### GEOLOGICAL REPORT

for the

FIRE(Chzerpnough) and ICE(BNOB) Properties Watson Lake Mining Division, Southcentral Yukon Territory Mapsheets 105-F-09,10 Latitude 61° 35' N, Longitude 132°29'W NTS 6832000 N / 633500 E

Prepared for:

EAGLE PLAINS RESOURCES LTD. 2720 17<sup>th</sup> St. S Cranbrook, B.C. V1C 4H4

By

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# **TABLE OF CONTENTS**

1

#### PAGE

SUMMARY	3
LOCATION AND ACCESS	4
TENURE	4
HISTORY AND PREVIOUS WORK	5
GEOLOGY	7
Regional Geology	7
Property Geology	9
Mineralization and Alteration.	12
2000 WORK PROGRAM	13
2000 RESULTS	14
CONCLUSIONS AND RECCOMMENDATIONS	16
REFERENCES	19

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# LIST OF FIGURES

Figure 1: Property Location Map / Regional Geology	following page 4
Figure 2 : Claim Map	in pocket
Figure 3 : Geochemical Compilation Map	in pocket
Figure 4 : Property Geology Compilation Map	in pocket
Figures 5 – 8 : Diamond Drill Sections	in pocket

# LIST OF APPENDICES

Appendix I:	Statement of Qualifications
Appendix II:	Statement of Expenditures
Appendix III:	Extended Geology Legend
Appendix IV:	Diamond Drill Logs
Appendix V:	Analytical Results

### SUMMARY

The FIRE(formerly the Chzerpnough) and ICE(formerly the BNOB) properties consists of 226 contiguous units located in the McConnell / Ketza River area of the Yukon Territories, approximately 40 km south of Ross River. The claims are centered at Latitude 61° 35' N, Longitude 132°29'W; NTS 6832000 N / 633500 E. The claims are owned 100% by Eagle Plains Resources Ltd.

The claims overlie Mississippian aged intermediate to felsic volcanic rocks and similar aged sediments of the Pelly Mountain Volcanic Belt. The stratigraphy includes pyritic trachyte, pyritic lapilli tuffs, crystal tuffs, and volcaniclastic debris flows. Pre 2000 geological fieldwork on the properties identified favorable stratigraphy and mineralization associated with Volcanogenic Massive Sulphide (VMS) deposits including extensive barium – mercury – lead – zinc - silver soil geochemical anomalies and barite – sphalerite – galena - pyrite mineralization within a pyrite altered felsic volcanic package. The 2000 Eagle Plains Resources field program consisted of geological mapping followed by a 616 meter / 2021 foot diamond drilling program that targeted VMS style mineralization. VMS exhalitive type base metal mineralization similar to the nearby Wolf and MM deposits was intersected on both the FIRE and ICE properties at drill locations approximately 7km apart. Subsequent to the 2000 drill program, Eagle Plains Resources undertook an aggressive staking program to establish contiguous claims between the FIRE and ICE properties at drill properties and also to stake targets generated by regional reconnaissance and research.

The FIRE and ICE claims have high potential to host a large VMS type metal deposit. Based on the results of work to date further work is recommended to continue to define prospective host stratigraphy using geochemistry and mapping, with follow-up diamond drilling. A budget for the proposed work is included with this report.

The total cost of the 2000 geological exploration work on the FIRE / ICE property was \$144.827.37

## LOCATION AND ACCESS (Fig.1, following page)

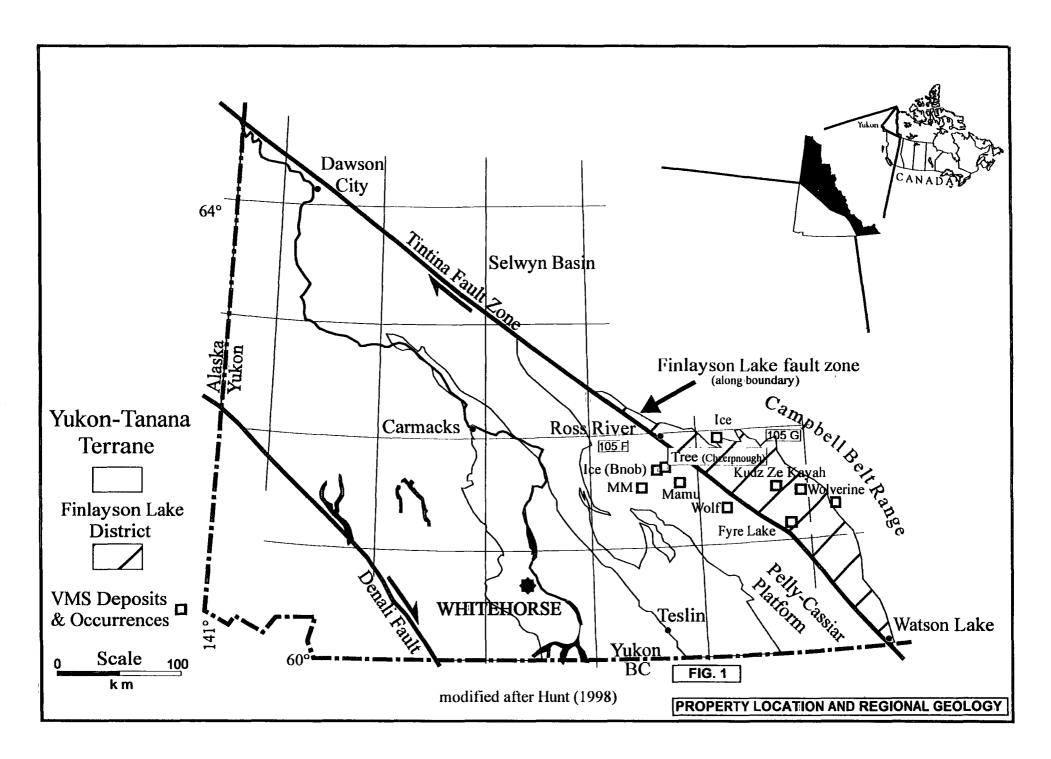
The FIRE / ICE claims are located in the south-central Yukon Territory between the Ketza River and McConnell River drainages, centered at approximately Latitude 61° 35' N, Longitude 132°29'W; NTS 6832000 N / 633500 E. Access to the property is by helicopter, with the nearest base in Ross River approximately 35 km north of the property boundary. Gear and personnel mobilization was carried out from the Ketza River Mine road located approximately 15 km east of the property boundary. There is also an established exploration trail located west of the ICE / BNOB showing area which could provide access from the Seagull Lake – Ground Hog Creek area. The claims cover alpine to subalpine terrain within the St. Cyr Range of the Pelly Mountains. Elevations on the claims range from 1150 to 2000 meters, with topography ranging from moderate to very steep. Outcrop exposure is 10 - 20 % with a thin veneer of colluvium or talus typically developed.

#### **TENURE** (Fig. 2 in pocket)

The property consists of 226 contiguous claims located on the Cloutier Creek and Pass Peak Map sheets. The claims are owned 100% by Eagle Plains Resources Ltd., with an underlying 1% NSR carried by Bernie Kreft of Whitehorse, Yukon.

<u>Claim Name</u>	<u>Tenure Number</u>	Mapsheet	Expiry Date
Ash 1-10	YB92830-839	105F-10	2001/09/14
Ash 11-12	YB92840-841	105F-09	2001/09/14
Ash 13-20	YB92842-849	105F-10	2001/09/14
ICE 1-6	YB74423-428	105F-10	2006/09/16
ICE 7-8	YB84555-556	105F-10	2003/09/16
ICE 9-10	YB87288-289	105F-10	2003/09/16
ICE 11-18	YB89927-934	105F-10	2003/09/16
ICE 19-46	YB92850-877	105F-10	2001/09/14
ICE 47-52	YB92878-883	105F-09	2001/09/14
ICE 53-78	YB92884-909	105F-10	2001/09/14
ICE 79-82	YB92910-913	105F-09	2001/09/14
ICE 83-104	YB92914-935	105F-10	2001/09/14
CHAR 1-30	YB84517-546	105F-09	2004/06/20
CHAR 31-40	YB92936-945	105F-09	2001/09/14
CHAR 41-42	YB93144-145	105F-09	2001/10/10
CHAR 43-44	YB93146-147	105F-09	2001/10/10
FIRE 1-12	YB74411-422	105F-09	2006/02/06
Cole 1-30	YB93030-059	105F-09	2001/09/14
Salt 1-16	YB93014-029	105F-10	2001/09/14

TOTAL: 226 units



## **HISTORY AND PREVIOUS WORK**

The FIRE and ICE showing areas are located approximately seven kilometers apart and have been worked in the past as separate properties. The original FIRE 1 - 12 claims were staked by Bernie Kreft of Whitehorse, YT, in 1996 on behalf of Eagle Plains Resources. The twelve contiguous claims were staked to cover a soil geochemical anomaly, a geophysical (magnetic and I.P.) target, and associated mineralized outcrops which were thought to represent a positive exploration environment for volcanogenic massive sulphide (VMS) mineralization.

The exploration target was originally recognized during an exploration program carried out by Cyprus-Anvil Mining Corporation in 1977 who worked the area as the Chzerpnough Claims. A soil geochemical survey conducted in 1977, using a chained and picketed grid, outlined soil anomalies that were interpreted as being (potentially) more extensive than would be expected from the mineralization observed in outcrop. Ground based magnetic and IP geophysical surveys conducted by Cyprus-Anvil revealed a small conductive target associated with a magnetic anomaly, coincident with both a large Zn-Pb soil geochemical anomaly and a sedimentary barite horizon outlined by previous workers.

After staking the FIRE claims in 1996, Eagle Plains Resources undertook a reconnaissance geological exploration program consisting of geological mapping, minor hand trenching, and sampling. The work program was designed to test the mineral potential of the property through following up on anomalous results from previous soil geochemical surveys and a previous geological mapping and sampling program. The program was conducted under the direction of John Dickie, M.Sc. The program identified many features associated with VMS type deposits including vent-proximal felsic volcanic stratigraphy, represented by lapilli-boulder tuff and clastic debris shed from a volcanic edifice, and a strong geochemical trend in talus fines, reflected by large anomalies with highly anomalous zinc, lead, silver and copper values. Anomalous fluorine, occurring as purple fluorite, was found associated with the vent-proximal stratigraphy. Since high fluorine values are commonly associated with lead-zinc mineralization in other volcanogenic massive sulphide deposits, fluorite is regarded as a positive exploration feature on the FIRE claims. The program also identified a distinct stratigraphic horizon mineralized with barite-sphalerite-galena and minor chalcopyrite that appeared to explain part of the soil anomaly. Selected rock samples returned up to 7.12% zinc, 7.82% lead, 72.9 gm/t silver and 1.063 gm/t gold. The sedimentary barite horizon containing sphalerite and galena could not be sampled due to extensive snow cover. The conclusions from the program were that mineralization appears to be stratiform and the strongest geochemical indications, from rock and talus fine sampling, are that the target horizon lies along the northwest edge of the property. As part of the 1996 program, additional contiguous claims (CHAR 1 - 30) were staked to cover prospective VMS stratigraphy to the northwest. Additional work was recommended for the FIRE 1-12 and CHAR 1-30 claims in order to further test the extent of known mineralization.

In 1997, Eagle Plains Resources continued geological work on the FIRE and CHAR claims with a program of hand trenching, geological mapping and rock sampling. The purpose of the work was to locate and assess a barite float train reported to occur on the property. The program successfully identified the barite float train without finding the source. Samples of barite float returned values of up to 56.1 gm/t Ag, 5760 ppm Pb and 812 ppm Zn. The program also located a heavily pyritized, flow banded rhyolite which returned values of up to 2280 ppm Pb and 1709 ppm Zn. Again, more work was recommended.

Eagle Plains Resources optioned the FIRE / CHAR claims to Atna Resources Ltd in October 1997 after Atna's discovery of VMS mineralization at the Wolf property in the Finlayson Lake area. In 1998 Atna carried out geological mapping, soil and rock geochemistry, and airborne and ground geophysical surveys (see Fig.3, 4 in pocket). The program was very successful. Geological mapping confirmed the presence of a widespread package of silica and sericite altered intermediate to felsic volcanic and volcaniclastic rocks containing pyrite, barite, and galena. Associated with these rocks were a number of coincident barium – mercury – lead – zinc soil geochemical anomalies. Both the ground based MaxMin horizontal loop EM survey and the airborne EM – VLF surveys located anomalies consistent with that associated with the Wolf deposit mineralization. Although Atna recommended further work on the property including diamond drilling, the option agreement was terminated in 1999 and the property was returned to Eagle Plains Resources.

The ICE property was originally staked in 1976 as the BNOB claims resulting from a prospecting joint venture between Hudson's Bay Oil and Gas Company Limited and Cyprus Anvil Mining Corporation. The claims were staked to cover a surface showing of massive sedimentary barite. Work completed from 1976 to 1980 by Cyprus Anvil included soil sampling, mapping, magnetometer and EM geophysical surveying. In 1980 a single drillhole was completed in an attempt to test for VMS style mineralization associated with the barite horizon of 1980. The hole failed to intersect barite or VMS mineralization and it was interpreted to have been collared below the barite horizon (Pigage, 1980). This interpretation is borne out by more recent work which indicates that the hole was collared stratigraphically below the barite horizon.

The area was restaked in 1996 on behalf of Eagle Plains Resources Ltd as the ICE claims by Bernie Kreft of Whitehorse, Yukon. A program of limited geological mapping plus soil/talus geochemical sampling was completed along with prospecting during 1996. The grid geochemistry outlined an anomalous area of Zn/Pb geochemistry spatially associated with the trend of a bedded exhalitive? barite showing. A new showing of barite with galena and sphalerite was also discovered and sampled. In 1997, Eagle Plains Resources continued geological assessment of the ICE claims for VMS style mineralization. Hand trenching and rock sampling in the areas of the barite showings was undertaken. Results confirmed the tenor and style of the mineralization as VMS type and further work was recommended.

Atna Resources Ltd. optioned the property in 1997 after discovering the Wolf massive sulphide deposit within similar rocks 60km southeast of the ICE claims. The 1998 Atna program included geological mapping, gridding. soil sampling and 5.6km of ground HLEM geophysical surveys. Soil geochemistry defined three zones of coincident anomalous lead and zinc corresponding to the BNOB, ICE 1 and GULLY Zone showing areas. Geological mapping of the BNOB showing area defined a NE trending NW dipping strataform barite body occurring within a pyrite-lapilli tuff and a pyritic trachyte. The HLEM survey located two weak conductors which were interpreted to be related to a black, graphitic argillite unit occurring in the area of the anomaly trace. Atna geologists concluded that the BNOB barite showing occurs in the correct stratigraphic position relative to the Wolf property to represent the same mineralized horizon. A single drillhole was recommended to test the BNOB stratigraphy but was not drilled. The property was returned to Eagle Plains Resources in 1999.

## **GEOLOGY**

#### **Regional Geology**

The volcano-sedimentary rocks which host the Wolf and MM deposits as well as the FIRE/ICE claims form a narrow arcuate belt that extends 80 kilometres along a northwesterly trend within the Pelly Mountains of the southwestern Yukon (Fig. 1). These rocks have been termed the Pelly Mountains Volcanic Belt (PMVB) by Hunt (1999) and are characterized by high potassium content and, locally, bedded barite and volcanogenic massive sulphide deposits and showings. The PMVB is early to middle Paleozoic in age and occurs within the Pelly-Cassiar Platform, considered to be part of ancestral North America (Templeman-Kluit, 1977). The tectonic framework for the Pelly Mountains area is described by Gabrielse and Yorath (1991), Templemen-Kluit and Blusson, (1977) and Gordey (1977) and is summarized below.

The miogeoclinal sequence and related rocks which underlie much of the Pelly Mountains are part of a large area about 70km wide and 600km long that is referred to as the Pelly-Cassiar Platform (PCP) (Fig.1). The PCP formed slightly outboard of, but parallel to the craton edge and consisted of a thick accumulation of volcanic rocks and related sediments upon which shallow water sedimentation, predominantly carbonate, took place until late Devonian time. To the northeast of the PCP during late Proterozoic through to Silurian time, a sequence of shallow water carbonates, tuffaceous shale and andesitic rocks were deposited on the western edge of ancestral North America in the Selwyn Basin and, to the south, in the Kechika Trough.

During late Devonian to Mississippian time, shale, greywacke, and chert pebble conglomerate was deposited over much of the PCP and Selwyn Basin. These rocks were derived from a westerly source. or from locally uplifted parts of the PCP. Felsic igneous activity, including intrusion and volcanism, occurred locally within the PCP, possibly within rifts or graben-like structures created by variable uplift and block faulting within the platformal rocks. Sedimentation resumed within PCP sub-basins during the Upper Triassic.

Deformation of the Paleozoic rocks took place post-Late Triassic and consisted of compression and/or transpression along a northeasterly axis which resulted in northwesterly trending and northeasterly verging folds and southwesterly dipping thrust faults. The Anvil-Campbell allochthon, part of the Omineca Crystalline belt, was emplaced during this event as a large thrust-sheet and is now preserved as local klippen on mountain ridges. An anastomosing system of steeply dipping, strike-slip faults related to movement along the northwesterly trending Tintina Fault cuts the folds and thrust faults and extends for up to 20 kilometres southwest of the Tintina Trench. Late normal faults cross-cut earlier structures and divide the region into a number of panels which commonly represent different structural levels. Cretaceous intrusions develop thermal and structural aureoles in the western part of the Pelly Mountains. Metamorphism and degree of deformation varies from block to block but generally increases in a westerly direction and varies from lower to upper greenschist facies.

The Pelly Mountains Volcanic Belt is composed of localized volcanic centres separated by basins in-filled with sediments and volcaniclastic rocks. Associated with these volcanic rocks are at least two VMS deposits (the Wolf and the MM) and a number of historical showings, including the Chzerpnough (FIRE claims), and the BNOB (ICE claims).

The volcanic rocks are predominantly felsic, but in some areas significant accumulations of andesite to basalt occur. The most common feature of the belt are flows, epi-zonal sills, and small plugs of trachyte. The trachyte flows and/or sills are laterally very extensive, probably due to low magmatic viscosity caused

in part by high alkali element content. Typically the trachyte contains significant amounts of pyrite which gives rise to extensive gossans. The trachytes are commonly cream coloured, with very fine to medium grained phenocrysts of feldspar and rare quartz and are locally massive, amygdaloidal or brecciated. Syenite intrusions have been noted at a number of locations within the PMVB (Mortensen, 1981; Morin, 1977) and are thought to be rounded plugs which represent volcanic feeders. Although they may still represent volcanic feeders, drill data from the Wolf and ICE properties indicates that the syenite intrusions are sills.

The structural and stratigraphic relationship of the Pelly Mountains Volcanic Belt with other parts of the Pelly-Cassiar Platform are not always clear. In the southern part in the belt near the Wolf deposit, the PMVB rocks are separated from platformal carbonates and associated sediments by thrust, and possibly, steeply dipping normal faults. In the northeastern most part of the belt, immediately northeast of Ketza River Mine site, the volcanic sequence is very thin (+/- 100m) and is overlain by chert and chert pebble conglomerate and underlain by shale. Both contacts appear conformable but are not well exposed.

The shale and conglomerate are considered age equivalent with the volcanic rocks that have been mapped in conformable relationships by Gordey (1977). On the FIRE (Chzerpnough) and Tree claim area, the PMVB appears to conformably overlie, and in places be intercalated with, a relatively thick sequence of shale and minor greywacke. Similarly on the Mamu property, adjacent to the McConnell River, volcanic rocks conformably overlie an extensive shale-greywacke sequence. On the ICE (BNOB) property, between the Tree-FIRE and Mamu properties, the volcanic rocks are surrounded by an argillite-limestone sequence that appears to be continuous with the shale-sequence of the FIRE property. Gordey (1977) describes a Siluro-Devonian assemblage of shallow water dolomite and platy siltstone which represent a stable marine carbonate bank environment, and are supposed basement for the PMVB. The Siluro-Devonian siltstones, however, are quartz bearing and tan weathering and do not seem to be a good match with the shale attached to the Pelly Mountain Volcanic rocks. Similarly, the younger Triassic sedimentary package has not been observed in contact with PMVB. Consequently, there is little or no contact information that gives a clear indication of the tectono-stratigraphic environment in which the PMVB was deposited other than the nature of the rocks within the belt itself.

The platformal setting on the continental margin, the high potassium geochemistry of the volcanic rocks, and the presence of bedded barite and volcanogenic massive sulphide deposits indicate that the Pelly Mountain Volcanic Belt was likely deposited in a continental rift-type environment (Mortensen and Godwin, 1982). The coarse volcanic debris flows that overlie the Wolf deposit indicate a high energy environment consistent with a graben type structure.

### **Property Geology**

## FIRE PROPERTY (see also Appendix III, Fig. 4 in pocket)

The stratigraphy of the FIRE 1-12 claims consists of (1) a basal carbonate unit of probable Silurian-Devonian age which crops out close to the McConnell River Valley and appears to be related to other basemetal and skarn-type mineral showings in the region, (2) siliceous, medium-to dark-grey, carbonaceous argillite (commonly phyllite to slate), believed to be Mississippian in age, and (3) rhyodacite to rhyolite tuffs and flows, ranging from unwelded ash to lapilli tuff and agglomerate, to aphyric, locally amygdaloidal flows. The felsic volcanic succession is dominated by fine to coarse lapilli tuffs and flows. Felsic (rhyodacite to dacite) dykes and sills intrude the felsic stratigraphy but are probably comagmatic with the surrounding rhyolitic-trachytic extrusive succession.

Felsic volcanic rocks weather pale green-grey to buff and are dark green-grey on fresh surfaces in nonmineralized zones. Where pervasive mineralization occurs, typically in the form of disseminated pyrite, reaching 10-12% locally, the rocks are heavily oxidized and stained bright red. Amygdules within flows contain either silica or a combination of silica and pyrite. The latter is a positive exploration indicator and, where base metal mineralization within amygdules can be identified, amygdules may serve as a vector for locating massive sulphide bodies, as has been demonstrated for the deposits in the Noranda region in the Canadian Shield. A number of chalcopyrite (rare galena) blebs within amygdaloidal rhyolites on the property indicate a proximity to a base metal source.

The stratigraphy of the property is relatively simple, although intercalations of various volcanic flows and fragmental facies have created a repetitious succession, a feature expected of near-vent (proximal) facies associations in a VMS setting. Following is a more detailed description of the FIRE / CHAR claims stratigraphy developed by Atna in 1998:

**Volcanic rocks:** Augite bearing mafic through to felsic or unmineralized trachytic primary volcanic flows, crystal tuffs, and synvolcanic intrusions. Includes monolithic or near monolithic lapilli tuffs, crystal or ash matrix supported heterolithic lapilli tuffs, lapilli tuffs with large, generally angular, (10cm to greater than 40cm) blocks or bombs, lapilli tuffs bearing evidence for deposition in hot volcanic flows (alteration rims on clasts or fragments or partially reabsorbed clasts or fragments). Included within this unit are altered (silicified) rocks, often of uncertain protolith. Alteration of these rocks is assumed to be hydrothermal and syngenetic, suggesting a proximal position to a volcanic centre. The occurrence of occasional accidental sedimentary fragments was noted in all the above rock types. While this unit is primarily volcanic it also includes minor layered tuffs and argillites that are interpreted as interflow deposits.

**Volcaniclastic rocks:** Intermediate to felsic volcaniclastic debris flows and deposits, crystal or ash tuffs with evidence of tuffaceous layering (reworking). This unit includes clast supported heterolithic lapilli tuffs, heterolithic lapilli tuffs with extreme clast variability, lapilli tuffs with a large percentage of sedimentary fragments. Clast size is usually less than 10cm. This unit also encompasses sections that include pyroclastic flows (not uncommon) or other volcanic flows or sills. However, this assemblage is dominantly composed of volcaniclastics +/- argillite. Also included in this unit is a rare occurrence of monolithic lapilli tuff with rounded siliceous clasts.

**Mineralized horizon:** Intermediate to felsic volcanic to volcaniclastic rocks that are altered (silica and/or sericite) or altered and mineralized with pyrite, barite or rarely galena. Although dominantly composed of ash and lapilli and lithic lapilli tuffs, this unit hosts a significant quantity of mineralized "yellow" trychyte.

In hand sample, the trachyte typically displays ghosts of <2mm feldspar and/or monolithic or heterolithic fragments and /or a breccia texture defined by silica+/- sericite veinlets. Less commonly, a <2mm white feldspar porphyrtic trachyte occurs. The trachyte, and to a lessor degree, all the rocks comprising this unit can be extremely hard, grey, silica over sericite altered or softer yellowish green sericite over silica altered. Less intensely altered and mineralized trachytes that are interpreted to occur in the less intensely altered and mineralized trachytes that are interpreted to horizon consists of fine-grained disseminated pyrite and approximately 1% green barium mica (?). Locally and usually internal to the horizon the pyrite mineralization intensifies to massive dissemination's and/or irregularly oriented ptigmatically folded veinlets.

**Trachyte and mud chip conglomerate:** A 1 to 5 meter thick, well sorted and graded trachyte and mud chip conglomerate, or bedded tuff grading to massive lithic lapilli tuff unit that directly overlies the mineralized horizon.

Limestone and argillite unit: Brown to buff weathering, fine-grained grey fresh surface, probably in most part tuffaceous limestone interbedded on a centimeter to decimeter scale with dark grey to black argillite. Locally, this unit maybe intercalated with lapilli lithic tuff. On the western portions of the FIRE claim block this unit is thin, less than 20 meters, and forms a readily recognizable marker unit that is stratigraphically positioned directly over the mineralized horizon. Where the stratigraphy is less well defined, on the eastern portions of the claim block, a limestone-argillite unit is positioned above one mineralized horizon, but is separated from the horizon by 75+ meters of lithic lapilli tuffs. These tuffs grade up into bedded tuffs and into a lime-stone-argillite unit. Close to this locality, a mineralized horizon occurs above the limestone –argillite unit. A limestone-argillite unit was not seen in much of the volcanic stratigraphy that underlies the claim block.

**Unmineralized trachyte:** Unmineralized trachyte occurs at various intervals throughout the volcanic stratigraphy on the FIRE/CHAR claims

**Purple weathering volcanic or volcaniclastic lithic lapilli tuff:** A distinctive purple, flaggy weathering, fine-grained, feldspathic, minor black argillite (?) lithic fragments volcanic or volcaniclastic unit that occurs locally at the northeast end of the property.

**Argillite:** Grey to black weathering and fresh surface, generally foliated, often well laminated or bedded, occasionally lineation or crenulated, occasionally carbonaceous, fine-grained argillite. This unit occurs in thick (10-75 meter) "sub basins" in the volcanic stratigraphy, as thin (less than 10 meter) inter-volcanic flow sedimentary packages throughout the volcanic stratigraphy. Argillite is frequently intercalated with thick to thin bedded tuffs, minor limestone, or more rarely, thick bedded volcanic flows(?).

Most of the rocks on the FIRE property lie on the gently northerly-dipping limb of a large-scale antiform that is part of a train of west-northwesterly to northwesterly trending, gently dipping folds that appear, in general, to be tighter to the NW. Although the rocks have been deformed the stratigraphy appears to be intact and many primary volcanic textures are preserved and readily recognizable; although the work is preliminary, the minor structures observed are not suggestive of severe structural disruption, overturning or other such complication.

The rocks have a ubiquitous S1 fabric, expressed in the less competent lithologies (fine grained clastic rocks; ash, and fine to medium grained tuffs) as a pervasive phyllitic foliation, and in the more competent lithologies as a less obvious though still pervasive spaced cleavage; a second phase crenulation cleavage is

also common, and particularly notable in the well-foliated metasedimentary rocks and finer grained tuff. The stratified rocks on the property outline broad-wavelength, open folds which appear to post-date the foliation-forming event. A strong joint system measured on the property is best developed within either massive flows or indurated, coarse crystal, lithic tuff.

