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DRILLING AND GEOLOGICAL REPORT, EASTMAIN RIVER PROJECT



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DRILLING AND GEOLOGICAL REPORT

F GRID AND ITS EXTENSIONS

EASTMAIN RIVER PROJECT, QUEBEC

VENTURE 116

BY

PLACER DEVELOPMENT LIMITED

October 1983 Toronto, Ontario M. Drouin H. Thiboutot

Ministé	ère de l'Énergie et d	les Ressources
Gouvern	ement du Québec	
Service	de la Geoinformation r 8 JWL 1984	
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SUMMARY AND CONCLUSIONS

The 1983 summer program on the various F grid extensions consisted of geological mapping and diamond drilling. Fifteen holes (1590.5 meters) were drilled on the extensions. On the main F grid the summer program consisted of two holes (371.8 meters).

Three holes (83-32, 83-29, 83-30) are particularly significant. Hole 83-32 was the only hole outside the main F grid to encounter economic gold grades. A section grading 11.79 grams Au over 0.8 meters was intersected at a vertical depth of 100 meters. Hole 83-29 cut a1.52 meter section assaying 19.23 grams at a vertical depth of 240 meters. This hole is some 300 meters west of the A Zone and may be indicative of a new zone. Hole 83-30 intersected in the C Zone area two new, non-conductive auriferous chert bands. They are structurally above the previously defined ore horizon. One of the chert bands contained 6.11 grams Au over 1.83 meters. Economically the results of 83-30 are perhaps the most significant.

On the F grid recommendations have been made to further explore the C Zone, to carry out a stratigraphic drilling program between the B and C Zones and finally to follow-up on the results of 83-29.

1000 meters of drilling have been proposed for that part of the F extension grid lying west of line 10W as this area is host to several anomalous gold and silver occurrences.

INTRODUCTION

To date the heart of Placer's Eastmain project continues to be found on the F grid and its extensions. With but one exception (I grid) all gold values within the Main Block (753 claims) are found on the F grid and its extensions. The gold values on the grid occur over a strike length of 4.9 kilometers.

The present report will attempt to coherently integrate the exploration data gathered on the F grid during the 1983 summer program. Exploration work consisted of diamond drilling and mapping.

GRID DESCRIPTION

The F grid presently consists of greater than 200 km of cut line. The base line is 10 km in length and extends from 6300W to 3700E. The main F grid was cut in 1982 and several extensions were added during the winter of 1983. Figure 1 graphically outlines the 1983 extensions. Table I summarizes the extension details. Briefly the additional grid lines were necessary to cover weak airborne conductors, surface gold mineralization and favourable stratigraphy.

LOCATION AND ACCESS (Figure 2)

The project area is situated some 320 km (200 air miles) north of Chibougamau, Quebec. Access to the project area is by float plane. Propair maintains a float plane base southeast of Lake Albanel. The base can be reached from Chibougamau via an all-weather gravel road, a distance of 167 km. From the air base it is a further 167 km to the Placer camp. The grid is 3 km south of Placer Lake. Access is by helicopter based at the camp.





FIGURE 1 1983 F GRID EXTENSIONS

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TABLE I

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F Grid Extensions

Section Name	Total Km	Lines	Chainage	Claims Covered	Comments
F Grid	82.4	0 to 37E	0 to 1000s		Cut in 1982
SE Extension	6.7	21E to 30E	1000s to 1400s	404978 Cls.l-4 404977 Cl.5	Grid extended to cover "Missing Link" conductor
NW Extension	12.6	47W to 55W	650N to 1650N	406376 Cls.1-2, 406375 Cls.3-5 412605 Cls.4-5 412604 Cls.2-5 412603 Cls.2-3	Three grids all tied to the F Grid base line covering 1974
	5.35	59W to 63W	500s to 650N	412603 Cl.5 412604 Cl.1 412605 Cls.1-3 412606 Cls.1-2 406374 Cl.2	Aerodat conductors
	19.8	53W to 62W	500S to 1200S	411167 Cls.3-5 411168 Cls.2-5 411169 Cl.1 411175 Cls.3-5 411176 Cls.1-3 406374 Cl.2 412606 Cls.1,4,5	
F Extension	14.1	8.5E to 21E	0 to 600N	399290 Cl.5 404967 Cls.4-5 404968 Cl.1 404969 Cls.1-2 404970 Cl.1	Extended for future drilling of A-B Zones at depth
	12.3	3E to 9E	0 to 1850N	399289 Cls.4-5 404965 Cl.5 404966 Cls.1-2 404967 Cls.1-4 406073 Cl.5 406155 Cl.5 406156 Cl.1	Lines extended to cover up ice direction of Cu, Au float found in 1982

TABLE I (contd.)

	Total				
Section Name	Km	Lines	Chainage	Claims Covered	Comments
F Extension	21.0	3E to 14W	0 to 700N	398259 Cls.3-5 398262 Cls.1-3 398263 Cls.3-5 404964 Cls.1-2 404965 Cls.4-5 404966 Cls.1-2 404995 Cls.4-5	Covers extension of favour- able stratigraphy and weak AEM responses
	19.0	14W to 2500W	4005 to 400N	398257 Cls.2-4 398258 Cls.1-4 398259 Cls.3-4 411123 Cl.5 411124 Cl.1 411123 Cl.2	Covers Michel Lake showing and weak AEM responses
	4.0	5W to 14W	0 to 400s	398258 Cl.1-2 398259 Cls.4-5 398262 Cl.1 404995 Cl.3	As above
	8.0	0.5W to 4W	0 to 1000s	399289 Cls.1-2 399290 Cls.1-2 404995 Cls.3-4	Covers Boniwell extension zone
	5.6	1.5N to 5.5	N 800W to 1400W	398259 Cls.3-4 398262 Cls.1-3 398263 Cl.4	Covers NE striking Julian Lake showing

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PREVIOUS WORK

The F grid area has been previously explored by Placer in 1969-70, by Nordore Mining from 1974 to 1976, and again by Placer since 1980. The reader is referred to the 1982 F grid report for the complete exploration history of the grid.

REGIONAL GEOLOGY

The F grid lies within what is now locally called Cycle I mafics. This volcanic sequence is 2 to 4 km in thickness and is overturned. Dips are to the north (35° to 60°), the rocks are south facing and trend northwesterly. To the northwest these volcanics are intruded by a younger granitic body. To the southeast the sequence is overlain by the Proterozoic Otish sediments. The dominant rock type is basalt which texturally varies from massive to pillowed to porphyritic to variolitic. Minor rhyolite pyroclastics are present. Semi-concordant massive to talcose ultramafics are found within the sequence. Metamorphism is of the upper greenschist to lower amphibolite facies.

GRID GEOLOGY

SUMMARY

The summer's mapping yielded no new geological information. It essentially confirmed and detailed last years reconnaissance mapping. Perhaps the most significant aspect of the program was that mapping of the F extension grid permitted us to recognize and map the gross A/B Zone stratigraphy. All key rock types of the A/B area outcrop on the F extension grid. An overall thickening of the volcanics occurs on this grid.

Mapping on the F northwest extensions encountered only granitic rocks.

There were no outcrops on the southeast extension. The various geological maps are annexed to the report.

F Grid: SE Extension (Sheet 1)

These lines were cut in an attempt to locate a Rexhem conductor detected between the B and C Zones. Not having been found on the main F grid, it was believed to lay south of the grid. These lines were mapped in June 1983. There were no outcrops. Equally, geophysics failed to locate the conductor.

F Grid: NW Extension (Sheets 4 & 5)

This area consists for all practical purposes of 3 grids each tied into the main F grid base line. The grids cover conductors detected by a 1974 Aerodat survey. Mapping and diamond drilling indicate that these grids are underlain by granitic rocks. The granites are massive to medium grained (1 to 3 mm). They are composed of 5 to 20% quartz, 2 to 5% biotite all set in a feldspar groundmass. Colour varies from white to pinkish. Epidote and hematite filled veinlets are not uncommon. The granites generally contain fine (1 to 5%) magnetite disseminations and trace amounts of sulphides.

<u>F Extension (Sheets 2 & 3)</u>

The F extension grid covers the Hillhouse, Julian and Michel Lake areas. The extension was necessary in order to cover the general favourable stratigraphy, two weak airborne anomalies and two surface gold occurrences. This area is unique within the Main Block as outcrops are abundant and because this is the only area where the A/B Zone stratigraphy actually outcrops. It is interesting to note that the volcanic sequence on the F extension grid has considerably thickened when compared to the A/B Zone. Rock types encountered during the course of mapping are outlined in Table II.

VOLCANIC STRATIGRAPHY

Using three key marker horizons one can establish a crude volcanic stratigraphy. The three units are the feldspar porphyritic basalts, the semi-concordant ultramafics and the variolitic basalts. These same units are present in the A/B Zones. Table III summarizes the volcanic stratigraphy present along a north-south section taken immediately east of Julian Lake. Eastward we can trace this same stratigraphic sequence through to the A/B Zones and westward it can be followed out to roughly line 17W. Beyond this point geological data is insufficient. It is thought that the volcanics are completely cutoff by a younger granodiorite mass in the vicinity of Suzie Lake. We do know, however, that variolitic flows occur as far westward as line 20+50W as they are present in holes 83-16 and 83-32.

TABLE II

Rock Units Present on F Extension Grid

Class	Rock Type	Texture/Structure
Volcanic	Basalt	Massive-pillowed-flow brecciated Fragmental, porphyritic, mega- amygdaloidal
	Rhyolite	Massive, tuffaceous, agglomeratic
	Diorite	Quartz bearing
	Granodiorite	
Intrusives	Gabbro	Massive
	Pyroxenite	Talcose and magnetic or massive
	Dykes	Rhyolite; basaltic; feldspar porphyritic; feldspar and amphibole phenocrysts
Volcanoclastics		Quartz rich and garnetiferous

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TABLE III

F Grid Extension: Volcanic Stratigraphy N/S Section Immediately East of Julian Lake

	Rock Units	Approximate Mapped Thickness
Oldest (N)	Massive, pillowed, mega-amygdaloidal basalts interbedded with rhyolite flows and tuffs	200 m
	Feldspar porphyritic basalt	<u>+</u> 5 m
	Flow brecciated, massive, pillowed, amygdaloidal basalts, minor rhyolite tuffs	<u>+</u> 200 m
Youngest (S)	Massive to talcose ultramafics contains minor basalt and rhyolite tuff	50 to 180 m
	Pillowed and variolitic basalts	<u>+</u> 50 m
	Massive, pillowed, flow brecciated basalts. Minor gabbro, agglomerate and pyroxenite	<u>+</u> 350 m
	Rhyolite agglomerate	<u>+</u> 25 m
	Pillowed basalt	<u>+</u> 75 m
	Rhyolite agglomerate	<u>+</u> 200 m
	Felsic volcanoclastics	?

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DESCRIPTION OF ROCK TYPES

<u>Mafic Volcanics</u>: All mafic volcanics were mapped as basalts. They are by far the most predominant rock type. A characteristic of the basalts is their diversity of textures and structures present within a limited area. Table IV outlines the field terms used and the corresponding geological features observed.

Felsic Volcanics/Volcaniclastics: The felsic volcanics consist of quartz eye bearing flows, fine grained tuffs and agglomerates. They form generally thin bands 5 to 40 m in thickness. On the F extension grid the rhyolite horizons preferentially occur either stratigraphically below the porphyritic basalts or stratigraphically above the variolitic basalts. Interestingly enough this time period corresponds to the period during which the A/B Zones were formed.

The rhyolite agglomerates form the second youngest, nonintrusive rock unit on the grid. The agglomerates contain between 20 and 80% felsic fragments varying in size up to 15 cm. Occassional mafic clasts are present. Up to 5%, 1 to 5 mm size garnets, are contained in the felsic to chloritic matrix.

Overlying the agglomerates is an acid volcaniclastic unit. Several outcrops are found between 650S and 800S on line 4W. This unit is typified by crude bedding, a differential erosion, a thick alteration crust and by large (greater than 1 cm) garnetiferous nodules. Up to 15% quartz grains 1 to 3 mm in size can be found in the volcaniclastics.

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TABLE IV

Basalts Present on F Grid Extension

Field Term	Geological Characteristics	Comments
Massive and pillowed basalts	Fine to coarse grained vesicular - amygdaloidal - "mega-amygdules"	Mega-amygdules are circular features formed by a thin plagioclase rim; internal and external composition are similar.
Flow brecciated basalts	Contains up to 80% basalt fragments. Generally thin and discontinuous	Frequently found in the stratigraphic footwall of A/B Zones.
Porphyritic basalts	Contains between 5 and 15% 1 to 3 mm size feldspar laths in a basaltic matrix	Found in stratigraphic footwall of A/B Zones.
	Traceable found 7W to 2050E	crysts are present.
Fragmental basalt	Unit contains between 5 and 60% rhyolitic fragments in a basaltic matrix	Most probably a bimodal pyroclastic.
Variolitic basalt	Generally pillowed; varioles up to 5 mm in diameter	Found in the stratigraphic hanging wall of A/B Zones. Traceable over 7 km

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Intrusives - Ultramafics: The ultramafics form a semiconcordant body having an approximate strike length of 2.5 km before thinning out significantly. Tongues of the ultramafic extend onto the A/B Zones. It is interesting to note that the gold mineralization (i.e. A/B Zones) coincides with the thinning out of the ultramafics.

Thickness of the ultramafic body on the F extension grid varies between 40 and 150 m. Three facies were identified in the field. There is a gabbroic phase which tends to occur along the margins of the body followed by massive non-magnetic and talcose highly magnetic pyroxenites. The talcose variety erodes positively and forms a major ridge. Polygonal cooling textures were locally observed in the talcose pyroxenites.

Drilling has revealed that there is a significant volcanic content within the ultramafic body. Rhyolite tuffs and basalt flows form traceable units within the pyroxenites.

<u>Gabbros:</u> The gabbros appear to form sills within the basalts. The principal gabbro body, on the grid, occurs close to tie line 7N. Gabbroic lenses (coarse grained flows?) have been mapped throughout the mafic flows. Typically the gabbros are massive dark green and contain abundant amphiboles. The gabbroic weathered surface is rounded and smooth.

Intermediate Intrusives: The tip of a cross-cutting diorite plug outcrops on line 4W at 2S. Ground magnetic surveys indicate that this plug is running sub-parallel to the grid lines. The bulk of the diorite lies to the southwest of the grid. The diorite is massive, fine to medium grained and non-magnetic.

At the western edge of the F extension grid quartz diorites grading into granodiorite outcrop. These rocks are part of a much larger granitic stock intrusive within the volcanic sequence. It is believed that it is in this general area that the volcanics are completely cutoff by this intrusive. Mapping, diamond drilling and magnetic data all strongly allude to this probability.

The mapping found the quartz diorites to be massive, coarse grained (2 to 4 mm) and to contain between 2 and 15% free quartz and between 30 and 40% hornblende. Towards the south this unit becomes progressively richer in quartz, deficient in mafic minerals and hence the name change. Abundant basalt xenoliths are present within the granodiorite.

Dykes: Frequent dykes roughly sub-parallel to the grid lines occur principally north of the base line between lines 4W and 2E. The dykes are generally less than 5 m in thickness. Several types were mapped. Compositionally they range from fine grained rhyolitic to basaltic. Texturally they are mafic feldspar porphyritic dykes (possible feeder dykes?) and intermediate amphibole feldspar prophyritic dykes.

<u>Structure</u>: With but one exception the structure appears to be relatively straightforward. The units strike between 115° and 130° and dips are consistently northerly, varying between 55 and 75°. All pillow top determinations indicate a south facing sequence. The contrasting dip and tops reveal the volcanics to be overturned.

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A structural complication arises south of the base line between lines 13W and 15W. For reasons yet to be determined there is a sudden change in strike. The outcrops in this vicinity have been rotated some 25 to 40° and are now striking east-west. This feature may somehow be related to the younger intrusive granite which perhaps has exerted a compressional force and pushed down these particular volcanics.

MINERALIZATION

F Grid: NW Extension (Sheet 4)

Two granite outcrops were sampled in order to determine their background gold content. One sample contained less than 5 ppb Au while the second (L61+50W, 3+00S) returned a possibly anomalous value of 290 ppb Au. The significance of such an assay remains to be determined.

F Grid Extension (Sheet 3)

During the course of the summer mapping program 24 surface samples were collected and assayed. These samples identified six zones with anomalous gold values which are outlined in Table V. Two of these zones (Julian Lake/Michel Lake) had previously been identified in 1982.

Several points of interest are contained in Table V. The first is that gold occurs in at least three different host rocks. Second, gold is found in both vein material and within disseminated sulphides. Also equally significant is that four of these anomalous values lie between lines 13W and 20+50W. One obvious conclusion is that this area certainly merits further appraisal.

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	<u>F Grid</u>	Extension: Surface Gold Occur	rences	<i>,</i>				
			1983 (Grab Sa	ample	Results		
				Au	Au	Ag	Cu	Zn
Station	Host Rock	Description	Sample	g/t	dqq	t	mqq	ppm
11+00W 4+00N	Gabbro (Coarse basalt)	Mineralized quartz vein probably seated in a fault; vein strikes 035° and is sub-	2750	Tr	-	7.41	10,400	_
	Dasart)	vertical; mineralization	3815	1.54	-	Tr	7,100	-
		consists of py, po and cpy; thickness varies from 0.3 to l meter; exposed over a strik length of 5 m. Responds to VLF and HEM	3816 e	5.11	_	14.75	13,800	_
13+00W 1+00S	Rhyolite Tuff	Disseminated py, py nodules Disseminated sphalerite	2748 2749 3852	2.32 Tr 2.74	-	1.66 Tr 1.75	283 219 144	- 20,000 2,600
6+50W 2+50N	Basalt	Silicified shear zone with disseminated py and cpy; 1% sulphides.	3821	_	2100	0.30	_	_
16+00W 0+75N	Rhyolite	Disseminated po, fuchsite present.	2746 2747	1.37 1.27	-	0.34 Tr	580	-
18+50W 1+75N	Basalt	Quartz vein with disseminated py and cpy.	2735	-	1020	Nil	5160	-
20+50W 0+25N	Granodiorite	Dark grey aphanitic quartz vein striking 125° and verti- cal from 0.1 to 0.7 meters thick. Exposed over 3 m. Quartz tourmaline veining in vicinity, other quartz veins in general are barren	2745	68.78	_	7.17	242	
	Station ll+00W 4+00N l3+00W l+00S 6+50W 2+50N 16+00W 0+75N 18+50W 1+75N 20+50W 0+25N	F GridStationHost Rock11+00WGabbro4+00N(Coarse basalt)13+00WRhyolite Tuff13+00WRhyolite Tuff6+50WBasalt2+50NBasalt16+00W 0+75NRhyolite Basalt18+50W 0+25NBasalt20+50W 0+25NGranodiorite	F Grid Extension: Surface Gold OccurStationHost RockDescription11+00WGabbroMineralized quartz vein probably seated in a fault; vein strikes 035° and is sub- vertical; mineralization consists of py, po and cpy; thickness varies from 0.3 to l meter; exposed over a strik length of 5 m. Responds to VLF and HEM13+00WRhyoliteDisseminated py, py nodules Disseminated py, py nodules Disseminated py and cpy; 1% sulphides.6+50WBasaltSilicified shear zone with disseminated py and cpy; 1% sulphides.16+00WRhyoliteDisseminated po, fuchsite present.18+50WBasaltQuartz vein with disseminated py and cpy.20+50WGranodioriteDark grey aphanitic quartz vein striking 125° and verti- cal from 0.1 to 0.7 meters thick. Exposed over 3 m. Quartz tourmaline veining in vicinity, other quartz veins in general are barren	F Grid Extension: Surface Gold OccurrencesStationHost RockDescriptionSample11+00WGabbroMineralized quartz vein probably seated in a fault; vein strikes 035° and is sub- vertical; mineralization consists of py, po and cpy; thickness varies from 0.3 to l meter; exposed over a strike length of 5 m. Responds to VLF and HEM2748 2749 385213+00WRhyoliteDisseminated py, py nodules Disseminated sphalerite2748 2749 38526+50WBasaltSilicified shear zone with disseminated py and cpy; 1% sulphides.382116+00WRhyoliteDisseminated po, fuchsite present.2746 274718+50WBasaltQuartz vein with disseminated py and cpy.274520+50WGranodioriteDark grey aphanitic quartz vein striking 125° and verti- cal from 0.1 to 0.7 meters thick. Exposed over 3 m. Quartz tournaline veining in vicinity, other quartz veins in general are barren2745	F Grid Extension: Surface Gold OccurrencesStationHost RockDescription1983 Grab S3 Au SampleAu Au11+00W 4+00NGabbro (Coarse basalt)Mineralized quartz vein probably seated in a fault; vein strikes 035° and is sub- vertical; mineralization consists of py, po and cpy; thickness varies from 0.3 to 1 meter; exposed over a strike length of 5 m. Responds to VLF and HEM2750 3816Tr13+00W 1+00SRhyolite TuffDisseminated py, py nodules Disseminated py, py nodules 27492748 27492.32 2.746+50W 2+50NBasaltSilicified shear zone with disseminated py and cpy; 1% sulphides.3821 2.746-16+00W 0+75NRhyolite Disseminated po, fuchsite present.2746 27471.37 1.2718+50W 0+25NBasaltQuartz vein with disseminated py and cpy.2735 2.745-20+50W 0+25NGranodiorite Dark grey aphanitic quartz vein striking 125° and verti- cal from 0.1 to 0.7 meters thick. Exposed over 3 m. 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Quartz tournaline veining in vicinity, other quartz veins in general are barren274568.78-7.17	F Grid Extension: Surface Gold Occurrences1993 Grab Sample Results1993 Grab Sample ResultsStationHost RockDescriptionSampleAuAuAgCu11+00WGabbroMineralized quartz vein probably seated in a fault; vein strikes 035° and is sub- verical; mineralization consists of py, po and cpy; thickness varies from 0.3 to l meter; exposed over a strike length of 5 m. Responds to VLF and HEM2750Tr-7.4110,40013+00WRhyoliteDisseminated py, po and cpy; thickness varies from 0.3 to l meter; exposed over a strike length of 5 m. Responds to VLF and HEM27482.32-1.6628313+00WTuffDisseminated py, py nodules Disseminated py and cpy; 1% sulphides.27482.32-1.751446+50WBasaltSilicified shear zone with disseminated py and cpy; 1% sulphides.3821-21000.30-16+00WRhyoliteDisseminated py, fuchsite present.27461.37-0.3415+50WBasaltQuartz vein with disseminated py and cpy.2735-1020Nil516014+75NBasaltQuartz vein with disseminated py and cpy.274568.78-7.1724220+50WGranodioriteDark grey aphanitic quartz vein striking 125° and verti- cal from 0.1 to 0.7 meters thick. Exposed over 3 m. Quartz tournaline veining in vicinity other quartz veins in general are barren274568.78-7

TABLE V

GEOPHYSICS

Geophysical surveying consisted of VLF, magnetic and MaxMin surveys jointly carried out by Placer and Eldor in February and March of 1983. Geophysical reporting is by John Gingerich of Eldor Resources. The reader is referred to this report.

DIAMOND DRILLING

Diamond Drilling was performed on the F grid, F extension and NW extension. Table VI gives the respective number of holes and meterage for each area. Holes are grouped according to the area drilled and for each area a hole by hole discussion follows.

<u>TABLE VI</u> Area Breakdown of Diamond Drilling

Grid	Number of Holes	Total Meterage
F NW	3	187.2
F extension	12	1403.3
F	2	371.8
		1962.3

A complete and detailed summary of the drilling on the F grids is outlined in Table VII. The drill holes are all plotted on the various geological maps.

Drilling: F NW Extension (Sheets 4 & 5)

Summary

Two weak conductors were drill tested. Both conductors are found in granitic rocks and both are caused by conductive fault gouge material.

		т	Α	B	L	Е	VII	
	Sum	ner	Ē)r!	11	ing	Program	
NW	Exte	ens	31.C	n-	- F	Exte	enston-F	Grid

F NW Extension-F Extension-F Grid															
Assay Results											1	Remarks			
Grid	Hole No.	Location	Dip	Azimuth	Length(m)	From	То	C.L.(m)	g/t Au	gt/Ag	% Cu	ppm zn			
NW Extension	83-9A	5150W-1180N	-55 ⁰	Grid S	40.2				ļ				Abandonded in overburden		
	83-9B	5150W-1180	75 ⁰	Grid S	41.5								Conductive fault zone from 34.4 to 35.6 m		
	83-10	5650W- 8755	-550	Crid S	105.5								Conductor (MM10) due to faulting Conductive fault gouge from 82.3 to 87.78 m		
F	83-16	2050W- 200N	-450	Grid S	165.8	93.45	95.95	2.50	Tr	2.42	0.34	-	Conductor MM16 drilled; baren stringers in basalt		
Extension	83-17	1600W- 150N	-55 ⁰	Grid S	145.4	40.93	45.65	4.72	Tr	2.03	0.093	12	Very heavy green carbonate alteration Abundant sulphide disseminations Silver zoning present; silver increasing with dept Last 21.2 m grades 3.05 grams		
						133.38 143.98	134.38 145.38	1.00	Tr Tr	15.29 8.37		16			
	83-18	1067W- 392N	-55 ⁰	Grid W	130.1	-	-	-	-	-		-	Testing Julian Lake showing		
	B3-27	1300w- 0105	-550	Grid S	99.7	61.02	67.11	6.09	1.26	24.85	-	-	old and silver values found in conductive sulphides		
	83-28	100W- 290N	-550	Grid S	104.7	76.57	78.70	2.13	Tr	2.44	-	-	Barren meta chert band		
	83-32	2050w- 75N	-55 ⁰	Grid S	155.2	87.35 122.32 133.92	88.34 123.08 134.72	0.99 0.76 0.80	2.16 3.22 11.79	2.98 1.10 1.13	0.10 0.05 0.04		Michel Lake showing not intercepted by drilling		
	83-33	1050W- 615N	-550	Grid S	99.7	34.57 66.69 76.84	41.57 73.69 77.84	7.00 7.00 1.00	Tr 1.15 1.71	5.84 6.23 1.65	0.05 0.04 0.21	667 - -	Hole drilled to test a VLF conductor	Testing VLF Responses	
	83-34	900W- 260N	-75 ⁰	Grid S	99.7	67.72	68.72	1.00	Tr	4.59	-	-	VLF related to faults or shears		
	83-35	750W- 140N	-55 ⁰	Grid S	96.3	33.61	34.61	1.00	Tr	3.43	0.02	-	VLF related to topography		
	83-36	400W- 160N	-55 ⁰	Grid S	87.5	70.59	71,59	1.00	Tr	3.43	-	-	VLF related to faulting or shears		
	83-37	800W- 295S	-550	Grid S	98.5	42.30 52.84	45.40 53.88	3.10 1.04	Tr Tr	1.39 4.05	-		VLF related to topography		
	83-38	1800W- 90N	-550	Grid S	120.7	65.14	66.14	1.00	1.68	0.51	7	-	VLF caused by sulphide stringers		
F Grid	83-29	800E- 070S	-80o	Griđ S	249.0	233.78 237.80 241.40 244.90	235.30 238.80 242.90 246.90	1.52 1.00 1.50 2.00	1.44 0.69 19.23 2.15	2.20 112.10 7.85 2.49		- - 700 -	Values at a vertical depth of 200 meter Highest silver value on F grid or its Host rock is a basalt locally grading Sphalerite stringers present	D meters r its extensions ading into a dacite	
	83-30	2750E- 440S	-550	Grid S	122.8	51.45 55.47 87.11	52.97 55.90 88.05	1.52 1.43 0.94	6.11 1.85 1.02	0.77 14.35 7.05	0.16 0.21 0.03		Two new meta chert zones structurally C Zone intersections; target is non-co	ally above previous on-conductive	

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Discussion

Hole 83-9A (Figure 3)

This hole was abandoned in 40.2 meters of overburden. The hole was drilled to test conductor MM6 which has a conductivity thickness product of 0.5 mho's.

Hole 83-9B (Figure 3)

This second attempt using a 75° hole hit fresh massive granite at 17.7 meters. Conductive fault gouge material was intersected between 34.4 and 35.6 meters. This hole intersected a major fault as coring was impossible beyond 41.45 meters.

The conductor lay within a major magnetic low which after drilling is now known to reflect an overburden filled topographic low due to faulting.

Background gold values were 5 ppb or less.

Hole 83-10 (Figure 4)

This hole was spotted to test a well defined, strong quadrature anomaly. With the exception of 5.4 meters of meta basalt granite was the unique rock type present. The conductor is explained by a major fault zone intersected from 82.3 to 87.8 m.

Background gold values are 5 ppb or less.

<u>F Extension (Sheet 3)</u>

Summary

Hole 83-32 intersected the only economic gold values on the F extension grid. A 0.80 meter thick section of locally silicified basalt ran 11.79 grams Au. Sphalerite stringers were locally present. This hole did not intersect the Michel Lake showing which was its original target.

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Hole 83-17 is geologically very interesting. This is the only hole on the F grid or its extension to have encountered heavy green carbonate alteration spread over a core length of 60 m. No gold values were present and silver values were found to be increasing with depth.

Hole 83-18 showed the Julian Lake showing to have no depth extension.

Hole 83-27 intersected conductive sulphides which contained a 6.1 meter interval grading 1.26 grams Au and 24.85 grams Ag.

Holes 83-33 to 83-38 were used to test VLF responses. Results from all the holes were negative with the exception of hole 83-33 which returned two 7 meter thick intersections assaying 5.84 and 6.23 grams silver.

Discussion

Hole 83-16 (Figure 5)

A "highly tenuous quadrature anomaly" (MM16) was the target for this hole. Quartz-sulphide veins and stringers, hosted by basalt were cut from 62.0 to 66.3 meters. 10 to 15% sulphides were present. Due to the close proximity of the Michel Lake showing this hole was allowed to significantly go beyond the conductor

Geologically significant is the presence of two variolitic basalt horizons and also two sections 30 and 37 meters thick (core length) of intrusive quartz diorite.

Geochemically copper assays were in the 0.1% to 0.5% range. Contrary to the A/B Zones this chalcopyrite carried at best only trace gold values.



Hole 83-17 (Figure 6)

Geologically this hole is particularly interesting. It was drilled to test a MaxMin conductor having a short strike length and a conductivity thickness product of 1 mho. The hole is characterized by 105 meter thick rhyolite, rhyolite tuff sequence, 60 meters of which is strongly altered. Alteration consisted of chloritization, local biotitization, local massive epidotization, bleaching and frequent bands 3 to 5 m thick with pervasive green carbonate. Green tourmaline blades were present over a 1.5 meter section.

Equally impressive was the abundant, almost continuous pyrite and pyrrhotite disseminations. Thin, massive py, po stringers were intermittantly encountered. Visually the altered zone could contain between 15% and 20% disseminated pyrite and pyrrhotite. Chalcopyrite was for all practical purposes absent.

100 samples representing at least 100 meters of core were assayed. Highest gold values were trace. There does however seem to be a silver zoning.

From 124.18 to the end of the hole (145.38 m), a distance of 21.2 meters, silver values are with but two exceptions continuously present. They range from 1 to 15 grams and the average grade in the section is 3.05 grams over 21.2 m. This contrasts sharply with the rest of the hole where silver assays are only occasionally present and vary between 1 and 3 grams.



Hole 83-18 (Figure 7)

This hole was drilled to test the Julian Lake showing which is associated with a weak quadrature response. Geophysics indicated the anomaly to have a limited depth extent. This was confirmed by the drilling. The occurrence was not picked up by the drilling though the probably associated fault zone was. The horizontal projection of the hole extends 25 m beyond the surface exposure.

No significant values were present.

<u>Hole 83-27</u> (Figure 8)

This hole was spotted to test conductor MM13. The electromagnetic response was due to pyrrhotite, pyrite stringers found between 57.0 and 67.36 meters. Approximately 20% sulphides were contained in this interval. The sulphides are hosted by a dacitic tuff.

Hole 83-27 is of particular economic significance as the conductive sulphides are enriched in gold and silver. A section from 61.02 m to 67.11 m (6.1 m core length) ran 1.26 grams gold and 24.85 grams silver. Widths, in this case, may be somewhat exaggerated as the rock units are at an acute angle of 35° to the grid lines in this particular area.

In essence hole 83-27 has indicated the presence of a weakly conductive, probably stratabound unit which is anomalously enriched in gold and silver.

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Hole 83-28 (Figure 9)

Geologically this hole seemed promising. A short strike length anomaly (MMll) had been identified within the favourable stratigraphic sequence. The conductor, a quadrature response with a weak in-phase component lay stratigraphically above the porphyritic basalt marker horizon.

The conductor consisted of a "meta chert" band containing 10% pyrrhotite, pyrite and chalcopyrite. Visually this material was similar to the auriferous meta chert bands within the A/B Zones. Assays, however, returned only trace gold and no silver values were present.

Hole 83-32 (Figure 10)

The purpose of this hole was to verify the Michel Lake surface gold occurrence, which is hosted by a granodiorite.

This hole cut 63.9 m of granodiorite from 21.4 m to 88.3 m. Visually the surface occurrence could not be identified. Twenty-three samples were taken within the granodiorite. No gold assays were obtained.

The hole, not having achieved its goal, was allowed to continue. From 85.3 m to the bottom of the hole (155.14 m) only volcanic rocks were present. They consisted of dacitic to rhyolitic flows and tuffs, and basalt flows. Disseminations and stringers of pyrrhotite, pyrite and chalcopyrite were present throughout. Sampling revealed three significant gold assays (Table VIII).This hole, coupled with the Michel Lake occurrence, is important as they show that gold in this area of the grid to be present in three distinct geological units. Hole 83-32 is the only hole within the F grid extensions to have encountered economic grades.




TABLE VIII

From(m)	To(m)	Core Length	gt Au	gt Ag	Remarks
87.35	88.34	0.99	2.16	2.98	Hosted by rhyolite; disseminated pyrite, chalcopyrite.
122.32	123.08	0.76	3.22	1.10	As above.
133.92	134.72	0.80	11.79	1.13	Hosted by basalt; py-po stringers, minor cpy and sphalerite dissemin- ation. Basalt is silicified

Significant Assays: Hole 83-32

Hole 83-33 (Figure 11)

This hole lies on the north shore of Julian Lake. It was spotted to test VLF response V-30. Close to 70% of the hole was cored in rhyolite pyroclastics or flows. The remaining 30% consisted of basalts and dacites. 1 to 5% sulphides are finely disseminated throughout the hole. Up to 10% pyrrhotite is locally present.

This hole is anomalously rich in silver. Two 7 meter thick intersections (34.57 to 41.57 and 66.69 to 73.61 m) returned 5.84 and 6.23 grams silver respectively. The second 7 meter section also assayed 1.15 grams gold. The first intersection is contained in rhyolite pyroclastics containing 1 to 3% disseminated pyrite, chalcopyrite, pyrrhotite and sphalerite. The second zone is hosted by a massive dacite with up to 10% pyrrhotite. A third intersection, 1 meter thick, of silicified basalt returned 1.71 grams of gold from 76.84 to 77.84 m.

Hole 83-34 (Figure 12)

This hole was drilled through the magnetic high outlining the main ultramafic body. VLF anomaly V.37 was the target. As expected massive to talcose pyroxenites were the dominant rock type within which there were several fault or shear zones. These probably







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account for the VLF response. No significant values were present.

Hole 83-35 (Figure 13)

Located along the southern edge of the main ultramafic body, this hole drill tested VLF anomaly V.33. Basalts and massive pyroxenites were the principal rock types logged. The source of the VLF anomaly is thought to be related to the topography as it occurs along the edge of a swamp. No significant values were encountered.

<u>Hole 83-36</u> (Figure 14)

This hole was collared along the northern margin of the ultramafic body. VLF anomaly V.39 was found to be caused by three fault or shear zones within talcose pyroxenites and basalts. No significant values were encountered.

Hole 83-37 (Figure 15)

This was the most southerly of all the holes drilled on the F extension grid. VLF conductor V.41, lying within a topographic low, was drill tested. No conductor explanation is contained in the drill core. The only interesting aspect of the hole was a fuchsite(?) tourmaline band located at 85.16 meters down the hole. It is found within a thick rhyolite pyroclastic sequence extending beyond the hole.

Hole 83-38 (Figure 16)

This hole is located between holes 83-17 and 83-32. VLF conductor V.34 which extends discontinuously through to hole 83-17 was drill tested. The VLF response is attributed to five pyrrhotite bands, 1 to 10 cm in width, found between 75.59 and 81.38 meters.









