

## LITHOLOGIC LOG

Project: Jemez

847 - 1

Location: SE-1/4 SE-1/4 NW-1/4 32 21N 5EElevation: 9600Date Drilled: 8-24 - 8-26-79Method Foam

Depth (m)	Description
0 - 12	Mixed volcanic lithologies, dark grey-brownish porphyritic latite (rhyolite?) with qtz, sandidine, plag. some augite, also some pyrite xtalization. Also appearance of whiteish tuff with 30% qtz crystals
12 - 33	Same as above, also the introduction of a light grey lith with a few phenos of augite, and feldspars
33 - 40	Same basic lith however whiteish tuff seems to be more predominately pumice.
40 - 46	Predominately tuff pumice, whiteish floats
46 - 70	Back to three distinct lithologies (same as above)
70 - 79	Same 3 lith but also some obsidian fragments ( 2-3%)
79 - 85	Obsidian disappeared same liths as above
85 - 94	Primarily light grey porphyritic latite (rhyolite?) Phenos of sandidine, qtz., plag., and hornblende
94 - 104	Primarily pumice (with some other liths from above) Also some obsidian ( 1-2%)
104 - 113	Back into mixed liths
113 - 116	Time grain pumice frags
116 - 122	Mixed liths as above; with obsidian (2-5%)
122 - 128	Slight color change brownish-red also lith frags appear to be more rounded. Seems to indicate a paleo surface and possibly an alluvial environment. Composition is basically the same latitic, rhyolitic, the tuff-pumice is almost absent, some obsidian well rounded
128 - 137	Back to 2 liths as above (no pumice)
137 - 152	All 3 liths once again present

AMAX EXPLORATION, INC.

TEMPERATURE/DEPTH LOG

AT Well No. 847-1

Property-Project Jemez Depth Logged 147m

Map Polvadera Peak Scale 7 1/2" Date: Drilled 26-8-79 Logged 27-10-79

State N.M. County Rio Arriba, of SE 1/4 of SE 1/4 of NW 1/4 of Sec 32 T. 21N R. 5E

Instrument 30 Operator Jim Gross Elevation 9600 (m)

Comments \_\_\_\_\_

RT JUSTIFY

Date Logged

Proj No	Well No	DA	MO	YR	*
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20					
847	1	27	10	79	CM

\*19-Write F if Fahrenheit, 20-Write F if Feet

Site Description

Operator	Editor	DA	MO	YR
21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68				
4.0 KM WEST OF CHICOMA MTN.	JG	DP	26	8 79

(Approx. location, water well?, oil test?, etc.)

Map Location \*\*

Scale Unit IN CM

Map Size (7.5, 15., 60.) 7.5

N Lat Degree 36. Min 00.

W Long Degree 106. Min 30.0

Use decimals

Measure from SW corner of map; except AMS sheets measure from bottom center degree mark (W,-)(E,+)

Northing 3.80 Easting 26.85 Elev 9600.

Use decimals

Write M if meters

Segment 1 = Depths

Start	End	Conductivity K	ΔK	Best cond. (-K)	Downward extrapolations (-ΔK)
21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50					
	122.	147.	-4.2		-0.5

Segment 2

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

Segment 3

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

Segment 4

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

Segment 5

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

Segment 6

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

Segment 7

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

Segment 8

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

Segment 9

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

Segment 10

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

After final segment Start = .999

X = 1st log  
• = 2nd log

HOLE 1

GROUND LEVEL

6.25  
16.2

12  
0.50 @ 4.2

H<sub>2</sub>O  
6.5°C

cold  
H<sub>2</sub>O  
6.1°C  
assume = Max

H  
RS

6.0

8.0

10.0

12.0

14.0

16.0

TEMPERATURE °C



0

20

40

60

80

100

120

140

Date Logged: 10-27-79 $\Delta T$  Well No. 847-1

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc
3.	154.21	8.68					
			-.06				
3.5	154.46	8.62					
			-.13				
4.	155.12	8.49					
			-.32				
4.5	156.68	8.17					
			-.27				
5	157.98	7.90					
			-.10				
5.5	158.47	7.80					
			-.18				
6	159.39	7.62					
			-.15				
6.5	160.12	7.47					
			-.09				
7	160.58	7.38					
			-.06				
7.5	160.88	7.32					
			-.10				
8	161.37	7.22					
			-.07				
8.5	161.69	7.15					
			-.15				
9	162.45	7.00					
			-.03				
9.5	162.63	6.97					
			-.01				
10	162.64	6.96					
			-.43				
11	164.81	6.53					
			.01	10			
12	164.78	6.54					
			0	0			
13	164.77	6.54					
			0	0			
14	164.77	6.54					
			0	0			
15	164.74	6.54					
			.02	20			
16	164.66	6.56					
			0	0			
17	164.64	6.56					
			-.01	10			
18	164.62	6.57					
			0	0			
19	164.62	6.57					
			0	0			
20	164.62	6.57					
			.04	40			
22	164.92	6.51					
			-.01				
24	164.94	6.50					

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_

Date Logged: 10-27-79 $\Delta T$  Well No. 847-1

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
26	165.07	6.48	-.02				
28	165.17	6.46	-.02				
30	165.25	6.44	-.02				
32	165.34	6.42	-.02				
34	165.44	6.41	-.01				
36	165.53	6.39	-.02				
38	165.64	6.37	-.02				
40	165.75	6.34	-.03				
42	165.85	6.32	-.02				
44	165.90	6.31	-.01				
46	165.95	6.30	-.01				
48	166.03	6.29	-.01				
50	166.05	6.28	-.01				
52	166.03	6.28	0	0			
54	166.00	6.29	.01	5			
56	166.07	6.28	-.01				
58	166.21	6.25	-.03				
60	166.35	6.22	-.03				
62	166.48	6.20	-.02				
64	166.52	6.19	-.01				
66	166.55	6.19	0	0			
68	166.60	6.18	-.01				
70	166.63	6.17	-.01				
72	166.63	6.17	0	0			
74	166.62	6.17	0	0			
76	166.62	6.17	0	0			
78	166.61	6.17	0	0			

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_

Date Logged: 10-27-79 $\Delta T$  Well No. 847-1

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
80	166.62	6.17	0				
82	166.64	6.17	0	0			
84	166.62	6.17	0	0			
86	166.56	6.18	.01	5			
88	166.50	6.20	.02	10			
90	166.44	6.21	.01	5			
92	166.36	6.22	.01	5			
94	166.38	6.22	0	0			
96	166.34	6.23	.01	5			
98	166.29	6.24	.01	5			
100	166.24	6.25	.01	5			
102	166.16	6.26	.01	5			
104	166.10	6.27	.01	5			
106	166.06	6.28	.01	5			
108	166.01	6.29	.01	5			
110	165.94	6.31	.02	10			
112	165.87	6.32	.01	5			
114	165.79	6.34	.02	10			
116	165.74	6.35	.01	5			
118	165.60	6.37	.02	10			
120	165.53	6.39	.02	10			
122	165.45	6.40	.01	5			
124	165.38	6.42	.02	10			
126	165.27	6.44	.02	10			
128	165.18	6.46	.02	10			
130	165.08	6.48	.02	10			
132	164.96	6.50	.02	10			

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_



AMAX EXPLORATION, INC.

TEMPERATURE/DEPTH LOG

ΔT Well No. 847-2

Property-Project Jemez Depth Logged 150 m

Map Polvadera Peak Scale 7.5' Date: Drilled 28-8-79 Logged 27-10-79

State N.M. County Rio Arriba, of SE 1/4 of NE 1/4 of NE 1/4 of Sec. 31 T Z1N R 5E

Instrument 30 Operator Jim Gross Elevation 9740 (ft)

Comments \_\_\_\_\_

Date Logged

RT JUSTIFY Proj No Well No DA MO YR \*  
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20  
847 2 2 27 10 79 C M \*19-Write F if Fahrenheit, 20-Write F if Feet

Card A Site Description Operator Editor DA MO YR  
 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68  
4.8 KM WEST OF CHICOMA MTN. JG DP 28 8 79  
 (Approx. location, water well?, oil test?, etc.)

Map Location \* \*  
 Scale Unit IN CM Map Size (7.5, 15, 60) N Lat Degree Min Degree Min W Long Degree Min \*\*  
 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50  
CM 7.5 36 00 106 30 0  
 Use decimals Measure from SW corner of map; except AMS sheets measure from bottom center degree mark (W,-)(E,+)

Card B Northing Easting Elev  
 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80  
6 10 23 80 9740 F  
 Use decimals Write M if meters

Segment 1 = Depths Start End Conductivity K ΔK Best cond. (-K) Downward extrapolations (-ΔK)  
 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50  
132 148 -3.3 -.5

Segment 2 Start → 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80  
.999

Segment 3 Start →

Segment 4 Start →

Segment 5 Start →

Segment 6 Start →

Segment 7 Start →

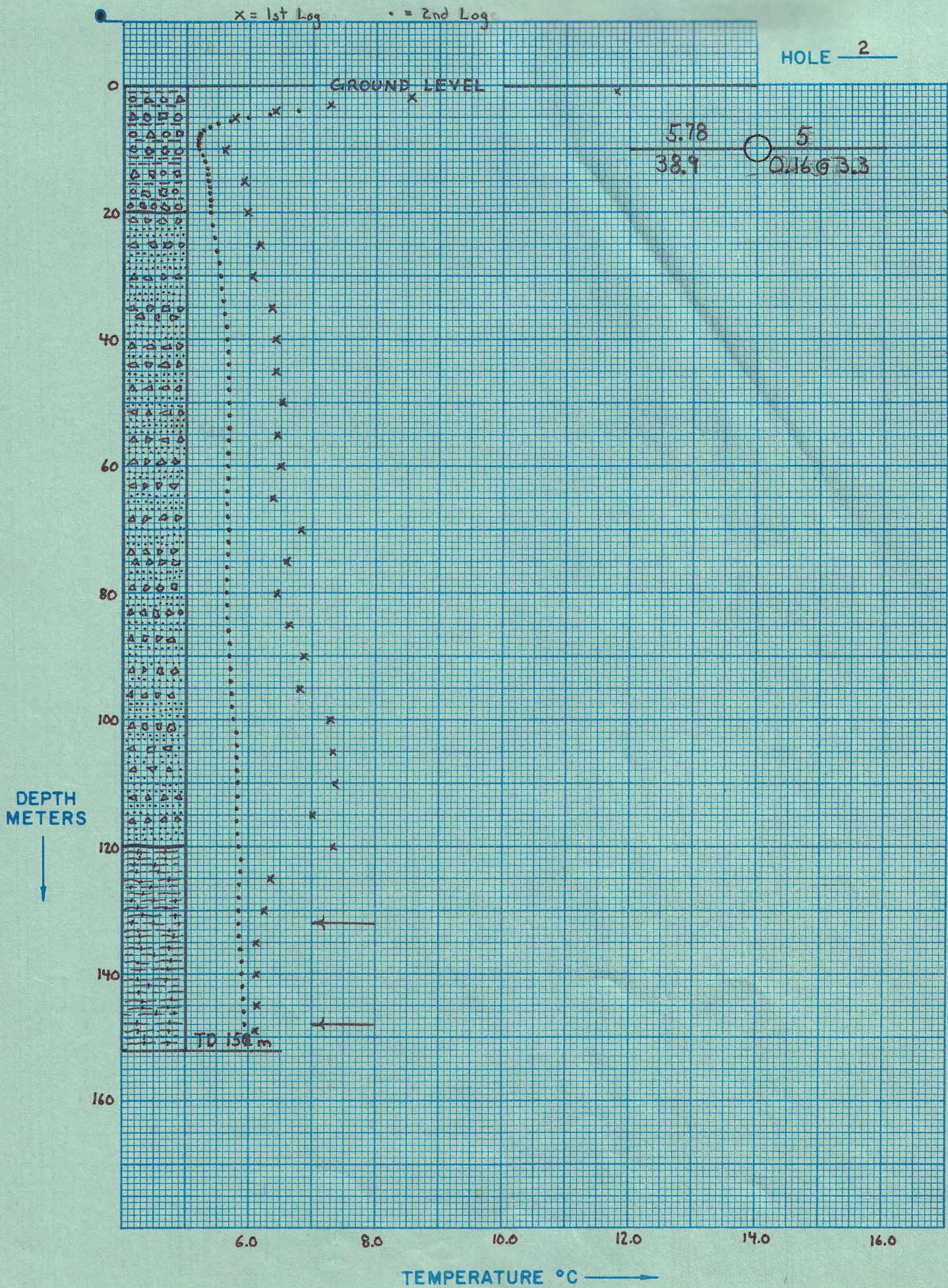
Segment 8 Start →

Segment 9 Start →

Segment 10 Start → 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

After final segment Start = .999





H<sub>2</sub>O  
5.37°C

H<sub>2</sub>O  
5.02°C

5.78  
38.9

5  
3.3

Date Logged: 10-27-79 $\Delta T$  Well No. 847-2

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
4	163.55	6.78					
4.5	165.81	6.33	-.45				
5	167.59	5.98	-.35				
5.5	168.99	5.70	-.28				
6	170.04	5.50	-.20				
6.5	170.66	5.38	-.12				
7	171.13	5.28	-.10				
7.5	171.39	5.23	-.05				
8	171.52	5.21	-.02				
8.5	171.60	5.19	-.02				
9	171.59	5.19	0	0			
9.5	171.59	5.19	0	0			
10	171.52	5.21	.02	40			
11	171.30	5.25	.04	40			
12	171.08	5.29	.04	40			
13	170.92	5.33	.04	40			
14	170.85	5.34	.01	10			
15	170.81	5.35	.01	10			
16	170.76	5.36	.01	10			
17	170.73	5.36	0	0			
18	170.70	5.37	.01	10			
19	170.67	5.37	0	0			
20	170.63	5.38	.01	10			
22	170.46	5.42	.04	20			
24	170.24	5.46	.04	20			
26	170.06	5.49	.03	15			
28	169.94	5.52	.03	15			

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_

Date Logged: 10-27-79 $\Delta T$  Well No. 847-2

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
30	169.84	5.54	.02	10			
32	169.74	5.56	.02	10			
34	169.59	5.59	.03	15			
36	169.43	5.62	.03	15			
38	169.30	5.64	.02	10			
40	169.22	5.66	.02	10			
42	169.16	5.67	.01	5			
44	169.13	5.68	.01	5			
46	169.10	5.68	0	0			
48	169.09	5.68	0	0			
50	169.07	5.69	.01	5			
52	169.08	5.69	0	0			
54	169.08	5.69	0	0			
56	169.11	5.68	-.01				
58	169.15	5.67	-.01				
60	169.16	5.67	0	0			
62	169.16	5.67	0	0			
64	169.19	5.66	-.01				
66	169.21	5.66	0	0			
68	169.17	5.67	.01	5			
70	169.13	5.68	.01	5			
72	169.11	5.68	0	0			
74	169.16	5.67	-.01				
76	169.19	5.66	-.01				
78	169.22	5.66	0	0			
80	169.20	5.66	0	0			
82	169.16	5.67	.01	5			

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_

Date Logged: 10-27-79 $\Delta T$  Well No. 847-2

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
			.01	5			
84	169.13	5.68					
			.01	5			
86	169.08	5.69					
			.02	10			
88	168.97	5.71					
			0	0			
90	168.94	5.71					
			.01	5			
92	168.90	5.72					
			0	0			
94	168.89	5.72					
			.01	5			
96	168.87	5.73					
			.01	5			
98	168.80	5.74					
			.04	20			
100	168.61	5.78					
			.03	15			
102	168.46	5.81					
			.01	5			
104	168.40	5.82					
			-.01				
106	168.43	5.81					
			.01	5			
108	168.40	5.82					
			.02	10			
110	168.32	5.84					
			0	0			
112	168.32	5.84					
			-.01				
114	168.34	5.83					
			-.01				
116	168.40	5.82					
			.02	10			
118	168.32	5.84					
			.03	15			
120	168.14	5.87					
			.02	10			
122	168.06	5.89					
			-.02				
124	168.14	5.87					
			-.01				
126	168.21	5.86					
			0	0			
128	168.21	5.86					
			0	0			
130	168.20	5.86					
			0	0			
132	168.19	5.86					
			.01	5			
134	168.13	5.87					
			.01	5			
136	168.07	5.88					

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_



## LITHOLOGIC LOG

JTG

Project: Jemez

847-3

Location: NW $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$  31 21N 5EMethod: FoamElevation: 9880'Date Drilled: 8/31/79 $\approx$ 120 cps.

Depth (m)	Description
0-25m	Very loose, porous lapilli tuff: 80% white pumice fragments, some with biotite and hornblende phenocrysts; 15% clear anhedral to subhedral quartz and sanidine; 5% xenoliths (?) of gray latite. Minor black obsidian.
25-30m	Mixed latitic and rhyolitic lava fragments. <5% pumice, $\approx$ 5% quartz and sanidine as above.
30-92m TD	Varying amounts of white pumice, latitic and rhyolitic lava fragments and 1-5% quartz plus sanidine. Pumice approximately 10-15% by volume.

Comments: No significant water encountered. Assumed subsaturated. Formations are probably Bandelier tuff or equivalent. The zone from 25-30m is interpreted to be a colluvial zone between pyroclastic events. Lowest formation is probably poorly welded crystal-lithic tuff.

AMAX EXPLORATION, INC.

TEMPERATURE/DEPTH LOG

AT Well No. 847-3

Property-Project Jemez Depth Logged 91

Map Polvadera Peak Scale 7.5' Date: Drilled 31-8-79 Logged 27-10-79

State N.M. County Rio Arriba, of NW of NE of NW of Sec 31 T 21 N R 5E

Instrument 30 Operator Jim Gross Elevation 9880 (ft)

Comments \_\_\_\_\_

RT JUSTIFY

Date Logged

Proj No	Well No	DA	MO	YR	*
1 2 3 4 5 6 7 8 9 10	11 12 13 14 15 16 17 18 19 20				
847	3	31	8	79	C M

\*19-Write F if Fahrenheit, 20-Write F if Feet

Site Description

Operator	Editor	DA	MO	YR
21 22 23 24 25 26 27 28 29 30	31 32 33 34 35 36 37 38 39 40	41 42 43 44 45 46 47 48 49 50	51 52 53 54 55 56 57 58 59 60	61 62 63 64 65 66 67 68
5.8 KM WEST OF CHICOMA MTN.			JG	DP
		31	8	79

(Approx. location, water well?, oil test?, etc.)

Map Location \*\*

Scale Unit IN CM

Map Size (7.5, 15, 60) 7.5

N Lat Degree 36 Min 00

W Long Degree 106 Min 30

Measure from SW corner of map; except AMS sheets measure from bottom center degree mark (W,-)(E,+)

Use decimals

Northring 6.80

Easting 19.90

Elev 9880

Write M if meters

Use decimals

Segment 1 = Depths

Start	End	Conductivity K	ΔK	Best cond. (-K)	Downward extrapolations (-ΔK)
21 22 23 24 25 26 27 28 29 30	31 32 33 34 35 36 37 38 39 40	41 42 43 44 45 46 47 48 49 50			
74	91	-3.3	-0.5		

Segment 2 Start → 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

Segment 3 Start → 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

Segment 4 Start → 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

Segment 5 Start → 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

Segment 6 Start → 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

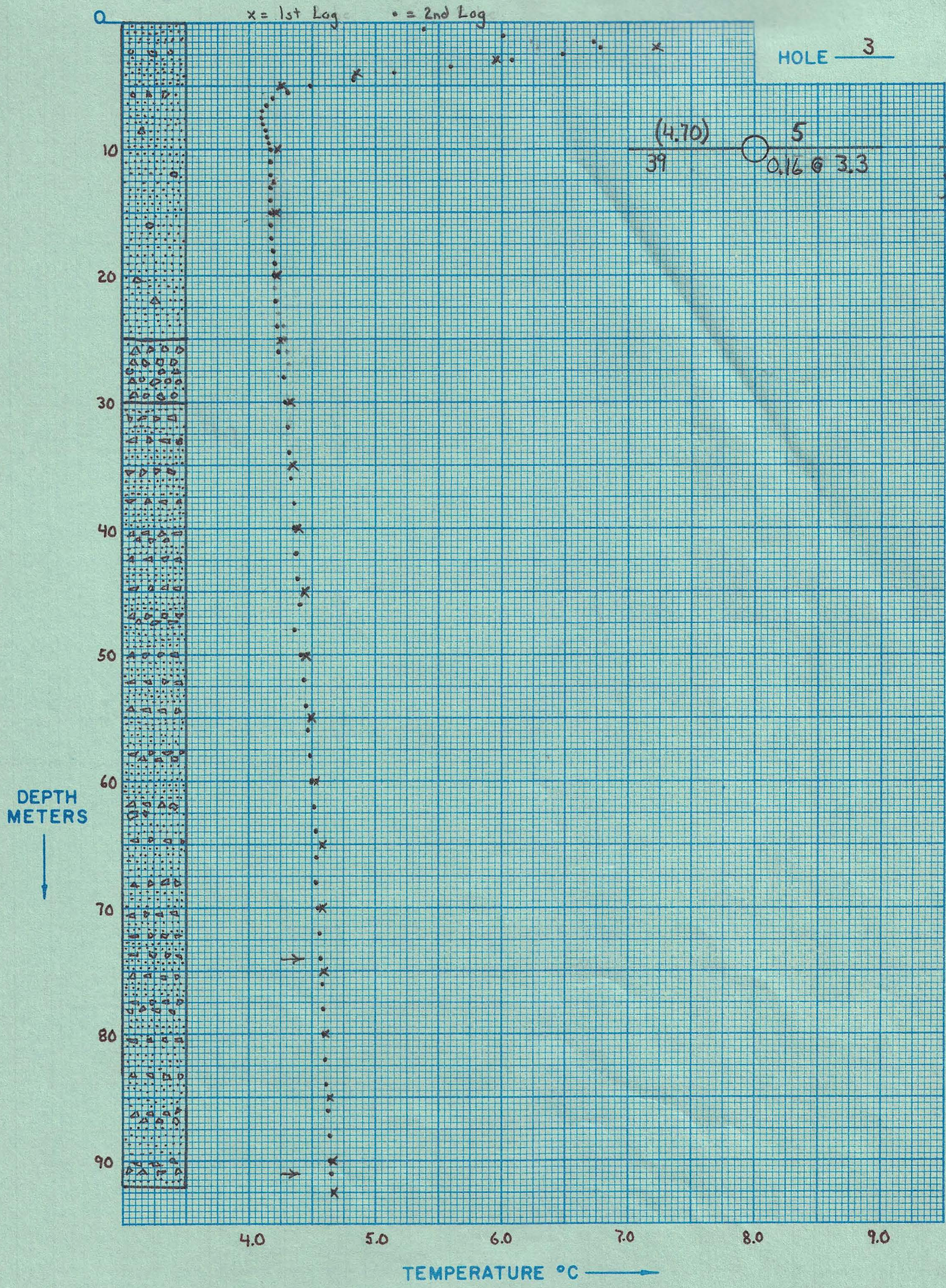
Segment 7 Start → 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

Segment 8 Start → 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

Segment 9 Start → 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

Segment 10 Start → 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

After final segment Start = .999





Date Logged: 10-27-79 $\Delta T$  Well No. 847-3

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
.5	170.59	5.39					
1.0	167.41	6.01	.62	1240			
1.5	163.75	6.74	.73	1460			
2	163.55	6.78	.04	80			
2.5	165.02	6.49	-.29				
3	167.09	6.08	-.41				
3.5	169.50	5.60	-.48				
4	171.80	5.15	-.45				
4.5	173.73	4.78	-.37				
5	175.20	4.49	-.29				
5.5	176.14	4.31	-.18				
6	176.77	4.19	-.12				
6.5	177.05	4.14	-.05				
7	177.20	4.11	-.03				
7.5	177.22	4.10	-.01				
8	177.18	4.11	.01	20			
8.5	177.10	4.13	.02	40			
9	177.02	4.14	.01	20			
9.5	176.93	4.16	.02	40			
10	176.90	4.17	.01	20			
11	176.86	4.17	0	0			
12	176.88	4.17	0	0			
13	176.89	4.17	0	0			
14	176.90	4.17	0	0			
15	176.89	4.17	0	0			
16	176.85	4.17	0	0			
17	176.82	4.18	.01	10			

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_

Date Logged: 10-27-79 $\Delta T$  Well No. 847-3

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
18	176.78	4.19	.01	10			
19	176.73	4.20	.01	10			
20	176.69	4.21	.01	10			
22	176.66	4.21	0	0			
24	176.59	4.23	.02	10			
26	176.50	4.24	.01	5			
28	176.38	4.27	.03	15			
30	176.26	4.29	.02	10			
32	176.17	4.31	.02	10			
34	176.10	4.32	.01	5			
36	176.00	4.34	.02	10			
38	175.90	4.36	.02	10			
40	175.88	4.36	0	0			
42	175.82	4.37	.01	5			
44	175.73	4.39	.02	10			
46	175.65	4.41	.02	10			
48	175.89	4.36	-.05				
50	175.51	4.43	.07	35			
52	175.45	4.44	.01	5			
54	175.38	4.46	.02	10			
56	175.30	4.47	.01	5			
58	175.23	4.49	.02	10			
60	175.15	4.50	.01	5			
62	175.07	4.52	.02	10			
64	174.99	4.53	.01	5			
66	174.95	4.54	.01	5			
68	174.94	4.54	0	0			

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_

Date Logged: 10-27-79ΔT Well No. 847-3

Depth (meters)	Instr. Reading	Temp. °C	ΔT	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
70	174.91	4.55	.01	5			
72	174.87	4.56	.01	5			
74	174.83	4.56	0	0			
76	174.77	4.58	.02	10			
78	174.72	4.59	.01	5			
80	174.66	4.60	.01	5			
82	174.61	4.61	.01	5			
84	174.55	4.62	.01	5			
86	174.50	4.63	.01	5			
88	174.44	4.64	.01	5			
90	174.37	4.65	.01	5			
91 TD	174.34	4.66	.01	5			
99999,							

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_

## LITHOLOGIC LOG

Project: Jemez

847-4

Location: NE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$  36 21N 4E

Method: Foam. Hammer: 122m-161mTD

Elevation: 9600'Date Drilled: 8/29/79-8/31/79

≈120cps.

Depth (m)	Description
0-100m	80-90% rhyolite. Material is both as aphanitic lava fragments and pumice. 10-20% gray to brick red quartz latite. Accessory quartz and sanidine.
100-152m	Gray to brick red quartz latite. Contains white feldspar phenocrysts and fine grain to aphanitic groundmass. Accessory hornblende and biotite.
	<p>Comments: No significant water encountered. Assumed subsaturated. Top unit is probably a lapilli tuff of the Bandelier Formation. Lower unit is interpreted to be a lava flow of the Tschicoma Formation. Occasional pumice fragments in samples below 105m are interpreted to be washout material from upper unit.</p>

AMAX EXPLORATION, INC.

TEMPERATURE/DEPTH LOG

AT Well No. 847-4

Property-Project Jemez Depth Logged 108 m

Map Polvadera Peak Scale 7.5' Date: Drilled 31-8-79 Logged 27-10-79

State N.M. County Rio Arriba, of NE 1/4 of SE 1/4 of NE 1/4 of Sec 36 T 21N R 4E

Instrument 30 Operator Jim Grass Elevation 9600 (ft)

Comments \_\_\_\_\_

RT JUSTIFY

Date Logged

Proj No	Well No	DA	MO	YR	*
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20					
8 4 7	4	4 2 7	1 0	7 9	C M

\*19-Write F if Fahrenheit, 20-Write F if Feet

Site Description

Operator	Editor	DA	MO	YR
21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68				
6.4 KM WEST OF CHI COMA MTN.	JG / DP	3 1	8	7 9

(Approx. location, water well?, oil test?, etc.)

Map Location \*\*

Scale Unit CM Map Size 7.5 N Lat 36.00 W Long 106.30.0

Measure from SW corner of map; except AMS sheets measure from bottom center degree mark (W-)(E,+)

Use decimals

Northring 4.90 Easting 16.90 Elev 9600

Write M if meters

Use decimals

Segment 1 = Depths

Start	End	Conductivity K	ΔK
21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50			
75-	80-	-3.3	-0.5

Best cond. (-K)  
Downward extrapolations. (-ΔK)

Segment 2

Start	End	K	ΔK
51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80			
90-	94-	3.3	.5

Segment 3

100-	108-	-6.0	-0.5
------	------	------	------

Segment 4

.999
------

Segment 5

Segment 6

Segment 7

Segment 8

Segment 9

Segment 10

After final segment Start = .999

x = 1st Log    • = 2nd Log

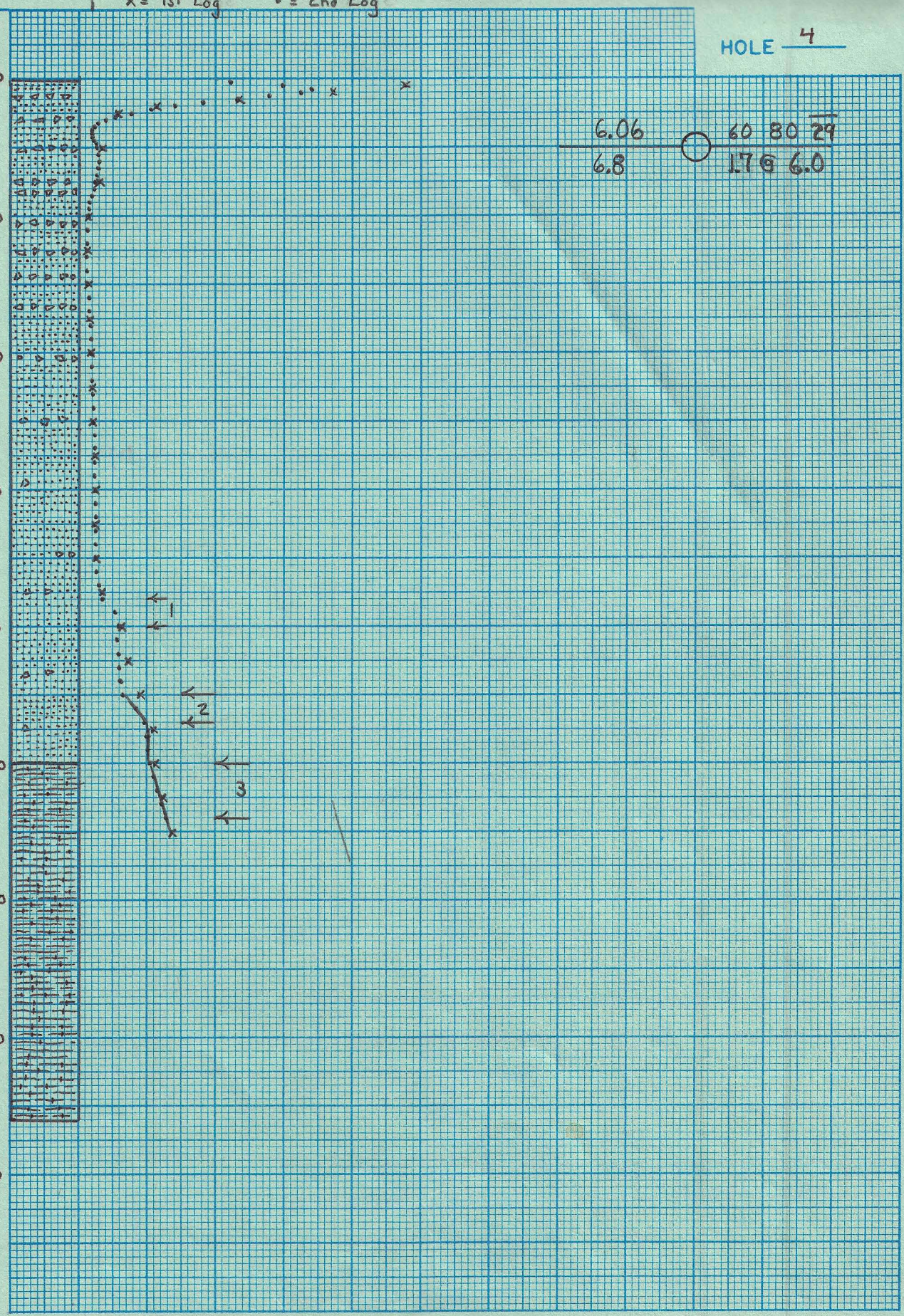
HOLE 4

6.06	60	80	29
6.8	176	6.0	

DEPTH METERS



0  
20  
40  
60  
80  
100  
120  
140  
160



6.0      8.0      10.0      12.0

TEMPERATURE °C →

Date Logged: 10-27-79ΔT Well No. 847-4

Depth (meters)	Instr. Reading	Temp. °C	ΔT	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
.5	161.34	7.22					
1.	157.60	7.98	.76	1520			
1.5	155.47	8.42	.44	880			
2	156.30	8.25	.17				
2.5	158.55	7.79	-.46				
3	160.87	7.32	-.47				
3.5	163.31	6.83	-.49				
4	165.36	6.42	-.41				
4.5	167.28	6.04	-.38				
5	168.62	5.78	-.26				
5.5	169.77	5.55	-.23				
6	170.56	5.40	-.15				
6.5	171.03	5.30	-.10				
7	171.35	5.24	-.06				
7.5	171.50	5.21	-.03				
8	171.53	5.21	0	0			
8.5	171.49	5.21	0	0			
9	171.41	5.23	.02	40			
9.5	171.32	5.25	.02	40			
10	171.23	5.26	-.01	20			
11	171.11	5.29	.03	30			
12	171.06	5.30	.01	10			
13	171.09	5.29	-.01				
14	171.20	5.27	-.02				
15	171.32	5.25	-.02				
16	171.48	5.22	-.03				
17	171.60	5.19	-.03				

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_

Date Logged: 10-27-79 $\Delta T$  Well No. 847-4

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
18	171.74	5.17	-.02				
19	171.81	5.15	-.02				
20	171.86	5.14	-.01				
22	171.90	5.13	-.01				
24	171.92	5.13	0	0			
26	172.01	5.11	-.02				
28	171.93	5.13	.02	10			
30	171.85	5.14	.01	5			
32	171.74	5.17	.03	15			
34	171.71	5.17	0	0			
36	171.67	5.18	.01	5			
38	171.63	5.19	.01	5			
40	171.61	5.19	0	0			
42	171.58	5.20	.01	5			
44	171.54	5.20	0	0			
46	171.52	5.21	.01	5			
48	171.48	5.22	.01	5			
50	171.45	5.22	0	0			
52	171.42	5.23	.01	5			
54	171.40	5.23	0	0			
56	171.37	5.24	.01	5			
58	171.35	5.24	0	0			
60	171.32	5.25	.01	5			
62	171.31	5.25	0	0			
64	171.28	5.26	.01	5			
66	171.28	5.26	0	0			
68	171.27	5.26	0	0			

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_



Date Logged: 10-27-79 $\Delta T$  Well No. 847-4

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
70	171.23	5.26	0	0			
72	171.16	5.28	.02	10			
74	171.04	5.30	.02	10			
76	170.73	5.36	.06	30			
78	169.85	5.53	.17	85			
80	169.51	5.60	.07	35			
82	169.60	5.58	.08	40			
84	169.54	5.60	.02	10			
86	169.47	5.61	.01	5			
88	169.44	5.62	.01	5			
90	169.22	5.66	.04	20			
92	168.28	5.84	.18	90			
94	167.61	5.98	.14	70			
96	167.48	6.00	.02	10			
98	167.38	6.02	.02	10			
100	167.17	6.06	.04	20			
102	166.96	6.10	.04	20			
104	166.72	6.15	.05	25			
106	166.37	6.22	.07	35			
108 TD	166.00	6.29	.07	35			
99999							
110							
114							
116							
118							
120							
122							

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_

## LITHOLOGIC LOG

Project: Jemez

847-5

Location: SW $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$  28 21N 5E

Method: hammer/foam

Elevation: 10,930'Date Drilled: 8/19/79-8/20/79

≈150cps.

