TEC-25

AMAX EXPLORATION, INC.

TEMPERATURE/DEPTH LOG

1186-52

ΔT Well No. 45-4

Property-Project ALUM Depth Logged 308 m

Map SILVER Pk Scale 15'' Date: Drilled 9-13-83 Logged 1-10-84

State NV County ESM , ___ of ___ of SE of SW of Sec 4 T 15 R 39E

Instrument SPA-29 Operator JED Elevation 4900 (ft) (m)

Comments FINAL LOG after cementing annulus. No change From previous log before cementing

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JUSTIFY

Card A

Proj No	Well No	DA	MO	YR	*
1186	52	10	01	84	CM

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

Site Description	Operator	Editor	Drilled DA	Drilled MO	Drilled YR
	JED	JED	13	9	83

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

Card B

Scale Unit IN CM	Map Size (7.5, 15., 60.)	N Lat Degree	N Lat Min	W Long Degree	W Long Min **
CM	15.0	37.	45.	117.	45.0

Use decimals

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

Northing	Easting	Elev	
21.92	12.88	4900.	F

Use decimals

← Write M if if meters

Segment 1 = Depths

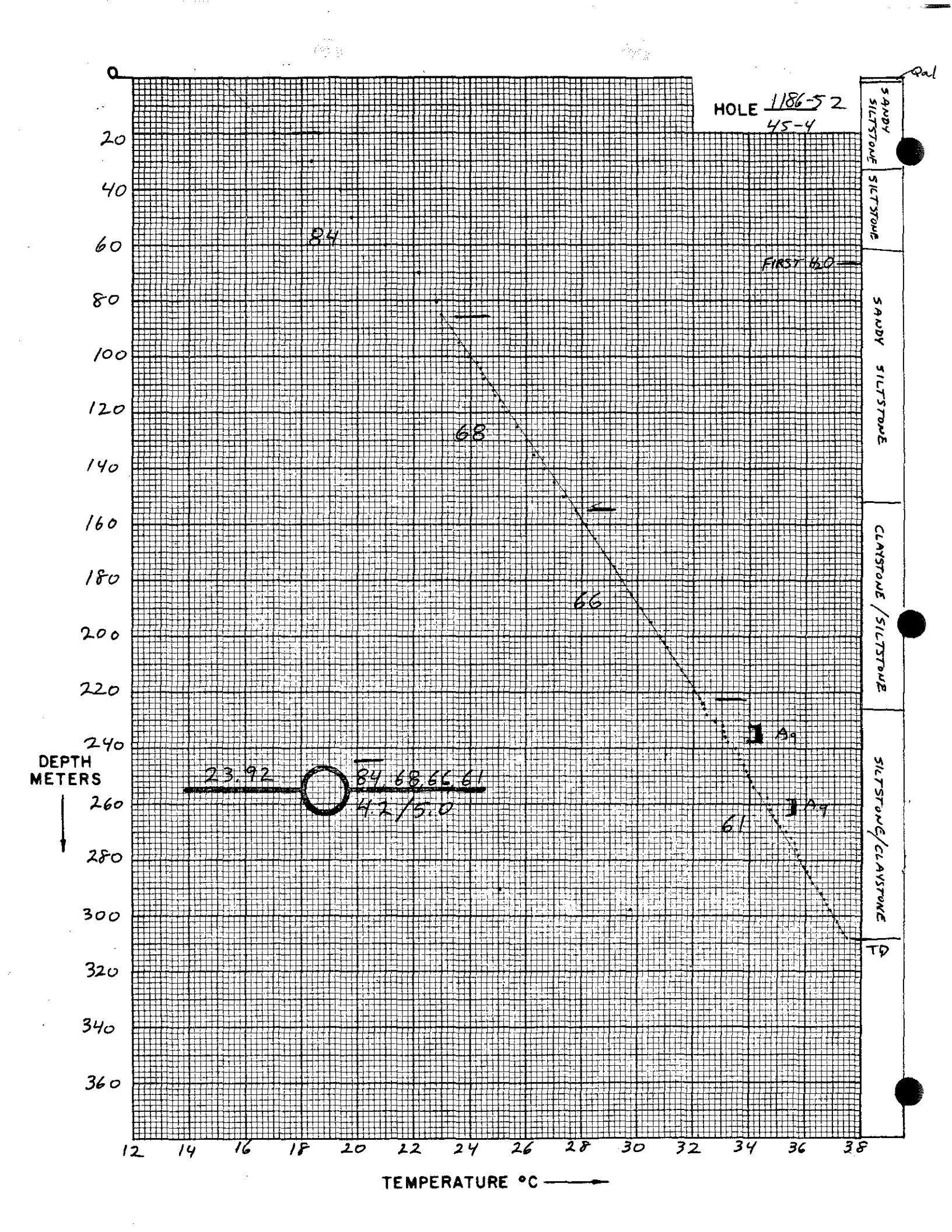
Start	End	Conductivity K	ΔK
30.0	85.0	-5.0	-0.5

