DU PONT OF CANADA EXPLORATION LIMITED

GEOLOGICAL AND GEOCHEMICAL REPORT

ON THE DAYIR PROPERTY

WHITEHORSE MINING DIVISION

(YUKON TERRITORY)

LAT. 60°29'N, LONG. 135°25'W

NTS: 105-D-6W

OWNER OF CLAIMS: DU PONT OF CANADA EXPLORATION LIMITED

OPERATOR: DU PONT OF CANADA EXPLORATION LIMITED

Submitted by: L. Holmgren
J.A. Korenic

Date : 1982 May

This report has been examined by the Geological Evaluation Unit under Section 53 (4) Yukon Quartz Mining Act and is allowed as representation work in the amount of $ 1800.

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

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INTRODUCTION

During 1981 May, reconnaissance stream sediment sampling was carried out in the Carcross area of southern Yukon. The sampling was undertaken as part of a large regional programme known as Kulta Project. The areal extent of this project is shown on Dwgs. KU.81-1, 1a and 2.

As the result of an anomalous copper and zinc sample in a creek draining northwesterly into the Ibex River, the drainage area of this creek was staked as the DAYIR property.

LOCATION AND ACCESS

The DAYIR claim is located within the Whitehorse Mining Division, NTS 105-D-6W (Lat. 60°29'N, Long. 135°25'W). The property is located 11 kilometres west of Fish Lake and 5 kilometres southeast of Ibex lake. The nearest population centre is Whitehorse, which lies 35 kilometres to the northeast. The claim is accessible by helicopter from Whitehorse.

TOPOGRAPHY AND VEGETATION

The claim lies on the northwest side of a small range of mountains, part of the Boundary Ranges of the Coast Mountains. The property forms part of a gently sloping broad plateau. Elevation varies from a high of 1685 metres in the southeast to a low of 1650 metres in the northwest. Numerous small intermittent streams drain the property into the headwaters of the Ibex River. The claims are above treeline where only short shrubs, bushes and grasses covering the area.

PROPERTY DEFINITION

The DAYIR property consists of 18 claim units as shown on Dwg. No. KU.81-256. The claims are in good standing until 1982 June 8.

DAYIR: YA60857 to YA60874

PREVIOUS WORK

The presence of a set of old claim posts dating back 10 to 20 years indicates that some previous work has been done in the area. There is no evidence of trenching or drilling on the claims. Follow-up work in June consisted of collecting further soil, stream sediment and rock samples.

