1987 EXPLORATION REPORT

on the

HV PROPERTY

Groundhog Creek, Yukon Territory

Latitude 61°37'N Longitude 132°52'W

NTS 105 F-10

WATSON LAKE MINING DISTRICT

For Yukon Minerals Corporation Perrex Resources Inc. 510 Elliott Street Whitehorse, Yukon Territory YIA 2A5

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December, 1987

SUMMARY

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The HV property, in the Pelly Mountains of the Central Yukon, is south of Ross River and 9 km east of the South Canol Road on Groundhog Creek. The property lies within the Seagull Uplift, a domed assemblage of Lower Cambriac to Mississippian clastic, volcanic and carbonate rocks that were deformed during Mesozoic arc-continent collision and by mid-Cretaceous intrusion (G. Abbot, 1986). The claim block is primarily underlain by fault bounded blocks of recessive weathering shale and phyllite, and resistant dolomite. Numerous northerly and northwesterly trending normal faults traverse the area.

The Groundhog Creek district was initially prospected in the 1950s and 1960s. Canol Mines Ltd. acquired over 500 claims around Seagull Creek in 1969. Canol Mines completed extensive trenching and diamond drilling on several galena bearing fault zones that are now covered by the HV claim block. In 1986 Yukon Minerals optioned the HV property from H and P Holdings Ltd. of Whitehorse. In 1987 a program of prospecting, bulldozer and blast trenching and road construction was undertaken by Yukon Minerals Corporation; in August 1987 Perrex Resources Inc. entered into a subsequent agreement with Yukon Minerals whereby they can earn a 30 percent interest in the HV property by providing exploration funding.

Five main Ag-Pb showings and numerous galena-tetrahedrite bearing quartz veins and float trains were investigated. The mineralization occurs within or in close proximity to strong normal faults in Silurno-Devonian dolomite. At the south end of the property the PN and Lucky galena veins are exposed in two large cat trenches. The PN sulphide vein averages .5 m in width and is uncovered over a 33 m length. Silver values average 120 oz/t with 75 percent Pb. The Lucky sulphide vein also average .5 m in width and is uncovered over a 17 m length. Silver values average 92.5 oz/t with 66.7 percent Pb. Both sulphide veins occur in fault zones containing frozen limonitic gouge, quartzsiderite veins and dolomite fragments. The wall rocks are silicified and host many narrow blebs and stringers of galena with less sphalerite.

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In the east-central area of the property three showings previously examined by Canol Mines were exposed in large bulldozer and blast trenches. On the No. 3 fault zone a large galena vein, similar to the PN and Lucky, was uncovered over 14 m of length. Silver values average 64.9 oz/t and numerous narrow galena veins occur in the footwall dolomite up to 15 m east of the main sulphide vein. The No. 2 showing consists of galena veins and veinlets in fractured dolomite and guartz veins adjacent to a 2 - 3 m wide orange and grey gouge zone. Chip samples across the mineralized zone average 9.62 oz/t Ag and 11.1 percent Pb over 3.4 m, consistant with results obtained by Canol Mines. At the Groundhog showing patches and veins of galena occur in quartz and quartz-siderite veins in dolomite over a 8 x 20 m area. The best chip sample from this zone assayed 6.89 oz/t Ag and 13 percent Pb over 4.5 m.

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Many other galena and tetrahedrite occurrences were trenched and sampled on the property. Most require follow-up as permafrost prevented proper exposure of the mineralization. The highest silver value recorded in 1987 (501.0 oz/t) was taken on a claim line while adding to the HV block in late September. Large sections of the property, especially the new HV claims are underlain by favourable dolomite and have not been adequately explored. The potential for gold bearing massive sulphide mantos occuring in the HV area should not be overlooked in future exploration. A Phase I work program of continued surface exploration and diamond drilling at a proposed budget of \$650,000 is recommended to commence in May 1988. Contingent on the results of Phase I, Phase II and Phase III programs are proposed to include surface diamond drilling and underground exploration.

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INTRODUCTION

This report describes the results of an exploration program undertaken on the HV property (403 claims) by Yukon Minerals Corporation from May to November, 1987. The HV property is located 50 km south of Ross River and 9 km east of the South Canol Road on Groundhog Creek in the south-central Yukon Territory. The 1987 work program consisted of prospecting, geological sampling and mapping, extensive surface trenching and blasting, and upgrading and development of access roads.

Yukon Minerals Corporation acquired the HV property in 1986 from H and P Holdings Ltd. A subsequent agreement allows Perrex Resources Inc. to earn a 30 percent interest in the property by providing exploration funding.

Field operations were managed by M. Nielson and B. Buchanan of McCrory Holdings Co. Ltd. under the direction of T. McCrory (president) of Yukon Minerals Corporation. The writer and F. Marshall Smith, P. Eng., provided geological consultation.

LOCATION AND ACCESS

The HV property is situated in the St. Cyr Range of the Pelly Mountains 160 km northeast of Whitehorse and 50 km south-southwest of Ross River, Yukon Territory. The property is accessible by road from the South Canol Road which links Ross River to the Alaska Highway at Johnson's Crossing. The camp is located on the Groundhog Creek Road 9 km east of the South Canol Road. The total road distance from Whitehorse to the property is 300 km. Helicopter charter services are available in Ross River to provide access to remote areas of the claim block. Figures 1 and 2 show the property location.





YUKON MINERALS - PERREX J.V.			
HV PROPERTY			
LOCATION MAP GROUNDHOG CREEK, YUKON TERRITORY			
N.T.S.: 105 F/10	TECH.: G.D.	DATE: DEC., 1987	
SCALE: I: 250,000	DRAFTING: INTEGRAPHICS LTD	FIGURE: 2	

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PROPERTY

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1. Claim Description

The HV property consists of 403 mineral claims located on claim sheets 105 F-10 and F-11 as registered with the district mining recorder in Watson Lake. The following claims compose the property:

Table 1 Claim Data

		Number	Expiry	Da
Claim Name	Grant Numbers			
JEFF 1-4	YA45703-YA45706	- 0		
HI Grade	YA75137	(z)		
HV 1-13	YA90984-YA90996	-3		
HV 14- 16	YA98612-YA98614	-++		
HV 17- 66	YA99466-YA99515	6		
HV 67-118	YA99558-YA99609	6		
HV 119-134	YB00695-YB00710	Ð		
HV 135-194	YB01189-YB01248	78		
HV 197-214	YB01249-YB01266			
HV 215-262	YB01725-YB01772	Ø		
HV 263-268	YB01702-YB01707	7.00		
HV 270, 272, 274				
& 276-278	YB01708-YB01713			
HV 279-348	YB01773-YB01842	07		
HOG 1-38	YB00338-YB00375	0		
CARIBOU 1-3	89296-89298	13		
BEN 15	Y13597	14		
VER 1- 9	YA90975-YA90983			
VER 10-11	YA98610-YA98611	+		
VER 12-14	YB01843-YB01845	المہ		

Total Claims

403

Finiry Date

Yukon Minerals Corporation is acquiring a 100 percent interest in the JEFF 1-4, HI GRADE, VER 1-11, BEN 15, CARIBOU 1-3 and HV 1-66 claims under terms of an option agreement with H and P Holdings Ltd. The HV 67-348, VER 12-14 and HOG 1-38 claims were staked by Yukon Minerals to cover newly discovered showings. Collectively, the claims are known as the HV property. Perrex Resources Inc. has entered a subsequent agreement with Yukon Minerals entitling Perrex to earn a 30 percent interest in the HV property by providing exploration funds. Figure 3 shows the Claim Plan.

2. Physiography

The Pelly Mountains, south of the Tintina Trench feature long rugged northwesterly trending ridges separated by deep U shaped valleys. Pass Peak at 2162 m (7094') is the highest point in the district while Seagull Creek at 1180 m (3900') is the lowest elevation. From Pass Peak a system of north and west trending ridges averaging 1800 m (6000') in elevation extend through the area of the HV property. The ridge tops are generally rounded but valley walls are often steep with abundant outcrop. Glacial overburden and typical solufluction features cover lower slopes and valley floors. Bedrock exposure is limited (approximately 2 percent) to ridge crests and resistant dolomite outcrops.

Alpine areas feature sturdy grasses and moss while lower areas contain thick buck brush and sparse isolated stands of spruce trees. Permafrost underlies most of the property.

The Groundhog Creek area has a subarctic climate with maximum summer temperatures of 15° C and average winter temperatures of -25° C. Precipitation is moderate and the snow pack averages 1 - 2 meters. On the ridge tops high winds and sleet often hinder exploration work. The field season lasts from early June to late September.

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REGIONAL GEOLOGY

The Groundhog Creek area is underlain by Lower Cambrian to Mississippian carbonate and clastic rocks of the Cassiar Platform that was deformed during Mesozoic arc-continent collision, and uplifted during intrusion of the Nisutlin Batholith. This area known as the Seagull Uplift has been recently mapped and interpreted by G. Abbott of D.I.A.N.D. (published in Yukon Geology, Vol. 1). Figure 4 shows the regional geology.

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The oldest rocks in the area are Early Cambrian calcareous mica schist and marble which are overlain by late Cambrian and Early Ordividian phyllite containing some mafic tuffs and flows. The phyllites are in turn overlain by black graptolitic shale of Ordivician and Silurian age. These older rock units are recessive weathering and occur in valley bottoms and well rounded ridges.

Resistant weathering Silurian-Devonian dolomite, dolomitic siltstone and quartz arenite overlie the shales and phyllites. Buff, red and grey weathering dolomite form prominent cliffs and host most of the known Ag-Pb-Zn mineralization in the district. The dolomite unit is from 300 - 1500 m thick and contains three members: a basal sandy, silty dolomite with lenses of massive grey dolomite; a middle member of dolomitic sandstone and quartzite; and an upper member composed mainly of dark grey dolomite. Overlying the dolomites are Late Devonian and Mississippian black shales, chert and grit.

