



**ABMINCO N.L.**  
**CLEVELAND MINE**

CATEGORY

HOLE No. : C1356 REF No 18558

**GENERAL DATA**

Objective : Ad Section R.L. 225m

Area of Operation : 11 Khaki East Location : GR Sect.

Collar R.L. : 276.921m Co-ordinates : 1824 117 N, 111 111 E.

Bearing of Hole : 119 Angle of Hole : (-17 1/2) Final Depth : 111.11m

Drilling Commenced : 8/1/78 Completed : 15-11-78 Logged by :

**DRILLING DATA**

Drilled by : A D D. Non Coring :

Drilling Rig : E 500 Coring : TT 46mm

Drillers(s) : G. Archer.

Core Recovery :

**HOLE SURVEYS**

23 436

HOLE No. : C1356

HOLE No. : C1356

SAMPLE DATA

LENS	SAMPLE No.	ROCK TYPE	Σ	INTERVAL		Length (L)	Assays (A)			Product (A x L)		
				From	To		% Snt	% Sns	% Cu	P. Snt	P. Sns	P. Cu
	223447	lode		0.00	1.00	1.00	.22	.02	.08			
	" 448	"		1.00	2.00	1.00	.26	.03	.11			
	" 449	"		2.00	3.00	1.00	.36	.02	.08			
	" 450	"		3.00	4.00	1.00	.46	.03	.07			
	" 451	"		4.00	5.00	1.00	.51	.03	.06			
	" 452	"		5.00	6.00	1.00	.40	.03	.06			
	" 453	"		6.00	7.00	1.00	.65	.04	.11			
	" 454	"		7.00	7.30	.30	1.23	.04	.13			
	" 455	sh + gst		7.30	8.00	.70	.21	.02	.04			
			Σ	0.00	8.00	8.00	0.45	0.03	0.08			
	456	lode		79.50	80.50	1.00	2.53	.13	.51			
	457	"		80.50	81.50	1.00	2.90	.15	.56			
	458	"		81.50	82.50	1.00	1.29	.06	.39			
	459	"		82.50	83.50	1.00	1.23	.15	.44			
	460	lode + sh		83.50	84.50	1.00	.11	.02	.46			
	461	sh + lode		84.50	85.50	1.00	.27	.04	.39			
	462	sh + lode		85.50	86.50	1.00	.25	.04	.51			
	463	" "		86.50	87.50	1.00	.15	.03	.66			
	464	lode + sh		87.50	88.20	.70	.07	.02	1.26			

N.W.P.S.

**SAMPLE DATA**

HOLE No. : C 1356

LENS	SAMPLE No.	ROCK TYPE	Σ	INTERVAL		Length (L)	Assays (A)			Product (A x L)		
				From	To		% Snt	% Sns	% Cu	P. Snt	P. Sns	P. Cu
	223447	Lode		0.00	1.00	1.00	.33	.02	.68			
	" 448	"		1.00	2.00	1.00	.46	.03	.11			
	" 449	"		2.00	3.00	1.00	.56	.02	.08			
	" 450	"		3.00	4.00	1.00	.46	.03	.07			
	" 451	"		4.00	5.00	1.00	.21	.03	.06			
	" 452	"		5.00	6.00	1.00	.40	.03	.06			
	" 453	"		6.00	7.00	1.00	.65	.04	.11			
	" 454	"		7.00	7.30	.30	1.23	.04	.13			
	" 455	Sh + sst		7.30	8.00	.70	.21	.02	.04			
x	456	Lode		79.50	80.50	1.00	2.53	.13	.51			
	457	"		80.50	81.50	1.00	2.90	.15	.56			
	458	"		81.50	82.50	1.00	1.29	.06	.39			
	459	"		82.50	83.50	1.00	1.29	.15	.44			
	460	Lode + sh		83.50	84.50	1.00	.11	.02	.46			
	461	Sh + Lode		84.50	85.50	1.00	.27	.04	.39			
	462	Sh + Lode		85.50	86.50	1.00	.25	.04	.31			
	463	" "		86.50	87.50	1.00	.15	.03	.60			
	464	Lode + sh		87.50	88.20	.70	.07	.02	1.26			





ABMINCO N.L. - Cleveland Mine

Hole No. 13:

Sheet No.

