

BACA PROJECT
DATA AND REPORTS

WELLS

<u>No.</u>	<u>Transfer Date</u>	<u>Release Date</u>	<u>Title</u>
1.	A	A	Summary sheet for Baca Wells No's 1-3.
2.	A	A	Baca Wells No's 4-16 summary sheet.
3.	A	A	Well summary reports and Drilling Histories-- Baca Wells No's 4-16.
4.	B	B	Lithology logs--Baca Wells No's 4-16.
5.	A	A	Temperature and Pressure Surveys---Baca Wells No's 4-8 and 10-16.
	B	B	Electric logs for Baca Wells No's 10-14.

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UNION

GEOHERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

B12 S30 F11

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME GACA #12
 CASING 20" AT 247'; 13 3/8" AT 1453' ELEV. 8450' DATE: 9/7/76
 LINER DESCRIPTION: 9 5/8" AT 3540' ZERO POINT 66 + 8'
7" AT 3343' DEPTH 9211'

TUBING DETAIL:

PURPOSE

REMARKS:

ELEGANT - 0-4700 PSI SN 13012 CLOCK 12 hr 15 TURN
 ELEMENT 30-646 of SERIAL NO. 10052 CLOCK 12 hr 15 TURN STABILIZATION PERIOD
 ENGAGE STYLUS P-1100 T-1106 DISENGAGE STYLUS P-1430 T-1430
 WELL HEAD 575 PSIG BARTON RECORDER
 PICKUP @ 8400 TIME ON BOTTOM 1355-1345 MAX. F 580
 WELL STATUS
 SHUT IN: ON PRODUCTION:
 RATE

PSI					TEMP												
TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
1155	100	.002	30														
1208	1000	.495	234														
1221	2000	.920	360														
1233	3000	.989	380														
1245	4000	.820	331														
1258	5000	.859	342														
1310	6000	.563	343														
1321	7000	.981	376														
1337	8000	1.079	406														
1345	8400	1.735	580														

COMMENTS:

BY: ALP

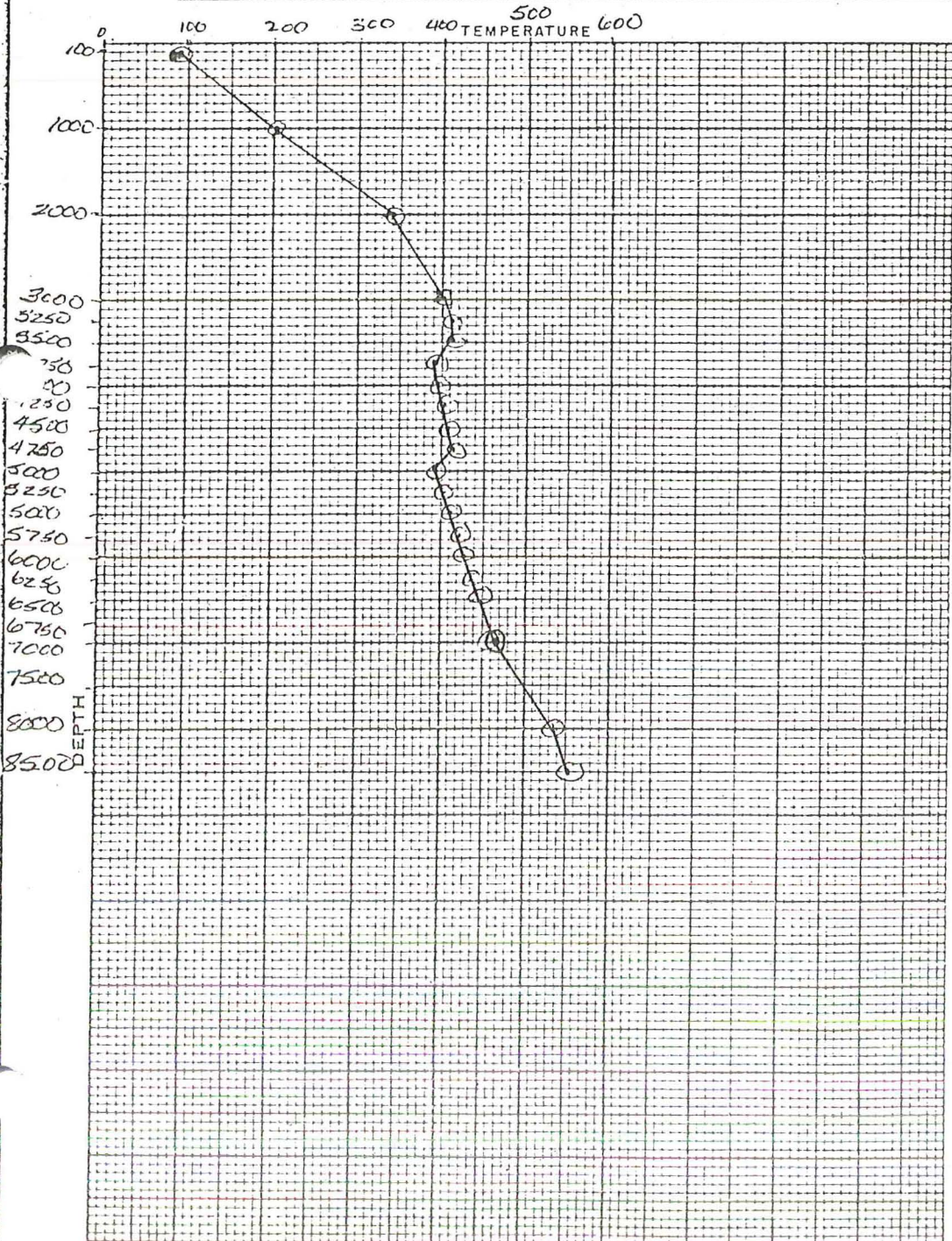
GEOHERMAL DIVISION SUBSURFACE TEMPERATURE SURVEY

B-12-S-22 T

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACH #12
 CASING _____ ELEV 8604' DATE 10-17-74
 LINER DESCRIPTION: _____ ZERO POINT GL + 14
 _____ DEPTH 9211'

HOLE DESCRIPTION: _____ INSTRUMENT _____ FAH5
 _____ SERIAL NO _____

PURPOSE GRADIENT MAX TEMP 557.0 °F @ 8500'
 REMARKS: _____



STABILIZATION PERIOD _____

PRESSURES	GAUGE	BOMB
CASING, PSI		

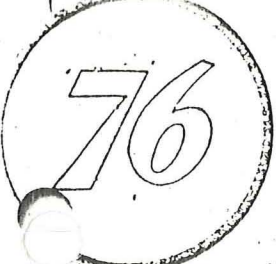
DEPTH	TEMP.	DEPTH	TEMP.
100	92.2		
1000	204.2		
2000	341.5		
3000	404.2		
3250	412.4		
3500	414.1		
3750	396.8		
4000	398.6		
4250	403.9		
4500	409.5		
4750	416.9		
5000	396.8		
5250	403.9		
5500	413.8		
5750	423.8		
6000	429.0		
6250	437.5		
6500	445.3		
7000	465.6		
8000	538.0		
8500	557.0		

BY: JS

GEO THERMAL DIVISION

SUBSURFACE PRESSURE SURVEY

1312-522-P



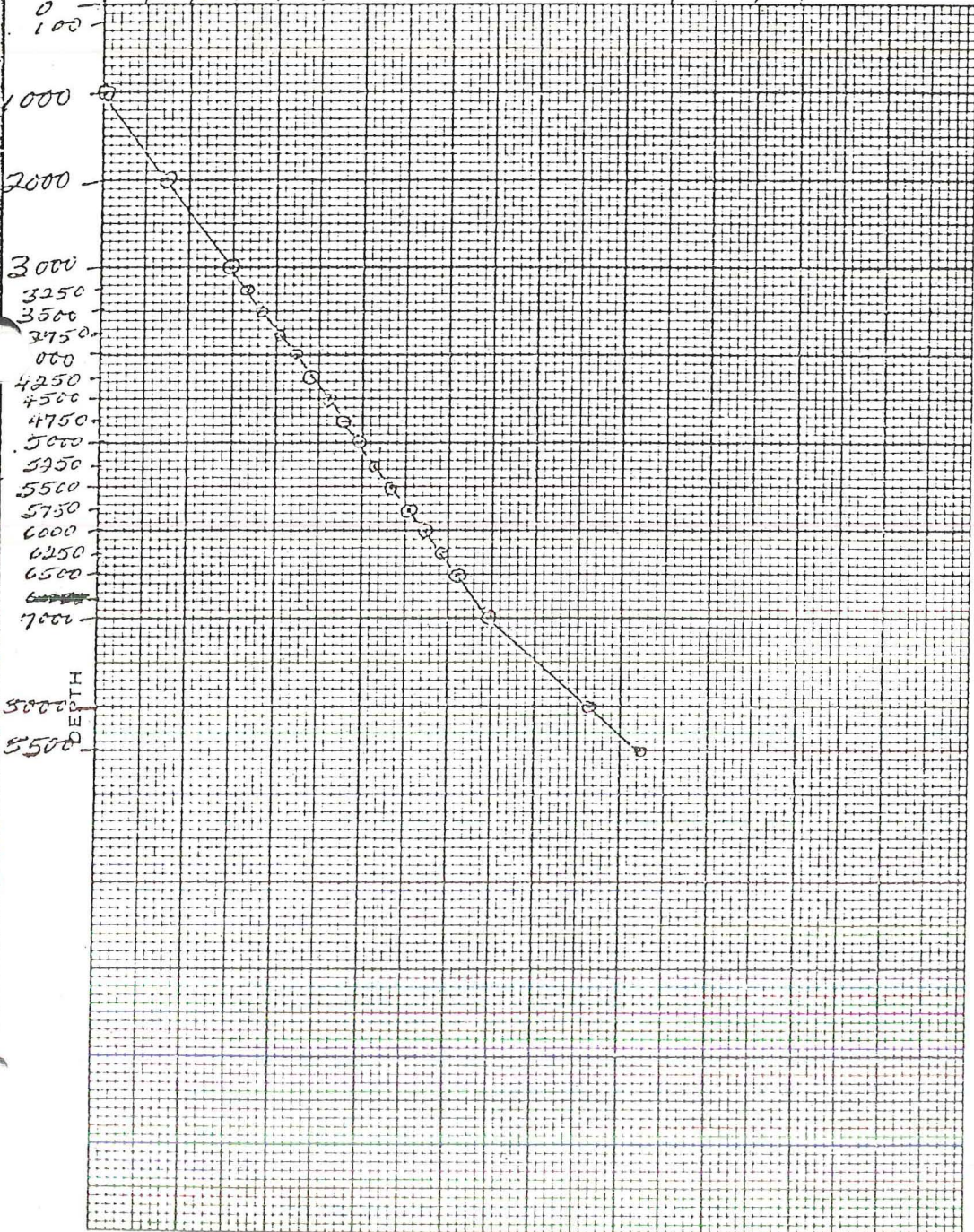
OWNER UNION OIL OF CALIF FIELD VALLE GRANDE WELL NAME BACA #12
 CASING _____ ELEV 8604 DATE 10/17/74
 LINER DESCRIPTION: _____ ZERO POINT 14' + 62
 _____ DEPTH 9211'

HOLE DESCRIPTION: _____ INSTRUMENT 0-4500 PS
 SERIAL NO 17784

PURPOSE _____ MAX TEMP 557.0 °F @ 8500'

REMARKS _____ PRESSURE _____

STABILIZATION PERIOD _____



PRESSURES	GALGE	BOMB
CASING. PSI	<u>1/2</u>	<u>0</u>

DEPTH	PRESSURE	GRADIENT
100	0	0
1000	2.42	0
2000	365.6	
3000	748.0	
3250	842.6	
3500	934.6	
3750	1026.8	
4000	1122.9	
4250	1214.6	
4500	1312.2	
4750	1404.9	
5000	1497.6	
5250	1587.8	
5500	1682.9	
5750	1778.0	
6000	1870.7	
6250	1963.4	
6500	2056.4	
7000	2245.1	
8000	2833.2	
8500	3110.8	

BY: J-M.

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UNION

GEO THERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

B12 551 P/1

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACA #12
 CASING 20" AT 247' 13 1/2" AT 1453 ELEV. 3430' DATE: 9/11/76
 LINER DESCRIPTION: 9 7/8" AT 3540 ZERO POINT CL +15'
7" AT 3545 DEPTH

TUBING DETAIL:

PURPOSE

REMARKS:

ELEVANT - 0-4700 PSI SN 13012 CL 12 hr 15 TURN

ELEMENT 80°-646° SERIAL NO. 10052 CLOCK 12 hr 15 TURN STABILIZATION PERIOD

ENGAGE STYLUS P 1035 T 1040 DISENGAGE STYLUS P-1353 T 1353

WELL HEAD

PICKUP @ 3400 TIME ON BOTTOM 1250-1320 MAX. °F 581 °F

WELL STATUS

SHUT IN: 9/11/76 AT 1050 hrs ON PRODUCTION:

RATE

R51

TEMP

TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
1105	100	.530	245		0	1105	100	.530	245								
1117	1000	.545	250		0	1117	1000	.545	250								
1129	2000	.550	251		-004	1129	2000	.550	251								
1143	3000	.850	339		-001	1143	3000	.850	339								
1156	4000	.826	333		+002	1156	4000	.826	333								
1209	5000	.802	326		+005	1209	5000	.802	326								
1222	6000	.857	342		+006	1222	6000	.857	342								
1235	7000	.984	378		+007	1235	7000	.984	378								
1247	8000	1.078	405		+012	1247	8000	1.078	405								
1320	8400	1.741	581		+004	1320	8400	1.741	581								

COMMENTS:

RV: 1000

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GEO THERMAL DIVISION

SUBSURFACE SURVEY Field Work Sheet

312, 529 PIT

OWNER: UNION OIL COMPANY FIELD: VALLE GRANDE WELL NAME: 312-529
 CASE NO: 2041247 13 1/2" AT 1455' ELEV. 9450' DATE: 8/22/76
 DESCRIPTION: 4 1/2" AT 3540' ZERO POINT: C.L.F. 3'
7" AT 3343' DEPTH: 9211'

TUBING DETAIL:

PURPOSE:

REMARKS:

ELEMENT - 0-4700 PSI SN 13012 CLOCK 12:42 15T
 ELEMENT AT 300' - 646°F SERIAL NO. 10052 CLOCK 12:41 15T TURN STABILIZATION PERIOD
 WRENCH STYLUS P 0544 T - 0938 DISENGAGE STYLUS F 1510 T - 1530
 WELL HEAD 0
 GROUP 0 9450 TIME ON BOTTOM 1223-12:58 MAX. 579°F
 WELL STATUS RIC moved off 8/10/76
 ON PRODUCTION:

PRESSURE

TEMPERATURE

TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
0	0	0	0		0		0	0	0								
01	100	0	0		0		100	605	81								
05	200	0	0		0		200	650	140								
103	3000	146	315		-001		2100	895	353								
120	4000	319	751		+001		3000	943	372								
132	4850	471	1134		+002		4000	940	373								
144	5000	526	1321		+004		5000	932	334								
156	6000	802	1911		+006		6000	836	375								
203	7000	965	2493		+008		7000	958	371								
222	8000	1197	3158		+012		8000	1058	400								
237	8400	1401	3817		+003		8400	1730	579								

COMMENTS:

BY: 149 JB

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GEO THERMAL DIVISION

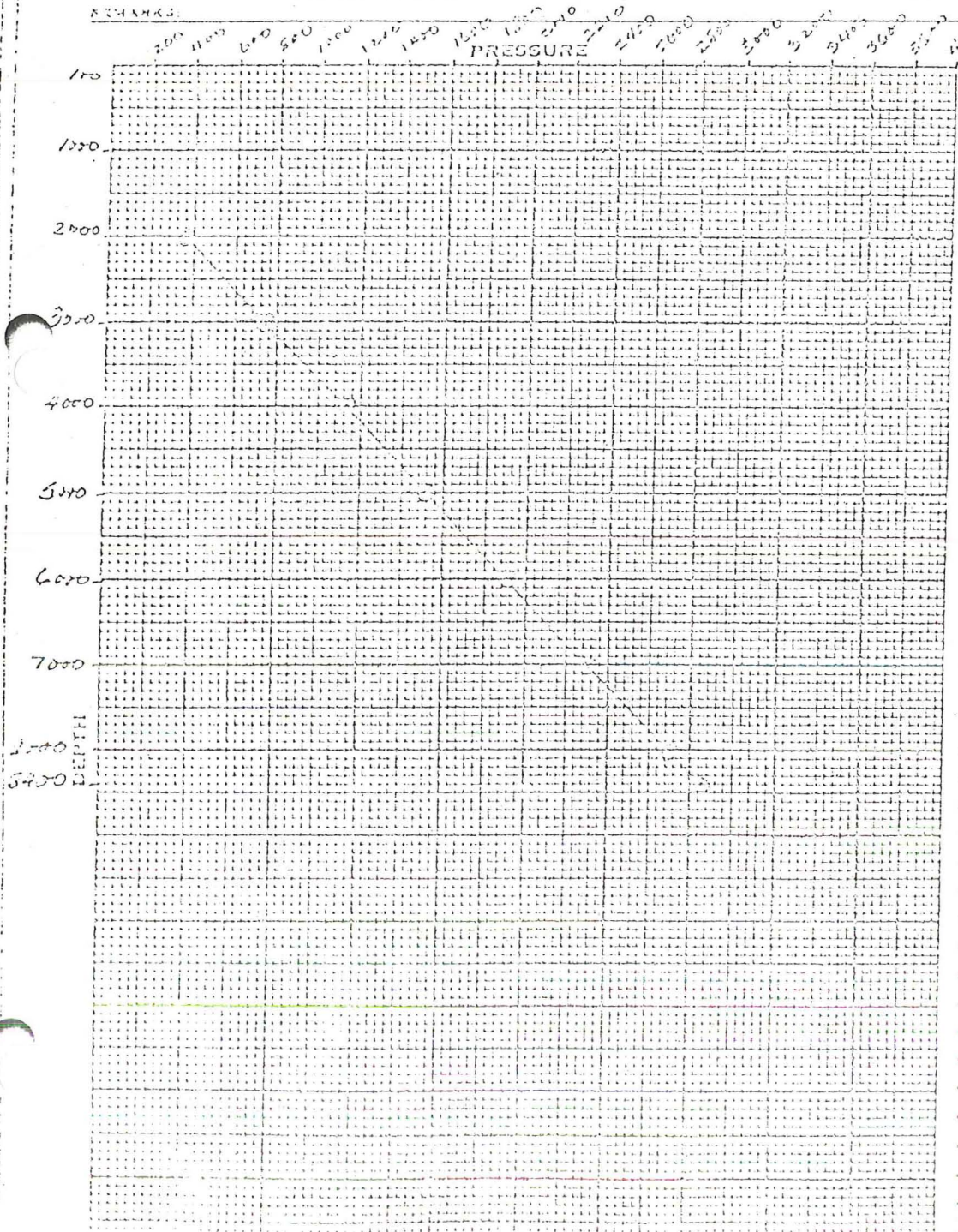
SUDDSURFACE PRESSURE SURVEY

G12 529 P

OWNER UNION OIL COMPANY FIELD WALLE GRANDE WELL NAME WELL #12
 CASING _____ ELEV. 8430 DATE 8/24/76
 LINER DESCRIPTION: _____ ZERO POINT Cellar
 _____ DEPTH 9211

