



ABMINCO N.L.
CLEVELAND MINE

CATEGORY
PRODUCTION
ASSISTANCE

HOLE No. : C1394 REF No 18562

GENERAL DATA

Objective : 18 HALLS 17 LEVEL

Area of Operation : 18 Henry's Location : Q2 SECTION

Collar R.L. : 119.53 Co-ordinates : 15538.051 N, 11030.974 E

Bearing of Hole : 130° 44' 27" (312) Angle of Hole : 22° 28' 36" (+22°) Final Depth : 6.8.8m

Drilling Commenced : 23/5/79 Completed : 3/6/79 Logged by : _____

DRILLING DATA

Drilled by : PHILDOTT Non Coring : _____

Drilling Rig : E 500 Coring : AXI

Driller(s) : B. LOVELL

Core Recovery : _____

HOLE SURVEYS

30m Camera Dip +21 1/2° Bearing 30° magnetic

560m Camera Dip +19° Bearing 305° magnetic

HOLE No. : C1394



ABMINCO N.L.
CLEVELAND MINE

CATEGORY
PRODUCTION
ASSISTANCE

HOLE No. : C 1394

GENERAL DATA

Objective : 18 HALLS 17 LEVEL

Area of Operation : 18 HENRY'S Location : Q2 SECTION

Collar R.L. : Co-ordinates : 15538.051 N, 11030.974 E.

Bearing of Hole : Angle of Hole : +22° 28' 36" (+22°) Final Depth : 68.8m

Drilling Commenced : 23/5/79 Completed : 3/6/79 Logged by :

DRILLING DATA

Drilled by : PHILPOTT Non Coring :

Drilling Rig : E 500 Coring : AKT

Driller(s) : B. LOVELL

Core Recovery :

HOLE SURVEYS

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HOLE No. : C/1394

23 24164

HOLE No. : 1394

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 |
| | 242186 | metamorphic shale | | 0.00 | 0.72 | 0.72 | .17 | .02 | .16 | | | |
| | 242187 | Lode | | 0.72 | 1.57 | 0.85 | .61 | .01 | 2.17 | | | |
| | 242188 | " | | 1.57 | 2.40 | 0.83 | .26 | .01 | 2.51 | | | |
| | 242189 | Lode | | 20.82 | 21.80 | 0.98 | .24 | .01 | 2.15 | | | |
| | 242190 | " | | 21.80 | 22.76 | 0.96 | .61 | .01 | .55 | | | |
| | 242191 | " | | 22.76 | 23.76 | 1.00 | 1.50 | .01 | .25 | | | |
| | 242192 | " | | 23.76 | 24.56 | 0.80 | .81 | .01 | .64 | | | |
| | 242193 | " | | 24.56 | 25.61 | 1.05 | .90 | .01 | .63 | | | |
| HLENT 1/6/82 | 242194 | Lode | | 33.13 | 34.57 | 1.44 | 1.59 | .01 | 1.30 | | | |

