REPORT ON RESULTS OF THE LEGACY EXPLORATION PROJECT IN COLEMAN TOWNSHIP ONTARIO

BY

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INTRODUCTION

In the report "The Objectives of the Cobalt Exploration Project", written to apply for financial assistance through the Ontario Mineral Incentive Program, it was stated that ..."The Objective of the Exploration Project is to determine from where the silver, cobalt and copper (mineralization) originated". This very ambitious statement may be modified without loss of purpose to read " The Objective of the Exploration Project is to seek further evidence that will lead to the understanding of how and from where the silver, cobalt and copper mineralization originated."

To this end, a diamond drill hole was spotted in a locality of the Cobalt Silver Mining Camp that had been one of the most productive silver producing areas, See Figure 5. The hole was drilled nearly vertical down to 5,000 feet to determine whether the rock type would change to a more acid phase. A rhyolitic sequence would give reason to rethink the origin of the silver mineralization. By comparison with the Noranda Camp, the mineralization may have a connection with the last phase of a volcanic cycle, in which case it may not be as closely linked to the Nipissing Diabase Sill, as presently thought.

DRILL HOLE LOCATION

The site for the location of the drill hole was influenced by the pattern of mineralization in the Cobalt Camp and specifically in Concession 6, Lots 3, 4, 5 and 6 of Coleman Township. (Mineralization is here defined as a mineral occurrence of economic significance.)

In this respect we note:

(a) The silver-cobalt arsenide mineralization is epigenetic. It is foreign to the Huronian and diabase rock types and probably the lava rock type adjacent to the relative contact.

(b) The mineralization is confined to the southwest side of the Thomson Contact, that is the mineralization of significance occurs in the Huronian sediments or Nipissing Diabase that overly the lavas. The same rock types overlying the turbidites are not mineralized; (exceptions (i) veins around O'Brien No. 14 shaft, and Deerhorn).

(c) Mineralization does not occur in the Keewatin turbidites (e.g. north part of Deerhorn, Nerlip Property, Mentor Property, Genesee Property.)

(d) Mineralization is apparently associated with the last phases of a volcanic cycle in the Keewatin volcanics, as it is in the Noranda Camp.

(e) Where the Thomson contact is offset along the Cobalt Lake Fault, so is the mineralization, See Figure 4.

(f) The Cobalt Lake Fault is mineralized from place to place from the McKinley-Darragh in the south until it is truncated by the 64 - O'Brien Fault, after which it is barren to the northeast. Figure 4.

The field data would indicate the silver vein mineralization is limited to the southwest side of the Thomson Contact. It occurs in the last phase of the volcanic sequence as predicted in theory by Goodwin, (1968), Figure 1, and observed by Lovell (1978) Figure 2. Its occurrence is limited to certain areas of the breaks, such as the Cobalt Lake Fault, 64 Fault and the O'Brien Fault.

These features suggest the mineralization has been derived by migration from a source not far below the present rich silver vein deposits.

More evidence is required to support the theory that if a mineral concentration occurring in a rock type, produced by a particular volcanic event as observed in Noranda Camp, Knuckey et al, (1982) Figure 3, existed, and if such a deposit were disturbed by some phenomena, in this case the Nipissing Diabase Intrusion, or possibly some yet unexposed other intrusion then the minerals might be caused to migrate, provided the rock were fractured to produce channel ways. Thus the site chosen was based upon the richness of the veins in the area; the geological setting and the fracturing of the rock types. Figure 4.

DRILL HOLE SUMMARY & RESULTS

A summary log of hole 1-91-2 reads:

0' - 6'	Casing
6' - 41'	Diabase
41' - 383'	Andesite with pillow structures
383' - 404'	Sedimentary formations with a horizon of pyrrhotite nodules
404' - 3170'	Brecciated pillow lavas with black matrix
3170' - 3330'	Tuff partially brecciated
3330' - 5008'	Andesite with occasional pillows

From 0' to 5,000 feet there was no apparent change in rock type to a more siliceous phase as anticipated, and so the hole was stopped at 5008'.

To determine whether any mineralization occurs in the proximity of the hole a pulse electro-magnetic survey was conducted down the hole by Crone Geophysics Ltd. of Toronto. In addition, whole rock analysis for 20 of the common oxides was taken from a representative ten foot section every 200 feet. These samples were also tested for traces of nine elements of the base metal series.

The electro-magnetic survey indicated an anomaly between 160 to 200 feet south of the hole at a horizon between 3,100' and 3,600'. See Crone report page 2, and Falconbridges assessment case 1.

The whole rock analysis did not indicate a major alteration zone in the vicinity of the hole.

In planning Hole L-91-1 the downward projection of the O'Brien Fault and Thomson Contact were estimated. Figure 5. The hole was not expected to cross either before 4,500 feet. However, Hole L-91-1 cut the O'Brien Fault at 3,000 feet. Hole L-92-2 was then started and deflected by wedges to keep it on the volcanic side of the O'Brien fault and Thomson contact. This proved successful down to 5008 feet.

The hole was stopped at 5,000 feet because there appeared no evidence of rock type change to a more rhyolitic phase - See Figures 6 (i) & (ii).

It was hoped that information from depth, and which to date could only be speculated upon, would add to the knowledge already known and hence encourage the search for more mineral deposits.

CONCLUSIONS

The two holes, L-91-1 and L-91-2 defined beneath the diabase from 41 to 383 feet, a zone of unmineralized pillow lavas. From 383 to 775 feet is a zone of lavas mineralized with pyrrhotite in the pillow selvages and breccia matrix. Below that, the mineralization is much less and gradually becomes non-existant below the 1500 foot mark.

The presence of nodules of pyrrhotite in the sediments around 400 feet indicates that volcanic activity was present somewhere in the vicinity.

Because the formations dip to the southwest at about 70 to 75 degrees, and since the drill hole also dips to the southwest but at 88 degrees, the hole passes up the geologic seccession (Figure 7). From the sketch the location of the anomaly could be in the mineralized horizon and thus may be caused by a greater concentration of pyrrhotie, graphite or other sulfides.

Future work should be orientated to defining this horizon, and the basin within which it lies, for elsewhere within the basin other minerals may have been precipitated. In which case there could be mineralization without rhyolite.

B.H. Townley P.Eng
11th January 1992

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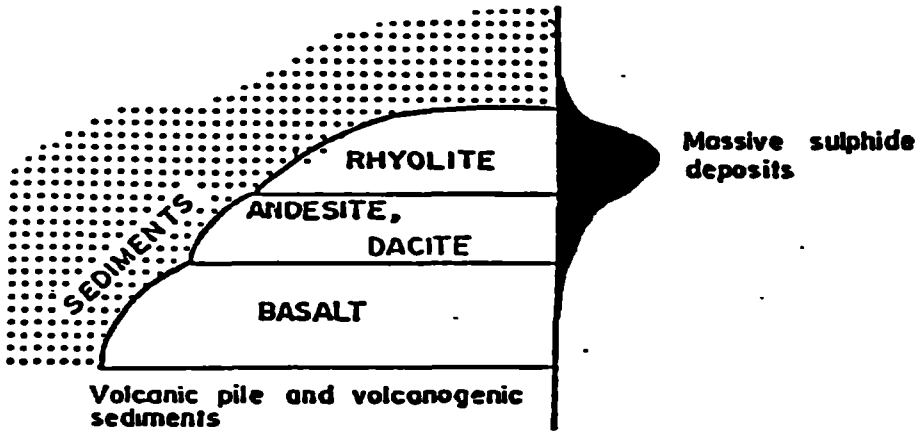


Figure 1 Relative abundance of massive sulphide deposits in the volcanic and sedimentary components of a schematic Archean volcanic pile (modified after Goodwin, 1968

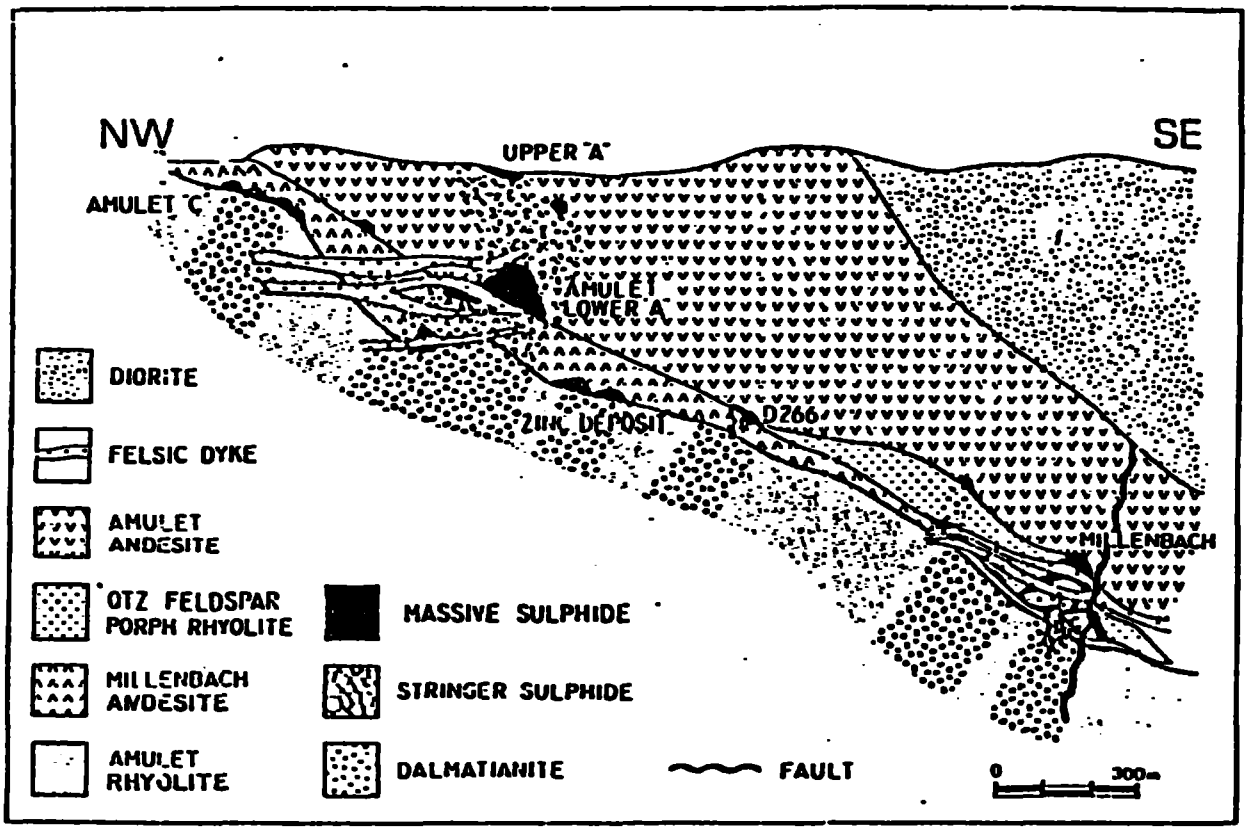


Figure 3 Cross section in the Amulet - Millenbach area showing the gentle dip of the volcanic strata, relationship of the deposits to the top of the silicified rocks of the Amulet formation, upper member, and to alteration pipes ("dalmatianite"), pillowed and massive units in the Millenbach and Amulet Andesite formations after Knuckey et al. (1982).

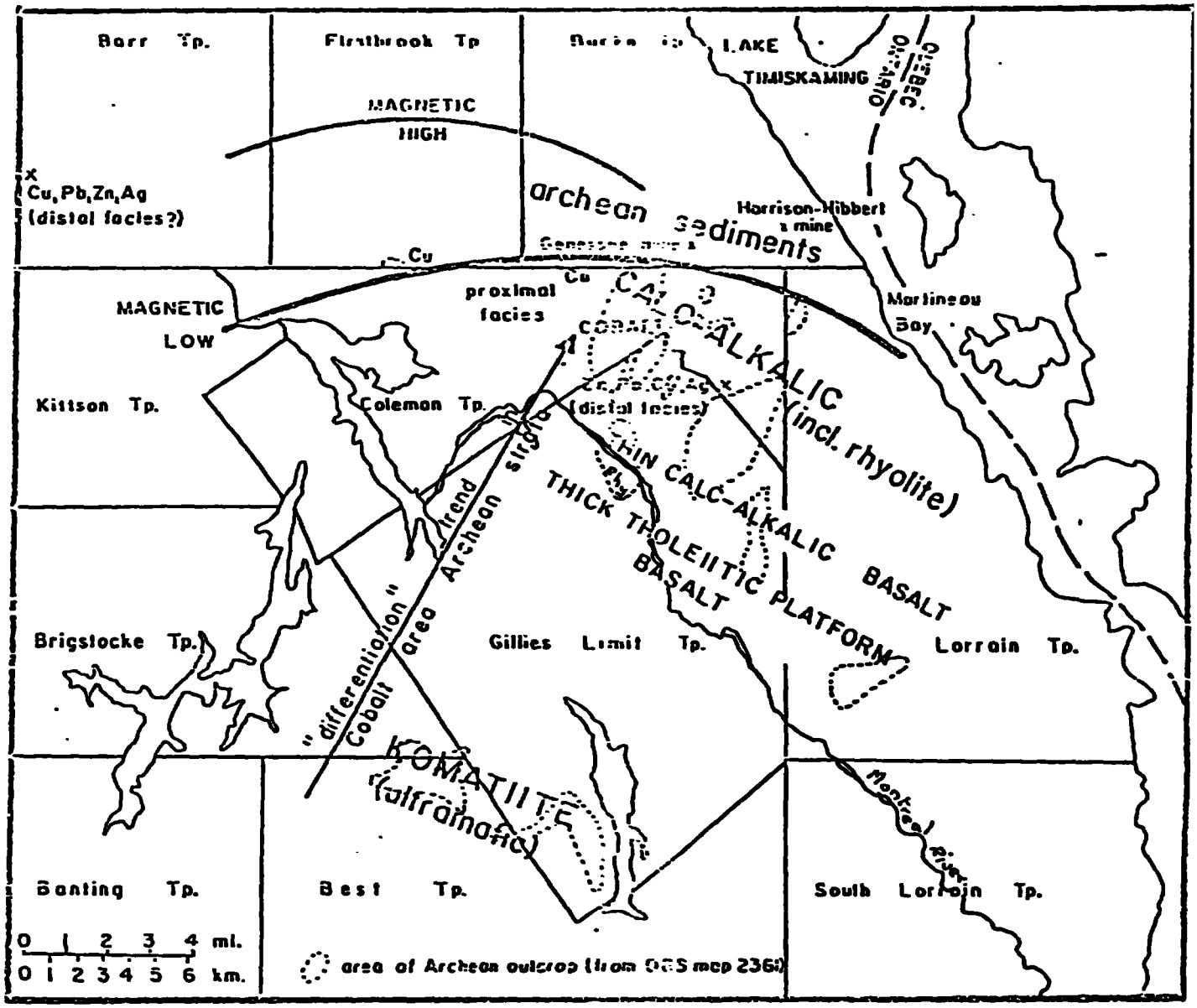


Figure 2 Archean stratigraphy of the Cobalt area (After H. Lovell 1978)

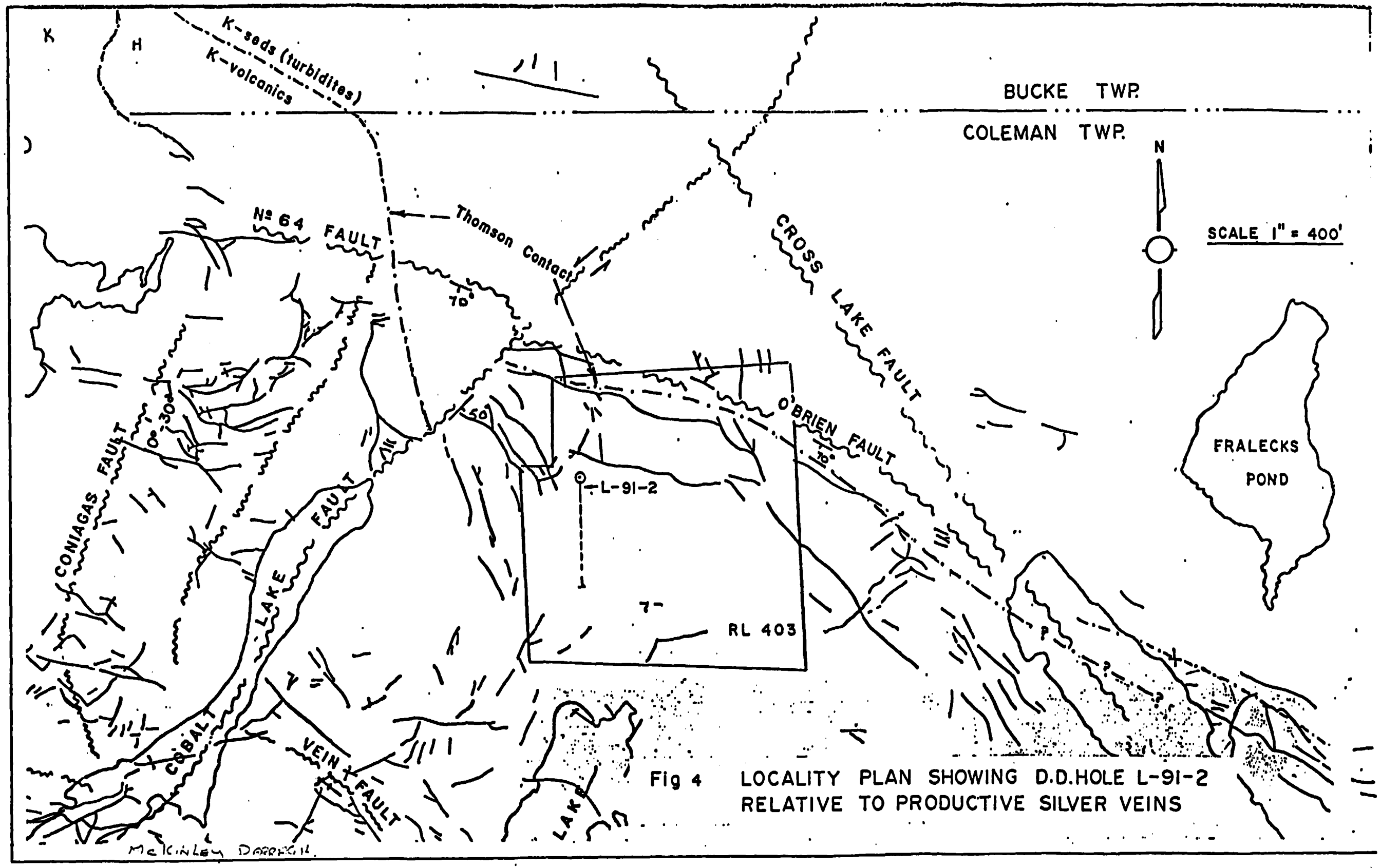
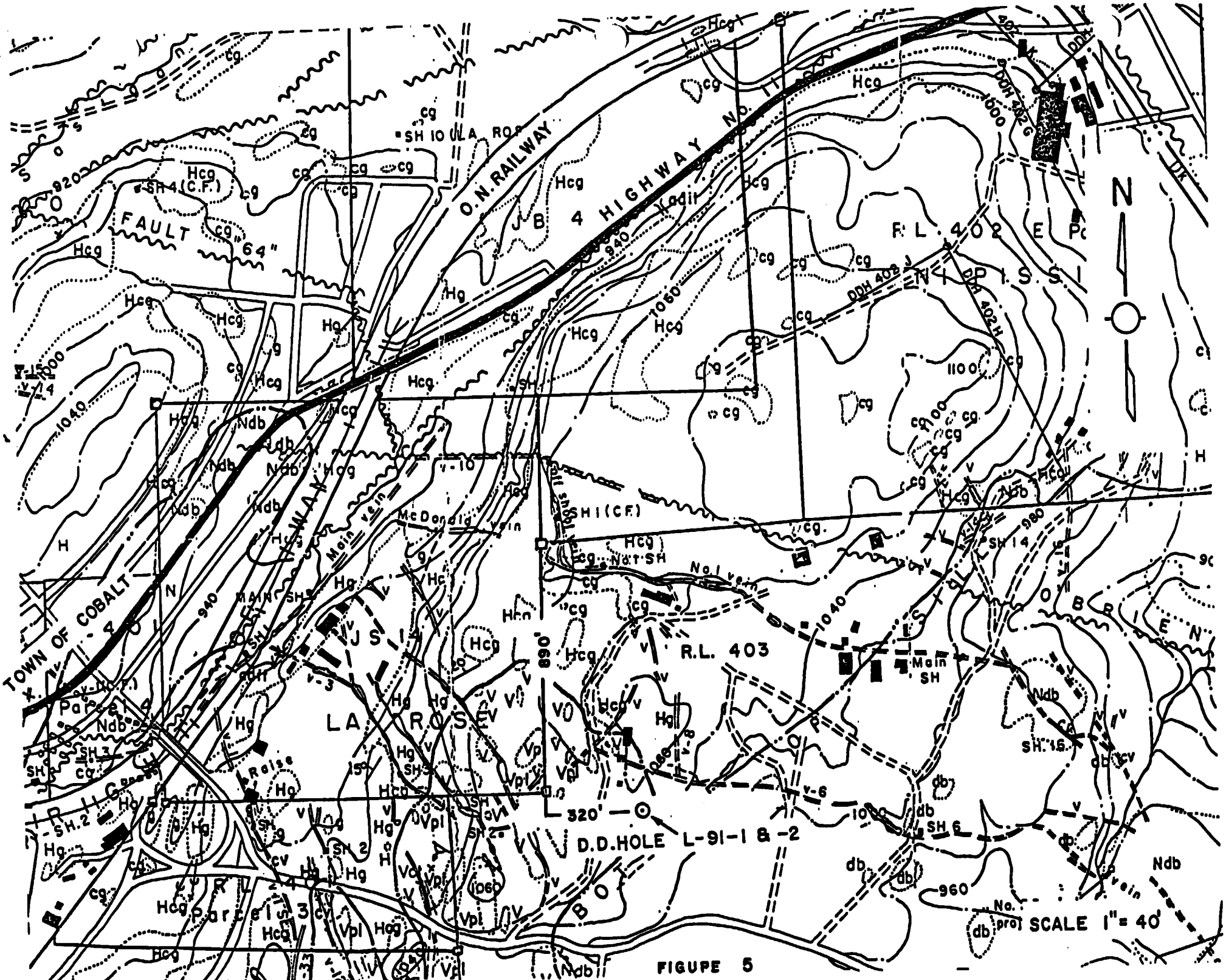


