

AMAX EXPLORATION, INC.

TEMPERATURE/DEPTH LOG

1186-49

AT Well No. 83-30

Property-Project ALUM Depth Logged 294m
 Map SILVER PK Scale 15" Date: Drilled 8-30-83 Logged 12-7-83
 State NV County ESM of SE of NE of Sec 30 T 1N R 38 1/2 E
 Instrument SPA-29 Operator JED Elevation 4960 (ft. m)
 Comments FINAL LOG

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	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
1186	4907	12	08	83

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

Site Description

Operator	Editor	DA	MO	YR
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 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 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 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 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
JED	JED	30	08	83

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

Card B

Map Location **

Scale Unit	Map Size	N Lat	W Long
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
CM	15.0	37.45	117.45

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

Use decimals

Northing	Easting	Elev
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 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	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 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	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 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
29.20	10.30	4960.0

Write M if meters

Use decimals

Segment	Start	End	Conductivity K	ΔK	Best cond. (-K)
Segment 1 = Depths	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	30.0	110.0		
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	110.0	275.0		
Segment 3	275.0	294.0			
Segment 4	294.0		.999		
Segment 5					
Segment 6					
Segment 7					
Segment 8					
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				

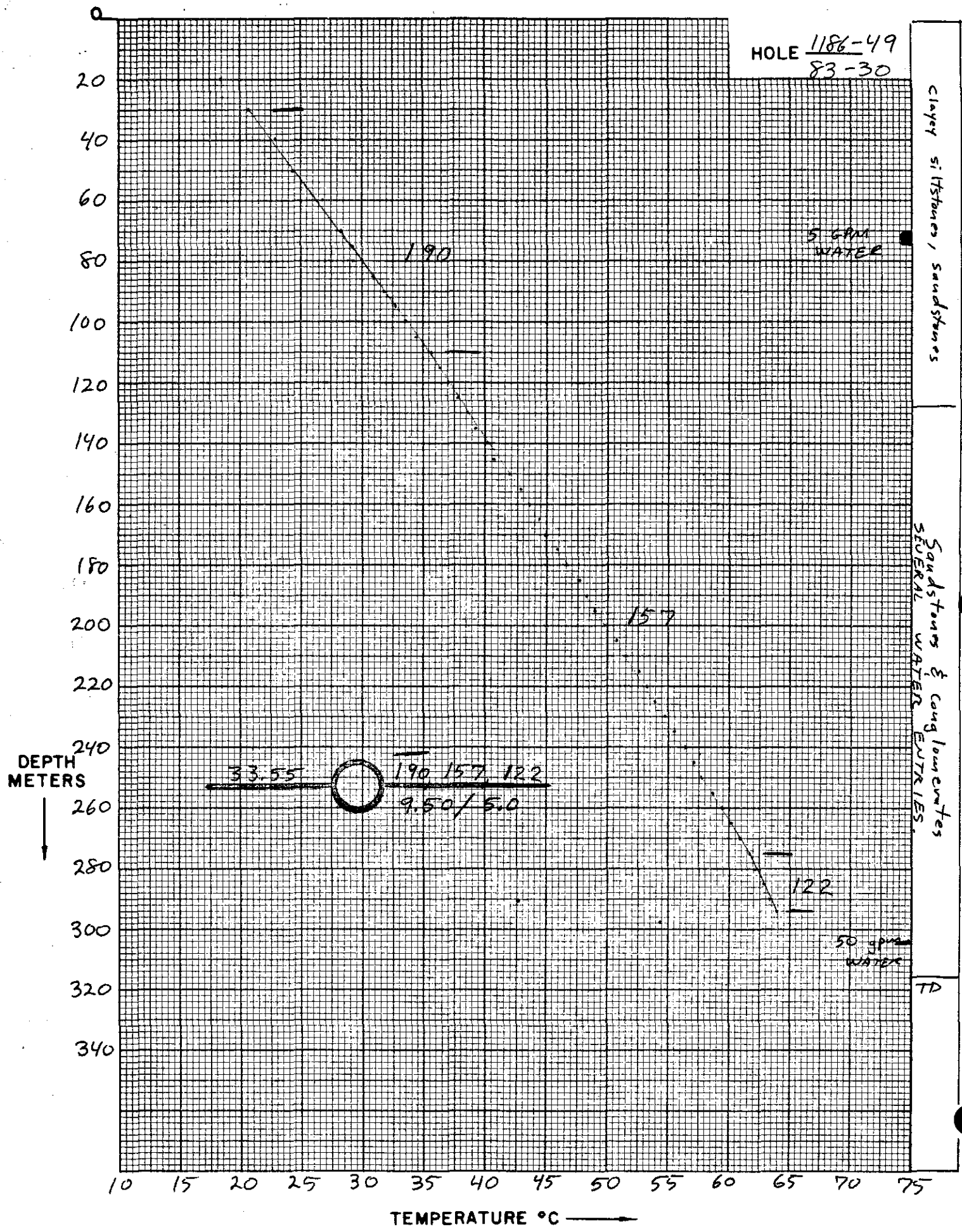
After final segment Start = .999

HOLE 1186-49
83-30

Clayey siltstones, sandstones

Sandstones & conglomerates
SEVERAL WATER ENTRIES

TD



Date Logged: 12-7-83ΔT Well No. 1186-49
83-36

ALUM #1

Depth (meters)	Instr. Reading	Temp. °C	ΔT	Grad. °C/km	K (Est.)	H ₂ O Air	Lithology, etc.
10						AIR	C <u>.0855</u>
20	110.21	18.45					
< 30	102.31	20.56	2.11	211			
40	94.08	22.90	2.34	234			
50	89.09	24.41	1.51	151			
60	81.67	26.79	2.38	238			
70	76.85	28.44	1.65	165			
75	74.83	29.17	0.73	146		H ₂ O	
80	72.61	29.25	0.08	16			
85	70.34	30.84	1.59	795			
90	67.96	31.77	0.93	465			
95	65.74	32.66	0.89	445			
100	63.61	33.55	0.89	445			
105	61.48	34.46	0.91	455			
< 110	58.60	35.75	1.29	645			
115	57.13	36.43	0.68	340			
120	55.91	37.00	0.57	285			
125	54.39	37.74	0.74	370			
130	52.69	38.59	0.85	425			
135	51.26	39.33	0.74	370			
140	49.61	40.20	0.87	435			
145	48.77	40.66	0.46	230			
150	46.49	41.94	1.28	640			
155	45.11	42.75	0.81	405			
160	43.78	43.55	0.80	400			
165	42.33	44.46	0.91	455			
170	41.57	44.94	0.48	240			

K=Conductivity

page _____ of _____

Date Logged: 12-7-83ΔT Well No. 1186-49