Holes B, LENS and RUSHP
1/8/82

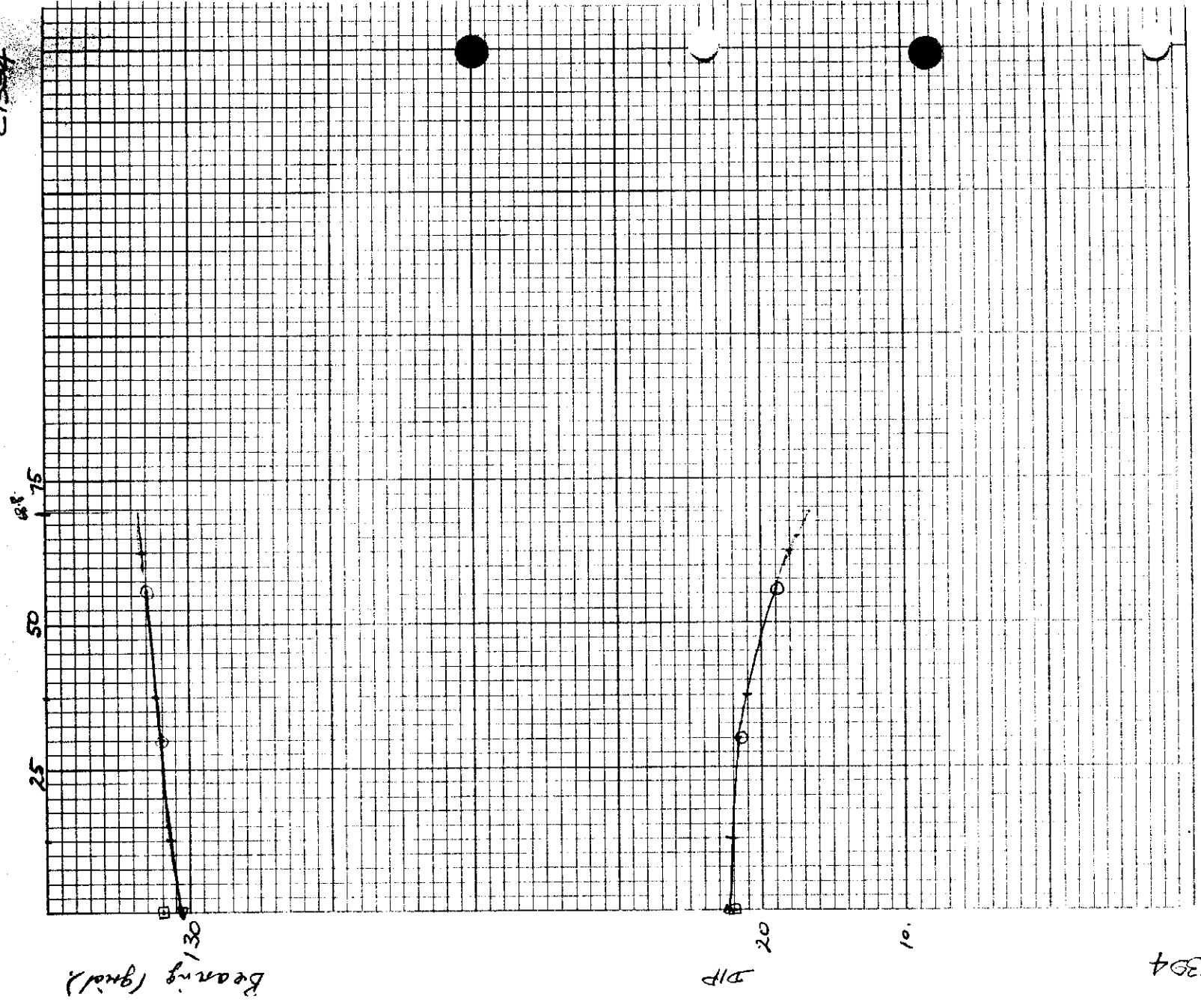
ABMINCO N.L. - Cleveland Mine

Hole No. C1394

Sheet No.

DIAMOND DRILL HOLE DATA

| PROGRAM DATA | | | | SURVEY DATA | | | | INTERPOLATED DATA | | |
|--------------|---------------------|-----------|------------|-----------------|-------|--------|------------------------|-------------------|-----|----------|
| | | | (+) (-) | Instrument Type | Depth | Dip | Azimuth | Depth | Dip | Azimuth |
| 1 | Attitude | + | | SURVEY | 0 | | | 12 1/2 | 22° | 131 1/2° |
| | | | | CAMERA | 30 | +2 1/2 | 126° (-120) | 37 1/2 | 21° | 1325° |
| 2 | Hole No. | 1394 | | | 56 | +19 | 123° (-127) | 62 1/2 | 18° | 153° |
| 3 | Down Hole Interval | 25 | | | | | | | | |
| 4 | Collar | 15538-051 | N | | | | | | | |
| 5 | Co-ords. | 11030-976 | E | | | | | | | |
| 6 | Collar R.L. | 119.53 | | | | | | | | |
| 7 | Halls Sect. Qa | 15623-938 | N | | | | | | | |
| 8 | Intersect Point | 10935-748 | E | | | | | | | |
| 9 | Battery Sect. FA | 15409-213 | N | | | | | | | |
| 10 | Intersect. Point | 70838-117 | E | | | | | | | |
| 11 | Start Plot (Depth) | 0 | 0 = Collar | | | | | | | |



C1354

Bearing (grd)

DIP

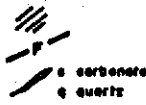
L1354

Feature

Bedding
Foliation
Fragment
size & shape



Shearing
Fault
Vein



Mineralization

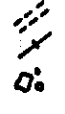
Trace 1-5%
Common 5-15%
Abundant 15-60%
Massive > 60%