This sedimentary sequence is cut by numerous normal and thrust faults, formed during uplift of the Cretaceous Nisutlin batholith (Seagull Uplift). The faulting has left a complex assemblage of fault bounded blocks of dolomite, shale and phyllite. Ag-Pb-Zn mineralization generally occurs in quartz-siderite veins or limonitic gangue in normal faults cutting dolomite and at fault contacts between dolomite and black shale.



LEGEND

CRETACEOUS AND (?)EARLY TERTIARY

KTqfp Dark green, fine grained blotite-bearing mafic dikes. Minor quartz feldspar porphyry. Kg Homogenous, medium grained, biotite quartz monzonite.

LATE DEVONIAN AND MISSISSIPPIAN

Mv Undifferentiated felsic and mafic volcanics, hornblende syenite and black shale. uDMs Black shale, chert grit, and chert congiomerate.

SILURIAN, EARLY AND MIDDLE DEVONIAN

SDd	Buff, grey, and red weathering dolomite, with lenses
Ss.	Grey weathering platey, thinly laminated dolomitic.
Sa	Massive arev weathering quartz grenite.

ORDOVICIAN AND SILURIAN

OSsl Black, graptolitic shale, minor chert.

LATE CAMBRIAN AND EARLY ORDOVICIAN

uEOsl Grey-buff weathering thinly laminated calcareous phyllite. tuffaceous phyllite, with some matic tuffs, and flows. u60b Resistant dark green mafic flow or sill.

EARLY CAMBRIAN

IEcsl Grey weathering calcareous mica schist and marble.

Geological contact: defined, approx., assumed
Bedding: inclined, vertical
Foliation: phase 2, phase I, inclined, vertical
Steep dipping fault: sense of movement unknown: defined approx
Normal fault: defined, approx
Thrust fault: defined, approx

GEOLOGY FROM J.G. ABBOTT, YUKON GEOLOGY VOL, I

YUKON MINERALS - PERREX J.V.				
GROUNDHOG CREEK, TOKON TERRITORT				
N.T.S.: TECH.: DATE: 105 F/10 G.D. DEC., 1987				
SCALE: I: 50,000	DRAFTING:	FIGURE:		

EXPLORATION HISTORY

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The Lapie, Nisutlin and Ketza River drainages were first explored for placer gold deposits in the early 1900s. In 1907 several Ag-Pb-Zn veins were discovered near the Ketza River on the Iona Silver property. In the Groundhog Creek-Seagull Lakes area documented exploration started in the mid 1950s when the British-Yukon Exploration Co. conducted several seasons of prospecting. Harry and Pete Versluce on behalf of British-Yukon Exploration Ltd. located the Tet claim group in 1956 over galena veins. The claims were restaked several times by Versluce with the BEN and AG claims being vended to Canol Mines Limited. Canol Mines acquired 56 claims on the divide between Groundhog and Seagull Creeks in 1966. By 1969 the Canol Mines property consisted of 521 claims. Numberous Ag-Pb-Zn veins and lenses were located and tested in trenching and diamond drill programs. However. most of the sulphide occurrences proved to be of limited size and grade. The No. 1 vein (Silver Arrow) with reported reserves of 2558 tonnes grading 22.3 oz/t Ag, and 42.5 percent Pb was high graded in the late 1970s by Silver Arrow Syndicate.

In the Ketza River area, 30 km west of Seagull Creek, a small gold bearing orebody was outlined in the mid 1950s. This property is presently being developed by Pacific Trans Ocean and Canamax as the Ketza Mine with reserves of 1.1 million tonnes grading .4 oz/t Au. At Ketza several auriferous oxide and sulphide mantos occur in Lower Cambrian limestones on strong northwesterly trending faults. The ore zones are thought to be proximal to a buried intrusive responsible for uplift and faulting in the area (Ketza Uplift).

On the HV property the Caribou 1-3 claims were staked by Peter and Harry Versluce and optioned to Canol Mines in 1966. Canol Mines added the Ben 1-24 claims of which only the Ben 15 remains in good standing. Four kilometers to the south, the Jeff 1-4 and Hi Grade claims were staked in 1979 by H and P Holdings to cover several galena float trains. Initial samples collected by H. Versluce assayed 135.32 oz/t Ag. In 1981, Great Western Petroleum Corporation surrounded the Jeff 1-4 and Hi Grade claims with the Lorne 1-55 claims. Great Western conducted reconnaissance level rock, soil and stream sediment sampling over an area presently covered by the HV claim block. They reported silver values of 18.65 oz/t from a galena vein in a strongly faulted zone in dolomite. This showing is currently known as the Jill vein. Elsewhere Great Western found isolated occurrences of narrow fracture fillings and blebs of galena in dolomite with relatively low silver, values. Stream sediment and soil samples returned background to weakly anomalous values in Au-Ag-Cu-Pb-Zn. The Lorne 1-55 claims lapsed in 1983.

In May 1986 the HV 1-12 and VER 1-9 claims and in September-October 1986 the HV 13-66 claims were added onto the original block of H and P Holdings. A short blasting program (September 1986) on several galena float trains on the Jeff claims uncovered a 3 m wide zone of broken galena and frozen gouge which assayed 108.6 oz/t Ag. This vein called the PN vein was stripped and exposed over a 33 m length during the 1987 work program.

Presently in the Seagull Lakes District there are over 1700 mineral claims in good standing. Large blocks are being explored by Fairfield Minerals Ltd. (RAM property) and Cominco Ltd.

EXPLORATION PROGRAM

1. Introduction

The 1987 work program was initiated in mid-May when heavy equipment and a 12 x 40 ft trailer were moved onto the property. Camp was established on a tributary of Groundhog Creek in the centre of the claim block. Access road construction to the PN vein, and to the Nos. 2 and 3 showings of Canol Mines began in mid-June and stripping and blasting of the mineral occurrences started in early July. A crew of 7 to 20 people worked on the property from July to early November. Ampex Mining Corp. contracted the bulldozer and backhoe work, and McCrory Holdings Ltd. contracted the blasting, camp supply and prospecting work.

The priorities of the exploration program were:

- prospect and locate Ag-Pb-Zn showings and float trains;
- evaluate known Ag-Pb-Zn mineralization and new showings by blast and cat trenching;
- develop access roads to the showings; and
- sample and map bulldozer trenches and mineralized fault zones.

Five areas of interest, designated areas A, B, C, D and E were outlined by prospectors (Figure 5). Area A covers the PN, Lucky and Jill galena veins. Area B contains the No. 2 and No. 3 vein zones originally worked by Canol Mines Ltd. Area C covers mineralized fault zones and the old Groundhog showing. Areas D and E contain newly discovered sulphide veins.

2. Property Geology

Geological mapping was completed on a reconnaissance level and correlated with G. Abbott's map of the Seagul Uplift (Yukon Geology, Vol. 1, p 59). The claim block is underlain by Cambrian to Mississippian carbonates, clastics and volcanoclastics chopped into fault bounded blocks by strong normal and thrust faults. A few mafic and porphyritic dykes cut the sediments. Figures 6 and 7 show the property geology at 1:10,000 scale. The following rock types occur on the property:



Calcareous and tuffaceous phyllite (uEOs1): The oldest rocks on the property, of Upper Cambrian to Ordivician age, are recessive weathering phyllite which generally occupies low lying ground except where up-thrusted. Typically, they are grey to buff weathering, thinly laminated and very lusterous. Quartz veins and boudins are common. The phyllite contains minor pyrite and occasionally lenses or veins of massive pyrite-pyrrhotite.

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Phyllite outcrops along stream banks in the center of the property and as klippen along ridge crests in the north central part of the claims.

Black graptolitic shale, minor chert (OSsl): Fairly limited in the recessive weathering graptolitic shale extent. of Ordivician to Silurian age occupies valley bottoms and was only found along Groundhog Creek and in deep cat trenches excavated by Canol Mines, south and west of the Silver Arrow vein. The black calcareous shale unconformably overlies phyllite. Mineralization in the shales is very patchy and consists of lenses of pyrite and galena in close proximity to large quartz The only significant showing is on the adjoining veins. RAX-PAX claims, where a large area $(20 \times 70m)$ has been stripped of overburden. This exposes several narrow discontinuous lenses of galena occurring in fault or shear zones in the shale.

Dolomite, dolomitic siltstone and quartz arenite (SDd, Ss, Sq): Up to 1500 m thick, this resistant sequence of Silurian and Devonian carbonate and clastic rock underlies much of the property and outcrops extensively on steep valley walls. The carbonate sequence has been divided into three members; a lowermost grey weathering, thinly laminated dolomitic siltstone; a buff to grey weathering, thick bedded dolomite

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with massive quartz arenite lenses; and an uppermost red weathering, moderate to thick bedded, locally fossiliferous dolomite (G. Abbott, 1986). Fossils in the red weathering dolomite include Devonian age solitary corals and brachiopads.

Large cliffs of thickly bedded, shallow dipping dolomite are common on the property. The PN and Lucky veins in Area A are exposed on top of a large cliff. These vein fault structures can be traced down the outcrop in narrow linear gullies to the base of the cliff. The carbonates host quartz veins and lenses up to 10 m wide. Some of the larger quartz veins occur in normal faults while many others lie parallel to the regional structural trend N10-30°W.

On the HV property, dolomite hosts all the known Ag-Pb-Zn veins and lenses.

Black shale, chert grit and chert conglomerate (uDMs): The youngest sedimentary rocks on the property are Upper Devonian black to Mississippian graphitic shales. arits and conglomerates which are generally recessive weathering. Black shales lie in fault contact with dolomite beside the Groundhog showing in Area C. Chert grits and conglomerates containing small stretched chert pebbles in a graphitic matrix outcrop on a ridge top 500 m east of the PN vein. The shales and conglomerates occasionally contain quartz veins with minor galena and tetrahedrite.