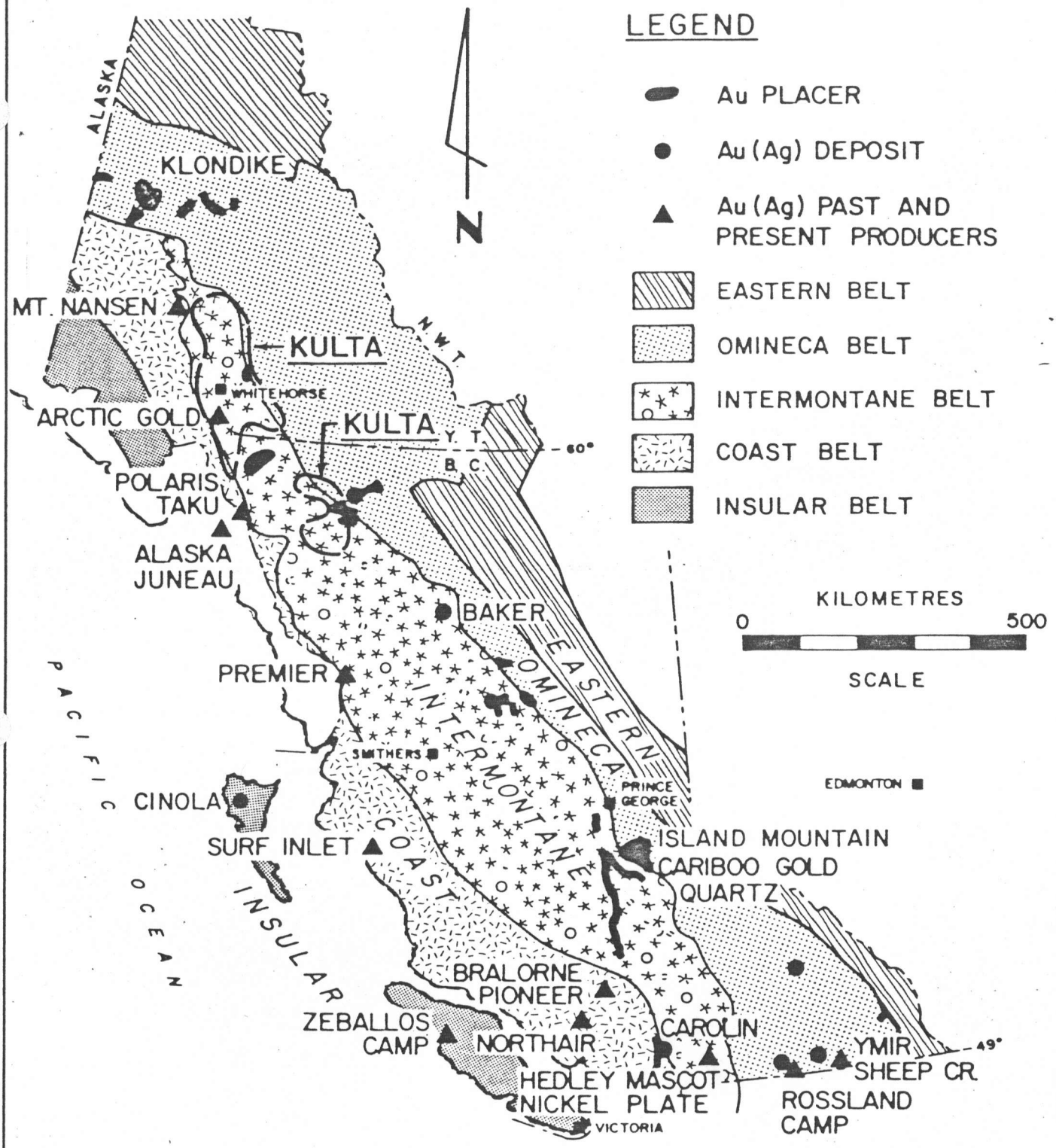


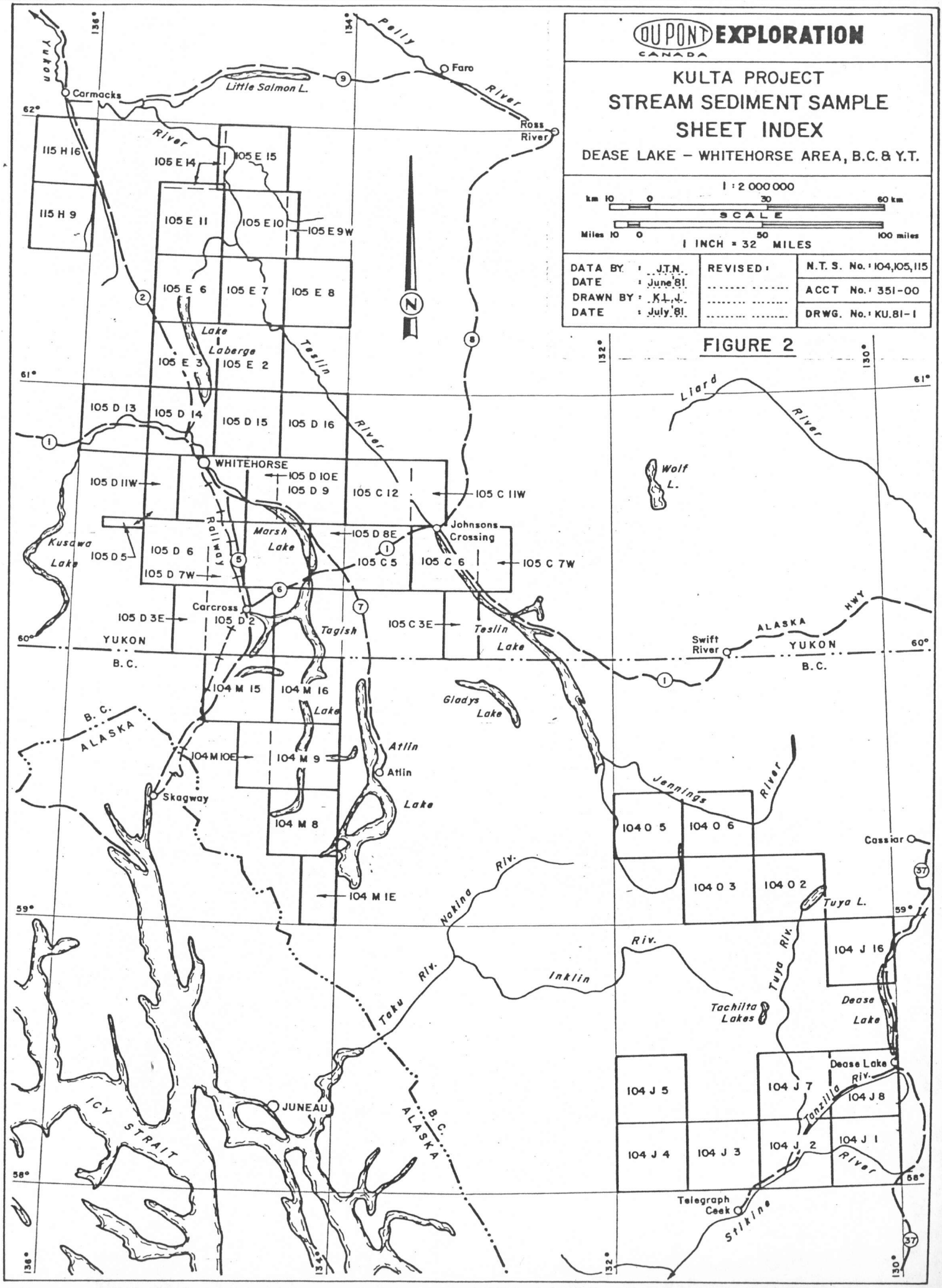
FIGURE 1

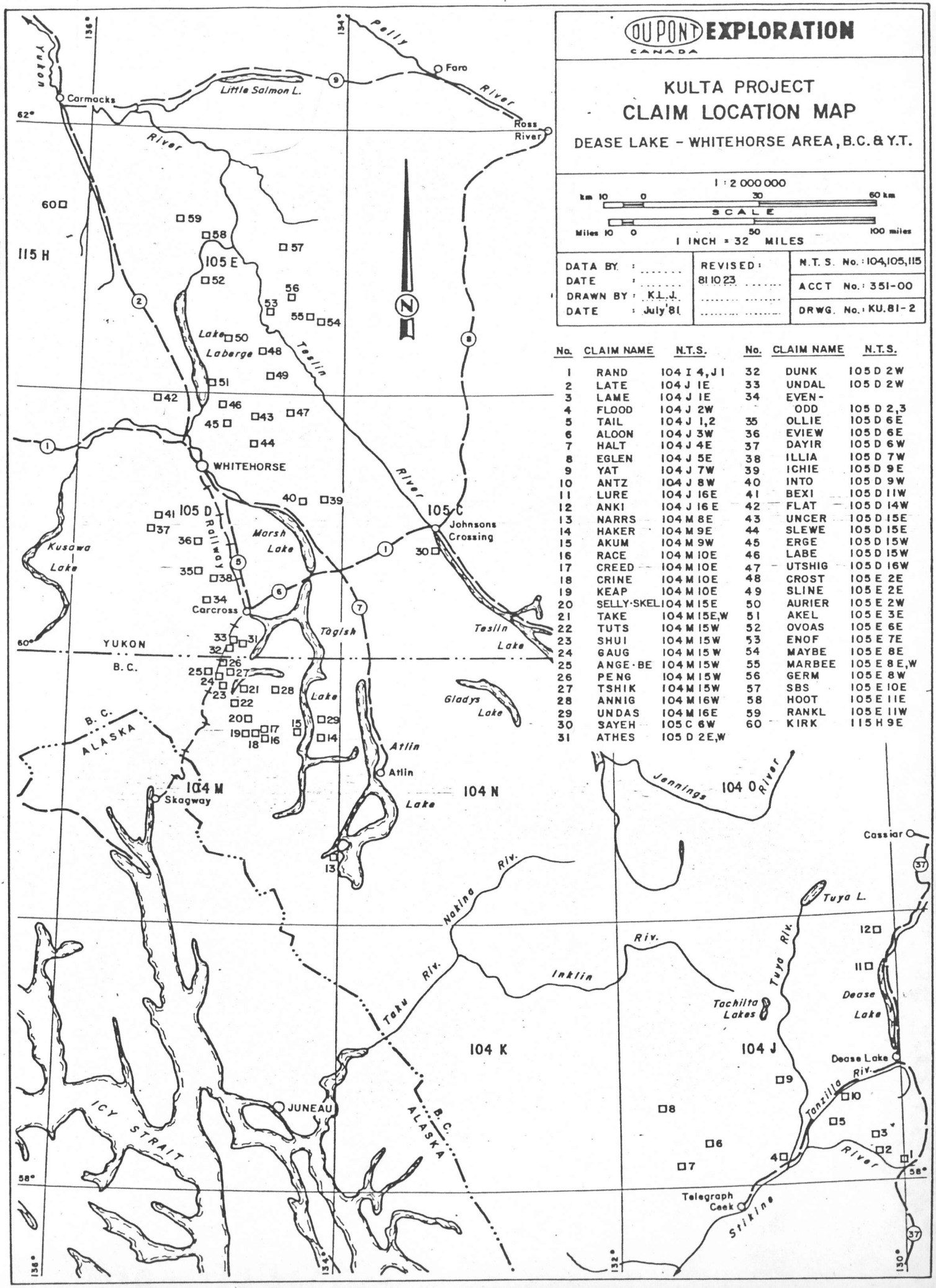
KULTA PROJECT AREAS

PRINCIPAL LODE & PLACER GOLD DEPOSITS CANADIAN CORDILLERA

K.L.J. 8111 26

DRWG No. KU.81-1a


DUPONT EXPLORATION
CANADA
KULTA PROJECT
STREAM SEDIMENT SAMPLE
SHEET INDEX
DEASE LAKE – WHITEHORSE AREA, B.C. & Y.T.
1 : 2 000 000
km 10 0 30 60 km
SCALE
Miles 10 0 50 100 miles
1 INCH = 32 MILES
DATA BY : J.T.N.
DATE : June 81
DRAWN BY : K.L.J.
DATE : July 81
REVISED :
N.T.S. No. : 104,105,115
ACCT No. : 351-00
DRWG. No. : KU.81-1
FIGURE 2
Yukon
Carmacks
Little Salmon L.
Faro
Pelly River
Ross River
Lake Laberge
Teslin River
WHITEHORSE
Liard River
Wolf L.
Kusawa Lake
Marsh Lake
Johnsons Crossing
Carcross
Tagish
Teslin Lake
Swift River
ALASKA HWY
YUKON
B.C.
Gladys Lake
Atlin Lake
Atlin
Skagway
B.C. ALASKA
Jennings River
Cassiar
Nakina Riv.
Tuya L.
Tuya Riv.
Inklin Riv.
Taku Riv.
Tachilta Lakes
Dease Lake
Tanzilla Riv.
JUNEAU
ICY STRAIT
Telegraph Creek
Stikine River
115 H 16
115 H 9
105 E 14
105 E 15
105 E 11
105 E 10
105 E 9W
105 E 6
105 E 7
105 E 8
105 E 3
105 E 2
105 D 13
105 D 14
105 D 15
105 D 16
105 D 11W
105 D 10E
105 D 9
105 C 12
105 C 11W
105 D 8E
105 D 5
105 D 6
105 D 7W
105 C 5
105 C 6
105 C 7W
105 D 3E
105 D 2
105 C 3E
104 M 15
104 M 16
104 M 10E
104 M 9
104 M 8
104 M 1E
104 O 5
104 O 6
104 O 3
104 O 2
104 J 16
104 J 5
104 J 7
104 J 8
104 J 4
104 J 3
104 J 2
104 J 1



DUPONT EXPLORATION
CANADA

KULTA PROJECT
CLAIM LOCATION MAP
DEASE LAKE - WHITEHORSE AREA, B.C. & Y.T.

1 : 2 000 000

km 10 0 30 60 km

