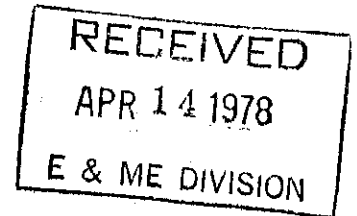


Union Geothermal Division

Union Oil Company, California

Union Oil Center, Box 7600, Los Angeles, California 90051

NJS8-085



April 12, 1978

Mr. William H. Dolan  
AMAX Exploration, Inc.  
4707 Harlan Street  
Denver, Colorado 80212

Dear Mr. Dolan:

In accordance with the Cove Fort-Sulphurdale Geothermal Unit agreement data from a recent temperature/pressure survey of CFSU Well No. 42-7 are enclosed.

Sincerely,

A handwritten signature in cursive script that reads "Steven J. Maione".

Steven J. Maione

SJM/la  
Attachment

76

# GEOTHERMAL DIVISION

## SUBSURFACE SURVEY

Field Work Sheet

CFSU-42-7-S1-PT, TRAY

OWNER Union Oil Company FIELD Cove Fort WELL NAME Sulphur Well 42-7  
 CASING \_\_\_\_\_ ELEV. 6420 DATE: 4/5-6/78  
 LINER DESCRIPTION: 17" From 0 to 2615 ZERO POINT Swab gate (+5')  
tie back @ 3084 DEPTH 2615 (KB + 20')

REMARKS: Fluid level ~ 1850 ft  
"Cold Water Entry" AT ± 2786

PURPOSE Gradient Survey - Traverse From 1500 to 6050 FT

ELEMENT Press SERIAL NO. 12833 CLOCK 17454 TURN \_\_\_\_\_ STABILIZATION PERIOD \_\_\_\_\_  
temp SERIAL NO. 10122 CLOCK 17498 TURN \_\_\_\_\_ STABILIZATION PERIOD \_\_\_\_\_  
 ENGAGE STYLUS 1130 Pst DISENGAGE STYLUS 1728 Pst  
 MAX. °F 325 @ 6050  
 COR. CSG. PRESS. 250 +/-  
 PICKUP @ 6064  
 TIME ON BOTTOM 1649 Pst  
 TIME OFF BOTTOM 1700 Pst  
 WELL STATUS \_\_\_\_\_  
 SHUT IN:  ON PRODUCTION: \_\_\_\_\_  
 Open Swab Gate 1139 Pst  
 Close Swab Gate 1720 Pst

Pressure

TEMPERATURE

TIME	DEPTH	DEFL.	PT	GRAD.	/D	TIME	DEPTH	DEFL.	PT	GRAD.	/D	TIME	DEPTH	DEFL.	PT	GRAD.	/D
	0		250				0		MIN				4700		301		
	500		253				500		106				4800		301		
	1000		253				1000		173				4900		301		
	1500		253				1500		227				5000		303		
	2500		471				2000		305				5100		303		
	3500		873				2100		308				5200		301		
	4500		1277				2200		309				5300		304		
	5500		1681				2300		309				5400		305		
	6050		1900				2400		310				5500		306		
							2500		310				5600		307		
							2600		310				5700		308		
							2700		310				5800		309		
							2800		310				5900		310		
							2900		304				6000		319		
							3000		293				6050		325		
							3100		297								
							3200		298								
							3300		298								
							3400		298								
							3500		299								
							3600		299								
							3700		299								
							3800		299								
							3900		299								
							4000		298								
							4100		299								
							4200		299								
							4300		299								
							4400		300								
							4500		300								
							4600		301								

COMMENTS: Bridge @ 6064 - Tool sticking badly at this point  
19050 AT wireline on drum

