARGE								
								TOTAL	

TERMS AND CONDITIONS OF SERVICES AND SALES

See Reverse Side

I, the undersigned, do hereby certify that I have full authority to obtain the above listed services and equipment, that I have examined all of the above listed equipment and found it to be in good serviceable condition and that I accept it and the services to be performed with full understanding of and agreement to all of the terms and conditions of sale set forth on the reverse side hereof.

Total charges approved:

By _____

Purchaser:

By W E A. Smith

CAMCO WIRELINE, INC. PERSONNEL

T. Reese

FORM #7003W B

CUSTOMER COPY

AC_CPUC_0000654

Archer - Reed

WIRE LINE SERVICE

205 Baldwin Ave. Ventura, California 93003

21545

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So Cal Gas Co LOCATION Moss Gas DATE June 24, 1977

FIELD _____ LEASE 55 WELL NO. 25

CASING SIZE _____ TUBING SIZE 2 7/8" RECEIVED BY [signature]

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
6-24	TO LOCATION	Shop	Location	50	1.00	50.00
6-24	FROM LOCATION	Location	Shop	50	1.00	50.00

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	AMOUNT
Ran Sinker Bar Shots To 8488'	1:30 PM	AM PM			
To Fish Choke	AM PM	2 PM	7	40.00	280.00
Retrieved Fishing Neck of Choke	AM PM	AM PM			
Ran Imp Bk To 8488' Stacked	AM PM	AM PM			
The Rest of Choke	AM PM	AM PM			
	AM PM	AM PM			
1 5/8" Hyd Jars	AM PM	AM PM			35.00
2 1/2" Overshot	AM PM	AM PM			25.00
2 1/4" Magnet	AM PM	AM PM			100.00
Imp Bk Repair	AM PM	AM PM			15.00
	AM PM	AM PM			
	AM PM	AM PM			
				TOTAL	

OPERATOR Lucas TRUCK NO. _____ CUSTOMER'S ORDER NO. _____

REMARKS Fox

CUSTOMER'S FIELD COPY

AC_CPUC_0000655

Archer - Reed

WIRE LINE SERVICE

205 Baldwin Ave. Ventura, California 93003

21544

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So Cal Gas Co LOCATION Aliso Cyn DATE June 23, 1977

FIELD _____ LEASE 55 WELL NO. 25

CASING SIZE _____ TUBING SIZE 2 7/8" RECEIVED BY W. D. Reed

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
6-23	TO LOCATION	Shop	Location	50	1.00	$ 50.00
6-23	FROM LOCATION	Location	Shop	50	1.00	$ 50.00

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	
Ran Assorted Fishing Tools to 8488' to pull Choke Could not Latch	7:30 AM PM	AM PM			
	AM PM	10:30 AM PM	3	Min $ 150.00	
	10:30 AM PM	11:00 AM PM	½	$ 20.00/hr	$ 20.00
	AM PM	AM PM			
	AM PM	AM PM			
Overshot per Dog	AM PM	AM PM			$ 25.00
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
TOTAL					

OPERATOR Lucas TRUCK NO. _____ CUSTOMER'S ORDER NO. _____

REMARKS Wells

CUSTOMER'S FIELD COPY

AC_CPUC_0000656

Archer - Reed

WIRE LINE SERVICE

205 Baldwin Ave. Ventura, California 93003

21678

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So. Calif. Gas Comp LOCATION DATE 6-21-77

FIELD Aliso Canyon LEASE WELL NO. 38-25

CASING SIZE TUBING SIZE RECEIVED BY

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
6-21 77	TO LOCATION	Shop	WELL	50	1.00	50.00
6-21 77	FROM LOCATION	WELL	Shop	50	1.00	50.00

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE		
Rigged up. Made several attempts to pull choke could not latch, Ran 2" impression block got impression of fishing neck. Made several more attempts at latching choke could not, Ran Hyd. bailer got nothing, Ran overshot could not latch onto, maybe sand. Pulled Camco Choke at 8496' 2" Camco Choke at 8496'	7:30 AM	AM				
	AM	10:30 AM	3	M.	150	00
	10:30 AM	AM				
	AM	3:30 PM	5	40.00	200	00
Hyd bailer $100.00 first run Down					100	00
Hyd. Jars $ 35.00					35	00
Impression block repair 15.00					15	00
pulling tool 75.00 a day					75	00
		TOTAL				

OPERATOR Hulsey & Stratman TRUCK NO. CUSTOMER'S ORDER NO.

REMARKS hi-choke

CUSTOMER'S FIELD COPY

AC_CPUC_0000657

SERVICE & SALES AGREEMENT

PHONE 713 / 747-4056

CAMCO WIRELINE, INC

7010 ARDMORE
P. O. BOX 14150
HOUSTON, TEXAS 77021

NAME So. Calif Gas Co	FIELD Aliso
ADDRESS	LEASE
CITY	WELL S.S. #25

DATE	DELIVERY TICKET NO.	CAMCO CODE NUMBER	CAMCO UNIT NUMBER	PURCHASE ORDER NUMBER	INVOICE NUMBER	DISTRICT
5-25-77	11922					55

ON LOCATION CHARGES:	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE
Rigged up & RAN .560 CHOKE on 2" C Lock CHOKE HOLDER & Rigged Down @ 8484'	3:00 AM PM	AM PM		
	AM PM	10:00 AM PM	2	40.00
	AM PM	AM PM		
	AM PM	AM PM		
	AM PM	AM PM		
	AM PM	AM PM		
	AM PM	AM PM		
	AM PM	AM PM		
	AM PM	AM PM		
	AM PM	AM PM		
	AM PM	AM PM		

QUANTITY	DESCRIPTION OF OPERATION	ACC CODE	DISC %	PART NUMBER ASSY	PART NUMBER SUB.	PART NUMBER VARIANCE	TAX	UNIT PRICE	EXT. AMT.
110	MILEAGE CHARGE FROM Shop LOCATION TO LOCATION Shop	420						1.00	110.00
2	HOURS SERVICE CHARGE	420						41.00	82.00
								TOTAL	

TERMS AND CONDITIONS OF SERVICES AND SALES
See Reverse Side

I, the undersigned, do hereby certify that I have full authority to obtain the above listed services and equipment, that I have examined all of the above listed equipment and found it to be in good serviceable condition and that I accept it and the services to be performed with full understanding of and agreement to all of the terms and conditions of sale set forth on the reverse side hereof.

Total charges approved:

By _____

Purchaser:

By R O Rue

CAMCO WIRELINE, INC. PERSONNEL

B. Burgess & E Cole

FORM #7003W

CUSTOMER COPY

AC_CPUC_0000658

Archer - Reed

WIRE LINE SERVICE

205 Baldwin Ave. Ventura, California 93003

20520

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So. Cal. Gas. Co LOCATION Piru Gas DATE 16 - Nov - 1976

FIELD _____ LEASE 55 WELL NO. 25

CASING SIZE _____ TUBING SIZE 2 7/8" RECEIVED BY Wm L. Smith

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
16-Nov-76	TO LOCATION	Shop	location	60	.80	48 00
16-Nov-76	FROM LOCATION	location	Shop	60	.80	48 00

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	
Ran to 8420' & pulled Camco "C" plug Equalizing plug Ran to 8420' & pulled Camco "C" plug	7:30 AM/PM	10:30 AM/PM	3	min	140 00
97877	AM/PM	AM/PM			
	AM/PM	AM/PM			
	AM/PM	AM/PM			
	AM/PM	AM/PM			
	AM/PM	AM/PM			
	AM/PM	AM/PM			
	AM/PM	AM/PM			
	AM/PM	AM/PM			
	AM/PM	AM/PM			
	AM/PM	AM/PM			
	AM/PM	AM/PM			
	AM/PM	AM/PM			
	AM/PM	AM/PM			
	AM/PM	AM/PM			
TOTAL					

OPERATOR Lincoln TRUCK NO. "M" Ford CUSTOMER'S ORDER NO. _____

REMARKS Matthew Jentzen

CUSTOMER'S FIELD COPY

AC_CPUC_0000659

Archer - Reed

19452

WIRE LINE SERVICE

205 Baldwin Ave. Ventura, California 93003

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So. Calif Gas Company LOCATION Aliso Canyon DATE 4-13-76

FIELD _____ LEASE SS WELL NO. 25

CASING SIZE _____ TUBING SIZE _____ RECEIVED BY Wm Smith

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
4-13-76	TO LOCATION	Shop	Location	50	.60	30.00
	FROM LOCATION					

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	
Rig up, Attempt to Pull 2½" S Lock & Choke but Still Could Not Retrieve, Rig Down	7:30 AM	12:30 PM	5	32.50	162.50
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
		TOTAL			

OPERATOR Doug Marshall TRUCK NO. _____ CUSTOMER'S ORDER NO. _____

REMARKS _____

DIVISION COPY

AC_CPUC_0000660

Archer - Reed

19451

WIRE LINE SERVICE

205 Baldwin Ave. Ventura, California 93003

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So. Cal. Gas Company LOCATION Aliso Canyon DATE 4-12-76

FIELD LEASE SS WELL NO. 25

CASING SIZE TUBING SIZE RECEIVED BY W. L. Hall

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
4-12	TO LOCATION	Shop	Location	50	.80	40.00
4-12	FROM LOCATION	Location	Shop	50	.60	30.00

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	
Rig up, Attempt to Pull 2½" Baker Stock	1: ~~AM~~ PM	AM PM			
+ Choke, Could Not Retrieve, Secure well	AM PM	AM PM			
for Night	AM PM	5: ~~AM~~ PM	4	32.50	130.00
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
		TOTAL			

OPERATOR Doug Marshall TRUCK NO. CUSTOMER'S ORDER NO.

REMARKS

DIVISION COPY

AC_CPUC_0000661

Archer - Reed

18387

WIRE LINE SERVICE

205 Baldwin Ave. Ventura, California 93003

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So Cal Gas Co LOCATION Aliso Cyn DATE 4- Nov - 1925

FIELD LEASE 55 WELL NO. 25

CASING SIZE TUBING SIZE 2 7/8" RECEIVED BY Wm L Smith

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
4-Nov	TO LOCATION	Ventura	Aliso	60	.60	$36.00
	FROM LOCATION					

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	
Pulled Baker choke in	9:00 AM	AM			
"F" nipple from 8432'	AM	10:00 AM	3	3.50	10.50
Ran New Baker Choke	AM	AM			
to 8422'	AM	AM			
	AM	AM			
Choke 5/32 - 516	AM	AM			
	AM	AM			
	AM	AM			
	AM	AM			
	AM	AM			
	AM	AM			
	AM	AM			
	AM	AM			
	AM	AM			
	AM	AM			
	AM	AM			
TOTAL					

OPERATOR Lincoln TRUCK NO. Inter. CUSTOMER'S ORDER NO.

REMARKS Hayward

DIVISION COPY

AC_CPUC_0000662

Archer - Reed

18205

WIRE LINE SERVICE

205 Baldwin Ave. Ventura, California 93003

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So Cal Gas Co LOCATION Aliso Cyn DATE 3-Oct-1935

FIELD _____ LEASE 55 WELL NO. 25

CASING SIZE _____ TUBING SIZE 2 3/8" RECEIVED BY Wm S. Smith

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
3-Oct	TO LOCATION	Ventura	Aliso	60	.60	$36.00
	FROM LOCATION					

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	
Ran Baker Flow choke to 3404 & Stung into 1½" Nipple	3:30 PM	6:30 PM	3 min	1.00	3.50
Choke Size .614					

MERCHANDISE AND SERVICE ORDER

OEC-110F

OTIS

Otis Engineering Corporation
A HALLIBURTON Company

P. O. BOX 34380 · DALLAS, TEXAS 75234
AREA CODE 214-242-8668

INVOICE TO:
SOUTHERN CALIFORNIA GAS Company
12801 NO. TAMPA AVE
NORTHRIDGE CALIFORNIA

ORDER NO. **599671**
SEE ORDER NO. (ACCT. ONLY)

We hereby request OTIS ENGINEERING CORPORATION to come to the well location of

OWNER NAME

WORK ORDER BY (SIGNATURE)

LEASE | API WELL NO. 55-25

OWNER WELL NO. 55-25

FIELD OR AREA: Aliso Canyon | STATE: CALIFORNIA

FEDERAL WATERS ☐ YES ☒ NO | COUNTY PARISH: Los Angeles

and hereby agree that its work shall be performed under the terms & conditions on reverse side hereof.

(ACCOUNT ONLY) | DATE 3-7-75

SALES CREDIT 443 | ST. | INV. CR. 443 | TAX

CUSTOMER ORDER NO.

END USE CODE 1 0 1 5 0 1

SUB SURFACE SAFETY VALVE WAS:
☐ PULLED & RERUN ☐ PULLED ☐ RUN

TYPE LOCK | DEPTH | TYPE VALVE

BEAN SIZE | SPACERS

TUBING PRESSURE | CASING PRESSURE

TUBING SIZE | WELL DEPTH

TREE CONNECTION

TYPE OF EQUALIZING SUB.

UNIT OR VIA 1960

SERVICE CODE	SERVICE, RENTAL AND THIRD PARTY CHARGES	TL UNITS	UNIT PRICE	AMOUNT
1 0 0 0 0 0	W/L Truck & Crew Land RR Smup 0800-1100	3	38.50	
1 0 0 0 0 0	W/L Truck & Crew Land RR Smup 1100-1200	1	28.50	
1 3 2 2 2 0	Use of 1½" Hydraulic JARS	1	50.00	
1 0 8 0 9 9	FROM: SFS 60 MILES TO LOCATION OR DOCK; TO: SFS 60 MILES FROM LOCATION OR DOCK	120	.75	

MATERIAL FURNISHED AND/OR DESCRIPTION OF OPERATION

CODE	PART NUMBER OR DATE	SIZE, TYPE AND DESCRIPTION	QTY.	UNIT PRICE	AMOUNT
	3-7-75	Rigged up Attempt To Pull SLOCK BAKER W			
		"J" Safety Valve From 8422' - Sheared off			
		2 Times Ran Hyd. JARS. Pulled From 8422'			
		Rigged down			

CUSTOMER'S FIELD COPY

SERVICE PERFORMED AND/OR MERCHANDISE DELIVERED BY:

EMPLOYEE	HRS	EMPLOYEE	HRS
D.L EVANS			
R-LEWIS			

CUSTOMER NAME: SO. CA. GAS CO.
APPROVED BY: W. M. Smith
OFF. MGR. APPROVAL | INVOICE NO. | INVOICE DATE

AC_CPUC_0000664

MERCHANDISE AND SERVICE ORDER

OEC-110F

OTIS

Otis Engineering Corporation
A HALLIBURTON Company

P. O. BOX 34380 · DALLAS, TEXAS 75234
AREA CODE 214-242-8668

INVOICE TO:
SOUTHERN CALIF GAS CO.
P.O. BOX 32-19
TERMINAL ANNEX
LOS ANGELES CALIF 90051

ORDER NO. **599567**
SEE ORDER NO. (ACCT. ONLY)

We hereby request OTIS ENGINEERING CORPORATION to come to the well location of

OWNER NAME: SOUTHERN CALIF GAS CO.
WORK ORDER BY (SIGNATURE)

LEASE | API WELL NO.

OWNER WELL NO.: SS 25
OR AREA: ALISO CANYON | STATE: CALIF
FEDERAL WATERS: ☐ YES ☒ NO | COUNTY PARISH: LOS ANGELES

and hereby agree that its work shall be performed under the terms & conditions on reverse side hereof.

(ACCOUNT ONLY) | DATE: 12-20-74

SALES CREDIT | ST. | INV. CR. | TAX

CUSTOMER ORDER NO.: 6003-1-AC

END USE CODE: 101601

SUB SURFACE SAFETY VALVE WAS:

☐ PULLED & RERUN ☐ PULLED ☐ RUN

TYPE LOCK | DEPTH | TYPE VALVE

BEAN SIZE | SPACERS

TUBING PRESSURE | CASING PRESSURE

TUBING SIZE: 2 7/8 | WELL DEPTH: 8590

TREE CONNECTION: 3" UNIBOLT

TYPE OF EQUALIZING SUB.

UNIT OR VIA: 1960

SERVICE CODE	SERVICE, RENTAL AND THIRD PARTY CHARGES	TL UNITS	UNIT PRICE	AMOUNT
100000	W/L TRUCK W/CREW RR MW P. (0930-1130)	2	28.50	
122037	BHP INST PER WELL PER DAY	2	50.00	
REFER TO MOS 599565	FROM: TO LOCATION OR DOCK / MILES — TO: FROM LOCATION OR DOCK / MILES			

MATERIAL FURNISHED AND/OR DESCRIPTION OF OPERATION

CODE	PART NUMBER OR DATE	SIZE, TYPE AND DESCRIPTION	QTY.	UNIT PRICE	AMOUNT
	12-20-74	RIGGED UP RAN 1¼ PRESSURE ELEMENTS. MADE 8 MIN STOPS AT LUB, 5000', 6000', 7000' & 8000. AND MADE 10 MIN STOP AT 8490' RIGGED DOWN			
		WOUND CLOCKS AT 1010			
		OPENED LUB AT 1015			
		ON BOTTOM AT 1047			
		BACK IN LUB AT 1100			

CUSTOMER'S FIELD COPY

SERVICE PERFORMED AND/OR MERCHANDISE DELIVERED BY:

EMPLOYEE	HRS	EMPLOYEE	HRS
H. LEWIS			
R LEWIS			

CUSTOMER NAME: SOUTHERN CALIF GAS CO.
APPROVED BY

OFF. MGR. APPROVAL | INVOICE NO. | INVOICE DATE

AC_CPUC_0000665

Archer - Reed

14591

WIRE LINE SERVICE

205 Baldwin Ave. Ventura, California 93003

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So Calif Gas Co LOCATION Aliso Canyon DATE 11-27-73

FIELD LEASE SS WELL NO. 25

CASING SIZE TUBING SIZE RECEIVED BY John Melton

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
11-27 73	TO LOCATION	Shop	Aliso	60	.60	36 00
11-27 73	FROM LOCATION	Aliso	Shop	60	.60	36 00

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE		
Rig up. Run 2½ Gauge to 8430.	7:00 AM PM	10:00 AM PM	3	Min	110	25
Run 1 Otis J Safety Valve on S. Fork to 8421' & Set.	10:00 AM PM	AM PM				
	AM PM	12:00 AM PM	2	26.25	52	50
	AM PM	AM PM				
	AM PM	AM PM				
	AM PM	AM PM				
	AM PM	AM PM				
	AM PM	AM PM				
	AM PM	AM PM				
	AM PM	AM PM				
	AM PM	AM PM				
	AM PM	AM PM				
TOTAL						

OPERATOR C. Clevens TRUCK NO. CUSTOMER'S ORDER NO.

REMARKS

CUSTOMER'S FIELD COPY

AC_CPUC_0000666

Archer - Reed

WIRE LINE SERVICE

14124

205 Baldwin Ave. Ventura, California

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY Tor. Oil Fas. Co. LOCATION Alisa Camp DATE 10-11-23

FIELD _____ LEASE 55 WELL NO. 25

CASING SIZE _____ TUBING SIZE 2 3/8" RECEIVED BY John Melton

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
	TO LOCATION					
	FROM LOCATION					

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	
Picked tubing 2955. Swabbed from Porter	(AM) PM	AM PM			
#25 - Ran Tecker Run in 55 #25	AM PM	(AM) 10 PM	4	1.50	6 00
T.D. at 3725' - Ran tubing pressure	AM PM	AM PM			
bombs to 3350' - Secured well	AM PM	AM PM			
for test	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
		TOTAL			

OPERATOR Lincoln TRUCK NO. 66 CUSTOMER'S ORDER NO. _____

REMARKS Burgess

CUSTOMER'S FIELD COPY

AC_CPUC_0000667

Archer - Reed

WIRE LINE SERVICE

13703

205 Baldwin Ave. Ventura, California

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So. Calif. Gas Co. LOCATION DATE 6-6-73

FIELD Aliso Canyon LEASE Sesnon WELL NO. 25

CASING SIZE TUBING SIZE RECEIVED BY R. Hudder

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
6-6 73	TO LOCATION	Ventura	Well	50	.50	25.00
6-6 73	FROM LOCATION	Well	Ventura	50	.50	25.00

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE	AMOUNT
Additional Hours	630 AM ~~PM~~	930 AM ~~PM~~	3	25.00	75 00
made feeler Run to see if Ball Was out of tubing went out END of tubing to 8,550 opened 2.31 Baker Sleeve at 8388	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
Stand by for Cix. test	1130 AM ~~PM~~	130 ~~AM~~ PM		25.00	50 00
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
	AM PM	AM PM			
TOTAL					175 00

OPERATOR Holland & Gist TRUCK NO. CUSTOMER'S ORDER NO. 9237-86-CC

REMARKS

INVOICE COPY

AC_CPUC_0000668

Archer - Reed

WIRE LINE SERVICE

13702

205 Baldwin Ave. Ventura, California

WIRE LINE AGREEMENT AND OPERATORS SERVICE RECORD

Service charges include mileage and use of A & R men and equipment on the well. If it is necessary to transport A & R equipment by means other than its own power, service charges at location rates commence upon arrival at place such transportation is to begin. A & R personnel will exert its best efforts to perform work requested but results are not guaranteed and A & R reserves the right to move off of the well at any time if, in its opinion, well conditions render such action advisable. The same charges will be made, regardless of results obtained. If A & R personnel is unable to recover its equipment so used in servicing such well, a charge therefor shall be made at regular retail price, provided that upon recovery of said equipment, if then in general use by A & R, it may be returned for full credit, less cost, if any, of reconditioning. When A & R equipment is transported to locations outside inland waters, an additional charge for marine insurance is to be made.

COMPANY So. Calif Gas Co. LOCATION DATE 6-5-73

FIELD Aliso Canyon LEASE Sesnon WELL NO. 25

CASING SIZE TUBING SIZE RECEIVED BY R. Sanders

DATE	MILEAGE CHARGE:	FROM	TO	MILES	RATE PER MILE	AMOUNT
6-5 73	TO LOCATION	Ventura	Well	50	.50	25.00
6-5 73	FROM LOCATION	Well	Ventura	50	.50	25.00

ON LOCATION CHARGES: DESCRIPTION OF OPERATION	TIME OF ARRIVAL	TIME OF DEPARTURE	HRS.	RATE		
Stand by for Rig To finish Running tubing. Made Feeler Run To Ball at 8475 Ran 1 5/8 impression Block to Check for Valve Pulled BK Valve from 8322 Repaired Latch Ran Valve tubing Pressured up set Packer Shut down for the Night	~~1200~~ AM PM	~~AM~~ 300 PM	3	Min	105	00
Additional Hours	300 PM	930 PM	6 1/2	25.00	162	50
impression Block Repair					7	50
TOTAL					325	00

OPERATOR Holland + Gist TRUCK NO. CUSTOMER'S ORDER NO. 97237-86-CC

REMARKS

INVOICE COPY

AC_CPUC_0000669

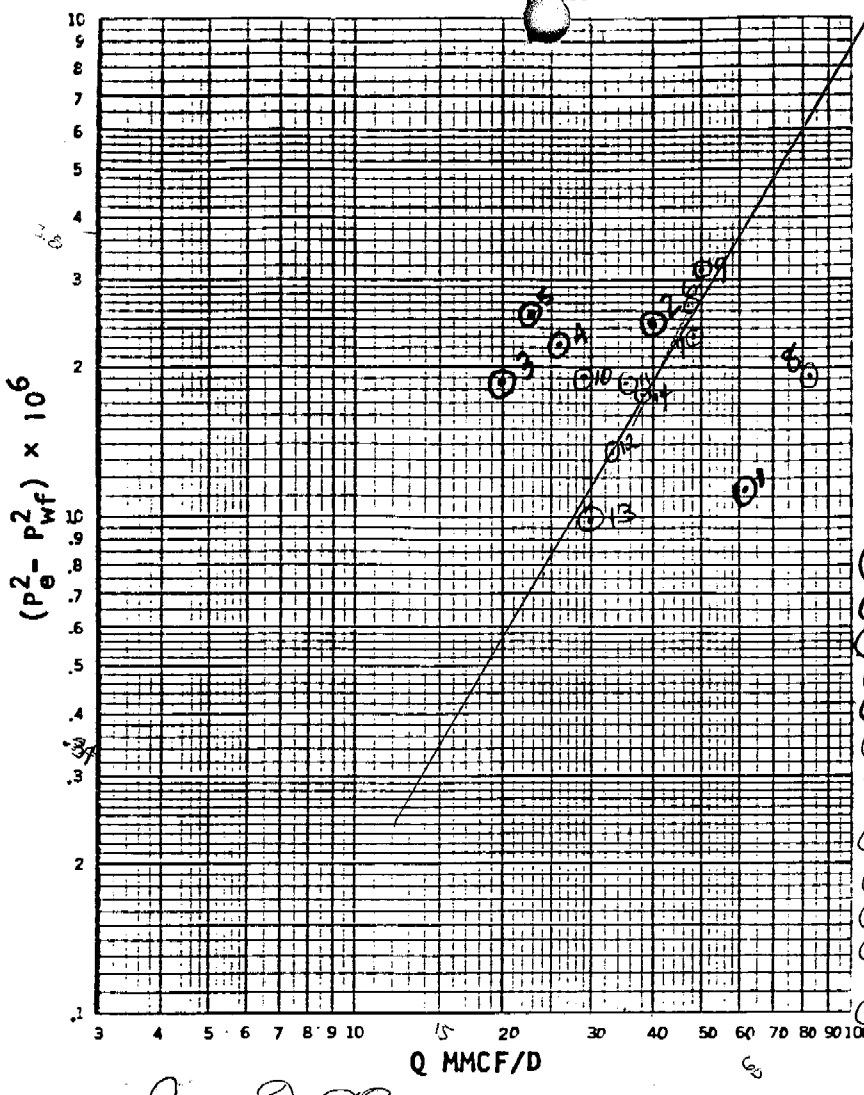
[redacted]

Standard Sesnon 25 Aliso Cyn.
Well Test File

AC_CPUC_0000670

WELL: SS-25

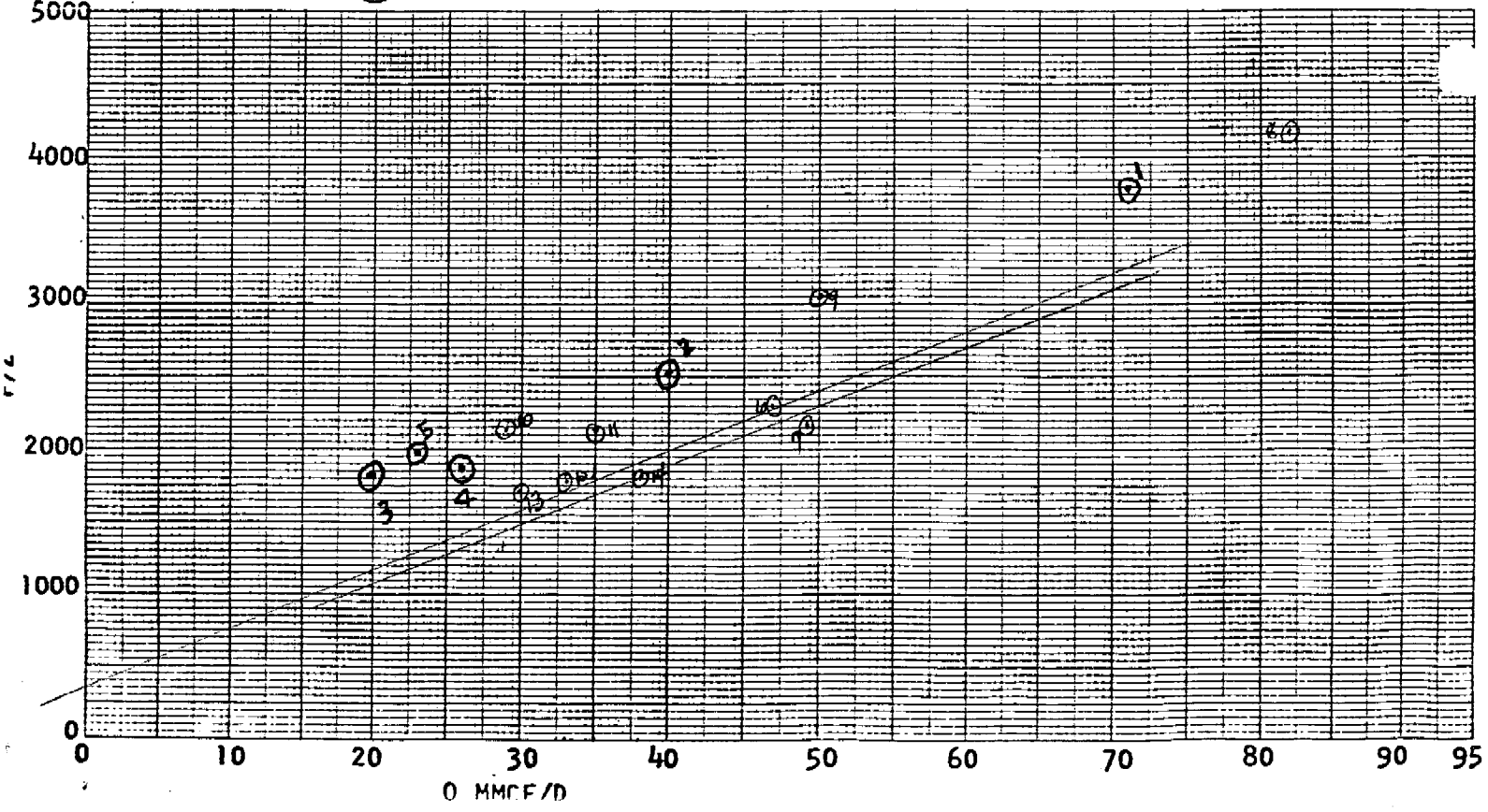
MARKER	TO	LENGTH	D	CSG ID	TBG OD
7" 23#	6308	6308	"	6.366"	2.875"
7" 26#	8274	1874	"	6.276"	2.875"
7" 29#	8450	168	Dr=5.126"	6.184"	2.875"
			"	"	"
			"	"	"
SSSV	8450	0	2.313"		
TBG Pt 1	8470	20	2.441"		
TBG Pt 2			"		
TBG Pt 3			"		
BHC	8470	0	2.205"		
TBG TAIL	8491	21	2.441"		
CSG Pt 1			"		
CSG Pt 2			"		
LNR TOP	8559	67	6.184"		
S8 / MPP	8590	31	4.778"		