Two variolitic basalt flows were intersected. The hole bottomed in a talcose pyroxenite. The heavy green carbonate alteration present in hole 83-17 was not present in this hole. The most significant assay is from a 1 meter section of variolitic basalt which ran 1.68 grams gold.

Drilling: F Grid (1982 Grid)

Summary

Two holes were drilled on the F grid during the summer program. Hole 83-29 was spotted on the basis of a weak PEM conductor lying 125 m below surface and some 350 meters northwest of the A Zone. The hole intersected 1.52 meters assaying 19.23 grams gold at a vertical depth of 240 meters. The gold occurs within a sparsely mineralized "dacite". The hole also contains the highest silver assay on the F grid or its extensions. A one meter section, 3.6 meters above the gold intersection, contained 112 grams silver.

Hole 83-30 was drilled on the 1982 C Zone. The drilling of this hole resulted in the discovery of two new gold bearing meta chert bands lying structurally above the previous C Zone intersections.

<u>F Grid</u>

Hole 83-29

This hole was spotted on the basis of the 1983 winter PEM survey results. A possible conductor had been interpreted to occur 125 m below surface. An 80° hole was thus spotted, however at the 125 m level there was no evidence of a conductor. The hole was allowed to continue its course and to eventually reach the probable tuff package which was found to be non-mineralized and only 9 meters thick. This represents at least a 50% decrease in thickness when compared to the A/B Zones.

The tuff package is overlain by a massive to foliated basalt which at the bottom of the hole locally grades into a "dacite" containing sphalerite stringers. One of these "dacitic" sections returned a 1.52m thick section assaying 19.23 grams gold and 7.85 grams silver. The vertical depth of the intersection is 240 meters.

This hole also contains the highest silver values found on the F grid or its extensions. A one meter thick sample contained 112.1 grams silver from 237.8 to 238.8 meters. The host rock was again the same basalt hosting the above gold values.

<u>Hole 83-30</u> (Figure 17)

Economically this is possibly the most significant hole drilled during the summer program. Hole 83-30 was drilled to test for a possible westerly plunge of the C Zone drilled in 1982. The drilling of this hole resulted in the discovery of two new auriferous "meta chert" bands lying structurally above (stratigraphically below) the previous C Zone intersections.

The two new meta chert bands are associated with intense biotitization which extends at least 50 meters to the east. The mafic tuff band close to the collar of hole 82-5 is heavily biotitic and is garnetiferous. The unit is most probably not a tuff but an extension of the 83-30 alteration. It is interesting to note that garnets occur structurally above the first chert band which contains 6.11 grams Au over 1.53 meters. The second chert band contains fuchsite and grades only 1.85 grams gold over 1.43 meters. From our experience with the A/B Zones we know that fuchsite is immediately peripheral to an ore lense. Since 82-5, which is to

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the east, contained no meta chert bands it is anticipated that additional mineralization will occur towards the west.

The third meta chert band correlates with the previous 1982 C Zone intersections which are believed to be stratigraphically equivalent to the A/B Zone.

CONCLUSIONS

F Grid: SE Extension (Sheet 1)

The 1981 airborne Rexhem conductor between the B and C Zones remains unfound. This same conductor was detailed by Aerodat in 1974. Geologically, no outcrops are to be found on the extension. The lack of results thus preclude further exploration activities for the time being on this extension.

F Grid: NW Extension (Sheets 4 & 5)

Geological mapping and diamond drilling show this extension area to be underlain by granitic rocks which are traversed by major, weakly conductive, faults. Gold values were 5 ppb or less except for one exception. A surface sample contained 290 ppb Au. The significance of such an assay is difficult to establish. Some sort of regional geochemical (Au) granite sampling program is needed. This exercise is at present considered more of an academic interest than of practical use.

F Grid Extension (Sheets 2 & 3)

All drill holes which encountered significant gold and silver values lie to the west of line 10W. Particularly significant are holes 83-32, 83-27, 83-17 and 83-33. All surface samples, with but one exception, returning gold values are also found west of the same line. This section of the grid merits a close perusal.

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Hole 83-32 is the only hole to have encountered economic (0.8 m x 11.79 grams Au) gold values on the F grid extensions. The intersection is at a vertical depth of 100 m and is hosted by a basalt. Two other minor intersections were present in rhyolites structurally above. In the vicinity of hole 83-32 gold has now been identified in three different lithologies. Hence a geologically more complex target remains to be identified and followed up. This will initially require further drilling to assess whether a target does indeed exist.

Hole 83-27 intercepted low gold values (1.26 grams) and relatively high silver values (24.85 grams) over a core length of 6.1 meters. The thickness of the intersection is most probably exaggerated as the units in this particular locality are at an acute angle of 35° to the grid lines. The intersection is contained within conductive sulphides and is most probably stratabound in nature. Unfortunately the conductor has but a 100 meter strike length. Follow-up of this target will necessitate a few stratigraphic holes. The stratigraphic sequence hosting hole 83-27 has an above background magnetic signature and is readily traceable over a distance of 600 m.

Hole 83-17 is unique as it is the only hole on the F grid or its extensions to have encountered major alteration. A 60 meter thick zone with heavy green mica was present in the hole. Supposing the alteration occurs within the stratigraphic footwall then one would look towards the top of the sequence for any possible ore lenses. In the case of the F grid or F extension grid stratigraphic tops are always towards the bottom of the hole. This brings us to

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the second feature of interest, namely, there is a build-up of silver values towards the bottom of the hole. Even though no gold values above trace are present within the hole the above possibly suggests that gold values may be found just beyond the bottom of the hole.

Hole 83-33 cut two 7 meter intersections grading 5.84 and 6.23 grams silver respectively. The second intersection also assayed 1.15 grams gold. The hole drill tested a VLF conductor running through the middle of Julian Lake. It is difficult to assess the importance of these intersections as they occur well below in the overall stratigraphy. Additional exploratory holes are necessary to further evaluate this area.

F Grid (1982 Grid)

Hole 83-29 intersected economical gold grades some 20 meters structurally below the probable tuff package. These results may be better understood if we consider a similar analogy. Hole 82-16 cut a 0.5 meter thick section of silicified basalt grading 61.47 grams Au, Hole 82-16 is within the A Zone but it occurs between two ore lenses and the ore grade material was not contained within the traditional meta chert band. This is perhaps the case of hole 83-29. Additional drilling and bore hole pulse e.m. surveying is necessary.

Hole 83-30 resulted in the discovery of two new, non-conductive, auriferous chert bands lying structurally above the C Zone intersections. Follow-up of these chert bands will require additional stratigraphic drilling filling the gap between the B and C Zones.

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F Grid: SE Extension

The negative results thus far obtained exclude further recommendations.

F Grid: NW Extension

The conductors have been explained by conductive fault gouge material. The grids are underlain by granitic rocks. At present no further targets on the grid justify further work.

F Grid Extension

It is recommended that exploration be concentrated on that portion of the grid west of line 10W. Results from holes 83-32, 83-27, 83-17 and 83-33 warrant additional follow-up. Specific recommendations resulting from each of the above mentioned holes are grouped according to the hole number.

Hole 83-32: Recommended Follow-up

It is recommended to deepen hole 83-16 by approximately 60 m.
This should provide a second intercept, on the same section, some
35 meters vertically below the ore grade intersection present in 83-32.
For exploration purposes it is proposed to deepen hole 83-32

by a further 60 meters.

3) It is recommended that a second attempt be made to check the Michel Lake showing. A hole, 150 meters in length, spotted on line 21+00W at 75N is proposed. A possible westerly extension of the gold zone in 83-32 will at the same time be verified.

4) A second hole collared at 75N on line 2000W is proposed. The hole to be 150 m in length will test for an easterly extension of the 83-32 gold zone.

Hole 83-17: Recommended Follow-up

Due to the increasing silver values at the bottom of the hole and the heavy alteration prior (structurally above) it is proposed to deepen this hole by 60 meters.

Hole 83-27: Recommended Follow-up

The auriferous sulphides intersected in this hole were conductive. It is therefore proposed to drill the westerly extension of this same conductor (MM13). A 125 meter long hole on line 1350W at approximately 100S is recommended.

1999 N. 1971 - 1991 N. 444 C. 1971 - 1976 - 1974 MAR

It is also proposed to trace by drilling this favourable stratigraphic horizon which is well outlined by the ground magnetic survey. Two 125 meter long holes are suggested. The first should be spotted on line 1000W at 0+10S. A second hole is proposed on line 800W @ 0+50S. Should there be encouragement the twin magnetic highs on line 5+00W should also be drill tested.

Hole 83-33: Recommended Follow-up

The gold-silver values intersected in hole 83-33 are related to a VLF response. One additional hole is therefore proposed on this same response. The hole, 125 meters in length, should be spotted on line 1300W on the north shore of Julian Lake.

The implementation of the above recommendations would necessitate a minimum of 980 meters of diamond drilling. A reserve meterage of 450 meters is suggested.

contd. ...

24.

<u>F Grid</u> (1982 Grid)

Hole 83-29: Recommended Follow-up

It is proposed to deepen hole 83-29 by a further 60 meters or until the variolitic marker horizon has been completely traversed. This hole should be geophysically probed and any off-hole response should be drilled. Therefore at least one 250 meter reserve hole should be budgeted.

A step-out hole, 150 meters to the west, to be spotted on line 950E is also proposed. Drill hole spacing is based on the premise that the bore hole system can "see" conductive material within a 75 meter radius. 250 meters of drilling should be alloted to this hole.

83-30: Recommended Follow-up

Four holes are immediately proposed. These holes will serve to determine the strike and depth extent as well as the probable plunge. 625 meters of drilling are required. The recommended collar locations are:

1)	2750E/385S	-85 ⁰ ,	175 m	length
2)	2700E/365S	-55°,	150 m	11
3)	2650E/440S	-55 ⁰ ,	125 m	н
4)	2650E/385S	-85 ⁰ ,	175 m	11

All holes are to be drilled grid south.

A stratigraphic drilling program to investigate the area between the B and C Zones is proposed. These holes would cut the tuff package at an approximate vertical depth of 100 meters. Two holes, 175 meters in length, at 150 meter intervals on lines 2400E and 2250E are recommended. 350 meters of drilling are involved.

The above recommendations require a minimum of 975 meters of drilling. Provisions for an additional 325 meters should be made.

Respectfully Submitted,

, Project Geologist

Michel Drouin,

MD/of

<u>APPENDIX I</u>

Eastmain Diamond Drilling Data, 1970, 1981, 1982 & 1983. Diamond Drill Logs, Grid F & Extension 1983 (and log for DDH 82-04).

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V-116 EASTMAIN DIAMOND DRILLING --- YEARS 1970,1981,1982,1983 ----

# HOLE #	NORTHING \$	EASTING #	ELEVAT.\$	TOTAL \$	DATE 1	AZIMUTH:	DIP \$
I NAME I	1	1	1	DEPTH 1	LOGGEDI	(DEG)‡	(DEG) \$
82CH001	-325.00	1800.00	491.00	158.50	820600	180.00	-60.00
82CH 02	-418.00	1850.00	495.00	96.62	820700	180.00	-50.00
82CH 03	-505.00	2850.00	.00	105.52	820600	180.00	-50.00
82CH 04	-390.00	1900.00	490.00	131.36	820600	180.00	-50.00
82CH 05	-440.00	2800.00	.00	123.75	820600	180.00	-60.00
82CH 06	-490.00	1950.00	492.00	127.71	820600	180.00	-50.00
82CH 07	-400.00	3050.00	.00	138.99	820600	180.00	-50.00
82CH008	-415.00	2000.00	491.00	139.30	820600	180.00	-60.00
82CH 09	-320.00	1700.00	484.00	142.18	820600	180.00	-60.00
82CH10	-420.00	2050.00	490.00	151.49	820700	180.00	-50.00
82CH11	-410.00	1750.00	488.00	123.44	820700	180.00	-50.00
82CH12	-225.00	1850.00	489.00	221.60	820700	180.00	-60.00
82CH13	-225.00	1750.00	484.00	221.28	820700	180.00	-60.00
82CH 14	-163.00	1550.00	489.00	205.74	820700	190.00	-60.00
82CH15	-195.00	1650.00	484.00	215.50	820700	180.00	-60.00
82CH16	-230.00	1250.00	488.00	224.30	820700	180.00	-60.00
82CH17	-195.00	1200.00	487.00	226.16	820700	180.00	-60.00
82CH 18	-150.00	1300.00	486.00	260.90	820700	180.00	-65.00

# HOLE #	NORTHING 1	EASTING \$	ELEVAT.	TOTAL #	DATE I	AZ IMUTH#	DIP 🛊
\$ NAME \$	1	1	1	DEPTH I	L066ED1	(DES):	(DEG) \$
B2CH19	-210.00	1600.00	486.00	199.90	820700	180.00	-55.00
82CH20	-175.00	1400.00	487.00	318,80	820700	180.00	-85.00
82CH21	-75.00	1500.00	499.00	281.63	820700	180.00	-65.00
82CH 22	-60.00	1600.00	486.00	268.83	820700	180.00	-65.00
82CH23	-175.00	1400.00	487.00	257.86	820800	180.00	-62.00
82CH24	-115.00	450.00	494.00	87.49	820800	180.00	-55.00
82CH25	-428.00	200.00	497.00	99.67	820800	180.00	-55.00
82CH26	-760.00	1250.00	497.00	99.06	820800	180.00	-55.00
82 CH27	-100.00	1320.00	485.00	303.58	820800	180.00	-70.00
83CH001	-150.00	1200.00	486.20	300.85	830200	180.00	-85.00
83CH002	-95.00	1250.00	485.30	327.96	830200	180.00	-85.00
83CH003	-178.00	1150.00	488.00	262.74	830200	180.00	-95.00
83CH004	-100.00	1350.00	485.90	315.77	830200	180.00	-85.00
B 3CH005	-95.00	1450.00	486.50	303.89	830200	180.00	-85.00
83CH006	-300.00	1325.00	497.30	205.13	830200	180.00	-80.00
83CH007	-330.00	1950.00	488.20	188.05	830200	180.00	-85.00
8 3CH008	-20.00	1400.00	486.10	364.85	830200	180.00	-85.00
83CH010	-875.00	-5650.00	.00	105.46	830600	180.00	-55.00

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# HOLE #	NORTHING 1	EASTING #	ELEVAT.	TOTAL 1	DATE 1	AZIMUTH	DIP 1
I NAME I	1	1	1	DEPTH 1	LOGGED	(DEG)\$	(DEG) \$
83CH016	200.00	-2050.00	495.50	165.81	830700	180.00	-45.00
83CH017	150.00	-1600.00	496.40	145.39	830700	180.00	-55.00
83CH018	392.00	-1067.00	501.80	130.15	830700	270.00	-55.00
83CH027	-10.00	-1300.00	498.70	99.67	830700	180.00	-55.00
83CH28	290.00	-100.00	551.70	104.70	830700	180.00	-55.00
83CH029	-70.00	800.00	486.70	249.02	830700	180.00	-80.00
B3CH030	-440.00	2750.00	494.50	122.83	830700	180.00	-55.00
83CH032	75.00	-2050.00	490.00	155.14	830700	180.00	-55.00
83CH033	615.00	-1050.00	489.70	99.67	830700	180.00	-55.00
83CH034	260.00	-900.00	503.50	99.67	830700	180.00	-75.00
83CH035	140.00	-750.00	503.30	96.32	830700	180.00	-55.00
83CH036	160.00	-400.00	510.50	87.47	830700	180.00	-55.00
83CH037	-295.00	-800.00	501.70	98 . 4 5	830700	180.00	-55.00
83CH038	90.00	-1800.00	492.60	120.70	830700	180.00	-55.00
B3CH09A	1180.00	-5150.00	.00	40.23	830900	180.00	-55.00
93CH099	1180.00	-5150.00	.00	41.45	830600	180.00	-75.00
A83CH011	435.00	600.00	.00	81.07	830600	180.00	-55.00
A83CH012	410.00	1900.00	.00	96.31	830700	180.00	-55.00

# HOLE #	NORTHING 1	EASTING #	ELEVAT.‡	TOTAL #	DATE #	AZINUTHI	DIP 1
# NAME #	1	1	+	DEPTH #	LOGGEDI	(DEG)1	(DEG) 1
A9CH001	-460.00	1187.00	493.00	35.00	700803	190.00	-45.00
A9CH001A	-475.00	1183.00	493.00	74.00	700927	190.00	-45.00
A9CH002	-428.00	1130.00	492.00	83.06	810814	190.00	-50.00
A9CH003	-432.00	1187.00	493.00	76.35	810817	195.00	-50.00
A9CH004	-432,00	1248.00	494.00	79.86	810819	194.00	-50.00
A9CH005	-362.00	1260.00	494.00	127.71	810823	190.00	-60.00
A9CH006	-364.00	1198.00	492.00	122.07	810827	190.00	-60.00
A9CH007	-327.00	1140.00	493.00	123.29	810831	190.00	-65.00
A9CH008	-343.00	1064.00	492.00	103.78	810903	190.00	-70.00
B83CH013	-1190.00	4500.00	.00	84.12	830700	180.00	-55.00
B83CH014	-1075.00	4700.00	.00	81.07	830700	180.00	-55.00
B83CH015	35.00	4700.00	.00	81.38	830700	180.00	-55.00
C83CH024	-385.00	6600.00	.00	86.86	830700	180.00	-55.00
E83CH023	.00	9400.00	.00	111.86	830700	180.00	-55.00
683CH025	-650.00	-90.00	.00	93.57	830700	270.00	-55.00
683CH026	-275.00	-115.00	.00	105.76	830700	270.00	-55.00
183CH022	305.00	300.00	.00	108.81	830600	180.00	-55.00
183CH031	305.00	400.00	.00	102.72	830700	180.00	-80.00
# HOLE #	NORTHING #	EASTING #	ELEVAT.	TOTAL ‡	DATE 1	AZIMUTHI	DIP 1
\$ NAME \$	1	1	1	DEPTH 1	LOGGEDI	(DEG)‡	(DEG) 1
J83CH020	-375.00	-150.00	.00	93.57	830600	180.00	-55.00
K83CH019	305.00	200.00	. 00	133.19	830600	180.00	-55.00
K83CH021	340.00	300.00	.00	108.20	830900	180.00	-50.00

HOLE 83CHOO1 BQ GRID NORTH -150.00 GRID EAST 1200.00 GRID AZIMUTH OF HOLE 180.00 VERTICAL ANGLE -85.00 TRUE AZIMUTH OF HOLE 215 TOTAL DEPTH OF HOLE: 303.85mt. Logged by: H Thibotot on (day/mo/yr)... FEB83 Drilled by: Bradley Bros. FEB83 FROM 0.00MT. TD 6.10MT. **OVERBURDEN** FROM 6.10MT. TO 6.62MT. medium grey ACID DYKE Structures noted: CONTACT dip 00, 57 BIOTITE as disseminations and scattered crystals 13.73MT. FROM 6.62HT. TO dark green BASALT Textures noted: MASSIVE , PILLOWED 17 CARBONATE as microveins 2.57 EPIDOTE as microveins **MEGA-ANYGDULES** 915 960 FROM 13.73MT. TO 17.38MT. med. dark grey META-DACITE Textures noted: MASSIVE Structures noted: CONTACT dip 50, .3Z CARBONATE as microveins .37 K-FELDSPAR as microveins .37 CHLORITE as microveins 17 EPIDOTE as microveins 1708 1738 WEAKLY PORPHYRITIC ACID DYKE 17.38MT. TO 22.50MT. FROM dark green BASALT Textures noted: ANYGDALOIDAL , PILLOWED , FOLIATED Structures noted: FOLIATION dip 45, 17 EPIDOTE as microveins 1967 2195 ZONE OF MEGA-AMYGDULES; BASALT BEARS A CERTAIN RESEMBLANCE TO VARIOLITIC BASALT. 22.50NT. TO 26.00NT. FROM med. dark green PORPHYRITIC BASALT with FELDSPAR, Structures noted: CONTACT dip 45, PORPHYRITIC BASALT MARKER; 7 TO 157 WHITE FELDSPAR 2250 2600 LATHS AVERAGING 3 TO 6 an IN SIZE; FELDSPAR PHENOCRYSTS APPEAR TO BE WEAKLY EPIDOTIZED. 2500 2576 APHANITIC FOLIATED BASALT. 26.00MT. TO 61.33HT. FROM dark green BASALT Textures noted: MASSIVE , PILLOWED 2.57 CARBONATE as microyeins 2.5% EPIDOTE as microveins 3235 3274 QUARTZ K-FELDSPAR VEIN. WELL PILLOWED SEQUENCE WITH FREQUENT BIOTIZED RINS. 4573 6133

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2 TO 3 Z STRINGERS AND DISSEMINATIONS OF PO, CPY, PY. 2600 6133 BASALT HAS AN OVERALL WHITISH TINT (SILICIFICATION?) FROM 61.33HT. TO 67.37HT. med. dark green BASALT with AMPHIBOLES, Textures noted: PORPHYRITIC , FOLIATED Structures noted: CONTACT dip 45, BASALT WITH 10 TO 15Z AMPHIBOLE METACRYSTS 3 TO 7 mm. FRON 67.37MT. TO 89.77MT. grey green BASALT Textures noted: PILLOWED SZ BIOTITE as selvages 17 PYRITE as microveins .3% CHALCOPYRITE as microveins 5% PYRRHOTITE as microveins WELL PILLOWED BASALT; RIMS ARE BIOTIZED, STRINGERS 6737 8977 OF PO UP TO 2 CM IN WIDTH AT IRREGULAR INERVALS, MINOR ASSOCIATED CPY. CORE HAS A PRONOUNCED WHITISH TINT. FROM 89.77HT. TO 171.82HT. dark green BASALT Textures noted: MASSIVE , PILLOWED , FLOW BRECCIA , ANY6DALDIDAL Structures noted: CONTACT dip 35, 17 QUARTZ as microveins 2.5% CARBONATE as microveins 17 K-FELDSPAR as microveins 17 EPIDOTE as microveins FRESH NASSIVE BASALT, GRID ALTERATION POSSIBLY PRESENT, LOCALLY FLOW BRECCIATED AND LOCALLY PILLOWED. MINOR FLOW BRECCIATION 10424 17182 PILLOWED 11248 12804 FROM 171.82NT. TO 176.91NT. medium green ALTERED TUFF 17 GARNET as spots 5% CARBONATE as microveins .31 PYRITE as disseminations and scattered crystals .31 CHALCOPYRITE as disseminations and scattered crystals 10Z K-FELDSPAR as microveins .017 EPIDOTE as massive ALTERED ACID TUFF (FLOW?) FROM 172.52 TUFF BECOMES HEAVILY ALTERED; ALERATION CONSISTS OF MASSIVE EPIDOTIZATION (UP TO 25 Cm IN LENGTH), BLEACHING AND ABUNDANT RED K-FELDSPAR BANDS AND FRACTURE FILLINGS. ALSO PRESENT ARE 1 TO 2 NN SIZED CHLORITTIC PATCHES AND MINOR PINKISH CALCITE. FROM 176.91NT. TO 188.61NT. med. dark green ALTERED BASALT Textures noted: MASSIVE 57 CARBONATE as massive 1% K-FELDSPAR as spots

> 57 CHLORITE as pervasive mineralization 107 EPIDOTE as massive

ALTERED BASALT; ALERATION CONSISTS OF MASSIVE EPIDOTIZED, MASSIVE EPIDOTE BANDS RANGEING IN SIZED FROM A FEW cm to 40 cm. 17953 18288 CORE BADLY BROKEN UP (FAULT OR SHEAR ZONE) 18304 18354 MASSIVE PINK CALCITE WITH MINOR CHLORITE.

18557 18861 BASALT IS RELATIVELY UNALTERED.

FROM 188.61MT. TO 194.47MT.

ALTERED VOLCANIC 2.57 CARBONATE as microveins 107 K-FELDSPAR as pervasive mineralization

- 20Z EPIDOTE as massive 18561 19264 PROBABLE ALTERED ACID TUFF; ALTERATION CONSISTS OF MASSIVE EPIDOTIZATION, PERVASIVE K-FELDSPAR, BLEACHING AND CARBONATE MICROVEINS. COLOUR VARIED ACCORDING TO DOMINANT ALTERATION.
- 19264 19447 PROBABLE ALERED BASALT; ROCK IS SOFT, LIGHT GREEN IN COLOUR, EPIDOTIZATION IS NAIN ALTERATION.

FROM 194.47NT. TO 202.01NT.

dark green BASALT Textures noted: NASSIVE 10Z CARBONATE as microveins .3Z K-FELDSPAR as pervasive mineralization 30Z EPIDOTE as massive RELATIVELY UNALTERED BASALT, MINOR MASSIVE EPIDOTE BANDS FROM A FEW mm TO 2 cm, PERVASIVE K-FELDSPAR, SOME BLEACHING; THE LAST METRE IS HEAVILY BLEACHED.

FROM 202.01MT, TO 205.78MT.

medium green ALTERED BASALT Textures noted: MASSIVE 20Z CARBONATE as massive 1Z K-FELDSPAR as pervasive mineralization 1Z CHLORITE as pervasive mineralization 20Z EPIDOTE as massive 20201 20301 MASSIVE PINKISH COLOURED CALCITE WITH SOME EPIDOTE BANDS AND CHLORITE.

20301 20403 MASSIVE EPIDOTE; PERVASIVE K-FELDSPAR.

FROM 205.78NT. TO 226.90NT.

dart green BASALT Textures noted: MASSIVE , TUFFACEOUS 2.5Z CARBONATE as microveins 1Z PYRRHOTITE as disseminations and scattered crystals 20578 20611 TUFFACEOUS BASALT 21925 22145 TUFFACEOUS BASALT WITH MINOR DISSEINATIONS OF PO. 22595 22690 TUFFACEOUS BASALT.

FROM 226.90HT, TO 232.45HT.

brown grey RHYOLITIC TUFF Textures noted: TUFFACEOUS, BEDDED Structures noted: BEDDING dip 40, 5Z BIOTITE as pervasive mineralization .01Z MARIPOSITE as laminations, bedded

.1% CHALCOPYRITE as disseminations and scattered crystals .3% CHLORITE as microveins .1Z PYRRHOTITE as disseminations and scattered crystals .11 SPHALERITE as laminations, bedded BROWNISH GREY, FINE GRAINED THINLY BEDDED RHYOLITE 22690 23545 TUFFS. WEAKLY MINERALIZED ((12) WITH PO, CPY, AND A 2mm THICK SPHALERITE BAND. 23221 23227 PROBABLE STRATIGRAPHIC EQUIVALENT TO ORE ZONE PO BEARING 'META-CHERT' FROM 229.89NT. TO 230.47NT. 100% of this subinterval is MAFIC TUFF 22985 22985 PROBABLE MARIPOSITE BAND: LESS THAN 1 mm IN THICKNESS. FROM 232.45NT. TO 241.17NT. med. dark green PYROXENITE ; TALCOSE 5% BIOTITE as laminations, bedded 10% CARBONATE as microveins .01% MAGNETITE as pervasive mineralization TALCOSE, MAGNETIC, MEDIUM GREEN, PYROXENITE LOCAL BIOTITE 23245 24117 BANDS; LESS TALCOSE AFTER 239.27. FROM 241.17NT, TO 243.36NT. dark green BASALT Textures noted: MASSIVE 17 BIOTITE as pervasive mineralization 17 CARBONATE as microveins FROM 243.36NT. TO 244.09NT. brown grey RHYOLITIC TUFF Textures noted: TUFFACEOUS , BEDDED 5% BIOTITE as pervasive mineralization .37 CHLORITE as microveins FROM 244.09HT. TO 248.24HT. med. dark green PYROXENITE ; TALCOSE 24479 24500 **5 Z SULPHIDES PY-PO-CPY (MINOR)** FROM 248,24NT, TO 248,63NT. RHYOLITIC TUFF Textures noted: TUFFACEOUS , BEDDED Structures noted: CONTACT dip 20, 52 BIOTITE as pervasive mineralization 17 CHLORITE as microveins .32 PYRRHOTITE as disseminations and scattered crystals FROM 248.63NT. TO 255.28NT. dark green PYROXENITE with PYROXENE, AMPHIBOLES, Textures noted: MASSIVE 24864 25528 MASSIVE MEDIUM GRAINED BASALT. FROM 255.28MT. TO 270.37MT. med. dark green BASALT with AMPHIBOLES , , and BIOTITIC Textures noted: MASSIVE , PILLOWED

57 BIOTITE as laminations, bedded .17 AMPHIBOLES as disseminations and scattered crystals 25528 27037 COARSE BASALTS TYPIFIED BY 10 TO 20 I, 1 TO 2mm SIZED AMPHIBOLES AND MINOR BIOTITED BANDS AND DISSEMINATIONS 26975 26993 PROBABLE FLOW BANDING. FROM 270.37NT. TO 289.72NT. medium green VARIOLITIC BASALT 17 CARBONATE as microveins 2.5% PYRRHOTITE as microveins 27037 28972 VARIOLITIC BASALTS; VERY WELL DEVELOPED VARIOLES OCCUR AT REGULAR INTEVALS EVERY 10 TO 15 CM, VARIOLES OCCUR AS BANDS 2-4mm THICK. FROM 279.36NT. TO 282.86NT. 100% of this subinterval is med. dark green BASALT Textures noted: MASSIVE , FOLIATED 2.52 BIOTITE as laminations, bedded FROM 289.72NT. TO 300.85NT. med. dark green BASALT Textures noted: MASSIVE , ANYGDALDIDAL 2.5% BIOTITE as disseminations and scattered crystals 17 CARBONATE as microveins 30088 30085 END OF HOLE. IN-HOLE SURVEY AT 146.91 NT. GRID AZIMUTH OF HOLE ???.00 VERTICAL ANGLE -82.00 IN-HOLE SURVEY AT 299.31 MT. GRID AZIMUTH OF HOLE 188.00 VERTICAL ANGLE -70.00 TRUE AZIMUTH OF HOLE 223 PROBLEN WITH DOWN HOLE SURVEY. A001 AUNH GNTAU GNTAG PPNCU Z CU PPNZN Z ZN CHINTCCHINTCCHINTCCHINTCCHINTCCHINTC ALAB ATYP H-COR H-COR H-COR H-COR H-COR H-COR FA ANTH FA ÂÂ AA .15 0.34 2160 A001 4822 4932 1951 A001 5120 5220 1952 .15 000 326 A001 7644 7744 1953 .15 000 320 A001 8172 8272 1954 .15 .15 440 A001 20025 20177 5129 0.00 0.00 A001 20177 20254 1955 .15 4.97 4400 A001 20254 20339 5130 0.00 0.00 A001 20339 20439 4494 .15 1.37 A001 20439 20539 4495 .15 000 A001 22027 22158 4496 .15 1.44 A001 22528 22679 5132 0.00 0.00 A001 22679 22779 4497 .15 0.82 A001 22818 22918 1957 .15 .15 400 A001 22918 23005 4498 .15 000 A001 23005 23137 4499 .15 3.57 .15 A001 23137 23237 1956 .15 296 5131 0.00 0.00 A001 23237 23277 5133 0.00 0.00 A001 24225 24326

A001 24 A001 24	326 478	24478 24497	5134 1958	0.17 1.41	0.17 0.41	880	·	÷ .		
A001 24	497 923	2 45 79 27023	5135 1959	0.17	0.00	3000				
A001 27	075	27175	1960	.15	1.54	680				
A001 27 /END	502	27551	1961	.15	3.84	800				

83CH002 BQ GRID NORTH -95.00 GRID EAST 1250.00 GRID AZIMUTH OF HOLE 180.00 VERTICAL ANGLE -85.00 TRUE AZIMUTH OF HOLE 215 TOTAL DEPTH OF HOLE: 327.96at. Logged by: H. Thiboutot on (day/mg/yr)... FEB83 Drilled by: Bradley Bros. FEB83 FROM 0.00MT. TO 2.13MT. OVERBURDEN FROM 2.13MT. TO 66.00MT. dark green BASALT Textures noted: PILLOWED , MASSIVE 1Z QUARTZ as microveins 2.57 CARBONATE as microveins .3Z K-FELDSPAR as microveins 17 EPIDOTE as microveins 1280 1310 WEAK DEVELOPMENT OF MEGA-ANYGDULES. 2320 2347 NEAK DEVELOPMENT OF MEGA-AMYGDULES. 213 6600 **WET CORE HAS A SPECKLED APPEARANCE** WHICH IS PROBABLY DUE TO THE ALTERATION OF FELDSPARS TO CLAY MINERALS; LOCALLY, PROBABLE GRID ALTERATION. FROM 38.80NT. TO 42.37NT. 100% of this subinterval is med. light grey ACID DYKE Textures noted: MASSIVE , FOLIATED Structures noted: CONTACT dip 50, 12 BIOTITE as disseminations and scattered crystals 17 CARBONATE as microveins .12 PYRITE as disseminations and scattered crystals 17 K-FELDSPAR as microveins 4502 4968 A FEW MEGA-AMYGDULES. FROM 66.00HT. TO 67.24HT. dark green FRAGMENTAL BASALT 6600 6687 FRAGMENTAL BASALT IS CHARACTERIZED BY 20% WHITE APHANITIC FELSIC FRAGMENTS, Ine TO Ice IN SIZE IN A DARK GREEN MAFIC MATRIX; GRADES INTO A TUFF AT 66.87. QUARTZ FELDSPAR PORPHYRY DYKE, EPIDOTE FILLED FRACTURES. 6623 6635 6687 6724 PROBABLE META DACITE TUFF, 20 TO 25% 1 TO 2mm SIZED CHLORITIC FRAGMENTS. 6687 6754 3Z PY, CPY DESSEMINATIONS. FROM 67.24NT. TO 68.18NT. medium grey CRYSTAL TUFF Textures noted: FRAGMENTAL Structures noted: BEDDING dip 50, RHYOLITE CRYSTAL TUFF CHARACTERIZED BY 20 TO 25% WHITE FELSIC AND CHERTY FRAGMENTS VARYING IN SIZE FROM 1mm TO 2 CM IN A DACITIC MATRIX. FRON 68.18NT. TO 100.58NT. dark green BASALT Textures noted: MASSIVE

17 CARBONATE as microveins .37 EPIDOTE as microveins 7093 7193 BASALT MORE FELSIC ALMOST DACITIC. 7803 10058 COARSE GRAINED BASALT 9327 9479 FRESH APHANITIC BASALT FROM 100.58MT. TO 109.27MT. medium green BASALT Textures noted: PILLOWED

12 BIOTITE as selvages 12 CARBONATE as microveins .32 PYRRHOTITE as microveins 10500 10503 POSSIBLE VARIOLES 10058 10927 BASALT HAS AN OVERALL WHITISH TINT (SILICIFICATION?)

FROM 109.27NT. TO 113.80NT.

med. dark green BASALT with AMPHIBOLES, Textures noted: MASSIVE, PORPHYRITIC 1Z CARBONATE as microveins .1Z PYRITE as microveins BASALT IS CHARACTERIZED BY 15 TO 20% 1 TO 5mm SIZED AMPHIBOLE METACRYSTS.

FROM 113.80NT. TO 138.38NT.

dark green BASALT Textures noted: MASSIVE, PILLOWED, FOLIATED 2.5% QUARTZ as macroveins 12 BIOTITE as selvages 10% CARBONATE as microveins 12 PYRITE as disseminations and scattered crystals .3% CHALCOPYRITE as disseminations and scattered crystals .1% K-FELDSPAR as microveins 10% EPIDOTE as microveins .3% PYRRHOTITE as disseminations and scattered crystals

11369 11978 CORE BOX SPLIT

11380 13838 BASALT HAS AN OVERALL WHITISH TINT.

FROM 138.38NT. TO 140.51NT.

dark grey FRAGMENTAL BASALT

13838 14051

FRAGMENTAL BASALT CONTAINS 20 TO 252 FELSIC FRAGMENTS RANGING IN SIZE FROM 1mm TO 5cm. TWO TYPES OF FRAGMENTS PRESENT: 1) FELDSPAR PORPHRITIC AND 2) APHANITIC RHYOLITIC FRAGMENTS. MATRIX IS DARK GREEN AND LOCALLY CHLORITIZED.