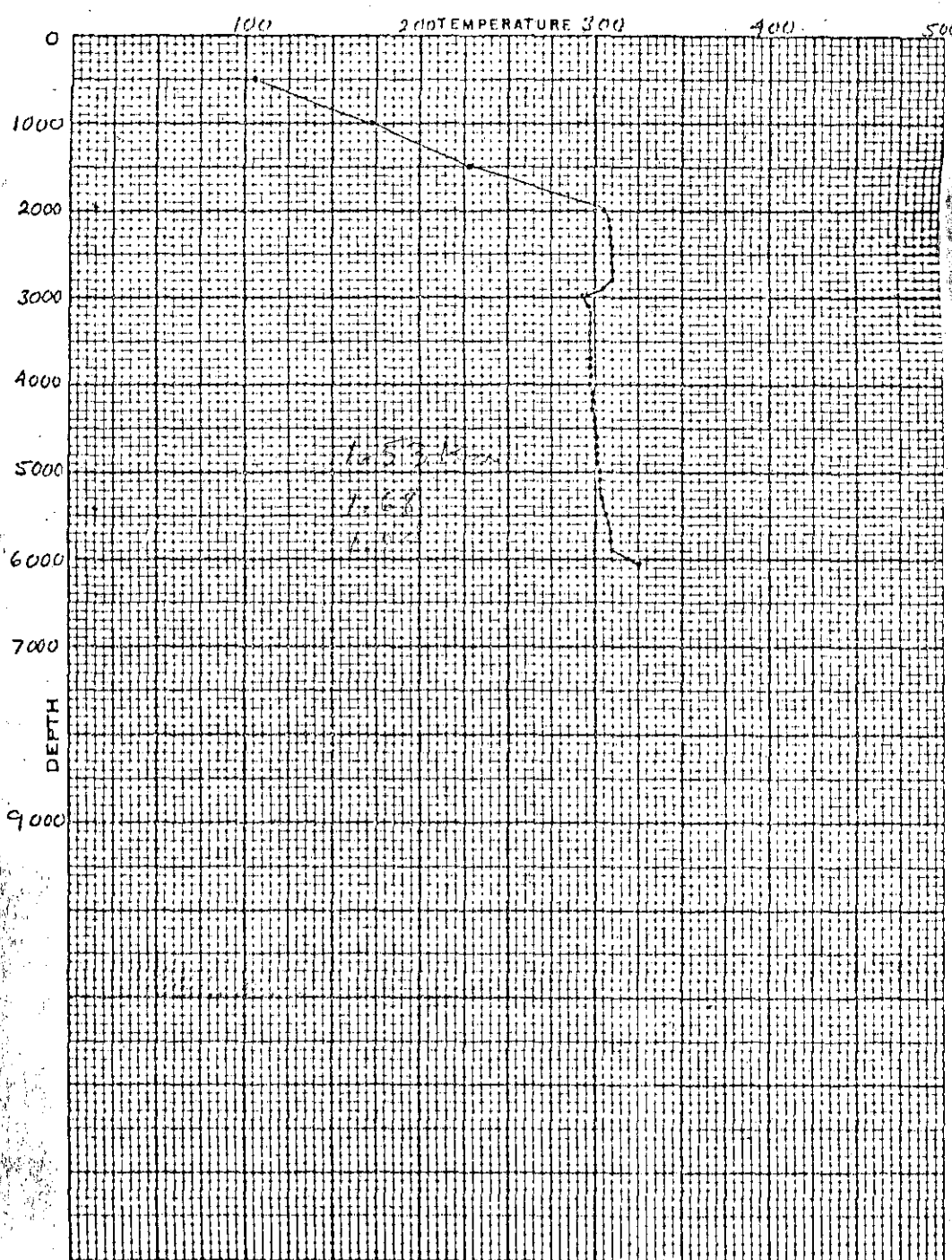
1.0000 \$ 50.00

76

GEOTHERMAL DIVISION  
SUBSURFACE TEMPERATURE SURVEY

CFSU 42-7-51-PT TR

OWNER Union Oil Company FIELD Cova Fort WELL NAME Sufferdale 42-7  
 CASING \_\_\_\_\_ ELEV 6420 DATE 4-15-6-178  
 LINER DESCRIPTION: 7" From 0-7615 ZERO POINT SWAB GATE (+5F)  
Tie back @ 3084 DEPTH 7615  
 HOLE DESCRIPTION: \_\_\_\_\_ INSTRUMENT 104-768  
 SERIAL NO 10172  
 PURPOSE Pressure/Temperature Gradient by Traverse MAX TEMP 325 °F @ 6050  
 REMARKS: Fluid level ~ 1850 FT.



STABILIZATION PERIOD

DEPTH	TEMP	TIME
500	106	5400
1000	173	5500
1500	227	5600
2000	305	5700
2100	308	5800
2200	309	5900
2300	309	6000
2400	310	6050
2500	310	
2600	310	
2700	310	
2800	310	
2900	304	
3000	293	
3100	297	
3200	298	
4000	299	
4100	299	
4200	299	
4300	299	
4400	300	
4500	300	
4600	301	
4700	301	
4800	301	
4900	301	
5000	303	
5100	303	
5200	303	