At least one major fault cuts across FIRE the property. A cataclastic zone containing a quartz stockwork infill occurs close to the saddle near the centre of the claim group. The stockwork contains chalcopyrite, malachite, galena and sphalerite. A biotite-phyric basalt dyke cuts through the centre of this zone and appears to have intruded along the plane of the fault. It is unclear if the stockwork zone is related to the fault or if it is a stratigraphic feature related to sulphide mineralization.

# **ICE PROPERTY**

Bedrock exposure on the ICE property is about 2% and is mostly limited to small to medium sized outcrops along the southern side of the dome in the central part of the property. An exception to this is the northwest slope of the dome where a 300 by 200m area of syenite outcrop is exposed. The lack of bedrock exposure and the supergene oxidation of what exposure there is make it difficult to determine the property geology.

In general, the rocks exposed on the ICE property are similar to parts of the stratigraphy on Atna Resources' Wolf property (Wilson, Holbek 1999). The volcanic rocks of the Pelly Mountains Volcanic Belt (PMVB) on the ICE property are bounded to the west by a fault, marked by the McConnell River. On the other three sides the volcanic rocks are bounded by underlying or overlying shale and argillite (+/- carbonate) that appear to be conformable and part of the PMVB, or the Devonian to Mississippian Black Clastic unit (Pigage, 1980), or the Upper Triassic assemblage of shale, siltstone and carbonate (Gordey, 1977). On the western side of the property the rocks dip gently to the east. The dips are defined primarily by foliation surfaces and suggest a refolding of S1 axial plane cleavage. If the change in dips reflects a fold, then the axial plane of this fold trends northeasterly across the middle of the property and the shale unit to the east and north would overlie the volcanic rocks, if they are right side up.

There is insufficient exposure to determine the actual volcanic stratigraphy on the ICE property but a number of units can be recognized. The western most outcrop exposure is a relatively large area of syenite (Fig. 4 in pocket). This unit consists of fine to medium grained, equigranular, pink to grey feldspar and hornblende. The rock is fresh in appearance, unfoliated and has blocky weathering in outcrop due to widely spaced, perpendicular joint sets. Initially this unit was thought to represent a small plug or pipe-like intrusion. Based on limited exposure, however, the lower contact appears to be somewhat strataform and this unit wasn't intersected in the Cyprus-Anvil drill hole, indicating that it may be sill like.

To the south of, and in fault contact with the syenite is an outcrop of pyritic trachyte. This unit appears to be in the apex of two faults or a fault and intrusive contact. Below the trachyte in contact with the north side of the syenite is a strongly foliated unit of fine lapilli tuff with rare pyrite fragments and moderate to intense sericite alteration. The altered lapilli tuff hosts the barite horizon which is best exposed on the southwest slope of the property. Below the altered lapilli tuff (to the east) is a package of ash to lapilli tuffs which commonly contain up to 5% disseminated pyrite.

#### **Mineralization and alteration**

### FIRE PROPERTY

Mineralization identified to date on the FIRE is of two types. The first is sucrosic sedimentary barite with bands of disseminated pyrite and galena. Barite mineralization in best developed as float boulders, but has been identified in-situ in some locations on the property and was intersected in 2000 diamond drilling in diamond drillholes F00-02,03,04,and 05. Where found in place, the barite is associated with yellow to orange gossan horizons developed within a trachyte unit. Geochemically the barite mineralization is highly anomalous in silver, lead, and cadmium, and weakly anomalous in zinc. The second type of mineralization is flow-banded rhyolite with syngenetic pyrite. In comparison to the barite mineralization, the rhyolite is more anomalous in zinc, copper and cadmium, and weakly anomalous in silver and lead.

Alteration on the FIRE property is predominantly represented by a quartz - sericite – pyrite assemblage, with local chlorite and rare fluorite. Diamond drill hole F00-01 intersected a zone that possibly represents a skarn type of alteration with pervasive hematite - silica – epidote flood. The hole also cut a zone of pervasive to selective-pervasive potassium feldspar flood and veining.

## **ICE PROPERTY**

Mineralization on the ICE property consists of bedded barite locally containing significant galena, sphalerite, and accessory pyrite. Mineralization is found in-situ at the BNOB and Greig showing areas, and also in extensive float boulder showings in a number of locations including the gully Zone and the ICE1 Zone. At the BNOB showing the barite is strataform, up to 4m in width, and is exposed in trenches and outcrop over a strike length of 250m. The Greig showing area, identified by Eagle Plains Resources in 2000 and successfully tested by 2000 drilling, is only partially exposed at the toe of a syenite talus field. The strataform bedded barite here contains sphalerite, galena and pyrite.

Alteration noted from drillhole I00-01 includes strong sericite and pyrite flood with local strong silicification.

#### 1999 - 2000 WORK PROGRAM

The two phase 2000 work program on the FIRE/ICE properties was directed toward diamond drill testing to locate VMS style mineralization. The initial phase was completed in July 2000 and consisted of geological mapping and ground truthing of past work. Field crews were stationed in Ross River and mobilized to the properties using a Trans North Helicopters Bell 206. Field mapping carried out by C. J. Greig, PhD focused on areas of prospective VMS host stratigraphy identified in past work programs. Priority drill targets on both properties were identified.

The second phase of the 2000 FIRE / ICE exploration work involved diamond drill testing of selected phase one targets. Aggressive Diamond Drilling from Kelowna, B.C. was contracted to carry out the work using a modified JKS 300 hydrostatic fly type rig. The diamond drill, supply pump, waterline, drill rods and casing, and camp gear were hauled to the mobilization site on the Ketza River Mine road using two pickup trucks and two trailers. The equipment was mobilized to the FIRE and ICE properties using a Trans North Helicopters Bell 206 out of the Ross River base. The four man crew, consisting of a drill foreman, drill helper, geologist and field technician, was billeted in fly camps established on each property. Travel to the drill was on foot, with the helicopter used only for camp and drill moves. The drilling was completed during the period of August 06 – August 25, 2000. A single shift was used for drilling which averaged approximately 140 feet per 12 hour shift including camp and drill moves.

On the FIRE property, six holes were collared on two different sites, and a single hole was completed on the ICE property. On the FIRE property, DDH F00-02, the first hole at the second drillsite, was lost when the rods stuck in permafrost. A summary of the drilling follows :

	Hole #	UTM Coordinates(N/E)	<u>Azimı</u>	<u>ith Dip</u>	Depth(meters / feet)
<u>FIRE</u>	F00-01	6835045/635455	260°	-70°	227.1 / 745
	F00-02 F00-02A	6834364/635620 6834364/635620	265° 265°	-78° -90°	41.1 / 135 10.7 / 35
	F00-03 F00-04	6834364/635620 6834364/635620	175° 355°	-50° -50°	49.1 / 161 60.0 / 197
	F00-05	6834364/635620	265°	-78°	121.0 / 397
<u>ICE</u>	100-01	6830092/630969	006°	<b>-87°</b>	<u>107.0 / 351</u>
				TOTAL :	616 m / 2021 feet

The drill core was logged on site and selected samples were split and shipped to Northern Analytical services for analysis. Most of the samples were analyzed for 30 element ICP using aqua-regia digestion. All samples were collected, handled, catalogued and prepared for shipment by Eagle Plains Resources staff. The coreboxes were labeled with metal tags, stacked near the drill collars and covered with core box lids for protection. DDH I00-01 is stored in entirety in Whitehorse.

All exploration and reclamation work was carried out in accordance to the Yukon Mining Act.

Total 2000 exploration expenditures by Eagle Plains Resources on the FIRE Property was \$90,179.60, while \$54,647.77 was spent on the ICE.

#### 2000 PROGRAM RESULTS (Fig. 4 - 8 in pocket)

## **FIRE PROPERTY**

A total of 509m / 1670 feet of diamond drilling from two different sites was completed on the FIRE property in 2000. Geological mapping by C. Greig and ground truthing of soil geochemical anomaly locations directed the locations of the hole collars.

Diamond Drillhole F00-01(AZ 260° / DIP  $-70^{\circ}$ ) was collared at an elevation of 1530m and targeted the lower part of the ICE property volcanic stratigraphy, a sequence of altered (quartz-sericite(?)-pyrite) tuffaceous rocks, with a coincident lead – zinc barium soil geochem anomaly and an EM conductor. The hole intersected a thick sequence of volcaniclastic and volcanic rocks with local weak to moderate sericite-quartz alteration. The hole collared in a strongly graphitic argillite package which is postulated as a possible source for the EM anomaly. The best mineralization was associated with a pyritic lapilli tuff unit from 24.7m to 48.1m. A series of conformable 2-15 cm thick bands of massive pyrite with associated carbonate, quartz, and rare galena was intersected. The best geochemical values were from 29.6-30.3m which returned values of 2.9gm/t Ag and 1652 ppm lead over 0.7 meters. From 79.2 – 103.3 meters, the drillhole intersected selective epidote? – hematite skarn type alteration associated with a strongly silicified crystal tuff unit. Turbidite and flow-type textures were generally better developed at depth, in places associated with strong pervasive silicification and bleaching and rare quartz veins with orange feldspar alteration. The hole ended at a total depth of 227.1 meters (745 feet) in a package of interbedded volcanics with rare argillite beds.

Diamond Drillholes F00-02, 02A, 03, 04, and 05 were collared from the same drillsite at an elevation of 2002m. The target was a coincident lead-zinc soil geochemical anomaly associated with a well developed gossanous trachyte outcrop. Four of the five holes intersected strataform barite mineralization. The initial hole collared on the setup, F00-02A(-90°), was stopped above the barite horizon at 10.7m (35 feet) depth due to oblique core angles. The hole was recollared as F00-02(Az 265° / Dip -78°) and intersected a zone of strataform barite from 23.0 – 38.1 meters. The hole was completed to a depth of 41.1m / 135 feet where it was lost due to the drill rods freezing in permafrost ground. The drill was then turned 90° to F00-03(Az 175° / Dip -50°). F00-04(Az 355° / Dip -50°) was drilled at 180° to F00-03. Both of these holes were stopped in the barite horizon footwall. DDH F0-05(Az 265° / Dip -78°) was a redrill of F00-02 and tested the nature of the volcanic package at depth. A summary of the barite horizon hangingwall to footwall intersections follows:

<u>Hole #</u>	Barite Horizon Depth / Width	Geochemistry (ppm)
F00-02	23.0 - 38.1m / 15.1m	22.39 Ag, 50 Cu, 51 Cd, 4930 Pb, 6033 Zn
including :	30.2 - 31.8m / 3.3m	65.5 Ag, 109 Cu, 162 Cd, 4930 Pb, 2.16% Zn
F00-03	23.5 - 32.5m / 9.0m	6.7 Ag, 40 Cu, 22 Cd, 482 Pb, 2216 Zn
F00-04	43.2 - 50.7m / 7.5m	13.1 Ag, 42.5 Cu, 330 Cd, 929 Pb, 2668 Zn
F00-05	24.6 – 36.3m / 11.7m	15.4 Ag, 37 Cu, 39 Cd, 1624 Pb, 3081 Zn

The holes were collared in a thin bedded to thin laminated weakly sericitized volcaniclastic unit that is thought to correlate with Atna Resources mineralized horizon. The barite horizon occurs within this upper package. The immediate barite horizon hangingwall is a distinct package of dark green fine grained thin laminated argillite or possibly volcanic muds that may correlate with Atna's limestone and argillite unit. This horizon typically has 10 - 20% barite as replacement and nodules. Beneath this unit is a zone of massive to semi-massive white to grey barite with 20 - 30 % green argillite and 5 - 20% fine grained pyrite

in disseminations and replacement features. This barite rich horizon grades into another unit of green argillite or volcanic mud with 10 - 20 % barite replacement. Contacts between the barite hangingwall – barite horizon – barite footwall appear to be conformable where preserved. Underlying the barite horizon is a package of volcanic and volcaniclastic rocks including tuffs, crystal tuffs, lapilli tuffs, fragmentals, and multilithic breccias. In places, there is well developed silicification and pyritization which is associated in part with anomalous metal values. A fragmental unit with 8 - 15% pyrite replacement returned values of 5 ppm Ag and 1966 ppm Zn over a 6.5m width interval from 63.1m to 69.6m. DDH F00-05 was the longest hole completed from this set-up with a total depth of 121m / 397 feet. The hole ended in a zone of mixed volcanic breccia and lapilli tuff.

# **ICE PROPERTY**

A single drillhole was completed on the ICE property. DDH  $I00-01(Az \ 006^{\circ} / \text{Dip} - 87^{\circ})$  was run to a total depth of 107m / 351 feet. The target was an outcrop of sucrosic bedded barite with sphalerite, pyrite and galena identified by Charlie Greig during 2000 fieldwork. The hole was collared in a blocky, strongly jointed syenite sill? unit that appears to overlie the barite horizon at this location. Underlying the syenite is a volcanic package that includes pyritic lapilli tuffs and multilithic breccias and debris flows. Within this volcanic package is a sequence of barite / pyrite / sphalerite mineralization thought to be of exhalitive origin.

The first barite was noted from 30.2 - 33.3 meters as a replacement mineral in a fine grained pyritic lapilli tuff. Barite content increased downhole and from 35.6m - 67.8 m a zone of semi-massive to massive barite was intersected. The top of this zone from 35.6 - 45.0m was laminated medium grey semi-massive to massive barite with 2 - 5 % fine grained pyrite and 0.5% fine grained galena. Core angles within more massive barite at the top of this interval indicate that the barite mineralization is locally conformable and nearly flat lying. The best interval within this barite zone was 33.2 - 36.3 meters which returned values of 11.4 gm/t Ag, 61 ppm Cu, 3180 ppm Pb and 1.1% Zn over 3.1meters true width.

Lying beneath this cap of massive to semi-massive barite is a series of barite horizons associated with a pyritic lapilli tuff unit. Barite occurs as both replacement of volcanic rocks and as discrete thin laminated exhalitive type intervals. Within these laminated intervals, lamination(bedding) angles to core axis are widely variable ranging from 0° tca to 80° tca. Within the pyritic volcanic unit, bedding is generally 70 – 80°tca. Pyrite flood is generally well developed with up to 30% very fine grained pyrite over 0.9 meters from 73.5 – 77.4m. From 56.7m – 58.0m sphalerite and galena occur as laminations and disseminations within a strongly pyritized, barite replaced tuff. Geochemical analysis returned values of 28.4 gm/t Ag, 1203 ppm Cu, 8620 ppm Pb and 5.64% Zn over 1.3 meters. Colloform pale yellow sphalerite with galena was noted from 58.8 – 62.5 in a similar pyritic, baritic zone. Geochemical results over 4.5m were 10.4 gm/t Ag, 71 ppm Cu, 1373 ppm Pb and 6617 ppm Zn. The last barite zone was noted from 77.4m to 78.6m with an apparently conformable zone of semi-massive barite.

From 78.6 to the end of the hole a strongly to moderately pyritized sequence of volcaniclastic and exhalitive type rocks were intersected. The interval was anomalous in Ag, Cu, Pb and Zn. The hole was shut down at a depth of 107 m / 351 feet due to drilling problems associated with a swelling clay horizons at 90.5 - 91.3 m and 96.2 - 96.5 m. Overall, the hole was strongly fractured, with numerous fault and rubble zones.

Eagle Plains Resources carried out an aggressive staking program in the McConnell River – Ketza River area based on the preliminary results of the diamond drilling program.

#### **CONCLUSIONS AND RECCOMMENDATIONS**

Results from the 2000 exploration program on the FIRE / ICE claims are extremely encouraging. Initial geological mapping and reconnaissance of anomalous soil and rock geochemical anomalies identified stratigraphy thought to be prospective for VMS style mineralization. Diamond drill testing intersected bedded exhalitive type barite mineralization on both the FIRE and ICE properties approximately 7 kilometers apart. The barite is highly anomalous in silver, zinc, lead and copper and appears to be strataform in part.

A two phase work program is recommended to continue to evaluate the FIRE / ICE property for the presence of a VMS deposit. An initial stage of mapping, prospecting, geochemical sampling and possibly airborne geophysics should be used to identify targets for a second phase diamond drilling program.

Detailed geological mapping should be directed toward defining lithological and alteration trends within the volcanic package. A detailed stratigraphic subdivision underpinned by systematic slabbing and staining of rocks will better define the presence of synvolcanic structures and exhalitive type alteration signatures. The identification of thick flows, tuff-breccia, or coarse lapilli could be used to locate volcanic centers which are the source for VMS type mineralization. A more detailed understanding of the stratigraphy will also resolve the relationships between the geochemical anomalies and may indicate the presence of stacked exhalitive horizons controlled by a common structure. Longer stratigraphic drill holes may help to define geology in areas of poor exposure. Mapping should also focus on establishing the stratigraphic relationship between the FIRE mineralization and the ICE mineralization.

Reconnaissance soil geochemical sampling and prospecting should be carried out on the new claims staked in 2000, with follow-up detailed sampling and mapping to identify drill targets.

The veracity of geophysical conductors is complicated by the presence of graphitic rocks within the volcanic package which may mimic the response associated with VMS mineralization. Detailed soil geochemistry in areas identified by past geophysical surveys may help to establish the presence of mineralized horizons and help direct drillhole location. Air borne radiometric surveys could be used to identify potassic - sericitic alteration zones typically associated with VMS type mineralization.

Geological targets identified with the first phase of work should be prioritized and then tested with a helicopter supported diamond drilling program.

Exploration crews should be based out of fly camps on the properties. It is estimated that the first phase of work would take approximately four weeks, with the second phase program contingent on results from the first phase. A portable rock saw would be useful for preparing rock slabs for staining and cutting drill core.

A budget for the proposed work follows :

# PHASE 1

Personnel	\$45,000.00
Geophysical Survey	\$10,000.00
Helicopter Support	\$20,000.00
Analytical	\$10,000.00
Meals/Grocery	\$6,000.00
Truck and Equipment Rentals	\$2,000.00
Fuel (Diesel, Gasoline, Propane)	\$2,000.00
Supplies	\$5,000.00
Miscellaneous	<u>\$5,000.00</u>
Sub-Total :	\$105,000.00
10% Contingency :	<u>\$10,500.00</u>
TOTAL Phase 1 :	\$115,500.00
PHASE 2	
Diamond Drilling	\$215,000.00
Personnel	\$25,000.00
Helicopter Support	\$65,000.00
Mob/Demob	\$5,000.00
Analytical	\$10,000.00
Meals/Grocery	\$6,000.00
Truck/Equipment Rentals	\$5,000.00
Fuel (Diesel, Gasoline, Propane)	\$4,000.00
Supplies	\$4,000.00
Miscellaneous	\$6,000.00

- Sub-Total: \$350,000.00
- 10% Contingency : <u>\$35,000.00</u>
- TOTAL Phase 2 : \$385,000.00
- TOTAL Phase 1, Phase 2 : \$500,500.00

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Greig, C.J. (2000): Geological Examination of the FIRE and ICE Properties, Pelly Mountains, Yukon Territory; Eagle Plains Resources Internal Report

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Pigage, L.C. (1980): 1980 Drilling Report on the BNOB Claim Group, Pelmac Project; Cyprus-Anvil Mining Corporation

Wilson, Rob. G. and Holbeck, P. (1999): Project Report on the Ice Property; Atna Resources Internal Report

Appendix I

Statement of Qualifications

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## CERTIFICATE OF QUALIFICATION

I, Charles C. Downie of 122 13<sup>th</sup> Ave. S. in the city of Cranbrook in the Province of British Columbia hereby certify that:

- 1) I am a Professional Geoscientist registered with the Association of Professional Engineers and Geoscientists of British Columbia (#20137).
- 2) I am a graduate of the University of Alberta (1988) with a B.Sc. degree and have practiced my profession as a geologist continuously since graduation.
- 3) This report is supported by data collected during fieldwork as well as information gathered through research.
- 4) I personally supervised the diamond drilling program, logged the drill core and supervised the core sampling.
- 5) I hold 125,000 shares of Eagle Plains Resources; I Hold an option to purchase a further 25,000 Common Shares of Eagle Plains at \$0.25 per share.

Dated this 10<sup>st</sup> day of November, 2000 in Cranbrook, British Columbia.



Charles C. Downie, P.Geo.

Appendix II

Statement of Expenditures

STATEMENT OF EXPENDITURES

The following expenses were incurred on the FIRE / ICE Claims, Watson Lake Mining Division, for the purpose of mineral exploration between the dates of June 01 2000 and October 31 2000.

	FIRE	<u>ICE</u>
PERSONNEL		
T. Termuende, P. Geo: 11 days x \$425/day	\$2125.00	\$2550.00
EQUIPMENT RENTAL		
4WD Vehicle: including mileage	\$2609.57	\$3132.05
5-Ton Trailer: 7.0 days x \$100.00/day		\$350.00
Radios (2x): 14 days x \$20.00/day		\$140.00
Camp equipment:		\$200.00
OTHER		
Diamond Drilling:	\$46692.80	\$11392.52
Meals/Accommodation/Groceries:		\$2521.59
Handling Fees :		\$4623.39
Fuel:		\$501.20
Camp Materials:		\$539.17
Consultants:		\$6205.23
Helicopter Charter:		\$11392.52
Shipping:		\$169.49
Analytical:		\$3132.05
Miscellaneous:		<u>\$76.26</u>
Su	ubtotal:\$90,179.60	<b>\$54,64</b> 7.77
	GST:\$5151.35	\$3024.65

Total Expenditures for 2000 Exploration Program: \$144,827.37

The following expenses were incurred on the FIRE / ICE Claims, Watson Lake Division, for the purpose of mineral exploration and claim staking between the dates of June 01 2000 and October 31 2000.

Staking:	\$30740.02
Equipment Rental:	
Meals/Accommodation/Groceries:	
Filing Fees :	\$40.00
Handling Fees :	
Fuel:	
Maps / Repro:	\$90.84
Consultants:	
Helicopter Charter:	\$1776.20
Analytical:	\$1488.21
Miscellaneous:	

TOTAL:\$37,957.90 GST :\$2483.23

EAGLE PLAINS RESOURCES LTD

GEOLOGICAL REPORT ON THE FIRE/ICE PROPERTY

Appendix III

# Extended Geology Legend

#### Tree-Fire geological map extended legend

After Daubeny and Greig

<u>Volcanic rocks</u>: Augite bearing mafic through to felsic or unmineralized trachytic Primary volcanic flows, crystal tuffs, and synvolcanic intrusions. Includes monolithic or near monolithic lapilli tuffs, crystal or ash matrix supported heterolithic lapilli tuffs, lapilli tuffs with large, generally angular, (10cm to greater than 40cm) blocks or bombs, lapilli tuffs bearing evidence for deposition in hot volcanic flows (alteration rims on clasts or fragments or partially reabsorbed clasts or fragments). Included within this unit are altered (silicified) rocks, often of uncertain protolith. Alteration of these rocks is assumed to be hydrothermal and syngenetic, suggesting a proximal position to a volcanic centre. The occurrence of occasional accidental sedimentary fragments was noted in all the above rock types. While this unit is primarily volcanic it also includes minor layered tuffs and argillites that are interpreted as interflow deposits.

**Volcaniclastic rocks:** Intermediate to felsic volcaniclastic debris flows and deposits, crystal or ash tuffs with evidence of tuffaceous layering (reworking). This unit includes clast supported heterolithic lapilli tuffs, heterolithic lapilli tuffs with extreme clast variability, lapilli tuffs with a large percentage of sedimentary fragments. Clast size is usually less than 10cm. This unit also encompasses sections that include pyroclastic flows (not uncommon) or other volcanic flows or sills. However, this assemblage is dominantly composed of volcaniclastics +/- argillite. Also included in this unit is a rare occurrence of monolithic lapilli tuff with rounded siliceous clasts.

<u>Mineralized horizon:</u> Intermediate to felsic volcanic to volcaniclastic rocks that are altered (silica and/or sericite) or altered and mineralized with pyrite, barite or rarely galena. Although dominantly composed of ash and lapilli and lithic lapilli tuffs. this unit hosts a significant quantity of mineralized "yellow" trychyte. In hand sample, the trachyte typically displays ghosts of <2mm feldspar and/or monolithic or heterolithic fragments and /or a breccia texture defined by silica+/- sericite veinlets. Less commonly, a <2mm white feldspar porphyrtic trachyte occurs. The trachyte, and to a lessor degree, all the rocks comprising this unit can be extremely hard, grey, silica over sericite altered or softer yellowish green sericite over silica altered. Less intensely altered and mineralized "distal" portions of the mineralized horizon can appear to have a chalky. more brittle "porcelaineous" alteration. The mineralization that defines the mineralized horizon consists of fine-grained disseminated pyrite and approximately 1% green barium mica (?). Locally and usually internal to the horizon the pyrite mineralization intensifies to massive dissemination's and/or irregularly oriented ptigmatically folded veinlets.

**Discussion:** Evidence for a syngenetic origin for the mineralized horizon include 1) it's position relative to well defined marker beds in a stratigraphic column that underlies several square kilometers of the claim block, and, 2) the complete lack of any evidence

for alteration of any of the rocks immediately overlying the mineralized horizon. Such alteration might be expected if the mineralization were replacement.

Although there appears to be one main mineralized horizon that occurs relatively lowdown in the section, locally, mineralized trachyte and accompanying rocks occur at other locations in the section.

**Trachyte and mud chip conglomerate:** A 1 to 5 meter thick, well sorted and graded trachyte and mud chip conglomerate, or bedded tuff grading to massive lithic lapilli tuff unit that directly overlies the mineralized horizon. At one location in Big Cirque this unit occurs as an isolated outcrop of uncertain stratigraphic position.

Limestone and argillite unit: Brown to buff weathering, fine-grained grey fresh surface, probably in most part tuffaceous limestone interbedded on a centimeter to decimeter scale with dark grey to black argillite. Locally, this unit maybe intercalated with lapilli lithic tuff. On the western portions of the Fire-Tree claim block this unit is thin, less than 20 meters, and forms a readily recognizable marker unit that is stratigraphically positioned directly over the mineralized horizon. In the Big Cirque section , a black argillite unit occupies the position that the limestone-argillite unit occurs to the west. Where the stratigraphy is less well defined, on the eastern portions of the claim block, a limestone-argillite unit is positioned above one mineralized horizon, but is separated from the horizon by 75+ meters of lithic lapilli tuffs. These tuffs grade up into bedded tuffs and into a lime-stone-argillite unit. Close to this locality, a mineralized horizon occurs above the limestone -argillite unit. A limestone-argillite unit was not seen in much of the volcanic stratigraphy that underlies the claim block.

**Unmineralized trachyte:** Unmineralized trachyte occurs at various intervals throughout the volcanic stratigraphy on the Tree and Fire claims. Significant accumulations occur at the same stratigraphic level as the mineralized horizon in the saddle between Julie's Camp Valley and Uwe's Camp Valley. This juncture also marks the terminus of a distinctive succession of mineralized horizon overlain by limestone-argillite marker unit that underlies a several square kilometer area immediately to the southwest. A second significant accumulation of unmineralized trachyte underlies the peak of Hill 2118.5 on the Fire claims.

**Purple weathering volcanic or volcaniclastic lithic lapilli tuff:** A distinctive purple, flaggy weathering, fine-grained, feldspathic, minor black argillite (?) lithic fragments volcanic or volcaniclastic unit that occurs locally at the northeast end of the property.

<u>Argillite:</u> Grey to black weathering and fresh surface, generally foliated, often well laminated or bedded, occasionally lineation or crenulated, occasionally carbonaceous,

fine-grained argillite. This unit occurs in thick (10-75 meter) "sub basins" in the volcanic stratigraphy, as thin (less than 10 meter) inter-volcanic flow sedimentary packages throughout the volcanic stratigraphy. Argillite is frequently intercalated with thick to thin bedded tuffs, minor limestone, or more rarely, thick bedded volcanic flows(?).