Mafic and porphyritic dykes: Dark green mafic dykes up to 2 m wide occur in dolomite and phyllite in the southwestern part of the claims. The dykes are fine grained and locally silicify the host rocks. Also, a felsic porphyry dyke, striking 120° and vertically dipping intrudes dark grey dolomite between the PN and Lucky veins.

3. Structure

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The Pass Peak and Seagull Thrusts form the southern and northern flanks of a complexly faulted arch, the Seagull Uplift, which underlies the HV property. G. Abbott has interpreted three possible structural levels for fault bounded stata in this area. He writes "The pattern of faulting and uplift documented for the Seagull Uplift resembles that seen in the Ketza Uplift where fault orientations and overall sense of movement indicates local doming centered a short distance west of the Ketza River deposit (Yukon Geology, Vol. 1). A quartz monzonite plug located 5 km east of the HV property may be responsible for local uplift and the complex system of normal faults.

4. Mineralization

Mineral occurrences on the HV property consist of silver bearing galena veins with pyrite, tetrahedrite and lesser sphalerite in quartz-siderite gangue. Mineralization occurs over widths of up to 15 m, however massive sulphide lenses generally average .5 m wide. The massive sulphide lenses pinch and swell along fault zones containing frozen clay gouge, dolomite fragements and limonite. Numerous narrow veins of galena occur in footwall and hanging wall rocks up to 15 m from the vein fault. Silver to lead ratios in the galena veins range from 1:2 to 2:1. Accessory minerals include chalcopyrite, anglesite, cerrusite, scorodite, azurite, malachite and mimetite.

Five main mineralized zones were trenched and sampled during the 1987 work program. Numerous smaller galena and tetrahedrite bearing quartz veins and float trains were also explored. These showings are described by area in the following sections.

5. Description of Area A (Figure 8)

The PN. Lucky and Jill galena veins lie in Area A at the southern end of the HV claim block. A 5.5 km 4x4 road was constructed from the Groundhog Creek Road to access the showings. Also, 4.5 km of picket grid was established for geological mapping. Area A is underlain by Siluro-Devonian dolomite and younger black shale, grit and conglomerate. At least 6 northerly trending faults (Photograph 1) cut the dolomite on the cliff face beneath the main showings. Two of the fault zones separated by 130 m contain the PN and Lucky Trenching, stripping and blasting have exposed galena veins. mineralization over 33 m and 17 m strike lengths in the PN and The other four fault zones have been Lucky veins respectively. prospected and all contain veinlets and blebs of galena in guartz veins.

a) PN Vein

The PN vein (Figure 8A) is exposed in a large cleared area (50 x = 20 m) and on a lower bench at the cliff edge (Photograph 2). The PN fault has been traced down the cliff face for a further 100 m where it lies in a narrow, linear talus filled gully with small blebs and veinlets of galena on the gully walls. The massive sulphide vein, striking 175° and dipping steeply east, pinches and swells along the fault zone averaging .5 m wide. Along with the sulphides, the fault zone consists of limonitic quartz-siderite gangue and fragments of limonitic dolomite. The massive sulphide contains 70 - 90 percent galena, 5 - 20 percent tetrahedrite. up to 5 percent pyrite. minor chalcopyrite and sphalerite and 5 - 20 percent limonitic Accessory minerals include malachite, azurite and gangue. anglesite. Galena varies in habit from coarse cubic to banded fine grained.

The PN vein brecciates on the uphill face of the bench. After several meters the branches pinch out east of the main vein. The vein fault is surrounded by a weak alteration zone up to 3 m wide. Slight silicification and sericitization of wall rocks is common. Narrow galena and sphalerite veinlets also occur.

Thirty-four vein and wallrock samples were taken from the PN showing. Silver values reach a maximum of 297.5 oz/t and average 116.5 oz/t, lead content averages 65 percent. Footwall and hanging wall dolomite contains narrow galena veins up to 5 m away from the main vein. Several 1 m chip samples in the wall rocks obtained silver values of greater than 10 oz/t and lead content of +10 percent. Silver to lead ratios average 2:1. Figure 8C shows a detailed petrogenesis of the PN vein.

b) Lucky Vein (Figure 8B)

The Lucky sulphide vein occupies a 2-3 m wide fault zone which is exposed in a large trench (60 x 15 m) just above the cliff face. This fault zone can also be traced down the cliff face, for over 100 m, in a debris filled gully. In the trench a massive sulphide vein averaging .5 m in width has been uncovered over a 12 m length. Striking 175° and dipping 70° to the east, the vein consists of coarse cubic to banded fine grained steel galena with up to 20 percent tetrahedrite and minor pyrite. The sulphide vein occurs in frozen limonitic gouge containing coarse dolomite fragments. The wall rocks are dark grey dolomite and the footwall contains many narrow galena stringers.

Seven samples of massive galena assayed an average silver value of 92.5 oz/t with 66.7 percent lead. Fine grained steel galena with bands of tetrahedrite carried higher silver values of 129 oz/t. Silver to lead ratios average 1:4:1 for the Lucky vein.



D



shear parallel	hanging wall
joint plane	redge of vein
 medium to fine x'talline cubic galena. 'mosaic'' texture. slight crude banding. abundant vugs - mostly filled with anglesite, minor limonite and mimetite / scorodite. up to 25% tetrahedrite in patchy clusters. mineralized brecciation & alteration 	 intensely sheared and jointed silic. dolostone. abundant limonite. minor galena veinlets & blebs. some quartz veining.

foot wall	redge of vein	shear parallel joint plane)	hanging wa edge of vein	
 dark grey, sl. foliated, silic. phyllitic dolostone some quartz / carb. veining. few fractures, which are limonite- filled. 	 medium to fine x'talline cubic galena. largely undeformed. coarse to medium banding evident. up to 5% pyrite in blebs elongate II to jointing & banding. 20-25% tetrahedrite some patchy some banded. strong blueish tint. 	 fine to medium x'talline cubic galena. undeformed except for faint crude banding. -1% pyrite. 15-20% tetra- hedrite largely unbanded. faint blueish tint. ''mosaic'' texture. 	 medium x'talline cubic galena. v. v. slight deformation grades into limonite near hanging wall. 	 sheared & foliated calc. phyllite and phyllitic dolostone. limonite - coated fracture fill. 	

 joints also run ablique to shear direction ~ most joints coated with malachite/ azurite and/or scorodite/ mimetite and/or white carbonite film.

hanging wall

redge of vein	edge of vein	gradual chunge	edge of vein	
 silicified dolostone intensely fractured with limonite fill. minor galena and quartz veinlets bleached to buff yellow-grey. medium to fine x'talline cubic galena. "mosaic" texture abundant tetrahedrite in bands. patchy freibergite increasing to hang some pyrite disseminated in tetrahedri. minor anglesite in vugs 11 to shear. 	- medium to fine x'talline cubic galena. - slight deformation - cubes are curver - intensity of deformation increases to hanging wall. - minor (-1%) pyrite in blebs. - minor (-3%) freibergite. -moderate tetrahedrite. - blueish tint. ng wall rite.	d. - medium to fine x'talline cubic galena. - strong banding - I-2% pyrite blebs. - galena cubes are strongly curved where not banded - bands dominated by freibergite with minor tetra- hedrite, II to shear.	 fine to medium x'talline cubic galena. alternating 1-2 cm. banded and unbanded banded zones have moderate deformed galena with tetrahedrite / freibergite. unbanded zones have "mosaic" texture galena with very minor pyrite. last two cm. altered to limonite with cubes of galena - some evidence of brecciation. 	 intensely fractured silic. dolostone. limonite coated fracture fill. minor galena veinlets.

YUKON MINERALS - PERREX J.		
Petrogenesis GROUNDHOG	HV PROPERTY AREA A Cross-Sections CREEK, YUKON	s of PN Vein TERRITORY
N.T.S.:	TECH.:	DATE:
105 F/10	R.W.	DEC., 1987
scale:	DRAFTING:	FIGURE:
I:2	INTEGRAPHICS LTD.	8C

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c) The Jill vein zone (Figure 8) contains three individual galena showings. The original Lorne vein is a 40 cm wide galena vein. striking 170° and dipping steeply west, which is exposed in an old blast pit at the base of a large dolomite outcrop. A chip sample across the vein assayed 70 oz/t Ag and 55 percent Pb. This vein is only uncovered in the one old pit and was not trenched as it is located on a steep inaccessible slope. **One** large cat trench was excavated 25 m downslope and west of the old pit. A limonitic gouge zone containing a 2 m wide fragmented quartz vein and a .4 m wide galena breccia vein was uncovered at the south end of the trench, and narrow galena veins occur in dolomite subcrop at the north end of the trench. Four chip samples were collected across the guartz-galena-gouge zone, sample #18795 (.4 m) assayed 45 oz/t Ag and 39.9 percent Pb. Table 2A describes rock samples and values collected in Area A.

