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UNITED STATES (DEPARTMENT OF THE INTERIOR)

GEOLOGICAL SURVEY

[Reports - Open file series]

Audio-magnetotelluric Data Log and Station Location Map

for the

Glamis Known Geothermal Resource Area, California

Robert Michael GS by

R. M. Senterfit and W. D. Heran

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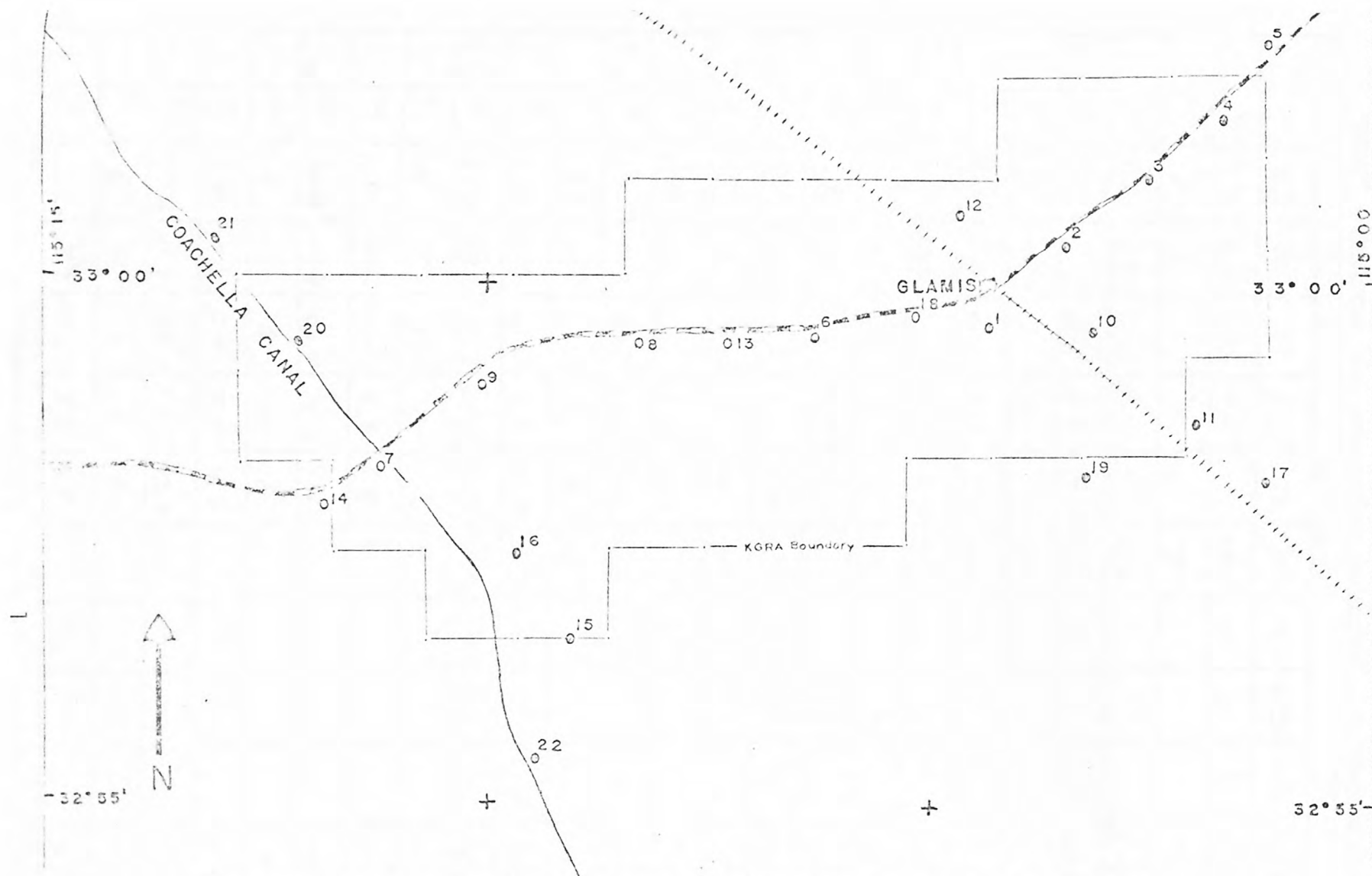


Open-File Report 78-105C

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This report is preliminary and has not been
edited or reviewed for conformity with U.S.
Geological Survey standards.



