

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Telluric traverse location map and profiles
for Ruby Valley Known Geothermal Resource
Area, Nevada.

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.

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

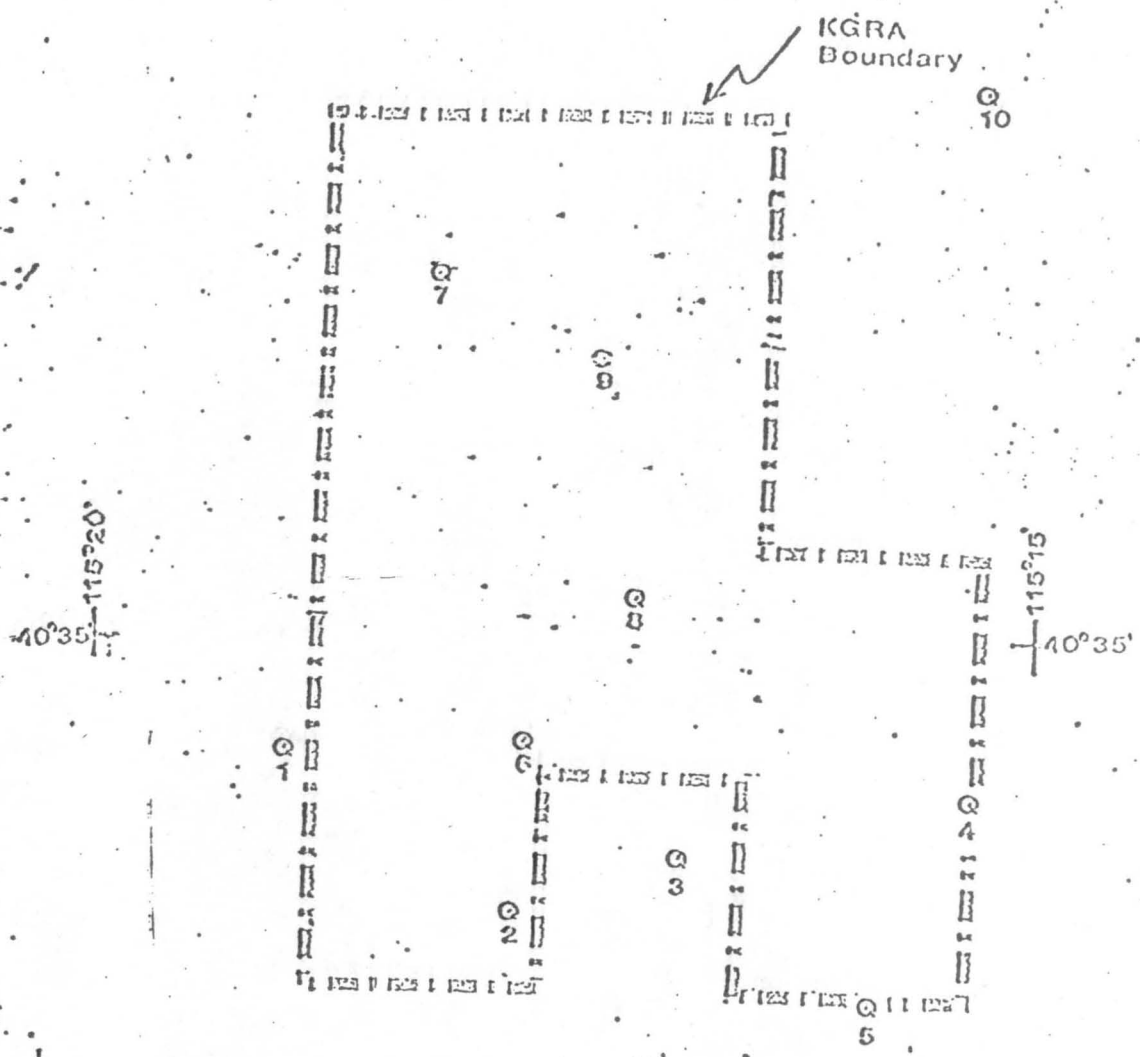
pa = observed apparent resistivity in ohm-metres
 N = number of observations
 Er = standard error in ohm metres