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Sample No.	Sample Type	Location	Description	Au (oz/ton)	Ag (oz/ton)	Pb (%)	Zn (%)
18752	grab	Trench 87-A8	Massive coarse grained galena vein		85.8	76.9	
18753	float	3/4 down cliff face below PN vein	Coarse cubic galena in quartz vein	<0.002	79.9	57.8	
18771	grab	60 m N PN vein along PN vein fault	Fault breccia, goethite and dolomite fragments		0.56	0.57	
18772	40 cm chip	Jill vein zone, old blast pit	Banded galena, anglesite, limonite and malachite		79.0	55.0	
18795	40 cm chip	Jill vein zone, Trench 87-A11	Quartz-galena-limonite vein, fragments of dolomite		45.0	39.9	0.487
18796	140 cm chip	Jill vein zone, Trench 87-A11	Galena and sphalerite stringers and footwall dolomite		2.22	1.45	2.94
18797	120 cm chip	Jill vein zone, Trench 87-A11	Next to 18796 in gouge zone containing quartz, limonite, sphalerite		0.50	0.24	2.16
18798	150 cm chip	Jill vein zone, Trench 87-A11	Next to 18797, quartz fragments and silicified dolostone		10.50	0.65	0.07
18805	float	Beside Trench 87-A4	Massive banded galena	<0.002	60.4		
18829	5 cm /	Trench 87-A5	Veinlet of galena in dolomite just above quartz vein, anglesite, limonite, narrow gouge zone	<0.002	92.2	74.5	0.42
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(Cont'd)			,			
<u>TABLE ZA - R</u> Sample Type	Location	Description	Au (oz/ton)	Ag (oz/ton)	Pb (%)	Zn (%)
	PN VEIN					
grab	Trench 87-A1	Massive galena 22 m along vein from cliff edge		72.9		
40 cm		Massive cubic galena, tetrahedrite, malachite and azurite		297.5	71.8	
50 cm		Fine grained massive galena and limonitic gouge		128.0	46.2	
12 cm		Massive galena		84.6	79.0	
grab	<u>LUCKY VEIN</u> Trench 87-A2	Massive cubic galena, minor tetrahedrite		50.7		
	(Cont'd) TABLE 2A - R Sample Type grab 40 cm 50 cm 12 cm grab collected durin	(Cont'd) TABLE 2A - ROCK SAMPLE VALUES Sample Type Location grab PN VEIN grab Trench 87-A1 40 cm Image: Collected during trench excavation	(Cont'd) TABLE 2A - ROCK SAMPLE VALUES AND DESCRIPTIONS - AREA A Sample Type Location grab PN VEIN grab Trench 87-A1 40 cm Massive galena 22 m along vein from cliff edge 40 cm Massive cubic galena, tetrahedrite, malachite and azurite 50 cm Fine grained massive galena and limonitic gouge 12 cm Massive cubic galena, minor tetrahedrite grab LUCKY VEIN grab Trench 87-A2 Massive cubic galena, minor tetrahedrite	(Cont'd) TABLE 2A - ROCK SAMPLE VALUES AND DESCRIPTIONS - AREA A Au Sample Type Location Au grab PN VEIN Description grab Trench 87-A1 Massive galena 22 m along vein from cliff edge 40 cm Massive cubic galena, tetrahedrite, malachite and azurite 50 cm Fine grained massive galena and limonitic gouge 12 cm Massive cubic galena, minor tetrahedrite grab LUCKY VEIN grab Trench 87-A2 Massive cubic galena, minor tetrahedrite collected during trench excavation	(Cont'd) TABLE 2A - ROCK SAMPLE VALUES AND DESCRIPTIONS - AREA A Au Ag Sample Location Description Au Ag grab PN VEIN Trench 87-A1 Massive galena 22 m along vein from cliff edge 72.9 40 cm Massive cubic galena, tetrahedrite, malachite and azurite 297.5 50 cm 12 cm 128.0 12 cm Massive galena Massive galena 84.6 50.7 grab LUCKY VEIN Trench 87-A2 Massive cubic galena, minor tetrahedrite 50.7 collected during trench excavation Collected during trench excavation Source Source Source	(Cont'd) TABLE 2A - ROCK SAMPLE VALUES AND DESCRIPTIONS - AREA A Au Au Ag Pb Sample Location Description (oz/ton) (gs) (gs) grab FN VEIN Trench 87-A1 Massive galena 22 m along vein from cliff edge 72.9 40 cm Massive cubic galena, tetrahedrite, malachite and azurite 297.5 71.8 50 cm Fine grained massive galena 84.6 78.0 12 cm Massive cubic galena, minor tetrahedrite 50.7 grab LUCKY VEIN Massive cubic galena, minor tetrahedrite 50.7 grab Trench 87-A2 Massive cubic galena, minor tetrahedrite 50.7

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6. Description of Area B (Figure 9)

Area B contains the Nos. 2 and 3 vein zones which were first explored by Canol Mines Ltd. from 1967-69. Canol Mines cat trenched both zones and completed 473 m of diamond drilling in the area of the No. 2 showing. They concluded that the zones contained "local, discontinuous concentrations of sulphides in a particularly heavily fractured, but restricted section of rock" (Dolmago-Campbell, 1969).

In 1987 further trenching of the two zones uncovered a weakly mineralized gouge filled fault at the No. 2 and a massive galena vein (14 x .5 m) in a fault zone at the No. 3 showing. A 1.6 km 4x4 road was constructed from the main road at the pass between Groundhog and Seagull Creeks to access the showings on the ridge top. A 1.5 km picket grid and baseline was established for control.

The two zones lie on strong northerly trending normal faults in buff weathering silty dolomite. The moderate to thickly bedded dolomite strikes 135-175° and dips 15-45° east. Small saddle-like depressions exist along the ridge crest where faults cut the dolomite. Fault zones contain limonitic gouge, dolomite fragments, quartz-siderite veins and galena stringers. Wall rocks are silicified and fractured containing quartz veins, and galenasphalerite stringers.

a) No. 2 Vein Zone (Figure 9A)

The No. 2 fault zone strikes approximately 130° and dips steeply northeast. It was tested in seven new cat trenches, the largest being Trench 87-B1 (50 x 17 m) on the No. 2 showing. It exposes a 3 m wide orange to black gouge zone in fractured silty dolomite. The gouge consists of small fragments of quartz, dolomite, graphitic material, and minor galena and anglesite in a clay matrix. In this trench sulphide mineralization occurs primarily as narrow galena veins in footwall dolomite and in a 2 m wide quartz vein which cuts the footwall. The galena is coarse crystalline to banded fine grained in habit. Silver values from grab samples of massive galena averaged 47.5 oz/t and a 3.4 m chip sample across the mineralized quartz vein assayed 9.62 oz/t. Two chip samples taken across orange (5.3 m) and black (4.0 m) gouge material assayed 6.65 oz/t and 11.5 oz/t Ag respectively. These results are comparable to an average silver value of 8.6 oz/t and 14.7 percent Pb reported over a 5.3 m width by Canol Mines Ltd.

Six smaller cat trenches (TR 87-B2 to TR 87-B7) were excavated east of the main fault zone to test mineralized quartz veins and rusty bands in dolomite. No significant galena veins were uncovered. Figures 9C - 9F show these trenches.

b) No. 3 Vein Zone (Figure 9B)

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The No. 3 showing was stripped over a large area (20 x 60 m), uncovering a 2 - 3 m wide fault zone over 35 m in length, in silicified and fractured dolomite. The fault contains frozen limonitic gouge, dolomite fragments and a 14 x .5 m massive galena vein, which strikes 170° and dips 65° west. Several parallel discontinuous sulphide veins and gouge zones, .1 - .5m wide occur in the footwall dolomite up to 15 m east of the main fault zone. The massive sulphide vein consists of banded fine grained steel galena or coarse cubic galena with lesser tetrahedrite, pyrite and anglesite. Silver values average 64.9 oz/t with 75 percent Pb. Silver to lead ratios average 0.9:1. Significant zinc values of up to 14.1 percent were obtained in fractured wall rocks, however, zinc rich samples generally contained low silver values.

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YUKON MIN
HV
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N.T.S:: 105 F/10
SCALE: I: IOO

Galena present. Limonite alteration Sample location & number Ag oz./ton ХŶЪ %Zn ERALS - PERREX J.V. PROPERTY AREA B ENCH 87-B3 CREEK, YUKON TERRITORY ECH.: DATE: G.D. DEC., 1987 RAFTING: FIGURE: 9D INTEGRATICS LTD.

inclined, vertical.







Several other mineralized vein and float occurrences are located in Area B. Table 2B summarizes rock samples collected from these sites.

7. Description of Area C (Figure 10)

Area C contains numerous tetrahedrite and galena bearing quartz veins and float trains; the most significant is the Groundhog showing. Canol Mines Ltd. excavated seven trenches on and to the southwest of the Groundhog in 1967-1969. They report exposing a 3 m wide milky white quartz vein over a 15 m length which contained irregular smears and blebs of galena up to 5 percent and granular stibnite up to 3 percent. In 1987 blasting and trenching uncovered a wide zone of mineralized quartz veins at the Groundhog. Also, five other locations were bulldozer trenched, 5 km of 4x4 road was developed to provide access to Areas C and D, and 19.6 km of picket gridline was established along a 2.65 km baseline, part of which covers Area C.

Area C is underlain by dolomite (sDd) and black shale (uDMs) traversed by strong north to northwesterly trending normal faults. Mineralization occurs along the fault zones, usually hosted in guartz and guartz-siderite veins.

a) Groundhog Vein Zone (Figure 10A)

The Groundhog showing was blasted and cleared over 450 m^2 , exposing a 6 x 20 m zone of galena bearing quartz and quartz-siderite veins in a sheared dolomite. The white quartz veins average .5 m in width and have sericite rich slickensides along the vein boundaries that strike approximately 150° and dip steeply east. The vein zone lies beside a probable fault contact between the black shale and dolomite.

