DU PONT OF CANADA EXPLORATION LIMITED

GEOLOGICAL AND GEOCHEMICAL REPORT

ON THE EVIEW PROPERTY

WHITEHORSE MINING DIVISION

(YUKÓN TERRITORY)

LAT. 60°27'N, LONG. 135°03'W

NTS: 105-D-6E

OWNER OF CLAIMS: DU PONT OF CANADA EXPLORATION LIMITED

OPERATOR: DU PONT OF CANADA EXPLORATION LIMITED

Submitted by: H. J. Copland
Date : 1982 October

This report has been examined by
the Geological Evaluation Unit
under Section 53 (4) Yukon Quartz
Mining Act and is recommended as
representing assessment work in the amount
of $ 3,200 —

R Watson

for Regional Manager, Exploration and
Geological Services for Commissioner
of Yukon Territory.

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SUMMARY

The EVIEW claims are located 30 kilometres south of Whitehorse, Y.T. The claims are owned and operated by Du Pont of Canada Exploration Limited. Work during the summer of 1982 involved detailed soil sampling and geological mapping. The sampling has confirmed the existence of a 100 to 300 metre wide Pb-Zn-Ag anomaly trending north-south over a length greater than 1100 metres. This anomaly is related to the contact between Lower Jurassic sediments and Cretaceous volcanic rocks and it may represent a shear zone along which Pb-Zn-Ag mineralization has been concentrated. It is recommended that the soil grid be extended, that trenching be undertaken, and that a geophysical survey be conducted over the claims.

INTRODUCTION

During 1982 June, assessment work consisting of geochemical and geological surveys was performed on the EVIEW claims. The EVIEW claims were staked as a result of a regional stream sediment sampling programme, the Kulta Project, that located anomalous lead and zinc values in a stream draining the property Dwg.KU.81-2.

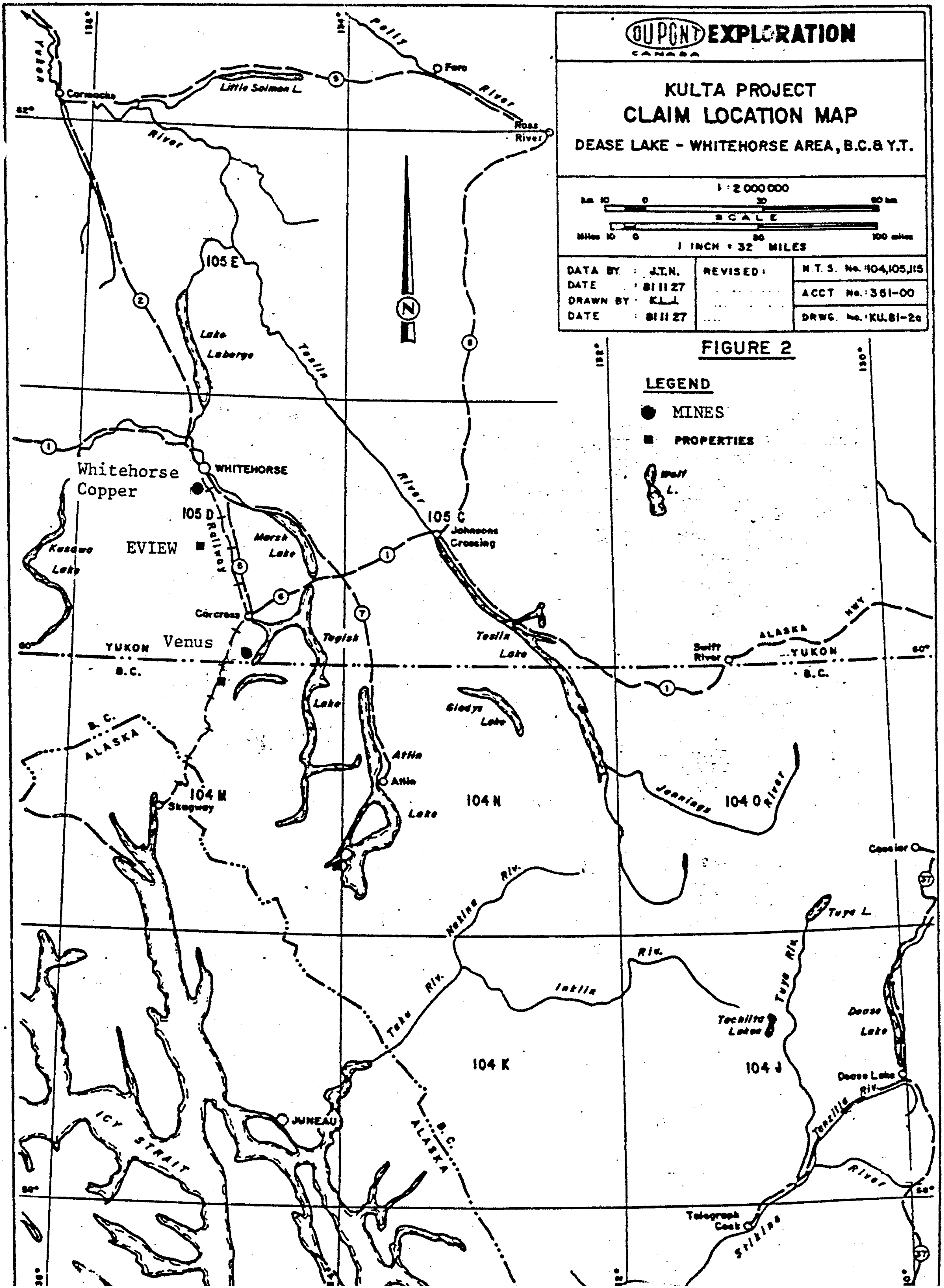
The purpose of this year's work was to establish the extent and source of a Pb, Zn and Ag anomaly discovered in soils in 1981.

LOCATION AND ACCESS

The EVIEW claim is located within the Whitehorse Mining Division, NTS 105-D-6E (Lat. 60°27'N, Long. 135°03'W). The property is located one kilometre east of Lakeview Mountain and eight kilometres west of McConnell Lake. The nearest population centre is Whitehorse, 30 kilometres to the north. The claim is accessible by helicopter from Whitehorse. The Carcross-Whitehorse highway passes 11 kilometres to the east of the property.