FROM 140.51NT. TO 198.58NT.

dark green BASALT

Textures noted: MASSIVE , AMYGDALOIDAL , FLOW BRECCIA .32 QUARTI as microveins 2.57 CARBONATE as microveins .37 CHALCOPYRITE as disseminations and scattered crystals 17 EPIDOTE as microveins .37 PYRRHOTITE as disseminations and scattered crystals FRESH MASSIVE BASALT, POSSIBLE GRID ALTERATION, VERY

1

LOCALLY FLOW BRECCIATED.

FROM 157.58HT. TO 157,88HT. 100% of this subinterval is PORPHYRITIC BASALT with FELDSPAR, 17 CARBONATE as microveins WEAKLY PORPHYRITIC BASALT; 3 TO 5% Sam SIZED FELDSPARS. 16093 16346 POSSIBLY PILLONED. FROM 198,58NT. TO 204,52NT. med. light grey ALTERED RHYOLITE Textures noted: MASSIVE , TUFFACEWIS Structures noted: BEDDING dip 35, .32 PYRITE as disseminations and scattered crystals 2.51 K-FELDSPAR as pervasive mineralization 2.5% EPIDOTE as disseminations and scattered crystals MASSIVE TO LOCALLY TUFFACEOUS ALTERED RHYOLITE, 19858 20452 PERVASIVE K-FELDSPAR AND DISSENINATED EPIDOTE. FROM 204.52HT. TO 206.96HT. med. dark green ALTERED BASALT 2.5% K-FELDSPAR as pervasive mineralization 50% EPIDOTE as massive VERY HEAVILY EPIDOTIZED BASALT, MASSIVE EPIDOTE 20452 20696 SECTIONS UP TO 0.7N IN THICKNESS. FROM 206.96NT. TO 243.84NT. dark green BASALT Textures noted: MASSIVE , ANYGDALOIDAL , FLOW BRECCIA 2.5% QUARTZ as microveins 2.5% CARBONATE as microveins .32 PYRITE as disseminations and scattered crystals .17 CHALCOPYRITE as disseminations and scattered crystals 21504 21595 BASALT IS WEAKLY TUFFACEOUS 20696 24384 LOCAL FLOW BRECCIATTION FROM 243.84MT. TO 268.16MT. dark green BASALT with AMPHIBOLES, Textures noted: PILLOWED , MASSIVE 17 QUARTZ as macroveins 2.57 BIOTITE as laminations, bedded 12 CARBONATE as macroveins 24917 25146 ABUNDANT QUARTZ CALCITE VEINING MASSIVE COARSE GRAINED BASALT. 24384 26816 26679 26716 HEAVILY BIOTITIC METADACITIC TO RHYOLITIC TUFF. FROM 268.16MT. TO 270.66MT. med. light grey RHYOLITIC TUFF Structures noted: BEDDING dip 50, 2.57 QUARTZ as eyes, augen .3Z PYRITE as microveins .017 CHALCOPYRITE as disseminations and scattered crystals NAFIC TUFF BAND; DRILLING THROUGH SMALL FOLD; CORE 26990 27033 NORMALS VARY FROM 0 TO 90 DEGREES. FROM 270.66MT. TO 271.46MT.

3

med. light green PYROIENITE Textures noted: MASSIVE 57 BIOTITE as disseminations and scattered crystals NON-MAGNETIC FROM 271.46NT. TO 272.83NT. med. light grey RHYOLITIC TUFF Structures noted: BEDDING dip 40, 2.5% CARBONATE as microveins .37 MARIPOSITE as microveins .3% PYRITE as disseminations and scattered crystals .017 CHALCOPYRITE as disseminations and scattered crystals 17 SERICITE as microveins PROBABLE STRATIGRAPHIC EQUIVALENT TO ORE ZONE. 27240 27283 FROM 272.83NT. TO 276.30NT. med. light green PYROXENITE Textures noted: MASSIVE 17 QUARTZ as macroveins 2.5% BIOTITE as disseminations and scattered crystals .37 PYRITE as disseminations and scattered crystals WEAKLY TALCOSE, WEAKLY MAGNETIC. FROM 276.30MT. TO 278.83MT. brown grey RHYOLITIC TUFF Structures noted: BEDDING dip 40, 17 QUARTZ as eyes, augen 57 BIOTITE as pervasive mineralization 27822 27883 MORE DACITIC COMPOSITION. 27630 27883 WELL BEDDED RHYOLITE TUFFS, SOME QUARTZ EYES FROM 278.83NT. TO 282.61NT. dark green BASALT Textures noted: MASSIVE , ANYGDALDIDAL 27883 27914 QUARTZ NACROVEIN FROM 282.61NT. TO 283.59NT. brown grey RHYOLITIC TUFF 52 BIOTITE as pervasive mineralization 17 PYRITE as microveins FROM 283.59NT. TO 288.77NT. dark green BASALT Textures noted: MASSIVE , FOLIATED 2.5% QUARTZ as macroveins 57 BIOTITE as pervasive mineralization SI CARBONATE as macroveins 17 CHALCOPYRITE as disseminations and scattered crystals 17 PYRRHOTITE as disseminations and scattered crystals FROM 288.77NT. TO 291.09NT. RHYOLITIC TUFF 2.5Z QUARTZ as eyes, augen 12 BIOTITE as disseminations and scattered crystals .11 SERICITE as microveins

6.00

FROM 291.09NT. TO 315.07NT. dark green BASALT Textures noted: MASSIVE , FOLIATED , ANYGDALOIDAL 2.57 QUARTZ as microveins 57 BIOTITE as pervasive mineralization 2.57 CARBONATE as microveins 17 CHALCOPYRITE ⁴as disseminations and scattered crystals .37 K-FELDSPAR as microveins 17 PYRRHOTITE as disseminations and scattered crystals NASSIVE BASALT LOCALLY FOLIATED 30105 30154 TALCOSE, NAGNETIC PYROXENITE 30505 30608 MASSIVE PYROXENITE FROM 315.07MT. TO 327.96MT. dark green VARIOLITIC BASALT Textures noted: VARIOLITIC , MASSIVE 2.5% QUARTZ as microveins 2.5% CARBONATE as microveins 12 PYRRHOTITE as disseminations and scattered crystals WEAKLY VARIOLITIC 31507 32718 REOH 32796 32796 END OF HOLE. IN-HOLE SURVEY AT 174.04 NT. GRID AZINUTH OF HOLE ???.00 VERTICAL ANGLE -75.00 IN-HOLE SURVEY AT 326.44 HT. GRID AZIMUTH OF HOLE 180.00 VERTICAL ANGLE -70.00 TRUE AZIMUTH OF HOLE 215 PROBLEM WITH DOWN HOLE SURVEY. A001 AUNH GNTAU GNTAG PPHEU CU Z PPHZN ZN Z ALAB CHINTC CHINTC CHINTC CHINTC CHINTC CHINTC ATYP H-COR H-COR H-COR H-COR H-COR H-COR ANTH FA FA AA AA A001 6687 6754 2051 0.65 1.44 A001 26816 26969 5136 0.17 0.00 A001 26969 27145 5137 0.17 0.17 A001 27145 27279 2052 .15 .15 242 A001 27249 2742 4500 .15 .15 A001 27420 27615 5145 0.17 0.00 A001 27615 27767 5138 0.17 0.89 A001 27767 27920 5139 0.17 0.55 A001 28248 28349 4676 .15 2.81 A001 28349 28450 5140 0.17 0.00 A001 28450 28554 5141 0.17 0.62 A001 28554 28654 2053 0.45 2.19 8400 A001 28654 28807 5142 0.17 0.89 A001 28807 28959 5146 0.17 1.78 5143 0.17 0.00 A001 28959 29059 5144 0.17 0.00 A001 29059 29139 A001 29139 29239 4677 .15 0.62 A001 2934 2944 4678 .15 2.95 /END

5

HOLE 83CH003 BD GRID NORTH -178.00 GRID EAST 1150.00 GRID AZIMUTH OF HOLE 180.00 VERTICAL ANGLE -85.00 TRUE AZIMUTH OF HOLE 215 TOTAL DEPTH OF HOLE: 262.74mt. Logged by: H.Thiboutot on (day/mo/yr)... FEB83 FEB83 Drilled by: Bradley Bros. 1.83MT. FROM 0.00MT. TU OVERBURDEN 1.83MT. TD 20.64MT. FROM med. dark green BASALT Textures noted: PILLOWED , AMYGDALOIDAL 2.5% QUARTZ as microveins 2.51 CARBONATE as microveins .17 PYRITE as disseminations and scattered crystals .3I CHALCOPYRITE as disseminations and scattered crystals .37 K-FELDSPAR as microveins 11 EPIDOTE as microveins WELL PILLOWED BASALT: POSSIBLELY MEGA-ANYODULES (13.1-15.0) CORE HAS AN OVERALL WHITISH TINT. FROM 15.97MT. TO 19.45MT. 100% of this subinterval is dark grey META-DACITE Textures noted: MASSIVE 1% QUARTZ as macroveins 1% CARBONATE as microveins .17 PYRITE as disseminations and scattered crystals 1% K-FELDSPAR as macroveins .11 PYRRHOTITE as disseminations and scattered crystals FROM 20.64NT. TO 27.13NT. med. dark green BASALT with AMPHIBOLES, Textures noted: MASSIVE , PORPHYRITIC .37 QUARTZ as microveins .31 CARBONATE as microveins 15 TO 20 7, 1TO 15mm SIZED AMPHIBOLE METACRYSTS. 1 TO 27 FELDSPAR PHENOCRYTS. FROM 27.13NT. TO 42.67NT. med. dark green BASALT Textures noted: MASSIVE , PILLOWED , AMY6DALDIDAL 2.5% QUARTZ as microveins 2.5% BIOTITE as selvages 2.5% CARBONATE as microveins .11 PYRITE as disseminations and scattered crystals .17 CHALCOPYRITE as disseminations and scattered crystals .37 K-FELDSPAR as pervasive mineralization 17 EPIDOTE as microveins BASALT HAS AN OVERALL WHITISH TINT 157 1 TO 10mm SIZED AMPHIBOLE METACRYSTS 3206 3258 **11 FELDSPAR PHENOCRYSTS.**

1.1000

FROM 42.67HT. TO 44.56HT.

grey green FRASMENTAL BASALT .3Z PYRITE as disseminations and scattered crystals 107 K-FELDSPAR as pervasive mineralization 17 EPIDOTE as microveins FRAGMENTAL BASALT; 25 TO 307 Inn TO 5cm SIZED FRAGS. BOTH APHANITIC AND QUARTZ-FELDSPAR PORPHYRITIC FRAGS. FROM 44.56HT. TO 77.24HT. dark green BASALT Textures noted: MASSIVE , ANY6DALOIDAL 2.5% QUARTZ as microveins 2.5Z CARBONATE as microveins .17 PYRITE as disseminations and scattered crystals .1% CHALCOPYRITE as disseminations and scattered crystals .1Z K-FELDSPAR as microveins .37 EPIDOTE as microveins PROBABLE WEAK GRID ALTERATION; LOCALLY PILLOWED AND FOLIATED. 5160 5168 QUARTZ FELDSPAR PORPHYRITIC DYKE FROM 60.41NT. TO 63.31NT. 100% of this subinterval is dark grey META-DACITE Textures noted: MASSIVE 12 QUARTZ as microveins 1% CARBONATE as microveins A FEW FELDSPAR PHENOCRYSTS. 6285 6331 FROM 77.24NT. TO 116.43NT. dark green BASALT Textures noted: MASSIVE , PILLOWED , FLOW BRECCIA , ANYGDALDIDAL 12 QUARTZ as microveins 17 CARBONATE as microveins IZ PYRITE as disseminations and scattered crystals .32 CHALCOPYRITE as disseminations and scattered crystals 17 K-FELDSPAR as eacroveins 17 EPIDOTE as macroveins 17 PYRRHOTITE as disseminations and scattered crystals 8995 9126 K-FELDSPAR, QUARTZ, AND EPIDOTE VEINS. FROM 116.43HT. TO 154.84HT. med. dark green BASALT Textures noted: PILLOWED , ANYGDALOIDAL 2.5% QUARTZ as microveins 2.5% CARBONATE as microveins .37 CHALCOPYRITE as disseminations and scattered crystals .37 PYRRHOTITE as disseminations and scattered crystals 11643 15484 LOCAL BLEACHING; PROBABLE GRID ALTERATION FROM 154.84NT. TO 191.23NT. dark green BASALT Textures noted: MASSIVE 12 QUARTZ as microveins

2

17 CARBONATE as microveins

FROM 159.87NT. TO 162.15NT. 100% of this subinterval is med. dark green BASALT Textures noted: TUFFACEOUS , BANDED Structures noted: BANDING dip 20, 12 BIOTITE as pervasive mineralization .12 PYRITE as disseminations and scattered crystals .32 PYRRHOTITE as disseminations and scattered crystals FROM 191.23NT. TO 195.87NT. brown grey RHYOLITIC TUFF Textures noted: , BEDDED Structures noted: BEDDING dip 50, 5% QUARTZ as eyes, augen SZ BIOTITE as pervasive mineralization .3% MARIPOSITE as laminations, bedded .32 PYRITE as disseminations and scattered crystals .37 CHALCOPYRITE as disseminations and scattered crystals 17 PYRRHOTITE as disseminations and scattered crystals 3 TO 5% MINISCULE QUARTZ EYES; THIN FUCSHITE BANDS AT 194.15 AND AT 194.64 FROM 195.87NT. TO 198.39NT. med. dark green PYROXENITE Textures noted: MASSIVE 5% BIOTITE as pervasive mineralization .017 MAGNETITE as disseminations and scattered crystals WEAKLY TALCOSE; WEAKLY MAGNETIC. FROM 198.39NT. TO 199.19NT. brown grey RHYOLITIC TUFF Textures noted: BEDDED Structures noted: BEDDING dip 35, SZ BIOTITE as pervasive mineralization .32 MARIPOSITE as laminations, bedded 17 PYRITE as disseminations and scattered crystals .3Z CHALCOPYRITE as disseminations and scattered crystals 17 PYRRHOTITE as disseminations and scattered crystals .3Z SPHALERITE as disseminations and scattered crystals 2 TO 32 TOTAL SULPHIDES; FUCHSITE BAND AT 199 M PROBABLE STRATIGRAPHIC EQUIVLENT TO ORE 70NE 19903 19919 **3Z DISSEMINATED SULPHIDES.** FROM 199.19NT. TO 203.91NT. med. dark green PYRDIENITE ; TALCOSE Textures noted: , MASSIVE 102 BIOTITE as pervasive mineralization .31 MAGNETITE as disseminations and scattered crystals STRONGLY TALCOSE AND MAGNETIC PROBABLE FAULT ZONE 20042 20050 FROM 203.91HT. TO 207.87HT. dark green BASALT Textures noted: , MASSIVE 17 QUARTZ as microveins

FROM 207.87NT. TO 210.19NT. brown grey RHYOLITIC TUFF Textures noted: , BANDED 17 QUARTZ as eyes, augen 5% BIOTITE as pervasive mineralization .11 PYRITE as disseminations and scattered crystals .1Z CHLORITE as disseminations and scattered crystals FROM 210.19NT. TO 234.12NT. medium green PYROXENITE Textures noted: , MASSIVE .3% QUARTZ as microveins 2.5% BIOTITE as laminations, bedded 17 CARBONATE as microveins 21175 21208 MAFIC TUFF RHYOLITE TUFF 21208 21229 FROM 217.20NT. TO 219.36NT. 100% of this subinterval is med. dark grey META-DACITE Textures noted: TUFFACEOUS , MASSIVE 107 BIOTITE as pervasive mineralization 17 CHLORITE as disseminations and scattered crystals .3I PYRRHOTITE as disseminations and scattered crystals FROM 219.36NT. TO 219.97NT. 100% of this subinterval is FRAGMENTAL BASALT Textures noted: , FRAGMENTAL 57 BIOTITE as pervasive mineralization APHANINTIC CHERTY TO RHYOLITIC FELDSPAR PORPHYRITIC FRAGMENTS; CLASTS ARE STRETCHED UP TO Scn IN LENGTH. FROM 219.97WT. TO 221.59NT. 100% of this subinterval is med. dark green MAFIC TUFF Textures noted: , BANDED Structures noted: BANDING dip 35, 5% BIOTITE as pervasive mineralization .3Z PYRITE as disseminations and scattered crystals FROM 234.12NT. TO 239.88NT. dark green BASALT Textures noted: , MASSIVE Structures noted: CONTACT dip 40. .37 QUARTZ as microveins .37 CARBONATE as microveins FROM 239.88NT. TO 252.37NT. META GABBRO with PYROXENE. Textures noted: , MASSIVE

17 CARBONATE as microveins

FROM 241.40HT. TO 243.05HT.
100% of this subinterval is med. dark green PYROXENITE Textures noted: , MASSIVE FROM 252.37NT. TO 262.74NT. VARIOLITIC BASALT Textures noted: BANDED , FOLIATED Structures noted: BANDING dip 20, .32 QUARTZ as microveins .3% BIOTITE as laminations, bedded 1% CARBONATE as microveins .31 PYRRHOTITE as microveins MODERATELY VARIOLITIC BASALTS; VARIOLES FORM BANDS 3 TO 5cm IN THICKNESS AT 20 DEG. TO CORE NORMAL END OF HOLE. REOH 26274 26274 IN-HOLE SURVEY AT 108.81 NT. GRID AZIMUTH OF HOLE ???.00 VERTICAL ANGLE -78.00 IN-HOLE SURVEY AT 245.97 NT. GRID AZIMUTH OF HOLE 185.00 VERTICAL ANGLE -70.00 TRUE AZIMUTH OF HOLE 220 IN-HOLE SURVEY AT 261.21 NT. SRID AZIMUTH OF HOLE ???.00 VERTICAL ANGLE -69.00 PROBLEN WITH DOWN HOLE SURVEYS. A001 AUMN SHTAU GHTAG PPMCU CU Z PPMZN ZN Z CHNTC CHNTC CHNTC CHNTC CHNTC CHNTC ALAB H-COR H-COR H-COR H-COR H-COR H-COR ATYP AMTH FA FA AA AA A001 10394 10445 1962 .15 0.48 980 .15 0.34 A001 11665 11753 1963 540 ACO1 11938 11915 1964 .15 2.16 3040 5147 0.17 1.10 3091 16063 16215 ADD1 19123 19275 5149 0.17 0.00 A001 19275 19376 4679 .15 15.29 .15 3001 19375 19475 1965 .15 800 .15 0.62 ADD1 19476 19576 4680 4301 19209 19909 1966 .15 000 346 A001 20720 20824 5149 0.17 1.78 A001 20324 20940 4631 .15 10.50 4001 20940 21019 5150 0.17 0.55 A001 21019 21052 5151 0.17 0.00 3001 21052 21089 1967 1.65 .15 1080 2001 21089 21208 5152 0.17 2.47 3001 21720 21972 5153 0.17 0.00 2001 21872 21973 5154 0.17 1.37 A901 21973 22058 5155 0.17 1.78 2001 22058 22160 4682 .15 2.61 A001 22516 22768 5156 0.17 0.00

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HOLE 83CHOO4 BQ GRID NORTH -100.00 SRID EAST 1350.00 SRID AZIMUTH OF HOLE 190.00 VERTICAL ANGLE -85.00 TRUE AZIMUTH OF HOLE 215 TOTAL DEPTH OF HOLE: 315.77mt. Logged by: H.Thiboutot on (day/mo/yr)... FEB83 Drilled by: Bradley Bros. FE893

FROM 0.00MT. TO 6.46MT.

OVERBURDEN

7.25MT. FROM 6.46MT. TO

medium grey RHYOLITIC TUFF Textures noted: , BEDDED Structures noted: BEDDING dip 60, .37 QUARTZ as eyes, augen .11 PYRITE as disseminations and scattered crystals 2.5% CHLORITE as disseminations and scattered crystals .17 PYRRHOTITE as disseminations and scattered crystals WELL BECOED QUARTZ EYE BEARING RHYOLITE TUFF; 5 TO 101 FELDSPAR CRYSTALS.

FROM 7.25MT. TO 11.19MT.

> medium grey RHYOLITE ASGLOMERATE 2.5% BIOTITE as pervasive mineralization RHYCLITE ASSLOMERATE; 40% FRAGMENTS VARYING FROM 111 TO 6CH ; TWO TYPE OF FRAGMENTS: 1) APHANITIC AND RHYOLITIC IN COMPOSITION; 2) QUARTZ-FELDSPAR PORPHRITIC

11.19MT. TO 28.07MT. FROM

> brown grey CRYSTAL TUFF Textures noted: , BEDDED Structures noted: BEDDING dip 50, 107 QUARTZ as eyes, augen 51 BIOTITE as pervasive mineralization II GARNET as disseminations and scattered crystals .17 PYRITE as disseminations and scattered crystals 2.57 CHLORITE as pervasive mineralization 2.5% EPIDOTE as pervasive mineralization BROWNISH TO YELLOWISH GREY RHYDLITE CRYSTAL TUFF; MINOR AGGLOMERATIC BANDS

- 1768 2155 17 DISSEMINATED GARNETS.
- 1537 1561 SECTION RESEMBLES FRAGMENTAL BASALT
- 2313 2432 EPIDOTIZED SECTION

2786 2807 **RESEMBLES FRAGMENTAL BASALT**

FROM 28.07NT. TO 51.24MT.

1

dark green BASALT

Textures noted: MASSIVE , AMY6DALOIDAL

17 QUARTZ as microveins

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17 CARBONATE as microveins

MEGA-AMYGDULAR BASALT; BASALT HAS AN OVERALL WHITISH TINT.

 10.00

FROM 36.21NT. TO 36.54NT. 100% of this subinterval is dark green BASALT

Textures noted: , PORPHYRITIC WEAKLY PORPHYRITIC BASALT 3 TO 5% FELDSPAR LATHS 3621 3654 VARYING IN SIZE FROM 0.5 mm TO 4mm FROM 42.34NT. TO 43.19NT. 100% of this subinterval is dark grey META-DACITE Textures noted: , MASSIVE 5084 5124 COARSE GRAINED BASALT 51.24MT. TO 53.62NT. FROM dark grey META-DACITE Textures noted: , MASSIVE FROM 53.62NT. TO 95.13MT. dark green BASALT Textures noted: MASSIVE , ANYGDALOIDAL 17 QUARTZ as microveins 17 BIOTITE as pervasive mineralization 17 CARBONATE as microveins .37 CHALCOPYRITE as disseminations and scattered crystals .3Z PYRRHOTITE as disseminations and scattered crystals MEGA-AMGYDULAR BASALT; FINE TO COARSE GRAINED; OVERALL WHITISH TINT 5928 5962 MASSIVE DARK GREY DACITE 7650 8388 COARSE GRAINED MASSIVE BASALT FROM 95.13NT. TO 96.68NT. grey green FRAGMENTAL BASALT .37 CARBONATE as pervasive mineralization 17 K-FELDSPAR as pervasive mineralization FRAGMENTAL BASALT; 15 TO 20Z 1mm TO 1cm SIZED CLASTS; 2 TYPES OF FRAGMENTS: FINE GRAINED RHYOLITE. AND QUARTZ-FELDSPAR RHYOLITIC; SOME FRAG.S APPEAR TO BE BLEACHED. FROM 95.89HT, TO 96.38HT. 100% of this subinterval is dark grey CRYSTAL TUFF 17 QUARTZ as microveins 17 BIOTITE as pervasive mineralization 11 CHALCOPYRITE as disseminations and scattered crystals 1% PYRRHOTITE as disseminations and scattered crystals RHYOLITE CRYSTAL TUFF; 202 QUARTZ AND FELDSPAR CRYSTALS IN A GREY RHYLDITIC MATRIX. FROM 96.68MT. TO 126.22MT. dark green BASALT Textures noted: MASSIVE , PILLOWED , ANYGDALOIDAL 2.5% QUARTZ as microveins 5% BIOTITE as selvages .11 GARNET as disseminations and scattered crystals 2.57 CARBONATE as microveins MASSIVE TO PILLOWED BASALTS; BIOTIZED PILLOW RINS; OVERALL WHITISH COLOUR

2

10500 10644 MINISCULE GARNETS IN BIOTIZED RINS QUARTZ VEINING; 22 CPY AND PO IN STRINGERS 11052 11134 FROM 126.22NT. TO 131.43NT. dark green PORPHYRITIC BASALT 17 QUARTZ as microveins 2.5% BIOTITE as pervasive mineralization 12 CARBONATE as microveins PORPHYRITIC BASALT; 20 TO 257 1mm TO 1cm SIZED 12622 13143 FELDSPAR LATHS. FINE GRAINED BASALT 12716 12792 12792 12808 ACID DYKE; QUARTZ-FELDSPAR PHENOCRYSTS FROM 131.43NT. TO 152.83NT. dark green BASALT Textures noted: PILLOWED 2.5% QUARTZ as microveins 5% BIOTITE as selvages 2.5% CARBONATE as aicroyeins .11 CHALCOPYRITE as disseminations and scattered crystals .3% PYRRHOTITE as disseminations and scattered crystals 13259 13350 RHYOLITE CRYSTAL TUFF FROM 152.83NT. TO 171.30NT. dark green BASALT Textures noted: MASSIVE 17 QUARTZ as microveins .37 BIOTITE as pervasive mineralization 1% CARBONATE as microveins .17 CHALCOPYRITE as disseminations and scattered crystals .IZ PYRRHOTITE as disseminations and scattered crystals FRESH MASSIVE FINE TO NEDIUM GRAINED BASALT. FROM 171.30NT. TO 262.19NT. medium green BASALT Textures noted: MASSIVE , ANYGDALOIDAL , FLOW BRECCIA 17 QUARTZ as microveins .3% BIOTITE as laminations, bedded 17 CARBONATE as microveins FRESH FINE GRAINED-LOCALLY FLOW BRECCIATED BASALT FROM 177.39MT. TO 178.00MT. 100% of this subinterval is medium grey RHYOLITIC TUFF Structures noted: CONTACT dip 35. 2.57 QUARTZ as microveins FROM 178.00NT. TO 178.80NT. 100% of this subinterval is dark grey FRAGMENTAL BASALT Structures noted: CONTACT dip 35, 12 QUARTZ as microveins 18090 18108 FRAGMENTAL BASALT 2.5cm SIZED FELDSPAR PORPHYRITIC FRAG.S QUARTZ VEINING WITH MASSIVE PO BANDS 3cm IN SIZE 23860 23905 2 TO 7% TOTAL SULPHIDE CONTENT.

ALC: N

HEAVILY CARBONATED BASALT; 1 TO 27 DISSEMINATED SULPHIDES. 24015 24125 24274 24341 MAFIC TUFF; CHERTY TUFF BAND (243.26-243.29) AT 30 DEG. TO CORE NORMAL. FROM 260.21MT. TO 261.31MT. 100% of this subinterval is DACITIC TUFF 5% BIOTITE as pervasive mineralization METADACITE TUFFS; MINOR MAFIC BANDS 26021 26131 26131 26219 MAFIC TUFF FROM 262.19NT. TO 277.34NT. dark green BASALT Textures noted: PILLOWED 17 QUARTZ as microveins 2.57 BIOTITE as pervasive mineralization 2.57 CARBONATE as microveins 17 PYRITE as pervasive mineralization 17 CHALCOPYRITE as disseminations and scattered crystals .31 EPIDOTE as microveins 17 PYRRHOTITE as disseminations and scattered crystals FROM 277.34NT. TO 281.82NT. arey green MAFIC TUFF Structures noted: FOLIATION dip 35, 17 QUARTZ as microveins 11 CARBONATE as microveins .12 PYRITE as disseminations and scattered crystals .01Z CHALCOPYRITE as disseminations and scattered crystals 17 K-FELDSPAR as microveins .017 PYRRHOTITE as disseminations and scattered crystals FROM 281.82NT. TO 286.60NT. med. dark grey CHERTY TUFF Textures noted: , BEDDED Structures noted: BEDDING dip 30, 10% PYRITE as massive 5% CHALCOPYRITE as disseminations and scattered crystals .3% K-FELDSPAR as microveins 2.5% CHLORITE as microveins RHYOLITIC TO CHERTY TUFF; LOCALLY FRAGMENTAL IN APPEARANCE, 20 TO 25Z TOTAL SULPHIDE CONTENT 28358 28374 MASSIVE PYRITE FROM 286.60NT. TO 287.33NT. med. dark green PYROIENITE Textures noted: , MASSIVE FROM 287.33NT. TO 288.74NT. med. dark grey RHYOLITIC TUFF Textures noted: , BEDDED Structures noted: BEDDING dip 30, 12 QUARTZ as eyes, augen 17 CARBONATE as microveins .011 PYRITE as disseminations and scattered crystals

- 4

.017 PYRRHOTITE as disseminations and scattered crystals FROM 288.74NT. TO 292.99NT. med. dark green PYROIENITE Textures noted: , MASSIVE FROM 290.02NT. TO 290.63NT. 100% of this subinterval is dark grey HETA-DACITE Textures noted: , MASSIVE .37 MUSCOVITE as pervasive mineralization FROM 290.63NT. TO 290.99NT. 100% of this subinterval is med. dark grey RHYOLITIC TUFF .37 K-FELDSPAR as microveins FROM 290.99NT. TO 291.88NT. 100% of this subinterval is dark grey BASALT Textures noted: , TUFFACEOUS Structures noted: BANDING dip 50, 17 QUARTZ as microveins .17 CARBONATE as microveins .37 NUSCOVITE as pervasive mineralization FROM 291.88MT, TO 292.99MT. 100% of this subinterval is aedium grey RHYOLITIC TUFF Structures noted: BANDING dip 40, .3Z MUSCOVITE as sheeting FROM 292.99NT. TO 295.99NT. dark green BASALT Textures noted: MASSIVE , TUFFACEDUS 17 QUARTZ as microveins 17 CARBONATE as microveins MASSIVE PYROXENITE 29299 29367 FROM 295.99NT. TO 299.62NT. RHYOLITIC TUFF Textures noted: , BEDDED Structures noted: CONTACT dip 30. 12 QUARTZ as eyes, augen 17 MUSCOVITE as pervasive mineralization 29892 29946 **META-DACITE** FROM 299.62NT. TO 307.20NT. dark green BASALT Textures noted: FOLIATED , MASSIVE 1Z QUARTZ as microveins 17 CARBONATE as microveins SZ NUSCOVITE as pervasive mineralization 30026 30075 MASSIVE PYROXENITE 30221 30297 MASSIVE PYROXENITE

30325 30361 MASSIVE PYROXENITE

FROM 307.20MT. TO 315.77MT. dark green VARIOLITIC BASALT Textures noted: PILLOWED .3Z QUARTZ as microveins 2.5Z BIOTITE as laminations, bedded .3Z CARBONATE as microveins .1Z PYRITE as disseminations and scattered crystals .1Z CHALCOPYRITE as disseminations and scattered crystals .3Z PYRRHOTITE AS DISSEMINATIONS AND SCATTERED

IN-HOLE SURVEY AT 100.88 MT. GRID AZIMUTH OF HOLE 182.00 VERTICAL ANGLE -80.00 TRUE AZIMUTH OF HOLE 217 IN-HOLE SURVEY AT 222.80 MT. GRID AZIMUTH OF HOLE ???.00 VERTICAL ANGLE -77.00 IN-HOLE SURVEY AT 314.20 MT. GRID AZIMUTH OF HOLE ???.00 VERTICAL ANGLE -??.00 PROBLEM WITH THE DOWN HOLE SURVEY.