Sample No.	Sample Type	Location	Description	Au (oz/ton)	Ag (oz/ton)	РЬ (%)	Žn (%)
18701	grab	Access road	Massive galena		65.3	84.7	0.12
18706	float	75 m N of No. 3 vein zone	10 cm wide galena vein in dolomite		44.9		
18776	grab	25 m NE of BL 0+00S picket	Quartz-galena vein, minor malachite and azurite	0.005	34.7	50.9	
18790	float	N end of Trench 87-B10	Manganese stained dolomite with minor galena	<0.002	2.78		
18808	grab	30 m N of BL 0+00 picket	Quartz vein, coxcomb texture, tetrahedrite, malachite, azurite	0.016	4.90		
18832	grab	50 m N of BL 0+00 picket	Quartz vein with tetrahedrite and galena	0.010	18.5	3.60	0.30
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The mineralization consists of patchy coarse cubic galena lenses and veins (up to .35 m wide) in a quartz gangue. Silver assays range up to 34.3 oz/t from grab samples and the best chip sample assayed 6.89 oz/t Ag and 13 percent Pb over 4.5 m. Silver to lead ratios average 1:2.

b) Other Showings

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Five zones of interest were trenched and sampled around the Groundhog. Table 2C summarizes rock sample values and descriptions from these zones which are listed below:

- TR87-C4, C6 and C7: A 1-3 m wide quartz vein outcrops over a 200 m length. The vein is generally barren but occasionally contains blebs and veinlets of galena and tetrahedrite. A grab sample of massive galena and tetrahedrite assayed 72.6 oz/t Ag.
- 2) TR87-C17, C18 and C19: A series of narrow galena veins and limonitic gouge zones occur in a fault zone in dolomite which is probably the extension of the No. 2 fault.
- 3) TR87-C11 to C16 (Jenny Zone): Six bulldozer trenches were excavated on galena float trains 400 m east of the Groundhog. They expose a gossanous fault contact between dolomite and shale, and a system of quartz veins in the dolomite. Several narrow galena veins occur in the dolomite. One sample from the contact assayed trace gold and low silver values while a grab sample of quartz-galena vein assayed 68.8 oz/t Ag.
- 4) TR87-C9, C10: Two trenches on a galena float train uncovered barren quartz veins in dolomite.
- 5) TR87-C2, C3: A galena-magnanosiderite float zone covers the fault contact between dolomite and black shale. No mineralization was encountered in a backhoe or a cat trench.
| | TABLE 2C - R | OCK SAMPLE VALUES | AND DESCRIPTIONS - AREA C | | | | |
|------------|----------------|-------------------------|--|----------------|----------------|-----------|-----------|
| Sample No. | Sample
Type | Location | Description | Au
(oz/ton) | Ag
(oz/ton) | Pb
(%) | Zn
(%) |
| 18703 | float | Beside Trench
87-C2 | Dolomite containing galena veinlets | | 8.87 | 18.8 | 0.08 |
| 18704 | float | Beside Trench
87-C3 | Massive galena | | 44.5 | 74.2 | 0.27 |
| 18705 | grab | Grid 10+65W,
0+15N | Galena vein in dolomite | | 19.6 | 82.1 | <0.01 |
| 18769 | float | Grid 13+55W,
0+50N | Quartz vein with cubic galena, malachite | | 30.3 | 35.4 | |
| 18773 | grab | Trench 87-C18 | Galena veinlets in dolomite | | 25.3 | | |
| 18774 | float | Trench 87-C17 | Banded cubic galena, malachite and azurite | | 86.6 | 81.4 | |
| 18807 | grab | Trench 87-C19 | Narrow quartz vein with some galena | 0.016 | 18.0 | | |
| 18810 | float | Trench 87-C15 | Medium grained galena in quartz veins | 0.002 | 34.7 | | |
| 18812 | grab | Grid 9+95W,
0+20S | Quartz veins containing galena, malachite and azurite | | 16.8 | | |
| 18813 | float | Beside Trench
87-C16 | Massive galena and anglesite | | 76.4 | | |
| 18815 | 150 cm | Trench 87-C13 | Orange gouge zone at contact between shales and dolomite | 0.002 | 1.48 | | |
| 18817 | grab | Trench 87-C7 | Quartz vein, 1 m wide, lenses of galena | | 72.6 | | |
| 18818 | grab | Trench 87-C1 | Quartz vein with galena | 0.004 | 34.3 | | |
| 18819 | float | Grid 12+25W,
2+00N | Fine to medium grained galena with minor pyrite | | 52.5 | | |
| | | | | | | | |

	Cont'd TABLE 2C - R	ROCK SAMPLE VALUES	AND DESCRIPTIONS - AREA C				
Sample No.	Nample Type	Location	Description	Au (oz/ton)	Ag (oz/ton)	Pb (%)	Zn (%)
18821	float	Grid 12+30W, 2+35N	Cubic galena and anglesite	0.010	55.4	72.99	0.28
18822	float	Grid 12+15W, 2+20N	Quartz vein containing sphalerite and galena	0.002	0.95	1.09	6.53
18828	grab	Trench 87-C11	Quartz-galena vein, tetrahedrite, malachite, azurite		68.8	57.6	0.06
18834	float	Grid 11+35W, 4+05N	Quartz vein with some galena and tetrahedrite	<0.002	115.0	7.94	0.35
18855	grab	Trench 87-C16	5 cm wide galena vein		64.8	80.23	0.10

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8. Description of Area D (Figure 11)

Five galena and quartz-siderite float zones were discovered in Area D in 1987. Access is by cat trail which branches off the 4x4 road to Area C. A picket grid was established on the ridge and five backhoe or bulldozer trenches were excavated in late September on the float trains. The area is underlain by Silurno-Devonian dolomite which hosts numerous large quartz veins. A small klippe of Upper Cambrian calcareous phyllite overlies the dolomite in the centre of the grid. A particularily high silver value (290 oz/t) in a float sample prompted the interest in Area D. Table 2D lists values and descriptions of rock samples from Area D.

The preliminary trenches uncovered two narrow zones of sulphide mineralization in bedrock. In Trench 87-D1 a limonite rich shear zone contains veins of sphalerite. Sample 18856 assayed 16 percent Zn over 2 m. In Trench 87-D2 a .05 wide galena vein occurs in a gossanous fracture and assays 87.6 oz/t Ag. Backhoe trenches TR87-D3 to D5 were excavated on a zone of blocky quartz talus and on a large quartz pod in outcrop. The white quartz contained minor amounts of galena and tetrahedrite. No further work was completed on this area due to poor weather conditions and it should be more fully explored next season.

9. Description of Area E (Figure 11A)

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Area E is located west of Area A on a large flat ridge top underlain by dolomite. The Area is accessible by a 4 km cat road which connects it to Area A. A 2.7 km picket grid was established to locate seven bulldozer trenches. Three narrow galenatetrahedrite veins and several float trains were discovered and investigated this season. Table 2E summarizes rock sample data.

A float sample of a quartz vein containing tetrahedrite, galena, malachite and azurite assayed 174 oz/t Ag. This sample is from a quartz float train 600 m in length. Trenches 87-E4 and E5, cutting across the float train, expose a frozen gouge and magnanosiderite zone, .8m wide. Minor galena occurs in the gouge in trench 87-E4. Permafrost prevented deepening of these trenches. Two narrow galena veins were uncovered at the top of a large cirque in trenches 87-E1 and E3. These veins assayed 79.3 and 85.9 oz/t Ag.

10. Other Mineral Occurrences

Several galena and tetrahedrite bearing quartz veins have been located by prospectors outside of Areas A - E on the HV property. These showings have not been examined by the writer. The sample locations are shown on Figures 6 and 7 and the sample data is summarized in Table 2F. The highest silver value obtained in 1987, 501.61 oz/t was from a tetrahedrite bearing quartz vein sampled while running a staking line at the north end of the property in late September, 1987.

Another promising area is east of Area C where 1-2 m wide quartz veins assayed 49.0 and 47.9 oz/t Ag.

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Sample No.	Sample Type	Location	Description	Au (oz/ton)	Ag (oz/ton)	Pb (%)	Zn (%)
18780	grab	Grid 24+20W, 10+20S	Quartz vein with malachite and azurite	0.002	7.70	-	
18782	float	Grid 23+70W 11+90S	Narrow galena band in limonitic material		290.0		~
18783	float	Grid 25+50W, 11+80S	Quartz with blebs of galena and limonite	<0.002	6.71		
18784	float	Grid 25+30W, 12+15S	Quartz containing galena veinlets, limonite		20.4		
18785	float	Grid 22+40W, 12+25S	Quartz containing galena and malachite	<0.002	56.9		-
18856	200 cm	Trench 87-01	Dolomite, guartz veins and some sphalerite		1.64	1.35	15.99
18857	grab	Trench 87-01	Clay gouge, dolomite fragments	<0.002	0.13	0.02	
18858	500 cm	Trench 87-01	Dolomite, quartz veins, minor sphalerite	<0.002	<0.01		
18859	grab	Grid 24+70W, 11+95S	Quartz vein -	<0.002	<0.01	-	
18860	grab	Trench 87-02	5 cm wide galena vein in limonitic gouge zone		87.6		
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	TABLE 2E - R	OCK SAMPLE VALUES	AND DESCRIPTIONS - AREA E		,		
Sample No.	Sample Type	Location	Description	Au (oz/ton)	Ag (oz/ton)	Pb (%)	Zn (%)
18777	float	Beside Trench 87-E5	Quartz containing tetrahedrite, galena, malachite and azurite	<0.002	174		
18778	5 cm	Trench 87-E1	Narrow galena vein in dolomite		85.9	,	
18779	10 cm	Trench 87-E3	Cubic galena in quartz vein	<0.002	79.3		
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18739	Туре	I Docation	Description	1 1		101	1 101
18739				(oz/ton)	(oz/ton)	(%)	(%)-
	float	HV 15 claim	Galena-limonite float		22.7		
18743	grab	HV 42 claim	Quartz vein, 3 m wide, containing galena		15.0		
18747	float	HV 111 claim	3 cm vein of galena		32.8	6,3.6	
18800	grab	VER 7 claim	Quartz vein, 2 m wide, galena	0.014	49.0		
18801	grab	VER 7 claim	Series of small quartz veins, tetrahedrite, malachite, azurite	0.007	47.9		
18802	grab	HV 276 claim	Quartz vein, 2 m wide, galena, pyrite, minor tetra- hedrite	0.002	43.8		
18804	float	HV 106 claim	Quartz with galena and minor pyrite	0.002	13.9		
18824	float		Cubic galena float		36.5		
18836	grab	VER 7 claim	Quartz vein, galena and tetrahedrite	0.002	8.08	11.1	0.03
18872	grab	On claim line 4 km N of Groundhog Creek road	Massive tetrahedrite and some galena from quartz vein		501.61		

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11. VLF-EM Survey

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The VLF-EM survey utilized a Geonics EM-16 instrument set on the Seattle channel. Dip angle and guadrature readings were taken at 25 m intervals on the picket grid which covers Area C and the upland plateau north of Area C. On the HV property the Seattle frequency is best suited to pick up northwest-southeast trending structures. Figures 12 and 13 (in pocket) show the profile plans and Frazer Filter interpretation of the Seattle channel data. The VLF geophysical method is described in Appendix II.