TOPOGRAPHY AND VEGETATION

The claim almost covers a small flat topped mountain which is immediately east of Lakeview Mountain. The central portion of the claim forms a broad plateau which rises to a peak at an elevation 1495 metres in the north. In the south, the mountain slopes moderately to a small U-shaped valley situated north of



DUPONT EXPLORATION
CANADA
KULTA PROJECT
CLAIM LOCATION MAP
DEASE LAKE - WHITEHORSE AREA, B.C.& Y.T.
1 : 2 000 000
SCALE
1 INCH = 32 MILES
DATA BY : J.T.N.
DATE : 81 11 27
DRAWN BY : K.L.J.
DATE : 81 11 27
REVISED :
N.T.S. No. 104,105,115
ACCT No. : 351-00
DRWG. No. : KU.81-2a
FIGURE 2
LEGEND
MINES
PROPERTIES
Wolf L.
Whitehorse Copper
EVIEW
Venus
WHITEHORSE
Carmacks
Little Salmon L.
Faro
Ross River
Pelly River
Yukon
River
105 E
Lake Laberge
Teslin River
105 D
105 C
Johnsons Crossing
Railway
Marsh Lake
Kusawa Lake
Carcross
Tagish Lake
Teslin Lake
YUKON
B.C.
Swift River
ALASKA HWY
Gladys Lake
Atlin
Atlin Lake
ALASKA
104 M
Skagway
104 N
Jennings River
104 O
Cassiar
Nakina Riv.
Taye L.
Taye Riv.
Inklin Riv.
Taku Riv.
Tachilta Lakes
Dease Lake
104 K
104 J
JUNEAU
ICY STRAIT
B.C.
ALASKA
Dease Lake
Tanzilla Riv.
Stikine River
Telegraph Creek

Goat Mountain. The lowest elevation on the property is 1130 metres. One major stream drains the property to the south. Small ponds dot the upper plateau. Subalpine grasses and shrubs cover the upper areas whilst spruce and pine are most prominent on the valley floor.

PROPERTY DEFINITION

The EVIEW property consists of 16 claim units as shown on Dwg. No. KU.81-255. The claims are in good standing until 1983 June 8, Dwg.KU.81-255.

EVIEW: YA60923 to YA60938

PREVIOUS WORK

The property was staked in June 1981 by Du Pont of Canada Exploration Limited on the basis of a lead-zinc anomaly in a stream sediment sample. There is no recorded work concerning the property prior to this date.

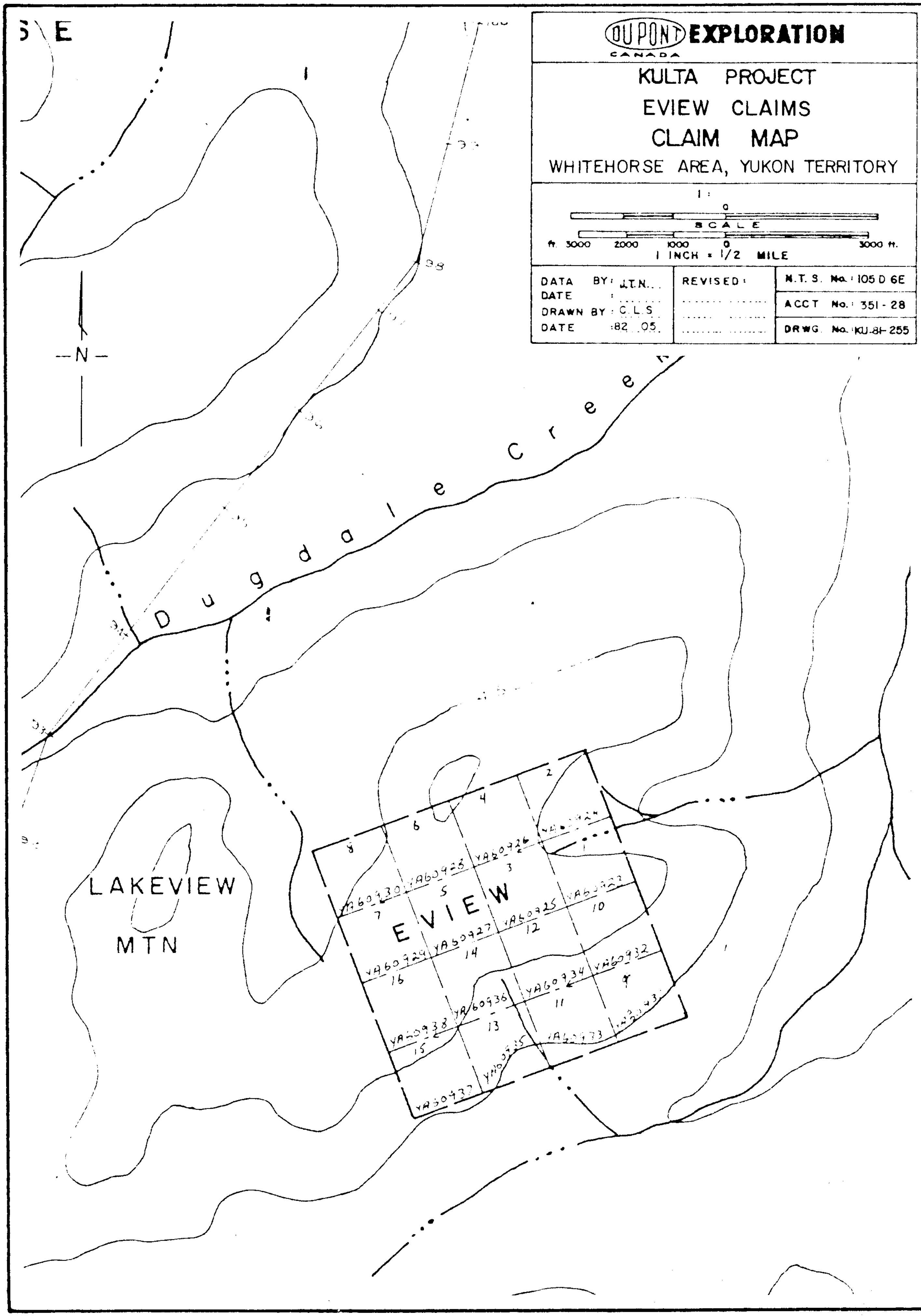
In 1981, preliminary follow-up consisted of contour soil sampling, HM (Heavy Mineral) stream sediment sampling, geological mapping and rock sampling (Copland, H.J. and Neelands, J.T., 1982).

Work performed in June 1982 consisted of an extensive soil sample grid covering 8400 metres of line, and detailed geology of the claim.

PERSONNEL

Property work was performed by the following people on the dates indicated:

1981 June 14:	H. Copland (Geologist) T. Hanel (Geologist) D. Hooper (Sr. Geological Assistant) B. Yamamura (Jr. Geological Assistant)
1981 June 17:	H. Copland (Geologist) T. Hanel (Geologist) D. Hooper (Sr. Geological Assistant) B. Yamamura (Jr. Geological Assistant)
1981 June 19:	H. Copland (Geologist) B. Yamamura (Jr. Geological Assistant)



DUPONT EXPLORATION
CANADA
KULTA PROJECT
EVIEW CLAIMS
CLAIM MAP
WHITEHORSE AREA, YUKON TERRITORY
SCALE
ft. 3000 2000 1000 0 3000 ft.
1 INCH = 1/2 MILE
DATA BY: J.T.N.
DATE :
DRAWN BY : C.L.S.
DATE : 82 .05.
REVISED:
N.T.S. No.: 105 D 6E
ACCT No.: 351 - 28
DRWG. No.: KU-81-255
N
Dugdale Cree
LAKEVIEW
MTN
EVIEW
YA60930
YA60928
YA60926
YA60925
YA60927
YA60929
YA60934
YA60932
YA60936
YA60938
YA60937

GEOLOGY

Regional Geology

The property lies within the Intermontane Belt of the western Cordillera. The belt consisting mainly of sedimentary and volcanic rocks stretches from the Yukon to southern British Columbia. The belt averages 150 kilometres in width and trends northwest-southeast. Bordering the belt to the west are the granitic rocks of the Coast Mountain Intrusions, which stretch along the entire B.C. coast into Alaska.