Best cond. (-K)

Downward extrapolations (-ΔK)

Segment	Start	End	K	ΔK
2	85.0	155.0		
3	155.0	222.0		
4	222.0	308.0		
5	.999			
6				
7				
8				
9				
10				

After final segment Start = .999


HOLE 1186-52
45-4
Qal
SANDY SILTSTONE
SILTSTONE
SANDY SILTSTONE
CLAYSTONE / SILTSTONE
SILTSTONE / CLAYSTONE
TD
FIRST H2O
84
68
66
61
A9
A9
23.92
84 68 66 61
4.2/5.0
DEPTH METERS
TEMPERATURE °C
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
320
340
360
12
14
16
18
20
22
24
26
28
30
32
34
36
38

Date Logged: 1-10-84

ΔT Well No. 1186-52

45-4

Depth (meters)	Instr. Reading	Temp. °C	ΔT	Grad. °C/km	K (Est.)	H_2O Air	Lithology, etc.
20	115.86	17.02				AIR	
			1.33	133			
30	110.61	18.35					
			1.03	103			
40	106.66	19.38					
			0.39	39			
50	105.21	19.77					
			1.22	122			
60	100.76	20.99					
			1.18	118			
70	96.57	22.17					
			0.63	63			
80	94.43	22.80					
			0.19	38		H_2O	C 0899
85	93.76	22.99					L
			0.35	70			
90	92.61	23.34					
			0.24	48			
95	91.79	23.58					
			0.34	68			
100	90.67	23.92					
			0.30	60			
102	89.70	24.22					
			0.12	60			
104	89.31	24.34					
			0.06	30			
106	89.11	24.40					
			0.05	25			
108	88.96	24.45					
			0.26	130			
110	88.10	24.71					
			0.08	40			
112	87.87	24.79					
			0.06	30			
114	87.67	24.85					
			0.16	80			
116	87.16	25.01					
			0.16	80			
118	86.66	25.17					
			0.15	75			
120	86.18	25.32					
			0.31	62			
125	85.20	25.63					
			0.39	78			
130	84.01	26.02					
			0.24	48			
135	83.28	26.26					
			0.39	78			
140	82.08	26.65					
			0.35	70			
145	81.04	27.00					
			0.36	72			
150	79.97	27.36					

K=Conductivity

Date Logged: 1-10-84

ΔT Well No. 1186-52
45-4

Depth (meters)	Instr. Reading	Temp. °C	ΔT	Grad. °C/km	K (Est.)	H_2O Air	Lithology, etc.
155	78.78	27.77	0.41	82			
160	77.70	28.15	0.38	76			
165	76.86	28.44	0.29	58			
170	75.92	28.77	0.33	66			
175	74.86	29.16	0.39	78			
180	74.00	29.47	0.31	62			
185	73.12	29.79	0.32	64			
190	72.12	30.16	0.37	74			
195	71.26	30.49	0.33	66			
200	70.40	30.82	0.33	66			
202	70.06	30.95	0.07	35			
204	69.74	31.07	0.12	60			
206	69.43	31.19	0.12	60			
208	69.07	31.33	0.14	70			
210	68.74	31.46	0.13	65			
212	68.41	31.59	0.14	70			
214	68.07	31.72	0.13	65			
216	67.78	31.84	0.12	60			
218	67.46	31.97	0.13	65			
220	67.16	32.09	0.12	60			
222	66.86	32.21	0.12	60			
224	66.59	32.32	0.11	55			
226	66.40	32.39	0.07	35			
228	66.23	32.46	0.07	35			
230	65.50	32.76	0.30	150			
232	64.84	33.03	0.29	145			
234	64.72	33.08	0.05	25			

K=Conductivity

Date Logged: 1-10-84

ΔT Well No. 1186-52
45-4

Depth (meters)	Instr. Reading	Temp. °C	ΔT	Grad. °C/km	K (Est.)	H_2O Air	Lithology, etc.
236	64.57	33.14	0.06	30			
238	64.42	33.21	0.07	35			
240	63.69	33.51	0.30	150			
242	63.45	33.61	0.10	50			
244	63.26	33.69	0.08	40			
246	63.01	33.80	0.11	55			
248	62.77	33.90	0.10	50			
250	62.60	33.97	0.07	35			
252	62.45	34.04	0.07	35			
254	62.19	34.15	0.11	55			
256	61.66	34.38	0.23	115			
258	61.13	34.61	0.23	115			
260	60.89	34.72	0.11	55			
262	60.77	34.77	0.05	25			
264	60.63	34.83	0.06	30			
266	60.38	34.94	0.11	55			
268	59.98	35.12	0.18	90			
270	59.59	35.30	0.28	140			
272	59.18	35.48	0.18	90			
274	58.90	35.61	0.13	65			
276	58.76	35.67	0.06	30			
278	58.59	35.75	0.08	40			
280	58.41	35.83	0.08	40			
282	58.20	35.93	0.10	50			
284	57.87	36.08	0.15	75			
286	57.74	36.14	0.06	30			
288	57.46	36.27	0.13	65			