A second argillaceous sedimentary unit, consisting of a thick, (base not exposed), "basinal" argillite package outcrops distally from , and appears to underlie the volcanic stratigraphy on the Tree-Fire claims. This assemblage is occasionally highly graphitic. This graphite appears to be the source of many of the airborne EM conductors that occur below the base of the volcanic stratigraphy. Similar to the argillite units mapped in the volcanic stratigraphy, the basinal argillite is also intercalated with volcanic tuffs. These appear to become more frequent near the top of the section. Appendix IV

Diamond Drill Logs

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Hole ID F001-01 Page 1 of 14

I ocation	cation FIRE PROPERTY PELLY MTNS YUKON			SURVEYS				Property	FIRE			
	muth 260° Elevation 1530m				Metreage	Azimuth	Inclination	Corr Inclin	Claim No			
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		55E / 6835045N	Core Size	BTW	4/5				Logged by	C DOWNIE	·	
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		fragmental beds generally	concordant,	overall rock is			1					
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		40-50°tca, moderate pervi	asive rusty w	eathering stain,								
		SULPHIDES										
		pyrite occurs as fine disse	eminations an	d clots along								
		bedding planes and as re		volcanic								
<b> </b>		fragments, 0 5-1% over in	nterval,		ļ		ļ	<u></u>	<b> </b>			
<b></b>						- 10-				+		
17 3	214	TUFF-LAPILLAE TUFF			173			03	28	46	64	20
<b> </b>	<u> </u>		a sala a tarat		185			02	25	54	39	51
ļ	<b> </b>	medium to light grey fine			198	21 4	1.6	06	21	91	81	16
┣───	<b> </b>	large to medium rounded			┢	<u> </u>	+	+		+	<u> </u>	··
╟	<u> </u>	in black fine argilliaceous				<u> </u>	<u>↓</u>	+	+		{	
J		quartz flooded with 20-30			+	<u>↓ ··- ··</u>	<b></b>	. <u> </u>	- <u> </u>		<u> </u>	
Į	<b>├</b> ────	bedding at 90°tca, pyrite o crosscutting fracture fill a	the second s		+	+ · · · · · ·	<u>↓                                     </u>		+			
<b> </b>		crosscutting fracture fill a over interval.	nu nna fiood,	esi ore pynte	+	<u>├</u>	╂━━━━━	<u> </u>			{	
<b>├</b> ───	┣				+	<u> </u>	<b>†</b>	+			<b> </b>	
L	<u>L</u>				<u></u>	L	<u> </u>		1		<u> </u>	

F00-01 Hole ID Page 2 of 14

From	То	Description	From	To	Length			Analyses (ppm)		
(m)	(m)		(m)	(m)	-	Ag	Cu	Pb	Zn	Ba
214	24 7		21 4	23 0	16	<0.1	10	67	41	93
		thin bedded-laminated light grey, bleached, weakly	23 0	24 7	17	<01	9	35	32	94
		silicified,20% guartz, 5% small angular fragments,								
		rock has flow texture.		İ						
					··					[
			1					1		
247	48 1	TUFF WITH PYRITE/LAPILLAE TUFF	24 7	25 2	05	0.5	20	80	21	17
_		light grey very fine grained matnx supporting fine	25.2	26 0	08	<01	11	17	5	61
		to medium sized ellipsoid to r angular fragments,	26.0	26 6	0.6	0.1	9	29	3	20
		overall unit is more massive, bedding 85-90°tca,	26 6	28 1	1.5	05	16	56	7	8
_		moderate silicification with 10-20% guartz replacement	28.1	29 6	1.5	0.3	9	49	3	22
		of fragments, under hand lens rock has well developed	296	30 3	07	2.9	43	1652	20	7
		imbrication banding with elongate ellipsoid feldspar?	30 3	31.4	11	05	17	59	5	12
		quartz in fine ash?matrix,	31 4	32 1	07	1.7	46	379	16	8
			32 1	34.0	19	0.6	25	67	7	5
-		SULPHIDES	34.0	35 4	14	1.5	61	436	12	2
			35 4	36.8	1.4	0.6	25	81	6	7
		pynte occurs as massive conformable bands 2cm-15cm	36 8	37 5	07	06	27	107	5	10
		thick associated with carbonate, quartz, rare galena,	37 5	39.3	1.8	01	5	9	3	81
			39 3	40 8		01	17	34	3	20
		galena also occurs as rim along margins of quartz	40 8	42 3	15	06	26	72	5	8
		fragments within massive pyrite, estimated 10% pyrite	42 3	43 6		0.2	12	18	4	34
		over interval, content decreases from 37 5m, also	436	44 8		06	22	179	8	5
		occurs as replacement of silicified clasts,	44 8	46 6	18	03	16	58	4	20
		best invervals 29 6-30 3 35%, 31 4-32 1 35%,								
L	L							Į		
		24 7-25 2/26 0-26 6 QUARTZ FLOOD						4	ļ	·
L		strongly bleached, pale grey-white, upper zone has			L	L				
L		weak perusive rusty weathering stain, a couple of cm with							·	·
L	<b></b>	pyrite bands,				<u> </u>				
	<b></b>		46.5	46.5		<b> </b>				
46.6	48 8	B FAULT	46.6	46 8		<01	4	33	12	268
ļ	<b> </b> _	coarse to medium tuff fragments mixed with clean yellow	46 8	48 1		04	13	45	4	33
	<b>└──</b> ─	-orange sand,			ļ	Į			···	÷
<b> </b>					<b></b>	Į			<u> </u>	
<b></b>	<b> </b>				<b></b>	Į		- <b> </b>	<b></b> ~	
	E				1			1	1	

Hole ID	F00-0
Page 3	of 14

From	То	Description	From	То	Length	Analyses (ppm)					
(m)	(m)		(m)	(m)		Ag	Cu	РЬ	zn İ	Ва	
48 1		48 1-52 5	48 1	49 5	14	09	26	133	5	8	
-01		different looking unit, more poorly sorted with 10%	49 5	51 0	1.5	02	10	15	3	37	
		elongate fragments> 1cm long, matrix is very fine	-10 0		1.0				······		
		grained pale yellow to brown, pynte occurs as fine							·····		
		disseminations-replacment of fragments, possibly									
		(wishfully) as small bands, and rarely as more massive						······			
		type seen above, in places, rock has pervsive pate yellow		·····				· · · · · · · · · · · · · · · · · · ·	· · · · · ·		
		stain, 10-15% quartz eyes, 20% quartz overali,						1			
		51 0-51 2 YELLOW "TRACHYTE" ALTERATION									
		structural control feature along growth fault or debris									
		flow, low angle fracture filled with pale yellow very									
		fine grained volcanic?mud,									
		51 8-52 5 QUARTZ FLOOD-QUARTZ VEIN/	51 0	51 2	02	03	15	21	3	30	
	'	FRACTURE	51 2	51 8	06	<0.1	7	11	3	59	
		rusty quartz replacement and high angle fracture fill, 30%	51 8	52 5	07	<0.1	5	19	4	99	
		quartz over interval,									
								ļ	ļ		
			50 F	64.0	4.5		7	6	ļ	82	
52 5	59 2	FINE GRAINED TUFF WITH PYRITE/	52 5	<u>54 0</u> 55 2	15	<01 02	<u> </u>	16	4	97	
			54 0 55 2	56.4		29	102	886	4	<u>97</u> 8	
		very fine grained relatively homogenous unit, light grey	55 2	50.4	12	29	102	000	42	<u> </u>	
		finely taminated-banded under hand lens possible						·			
		flow texture? same as 24 7;fragments are elongate-									
		rounded, mm scale, 1% fine bright green flecks-clasts?									
		SULPHIDES 55 2-56 4		· · · · · - ·				+			
	t	pyrite occurs as semi massive fine to medium grained		<b>├</b> ──	1			1	1		
		replacment features possibly controlled in part along	1			<u> </u>		1	1		
		microfaults, pyritized zones are more silicified, pyrite	t					1	1	1	
	t	associated with solft white carbonate mineral in places,	<u>                                      </u>		· · · · ·	<u>  </u>		1			
	<b> </b>	bedding here is slightly contorted-deformed,	1	<u> </u>	<b> </b>	1	· · · · ·	1	1	<u> </u>	
	t		1			1		1	1	<u> </u>	
		56 4-57 5	56 4	57 5	11	01	8	13	10	114	
		penasive pale yellow stain-looks like	57 5	58 9	14	03	19	14	4	38	
	l internet	weathering stain?		<u> </u>		1			1		

F00-01

Hole ID	F00-01
Page 4	of 14

From	То	Description	From	То	Length	Analyses (ppm)					
(m)	(m)		(m)	(m)		Ag	Cu	РЬ	Zn	Ba	
		58 9-59 2 FRACTURE FILL / QUARTZ VEINS	58 9	59 2	03	02	19	20	4	43	
								20	7		
		3X1-4cm width 20°tca quartz bands carrying internal									
		clasts of volcanic wallrock, contacts suggest possible									
		silica fracture fill,						<u> </u>			
59 2	65.6	TUFF	59 2	60 9	17	05	16	101	5	15	
		coarser fragments, very fine grained matrix as above	60 9	62 6	17	01	4	2	6	104	
		supporting elongate-imbricated rounded fragments and	62 6	64 1	15	02	7	14	8	92	
		10-15% quartz eyes,1-3% pynte in bedding parallel	64 1	65 6	1.5	01	8	18	10	105	
		(90°tca) dissmeninations, rare cm bands, as local						<u>├</u>			
		replacment of clasts,light grey-brown,	<u> </u>			┟─────╂		<u>+-</u>			
		62 6-84 1				├────		+			
		poorly sorted tuff,generally coarser than above,	<u>├</u>					ł			
		Provide and Ballocard and and anotal	┟────── ┧			<b>├────</b> ╋		+			
65 6	66.4	ASH TUFF	65 6	66 2	06	03	13	140	55	85	
		very fine grained with 5% fine to med clasts, from 66 2-	66 2	66 4	02	02	7	145	16	18	
		66 4 is distinct bed with pervasive yellow colour,					·	+	<u>                                     </u>		
		contacts defined along bedding 85°tca, single 1cm	╂──────┤					+			
		thick pyrite replacment band,	łł								
			<u>{····</u> −···}		_		· · · · · · · · · · ·		<u>t</u>		
66.4	67.2	TUFF	66 4	67 2	0.8	05	22	88	1162	12	
		medium grained fragments in very fine matrix, rock is						<u> </u>			
		medium dark grey, well silicified with 20% quartz	11			} †		+	<u>}</u>		
		replacement of fragments and quartz eyes, 10%	<u>├</u>					<u>+</u>			
		pyrite as fragment replacement,	<u>}</u> }						f		
			<u>├</u>		· · · · · · · · · · · ·		·····				
67 2	67.5	ASH TUFF				<u>├</u>		+	· · · · · · · · · · · · · · · · · · ·		
		very fine grained, pale green brown, mottled texture,									
		5-6% very fine pyrite flood	1			<u>├</u> ────────────────────────────────────			t		
						├ <del>─</del> ───────────────────────────────────			1		
67 5	72.2	FAULT/RUBBLE ZONE	67 2	67 5	03	<01	12	27	16	30	
<u> </u>		strongly fractured medium to large clasts mixed with	67 5	69 2	17	<01	6	9	21	32	
	<u> </u>	minor fine crush, rock type is strongly silicified	69 2	70.7	1.5		7	16	51	13	
		tuff grading downhole into strongly silicified crystal	707	72.2	15	<01	5	15	49	19	
		tuff, structure is tow angle tca with a few low angle cm	<sup>:3</sup> '		<u>````</u>	┟─────────┤	<u> </u>	<u> </u>	1	<u>├`Ŭ</u>	
<u> </u>	1	width quartz veins, medium to weak pervesive yellow-				tt		1	1	t	
<b></b>	1	orange alteration stain throughout, decreasing	1		·	tt		1	1	i	
	<u> </u>	downhole,fragments have 2-3% finely disseminated				tt		- <del> </del>	1	1	
		pyrite, local pyrite replacement,	1			tt		1	<u>+</u>	h	
	<u> </u>	Farmer barren barren and				<u>∤</u>		+	<u> </u>	<u> </u>	

Hole ID F00-01 Page 5 of 14

From	То	Description	From	То	Length			Analyses (ppm)		
(m)	(m)		(m)	(m)	Longui	Ag	Cu	Рь	Zn	Ba
72.2		TUFF	72.2	737	15	07	27	83	30	4
		light grey fine grained homogenous ash type tuff with							<u> </u>	
		breccia fracture overprint 6% pyrite as local coarse						<u> </u>		
		replacement and fine fracture fill,						┢╺─────		
								╂─────┦		
737	79 2	CRYSTAL TUFF	737	75 0	13	<0 1	9	21	24	15
		light grey, aphanitic-micritic strongly silicified unit,	75 0	76 5	15	<01	3	<2	7	70
		Intense silicification has frosted-destroyed original	76 5	77 9	14	<01	5	2	5	43
		grain boundaries or possibly original material was very	77 9	79 2	13	<01	4	2	13	57
		fine grained to begin with, no discemible bedding,								
		weakly developed fine microfracture 35-45°tca								
		healed with quartz/pyrite,2-3% fine buckshot type pyrite								
		disseminations,								
79 2	103 2	ALTERED CRYSTAL TUFF?/SKARN?	79 2	80 4	12	<01	2	7	23	23
		basically equivalent to above with pervasive pistachio	80 4	81 7	13	<01	2	2	24	41
		green and rare red-purple mineral flood alteration,								
		unit is strongly silicified and original textures likely								
		masked by alteration, but faint ghosting in background								
		suggest possible pre alteration fracture-brecciation,								
		patchy purple flood is probably hematite too hard for								
		fluorite and green alteration may be chlorite or								
		epidote with silica overprint, 2-3% finely disseminated								
		buckshot type pyrite often with well developed crystal								
		forms,weak mm pyntic fracture fill in part,								
81 7	85 2	81 7-85 9 SKARN?	81 7	83.5	1.8	01	3	5	42	132
		most intense purple-green alteration, skarn	83 5	85 9	24	01	5	5	22	55
		85 9-86 1 BRECCIA WITH PYRITE	85 9	86 1	02	12	38	87	16	4
		angular clasts of slilcified crystal tuff in fine grained	86 1	88 1	2	01	5	9	22	157
		dark grey matrix +/- fine grained pynte, estimate 10%								
		over interval,		Ļ						
			L							
		88 1-90 0	88 1	90 0	19	01	12	14	51	22
<b></b>		weak to moderate mm scale to rare 0 5cm			<u> </u>	<u>↓</u>			·	
		microfracture healed with soft white to blue-grey non		<u> </u>	ļ	┟───────		+		
		HCI reaction mineral-barite? clay mineral? Host is		L	ļ	┝╼────┤				L
		pale green weakly skamified? fine grained volcanic, est	Į	L	Į	┝─────┤		<u> </u>		
		3% barite/white clay over interval,	<u> </u>		<b> </b>	<u>├───</u> ┃		<b>_</b>		
			Land	<u> </u>	L	L		<u> </u>		L

Hole ID F00-01 Page 6 of 14

			<u> </u>							
From	То	Description	From	To	Length	. 1	_	Analyses (ppm)	_ 1	_
(m)	(m)		(m)	(m)		<u>Ag</u>	Cu	Pb	Zn	Ba
		90 0-92 8	90 0	<u>91 4</u>	14	<0 1	3	5	29	57
		pale to medium green fine grained volcanic with	91 4	92 8	14	<01	3	4	41	101
		moderate mm scale microfracture healed with chlorite?								
		actinolite? +/- pyrite, 3-4% pyrite in microfracture								
	_	and fine disseminations,								(
92 8	95.6	SKARN	92 8	94 3	15	<0 1	3	6	43	122
		intense purple-green skarn alteration of tuff,fragments	94 3	95 6	13	<0.1	3	2	29	122
		are visible, elongate, medium sized, occasional quartz	95 6	97 0	14	<01	4	2	24	213
		eyes weakly developed mm scale quartz veins/quartz	97 0	99 7	27	<01	4	8	232	<u>11</u> 5
		microfracture,2% finely disseminated pyrite,								
. 1										
		99 7-100 8	997	100 8	11	12	32	138	50	6
	<u></u>	strong quartz flood-quartz replacement with 10%	100 8	103 2	24	<0 1	3	88	33	124
		pyrite in massive low angle veins and coarse						ļ		
		dissemination,	<b> </b>							
103 2	110 8	STRONGLY SILICIFIED PYRITIC UNIT	103 2	104 9	17	28	82	288	32	9
		medium to light grey fine grained, strongly silicified	104 9	105 8		05	14	40	21	11
		interval, 30-40% quartz flood-replacement has	105.8	107 3		02	9	18	10	35
	_	masked original textures but there are rare	107 3	108 8	1.5	05	12	40	7	21
		background ghosts suggesting fragments, no discern-	108 8	110.8	20	06	17	47	13	24
<u> </u>		able bedding but there is suggestion of fabric at 20-	II							
L		40°tca, 2-3% finely disseminated buckshot pyrite								
		and more massive pyrite as described below ,rare low								
		angle pyritic veining and fracture fill, contact with								
		overlying unit probably gradational, weakly developed								
<b></b>	L	30-50° tca quartz veining mm-0 5 cm width,	L					L		
J			<u> </u>					ļ		<b> </b>
		103 3-104 3 SEMI MASSIVE PYRITE	┢╼╍╍╼┛┥					L		
J		50-80% pynte in low angle (20°tca) structure,pyrite	<b>↓</b>					<u> </u>		L
<b> </b>		occurs both in 20°tca vein type features and as	┟────┤					ļ	L	L
I		replacement? primary clasts? in breccia with white	└───┤							L
<b></b>	ļ	quartz,	<b>├</b> ───- <b>Ì</b>					┨─────		L
	- 445		110 8	112.4	16	05	10	90	90	01
1108	172.4	SILICIFIED TUFF/ASH TUFF/LAPILLI TUFF contact with overlying unit 25*tca along,very fine	100	112.4	<u> </u>	00	10	1 an	<u></u>	81
<b> </b>			┼╾╌╌╾┤					·{		
<b> </b>		grained medium to light grey to pale green tuff or	├				<u> </u>	+		<u> </u>
┣	<b> </b>	possible flow in part, fragments and laminations 90*tca-	┟╾───┤		}			+	<u> </u>	<u>├──</u> ─
┣		bedding,fragment margins show some flow type						·{	<b> </b>	<u> </u>
	L	distortion in places, fragments occur in discrete beds			L					<u></u>

Hole ID F00 01 Page 7 of 14

From	То	Description	From	То	Length			Applypap (ppp)		
	(m)	Description	L	(m)	Lengui	40 1	Cu	Analyses (ppm) Pb	70	P.
(m)	and the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second s		(m)			Ag			Zn	Ba
┝━━━╋		separated by fine laminated tuff beds,3% pynte						┟┦		
		in fine dissemination, strongly sulicified with 20-30%					· · · · · · · · · · · · · · · · · · ·			
		quartz replacement,					·····			
112 4	115 3		112 4	113 8	14	0.5	10	15	5	58
		small to medium rounded to elongate volcanic	113 8	115 3	15	02	9	6	3	151
		fragments in very fine grained matrix, medium grey with								<u></u>
		local light brown ash?bands, moderately silicified								
		with 10-20% quartz replacement, occasional quartz eyes,							· · · · · · · · · · · · · · · · · · ·	· · · · · · · · ·
		bedding well developed 90°tca,0 5% of finely dissemin-							· · · · · · · · · · · · · · · · · · ·	
		ated pynte,							· · · · · · · · · · · · · · · · · · ·	
								L		
115 3	122 5		115 3	118 0	27	01	6	7	6	186
		medium to large rounded-elongate volcanic fragments	118 0	121 0	3	02	10	6	6	112
┝──┼		in very fine grained matrix, sharp bedding contact with	121 0	122.5	15	06	18	26	7	38
		over lying unit, moderately developed flow textures								
		along fragment margins, 10-15% pale green pistachio								
····		replacement of fragments and fragment margins-								
		epidote? moderately silicified with 10% quartz								
		fragments,0 5% finely disseminated pyrite,overall unit								
		is poorly sorted, unit becomes increasingly silicified								
		downhole,								
										L
122 5	135 8		122 5	123 3	08	08	38	112	14	9
		more disturbed looking unit, medium to large								
		irregular shaped fragments of very fine grained								
		volcanics?in very fine grained medium to dark grey								
		matrix, strongly silicified no well defined bedding,								
		10% pynte in coarse irregular disseminations, possibly								
		as replacement of fine grained matrix, weakly								
		developed low angle mm-0 5cm width quartz veins +/-								
		white soft mineral-talc?								
		123 3-124 1 QUARTZ FLOOD/QUARTZ VEINS	123 3	124 1	08	05	23	66	16	14
			124 1	125 6	15	1	32	140	8	6
		2X2-3cm width 0-5*tca quartz veins with quartz flood	125 6	127 5	19	17	40	323	12	2
		along margins, quartz is associated with pyrite,						1		1
		yellow-orange alteration,		<b>-</b>			I			1
							l	1		1
						I		1	l	1

Hole ID F00-01 Page 8 of 14

From	То	Description	From	То	Length			Analyses (ppm)		
(m)	(m)		(m)	(m)		Ag_	Cu	ев	Zn	Ba
		128 0-128 4	127 5	128 5	10	06	18	79	10 1	9
<b> </b>		2 bands of fine grained more clastic looking sediment			<u>`</u>					
		separated by very fine grained thin bedded tuff-ash								
		tuff, clastic units are massive, poorly bedded								
		possibly turbiditic with 4% medium angular clasts				·				<u> </u>
		of volcanics and argilite?		t	·					
						· · · · · · · · · · · · · · · · · · ·		t		
128 5	131 5	FAULT/RUBBLE ZONE	128 5	130 7	22	03	12	24	12	27
		medium to large angular rubble clasts of mixed unit								
		above;fractures dominantly low angle tca in places								
		healed with white soft mineral-talc,rock remains								
		moderately silicified, estimated 5% pyrite in replacement								
		around clast rims as fracture fill, unit is variably bleached,								
		130 7-131 5 BARITE	130 7	131 5	08	12	55	140	13	2
		a few large clasts of H 3 5 blocky cleavage, heavy, off								
		white mineral with pyrite replacement rims-barite,								
131 5	135 8	same as from 122 5-128 5,5% pyrite flood-	131 5	133 5	2	09	45	119	9	4
		replacement, a couple of low angle taic filled	133 5	135 8	23	05	26	40	9	17
		fractures, well silicified,								
L										
135 8	138 2	DEBRIS FLOW/TURBIDITE/REWORKED TUFF	135 8	138.2	24	03	11	43	7	61
		grey to pale green fine grained sand sized matrix								
		supporting a variety of poorly sorted clasts, clasts								
		size ranges from mm-3cm across long axis, clasts								
		generally subrounded to rounded, composition								
		varies from quartz to fine grained ash tuff to small								
ļ		feldspar lathes, clasts tend to occur in 10-20cm thick								
ļ		bands separted by fine sand matnx described above,	l		···					
		trace fine disseminated pynte, pynte rimming of clasts,	L]			ļ	<b></b>		· · · · · · · · · · · · · · · · · · ·	
ļ	L	upper contact at 70°tca, no apparent bedding in unit		·			ļ			
	L	but clasts weakly imbricated 80-90°tca in part,				ļ				
<b> </b>	L	moderately silicified with microscale quartz flood				ļ	l	L		
		of matrix, matrix becomes coarser grained toward						L		
	L	lower contact,								
<b></b>	ļ					l	L			
138 2	138 7	ASH FLOW	138 2	138 7	05	12	19	244	206	37
L		abrupt change in lighology, very fine to fine grained	L	<u> </u>		L	I			

Hole ID F00-01 Page 9 of 14

· · · · · · · · · · · · · · · · · · ·				<u> </u>						
From	То	Description	From	То	Length		-	Analyses (ppm)		_
(m)	(m)	<u> </u>	(m)	(m)		Ag	Cu	РЬ	Zn	Ba
		light green to green grey lenticular beds, turbiditic								
		looking in part with single 3cm width lens of fine to								
I		medium grained sediment in middle of package,general								
		fabric-bedding 85-90°tca, but upper contact is cut								
		down at 45°tca, 0 5% finaly disseminated pyrite,								
138 7	140 9	MAROON-GREEN VOLCANICS	138 7	140 9	22	<01	4	4	10	548
		sharp change to more homogenous unit, pale to	140 9	143.4	2.5	<0 1	3	3	10	1247
		medium green to maroon very fine to fine to medium								
		grained unit, homogenous package with 3% fragments-								
		clasts including quartz, pyroxene, pink kspar, green-								
		maroon colour possibly related to sediment size with	I							
		coarser material marcon and finer material green, fine			_					
		green rock occurs as wisps and thin laminations								
		typically at 85-90°tca, fine grained green rock					_			
		generally supports most of the fragments and in part						[	1	
		forms fragments, moderately silicified, trace pyrite in								
		finely disseminated and low angle weakly								
		developed mm fracture fill with quartz, unit becomes								1
		increasingly silicified and more poorly sorted								
		toward lower contact,		_						
143 4	146 2	STRONLY SILICIFIED/BLEACHED MAROON AND	143 4	146 2	28	<01	4	7	17	338
	_	GREEN VOLCANICS								
		pale maroon to pale green blotchy very fine to fine								
		grained strongly silicified unit, onginal grain boundaries								
		of matrix destroyed-masked by bleaching-sil'n, 3-5%								
		medium sized elongate rounded fragments of light								
		green fine grained volcanic rock, fragments elongate-								
		imblcated 85-90°tca, local lenses of small								
		imbricated fragments of fine volcanics in very fine								
		grained light green matrix, weakly developed 1-3mm								
		width quartz veins-quartz fracture fill at 40-50*tca,								
		trace-0 5% pyrite in fine dissemination associated with								
		quartz veins, very rare low angle fracture fill,								
146 2	148 9	FRAGMENTAL/TUFF	146 2	148 9	27	<0 1	2	5	18	1079
		very strongly silicified, drillers report hardest ground						1		
		yet, medium to large (1cm-20cm) across short axis)								
		fragments of pale pink very fine grained altered tuff in								
		matrix of very fine grained medium to light green						1	1	L

Hole ID Page 10 of 14

From	То	Description	From	То	Length	r		Applycos (nom)		
(m)	(m)	Describitoti	(m)	(m)	Length	1 An 1	Cu	Analyses (ppm) Pb	Zn	Ba
	(m)		(41)	(11)		<u>Ag</u>		PD	<u>2n</u>	68
┝───┥		volcanic ash,matrix is weakly laminated in part 80*								
┝───┥		tca,fragments are more massive and show fragmental	<u> </u>							
		medium sized ghosts in background, fragment-matrix					·····			
┝╌┈┥		contacts are sharp and somewhat irregular, matrix				<u> </u>				
		is weakly to moderately fragmental with small to								
i		medium volcanic fragments showing flow type				· · · · · · · · · · · · · · · · · · ·				
		Imbrication in part, weakly developed mm scale low								
		angle quartz veins -fracture fill, interval is strongly								,_ <u></u>
		bleached, no sulphides,								
			440.0	454.0						
148 9	154 7	MAROON TO GREEN VOLCANICLASTICS/	148 9	151 9		<0.1	2	6	9	496
		TURBIDITE?/DEBRIS FLOW? FRAGMENTAL	151 9	154 7	28	<01	1	6	12	406
I					ļ	Į				L
<u> </u>		similar to 143 4-146 2, dark marcon very fine grained						·		
┣┥		matnx (probably volcanic) supporting small (mm) to				<u> </u>		ļ		
		large (3cm across short axis) fragments,				ļ				
<b> </b>		fragments include green fine grained volcanic (ash tuff?),				ļ				
·		quartz, medium to large pink feldspar rock, smaller				Ļ				
	·····	fragments typically recrystallized quartz-quartz				L				
		porphyroblasts, fragments generally imbricated-				<u> </u>				
		elongate parallel to 80-85° bedding and in part show						]		
		weak flow textures, general pattern is fine to medium								
		grained poorly sorted unstratified beds separated						L		
		by thin very fine grained thin bedded-laminated beds,					L			
		10% of interval is fine green volcanics which appear to								
		occur only as fragments here, unit becomes more								
		tuffaceous-bedded near lower contact,								
						L				
154 7	158 1	LIGHT GREEN TO PURPLE VOLCANIC	154 7	156 6		<01	1	7	12	147
		TUFF	156 6	158 1	1.5	<01	1	5	17	160
		very fine grained light green to light purple matrix				1				
		supporting small to medium elongate fragments of very							1	
		fine grained light purple and green volcanics, strong								
		pervasive to selective-pervasive silicification,								
		weakly developed 3-5mm width quartz +/- pink						I		
		feldspar veins at low angle (20-30°)tca, trace-0 5% py								
		in dissemination and mm fracture fill, interval is strongly								
		fractured,				1				
								1		
				1					[	
				1				I		

