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D.D.H. GEOMANAGEMENT LTD.

REPORT

ON THE

WIND 1, SILVER FOX AND LE CROY

MINERAL CLAIMS

PINKUT CREEK

BABINE LAKE AREA

OMINECA MINING DIVISION

BRITISH COLUMBIA

LATITUDE $54^{\circ} 24.4'$ N. - LONGITUDE $125^{\circ} 25.4'$ W.

(NTS 93 - K - 6W)

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

FOR

11,584

WINDFLOWER MINING LTD.

4405 GLENCANYON DR.

NORTH VANCOUVER, B.C.

BY

A.D. DRUMMOND, Ph.D., P.ENG.

GEOLOGICAL ENGINEER

22 June 1983

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- APPENDIX A: Taltapin Mining Co. Ltd. Internal Letter of August 7, 1928 by R.M. Morgan, General Manager, including Report of Provincial Assayer (B.C.).
- APPENDIX B: Cominco Ltd., Trail, B.C., Assay Certificate, Serial No. 8215 (O.P. 447) dated August 27, 1970.
- APPENDIX C: Bondar-Clegg and Co., Ltd., North Vancouver, B.C., Geochemical Lab. Report No. 122-2780 dated 28 August, 1982.

SUMMARY

The Pinkut Creek property of Windflower Mining Ltd. is located 40 road kilometres north of Burns Lake, B.C. near the southern end of Babine Lake. The property consists of the staked Wind 1 mineral claim (12 units), the optioned Silver Fox (L. 4097) Crown Granted mineral claim and the Le Croy reverted Crown Granted mineral claim. Historically (1919 to 1928) the area was explored for its silver-bearing base metal (Cu, Pb, Zn) quartz veins.

Re-examination of the property during the intervening years to the present has indicated that the silver-gold bearing copper-lead-zinc quartz veins are actually part of a shattered and faulted contact zone between Cache Creek volcanic rocks and a siliceous hydrothermally altered sulphide-bearing quartz monzonitic intrusive. It is within this uncompletely defined volcanic-intrusive contact zone that the mineralized quartz veins occur as a north-easterly to easterly striking, steep to gentle north dipping group of sub-parallel mineralized veins.

Under current metal prices, the precious metal content of the formerly explored veins and their undefined extension is warranted. For example, in the former shaft area two separated seven foot intersections were reported from a drill hole (Day (1928)) which assayed (216 to 223 ft.) 0.03 oz/t Au, 12.6 oz/t Ag, 7.8% Pb and 2.4% Zn and (303 to 310 ft.) 0.03 oz/t Au, 77.2 oz/t Ag, 1.9% Cu and 5.1% Zn. At the 120 foot mark in the shaft, a 18 to 20 inch width gave 0.36 oz/t Au, 67.8 oz/t Ag, 1.2% Cu, 17.5% Pb and 13.8% Zn. The highest values reported were at 140 feet in the shaft with 0.16 oz/t Au, 257.2 oz/t Ag, coupled with 24.1% combined Pb - Zn.

An evaluation program has been recommended to define and test the economic potential of the mineralized veins within the shattered and faulted volcanic-intrusive contact zone. The estimated cost of the proposed work program is \$273,000.00 which is composed of two phases, i.e. \$111,000.00 (Phase I) and \$162,000.00 (Phase II) respectively.

INTRODUCTION

The firm of D.D.H. Geomanagement Ltd. was commissioned on 25 May, 1983 by the Directors of Windflower Mining Ltd., 4405 Glencanyon Drive, North Vancouver, British Columbia, V7N 4B4, to appraise the exploration potential and to recommend an evaluation program for the Wind Mineral Claim, near Babine Lake, Omineca Mining Division, British Columbia. This assignment was accomplished by examining the property on 8 June, 1983, and by compiling past work, published and unpublished, government and private, on the subject area. This report outlines the exploration potential of the property and a work program to test that potential.

LOCATION AND ACCESS

The Wind 1, Silver Fox, and Le Croy mineral claims of Windflower Mining Ltd. are located in central British Columbia about 40 kilometres (25 miles) north of Burns Lake, B.C. (see Location Map, Figure 1). Coordinates are latitude $54^{\circ} 24.4'$ N. and longitude $125^{\circ} 25.4'$ W.

