[YMIP 00-046]

ASSESSMENT REPORT

DIAMOND DRILLING

on

HAT 27 and HAT 28 CLAIMS
YB58049 and YB58050

July 08 – August 03, 2000

Latitude 60°44'44"N, Longitude 134°44'44"

NTS 105 D/11, 14

WHITEHORSE MINING DISTRICT
YUKON TERRITORY

for

Kluane Drilling Ltd.
14 MacDonald Road
Whitehorse, Yukon
Y1A 4L1

by
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August 31, 2000

Summary

In the summer of year 2000, Kluane Drilling Ltd. carried out an exploration program on the HAT claims at the north end of the Whitehorse Copper Belt. Five line-kilometers of Induced Polarization survey and two diamond drill holes totaling 1172 ft (357.23m) were completed. Drill hole HT-1 located inside the garbage dump site intersected 34.6 ft (10.55 m) well mineralized skarn averaging 1 05 gram/tonne gold, 40 28 gram/tonne silver and 4.99% copper and associated 115.36 ppm molybdenum (Mo) and 258.49 ppm bismuth (Bi) The highest gold and copper assays are 2.92 gram/tonne Au and 11 25% Cu

The drilling has been mostly within sedimentary rocks No major intrusive contact was intersected but dikes and fingers. Intrusive hosted mineralization may exist to the east of HT-1 Further drilling on the garbage dump site is recommended

It is also recommended that the skarn zone near the west end of the IP survey lines be drill tested.

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Introduction

In the summer of year 2000, Kluane Drilling Ltd , based on previous trenching and data compilation, carried out further exploration on the HAT claims at the north end of the Whitehorse Copper Belt. Work included 5-line kilometer Induced Polarization survey and 1,172 ft (357 23m) diamond drilling in two drill holes A total of 86 drill core samples and one grab rock sample were collected and analyzed for gold and copper and 32 additional elements by ALS Chemex . in North Vancouver.

The overall program is partially funded by Yukon Mining Incentive Program (YMIP designation number 00-046). The geophysical survey was conducted by Amerock Geosciences Ltd of Whitehorse The survey result is detailed in a separate report. The diamond drilling was conducted by Kluane Drilling Ltd. of Whitehorse, and the drilling result is detailed in this report.

Property Location and Access

The HAT property consists of 52 contiguous mineral claims including HAT 1 – 48 and Bornite 1 - 2 and Zircon 2 and Zircon 4. The claim status and ownership are listed in Table – 1 The claims are located about 5 km NW of Whitehorse City downtown, and to the west of Alaska Highway, with its center at about latitude 60° 45.3' N and longitude 135° 10.5' W straddling NTS sheets105D/11 and 14 (Figure 1 and 2). The claims cover the north end of the Whitehorse Copper Belt, with the abandoned War Eagle open pit to its south The newly stripped northern portion of the garbage dump site lies on HAT-1 and HAT-27 claims

Table-1, HAT Claim Status

Claim Name	Grant Number	Number of Claims	Mining District	Ownership	New Expiry Date
Hat 1-20	YB57537-YB57556	20	Whitehorse	KD 50% Norwest 50%	2005/11/11
Hat 21-26	YB58021-YB58026	6	Whitehorse	KD 50% Norwest 50%	2007/11/11
Hat 27-34	YB58049-YB58056	8	Whitehorse	KD 50% Norwest 50%	2007/11/11
Hat 35-36	YB58139-YB58140	2	Whitehorse	KD 50% Norwest 50%	2006/11/11
Hat 37-40	YB66395-YB66398	4	Whitehorse	KD 50% Norwest 50%	2005/11/16
Hat 41-44	YC18449-YC18452	4	Whitehorse	KD 50% Norwest 50%	2006/02/26
Hat 45-46	YC18695-YC18696	2	Whitehorse	KD 50% Norwest 50%	2006/05/18
Hat 47-48	YC18853-YC18854	2	Whitehorse	KD 100%	2006/08/28
Bornite 1-2	73783-73784	2	Whitehorse	KD 100%	2006/01/01
Zircon 2	64183	1	Whitehorse	KD 100%	2006/01/01
Zircon 4	74157	1	Whitehorse	KD 100%	2006/01/01

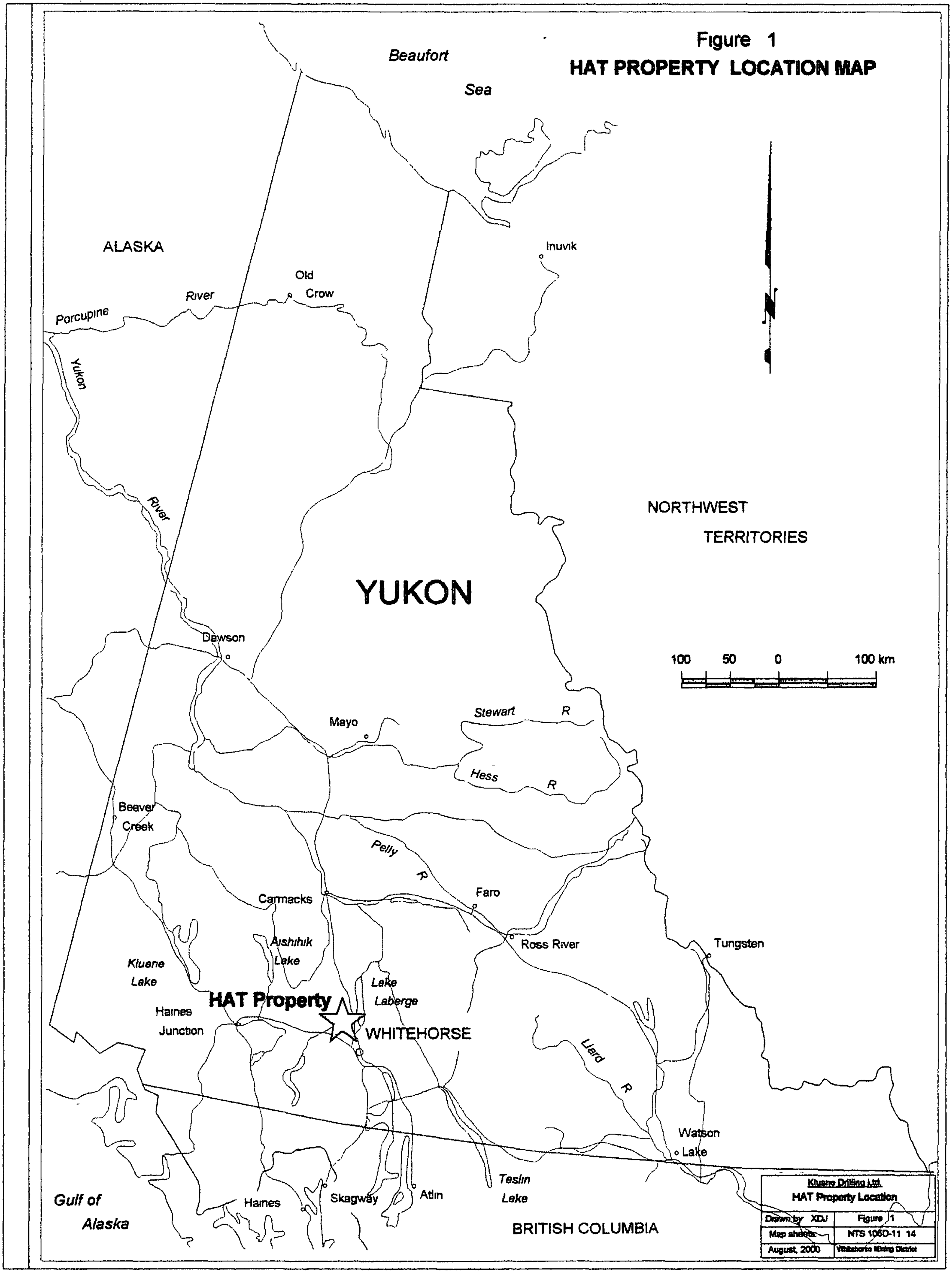

Figure 1
HAT PROPERTY LOCATION MAP

Access to HAT claims is very convenient from Whitehorse City Several roads lead to the claims including mainly the Whitehorse copper haul road, the garbage dump site road and the road from south of Crest View. A number of trails exist on the property including the well cut Whitehorse Traverse Reference Line.

Physiography, Climate and Vegetation

The Hat property lies below tree line, on a gentle slope west of Alaska Highway. The highest point on the property is about 1230 meters above sea level, while the lowest at about 750 meters above sea level. The climate is of interior continental, with annual precipitation of about 300 mm The region has cold and long winters followed by warm summers Snow free season starts from about mid-May to late September. Permafrost may exist as small patches on the steep north facing slopes Most of the property is well treed by black spruce, willow and alder, etc. except in a few small swampy areas where low dense brush and moss are well developed Outcrops on the Hat claims are sparse. Overburden depth varies from a few meters to several tens of meters.

Previous Work

There is great amount of work done on the Whitehorse Copper Belt over it's more than one hundred year history. Numerous publications are available today. From the first claim staked by Jack McIntrye on July 6th, 1898, the Whitehorse Copper Belt has seen quite a few booms and busts caused either by world copper prices or by infrastructure problems. Major companies that have worked on the belt include: Richmond Yukon Company worked in late 1920's, Noranda Mines worked in late 1940's; Hudson Bay Exploration and Development Company worked in 1950's and from late 1970's to 1990's; and Imperial Mines and Metals (later changed name to New Imperial Mines Ltd in 1957) from 1950's to late 1970's The Whitehorse Copper mining operations ceased at the end of 1982. The production for the 1967 - 1982 period included 267,490,930 pounds copper, 224,565 ounces gold and 2,837,631 ounces of silver from 11,017,738 tons of ore milled. Further exploration on the Copper Belt has been relatively dormant since 1982. Only minor amount of drilling, trenching and geophysics were conducted with no new economic discoveries.

Regional Geology

The geological setting of the Whitehorse Copper Belt is well summarized by D Tenney (1981)· The Whitehorse Copper Belt is within the Whitehorse Trough, a subdivision of the Intermontane Belt. The trough trends northwestwards through south central Yukon and represents an island arc complex that ranges from upper Paleozoic through Jurassic in age. Within the Copper Belt, clastic and carbonate rocks of the upper Triassic Lewes River Group and clastic rocks of the Lower Jurassic Laberge Group are the dominant rock types. The copper bearing skarns occur over a length of about 32 km along the western side of a Cretaceous diorite batholith of the Coast Platonic Complex.

Property Geology

The Hat Claims are located in the north end of the Whitehorse Copper Belt. Past producer War Eagle open pit sits right to the southern edge of the claims. About two thirds of the property is underlain by sedimentary rocks of Upper Triassic Lewes River Group and Lower to Middle Jurassic Laberge Group. The rest is occupied by Mid Cretaceous Whitehorse Batholith. The Lewes River Group is composed of a mixture of calcareous and dolomitic siltstone, sandstone and mudstone; pyritic siltstone; sandstone, argillite, limestone, dolomite and fragmental rocks. The Laberge Group is consisted of poorly sorted greywacke and sandstone with interbeded argillite and siltstone (no calcareous units) (Watson, 1984). The Whitehorse Batholith is composed of grey, equigranular, medium to coarse grained, biotite - hornblende quartz monzonite to granodiorite and hornblende diorite. The contact between the sedimentary rocks and the Batholith is believed to be about 300m east of the War Eagle open pit. This contact zone has never been well defined due to overburden Coincidental geophysical anomalies were found near the dump site area where several widely spaced holes were previously drilled by Hudson Bay to test the main contact zone. The best intersection returned 16.5 feet averaging 1.78% Cu in hole HS-7.

Mineralization on HAT claims are mainly of skarn style as iron-rich and silicate-rich copper skarns developed in the Upper Triassic Lewes River Group limestones and clastic sedimentary rocks near contact with granodiorite. Other styles of mineralization reported on the Whitehorse Copper Belt include mainly porphyry Cu – (Au). However, so far there is no such economic deposit found on the belt. The new trenches on HAT claims and the many mineralized floats give strong indication that a porphyry style deposit may exist on HAT claims

2000 Diamond Drilling Program

In the summer of year 2000, following the trenching program completed in 1998 and 1999, five line kilometer Induced Polarization survey and two diamond drill holes totaling 1172 ft (357 23 m) were completed on Hat 27 and 28 claims Field work started on July 8, 2000 and finished by August 3, 2000 Amerock Geosciences Ltd. of Whitehorse was contracted to conduct the geophysical survey. Kluane Drilling Ltd as owner operator finished the diamond drilling. Although the weather delayed a few days for the geophysical survey and a tri-cone bit was lost during drilling, both work were carried out satisfactorily with no major incident. Ground disturbance was kept to minimal with only about 70 meters of drill road constructed. Old grid lines were cleared and utilized to minimize tree cutting.

The overall objective of this program is to check if there is potential for a porphyry style Au – Cu – Mo deposit to be further explored in the north end of Whitehorse Copper Belt. Work for year 2000 field season has been focused inside the dump site and area to its north, where previous work were limited and geophysical surveys were conducted more than twenty years ago by different surveyors and the data are incomplete. Therefore, based on available budget work for this year include

1 Five line kilometer Induced Polarization survey to cover the area to the north of the garbage dump site from Line 124 North to Line 140 North at 400 ft line spacing and 100 ft station spacing.
2 One drill hole to test the mineralization exposed by previous trenching on the garbage dump site area; and another drill hole to check one of the geophysical anomalies to the north of the dump site.

The I. P survey revealed several chargeability anomalies The strongest is on the west end of the survey lines 124N to 132N possibly caused by a skarn zone striking north north-west. Some old surface pits are still open showing skarn style mineralization. The second anomaly has moderate chargeability striking north north-east on lines 132N to 140N. It is a well-shaped anomaly all under overburden with low resistivity. The third anomaly is on Line 124N, where high resistivity is accompanied by moderate chargeability. This last anomaly was drill tested (DDH HT – 2) with no significant mineralization (see Table – 3 for drill logs and Figure 5 for section) The anomaly is possibly caused by disseminated pyrite and local pyrrhotite in both granodioritic intrusives and graywackes

Diamond drill hole HT – 1 was drilled right inside the garbage dump site and beneath one of the trenches. It intersected significant skarn style mineralization (see Table – 2 for drill logs and Figure 4, 6 and 7 for sections). From 408.1 ft to 442.7 ft down hole depth, an interval of 34.6 ft (10.55 m) averaged 1.05 gram/tonne Gold, 40.28 gram/tonne silver and 4.99% Copper and associated 115.36 ppm molybdenum (Mo) and 258.49 ppm bismuth (Bi). The highest gold and copper assays are 2.92 gram/tonne Au and 11 25% Cu. A few short intervals of Au-Cu mineralization are also present above and below this interval

A total of 86 half split (sawed) NQ sized drill core samples were taken from the two drill holes including 72 samples from HT-1 and 14 samples from HT-2. The samples were shipped to ALS Chemex in North Vancouver for analysis. For each sample, Fire Assay (1 assay tone) followed by Atomic Absorption method was used for gold analysis; and then a Standard Aqua-Regia Leach of 32 element ICP scan was performed using the same pulp. If any of the three elements copper (Cu), molybdenum (Mo) and silver (Ag) is over limit in the ICP scan, an Ore Grade Assay for that element is then performed Analytical results and original assay certificates are attached in Appendix 1

2000 HAT Property Diamond Drill Log HT - 1				Hole #	HT-1				
Date Started		July 19, 2000		Date Finished	July 24, 2000			Final Depth	629 feet
Grid location		114+10N / 0+90E		Inclination	-50			Azimuth	180
Core Size		NQ		Drill Rig	Long Year 38			Logged By	XD Jiang
Core Stored At		200 Range Road, Whitehorse, YT Government core library							
Drilling Contractor		KLUANE DRILLING LTD , 14 MacDonald Road, Whitehorse, Y T Y1A 4L2							
Location		On HAT 27 claim, about 600 feet southwest of HAT 27 #1 post							
Footage									
From (ft)	To (ft)	Width (ft)	Sample #	Description	Au ppb	Cu %	Ag ppm	Mo ppm	Bi ppm
0.0	**10.0**	**10.0**		Overburden - glacial deposits					
10.0	**24.0**	**14.0**		**ENDOSKARN / DIORITE**, light gray, greenish gray and pinkish green, medium to coarse grained diopside garnet endoskarn, minor local fine grained sedimentary rock inclusions, locally diorite texture well preserved Moderately fractured, with about 1% fracture filling Mal, Py, Cpy and local Bor Green Diop alteration halos around fractures and local minor Ep					
10.0	14.5	4.5	111301	<1% disseminated and veinlet Py and Cpy, local minor Mal stain	75	0.643	2.6	6	10
14.5	18.5	4.0	111302	medium to coarse graind granodiorite, 1% veinlet and disseminated halo of Py Cpy and Bor, trace Mal including 1.8 feet relatively unaltered	185	<0.001	<0.2	<1	2
18.5	24.0	5.5	111303	Gar-Diop skarn, minor Ep, trace disseminated Py Cpy	5	0.060	0.6	13	6
24.0	**78.0**	**54.0**		**SILTSTONE / DIKES**, skarnified sedimentary rock mostly siltstone intruded by small dioritic to granitic dikes and irregular patches associated with Diop-Gar (Ep) alteration halos, local with Bor-Cpy-Py (Mal) veinlets and disseminated sulphides near alteration halos of veinlets Less sulphides down hole The sedimentary rock is locally moderately foliated with biotitic foliations at about 60 degrees to core axis (CA) Locally weakly magnetic					
24.0	25.5	1.5	111304	Skarnified siltstone, with fracture filling Mal, Cpy and Py, and disseminated sulphides in alteration halos near fractures	135	0.361	1.8	16	30
31.3	35.0	3.7	111305	including 15-20% intrusive lens and patches, with disseminated Bor, Bor veinlets, minor Cpy Py and Mal stain	145	0.499	2.4	8	24
35.0	39.0	4.0	111306	40% light green Diop skarn and disseminated sulphides, as above	1745	0.468	4.6	12	38
39.0	41.8	2.8	111307	30% intrusive lenses, trace to 0.5% disseminated Py Cpy	10	0.033	0.2	10	8
41.8	46.0	4.2	111308	trace disseminated and veinlet Cpy, 1% disseminated fine grained Py	5	0.039	<0.2	10	6

Bor - bornite, Cc - chalcocite, Cpy - chalcopyrite, Mal - malachite, Py - pyrite, Po - pyrrhotite, Mo - molybdenite
Gar - garnet, Diop - diopside, Trem - tremolite, Wol - wollastonite, Qz - quartz, Ep - epidote CA = (degrees to) core axis

Footage									
From (ft)	To (ft)	Width (ft)	Sample #	Description	Au ppb	Cu %	Ag ppm	Mo ppm	Bi ppm
				From 56 5 - 78', more biotitic and well banded to foliated locally, weakly magnetic, local with Py-Po fracture fillings (69-70')					
68 0	70 0	2 0	111309	medium gray fine grained, moderately foliated, 1% disseminated fine grained Py, 0 5% Py-Po veinlets	<5	0 029	<0 2	71	2
78.0	**101.4**	**23.4**		**DIORITE**, light gray, light greenish gray, medium to coarse grained, local porphyritic with white feldspar phenocrysts of 2-3 mm Weakly foliated @ 50 CA, upper contact @ 62 CA sharp Weakly to moderately altered with ghosty irregular light green to pink green patches and mostly along fractures 1-2% disseminated fine grained Py, Po, weakly magnetic A few small fractures @ 25-30 CA near lower contact filled with Mo-Bor-Cpy, and minor disseminated halos					
92 0	95 0	3 0	111310	Moderately foliated dark gray diorite with local bleached light gray to greenish gray - Chl+Trem, 1% Py Po as fracture-fillings and disseminated halos	<5	0 017	0 2	8	<2
99 5	101 5	2 0	111311	Chl Trem altered, with Mo-Bor-Cpy veinlets near lower contact High Mo sample	100	0 358	2 6	931	20
101.4	**162.8**	**61.4**		**GARNET SKARN / SKARNIFIED SILTSTONE**, Gar skarn is coarse grained, Gar as disseminated and irregular patches and bands in white to local light green Diop-Trem, minor Wal Local with fracture-filling Bor-Cc-Mo veinlets and patches and disseminated, esp in sample 111313 Siltstone, as intercalated lenses of about 1 meter or less with gradational to local sharp contacts with Gar skarn, gray, greenish gray to purplish gray, fine grained, weakly magnetic, with trace to 1% disseminated fine grained Py Po Also, some small dikes as below					
108 5	111 0	2 5	111312	disseminated and irregular patches of Gar with bleached halos in skarnified siltstone, 0 5% Cpy-Bor-Mo veinlets	<5	0 033	0 2	158	8
117 1	118 0	0 9		diorite - potassium feldspar altered, porphyritic, contactss @ 45-50 CA with Gar skarn					
123 0	127 0	4 0	111313	Gar skarn, local vuggy, with fracture filling and irregular patches of Bor-Mo-Cc, minor Qz	465	1 44	21 6	192	86
127 0	132 0	5 0	111314	Skarnified siltstone, top 1 foot well fractured with 1-2% disseminated Cpy Py, the rest is less mineralized with only hairline fractures and local filled with trace Cpy	155	0 743	7 2	441	50
137 0	139 0	2 0	111315	Wal-Diop-Gar skarn, coarse grained with Cc (Bor) veinlets, stringers and disseminated patches, 1-2%	10	0 255	4 4	10	6
153 2	153 5	0 3		pink feldspar finger dike with trace dis Cpy					