AUDIO-MAGNETOTELLURIC STATION LOCATION MAP

GLAMIS KNOWN GEOTHERMAL RESOURCE AREA, CALIFORNIA

R.M. SENTERFIT & W.D. HERAN

0 1 2 3 MILES

KILOMETERS

1978

LEGEND

- AMT STATION
- RAILROAD
- CANAL
- HIGHWAY

GLAMIS KGRA

U.S. GEOLOGICAL SURVEY A.M.T. DATA LOG

pa = observed apparent resistivity in ohm-metres

N = number of observations

Er = standard error in ohm metres

- = no data

"NOTE" - Telluric line orientation indicated with station numbers.

Sta. No.	FREQUENCY												
		7.5	10	14	27	76	285	685	1.2K	3.3K	6.7K	10.2K	18.6K
1 _{NE}	pa	3.4	5.8	3.2	4.5	-	45.5	-	-	-	14.7	68.0	29.7
	N	7	6	5	6		4				3	1	1
	Er	1.1	1.4	0.4	0.5		8.4				2.4	-	-
1 _{SE}	pa	7.3	8.2	5.2	6.8	-	5.5	-	-	-	108.2	20.6	37.1
	N	8	5	6	6		4				5	1	1
	Er	2.9	1.8	0.04	0.1		0.4				7.6	-	-
2 _{NE}	pa	18.8	10.4	19.5	12.9	22.3	2.6	-	-	-	21.4	24.1	-
	N	6	6	7	6	6	4				5	1	
	Er	1.1	2.6	1.9	0.9	5.4	0.1				0.3	-	
2 _{SE}	pa	26.4	22.6	17.8	12.8	7.0	2.7	-	-	-	64.4	29.6	22.0
	N	6	6	5	5	4	4				6	1	1
	Er	2.0	1.5	1.1	0.8	0.7	0.6				6.1	-	-
3 _{NE}	pa	33.5	49.8	63.6	65.6	50.1	36.8	-	-	-	23.0	24.7	13.1
	N	6	5	5	6	6	4				4	1	1
	Er	5.1	14.9	10.2	7.7	10.4	4.2				1.2	-	-
3 _{SE}	pa	87.8	88.0	75.7	56.5	44.7	12.2	-	-	-	96.5	64.6	-
	N	6	5	5	5	6	4				1	1	
	Er	11.3	9.2	12.0	5.2	6.8	3.4				-	-	
4 _{NE}	pa	70.9	79.8	102.0	76.2	46.3	-	-	-	-	29.3	36.7	29.1
	N	6	6	6	6	6					3	1	1
	Er	7.8	13.2	8.5	7.3	4.2					2.4	-	-
4 _{SE}	pa	137.8	111.7	183.0	113.3	93.2	-	-	-	-	138.0	111.1	-
	N	6	5	6	6	6					2	1	
	Er	18.2	34.2	14.6	7.8	5.5					1.5	-	

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U.S. GEOLOGICAL SURVEY A.M.T. DATA LOG

ρ_a = observed apparent resistivity in ohm-metres

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Sta. No.		FREQUENCY											
		7.5	10	14	27	76	285	685	1.2K	3.3K	6.7K	10.2K	18.6K
5 _{NE}	ρ_a	68.0	66.9	58.0	31.6	46.5	9.4	—	—	—	161.0	36.6	—
	N	6	5	6	5	6	1				2	1	
	Er	12.2	10.1	5.8	5.7	5.9	—				4.8	—	
5 _{SE}	ρ_a	396.8	416.0	318.1	229.6	160.8	21.3	—	—	—	51.0	43.5	20.4
	N	6	5	6	6	6	7				4	1	1
	Er	40.2	52.9	28.6	12.1	17.4	1.6				4.5	—	—
6 _{NE}	ρ_a	8.7	8.5	5.1	17.0	6.1	—	—	—	—	—	—	3.1
	N	5	4	4	6	3							1
	Er	2.4	1.5	0.3	2.8	0.9							—
6 _{SE}	ρ_a	18.9	—	26.1	16.0	5.9	—	—	—	—	—	28.3	—
	N	5		3	5	3						1	
	Er	6.2		0.7	1.8	2.3						—	
7 _{NE}	ρ_a	—	—	—	—	—	—	—	—	—	—	—	—
	N												
	Er												
7 _{SE}	ρ_a	23.3	9.5	32.6	15.4	38.2	—	—	—	—	83.8	77.9	2.1
	N	4	5	6	6	6					3	1	1
	Er	7.0	3.9	4.5	5.5	4.9					8.0	—	—
8 _{NE}	ρ_a	12.7	—	15.6	9.2	17.9	9.7	—	—	—	279.8	355.8	455.0
	N	6		4	5	7	3				3	1	1
	Er	1.9		1.2	2.8	2.1	2.9				9.2	—	—
8 _{SE}	ρ_a	5.4	—	5.8	3.1	3.0	5.5	—	—	—	—	—	1.6
	N	6		5	5	3	3						1
	Er	1.5		1.6	0.3	0.7	1.4						—