— = no data

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

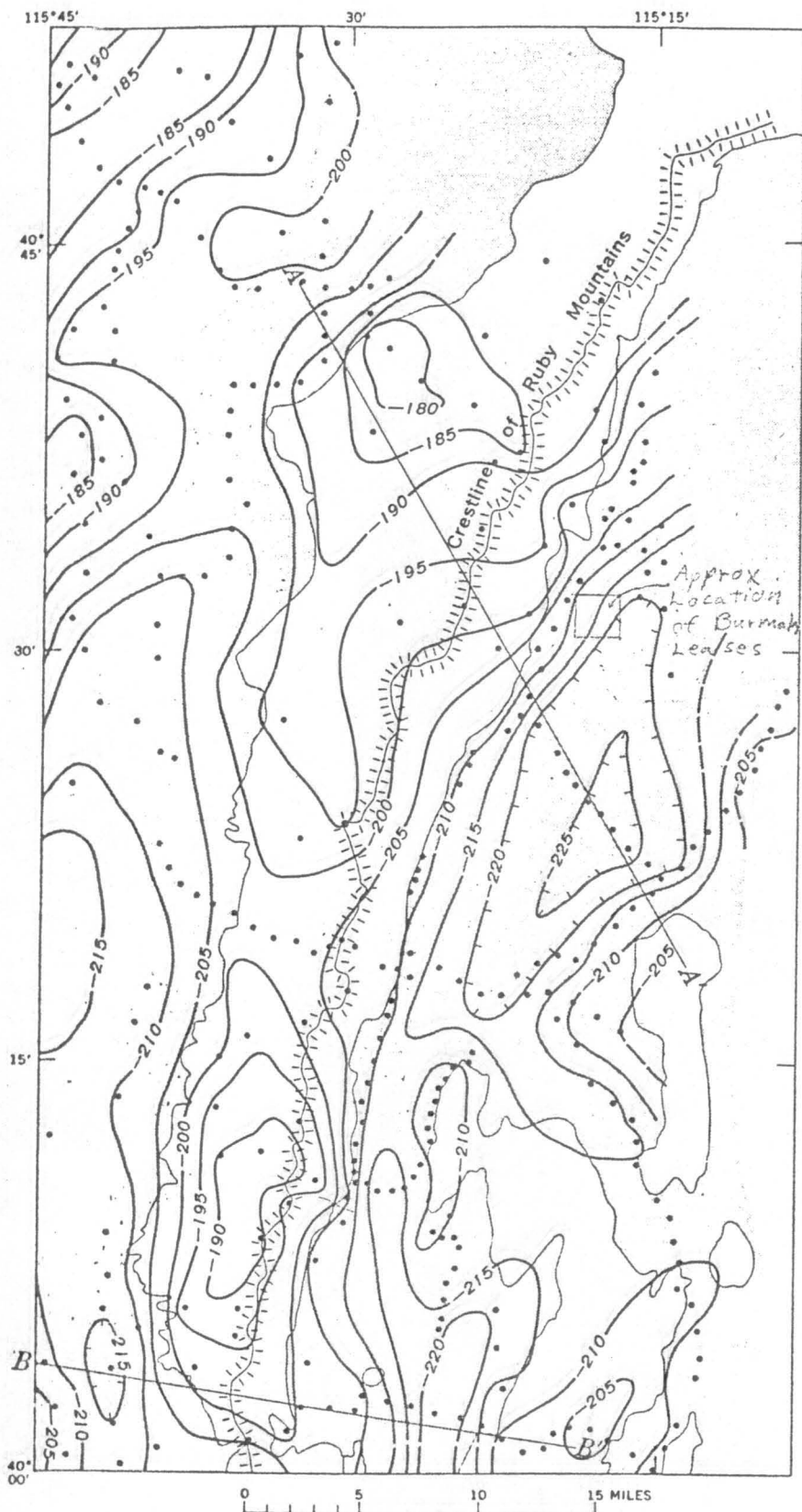
Sta. No.		FREQUENCY											
		7.5	10	14	27	76	285	685	1.2K	3.3K	6.7K	10.2K	18.6K
5NS	pa	40.5	69.7	61.1	105.1	79.7	229.1	95.2	139.7	644.6	108.3	70.62	19.6
	N	6	6	10	8	8	8	8	9	8	9	8	2
	Er	4.49	10.7	11.4	18.1	12.9	57.0	15.3	38.1	78.3	7.45	2.87	0.67
5EW	pa	31.7	42.3	53.7	33.7	58.5	74.3	89.2	98.7	79.5	42.9	20.7	15.8
	N	8	10	8	9	8	8	8	9	8	8	8	2
	Er	4.69	9.02	6.44	5.98	9.05	10.9	9.1	16.3	14.7	2.29	2.15	0.58
6NS	pa	9.43	56.8	55.5	61.4	116.8	67.8	19.1	15.1	18.9	7.7	9.5	3.55
	N	6	8	8	8	8	9	8	5	11	11	5	1
	Er	17.4	10.8	15.6	17.6	36.9	5.1	0.76	0.55	2.9	0.65	0.72	—