HOLE DESCRIPTION: _____ INSTRUMENT 0-1700 PSI
 _____ SERIAL NO 13312

PURPOSE _____ MAX TEMP 579 @ 8400
 REMARKS _____



STABILIZATION PERIODS _____

PRESSURE	GAUGE	PSI
CASING, PS		

DEPTH	PRESSURE	GRADIENT
0	0	
100	0	
1000	0	
2000	3.5	
3000	7.1	
4000	10.7	
5000	14.3	
6000	17.9	
7000	21.5	
8000	25.1	
8400	29.7	

416
 100
 200
 300
 400
 500
 600
 700
 800
 900
 1000

GEO THERMAL DIVISION

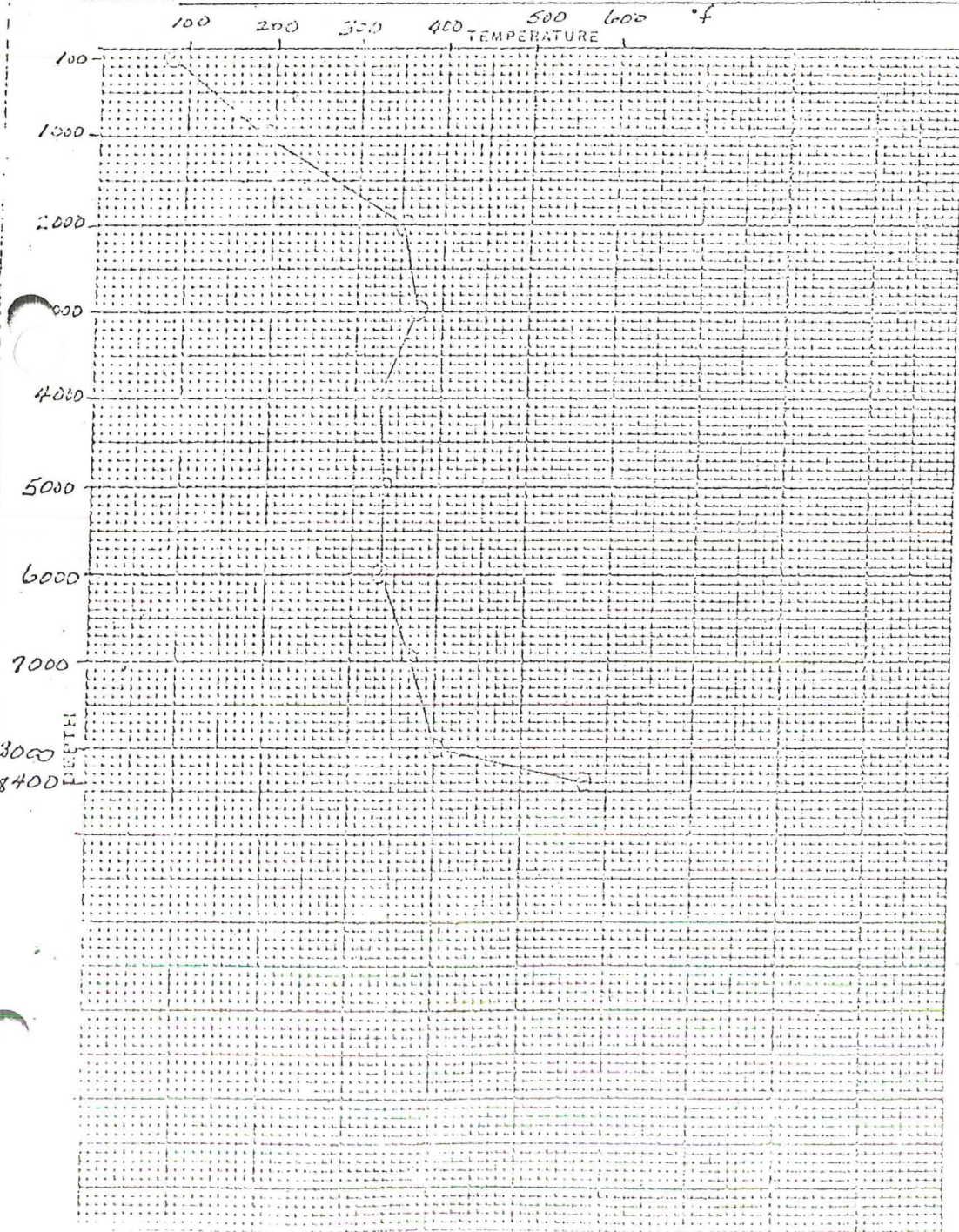
SUBSURFACE TEMPERATURE SURVEY

B12. 579 T

OPERATOR: LION OIL COMPANY FIELD: VALLE GRANDE WELL NAME: BACT #12
 CASING: _____ ELEV.: 5450 DATE: 8/24/76
 LINE DESCRIPTION: _____ ZERO POINT: 6.4 + 0.3 8'
 _____ DEPTH: 7211

HOLE DESCRIPTION: _____ INSTRUMENT: SD-646
 _____ SERIAL NO: 1052

PURPOSE: _____ MAX TEMP: 579 @ 8400
 REMARKS: _____



STABILIZATION PERIOD

PRESSURE	CAUSE	DEPTH
CASING PSI		

DEPTH	TEMP.	DEPTH	TEMP.
100		81	
1000		100	
2000		253	
3000		372	
4000		378	
5000		394	
6000		355	
7000		371	
8000		450	
8400		579	

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GEO THERMAL DIVISION

SUBSURFACE SURVEY
Field Work Sheet

B10-596-T

OWNER WELLS OIL CO. CALIF FIELD VALLE GRANDE WELL NAME TRAMA 112
 CASING 20" @ 2417', 13 7/8" @ 4153' ELEV. 8420' DATE: 7/14/76
 LINER DESCRIPTION: 9 5/8" @ 2540' ZERO POINT RIG FLOOR
7" @ 3343' DEPTH 3678

TUBING DETAIL:

PURPOSE

REMARKS:

ELEMENT 7-20F-CALIF SERIAL NO. 10052 CLOCK 12:17 15 TURN STABILIZATION PERIOD

ENGAGE STYLUS T-1257 DISENGAGE STYLUS T-1110

WELL HEAD 0

PICKUP @ 3675' TIME ON BOTTOM 1552-1552 MAX. # 218

WELL STATUS SHUT IN

SHUT IN:

ON PRODUCTION:

RATE

TEMPERATURE

T	DEPTH	DEFL.	P-T	GRAD.	/D	TIME	DEPTH	DEFL.	P-T	GRAD.	/D	TIME	DEPTH	DEFL.	P-T	GRAD.	/D
	0	0	0														
	100	0	0														
	102	013	103														
	104	025	107														
	105	040	117														
	105	045	121														
	100	040	127														
	107	055	134														
	107	060	137														
	107	063	141														
	107	065	142														

COMMENTS: START INS - 1030hrs TOTAL BBLs INS - 550
 STOP INS - 1440hrs

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UNION
GEOHERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

5419-525-7/T

OWNER UNION OIL CO. CASE FIELD NAME GRANDE WELL NAME BRUNN#12.
 CASING 20"-247' 15 3/4" 453' ELEV. 5430' DATE: 7/13/75
 LINER DESCRIPTION: 4 1/2" - 3540' ZERO POINT ROTARY TABLE
 7" - 3343' DEPTH 3680'

TUBING DETAIL:

PURPOSE

REMARKS:

P-0-4700 PSI 13012 7/11 1207 15
 ELEMENT 322-1324 SERIAL NO. 10052 CLOCK 12/12 15 TURN STABILIZATION PERIOD
 ENGAGE STYLUS P-1059, T-1700 DISENGAGE STYLUS P-1000 T-1900
 WELL HEAD 0
 PICKUP @ 3680' TIME ON BOTTOM 1805 1825 MAX. P 371 @ 3680'
 WELL STATUS SHUT IN.
 SHUT IN: 4/4/75 ON PRODUCTION:

RATE

PRESSURE					TEMPERATURE											
DEPTH	DEFL.	P-T	GRAD.	CORR.	TIME	DEPTH	DEFL.	P-T	GRAD.	TD	TIME	DEPTH	DEFL.	P-T	GRAD.	TD
0	0	0		0	1725	100	0	0								
174	1200	0		0	1737	1200	1337	152								
1745	2400	144	561	-001	1749	2400	1591	353								
3175	3600	325	742	0	1751	3600	1957	371								
3673	3680	417	1107	1.002	1823	3680	1920	354								

CALIBRATION CHK WITH 2500 LB AT 70°F

DEL = 1.042
 PSI = 2474

NO CORRECTION

COMMENTS: RAN SINKED BAR PRIOR TO SURVEY
 T.O. 3680 TOR - 2 FEET

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UNION GEOHERMAL DIVISION

SUBSURFACE PRESSURE SURVEY

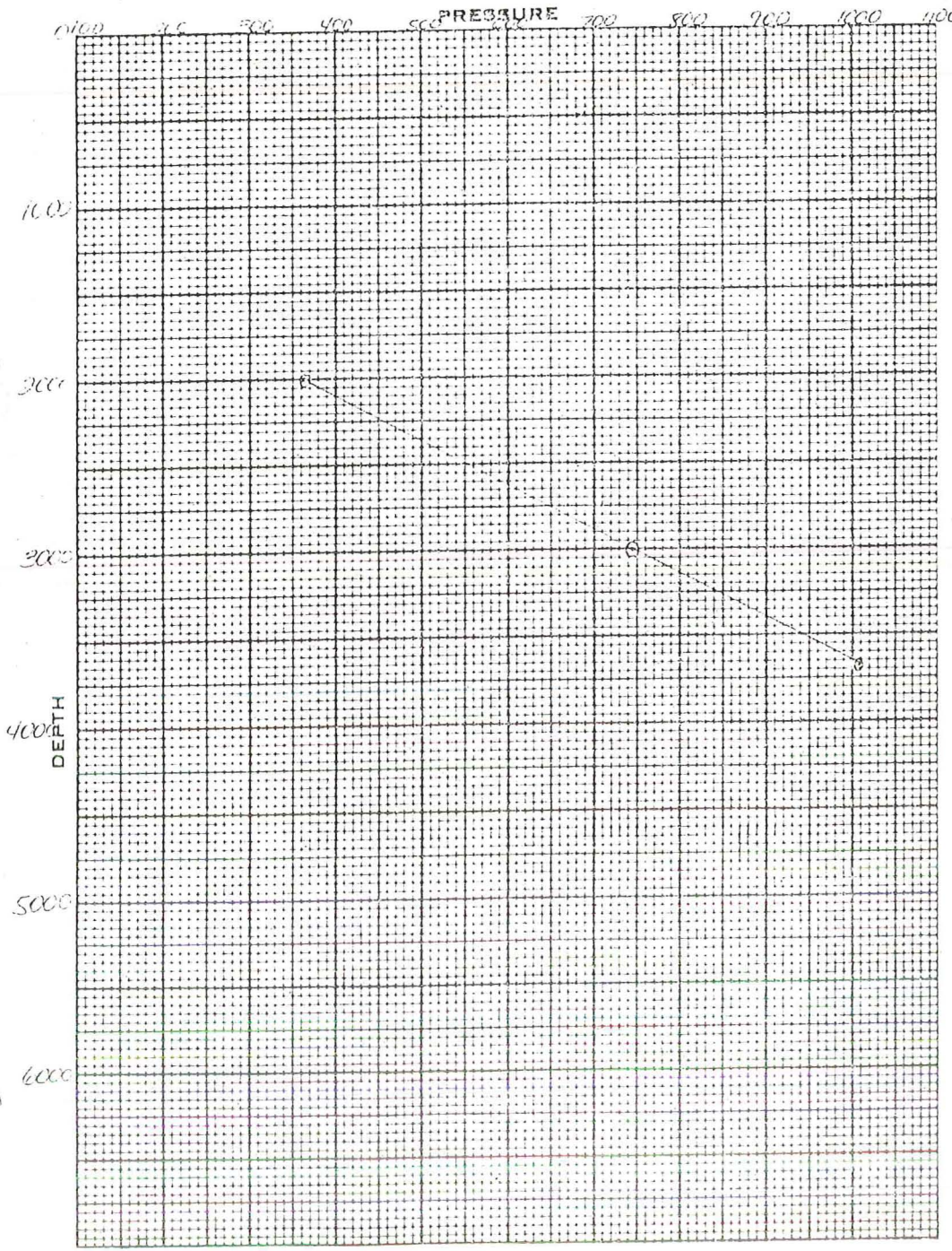
B12-S05-#17

OWNER _____ FIELD VALLE GRANDE WELL NAME BACA #12
 CASING _____ ELEV 8430' DATE 7-13-76
 LINER DESCRIPTION: _____ ZERO POINT ROTARY TABLE
 _____ DEPTH 3680'

HOLE DESCRIPTION: _____ INSTRUMENT _____ PSIG
 _____ SERIAL NO 10052

PURPOSE _____ MAX TEMP _____ °F @ _____
 REMARKS: _____

STABILIZATION PERIOD _____



PRESSURES	GAUGE	BOMB
CASING PSI		

DEPTH	PRESSURE	GRADIENT
2000	361	
3000	742	
3680	1007	

BY: _____

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UNION GEOHERMAL DIVISION

SUBSURFACE TEMPERATURE SURVEY

B 12-505-P/T

OWNER _____
CASING _____
LINER DESCRIPTION _____

FIELD VALLE GRANDE
ELEV 8430'

WELL NAME BACA #12
DATE 7-13-76
ZERO POINT ROTARY TABLE
DEPTH 3680'

HOLE DESCRIPTION: _____

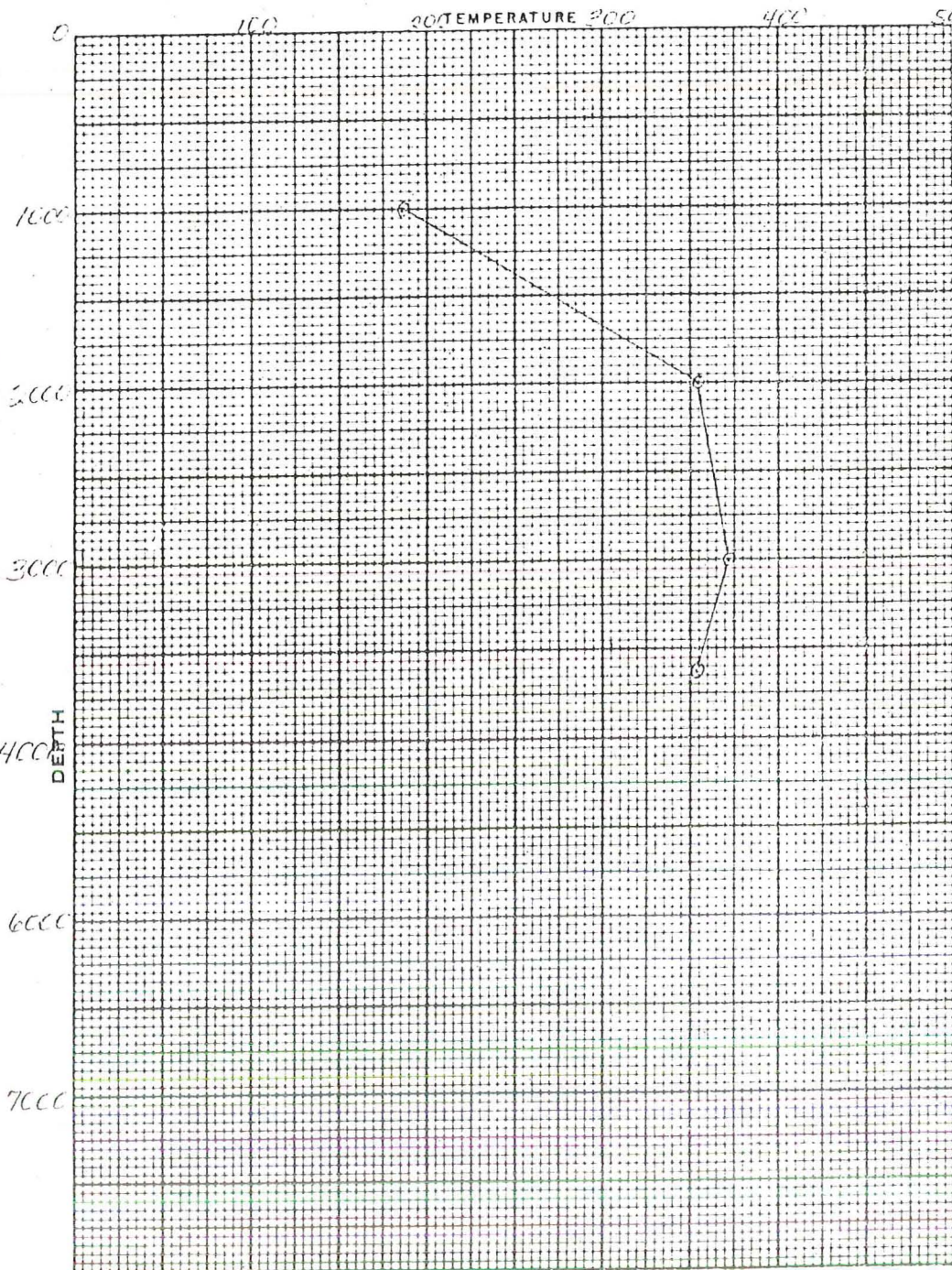
INSTRUMENT _____ FAHP _____
SERIAL NO 10052

PURPOSE _____

MAX TEMP 371 °F @ 3000'

REMARKS _____

STABILIZATION PERIOD _____



PRESSURES	GAUGE	BOMB	
CASING PSI			
DEPTH	TEMP.	DEPTH	TEMP.
1000	186		
2000	353		
3000	371		
3680	354		

BY: _____

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UNION

GEO THERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

B-12 5-24 P/T

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BADA #12
 CASING 20" - 247' 13 3/8" - 1453' ELEV. 8430' DATE: 5/1/75
 LINER DESCRIPTION: 9 5/8" - 3540' ZERO POINT CL + 7'
7" - 3343' DEPTH 9211'

TUBING DETAIL:

PURPOSE GRADIENT

REMARKS:

0-4250 PSIG SN - 7198 CLOCK 13375-L 15 TURN

ELEMENT 82-686°F SERIAL NO. 10055 CLOCK 13374-L 15 TURN STABILIZATION PERIOD

ENGAGE STYLUS P-1003; T-1006 DISENGAGE STYLUS P-1232; T-1232

WELL HEAD 0

PICKUP @ 5580' TIME ON BOTTOM MAX. °F 388.4

WELL STATUS STATIC

SHUT IN: * 4/6/75 ON PRODUCTION:

RATE

PRESSURE

TEMPERATURE

PRESSURE						TEMPERATURE											
TIME	DEPTH	DEFL.	P-T	GRAD.	/D	TIME	DEPTH	DEFL.	P-T	GRAD.	/D	TIME	DEPTH	DEFL.	P-T	GRAD.	/D
8-1638	110	0	0	0	0	"	110	0	0	0							
11-	1440	0	0	0	0	"	1440	.380	306.4								
3-	2220	.173	389.6	0	0	"	2220	.884	367.9								
5-111	3000	.352	775.4	.386	-1.001	"	3000	.948	388.4								
7-1127	4000	.532	1155.5	.380	0	"	4000	1.856	358.9								
9-1139	5000	.712	1534.0	.379	+1.002	"	5000	1.772	332.2								
11-1150	5580	.818	1768.5	.380	+1.006	"	5580	1.860	360.2								

COMMENTS: * LAST INJECTION 1330 HRS 4/6/75; 494844 GALLONS
 ** COULD NOT GET PAST 5580'