DIAMOND DRILL HOLE DATA

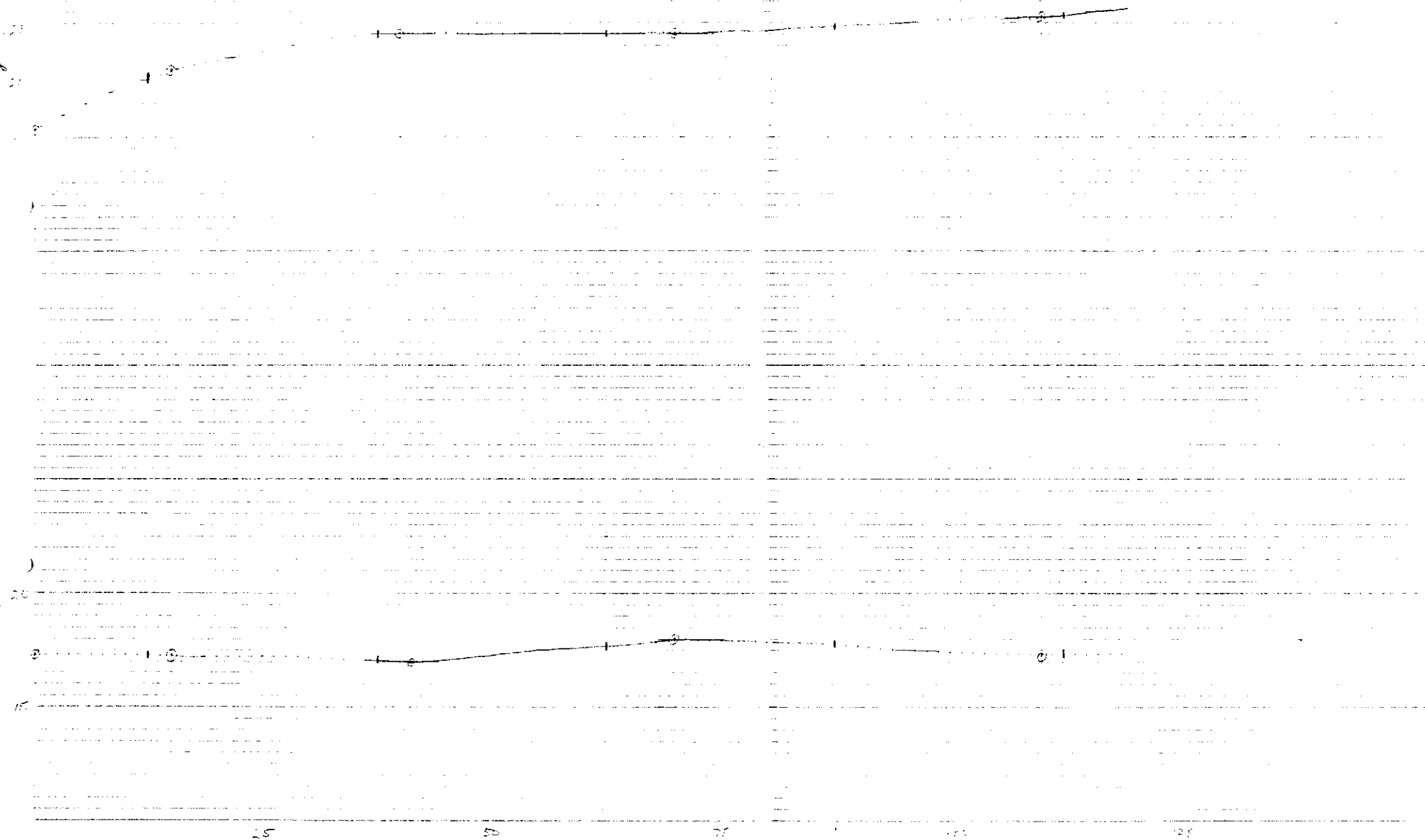
PROGRAM DATA				SURVEY DATA				INTERPOLATED DATA		
				Instrument Type	Depth	Dip	Azimuth	Depth	Dip	Azim
1	Attitude	—	(+) (-)	SURVEY	φ.	10°	125°	12 1/2	17°	120
				CAMERA	15	-17 1/4	121 (125)	37 1/2	17	124
2	Hole No.	1356			40	-17	124 (128)	62 1/2	17 7	124
					70	-18	124 (128)	87 1/2	17 8	124
3	Down Hole Interval	25			110.	-17 1/4	125 1/2 (129 1/2)	112 1/2	17 2	125
4	Collar	1527.7582	N							
5	Co-ords.	1062.9421	E							
6	Collar R.L.	276.961								
7	Halls Sect.	15292.444	N							
8	Intersect Point	10634.391	E							
9	Battery Sect.	15231.019	N							
10	Intersect. Point	10772.186	E							
11	Start Plot (Depth)	φ.	φ = Collar							