Depth (m)	Description
0- 70m	Hornblende, plagioclase quartz latite porphyry. Matrix predominantly gray and fresh in appearance but some cuttings oxidized to brick red color. Groundmass fine grain to cryptocrystalline. Plagioclase phenocrysts somewhat smaller and sparser than most of Tschicoma Formation. Hornblendes 1-3mm.
≈70m	Fine grain basaltic chips encountered in one 10' sample pile. Possible basalt dike.
70-100m	Same material as 0-75m.
100-136m TD	Quartz latite porphyry similar to 75-105m, but cuttings coming back larger and groundmass grayish-purple. Plagioclase phenocrysts more abundant, larger (3-4mm) and more albitic. More abundant quartz phenocrysts. Probably flow contact at 100m. Possible alluvial debris at 110m and 116m noted. Small traces of fine-grain turquoise color mineral noted at 112-120m.
	Comments: Penetration rates: 60'/hr. to 380' (122m) 20'/hr. to 440' TD.
	Driller reports saturated rocks below 65.
	Tschicoma Formation.

ΔT Well No. 847-5

Property-Project Jemez Depth Logged 136m

Map Polvadera Peak Scale .75" Date: Drilled 20-8-79 Logged 26-10-79

State N.M. County Rio Arriba, of SW<sup>1/4</sup> of NE<sup>1/4</sup> of SE<sup>1/4</sup> of Sec 28 T 21N R 5E

Instrument 30 Operator Jim Gross Elevation 10,930 (ft)

Comments \_\_\_\_\_

RT JUSTIFY

Date Logged

Proj No	Well No	DA	MO	YR	*
1 2 3 4 5 6 7 8 9 10	11 12 13 14 15 16 17 18 19 20				
847	5	5	16	10	9 CM

\*19-Write F if Fahrenheit, 20-Write F if Feet

Card A

Site Description																																																		Operator					Editor			DA			MO			YR		
21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50	51 52 53 54 55 56 57 58 59 60	61 62	63 64 65	66 67 68	69 70	71 72 73 74 75	76 77 78 79	80	81 82	83 84 85	86 87 88	89 90	91 92	93 94 95	96 97 98	99 100																																																		
2.3 KM NW OF CHICOMA MTN																																																		JG					/ DP			20			8			79		

(Approx. location, water well?, oil test?, etc.)

Map Location \*\*

Scale Unit	Map Size	N Lat	W Long
21 22 23 24 25	26 27 28 29 30	31 32 33 34 35	36 37 38 39 40
IN CM	(7.5, 15., 60.)	Degree	Min Degree Min **
CM	7.5	36.00	106.30.0

Use decimals

Measure from SW corner of map; except AMS sheets measure from bottom center degree mark (W,-)(E,+)

Northing	Easting	Elev
51 52 53 54 55 56 57 58 59 60	61 62 63 64 65 66 67 68 69 70	71 72 73 74 75 76 77 78 79 80
9.35	35.90	10930.0

Use decimals

Write M if meters

Segment 1 = Depths	Conductivity	Best cond. (-K)
Start	End	End
21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50	51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80	71 72 73 74 75 76 77 78 79 80
70.	136. -6.0 -0.5	

Downward extrapolations (-ΔK)

Segment 2 Start →

Segment 3 Start →

Segment 4 Start →

Segment 5 Start →

Segment 6 Start →

Segment 7 Start →

Segment 8 Start →

Segment 9 Start →

Segment 10 Start →

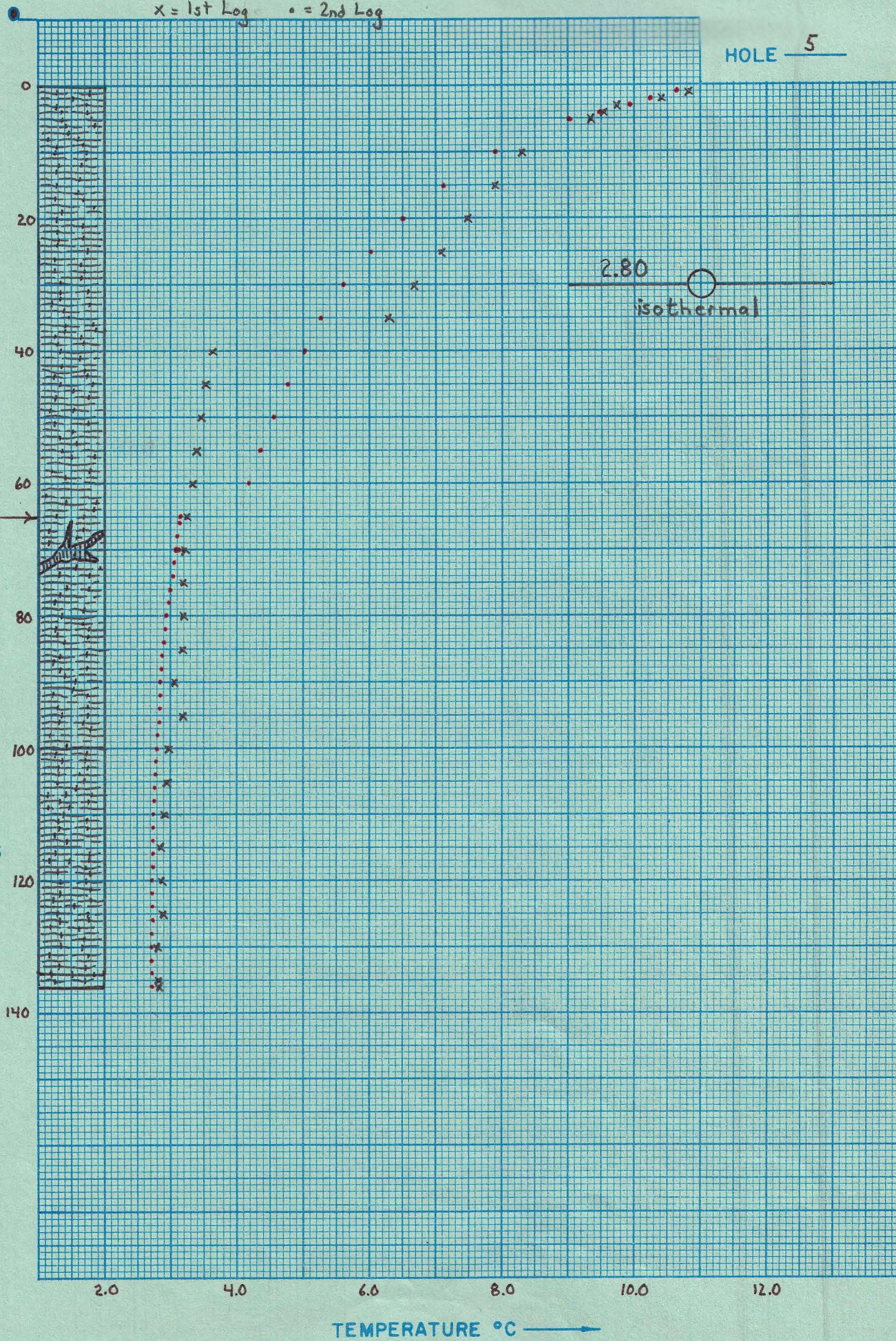
After final segment Start = .999

x = 1st Log    • = 2nd Log

HOLE 5

H<sub>2</sub>O table

DEPTH  
METERS



TEMPERATURE °C

Date Logged: 10-16-79 $\Delta T$  Well No. 847-5

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
86	183.55	2.89	-.02				
88	183.66	2.87	-.02				
90	183.73	2.86	-.01				
92	183.78	2.85	-.01				
94	183.81	2.84	-.01				
96	183.86	2.84	0				
98	183.97	2.81	-.03				
100	184.06	2.80	-.01				
102	184.12	2.79	-.01				
104	184.17	2.78	-.01				
106	184.21	2.77	-.01				
108	184.26	2.76	-.01				
110	184.29	2.75	-.01				
112	184.34	2.74	0				
114	184.38	2.74	-.01				
116	184.42	2.73	0				
118	184.44	2.73	-.01				
120	184.45	2.72	.01	5			
122	184.43	2.73	0				
124	184.44	2.73	0				
126	184.44	2.73	-.01				
128	184.46	2.72	0				
130	184.48	2.72	0				
132	184.49	2.72	0				
134	184.49	2.72	0				
136	184.48	2.72	0				
99999							

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_

## LITHOLOGIC LOG

JTG

Project: Jemez

847-7

Location: NW $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$  30 21N 5EMethod: hammer/foamElevation: 9980'Date Drilled: 8/10/79  
 $\approx$ 150cps.

Depth (m)	Description
0-27m	Sandy, brown clay and lithic fragments of varying size of pyroxene andesite and quartz latite. Apparently slide material and colluvial infill to South Fork Polvadera Creek.
27-92m TD	Brick red and dark gray hornblende, plagioclase quartz latite porphyry. Groundmass fine grain to glassy. 87-97m more highly oxidized to brick red color.
	<p>Comments: Driller reports rock hard enough to hammer, but fast penetration <math>\approx</math>80'hr. Also, much water made during drilling. Rocks are presumed to be saturated. Lateral groundwater motion expected in steep upper drainage basin.</p>
	27-92m TD, Tschicoma Formation

AT Well No. 847-7

Property-Project Jemez Depth Logged 89m

Map Polvadere Peak Scale 7 1/2' Date: Drilled 10-8-79 Logged 16-10-79

State NM County Rio Arriba, of NW 1/4 of NE 1/4 of NW 1/4 of Sec 30 T 21N R 5E

Instrument 30 Operator Jim Gross Elevation 9980 (ft)

Comments \_\_\_\_\_

RT JUSTIFY

Date Logged

Proj No	Well No	DA	MO	YR	*
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20					
8 4 7	7	7	10	79	CM

\*19-Write F if Fahrenheit, 20-Write F if Feet

Card A

Site Description	Operator	Editor	DA	MO	YR
21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50	51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68				
2.6 KM ESE OF CIENEGA REDONDA	JG	DP	10	8	79

(Approx. location, water well?, oil test?, etc.)

Card B

Scale Unit	Map Size	N Lat	W Long
21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50	(7.5, 15, 60)	Degree	Min
CM	7.5	36.00	106.30.0

Map Location \*\*

Measure from SW corner of map; except AMS sheets measure from bottom center degree mark (W,-)(E,+)

Use decimals

Northing	Easting	Elev
51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80		
13.1	19.4	9980.0

Write M if meters

Use decimals

Segment 1 = Depths	Conductivity	Best cond. (-K)
Start	End	Downward extrapolations (-ΔK)
21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50	K	ΔK
24.0	32.0	6.0
		.5

Segment 2

51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80	End	K	ΔK
	50.0	62.0	-6.0
			-.5

Segment 3

Start → .999

Segment 4

Segment 5

Segment 6

Segment 7

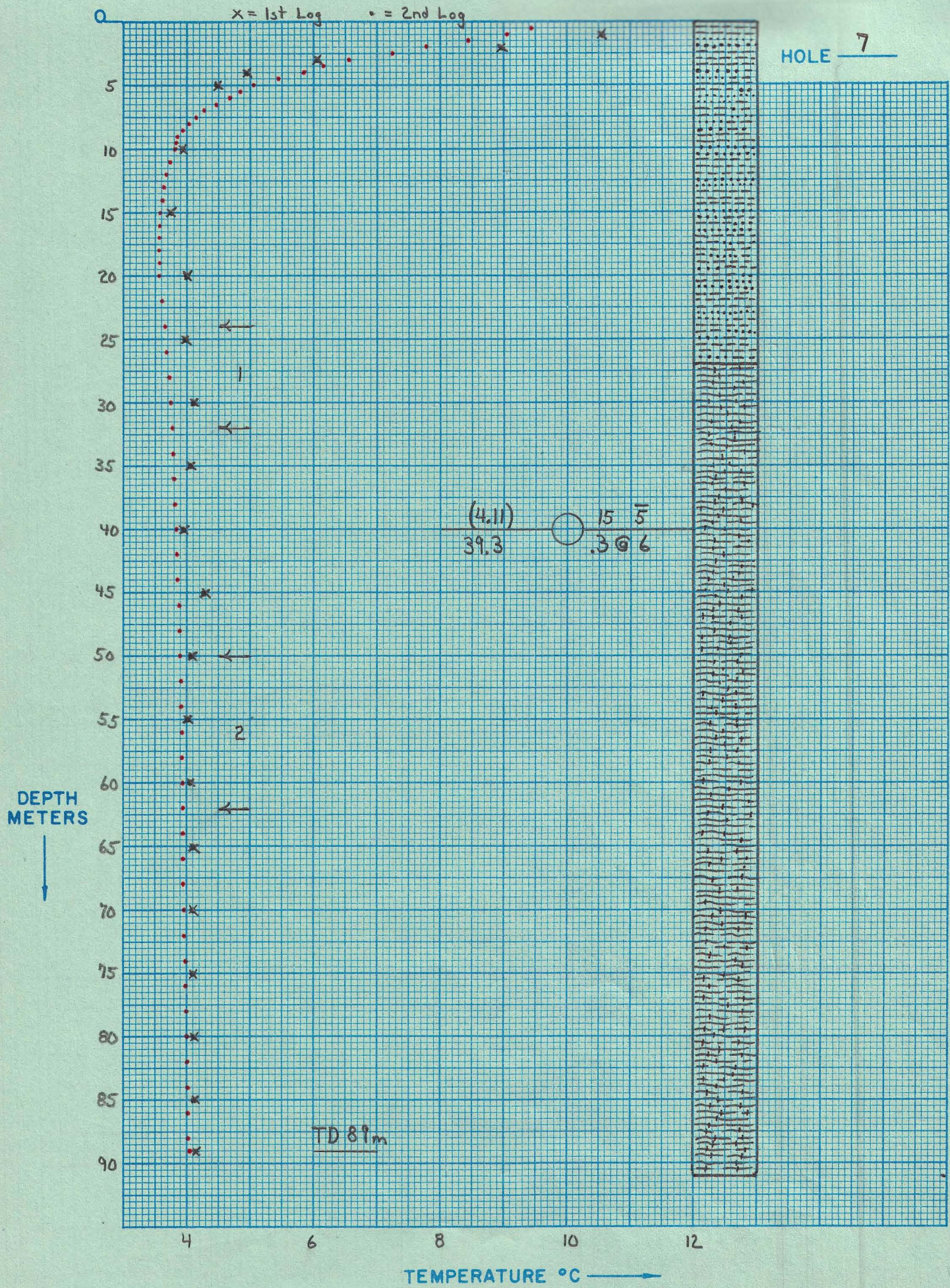
Segment 8

Segment 9

Segment 10

Start →

After final segment Start = .999





Date Logged: 10-16-79 $\Delta T$  Well No. 847-7

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
.5	150.54	9.44					
1.0	152.44	9.04	-.40				
1.5	155.26	8.46	-.58				
2.0	158.55	7.79	-.67				
2.5	161.25	7.24	-.55				
3.0	164.65	6.56	-.68				
3.5	166.62	6.17	-.39				
4.0	168.18	5.86	-.31				
4.5	170.27	5.45	-.41				
5.0	172.28	5.06	-.39				
5.5	173.34	4.85	-.21				
6.0	174.19	4.69	-.16				
6.5	175.34	4.47	-.22				
7.0	176.32	4.28	-.19				
7.5	177.03	4.14	-.14				
8.0	177.58	4.03	-.11				
8.5	178.08	3.94	-.09				
9.0	178.47	3.86	-.08				
9.5	178.61	3.84	-.02				
10.0	178.69	3.82	-.02				
11	179.12	3.74	-.08				
12	179.38	3.69	-.05				
13	179.61	3.64	-.05				
14	179.76	3.61	-.03				
15	179.89	3.59	-.02				
16	179.97	3.58	-.01				
17	180.01	3.57	-.01				

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_

Date Logged: 10-16-79 $\Delta T$  Well No. 847-7

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
18	180.02	3.57	0				
19	180.00	3.57	0				
20	179.94	3.58	.01	10			
22	179.77	3.61	.03	15			
24	179.52	3.66	.05	25			
26	179.39	3.69	.03	15			
28	179.23	3.72	.03	15			
30	179.08	3.75	.03	15			
32	178.93	3.78	.03	15			
34	178.83	3.79	.01	5			
36	178.75	3.81	.02	10			
38	178.69	3.82	.01	5			
40	178.61	3.84	.02	10			
42	178.52	3.85	.01	5			
44	178.41	3.87	.02	10			
46	178.32	3.89	.02	10			
48	178.30	3.90	.01	5			
50	178.27	3.90	0	0			
52	178.23	3.91	.01	5			
54	178.19	3.92	.01	5			
56	178.14	3.93	.01	5			
58	178.09	3.94	.01	5			
60	178.03	3.95	.01	5			
62	177.98	3.96	.01	5			
64	177.94	3.96	0	0			
66	177.91	3.97	.01	5			
68	177.89	3.97	0	0			

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_

Date Logged: 10-16-79

ΔT Well No. 847-7

Depth (meters)	Instr. Reading	Temp. °C	ΔT	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
			.01	5			
70	177.87	3.98	0	0			
72	177.84	3.98	.01	5			
74	177.83	3.99	0	0			
76	177.79	3.99	.01	5			
78	177.76	4.00	.01	5			
80	177.72	4.01	0	0			
82	177.69	4.01	.01	5			
84	177.65	4.02	0	0			
86	177.63	4.02	.01	5			
88	177.61	4.03	.02	20			
89 TD	177.49	4.05					

K=Conductivity

## LITHOLOGIC LOG

Project: Jemez

847-8

Location: NW $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$  25 21N 4EMethod: hammer/foamElevation: 9970'Date Drilled: 8/6/79-8/8/79

≈150cps.

Depth (m)	Description
0- 3m	Red clay and silt, 90%. Lithic fragments of porphyritic quartz latite.
3-38m	Brick red and dark gray hornblende, plagioclase quartz latite porphyry. Hypocrystalline to Holocrystalline, groundmass generally cryptocrystalline. Some hornblendes show red oxidation (resorption) rims. Plagioclase phenocrysts 1-2mm. 6-9m, slightly more weathered and containing more clay. 23-26m, containing more megascopic quartz.
38-52m	Medium gray pyroxene, hornblende andesite porphyry. Some cuttings show a trachytic texture. Groundmass appears glassy.
52-92m TD	Porphyritic quartz latite as above but with increased quartz phenocrysts. 77-97m possibly more alkali-rich lava. Phenocrysts of plagioclase are larger (to 5mm) and more albitic in appearance.

Comments: Driller reports penetration rates 80'/hr. to 40m  
20'/hr. to 97m TD

Water not encountered in any significant quantities.

Apparently Tschicoma Formation as mapped by Smith, Bailey, and Ross, 1970 and as described by Griggs, Roy L., 1954 Geology and Groundwater Resources of the Los Alamos Area, New Mexico.

AMAX EXPLORATION, INC.

TEMPERATURE/DEPTH LOG

ΔT Well No. 847-8

Property-Project Jemez Depth Logged 91 m

Map Polvadera Peak Scale 7 1/2' Date: Drilled 8-8-79 Logged 16-10-79

State NM County Rio Arriba, of NW 1/4 of NE 1/4 of NW 1/4 of Sec 25 T 21N R 4E

Instrument 30 Operator Jim Gross Elevation 9970 (ft)

Comments \_\_\_\_\_

Date Logged

RT JUSTIFY Proj No Well No DA MO YR \*  
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20  
847 8 8 16 10 79 C M \*19-Write F if Fahrenheit, 20-Write F if Feet

Card A Site Description Operator Editor DA MO YR  
 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68  
1.2 KM ESE OF CIENEGA REDONDA JG DP 8 8 79  
 (Approx. location, water well?, oil test?, etc.)

Map Location \*\*

Scale Unit IN CM Map Size (7.5, 15., 60.) N Lat Degree Min W Long Degree Min \*\*  
 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50  
CM 7.5 36. 00. 106. 30.0 Measure from SW corner of map; except AMS sheets measure from bottom center degree mark (W,-)(E,+)

Card B Use decimals

Northing Easting Elev  
 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80  
13.8 13.2 9970. Write M if meters

Use decimals

Segment 1 = Depths Start End Conductivity K ΔK Best cond. (-K) Downward extrapolations (-ΔK)

21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50  
36. 86. -6.0 -.5 End K ΔK

Segment 2 Start → 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80  
.999

Segment 3 Start →

Segment 4 Start →

Segment 5 Start →

Segment 6 Start →

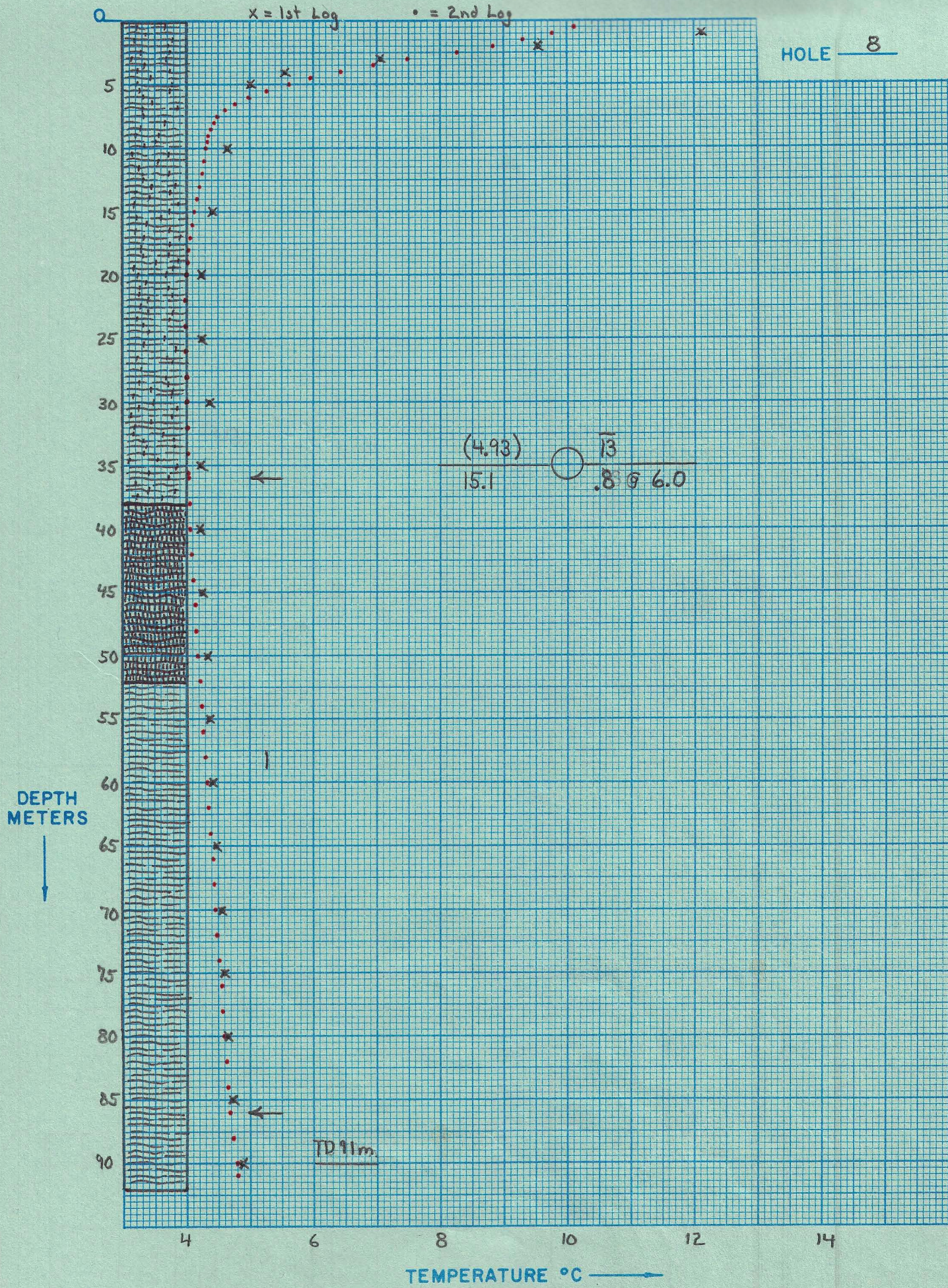
Segment 7 Start →

Segment 8 Start →

Segment 9 Start →

Segment 10 Start → 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

After final segment Start = .999



Date Logged: 10-16-79 $\Delta T$  Well No. 847-8

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
.5	147.33	10.11					
			-.33				
1.0	148.92	9.78					
			-.47				
1.5	151.15	9.31					
			-.48				
2.0	153.49	8.83					
			-.56				
2.5	156.19	8.27					
			-.78				
3.0	160.00	7.49					
			-.54				
3.5	162.72	6.95					
			-.52				
4.0	165.30	6.43					
			-.46				
4.5	167.65	5.97					
			-.35				
5.0	169.44	5.62					
			-.35				
5.5	171.21	5.27					
			-.28				
6.0	172.62	4.99					
			-.22				
6.5	173.78	4.77					
			-.16				
7.0	174.62	4.61					
			-.11				
7.5	175.15	4.50					
			-.06				
8.0	175.49	4.44					
			-.05				
8.5	175.75	4.39					
			-.04				
9.0	175.92	4.35					
			-.02				
9.5	176.05	4.33					
			-.02				
10.0	176.13	4.31					
			-.03				
11	176.32	4.28					
			-.04				
12	176.49	4.24					
			-.03				
13	176.65	4.21					
			-.04				
14	176.86	4.17					
			-.04				
15	177.06	4.13					
			-.03				
16	177.23	4.10					
			-.03				
17	177.40	4.07					

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_

Date Logged: 10-16-79 $\Delta T$  Well No. 847-8

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
18	177.53	4.04	-.03				
19	177.62	4.03	-.01				
20	177.71	4.01	-.02				
22	177.81	3.99	-.02				
24	177.85	3.98	-.01				
26	177.83	3.99	.01	5			
28	177.78	4.00	.01	5			
30	177.72	4.01	.01	5			
32	177.71	4.01	0	0			
34	177.67	4.02	.01	5			
36	177.61	4.03	.01	5			
38	177.51	4.05	.02	10			
40	177.40	4.07	.02	10			
42	177.29	4.09	.02	10			
44	177.17	4.11	.02	10			
46	177.04	4.14	.03	15		12.1	
48	176.90	4.17	.03	15			
50	176.75	4.19	.02	10			
52	176.61	4.22	.03	15			
54	176.46	4.25	.03	15			
56	176.32	4.28	.03	15			
58	176.17	4.31	.03	15			
60	176.03	4.33	.02	10			
62	175.89	4.36	.03	15			
64	175.75	4.39	.03	15			.828
66	175.60	4.42	.03	15			.847
68	175.45	4.44	.02	10			

K=Conductivity



Date Logged: 10-16-79 $\Delta T$  Well No. 847-8

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
70	175.32	4.47	.03	15			
72	175.20	4.49	.02	10			
74	175.06	4.52	.03	15			
76	174.92	4.55	.03	15			
78	174.81	4.57	.02	10			
80	174.66	4.60	.03	15			
82	174.50	4.63	.03	15			
84	174.35	4.66	.03	15			
86	174.16	4.69	.03	15			
88	173.97	4.73	.04	20			
90	173.63	4.80	.07	35			
91	173.54	4.82	.02	20			
99999.							

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_

## LITHOLOGIC LOG

Project: Jemez

847-9

Location: SW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$  23 21N 4E

Method: hammer/foam

Elevation: 9790'Date Drilled: 8/22/79

≈120cps.

Depth (m)	Description
0- 70m	Orange-tan to brick red biotite quartz latite porphyry. Some cuttings are fresher in appearance and gray in color. Feldspar phenocrysts vary in size and abundance. Some cuttings devoid of any phenocrysts. Feldspar, quartz, and biotite in 90% of samples. Aphanitic groundmass ≈80% by volume. Quartz phenocrysts are often quite clear and perfectly euhedral bipyramids. Tschicoma Formation.
70-122m TD	Mixed rhyolitic material. Some cuttings showing flowbanded texture and were apparently lava. Some material more white and pumiceous and resembling many of the local lapilli tuffs i.e., El Cajete, member of the Valles Rholite, S,B,R, 1970. All cuttings contain biotite phenocrysts, and are fine grain to aphanitic. Coarser specimens show considerable quartz content, >50%. Yellow-orange stain coats many of the cuttings. Possibly Bandelier Tuff, pumice bed of Tshirege Member.
Comments: 0-75m very hard hammer drilling. 75-129m soft, fast-drilling no water made or lost in hole.	