Physiographically, the region is part of the Yukon Plateau. This area is characterized by glaciated mountain peaks generally under 2000 metres in elevation and long narrow lake-filled valleys. To the west, the rugged extensively glaciated peaks of the Coast Mountains dominate.

The Tagish-Bennett Lake areas are dominated by rocks of the Intermontane Belt with small plutons (2-8 km in size) of Late Cretaceous Coast Intrusions scattered throughout. The main front of the Coast Mountains occurs to the west of the property. The rocks of the Intermontane Belt are comprised of Palaeozoic metamorphic rocks (schists and gneiss), Pennsylvanian (?) and Permian volcanic and meta-volcanic rocks (Taku Group), Lower and Middle Jurassic sediments (Laberge Group), and Upper Cretaceous volcanic rocks (Hutshi Group). See Table of Formations (Table 1) and Dwg. No. KU.81-2c.

The rocks generally occur in northwest trending belts as part of a large regional synclinorium (Wheeler 1961, p. 103). All Pre-Cretaceous rocks show this trend. Locally tight folding has been observed, possibly due to intrusive displacement.

Local Geology

The EVIEW claims lie seven kilometres east of the boundary between the Coast Mountain Intrusions and the Intermontane Belt. Small plutons related to the intrusive belt crop out to the east of the property. These granodioritic plutons are generally less than five kilometres across.

Sediments and volcanic rocks of the Upper Triassic Lewes River Group lie in contact with the granites of the Coast Mountains west of the property. These rocks form part of the Fish Lake syncline. Younger Laberge group sediments are exposed further to the east near the axis of the syncline. Overlying these folded rocks are "flat-lying and gently deformed volcanic rocks of the mid- Cretaceous Hutshi Group..." (Wheeler 1961, p. 21).

TABLE 1

Table of Formations

Miocene to Pleistocene (TQW)

Wrangell-Garibaldi: Basic to intermediate volcanics.

Late Tertiary

Intrusive: (LTg) granite, quartz monzonite, granodiorite, quartz diorite.

Upper Cretaceous-Oligocene (KTo)

Ootsa Lake-Mt. Nansen (Hutshi Group?): Intermediate to acidic volcanic flows, tuff; non-marine.

Late Cretaceous and Early Tertiary

Nisling Range Alaskite, Nanika (KTg): Granite, quartz monzonite lesser granodiorite.

Babine (KTg): Granodiorite, quartz diorite, quartz monzonite, lesser quartz monzonite, diorite, monzonite.

Cretaceous

Kingsvale-Spences Bridge (KK): Varicoloured intermediate and acid volcanics; lesser basalt; minor sediments.

Early and Mid-Cretaceous

Intrusives: Quartz monzonite, granite, granodiorite, lesser quartz diorite, quartz monzonite (EKg); Gabbro, minor norite, diorite (EKd).

Middle Jurassic-Lower Cretaceous

Bowser-Dewdney (JB): Siltstone, greywacke, shale, conglomerate, coal, marine and non-marine.

Lower and Middle Jurassic (JL)

Laberge-Quesnel (Stuhini Fmn): Greywacke, argillite, conglomerate; marine.

Upper Triassic - Lower Jurassic (TJT)

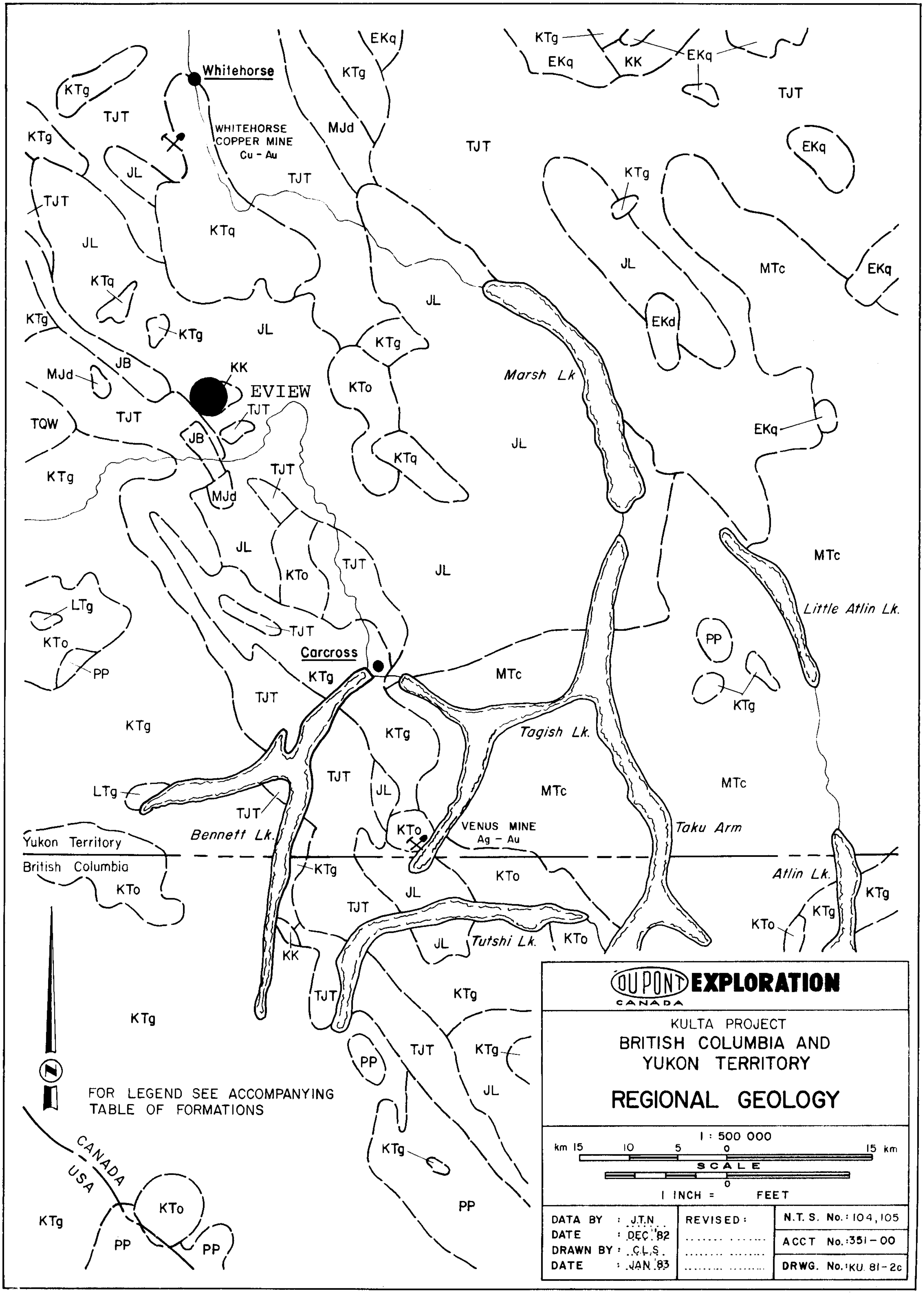
Takla-Nicola (Lewes River Group): Augite porphyry, basaltic volcanics; siltstone, shale, limestone, conglomerate.