6EW	pa	80.1	62.6	18.9	57.1	40.0	59	19.6	32.3	9.08	4.5	5.28	0.68
	N	6	9	8	8	8	9	11	10	12	13	5	1
	Er	5.3	7.8	5.1	15.1	3.6	5.9	1.46	2.4	1.15	0.16	0.49	—
7NS	pa	1346	2526	1131	3464	2071	3302	688	34.0	288	101	62	59.4
	N	8	9	8	8	8	8	8	8	7	7	5	1
	Er	346	845	151	711	375	533	103	45.5	21.8	6.84	3.83	—
7EW	pa	2486	3214	2532	2043	1467	747	99	37.5	8.78	5.41	2.76	0.55
	N	8	6	7	7	8	8	8	7	7	9	5	1
	Er	99.0	452	232	117	254	83.9	5.04	3.15	0.33	0.20	0.10	—
8NS	pa	3.84	3.16	2.97	2.57	4.51	2.84	0.7	—	0.23	0.15	0.17	0.02
	N	8	7	6	7	8	7	8	—	6	8	6	1
	Er	0.2	0.27	0.29	0.28	0.30	0.05	0.02	—	0.01	0.01	0.01	—
8EW	pa	13.8	13.2	11.3	5.11	3.27	3.46	3.51	—	1.60	1.82	2.13	0.66
	N	9	7	7	6	7	8	7	—	6	8	1	1
	Er	1.2	0.97	1.05	0.44	0.15	0.22	0.20	—	0.23	0.09	—	—

