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Audio-magnetotelluric data log and station location map for Lund Known Geothermal Resource Area, Utah

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By

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

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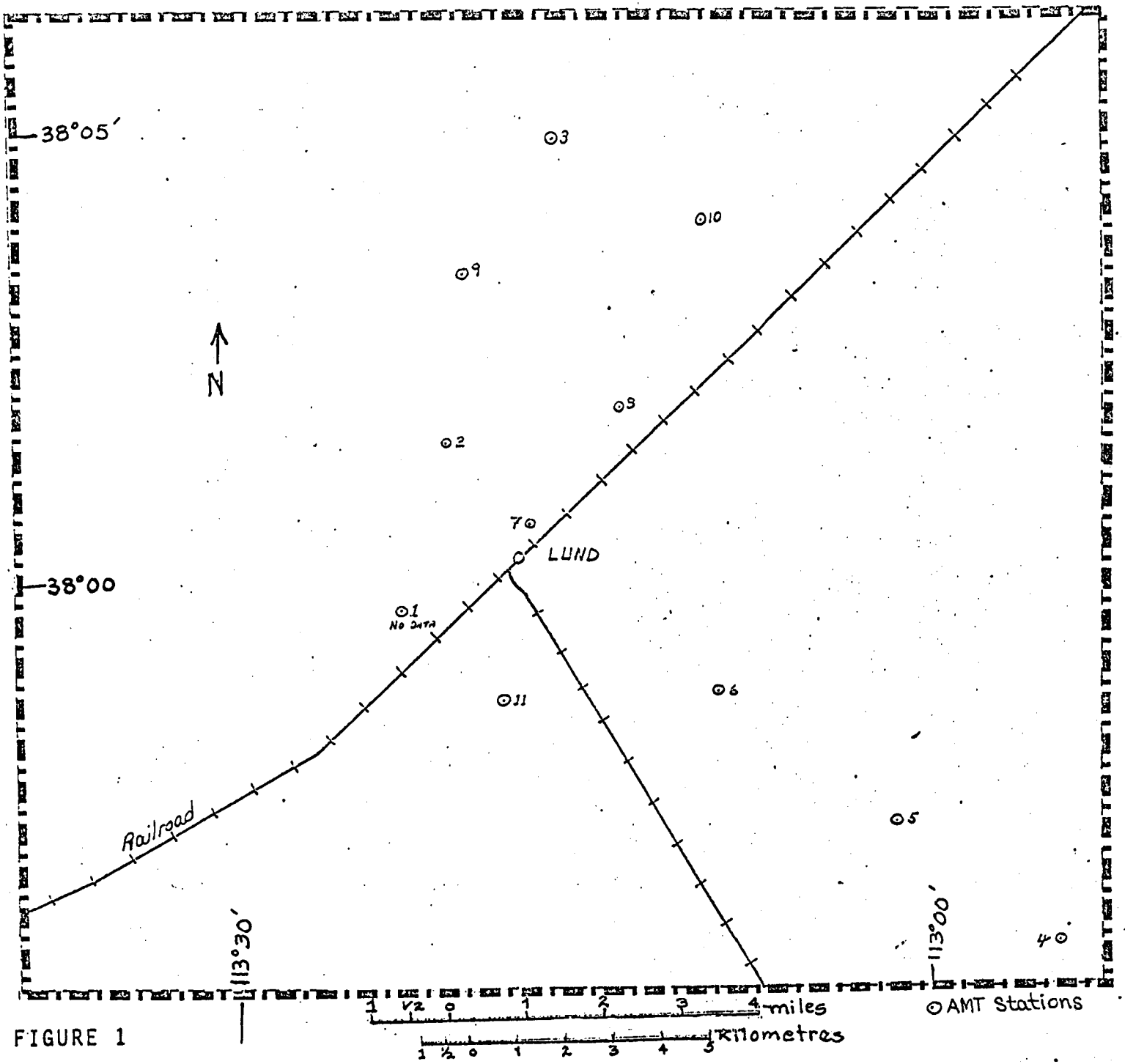

FIGURE 1

Audio-magnetotelluric station location map for the Lund KGRA (Known Geothermal Resource Area), Utah.