A001									
AUMM				SMTAU	SHTAG	PPHCU	CU Z	PPHZN	ZH Z
ALAB				CHNTC	CHMTC	CHMTC	CHMTC	CHHTC	CHNTC
ATYP				H-COR	H-COR	H-COR	H-COR	H-COR	H-COR
ANTH				FA	FA	AA		AA	
A001	9589	9644	2054	.1	5 00	0 88()		
A001	10940	11040	5157	0.17	7 0.4	t		11	l
A001	11040	11135	2055	i 0.4	5 3.5	7 466()		
A001	11135	11235	5158	0.17	7 0.0)		14	5
A001	2386	23905	2056	i .R	5 5.3	7 44()		
A001	23976	24037	2057	.1	5 1.0	5 309	7		
A001	24037	24189	5159	0.1	7 0.8	9		04	ŧ
A001	24189	24350	5160	0.17	7 0.4	1		12	2
A001	24810	24963	5161	0.17	7 1.1	0		2	5
A001	25685	25838	5162	2 0.17	7 1.7	B		t)	7
A001	26033	26133	4683	5 .13	5 5.14	ţ			
A001	26133	26240	5163	6.17	7 2.9	5		7()
A001	26240	26301	2058	0.7	5 11.5	9 6300)		
A001	26301	26380	5164	0.0	0.0)		20)
A001	26380	26480	4684		5 8.2	3			
A001	26480	26580	2059	.1	5 2.4	0 380()		
A001	26580	26682	5165	i 0.17	6.2	ļ		2	2
A001	26900	27005	4685	i .1	5 0.9)			
A001	27981	28081	5166	0.17	7 2.2	5		2	5
A001	28081	28181	2060	0.62	2 7.3	5	. 08	5	
A001	28181	28281	2061	1.47	7 39.84	ţ	.41)	
A001	28281	28381	2062	9.3	5 17.62	2	.46)	
A001	28381	28481	2063	15.84	20.2	5	.60)	
A001	28481	28581	2064	24.43	5 22.7	7	1.18)	
A001	28581	28660	2065	i 42.5	5 25.13	3	.37)	

A001	28660	28733	2066	.15	2.95	.021	
A001	28733	28886	5167	0.17	0.00		23
A001	29188	29285	5168	0.17	0.34		16
A001	29541	29694	5169	0.00	0.00		13
A001	29694	29800	5170	0.00	0.00		15
A001	29800	29900	5171	0.00	0.00		20
A001	30449	30501	2067	.15	2.40	1680	
A001	30751	30852	4686	.15	3.98		
/FND							

HOLE B3CH005 BQ GRID NORTH -95.00 GRID EAST 1450.00 GRID AZIMUTH OF HOLE 180.00 VERTICAL ANGLE -85.00 TRUE AZIMUTH OF HOLE 215 TOTAL DEPTH OF HOLE: 303.89mt. Logged by: H. Thiboutot on (day/mo/yr)... FEB83 Drilled by: Bradley Bros. FEB83 FROM 0.00MT. TO 4.88MT. OVERBURDEN FROM 4.88MT. TO 5.33HT. dark green FRAGMENTAL BASALT MINOR INTERBEDDED RHYOLITE TUFF; FRBS CONTAINS 15% 5mm TO ICM SIZED APHANITIC AND FELDSPAR PROPHYRITIC RHYOLITIC FRAGMENTS. FROM 5.33NT. TO 8.23MT. dark green BASALT Textures noted: NASSIVE .37 QUARTZ as microveins .37 CARBONATE as microveins .3Z EPIDOTE as microveins 8.23NT. TO 19.23NT. FROM brown grey RHYOLITIC TUFF Textures noted: FRAGMENTAL , BEDDED Structures noted: BEDDING dip 50, .3Z QUARTZ as eyes, augen 5% BIOTITE as pervasive mineralization .37 CARBONATE as microveins .17 PYRITE as disseminations and scattered crystals .017 NUSCOVITE as disseminations and scattered crystals .17 CHLORITE as microveins .37 EPIBOTE as microveins CORE NORMALS ARE VARIABLE: VARYING UP TO 75 TO 80 DEG. LOCAL LAPILLI SIZED FRAGMENTS. FINE GRAINED ANYGOULAR BASALT WITH MINOR INTERBEDDED 1433 1698 RHYOLITE. 23.07MT. FROM 19.23NT. TO dark green BASALT with AMPHIBOLES , , Textures noted: FRAGMENTAL , MASSIVE .37 QUARTZ as microveins .37 BIOTITE as laminations, bedded .37 CARBONATE as microveins .01Z PYRITE as disseminations and scattered crystals .017 PYRRHOTITE as disseminations and scattered crystals INTERBEDDED MASSIVE AND FRAGMENTAL BASALT 23.07NT. TO 37.89HT. FROM brown grey CRYSTAL TUFF with K-FELDSPAR , , Textures noted: , BEDDED Structures noted: BEDDING dip 50, 17 QUARTZ as eyes, augen 57 BIOTITE as pervasive mineralization

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.3% CARBONATE as microveins 17 K-FELDSPAR as eyes, augen RHYOLITE CRYSTAL TUFF, LOCAL LAPILLI SIZED FRAGMENTS. 2423 2530 PROBABLE FRAGMENTAL BASALT 2603 2627 PROBABLE FRAGMENTAL BASALT 3316 3505 MEDIUM GRAINED MASSIVE BASALT 3566 3639 MEDIUM GRAINED MASSIVE BASALT FROM 37.89MT. TO 39.53NT. dark green BASALT Textures noted: MASSIVE , FRAGMENTAL , PORPHYRITIC .3Z QUARTZ as microveins .3Z CARBONATE as microveins 3828 3862 FRAGMENTAL BASALT 3862 3923 WEAKLY PORPHYRITIC, 5 TO 72 1 TO 5mm SIZED FELDSPAR PHENOCRYSTS 3941 3953 FRAGMENTAL BASALT, 40% 1 TO 4mm SIZED DUARTZ-FELDSPAR PRORPHYRITIC FRAGMENTS. 39.53NT. TO 44.81NT. FROM brown grey RHYOLITE AGGLOMERATE 52 BIOTITE as pervasive mineralization RHYOLITE AGGLOMERATE 35 TO 40Z FRAGMENTS RANGING 3953 4481 IN SIZE FROM 2mm TO 10cm; THERE ARE THREE TYPE OF FRAGMENTS: APHANITIC AND RHYOLITIC IN COMPOSITION; "RUARTZ FELDSPAR PORPHYRITIC AND A FEW MAFIC FRAGMENTS; SOME INTERBEDS OF RHYOLITE TUFF ARE PRESENT. FROM 44.81NT. TO 52.85NT. brown grey RHYOLITIC TUFF ; CHERTY Textures noted: , BEDDED Structures noted: BEDDING dip 55. 17 QUARTZ as microveins 5% BIOTITE as pervasive mineralization .017 NUSCOVITE as disseminations and scattered crystals .3% CHLORITE as microveins .12 PYRRHOTITE as disseminations and scattered crystals FINELY BEDDED, VERY LOCALLY THERE ARE A FEW LAPILLI SIZED FRAGMENTS FROM 52.85NT. TO 60.72MT. dark green BASALT Textures noted: MASSIVE Structures noted: CONTACT dip 40. 2.5% QUARTZ as microveins .31 CARBONATE as aicroveins MINOR FRAGMENTAL BASALT HORIZONS FROM 57.97 TO 58.12 AND FROM 60.47 TO 60.72 METRES. FROM 60.72NT. TO 65.68NT.

brown grey RHYOLITIC TUFF Textures noted: , BEDDED Structures noted: BEDDING dip 45,

52 BIOTITE as pervasive mineralization

.1Z CARBONATE as eyes, augen

MINOR INTERBEDDED BASATLTIC MATERIAL

FROM 65,68NT, TO 75,10NT, med. dark grey RHYOLITE AGGLOMERATE Textures noted: FRAGMENTAL 2.5Z QUARTZ as microveins IZ BIOTITE as pervasive mineralization .3% CARBONATE as microveins .017 PYRITE as disseminations and scattered crystals .017 MUSCOVITE as disseminations and scattered crystals .37 CHLORITE as disseminations and scattered crystals .37 EPIDOTE as aicroveins .017 PYRRHOTITE as disseminations and scattered crystals RHYOLITE AGGLOMERATE, 30 TO 40% 2mm TO 5cm SIZED FRAGMENTS, FRAGMENTS TYPES SIMILAR TO 39.53 TO 44.81 6919 7510 GRADING INTO LAPILLI TO CRYSTAL TUFFS 6928 7096 MEDIUM GRAINED BASALT 7437 7510 MEDIUM GRAINED BASALT FROM 75.10NT. TO 82.34NT. med. dark grey CRYSTAL TUFF Textures noted: FRAGMENTAL 17 QUARTZ as microveins 2.5% BIOTITE as pervasive mineralization .3% CARBONATE as microveins .01Z PYRITE as disseminations and scattered crystals 57 CHLORITE as pervasive mineralization .37 EPIDOTE as microveins RHYOLITE LAPILLI TO CRYSTAL TUFF, 10 TO 202 Inn TO ICS SIZED APHANITIC TO FELDSPAR PORPHYRITIC FRAGMENTS. MATRIX IN THIS SECTION IS BASALTIC, PROBABLE FRAGMENTAL 7608 7666 BASALT FRON 82.34NT. TO 133.53NT. dark green BASALT Textures noted: MASSIVE , AMY6DALDIDAL 17 QUARTZ as microyeins 1Z CARBONATE as microveins .011 PYRITE as disseminations and scattered crystals .37 K-FELDSPAR as microveins .37 EPIDOTE as microveins 9022 9023 **MEGA-AMYSDULES** 10180 10402 BASALT GRADES TO A META-DACITE. 11073 11129 **MEGA-AMYSDULES** 11750 11909 **NEGA-ANYSDULES** 12192 12207 **WEAK DEVELOPMENT OF NEGA-ANYGDULES** 12875 12908 EPIDOTIZED AND POSSIBLY SILICIFIED BASALT FROM 133.53NT. TO 133.96HT. grey green FRAGMENTAL BASALT 17 QUARTZ as microveins 17 CARBONATE as microveins .31 K-FELDSPAR as microveins CONTAINS A FEW RHYOLITIC BANDS

FRON 133.96MT. TO 138.01MT.

brown grey RHYOLITIC TUFF Textures noted: , BEDDED Structures noted: BEDDING dip 50, .3I QUARTZ as microveins SI BIOTITE as pervasive mineralization .1I GARNET as disseminations and scattered crystals .3I CARBONATE as microveins .0II PYRRHOTITE as disseminations and scattered crystals RHYOLITE TUFF; CONTAINS UP TO 1I GARNETS FROM 135.24 TO 137.28, LAPILLI SIZED FRAGMENTS FROM 133.95 TO 135.24 METRES.

FROM 138.01NT. TO 149.81NT.

med. dark green BASALT Textures noted: NASSIVE , ANYGDALDIDAL 1Z QUARTZ as microveins 1Z BIOTITE as laminations, bedded 1Z CARBONATE as microveins .01Z PYRITE as disseminations and scattered crystals .01Z CHALCOPYRITE as disseminations and scattered crystals .01Z PYRHOTITE as disseminations and scattered crystals

FROM 149.81NT. TO 157.12NT.

med. dark green BASALT Textures noted: AMY6DALOIDAL , MASSIVE , FOLIATED Structures noted: FOLIATION dip 40, 17 QUARTZ as microveins 17 BIOTITE as laminations, bedded 17 CARBONATE as microveins .017 PYRITE as disseminations and scattered crystals .017 CHALCOPYRITE as disseminations and scattered crystals .017 PYRRHOTITE as disseminations and scattered crystals

14781 15712 15 TO 202 Iam TO Icm SIZED STRETCHED ANPHIBOLE METACRYSTS

FROM 157.12NT. TO 158.74NT.

med. dark green FRAGMENTAL BASALT
.32 QUARTZ as microveins
12 BIOTITE as pervasive mineralization
.32 CARBONATE as microveins
.012 PYRITE as disseminations and scattered crystals
12 CHLORITE as pervasive mineralization
.012 EPIDOTE as microveins
.012 PYRRHOTITE as disseminations and scattered crystals
FRAGMENTAL BASALT; 25 TO 302 1mm TO 30mm SIZED
APHANITIC RHYOLITIC AND QUARTZ-FELDSPAR PORPHYRITIC
FRAGMENTS.

FROM 158.74HT. TO 162.73HT.

4

green grey CRYSTAL TUFF Textures noted: , BEDDED .12 QUARTZ as microveins 2.57 BIOTITE as pervasive mineralization .017 MUSCOVITE as disseminations and scattered crystals 2.57 CHLORITE as pervasive mineralization

10.00

.12 EPIDOTE as microveins RHYOLITE CRYSTAL TUFF FROM 162.73NT. TO 192.63NT. dark green BASALT Textures noted: PILLOWED , FOLIATED .37 QUARTZ as microveins 2.5% BIOTITE as selvages .3% CARBONATE as microveins .12 PYRITE as disseminations and scattered crystals .1Z CHALCOPYRITE as selvages .017 PYRRHOTITE as selvages FROM 171.30NT, TO 173.58NT, 100% of this subinterval is dark green PORPHYRITIC BASALT with AMPHIBOLES, 2.5% AMPHIBOLES as disseminations and scattered crystals 65 DEG. CORE NORMALS-ABNORMALY HIGH 16700 16734 19151 19251 1 TO 21 1mm TO 4mm SIZED GARNETS IN PILLOW SELVAGES FROM 192.63NT. TO 205.89NT. dark green BASALT Textures noted: , FOLIATED Structures noted: FOLIATION dip 25, .37 QUARTZ as microveins .37 CARBONATE as microyeins .31 PYRITE as disseminations and scattered crystals .1Z K-FELDSPAR as microveins FROM 197.20NT. TO 199.80NT. 100% of this subinterval is dark green BASALT Textures noted: , TUFFACEOUS Structures noted: FOLIATION dip 40, 17 QUARTZ as microveins 12 CARBONATE as microveins 12 PYRITE as disseminations and scattered crystals 2.5% K-FELDSPAR as microveins 2.5% EPIDOTE as aicroveins 19748 19895 NEAKLY ALTERED TUFFACEOUS BASALT, NASSIVE EPIDOTE AND **K-FELDSPAR BAND** META-DACITIC TUFF 19922 19980 FROM 199.80NT. TO 202.95NT. 100% of this subinterval is med. dark grey RHYOLITIC TUFF Textures noted: , BEDDED Structures noted: BEDDING dip 35, .37 QUARTZ as microveins .3% CARBONATE as microveins .11 PYRITE as disseminations and scattered crystals 1% CHLORITE as microveins FROM 205.89NT. TO 246.34NT. dark green BASALT

Textures noted: MASSIVE , PILLOWED , FOLIATED 17 QUARTZ as microveins .3Z BIOTITE as laminations, bedded 17 CARBONATE as microveins .017 PYRITE as disseminations and scattered crystals .017 CHALCOPYRITE as disseminations and scattered crystals .12 K-FELDSPAR as microveins .17 EPIDOTE as microveins .017 PYRRHOTITE as disseminations and scattered crystals 23851 23957 META-DACITE 20598 24634 BASALT IS LOCALLY CARBONATED AND FOLIATED FROM 246.34MT. TO 252.92MT. BASALT Textures noted: MASSIVE , FOLIATED Structures noted: FOLIATION dip 25, 2.5% QUARTZ as aicroveins 2.5% CARBONATE as microveins FROM 252.95NT. TO 254.54NT. med. dark grey META TUFF Textures noted: , BEDDED Structures noted: BEDDING dip 40, 12 QUARTZ as macroveins 2.51 BIOTITE as pervasive mineralization 17 PYRRHOTITE as disseminations and scattered crystals DACITIC TUFF; NINOR INTERBEDS OF RHYOLITIC AND AND BASALTIC TUFF. FROM 254.54MT. TO 263.04MT. med. dark green PYROXENITE ; TALCOSE Textures noted: , MASSIVE 1% QUARTZ as microveins 2.5% BIOTITE as laminations, bedded 17 CARBONATE as microveins FROM 256.22NT. TO 257.04NT. 100Z of this subinterval is dark grey NETA-DACITE Textures noted: , MASSIVE 2.5% BIOTITE as laminations, bedded .17 CHALCOPYRITE as disseminations and scattered crystals .31 PYRRHOTITE as disseminations and scattered crystals 25704 26027 PYROJENITE IS HIGHLY TALCOSE AND HIGHLY NAGNETIC FROM 263.04NT. TO 265.12NT. brown grey DACITIC TUFF .01% QUARTZ as microveins 5Z BIOTITE as laminations, bedded .012 CARBONATE as microveins 17 PYRITE as disseminations and scattered crystals 17 CHALCOPYRITE as disseminations and scattered crystals 17 CHLORITE as laminations, bedded 11 PYRRHOTITE as disseminations and scattered crystals ORE ZONE; DACITIC TO CHERTY TUFF, 5 TO 10Z SULPHIDES 26420 26447

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LANINATIONS OF BIOTITE AND CHLORITE ARE PRESENT

FROM 265.12NT. TO 268.96MT. med. dark green PYROXENITE Textures noted: , MASSIVE 57 BIDTITE as pervasive mineralization .IZ PYRITE as disseminations and scattered crystals .12 PYRRHOTITE as disseminations and scattered crystals FROM 268.96NT. TO 271.06NT. dark green BASALT Textures noted: , MASSIVE .37 QUARTZ as microveins .37 CARBUNATE as microveins FROM 271.06NT. TO 272.49NT. med. dark green FRAGMENTAL BASALT .3% QUARTZ as microveins .37 CARBONATE as microveins .1Z CHALCOPYRITE as disseminations and scattered crystals .IZ PYRRHOTITE as disseminations and scattered crystals 20 TO 25Z Imm TO 4cm SIZED APHANITIC AND FELDSPAR PORPHYRITIC RHYOLITIC FRASMENTS FROM 272,49NT. TO 278,56NT. med. dark grey RHYOLITIC TUFF Textures noted: , BEDDED Structures noted: BEDDING dip 30, 2.5% QUARTZ as eyes, augen 2.57 BIOTITE as pervasive mineralization 2.5% CARBONATE as microveins .1Z MARIPOSITE as laminations, bedded - 17 SERICITE as laminations, bedded FUSCHITE BAND 27685 27685 FROM 278.56HT. TO 300.41HT. dark green BASALT Textures noted: NASSIVE , FOLIATED , ANYGDALDIDAL 17 QUARTZ as microveins IZ CARBONATE as microyeins .1Z CHALCOPYRITE as disseminations and scattered crystals .3% PYRRHOTITE as disseminations and scattered crystals FROM 285.17NT. TO 287.85NT. 100% of this subinterval is med. dark grey PYROXENITE ; TALCOSE Textures noted: MASSIVE 17 QUARTZ as eicroveins 12 CARBONATE as microveins 28587 28612 FAULT GOUGE BASALT GRADUALLY BECONING VARIOLITIC 28950 29596 29596 29980 NEAKLY VARIOLITIC BASALT FROM 300.41NT. TO 303.89NT.

med. dark green BASALT

Textures noted: MASSIVE , FOLIATED 2.5% QUARTZ as microveins 17 BIOTITE as laminations, bedded 2.5% CARBONATE as microveins 17 CHALCOPYRITE as disseminations and scattered crystals 17 PYRRHOTITE as disseminations and scattered crystals REOH 30398 30389 END OF HOLE. IN-HOLE SURVEY AT 121.90 NT. GRID AZIMUTH OF HOLE ???.00 VERTICAL ANGLE -85.00 IN-HOLE SURVEY AT 243.84 NT. SRID AZIMUTH OF HOLE ???.00 VERTICAL ANGLE -80.00 IN-HOLE SURVEY AT 300.84 MT. GRID AZINUTH OF HOLE ???.00 VERTICAL ANGLE -74.00-NOTE: THERE ARE NO AZIMUTHS FOR DRILLHOLE DEVIATION. PROBLEM WITH DOWN HOLE SURVEY. A001 GNTAU GNTAG PPNCU CU Z PPNZN ZN Z AUNIN CHINTE CHINTE CHINTE CHINTE CHINTE CHINTE ALAB H-COR H-COR H-COR H-COR H-COR H-COR ATYP FA ANTH FA AA. AA A001 19151 19251 1968 .15 1.77 210 A001 25326 25426 4687 .15 2.06 5172 0.17 0.17 A001 25426 25521 25 A001 25521 25603 5173 0.17 0.00 A001 25603 25704 4688 .15 8.30 A001 26304 26420 1969 0.55 55 .15 1970 9.30 0.86 1240 A001 26420 26447 A001 26447 26512 1971 0.34 .15 338 A001 26512 26612 5174 0.17 0.17 A001 27158 27258 4689 .15 2.74 A001 27258 2741 5175 0.17 0.00 A001 2741 27563 5176 0.17 0.34 A001 27563 27715 5177 0.17 0.89 A001 27715 2781 5178 0.17 0.00 A001 28316 28417 4690 .15 000 A001 29069 29169 4691 .15 2.06 A001 29678 29779 4692 .15 3.43 RASY NOTE: TRACE VALUE = 0.15 /END

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HOLE BICHOOS BO GRID WORTH -300.00 SRID EAST 1325.00 GRID AZIMUTH OF HOLE 180.00 VERTICAL ANGLE -80.00 TRUE AZIMUTH OF HOLE 215 TOTAL DEPTH OF HOLE: 205.13mt. Logged by: H. Thiboutot on (day/mo/yr)... FEB83 Drilled by: Bradley Bros. FEB83 0.00HT. TO 20.75HT. FROM OVERBURDEN 20.75NT. TO 31.36NT. FROM med. dark grey RHYOLITIC TUFF Textures noted: , BEDDED Structures noted: BEDDING dip 40, .37 QUARTZ as microveins .017 GARNET as disseminations and scattered crystals .JI CARBONATE as microveins .17 PYRITE as disseminations and scattered crystals .31 SERICITE as pervasive mineralization .17 PYRRHUTITE as disseminations and scattered crystals 2118 2133 MAFIC BAND 31.36NT. TO 149.87NT. FROM dark green BASALT Textures noted: MASSIVE , PILLOWED , FLOW BRECCIA , ANY6DALOIDAL .37 QUARTZ as microveins .37 BIOTITE as disseminations and scattered crystals .3% CARBONATE as microveins

.017 PYRITE as disseminations and scattered crystals .017 CHALCOPYRITE as disseminations and scattered crystals 17 K-FELDSPAR as microveins

- .017 PYRRHUTITE as disseminations and scattered crystals FRESH MASSIVE TO PILLOWED, ANYGOULAR, FLOW BRECCIATED BASALT
- 3136 14987 FRAGMENTAL BASALT, 10 TO 15%, 1 TO 2cm SIZED 3276 3322
- APHANITIC AND FELDSPAR PORPHYRITIC RHYOLITE FRAG.S RHYOLITE TUFF BAND

3316 3322

FROM 33.16HT, TO 33.22 HT. 100% of this subinterval is

> dark green BASALT with AMPHIBOLES , , Textures noted: , PORPHYRITIC

> > and all

1% QUARTZ as microveins

.11 CARBONATE as microveins

.01% K-FELDSPAR as microveins

BASALT CONTAINS 15 TO 20% AMPHIBOLE METACRYSTS RANGING IN

SIZE FROM Jam TO Smm, LOCALLY UP TO 15mm IN SIZE.

ACID DYKE 5632 5651

7327 8278 FREQUENT QUARTZ-CARBONATE VEINING

DRAG FOLDING, ABUNDANT QUARTZ CARBONATE VEINING 9357 9982

FRON 149.87NT. TO 163.74NT.

dark green BASALT Textures noted: MASSIVE , FOLIATED 1% QUARTZ as microveins 17 CARBONATE as microveins

.37 CHALCOPYRITE as disseminations and scattered crystals 11 PYRRHOTITE as disseminations and scattered crystals NEDIUM TO COARSE GRAINED BASALT. FROM 163.74NT. TO 171.24NT. med. dark grey RHYOLITIC TUFF ; CHERTY Textures noted: , BEDDED Structures noted: BEDDING dip 30, 17 BIOTITE as pervasive mineralization 2.5% CHLORITE as microveins FROM 164.35NT. TO 169.83NT. 100% of this subinterval is med. dark grey RHYOLITIC TUFF ; CHERTY Textures noted: , BEDDED Structures noted: BEDDING dip 30, 11 BIOTITE as pervasive mineralization 57 PYRITE as disseminations and scattered crystals 5Z CHALCOPYRITE as disseminations and scattered crystals 2.5% CHLORITE as microveins 57 PYRRHOTITE as disseminations and scattered crystals ORE ZONE: HOST ROCK IS A RHYOLITIC (LOCALLY CHERTY) FINE GRAINED TUFF CONTAINING 10 TO 20% SULPHIDES (PO, PY, CPY). SULPHIDES ESSENTIALLY IN THE FORM OF STRINGERS AND DISSEMINATIONS, CORE NORMALS VARY BETWEEN 20 AND 30 DEG. 16456 16535 FAULT ZONE: FAULT GOUGE PRESENT; FAULT HEALED BY CARBONATE AND MAFIC MATERIAL, 0.79 METRES OF ORE MATERIAL LOST 16758 16804 VERY WEAKLY MINERALIZED WELL BEDDED RHYOLITIC TUFF VERY WEAKLY NINERALIZED WELL BEDDED RHYOLITIC TUFF 16919 16950 FROM 171.24NT. TO 205.13NT. dark green BASALT Textures noted: FOLIATED , MASSIVE .31 QUARTZ as microveins 17 BIOTITE as laminations, bedded .3% CARBONATE as microveins .011 CHALCOPYRITE as disseminations and scattered crystals .012 K-FELDSPAR as disseminations and scattered crystals 2.5% PYRRHOTITE as disseminations and scattered crystals 17160 17194 RHYOLITE TUFF 17343 17425 RHYOLITE TUFF 17989 18227 MASSIVE PYROXENITE 18861 18998 WEAKLY VARIOLITIC BASALT 19105 19205 **MASSIVE PYROXEMITE** 19333 19486 MASSIVE PYROXENITE 19608 19864 MASSIVE PYROXENITE REOH 20513 20513 END OF HOLE. IN-HOLE SURVEY AT 93.57 MT. GRID AZIMUTH OF HOLE ???.00 VERTICAL ANGLE -75.00 IN-HOLE SURVEY AT 205.13 HT. SRID AZIMUTH OF HOLE ???.00 VERTICAL ANGLE -70.00 A001 AUMM GNTAU GNTAG PPNCU CU Z PPNZN ZN Z

2

ALAB				CHATC	CHINTC	CHMTC	CHMTC	CHMTC	CHINTC
ATYP				H-COR	H-COR	H-COR	H-COR	H-COR	H-COR
ANTH				FA	FA	AA		AA	
A001	4944	4985	2068	.15	5 000	3780)		
A001	13219	13319	4693	.13	5 000)			
A001	15047	15147	4694		5 3.30	5			
4001	16289	16374	205	.15	5 2.19	342	2		
A001	16374	16435	207(.15	5 1.03	5 227	1		
A001	16435	16456	2071	.15	5 1.47	460)		
A001	16456	16535	2072	2 .15	5 7.65	5 342	2		
A001	16535	16635	2073	3.40	23.66	6240)		
A001	16635	16758	2074	8.43	5 16.22	1990)		
A001	16758	16804	2075	i 0.45	2.95	i 142	2		
A001	15804	14919	2636	1.75	5 11.42	1960			
A001	16919	16950	2637	.15	1.51	318			
A001	15950	16984	2638	0.99	10.59	1260			
A001	16984	17084	2639	.15	3.81	128	1		
A001	17084	1719	5179	0.17	3.98				
A001	1719	17346	5180	0.17	0.34	£			
A001	17346	17498	5181	0.17	0.00)			
4001	17498	1765	5182	0.17	0.00				
A001	19485	19686	4695	.15	i 6.80				
A001	17686	1978	4676	.15	4.97				
RASY				NOTE:	TRACE	VALUE	= 0.1	5	
/END									

HOLE 83CH007 BQ GRID NORTH -330.00 GRID EAST 1950.00 GRID AZIMUTH OF HOLE 180.00 VERTICAL ANGLE -85.00 TRUE AZIMUTH OF HOLE 215 TOTAL DEPTH OF HOLE: 188.06mt. Logged by: H.Thiboutot on (day/mo/yr)... FEB83 Drilled by: Bradley Bros. FEB83 FROM 0.00MT. TO 5.18MT. **DVERBURDEN** 5.18MT. TO 10.85MT. FROM dark green GABBRO Textures noted: , MASSIVE .3% QUARTZ as microveins .31 CARBONATE as microveins MINOR GRANODIORITIC AND GRANITIC DYKES FROM 10.85HT. TO 34.75HT. dark green BASALT Textures noted: MASSIVE , FLOW BRECCIA , AMYGDALDIDAL 1% QUARTZ as microveins 17 CARBONATE as microveins .017 CHALCOPYRITE as disseminations and scattered crystals 1585 1661 GRANITIC DYKE 2377 2527 GRANDDIORITE DYKE 34.75HT. TO 49.99HT. FROM med. dark grey GRANODIORITE Textures noted: MASSIVE 17 QUARTZ as microveins 17 CARBONATE as microveins .011 PYRITE as disseminations and scattered crystals 17 K-FELDSPAR as microveins .017 PYRRHOTITE as disseminations and scattered crystals BASALTIC XENOLITHS VARYING IN SIZE FROM 1cm TO imetre 3475 4999 FROM 49.99NT. TO 70.29MT. dark green BASALT Textures noted: MASSIVE , ANYGDALOIDAL , FLOW BRECCIA 12 QUARTZ as microveins 1% CARBONATE as microveins FROM 70.29NT. TO 71.81MT. dark green PORPHYRITIC BASALT Textures noted: PORPHYRITIC .3% QUARTZ as microveins .37 CARBONATE as microveins 20 TO 25% 1mm TO 1cm SIZED FELDSPAR LATHS FROM 71.81NT. TO 131.34NT. BASALT Textures noted: MASSIVE , FLOW BRECCIA , FOLIATED , AMYGDALDIDAL 17 QUARTZ as microveins 17 BIOTITE as laminations, bedded 17 CARBONATE as microveins

.12 PYRITE as disseminations and scattered crystals .17 PYRRHOTITE as disseminations and scattered crystals 7373 7409 GRANODIORITE FINE GRAINED, BEDDED RHYOLITIC TUFF; 40 DEG. TO CORE NORMAL 7675 7797 POSSIBLE MEGA-ANYGDULES 8534 8559 FROM 85.59NT. TO 92.02NT. 100% of this subinterval is med. dark grey RHYOLITIC TUFF; CHERTY Textures noted: , BEDDED Structures noted: BEDDING dip 35, .1Z QUARTZ as eyes, augen .37 BIOTITE as laminations, bedded .11 CARBONATE as microveins .017 PYRITE as disseminations and scattered crystals 9202 9504 FOLIATED, BIOTIZED AND LOCALLY TUFFACOUS; SECTION ALSO INCLUDES A RHYOLITIC TUFF BAND FROM 95.07NT. TO 98.82NT. 100% of this subinterval is med. dark green BASALT with AMPHIBOLES, .37 QUARTZ as microveins BASALT CHARACTERIZED BY 30 TO 35% AMPHIBOLE METACRYSTS RANGING IN SIZE FROM 1mm TO 5mm 9815 9863 FINE GRAINED BASALTIC FLOW 10150 10223 HEAVILY BIOTIZED TUFFACEOUS BASALT; 40 DEG. TO CORE NORMAL FOLIATED TUFFACEOUS BASLAT; BIOTITE LAWINATIONS 10314 10561 FROM 103.42 TO 104.73 METRES ; A FEW GARNETS 10759 10866 DACITE TUFF 11076 11107 BASALT WITH AMPHIBOLE METACRYSTS 11125 11201 META DACITE 11201 11469 BASALT WITH AMPHIBOLE METACRYSTS 11469 11860 META DACITE WITH MINOR DISSEMINATED PO. FROM 131.34HT. TO 146.21HT. dark green GABBRO Textures noted: MASSIVE .37 QUARTZ as microveins .37 CARBONATE as microveins FROM 146.21NT. TO 149.14NT. dark green BASALT Textures noted: MASSIVE , TUFFACEOUS , FOLIATED 1% QUARTZ as microveins 5% BIOTITE as laminations, bedded 17 CARBONATE as aicroveins FROM 149.14MT. TO 150.94MT. brown grey RHYOLITIC TUFF ; CHERTY Textures noted: , BEDDED Structures noted: BEDDING dip 30. .37 QUARTZ as microveins 2.57 BIOTITE as laminations, bedded .1Z GARNET as disseminations and scattered crystals 17 CHLORITE as microveins

15063 15088 INTERNEDIATE TO BASIC TUFF BAND

FROM 150.94MT. TO 151.64MT. medium grey CHERIY TUFF ; CHERIY Textures noted: , TUFFACEOUS .3I CARBONATE as microveins 5I PYRITE as microveins 5I CHALCOPYRITE as microveins 2.5I CHLORITE as laminations, bedded 5I PYRRHOTITE as microveins 15094 15164 ORE ZONE: CHERIY TUFF WITH 15 TO 20I SULPHIDES CONSISTING OF 5 TO 7I PY, 5 TO 7I PO, AND 5I CPY IN A SILICEOUS MATRIX 15094 15124 O.3 METRES LOST CORE OPEN FISSURE

FROM 151.64NT. TO 154.02NT.

med. dark green PYROXENITE Textures noted: , MASSIVE 17 QUARTZ as microveins .37 CARBONATE as microveins CORE IS BADLY BROKEN UP

FROM 154.02NT. TO 160.26NT.

dark green BASALT Textures noted: MASSIVE 12 QUARTZ as microveins .3Z BIOTITE as disseminations and scattered crystals 12 CARBONATE as microveins .3Z K-FELDSPAR as microveins BASALT LOCALLY GRADES TO A DACITE

FROM 160.26MT. TO 185.17MT.

med. dark green PYROXENITE ; TALCOSE Textures noted: , MASSIVE , FOLIATED .37 QUARTZ as microveins 10% BIOTITE as laminations, bedded .37 CARBONATE as microveins .011 PYRITE as disseminations and scattered crystals .017 CHALCOPYRITE as disseminations and scattered crystals .11 PYRRHOTITE as disseminations and scattered crystals NEDIUM GRAINED BASALT 16298 16368 16474 16983 MINOR INTERBEDDED BASALTIC MATERIAL PROBABLE FAULT ZONE 17252 17281 PYROXENITE IS HIGHLY TALCOSE AND MAGNETIC 17739 18072

FROM 185.17NT. TO 188.06NT.

dark green BASALT Textures noted: VARIOLITIC, MASSIVE 17 QUARTZ as microveins 17 BIOTITE as laminations, bedded 17 CARBONATE as microveins .017 PYRITE as disseminations and scattered crystals .017 CHALCOPYRITE as disseminations and scattered crystals .17 PYRRHOTITE as disseminations and scattered crystals .18 WEAKLY VARIOLITIC BASALT

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KEUN 188V6 188V6 END UF NULL.											
IN-HOLE SURVEY AT 106.68 NT.											
GRID AZIMUTH OF HOLE ???.00 VERTICAL ANGLE -80.00											
IN-HOLE SURVEY AT 185.93 NT.											
SRID AZINUTH OF HOLE ???.00 VERTICAL ANGLE -75.00											
NOTE: THERE ARE NO AZIMUTHS FOR DEVIATION OF DRILLHOLE.											
A001											
AUMM GNTAU GNTAG PPHCU CU Z PPMZN ZN Z											
ALAB CHNTC CHNTC CHNTC CHNTC CHNTC CHNTC											
ATYP H-COR H-COR H-COR H-COR H-COR H-COR											
ANTH FA FA AA AA											
A001 1292 12972 4697 .15 2.67											
A001 13014 13115 4698 .15 3.43											
A001 14599 14700 4699 .15 000											
A001 14700 14853 5183 0.17 0.17											
A001 14853 14914 5184 0.17 0.00											
A001 14914 14993 5185 0.17 1.44											
A001 14993 15093 1972 .15 .15 160											
A001 15093 15163 1973 4.01 6.79 6120											
A001 15163 15263 1974 .15 .15 127											
A001 15264 15417 5186 0.17 3.15											
A001 17428 17461 4700 .15 000											
A001 17462 17535 5187 0.17 0.55											
A001 17535 17556 1975 1.58 .15 202											
A001 17556 17657 5188 0.17 0.89											
RASY NOTE: TRACE VALUE = 0.15											
/END											

HOLE 83CHOO8 BQ GRID NORTH -20.00 GRID EAST 1400.00 GRID AZIMUTH OF HOLE 180.00 VERTICAL ANGLE -85.00 TRUE AZIMUTH OF HOLE 215 TOTAL DEPTH OF HOLE: 364.85at. Logged by: H.Thiboutot on (day/mo/yr)... FEB83 Drilled by: Bradley Bros. FEB83 FROM 0.00MT. TO 3.05MT. **OVERBURDEN** FROM 3.05MT. TO 8.87MT. green grey CRYSTAL TUFF .3% QUARTZ as microveins .1% BIOTITE as disseminations and scattered crystals .37 CARBONATE as microveins 2.5% CHLORITE as pervasive mineralization .37 EPIDOTE as pervasive mineralization RHYOLITE CRYSTAL TO LOCALLY LAPILLI TUFFS; 15 TO 25% RHYOLITIC AND FELDSPAR PORPHYRITIC GRAINS FROM Inn TO (FELDSPAR CRYSTALS) TO ICE IN SIZE FROM 5.12MT. TO 6.77MT. 100% of this subinterval is dark grey GRANODIORITE Textures noted: MASSIVE .11 CARBONATE as microveins .17 EPIDOTE as microveins .1Z PYRRHOTITE as disseminations and scattered crystals 783 823 AGGLOMERATIC ZONE; FRAGMENTS UP TO 4Cm IN THICKNESS 8.87MT. TO 9.20MT. FROM dark green BASALT Textures noted: , FRAGMENTAL .37 QUARTZ as microveins .37 CARBONATE as microveins FRAGMENTAL BASALT; 15 TO 201 Inn TO Icm SIZED APHANITIC AND FELDSPAR PORPHYRITIC RHYOLITC FRAGMENTS; SOME FRAGMENTS APPEAR BLEACHED 9.20MT. TO 52.18MT. FROM dark green DIORITE with AMPHIBOLES, FELDSPAR, Textures noted: , MASSIVE .37 QUARTZ as microveins .3% CARBONATE as microveins 12 PYRITE as disseminations and scattered crystals .17 CHALCOPYRITE as disseminations and scattered crystals 17 PYRRHOTITE as disseminations and scattered crystals QUARTZ FELDSPAR PORPHYRY DYKE ; K-SPAR AND EPIDOTE 920 1161 VEINLETS

1161 5218 MASSIVE COARSE GRAINED DIORITE, FELDSPAR AND AMPHIBOLE CRYSTALS 1mm TO 5mm IN SIZE. 1789 1881 GRANITE DYKE

2926 5218 DIORITE CHANGES; PROPORTION OF AMPHIBOLES INCREASES TO 35 TO 401, AMPHIBOLES UP TO 1cm IN LENGTH

FROM

FROM 52.18NT. TO 74.62NT. dark green BASALT Textures noted: MASSIVE , AMY6DALDIDAL 17 QUARTZ as microveins 17 CARBONATE as microveins .017 PYRITE as disseminations and scattered crystals .017 CHALCOPYRITE as disseminations and scattered crystals .017 K-FELDSPAR as microveins .17 EPIDOTE as microveins DARK GREY FINE GRAINED DACITIC TO RHYOLITIC TUFF 5770 6163 50 DEG. CORE NORMAL **GRANITIC DYKE** 6355 6376 6480 6727 FRASMENTAL BASALT 6727 6885 RHYOLITIC TUFF WITH BASALTIC BAND; LAST 0.15 metres RESEMBLES FRAGMENTAL BASALT 7163 7211 FRAGMENTAL BASALT 7269 7355 FRAGMENTAL BASALT WITH RHYOLITIC TUFF BAND 74.62NT. TO 83.18NT. green grey RHYOLITIC TUFF Textures noted: , BEDDED Structures noted: BEDDING dip 50, .3% QUARTZ as microveins .37 CARBONATE as microveins .012 PYRITE as disseminations and scattered crystals 2.57 CHLORITE as pervasive mineralization .017 EPIDOTE as microveins SOME PINK CARBONATE PRESENT 7762 8318 7577 7614 **BASALTIC FLOW** 7696 7903 DACITIC FLOW 8220 8245 BASALTTIC FLOW

8245 8275 FRAGMENTAL BASALT

83.18MT. TO 87.23MT. FROM

> brown grey CRYSTAL TUFF 17 QUARTZ as eyes, augen 5% BIOTITE as pervasive mineralization .1Z CARBONATE as microveins 10Z K-FELDSPAR as clasts RHYOLITIC CRYSTAL TUFF; LOCALLY AGGLONERATICIN APPERARANCE, MATRIX IS BASALTIC FROM 86.44 TO 87.25

FROM 87.23NT. TO 91.77NT.

dark green BASALT with AMPHIBOLES, Textures noted: MASSIVE , ANYGDALDIDAL .17 QUARTZ as microveins .17 CARBONATE as microveins BASALT; 30% 1 TO 2mm SIZED AMPHIBOLES

91.77HT. TO 97.08HT. FROM

brown grey RHYOLITIC TUFF ; CHERTY Textures noted: , BEDDED Structures noted: BEDDING dip 40, SZ BIOTITE as pervasive mineralization WELL BEDDED RHYOLITIC TO CHERTY TUFF, LOCALLY LAPILLI