AMAX EXPLORATION, INC.

TEMPERATURE/DEPTH LOG

AT Well No. 847-9

Property-Project Jenez Depth Logged 123 m

Map Polvadera Peak Scale 7.5' Date: Drilled 22-8-79 Logged 16-10-79

State N.M. County Rio Arriba, of SW 1/4 of SE 1/4 of SW 1/4 of Sec 23 T 21 N R 4 E

Instrument 30 Operator Jim Gross Elevation 9790 (ft)

Comments \_\_\_\_\_

RT JUSTIFY

Date Logged

Proj No	Well No	DA	MO	YR	*
1 2 3 4 5 6 7 8 9 10	11 12 13 14 15 16 17 18 19 20				
847	9	9	16	10	79 C M

\*19-Write F if Fahrenheit, 20-Write F if Feet

Site Description

Operator	Editor	DA	MO	YR
21 22 23 24 25 26 27 28 29 30	31 32 33 34 35 36 37 38 39 40	41 42 43 44 45 46 47 48 49 50	51 52 53 54 55 56 57 58 59 60	61 62 63 64 65 66 67 68
9.3 km KWNW	OF	CHICOMA	MTN.	
		JG	DP	22 8 79

(Approx. location, water well?, oil test, etc.)

Map Location \*\*

Scale Unit

IN	CM	Map Size (7.5, 15., 60.)	N Lat Degree	Min	W Long Degree	Min **
21 22 23 24 25	26 27 28 29 30	31 32 33 34 35	36 37 38 39 40	41 42 43 44 45	46 47 48 49 50	
CM		7.5	36.	00.	106.	30.0

Use decimals

Measure from SW corner of map; except AMS sheets measure from bottom center degree mark (W,-)(E,+)

Northing

Easting	Elev
51 52 53 54 55 56 57 58 59 60	61 62 63 64 65 66 67 68 69 70
14.40	6.45 9790.

Use decimals

Write M if meters

Segment 1 = Depths

Start	End	Conductivity K	ΔK	Best cond. (-K)	Downward extrapolations (-ΔK)
21 22 23 24 25 26 27 28 29 30	31 32 33 34 35 36 37 38 39 40	41 42 43 44 45 46 47 48 49 50			
60.	70.	6.0	.5		

Segment 2

Start	End	K	ΔK
51 52 53 54 55 56 57 58 59 60	61 62 63 64 65 66 67 68 69 70	71 72 73 74 75 76 77 78 79 80	
	82.	112.	-2.0 -0.5

Segment 3

21 22 23 24 25 26 27 28 29 30	31 32 33 34 35 36 37 38 39 40	41 42 43 44 45 46 47 48 49 50
		.999

Segment 4

51 52 53 54 55 56 57 58 59 60	61 62 63 64 65 66 67 68 69 70	71 72 73 74 75 76 77 78 79 80
-------------------------------	-------------------------------	-------------------------------

Segment 5

21 22 23 24 25 26 27 28 29 30	31 32 33 34 35 36 37 38 39 40	41 42 43 44 45 46 47 48 49 50
-------------------------------	-------------------------------	-------------------------------

Segment 6

51 52 53 54 55 56 57 58 59 60	61 62 63 64 65 66 67 68 69 70	71 72 73 74 75 76 77 78 79 80
-------------------------------	-------------------------------	-------------------------------

Segment 7

21 22 23 24 25 26 27 28 29 30	31 32 33 34 35 36 37 38 39 40	41 42 43 44 45 46 47 48 49 50
-------------------------------	-------------------------------	-------------------------------

Segment 8

51 52 53 54 55 56 57 58 59 60	61 62 63 64 65 66 67 68 69 70	71 72 73 74 75 76 77 78 79 80
-------------------------------	-------------------------------	-------------------------------

Segment 9

21 22 23 24 25 26 27 28 29 30	31 32 33 34 35 36 37 38 39 40	41 42 43 44 45 46 47 48 49 50
-------------------------------	-------------------------------	-------------------------------

Segment 10

51 52 53 54 55 56 57 58 59 60	61 62 63 64 65 66 67 68 69 70	71 72 73 74 75 76 77 78 79 80
-------------------------------	-------------------------------	-------------------------------

After final segment Start = .999

x = 1st Log    • = 2nd Log

HOLE 9

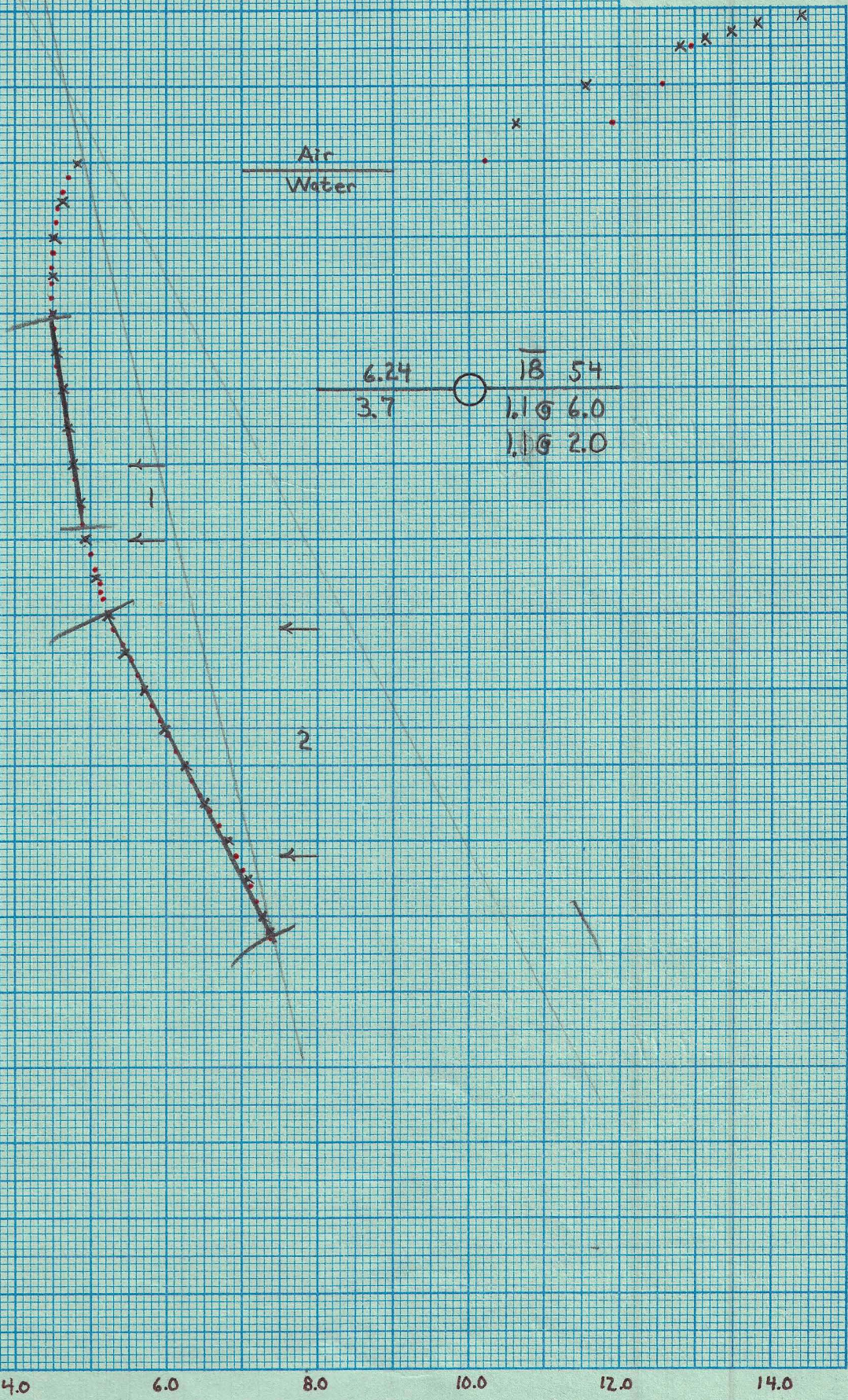
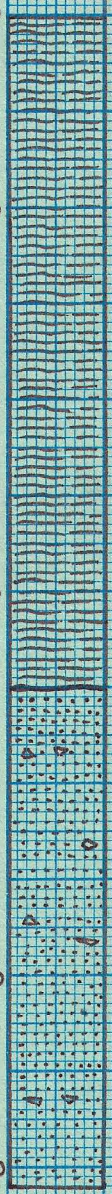
DEPTH METERS  
↓

0  
20  
40  
60  
80  
100  
120  
140

TEMPERATURE °C →

Air  
Water

6.24	18.54
3.7	1.1 @ 6.0
	1.1 @ 2.0



Date Logged: 10-16-79ΔT Well No. 847-9

Depth (meters)	Instr. Reading	Temp. °C	ΔT	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
5	134.30	12.95					
			-.37				
10	135.99	12.58					
			-.66				
15	138.95	11.92					
			-1.71				
Air H <sub>2</sub> O 20	146.90	10.21					
			-5.50				
22	174.09	4.71					
			-.08				
24	174.47	4.63					
			-.05				
26	174.73	4.58					
			-.04				
28	174.95	4.54					
			-.02				
30	175.08	4.52					
			-.02				
32	175.16	4.50					
			-.01				
34	175.21	4.49					
			0	0			
36	175.22	4.49					
			0	0			
38	175.22	4.49					
			.01	5			
40	175.17	4.50					
			.02	10			
42	175.08	4.52					
			.02	10			
44	174.97	4.54					
			.02	10			
46	174.84	4.56					
			.03	15			
48	174.68	4.59					
			.04	20			
50	174.49	4.63					
			.04	20			
52	174.31	4.67					
			.02	10			
54	174.19	4.69					
			.02	10			
56	174.07	4.71					
			.03	15			
58	173.92	4.74					
			.03	15			
60	173.76	4.77					
			.04	20			
62	173.56	4.81					
			.04	20			
64	173.38	4.85					
			.03	15			
66	173.19	4.88					

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_

Date Logged: 10-16-79 $\Delta T$  Well No. 847-9

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
68	173.12	4.90	.02	10			
70	172.82	4.95	.05	25			
72	172.53	5.01	.06	30			
74	172.24	5.07	.06	30			
76	171.94	5.13	.06	30			
78	171.64	5.18	.05	25			
80	171.33	5.25	.07	35			
82	170.93	5.32	.07	35			
84	170.37	5.43	.11	55			
86	169.88	5.53	.10	50			
88	169.40	5.62	.09	45			
90	168.93	5.72	.10	50			
92	168.40	5.82	.10	50			
94	167.85	5.93	.11	55			
96	167.37	6.02	.09	45			
98	166.82	6.13	.11	55			
100	166.29	6.24	.11	55			
102	165.72	6.35	.11	55			
104	165.15	6.46	.11	55			
106	164.58	6.58	.12	60			
108	163.96	6.70	.12	60			
110	163.44	6.80	.10	50			
112	162.82	6.93	.13	65			
114	162.34	7.02	.09	45			
116	161.93	7.11	.09	45			
118	161.51	7.19	.08	40			
120	161.09	7.28	.09	45			

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_



## LITHOLOGIC LOG

Project: Jemez  
847-10Location: NW-1/4 NW-1/4 NE-1/4 28 21N 4EElevation: 9760'Date Drilled: 8-5 - 8-6-79Method: Foam

Depth (m)	Description
0 - 15	Regolith composed of clays, altered biotite, some hornblende and qtz. Probable source rock qtz. latite
15 - 21	Porphyritic biotite bearing, hornblende. Qtz. latite. Still has clay component 10 - 15%.
21 - 92	Por. biotite bearing hornblende qtz. latite



ΔT Well No. 847-10

Property-Project Jemez Depth Logged 90m

Map Cerro del Grant Scale 7 1/2" Date: Drilled 6-8-79 Logged 29-9-79

State NM County Rio Arriba, of NW 1/4 of NW 1/4 of NE 1/4 of Sec 28 T Z1N R 4E

Instrument 30 Operator Jim Gross Elevation 9760 (ft)

Comments \_\_\_\_\_

RT JUSTIFY

Date Logged

Proj No	Well No	DA	MO	YR	*
1 2 3 4 5 6 7 8 9 10	11 12 13 14 15 16 17 18 19 20				
847	10	10	29	9	79

\*19-Write F if Fahrenheit, 20-Write F if Feet

Card A

Site Description																																																		Operator			Editor			DA	MO	YR
21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50	51 52 53 54 55 56 57 58 59 60	61 62 63 64 65 66 67 68	69 70 71 72 73 74 75 76 77 78 79 80	81 82 83 84 85 86 87 88 89 90																																																						
2.4 KM NNE OF CERRO DEL GRANT																																																		JG			DP			6	8	79

(Approx. location, water well?, oil test?, etc.)

Map Location \*\*

Scale Unit	Map Size	N Lat	W Long
IN CM	(7.5, 15., 60.)	Degree	Min
21 22 23 24 25	26 27 28 29 30	31 32 33 34 35	36 37 38 39 40
CM	7.5	36.00	106.37.5

Measure from SW corner of map; except AMS sheets measure from bottom center degree mark (W,-)(E,+)

Use decimals

Northing	Easting	Elev
31 32 33 34 35 36 37 38 39 40	41 42 43 44 45 46 47 48 49 50	51 52 53 54 55 56 57 58 59 60
13.5	41.4	9760

Use decimals

Write M if meters

Segment 1 = Depths	Conductivity	Best cond. (-K)
Start	End	ΔK
21 22 23 24 25 26 27 28 29 30	31 32 33 34 35 36 37 38 39 40	41 42 43 44 45 46 47 48 49 50
50.0	80.0	-6.0
		ΔK
		-0.5

Segment 2

51 52 53 54 55 56 57 58 59 60	61 62 63 64 65 66 67 68 69 70	71 72 73 74 75 76 77 78 79 80
	80.0	90.0
		-6.0
		-0.5

Segment 3

21 22 23 24 25 26 27 28 29 30	31 32 33 34 35 36 37 38 39 40	41 42 43 44 45 46 47 48 49 50
		.999

Segment 4

51 52 53 54 55 56 57 58 59 60	61 62 63 64 65 66 67 68 69 70	71 72 73 74 75 76 77 78 79 80

Segment 5

21 22 23 24 25 26 27 28 29 30	31 32 33 34 35 36 37 38 39 40	41 42 43 44 45 46 47 48 49 50

Segment 6

51 52 53 54 55 56 57 58 59 60	61 62 63 64 65 66 67 68 69 70	71 72 73 74 75 76 77 78 79 80

Segment 7

21 22 23 24 25 26 27 28 29 30	31 32 33 34 35 36 37 38 39 40	41 42 43 44 45 46 47 48 49 50

Segment 8

51 52 53 54 55 56 57 58 59 60	61 62 63 64 65 66 67 68 69 70	71 72 73 74 75 76 77 78 79 80

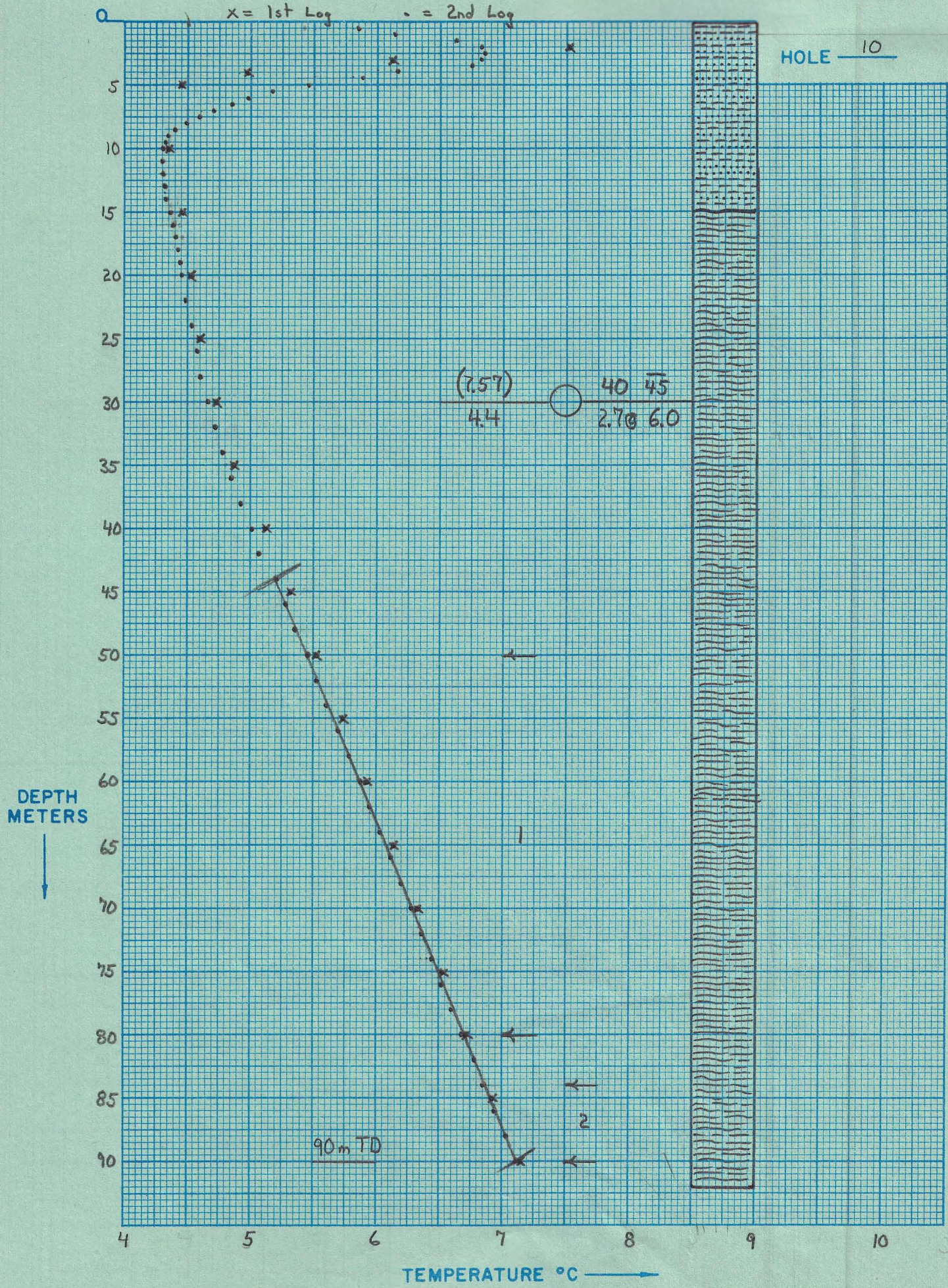
Segment 9

21 22 23 24 25 26 27 28 29 30	31 32 33 34 35 36 37 38 39 40	41 42 43 44 45 46 47 48 49 50

Segment 10

51 52 53 54 55 56 57 58 59 60	61 62 63 64 65 66 67 68 69 70	71 72 73 74 75 76 77 78 79 80

After final segment Start = .999



Date Logged: 10-29-79 $\Delta T$  Well No. 847-10

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
.5	168.26	5.85					
1	166.80	6.14	.29	580			
1.5	164.33	6.63	.49	980			
2	163.31	6.83	.20	400			
2.5	163.21	6.85	.02	40			
3	163.29	6.83	-.02				
3.5	164.95	6.50	-.33				
4	166.70	6.16	-.34				
4.5	168.12	5.88	-.28				
5	170.17	5.47	-.41				
5.5	171.71	5.17	-.30				
6	172.71	4.98	-.19				
6.5	173.36	4.85	-.13				
7	174.10	4.71	-.14				
7.5	174.68	4.59	-.12				
8	175.24	4.49	-.10				
8.5	175.68	4.40	-.09				
9	175.93	4.35	-.05				
9.5	176.06	4.33	-.02				
10	176.13	4.31	-.02				
11	176.19	4.30	-.01				
12	176.16	4.31	-.01	10			
13	176.07	4.33	.02	20			
14	175.97	4.34	.01	10			
15	175.85	4.37	.03	30			
16	175.73	4.39	.02	20			
17	175.64	4.41	.02	20			

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_

Date Logged: 10-29-79 $\Delta T$  Well No. 847-10

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
18	175.55	4.43	.02	20			
19	175.47	4.44	.01	10			
20	175.39	4.46	.02	20			
22	175.23	4.49	.03	15			
24	175.03	4.53	.04	20			
26	174.82	4.57	.04	20			
28	174.60	4.61	.04	20			
30	174.32	4.66	.05	25			
32	173.99	4.73	.07	35			
34	173.72	4.78	.05	25			
36	173.35	4.85	.07	35			
38	172.90	4.94	.09	45			
40	172.42	5.03	.09	45			
42	172.03	5.11	.08	40			
44	171.51	5.21	.10	50			
46	171.15	5.28	.07	35			
48	170.72	5.36	.08	40			
50	170.23	5.46	.10	50			
52	169.87	5.53	.07	35			
54	169.45	5.61	.08	40			
56	169.01	5.70	.09	45			
58	168.58	5.78	.08	40			
60	168.17	5.87	.09	45			
62	167.73	5.95	.08	40			
64	167.31	6.03	.08	40			
66	166.88	6.12	.08	40			
68	166.48	6.20	.08	40			

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_

Date Logged: 10-29-79

 $\Delta T$  Well No. 847-10

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
70	166.08	6.28	.08	40			
72	165.66	6.36	.08	40			
74	165.26	6.44	.08	40			
76	164.84	6.52	.08	40			
78	164.45	6.60	.08	40			
80	164.04	6.68	.08	40			
82	163.62	6.77	.09	45			
84	163.19	6.85	.08	40			
86	162.75	6.94	.09	45			
88	162.31	7.03	.09	45			
90 TD 99999.	161.87	7.12	.09	45			

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_

## LITHOLOGIC LOG

Project: Jemez  
847-11Location SW-1/4 SW-1/4 SW-1/4 29 21N 4EElevation: 10,300'Date Drilled: 8-2-79Method Foam

Depth (m)	Description
0 - 18	Porphyritic biotite hornblende bearing qtz. latite
10 - 30	Porphyritic hornblende biotite qtz latite
30 - 49	Porphyritic hornblende biotite bearing qtz trachyte
49 - 55	Porphyritic hornblende biotite bearing qtz trachyte with some signs of alteration (iron stain and some psilomelane)
55 - 61	Porphyritic qtz trachyte some signs of alteration
61 - 67	Porphyritic qtz trachyte
67 - 92	Porphyritic biotite bearing qtz trachyte $Fe_3O_4$ in significant quantities 3-5%

ΔT Well No. 847-11

Property-Project Jemez Depth Logged 92m

Map Cerro Del Grant Scale 7.5' Date: Drilled 2-8-79 Logged 29-10-79

State N.M. County Rio Arriba, of SW<sup>1</sup>/<sub>4</sub> of SW<sup>1</sup>/<sub>4</sub> of SW<sup>1</sup>/<sub>4</sub> of Sec 29 T 21N R 4E

Instrument 30 Operator Jim Gross Elevation 10,300 (ft)

Comments \_\_\_\_\_

Date Logged

RT JUSTIFY Proj No Well No DA MO YR \*  
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20  
847 11 29 10 79 CM \*19-Write F if Fahrenheit, 20-Write F if Feet

Card A Site Description Operator Editor DA MO YR  
 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68  
0.5KM SOUTH OF CERRO DEL GRANT JG DP 2 8 79  
 (Approx. location, water well?, oil test?, etc.)

Map Location \*\*

Scale Unit IN CM Map Size (7.5, 15, 60) Degree Min Degree Min \*\*  
 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50  
CM 7.5 36 00 106 37.5 Measure from SW corner of map; except AMS sheets measure from bottom center degree mark (W,-)(E,+)

Use decimals

Northring Easting Elev  
 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80  
7.2 31.6 10300 ← Write M if meters  
 Use decimals 10300

Segment 1 = Depths Start End Conductivity K ΔK Best cond. (-K) Downward extrapolations (-ΔK)

21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50  
42 62 6.0 .5 End K ΔK

Segment 2 Start → 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80  
70 86 -6.0 -.6

Segment 3 -.999

Segment 4 Start →

Segment 5

Segment 6 Start →

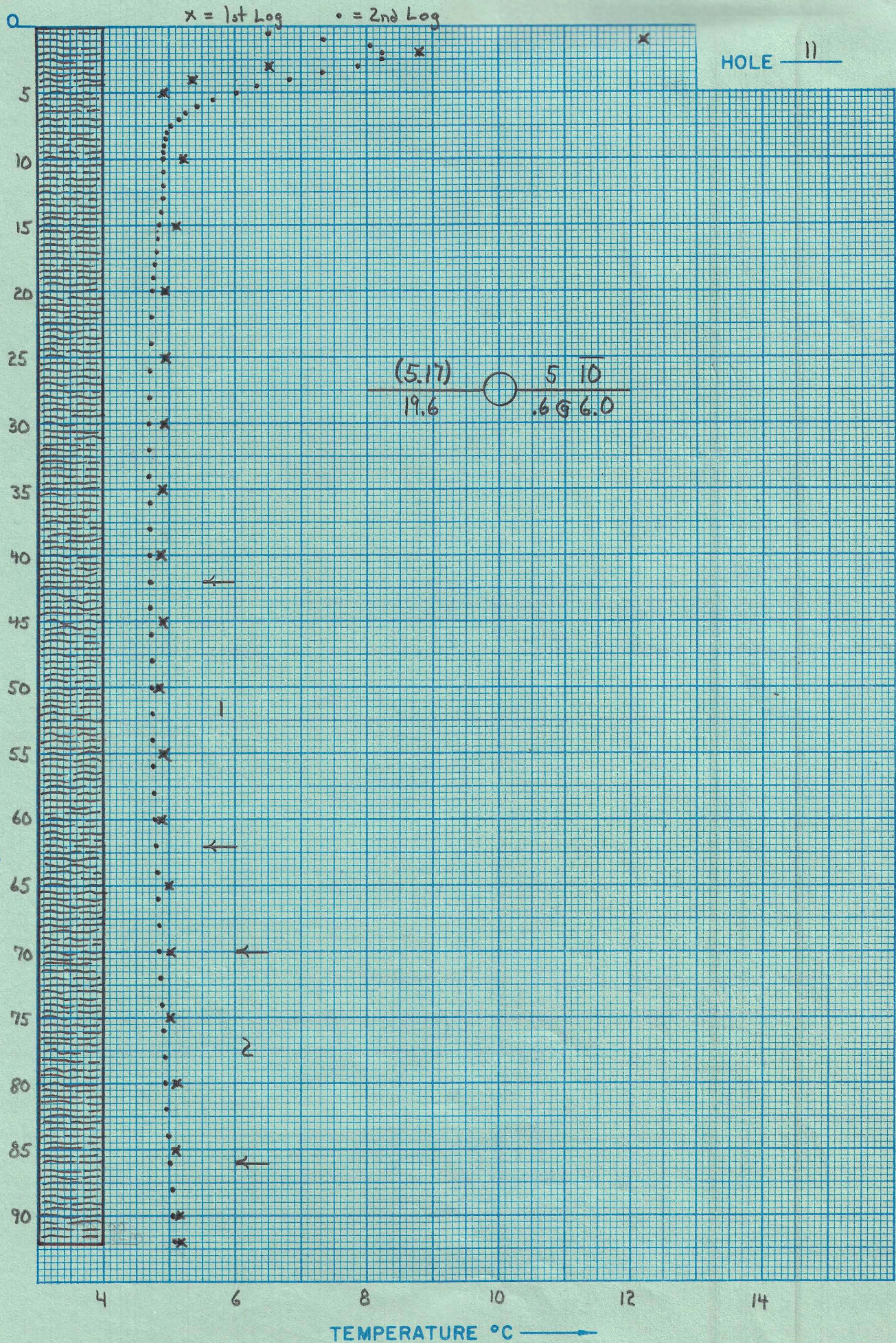
Segment 7

Segment 8 Start →

Segment 9

Segment 10 Start → 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

After final segment Start = .999





Date Logged: 10-29-79ΔT Well No. 847-11

Depth (meters)	Instr. Reading	Temp. °C	ΔT	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
.5	164.95	6.50					
1	160.75	7.34	.84	1680			
1.5	157.25	8.05	.71	1420			
2	156.38	8.23	.18	360			
2.5	156.36	8.23	0	0			
3	158.12	7.88	-.35				
3.5	160.82	7.33	-.55				
4	163.29	6.83	-.50				
4.5	165.76	6.34	-.49				
5	167.45	6.01	-.33				
5.5	169.12	5.68	-.33				
6	170.46	5.42	-.26				
6.5	171.28	5.26	-.16				
7	171.89	5.14	-.12				
7.5	172.41	5.03	-.11				
8	172.69	4.98	-.05				
8.5	172.84	4.95	-.03				
9	172.93	4.93	-.02				
9.5	172.98	4.92	-.01				
10	173.00	4.92	0	0			
11	173.01	4.92	0	0			
12	173.03	4.91	-.01				
13	173.10	4.90	-.01				
14	173.21	4.88	-.02				
15	173.33	4.86	-.02				
16	173.45	4.83	-.03				
17	173.58	4.81	-.02				

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_

Date Logged: 10-29-79 $\Delta T$  Well No. 847-11

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
18	173.69	4.79	-.02				
19	173.78	4.77	-.02				
20	173.84	4.76	-.01				
22	173.95	4.74	-.02				
24	174.01	4.72	-.02				
26	174.07	4.71	-.01				
28	174.11	4.70	-.01				
30	174.13	4.70	0	0			
32	174.15	4.70	0	0			
34	174.16	4.69	-.01				
36	174.13	4.70	.01	5			
38	174.12	4.70	0	0			
40	174.10	4.71	.01	5			
42	174.08	4.71	0	0			
44	174.04	4.72	.01	5			
46	174.00	4.73	.01	5			
48	173.96	4.73	0	0			
50	173.92	4.74	.01	5			
52	173.88	4.75	.01	5			
54	173.82	4.76	.01	5			
56	173.77	4.77	.01	5			
58	173.73	4.78	.01	5			
60	173.68	4.79	.01	5			
62	173.62	4.80	.01	5			
64	173.54	4.82	.02	10			
66	173.46	4.83	.01	5			
68	173.37	4.85	.02	10			

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_

Date Logged: 10-29-79 $\Delta T$  Well No. 847-11

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
70	173.29	4.86	.01	5			
72	173.22	4.88	.02	10			
74	173.12	4.90	.02	10			
76	173.01	4.92	.02	10			
78	172.91	4.94	.02	10			
80	172.79	4.96	.02	10			
82	172.69	4.98	.02	10			
84	172.58	5.00	.02	10			
86	172.46	5.02	.02	10			
88	172.34	5.05	.03	15			
90	172.22	5.07	.02	10			
92 TD	172.10	5.10	.03	15			
99999.							

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_

## LITHOLOGIC LOG

Project: Jemez

847-12

Location: NW-1/4 NW-1/4 NW-1/4 29 21N 4EElevation: 10,020Date Drilled: 8-3 - 8-5-79Method: Foam

Depth (m)	Description
0 - 6	Biotite, hornblende bearing qtz. trachyte, high clay content
6 - 15	Same as above. Clay content down to 2%
15 - 18	More aphanitic with loss of biotite & hornblende, phenocrysts are less abundant
18 - 27	Porphyritic biotite, hornblende bearing qtz trachyte
27 - 30	Slightly more aphanitic lesser amounts of hornblende & biotite
30 - 49	Por. biotite qtz trachyte
49 - 92	Por. hornblende & biotite bearing qtz trachyte
	$Fe_3O_4$ present in all above

AMAX EXPLORATION, INC.  
TEMPERATURE/DEPTH LOG

ΔT Well No. 847-12

Property-Project Jemez Depth Logged 93m

Map Cerro del Grant Scale 7 1/2" Date: Drilled 5-8-79 Logged 29-9-79

State NM County Rio Arriba, of NW 1/4 of NW 1/4 of NW 1/4 of Sec 29 T 21N R 4E

Instrument 30 Operator Jim Gross Elevation 10,020 (ft)

Comments \_\_\_\_\_

RT JUSTIFY

Date Logged

Proj No	Well No	DA	MO	YR	*
1 2 3 4 5 6 7 8 9 10	11 12 13 14 15 16 17 18 19 20				
8 4 7	1 2	1 2	2 9	9	7 9

\*19-Write F if Fahrenheit, 20-Write F if Feet

Card A

Site Description																																																												Operator			Editor			DA			MO			YR		
21 22 23 24 25 26 27 28 29 30	31 32 33 34 35 36 37 38 39 40	41 42 43 44 45 46 47 48 49 50	51 52 53 54 55 56 57 58 59 60	61 62 63 64 65 66 67 68	69 70 71 72 73 74 75 76 77 78 79	80	81 82 83 84 85 86 87 88 89 90	91 92 93 94 95 96 97 98 99 100																																																																		
1.0 KM NNW OF CERRO DEL GRANT																																																												JG			DP			5			8			79		

(Approx. location, water well?, oil test?, etc.)