BY: JM/AB

GEOHERMAL DIVISION

SUBSURFACE PRESSURE SURVEY

B-12 S-24 P/T

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OWNER <u>UNION OIL COMPANY</u>	FIELD <u>VALLE GRANDE</u>	WELL NAME <u>BACA #12</u>
CASING <u>20"-247'</u> ; <u>13³/₈"-1453</u>	ELEV. <u>8430'</u>	DATE <u>5/1/75</u>
LINER DESCRIPTION: <u>9⁵/₈"-3540'</u> <u>7"-3343</u>		ZERO POINT <u>647'</u>
		DEPTH <u>9211'</u>

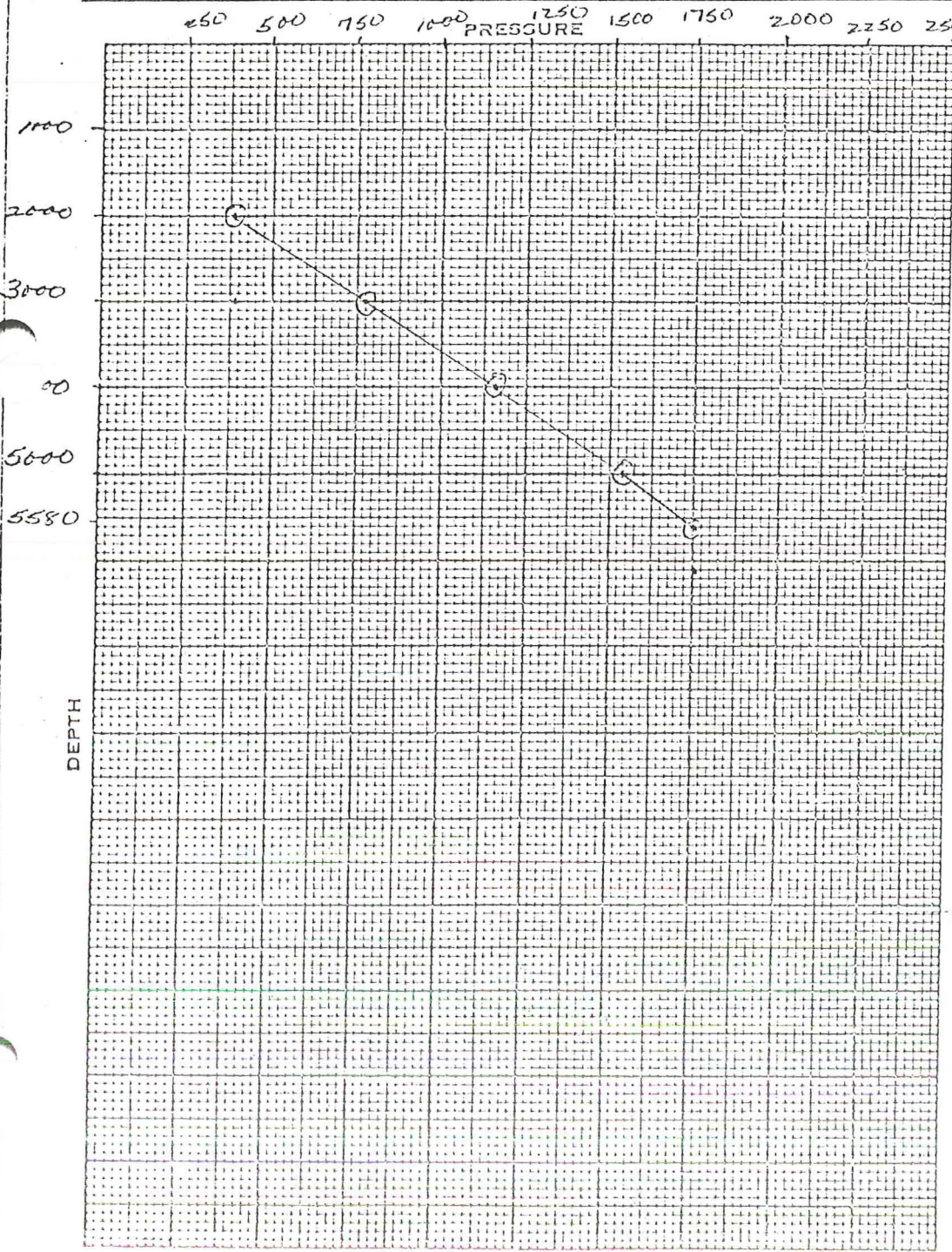
HOLE DESCRIPTION: _____

INSTRUMENT 0-4250 PSI
SERIAL NO 7198

PURPOSE GRADIENT

MAX TEMP 388.4 °F @ 3000

REMARKS: _____



STABILIZATION PERIOD _____

PRESSURES	GAUGE	BONS
CASING, PSI	0	0

DEPTH	PRESSURE	GRADIENT
100	0	0
1000	0	0
2000	389.6	0
3000	775.4	.386
4100	1153.5	.380
5000	1534.0	.379
5580	1758.5	.380

BY: J.B./K.A.

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GEO THERMAL DIVISION

SUBSURFACE TEMPERATURE SURVEY

DATA SHEET

OWNER UNION PACIFIC CO OF CALIF FIELD VALLE GRANDE WELL NAME 13001#2
 CASING 204947' - 17 3/8" O.D. 1453' ELEV. 3430' DATE: 5/1/75
 LINER DESCRIPTION: 9 1/2" O.D. 3541' ; 7" O.D. 343' - 9912' ZERO POINT CL + 7'
 DEPTH 9912'

SURVEY TO 9277'

HOLE DESCRIPTION:

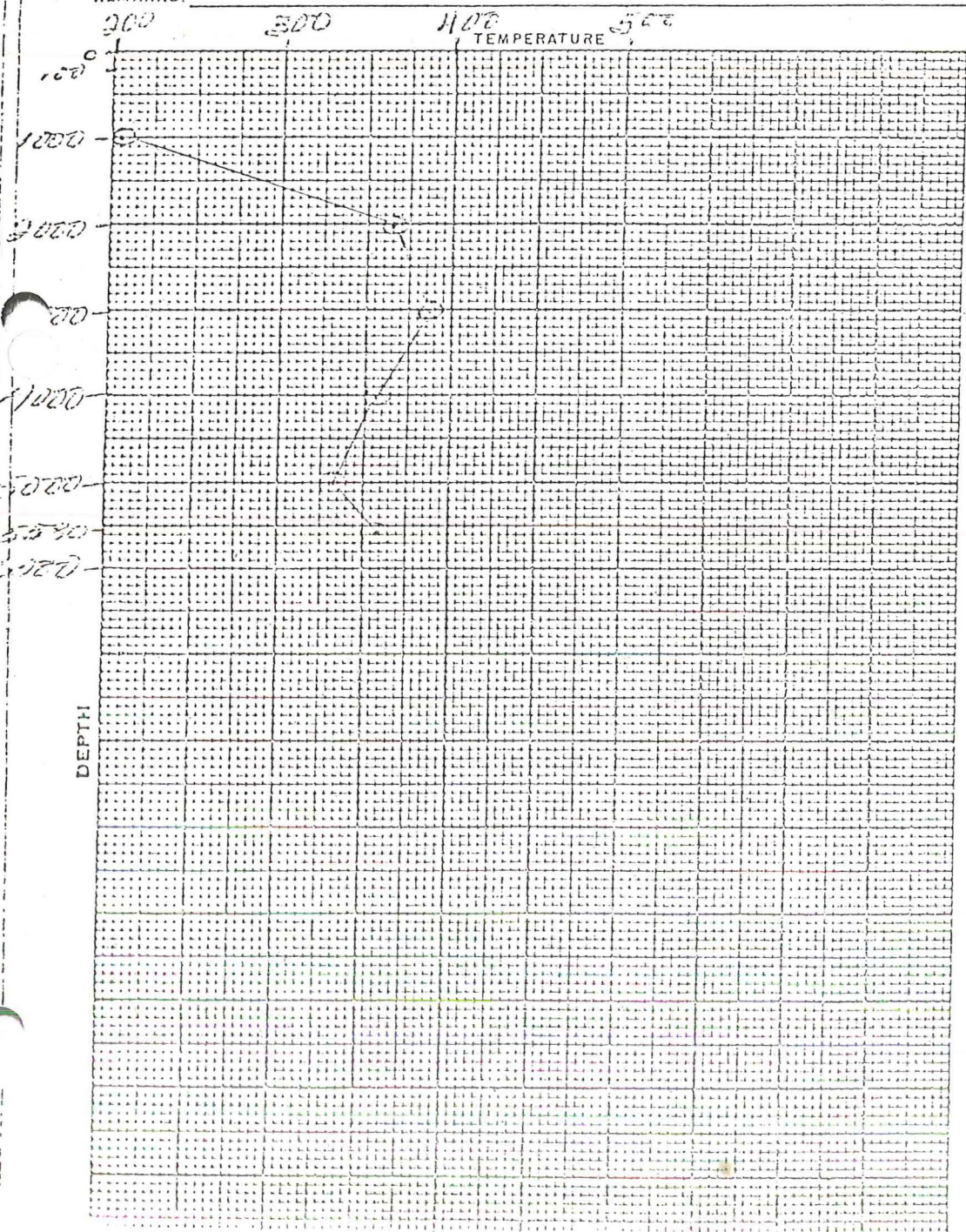
INSTRUMENT 320 - 636 ° FAH
 SERIAL NO 11055

PURPOSE

MAX TEMP 388.4° @ 3000'

REMARKS:

STABILIZATION PERIOD



PRESSURE	GAUGE	COND
CASING, PSI	0	0

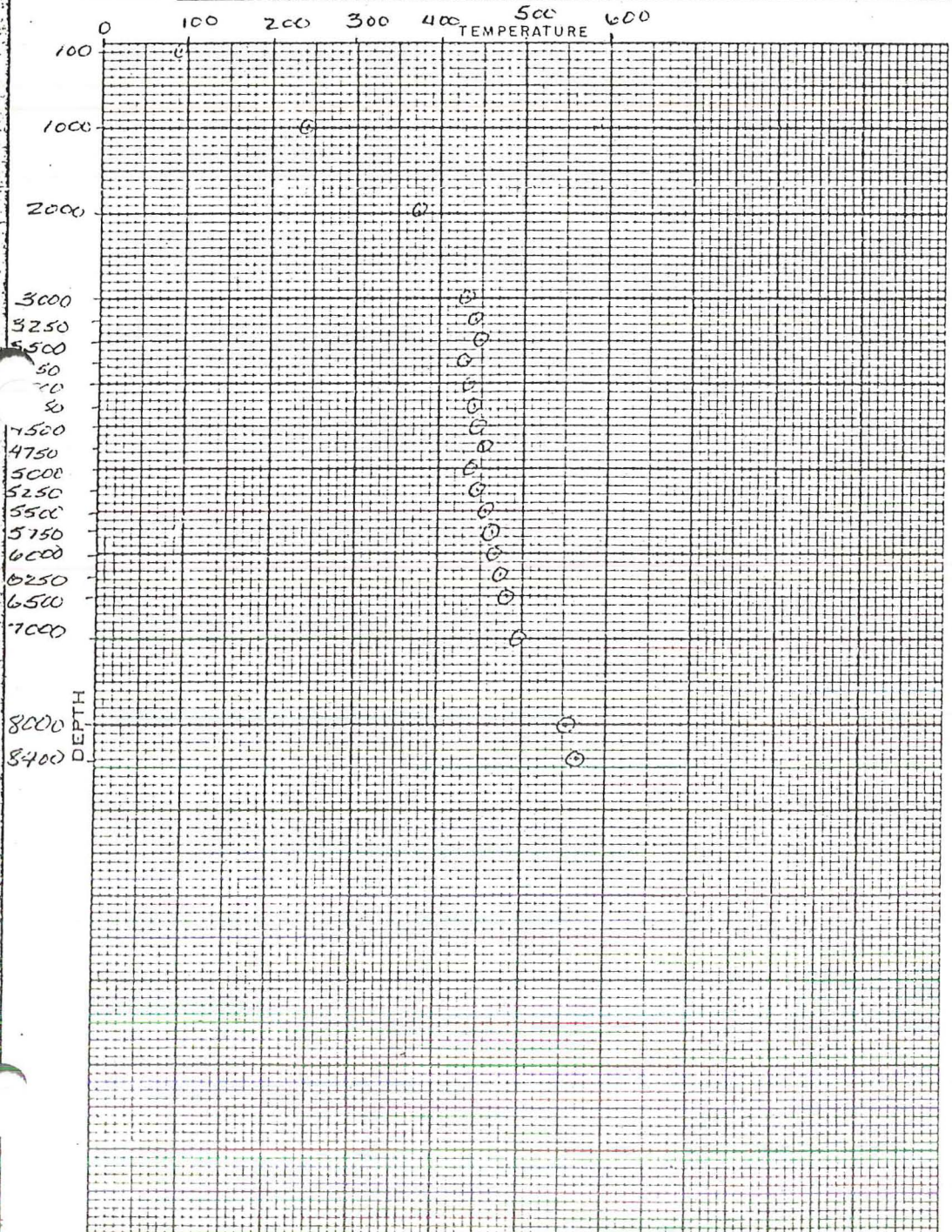
DEPTH	TEMP.	DEPTH	TEMP.
100	0		
1000	306.4		
2000	317.9		
3000	333.4		
4000	355.9		
5000	358.9		
5580	360.9		

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GEO THERMAL DIVISION

SUBSURFACE TEMPERATURE SURVEY B #12-523 9/1

OWNER Union Oil Company FIELD Valle Grande WELL NAME Bacon #12
 CASING _____ ELEV 8604 DATE 10/21/74
 LINER DESCRIPTION: _____ ZERO POINT GL. +14'
 _____ DEPTH 9211
 HOLE DESCRIPTION: _____
 _____ INSTRUMENT FB-698° FAHP
 _____ SERIAL NO KTB-10055
 PURPOSE _____ MAX TEMP 566 °F @ 8400
 REMARKS: _____



STABILIZATION PERIOD

PRESSURES.	GAUGE	BOMB
CASING. PSI		

DEPTH	TEMP.	DEPTH	TEMP.
100	92.2		
1000	246.8		
2000	372.6		
3000	434.0		
3250	443.8		
3500	449.1		
3750	454.3		
4000	457.2		
4250	461.5		
4500	465.9		
4750	471.4		
5000	477.7		
5250	484.9		
5500	493.3		
5750	502.7		
6000	513.3		
6250	525.3		
6500	538.6		
7000	555.1		
8000	555.1		
8400	566.0		

BY: *[Signature]*

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UNION

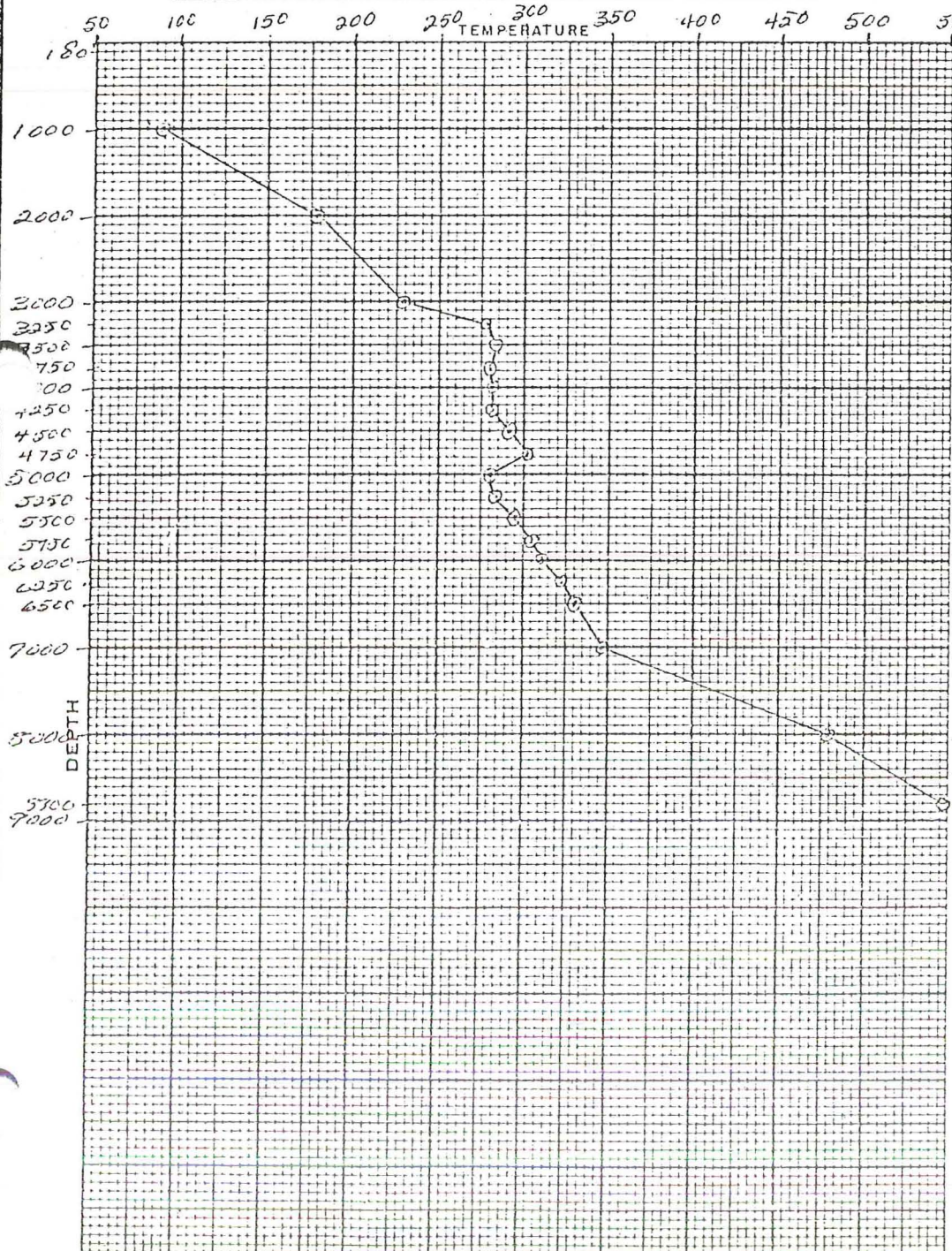
GEOTHERMAL DIVISION
SUBSURFACE TEMPERATURE SURVEY

B12-521-T

OWNER UNION OIL OF CALIF FIELD VALLE GRANDE WELL NAME BACAT#12
 CASING _____ ELEV 8604' DATE 10/15/74
 LINER DESCRIPTION: _____ ZERO POINT 14' + G.L.
 DEPTH 9211'

HOLE DESCRIPTION: _____ INSTRUMENT 88°-6950 FAH
 SERIAL NO 10055

PURPOSE _____ MAX TEMP 547.9 °F @ 8800
 REMARKS: _____



STABILIZATION PERIOD _____

PRESSURES	GAUGE	BOMB
CASING, PSI	<u>VAC</u>	<u>VAC</u>

DEPTH	TEMP.	DEPTH	TEMP.
100	0		
1000	89.7		
2000	178.7		
3000	229.5		
3250	278.8		
3500	284.6		
3750	280.7		
4000	282.3		
4250	286.8		
4500	292.2		
4750	302.8		
5000	280.1		
5250	284.6		
5500	295.1		
5750	305.4		
6000	311.1		
6250	323.3		
6500	330.3		
7000	347.9		
8000	479.7		
8800	547.9		

BY: J.M.