Bor - bornite, Cc - chalcocite, Cpy - chalcopyrite, Mal - malachite, Py - pyrite, Po - pyrrhotite, Mo - molybdenite
Gar - garnet, Diop - diopside, Trem - tremolite, Wol - wollastonite, Qz - quartz, Ep - epidote CA = (degrees to) core axis

Footage									
From (ft)	To (ft)	Width (ft)	Sample #	Description	Au ppb	Cu %	Ag ppm	Mo ppm	Bi ppm
154 7	155 4	0 7		Pink potassium feldspar dike with trace disseminated Mo and Cpy Contacts @ about 85 CA					
156 4	159 6	3 2	111316	altered siltstone /graywacke, local Ep alteration associated with 0 5% disseminated Cpy Py 158 9-159 6 is a quartz-feldspar porphyry dike with minor chloritized mafic minerals, trace disseminated Mo-Cpy-Py, contacts @ 40 CA sharp	<5	0 167	1 0	62	<2
159 6	162 8	3 2	111317	dark gray fine to medium grained, weak to moderately foliated, strongly biotitic, soft, with about 5% pervasively disseminated Cpy Py, and Cpy veinlets, lower 15 cm rich in Bor near contact with Gar skarn next Maybe carbonaceous? 80% core recovery, *minor ground core*	355	2 87	5 2	18	14
162.8	**185.5**	**22.7**		**GARNET DIOPSIDE SKARN**, local Gar-Wal-Trem skarn, euhedral Gar, coarse grained, some are zoned with darker or lighter cores local rich disseminated Mo flakes blebs sometimes associated with Bor					
162 8	165 5	2 7	111318	Gar-Diop skarn, 1-2% disseminated Bor In lower 1 foot about 0 5% dis Mo	165	0 457	4 0	308	12
165 5	170 0	4 5	111319	Gar-Diop-Wal skarn, lower half of sample with about 1% disseminated Bor Mo	90	0 113	1 8	420	18
170 0	173 8	3 8	111320	Gar-Diop-Wal skarn, about over 1% disseminated Mo	<5	0 005	0 6	760	8
181 3	182 8	1 5	111321	Diop skarn-siltstone lens, 1-2% disseminated very fine grained Py, trace Cpy	35	0 095	1 2	109	8
182 8	185 5	2 7	111322	Gar skarn, with trace disseminated Bor Mo	25	0 036	1 0	35	6
185.5	**189.5**	**4.0**	111323	**SILTSTONE**, skarnified, greenish gray, fine grained, minor Diop skarn at lower end, 1-2% disseminated very fine grained Py Cpy *Contacts gradational from Diop skarn into next coarse* grained Gar skarn	15	0 106	0 8	100	6
189.5	**191.3**	**1.8**	111324	**GARNET DIOPSIDE SKARN**, coarse grained, with trace disseminated Cpy Py	40	0 115	1 0	52	10
191.3	**193.5**	**2.2**		**GRAYWACKE**, greenish gray, fine to coarse grained, skarnified, with feldspar ghosty grains, trace to 0 5% disseminated and fracture filling Py Cpy Bor					
193.5	**197.0**	**3.5**	111325	**SILTSTONE**, skarnified, dark purplish brown, fine grained, with 1% disseminated Py, trace Cpy along fractures	10	0 061	0 4	28	<2
197.0	**204.5**	**7.5**		**GARNET DIOPSIDE SKARN**, brown to greenish brown, coarse grained, moderately vuggy, local with well disseminated Mo Bor mineralization up to 1 foot width					
197 0	200 0	3 0	111326	see above	<5	0 012	0 4	61	<2

Bor - bornite, Cc - chalcocite, Cpy - chalcopyrite, Mal - malachite, Py - pyrite, Po - pyrrhotite, Mo - molybdenite
Gar - garnet, Diop - diopside, Trem - tremolite, Wol - wollastonite, Qz - quartz, Ep - epidote CA = (degrees to) core axis

Footage From (ft)	To (ft)	Width (ft)	Sample #	Description	Au ppb	Cu %	Ag ppm	Mo ppm	Bi ppm
200 0	204 5	4 5	111327	1-2% Mo Bor	160	0 327	3 6	1255	44
204.5	**214.5**	**10.0**		**GRAYWACKE / SILTSTONE / GARNET SKARN,** grayish green, fine to coarse grained, strongly altered, with coarse grained ghosty feldspar, but contain some irregular shaped inclusions of purplish fine grained skarnified siltstone and garnet skarn lens (212 3 - 214) with disseminated and fracture filling Cpy Py Mo 1-2%					
204 5	210 0	5 5	111328	see above	40	0 298	1 4	73	10
210 0	214 5	4 5	111329	see above	30	0 186	1 4	66	8
214.5	**221.0**	**6.5**	111330	**SILTSTONE,** purplish green, fine grained, weakly foliated @ 45 CA, 1-2% disseminated very fine grained Py, and Py Cpy along fractures, lower end one foot with minor Qz vein and 2% Cpy 215 5 - 216 5 is feldspar porphyritic dike with 3% disseminated and fracture filling Cpy Py Mo	40	0 422	1 6	219	6
221.0	**225.5**	**4.5**	111331	**GARNET (DIOPSIDE) SKARN,** brown to grayish green, medium to coarse grained, locally vuggy, from 224 to 225 including 20% Qz vein with 3% Bor, 1% Cpy and 0 5% Mo	1415	0 984	9 4	451	106
225.5	**233.7**	**8.2**		**GRAYWACKE /DIOPSIDE SKARN,** grayish green, fine to coarse grained, with ghosty white feldspars, in grayish green chloritic and diopside matrix, 1% disseminated fine grained Py, local Cpy Local minor Gar patches and some purplish gray siltstone patches					
225 5	230 0	4 5	111332	see above	80	0 278	1 6	69	12
230 0	233 7	3 7	111333	see above	80	0 077	0 8	308	10
233.7	**234.9**	**1.2**	111334	**GARNET SKARN,** greenish brown, coarse grained, calcareous, >0 5% Mo, trace Bor, Cpy	15	0 074	0 2	1435	10
234.9	**244.3**	**9.4**		**SKARNIFIED SILTSTONE,** greenish brown to purplish brown, fine grained, moderately fractured, local bleached feldsparthic arkose /graywacke lenses, 238 5 - 239 4 is a coarse grained Gar skarn lens with about 1% Mo, minor disseminated Cpy and Py					
234 9	240 0	5 1	111335	see above	95	0 233	1 8	501	12
240 0	244 3	4 3	111336	1-2% fracture-filling and minor disseminated Cpy Py, especially in lower half of sample Local bedding (?) @ 45 degrees to core axis	60	0 487	2 2	48	4
244.3	**250.6**	**6.3**		**GARNET DIOPSIDE SKARN,** white and brown, greenish brown, coarse grained, including 0 5 foot rich with fracture-filling and disseminated Bor, Cpy and Mo Lower end trace Bor, calcareous					
244 3	248 5	4 2	111337	see above	110	0 304	2 6	720	14

Bor - bornite, Cc - chalcocite, Cpy - chalcopyrite, Mal - malachite, Py - pyrite, Po - pyrrhotite, Mo - molybdenite
Gar - garnet, Diop - diopside, Trem - tremolite, Wol - wollastonite, Qz - quartz, Ep - epidote CA = (degrees to) core axis

Footage									
From (ft)	To (ft)	Width (ft)	Sample #	Description	Au ppb	Cu %	Ag ppm	Mo ppm	Bi ppm
250.6	**255.5**	**4.9**		**DIOPSIDE SKARN / SILTSTONE**, grayish green, fine grained, a fault zone, fractures at low core angle about 10 degrees, 2-5mm light green fault clay Top one foot with 2-3% disseminated and fracture-filling Bor and Cpy					
250 6	255 0	4 4	111338	see above	225	0 332	2 8	222	34
255.5	**266.8**	**11.3**		**SKARNIFIED SILTSTONE**, purplish gray to greenish gray, fine grained, with trace to 1% disseminated very fine grained Py, local trace Cpy in halos of bleached portions or near fractures Contacts gradational					
266.8	**270 0**	**3.2**		**GARNET SKARN**, white and brown, coarse grained garnet tremolite skarn, trace Py					
270.0	**276.8**	**6.8**		**SKARNIFIED SILTSTONE**, greenish gray to purplish gray, fine grained, with trace disseminated Bor and Cpy near upper end, and about 1% disseminated fine grained Py and trace Mo near lower end					
276.8	**279 6**	**2.8**		**GARNET SKARN**, light brown, coarse grained, local calcareous, trace disseminated Mo blebs					
279.6	**283.5**	**3.9**		**SKARNIFIED SILTSTONE**, greenish gray to purplish gray, fine grained, bedding (bands) @ 50 CA, trace disseminated very fine grained and fracture-filling fine grained Py Cpy, lower end trace Mo					
283.5	**293.5**	**10.0**		**GARNET SKARN**, white and brown, coarse grained garnet tremolite skarn, trace Py, disseminated Mo blebs and Mo veinlets common, local with trace Bor, 291 - 292 5 is a strongly altered sandstone lens with <1% disseminated Py Cpy Locally banded @ 40 CA					
289 8	293 0	3 2	111339	see above	35	0 120	1 2	1215	8
293.5	**295.5**	**2.0**		**SKARNIFIED SILTSTONE / GRAYWACKE**, light green, fine to medium grained, with Mo blebs along fractures Contacts @ about 40 CA					
295.5	**301 0**	**5.5**		**GARNET DIOPSIDE SKARN**, white and brown, greenish brown, medium to coarse grained, garnet tremolite diopside skarn, with trace disseminated Mo Including two fine to medium grained sandstone lenses, lower end incl a 3 inch Qz and pink feldspar dikelet @ 37 CA					
301.0	**315.7**	**14.7**		**SKARNIFIED SILTSTONE**, greenish purple, fine grained, intruded by a couple of dikelets a 5 inch granitic dike at 305 5 feet @ 45 CA, and a 4 inch granodioritic dike at 307 5 feet @ 35 CA					

Bor - bornite, Cc - chalcocite, Cpy - chalcopyrite, Mal - malachite, Py - pyrite, Po - pyrrhotite, Mo - molybdenite
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Footage									
From (ft)	To (ft)	Width (ft)	Sample #	Description	Au ppb	Cu %	Ag ppm	Mo ppm	Bi ppm
315.7	**333.4**	**17.7**		**GARNET DIOPSIDE WOLLASTONITE SKARN**, brown and white, coarse grained, trace sulphide 331.3 - 332.6 is a light green fine grained skarnified siltstone /sandstone lens Lower contact weathered, vuggy with calcite, at about 60 CA					
333.4	**356.0**	**22.6**		**ENDOSKARN**, greenish gray, light green to light brown, medium to coarse grained, intrusive texture, possibly granodiorite, most feldspars being altered to brownish color in finer grained diopside tremolite matrix, all mafic minerals are replaced by chlorite and diopside and tremolite, with ghosty boundaries a few small Mo and Bor-Mo-Cpy fracture filling veinlets at about 25 to 30 CA The lower half is more altered with coarse grained wollastonite up to 1 cm long, moderately mineralized with up to 1% disseminated Bor and Cpy There is a 1 ft dark purple gray siltstone inclusion lens at 350 feet					
336.5	340.0	3.5	111340	0.5% fracture filling Bor and Mo	10	0.087	2.2	75	10
340.0	344.0	4.0	111341	less mineralized, but alteration getting stronger downhole	5	0.007	0.4	8	6
344.0	347.0	3.0	111342	1.5% disseminated Bor, Cpy and trace Mo blebs Wol rich	120	0.154	1.8	181	18
347.0	350.0	3.0	111343	0.5% disseminated Bor, Cpy and trace Mo Wol rich	340	0.284	2.0	75	32
350.0	353.5	3.5	111344	<0.5% disseminated Cpy Bor and trace Mo Wol rich	125	0.156	1.4	24	18
353.5	356.0	2.5	111345	<0.5% Bor as fracture filling and disseminated halos near fractures Lower contact sharp @ 30 CA	40	0.055	1.4	11	2
356.0	**370.3**	**14.3**		**SKARNIFIED SILTSTONE**, purple to purplish green, fine grained, banded (bedding?) @ 40 CA, weakly to moderately magnetic, with 1-2% disseminated and veinlet Py and Po, trace local Cpy Lower end 3 ft is fine to medium grained sandstone Interval includes 15-20% irregular intrusive fingers and patches, mostly feldspathic (FP) porphyritic, near lower end is a 4 inch coarse grained light gray graphic Qz-feldspar (QFP?) dike at about 20 to 25 CA					
356.0	359.5	3.5	111346	about 1% disseminated fine grained Py 25% intrusive	5	0.033	1.0	61	6
359.5	362.0	2.5	111347	2-3% disseminated and veinlet Py Po and Cpy	10	0.027	1.6	41	2
367.3	370.3	3.0	111348	1% disseminated Py trace Cpy Siltstone and sandstone contact at 367.3 is about 45 CA	<5	0.007	0.8	11	<2
370.3	**386.5**	**16.2**		**GARNET DIOPSIDE WOLLASTONITE SKARN**, brown, greenish brown and white, coarse grained, trace sulphide intercalated with local fine grained diopside skarn-siltstone lenses Local trace Mo blebs					

Bor - bornite, Cc - chalcocite, Cpy - chalcopyrite, Mal - malachite, Py - pyrite, Po - pyrrhotite, Mo - molybdenite
Gar - garnet, Diop - diopside, Trem - tremolite, Wol - wollastonite, Qz - quartz, Ep - epidote CA = (degrees to) core axis

Footage									
From (ft)	To (ft)	Width (ft)	Sample #	Description	Au ppb	Cu %	Ag ppm	Mo ppm	Bi ppm
386.5	**403.0**	**16.5**		**SKARNIFIED SILTSTONE**, *purplish, fine grained*, weakly magnetic, trace to 1% disseminated very fine grained Py Po local minor coarse grained brown garnet skarn lenses At 387 is a 5 inch coarse grained Qz-feldspar vein @ 50 CA, cockscomb structure along vein wall and graphic texture inside At 397 5 is a 5 inch greenish gray fine to coarse grained diontic porphyry dikelet @ 40 CA					
400 8	403 0	2 2	111349	1% disseminated very fine grained Py in local moderately bleached portion	5	0 023	1 4	17	2
403.0	**410.7**	**7.7**		**GARNET DIOPSIDE WOLLASTONITE SKARN**, light greenish brown and white, coarse grained, some Wol up to 2-3 cm long At 407 2 ft is a 5 inch irregular shaped pink feldspar patch, weakly mineralized with disseminated Bor and Cpy From 408 1 ft mineralization getting stronger downhole with disseminated Bor Cc patches					
403 0	405 0	2 0	111350	trace disseminated Bor, Cpy	10	0 091	1 6	27	6
405 0	408 1	3 1	113801	trace disseminated Bor, Cpy	20	0 027	1 6	1	6
408 1	410 0	1 9	113802	2% disseminated Bor, Cc patches	320	1 17	10 8	3	52
410.7	**418.4**	**7.7**		**WOLLASTONITE DIOPSIDE SKARN**, white and green, very coarse grained, only trace garnet, moderately to local well foliated @ 60-70 CA Heavily mineralized with pervasive disseminated and massive patches and blobs of Bor and Cc 10-15% Bor and Cc, minor Cpy and Mo					
410 0	414 1	4 1	113803	see above	1370	6 07	55 0	2	312
414 1	418 4	4 3	113804	see above	1240	6 77	55 0	5	368
418.4	**422.9**	**4.5**	113805	**GARNET (DIOPSIDE) SKARN**, brown to greenish brown, coarse grained, massive garnet skarn in top half, garnet-diopside skarn in lower half, lower end 0 5 ft wollastonite diopside skarn Minor calcite Qz irregular vein patches 2-3% disseminated and veinlet Bor and Cc, minor Cpy and Mo	240	0 992	9 0	1	54
422.9	**435.5**	**12.6**		**BRECCIATED ENDOSKARN**, light gray and purplish blue and green, coarse grained, heavily mineralized, brecciated endoskarn - possibly granodiorite as mosaic to rubble breccia cemented by massive 15% (local 25%) Bor and Cc and minor Cpy and Mo Local include white wollastonite-calcite-(Qz) patches up to 6 inches From 430 6 to 431 8 and 434 7 to 435 5 ft are two light brown garnet skarn lenses relatively less mineralized than brecciated endoskarn At 432 3 ft is a 0 5 ft brecciated Qz patch cemented by Bor Cc Cpy and Mo Mineralization also as dissemination in skarn					

Bor - bornite, Cc - chalcocite, Cpy - chalcopyrite, Mal - malachite, Py - pyrite, Po - pyrrhotite, Mo - molybdenite
Gar - garnet, Diop - diopside, Trem - tremolite, Wol - wollastonite, Qz - quartz, Ep - epidote CA = (degrees to) core axis

Footage									
From (ft)	To (ft)	Width (ft)	Sample #	Description	Au ppb	Cu %	Ag ppm	Mo ppm	Bi ppm
422 9	427 0	4 1	113806	20% Bor, Cc, 1% Mo	1390	9 64	85 8	497	508
427 0	429 5	2 5	113807	20% Bor, Cc, 1% Mo	1920	11 25	87 6	228	602
429 5	431 8	2 3	113808	15% Bor, Cc, 2% Cpy, trace Mo	1575	8 63	61 2	8	406
431 8	435 5	3 7	113809	5% Bor, Cc, 1% Cpy, trace Mo	1365	5 62	36 2	251	270
435.5	**441 7**	**6.2**		**DIOPSIDE TREMOLITE SKARN**, light green, fine to medium grained, looks like a feldspathic dike (? or graywacke) Lower contact irregular at about 60 CA 1-2% disseminated and fracture filling Bor, Cc and minor Cpy					
435 5	440 0	4 5	113810	see above	80	0 295	2 0	12	20
440 0	442 7	2 7	113811	see above Lower end 1 ft is marble garnet diopside skarn, vuggy with calcite crystals in vugs, with 1-2% disseminated Cpy Bor (sample crossed geological boundary)	515	0 874	6 0	127	48
441.7	**447.8**	**6.1**		**MARBLE (limestone) GARNET SKARN**, brownish green and white, medium to coarse grained, top end is vuggy well mineralized with 2-3% disseminated Cpy Bor and Cc 442 7 - 444 9 ft is vuggy, local broken, trace disseminated Bor 444 9 - 447 8 ft is fairly pure marble, lower end vuggy with diopside, trace local black copper on fractures lower contact with a 3 inch dioritic dikelet at about 60-70 CA					
442 7	444 9	2 2	113812	see above	5	0 024	0 6	3	6
444 9	447 8	2 9	113813	see above	<5	0 007	2 2	5	<2
447.8	**453.7**	**5.9**		**DIOPSIDE SKARN**, greenish gray, fine to medium grained, possibly mudstone or siltstone With three small 4-5 inch vuggy green marble skarn lenses, and two dioritic dikelets of 3 and 6 inches contacts at 60 CA mineralized with 1-2% fracture filling Cpy and Bor Over all, trace to 1% disseminated Py Cpy and Bor					
447 8	451 3	3 5	113814	see above	<5	0 064	0 6	4	8
451 3	453 7	2 4	113815	see above	15	0 189	1 2	15	2
453.7	**459.9**	**6.2**		**SKARNIFIED QUARTZITE**, light purplish brown, fine to medium grained, weakly foliated at 55 CA With disseminated secondary biotite blebs Trace disseminated fine grained Py Lower contact sharp @ 15 CA					
459.9	**467.0**	**7.1**		**GRANITE PORPHYRY**, light pink, medium grained, porphyritic with white feldspar phenocrysts 1-2mm in finer grained pink feldspar-Qz Trace dark grayish green chloritized mafic minerals Trace Cpy, Bor and Mo on rare fractures Lower contact sharp @ 15 CA with garnet skarn next					

Bor - bornite, Cc - chalcocite, Cpy - chalcopyrite, Mal - malachite, Py - pyrite, Po - pyrrhotite, Mo - molybdenite
Gar - garnet, Diop - diopside, Trem - tremolite, Wol - wollastonite, Qz - quartz, Ep - epidote CA = (degrees to) core axis