Card B

Scale Unit	Map Size (7.5, 15., 60.)	N Lat Degree	Min	W Long Degree	Min	**
21 22 23 24 25	26 27 28 29 30	31 32 33 34 35	36 37 38 39 40	41 42 43 44 45	46 47 48 49 50	
CM	7.5	36.	00.	106.	37.5	

Use decimals

Map Location \* \*  
N Lat W Long

Measure from SW corner of map; except AMS sheets measure from bottom center degree mark (W,-)(E,+)

Northring	Easting	Elev
51 52 53 54 55 56 57 58 59 60	61 62 63 64 65 66 67 68 69 70	71 72 73 74 75 76 77 78 79 80
13.5	31.3	<del>10020</del> 10020

Use decimals

Write M if meters

Segment 1 = Depths	Conductivity	Best cond. (-K)
Start	End	Downward extrapolations (-ΔK)
21 22 23 24 25 26 27 28 29 30	31 32 33 34 35 36 37 38 39 40	41 42 43 44 45 46 47 48 49 50
36	50	6.0
		ΔK
		.5

Segment 2

51 52 53 54 55 56 57 58 59 60	61 62 63 64 65 66 67 68 69 70	71 72 73 74 75 76 77 78 79 80
50	90	-6.0
		-.5

Segment 3

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
.999																			

Segment 4

21 22 23 24 25 26 27 28 29 30	31 32 33 34 35 36 37 38 39 40	41 42 43 44 45 46 47 48 49 50

Segment 5

51 52 53 54 55 56 57 58 59 60	61 62 63 64 65 66 67 68 69 70	71 72 73 74 75 76 77 78 79 80

Segment 6

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

Segment 7

21 22 23 24 25 26 27 28 29 30	31 32 33 34 35 36 37 38 39 40	41 42 43 44 45 46 47 48 49 50

Segment 8

51 52 53 54 55 56 57 58 59 60	61 62 63 64 65 66 67 68 69 70	71 72 73 74 75 76 77 78 79 80

Segment 9

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

Segment 10

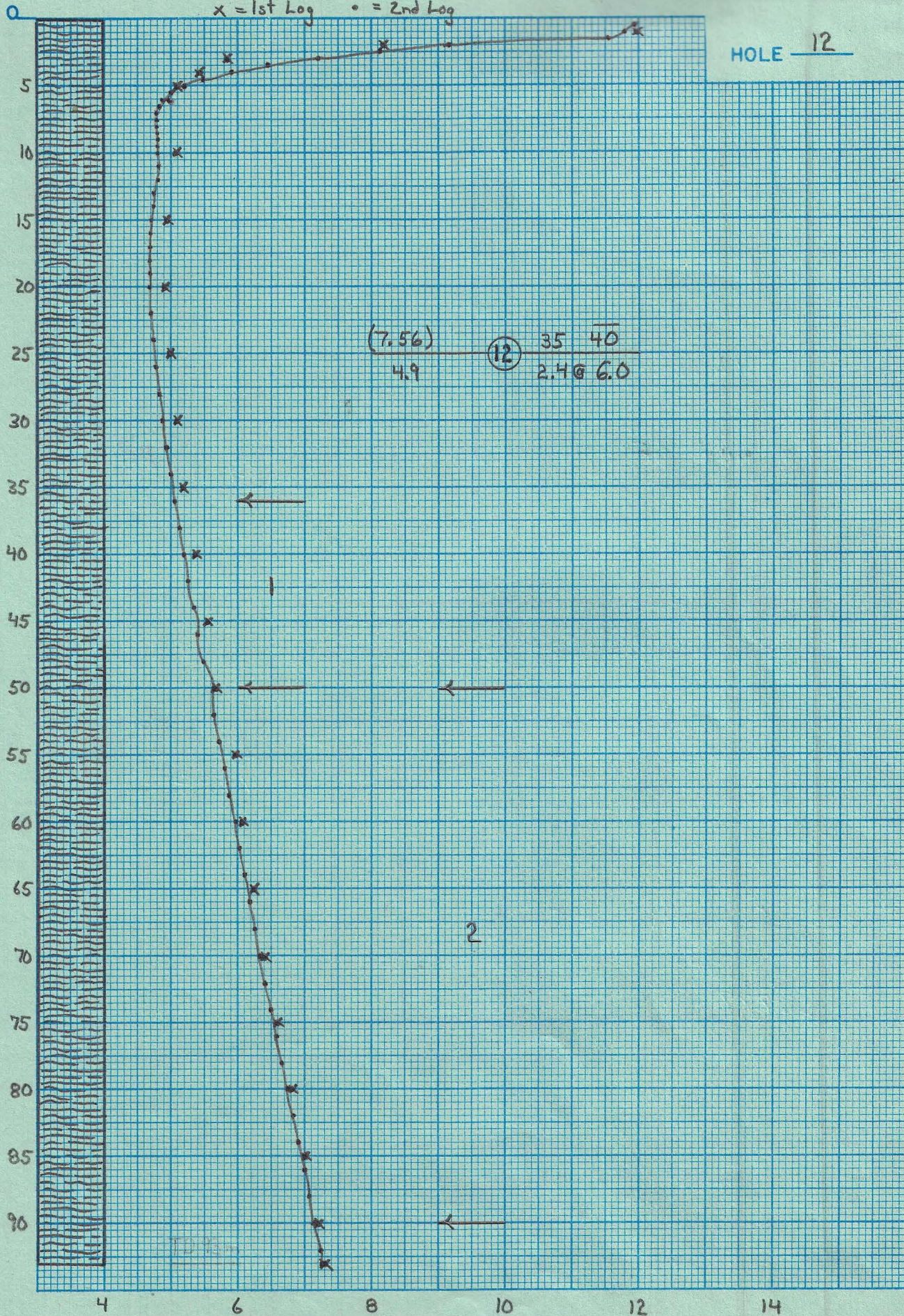
51 52 53 54 55 56 57 58 59 60	61 62 63 64 65 66 67 68 69 70	71 72 73 74 75 76 77 78 79 80

After final segment Start = .999

x = 1st Log   • = 2nd Log

HOLE 12

DEPTH  
METERS



(7.56)

4.9

12

35 40

2.4 @ 6.0



2

TEMPERATURE °C →

Date Logged: 9-29-79 $\Delta T$  Well No. 847-12

12:25 → 1:00 P

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
.5	138.83	11.95					
1	139.56	11.79	-.16				
1.5	140.68	11.54	-.25				
2	151.83	9.17	-2.37				
2.5	156.91	8.12	-1.05				
3	161.47	7.20	-.92				
3.5	165.13	6.47	-.73				
4	167.88	5.92	-.55				
4.5	170.13	5.48	-.44				
5	171.55	5.20	-.28				
5.5	172.61	5.00	-.20				
6	173.18	4.88	-.12				
6.5	173.51	4.82	-.06				
7	173.67	4.79	-.03				
7.5	173.71	4.78	-.01				
8	173.69	4.79	.01	20			
8.5	173.64	4.80	.01	20			
9	173.58	4.81	.01	20			
9.5	173.54	4.82	.01	20			
10	173.51	4.82	0	0			
11	173.54	4.82	0	0			
12	173.62	4.80	-.02				
13	173.76	4.77	-.03				
14	173.90	4.75	-.02				
15	174.02	4.72	-.03				
16	174.11	4.70	-.02				
17	174.16	4.69	-.01				

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_

Date Logged: 9-29-79 $\Delta T$  Well No. 847-12

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
18	174.18	4.69	0				
19	174.20	4.69	0	0			
20	174.18	4.69	0	0			
22	174.07	4.71	.02	10			
24	173.91	4.74	.03	15			
26	173.69	4.79	.05	25			
28	173.47	4.83	.04	20			
30	173.20	4.88	.05	25			
32	172.91	4.94	.06	30			
34	172.61	5.00	.06	30			
36	172.30	5.06	.06	30			
38	171.94	5.13	.07	35			
40	171.58	5.20	.07	35			
42	171.22	5.27	.07	35			
44	170.86	5.34	.07	35			
46	170.52	5.40	.06	30			
48	170.13	5.48	.08	40			
50	169.75	5.55	.07	35			
52	169.32	5.64	.09	45			
54	168.89	5.72	.08	40			
56	168.48	5.80	.08	40			
58	168.11	5.88	.08	40			
60	167.71	5.96	.08	40			
62	167.33	6.03	.07	35			
64	166.92	6.11	.08	40			
66	166.53	6.19	.08	40			
68	166.13	6.27	.08	40			

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_



Date Logged: 9-29-79

$\Delta T$  Well No. 847-12

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
70	165.75	6.34	.07 →	35			
			.08	40			
72	165.37	6.42		40			
			.08	40			
74	164.98	6.50		40			
			.08	40			
76	164.56	6.58		40			
			.08	40			
78	164.15	6.66		45			
			.09	45			
80	163.73	6.75		40			
			.08	40			
82	163.31	6.83		40			
			.08	40			
84	162.91	6.91		45			
			.09	45			
86	162.46	7.00		40			
			.08	40			
88	162.05	7.08		40			
			.08	40			
90	161.67	7.16		35			
			.07	35			
92	161.30	7.23		20			
			.04	20			
93 TD	161.11	7.27					
99999.							

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_

AMAX EXPLORATION, INC.

TEMPERATURE/DEPTH LOG

ΔT Well No. 847-14

Property-Project Jemez Depth Logged 86m

Map Cerro Del Grant Scale 7 1/2" Date: Drilled 1-8-79 Logged 10-8-79

State N.M. County Rio Arriba, of NE 1/4 of SW 1/4 of NW 1/4 of Sec 31 T 21N R 4E

Instrument 30 Operator Jim Gross Elevation 9,910 (ft)

Comments \_\_\_\_\_

Date Logged

RT JUSTIFY Proj No Well No DA MO YR \*  

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
8	4	7								1	4	1	0		8		7	9	

 \*19-Write F if Fahrenheit, 20-Write F if Feet

Card A Site Description Operator Editor DA MO YR  

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68					
1	.	8	K	M	W	S	W	O	F																																											

 (Approx. location, water well?, oil test?, etc.)

Map Location \*\*

Scale Unit Map Size N Lat W Long  
 IN (75, 15, 60) Degree Min Degree Min \*\*  

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	
C	M									7	.	5																		

 Measure from SW corner of map; except AMS sheets measure from bottom center degree mark (W,-)(E,+)

Use decimals

Card B Northing Easting Elev  

51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	

 Write M if meters

Use decimals

Segment 1 = Depths Start End Conductivity K ΔK Best cond. (-K) Downward extrapolations (-ΔK)

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	

Segment 2 Start →

51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	

Segment 3 Start →

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	

Segment 4 Start →

51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	

Segment 5 Start →

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	

Segment 6 Start →

51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	

Segment 7 Start →

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	

Segment 8 Start →

51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	

Segment 9 Start →

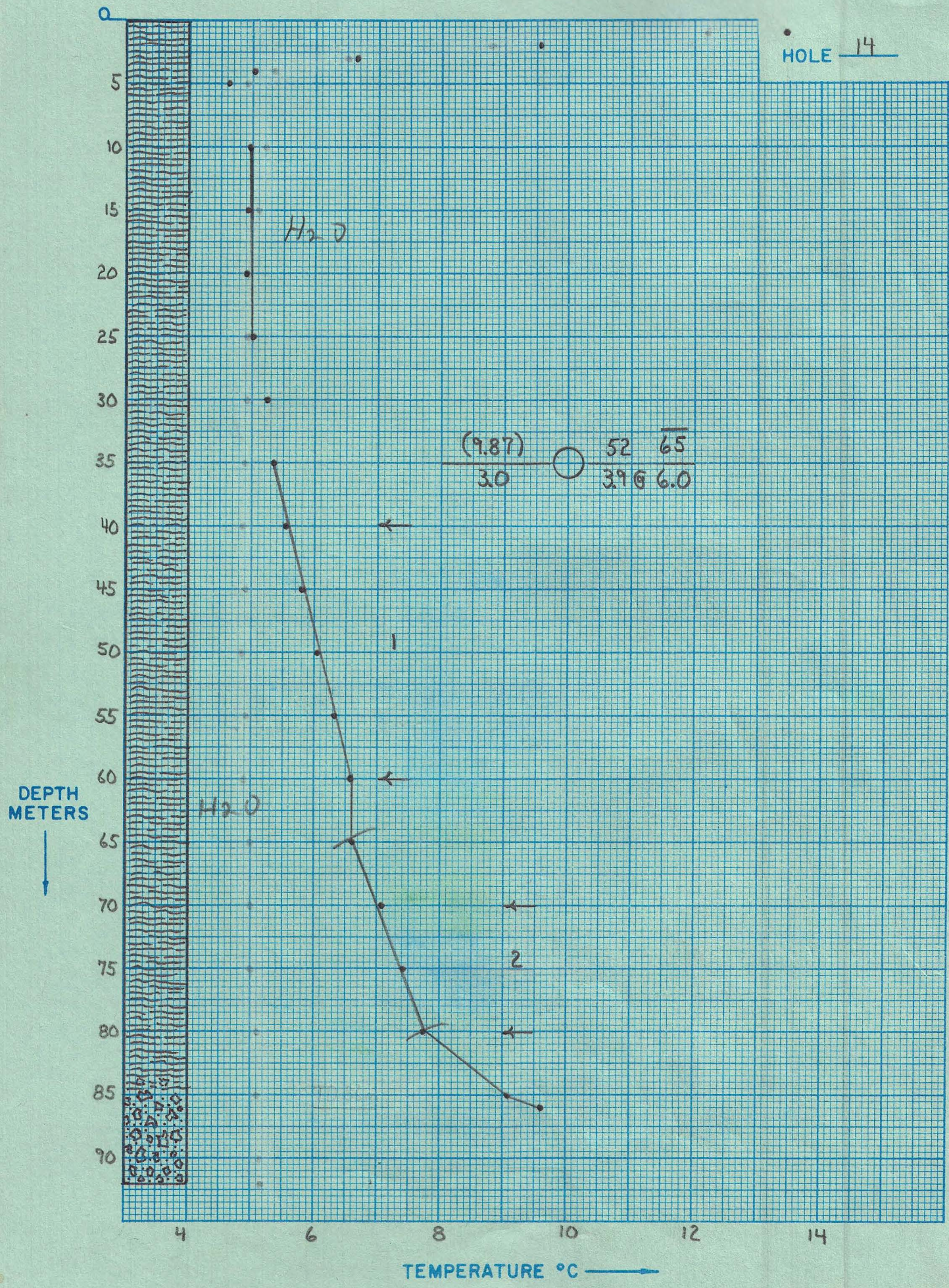
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	

Segment 10 Start →

51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	

After final segment Start = .999

HOLE 14



Date Logged: 8-10-79 $\Delta T$  Well No. 847-14

cable: .0424

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
1	131.87	13.50	-393	-786			
2	149.90	9.57	-291	-582			
3	164.16	6.66	-1.64	-328			
4	171.49	5.02	-.38	-76			
5	174.40	4.64	.35	70			
10	172.66	4.99	-.04	-8			
15	172.82	4.95	-.04	-8			
20	173.06	4.91	.11	22			
25	172.47	5.02	.22	44			
30	171.34	5.24	.12	24			
35	170.76	5.36	.19	38			
40	169.74	5.55	.26	52			
45	168.43	5.81	.24	48			
50	167.23	6.05	.28	56			
55	165.83	6.33	.25	50			
60	164.56	6.58	.03	6			
65	163.43	6.61	.48	96			
70	162.00	7.09	.33	66			
75	160.39	7.42	.32	64			
80	158.79	7.74	1.34	268			
85	152.24	9.08	.53	106			
86 TD	149.72	9.61					
99999.							

K=Conductivity

## LITHOLOGIC LOG

Project: Jemez  
847-15Location: SE-1/4 NW-1/4 SE-1/4 27 21N 3EElevation: 9180'Date Drilled: 9-25-79Method: Foam

Depth (m)	Description
0 - 48m	Pale orange to brown tuff with abundant euhedral to anhedral quartz. Some bipyramidal quartz. Quartz up to 25% by volume.
48 - 92m TD	Pale orange claystone, siltstone and fine grain sandstone. Sandstone shows predominantly quartz grains in orange (clay) matrix.
Comments: Upper unit is interpreted to be Tshirege member of Bandelies Tuff. Lower unit is interpreted to be Abiquiu "Tuff". No significant groundwater encountered. Assumed subsaturated.	

AMAX EXPLORATION, INC.

TEMPERATURE/DEPTH LOG

ΔT Well No. 847-15

Property-Project Jemez Depth Logged 91m

Map Cerro Del Grant Scale 7.5' Date: Drilled 25-9-79 Logged 29-10-79

State N.M. County Rio Arriba, of SE 1/4 of NW 1/4 of SE 1/4 of Sec 27 T 21N R 3E

Instrument 30 Operator Jim Gross Elevation 9180 (ft)

Comments \_\_\_\_\_

RT JUSTIFY

Date Logged

Proj No	Well No	DA	MO	YR	*
1 2 3 4 5 6 7 8 9 10	11 12 13 14 15 16 17 18 19 20				
84715	1529	10	79	C	M

\*19-Write F if Fahrenheit, 20-Write F if Feet

Site Description																																																		Operator					Editor			DA	MO	YR
21 22 23 24 25 26 27 28 29 30	31 32 33 34 35 36 37 38 39 40	41 42 43 44 45 46 47 48 49 50	51 52 53 54 55	56 57 58 59 60	61 62 63	64 65	66 67 68	69 70 71 72 73 74 75 76 77 78 79 80	81 82 83 84 85	86 87 88 89 90	91 92 93 94 95	96 97 98 99 100																																																
0.7KM SW of CERRO PELON																																																		JG					DP			25	9	79

(Approx. location, water well?, oil test?, etc.)

Map Location \*\*

Scale Unit	Map Size (7.5, 15, 60)	N Lat Degree	Min	W Long Degree	Min **
21 22 23 24 25	26 27 28 29 30	31 32 33 34 35	36 37 38 39 40	41 42 43 44 45	46 47 48 49 50
CM	7.5	36	00	106	37.5

Use decimals

Measure from SW corner of map; except AMS sheets measure from bottom center degree mark (W-)(E,+)

Northing	Easting	Elev
51 52 53 54 55	56 57 58 59 60	61 62 63 64 65
9.25	8.60	9180

Use decimals

Write M if meters

Segment 1 = Depths	Conductivity	Best cond. (-K)
Start	End	Downward extrapolations (-ΔK)
21 22 23 24 25	26 27 28 29 30	31 32 33 34 35
50.	90.	-5.5
		-0.5
		End
		K
		ΔK

Segment 2 Start → 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

Segment 3 Start →

Segment 4 Start →

Segment 5 Start →

Segment 6 Start →

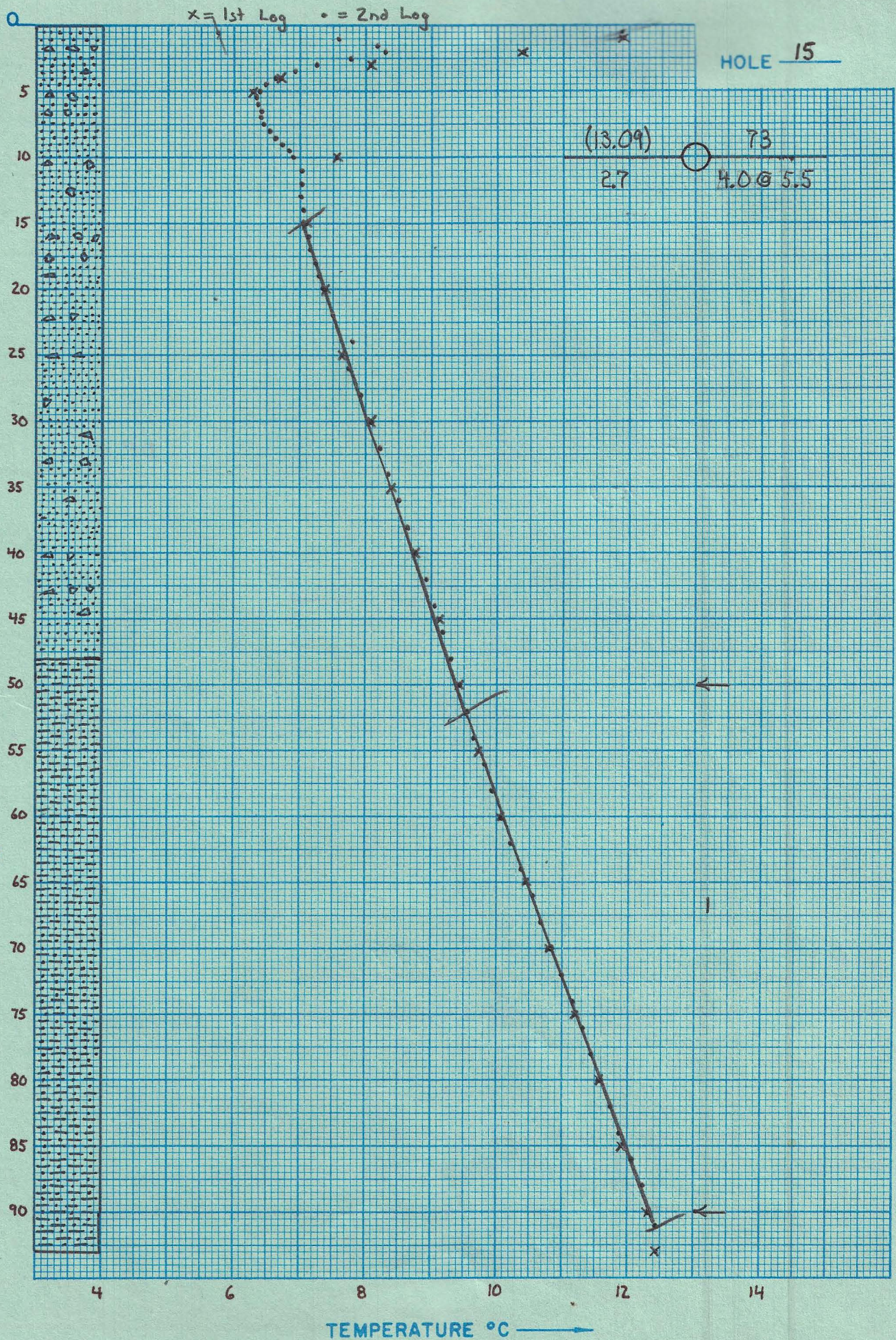
Segment 7 Start →

Segment 8 Start →

Segment 9 Start →

Segment 10 Start → 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

After final segment Start = .999



(13.09)    73  
 -----  
 2.7    4.0 @ 5.5

DEPTH  
 METERS

↓

TEMPERATURE °C →

Date Logged: 10-29-79 $\Delta T$  Well No. 847-15

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
.5	168.64	5.77					
1	159.51	7.59	-.18				
1.5	156.60	8.19	-.60	1200			
2	155.98	8.31	.12	240			
2.5	158.58	7.78	-.53				
3	161.24	7.24	-.54				
3.5	162.86	6.92	-.32				
4	164.30	6.63	-.29				
4.5	165.08	6.48	-.15				
5	165.53	6.39	-.09				
5.5	165.80	6.33	-.06				
6	165.60	6.37	.04	80			
6.5	165.39	6.41	.04	80			
7	165.48	6.40	-.01				
7.5	165.21	6.45	-.05	100			
8	164.81	6.53	.08	160			
8.5	164.32	6.63	.10	200			
9	163.75	6.74	.11	220			
9.5	163.29	6.83	.09	180			
10	162.97	6.90	.07	140			
11	162.29	7.03	.13	130			
12	162.32	7.03	0	0			
13	162.34	7.02	-.01				
14	162.14	7.06	.04	40			
15	162.05	7.08	.02	20			
16	161.83	7.13	.05	50			
17	161.60	7.17	.04	40			

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_



Date Logged: 10-29-79 $\Delta T$  Well No. 847-15

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
18	161.31	7.23	.06	60			
19	160.97	7.30	.07	70			
20	160.66	7.36	.06	60			
22	159.98	7.50	.14	70			
24	158.51	7.80	.30	150			
26	158.80	7.74	-.06				
28	157.79	7.94	.20	100			
30	157.02	8.10	.16	80			
32	156.45	8.22	.12	60			
34	155.80	8.35	.13	65			
36	155.04	8.51	.16	80			
38	154.44	8.63	.12	60			
40	153.77	8.77	.14	70			
42	152.93	8.94	.17	85			
44	152.35	9.06	.12	60			
46	151.80	9.18	.12	60			
48	151.20	9.30	.12	60			
50	150.53	9.44	.14	70			
52	150.05	9.54	.10	50			
54	149.48	9.66	.12	60			
56	148.73	9.82	.16	80			
58	148.16	9.94	.12	60			
60	147.50	10.08	.14	70			
62	146.82	10.22	.14	70			
64	146.03	10.39	.17	85			
66	145.31	10.54	.15	75			
68	144.69	10.68	.14	70			

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_

Date Logged: 10-29-79 $\Delta T$  Well No. 847-15

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
70	143.95	10.83	.15	75			
72	143.19	11.00	.17	85			
74	142.40	11.17	.17	85			
76	141.72	11.32	.15	75			
78	141.12	11.45	.13	65			
80	140.46	11.59	.14	70			
82	139.76	11.74	.15	75			
84	139.07	11.89	.15	75			
86	138.32	12.06	.17	85			
88	137.57	12.23	.17	85			
90	136.94	12.36	.13	65			
91 TD	136.65	12.43	.07	35			
99999.							

## LITHOLOGIC LOG

Project: Jemez

847-16

Location: SW-1/4 NE-1/4 NE-1/4 33 21N 3EElevation: 9050'Date Drilled: 9-25-79Method: Foam

Depth (m)

Description

0 - 92m TD

Gray-brown tuff with abundant ( 25%) euhedral to anhedral quartz, some of which is bipyramidal.

Comments: Drilled blind 25-92m TD. Lithology assumed to be constant to bottom hole based on penetration rate. No significant water encountered; assumed subsaturated. Interpreted to be Tshirege member of Bandelies Tuff.

AMAX EXPLORATION, INC.  
TEMPERATURE/DEPTH LOG

ΔT Well No. 847-16

Property-Project Jemez Depth Logged 90m

Map Cerro Del Grant Scale 7.5' Date: Drilled 25-9-79 Logged 29-10-79

State N.M. County Rio Arriba, of SW'/4 of NE'/4 of NE'/4 of Sec 33 T 21 N R 3 E

Instrument 30 Operator Jim Gross Elevation 9050 (ft)

Comments \_\_\_\_\_

RT JUSTIFY

Date Logged

Proj No	Well No	DA	MO	YR	*
1 2 3 4 5 6 7 8 9 10	11 12 13 14 15 16 17 18 19 20				
84716	16	29	10	79	C M

\*19-Write F if Fahrenheit, 20-Write F if Feet

Card A

Site Description																																																		Operator					Editor					Drilled								
																																																		DA					MO					YR								
2.3KM SW OF CERRO PELON																																																		JG					DP					25			9			79		

(Approx. location, water well?, oil test?, etc.)

Card B

Scale Unit	Map Size (7.5, 15., 60.)	N Lat Degree	Min	W Long Degree	Min	**
21 22 23 24 25	26 27 28 29 30	31 32 33 34 35	36 37 38 39 40	41 42 43 44 45	46 47 48 49 50	
CM	7.5	36.	00.	106.	37.5	

Map Location \* \*  
N Lat W Long  
Measure from SW corner of map; except AMS sheets measure from bottom center degree mark (W,-)(E,+)

Use decimals

Northing	Easting	Elev
51 52 53 54 55	56 57 58 59 60	61 62 63 64 65
6.05	2.95	9050.