K=Conductivity

Date Logged: 1-10-84

ΔT Well No. 1186-52
45-4

Depth (meters)	Instr. Reading	Temp. °C	ΔT	Grad. °C/km	K (Est.)	H_2O Air	Lithology, etc.
290	57.15	36.42	0.15	75			
292	56.87	36.55	0.13	65			
294	56.64	36.66	0.11	55			
296	56.37	36.79	0.13	65			
298	56.10	36.91	0.12	60			
300	55.87	37.02	0.11	55			
302	55.64	37.13	0.11	55			
304	55.39	37.26	0.13	65			
306	55.15	37.37	0.11	55			
308	54.93	37.48	0.11	55			C .092

K=Conductivity

LITHOLOGIC LOG

Project: Alum

Hole: 45-4 1186-52

Elevation: 4,900'

Date Drilled: 9/14/83

Location: SESW Sec 4 T1S R39E

Method: rotary/air/foam

Geologist: Deymonaz

Gamma: NA

Depth (m)	Description
0 - 5 (0-1.5)	Alluvium - Poorly consolidated tan sand, silt and angular lith fragments of green siltstone, sandstone and limestone.
5 - 15 (1.5-4.5)	Siltstone - Sandy, tan, bedded, with common dk. gray lith fragments. A few clear gypsum crystals. Common yellow to rust red iron stainings. Damp, altered to montmorillonite. Same as surface outcrops near drill site.
15 - 110 (4.5-34)	Siltstone - As above, except less sand, less iron staining, primarily montmorillonite clays. Some light gray beds of siltstone 1% small gypsum.
110 - 200 (34-61)	Siltstone - Med. brownish gray, some sandy material. Minor thin beds of brown siltstone. Absorbs water readily.
200 - 500	Sandy Siltstone - Light medium gray (cuttings are fine sandy powder). Water at 220', change to foam injection. Most of clay material washed out of cuttings below 220'. Minor tan and pale red siltstone. Absorb water readily.
500 - 740	Claystone, Siltstone - Medium brownish gray, predominantly with 10-40% tan to brown colored material. Much of interval appears thinly bedded. Minor orange hematite. Darker brown color along some crude cleavage planes. Absorbs water moderately. L.C. in fracture at 675', moderately well indurated.
740 - 830 (226-253)	Claystone, Siltstone - As above, except 20-30% pale green and tan claystones with a few angular lithic fragments, Some thinly laminated claystone with tan, gray and brown laminations. Rare pyrite along small fractures. Moderately well indurated.
830 - 1010 (253-308)	Siltstone, Claystone - Well indurated, thinly laminated tan, light brown and medium gray. Does not part along laminations Minor micas and much harder than above units.

DAILY DRILLING REPORT

Project - Hole: ALUM 45-4 Date: 9-11 thru 9-14

Location: SE of SW Sec. 4 T /S R 39E Spud Date: 9-11

County, State: Esmeralda, NV Day #: 1-4

Prog. Depth: 1000' Contractor: Stevens-Harris

Geologist: Deymonaz Rig.: Failing 1500

Drilled 0 to 1010 Mud/Air/Air-Foam injection 220-1010'

Footage Cut 1010 Temp: In Out

Hole Size 8 3/4" and 6 1/8" Wt

Dev. Survey @ Vis

Casing 7" 0-20' Ph

Bits, stabs, etc. & ser. #

Lithology Tertiary siltstones and claystones

Additional Report 9-11 Move rig to site, drill 8 3/4" hole 0-20'; set and cement 20' of 7" casing

9-12 Drill 6 1/8" hole 20-740', drill dry to 220', foam injection below 220. First water encountered at 220'.

9-13 Drill 6 1/8" hole 740-1010', set 1 1/4" tubing, hole making 5-10 GPM water at TD, unable to obtain sample without foam injection.

9-14 Fill tubing with water, cement anulus 0-10', move off location

Well History

Interval	Hole Size	Casing
0-20	8 3/4	7"
20-1010	6 1/8	1 1/4" tubing

Expenditures

Total to date 48,886.

Projected

Cost/Ft 5030' @ $9.72/ft.

Budgeted 75,000.