Mississippian - Triassic (MTC)

Cache Creek - Anvil Range: Chert, argillite, carbonate, basalt, associated diabase, gabbro, alpine ultramafic; marine.

Proterozoic (PP)

Central Gneiss - Skagit: Granitoid Gneiss, migmatite schist, amphibolite, plutonic rocks.


Whitehorse
WHITEHORSE COPPER MINE Cu - Au
EVIEW
Marsh Lk
Little Atlin Lk.
Carcross
Tagish Lk.
Bennett Lk.
Taku Arm
VENUS MINE Ag - Au
Atlin Lk.
Tutshi Lk.
Yukon Territory
British Columbia
CANADA
USA
EKq
KTg
KK
TJT
MJd
JL
KTq
JB
TQW
EKd
MTc
KTo
LTg
PP
FOR LEGEND SEE ACCOMPANYING TABLE OF FORMATIONS
DUPONT EXPLORATION CANADA
KULTA PROJECT
BRITISH COLUMBIA AND YUKON TERRITORY
REGIONAL GEOLOGY
1 : 500 000
km 15 10 5 0 15 km
SCALE
1 INCH = FEET
DATA BY : J.T.N
DATE : DEC. '82
DRAWN BY : C.L.S.
DATE : JAN. '83
REVISED :
N.T.S. No. : 104, 105
ACCT No. : 351 - 00
DRWG. No. : KU 81 - 2c

The EVIEW claims lie approximately six kilometres southwest of the Whitehorse Copper Belt. Where a number of economic magnetite- chalcopyrite skarns have developed along contacts of the Lewes River Group limestones and granitic intrusions. Two kilometres to the northwest of the claims marks the southern extent of a coal belt found in sediments of the Lower Cretaceous Tantalus Formation.

Lead, zinc and silver showings in the area occur exclusively associated with quartz veins. The Union Mines area 16 kilometres south of the EVIEW claims exploited a north, northwest trending vein 4 to 12 inches thick, in greywackes of the Laberge Group (Wheeler 1961, p. 135). Major mineralization is in the form of galena and arsenopyrite with minor sphalerite, pyrite and chalcopyrite.

Property Geology

The oldest rocks on the EVIEW claims are a series of sedimentary rocks belonging to the Lower Jurassic Laberge Group. These sediments are overlain by Cretaceous Hutshi Group rhyolites, dacites and basalts and intruded by Cretaceous Coast Intrusion granodiorite. Outcrop on the property is sparse and is exposed mainly in the creekbeds and south facing slope east of the creek.

The following is a brief description of the major units observed thus far on the property:

a. Siltstone - Map Unit 5A

This unit is characteristically dark green to grey, weathering a pale grey-green. Bedding which is quite clearly seen on weathered surfaces averages 1-2 mm in thickness. Finer grained lighter coloured beds are more resistant to weathering. The unit crops out in the upper and lower portions of the main creek bed. The siltstone is in contact with rhyolites in the upper portion of the creek. This contact represents the main mineralized zone of the property and will be discussed later under mineralization. Siltstone in the lower portion of the creek is in contact with a tuffaceous unit. The contact is sharp and regular.

b. Limestone - Map Unit 5B

Numerous angular boulders of limestone are found at the head of the creek. Although they are not true outcrop, the source of these boulders appears to be quite close. The limestone is a mottled, medium grey to white on both fresh and weathered surfaces. A degree of recrystallization and deformation is apparent in the rock.

c. Quartzite - Map Unit 5D

This unit crops out in the lower portion of the creek on both sides of an outcrop of siltstone. Contacts between the two units are however, not visible. The unit is grey-green, weathering to a darker grey-green colour. The rock shows a fine-grained, equigranular body composed of approximately 85% quartz, 15% feldspar with minor weathered pyrite disseminated throughout. There is no indication of bedding in this unit.

d. Rhyolite - Map Unit 8a

This unit is light grey to white, weathering locally to a dark rusty brown. The rock has an aphanitic very siliceous groundmass with angular fragments of quartz, feldspar and muscovite comprising 10-15% of the rock. These fragments are generally less than 2 mm in size. Pervasive pyrite in the form of tiny cubes less than 0.5 mm in size comprise 5% of the rock. The rhyolite is the best exposed unit on the property. It crops out in the creekbed and on the south-west facing slopes of the hill just east of the creek.

e. Dacite - Map unit 8b

The dacites occur in association with the rhyolites in the creekbed and on the southwest facing slope east of the creek. The unit is dark green, weathering to a pale green with local mottled epidote alteration on the surface. The rock is fine to medium-grained and generally contains 1-5% euhedral pervasive pyrite.

f. Basalt - Map Unit 8d

This unit occurs on the eastern boundary of the property. The rock is typically dark green, weathering to a bleached grey-green colour. Local gossans have developed in some of the basalt outcrops. The rock is fine-grained with a "peppery" texture of plagioclase and pyroxene in equal proportions.

g. Tuff - Map Unit 8e

The tuff is visible in the lower creek bed where it is in contact with siltstone and quartzites of the Laberge group.

Whether the unit is conformable with these sediments is not known. The unit is dark grey, weathering a lighter grey. The groundmass is fine-grained and contains angular clasts of quartz (10%), mafic minerals (10%) and epidote (5%). These minerals average less than 2 mm in size.

Structure

Bedding observed throughout the sedimentary rocks indicates a consistent southeast strike with moderate dips to the northeast between 20 and 30°. This is consistent with GSC Map 1093A (1961), which indicates that the claim lies on the southwestern limb of the northwest trending Fish Lake syncline.

This folding has deformed all pre-Hutshi Group rocks (Wheeler 1961, p. 103) and therefore is pre-Cretaceous. The Fish Lake syncline is a large open, asymmetrical fold with associated northerly trending strike slip faults (Wheeler 1961, p. 104). There is no indication of large scale strike slip faulting on the property.