Use decimals

Write M if meters

Segment 1 = Depths	Conductivity	Best cond. (-K)
Start	End	Downward extrapolations (-ΔK)
21 22 23 24 25	26 27 28 29 30	31 32 33 34 35
50.	70.	5.5
		ΔK
		0.5
		End
		K
		ΔK
		-5.5
		-0.5

Segment 2 Start →

Segment 3 Start →

Segment 4 Start →

Segment 5 Start →

Segment 6 Start →

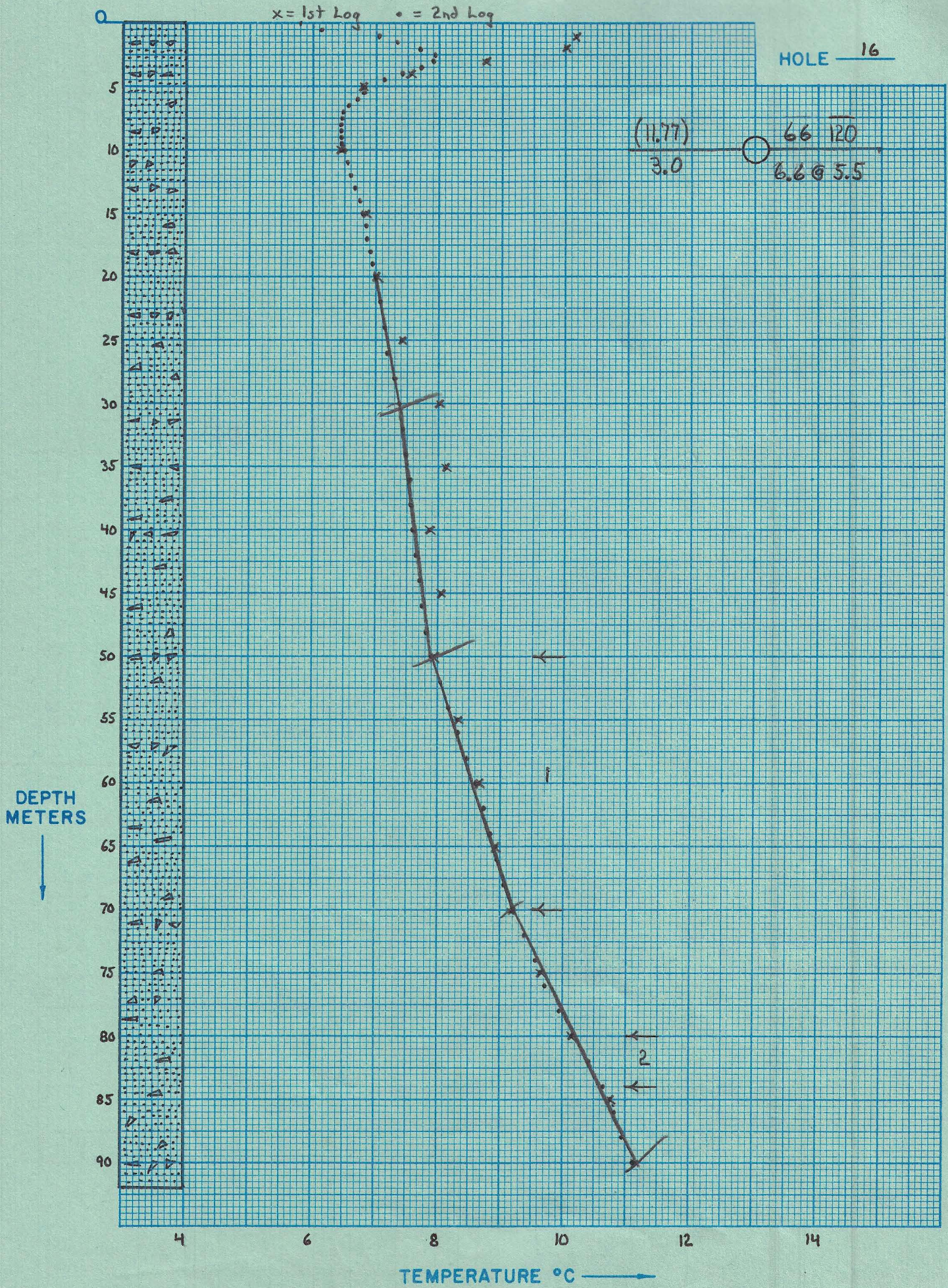
Segment 7 Start →

Segment 8 Start →

Segment 9 Start →

Segment 10 Start →

After final segment Start = .999



Date Logged: 10-29-79 $\Delta T$  Well No. 847-16

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
.5	166.81	6.13					
1	162.30	7.03	.90	1800			
1.5	160.84	7.33	.30	600			
2	158.98	7.70	.37	740			
2.5	157.82	7.94	.24	480			
3	158.02	7.90	-.04				
3.5	158.89	7.72	-.18				
4	160.37	7.42	-.30				
4.5	161.79	7.13	-.29				
5	163.25	6.84	-.29				
5.5	163.44	6.80	-.04				
6	163.92	6.71	-.09				
6.5	164.68	6.56	-.15				
7	165.05	6.48	-.08				
7.5	165.13	6.47	-.01				
8	165.29	6.43	-.04				
8.5	165.25	6.44	.01	20			
9	165.18	6.46	.02	40			
9.5	165.10	6.47	.01	20			
10	165.02	6.49	.02	40			
11	164.75	6.54	.05	50			
12	164.43	6.61	.08	80			
13	164.08	6.68	.07	70			
14	163.74	6.74	.06	60			
15	163.48	6.80	.06	60			
16	163.28	6.84	.04	40			
17	163.09	6.87	.03	30			

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_

Date Logged: 10-29-79 $\Delta T$  Well No. 847-16

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
18	162.85	6.92	.05	50			
19	162.69	6.95	.03	30			
20	162.47	7.00	.05	50			
22	162.12	7.07	.07	35			
24	161.74	7.14	.07	35			
26	161.49	7.19	.05	25			
28	160.97	7.30	.11	55			
30	160.57	7.38	.08	40			
32	160.34	7.43	.05	25			
34	160.07	7.48	.05	25			
36	159.76	7.54	.06	30			
38	159.67	7.56	.02	10			
40	159.50	7.60	.04	20			
42	159.18	7.66	.06	30			
44	158.91	7.72	.06	30			
46	158.69	7.76	.04	20			
48	158.48	7.80	.04	20			
50	157.97	7.91	.11	55			
52	157.25	8.05	.14	70			
54	156.61	8.18	.13	65			
56	155.90	8.33	.15	75			
58	155.17	8.48	.15	75			
60	154.43	8.63	.15	75			
62	153.88	8.74	.11	55			
64	153.36	8.85	.11	55			
66	152.82	8.96	.11	55			
68	152.30	9.07	.11	55			

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_

Date Logged: 10-29-79 $\Delta T$  Well No. 847-16

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
70	151.63	9.21	.14	70			
			.18	90			
72	150.77	9.39					
			.17	85			
74	149.97	9.56					
			.15	75			
76	149.24	9.71					
			.15	75			
78	148.06	9.96					
			.21	105			
80	147.05	10.17					
			.24	120			
82	145.92	10.41					
			.24	120			
84	144.82	10.65					
			.17	85			
86	144.04	10.82					
			.13	65			
88	143.40	10.95					
			.16	80			
90 TD	142.69	11.11					
99999.							

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_



## LITHOLOGIC LOG

Project: Jemez

847 - 17

Location: NE-1/4 SE-1/4 SE-1/4 2 18N 4EElevation: 9050Date Drilled: 8-8 - 8-10  
(Mechanical problems, rig  
down full day)

Depth (m)	Description
0 - 9	Regolith composed primarily of tuffaceous material whiteish in color, mixed with soil & clays. Tuff has some phenos of qtz and plag.
9 - 36	Whiteish tuff as above with out well defined soils and clays (color also grey, grey-blue, yellowish)
36 - 42	Tuff with significant quantities of FeS <sub>2</sub> .
42 - 48	Dark grey fine grain (aphanitic) with some felspaar phenos (small) Latitic-andesitic
48 - 90	Lighter grey with some phenos of plag. and pyroxene (augite-hypersthene) Andesitic lots of FeS <sub>2</sub> pyrite.

Comments: Drilled easily rotary-air noticeable water at about 40"  
for the duration of the hole

AMAX EXPLORATION, INC.

TEMPERATURE/DEPTH LOG

ΔT Well No. 847-17

Property-Project Jemez Depth Logged 67m

Map Bland Scale 7.5' Date: Drilled 10-9-79 Logged 28-10-79

State N.M. County Sandoval of NE 1/4 of SE 1/4 of SE 1/4 of Sec 2 T 18N R 4E

Instrument 30 Operator Jim Gross Elevation 9050 (ft)

Comments \_\_\_\_\_

Date Logged

RT JUSTIFY Proj No Well No DA MO YR \*  
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20  
84717 17 28 10 79 CM \*19-Write F if Fahrenheit, 20-Write F if Feet

Card A Site Description Operator Editor DA MO YR  
 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68  
1.8KM SSW OF RABBIT MTN JG DP 10 9 79  
 (Approx. location, water well?, oil test?, etc.)

Map Location \*\*

Scale Unit Map Size (7.5, 15., 60.) N Lat W Long  
 IN CM Degree Min Degree Min \*\*  
 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50  
CM 7.5 35. 45.0 106. 30.0 Measure from SW corner of map; except AMS sheets measure from bottom center degree mark (W,-)(E,+)  
 Use decimals

Card B Northing Easting Elev  
 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80  
30.90 8.50 9050. F ← Write M if if meters  
 Use decimals

Segment 1 = Depths Start End Conductivity K ΔK Best cond. (-K) Downward extrapolations (-ΔK)  
 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50  
26. 66. -6.0 -0.5 End K ΔK

Segment 2 Start → 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80  
.999

Segment 3 Start →

Segment 4 Start →

Segment 5 Start →

Segment 6 Start →

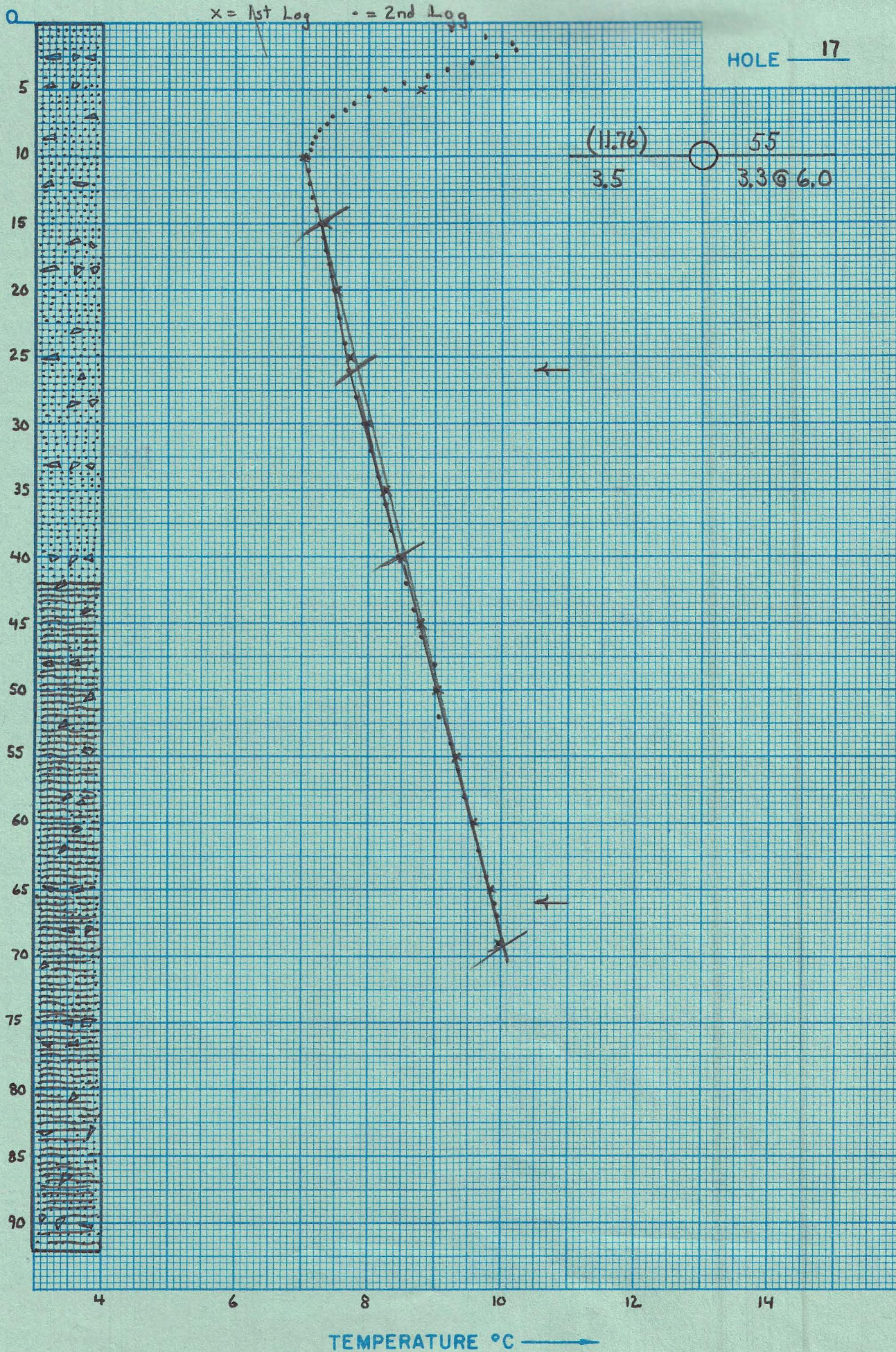
Segment 7 Start →

Segment 8 Start →

Segment 9 Start →

Segment 10 Start → 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

After final segment Start = .999



Date Logged: 10-28-79 $\Delta T$  Well No. 847-17

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
.5	151.53	9.23					
1	149.00	9.76	.53	1,060			
1.5	147.18	10.15	.39	780			
2	146.89	10.21	.06	120			
2.5	148.31	9.91	-.30				
3	150.02	9.55	-.36				
3.5	151.76	9.18	-.37				
4	153.20	8.89	-.29				
4.5	154.95	8.52	-.37				
5	156.33	8.24	-.28				
5.5	157.51	8.00	-.24				
6	158.60	7.78	-.22				
6.5	159.32	7.63	-.17				
7	160.15	7.46	-.17				
7.5	160.57	7.38	-.08				
8	161.15	7.26	-.12				
8.5	161.47	7.20	-.06				
9	161.69	7.15	-.05				
9.5	161.86	7.12	-.03				
10	162.00	7.09	-.03				
11	162.03	7.09	0	0			
12	161.90	7.11	.02	20			
13	161.65	7.16	.05	50			
14	161.41	7.21	.05	50			
15	161.11	7.27	.06	60			
16	160.85	7.32	.05	50			
17	160.62	7.37	.05	50			

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_

Date Logged: 10-28-79 $\Delta T$  Well No. 847-17

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
18	160.41	7.41	.04	40			
19	160.22	7.45	.04	40			
20	160.04	7.49	.04	40			
22	159.69	7.56	.07	35			
24	159.33	7.63	.07	35			
26	158.94	7.71	.08	40			
28	158.46	7.81	.10	50			
30	157.89	7.92	.11	55			
32	157.31	8.04	.12	60			
34	156.77	8.15	.11	55			
36	156.25	8.26	.11	55			
38	155.76	8.36	.10	50			
40	155.23	8.47	.11	55			
42	154.69	8.58	.11	55			
44	154.15	8.69	.11	55			
46	153.60	8.80	.11	55			
48	152.65	9.00	.20	100			
50	152.47	9.04	.04	20			
52	152.38	9.05	.01	5			
54	151.53	9.23	.18	90			
56	150.98	9.35	.12	60			
58	150.46	9.45	.10	50			
60	149.94	9.56	.11	55			
62	149.41	9.68	.12	60			
64	148.86	9.79	.11	55			
66	148.32	9.90	.11	55			
67 TO	148.11	9.95	.05	50			

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_

## LITHOLOGIC LOG

Project: Jemez

847-18

Location: SE-1/4 NE-1/4 NE-1/4 2 18N 4EElevation: 9180'Date Drilled: 9-7-79Method: Foam

Depth (m)

Description

0 - 14m	50% clear, subhedral to anhedral quartz; 50% fine grain andesitic (?) lava fragments and pumice.
14 - 27m	75% quartz as above; 25% pumice and felsite.
27 - 92m TD	10% quartz as above; 90% felsite and pumice. Pyrite from 45-97m disseminated and as veins

Comments: No significant water encountered. Assumed subsaturated. Interpreted to be very silicic, poorly welded lithic-crystal tuff. Possible Bandelies tuff.

ΔT Well No. 847-18

Property-Project Jemez Depth Logged 93m

Map Bland Scale 7.5' Date: Drilled 7-9-79 Logged 28-10-79

State N.M. County Sandoval, of SE 1/4 of NE 1/4 of NE 1/4 of Sec 2 T 18 N R 4 E

Instrument 30 Operator Jim Gross Elevation 9180 (ft)

Comments \_\_\_\_\_

Date Logged

RT JUSTIFY Proj No Well No DA MO YR \*  
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20  
84718 18 28 10 79 C M \*19-Write F if Fahrenheit, 20-Write F if Feet

Card A Site Description Operator Editor DA MO YR  
 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68  
1.0 KM SW OF RABBIT MTN. JG DP 7 9 79  
 (Approx. location, water well?, oil test?, etc.)

Map Location \*\*

Scale Unit IN CM Map Size (7.5, 15., 60.) N Lat Degree Min Degree Min \*\* W Long  
 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50  
CM 7.5 35. 45.0 106. 30.0 Measure from SW corner of map; except AMS sheets measure from bottom center degree mark (W,-)(E,+)

Use decimals

Northing Easting Elev  
 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80  
34.6 8.259180. F ← Write M if meters

Use decimals

Segment 1 = Depths Start End Conductivity K ΔK Best cond. (-K) Downward extrapolations (-ΔK)  
 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50  
22, 32, 4.0 .5 End K ΔK

Segment 2 Start → 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80  
22, 92, -4.0 -.5

Segment 3 .999

Segment 4 Start →

Segment 5

Segment 6 Start →

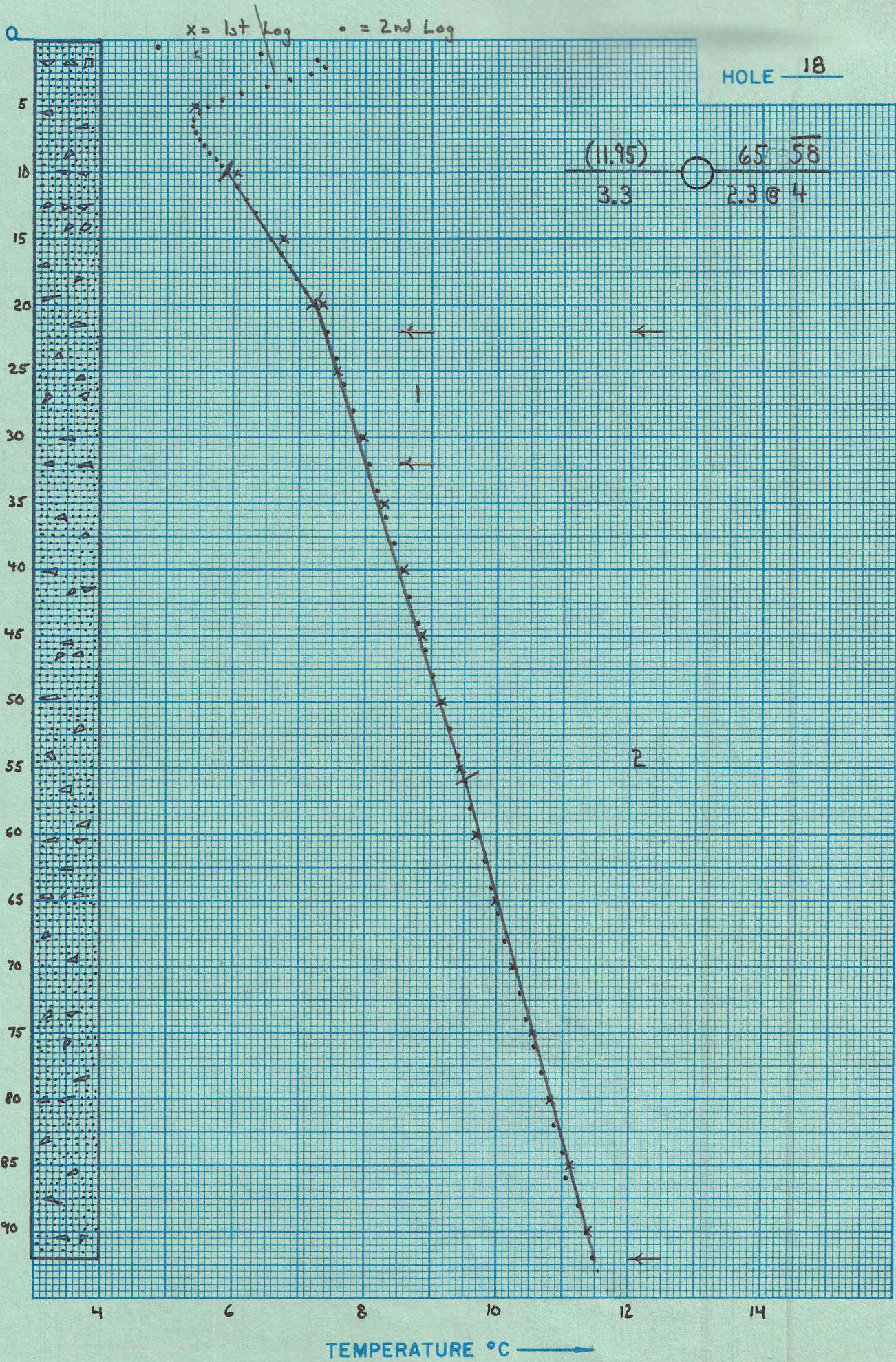
Segment 7

Segment 8 Start →

Segment 9

Segment 10 Start → 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

After final segment Start = .999



DEPTH METERS



TEMPERATURE °C





Date Logged: 10-28-79 $\Delta T$  Well No. 947-18

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
.5	173.37	4.85					
1	165.40	6.41	-1.56	3,120			
1.5	161.11	7.27	.86	1,720			
2	160.55	7.38	.11	220			
2.5	161.59	7.17	-.21				
3	163.18	6.86	-.31				
3.5	164.94	6.50	-.36				
4	166.88	6.12	-.38				
4.5	168.44	5.81	-.31				
5	169.44	5.62	-.19				
5.5	170.15	5.78	-.14				
6	170.54	5.40	-.08				
6.5	170.59	5.39	-.01				
7	170.41	5.43	.04	80			
7.5	170.07	5.49	.06	120			
8	169.70	5.56	.07	140			
8.5	169.29	5.64	.08	160			
9	168.83	5.74	.10	200			
9.5	168.39	5.82	.08	160			
10	167.99	5.90	.08	160			
11	167.22	6.05	.15	150			
12	166.50	6.20	.15	150			
13	165.81	6.33	.13	130			
14	165.15	6.46	.13	130			
15	164.54	6.58	.12	120			
16	163.88	6.72	.14	140			
17	163.16	6.86	.14	140			

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_

Date Logged: 10-28-79 $\Delta T$  Well No. 847-18

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
18	162.60	6.97	.11	110			
19	161.98	7.10	.13	130			
20	161.37	7.22	.12	120			
22	160.38	7.42	.20	100			
24	159.71	7.55	.13	65			
26	159.07	7.68	.13	65			
28	158.42	7.81	.13	65			
30	157.79	7.94	.13	65			
32	157.18	8.07	.13	65			
34	156.57	8.19	.12	60			
36	155.96	8.32	.13	65			
38	155.38	8.44	.12	60			
40	154.78	8.56	.12	60			
42	154.20	8.68	.12	60			
44	153.62	8.80	.12	60			
46	153.07	8.91	.11	55			
48	152.50	9.03	.12	60			
50	151.94	9.15	.12	60			
52	151.31	9.28	.13	65			
54	150.66	9.41	.13	65			
56	150.20	9.51	.10	50			
58	149.76	9.60	.09	45			
60	149.25	9.71	.11	55			
62	148.70	9.82	.11	55			
64	148.18	9.93	.11	55			
66	147.77	10.02	.09	45			
68	147.27	10.13	.11	55			

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_

Date Logged: 10-28-79

$\Delta T$  Well No. 847-18

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
70	146.62	10.26	.13	65			
72	146.13	10.37	.11	55			
74	145.66	10.47	.10	50			
76	145.12	10.58	.11	55			
78	144.63	10.69	.11	55			
80	144.05	10.81	.12	60			
82	143.68	10.89	.08	40			
84	143.10	11.02	.13	65			
86	142.94	11.05	.03	15			
88	142.01	11.25	.20	100			
90	141.46	11.37	.12	60			
92	140.94	11.48	.11	55			
93 TD	140.60	11.56	.08	80			
99999,							

K=Conductivity

## LITHOLOGIC LOG

Project: Jemez

847-20

Location: NE-1/4 SE-1/4 NW-1/4 11 18N 4EElevation: 8680'Date Drilled: 8-10Method Air, rotary

Depth (m)

Description

0 - 9.1

Regolith composed of volcanic debris, andesite and some latite porphyritic with sandine, qtz, plag., no mafics visible  
Groundmass dark gray to greenish

9.1 - 24

Same lith as above but decrease in alteration and soil present in samples. Also present is an almost aphanitic dark gray lith. (Latitic)

24 - 72

Appearance of rhyolitic tuff debris with andesitic and latitic fragments mixed in. A lot of qtz phenos in tuff 50% decreasing abundance of andesitic and latic xenos as you progress down hole.

72 - 87

Darker gray porphyritic-aphanitic andesite-latite qtz, sandine, plag., hornblende much more competent rock than in previous interval.

87 - 90TD

White-yellowish well lithified, very fine grain, felsite (rhyolitic) well lithified tuff.

Comments: Drilled in 5 hrs. No excess water observed

AMAX EXPLORATION, INC.  
TEMPERATURE/DEPTH LOG

ΔT Well No. 847-20

Property-Project Jemez Depth Logged 92 m

Map Bland Scale 7.5" Date: Drilled 10-9-79 Logged 28-10-79

State N.M. County Sandoval, of NE 1/4 of SE 1/4 of NW 1/4 of Sec 11 T 18N R 4E

Instrument 30 Operator Jim Gross Elevation 8680 (ft)

Comments \_\_\_\_\_

RT JUSTIFY

Date Logged

Proj No	Well No	DA	MO	YR	*
1 2 3 4 5 6 7 8 9 10	11 12 13 14 15 16 17 18 19 20				
84720	20	28	10	79	C.M.

\*19-Write F if Fahrenheit, 20-Write F if Feet

Card A

Site Description																																																		Operator					Editor					DA			MO			YR	
21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50	51 52 53 54 55 56 57 58 59 60	61 62 63 64 65 66 67 68	69 70 71 72 73 74 75 76 77 78 79 80	81 82 83 84 85 86 87 88 89 90	91 92 93 94 95 96 97 98 99 100																																																														
2.9KM SW OE RABBIT MTN.																																																		JG					DP					10			9			79	

(Approx. location, water well?, oil test?, etc.)

Card B

Scale Unit	Map Size	N Lat	W Long
21 22 23 24 25	26 27 28 29 30	31 32 33 34 35	36 37 38 39 40
CM	7.5	35.45	106.30

Map Location \* \*  
Degree Min Degree Min \*\*  
Use decimals

Measure from SW corner of map; except AMS sheets measure from bottom center degree mark (W-)(E,+)

Northing	Easting	Elev
51 52 53 54 55	56 57 58 59 60	61 62 63 64 65
27.50	4.50	8680

Use decimals

Write M if meters

Segment 1 = Depths	Conductivity	Best cond. (-K)
Start	End	K
21 22 23 24 25 26 27 28 29 30	31 32 33 34 35 36 37 38 39 40	41 42 43 44 45 46 47 48 49 50
26.	56-	4.0
		.5

End

Segment 2	Conductivity	Best cond. (-K)
Start	End	K
51 52 53 54 55	56 57 58 59 60	61 62 63 64 65
	56-	78.
		-4.0
		-.5

Downward extrapolations (-ΔK)

Segment 3

Segment 4

Segment 5

Segment 6

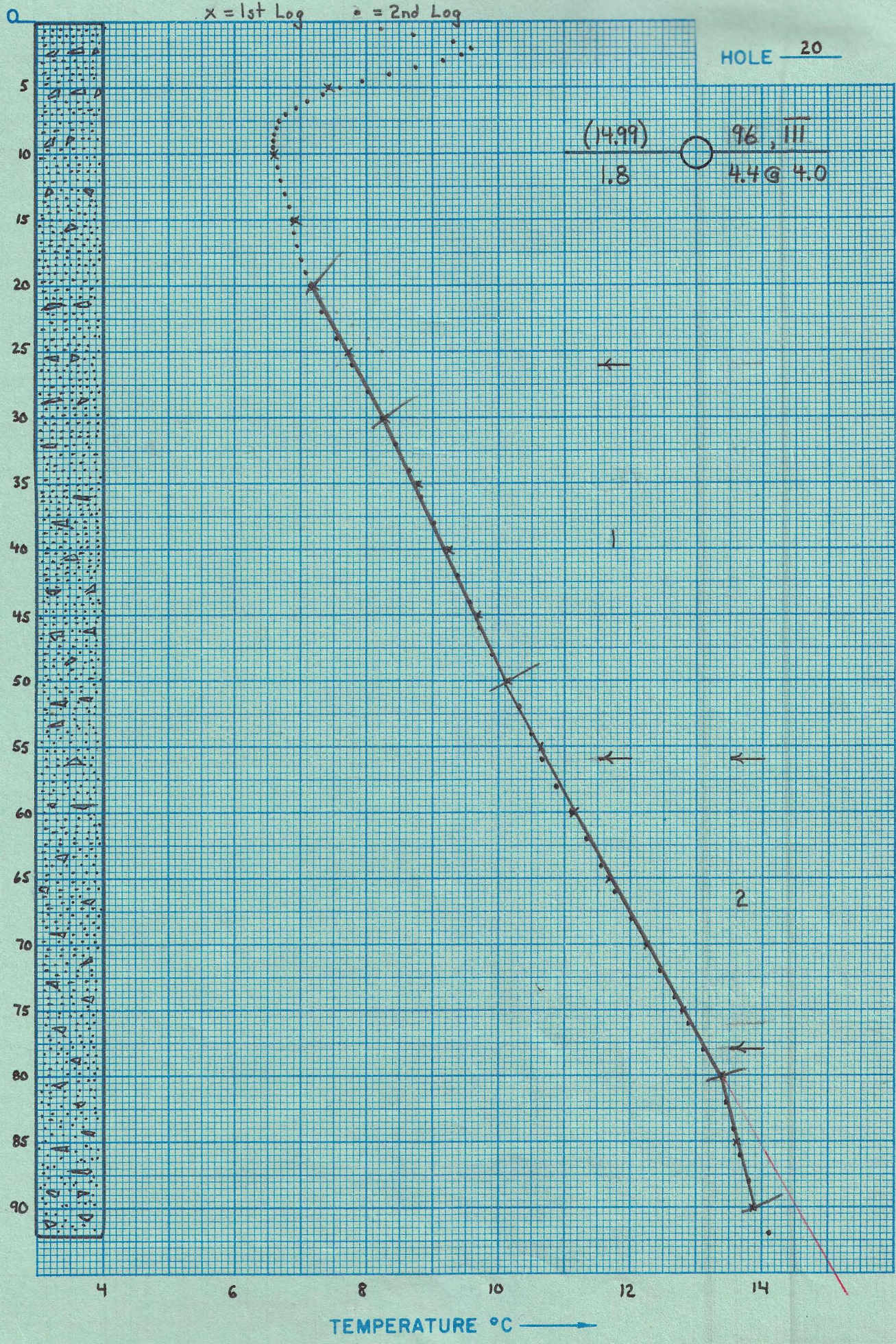
Segment 7

Segment 8

Segment 9

Segment 10

After final segment Start = .999



Date Logged: 10-28-79 $\Delta T$  Well No. 847-20

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
.5	156.49	8.21					
1	154.00	8.72	.51	1,020			
1.5	151.12	9.32	.60	1200			
2	149.83	9.59	.27	540			
2.5	150.52	9.44	-.15				
3	151.83	9.17	-.27				
3.5	153.92	8.74	-.43				
4	155.89	8.33	-.41				
4.5	157.84	7.93	-.40				
5	159.50	7.60	-.33				
5.5	160.81	7.33	-.27				
6	161.94	7.10	-.23				
6.5	162.81	6.93	-.17				
7	163.54	6.78	-.15				
7.5	163.99	6.69	-.09				
8	164.32	6.63	-.06				
8.5	164.47	6.60	-.03				
9	164.51	6.59	-.01				
9.5	164.51	6.59	0	0			
10	164.44	6.60	.01	20			
11	164.21	6.65	.05	50			
12	163.94	6.70	.15	150			
13	163.63	6.77	.07	70			
14	163.36	6.82	.05	50			
15	163.13	6.87	.05	50			
16	162.94	6.90	.03	30			
17	162.72	6.95	.05	50			

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_

Date Logged: 10-28-79 $\Delta T$  Well No. 847-20

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
18	162.43	7.01	.06	60			
19	162.08	7.08	.07	70			
20	161.75	7.14	.06	60			
22	160.87	7.32	.18	90			
24	159.77	7.54	.22	110			
26	158.52	7.79	.25	125			
28	157.35	8.03	.24	120			
30	156.40	8.23	.20	100			
32	155.37	8.44	.21	105			
34	154.40	8.64	.20	100			
36	153.51	8.82	.18	90			
38	152.60	9.01	.19	95			
40	151.71	9.19	.18	90			
42	150.80	9.38	.19	95			
44	149.94	9.56	.18	90			
46	149.19	9.72	.16	80			
48	148.32	9.90	.18	90			
50	147.36	10.11	.21	105			
52	146.41	10.31	.20	100			
54	145.53	10.50	.19	95			
56	144.76	10.66	.16	80			
58	143.75	10.88	.22	120			
60	142.74	11.10	.22	120			
62	141.67	11.33	.23	115			
64	140.62	11.56	.23	115			
66	139.60	11.78	.22	110			
68	138.54	12.01	.23	115			

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_



Date Logged: 10-28-79

$\Delta T$  Well No. 847-20

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
70	137.49	12.24	.23	115			
72	136.50	12.46	.22	110			
74	135.51	12.68	.22	110			
76	134.60	12.89	.21	105			
78	133.62	13.11	.22	110			
80	132.37	13.39	.28	140			
82	132.08	13.46	.07	35			
84	131.60	13.56	.10	50			
86	131.12	13.67	.11	55			
88	130.55	13.81	.14	70			
90	130.24	13.88	.07	35			
92 to	129.18	14.12	.24	120			

K=Conductivity

## LITHOLOGIC LOG

Project: Jemez  
847-21Location: NE-1/4 NW-1/4 SE-1/4 10 18N 4EElevation: 8680'Date Drilled: 9-11-79Method: Foam, Hammer 22-97m

Depth (m)	Description
0 - 21m	Mixed silicic volcanic material. Very low color index: white to light gray. Fine grain to aphanitic. Material is low density lava and pumice. Most cuttings are mineralized with very fine grain, euhedral pyrite. Feldspar alteration imparts blue-green color to some cuttings.
21 - 92mTD	Gray-green to gray-purple andesite with pyrite cubes as in above unite. Fine grain groundmass, 10% plagioclase phenocrysts. Accessory green clinopyroxene laths to 1 mm length. Occasional cuttings in which phenocrystalline feldspar is 50% whole rock volume.
	Comments: Upper unit interpreted to be lower (Otowi) member of Bondelier tuff. Lower unit interpreted to be lower member andesite of Plaza Canyon formation as indicated for the surface geology by Smith, Bailey & Ross.