The VLF-EM anomalies correlate well with fault contacts between poorly conductive dolomite and highly conductive graphitic shale in Area C. At the northern end of the survey three anomalies may trace normal faults in dolomite. These inferred conductors were not investigated due to heavy snow cover during and after completing the survey.

12. Surveying

Thompson and Iles Ltd. of Whitehorse produced preliminary topographical survey plans of Areas A and C. They also produced a surveyed claim plan of the northeastern section of the HV property. This plan covers Areas B and C, and the surrounding claims. The survey plans are presented in Figures 14-16 (in pocket).

DISCUSSION

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On the HV property the five main Ag-Pb showings and numerous galena-tetrahedrite bearing quartz veins and float trains occur within or beside strong fault zones in dolomite. The mineralizing fluids were probably introduced into the fault zones during the late stages of At Ketza River. 30 km to the intrusion of a Cretaceous batholith. east, a pattern of mineral zoning has been recognized around a similar intrusive body, which underlies the Ketza Uplift. In the core of the uplift mineral deposits consists of gold-bearing, pyrrhotite and arsenopyrite rich mantos, chimneys and secondary ozides, while silver and galena rich veins are located on the flanks of the uplift (G. Abbott, 1986). On the HV property a similar pattern of mineral zoning may be present around the core of the Seagull Uplift. To date, all mineralization on the property consists of silver bearing galena veins, however the potential for auriferous sulphide mantos should not be overlooked in future exploration work.

RECOMMENDATIONS

Yukon Minerals Corporation holds over 400 mineral claims (HV property) in the Groundhog Creek area. Many of these claims are underlain by Silurno-Devonian dolomite which hosts all the known mineralization on the property. Only reconnaissance level prospecting has been undertaken over much of this area. More detailed surface exploration consisting of grid development, prospecting, geological mapping, geochemical surveys and bulldozer trenching is recommended for all sections of the claim block underlain by dolomite.

The PN, Lucky, No. 3, No. 2 and Groundhog showings have all been well exposed in large bulldozer trenches. They lie on fault zones, some of which have been traced for several kilometers. Evidently these faults are excellent hosts for Ag-Pb mineralization and should be trenched and mapped in detail. Also diamond drilling is recommended on the PN, Lucky, No. 3 and Groundhog showings to further evaluate the sulphide bearing zones. If favourable results are obtained in the initial drill program a second and third phase of diamond drilling and underground exploration is recommended. The following programs are proposed.

PHASE I - Surface Exploration and Diamond Drilling

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Prospecting	\$ 25,000
Geology	25,000
Geochemical Sampling, Assays	15,000
Trenching and Road Construction	125,000
Diamond Drilling (1500 m)	250,000
Surveying	50,000
Camp and Support Costs	85,000
Supervision and Engineering	 25,000

Total Phase I

\$ 600,000

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CERTIFICATE

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I, GRAHAM DAVIDSON, of the City of Whitehorse in the Yukon Territory, HEREBY CERTIFY:

THAT I am a consulting geologist AND THAT I participated in the work program described in this report;

THAT I am a graduate of the University of Western Ontario (H.B.Sc., Geology, 1981);

THAT I am registered as a Professional Geologist by the Association of Professional Engineers, Geologists and Geophysicists of Alberta (#42308);

THAT I have been engaged in mineral exploration on a full and part time basis for nine years, of which seven have been spent in the Yukon, B.C. and the Northwest Territories;

THAT I have not received, nor do I expect to receive, any interest, directly or indirectly, in the properties or securities of Yukon Minerals Corporation.

SIGNED at Whitehorse, Yukon, this 31 day of December A.D. 1987.

G. S. Davidson, P.Geol. Cast Star

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APPENDIX I

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CERTIFICATES OF ANALYSIS



PHONE. (403) 667-6523

Certificate of Analysis

Yukon Minerals Corp.

Proj. HV

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REPORT NO.	47-4331	•	•	•		•	•	•	•	•	•
DATE J	uly 8, 1987	-	•			•	•	•	•	•	

MARKED	oz/ton	%	%							
	Ag	РЬ	Zn							
18701 18702 18703 18704 18704A* 18705 18706 18707 18726 18727 18728 18729 18730 18731	65.3 4.58 8.87 44.5 47.1 19.6 44.9 32.8 60.7 53.4 6.77 16.5 67.1 12.9	84.7 7.28 17.8 74.2 78.0 82.1 80.6 15.1 1.70 71.8 2.93	0.12 1.27 0.08 0.27 0.09 L0.01							
NOTE*: Two 187	sample 50 on t	s were he assa	receive tag.	d label] We have	ed 187 relabe	04. One lled ti	was c is 187	hanged 04A.	from	
·	I	L	l	1						



PHONE. (403) 667-6523

Certificate of Analysis

Yukon Minerals Corp.

REPORT NO. 47-4951 DATE July 13, 1987

Proj. HV

TO

	oz/ton							······································
MARKED	Ag							
18708	59.2				**			
			-				-	
'							-	
				E			 MPANY	LTD.



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Certificate of Analysis

TO ____Yukon Minerals_____

Proj. HV

REPORT NO	47-496	1	 	•••		•••	
DATE	July 16,	1987	 ••		 •		

. . .

MARKED	oz/ton Ág	 				
18732 18733 18734 18735	2.33 56.7 9.89 62.7					
					, ,	•

Orgg & Company Ltd. 30 Pemberton Ave North Vancouver, B C. Canada V7P 2R5 Phone (604) 985-0681 Total 04-332667		DAR-CLEGG	Certificate of Analysis
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abierationalist Novelle Novelsy	51 E 4 E 12 UN 175 201	FROJECT: NONE GIVEN	14 jE 1
72 19735	<0.202		
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KAMLOOPS RESEARCH & ASSAY LABORATORY LTD.

912 - 1 LAVAL CRESCENT - KAMLOOPS BC V2C 5P5 PHONE (604) 372-2784 - TELEX 048-8320 **CERTIFICATE OF ASSAY**

B.C. LICENSEL ASSAYERS **GEOCHEMICAL ANALYSTS** METALLURGISTS

Certificate No. K 8175

Date _____August 13, 1987

Yukon Minerals Corporations TO _

510 Elliott Street

Whitehorse, Yukon

J hcrcby ccrttfy that the following are the results of assays made by us upon the herein described ______ samples

Y1A 2A5

-vratitie	Mar-ed	Au	Ag	РЪ					
		ozs/ton	ozs/ton	percent					
1 2 3 4 5 6 7 8	13743 18744 13745 13746 18747 18748 18749 18750 L means "less than"	.010 L.C01 - .021 L.301 .014	15.0 84.9 30.9 297.5 32.8 5.54 3.56 .76	- 70.0 26.4 71.8 63.6 2.27 2.59 .17					
• .									
NOTE Rejects retained th Fulos retained to	fee weeks		1		.12	, R	÷	Seil	

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KAMLOOFS RESEARCH & ASSAY LABORATORY LTD.

912 - 1 LAVAL CRESCENT — KAMLOOPS BC V2C 5P5 PHONE (604) 372-2784 — TELEX 048-8320 CERTIFICATE OF ASSAY B.C. LICENSEL ASSAYERS GEOCHEMICAL ANALYSTS METALLURGISTS

Certificate No K 8149

Date July 30, 1987

TOYukon_Minerals	Corp
------------------	------

510 Elliott Street

Whitehorse, Yukon Y1A 2A5

Jurruy critic that the following are the results of assays made by us upon the herein described ______ samples

r rat 1.a	''arrea	Au	Ag	РЪ				
-	,	ozs/ton	ozs/ton	percent	-			
1 2 3 4 5 6 7	18709 18737 18738 18740 18741 18742 L means "less than"	.002 L.001 - - - .001	L.01 2.77 .73 22.7 50.7 72.9 .93	41 				
A							-	

1401E ¹ cjects relained three weeks Polyts relained three incottearess official enarroyed

Bud de est All aver Province of British Cellin tha



PHONE: (403) 667-6523

Certificate of Analysis

TO ____Yukon Minerals

Proj. HV

REPOR	г NO. 47-6167
DATE	Aug 18, 1987

. . . .

MARKED	oz/ton	%	*	 					
	Ag	РЬ	Zn						
18758 18759 18760 18761 18762 18763 18764 18765 18765 18766 18767 18769 18770 18771	84.6 128. 129. 9.62 6.65 11.5 57.7 2.76 61.2 8.14 2.48 30.3 3.36 0.56	79.0 80.0 69.5 11.1 9.90 18.7 77.5 4.01 66.3 10.4 3.65 35.4 3.79 0.57	0.24	7					
					BONDA	R-CLEG	G&CO	MPANY	LTD.



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Certificate of Analysis

To ____Yukon Minerals__

REPORT NO. 47-6175

MADKED	oz/ton	%		_		-		
MARKED	Ag	Pb				-		
18772 18773 18774 18775 18776	49.0 25.2 86.6 58.1 34.4	55.0 81.4 55.0 50.9	-					
		X						-
· ·				Ε	A-CLEG	G&CO	MPANY	LTD.