Mineralization

Pervasive pyrite is common throughout the volcanic units on the claim. Average content ranges from trace to 10% pyrite. The contact between the siltstones and rhyolites in the upper creek bed consists of a zone 1 to 3 metres wide of gossanous and silicified rocks. Pyrite content in the siltstones increases from trace to 20% approaching the contact. Disseminated and pervasive pyrite in this zone occurs as euhedral cubes up to 2 mm in size.

Medium-grained, sugary, vuggy, boxwork quartz occurs in this zone. The quartz contains 5% disseminated pyrite and 10-15% cubic boxwork. Galena is also visible as small clusters of grains comprising 1-2% of the quartz. As will be discussed in a later section this zone contains anomalous values of Pb, Zn and Ag, both in rock and soils.

GEOCHEMISTRY

Procedure

A total of 200 soil and 7 rock samples were collected during 1982. Soil sampling was carried out over grids totalling 8400 metres in length. Sampling interval was every 50 metres on lines 100 metres apart. In addition, a small grid totalling 500 metres in length was sampled on 25 metre intervals. The samples were collected from just below the organic layer and placed in wet strength kraft bags. Sample locations were marked with flagging bearing sample number and grid location. Rock samples were collected at random throughout the property. Rock sample locations were marked by flagging bearing the sample number.

All samples were shipped to Min-En Laboratories Ltd., North Vancouver, BC for preparation and analysis. Soil samples were dried and sieved to -80 mesh and tested for Pb, Zn and Ag. Rock samples were crushed to -100 mesh and analyzed for Cu, Pb, Zn, Ag and Au.

For details on analytical procedures, see Appendix I.

Results

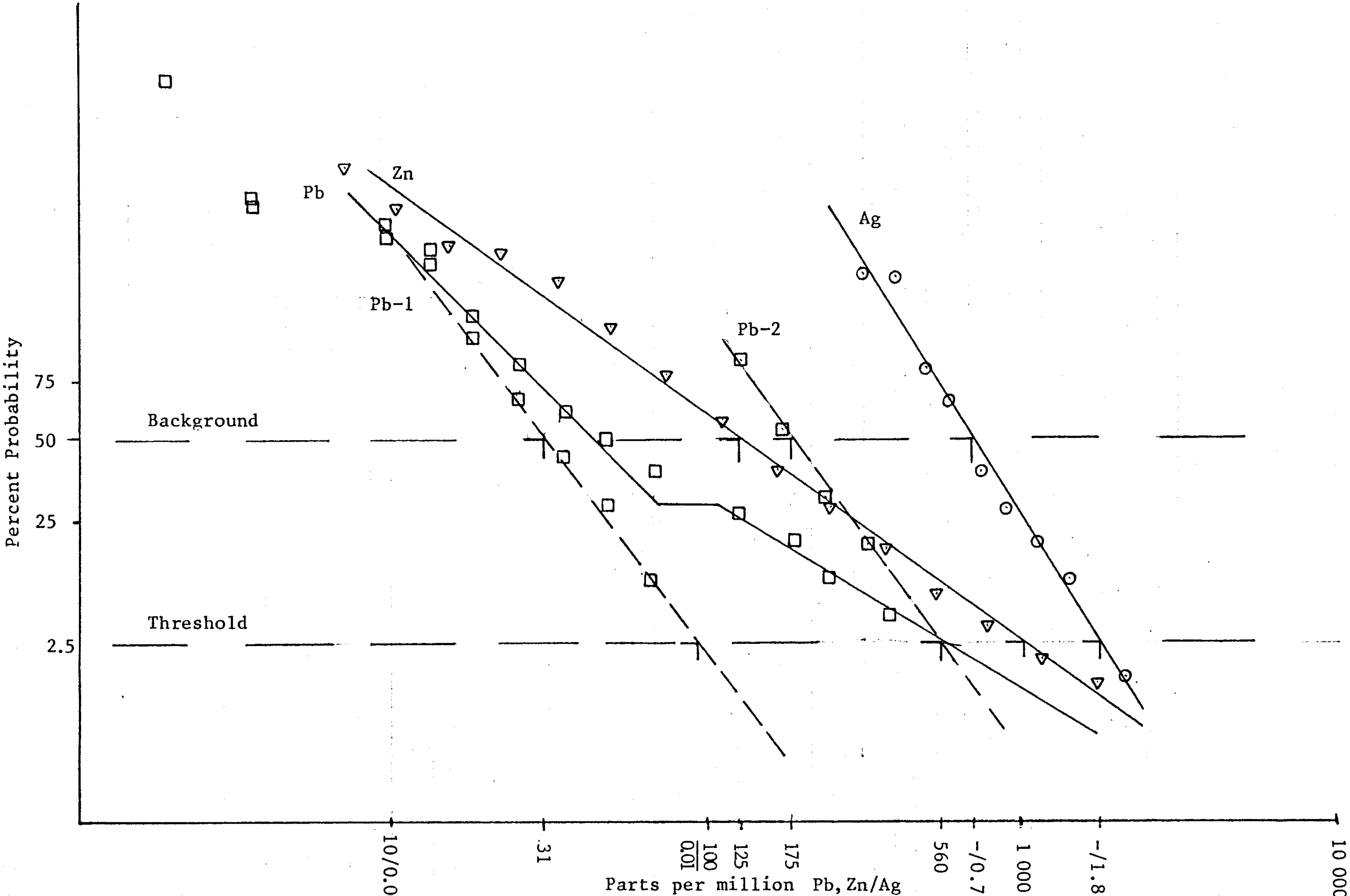
Soil sample results have been analyzed using the method described by LePeltier (1969). In this method, geochemical results are assumed to follow a lognormal distribution. When the cumulative frequency of values is plotted versus the log of the geochemical values, we obtain lines from which background (50% probability) and threshold (2.5% probability) can be obtained. For details regarding this method, see example calculation in Appendix II. Complete geochemical results are shown on Dwg No. KU.82-16.

The EVIEW results are shown in Figure 5 for Pb, Zn and Ag. The silver and zinc curves show a lognormal distribution of results while lead shows two distinct lognormal distributions. These two lognormal distributions represent one normal background and one of higher than average or anomalous population. For lead, the two populations have been plotted separately, curve Pb-1 for background and Pb-2 for anomalous. The threshold value is taken as the abscissa of the centre of the horizontal portion of the original curve (Lepeltier 1969).