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UNION

GEO THERMAL DIVISION

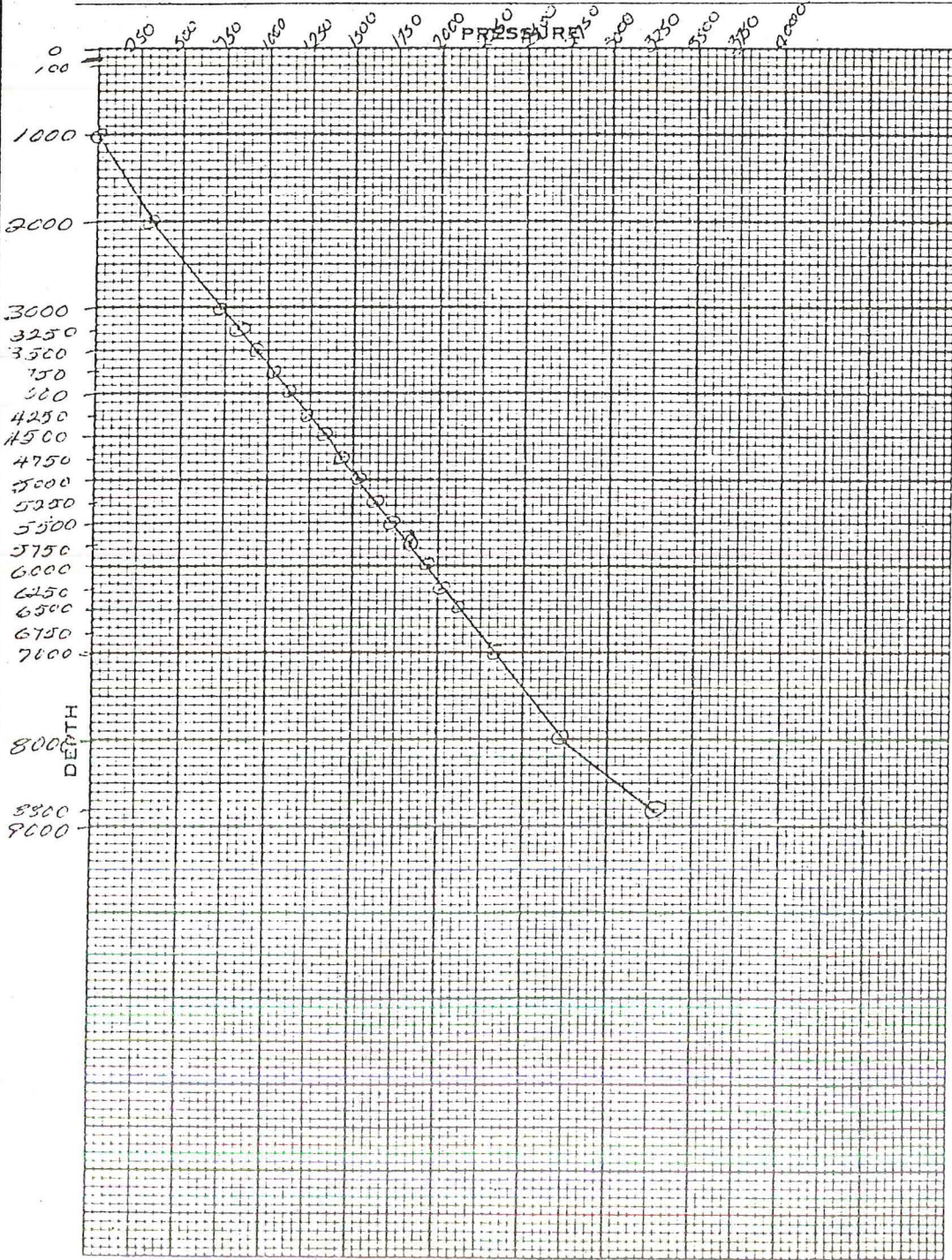
SUBSURFACE PRESSURE SURVEY

B12-521-P

OWNER UNION OIL OF CALIF FIELD VALLE GRANDE WELL NAME BACA#12
 CASING _____ ELEV 8604' DATE 10/15/74
 LINER DESCRIPTION: _____ ZERO POINT 14' + CL
 _____ DEPTH 9211

HOLE DESCRIPTION: _____ INSTRUMENT 0-4800 PSI
 _____ SERIAL NO 7784

PURPOSE _____ MAX TEMP 547.9 °F @ 8800'
 REMARKS: _____



STABILIZATION PERIOD _____

PRESSURES	GAUGE	BOMB
CASING, PSI	VAC	VAC

DEPTH	PRESSURE	GRADIENT
100	0	0
1000	2.42	.0003
2000	37.19	.315
3000	726.39	.695
3250	830.51	.104
3500	932.20	.102
3750	1034.15	.102
4000	1134.15	.100
4250	1236.59	.102
4500	1336.59	.100
4750	1436.59	.100
5000	1536.59	.100
5250	1636.59	.100
5500	1739.02	.102
5750	1834.15	.095
6000	1934.15	.100
6250	2026.96	.093
6500	2125.00	.098
7000	2313.73	.189
8000	2713.23	.400
8800	3270.94	.558

BY: [Signature]

76

GLO THERMAL DIVISION

SUBSURFACE PRESSURE SURVEY

B12-520-P

OWNER UNION OIL OF CALIF FIELD VALLE GRANDE WELL NAME BACA # 12
 CASING _____ ELEV 8604 DATE 10/14/74
 LINER DESCRIPTION: _____ ZERO POINT 14' + GL
 _____ DEPTH 9211

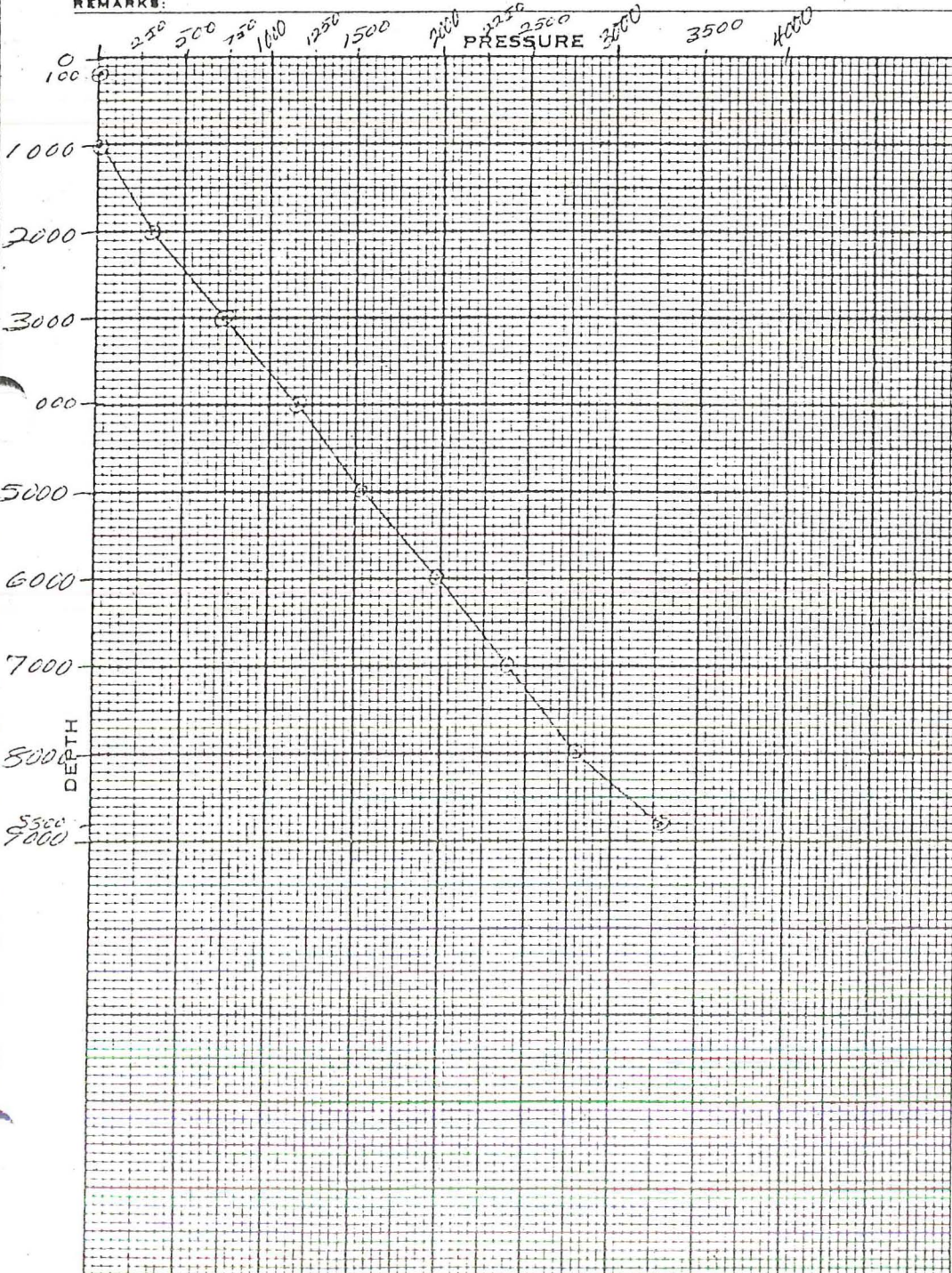
HOLE DESCRIPTION: _____ INSTRUMENT 0-4800 PSI
 _____ SERIAL NO 7784

PURPOSE GRADIENT (POST INJECTION) MAX TEMP 537.7°F @ 8800

REMARKS:

STABILIZATION PERIOD

1230 hrs → 1745 hrs
10/14/74



PRESSURES	GAUGE	BOMB
CASING, PSI	<u>VAC</u>	<u>VAC</u>

DEPTH	PRESSURE	GRADIENT
100	0	0
1000	428.4	0.001
2000	372.03	0.317
3000	743.34	0.279
4000	1158.54	0.415
5000	1573.17	0.415
6000	1985.37	0.412
7000	2392.16	0.407
8000	2781.56	0.390
8800	3295.57	0.514

BY: J.M.

76

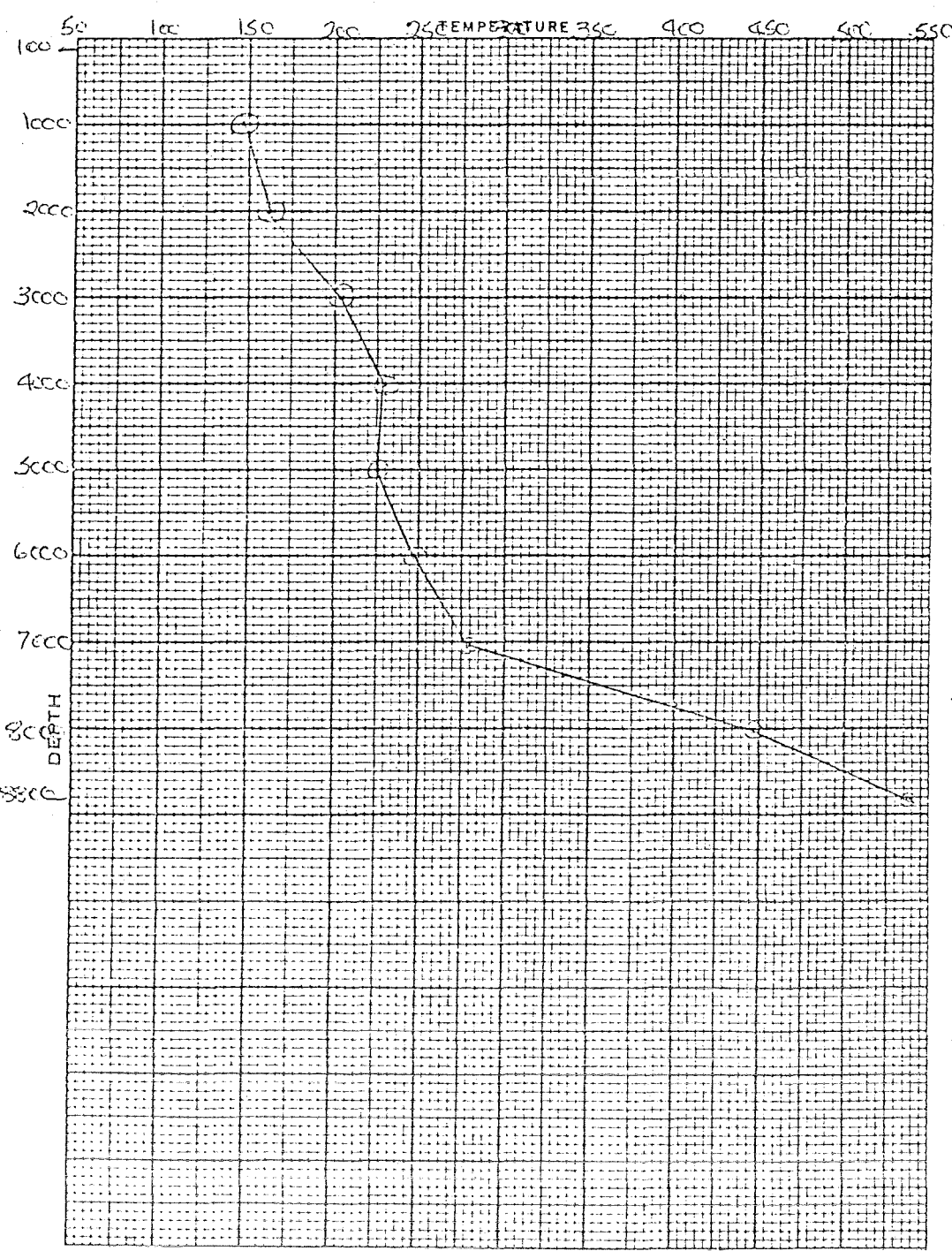
UNION
 GEOTHERMAL DIVISION
 SUBSURFACE TEMPERATURE SURVEY

B12-520-T

OWNER Union Oil Company FIELD Valle Grande WELL NAME Baca # 12
 CASING _____ ELEV 8604 DATE 10/19/79
 LINER DESCRIPTION: _____ ZERO POINT GL + 14'
 _____ DEPTH 9211'

HOLE DESCRIPTION: _____ INSTRUMENT KTB-58-698°
 _____ SERIAL NO 10055

PURPOSE Gradient after injection MAX TEMP 537.7 °F @ 8800'
 REMARKS: _____



STABILIZATION PERIOD
1230 - 1745

PRESSURE	GAUGE	BOVA
CASING, PSI	VAC	VAC

DEPTH	TEMP.	DEPTH	TEMP.
100	0		
1000	146.4		
2000	162.1		
3000	209.9		
4000	229.8		
5000	225.3		
6000	248.1		
7000	279.8		
8000	448.8		
8800	537.7		

BY: (Signature)

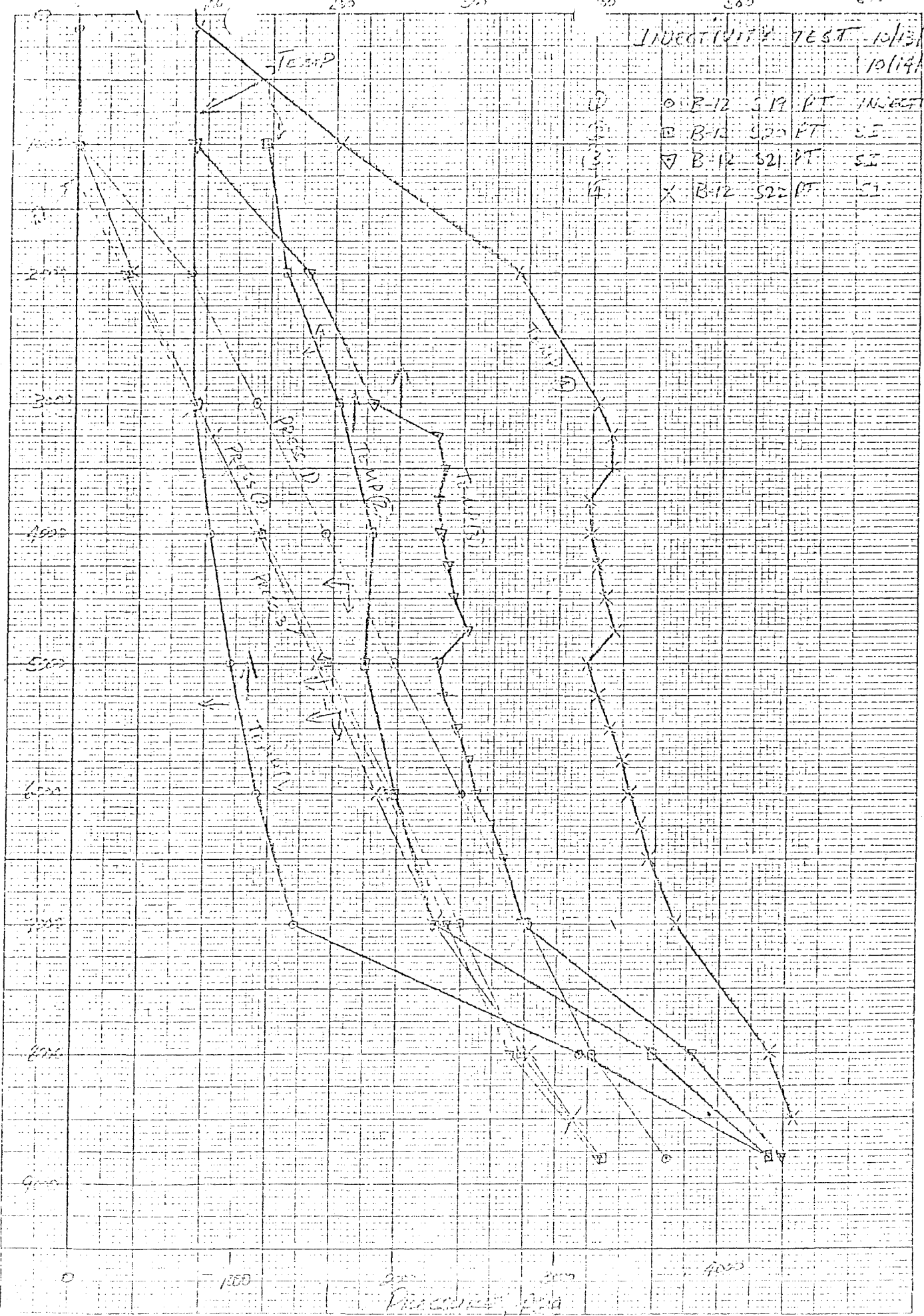
INJECTIVITY TEST

B-12 & SUBSEQUENT
SURVEYS.

INJECTIVITY Calculation
is included

INJECTIVITY TEST 10/13/74 -
10/14/74

1	○	B-12	519	FT	INJECTING
2	□	B-12	520	FT	SE
3	▽	B-12	521	FT	SE
4	×	B-12	522	FT	SE



DEPTH

Pressure, psi

34 1/2 ft

OCT 14 1974

Phase 12 INJECTION

B-12-S19-PT - INJ. SURVEY

DATE	DEPTH	GPM	P	T
10/14	100		0	89.4
	1000	.012	12.11	89.7
	2000	.676	687.7	90.1
	3000	.427	1114.6	90.4
	4000	.429	1543.9	104.7
	5000	.429	1970.7	120.8
	6000	.426	2397.1	144.2
	7000	.424	2821.1	171.6
	8000	.393	3219.2	392.7
10/25	2800	.583	3439.65	523.8

$P = 53.981 = .375$

$P = 46.62 = .324 \text{ psi/l}$

BEGAN Pumping 08:30 10/13/74

STOPPED 12:30 10/14/74

TOTAL HRS 28

AV. CHART RDG 31, GPM 157

TOT. INJ. - 263,760 GAL.