F00-01

Hole ID F00-01 Page 11 of 14

From То Description From То Length Analyses (ppm) (m) (m) (m) (m) Cu Pb Zn Ag 8a 159 6 MAROON VOLCANICS/DEBRIS FLOW 158 1 159 6 15 158 1 <01 3 4 11 487 very fine grained purple matrix supporting small to rare medium-large fragments, bedding 85\*tca, strongly silicified, fine fragments-clasts scattered throughout and in places confined to specific beds, 20% quartz as clast replacement, recrystallization and quartz eyes, weakly developed flow textures, lower contact with green volcanic unit is sharp, 20°tca along 3cm wide selvage of quartz and green wallrock clasts, 159 6 169 6 GREEN VOLCANIC/TUFF/DEBRIS FLOW 159 6 160 5 09 <01 1 <2 9 836 160 5 162 1 16 <01 1 8 32 medium green fine grained to very fine grained matrix 1682 supporting 10-15% small to medium gragments, 162 1 163 7 16 <01 2 5 26 698 163 7 165 4 17 <01 27 786 strongly silicified, fragments are rounded, elongate, 5 1 imbricated parallel to bedding, bedding changes from 165 4 167.2 1.8 <01 2 6 30 1516 85°tca at upper contact to ~50°tca at 162 4, trace 167 5 169 6 21 <01 2 6 61 1482 disseminated pyrite and pyrite healed fractures, occasional orange hexagonal crystals possibly gamet i e at 159 7m, low angle quartz veining +/rare orange feldspar; QUARTZ LENS-QUARTZ FLOOD well developed 30-50°tca 0 5-1cm width quartz veins and local folded distorted-quartz bands, strong quartz flood-quartz replacement gives interval fragmental texture in part, estimated 30% quartz over interval, quartz veins/flood commonly associated with pink feldspar - estimated 3-5% over interval, 169 6 171 5 MAROON VOLCANICS/DEBRIS FLOW 169 6 171 5 19 <01 2 15 21 737 as from 158 1-159 6, 0 5-2cm width low angle quartz veining not as well developed as in above unit and only minor pink feldspar, 176 4 GREEN VOLCANIC/TUFF/DEBRIS FLOW 171 5 173 1 16 <01 171 5 3 8 19 659 as from 159 6 173 1 174 7 1.6 <01 27 3 8 402 174.7 176 4 17 <01 1 3 18 1277 176 4 188 5 STRONGLY SILICIFIED-QUARTZ 176.4 178 2 18 <01 2 8 30 263 FLOODED VOLCANIC? 178 2 179 9 17 <01 2 8 28 245 distinct unit from one above, medium to light grey to green-grey, fine to very fine grained interval with

Hote ID F00-01 Page 12 of 14

Enn	- T.	Deservation -	East 1		L a sa atta			A		
From	To	Description	From	To	Length			Anaiyses (ppm)		I _
(m)	(m)		(m)	(m)		Ag	Cu	Pb	Zn	Ba
┝╼╼╼╼╼┥┥		pervasive to pervasive selective quartz flood - sil'n,								_
┟		alteration has masked most of original grain -					·			
		fragment boundaries but fragmental and lapilli								
		ghosts suggest probable volcanic or volcaniclastic								
		rock, 30-40% quartz replacement-quartz flood, quartz								
		veins not as well developed as above and pink feldspar								
		is seen less frequently, trace finely disseminated								
		pyrite,								
		179 9-181 6 FAULT/RUBBLE	179 9	181 6		<0.1	2	8	45	227
		strongly fractured medium to large angular clasts,	181 6	184 6	30	<0.1	3	4	23	282
		fractures dominantly low angle tca, minor clean crush,								
		184 6-185 4 FAULT	184 6	185.4	0.8	<0.1	2	5	19	217
		strongly fractured medium to large angular clasts mixed	185 4	188.5	31	<0.1	3	7	43	220
		with talc-white clay gouge, fractures generally low angle								
		tca, lower contact sharp, talc is confined to fault zone,								
188 5	191 3	STRONGLY SILICIFIED GREEN VOL-	188 5	191 3	2:8	<01	22	22	34	258
		CANIC/VOLCANICLASTIC TUFF								
		light to medium green very fine grained matrix with								
		weakly developed lapillae textures supporting								
		rounded, generally elongate clasts, bedding 85°tca,								
		density of fragments increases downhole VOLCANICS/								
		developed low angle quartz veins with local quartz								
		blowouts, matrix is strongly silicified-quartz flooded,			[					
		trace of disseminated pyrite,								
		191 1 galena in quartz vein - quartz fracture fill,								
		single medium sized dissemination,			·					
191 3	192 5	MORE CLASTIC LOOKING UNIT	191 3	192 5	1.2	01	6	31	38	252
		light green fine grained matrix with individual grains						L		
		visible under handlens, weakly developed elongate						L		1
		lapillae and rare subangular fragments, single large low								
		angle quartz vein,						'L		
L				1						
192 5	194 8	STRONGLY SILICIFIED QUARTZ	192 5			<0.1	4	22	41	220
		FLOODED VOLCANIC	193 9	194 8	09	<01	5	12	34	281
		as from 176 4-188 5m								

Hole ID	F00-01
Page 13	of 14+M519

From	То	Description	From	To	Length			Analyses (ppm)		
(m)	(m)		(m)	(m)	-ouger	Ag	Cu	Pb	Zn	Ba
		193 4-194 0 FAULT RUBBLE ZONE	<u></u>	<u></u>				+		
┝───╂		mixed angular clasts of units above & below fault, low				┝━╌╼╋		11		
		angle feature, minor fine gouge,								
						<u>├</u>		1		
194 80	207 70	GREEN CLASTIC UNIT	194 8	197.2	24	<01	3	7	17	130
		light green fine sand to medium-coarse silt grained,	197 2	200.0	28	<0.1	3	5	14	99
		bedding not particularly well developed at 90°tca,								
		generally medium bedded, rare thin beds with								
		imbncated elongate fragments - clasts, possibly						1		
		volcanics, might be a reworked volcanic package, weak								
		to moderate pervasive silicification, overall more						1		
		massive than anything seen thus far, no sulphides,								[
										1
		200 0-201 3 FAULT/RUBBLE ZONE	200.0	201.3	13	<0.1	3	7	12	73
		strongly fractured angular clasts of green clastic rock			1					
	i	above, fractures generally low angle, minor gouge and								
		bands of well consolidated fault breccia,								
		201 3	201.3	204.0	27	<01	4	8	10	94
		clastic textures better developed, sediment size								
		changes occur across bedding planes 85-90°tca, rare							4	
		fragments, very rare fine grained thin bedded weak								
		lapiliae type beds, looks distal to any volcanic								
	-	source here,								
		204 0-205 8	204 0	205 8	18	<01	5	10	20	116
		poorly sorted medium sized angular to subangular	205 8	207 7	1.9	<0.1	4	6	16	74
		clasts in fine to medium grained matrix, moderately								
		silicified, 10-15% quartz replacement of clasts,								
		clasts include volcanics, more massive thick bedded unit								
		with contacts below sharp at 90°tca,								
	L									
207 7	214 2	GREY TO GREEN-GREY CLASTICS	207 7	210 6	29	<0.1	6	13	16	90
		fine to medium grained more massive medium bedded	210 6	213 0	24	<01	7	11	11	91
		unit, bedding 80-85°tca generally well sorted with								
		local 2-4cm scale beds with fine grained matrix				I				L
		supporting elongate to angular clasts, moderate to			L					
		weak silicification, local bedding conformable bleaching,				Į			I	I
<b></b>		rare high angle 2-4cm wide quartz bands-veins, trace				I				I
		disseminated pyrite,				II			L	. <u> </u>
L					L	<u> </u>			l	<u></u>

Hole ID F00-01 Page 14 of 14

English		Description	From		Longth			Analysis (again)		
From	To (m)	Description	From	To (m)	Length	<b>4</b> 0	<b>C</b>	Analyses (ppm)	7. 1	<b>n</b> -
(m)	(m)		<u>(m)</u>	(m)		Ag	<u>Cu</u>	Pb	Zn	Ba
		213 0-214 2 FAULT/RUBBLE ZONE	213 0	214 2	12	<01	5	6	16	96
		fine to coarse angular fragments mixed with clean crush,					·			
214 2	047.0		214 2	217 2	30	<0.1	4	7	18	92
2192	21/2	small elongate lapillae in fine grained matrix, trace pynte,	2142	21/2	_30	<u> </u>		·	10	92
		anian elongate rapinae in the granied matrix, trace pyrite,								
217 2	2197	STRONGLY SILICIFIED-QUARTZ	217 2	219 7	25	<0.1	5	45	24	302
		VEINED-QUARTZ FLOODED								
		host is mixed thin bedded lapilli above & medium to								· · · · · · · · · · · · · · · · · · ·
		fine grained grey clastics, bedding 65°tca, 30-40%								
		quartz in variably oriented veins and local quartz								
		flood, quartz carries internal fragments?clasts? of hard								
		(5 0-5 5) pale yellow mineral-epidote?, trace pyrite on								
		fractures and in rare disseminations,								
2197	222 1	MIXED CLASTIC-SUBVOLCANIC	219 7	222.1	24	<0.1	10	39	18	78
		SEQUENCE								
		medium to dark grey thin bedded medium to fine to								
		coarse grained clastic unit, rare elongate tenses-								
		apilli?parallel to 65"tca bedding, grain sizes								
		generally confined to specific beds I e fine, bed, medium								
		bed, coarse bed, etc., trace disseminated pyrite,								
221 1	226 8	CLASTICS? VOLCANICS?	222 1	224.6	25	<0 1	5	6	16	110
		light grey thin leminated 65°tca, fine grained matrix	224 6	226 8	22	<01	5	15	16	118
		supporting elongate clasts of fine grained rock,				L				
		moderately silicified, trace disseminated pyrite,	I							
		rare large subrounded clasts of dark fine grained						ļ		
╟───┤	<del>_</del>	rock-argillite?,	┝			┝		L		L
								l	L	
226 8	227 1	ARGILLITE	226 8	227 1	03	02	14	21	8	55
		fine grained dark grey to black, thin taminated-bedded	┥────┤							
┣┥		at 65*tca,	┟────┤			┠─────┤	······	+	<u>}</u>	
			╂─────┨			┠────┤		<b> </b>	<b>{</b>	
		END OF HOLE 227 1m/745	<u>├</u> ───┤			┟────┤		t	<u> </u>	<b>-</b> -
			t t			1 1		1	1	<u>                                      </u>
						1		1	1	
						[]			1	

Hole ID F00-2A Page 1 of 1

Location	ocation FIRE PROPERTY, PELLY MTNS , YUKON					SURVE	YS		Property				
Azimuth :			Elevation	1990m	Metreage	Azimuth	Inclination	Corr Inclin	Claim No				
Inclination	90*		Longth	35%10 7m		·			Section				
UTM			Core Size	BTW					Logged by	C DOWNIE			
Started	AUG 13, 3	2000							Date Logged	AUG 13, 2000			
Complete.						·······			Dalling Co	AGGRESSIVE			
Purpose									Assayed by	NAL			
			×						1				
Core Reco	Recovery						······	·					
From	m To Description				From	То	Length			Analyses (ppm)			
(m)	(m)				(m)	(m)		Ag	Pb	Zn	Cu	Ва	
00	10 7m/35	VOLCANIC ROCK/MINER	ALIZED							1			
		HORIZON						l	1	1			
		local gossan bands, core i	angles not gr	eat- 60°tca,					1	1			
		shallow head to -78° and	collar F00-02							1			
										1			
		END OF HOLE 10 7m/35	5'										
	,												
					<u> </u>								
j						ļ		ļ					
L					ļ		ļ	ļ	· · · · ·				
<b> </b>							<u> </u>	ļ					
					┥────		<u> </u>			4	<u> </u>		
<u> </u>								ļ		<u> </u>	ļ		
┣								<b> </b>			<b> </b>		
┣───┤	<u> </u>				<u> </u>		<u> </u>	<b> </b>	<u>+</u>		<b> </b>		
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							┢────		+		<b> </b>		
								<u>}</u> -	<u> </u>	+	<u> </u>		
<b></b>					+			<u> </u>	+	+	<del> </del>	<u> </u>	
					<u> </u>	<u>├</u> ────	†	<u>+</u>	+		<u> </u>	<b> </b>	
					<u>}</u>	t	+	<u> </u>	+	+	<u> </u>	<u> </u>	
	· · · · · ,				<u>+</u>	t	<u> </u>	t		·	+	<u>}</u> -	
		<u> </u>			t	t	t	t	+	+	t	t	
					<u> </u>	<u> </u>	t	1	+	+	+	<u> </u>	
			···		1	<u> </u>	+	<u> </u>	+	+	+		
<b></b>		· · · · · · · · · · · · · · · · · · ·			1	+	t	t	<u>+</u>	+	<u> </u>	t	
		<u>├─</u> ────			1	1	<u> </u>	1		+	<u> </u>	<u>                                      </u>	
Ľ <u></u>					<u> </u>	L		<u></u>				<u> </u>	

Hole ID F00-02 Page 1 of 3

Location	FIRE PRO	PERTY, PELLY MTN RAM			SURVE	YS	<u></u>	Property	FIRE			
Azimuth	265"		Elevation	2002m	Metreage	Azımuth	Inclination	Corr Inclin	Claim No			
Inclination			Longth	41 1m/135'					Section			
UTM	6834384 M	N / 635620 E	Core Size	BTW					Logged by	C DOWNIE		
Started	AUG 13,	2000							Date Logged	AUG 13-14, 200	00	
	AUG 14,		·						Dnlling Co	AGGRESSIVE		
		ossible VMS source for lea	d-zinc geoch	BM					Assayed by	NAL	• • • • • • • • • • • • • • • • • • • •	
	•	est upper part of volcanic (	-									
Core Rec			g		L		· · · · · · · · · · · · · · · · · · ·				· · · · · · · · · · · · · · · · · · ·	
From	То	Descrip	otion		From	То	Length	1		Analyses (ppm)		
(m)	(m)				(m)	(m)		Ag	l Cu	Pb	Zn	Ba
		OVERBURDEN/CASING					1					
	<u> 2 2007 17</u>	OVERGONDERIONDANG										
52	15.3	THIN BEDDED VOLCANK	CLASTIC/		52	59	07	3	19	24	99	
		MINERALIZED HORIZON			59	80		05	14	65	62	61
		medium grey to grey green, thin bedded laminated, very		i laminated verv	80			07	16	14	67	89
		fine to medium grained m			110			02	24	31	59	75
		typically elongate fragmer			14 0			07	11	77	48	50
		moderately weathered, cla					<u> </u>	<u> </u>	1			
		feidspar ghosts, weakly p					†	·····	1	- <u> </u>	····	
		disseminated pyrite, rare p								t	· · · · · · · · · · · · · · · · · · ·	
		bedding 75°tca, quartz oc						<u> </u>	1			
		conformable-subconforma			<b></b>			1				
		deep red gossan alteration	n, quartz cam	es internal								
<b></b>		fragments? Secondary mi				·····		[				
		yellow to red mineral poss								1		
		weak sericite alteration or						1	<u> </u>			
	1	content increases downh	ole,					1		-1		
								1	1	1		
16 3	24 0	ASH TUFF/ARGILLITE?			15 3	17 2	19	0.4	9	84	43	38
		very fine to fine grained th	nin bedded-thi	n laminated								
		ash tuff, strongly weather	ed-altered wit	h pervasive								
		yellow and selective-pervi	asive orange	stain, orange								
		stain typically controlled a	long thin lam	inations, interval								
		is bleached, possibly silic	a flooded with	h rare faint								
		clastic ghosts in backgrou	und, weakly to	moderately								
		pyritized with pyrite flood	of elongate le	inses-possibly								
		lapilli and finely dissemin	ated, bedding	85°tca, rock								
		is very soft overall, possit	bly reflecting	sericite								
		alteration that has been o	verprinted by	weathering,								
	1	local 10-30cm width plygr	mastic folding	h								
									1			

Hole ID F00-02 Page 2 of 3

From	То	Description	From	То	Length			Analyses (ppm)		
(m)	(m)		(m)	(m)	-	Ag	Cu	Pb	Zn	Ba
		17 2-17 9 QUARTS BANDS	17 2	17 9	07	12	12	43	42	51
		white to rusty guartz in 3 x 10-15cm thick bands, guartz	17 9	20.9	30	0.2	7	21	56	61
		appears to be within low angle fractures, vuggy, no	20 9	23 0	21	1.1	22	32	155	47
		sulphides, 45% quartz over interval, quartz associated								
		with rare carbonate,								
								I		
		23 0-23 5 FAULT/RUBBLE ZONE								
		strongly fractured, minor crush,								
24 0	25 0	FAULT	23 0	24.0	10	3.9	37	341	559	10
		small to medium clasts mixed with clay and fine crush,	24 0	25.0	10	4.7	24	306	504	6
		contacts sharp parallel to bedding,								
	<u> </u>					L		L		
25 0	28 8	BARITE HORIZON	25 0	26.5	15	12	21	726	2053	6
		pale grey, dense heavy, H 3 5 massive barite horizon with	26 5	28.8	23	59	18	104	1152	9
		20% dark green streaks -argillite, upper contact is								
		heavily pyntized over 15cm, with 1% finely		-						
ļ		disseminated pynte, rare internal quartz bands at								
L		60-70°tca, streaks align 80°tca at top of unit,								
		steepening to 50°tca at lower contact,								
28 8	29.4	FAULT/RUBBLE/QUARTZ VEINS	28 8	29 4	0.6	17.6	68	1238	1681	5
		strongly fractured angular clasts of pyritized thin				<u> </u>		1200		¥
		bedded trachyte?ashtuff and quartz mixed with fine				<u> </u>	<u> </u>			
		clean crush,					<u> _</u>			
· · · ·	-					ł				
29 4	33 5	THIN BEDDED VOLCANICLASTIC/	29 4	30 2	0.8	25 5	94	1156	5043	3
			30.2	31 8	16	41	90	4198	19688	<2
		as from 5 2-15 3m, thin bedded-laminated 65°tca, very	31.8	33 5	1.7	88.6	126	5619	23329	<2
		fine grained dark green matrix, possible bante replace-								
		ment, 3% finely disseminated pyrite from 29 7-30 2						<u> </u>		
		low angle quartz veins-quartz fracture fill with a					1			
	<u> </u>	few large coarse galena disseminations,				i	I	1		
						1		<u> </u>		
33 5	35 7	BARITE/SERICITE ZONE/FAULT/SHEAR	33 5	35 8	23	9.5	33	589	1305	8
	1	thin laminated barite- streaky argillite, in places rock is						1	1	
		fractured into poker chips mixed with grey sericitic						1		
		mud, 0 5% finely disseminated galena,						1	1	
								1	1	
35 8	38 1	as from 29 4 to 33 5	35.8	37 3	15	14 3	34	953	1286	5
	1		37 3	38 1	08	93	30	501	3972	4

Hole ID F00-02 Page 3 of 3

From	Το	Description	From	То	Length			Analyses (ppm)		
(m)	(m)		(m)	(m)		Ag	Cu	Pb	Zn	Ba
38 1		MINERALIZED HORIZON/INTERMEDIATE	38 1	41 1	30	1	10	42	323	39
		TO FELSIC VOLCANICLASTIC/								
		light to medium green to green-grey fine to very fine								
		grained matnx supporting subangular to subrounded								
		multilithic clasts, moderately silicified, clast size								
		ranges from 2mm-2cm across widest part, clasts include							····	
		fine grained volcanics, argillite? Quartz, possibly pyrite,								
		2% pyrite in fine diss , clasts, crude bedding-clast								
		imbrication at 70°tca, mm scale subconformable								
		sericite healed fractures, fracture density increases to								
		end of hole, silicification increases to end of hole,								
		clasts-fragments include chert, feidspar (augite?)								
		ghosts throughout,								
		END OF HOLE 41 1m/135								
		rods frozen in permafrost, 20' of rod, core barrel								
		assembly and core tube left in hole,								
-										
							1		L	
							1			
							1	1		
								1	Ι.	
					[		1	1		
			1						1	
								1		
									1	
								I		
							1	1		
			1		1	1	1	1		
			1	1	1	1	1	1		1

Hole ID F00-03 Page 1 of 3

Location	FIRE PRO	PERTY, PELLY MTNS , Y	UKON			SURVE	YS		Property	FIRE		
Azimuth		······································	Elevation	2002m	Metreage	Azimuth	Inclination	Corr Inclin	Claim No			
Inclination			Length	49 1m/161'					Section			
UTM		N / 635620 E	Core Size	BTW					Logged by	C DOWNIE		
	AUG 15.		1						Date Logged	AUG 15-16, 200	0	
	AUG 16,		t						Dalling Co	AGGRESSIVE		
		R CONTINUITY OF BARITE	HORIZON					1	Assayed by	NAL		
1												
Core Rec	overy			·····						···		· · · · · · · · · · · · · · · · · · ·
From	To	Descrip	otion		From	То	Length			Analyses (ppm)		
(m)	(m)				(m)	(m)	-	Ag	Cu	Pb	Zn	8a
		CASING/OVERBURDEN			5.2		30	02	15	18	96	102
<u>*</u>					8.2			0.2	20	13	57	102
62	19.2	THIN BEDDED VOLCANI	CLASTIC/		11.3			02	14	16	53	102
		MINERALIZED HORIZON			14.3			0.4	13	27	74	102
<u>├──</u> ───		medium grey to grey gree		athered, fine	17.4	19.2		0.5	13	114	72	102
		grained matrix supporting					<u> </u>			1		
		relict feldspar phenos, cor							1			
		generally fractured paralle										
····		chips,fractures generally s			+	··	†		1	-		
		with fine to medium disse			t		1	<u> </u>	1			
		replacement, local crenula							<u>†</u>	1		
	<u> </u>	0 5-3cm width conformab				<u> </u>	1	1				·
		bands with rusty to yellow					1	1				
		mineral?			<u> </u>					1		
							1	1				
19 2	24 5	ASH TUFF/ARGILLITE?/D	DARK GREE	4	19 2	21.8	26	06	11	72	194	102
		MUDSTONE			218	23 5	1.7	06	20	43	229	102
		very fine to fine grained th	hin laminated	ash tuff,				1				
		bedding-laminations 50°to	ca with conco	ordant poker	1			1				
		chip fractures strongly we	athered-aiter	ed with	Ι							
		pervasive yellow and orar	nge stein, po	ssible nodular -								
		lensold-barite, trace- 0 59	6 disseminat	ed pyrite, rock is	1							
		generally soft, possibly re	lated to pre v	veathering								
		sericite alteration,										
ļ	∔						+	<u> </u>				100
J		23 5-24 5		· · · · · · · · · · · · · · · · · · ·	23 5	24.8	13	12	43	73	112	102
	<u> </u>	strong clay alteration, stro	ongly fracture	d	<u> </u>		<u> </u>	<u></u>				
┣───	<u> </u>				+		<u> </u>	<u> </u>			<b> </b>	
							1	1				

Hole ID F00-03

Page 2 of 3

From	To	Description	From	То	Length			Analyses (ppm)		
(m)	(m)		(m)	(m)		Ag	РЬ	Zn I	Cu	Ba
24 5		MINERALIZED HORIZON/BARITE	24 8	26 5	17	99	64	1124	2085	102
		HORIZON			·					
		similar to F00-02 without massive barite on top of						11		
		interval, mixed barite and dark green streaky argillite?						tt		
		ash tuff?, 3% finely disseminated pynte, upper contact								
		is 20cm wide, clay rich gouge possible fault contact,								
·			·····							
26 5	27 2	FAULT/RUBBLE ZONE	26 5	27 2	07	62	35	284	237	102
		mixed streaky barite and grey gouge, lower 15cm is						1		
		yellow clay gouge-possible trachyte,			-					
									·····	
27 2	27 6	QUARTZ/BARITE/FAULT ZONE/RUBBLE	27 2	27 6	04	09	8	58	126	102
		mixed angular clasts of dense off white bluish and				· · · · · · · · · · · · · · · · · · ·				
		white bull quartz, barite carries disseminated galena and					r			
		possibly pale yellow-brown fine grained sphalerite,						1		
							,			
27 8	32 5	BARITE/MINERALIZED HORIZON	27.6	29.6	2	83	44	455	7015	102
		fine grained dark green streaky with 20% barite, 5-8%	29.6	32 5	29	71	28	414	694	102
		pyrite in finely disseminations and replacement features,					I	1		
· · · · · · · · · · · · · · · · · · ·		lower 1m is rubble-fault zone,					I			
32 5	34 7	VOLCANIC/SILICIFIED ZONE/HEALED BRECCIA	32 5	33 5	1.0	35	23	273	258	102
		/FAULT-RUBBLE ZONE	33 5	34 7	1.2	08	26	35	929	102
		yellow fine grained voicanic matrix supporting grey								
		quartz clasts? fragments?, quartz has fine pervasive								
		fracture and yellow matrix possibly representing					[	1		
		fracture fill, almost looks intrusive,								
34 7	45 4	TUFF/DEBRIS FLOW/MULTILITHIC BRECCIA	34 7	36.1	1.4	1	21	29	458	102
L			36.1	38.1	2	12	19	27	324	102
		fine grained dark grey matrix with distinct bright	38.1	40.5	24	0.8	17	19	123	102
L		orange weathering atteration of medium to large	40 5	43 3	28	13	20	45	268	102
K		subangular to angular fragments-clasts, clasts carry	43 3	44.0	07	1.3	11	45	57	102
		0 5-1% finely disseminated pyrite, matrix in places looks	44.0	45 4	14	15	12	68	147	102
	ļ	like lapiliae withmoderately developed flow banding-	45 4	48.1	27	16	14	106	333	102
<u> </u>		textures at 50°tca, rare large fractured very hard clasts	48 1	49.1	10	2.3	15	174	2140	102
	ļ	possible chart?,weakly developed low angle fractures	ļ	·			<b></b>			
	L	heated with orange weathering material, possibly					<b>_</b>			
J		sericite, as the interval plays out it appears to be a	ļ				<b>_</b>			
<b></b>		series of fine grained dark grey silicified trachyle beds	ļ		Į	ļ	I			
	L	with lapilli textures in part and 20% subrounded to			<u> </u>	L	<u> </u>		L	L

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Hole ID F00-03 Page 3 of 3

_										
From	То	Description	From	То	Length			Analyses (ppm)		
(m)	(m)		(m)	(m)		Ag	Pb	Zn	Cu	Ba
		subangular fragments separated by beds with high								
		percentage of fragments/clasts, generally with orange			l					
		weathering stain,								
		34 7-38 1 FAULT/RUBBLE								
		strongly fractured angular clasts mixed with muddy		ļ						
		crush,								
				ļ	L					
┝───┼		43 3-44 0 FAULT/RUBBLE ZONE			Ļ					
		silicified competent breccia fragments mixed with fine		<u> </u>	Į					
		crush and clay,			<u> </u>			l	1	
	-			ļ	ļ			l	<b></b>	
┢┉┈╾┝		44 0-44 2			ļ					
╘──────────		dark grey-black very fine grained interval, very hard			L		· · · · · · · · · · · · · · · · · · ·			
		looks like chert,								
				ļ	L					
45 4	49 1	MULTILITHIC BRECCIA								
		poorly sorted subrounded to subangular clasts								
┟───┼		supported by fine grained light grey to white matrix,	ļ	I						
		clast size variable from 2mm-2cm across wide axis, 2%	L	ļ						
┢───╁		finely disseminated pyrite, local pyrite replacement								
┣╼╼╼╼╋		of clasts, in places matrix has brilliant red gossan	L							L
╟───╁		type alteration,	L							
┢━━━╈										
╟───╁		END OF HOLE 49 1m/181'	L		l					
			L							
		L	L							
			L							
					L					
						1				
								1.	1	
										1
					I			1		
						1				