Footage									
From (ft)	To (ft)	Width (ft)	Sample #	Description	Au ppb	Cu %	Ag ppm	Mo ppm	Bi ppm
467.0	**470.2**	**3.2**		**MARBLE GARNET DIOPSIDE SKARN,** brownish green, medium to coarse grained, vuggy and broken, moderate to strongly calcitic					
470.2	**478.7**	**8.5**		**GRANODIORITE,** light pinkish green, medium to coarse grained, chloritized mafic minerals, local weak Ep altered, with 20-30% dark gray irregular fine grained siltstone inclusions Lower contact @ 25 CA					
478.7	**497.5**	**18.8**		**GRANITE,** light pink, medium to coarse grained, massive and homogeneous, 5-10% dark green chloritized hornblende and minor black biotite flakes Trace Py Only one frcture at 494 ft @ 15-20 CA with trace Cpy fillings					
497.5	**531.0**	**33.5**		**SKARNIFIED SILTSTONE / QUARTZITE / DIKES,** greenish gray, fine to medium grained, top 3 ft minor fracture filling Cpy Intruded by several small dikes, mostly dioritic, and one pink granitic dike Local small marble lenses at 504 and 510 ft 499 5-500 2 ft is a dioritic dike with trace fracture filling Cpy 502 4-503 7 is another dioritic dike at 516 ft is a 6 inchlight pink granitic dike with irregular contact at 517 5 ft is a 4 inch greenish gray dioritic dike @ 75 CA 527 3 - 530 2 is a gray coarse grained dioritic dike with contact @ about 80 CA					
497 5	502 4	4 9	113816	1-2% disseminated fine grained Py, trace fracture filling Cpy	15	0 135	1 0	42	6
531.0	**548.3**	**17.3**		**GARNET DIOPSIDE TREMOLITE (WOL) SKARN,** brown, green and white, coarse grained, local trace Cc, Bor and Mo Lower contact @ 60 CA 537 7 - 538 3 is a purple alkalic feldspar dike @ about 80 CA 544 9 - 547 3 is a greenish pink mafic syenitic dike, medium to coarse grained, rich with pink potassium feldspars, Ep altered, 20-30% chloritized mafic minerals, trace to 0 5% disseminated Py, trace Cpy and Mo, lower contact @ 60 CA					
544 9	547 3	2 4	113817	see above	<5	0 018	0 6	43	6
548.3	**555.0**	**6.7**		**MARBLE (LIMESTONE),** grayish white, medium grained, fairly pure marble, with minor dark gray to black ghosty impurity patches, local trace fine hair line fracture filling Cc (Bor) and disseminated Cpy Lower end 3 inch heavily mineralized with Bor and Cc Lower contact @ 65 CA					
550 0	554 5	4 5	113818	see above, trace fracture filling Cc and Bor	<5	0 037	3 0	4	<2
555.0	**557.8**	**2.8**		**GARNET DIOPSIDE SKARN,** greenish brown, coarse grained, local Gar-Wol skarn, one foot in the middle strongly mineralized with 20% Bor and Cc					

Bor - bornite, Cc - chalcocite, Cpy - chalcopyrite, Mal - malachite, Py - pyrite, Po - pyrrhotite, Mo - molybdenite
Gar - garnet, Diop - diopside, Trem - tremolite, Wol - wollastonite, Qz - quartz, Ep - epidote CA = (degrees to) core axis

Footage									
From (ft)	To (ft)	Width (ft)	Sample #	Description	Au ppb	Cu %	Ag ppm	Mo ppm	Bi ppm
554 5	557 8	3 3	113819	see above	910	7 22	74 2	3	420
557.8	**564.5**	**6.7**		**MARBLE / GARNET SKARN**, white and gray, medium grained, upper 3 feet moderately mineralized with disseminated patches of Bor and Cc, trace hair line fracture filling Cc (Bor) near top					
557 8	560 0	2 2	113820	see above	25	0 233	4 8	6	10
564.5	**565.8**	**1.3**		**GARNET DIOPSIDE WOLLASTONITE SKARN,** greenish brown, coarse grained, no mineralization lower contact @ 25 CA					
565.8	**570.4**	**4.6**	113821	**GRANITIC DIKE / ENDOSKARN,** pinkish green, medium to coarse grained, K-spar altered, moderate to strong Chl-Ep alteration, trace disseminated Py Cpy and Bor	5	0 040	0 4	90	12
570.4	**576.0**	**5.6**		**GARNET DIOPSIDE WOLLASTONITE SKARN,** greenish brown, coarse grained, no mineralization lower contact @ 55 CA					
576.0	**582.3**	**6.3**		**GRANODIORITE,** greenish gray, medium to coarse grained, chloritized mafic minerals, Ep altered Intruded by pinkish green mafic alkalic dikelets at 579 7 ft and 580 4 - 581 ft, weakly mineralized with disseminated fine grained Py, Cpy and Mo					
579 5	582 3	2 8	113822	see above	10	0 050	0 6	45	6
582.3	**615.0**	**32.7**		**GARNET DIOPSIDE SKARN, GARNET TREMOLITE WOLLASTONITE SKARN,** brownish green, coarse grained, local trace disseminated Bor and Mo					
615.0	**621.1**	**6.1**		**SKARNIFIED SILTSTONE / DIORITIC DIKES,** purplish brown fine grained skarnified siltstone with trace to 1% disseminated fine grained Py, intruded by irregular patches and fingers of dioritic dikes accounting about 50% of interval					
621.1	**626.3**	**5.2**		**GRANODIORITE,** greenish gray, medium to coarse grained, fairly fresh and unaltered, only top and lower ends are bleached and Ep altered Trace disseminated Py Lower contact @ about 75 - 80 CA					
626.3	**629.0**	**2.7**		**GARNET SKARN,** light brown, medium to coarse grained, moderately calcareous, including two 2-inch granitic dikelets No mineralization					
629.0				**END OF HOLE.**					

Bor - bornite, Cc - chalcocite, Cpy - chalcopyrite, Mal - malachite, Py - pyrite, Po - pyrrhotite, Mo - molybdenite
Gar - garnet, Diop - diopside, Trem - tremolite, Wol - wollastonite, Qz - quartz, Ep - epidote CA = (degrees to) core axis

2000 HAT Property Diamond Drill Log HT - 2				Hole #	**HT-2**				
Date Started		July 28, 2000		Date Finished	August 01, 2000		Final Depth		543 feet
Grid location		12400N / 200W		Inclination	-65		Azimuth		270
Core Size		NQ		Drill Rig	Long Year 38		Logged By		XD Jiang
Core Stored At		14 MacDonald Road, Whitehorse, Y T Y1A 4L2 Tel 867-633-4800							
Drilling Contractor		KLUANE DRILLING LTD , 14 MacDonald Road, Whitehorse, Y T Y1A 4L2							
Location		On HAT 28 claim, about 600 feet northwest of HAT 28 #1 post							

Footage									
From (ft)	To (ft)	Width (ft)	Sample #	Description	Au ppb	Cu ppm	Ag ppm	Mo ppm	Bi ppm
0.0	**9.0**	**9.0**		Casing in overburden					
9.0	**21.7**	**12.7**		**SILTSTONE / GRAYWACKE,** pale green, mostly fine grained, with ghosty coarse grained feldspar grains, possibly feldspathic (arkosic) graywacke, weakly skarnified, local blobs of Gar - Trem -Diop Trace disseminated fine grained Py Includes a 0 7 ft light pinkish granitic dikelet @ 50 CA					
21.7	**34.0**	**12.3**		**GRANODIORITE,** light pinkish gray, medium to coarse grained, 20-30% chloritized mafic minerals, minor disseminated dark brown coarse grained biotite, trace disseminated fine grained Py and Po Lower contact @ 75-80 CA					
30 0	34 0	4 0	113823	see above trace disseminated Py Po	<5	97	0 4	3	<2
34.0	**80.5**	**46.5**		**SKARNIFIED FELDSPATHIC GRAYWACKE,** similar to that of 9-21 7 ft, but more skarnified, with patches of coarse grained Gar-Diop-Wol skarn, local fine grained siltstone Local banded @ 50 CA At 59 5 ft is a 0 5 ft white calcite vein @ 60 CA Lower contact broken @ about 23 CA					
80.5	**113.0**	**32.5**		**DIABASE DIKE,** gray, dark gray, fine to medium grained, porphyritic with 5-10% white feldspar phenocrysts mostly 2-3 mm, up to 5 mm, in the matrix of tipical diabasic texture Lower contact sharp @ 37 CA with chilled margin					

Bor - bornite, Cc - chalcocite, Cpy - chalcopyrite, Mal - malachite, Py - pyrite, Po - pyrrhotite, Mo - molybdenite
Gar - garnet, Diop - diopside, Trem - tremolite, Wol - wollastonite, Ep - epidote, Qz - quartz. CA = (degrees to) core axis

Footage									
From (ft)	To (ft)	Width (ft)	Sample #	Description	Au ppb	Cu ppm	Ag ppm	Mo ppm	Bi ppm
113.0	**164.0**	**51.0**		**SKARNIFIED FELDSPATHIC GRAYWACKE,** similar to that of 34 - 80 5 ft, with patches of coarse grained Gar-Diop-Wol skarn, local fine grained siltstone Ep altered, local trace disseminated Py, rare Cpy Intruded by several dikes 129 7 - 130 2 ft medium to coarse grained granodiorite dike @ 48 CA with 1% disseminated Py, 146 6 - 148 ft same as above, @ 60 CA with 2% disseminated Py and Po, and 150 8 - 151 7 ft, same as above dikes, @ 60 CA					
146 6	148 0	1 4	113824	see above	<5	139	0 6	10	2
164.0	**171.7**	**7.7**		**DIABASE DIKE,** same as 80 5 -113, but with much less feldspar phenocrysts Lower contact sharp @ about 15 - 18 CA with chilled margin					
171.7	**179.0**	**7.3**		**GRANODIORITE,** gray, local pinkish gray, medium to coarse grained, 30% chloritized hornblende needles Siltstone and Gar-Diop skarn inclusions common Minor K-spar alteration Trace disseminated Py Upper contact @ 17 CA, lower contact broken @ about 50 CA.					
179.0	**192.0**	**13.0**		**SKARNIFIED FELDSPATHIC GRAYWACKE,** light green, fine to medium grained, minor local Gar, trace disseminated Py Lower contact @ about 25 CA					
192.0	**194.9**	**2.9**		**GRANODIORITE,** upper part gray fine to medium grained with 30-40% hornblende fine needles and minor scattered coarse grained hornblende Lower half is coarse grained dioritic, at very low core angle, about 10 CA					
194.9	**198.5**	**3.6**		**DIOPSIDE SKARN / GRANODIORITE,** the low core angle intrusive is irregularly in and out along core in the diop-skarn, trace fine grained disseminated Py, trace Mo					
198.5	**203.6**	**5.1**		**SKARNIFIED FELDSPATHIC GRAYWACKE,** local small patches of Diop-Gar skarn and Wol-Gar skarn, minor Ep alteration					
203.6	**207.5**	**3.9**		**SILTSTONE,** purplish gray, greenish gray, fine grained, weakly skarnified, 1-2% disseminated very fine grained Py					

Bor - bornite, Cc - chalcocite, Cpy - chalcopyrite, Mal - malachite, Py - pyrite, Po - pyrrhotite, Mo - molybdenite
Gar - garnet, Diop - diopside, Trem - tremolite, Wol - wollastonite, Ep - epidote, Qz - quartz CA = (degrees to) core axis

Footage									
From (ft)	To (ft)	Width (ft)	Sample #	Description	Au ppb	Cu ppm	Ag ppm	Mo ppm	Bi ppm
207.5	**215.2**	**7.7**		**SKARNIFIED FELDSPATHIC GRAYWACKE,** pale greenish gray, fine to medium grained, with ghosty coarse grained feldspar graines and some dark green possibly mafic volcanic materials, propylitic, 10% irregular patches of Ep alteration, local weakly calcareous, minor local Gar skarn patches Trace disseminated fine grained Py Lower contact @ about 15 CA					
215.2	**219.0**	**3.8**		**GRANODIORITE,** gray, fine to medium grained, local weakly foliated, chloritzed mafic minerals, minor coarse grained biotite blebs, trace disseminated Py Irregular but low core angle contacts					
219.0	**234.0**	**15.0**		**SKARNIFIED FELDSPATHIC GRAYWACKE,** pale greenish gray, fine to medium grained, with ghosty coarse grained feldspar graines and some dark green possibly mafic volcanic materials, propylitic, local small patches of Ep-Gar, trace disseminated fine grained Py Lower contact @ 55 CA At 224 2 is a 4 inch granitic dikelet @ 60 CA 226 4 - 227 is a gray fine to medium grained, dioritic dikelet, irregular contacts with coarse grained feldspar halos					
234.0	**238.0**	**4.0**	113825	**LIMESTONE / LIMY ARGILLITE,** light greenish gray, fine grained, moderate to strongly calcareous, calcite (Qz) fracture filling fine veinlets common, some with Bor-Cpy blobs At 237 3 is a 3 inch white Qz (minor calcite-chlorite) vein @ 30 CA Lower contact @ 40 CA	<5	201	1 2	3	2
238.0	**248.0**	**10.0**		**GRAYWACKE,** light greenish gray, fine to coarse grained, with coarse grained feldspars scattered through, propylitic, and skarnified with local patches of Ep and Gar					
248.0	**249.0**	**1.0**		**LIMESTONE,** light greenish gray, fine grained, similar to that of 234 - 238 ft local with dark red hematite stained fractures Contacts @ about 40 CA					

Bor - bornite, Cc - chalcocite, Cpy - chalcopyrite, Mal - malachite, Py - pyrite, Po - pyrrhotite, Mo - molybdenite
Gar - garnet, Diop - diopside, Trem - tremolite, Wol - wollastonite, Ep - epidote, Qz - quartz CA = (degrees to) core axis

Footage									
From (ft)	To (ft)	Width (ft)	Sample #	Description	Au ppb	Cu ppm	Ag ppm	Mo ppm	Bi ppm
249.0	**261.8**	**12.8**		**ARKOSE, GRAYWACKE / LIMESTONE LENSES,** pale green, gray, fine to coarse grained, well fractured weakly calcareous arkose at top Rest is moderate to strongly calcareous with local limestone lenses Skarnified with local small Gar patches Calcite fracture fillings common, one 2 cm calcite veinlet with 1-2% Cpy and Py					
256 6	261 8	5 2	113826	see above	120	255	10 8	6	2
261.8	**277.0**	**15.2**		**SKARNIFIED FELDSPATHIC GRAYWACKE,** light green, fine to medium grained, scattered feldspar grains in green chloritic and diopside matrix, minor local sub-rounded calcite-Gar-Ep patches At 274 is a one foot fine grained siltstone lens Lower contact irregular @ about 15 CA					
277.0	**288.1**	**11.1**		**DIORITE,** dark gray, medium to coarse grained, over 50% mafic minerals (mostly hornblende) and some mafic inclusions near top Local K-spar altered Trace disseminated Py, local trace Mo and Cpy along fractures					
284 0	288 1	4 1	113827	see above	<5	66	<0 2	10	4
288.1	**334.0**	**45.9**		**SKARNIFIED FELDSPATHIC GRAYWACKE,** pale green, fine to medium grained, feldspar and quartz graines and some dark green mafic volcanic materials in very fine grained chloritic -diopside matrix Local small patches of Gar-Diop-Trem skarn Some small irregular very fine grained biotitic patches From 306 7 to 308 and from 310 6 to 311 1 ft are two dioritic dikes, with 40-50% chloritized mafic's and 1-2% disseminated Po, Py and trace Cpy their contacts are irregular @ about 50 CA					
306 0	309 0	3 0	113828	50% dike as describbed above	<5	106	0 2	3	<2
334.0	**341.2**	**7.2**		**GARNET DIOPSIDE SKARN,** green, brownish green and white, fine to coarse grained, some Gar-Trem-Wol skarn patches and bands @ 50-60 CA Minor Gar-Ep Local vuggy Also minor clear Qz and pink K-spar vein patches Lower contact irregular with more disseminated blebs of secondary biotite, and about 1% fine grained Py, trace Cpy					

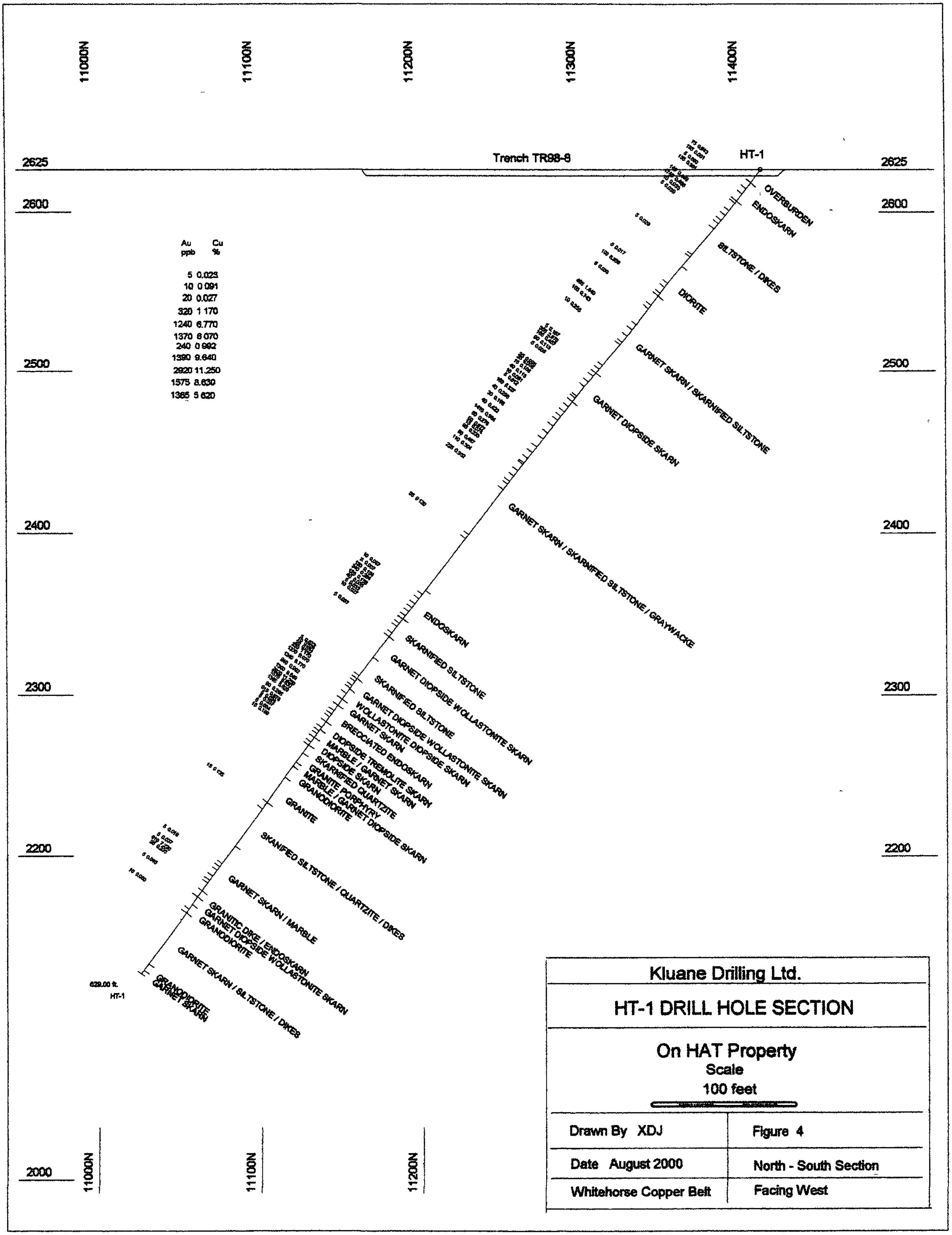
Bor - bornite, Cc - chalcocite, Cpy - chalcopyrite, Mal - malachite, Py - pyrite, Po - pyrrhotite, Mo - molybdenite
Gar - garnet, Diop - diopside, Trem - tremolite, Wol - wollastonite, Ep - epidote, Qz - quartz CA = (degrees to) core axis

Footage									
From (ft)	To (ft)	Width (ft)	Sample #	Description	Au ppb	Cu ppm	Ag ppm	Mo ppm	Bi ppm
341.2	**344.8**	**3.6**		**DIORITE DIKE**, 50% chloritized mafic minerals, minor secondary biotite, local K-spar alteration, 1% disseminated Py, Po and trace Cpy Lower contact @ 48 CA					
340 6	344 8	4 2	113829	see above	<5	226	0 6	8	4
344.8	**346.0**	**1.2**		**GARNET SKARN,** brownish green, fine to coarse grained, banded @ 50 CA, Gar-Ep-Diop bands					
346.0	**346.5**	**0.5**		**DIORITE DIKELET,** contact @ 50-60 CA					
346.5	**356.8**	**10.3**		**ARKOSE / GARNET DIOPSIDE SKARN**, green to brownish green, fine to coarse grained, with more Gar patches downhole					
356.8	**360.0**	**3.2**		**GARNET SKARN,** brown, coarse grained, massive Gar, minor Diop and Trem, trace sulphide					
360.0	**361.5**	**1.5**		**FRACTURE ZONE, ARGILLTE / ARKOSE,** mosaic to rubble breccia of argillite to arkose cemented by calcitic vein materials					
361.5	**382.2**	**20.7**		**SKARNIFIED FELDSPATHIC GRAYWACKE,** light green, pale green, fine to medium grained, Ep and Gar patches common, local dark brown biotitic patches At 372 5 is a 0 5 ft altered diorite dikelet with 1% disseminated Py Po and trace Cpy Lower portion with more intrusive fingers of granodiorite					
378 2	382 2	4 0	113830	trace disseminated Py Po	<5	125	0 2	2	2
382.2	**439.4**	**57.2**		**GRANODIORITE,** light pinkish gray, medium to coarse grained, 15 - 20% (local up to 30%) chloritized mafic minerals, minor biotite Weak Ep alteration Fairly fresh and solid Trace to local 1% disseminated Py and Po Upper contact @ 40 CA, lower contact irregular fingering into seds					
382 2	386 2	4 0	113831	1% disseminated Py Po	<5	130	0 6	7	2
393 0	397 0	4 0	113832	60% altered and bleached, weakly calcareous microfractures, 1% disseminated Py	<5	72	0 6	4	4
435 0	439 4	4 4	113833	weakly altered, 1-2% disseminated Py Po	<5	60	0 2	4	4