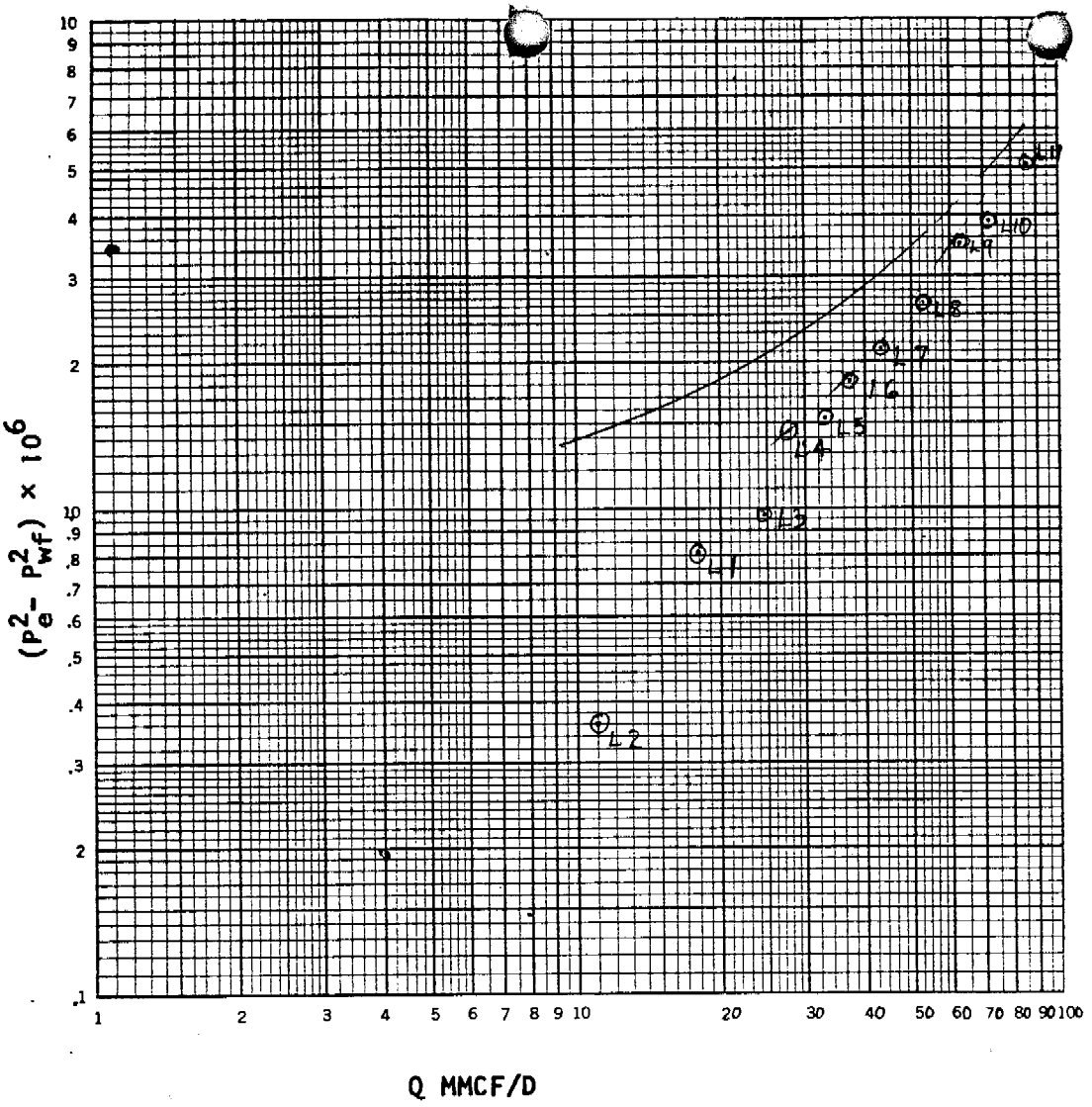


	DATE	SIWHP	Q	ΔP^2	$\frac{P}{Z}$
①	12-8-81	2600	71000	1.12	3791
②	1-13-82	1780	40000	2.49	2533
③	1-29-82	1360	20000	1.88	1834
④	2-5-82	1380	26000	2.22	1869
⑤	2-8-82	1430	23000	2.52	1988
⑥	3-3-82	1610	47000	2.67	2254
⑦	3-17-82	1580	48000	2.35	2218
⑧	10-15-82	2300	82000	1.99	4154
⑨	1-4-84	2000	50000	2.07	3033
⑩	1-24-84	1530	29000	1.90	2131
⑪	2-9-84	1530	35000	1.87	2136
⑫	2-17-84	1320	23000	1.34	1798
⑬	2-1-85	1300	30000	9.81	1719
⑭	2-26-85	1340	38,000	1.77	1825

C = 9.985

n = .5743



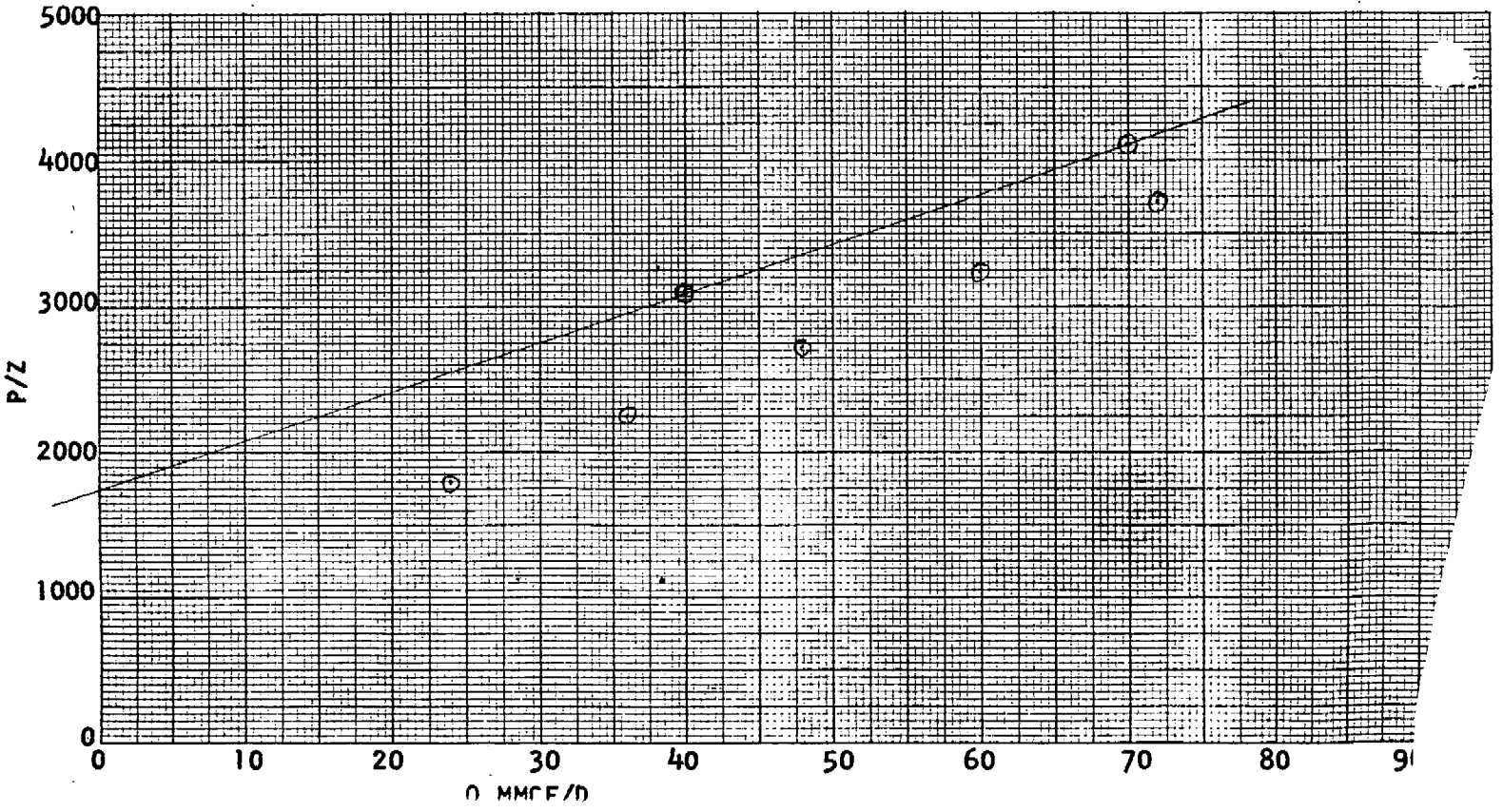


FIELD: ALISO

WELL: SS 25

DATE: 10/24/78

TEST NO.	Q	ΔP^2	DATE
L1	17.9	.81	
L2	11.0	.36	
L3	24.7	.96	
L4	27.9	1.44	
L5	33.2	1.53	
L6	37.3	1.81	
L7	43.5	2.24	
L8	52.7	2.63	
L9	62.9	3.54	
L10	71.9	3.9	
L11	85.7	5.04	



AC_CPUC_0000672

Archer - Keed

WIRE LINE SERVICE

205 Baldwin Ave. Ventura, Calif. 93030

VENTURA 642-7061
LONG BEACH 591-0921

SUB-SURFACE DATA

Company So Calif Gas Co Field _____ Date 10-11-73 Run No. _____

Well Std Sesnon #25 Zone _____ Elev. _____

Purpose _____ Status _____

Total Depth _____ Effect. Depth _____

Casing Size _____ Depth _____ Liner Size _____ Top _____ Bottom _____

Perforations _____

Tubing _____

Company So. Calif Gas Co

Well Standard Sesnon 25

Date 10-11-73		Date	
Arrive	A P	Arrive	A P
Leave	A P	Leave	A P
Inst.	No. 2404 Size 2800PSI		
	No. Size		
Clock	No. Hrs.		
	No. Hrs.		

Stylus Marked 8:20 AM A P

Pressure On 8:30 AM A P

Depth 8355' Zero

At Depth Date 10-11-73 Time 8:44 (A)

Off Depth Date 10-12-73 Time 5:50 (R)

Shut In Date 10-11-73 Time 6:00 (S)

Start Press Tbg. Csg. #

Final Press Tbg. Csg. #

Pick-up Temp. F

OBSERVATIONS

Stabilization Period - Hrs.	
Gross Oil Rate - B/D	
Net Oil Rate - B/D	
Formation Gas MCF/D	
Formation Gas - Oil Ratio CFT/BBL	
Circulated Gas MCF/D	
Oil Dry Gravity - °A.P.I.	
Casinghead Pressure - PSIG	
Tubinghead Pressure - PSIG	
Casing Fluid Level - Ft.	

TIME	DEPTH	SCALE	PSI or ✱	TIME	DEPTH	SCALE	PSI or ✱
8/44 AM	8355	1.314	1866	1/40		1.169	15
9/00	32/64 BEAN	1.314	1866	1/50		1.105	15
9/10		1.219	1730	2/00		1.105	15
9/20		1.190	1689	2/10		1.105	15 ✓
9/30		1.188	1686	2/20		1.106	15
9/40		1.190	1689	2/30		1.107	15
9/50		1.190	1689	2/40		1.107	15
10/00		1.189	1687	2/50		1.107	15
10/10		1.190	1689	3/00		1.167	15
10/20		1.191	1690	3/10		1.107	1520
10/30		1.192	1691	3/15	60/64	1.107	15 ✓
10/40		1.192	1691	3/20	BEAN	1.062	15 ✓
10/50		1.193	1693	3/30		1.040	1474 ✓
11/00		1.194	1694	3/40		1.043	147
11/10		1.196	1677	3/50		1.055	1496
11/20		1.198	1700	4/00		1.056	1497 ✓
11/30		1.199	1701	4/10		1.062	150
11/40		1.201	1704	4/20		1.066	1511
11/50		1.209	1716	4/30		1.064	1516 ✓
12/00 PM	48/64	1.210	1717	4/40		1.070	1517
12/10	BEAN	1.183	1677	4/50		1.072	1520
12/20		1.087	1541	5/00		1.073	1521 ✓
12/30		1.082	1534	5/10		1.073	1521
12/40		1.082	1534	5/20		1.074	1523
12/50		1.084	1537	5/30		1.075	1524
1/00		1.093	1550	5/40		1.075	1524
1/10		1.097	1556	5/50		1.076	1525
1/20		1.102	1563	6/00		1.077	1527 ✓
1/30		1.102	1564	/			

COMMENTS Producing w/ 32/64 bean 9:00 AM to 12:PM, 48/64 12:PM to 3:15 PM & 60/64 3:15 PM to 6:00 PM Shutin Well @ 6:00 PM

By _____

AC_CPUC_0000673

Archer - Reed

WIRE LINE SERVICE

205 Baldwin Ave. Ventura, Calif. 93030

VENTURA 642-7061
LONG BEACH 591-0921

SUB-SURFACE DATA

Company _____ Field _____ Date 10-11-13 to 10-12-13 Run No. _____

Well _____ Zone _____ Elev. _____

Purpose _____ Status _____

Total Depth _____ Effect. Depth _____

Casing Size _____ Depth _____ Liner Size _____ Top _____ Bottom _____

Perforations _____

Tubing _____

Company _____

Well Stone & Sorenson 25

Date		Date	
Arrive	A P	Arrive	A P
Leave	A P	Leave	A P
Inst.	No. 2-1000	Size 2200	
	No.	Size	
Clock	No.	Hrs.	
	No.	Hrs.	
Stylus Marked			A P
Pressure On			A P
Depth		Zero	
At Depth	Date	Time	A P
Off Depth	Date	Time	A P
Shut In	Date	Time	A P
Start Press	Tbg.	Csg.	#
Final Press	Tbg.	Csg.	#
Pick-up		Temp.	F

OBSERVATIONS

Stabilization Period - Hrs.	
Gross Oil Rate - B/D	
Net Oil Rate - B/D	
Formation Gas MCF/D	
Formation Gas - Oil Ratio CFT/BBL	
Circulated Gas MCF/D	
Oil Dry Gravity - °A.P.I.	
Casinghead Pressure - PSIG	
Tubinghead Pressure - PSIG	
Casing Fluid Level - Ft.	

TIME	DEPTH	SCALE	PSI or °F	TIME	DEPTH	SCALE	PSI or °F
6 / 00	Shut-In 8355	1.077	1527	/			
/ 10		1.253	1779	/			
/ 20		1.319	1873	/			
/ 30		1.321	1876	/			
/ 40		1.322	1877	/			
/ 50		1.323	1879	/			
1 / HR		1.323	1879	/			
/ 20		1.323	1879	/			
/ 40		1.324	1880	/			
2 / 12		1.325	1881	/			
3 / "		1.326	1883	/			
4 / "		1.327	1884	/			
5 / "		1.328	1886	/			
6 / "		1.329	1887	/			
7 / "		1.330	1889	/			
8 / "		1.331	1889	/			
9 / "		1.331	1890	/			
10 / "		1.332	1891	/			
11 / "		1.333	1893	/			
11 / 50		1.333	1893	/			
/				/			
/				/			
/				/			
/				/			
/				/			
/				/			
/				/			
/				/			
/				/			

COMMENTS Well Shut-in for PM 10-11-13. Tools out of hole 3:52 P.M. on 10-12-13. 11 hrs & 50 min. from shut-in to pull out.

By _____

AC_CPUC_0000674

WELL: SS-25

FLOW: CSG / TBG

	TVD'
(1) SSSV:	8451'
(2) S8/MPP:	8590'
(3) -5400:	8337'
(12) Gas Gr:	0.63
(6) T_{avg}:	115 °F
(5) T_{bh}:	159 °F

MD S8: 8590'

TVD' MARKER LLLL', D.DDD"		
(20)	0.0	
(21)	0.0	
(22)	8456.5126	
(23)	0.2313	
(24)	20.2441	
(25)	0.2205	
(26)	21.2441	
(27)	67.6184	
(28)	31.4778	
(29)	0.0	

DATE: 2-9-84	ANALYZE	DESIGN
TEST: 11		
P_{up}.T_{up}: 900 • 097		
SIWHP: 1530 psi		
SIBHP's		
SSSV: 1894 psi		
S8/MPP: 1901 psi		
-5400: 1888 psi		
P_{up}: 900 psi		
P_{dn}: 480 psi		
T_{up}: 097 °F		
S. Chk: 1.400"		
Q: 35000 MCF/D		
Erosion: 1.08 %		
Oil Prod: — B/D		
° API: —		
	900	
	1268	
	1281	
	1294	
	1309	
	1322	
	1324	
	1326	
ΔP^2:	1.81 X 10^6	
Design Q:	MCF/D	
Dsgn ΔP^2:	X 10^6	
Dsgn Chk:	"	
By:	ao	Pz = 2136

DATE: 2-17-84	ANALYZE	DESIGN
TEST: 12		
P_{up}.T_{up}: 750 • 104		
SIWHP: 1320 psi		
SIBHP's		
SSSV: 1628 psi		
S8/MPP: 1628 psi		
-5400: 1623 psi		
P_{up}: 750 psi		
P_{dn}: 540 psi		
T_{up}: 104 °F		
S. Chk: 1.500"		
Q: 33000 MCF/D		
Erosion: 1.12 %		
Oil Prod: — B/D		
° API: —		
	750	
	1091	
	1104	
	1118	
	1133	
	1147	
	1149	
	1150	
	1.34 X 10^6	
	MCF/D	
	X 10^6	
	"	
	ao	Pz = 1798

DATE: 2-1-85	ANALYZE	DESIGN
TEST: 13		
P_{up}.T_{up}: 890 • 082		
SIWHP: 1300 psi		
SIBHP's		
SSSV: 1603 psi		
S8/MPP: 1603 psi		
-5400: 1596 psi		
P_{up}: 890 psi		
P_{dn}: 580 psi		
T_{up}: 082 °F		
S. Chk: 1.30"		
Q: 30000 MCF/D		
Erosion: 1.21 %		
Oil Prod: B/D		
° API:		
	890	
	1220	
	1230	
	1239	
	1251	
	1261	
	1263	
	1265	
	9.31 X 10^6	
	MCF/D	
	X 10^6	
	"	
	AG	P/2 = 1719

DATE: 2-26-85	ANALYZE	DESIGN
TEST: 14		
P_{up}.T_{up}: 490 • 84		
SIWHP: 1340 psi		
SIBHP's		
SSSV: 1653 psi		
S8/MPP: 1654 psi		
-5400: 1648 psi		
P_{up}: 490 psi		
P_{dn}: 490 psi		
T_{up}: 84 °F		
S. Chk: — "		
Q: 38000 MCF/D		
Erosion: 2.29 %		
Oil Prod: — B/D		
° API: —		
	490	
	906	
	927	
	947	
	971	
	991	
	993	
	994	
	1.77 X 10^6	
	MCF/D	
	X 10^6	
	"	
	Pz = 1825	

DATE:	ANALYZE	DESIGN
TEST:		
P_{up}.T_{up}: •		
SIWHP: psi		
SIBHP's		
SSSV: psi		
S8/MPP: psi		
-5400: psi		
P_{up}: psi		
P_{dn}: psi		
T_{up}: °F		
S. Chk: "		
Q: MCF/D		
Erosion: %		
Oil Prod: B/D		
° API:		
	X 10^6	
	MCF/D	
	X 10^6	
	"	

AC_CPUC_0000675

WELL: 33-23

FLOW: CSG / [redacted]

	TVD'
(1) SSSV:	8451'
(2) S8/MPP:	8590'
(3) -5400:	8327'
(12) Gas Gr:	0.63
(6) T_{avg}:	115 °F
(5) T_{bh}:	159 °F
MD S8:	8590'

TVD' MARKER LLLL'. D.DDD"		
(20)	0.0	
(21)	00	
(22)	8458 5126	
(23)	0.2313	
(24)	20.2441	
(25)	0.2205	
(26)	21.2441	
(27)	67.6184	
(28)	31.4778	
(29)	00	

	DATE: 5-5-82		DATE: 5-11-82		DATE: 10-1-82		DATE: 1-4-83		DATE: [illegible]	
	TEST: 6		TEST: 7		TEST: 8		TEST: 9		TEST: 10	
	P_{up}·T_{up}: 540 · 061		P_{up}·T_{up}: 600 · 077		P_{up}·T_{up}: 2300 · 093		P_{up}·T_{up}: 1320 · 076		P_{up}·T_{up}: 950 · 096	
	SIWHP: 1610 psi		SIWHP: 1580 psi		SIWHP: 2900 psi		SIWHP: 2090 psi		SIWHP: 1530 psi	
	SIBHP's		SIBHP's		SIBHP's		SIBHP's		SIBHP's	
	SSSV: 1996 psi		SSSV: 1958 psi		SSSV: 3589 psi		SSSV: 2601 psi		SSSV: 1894 psi	
	S8/MPP: 2003 psi		S8/MPP: 1965 psi		S8/MPP: 3601 psi		S8/MPP: 2611 psi		S8/MPP: 1901 psi	
	-5400: 1990 psi		-5400: 1952 psi		-5400: 3578 psi		-5400: 2593 psi		-5400: 1888 psi	
	Pup: 540 psi		Pup: 600 psi		Pup: 2300 psi		Pup: 1320 psi		Pup: 950 psi	
	Pdn: 520 psi		Pdn: 555 psi		Pdn: 500 psi		Pdn: 490 psi		Pdn: 506 psi	
	Tup: 61 °F		Tup: 77 °F		Tup: 93 °F		Tup: 076 °F		Tup: 096 °F	
	S. Chk: — "		S. Chk: — "		S. Chk: 1.25 "		S. Chk: 1.25 "		S. Chk: 1.35 "	
	Q: 47000 MCF/D		Q: 48000 MCF/D		Q: 82000 MCF/D		Q: 50000 MCF/D		Q: 29000 MCF/D	
	Erosion: 2.55 %		Erosion: 5.39 %		Erosion: 4.22 %		Erosion: 0.95 %		Erosion: 1.94 %	
	Oil Prod: — B/D		Oil Prod: — B/D		Oil Prod: — B/D		Oil Prod: — B/D		Oil Prod: — B/D	
	° API: —		° API: —		° API: —		° API: —		° API: —	
	ANALYZE	DESIGN	ANALYZE	DESIGN	ANALYZE	DESIGN	ANALYZE	DESIGN	ANALYZE	DESIGN
(20)										
(21)										
(22)	540		600		2300		1320		950	
(23)	1058		1125		3181		1861		1276	
(24)	1084		1152		3211		1879		1284	
(25)	1109		1177		3240		1896		1293	
(26)	1140		1208		3275		1917		1303	
(27)	1165		1233		3306		1934		1312	
(28)	1167		1236		3312		1938		1315	
(29)	1169		1238		3315		1940		1316	
ΔP^2:	2.67 X 10^6		2.35 X 10^6		1.99 X 10^6		3.07 X 10^6		1.90 X 10^6	
Design Q:	MCF/D		MCF/D		MCF/D		MCF/D		MCF/D	
Dsgn ΔP^2:	X 10^6		X 10^6		X 10^6		X 10^6		X 10^6	
Dsgn Chk:	"		"		"		"		"	
By:	Dm	P/z = 2254	Dm	z = 2218	Dm	P/z = 4154	Ido	Pf = 3033	Ado	Pz = 2131

AC_CPUC_0000676

WELL: SS-25

FLOW: CSG / [redacted]

		TVD'
(1)	SSSV:	8451'
(2)	S8/MPP:	8590'
(3)	-5400:	8327'
(12)	Gas Gr:	0.63
(6)	T_{avg}:	115 °F
(5)	T_{bh}:	159 °F

MD S8: 8590'

	DATE:	12-8-81	1-13-82	1-29-82	2-5-82	2-8-82
	TEST:	1	2	3	4	5
	$P_{up} \cdot T_{up}$:	590 • 047	1075 • 084	720 • 082	540 • 067	530 • 090
	SIWHP:	2600 psi	1780 psi	1360 psi	1380 psi	1430 psi
	SIBHP's					
	SSSV:	3229 psi	2211 psi	1679 psi	1704 psi	1767 psi
	S8/MPP:	3241 psi	2219 psi	1679 psi	1710 psi	1774 psi
	-5400:	3219 psi	2204 psi	1673 psi	1699 psi	1762 psi
	P_{up}:	590 psi	1075 psi	720 psi	540 psi	530 psi
	P_{dn}:	590 psi	550 psi	525 psi	540 psi	630 psi
	T_{up}:	47 °F	84 °F	82 °F	67 °F	90 °F
	S. Chk:	— "	1.25"	1.35"	— "	— "
	Q:	71000 MCF/D	40000 MCF/D	20000 MCF/D	26000 MCF/D	23000 MCF/D
	Erosion:	0 %	6.7 %	5.65 %	0.92 %	3.23 %
	Oil Prod:	— B/D	— B/D	— B/D	— B/D	— B/D
	° API:	—	—	—	—	—

	TVD' MARKER LLLL'. D.DDD"	ANALYZE	DESIGN	ANALYZE	DESIGN	ANALYZE	DESIGN	ANALYZE	DESIGN	ANALYZE	DESIGN
(20)	0.0										
(21)	0.0										
(22)	8458.5126	590		1075		720		540		530	
(23)	0.2313	1422		1504		956		809		768	
(24)	20.2441	1468		1518		961		819		777	
(25)	0.2205	1508		1532		966		829		786	
(26)	21.2441	3032	[1.0 BHC]	1548		973		842		796	
(27)	67.6184	3056		1562		978		852		805	
(28)	31.4778	3061		1565		980		854		807	
(29)	0.0			1567		981		855		808	

ΔP^2:	1.12 X 10^6		2.49 X 10^6		1.88 X 10^6		2.22 X 10^6		2.52 X 10^6	
Design Q:	MCF/D		MCF/D		MCF/D		MCF/D		MCF/D	
Dsgn ΔP^2:	X 10^6		X 10^6		X 10^6		X 10^6		X 10^6	
Dsgn Chk:	"		"		"		"		"	
By:	JBL	$\frac{P}{Z}$ = 3791	JRI	$\frac{P}{Z}$ = 2533	JRL	$\frac{P}{Z}$ = 1834	JRI	$\frac{P}{Z}$ = 1869	JRI	$\frac{P}{Z}$ = 1988

AC_CPUC_0000677

WELL: 55-25

FLOW: (CSG)/TBG

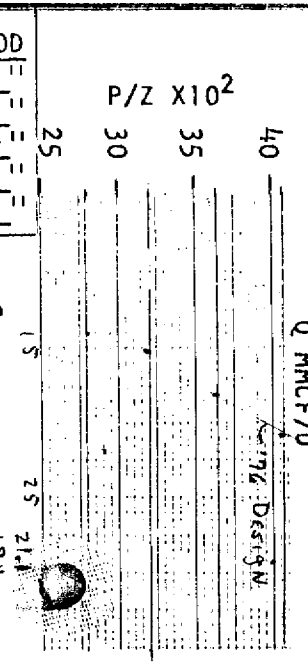
MARKER	TVD'
(CSG) TBG	
UP S.CHK	
SSSV	8450'
S8 / MPP	8590'
S8 / MPP psia	
-5400'	8327'
SIBHPest	
Pavg ann	
Zavg ann	

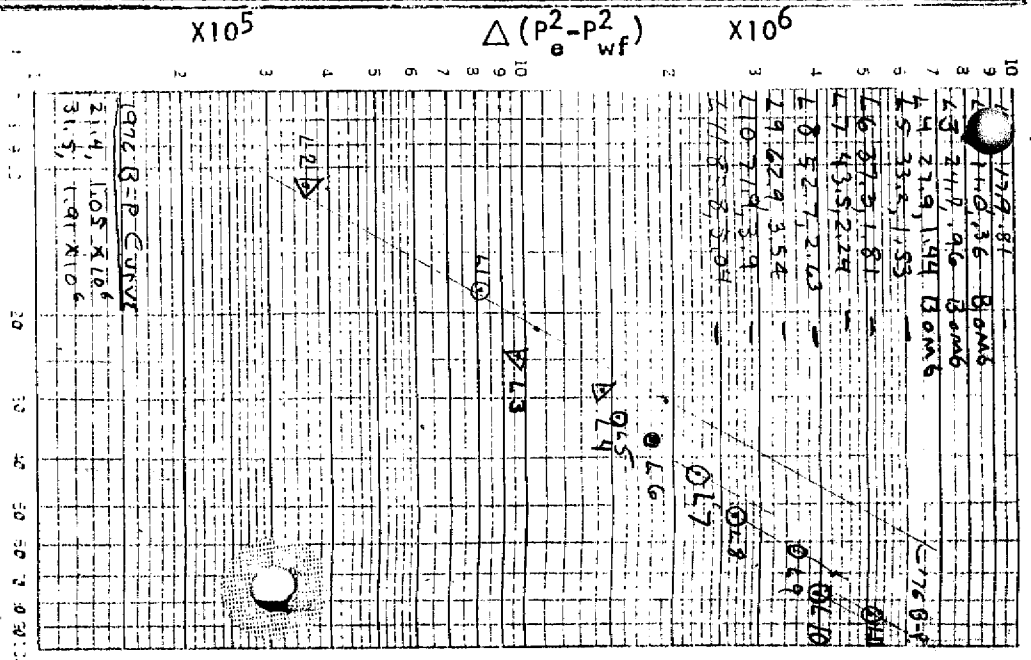
No directional survey

	TEST #: L9 DATE: 10/13/78			TEST #: L10 DATE: 10-21-78			TEST #: L11 DATE: 10-28-78			TEST #: 12 DATE:
	S.I. PSIG	FLOWING PSIG		S.I. PSIG	FLOWING PSIG		S.I. PSIG	FLOWING PSIG		S.I. PSIG	FLOWING PSIG
	GAUGE / BOMB	ANALYSE CALC / MEAS	DESIGN PRED.	GAUGE / BOMB	ANALYSE CALC / MEAS	DESIGN PRED.	GAUGE / BOMB	ANALYSE CALC / MEAS	DESIGN PRED.	GAUGE / BOMB	ANALYSE CALC / MEAS	DESIGN PRED.
	2980 / —	— / 2480		2933 / —	— / 3310		3030 / —	— / 2340		— / —	— / —
	— / —	2300 / (2300)	2150	— / —	2095 / (2095)	2122	— / —	1890 / (1890)	1959	— / —	— / —
	3666 / —	— / —	2832	3607 / —	2805 / —	2904	3725 / —	2785 / —	2807	— / —	— / —
	3678 / —	— / —	2939	3619 / —	3035 / —	3041	3737 / —	2991 / —	2986	— / —	— / —
	3693 / —	— / —	2954	3634 / —	3050 / —	3056	3752 / —	3006 / —	3001	— / —	— / —
	3655 / —			3599 / —			3714 / —			— / —	— / —
	— / —	Rec'md: 1.105" Chk		— / —	Rec'md: 1.168" Chk		— / —	Rec'md: 1.303" Chk		— / —	Rec'md: 1.125" SSSV Chk
	— / —	For: 52 M² MCF/D		— / —	For: 70.8 M MCF/D		— / —	For: 81 M MCF/D		— / —	For: 80 M² MCF/D
	— / —	By: WLC On: 10-13-78		— / —	By: DOT On: 10-24-78		— / —	By: WLC On: 10-28-78		— / —	By: WLC On: 10-30-78
	SHUT IN SURVEY / BOMB	FLOWING BOMB / ESTIMATED		SHUT IN SURVEY / BOMB	FLOWING BOMB / ESTIMATED		SHUT IN SURVEY / BOMB	FLOWING BOMB / ESTIMATED		SHUT IN SURVEY / BOMB	FLOWING BOMB / ESTIMATED
T_{sf} °F	170 / —	172 / —		170 / —	172 / —		173 / —	173 / —		170 / —	— / —
T_{bh} °F	159 / —	— / —		159 / —	— / —		— / —	— / —		159 / —	— / —
T_{avg} °F	115 / —	— / —		115 / —	— / —		115 / —	— / —		115 / —	— / —
CHK SIZE	SURFACE 1.050"	SSSV None"	BHC None"	SURFACE 1.168"	SSSV None"	BHC None"	SURFACE 1.303"	SSSV None"	BHC None"	SURFACE None"	SSSV 1.125" BHC None"
P_{up}, T_{up} sf chk	2300 psig, 92 °F			2095 psig, 72 °F			1890 psig, 73 °F			____ psig, ____ °F	
P_{dn}, T_{dn} sf chk	575 psig, 20 °F			560 psig, 10 °F			565 psig, 17 °F			____ psig, ____ °F	
$Q, \Delta(P_e^2 - P_{wf}^2)$	62980 MCF/D, 3.59 X10⁶			71.708 MCF/D, 3.9 X10⁶			85.824 MCF/D, 5.09 X10⁶			____ MCF/D, ____ X10⁶	
OIL PRODUCTION	0 B/D, — °API, — % BS&W			— B/D, — °API, — % BS&W			— B/D, — °API, — % BS&W			____ B/D, ____ °API, ____ % BS&W	