C1356

Bearing

Dep (negative)



**Feature**

Bedding   
Foliation   
Fragment size & shape 

**Shearing**

Fault   
Vein 

c carbonate  
q quartz

**Mineralization**







Trace 1-5%  
Common 5-15%  
Abundant 15-60%  
Massive > 60%

23 444

CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	TRACE	COMMON	ABUNDANT	MASSIVE	DEPTH m	MINERALIZATION
2.90		Light Quartz - carbonate - amphibole local - with sphalerite. Fine to medium grained. Matrix with amphibole (green) abundant from 1.9m onwards. Matrix is more carbonate rich to 1.9m. Sphalerite commonly occurs as aggregates up to 2cm across. Also occurs in veins & as disseminations.							Etz 30-40, Amphibole 50-60, Carb 20-30; Sphalerite common from 2-5% Other sulphides - trace only. Fault at 3.5m. 60° NCA
2.93									
2.77	7.30	Shale pale brown massive fine grained shale with minor carbonate disseminations. Trace sandstone locally.							Fault @ 10.0m
2.82	10.0	Sandstone Buff to dark grey generally massive sandstone and locally conglomeratic sections.							
3.00									
3.06									
2.57	17.40	Shale buff to sand-brown massive fine grained shale - occasionally slumped.	95						Green - 200m 30° NCA
2.55	11.30		96						Quartz vein 10cm 30° NCA
2.87	7.53	Sandstone Buff to sand brown and grey massive fine to medium grained sandstone locally slightly micaceous.							Core & broken 2.2-7.5m
2.20		Shale pale brown to buff - massive fine grained shale with minor interbedded sandstones. Sequence is often slumped in vicinity of sandstone & is argillaceous due to presence of tuffaceous material. Fracturing & shearing developed locally.							Fault at 2.50 150° N Mineralized gte - calc - 1.5m - carb
2.95									
1.93									Fault 32.60m - 27 S - 7-10° NCA 5.1m - 5.2m gte carb. sph - 0.5m
2.72	35.90	Sandstone light brown, grey & dark grey, massive fine grained sandstone. Some slumping evident locally - sandstone is extremely hard around 39-41 meters & is possibly tectonically strong owing to 40-41 meters with quartz carbonate & sulphide infill. Very broken around 44 meters.							
3.00									
2.92									
3.04									
2.97	47.10	Shale pale brown to pale grey							
1.80		Chert on a surface of shale. Pale grey to buff shale & chert chert is white with fine druse fractures.							



**Feature**

Bedding   
 Foliation   
 Fragment size & shape   
 Shearing   
 Fault   
 Vein   
 c carbonate  
 q quartz

**Mineralization**

23 446

Trace 1-5%  
 Common 5-15%  
 Abundant 15-60%  
 Massive > 60%

CORE REC'D	DEPTH m	GEOLOGY	VISUAL LOG	TRACE	COMMON	ABUNDANT	MASSIVE	DEPTH m	MINERALIZATION
		Shale as above.							
102.30	2.88	Thin sandstone interbeds occur locally							
105.30	2.95	Fault at 107m 50° NCA							
108.30	2.74	Quartz carb filled zone thick.							Occasional thin carb veins with sphalerite
111.11	111.11	111.11 m = E.O.H. Logged P. SIMPSON Dec 78							