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| CORE RECD | DEPTH m | GEOLOGY | VISUAL LOG | TRACE | COMMON | ABUNDANT | MASSIVE | DEPTH m | MINERALIZATION |
|-----------|---------|--|------------|-------|--------|----------|---------|--|---|
| 25-27 | 0-60 | Groundmass is finely intermingled dark green chlorite, pale brown yellow carbonate, qtz and flint aggregates. Minor less than 10cm chert bands. | | | | | | | |
| 26-32 | 0-33 | SHALE - f.g. siliceous dark brown shale SANDSTONE e.g. to m.g. pale grey, locally mottled qtz, mica, minor pp. Irregular mottling due to chloritic alteration. Minor thin shaly partings. Colour in places is brownish. Sections of the core are broken and ground, contact not defined. Fine interstitial carbonate. | | | | | | | |
| 32-36 | 1-48 | SHALE Massive fine grained, partially siliceous dark brown shale. Irregular pale yellow chloritic streaks over initial 50cm (massive) Contact 45° to C.A. | | | | | | 30 to 40 qtz vein fragments | |
| 35-36 | 3-06 | Less 20% sulphides - irregular plates of py clots and aggregates of po, dpy, py - fine spotty carbonate visible. Dark green f.g. chert qtz, carbonate flint matrix. | | | | | | py, 10% po 7%, dpy 2%, coarse chert 8% carb, 15%, qtz 20% flint 5%. | |
| 37-41 | 2-84 | SHALE Fine grained mid grey to grey brown massive shale - irregular cherty zones - locally silicified. Contact 45° to C.A. | | | | | | | |
| 38-41 | 3-18 | SHALE - m.g. mid grey qtz mica - 45° contact SHALE f.g. siliceous dark brown shale and cherty shale - chert segregations | | | | | | | |
| 41-45 | 2-44 | RECOVER WEARLY MINERALIZATION SHALE - brown grading into bleached tan f.g. shale SHALE Fine grained weakly foliated pale grey to grey brown - locally silicified. Fine carbonate spotting common. Contact not defined. | | | | | | | py, py TO VISIBLE FAULT ZONE? 20 to 40 - A |
| 42-50 | 2-92 | SHALE - f.g. massive structureless dark grey, occasionally dark brown. Very rare thin calcite veins. Contact 85° to C.A. | | | | | | | FAULT ZONE? |
| 53-55 | 2-98 | BASALT - Initially bleached altered to 54.22 with abundant chert filled fractures and segregations. Remains m.g. green chloritic bleached fine carbonate spotting locally calcite veins | | | | | | 52-54 qtz, carbonate chlorite vein to 60 C.A. 55-57 10cm qtz carb, dpy, po vein 60° to C.A. | |
| 56-60 | 3-13 | WAPSHALE f.g. well bedded brown grey green and green buffs - beddy 85° to C.A. - irregular chlorite vein common - locally silicified - qtz vein contact | | | | | | 58-70 2cm bedded qtz, carb, py, flint filled FAULT. 89° to C.A. | |
| 62-71 | 2-98 | BASALT Massive homogeneous dark green f.g. basalt - variation from finely veined chlorite stringers and clots to finely spotted carbonate filled. Locally calcite filled vesicles occur. | | | | | | 64-74 10cm qtz, carbonate vein c po, py flint 5° to C.A. | |
| 65-76 | 3-07 | | | | | | | | |
| 68-80 | 3-07 | | | | | | | | |
| | 68-80 | End of hole logged A. Eadie 10/8/79. | | | | | | | |

Feature

Bedding
Foliation
Fragment
size & shape



Shearing
Fault
Vein



carbonate
quartz

Mineralization

Trace 1-5%
Common 5-15%
Abundant 15-50%
Massive > 60%

| CORE RECD | DEPTH m | GEOLOGY | VISUAL LOG | TRACE | COMMON | ABUNDANT | MASSIVE | DEPTH m | MINERALIZATION |
|-----------|-------------|-------------------------------------|------------|-------|--------|----------|---------|---------|----------------|
| | | | | | | | | | |
| | 0 - 0.7 | Shale | | | | | | | |
| | 0.7 - 3.0 | Lead | | | | | | | |
| | 3.0 - 12.0 | Shale, with tuff from 6-9m | | | | | | | |
| | 12.0 - 20.7 | Shale, with minor sandstone | | | | | | | |
| | 20.7 - 25.9 | Lead 10 cm of chert @ end. | | | | | | | |
| | 25.9 - 30.4 | Sh. broken | | | | | | | |
| | 30.4 - 33.0 | Sh | | | | | | | |
| | 33.0 - 34.5 | Lead with minor chert | | | | | | | |
| | 34.5 - 50.7 | Shale F at 39.0 & 41.0 - 41.5 | | | | | | | |
| | 50.7 - 55.9 | Vb | | | | | | | |
| | 55.9 - 60.3 | Sh. | | | | | | | |
| | 60.3 - 63.9 | Shale + tuff | | | | | | | |
| | 63.9 - 69.9 | Vb E.O.H. | | | | | | | |

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