Jean Internet of Anteroid

YUKON MINERALS

---REPORT NO. 47-6183

DATE

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		ozton	OPT			 	 	-	-		、
	MARKED	Aq	An								
	18171	174.	2.002				 			_	
	18118-778	85.9	40.002								
	779788	79.3	0.002		_						
	780 782	7.70	<u>.</u>								
	782 783	290.									
	783 T&A	671	2.002								
	784-785	20.4									
	785784	569	2.002				-				
	786767	40.8									
	787 788	55.5									
	788 700	59.6									
	790 791	2.78	20002								
	1 7948792	0.64	<.002								
	793	2.51	2.002								
			L								
	L18789		0.002				 				
	118792		.002								
			1								

REMARKS:



1

136 Industrial Road Whitehorse, Yukon Territory YIA 2VI Phone (403) 667-6523 Telex 036-8-460



KEPORTI 427-	6183				[PROJECT: KETZ	A	PAGE	l
Sample Number	ELENENT UNITS O	All PT						****	
R2 18777	<0.0	02 ·							
R2 18779	<0.0	02							
R2 18780	0.0	02							
R2 18783	<0.0	02						*	
KZ 18/85		V2	gallanderen anderen and	** ** ** ***					
R2 18789	0.0	02							~~~ <u>~~</u> ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
R2 18790	<0.0	02							
KZ 18/91	<0.0	02						•	
R2 18793	<0.0	02							
D'1 10704		<u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u></u>		*****		979 - 119 - 119 - 119 - 119 - 119 - 119 - 119 - 119 - 119 - 119 - 119 - 119 - 119 - 119 - 119 - 119 - 119 - 119			
RC 10/77	V+9	V2						*	, 3
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PHONE. (403) 667-6523

Certificate of Analysis

Yukon Minerals	Corp.				REP	ORT NO Sept	/-6/36 2, 1987
Proj. KETZA					DAT	E	
by Certify that the fo	ollowing are the resu	lts of analyses made	by us upon the her	rein described	rock	sample:	5
MARKED	oz/ton						
	Ag	An					
18800 18801 18802 18803 18804 18805 18806 18807 18808 18809 18810 18811 18812	49.0 47.5 43.8 3.09 13.9 60.4 2.20 18.0 4.90 61.9 34.7 39.1 16.8	0.014 .007 .002 .002 .002 .002 .002 .002 .002 0.016 0.016 .002					

BONDAR-CLEGG & COMPANY LTD.

<u> </u>	-			· · · · · · · · · · · · · · · · · · ·
ndar-Cegg & Company Ltd. 130 Pemberton Ave North Vancouver, B C. Canada V7P 2R5 Phone [•] (604) 985-0681 Telex: 04-352667		NDAR-	en fectoe	Certificate of Analysis
	36		₩ PRN HECT MIKE170%	A CONTRACTOR
Sample Number	ELEMENT AU UNITS			
R2 18800 R2 18801 R2 18802 R2 18803 R2 18803 R2 18804	0,014 0,007 0.002 <0,002 0,002			
R2 18805 R2 18806 R2 18806 R2 18807 R2 18808 R2 18809	<0.002 <0.002 0.016 0.016 0.016			
R2 18810 R2 18812	D, 002 <0, 002			
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				in de Baars
			Or	then

Registered Assayer, Province of British Colu



PHONE. (403) 667-6523

Certificate of Analysis

TO <u>Yukon Minerals Corp.</u>

REPOR	T NO	•••	•
DATE	Sept 2, 1987		

MARKED	oz/ton				 	
	Ag		 		 	
18813 18814 18815 18816 18817 18818 18819 18985	76.4 10.1 1.48 6.50 72.6 34.3 52.5 9.42					

<u> </u>		
Ave 00ver, B.C 7P 2R5 (604) 985-0681 x 04-352667	BONDAR	Certificate of Analysis
REPORT: 427-6743		PROJECT: NONE GIVEN
SAMPLE ELEMENT	Au Pb Zn OPT PCT PCT	
P4 18814 0. P4 18815 0. P4 18815 0. P4 18816 0. P4 18817 0. P4 18818 0.	D16 qq2 Q22 014 DQ4	
P4 18985	7.30 1.58	
		Vella-

Registered Assayer. Province of British Columbi.



PHONÉ: (403) 667-6523

Certificate of Analysis

TO _____Yukon Minerals Corp.

•

REPOR	T NO. 47-7308	•	•	•	•	•	•	•	•	•	•
DATE	Sept 4, 1987					•	•		•	•	

Proj. KETZA

MARKED	oz/ton					······································			
	Ag								
18820 18821 18822	68.0 55.4 0.95								
•		ų		-					
· · · · · · · · · · · · · · · · · · ·				-				11-1 1-1 1-1 1-1 1-1 1-1 1-1 1-1 1-1 1-	
						- 1 1	· . · . ··		
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		<u> </u>	 <u> </u>	E		R-CLEG	G&CO	MPANY	/ LTD.
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REPORT: 427-	7308				Γ	PROJECT: KETZA	PAGE 1]
SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Pb PCT	Zn PCT			-	
R2 18820 R2 18821 R2 18822		0.010	55.06 72.99 1.09	0.37 0.28 6.53				
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PHONE: (403) 667-6523

Certificate of Analysis

_	Yukon	Minerals	Corp.	
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REPORT NO. 47-7329 DATE Sept 14, 1987

	the second se							
MARKED	oz/ton						 	
	Ag							
18823 18824 18825	5.95 36.5 29.9							
					-			
• (-						-
	<u> </u>		1	l	<u> </u>		/ MPANY	LTD.



PHONE (403) 667-6523

Certificate of Analysis

Yukon Minerals Corp.

REPORT NO. 47-7324 DATE Sept 14, 1987

Proj. KETZA

то

MARKED	oz/ton	%	%					
MARKED	Ag	РЬ	Zn					
18826 18827 18828 18829 18830 18831 18832 18833 18834 18835 18836	80.5 48.8 68.8 92.2 20.5 69.1 18.5 80.4 115. 69.7 8.08	61.4 74.6 57.6 74.5 42.3 60.9 3.60 57.1 7.94 74.0 11.1	0.99 0.06 0.42 0.10 1.24 0.30 0.35 0.06 0.03					
<u>♥♥====</u>	<u> </u>	· · ·	<u> </u>	l	8		APANY	LTD.



Geochemical Lab Report

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REPORT: 427-7	324]	[PROJECT: KETZA	PAGE	1
Sample Number	ELEHENT	au Opt						
K2 18828 R2 18829 R2 18834 K2 18834 R2 18834 R2 18834		0.002 <0.002 <0.002 0.010 <0.002	-			~		
K2 18836		0.002						
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		~						
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PHONE: (403) 667-6523

Certificate of Analysis

70	Yukon	Minerals	Corp.	
10				

REPOR	г NO
DATE	Sept 25, 1987

Proj.: KETZA

1.

	oz/ton								
MARKED	Ag								
18837 18838 18839 18840 18841 18842 18843 18843 18844 18845	28.1 1.26 3.91 6.56 4.19 1.17 58.4 57.2 6.71	Ground " Zone 3 	520 520 520 720 C+20N	em chip em chip zoo en m	u				
18846 18847 18848 18849 18850 18851 18852 18853 18854 18855	17.7 3.59 0.84 43.7 87.6 134. 30.3 1.47 0.99 64.8	PN - 40 2mez tru 11 11 Jenny -	cm chip anch 6 1-2" veir	15+ skp	ry know	بر - بر - بر - بر - بر - بر - بر - بر - بر -		-	
18856	1.64	3T the	Jehl 7	In grab					-



PHONE. (403) 667-6523

Certificate of Analysis

Yukon Minerals Corp.

REPORT	NO. 4	7-79	18			 • •	•
DATE	Sept	25,	198	7	 	 	•

Proj. KETZA

TO

I hereby certify that the following are the results of analyses made by us upon the herein described rock samples

MARKED	oz/ton							
	Ag			_				
18857 18858 18859 18860	0.13 L0.01 L0.01 87.6	fault gon BT trenc BT gtz fi BT trenc	$ \begin{array}{c} e & BT \\ h & chip \\ ench \\ h & Z \\ - z \end{array} $	ench I rab 5m gte cm wide	galena	veinlet		

Bondar-Clegg & Company Ltd. 136 Industrial Road Whitehorse, Yukon Terntory YIA 2VI Phone (403) 667-6523 Telex 036-8-460		BONDAR-		Geochemical Lab Report
<u> </u>			•	, ,
REPORT: 427-7918	· > > + + + + + + + + + + + + + + + + +]	PROJECT: KETZA	- PAGE 1
SANPLE ELEMENT NUMBER UNITS	PB PCT	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	Mar Mar Mar
R2 18857 R2 18858 R2 18859	0.02 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	to be the set of the	1 19.60 21	1999 N 663
	, 		,	8 s
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PHONE: (403) 667-6523

Certificate of Analysis

Yukon Minerals

TO

REPORT NO. 47-6712 DATE Aug 26, 1987

1

<u>Proj. Yukon Ketza</u>

MARKED	oz/ton	%	%					
	Ag	РЬ	Zn					
18795	45.0	39.9	0.87					
18796	2.22	1.45	2.94				-	
18797	0.50	0.24	2.16					_
18798	10.5	0.65	0.07	ļ				
18799	0.67	0.57	0.53					
18976	44.8	35.5	16.5					
18977 -	123.	62.9	1.82					
18978	15.8	11.95	9.05	}				
18979	8.30	9.55	6.32					
18980 -	72.4	79.1	1.60					
18981	11.2	9.00	9.05					
18982	6.94	5.81	10.35					
18983	16.5	14.1	0.10					
18984 -	68.9	57.9	1.91					
18986 -	122.	65.6	1.65					
18987	13.1	11.5	3.69					
18988 -	120.	67.9	1.83					
18989 -	136.	72.9	0.65					
18990	23.2	34.0	2.16					
18991	2.25	1.55	1.47					
	1	J	1	1 1		1	1	1

BONDAR-CLEGG & COMPANY LTD.
136B INDUSTRIAL RD, WHITEHORSE,	KON Y1A 2V1
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PHONE. (403) 667-6523

Certificate of Analysis

Yukon Minerals

TO

1

REPORT NO.	47-6712 Pg. 2	
DATE	Aug 26, 1987	

MARKER	oz/ton	%	%							-
MARKED	Ag	РЬ	Zn							
18992 18993 18994 18995 18996 18997 18998 18999 19000	102. 1.49 120. 121. 113. 6.05 90.1 1.12 173.	71.8 1.03 62.0 74.0 7.54 4.71 75.8 75.3 0.82	0.37 0.65 1.28 0.23 0.23 3.71 0.37 0.59 1.72							
BONDAR-CLEĞĞ & COMPANY LTD.										LTD.