SCALE

Miles 10 0 50 100 miles

1 INCH = 32 MILES

DATA BY :	REVISED :	N.T.S. No. : 104,105,115
DATE :	81 10 23	ACCT No. : 351-00
DRAWN BY : K.L.J.	....	DRWG. No. : KU.81-2
DATE : July'81	....	

No.	CLAIM NAME	N.T.S.	No.	CLAIM NAME	N.T.S.
1	RAND	104 I 4, J 1	32	DUNK	105 D 2W
2	LATE	104 J 1E	33	UNDAL	105 D 2W
3	LAME	104 J 1E	34	EVEN-ODD	105 D 2,3
4	FLOOD	104 J 2W	35	OLLIE	105 D 6E
5	TAIL	104 J 1,2	36	EVIEW	105 D 6E
6	ALOON	104 J 3W	37	DAYIR	105 D 6W
7	HALT	104 J 4E	38	ILLIA	105 D 7W
8	EGLEN	104 J 5E	39	ICHIE	105 D 9E
9	YAT	104 J 7W	40	INTO	105 D 9W
10	ANTZ	104 J 8W	41	BEXI	105 D 11W
11	LURE	104 J 16E	42	FLAT	105 D 14W
12	ANKI	104 J 16 E	43	UNCER	105 D 15E
13	NARRS	104 M 8E	44	SLEWE	105 D 15E
14	HAKER	104 M 9E	45	ERGE	105 D 15W
15	AKUM	104 M 9W	46	LABE	105 D 15W
16	RACE	104 M 10E	47	UTSHIG	105 D 16W
17	CREED	104 M 10E	48	CROST	105 E 2E
18	CRINE	104 M 10E	49	SLINE	105 E 2E
19	KEAP	104 M 10E	50	AURIER	105 E 2W
20	SELLY-SKEL	104 M 15E	51	AKEL	105 E 3E
21	TAKE	104 M 15E,W	52	OVOAS	105 E 6E
22	TUTS	104 M 15W	53	ENOF	105 E 7E
23	SHUI	104 M 15W	54	MAYBE	105 E 8E
24	GAUG	104 M 15W	55	MARBEE	105 E 8E,W
25	ANGE-BE	104 M 15W	56	GERM	105 E 8W
26	PENG	104 M 15W	57	SBS	105 E 10E
27	TSHIK	104 M 15W	58	HOOT	105 E 11E
28	ANNIG	104 M 16W	59	RANKL	105 E 11W
29	UNDAS	104 M 16E	60	KIRK	115 H 9E
30	SAYEH	105 C 6W			
31	ATHES	105 D 2E,W			

PERSONNEL

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

1981 June 18 & 20: J. Korenic (Geologist)
L. Holmgren (Senior Geological Assistant)
C. Naas (Junior Geological Assistant)
C. Hamilton (Junior Geological Assistant)