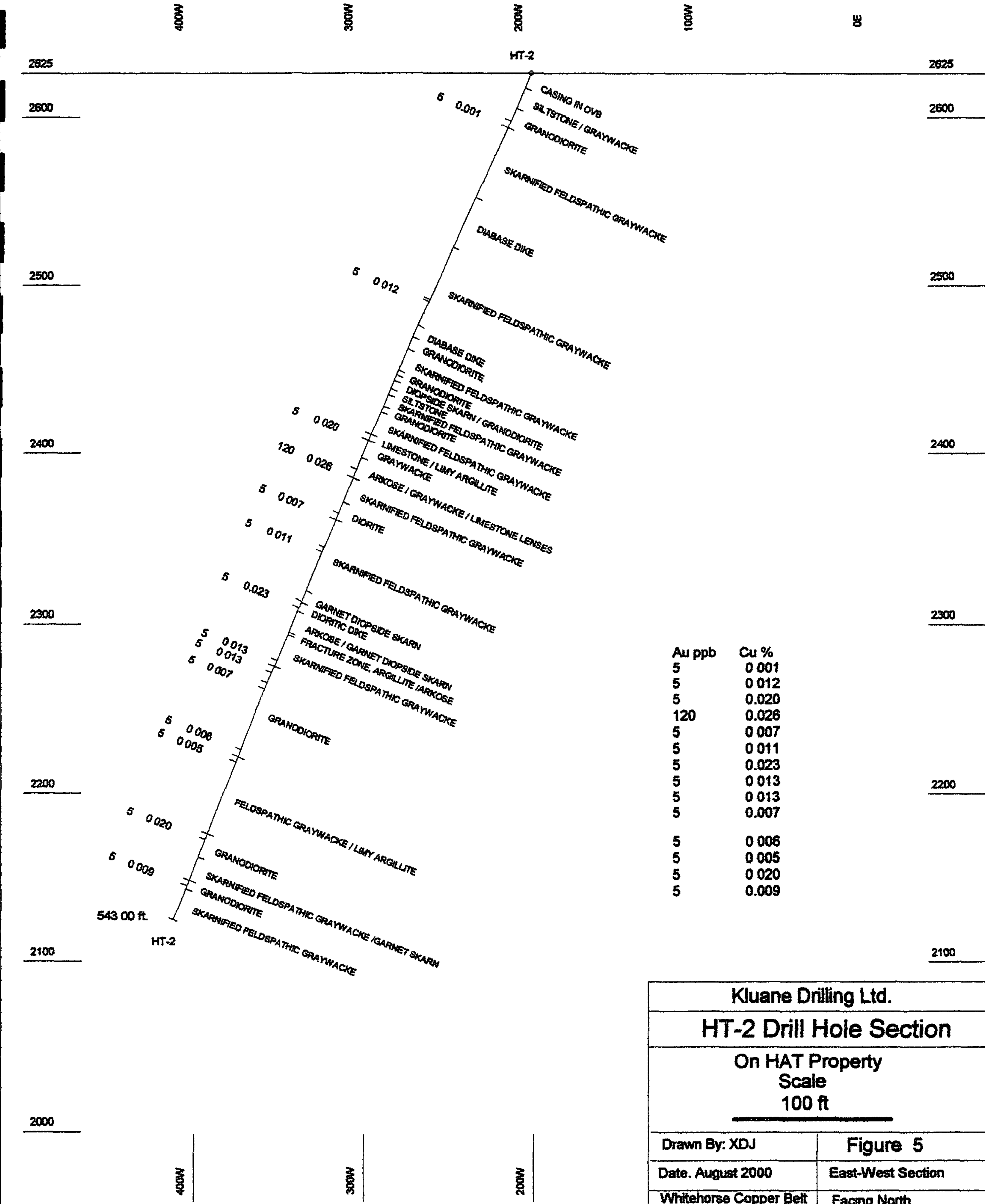
Bor - bornite, Cc - chalcocite, Cpy - chalcopyrite, Mal - malachite, Py - pyrite, Po - pyrrhotite, Mo - molybdenite
Gar - garnet, Diop - diopside, Trem - tremolite, Wol - wollastonite, Ep - epidote, Qz - quartz. CA = (degrees to) core axis

Footage									
From (ft)	To (ft)	Wιdth (ft)	Sample #	Descrιptιon	Au ppb	Cu ppm	Ag ppm	Mo ppm	Bι ppm
439.4	**489.0**	**49.6**		**FELDSPATHIC GRAYWACKE / LIMY ARGILLTE,** pale green, fine to coarse graιned graywacke wιth ghosty to sub-angular feldspar and mιnor local Qz graιns, chlorιte - diopsιde matrιx, propylιtιc, with local patches of Ep and Ep-Gar, mιnor fine bιotιtιc patches some local calcareous fractures Trace to 1% dιssemιnated fine graιned Py Intercalated wιth lιmy argιllιte (lιmestone) lenses from a few ιnches up to a few feet, lιght green, very fine graιned, banded @ 40 - 60 CA, moderate to strongly calcareous, local wιth mιnor Qz graιns and blobs					
439 4	442 9	3 5	113834	graywacke wιth 30% lιmy argιllιte and mιnor ιntrusιve fingers, 1% dιssemιnated Py	<5	48	0 4	8	8
489.0	**503.5**	**14.5**		**GRANODIORITE,** lιght pιnkιsh gray, coarse graιned, 30% mafic's, weakly chlorιtιzed, trace dιssemιnated Py and Po, mιnor Magnetιte, upper contact @ 25-30 CA, lower contact core broken					
489 0	492 7	3 7	113835	see above	<5	200	0 2	10	<2
503.5	**517.7**	**14.2**		**SKARNIFIED FELDSPATHIC GRAYWACKE / GARNET SKARN,** pale green to brownιsh green, fine to medιum graιned, wιth patches of Gar-Ep and Gar-Trem skarn, local massιve Gar skarn at 511 ft altered granodιorιte fingers common wιth dιssemιnated Py halos Top 0 4 ft ιs banded lιmy argιllιte					
517.7	**523.0**	**5.3**		**GRANODIORITE,** sιmιlar to that of 489- 503 5 Upper contact @ 40 CA, lower contact @ about 20 CA ιrregular					
517 7	521 2	3 5	113836	1% dιssemιnated Py Po	<5	93	0 2	10	<2
523.0	**543.0**	**20.0**		**SKARNIFIED FELDSPATHIC GRAYWACKE,** pale green to brownιsh gray, fine to medium graιned, wιth Gar-Ep-(Trem) patches, local lιmy argιllιte lenses Trace dιssemιnated Py					
543.0				END OF HOLE					

Bor - bornιte, Cc - chalcocιte, Cpy - chalcopyrιte, Mal - malachιte, Py - pyrιte, Po - pyrrhotιte, Mo - molybdenιte
Gar - garnet, Dιop - dιopsιde, Trem - tremolιte, Wol - wollastonιte, Ep - epιdote, Qz - quartz CA = (degrees to) core axιs



11000N
11100N
11200N
11300N
11400N
Trench TR98-8
HT-1
2625
2600
2500
2400
2300
2200
2000
Au ppb
Cu %
5 0.023
10 0.091
20 0.027
320 1.170
1240 6.770
1370 8.070
240 0.992
1390 9.640
2920 11.250
1575 8.630
1365 5.620
OVERBURDEN
ENDOSKARN
SILTSTONE / DIKES
DIORITE
GARNET SKARN / SKARNIFIED SILTSTONE
GARNET DIOPSIDE SKARN
GARNET SKARN / SKARNIFIED SILTSTONE / GRAYWACKE
ENDOSKARN
SKARNIFIED SILTSTONE
GARNET DIOPSIDE WOLLASTONITE SKARN
SKARNIFIED SILTSTONE
GARNET DIOPSIDE WOLLASTONITE SKARN
WOLLASTONITE DIOPSIDE SKARN
GARNET SKARN
BRECCIATED ENDOSKARN
DIOPSIDE TREMOLITE SKARN
MARBLE / GARNET SKARN
DIOPSIDE SKARN
SKARNIFIED QUARTZITE
GRANITE PORPHYRY
MARBLE / GARNET DIOPSIDE SKARN
GRANODIORITE
GRANITE
SKANIFIED SILTSTONE / QUARTZITE / DIKES
GARNET SKARN / MARBLE
GRANITIC DIKE / ENDOSKARN
GARNET DIOPSIDE WOLLASTONITE SKARN
GRANODIORITE
GARNET SKARN / SILTSTONE / DIKES
GRANODIORITE
GARNET SKARN
629.00 ft.
HT-1
Kluane Drilling Ltd.
HT-1 DRILL HOLE SECTION
On HAT Property
Scale
100 feet
Drawn By XDJ
Figure 4
Date August 2000
North - South Section
Whitehorse Copper Belt
Facing West



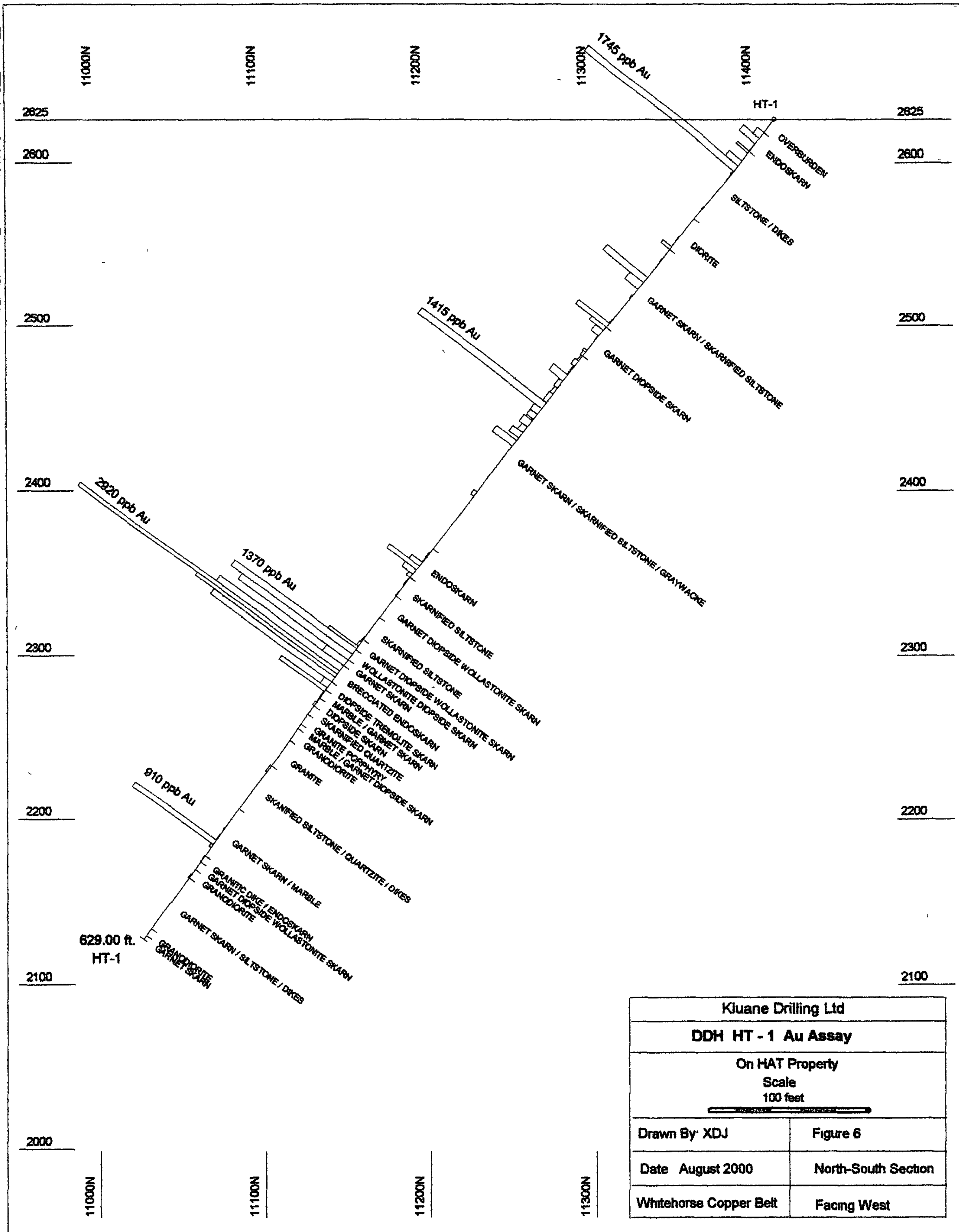
Au ppb	Cu %
5	0 001
5	0 012
5	0.020
120	0.026
5	0 007
5	0 011
5	0.023
5	0 013
5	0 013
5	0.007
5	0 006
5	0 005
5	0 020
5	0.009

Kluane Drilling Ltd.

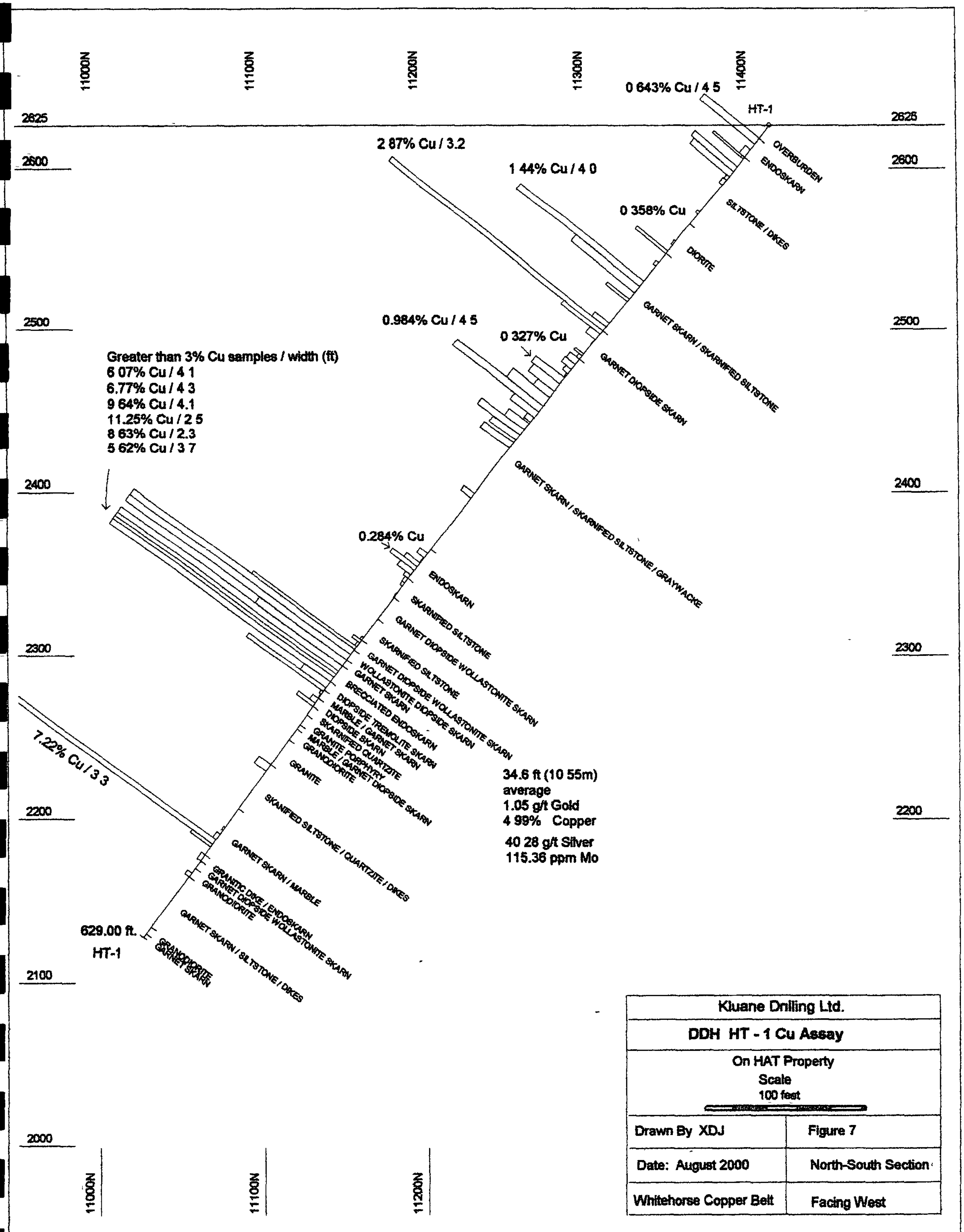
HT-2 Drill Hole Section

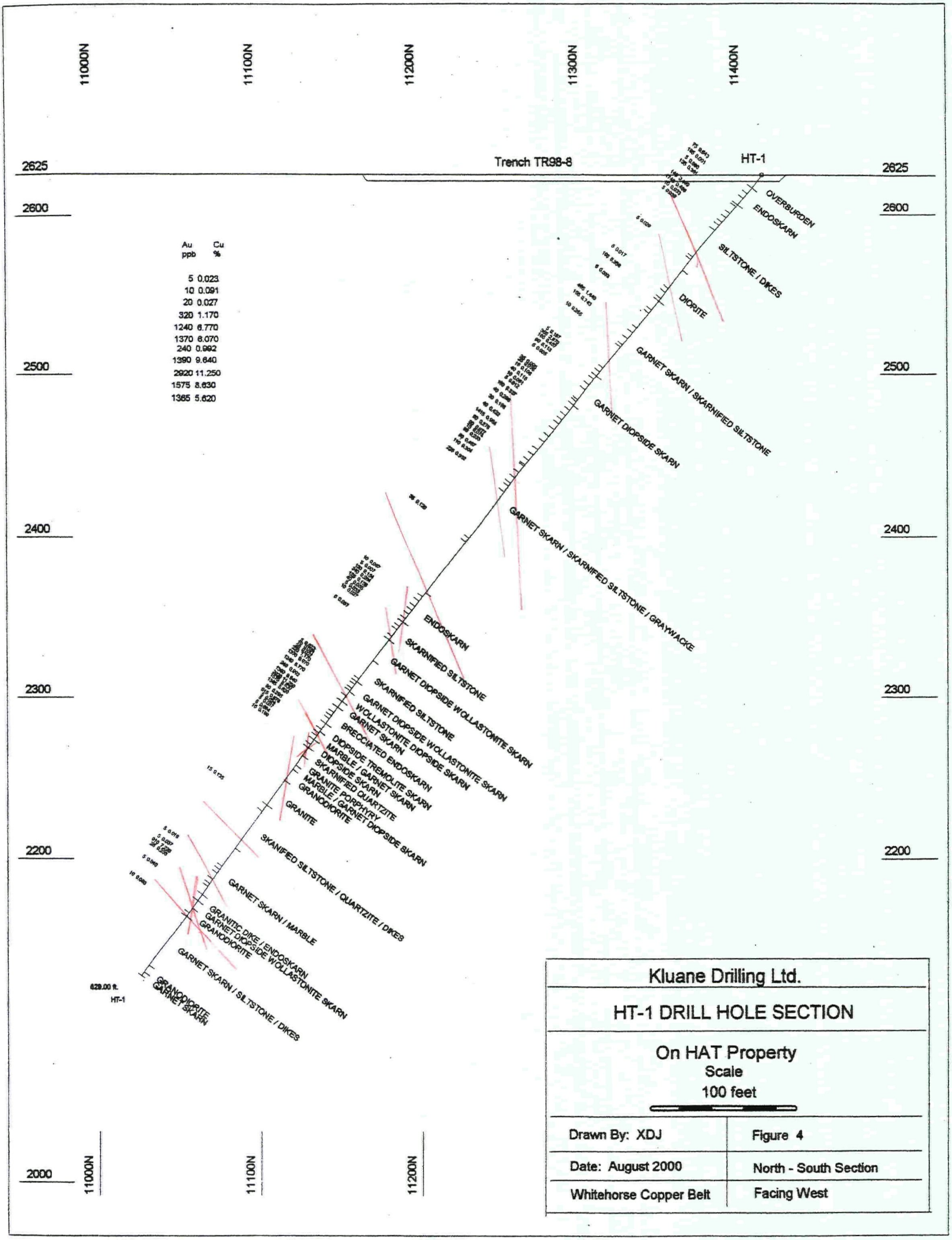
On HAT Property
Scale
100 ft

Drawn By: XDJ	Figure 5
Date. August 2000	East-West Section
Whitehorse Copper Belt	Facing North