The 1982 results are compared to regional values obtained in 1981 for northwestern B.C. and the southern Yukon (Neelands 1982) in Table 2 below:

	Pb (ppm)		Zn (ppm)		Ag (ppm)	
	Back-ground	Thresh-old	Back-ground	Thresh-old	Back-ground	Thresh-old
Regional	20	50	90	200	0.8	1.7
EVIEW 1982	30	90	125	1000	0.7	1.8

TABLE 2: Comparison of Regional and EVIEW Soil Sample Results



Lead-Zinc-Silver Probability Curves

Figure 1

Table 2 shows that both Pb and Zn values are elevated on the claim as compared to Ag which follows regional trends. The highest values obtained in soils occur near the mineralized zone on the contact of the sediments and volcanic rocks. One sample (EB-100) ran 11,800 ppm Pb, 2020 ppm Zn, and 24.4 ppm Ag. In general, high Pb and Zn values occur together in a north-south trending band 100 to 300 metres wide up the main creek. High, spotty silver values also occur throughout this zone. At the present time, the soil anomaly is open at both ends.

Rock geochemistry has confirmed that the anomalous zone is related to the rhyolite/siltstone contact. Two samples from this zone (Nos. 8904A and 8905A) ran high in Pb and Zn and especially Ag. Table 3 summarizes the rock types collected and any anomalous values present. Details of rock geochemistry and locations may be found on Dwg. No. KU.82-15.

CONCLUSIONS AND RECOMMENDATIONS

Soil sampling over the property in 1982 has outlined an anomalous Pb-Zn zone ranging in width from 100 to 300 metres over a length greater than 1100 metres. The zone is related to the contact between the siltstones and rhyolites 100 metres east of the lake.

The northwest trending creek and coincident anomalous zone may be an expression of a shear zone in which hydrothermal fluids have circulated and deposited the minerals. Most faults in the region trend in a northwesterly direction and the presence of vuggy quartz along the contact suggests hydrothermal activity. Cretaceous intrusions cropping out four kilometres from the property may have provided the necessary drive mechanism for ore-bearing fluids, and the mixed sedimentary and volcanic package on the property could be a receptive environment for the deposition of these metals.

It is recommended that the soil grid be extended to the northwest and southwest to close off the anomaly and that the zone along the contact in the upper reaches of the creek be trenched. Trenching will provide a better indication of what has happened in the zone because outcrop is scarce and badly weathered. Geophysical surveys including magnetometer and VLF-EM may provide an indication of the mineralized zone and the subsurface contact between the siltstones and the rhyolites.

HJC/krl

TABLE 3

Description of Rock Samples

Sample #	Rock Type	Anomalous Values
8902A	Rhyolite with 5% pyrite	None
8903A	Dacite	None
8904A	Altered siltstone near contact 20% pyrite	6600 ppm Pb, 990 ppm Zn, 176.0 ppm Ag.
8905A	Vuggy pyritiferous quartz from contact	3950 ppm Pb, 910 ppm Zn, 84.0 ppm Ag
8934A	Altered siltstone west of property, minor pyrite and magnetite	130 ppm Cu 155 ppm Pb 5.2 ppm Ag
8935A	Dacite, minor pyrite	343 ppm Zn
9954A	Siltstone east of property, minor pyrite and pyrrhotite	None

COST STATEMENT

Wages

Personnel	Days Worked	Dates	Cost
1 Geologist(s)	5	1982 June 14, 17, 19	$ 470.04
1 Sr. Geol. Assistant	2	1982 June 14, 17	135.52
3 Jr. Geol. Assistants	3	1982 June 14, 17, 19	181.05
			$ 786.61

Room & Board

Location	Daily Rate	Date	No. of Days	
Pooley Pt on Windy Arm	$25.00	1982 June 14, 17, 19	10	$ 250.00

Transportation

a. Truck Rental (Avis-Whitehorse, YT):
   2 day(s) @ $40.00/day — $ 80.00

b. Helicopter in support of field work @ $475.00/hr including fuel (By Airlift Corp of Pitt Meadows)

Dates: 1982 June 14, 17, 19 — No. of hrs: 2.8 — $1,330.00

$1,660.00

Analytical Services

Type of Sample	No. of	Fraction Analyzed -80	Fraction Analyzed -100	Mo	Cu	Pb	Zn	Ni	Ag	Hg	As	Mn	Au	Sb	Unit Price	
Soil	197	X				X	X		X						2.70	$ 531.90
Rock	6		X		X	X	X		X				X		8.60	51.60

Preparation - Soil/Silt	197 @ $0.85/sample	167.45
	6 @ $2.75/sample	16.50
Digestion - Soil/Silt	197 @ $1.10/sample	216.70
		$ 984.15

Price per element
Geochemical - Mo ($0.90), Cu ($0.90), Pb ($0.90), ZN ($0.90), Ag ($0.90), Hg ($4.50), As ($3.00), Au ($5.00), Sb ($3.75).

Report Preparation

Drafting	2 days @ $100/day	$ 200.00
Typing	1 day @ $95/day	95.00
Map Preparation	4 maps @ 20¢/square foot	8.00

GRAND TOTAL $3,733.76

REFERENCES

Copland, H.J. and Neelands, J.T.; "Geological and Geochemical Report on the EVIEW Property, Whitehorse Mining Division, Yukon Territory", Du Pont of Canada Exploration Limited, Assessment Report, 1982.

Lepeltier, C.; "A Simplified Statistical Treatment of Geochemical Data by Graphical Representation", Econ. Geology, Vol. 64, p. 538-550, 1969.

Neelands, J. T.; "Kulta Follow-Up (104-J, 104-M)" Geological and Geochemical Report, B.C. Assessment Report, 1982.

Wheeler, J. O.; "Whitehorse Map-Area, Yukon Territory (105-O)", G.S.C. Memoir 312, 1961.

QUALIFICATIONS

I, Hugh J. Copland Jr., do hereby certify that:

1. I am a geologist residing at 5250 Ash Street, Vancouver, British Columbia and employed by Du Pont of Canada Exploration Limited.

2. I am a graduate of the University of British Columbia with a B.Sc. (Honours) degree in Geology and McMaster University with a B.Eng. (Mechanical).

3. I have practised my profession in geology for the past three years in British Columbia and the Yukon Territory.

4. In the summer of 1982, I participated in the field programme described in this report on behalf of Du Pont of Canada Exploration Limited.

H. J. Copland

H. J. Copland
1982 October

QUALIFICATIONS

I, John Thomas Neelands, do hereby certify that:

1. I am a geologist residing at 118-B W. 14th Ave, Vancouver, British Columbia and employed by Du Pont of Canada Exploration Limited.

2. I am a graduate of Carleton University (1971) in Ottawa, Canada, and hold a B.Sc., degree in Geology.

3. I am a member of the Geological Association of Canada and of the Association of Exploration Geochemists.

4. I have been practising my profession for the past twelve years and have been active in the mining industry for the past eighteen years.

5. In June 1982, I supervised and particapted in the field programme described in this report on behalf of Du Pont of Canada Exploration Limited.