MARKER	TO	LENGTH	D	CSG ID	TBG OD
7" 23#	6308	6308	"	6.366"	2.875"
26#	8282	1974	"	6.276"	2.875"
29#	8450	168	Dr 5.126"	6.184"	2.875"
			"	"	"
			"	"	"
SSSV	8450	0	2.313"		
TBG Pt 1	8470	20	2.441"		
TBG Pt 2			"		
TBG Pt 3			"		
BHC	8470	0	1.91"		
TBG TAIL	8491	21	2.441"		
CSG Pt 1			"		
CSG Pt 2			"		
LNR TOP	8559	69	6.184"		
S8 / MPP	8590	31	4.778"		

JWT:jwt (rev. 8/08/78) TEST WORKSHEET





AC_CPUC_0000678

WELL: 55-25

FLOW: (CSG)/TBG

MARKER	TVD'
(CSG) TBG	
UP S.CHK	
SSSV	8450'
S8 / MPP	8590'
S8 / MPP psia	
-5400'	8327'
SIBHPest	
Pavg ann	
Zavg ann	

No directional survey

T_{sf} °F
T_{bh} °F
T_{avg} °F

CHK SIZE

P_{up}, T_{up} sf chk

P_{dn}, T_{dn} sf chk

$Q, \Delta(P_e^2 - P_{wf}^2)$

OIL PRODUCTION

TEST #: L 1 DATE: 8-6-78

S.I. PSIG GAUGE	S.I. PSIG BOMB	FLOWING PSIG ANALYSE CALC	FLOWING PSIG ANALYSE MEAS	FLOWING PSIG DESIGN PRED.
2460	—		2085	
		500	(900)	—
3084		702		
3065		2989		
3079		2944		
3044				
3052				
2756				
.8072				

Rec'md: — " Chk
For: — MCF/D
By: — On:

SHUT IN SURVEY BOMB	SHUT IN BOMB	FLOWING BOMB ESTIMATED	FLOWING BOMB
20	—	8.2	
159	—	—	150
115	—	—	115

SURFACE	SSSV	BHC
None"	1.125"	.510"

500 psig, 82 °F
— psig, — °F

17.899 MCF/D, .81 X10^6

— B/D, — °API, — % BS&W

TEST #: L 2 DATE: 9-18-78

S.I. PSIG GAUGE	S.I. PSIG BOMB	FLOWING PSIG ANALYSE CALC	FLOWING PSIG ANALYSE MEAS	FLOWING PSIG DESIGN PRED.
2760	2791		2750	
	(2760)	2723	2720	2300
	3417	3364	(3364)	2864
	3429	3372		2887
	3444	3392		2902
	3383			
	3071			
	.8168			

Rec'md: .400 " Chk
For: 9.5 M MCF/D
By: L³ On: 9-10-78

SHUT IN SURVEY BOMB	SHUT IN BOMB	FLOWING BOMB ESTIMATED	FLOWING BOMB
70	—	86	
159	—	142	
115	—	121	

SURFACE	SSSV	BHC
400 "	None"	None"

2720 psig, 86 °F
480 psig, — 0 °F

11.042 MCF/D, .36 X10^6

— B/D, — °API, — % BS&W

TEST #: L3 DATE: 9-19-78

S.I. PSIG GAUGE	S.I. PSIG BOMB	FLOWING PSIG ANALYSE CALC	FLOWING PSIG ANALYSE MEAS	FLOWING PSIG DESIGN PRED.
2790	2799		2665	
	(2769)	2635	2625	2291
	3427	3272	(3272)	2862
	3439	3297		2884
	3454	3312		2899
	3417			
	3391			
	3095			
	.8178			

Rec'md: .620" Chk
For: 22 M MCF/D
By: L³ On: 8-10-78

SHUT IN SURVEY BOMB	SHUT IN BOMB	FLOWING BOMB ESTIMATED	FLOWING BOMB
70	—	85	
159	—	120	
115	—	103	

SURFACE	SSSV	BHC
.620"	None"	None"

2625 psig, 85 °F
490 psig, 0 °F

24.651 MCF/D, .96 X10^6

— B/D, — °API, — % BS&W

TEST #: L 41 DATE: 9-22-78

S.I. PSIG GAUGE	S.I. PSIG BOMB	FLOWING PSIG ANALYSE CALC	FLOWING PSIG ANALYSE MEAS	FLOWING PSIG DESIGN PRED.
2820	2833		2650	
	(2805)	2579	2600	2585
	3471	3242	(3242)	3220
	3483	3271		3248
	3498	3286		3263
	3460			
	3425			
	3129			
	.8188			

Rec'md: .683" Chk
For: 29.6 M MCF/D
By: WLC On: 9-20-78

SHUT IN SURVEY BOMB	SHUT IN BOMB	FLOWING BOMB ESTIMATED	FLOWING BOMB
70	—	94	
159	—	116	
115	—	105	

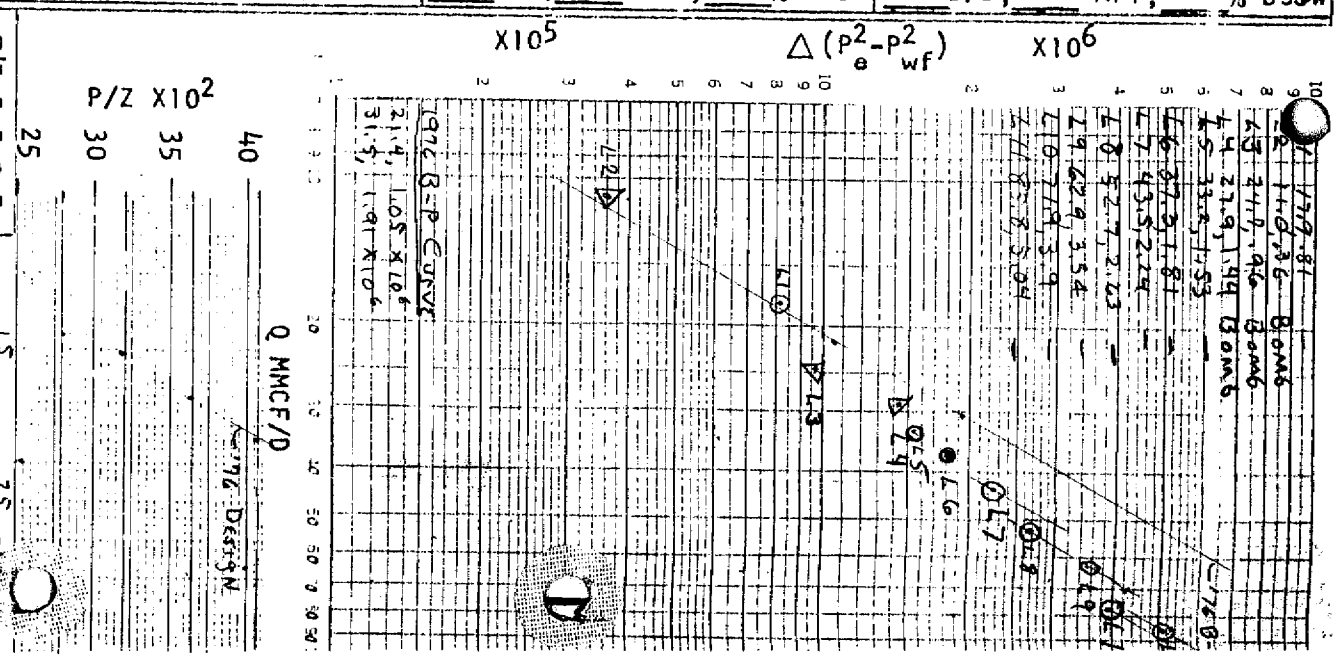
SURFACE	SSSV	BHC
.683"	None"	None"

2600 psig, 94 °F
530 psig, 8 °F (S/C)

27.899 MCF/D, 1.44 X10^6

— B/D, — °API, — % BS&W

MARKER	TO	LENGTH	D	CSG ID	TBG OD
7" 23#	6308	6308	"	6.366"	2.875"
26#	8282	1874	"	6.276"	2.875"
29#	8450	168	Dr. 5.126"	6.184"	2.875"
			"	"	"
			"	"	"
SSSV	8450	0	2.313"		
TBG Pt 1	8470	20	2.441"		
TBG Pt 2			"		
TBG Pt 3			"		
BHC	8470	0	1.91"		
TBG TAIL	8491	21	2.441"		
CSG Pt 1			"		
CSG Pt 2			"		
LNR TOP	8559	69	6.184"		
S8 / MPP	8590	31	4.778"		



JWT:jwt (rev. 8/08/78) TEST WORKSHEET

AC_CPUC_0000679

WELL NO: SS-[illegible]

CHOKE & PRESSURE WORKSHEET

ANALYST	DESIGN	P_a	(00) T_a	(11) Z_a	(22) Q	(B) D''	(C) L'	(D) P_{wh}	(E) P_{bh}
B		2500	110	.7973	71,900	5.126	8450	2095	2993
C		2900	130	.8285		2.313	0	2893	2917
D						2.441	20	2917	2979
E						1.810	0	2940	3004
F						2.441	21	3004	3026
G						6.184	67	3026	3032
H						4.778	31	3032	3035
	11H	2400	110	.7970	80000	5.126	8450	1959	2807
	G					2.313	0	2807	2838
	F					2.441	20	2838	2961
	E					1.810	0	2867	2948
	D					2.441	21	2947	2977
	C					6.184	67	2977	2982
	11B	2900	130	.8285		4.778	31	2982	2986
						① D_A=1.29			
B		2580	110	.7970	85,800	5.126	8450	1805	2785
C		2900	130	.8286		2.313	0	2785	2821
D						2.441	20	2821	2854
E						1.810	0	2854	2887
F						2.441	21	2947	2981
G						6.184	67	2981	2987
H						4.778	31	2987	2991
	12H	1775	110	.8099	80,000	5.126	7450	1349	2108
	G					1.125	0	2108	2927
	F					2.441	20	2927	2955
	E					1.810	0	2955	3034
	D					2.441	21	3034	3062
	C					6.184	67	3062	3068
	12B	3050	130	.8330		4.778	31	3068	3072

ANALYST	DESIGN	P_a	(00) T_a	(11) Z_a	(22) Q	(B) D''	(C) L'	(D) P_{wh}	(E) P_{bh}

ANAL.	DSGN.	(22) Q	(E') $\Delta(P_e^2-P_{wf}^2)$	(D') SIBHP psig	P_{wf} @S8 psig
D1		71,900	3.9×10^6	3619	3035
	11A	80,000	4.2×10^6	3619	2986
I		85,900	5.04×10^6	3737	2991
	12A	80,000	4.55×10^6	3737	3072

NOTE: (D') must be hit before (E')

ANAL.	DSGN.	(00) T_{up}	(B) CHK''	(A') P_{up}	(B') P_{dn}	Q_{sub}	Q_{crit}	Q_{meas}
1DA		82	1.28	2005	560	–	71,541	71.9
	11I	110	1.303	1959	525		81,224	–
1A		103	1.303	1900	525	–	81,099	80.9

WT:cma (rev. 9/5/78)

AC_CPUC_0000680

WELL NO: SSZ 5

CHOKE & PRESSURE WORKSHEET

ANALYSE	DESIGN	P_a	(00) T_a	(11) Z_a	(22) Q	(B) D''	(C) L'	(D) P_{wh}	(E) P_{bh}
6B		2850	124	.8215	37300	5.126	8450	2510	3163
C		3200	140	.8491		2.313	0	3163	3169
D						2.441	20	3169	3176
E						1.81	0	3176	3192
F						2.441	21	3192	3199
G						6.184	67	3199	3204
6H						4.778	31	3204	3207
	7H	2750	124	.8193	43000	5.126	8450	2415	3074
	G	3100	140	.8464		2.313	0	3074	3082
	F					2.441	20	3082	3091
	E					1.81	0	3091	3113
	D					2.441	21	3113	3122
	C					6.184	67	3122	3127
	7B					4.778	31	3127	3130
7B		2700	125	.8184	43500	5.126	8450	2440	3105
C		3125	140	.8464		2.313	0	3105	3113
D						2.441	20	3113	3122
E						1.81	0	3122	3144
F						2.441	21	3144	3154
G						6.184	67	3154	3158
H						4.778	31	3158	3159
	H	2700	125	.8194	51,500	5.26	8450	2291	2951
	G					2.313	0	2951	2963
	F					2.441	20	2963	2976
	E					1.81	0	2976	3009
	D					2.441	21	3009	3022
	C					6.184	67	3022	3027
	8B	3025	140	.8431		4.778	31	3027	3030
						(D$_A$=.966)			
9B		2350	125	.8165	52,700	5.26	8450	2300	2968
C		2975	140	.8416		2.313	0	2968	2981
D						2.441	20	2981	2994
E						1.81	0	2994	3028
F						2.441	21	3028	3042
G						6.184	67	3042	3047
H						4.778	31	3047	3050

ANALYSE	DESIGN	P_a	(00) T_a	(11) Z_a	(22) Q	(B) D''	(C) L'	(D) P_{wh}	(E) P_{bh}
	H	2575	125	.8167	60,000	5.26	8450	2150	2832
	G		140			2.313	0	2832	2850
	F					2.441	20	2850	2867
	E					1.81	0	2867	2913
	D					2.441	21	2913	2931
	C					6.184	67	2931	2936
	9B	2925		.8403		4.778	31	2936	2939
						(D$_A$=1.076)			
9B			115	0.8181	62880	5.126	8450	2300	3052
C		3150	140	0.8472		2.313	0	3052	3070
D						2.441	20	3070	3093
E						1.81	0	3093	3115
F						2.441	21	3115	3135
G						6.184	67	3135	3139
H						4.778	31	3139	3162
	H		110	0.81	70,000	5.126	8450	2122	2904
	G	3400	130	0.8472		2.313	0	2904	2927
	F					2.441	20	2927	2949
	E					1.810	0	2949	3009
	D					2.441	21	3009	3032
	C					6.184	67	3032	3038
	10B					4.778	31	3038	3047

ANAL.	DSGN.	(00) T_{up}	(B) CHK''	(A') P_{up}	(B') P_{dn}	Q_{sub}	Q_{crit}	Q_{meas}
6A		94	.785	2510	505	-	38.3	37.3
		94	.857	2415	505		43.8	-
7A		88	.857	2440	525	-	44.568	-
	8I	125	.95	2291	510	-	51.500	-
8A		88	.950	2300	535	-	51.642	52.7
	9I	125	1.05	2150	510	-	57.102	-
9A		92	1.05	2300	575	-	62.8	62.8
	10I	90	1.168	2122	575		70.7	

AN.	DS.	(22) Q	(E') $\Delta(P_e^2-P_{wf}^2)$	(D') SIBHP psig	P_{wf} @S8 psig
6I		37300	1.81×10^6	3477	3207
	7A	43000	2.3×10^6	3477	3130
7I		43,500	2.24×10^6	3495	3159
	8A	51,500	3.05×10^6	3495	3030
8I		52,700	2.63×10^6	3453	3050
	9A	60,000	3.3×10^6	3453	2939
9I		62,880	3.54×10^6	3678	3162
	10A	70000	4.3×10^6	3678	3041

NOTE: (D') must be hit before (E')

JWT:cma (rev. 9/5/78)

AC_CPUC_0000681

WELL NO: 55-29

CHOKE & PRESSURE WORKSHEET

ANALYSE	DESIGN	Pa	(00) Ta	(11) Za	(22) Q	(B) D''	(C) L'	(D) Pwh	(E) Pbh
	H	2600	120	.8109	22.000	5.126	8450	2291	2862
	G		140			2.313	0	2862	2864
	F					2.441	20	2864	2867
	E					1.81	0	2867	2873
	D					2.441	21	2873	2877
	C					6.184	67	2877	2882
	3B	2850		8384		4.778	31	2882	(2884)
					(DA = .630)				
	3B	3100	120	.8235	11.000	5.126	8450	2723	(3364)
	C	3275	140	.8564		2.313	0	3364	3365
	D					2.441	20	3365	3366
	E					1.81	0	3366	3367
	F					2.441	21	3367	3369
	G					6.184	67	3369	3374
	H					4.778	31	3374	3377
3B		3000	125	.8257	24.700	5.126	8450	2635	(3272)
	C					2.313	0	3272	3275
	D	3300	135	.8480		2.441	20	3275	3278
	E					1.81	0	3278	3285
	F					2.441	21	3285	3289
	G					6.184	67	3289	3294
	H					4.778	31	3294	3297
	H	2975	125	.8249	28.000	5.126	8450	2585	3220
	G					2.313	0	3220	3223
	F					2.441	20	3223	3227
	E					1.81	0	3227	3236
	D					2.441	21	3236	3241
	C					6.184	67	3241	3246
	4B	3300	135	.8480		4.778	31	3246	(3248)
					(DA = .671)				
B		3000	110	.8081	27.900	5.126	8450	2579	(3242)
C		3250		.8186		2.313	0	3242	3245
D						2.441	20	3245	3249
E						1.81	0	3249	3258
F						2.441	21	3258	3262
G						6.184	67	3262	3268
H						4.778	31	3268	3271

ANALYSE	DESIGN	Pa	(00) Ta	(11) Za	(22) Q	(B) D''	(C) L'	(D) Pwh	(E) Pbh
	H	2950	110	.8064	31.000	5.126	8450	2536	3199
	G					2.313	0	3199	3202
	F					2.441	20	3202	3207
	E					1.81	0	3207	3217
	D					2.441	21	3217	3223
	C					6.184	67	3223	3228
	5B	3200		.8162		4.778	31	3228	(3231)
					(DA = .708)				
5B			95	.8282	33.200	5.126	8450	(2975)	3254
C						2.313	0	3254	3258
D						2.441	20	3258	3263
E						1.81	0	3263	3275
F						2.441	21	3275	3281
G						6.184	67	3281	3287
H						4.778	31	3287	3290
H			95		38.000	5.126	8450	2484	3182
G						2.313	0	3182	3187
F						2.441	20	3187	3194
E						1.81	0	3194	3209
D						2.441	21	3209	3216
C						6.184	67	3216	3222
6B		3200		.8287		4.778	31	3222	(3225)
					(DA = .787)				

ANAL.	DSGN.	(00) Tup	(B) CHK''	(A') Pup	(B') Pdn	Qsub	Qcrit	Qmeas
	3I	100	.620	2291	500	—	21.674	—
2A		86	.400	2720	480	—	10.836	11.0
3A		85	.620	2625	490	—	25.153	24.7
	4I	100	.683	2585	500	—	29.650	—
4A		94	.683	2600	530	—	29.998	27.9
	5I	100	.715	2536	500	—	31.888	—
5A		95	.715	2575	500	—	32.521	33.2
	6I	100	.785	2494	500	—	32.654	—

AN.	DS.	(22) Q	(E') $\Delta(P_e^2 - P_{wf}^2)$	(D') SIBHP psig	P_{wf} @S8 psig
	3A	22.0	1.08×10^6	3065	2884
I		11.0	$.36 \times 10^6$ *	3429	3377
I		24.7	$.96 \times 10^6$ *	3439	3297
	4A	28.0	1.28×10^6	3439	3248
I		27.9	1.44×10^6 *	3483	3271
	5A	31.0	1.7×10^6	3483	3231
I		33.200	1.83×10^6	3513	3290
	6A	38.000	1.95×10^6	3513	3225

NOTE: (D') must be hit before (E')

WT:cma (rev. 9/5/78)

* Bombs

AC_CPUC_0000682

WELL NO: 55-25

CHOKE & PRESSURE WORKSHEET

ANALYSE	DESIGN	(A') T_a	(B') Z_a	(A) L'	(B) Q	(C) D''	(D) P_{wh}	(E) P_{bh}
1B	1600	115	.9197	8450	17,900	5.126	500	702
C				0		1.125	702	818
D	825	120	.8949	20		2.441	818	823
E		150		0		.510	823	2920
F	2925		.8509	21		2.441	2920	2923
G				67		6.184	2923	2927
H				31		4.778	2927	2929
	2B 2850	150	.8491	31	22,000	4.778	2885	2887
	C			67		6.184	2880	2885
	D			21		2.441	2877	2880
	E			0		1.81	2870	2877
	F			20		2.441	2866	2870
	G			0		2.313	2864	2866
	H	125 2400	.8170	8450		5.126	2300	2864

ANALYSE	DESIGN	(A) P_{up}	(B) P_{dn}	(C) T_{up}	(D) CHK''	(E)	(A') Q_{sub}	(B') Q_{crit}	(C') T_{dn}
1A		500	-	82	NONE				
1C		818	702	120	1.125		18,300		
1E		2920	823	150	.510		17,400		855
	2E	2877	2870	150	1.81		23,200		150
	2G	2866	2864	150	2.313		20,200		150
	2I	2300	550	100	.1620		21,800		

ANALYSE	DESIGN	Q	$(P_e^2-P_{wf}^2)$	P_e psia	P_{wf} psia	P_{wf} psig
1A * old BP		17,900	$.8\times10^6$ *	3079	2946	2932
1I		17,400	$.81\times10^6$	3079	2949	2929
	2A	22,000	1.06×10^6	3079	2902	2887

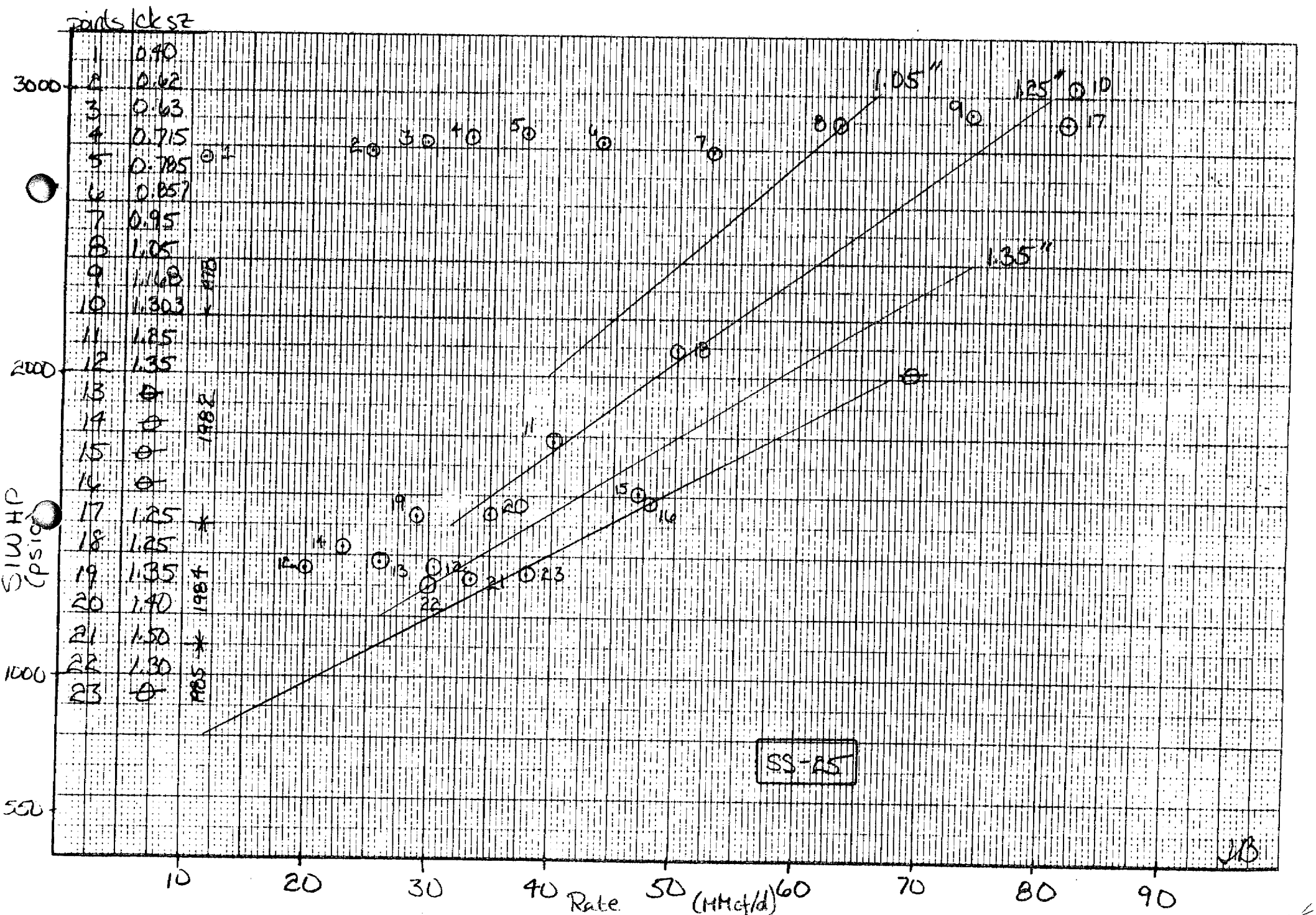
ANAL	DSN	(A') T_a	(B') Z_a	(A) L'	(B) Q	(C) D''	(D) P_{wh}	(E) P_{bh}

ANALYSE	DESIGN	(A') T_a	(B') Z_a	(A) L'	(B) Q	(C) D''	(D) P_{wh}	(E) P_{bh}

JWT:jwt (rev. 7/30/78)

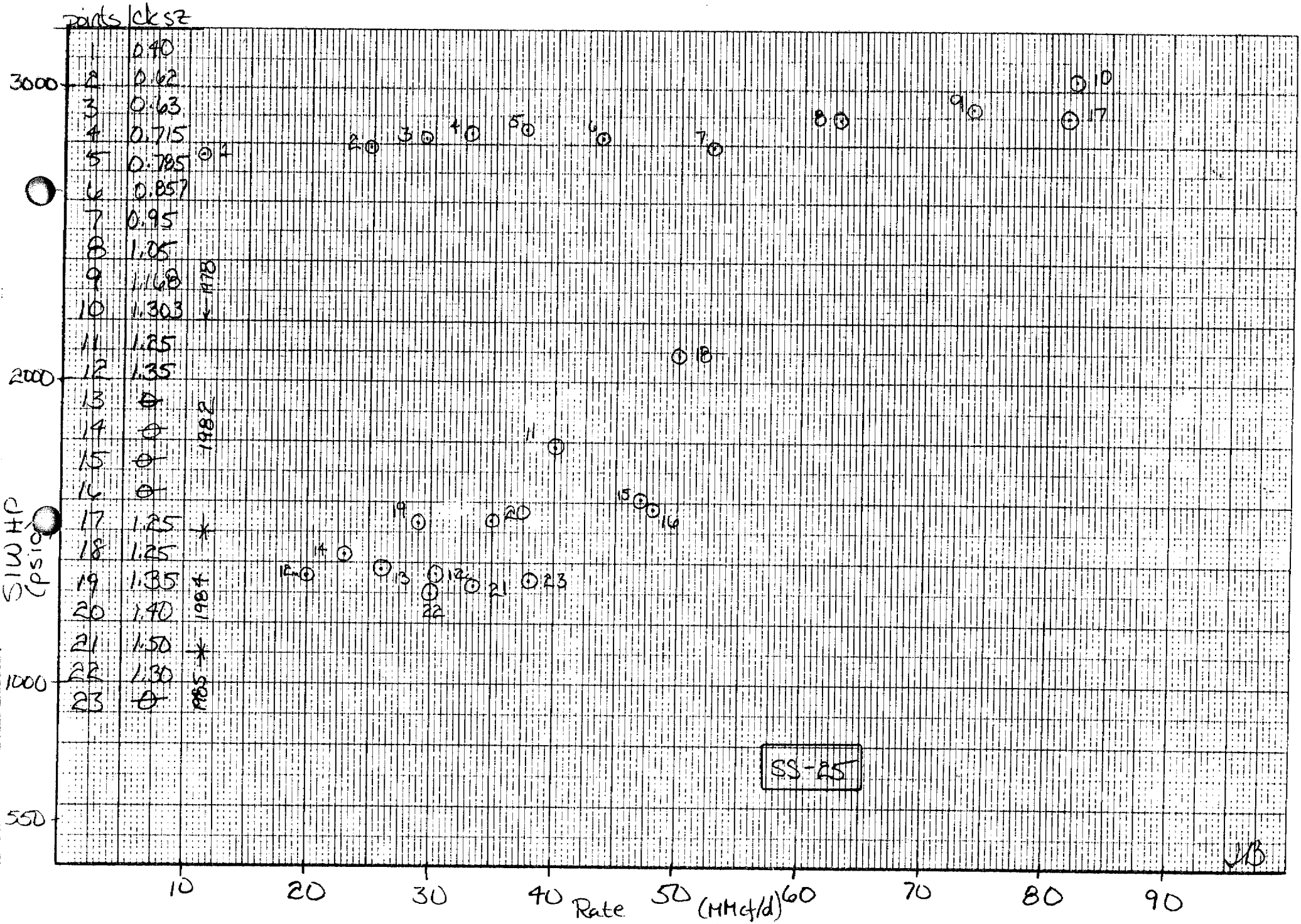
AC_CPUC_0000683

K•E 10 X 10 TO ½ INCH 7 X 10 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.



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K&E 10 X 10 TO ½ INCH 7 X 10 INCHES
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SOUTHERN CALIFORNIA GAS COMPANY

Compiled KB Date 9.16.85

Checked ____ Checked ____

Approved ____ Job No. ____

WELL NAME: SS-25 workovers: 2.79 repl. SSSV

WELL TEST INFORMATION

low flow tests values unless noted erosion rates on 8" pipe

	DATE	SIWHP (psig)	FWHP (psig)	FW TEMP. (°F)	RATE (MMcf/d) calcul.	RATE (MMcf/d) meas	ΔP^2 (x 10^6 psia)	P/Z (psia)	CHOKE (in.)	INVENTORY (Bcf) liquids	P_{DS}/T_{DS} (psig/°F)	EROSION (%)	
1	9.8.78	2760	2720	86		11.2			0.40	0	490 2		1
2	9.19.78	2790	2630	84		24.7			0.62		490 0		2
3	9.22.78	2820	2605	94		28.2			0.63		525 8		3
4	9.26.78	2840	2635	95		33.0			0.715		500 10		4
5	9.29.78	2805	2520	94		37.3			0.785		505 11		5
6	10.2.78	2825	2445	88		43.6			0.857		525 8		6
7	10.7.78	2790	2295	88		52.7			0.95		540 16		7
8	10.13.78	2890?	2300	8hr test 92		62.9			1.05	⊖	575 20		8
9	10.21.78	2930	2105	82		73.6			1.168		510 14		9
10	10.28.78	3030	1890	74		82.1			1.303		565 18		10
11	1.13.82	1780	1075	84		40			1.25		550 70	6.73	11
12	1.29.82	1360	720	? 82	30.4	20			1.35		525 89 ?	5.65	12
13	2.5.82	1380	540	—		26			⊖		520 67	0.92	13
14	2.8.82	1430	530	90		23			⊖		—	3.23	14
15	3.3.82	1610	540	61		47			⊖		520 —	2.55	15
16	3.17.82	1580	600	77		48			⊖		555 —	5.39	16
17	10.15.82	2900	2300	93		82			1.25		500 23	3.80	17
18	1.4.84	2090	1320	76		50			1.25		490 68	0.95	18
19	1.24.84	1530	950	96		29			1.35		500 82	1.68	19
20	2.9.84	1530	900	97	35.	32			1.40		480 87	1.08	20
21	2.17.84	1320	750	104		33			1.50		560 92	0.99	21
22	2.1.85	1300	890	82		30			1.30		580 59	1.21	22
23	2.26.85	1340	490	84		38			⊖		—	2.29	23

AC_CPUC_0000686

NODAL ANALYSIS RESULTS

SS 25 @ 0 INVENTORY

SUMMARY OF GENERAL INPUT DATA

GAS GRAVITY = .63
WELLHEAD PRESSURE,PSIG = 500.0

SUMMARY OF INPUT DATA FOR RESERVOIR MODULE

AVERAGE RESERVOIR PRESSURE,PSIG = 1667.

INFLOW

CALCULATED AOF= 59390.41

FLOW RATE	NODE PRESSURE,PWF
38000.	995.
19000.	1372.
9000.	1534.