GEOLOGY

Regional Geology

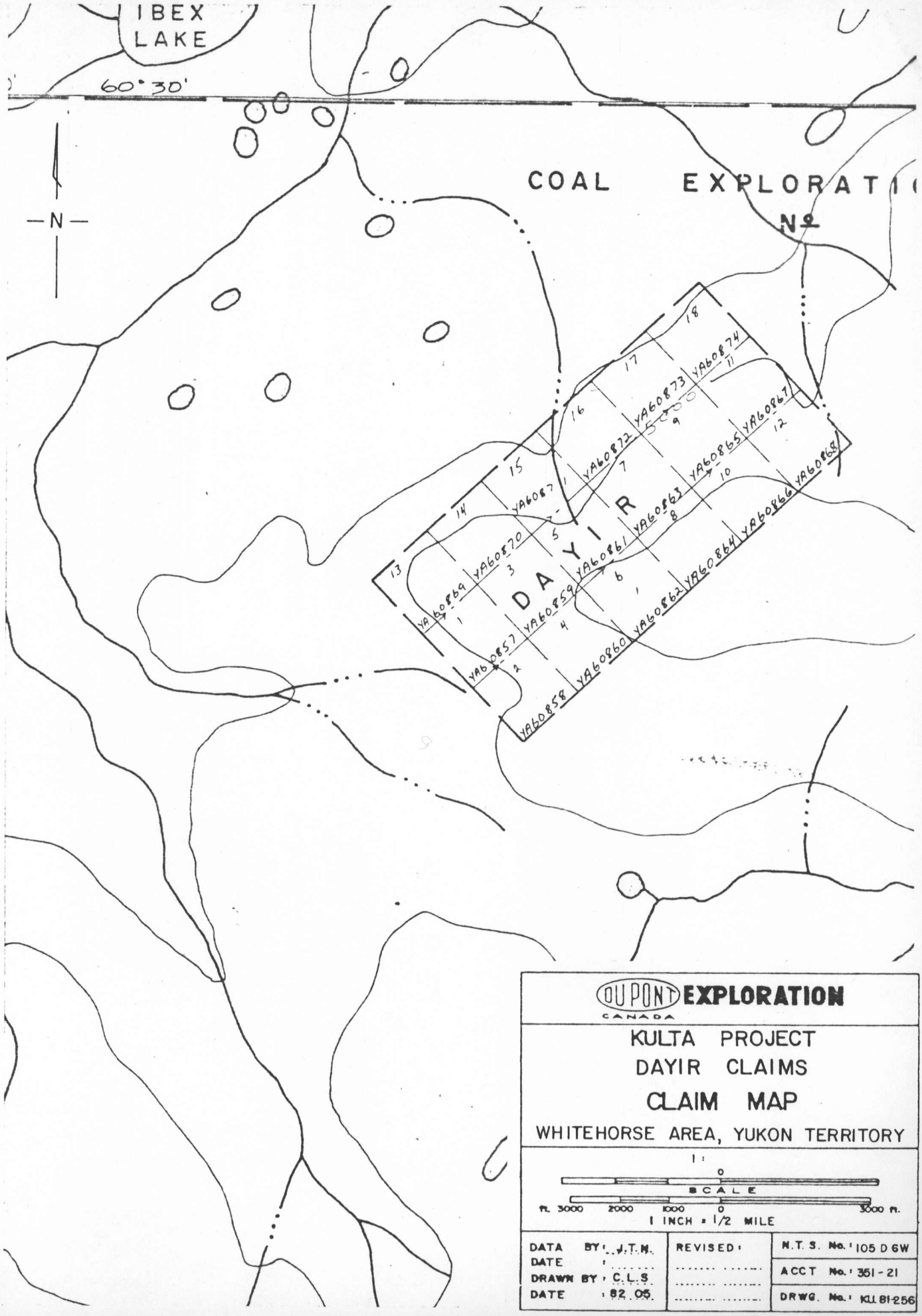
The property lies within the Intermontane Belt of the western Cordillera. The belt consisting mainly of sedimentary and volcanic rocks stretches from the Yukon to southern British Columbia. The belt averages 150 kilometres in width and trends northwest-southeast. Bordering the belt to the west are the 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 seven kilometres west of the area. The rocks of the Intermontane Belt comprise 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.81-2b (Kulta Project Regional Geology).

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 placement.

Economic mineralization has been exploited in the area from various sources. The Engineer Mine (Au,Ag) is hosted by quartz-calcite veins occuring in shales and greywackes of the Laberge Group. Venus Mine (Au,Ag) is hosted by a quartz vein cutting through Hutshi Group andesites. Numerous other



DUPONT EXPLORATION
CANADA

KULTA PROJECT
DAYIR CLAIMS
CLAIM MAP

WHITEHORSE AREA, YUKON TERRITORY

1 :

0

SCALE

ft. 3000 2000 1000 0 3000 ft.

1 INCH = 1/2 MILE

DATA BY : J.T.M.	REVISED :	N.T.S. No. : 105 D 6W
DATE :		ACCT No. : 351-21
DRAWN BY : C.L.S.		DRWG. No. : KU 81-256
DATE : 82.05.		

TABLE I

Table of Formations

Miocene to Pleistocene (TQW)

Wrangell-Garibaldi: Basic to intermediate volcanics.

Upper Cretaceous-Oligocene (KTo)

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

Late Cretaceous and Early Tertiary

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

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

Lower and Middle Jurassic (JL)

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

Late Triassic - Early Jurassic

Hogem Granodiorite (EJg): Quartz diorite, granodiorite, lesser diorite, quartz monzonite.

Iron Mask (Ejd): Diorite, monzonite, syenite, quartz, diorite, minor pyroxenite, granodiorite.

Upper Triassic - Lower Jurassic (TJT)

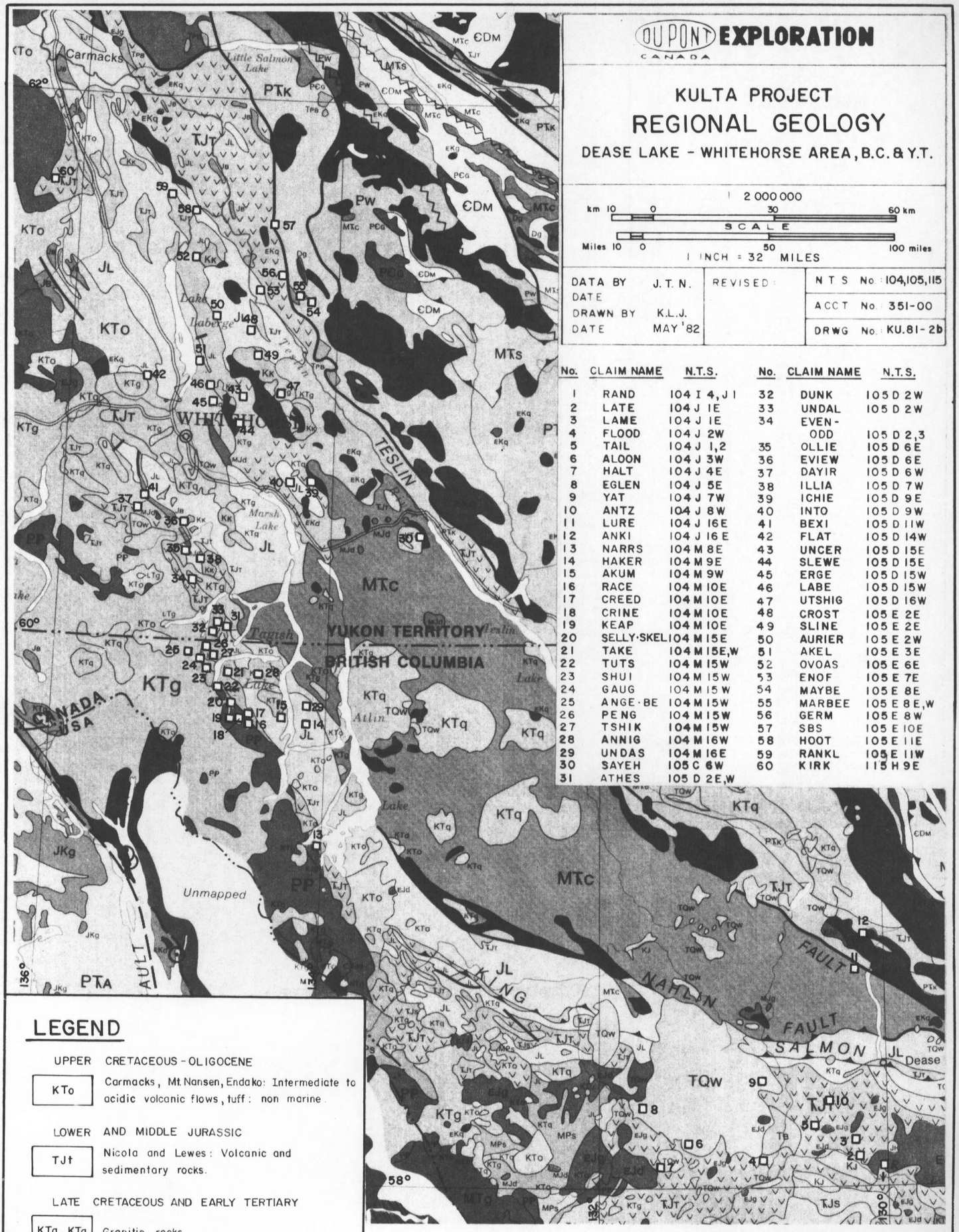
Takla-Nicola: Augite porphyry, basaltic volcanics; siltstone, shale, limestone, conglomerate.