Explanation:
● Station location
① and number



RUBY VALLEY KGRA
Nevada
AUDIO-MAGNETOTELLURIC
STATION LOCATION MAP

FIGURE 1



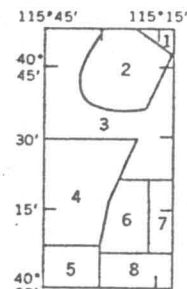
EXPLANATION

—220—
 Gravity contour
 Dashed where approximately located; hachures indicate closed gravity lows. Contour interval 5 milligals

•
 Gravity station
 B ————— B'
 Line of gravity and topographic profile

□
 Mountainous or bedrock area
 □
 Valley area

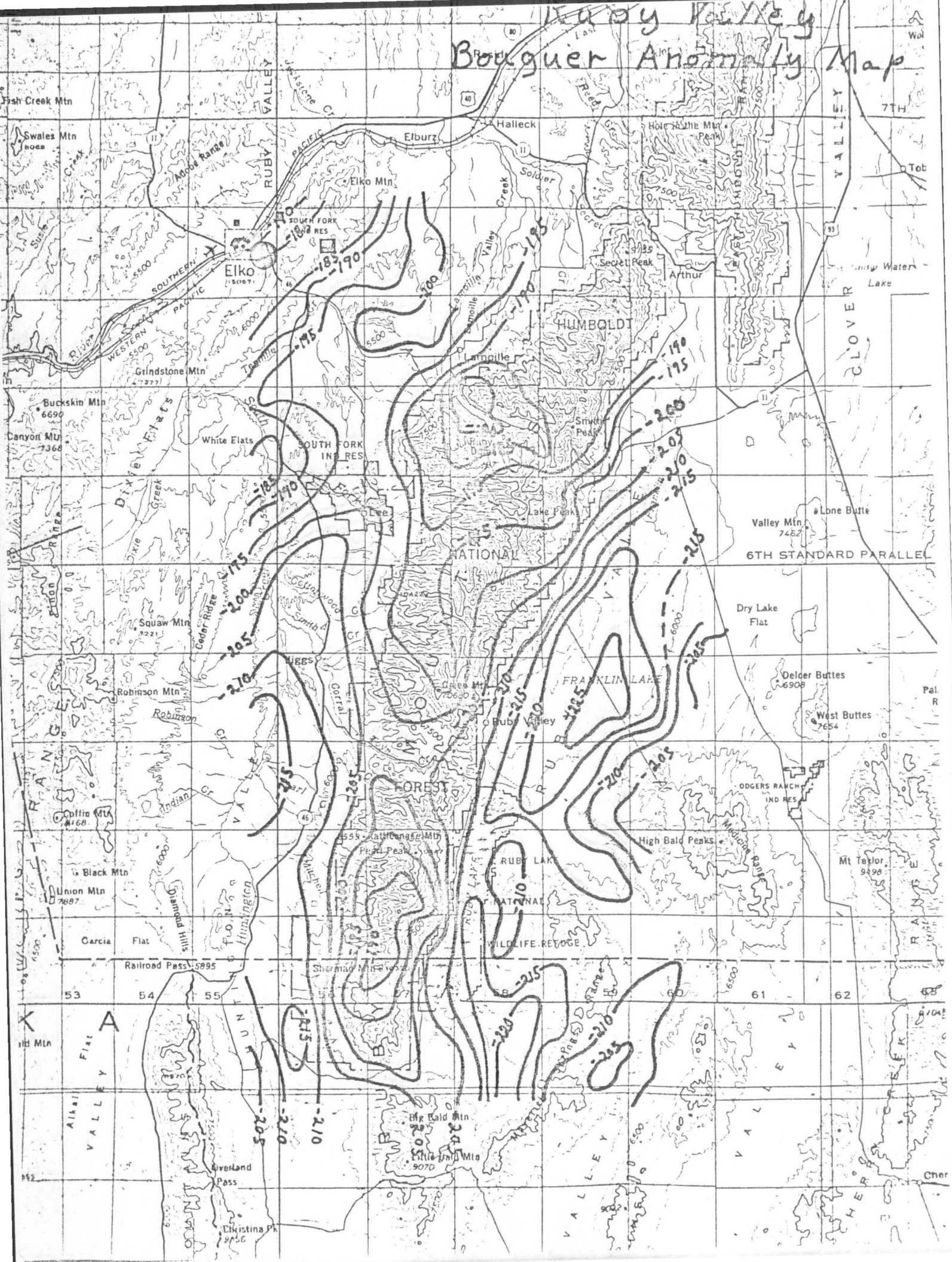
SOURCE OF DATA FOR GEOLOGIC MAP

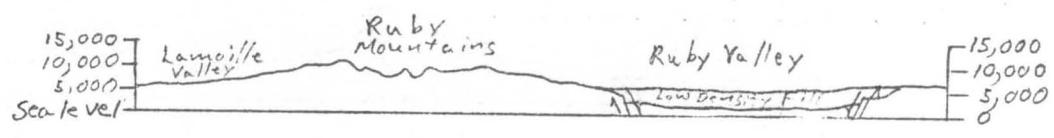
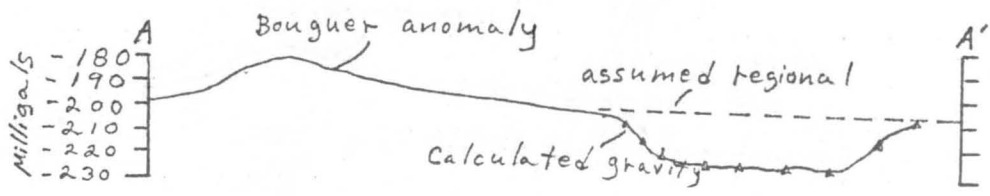


1. Snelson (1957)
2. Howard (1966, pl. 1, fig. 10)
3. Photointerpretation, this report
4. Ronald Willden and R. W. Kistler, this report
5. Sharp (1942, pl. 1)
6. R. A. Hope (written commun., 1967)
7. Collinson (1966)
8. R. K. Hose and M. C. Blake (written commun., 1967)

FIGURE 2.—Bouguer anomaly map of Ruby Mountains and adjacent areas, Nevada.