37,515

SUMMARY OF INPUT DATA FOR WELL MODULE

WELL CONFIGURATION

DEPTH	TUBING DIA.	ANGLE	CASING DIA.	TUBING I.D.
8451.	2.875	.00	6.276	.000
8467.	2.205	.00	.000	.000
8496.	2.441	.00	.000	.000
8559.	.000	.00	6.276	.000
8659.	.000	.00	4.775	.000

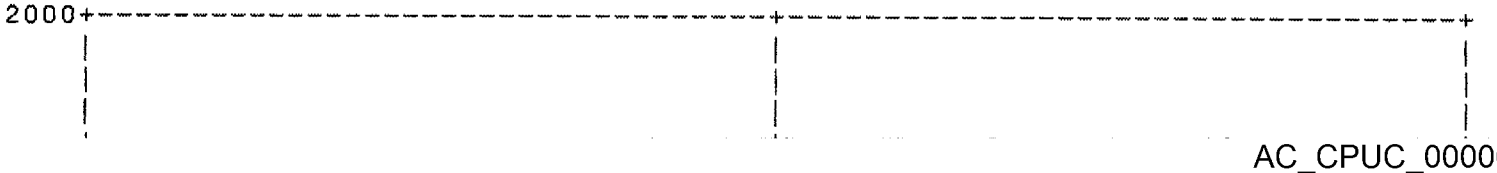
PIPE ABS. ROUGHNESS,IN. = .00094
BOTTOM-HOLE TEMPERATURE,DEG-F = 156.
NUMBER OF LENGTH INCREMENTS = 10

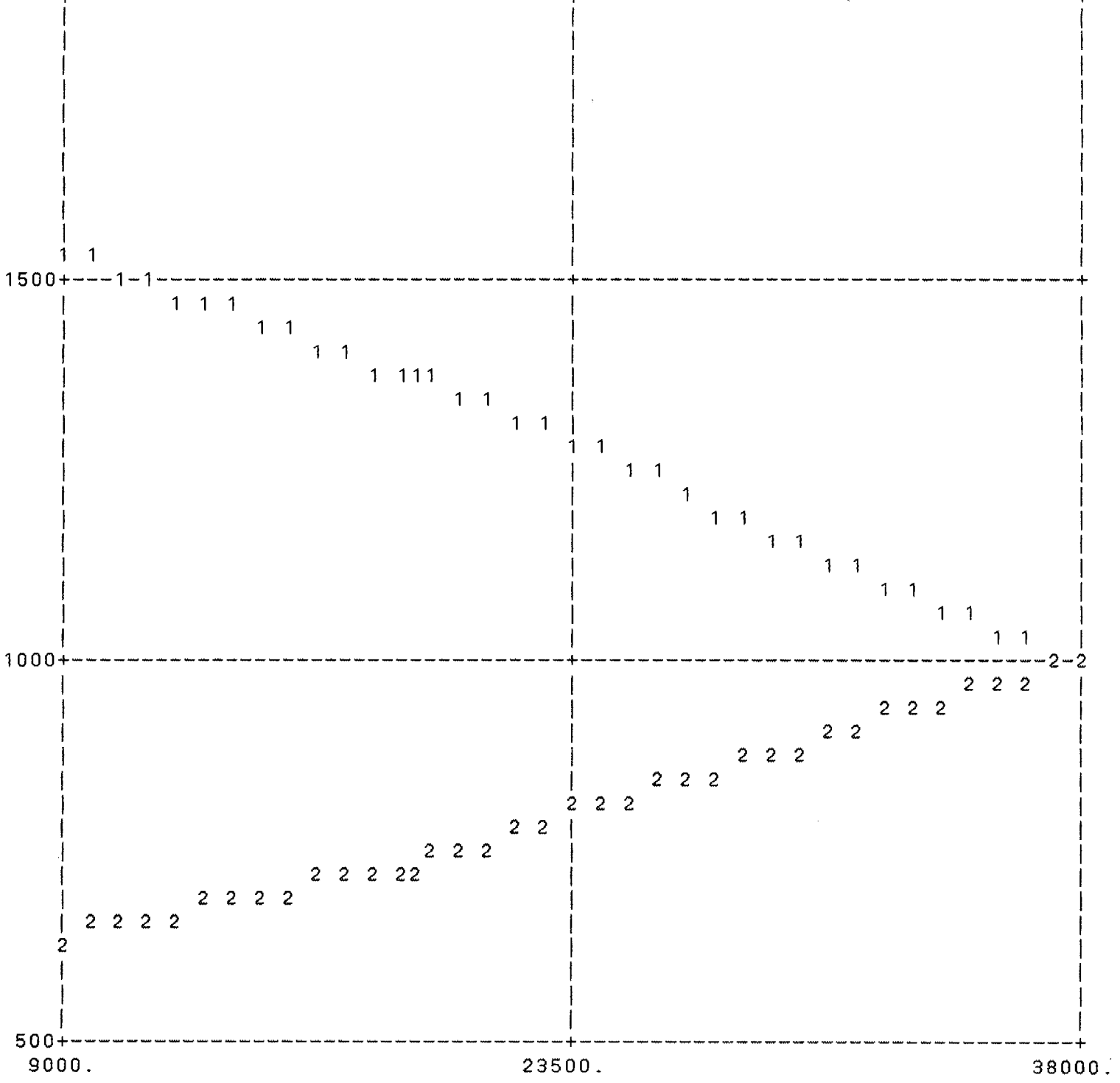
PRESSURE DROP CORRELATION:
CULLENDER AND SMITH

OUTFLOW

FLOW RATE	PWH	NODE PRESSURE,PWF	WELLHEAD TEMP.
38000.	500.	1007.	84.
19000.	500.	732.	84.
9000.	500.	639.	84.

PRESSURE, PSIG vs GAS RATE





GAS RATE	NODE PRESSURES, PSIG				
(MSCF/DAY)	1	2	3	4	5
38000.	995.	1007.			
19000.	1372.	732.			
9000.	1534.	639.			

NODAL ANALYSIS RESULTS

SS 25 @ -10 INVENTORY

SUMMARY OF GENERAL INPUT DATA

GAS GRAVITY = .63
WELLHEAD PRESSURE,PSIG = 500.0

SUMMARY OF INPUT DATA FOR RESERVOIR MODULE

AVERAGE RESERVOIR PRESSURE,PSIG = 1421.

INFLOW

CALCULATED AOF= 43285.92

FLOW RATE	NODE PRESSURE,PWF
38000.	487.
19000.	1061.
9000.	1263.

26,160

SUMMARY OF INPUT DATA FOR WELL MODULE

WELL CONFIGURATION

DEPTH	TUBING DIA.	ANGLE	CASING DIA.	TUBING I.D.
8451.	2.875	.00	6.276	.000
8467.	2.205	.00	.000	.000
8496.	2.441	.00	.000	.000
8559.	.000	.00	6.276	.000
8659.	.000	.00	4.775	.000

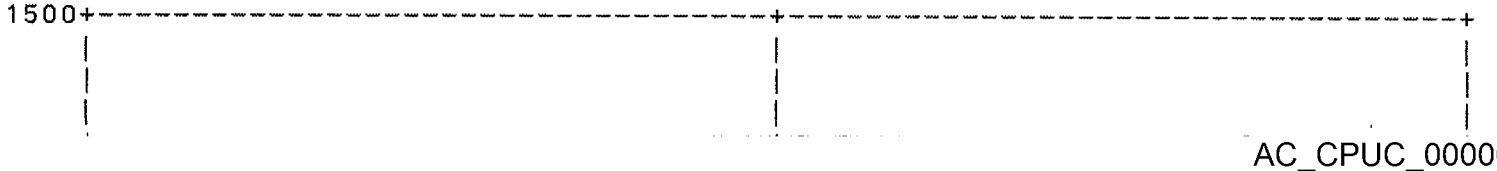
PIPE ABS. ROUGHNESS,IN. = .00094
BOTTOM-HOLE TEMPERATURE,DEG-F = 156.
NUMBER OF LENGTH INCREMENTS = 10

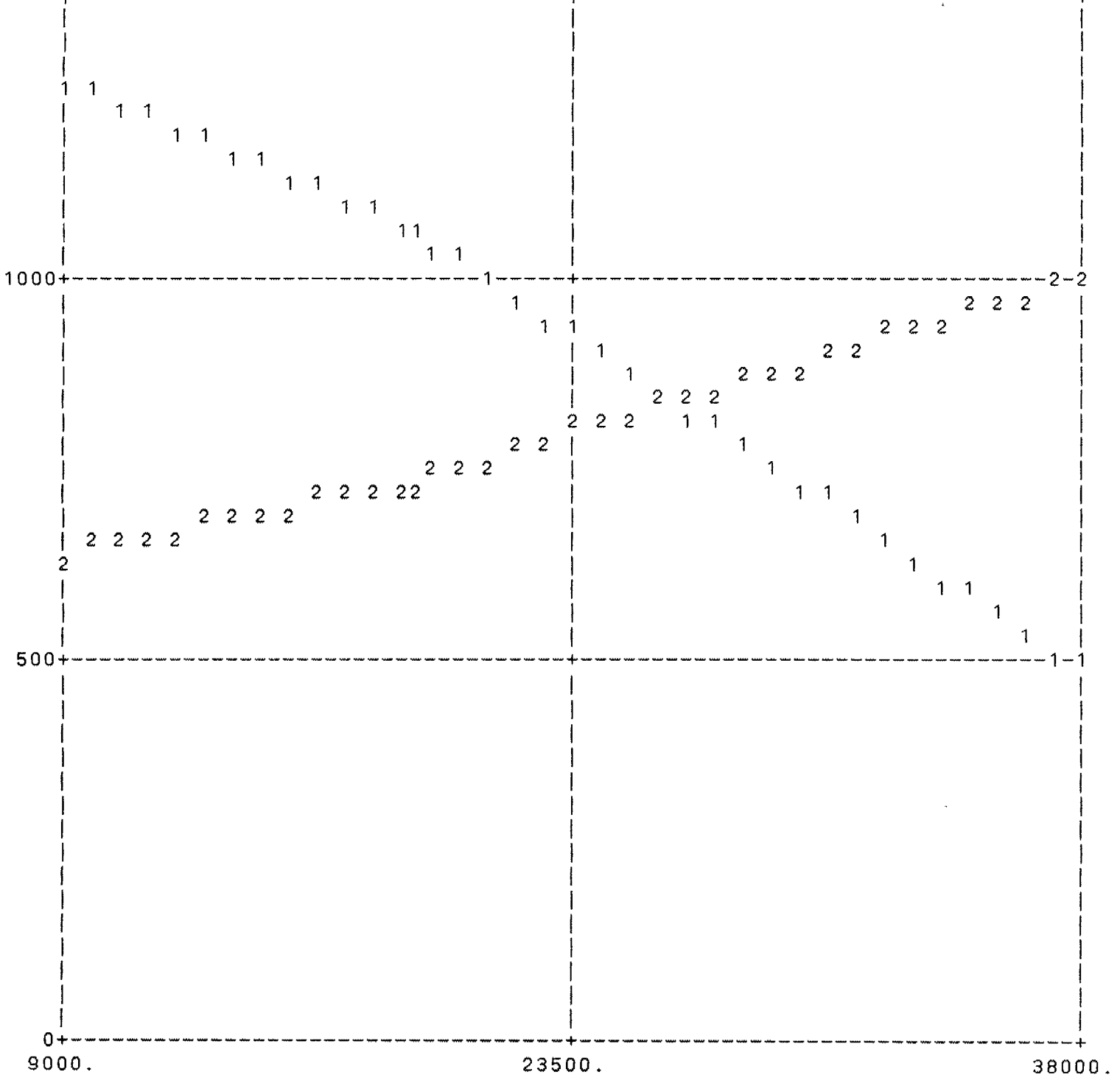
PRESSURE DROP CORRELATION:
CULLENDER AND SMITH

OUTFLOW

FLOW RATE	PWH	NODE PRESSURE,PWF	WELLHEAD TEMP.
38000.	500.	1007.	84.
19000.	500.	732.	84.
9000.	500.	639.	84.

PRESSURE, PSIG vs GAS RATE





GAS RATE	NODE PRESSURES, PSIG				
(MSCF/DAY)	1	2	3	4	5
38000.	487.	1007.			
19000.	1061.	732.			
9000.	1263.	639.			

NODAL ANALYSIS RESULTS

SS 25 @ -20 INVENTORY

SUMMARY OF GENERAL INPUT DATA

GAS GRAVITY = .63
WELLHEAD PRESSURE,PSIG = 500.0

SUMMARY OF INPUT DATA FOR RESERVOIR MODULE

AVERAGE RESERVOIR PRESSURE,PSIG = 1163.

INFLOW

CALCULATED AOF= 29126.52

FLOW RATE	NODE PRESSURE,PWF
38000.	0.
19000.	680.
9000.	964.

17,700

SUMMARY OF INPUT DATA FOR WELL MODULE

WELL CONFIGURATION

DEPTH	TUBING DIA.	ANGLE	CASING DIA.	TUBING I.D.
8451.	2.875	.00	6.276	.000
8467.	2.205	.00	.000	.000
8496.	2.441	.00	.000	.000
8559.	.000	.00	6.276	.000
8659.	.000	.00	4.775	.000

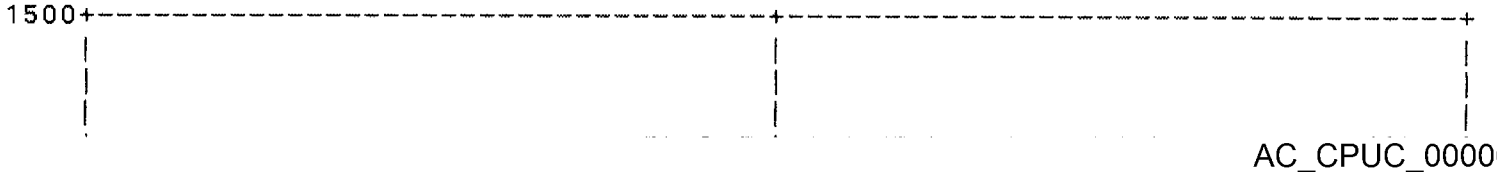
PIPE ABS. ROUGHNESS,IN. = .00094
BOTTOM-HOLE TEMPERATURE,DEG-F = 156.
NUMBER OF LENGTH INCREMENTS = 10

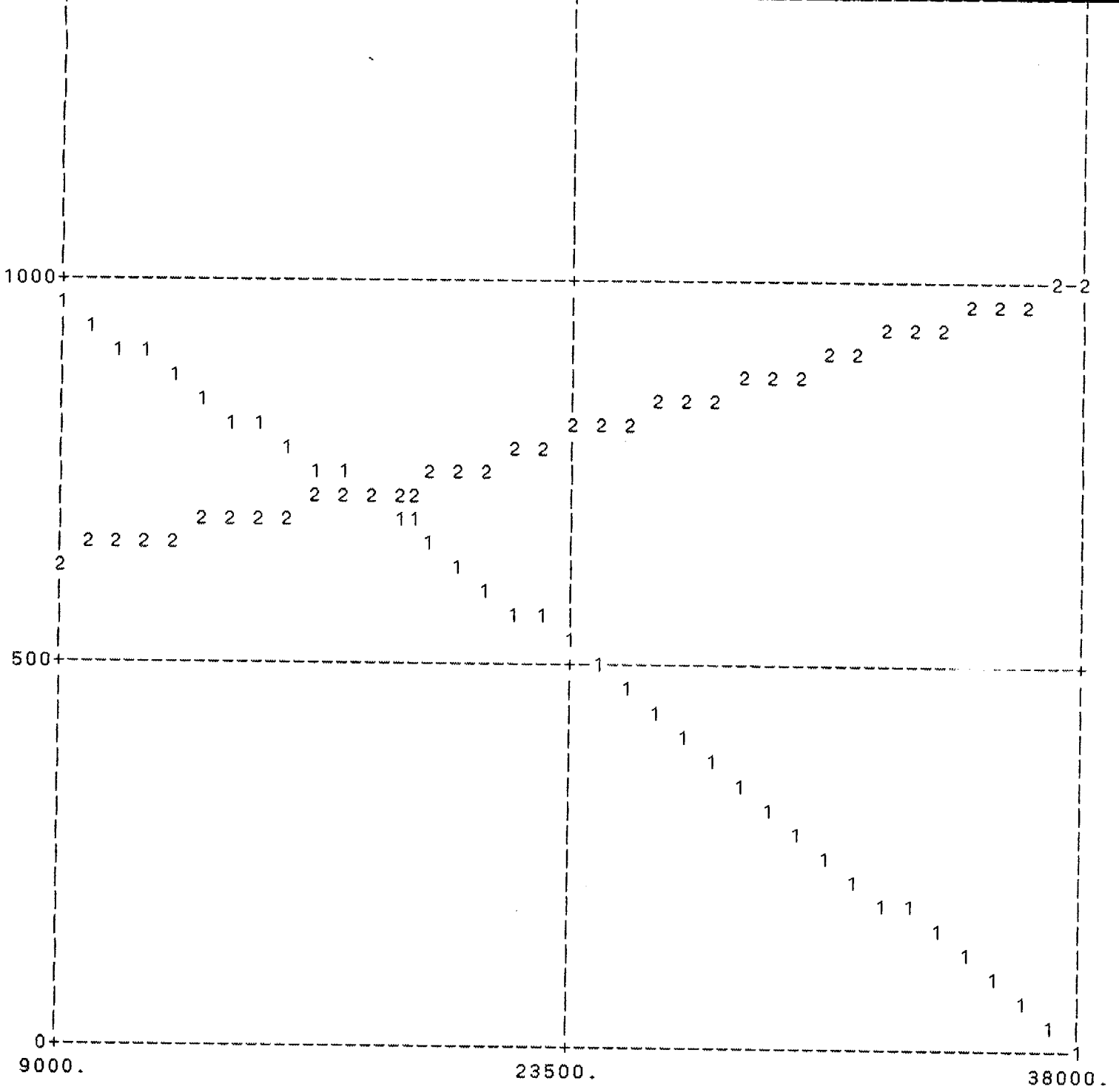
PRESSURE DROP CORRELATION:
CULLENDER AND SMITH

OUTFLOW

FLOW RATE	PWH	NODE PRESSURE,PWF	WELLHEAD TEMP.
38000.	500.	1007.	84.
19000.	500.	732.	84.
9000.	500.	639.	84.

PRESSURE, PSIG vs GAS RATE





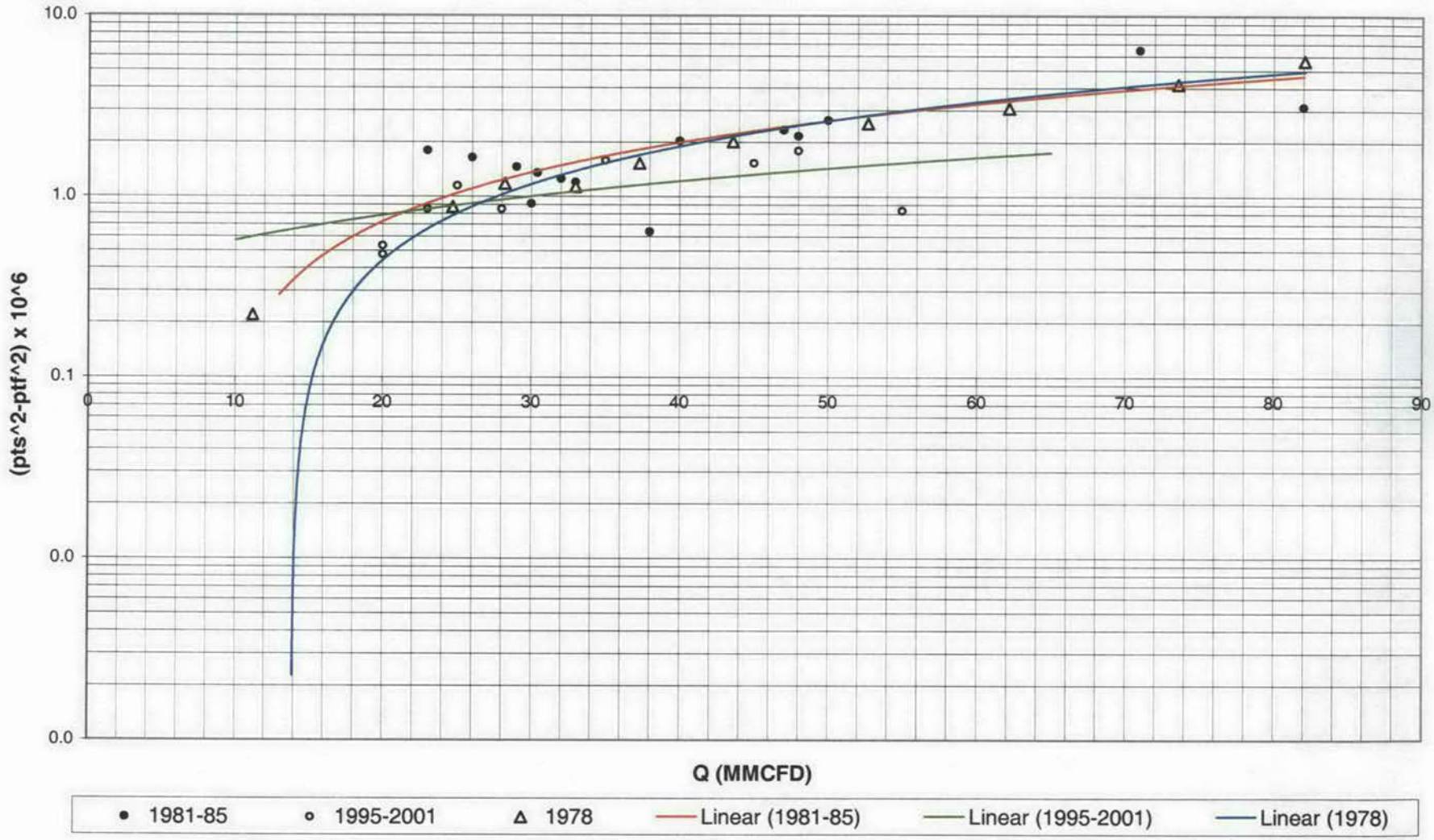
GAS RATE (MSCF/DAY)

GAS RATE (MSCF/DAY)	NODE PRESSURES, PSIG				
	1	2	3	4	5
38000.	0.	1007.			
19000.	680.	732.			
9000.	964.	639.			

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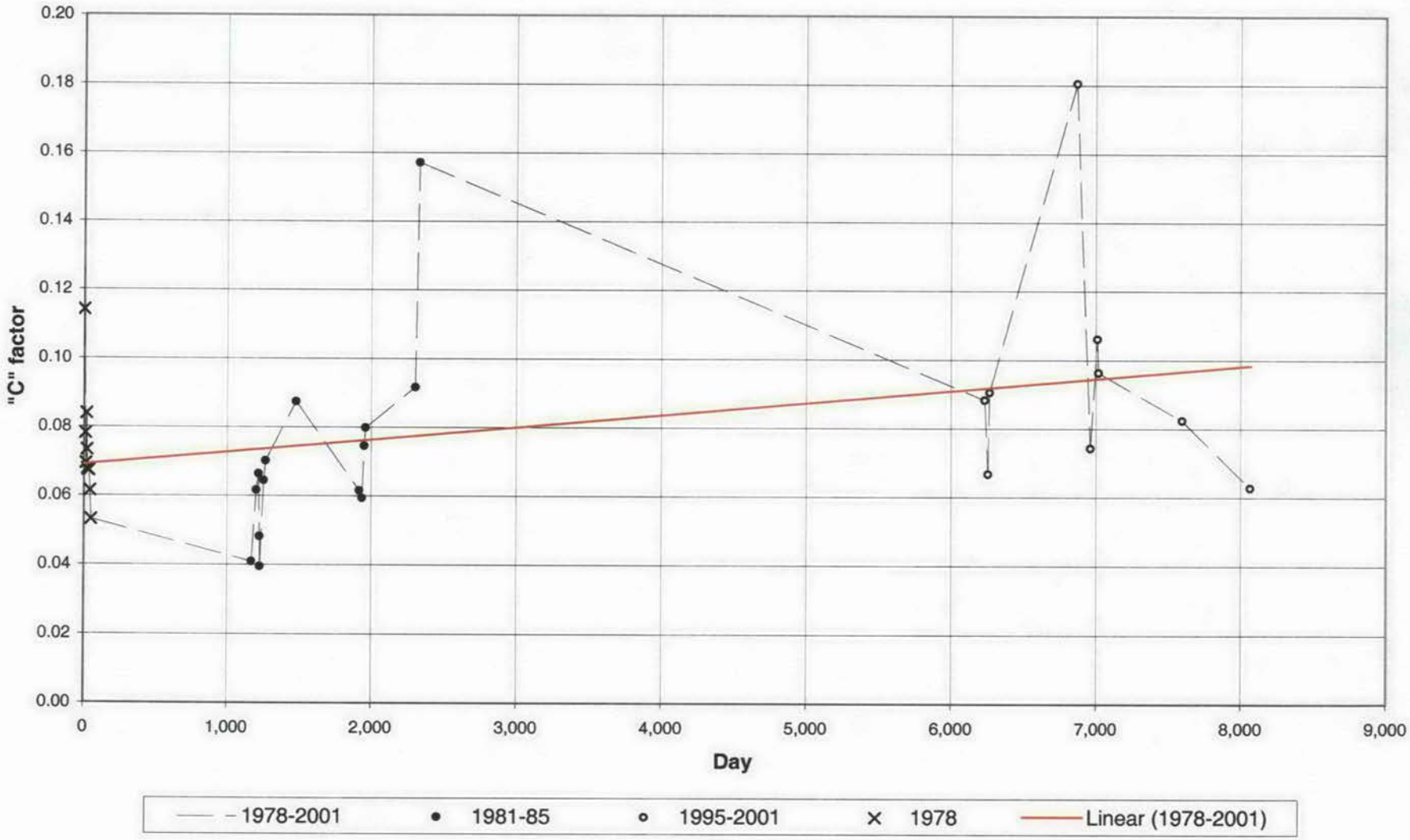
Day	Date	(T/C/D)	SIWHP	FWHP	Choke (in.)	DS	E (%)	Q (MMCFD)	(Pts^2-Ptf^2) x 10^6	"C"	Check
1	9/8/1978	C	2760	2720	0.62	490		11.2	0.220	0.114	11
13	9/19/1978	C	2790	2630	0.62	490		24.7	0.872	0.078	25
16	9/22/1978	C	2820	2605	0.63	525		28.2	1.173	0.069	28
20	9/26/1978	C	2840	2635	0.715	500		33	1.128	0.084	33
23	9/29/1978	C	2805	2520	0.785	505		37.3	1.526	0.073	37
26	10/2/1978	C	2825	2445	0.857	525		43.6	2.014	0.068	43
31	10/7/1978	C	2790	2295	0.95	540		52.7	2.532	0.067	52
37	10/13/1978	C	2890	2300	1.05	575		62.19	3.079	0.067	62
45	10/21/1978	C	2930	2105	1.168	510		73.6	4.178	0.062	73
52	10/28/1978	C	3030	1890	1.303	565		82.1	5.642	0.053	82
1172	12/8/1981	C	2600	590	0	590	0	71	6.471	0.041	70
1207	1/13/1982	C	1780	1075	1.25	550	6.73	40	2.033	0.062	40
1223	1/29/1982	C	1360	720	1.35	525	5.65	30.4	1.350	0.066	30
1229	2/5/1982	C	1380	540		520	0.92	26	1.637	0.048	26
1232	2/8/1982	C	1430	530			3.23	23	1.790	0.040	23
1257	3/3/1982	C	1610	540	0	520	2.55	47	2.332	0.064	46
1271	3/17/1982	C	1580	600		555	5.39	48	2.165	0.070	47
1479	10/15/1982	C	2900	2300	1.25	500	3.8	82	3.138	0.087	82
1918	1/4/1984	C	2090	1320	1.25	490	0.95	50	2.648	0.062	50
1938	1/24/1984	C	1530	950	1.35	500	1.68	29	1.455	0.059	29
1953	2/9/1984	C	1430	900	1.4	480	1.08	32	1.250	0.075	32
1961	2/17/1984	C	1320	750	1.5	560	1.12	33	1.197	0.080	33
2305	2/1/1985	C	1300	890	1.3	580	0.65	30	0.910	0.092	30
2329	2/25/1985	C	1340	1080	0	490	2.24	38	0.637	0.157	38
6230	12/26/1995	C	1980	1550	1.00	500	4.0	45	1.530	0.088	45
6254	1/20/1996	C	1640	1060	1.00	510	2.3	35	1.583	0.067	35
6264	1/30/1996	C	1320	950	1.00	500	2.8	28	0.851	0.091	28
6866	10/2/1997	C	2280	2090	0.90	480	0.5	55	0.836	0.181	55
6960	1/6/1998	C	1320	950	1.10	510	3.3	23	0.851	0.074	23
7011	2/27/1998	C	870	540	1.40	500	12.3	20	0.475	0.106	20
7018	3/4/1998	C	890	520	1.40	480	0.3	20	0.533	0.096	20
7597	10/13/1999	C	2590	2220	0.9	500	1.4	48	1.791	0.082	48
8065	1/31/2001	C	1280	715	1.30	500	0.9	25	1.144	0.063	25

Figure 1
SS-25
Wellhead Performance Curve



AC_CPUC_0000694

Figure 1
SS-25
"C" factor v. Time



AC_CPUC_0000695

NODAL ANALYSIS RESULTS
****

A-6

SS 25 SAND TEST 2/26/85

SUMMARY OF GENERAL INPUT DATA
****

GAS GRAVITY = .63
WELLHEAD PRESSURE,PSIG = 490.0

SUMMARY OF INPUT DATA FOR RESERVOIR MODULE
****

AVERAGE RESERVOIR PRESSURE,PSIG = 1654. z=.8904

P/z= 1858

INFLOW
******

CALCULATED AOF= 58475.75

FLOW RATE	NODE PRESSURE,PWF
38000.	973.

SUMMARY OF INPUT DATA FOR WELL MODULE
****

WELL CONFIGURATION
****

DEPTH	TUBING DIA.	ANGLE	CASING DIA.	TUBING I.D.
8451.	2.875	.00	6.276	.000
8467.	2.205	.00	.000	.000
8496.	2.441	.00	.000	.000
8559.	.000	.00	6.276	.000
8659.	.000	.00	4.775	.000

PIPE ABS. ROUGHNESS,IN. = .00094
BOTTOM-HOLE TEMPERATURE,DEG-F = 156.
NUMBER OF LENGTH INCREMENTS = 10

PRESSURE DROP CORRELATION:
CULLENDER AND SMITH

OUTFLOW
****

FLOW RATE	PWH	NODE PRESSURE,PWF	WELLHEAD TEMP.
38000.	490.	999.	84.