18,138 2.95 0.015 4" line

②

B-12-350-PT

12/18/24

DEPTH	P	T
100	0	0
1000	480	146.4
2	322.0	162.1
3	743.3	202.9
4	1153.5	229.6
5	1573.2	255.3
6	1985.4	273.1
7	2392.2	279.3
8	2781.9	418.8
8800	3295.6	537.7

B-12-321-PT

12/15/24

DEPTH	P	T
01:28 100	0	0
1000	242	89.7
2000	317.2	173.7
3000	726.4	229.5
3250	830.5	273.8
3500	932.2	284.6
3750	1034.2	290.7
4000	1134.2	282.3
4250	1236.6	286.9
4500	1336.6	292.2
4750	1436.6	302.8
5000	1536.6	280.1
5250	1636.6	284.6
5500	1739.0	295.1
5750	1834.2	305.4
6000	1934.2	311.1
6250	2026.9	323.3
6500	2125.0	330.3
7000	2313.7	347.9
8000	2713.2	479.7
03:52 8800	3270.9	477.9

INJECTIVITY - B-12

$$I = \frac{q_{sc}}{p_w - p_e}$$

$p_e = 2250$ psig @ 7000' 9/24/74
 $p_w = 2821$ psig @ 7000'
 $q_{sc} = 157$

$$I = \frac{157 \text{ GPM}}{2821 - 2250} = .261 \text{ GPM/psi}$$

q_{sc} @ Max hyd. head

$$p_w = 7000(.433) = 3031.0$$

Maximum injection rate @ zero w.h. pressure

$$q_{sc} = I(p_w - p_e) = .261(3031 - 2250) = 204 \text{ GPM}$$

@ $p_w = 0$

$$q_{sc} = 204 \text{ GPM} \left(\frac{8.33 \text{ lb/gal}}{5.61} \right) \left(\frac{60 \text{ min}}{\text{hr}} \right) = 101,880 \text{ #/hr}$$

AT 5250' "MIDPT"

$p_w = 2080'$ $p_e = 1580'$ $q_{sc} = 157$

$$I = \frac{q_{sc}}{p_w - p_e} = \frac{157}{2080 - 1580} = \frac{157}{500} = .314 \text{ GPM/psi}$$

MAX RATE @ 5250

$$p_w = .433(5250) = 2273 \text{ psi}$$

$$q_{sc} = 204(2273 - 1580) = 213 \text{ GPM @ zero w.h. press.}$$

B-12

B-12-532 - PT 10/17/74 p.m.

Depth	S	P	I
100	-	0	92.2
1000	-	2,42.	204.2
2000	.363	365.6	341.5
3000	.382	743.0	404.2
3250	.376	842.6	414.4
3500	.383	934.6	414.1
3750	.389	1026.8	396.8
4000	.384	1122.9	393.6
4250	.381	1214.6	403.9
4500	.385	1312.2	409.5
4750	.371	1404.9	416.9
5000	.371	1497.6	396.8
5250	.381	1587.8	403.9
5500	.382	1682.9	413.8
5750	.380	1773.	423.8
6000	.371	1870.7	429.0
6250	.381	1963.4	437.5
6500	.376	2036.4	445.3
7000	.377	2245.1	465.6
8000	.382	2938.2	538.0
17:43 8500	.345	3110.8	557.6

GLOUTHERMAL DIVISION

SUBSURFACE PRESSURE SURVEY

B12-S-19-P

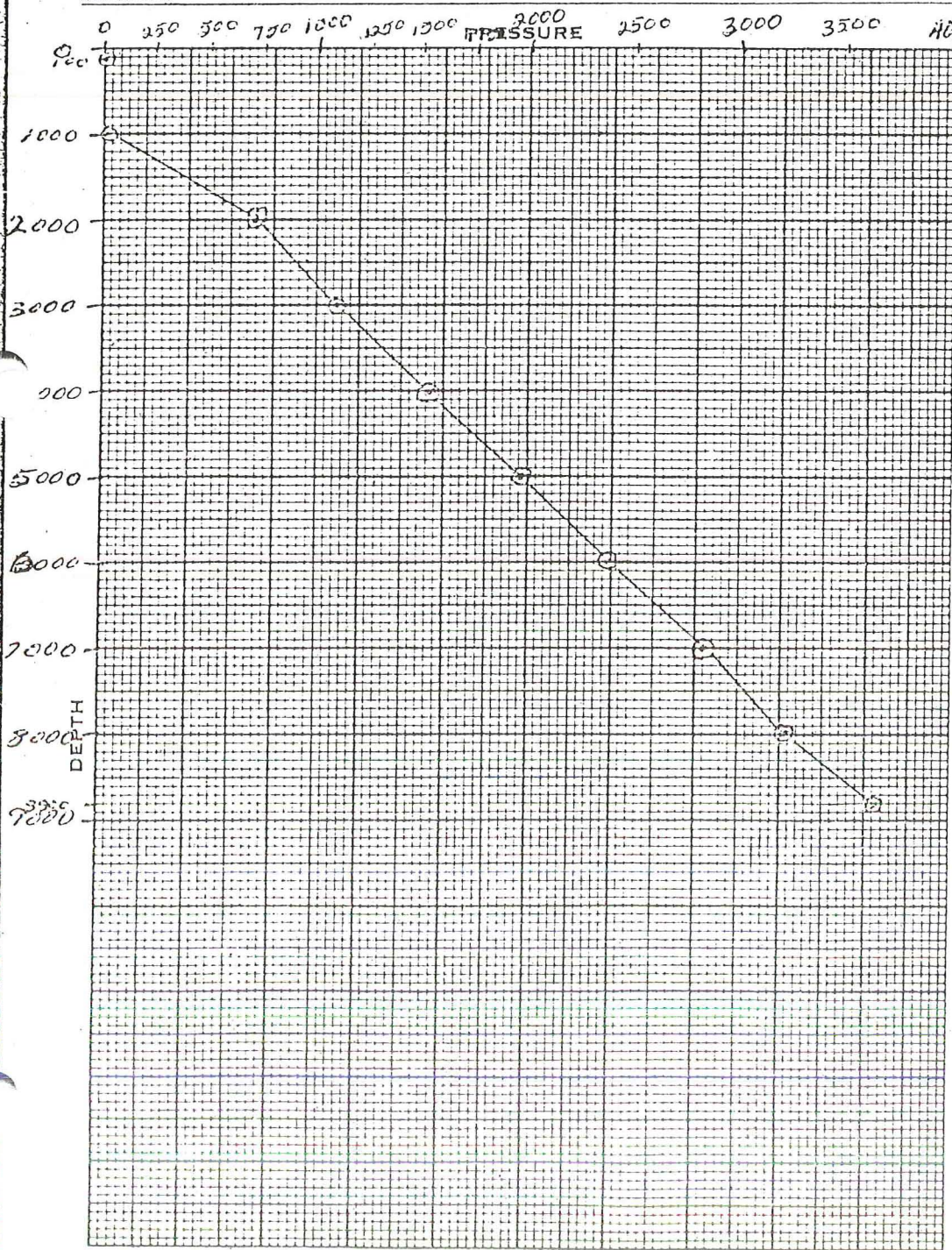
76

OWNER UNION OIL OF CALIF FIELD VALLE GRANDE WELL NAME BACA#12
 CASING _____ ELEV 8604 DATE 10/14/74
 LINER DESCRIPTION: _____ ZERO POINT 14' + CL
 _____ DEPTH 9211

HOLE DESCRIPTION: _____ INSTRUMENT 0-4800 PSI
 _____ SERIAL NO 7784

PURPOSE INJECTIVITY SURVEY MAX TEMP 538.8 °F @ 8500

REMARKS:



STABILIZATION PERIOD

PRESSURES.	GAUGE	BOMB
CASING, PSI	VAC	VAC

DEPTH	PRESSURE	GRADIENT
100	0	0
1000	12.11	0.013
2000	687.7	0.676
3000	1114.6	0.427
4000	1543.8	0.429
5000	1970.7	0.427
6000	2397.1	0.426
7000	2821.1	0.424
8000	3219.2	0.398
8500	3659.65	0.470

BY: J.M.

GEO THERMAL DIVISION

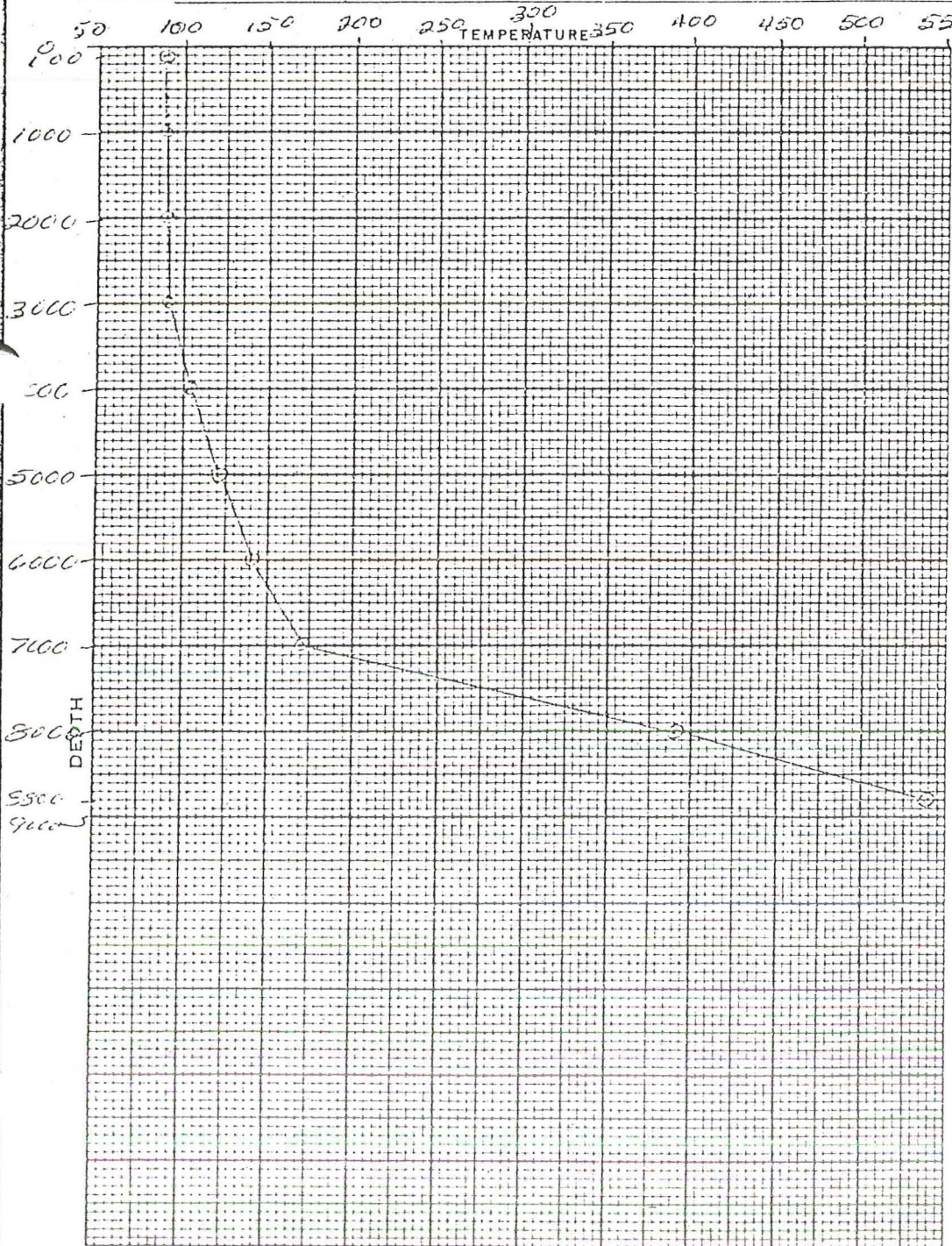
SUBSURFACE TEMPERATURE SURVEY

B#12-519-T

OWNER UNION OIL OF CALIF FIELD VALLE GRANDE WELL NAME BARA#12
 CASING _____ ELEV 5604 DATE 10/14/74
 LINER DESCRIPTION: _____ ZERO POINT 14' Above C.L.
 _____ DEPTH 9211

HOLE DESCRIPTION: _____ INSTRUMENT 85°F-695°
 _____ SERIAL NO 10055

PURPOSE INJECTIVITY SURVEY MAX TEMP 538.8 °F @ 8500
 REMARKS: _____



STABILIZATION PERIOD _____

PRESSURES	GAUGE	9042
CASING. PSI		

DEPTH	TEMP.	DEPTH	TEMP.
100	89.4		
1000	89.7		
2000	90.1		
3000	90.4		
4000	104.7		
5000	120.8		
6000	141.2		
7000	171.6		
8000	392.7		
8500	538.8		

BY: _____

GEOHERMAL DIVISION

SUBSURFACE TEMPERATURE SURVEY

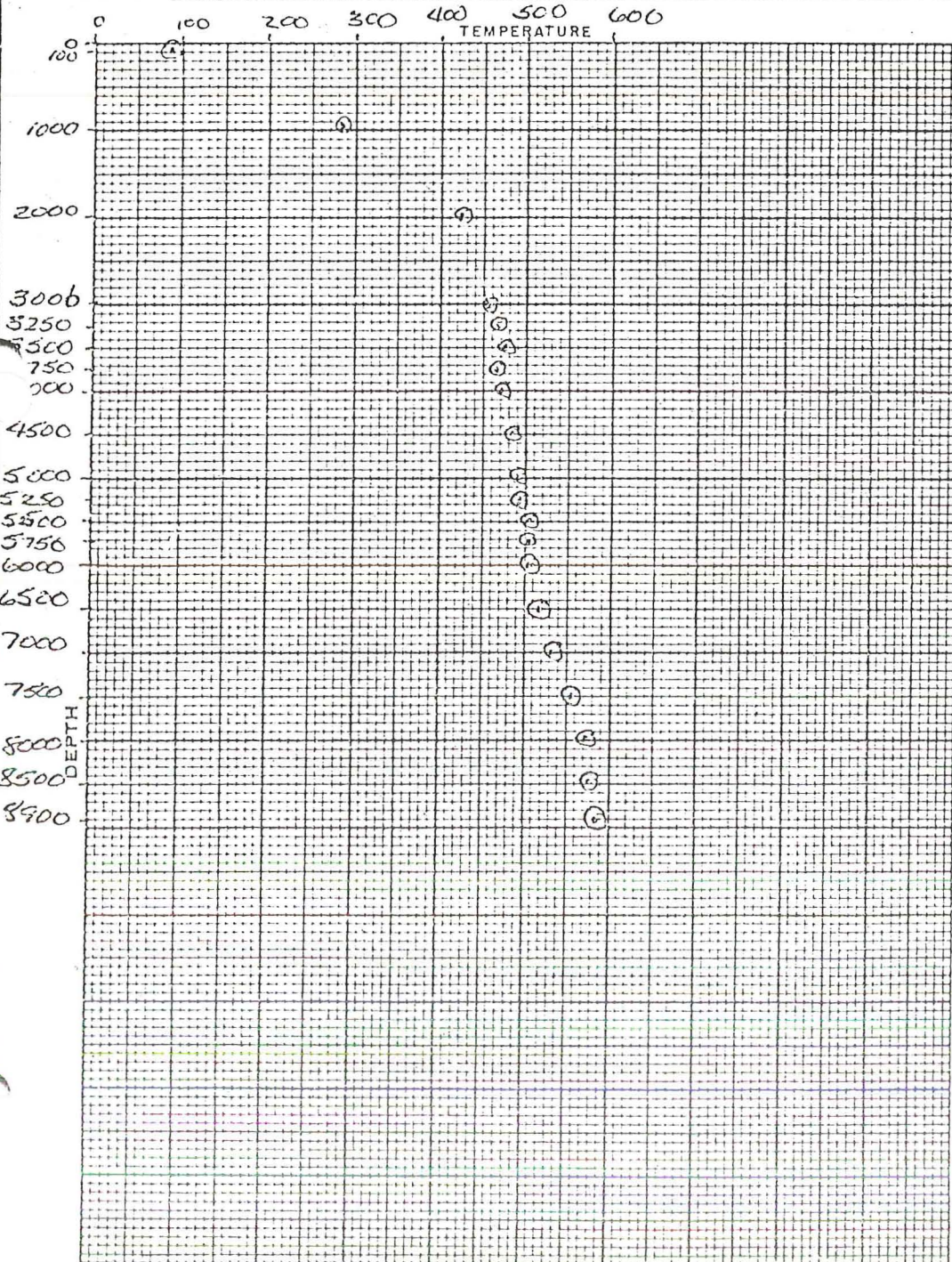
B#12-518-T

OWNER UNION OIL COMPANY OF CALIF. FIELD VALLE GRANDE WELL NAME BACA #12
 CASING _____ ELEV _____ DATE 10-9-74
 LINER DESCRIPTION: _____ ZERO POINT CL +14
 _____ DEPTH 9177

HOLE DESCRIPTION: _____ INSTRUMENT KT3 88°-698° FAH
 _____ SERIAL NO 10055

PURPOSE _____ MAX TEMP. 589.7°F @ 8900

REMARKS: _____



STABILIZATION PERIOD _____

PRESSURES	GAUGE	BOMB
CASING, PSI	17	

DEPTH	TEMP.	DEPTH	TEMP.
100	94.2		
1000	284.2 - suspect		
2000	423.5		
3000	457.5 - overshoot		
3250	469.4		
3500	474.6		
3750	467.3		
4000	470.5		
4500	482.8		
5000	491.1		
5250	494.8		
5500	500.5		
5750	504.5		
6000	509.3		
6500	519.0		
7000	533.2		
7500	556.8		
8000	571.9		
8500	579.0		
8900	589.7		

BY: dB

GEOTHERMAL DIVISION SUBSURFACE TEMPERATURE SURVEY

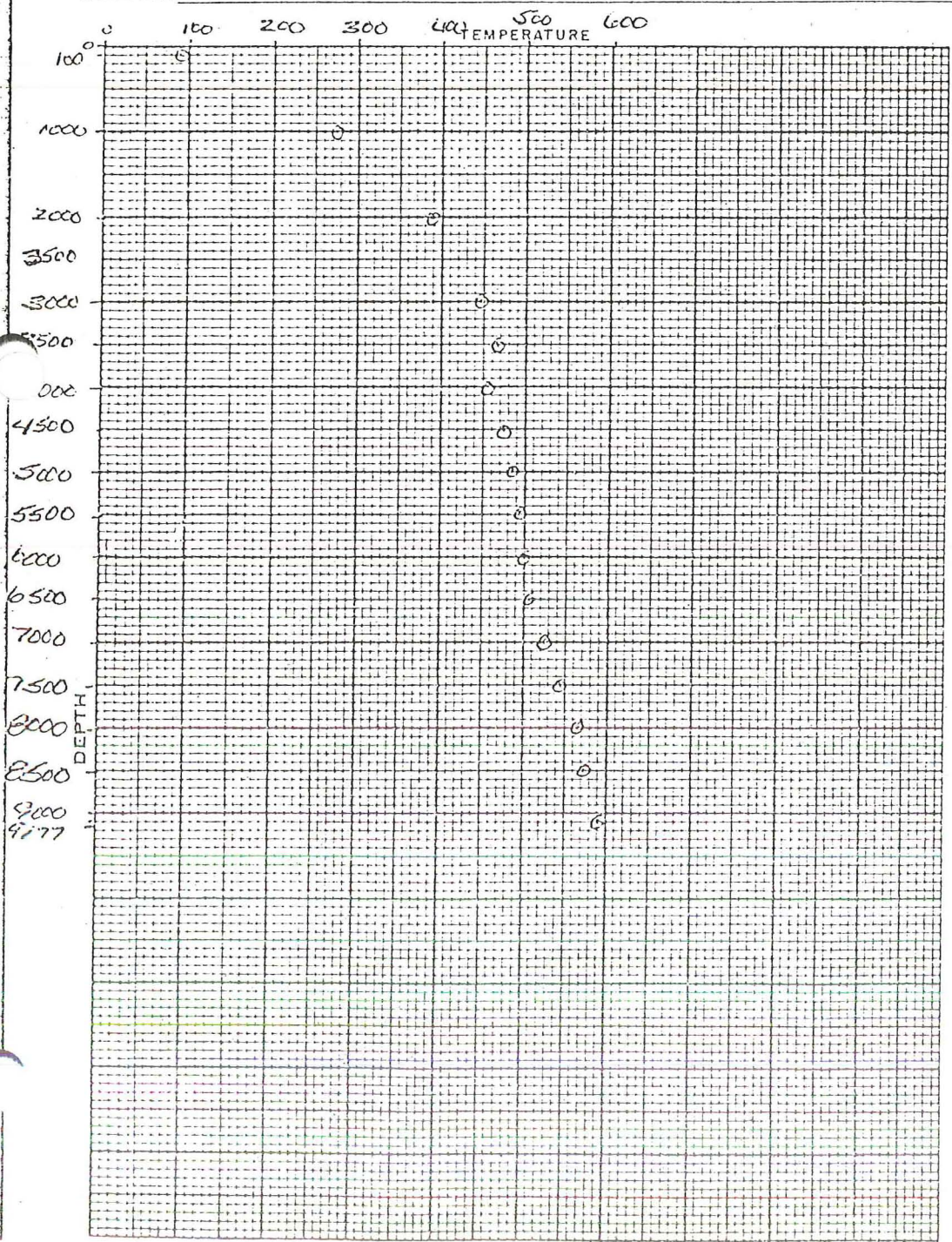
812-517-T

76

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BARA #12
 CASING _____ ELEV 8430' DATE 10-4-74
 LINER DESCRIPTION _____ ZERO POINT CL 114
 DEPTH 9211'