J.T. Neelands
1982 February

PHONE 980-5814

APPENDIX A

MIN-EN Laboratories Ltd.
Specialists in Mineral Environments
Corner 15th Street and Bewicke
705 WEST 15th STREET
NORTH VANCOUVER, B.C.
CANADA

ANALYTICAL PROCEDURE REPORTS FOR ASSESSMENT WORK

PROCEDURES FOR Mo, Cu, Cd, Pb, Mn, Ni, Ag, Zn, As, F

Samples are processed by Min-En Laboratories Ltd., at 705 W. 15th St., North Vancouver Laboratory employing the following procedures.

After drying the samples at 95°C soil and stream sediment samples are screened by 80 mesh sieve to obtain the minus 80 mesh fraction for analysis. The rock samples are crushed by a jaw crusher and pulverized by ceramic plated pulverizer.

1.0 gram of the samples are digested for 6 hours with HNO_3 and $HClO_4$ mixture.

After cooling samples are diluted to standard volume. The solutions are analyzed by Atomic Absorption Spectrophotometers.

Copper, Lead, Zinc, Silver, Cadmium, Cobalt, Nickel and Manganese are analysed using the CH_2H_2-Air flame combination but the Molybdenum determination is carried out by C_2H_2-N_2O gas mixture directly or indirectly (depending on the sensitivity and detection limit required) on these sample solutions.

For Arsenic analysis a suitable aliquote is taken from the above 1 gram sample solution and the test is carried out by Gutzit method using Ag $CS_2N(C_2H_5)_2$ as a reagent. The detection limit obtained is 1. ppm.

Fluorine analysis is carried out on a 200 milligram sample. After fusion and suitable dilutions the fluoride ion concentration in rocks or soil samples are measured quantitatively by using fluorine specific ion electrode. Detection limit of this test is 10 ppm F.

PHONE 980-5814

APPENDIX A

MIN-EN Laboratories Ltd.
Specialists in Mineral Environments
Corner 15th Street and Bewicke
705 WEST 15th STREET
NORTH VANCOUVER, B.C.
CANADA

ANALYTICAL PROCEDURE REPORTS FOR ASSESSMENT WORK

PROCEDURE FOR GOLD GEOCHEMICAL ANALYSIS.

Geochemical samples for Gold processed by Min-En Laboratories Ltd., at 705 W. 15th St., North Vancouver Laboratory employing the following procedures.

After drying the samples at 95°C soil and stream sediment samples are screened by 80 mesh sieve to obtain the minus 80 mesh fraction for analysis. The rock samples are crushed and pulverized by ceramic plated pulverizer.

A suitable sample weight 5.0 or 10.0 grams are pre-treated with HNO_3 and $HClO_4$ mixture.

After pretreatments the samples are digested with Aqua Regia solution, and after digestion the samples are taken up with 25% HCl to suitable volume.

At this stage of the procedure copper, silver and zinc can be analysed from suitable aliquote by Atomic Absorption Spectrophotometric procedure.

Further oxidation and treatment of at least 75% of the original sample solutions are made suitable for extraction of gold with Methyl Iso-Butyl Ketone.

With a set of suitable standard solution gold is analysed by Atomic Absorption instruments. The obtained detection limit is 5 ppb.

LEAD IN SOILS - EVIEW

Log Interval	Interval (ppm)	Frequency	%	Cumulative (%)
0-0.14	0-1.4			
0.14-0.28	1.4-1.9			
0.28-0.42	1.9-2.6	2	1.02	99.97
0.42-0.56	2.6-3.6			
0.56-0.70	3.6-5.0	2	1.02	98.95
0.70-0.84	5.0-6.9			
0.84-0.98	6.9-9.5			
0.98-1.12	9.5-13.2	3	1.53	98.93
1.12-1.26	13.2-18.2	18	9.18	96.40
1.26-1.40	18.2-25.1	24	12.24	87.22
1.40-1.54	25.1-34.7	30	15.31	74.98
1.54-1.68	34.7-47.9	24	12.24	59.67
1.68-1.82	47.9-66.1	23	11.73	47.43
1.82-1.96	66.1-91.2	11	5.61	35.70
1.96-2.10	91.2-125.9	14	7.14	30.09
2.10-2.24	125.9-173.8	13	6.63	22.95
2.24-2.38	173.8-239.9	15	7.65	16.32
2.38-2.52	240.0-331.0	8	4.08	8.67
2.52-2.66	331.0-457.0	5	2.55	4.59
2.66-2.80	457.0-631.0			
2.80-2.94	631.0-871.0	3	1.53	2.04
2.94-3.08	871.0-1202.0			
	11,800	1	0.51	0.51
	TOTAL	196		

APPENDIX B

Calculation of Probability Graphs

(According to Lepeltier, 1969)

Procedure:

1. Geochemical data is assumed to follow a lognormal distribution.

2. Calculation of class interval

   $\text{Log(interval)} = \frac{\log R}{n}$ where R: Range of values
   N: No points in curve

   This log interval is then recalculated as a ppb (or ppm) interval.

3. Cumulated frequencies are calculated from highest to lowest values and plotted on probability x log paper. A lognormal distribution should plot as a straight line. Two slopes represent a skewness in the population.

4. Analysis of graph: The following terms have been designated by Lepeltier.

   a. Background (b): For a perfect lognormal distribution, this is also the geometric mean and occurs at a 50% value.

   b. Deviation (s): Standard deviation is defined as 68.3% of the population falling between (b-s) and (b+s) and is graphically represented by the 16% and 84% ordinates.

   c. Threshold (t): Is a function of the background and deviation $\log t = \log b + 2S$ and is represented by the 2.5% ordinate.

   Following is a skewness in soils

   Total population: 196

   Range (R) 4 - 700 ppm

   Number of points desired on graph (n): 20

   Log interval: $\frac{\log R}{n} = 0.14$

LEGEND

CRETACEOUS

HUTSHI

8

a. Rhyolite
b. Dacite
c. Andesite
d. Basalt
e. Tuff

UPPER TRIASSIC and LOWER JURASSIC

LABERGE GROUP

5

a. Siltstone
b. Limestone
c. Shale
d. Quartzite

OUTCROP
FLOAT
CONTACT
x 8902 A ROCK SAMPLE LOCATION WITH SAMPLE NUMBER
20 BEDDING WITH DIP ANGLE
py PYRITE
ga GALENA

1982 SAMPLE RESULTS

Sample	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Ag ppm	Hg ppb	As ppm	Mn ppm	Au ppb	Sb ppm	W ppm
-80 Mesh F												
8902 A		6	14	51		0.4				5		
03		16	37	24		0.6				5		
04		137	6600	990		176.0				5		
8905 A		139	3950	910		84.0				5		
* 34 A		130	155	70		5.2				5		
8935 A		65	20	343		0.8				5		
** 9954 A	4	22	42	102	16	0.7	5	119	330	10	12	4

* Rock sample 8934 A was taken on Lakeview Mtn., west of the claims at 60° 26' lat., 135° 05' long..