Fig 4 LOCALITY PLAN SHOWING D.D.HOLE L-91-2 RELATIVE TO PRODUCTIVE SILVER VEINS


O.N. RAILWAY
HIGHWAY No. 11
FAULT
64"
SH 10
SH 4 (C.F.)
SH 1 (C.F.)
TOWN OF COBALT
LA ROSE
R.L. 403
R.L. 402
320'
D.D.HOLE L-91-1 & -2
DDH 402 G
DDH 402 H
Main SH
McDonald Vein
No. 1 Vein
No. 1 prof
Parcel 3
Parcel 4
Hcg
cg
Ndb
Hg
Vpl
db
SCALE 1" = 40'

FIGUPE 5

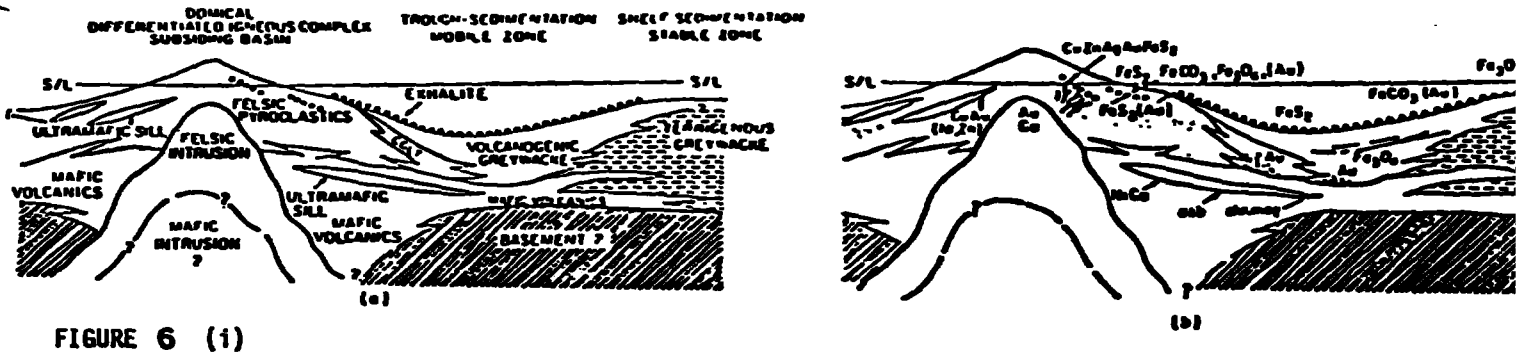


FIGURE 6 (i)

Tectonic-stratigraphic relations within an Abitibi-type volcanic-sedimentary complex (a), and the main mineral deposits within the complex (b). Knowledge of the form, structure and the development of Precambrian volcanic complexes can assist in the search for mineral deposits. Section is about 80 km wide, and 10 to 15 km thick. Figure after Hutchinson, Ridler, and Suffel, 1971.

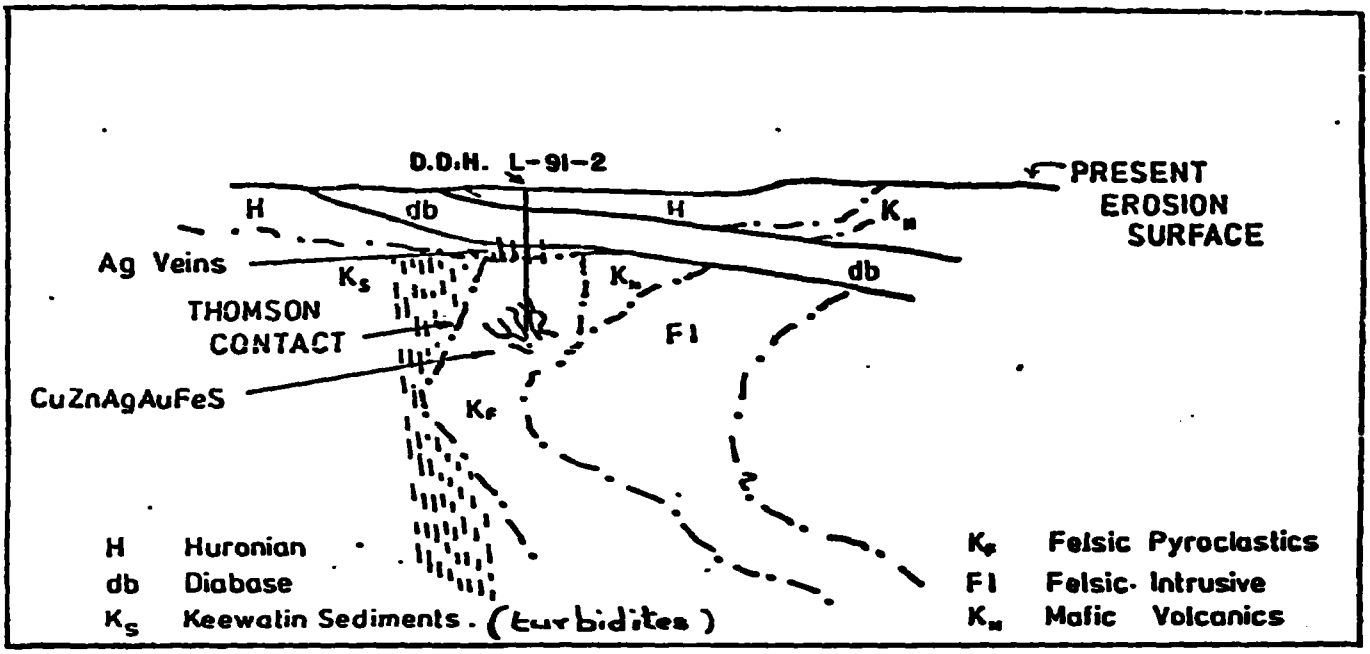


FIGURE 6 (ii)

Illustrates how, hypothetically, after folding, the formations have nearly vertical dips. Pictorally it shows where the silver is expected to be derived from and where it has come to rest. (The sketch does not show the mechanics of how the folding affected all formations.)

APPENDIX

NOV 18/91

DIAMOND DRILL RECORD

Property: Legacy Explorations, O'Brien Property **Hole No.** L-91-1

Location: Claim No. R.L.403 Rel. NW Cr. Post 897'S & 428'E **Azimuth:** 0 **Dip:** -89 N **Depth:** 3,592' **Horiz.Proj.:**

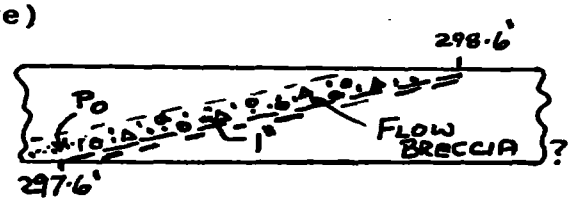
Collar Elev.: 1,040' a.s.l. **Core Size:** N-Q **Date:** 18/6/91 to 28/7/91

Drill Contractor: N. Morissette of Canada Inc.

Footage	Rock Description	Sampl
0 - 12	Casing	
12 - 44.0	Nipissing Diabase Med.gr. becomes finer near contact -- chilled zone 13" wide-contact sharp 70 deg.--typical diabase texture -- core broken by numerous slips lined with chlorite.	
44.0 - 3,592	Keewatin Rock Types	
44.0 - 53.8	Flow Lavas -- andesite - fine grained grey-green blotchy and streaked by yel-gry-grn alteration along margin of fractures. Evidence of pillow structures.	
53.8 - 58.5	Intrusive -- Basic in composition. Contacts sharp 60 degrees, Grey to dark grey med. grained -- flecked, due to crystals of black mineral (hornblende?)	
58.5 - 72.8	Flow Lavas (as above) with pillows	
72.8 - 82.1	Intrusive Contacts sharp 60 & 55 degrees rep. grey - fine grained - relatively uniform in texture - fine grained and lighter grey in colour adj. to fractures - Basic composition.	
	@ 75.6 slip with 1/4" chlorite fibrous gouge n.v.m.	

DIAMOND DRILL RECORD

Hole No.L-91-1 Page 2

Footage	Rock Description	Sample
82.1 - 244.6	Flow Lavas (as above) with good pillow structures. Sometime small pillows. @ 105' slip with 1/4" fibrous gouge (60 degrees) n.v.m. @ 169.7 Marked conc. of Po. in some pillow selvages @ 212.4, 215.0, 216.4, 3" zones of breccia in pillow matrix n.v.m. @ 212.4 minor Po. in matrix	
244.6 - 254	Intrusive Dark grey, fine grained, uniform in appearance, contact sharp at 244. Contact at 254 (50 degrees) sharp. Over 3 feet adj. to contact intrusive has black crystals (hornblende) in fine grained grey matrix.	
254 - 325.3	Flow Lavas (as above) 297.6 - 298.6  @ 322.3  	
325.3 - 330.7	Intrusive Med. gr. - grey = uniform in appearance. Contact sharp, @ 225.3 irregular: at 230.7 80° Basic composition.	
330.7 - 333.9	Flow Lavas (as above)	
333.9 - 338.8	Intrusive - as above with charac. black flecks of mineral near contacts (hornblende) Contacts sharp 80 degrees.	

DIAMOND DRILLING RECORD

Hole No. L-91-1 Page 3

Footage	Rock Description	Sample No

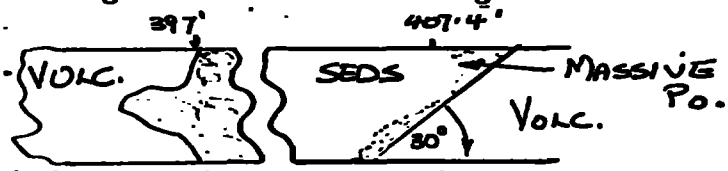
338.8 - 372.7 Flow Lavas (as above)

365' - 372.7' Zone with dissem. Po.

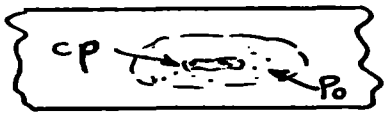
372.7 = 376.5 Intrusive - Grey fine grained. Contact at 372.7' sharp with 1/2" Ca. struct. 50 deg., but gradational at 376.5'.

376.5 - 397.0 Flow Lavas - with possible pillow structure @ 393.7 - 397.0 altered zone light grey-bleached with minor disseminated Po.

397 - 407.4 Sediments Jet black argillite -- with large blebs & nodules of Po., and graphite on slips. No evidence of bedding.



Sediments in unbedded - massive - very fine grained soft. Contact at 407.4, 30 degrees.



Sulphide bleb in in black sed.

407.4 - 413 Transition Zone --seds. & volc. interlayered with dissem. of Po. and traces of Cp.

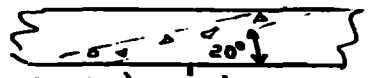
413 - 437.8 Flow Lavas brecciated with black sedimentary matter and with dissem. Po.

437.8 - 443.0 Sediments Jet black argellite with blebs and stringers of Po., traces of Cp. Contacts about 30 degrees.

@ 439.5' 1" to 3/4" grey-white Ca. with minor Po. and traces of grey metallic 40 degrees.

DIAMOND DRILL RECORD

Hole No. L-91-1 Page 4

Footage	Rock Description	Sample No.
443 - 511.3	Flow Lavas Andesite brecciated with black matrix in places well mineralized with Po. - streaks or blebs. Fractures in lavas impregnated with Po.	
448.2 - 452.6	Intrusive Grey-fine to med. grained - contacts sharp 85 and 70 degrees resp. - basic composition.	
454.1 - 457.1	Intrusive As above contacts sharp 70 & 60 degrees resp.	
	@ 503.8' Possible flow structure (20 degrees) 	
	504.8 - 505.3 Aplitic Structure - pink feldspar and some calcite.	
511.2 - 561	Flow Lava - Andesite -- only locally brecciated - matrix black. Contact (?) at 511.2 about 30 deg. Black matrix not scratchable with nail.	
	Some dissem. Po. all through. Contact at 561' arbitrary or gradational.	
561 - 1,022	Flow Lavas Brecciated with black matrix and dissem. Po. in matrix. Some fractures mineralized with Po. At 567 Po. + Cp.	
	Po. Mineralization 397' - 775'.	
	@ 582.5' 1/2" grey white Ca. with Po. (60 degrees) no marked W.R. alt.	
	597 - 602 Zone with slips following grain of core -- no alt.	

DIAMOND DRILL RECORD

Hole No.: L-91-1 Page 5

Footage	Rock Description	Sample No.
561 - 1022	@ 617.8 4" Altered zone with orange silicate + Ca., with ZnS, 80 degree contacts distinct but not sharp. 620-647 Po. more concent'd. Occurs as stringer & streamers following grain of core. After 677' white Ca. stringer became conspicuous, stringers and lenses from 1/4" to 2" wide. Sometimes mineralized with Po. and some Q. No marked W.R. alt. or zones. Ca. stringer occurrence every foot. 765.6 - 766.7 Irregular Ca. structure - minor Po. --adj. W.R. is altered to lighter grey. Med. grey near centre 792 - 802.	
775.8 - 820.7	Intrusive Fine grained - grey Contacts sharp but not chilled 85 & 50 degrees - basic composition. Po. Mineralization 397' - 775' Marked drop off in conc. after 775 - occurs only locally in fractures of in bleb in matrix. Last significant large blebs of Po. at 845. Po. still present but in minor amounts. @ 847.6 1-1/2" white Ca.(25 degrees) n.v.m. - no marked W.R. alt. @ 864.8 6" white & pink Ca. (30 degrees) n.v.m. - no marked W.R. alt. @ 870.9 3/4" Ca. structure (30 degrees) with mineral, grey metallic platty cleavage, cubic, grey colour, soft - galena. 3/4" sheared zone. @ 961.0 2" white Ca., irregular margins, 50 degrees, with trace of Po., Cp. & ZnS in fractures in adj. W.R. - Nothing in vein.	

DIAMOND DRILL RECORD

Hole No.: L-91-1 Page 6

Footage	Rock Description	Sample N
1084 - 1102	Altered zone effervesces with HCl -- Colour change to light grey between 1085.5 - 1091. n.v.m.	
1094.3 - 1096.2	Intrusive Fine grained, grey, uniform in appearance Contacts sharp (85-90 degrees) --Basic Composition.	
	@ 1113 Breccia - 3" wide - with Po. & tr. Cp.	
1084 - 1100	Alt. Zone - every crack effervesces with acid - paler grey in colour.	
	1106.6 2" white Ca. irreg. margins, 60 degrees n.v.m. no W.R. alt.	
	1124.5 2" Ca. with axionite n.v.m. 70 degrees, n.v.m., no W.R. alt.	
	1152 2-1/2" white Ca. (70 degrees) n.v.m., no W.R. alt.	
	1167 2" White Ca. tr. Po. & Cp. 60 degrees	
	1179.8 1/2" White Ca. with bleb of Cp. in adj. W.R. in bl. matrix of breccia	
	@ 1186 It appears the fragmentals are brecciated pillows -- Po. sometimes present in matrix or fractures. See also 1227'.	
	1233.7 2" Grey-white Ca. (80 degrees) n.v.m., no W.R. alt.	

DIAMOND DRILL RECORD

Hole No.: L-91-1 Page 7

Footage	Rock Description	Sample No.
	1236.0 ¼ x 3/8" Ca. strgs - all parallel -- n.v.m. 85, no W.R. alt.	
	1279.5 3" Grey-white Ca. 70 degrees, n.v.m. no W.R. alt.	
	1291.6 1-1/2" Grey-white Ca. 60 degrees, n.v.m. no W. R. alt.	
	1352.5 3-1/2" White Ca. 70 degrees, n.v.m, no W. R. alt.	
1325.6 - 1329.2	Intrusive Fine grained grey contacts sharp 65 & 70 degrees resp. -- Basic composition.	
1022 - 1445	Pillow lavas brecciated -- matrix between pillows and pore spaces in breccia filled with black silicate -- sometimes minor Po. evident -- Can recognize pillow structures. Zone intruded by thin lenses of a basic rock type.	
	Between 1022' - 1576' Minor amounts of Po. Occasional small blebs in breccia matrix. Ca. filling fractures still prominent mostly 90-60 degrees i.e., flat lying fracture fillings.	
	@ 1445 possible contact -- 2" brecciated zone 20 degree contact irregular -- rubble comprised of black type, grey-green type and intrusive rock types.	

DIAMOND DRILL RECORD

Hole No. L-91-1 Page 8

Footage	Rock Description	Sample No.
1445 - 1474	Flow Lava Less fractured and therefore less brecciated -- more uniform in appearance, no pillow structures. Still laced with Ca.	
1474 - 1478.7	Flow Lavas andesite - no pillows not brecciated.	
1478.7-1487.6	Intrusive (as above) basic type	
1487.6-1494.6	Flow Lavas (as above)	
1494.6-1507.8	Intrusive as above, basic type	
1507.8-1513.3	Flow Lavas (as above)	
1513.3-1526.8	Intrusive as above (contacts sharp 70 degrees) Basic type.	
1526.8-1536.5	Flow Lavas (as above)	
1536.7-1538	Intrusive (as above) Contacts sharp (60 degrees) Basic type.	
1538 - 1733	Flow Lavas -- with pillow structures - brecciated with black matrix and minor dissem. Po. esp.at 1658 & 1662.	
	1722.5 to 1733 Continuous rubble layer. Possible contact at 1722.5 (20 degrees) Less Ca. stringers or lenses after 1617 feet.	
1565 - 1616	Intrusive Contacts sharp 30 & 40 degrees resp. Grey fine grained in uniform texture -- Basic Type.	

DIAMOND DRILL RECORD

Hole No. L-91-1 Page 9

Footage	Rock Description	Sample N

1628 - 1633 Intrusive Contacts sharp 30 & 60 degrees resp. Basic type.

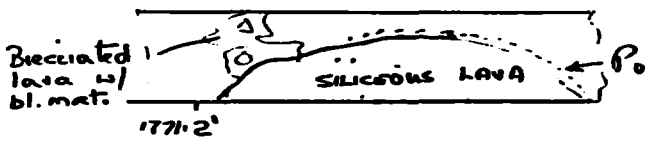
1637 - 1648.5 Intrusive Contacts sharp 30 & 20 degrees resp. Basic type.

1642 - 1648.5 Intrusive Contacts sharp 45 & 20 degrees resp. Basic type.

1733 - 1765 Intrusive Contacts sharp 30 & 50 degrees resp. Grey - fine to med. grained. Basic type.

1765 - 1770 Rubble zone with pyrrhotite in places.

at 1771.2



1770 - 1887 Flow Lavas Generally brecciated lava with black matrix and less pillow structures than before.

1770-1797 Rock fractured in places with black matrix. Fractures too occasional to be called breccia -- but grades into breccia after 1797.

1797 Become well brecciated with black matrix very evident -- only minor Po.

1855-1868 Slight increase in Po. core.

1887 - 1894.8 Intrusive Contacts sharp 60 & 70 degrees resp. light grey fine grained uniform in appearance - Basic Inc.

1887 - 1912 Flow Lavas as above.

DIAMOND DRILL RECORD

Hole No. L-91-1 Page 10

Footage	Rock Description	Sample No

1912 - 1960.5 Flow Lavas less brecciated -- fracture with black matrix.

1960.5- 2147 Intrusive Grey - med. to fine grained, uniform in appearance - basic composition with inclusions.

1998-2002 Core broken along slips - no marked alteration.

2064-2070.5 Flow lava inclusion - brecciated & with Po. Also small lava inclusions at 2003-2004: 2039-2040.

2147 - 2227 Flow Lavas Brecciated (as above) no Po. 30% black matrix.

General alignment of rubble in matrix. Adj. rubble does not appear to fit with adj. piece. (Trend of layers is about 30 degrees to core) in major zones of rubble - where flows cracked & chalk filled with black matrix good fits of pieces observed.

2227 - 2267 Lavas -- with isolated lenses of black matter - core grey fine grained but weakly heterogeneous in appearance. No pillow or flow structures.

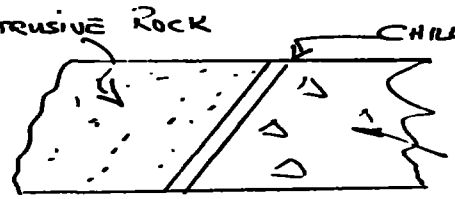
2267 -2356.3 Intrusive with incl. Irregular incl. in grey uniform matrix which is easily scratch with nail. (Matachewan dike?) Contact at 2267 sharp 20 degree -- fine grained along margin - med. to grey black rock type with phenocrysts - some greenish.