$\Delta P^2 = 1.74 \times 10^6$

AC_CPUC_0000696

WELL NO: 55-25 DATE: 2-[illegible]-85 OPERATOR: _____ TEST NO: _____

B. H. CHOKE: ___ " SURF.CHOKE: OPEN " BOMBS RUN?: YES / NO

FLOWING STRING: CSG/TBG . SAFETY VALVE IN / OUT? PROBE REMARKS. _____

LIQUIDS _____ bbls. WATER CUT (%BS&W): _____ OIL GRAVITY: _____ @ _____ °F

PROBE INFORMATION:    

	US#1	US#2	DS#1	DS#2
NUMBERS:	10	11	—	—
AVG. WT. BEFORE:	136-3185	136-3266		
WT. AFTER. C/W 8.4 70' #1	3159	3239		
#2	3158	3241		
#3				
EROSION AREA: #1 EST RATE 26 MM	6	0		
#2				
#3	322	322		
HOURS OF FLOW:	6	6		
EROSION RATE:	2.29	2.24		

ELAPSED TIME	TIME OF DAY	CSG PRESSURE	TBG PRESSURE	UPSTREAM SURFACE CHOKE PRESSURE	UPSTREAM SURFACE CHOKE TEMP.	DOWNSTREAM SURFACE CHOKE PRESSURE	DOWNSTREAM SURFACE CHOKE TEMP.	GAS FLOW RATE STATIC	DIFFERENTIAL	TEMPERATURE	COEFFICIENT	RATE
SHUT IN	7 30 A	1340	1340	1340	53							
1/4	7 45 A	520	1080		66	520						
1	8 30 A	480	1080		75	480						
3	10 30 A	480	1080		81	480						
4 1/2	12 00 P	490	1080		85	490						
6	1 30 P	490	1080		84	490						38 MM
						55-25						

WELL NO: 55-25 DATE: 1-85 OPERATOR: _____ TEST NO: _____

B. H. CHOKE: — " SURF. CHOKE: 1.30 " BOMBS RUN?: YES / NO

FLOWING STRING: CSG/TBG SAFETY VALVE IN / OUT? PROBE REMARKS.

LIQUIDS _____ bbls. WATER CUT (%BS&W): _____ OIL GRAVITY: _____ @ _____ °F

PROBE INFORMATION:

	US#1	US#2	DS#1	DS#2
NUMBERS:	18	19	20	21
AVG. WT. BEFORE:	136-1885	136-1213	136-2342	136-1867
WT. AFTER. #1		2009	2334	1854
#2	INSTALL	2008	2335	1852
#3				
SION AREA: #1			0	0
EST RATE 26 MM #2				
#3			322	322
HOURS OF FLOW:			6	6
EROSION RATE:			.65	1.21

ELAPSED TIME	TIME OF DAY	CSG PRESSURE	TBG PRESSURE	UPSTREAM SURFACE CHOKE PRESSURE	UPSTREAM SURFACE CHOKE TEMP.	DOWNSTREAM SURFACE CHOKE PRESSURE	DOWNSTREAM SURFACE CHOKE TEMP.	GAS FLOW RATE STATIC	DIFFERENTIAL	TEMPERATURE	COEFFICIENT	RATE
SHUT IN	11 15 A	1300	1380	1300	45		45					
1	12 15 P	880	1150	880	84	580	65					
4 3/4	4 20 P	900	1130	900	84	590	70					
6	5 15 P	890	1130	890	82	580	59					30 MM
						55-25						
												50M

AC_CPUC_0000698

NO: SS25 DATE: 2-17-84 OPERATOR: _____ TEST NO: _____

H. CHOKE: _____" SURF.CHOKE: 1.500 " BOMBS RUN?: YES / NO

FLOWING STRING: CSG/TBG SAFETY VALVE IN / OUT? PROBE REMARKS. _____

LIQUIDS _____ bbls. WATER CUT (%BS&W): _____ OIL GRAVITY: _____ @ _____ °F

PROBE INFORMATION:

	US#1	US#2	DS#1	DS#2
NUMBERS:	12	13	58	54
AVG. WT. BEFORE:	135.2185	135.5778	135.3748	135.0837
WT. AFTER. #1	.2174	.5765	.3745	.0828
REAM HOLE ON #12 #2	.2170	.5768	.3749	.0827
#3				
EROSION AREA: #1	0	0	0	0
8" 70' #2	322	322	322	322
ER 46 #3				
HOURS OF FLOW:	6 HRS	6 HRS	6 HRS	6 HRS
EROSION RATE: SS-25	1.12%	0.99%	0.26%	0.82%

ELAPSED TIME	TIME OF DAY	CSG PRESSURE	TBG PRESSURE	UPSTREAM SURFACE CHOKE PRESSURE	UPSTREAM SURFACE CHOKE TEMP.	DOWNSTREAM SURFACE CHOKE PRESSURE	DOWNSTREAM SURFACE CHOKE TEMP.	GAS FLOW RATE STATIC	DIFFERENTIAL	TEMPERATURE	COEFFICIENT	RATE
SHUT IN	9 30 A	1320	1270	1320	46°		46°					
1/4	9 45 A	720	1180	720	79°	540	66°					26
1	10 30 A	750	1180	750	94°	555	80°					
3	12 30 P	760	1200	760	102°	555	87°					
6	3 30 P	750	1220	750	104°	560	92°					33

MEDIUM OIL ON PROBES

SS-25

AC_CPUC_0000699

WELL NO: SS25 DATE: 2-9-84 OPERATOR: _____ TEST NO: _____

B. H. CHOKE: _____" SURF.CHOKE: 1.400 " BOMBS RUN?: YES / NO

FLOWING STRING: CSG/TBG . SAFETY VALVE IN / OUT? PROBE REMARKS. _____

LIQUIDS _____ bbls. WATER CUT (%BS&W): _____ OIL GRAVITY: _____ @ _____ °F

PROBE INFORMATION:

NUMBERS:	US#1 48	US#2 49	DS#1 50	DS#2 51
AVG. WT. BEFORE:	135.2111	135.0622	135.4101	135.1868
WT. AFTER. #1	.2100	.0611	.4090	.1856
#2	.2100	.0610	.4090	.1855
#3				
EROSION AREA: #1				
#2	0	0	0	0
#3	322	322	322	322
HOURS OF FLOW:	6 HRS	6 HRS	6 HRS	6 HRS
EROSION RATE:	0.95%	1.00%	0.95%	1.08%

8" 40'
ER 46M2
SS-25

ELAPSED TIME	TIME OF DAY	CSG PRESSURE	TBG PRESSURE	UPSTREAM SURFACE CHOKE PRESSURE	UPSTREAM SURFACE CHOKE TEMP.	DOWNSTREAM SURFACE CHOKE PRESSURE	DOWNSTREAM SURFACE CHOKE TEMP.	GAS FLOW RATE STATIC	DIFFERENTIAL	TEMPERATURE	COEFFICIENT	RATE
SHUT IN	9:30 A	1530	1530	1530	56°		56°					
1/4 HR	9:45 A	900	1280	900	77°	480	64°					34
1 HR	10:30 A	910	1300	910	91°	480	79°					
3 HR	1:30	920	1300	920	97°	480	86°					
6 HR	3:30	900	1290	900	97°	480	87°					32
			MEDIUM OIL ON PROBES								35	
		HWY SCRATCHES FROM THREADS ON LATERAL										

AC_CPUC_0000700

WELL NO: 55-25 DATE: 1-24-84 OPERATOR: _____ TEST NO: _____

B. H. CHOKE: _____ " SURF. CHOKE: 1.35 " BOMBS RUN?: YES / NO

FLOWING STRING: CSG/~~TBG~~ SAFETY VALVE IN / OUT? PROBE REMARKS. _____

LIQUIDS _____ bbls. WATER CUT (%BS&W): _____ OIL GRAVITY: _____ @ _____ °F

PROBE INFORMATION:

NUMBERS:	US#1 87	US#2 88	DS#1 89	DS#2 90
AVG. WT. BEFORE:	136.6474	136.6483	136.6685	136.5651
WT. AFTER.	#1 136.6454	136.6472	136.6667	136.5641
8" 70'	#2 136.6449	136.6468	136.6664	136.5639
E/R 42	#3			
EROSION AREA:	#1			
55-25	#2 REAM	0	0	0
	#3 322 HOLE	322	322	322
HOURS OF FLOW:	6 HRS	6 HRS	6 HRS	6 HRS
EROSION RATE:	1.94%	1.12%	1.68%	0.95%

ELAPSED TIME	TIME OF DAY	CSG PRESSURE	TBG PRESSURE	UPSTREAM SURFACE CHOKE PRESSURE	UPSTREAM SURFACE CHOKE TEMP.	DOWNSTREAM SURFACE CHOKE PRESSURE	DOWNSTREAM SURFACE CHOKE TEMP.	GAS FLOW RATE STATIC	DIFFERENTIAL	TEMPERATURE	COEFFICIENT	RATE
SHUT IN	8 45 A	1530	1480	1530	57°		57°					
15'	9 00 A	1050	1480	1050	67	500	62					29 MMC
3/4	9 30 A	940	1480	940	83	500	74					
3 HR	11 45 A	960	1540	960	95°	510	84°					
6 HR	2 45 P	950	1420	950	96°	500	82°					29 MMC
		CLEAN PROBES										

AC_CPUC_0000701

WELL NO: 55-25 DATE: 1-4-84 OPERATOR: _____ TEST NO: _____

B. H. CHOKE: NO " SURF. CHOKE: 1.25 " BOMBS RUN?: YES / NO

FLOWING STRING: CSG/TBG SAFETY VALVE [redacted] / OUT? PROBE REMARKS. _____

LIQUIDS _____ bbls. WATER CUT (%BS&W): _____ OIL GRAVITY: _____ @ _____ °F

PROBE INFORMATION:

	US#1	US#2	DS#1	DS#2
NUMBERS:	69	70	71	96
AVG. WT. BEFORE:	136.6596	136.5400	136.6668	136.6553
WT. AFTER. 55-25 C/W 8" 60' #1	.6596	.5416	.6666	.6548
#2	.6585	.5413	.6664	.6547
#3				
EROSION AREA: #1				
EST RATE 45 MMC #2				
#3				
HOURS OF FLOW:	6 HRS	6 HRS	6 HRS.	6 HRS.
EROSION RATE:	.95%	/	.26%	.47%

ELAPSED TIME	TIME OF DAY	CSG PRESSURE	TBG PRESSURE	UPSTREAM SURFACE CHOKE PRESSURE	UPSTREAM SURFACE CHOKE TEMP.	DOWNSTREAM SURFACE CHOKE PRESSURE	DOWNSTREAM SURFACE CHOKE TEMP.	GAS FLOW RATE STATIC	DIFFERENTIAL	TEMPERATURE	COEFFICIENT	RATE
SHUT IN	8 15 A	2090	2090	2090	56°	2090	56°					
1/2 HR	8 45 A		1810	1810	66°	500	51°					
2 3/4	11 00 A		1800	1430	73°	490	65°					
6 HR	2 15 P		1780	1320	76°	490	68°					50 MMC

AC_CPUC_0000702

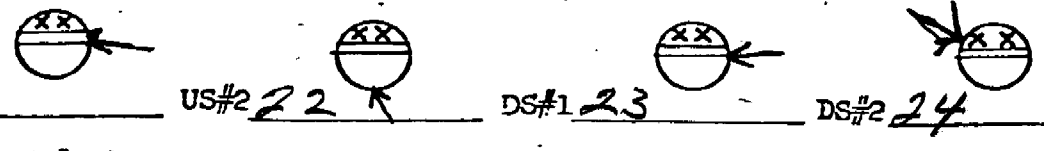
WELL NO: 5525 DATE: 10-15-82 OPERATOR: _____ TEST NO: _____

B. H. CHOKE: — " SURF. CHOKE: 1.25 " BOMBS RUN? ~~YES~~ NO

FLOWING STRING: CSG/~~TBG~~ SAFETY VALVE ~~IN~~ OUT? PROBE REMARKS. _____

LIQUIDS _____ bbls. WATER CUT (%BS&W): _____ OIL GRAVITY: _____ @ _____ °F

PROBE INFORMATION:



	US#1	US#2	DS#1	DS#2
NUMBERS:	21	22	23	24
AVG. WT. BEFORE:	137.2300	137.3650	137.2488	132.1648
WT. AFTER	#1 137.2261	137.3638	137.2440	137.1642
	#2 137.2241	137.3644	137.2448	137.1648
	#3			
EROSION AREA:	#1 0	0	0	0
	#2 322	322	322	322
	#3			
HOURS OF FLOW:	6	6	6	6
EROSION RATE:	4.22 %	0.78 %	3.80 %	0.26 %

N.G. P/C PROBE HOLE MUST BE DRILLED PAST PNT.

ELAPSED TIME	TIME OF DAY	CSG PRESSURE	TBG PRESSURE	UPSTREAM SURFACE CHOKE PRESSURE	UPSTREAM SURFACE CHOKE TEMP.	DOWNSTREAM SURFACE CHOKE PRESSURE	DOWNSTREAM SURFACE CHOKE TEMP.	GAS FLOW RATE STATIC	DIFFERENTIAL	TEMPERATURE	COEFFICIENT	RATE
SHUT IN	8:00 AM	2900	2900	2900	67°	2900	62°					
15 MIN	8:15	2300	2600	2300	80°	500	12°					82 m²
30 MIN	8:30	2300	2600	2300	91°	500	19°					
45 MIN	8:45	2300	2600	2300	91°	500	19°					
1 HR	9:00	2300	2600	2300	91°	500	19°					
2 HR	10:00	2300	2600	2300	92°	500	19°					
3 HR	11:00	2300	2600	2300	93°	500	20°					
4 HR	12:00	2300	2600	2300	94°	500	22°					
5 HR	1:00	2300	2600	2300	96°	500	24°					
6 HR	2:00	2300	2600	2300	93°	500	23°					82 m²

AC_CPUC_0000703

WELL NO: SS 25 DATE: 5-17-82 OPERATOR: HARRY/RON TEST NO:

B. H. CHOKE: NONE " SU. CHOKE: NONE " BOMBS IN?: ~~YES~~ / NO

FLOWING STRING: CSG/~~TBG~~ . SAFETY VALVE ~~IN~~ / OUT? PROBE REMARKS.

LIQUIDS bbls. WATER CUT (%BS&W): OIL GRAVITY: @ °F

PROBE INFORMATION:

	US#1	US#2	DS#1	DS#2
NUMBERS:	51			
AVG. WT. BEFORE:	137.1169			
WT. AFTER. #1	137.1105			
#2	137.1108			
#3				
EROSION AREA: #1	3.22 in²			
#2				
#3				
HOURS OF FLOW:	6 hrs			
EROSION RATE:	5.39%			

8" CASING
58'

SS 25

EST. RATE: 48 M²

ELAPSED TIME	TIME OF DAY	CSG PRESSURE	TBG PRESSURE	UPSTREAM SURFACE CHOKE PRESSURE	UPSTREAM SURFACE CHOKE TEMP.	DOWNSTREAM SURFACE CHOKE PRESSURE	DOWNSTREAM SURFACE CHOKE TEMP.	GAS FLOW RATE STATIC	DIFFERENTIAL	TEMPERATURE	COEFFICIENT	RATE
SHUT IN	11 30 A	1580	1580	1580	40°	550	40°				THIS WELL	
1	12 30 P	580	1300	580	79°	550	79°				WAS S/I	
2½	2 00 P	580	1300	580	81°	550	81°				ON W/D	
6 HRS	5 30 P	600	1300	600	77°	555	77°				WHILE	48 M²
											PROBES	
											WERE PUT	
											IN THEN	
											PUT BACK	
											ON W/D	

Returned to Service 5-18-82 M Jolliff

AC_CPUC_0000704

LL NO: 55-25 DATE: 2-2-82 OPERATOR: HARRY / RON TEST NO:

H. CHOKE: NO " SURF. CHOKE: NO " BOMBS RUN? [redacted] / NO

OWING STRING: CSG/[redacted] . SAFETY VALVE [redacted] / OUT? PROBE REMARKS.

QUIDS bbls. WATER CUT (%BS&W): OIL GRAVITY: @ °F

OBE INFORMATION:

	US#1	US#2	DS#1	DS#2
MBERS:	73			
G. WT. BEFORE:	137.1302			
. AFTER. #1	137.1273			
#2	137.1272			
#3				
OSION AREA: #1	3.22 in²			
#2				
#3				
RS OF FLOW:	6 hrs			
SION RATE:	2.55%			

8" CASING LAT. 70°

55-25

EST RATE: 35 M²

TIME OF DAY	CSG PRESSURE	TBG PRESSURE	UPSTREAM SURFACE CHOKE PRESSURE	UPSTREAM SURFACE CHOKE TEMP.	DOWNSTREAM SURFACE CHOKE PRESSURE	DOWNSTREAM SURFACE CHOKE TEMP.	GAS FLOW RATE STATIC	DIFFERENTIAL	TEMPERATURE	COEFFICIENT	RATE
10 30 A	1610	1610	1610	62°	1610	62°					
10 45 A	800	1300	800	71°	540	71°					
12 15 P	550	1310	550	76°	530	76°					
4 30 P	540	1300	540	61°	520	61°					47 M²

RETURN TO SERVICE 2-3-82 W Jarrett

WELL NO: 55-25 DATE: 2-8-82 OPERATOR: KEX/HARLEY TEST NO:

B. H. CHOKE: NO " SURFACE CHOKE: NO " BOMBS RUN: YES / NO

FLOWING STRING: CSG/TBG SAFETY VALVE IN / OUT? PROBE REMARKS.

LIQUIDS bbls. WATER CUT (%BS&W): OIL GRAVITY: @ °F

PROBE INFORMATION:

NUMBERS:	US#1	US#2	DS#1 48	DS#2
AVG. WT. BEFORE:			137.2933	
WT. AFTER.	#1		137.2894	
8" CASING LAT 70'	#2		137.2895	
	#3			
EROSION AREA:	#1		3.22 in²	
55-25	#2			
	#3			
HOURS OF FLOW:			6 hrs	
EROSION RATE:			3.23%	

EST RATE 21 MC

ELAPSED TIME	TIME OF DAY	CSG PRESSURE	TBG PRESSURE	UPSTREAM SURFACE CHOKE PRESSURE	UPSTREAM SURFACE CHOKE TEMP.	DOWNSTREAM SURFACE CHOKE PRESSURE	DOWNSTREAM SURFACE CHOKE TEMP.	GAS FLOW RATE STATIC	DIFFERENTIAL	TEMPERATURE	COEFFICIENT	RATE
SHUT IN	9:[illegible] AM	1430	1430	1430	43°	1430	43°					23 MC
½ HR	9 30 A	560	980	560	77°	560	77°					
2½ HRS	11 30 A	570	1050	570	90°	570	90°					
6 HR	3 00 P	530	1060	530	90°	530	90°					23 MC

RETURN TO SERVICE 2-16-82 M Hewett

AC_CPUC_0000706

WELL NO: SS 25 DATE: 2-5-82 OPERATOR: ROK - HARRY TEST NO:

B. H. CHOKE: NO " SURF. CHOKE: NO " BOMBS RUN: ~~YES~~ / NO

FLOWING STRING: CSG/~~TBG~~ SAFETY VALVE ~~IN~~ / OUT? PROBE REMARKS.

LIQUIDS bbls. WATER CUT (%BS&W): OIL GRAVITY: @ °F

PROBE INFORMATION:

		US#1	US#2	DS#1	DS#2
NUMBERS:				32	
AVG. WT. BEFORE:				137.1795	
WT. AFTER.	#1			137.1783	
8" CASING	#2			137.1783	
	#3				
EROSION AREA:	#1			3.22 in^2	
SS25	#2				
	#3				
HOURS OF FLOW:				6.75 hrs	
EROSION RATE:				0.92%	

EST. RATE 20 M^2

ELAPSED TIME	TIME OF DAY	CSG PRESSURE	TBG PRESSURE	UPSTREAM SURFACE CHOKE PRESSURE	UPSTREAM SURFACE CHOKE TEMP.	DOWNSTREAM SURFACE CHOKE PRESSURE	DOWNSTREAM SURFACE CHOKE TEMP.	GAS FLOW RATE STATIC	DIFFERENTIAL	TEMPERATURE	COEFFICIENT	RATE
SHUT IN	8 55 A	1380	1380	1380		1380	38°					28 M2
1/2 HR	9 30 A	550	1040	550		600	56°					
1 1/4	10 [illegible] A	540	1120	540		540	61°					
2 1/2	11 30 A	540	1120	540		520	67°					
4	1 00 P	540	1120	540		520	69°					
6 3/4	3 45 PM	540	1180	540	67	520	67°					26 M2

RETURNED TO SERVICE 2-5-82 [illegible]

AC_CPUC_0000707

WELL NO: SS-25 DATE: 1-29-82 OPERATOR: REX-HARRY TEST NO:

B. H. CHOKE: NO " F.CHOKE: 1.35 " BOMBS GUN?: ~~YES~~ / NO

FLOWING STRING: CSG/~~TBG~~ SAFETY VALVE ~~IN~~ / OUT? PROBE REMARKS.

LIQUIDS bbls. WATER CUT (%BS&W): OIL GRAVITY: @ °F

PROBE INFORMATION:

	US#1	US#2	DS#1	DS#2
NUMBERS:			10	
AVG. WT. BEFORE:			136,4325	
WT. AFTER. #1			136,4263	
8" CASING #2			136,4256	
#3				
EROSION AREA: #1			3.22 in^2	
#2				
SS-25 #3				
HOURS OF FLOW:			6 hrs	
EROSION RATE:			5.65%	

EST RATE 30 M^2

ELAPSED TIME	TIME OF DAY	CSG PRESSURE	TBG PRESSURE	UPSTREAM SURFACE CHOKE PRESSURE	UPSTREAM SURFACE CHOKE TEMP.	DOWNSTREAM SURFACE CHOKE PRESSURE	DOWNSTREAM SURFACE CHOKE TEMP.	GAS FLOW RATE STATIC	DIFFERENTIAL	TEMPERATURE	COEFFICIENT	RATE
SHUT IN	10 15 A	1360	1360	1360	47°	1360	47°					
1/2	10 45 A	710	1180	710	78°	520	67°					
1 1/2	11 55 A	720	1220	720	85°	520	74°					
3 HR	1 15 P	720	1220	720	89°	520	92°					
6 HR	4 15 P	720	1240	720	82°	525	89°					20 M^2

OPEN FLOW

RETURNED TO SERVICE 1-29-82 W/ Jones

Calc 30.4

AC_CPUC_0000708

DATE: 1-13-82 OPERATOR: R. FEANY TEST NO:

U. H. CHOKE: " SUR CHOKE: 1.25 " BOMBS RUN / NO

FLOWING STRING: CSG/T SAFETY VALVE / OUT? PROBE REMARKS.

LIQUIDS bbls. WATER CUT (%BS&W): OIL GRAVITY: @ °F

PROBE INFORMATION:

NUMBERS: US#1 US#2 DS#1 66 DS#2

AVG. WT. BEFORE: N/A 136.5515

WT. AFTER: #1 136.5441

#2 136.5433

#3

EROSION AREA: #1 3.22

#2

#3

HOURS OF FLOW: 6

EROSION RATE: 6.737o

CST. PAGE 5 of 12

ELAPSED TIME	TIME OF DAY	CSG PRESSURE	TBG PRESSURE	UPSTREAM SURFACE CHOKE PRESSURE	UPSTREAM SURFACE CHOKE TEMP.	DOWNSTREAM SURFACE CHOKE PRESSURE	DOWNSTREAM SURFACE CHOKE TEMP.	GAS FLOW RATE STATIC	DIFFERENTIAL	TEMPERATURE	COEFFICIENT	RATE
SHUT IN	9:00 AM	1780	1780	1780	59°	1780	59°					
1 HR	10:00 AM	1050	1450	1050	77°	540	60°					
2½ HR	11:30 AM	1050	1490	1050	85°	550	68°					
4 HR	1:00 PM	1050	1500	1050	91°	550	72°					
6 HR	3:00 PM	1075	1490	1075	84°	550	70°					40 MM

READ OFF GAUGE ON CASING KICK LATTER

RETURNED TO SERVICE 1-13-82

WELL NO: 5525 DATE: 12-8-81 OPERATOR: RCX & ROV TEST NO: _____

B. H. CHOKE: 1.0 " SURF. CHOKE: NO " BOMBS RUN?: ~~YES~~ / NO

FLOWING STRING: CSG/~~TBG~~ SAFETY VALVE ~~OUT~~ / OUT? PROBE REMARKS. _____

LIQUIDS _____ bbls. WATER CUT (%BS&W): _____ OIL GRAVITY: _____ @ _____ °F

PROBE INFORMATION: 

	US#1	US#2	DS#1	DS#2
NUMBERS:	41			
AVG. WT. BEFORE:	133.9226			
WT. AFTER. #1	133.9227			
#2	133.9212			
#3				
EROSION AREA: #1				
#2				
#3				
HOURS OF FLOW:	6			
EROSION RATE:	∅			

8" LATERAL CASING

SS 25

CST MAN-Y 68 m 2

ELAPSED TIME	TIME OF DAY	CSG PRESSURE	TBG PRESSURE	UPSTREAM SURFACE CHOKE PRESSURE	UPSTREAM SURFACE CHOKE TEMP.	DOWNSTREAM SURFACE CHOKE PRESSURE	DOWNSTREAM SURFACE CHOKE TEMP.	GAS FLOW RATE STATIC	DIFFERENTIAL	TEMPERATURE	COEFFICIENT	RATE
SHUT IN	9:30 pm	2600	2600	2600	65°	2600	65°					
1 HR	11:00 pm	590	1400	590	54°	590	54°					71 m²
3½ HR	1:00 pm	580	1490	590	47°	590	47°					
6 HR	3:30 pm	?	?	?	51°	?	51°					

WELL NO: 55-25

TEST NO. & DATE	PROBE NO.	PROBE LOCATION	ERODED AREA (XXX)	AVERAGE INITIAL WEIGHT (gm)	WEIGHT AFTER TEST (gm)	CHANGE IN WEIGHT (mg)	ERODED AREA (sq In)	EROSION FACTOR	CHOKE & TEST Q	RECM'D NEXT CHOKE & TEST Q
610, 10-21	613	55 #1	↙	142.2656	142.2644	1.2	2.42	.010	7/1.9 1.168	
	614	[illegible]	↙	141.6674	141.6662	1.2	2.26	.011		
	615	[illegible]	↘	140.3644	140.3591	5.3	3.03	.036		
	616	[illegible]	↖	140.4858	140.4821	13.7	2.67	.099		
611, 10-21	653	[illegible]	↗	143.2305	143.2297	0.8	2.37	.007		
	654	[illegible]	↘	143.6487	143.6481	0.6	2.57	.005		
	658	[illegible]	↙	138.9160	138.9017	14.3	2.90	.103		
	659	[illegible]	↗	137.3695	137.3551	14.4	2.89	.104		

NT:jw 7/3/78

AC_CPUC_0000711

WELL NO: 55-25

TEST NO. & DATE	PROBE NO.	PROBE LOCATION	ERODED AREA (xxx)	AVERAGE INITIAL WEIGHT (gm)	WEIGHT AFTER TEST (gm)	CHANGE IN WEIGHT (mg)	ERODED AREA (sq in)	EROSION FACTOR	CHOKE & TEST Q	RECM'D NEXT CHOKE & TEST Q
-6, 9-29-78	506	US # 1	↘	139.6800	139.6795	0.5	3.24*	.003	.785 37.2	
	507	US # 2	↓	140.4093	140.4075	1.8	3.24*	.012		
	508	DS # 1	↑	135.7818	135.7798	2.0	3.24*	.013		
	509	DS # 2	←	137.6184	137.6163	2.1	3.24*	.014		
-7 10-2-78	524	US # 1	↘	138.9100	138.9080	1.2	2.02	.012	.851 43.5	
	525	US # 2	↗	137.5780	137.5764	1.6	3.24*	.010		
	526	DS # 1	←	139.4619	139.4601	1.8	2.38	.016		
	527	DS # 2	↖	138.2725	138.2719	0.6	2.32	.005		
-8, 10-7-78	546	US # 1	↙	146.4907	146.4899	0.8	3.24*	.005	.950 SQRT 52.5	
	547	US # 2	↖	145.6289	145.6289	0.0		.0		
	548	DS # 1	↘	144.6168	144.6119	4.9	2.93	.035		
	549	DS # 2	←	146.3903	146.3859	4.4	2.50	.037		
-9, 10-13-78	580	US # 1	→	140.2585	140.2584	0.1	3.24*	.001		
	581	US # 2	↗	142.9105	142.9103	0.2	3.24*	.001		
	582	DS # 1	↓	142.5687	142.5642	4.5	2.92	.032		
	583	DS # 2	↓	141.3035	141.2992	4.3	2.49	.036		

WT: lw 7/3/78

AC_CPUC_0000712

WELL NO: SS 25

TEST NO. & DATE	PROBE NO.	PROBE LOCATION	ERODED AREA (XXX)	AVERAGE INITIAL WEIGHT (gm)	WEIGHT AFTER TEST (gm)	CHANGE IN WEIGHT (mg)	ERODED AREA (sq in)	EROSION FACTOR	CHOKE & TEST Q	RECM'D NEXT CHOKE & TEST Q
1, 8-6-78	249	DS #1		144.3349	144.3338	1.1	3.24*	.011	None 19.9	
2, 9-18-78	None	—								
									1400 SUAF 11.0	
3, 9-19-78	463	US #1	↙	137.9112	137.9115	-0.0		.0	.620 24.7	
	465	US #2	→	141.5597	141.5596	0.1	3.24*	.001		
	466	DS #1	↑	136.9887	136.9882	0.5	3.24*	.003		
4, 9-22-78	473	US #1	↗	140.1087	140.1055	3.2	3.24*	.021	683 SUAF 27.9	
	474	US #2	↘	138.3604	138.3564	4.0	3.24*	.026		
	475	DS #1	↗	137.4722	137.4699	2.3	3.24*	.015		
6, 9-26-78	497	US #1	↖	140.1289	140.1278	1.1	3.24*	.007	1715 33.2	
	498	US #2	↓	139.3863	139.3856	0.7	3.24*	.005		
	499	DS #1	↙	144.1519	144.1517	0.2	3.24*	.001		
	500	DS #2	↙	138.3590	138.3580	1.0	3.24*	.006		

WT:lw 7/3/78

AC_CPUC_0000713

WELL NO: SS-25 DATE: 10-[illegible]-78 OPERATOR: _____ TEST NO: L-11

B. H. CHOKE: NONE " SURF. CHOKE: 1.303 " LATERAL/VESSEL TEST

FLOWING STRING: (CSG) TBG SAFETY VALVE IS IN (OUT) OF WELL BOMBS RUN: YES (NO)

PROBE ID NO'S--RISER: — US#1 656 US#2 657 DS#1 658 DS#2 659

PROBE AND BULL PLUG REMARKS: #656 & #657 LIGHT BUFFING

#658 & 659 HEAVY BUFFING

RATE AT DENY 1 LESS SS-31 RATE

WATER CUT (% BS & W): _____ OIL GRAVITY: _____ @ _____ °F

ELAPSED TIME	TIME OF DAY	AIR TEMPERATURE	CSG PRESSURE	TBG PRESSURE	UPSTREAM SURFACE CHOKE		DOWNSTREAM SURFACE CHOKE		GAS FLOW RATE				LIQUIDS
					PRESSURE	TEMPERATURE	PRESSURE	TEMPERATURE	STATIC	DIFFERENTIAL	TEMPERATURE	RATE	
SHUT IN	8 10 A		3030	3040									
0:00	8 20 A				START-FLOW-TEST								
0:05													
0:10													
15													
0:25													
0:35													
0:45													
1:00	9 20 A	82°	565	2370	1850	84°	565	16°	8.0	6.6	65	78.203	
5													
1:30													
1:45													
2:00	10 20 A	84°	565	2370	1880	82°	565	16°	8.0	6.9	51	82.292	
2:30													
3:00	11 20 A	84°	565	2370	1890	80°	565	18°	8.0	6.9	33	82.486	
3:30													
4:00	12 20 P	82°	565	2370	1890	77°	565	18°	8.0	6.8	30	81.046	
4:30													
5:00	1 20 P	82°	565	2370	1890	76°	565	18°	8.0	6.8	29	81.206	
5:30													
6:00	2 20 P	82°	565	2360	1890	74°	565	18°	8.0	6.85		82.130	
6:30													
7:00	3 20 P	82°	565	2350	1890	74°	565	18°	8.0	7.05		84.998	
7:30													
8:00	4 20 P	82°	565	2340	1890	73°	565	18°	8.0	7.05		85.824	

API GRAVITY DETERMINATION WORKSHEET

WELL # _____

Hydrometer reads _____ ° API at _____ °F.