SIZED FRAGMENTS. 9388 9495 VERY NICE FRAGMENTAL BASALT 9546 9650 VERY NICE FRAGMENTAL BASALT FROM 97.08HT. TD 101.13HT. brown grey LAPILLI TUFF Textures noted: , BEDDED Structures noted: BEDDING dip 45, .37 QUARTZ as eyes, augen 2.5% BIOTITE as pervasive mineralization .37 CARBONATE as microveins 9708 9767 WEAKLY (3 TO 52, 1 TO 3mm SIZED FELDSPAR LATHS) PORPHYRITIC BASALT 10098 10113 FRAGMENTAL BASALT FROM 101.13NT. TO 102.78NT. dark green BASALT Textures noted: , MASSIVE .31 DUARTZ as microveins .31 CARBONATE as microveins FROM 102.78HT. TO 115.53HT. brown grey RHYOLITIC TUFF Textures noted: , BEDDED Structures noted: BEDDING dip 30, 17 GUARTZ as eyes, augen 2.5% BIOTITE as pervasive mineralization .31 CARBONATE as microveins .17 K-FELDSPAR as microveins .3% CHLORITE as disseminations and scattered crystals .3% EPIDOTE as aicroveins 10616 10738 BASALTIC FLOW 10915 11064 MASSIVE BASALT 11064 11122 FRAGMENTAL BASALT; NINOR TUFF BAND FROM 116.53NT. TO 120.79NT. brown grey RHYOLITE AGGLOMERATE 11.1.14 .32 QUARTI as microveins 2.5% BIOTITE as pervasive mineralization .37 CARBONATE as microveins RHYOLITIC AGGLOMERATE; 30 TO 40% 1mm TO 5cm SIZED APHANITIC TO PORPHYRITIC FRAGMENTS FROM 120.79NT. TO 131,22NT. brown grey LAPILLI TUFF Textures noted: , BEDDED Structures noted: BEDDING dip 40, 17 QUARTZ as eyes, augen 5% BIOTITE as pervasive mineralization .3Z CARBONATE as microveins .37 SERICITE as laminations, bedded .17 PYRRHOTITE as disseminations and scattered crystals RHYOLITE LAPILLI TUFF, FRAGMENT SIZED IN THIS SECTION VARIES FROM FINE GRAINED TO AGGLOMERATIC: FROM 126.78 TO 128.32 UP TO 50% FRAGMENTS FROM Int TO 2cm IN SIZE

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BASALTIC BAND 12558 12580 12625 12677 BASALT 13006 13030 BASALT 13091 13122 BASALT FROM 131.22MT. TO 138.07MT. brown grey CRYSTAL TUFF Textures noted: , BEDDED Structures noted: BEDDING dip 35, 17 QUARTZ as eyes, augen 17 BIOTITE as pervasive mineralization .37 CARBONATE as microveins 20Z K-FELDSPAR as clasts RHYOLITE CRYSTAL TUFF; MINOR RHYOLITIC TUFF BANDS; 10 TO 15% 1 TO 3mm FELDSPAR CRYSTALS BASALTIC NATRIX FROM 136.98 TO 137.13 AND FROM 137.68 TO 138.0 N. 13183 13259 BASLATIC FLOW 13615 13661 WEAKLY PORPHYRITIC BASALT, 3 TO 57 1 TO 3mm SIZED FELDSPAR LATHS FROM 138.07NT. TO 194.55NT. dark green BASALT Textures noted: MASSIVE , ANY6DALOIDAL 12 QUARTZ as microveins 17 CARBONATE as microveins .017 PYRITE as disseminations and scattered crystals .017 CHALCOPYRITE as disseminations and scattered crystals .017 K-FELDSPAR as microyeins .17 EPIDOTE as microveins .017 PYRRHOTITE as disseminations and scattered crystals 14280 19455 BASALT IS MEGA-ANYGDULAR FROM 194.55MT. TO 196.20MT. dark grey META-DACITE Textures noted: , MASSIVE 2.5% QUARTZ as microveins .3% CARBONATE as microveins .37 PYRITE as disseminations and scattered crystals 2.5% CHALCOPYRITE as disseminations and scattered crystals 17 PYRRHOTITE as disseminations and scattered crystals PROPHYRITIC BASALT; 10 TO 15Z 1mm TO 5mm FELDSPAR LATHS 19589 19620 FROM 196.20NT. TO 204.55NT. BASALT Textures noted: MASSIVE , ANYGDALOIDAL 17 QUARTZ as microveins 17 CARBONATE as microveins .017 PYRITE as disseminations and scattered crystals .017 CHALCOPYRITE as disseminations and scattered crystals 36 8. FROM 204.55NT. TO 207.26NT. PORPHYRITIC BASALT Textures noted: , PORPHYRITIC

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.37 QUARTZ as microveins 17 BIOTITE as laminations, bedded .3% CARBONATE as microveins PORPHYRITIC BASALT; 15 TO 202 1mm TO 7mm SIZED FELDSPAR PHENOCRYSTS, THE LAST 0.6 N BECOMES FRAGMENTAL. FROM 207.26NT. TO 208.79NT. dark green FRAGMENTAL BASALT Textures noted: , BRECCIATED .17 QUARTZ as microveins 17 BIOTITE as laminations, bedded .1% CARBONATE as microveins 30 TO 35Z INA TO 2CA SIZED ACID APHANITIC AND PORPHYRITIC (FELDSPAR) FRAGMENTS FROM 208.79NT. TO 212.32NT. dark grey CRYSTAL TUFF .17 QUARTZ as microveins 17 BIOTITE as disseminations and scattered crystals .37 CARBONATE as microveins 2.5% CHLORITE as disseminations and scattered crystals .37 EPIDOTE as microveins 10% FELDSPAR as clasts RHYOLITE CRYSTAL TUFF INTERBEDDED (210,86-211,32) 20879 21232 WITH FRAGMENTAL BASALT FROM 212.32NT. TO 242.53NT. dark green BASALT Textures noted: PILLOWED , ANYGDALOIDAL 17 QUARTZ as microveins 5% BIOTITE as selvages 17 CARBONATE as microveins .01Z CHALCOPYRITE as disseminations and scattered crystals .017 EPIDOTE as microveins .017 PYRRHOTITE as disseminations and scattered crystals **BIOTIZED PILLOW RIMS** MASSIVE CPY-PO IN QUARTZ VEIN 22942 22945 FROM 242.53NT. TO 243.44NT. dark green FRAGMENTAL BASALT .3Z PYRRHOTITE as disseminations and scattered crystals FROM 243.44NT. TO 256.58NT. med. dark grey RHYOLITIC TUFF ; CHERTY Textures noted: , BEDDED Structures noted: BEDDING dip 30, .37 QUARTZ as microveins .01% GARNET as disseminations and scattered crystals .3Z CARBONATE as microyeins .IZ PYRITE as disseminations and scattered crystals 1% CHLORITE as disseminations and scattered crystals .17 PYRRHOTITE as disseminations and scattered crystals PROBABLE INTERBEDDED DACITIC TO PHYOLITIC FLOWS FROM 247.83NT. TO 252.86NT.

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100% of this subinterval is dark green BASALT Textures noted: MASSIVE , AMY6DALDIDAL 25527 25658 FRAGMENTAL BASALT; MINOR RHYOLITE CRYSTAL TUFF BAND FROM 256.58NT. TO 268.53NT. dark green BASALT Textures noted: MASSIVE , PILLOWED , ANYGDALOIDAL .37 QUARTZ as microveins .37 CARBONATE as microveins .12 CHALCOPYRITE as disseminations and scattered crystals .12 PYRRHOTITE as disseminations and scattered crystals FROM 268.53NT. TO 282.40NT. dark green **BIORITE** Textures noted: MASSIVE .3% QUARTZ as microveins .3% CARBONATE as microveins .11 PYRITE as disseminations and scattered crystals .017 EPIDOTE as spots .1Z PYRRHOTITE as disseminations and scattered crystals FROM 282.40MT. TO 299.00MT. dark green BASALT Textures noted: MASSIVE , PILLOWED , FLOW BRECCIA 17 QUARTZ as microveins 17 CARBONATE as microveins .017 CHALCOPYRITE as disseminations and scattered crystals .017 PYRRHUTITE as disseminations and scattered crystals PYROXENITIC DYKE 28752 28837 FROM 279.00NT. TO 306.93NT. dark green BASALT Textures noted: MASSIVE , FOLIATED Structures noted: FOLIATION dip 30, 17 QUARTZ as microveins 17 BIOTITE as laminations, bedded 17 CARBONATE as microveins .017 PYRRHOTITE as disseminations and scattered crystals FROM 306.93NT. TO 324.09NT. dark green BASALT Textures noted: MASSIVE .32 QUARTZ as microveins .32 CARBONATE as microveins FROM 324.09NT. TO 327.90NT. med. dark green DACITIC TUFF .37 QUARTZ as microveins 2.5% CARBONATE as microveins 2.5% PYRITE as disseminations and scattered crystals .31 K-FELDSPAR as microveins .37 EPIDOTE as microveins

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FROM 325.07NT. TO 326.56NT.

100% of this subinterval is med. dark green MAFIC TUFF Textures noted: BEDDED Structures noted: BEDDING dip 30, .3% QUARTZ as microveins .31 CARBONATE as microveins 2.51 PYRITE as disseminations and scattered crystals .017 CHALCOPYRITE as disseminations and scattered crystals .37 K-FELDSPAR as microveins .3% EPIDOTE as microveins .01Z PYRRHOTITE as disseminations and scattered crystals MAFIC TUFF WITH 3 TO 5% FINE PY; TRACE PO AND CPY 32507 32656 FROM 327.90HT. TO 334.18HT. dark green BASALT Textures noted: MASSIVE 17 DUARTZ as microveins 17 CARBONATE as microveins .37 CHALCOPYRITE as disseminations and scattered crystals .37 PYRRHOTITE as disseminations and scattered crystals FROM 334.18NT. TO 341.50NT. med. dark green PYROXENITE ; TALCOSE Textures noted: , MASSIVE .37 QUARTZ as microveins .37 CARBONATE as microveins PROBABLE FAULT ZONE 33763 33781 PROBABLE FAULT ZONE 34113 34132 FROM 341.50NT. TO 346.19NT. med. dark grey RHYOLITIC TUFF ; CHERTY Textures noted: , BEDDED Structures noted: BEDDING dip 20, .1Z QUARTZ as microveins .37 BIOTITE as disseminations and scattered crystals .17 CARBONATE as microveins .017 PYRITE as disseminations and scattered crystals .01Z CHALCOPYRITE as disseminations and scattered crystals 17 CHLORITE as pervasive mineralization 34150 34619 MINDR INTERBEDDED DACITE TUFF, BASALT FROM 343.87-344.67 FROM 346.19HT. TO 348.14HT. dark green BASALT Textures noted: , MASSIVE .37 QUARTZ as microveins .3% CARBONATE as microveins .01% CHALCOPYRITE as disseminations and scattered crystals .012 PYRRHOTITE as disseminations and scattered crystals MINOR RHYOLITE BEDS FROM 348.14NT. TO 356.71NT. dark green BASALT Textures noted: , MASSIVE .37 QUARTZ as microveins .37 CARBONATE as microveins

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FROM 356.71MT. TO 364.85MT. dark green BASALT Textures noted: , MASSIVE .37 QUARTZ as microveins .37 CARBONATE as microveins 35671 36104 **BASALT IS VARIOLITIC** FROM 361.04NT. TO 364.24NT. 100% of this subinterval is med. dark green PYROXENITE Textures noted: , MASSIVE REDH 36485 36495 END OF HOLE. IN-HOLE SURVEY AT 124.05 HT. SRID AZIMUTH OF HOLE ???.00 VERTICAL ANGLE -80.00 IN-HOLE SURVEY AT 245.97 HT. GRID AZIMUTH OF HOLE ???.00 VERTICAL ANGLE -76.00 IN-HOLE SURVEY AT 363.50 NT. GRID AZIMUTH OF HOLE ???.00 VERTICAL ANGLE -75.00 NOTE: PROBLEM WITH THE DOWN HOLE SURVEYS. A001 AUMM GNTAU GNTAG PPMCU CU Z PPMZN ZN Z CHNTC CHNTC CHNTC CHNTC CHNTC CHNTC ALAB ATYP H-COR H-COR H-COR H-COR H-COR H-COR ANTH FA FA AA AA 0.43 16.44 37600 A001 22942 22967 2640 .15 3.57 A001 31870 31970 4701 A001 32409 32507 2641 .15 .15 167 A001 32507 32656 2642 0.75 7.13 254 A001 32656 32790 2643 0.69 6.65 3420 A001 3279 32943 5189 0.17 0.55 A001 32943 33043 5190 0.17 1.03 A001 33043 33147 5191 0.17 1.23 520 A001 33147 33254 1.85 2644 5.39 382 A001 33245 33323 4702 .15 000 4703 .15 A001 33323 3347 0.87 A001 3415 34272 4704 .15 000 A001 34272 34357 5192 0.17 1.71 18 A001 34357 34467 4705 .15 000 A001 34467 34625 5193 0.17 2.95 29 A001 34625 34808 5194 0.17 3.36 A001 34808 34912 2645 .15 .15 1760 A001 34912 35015 4706 .15 000

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HOLE 83CH09A BQ GRID NORTH 1180.00 GRID EAST-5150.00 GRID AZIMUTH OF HOLE 180.00 VERTICAL ANGLE -55.00 TRUE AZIMUTH OF HOLE 215 TOTAL DEPTH OF HOLE: 40.23mt. Logged by: N.Drouin on (day/mo/yr)...JUN83 Drilled by: Bradley Bros. JUN83

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FROM O. MT TO 40.23 MT OVERBURDEN HOLE ABANDONED ;COULD NOT PUT DOWN B CASING REOH 4023 /END HOLE 83CH09B BQ GRID NORTH 1180.00 GRID EAST-5150.00 GRID AZIMUTH OF HOLE 180.00 VERTICAL ANGLE -75.00 TRUE AZIMUTH OF HOLE 215 TOTAL DEPTH OF HOLE: 41.45mt. Logged by: M.Browin on (day/mo/yr)...JUN83 Drilled by: Bradley Bros. JUN83

FROM 0.00MT. TO 17.68MT.

OVERBURDEN

FROM 17.68MT. TO 41.45MT.

			med. light red GRANITE with QUARTZ ,
			Textures noted: MASSIVE
			1% QUARTZ as microveins
			17 MAGNETITE as disseminations and scattered crystals .37 CHLORITE as microveins
			.37 EPIDOTE as disseminations and scattered crystals
			12 HEMATITE as disseminations and scattered crystals
	3109	4145	VERY POOR CORE RECOVERY DUE TO INTENSE FAULTING
	3139	3444	0.3N OF VERY BROKEN CORE RECOVERED
	3444	3566	WEAKLY TO NODERATELY CONDUCTIVE FAULT GOUGE
	3566	3871	0.46N OF BADLY BROKEN UP GRANITE RECOVERED
	3932	4145	0.82N OF BADLY BROKEN UP GRANITE RECOVERED
			HOLE ABANDONED
REOH		4145	
Ā001			
AUNT			PPB AUPPN ASPPN'CU
ALAB			CHNITCCHINTCCHINTC
ATYP			H-COR H-COR H-COR
AMYH			AA AA AA
A001	2347	2447	2767 5 0.10
A001	2856	2956	2768 5 0.10
/END			

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HOLE 83CH010 BQ GRID NORTH -875.00 GRID EAST5650.00 GRID AZINUTH OF HOLE 180.00 VERTICAL ANGLE -55.00 TRUE AZINUTH OF HOLE 215 TOTAL DEPTH OF HOLE: 105.46mt. Logged by: M.Drouin on (day/mo/yr)... JUN83 Drilled by: Bradley Bros. JUN83 FROM 0.00MT. TO 3.04MT. OVERBURDEN

FROM 3.04NT. TO 65.84NT. medium grey GRANITE Textures noted: MASSIVE

17 QUARTZ as microveins 17 CARBONATE as microveins 57 MAGNETITE as disseminations and scattered crystals .017 PYRITE as disseminations and scattered crystals 107 NUSCOVITE as pervasive mineralization 107 CHLORITE as pervasive mineralization 17 EPIDOTE as microveins 17 HENATITE as microveins MEDIUM GRAINED DARK GREY GRANITE

35354855GRANITE BECOMES FINE GRAINED47674803CORE IS HEAVILY FRACTURED

6187 6584 CORE IS BADLY BROKEN UP ; PROBABLE FAULT ZONE

FROM 65.84NT. TO 71.26NT.

304 6584

med. dark green META BASALT 12 QUARTZ as microveins 52 CARBONATE as microveins 53 HEMATITE as microveins

FROM 71.26MT. TO 82.30MT. red grey ALTERED GRAMITE

2.52 QUARTZ as microveins .32 CHLORITE as microveins 53 HENATITE as microveins 7126 8230 SINILAR TO PREVIOUS GREY GRANITE; HOWEVER THIS SECTION IS CHARACTERIZED BY A PERVASIVE HEMATITE STAININY AND FRACTURE FILLING ; CORE IN GENERAL IS HEAVILY FRACTURED

FROM 82.30NT. TO 87.78NT.

FAULT ZONE 8230 8778 NAJOR FAULT ZONE IN GRANITE; GOOD CORE RECOVERY ; CORE IS CLAY LIKE AND WEAKLY TO LOCALLY MODERATELY CONDUCTIVE ; THIS SECTION EXPLAINS THE MAXMIN RESPONSE

FROM 87.78NT. TO 105.46NT.

red green GRANITE Textures noted: BRECCIATED 107 QUART2 as microveins 2.57 CARBONATE as microveins 107 HENATITE as pervasive mineralization 8778 10546 REDISH GRAY FINE GRAINED HIGHLY BRECCIATED -

			QUAR	TZ HE	ALED , F	ERVAS	IVEL	Y HEMATITE	STAINED
RSUN			ND A	CID T	EST POSS	SIBLE ;	; SA	ND IN HOLE	
REOH		10546							
A001									
AUMM			F	PB AU	ppn Agpf	M CU X	ZCU	PPH ZN	
ALAÐ			0	HINTC	CHINTCCH	IINTC			
ATYP			H	I-COR	H-COR H-	-COR			
ANTH				AA	AA	AA			
A001	445	455	3863	5	0.20				
A001	6693	6793	3864	5	0.20				
A001	9068	9168	3865	5	0.20				
A001	10028	10128	3866	5	0.20				
/END									

HOLE B3CH016 BD GRID NORTH 200.00 GRID EAST-2050.00 GRID AZIMUTH OF HOLE 180.00 VERTICAL ANGLE -45.00 TRUE AZIMUTH OF HOLE 215 TOTAL DEPTH OF HOLE: 165.81mt. Logged by: H. Thiboutot on (day/mo/yr)...JUL83 Drilled by: Bradley Bros. JUL 83 FROM 0.00NT. TO 22.0 NT. OVERBURDEN FROM 22.0 MT. TO 59.28MT. green grey QUARTZ DIORITE **Textures noted: MASSIVE** 2.5% QUARTZ as interstitial fillings .01% CARBONATE as microveins .017 PYRITE as microveins .01% CHALCOPYRITE as microveins .017 K-FELDSPAR as laminations, bedded .017 PYRRHOTITE as microveins .37 TOURMALINE as microveins QUARTZ DIORITE: QUARTZ VARIES FROM 1Z TO 10Z LO-220 5928 CALLY; GENERALLY FRESH LOOKING WITH SOME MICROVEINS OF TOURNALINE (PO-PY AS DISSENINATIONS) FROM 52.3 NT. TO 54.46NT. 100% of this subinterval is dark green BASALT with FELDSPAR, Textures noted: MASSIVE .17 QUARTZ as microveins .17 CARBONATE as microveins 5230 5446 BASALT CONTAINS 2-4Z 1-4 NN SIZED FELDSPAR PHENO-CRYSTS, PROBABLY A XENOLITH IN DIORITE 59.28MT. TO FROM 71.32MT. medium green BASALT Textures noted: MASSIVE 2.57 QUARTZ as macroveins 2.5% BIOTITE as pervasive mineralization .1Z CARBONATE as microveins .17 PYRITE as microveins .1% CHALCOPYRITE as microveins .17 K-FELDSPAR as microveins 2.5% PYRRHOTITE as microveins 5928 6888 BASALT IS ALTERED (WHITE SPECKLED APPEARANCE): HAS LOCALLY A PALE GREEN COLOR DUE TO BLEACHING NUMEROUS QUARTZ VEINS(ICH TO 20CH) WITH SULPHINES(10-15Z) IN ORDER OF IMPORTANCE PO-CPY-PY. WE ALSO HAVE A LITTLE FELDSPAR PORPHYRY DYKE, THE DHARTZ-VEIN SYS-TEN IN DASALT IS THE EXPLANATION OF WEAK NAX-NIN ANOMALY (CONDUCTOR) - (61.96-62.33+65.07-65.41+65.8 60.32) 6729 6806 FELDSPAR PORPHYRY ACID DYKE DISS OF PY-PO-CPY 6662 6705 POSSIBLE VARIOLES FROM 71.32NT. TO 75.59NT.

1
dark green VARIOLITIC BASALT 1% QUARTZ as microveins 1Z CARBONATE as microveins .11 PYRITE as disseminations and scattered crystals .12 K-FELDSPAR as microveins .12 PYRRHOTITE as disseminations and scattered crystals 7132 7559 NODERATELY VARIOLITIC BASALT FROM 75.59MT. TO 93.78NT. dark green BASALT Textures noted: MASSIVE , BANDED 1% QUARTZ as microveins IZ BIOTITE as pervasive mineralization 1Z CARBONATE as microveins .3I PYRITE as disseminations and scattered crystals .37 CHALCOPYRITE as disseminations and scattered crystals .17 K-FELDSPAR as microveins .1% EPIDOTE as microveins 17 PYRRHOTITE as disseminations and scattered crystals COARSE GRAINED BASALT LAST TEN FEET HAS A PALE 7559 9378 **GREEN COLOR AND CONTAIN 12 PO THROUGHOUT** FROM 93.78MT. TO 94.39HT. medium grey DACITIC TUFF Textures noted: BEDDED Structures noted: BEDDING dip 15, .37 PYRITE as disseminations and scattered crystals .017 CHALCOPYRITE as disseminations and scattered crystals 17 PYRRHOTITE as disseminations and scattered crystals FROM 94.39NT. TO 97.41NT. medium grey DACITE Textures noted: MASSIVE 17 QUARTZ as microveins 17 BIOTITE as pervasive mineralization .1Z GARNET as disseminations and scattered crystals 17 CARBONATE as microveins 17 PYRITE as disseminations and scattered crystals .17 CHALCOPYRITE as disseminations and scattered crystals .3Z K-FELDSPAR as microveins .3% EPIDOTE as microveins 12 PYRRHOTITE as disseminations and scattered crystals 97.41MT. TO 111.73MT. FROM med. dark green VARIOLITIC BASALT ; SILICIFIED, SILICIOUS Textures noted: VARIOLITIC 17 QUARTZ as microveins 1% CARBONATE as microveins .12 PYRRHOTITE as disseminations and scattered crystals FROM 100.03NT. TO 106.68NT. 100% of this subinterval is grey green BASALT Textures noted: MASSIVE , ANYGDALDIDAL .37 QUARTZ as microveins

.37 CARBOWATE as microveins .1Z K-FELDSPAR as microveins ALTERED LIGHT GREEN BASALT, K-FELDSPAR-CARBONATE 1018 10256 VEINING TWO DIORITIC DYKES WITHIN BASALT(3-5 CN WIDE) 11131 11173 FROM 111.73NT. TO 114.54NT. medium grey RHYOLITIC TUFF Textures noted: BEDDED , MASSIVE Structures noted: BEDDING dip 25, 2.5% QUARTZ as eyes, augen .017 PYRITE as disseminations and scattered crystals 17 CHLORITE as disseminations and scattered crystals .011 PYRRHOTITE as disseminations and scattered crystals **DIORITIC DYKE** 11356 11405 DIORITIC DYKE 11417 11439 FROM 114.54NT. TO 120.88NT. med. dark green BASALT Textures noted: MASSIVE , AMYGDALDIDAL 1Z QUARTZ as microveins 17 CARBONATE as microveins .012 PYRITE as disseminations and scattered crystals .012 PYRRHOTITE as disseminations and scattered crystals FROM 120.88NT. TO 122.68NT. RHYOLITE Textures noted: MASSIVE , BANDED Structures noted: CONTACT dip 40, 17 QUARTZ as eyes, augen 17 PYRITE as microveins 17 CHLORITE as pervasive mineralization .37 PYRRHOTITE as disseminations and scattered crystals FROM 122.68MT. TO 152.67MT. DUARTZ DIORITE Textures noted: NASSIVE 2.57 BIDTITE as pervasive mineralization .12 MAGNETITE as disseminations and scattered crystals .17 PYRITE as disseminations and scattered crystals .12 PYRRHOTITE as disseminations and scattered crystals 12268 15267 QUARTZ DIORITE GRADING TO GRAMODIORITE WITH MORE THAN 207 QUARTZ AND 107 ALRALI-FELDSPAR FROM 138.47NT. TO 140.81NT. 100% of this subinterval is DACITE Textures noted: NASSIVE 1% PYRITE as disseminations and scattered crystals .32 PYRRHOTITE as disseminations and scattered crystals 14444 14462 BASALTIC XENOLITH FROM 152.67MT. TO 165.81MT. dark green VARIOLITIC BASALT Textures noted: PILLOWED , VARIOLITIC

			17. QU/	ARTZ	as mi	crovei	15		
	17 CARBONATE as microveins								
	15267	16581	VERY I	500 d	LOOKIN	G VARI	DLITIC	BASALT	
REDH		16581							
IN-HO	LE SUR	VEY AT	165.81 MT.						
GRID	AZIMUT	h of ho	LE 180.00	VERTI	CAL AN	GLE -3	B.00		
TRUE	RUE AZIMUTH OF HOLE 215								
A001									
ALRIN			6T)	n Aus	th Agp	PN CU			
ALAB			CH	INTCC	HINTCC	HINTC			
ATYP			H-I	COR H	-COR H	-COR			
ANTH				FA	FA	AA			
A001	3219	3313	3894	.15	000				
A001	3922	4023	3895	.15	000				
A001	5511	5630	3896	.15	0.45	1860			
A001	5877	6032	3897	.15	000	1520			
A001	6032	6178	3898	.15	000				
A001	6178	6233	3899	.15	3.15	4620			
A001	6233	6392	3900	.15	1.95	600			
A001	6392	6507	3976	.15	000	800			
A001	6507	6544	3977	.15	3.70	5600			
A001	6544	6581	3978	.15	000	300			
A001	6581	6633	3979	.15	0.69	4920			
A001	<u>9933</u>	6803	3980	.15	2.98	1460			
A001	8348	8446	3981	.15	000				
A001	8647	8702	3982	.15	5.25	2300			
A001	9345	9440	3983	.15	1.78				
A001	9440	9492	3984	.15	5.31	4980			
A001	9492	95 95	3985	.15	1.47	270			
A001	9193	9345	3986	.15	000				
A001	9595	9744	3987	.15	.15				
A001	9744	9897	3988	.15	000				
A001	12116	12268	3989	.15	0.86				
A001	12268	12369	3990	.15	.15				
A001	12853	13006	3991	.15	0.93				
A001	13402	13554	3992	.15	000				
A001	13695	13847	3993	.15	000				
A001	13847	13871	3994	.15	1.20				
A001	13871	13996	3995	000	000				
/END									

HOLE 83CH017 BQ GRID NORTH 150.00 GRID EAST -1600.0 GRID AZIMUTH OF HOLE 180.00 VERTICAL ANGLE -55.00 TRUE AZINUTH OF HOLE 215 TOTAL DEPTH OF HOLE: 145.39mt. Logged by: H. Thiboutot on (day/mo/yr)...JUL83 Drilled by: Bradley Bros. JUL83 FROM 0.00MT. TO 3.66MT. OVERBURDEN FROM 3.66MT. TO 20.08MT. dark green BASALT Textures noted: NASSIVE , ANY6DALOIDAL , BANDED .32 QUARTZ as microveins .37 BIOTITE as pervasive mineralization .3Z CARBONATE as microveins 17 PYRITE as microveins 17 CHALCOPYRITE as disseminations and scattered crystals 17 PYRRHOTITE as microveins POSSIBLY WEAKLY VARIOLITIC 366 689 FROM 6.89MT. TO 8.35MT. 100% of this subinterval is brown grey DACITIC TUFF Textures noted: BEDDED Structures noted: BEDDING dip 20, SZ BIOTITE as pervasive mineralization .3% PYRITE as microveins .31 MUSCOVITE as pervasive mineralization .3% PYRRHOTITE as microveins 687 835 DACITIC TO RHYOLITIC IN COMPOSITION 8.63NT. TO 12.75NT. FROM 100% of this subinterval is medium green PYROIENITE Textures noted: MASSIVE Structures noted: CONTACT dip 30, .1Z MAGNETITE as disseminations and scattered crystals FROM 13.44NT. TO 16.46NT. 100% of this subinterval is med. light grey RHYOLITIC TUFF Textures noted: BEDDED Structures noted: BEDDING dip 40, .32 QUARTZ as microveins 17 BIOTITE as pervasive mineralization .3Z CARBONATE as microveins .1Z PYRITE as microveins .17 CHALCOPYRITE as microveins 1% CHLORITE as pervasive mineralization .12 PYRRHOTITE as microveins 20.08MT. TO 30.08MT. FROM medium grey RHYOLITE Textures noted: BANDED

1

Structures noted: BANDING dip 30, 17 BIOTITE as pervasive mineralization IZ PYRITE as disseminations and scattered crystals .37 CHALCOPYRITE as disseminations and scattered crystals IX PYRRHOTITE as disseminations and scattered crystals FROM 30.08MT. TO 35.91NT. med. dark green BASALT with AMPHIBOLES , and 100Z Textures noted: PORPHYRITIC 17 CARBONATE as microveins 12 PYRITE as disseminations and scattered crystals 11 PYRRHOTITE as disseminations and scattered crystals 5 TO 10Z - 2TO4MM SIZED AMPHIBOLE PHENOCRYSTS;&CONTACT 3008 3591 WITH FOLLOWING RHYOLITE IS GRADATIONAL FRCM 35.91MT. TO 97.32MT. medium grey Textures noted: MASSIVE .3% QUARTZ as microveins 107 BIOTITE as pervasive mineralization .31 CARBONATE as microveins 5% MARIPOSITE as pervasive mineralization 5% PYRITE as disseminations and scattered crystals II CHALCOPYRITE as disseminations and scattered crystals SZ NUSCOVITE as disseminations and scattered crystals 10% CHLORITE as spots 10% PYRRHOTITE as disseminations and scattered crystals 3591 9732 RHYOLITE IS CHARACTERIZED BY ABUNDANT DARK GREEN CHLORITIC SPOTS 3779 4206 STRONG OR PERVASIVE GREEN CARBONATE (FUCHSITE) ABUNDANT SULPHIDE BANDS FROM 2CM TO 10 CM IN WIDTH 4328 4602 PO IS NOST ABUNDANT SULPHIDE FOLLOWED BY PY AND CPY (LESS THAN 12), 10 TO 202 TOTAL SULPHIDES 6139 6139 SNN THICK BRIGHT ENERALD GREEN (CARBONATE) BAND BEGINNING OF GOOD ALTERATION ; BIOTITE CONTENT 6218 6325 INCREASES TWO FOLD PRIOR TO FUCHSITE 6325 6553 STRONG PERVASIVE GREEN CARBONATE - FUCHSITE 6553 6614 ALTERATION PRESENT CONSISTS OF BLEACHING, MINOR SREEN CARBONATE AND A 5CM THICK EPIDOTE RICH BAND HEAVY ALTERATION CONSISTING OF DERVASIVE GREEN 6614 6706 CARBONATE, DISSENINATIONS AND VEINS OF EPIDOTE AND 31 GARNETS AT 66.44 7529 7986 SEVERAL BANDS I-TO 3CH THICK OF GREEN CARBONATE 7925 8794 ABUNDANT STRINGERS AND BANDS OF PO PY CPY; TOTAL SULPHIDE CONTENT VARIES BETWEEN 5 AND 20Z: LESS THAN II CPY ; MINOR FUCHSITE TO BANDING PRESENT SCATTERED ROUND "BALLS" AND BANDS 2 TO 4MM THICK OF 8839 9129 A BLUISH GREEN (TURQOISE), RELATIVELY SOFT CARBONATE (?) HINERAL. STRONG PERVASIVE DEVELOPMENT OF GREEN CARBONATE (FUCHSIT 9556 9821 ; INTENSE BIOTITE FROM 95.55 TO 97.53 QUARTZ CARBONATE NACROVEINS WITH EPIDOTE FRACTURE FILLIN 9815 9845 FROM 97.32MT. TO 99.12MT.