HOLE DESCRIPTION: _____ INSTRUMENT KTB 88-698° FAH
 SERIAL NO 10055

PURPOSE _____ MAX TEMP 590.2 °F @ 9211'
 REMARKS: _____



STABILIZATION PERIOD _____

PRESSURES	GAUGE	BOMB
CASING, PSI		

DEPTH	TEMP.	DEPTH	TEMP.
100	90.4		
1000	215.0		
2000	389.3		
3000	449.6		
3500	467.3		
4000	459.2		
4500	472.8		
5000	484.0		
5500	491.7		
6000	500.2		
6500	509.3		
7000	523.9		
7500	545.3		
8000	564.0		
8500	571.9		
9177	590.2		

BY: _____

76

UNION

GEO THERMAL DIVISION

SUBSURFACE PRESSURE SURVEY

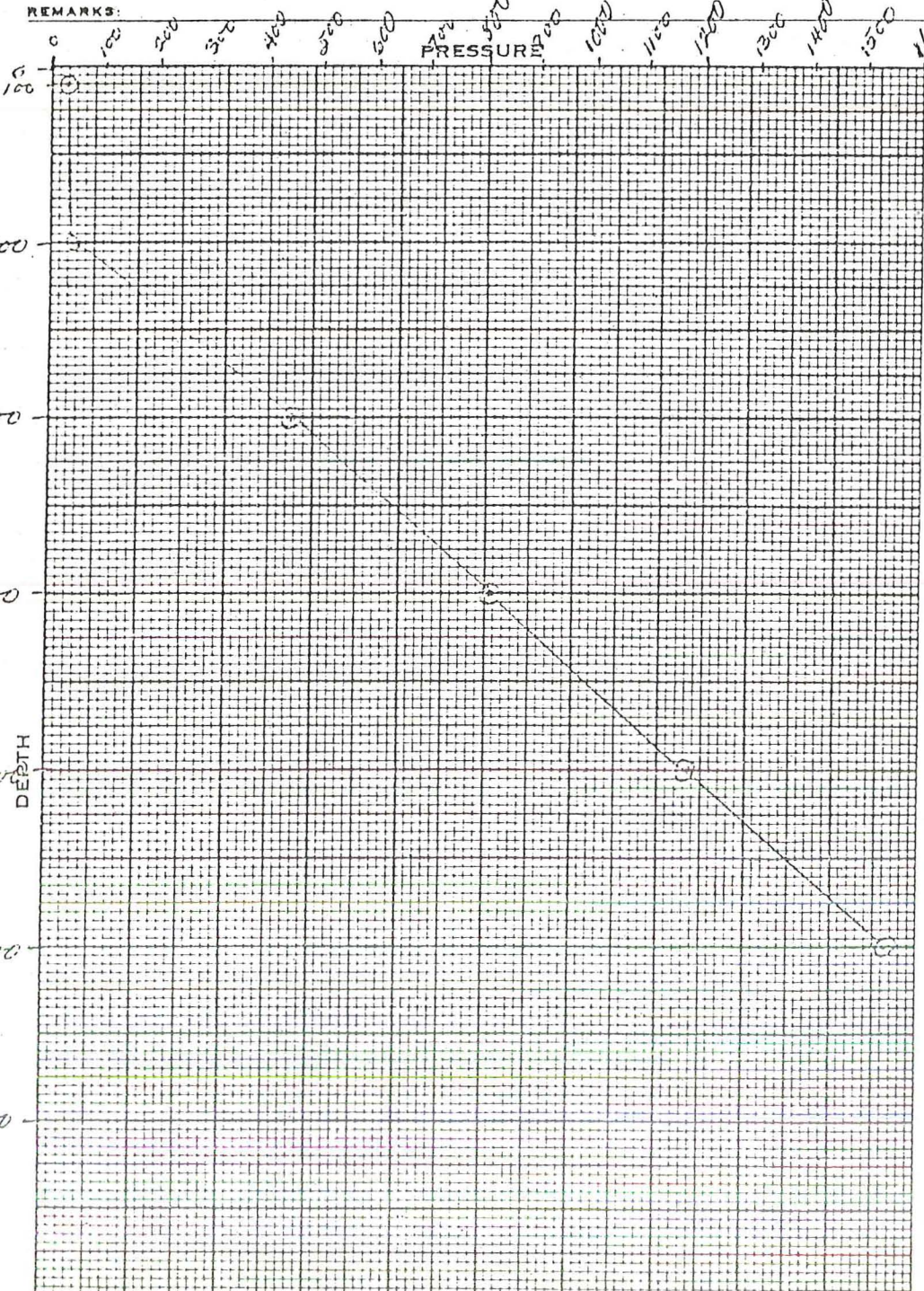
B12-516-P

OWNER UNION OIL OF CALIF FIELD VILLE GRANDE WELL NAME BACA #12
 CASING _____ ELEV 5406' DATE 10/3/74
 LINER DESCRIPTION: _____ ZERO POINT 14' Above GL
 _____ DEPTH 9177

HOLE DESCRIPTION: _____ INSTRUMENT 0-2950 PSI
 _____ SERIAL NO 9235

PURPOSE _____ MAX TEMP 475.5 °F @ 5000

REMARKS: _____ STABILIZATION PERIOD _____



PRESSURES.	GAUGE	BOMB
CASING. PSI		

DEPTH	PRESSURE	GRADIENT
100	343	0
1000	436	0.010
2000	442.4	0.399
3000	512.5	0.370
4000	1179.9	0.367
5000	1541.4	0.362

BY: J.M.

576

GEO THERMAL DIVISION

SUBSURFACE TEMPERATURE SURVEY ¹⁵ B#12-570-T

OWNER LION OIL COMPANY OF CALIF. FIELD VALLE GRANDE WELL NAME ESACH #12

CASING _____ ELEV. 8430' DATE: 10-2-74

LINEAR DESCRIPTION: _____ ZERO POINT GL-14

DEPTH 9177

HOLE DESCRIPTION: _____

INSTRUMENT RTB 88°-698° FAR.

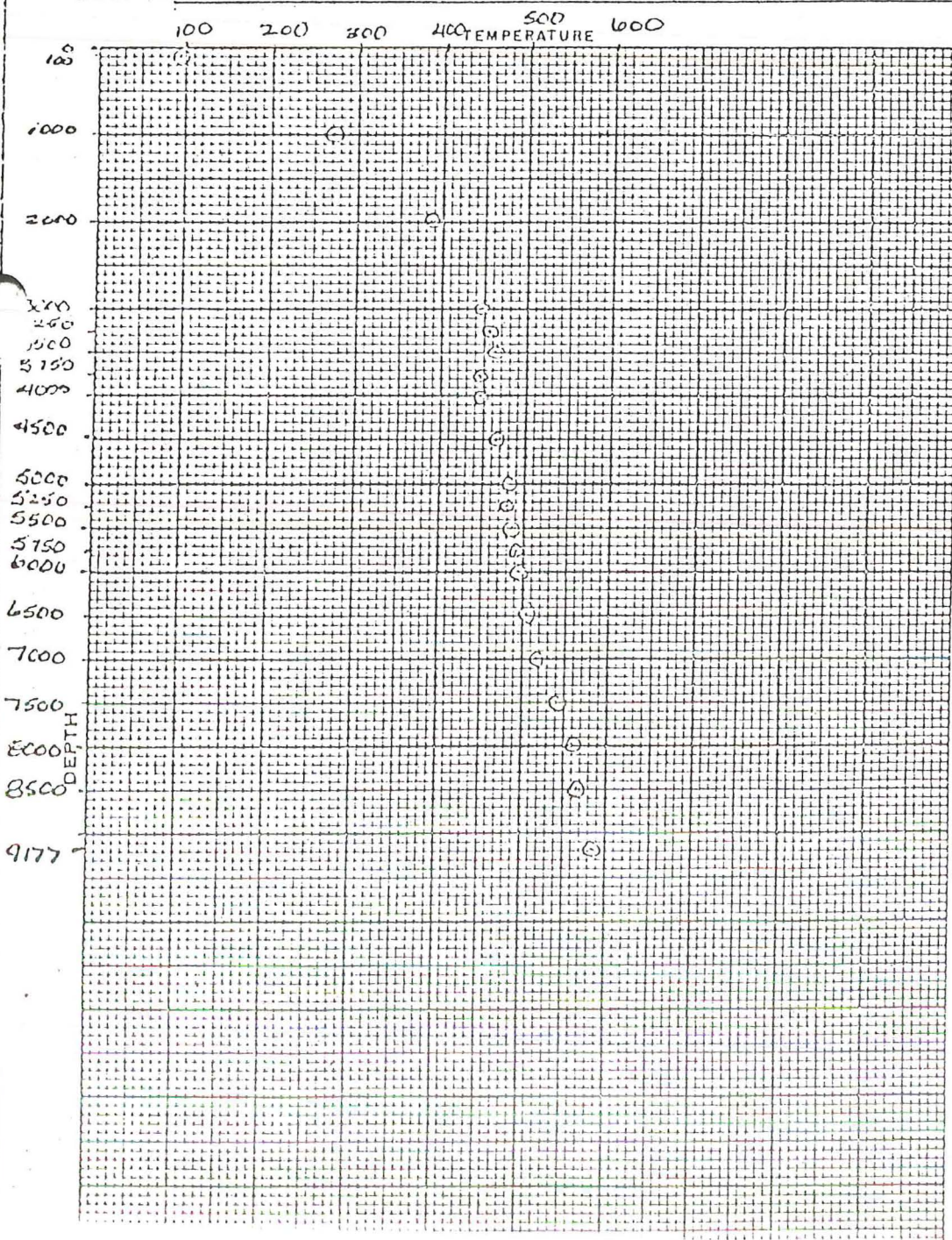
SERIAL NO 10055

PURPOSE _____

MAX TEMP 586.2°F @ 9177'

REMARKS: _____

STABILIZATION PERIOD _____



PRESSURES.	GAUGE	COMP.
CASING, PSI	24 PSI	

DEPTH	TEMP.	DEPTH	TEMP.
100	93.2		
1000	270.2		
2000	386.7		
3000	446.0		
3250	456.0		
3500	461.8		
3750	445.0		
4000	449.9		
4500	465.3		
5000	478.8		
5250	474.1		
5500	485.1		
5750	491.1		
6000	493.9		
6500	503.9		
7000	518.5		
7500	540.0		
8000	559.6		
8500	566.6		
9177	586.2		

GEOHERMAL DIVISION

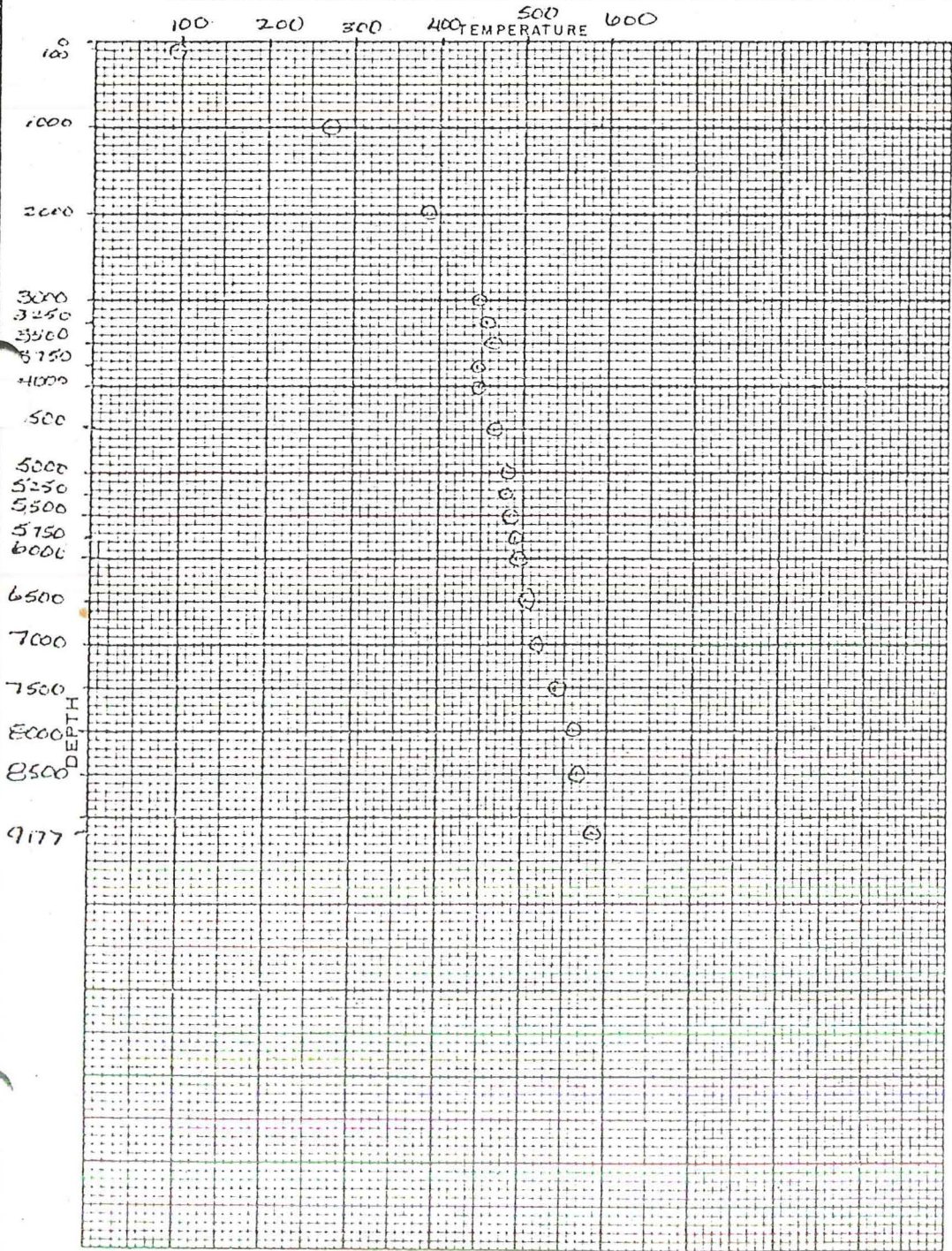
SUBSURFACE TEMPERATURE SURVEY B#12-514-T

76

OWNER UNION OIL COMPANY OF CALIF. FIELD VALLE GRANDE WELL NAME SACA #12
 CABING _____ ELEV 8430' DATE 10-2-74
 LINER DESCRIPTION: _____ ZERO POINT GL-14
 _____ DEPTH 9177

HOLE DESCRIPTION: _____ INSTRUMENT RTB 88°-698°
 _____ SERIAL NO 10055

PURPOSE _____ MAX TEMP 586.2 °F @ 9177'
 REMARKS: _____



STABILIZATION PERIOD

PRESSURES	GAUGE	BOMB
CASING. PSI	24 Psig	

DEPTH	TEMP.	DEPTH	TEMP.
100	93.2		
1000	270.2		
2000	386.2		
3000	446.0		
3250	456.0		
3500	461.8		
3750	445.0		
4000	449.9		
4500	465.3		
5000	478.8		
5250	479.1		
5500	485.1		
5750	491.1		
6000	493.9		
6500	503.9		
7000	518.5		
7500	540.0		
8000	559.6		
8500	566.6		
9177	586.2		

BY: _____

76

UNION

GEOHERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

B12 S-11 P/T
BUILDUP

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACH #12
 CASING ELEV. 8430 DATE: 9-28-74
 LINER DESCRIPTION: ZERO POINT CL +14
 DEPTH 9177

TUBING DETAIL:

PURPOSE

REMARKS:

ELEMENT 880-6980 SERIAL NO. 10055 CLOCK 12hr 14091 TURN STABILIZATION PERIOD

ENGAGE STYLUS 1000 hrs DISENGAGE STYLUS 1626 HR

WELL HEAD

PICKUP @ TIME ON BOTTOM 1045-1545 MAX. 543.9

WELL STATUS

SHUT IN: ON PRODUCTION:

RATE

TEMPERATURE

TEMPERATURE

TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
1100	9177	1.222	480.5			1515	9177	1.435	540.8								
1105	"	1.242	486.0			1530	"	1.440	542.2								
1110	"	1.250	488.2			1545	"	1.466	543.9								
1130	"	1.256	490.0														
1135	"	1.268	493.4														
1140	"	1.277	495.9														
1145	"	1.281	497.1														
1150	"	1.295	501.1														
1155	"	1.301	502.8														
1200	"	1.306	504.2														
1205	"	1.315	506.8														
1210	"	1.320	508.2														
1215	"	1.326	509.8														
1220	"	1.333	511.9														
1225	"	1.338	513.8														
1230	"	1.343	514.8														
1235	"	1.347	515.9														
1240	"	1.353	517.6														
1245	"	1.356	518.5														
1300	"	1.367	521.6														
1315	"	1.378	524.7														
1330	"	1.388	527.6														
1345	"	1.396	529.9														
1400	"	1.405	532.4														
1415	"	1.412	534.4														
1430	"	1.419	536.3														
1445	"	1.425	538.0														
1500	"	1.430	539.4														

COMMENTS:

BY: 

76



GEO THERMAL DIVISION

SUBSURFACE SURVEY 1312 S-11 PIT
Field Work Sheet BUILD-UP

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACH #12

CASING ELEV. 8430' DATE: 9-28-74

LINER DESCRIPTION: ZERO POINT C.L. +14

TUBING DETAIL: DEPTH 9177'

PURPOSE BUILD UP

REMARKS:

ELEMENT 4250 PSIG SERIAL NO. 7198 CLOCK 12 HR 14089 TURN STABILIZATION PERIOD

ENGAGE STYLUS 0956 HRS DISENGAGE STYLUS 1625 HRS

WELL HEAD

PICKUP 0 TIME ON BOTTOM 1045 - 1545 MAX. °F 543.9

WELL STATUS

SHUT IN: ON PRODUCTION:

RATE

PRESSURE

PRESSURE

TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
	9177	301	654.0			1515	9177	1.361	2896.2								
11	"	314	681.4			1530	"	1.376	2927.9								
1125	"	330	715.2			1545	"	1.391	2959.8								
1130	"	345	746.8														
1135	"	373	805.9														
1140	"	386	833.3														
1145	"	404	871.3														
1150	"	432	930.4														
1155	"	465	1000.0														
1200	"	514	1103.8														
1205	"	551	1182.2														
1210	"	590	1264.8														
1215	"	637	1364.4														
1220	"	676	1447.0														
1225	"	716	1531.8														
1230	"	764	1633.5														
1235	"	804	1718.2														
1240	"	840	1794.5														
1245	"	881	1881.4														
200	"	941	2113.9														
315	"	1,057	2253.2														
330	"	1,117	2377.8														
345	"	1,170	2491.6														
400	"	1,217	2591.1														
415	"	1,258	2677.9														
4	"	1,292	2750.0														
4	"	1,320	2809.3														
500	"	1,342	2855.9														

COMMENTS: WHP FLOWING - 15 PSIG

WHP shut in - shut well in at 1115 hrs; At 1245 WHP reached 180 PSIG and then started declining to 40 PSIG at 1545 hrs

BY: *[Signature]*

B

BACA #12 SURVEY DATA #12, #13, #14

BACA #12 SURVEY #12 - 9-28-74 BOTH PRESSURE & TEMPERATURE CLOCKS STOPPED AFTER 10 MINUTES ON BOTTOM

PRESSURE ELEMENT - 4250 PSIG; SN 7198

WHP-45 - 1930 hrs

9-28-74 1930 hrs AT 9177' - 3055.56 PSIG

WHP-43 - 2400 hrs

9-28-74 2400 hrs AT 9177' - 3074.79 PSIG

TEMPERATURE ELEMENT - 88° - 698°; SN 10055

9-28-74 1930 hrs AT 9177' - 554.8°

9-28-74 2400 hrs AT 9177' - 563.2°

BACA #12 SURVEY #13 & #14 - BOTH SURVEYS WERE MISRUNS DUE TO DEFECTIVE HOUSING SEALS.