11000N
11100N
11200N
11300N
11400N
1745 ppb Au
HT-1
2625
2600
2500
2400
2300
2200
2100
2000
OVERBURDEN
ENDOSKARN
SILTSTONE / DIKES
DIORITE
GARNET SKARN / SKARNIFIED SILTSTONE
1415 ppb Au
GARNET DIOPSIDE SKARN
GARNET SKARN / SKARNIFIED SILTSTONE / GRAYWACKE
2920 ppb Au
1370 ppb Au
ENDOSKARN
SKARNIFIED SILTSTONE
GARNET DIOPSIDE WOLLASTONITE SKARN
SKARNIFIED SILTSTONE
GARNET DIOPSIDE WOLLASTONITE SKARN
WOLLASTONITE DIOPSIDE SKARN
GARNET SKARN
BRECCIATED ENDOSKARN
DIOPSIDE TREMOLITE SKARN
MARBLE / GARNET SKARN
DIOPSIDE SKARN
SKARNIFIED QUARTZITE
GRANITE PORPHYRY
MARBLE / GARNET DIOPSIDE SKARN
GRANODIORITE
GRANITE
910 ppb Au
SKANIFIED SILTSTONE / QUARTZITE / DIKES
GARNET SKARN / MARBLE
GRANITIC DIKE / ENDOSKARN
GARNET DIOPSIDE WOLLASTONITE SKARN
GRANODIORITE
GARNET SKARN / SILTSTONE / DIKES
629.00 ft.
HT-1
GRANODIORITE
GARNET SKARN
Kluane Drilling Ltd
DDH HT - 1 Au Assay
On HAT Property
Scale
100 feet
Drawn By: XDJ
Figure 6
Date August 2000
North-South Section
Whitehorse Copper Belt
Facing West


11000N
11100N
11200N
11300N
11400N
2625
2600
2500
2400
2300
2200
2100
2000
HT-1
0 643% Cu / 4 5
2 87% Cu / 3.2
1 44% Cu / 4 0
0 358% Cu
0.984% Cu / 4 5
0 327% Cu
0.284% Cu
7.22% Cu / 3 3
Greater than 3% Cu samples / width (ft)
6 07% Cu / 4 1
6.77% Cu / 4 3
9 64% Cu / 4.1
11.25% Cu / 2 5
8 63% Cu / 2.3
5 62% Cu / 3 7
OVERBURDEN
ENDOSKARN
SILTSTONE / DIKES
DIORITE
GARNET SKARN / SKARNIFIED SILTSTONE
GARNET DIOPSIDE SKARN
GARNET SKARN / SKARNIFIED SILTSTONE / GRAYWACKE
ENDOSKARN
SKARNIFIED SILTSTONE
GARNET DIOPSIDE WOLLASTONITE SKARN
SKARNIFIED SILTSTONE
GARNET DIOPSIDE WOLLASTONITE SKARN
WOLLASTONITE DIOPSIDE SKARN
GARNET SKARN
BRECCIATED ENDOSKARN
DIOPSIDE TREMOLITE SKARN
MARBLE / GARNET SKARN
DIOPSIDE SKARN
SKARNIFIED QUARTZITE
GRANITE PORPHYRY
MARBLE / GARNET DIOPSIDE SKARN
GRANODIORITE
GRANITE
SKANIFIED SILTSTONE / QUARTZITE / DIKES
GARNET SKARN / MARBLE
GRANITIC DIKE / ENDOSKARN
GARNET DIOPSIDE WOLLASTONITE SKARN
GRANODIORITE
GARNET SKARN / SILTSTONE / DIKES
GRANODIORITE
GARNET SKARN
629.00 ft.
HT-1
34.6 ft (10 55m)
average
1.05 g/t Gold
4 99% Copper
40 28 g/t Silver
115.36 ppm Mo
Kluane Drilling Ltd.
DDH HT - 1 Cu Assay
On HAT Property
Scale
100 feet
Drawn By XDJ
Figure 7
Date: August 2000
North-South Section
Whitehorse Copper Belt
Facing West



11000N
11100N
11200N
11300N
11400N
2625
2600
2500
2400
2300
2200
2000
Trench TR98-8
HT-1
Au ppb
Cu %
5 0.023
10 0.091
20 0.027
320 1.170
1240 6.770
1370 6.070
240 0.992
1390 9.640
2920 11.250
1575 8.630
1365 5.620
OVERBURDEN
ENDOSKARN
SILTSTONE / DIKES
DIORITE
GARNET SKARN / SKARNIFIED SILTSTONE
GARNET DIOPSIDE SKARN
GARNET SKARN / SKARNIFIED SILTSTONE / GRAYWACKE
ENDOSKARN
SKARNIFIED SILTSTONE
GARNET DIOPSIDE WOLLASTONITE SKARN
SKARNIFIED SILTSTONE
GARNET DIOPSIDE WOLLASTONITE SKARN
WOLLASTONITE DIOPSIDE SKARN
GARNET SKARN
BRECCIATED ENDOSKARN
DIOPSIDE TREMOLITE SKARN
MARBLE / GARNET SKARN
DIOPSIDE SKARN
SKARNIFIED QUARTZITE
GRANITE PORPHYRY
MARBLE / GARNET DIOPSIDE SKARN
GRANODIORITE
GRANITE
SKANIFIED SILTSTONE / QUARTZITE / DIKES
GARNET SKARN / MARBLE
GRANITIC DIKE / ENDOSKARN
GARNET DIOPSIDE WOLLASTONITE SKARN
GRANODIORITE
GARNET SKARN / SILTSTONE / DIKES
GRANODIORITE
GARNET SKARN
629.00 ft.
HT-1
Kluane Drilling Ltd.
HT-1 DRILL HOLE SECTION
On HAT Property
Scale
100 feet
Drawn By: XDJ
Figure 4
Date: August 2000
North - South Section
Whitehorse Copper Belt
Facing West

Conclusions and Recommendations

The drilling result for this year has shown no significant break through in looking for porphyry style mineralization. However, drill hole HT-1 intersected significant mineralized skarn including well brecciated and mineralized endoskarn. No major intrusive contacts were seen in either of the two drill holes. It seems that all of the intrusive rocks intersected are just dikes and fingers away from some major intrusive bodies. Possibilities for intrusive hosted mineralization still exist, especially to the east of hole HT-1 inside the garbage dump site, where a VLF-EM anomaly about 1000 feet long is trending north east. Further drilling in the garbage dump site is recommended. It is also recommended that the skarn zone near the west end of the IP survey lines be drill tested.

Statement of Costs

1. Field Work Personnel

Xiangdong Jiang, consulting geologist July 8 – August 3, 2000, 27 days @ $250/day	$6,750.00
Jim Coyne, July 8, 9, 27 2000, 3 days @ $240/day	$720.00
G Coyne, July 9, 10, 24, 25, 2000 4 days @ $200/day	$800 00

2. Line Cutting, Geophysical Survey and Assay

Line cutting, 5.73 km @ $400/km	$2,292 00
I P. survey, Amerock Geosciences Ltd.	$9,278.50
Assay, ALS Chemex, 87 samples	$2,220.74
Sample shipping (BTS)	$129.68

3. Diamond Drilling and Other

Two drill holes, 1172 ft (357.23m) @ $22 00 / ft	$25,784.00
Mob, demob and site preparation	$2,600.00
Truck for geologist, 27 days @ $60/day	$1,620.00
Travel for geologist	$435.99
Field work supplies	$290.03

4. Report and Drafting

Copy and drafting	$576 23
Report writing	$1,000.00

Sub-Total:	$54,497.17
GST (7% of above)	$3,814.80
Total Assessment Value	**$58,311.97**

Statement Of Qualifications

I, Xiangdong Jiang, residing at #8 – 10238 155A Street, Surrey, B C V3R 0V8, hereby certify that

1. I am an independent consulting geologist with office at the above address

2 I studied for four years at Changchun Geological University and graduated in 1982 with a Bachelor of Science degree, major in Mineral Geology and Exploration.

3 I have been practicing in my profession for over 17 years as contract geologist and as independent consultant with major and junior mining companies working in Canada and overseas.

4 I do not have any financial interest in the property described in this report or in any other properties held by the same owners, nor do I expect to receive any interest in the properties either directly or indirectly.

5. This report is based on field work performed by myself and data from other reliable sources.

6 I consent to the use of this report by Kluane Drilling Ltd., provided that no portion is used out of context.

Dated on this 31st day of August, 2000, in Surrey, British Columbia.

Xiangdong Jiang, B.Sc.
Consulting Geologist

Mailing address as above
Tel: (604) 585-0880
Fax (604) 585-0890
E-mail. xiangdongjiang@yahoo.com

References

Tenney, D., 1981. The Whitehorse Copper Belt: Mining, Exploration and Geology (1967-1980): Dept. Indian and Northern Affairs, Geology Section, Yukon, Bulletin 1, 29 p.

Watson, P H , 1984 The Whitehorse Copper Belt – A Compilation; Exploration and Geological Services Division – Yukon, Indian and Northern Affairs, Canada, Open File, 1 25,000 scale map with marginal notes.

Meinert, L D., 1986. Gold in Skarns of the Whitehorse Copper Belt, Southern Yukon; in Yukon Geology, Vol. 1, Exploration and Geological Services Division, Yukon, Indian and Northern Affairs, Canada, p. 19-43.

Kindle, E D , 1963. Copper and Iron Resources, Whitehorse Copper Belt, Yukon Territory; Geological Survey of Canada, Paper 63-41

Yukon Archives in early July, 1999, Hudson Bay Exploration and Development Co. donated more than 40 boxes and map tubes of data to Yukon Archives.

Appendix 1

Analytical Data and Assay Certificates

ALS Chemex
Aurora Laboratory Services Ltd
Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218

To: KLUANE DRILLING LTD.

14 MACDONALD RD
WHITEHORSE, YT
Y1A 4L2

A0025559

Comments. ATTN: JIM COYNE CC. TO "RHA" ADDRESS

CERTIFICATE A0025559

(RHA) - KLUANE DRILLING LTD

Project: HAT
P.O. # .

Samples submitted to our lab in Vancouver, BC.
This report was printed on 17-AUG-2000.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
205	87	Geochem ring to approx 150 mesh
226	87	0-3 Kg crush and split
3202	87	Rock - save entire reject
229	87	ICP - AQ Digestion charge

* NOTE 1:

The 32 element ICP package is suitable for trace metals in soil and rock samples. Elements for which the nitric-aqua regia digestion is possibly incomplete are: Al, Ba, Be, Ca, Cr, Ga, K, La, Mg, Na, Sr, Ti, Tl, W.

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
494	87	Au g/t: Fuse 30 g sample	FA-AAS	0.005	10.00
2118	87	Ag ppm: 32 element, soil & rock	ICP-AES	0.2	100.0
2119	87	Al %: 32 element, soil & rock	ICP-AES	0.01	15.00
2120	87	As ppm: 32 element, soil & rock	ICP-AES	2	10000
557	87	B ppm: 32 element, rock & soil	ICP-AES	10	10000
2121	87	Ba ppm: 32 element, soil & rock	ICP-AES	10	10000
2122	87	Be ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
2123	87	Bi ppm: 32 element, soil & rock	ICP-AES	2	10000
2124	87	Ca %: 32 element, soil & rock	ICP-AES	0.01	15.00
2125	87	Cd ppm: 32 element, soil & rock	ICP-AES	0.5	500
2126	87	Co ppm: 32 element, soil & rock	ICP-AES	1	10000
2127	87	Cr ppm: 32 element, soil & rock	ICP-AES	1	10000
2128	87	Cu ppm: 32 element, soil & rock	ICP-AES	1	10000
2150	87	Fe %: 32 element, soil & rock	ICP-AES	0.01	15.00
2130	87	Ga ppm: 32 element, soil & rock	ICP-AES	10	10000
2131	87	Hg ppm: 32 element, soil & rock	ICP-AES	1	10000
2132	87	K %: 32 element, soil & rock	ICP-AES	0.01	10.00
2151	87	La ppm: 32 element, soil & rock	ICP-AES	10	10000
2134	87	Mg %: 32 element, soil & rock	ICP-AES	0.01	15.00
2135	87	Mn ppm: 32 element, soil & rock	ICP-AES	5	10000
2136	87	Mo ppm: 32 element, soil & rock	ICP-AES	1	10000
2137	87	Na %: 32 element, soil & rock	ICP-AES	0.01	10.00
2138	87	Ni ppm: 32 element, soil & rock	ICP-AES	1	10000
2139	87	P ppm: 32 element, soil & rock	ICP-AES	10	10000
2140	87	Pb ppm: 32 element, soil & rock	ICP-AES	2	10000
551	87	S %: 32 element, rock & soil	ICP-AES	0.01	5.00
2141	87	Sb ppm: 32 element, soil & rock	ICP-AES	2	10000
2142	87	Sc ppm: 32 elements, soil & rock	ICP-AES	1	10000
2143	87	Sr ppm: 32 element, soil & rock	ICP-AES	1	10000
2144	87	Ti %: 32 element, soil & rock	ICP-AES	0.01	10.00
2145	87	Tl ppm: 32 element, soil & rock	ICP-AES	10	10000
2146	87	U ppm: 32 element, soil & rock	ICP-AES	10	10000
2147	87	V ppm: 32 element, soil & rock	ICP-AES	1	10000
2148	87	W ppm: 32 element, soil & rock	ICP-AES	10	10000
2149	87	Zn ppm: 32 element, soil & rock	ICP-AES	2	10000

ALS Chemex

Aurora Laboratory Services Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218

To: KLUANE DRILLING LTD

14 MACDONALD RD.
WHITEHORSE, YT
Y1A 4L2

Project : HAT
Comments: ATTN: JIM COYNE CC: TO "RHA" ADDRESS

Certificate Date: 17-AUG-2000
Invoice No. : I0025559
P O Number :
Account : RHA

** CORRECTED COPY

CERTIFICATE OF ANALYSIS A0025559

SAMPLE	PREP CODE		Au g/t FA+AA	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %
111301	205	226	0.075	2.6	0.83	< 2	< 10	40	0.5	10	0.85	< 0.5	15	53	6430	2.02	< 10	< 1	0.16	< 10	0.48
111302	205	226	0.185	< 0.2	0.04	< 2	< 10	< 10	< 0.5	2	0.04	< 0.5	< 1	3	5	0.15	< 10	1	0.03	< 10	0.03
111303	205	226	0.005	0.6	1.47	6	< 10	30	0.5	6	3.96	< 0.5	3	47	602	1.45	< 10	< 1	0.10	< 10	0.10
111304	205	226	0.135	1.8	0.98	< 2	< 10	180	1.0	30	0.73	< 0.5	11	60	3610	2.14	< 10	< 1	0.76	< 10	0.97
111305	205	226	0.145	2.4	0.70	< 2	< 10	110	0.5	24	1.04	< 0.5	8	50	4990	1.24	< 10	< 1	0.22	< 10	0.37
111306	205	226	1.745	4.6	0.88	< 2	< 10	100	1.0	38	1.11	< 0.5	7	50	4680	1.57	< 10	< 1	0.35	< 10	0.50
111307	205	226	0.010	0.2	0.74	< 2	< 10	30	0.5	8	1.46	< 0.5	4	32	332	0.55	< 10	< 1	0.08	< 10	0.13
111308	205	226	0.005	< 0.2	0.89	2	< 10	110	1.0	6	1.17	< 0.5	9	44	393	1.54	< 10	< 1	0.38	10	0.67
111309	205	226	< 0.005	< 0.2	1.60	< 2	< 10	300	1.5	2	2.07	< 0.5	19	114	290	4.36	< 10	< 1	0.68	10	1.50
111310	205	226	< 0.005	0.2	0.63	< 2	< 10	130	0.5	< 2	0.69	< 0.5	11	43	166	2.12	< 10	< 1	0.34	10	0.58
111311	205	226	0.100	2.6	0.35	< 2	< 10	70	0.5	20	0.90	< 0.5	4	33	3580	1.10	< 10	1	0.16	10	0.17
111312	205	226	< 0.005	0.2	1.07	2	< 10	60	0.5	8	3.61	< 0.5	1	32	325	1.40	< 10	1	0.10	< 10	0.04
111313	205	226	0.465	21.6	1.07	12	< 10	30	0.5	86	5.81	< 0.5	3	35	>10000	1.29	< 10	< 1	0.10	< 10	0.25
111314	205	226	0.155	7.2	1.22	136	< 10	60	0.5	50	1.71	1.5	10	49	7430	1.78	< 10	1	0.25	< 10	1.17
111315	205	226	0.010	4.4	0.80	8	< 10	< 10	< 0.5	6	9.19	< 0.5	< 1	35	2550	0.61	< 10	< 1	0.01	< 10	0.12
111316	205	226	< 0.005	1.0	1.04	6	< 10	40	0.5	< 2	1.55	< 0.5	11	37	1670	1.35	< 10	< 1	0.12	< 10	0.37
111317	205	226	0.355	5.2	2.58	< 2	< 10	60	2.5	14	0.89	< 0.5	29	149	>10000	5.08	10	< 1	1.99	< 10	2.73
111318	205	226	0.165	4.0	1.40	8	< 10	< 10	0.5	12	6.38	< 0.5	2	53	4570	1.40	< 10	< 1	0.04	< 10	0.08
111319	205	226	0.090	1.8	0.76	2	< 10	< 10	< 0.5	18	11.05	< 0.5	1	32	1125	0.63	< 10	< 1	0.06	< 10	0.17
111320	205	226	< 0.005	0.6	1.05	< 2	< 10	< 10	0.5	8	10.60	< 0.5	1	36	49	0.60	< 10	< 1	0.04	< 10	0.11
111321	205	226	0.035	1.2	2.16	2	< 10	60	0.5	8	3.18	< 0.5	5	44	946	1.13	< 10	< 1	0.29	< 10	0.65
111322	205	226	0.025	1.0	1.50	< 2	< 10	< 10	0.5	6	6.29	< 0.5	< 1	62	361	0.64	< 10	< 1	0.04	< 10	0.14
111323	205	226	0.015	0.8	1.72	2	< 10	150	1.0	6	1.60	< 0.5	12	41	1060	1.88	< 10	< 1	0.76	10	1.31
111324	205	226	0.040	1.0	1.21	2	< 10	50	0.5	10	3.13	< 0.5	4	38	1145	0.73	< 10	< 1	0.11	< 10	0.13
111325	205	226	0.010	0.4	1.25	6	< 10	160	1.0	< 2	0.63	< 0.5	11	48	605	2.15	< 10	< 1	0.97	< 10	1.36
111326	205	226	< 0.005	0.4	1.61	4	< 10	10	0.5	< 2	7.15	< 0.5	1	44	116	0.90	< 10	< 1	0.09	10	0.16
111327	205	226	0.160	3.6	1.45	88	< 10	< 10	0.5	44	7.37	< 0.5	< 1	39	3270	1.04	< 10	< 1	0.04	10	0.16
111328	205	226	0.040	1.4	1.27	10	< 10	70	1.0	10	1.56	< 0.5	11	36	2980	1.77	< 10	< 1	0.38	10	0.74
111329	205	226	0.030	1.4	1.72	2	< 10	30	0.5	8	3.71	< 0.5	7	38	1855	1.52	< 10	< 1	0.19	< 10	0.42
111330	205	226	0.040	1.6	1.61	4	< 10	130	1.0	6	1.37	< 0.5	12	50	4220	2.13	< 10	< 1	0.94	< 10	1.56
111331	205	226	1.415	9.4	2.38	2	< 10	50	0.5	106	7.12	< 0.5	3	34	9480	1.14	< 10	< 1	0.16	< 10	0.09
111332	205	226	0.080	1.6	1.25	< 2	< 10	80	1.0	12	1.52	< 0.5	8	34	2780	1.48	< 10	< 1	0.27	< 10	0.54
111333	205	226	0.080	0.8	1.20	2	< 10	60	0.5	10	2.21	< 0.5	8	26	771	1.05	< 10	< 1	0.11	< 10	0.17
111334	205	226	0.015	0.2	2.28	< 2	< 10	120	0.5	10	6.91	< 0.5	3	29	736	0.92	< 10	1	0.10	< 10	0.13
111335	205	226	0.095	1.8	1.73	2	< 10	110	1.0	12	2.05	< 0.5	14	33	2330	1.95	< 10	1	0.49	< 10	0.81
111336	205	226	0.060	2.2	1.74	8	< 10	50	1.5	4	1.31	< 0.5	16	72	4870	3.19	< 10	< 1	0.86	< 10	1.70
111337	205	226	0.110	2.6	1.85	< 2	< 10	30	0.5	14	5.35	< 0.5	4	27	3040	0.70	< 10	1	0.11	< 10	0.28
111338	205	226	0.225	2.8	1.77	2	< 10	60	0.5	34	4.46	< 0.5	5	43	3320	0.87	< 10	< 1	0.20	< 10	0.71
111339	205	226	0.035	1.2	1.78	4	< 10	10	1.0	8	5.42	< 0.5	6	31	1200	0.91	< 10	< 1	0.05	< 10	0.19
111340	205	226	0.010	2.2	2.53	< 2	< 10	10	0.5	10	11.10	< 0.5	< 1	11	868	0.09	< 10	< 1	0.06	10	0.01

CERTIFICATION ____________

** FOR SAMPLE DESCRIPTION ON SAMPLES 113801 - 113837

ALS Chemex
Aurora Laboratory Services Ltd
Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218