2287 Inclusions scattered through core -- too few to be an agglomerate - Matrix looks igneous.

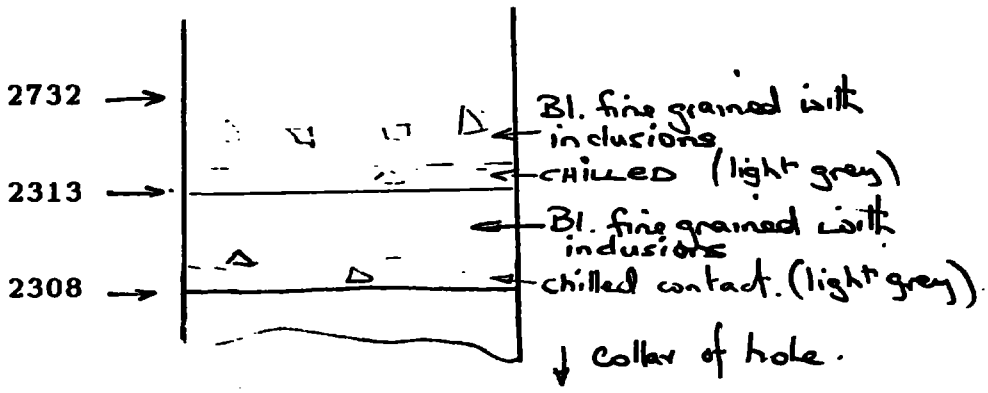
DIAMOND DRILL RECORD

Hole No. L-91-1 Page 11

Footage	Rock Description	Sample No.



@ 2308 Angular rubble still in fine grained andesite (may be large incl. in dyke)



2356.3 -2520 Flow Lavas Brecciated with occasional pillow structures with black matrix predominating.

2356.3-2407 Zone of marked brecciation with black matrix.

2407-2520 Zone of weak even sporadic small areas of breccia. Unbrecciated area cracks with black filling.

2408.3 4" Ca. white (70 degrees) n.v.m. No wall rock alt.

After 2410 Ca. occurrence almost insignificant.

DIAMOND DRILL RECORD

Hole No. L-91-1 Page 12

Footage	Rock Description	Sample No.
2520 - 2667	After 2520 Brecciated areas - matrix changing to grey-green. Pillow structures at 2520, 2537, 2616 & 2642. In all cases some Po. in pillow. Selvages (grey-green). @ 2619 1/8" Ca. stringer (90 degrees) of minor Po. and Cp. Instrusive dikes 2560.6-2563 grey med.gr. 60 degrees 2580.5-2583 grey med.gr. 70 " 2642.9-2644.5 " " " 70 " at 2633 Contact 80 degrees	
2657 - 2678	<u>Flow Lavas</u> - only locally brecciated with some pillow structures.	
2678 - 2694	<u>Flow Lavas</u> - brecciated -- 2675 pillow structure grey-green matrix 2685 " "	
2694 - 2724.8	<u>Tuffs</u> with pebble inclusions -- grey, med. grained granular in appearance. Contact at 2694 Sharp 60 degree- neg. Py. " " 2724.8 " 90 " - looks Chilled on lava side.	
2724.8 - 2732	<u>Flow Lavas</u> signs of brecciation.	
2732 - 2788	<u>Tuffs</u> with pebble inclusions -- in places, no pebbles. Appears to grade into rubble horizon No marked contact at 2788.	

DIAMOND DRILL RECORD

Hole No. L-91-1 Page 13

Footage	Rock Description	Sample No.
2788 - 2799	Rubble horizon is lava.	
2799 - 2842	Flow Lava brecciated with signs of black matrix - in places grey and in places black.	
2842 - 2870	Flow Lavas with signs of pillows -- unbrecciated. Pillow structure at 2846.	
2870 - 2873	Flow Lavas Brecciated with black matrix.	
2873 -	Flow Lavas Unbrecciated in composition as above. @ 2894.6 4" white Ca. (50 degrees)n.v.m. @ 2901 3" " " " " " 2902-2904 Zone with numerous Ca. stringers (fracture fillings) 2904 - Instrusive med. gr. grey uniform in appearance 2907.5 Contacts sharp 30 degrees.	
2907 - 2963.5	Flow Lavas -in part brecciated - after 2957 some linear trends apparent.	
2931 - 2937	Intrusive (as above) Contacts sharp 20 degrees.	
	After 2938 Flow lavas show breccia with bl.matrix.	
	@ 2960 strata parallel to core.	
2963.5 - 2984	Black Chert Bed extensively sheared with graphite smeared on faces (shines) Only traces of Po. Bed not uniform in appearance, some inclusions are quite large. Contact at 2963.5 sharp 40 degrees.	
	Flow with Po. & Cp. in bl. matrix.	

DIAMOND DRILL RECORD

Hole No. L-91-1 Page 14

Footage	Rock Description	Sample No.

2984 - 3013.5 Tuff Light grey - granular, with very small inclusions. Contact at 2984 sharp 30 degrees.

2963.5- 3002 - 3022 Extensively sheared about equal 40 degrees. (O'BRIEN FAULT ZONE)

3013.5 - 3016 Black Cherts Carbonaceous

3016 - 3021 Tuff (As above)

3021 - 3128 Tuff with interlaced black carbonaceous chert and laced with Ca. stringers - Py. occurs as stringers and small blebs sporadically mostly associated with chert beds at 3051 layering almost parallel to core.

3128 - 3142 Black Chert Bed -- in carbonaceous with some Py. in lenses and bleb. Most sections 100% conductor (OHM meter)

3142 - 3157 Tuff with interlaced black Chert.

3157 - 3162 Transition zone.

3162 - 3452 Sediments - Turbidites Fine grained well bedded grey and dark grey and black horizons. Typically slump and interfolded beds, grey beds thicker than black blebs which seldom are thicker than 1 cm.
Bedding about equal 40 degrees.
Tops down hole - graded bedding, ripple marks and flashes. Black beds not carbonaceous.

@ 3377 bedding 40 degrees
@ 3380.5 " 30 " Graded bedding indicates tops down hole
@ 3396 bedding 30 degrees
@ 3427 " 30 "
@ 3445 " 30 "
@ 3452 Fracture with traces of ZnS & Cp.
@ 3441 Py. on slip faces
@ 3379.5 Some Py. concentrated in bedding on fractures, 3" wide zone

DIAMOND DRILL RECORD

Hole No. L-91-1 Page 15

Footage	Rock Description	Sample No.
3452 - 3462	Flow Lavas Brecciated with black matrix. Contact indistinct. Very definite pillow structure at 3552. 3452'-3462' Flow Lavas black, very fine grained. 3168' to end of hole Ca. filling fractures also weak stringers (no W.R. alt.) Usually to bedding. After 3462' core becomes lighter grey, turning to grey-green. 3471'-3486' Well brecciated flows with bl. matrix and Po. in black matrix.	
3478.7-3480.1	Intrusive Fine grained with chilled bottom, but chilling not as apparent near top.	
	End of Hole 3,592'	

DIAMOND DRILL RECORD

Property: Legacy Explorations, O'Brien Property **Hole No.** L-91-2

Location: Claim No. 403 Rel. NW Cr.Post 897' S & 428' E **Azimuth:** Southward **Dip:** -88 deg. S **Depth:** 5,008' **Horiz.Proj.:**

Collar Elev.: 1,040' a.s.l. **Core Size:** 0-2457 N-Q 2457-5008 B-Q

Drill Contractor: N. Morissette of Canada Inc.

Date: 29 /7/91 to 28/09/91

Footage	Rock Description	Sample No.
0 - 12	Casing	
0 - 6	Overburden	
6 - 41	Nipissing Diabase Medium grained - dark grey. Contact at 41' in broken core. 39.2'-41' chilled diabase very fine grained. Cave at 32' & 36.5'. Core broken up from start.	
41 - 5008	Volcanic Rock Types - Keewatin Lavas	
41 - 383	Flow lavas with pillow structures @ 47', 51', 56',66' 92'. Some Po. in the matrix occurs from place to place. Pillow structures at 112', 158', 190', 200', 248', 268'.	
51 - 54.6	Intrusive Contacts sharp (70 deg.) medium grained, grey-black with hornblende.	
70.2 - 80	Intrusive Grey med. grained uniform in appearance - basic. Contacts sharp 60 deg.	
	73.2 - 73.6 Flow lava, probably an inclusion in intrusive.	

DIAMOND DRILL RECORD

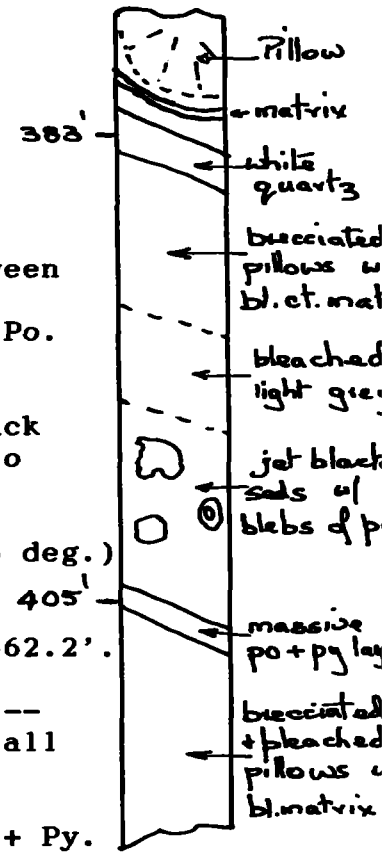
Hole No. : L-91-2 Page 2

Footage	Rock Description	Sample No.
81 - 84	Intrusive Possible two intrusives. 81-82 Basic type and 82-83 hornblende type contacts distinct N 70 deg. @ 102' minor Po. in matrix @ 107' Po. Fe. & ZnS in fractures. @ 219' Po. dissem. in pillow matrix @ 239' Po. " " " " ZnS occurs filling fractures at 248'.	
255.1 - 260	Intrusive Fine grained, grey uniform in appearance, basic. Contacts sharp 60 deg. @ 263' Bleb of Po. along margin of pillow.	
327.5 - 340.5	Intrusive Basic, med. grained, not homogeneous in appearance. Black fleck mineral (hornblende along margins of both contacts) Contacts sharp 60 & 70 deg. resp. Brown feldspar in places. Black mineral all through. Po. Zone 350 -- Concentration of Po. in pillow selvage with traces of Cp., becomes more conspicuous. @ 374, 1/4" Po. + Py. filled fracture (70 deg.) + chlorite @ 337.8, 1/4" Ca. + Po. + Py. (laminated) (50 deg.) @ 382.8, 4" white Q (50 deg.) n.v.m. (all broken up.) Po. concentration increases in places almost massive.	
383 - 390	Black Chert Bed - pale grey (due to alteration) lavas interlaced. At 493' well defined Cp. laced with Po.	

DIAMOND DRILL RECORD

Hole No.: L-91-2

Footage	Rock Description	Sample No.
390 - 404.8	Black Chert Bed with blebs & nodules of Po.	
	403.4-404.8 massive Po. with Py. (& Cp.?)	
	404.8-405.9 Grey-white siliceous section.	
404.8-441	Pillow Lavas with Po., unbrecciated.	
441 - 452.2	Pillow Lavas Brecciated with black matrix	
	441-442.6 Rubble bed - may be selvage between pillows.	
	A 402 2-1/2" Ca. (70 deg.) with dissem. Po. all through.	
	After 444' breccia spaces increase with black matrix filling. Breccia blocks weathered to light grey.	
	450.8-452.2 2-1/2" massive Po. layer. (25 deg.)	
452.2 - 455.9	Intrusive Fine grained, grey- uniform in appearance with possible inclusion at 461-462.2'.	
455.9 - 1070	Pillow Lavas Brecciated with black matrix -- pillows small, and grains and blebs of Po. all through. Minor ZnS in fracture at 470.2'.	
	@ 484.3 Slip with 1/4" seam of Chl. + Ca. + Py. 20 deg.	
	485.7-486.3 Red siliceous alteration zone 3-1/2" wide, 45 deg.	
	@ 498.5 Slip or break with carbon 1" wide 30 deg. No marked alteration to adj. W.R.	



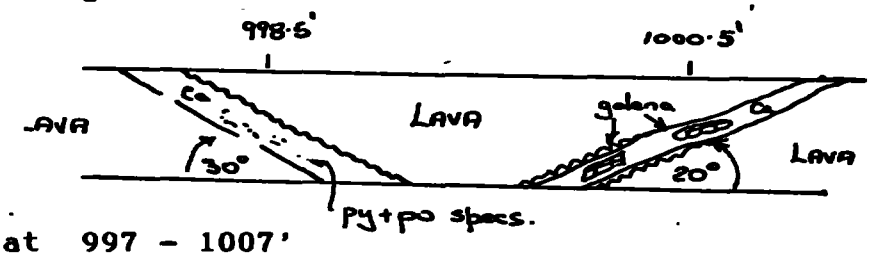
Footage	Rock Description	Sample No.
	WEDGE #1 at 607' 597' to 607'	
	@ 607 End of old Hole - New core starts at 597. Wedge used to deflect hole to south, i.e. flatten it.	
	@ 620.4 Slip and associated black lens with Cp. + Py. on face.	
	After 660 Ca. stringers start - one every few inches. Brecciation becoming less extensive and matrix seams are thinner -- Po. still present.	
	@ 671.4-673 1" to 1/2" Calcite stringer (15 deg.) with Po. dissem. in veins & stringer Po. along margin. Paler grey-green zone along margins of structure. Minor & trace Cp. along margins. Sample: 672.1-671.7, Trace Ag.	#16204
	After 670 Core becomes less brecciated --light grey-green - no pillow structures.	
	At 652 possible pillow selvages with Py. & trace ZnS.	
	At 659 Po. in fractures & black matrix between rubble.	
778.3 - 821.5	Intrusive Grey med. grained, speckled - rel. uniform in appearance -- diabase text.	
	After 827 brecciation again increases - Matrix with black deposit more evident - no definite pillow structures.	
	Significant Po. in black matrix at 952-954	

Footage	Rock Description	Sample No.

Possible pillow at 1021 + Po. 1029, 1032 and 1057 + Cp.

@ 998.5 - 999.1 2" Ca. + adj. slip with chlorite gouge Py. & Po. along margin 30 deg.

@ 1000 1" Ca. and 1/2" mud with large (1/4") blebs of galena - Same vein as at 998.5 20 deg.



WEDGE #2 at 997 - 1007'
End of old hole at 1007', new core starts at 997'.

1070 - 1282 Pillow structures recognized here & there This section fractured & brecciated and spaced filled by black matrix. Smattering of Po. all through.

1089 - 1093 Altered zone, pale grey in colour.

1093 - 1095 Intrusive Contacts sharp 70 deg. - grey fine grained - basic.

WEDGE #3 1231 - 1236 (End of old hole 1247')

@ 1286 Slip 25 deg. with stringer of Ca. + Po. + trace Cp.

DIAMOND DRILL RECORD

Hole No.: L-91-2 **Page 6**

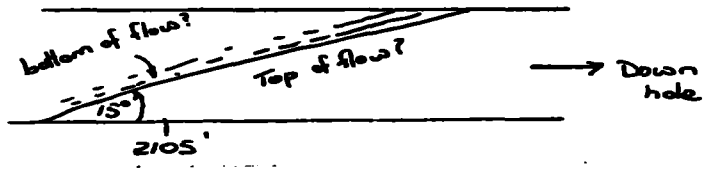
Footage	Rock Description	Sample No.
1282 - 1499.8	Pillow Lavas, brecciated. Pillows seen from place to place. Black matrix filling fractures in blebs of Po. in matrix in some places.	
1488.4-1493.0	Intrusive Contacts sharp (60 deg.) Black crystals of hornblende near contacts over about 12" - fine to med. grained - basic composition.	
1499.8-1512.7	Intrusive Contacts sharp 45 & 80 deg. resp. Fine grained grey basic composition.	
	After 1488' the brecciation & black matrix disappear. Last obvious pillow structure at 1464'. Po. in black matrix at 1482' + trace Cp.	
	WEDGE #4 1487' - 1491' (End of old hole 1502)	
1499.8-1810.5	Flow Lavas Grey med. grained less fractured than above - less black matrix - pillow structures absent.	
	Definite layering at 1565-1566 (50 deg.) Tuffs?	
	@ 1572 4" black inter. breccia matrix with Po. - margins irregular, not a specific horizon.	
	After 1513 Flows less fractured - more homogeneous in appearance - fine to medium grained and light grey colour.	
	1568-1576 - Minor black matrix filling fractures.	
	1601-1612 - Minor black matrix filling fractures.	
	1633-1634 - Less of black seds. or breccia matrix.	

Footage	Rock Description	Sample No.
	1645-1646 - Less of black seds. or breccia matrix.	
	Between 1677 & 1702 Zone of black matrix in lavas.	
	1702-1772 Flow lavas, no primary structure and featureless (as above)	
	1772-1780 Zone of black matrix in lavas.	
	1780-1810 Flow lavas featureless (as above)	
	1513'-1810.5' This section rock type is grey - fine to med. grained with certain irregularities. Only local horizons of fractured have black infillings - Tuffs?	
	At 1810.5 Contact sharp but irregular.	
	WEDGE #5 1811'-1817' (End of old Hole 1827)	
1810.5-2074	Pillow Lavas - Brecciated (few pillow structures) with black matrix to rubble. Po. spotty in black matrix and some magnetite in pillow matrix. Po. at 1832, 1834, 1836, 1843 and 1873.	
1889 - 1890	Intrusive (60 deg.) Fine grained in contact sharp - Basic.	
1893 - 1894	Intrusive Contacts sharp (50 deg.)	

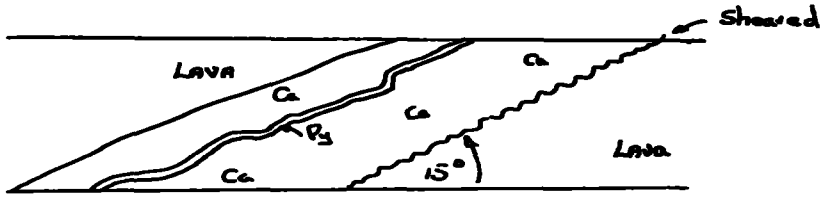
DIAMOND DRILL RECORD

Hole No.: L-91-2 Page 8

Footage	Rock Description	Sample No.
1956 - 1965	Intrusive - fine grained, grey - uniform in appearance -- Contacts sharp 50 & 40 deg. resp.	
	1965-1976 Rubble Layer - Angular brecciated and rounded blocks set in black matrix.	
2074 - 2150	Tuff Formation Some fractures carry black matrix - Generally light grey - med. grained	
2150 - 2834	Pillow Lavas Brecciated with black matrix up to 20% by vol. Pillow structures evident after 2257. Po. increases in concentration in matrix and occasionally Cp. is evident but after 2500' Po. mineralization again decreases to mere traces. Possible contact at 2105'. (15 deg.)	



2182.2-2183.0	Intrusive Fine grained grey in contact sharp 70 deg.	
	WEDGE #6 2221 - 2227 (End of old hole 2237')	
	2208.5-2209.3 1-1/2" white Ca. vein (20 to 15 deg.) with signs of Py.	



DIAMOND DRILL RECORD

Hole No.: L-91-2 Page 9

Footage	Rock Description	Sample No.

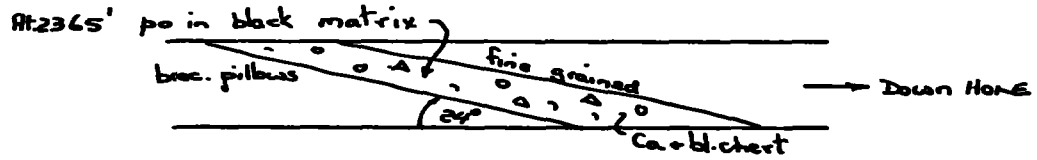
@ 2300' 2" grey white Ca. Vein (30 deg.) trace of Po. & Cp. in black breccia matrix.

Pillow matrix with Po. 2241, 2266, 2304, 2308, 2362, 2266, 2376 and 2396'.

2320.3-2323.3 Intrusive Contacts sharp 80 deg. Fine grained grey with black mineral crystals along contact.

2324.9-2325.3 Intrusive Contacts sharp 90 deg.

2395.4-2397.4 Contact - Flow bottom down hole



@ 2380 1/2" irregular Ca. in black chert seam 45 deg. n.v.m.

2402.7-2403.8 Intrusive Contacts, 80 deg. & sharp, basic.

@ 2425' 2" grey-white Ca. (45 deg.) n.v.m. No wall rock alteration.

2426.5-2431.0 Intrusive Grey fine to med. grained - basic, contacts sharp 60 deg.

DIAMOND DRILL RECORD

Footage	Rock Description	Sample No.

2453.5-2455.4 Intrusive (As above) basic, contacts sharp 60 deg.

At 2457' Switched from N core to B core in an endeavour to obtain a greater deflection on each wedge

@ 2612.6 2" weakly layered white Ca. Vein (60 deg.) n.v.m. - no alt. of W.R.

@ 2615.1 1-1/2" Ca. structure (60 deg.) - n.v.m., no alt. of W.R.

@ 2616.5 2" Ca. structure (50 deg.) - n.v.m., no alt. of W.R.

WEDGE #7 2739 - 2745' (End of Hole 2752)

2632-2633 Intrusive. Contacts, 70 deg. Grey fine grained basic

2636.5 Flow Line, 50 deg.

2642.3-2644.8 Intrusive. Contacts, 60 deg. Grey fine grained basic

2647.0-2648 Intrusive. Contact, 70 deg., Grey fine grained basic.

2655.2-2656.3 Intrusive. Contacts, 40 & 60 deg., Grey fine grained basic.