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UNION

GEO THERMAL DIVISION

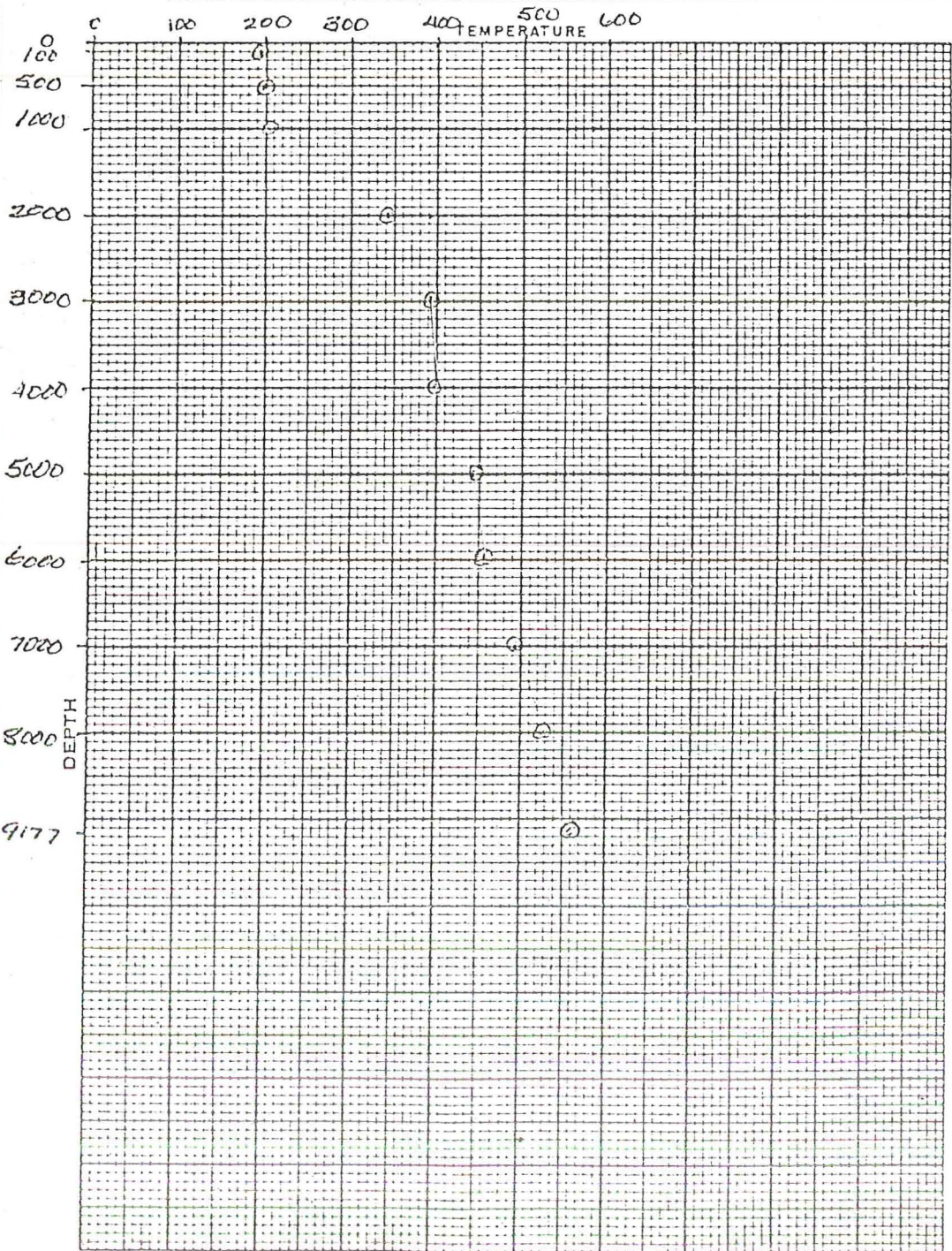
SUBSURFACE TEMPERATURE SURVEY

BIL-S-7 TEMP

OWNER UNION OIL COMPANY OF CALIF FIELD VALLE GRANDE WELL NAME BACA #12
 CASING _____ ELEV 8406 DATE 9/24/74
 LINER DESCRIPTION: _____ ZERO POINT CL + 14
 _____ DEPTH 9211'

HOLE DESCRIPTION: _____ INSTRUMENT KTB 884-698D
 _____ SERIAL NO 10055

PURPOSE PRESSURE / TEMPERATURE SURVEY MAX TEMP 554.0 °F @ 9177
 REMARKS: _____



STABILIZATION PERIOD _____

PRESSURES.	GAUGE	ROMS
CASING. PSI	<u>VAC</u>	<u>VAC</u>

DEPTH	TEMP.	DEPTH	TEMP.
<u>0</u>	<u>0</u>		
<u>100</u>	<u>196.4</u>		
<u>500</u>	<u>198.5</u>		
<u>1000</u>	<u>201.5</u>		
<u>2000</u>	<u>343.8</u>		
<u>3000</u>	<u>396.5</u>		
<u>4000</u>	<u>399.9</u>		
<u>5000</u>	<u>446.2</u>		
<u>6000</u>	<u>454.3</u>		
<u>7000</u>	<u>493.9</u>		
<u>8000</u>	<u>523.3</u>		
<u>9177</u>	<u>554.0</u>		

BY: _____

GEO THERMAL DIVISION

SUBSURFACE PRESSURE SURVEY

B12-5-7 PRESS

76

OWNER UNION OIL OF CALIFORNIA FIELD VALLE GRANDE WELL NAME BACH #12
 CABING _____ ELEV 8406' DATE 9/24/74
 LINER DESCRIPTION: _____ ZERO POINT CL + 14'
 _____ DEPTH 9211'

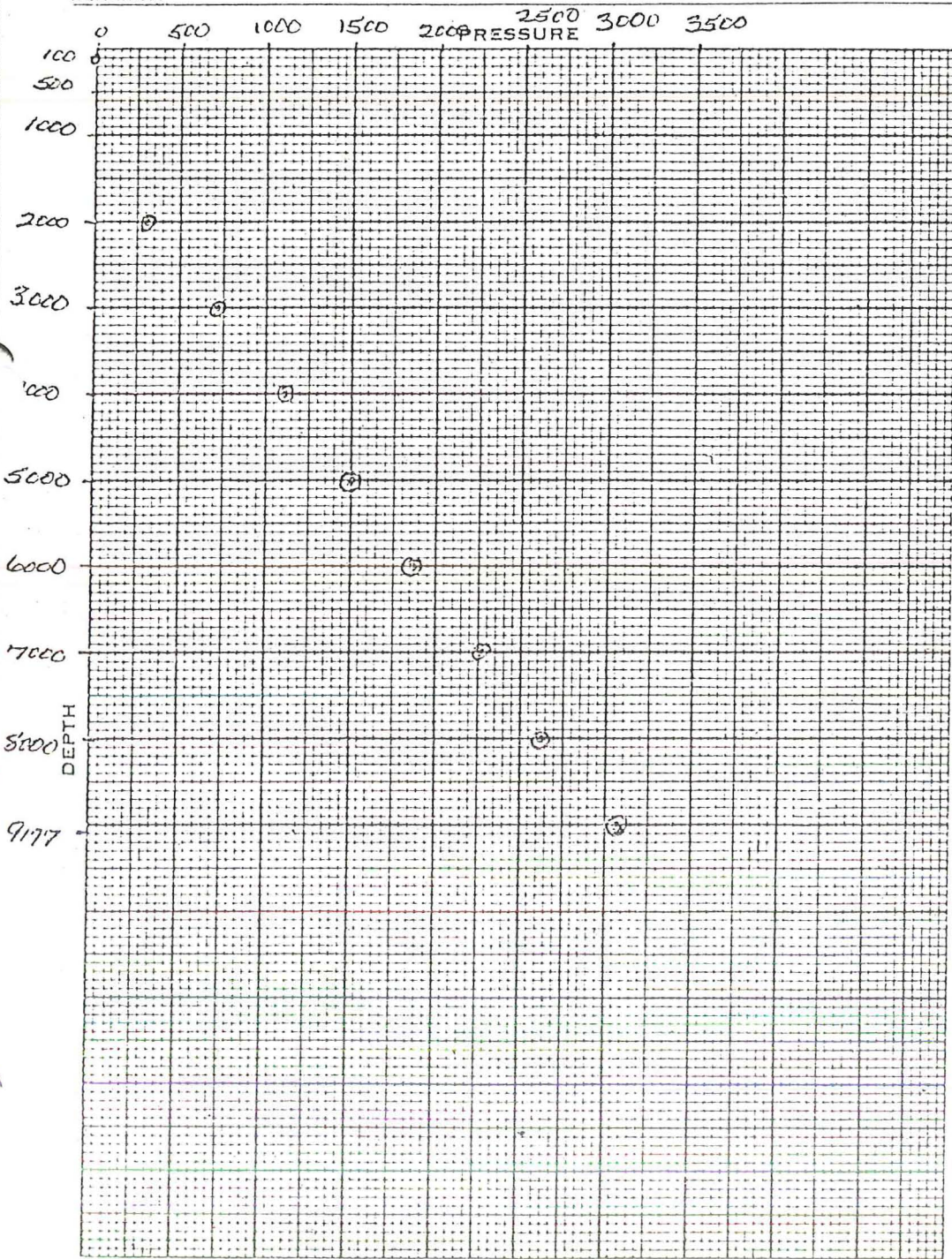
HOLE DESCRIPTION: _____

 INSTRUMENT KPC 4250 PS
 SERIAL NO 7198

PURPOSE PRESSURE / TEMPERATURE SURVEY MAX TEMP 554.0°F @ 9177'

REMARKS:

STABILIZATION PERIOD



PRESSURES	GAUGE	BOMB
CASING, PSI	VAC	VAC

DEPTH	PRESSURE	GRADIENT
0	0	0
100	0	0
500	0	0
1000	0	0
2000	520.1	0
3000	719.4	.399
4000	1114.4	.395
5000	1500.0	.386
6000	1879.2	.379
7000	2257.4	.378
8000	2631.4	.374
9177	3057.7	.337

BY: _____

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BACA #12 SURVEY DATA #8 #9 #10

BACA #12 SURVEY #8, 9 & 10 WERE ALL
MIS RUNS.

76

GEO THERMAL DIVISION

SUBSURFACE PRESSURE SURVEY

B#12-55-9

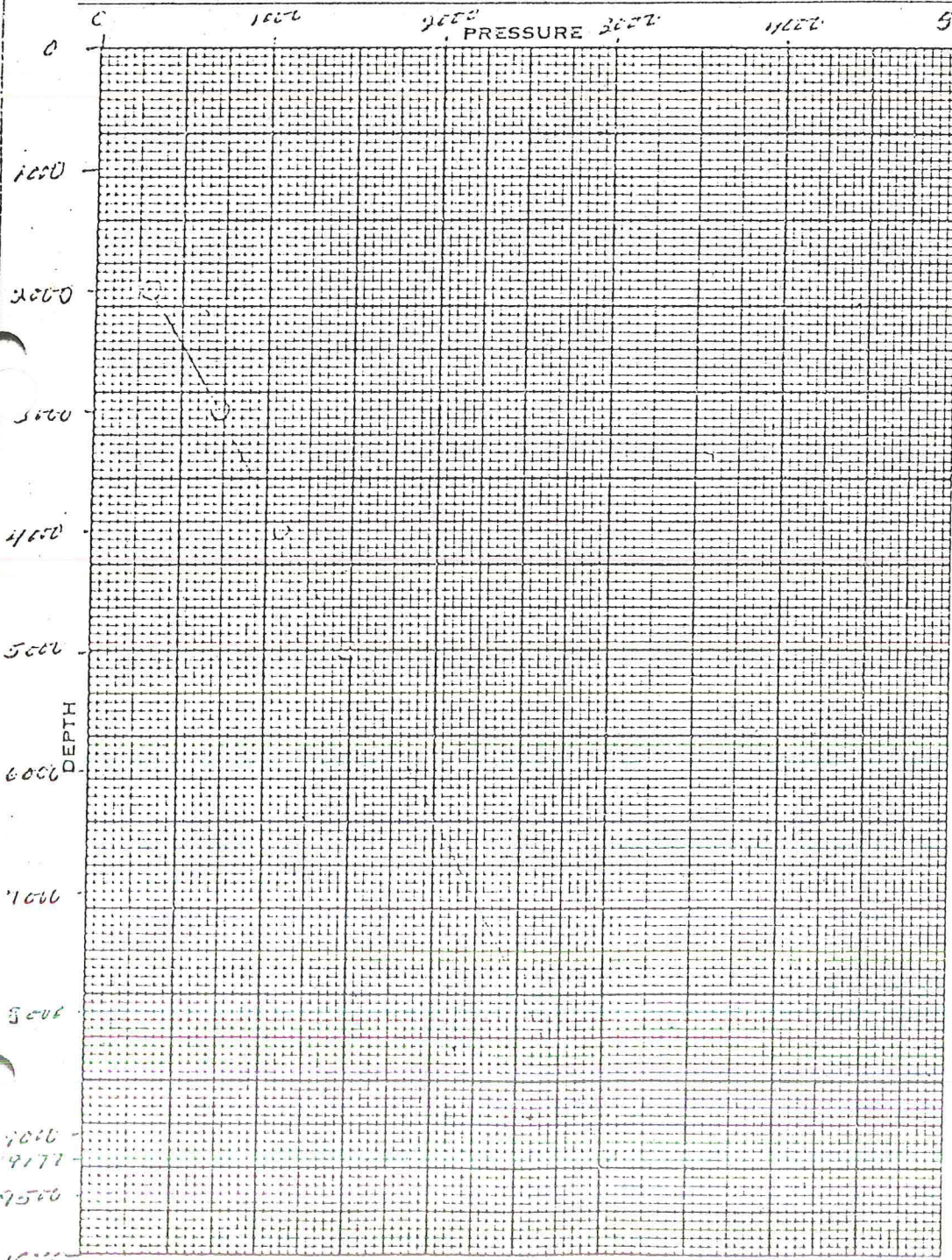
OWNER UNION OIL OF CALIF FIELD V. G WELL NAME B#12
 CASING _____ ELEV. 8420 DATE 9/20/74
 LINER DESCRIPTION: _____ ZERO POINT GLT 14'
 _____ DEPTH 9211'

HOLE DESCRIPTION: _____

 INSTRUMENT 425.0 PS
 SERIAL NO 7198

PURPOSE _____ MAX TEMP 565.2°F @ 9177'

REMARKS:



STABILIZATION PERIOD

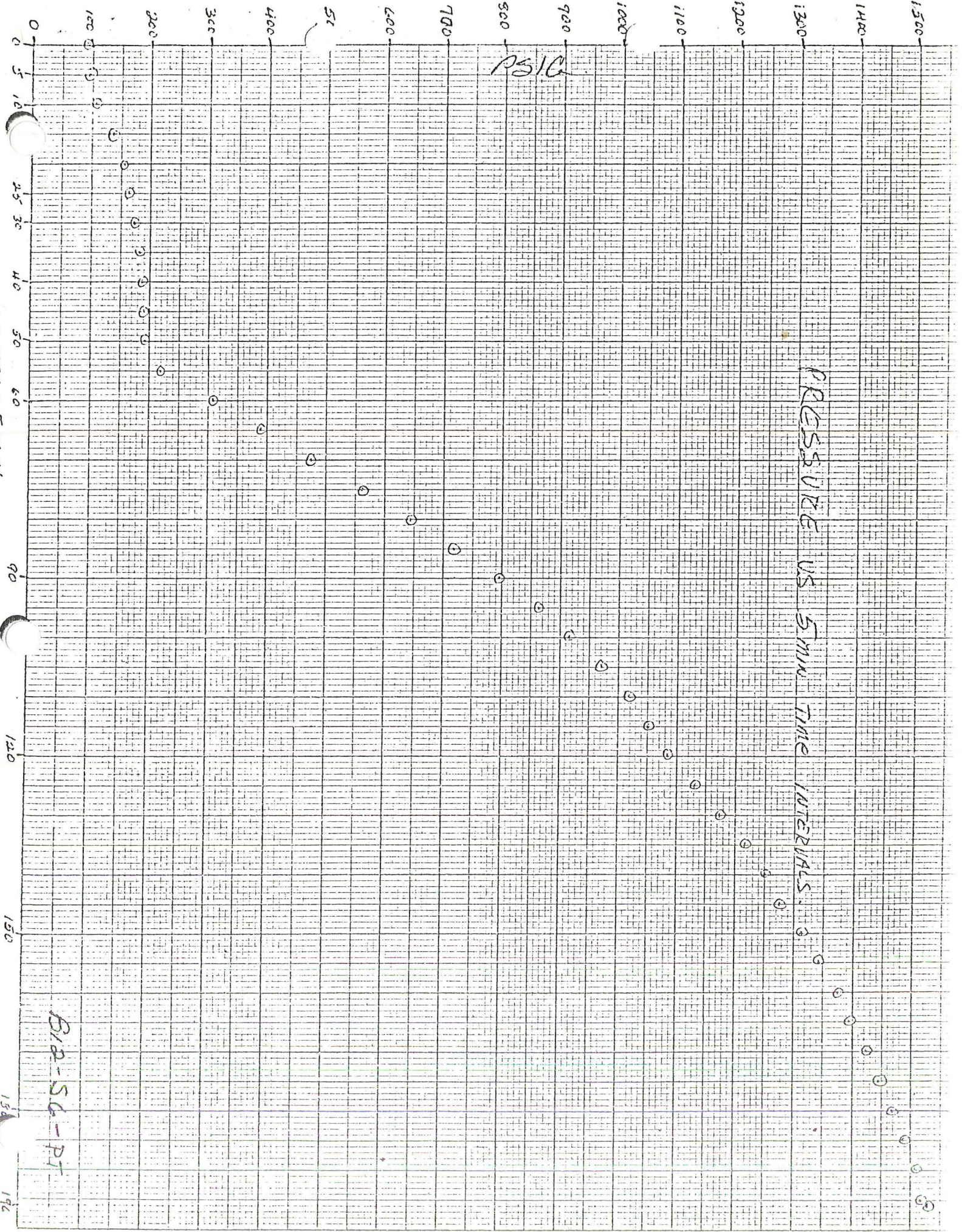
PRESSURE,	GAUGE	BOMB
CASING, PSI	<u>VFC</u>	<u>0</u>

DEPTH	PRESSURE	GRADIENT
0	0	0
2000	322.37	0
3000	717.3	0.395
4000	1099.6	0.382
5000	1480.9	0.351
6000	1855.9	0.375
7000	0	0
8000	0	0
9177	3051.3	0.37

BY: J.M.