To. KLUANE DRILLING LTD

14 MACDONALD RD
WHITEHORSE, YT
Y1A 4L2

Project : HAT
Comments : ATTN JIM COYNE CC TO "RHA" ADDRESS

Certificate Date: 17-AUG-2000
Invoice No : I0025559
P.O. Number :
Account : RHA

** CORRECTED COPY

CERTIFICATE OF ANALYSIS A0025559

SAMPLE	PREP CODE		Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
111301	205	226	95	6	0.10	34	980	10	1.33	< 2	1	55	0.13	< 10	< 10	37	< 10	32
111302	205	226	15	< 1	< 0.01	1	30	< 2	0.01	2	< 1	2	< 0.01	< 10	< 10	< 1	< 10	< 2
111303	205	226	205	13	0.09	5	840	2	0.10	2	3	77	0.09	< 10	< 10	37	< 10	14
111304	205	226	155	16	0.09	29	1320	6	0.64	6	2	36	0.21	< 10	< 10	60	< 10	32
111305	205	226	95	8	0.11	22	1010	10	0.56	< 2	1	62	0.14	< 10	< 10	34	< 10	20
111306	205	226	115	12	0.12	18	1170	10	0.37	< 2	1	64	0.18	< 10	< 10	51	< 10	28
111307	205	226	65	10	0.13	6	1080	4	0.10	2	< 1	88	0.11	< 10	< 10	23	< 10	16
111308	205	226	130	10	0.11	23	1710	6	0.37	2	1	50	0.18	< 10	< 10	39	< 10	28
111309	205	226	440	71	0.09	32	2180	8	0.28	6	7	76	0.27	< 10	< 10	142	< 10	72
111310	205	226	145	8	0.12	21	1160	4	0.58	2	2	35	0.15	< 10	< 10	57	< 10	28
111311	205	226	75	931	0.10	9	1210	8	0.35	< 2	< 1	52	0.15	< 10	< 10	43	< 10	12
111312	205	226	190	158	0.08	4	760	6	0.08	6	3	415	0.09	< 10	< 10	37	< 10	32
111313	205	226	260	192	0.06	7	620	10	0.61	16	2	81	0.07	< 10	< 10	27	< 10	20
111314	205	226	170	441	0.05	15	860	14	1.08	624	4	58	0.10	< 10	< 10	46	< 10	118
111315	205	226	355	10	0.01	1	820	2	0.25	16	1	33	0.03	< 10	< 10	10	< 10	2
111316	205	226	65	62	0.10	20	710	6	1.08	10	< 1	105	0.09	< 10	< 10	22	< 10	14
111317	205	226	310	18	0.05	47	1540	24	2.19	< 2	6	36	0.43	< 10	< 10	249	< 10	86
111318	205	226	315	308	0.03	3	1030	6	0.27	< 2	2	41	0.06	< 10	< 10	22	< 10	2
111319	205	226	445	420	0.02	2	880	2	0.16	< 2	1	55	0.03	< 10	< 10	12	< 10	< 2
111320	205	226	410	760	0.02	2	640	4	0.16	2	1	66	0.03	< 10	< 10	10	70	< 2
111321	205	226	125	109	0.19	12	680	12	0.63	< 2	1	213	0.08	< 10	< 10	24	< 10	46
111322	205	226	270	35	0.04	2	650	2	0.10	4	1	57	0.04	< 10	< 10	13	< 10	6
111323	205	226	130	100	0.18	22	1600	12	0.76	6	1	127	0.17	< 10	< 10	41	< 10	40
111324	205	226	95	52	0.11	10	1060	6	0.45	< 2	< 1	192	0.08	< 10	< 10	13	< 10	14
111325	205	226	110	28	0.11	24	1110	6	0.78	2	3	57	0.22	< 10	< 10	57	< 10	32
111326	205	226	290	61	0.11	4	1030	6	0.12	< 2	1	157	0.07	< 10	< 10	19	< 10	10
111327	205	226	245	1255	0.05	2	1290	10	0.29	8	1	146	0.05	< 10	< 10	17	< 10	2
111328	205	226	85	73	0.16	15	1420	8	1.14	4	1	159	0.15	< 10	< 10	39	< 10	24
111329	205	226	150	66	0.11	14	1440	8	0.81	< 2	1	139	0.11	< 10	< 10	26	< 10	20
111330	205	226	110	219	0.09	22	1280	8	1.06	< 2	3	148	0.19	< 10	< 10	50	< 10	36
111331	205	226	320	451	0.07	6	1040	18	0.62	4	2	719	0.06	< 10	< 10	27	< 10	16
111332	205	226	80	69	0.15	15	1160	8	0.84	4	< 1	228	0.14	< 10	< 10	30	< 10	32
111333	205	226	70	308	0.16	12	1070	6	0.69	2	< 1	132	0.10	< 10	< 10	20	< 10	22
111334	205	226	315	1435	0.09	5	1010	10	0.31	6	1	1505	0.06	< 10	< 10	24	< 10	44
111335	205	226	125	501	0.21	20	1580	8	1.10	6	1	185	0.15	< 10	< 10	38	< 10	78
111336	205	226	130	48	0.09	24	1140	10	1.89	2	3	83	0.22	< 10	< 10	89	< 10	38
111337	205	226	140	720	0.13	6	930	8	0.42	< 2	1	151	0.07	< 10	< 10	17	< 10	28
111338	205	226	125	222	0.19	10	970	6	0.36	4	1	295	0.08	< 10	< 10	23	< 10	14
111339	205	226	185	1215	0.10	6	830	10	0.54	< 2	1	129	0.08	< 10	< 10	20	< 10	10
111340	205	226	390	75	0.10	1	550	12	0.09	< 2	< 1	260	0.05	< 10	< 10	3	< 10	8

CERTIFICATION: [signature]

** FOR SAMPLE DESCRIPTION ON SAMPLES 113801 - 113837

ALS Chemex

Aurora Laboratory Services Ltd
Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE. 604-984-0221 FAX· 604-984-0218

To KLUANE DRILLING LTD *

14 MACDONALD RD.
WHITEHORSE, YT
Y1A 4L2

Project : HAT
Comments· ATTN JIM COYNE CC· TO "RHA" ADDRESS

Certificate Date· 17-AUG-2000
Invoice No. : I0025559
P O. Number :
Account : RHA

** CORRECTED COPY

CERTIFICATE OF ANALYSIS A0025559

SAMPLE	PREP CODE		Au g/t FA+AA	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %
111341	205	226	0.005	0.4	1.56	< 2	< 10	20	0.5	6	6.57	< 0.5	< 1	19	72	0.08	< 10	< 1	0.06	10	0.01
111342	205	226	0.120	1.8	0.69	< 2	< 10	10	0.5	18	1.66	< 0.5	< 1	23	1540	0.11	< 10	< 1	0.08	10	0.02
111343	205	226	0.340	2.0	0.99	2	< 10	50	0.5	32	1.67	< 0.5	3	40	2840	0.61	< 10	< 1	0.25	10	0.33
111344	205	226	0.125	1.4	2.81	< 2	< 10	70	1.5	18	3.71	< 0.5	3	20	1555	0.60	< 10	< 1	0.33	10	0.44
111345	205	226	0.040	1.4	1.91	< 2	< 10	30	1.0	2	10.30	< 0.5	< 1	21	554	0.39	< 10	< 1	0.04	10	0.03
111346	205	226	0.005	1.0	1.12	2	< 10	70	0.5	6	1.78	< 0.5	8	41	334	1.79	< 10	< 1	0.35	< 10	0.73
111347	205	226	0.010	1.6	0.95	< 2	< 10	40	0.5	2	3.52	< 0.5	12	37	271	2.71	< 10	< 1	0.16	< 10	0.41
111348	205	226	< 0.005	0.8	0.65	< 2	< 10	30	0.5	< 2	1.03	< 0.5	6	24	65	1.53	< 10	< 1	0.13	< 10	0.31
111349	205	226	0.005	1.4	0.82	2	< 10	40	0.5	2	1.39	< 0.5	14	59	228	2.70	< 10	< 1	0.30	< 10	0.81
111350	205	226	0.010	1.6	1.05	6	< 10	< 10	< 0.5	6	7.64	< 0.5	2	39	912	1.17	< 10	< 1	0.04	< 10	0.06
113801	205	226	0.020	1.6	0.32	< 2	< 10	< 10	< 0.5	6	>15.00	< 0.5	< 1	13	268	0.66	< 10	< 1	0.01	10	0.03
113802	205	226	0.320	10.8	0.31	< 2	10	< 10	< 0.5	52	>15.00	< 0.5	< 1	5	>10000	0.76	< 10	< 1	< 0.01	< 10	0.03
113803	205	226	1.370	55.0	0.10	< 2	50	< 10	0.5	312	>15.00	< 0.5	< 1	< 1	>10000	1.23	< 10	< 1	< 0.01	< 10	0.04
113804	205	226	1.240	55.0	0.05	< 2	50	< 10	0.5	368	13.90	< 0.5	< 1	< 1	>10000	1.60	< 10	< 1	< 0.01	< 10	0.04
113805	205	226	0.240	9.0	0.85	2	< 10	< 10	< 0.5	54	11.70	< 0.5	1	19	9920	3.57	< 10	< 1	0.01	< 10	0.02
113806	205	226	1.390	85.8	0.58	< 2	50	10	1.0	508	7.33	< 0.5	< 1	7	>10000	2.16	< 10	< 1	0.03	< 10	0.06
113807	205	226	2.92	87.6	0.50	< 2	80	40	1.5	602	2.78	< 0.5	4	< 1	>10000	1.89	< 10	< 1	0.09	< 10	0.03
113808	205	226	1.575	61.2	0.71	< 2	50	10	1.0	406	6.86	< 0.5	< 1	10	>10000	2.84	< 10	< 1	0.04	< 10	0.05
113809	205	226	1.365	36.2	0.65	< 2	30	20	0.5	270	5.04	< 0.5	1	19	>10000	1.32	< 10	< 1	0.05	< 10	0.09
113810	205	226	0.080	2.0	1.20	< 2	< 10	30	< 0.5	20	2.19	< 0.5	1	23	2950	0.35	< 10	2	0.08	< 10	0.20
113811	205	226	0.515	6.0	1.21	4	< 10	50	< 0.5	48	5.13	< 0.5	2	19	8740	1.17	< 10	< 1	0.09	< 10	0.17
113812	205	226	0.005	0.6	2.10	< 2	< 10	80	0.5	6	7.74	< 0.5	< 1	17	237	0.17	< 10	< 1	0.10	< 10	0.20
113813	205	226	< 0.005	2.2	0.43	< 2	< 10	60	< 0.5	< 2	>15.00	< 0.5	< 1	6	68	0.36	< 10	< 1	0.02	10	0.75
113814	205	226	< 0.005	0.6	3.32	< 2	< 10	190	0.5	8	3.43	< 0.5	5	14	636	0.61	< 10	< 1	0.34	< 10	0.15
113815	205	226	0.015	1.2	1.38	< 2	< 10	90	0.5	2	1.61	< 0.5	9	42	1890	1.55	< 10	< 1	0.23	< 10	0.74
113816	205	226	0.015	1.0	0.88	< 2	< 10	80	0.5	6	1.16	< 0.5	11	54	1345	1.94	< 10	< 1	0.15	< 10	0.54
113817	205	226	< 0.005	0.6	0.39	< 2	< 10	170	< 0.5	6	1.73	< 0.5	3	37	184	0.37	< 10	< 1	0.09	< 10	0 03
113818	205	226	< 0.005	3.0	0.07	< 2	< 10	< 10	< 0.5	< 2	>15.00	< 0.5	< 1	< 1	370	0.19	< 10	< 1	< 0.01	10	0.01
113819	205	226	0.910	74.2	0.34	< 2	70	< 10	0.5	420	12.85	< 0.5	< 1	15	>10000	0.99	< 10	< 1	< 0.01	< 10	0.03
113820	205	226	0.025	4.8	0.20	< 2	< 10	90	< 0.5	10	>15.00	< 0.5	< 1	< 1	2330	0.13	< 10	< 1	< 0.01	10	0.01
113821	205	226	0.005	0.4	0.79	< 2	< 10	50	< 0.5	12	3.76	< 0.5	1	25	399	0.23	< 10	< 1	0.06	< 10	0.09
113822	205	226	0.010	0.6	0.48	< 2	< 10	40	< 0.5	6	3.10	< 0.5	3	17	503	0.42	< 10	< 1	0.07	< 10	0.13
113823	205	226	< 0.005	0.4	0.33	< 2	< 10	40	< 0.5	< 2	0.67	< 0.5	5	45	97	1.02	< 10	< 1	0.06	< 10	0.11
113824	205	226	< 0.005	0.6	0.20	< 2	< 10	40	< 0.5	2	0.55	< 0.5	8	28	139	1.30	< 10	< 1	0.05	< 10	0.07
113825	205	226	< 0.005	1.2	1.12	2	< 10	80	0.5	2	6.60	< 0.5	8	28	201	1.84	< 10	< 1	0.14	< 10	0.90
113826	205	226	0.120	10.8	1.41	8	< 10	50	0.5	2	6.05	2.0	11	66	255	2.24	< 10	< 1	0.11	< 10	1.33
113827	205	226	< 0.005	< 0.2	0.57	< 2	< 10	20	0.5	4	0.90	< 0.5	8	47	66	0.74	< 10	< 1	0.05	< 10	0.36
113828	205	226	< 0.005	0.2	0.32	< 2	< 10	30	< 0.5	< 2	0.65	< 0.5	9	44	106	1.13	< 10	1	0.05	< 10	0.13
113829	205	226	< 0.005	0.6	0.52	< 2	< 10	40	< 0.5	4	0.79	< 0.5	11	34	226	1.15	< 10	< 1	0.06	< 10	0.17
113830	205	226	< 0.005	0.2	0.40	< 2	< 10	30	< 0.5	2	0.85	< 0.5	9	45	125	0.95	< 10	< 1	0.05	< 10	0.12

CERTIFICATION ________________ *

** FOR SAMPLE DESCRIPTION ON SAMPLES 113801 - 113837

ALS Chemex

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To: KLUANE DRILLING LTD

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Project HAT
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Certificate Date: 17-AUG-2000
Invoice No. : I0025559
P.O Number :
Account RHA

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CERTIFICATE OF ANALYSIS A0025559

SAMPLE	PREP CODE		Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
111341	205	226	230	8	0.07	1	520	6	0.01	2	< 1	169	0.06	< 10	< 10	4	< 10	8
111342	205	226	25	181	0.18	1	1040	6	0.11	4	< 1	119	0.07	< 10	< 10	4	< 10	4
111343	205	226	60	75	0.19	4	930	6	0.38	< 2	< 1	179	0.09	< 10	< 10	14	< 10	10
111344	205	226	95	24	0.21	5	860	8	0.39	2	1	2540	0.09	< 10	< 10	16	< 10	12
111345	205	226	350	11	0.08	2	570	2	0.34	2	1	1385	0.06	< 10	< 10	12	< 10	2
111346	205	226	85	61	0.11	17	900	8	1.11	4	1	247	0.09	< 10	< 10	25	< 10	14
111347	205	226	95	41	0.05	30	930	8	2.03	2	< 1	108	0.07	< 10	< 10	21	< 10	12
111348	205	226	30	11	0.06	8	520	6	0.99	< 2	< 1	103	0.06	< 10	< 10	13	< 10	12
111349	205	226	85	17	0.07	36	950	14	1.94	< 2	1	61	0.10	< 10	< 10	30	< 10	22
111350	205	226	290	27	0.01	6	1160	4	0.25	10	1	49	0.05	< 10	< 10	19	< 10	4
113801	205	226	1095	1	0.01	2	570	< 2	0.02	< 2	< 1	37	0.02	< 10	< 10	7	< 10	< 2
113802	205	226	1095	3	< 0.01	2	500	6	0.31	< 2	< 1	27	0.01	< 10	< 10	7	< 10	< 2
113803	205	226	1065	2	< 0.01	4	310	32	1.27	< 2	1	29	< 0.01	< 10	< 10	1	< 10	20
113804	205	226	740	5	< 0.01	3	260	30	1.60	< 2	1	30	< 0.01	< 10	< 10	2	< 10	14
113805	205	226	550	1	< 0.01	1	340	10	0.43	2	< 1	40	0.02	< 10	< 10	22	< 10	< 2
113806	205	226	330	497	0.01	5	450	50	2.98	< 2	1	43	0.03	< 10	< 10	8	< 10	8
113807	205	226	85	228	0.03	5	550	54	2.73	4	1	62	0.04	< 10	< 10	4	< 10	22
113808	205	226	305	8	0.01	5	220	34	1.85	< 2	1	54	0.04	< 10	< 10	10	< 10	12
113809	205	226	225	251	0.02	5	460	32	1.82	< 2	1	125	0.03	< 10	< 10	7	< 10	14
113810	205	226	55	12	0.07	3	480	4	0.24	< 2	< 1	740	0.04	< 10	< 10	9	< 10	16
113811	205	226	145	127	0.05	4	400	8	0.61	2	< 1	1445	0.04	< 10	< 10	9	< 10	6
113812	205	226	70	3	0.03	3	390	2	0.04	2	< 1	745	0.02	< 10	< 10	4	< 10	6
113813	205	226	195	5	0.01	4	220	4	0.26	< 2	< 1	1025	0.01	< 10	< 10	3	< 10	4
113814	205	226	75	4	0.07	9	860	4	0.37	8	< 1	4980	0.04	< 10	< 10	9	< 10	12
113815	205	226	70	15	0.08	12	860	4	1.02	< 2	< 1	892	0.11	< 10	< 10	30	< 10	14
113816	205	226	95	42	0.08	19	780	8	1.12	6	< 1	89	0.11	< 10	< 10	42	< 10	18
113817	205	226	70	43	0.06	6	740	4	0.22	6	< 1	183	0.06	< 10	< 10	8	< 10	8
113818	205	226	55	4	0.01	6	440	4	0.18	4	< 1	1360	< 0.01	< 10	< 10	< 1	< 10	6
113819	205	226	330	3	0.01	4	150	50	1.24	< 2	1	75	0.01	< 10	< 10	4	< 10	58
113820	205	226	120	6	< 0.01	4	420	8	0.24	< 2	< 1	1255	< 0.01	< 10	< 10	< 1	< 10	2
113821	205	226	85	90	0.04	3	680	8	0.15	2	< 1	125	0.05	< 10	< 10	7	< 10	6
113822	205	226	65	45	0.04	7	680	6	0.21	2	< 1	123	0.06	< 10	< 10	10	< 10	8
113823	205	226	60	3	0.07	9	620	8	0.48	< 2	< 1	36	0.06	< 10	< 10	16	< 10	8
113824	205	226	30	10	0.06	15	670	8	0.86	4	< 1	30	0.06	< 10	< 10	8	< 10	2
113825	205	226	400	3	0.01	19	600	8	0.32	6	5	303	< 0.01	< 10	< 10	11	< 10	44
113826	205	226	415	6	0.02	27	650	110	0.50	8	6	268	0.03	< 10	< 10	45	< 10	148
113827	205	226	75	10	0.07	36	770	2	0.24	2	1	85	0.09	< 10	< 10	20	< 10	8
113828	205	226	45	3	0.07	21	730	4	0.51	6	< 1	38	0.07	< 10	< 10	22	< 10	8
113829	205	226	55	8	0.09	30	910	6	0.66	2	< 1	56	0.08	< 10	< 10	19	< 10	10
113830	205	226	40	2	0.07	22	720	8	0.62	< 2	< 1	90	0.06	< 10	< 10	18	< 10	8

CERTIFICATION: ____________

** FOR SAMPLE DESCRIPTION ON SAMPLES 113801 - 113837

ALS Chemex
Aurora Laboratory Services Ltd
Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX. 604-984-0218

To: KLUANE DRILLING LTD.

14 MACDONALD RD.
WHITEHORSE, YT
Y1A 4L2

Project : HAT
Comments: ATTN JIM COYNE CC: TO "RHA" ADDRESS

Certificate Date: 17-AUG-2000
Invoice No. : I0025559
P.O. Number :
Account : RHA

** CORRECTED COPY

CERTIFICATE OF ANALYSIS A0025559

SAMPLE	PREP CODE		Au g/t FA+AA	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %
113831	205	226	< 0.005	0.6	0.34	< 2	< 10	40	< 0.5	2	0.64	< 0.5	11	38	130	1.00	< 10	< 1	0.06	< 10	0.15
113832	205	226	< 0.005	0.6	0.62	< 2	< 10	120	< 0.5	4	2.52	< 0.5	10	38	72	1.83	< 10	< 1	0.16	10	0.73
113833	205	226	< 0.005	0.2	0.42	12	< 10	30	< 0.5	4	0.85	< 0.5	7	37	60	1.44	< 10	< 1	0.05	< 10	0.31
113834	205	226	< 0.005	0.4	0.57	2	< 10	30	< 0.5	8	3.76	< 0.5	6	39	48	1.08	< 10	< 1	0.09	< 10	0.50
113835	205	226	< 0.005	0.2	0.32	< 2	< 10	40	< 0.5	< 2	0.67	< 0.5	6	29	200	0.75	< 10	< 1	0.06	10	0.14
113836	205	226	< 0.005	0.2	0.23	< 2	< 10	30	< 0.5	< 2	0.51	< 0.5	7	35	93	0.87	< 10	< 1	0.06	10	0.09
113837	205	226	0.105	4.6	1.18	< 2	< 10	50	< 0.5	34	1.66	< 0.5	8	29	9010	1.61	< 10	< 1	0.08	10	0.52

CERTIFICATION

** FOR SAMPLE DESCRIPTION ON SAMPLES 113801 - 113837

ALS Chemex
Aurora Laboratory Services Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
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14 MACDONALD RD
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Y1A 4L2

Project : HAT
Comments ATTN. JIM COYNE CC: TO "RHA" ADDRESS

Certificate Date: 17-AUG-2000
Invoice No. : I0025559
P O. Number :
Account : RHA

** CORRECTED COPY

CERTIFICATE OF ANALYSIS A0025559

SAMPLE	PREP CODE		Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
113831	205	226	45	7	0.07	18	740	4	0.72	< 2	< 1	92	0.07	< 10	< 10	14	< 10	4
113832	205	226	235	4	0.04	12	600	4	0.73	< 2	3	155	0.02	< 10	< 10	18	< 10	18
113833	205	226	120	4	0.06	12	690	4	0.30	4	1	34	0.06	< 10	< 10	35	< 10	10
113834	205	226	220	8	0.05	18	620	6	0.29	< 2	2	121	0.04	< 10	< 10	18	< 10	24
113835	205	226	45	10	0.06	11	800	2	0.33	< 2	< 1	132	0.06	< 10	< 10	17	< 10	6
113836	205	226	40	10	0.05	9	480	4	0.47	4	< 1	29	0.05	< 10	< 10	8	< 10	2
113837	205	226	80	84	0.05	18	1660	20	0.71	< 2	1	39	0.10	< 10	< 10	30	< 10	20

CERTIFICATION: ____________

** FOR SAMPLE DESCRIPTION ON SAMPLES 113801 - 113837

ALS Chemex
Aurora Laboratory Services Ltd
Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218

To: KLUANE DRILLING LTD.