2

medium grey RHYOLITIC TUFF Textures noted: , BANDED Structures noted: BANDING dip 15, IZ BIOTITE as pervasive mineralization 10Z MARIPOSITE as pervasive mineralization 202 PYRITE as disseminations and scattered crystals 207 PYRRHOTITE as disseminations and scattered crystals FROM 99.12NT. TO 114.91NT. medium grey RHYOLITE Textures noted: TUFFACEOUS , MASSIVE 57 BIOTITE as pervasive mineralization 2.57 PYRITE as disseminations and scattered crystals 2.5% PYRRHOTITE as disseminations and scattered crystals RHYOLITE APPEARS TOBE CHLORITIZED 10339 10558 10826 11491 LOCALLY TUFFACEOUS FROM 114.91MT. TO 121.98MT. RHYOLITE Textures noted: MASSIVE 17 PYRITE as disseminations and scattered crystals 207 CHLORITE as pervasive mineralization IZ PYRRHOTITE as disseminations and scattered crystals 11491 12198 CHLORITIZED RHYODACITE FROM 121.98NT. TO 124.18NT. medium white RHYOLITE Textures noted: MASSIVE 1% PYRITE as disseminations and scattered crystals 17 CHALCOPYRITE as disseminations and scattered crystals 17 PYRRHOTITE as disseminations and scattered crystals WHITE (PORCELANITE) RHYOLITE, 3-52 SULPHIDE (PO-PY-CPY) 12198 12418 FROM 124.18NT. TO 141.98NT. violet grey RHYOLITE Textures noted: MASSIVE , TUFFACEOUS 17 BIOTITE as pervasive mineralization .37 PYRITE as disseminations and scattered crystals 17 CHLORITE as pervasive mineralization .37 EPIDOTE as microveins .37 PYRRHOTITE as disseminations and scattered crystals FROM 131.93NT. TO 131.89NT. 100Z of this subinterval is violet grey CHERTY TUFF Textures noted: , BEDDED Structures noted: BEDDING dip 30, .17 BIOTITE as pervasive mineralization .3Z GARNET as disseminations and scattered crystals .3% PYRITE as disseminations and scattered crystals 1Z EPIDOTE as microveins .37 PYRRHOTITE as disseminations and scattered crystals FROM 131.89NT. TO 133.38NT. 100Z of this subinterval is

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violet green DACITE Textures noted: , BANDED Structures noted: BANDING dip 10, FROM 133.38NT. TO 137.22NT. 100% of this subinterval is violet grey RHYOLITIC TUFF Textures noted: , BEDDED Structures noted: BEDDING dip 30, .3Z PYRITE as disseminations and scattered crystals .3% MUSCOVITE as laminations, bedded .3% PYRRHOTITE as disseminations and scattered crystals FROM 137.22NT. TO 141.96NT. 100Z of this subinterval is violet grey RHYOLITIC TUFF Textures noted: , BEDDED Structures noted: BEDDING dip 30, .37 QUARTZ as microveins .3Z CARBONATE as microveins .3Z PYRITE as disseminations and scattered crystals .37 PYRRHOTITE as disseminations and scattered crystals RHYOLITIC TO DALITIC IN COMPOSITION, BLEACHED ZONE 13722 14196 FROM 138.95M TO 139.08M. FROM 141.98HT. TO 145.39HT. aed. dark green BASALT Textures noted: MASSIVE 17 QUARTZ as microveins 17 BIOTITE as microveins 1Z CARBONATE as microveins .37 PYRITE as microveins 17 EPIDOTE as microveins .17 PYRRHOTITE as microveins RHCH 14539 IN-HOLE SURVEY AT 111.86 MT. GRID AZIMUTH OF HOLE 180.00 VERTICAL ANGLE -51.00 TRUE AZIMUTH OF HOLE 215 A001 GTN AUGTN AGPPN CUPPN ZN AUMM ALAB CHNITCCHINTCCHINTCCHINTC ATYP H-COREH-COR H-COR H-COR ANTH FA FA AA AA A001 546 698 4003 .15 000 .15 4004 000 A001 698 835 A001 1349 1497 4005 .15 000 4006 000 A001 1719 1811 .15 A001 1914 2009 4007 .15 000 A001 2009 2161 4008 .15 000 1000 A001 2161 2313 4009 .15 .15 1040 A001 2313 2466 4010 .15 1.34 1120 A001 2466 2606 4011 .15 000 1240 000 A001 2606 2755 4012 .15 760 A001 2755 2908 4013 .15 000 760 A001 2908 3011 4014 000 .15

A001	3591	3691	4015	.15	1.41	1000	
A001	3691	3791	4016	.15	000	120	
A001	3791	3292-3892	4017	000	000	70	
A001	3892	3993	4018	000	000	70	
A001	3993	4093	4019	.15	000	126	
A001	4093	4194	4020	.15	2.85	90	12
A001	4194	4365	4021	.15	2.40	600	12
A001	4365	4465	4022	.15	1.23	1560	12
A001	4465	4566	4023	.15	1.41	1440	11
A001	4566	4666	4024	.15	0.48	920	7
A001	4666	4767	4025	.15	0.67	560	
A001	4767	4868	4501	.15	000	440	
A001	4848	4968	4502	.15	.15	540	
A001	4968	5069	4503	.15	2.16	286	
A001	5069	5169	4504	.15	000	110	
A001	5169	5270	4505	15	000	100	
8001	5770	5770	1505	15	000	174	
A001	5776	5471	4507	15	000	107	
8001	5171	11/1 5579	4500	15	1 10	07	
A001	J7/1 5577	JJ/2 5/72	4EVO	. IJ 15	1.17	107	
NOVI	JJJ/2 5173	J0/2 5777	4JU7 1510	. IJ 15	1 00	160	
NVVI	J0/2	3//3 6077	4511	1 i J 15	1.51	137	
AVV1	3//3	38/3	4311	113	1.31	120	
AVVI	20/3	37/4	4312	000	15	122	
AUUI	34/4	0V/4	4313	000	- 10	103	
AVUI	60/4	61/3	4314	.13	3.17	00	
A001	61/3	62/3	4313	.13	.10	12	
A001	6275	6376	4516	000	000	14/	
A001	6376	6477	4517	.15	3.81	10/	
A001	6477	6577	4518	.15	.15	266	
A001	6577	667 8	4519	.15	0.55	17	
A001	6678	6779	4520	000	000	46	
A001	6779	6879	4521	.15	.15	70	
A001	6879	698	4522	000	000	86	
A001	698	7081	4523	000	000	231	
A001	7081	7181	4524	.15	2037	193	
A001	7181	7282	4525	.15	000	69	
A001	7282	7382	4526	.15	.15	211	••
A001	7382	7483	4527	000	000	83	
A001	7483	7583	4528	000	000	78	
A001	7583	7683	4529	.15	000	580	
A001	7683	7784	4530	.15	000	167	
A001	7784	7885	4531	.15	.15	204	
A001	7885	7986	4532	.15	000	366	
A001	7986	8086	4533	.15	000	520	
A001	8086	8187	4534	.15	000	135	
A001	8187	8287	4535	.15	000	334	
A001	8287	8388	4536	.15	000	1080	
A001	8388	8488	4537	. 15	000	760	
A001	8488	8589	4538	.15	. 15	1480	
A001	8589	8690	45.39	.15	000	900	
A001	8690	8790	4540	.15	000	255	
A001	8796	8891	4541	.15	.15	165	
A001	8891	8991	4542	.15	000	347	
A001	8991	9092	4543	_15	000	77	
<u><u>A</u><u>0</u>01</u>	9097	9193	4544	. 15	000	153	
1750	1412	1114	1911	• 14	~~~	744	

A001	9193	9293	4545 .	15	000	91
A001	9293	9394	4546 .	15	.15	218
A001	9394	9494	4547 .	15	000	182
A001	9494	9595	4548 .	15	000	218
A001	9595	9696	4549 .	15	000	166
A001	9696	9796	4550 .	15	000	63
A001	9796	9897	4551 .	15	000	35
A001	9897	9 997	4552 .	15	000	23
A001	9997	10098	4553 .	15	000	18
A001	10098	10199	4554 .	15	.15	π
A001	10199	10299	4555 .	15	. 15	161
A001	10299	1040	4556	15	000	200
A001	1040	1050	4557 .	15	.15	178
A001	1100	1110	4558	15	000	277
A001	11747	11847	4559	15	000	240
A001	12198	12299	4560 .	15	000	250
A001	12299	12418	4561	15	000	258
A001	12418	1257	5195 0.	17	3.98	
A00	1257	12722	5196 0.	17	0.67	
A001	12727	12874	5197 0.	17	2.13	
A001	12874	13027	5198 0	17	3.98	
A001	13027	13179	5199 0.	17	2.81	
A001	13179	13339	5200 0.	17	1.44	
A001	13339	13439	4562	15	15.29	
4001	13439	13579	4563	15	000	
A001	13539	13491	5201 0	17	3.63	
A001	13691	13944	5202 0	17	3.50	
0/01	13844	13097	5203 0	17	ñ.17	
3001	17307	12004	45/4	15	0.75	190
- avvi - SAA1	11/04	14244	1967 1 5701 A	1.J 17	7.1J	VOT
1991 2001	11777	14700	5705 A	17	1 07	
- AVVI - AAA1	11210	11070	57AL A	17	1.72	
HUUI	14370	14379	32Va V.	17	0.37	
/ERD						

HOLE 83CH 18 BQ GRID NORTH 392.00 GRID EAST-1067.00 GRID AZIMUTH OF HOLE 270.00 VERTICAL ANGLE -55.00 TRUE AZIMUTH OF HOLE 305 TOTAL DEPTH OF HOLE: 130.15at. Logged by: H.Thiboutot on (day/mo/yr)...JUL83 Drilled by: Bradley Bros. JUL 83 FROM 0.00MT. TO 1.83MT. OVERBURDEN FROM 1.83NT. TO 18.72HT. dark green BASALT Textures noted: MASSIVE , PILLOWED 17 QUARTZ as macroveins .17 CARBONATE as microveins .01Z CHALCOPYRITE as disseminations and scattered crystals .3Z PYRRHOTITE as microveins 183 1872 COARSE GRAINED BASALTIC FLOW FROM 18.72MT. TO 48.00MT. dark green BASALT with AMPHIBOLES, Textures noted: MASSIVE .37 QUARTZ as microveins .37 CARBONATE as microveins .37 PYRITE as disseminations and scattered crystals .37 PYRRHOTITE as disseminations and scattered crystals 1872 4800 BASALT CHARACTERIZED BY 20-25 % 1 TO 3 MM SIZED AM-PHIBOLE NETACRYSTS CORRESPOND TO NETAGABRO NAP DU-RING FIELD WORK FROM 48.00MT. TO 58.89MT. BASALT Textures noted: NASSIVE .3Z QUARTZ as microveins .3Z CARBONATE as microveins 4800 5889 GRAIN OF THIS BASALTIC UNIT VARYING FROM MEDIUM TO COARSE GRAIN, WITH SOME ANPHIBOLE METACRYSTS ZONE THROUGHOUT (LOCALLY WHITE SPECKLED APPEARANCE) 5791 5813 POSSIBLE FAULT ZONE, CORE IS SCHISTOSE AND BROKEN UP FROM 58.89MT. TO 61.05MT. medium green NAFIC TUFF Textures noted: TUFFACEOUS , BEDDED Structures noted: BEDDING dip 50, .1Z QUARTZ as microveins 17 BIOTITE as laminations, hedded .17 CARBONATE as microveins .37 PYRITE as disseminations and scattered crystals .37 PYRRHOTITE as disseminations and scattered crystals NAFIC TUFF WITH SOME INTERBEDS OF DACITICTO RHYOLI-5889 6105 TIC TUFF; WELL BEDDED FROM 61.05MT. TO 84.43MT. light grey RHYOLITIC TUFF Textures noted: TUFFACEOUS, BEDDED

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Structures noted: BEDDING dip 60, .37 QUARTZ as microveins 52 BIOTITE as pervasive mineralization .3% CARBONATE as microveins .37 PYRITE as disseminations and scattered crystals 2.57 CHLORITE as pervasive mineralization .3Z EPIDOTE as microveins RHYOLITIC TUFF, LOCALLY CRYSTAL TUFF VERY WELL BEDDED 6105 8443 WITH SOME CHERTY BAND, BIOTITE IS PERVASIVE AND ALSO FORMS BANDS FROM 69.07NT. TO 70.47NT. 100% of this subinterval is med. light green PYROXENITE Textures noted: MASSIVE 17 BIOTITE as pervasive mineralization 1Z PYRITE as disseminations and scattered crystals MASSIVE, LIGHT GREEN, SLIGHTLY MAGNETIC PYROXENTIE 6907 7047 7135 8443 RHYOLITIC TUFF (FINE GRAINED) INTERBEDDED WITH FELD-SPAR CRYSTAL TUFF, 50 TO CORE NORMAL FROM 84.43MT. TO 112.32MT. med. dark grey PYRDIENITE ; TALCOSE .1Z QUARTZ as microveins 17 BIOTITE as pervasive mineralization .12 CARBONATE as aicroveins 1% MAGNETITE as disseminations and scattered crystals .01% PYRITE as disseminations and scattered crystals MAGNETIC , TALCOSE PYROXENITE 8443 11232 7967 9973 PROBABLE FAULT ZONE, PYROXENITE IS HEAVILY SHEARED FROM 112.32NT. TO 127.25NT. light grey RHYOLITIC TUFF Textures noted: BANDED Structures noted: BANDING dip 60, 17 QUARTZ as eyes, augen .37 CARBONATE as microveins .17 MARIPOSITE as pervasive mineralization .01Z PYRITE as disseminations and scattered crystals .01Z PYRRHUTITE as disseminations and scattered crystals -11232 12725 WHITE TO LIGHT GREY, FINE GRAINED RHYOLITIC TUFF FROM 124.6 NT. TO 126.22NT. 100% of this subinterval is med. dark green PYROXENITE Textures noted: MASSIVE Structures noted: CONTACT dip 75, 52 BIOTITE as pervasive mineralization 12460 12622 NON MAGNETIC PYROXENITE FROM 127.25NT. TO 130.15NT. dark grey PYROXENITE ; TALCOSE Textures noted: MASSIVE Structures noted: CONTACT dip 50, 1% MAGNETITE as disseminations and scattered crystals

12725 13015 MAGNETIC + TALCOSE PYROXENITE REDH 13015 IN-HOLE SURVEY AT 127.1 NT. GRID AZIMUTH OF HOLE 270.00 VERTICAL ANGLE -51.00 TRUE AZIMUTH OF HOLE 305 IN-HOLE SURVEY AT 130.15 MT. GRID AZIMUTH OF HOLE 270.00 VERTICAL ANGLE -51.00 TRUE AZIMUTH OF HOLE 305 A001 AUNN GTN AUGTN AGPPN CU ALAG CHINTCCHINTCCHINTC ATYP H-COREH-COR H-COR ANTH FA FA ÅÅ 000 100 A001 1618 1676 3996 000 A001 4203 4300 3997 000 2.02 A001 6907 7047 3998 000 000 .15 000 A001 7275 7376 3999 A001 794 8035 4000 . 15 000 A001 11354 11448 4001 .15 000 A001 12367 12469 4002 .15 .15 /END

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DLE B3CH027 BQ GRID NORTH -010.00 GRID EAST-1300.00 GRID AZIMUTH OF HOLE 180.00 VERTICAL ANGLE -55.00 TRUE AZIMUTH OF HOLE 215 TOTAL DEPTH OF HOLE: 99.67mt. Logged by: M.Drouin on (day/mo/yr)...JUL83 Drilled by: Bradley Bros. JUL83 0.00MT. TO FROM 3.35MT. OVERBURDEN FROM 3.35HT. TO 14.02HT. med. dark green BASALT Textures noted: MASSIVE , FOLIATED , AMYGDALDIDAL Structures noted: FOLIATION dip 40, 10Z CARBONATE as pervasive mineralization DACITIC FLOW 893 920 14.02MT. TO 51.45MT. FROM med. dark green GABBRO with AMPHIBOLES, Textures noted: MASSIVE 1% QUARTZ as microveins 2.5% CARBONATE as microveins 12 PYRITE as disseminations and scattered crystals .017 CHALCOPYRITE as disseminations and scattered crystals .1Z PYRRHOTITE as disseminations and scattered crystals GABBRO IS DIFFERENTIATED - GRADES FROM A MASSIVE -1402 1676 PYROXENITE TO A FINE GRAINED GABBRO CONTAINING 301 **3MM SIZED AMPHIBOLES** FROM 30.42NT, TO 32.03NT, 100% of this subinterval is med. dark green BASALT Textures noted: MASSIVE Structures noted: CONTACT dip 10, CONTACT dip 50 FROM 41.33NT. TO 43.31NT. 100% of this subinterval is med. light grey RHYOLITE Textures noted: MASSIVE .31 PYRITE as disseminations and scattered crystals .3% CHALCOPYRITE as disseminations and scattered crystals SZ CHLORITE as disseminations and scattered crystals 51 PYRRHOTITE as disseminations and scattered crystals 4724 4776 MASSIVE BASALT FROM S1.45NT. TO 60.05NT. med. dark green META TUFF Textures noted: BANDED Structures noted: BANDING dip 20, 10% BIOTITE as pervasive mineralization 2.5% PYRRHOTITE as disseminations and scattered crystals SECTION CHARACTERIZED BY AN INTERBANDING OF THIN (0.05) GREYBROWN BIOTITIC DACITE TUFF BANDS AND OF DARK GREEN-GABBROIC IN APPEARANCE - MAFIC BANDS

FROM	60.0	SMT.	TO	64.10HT.							
				medium grey DACITIC TUFF							
				Textures noted: BEDDED _ BANDED							
				Structures noted: BEDDING dia AA							
				2.52 PYRITE as microveins							
				17 PVDPHITTE as airroveins							
	6005	6410		WELL READER. WINDR NAETE RANNS - CHUNR VARTES FROM							
	0000	UTIV		RARY CREV TO A DULL WHITE							
	6203	RATA		UNDA OREF IN NULL BRITE 207 CHRONINE IN THIC CEPTION CONCLETING DOCUMENTATELY							
	02VJ	0000		ZVE BULFALVE IN TALD BELITUM LUNDIDITAD FREDUNINAIELY DE DA EN DECONVEE DUE TA DA ETDIMENDE CAUNA DETVERM							
				57 ANR 47 TL							
EDUX	<i>L</i> 1	ONT	TO	LG 7ANT							
i RVAL	0111	. WILL E		and dark arey PHYDDARITIC THEE							
				Textures noted. READER RANNER							
				107 RIGTITE as nervacive mineralization							
				7 57 XAGEFUIF as discominations and stattored revetals							
				2.54 MOMENTE as disseminations and scattored crustale							
				107 DYDDUGTITE is eigenvoine							
	1711	1000		TO ST BICCENTNATE MACHETITE POVETALE							
	0/00	0010		J TO JA VIJJENIMATE NMOMETTIE GRIJIMES							
FROM	49 7	THE	TO	99 <i>L</i> 7NT							
1 110/1	9/1/	7111 8		eed, dark green RASALT							
				Textures noted: MASSIVE , FLOW RRFFF1A _ RANDED							
				Structures noted: RANDING din 05.							
				17 QUARTZ as eicroveins							
				2.57 BIOTITE as microveins							
				102 CARBONATE as microveins							
				.12 MARIPOSITE as disseminations and scattered crystals							
				2.5% EPIDOTE as microveins							
	6974	9967		BASALT CHARACTERIZED BY 5 TO 101 PHARTZ - CARRONATE							
	••••			PATCHES DE IRREGULAR SHAPE							
	7077	7163		2 TO 57 MINISCULE GARNETS							
	9601	9784		AS ABOVE							
RFAH		9967									
TH-HO	F SUR	VEY A	T 9	9.67 NT.							
GRID	AZIMUT	HOF	HOLE	180.00 VERTICAL ANGLE -54.00							
TRUE	AZIMUT	HOF	HOLE	215							
A001											
AUMM				GTH AUGTH AGPPH CU							
ALAB				CHINTCCHINTCCHINTC							
ATYP				H-COR H-COR H-COR							
ANTH				FÀ FÀ AA							
A001	2194	2295		4927 .15 0.55							
A001	4139	4234		4928 .15 000 286							
A001	4234	4331		4929 .15 000 178							
A001	5432	5532		4930 . 15 000							
A001	5532	5632		5222 0.17 1.65							
A001	5632	5699		5223 0.17 0.17							
A001	5699	58		4931 .15 000							
A001	58	59		4932 1.40 1.16 304							
A001	59	6001		4933 .15 8.95							
A001	6001	6102		4934 .15 1.58							
A001	6102	6202		4935 .15 23.83							
A001	6202	6309		4936 2.40 2.33 640							

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A001	6309	6409	4937 1.75 25.44	172
A001	6409	651	4938.15 62.95	
A001	651	6611	4939 1.47 22.94	62
A001	6611	6712	4940 1.92 13.68	106
A001	6712	6812	4941 .15 2.61	
A001	6812	6913	4942 .15 1.32	
A001	6913	6974	4943 .15 3.36	
A001	6974	7056	4944 .15 5.52	
A001	7056	7163	4945 .15 4.01	
A001	7163	7315	5224 0.17 0.00	
A001	7315	7467	5225 0.17 0.00	
A001	7924	8077	5226 0.17 2.03	
A001	8443	8595	5227 0.17 1.37	
A001	8747	8900	5228 0.17 0.41	
A001	9601	9753	5229 0.17 1.44	
A001	9753	9906	5230 0.17 0.00	
A001	9906	9966	5231 0.17 0.55	
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OLE B3CH28 BQ GRID NORTH 290.00 GRID EAST -100.00 GRID AZIMUTH OF HOLE 180.00 VERTICAL ANGLE -55.00 TRUE AZIMUTH OF HOLE 215 TOTAL DEPTH OF HOLE: 104.70mt. Logged by: N.Drouin on (day/mo/yr)...JUL83 Drilled by: Bradley Bros. JUL83 FROM 0. MT- TD 1.52HT-OVERBURDEN FROM 1.52MT- TO 8.81HTmed. dark green BASALT with AMPHIBOLES, FELDSPAR, Textures noted: MASSIVE , PORPHYRITIC , FLOW BRECCIA 12 CARBONATE as microveins 12 FELDSPAR as disseminations and scattered crystals 57 1 TO 2NN SIZED ANPHIBOLE PHENOCRYSTS; 152 881 27, 1 TO 4MM FELDSPAR PHENOCRYSTS FROM 8.81MT- TO 9.42HTmed. light grey RHYOLITIC TUFF **Textures noted: BEDDED** Structures noted: BEDDING dip 15, 2.5% BIOTITE as disseminations and scattered crystals 57 CHLORITE as disseminations and scattered crystals 10% FELDSPAR as disseminations and scattered crystals FROM 9.42MT- TO 25.18NTdark green BASALT Textures noted: MASSIVE , AMY6DALDIDAL .012 PYRITE as disseminations and scattered crystals .OIT CHALCOPYRITE as disseminations and scattered crystals .017 PYRRHOTITE as disseminations and scattered crystals DARK GREEN BASALT; WEAK SPECKLED APPEARANCE; 942 2518 RESEMBLES BASALT HOSTING MAGA-ANYGDULES NEAR CHARLIE LAKE FROM 12.68NT- TO 13.41NT-100% of this subinterval is med. dark green FRAGMENTAL BASALT ; LAPILLI Textures noted: FRAGMENTAL .01Z CHALCOPYRITE as disseminations and scattered crystals .017 PYRRHOTITE as disseminations and scattered crystals 1268 1341 FRAGMENTAL BASALT, SIMILAR TO CHARLIE LAKE AREA 202 FELSIC FELDSPAR PORPHYRITIC FRAGMENTS IN A DARK GREEN BASALTIC MATRIX 1341 1372 AMPHIBOLE (1-27) AND FELDSPAR (1-27) PORPHYRITIC MAFIC DYKE AT 55 TO CORE NORMAL MAFIC FINE GRAINED DYKE AT 10 TO CORE NORMAL 1484 1539 FROM 16.22NT- TO 17.37NT-100% of this subinterval is green grey FRAGMENTAL BASALT Textures noted: FRAGMENTAL , BANDED Structures noted: BANDING dip 20, 10% FELDSPAR as disseminations and scattered crystals

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II.

	1622	1737	SEVERAL BANDS OF ACID TUFFS (FELDSPAR CRYSTALS) AND UP TO 107 1 TO 200 STZED SELDSDAR CRYSTALS
			DISSENINATED THROUGHOUT
	F	ROM	18.05NT- TO 19.99NT-
	1	VUL O	r (A15 SUDIATERVAL 15 brown grov PHVALITIC THEE
			Textures noted: BANDED
			Structures noted: BANDING dip 15.
			5% BIOTITE as pervasive mineralization
			10% FELDSPAR as disseminations and scattered crystals
	1805	1999	RHYOLITE CRYSTAL TUFF WITH FRAGMENTAL BASALT
			MATERIAL AT BEGINNING AND END OF INTERVAL
	2115	2157	NAFIC DYKE WITH 257 ITOANN SIZED FELDSPAR PHENOCRYSIS
	2204	2234	FRADERIAL BASALI : SJA FELVSTAN MUKUMIKIIIL ANV ADVANITIC DUVOLITIC EDACHEVIC DAVEINE EDAM A EEN
			MATTO ACH IN SIZE
FROM	25.1	8MT-	TO 33.53NT-
			med. light grey RHYOLITIC PYROCLASTIC
			Textures noted: FRAGMENTAL , BANDED , BEDDED
			Structures noted: BANDING dip 20,
			107 BIOTITE as pervasive mineralization
			2.34 FINITE as microyeins
			17 PYRRHOTITE as disseminations and scattered crystals
	2518	3353	MIXED BOTH TEXTURALLY AND COMPOSITIONNALY PYROCLASTIC
			SEQUENCE
	2585	2703	AGGLOMERATE; RHYOLITIC FRAGMENTS IN A DACITIC TO RHYODACITIC MATRIX
	2703	2743	CHLORITIC FINE RHYOLITE TUFFS
	2743	3304	FINE GRAINED DACITIC TO RHYOLITIC TUFFS
	2957	3033	SEAN; CORE IS OXIDIZED (RUSHY COLORED)
FROM	33.5	3NT-	TO 57.30NT-
			aediua green ALTERED BASALT; SILICIFIED, SILICIOUS
			Textures noted: NASSIVE , BAADED , PILLONED
			Structures noted: phaping dip 20, 57 DNAPT7 as pervasive mineralization
			17 RINTIFF as pervasive mineralization
			57 CARBONATE as pervasive mineralization
			2.57 PYRITE as microveins
			.37 CHALCOPYRITE as disseminations and scattered crystals
			17 PYRRHOTITE as disseminations and scattered crystals
	3353	5730	BASALT IS STRONGLY ALTERED, NUMEROUS MACROVEINS
			OF QUARTZ AND MICROVEINS OF CARBONATE; CORE HAS AN
			OVERALL WHITISH CULUK AND IS STRONGLY BANDED
	F	ROM	34.75HT- TO 35.42HT-
	1	007 a	F this subinterval is
			medium green PORPHYRITIC BASALT with FELDSPAR ,
			IEXTURES NOTED: PUKPHYKIIIC , MASSIVE
			.15 BURNIL de BILFOVEIRS 17 CARBONATE às Bicrovaine
			20% FELDSPAR as disseminations and scattered crystals

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W.

	3475 35	42	PORPHYRITIC BASALT CHARACTERIZED BY 20Z - 1 TO 8MM In Size ffidspar Laths
	3584 36	33	DUART7 CHI ORITE VEIN WITH 1 TO 52 PD-PY-CPY
	3767 38	04	DIARTT CHINRITE VEIN WITH 1 TO 57 PD-PY-CPV
	1975 AA	09 09	
	4033 40	90	A FEW RHYOLITE TUFF BANDS AT 20 TO CORE NORMAL
FROM	57.30MT	- TO	59.47NT-
			med. light grey RHYOLITIC TUFF Textures noted: BANDED
			Structures noted: BANDING dip 10,
			2.57 QUARTZ as microveins
			2.57 CARRONATE as pervasive mineralization
			SZ CHLORITE as disseminations and scattered crystals
			10Z FELDSPAR as disseminations and scattered crystals
	5730 59	47	SECTION CONSISTS PREDOMINATLY OF FINE RHYOLITE
			CRYSTAL TUFFS WITH MINOR MORE DACITIC SECTIONS UP TO
			0.2M IN THICKNESS AND ONE THIN (.2CM) FRAGMENTAL
			BASALT BAND
FROM	59.47NT	- TO	61.11MT-
			med. dark green BASALT
			Textures noted: MASSIVE
			17 AMOULDER SE an Laminations bodded
			14 METIDULES AS LARIHALINHS, DEUDED
FROM	61.11MT	- TO	70.01HT-
			med. dark green BASALT with AMPHIBOLES , FELDSPAR ,
			Textures noted: PORPHYRITIC , MASSIVE
			14 HUHRIZ AS BICTOVEINS 17 CADEGNATE as Bictoveins
			17 PYRRHOTHTE as disseminations and scattered crystals
			107 FELDSPAR as disseminations and scattered crystals
	6111 70	01	BASALT TYPIFIED BY 1-22 DCATTERED FELDSPAR PHENOCRYSTS
			AND UP TO 107 AMPHIBOLE PHENOCRYSTS
FROM	70.01MT	- TO	76.05MT-
			med. dark green BASALT
			Textures noted: BANDED
			12 QUARTZ as microveins
			2.5Z CARBONATE as microveins
			IZ PYRITE as disseminations and scattered crystals
			.VIL LHALLUPTKITE as disseminations and scattered crystals
	7001 76	05	STRONG GRID ALTERATION
FROM	76,0501	– TN	77.72HT-
			medium grey META-DACITE
			Textures noted: MASSIVE
			20Z RUARTZ as macroveins
			2.5Z CARBONATE as microveins
			5% PYRITE as disseminations and scattered crystals
			IZ CHALCOPYRITE as disseminations and scattered crystals
			JE FIRROUTLE AS DISSEMINATIONS AND SCATTERED CRYSTAIS

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7656 7772 QUARTZ CHLORITE VEINING; ABOUT 30Z QUARTZ; RESEMBLES STRONGLY CHARLIE LAKE ORE ZONE ; FRAGMENTS OF DACITE WITHIN QUARTZ ; UPPER CONTACT IS ROUGHLY AT 70 TO CORE NORMAL FROM 77.72HT- TO 79.31HTmed. dark green BASALT Textures noted: MASSIVE 17 QUARTZ as microveins 1% CARBONATE as microveins 10% PYRRHOTITE as disseminations and scattered crystals FROM 79.31MT- TO 83.01MTmedium grey RHYOLITE AGGLOMERATE 52 BIOTITE as pervasive mineralization 17 PYRITE as disseminations and scattered crystals 5% CHLORITE as pervasive mineralization 12 PYRRHOTITE as disseminations and scattered crystals 7931 8301 RHYOLITE AGGLOMERATE ; 25 TO 30Z RHYOLITIC FINE GRAINED TO FELDSPAR PORPHYRITIC, WEAKLY CHLORITIC FRAGMENTS ; MATRIX IS LOCALLY VARIABLE (BIOTITIC TO CHLORITIC TO SILICEOUS) 87.66HT-FROM 83.01MT- TO med. light grey RHYOLITIC TUFF Textures noted: BANDED , BEDDED Structures noted: BEDDING dip 10, 52 QUARTZ as microveins 2.5% BIOTITE as disseminations and scattered crystals 10% NUSCOVITE as pervasive mineralization RHYOLITE AGGLOMERATE BAND 8443 8498 97.78HT-FROM 87.66MT- TO med. dark green BASALT Textures noted: MASSIVE , AMYGDALOIDAL , FLOW BRECCIA 17 QUARTZ as microveins 17 CARBONATE as microveins LOCALLY FLOW BRECCIATED ; FRESH LOOKING BASALT 9507 9778 FROM 97.78MT- TO 101.04MTaed. dark green BASALT with AMPHIBOLES, Textures noted: MASSIVE 12 QUARTZ as microveins 1% CARBONATE as microveins 9778 10104 BASALT IS COARSE GRAINED ; 20 TO 25% 1 TO 2MM SIZED AMPHIBOLE NETACRYSTS FRON 101.04NT- TO 104.70NT-BASALT Textures noted: MASSIVE 12 QUARTZ as microveins 1Z CARBONATE as microveins 10104 10470 FRESH LOOKING BASALT 10470 REDH IN-HOLE SURVEY AT 102.72 MT-

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GRID	AZIMUTI	h of hole	180.00	VERTI	CAL AN	6LE -52	.00
TRUE	AZIMUTI	h of hole	215				
A001							
AUNH			6	in aug	TM ASP	PN CU	
ALAB			Ci	INTCC	HINTCC	HINTC	
ATYP			H	-COR H	-COR H	-COR	
ANTH				FA	FA	AA	
A001	1161	1265	3963	.15	3.57	620	
A001	2518	2618	3964	.15	000		
A001	2618	2718	3965	.15	000		
A001	3261	3377	3966	.15	000	1000	
A001	3584	3633	3967	.15	000	406	
A001	3633	3767	3968	.15	0.55	116	
A001	3767	3828	3969	.15	000	1080	
A001	3828	3959	3970	.15	.15	127	
A001	3959	4033	3971	.15	.15	700	
A001	4033	4176	3972	.15	000	440	
A001	4176	4328	3973	.15	000	362	
A001	4328	448	3974	.15	0.51	460	
A001	448	4633	3975	.15	000	760	
A0 01	4633	4785	3882	000	000	930	
A001	4785	4938	3883	000	000	460	
A001	4938	5090	3884	000	1.54		
A001	5425	5577	3885	000	1.23		
A001	5577	5 730	3886	000	0.89		
A001	7303	7404	3887	.15	000		
A001	7404	7504	3888	.15	2.71		
A001	7504	7605	3889	.15	000		
A001	7605	7657	3890	.15	000		
A001	7657	7772	3891	.15	2.50		
A001	7772	787	3892	.15	2.37		
A001	8367	8461	3893	.15	000		
/END							

HOLE 83CH029 BQ GRID NORTH -070.00 GRID EAST 800.0 SRID AZIMUTH OF HOLE 180.00 VERTICAL ANGLE -80.00 TRUE AZIMUTH OF HOLE 215 TOTAL DEPTH OF HOLE: 249.02mt. Logged by: M.Drouin on (day/mo/yr)...JUL83 Drilled by: Bradley Bros. JUL83 FROM 0.00MT. TO 5.79MT. OVERBURDEN FROM 5.79MT. TO 9.24NT. med, dark green FRAGMENTAL BASALT 5% BIOTITE as pervasive mineralization 2.5% CHLORITE as pervasive mineralization 5% FELDSPAR as disseminations and scattered crystals 924 FRAGMENTAL BASALT; 20 TO 25% RHYOLITIC FINE GRAINED 579 TO FELDSPAR PORPHYRITIC FRAGMENTS IN A BASALTIC MATRIX 670 745 MASSIVE BASALT FROM 9.24NT. TO 14.51NT. medium grey RHYOLITIC TUFF ; CRYSTALS Textures noted: , BANDED Structures noted: BANDING dip 50, 5% BIOTITE as pervasive mineralization 57 MUSCOVITE as pervasive mineralization 2.5% CHLORITE as disseminations and scattered crystals 10% FELDSPAR as disseminations and scattered crystals RHYOLITE CRYSTAL TUFF; BIOTITE CONTENT DECREASES 924 1451 TOWARDS BOTTOM OF HOLE 14.51NT. TO FROM 46.36NT. med. dark green BASALT Textures noted: MASSIVE , ANYGDALOIDAL 2.5% QUARTZ as microveins 10% BIOTITE as veins and/or abundant envelopes 2.5% CARBONATE as microveins **BIOTIZED PILLOW RINS AT IRREGULAR INTERUALS** 2652 4636 46.36NT. TO 51.30MT. FROM med. light grey RHYOLITE AGGLOMERATE ; AGGLOMERATIC Textures noted: , BANDED Structures noted: BANDING dip 40, 10% BIOTITE as pervasive mineralization .01% PYRITE as disseminations and scattered crystals 107 CHLORITE as pervasive mineralization 4636 5130 40Z FRAGMENTS VARYING FROM CHERTY TO FELDSPAR PORPHYRITI **BIOTITE AND CHLORITE IN NATRIX** 4859 4901 MASSIVE BASALT 4983 5130 MATRIX BECOMES BASALTIC 51.30MT. TO 57.91HT. FROM med. dark green BASALT Textures noted: MASSIVE , ANYGDALOIDAL 2.5% QUARTZ as microveins 2.5% CARBONATE as microveins

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FROM 57.91NT. TO 183.18NT. medium green BASALT Textures noted: FLOW BRECCIA , AMY6DALOIDAL , PILLOWED , MASSIVE 2.5% QUARTZ as microveins 2.5% CARBONATE as microveins FRES BASALT 5791 18318 151- 2TO4MM SIZED AMPHIBOLE PHENOCRYSTS; CONTACT IS 9668 9824 AT 40 TO CORE NORMAL FROM 100.74MT. TO 102.35MT. 100% of this subinterval is dark grey DACITE Textures noted: MASSIVE Structures noted: CONTACT dip 40, 10% MUSCOVITE as pervasive mineralization FROM 107.91MT. TO 121.92MT. 100% of this subinterval is med. dark green BASALT Textures noted: MASSIVE Structures noted: CONTACT dip 40, 2.57 QUARTZ as microveins 2.57 CARBONATE as microveins FROM 183.18NT. TO 194.55NT. med. dark green BASALT Textures noted: NASSIVE 2.5% QUARTZ as microveins 2.5% CARBONATE as microveins HEAVY EPIDOTE VEINING 18318 18364 FROM 194.55NT. TO 215.80NT. med. dark green BASALT with AMPHIBOLES, Textures noted: MASSIVE 2.5% RUARTZ as microveins 2.5% CARBONATE as microveins COARSE TO VERY COARSE BASALT; LOCALLY ALMOST PORPHYRITIC 19455 21580 21351 21580 HEAVY BLEACHING, REDDISH K-FELDSPAR BANDS FROM 215.19 TO 215.8 ; BRIGHT REDDISH GARNETS FROM 214.1 TO 214.73 FROM 215.80NT. TO 219.21NT. light grey RHYOLITIC TUFF Textures noted: BANDED Structures noted: BANDING dip 40, .037 PYRITE as disseminations and scattered crystals 10Z MUSCOVITE as pervasive mineralization VERY HEAVY EPIDOTE 21635 21641 21641 21741 TUFF IS COMPLETELY ALTERED - BLEACHING MASSIVE EPIDOTE AND K-FELDSPAR BANDS FROM 219.21MT. TO 224.7 MT. very dark grey PYROIENITE ; TALCOSE Textures noted: , MASSIVE 20Z MAGNETITE as pervasive mineralization ALTERED (EPIDOTE AND K-FELDSPAR) ACID TUFF BAND 22052 22074

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22448 22448 FAULT GOUGE FROM 224.7 NT. TO 225.25NT. med. light grey DACITIC TUFF Textures noted: , BANDED Structures noted: BANDING dip 40, 2.5% PYRITE as disseminations and scattered crystals FROM 225.25NT. TO 227.68NT. med. dark green BASALT Textures noted: , FOLIATED Structures noted: FOLIATION, FROM 227.68MT. TO 249.02MT. med. dark green BASALT Textures noted: MASSIVE , FOLIATED 2.57 QUARTZ as microveins 2.51 CARBONATE as microveins 2.5% PYRITE as laminations, bedded 2.52 K-FELDSPAR as microveins 2.5% EPIDOTE as microveins 2414 24293 BASALT GRADES INTO A DACITE CONTAINING 3-57 DISSMINATED PY AND SOME SPECKS OF SPHALERITE 24384 2475 BASALT GRADES INTO A DACITE 24719 24722 SPHALERITE STRINGERS REDH 24902 IN-HOLE SURVEY AT 181.97 MT. GRID AZIMUTH OF HOLE 180.00 VERTICAL ANGLE -79.00 TRUE AZIMUTH OF HOLE 215 IN-HOLE SURVEY AT 247.49 NT. GRID AZIMUTH OF HOLE 188.00 VERTICAL ANGLE -77.00 TRUE AZIMUTH OF HOLE 223 A001 GTM AUGTM AGPPM CUPPM ZN GTN AUGTN AG AUMM CHINTCCHINTC ALAB CHINTCCHINTCCHINTCCHINTC ATYP H-COR H-COR H-COR H-COR Q-COR Q-COR ANTH FA FA AA AA FA FA A001 2129 21351 4565 .15 000 4639 .15 3.12 A001 21351 21451 .15 0.48 A001 21451 21551 4640 4641 .15 000 A001 21551 21651 A001 21651 21751 4642 .15 .15 .15 0.82 A001 21751 21851 4643 A001 21851 21951 4644 .15 13.65 A001 21951 22051 4645 .15 1.92 A001 22051 22151 4646 .15 000 A001 22151 22251 4647 .15 0.96 A001 22251 22351 4648 .15 .15 A001 22351 22451 4649 .15 0.50 A001 22451 22551 .15 .15 4650 A001 22551 22651 4651 .15 0.55 A001 22651 22751 4652 .15 5.07 A001 22751 2286 4653 .15 000 A001 2286 2296 4654 .15 4.66 A001 2296 2306 4655 .15 2.78

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A001	2306	2316	4656	.15	6.34				
A001	2316	2326	4657	.15	0.41				
A001	2326	23378	4658	.15	000				
A001	23378	23478	4567	2.78	0.55	680			
A001	23478	23578	4568	.15	000				
A001	23579	23679	4569	.15	000				
- A001	23378	23530	4659			560		1.44	2.20
- A001	23530	23679	4660			•		.15	000
A001	23679	23779	4661	.15	000				
A001	23779	23879	4662	0.691	12.10	5			
A001	23879	23987	4663	.15	.15	-			
A001	23987	24087	4664	.15	000				
A001	24087	24140	4665	.15	. 15				
A001	2414	2429	4570	19.23	7.85	170	700		
~ A001	2414	2429	4666					4.97	5.83
A001	2429	2439	4667	. 15	000				0100
A001	2439	2449	4668	.15	.15				
A001	2449	2459	4669	7.60	1.55				
A001	7459	2469	4670	1.71	3.43	767	•		
A001	7469	7479	4671	.15	0.34	142			
0001	7479	74907	4477	15	7 45				
/FNJ	7.11 (LIVE	10/2	• • •	1.04				
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HOLE B3CH030 BQ GRID NORTH -440.00 GRID EAST 2750.00 GRID AZIMUTH OF HOLE 180.00 VERTICAL ANGLE -55.00 TRUE AZIMUTH OF HOLE 215 TOTAL DEPTH OF HOLE: 122.03mt. Logged by: M.Drouin on (day/mo/yr)...JUL83 Drilled by: Bradley Bros. JUL83 FROM 0.00MT. TO 6.09MT. **OVERBURDEN** 6.09NT. TO 47.39NT. FROM med. dark green BASALT Textures noted: MASSIVE , AMYGDALDIDAL 2.5% QUARTZ as microveins 2.5% CARBONATE as microveins FRESH BASALT 609 3825 FROM 12.03NT. TO 17.92NT. 100% of this subinterval is medium grey GRANODIORITE Textures noted: MASSIVE 17 QUARTZ as microyeins 1% PYRITE as disseminations and scattered crystals 1% K-FELDSPAR as microveins 5Z CHLORITE as pervasive mineralization - UNIT CONTAINS A FEW HIGHLY BIOTIZED BASALT XENOLITHS 2133 2164 SOME TEITURAL FEATURES RESEMBLING "NEGA-ANYGDULES" OF 'A' ZONE FROM 32.61NT. TO 35.78NT. 100% of this subinterval is light grey GRANODIORITE Textures noted: MASSIVE 20% BIOTITE as pervasive mineralization SZ CHLORITE as pervasive mineralization FROM 38.19NT. TO 39.79NT. 100Z of this subinterval is brown grey RHYOLITIC TUFF Textures noted: BANDED Structures noted: BANDING dip 10, .3Z QUARTZ as eyes, augen 20% MUSCOVITE as pervasive mineralization 5% CHLORITE as disseminations and scattered crystals 3977 4099 MEDIUM GRAINED GRANODIORITE DYKE NINOR FLOW BRECCIATION 4358 448 FROM 47.39MT. TO 51.45HT. medium grey BASALT; BIOTITIC Textures noted: MASSIVE , TUFFACEOUS 2.5% QUARTZ as microveins 402 BIOTITE as pervasive mineralization 10Z CARBONATE as pervasive mineralization FROM 48.85MT. TO 49.37MT.