ΔT Well No. 847-21

Property-Project Jemez Depth Logged 91 m

Map Redondo Peak Scale 7.5' Date: Drilled 10-9-79 Logged 24-9-79

State N.M. County Sandoval, of SW 1/4 of NW 1/4 of SE 1/4 of Sec 10 T 18N R 4E

Instrument 30 Operator Jim Gross Elevation 9240 (ft)

Comments \_\_\_\_\_

RT JUSTIFY

Date Logged

Proj No	Well No	DA	MO	YR	*
1 2 3 4 5 6 7 8 9 10	11 12 13 14 15 16 17 18 19 20				
84721	2124	9	79	CM	

\*19-Write F if Fahrenheit, 20-Write F if Feet

Site Description

Operator	Editor	DA	MO	YR
21 22 23 24 25 26 27 28 29 30	31 32 33 34 35 36 37 38 39 40	41 42 43 44 45 46 47 48 49 50	51 52 53 54 55 56 57 58 59 60	61 62 63 64 65 66 67 68
1.8 KM ENE OF	LAS CONCHAS PK	JG	DP	11 9 79

(Approx. location, water well, oil test, etc.)

Map Location \*\*

Scale Unit CM

Map Size (7.5, 15, 60) 7.5

N Lat Degree 35 Min 45.0

W Long Degree 106 Min 37.5

Use decimals

Measure from SW corner of map; except AMS sheets measure from bottom center degree mark (W,-)(E,+)

Northing 24.90 Easting 45.50 Elev 9240

Use decimals

Write M if meters

Segment 1 = Depths

Start	End	Conductivity K	ΔK	Best cond. (-K)	Downward extrapolations (-ΔK)
21 22 23 24 25 26 27 28 29 30	31 32 33 34 35 36 37 38 39 40	41 42 43 44 45 46 47 48 49 50			
25	85	-7.0	-.5		

Segment 2 Start → 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

Segment 3 Start → 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

Segment 4 Start → 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

Segment 5 Start → 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

Segment 6 Start → 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

Segment 7 Start → 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

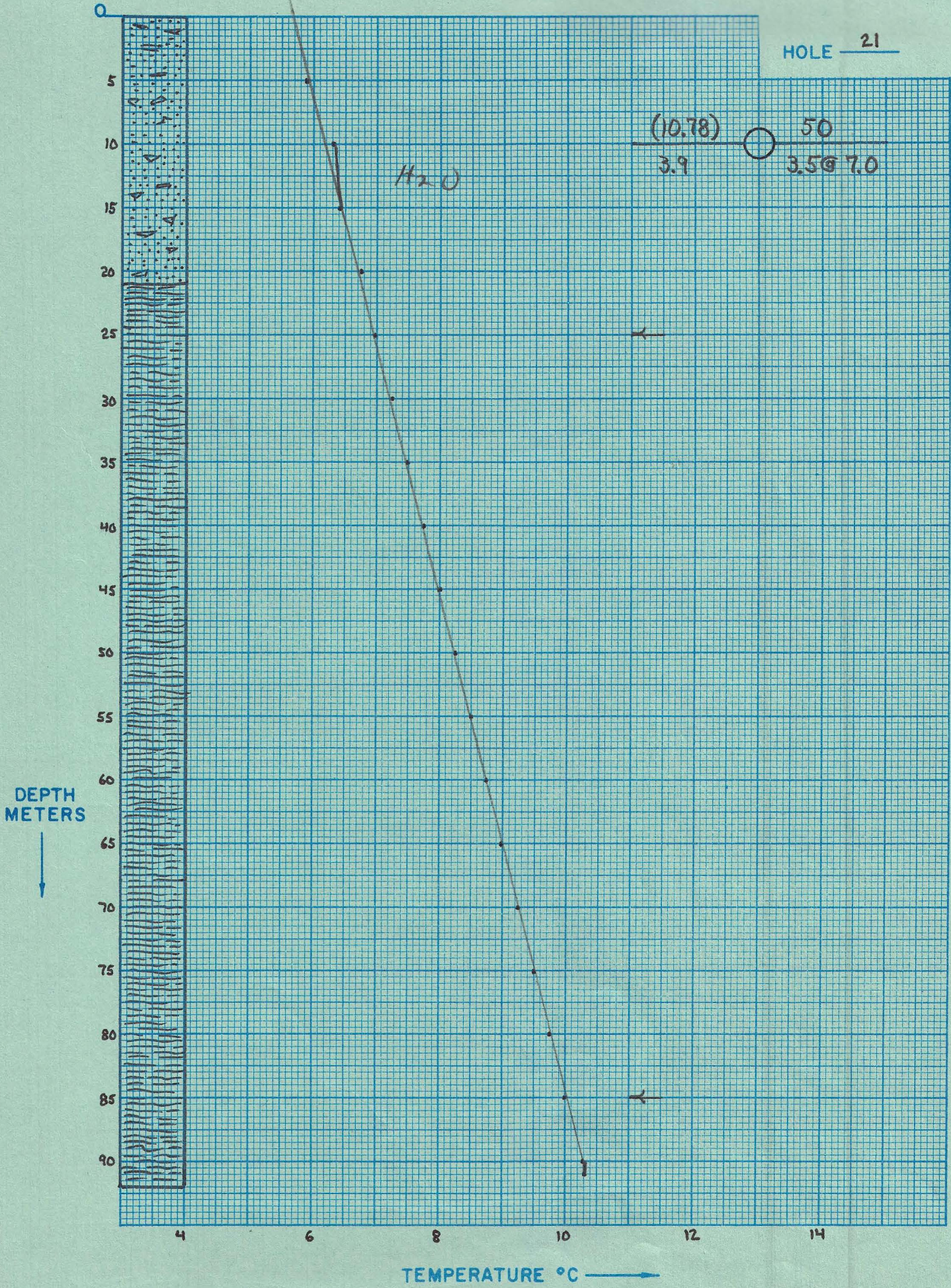
Segment 8 Start → 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

Segment 9 Start → 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

Segment 10 Start → 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

After final segment Start = .999

HOLE 21



Date Logged: 9-24-79

$\Delta T$  Well No. 847-21

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
5	168.04	5.89					
			.42	84			
10	165.90	6.31					
			.11	22			
15	165.36	6.42					
			.34	68			
20	163.66	6.76					
			.22	44			
25	162.54	6.98					
			.25	50			
30	161.29	7.23					
			.26	52			
35	160.01	7.49					
			.25	50			
40	158.80	7.74					
			.26	52			
45	157.52	8.00					
			.25	50			
50	156.30	8.25					
			.25	50			
55	155.07	8.50					
			.24	48			
60	153.92	8.74					
			.25	50			
65	152.70	8.99					
			.25	50			
70	151.47	9.24					
			.26	52			
75	150.23	9.50					
			.25	50			
80	149.05	9.75					
			.25	50			
85	147.84	10.00					
			.28	56			
90	146.54	10.28					
			.02	20			
91 TO	146.44	10.30					
99999							

## LITHOLOGIC LOG

Project: Jemez

847-22

Location: SW-1/4 NW-1/4 NE-1/4 10 18N 4EElevation: 8900'Date Drilled: 9-14 - 9-15-79Method: Air, rotary, hammer

Depth (m)	Description
0 - 3m	Soil & regolith composed of high organics and highly altered volcanics
3 - 33m	Medium gray slightly porphyritic to med fine grain latitic to andesitic. Plag. alkali feldspars, some small indistinguishable mafics, qtz with pyrite inclusions seen.
33 - 76m	Darker greenish fine grain slightly porphyritic andesite some feldspars and pyroxenes visible, pyrite visible
76m - 92m	back to the gray variation
76 - 92m	Black to

AMAX EXPLORATION, INC.

TEMPERATURE/DEPTH LOG

ΔT Well No. 847-22

Property-Project Jemez Depth Logged 92 m

Map Redondo Peak Scale 7.5' Date: Drilled 11-9-79 Logged 28-10-79

State N.M. County Sandoval, of SW 1/4 of NW 1/4 of NE 1/4 of Sec 10 T 18N R 4E

Instrument 30 Operator Jim Gross Elevation 8900 (ft)

Comments \_\_\_\_\_

RT JUSTIFY

Card A

Date Logged

Proj No	Well No	DA	MO	YR	*
1 2 3 4 5 6 7 8 9 10	11 12 13 14 15 16 17 18 19 20				
84722	2228	10	79	CM	

\*19-Write F if Fahrenheit, 20-Write F if Feet

Site Description

Operator	Editor	DA	MO	YR
21 22 23 24 25 26 27 28 29 30	31 32 33 34 35 36 37 38 39 40	41 42 43 44 45 46 47 48 49 50	51 52 53 54 55 56 57 58 59 60	61 62 63 64 65 66 67 68
2.0KM NE OF LAS CONCHAS PK	JG	DP	11	9 79

(Approx. location, water well?, oil test?, etc.)

Card B

Map Location \*\*

Scale Unit	Map Size	N Lat	W Long
IN CM	(7.5, 15., 60.)	Degree Min	Degree Min **
CM	7.5	35. 45.0	106. 37.5

Use decimals

Measure from SW corner of map; except AMS sheets measure from bottom center degree mark (W,-)(E,+)

Northing	Easting	Elev
51 52 53 54 55 56 57 58 59 60	61 62 63 64 65 66 67 68 69 70	71 72 73 74 75 76 77 78 79 80
28.60	45.40	8900. F

Use decimals

Write M if meters

Segment 1 = Depths

Start	End	Conductivity K	ΔK	Best cond. (-K)	Downward extrapolations (-ΔK)
21 22 23 24 25 26 27 28 29 30	31 32 33 34 35 36 37 38 39 40	41 42 43 44 45 46 47 48 49 50			
30.	44.	7.0	.5		

Segment 2

51 52 53 54 55 56 57 58 59 60	61 62 63 64 65 66 67 68 69 70	71 72 73 74 75 76 77 78 79 80
	20.68.	90.88.
	7.0	.5

Segment 3

21 22 23 24 25 26 27 28 29 30	31 32 33 34 35 36 37 38 39 40	41 42 43 44 45 46 47 48 49 50
.999	68.	0.8.
	7.0	.5

Segment 4

21 22 23 24 25 26 27 28 29 30	31 32 33 34 35 36 37 38 39 40	41 42 43 44 45 46 47 48 49 50
	.999	

Segment 5

21 22 23 24 25 26 27 28 29 30	31 32 33 34 35 36 37 38 39 40	41 42 43 44 45 46 47 48 49 50

Segment 6

21 22 23 24 25 26 27 28 29 30	31 32 33 34 35 36 37 38 39 40	41 42 43 44 45 46 47 48 49 50

Segment 7

21 22 23 24 25 26 27 28 29 30	31 32 33 34 35 36 37 38 39 40	41 42 43 44 45 46 47 48 49 50

Segment 8

21 22 23 24 25 26 27 28 29 30	31 32 33 34 35 36 37 38 39 40	41 42 43 44 45 46 47 48 49 50

Segment 9

21 22 23 24 25 26 27 28 29 30	31 32 33 34 35 36 37 38 39 40	41 42 43 44 45 46 47 48 49 50

Segment 10

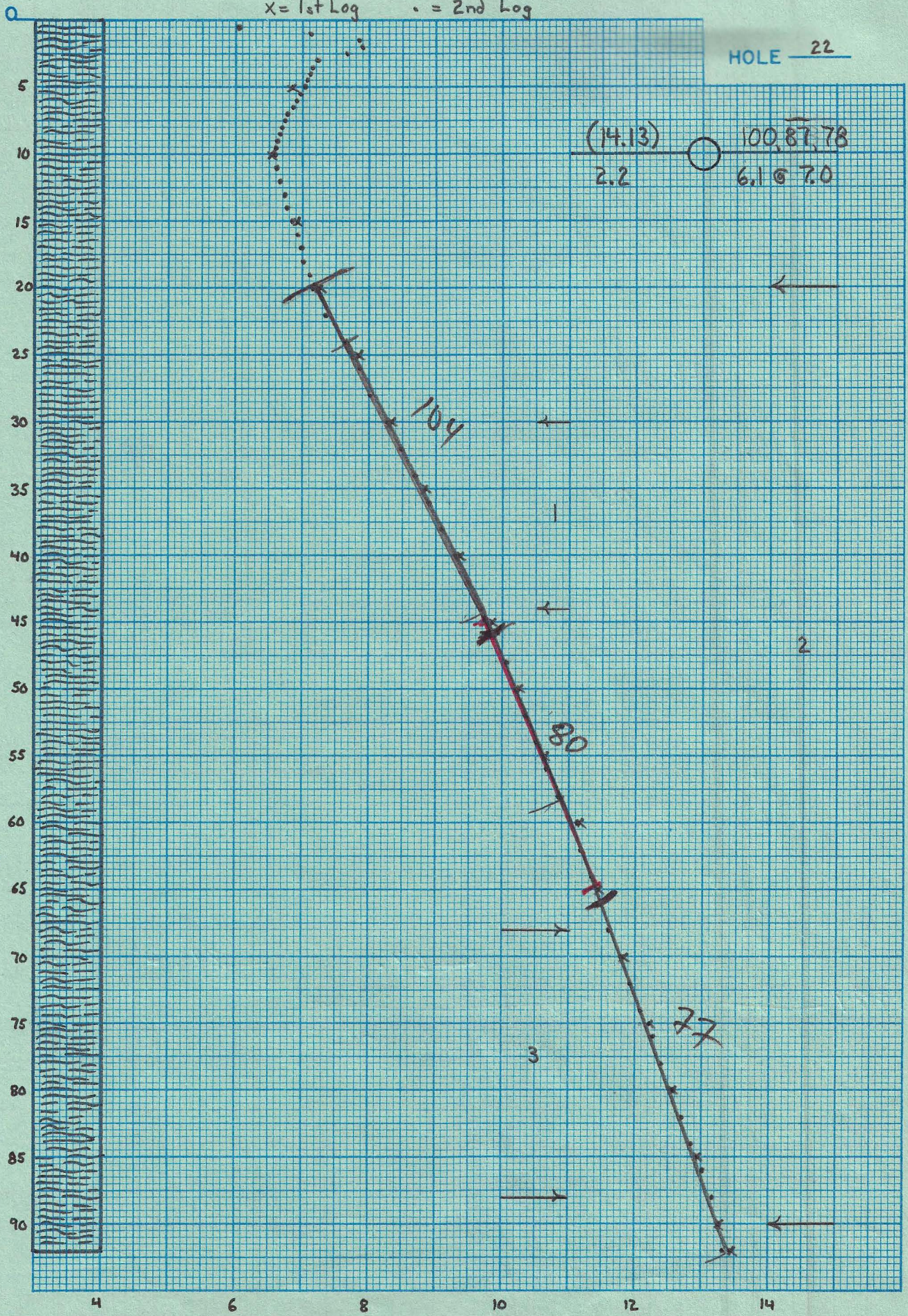
51 52 53 54 55 56 57 58 59 60	61 62 63 64 65 66 67 68 69 70	71 72 73 74 75 76 77 78 79 80

After final segment Start = .999

HOLE 22

x = 1st Log    • = 2nd Log

DEPTH METERS



TEMPERATURE °C →

(14.13)  
2.2    100,87,78  
6.1 @ 7.0

104

80

77

3

2



Date Logged: 10-28-79 $\Delta T$  Well No. 847-22

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
.5	167.25	6.05					
1	161.86	7.12	1.07	2,140			
1.5	158.14	7.87	.75	1500			
2	157.99	7.90	.03	60			
2.5	159.08	7.68	-.22				
3	161.34	7.22	-.46				
3.5	161.75	7.14	-.08				
4	161.93	7.11	-.03				
4.5	162.11	7.07	-.04				
5	162.33	7.03	-.04				
5.5	162.63	6.97	-.07				
6	162.92	6.91	-.06				
6.5	163.19	6.85	-.06				
7	163.49	6.79	-.06				
7.5	163.74	6.74	-.05				
8	163.98	6.70	-.04				
8.5	164.16	6.66	-.04				
9	164.33	6.63	-.03				
9.5	164.40	6.61	-.02				
10	164.45	6.60	-.01				
11	164.38	6.62	.02	20			
12	164.09	6.67	.05	50			
13	163.79	6.73	.06	60			
14	163.61	6.77	.04	40			
15	163.20	6.85	.08	80			
16	162.82	6.93	.08	80			
17	162.50	6.99	.06	60			

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_

Date Logged: 10-28-79 $\Delta T$  Well No. 847-22

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
18	162.34	7.02	.03	30			
19	161.91	7.11	.09	90			
20	161.62	7.17	.06	60			
22	160.73	7.35	.18	90			
24	159.25	7.65	.30	150			
26	158.13	7.87	.22	110			
28	157.42	8.02	.15	75			
30	156.14	8.28	.26	130			
32	155.14	8.48	.20	100			
34	154.16	8.69	.21	105			
36	153.20	8.89	.20	100			
38	152.22	9.09	.20	100			
40	151.25	9.29	.20	100			
42	150.30	9.49	.20	100			
44	149.34	9.69	.20	100			
46	148.44	9.88	.19	95			
48	147.59	10.06	.18	90			
50	146.88	10.21	.15	75			
52	146.15	10.36	.15	75			
54	145.45	10.51	.15	75			
56	144.70	10.67	.16	80			
58	143.85	10.86	.19	95			
60	142.58	11.13	.27	135			
62	142.29	11.19	.06	30			
64	141.59	11.34	.15	75			
66	141.02	11.47	.13	65			
68	140.36	11.61	.14	70			

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_



## LITHOLOGIC LOG

Project: Jemez

847-23

Location: SW-1/4 SW-1/4 SW-1/4 10 18N 4EElevation: 9360'Date Drilled: 9-17-79Method: Foam

Depth (m)

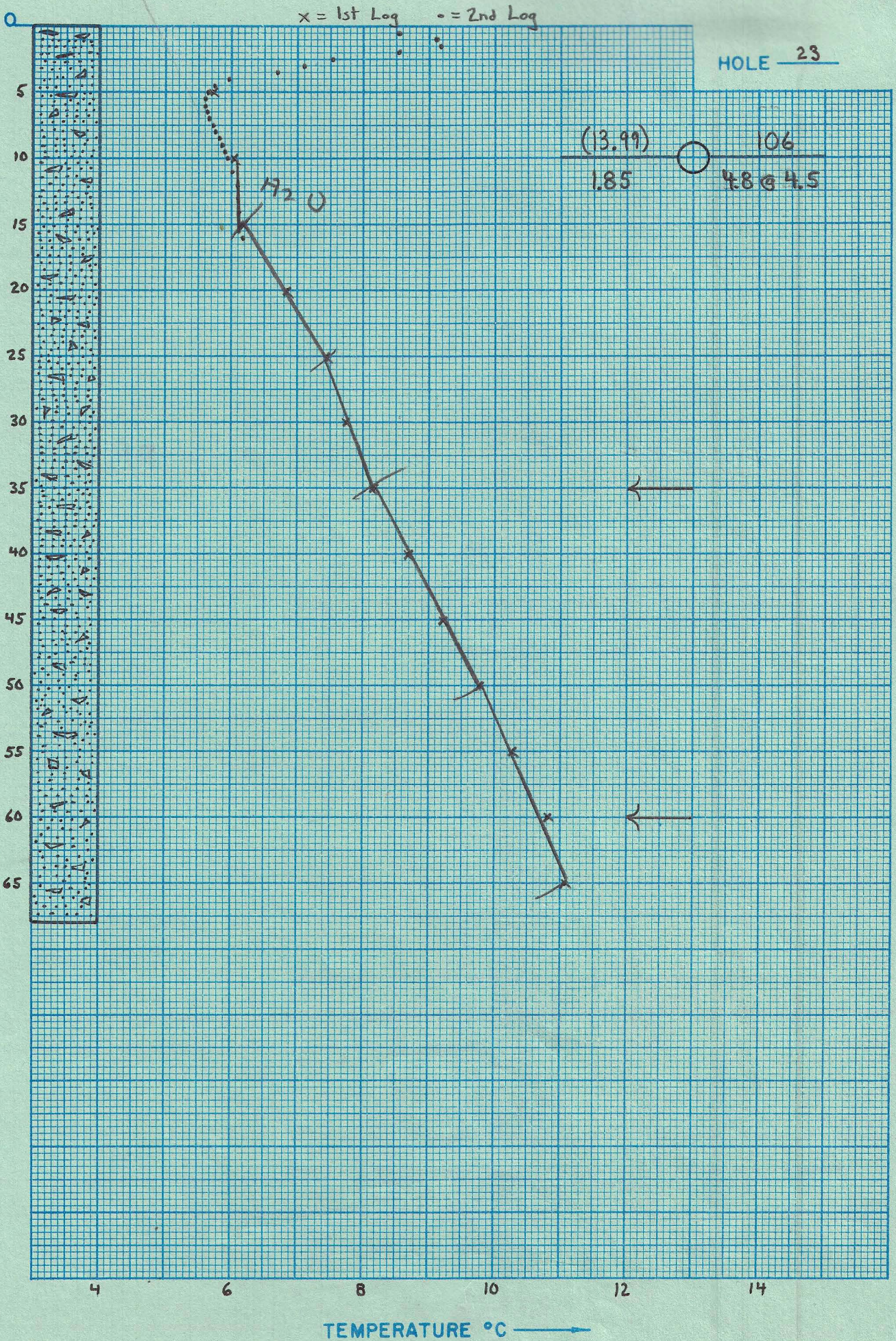
Description

0-68m TD

Very loose, white lapilli tuff. Low density 10-20% of lapilli light enough to float in water. Abundant subhedral quartz. Fine grain purple-gray lava at 64-68m is interpreted to be xenolith material.

Comments: No significant water encountered. Assumed subsaturated.





DEPTH  
METERS

↓

(3.99)    106  
1.85    4.8 @ 4.5

M2 O

←

←

Date Logged: 10-28-79 $\Delta T$  Well No. 847-23

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
.5	154.89	8.54					
			.57	1,140			
1.6	152.11	9.11					
			.07	140			
1.5	151.78	9.18					
			-.65				
2	154.92	8.53					
			-1.00				
2.5	159.82	7.53					
			-.43				
3	161.95	7.10					
			-.40				
3.5	163.98	6.70					
			-.73				
4	167.63	5.97					
			-.22				
4.5	168.76	5.75					
			-.11				
5	169.29	5.64					
			-.03				
5.5	167.46	5.61					
			0	0			
6	169.45	5.61					
			.03	60			
6.5	169.32	5.64					
			.03	60			
7	169.15	5.67					
			.05	100			
7.5	168.90	5.72					
			.04	80			
8	168.72	5.76					
			.06	120			
8.5	168.42	5.82					
			.05	100			
9	168.17	5.87					
			.03	60			
9.5	167.99	5.90					
			.06	120			
10	167.71	5.96					
			.06	60			
11	167.36	6.02					
			.07	70			
12	167.04	6.09					
			.01	10			
13	166.98	6.10					
			.12	120			
14	166.89	6.12					
			.13	130			
15	166.71	6.15					
			.13	130			
16	166.58	6.18					
JUMP TO 20.							

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_

Date Logged: 9-24-79

$\Delta T$  Well No. 847-23

SKIP

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
5	168.95	5.71					
10	167.32	6.03	.32	64			
15	166.58	6.18	.15	30			
20	163.15	6.86	.68	136			
25	160.22	7.45	.59	118			
30	158.72	7.75	.30	60			
35	156.66	8.17	.42	84			
40	154.12	8.70	.53	106			
45	151.57	9.22	.52	104			
50	148.98	9.77	.55	110			
55	146.48	10.29	.52	104			
60	144.07	10.81	.52	104			
65	142.90	11.06	.25	50			
9999							

K=Conductivity



## LITHOLOGIC LOG

Project: Jemez

847-25

Location: NW-1/4, SW-1/4 SW-1/4 18 18N 4EElevation: 9080'Date Drilled: 9-18-79Method: Foam/hammer

Depth (m)	Description
0 - 7m	Subequal amounts of lava fragments, quartz, and clay. Lava fragments are light to dark gray and red where oxidized and aphanitic to fine grain.
7 - 92m	Volcanic lava flow as above. Occasional feldspar and pyroxene phenocrysts visible .5mm, but otherwise fine grain to aphanitic. Some green amygdaloidal minerals at 80m.
	Comments: No significant water encountered. Assumed subsaturated. Upper unit colluvium. Lower unit interpreted to be andesite of Paliza Canyon Formation.

ΔT Well No. 847-25

Property-Project Jemez Depth Logged 90m

Map Redondo Peak Scale 7.5" Date: Drilled 18-9-79 Logged 28-10-79

State N.M. County Sandoval, of NW'<sup>1</sup>/<sub>4</sub> of SW'<sup>1</sup>/<sub>4</sub> of Sec 18 T 18N R 4E

Instrument 30 Operator Jim Gross Elevation 9080 (ft)

Comments \_\_\_\_\_

RT JUSTIFY

Date Logged

Proj No	Well No	DA	MO	YR	*	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	<u>847 25</u>	<u>27</u>	<u>28</u>	<u>10</u>	<u>79</u>	<u>C.M.</u>

\*19-Write F if Fahrenheit, 20-Write F if Feet

Card A

Site Description																																																		Operator					Editor					Drilled				
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68																	
<u>1.3 KM WNW OF CERRO PELADO</u>																																			<u>JG</u>					<u>DP</u>					<u>18</u>					<u>9</u>					<u>79</u>									

(Approx. location, water well, oil test, etc.)

Card B

Scale Unit

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
<u>CM</u>					<u>7.5</u>					<u>35.</u>					<u>45.0</u>					<u>106.</u>					<u>37.5</u>				

Map Location \*\*

N Lat Degree Min Degree Min \*\*

W Long Degree Min \*\*

Measure from SW corner of map; except AMS sheets measure from bottom center degree mark (W-)(E,+)

Use decimals

Northring

51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
<u>18.0</u>										<u>23.559080.</u>										<u>F</u>									

Elev

Use decimals

Write M if meters

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
<u>20.</u>										<u>50.</u>										<u>7.0</u>					<u>.5</u>				

Segment 1 = Depths

Start

End

Conductivity

K

ΔK

Best cond. (-K)

Downward extrapolations (-ΔK)

Segment 2

51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
<u>70.</u>										<u>90.</u>										<u>-7.0</u>					<u>-.5</u>				

Segment 3

Start →

Segment 4

Start →

Segment 5

Start →

Segment 6

Start →

Segment 7

Start →

Segment 8

Start →

Segment 9

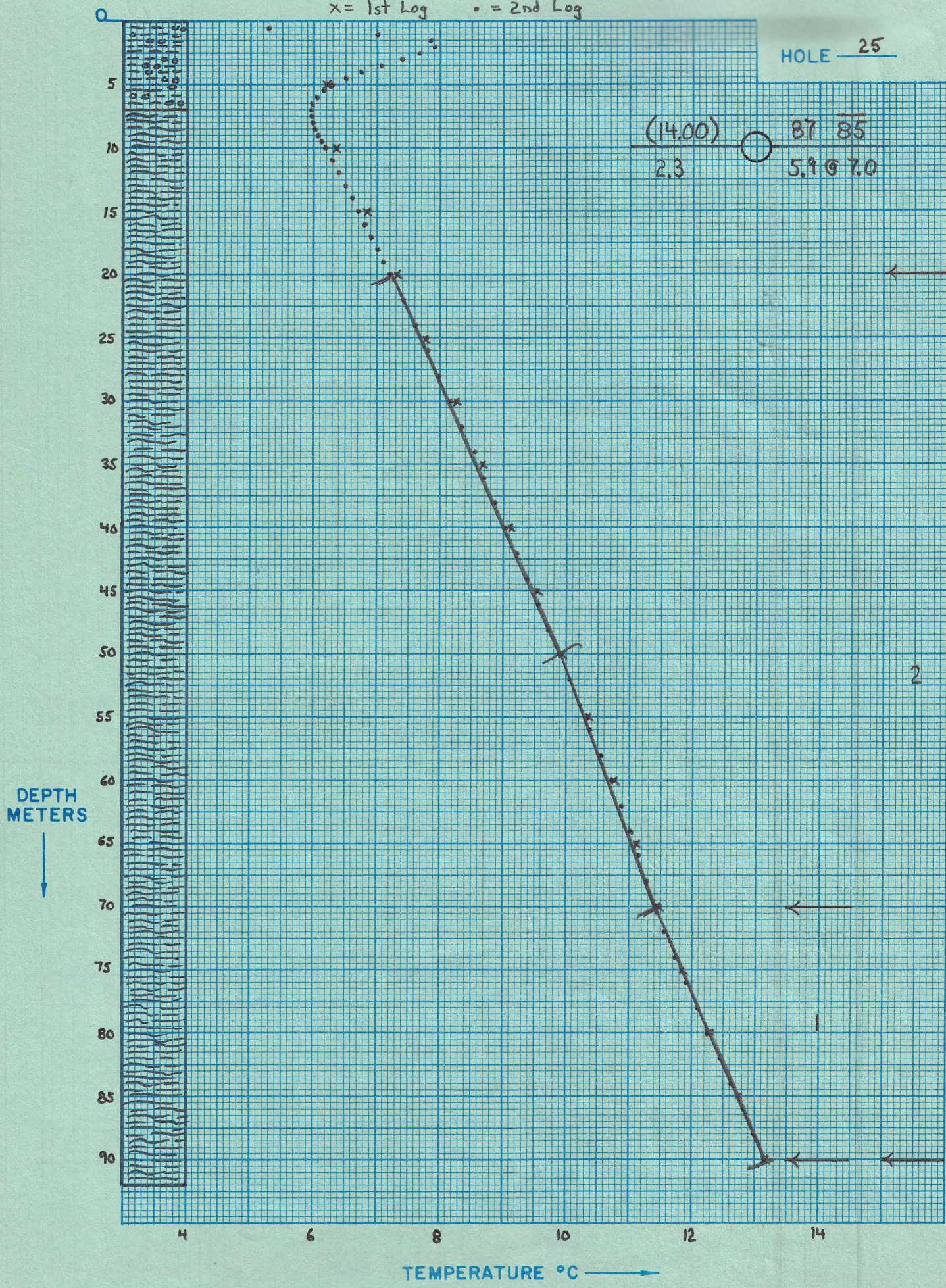
Start →

After final segment

Start = .999

x = 1st Log    • = 2nd Log

HOLE 25

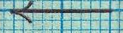


(14.00)  
2.3



87 85  
5.9 7.0

2



Date Logged: 10-28-79 $\Delta T$  Well No. 847-25

cable = .0401

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
.5	171.08	5.29					
1	162.39	7.01	1.72	3440			
1.5	158.24	7.85	.84	1680			
2	157.90	7.92	.07	140			
2.5	159.06	7.69	-.23				
3	160.50	7.39	-.30				
3.5	162.14	7.06	-.33				
4	163.67	6.76	-.30				
4.5	164.93	6.51	-.25				
5	165.95	6.30	-.21				
5.5	166.66	6.16	-.14				
6	167.22	6.05	-.11				
6.5	167.53	5.99	-.06				
7	167.65	5.97	-.02				
7.5	167.65	5.97	0	0			
8	167.54	5.99	.02	40			
8.5	167.35	6.03	.04	80			
9	167.13	6.07	.04	80			
9.5	166.84	6.13	.06	120			
10	166.55	6.19	.06	120			
11	166.00	6.29	.10	100			
12	165.45	6.40	.11	110			
13	164.91	6.51	.11	110			
14	164.40	6.61	.10	100			
15	163.92	6.71	.10	100			
16	163.39	6.81	.10	100			
17	162.89	6.91	.10	100			

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_

Date Logged: 10-28-79 $\Delta T$  Well No. 847-25

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
18	162.40	7.01	.10	100			
19	161.94	7.10	.09	90			
20	161.42	7.21	.11	110			
22	160.39	7.42	.21	105			
24	159.42	7.61	.19	95			
26	158.47	7.80	.19	95			
28	157.56	7.99	.19	95			
30	156.61	8.18	.19	95			
32	155.79	8.35	.17	85			
34	154.91	8.53	.18	90			
36	154.11	8.70	.17	85			
38	153.22	8.88	.18	90			
40	152.43	9.04	.16	80			
42	151.60	9.22	.18	90			
44	150.80	9.38	.16	80			
46	150.00	9.55	.17	85			
48	149.21	9.72	.17	85			
50	148.40	9.89	.17	85			
52	147.65	10.05	.16	80			
54	146.85	10.22	.17	85			
56	146.09	10.38	.16	80			
58	145.26	10.55	.17	85			
60	144.48	10.72	.17	85			
62	143.73	10.88	.16	80			
64	143.09	11.02	.14	70			
66	142.48	11.15	.13	65			
68	141.89	11.28	.13	65			

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_



## LITHOLOGIC LOG

Project: Jemez  
847-28Location: SW-1/4, SW-1/4, SW-1/4 6 18N 4EElevation: 8380'Date Drilled: 8-21  
Method Air (rotary to 80')  
(Hammer 300')

Depth (m)	Description
0 -6m	Forest Duff, Regolith composed primarily of lapilli tuff.
6 - 27m	Whiteish tan lapilli tuff with 10% qtz, also some minute hornblende crystals visible. Some feldspars also distinguishable.
27 - 91m	Medium grey crystal tuff with abundant quartz crystals ( 50%). Mafics less visible some feldspars present.
Comments: Water noted at 65 meters.	