14 MACDONALD RD
WHITEHORSE, YT
Y1A 4L2

A0026475

Comments ATTN. JIM COYNE CC TO "RHA" ADDRESS

CERTIFICATE A0026475

(RHA) - KLUANE DRILLING LTD.

Project: HAT
P.O. #

Samples submitted to our lab in Vancouver, BC.
This report was printed on 22-AUG-2000.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
212	10	Overlimit pulp, to be found

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
301	10	Cu %: Conc. Nitric-HCl dig'n	AAS	0.01	100.0

ALS Chemex
Aurora Laboratory Services Ltd
Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE 604-984-0221 FAX 604-984-0218

To: KLUANE DRILLING LTD.

14 MACDONALD RD
WHITEHORSE, YT
Y1A 4L2

Project HAT
Comments: ATTN JIM COYNE CC. TO "RHA" ADDRESS

Certificate Date: 18-AUG-2000
Invoice No. : I0026475
P.O. Number :
Account : RHA

** CORRECTED COPY

CERTIFICATE OF ANALYSIS A0026475

SAMPLE	PREP CODE		Cu %
111313	212	--	1.44
111317	212	--	2.87
113802	212	--	1.17
113803	212	--	6.07
113804	212	--	6.77
113806	212	--	9.64
113807	212	--	11.25
113808	212	--	8.63
113809	212	--	5.62
113819	212	--	7.22

CERTIFICATION ____________

** FOR SAMPLE DESCRIPTIONS ON SAMPLES PREFIXED 113. OVERLIMITS from A0025559

FIGURE 2

UNDERHILL GEOMATICS LTD. CONSULTING ENGINEERS VANCOUVER, BRITISH COLUMBIA WHITEHORSE, YUKON	22/06/00	XDJ	1	22/06/00	PR	Added HAT CLAIMS 41 to 44 / Scale change to 1:20,000		DESIGN BY	JOB No. 99072	CLIENT KLUANE DRILLING LTD.	TITLE HAT PROPERTY CLAIMS MAP	SHEET 1 OF 1
	DATE	ISSUED FOR	No.	DATE	BY	REVISION	APP'D	DRAWN BY PNR / APPROVED XDJ	DATE 23/02/00 / SCALE 1:20,000	PROJECT HAT CLAIM PROJECT		DRAWING NUMBER 256-24 / REVISION 1

F.B. pg.

J:\99072\Bm image.dwg Mon Jun 26 08:07:17 2000 Underhill Geomatics Ltd.


Figure 3
HAT Property Geology and Data Compilation Map
Scale: 1: 4800
HAT 19 YB57555
HAT 20 YB57556
HAT 17 YB57553
HAT 18 YB57554
HAT 40 YB66398
HAT 38 YB66396
HAT 16 YB57552
HAT 14 YB57550
HAT 10 YB57546
HAT 12 YB57548
HAT 22 YB58022
HAT 39 YB66397
HAT 37 YB66395
HAT 15 YB57551
HAT 13 YB57549
HAT 9 YB57545
HAT 21 YB58021
HAT 45 YC18695
HAT 11 YB57547
I.P. Chargeability Anomaly Contour Lines
HAT 44 YC18452
HAT 42 YC18450
Inferred Geological Boundary Lines
HAT 24 YB58024
HAT 7 YB57543
HAT 8 YB57544
HAT 46 YC18696
HAT 26 YB58026
HAT 43 YC18451
HAT 41 YC18449
HAT 23 YB58023
HAT 5 YB57541
HAT 6 YB57542
HAT 25 YB58025
2000 I.P. Survey Lines
Base Line
NTS 105 D/14
105 D/11
HAT 36 YB58140
HAT 32 YB58054
HAT 28 YB58050
HAT 3 YB57539
HAT 4 YB57540
HAT 30 YB58052
HT2
HAT 35 YB58139
HAT 31 YB58053
I.P. Chargeability Anomaly
HT-1
HAT 1 YB57537
HAT 2
Mag Anomaly
ZIRCON 4 74157
HAT 29 YB58051
HAT 27 YB58049
BORNITE 2 73784
HAT 34 YB58056
VLF-EM ZONE
ZIRCON 2 64183
ANACONDA
HAT 33 YB58055
HAT 48
HAT 47
BORNITE 1 73783
Alaska Highway
NTS 105 D/14
105 D/11
GEOLOGICAL LEGEND
CENOZOIC
QUATERNARY
PLEISTOCENE & RECENT
735 Q ALLUVIUM, GLACIAL DRIFT
746 10 MILES CANYON BASALT
POST CRETACEOUS
INTRUSIVE DYKES OR SILLS
755 9a ACIDIC GRANITIC, APLITE, FELSITE, 9a-may predate skarn
734½ 9b BASIC ANDESITE, DIORITE, POST-ORE, 9bπ - porphyry
MESOZOIC
CRETACEOUS
COAST INTRUSIVES
752 8 DIORITE 8a - ALTERED (ENDOSKARN)
8b - MINERALISED ENDOSKARN, MALACHITE, CHALCOPYRITE, BORNITE
752 7 7g-GRANITE, 7b-GRANODIORITE, 7m-QUARTZ-MONZONITE
LOWER JURASSIC & LATER
746½ 6 LABERGE GROUP
UPPER TRIASSIC
LEWES RIVER GROUP (METAMORPHOSED)
740½ 5 LIMESTONE AND/OR DOLOMITE, 5b-CARBONACEOUS LIMESTONE
736½ 4 SEDIMENTS - NONCALCAREOUS 4q - QUARTZITE 4g - GREYWACKE 4k - ARKOSE
738 3 SKARN BARREN WITH............
745 2 MINERALISED SILICATE SKARN...
748 1 MINERALISED MAGNETITE SKARN...
a - ACTINOLITE
b - BORNITE
c - CHLORITE
d - DIOPSIDE
e - EPIDOTE
f - FELDSPAR
g - GARNET
h - HEMATITE
m - MAGNETITE
s - SERPENTINE
t - TREMOLITE
w - WOLLASTONITE
z - ZOISITE
Previous Drill Holes
Year 2000 Drill Holes
Trenches
Kluane Drilling Ltd.
HAT Property Geology and Data Compilation Map
Scale: 1:4800
Figure: 3
Mining District: Whitehorse
NTS: 105 D/11,14
Drawn By: XDJ
Date: August 2000

IM

YEIP
2000-
046
2000
Part 2

KLUANE DRILLING LTD.

INDUCED POLARIZATION SURVEY ON THE HAT CLAIMS, WHITEHORSE AREA, YT.

AMEROK GEOSCIENCES LTD.

YEIP
2000-
046
2000
Part 2

2000 - 046B

AMEROK GEOSCIENCES LTD.

KLUANE DRILLING LTD.

INDUCED POLARIZATION SURVEY ON THE HAT CLAIMS, WHITEHORSE AREA, YT.

G.J. Smith B Sc

Location: 60° 45' N 135° 10' W
NTS: 105 D/11 & D/12
Mining District: Whitehorse, YT
Date: September 6, 2000

SUMMARY

An induced polarization (IP) and resistivity survey was conducted on the Hat Property, Whitehorse Mining District, during July 2000. The purpose of the survey was to locate porphyry style mineralization. A total of 5.7 line-km was surveyed at a 100 ft dipole spacing using a dipole-dipole array and measuring from the 1st to the 6th separation in the time domain. The grid covered an area of approximately 3500 ft (E-W) by 1600 ft (N-S) at a 400 ft line spacing. The data is plotted in conventional pseudosection format and is appended in digital format to this report.

The survey identified 2 roughly north-south trending chargeability highs. The first of these IP anomaly systems lies in the western portion of the grid and is characterized by a strong chargeability high within an area of elevated apparent resistivity and may define a zone of skarn style mineralization that was exposed in trenches during previous work done on the property. The second IP anomaly system lies to the east and is coincident with a moderate chargeability response in rocks of low to moderate apparent resistivity and has not been drill tested.

TABLE OF CONTENTS

List of Figures

1.0 INTRODUCTION

Amerok Geosciences Ltd. was retained by Kluane Drilling Ltd. to conduct an induced polarization (IP) and resistivity survey on the Hat 27 and Hat 28 claims in the Whitehorse Copper Belt, northeast of Fish Lake, in the southern Yukon. The purpose of the survey was to locate potential porphyry style mineralization on these claims. This report describes the survey and the results.

2.0 GRID

The survey was conducted over an old grid that was cleared and re-chained for this survey. Lines were turned from an north-south baseline at 400 ft m intervals and were cut and straight chained. Stations were picketed at 100 ft intervals. A total of 5.7 line-km were covered during the IP survey.

3.0 PERSONNEL AND EQUIPMENT

The surveys were conducted by an IP crew consisting the following personnel:

Person	Position
Gary Smith, B.Sc.	Crew Chief
Christine Purves	Technician
Gary Lee, B.Sc.	Helper
Ron Stack	Helper

The crew were equipped with the following instruments and equipment:

Transmitter:	Phoenix IPT-1 mated with 2.5 KW motor generator. Maximum output voltage: 1500 V / maximum output power approximately 2.2 KW. Spare Phoenix IPT-1.
Receiver:	IRIS IP-10 digital 10-channel IP time domain receiver
Data processing:	P-100 laptop. Data processing with Geopak IPSECT software and proprietary data conversion software.
Other equipment:	6-conductor 50 m IP cables, stainless steel electrodes, 4 km

wire, winders, VHF radios, F350 1Ton truck.

The crew spent a total of 5 days on the Property. The survey log is attached as Appendix B.

4.0 SURVEY SPECIFICATIONS

The IP surveys were conducted according to the following specifications:

Array:	Dipole-dipole
Dipole spacing:	100 feet
Separations read:	n=1 to 6
Signal:	0.125 Hz / 50% duty cycle / reversing polarity
Receiver synch:	synchronization using n=1 dipole signal in most cases.
Signal sampling:	20 windows, Cole-Cole logarithmic sampling over 2 s.
Measurements:	Vp - primary voltage prior to shutoff M_n - nth time slice chargeability (n=1 to 20) Mt - total chargeability Ro - apparent resistivity Sp - self potential Rs - electrode resistance C - spectral IP amplitude parameter Tau - spectral IP time constant parameter
Noise threshold:	Standard deviation in Mt kept to $\leq$ 5 ms where possible. In the event that this was not possible, readings were repeated several times to ensure repeatability.
Stacking:	minimum 15 times, maximum 30 times for a single reading.
Slopes:	station-to-station terrain slopes were measured with a clinometer in percent slope.

5.0 DATA AND PRODUCTS

The survey data was downloaded in binary form and converted into Geosoft format IP data files (.gsf files) which summarize the data in ASCII format by station reading. This data is appended to this report on disk.

In general the data quality was quite good with low errors. Readings with standard deviations significantly greater than 5.0 mV/V and which did not repeat during subsequent measurements were nulled out in the final data set.

Appendix C contains pseudosections of the IP / resistivity data plotted at 1:2,400. The locations of anomalies of significance described in the text are indicated by lines above the corresponding pseudosections. Solid lines indicate the apparent location of the target apex (ie. top of the source body) and dashed lines indicate possible extensions.

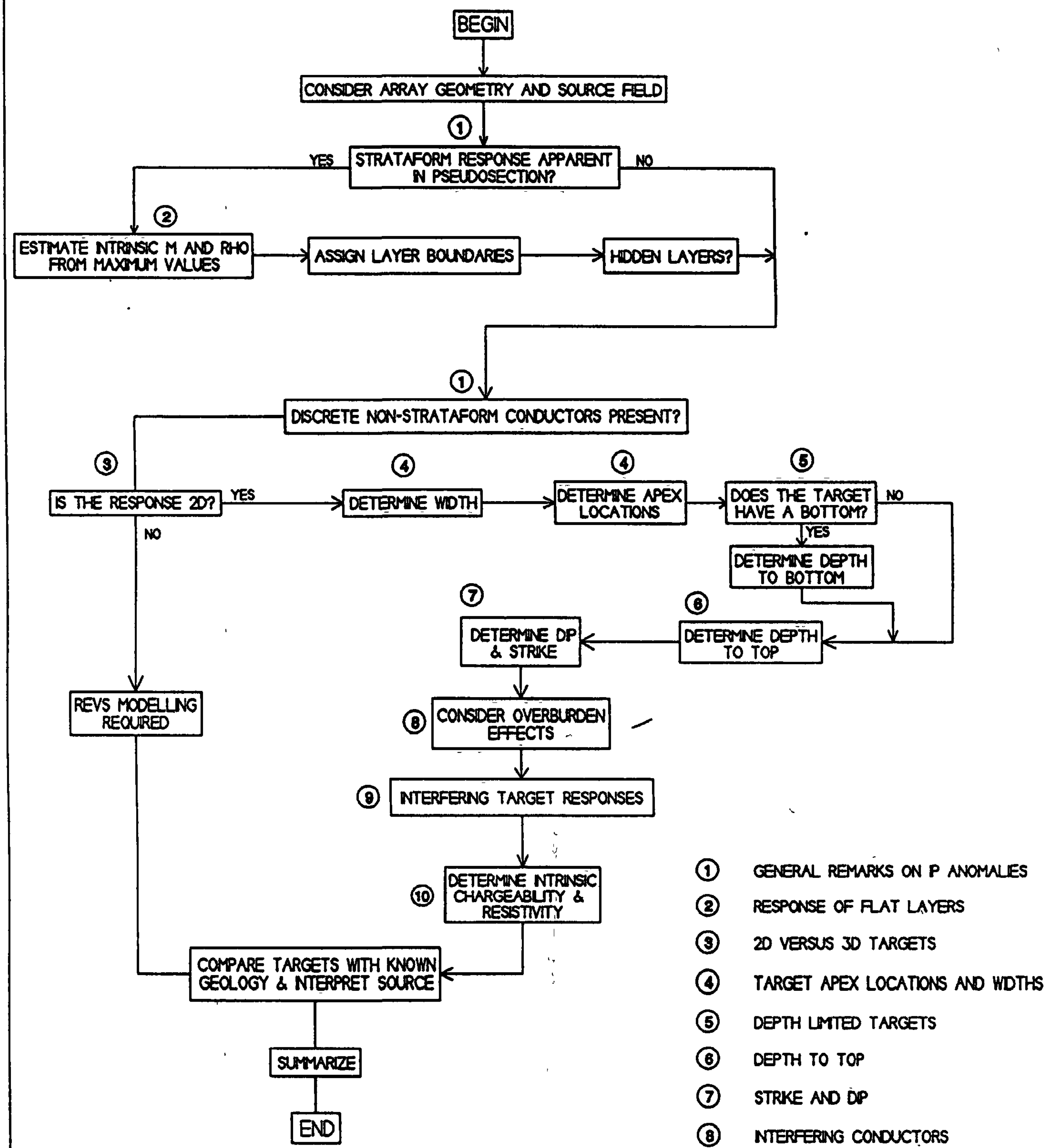
6.0 IP THEORY

Conventional IP interpretation procedures are summarized in the flow chart shown in Figure IP-1. The numbers in the flow chart refer to information sheets in the company interpretation manual. Key features of the responses mentioned in these sheets are summarized below and are drawn from summaries and investigations by Telford *et. al.* (1990), Sumner (1985), Hanneson (1990), Hohmann (1990), and Coggon (1973).

The source field for the surveys was a grounded current dipole with a spacing of 100 ft near a reading array of 100 ft dipoles. The receiving dipoles were separated from the current dipole by a variable spacing of 1 to 6 times the 100 ft dipole spacing. The source field from a grounded current dipole is symmetric about the midpoint of the pair and drops off dramatically with distance. There are no effects in the pseudosections which are primarily due to the source field.

6.1 Overburden responses

Overburden responses in a dipole-dipole survey show up as a flat-lying layer in the pseudosection. The depth to the boundary between layers of different resistivity or chargeability can be estimated as 1.5 to 2.0 times separation at which the gradient between the two layers is the greatest. This inevitably leads to an overestimation if the dipole spacing is large relative to the thickness of the layer. In some cases, the overburden response is not visible as a separate resistivity anomaly but is apparent as a flat lying layer of lower chargeability - usually only down to n=1. This is attributed to oxidation or leaching of chargeable minerals or graphite from bedrock near the surface or to the absence of chargeable minerals in overburden.



IP interpretation flow-chart.

6.2 Two dimensional versus three dimensional responses

Responses were interpreted as two dimensional (ie. extending along strike to some extent) unless otherwise stated. If a target is in fact three dimensional and is interpreted as being two dimensional, the contrast between the host and target properties will be underestimated

6.3 Apex location and width

Targets which are less than one half a dipole spacing (ie. 50 ft) will produce single slash responses. The apparent dip of the single slash response *does not* indicate the dip of the feature but merely indicates which electrode was closer to the source. A thin target may also produce a symmetric two-slash response if it is centred at an electrode site. The width of the source body was considered to be definitely less than 50 ft if a single slash anomaly was encountered and to be at least 50 ft if a symmetric response were encountered. It is difficult to discriminate between a 50 and 100 ft wide target response if the response is symmetric and the author has chosen to err on the wide side. If the response at the shortest separation is wider than one dipole, this is an indication that the source body is also wider than one dipole. The width of the response at the shortest separation was used to determine the width of the source body in most cases. The solid lines in the pseudosections show the horizontal location of the top of the source bodies and the apparent width of the target. The error in apex location is conservatively estimated $\pm$ 1 dipole (100 ft).

6.4 Depth to top

The depth to the top of a dipping source body is generally indicated by the shortest separation at which the response if visible. Thus a target at a depth of 100 ft would be expected to produce some response at n=1 but a target with a top at 200 ft would generally not be visible at n=1.

6.5 Dip direction

The dip direction and dip of a source body are difficult to estimate with dipole-dipole data. Dip must be estimated using both the resistivity and chargeability data because the dip direction will be different depending upon whether the chargeable target is more or less resistive than the host. If the target is more resistive than the host, the dip in the chargeability pseudosection will be in the same direction as the target. If the target is less resistive than the host, the apparent dip will be opposite the true dip. At a dipping contact, the steepest gradient in a resistivity section dips in the opposite direction to the true dip of the contact. Estimates of dip direction are difficult or impossible to make where targets of alternating resistivity are adjacent to each other.

6.6 Target resistivity and chargeability

Estimates of true or intrinsic target chargeability and resistivity can be made once the interpreter has some idea of the target dimensions. In general, for a given resistivity and chargeability contrast, the target response will decrease as the target dimensions decrease. In addition, the amplitude of the chargeability contrast will be affected by the resistivity contrast. Targets which are very resistive or very conductive will show much lower apparent chargeabilities relative to true chargeability.

A three dimensional target (e.g. a sphere) will produce an anomaly with a maximum apparent chargeability which is at best 30% of the true chargeabililty response. If the target is two dimensional, the maximum apparent chargeability is 50% of the true chargeability unless the target is thin in which case the maximum apparent chargeability will be up to 40% of the true intrinsic chargeability.

Estimates of the true chargeability and, to a lesser extent, resistivity can be used to estimate the probable source of an anomaly. Chargeabilities are largely determined by the bulk concentration of chargeable minerals such as sulphides or graphite. It is difficult to discriminate between the two although spectral IP analysis shows a lot of promise in this direction. Rules of thumb cited by Sumner (1976) and Hohman (1990) relate chargeable mineral content to recorded IP parameters:

$$1\% sulphides \cong 3\% PFE \cong 20 ms \cong 10 mrad$$

There are wide variances between the sulphide content predicted by these relations and the actual sulphide content. These arise from the effect of electrical resistivity on measured chargeability. Rocks which are highly resistive (few current paths) or very conductive (too many current paths) will exhibit lower than predicted apparent chargeability and estimates of chargeable mineral content will err on the low side. In addition, estimates of sulphide content based on chargeability must account for background chargeability due to clay minerals.