80% of this subinterval is med. dark grey RHYOLITIC TUFF Textures noted: BANDED Structures noted: CONTACT dip 10, 10% QUARTZ as eyes, augen .31 GARNET as disseminations and scattered crystals FROM 51.45NT. TO 52.97NT. pale grey META CHERT ; SILICIFIED, SILICIOUS 2.5% GARNET as disseminations and scattered crystals 2.5% PYRITE as microveins 10% CHALCOPYRITE as disseminations and scattered crystals 10% PYRRHOTITE as microveins 5145 5297 METACHERT ZONE CONSISTING OF 151 SULPHIDES, 75-BOX SILICA; FROM 51.63 TO 51.88 BIOTITIC TUFFACEOUS BASALT; SPARSELY MINERALIZED MASSIVE GARNET BAND 5132 5132 52.97NT. TO 55.47HT. FROM brown green BASALT; TUFFACEOUS BIOTITIC Textures noted: MASSIVE , BANDED 2.5% QUARTZ as microveins 201 BIOTITE as pervasive mineralization 2.57 CARBONATE as microveins 56.90MT. FROM 55.47MT. TO pale grey META CHERT ; SILICIFIED, SILICIOUS 107 BIOTITE as microveins 10Z CHALCOPYRITE as microveins 10Z PYRRHUTITE as microveins METACHERT ZONE: 75 TO BOZ SILICA, 10 TO 152 PO 5547 5690 INCLUDING A MASSIVE IOCH THCIK STRINGER AND 10 TO **15Z BIOTITE BANDS** FUCHSITE AND CHLORITE BAND 3NM THICK 5672 5672 59.13MT. FROM 56.90HT. TO brown green BASALT ; TUFFACEOUS BIOTITIC Textures noted: NASSIVE , BANDED 2.5% QUARTZ as microveins 10% BIOTITE as laminations, bedded 2.5% CARBONATE as microveins .11 PYRITE as disseminations and scattered crystals .37 PYRRHOTITE as microveins FROM 59.13NT. TO 86.41MT. med. dark green BASALT Textures noted: MASSIVE , PILLOWED 2.5% QUARTZ as microveins 5% BIOTITE as disseminations and scattered crystals 2.5% CARBONATE as microveins 12 PYRRHOTITE as disseminations and scattered crystals 6203 6306 0.3M GROUND CORE 6234 6251 MASSIVE NUNMAGNETIC PYROIENITC

FROM 65.83NT. TO 67.66NT.

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100% of this subinterval is dark green PYROXENITE Textures noted: MASSIVE 2.5% BIOTITE as disseminations and scattered crystals .37 CARBONATE as microveins 6918 8001 FRESH MASSIVE AND PILLOWED BASALT 6537 6550 DACITIC TUFF BAND **BASALT IS TUFFACEOUS** 8464 8641 86.41NT. TO 89.90NT. FROM dark green PYROIENITE Textures noted: MASSIVE 5% BIOTITE as disseminations and scattered crystals 101 MAGNETITE as disseminations and scattered crystals FROM 87.11NT. TO 88.05MT. 100% of this subinterval is medium grey RHYOLITIC TUFF Textures noted: BEDDED 51 PYRITE as aicroveins 11 CHALCOPYRITE as disseminations and scattered crystals 10% PYRRHOTITE as microveins .3Z SPHALERITE as disseminations and scattered crystals SMALL DRUG FOLD 8747 8767 8711 8805 MODERATELY BEDDED; 10 TO 15% PO STRINGERS FROM 89.90MT. TO 92.04MT. med. light grey RHYOLITIC TUFF Textures noted: BEDDED Structures noted: BEDDING dip 10, 2.5% BIOTITE as disseminations and scattered crystals .31 PYRITE as disseminations and scattered crystals 2.5% MUSCOVITE as microveins FRON 92.04NT. TO 93.26NT. med. dark green BASALT Textures noted: MASSIVE 17 CARBONATE as microveins 17 PYRRHUTITE as disseminations and scattered crystals FROM 93.26MT. TO 98.05MT. dark green PYROXENITE Textures noted: MASSIVE 20% MAGNETITE as disseminations and scattered crystals 99.66MT. FROM 98.05MT. TO med. dark grey RHYDLITIC TUFF with QUARTZ , FELDSPAR , and CRYSTALS 2.5% QUARTZ as eyes, augen 10% BIOTITE as pervasive mineralization 2.57 PYRRHOTITE as disseminations and scattered crystals 201 FELDSPAR as disseminations and scattered crystals FROM 99.66MT. TO 102.87MT. med. dark grey RHYOLITIC TUFF Textures noted: BEDDED , BANDED

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Structures noted: BEDDING dip 20, 20% BIOTITE as pervasive mineralization .31 PYRITE as disseminations and scattered crystals .011 CHALCOPYRITE as disseminations and scattered crystals 107 MUSCOVITE as pervasive mineralization 107 CHLORITE as pervasive mineralization .3I PYRRHOTITE as disseminations and scattered crystals FROM 102.87MT. TO 112.29MT. dark green PYRDIENITE ; TALCOSE Textures noted: MASSIVE 51 BIOTITE as disseminations and scattered crystals 1Z CARBONATE as microveins 201 MAGNETITE as disseminations and scattered crystals FROM 112.29NT. TO 122.83NT. med. dark green BASALT Textures noted: MASSIVE Structures noted: CONTACT dip 30, 17 CARBONATE as microveins .17 K-FELDSPAR as microveins POSSIBLE FAULT OR SHEAR ZONE ; CORE IS BROKEN UP 11735 11790 12131 12283 BASALT IS WEAKLY VARIOLITIC REOH 12283 IN-HOLE SURVEY AT 99.67 MT. GRID AZIMUTH OF HOLE 180.00 VERTICAL ANGLE -54.00 TRUE AZIMUTH OF HOLE 215 A001 AUNM GTH AUGTH AGPPH CU ALAB CHINTCCHINTCCHINTC ATYP H.COR H-COR H-COR ANTH FA FA AA A001 5044 5145 4910 .15 000 143 A001 5145 5218 4911 3.94 1.06 900 A001 5218 5297 4912 8.15 0.50 1640 A001 5297 4913 .15 000 189 5398 .15 1.47 A001 5398 5547 4914 50 A001 5547 5690 4915 1.85 14.37 2080 A001 5640 5790 4916 .15 000 58 A001 5790 5891 4917 .15 000 36 A001 5891 6004 4918 .15 1.71 98 4919 A001 7546 7647 .15 1.51 1420 A001 8291 8382 4920 .15 1.37 179 A001 8641 8711 4921 .15 2.26 25 A001 8711 8805 4922 1.02 7.05 840 A001 8805 8820 4923 .15 000 49 A001 8820 8921 4924 .15 000 103 A001 9851 9927 4925 .15 000 38 A001 9927 10028 4926 .15 000 110 /END

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HOLE 83CH032 BQ GRID NORTH 075.00 GRID EAST-2050.00 SRID AZIMUTH OF HOLE 180.00 VERTICAL ANGLE -55.00 TRUE AZIMUTH OF HOLE 215 TOTAL DEPTH OF HOLE: 155.14mt. Logged by: H. Thiboutot on (day/mo/yr)...JUL83 Drilled by: Bradley Bros. **JUF8**2 0.00MT. TO 4.18MT. FROM OVERBURDEN 4.18MT. TO 21.43HT. FROM med. dark green BASALT Textures noted: MASSIVE , FOLIATED Structures noted: BANDING dip 30, 10% QUARTZ as microveins 5% BIOTITE as pervasive mineralization I CARBONATE as microveins 17 PYRITE as microveins .37 CHALCOPYRITE as disseminations and scattered crystals 17 PYRRHOTITE as microveins .01% TOURMALINE as disseminations and scattered crystals 418 2143 RECRYSTALIZED BASALT (DIORITIZED); FELDSPAR PHENOCRYSTS FROM 20.12 TO 21.43 : BASALT IS LOCALLY SILICIFIED 963 1225 BASALT MAY GRADE INTO A DACITE RHYODACITIC FLOW (?) 1225 1375 FROM 21.43MT. TO 85.34NT. medium grey GRANODIORITE Textures noted: MASSIVE 1Z QUARTZ as microveins 17 BIOTITE as pervasive mineralization 2.51 PYRITE as aicroveins .3I CHALCOPYRITE as disseminations and scattered crystals II CHLORITE as pervasive mineralization 2.51 PYRRHOTITE as microveins .011 SPHALERITE as disseminations and scattered crystals GRANDDIORITE CONTAINS BASALTIC XENOLITHS UP TO 20CM 2143 8534 IN SIZE GRANODIORITE IS FINE GRAINED; ALMOST NO MAFIC 3972 4383 **MINERALS PRESENT; SILICEOUS IN APPEARANCE** INTERMEDIATE TO ACID DYKE; BIOTITIC AND CHLORITIC; 4895 5081 CONTACT SHOWS BANDING FINE GRAINED DIORITIC PHASE; FROM 63.7 TO 64.62 6074 6608 ROCK IS BANDED AND CONTAINS MINOR GARNETS QUARTZ SULPHIDE VEIN 6462 6486 6840 6867 GRANODIORITE GRADES INTO A DIORITE 7077 7138 INTERMEDIATE FINE GRAINED DYKE SECTION CONTAINS 60% BASALT VENOLITHS 7181 7705 FROM 88.54MT. 85.34NT. TO medium grey RHYOLITE Textures noted: BANDED , MASSIVE Structures noted: BANDING dip 50. 11 QUARTZ as microveins 1% CARBONATE as microveins

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2.5% PYRITE as microveins .01I CHALCOPYRITE as disseminations and scattered crystals 11 K-FELDSPAR as microveins 12 CHLORITE as pervasive mineralization FROM 88.54MT. TO 92.48MT. brown green DACITE Textures noted: MASSIVE , BANDED Structures noted: BANDING dip 40, 17 QUARTZ as macroveins 51 BIOTITE as pervasive mineralization 17 CARBONATE as microveins 2.51 PYRITE as microveins .11 CHALCOPYRITE as disseminations and scattered crystals 2.5% CHLORITE as pervasive mineralization FROM 92.48NT. TO 94.24MT. medium grey RHYODACITE Textures noted: MASSIVE , BANDED Structures noted: BANDING dip 40, 20% BIOTITE as pervasive mineralization 2.5% PYRITE as microveins .17 CHALCOPYRITE as disseminations and scattered crystals FROM 94.24NT. TO 99.88NT. medium green BASALT Textures noted: MASSIVE 17 QUARTZ as microveins 57 BIOTITE as pervasive mineralization 17 CARBONATE as microveins 12 PYRITE as microveins .37 CHALCOPYRITE as disseminations and scattered crystals 17 PYRRHOTITE as microveins

FROM 99.88NT. TO 105.40NT.

medium grey DACITE Textures noted: MASSIVE .37 QUARTZ as microveins 57 BIOTITE as pervasive mineralization .37 CARBONATE as microveins 2.57 PYRITE as microveins 17 CHALCOPYRITE as disseminations and scattered crystals 2.57 CHLORITE as pervasive mineralization 2.57 PYRRHOTITE as microveins

FROM 105.40MT. TO 113.20MT.

medium green BASALT Textures noted: MASSIVE, BANDED Structures noted: BANDING dip 50, 12 QUARTZ as microveins 52 BIOTITE as pervasive mineralization 12 CARBONATE as microveins 12 PYRITE as microveins .33 CHALCOPYRITE as disseminations and scattered crystals 12 PYRRHOTITE as microveins

BASL IS LOCALLY SILICIFED 10540 11320 FROM 106.50NT. TO 107.93NT. 100% of this subinterval is brown green DACITE Textures noted: , BANDED Structures noted: BANDING dip 45, 10I BIOTITE as pervasive mineralization FROM 113.20MT. TO 131.61MT. med. light grey RHYOLITE Textures noted: MASSIVE 12 QUARTZ as microveins 17 CAREONATE as microveins 12 PYRITE as microveins .37 CHALCOPYRITE as disseminations and scattered crystals 2.5% NUSCOVITE as pervasive mineralization 1% CHLORITE as microveins 17 PYRRHOTITE as microveins FROM 122.96NT. TO 125.67MT. 100% of this subinterval is brown grey DACITE Textures noted: , BANDED Structures noted: BANDING dip 55, 10% BIOTITE as pervasive mineralization .31 PYRITE as disseminations and scattered crystals .37 PYRRHOTITE as disseminations and scattered crystals GRANDDIORITE DYKE 1274 12835 FROM 128.35MT. TO 129.33MT. 100% of this subinterval is brown grey DACITE CPY RICH STRINGERS; 5 TO 7% TOTAL SULPHIDES 12933 12999 FROM 131.61NT. TO 153.37NT. medium green BASALT Textures noted: MASSIVE 17 QUARTZ as microveins .31 BIOTITE as disseminations and scattered crystals 17 CARBONATE as microveins 17 PYRITE as microveins .12 CHALCOPYRITE as disseminations and scattered crystals .37 K-FELDSPAR as microveins 17 EPIDOTE as massive 17 PYRRHOTITE as microveins .01% SPHALERITE as disseminations and scattered crystals 13161 15337 BASALT IS LOCALLY SILICIFIED, BLEACHED AND EPIDOTIZED 13947 13978 BASALT IS EPIDOTIZED 14179 14209 BASALT IS EPIDOTIZED 14467 14777 POSSIBLE VARIOLES 14871 14926 **GRANDDIORITE DYKE** 15194 15209 MASSIVE EPIDOTE

FROM 153.37NT. TO 155.14NT.

med. dark grey DACITE Textures noted: MASSIVE , BANDED Structures noted: BANDING dip 10, 1% GARNET as disseminations and scattered crystals 17 PYRITE as microveins .17 CHALCOPYRITE as disseminations and scattered crystals 17 PYRRHOTITE as microyeins 15337 15361 GRANODIORITE DYKE; NINOR DISS PO-PY 15374 15398 GRANODIORITE DYKE; 12 GARNETS REOH 15514 IN-HOLE SURVEY AT 126,79 NT. GRID AZIMUTH OF HOLE 180.00 VERTICAL ANGLE -49.00 TRUE AZIMUTH OF HOLE 215 A001 AUMM **GTH AUGTH AGCU PPHZN PPH** ALAB CHINTCCHINTCCHINTCCHINTC ATYP H-COR H-COR H-COR H-COR ANTH FA FA AA AA A001 555 655 4571 .15 000 293 A001 783 883 **4**572 000 600 .15 A001 883 984 4573 .15 000 163 A001 984 1084 4574 .15 000 348 A001 1084 1185 4575 .15 000 182 A001 A001 1186 1286 4801 .15 000 440 A001 1286 1386 4802 .15 000 400 A001 1386 1463 4803 .15 000 780 A001 2277 2377 4804 190 .15 000 A001 2377 2478 4805 400 .15 1.23 A001 2478 2578 4806 .15 000 230 A001 2578 2679 4807 .15 000 128 A001 2679 2779 4808 .15 000 38 A001 2779 288 4809 .15 000 190 A001 3871 3971 4810 .15 000 27 47 A001 3971 4072 4811 .15 000 47 39 A001 4072 4172 4812 000 000 137 1280 A001 4172 4273 4813 000 000 105 146 A001 4273 4373 4814 000 000 80 46 A001 4373 4494 4815 000 000 22 49 A001 4788 4888 4816 000 000 A001 4888 4788 4817 000 000 5971 6071 A001 4818 000 000 6071 6171 A001 4819 000 000 A001 6171 6271 4820 .15 0.62 A001 6271 6371 4821 .15 2.95 A001 6371 6471 4822 .15 000 A001 6471 6571 4823 .15 .15 A001 6571 6645 4824 .15 000 684 6867 A001 4825 .15 000 8431 8534 A001 4826 .15 .15 332 A001 8534 8544 4827 .15 3.50 1100 A001 8544 8735 4828 .15 3.67 1300 A001 8735 8834 4829 2.16 2.98 1060 A001 8834 8936 4830 .15 000 540 A001 8936 9037 4831 .15 2.40 760

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Policy Land

A001	9147	9248	4832	.15	000	400	
A001	9248	9348	4833	.15	000	600	
A001	9348	9449	4834	.15	0.41	520	
A001	9619	9720	4835	.15	000	460	
A001	9720	9820	4836	.15	000	155	
A001	10017	10119	4837	.15	.15	800	
A001	10119	10220	4838	.15	1.75	940	
A001	10220	10320	4839	.15	1.87	1360	
A001	10320	10421	4840	.15	000	1640	
A001	10421	10521	4 841	0.96	0.75	1540	
A001	10521	10622	4842	0,38	1.65	0880	
A001	10622	10722	4843	.15	0.89	1000	
A001	10722	10823	4844	000	000	460	
A001	10823	10923	4845	0.38	0.82	540	
A001	10923	11024	4846	.15	000	211	
A001	11024	11125	4847	. 15	1.75	298	
A001	11125	11226	4848	. 15	2.47	206	
A001	11226	11326	4849	0.34	.15	304	
0001	11326	11477	4850	.15	1.82	126	
2001	11427	11527	4851	000	000	159	
8001	11527	11429	1952	000	000	44	
0001 0001	11120	11720	1057	000	000	77	
8001	11770	11070	1051	15	A 45	157	
8001	11000	11027	1055	1J	0.TJ	170	
NVV1	11027	11730	1057	000	V.70 15	101	
AUVI	12070	12030	1030	1000	.13	100	
AUVI	12030	12131	1050	- 13	0.41	238	
RUVI	12131	12231	1050	.13	0.07	620	
AUVI	12232	12308	4837	3.22	1,10	40V	
A001	12308	12408	4860	.15	2.30	204	
A001	12408	12508	4/24	.15	3.22		
A001	12508	1256/	4/25	.15	5.36		
A001	1256/	12667	4861	.15	1.15	204	
A001	12667	12741	4862	.15	4.53	146	
A001	12741	12535	4874	.15	0.41	162	
A001	12835	12933	4863	.15	28.87	122	
A001	12933	12999	4864	0.38	1.51	2720	
A001	12999	13100	4865	.15	0.34	79	
A001	13100	13200	4707	.15	000		
A001	13200	13289	4708	.15	0.34		
A001	13289	13392	4866	.15	0.34	420	
A001	13392	13472	4867	11.79	1.13	393	
A001	13472	13533	4709	.15	000		
A001	13533	13634	4868	.15	1.41	440	
A001	13634	13734	4710	.15	000		
A001	13734	13834	4711	.15	000		
A001	13834	13934	4712	.15	000		
A001	13934	14034	4713	.15	4.05		
A001	14034	14167	4714	.15	000		
A001	14167	14228	4869	.15	18.55	620	176
A001	14228	14328	4715	.15	0.72		
A001	14328	14428	4716	.15	2.74		
A001	14428	14528	4717	.15	000		
A001	14528	14640	4718	.15	000		
A001	14640	14750	4719	.15	2.88		
A001	14750	14850	4720	. 15	4.05		

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A001	14850	14950	4721	.15	000			
A001	14950	15050	4722	.15	7.27			
A001	15050	15109	4723	.15	3.36			
A001	15109	15231	4870	.15	9.75	106	46	
AQ01	15231	15331	4871	.15	0.45	227	38	
A001	15331	15432	4872	000	000	197	26	
A001	15432	15514	4873	.15	3.09	242	42	
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HOLE 83CH033 B9 GRID NORTH 615.00 GRID EAST-1050.00 GRID AZIMUTH OF HOLE 180.00 VERTICAL ANGLE -55.00 TRUE AZIMUTH OF HOLE 215 TOTAL DEPTH OF HOLE: 99.67mt. Logged by: H. Thiboutot on (day/mo/yr)...JUL83 Drilled by: Bradley Bros. JUL83 FROM 0.00MT. TO 1.83HT. OVERBURDEN FROM 1.83MT. TO 4.66MT. med. dark green BASALT Textures noted: MASSIVE , AMY6DALOIDAL 51 QUARTZ as microveins 5% CARBONATE as microveins .II PYRITE as disseminations and scattered crystals .017 CHALCOPYRITE as disseminations and scattered crystals .17 PYRRHOTITE as disseminations and scattered crystals FROM 4.66MT, TO 25.24HT. light grey Textures noted: FRAGMENTAL , BEDDED Structures noted: BEDDING dip 15, 17 BIOTITE as pervasive mineralization .17 PYRITE as disseminations and scattered crystals .017 CHALCOPYRITE as disseminations and scattered crystals .17 PYRRHOTITE as disseminations and scattered crystals 466 2524 THIS PYROCLASTIC SEQUENCE VARIES FROM FINE GRAINED RHYOLITE TUFF TO A BIMODAL RHYOLITE AGGLOMERATE. IN THE LATER CASE THE MARTIX IS BASALTIC AND FORMS ABOUT 20Z OF UNIT 3 TYPES OF FRAGMENTS ARE OBSERVERAL; RHYOLITE FELDSPAR PORPHYRITIC, FINE GRAINED RHYOLITIC AND SOME CHERTY FRAGMENTS. MORE RARELY HEAVILY BIOTIZED MAFIC FRAGMENTS MAY BE OBSERVED 1917 1978 MAFIC MEDIUM GRAINED DYKE 1311 1372 **BLEACHED SECTIONED** FROM 25.24MT. TO 49.68MT. light grey Textures noted: FRAGMENTAL, BEDDED 57 QUARTZ as eyes, augen 17 BIOTITE as pervasive mineralization .31 GARNET as disseminations and scattered crystals .37 PYRITE as disseminations and scattered crystals .01% CHALCOPYRITE as disseminations and scattered crystals 17 MUSCOVITE as pervasive mineralization 17 CHLORITE as pervasive mineralization 17 PYRRHOTITE as microveins .017 SPHALERITE as disseminations and scattered crystals AS PREVIOUS MATRIX VARIES FROM BASALTIC TO RHYOLITIC 2524 4968 SECTION CONSISTS OF FINE RHYOLITE TUFF AND RHYOLITE 3572 4160 AGGLOMRATE; 1-37 SULPHIDES(PY, CPY, PO, 2NS) ARE FOUND AS DISSEMINATIONS OR AS MICROVEINS. 4160 4816 FRAGMENT CONTENT DECREASES TO BETWEEN 10 AND 151 DACITIC TO RHYODACITIC AGGLOMERATE 4816 4968

FRCM 49.68MT. TO 51.72MT. aediua oreen PYROXENITE Textures noted: MASSIVE 1% QUARTZ as macroveins 17 CARBONATE as microveins 1% EPIDOTE as microveins 51.72NT. TO 64.53MT. FROM med. light grey RHYOLITIC TUFF Textures noted: BANDED Structures noted: BANDING dip 10, 5% QUARTZ as eyes, augen 2.5% BIOTITE as pervasive mineralization 2.5% MAGNETITE as disseminations and scattered crystals 17 PYRITE as microveins .1% CHALCOPYRITE as disseminations and scattered crystals 2.5% MUSCOVITE as pervasive mineralization 2.5% CHLORITE as pervasive mineralization .37 EPIDOTE as microveins 17 PYRRHOTITE as microveins .011 SPHALERITE as disseminations and scattered crystals RHYOLITE TUFF AND CRYSTAL TUFFS 5172 6453 MAFIC DYKE 5477 5507 FROM 64.53NT. TO 87.81MT. med. dark green BASALT ; SILICIFIED, SILICIOUS Textures noted: , MASSIVE 2.57 QUARTZ as microveins 2.57 BIOTITE as pervasive mineralization 2.57 CARBONATE as microveins .3I PYRITE as disseminations and scattered crystals .01% CHALCOPYRITE as disseminations and scattered crystals 17 PYRRHOTITE as microveins 6757 6757 MASSIVE PO-MINOR PY CPY-BAND FROM 69.68NT, TO 75.68NT. 100% of this subinterval is brown grey DACITE Textures noted: MASSIVE , BANDED Structures noted: BANDING dip 30, 17 QUARTZ as aicroveins 51 BIOTITE as pervasive mineralization 17 CARBONATE as microveins 12 PYRITE as microyeins 17 CHALCOPYRITE as disseminations and scattered crystals 10% PYRRHOTITE as massive 77.85MT. TO 78.91MT. FROM 100% of this subinterval is brown grey DACITE Textures noted: MASSIVE 57 BIOTITE as pervasive mineralization 2.57 PYRITE as disseminations and scattered crystals 5% CHALCOPYRITE as disseminations and scattered crystals
101 PYRRHOTITE as massive

FROM 83.94MT. TO 86.47MT. 100% of this subinterval is brown grey DACITE Textures noted: MASSIVE 5% BIOTITE as pervasive mineralization 2.57 GARNET as disseminations and scattered crystals .31 PYRITE as disseminations and scattered crystals .31 CHALCOPYRITE as disseminations and scattered crystals II PYRRHOTITE as disseminations and scattered crystals FROM 86.47MT, TO 86.77MT, 100% of this subinterval is light grey RHYOLITE Textures noted: MASSIVE .31 PYRITE as disseminations and scattered crystals .31 CHALCOPYRITE as disseminations and scattered crystals 2.57 PYRRHOTITE as disseminations and scattered crystals BASALT CONTAINS 3 TO 51 FELDSPAR PHENOCRYSTS OF 8577 8781 **IRREGULAR SHAPE** 87.81MT. TO 98.60MT. FROM medium grey RHYOLITE Textures noted: MASSIVE , BANDED Structures noted: BANDING dip 10, 52 QUARTZ as eyes, augen 17 BIOTITE as pervasive mineralization 17 PYRITE as disseminations and scattered crystals 2.5% MUSCOVITE as pervasive mineralization 1% CHLORITE as spots 17 PYRRHOTITE as disseminations and scattered crystals 99.67NT. FROM 98.60MT. TO med. dark green BASALT Textures noted: MASSIVE .31 QUARTZ as microveins .31 CARBONATE as microveins REOH 9967 IN-HOLE SURVEY AT 99.67 MT. GRID AZIMUTH OF HOLE 180.00 VERTICAL ANGLE -53.00 TRUE AZIMUTH OF HOLE 215 A001 AURA **GTH AUGTH AGPPH CUPPH ZN** ALAB CHINTCCHINTCCHINTCCHINTC ATYP H-COR H-COR H-COR H-COR ANTH FA FA AA AA 5253 0.17 0.00 A001 3051 3152 A001 3152 3304 5254 0.17 1.85 A001 3304 3456 5255 0.17 0.41 A001 3457 3557 4946 .15 4.80 440 640 A001 3557 3657 4947 .15 5.86 1140 2120 A001 3657 3757 4948 .15 7.51 1160 780 A001 3757 3857 4949 .15 6.45 500 395 A001 3857 3957 4950 .15 0.96 220 183

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A001	3957	4057	4951	. 15	5.90	228	337	
A001	4057	4157	4952	.15	4.66	82	187	
A001	4157	4257	4953	.15	000	179	27	
A001	4257	4357	4954	.15	1.37	223		
A001	4357	4457	4955	.15	0.34	54		
A001	4457	4557	4956	.15	000	112		
A001	4557	4657	4957	.15	000	243		
A001	4657	4703	4958	.15	0.34	23		
A001	4785	4865	4959	.15	000	321		
A001	4865	4968	4960	.15	000	94		
A001	4968	5069	5256	0.17	0.17			
A001	5069	5172	5257	0.17	4.53			
A001	5172	5273	4961	.15	1.58	377		
A001	5273	5373	4967	.15	1.58	343		
0001	5373	5474	4963	15	000	187		
5001	5474	5677	5758	0 17	0 17	107		
Δ001	54.27	5779	5759	A 17	0.17			
ΔΛΛ1	5779	5079	5760	0 17	0 17			
A001	5070	5007	5741	0.17 0.17	0 17			
7001	J0/7 5007	J774 1007	JZG1 10/1	15	0.17	51	01	
HVV1 A001	177J 2007	0973 L107	7707	- 1.5	000	1L 7C	71	
HVV1	2073	0173	47QJ 10LL	11	000	20	77	
HVV1	0175	0273	1700	- 13	000	27	32	
AUUI	0293	0342	470/ 40/0	.13	000	72	40	
HUVI	6373	6433	4768 50/0	- 13 - 13	0.48	70	40	
A001	6435	6335	5262	0.1/	0.1/			
A001	6000	6667	3263	0.00	0.00	480		
A001	6667	6/69	4969	0.89	5.42	182		
A001	6/69	6867	49/0	1.3/	1.10	33		
A001	6869	6767	49/1	1.58	4.46	82		
A001	6969	7069	49/2	1.82	21.74	267		
A001	7069	7169	4973	1.58	3.43	1780		
A001	7169	7269	4974	0.34	1.37	79		
A001	7269	7369	4975	0.48	6.10	272		
A001	7369	7473	4976	.15	2.95	63		
A001	7474	7565	5264	0.00	0.00			
A001	7565	7684	5265	0.00	0.00			
A001	7684	7784	4977	1.71	1.65	2140		
A001	7784	7891	4978	0.34	1.03	2140		
A001	7891	7991	4979	. 15	1.30	73		
A001	7992	8144	5266	0.17	0.17			
A001	8144	8297	5267	0.17	0.17		-	
A001	8297	8394	5268	0.17	0.17			
A001	8394	8494	4980	.15	1.23	357		
A001	8494	8594	4981	.15	000	247		
A001	8594	8678	4982	.15	7.87	124		
A001	8678	883	5269	0.17	0.17			
A001	833	8982	5270	0.17	0.17			
A001	8982	9135	5271	0.17	0.17			
A001	9135	9287	5272	0.17	0.17			
A001		0110	5273	0.17	0.17			
	9287	1437						
A001	9287 9439	9592	5274	0.17	0.17			
A001 A001	9287 9439 9592	9592 9744	5274 5275	0.17 0.17	0.17 0.17			
A001 A001 A001	9287 9439 9592 9744	9592 9744 9897	5274 5275 5276	0.17 0.17 0.17	0.17 0.17 0.17			
A001 A001 A001 A001	9287 9439 9592 9744 9897	9592 9744 9897 9967	5274 5275 5276 5277	0.17 0.17 0.17 0.17	0.17 0.17 0.17 0.17			

HOLE B3CH034 B9 GRID NORTH 260.00 GRID EAST -900.00 GRID AZIMUTH OF HOLE 180.00 VERTICAL ANGLE -75.00 TRUE AZIMUTH OF HOLE 215 TOTAL DEPTH OF HOLE: 99.67at. Logged by: M.Drouin on (day/mo/yr)...JUL83 Drilled by: Bradley Bros. **JUL83** FROM 0. MT- TO 2.74HT-OVERBURDEN .12 PYRITE as disseminations and scattered crystals FROM 2.74HT- TO 20.30HTmed. dark gray PYROXENITE ; TALCOSE Textures noted: MASSIVE 5% CARBONATE as pervasive mineralization 207 MAGNETITE as pervasive mineralization **PYROIENITE IS SHEARED** 457 487 PYROXENITE IS TYPIFIED BY ABOUT 15% ROUND CALCITE 274 1874 "ANYGDULES" OR CAVITY FILLINGS 1874 2030 PYROIENITE BECOMES DARK GREEN IN COLOR AND CONTAINS BETWEEN 10 AND 15% BIOTITE ; MASSIVE BIOTITE IS PRESENT BETWEEN 19.5 AND 19.6; PYROXENITE GRADES INTO FOLLOWING GABBRO FROM 20.30MT- TO 30.57MTmed. dark green GABBRO Textures noted: MASSIVE 2.57 CARBONATE as microveins 17 MAGNETITE as disseminations and scattered crystals 2030 3057 FELDSPAR CONTENT DECREASES SIGNIFICANTLY AS DNE APPROACH-ES THE FOLLWOING ACID TUFFS; AS THE FELDSPAR CONTENT DECREASES AMPHIBOLE PHENOCRYSTS BECOME MORE PROMINENT 43.28MT-FROM 30.57MT- TO med. light grey RHYOLITIC TUFF Textures noted: BEDDED , BANDED Structures noted: BEDDING dip 30, .3Z QUARTZ as eyes, augen 107 BIOTITE as pervasive mineralization 10% MUSCOVITE as pervasive mineralization 202 FELDSPAR as disseminations and scattered crystals FROM 43.28MT- TO 64.62MTdark grey PYROXENITE ; TALCOSE Textures noted: MASSIVE 207 MAGNETITE as pervasive mineralization 4474 4480 CPY RICH BAND 5852 5959 PROBABLE SHEAR OR FAULT ZONE; CORE IS BADLY BROKEN UP 6209 6227 PROBABLE FAULT ZONE; CORE IS HEAVILY BROKEN UP PYROXENITE BECOMES DARK GREEN ; IS NOT TALCOSE 6309 6462 AND CONTAINS UP TO 30% BIOTITE IN THE FORM OF BANDS FROM 64.62NT- TO 67.86MTmedium green GABBRO with AMPHIBOLES, FELDSPAR, Textures noted: MASSIVE