AMAX EXPLORATION, INC.

TEMPERATURE/DEPTH LOG

AT Well No. 847-28

Property-Project Jemez Depth Logged 89m

Map Redondo Peak Scale 7.5' Date: Drilled 19-9-79 Logged 28-10-79

State N.M. County Sandoval, of SW'4 of SW'4 of SW'4 of Sec 6 T 18N R 4E

Instrument 30 Operator Jim Gross Elevation 8380 (ft)

Comments \_\_\_\_\_

RT JUSTIFY

Date Logged

Proj No	Well No	DA	MO	YR	*
1 2 3 4 5 6 7 8 9 10	11 12 13 14 15 16 17 18 19 20				
8 4 7 2 8	2 8	2 8	1 0	7 9	C M

\*19-Write F if Fahrenheit, 20-Write F if Feet

Card A

Site Description																																								Operator			Editor			DA			MO			YR		
21 22 23 24 25 26 27 28 29 30	31 32 33 34 35 36 37 38 39 40	41 42 43 44 45 46 47 48 49 50	51 52 53 54 55 56 57 58 59 60	61 62 63 64 65 66 67 68	69 70 71 72 73 74 75 76 77 78 79 80	81 82 83 84 85 86 87 88 89 90	91 92 93 94 95 96 97 98 99 100																																															
2.4 km NW OF LOS GRIEGOS PK																																								JG			DP			1 9			9			7 9		

(Approx. location, water well?, oil test?, etc.)

Map Location \*\*

Scale Unit IN CM

Map Size (7.5, 15, 60) 7.5

N Lat Degree 35. Min 45.0

W Long Degree 106. Min 37.5

Use decimals

Northring 29.70

Easting 22.90

Elev 8380.

Write M if meters

Measure from SW corner of map; except AMS sheets measure from bottom center degree mark (W,-)(E,+)

Segment 1 = Depths

Start	End	Conductivity K	ΔK
21 22 23 24 25 26 27 28 29 30	31 32 33 34 35 36 37 38 39 40	41 42 43 44 45 46 47 48 49 50	51 52 53 54 55 56 57 58 59 60
	60	70	-4.5

Best cond. (-K)

Downward extrapolations (-ΔK)

Segment 2

51 52 53 54 55 56 57 58 59 60	61 62 63 64 65 66 67 68 69 70	71 72 73 74 75 76 77 78 79 80
		.999

Segment 3

Segment 4

Segment 5

Segment 6

Segment 7

Segment 8

Segment 9

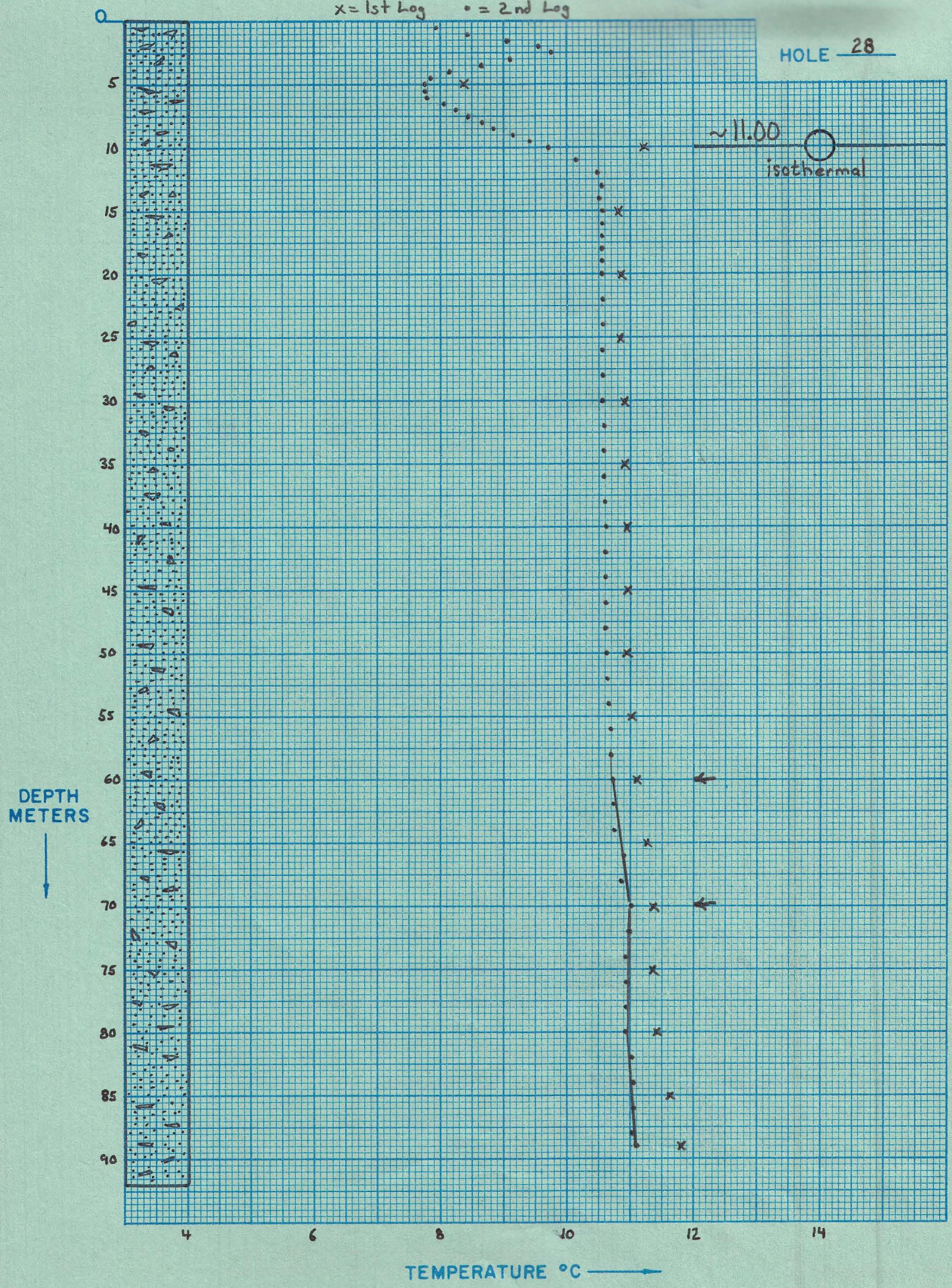
Segment 10

After final segment Start = .999



x = 1st Log    • = 2nd Log

HOLE 28



~11.00  
isothermal

DEPTH METERS  
↓

TEMPERATURE °C →

Date Logged: 10-28-79ΔT Well No. 847-28

Depth (meters)	Instr. Reading	Temp. °C	ΔT	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
.5	157.80	7.94					
1	155.43	8.43	.49	980			
1.5	152.44	9.04	.61	1220			
2	150.00	9.55	.51	1020			
2.5	149.06	9.75	.20	400			
3	152.17	9.10	-.65				
3.5	154.76	8.56	-.54				
4	156.85	8.13	-.43				
4.5	158.31	7.84	-.29				
5	158.80	7.74	-.10				
5.5	158.68	7.76	-.02	40			
6	158.05	7.89	.13	260			
6.5	157.21	8.06	.17	340			
7	156.31	8.25	.19	380			
7.5	155.37	8.44	.19	380			
8	154.26	8.67	.23	460			
8.5	153.36	8.85	.18	360			
9	151.92	9.15	.30	600			
9.5	150.62	9.42	.27	540			
10	149.23	9.71	.29	580			
11	147.15	10.15	.44	440			
12	145.64	10.47	.32	320			
13	145.34	10.54	.07	70			
14	145.48	10.51	-.03				
15	145.17	10.57	.06	60			
16	145.23	10.56	-.01				
17	145.24	10.56	0	0			

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_

Date Logged: 10-28-79 $\Delta T$  Well No. 847-28

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
18	145.27	10.55	-.01				
19	145.28	10.55	0	0			
20	145.26	10.55	0	0			
22	145.25	10.56	.01	5			
24	145.19	10.57	.01	5			
26	145.24	10.56	-.01				
28	145.24	10.56	0	0			
30	145.20	10.57	.01	5			
32	145.11	10.59	.02	10			
34	145.15	10.58	-.01				
36	145.18	10.57	-.01				
38	144.98	10.61	.04	20			
40	144.94	10.62	.01	5			
42	145.02	10.61	-.01				
44	144.93	10.62	.01	5			
46	144.93	10.62	0	0			
48	144.98	10.61	-.01				
50	144.92	10.63	-.02				
52	144.89	10.63	0	0			
54	144.72	10.67	.04	20			
56	144.56	10.70	.03	15			
58	144.56	10.70	0	0			
60	144.46	10.73	.03	15			
62	144.46	10.73	0	0			
64	144.34	10.75	.02	10			
66	143.66	10.90	.15	75			
68	143.82	10.86	-.04				

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_



## LITHOLOGIC LOG

Project: Jemez  
847-29Location: SE-1/4 SE-1/4 NE-1/4 16 18N 4EElevation: 9320'Date Drilled: 9-11, 9-12, 1979

Foam 0-50m, rockbit 50-97m TD Hammer

Depth (m)	Description
0 - 12m	Loose, very porous white lapilli tuff. Pumice lapilli are aphanitic except for a few percent very fine grain mafics and small clusters of white fine grained feldspar.
12 - 45m	Mixed silicic volcanic material: silicic (rhyolitic?) fine grain lava and pumice, sanidine, and quartz in approximately subequal volumes. Some quartz characterized by euhedral bipyramids, but in general quartz is difficult to separate from sanidine. Some of the pumice fragments contain small crystals of biotite and hornblende only visible with the hand lens. Some of the euhedral quartz crystals contain very small pumice fragments and may indicate crystal growth after deposition and while cooling in the still hot volcanic ash.
45 - 92m TD	Purple, fine grain-aphanitic andesite with accessory green clinopyroxene and plagioclase.
	Comments: Upper unit interpreted to be Tshisege member of Bandelies Tuff. Middle unit is interpreted Otowi member of Bandelies Tuff. Lower unit is interpreted to be lower member andesite of Palizo Canyon Formation. Pumice, quartz, and sanidine that occasionally constitute significant part of cuttings in the bottom unit are interpreted as accidental washout material from the fragile top unit. They are not phenocrysts in the andesite.

*OK but make sure this is still on disk.*

ΔT Well No. 847-29

Property-Project Jemez Depth Logged 91m

Map Redondo Peak Scale 7.5' Date: Drilled 12-9-79 Logged 28-10-79

State N.M. County Sandoval, of SE 1/4 of SE 1/4 of NE 1/4 of Sec 16 T18N R4E

Instrument 30 Operator Jim Gross Elevation 9320 (ft)

Comments Driller report

RT JUSTIFY

Date Logged

Proj No	Well No	DA	MO	YR	*
1 2 3 4 5 6 7 8 9 10	11 12 13 14 15 16 17 18 19 20				
84729	2928	10	79	CM	

\*19-Write F if Fahrenheit, 20-Write F if Feet

Card A

Site Description																																																		Operator					Editor			DA	MO	YR
21 22 23 24 25 26 27 28 29 30	31 32 33 34 35 36 37 38 39 40	41 42 43 44 45 46 47 48 49 50	51 52 53 54 55 56 57 58 59 60	61 62 63 64 65 66 67 68									DA	MO	YR																																													
1.3KM SE OF LAS CONCHAS PK.																																																		JG					DP			12	9	79

(Approx. location, water well, oil test, etc.)

Map Location \*\*

Scale Unit	Map Size (7.5, 15, 60)	N Lat Degree	Min	W Long Degree	Min **
21 22 23 24 25	26 27 28 29 30	31 32 33 34 35	36 37 38 39 40	41 42 43 44 45	46 47 48 49 50
CM	7.5	35	45.0	106	37.5

Measure from SW corner of map; except AMS sheets measure from bottom center degree mark (W,-)(E,+)

Use decimals

Northing										Easting										Elev									
51 52 53 54 55	56 57 58 59 60	61 62 63 64 65	66 67 68 69 70	71 72 73 74 75	76 77 78 79 80																								
20.10										41.70										9320									

Use decimals

Write M if meters

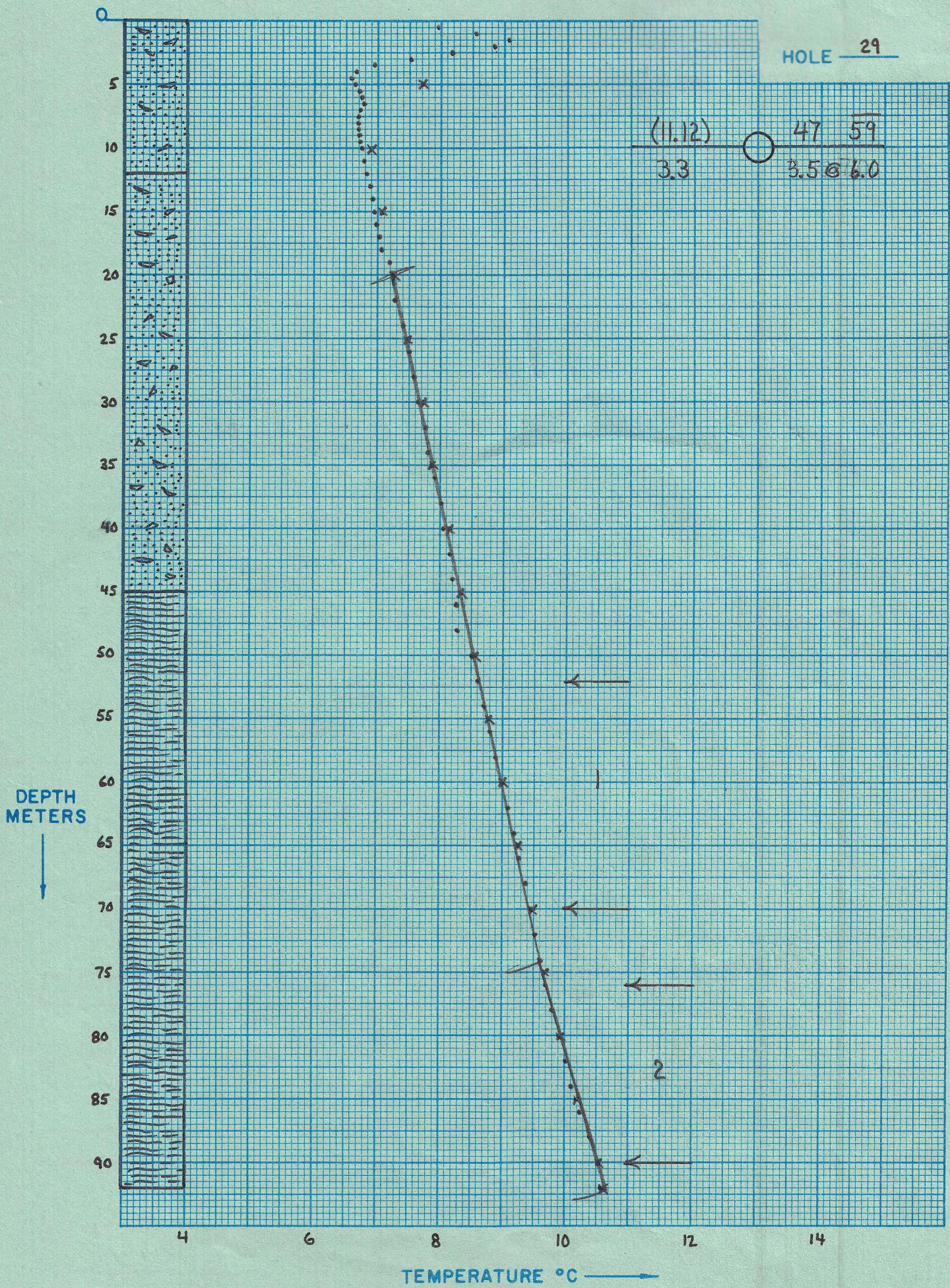
Segment 1 = Depths	Conductivity	Best cond. (-K)
Start	End	ΔK
21 22 23 24 25 26 27 28 29 30	31 32 33 34 35 36 37 38 39 40	41 42 43 44 45 46 47 48 49 50
	52	70
		6.0
		.5

End

Segment 2	Segment 3	Segment 4	Segment 5	Segment 6	Segment 7	Segment 8	Segment 9	Segment 10						
Start	Start	Start	Start	Start	Start	Start	Start	Start						
51 52 53 54 55 56 57 58 59 60	61 62 63 64 65 66 67 68 69 70	71 72 73 74 75 76 77 78 79 80												
	76	90	-6.0	-0.5										

After final segment Start = .999

HOLE 29



Date Logged: 10-28-79 $\Delta T$  Well No. 847-29

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
.5	157.65	7.97					
1	154.83	8.55	1.58	3,160			
1.5	152.29	9.07	.52	1,040			
2	153.35	8.85	-.22				
2.5	156.58	8.19	-.66				
3	159.87	7.52	-.67				
3.5	162.71	6.95	-.57				
4	164.13	6.67	-.28				
4.5	164.54	6.58	-.09				
5	164.26	6.64	.06	120			
5.5	163.93	6.71	.07	140			
6	163.77	6.74	.03	60			
6.5	163.54	6.78	.04	80			
7	163.82	6.73	-.05				
7.5	163.98	6.70	-.03				
8	164.02	6.69	-.01				
8.5	163.97	6.70	.01	20			
9	163.90	6.71	.01	20			
9.5	163.82	6.73	.02	40			
10	163.72	6.75	.02	40			
11	163.50	6.79	.04	40			
12	163.29	6.83	.04	40			
13	163.06	6.88	.05	50			
14	162.86	6.92	.04	40			
15	162.68	6.96	.04	40			
16	162.49	6.99	.03	30			
17	162.31	7.03	.04	40			

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_



Date Logged: 10-28-79 $\Delta T$  Well No. 847-29

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
18	162.09	7.07	.04	40			
19	161.45	7.20	.13	130			
20	161.26	7.24	.04	40			
22	161.11	7.27	.03	15			
24	160.35	7.42	.15	75			
26	159.98	7.50	.08	40			
28	159.63	7.57	.07	35			
30	159.26	7.64	.07	35			
32	158.64	7.77	.13	65			
34	158.43	7.81	.04	20			
36	157.94	7.91	.10	50			
38	157.42	8.02	.11	55			
40	157.23	8.06	.04	20			
42	156.66	8.17	.11	55			
44	156.54	8.20	.03	15			
46	156.17	8.27	.07	35			
48	156.14	8.28	.01	5			
50	155.02	8.51	.23	115			
52	154.52	8.61	.10	50			
54	154.05	8.71	.10	50			
56	153.60	8.80	.09	45			
58	153.16	8.89	.09	45			
60	152.74	8.98	.09	45			
62	152.27	9.08	.10	50			
64	151.79	9.18	.10	50			
66	151.36	9.27	.09	45			
68	150.87	9.37	.10	50			

K=Conductivity



TEMPERATURE DEPTH LOG

Property-Project Jemez Δ Well No. 847-101  
 Map Seven Springs Scale 7.5 Date: Drilled — Logged —  
 State New Mexico County Sandoval Section NW 18 T 19N R 3E  
 Instrument NMGM Operator — Elevation 8220 ft.  
 Comments NM Inst Mining & Tech. - NM Bur Mines & Mineral Resources Circular 151

COMPUTER PROCESSING

RT JUSTIFY: Date Logged  
DA MO YR \*

Card A

Proj No	Well No	DA	MO	YR	*
1 2 3 4 5 6 7 8 9 10	11 12 13 14 15 16 17 18 19 20				
847	101				CM

\* 19 - Write F if Fahrenheit, 20 - Write F if Feet

Site Description	Operator	Editor
21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50	51 52 53 54 55 56 57 58 59 60	
5 Km SE of SEVEN SPRINGS	MR	DF

Card B

Scale Unit	Map Size	Map Location Δ	
in cm	(7.5, 15, 60)	N Lat Degree	W Long Degree
21 22 23 24 25	26 27 28 29 30	31 32 33 34 35	36 37 38 39 40
cm	7.5	35.52	106.45

Use decimals

Northing	Easting	Elev
51 52 53 54 55 56 57 58 59 60	61 62 63 64 65 66 67 68 69 70	71 72 73 74 75 76 77 78 79 80
1.1	32.	8220

Use decimals

Write M if meters

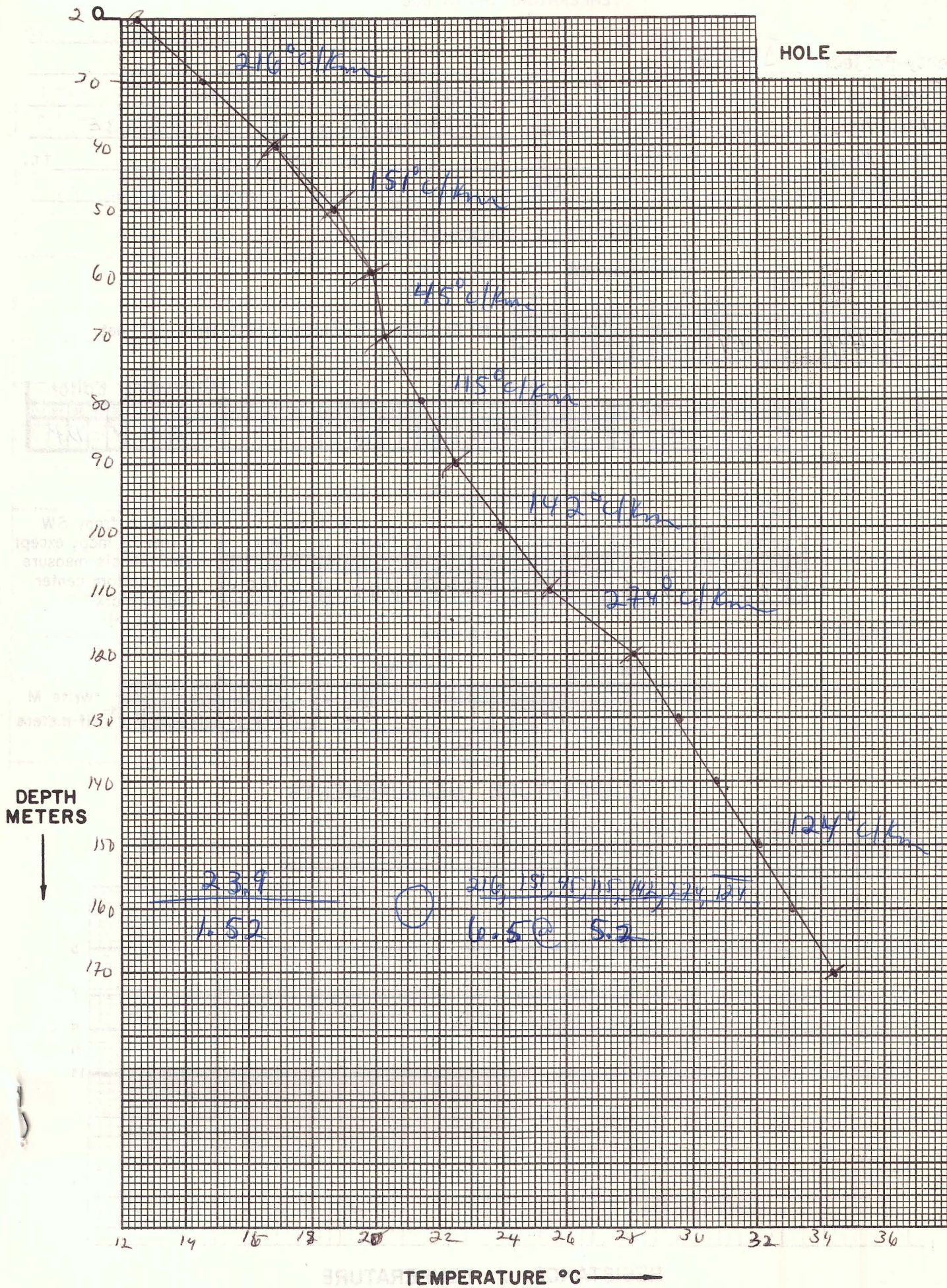
Δ Measure from SW corner of map; except AMS sheets measure from bottom center degree mark (W, -) (E, +)

	SEGMENT DEPTH		K	ΔK
	Start	End		
C	20.0	40.0		
D	60.0	70.0		
E	90.0	110.0		
F	120.0	150.0	-5.2	-1.5
G				

Continue each card below.

	SEGMENT DEPTH		K	ΔK
	Start	End		
C	40.0	60.0		
D	70.0	90.0		
E	110.0	120.0		
F	.999			
G				

Final Segment: Start = .999





TEMPERATURE DEPTH LOG

Property-Project Jemez Δ Well No. 847-102  
 Map Seven Springs Scale 7.5 Date: Drilled \_\_\_\_\_ Logged \_\_\_\_\_  
 State New Mexico County Sandoval Section NENW 31 T 20N R 3E  
 Instrument NMBM Operator - Elevation 8640 ft.  
 Comments NMBM Curator 151

COMPUTER PROCESSING

RT JUSTIFY: Card A

Proj No										Well No										Date Logged										*										
1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16		17		18		19		20		
847										102																				C/M										

\* 19 - Write F if Fahrenheit, 20 - Write F if Feet

Card B

Site Description																																																		Operator					Editor				
S Km NE SEVEN SPRINGS NGS																																																		NR					/ DF				

Scale Unit										Map Location <sup>Δ</sup>										Map Size										N Lat										W Long										Δ Measure from SW corner of map; except AMS sheets measure from bottom center degree mark (W,-)(E,+)									
21		22		23		24		25		26		27		28		29		30		31		32		33		34		35		36		37		38		39		40		41		42		43		44		45		46		47		48		49		50	
cm										7.5										35.52.5										106.45.																													

Use decimals

Northing										Easting										Elev										Write M if meters									
33.2										33.1										8640										F									

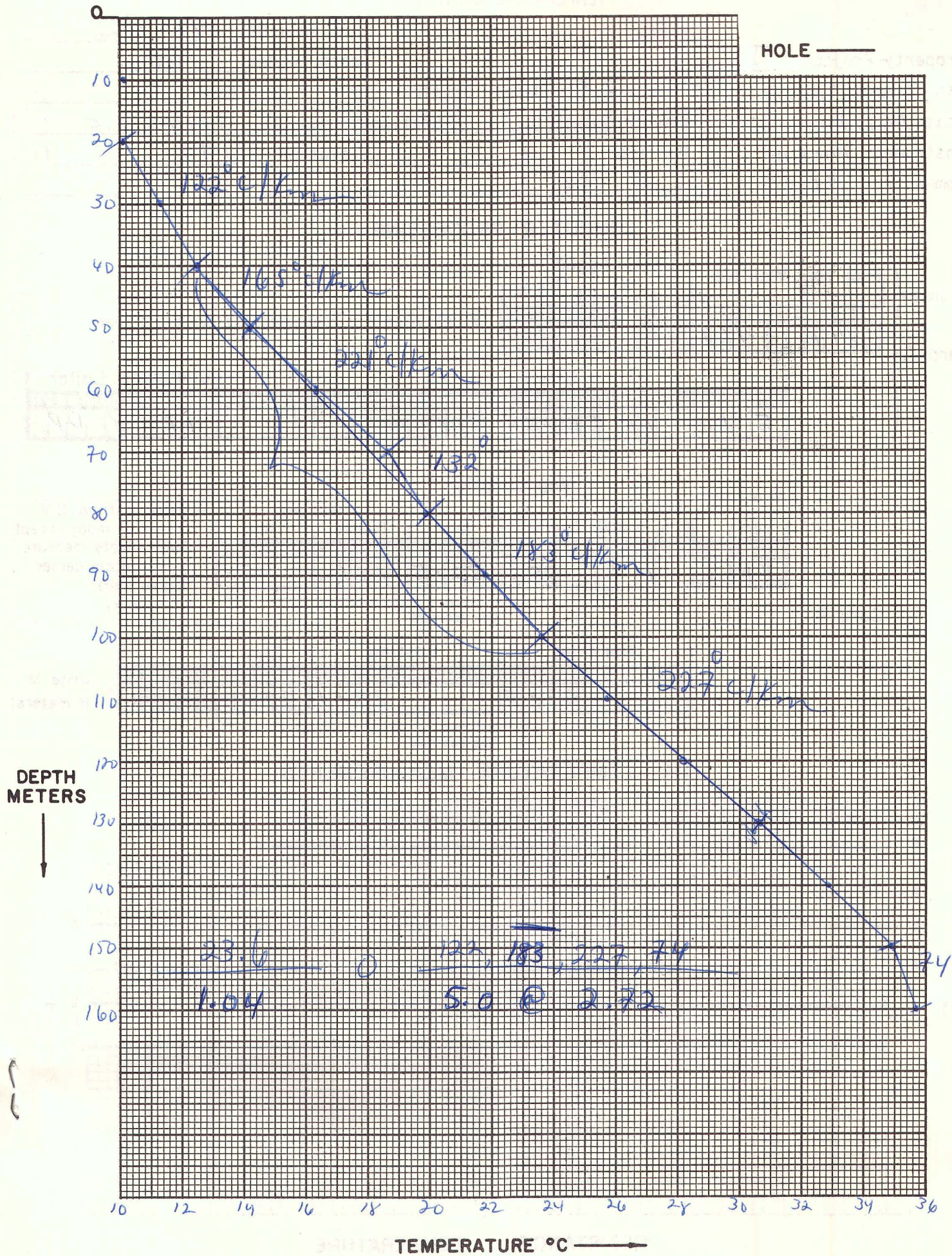
Use decimals

	SEGMENT DEPTH																																																											
	Start																									End																									K					ΔK				
C	20.0																									40.0																																		
D	100.0																									130.0																																		
E	150.0																									160.0																																		
F																																																												
G																																																												

Continue each card below.

	SEGMENT DEPTH																																																											
	Start																									End																									K					ΔK				
C	40.0																									100.0																									-2.72					.5				
D	170.0																									150.0																																		
E	.999																																																											
F																																																												
G																																																												

Final Segment: Start = .999







TEMPERATURE DEPTH LOG

Property-Project Jemez AT Well No. 847-103  
 Map Seven Springs Scale 7.5' Date: Drilled \_\_\_\_\_ Logged \_\_\_\_\_  
 State New Mexico County Sandoval Section scsw 9 T 20N R 3E  
 Instrument NMRM Operator \_\_\_\_\_ Elevation 8960 ft.  
 Comments NMRM circular 151

COMPUTER PROCESSING

RT JUSTIFY: Proj No Well No Date Logged  
DA MO YR \*

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
847										103					C/M				

\* 19- Write F if Fahrenheit, 20- Write F if Feet

Card A

Site Description																																													Operator				Editor	
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60											
8KM										NE					SEVEN SPRINGS										MR				LR																					

Scale Unit Map Size Map Location  $\Delta$   
in (7.5, 15., 60) N Lat  
cm Degree Min Degree Min

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
cm					7.5					35.					S2.5					106.					45.				