Mississippian - Triassic (MTC)

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

Proterozoic - Palaeozoic

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



DU PONT EXPLORATION
CANADA

KULTA PROJECT
REGIONAL GEOLOGY
DEASE LAKE - WHITEHORSE AREA, B.C. & Y.T.

1 2 000 000

km 10 0 30 60 km

SCALE

Miles 10 0 50 100 miles

1 INCH = 32 MILES

DATA BY	J. T. N.	REVISED:	N T S No.: 104,105,115
DATE			
DRAWN BY	K.L.J.		ACCT No.: 351-00
DATE	MAY '82		DRWG No.: KU.81-2b

No.	CLAIM NAME	N.T.S.	No.	CLAIM NAME	N.T.S.
1	RAND	104 I 4, J 1	32	DUNK	105 D 2W
2	LATE	104 J 1E	33	UNDAL	105 D 2W
3	LAME	104 J 1E	34	EVEN-	
4	FLOOD	104 J 2W		ODD	105 D 2,3
5	TAIL	104 J 1,2	35	OLLIE	105 D 6E
6	ALOON	104 J 3W	36	EVIEW	105 D 6E
7	HALT	104 J 4E	37	DAYIR	105 D 6W
8	EGLEN	104 J 5E	38	ILLIA	105 D 7W
9	YAT	104 J 7W	39	ICHIE	105 D 9E
10	ANTZ	104 J 8W	40	INTO	105 D 9W
11	LURE	104 J 16E	41	BEXI	105 D 11W
12	ANKI	104 J 16 E	42	FLAT	105 D 14W
13	NARRS	104 M 8E	43	UNCER	105 D 15E
14	HAKER	104 M 9E	44	SLEWE	105 D 15E
15	AKUM	104 M 9W	45	ERGE	105 D 15W
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19	KEAP	104 M 10E	49	SLINE	105 E 2E
20	SELLY-SKEL	104 M 15E	50	AURIER	105 E 2W
21	TAKE	104 M 15E,W	51	AKEL	105 E 3E
22	TUTS	104 M 15W	52	OVOAS	105 E 6E
23	SHUI	104 M 15W	53	ENOF	105 E 7E
24	GAUG	104 M 15 W	54	MAYBE	105 E 8E
25	ANGE-BE	104 M 15W	55	MARBEE	105 E 8E,W
26	PENG	104 M 15W	56	GERM	105 E 8W
27	TSHIK	104 M 15W	57	SBS	105 E 10E
28	ANNIG	104 M 16W	58	HOOT	105 E 11E
29	UNDAS	104 M 16E	59	RANKL	105 E 11W
30	SAYEH	105 C 6W	60	KIRK	115 H 9E
31	ATHES	105 D 2E,W			

LEGEND

UPPER CRETACEOUS - OLIGOCENE

KTo — Carmacks, Mt. Nansen, Endako: Intermediate to acidic volcanic flows, tuff: non marine

LOWER AND MIDDLE JURASSIC

TJt — Nicola and Lewes: Volcanic and sedimentary rocks.

LATE CRETACEOUS AND EARLY TERTIARY

KTq, KTg — Granitic rocks

LATE PALEOZOIC - TRIASSIC

Alpine - type ultramafics

showings similar to the Venus Mine occur in the Tagish Lake region.

Local Geology

The property is underlain by quartz monzonite/granodiorite in contact with andesite. Along the contact is a 20 to 30 metre wide skarn zone with strikes northwest. To the northwest and partly underlying the northern portion of the claims is a sequence of northwest striking arkose, greywacke, black argillite and conglomerate.

The sedimentary and volcanic rocks probably belong to the Upper Triassic Lewes River Group, while the granodiorite is Cretacous Coast Intrusions. A small outcrop of quartzite, possibly Precambrian Yukon Group occurs amongst the Lewes River Group sediments.

The following is a brief description of the rock units observed.

a. Andesite - Map Unit 2c

   This unit is fine-grained and dark green in colour. The rock is locally porphyritic with mafic phenocrysts of pyroxenes and/or hornblende and plagioclase.

b. Sedimentary Units - Map Unit 3b,e,f

   The sedimentary unit consists primarily of pods of argillite and arkose in a gritty greywacke. The argillites are very fine grained and black. The greywacke is medium grained and generally poorly sorted.

c. Granodiorite - Map unit 9b

   The granodiorite is equigranular, medium to coarse grained and locally porphyritic. The rock is grey to grey/brown. Alteration of the mafic minerals to chlorite is common.

Structure

Various bedding measurements were obtained in the sedimentary rocks of the property. These have been illustrated on Dwg. No. KU.81-192. Generally, the sediments are striking easterly to northeasterly with a steep dip to the north.

Mineralization

A 20-30 metre wide skarn zone occurs along the andesite/granodiorite contact in the central portion of the property. Immediately along the intrusive contact the skarn consists of a zone of 1) 1-3 metre silica rich laminated rocks that contain trace chalcopyrite and a distinct malachite and azurite coating; outward to 2) 1-5 metre massive magnetite with a trace of malachite. Ultra-violet lamp survey of several samples revealed only a few specks of scheelite. To the north, the skarn is buried by overburden whereas to the south it is overlain by a snowfield.

Along the eastern margin of the intrusive several gossanous zones contain 1 to 2% pyrite within intensely silicified sediments and intrusive.

GEOCHEMISTRY

Procedure

A total of 48 soil, 17 rock and 21 stream sediment samples were collected during 1981. Soil sampling was carried out at 50 metre intervals. The samples were collected from below the organic layer with a mattock and placed in a Kraft paper envelope. A sample number was marked on the bag and on flagging tape which was secured at the sample site.

Stream sediment samples were collected at 200 metre intervals with the use of an aluminum scoop. They were sieved to -14 and -10 mesh in the field and placed in a plastic bag with a sample tag. The sample site was marked with flagging tape bearing the sample number.

Rock samples were collected at random throughout the claim group and placed in plastic bags along with a sample tag. The sample site was also marked with a length of flagging tape.

All samples were shipped to Min-En Laboratories Ltd., North Vancouver for preparation and analysis. All samples were analyzed for Mo, Cu, Pb, Zn, Ag, Hg, As, Mn, Au and Sb. In addition, the stream sediment and silt samples were sieved to -20 mesh and a heavy mineral separation and analysis performed for Cu, Zn, Ag, Au and WO_3.

Results

A statistical analysis of the results obtained from regional stream sediment samples was performed to determine background and anomalous values for the various elements. Details of this

analysis appears in a report by Neelands (1982) titled "Geochemical Report - Kulta Regional Stream Sediment Sampling Programme in the Dease Lake and Tagish Lake Areas". Table II reproduced from that report reveals median background values obtained for the elements studied. Table III shows the results of a report titled "Kulta Follow-Up" (Neelands 1982). The two studies show a good correlation between the stream sediment (heavy mineral) samples. The anomalous values given in Table III will be applied to the results of this property.