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U.S. GEOLOGICAL SURVEY A.M.T. DATA LOG

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Sta. No.		FREQUENCY											
		7.5	10	14	27	76	285	685	1.2K	3.3K	6.7K	10.2K	18.6K
9 _{NE}	pa	16.8	—	33.4	19.6	21.9	29.6	—	—	—	198.1	283.7	195.6
	N	4		9	7	6	3				5	1	1
	Er	2.3		6.5	1.5	5.1	0.7				16.3	—	—
9 _{SE}	pa	10.4	—	7.9	12.1	29.9	98.6	—	—	—	540.0	444.5	214.5
	N	5		8	6	6	5				4	1	1
	Er	1.2		0.9	1.1	0.4	30.0				17.2	—	—
10 _{NE}	pa	8.9	5.4	6.7	7.7	9.9	—	—	—	—	—	34.2	27.8
	N	5	4	5	6	5						1	1
	Er	3.2	2.1	1.0	0.1	1.0						—	—
10 _{SE}	pa	9.5	2.7	5.7	8.1	17.3	—	—	—	—	—	36.4	5.8
	N	5	4	6	5	4						1	1
	Er	0.4	0.4	1.7	1.3	0.7						—	—
11 _{NE}	pa	42.3	51.7	48.9	17.9	15.1	11.3	—	—	—	18.8	47.5	20.4
	N	3	4	6	5	5	5				5	1	1
	Er	8.7	24.0	23.0	1.5	0.7	0.9				0.6	—	—
11 _{SE}	pa	5.1	2.0	3.0	6.7	21.9	28.8	—	—	—	92.2	94.6	48.1
	N	5	4	5	4	6	5				3	1	1
	Er	0.8	1.0	0.3	1.6	2.0	1.8				30.6	—	—
12 _{NE}	pa	38.1	27.6	10.0	8.6	—	—	—	—	—	22.4	36.8	10.1
	N	5	6	6	6						4	1	1
	Er	12.2	4.3	1.3	1.1						0.01	—	—
12 _{SE}	pa	18.0	6.4	3.8	3.4	—	—	—	—	—	80.6	26.3	23.2
	N	7	5	6	5						4	1	1
	Er	9.1	1.3	0.6	0.2						7.1	—	—

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Sta. No.		FREQUENCY											
		7.5	10	14	27	76	285	685	1.2K	3.3K	6.7K	10.2K	18.6K
13 _{NE}	pa	24.2	21.0	11.4	18.0	8.7	2.3	—	—	—	184.1	181.0	96.3
	N	7	7	7	5	5	4				3	1	1
	Er	6.9	3.7	2.1	0.3	0.2	0.3				5.8	—	—
13 _{SE}	pa	28.6	16.6	32.3	21.0	21.2	14.3	—	—	—	298.8	575.8	31.6
	N	5	3	2	4	4	5				1	1	1
	Er	9.9	6.6	0.0	3.2	5.2	3.4				—	—	—
14 _{NE}	pa	12.6	39.7	16.7	21.0	11.4	3.0	—	—	—	8.6	45.0	—
	N	3	4	6	6	5	4				4	1	
	Er	0.4	9.0	6.1	5.1	0.8	0.4				0.4	—	
14 _{SE}	pa	16.5	9.0	4.8	5.4	9.2	11.1	—	—	—	9.1	29.7	—
	N	3	3	5	5	5	4				4	1	
	Er	4.0	2.8	0.7	1.0	2.2	5.2				0.5	—	
15 _{NE}	pa	18.5	—	13.0	21.9	12.3	36.3	—	—	—	—	968.7	1603.0
	N	4		5	7	3	3					1	1
	Er	3.0		3.0	2.0	0.5	6.4					—	—
15 _{SE}	pa	43.9	—	19.0	29.0	21.7	14.5	—	—	—	38.7	241.7	562.0
	N	4		5	6	6	1				6	1	1
	Er	7.8		5.0	5.5	3.9	—				1.9	—	—
16 _{NE}	pa	40.6	30.8	22.0	22.3	19.5	14.1	—	—	—	142.0	174.0	147.8
	N	5	3	3	6	5	5				4	1	1
	Er	7.5	3.4	2.7	1.7	3.1	1.6				7.9	—	—
16 _{SE}	pa	20.2	13.6	11.8	16.6	16.8	8.7	—	—	—	—	345.0	143.5
	N	6	6	6	5	5	4					1	1
	Er	2.4	2.0	1.7	2.2	1.2	0.5					—	—