83-30

Depth (meters)	Instr. Reading	Temp. °C	ΔT	Grad. °C/km	K (Est.)	H ₂ O Air	Lithology, etc.
175	40.23	45.82	0.88	440			
180	38.91	46.72	0.90	450			
185	37.72	47.56	0.84	440			
190	36.68	48.31	0.75	375			
195	35.79	48.97	0.66	330			
200	34.82	49.72	0.75	375			
205	33.53	50.74	1.02	510			
210	32.61	51.49	0.75	375			
215	31.36	52.55	1.06	530			
220	30.62	53.20	0.65	325			
225	29.77	53.97	0.77	385			
230	28.96	54.72	0.75	375			
235	28.15	55.50	0.78	390			
240	27.27	56.37	0.87	435			
245	26.60	57.05	0.68	340			
250	25.83	57.86	0.81	405			
255	25.14	58.61	0.75	375			
260	24.39	59.45	0.84	420			
265	23.82	60.10	0.65	325			
270	23.17	60.87	0.77	385			
< 275	22.55	61.63	0.76	380			
280	22.08	62.22	0.59	295			
285	21.52	62.93	0.71	355			
290	21.17	63.39	0.46	230			
< 294	20.76	63.94					C 0.0918 L

K=Conductivity

LITHOLOGIC LOG

pg 1 of 2

Project: AlumHole: 83-30 (33026-49)Elevation: 4940'Date Drilled: 8/30/83Location: SENE Sec 30 T1N R 38 1/2EMethod: rotary/airGeologist: Pilkington

Gamma: _____

Depth (m)	Description
0 - 3	<u>Alluvium</u> - Recent gravels in dry wash.
3 - 128	<u>Lower Esmeralda Fm (Unit F)</u>
3-40	Light tan to light yellow brown, fine-grained tuffaceous siltstone and fine-grained tuffaceous sandstone.
40-43	Red brown, hematite stained, clayey, very fine-grained tuffaceous sandstone.
43-52	Light yellow brown, limonite stained, very fine-grained tuffaceous sandstone.
52-55	Blue-gray, clayey altered tuffaceous siltstone. Ash has altered to montmorillonite to give the rock a uniform gray color.
55-67	Light brown, very fine-grained tuffaceous sandstone - considerable iron stain clays.
67-73	Blue-gray to green-gray, fine-grained tuffaceous siltstone strongly altered to montmorillonite. Starts making water at about 5 gpm at 40°C measured at flow line. Water flow was dried up/air.
73-95	Light brown, weakly iron-stained tuffaceous siltstone - considerable clay.
95-98	Gray-green to blue-gray montmorillonite zone. Strong alteration. Hole making 5-7 gpm water at 41°C measured at flow line. Water flow dried up/air.
98-110	Gray-brown, fine-grained, tuffaceous siltstone.
110-128	Gray to blue-gray, fine-grained tuffaceous sandstone with abundant montmorillonite.

LITHOLOGIC LOG

Project: ATumHole: 83-30

Elevation: _____

Date Drilled: _____

Location: _____

Method: _____

Geologist: _____

Gamma: _____

Depth (m)

Description

128-316

Lower Esmeralda Fm (Unit E)

Gray-green to blue-gray intercolated volcanoclastic sandstones, conglomerate and crystal lithic ash flow tuff. The volcanoclastic rocks have crystal fragments of feldspar and quartz dispersed through ashy matrix. The volcanoclastic conglomerates contain clasts of gray limestone, gray quartzite, some black argillite and some ash flow tuff. Ash matrix strongly altered to montmorillonite. Water was encountered at several intervals in this zone. The strongest flow occurred at 305 meters where it started to flow at about 50 gpm with air lift water temperature 56°C at the flow line.