FROM 67.86NT- TO 69.22NTmedium grey RHYOLITE Textures noted: MASSIVE , BANDED Structures noted: BANDING dip 20, 10% BIOTITE as pervasive mineralization .017 PYRITE as disseminations and scattered crystals .017 CHALCOPYRITE as disseminations and scattered crystals .017 EPIDOTE as pervasive mineralization .17 PYRITE as disseminations and scattered crystals FROM 69.22HT- TO 73.76HTdark green PYROXENITE Textures noted: MASSIVE 704 ACID TUFF BANDS 7071 SHEAR OR FAULT ZONE; CORE IS ALL BROKEN UP 7224 7254 FROM 73.76MT- TO 99.67HTmed. dark green BASALT Textures noted: MASSIVE , BANDED 5% BIOTITE as laminations, bedded 57 CARBONATE as microveins .3% K-FELDSPAR as microveins 7376 9967 BASLT IS CHARACTERIZED BY FREQUENT BANDS OR SECTIONS WITH 1 TO 2MM SIZED AMPHIBOLE PHENOCRYSTS MASSIVE GREY GREEN RHYODACITE 7507 7626 VLF RESPONSE PROBABLY DUE TO SHEARS OR FAULTS IN RSUM PYROXENITE REOH 9967 IN-HOLE SURVEY AT 99.67 MT-GRID AZIMUTH OF HOLE 180.00 VERTICAL ANGLE -68.00 TRUE AZIMUTH OF HOLE 215 A001 AUMM GTN AUGTN AGPPN CU ALAB CHINTCCHINTCCHINTC ATYP H-COR H-COR H-COR ANTH FA FA AA A001 2194 2294 4983 .15 0.89 87 A001 4429 4529 4984 .15 000 420 .15 4.59 A001 6772 6872 4985 78 /END

HOLE B3CH035 BQ GRID NORTH 140.00 GRID EAST -750.00 GRID AZIMUTH OF HOLE 180.00 VERTICAL ANGLE -55.00 TRUE AZIMUTH OF HOLE 215 TOTAL DEPTH OF HOLE: 96.32mt. Logged by: N.Drouin on (day/mo/yr)...JUL83 Drilled by: Bradley Bros. JUL 83 FROM 0.00MT- T0 2.44MT-OVERBURDEN FROM 2.44MT- TO 6.40HTdark green PYROIENITE ; TALCOSE Textures noted: MASSIVE 207 MAGNETITE as pervasive mineralization 6.40MT- TO FROM 13.78HTmed. dark green BASALT Textures noted: MASSIVE 2.5% CARBONATE as microveins .3Z CHALCOPYRITE as blebs 704 A FEW ACID TUFF BANDS WITHIN THIS INTERVAL 640 1344 1350 **BASALT IS GARNETIFERCUS** FROM 13.78MT- TO 15.94HTmed. dark grey QUARTZ-FELDSPAR PORPHYRY with FELDSPAR, QUARTZ, Textures noted: PORPHYRITIC , MASSIVE 12 QUARTZ as eyes, augen 207 BIOTITE as pervasive mineralization .031 MUSCOVITE as pervasive mineralization 10Z CHLORITE as pervasive mineralization 17 PYRRHOTITE as disseminations and scattered crystals 17 FELDSPAR as disseminations and scattered crystals 15.94HT- TO 24.60MT-FROM dark green PYROJENITE Textures noted:,, MASSIVE .37 CARBONATE as microveins FROM 24.60MT- TO 25.15MTmed. dark grey QUARTZ-FELDSPAR PORPHYRY with FELDSPAR, QUARTZ, Textures noted: PORPHYRITIC , MASSIVE 12 QUARTZ as eyes, augen 207 BIOTITE as pervasive mineralization 57 MUSCOVITE as pervasive mineralization 17 SERICITE as disseminations and scattered crystals 2460 2515 PROPHYRY IS GARNETIFEROUS ; SIZE AND QUANTITY OF GARNETS DIMINISHES RAPIDLY FROM ABOVE CONTACT FROM 25.15MT- TO 46.02HTbrown green ALTERED BASALT ; BIOTITIC Textures noted: , BANDED Structures noted: BANDING dip 20, 30% BIOTITE as laminations, bedded 107 CARBONATE as pervasive mineralization 17 PYRRHOTITE as disseminations and scattered crystals

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2515 4602 ALTERED BASALT; BASALT TYPIFIED BY HIGHLY ABNORMAL **BIOTITE BANDING; LOCALLY GRADES TO ALMOST A DACITE** 3362 3371 A FEW GARNETS FROM 46.02MT- TD 49.22MTmedium green PORPHYRITIC DYKE with AMPHIBOLES, FELDSPAR, Textures noted: PORPHYRITIC 57 FELDSPAR as disseminations and scattered crystals 4602 4922 AMPHIBOLE (201 PHENOCRYSTS, 1 TO 4MM IN SIZE) AND FELDSPAR (3-5%) PHENOCRYSTS IN A MAFIC MATRIX 49.22NT- TO FROM 54.56HTmed. dark green GABBRO with AMPHIBOLES, Textures noted: MASSIVE 2.57 CARBONATE as microveins 4922 4953 MASSIVE PYROXENITE DYKE 5258 5303 MASSIVE META-DACITE FROM 54.56MT- TO 79.86HTmed. dark green BASALT Textures noted: MASSIVE . BANDED 2.5% QUARTZ as microveins 2.57 BIOTITE as microveins 2.57 CARBONATE as microveins 17 EPIDDTE as microveins FROM 57.88MT- TO 60.72MT-100% of this subinterval is med. dark green META-RHYOLITE Textures noted: MASSIVE .37 QUARTZ as microveins 107 BIOTITE as pervasive mineralization .3% CARBONATE as microveins .03Z PYRITE as disseminations and scattered crystals .03I CHALCOPYRITE as disseminations and scattered crystals PYROXENITE DYKE 6096 6187 6715 6776 BASALT IS FELDSPAR PORPHYRITIE ; FROM 3 TO 72 1 TO 3NN SIZED WHITE FELDSPAR PHENOCRYSTS; 0.3N OF AMPHIBOLE PORPHYRITIC BASALT PRECEDES FELDSPAR PHENOCRYSTS 6776 6858 NETA-DACITE FLOW 6861 6898 FELDSPAR PORPHYRITIC BASALT AS ABOVE; THESE THO PORPHYRITIC BANDS MAY BE DYKES AS THEY APPEAR FRESH AND MASSIVE WHICH IS IN SHARP CONTRAST TO THE HOSTING BASALT. 7041 7925 CN THICK BANDS CONTAINING AMPHIBOLE PHENOCRYSTS APPEAR REGULARLY 6934 7019 META DACITE FLOW FROM 79.86NT- TO 82.90MTdark green PYROXENITE Textures noted: MASSIVE 2.5% CARBONATE as microveins 82.90MT- TO 85.16MT-FROM light grey RHYOLITE

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Textures noted: MASSIVE Structures noted: CONTACT dip 10, 12 QUARTZ as eyes, augen .03% PYRITE as disseminations and scattered crystals .032 PYRRHOTITE as disseminations and scattered crystals .03% SPHALERITE as microveins FROM 85.16MT- TO 92.41MTmedium green GABBRO with FELDSPAR, Textures noted: MASSIVE Structures noted: CONTACT dip 10, GABBRO 15 ZONED; FROM 85.16 TO 87.78 GABBRO IS 8516 9241 FINE GRAINED AND FELDSPAR POOR ; FROM 87.78 TO 92 GABBRO IS COARSE GRAINED AND CONTAINS 20% FELDSPARS **GREATER THAN 1MM IN SIZE** FROM 92.41NT- TO 96.32MTvery dark green PYROIENITE Textures noted: MASSIVE Structures noted: CONTACT dip 80, RECH 9632 IN-HOLE SURVEY AT 96.32 MT-GRID AZIMUTH OF HOLE 180.00 VERTICAL ANGLE -51.00 TRUE AZIMUTH OF HOLE 215 A001 AUNN GTH AUGTH AGPPH CU CHINTCCHINTCCHINTC ALAB ATYP H-COR H-COR H-COR HTKA FA FA AA 1220 A001 1149 1249 4986 .15 3.91 A001 1249 1349 4987 .15 2.06 460 A001 3033 3133 4988 .15 3.02 133 .15 A001 3261 3361 4989 000 136 A001 3361 3461 4990 .15 3.43 196 A001 3461 3561 4991 .15 .15 580 A001 3561 3661 4992 .15 0.41 A001 4502 4602 4993 .15 000 A001 5788 5888 4994 .15 000 372 /END

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HOLE 83CH036 B9 GRID NORTH 160.00 GRID EAST -400.00 GRID AZIMUTH OF HOLE 180.00 VERTICAL ANGLE -55.00 TRUE AZIMUTH OF HOLE 215 TOTAL DEPTH OF HOLE: 87.47at. Logged by: M.Drouin on (day/mo/yr)...JUL83 Drilled by: Bradley Bros. **JUL83** FROM 0.00HT. TO 3.66MT. **OVERBURDEN** 3.66MT. TO 9.09MT. FROM medium grey RHYOLITE Textures noted: MASSIVE , BANDED Structures noted: BANDING dip 35, 10% BIOTITE as pervasive mineralization 17 PYRRHOTITE as microveins FROM 9.09MT. TO 24.38MT. med. dark green GABBRO Textures noted: MASSIVE 2.5% CARBONATE as microveins 2.5% MAGNETITE as disseminations and scattered crystals .3Z PYRITE as microveins 17 PYRRHOTITE as disseminations and scattered crystals FROM 24.38MT. TO 33.22MT. med. dark green BASALT Textures noted: MASSIVE 2956 3322 CORE IS GENERALLY BADLY BROKEN UP; MAJOR FAULT OR FISSURE ZONE FROM 33.22MT. TO 40.60MT. medium grey RHYOLITIC TUFF Textures noted: BEDDED , BANDED Structures noted: BEDDING dip 35, 3322 4060 CORE IS PARTICULARILY HEAVILY FRACTURED AND BROKEN UP; LINONITE ALONG FRACTURES; MAJOR FAULT OR FISSURE ZON FROM 40.60MT. TO 60.96MT. dark green PYROIENITE ; TALCOSE Textures noted: MASSIVE 30Z MAGNETITE as pervasive mineralization 4480 4572 SHEAR OR FAULT ZONE ; CORE IS BADLY BROKEN UP 4968 5017 SHEAR OR FAULT ZONE ; CORE IS BADLY BROKEN UP PYROIENITE IS PARTICULARILY TALCOSE AND MAGNETIC 5273 5547 60.96HT. TO 65.96HT. FROM medium grey RHYOLITIC TUFF Textures noted: BEDDED Structures noted: BEDDING dip 20, 10% BIOTITE as pervasive mineralization .31 PYRITE as disseminations and scattered crystals 17 CHLORITE as microveins 12 PYRRHOTITE as disseminations and scattered crystals

FROM 65.96MT. TO 75.96MT. med. dark green BASALT Textures noted: MASSIVE , AMY6DALDIDAL 2.51 QUARTZ as microveins 2.5% CARBONATE as microveins VERY FRESH LOOKING BASALT 6596 7596 6718 6754 FAULT OR SHEAR ZONE; CORE IS BADLY BROKEN UP 7559 7596 RHYOLITE TUFF BANDS 75.96MT. TO FROM 87.47HT. dark green PYROXENITE Textures noted: MASSIVE 2.5Z CARBONATE as microveins 8047 8747 PYROXENITE IS COARSE GRAINED RSUM HOLE ABANDONNED; CORE BARREL, TUBE, SHELL, BIT AND 1 METER OF CORE LEFT IN HOLE; 0.3N OF CAVE OVERLIES ABOVE; INPOSSIBLE OF FISH ANYTHING OUT 8747 REDH IN-HOLE SURVEY AT 84.42 NT.

GRID AZIMUTH OF HOLE 180.00 VERTICAL ANGLE -54.00 TRUE AZIMUTH OF HOLE 215 A001 AUMM GTH AUGTH AGPPH CU ALAB CHINTCCHINTCCHINTC ATYP H-COR H-COR H-COR ANTH FA FA AA 99 4995 .15 000 A001 - 89 .15 A001 1219 1319 4996 .15 A001 1319 1419 4997 .15 000 .15 A001 6251 6351 4998 000 4999 .15 A001 6467 6567 .15 A001 7059 7159 5000 .15 3.43 /END

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HOLE B3CH037 BQ GRID NORTH -295.00 GRID EAST -800.00 GRID AZIMUTH OF HOLE 180.00 VERTICAL ANGLE -55.00 TRUE AZIMUTH OF HOLE 215 TOTAL DEPTH OF HOLE: 98.45mt. Logged by: H.Thiboutot on (day/mo/yr)...JUL83 Drilled by: Bradley Bros. JUL83 FROM 0.00MT. TO 2.40MT. OVERBURDEN FROM 2.40MT. TD 18.38MT. dark green BASALT Textures noted: PILLOWED , BANDED Structures noted: BANDING dip 30, 17 QUARTZ as microveins 2.5% BIOTITE as laminations, bedded 17 CARBONATE as microveins .37 PYRITE as disseminations and scattered crystals COARSE BASALT ; LOCALLY QUARTZ FILLED AREAS 240 1838 OF IRREGULAR SHAPE 18.38MT. TO 42.21HT. FROM dark green GABBRO Textures noted: MASSIVE 17 QUARTZ as microveins 17 CARBONATE as microveins .037 PYRITE as disseminations and scattered crystals TOWARDS THE MIDDLE OF THIS UNIT THE GABBRO GRADES 1838 4221 INTO A PYROXENITE WHICH IS WELL FOLIATED AT 5 TO CORE NORMAL; GRAIN SIZE VARIES FROM MEDIUM TO COARSE 2551 2685 FINE GRAINED DACITIC TO BASALTIC ROCK FROM 41.15NT. TO 41.30NT. 100% of this subinterval is med. dark green DACITIC TUFF Textures noted: BANDED Structures noted: BANDING dip 10, 1% PYRITE as disseminations and scattered crystals 43.40MT. FROM 42.21MT. TO med. dark green BASALT Textures noted: TUFFACEOUS , MASSIVE , BANDED Structures noted: BANDING dip 10, 2.5% BIOTITE as pervasive mineralization 2.52 PYRITE as disseminations and scattered crystals 17 PYRRHOTITE as disseminations and scattered crystals 4221 4340 UNIT VARIES IN COMPOSITION FROM BASALTIC TO DACITIC FRON 43.40NT. TO 98.45MT. light grey Textures noted: TUFFACEOUS , FRAGMENTAL Structures noted: dip 30, 12 QUARTZ as microveins 11 BIOTITE as disseminations and scattered crystals 17 GARNET as disseminations and scattered crystals

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			1 Z	PYRITE	as di	sseminal	tions and scattered crystals	
			207	CHLORI	TE as	nervasi	ve mineralization	
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	0232	0511	2HR	51116 IU 848775 (TT 844 01 TO			
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	8827	7348	RA I	IRIX IS	NORE M	AFIC AN	VARIES FRUM DACITIC TU	
			BAS	SALTIC;	FRAGME	NT CONTR	ENT DECREASES TO BETWEEN	
			40	AND 50Z				
REDH		784 5						
IN-HO	le sur	VEY AT	98.4 5	NT.				
GRID	AZIMUT	h of ho	LE 180.0	00 VERTI	CAL AN	GLE -48.	.00	
TRUE	AZIMUT	h of ho	LE 215					
A001								
AUMM				6TH AUG	TH AGP	PM CU		
ALAB				CHINTCC	HINTCC	HINTC		
ATYP				H-COR H	-COR H	-COR		
ANTH				FA	FA	Δ Δ		
A001	4227	4340	4620	. 15	2.43			
ΔΛΛ1	1310	4440	4621	.15	0.55			
4001	4440	4540	4677	.15	1.10			
0001	5084	5184	4623	.15	000			
8461	5184	5784	4474	15	000			
0001	5284	5788	4425	15	4 05			
A001	5151	5751	1123	15	7 15			
8001	1211	1/31	1424	15	0.13			
A001	4417	6717	4427	15	V. TI			
8001 8001	4717	4944	1020	.15	V.QZ			
8001	7657	7757	4021 #170	. 15	2.20			
MVV1 A001	7033	7957	10JV	. 15	2.JV			
NVV1	0170	7033	10JL 1179	51. 51	0.07			
ADDI	0130	0230 0770	1032	. 1.5	000			
HUUI	0230	0170	40JJ	- 13	000			
AVV1	8728	0530	4054	. 13	000			
AU01	8438	8378	4055	. 15	0.48	_		
A001	8538	8638	4636	.15	1.51	1		
A001	9562	9662	4637	.15	2.06	29		
A001	9662	9762	4638	.15	1.99	í		
/END								

HOLE 83CH038 BQ GRID NORTH 90.00 GRID EAST-1800.00 GRID AZIMUTH OF HOLE 180.00 VERTICAL ANGLE -55.00 TRUE AZIMUTH OF HOLE 215 TOTAL DEPTH OF HOLE: 120.70mt. Logged by: N.Drouin on (day/mo/yr)...JUL83 JUL83 Drilled by: Bradley Bros. FROM 0.00NT. TO 13.40HT. **OVERBURDEN** FROM 13.40MT. TO 27.17MT. med. dark green VARIOLITIC BASALT ; VARIOLITIC 17 QUARTZ as microveins 17 CARBONATE as microveins .37 PYRITE as disseminations and scattered crystals 2.57 PYRITE as disseminations and scattered crystals VARIOLITIC SECTION ARE UP TO 0.1M THICK ; WHERE VARIOLES ARE PRESENT BASALT IS MORE FELSIC(DACITIC) FROM 24.17NT, TO 31.39MT. med. dark green BASALT Textures noted: BANDED , MASSIVE 17 BIOTITE as microveins .17 CHALCOPYRITE as disseminations and scattered crystals 2.57 PYRITE as disseminations and scattered crystals 2417 3139 UNIT CHARACTERIZED BY NUMEROUS 'DACITIC' BIOTITIC BANDS FROM 31.39HT. TO 45.48HT. med. dark green BASALT Textures noted: NASSIVE 2.5% QUARTZ as microveins 2.57 CARBONATE as microveins .37 PYRITE as disseminations and scattered crystals 3139 4173 RATHER FRESH LOOKING CONTRASTING TO PREVIOUS BASALT CONTACT ZONE; BASALT IS ALTERED; QUARTZ VEINING WITH 4043 4173 107 PO AND PY FROM 41.73HT. TO 43.74HT. 100% of this subinterval is medium grey RHYODACITE Textures noted: MASSIVE 2.5% PYRITE as disseminations and scattered crystals 2.5% PYRITE as disseminations and scattered crystals 45.48NT. TO 62.94NT. FROM grey green META-DACITE Textures noted: MASSIVE , BANDED Structures noted: BANDING dip 35, 2.5% PYRITE as disseminations and scattered crystals 2.57 PYRITE as disseminations and scattered crystals **1-3Z NINISCULE GARNETS** 5715 5852 POSSIBLE FUCHSITE BAND 4971 4971

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FROM 62.94NT. TO 75.59NT.

med. dark green VARIOLITIC BASALT ; VARIOLITIC Textures noted: MASSIVE , PILLOWED 12 QUARTZ as microveins 1Z CARBONATE as microveins 2.5% PYRITE as microveins 5% PYRITE as microveins BASALT SHOWS STRONG CONTRASTS IN COLOR; THE NON-6294 7559 VARIOLITIC PORTIONS ARE DARK GREEN WHILE THE VARIOLITIC BANDS ARE DULL GREY IN COLOR 75.59HT. TO 81.38MT. FROM dark green RHYOLITE Textures noted: MASSIVE 2.5% PYRITE as disseminations and scattered crystals .3X CHALCOPYRITE as disseminations and scattered crystals SI PYRITE as laminations, bedded 5 PO BANDS I TO 10 CM IN WIDTH ; EXPLAINATION FOR 7559 8138 WEAK MAXMIN RESPONSE BASALT IS COMPOSITIONALLY, VARIABLE, UNIT GRADES 8138 11369 FROM BASALT TO DACITE AND BACK AGAIN ; LOCAL VARIOLES PRESENT 81.38MT. TO 113.69MT. FROM med. dark green BASALT Textures noted: MASSIVE , BANDED , ANYGDALDIDAL 2.57 QUARTZ as microveins 2.51 CARBONATE as microveins .32 PYRITE as microveins II PYRITE as disseminations and scattered crystals FROM 113.69NT. TO 120.70MT. dark green PYROIENITE Textures noted: MASSIVE 1% CARBONATE as microveins .17 PYRITE as disseminations and scattered crystals 11369 12070 TALCOSE ALONG FRACTURES RECH 12070 IN-HOLE SURVEY AT 120.70 MT. GRID AZIMUTH OF HOLE 180.00 VERTICAL ANGLE -51.00 TRUE AZIMUTH OF HOLE 215 A001 AUMM **GTH AUGTH AGPPH CU** ALAB CHINTCCHINTCCHINTC ATYP H-COR H-COR H-COR ANTH FA FA AA A001 2317 2417 4885 .15 000 A001 2972 3072 4886 .15 .15 A001 3938 4039 4887 .15 000 .15 A001 4039 4173 4888 000 A001 4173 4273 4889 .15 000 A001 4273 4374 4890 000 .15 A001 4816 4916 4891 .15 .15 A001 4916 5016 4892 . 15 000 4893 A001 5349 5459 .15 0.34 A001 5449 5549 4874 .15 000

AO	01	5549	5649	4895	.15	000	
AO	01	5649	5749	4896	.15	0.55	
AC	01	5749	5849	4897	.15	.15	
AO	01	5849	5949	4898	.15	3.53	
A0	01	5949	6049	4899	.15	000	
AO	01	6049	6149	4900	.15	000	
A0	01	6149	6263	4901	.15	.15	
AO	01	6263	6416	5243	0.17	0.75	
A0	01	6416	6514	5244	0.17	0.17	
A0	01	6514	6614	4902	1.68	0.51	180
A0	01	6614	6714	4903	.15	0.89	
A0	01	6715	6803	5245	0.17	5.42	
A0	01	6803	6904	4904	.15	1.58	
A0	01	6904	7056	5246	0.17	1.03	
AO	01	7056	7208	5247	0.17	0.00	
A0	01	7208	7345	5248	0.17	0.00	
A0	01	7346	7446	4905	.15	0.89	
A0	01	7446	7598	5249	0.17	0.00	
A0	01	7598	7751	5250	0.17	1.10	
A0	01	7751	7803	5251	0.17	0.96	
A0	01	7803	7903	4906	.15	0.55	
A0	01	7903	8004	4907	.15	000	
ÂÛ	01	8004	8108	4908	.15	.15	
AO	01	8108	826	5252	0.17	0.17	
A0	01	9479	9580	4909	.15	000	
/E	ND						

HOLE 82CH 04 PLACER DEVELOPMENT LTD., V. 116, EASTKAIN TWP. 2334 , DUEBEC. CLAIN NO. 404968-2 GRID NORTH -390.00 GRID EAST 1900.00 GRID AZIMUTH OF HOLE 180.00 VERTICAL ANGLE -50.00 TRUE AZIMUTH OF HOLE 215 TOTAL DEPTH OF HOLE: 131.36mt. Logged by: M.Drouin (day/mo/yr)... JUN82 Drilled by: Bradley Bros. Ltd. (mo/yr)..JUN82 FROM 0.00MT. TO 9.14MT. **OVERBURDEN** FROM 9.14NT. TO 19.35NT. dark grey GRANDDIORITE with FELDSPARS, GEN. , QUARTZ , Textures noted: MASSIVE Structures noted: CONTACT dip 10. 2.5% QUARTZ as microveins SI BIOTITE as disseminations and scattered crystals .37 PYRITE as microveins .3Z CHALCOPYRITE as microveins .3Z K FELDSPAR as microveins 5% CHLORITE as disseminations and scattered crystals 5% EPIDOTE as disseminations and scattered crystals MINOR EPIDOTISATION OF FELDSPARS 9.14 19.35 FROM 9,44MT. TO 19.35MT. 30% of this subinterval is med. dark green BASALT Textures noted: MASSIVE 19.35MT. TO FROM 38.87NT. med. dark green BASALT Textures noted: MASSIVE 17 RUARTZ as microveins .3Z K FELDSPAR as microveins 21.03 21.30 FINE GRAINED GRANITIC DYKE 28.62 29.65 ACID TUFF BANDS CONTAINS 20 Z FINE BIOTITE 30.57 30.84 FINE GRAINED GRANITIC DYKE 32.00 38.89 **BASALT IS PROBABLY PILLOWED** FROM 38.89NT. TO 41.54NT. light grey GRANODIORITE Structures noted: DYKE . 10Z QUARTZ as macroveins 38.89 41.54 THIS SECTION CONSISTS OF METABASALT INTRUDED BY GRAND-DIORITE WHICH IN TURN HAS BEEN INTRUDED BY QUARTZ. ONLY ABOUT 302 OF THIS SECTION CONSISTS OF BASALTIC MATERIAL FROM 41.54NT. TO 42.97NT. med. dark green PORPHYRITC BASALT

1

Textures noted: PORPHYRITIC , MASSIVE 15-20Z (2-4mm) FELDSPAR PHENOCRYSTS. FROM 42.97NT. TO 73.58NT. med. dark green PILLOWED BASALT Textures noted: PILLOWED , MASSIVE , AMYGDALOIDAL 2.52 QUARTZ as microveins 17 BIOTITE as laminations, bedded 5% CARBONATE as microveins 47.85 51.51 BASALT IS PILLOWED 56.38 66.14 GOOD PILLOW RINS FROM 43.58NT. TO 46.63NT. 70% of this subinterval is med. light grey GRANDDIORITE Textures noted: , MASSIVE FROM 57.08NT. TO 58.20NT. 100Z of this subinterval is the same as 42.97MT. to 73.58MT. except as noted PILLOWED BASALT Textures noted: PILLOWED 57.08 58.20 10% PD IN PILLOW RINS TRACE CPY. 66.14 73.58 BASALT IS ESSENTIALLY MASSIVE. FROM 69.18NT. TO 72.23NT. 100% of this subinterval is the same as 42.97MT. to 73.58MT. except as noted BASALT .32 QUARTZ as microveins 5Z K FELDSPAR as microveins 5% EPIDOTE as aicroveins FROM 73.58MT. TO 76.81HT. pale grey RHYOLITIC TUFF; CHERTY, AND SERICITIC Structures noted: BEDDING dip 10, 5% SERICITE as laminations, bedded .12 PYRITE as disseminations and scattered crystals 76.81NT. TO 85.86MT. FROM BASALT Textures noted: MASSIVE , BANDED 2.52 K FELDSPAR as microveins 10Z BIOTITE as laminations, bedded 17 CARBONATE as microveins ? EPIDOTE as interstitial fillings 76.80 85.86 FOLIATED NON-MAGNETIC FROM 84.40HT. TO 84.50HT. 100% of this subinterval is the same as 76.81MT. to 85.86MT. except as noted BASALT SZ GARNET as disseminations and scattered crystals FROM 85.40NT, TO 85.86NT. 100% of this subinterval is DYKE 60% RUARTZ as disseminations and scattered crystals SZ GARNET as disseminations and scattered crystals

302 CHLORITE as pervasive mineralization 85.40 85.86 QUARTZ INJECTION IN BASALT UNIT CONSISTS OF QUARTZ CHLORITE AMPHIBOLS AND SOME GARNETS.

85.86MT. TO 89.30MT. FROM dark green MAFIC TUFF;BIOTITIC Structures noted: BANDING , 307 BIOTITE as laminations, bedded 17 CARBONATE as microveins FROM 86.47MT. TO 86.86MT. 100% of this subinterval is light grey RHYGLITIC TUFF; CHERTY Structures noted: BANDING . 2.5% BIOTITE as disseminations and scattered crystals 20% SERICITE as laminations, bedded FROM 87.47NT. TO 88.23NT. 100% of this subinterval is light grey RHYOLITIC TUFF; CHERTY Structures noted: BANDING , 2.5% BIOTITE as disseminations and scattered crystals 5% SERICITE as laminations, bedded FROM 89.30NT. TO 98.75NT. medium green BASALT Textures noted: MASSIVE MAGNETIC---(PYRI??) FRON 90.83NT. TO 92.66NT. 100Z of this subinterval is the same as 89.30MT. to 98.75MT. except as noted BASALT 5% QUARTZ as laminations, bedded 5% BIOTITE as laminations, bedded 5% CARBONATE as laminations, bedded 12 PYRITE as laminations, bedded FROM 98.75NT. TO 104.97NT. med. light grey META-DACITE; TUFFACEOUS 17 PYRITE as laminations, bedded FROM 101.50NT. TO 104.97NT. 100% of this subinterval is the same as 98.75MT. to 104.97MT. except as noted META-DACITE 1% GARNET as disseminations and scattered crystals FROM 104.97NT. TO 106.40NT. **NETA CHERT; CHERTY** Structures noted: BANDING , 52 GARNET as laminations, bedded 10% PYRITE as laminations, bedded 2.5% CHALCOPYRITE as disseminations and scattered crystals 10Z PYRRHOTITE as laminations, bedded 105.00 106.40 A DEFINITE METAL ZONING.UP TO 347 PY IS PREDOMINATE

AFTER 347 PD IS DOMINANT. NO SPHALERITE SEEN

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THIS HOLE IS SIGNIFICANTLY DIFFERENT FROM 82-1 AND 82-2 ONE CAN REALLY SAY THAT THE HOST ROCK IS A META-CHERT. FROM 100.00HT. TO 100.40HT. 100% of this subinterval is dark green PYROXENITE Textures noted: MASSIVE SI BIOTITE as disseminations and scattered crystals .07 MAGNETITE as disseminations and scattered crystals FROM 106.40MT. TO 131.36MT. med. dark green BASALT Textures noted: MASSIVE 17 QUARTZ as microveins 17 BIOTITE as laminations, bedded 17 CARBONATE as laminations, bedded .017 PYRITE as disseminations and scattered crystals .017 CHALCOPYRITE as disseminations and scattered crystals .037 PYRRHOTITE as microveins FROM 115.80MT. TO 119.10MT. 1001 of this subinterval is med. light green META GABBRO Textures noted: MASSIVE .07 MAGNETITE as disseminations and scattered crystals POSSIBLE FAULT 20 NE. 115.20 116.10 BASALT BECOMING WEAKLY VARIOLITIC. 126.70 131.36 END 131.36 131.36 END OF HOLE. IN-HOLE SURVEY AT 128.60 MT. GRID AZIMUTH OF HOLE 188.00 VERTICAL ANGLE -47.00 TRUE AZIMUTH OF HOLE 223 A001 AUNM GTH AUGTH AGPPH CU Z CUPPH 2W Z 2W ALAB CHINTCCHINTCCHINTCCHINTCCHINTC ATYP H-COR H-COR H-COR H-COR H-COR H-COR FA ANTH FA AA 2485 .15 .15 213 A001 1798 1847 A001 5709 5822 2486 000 .15 1960 A001 8138 8238 4600 .15 .15 .15 0.58 A001 8238 8339 4351 A001 8339 8439 4352 .15 1.37 8541 4353 .15 1.23 A001 8439 A001 8541 8586 8487 .15 .15 4354 22.97 9.46 A001 8586 8665 A001 8665 8766 4355 .15 000 A001 8766 8866 4356 .15 0.82 4357 .15 000 A001 8866 8967 4358 .15 0.96 A001 8967 9086 2488 .15 .15 A001 9086 9187 .15 2487 A001 9187 9287 .15 A001 9287 9437 4741 0.17 1.30 4742 0.17 0.00 A001 9437 9589 4743 0.17 0.00 A001 9589 9741

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AG01	9741	9884	4744	0.17	1.17			
A001	9884	9979	4359	.15	000			
A001	9979	10055	4746	0.17	0.00			
A001	10055	10156	2490	.15	.15			
A001	10156	10299	4745	0.17	0.00			
A001	10299	10408	2491	.15	.15			
A001	10408	10497	2492	.15	.15	248		
A001	10497	10604	2493	6.75	4.80		0.26	440
A001	10604	10644	2494	22.29	7.89		0.19	
A001	10644	10744	2495	.15	.15	222		
A001	11856	12003	4360	.15	3.43			
RASY				TRACE	VALUE	= 0.15	6/METI	RIC TON
/END								

APPENDIX II

List of Sections, looking West, Grid F & Extensions, Eastmain, Quebec (1983 Drilling) Legend for Sections Diamond Drill Sections @ 1:1250

List of Sections, looking Grid West - Grid F & Extension Eastmain, Quebec (1983 Drilling).

Sections	Includes DDH's
56+50W	83-10
51+50W	83-09A & 09B
20+50W	83-16 & 83-32
18+00W	83–38
16+00W	83-17
13+00W	83-27
10+50W	83-33
9+00W	83-34
8+00W	83-37
7+50W	83–35
4+00W	83–36
1+00W	83–28
8+00E	83-29
11+50E	A9-02, A9-07 & 83-03
12+00E	A9-01A, A9-01, A9-03, A9-06,
	82-17 & 83-01
12+50E	A9-04, A9-05, 82-16 & 83-02
13+00E	83-06, 82-18 & 82-27
13+50E	83-04
14+00E	82-20, 82-23 & 83-08
14+50E	83-05
19+50E	82-06 & 83-07
27+50E	83–30

Section	looking	Grid	North	
			~ ~	

3+92N 83-18

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<u>ROCK UNITS</u> (order does not denote age)

MTTF

Meta tuff

INTRUSIVES		Additional Des	criptive Terms
GRAN ALGR GR/D PEGM PGD/	Granite Altered granite Granite dyke Pegmatite Pegmatite dyke	ACID or ACD/ ALVL or ALV/ DYKE FALT MGIF	Acid dyke Altered volcanics Dyke Fault zone Magnetite iron
GRDR	Granodiorite		formation
DIOR QZDR	Diorite Quartz diorite	MSPO or MXPO OVER	Massive pyrrhotite Overburden
GABR MTGB	Gabbro Metagabbro	PPD/ QZVN	Porphyritic dyke Quartz vein
PYRX	Pyroxenite	TALC	Talc
PPFQ PPFX	Quartz feldspar porphyry Feldspar porphyry		
FLOWS			
RYDC RHYD	Rhyodacite Rhyodacite		
RHYL RHYO MTRY PPRY RYAG PYRC RYPC ALRY	Rhyolite Rhyolite Metarhyolite Rhyolite porphyry Rhyolite agglomerate Pyroclastic rhyolite Pyroclastic rhyolite Altered rhyolite		il interval ical interval
	Dacite Metadacite	t assay	nterval sologica geolog
BASL MTBS VABS ALBS PIBS FRBS PPBS	Basalt Metabasalt Variolitic basalt Altered basalt Pillowed basalt Fragmental basalt Porphyritic basalt	<u>14.55 17.05 0.27</u>	→ TOCLE
TUFFS & SEDI	MENTS		(DASL
MTSD GRS# GRSH SILT	Metasediments Graphitic schist Graphitic shale Siltstone		
CHER MTCH	Chert Metachert		
VLCL	Volcanoclastics		
RDTF	Rhyodacitic tuff		
RYTF	Rhyolitic tuff		
DCTF	Dacitic tuff		
MFTF	Mafic tuff		
ACTF	Acid tuff		
ALTF	Altered tuff		
CXTF	Crystal tuff		
CHTF	Cherty tuff		
LPTF	Lapilli tuff		

November, 1983