Bondar-Clegg & Company Ltd. 130 Pemberton Ave * North Vancouver, B C Canada V7P 2R5 Phone (604) 985-0581 Telex: 04-352667		BON	DAR-CLEGG	Certificate of Analysis
REPORT: 427-616	7		PROJECT: HV	PAGE 1
SAMPLE Number	ELEMENT AU UNITS OPT	Alter		
R2 18770	0.023	4		
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136B INDUSTRIAL RD, WHITEHORSE, YUKON Y1A 2V1

PHONE: (403) 667-6523

Certificate of Analysis

TO Yukon Minerals

REPORT NO. 47-4309 DATE June 24, 1987

Proj. HV

MARKED	oz/ton										
WARKED	Ag										
37583 37584	345. 77.0										
								-			
						-			-	- -	



Registered Assayer, Province of British Colum



136B INDUSTRIAL RD, WHITEHORSE, YUKON Y1A 2V1

PHONE. (403) 667-6523

Certificate of Analysis

Yukon Minerals Corp.

TO

REPORT NO. 47-2412							
DATE	May 22, 1987						

	oz/ton									 	
MAKKED	Ag										
37577 37578 37579	69.0 54.5 73.5	> sil. Iro	m ro.	ine i au	n p						
			-					x			
									-		
John Kanne											

APPENDIX II

The VLF Method

The VLF (very low frequency) method uses powerful radio transmitters set up in different parts of the world for military communications (see Figure 6.34). In radio communications terminology, VLF means very low frequency, about 15 to 25 kilocycles/second. Relative to frequencies generally used in geophysical exploration, this is actually very high.

These powerful radio transmitters induce electric currents in conductive bodies thousands of miles away. Induced currents produce secondary magnetic fields which can be detected at surface through deviations of the normal VLF field. The VLF method is relatively inexpensive and can be a useful prospecting tool.

Successful use of VLF requires that the strike to the conductor be in the direction of the VLF station so that the lines of magnetic field from the VLF transmitter cut the conductor. The upper half of Figure 6.35 shows the magnetic field vector in relation to the transmitting antenna. The lower half of Figure 6.35 shows that currents will be induced in conductor C1 but not in conductor C2 because the lines of magnetic field cut conductor C1 but not conductor C2.

Figure 6.36 shows schematically how the secondary field from the conductor is added to the primary field vector so that the resultant field is tilted up on one side of the conductor and down on the other side. A VLF receiver measures the field tilt and hence we have the tilt profile shown in the upper part of Figure 6.36.

Interpretation is quite simple. The conductor is located at the inflection point making the crossover from positive tilt to negative tilt, and the maximum in field strength. One cannot make reliable

estimates of conductor quality, however. A rule of thumb depth estimate can be made from the distance between the positive and negative peaks in the tilt angle profile. The major disadvantage of the VLF method, however, is that the high frequency results in a multitude of anomalies from unwanted sources such as swamp edges, creeks and topographic highs. It is sometimes impossible to get a powerful enough VLF station to be near the strike direction of the expected conductor. On the other hand, the tendency for VLF to respond to poor conductors has aided in mapping faults and rock contacts.

The VLF-EM survey on the HV property utilized a Geonics EM-16 instrument set on the Seattle channel. Dip angle and field strength readings were taken at 25 meter intervals on the existing grid. Data was originally plotted on profile plan maps and then transformed to a contour type format using the Frazer Filter method.

The Frazer Filter manipulation procedure provides a data presentation which simplifies interpretation. The manipulation transforms crossovers into peaks and greatly reduces background noise.



FIGURE 6.34 Locations of well-known VLF transmitter stations

Coverage shown only for well-known stations





•

IGURE 6.36 III of the VLF lield vector over a conductor

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LEGEND

CRETACEOUS AND (?)EARLY TERTIARY

KTqfp Dark green, fine grained biotite-bearing mafic dikes. Minor quartz feldspar porphyry.

Kg Homogenous, medium grained, biotite quartz monzonite. LATE DEVONIAN AND MISSISSIPPIAN

Mv Undifferentiated felsic and mafic volcanics, hornblende

uDMs Black shale, chert grit, and chert conglomerate.

- SILURIAN, EARLY AND MIDDLE DEVONIAN
- SDd Buff, grey, and red weathering dolomite, with lenses of massive quartz arenite.
 Ss Grey weathering platey, thinly laminated dolomitic eitheree
- siltstone. Sq Massive grey weathering quartz arenite.
- ORDOVICIAN AND SILURIAN

OSsl Black, graptolitic shale, minor chert.

LATE CAMBRIAN AND EARLY ORDOVICIAN

uEOsl Grey-buff weathering thinly laminated calcareous phyllite. tuffaceous phyllite, with some mafic tuffs, and flows. uEOb Resistant dark green mafic flow or sill.

EARLY CAMBRIAN

IEcsl Grey weathering calcareous mica schist and marble.

SYMBOLS

Geological contact: defined, approx.: assumed
Bedding: inclined, vertical
Steep dipping fault: sense of movement unknown: defined approx.
Normal fault: defined, approx.
Thrust fault: defined, approx.
Outcrop
Claim post, claim boundary
Main road, 4x4 road, cat trail
Rock sample site and number

Geology after J.G. Abbot (1986).

YUKON MINERALS - PERREX J.V.

HV PROPERTY

PROPERTY GEOLOGY - SOUTH

GROUNDHOG CREEK, YUKON TERRITORY

NTS.:	105 F/10	G.D.	DATE: NOV., 1987
SCALE:	1 : 10,000	DRAFTING: INTEGRAPHICS LTD.	FIGURE: 6



















LEGEND :

06"_____No. 678561

Bearings are astronomic. derived from solar observations and are referred to the Central Meridian of U.T.M. Zone 8 (Long. 135%). U.T.M. Coordinates are derived from the Geodetic Control Station 678561 using latest published values resulting from the 1979 adjustment. Distances are in metres and decimals thereof and are shown at general ground level. Note: At Elevation 1900, measured distance x 0.99946 = U.T.M. Distance. Geodetic Control Station shown thus

I.6cm Square Iron Bar topped by a IOcm square by I.2m high red wooden post placed shown thus Wood stake for Geology Baseline found shown thus.

CERTIFIED CORRECT :

No. 4985/4

1 - 11 Canada Lands Surveyor

A. E. Surveyor December 20,1981 Date Date

UTM - ZONE 8									
STATION	NORTHING	EASTING	ELEVATION						
No. 4985/4 No. 67856/ 100 101 102 103 103-1 104 105 106 107 108 109 "BL 0+00, 0+00" "BL 0+00, 1+50S" "BL ? "BL 16+50" "BL 1250S, 2450W"	6 832 061.61 6 838 274.45 6 834 833.41 6 836 177.69 6 835 701.07 6 836 869.83 6 836 007.24 6 835 213.35 6 832 725.96 6 832 434.26 6 832 294.06 6 835 588.17 6 835 588.17 6 835 076.40 6 836 977.07 6 836 897.05	624 643.06 621 859.69 616 272.34 616 736.45 615 586.70 614 720.53 616 827.33 615 296.18 614 332.73 612 368.84 613 544.00 614 056.58 615 310.75 615 573.66 615 471.76 615 242.60 614 487.37 612 995.36	208/.33 2086.39 1604.54 1574.92 1956.22 1996.67 1649.14 1898.35 1568.68 1750.13 1621.81 1879.08 1877.93 1955.48 1953.10 1995.00 1926.26 1820.88						





PLAN OF TOPOGRAPHIC SURVEY OF 6 832 100 N GROUNDHOG CREEK AREA "A" LATITUDE 60° 36', LONGITUDE 132° 52' (APPROX.) NTS SHEET 105 F/10 YUKON TERRITORY SURVEYED OCTOBER 21 TO 22, 1987 FOR YUKON MINERALS CORPORATION . SCALE 1:1000 25 0 25 50 75 100 METRES LEGEND : Elevations are Geodetic. Contour Intervals are 20 metres. Spot Elevations are shown thus 6 83/ 900 N 6 831 700 N 6 831 500 N -13 • INTEGRAPHICS LTD.





PLAN OF TOPOGRAPHIC SURVEY OF

GROUNDHOG CREEK AREA "B" LATITUDE 60° 38', LONGITUDE 132° 49' W. (APPROX.) NTS SHEET 105 F/10 YUKON TERRITORY

SURVEYED OCTOBER 21 TO 22, 1987 FOR YUKON MINERALS CORPORATION

SCALE 1:1000

W 6 836 000 N

6 835 600 N

<u>6 835 400 N</u>

25	0	25	50	75	IOO METRES
, Al-					- Aller and a second
21					
LEGET	ND :				

× 1834.

• L.P.'s

Elevations are Geodetic Contour Intervals are 20 metres. Spot Elevations are shown thus I.6m Square Iron Bar topped by a IOcm square by I.2m high red wooden post placed shown thus

Wood stake for Geology Baseline found shown thus Mineral Claim Location Posts found shown thus