DIAMOND DRILL RECORD

Footage	Rock Description	Sample No.
2692.4-2699.0	Intrusive Contacts 70 & 30 deg. Grey fine grained, basic.	
2739-2744.4	Intrusive Contacts 40 & 70 deg. Grey fine grained, basic Brecciated lavas, with black matrix & occasional well defined pillow structures, fine, grey-green andesite.	
2753.7-2755.5	Intrusive Contacts 70 Deg. grey fine grained. @ 2830 3" siliceous intrusive contacts sharp 85 deg.	
2834.5-2839	Tuff Beds Contact at 2834.5. Nearly parallel to core (10 deg.) with dissem. Po. Po. also in cross fractures and traces of Cp. Dark grey to black and light grey beds, very thin about 4" wide. Between 2800' and 2900' some dissem. Po. and traces of Cp. in cross fractures.	
2839 - 3172	Pillow Lava Brecciated as previously and after 2900' very little Po. visible in matrix of brecciated pillows. Ca. stringers all through core.	
2931 - 2932	Intrusive Grey fine grained uniform, basic contacts 70 deg. 2933 - 2933.6 Ca. structure (45 deg.)n.v.m. 3120.3 2" Grey Ca. vein structure (30 deg.) n.v.m.	

DIAMOND DRILL RECORD

Footage	Rock Description	Sample No.
3172-3320.5	Tuffs Granular in appearance, grey with interflowing black precipitates, brecciated in places with black matrix. @ 3182 1" seam of black chert, whisky lenses with consistent layer of Po. Calcite also laced into layer plus Graphite. (10 deg.) @ 3190.8 - 3191.2 Irregular black chert lens with graphite. @ 3193 - 3195 1" to 1/2" layer or seam of black chert with graphite + minor Po. and Cp. to core. @ 3204 2" white Ca. structure (40 deg.) n.v.m. or W.R. alt. @ 3252 1" Black chert seam (10 deg.) with Po.	
3320.5-3329	Intrusive Basic, grey fine grained uniform in appearance. **WEDGE # 8** (End of old hole 3338') Driller reported the drill seemed to be in very soft rock around wedge and Acid test after wedge was the same as before the wedge. (?)	
3329 - 3695	Flow Lavas Brecciated with black matrix and minor Po. in matrix with possibly some pillows. @ 3373' Rubble lens with Po. in matrix. @ 3387' Po. - black matrix.	

DIAMOND DRILL RECORD

Hole No.: L-91--2 Page 13

Footage	Rock Description	Sample No.
	3436 - 3455 Numerous Ca. stringers and lenses. 20% of core is calcite with lenses and seams of black chert. No marked mineralization.	
	3455-3468 Sheared Zone. Pulverized and crushed rock laced with Ca. Tuff (?) With black matrix. Traces of Py. Shearing may be parallel to structure.	
	Between 3457.7 and 3460 Interlayed black chert lenses with Graphite (10 deg.)	
3481 - 3524	Intrusive Med. grained dark grey uniform in appearance, basic. Contact at 3524, sharp 25 deg.	
	Brecciation as a marked phenomena ceases after about 3450'. The black matrix now occurs as seams, and part of interpillow or interflow phases. Its presence apparently ceases at 3695' and the pillow selvages become green after 3695'.	
3695 - 4009	Pillow Lavas with green selvages.	
3664 - 3672	Intrusive Characteristically black speckled all through (hornblende). Contact at 3664 ground; at 3672', 40 deg.	
	Between 3695 and 3737 Numerous calcite stringers filling fractures, n.v.m., and no major (apparently) vein structures.	
	3704-3707 Broken core due to slips, 20 - 30 deg.	
3743 - 3746	Intrusive Dark grey with minor flecked black grained contact sharp 60 deg.	

DIAMOND DRILL RECORD

Hole No.: L-91-2

Footage	Rock Description	Sample No.
3759 - 3767	Intrusive Dark grey with minor black fleck med. grain uniform in appearance. Contact sharp 50 & 70 deg. @ 3784 12" diameter bleb of pyrrhotite. Pillow structure of green selvages at 3686, 3802, 3844, 3849, 3891, 3896, 3922	
3928 - 3929	Intrusive, Contacts 70 deg.	
3984.3-3985.1	Intrusive, Contacts 70 deg.	
4009 - 4300	Pillow Lavas Well defined pillow outlines occur regularly - pale grey green fine grained pillow matrix grey-green and barren of sulphides (minor traces of Po. in fractures) Pillow structure at 4452'. Calcite stringers decrease markedly after 3800'. @ 4035, 4055 to 4060, Siliceous lenses, interfolded. Between 3969' & 4050' weak signs of brecciation of lavas with black matrix no sulphides. @ 4035, 4055 to 4060 Siliceous lenses interfolded with lava, dark grey to black.	

DIAMOND DRILL RECORD

Hole No.: L-91-2 **Page 15**

Footage	Rock Description	Sample No.
4075 - 4076	Intrusive Black fine grained, basic- sharp contacts, 80 deg.	
4203 - 4206	Intrusive Black fine grained, basic- sharp contacts, 80 deg.	
4216 - 4218.5	Intrusive Black fine grained, basic- sharp contacts, 70 deg.	
	@ 4285 1" Q-Ca. vein structure (weak) n.v.m. (30 deg.)	
4300 - 4747	Flow Lavas Less well defined pillows with no significatn Po. mineral in selvages.	
4383 - 4392	Intrusive Dark grey med. grained - Contacts sharp 70 deg.	
4403.5-4405.5	Intrusive Dark grey med. grained - Contacts sharp 60 deg.	
4427 - 4432	Intrusive Grey med. grained diabase text., sharp 40 deg.	
4514 - 4553	Intrusive Dark grey med. grained, Contacts sharp 30 and 20 deg.	
	@ 4571.2' 2" White Q-Ca. vein (40 deg., n.v.m., no W.R. alteration.	
4588 - 4632	Intrusive Dark grey to black with mulch black amphibole mineral in medium grained Contact at 4585 sharp (70 deg.)	
	@ 4620.7 1" white Ca. vein (50 deg.) n.v.m., no W.R. alteration.	

DIAMOND DRILL RECORD

Hole No.: L-91-2 Page 16

Footage	Rock Description	Sample No.
4669 - 4679	Broken Ground No significant alteration, numerous slips.	
4739 - 4741	Intrusive Grey med. grained, basic composition. Contacts sharp 10 - 30 deg.	
4747 - 4797	Basalt (Intrusive) Grey, med. grained with black crystals of amphibolite (hornblende). Diabase texture. Relatively uniform in appearance. Contacts 60 deg. Sharp at 4747' but indistinct at 4797'.	
4797 - 4900	Tuff (?) or (same as above) fine grained with many small angular inclusions. Becomes lighter grey down hole and inclusions more numerous.	
	@ 4827 3" Calcite vein (50 deg.) n.v.m.	
	4828-4840 Sheared Zone Badly broken ground due to slips nearly parallel to core with Ca., n.w.m.	
	@ 4894 2" Calcite and sheared W.R. mixed (20 deg.) n.v.m.	
4900 - 4929	Andesite (Flow Lavas) Fine grained, grey-green, with primary structures (possible pillow at 4913') Contact at 4900 sharp 45 deg.	
4929 - 4972	Basalt Varies in appearance (Composition may be same as at 4747). Contact at 4929 gradational.	
	Contact at 4972 distinct 45 deg.	
4972 - 5008	Andesite (Flow Lava) grey-green, fine to med. grained, much broken up, no definite pillow structures. Flow contacts?	
	End of Hole 5008' 30th Sept. 1991	

COLE DIRECTIONAL SYSTEMS

PROPOSED CUT TO 3450' V.D. 763.5' SOUTH 94.25' EAST
(220' SOUTH 125' EAST OF L-91-2 @ 3450' V.D.)
APPROVED WITH AN AUTHORISED SIGNATURE ON DAILY REPORTS
WITH TARGET DATA NOTED

AGNICO-EAGLE — AEC100
L-91-2A PROPOSED — 15-DEC-91

MEASURED DEPTH	INCL. DEG	AZIMUTH DEG	TVD	STATION CO-ORDINATES NORTH	EAST	VERTICAL SECTION	DOG LEG
2200.00	11.98	182.4	2186.84	-202.58	10.42	202.34	0.00
2210.00	12.07	175.2	2196.62	-204.66	10.46	204.41	15.00
2240.00	12.09	175.4	2225.96	-210.92	10.98	210.68	0.19
2300.00	15.01	172.4	2284.28	-224.89	12.50	224.73	5.00
2400.00	19.93	169.4	2379.64	-254.49	17.35	254.71	5.00
2450.00	22.40	168.3	2426.27	-272.20	20.85	272.71	5.00
2500.00	24.90	168.3	2472.07	-291.83	24.91	292.69	5.00
2600.00	25.09	169.0	2562.70	-333.26	33.23	334.82	0.33
2700.00	25.28	169.6	2653.20	-375.06	41.14	377.28	0.33
2800.00	25.47	170.2	2743.55	-417.25	48.65	420.07	0.33
2900.00	25.67	170.8	2833.75	-459.83	55.76	463.20	0.33
3000.00	25.87	171.4	2923.81	-502.79	62.46	506.65	0.33
3100.00	26.07	172.0	3013.71	-546.12	68.76	550.43	0.33
3200.00	26.28	172.6	3103.45	-589.84	74.65	594.54	0.33
3300.00	26.49	173.2	3193.04	-633.93	80.14	638.98	0.33
3400.00	26.69	173.8	3282.46	-678.40	85.22	683.73	0.33
3500.00	26.91	174.3	3371.72	-723.25	89.90	728.81	0.33
3588.14	27.15	174.7	3450.24	-763.12	93.73	768.85	0.34

3588

THE DOGLEG SEVERITY IS IN DEGREES PER 100 FEET
THE VERTICAL SECTION WAS COMPUTED ALONG AZ. 173.00

BASED UPON MINIMUM CURVATURE TYPE CALCULATIONS. THE BOTTOM HOLE DISPLACEMENT IS 768.85 FEET, IN THE DIRECTION OF AZ. 173.00
WEDGE @ 2200' (TOP); ORIENT 90DG LEFT; PLUG @ 2215'
MOTOR IN 2240' OUT 2500' (260')
STABILISE AS NEEDED CORING TO TARGET

Accompanying map in back pocket.

COLE DIRECTIONAL SYSTEMS
GYRO DATA SPERRY-SUN

AGNICO-EAGLE
-91-2 GYRO

AEC100
15-DEC-91

MEASURED DEPTH	INCL. DEG	AZIMUTH DEG	STATION CO-ORDINATES TVD	NORTH	EAST	VERTICAL SECTION	DOG LEG
0.00	0.00	0.0	0.00	0.00	0.00	0.00	0.00
100.00	1.60	178.9	99.99	-1.40	0.03	1.39	1.60
200.00	1.42	163.7	199.95	-3.98	0.40	3.94	0.44
300.00	1.47	162.6	299.92	-6.39	1.13	6.30	0.06
400.00	1.50	182.2	399.89	-8.93	1.47	8.80	0.51
500.00	1.37	177.8	499.86	-11.43	1.46	11.30	0.17
600.00	3.33	163.3	599.77	-15.41	2.34	15.21	2.03
700.00	3.22	162.9	699.60	-20.87	4.00	20.55	0.11
800.00	0.04	172.7	799.55	-23.59	4.83	23.20	3.19
900.00	3.17	165.2	899.50	-26.29	5.54	25.85	3.14
1000.00	4.87	170.8	999.25	-33.15	6.93	32.60	1.74
1100.00	4.63	168.3	1098.91	-41.30	8.43	40.62	0.31
1200.00	4.50	172.9	1198.59	-49.14	9.74	48.36	0.38
1300.00	6.25	176.4	1298.15	-58.47	10.57	57.61	1.78
1400.00	6.25	180.1	1397.55	-69.34	10.91	68.44	0.40
1500.00	8.35	177.8	1496.74	-82.04	11.18	81.09	2.12
1600.00	8.28	178.1	1595.69	-96.50	11.69	95.47	0.08
1700.00	7.95	178.4	1694.68	-110.61	12.11	109.52	0.33
1800.00	9.53	180.0	1793.52	-125.80	12.30	124.66	1.60
1900.00	10.17	181.8	1892.05	-142.90	12.03	141.74	0.71
2000.00	10.37	181.1	1990.44	-160.72	11.57	159.56	0.23
2100.00	9.98	184.0	2088.87	-178.37	10.79	177.21	0.63
2200.00	11.98	182.4	2187.04	-197.38	9.76	196.25	2.02
2300.00	12.05	183.2	2284.85	-218.17	8.74	217.07	0.19
2400.00	12.28	183.2	2382.60	-239.21	7.57	238.14	0.23
2500.00	12.50	181.2	2480.27	-260.65	6.75	259.58	0.48
2600.00	13.20	181.2	2577.77	-282.89	6.28	281.80	0.70
2700.00	13.42	184.6	2675.08	-305.87	5.11	304.80	0.81
2800.00	15.47	185.9	2771.92	-330.70	2.82	329.74	2.07
2900.00	16.08	185.7	2868.15	-357.75	0.07	356.91	0.61
3000.00	16.42	187.4	2964.15	-385.54	-3.15	384.86	0.59
3100.00	16.88	188.9	3059.96	-413.90	-7.24	413.43	0.63
3200.00	16.00	189.8	3155.87	-441.83	-11.83	441.60	0.91
3300.00	19.13	189.4	3251.20	-471.58	-16.84	471.63	3.13
3400.00	19.23	193.1	3345.65	-503.79	-23.24	504.20	1.22
3500.00	18.33	193.5	3440.33	-535.12	-30.64	535.97	0.91
3600.00	19.22	195.7	3535.00	-566.26	-38.77	567.58	1.14

SPERRY-SUN DRILLING SERVICES

LEGACY-EXPLORATIONS
L-91-2

1991 12 14
CX-LB-10532

MEASURED DEPTH	ANGLE DEG	DIRECTION DEG	VERTICAL DEPTH	LATITUDE FEET	DEPARTURE FEET	VERTICAL SECTION	DOG LEG
3960.00	19.50	199.26	3874.39	685.14 S	74.91 W	689.23	0.14

THE DOGLEG SEVERITY IS IN DEGREES PER 100.00 FEET
THE VERTICAL SECTION WAS COMPUTED ALONG 186.24½ (TRUE)

BASED UPON MINIMUM CURVATURE TYPE CALCULATIONS. THE BOTTOM HOLE DISPLACEMENT IS 689.23 FEET, IN THE DIRECTION OF 186.24½ (TRUE)

sperry-sun
DRILLING SERVICES OF CANADA

1270 SANDMAN CENTRE
840 SEVENTH AVENUE S.W.
CALGARY, ALBERTA T2P 3G2
PHONE (403) 294-5702
FAX (403) 237-9244

1406 - 5th STREET
NISKU, ALBERTA T0C 2G0
PHONE (403) 955-7606
FAX (403) 955-2332
TELEX 037-3864

DS 5059

SERVICE ORDER AND RECEIPT COST ESTIMATE

CUSTOMER: Agnico Eagle Mines LTD — JOB #: CX-LB-10532
ADDRESS: PO Box 140 Cobalt ONT. P0J 1C0 — P.O. #:
WELL NAME: L-91-2 — LSD: — PROVINCE: ONTARIO
DEPARTURE: 07 HR 14 DAY 12 MO — RETURN: 2130 HR 14 DAY 12 MO — TOTAL TIME: 14½ hr

SURVEY CHARGES

SYSTEM DESCRIPTION: LRG — COST
SURVEY CHARGE: 0 m to 3960 Ft = Contract /m — 1100.00
MINIMUM CHARGE OR CONTRACT PRICE:
TRAVERSE CHARGE: ____ m to ____ m = ____ m @ ____ /m
ADDITIONAL DEPTH: ____ m to ____ m = ____ m @ ____ /m
ADDITIONAL RUNS: ____ RUNS @ ____ /RUN

ORIENTATION CHARGES

SYSTEM DESCRIPTION:
ORIENTATION CHARGE: ____ RUNS @ ____ /RUN
MINIMUM CHARGE OR CONTRACT PRICE:
TRAVERSE CHARGE: ____ m to ____ m = ____ m @ ____ /m

STEERING TOOL/MWD CHARGES

SYSTEM DESCRIPTION:
OPERATING DATES ____ DAYS @ ____ /DAY
STANDY BY DATES ____ DAYS @ ____ /DAY
NGT OPERATING DATES ____ DAYS @ ____ /DAY
NGT STANDBY DATES ____ DAYS @ ____ /DAY
NGT SINGLE OPERATOR DATES ____ DAYS @ ____ /DAY
NGT DUAL OPERATOR DATES ____ DAYS @ ____ /DAY

MWD PERSONNEL

NAME	DATE/TIME ON LOCATION	DATE/TIME OFF LOCATION	RELIEF NAME

WIRELINE SERVICES

TRAVEL ____ km @ ____ /km
STANDBY DATES ____ DAYS @ ____ /DAY
OPERATING DATES ____ DAYS @ ____ /DAY
OPERATOR ____ TO ____ = DAYS @ ____ /DAY

OTHER CHARGES

COMPUTER SERVICES:
OPERATOR STANDBY: ____ to ____ = ____ DAYS @ ____ /DAY
EQUIPMENT STANDBY:: ____ to ____ = ____ DAYS @ ____ /DAY
INSURANCE CHARGES:: ____ to ____ = ____ DAYS @ ____ /DAY

TRANSPORTATION & SUBSISTENCE

SSDS UNIT #: ____ ____ km @ ____ /km
AIRFARE:
RENTAL VEHICLE: 200 km 60 k/- = $180.00
PER DIEM: 50# # OF MEN ____ to ____ = 1 DAYS @ 50 /DAY — 100.00
HOTEL ACCOMMODATION:

EQUIPMENT TRANSPORTATION DETAILS:

ADDITIONAL CHARGES:
1 Man 1st day @ 500/day — 500.00

ESTIMATED TOTAL COST: 1880.00

SPERRY-SUN OPERATOR: [signature] — RECEIVED BY: [signature]

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
5175 Timberlea Blvd., Mississauga,
Ontario, Canada L4W 2S3
PHONE: 416-624-2806

To: AGNICO-EAGLE MINES LIMITED

P.O. BOX 140
COBALT, ON
P0J 1C0

Page Number :1
Total Pages :1
Certificate Date: 12-SEP-91
Invoice No. :I9120602
P.O. Number :7608

Project :
Comments: ATTN: B. THORNILEY CC: AGNICO EAGLE VAL D'OR

CERTIFICATE OF ANALYSIS A9120602

SAMPLE DESCRIPTION	PREP CODE		Al2O3 %	BaO %	CaO %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
16101	208	294	15.42	0.03	10.23	12.53	1.04	4.25	0.27	3.26	0.11	48.60	1.10	1.53	98.36
16103	208	294	14.67	0.01	10.62	13.30	0.66	4.17	0.44	3.12	0.10	47.66	0.94	2.17	97.85
16105	208	294	13.22	0.03	4.48	14.30	1.73	5.71	0.27	3.98	0.14	49.90	1.38	2.61	97.75
16107	208	294	13.35	0.02	5.75	11.83	1.15	4.50	0.17	4.38	0.15	53.12	1.49	3.04	98.93
16109	208	294	13.72	0.03	6.27	12.85	1.13	5.54	0.25	2.76	0.18	50.60	1.45	3.80	98.58
16111	208	294	13.25	< 0.01	9.34	11.71	0.15	4.30	0.29	2.98	0.14	49.19	1.47	5.79	98.61
16113	208	294	13.14	0.03	8.64	12.72	0.78	4.79	0.24	2.17	0.14	50.59	1.45	3.79	98.45
16115	208	294	13.21	0.01	8.36	12.09	0.54	4.80	0.27	2.58	0.15	50.69	1.50	4.81	99.02
16117	208	294	12.65	0.05	7.46	12.33	1.14	6.99	0.24	3.09	0.15	49.86	1.38	3.38	98.73
16119	208	294	13.69	0.01	7.07	12.55	0.81	4.33	0.20	3.44	0.16	50.76	1.52	4.65	99.19
16121	208	294	7.97	< 0.01	8.28	11.18	0.03	20.82	0.26	0.12	0.38	43.16	0.47	5.65	98.33
16123	208	294	12.97	0.01	7.68	11.76	0.66	4.17	0.28	2.74	0.16	50.69	1.52	6.73	99.37
16126	208	294	14.10	0.02	6.16	14.56	0.94	6.22	0.27	3.09	0.18	47.53	1.64	3.74	98.43
16128	208	294	13.66	0.03	6.86	11.21	1.47	5.46	0.23	3.86	0.17	52.66	1.48	2.19	99.29
16130	208	294	7.99	< 0.01	8.86	11.43	0.09	19.93	0.25	0.11	0.37	42.58	0.48	6.00	98.11
16132	208	294	14.04	0.01	10.55	10.03	0.61	4.34	0.21	3.44	0.14	44.32	1.27	9.82	98.78
16133	208	294	16.19	0.06	3.28	5.33	2.40	3.42	0.12	4.40	0.26	61.66	0.61	3.65	101.40
16135	208	294	13.75	0.05	1.79	9.42	2.19	2.05	0.10	2.21	0.18	62.40	0.37	3.67	98.17
16136	208	294	14.58	0.03	6.17	10.51	1.85	5.96	0.23	1.56	0.13	49.23	0.97	7.49	98.69
16137	208	294	14.29	0.02	12.51	8.77	1.03	1.95	0.27	3.04	0.13	47.56	0.89	9.40	99.86
16138	208	294	13.40	0.01	9.31	10.57	0.49	3.77	0.28	2.30	0.16	50.27	1.03	6.81	98.41
16139	208	294	12.88	0.02	7.50	11.69	0.69	4.61	0.25	3.60	0.15	51.21	1.46	3.46	97.53

CERTIFICATION: B. Caplan

A-12 CLASSICAL WHOLE ROCK ANALYSIS

Price per sample $ 20.00

Samples are fused with lithium metaborate prior to being dissolved in acids and analyzed by ICP-AES. Loss on Ignition (LOI) is included in the package price.