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		7.5	10	14	27	76	285	685	1.2K	3.3K	6.7K	10.2K	18.6K
17 _{NE}	ρ_a	118.4	—	34.5	54.8	13.8	15.3	—	—	—	19.3	29.8	25.9
	N	4		4	4	5	5				4	1	1
	Er	16.2		3.2	9.6	1.1	2.8				2.1	—	—
17 _{SE}	ρ_a	20.0	11.9	5.3	8.6	16.5	12.0	—	—	—	27.4	25.0	25.3
	N	5	4	8	5	5	6				5	1	1
	Er	7.4	2.0	1.3	2.5	1.4	0.6				5.3	—	—
18 _{NE}	ρ_a	11.5	5.2	2.3	4.1	8.3	—	—	—	—	52.0	84.0	52.3
	N	4	3	6	6	5					4	1	1
	Er	4.8	0.2	0.8	1.1	1.2					0.1	—	—
18 _{SE}	ρ_a	22.6	4.9	1.8	2.4	—	—	—	—	—	20.6	98.8	60.3
	N	4	3	4	5						5	1	1
	Er	5.1	1.5	0.7	0.1						12.7	—	—
19 _{NE}	ρ_a	10.0	4.5	1.8	0.7	0.1	—	—	—	—	98.6	111.4	98.1
	N	6	3	8	6	2					4	1	1
	Er	2.1	0.7	0.2	0.1	0.01					1.4	—	—
19 _{SE}	ρ_a	12.2	7.5	5.8	9.4	3.0	—	—	—	—	206.7	138.6	28.5
	N	6	6	6	6	2					2	1	1
	Er	2.3	0.7	0.5	0.8	0.4					7.0	—	—
20 _{NE}	ρ_a	25.3	16.9	7.8	23.9	22.9	—	—	—	—	—	254.3	7.4
	N	4	4	4	5	3						1	1
	Er	2.4	5.2	2.0	1.8	3.2						—	—
20 _{SE}	ρ_a	42.6	14.2	17.4	6.5	20.1	—	—	—	—	—	9.7	300.0
	N	4	5	3	4	5						1	1
	Er	6.7	3.1	2.5	2.3	6.2						—	—

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Sta. No.		FREQUENCY											
		7.5	10	14	27	76	285	685	1.2K	3.3K	6.7K	10.2K	18.6K
21 NE	pa	8.3	17.5	12.4	12.8	11.1	2.7	—	—	—	22.4	—	—
	N	8	5	6	6	6	1				2		
	Er	2.0	2.2	0.9	0.3	0.9					0.2		
21 SE	pa	11.0	9.3	4.7	5.7	3.9	—	—	—	—	104.0	—	—
	N	5	5	4	6	3					1		
	Er	1.7	3.2	0.4	0.4	0.2					—		
22 NE	pa	21.5	12.2	13.7	11.8	13.0	3.8	—	—	—	24.2	39.7	810.0
	N	7	5	6	6	8	5				5	1	1
	Er	3.6	1.1	0.5	1.2	1.5	0.3				1.7	—	—
22 SE	pa	20.2	10.2	7.7	8.7	9.6	4.3	—	—	—	—	49.7	26.2
	N	3	4	6	6	6	5					1	1
	Er	0.5	2.7	1.3	2.9	2.1	0.7					—	—
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