## Hole ID F00-04 Page 1 of 5

		DEDTY DELLY MINE Y	UKON		1	SURVE			Omeanty	EIRE		
		PERTY, PELLY MTNS , Y			<u> </u>				Property	FIRE		
Azimuth			Elevation	2002m	Metreage	Azimuth	Inclination	Corr Inclin	Claim No		· · · · · · · · · · · · · · · · · · ·	
Inclination			Length	60 0m/197'					Section			
		1/835820 E	Core Size	BTW					Logged by	C DOWNIE		· · · · · · · · · · · · · · · · · · ·
	AUG 16, 3		L						Date Logged	AUG 16, 2000		
the second second second second second second second second second second second second second second second s	AUG 17,		I						Dniling Co	AGGRESSIVE		
Purpose		ING STRIKE CONTINUITY	OF BARITE						Assayed by	NAL		
	HORIZON				1		i	L			••••	····· <u>·</u> ······
Core Rec												
From	Το	Descrip	ption		From	То	Length			Analyses (ppm)		
(m)	(m)				<u>(m)</u>	(m)	<u> </u>	Ag	Cu	Pb	Zn	Ba
00	4 3m/14'	OVERBURDEN/CASING										
43	88	ASH TUFF/ARGILLITE?/G	REEN MUDE	TONE?	43	68		<01	11	13	78	96
					68	8.8	20_	<0 1	14	19	44	76
		fine to very fine grained p		يستعد والمستعد المتحدي								
		red-orange volcanic, seric	itic fractures	in part, thin								
		laminated 70°tca,										
					1							
88	34 6	THIN BEDDED VOLCANI	CL'ASTIC/MIN	IERALIZED	88			<0 1	18	16	87	70
	1	HORIZON	_		11 3	14.0	2.7	<0.1	14	11	84	70
		medium grey to rusty (gos	saan) weathe	red fine grained								
		matrix supporting elongat	e clasts-fragn	nents and relict								
		feldspar phenos, thin bed	ded-laminate	d with								
		variable bedding with loca	al ptygmatic f	olding,								
		14 0-15 8 QUARTZ FLOO	D		14 0	15.8	18	<0 1	20	14	69	75
		lenses?bands of white to	gray quartz, s	strongly								
		sericitic margins and serie	cite flood thro	ughout, looks								
		very disturbed over interv	al with variat	ole bedding,								
		foliation, ptygmatic folding	g.									
15 80	34 60	158-348 THIN BEDD	ED/THIN LAN	INATED	15 8	18 0	22	<0.1	16	16	69	74
		VOLCANICLASTIC										
		as above with less clastic	content, 1-2	mm laminations								
		with alternating light dark	, rusty bands,	darker bands				1				
		have well developed feld										
	[	55°tca,strongly sericitic, a	oft,0 5% fine	disseminated								
		pyrite, rare pyrite laminati	lons,									
								1				
		18 0-19 2 FAULT/RUBBI	LE ZONE		18 0	19 2	2 12	<01	22	11	66	88
		0 5m core loss, quartz fra	agments mixe	d with muddy	19 2			<0.1	10	28	52	48
		crush,			22 1	24 9	28	<01	19	12	77	69

Hole ID F00-04 Page 2 of 4

	To	Description	From	То	Length			Analyses (ppm)		
(m)	(m)		(m)	(m)		Ag	Cu	РЬ	Zn	Ba
		22 1 INCREASE IN PYRITE	Ĩ	I	, <u> </u>			I		
		basically same unit as above with 1 5-3% pyrite as						1		
		laminations, disseminations, replacement of rare								
		clasts, bedding angles change from 60-65°tca above					· · · · · · · · · · · · · · · · · · ·			
		contact to 0-20°tcs below, red-orange oxide (gossan)							ł	
+		bedding - lamination selective, weak silicification,								
		24 9-25 5 FAULT/RUBBLE ZONE	24 9	25.5	06	01	13	12	80	102
		strongly fractured volcaniciastic fragments and quartz	25 5	28 5	3	01	15	10	66	86
		rubble mixed with minor red-orange gossan clay,	28 5	31 2	27	<01	14	9	77	90
		27 0 bedding angles more regular 50-70°tca,						†		
t	-							I		
		31 2-31 4 FAULT/RUBBLE ZONE	31 2	31 4	0.2	01	16	12	73	113
			31 4	33 1	1.7	03	19	14	80	57
		33 1-34 6	33 1	34 6	15	01	14	15	74	95
		transition between volcaniclastic-lapilli-ashtuff,						+		
+								+		
34 6	43 2	34 6-43 2 THIN LAMINATED ASH TUFF/						1		
		ARGILLITE?/GREEN MUDSTONE?	34 6	37.4	28	04	22	19	75	41
		very similar to above without clastic component, fine								
		grained thin laminated grey to grey green tuff, weakly						1		
		bleached, weakly silicified, sericitized fractures,						1		
		bedding laminations generally 50-70°tca with local						1		
		low angle intervals, bedding scale bedding selective								
		orange-red weathering stain in part, trace - 1% finely								
		disseminated pyrite, pyrite replacement of laminations,					1	1		
		weakly developed concordant to subconcordant white								
		to rusty quartz bands 0 5-2 0cm width, in places look						1		
		like fracture fill, weakly developed low angle mm sericite-					1	1		
		quartz fracture fill-microveins,					1	1		
								1		
		37 2-43 2 FOLDED SECTION	37 4	39 6	22	02	15	10	63	73
		core angles convoluted 0-30°tca	39 8	41 8	2.2	01	16	13	68	86
			41 8	43 2	14	03	16	21	124	52
43 2	60 7	BARITE HORIZON/MINERALIZED HORIZON								
	<u> </u>		40.0		4.5	13.7		619	2180	
43 2	45 9	BARITE HORIZON/THANK GOD/MIXED BARITE	43 2	44 7	15		39			3
	l	AND VOLCANICS	44 7	457	1	40	63	2205 7374	5958	<2
	1	fine grained dark green solf sencitic thin laminated	45 7	45 9	02	<u>41</u>	45	1314	15069	<2

Hole ID F00-04 Page 3 of 4

From	To	Description	From	To	Length			Analyses (ppm)	<u> </u>	
(m)	(m)		(m)	(m)		Ag	Cu	РЬ	zn I	Ba
	and the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second se	barite, well pyritized with 10% fine grained pyrite as		<u></u>	·					
		replacement of voicanics and within barite layers-								
		bands, bedding has settled down and is generally								
		consistant at 60-70°tca, 1% bright green barium								
		mica, weakly developed 0 5cm width conformable								
		white quartz bands,								
		45 7-45 9 FAULT ZONE/MUD/CLAY								
		mixture of grey mud and fragments of barite and fine								
		grained volcanics, probably drill derived in part,								
45 9	46 5	BARITE HORIZON	45 9	46 5	0.6	14 7	16	1161	4762	12
		massive, fine grained, dense, H 3 5 grey to white barite					······	1	······	' <u>-</u>
		with fine grained dark laminations, laminations in part are						1		
		fine grained pyrite, possibly as replacement of barite,								
		upper contact somewhat irregular with clasts of possible						· · · · · · · · · ·		
		internal sediments, 10% pyrite over interval, laminations								
	<u> </u>	60°tca,					1	1		
48 5	50 7	VOLCANICS/LAPILLI WITH BARITE	46 5	48 5	2	85	41	775	2133	3
		thin laminated fine to very fine grained dark to	48.5	50 7	2.2	15	44	52	295	11
		medium green volcanics, lapilli looking in part possibly								
		with some barite replacement of tapillae +/- quartz, 1%								
	<u> </u>	barium mica-bright green, 2-4% disseminated pyrite,								
		as local disseminations and replacement of fine grain-								
		grained matrix, strong to moderate sericite alteration,						1		
50 7	53 5	DARK GREEN VOLCANIC UNIT/TUFF/ASHTUFF	50 7	51 3	06	05	18	21	53	29
		dark green fine grained relatively homogenous unit,			1			T		
		weakly laminated 60-70° tca, thin lapilase features in								
		part, sericitic,								
51 3	517	FAULT/RUBBLE ZONE	51.3	517	04	2	30	18	23	28
		dark green-grey fine grained sericitized volcanic mixed	51 7	53 5	18	29	34	88	26	13
		with grey mud & crush,								
									ļ	
53 5	58 6	ASH TUFF/LAPILLI	53 5	55 2		16	20	38	13	19
ļ	<b></b>	fine grained medium to dark grey to grey-green,	55 2	57 0		18	21	38	11	16
<b></b>	ļ	homogenous unit, weakly developed lapilii features in	57.0	58 6	1.6	18	25	41	17	13
<b> </b>	L	part, weakly laminated-bedded at 80-85*tca,	L						ļ	
L	L	sericitic fratures-poker chip type fracture,			L	I	I		1	

Hole ID F00-04 Page 4 of 4

From	То	Description	From	То	Length			Analyses (ppm)		
(m)	(m)		(m)	(m)		Ag	Cu	Pb	Zn	Ba
58 6	60 0	FRAGMENTAL/TUFF	58 6	59 4	08	80	20	31	19	20
		mixed bag here, no real matrix, large (3-15cm along	59.4	60	0.6	09	17	123	28	42
		core axis) discordant clasts-fragments of pale yellow								
		fine grained volcanic with rusty brecciated quartz-								
		sericite banding, laminated at 90°tca and dark grey								
		pyntized fine grained weakly volcaniclastic tuff, fine								
		grained yellow unit has pervasive-selective rusty red								
		gossan stain and is in part brecciated, and has rare								
		pyrite replacement clasts,								
	_									
		END OF HOLE 60 0m/197'								
	_									
								,		
								1		
								Γ		
								1		
		I				1	1		1	

### Hote ID F00-05 Page 1 of 5

Location	FIRE PRO	PERTY, PELLY MTNS , Y	UKON			SURVE	YS	<u></u>	Property	FIRE		
Azimuth :	265*		Elevation	2002m	Metreage	Azimuth	Inclination	Corr Inclin	Claim No	····		
Inclination			Length	121 0m/397'					Section	<u></u>	····	
and the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second s		N / 635620 E	Core Size	BTW				· · · · · · · · · · · · · · · · · · ·	Logged by	C DOWNIE		
	AUG 17,								Date Logged	AUG 17-20.200	0	
	AUG 20,								Dailing Co	AGGRESSIVE		
	<u> </u>	02 which was lost when ro	ds froze in pe	mafrost.					Assayed by	NAL		····-
		aly source,test upper part of	•									···
Core Reco												
From	Ťo	Descrip	otion		From	То	Length		<u></u>	Analyses (ppm)		
(m)	(m)				(m)	(m)		Ag	Cu	РЬ	Zn	Ba
00		14' OVERBURDEN			<u></u>							
		H OVERBORDEN			·							
4 3	15.2	THIN BEDDED VOLCANIC		ERALIZED								
┢───┦		HORIZON?(ATNA)	CALCED FROM IN						<u> </u>			
		medium grey to grey-gree	n fine to medi	um oreined					<u> </u>			
		thin laminated-thin beddee							<u>}</u>			
		medium fragments and m										
		moderately weathered, sm							<u> </u>			
		ghosts, weakly sericitized		· · · · · · · · · · · · · · · · · · ·						1		
1		chip type fractures, beddir			[	<u> </u>			1			
		flattening downhole, mode					1		<u> </u>			
		selective red to rusty oran			<u> </u>		1					· · · · · · · · · · · · · · · · · · ·
		developed mm rusty low a				<u> </u>		[	<u> </u>	1		
1		finely disseminated pyrite							1			
		laminations, rare clast rep			<u> </u>				t			
					<u> </u>							
15 3	24 6	ASH TUFF/WEAK LAPILL	TUFF						<b> </b>			
		very fine to fine grained th		moderate to	<u> </u>	<u> </u>						
		strongly weathered ash tu			<u> _</u>				1			
		orange gossan-weatherin										
		developed as bedding sel			1							
		generally 85-90° tca with										
		folding, weakly developed				1	1	1	1	1		
		imbricated lapilli features						1				× · · · · ·
		grained medium grey wea			1	1	1	1		-		
		moderately sericitic, over			1	1	1	1	1	1	1	
	<u> </u>			· · ·	1	1	1	1	1		1	
		20 4 FAULT/RUBBLE ZO	DNE		20 4	22 3	19	<01	17	16	86	60
		strongly fractured, genera		bedding-		1	1	1			1	
	<u> </u>	taminations, in places mit			1	<u> </u>	1	1	1		l	
	t	1			1	1				1	1	
	l	22 3-24 6 QUARTZ BAN	DS-QUARTZ	FLOOD	22 3	24 (	3 23	15	17	48	254	19
	<u> </u>	strongly fractured rubbly i		and the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second se	1		-	1		1	[	

Hole ID F00-05 Page 2 of 5

From	То	Description	From	То	Length			Analyses (ppm)		
(m)	(m)	Description	(m)	(m)	Longu	Ag	Cu	Pb	Zn	Ва
	<u>`</u>	wide concordant to subconcordant quartz bands,		<u></u>		<u></u>				
		host is soft fine grained volcanic as below,								
		HOST IS SOLUTING GIALLING VOICALING AS DAIDW,							<b> </b>	
24 60	30 20	BARITE HORIZON								
24 6	25 6	BARITE HORIZON/HANGINGWALL	24 6	25 4	0.8	99	24	763	3588	6
		top part to 25 6 strongly fractured, rubbly, dark								
		green fine grained pyntized soft volcanic (argillite?)							_^	
	_	with barite laminations, poor recovery, contacts								
		Indistinct due to rubble,								
25 6	28 9	BARITE HORIZON	25.4	26 5	11	0	0	0	0	0
		white to gray H 3 5 dense heavy massive barite with	26 5	28 9	24	82	20	328	945	9
		10-50% Internal clasts? unaltered clasts?unreplaced								
L		clasts of fine grained dark green volcanic (argilite?)								
		with 10% barite in laminations, rarer lenses, soft friable								
		poker chip fracture,								
		28 9-29 3 FAULT/RUBBLE ZONE	28 9	29 3	04	10.8	43	116	182	6
		white to yellow quartz +/- bante fragments mixed with	29 3	30 2	09	14 5	66	422	1479	5
		green sericitic crush,					·			
30 2	31 3	FRAGMENTAL?/VOLCANICLASTIC?	30.2	31 3	11	47	66	7850	18032	<2
<b>— * *</b>		fine to medium grained generally large (2-10cm along						7850	10052	
┝━━━━━┥		core axis) clasts?fragments?of white to gray								
		quartz +/- bante with trace - 0 5% disseminated					l			
		galena separated by very fine grained thin laminated				·······				
		lapilli - ash tuff, generally a mixed up somewhat					•			
	·	disparate looking unit, 1% bright green barium mica,								
	···	adparate rooking unit, The Dright groot parant moat,	<u>├</u>				· · · · · · · · · · · · · · · · · · ·			
313	35 1	FAULT/RUBBLE ZONE	31 3	35 1	38	19.5	51	2166	2382	4
		80% poker chip "argilite" fragments, 40% crush and	1							
		grey mud,								
35 1	36 3	DARK GREEN VOLCANIC?ARGILLITE?MUDSTONE?	35 1	36 3	12	77	22	269	520	9
		fine grained dark green thin laminae crenulated in part,				ļ		ļ		
		rare lapilli, 5%streaky bante, lower contact rubbly,						<u> </u>		
36 3	44 7	VOLCANICLASTIC/FRAGMENTAL/MULTILITHIC	36 3	38 7	24	16	14	54	377	13
		BRECCIA	38 7	41 1	24		9	37	476	35
		medium to large lapilli clasts and lithoclasts in fine to	41 1	44 2			15	48	204	22

Hole ID F00-05 Page 3 of 5

From	То	Description	From	То	Length			Analyses (ppm)		
(m)	(m)		(m)	(m)	24rigai	Ag	Cu	ев І	zn l	Ba
┝━┛┈┷─┤		medium grained lapilii matrix, matrix has 3-5% fine	<u>````</u> /							
	<i></i>	grained pyrite as replacement of thin laminae and in								
		disseminations, lithoclasts include volcanics, porphy?								
		fsp porphyry?quartz (chert?), moderately silicified								
		increasing downhole, clast fragment size ranges from								
		2-3mm to 3-4cm across wide axis, generally				· ·				
		subrounded to subangular, moderate orange-yellow								
+										·
		selective-pervasive oxide stain,								
44 2	51.3		44.2	47 2	3	<0 1	3	13	204	183
	013	tan to brown fine to rare medium grained, massive	44 2	50 2	3	02	3	13	204	174
		clean, well silicified rock of uncertain protolith,	50 2	51 3	11	<01	6	34	535	109
		weakly developed low angle quartz +/- carbonate						- 34		108
		fracture fill, rare larger 3-5cm along core axis quartz						+	┝────┤	
		veins?fracture fill, upper contact sharp at 30°tca,		·····						<del></del>
		possibly subconformable contact, lower contact					<u> </u>			
	-					···				
·		sharp, conformable at 90°tca,								
513	97.2		51 3	52 6	13	04	10	40	44	29
<b></b>		TRACHYTE?		020						
		fine grained blue-grey to weathered yellow								
		moderately to strongly sificified matrix supporting						4		· · · · · · · · · · · · · · · · · · ·
		poorly sorted small to madium subangular to							i	·
· · · · · · ·		subrounded clasts-fragments-lapilli clasts, moderate						+		·····
		pervasive to selective pervasive bleaching, bedding	····				······	<u> </u>		
		weakly developed at 90*tca, strongly pyritized with						+		
		5-7% fine grained pyrite as replacement of laminations								
		in matrix, as replacement of clasts,		· · · · · · · · · · · · · · · · · · ·				+	ł	·
	· · · · ·			·····				+	t	
		52 6-53 3 FAULT/RUBBLE ZONE	52 6	53 3	07	17	21	100	79	9
		strongly fractured, moderately weathered angular clasts	53 3	53 8	05		22	71	36	12
		of volcaniciastic mixed with crush and some mud,	53 8	54 2		03	6	153	14	90
			54 2	57 4	32	11	21	57	117	15
		53 3-54 2 QUARTZ VEIN	57 4	59 4	2		22	76	851	14
		low angle bull quartz vein,						1		1
								1		
		59 4 Increase in pyrite content, est 8% fine grained	59 4	63 1	37	13	22	107	825	12
		pyrite as replacement of matrix, in disseminations,	63 1	65 6	25	48	76	573	3127	13
		replacement of fragments, clasts, rock also becoming				<u> </u>		1	]	
		increasingly silicified with strongly pervasive silica						T.		
		flood, possible o/p sericite?, in places est 15%						T		

Hole ID F00-05 Page 4 of 5

From	То	Description	From	То	Length			Analyses (ppm)		
(m)	(m)		(m)	(m)		Ag	Cu	Pb .	Zn	Ba
		pyrite over 30cm,								
		FREEZING RAIN HAS COVERED CORE								
		WITH ICE, BAD LOGGING JUJU								
		65 6-72 2 YELLOW "TRACHYTE" ALTERATION	65 6	67 6	2	62	162	128	802	15
		pais yellow pervasive-selective alteraition stain	67 6	69 6	2	42	104	99	1681	11
		associated with low angle quartz +/- carbonate fractures,	69 6	72 6	3	04	26	62	170	17
		72 2-73 2 MULTILITHIC TUFF/BRECCIA	72 6	73 2	06	02	23	41	208	21
		conformable 90°tca contacts, medium to large								
		subangular fragments-clasts in fine grained medium	73 2	75 3	2 1	05	20	51	252	19
		grey matrix, 10% fine pyrite flood,	75 3	78 3	3	<01	10	39	340	44
			78 3	79 9	16	04	7	31	123	26
		79 9-81 9 CARBONATE-QUARTZ	79 9	81 9	2	28	13	870	4756	30
		low angle fractures-veins with white carbonate +/-	81 9	84 4	25	02	3	18	100	99
		quartz, local carbonate plus or minus quartz flood,								
		81 9-92 5	84 4	87 8	_ 3 2	<0.1	4	19	70	79
		rocks somewhat browner in colour, less pyritic 2-3%	87 6	90 2	28	<0 1	10	29	1065	66
L		finely disseminated pyrite, pyrite laminations, pyrite								. <u> </u>
<u> </u>	l	replacement of clasts,		·						l
<b></b>										
<b></b>		90 2-91 6 CRYSTAL TUFF	90 2	916	14	02	12	19	39	88
	<u>                                     </u>	more massive unit, medium brown fine				l		L		l
		grained micritic looking interval, well silicified, 1% fine								L
	L	disseminated pyrite, contacts conformable,								
ļ	ļ					l		ļ		
	ļ	91 6-92 5	916	92 5	09	07	11	36	980	68
ļ		30% rusty yellow quartz +/- rare carbonate replacement						<b></b>		
		and irregular veins, host is tuff of some kind, 2% finely								
	·	disseminated pyrite,								
ļ	<b> </b>					<u> </u>				<u> </u>
	<b> </b>	92 5-93 4	92 5	93.4	09		19	66	78	40
I <u> </u>	<b></b>	strongly pyntized volcaniclastic, 15% fine grained	93.4	95 7	23	· · · · · · · · · · · · · · · · · · ·	10	45	32	44
<b> </b>		pyrite flood / replacement,	957	97 2	15	<01	9	22	29	42
J						<b></b>	······			
97 2	103 3	CLASTIC UNIT	97 2	99 7	25		11	14	63	92
┣────	<b> </b>	different looking unit, quite massive fine to medium	997	101 5	18		60	77	45	203
l	┟	grained, medium brown, silicified clastic unit of uncertain	101 5	103 3	18	09	25	25	69	123
	<u> </u>	protolith, trace - 0 5% finely disseminated pynte, a	L	L	L	<u> </u>		L	<u> </u>	<u> </u>

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Hole ID F00 05 Page 5 of 5

			_							
From	То	Description	From	То	Length			Analyses (ppm)		
(m)	(m)		(m)	<u>(m)</u>		Ag	Си	<u>Pb</u>	Zn	Ba
		couple of coarse clastic-fragmental 5cm thick interbeds,					-			
		contacts appear to be conformable,								
103 3	117 8	MIXED TUFF/FRAGMENTAL/VOLCANICLASTIC	103 3	104 8	15	1	15	57	415	48
		very similar if not equivalent to unit above 97 2, fine to	104 8	106 3	15	01	5	13	41	94
		very fine grained silicified medium grey to green-grey	106 3	107 8	15	02	4	13	43	104
		volcanic matrix supporting multilithic fragments, in	107 8	109 3	15	01	7	19	69	106
		places matrix has lapilii type textures, fragments	109 3	110 8	15	01	5	12	69	93
		include trachyte, quartz, fine grained volcanice, 1-2%	110 8	112 3	15	01	5	7	164	131
		fine grained disseminated pyrite with local pyrite	112 3	113 6	13	01	5	19	77	128
		flood up to 15% over 20cm, overall this unit has larger								
		clasts and higher matrix-clast ratio(I e less clasts),								
		bedding not particularly well developed @ 90° tca,								
		with concordant fragment-clast imbrication, overall unit								
		is less pyritic than above 97 2m,						_		
		113 6-114 2 FAULT/RUBBLE ZONE	113 6	114 2	06	<01	4	14	251	161
		drillers lose return, crush and mud, work to seal								
		fractures not successful,	114 2	116 1	19	05	12	244	1397	54
			116 1	117 8	17	<0 1	6	27	37	64
117 8	119 0	BRECCIA	117 8	1196	18	07	9	67	718	56
		fine grained grey angular to subangular volcanic clasts	1196	121	14	<0 1	6	50	97	30
		in breccia matrix of calcite +/- guartz, a couple of clasts								
		have disseminated galena,								
								<u> </u>		
119 0	121 0	THIN LAMINATED TUFF-LAPILLI TUFF								
									_	
		END OF HOLE 121 Om/397								
		ł					1			
I										
<u> </u>										
	1									1
	1									

#### Hote ID 100-01 Page 1 of 6

Location ICE PROPERTY, PELLY MOUNTAINS, YT SURVEYS ICE Property Azimuth 006\* Elevation 1460m Metreage Azimuth Inclination Corr Inclin Claim No Inclination 87\* 107m/351' Length Section ZONE 8 630969E / 6830092N C DOWNIE UTM Core Size BTW Logged by AUG 22 - 24, 2000 Started AUG 22, 2000 Date Logged Completed AUG 24, 2000 Dalling Co AGGRESSIVE Purpose TEST FOR VMS HORIZON ASSOCIATED WITH EXTENSIVE Assayed by NAL BARITE FLOAT Core Recovery From То Description From То Length Analyses (ppm) (m) Cu Pb (m) (m) Ag Zn (m) 4 6 CASING 0 0m 26 3 SYENITE/RUBBLE ZONE 46 very broken rubbly core, no pieces >8cm length, many redrilled fragments, subsurface is boulders, big jointed blocks, med grey silicified bleached fine to med grained intrusive, str\_selective-pervasive rusty weathering stain,trace disseminated pyrite, 24 20 26 30 2 10 17 13 158 219 26 3 28 6 TUFF? RUBBLE ZONE 26 30 28 60 2 30 36 5 225 818 distinct change in lithology, strongly bleachedaltered pale yellow, soft,fine grained, weakly laminatated volcanic, 70% of interval is rubble and mud which appears to be derived from volcanic unit, original grain textures masked by intense bleachingalteration (sencitization?) but there are faint possible lapilli ghosts 28 8 30 2 MULTILITHIC BRECCIA/DEBRIS FLOW? 28 60 30 20 1 60 28 6 181 290 cartoon type rock, med to large to small generally subrounded with occasional subangular clastsfragments supported by very little fine grained volcanic derived?matrix, strongly bleached, clasts include syenite, abundant grey quartz, fine grained volcanic tuffs, possible lapilli, crystal tuff?, much of the fine volcanics has pale green colour, trace dissemiated pyrite,upper contact sharp against bleached unit above, syenite is pink to grey with feldspar-homblende, 1% bright green barium mica, rock stains yellow with dilute HCI, 30 2 33 2 TUFF/LAPILLI TUFF WITH BARITE 30 20 31 70 1 50 54 24 526 284 fine grained generally med grey matrix supporting

Hole ID IQO-01 Page 2 of 6

From	То	Description	From	То	Lagath			A		
(m)	(m)	Description	(m)	(m)	Length	Ag	Cu	Analyses (ppm)	Zn	
<u>(III) 1</u>	(11)		(01)	(m)		<u></u>		P0	20	
		elongate dark grey to green tapilli, laminated-bedded						·		
		@85 *tca, strongly bleached,5% fine grained pyrite in					l	<b> </b>		
		fine diss ,as replacement of lapilli as replacement				<u>.                                    </u>	ļ			
		of matrix,3% barite as replacement of lapilit, barite					ļ	·		
		content generally increasing downhole						<b> </b>		
	·····									
		31 7-32 2 BARITE	31 70	32 20	0 50	50	20	147	317	
		semi massive grey bante with 5% fine grained pyrite						<b></b>		
		streaks,				· · · · · · · · · · · · · · · · · · ·				
								1	· · · · · · · · · · · · · · · · · · ·	
32 2	34 7	STRONGLY PYRITIZED DEBRIS FLOW	32 20	33 20	1 00	35	19	307	898	
		thin laminated unit with very distorted contorted	33 20	34 70	1 50	78	36	3190	12200	
		bedding contacts, fine to med grained grey to dark								
		green-grey laminations, 25% fine grained finely dissem-								
		inated pyrite as replacement of matrix, trace-0 5% finely								
		disseminated galena, rock is quite dense so there is								
		likely bante involved also,	_							
34 7	35 6	ASH TUFF	34 70	35 60	0 90	98	81	3490	10000	
		very fine grained thin laminated volcanic, weak lapili								
		textures, 5% small white phenos looking clay altered,								
		moderately sericitic,								
35 6	67 8	BARITE AND LOTS OF IT	35 60	36 30	0 70	21 0	90	2760	10000	
		medium grey to dirty white thin laminated massive to	36 30	37 80	1 50	297	117	7340	7020	
		semi massive bante, boxes-core tubes very heavy,	37 80	38 30	0 50	22 7	34	2530	1900	
		taminations variably developed at 80-90° tca with	38 30	41 20	2 90	84	32	1380	1620	
		pyrite, argillite? Insoluble residue? 2-5% fine grained								
		pyrite in disseminations-coarse patches, local flood-								
		taminations, interval has 3-5% fine black speckling								
		possibly organics or Charlie Greig's grey sphalerite,								
		1-2% bright green barium mica, interval generally well								
		fractured with rusty weathening on fracture surface,								
		weakly developed low angle fractures with thin bleaching								
		hatoes along margins, weakly developed small to medium								
		vugs,								
		41 2-42 2 FAULT, RUBBLE ZONE	41 20	42 20	1 00	75	21	3710	289	
		barite fragments mixed with yellow crush and mud,								