Code	Element	Detection limit	Code	Element	Detection limit	Code	Element	Detection limit
592	SiO_2	0.01 %	596	MnO	0.01 %	595	TiO_2	0.01 %
599	Na_2O	0.01 %	593	MgO	0.01 %	594	Al_2O_3	0.01 %
542	BaO	0.01 %	597	P_2O_5	0.01 %	821	K_2O	0.01 %
588	CaO	0.01 %	586	Fe_2O_3	0.01 %	475	LOI	0.01 %

A-9 NINE ELEMENT LOW-GRADE BASE METAL ASSAY PACKAGE

Price per sample $ 12.00

This package is suitable for lower grade ore samples. Base metal contents should be less than eight percent total. High sulfide or barite samples are also not suitable for this "industrial grade assay". One digestion is used to bring all base metals into solution. The digestion procedure is customized for each project and inductively coupled plasma spectroscopy is used to quantify the nine elements. Maximum reported value for base metals is three percent, except for iron which is reported to fifty percent.

Code	Element	Detection limit	Code	Element	Detection limit	Code	Element	Detection limit
1951	Cobalt	0.001 %	1954	Lead	0.001 %	1959	Molybdenum	0.001 %
1956	Silver	2 ppm	1952	Copper	0.001 %	1958	Manganese	0.001 %
1953	Nickel	0.001 %	1955	Zinc	0.001 %	1957	Iron	0.01 %

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
5175 Timberlea Blvd., Mississauga,
Ontario, Canada L4W 2S3
PHONE: 416-624-2806

To: AGNICO-EAGLE MINES LIMITED

P.O. BOX 140
COBALT, ON
P0J 1C0

A9120602

Comments: ATTN: B. THORNILEY CC: AGNICO EAGLE VAL D'OR

CERTIFICATE A9120602

AGNICO-EAGLE MINES LIMITED

Project:
P.O. # : 7608

Samples submitted to our lab in Mississauga, ON.
This report was printed on 12-SEP-91.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
208	22	Assay ring to approx 150 mesh
294	22	Crush and split (0-10 pounds)
200	22	Whole rock fusion

* NOTE 1,

Code 1000. is used for repeat gold analyses
It shows typical sample variability due to coarse gold effects. Each value is correct for its particular subsample.

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
594	22	Al2O3 %: Whole rock	ICP-AES	0.01	99.99
542	22	BaO %: Whole rock	ICP-AES	0.01	99.99
588	22	CaO %: Whole rock	ICP-AES	0.01	99.99
586	22	Fe2O3(total) %: Whole rock	ICP-AES	0.01	99.99
821	22	K2O %: Whole rock	ICP-AES	0.01	99.99
593	22	MgO %: Whole rock	ICP-AES	0.01	99.99
596	22	MnO %: Whole rock	ICP-AES	0.01	99.99
599	22	Na2O %: Whole rock	ICP-AES	0.01	99.99
597	22	P2O5 %: Whole rock	ICP-AES	0.01	99.99
592	22	SiO2 %: Whole rock	ICP-AES	0.01	99.99
595	22	TiO2 %: Whole rock	ICP-AES	0.01	99.99
475	22	L.O.I. %: Loss on ignition	FURNACE	0.01	99.99
540	22	Total %	CALCULATION	0.01	105.00

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
5175 Timberlea Blvd., Mississauga,
Ontario, Canada L4W 2S3
PHONE: 416-624-2806

To: AGNICO-EAGLE MINES LIMITED

P.O. BOX 140
COBALT, ON
P0J 1C0

A9124093

Comments: ATTN: B. H. THORNILEY CC: AGNICO-EAGLE

CERTIFICATE A9124093

AGNICO-EAGLE MINES LIMITED

Project:
P.O. # :

Samples submitted to our lab in Mississauga, ON.
This report was printed on 6-NOV-91.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
299	25	Sample split from other certif
238	25	NITRIC-AQUA REGIA DIGESTION

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
1005	25	Ag ppm: 9 element, soil and rock	ICP-AES	0.5	200
1929	25	Co ppm: 9 element, soil & rock	ICP-AES	1	10000
1931	25	Cu ppm: 9 element, soil & rock	ICP-AES	1	10000
1932	25	Fe %: 9 element, soil & rock	ICP-AES	0.01	15.00
1937	25	Mn ppm: 9 element, soil & rock	ICP-AES	5	10000
1938	25	Mo ppm: 9 element, soil & rock	ICP-AES	1	10000
1940	25	Ni ppm: 9 element, soil & rock	ICP-AES	1	10000
1004	25	Pb ppm: 9 element, soil and rock	ICP-AES	5	10000
1950	25	Zn ppm: 9 element, soil & rock	ICP-AES	2	10000

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: AGNICO-EAGLE MINES LIMITED

P.O. BOX 140
COBALT, ON
P0J 1C0

Project :
Comments: ATTN: B. H. THORNILEY CC: AGNICO-EAGLE

Certificate Date 14-NOV-91
Invoice No. I-9124094
P.O. Number :
Account :

CERTIFICATE OF ANALYSIS A9124094

SAMPLE DESCRIPTION	PREP CODE		Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm	
16101	214	238	< 0.5	29	102	3.41	635	< 1	54	22	124	
16103	214	238	< 0.5	57	187	3.39	795	< 1	81	50	1020	
16105	214	238	< 0.5	44	110	6.33	900	< 1	39	8	48	
16107	214	238	< 0.5	48	157	5.09	560	< 1	41	14	54	
16109	214	238	< 0.5	37	70	5.84	1085	< 1	36	8	116	
16111	214	238	< 0.5	30	110	4.95	1250	< 1	28	8	76	
16113	214	238	< 0.5	33	129	4.64	895	< 1	30	8	120	
16115	214	238	< 0.5	26	89	4.94	1200	< 1	24	6	74	
16117	214	238	< 0.5	28	81	4.05	750	< 1	51	4	48	
16119	214	238	< 0.5	41	129	5.87	795	< 1	34	8	60	
16121	214	238	< 0.5	29	5	4.32	975	< 1	402	10	104	
16123	214	238	< 0.5	34	117	6.42	1560	< 1	27	10	106	
16126	214	238	< 0.5	38	200	6.72	1140	< 1	36	24	172	
16128	214	238	< 0.5	35	97	3.74	585	< 1	52	8	106	
16130	214	238	< 0.5	37	2	4.14	945	< 1	400	8	108	
16132	214	238	< 0.5	40	95	5.69	1290	< 1	70	14	158	
16133	214	238	< 0.5	13	20	3.13	725	< 1	33	8	120	
16135	214	238	< 0.5	9	18	5.84	675	< 1	28	14	76	
16136	214	238	< 0.5	36	115	5.88	1325	< 1	82	10	106	
16137	214	238	< 0.5	42	91	4.57	1425	< 1	71	10	80	
16138	214	238	< 0.5	35	100	5.56	1565	< 1	79	12	122	
16139	214	238	< 0.5	31	108	4.27	875	< 1	31	8	90	

CERTIFICATION:_____

HOLE NO. L-91-1

Sample No.	Footage	Rock Type
16101	62 - 71	Flow Lava + pil.
16102	158 - 168	" + "
16103	267 - 277	" + "
16104	352 - 362	" + "
16105	462 - 471	Flow brec.+ bl.mat.+pil+po
16106	559 - 569	" " + " " " " "
16107	657 - 666	" " + " " " " "
16108	755 - 765	" " + " " " " "
16109	880 - 891	" " + " " " "
16110	966 - 976	" " + " " " + "
16111	1,051 - 1,061	" " + " " " + "
16112	1,164 - 1,175	" " + " " " + "
16113	1,277 - 1,288	" " + " " " + "
16114	1,376 - 1,390	" " + " " " + "
16115	1,463 - 1,473	" " + " "
16116	1,547 - 1,560	" " + " " " + pil.
16117	1,660 - 1,672	" " + " " " + "
16118	1,772 - 1,786	" " + " " " + "
16119	1,871 - 1,882	" " + " " " + pil + po
16120	1,942 - 1,957	" " + " "
16121	2,010 - 2,035	" " + " "
16122	2,119 - 2,132	" " + " "
16123	2,175 - 2,187	" " + " "
16124	2,261 - 2,276	Intrusive
16125	2,497 - 2,507	Flow lava brec. + bl.matrix + pil.
16126	2,609 - 2,620	Flow lava brec. no bl. mat.
16127	2,722 - 2,734	" "
16128	2,806 - 2,816	" "
16129	2,915 - 2,928	" "
16130	2,994 - 3,002	Tuff
16131	3,037 - 3,048	Tuff
16132	3,113 - 3,128	Tuff + bl.sed.
16133	3,192 - 3,209	Seds, turbidite
16134	3,305 - 3,313	" "
16135	3,402 - 3,416	" "
16136	3,482 - 3,494	Flow lava brec. + bl. mat.
16137	3,523 - 3,536	" " " + " "
16138	3,580 - 3,592	" " " + " "
16139	2,389 - 2,401	" " " + " "

Continued in Hole L-91-2

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: AGNICO-EAGLE MINES LIMITED

P.O. BOX 140
COBALT, ON
P0J 1C0

Project :
Comments: ATTN: B. H. THORNILEY CC: AGNICO-EAGLE VAL D'OR

Certificate Date 15-NOV-91
Invoice No. I-9124092
P.O. Number :
Account :

CERTIFICATE OF ANALYSIS A9124092

SAMPLE DESCRIPTION	PREP CODE		Al2O3 %	BaO %	CaO %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %	
16141	205	294	13.90	0.01	8.40	13.89	0.34	4.72	0.25	3.09	0.38	49.94	1.59	3.53	100.05	
16143	205	294	13.03	< 0.01	7.81	15.08	0.54	4.32	0.25	2.47	0.44	50.02	2.07	4.42	100.45	
16145	205	294	16.16	0.02	6.33	14.53	1.23	4.98	0.32	2.96	0.38	44.34	1.40	7.59	100.25	
16147	205	294	15.83	0.02	8.51	11.51	0.70	3.72	0.24	2.68	0.31	50.97	1.21	4.83	100.50	
16149	205	294	15.80	0.02	9.39	10.99	0.70	3.87	0.23	2.74	0.32	51.12	1.18	3.96	100.30	
16150	205	294	16.54	0.01	9.81	11.96	0.58	4.51	0.25	2.56	0.34	48.03	1.21	4.88	100.70	
16151	205	294	16.77	0.02	3.89	1.68	1.59	0.86	0.03	6.92	< 0.01	65.57	0.18	3.85	101.40	
16152	205	294	15.60	0.06	2.07	1.55	5.11	0.65	0.01	2.95	< 0.01	69.19	0.12	2.94	100.25	
16153	205	294	16.79	0.05	1.42	4.26	2.31	2.07	0.07	4.77	0.11	66.22	0.44	2.39	100.90	
16154	205	294	17.44	0.07	< 0.01	1.59	4.66	1.11	< 0.01	2.86	0.01	69.15	0.20	2.67	99.79	
16155	205	294	14.71	0.07	7.57	10.12	1.48	5.56	0.54	4.69	0.35	51.84	0.55	2.52	100.00	
16156	205	294	14.23	0.01	10.17	9.44	0.67	3.44	0.22	2.54	0.27	50.41	1.07	5.91	98.37	
16157	205	294	14.05	< 0.01	9.92	9.51	0.34	2.76	0.23	2.76	0.24	54.23	1.06	4.44	99.53	
16158	205	294	14.96	< 0.01	10.48	9.65	0.51	2.86	0.21	2.46	0.22	53.39	1.13	3.86	99.75	
16159	205	294	15.01	0.01	9.64	9.84	1.22	3.16	0.22	3.36	0.22	51.77	1.13	5.25	100.80	
16160	205	294	16.37	0.01	10.30	11.87	0.94	3.55	0.25	3.01	0.28	48.17	1.24	4.80	100.80	
16161	205	294	15.84	0.03	9.94	10.14	1.93	3.04	0.21	3.13	0.24	52.19	1.19	2.85	100.75	
16162	205	294	15.32	0.03	9.99	11.35	1.43	4.14	0.24	2.90	0.32	50.94	1.10	3.25	101.00	
16163	205	294	14.06	0.07	8.03	12.47	2.50	8.25	0.26	2.43	0.50	47.57	1.03	3.70	100.90	
16164	205	294	10.86	0.03	9.02	8.70	0.81	15.08	0.16	1.32	0.76	44.13	0.64	8.62	100.15	
16165	205	294	15.53	0.03	9.09	10.05	1.26	4.66	0.20	4.03	0.36	50.59	1.14	2.64	99.59	
16166	205	294	15.36	0.03	8.59	8.35	1.09	3.48	0.17	4.29	0.25	53.16	1.17	4.14	100.05	
16167	205	294	15.91	0.03	7.29	7.97	1.10	3.80	0.14	4.66	0.26	52.07	1.19	4.56	98.97	
16168	205	294	10.11	0.05	1.65	17.73	3.60	0.92	0.04	2.55	0.31	54.48	0.52	6.99	98.94	
16169	205	294	14.18	0.05	1.77	9.65	2.60	4.22	0.16	2.62	0.34	53.03	0.70	8.94	98.26	

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: AGNICO-EAGLE MINES LIMITED

P.O. BOX 140
COBALT, ON
P0J 1C0

Project :
Comments: ATTN: B. H. THORNILEY CC: AGNICO-EAGLE

Certificate Date 06-NOV-91
Invoice No. I-9124093
P.O. Number :
Account :

CERTIFICATE OF ANALYSIS A9124093

SAMPLE DESCRIPTION	PREP CODE		Ag ppm	Co ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Zn ppm	
16141	299	238	< 0.5	34	129	5.08	865	1	37	< 5	74	
16143	299	238	< 0.5	32	99	6.18	1055	< 1	13	< 5	108	
16145	299	238	< 0.5	38	112	7.48	1655	< 1	78	< 5	104	
16147	299	238	< 0.5	41	104	5.15	1105	< 1	85	< 5	78	
16149	299	238	< 0.5	35	117	4.38	945	< 1	81	< 5	72	
16150	299	238	< 0.5	40	136	5.10	1115	< 1	80	< 5	92	
16151	299	238	< 0.5	2	27	1.00	260	< 1	13	< 5	20	
16152	299	238	< 0.5	1	3	0.22	130	< 1	2	< 5	6	
16153	299	238	< 0.5	13	49	2.61	480	1	34	< 5	70	
16154	299	238	0.5	3	6	0.67	30	< 1	6	5	14	
16155	299	238	< 0.5	18	11	4.20	2540	< 1	88	120	474	
16156	299	238	< 0.5	38	139	4.44	1105	< 1	80	< 5	76	
16157	299	238	< 0.5	34	105	3.89	960	< 1	80	< 5	60	
16158	299	238	< 0.5	37	159	3.62	855	< 1	89	< 5	76	
16159	299	238	< 0.5	37	124	4.33	1030	< 1	84	< 5	70	
16160	299	238	< 0.5	38	133	4.74	1020	< 1	81	< 5	84	
16161	299	238	< 0.5	34	136	2.89	575	< 1	85	< 5	38	
16162	299	238	< 0.5	29	100	3.29	615	< 1	62	< 5	48	
16163	299	238	< 0.5	41	87	4.26	720	< 1	175	< 5	66	
16164	299	238	< 0.5	30	82	3.56	635	< 1	251	< 5	60	
16165	299	238	< 0.5	31	52	2.34	375	< 1	59	< 5	28	
16166	299	238	< 0.5	35	116	2.87	510	3	78	< 5	32	
16167	299	238	< 0.5	42	115	3.47	585	< 1	87	< 5	42	
16168	299	238	1.0	49	432	10.65	230	5	69	125	618	
16169	299	238	< 0.5	32	482	5.84	1005	18	80	< 5	862	

HOLE NO. L-91-2

Hole No.	Footage	Rock Type
16140	2,965 - 2,978	Intrusive
16141	3,062 - 3,072	Flow lava, brec. + bl.mat. + pil.
16142	3,155 - 3,167	" " " + " "
16143	3,256 - 3,268	Tuff brec. + bl.mat.
16144	3,347 - 3,362	Flow lava, brec. + bl.mat.
16145	3,437 - 3,452	" " " + " " + pil.
16146	3,545 - 3,560	" " " + " " + "
16147	3,640 - 3,654	" " " + " " + "
16148	3,751 - 3,772	" " pil.
16149	3,847 - 3,861	" " "
16150	3,958 - 3,973	" " "
16151	See Map #16521	Rhyolite tuff NE of Sas.Lake
16152	" " #16522	" "
16153	" " #16523	" " (Collected from
16154	" " #16524	" " surface showings)
16155	" " #16520	" "
16156	4,053 - 4,071	Flow lava + pil. + Sil.interflows
16157	4,147 - 4,162	" + " + " "
16158	4,240 - 4,256	" + "
16159	4,355 - 4,371	" + "
16160	4,466 - 4,479	" + "
16161	4,559 - 4,574	Flow lava (+ pil.?)
16162	4,637 - 4,649	Flow lava
16163	4,725 - 4,738	Flow lava
16164	4,848 - 4,865	Tuff
16165	4,917 - 4,928	Flow lava
16166	4,974 - 4,987	" "
16167	4,994 - 5,008	" "
16168	390 - 404	Black chert w/po. Hole #2
16169	2,963 - 2,984	Black chert, Hole #1, O'Brien fault with cherts

(mat. = matrix, pil. = pillow, bl. = black,)

BELL WHITE ANALYTICAL LABORATORIES LTD.

Box 187, Haileybury, Ontario, POJ 1KO

Tel: 672-3107, Fax: 672-5843

Sample No.	Ozs. Ag.	Cu. ppm	Zn. ppm	Ni. ppm	Footage	Hole No.	Remarks
16001		436	200		2944-2945	91-1	Brec. flow lava with Po.+ min. Py.
16002		254	640		2947-2948	91-1	Brec. flow lava with bleb Po. & strg.Cp.
16003		142	146		2949.5-2950.5	L-91-1	
16004		340	376		2957-2958	91-1	Po.+Cp. in matrix
16005		122	266		2958-2959	91-1	
16006		162	338		2959-2960	91-1	Cp..+Po. in lava
16201	0.04				at 439.5	91-1	1" Ca. + Po.
16202	0.09				582.5	91-1	1/2" Ca.+ Mass.Po.
16203	0.84				870.9	91-1	1/2" Ca. in slip + galena
16204	Tr.				671.2-671.7	91-2	
16205	0.18				620.2-620.4	91-2	
16206	0.22				1000 -1005	91.2	Grab from galena vein
16207	0.16				2979.8-2980.2	91-1	Bl.Chert + Py. on slips
16208	Tr.				3050 -3051	91-1	Bl. chert ± Ca.
16209	Tr.				3121 -3121.5	91-1	Bl. chert + Po., O'Brien fault
16210		822		188	402.6-403.1	91-1	Bl.cherts with nodules of Po.
16211		768		174	451.2-451.6		Mass. Po. in lava

BELL - WHITE ANALYTICAL LABORATORIES LTD.

P.O. BOX 187. HAILEYBURY, ONTARIO TEL: 672-3107
POJ 1KO FAX: (705) 672-5843

Certificate of Analysis

NO. 0374 DATE: August 13, 1991

SAMPLE(S) OF: Core (17) RECEIVED: August 1991

SAMPLE(S) FROM: Mr. B. Thorniley Agnico

Sample #	Oz. Silver	Cu ppm	Zn ppm	Ni ppm
16001		436	200	
16002		254	640	
16003		142	146	
16004		340	376	
16005		122	266	
16006		162	338	
16201	0.04			
16202	0.09			
16203	0.84			
16204	Trace			
16205	0.18			
16206	0.22			
16207	0.16			
16208	Trace			
16209	Trace			
16210		822		188
16211		768		174

IN ACCORDANCE WITH LONG-ESTABLISHED NORTH AMERICAN CUSTOM, UNLESS IT IS SPECIFICALLY STATED OTHERWISE GOLD AND SILVER VALUES REPORTED ON THESE SHEETS HAVE NOT BEEN ADJUSTED TO COMPENSATE FOR LOSSES AND GAINS INHERENT IN THE FIRE ASSAY PROCESS.

BELL-WHITE ANALYTICAL LABORATORIES L

PER

CRONE GEOPHYSICS & EXPLORATION LTD

3607 WOLFEDALE ROAD, MISSISSAUGA, ONTARIO, CANADA L5C 1V8
TEL: (416) 270-0096 • FAX: (416) 270-3472 • TELEX: 06-961260

REPORT FOR : **AGNICO-EAGLE MINES LTD.**

SURVEY AREA : **COBALT**

SURVEY : **BOREHOLE PULSE-EM**
HOLE L-91-No.2

SURVEYED BY : **VAL D'OR GEOPHYSIQUE LTEE**

SURVEY PERIOD : **OCT. 15-17, 1991**

REPORT BY : **BILL RAVENHURST, GEOPHYSICIST**
CRONE GEOPHYSICS & EXPLORATION LTD.

REPORT DATE : **NOVEMBER 1, 1991**

channels at 3300′ and ending in the late channels at 3600′ is caused by a large conductor whose closest edge is approximately 150′ away from the hole. The polarity and separation of the cross-over type anomalies below the off-hole indicate that the conductor runs sub-parallel and above the hole (at an angle of 10° to 30° to the hole). The X- and Y-component data give a direction of approximately 165° to the centre of this conductor.

The enclosed plan and section show the conductor's interpreted position. The strike is somewhat uncertain - it could be between 90° to 135°. A target zone has been indicated which is in the direction of the conductor's centre (according to the X- and Y-component data, and which is at the depth where the late-time currents are flowing (indicative of high conductivity).

There is a chance that this conductor is a faulted-off section of the carbonaceous sediments within the O'Brien Fault.