Go to API charts, find corrected reading for this temp. and the closest numbers either side of the hydrometer reading. (Example: Hydrometer reads 42.6, low is 42, high is 43.)

LOW

_____ . _____

\+ . □

_____

_____ . _____

ACTUAL

_____ . □ → Put this number in all boxes. To calculate corrected reading use LOW if this number is less than or equal to 5, use HIGH if this number is greater than 5.

HIGH

_____ . _____

\- 1 . 0

_____

_____ . _____

\+ . □

_____

This is the corrected reading @ 60°

EXAMPLE

Hydrometer reads 46.7 ° API at 97 °F.

Look at API chart under 46 & 47 next to 97°.

LOW

42 . 9

\+ . 7

_____

_____ . _____

ACTUAL

46 . 7 → Put a 7 in all boxes.

Since 7 is greater than 5 do calculations in HIGH.

HIGH

43 . 2

-1 . 0

42 . 8

\+ . 7

_____

43 . 5

Don't do anything here

This is your corrected reading at 60°F →

ORIFICE PLATE COEFFICIENTS

PLATE SIZE _____ "

METER SIZE 100"/300"

FIELD VESSEL # _____

TEMP.	100"/1000#	300"/1000#
0°		
0°		
0°		
0°		
0°		
0°		
0°		

AC_CPUC_0000715

WELL NO: SS-25 DATE: 10-7 OPERATOR: CLIFF VESS TEST NO: L-10

B. H. CHOKE: — " SURF. CHOKE: 1.168 " LATERAL/VESSEL TEST

FLOWING STRING: CSG / TBG SAFETY VALVE IS IN/OUT OF WELL BOMBS RUN: YES NO

PROBE ID NO'S--RISER: — US#1 613 US#2 614 DS#1 615 DS#2 616

PROBE AND BULL PLUG REMARKS: U/S PROBES LIGHT BUFFING
D/S PROBES MED SANDING.

A-100 75111 RATE FROM DEHY # 1 A-100 MTR

WATER CUT (% BS & W): _____ OIL GRAVITY: _____ @ _____ °F

ELAPSED TIME	TIME OF DAY	AIR TEMPERATURE	CSG PRESSURE	TBG PRESSURE	UPSTREAM SURFACE CHOKE		DOWNSTREAM SURFACE CHOKE		GAS FLOW RATE				LIQUIDS
					PRESSURE	TEMPERATURE	PRESSURE	TEMPERATURE	STATIC	DIFFERENTIAL	TEMPERATURE	RATE	
SHUT IN	7 10 A		2930	2930									
0:00	7 15	START FLOW											
0:05													
0:10													
15													
0:25													
0:35													
0:45													
1:00	8 15	56		2410	2090	80°	600	12°	8.01	4.95	58	71,475	
.5													
1:30													
1:45													
2:00	9 15	57		2400	2095	80°	605	10°	8.01	4.95	36	71,475	
2:30													
3:00	10 15	59		2400	2100	80°	600	12°	8.01	5.05	40	72,918	
3:30													
4:00	11 15	61		2400	2100	80°	555	13°	8.01	5.10	53	73,641	
4:30													
5:00	12 15	68		2400	2105	82°	505	12°	8.01	5.12	59	73,929	
5:30													
6:00	1 15	74		2405	2105	82°	510	14°	8.01	5.10	36	73,641	
6:30													
7:00	2 15	75		2400	2105	82°	560	11°	8.01	5.07	34	73,207	
7:30													
8:00	3 15	70		2390	2095	82	560	10°	8.01	4.98	31	71,908	No change

Hydrometer reads _____° API at _____°F.

Go to API charts, find corrected reading for this temp. and the closest numbers either side of the hydrometer reading. (Example: Hydrometer reads 42.6, low is 42, high is 43.)

LOW

_____ . _____

+ . □

_____ . _____

ACTUAL

_____ . □ → Put this number in all boxes. To calculate corrected reading use LOW if this number is less than or equal to 5, use HIGH if this number is greater than 5.

This is the corrected reading @ 60°

HIGH

_____ . _____

- 1 . 0

_____ . _____

+ . □

_____ . _____

Hydrometer reads 46.7° API at 97°F.

Look at API chart under 46 & 47 next to 97°.

LOW

42 . 9

+ . 7

_____ . _____

ACTUAL

46 . 7 → Put a 7 in all boxes.

Since 7 is greater than 5 do calculations in HIGH.

Don't do anything here

HIGH

43 . 7

-1 .

42 . 8

+ . 7

This is your corrected reading at 60°F → 43 . 7

ORIFICE PLATE COEFFICIENTS

METER SIZE 100"/300"

PLATE SIZE _____ "

FIELD VESSEL # _____

F.P.	100"/1000#	X	300"/1000#
[illegible]°			
20°			
30°			
40°			
[illegible]°			
60°			
70°			

AC_CPUC_0000717

WELL NO: 55-25 DATE: 10-[illegible]8 OPERATOR: VESSO TEST NO: L-8

B. H. CHOKE: ——— " SURF. CHOKE: -950 " LATERAL / VESSEL TEST?

FLOWING STRING: (SG) TBG SAFETY VALVE IN / (OUT)? BOMBS RUN?: YES / (NO)

PROBE ID NO'S--RISER: ——— US#1 #546 US#2 #547 DS#1 #548 DS#2 #549

PROBE AND BULL PLUG REMARKS: MBD, SANDING

WATER CUT (% BS & W): _____ OIL GRAVITY: _____ @ _____ °F

ELAPSED TIME	TIME OF DAY	AIR TEMPERATURE	CSG PRESSURE	TBG PRESSURE	UPSTREAM SURFACE CHOKE		DOWNSTREAM SURFACE CHOKE		GAS FLOW RATE				LIQUIDS
					PRESSURE	TEMPERATURE	PRESSURE	TEMPERATURE	STATIC	DIFFERENTIAL	TEMPERATURE	8447778 RATE	
SHUT IN	3:35 PM		2790	2800									
0:00	8 10		START FLOW										
0:05													
0:10													
0:15													
0:25													
0:35													
0:45													
1:00	9 10	77		2465	2290	96°	540	13°	7.06	9.00	0°	53,677	
1:15													
1:30													
1:45													
2:00	10 10	75		2440	2295	93°	530	15°	7.04	8.98	-2°	53,406	
2:30													
3:00	11 10	78		2460	2300	91°	540	17°	7.04	8.90	-2°	52,930	
3:30													
4:00	12 10	81		2465	2300	90°	540	19°	7.03	8.90	-4°	52,855	
4:30													
5:00	1 10	85		2455	2295	89°	540	18°	7.03	8.88	-4°	52,736	
5:30													
6:00	2 10	84		2455	2295	88°	540	16°	7.03	8.88	-3°	52,736	
6:30													
7:00	3 10	79		2460	2295	88	535	16°	7.03	8.88	-3°	52,736	
7:30													
8:00	4 10	77		2455	2300	88	535	13°	7.02	8.85	3°	52.483	

JWT/wlc (rev. 7/19/78) Field Test Data Sheet [illegible] 52,736 8447778

AC_CPUC_0000718

API GRAVITY DETERMINATION WORKSHEET

WELL # SS-25

Hydrometer reads _____ ° API at _____ °F.

Go to API charts, find corrected reading for this temp. and the closest numbers either side of the hydrometer reading. (Example: Hydrometer reads 42.6, low is 42, high is 43.)

LOW	ACTUAL	HIGH
_____ . _____	_____ . ☐ → Put this number in all boxes. To calculate corrected reading use LOW if this number is less than or equal to 5, use HIGH if this number is greater than 5.	_____ . _____
+ . ☐		- 1 . 0
_____ . _____	This is the corrected reading @ 60° →	_____ . _____
		+ . ☐
		_____ . _____

EXAMPLE

Hydrometer reads 46.7 ° API at 97 °F.

Look at API chart under 46 & 47 next to 97°.

LOW	ACTUAL	HIGH
42 . 9	46 . 7 → Put a 7 in all boxes.	43 . 7
+ . 7	Since 7 is greater than 5 do calculations in HIGH.	-1 . 0
_____ . _____		42 . 8
		+ . 7
Don't do anything here		This is your corrected reading at 60°F → 43 . 5

ORIFICE PLATE COEFFICIENTS

PLATE SIZE _____ " METER SIZE 100"/300" FIELD VESSEL # V-137

TEMP.	100"/1000#	X 300"/1000#
10°		844777.8
20°		
30°		
40°		
50°		
60°		
70°		

WELL NO: [redacted]65 DATE: 10-2-78 OPERATOR: Summers TEST NO: L-7

B. H. CHOKE: ——— " SURF. CHOKE: -857 " (ATERAL) VESSEL TEST?

FLOWING STRING: (CSG) TBG SAFETY VALVE IN / (OUT)? BOMBS RUN?: YES (NO)

PROBE ID NO'S--RISER: ——— US#1 #524 US#2 #525 DS#1 #526 DS#2 #527

PROBE AND BULL PLUG REMARKS: PROBES #526 & #527 SHOW VERY LIGHT SANDING —

WATER CUT (% BS & W): _____ OIL GRAVITY: _____ @ _____ °F

ELAPSED TIME	TIME OF DAY	AIR TEMPERATURE	CSG PRESSURE	TBG PRESSURE	UPSTREAM SURFACE CHOKE PRESSURE	UPSTREAM SURFACE CHOKE TEMPERATURE	DOWNSTREAM SURFACE CHOKE PRESSURE	DOWNSTREAM SURFACE CHOKE TEMPERATURE	GAS FLOW RATE STATIC	GAS FLOW RATE DIFFERENTIAL	GAS FLOW RATE TEMPERATURE	GAS FLOW RATE RATE	LIQUIDS
OUT													
IN	7 55 A	68	2826	2825									
0:00	8 00 A.	START FLOW TEST											
0:05													
0:10													
0:15													
0:25													
0:35													
0:45													
1:00	9 00 A	73		2535	2450	91	520	4	7.02	7.38	Ø	43,770	
1:15													
1:30													
1:45													
2:00	10 00 A	83		2535	2445	92	520	6	7.01	7.38	Ø	43,704	
2:30													
3:00	11 00 A	86		2535	2450	92	535	8	7.01	7.4	Ø	43,822	
3:30													
4:00	12 N	86		2535	2450	89	525	8	7.01	7.35	Ø	43,526	
4:30													
5:00	1 00 P	86		2535	2445	86	525	10	7.01	7.3	Ø	43,230	
5:30													
6:00	2 00 P	86		2535	2445	88	525	8	7.02	7.35	Ø	43,588	
6:30													
7:00	3 00 P	86		2535	2440	88	525	8	2.15	7.35	Ø	44,396	
7:30													
8:00	4 00 P	90		2535	2440	88	525	8	7.16	7.3	Ø	44,155	

JWT/wlc (rev. 7/19/78) Field Test Data Sheet WLC 7.08 7.28 43,547

AC_CPUC_0000720

API GRAVITY - TEMPERATURE VERIFICATION

WELL # 55-25

Hydrometer reads _____° API at _____°F.

Go to API charts, find corrected reading for this temp. and the closest numbers either side of the hydrometer reading. (Example: Hydrometer reads 42.6, low is 42, high is 43.)

LOW	ACTUAL	HIGH
_ . _	_ . □ → Put this number in all boxes. To calculate corrected reading use LOW if this number is less than or equal to 5, use HIGH if this number is greater than 5.	_ . _
+ . □		- 1 . 0
_ . _		_ . _
		+ . □
	This is the corrected reading @ 60° →	
		_ . _
OR	Hydrometer reads 46.7° API at 97 °F.	
	Look at API chart under 46 & 47 next to 97°.	
LOW	ACTUAL	HIGH
2 . 9	46 . 7 → Put a 7 in all boxes. Since 7 is greater than 5 do calculations in HIGH.	43 . 5
+ . 7		-1 . 0
_ . _		42 . 8
		+ . 7
	Don't do anything here	
1		This is your corrected reading at 60°F → 43 . 8

ORIFICE PLATE COEFFICIENTS

PLATE SIZE 6x4.375 " METER SIZE 100"/300" FIELD VESSEL # 137

TEMP.	100"/1000#	300"/1000#
[illegible]		35197.079 HRLY ✓
20°		
30°		
40°		
[illegible]		
60°		
70°		

AC_CPUC_0000721

WELL NO: 33-6 DATE: 7-27-78 OPERATOR: Summers TEST NO: L-6

B. H. CHOKE: ——— " SURF CHOKE: .785 " (ATERA) VESSEL TEST?

FLOWING STRING: (CSG) TBG SAFETY VALVE IN / (OUT)? BOMBS RUN?: YES / (NO)

PROBE ID NO'S--RISER: ——— US#1 #506 US#2 #507 DS#1 #508 DS#2 #509

PROBE AND BULL PLUG REMARKS: ALL PROBES Look Good -

WATER CUT (% BS & W): _____ OIL GRAVITY: _____ @ _____ °F

ELAPSED TIME	TIME OF DAY	AIR TEMPERATURE	CSG PRESSURE	TBG PRESSURE	UPSTREAM SURFACE CHOKE PRESSURE	UPSTREAM SURFACE CHOKE TEMPERATURE	DOWNSTREAM SURFACE CHOKE PRESSURE	DOWNSTREAM SURFACE CHOKE TEMPERATURE	GAS FLOW RATE STATIC	GAS FLOW RATE DIFFERENTIAL	GAS FLOW RATE TEMPERATURE	GAS FLOW RATE RATE	LIQUIDS
SI IN	7:25 A	79	2805	2810									
0:00	7:30 A	START Flow Test											
0:05													
0:10													
0:15													
0:25													
0:35													
0:45													
1:00	8:30 P	84		2600	2510	98	505	4	7.02	6.3	0	37,361	
1:15													
1:30													
1:45													
2:00	9:30 P	87		2595	2515	100	505	6	7.01	6.3	0	37,308	
2:30													
3:00	10:30 P	94		2595	2520	98	505	7	7.01	6.25	0	37,012	
3:30													
4:00	11:30 P	96		2595	2525	96	505	7	7.01	6.25	0	37,012	
4:30													
5:00	12:30 P	95		2595	2520	95	510	10	7.0	6.3	0	37,255	
5:30													
6:00	1:30 P	101		2595	2520	94	505	11	7.0	6.3	0	37,255	
6:30													
7:00	2:30 P	93		2595	2520	94	505	10	7.01	6.3	0	37,308	
7:30													
8:00	3:30 P	94		2595	2510	94	505	8	7.01	6.3	0	37,308	
									7.01	6.28		37,190	44478

AC_CPUC_0000722

API GRAVITY DETERMINATION WORKSHEET

WELL # _____

Hydrometer reads _____° API at _____°F.

Go to API charts, find corrected reading for this temp. and the closest numbers either side of the hydrometer reading. (Example: Hydrometer reads 42.6, low is 42, high is 43.)

LOW

_ . _

+ . □

_ . _

ACTUAL

_ _ . □ → Put this number in all boxes. To calculate corrected reading use LOW if this number is less than or equal to 5, use HIGH if this number is greater than 5.

HIGH

_ _ . _

- 1 . 0

_ _ . _

+ . □

_ _ . _

This is the corrected reading @ 60°

EXAMPLE

Hydrometer reads 46.7 ° API at 97 °F.

Look at API chart under 46 & 47 next to 97°.

LOW

4 6 . 9

+ . 7

_ . _

ACTUAL

4 6 . 7 → Put a 7 in all boxes.

Since 7 is greater than 5 do calculations in HIGH.

HIGH

4 3 . 8

- 1 . 0

4 2 . 8

+ . 7

4 3 . 5

Don't do anything here

This is your corrected reading at 60°F → 43 . 5

ORIFICE PLATE COEFFICIENTS

PLATE SIZE _____" METER SIZE 100"/300" FIELD VESSEL # _____

TEMP.	100"/1000#	300"/1000#
55°		
50°		
45°		
40°		
[illegible]		
60°		
70°		

AC_CPUC_0000723

WELL NO: 77-23 DATE: 9-26-78 OPERATOR: Summers TEST NO: 4-6

B. H. CHOKE: — " SURF CHOKE: .715 " (ATEPA) VESSEL TEST?

FLOWING STRING: (CSG) TBG SAFETY VALVE IN / (OUT) BOMBS RUN?: YES / (NO)

PROBE ID NO'S--RISER: — US#1 #497 US#2 #498 DS#1 #499 DS#2 #500

PROBE AND BULL PLUG REMARKS: #499 & 500 SHOW VERY LIGHT SANDING

WATER CUT (% BS & W): _____ OIL GRAVITY: _____ @ _____ °F

ELAPSED TIME	TIME OF DAY	AIR TEMPERATURE	CSG PRESSURE	TBG PRESSURE	UPSTREAM SURFACE CHOKE PRESSURE	UPSTREAM SURFACE CHOKE TEMPERATURE	DOWNSTREAM SURFACE CHOKE PRESSURE	DOWNSTREAM SURFACE CHOKE TEMPERATURE	GAS FLOW RATE STATIC	GAS FLOW RATE DIFFERENTIAL	GAS FLOW RATE TEMPERATURE	GAS FLOW RATE RATE	LIQUIDS
SI IN	7 40 A	84	2840	2840									
0:00	7 45 A	START FLOW TEST											
0:05													
0:10													
0:15													
0:25													
0:35													
0:45													
1:00	8 45 A	83		2635	2580	93	500	10	7.02	6.1	0	33,093	
1:15													
1:30													
1:45													
2:00	9 45 A	86		2635	2590	97	500	12	7.01	6.15	0	33,317	
2:30													
3:00	10 45 A	92		2635	2600	97	500	9	7.0	6.11	0	33,053	
3:30													
4:00	11 45 A	94		2640	2600	96	500	9	2.0	6.11	0	33,053	
4:30													
5:00	12 45 P	96		2640	2600	96	500	9	7.0	6.11	0	33,053	
5:30													
6:00	1 45 P	98		2635	2595	95	500	10	7.01	6.1	0	33,046	
6:30													
7:00	2 45 P	96		2630	2580	95	500	8	7.02	6.1	0	33,093	
7:30													
8:00	3 45 P	94		2625	2575	95	500	8	7.0	6.1	0	32,999	

 7.02 6.12 33,2?? ????

AC_CPUC_0000724

API GRAVITY DETERMINATION WORKSHEET

WELL # 55-25

Hydrometer reads _____ ° API at _____ °F.

Go to API charts, find corrected reading for this temp. and the closest numbers either side of the hydrometer reading. (Example: Hydrometer reads 42.6, low is 42, high is 43.)

LOW

_ . _____

+ . ☐

_____

_ . _____

ACTUAL

_____ . ☐ → Put this number in all boxes. To calculate corrected reading use LOW if this number is less than or equal to 5, use HIGH if this number is greater than 5.

HIGH

_____ . _____

- 1 . 0

_____ . _____

+ . ☐

_____

_____ . _____

This is the corrected reading @ 60°

PLE

Hydrometer reads 46.7 ° API at 97 °F.

Look at API chart under 46 & 47 next to 97°.

LOW

2 . 9

+ . 7

_____

_ . _____

ACTUAL

46 . 7 → Put a 7 in all boxes.

Since 7 is greater than 5 do calculations in HIGH.

Don't do anything here

HIGH

43 . 7

-1 . 0

42 . 8

+ . 7

_____

This is your corrected reading at 60°F → 43 . 7

ORIFICE PLATE COEFFICIENTS

LATE SIZE 6X4.375 "

METER SIZE 100"/300"

FIELD VESSEL # 137

TEMP.	100"/1000#	300"/1000#
10°		772800
20°		
30°		
40°		
50°		
60°		

AC_CPUC_0000725

WELL NO: SS-25 DATE: 9-27-78 OPERATOR: Summers TEST NO: 4-4

B. H. CHOKE: — " SURF. CHOKE: .683 " (LATERAL) / VESSEL TEST?

FLOWING STRING: (CSG) TBG SAFETY VALVE IN / (OUT)? BOMBS RUN?: (YES) / NO

PROBE ID NO'S--RISER: — US#1 #473 US#2 #474 DS#1 #475 DS#2 —

PROBE AND BULL PLUG REMARKS: ALL PROBES LOOK GOOD

WATER CUT (% BS & W): _____ OIL GRAVITY: _____ @ _____ °F

ELAPSED TIME	TIME OF DAY	AIR TEMPERATURE	CSG PRESSURE	TBG PRESSURE	UPSTREAM SURFACE CHOKE PRESSURE	UPSTREAM SURFACE CHOKE TEMPERATURE	DOWNSTREAM SURFACE CHOKE PRESSURE	DOWNSTREAM SURFACE CHOKE TEMPERATURE	GAS FLOW RATE STATIC	GAS FLOW RATE DIFFERENTIAL	GAS FLOW RATE TEMPERATURE	GAS FLOW RATE RATE	LIQUIDS
SHUT IN	7 05 A	66°	2820	2820									39295.30
0:00	7 10 A	START FLOW TEST											
0:05													
0:10													
0:15													
0:25													
0:35													
0:45													
1:00	8 10 A	68°		2660	2615	92	530	+7	7.08	5.3	Ø	28,999	
1:15													
1:30													
1:45													
2:00	9 10 A	70°		2640	2610	95	525	+8	7.07	5.25	Ø	28,684	
2:30													
3:00	10 10 A	75		2650	2610	94	525	9	7.05	5.22	Ø	28,440	
3:30													
4:00	11 10 A	82		2640	2610	95	515	4	7.03	5.25	Ø	28,522	
4:30													
5:00	12 10 P	90		2650	2610	95	530	6	7.03	5.2	Ø	28,250	
5:30													
6:00	1 10 P	90		2640	2605	94	525	8	7.02	5.2	Ø	28,210	
6:30													
7:00	2 10 P	93		2650	2605	94	530	8	7.01	5.16	Ø	27,953	
7:30													
8:00	3 10 P	90		2650	2600	94	530	8	7.01	5.16	Ø	27,953	

AC_CPUC_0000726

Hydrometer reads _____° API at _____°F.

Go to API charts, find corrected reading for this temp. and the closest numbers either side of the hydrometer reading. (Example: Hydrometer reads 42.6, low is 42, high is 43.)

ACTUAL

LOW

_ . _____

+ . □

_ . _____

HIGH

_ . _____

-1 . 0

_ . _____

+ . □

_ . _____

_____ . □ → Put this number in all boxes. To calculate corrected reading use LOW if this number is less than or equal to 5, use HIGH if this number is greater than 5.

This is the corrected reading @ 60°

Hydrometer reads 46.7° API at 97 °F.

Look at API chart under 46 & 47 next to 97°.

ACTUAL

LOW

? . 9

+ . 7

_ . _____

HIGH

43 . 5

-1 . 0

42 . 8

+ . 7

43 . 5

46 . 7 → Put a 7 in all boxes.

Since 7 is greater than 5 do calculations in HIGH.

Don't do anything here

This is your corrected reading at 60°F → 43 . 5

ORIFICE PLATE COEFFICIENTS

METER SIZE 100"/300"

FIELD VESSEL # 137

PLATE SIZE 6X4.375 "

TEMP.	100"/1000#	300"/1000#
		772800
20°		
30°		
40°		
[illegible]		
60°		
70°		

AC_CPUC_0000727

SUB-SURFACE PRESSURE & TEMPERATURE DATA

7.0

WELL: Sesnon #25

FIELD: Aliso

BOMB HUNG @ M.D. 8350 '

T.V.D. _____ '

FLOW DATA

DATE: 9-22-78

FROM: 7:10 (AM)/PM

TO: 3:10 AM/(PM)

FLOW THROUGH: CSG/TBG

SHUT-IN GAUGE PRESSURE

_____ PSIG

AT DEPTH	OFF DEPTH
DATE: 9-22-78	DATE: 9-23
TIME: 6:40	TIME: 7:56
PICK-UP: _____ '	PICK-UP: _____ '
...ES. BOMB: 15486	CLOCK: 36
TEMP. BOMB: 10156	CLOCK: 36

DATA

PT.	TIME	DEPTH	SCALE	°F	
1	0	0	246	65.8	$=T_{wh}$
2	0	8350	986	136.1	
3	10		1099	146.6	
4	30		1107	147.3	
5	60				
6					=SIBHT
		START FLOW			
7	10	8350	925	130.3	
3	60		785	117.0	
9	120		782	116.7	
10	240		779	116.5	
11	480		778	116.4	$=T_{wf}$
		START SHUT-IN			
12	10	8350	789	117.4	
13	60		840	122.3	
14	120		888	126.8	
15	240		944	132.1	
16	480		997	137.2	
17	1026		1056	142.6	$=T_{wh}$
		0	221	63.4 ↑	

DATA

PT.	TIME	DEPTH	SCALE	PSIG	
1	0	0	1155	2833	$=P_{wh}$
2	0	8350	1415	3464	
3	10		1415	3464	
4	30		1415	3464	
5	60				
6					
7					=SIBHP
		START FLOW			
8	2	8350	1365	3342	
9	5		1336	3272	
10	10		1330	3257	
11	15		1330	3257	
12	30		1330	3257	
13	45		1330	3257	
14	60		1331	3260	
15	90		1331	3260	
16	120		1330	3257	
17	150		1329	3255	
18	180		1328	3252	
19	240		1326	3248	
20	300		1325	3245	
21	360		1323	3240	
22	420		1322	3238	
23	480		1321	3235	$=P_{ff}$
		START SHUT-IN			
24	2	8350	1391	3405	
25	5		1395	3415	
26	10		1396	3417	
27	15		1396	3417	
28	30		1397	3420	
29	45		1398	3422	
30	60		1398	3422	
31	90		1399	3425	
32	120		1399	3425	
33	150		1399	3425	
34	180		1399	3425	
35	240		1400	3427	
36	300		1400	3427	
37	360		1401	3430	
38	480		1402	3432	
39	600		1403	3434	
40	720		1404	3437	
41	1026		1406	3442	$=P_{wh}$
		0	1145	2808 ↑	

AC_CPUC_0000728

WELL NO: SS-25 DATE: 9-12-78 OPERATOR: Summers TEST NO: L-3

B. H. CHOKE: — " SURF. CHOKE: .620 " (LATERAL) VESSEL TEST

FLOWING STRING: (CSG) / TBG SAFETY VALVE IS IN/(OUT) OF WELL . BOMBS RUN: (YES) NO

PROBE ID NO'S--RISER: — US#1 #463 US#2 #465 DS#1 #466 DS#2 —

PROBE AND BULL PLUG REMARKS: ALL PROBES LOOK GOOD

WATER CUT (% BS & W): _____ OIL GRAVITY: _____ @ _____ °F

ELAPSED TIME	TIME OF DAY	AIR TEMPERATURE	CSG PRESSURE	TBG PRESSURE	UPSTREAM SURFACE CHOKE		DOWNSTREAM SURFACE CHOKE		GAS FLOW RATE				LIQUIDS
					PRESSURE	TEMPERATURE	PRESSURE	TEMPERATURE	STATIC	DIFFERENTIAL	TEMPERATURE	RATE	
SHUT IN	~~8~~ 25 A	60°	2790	2790									39795.30
0:00	~~8~~ 30 A	START FLOW TEST											
0:05													
0:10													
0:15													
0:25													
0:35													
0:45													
1:00	9 30 A	60°		2665	2625	84	490	-Q	7.1	7.5	Q	24,039	
1:15													
1:30													
1:45													
2:00	10 30 A	62°		2665	2630	84	490	+2	7.1	7.6	Q	24,360	
2:30													
3:00	11 30 A	64°		2665	2630	84	490	2	7.1	7.63	Q	24,456	
3:30													
4:00	12 30 P	66°		2665	2630	84	490	-Q	7.1	7.58	Q	24,296	
4:30													
5:00	1 30 P	68		2670	2630	84	490	Q	7.1	7.65	Q	24,520	
5:30													
6:00	2 30 P	70°		2670	2630	84	490	-Q	7.1	7.7	Q	24,680	
6:30													
7:00	3 30 P	70°		2670	2630	84	490	Q	7.1	7.6	Q	24,360	
7:30													
8:00	4 30 P	69°		2665	2625	85	490	Q	7.1	7.62	Q	24,424	

JWT/wlc (rev. 7/19/78) Field Test Data Sheet WLC 7.11 7.68 24,651 .451440

AC_CPUC_0000729

API GRAVITY DETERMINATION WORKSHEET

Hydrometer reads _____ ° API at _____ °F.

Go to API charts, find corrected reading for this temp. and the closest numbers either side of the hydrometer reading. (Example: Hydrometer reads 42.6, low is 42, high is 43.)

ACTUAL

LOW

_____ . _____

+ . ☐

_____ . _____

_____ . ☐ → Put this number in all boxes. To calculate corrected reading use LOW if this number is less than or equal to 5, use HIGH if this number is greater than 5.

HIGH

_____ . _____

- 1 . 0

_____ . _____

+ . ☐

_____ . _____

This is the corrected reading @ 60°

EXAMPLE

Hydrometer reads 46.7 ° API at 97 °F.

Look at API chart under 46 & 47 next to 97°.

ACTUAL

LOW

42 . 9

+ . 7

_____ . _____

46 . 7 → Put a 7 in all boxes.

Since 7 is greater than 5 do calculations in HIGH.

HIGH

43 . _____

-1 .

42 . _____

+ .

_____

Don't do anything here

This is your corrected reading at 60°F → 43 .