The results of geochemical sampling on DAYIR are tabled on Dwg. No. KU.81-193. These results have also been tabulated according to frequency distribution of elements in soils (Table IV), stream sediments (Table V), and silts (Table VI).

The original stream sediment sample (9073D) ran 223 ppm Cu in the fine heavy mineral fraction and 139 ppm Zn in the fine fraction. Follow-up stream sediments and silts on the same creek, confirms the anomalous value. Sampling of two other creeks on the property did not produce high Cu values, but Zn was above background on the creek off the northeastern end of the property.

A soil grid over the skarn and pyritic zones produced a number of high copper and zinc values. The highest values occurred over the skarn, samples 6181C and 6182C ran 1520 ppm Cu and 2010 ppm Cu respectively. Zinc ran as high as 537 ppm in sample 6006C over the silicified zone of sediments.

Numerous rock samples were taken from the skarn zone and also the silicified zone. One sample from the skarn (8714D) ran 1.238% Cu and 0.90 oz/ton Ag. Samples from the silicified area show only traces of Cu, Zn, Ag and Au. Detailed results of the assays are tabled on Dwg. No. KU.81-192.

CONCLUSIONS AND RECOMMENDATIONS

A skarn zone at the contact between andesite and granodiorite contains small amounts of chalcopyrite and magnetite. The total extent of the skarn is unknown as it is covered by overburden on both ends. It is recommended that further rock and soil sampling be undertaken to determine the extent of the zone.

HJC/kr1

TABLE II

Kulta Regional Stream Sediment Sampling Programme

Background and Anomalous Values

Element	No. of Samples	Mean ppm	Median Background ppm	Standard Deviation	95% Threshold ppm
Mo	625	1.8	1.0	1.39	4.0
Cu(C1)CHm	598	44.5	38.0	27.39	150.0
Cu(C2)F	621	35.9	32.0	21.15	80.0
Pb	622	16.3	15.0	7.08	30.0
Zn	598	67.0	65.0	23.77	150.0
Ag(S1)CHm	623	1.04	1.0	0.50	2.5
Ag(S2)F	628	0.71	1.0	0.32	1.6
Mn	602	589.6	570.0	232.6	1200.0
Au(G1)CHm	588	8.21	5.0	5.22	25.0
Au(G2)F	579	6.2	5.0	4.66	15.0
%HM			6.0%		

TABLE III

Kulta Follow-Up

Background and Anomalous Values

Element	Medium					
	Heavy Mineral (227 samples)		SiH (43 Samples)		Soil (461 samples)	
	Median	Anomalous	Median	Anomalous	Median	Anomalous
MoF	1.0	3.0	1.0	2.0	4.0	15.0
CuF	30.0	90.0	70.0	160.0	40.0	250.0
CuFHM						
CuHM	50.0	180.0				
PbF	20.0	60.0	20.0	30.0	20.0	50.0
ZnF	60.0	160.0	80.0	100.0	90.0	200.0
AgF	0.8	1.5	0.9	1.2	0.8	1.7
AgFHM						
AgCHM	0.8	2.6				
HgF	25.0	50.0	40.0	80.0	35.0	160.0
AsF	10.0	50.0	15.0	45.0	15.0	120.0
MnF	500.0	1000.0	800.0	2000.0	700.0	2000.0
AuF	5.0	30.0	5.0	15.0	5.0	20.0
AuFHM						
AuCHM	5.0	50.0				
SbF	15.0	40.0	25.0	40.0	20.0	40.0
HM%						

Table IX
Soil Dayir
Frequency Distribution of Elements

Class Interval ppm/ppb	Mo F	Cu F	Cu FHM	Cu CHM	Pb F	Zn F	Ag F	Ag FHM	Ag CHM	Hg F	As F	Mn F	Au F	Au FHM	Au CHM	Sb F	H.M %
0.1																	
0.2																	
0.3							1										
0.4							1										
0.5							2										
0.6							5										
0.7							3										
0.8							5										
0.9							6										
1.0	28						7										
1.1							6										
1.2							4										
1.3							2										
1.4							2										
1.5							1										
1.6-1.7							2										
1.8-1.9																	
1.9-2.0	8																
2.1-2.3																	
2.4-2.6																	
2.7-2.9																	
3.6-3.9	1																
4.0-4.9	4																
5.0-5.9	3																
6.0-10																	
11 - 15																	
16 - 20																	
21 - 25		5															
26 - 30		4															
31 - 35		6															
36 - 40		1				1											
41 - 45		7				1											
46 - 50		3				1											
51 - 60		4				9											
61 - 70		6				6											
71 - 80		3				2											
81 - 90						2											
91 -100		1				2											
101-120		3				5											
121-140		1				6											
141-160						3											
161-180						2											
181-200						1											
201-250						1											
251-300						2											
301-350						1											
351-400						1											
401-450		1				1											
451-500																	
501-600						1											
601-700																	
701-800																	
801-900																	
901-1000																	
1001-2000		1															
2001-3000		1															
3001-4000																	
4001-5000																	
>5000																	

Table V Dayir
Heavy Mineral Stream Sediment
Frequency Distribution of Elements

Class Interval ppm/ppb	Mo	Cu			Pb	Zn	Ag			Hg	As	Mn	Au			Sb	H.
	F	F	FHM	CHM	F	F	F	FHM	CHM	F	F	F	F	FHM	CHM	F	
0.1																	
0.2																	
0.3																	
0.4									2								
0.5									1								
0.6							2		2								
0.7							1										
0.8							1										
0.9							4		1								
1.0	4								2								
1.1									1								
1.2							1										
1.3																	
1.4																	
1.5																	
1.6-1.7																	
1.8-1.9																	
1.9-2.0	3																
2.1-2.3																	
2.4-2.6																	
2.7-2.9																	
3.0-3.9	1																
4.0-4.9	1																
5.0-5.9													6		3		
6.0-10													2		3		
11 - 15				1									1		2		
16 - 20		1		1											1		
21 - 25		3		1													
26 - 30		1		3													
31 - 35		1															
36 - 40																	
41 - 45																	
46 - 50																	
51 - 60						1											
61 - 70						3											
71 - 80																	
81 - 90																	
91 -100																	
101-120		1				2											
121-140		2				3											
141-160				1													
161-180																	
181-200																	
201-250				2													
251-300																	
301-350																	
351-400																	
401-450																	
451-500																	
501-600																	
601-700																	
701-800																	
801-900																	
901-1000																	
1001-2000																	
2001-3000																	
3001-4000																	
4001-5000																	
>5000																	