6.7 Spectral IP response.

Conventional IP surveys record the total chargeability which is an integration of the decay voltage over an arbitrary time interval. This measure ignores the shape of the decay curve which has been found to contain valuable information on the source parameters. The decay curve can be fitted to an exponential decay model expressed as a complex impedance (Cole-Cole impedance) described by Johnson (1990) as:

$$Z(\omega) = R_o\left[1 - m\left(1 - \frac{1}{1+(i\omega\tau)^C}\right)\right]$$

where Z is the complex impedance at angular frequency ω, R_o is the apparent resistivity, m is the chargeability, C is an amplitude constant, $i=(-1)^{0.5}$, and τ (tau) is the time constant. This equation can be used to generate decay curves in the time domain for different tau and C. The time constant governs the shape of the curve whereas the amplitude constant C controls the amplitude of the curve. Graphite has a very large (long) time constant and sulphides show a large time constant relative to clay sources which show a small time constant. Thus the decay curve for clays is quite steep whereas the decay curve for chargeable sources such as graphite or sulphides are much flatter. Extraction of spectral IP parameters is performed by matching the decay curves with a table of standard curves to determine which combination of C and Tau most closely matches that of the observed decay curve. The extracted spectral IP parameters are commonly plotted in pseudosections and used to discriminate between possible sources based on differences in spectral IP response. The confidence that can be placed in spectral IP response is in some degree determined by the apparent error in chargeability and this should be examined with the spectral IP data.

7.0 RESULTS

The geology of the Hat Property is well summarized in Jiang (2000). The property is mostly underlain by calcareous and non-calcareous sedimentary rocks of the Upper Triassic Lewes River Group and by non-calcareous units of the Lower to Middle Jurassic Laberge Group. Intrusive rocks of the Mid Cretaceous Whitehorse Batholith underlie about a third of the property. A portion of the sedimentary-intrusive contact is thought to lie below overburden in the survey area.

In general terms, the IP / resistivity survey delineated two north-south trending anomaly systems. The first of which is coincident with slightly elevated resistivities and strong chargeability signatures and extends from 1500W on Line 124N to approximately 1850W on Line 132N. It is characterized by apparent chargeabilities in the range of 20 to 70 mV/V and apparent resistivities in the range of 1000 to 4000 ohm-m. Skarn mineralization visible in old trenches in this area suggest that the anomaly may be the result of a north-northwest trending skarn zone (Jiang, 2000).

The second anomaly system trends roughly north-northeast and extends from 450W on Line 132N to 250E on Line 140N. It is coincident with a moderate chargeability response within a zone of low to moderate resistivity. The anomaly system is defined by apparent chargeabilities in the order of 9 to 20 mV/V and apparent resistivities in the range of 200 to 1000 ohm-m.

There are also a couple of discrete chargeability anomalies of note. The first of which is on Line 124N at approximately 50E. It is a moderate chargeability response within an area of highly resistive rocks that lie east of an apparent resistivity contact. This anomaly was drill tested and no significant mineralization was found (Jiang, 2000). The second is a strong chargeability response (30 to 70 mV/V) at 900E on Line 136N and occurs within rocks of low to moderate apparent resistivity. The apices of the IP and resistivity anomalies forming these trends is indicated on the pseudosections in Appendix C and line by line descriptions of the results follow.

Line 124N

The only significant chargeability anomaly on the line is anomaly **A** with an apex between 1450W and 1550W. The source of this anomaly appears to be a shallow, sub-vertical, depth-limited source that occurs in an area of elevated resistivity. Depth to top is between 0 to 30 metres and the target is fairly broad extending over several dipole lengths towards the west. The response from this body is visible at all separations from n=1 to n=6.

Resistivity anomaly **B** is a broad, shallow apparent resistivity high that extends from 650W to 1200E and possibly continues off the edge of the grid. It does not appear to be depth limited. This resistive zone forms a contact with rocks of lower apparent resistivity to the west. There are a couple of chargeability highs within the resistive zone but they are not likely significant. It should be noted that towards the eastern end of the line the apparent resistivity of the rocks increases (anomaly **C**) and the chargeability values within this zone are above background.

Line 128N

There are two features of note in the chargeability data for this line. Chargeability anomaly **A** occurs at the western end of the line and has an apex at approximately 1700W. The target is shallow and most likely sub-vertical, dip direction is difficult to determine. The source occurs within an area of elevated resistivity. The response extends over several dipole lengths and is visible at all separations.

Chargeability anomaly **B** is a deep response visible at n=5. Depth to top is approximately 150 metres. The target apex occurs at 900E and lies within a broad zone of high apparent resistivity that extends from 150W to 1200E (resistivity anomalies **B** and **C**).

Line 132E

There is a significant high chargeability response seen at the western edge of this line (anomaly **A**). The source occurs within rocks of elevated resistivity. The targets is shallow, having a depth to top of approximately 0 to 30 metres. The asymmetric response suggests interference from another source. The target is sub-vertical and appears to dip to the east. The target apex is located between 1800W and 1900W. The response is wide and increases substantially at the western edge of the line where there is also an associated increase in resistivity response.

Chargeability responses on the rest of the line show complex anomalies (**B** and **C**). The complex distribution of the chargeability data makes dip, apex and depth extent difficult to determine and there is no visible associated resistivity response. Both chargeable bodies are shallow, having a depth to top of between 30 to 60 metres. Chargeability anomaly **C** does occur in an area of high apparent resistivity which increases moving towards the eastern edge of the grid.

Line 136N

The apparent resistivity and chargeability data show no significant features at short separations. The only chargeable responses of interest would be anomalies **C** and **D**. Anomaly **C** is a weak response with an apex between 100E and 200E. The depth to top for this target is approximately 30 to 60 metres. The body is sub-vertical and appears to be associated with zone of slightly elevated resistivity having roughly the same geometry.

Chargeability anomaly **D** is a stronger response having a target apex centered at 900E. Depth to top is in the order of 60 to 90 metres. The source is thin (one to two dipole lengths) and is sub-vertical. Dip of the target is impossible to estimate given the nature of the anomaly. This anomaly occurs within an area of slightly elevated resistivity.

Line 140N

Chargeability anomaly **A** is a strong response at the western edge of the grid. The anomaly appears to continue westward off the line and therefore the exact lateral extent is not known. It appears to be associated with a discrete resistivity high that would suggest the target is not very wide and relatively shallow.

Chargeability anomaly **B** is a moderate response with an apex between 200E and 300E. The source is approximately 30 to 90 metres in depth and may be caused by one or more narrow, sub-vertical targets. There is no corresponding resistivity response.

Chargeability anomaly **C** is a weak response that occurs within rocks of elevated resistivity. The response is shallow and depth limited and may be the result of overburden effects.

Resistivity anomaly **B** is a strong low centred at 800W. It has no corresponding chargeability signature.

8.0 CONCLUSIONS

The results of this survey indicate the following conclusions:

a. Two north-south trending chargeability highs were detected by the survey. The western IP anomaly system extends from approximately 1500E on L 124N to 1850E on L132N and is characterized by apparent chargeabilities from 20 mV/V to in excess of 70 mV/V. The second IP anomaly system lies to the east and extends from 450W on L132N to 250E on L140N and is characterized by apparent chargeabilities from 9 to 20 mV/V.

b. The resistivity data shows a strong apparent resistivity high that trends north-northeast from an apparent contact at 650W on L124N to 1150E on L132N.

c. The western north-northwest trending anomaly system might be a response from skarn type mineralization. This is supported by skarn mineralization found in old trenches along survey lines cutting this zone.

9.0 RECOMMENDATIONS

The conclusions of this report support the following recommendations:

a. The IP / resistivity surveys should be extended to the west to close off the chargeability high.

b. The available geological data should be examined to verify the interpretation described in this report.

c. If the geological data support the conclusions of this report, the chargeability anomaly system to the west mapped by the IP survey should be drill tested.

Respectfully submitted,
AMEROK GEOSCIENCES LTD.

G.J. Smith, B.Sc.
Geophysicist

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APPENDIX A. CERTIFICATE

I, Gary James Smith, of Yellowknife, Northwest Territories, do hereby certify that:

1. I am a graduate of Concordia University, Montreal, Quebec, with a B.Sc. Specialization in Geology and Physics obtained in 1997.

2. I have been involved in mineral exploration in Canada since 1996.

3. I have participated in the field work described in this report and prepared the report. In preparing this report I worked under the direct supervision of Michael Allan Power, P Geoph (NT).

4. I have no interest, direct or indirect, nor do I hope to receive any interest, direct or indirect, in Kluane Drilling Ltd. or any of its properties

Dated this 6th day of September 2000, in Yellowknife, Northwest Territories.

Gary J. Smith, B.Sc.
Geophysicist

APPENDIX B.

AMEROK GEOSCIENCES LTD.

SURVEY LOG
JOB 00-013
IP SURVEY
HAT IP SURVEY

Period: 21/July/00 - 25/July/00

Personnel:

Gary Smith- Crew Chief
201 - 5600 52nd Avenue
Yellowknife, NWT
X1A 2R7

Christine Purves- Technician
Box 5808
Whitehorse, YK
Y1A 5L6

Gary Lee- Helper
Box 5808
Whitehorse, YK
Y1A 5L6

Ron Stack- Helper
Box 5808
Whitehorse, YK
Y1A 5L6

Fri 21 Jul 00
IP Survey. Crew Mobe to Hat claims. Survey L24N in the morning, mag storm forces demobe in the afternoon.
Weather: Cloudy and Rainy
(Survey)
Production: approximately 1800 ft.

Sat 22 Jul 00
IP Survey. Continue on L24N but mag storm forces demobe.

	Weather: Cloudy (Standby) *Production:* approximately 500 ft.
Sun 23 Jul 00	IP Survey. Finish L24N start L28N. Weather: Scattered Clouds and Rain (Survey) *Production:* approximately 3600 ft.
Mon 24 Jul 00	IP Survey. Finish L28N and start L32N. Weather: Rain (Survey) *Production:* approximately 5200 ft.
Tue 25 Jul 00	IP Survey. Survey L36N and L40N. Weather: Scattered clouds, clearing in the afternoon. (Survey) *Production:* approximately 7000 ft.

APPENDIX C. PSEUDOSECTIONS

LINE : 136 N

INDUCED POLARIZATION SURVEY

DIPOLE-DIPOLE ARRAY

DEPTH POINT

N = 1, 2, 3, 4, ...

"A" SPACING = 100.0 FEET

KLUANE DRILLING LTD.

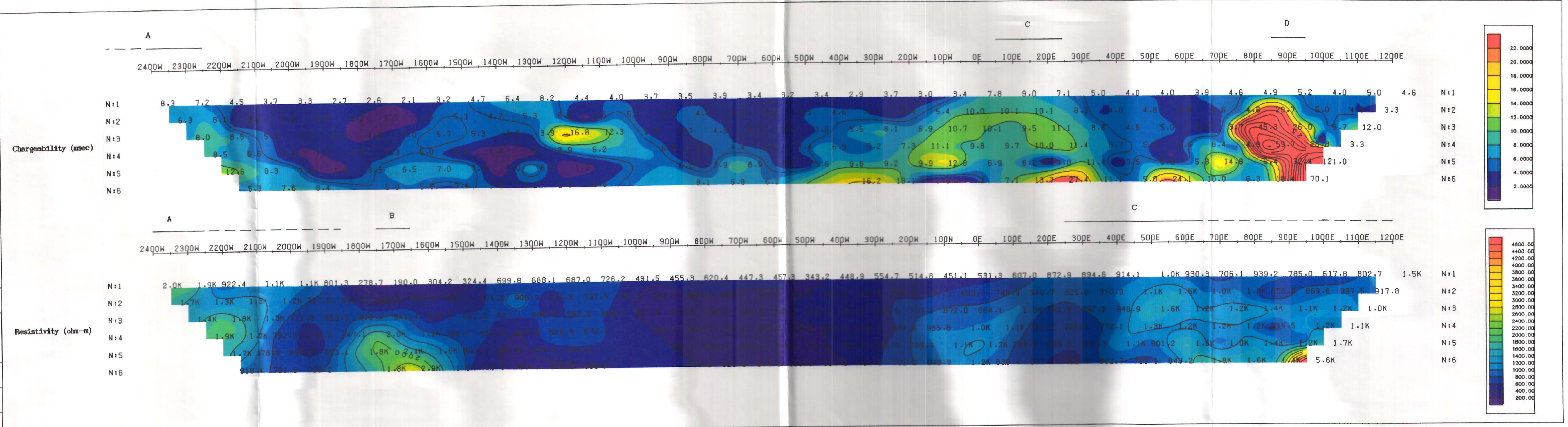
HAT CLAIMS

NORTH EAST OF FISH LAKE

DATE : 26 JUL 00	REF : 2000-13

SCALE = 1: 2400

AMEROK GEOSCIENCES LTD.



LINE : 132 N

INDUCED POLARIZATION SURVEY

DIPOLE-DIPOLE ARRAY

DEPTH POINT

N = 1, 2, 3, 4, ...

"A" SPACING = 100.0 FEET

KLUANE DRILLING LTD.

HAT CLAIMS

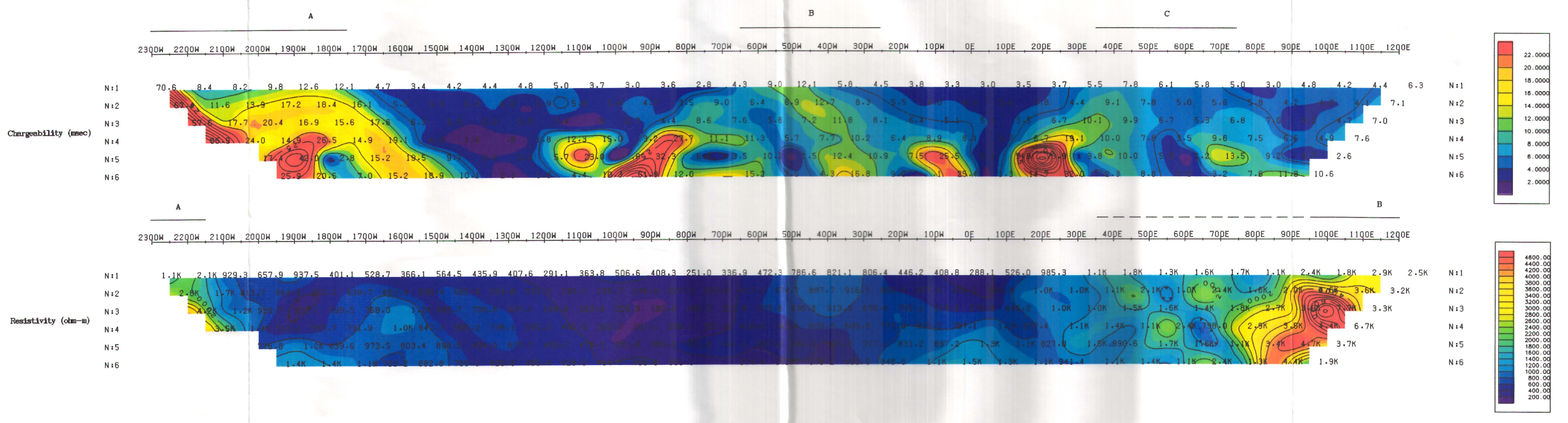
NORTH EAST OF FISH LAKE

DATE : 26 JUL 00

REF : 2000-13

SCALE = 1: 2400

AMEROK GEOSCIENCES LTD.



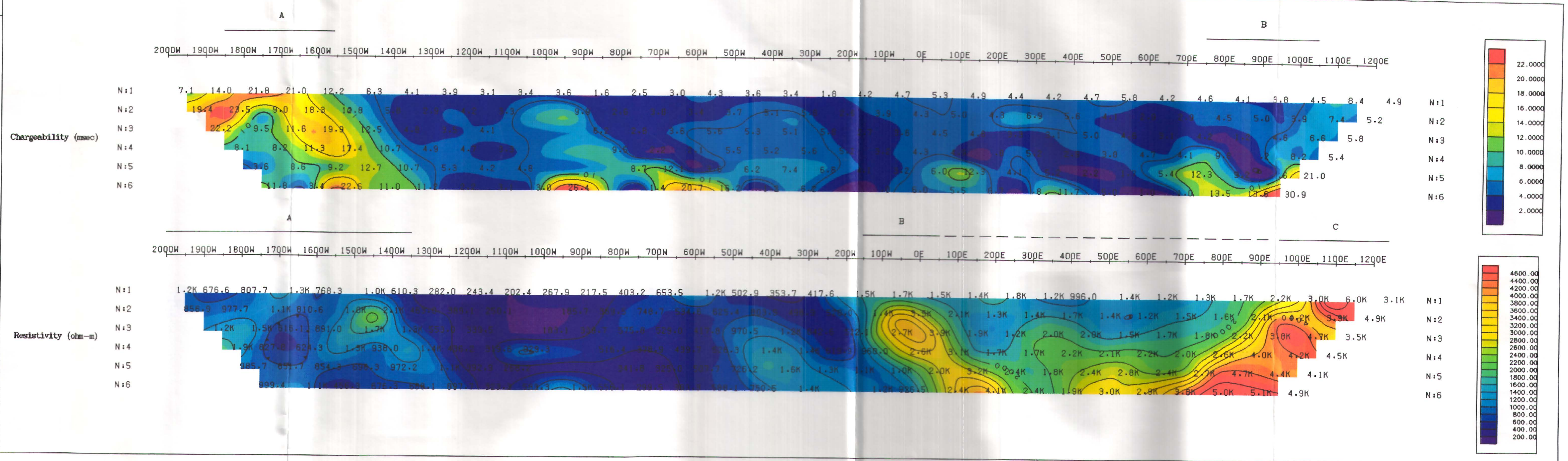
LINE : 128 N

INDUCED POLARIZATION SURVEY

DIPOLE-DIPOLE ARRAY

N = 1, 2, 3, 4, ...

"A" SPACING = 100.0 FEET



KLUANE DRILLING LTD.

HAT CLAIMS

NORTH EAST OF FISH LAKE

DATE : 26 JUL 00 | REF : 2000-13

SCALE = 1: 2400

AMEROK GEOSCIENCES LTD.

LINE : 124 N

INDUCED POLARIZATION SURVEY

DIPOLE-DIPOLE ARRAY

DEPTH POINT
N = 1, 2, 3, 4, ...
"A" SPACING = 100.0 FEET

KLUANE DRILLING LTD.

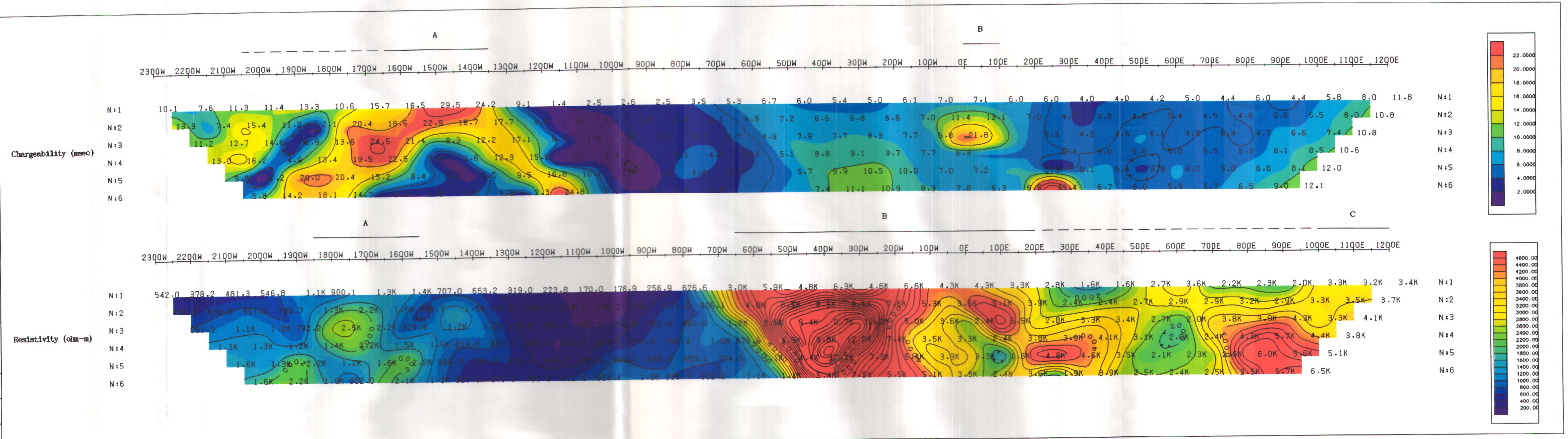
HAT CLAIMS

NORTH EAST OF FISH LAKE

DATE : 26 JUL 00	REF : 2000-13

SCALE = 1: 2400

AMEROK GEOSCIENCES LTD.



LINE : 140 N

INDUCED POLARIZATION SURVEY

DIPOLE-DIPOLE ARRAY

DEPTH POINT
N = 1, 2, 3, 4, ...
"A" SPACING = 100.0 FEET

KLUANE DRILLING LTD.

HAT CLAIMS

NORTH EAST OF FISH LAKE

DATE : 26 JUL 00 | REF : 2000-13

SCALE = 1: 2400

AMEROK GEOSCIENCES LTD.