ORIFICE PLATE COEFFICIENTS

METER SIZE 100"/300"

FIELD VESSEL # 137

PLATE SIZE 6 X 4.375 "

TEMP.	100"/1000#	300"/1000#
10°	45.1440	
20°		
30°		
40°		
50°		
60°		

AC_CPUC_0000730

SUB-SURFACE PRESSURE & TEMPERATURE DATA

WELL: Sesnon #25

FIELD: A/Iso

BOMB HUNG @ M.D. 8350 '

T.V.D. _____ '

FLOW DATA

DATE: 9-19-78

FROM: 8:30 (AM)/PM

TO: 4:30 AM/(PM)

FLOW THROUGH: CSG/TBG

SHUT-IN GAUGE PRESSURE

_____ PSIG

AT DEPTH	OFF DEPTH
DATE: 9-19-78	DATE: 9-20-78
TIME: 7:30	TIME: 7:05
P'CK-UP: _____ '	PICK-UP: _____ '
PRES. BOMB: 15486	CLOCK: 36
TEMP. BOMB: 10156	CLOCK: 36

DATA

PT.	TIME	DEPTH	SCALE	°F	
1	0	0	745	56.0	=T_{wh}
2	0	8530	971	134.7	
3	10		1018	139.1	
4	30		1029	140.1	
5	60		1034	140.6	
6					=SIBHT
		START FLOW			
7	10	8350	907	128.6	
8	60		812	119.6	
9	120		808	119.2	
10	240		802	118.6	
11	480		792	117.7	=T_{wf}
		START SHUT-IN			
12	10	8350	800	118.5	
13	60		844	122.6	
14	120		882	126.2	
15	240		929	130.7	
16	480		978	135.4	
17	875		1019	139.2	=T_{wh}
	0		194	60.9	↗

DATA

PT.	TIME	DEPTH	SCALE	PSIG	
1	0	0	1141	2799	=P_{wh}
2	0	8350	1397	3420	
3	10		(		
4	30		↓		
5	60		1397	3420	
6					
7					=SIBHP
		START FLOW			
8	2	8350	1368	3350	
9	5		1333	3265	
10	10		1331	3260	
11	15		1331	3260	
12	30		1332	3262	
13	45		1332	3262	
14	60		1333	3265	
15	90		1333	3265	
16	120		1333	3265	
17	150		1333	3265	
18	180		1333	3265	
19	240		1333	3265	
20	300		1333	3265	
21	360		1333	3265	
22	420		1333	3265	
23	480		1333	3265	=P_{ff}
		START SHUT-IN			
24	2		1385	3391	
25	5		1391	3405	
26	10		1393	3410	
27	15		1393	3410	
28	30		1394	3413	
29	45		1394	3413	
30	60		1395	3415	
31	90		1395	3415	
32	120		1396	3417	
33	150		1396	3417	
34	180		1397	3420	
35	240		1397	3420	
36	300		1398	3422	
37	360		1399	3425	
38	480		1400	3427	
39	600		1401	3430	
40	720		1402	3432	
41	875		1404	3437	=P_{wh}
	0		1150	2820	↗

7.0

AC_CPUC_0000731

WELL NO: 55-25 DATE: 7-18-18 OPERATOR: Summers TEST NO: [illegible]

B. H. CHOKE: NONE " SUR (CHOKE: .400 " (LATERA) VESSEL TEST

FLOWING STRING: (CSG) / TBG SAFETY VALVE IS IN/(OUT) OF WELL . BOMBS RUN: (YES) NO

PROBE ID NO'S--RISER: _____ US#1 _____ US#2 _____ DS#1 _____ DS#2 _____

PROBE AND BULL PLUG REMARKS: NO PROBES

WATER CUT (% BS & W): _____ OIL GRAVITY: _____ @ _____ °F

ELAPSED TIME	TIME OF DAY	AIR TEMPERATURE	CSG PRESSURE	TBG PRESSURE	UPSTREAM SURFACE CHOKE		DOWNSTREAM SURFACE CHOKE		GAS FLOW RATE				LIQUIDS
					PRESSURE	TEMPERATURE	PRESSURE	TEMPERATURE	STATIC	DIFFERENTIAL	TEMPERATURE	RATE	
SHUT IN	9 05 A		2760	2780									39794.95
0:00	9 10 A		START	FLOW	TEST								
0:05													
0:10													
0:15													
0:25													
0:35													
0:45													
1:00	10 10 A			2745	2705	82	490	-0	7.12	3.54	31°	11,378	
1:15													
1:30													
1:45													
2:00	11 10 A			2750	2710	83	490	-0	7.12	3.5	8°	11,250	
2:30													
3:00	12 10 N			2750	2715	85	485	-0	7.12	3.48	5	11,186	
3:30													
4:00	1 10 N			2760	2720	85	485	+1	7.12	3.48	5	11,186	
4:30													
5:00	2 10 P			2760	2720	85	490	+2	7.12	3.48	5	11,186	
5:30													
6:00	3 10 P			2750	2720	86	490	+2	7.11	3.48	5	11,170	
6:30													
7:00	4 10 P			2760	2720	86	490	+1	7.11	3.5	5	11,234	
7:30													
8:00	5 10 P			2750	2720	86	480	-0	7.11	3.43	5	11,009	
									7.11	3.44		11,042	45144

JWT/wlc (rev. 7/19/78) Field Test Data Sheet WLC

AC_CPUC_0000732

API GRAVITY DETERMINATION WORKSHEET

WELL # 55-25

Hydrometer reads _____ ° API at _____ °F.

Go to API charts, find corrected reading for this temp. and the closest numbers either side of the hydrometer reading. (Example: Hydrometer reads 42.6, low is 42, high is 43.)

LOW	ACTUAL	HIGH
_____ . _____	_____ . ☐ → Put this number in all boxes. To calculate corrected reading use LOW if this number is less than or equal to 5, use HIGH if this number is greater than 5.	_____ . _____
+ . ☐		- 1 . 0
_____		_____
_ . _____	This is the corrected reading @ 60° →	+ . ☐
		_____
		_____ . _____

EXAMPLE

Hydrometer reads 46.7 ° API at 97 °F.

Look at API chart under 46 & 47 next to 97°.

LOW	ACTUAL	HIGH
42 . 9	46 . ☐ → Put a 7 in all boxes. Since 7 is greater than 5 do calculations in HIGH.	43 . 7
+ . 7		-1 . 0
_____		42 . 8
_____ . _____	Don't do anything here	+ . 7
1		_____
_	This is your corrected reading at 60°F →	43 . 5

ORIFICE PLATE COEFFICIENTS

PLATE SIZE 6X4.375 " METER SIZE 100"/300" FIELD VESSEL # 137

TEMP.	100"/1000#	300"/1000#
10°	451440	
20°		
30°		
40°		
50°		
60°		

AC_CPUC_0000733

8450
8350
100

SUB-SURFACE PRESSURE & TEMPERATURE DATA

WELL: Sesnon #25

FIELD: Aliso

BOMB HUNG @ M.D. 8350 '

T.V.D. _____ '

FLOW DATA

DATE: 9-18-78

FROM: 9:10 (AM)/PM

TO: 5:10 AM/(PM)

FLOW THROUGH: CSG/TBG

SHUT-IN GAUGE PRESSURE

_____ PSIG

AT DEPTH	OFF DEPTH
DATE: 9-18-78	DATE: 9-19-78
TIME: 0747	TIME: 0552
PICK-UP: _____ '	PICK-UP: _____ '
PRES. BOMB: 15486	CLOCK: 36
TEMP. BOMB: 10156	CLOCK: 36

DATA

PT.	TIME	DEPTH	SCALE	°F	
1	0	0	279	69	$=T_{wh}$
2	0	8350	1035	140.7	
3	10		1037	140.9	
4	30		1046	141.7	
5	60		1050	142.1	
6			1052	142.3	=SIBHT
		START FLOW			
7	10	8350	930	130.8	
8	60		825	120.8	
9	120		821	120.4	
10	240		822	120.5	
11	480		822	120.5	$=T_{wf}$
		START SHUT-IN			
12	10	8350	825	120.8	
13	60		866	124.7	
14	120		901	128.0	
15	240		942	131.9	
16	480		985	136.0	
17			1,018	139.1	$=T_{wh}$
			141	55.6	

DATA

PT.	TIME	DEPTH	SCALE	PSIG	
1	0	0	1138	2791	$=P_{wh}$
2	0	8350	1393	3410	
3	10				
4	30				
5	60				
6					
7	83		1393	3410	=SIBHP 3417
		START FLOW			
8	2	8350	1389	3400	
9	5		1372	3359	
10	10		1370	3354	
11	15		1370	3354	
12	30		1370	3354	
13	45		1370	3354	
14	60		1370	3354	
15	90		1370	3354	
16	120		1371	3357	
17	150		1371	3357	
18	180		1371	3357	
19	240		1371	3357	
20	300		1371	3357	
21	360		1371	3357	
22	420		1371	3357	
23	480		1371	3357	$=P_{ff}$ 3364
		START SHUT-IN			
24	2	8350	1389	3400	
25	5		1392	3408	
26	10		1394	3413	
27	15		1394	3413	
28	30		1394	3413	
29	45		1394	3413	
30	60		1394	3413	
31	90		1394	3413	
32	120		1395	3415	
33	150		1395	3415	
34	180		1395	3415	
35	240		1396	3417	
36	300		1396	3417	
37	360		1396	3417	
38	480		1397	3417	
39	600		1397	3417	
40	720		1397	3417	
41	822		1397	3417	$=P_{wh}$
			0	1148	2816

AC_CPUC_0000734

WELL NO: SS 25 DATE: 8-6-78 OPERATOR: J. HASKINS TEST NO: [illegible]

B. H. CHOKE: .510 " SURF CHOKE: NONE " ORIFICE PLATE SIZE: 6X 4.375 " WCC

FLOWING STRING: CSG / TBG ORIFICE PLATE COEFFICIENT: 451440 @ °F

PROBE ID NO'S--RISER: US#1 US#2 DS#1 249 DS#2

PROBE AND BULL PLUG REMARKS: Probe discolored with pits and scratches

* ON FLOW WITH SS 79

WATER CUT (% BS & W): OIL GRAVITY: @ °F

ELAPSED TIME	TIME OF DAY	AIR TEMPERATURE	CSG PRESSURE	TBG PRESSURE	UPSTREAM SURFACE CHOKE PRESSURE	UPSTREAM SURFACE CHOKE TEMPERATURE	DOWNSTREAM SURFACE CHOKE PRESSURE	DOWNSTREAM SURFACE CHOKE TEMPERATURE	GAS FLOW RATE STATIC	GAS FLOW RATE DIFFERENTIAL	GAS FLOW RATE TEMPERATURE	GAS FLOW RATE RATE	LIQUIDS
S In		84°	2460	2080									
0:00	8:00												
0:05													
0:10													
0:15													
0:25													
0:35													
0:45													
1:00	9:00	84°		2250	500	75°			7.08	8.0	75°	25.570*	
1:15													
1:30						-							
1:45													
2:00	10:00	87°		2210	500	79°			7.08	7.98	84°	25506*	
2:30													
3:00	11:00	89°		2160	500	77			7.08	5.8	62	18.538	
3:30													
4:00	12:00	91°		2150	500	83			7.1	5.6	68	17.949	
4:30													
5:00	1:00	96°		2130	500	84			7.08	5.6	66	17.899	
5:30													
6:00	2:00	99°		2120	500	84			7.08	5.6	72	17.899	
6:30													
7:00	3:00	98°		2100	500	83			7.08	5.62	72	17.963	
7:30													
8:00	4:00	101		2085	500	82			7.08	5.6	74	17.899	

JWT: iwt 7/13/78 7.2 5.6 7.09 5.7 ↑ OK

AC_CPUC_0000735

#1

Compiled _____ Date _____

Checked _____ Checked _____

Approved _____ Job No. _____

SOUTHERN CALIFORNIA GAS COMPANY

SOUTHERN CALIFORNIA GAS CO.—1373

2-1/2 HOUR FLOW TEST

WELL NAME		SS25	
DATE		1-25-76	
BOTTOM HOLE CHOKE		0.516	
SURFACE CHOKE		NONE	
FLOW T or C		C	
METER NO.		V-137	
INITIAL SHUT-IN PRESSURE	T	1860	PSIG
	C	1860	PSIG
TIME ON		9⁰⁰ AM	
FINAL FLOWING PRESSURE	T	630	PSIG
	C	530	PSIG
TIME OFF		11³⁰ AM	
FINAL RATE		11.4	MMCF/D

Flowing pressure must be upstream of surface choke, if any.

15 m2

AC_CPUC_0000736

WELL. NO. TEST #1 SS-25 PLATE SIZE = 6X4.375

TEST RATE = 17.0

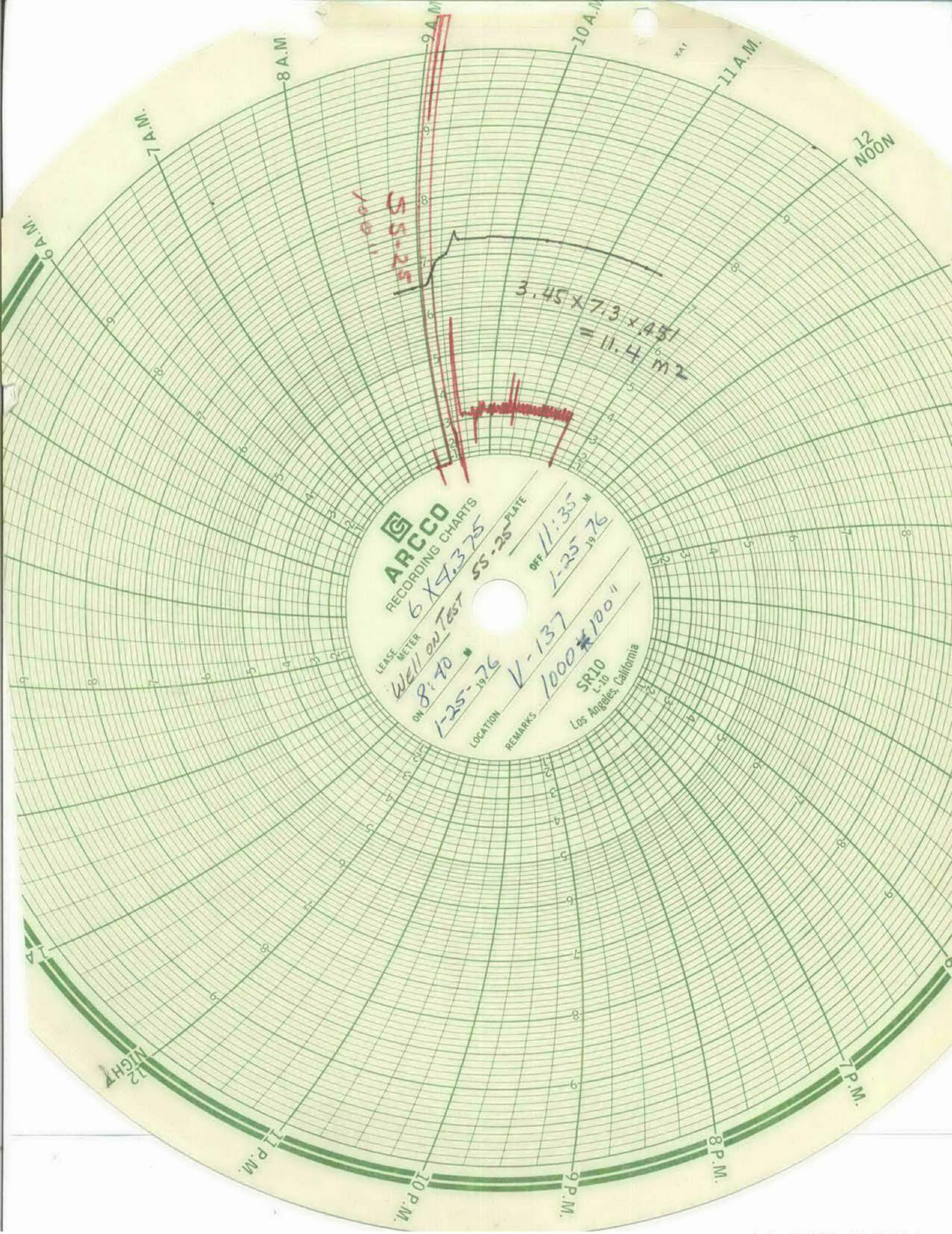
T or C MTR-V-137 TYPE OF MEAS. ELBOW ORIFICE NONE

DATE	TIME	GAUGE PRESS.	DIFF	FLOWING TEMP	REMARKS
1-25-76	9:00 AM	6.9 = 461#	OVER 100"	57°	
	9:10 AM	7.1 = 486#	2.5	58°	
	9:25 AM	7.3 = 520#	5.5	60°	
	10:00	7.3 = 520#	3.3	61°	
	10:15	7.3 = 520#	3.4	61°	
	10:30	7.3 = 520#	3.5	63°	
	10:45	7.3	3.5	69°	
	11:00	7.3	3.5	66°	
	11:15	7.3	3.5	68	
SHUT IN	11:30	7.3	3.5	68	

AC_CPUC_0000737

7.1
2.5
35 x
14
17.75

17.75
35
7 x
105
5 1 5
1 8 0 2 5
8.4



AC_CPUC_0000739

Nov. 7-8, 1975

AC_CPUC_0000740

Compiled _____ Dr[illegible] _____ SOUTHERN CALIFORNIA GAS COMPANY

Checked _____ Checked _____

Approved _____ Job No. _____ SS 25 B-2

Pull 0.900

SOUTHERN CALIFORNIA GAS CO.—1373

DATE 11-8-75

WELL NAME SS 25

B. H. CHOKE 0.516

SURFACE CHOKE NONE

DESIGN RATE 20 CAHNG

INITIAL SHUT-IN PRESSURE

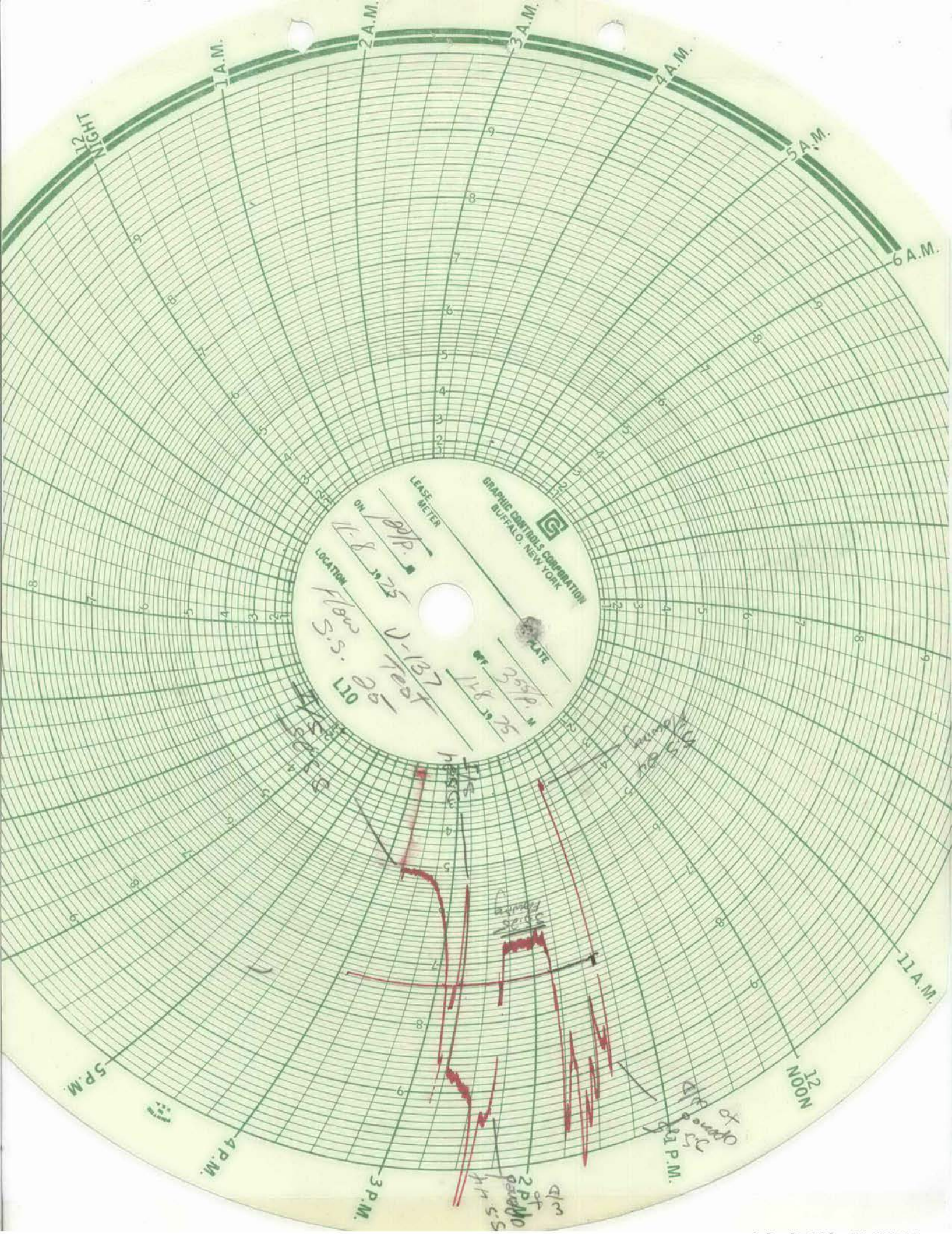
Tubing 3640 CASING 2645

TIME	CASING PRESSURE	TUBING PRESS	TEMP.	GAS RATE	NOTES.
1 20 Pm	—				START TEST
1 25 Pm	2050	2030	66.5°	31.93	
1 30 Pm	1720	1760	66°	35.41	
1 35 Pm	1270	1400	65°	37.15	
1 40 Pm	990	1060	64.5°	32.51	
1 45 Pm	590	790	63°	30.19	VALVE WIDE OPEN
1 50 Pm	560	666	65°	23.14	
2 00 Pm	560	660	66.5°	20.39	
2 15 Pm	560	660	67°	20.15	
2 30 Pm	565	660	69°	20.16	
2 45 Pm	560	660	70°	20.66	
3 00 Pm	560	660	70°	20.53	
3 15 Pm	560	660	70.5°	20.31	
3 30 Pm	560	660	72°	20.13	
3 45 Pm	560	660	72°	20.54	Well S/I

NO BUFFING

ADD to Ready List

AC_CPUC_0000741



AC_CPUC_0000742

Compiled _____ Checked _____

Checked _____ Checked _____

Approved _____ Job No. _____

SOUTHERN CALIFORNIA GAS COMPANY

B

2

Zuniga, Rempel

2693 SOUTHERN CALIFORNIA GAS CO.—1373

DATE 11-7-75

WELL NAME SS25

B. H. CHOKE .516

SURFACE CHOKE 0.900

DESIGN RATE 20 CASING

INITIAL SHUT-IN PRESSURE

Tubing 2645 CASING 2640

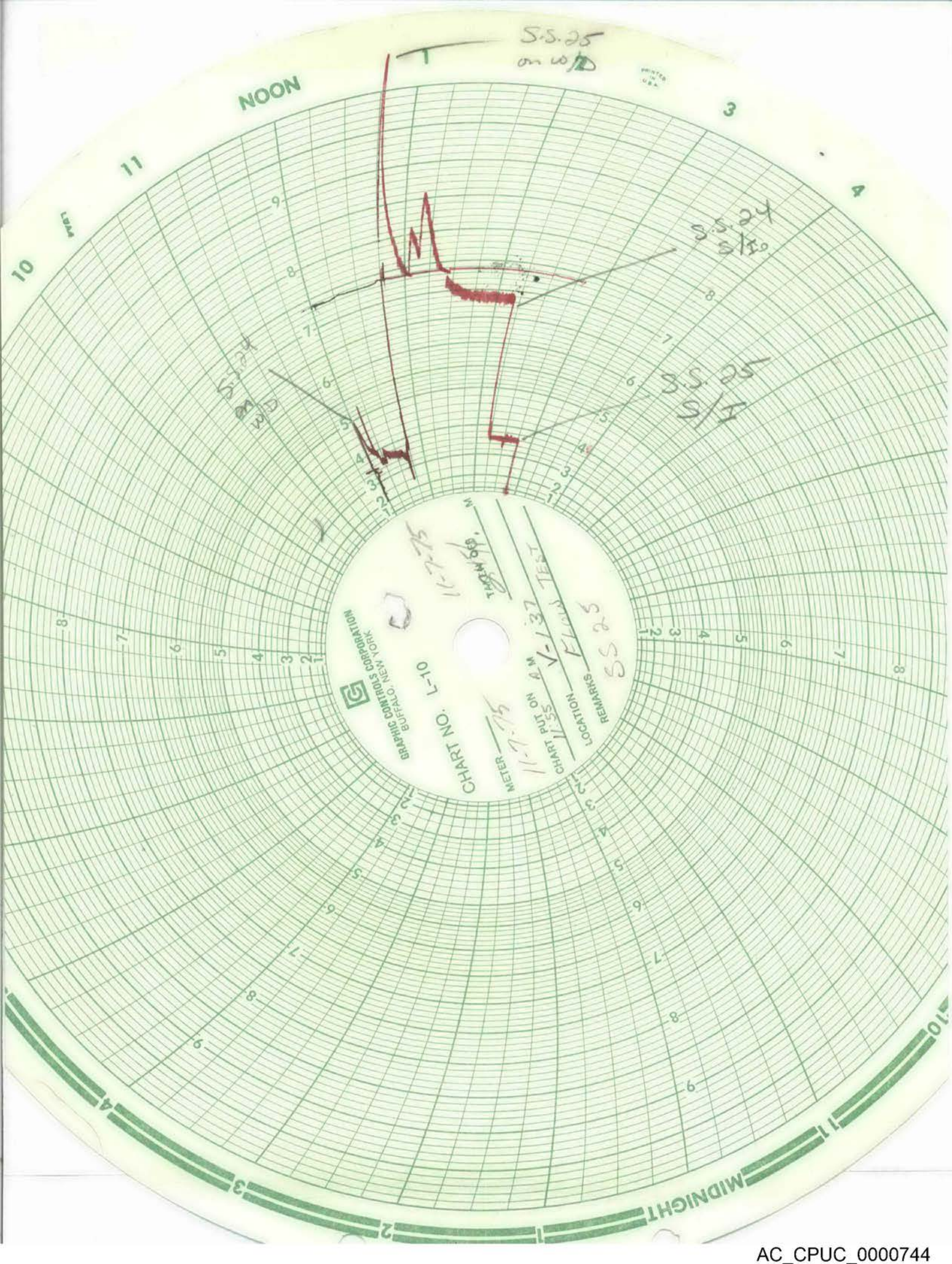
CHECK IN

TIME	CASING PRESSURE UP	CASING PRESSURE DOWN	TUBING PRESS	TEMP. UP	TEMP. DOWN	GAS RATE	NOTES.
12 45 P							START TEST
12 50 P	1980	1800	2030	72°	66°	28.33	
12 55 P	1780	1620	1830	70°	64°	23.72	
1 00 P	1720	1520	1720	70.5°	68°	22.56	
1 05 P	1520	1475	1790	71°	63	25.46	
1 15 P	1380	625	1385	71°	45°	25.46	
1 18 P	1200	525	1298	71°	41°	23.22	VALVE WIDE OPEN
1 25 P	1120	540	1180	72°	41.5°	20.83	
1 30 P	1080	540	1145	73°	44°	20.25	
1 45 P	1030	550	1095	75°	49°	19.10	
2 00 P	1030	560	1090	76.5°	51°	18.80	
2 15 P	1030	540	1090	78°	52°	20.83	
2 30 P	1030	550	1090	78.5°	52°	20.83	
2 45 P	1040	550	1105	79.5	53.5°	20.83	Well S/I

NO Buffing

Pull 0.900 and Retest

AC_CPUC_0000743



AC_CPUC_0000744

Oct. 8, 1975

AC_CPUC_0000745

SS-25

10-8-75

CHOKE TEST
(CSG. WITHDRAWAL)

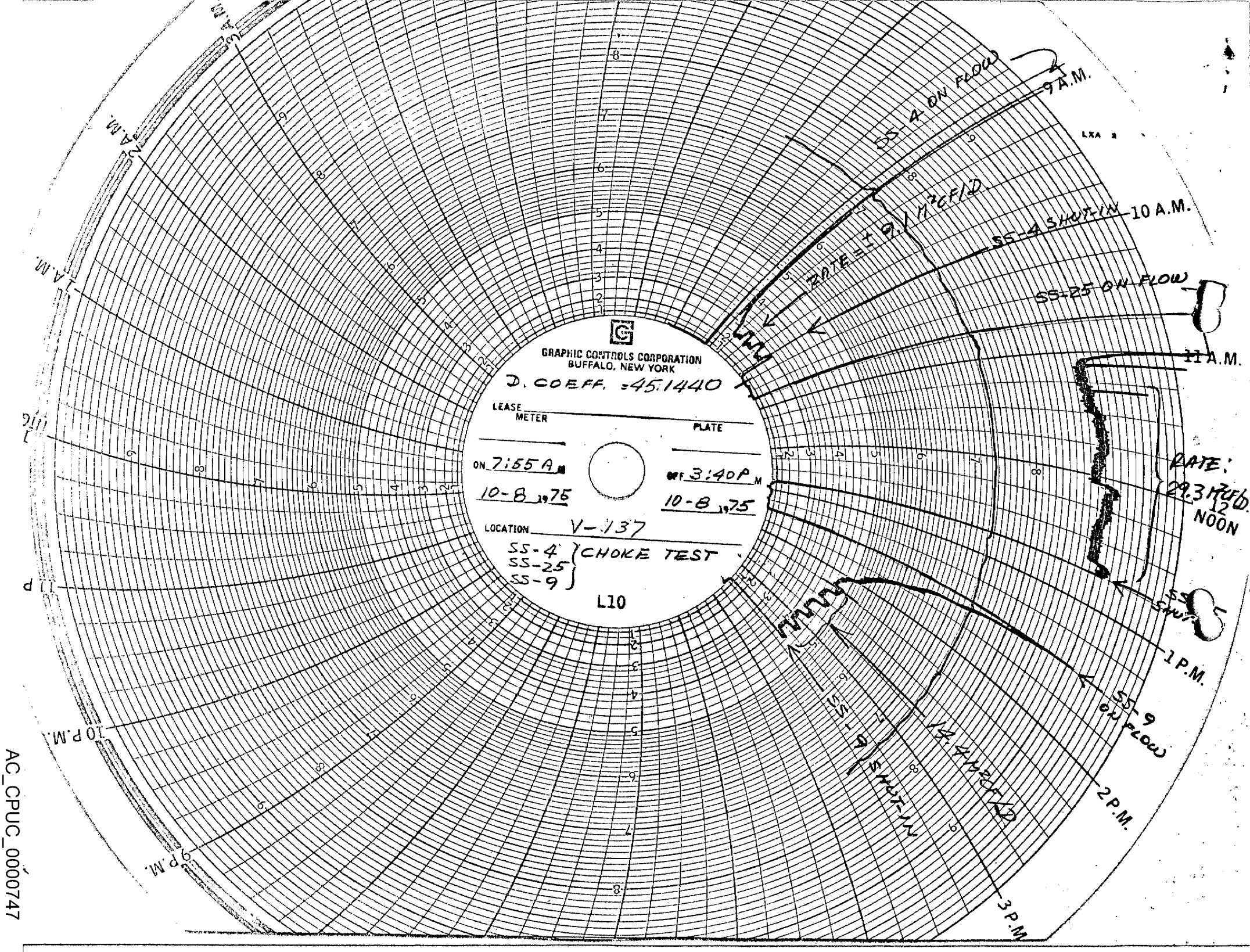
G.A.R.

TIME	P_{CASING} (PSI)	P_{TUBING} (PSI)	T_{CASING} (°F)	Q_{GAS} (M^2CF/D)	REMARKS.
10:25 A.M.	2780	2725	70	SHUT-IN.	B.H. CHOKE = 0.614
10:40	2780	2725	70	ON FLOW	EXP. RATE = 27 M^2CF/D.
10:45	2200	2400	70		
10:50	1350	1650	65		
10:55	875	1050	62		
11:00	650	800	64		
11:15	635	750	70	28.9	
11:30	635	750	73	29.6	
11:45	635	750	74	29.7	
12:00	635	750	76	29.3	AVERAGE RATE:
12:15 P.M	635	750	77	29.8	29.3 M^2CF/D.
12:30	635	750	78	29.5	
12:45	635	750	78	29.8	
12:45	635	750	78	SHUT-IN	

INSPECTION OF BAR STOCK SHOWED LIGHT BUFFING AND FEW LARGE PITTS. BAR STOCK COVERED WITH EARTHY (ASH) MATERIAL.