Hole ID 100-01 Page 3 of 6

·····			······							
From	То	Description	From	То	Length			Analyses (ppm)		
(m)	(m)		(m)	(m)		Ag	Cu	Pb	Zn	
45 0	_	45 0-46 1 FAULT, RUBBLE ZONE	42 20	43 60	1 40	4 1	66	925	2860	
		0 4m core loss, yellow mud and crush mixed with	43 60	45 00	1 40	70	65	1940	3180	
		clasts of grey green med grained sandy textured rock	45 00	46 10	1 10	25 9	13	2540	128	
		possibly altered intrusive?,					L			
							<u> </u>			
47 2		47 2-49 1 HEAVY PYRITIC ZONE	47 20	49 10	1 90	64	45	239	647	
		barite with 15-20% fine grained pyrite, rare galena,								
		possible blackjack sphalerite,					L	l		
			i							
		49 1-49 7 FAULT/RUBBLE ZONE	49 10	49 70	0 60	21.4	1205	8110	11300	
		fractured barite clasts mixed with minor grey crush and								
		mud, 20cm interval is bright white clean barite,								
49 7	50 6	BARITE REPLACEMENT? SHEAR?EXHALITIVE?	49 70	50 60	0 90	72	158	2180	1204	
		weird interval here, massive-semi massive barite with								
		15% buckshot pynte, 3% bright green barium mica,								
		moderately developed low angle foliation,								
50 6	52 7	BARITE REPLACEMENT/TUFF	50 60	52 70	_2 10	34	142	510	1570	
		semi massive barite replacement of weakly								
	_	volcaniclastic interval possibly an ashtuff, 15%								
		buckshot pyrite, moderate pale green alteration-flood								
		possibly chlorite,green mica?								
62 7	<b>56 7</b>	TUFF/DEBRIS FLOW	52 70	54 70	2 00	09	58	158	227	
		fine grained thin laminated to medium bedded volcanic	54 70	56 70	2 00	11	113	190	182	
		package, laminations 45-60° tca but possibly								
		represent rotated clasts, vuggy in places, weakly					<u> </u>		1	
		developed crosscutting quartz veins have pale yellow							<u> </u>	
		internal alteration & possible feldspar; 5% fine grained								
		pynte in laminations, local replacement and flood,								
								<u> </u>		
56 7	58 0	PYRITIC ZONE WITH SPHALERITE AND	56 70	58 00	1 30	28 4	1203	8620	56400	L
		GALENA						ļ	L	
		50-60% fine grained pyrite flood-replacement of host								
		rock of unknown type, 10% white bante in lenses, lam-						ļ	1	· ·
		inations, from 57 6-58 0 well developed sphalerite-			ļ			<b></b>	<u> </u>	L
		galena in laminations and coarse disseminations,					. <b>.</b>		L	
		estimated 20% combined over 40cm,					1		L	l
								1		

Hole ID	100-01
Page 4	of 6

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From	то	Description	From	То	Length			Analyses (ppm)		
(m)	(m)		(m)	(m)		Ag	Cu	Pb	Zn	
58 0	58 8	FAULT/RUBBLE ZONE	58 00	58 80	0 80	10 2	143	1244	5610	
		gouge, grey clay								
58 8	_	BARITE/BARITE REPLACEMENT/	58 80	60 70	1 90	12 6	37	1738	9900	
		SHALERITE/GALENA	60 70	62 50	1 80	81	74	1046	3600	
		looks like barite replacement of volcanic unit, rock								
		textures suggest probable thin laminated tuff, 40%					L			
		massive to semi massive bante, 10-15% fine grained								
		pyrite flood,galena and sphalerite occur together in								
		lemination-patches,sphalerite is pale yellow and					l			
		somewhat difficult to identify due to very fine grained								
		nature and colloform-replacement type habit, however								
		gives distinct "rotten egg" (H2S) smell on addition of								
		dilute HCI, est 2-3% each from 58 8-82 5, laminations-								
┢───┤		bedding angles pretty good at 70-80°tca				·				
								[		
		62 5-62 8 QUARTZ	62 50	62 80	0 30	50	36	415	860	
		quartz flood, possibly over barite, with	62 80	64 40	1 60	76	105	828	3200	
	<u> </u>	0 5% blotchy disseminated galena,	64 40	66 00	1 60	5.5	48	369	1390	L
		66 0-67 8 EXHALITIVE	66 00	67 80	1 80	69	50	887	4020	
		thin laminated wavy distorted unit, well developed fine								
		grained selective along laminations, pale yellow					l		L	
		alteration, possibly sphalerite but gives only faint					<u> </u>	l		
		H2S smell on reaction with dilute HCI, est 25% over								
┣		section, ill ask Burke,								
<b> </b>							ļ	ļ		
╟────┥		67 8-68 4 SHALERITE/EXHALITIVE	67 80	68 40	0 60	12 7	75	2240	27900	
		wavy bante with taminations 0° tca, 5-6% pale yellow					<b></b>	ļ	L	
		sphalerite in colloform disseminations with galena and						ļ	L	L
<u> </u>		heavy pyrite disseminations					<b>_</b>	ļ	<b> _</b>	
							<b></b>	ļ	ļ	
68 4	72 2	GREY MUD	68 40	70 40	2 00	71	48	760	3090	
		well consolidated heavy (bantic?) grey fine grained mud,	70 40	72 20	1 80	78	56	860	3020	L
<b> </b>	, i	heavy pyrite dissemination in planes,	·					ļ	ļ	
									L	
72 2	73 5	BARITE	72 20	73 50	1 30	63	88	525	1467	
J		massive, grey, dense, 15% fine grained finely				L		ļ	<b></b>	
		disseminated pyrite, from 72 9-73 5 is Rubble Zone/			<u> </u>			ļ	<b></b>	ļ
<b> </b>		Fault Zone with grey mud and crush,					J	ļ	<b></b>	ļ
	<u>L</u>	[	I		I	l. <u></u>	<u> </u>	I	L	

Hole ID ICO-01 Page 5 of 6

From	То	Description	From	То	Longth			Analyzana (Anan)		
	(m)	Description	(m)	(m)	Length		Cu	Analyses (ppm) Pb	Zn	
(m)						Ag				
73.6	// 4	BARITE/PYRITE/EXHALITIVE	73 50	74 50	1 00	83	69	949	3760	
┣		semi massive barite with 30% fine grained pyrite flood,	74 50	75 90	1 40	12 3	82 53	1488	4770	
┣∔		pale yellow minaral possibly sphaterite? ~10%, in	10.90	11 40	1 50	10.4	53	1232	5910	
┣━━━━━┥		places barite and pyrite have crenulated wavy habit					•			
J+		with laminations parallel tca,					·····			
77.4	70.0	BARITE	77 40	78 60	1 20	19	23	118	450	
	70 0		(/ 40	/0 00	1 20	14	23	110	400	
<b>}</b>		semi massive to massive barite with 30cm strongly								
┣		silicified int in middle,								
70.0			70.00	70.00		7.0		4054	4400	
78 6	83 1		78 60	79 80	1 20	73	82	1054	4400	
┣───┨		thin laminated barite and pynte with distinct wavey	79 80	81 60	1 80	88	64	1543	3180	
		crenulated pattern, pervasive lamination selective	81 60	83 10	1 50	36	71	1073	2390	
		pale yellow mineral alteration? primary? possibly					·			
J		epidote					<b> </b>			
							h			
83 1	86 9		83 10	83 50	0 40	54	43	87	120	
		fine grained to sandy thick bedded tan-grey unit,looks	83 50	84 00	0 50	14:1	138	751	171	
		more clastic than volcanic, from 83 5-84 0 is white	84 00	85 00	1 00	61	60	195	722	
		vuggy quartz with trace disseminated galena, unit is	85 00	86 90	1 90	83	17	916	2150	
		finely crushed but competent over 20% of interval,	ļ							
							ļ			
86 9	90 2	TUFF? VOLCANICLASTIC? ALTERED SYENITE?	86 90	88 50	1 60		38	248	2210	
		TRACHYTE?	88 50	90 20	1 70	46	41	404	1430	
<b></b>		strongly altered difficult to discern original rock type,								
		fine to medium grained, generally equigranular rock,								
		15% fine pyrite dissemination, well developed selective-								
ļ		pervasive yellow "trachyte" type alteration,	L				L	L		
90 2	90 5		90 20	90 50	0 30	50	61	354	143	
		fine grained grey and white thin laminated-foliated unit,								
		moderate pynte flood,						L		
90 5	91 3	SWELLING CLAY	90 50	91 30	0 80	59	62	590	1690	
		grey well consolidated clay, "swelled up in core box-								
		increase in volume non bueno,								
91 30	92 10	TUFF?/EXHALITIVE/SPHALERITE	91 30	92 10	0 80	11.9	99	1830	6020	
		dark grey stronly pyritic fine grained rock with vague								
		laminae-volcaniclastic-tuff type textures,part of							1	
		interval has the wavy texture with very fine grained							L	

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of 6	

					l au att					
From	To	Description	From	To	Length	•-		Analyses (ppm)		
(m)	(m)		(m)	(m)		Ag	Cu	Pb	Zn	
		pyrite laminae, barite laminze and fine grained silver-								
		brown mineral, submetailic lustre probably sphalente,								
		gives rotten egg smell with addition of dilute H2S								
		laminations low angle tca,					ļ			
92 1		MIXED UNIT/EXHALITIVE	92 10	93 30	1 20	66	68	648	2780	
		well silicified-quartz flooded interval, nice fine grained					L			
		pyrite, wavy exhalitive laminations,					<b>_</b>			
		·····					ļ			
93 3		TUFF?/EXHALITIVE	93 30	94 80	1 50	31	57	243	776	
		strong pynte flood has masked much of onginal rock	94 80	96 20	1 40	21	73	106	251	
		textures, thin laminated tuff? 40-50% fine grained					ļ			
		pyrite flood, laminations generally low angle tca, local								
		barite-pyrite wavy textures,						<u> </u>		
96 2	96 5	CLAY					1	<u> </u>		
	-	swelling grey clay,								
							1			
96 5	107 0	TUFF?/EXHALITIVE	96 20	98 50	0 30	21	92	79	313	
		original textures better preserved, bedding-lamination	96 50	97 80	1 30	20	294	53	339	
		50-60°tca,thin laminated lapilli tuff, very fine grained	97 80	99 30	1 50	18	187	39	160	· · -
		matrix strong pyrite replacement of selective beds	99 30	100 80	1 50	22	105	49	181	
		laminae-lapiliae,local well developed wavy textures,	100 80	102 30	1 50	17	58	53	484	
		bedding very erratic in places, good pyritization to end	102 30	103 90	1 60	14	49	54	518	
		of hole,	103 90	104 90	1 00	17	47	98	82	
			104 90	108 00	1 10	23	63	248	41	
		104 4-104 8 swelling clay	106 00	107 00	1 00	27	70	271	35	
1	······	END OF HOLE 107m/351					1	1		
							T	1		
		hole stopped due to rods sticking in swelling clay zones								
		encountered over last 50',						1		
			1							
							1			
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	··						1	1	1	1
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			1		1		1	1	1	

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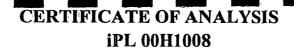
Appendix V

Analytical Results

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		73 :
- Pictures	۰ <u>-</u>	

INTERNATIONAL PLASMA LABORATORY LTD



2036 Columbia Street Vancouver, B C Canada V5Y 3E1 Phone (604) 879-7878 Fax (604) 879-7898

orthern Analytical Laborate	ories	134	Sample	S Out Aug 30, 2000 In: Aug 21	, 2000		379-7898 1:1 <b>9:03:00</b>	)083000]
hipper : Norm Smith hipment: PO#: 176741 Analysis:	B31100		TYPE Pulp Summar	PREPARATION DESCRIPTION Pulp received as it is, no sample prep.	NS=No Sample	Rep=Replicate M=	PULP 12M/Dis Month Dis	REJEC 00M/Di 5=Discar
ICP(AqR)30	## Code	e Method		Description	Element	Limit	Limit	
Comment: Document Distribution Northern Analytical Laboratories	01 0721 02 0711 03 0714 04 0730 EN RT CC IN FX 05 0703	L ICP L ICP L ICP	ppm ppm ppm ppm ppm	Ag ICP Cu ICP Pb ICP Zn ICP As ICP	Silver Copper Lead Zinc Arsenic	Low 0.1 1 2 1 5	High 99.9 20000 20000 20000 9999	) ) )
105 Copper Road Whitehorse YT Y1A 2Z7 Canada Att: Norm Smith	1 2 1 1 0 DL 3D EM BT BL 06 0702 0 0 0 0 0 071732 08 0717 Ph:867/668-4968 09 0747 Fx:867/668-4890 10 0705 AL@hypertech.yk.ca	2 ICP 7 ICP 7 ICP	ppm ppm ppm ppm	Sb ICP Hg ICP Mo ICP Tl ICP (Incomplete Digestion) Bi ICP	Antımony Mercury Molydenum Thallıum Bısmuth	5 3 1 10 2	999 9999 999 999 999	) ) )
LIII.IV	11 070 12 0710 13 0714 14 0704 15 072	) ICP B ICP 4 ICP	ppm ppm ppm ppm	Cd ICP Co ICP N1 ICP Ba ICP (Incomplete Digestion) W ICP (Incomplete Digestion)	Cadmıum Cobalt Nıckel Barıum Tungsten	0 1 1 1 2 5	99.9 9999 9999 9999 9999 9999	) ) )
	16 070 17 072 18 071 19 071 20 072	ICP           5         ICP           3         ICP	<b>nqq</b> nqq nqq nqq	Cr ICP (Incomplete Digestion) V ICP Mn ICP / La ICP (Incomplete Digestion) Sr ICP (Incomplete Digestion)	Chromium Vanadium Manganese Lanthanum Strontium	1 2 1 2	9999 9999 9999 9999 9999	<del>)</del> 9 9
	21 073 22 0730 23 0720 24 0700 25 0700	5 ICP 6 ICP 1 ICP	אפק pm ג ג	Zr ICP Sc ICP Ti ICP (Incomplete Digestion) Al ICP (Incomplete Digestion) Ca ICP (Incomplete Digestion)	Zırconıum Scandıum Tıtanıum Alumınum Calcıum	1 1 0.01 0.01 0.01	9999 9999 1.00 9.99 9.99	9 0 9
	26 071; 27 071; 28 072; 29 072; 30 071;	5 ICP 0 ICP 2 ICP	* * * * *	Fe ICP Mg ICP (Incomplete Digestion) K ICP (Incomplete Digestion) Na ICP (Incomplete Digestion) P ICP	Iron Magnesıum Potassıum Sodıum Phosphorus	0.01 0.01 0.01 0.01 0.01	9.99 9.99 9.99 5.00 5.00	9 9 0
						Λ,		





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	INTERNA	TIONAL	PLASMA I	ABORATORY	( LTD																							Fa			79-789		
Client Project	: Nor t: W.C	rthe ). 0	rn An 0103	alytica	al Li	abora	tor16	25	13	54 S: 134=6	ampl Pulp	es								[1	00811	:26:3	5:000	83000]			Aug 30 Aug 21	, 200	) `	É P	age	1 01	
Sample	e Name	9	Ag ppm			Pb pm	Zn ppm	As ppm p			Mo Ti opm ppr		Cd Ppm			Ba ppm (	W ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	T1 %	A1 *	Ca X	Fe X	Mg X	K *		P X	
17.3	· 21.4	5 P 8 P	0.3 0.2 0.6			41 46 54 91 67	12 64 39 81 41	11 < 13 8	<	~ ~ ~ ~ ~	2 4	< • < •	<pre> 1.0 3.1 3.1 3.8 3.8 4 4 4 4 5 5 5 5 6 5 6 5 6 5 6 5 6 6 6 6</pre>	5 3 11	17 8 20	260 20 51 16 93	~ ~ ~ ~ ~	79 87 100 65 19	12 6 5 9 3	24 68 35 184 860	13 13 20 59 56	10 6 16 22 157	5 8 9 26 8	1 1 1 1 1	< < <	D.13 D.16	0.03 0.05 0.02 0.41 16%	3.14 1.72 3.29	0.02 0.01 0.06	0.08 0.11 0.20	0.01 0.01	0.01 0.02 0.03	
24.7 25.2 26.0	- 26.0	2 P 0 P 6 P	0.5 < 0.1	20 11 9		35 80 17 29 56	32 21 5 3 7	< <	~ ~ ~ ~ ~	~ ~ ~ ~ ~	1 1 2	< · < ·	< 0.1 < 2.7 < 0.7 < 1.3 < 3.8	9 9 6	13 8 9	94 17 61 20 8		23 78 17 106 13	3 4 2 5	13	7 14 41 6 11	158 21 9 12 80	3 20 6 11 3	2 1 ~ ~	< < <	0.20 0.25 0.08	16¥ 0.29 0.12 0.05 0.60	2.81 0.92 1.76	0.01 0.01 0.01	0.17 0.17 0.08	0.01 0.01 0.01	0.03 0.06 0.05	
29.6 30.3 31 4	- 31.	3 P 4 P 1 P	2.9 0.5 1.7	17 46	16 3	49 52 59 59 67	3 20 5 16 7	<	~ ~ ~ ~ ~	< < < < <	7 3 6	< · · · · · · · · · · · · · · · · · · ·	< 2.1 < 15.( < 3.2 < 11.6 < 5.1	33 23 40	39 19 32	12 8	< 8 < 5	13 29 18 30 12	6 15 8 15 8	8 62 11 17 5	22 3 24 17 43	46 32 50 40 47	1 4 2 5 2	~ ~ ~ ~ ~	< < <	0.24 0.46 0.31	0.75 0.96 0.78 0.63 0.78	139 3.32 119	(0.01 0.02 (0.01	0.12 0.25 0.16	0.01 0.01 0.01	0.17 0.33 0.22	
35.4 36.8 37.5		8 P 5 P 3 P	0.6	25 27 5	1	136 81 107 9 34	12 6 5 3 3	<	~ ~ ~ ~ ~	~ ~ ~ ~ ~	7 5 2	< < <	< 11.( < 5.3 < 5.1 < 0.9 < 1.7	37 24 10	/ 45   27   6	7 10 81	~ ~ ~ ~ ~	22 14 11 3 5	14 10 9 4 5	48 44 18 7 9	33 48 49 61 14	70 55 48 45 47	4 14 13 4 3	< 1 < < <	< < <	0.46 0.41 0.39	1.33 1.30 1.10 1.01 0.85	4.86 4.61 0.53	0.02	0.25 0.23 0.21	0.01	0.32 0.35 0.39	
42.3 43.6 44.8		6 P 8 P 6 P	0.2	12 22 16	1	72 18 179 58 33	5 4 8 4 12	~ ~ ~ ~ ~	< <	< < < < < < < < < < < < < < < < < < <	1 5 3	< < <	< 3.9 < 1.4 < 4.0 < 1.9 < 0.9		) 5 ) 12 ) 14	34 5 20	5 < < < <	8 4 8 6 43	8 6 8 6 2	8 10 53 15 10	27 55 44 17 19	37 50 66 53 26	6 3	< < 1 1	< < <	0.47 0.46 0.47	0.68 0.76 0.97 0.81 0.05	1.33 4.12 1.63	0.02	0.29	0.01	0.29 0.25 0.37	
48.1 49.5 51.0	- 51.	5 P 0 P 2 P	0.9 0.2 0.3	26 10 15	i 1 ) ;	45 133 15 21 11	4 5 3 3 3	~ ~ ~ ~ ~	< < <	~ ~ ~ ~ ~	7 1 1	< < <	< 1.( < 3.; < 0.9 < 1.4 < 0.8	2 2 1 2	7 30 2 11 5 16	8 37 30	~ ~ ~ ~ ~	21 44	4 6 4 5 4	18	16 9 13 13 33	24 44 41 63 38	3	1 1 < 1	< < <	0.32 0.34 0.38	0.33 0.63 0.50 0.38 0.51	3.34 0.88 1.55	0.01	0.17 0.18 0.24	0.01	0.20 0.25 0.32	
52.5 54.0 55.2	- 56.	0 F 2 F 4 F		11 102	7 L 2 8	19 6 16 886 13	4 4 42 10	< < < < < <	< <	<pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre>	2 3 11	< < <	< 0.0 < 1.0 < 0.0 < 11.0 < 0.0	) 1: 7 2: 3 5:	) 18 5 75	82 97 8	~ ~ ~ ~ ~		7 6 5 14 7	51	40 49 48 10 31	72 48 55	1 2 12	1 1 1 1 1	< < <	0.55 0.52 0.34	0.92 1.20 0.97 1.16 1.56	0.74 0.65 11	0.03 0.03 0.02	0.31	0.01	0.46 0.35 0.29	
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8.1- 0.0- 1.4- 2.8- 4.3-	· 91 · 92 · 94	L.4 2.8 1.3	P	0.1 < < < <	12 3 3 3 3	14 5 4 6 2	51 29 41 43 29	<	< < < < <	< < <	4 4 3	< < < < <	< < < <	3.9 3.4 3.6 5.0 3.8	5 2 1 2 1	12 4 1 2	57 101 122	~ ~ ~ ~ ~	26 35	2 2 3	1097 1186 1305 1603 1444	21 29 24 57 59	84 76 118 33 21	3 2 2 4 4	1 1 1 1 1	< < <	0.41	. 1.97 3.05 3.05 3.081	3.21 3.23 4.80	L 0.4 B 0.4 D 0.3	40 0 48 0 31 0	).15 ).13 ).12	0.01 0.01 0.02 0.03 0.02	0.02 0.01 0.03	
15.6 17.0 19.7 10.8 13.2	99 100 103	).7 ).8 ).2		< 1.2 2.8	4 4 32 3 82	2 8 138 8 288	24 232 50 33 32	< < <		< < <	5 11 6	< < < < <	<b>v</b> v v	2.7 3.3 7.9 2.0 14.0	2 2 13 2 17	6 3 22 2 43	115 6 124	~ ~ ~ ~ ~	12	< 6 <	1318 1194 782 1138 201	42 39 7 24 2	77 53 80	3	2 2 1 1 <	< < <	0.19	2.78 1.91 3,33	2.03	30. 40. 10.	69 0 51 0 96 0	).13 ).11 ).13	0.02 0.01 0.01 0.01 0.01	0.02 0.02 0.02	
)4.9 )5.8 )7.3 )8.8 10.8	-107 -108 -110	7.3 3.8 ).8	P P P	0.5 0.2 0 5 0.6 0.5	14 9 12 17 10	40 18 40 47 90	13		<	< <	3 3 3	< < < < <	<b>v</b> v v	3.5 1.4 1 8 2.7 2.5	6 9 13 6	9 11 12 19 12	35 21 24	~ ~ ~ ~ ~	51 46 51	< < 3		24 19 21	28	12 8	1 < 1 1	< < <	0.10	50.89 70.40 30.70	) 1.4 5 1.6 3 2.2	20. 90. 50.	21 0 02 0 14 0	).14 ).12 ).13	0.01 0.01 0.01 0.01 0.01 0.01	0.09 0.17 0.13	
13.8	-115 -118	5.3 8.0	P P	0.5 0.2 0.1 0.2	10 9 6 10	15 6 7 6	3			< <	1 2	< < < <	< <	1.2 0.8 1.7 1 4	7	7 5	58 151 186 112	<	18 11	12	18 317 495 444	22 50	84	4 5	4	< <	0.3	) 1.43 3 3.23	8 0.50 2 1.40	B 0. D 0.	13 0 73 0	).20 ).24	0.01 0.01 0.01 0.01	0.10 0.10	
in Lu ax Re ethod No	port	ted*		ICP	ICP	ICP	20000	9999 ICF	, ICb	9999 ICP	ICP I	99 99 CP I	99 CP	ICP	9999 ICP	9999 ICP	9999 ICP	ICP	ICP	ICF	99999 99999	9999 ICP	9999	9999	9999	1.00	9.9	9 9.9	9.9.9	99.	99 g	9.99	0.01 5.00 ICP	5.00	-



# CERTIFICATE OF ANALYSIS iPL 00H1008

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Canada V5Y 3E1 Phone (604) 879-7878