Table VI Dayir
Silt
Frequency Distribution of Elements

Class Interval ppm/ppb	Mo F	Cu F	Cu FHM	Cu CHM	Pb F	Zn F	Ag F	Ag FHM	Ag CHM	Hg F	As F	Mn F	Au F	Au FHM	Au CHM	Sb F	H.M %
0.3																	
0.4																	
0.5																	
0.6																	
0.7							1										
0.8																	
0.9							2										
1.0	6						4										
1.1							2										
1.2							1										
1.3																	
1.4							1										
1.5																	
1.6-1.7																	
1.8-1.9																	
1.9-2.0	3																
2.1-2.3																	
2.4-2.6																	
2.7-2.9																	
3.0-3.9	1																
4.0-4.9	1																
5.0-5.9													7				
6.0-10																	
11 - 15													4				
16 - 20																	
21 - 25		2															
26 - 30		1															
31 - 35		4															
36 - 40		1															
41 - 45																	
46 - 50		1															
51 - 60																	
61 - 70						1											
71 - 80						1											
81 - 90						2											
91 -100																	
101-120																	
-140		1				2											
141-160		1				3											
161-180																	
181-200																	
201-250						2											
251-300																	
301-350																	
351-400																	
401-450																	
451-500																	
501-600																	
601-700																	
701-800																	
801-900																	
901-1000																	
1001-2000																	
2001-3000																	
3001-4000																	
4001-5000																	
>5000																	

COST STATEMENT

Wages

1 Geologist, 2 manday(s) (1981 June 18,20)	$ 300.00
1 Sr. Geol. Assistant, 2 manday(s) (1981 June 18,20)	127.04
2 Jr. Geol. Assistants, 4 manday(s) (1981 June 18,20)	200.32
	$ 627.36

Room & Board

Location	Daily Rate	Date	No. of Days	
Whitehorse	$50.00	1981 June 28,20	8	$ 200.00

Transportation

a. Truck Rental (Avis-Whitehorse, YT): 2 day(s) @ $35.85/day	$ 71.70
b. Helicopter in support of field work @ $432.50/hr including fuel (Flying by Viking Helicopter Ltd. of Prince George)	
Dates (1981): June 18, 20 No. of hrs: 2	$ 865.00
	$ 936.70

Analytical Services

Type of Sample	No. of	Fraction Analyzed F	FHM	CHM	Elements Analyzed Mo	Cu	Pb	Zn	Ni	Ag	Hg	As	Mn	Au	Sb	WO_3	Unit Price	
Heavy	8		X			X				X				X			$ 7.90	$ 63.20
Mineral	4		X	X	X			X									1.80	7.20
Silt	21	X			X	X		X		X				X			9.70	203.70
Soil	48	X			X	X		X		X							4.70	225.60
	6															X	24.00	24.00
Rock	4	X				X				X				X			7.90	31.60
	13	X				X				X				X			23.00	299.00
	2				X												10.00	20.00
	7							X									7.50	52.50
	3															X	10.00	30.00

Preparation - Rock	13 @ $2.25/sample	35.75
	4 @ $2.75/sample	9.00
- Heavy Mineral	8 @ $20.00/sample	160.00
- Soil/Silt	48 @ $0.85/sample	40.80

Mo($0.90), Cu($0.90), Pb($0.90), Zn($0.90), Ni(0.90), Ag($0.90/$2.00), Hg($4.50), As($3.00), Mn($0.90), Au($5.00), Sb($3.75)

$1,202.35

Report Preparation	Cost
Drafting: 1 day @ $100/day	$ 100.00
Typing: 1 day @ $95.00	95.00
Map preparation 8 maps (9 sq ft) at 16¢/square foot	11.52
	$ 206.52
GRAND TOTAL:	$3,172.93

REFERENCES

Christie, R. L.; "Geology: Bennett (104M)", G.S.C. Preliminary Series Map No. 19-1957, 1957.

Neelands, J. T.; "Geochemical Report - Kulta Regional Stream Sediment Sampling Programme in the Dease Lake and Tagish Lake Areas", B.C. Assessment Report, 1982.

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, John A. Korenic, do hereby certify that:

1. I am a geologist residing at 11758 Wildwood Crescent, Pitt Meadows, British Columbia and employed by Du Pont of Canada Exploration Limited.

2. I am a graduate of the University of Calgary with a B.Sc. degree in geology (1975).

3. I am a Fellow of the Geological Association of Canada.

4. I am a Member of the Canadian Institute of Mining and Metallurgy.

5. I have practised my profession in geology continuously for the past 7 years in the Yukon, British Columbia and various other provinces in Canada.

6. Between 1981 June 18 and 20, I supervised/directed a field programme on the DAYIR property on behalf of Du Pont of Canada Exploration Limited.

John A. Korenic
1982 June

DU PONT CANADA EXPLORATION

DU PONT OF CANADA EXPLORATION LIMITED
SUITE 102, 1550 ALBERNI STREET,
VANCOUVER, B.C. V6G 1A5
TELEPHONE: (604) 684-9264

QUALIFICATIONS

I, Lisa Dawne Holmgren, do hereby certify that:

1. I am a geologist residing at 68 Wood Cres., SW, Calgary, Alberta and am employed by Du Pont of Canada Exploration Limited.

2. I am a graduate of The University of British Columbia with a B.Sc. (Honors) degree in geology.

3. I am an Associate of the Geological Association of Canada.

4. I have been practiced my profession in geology continuously for the past two years in British Columbia and Yukon Territory, Canada.

5. Between 1981 May and 1981 August, I participated in the field programme described in this report on behalf of Du Pont of Canada Exploration Limited.

Lisa Holmgren

L. D. Holmgren
1982 May

APPENDIX I

Laboratory Procedure

APPENDIX I

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.

APPENDIX I

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.

LEGEND

TERTIARY

MIOCENE

CARMACKS GROUP

12	Grey weathering massive hornblende andesine porphyry

EOCENE

MT. NANSEN GROUP

11	11 a) Andesite 11 b) Basalt
10	10 a) Quartz monzonite 10 b) Granodiorite

CRETACEOUS

COAST INTRUSIONS

9	9a) Quartz monzonite 9b) Granodiorite 9c) Felsic dyke 9d) Matic dyke

HUTSHI GROUP

8	8a) Rhyolite 8b) Dacite 8c) Andesite 8d) Basalt 8e) Tuff 8f) Volcanic conglomerate
7	7a) Peridotite 7b) Serpentinite

UPPER JURASSIC and/or LOWER CRETACEOUS

TANTALUS FORMATION

6	6a) Shale 6b) Schist 6c) Quartz sericite schist

UPPER TRIASSIC and LOWER JURASSIC

LABERGE GROUP

5	5a) Siltstone 5b) Limestone 5c) Shale 5d) Quartzite 5e) Conglomerate 5f) Hornfels
4	4a) Dacite 4b) Andesite 4c) Basalt 4d) Volcaniclastics (conglomerate, breccia) 4c) Tuff

LEWES RIVER GROUP

3	3a) Limestone 3b) Argillite 3c) Siltstone 3d) Arkose 3e) Greywacke 3f) Quartzite
2	2a) Rhyolite 2b) Dacite 2c) Andesite 2d) Basalt 2e) Volcanic breccia, conglomerate

CARBONIFEROUS and/or PERMIAN

ANVIL ALLOCHTHONOUS ASSEMBLAGE

1	1a) Gneiss 1b) Schist 1c) Quartzite 1d) Phyllite 1e) Breccia

SYMBOLS

- OUTCROP
- CONTACT
- x 8842 D — ROCK SAMPLE LOCATION and NUMBER
- CLAIM LINE
- SKARN ZONE
- BEDDING , STRIKE & DIP

ROCK GEOCHEMICAL RESULTS

(-80 mesh F)