Respectfully Submitted,

Bill Ravenhurst
Geophysicist

REPORT FOR	: AGNICO-EAGLE MINES LTD.
SURVEY AREA	: COBALT
SURVEY	: BOREHOLE PULSE-EM HOLE L-91-No.2
SURVEYED BY	: VAL D'OR GEOPHYSIQUE LTEE
SURVEY PERIOD	: OCT. 15-17, 1991
REPORT BY	: BILL RAVENHURST, GEOPHYSICIST CRONE GEOPHYSICS & EXPLORATION LTD.
REPORT DATE	: NOVEMBER 1, 1991

The following is a brief interpretation of the Borehole Pulse EM data (X,Y, and Z components) collected by Val d'Or Geophysique Ltee in October 1991 in hole L-91-No.2.

The Z-component data contains several sharp 1 or 2 station anomalies which are indicative of small, very conductive zones either intersected or lying within a few feet of the hole. Many of these are explained by wedges at 600', 1480', 1820', 2240', 2740', and 3330'. Others at 1607', 1935', 2985', and 3379' are likely small pods of conductive material.

A broad Z-component In-hole anomaly centred at 393' indicates that a large conductor was intersected at this depth. The X- and Y-component data indicate that the conductor extends to the SE. or S.W. ?

Background readings in the Z-component data are large and positive, and show a slow decay. This is due to the highly conductive carbonaceous sediments running sub-parallel and to the north of the hole. Late channel cross-overs near 1300' down the hole are indicative of the upper section of these sediments being more strongly energized than the lower section due to its proximity to the transmitter loop or possibly better conductivity.

Between 3149' and 3313', all three components show anomalous readings indicative of disseminated or stringer-type conductive material. Thin seams of carbonaceous material found in the core within this region are at least part of the cause of these anomalies.

An off-hole Z-component anomaly beginning in the early

CRONE GEOPHYSICS & EXPLORATION LTD

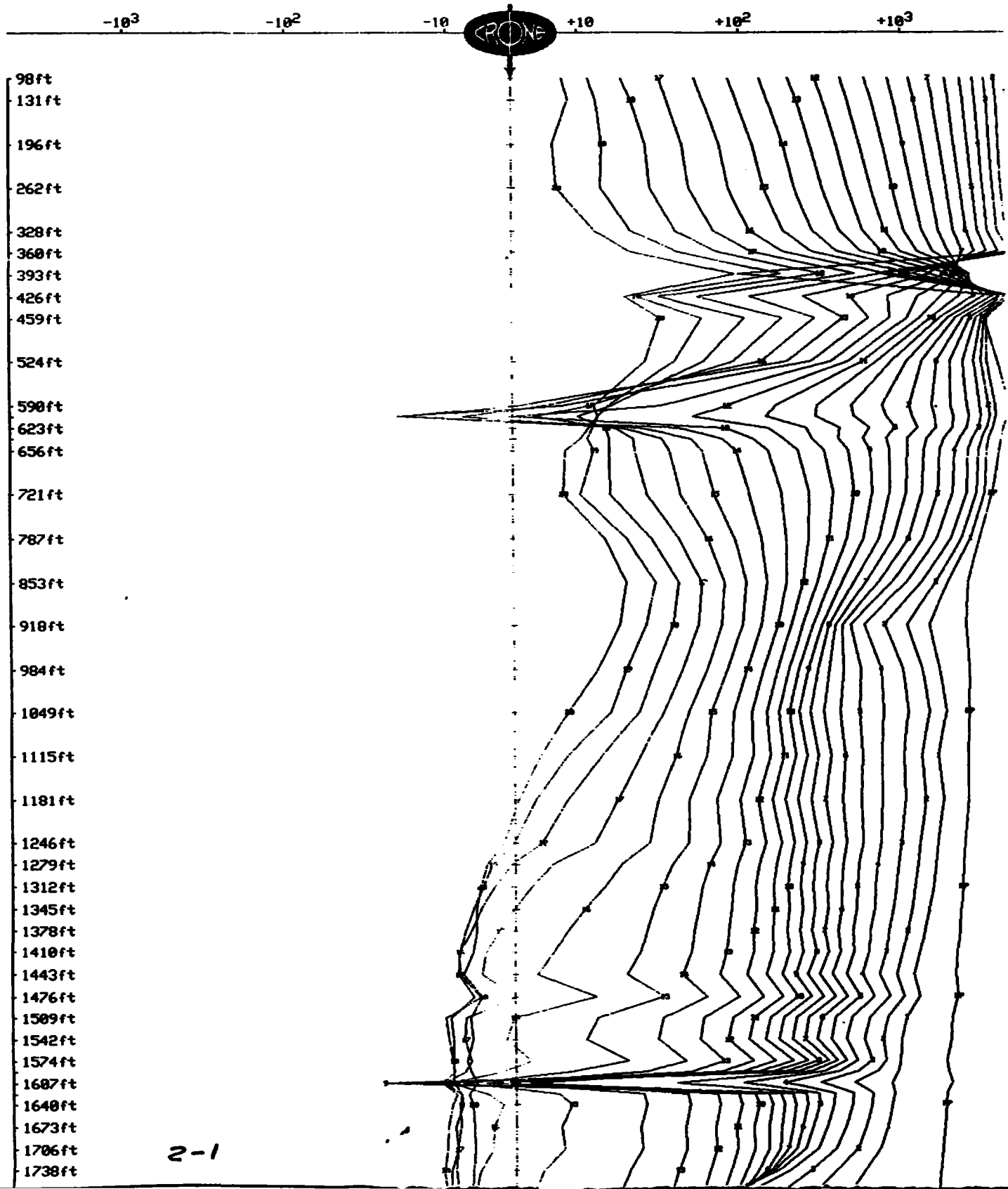
BOREHOLE PEM

Client	: AGNICO-EAGLE	Hole	: 91-2
Grid	: COBALT	Tx Loop	: T1
Date	: Oct 16, 1991	File name	: 91-2Z.PEM

Data Scaled by Factor of 0.62

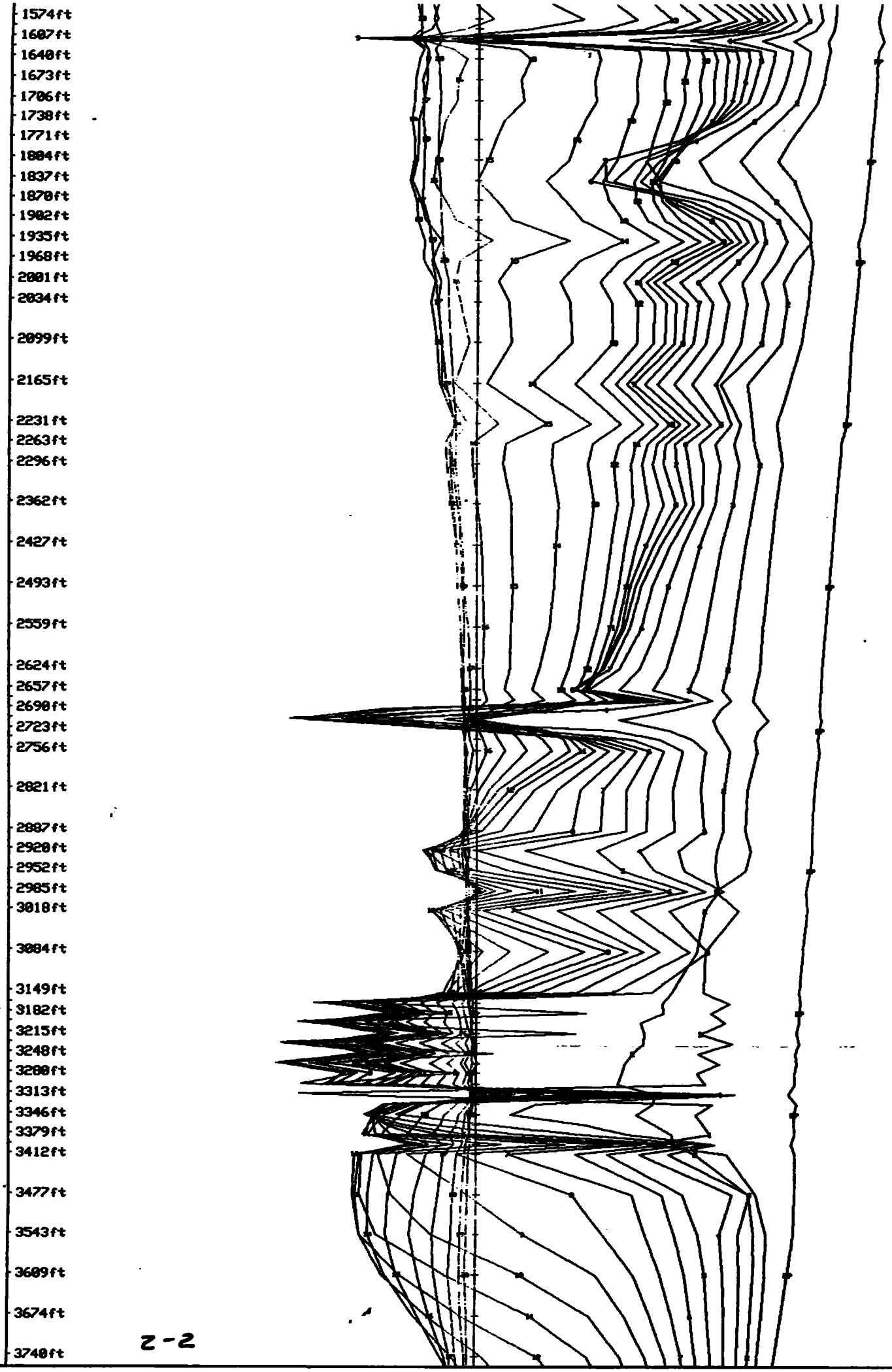
Z COMPONENT dBz/dt nanoTesla/sec - 20 channels and PP

Scale: 1in = 200ft

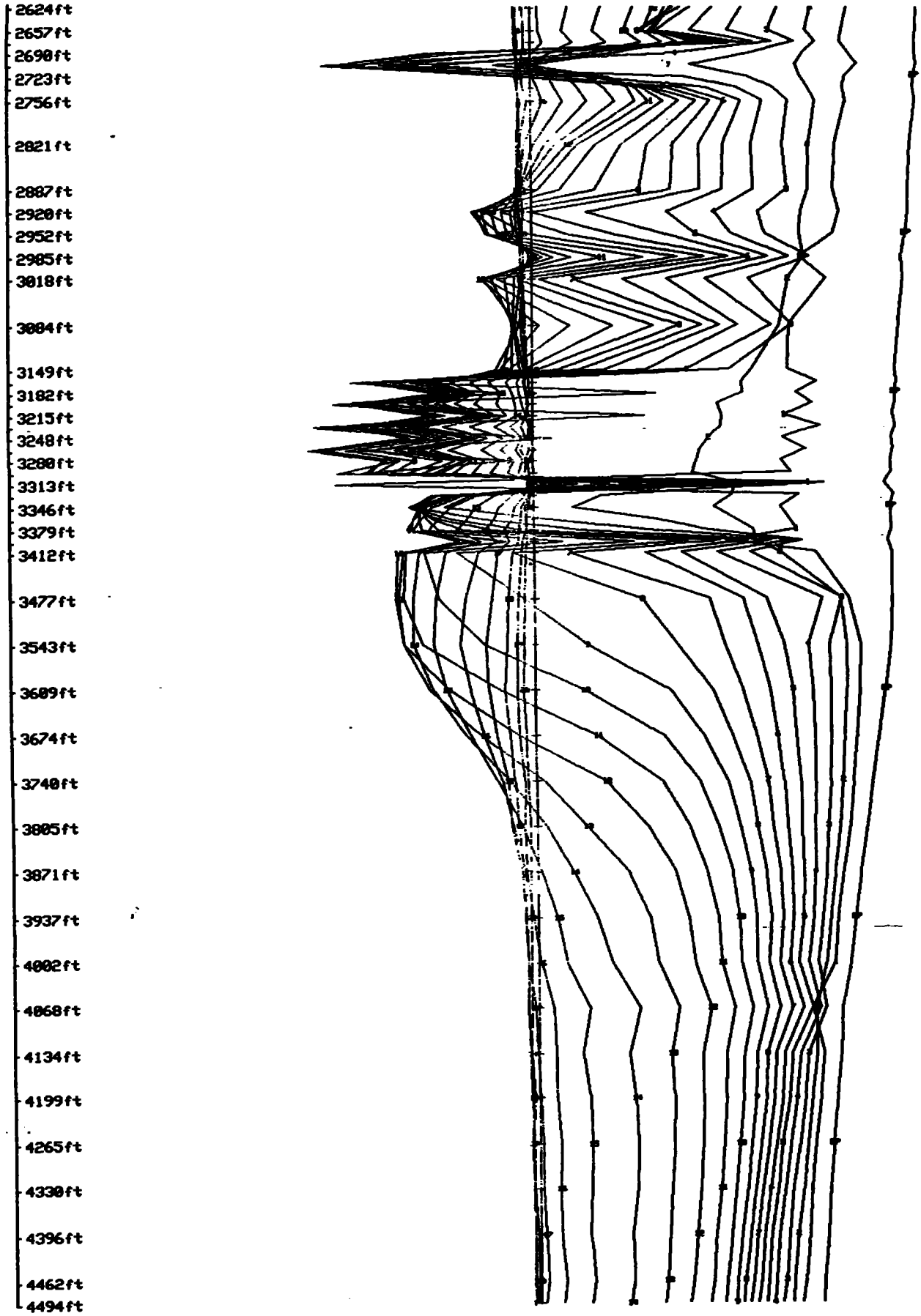


2-1

Z-COMPONENT



Z-2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2657ft
2690ft
2723ft
2756ft
2821ft
2887ft
2920ft
2952ft
2985ft
3018ft
3084ft
3149ft
3182ft
3215ft
3248ft
3280ft
3313ft
3346ft
3379ft
3412ft
3477ft
3543ft
3609ft
3674ft
3740ft
3805ft
3871ft
3937ft
4002ft
4068ft
4134ft
4199ft
4265ft
4330ft
4396ft
4462ft
4494ft
Z-COMPONENT

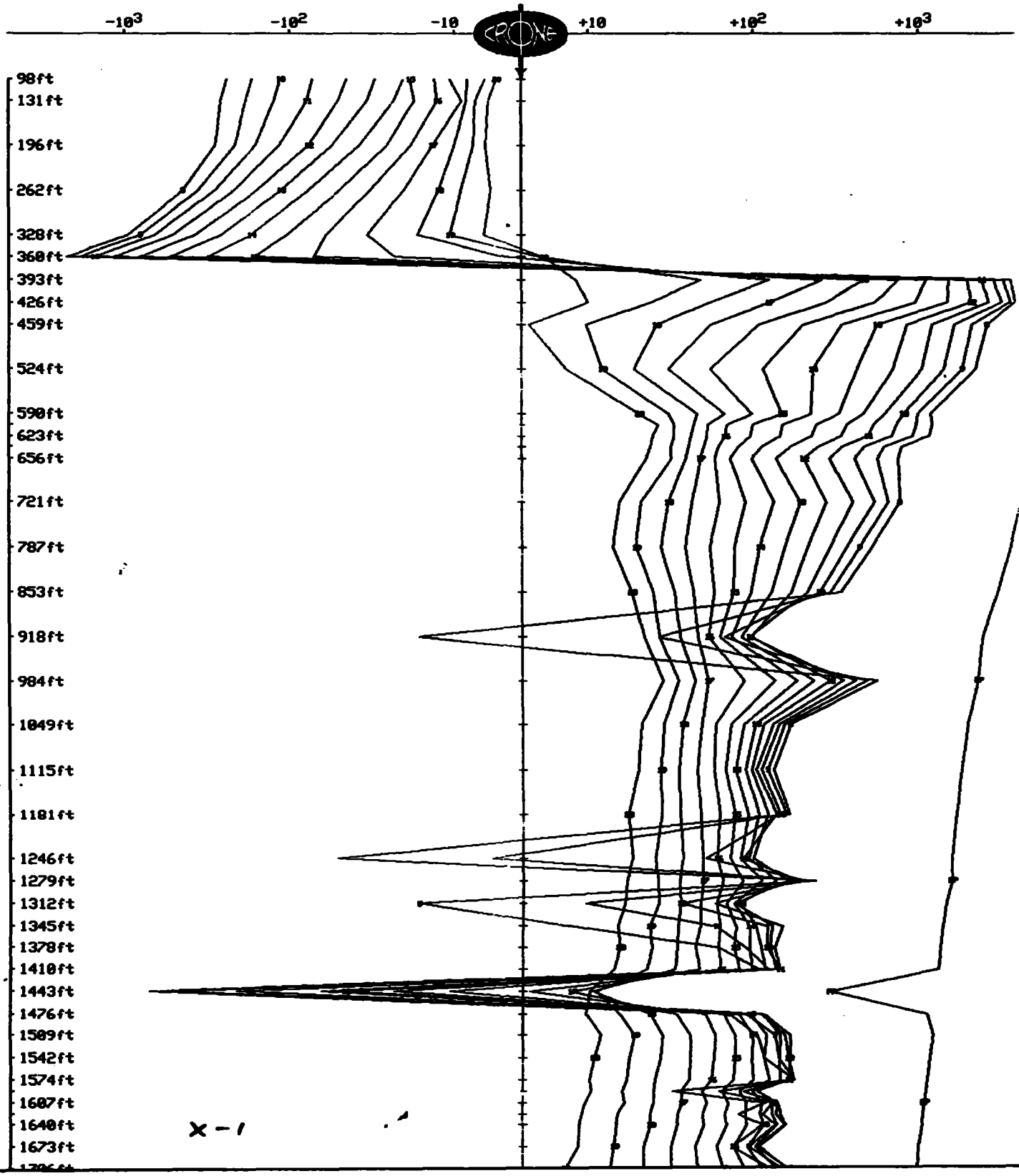
CRONE GEOPHYSICS & EXPLORATION LTD

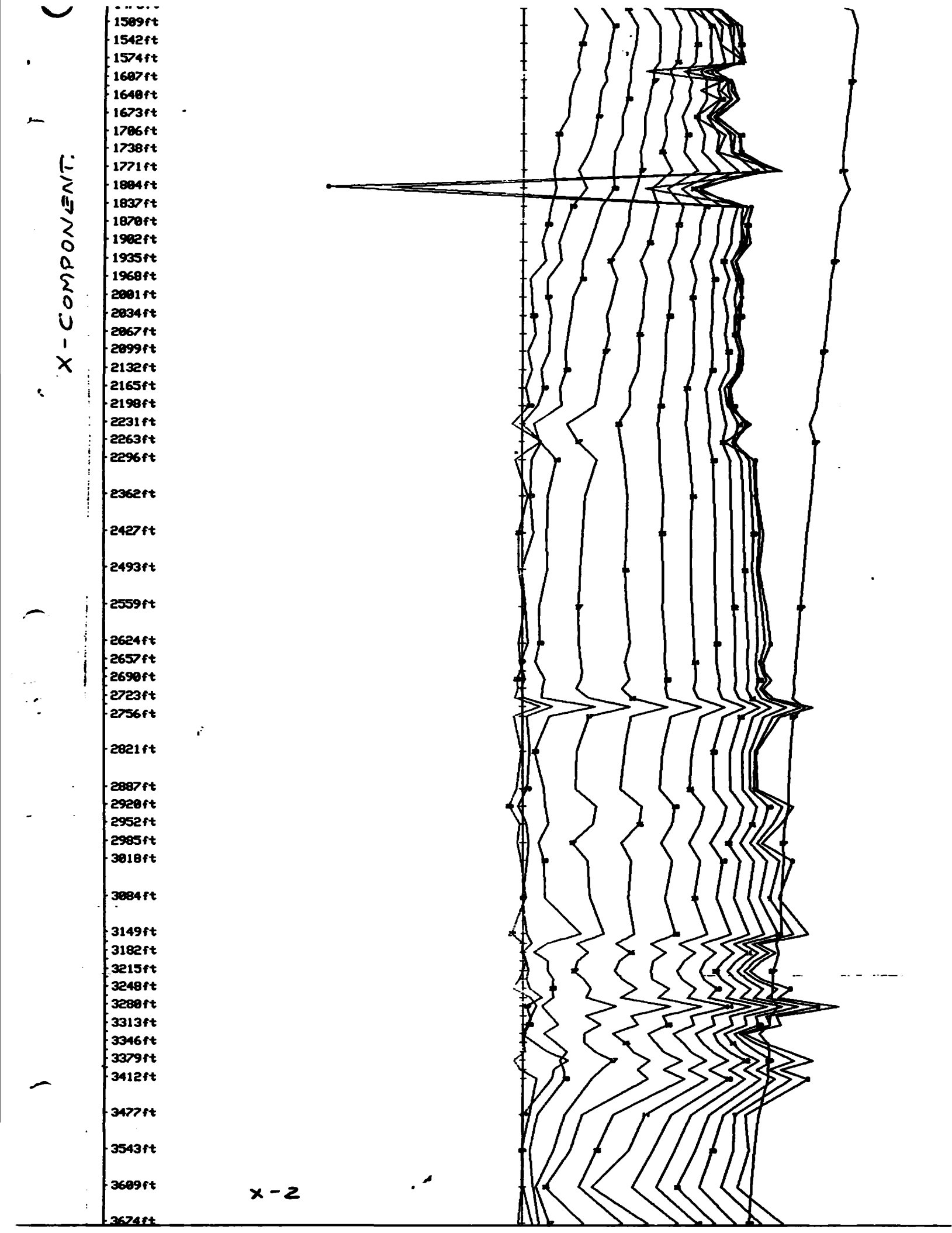
BOREHOLE PEM

Client	: AGNICO-EAGLE	Hole	: 91-2
Grid	: COBALT	Tx Loop	: T1
Date	: Oct 17, 1991	File name	: 91-2XYR.PEM