BY: Timmons & Markford

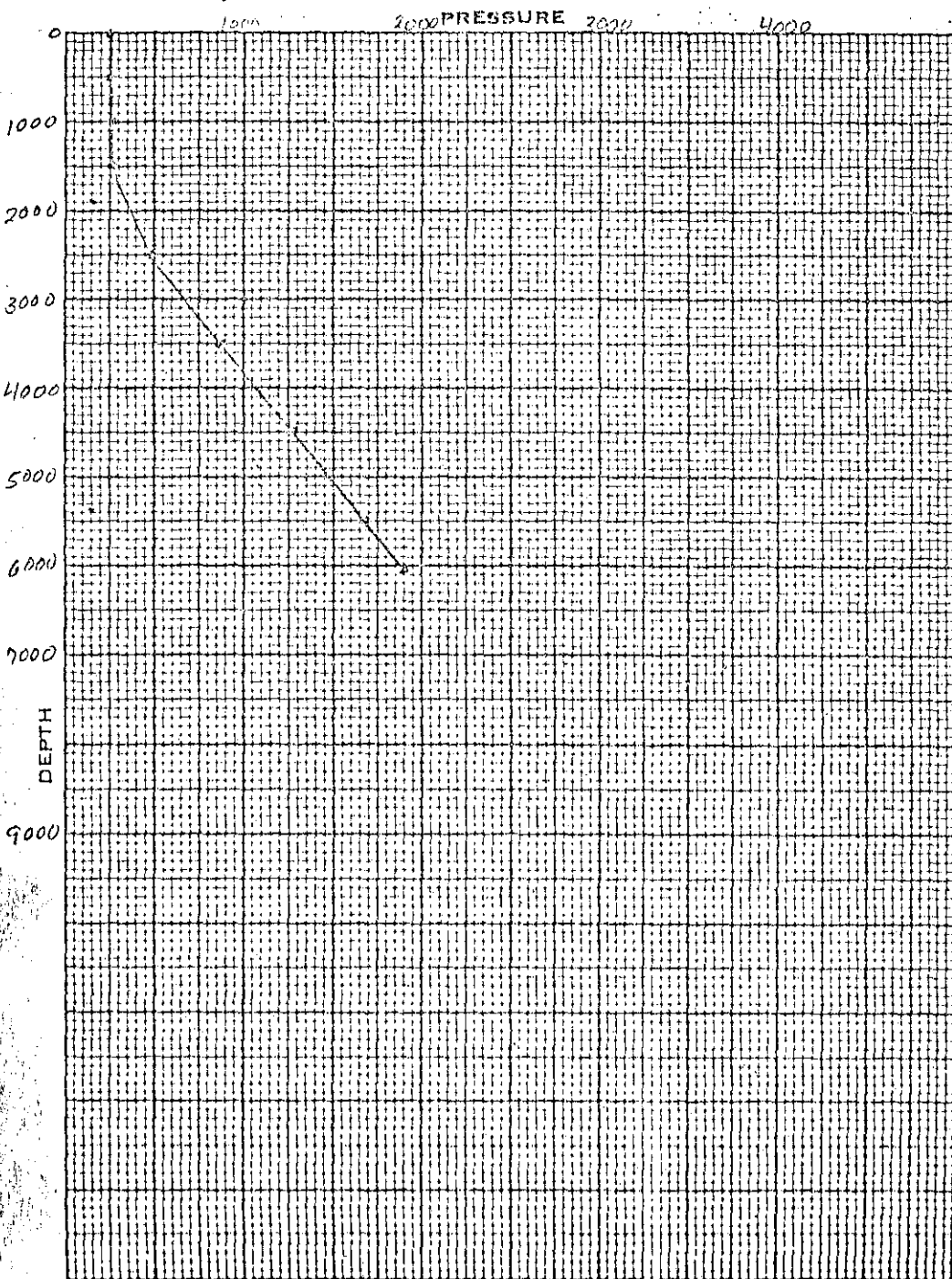
76

# GL THERMAL DIVISION

## SUBSURFACE PRESSURE SURVEY

CFSU 42-7-51-PT TRAV

OWNER Union Oil Company FIELD Cove Fort WELL NAME Sulphurdale 42-2  
 CASING \_\_\_\_\_ ELEV. 6420 DATE 4/5-6/78  
 LINER DESCRIPTION: 7" From 0 to 2615 ZERO POINT Swab gate  
Tie back @ 3044 DEPTH 7615  
 HOLE DESCRIPTION: \_\_\_\_\_ INSTRUMENT 0-4100 PSI  
 SERIAL NO. 12833  
 PURPOSE Gradient Survey - Traverse From 1500" MAX TEMP 325 °F @ 6050  
 REMARKS: Fluid level @ ~ 1850 FT



STABILIZATION PERIOD

PRESSURES	GAUGE	BOMB
CASING, PSI	250	250

DEPTH	PRESSURE	GRADIENT
0	250	
500	253	
1000	253	
1500	253	
2500	471	
3500	873	
4500	1279	
5500	1681	
6050	1900	

By Instruments of Merfald