-	Nort	her	n Anal	ytica		ratori	es	13	<b>34 Sa</b> 134=P	mple	s								<b>F1</b>	00811	.26.3	5:000	83000-	( 1	Dut:	Aug 3 Aug 2	0, 20	000	. <i></i>	879-78 Page Sectio	3	b of
mple			Ag	Cu ppm	Pb ppm	Zn ppm		Sb	Hg	Mo T1				N1 ppm	Ba ppm j		Cr ppm	V ppm	Mn ppm	La	Sr	Zr	Sc ppm	T1	A1	Ca	Fe	Mg		Na		
1.0-1 2.5-1 3.3-1 4.1-1 5.6-1	23.3 24.1 25.6	P P P	0.8 0.5 1.0	18 38 23 32 40	26 112 66 140 323	7 14 16 8 12	< < < < < < < < < < < < < < < < < < <	~ ~ ~ ~ ~	< < < < < <	5 < 3 < 1 < 4 < 3 <	< < <	2.3 3.0 1.9 3.6 7.8	18 15 20	21 29 31 32 27	38 9 14 6 2	~ ~ ~ ~ ~	8 19 31 36 39	4	483 280 293 98 97	15 13 21 23 6	37 88 49 23 14	9 4 4 4 4	1 1 2 1 <	< < <	0.29 0.43 0.25	1.67 1 01 0.40	3.11 2.26 3.86	0.48 0.07 0.14 0.05 0.05 0.06	0.18 0.11 0.15	$\begin{array}{c} 0.01 \\ 0.01 \\ 0.01 \end{array}$	0.15	
8.5-1 0.7-1 1.5-1	28.5 30.7 31.5 33.5 35.8	P P P	0.3 1.2	18 12 55 45 26	79 24 140 119 40	10 12 13 9 9	< < < < < < < < < < < < < < < < < < <	~ ~ ~ ~ ~	~ ~ ~ ~ ~	1 < 2 < 5 < 4 <		2.7 1 9 7.4 5.1 1.9	10 16 21	14 13 23 32 16	2 4	~ ~ ~ ~ ~	34 43 19 29 33	4 4 6 4 3	439 508 75 95 262	14 25 3 16 23	38 58 21 17 31	3 3 3 3 3 3	1 2 < 1	< < <	0.20 0.11 0.19	1,45 0.32 0.41	1.53 7.48 5.25	0.27 0.38 0.05 0.05 0.07 0.18	0.16 0.09 0.14	$\begin{array}{c} 0.01 \\ 0.01 \\ 0.01 \\ 0.01 \end{array}$	0.11 0.08 0.09	3
8.2-1 8.7-1 0.9-1	38.2 38.7 40.9 43.4 46.2	P P P	0.3 1.2 < <	11 19 4 3 4	43 244 4 3 7	7 206 10 10 17	< 27 < < <	<	< < < < <	2 < 6 < 2 < 1 < <		1.3 3.9 1.3 2.0 2.3	24 3 1	<	37	~ ~ ~ ~ ~	18 10 11 17 16	9 3 2 2 2	498 9 482 394 713	15 21 79 67 <b>4</b> 5	33 9 65 57 83	2 16 3 2 1	1 < 1 1	< < 0.01	0.29 0.33 0.32	0.14 1.74 1.56	1.18 1.13 1.75	2 0.35 3 0.02 3 0.43 5 0.44 9 0.86	0.22 0.32 0.31	0.01 0.01 0.01	0.05	5 7 1
3.9-1 1.9-1 1.7-1	148.9 151.9 154.7 156.6 158.1	P P P	< < < < <	2 2 1 1 1	5 6 7 5	18 9 12 12 17	< < < < < <	< <	~ ~ ~ ~ ~	2 < 1 < < < 2 <		2. 2. 2. 1. 2.	2 1 5 2 9 1	3 < 1	1079 496 406 147 160	~ ~ ~ ~ ~	32 12 18 7 16	2 2 <		57 62 59 54 51	77 30 34 29 51	1 2 2 2 3		0 01 0.02 >	0.26 0.28 0.52	1 33 1.53 2.01	2.22 2.59 2.02	4 0.94 2 0.32 9 0.36 2 0.50 7 0.80	0.25 0.25 0.27	0.01 0.01 0.01	0.05	5 
9.6-1 0.5-1 2.1-1	159.6 160.5 162.1 163.7 165.4	P P P	< < < < <	3 1 1 2 1	4 < 8 5 5	11 9 32 26 27	< < < < < <	< <	~ ~ ~ ~ ~	1 ~ 1 ~ 2 ~ 4 ~	: < : <	1. 1. 2. 2. 2.	3 1 5 2 5 2	2 5 2	487 836 1682 698 786	~ ~ ~ ~ ~	16	< < 2	403 289 863 1186 997		112	3 3 6 4 3	< < 1 1 1	< < <	0.31 0.21 0.25	1.18 3.83 4.52	1.27 2.49 2.32	2 0.36 7 0.29 9 0.86 2 1.25 2 0.93	0.30 0.17 0.23	0.01 0.01 0.01	0.04	1 3 3
7.5-1 9.6-1 1.5-1	167.2 169.6 171.5 173.1 174.7	P P P	< < < < <	2 2 3 3	6 6 15 8 8	30 61 21 19 27		<	~ ~ ~ ~ ~	1 2 3 3	: « : «	2. 4. 5. 2. 2.	53 333 111	1 < 3	1516 1482 737 659 402	~ ~ ~ ~ ~	32 15 24	3 4 <	768 1484 561 607 868	74 54 84 69 55	86 88	4 4 4	1 < < < <	> 0.06 >	0.15 0.22 0.22	5.59 2.17 2.30	4.14 5.69 1.8	B 0.62 4 1.05 9 0.41 1 0.50 6 0.86	0.17 0.24 0.24	0.01 0.01 0.01	0.03	3 3 3
6.4-1 8.2-1 9.9-1	176.4 178.2 179.9 181.6 184.6	P P P	< < < < <	1 2 2 3	3 8 8 8 4	18 30 28 45 23	< < < < <	<b>v</b> v v	< < < < < < < < < < < < < < < < < < <	2 -	< • < •	2. 2. 1 2. 2. 2.	73 92 53	4 4 3	245 227	<b>v v v v</b>	36 26 30	2 2 2	633 1531 1257 1367 952	43 95 70	121 124	11 6 6	1 1 1 1 1	< < <	0.10 0 13 0.11	) 6.94 3 5 75 1 5.69	2.9 2 4 2.6	9 0.68 4 2.13 9 1.78 3 1.68 9 1.24	0.10 0.13 0 11	0.01 0.01 0.01	0.0	2 3 2
5.4-1 8.5-1	185.4 188.5 191.3 192.5	P		2 3 2 6	5 7 22 31	19 43 34 38	< < < <	<	<b>v</b> v v v	4 ·	< •	1. 1. 2. 2.	74 33	1	217 220 258 252	< < < <	23	2 3	627 1249 1272 1021		153	6 8	1 1 1 1	<	0.12	25.49 36.97	2.4 2.6	9 0.90 5 1.63 5 1.91 6 0.75	0.11	0.01	0.0	3 3
thod	orted		ICP	ICP	ICP	ICP	9999 ICP	ICP	9999 ICP	1 10 999 99 ICP IC Ne Rec	9 9999 9 ICI	) IC	9 9999 P ICP	9999 9999	99999 ICP	ICP	ICP	ICP	9999 ICP	ICP	9999	9999	9999	1.00	9.99	9 9,99	9.9		9.99	5.00	5.0	0

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2036 Columbia Street Vancouver, B C

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$\begin{array}{cccccccccccccccccccccccccccccccccccc$	mple Nam	me																										g ¥				
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	3.9-194. 4.8-197. 7.2-200.	.8 F .2 F .0 F	) < ) < , <	5 3 3	12 7 5	34 17 14	< < <	< < <	< < <	2 < 2 < 3 <	< < <	3.8 4.4 3.9	5 3 2	3 3 2	281 130	< < <	40 9 11	3 1416 3 1255 3 1736	36 68 73	168 46 50	3 2 3	1 1 1	< < <	0.26 0.49 0.47	4.45 2.49 3.35	3.04 3.84 3.63	1.0 0.8	70.1 40.3 70.3	4 0. 33 0. 31 0.	01 0. 01 0. 01 0.	03 04 04	
4.2-217.2       P       4       7       18       <	4.0-205 5.8-207 7.7-210	.8   .7   .6	ዮ < ዮ < ዮ <	5 4 6	10 6	20 16 16	< < <	< < <	< < <	3 < 8 < 5 <	· · · · · · · · · · · · · · · · · · ·	5.6 4.6 4.8	3 3	< 1 6	116 74	<pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre>	15 17 17	4 2570 3 2316 4 2023	49 31	61 36	2 4 2	< 1 1	< < <	0.37 0.54 0.33	4.89 3.77 4.34	4.84	1.1 1.0	80.2 80.2 50.2	25 O. 24 O. 26 O.	01 0, 01 0. 01 0.	03 03 03	
4.6-226.8 P < 5 15 16 < < < 6 < < 5.1 4 1 118 5 8 6 1679 58 70 3 1 < 0.35 4.13 3.99 0.86 0.30 0.01 0.07 6.8-227.1 P 0.2 14 21 8 < < 5 < < 2.5 13 12 55 < 14 7 725 19 53 6 1 < 0.38 2.14 2.59 0.36 0.29 0.01 0.09	4.2-217 7.2-219 9.7-222	7.2   9.7   2.1	ዮ < ዮ < ዮ <	4 5 10	7 45	18 24	< < <	< <	< < <	2 < 9 < 8 <	< < < < < <	4.8 5.5 5.3	3 4 5	2 4 14	92 302 78	<b>v v</b> <b>v</b>	5 57 15	4 2404 5 2369 7 1606	86 44 18	32 123	4 3	< 1 1	< < <	0.34 0.32 0.38	2.92 5.52 4.91	5.11 5.44 4.69	0.8 1.1 1.1	60. 00. 40.	27 0. 18 0. 21 0.	01 0. 01 0. 01 0.	03 04 03	
	!4.6-226 26.8-227	5.8   7.1			15 21					6 < 5 <	< < < <	5.1 2.5	4 13	1 12	118 55			6 1679 7 725	58 19	70 53	3 6											



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Page 1

WO#/00103 Certified by

	Sample #	Au ppb	
r	2.7-5.2	13	
r	17.3-18.5	9	
r	18.5-19.8	11	
r	19.8-21.4	12	
r	21.4-23.0	12	
r	23.0-24.7	14	
r	24.7-25.2	13	
r	25.2-26.0	12	
r	26.0-26.6	11	
r	26.6-28.1	17	
r	28.1-29.6	11	
r	29.6-30.3	17	
r	30.3-31.4	7	
r	31.4-32.1	5	
r	32.1-34.0	7	
r	34.0-35.4	8	
r	35.4-36.8	12	
r	36.8-37.5	7	
r	37.5-39.3	11	
r	39.3-40.8	14	
r	40.8-42.3	6	
r	42.3-43.6	7	
r	43.6-44.8	6	
r	44.8-46.6	13	
r	46.6-46.8	12	
•	46.8-48.1	11	
r	48.1-49.5	10	
r	49.5-51.0	12	
•	51.0-51.2	11	
•	51.2-51.8	10	



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Page 2

WO#,00103 Certified by

	Sample #	Au ppb	
 r	51.8-52.5	7	
r	52.5-54.0	8	
r	54.0-55.2	6	
r	55.2-56.4	7	
r	56.4-57.5	9	
	57.5-58.9	11	
r	58.9-59.2	14	
r	59.2-60.9	14	
r	60.9-62.6	13	
r	62.6-64.1	10	
r	02.0-04.1	10	
r	64.1-65.6	5	
r	65.6-66.2	5	
r	66.2-66.4	10	
r	66.4-67.2	12	
r	67.2-67.5	6	
r	67.5-69.2	5	
r	69.2-70.7	10	
r	70.7-72.7	9	
r	72.7-73.7	9 5	
r	73.7-75.0	12	
r	75.0-76.5	13	
r	76.5-77.9	10	
r	77.9-79.2	10	
r	79.2-80.4	6	
r	80.4-81.7	7	
r	81.7-83.5	<5	
r	83.5-85.9	9	
r	85.9-86.1	9	
r	86.1-88.1	9	
*	88.1-90.0	8	



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Page 3

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	Sample #	Au ppb	
 r	90.0-91.4	5	·····
r	91.4-92.8	7	
r	92.8-94.3	7	
r	94.3-95.6	5	
r	95.6-97.0	9	
r	97.0-99.7	10	
r	99.7-100.8	11	
r	100.8-103.2	9	
r	103.2-104.9	10	
r	104.9-105.8	9	
r	105.8-107.3	8	,
r	107.3-108.8	8	
r	108.8-110.8	8	
r	110.8-112.4	8	
r	112.4-113.8	10	
r	113.8-115.3	8	
r	115.3-118.0	13	
r	118.0-121.0	8	
r	121.0-122.5	12	
r	122.5-123.3	11	
r	123.3-124.1	6	
r	124.1-125.6	6	
r	125.6-127.5	5	
٢	127.5-128.5	6	
r	128.5-130.7	8	
r	130.7-131.5	7	
r	131.5-133.5	7	
r	133.5-135.8	10	
r	135.8-138.2	12	
r	138.2-138.7	13	



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Page 4

WO#,00103 Certified by 1

		Au	
	Sample #	ppb	
r	138.7-140.9	10	
r	140.9-143.4	12	
r	143.4-146.2	9	
r	146.2-148.9	11	
r	148.9-151.9	9	
r	151.9-154.7	6	
r	154.7-156.6	9	
r	156.6-158.1	9	
r	158.1-159.6	8	
r	159.6-160.5	11	
r	160.5-162.1	<5	
r	162.1-163.7	11	
r	163.7-165.4	8	
r	165.4-167.2	5	
r	167.2-169.6	15	
r	169.6-171.5	16	
r	171.5-173.1	6	
r	173.1-174.7	8	
r	174.7-176.4	9 5	
r	176.4-178.2	5	
r	178.2-179.9	8	
r	179.9-181.6	11	
r	181.6-184.6	6	
r	184.6-185.4	11	
r	185.4-188.5	9	
r	188.5-191.3	6	
r	191.3-192.5	7	
r	192.5-193.9	10	
r	193.9-194.8	12	
r	194.8-197.2	13	



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Page 5

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		Certified by
Sample #	Au ppb	
197.2-200.0	6	
200.0-201.3	7	
201.3-204.0	10	
204.0-205.8	9	
205.8-207.7	9	
207.7-210.6	9	
210.6-213.0	12	
213.0-214.2	13	
214.2-217.2	7	
217.2-219.7	11	
219.7-222.1	8	
222.1-224.6	12	
224.6-226.8	9	
226.8-227.1	10	

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### **CERTIFICATE OF ANALYSIS** iPL 00H1071

2036 Columbia Street Vancouver, B C Canada V5Y 3E1 Phone (604) 879-7878 Fax (604) 879-7898

Northern - 10000115		77	Sample	s Out: Sep 06, 2000 In: Aug 30	, 2000	[107116:2	8:00:00090600]
Project : WO#00116 Shipper : Norm Smith Shipment: PO#: 176743 Analysis:	B31100		TYPE Pulp Summan	PREPARATION DESCRIPTION Pulp received as it is, no sample prep.	NS≖No Sample		PULP REJECT /D1s OOM/D1s th D1s=D1scard
ICP(AqR)30	## Code	Method	Units	Description	Element	Limit	Limit
Comment: Document Distribution 1 Northern Analytical Laboratories EN RT CC IN EN RT CC IN	01 0721 02 0711 03 0714 04 0730 FX 05 0703	ICP ICP ICP	ppm ppm ppm ppm	Ag ICP Cu ICP Pb ICP Zn ICP As ICP	Silver Copper Lead Zinc Arsenic	Low 0.1 1 2 1 5	H19h 99.9 20000 20000 20000 9999
105 Copper Road         1 2 1 1           Whitehorse         DL 3D EM BT           YT         Y1A 2Z7         0 0 0 0           Canada         Att: Norm Smith         Ph:867/668-4           Fx:867/668-4         Em:NAL@hypertech.yd	BL 06 0702 0 07 0732 08 0717 968 09 0747 890 10 0705	ICP ICP ICP	ppm ppm ppm	Sb ICP Hg ICP Mo ICP Tl ICP (Incomplete Digestion) Bi ICP	Antımony Mercury Molydenum Thallıum Bısmuth	5 3 1 10 2	999 9999 999 999 999 9999
Lin.io.Leityper tech, y	11 0707 12 0710 13 0718 14 0704 15 0727	ICP ICP ICP	ppm ppm ppm ppm	Cd ICP Co ICP Ni ICP Ba ICP (Incomplete Digestion) W ICP (Incomplete Digestion)	Cadmium Cobalt Nıckel Barıum Tungsten	0.1 1 1 2 5	99.9 9999 9999 9999 9999 9999
	16 0709 17 0729 18 0716 19 0713 20 0723	ICP ICP ICP	ppm ppm ppm ppm	Cr ICP (Incomplete Digestion) V ICP Mn ICP La ICP (Incomplete Digestion) Sr ICP (Incomplete Digestion)	Chromium Vanadium Manganese Lanthanum Strontium	1 2 1 2 1	9999 9999 9999 9999 9999
	21 0731 22 0736 23 0726 24 0701 25 0708	ICP ICP ICP	ppm ppm X X	Zr ICP Sc ICP Ti ICP (Incomplete Digestion) Al ICP (Incomplete Digestion) Ca ICP (Incomplete Digestion)	Zirconium Scandium Titanium Aluminum Calcium	1 0.01 0.01 0.01	9999 9999 1.00 9.99 9.99
	26 0712 27 0715 28 0720 29 0722 30 0719	ICP ICP ICP	*	Fe ICP Mg ICP (Incomplete Digestion) K ICP (Incomplete Digestion) Na ICP (Incomplete Digestion) P ICP	Iron Magnesıum Potassıum Sodium Phosphorus	0.01 0.01 0.01 0.01 0.01 0.01	9.99 9.99 9.99 5.00 5.00
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#### 1 **CERTIFICATE OF ANALYSIS** iPL 00H1071

2036 Columbia Street Vancouver, B C Canada V5Y 3E1

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Sample	Na	me		Aç ppr			Pb ppm	Zn ppm	As ppm	Słb ppm	Hg ppm (	Mo ppm p		B1 ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm		Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	۲۱ ۲	A1 لا	Ca X	Fe %	M	1g X	K X	Na X		
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F0-002 F0-002 F0-002 F0-002 F0-002 F0-002	17 17 20	.2·1 .9·2 .9·2	7.9 P 0.9 P 3.0 P	1.2 0.2 1.2		7 2	84 43 21 32 341	43 42 56 155 559	< < < 8	< < <	< < < < < <	11 5 3 6 7	~ ~ ~ ~ ~	< < <	5.6 4.7 4.4 4.9 9.0	8 7 8 11 11	20 39	38 51 61 47 10	~ ~ ~ ~ ~	7 54 25 25	4 3 6	1692 1531 1413 1467 1048	15 14 12 9 17	46 60 29 48 43	5 4 5 8	1 < 1 1	< < <	0.38 0.35 0.46	2.65 3.11 2.28 2.28 1.75	2.96 3.18 3.03	50.2 30.3 30.4	23 0, 33 0, 43 0,	.22 ( .21 ( .27 (	0.02 0.02 0.02	0.10	0 B B
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### CERTIFICATE OF ANALYSIS iPL 00H1071

2036 Columbia Street Vancouver, B C Canada V5Y 3E1

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Sampl	e Name			Ag pm	Cu ppm	Pb ppm	Zn ppm	As ppm p		Hg ppm p			Bı ppm	Cd ppm	Co ppm	N1 ppm	Ba ppm		Cr ppm	V ppm	Mn ppm		Sr ppm	Zr ppm	Sc ppm	T1 ג	A1 لا			e 1 K	lg ¥	K X	Na X		
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#### **CERTIFICATE OF ANALYSIS** iPL 00H1070

2036 Columbia Street Vancouver, B C Canada V5Y 3E1 Phone (604) 879-7878 Fax (604) 879-7898

orthern Analytical Laboratories	r	55	Sample	·	, 2000	[10	)7014:02:46:0	009010
pper : Norm Smith ipment: PO#: 176743	CODE 831100	amount 55	TYPE Pulp	PREPARATION DESCRIPTION Pulp received as it is, no sample prep			PULP 12M/D1s	REJ 00M/
alysis: CP(AqR)30	Ans	livtical	Summa	*V	NS≕No Sample	Rep=Replicate	M=Month Dis	s=D1sc
Γ(ΛμΛ)Ο	## Code	Method	Units	Description	Element	Lin	nt Limit	t
omment:						L	.ow High	h
	01 0721 02 0711	ICP ICP	ppm	Ag ICP Cu ICP	Silver	C	0.1 99.9	
	03 0714	ICP	ppm ppm	Pb ICP	Copper Lead		1 20000 2 20000	U N
ocument Distribution	-04 0730	ICP	ppm	Zn ICP	Zinc		1 20000	Ő
lorthern Analytical Laboratories EN RT CC IN 8 105 Copper Road 1 2 1 1	0	ICP	ppm	As ICP	Arsenic		5 9999	9
hitehorse DL 3D EM BT I	BL 06 0702	ICP	ppm	Sb ICP	Antimony		5 999	
TY1A 2Z7 0000 Ganada	0 07 0732 08 0717	ICP ICP	ppm ppm	Hg ICP Mo ICP	Mercury Molydenum		3 9999 1 999	
Att: Norm Smith Ph:867/668-49	68 09 0747	ICP	ppm	T1 ICP (Incomplete Digestion)	Thallum		10 999	9
Fx:867/668-48	90 10 0705	ICP	ppm	B1 ICP	Bismuth		2 9999	
Em:NAL@hypertech.yk.	ca 11 0707	ICP	DOM	Cd ICP	Cadmıum		1 00 4	0
	12 0710	ICP	ppm ppm	Co ICP	Cobalt	l	).1 99.9 1 9999	9
	13 0718	ICP	ppm	N1 ICP	Nickel		1 9999	9
	14 0704	ICP	ppm	Ba ICP (Incomplete Digestion)	Barıum		2 9999	
	15 0727		ppm	W ICP (Incomplete Digestion)	Tungsten		5 999	
	16 0709	ICP	ppm	Cr ICP (Incomplete Digestion)	Chromium		1 9999	9
	17 0729 18 0716	ICP ICP	ppm ppm	V ICP Mn ICP	Vanadıum Manganese		2 9999 1 9999	9 0
	19 0713		ppm PPm	La ICP (Incomplete Digestion)	Lanthanum		2 9999	
	20 0723	ICP	ppm	Sr ICP (Incomplete Digestion)	Strontium		1 9999	9
	21 0731	ICP		Zr ICP	Zirconium		1 9999	
	22 0736 23 0726	ICP ICP		Sc ICP Ti ICP (Incomplete Digestion)	Scandium Titanium	0	1 9999 .01 1.0	
	24 0701	ICP		Al ICP (Incomplete Digestion)	Aluminum		.01 9.9	9
	25 0708	ICP		Ca ICP (Incomplete Digestion)	Calcium		.01 9.9	9
	26 0712	ICP		Fe ICP	Iron		.01 9.9	9
	27 0715 28 0720	ICP ICP		Mg ICP (Incomplete Digestion) K ICP (Incomplete Digestion)	Magnesıum Potassium		.01 9.9 .01 9.9	9
	29 0722	ICP		Na ICP (Incomplete Digestion)	Sodrum		.01 5.0	
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### CERTIFICATE OF ANALYSIS iPL 00H1070

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Client : Project:	North	ern /		ytical		ratori	es	55	<b>Sa</b> 55=Pi	mple Jp	es									[10]	7014:(	02:46	:0009	0100]		t: Se : Au			0		age		of of	
Sample	Name			Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm (			Mo ppm p			Cd ppm	Co ppm	N1 ppm	Ba ppm (		Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	A1 لا				K			P X
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F0-005 F0-005 F0-005 F0-005 F0-005	50.2 51.3 52.6 53.3 53.8	- 52. - 53. - 53.	6 P 3 P 8 P	1.7 1.4	6 10 21 22 6	34 40 100 71 153	535 44 79 36 14	~ ~ ~ ~ ~	< <	<	10 4 10 8 3	~ ~ ~ ~ ~	< <	6.2 2.9 6.4 4.6 1.8	2 2 4 3 1	4 4 3 2 2	109 29 9 12 90	~ ~ ~ ~ ~	28 36 20 24 101	< < 4 2 <	921 25 33 22 17	44 37 42 24 34	55 19 32 11 26	5 11 14 15 4	< < < < < < < < < < < < < < < < < < <	< < <	0.23 0.28 0.21	0.49	2.71 6.12	0.92	0.23 0.27 0.16	3 0.01 7 0.01	1 0. 1 0. 1 0.	.01 .03 .01
F0-005 F0-005 F0-005 F0-005 F0-005	57.4 59.4 63.1	· 59. · 63. · 65.	4 P 1 P 6 P	1.4 1.3 4.8	21 22 22 76 162	57 76 107 573 128	117 851 825 3127 802	< < 10 5	< <	<	7 17 8 8 7	~ ~ ~ ~ ~	<	4.7 11.1 10.5 23.0 8.8	3 3 3 3 3			~ ~ ~ ~ ~	27 22 25 36 37		33 231 184 214 147	34 52 61 74 64	15 30 27 25 33	12 13 12 11 12	< < < < <	< < <	0.29	0.88	5.61 5.90 5.69	0.02 0.16 0.05 0.04 0.02	0.26	5 0.0 ) 0.0 7 0.0	1 0. 1 0. 2 0.	.02 .02 .03
F0-005 F0-005 F0-005 F0-005 F0-005 F0-005	72.6	· 72. · 73. · 75.	6 P 2 P 3 P	0.4 0.2	104 26 23 20 10	99 62 41 51 39	1681 170 208 252 340	<b>v</b> v v	27 < < < <	<	-	~ ~ ~ ~ ~	` < ~ < ~	22.1 6.6 4.8 5.3 8.0	4 3 3 3 3	4	11 17 21 19 44	< 55 < <	20 15 11 13 67	< 2 2	128 17 315 116 987		24 16 25 21 40	13 12 13 12 10	< < < < <	< < <	0.24	0.28 1.04 0.61	4.64 4.97 4.54	0.02 0.02 0.17 0.03 0.03	2 0.23 7 0.19 8 0.10	3 0.03 9 0.03 5 0.03	1 0 1 0 1 0	.02 .03 .02
F0-005 F0-005 F0-005 F0-005 F0-005 F0-005	79.9 81.9 84.4	- 81. - 84. - 87.	9 P 4 P 6 P	2.8	7 13 3 4 10	31 870 18 19 29	123 4756 100 70 1065	< < < < <	< <	< < < < <	3 1 2	~ ~ ~ ~ ~	< < <	3.0 35.4 2.1 3.5 8.1	3 2 2 3	1 2	79	<b>~</b> ~ ~ ~ ~ ~ ~	13 13	3 < <	221 1190 925 1270 1698	81 83 65 26 12		10 5 4 5 15	< < < < <	< < <	0.24	7.03 1.80 2.93	3.84 2.10 3.04	0.11 0.51 0.53 0.53 0.86	0.14 0.14 0.23 0.19	4 0.0 2 0.0 9 0.0	1 0 1 0 1 0	.02 .02 .02
F0-005 F0-005 F0-005 F0-005	91.6 92.5	· 92.	.5 P .4 P	0.7 1.0	12 11 19 10	19 36 66 45	39 980 78 32	< < < <	< < < <	< <	14	< < < <	< <	2.1 7.4 4.8 4.1	4 3 4 3	2 2 9 4	68 40	< < < <		2 2	1200 2645 1595 1462	32 7 6 6	105 62	14 14	< < < <	< <	0 10	5 9.48 5 5.03	4.18 4.55	1.24 3 2.99 5 1.63 1.48	9 0.1 3 0.1	2 0.0	1 0 1 0	.02 .02
Min Limi Max Repo Method No T	orted*		ufficu	ICP	ICP		20000 ICP	9999 ICP	ICP	9999 ICP	ICP 1	999 ICP	9999 ICP	ICP	9999 ICP	9999 ICP	9999 ICP	ICP	ICP	9999 ICP	ICP	9999		9999	9999		9.9	9.99	9.99	9.99	9 9.9	9 5.0	05	.00



## CERTIFICATE OF ANALYSIS iPL 00H1070

2036 Columbia Street Vancouver, B C Canada V5Y 3E1

Phone (604) 879-7878

IN	TERNATIO	NAL PLA	SMAL	ABO	RATORY L	10																							Fa	х (	604)	879-7	7898		
ent : ject:				aly	'tıca	Labo	ratori	es	55	55=P	mple ulp	es									[10]	7014:	02:46	:0009	0100]				, 200 , 200		1	Page Sect	ion	2 o 1 o	f f
mple	Name				Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm		Hg ppm	Mo ppm		B1 ppm	Cd ppm	Co ppm	Nı ppm	Ba ppm	W ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Tז ג	A1 %	Ca X	Fe X		}	K X	Na X	
-005 -005 -005 -005 -005	97.2 99.7 101.5	· 99 ·101 ·103	.7 .5 .3	Р Р Р	<pre> &lt;  0.1  2.5  0.9  1.0</pre>	9 11 60 25 15	22 14 77 25 57	29 63 45 69 415	< < < < <	< < 18 6 <	~ ~ ~ ~ ~	4 9 5 7 19	< < < < < <	< <	29 1.9 1.6 15 5.6	4 3 3 4 3	3 3 3 3 3 3	42 92 203 123 48	~ ~ ~ ~ ~	17 14 16 15 17	< <	556 776 765 672 1553	17 37 57 48 10	22 40 35 37 83	11 20 16 15 18	< < < < < <	< < <	).20 ).18 ).18	1.47 2.19 2.44 2.12 4.38	1.71 1.34 1.42	0.69	0.1 0.1 0.1 5 0.1	16 0. 15 0. 15 0.	.01 ( .01 ( .01 (	0. 0. 0.
-005 -005 -005 -005 -005	106.3 107.8 109.3	8-107 8-109 8-110	7.8 ).3 ).8	P P P	0.1 0.2 0.1 0.1 0.1	5 4 7 5 5	13 13 19 12 7	41 43 69 69 164	< < < < <	~ ~ ~ ~ ~	< < < < <	3 3 4 5 1	~ ~ ~ ~ ~	< <	2.7 2.4	3 4 5 3 3	2 < 4 2	94 104 106 93 131	~ ~ ~ ~ ~	11 10 14 12 8	< 2 <	790 1115 1255 1165 747	42 44 37 40 47	32 36 38 35 19	9 7 7 8 6	~ ~ ~ ~ ~	< < <	).21 ).22 ).22	1.63 1.64 1.58 1.82 1.00	2.21 2.70 2.37	0.50 0.50 0.69	30. 30. 50.	18 0. 19 0. 20 0.	.01 .01 .01	0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.
)-005 )-005 )-005 )-005 )-005	113.6 114.2 116.1	5-114 2-116 1-117	1.2 5.1 7.8	P P P	0.1 < 0.5 < 0.7	5 4 12 6 9	19 14 244 27 67	77 251 1397 37 718	< < < < < <	<	< < < < <		~ ~ ~ ~ ~	< < <	2.6 2.2 11.9 2.8 7.0	3 3 3 2	2 2 < < <	128 161 54 64 56	~ ~ ~ ~ ~	21 13 16 9 10	< < <	1499 1086 2083 2503 5909	35 35 54 19 9	42 40 77 57 95	10 6 8 10 6	< < < < < <	< < <	0.44 0.25 0 24	1.81 1.52 4.12 4.54 8.87	2.36 3.23 2.99	0.4 1.1 1.1	7 0.2 D 0. 5 0.	22 0. 16 0. 15 0.	.01 .01 .01	0 0 0
0-005	119.0	5-12	1.0	P	<	6	50	97	<	<	<	11	<	<	25	2	2	30	<	11	<	1189	137	37	10	<	<	0.27	2.36	2.78	0.3	70.	16 0.	.01	0