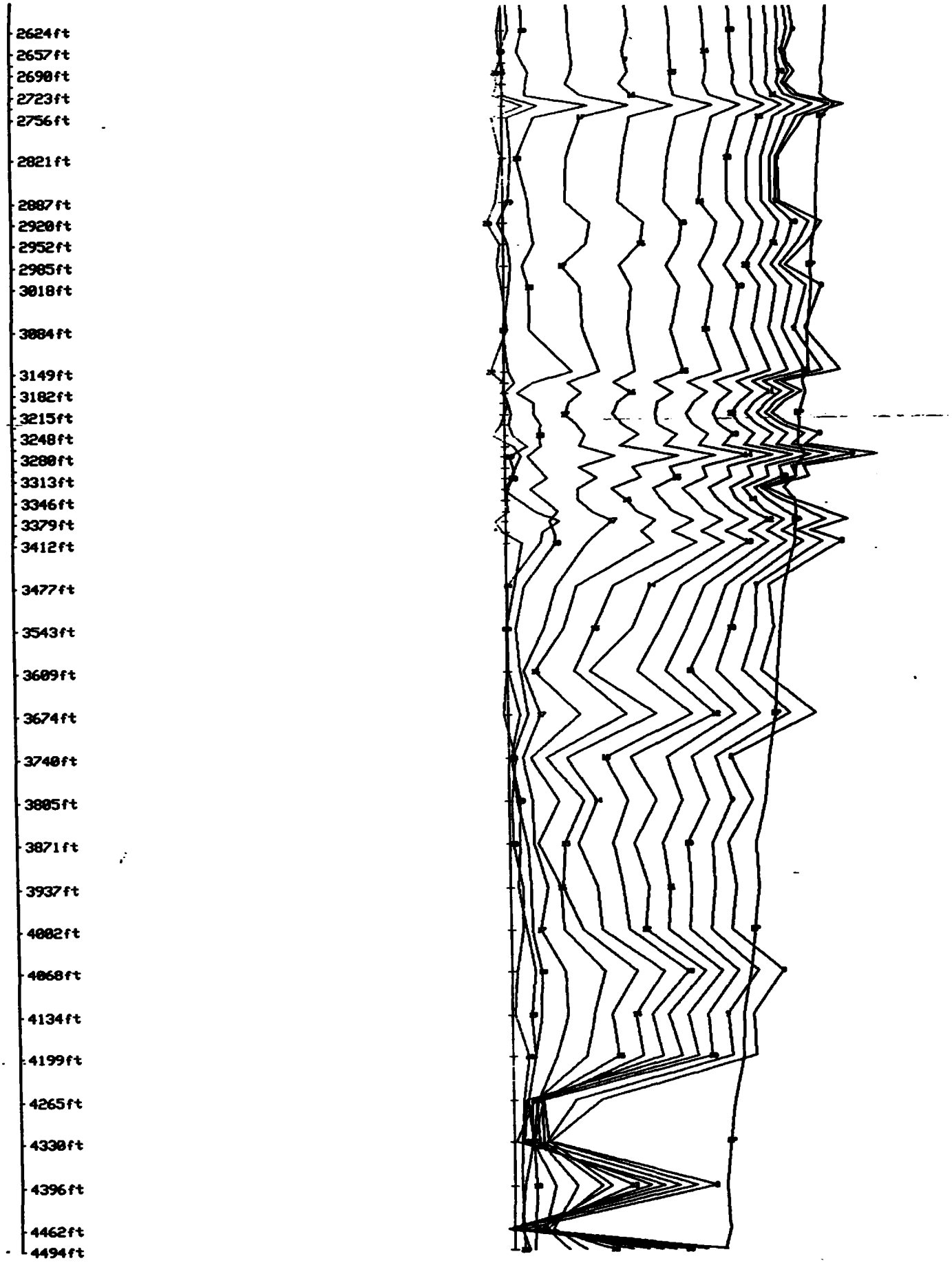
Data Corrected for Probe Rotation
Data Scaled by Factor of 1.42
X COMPONENT dBx/dt nanoTesla/sec - 20 channels and PP

Scale: 1in = 200ft




X-COMPONENT
1509ft
1542ft
1574ft
1607ft
1640ft
1673ft
1706ft
1738ft
1771ft
1804ft
1837ft
1870ft
1902ft
1935ft
1968ft
2001ft
2034ft
2067ft
2099ft
2132ft
2165ft
2198ft
2231ft
2263ft
2296ft
2362ft
2427ft
2493ft
2559ft
2624ft
2657ft
2690ft
2723ft
2756ft
2821ft
2887ft
2920ft
2952ft
2985ft
3018ft
3084ft
3149ft
3182ft
3215ft
3248ft
3280ft
3313ft
3346ft
3379ft
3412ft
3477ft
3543ft
3609ft
3674ft
x-2

X-COMPONENT.


2624ft
2657ft
2690ft
2723ft
2756ft
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2887ft
2920ft
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2985ft
3018ft
3084ft
3149ft
3182ft
3215ft
3248ft
3280ft
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3346ft
3379ft
3412ft
3477ft
3543ft
3609ft
3674ft
3740ft
3805ft
3871ft
3937ft
4002ft
4068ft
4134ft
4199ft
4265ft
4330ft
4396ft
4462ft
4494ft

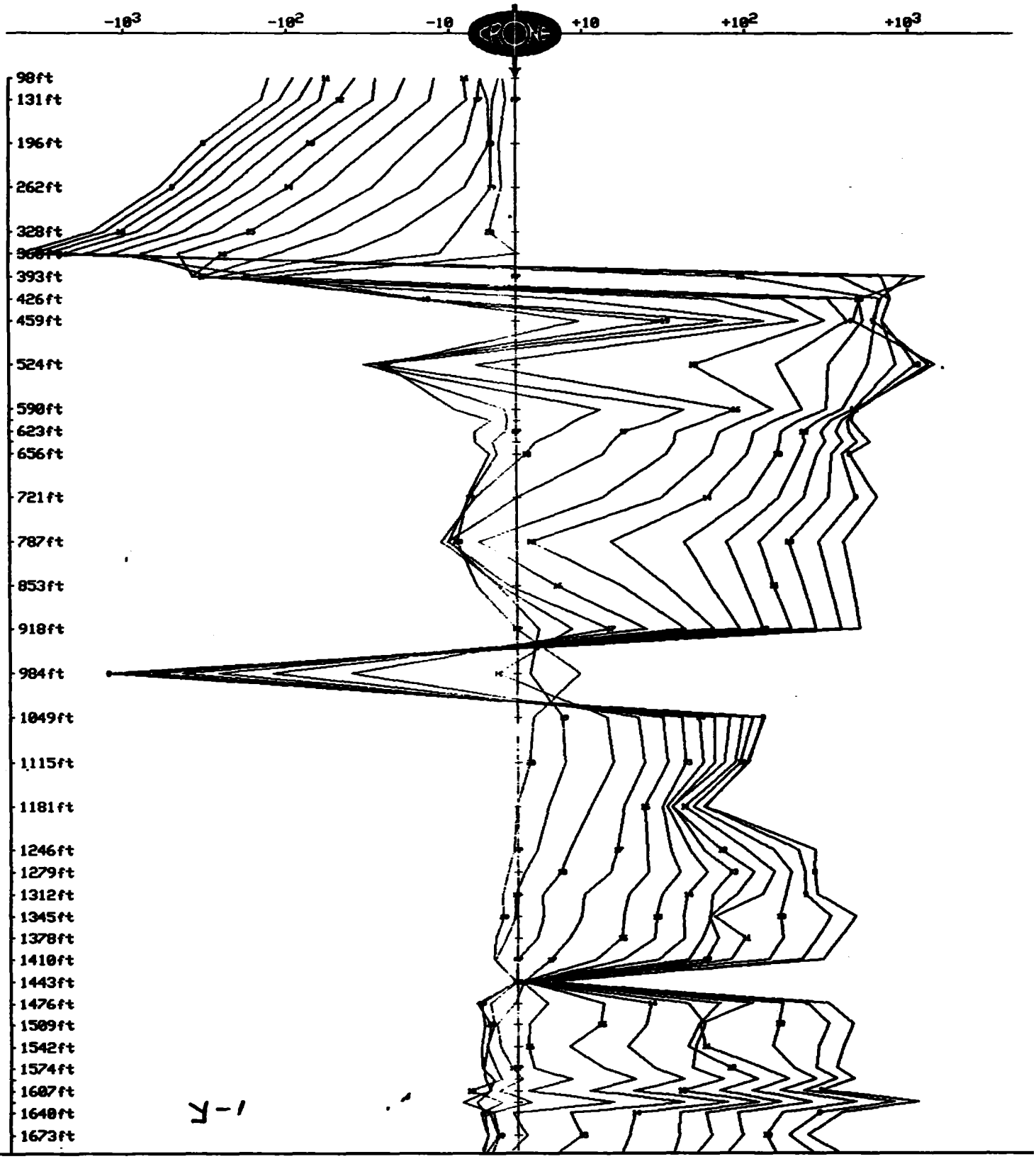
CRONE GEOPHYSICS & EXPLORATION LTD

BOREHOLE PEM

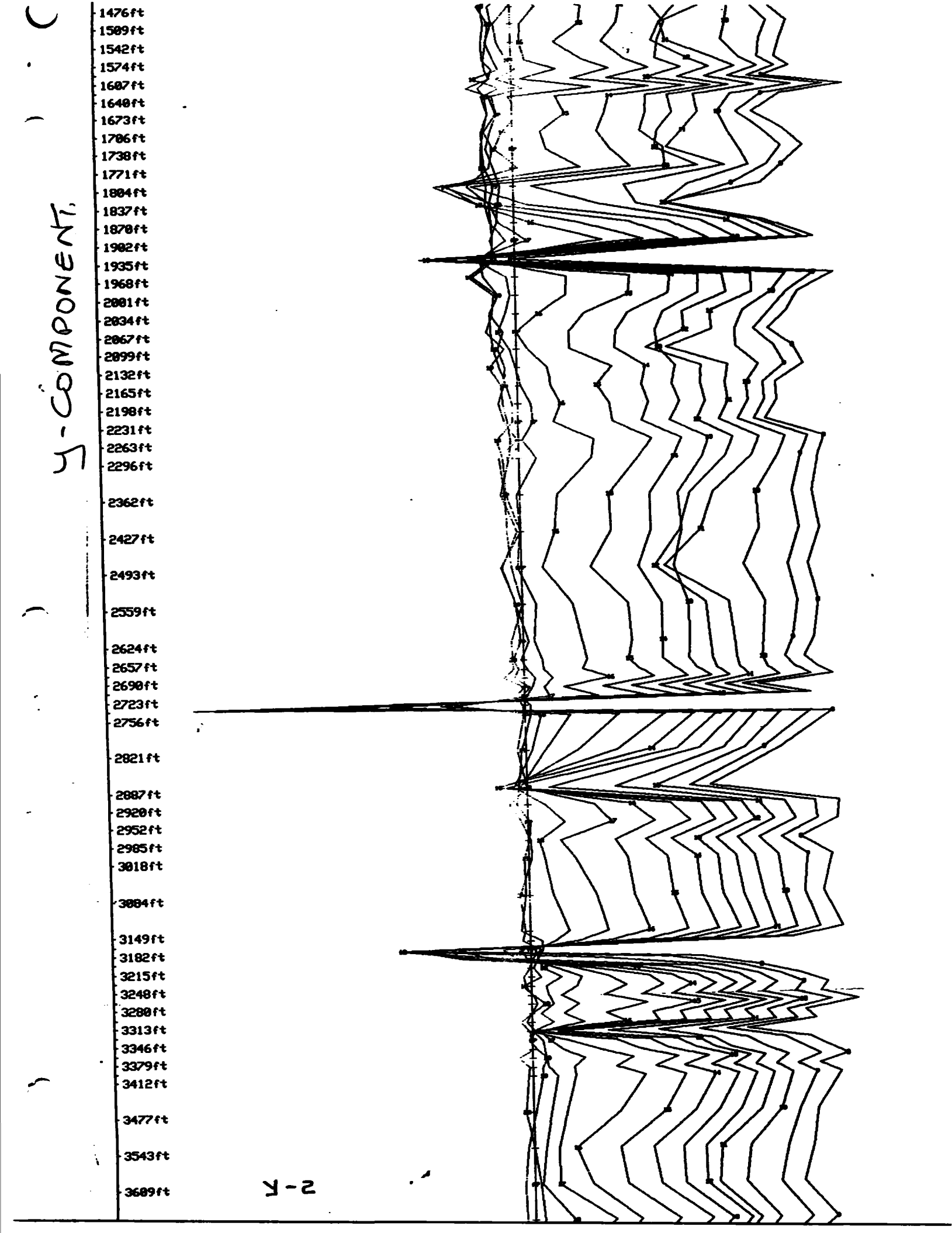
Client	: AGNICO-EAGLE	Hole	: 91-2
Grid	: COBALT	Tx Loop	: T1
Date	: Oct 17, 1991	File name	: 91-2XYR.PEM

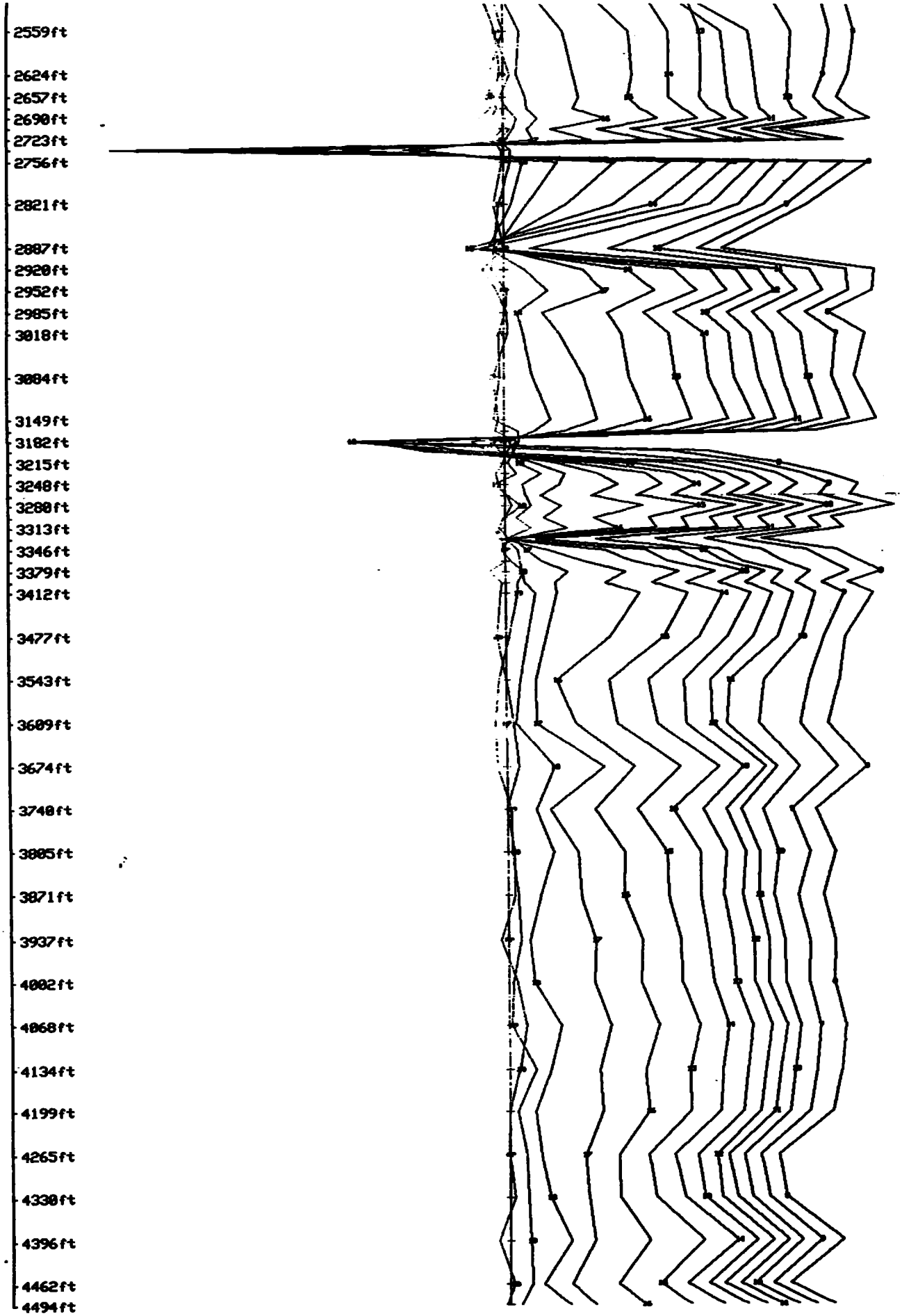
Data Corrected for Probe Rotation
Data Scaled by Factor of 1.42
Y COMPONENT dBy/dt nanoTesla/sec - 20 channels and PP

Scale: 1in = 200ft



Y-1


Y-COMPONENT
1476ft
1509ft
1542ft
1574ft
1607ft
1640ft
1673ft
1706ft
1738ft
1771ft
1804ft
1837ft
1870ft
1902ft
1935ft
1968ft
2001ft
2034ft
2067ft
2099ft
2132ft
2165ft
2198ft
2231ft
2263ft
2296ft
2362ft
2427ft
2493ft
2559ft
2624ft
2657ft
2690ft
2723ft
2756ft
2821ft
2887ft
2920ft
2952ft
2985ft
3018ft
3084ft
3149ft
3182ft
3215ft
3248ft
3280ft
3313ft
3346ft
3379ft
3412ft
3477ft
3543ft
3609ft
Y-2


2559ft
2624ft
2657ft
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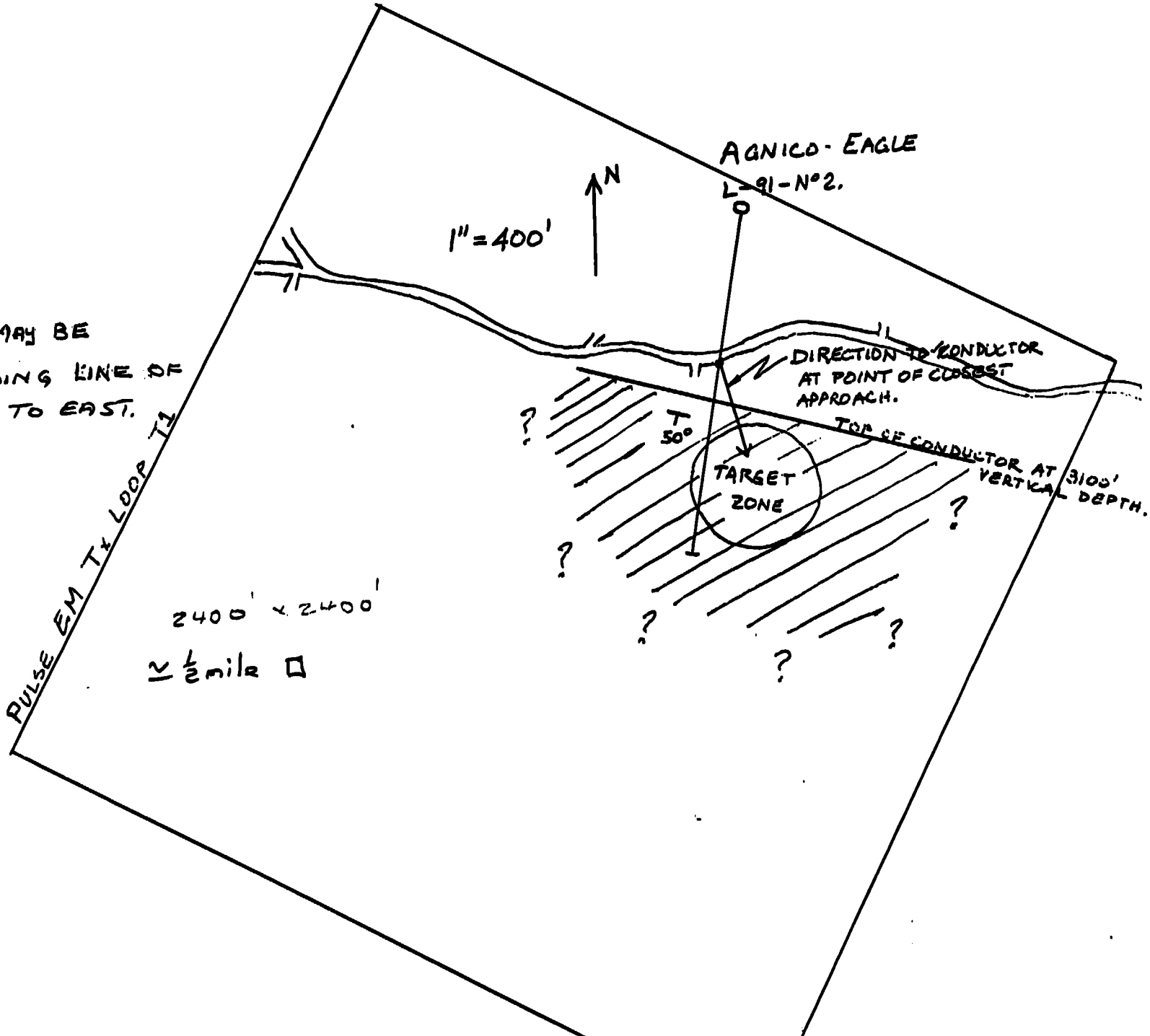
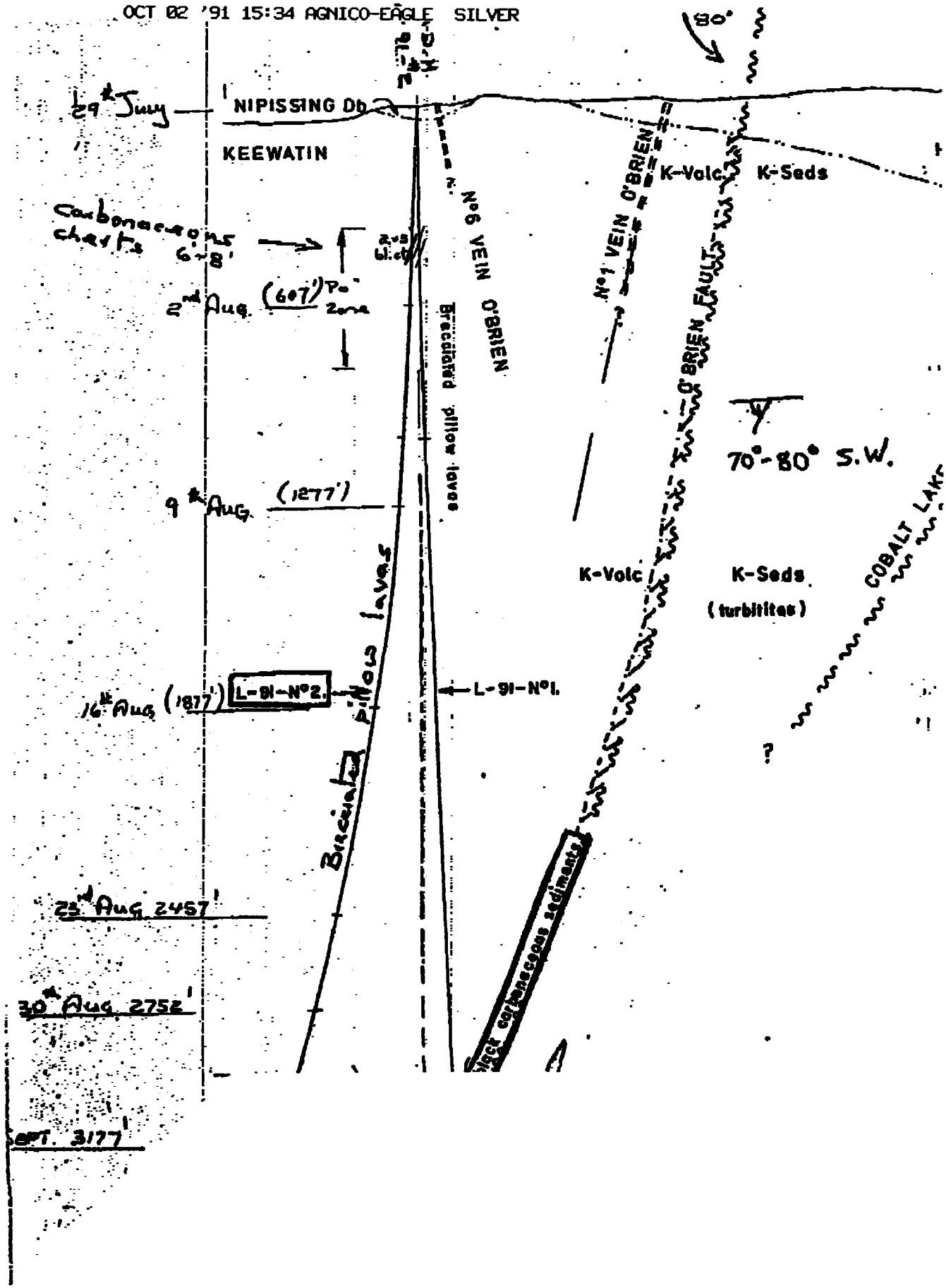
2723ft
2756ft
2821ft
2887ft
2920ft
2952ft
2985ft
3018ft
3084ft
3149ft
3182ft
3215ft
3248ft
3280ft
3313ft
3346ft
3379ft
3412ft
3477ft
3543ft
3609ft
3674ft
3740ft
3805ft
3871ft
3937ft
4002ft
4068ft
4134ft
4199ft
4265ft
4330ft
4396ft
4462ft
4494ft