Lund, Utah KGRA ✓ — U.S. GEOLOGICAL SURVEY A.M.T. DATA LOG

ρa = 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
2NS	ρa	13.2	—	—	10.3	11.1	15.7	—	—	—	7.3	—	4.4
	N	5	—	—	11	10	10	—	—	—	9	—	1
	Er	2.8	—	—	0.9	0.3	0.5	—	—	—	0.3	—	1
2EW	ρa	54.2	—	—	23.3	17.3	25.7	—	—	—	24.8	1.3	2.7
	N	9	—	—	12	9	8	—	—	—	13	1	1
	Er	3.5	—	—	0.5	0.4	1.8	—	—	—	21.9	—	—
3NS	ρa	—	—	—	51.9	48.3	50.5	—	—	—	10.6	8.5	7.9
	N	—	—	—	14	6	10	—	—	—	10	1	1
	Er	—	—	—	3.8	1.7	6.9	—	—	—	0.6	—	—
3EW	ρa	27.6	—	—	—	—	—	—	—	—	—	—	—
	N	3	—	—	—	—	—	—	—	—	—	—	—
	Er	4.4	—	—	—	—	—	—	—	—	—	—	—
4NS	ρa	—	—	25.1	14.9	23.0	32.8	41.3	—	—	10.9	1.1	8.3
	N	—	—	8	10	11	10	4	—	—	10	1	1
	Er	—	—	7.8	1.0	2.0	3.6	4.7	—	—	0.7	—	—
4EW	ρa	21.0	18.3	19.2	26.3	36.0	47.7	33.4	—	—	4.7	2.0	1.4
	N	9	10	7	10	12	9	7	—	—	10	1	1
	Er	2.0	1.5	1.3	1.7	1.0	2.6	3.2	—	—	0.4	—	—
5NS	ρa	7.9	—	—	14.6	33.9	21.0	33.0	—	—	39.9	12.3	73.2
	N	7	—	—	7	8	9	3	—	—	10	1	1
	Er	0.9	—	—	1.7	2.1	3.0	2.1	—	—	0.9	—	—
5EW	ρa	15.2	15.3	11.6	13.0	23.2	28.7	—	—	—	5.8	8.7	5.2
	N	11	5	11	10	10	10	—	—	—	11	1	1
	Er	1.3	1.4	0.7	0.7	1.3	1.2	—	—	—	0.2	—	—

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

ρa = observed apparent resistivity in ohm-metres
N = number of observations
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"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
6NS	ρa	14.7	9.9	16.3	21.5	33.9	28.5	23.8	—	—	10.6	11.1	7.2
	N	5	2	10	10	12	10	5	—	—	10	1	1
	Er	4.3	4.5	0.4	0.6	1.2	1.1	0.9	—	—	0.7	—	—
6EW	ρa	22.9	24.2	27.8	23.9	43.1	38.2	46.1	—	—	11.1	22.6	17.6
	N	10	11	9	10	11	9	8	—	—	10	1	1
	Er	2.9	1.4	2.5	1.4	2.6	5.1	10.0	—	—	0.5	—	—
7NS	ρa	—	9.3	5.0	4.8	4.2	2.7	17.8	—	—	0.5	9.4	31.2
	N	—	3	6	7	11	9	3	—	—	3	1	1
	Er	—	0.6	0.9	0.3	0.2	0.2	7.2	—	—	0.02	—	—
7EW	ρa	—	6.4	5.4	3.6	3.8	3.9	1.6	—	—	2.7	4.6	2.1
	N	—	4	7	10	7	8	7	—	—	7	1	1
	Er	—	1.7	0.6	0.2	0.1	0.2	0.1	—	—	0.4	—	—
8NS	ρa	—	—	5.3	—	2.8	2.1	6.4	—	—	1.5	—	—
	N	—	—	9	—	8	11	5	—	—	11	—	—
	Er	—	—	0.5	—	0.7	0.1	0.4	—	—	0.3	—	—
8EW	ρa	6.6	—	4.5	3.5	4.1	10.3	24.3	—	—	3.8	9.3	7.7
	N	10	—	8	10	8	10	6	—	—	10	1	1
	Er	1.2	—	0.3	0.1	0.3	2.9	0.6	—	—	0.2	—	—
9NS	ρa	9.5	23.2	22.0	27.5	94.6	96.9	—	—	—	129.0	42.2	—
	N	3	5	12	9	6	10	—	—	—	10	1	—
	Er	1.8	4.7	1.2	1.1	27.7	7.2	—	—	—	3.7	—	—
9EW	ρa	8.1	—	—	—	49.7	77.6	—	—	—	45.7	5.9	32.6
	N	5	—	—	—	8	7	—	—	—	10	1	1
	Er	4.8	—	—	—	3.5	8.0	—	—	—	2.5	—	—

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

ρa = observed apparent resistivity in ohm-metres
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"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
10NS	ρa	2.6	—	—	22.8	—	1.3	—	—	—	2.0	—	—
	N	5	—	—	10	—	10	—	—	—	9	—	—
	Er	0.6	—	—	1.5	—	0.2	—	—	—	0.3	—	—
10EW	ρa	14.6	—	—	19.9	—	77.2	—	—	—	—	—	—
	N	9	—	—	10	—	10	—	—	—	—	—	—
	Er	2.0	—	—	0.9	—	8.6	—	—	—	—	—	—
11NS	ρa	—	12.1	12.7	13.6	19.2	12.2	10.5	—	—	26.7	11.5	57.6
	N	—	7	10	10	10	10	11	—	—	5	1	1
	Er	—	0.3	0.9	0.9	0.8	0.7	0.6	—	—	2.1	—	—
11EW	ρa	11.3	6.5	12.2	13.5	16.3	14.9	10.5	—	—	4.1	5.9	1.3
	N	10	9	9	10	9	10	9	—	—	10	1	1
	Er	0.8	2.2	0.6	0.6	1.4	0.7	0.8	—	—	0.1	—	—
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