Ruby Valley Bouguer Anomaly Map





DATA ON INDIVIDUAL DRY HOLES

ELKO COUNTY — CONTINUED

LADD PETROLEUM CORP. Nevelko No. 1 API no: 27-007-05209
 SW/4 NE/4 S16,T34N,R55E ELEV: 5132'KB PERMIT: 182
 COMPL: 30 Sep 76 DEPTH: 5670'
 STATUS: plugged & abandoned
 LOGS AVAILABLE NBMG:
 gamma-gamma, 2000-5676'
 neutron, 2000-5676'
 sonic, 0-5671'
 induction-electric, 1042-5671'

PAN AMERICAN PETROLEUM CORP. Cobre Minerals No. 1 API no: 27-007-05200
 SW/4 SE/4 S3,T37N,R67E ELEV: 5890'GL PERMIT: 123
 COMPL: 27 Sep 68 DEPTH: 5284'
 STATUS: plugged & abandoned
 LOGS AVAILABLE NBMG:
 sonic-gamma, 600-5300'
 neutron, 3784-5284'
 induction-electric, 613-5284'

PAN AMERICAN PETROLEUM CORP. USA—Franklin No. 1 API no: 27-007-05201
 NW/4 SW/4 S8,T30N,R60E ELEV: 5952'GL PERMIT: 147
 COMPL: 23 Jan 71 DEPTH: 13,116'
 TOPS: 1200' — Tertiary
 3890' — Permian
 10,940' — Penn. Ely Limestone *Pe — ? ndp diamond pearl fm ?*
 11,570' — Miss. Chainman Shale *nc*
 12,650' — Miss. Joana Limestone *nt*
 12,880' — Dev. Pilot Shale *ndp*
 STATUS: plugged & abandoned
 LOGS AVAILABLE NBMG:
 induction-electric, 1010-13,111'
 neutron, 1010-13,100'
 temperature, 750-13,109'
 sonic-gamma, 1010-13,102'
 SAMPLES AVAILABLE NBMG:
 cuttings, 1200-3850', 4193-12,000'
 and 13,020-13,110'

REMARKS: Water encountered between 5934-6029', 7166-7263', and 12,640-12,840'.

PAN AMERICAN PETROLEUM CORP. USA—Jiggs No. 1 API no: 27-007-05202
 NE/4 NE/4 S19,T29N,R56E ELEV: 5550'GL PERMIT: 149
 COMPL: 14 Apr 71 DEPTH: 13,600'
 TOPS: Tertiary to TD
 STATUS: plugged & abandoned
 LOGS AVAILABLE NBMG:
 sonic, 997-13,592'
 induction-electric, 1000-13,602'
 neutron, 100-13,602'
 SAMPLES AVAILABLE NBMG:
 cuttings, 0-13,590'

REMARKS: Slightly oil cut mud recovered in DST at 6550-6671' and 6766-6908'. Gas cut water in DST at 4685-4807'.

SHELL OIL CO. Goshute Unit No. 1 API no: 27-007-05207
 SW/4 SW/4 SW/4 S19,T32N,R67E ELEV: 5600'GL PERMIT: 176
 COMPL: 27 Feb 76 DEPTH: 5569'
 TOPS: 5280' — Permian
 STATUS: plugged & abandoned
 LOGS AVAILABLE NBMG:
 drilling-lithologic, 420-5569'
 SAMPLES AVAILABLE NBMG:
 cuttings, 420-4580' and 4610-5440'