NOTE: 0.614" BOTTOM HOLE CHOKE INSTALLED ON 10-7-75.
NO SURFACE CHOKE.
DESIGNED RATE = 27 M^2CF/D. (CSG. WITHDRAWAL)

AC_CPUC_0000746



AC_CPUC_0000747

ALISO CANYON SS #25 CHOKE AND [illegible]S AT 3500 PSIA

MAX RATE FOR BOTTOM HOLE CHOKE DESIGN...	20000.0 MCF/D
FLOWING BOTTOM HOLE PRESS AT MAX RATE....	3210.0 PSIG
FLOWING BOTTOM HOLE TEMP AT MAX RATE....	155.8 DEG F
EST PRESS DROP (PBH-PWH) AT MAX RATE.....	636.0 PSI
NORMAL RATE FOR SURFACE PLATE DESIGN....	15000.0 MCF/D
FLOWING BOTTOM HOLE PRESS AT NORM RATE...	3247.0 PSIG
FLOWING BOTTOM HOLE TEMP AT NORM RATE...	156.1 DEG F
EST PRESS DROP (PBH-PWH) AT NORM RATE.....	664.0 PSI
GATHERING SYSTEM PRESSURE.....	550.0 PSIG
GAS GRAVITY.....	.630
BOTTOM HOLE SHUT-IN PRESSURE.....	3435.0 PSIG
BOTTOM HOLE SHUT-IN TEMPERATURE.....	156.4 DEG F

ID OF CASING.....	6.2350 INCHES
OD OF TUBING.....	2.8750 INCHES
FRICTION FACTOR CORRECTED FOR MEASURED DEPTH...	.0140
MEASURED DEPTH.....	8355.0 FEET
VERTICAL DEPTH.....	8355.0 FEET
MAX ALLOW BOTTOM HOLE CHOKE DIAMETER...	1.0000 INCHES
ACTUAL BOTTOM HOLE CHOKE DIAMETER.....	.0000 INCHES
ACTUAL SAFETY VALVE DIAMETER.....	.0000 INCHES
ACTUAL SURFACE PLATE DIAMETER.....	.0000 INCHES

MAX RATE= 20000.0 MCF/D AT 3210.0 PSIG AND 155.8 DEG F (FLOWING AT VALVE LOCATION)

DIAMETER OF BOTTOM HOLE CHOKE FOR MAX RATE= .516 INCHES

FLOWING WELLHEAD TEMP AT MAX RATE= 69.5 DEG F

NORMAL RATE= 15000.0 MCF/D AT 3247.0 PSIG AND 156.1 DEG F (FLOWING AT VALVE LOCATI

DIAMETER OF SURFACE PLATE FOR NORMAL RATE = .610 INCHES

FLOWING TEMP UPSTREAM OF SURFACE PLATE= 79.0 DEG F

FLOWING TEMP DOWNSTREAM OF SURFACE PLATE = 13.9 DEG F

3224.7	790.9	790.9	564.7	3261.7	2467.7	2467.7	1959.7	564.7
615.9	537.2	537.2	529.5	616.1	573.4	573.4	549.0	473.9

[illegible]

AC_CPUC_0000748

```
PRSS25 ED      01/21/74      16:11      LA

10@ RUN,D   DSSC[illegible].G2127,3,100
20@ MSG PLEASE SEND TO D SMILEY, ML 1405
30@ XQT CUR
40FSTIN RADGAS/RDH
50@N XQT MAIN
60 ALISO CANYON, SS25, PREDICTIONS BASED ON RZ MODEL OF FLOW TEST 10-11-73
70    10    4    16    1      0    1    0
80          .200          5.          900.        1755.       2115.       640.       520.
90           .63        585.        3.500        .0138       8590.
100        413.        .971        .0124
110        615.        .947        .0129
120        815.        .930        .0133
130       1015.        .915        .0137
140       1215.        .902        .0142
150       1415.        .895        .0146
160       1615.        .880        .0151
170       1815.        .868        .0156
180       2015.        .863        .0162
190       2215.        .859        .0167
200       2415.        .856        .0174
210       2615.        .857        .0181
220       2815.        .860        .0187
230       3015.        .867        .0193
240       3215.        .875        .0199
250       3515.        .890        .0209
260         9.0        36.0        11.0         7.0
270        65.0        75.0        25.0        45.0
280         0.0         0.0         0.0         0.0
290         .13         .15         .08         .11
300       .0133       .0099       .0646       .0241
3100
320           5         1.0      99    1    1    1    20000.
330           2         5.0      99    0    0    1    20000.
340           3        15.0      99    0    0    1    20000.
350           2        60.0      99    0    0    1    20000.
360           3       180.0      99    0    0    1    20000.
370           1       720.0      99    0    0    1    20000.
380           1      1440.0       1    0    0    1    20000.
3900
400    4      1      2      3      4
410         13.4        13.4        13.4        13.4
4200
4300
>
```

AC_CPUC_0000749

Oct. 11, 1973

AC_CPUC_0000750

Archer - Reed

WIRE LINE SERVICE

205 Baldwin Ave. Ventura, Calif. 93030

VENTURA 642-7061
LONG BEACH 591-0921

SUB-SURFACE DATA

Company Southern Calif. Gas Co. Field Date 10-11-73 Run No.

Well Std. Sessnon #25 Zone Elev.

Purpose Status

Total Depth Effect. Depth

Casing Size Depth Liner Size Top Bottom

Perforations

Tubing

Company	Southern Calif. Gas Co.		
Well	Std. Sessnon #25		
Date	10-11-73	Date	
Arrive	A P	Arrive	A P
Leave	A P	Leave	A P
Inst.	No. 2404 Size 2800 PSI		
	No. Size		
Clock	No. Hrs.		
	No. Hrs.		
Stylus Marked	8:20 AM		A P
Pressure On	8:30 AM		A P
Depth	8355 Zero		
At Depth	Date 10-11-73 Time 8:44 AM		A P
Off Depth	Date 10-12-73 Time 5:50 AM		A P
Shut In	Date 10-11-73 Time 6:00 PM		A P
Start Press	Tbg. Csg. #		
Final Press	Tbg. Csg. #		
Pick-up	Temp. F		

OBSERVATIONS

Stabilization Period - Hrs.	
Gross Oil Rate - B/D	
Net Oil Rate - B/D	
Formation Gas MCF/D	
Formation Gas - Oil Ratio CFT/BBL	
Circulated Gas MCF/D	
Oil Dry Gravity - °A.P.I.	
Casinghead Pressure - PSIG	
Tubinghead Pressure - PSIG	
Casing Fluid Level - Ft.	

TIME	DEPTH	SCALE	PSI or °F	TIME	DEPTH	SCALE	PSI or °F
8:44 AM	8355	1.314	1866	1:40		1.104	1566
9:00 32/64 bean		1.314	1866	1:50		1.105	1567
9:10		1.219	1730	2:00		1.105	1567
9:20		1.190	1689	2:10		1.105	1567
9:30		1.188	1686	2:20		1.106	1569
9:40		1.190	1689	2:30		1.107	1570
9:50		1.190	1689	2:40		1.107	1570
10:00		1.189	1687	2:50		1.107	1570
10:10		1.190	1689	3:00		1.107	1570
10:20		1.191	1690	3:10		1.107	1570
10:30		1.192	1691	3:15 60/64 bean		1.107	1570
10:40		1.192	1691	3:20		1.062	1506
10:50		1.193	1693	3:30		1.040	1474
11:00		1.194	1694	3:40		1.043	1479
11:10		1.196	1697	3:50		1.055	1496
11:20		1.198	1700	4:00		1.056	1497
11:30		1.199	1701	4:10		1.062	1506
11:40		1.201	1704	4:20		1.066	1511
11:50		1.209	1716	4:30		1.069	1516
12:00 PM 48/64 b.		1.210	1717	4:40		1.070	1517
12:10		1.183	1677	4:50		1.072	1520
12:20		1.087	1541	5:00		1.073	1521
12:30		1.082	1534	5:10		1.073	1521
12:40		1.082	1534	5:20		1.074	1523
12:50		1.084	1537	5:30		1.075	1524
1:00		1.093	1550	5:40		1.075	1524
1:10		1.097	1556	5:50		1.076	1526
1:20		1.102	1563	6:00		1.077	1527
1:30		1.103	1564				

COMMENTS Producing with 32/64 bean 9:00 AM to 12:PM, 48/64 12:PM to 3:15 PM, and 60/64 3:15 PM to 6:00 PM Shut in well @ 6:00 PM

By

AC_CPUC_0000751

Archer - Reed

WIRE LINE SERVICE

205 Baldwin Ave. Ventura, Calif. 93030

VENTURA 642-7061
LONG BEACH 591-0921

SUB-SURFACE DATA

Company _____ Field _____ Date _____ Run No. _____

Well _____ Zone _____ Elev _____

Purpose _____ Status _____

Total Depth _____ Effect. Depth _____

Casing Size _____ Depth _____ Liner Size _____ Top _____ Bottom _____

Perforations _____

Tubing _____

Company

Well

Date		Date	
Arrive	A P	Arrive	A P
Leave	A P	Leave	A P

Inst.	No.	Size	
	No.	Size	
Clock	No.	Hrs.	
	No.	Hrs.	

Stylus Marked A P

Pressure On A P

Depth Zero

At Depth Date Time A P

Off Depth Date Time A P

Shut In Date Time A P

Start Press Tbg. Csg. #

Final Press Tbg. Csg. #

Pick-up Temp. F

OBSERVATIONS

Stabilization Period - Hrs.	
Gross Oil Rate - B/D	
Net Oil Rate - B/D	
Formation Gas MCF/D	
Formation Gas - Oil Ratio CFT/BBL	
Circulated Gas MCF/D	
Oil Dry Gravity - °A.P.I.	
Casinghead Pressure - PSIG	
Tubinghead Pressure - PSIG	
Casing Fluid Level - Ft.	

TIME	DEPTH	SCALE	PSI or °F	TIME	DEPTH	SCALE	PSI or °F
/	SHUT IN			/			
6:00 PM	8355	1.077	1527	/			
6:10	10	1.253	1779	/			
6:20	20	1.319	1873	/			
6:30	30	1.321	1876	/			
6:40	40	1.322	1877	/			
6:50	50	1.323	1879	/			
1 HR	1.00	1.323	1879	/			
20 min	1.20	1.323	1879	/			
40 min	1.40	1.324	1880	/			
2 HR	2.00	1.325	1881	/			
3 HR	3.00	1.326	1883	/			
4 HR	4:00	1.327	1884	/			
5 HR	5:00	1.328	1886	/			
6 HR	6:00	1.329	1887	/			
7 HR	7:00	1.330	1889	/			
8 HR	8.00	1.330	1889	/			
9 HR	9:00	1.331	1890	/			
10 HR	10:00	1.332	1891	/			
11 HR	11:00	1.333	1893	/			
11 50 min	11:50	1.333	1893	/			
/				/			
/				/			
/				/			
/				/			
/				/			
/				/			
/				/			
/				/			

COMMENTS Well shut in @ 6:00 PM 10-11-73. Inst's pulled out @ 5:50 AM on 10-12-73.
11 hrs and 50 min from shut in to pull out.

By _____

AC_CPUC_0000752

SOUTHERN CALIFORNIA GAS COMPANY

Compiled RDG
Checked
Approved
Job No.
Date 12-11-73

Well Test Data Sheet

Well No. 55-25

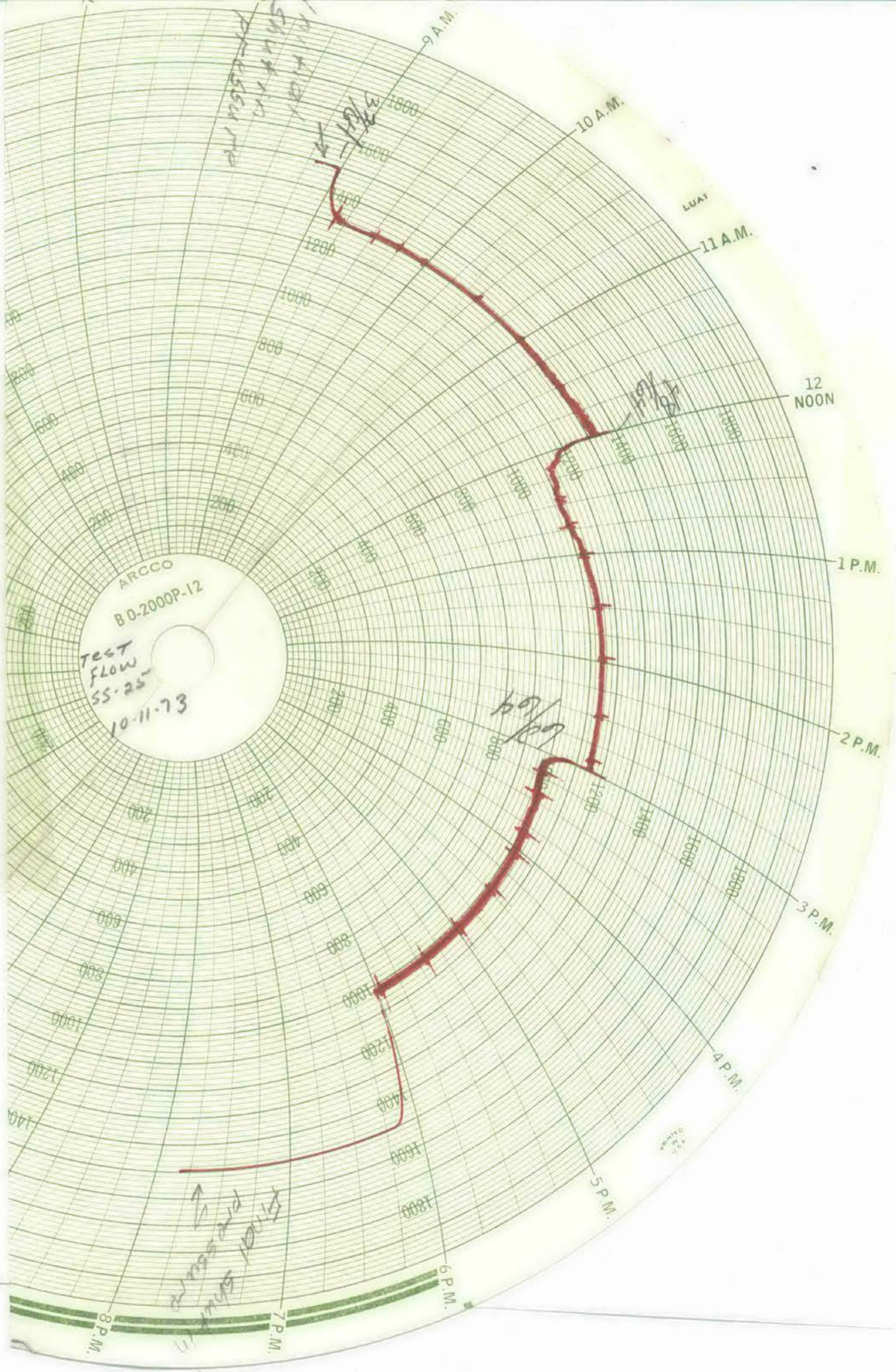
Date / Time	Flowing Through	Choke Size	Rate MCFD	Pressure Upstream fc. Choke	Pressure Downstream fc. Choke	Temp. °F	Bar Stock Condition	Remarks
9:00 AM	C	32/64		1495				INITIAL PRESS. 1660
9:30 AM	"	"	7.953	1310	570	31°	NO MARKS	0.2 GROSS 0.1 NET
10:00	"	"		1310	575	33°	" "	
10:30	"	"	8.281	1310	575	36°	" "	0.2 GROSS 0.1 NET
11:00	"	"		1310	575	37°	" "	
11:30	"	"	7.310	1310	575	39°	" "	0.2 GROSS 0.1 NET
12:00 N	"	"		1220	565	38°	" "	
12:30 PM	"	48/64		1110	660	57°	" "	
1:00 PM	"	"	13.290	1110	660	57°	" "	0.2 GROSS 0.1 NET
1:30 PM	"	"		1135	675	62°	" "	
2:00 PM	"	"	14.619	1140	675	64°	" "	0.2 GROSS 0.1 NET
2:30 PM	"	"		1145	665	66°	" "	
3:00 PM	"	"	14.619	1150	675	68°	" "	0.2 GROSS 0.1 NET
3:30 PM	"	"		1150	675	70°	" "	
4:00 PM	"	60/64		990	730	80°	FACE Dollars	
4:30 PM	"	"	18.440	990	730	84°	" "	0.2 GROSS 0.1 NET
5:00 PM	"	"		1015	745	85°	" "	
5:30 PM	"	"	19.440	1020	750	85°	" "	0.2 GROSS 0.1 NET
6:00 PM	"	"		1020	745	86°	" "	
6:30 PM	"	"	19.440	1020	745	87°	" "	0.3 GROSS 0.2 NET
7:00 PM	"	"	19.440	1020	745	88°	" "	0.3 GROSS 0.2 NET
6:00								Shut-In
6:30 AM	"	"		1495				
7:00 PM								

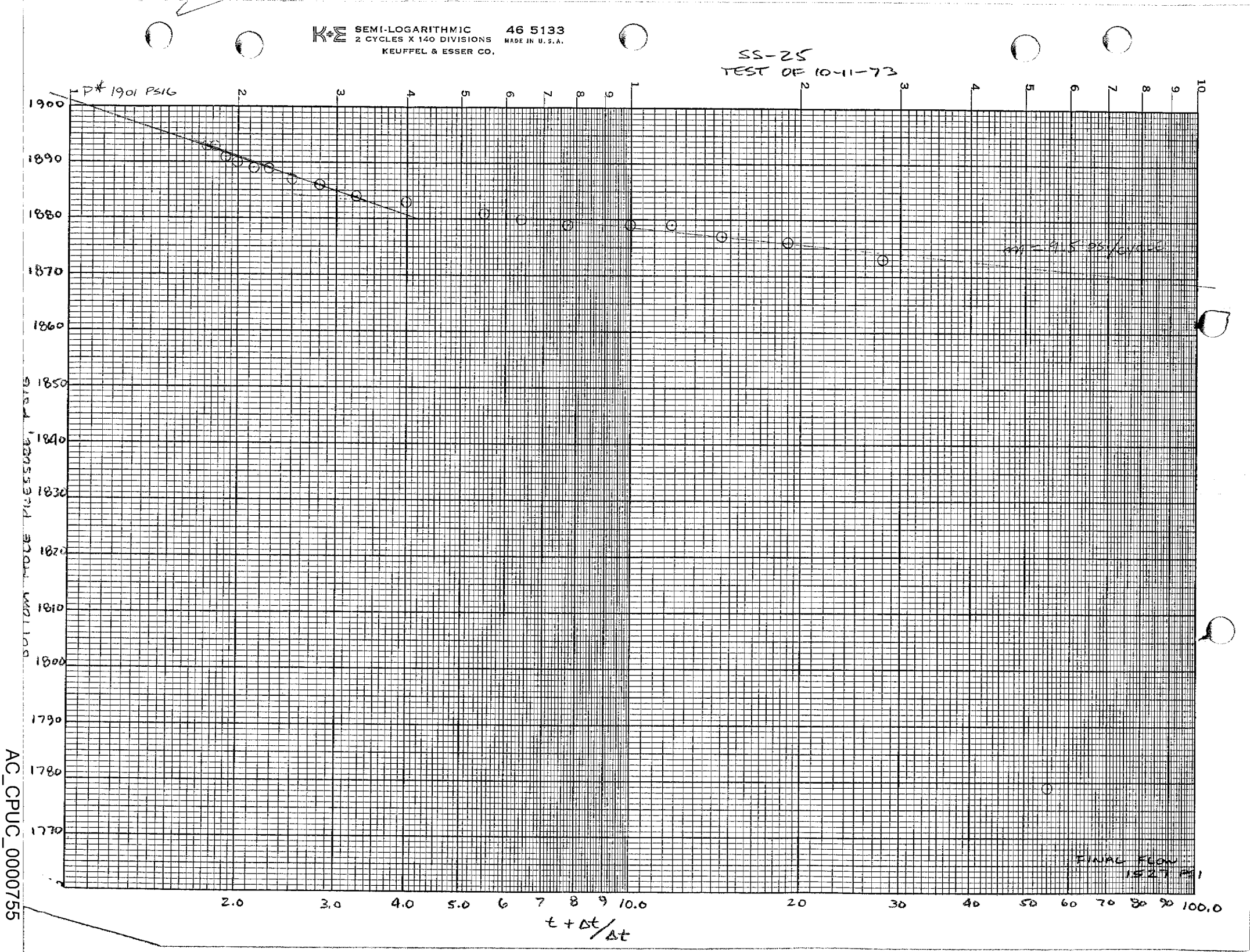
Maximum Shut-In Pressure Taken 8725 12-11-73

Minimum Shut-In Pressure Taken 8722 12-12-73

SOUTHERN CALIFORNIA GAS COMPANY

AC_CPUC_0000753


9 A.M.
10 A.M.
11 A.M.
12 NOON
1 P.M.
2 P.M.
3 P.M.
4 P.M.
5 P.M.
6 P.M.
7 P.M.
8 P.M.
ARCCO
B 0-2000P-12
Test
Flow
55-25
10-11-73



AC_CPUC_0000755

Compiled DSS Date 11-13-73

Approved _____ No. _____

Pacific Lighting Service and Supply Company

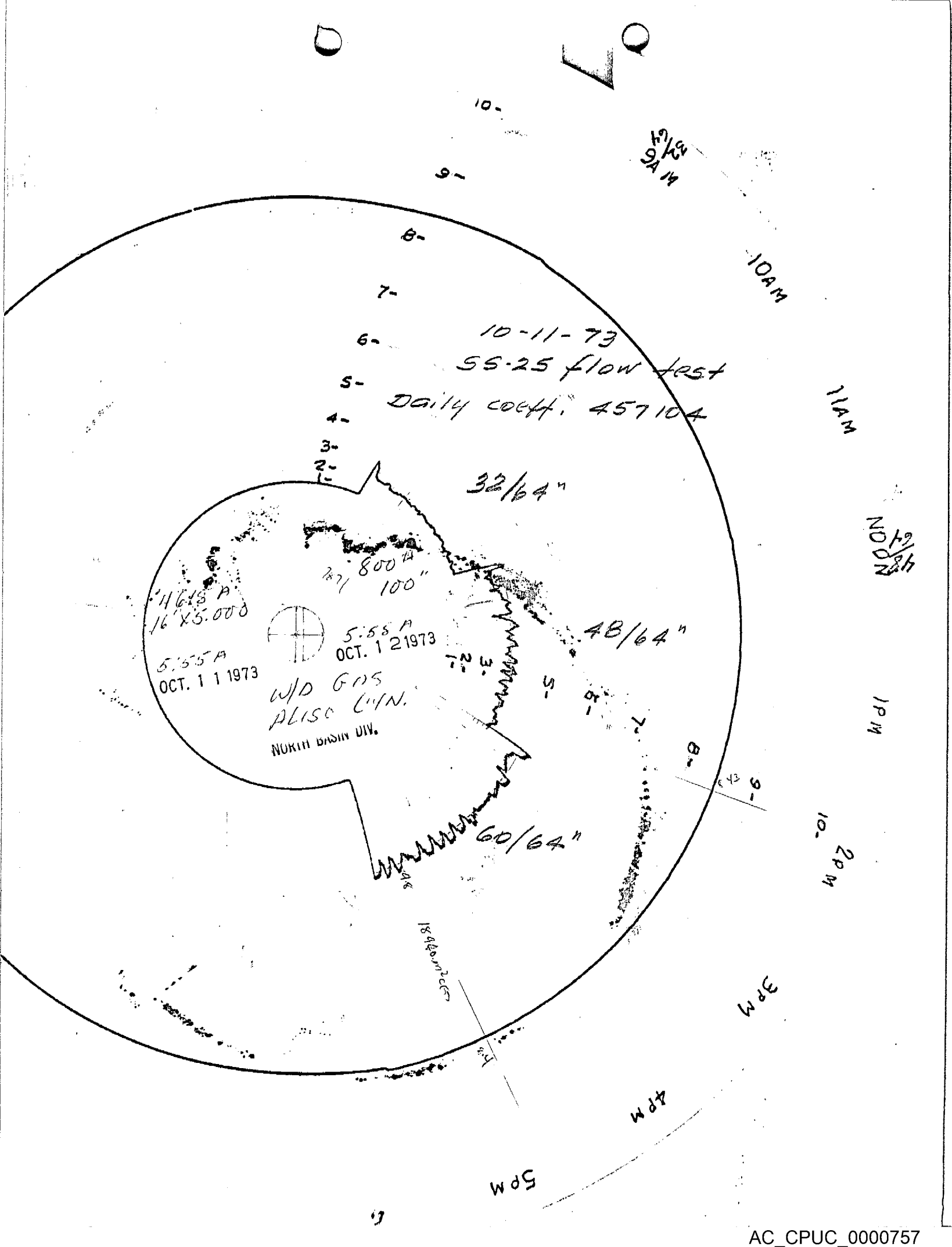
SS-25 BUILDUP ANALYSIS

TEST OF 10-11-73

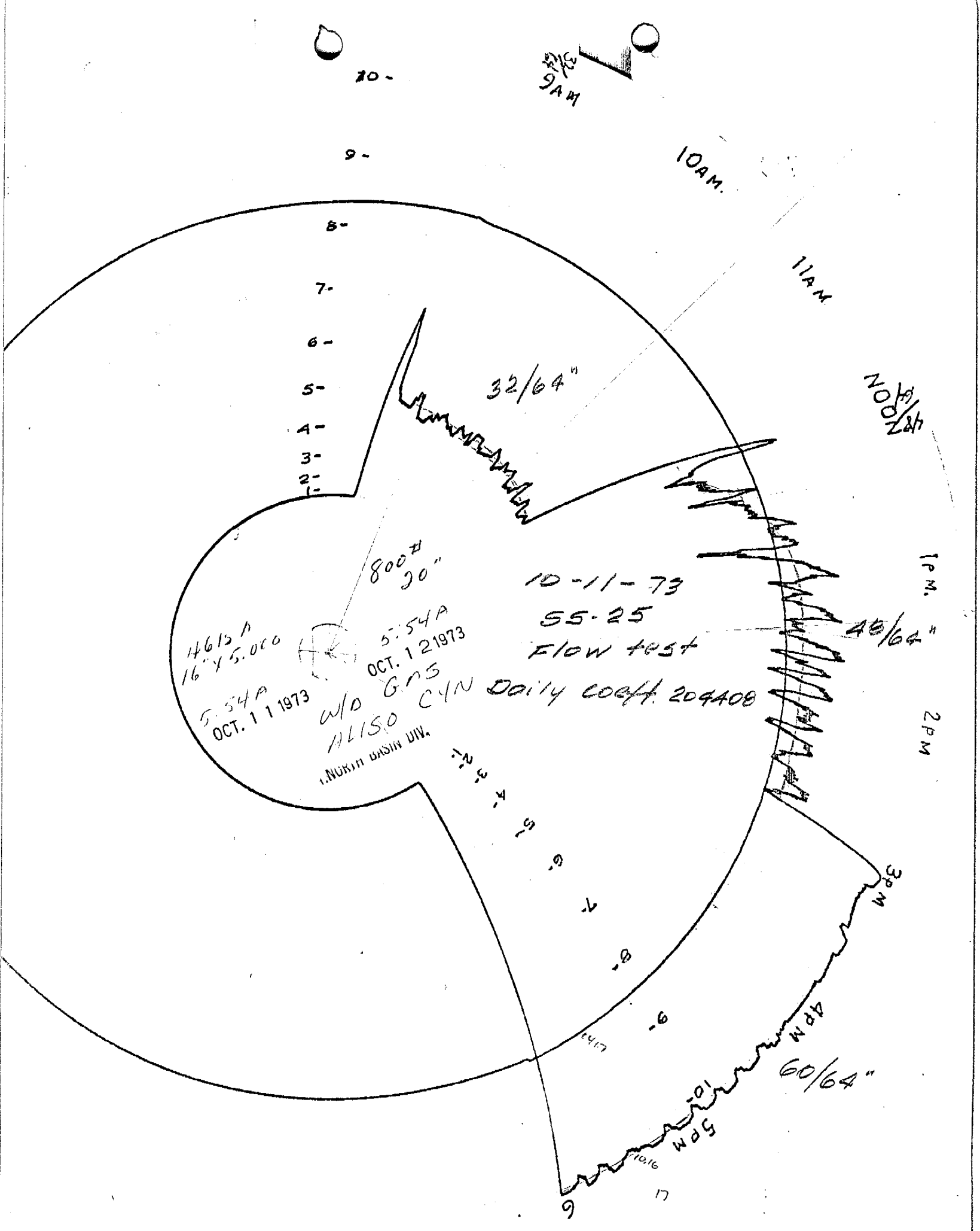
	t, MIN.	Δt, MIN	t + Δt	(t + Δt)/Δt	P, PSIG		
	540	10	550	55	1779		
	540	20	560	28	1873		
	540	30	570	19	1876		
	540	40	580	14.5	1877		
	540	50	590	11.8	1879		
	540	60	600	10	1879		
	540	80	620	7.75	1879		
	540	100	640	6.4	1880		
	540	120	660	5.5	1881		
	540	180	720	4	1883		
	540	240	780	3.25	1884		
	540	300	840	2.8	1886		
	540	360	900	2.5	1887		
	540	420	960	2.29	1889		
	540	480	1020	2.13	1889		
	540	540	1080	2	1890		
	540	600	1140	1.9	1891		
	540	660	1200	1.82	1893		
	540	710	1250	1.76	1893		

Form 307

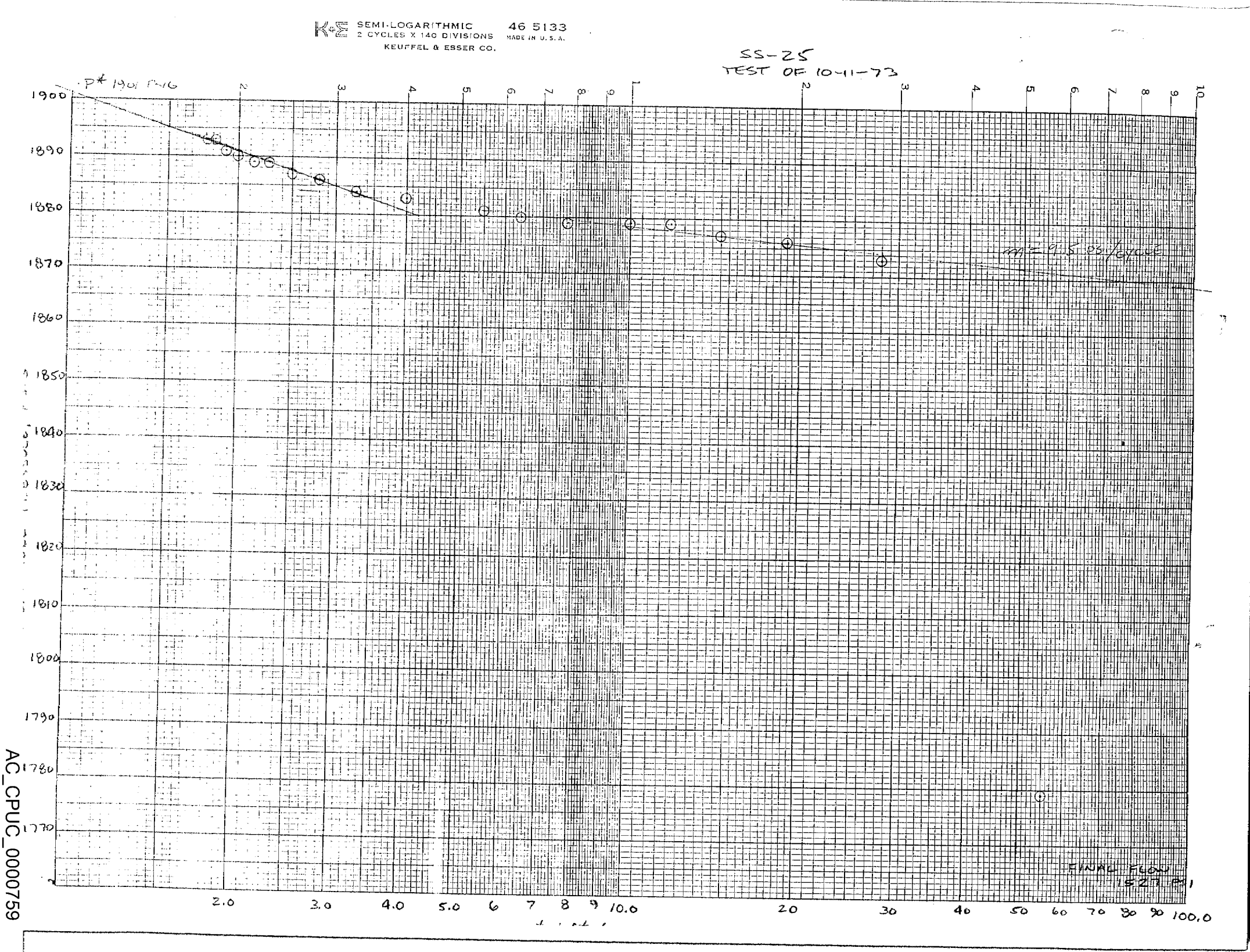
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AC_CPUC_0000758



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