Sample	Cu PPM	Ag PPM	Au PPM
8833 D	22	0.8	5
8834 D	12	0.4	10
8716 D	9	0.8	5
8719 D	108	0.8	5

ROCK ASSAYS

Sample	Total Mo as % of MoS2	Cu %	Zn %	Ag oz/ton	Au oz/ton	WO_3 %
8714 D	0.002	1.238	-	0.90	0.003	-
8715 D	-	0.001	-	0.02	0.001	-
8717 D	-	0.046	-	0.08	0.001	-
8718 D	0.001	0.716	-	0.58	0.003	-
8832 D	-	0.001	-	0.07	0.001	-
8835 D	-	0.006	0.02	0.02	0.001	-
8836 D	-	0.002	0.02	0.01	0.001	-
8837 D	-	0.001	0.0	0.02	0.001	-
8838 D	-	0.001	-	0.08	0.001	-
8839 D	-	0.353	0.03	0.13	0.002	-
8840 D	-	0.280	0.04	0.61	0.003	0.001
8841 D	-	0.240	0.04	0.82	0.005	0.001
8842 D	-	0.246	0.04	0.22	0.003	0.001

John Keen

DU PONT CANADA **EXPLORATION**

KULTA PROJECT
DAYIR CLAIMS
GEOLOGY 091048

WHITEHORSE AREA , YUKON TERRITORY

m 300 0 300 600 m
1 : 10000
SCALE
ft 1000 0 1000 2000 ft.
1 INCH = 833 FEET

MAPPED BY :	J.M.K., L.O.H.	REVISED :	N.T.S. No. : 105 D 6 W
DATE :	81 06 18,20		ACCT No. : 351 - 21
DRAWN BY :	K.L.J., C.M.K.		DRWG. No. : KU.81-192
DATE :	82 05 12		

LEGEND

- ○ 7108 D — SILT or SOIL SAMPLE LOCATION and NUMBER
- ● 7109 D — SIEVED HEAVY MINERAL SAMPLE LOCATION and NUMBER
- X — 9073 D — ORIGINAL SIEVED HEAVY MINERAL SAMPLE LOCATION (1981) and NUMBER
- ├ 6148 C — GRID SOIL SAMPLE LOCATION and NUMBER

1981 SAMPLE RESULTS

Sample	Mo ppm -80 F	Cu ppm -80 F	Zn ppm -80 F	Ag ppm -80 F
Soil				
6000 C	1	35	99	0.7
6001 C	2	37	94	1.0
6002 C	1	47	120	1.3
6003 C	1	42	140	0.7
6004 C	2	43	176	1.1
6005 C	5	67	387	1.1
6006 C	4	105	538	1.5
6007 C	1	91	427	1.3
6008 C	1	79	319	1.2
6009 C	1	69	262	0.9
6010 C	2	100	219	1.4
6011 C	5	100	152	1.2
6012 C	5	62	132	1.1
6013 C	1	44	113	0.9
6014 C	4	45	124	0.9
6015 C	2	34	119	0.8
6016 C	1	66	121	1.0
6017 C	1	54	120	1.1
6018 C	1	50	140	1.1
6019 C	3	79	175	1.6
6020 C	3	51	125	1.7
6129 C	1	31	67	0.8
6130 C	1	21	58	0.5
6131 C	1	31	66	0.8
6132 C	1	21	56	0.6
6133 C	1	22	58	0.6
6134 C	3	48	115	1.0
6135 C	4	46	65	0.9
6136 C	4	42	65	0.8
6137 C	2	31	56	0.6
6138 C	2	147	148	1.2
6139 C	1	24	55	0.7
6140 C	1	41	60	0.9
6141 C	3	79	72	0.9
6142 C	2	26	47	0.6
6143 C	1	67	65	1.1
6144 C	3	60	84	1.0
6145 C	1	34	55	0.8
6146 C	1	26	36	0.6
6147 C	1	40	58	1.0
6148 C	1	25	51	0.4
6179 C	1	26	55	0.5

Sample	Mo ppm -80 F	Cu ppm -80 F	Zn ppm -80 F	Ag ppm -80 F	W ppm -80 F
6180 C	1	26	45	0.3	<2
6181 C	1	1520	73	1.2	3
6182 C	2	2010	143	4.2	2
6183 C	1	430	182	1.4	22
6184 C	1	140	88	1.0	3
6185 C	1	51	261	1.0	2

Sample	Mo ppm -80 F	Mo ppm -20 +80 C	Cu ppm -80 F	Cu ppm -20 +80 C	Zn ppm -80 F	Zn ppm -20 +80 C	Ag ppm -80 F	Ag ppm -20 +80 C	Au ppb -80 F	Au ppb -20 +80 C
Silt										
6122 C	2		35		202		1.1		5	
6123 C	3		35		222		1.0		15	
6125 C	1		35		156		1.1		5	
6127 C		1*		29*		109*		1.0*		5*
6128 C	1		40		155		0.7		15	
7108 D	1		35		137		1.4		5	
7110 D	2		22		89		1.2		5	
7111 D	1		50		76		1.0		5	
7113 D	2		131		130		0.9		15	
7114 D	1		149		147		1.0		15	
7117 D	1		24		70		0.9		5	
7118 D	4		29		89		1.0		5	
7120 D		2*		15*		46*		0.4*		3*

* -40 Mesh

Sample	Mo ppm -80 F	Mo ppm -20 +80 CHM	Cu ppm -80 F	Cu ppm -20 +80 CHM	Pb ppm -80 F	Zn ppm -80 F	Zn ppm -20 +80 CHM	Ag ppm -80 F	Ag ppm -20 +80 CHM	Mn ppm -80 F	Au ppb -80 F	Au ppb -20 +80 CHM	H.M. %	Total wt. gm
-20 Sieve														
6124 C	4	2	28	28		115	78	0.8	0.6		10	10	6.59	275
6126 C	2	1	35	14		132	39	1.2	0.5		5	10	6.34	260
7107 D	1		22	30		70		0.6	0.4		5	5	7.66	295
7109 D	1		20	28		69		0.7	0.6		5	10	9.84	190
7112 D	2		124	240		118		0.9	1.0		15	15	11.66	515
7115 D	2		119	160		122		0.9	0.9		5	20	12.23	375
7116 D	1	2	21	20		52	46	0.9	0.4		10	5	4.09	225
7119 D	1	1	22	22		63	91	0.6	1.0		5	5	2.91	195
-10 Sieve														
9073 D	3		140	223	32	139		0.9	1.1	725	5	15		

DU PONT CANADA **EXPLORATION**

KULTA PROJECT
DAYIR CLAIMS 091048
GEOCHEMISTRY
Au, Ag, Cu, Mn, Mo, Pb, W, Zn & %HM

WHITEHORSE AREA , YUKON TERRITORY

1 : 10000

m 300 0 300 600 m

SCALE

ft. 1000 0 1000 2000 ft.

1 INCH = 833 FEET

MAPPED BY : J.M.K. L.D.H.	REVISED :	N.T.S. No. :	105 D 6 W
DATE : 81 06 18,20		ACCT No. :	351 - 21
DRAWN BY : K.L.J., C.H.K.		DRWG. No. :	KU.81- 193
DATE : 8205 13			