Use decimals

$\Delta$  Measure from SW corner of map; except AMS sheets measure from bottom center degree mark (W, -) (E, +)

Northing										Easting										Elev					F				
51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
44.7										44.6										8960					F				

Use decimals

Write M if meters

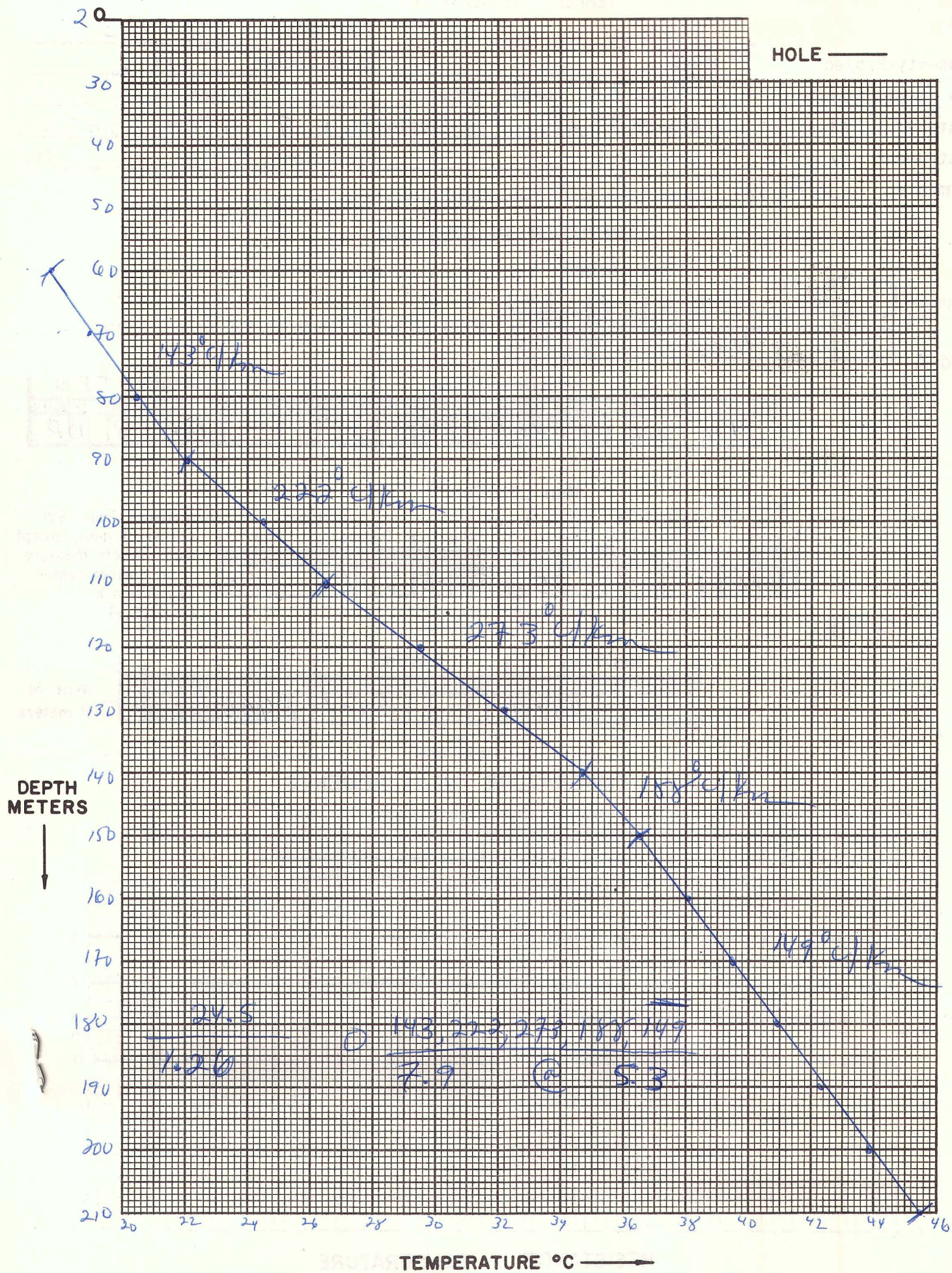
Card B

	SEGMENT DEPTH		K	$\Delta K$
	Start	End		
C	60.0	70.0		
D	110.0	140.0		
E	150.0	210.0	-5.28	-.5
F				
G				

Continue each card below.

	SEGMENT DEPTH		K	$\Delta K$
	Start	End		
C	70.0	110.0		
D	140.0	150.0		
E	.999			
F				
G				

Final Segment: Start = .999



Date Logged: \_\_\_\_\_

$\Delta T$  Well No. 847-103

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
20		7.87					
30		11.23					
40		12.70					
50		14.77					
60		17.79					
70		18.93					
80		20.43					
90		22.07					
100		24.48					
110		26.50					
120		29.56					
130		32.24					
140		34.68					
150		36.56					
160		38.07					
170		39.55					
180		40.91					
190		42.36					
200		43.91					
210		45.49					

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_

TEMPERATURE DEPTH LOG

Property-Project Jemez ΔT Well No. 847-104  
 Map Seven Springs Scale 7.5' Date: Drilled \_\_\_\_\_ Logged \_\_\_\_\_  
 State New Mexico County Sandoval Section SENE 10 T 19N R 2E  
 Instrument NMBM Operator — Elevation 7840 ft.  
 Comments NMBM Cuscuta 151

COMPUTER PROCESSING

RT JUSTIFY: **Card A**

Proj No				Well No				Date Logged			*									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	*
8	4	7																		CM

\* 19- Write F if Fahrenheit, 20- Write F if Feet

Site Description																				Operator				Editor																						
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60							
1	K	M			5					S	E	V	E	N	S	P	R	I	N	G	S											M	R													

**Card B**

Scale Unit		Map Size		Map Location <sup>Δ</sup>						W Long		Δ Measure from SW corner of map; except AMS sheets measure from bottom center degree mark (W, -) (E, +)																						
in	cm	(7.5, 15, 60)		N Lat		Degree		Min	Degree		Min																							
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50					
CM					7	.	5			3	5	.			3	2	.	5		1	0	.		6	.					4	5	.		

Use decimals

Northing						Easting						Elev																							
51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80						
										8	.	6								1	6	.	0		7	8	4	0							F

Use decimals

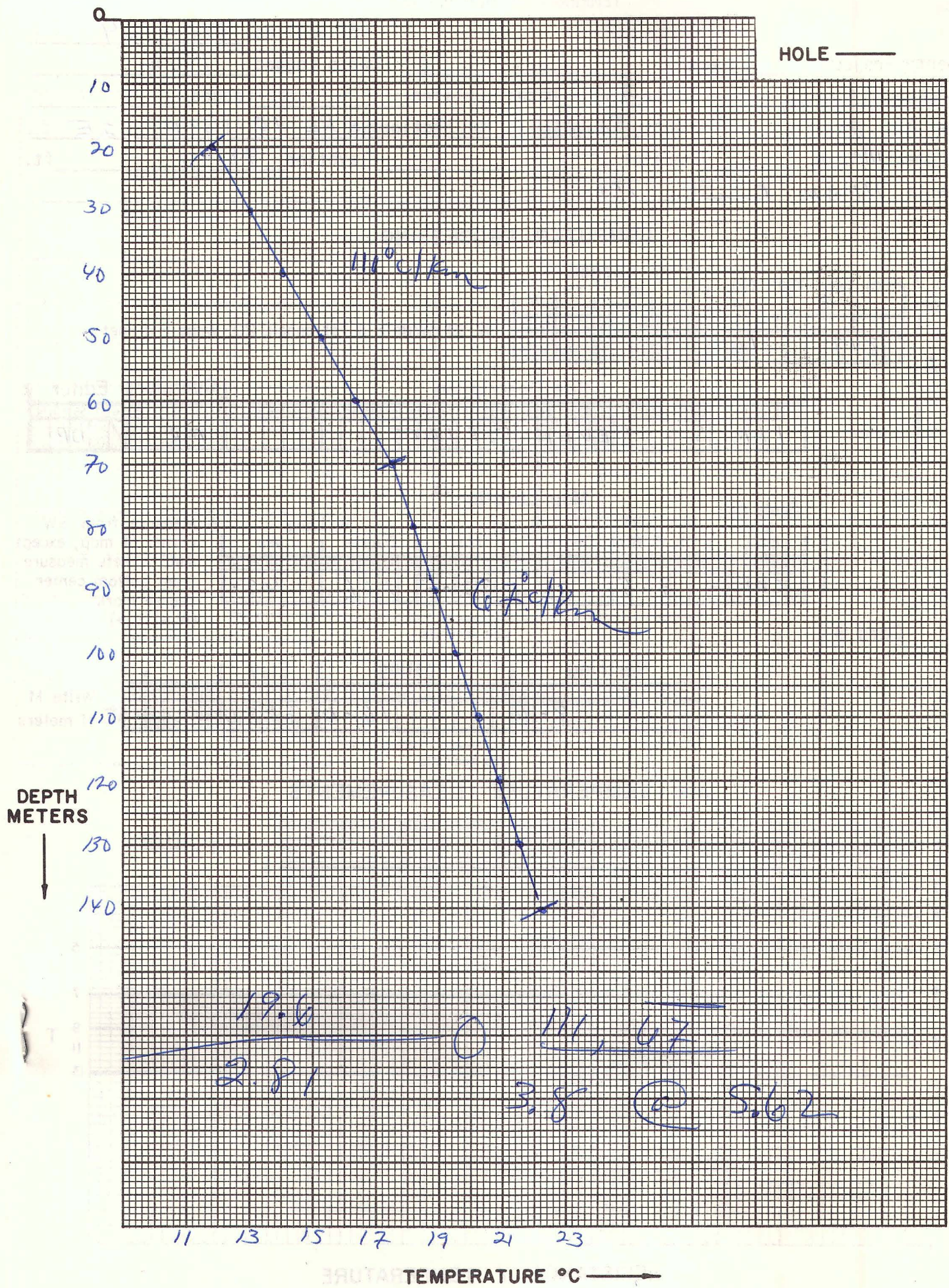
Write M if meters

	SEGMENT DEPTH		K	ΔK
	Start	End		
C	20.0	70.0		
D	.999			
E				
F				
G				

Continue each card below.

	SEGMENT DEPTH		K	ΔK
	Start	End		
C	70.0	140.0	-5.0	2.5
D				
E				
F				
G				

Final Segment: Start = .999



Date Logged: \_\_\_\_\_

ΔT Well No. 847-104

Depth (meters)	Instr. Reading	Temp. °C	ΔT	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
20		11.92					
30		13.02					
40		14.08					
50		15.28					
60		16.37					
70		17.47					
80		18.15					
90		18.86					
100		19.56					
110		20.23					
120		20.88					
130		21.55					
140		22.18					

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_

TEMPERATURE DEPTH LOG

Property-Project Jemez ΔT Well No. 847-105  
 Map Frijoles Depth Logged 360 m  
 State New Mexico Date: Drilled \_\_\_\_\_ Logged \_\_\_\_\_  
 County Los Alamos Section T 18N R 6E  
 Instrument \_\_\_\_\_ Operator \_\_\_\_\_ Elevation 7160 ft.  
 Comments NMBM circular 151

COMPUTER PROCESSING

RT JUSTIFY: \* 19 - Write F if Fahrenheit, 20 - Write F if Feet

Card A

Proj No										Well No										Date Logged										*						
																				DA	MO	YR	*													
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	11	12	13	14	15	16	17	18	19	20							
847										105																11	12	13	14	15	16	17	18	19	20	CM

Site Description																																																		Operator										Editor									
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80										
FRIJOLES																														MESA																				MR										DP									

Card B

Scale Unit										Map Size										Map Location <sup>Δ</sup>														
in cm										(7.5, 15., 60)										N Lat					W Long									
																				Degree					Degree									
																				Min					Min									
cm										7.5										35.					106.					22.5				

Use decimals

Northing										Easting										Elev									
51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
34.4										29.1										7160									

Use decimals

Write M if meters ←

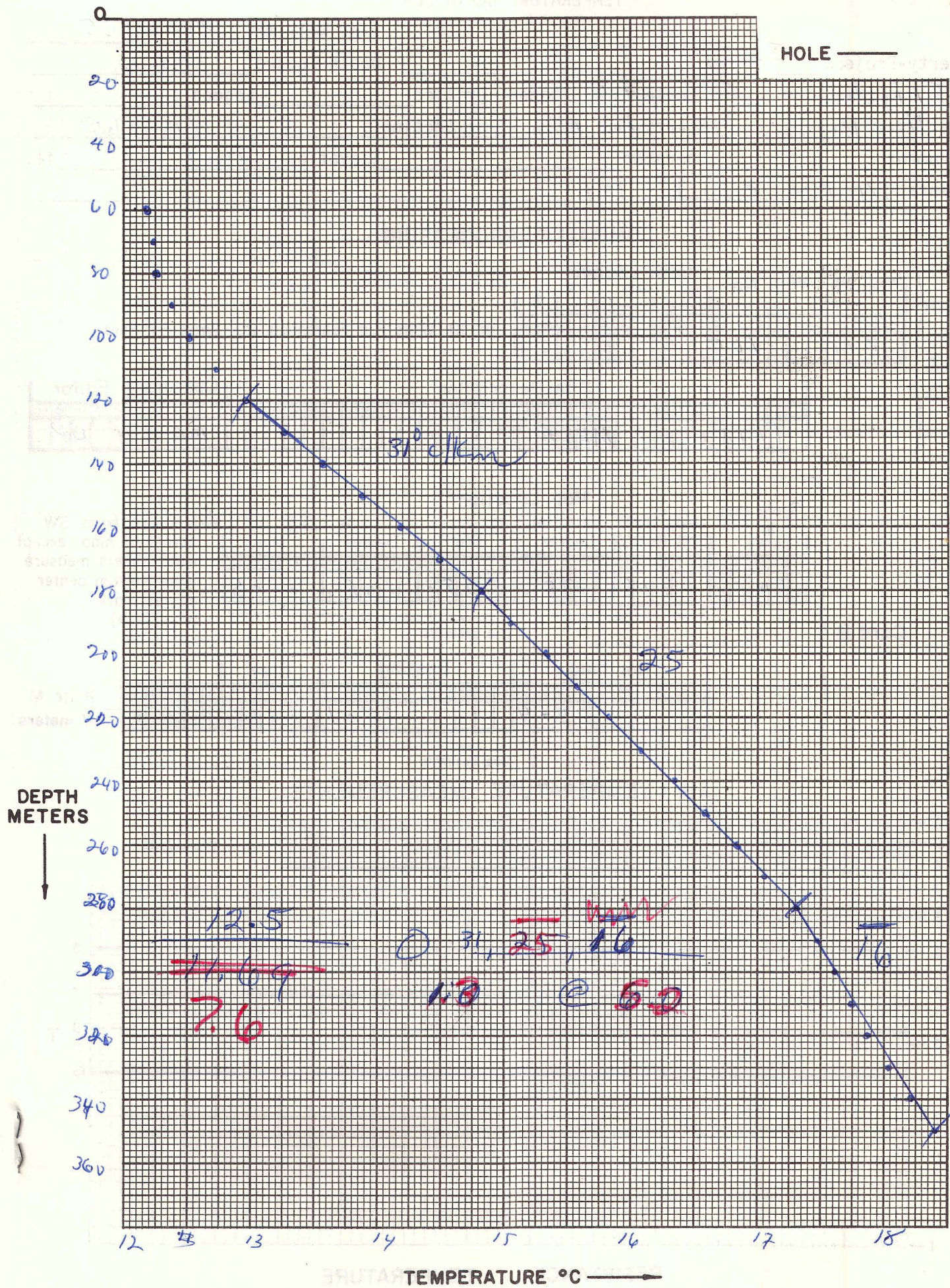
<sup>Δ</sup> Measure from SW corner of map; except AMS sheets measure from bottom center degree mark (W, -) (E, +)

	SEGMENT DEPTH										K	ΔK																						
	Start	End																																
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50				
C	120.0										180.0																							
D	280.0										350.0																							
E																																		
F																																		
G																																		

Continue each card below.

	SEGMENT DEPTH										K	ΔK																					
	Start	End																															
	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80			
C	180.0										280.0																						
D	.999																																
E																																	
F																																	
G																																	

Final Segment: Start = .999





Date Logged: \_\_\_\_\_

ΔT Well No. \_\_\_\_\_

Depth (meters)	Instr. Reading	Temp. °C	ΔT	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
30		11.54					
40		11.71					
50		11.92					
60		12.19					
70		12.23					
80		12.27					
90		12.34					
100		12.52					
110		12.73					
120		12.98					
130		13.29					
140		13.58					
150		13.89					
160		14.18					
170		14.50					
180		14.81					
190		15.05					
200		15.33					
210		15.56					
220		15.82					
230		16.09					
240		16.35					
250		16.59					
260		16.83					
270		17.06					
280		17.31					
290		17.47					

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_



TEMPERATURE DEPTH LOG

Property-Project Jemez ΔT Well No. 847-106  
 Map Seven Springs Scale 7.5' Date: Drilled \_\_\_\_\_ Logged \_\_\_\_\_  
 State New Mexico County Sandoval Section SESE 1 T 19N R 2E  
 Instrument NMBM Operator \_\_\_\_\_ Elevation 8480 ft.  
 Comments NMBM Cuveter 151

COMPUTER PROCESSING

RT JUSTIFY: Proj No Well No Date Logged

→				→						DA	MO	YR	*							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
847				106																CM

\* 19- Write F if Fahrenheit, 20- Write F if Feet

Card A

Site Description																																																		Operator					Editor				
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60																				
3.3										Km					E					SEVEN SPRINGS										MR					DP																								

Map Location <sup>Δ</sup>

Scale Unit					Map Size					N Lat					W Long														
in					(7.5, 15.60)					Degree					Min														
cm					7.5					35.5					106.45														
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50

Δ Measure from SW corner of map; except AMS sheets measure from bottom center degree mark (W,-)(E,+)

Card B

Northing										Easting										Elev									
51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
12.5										28.8										8480									

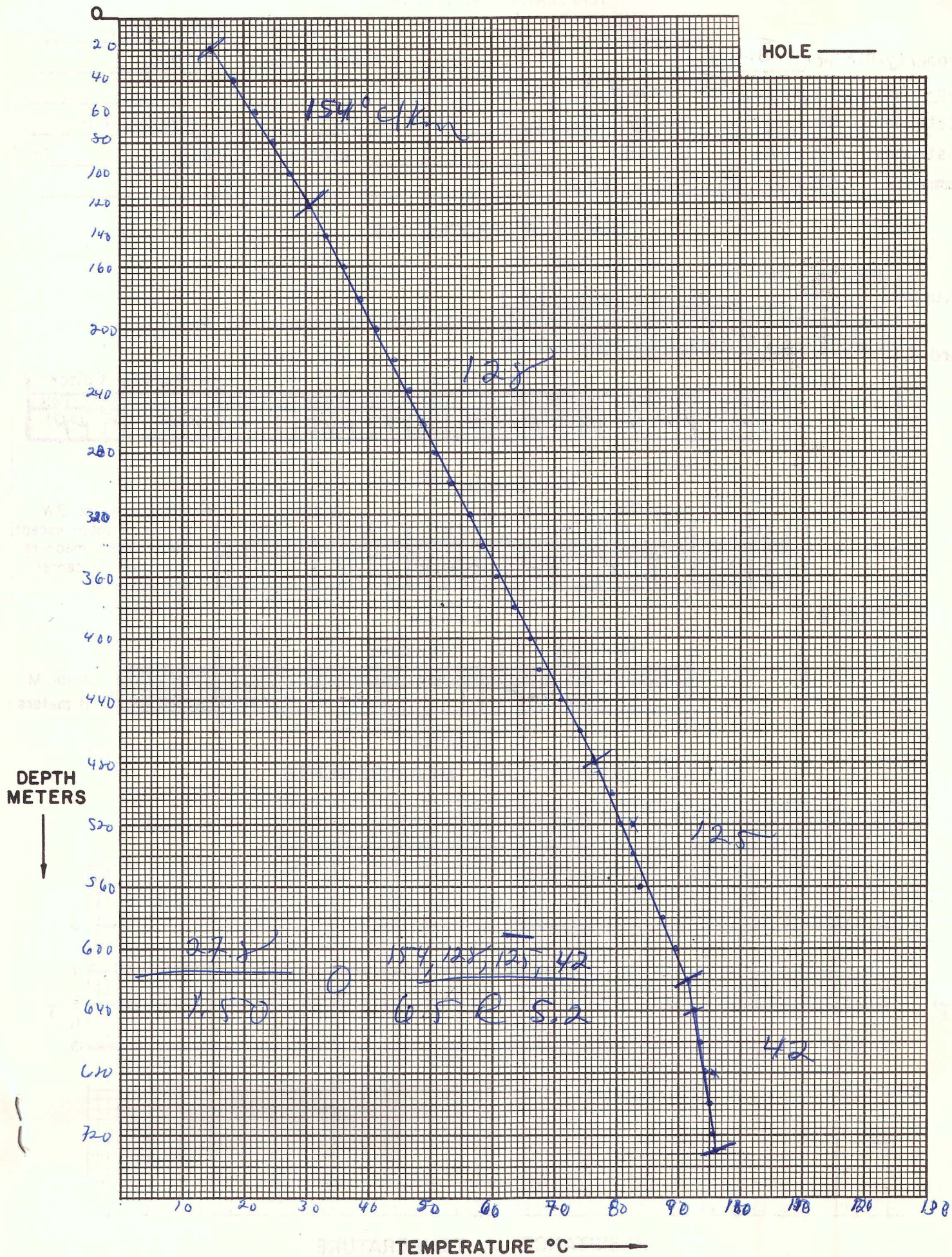
Write M if meters

	SEGMENT DEPTH		K	ΔK
	Start	End		
C	20.0	120.0		
D	480.0	620.0	-5.2	-5
E	999			
F				
G				

Continue each card below.

	SEGMENT DEPTH		K	ΔK
	Start	End		
C	120.0	480.0		
D	620.0	730.0		
E				
F				
G				

Final Segment: Start = .999



Date Logged: \_\_\_\_\_

 $\Delta T$  Well No. \_\_\_\_\_

Depth (meters)	Instr. Reading	Temp. °C	$\Delta T$	Grad. °C/km	K (Est.)	H <sub>2</sub> O Air	Lithology, etc.
20		14.91					
40		18.36					
60		21.88					
80		24.99					
100		27.81					
120		30.35					
140		33.26					
160		36.06					
180		38.84					
200		41.27					
220		44.22					
240		46.64					
260		48.80					
280		50.96					
300		53.47					
320		56.03					
340		58.44					
360		60.94					
380		63.40					
400		66.03					
420		68.46					
440		71.10					
460		74.31					
480		76.38					
500		79.29					
520		80.26					
540		82.73					

K=Conductivity

page \_\_\_\_\_ of \_\_\_\_\_



TEMPERATURE DEPTH LOG

AT Well No. 849-107

Property-Project Jemez Depth Logged \_\_\_\_\_  
 Map Redondo Peak Scale 7.5 Date: Drilled \_\_\_\_\_ Logged \_\_\_\_\_  
 State New Mexico County Sandoval Section susw 5 T 18N R 4E  
 Instrument NMBM Operator \_\_\_\_\_ Elevation 8560 ft.  
 Comments NMBM circle 151

COMPUTER PROCESSING

RT JUSTIFY: Card A

Proj No										Well No										Date Logged			*
																				DA	MO	YR	*
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	11	12	13	CM

\* 19 - Write F if Fahrenheit, 20 - Write F if Feet

Site Description																																													Operator					Editor									
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	MR										OP									

Card B

Scale Unit					Map Size					Map Location $\Delta$				W Long																														
in					(7.5, 15, 60)					N Lat		Degree		Min		Degree		Min																										
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	CM		7.5					35.		45.		106.		37.5	

Use decimals

$\Delta$  Measure from SW corner of map; except AMS sheets measure from bottom center degree mark (W, -) (E, +)

Northing										Easting										Elev																														
51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	30.6										29.5					8560					F

Use decimals

Write M if meters

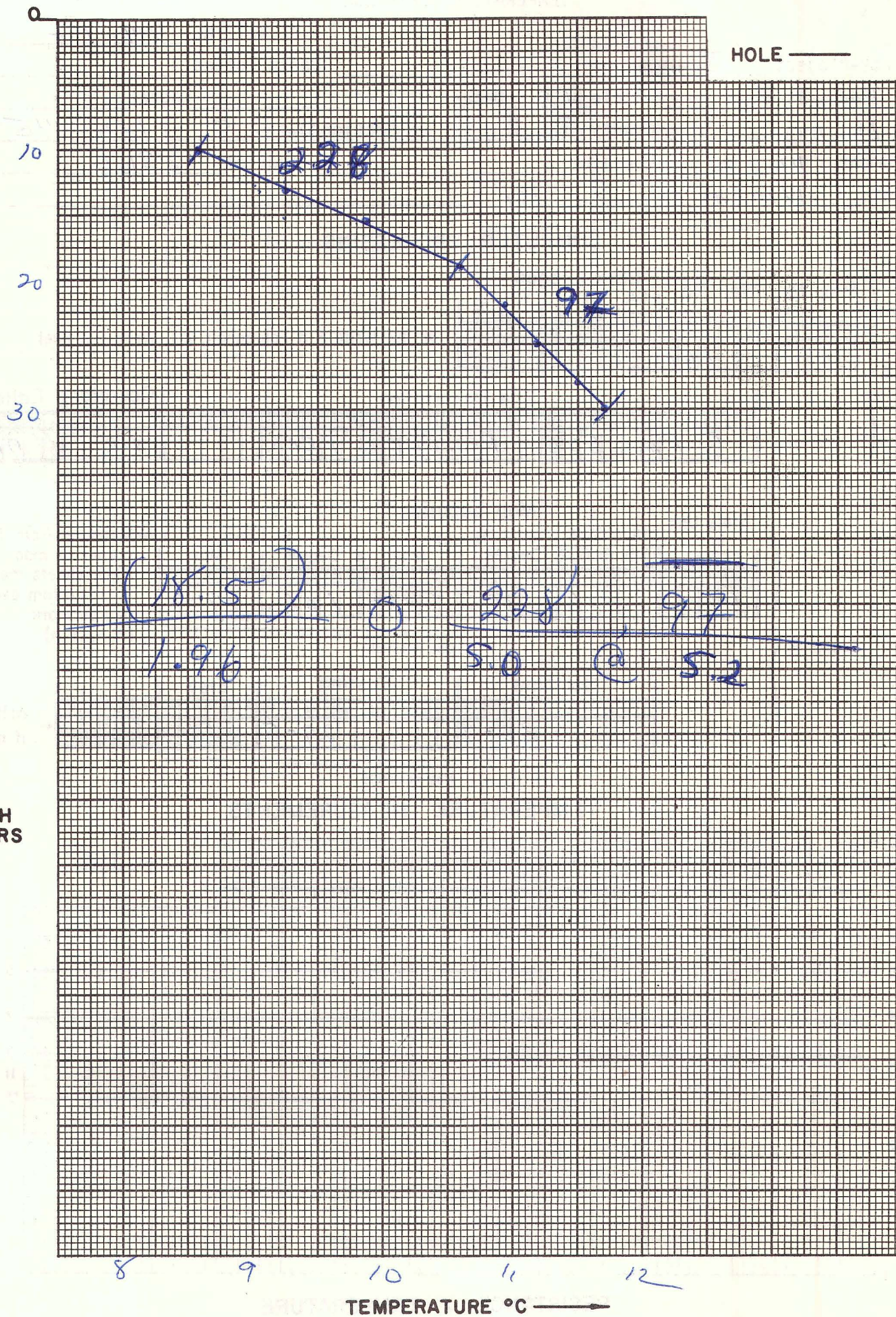
	SEGMENT DEPTH		K	$\Delta K$
	Start	End		
C	10.0	19.0		
D	.999			
E				
F				
G				

Continue each card below.

	SEGMENT DEPTH		K	$\Delta K$
	Start	End		
C	19.0	30.0	-5.2	-.5
D				
E				
F				
G				

Final Segment: Start = .999

HOLE ———



DEPTH  
METERS



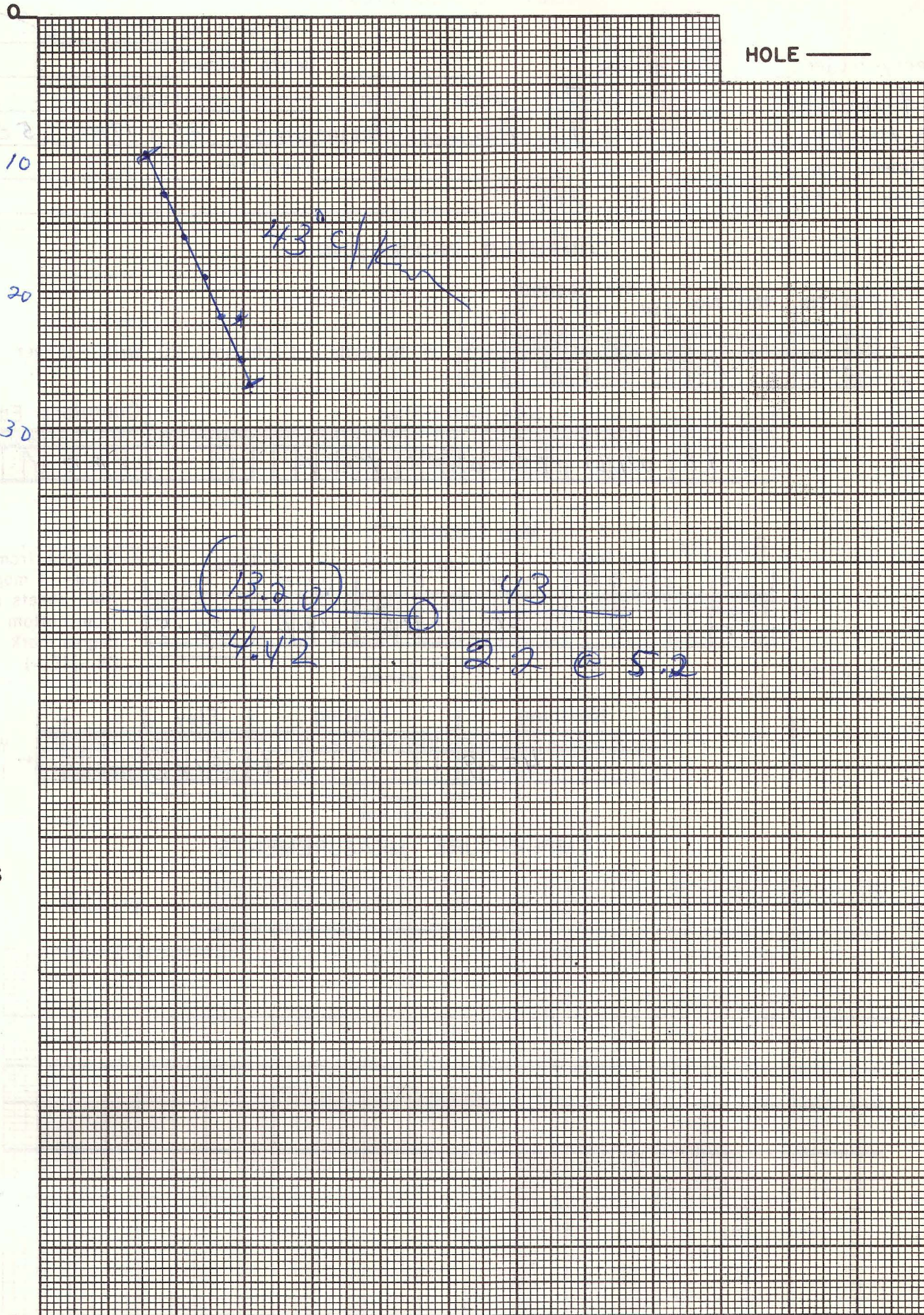
TEMPERATURE °C ———>







HOLE ———



DEPTH  
METERS



TEMPERATURE °C