Ruby

Valley

ELKO Co., Nevada

PAN AMERICAN PETROLEUM CORP. USA—Franklin No. 1

API no: 27-007-05201

NW/4 SW/4 S8,T30N,R60E

ELEV: 5952'GL

PERMIT: 147

COMPL: 23 Jan 71

DEPTH: 13,116'

STATUS: plugged & abandoned

TOPS: 1200' — Tertiary

LOGS AVAILABLE NBMG:

3890' — Permian

induction-electric, 1010—13,111'

10,940' — Penn. Ely Limestone

neutron, 1010—13,100'

11,570' — Miss. Chainman Shale

temperature, 750—13,109'

12,650' — Miss. Joana Limestone

sonic-gamma, 1010—13,102'

12,880' — Dev. Pilot Shale

SAMPLES AVAILABLE NBMG:

cuttings, 1200—3850', 4193—12,000'

and 13,020—13,110'

REMARKS: Water encountered between 5934—6029', 7166—7263', and 12,640—12,840'.

Temp log

Temp Log (Time since circulation - 24hrs)

12th Dec 1970

19th Jan 1971

1000' - 139 °F

9000' - 226.5 °F

2000' - 155.5 °F

10,000' - 234.5 °F

3000' - 171 °F

11,000' - 244 °F

4000' - 185 °F

12,000' - 252.5 °F

5000' - 190 °F

13,000' - 266.5 °F

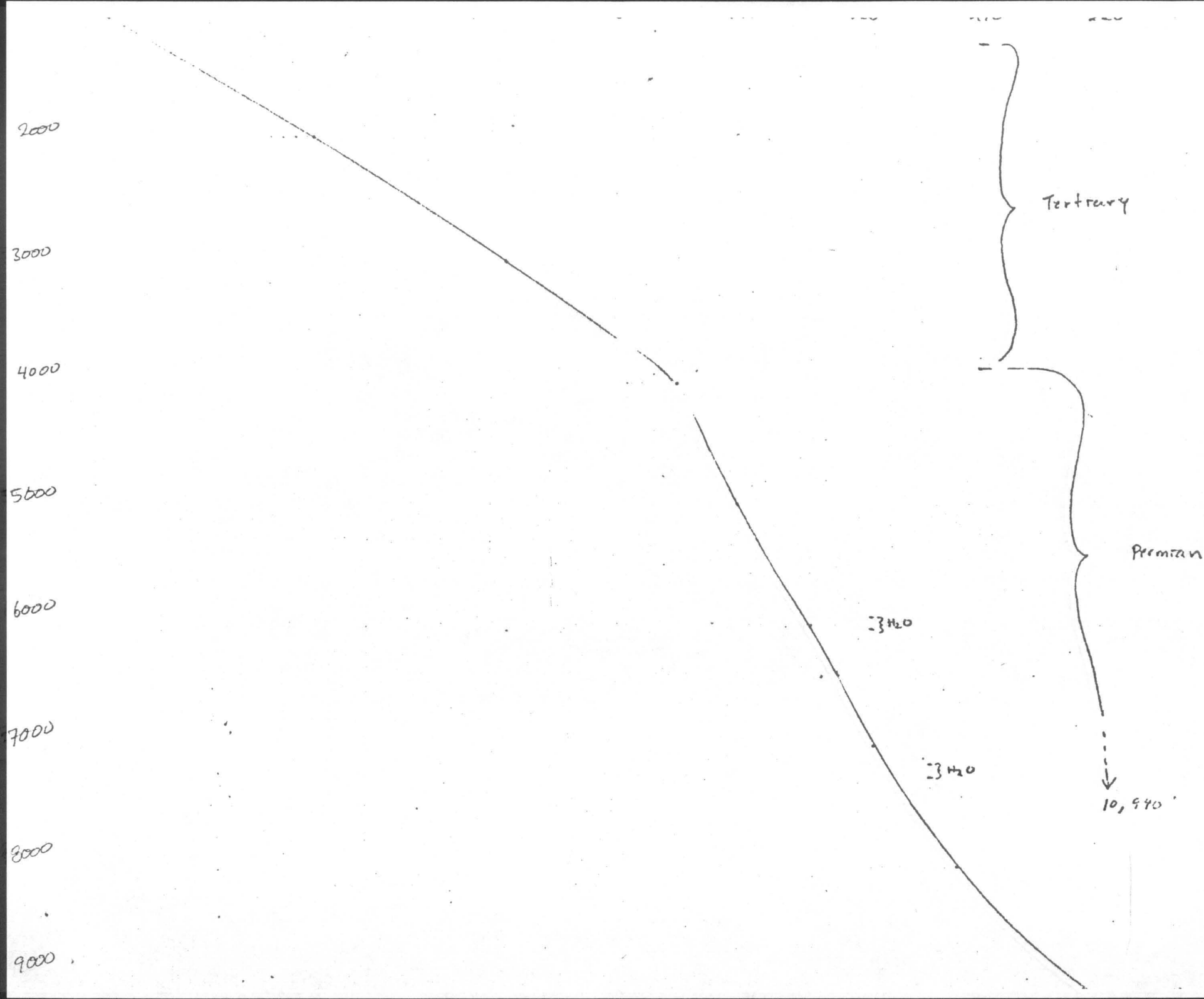
6000' - 196 °F

13,109' - 276.75

7000' - 201.2 °F

8000' - 208.7 °F

9000' - 218.7 °F



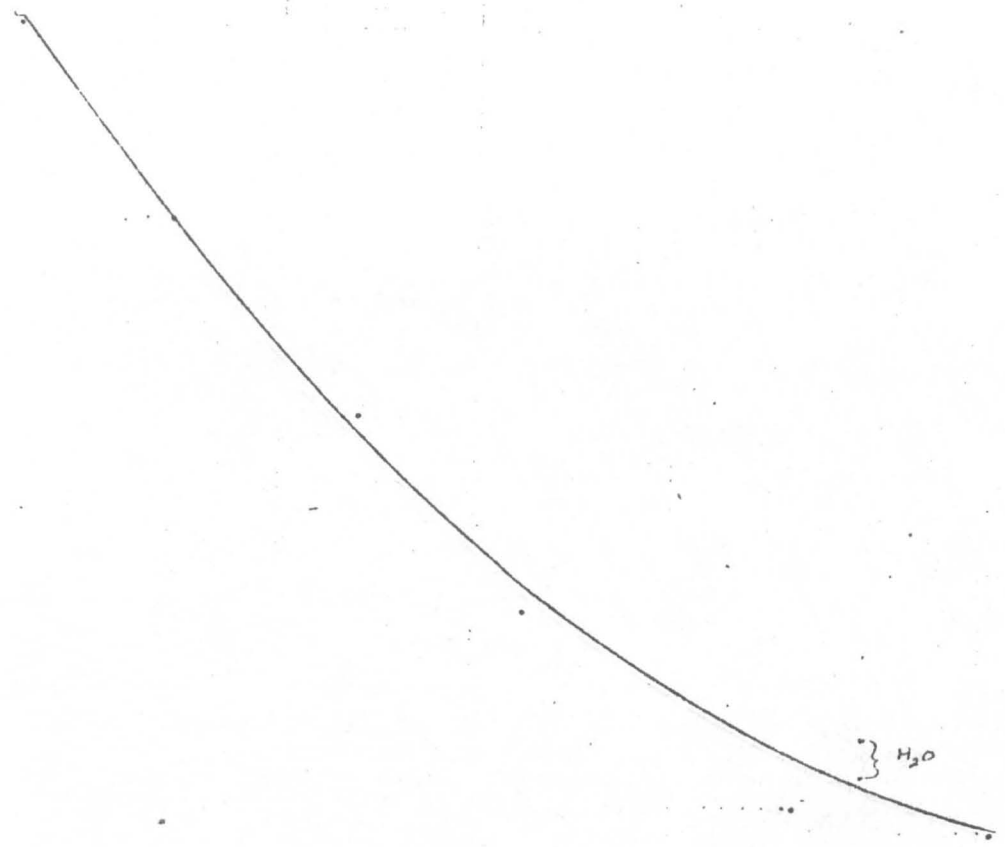
210

220

260

270

280



Permian

Penn. Ely limestone

Miss. Chainman shale

Miss. Joana limestone

Dev. Probot shale