** Rock sample 9954 A was taken approx. 3 km to the east of the claims.

DUPONT CANADA **EXPLORATION** 091431

KULTA PROJECT
EVIEW CLAIMS 091431
GEOLOGY

WHITEHORSE AREA, YUKON TERRITORY

1 : 5000
m 150 100 50 0 150 300 m
SCALE
0
1 INCH = 416.67 FEET

MAPPED BY: JTN HC	REVISED:	N.T.S. No.: 105 D 6E
DATE: JUNE '82		ACCT No.: 351- 28
DRAWN BY: CLS		DRWG. No.: KU.82-15
DATE: DEC '82		

INSET

GEOCHEMISTRY DETAIL

Scale : 1:1000

LEGEND

SOIL SAMPLE STATION WITH SAMPLE NUMBER

SILT SAMPLE STATION WITH SAMPLE NUMBER

1982 GEOCHEMICAL RESULTS

Sample	Pb ppm	Zn ppm	Ag ppm
-80 Mesh F			
ET 01	51	103	0.7
02	37	68	1.5
03	16	23	0.4
04	26	48	0.5
05	22	49	0.6
06	19	55	0.7
07	175	308	1.6
08	150	213	1.5
09	11	13	0.5
10	96	230	0.7
11	21	40	0.5
12	28	58	0.8
13	20	52	0.6
14	14	35	0.4
15	18	39	0.4
16	20	49	0.6
ET 17	28	39	0.4
18	23	61	0.5
19	15	12	0.6
20	22	73	0.7
21	17	63	0.6
22	25	80	0.6
23	72	34	0.8
24	36	73	0.6
25	74	258	0.7
26	34	132	0.6
27	56	226	0.5
28	42	116	0.5
29	23	62	0.4
30	24	79	0.6
31	25	74	0.4
32	39	158	0.7
33	18	47	0.6
34	22	141	0.8
ET 35	10	48	0.2
ET 36	190	414	0.6
ED 001	56	155	0.4
02	116	216	0.2
03	195	190	0.4
04	148	273	0.4
05	81	112	0.5
06	26	64	1.4
07	57	81	0.8
08	42	306	0.7
09	44	108	0.2
10	255	443	0.6
11	104	560	0.4
12	188	450	0.6
13	220	315	0.6
ED 14	40	69	0.3

Sample	Pb ppm	Zn ppm	Ag ppm
-80 Mesh F			
ED 015	50	130	0.2
16	43	74	0.4
17	36	84	0.6
18	41	105	0.8
19	48	98	0.4
20	28	94	0.4
21	26	86	0.6
22	34	139	0.6
23	24	73	0.4
24	24	89	0.4
25	240	920	0.8
26	150	615	0.7
27	32	178	0.5
28	24	116	0.4
30	22	46	0.4
31	17	42	0.5
32	16	46	0.4
33	16	87	0.5
34	15	41	0.4
35	18	58	0.4
36	27	146	0.4
ED 037	210	488	0.8
EH 1	26	30	0.6
2	215	344	1.2
3	35	86	0.2
4	50	107	0.5
5	53	100	0.3
7	144	133	0.7
8	37	5	0.3
9	23	50	0.4
10	28	68	0.5
11	29	42	0.4
12	34	55	0.4
13	48	78	0.6
14	4	10	0.2
15	2	4	0.4
16	16	33	0.5
17	37	66	0.8
18	30	41	0.6
19	90	111	1.0
20	43	70	0.8
21	32	47	0.4
22	158	193	0.9
23	154	440	0.8
24	198	222	0.9
25	44	49	0.6
26	205	158	1.2
27	52	71	0.6
EH 28	33	52	0.7

Sample	Pb ppm	Zn ppm	Ag ppm
-80 Mesh F			
EH 29	38	9	2.0
30	4	11	0.7
31	26	22	0.8
32	48	94	1.1
33	13	32	0.5
34	2	12	0.4
35	39	83	0.8
36	28	43	1.0
38	134	131	2.2
39	116	133	0.8
40	78	88	1.0
41	750	376	1.4
EH 42	720	1540	2.2
EB 22	26	2240	0.5
23	178	1550	0.6
24	29	189	0.5
25	430	1070	1.1
26	56	259	0.4
27	102	220	0.5
28	77	194	0.3
29	100	276	0.4
30	30	82	0.5
31	37	100	0.5
32	44	89	0.5
33	62	96	0.6
34	24	66	1.0
35	48	67	0.8
36	138	130	1.4
37	136	211	1.0
38	86	221	0.6
EB 39	335	540	1.2
40	52	185	0.4
41	56	181	0.4
42	48	131	0.7
43	30	159	0.6
44	28	110	0.6
45	21	83	0.6
46	20	72	0.5
47	28	136	0.7
48	27	87	0.7
49	42	218	0.8
50	83	252	1.0
51	109	361	0.8
52	270	584	1.2
53	295	508	1.0
54	110	482	0.7
55	62	304	1.0
56	97	190	1.2
EB 57	102	155	1.4

Sample	Pb ppm	Zn ppm	Ag ppm
-80 Mesh F			
EB 58	42	206	0.8
59	48	216	0.7
60	210	313	1.3
61	49	175	0.7
62	158	273	1.0
63	350	442	1.2
64	47	278	1.0
65	210	288	1.8
66	72	492	1.0
67	77	289	0.9
68	162	281	1.0
69	104	392	1.0
70	28	79	0.6
71	34	137	0.6
72	42	183	0.8
73	36	329	0.9
74	56	350	0.8
75	57	214	1.3
76	18	72	0.7
77	20	80	0.8
78	20	79	0.6
79	26	342	0.7
80	26	183	0.8
EB 81	24	268	0.6
82	18	142	0.6
83	17	82	0.6
84	16	103	0.7
85	18	98	0.7
86	17	132	0.6
87	23	109	0.8
88	220	534	1.4
89	141	178	0.9
90	121	172	0.8
91	119	388	1.0
92	260	585	1.2
93	89	185	0.6
94	179	354	1.0
95	265	550	1.4
96	178	216	0.6
97	250	505	1.4
98	280	437	1.4
99	53	91	0.7
100	11800	2020	24.4
101	420	307	1.9
102	350	1140	7.4
103	97	151	0.7
104	126	227	1.3
105	60	151	0.5
EB 106	680	580	1.5

DU PONT EXPLORATION
CANADA

KULTA PROJECT
EVIEW CLAIMS
GEOCHEMISTRY 091431
Ag, Pb, Zn in P.P.M.
WHITEHORSE AREA, YUKON TERRITORY

1 : 5000
m 150 100 50 0 150 300 m
SCALE
0
1 INCH = 416.67 FEET

MAPPED BY : JTN HC	REVISED :	N.T.S. No. : 105 D 6E
DATE : JUNE '82		ACCT No. : 351 - 28
DRAWN BY : CLS		DRWG. No. : KU.82-16
DATE : DEC '82		