Y - COMPONENT

TOWN OF
COBALT



THE HOLE MAY BE
N-S . ∴ SWING LINE OF
HOLE 12° TO EAST.


29th July
NIPISSING Db
KEEWATIN
80°
K-Volc
K-Seds
Carbonaceous cherts
6-8'
2nd Aug. (607') Po zone
N°6 VEIN O'BRIEN
Brecciated pillow lavas
N°1 VEIN O'BRIEN
O'BRIEN FAULT
70°-80° S.W.
9th Aug. (1277')
K-Volc
K-Seds
(turbidites)
COBALT LAKE
16th Aug (1877')
L-91-N°2.
L-91-N°1.
Brecciated pillow lavas
black carbonaceous sediments
25th Aug 2457'
30th Aug 2752'
Sept. 3177'

FALCONBRIDGE

December 3, 1991

Mr. Brian Thorniley
AGNICO-EAGLE MINES LIMITED
P.O. Box 140
COBALT, Ontario
P0J 1C0

Dear Brian:

This is in response to your telefax of November 27, 1991 requesting an opinion regarding the PEM results from diamond drill hole L91-2.

Our Chief Geophysicist, Tony Watts, has reviewed the data and has produced 2 Multiloop models to help assess Crone's interpretation. The models which are appended herewith, confirm that the off-hole source between 3200 and 3600 feet can only be above the hole.

The frequency of graphitic intersections in the hole and the proximity to a major graphitic fault zone all point to a probable graphitic source. However, it is a legitimate high-conductivity off-hole anomaly. Is it caused by graphite? - or something else?

We hope that this will be of some assistance.

On behalf of the Falconbridge Exploration Group in Sudbury, I would like to wish you and your staff a happy holiday season and a healthy and successful 1992.

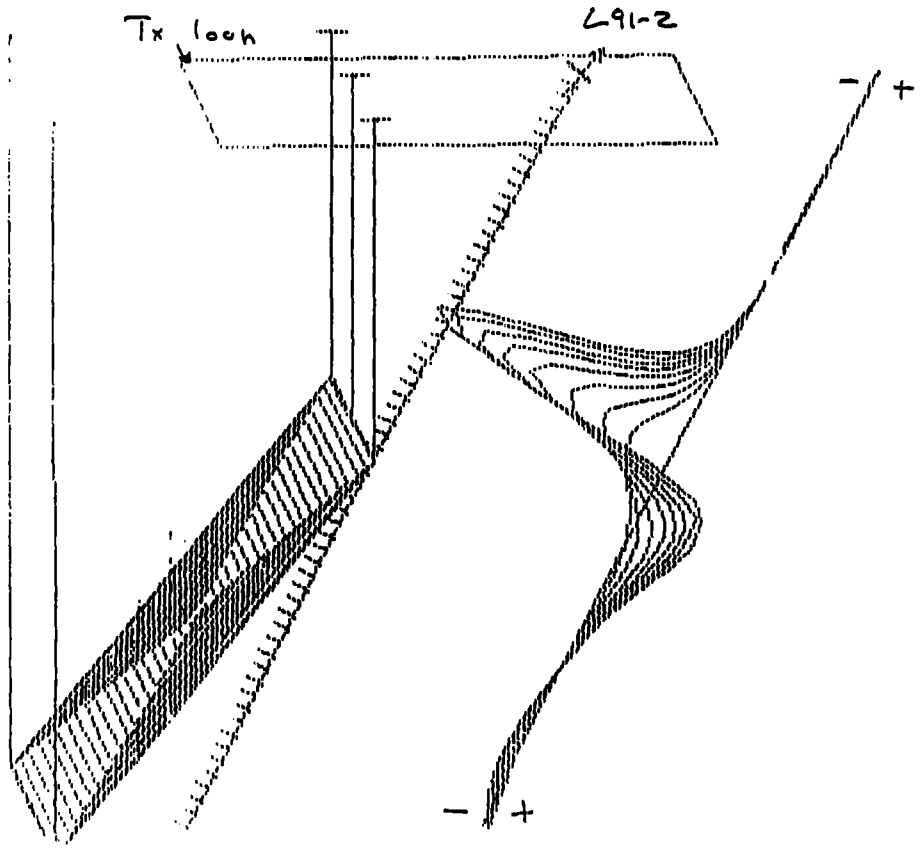
Yours truly,

P.W.A. Severin
Regional Exploration Manager

PWAS/lla
cc: A.H. Watts

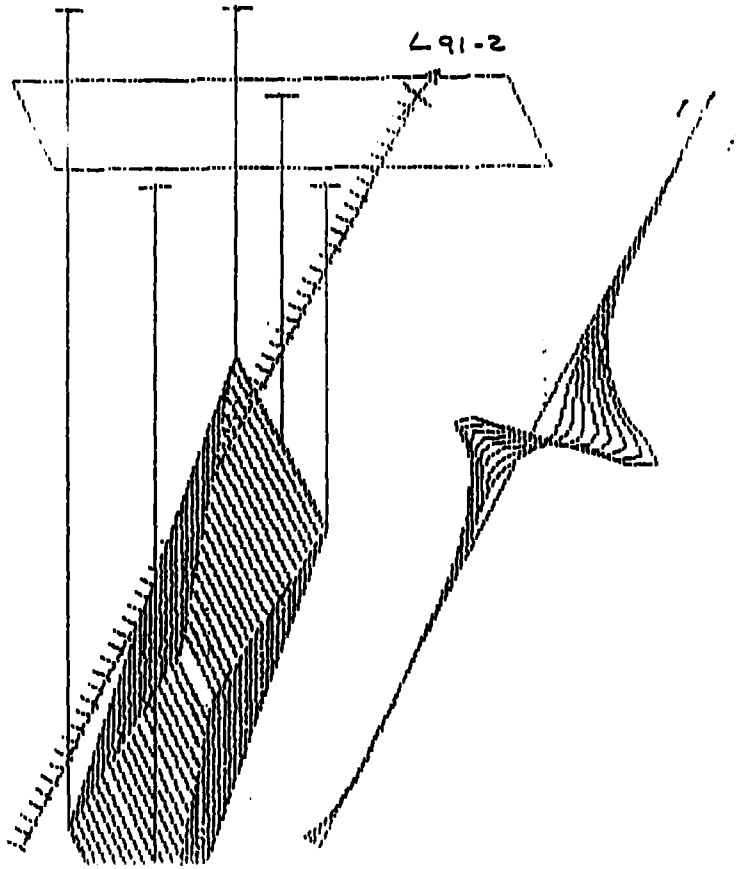
FALCONBRIDGE LIMITED Exploration
P.O. Box 40, Falconbridge, Ontario P0M 1S0, Fax 70[illegible]517 Telephone 705/693/2761

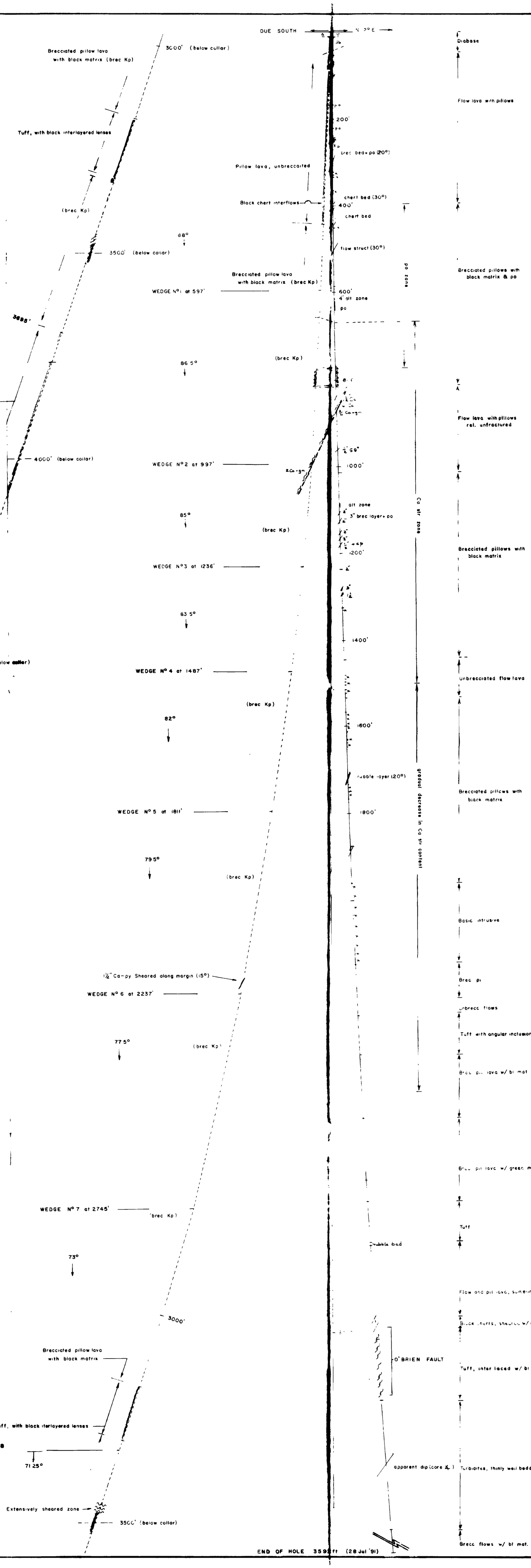
Case I: Conductor above hole



Case II:

Conductor below the hole





200

D.D. HOLES L-91-1 & L-91-2
LEGACY EXPLORATIONS LTD.
O'BRIEN PROP., R.L. 403
COLEMAN TWP., ONT.
SCALE : 1" = 100'
DATE : JUL 91; SEP 91; DEC 91; 10th Jan 1992
BHT

B. H. Thornley

31M06NE0082 OMB1-100 COLEMAN

4600S 4400S 4200S 4000S 3800S 3600S 3400S 3200S 3000S 2800S 2600S 2400S 2200S 2000S 1800S 1600S 1400S 1200S 1000S 800S 600S 400S 200S 0N 200N 400N 600N 800N 1000N 1200N 1400N 1600N 1800N 2000N 2200N 2400N 2600N 2800N 3000N 3200N 3400N 3600N 3800N 4000N

94E

91-2AP

91-2GY

94E

0

-200 -400 -600 -800 -1000 -1200 -1400 -1600 -1800 -2000 -2200 -2400 -2600 -2800 -3000 -3200 -3400 -3600 -3800 -4000 -4200 -4400 -4600 -4800 -5000 -5200 -5400 -5600 -5800 -6000 -6200 -6400 -6600 -6800 -7000 -7200 -7400 -7600 -7800 -8000 -8200 -8400 -8600

1388.14 ft
91-2AP
8800.00 ft
91-2GY

Original Hole

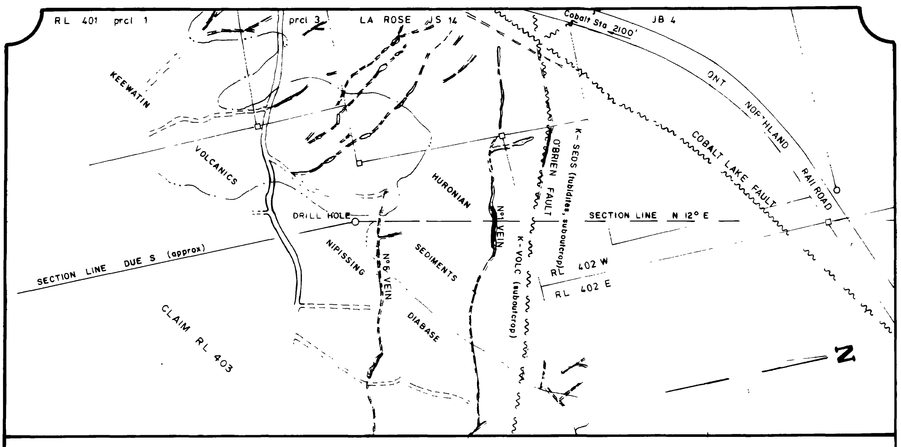
4600S 4400S 4200S 4000S 3800S 3600S 3400S 3200S 3000S 2800S 2600S 2400S 2200S 2000S 1800S 1600S 1400S 1200S 1000S 800S 600S 400S 200S 0N 200N 400N 600N 800N 1000N 1200N 1400N 1600N 1800N 2000N 2200N 2400N 2600N 2800N 3000N 3200N 3400N 3600N 3800N 4000N

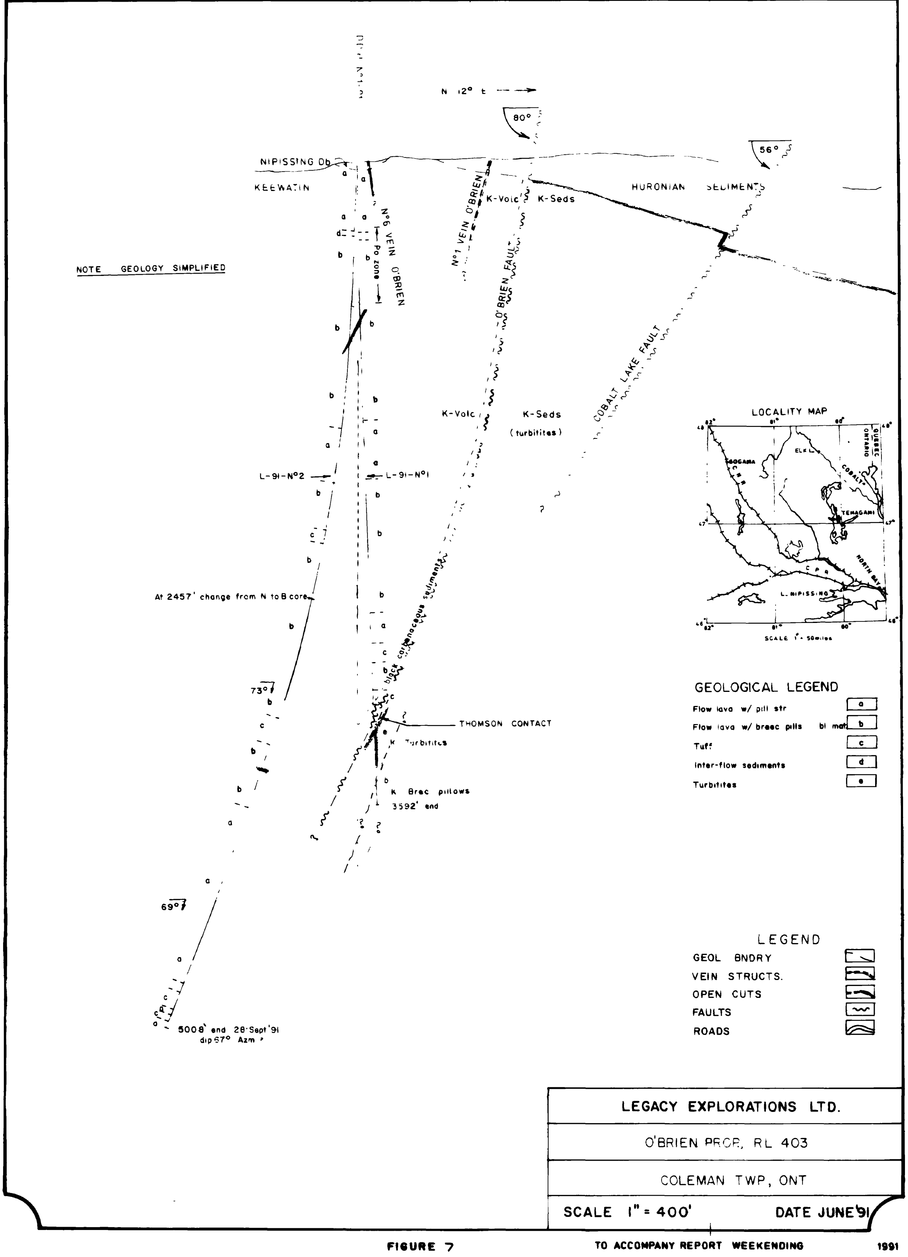
COLE DIRECTIONAL SYSTEMS

L-92-2

L-91-2A PROPOSED

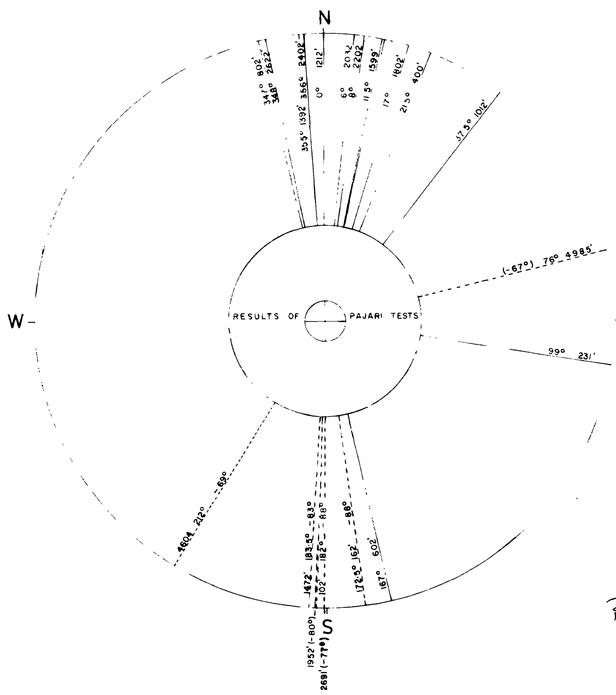
CLIENT AGNICO-EAGLE COBALT	15-DEC-91
PRINTED BY: HP7576A	SCALE: 1" = 400'





LEGACY EXPLORATIONS LTD.
O'BRIEN PROP, RL 403
COLEMAN TWP, ONT
SCALE 1" = 400' DATE JUNE'91

FIGURE 7 TO ACCOMPANY REPORT WEEKENDING 1991



B.H. Thornley
10th Jan 1992