PRESSURE VS 5 MIN TIME INTERVALS.

PSIG



B12-56-PT

0 - 20.0000 = 5 MIN

0 - 1.0000 = 1 MIN

0 - 1.0000 = 1 MIN

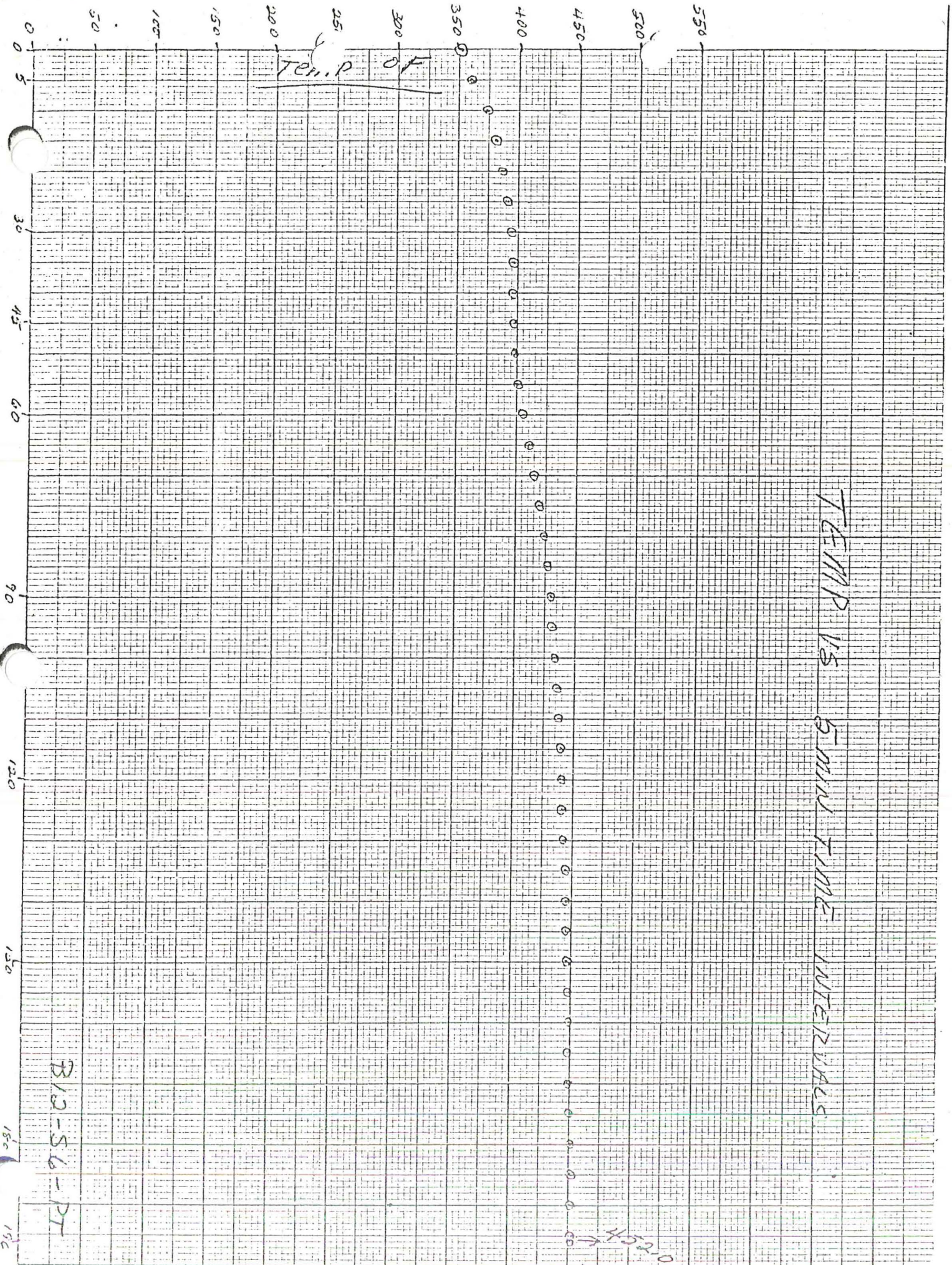
0 - 1.0000 = 1 MIN

150

192

TEMP VS 5 MIN TIME INTERVALS

TEMP OF



B10-56-PT

ORIGIN

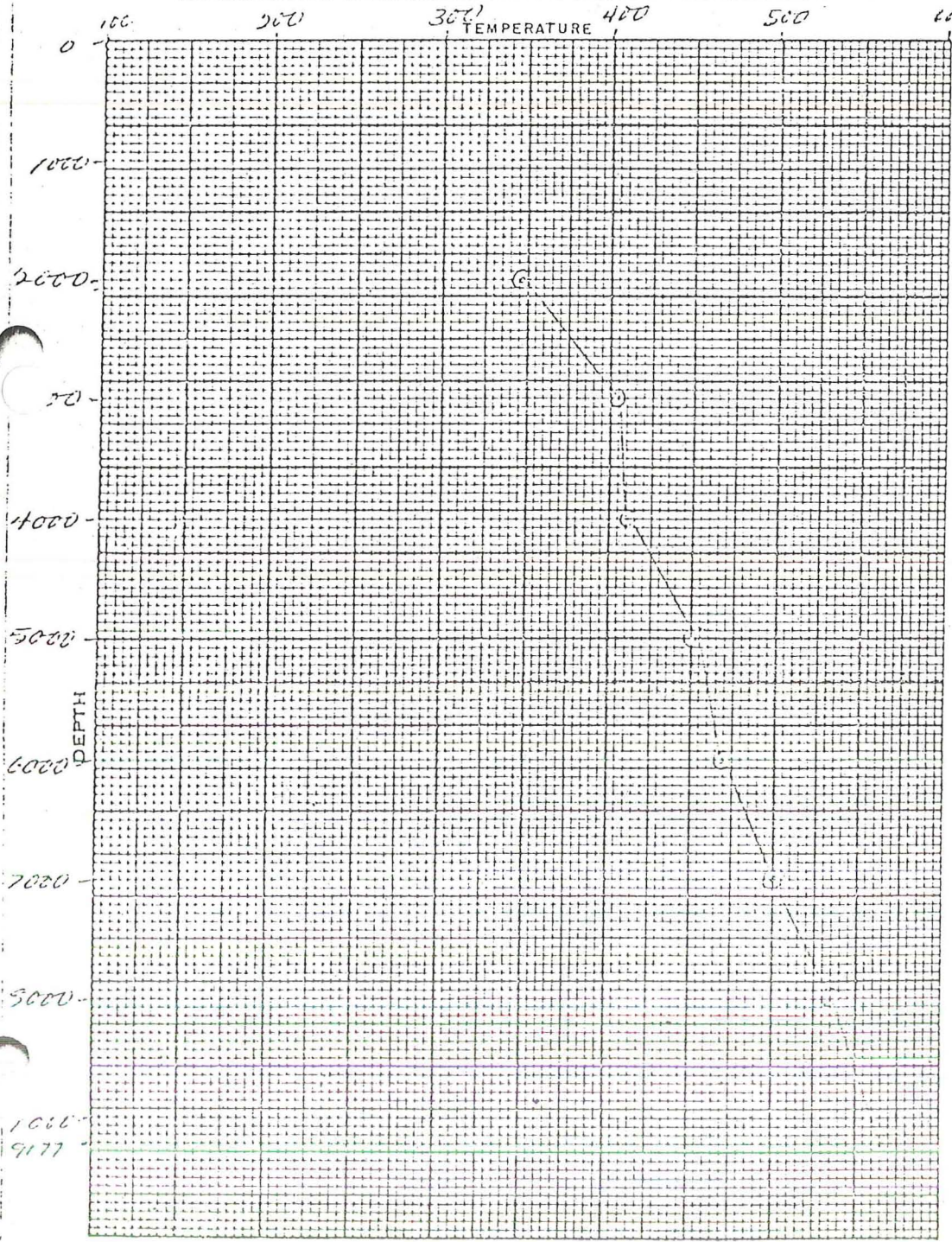
GEO THERMAL DIVISION

SUBSURFACE TEMPERATURE SURVEY

319-85-7

716

OWNER UNION OIL OF CALIF FIELD VALLE GRANDE WELL NAME 5241#19
 CAGING _____ ELEV. 3430' DATE: 9/20/74
 LINER DESCRIPTION: _____ ZERO POINT 14' Above GL
 _____ DEPTH 9311
 HOLE DESCRIPTION: _____ INSTRUMENT 88-695 FAH:
 _____ SERIAL NO 11055
 PURPOSE _____ MAX TEMP 565.2 °F @ 9177
 REMARKS: _____



PRESSURES	GAUGE	COND
CASING, PSI		

DEPTH	TEMP.	DEPTH	TEMP.
0	72.2		
2166	347.9		
3000	405.1		
4000	412.6		
5000	454.0		
6000	469.4		
7000	507.5		
8000	535.2		
9177	565.2		

BY: G.M.

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GEO THERMAL DIVISION B-12- S2-T

SUBSURFACE TEMPERATURE SURVEY

OWNER Union Oil Co of Calif. FIELD Valle Grande WELL NAME BACA #12
CASING 13-3/8" C @ 1457' ELEV _____ DATE: 7/7/74
LINER DESCRIPTION: _____ ZERO POINT Rig Floor
DEPTH 3512

HOLE DESCRIPTION: _____

INSTRUMENT _____ FAN _____

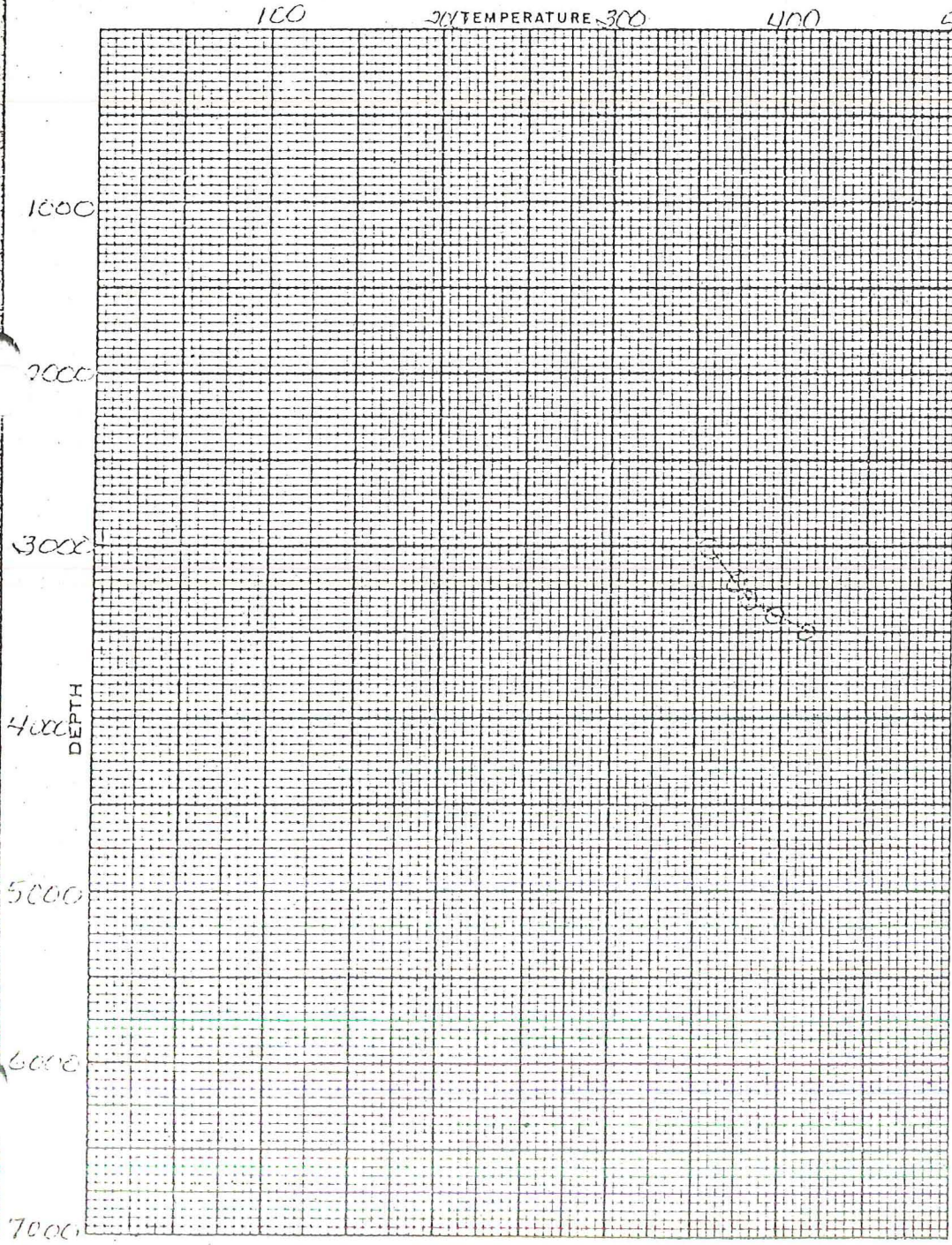
SERIAL NO 10052

PURPOSE Casing Point Survey

MAX TEMP 416 °F @ _____

REMARKS: _____

STABILIZATION PERIOD _____



PRESSURES	GAUGE	BOHR
CASING, PSI		

DEPTH	TEMP.	DEPTH	TEMP.
3000	358		
3200	373		
3300	382		
3400	396		
3500	416		

BY: John Neetge

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GEO THERMAL DIVISION

SUBSURFACE TEMPERATURE SURVEY

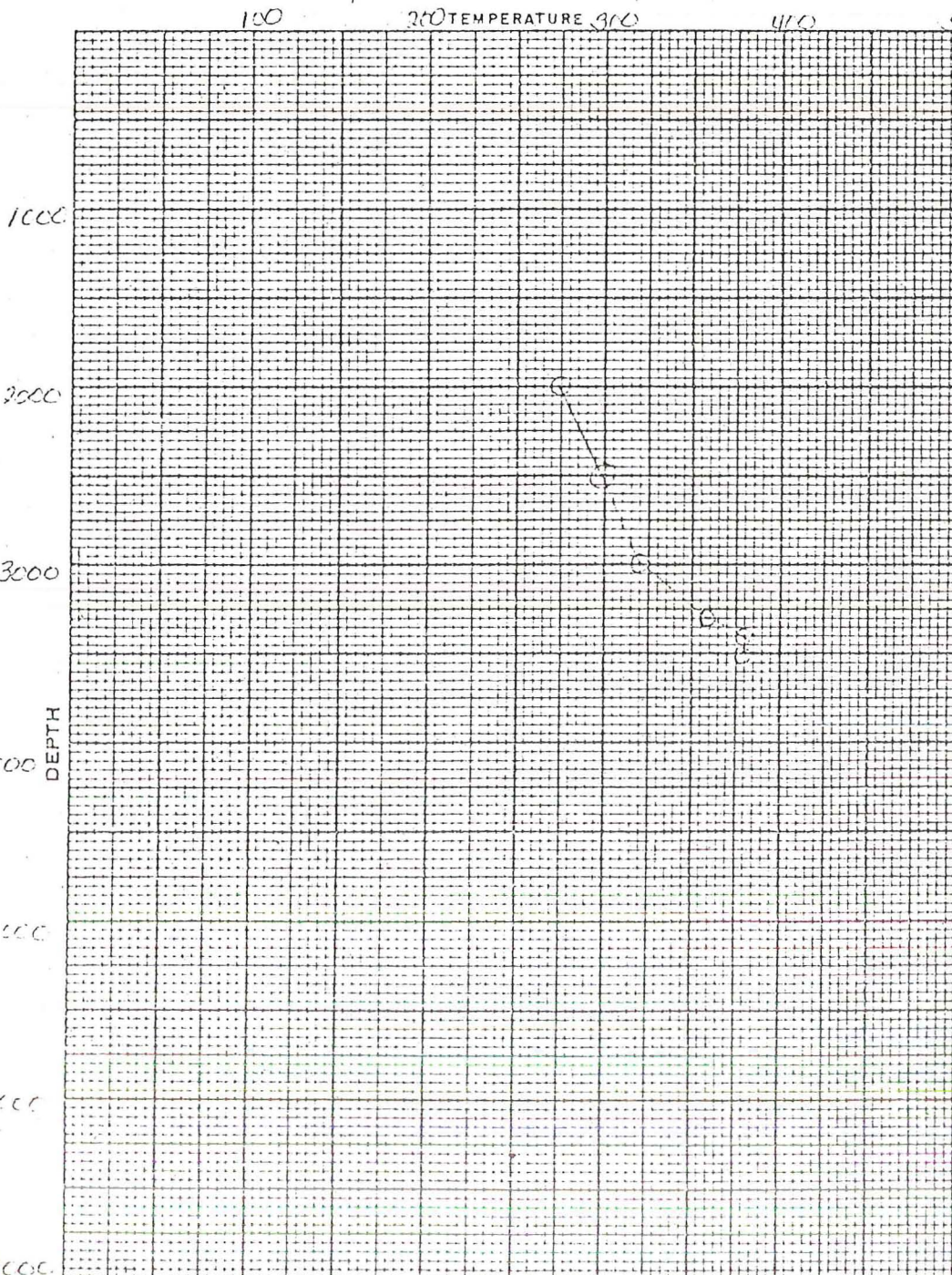
B12-S1-T

OWNER Union Oil of Calif FIELD Valle Grande WELL NAME Baca-12
 CASING 13-3/8" 1457' ELEV _____ DATE 7/7/74
 LINER DESCRIPTION: _____ ZERO POINT SWAB GATE
 _____ DEPTH 3512'

HOLE DESCRIPTION: _____ INSTRUMENT F FAH
 _____ SERIAL NO 10052

PURPOSE Survey Requested by Geologists MAX TEMP 380 °F @
 REMARKS: to Study Temp Build-Up

STABILIZATION PERIOD



PRESSURES	GAUGE	DEPTH
CASING, PSI		
DEPTH	TEMP.	DEPTH
2000	273	
2500	299	
3000	345	
3300	359	
3400	380	
3500	379	

BY: John McNege

BACA #12 SURVEY DATA #3 + #4

BACA #12 SURVEY #3 - SURVEY RUN TO 3352'
COULD NOT GET PAST 3352' DUE TO PLUG IN HOLE.

BACA #12 SURVEY #4 - SURVEY RUN TO 3352'
WITH CENTRALIZER; COULD NOT GET PAST 3352'
DUE TO PLUG IN HOLE.