30/08/2000

Certificate of Analysis

# of pages (not including this page): 2

Bernie Kreft

WO# 00115

Certified by \_

Justin Lemphers (Senior Assayer)

Date Received: 23/08/2000

 SAMPLE PREPARATION:

 # of

 Code Samples
 Type
 Preparation Description (All wet samples are dried first.)

 r
 54
 rock
 Crush to -10 mesh; riffle split 200g; pulverize to -100 mesh

			Method (A:assay)		Lower	Upper
Symbol	Units	Element	(G:geochem)	Fusion/Digestion	Limit	Limit
Au	ррb	Gold	G: FA/AAS	15g FA / aqua regia	5	7000

AAS = atomic absorption spectrophotometry FA = fire assay

1000ppb = 1ppm = 1g/mt = 0.0001% = 0.029166oz/ton



105 Copper Road Whitehorse, Yukon Y1A 2Z7 Ph: (867) 668-4968 Fax<sup>-</sup> (867) 668-4890 E-mail. NAL@hypertech yk ca

	8/2000	Certificate of Analysis	Pag
		Bernie Kreft	WO#001/15
FO	00-05	C	ertified by
		Au	<u></u>
	Sample #	ppb	
r	20.4-22.3	<5	
r	22.3-24.6	<5	
r	24.6-25.4	5	
r	26.5-28.9	<5	
r	28.9-29.3	<5	
r	29.3-30.2	<5	
r	30.2-31.3	7	
r	31.3-35.1	<5	
r	35.1-36.3	<5	
•	36.3-38.7	<5	
	38.7-41.1	<5	
	41.1-44.2	5	
	44.2-47.2	<5	
	47.2-50.2	<5	
•	50.2-51.3	<5	
	51.3-52.6	5	
	52.6-53.3	8	
	53.3-53.8	<5	
	53.8-54.2	<5	
	54.2-57.4	<5	
	57.4-59.4	8	
	59.4-63.1	8	
	63.1-65.6	15	
	65.6-67.6	13	
	67.6-69.6	14	
	69.6-72.2	7	
	72.2-73.2	8	
	73.2-75.3	11	
	75.3-78.3	7	
	78.3-79.9	6	

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30/08/2000

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Page 2

WO#,00115 Certified by

<b>o</b> , , , ,	Au	
 Sample #	ppb	 <u> </u>
79.9-81.9	8	
81.9-84.4	7	
84.4-87.6	<5	
87.6-90.2	<5	
90.2-91.6	7	
91.6-92.5	9	
92.5-93.4	11	
93.4-95.7	10	
95.7-97.2	9	
97.2-99.7	13	
99.7-101.5	<5	
101.5-103.3	11	
103.3-104.8	15	
104.8-106.3	10	
106.3-107.8	6	
107.8-109.3	6	
109.3-110.8	7	
110.8-112.3	9	
112.3-113.6	12	
113.6-114.2	11	
114.2-116.1	13	
116.1-117.8	14	
117.8-119.6	13	
119.6-121.0	14	



08/09/2000

Certificate of Analysis

# of pages (not including this page): 6

Bernie Kreft

🔶 WO# 00134

Certified by

Justin Lemphers (Senior Assayer)

Date Received: 05/09/2000

Ŝ	SAMPL	<u>E PREPAR</u>	ATION:	
		# of		
	Code	Samples	Туре	Preparation Description (All wet samples are dried first.)
Γ	dc	67	drill core	Crush to -10 mesh; riffle split 200g; pulverize to -100 mesh

			Method (A:assay)		Lower	Upper
Symbol	Units	Element	(G:geochem)	Fusion/Digestion	Limit	Limit
Au	ppb	Gold	G: FA/AAS	15g FA / aqua regia	5	7000
Ag	ppm	Silver	G: AAS (BC)	aqua regia	0.1	50.0
Cu	ppm	Copper	G: AAS	aqua regia	1	10000
Pb	ppm	Lead	G: AAS (BC)	aqua regia	1	10000
Zn	ppm	Zinc	G: AAS	aqua regia	1	10000
Ag	g/mt	Silver	A: AAS (BC)	aqua regia	1.0	10000
Pb	%	Lead	A: AAS (BC)	aqua regia	0.001	#
Zn	%	Zinc	A: AAS	aqua regia	0.001	#

AAS = atomic absorption spectrophotometry FA = fire assay

BC = background correction applied

# No reporting limit. Interferences, solubility limits may limit accuracy of AAS at very high grades.

1000ppb = 1ppm = 1g/mt = 0.0001% = 0.029166oz/ton



Bernie Kreft

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WO#00134

08/09/2000

100-01

dc

dc

dc

Certificate of Analysis

Page 1

ICE PROPERTY

Sample #

24.2-26.3

26.3-28.6

28.6-30.2

Certified by Au Cu Pb Zn Ag ppb ppm ppm ppm ppm 14 1.7 13 158 219 13 3.5 5 225 818 2.8 10 6 181 290

uu	20.0 00.2	10	2.0	0	101	200	
dc	30.2-31.7	11	5.4	24	526	284	
dc	31.7-32.2	36	5.0	20	147	317	
dc	32.2-33.2	27	3.5	19	307	898	
dc	33.2-34.7	31	7.8	36	3190	>10000	
dc	34.7-35.6	43	9.8	81	3490	>10000	
dc	35.6-36.3	51	21.0	90	2760	10000	
dc	36.3-37.8	80	29.7	117	7340	7020	
dc	37.8-38.3	53	22.7	34	2530	1900	
dc	38.3-41.2	19	8.4	32	1380	1520	
dc	41.2-42.2	17	7.5	21	3710	269	
dc	42.2-43.6	20	4.1	66	925	2860	
dc	43.6-45.0	24	7.0	65	1940	3180	
dc	45.0-46.1	54	25.9	13	2540	128	
dc	46.1-47.2	27	6.0	112	2050	1042	
dc	47.2-49.1	47	6.4	45	239	647	
dc	49.1-49.7	25	21.4	1205	8110	>10000	
dc	49.7-50.6	31	7.2	158	2180	1204	
dc	50.6-52.7	32	3.4	142	510	1570	
dc	52.7-54.7	25	0.9	58	158	227	
dc	54.7-56.7	33	1.1	113	190	182	
dc	56.7-58.0	70	28.4	1203	8620	>10000	
dc	58.0-58.8	29	10.2	143	1244	5610	
dc	58.8-60.7	26	12.6	37	1738	>10000	
dc	60.7-62.5	24	8.1	74	1046	3800	
dc	62.5-62.8	19	5.0	36	415	860	
dc	62.8-64.4	24	7.6	105	828	3200	
dc	64.4-66.0	18	5.5	48	389	1390	



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Page 2

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Bernie Kreft

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Certified by

	WO	#001,34
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	<b>.</b>	Au	Ag	Cu	Pb	Zn	
	Sample #	ppb	ppm	ppm	ppm	ppm	
dc	66.0-67.8	19	6.9	50	887	4020	
dc	67.8-68.4	25	12.7	75	2240	>10000	
dc	68.4-70.4	19	7.1	48	760	3090	
dc	70.4-72.2	17	7.8	56	860	3020	
dc	72.2-73.6	19	6.3	88	525	1467	
dc	73.6-74.5	24	8.3	69	949	3760	
dc	74.5-75.9	25	12.3	82	1488	4770	
dc	75.9-77.4	29	10.4	53	1232	<b>59</b> 10	
dc	77.4-78.6	15	1.9	23	118	450	
dc	78.6-79.8	28	7.3	82	1054	4400	
dc	79.8-81.6	29	8.8	64	1543	3180	
dc	81.6-83.1	19	7.3	71	1073	2390	
dc	83.1-83.5	12	3.6	43	87	120	
dc	83.5-84.0	10	14.1	138	751	171	
dc	84.0-85.0	14	6.1	60	195	722	
dc	85.0-86.9	16	8.3	77	916	2150	
dc	86.9-88.5	16	3.1	38	248	2210	
dc	88.5-90.2	13	4.6	41	404	1430	
dc	90.2-90.5	24	5.0	61	354	143	
dc	90.5-91.3	24	5.9	62	590	1690	
dc	91.3-92.1	27	11.9	99	1830	6020	
dc	92.1-93.3	29	6.6	68	648	2780	
dc	93.3-94.8	32	3.1	57	243	776	
dc	94.8-96.2	33	2.1	73	106	251	
dc	96.2-96.5	64	2.1	92	79	313	
dc	96.5-97.8	37	2.0	294	53	339	
dc	97.8-99.3	33	1.8	187	39	160	
dc	99.3-100.8	31	2.2	105	49	161	
dc	100.8-102.3	31	1.7	58	53	454	
dc	102.3-103.9	30	1.4	49	54	518	

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Certificate of Analysis

2.3

2.7

63

70

Au

ppb

25

28

31

Page 3

Bernie Kreft

	Ce	ertified by	WO# 00134	34
Ag ppm	Cu ppm	Pb ppm	Zn ppm	
1.7	47	98	82	-

41

35

248

271

dc	103.9-104.9
dc dc dc dc	104.9-106.0
dc	106.0-107.0
dc	F00-02 30.2-31.8
dc	F00-02 31.8-33.5

Sample #

dc F00-04 45.7-45.9 dc F00-05 30.2-31.8

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Page 1

Bernie Kreft

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		·
Certified by	-1	

		Ag	Pb	Zn	
	Sample #	g/mt	%	%	
dc	24.2-26.3				
dc	26.3-28.6				
dc	28.6-30.2				
dc	30.2-31.7				
dc	31.7-32.2				
dc	32.2-33.2				
dc	33.2-34.7	7.7	0.32	1.22	
dc	34.7-35.6	10.2	0.34	1.00	
dc	35.6-36.3	21.0	0.29	0.90	
dc	36.3-37.8				
dc	37.8-38.3				
dc	38.3-41.2				
dc	41.2-42.2				
dc	42.2-43.6				
dc	43.6-45.0				
dc	45.0-46.1				
dc	46.1-47.2				
dc	47.2-49.1				
dc	49.1-49.7	21.7	0.79	1.13	
dc	49.7-50.6				
dc	50.6-52.7				
dc	52.7-54.7				
dc	54.7-56.7				
dc	56.7-58.0	28.6	0.83	5.64	
dc	58.0-58.8				
dc	58.8-60.7	12.3	0.17	0.99	
dc	60.7-62.5				
dc	62.5-62.8				
dc	62.8-64.4				
dc	64.4-66.0				



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08/09/2000

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Page 2

WØ# 00/134 Certified by

		Ag	Pb	Zn	
	Sample #	g/mt	%	%	
dc	66.0-67.8			<u>8,40</u>	
dc	67.8-68.4	12.7	0.26	2.79	
dc	68.4-70.4				
dc	70.4-72.2				
dc	72.2-73.6				
dc	73.6-74.5				
dc	74.5-75.9				
dc	75.9-77.4				
dc	77.4-78.6				
dc	78.6-79.8				
dc	79.8-81.6				
dc	81.6-83.1				
dc	83.1-83.5				
dc	83.5-84.0				
dc	84.0-85.0				
dc	85.0-86.9				
dc	86.9-88.5				
dc	88.5-90.2				
dc	90.2-90.5				
dc	90.5-91.3				
dc	91.3-92.1				
dc	92.1-93.3				
dc	93.3-94.8				
dc	94.8-96.2				
dc	96.2-96.5				
dc	96.5-97.8				
dc	97.8-99.3				
c	99.3-100.8				
jc	100.8-102.3				
1C	102.3-103.9				



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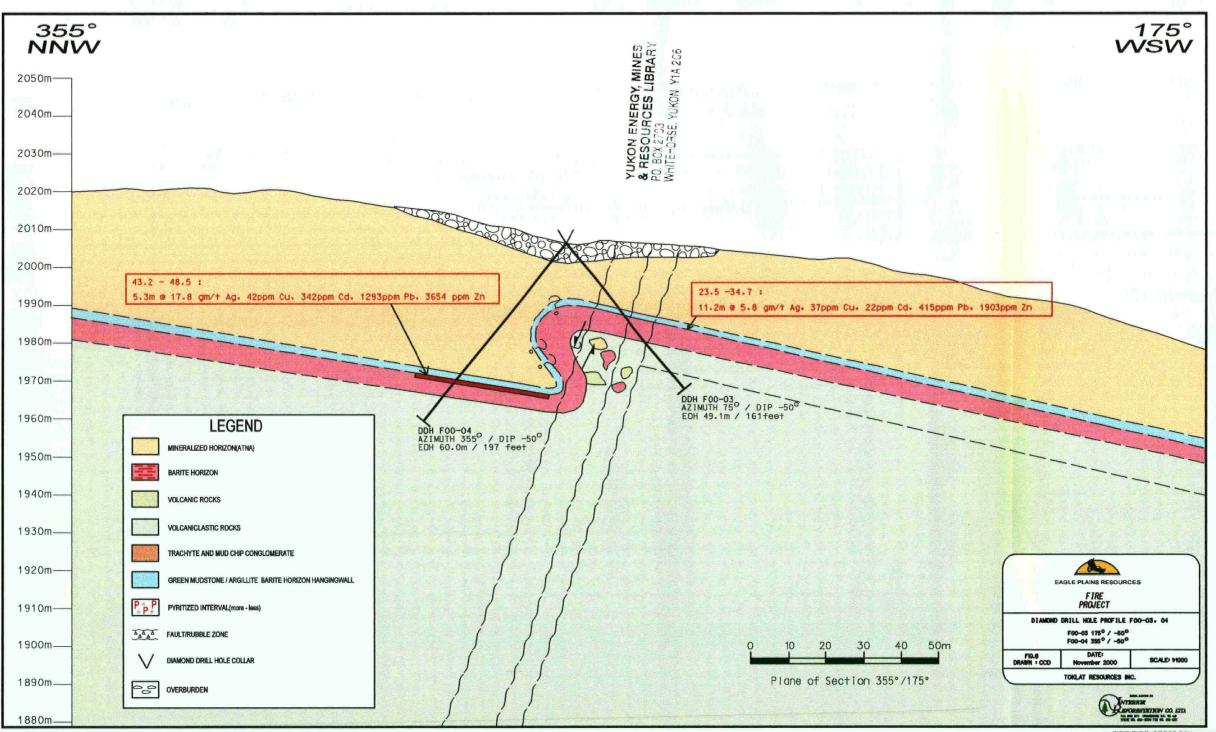
08/09/2000

Certificate of Analysis

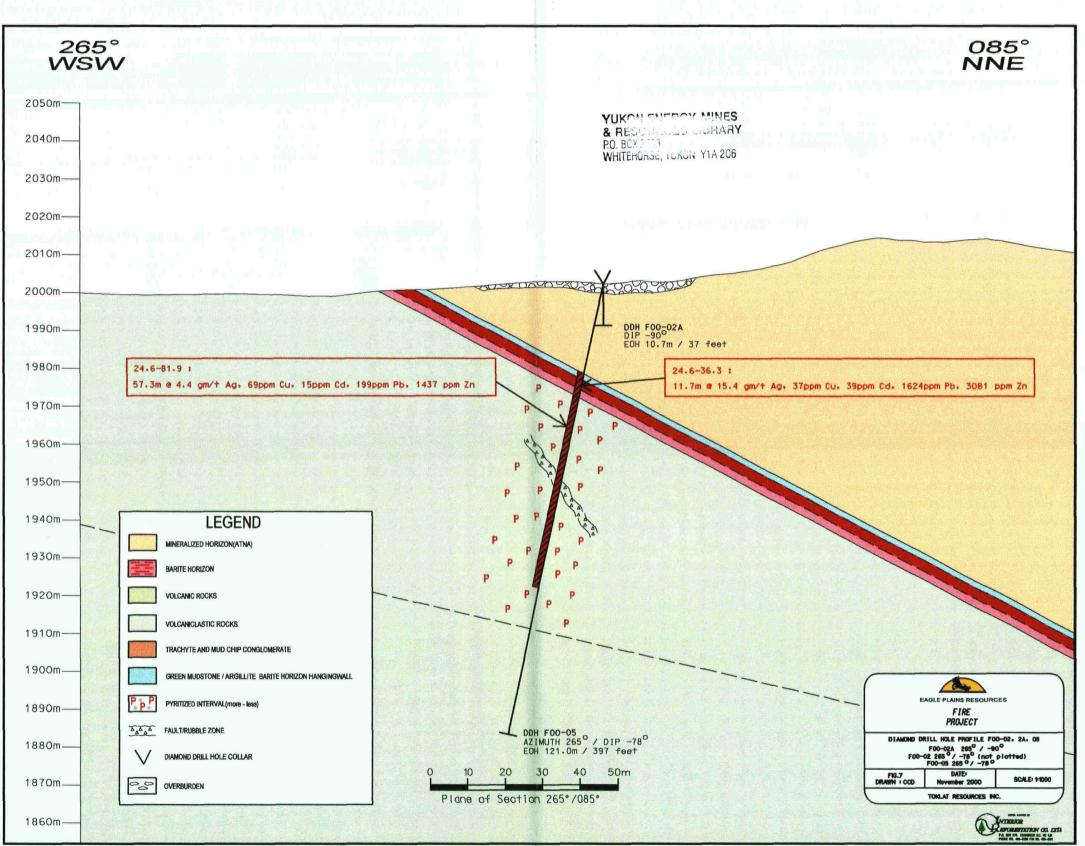
Page 3

WQ# 001/34 Certified by

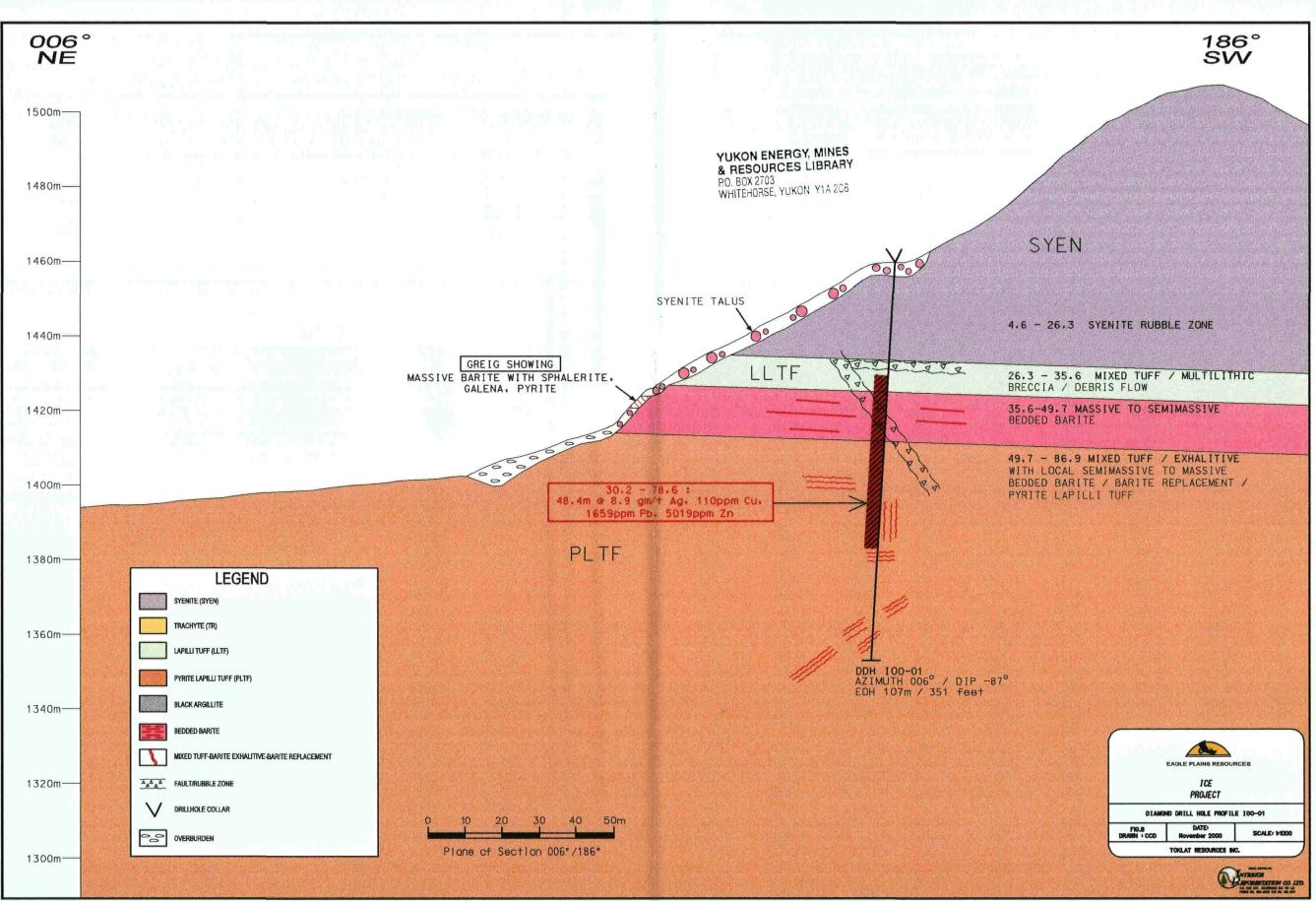
		Ag	Pb	Zn	
	Sample #	g/mt	%	%	
dc	103.9-104.9				
dc	104.9-106.0				
dc	106.0-107.0				
dc	F00-02 30.2-31.8	41.2	0.39	1.97	
dc	F00-02 31.8-33.5	72.8	0.50	2.38	
dc	F00-04 45.7-45.9	40.2	0.64	1.34	
dc	F00-05 30.2-31.8	45.0	0.71	1.74	



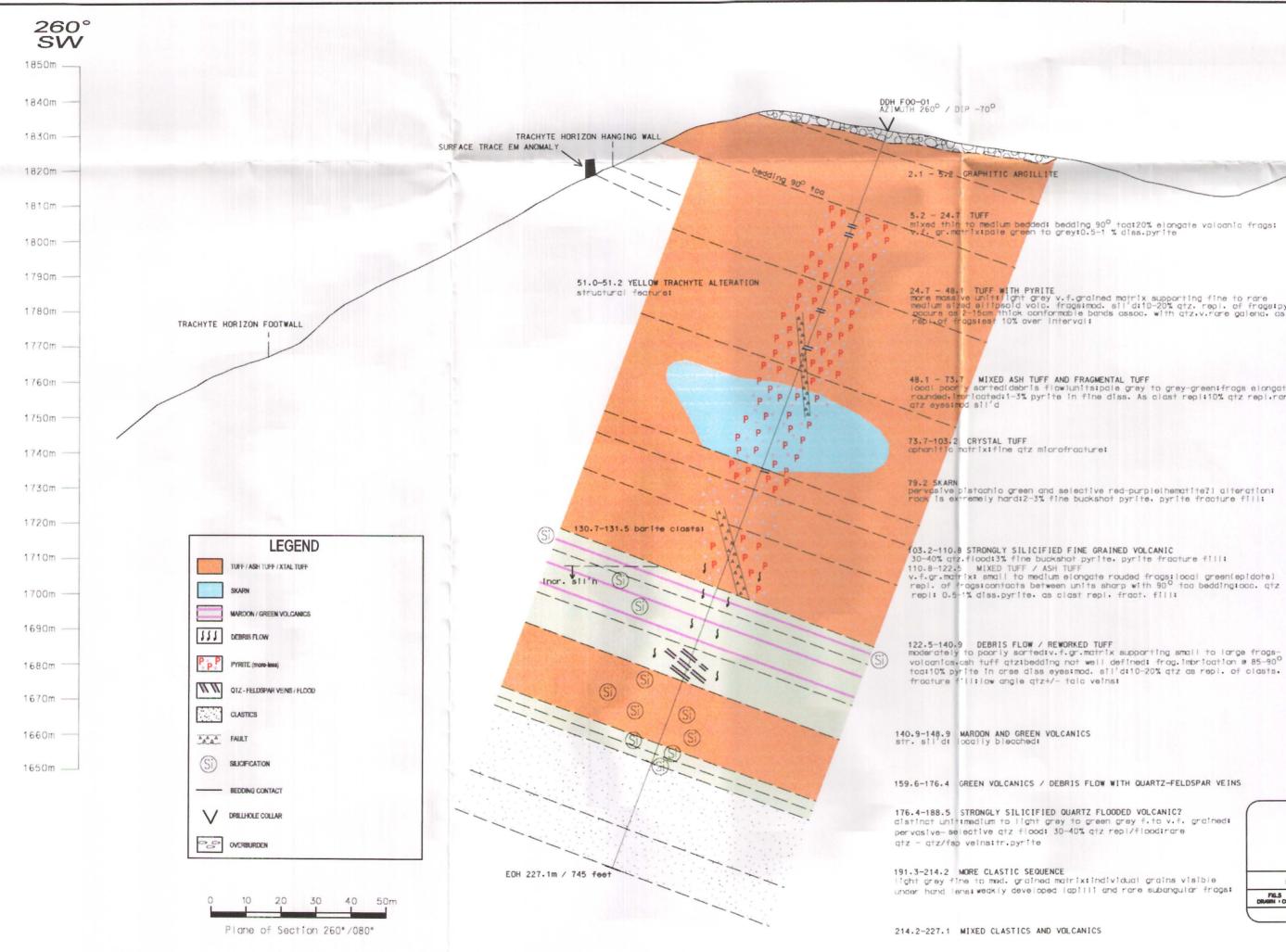
FIRE-FIRE-SECO2.DON



FIRENFIRE-SECOLDON



ICENICE-SECO2.DON



5.2 - 24.7 TUFF mixed thin to medium bedded: bedding 90° toat20% elongate volcanic frags; b.2. gr.matrixtpale green to greyt0.5-1 % diss.pyrite 24.7 - 48.1 TUFF with PYRITE more massive unit; 1] oht grey v.f.grained matrix supporting fine to rare medium sized ellipsoid voic, fragsimod, sil'd:10-20% dtz, repl. of fragsipyrite cocurs as 2-15cm thick conformable bands assoc, with dtz,v.rare galena, as repl. of fragsisst 10% over interval; iocdl poor y sorted(debris flow)unitspale grey to grey-greenifrags elongate rounded.impricated:1-3% pyrite in fine diss. As clast repl:10% qtz repl.rare Ty, prakty platachio green and selective red-purple(hematite?) alteration; rock is extremely hard;2-3% fine buckshot pyrite, pyrite fracture fill;

122.5-140.9 DEBRIS FLOW / REWORKED TUFF moderately to poorly sorted:v.f.gr.matrix supporting small to large frags-volcanics.csh tuff qtz:bedding not well defined: frag.imbrication # 85-90<sup>0</sup> toa:10% pyrite in orse diss eyes:mod. sli'd:10-20% qtz as repl. of clasts.

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distinct unitimedium to light grey to green grey f.to v.f. graineds pervasive-selective gtz floods 30-40% gtz repl/floodsrare

light grey fine to med. grained matrixtindividual grains visible