Vehicle access is via gravel road from Decker Lake immediately to the west of Burns Lake, which road gives access to the Babine Lake and the Pinkut Creek Spawning Channel (Figure 2). Burns Lake is 229 kilometres (142 miles) west of Prince George, B.C., along Highway 16

and 496 kilometres (308 miles) east of Prince Rupert, B.C. Road distance from Vancouver, B.C. to Burns Lake is 1007 kilometres (626 miles). Commercial airport facilities exist at Prince George, B.C. and Smithers, B.C., the latter being 145 kilometres (90 miles) west of Burns Lake, B.C.

Topography within the Nechako Plateau is characterized as gentle rolling hills with a base elevation of about 910 metres (3000 feet), upon which hills such as Taltapin Mountain rise to 1604 metres (5295 feet) a.s.l.

Forest cover is abundant and composed of spruce, balsam, jack pine, and poplar.

PROPERTY AND TITLE

The following claims constitute the holdings of Windflower Mining Ltd. in the Omineca Mining Division:

(a) Staked Mineral Claim

<u>Name</u>	<u>Units</u>	<u>Record No.</u>	<u>Expiry Date</u>
Wind	12	3333 (10)	21 October, 1983
(Registered owner is Gerald Ryznar)			

(b) Crown Granted Mineral Claim

<u>Name</u>	<u>Lot No.</u>	<u>Registered Owner</u>
Silver Fox	L. 4097	Michael Paul and Stokes Anderson Muller
(Held by Windflower Mining Ltd. under an option agreement dated 18 April, 1983 with the registered owners).		

(c) Reverted Crown Granted Mineral Claim

<u>Name</u>	<u>Lot No.</u>	<u>Record No.</u>	<u>Expiry Date</u>
Le Croy	4098	4983(2)	3 February, 1984
(Registered owner is Gerald Ryznar)			

The claims are outlined in Figure 3, which map was reproduced from Mineral Claim Map 93 K/6W (Microfile date 1983-03-17).

HISTORY

The Taltapin Mining Company was formed in 1919 to explore the Silver Fox and six adjoining mineral claims according to Galloway (1920). In 1920, a number of quartz veins were exposed in the 70 foot high gorge of Anderson Creek (now known as Pinkut Creek), which veins reportedly had a north-easterly strike and dipping at angles of 30° to 60° to the northwest. The most important vein was termed the "High-grade vein" which had an altitude of N. 30° E./ 60° N.W. According to Galloway (1921), the veins consisted of abundant quartz with variable amounts of galena, sphalerite, chalcopyrite, arsenopyrite, pyrite, and tetrahedrite. Host rocks are andesitic volcanic rocks striking northeast and dipping shallow to the northwest. Vein widths are variable and range from 6 inches (15 cms.) to about 5 feet (1.5 m.). During 1920, several adits were started, i.e. the Anderson and Wood "tunnels", and a shaft was sunk on the "High-grade vein" which subsequently filled with water.

In 1925, the shaft dump was sampled and assayed trace gold, 3.6 oz/t silver, 1% copper, 3% lead, and 27% zinc (Lay, (1926)). Lay (1926) reported that the objective of the shaft - namely the penetration of the "High-grade vein" - had not yet been reached. Presumably, the mineralized material noted in the dump was from another vein. Wilkinson (1926) reported that the shaft was 7 by 8 feet (2.1 m. by 2.4 m.) and 70 feet deep (21.2 m.).

During 1926, the shaft was extended to 90 feet (27.3 m.) and apparently intersected a hitherto unknown 3 foot vein. Lay (1927) also reported that a shipment of hand sorted material in the order of 4 tons was made from the "High-grade vein". Lay (1927) further reported that the reject or cullings of the hand sorted material from the shipment when sampled gave an assay of 0.04 oz/t gold, 16 oz/t silver, 1.5% copper, 9% lead, and 16% zinc.

During 1927, regional exploration in the general vicinity of the Silver Fox Crown Granted mineral claim indicated that the geological setting was one of mineralized quartz veins both within the andesitic volcanic rocks to the west of Pinkut Creek, and within batholithic rocks to the east of Pinkut Creek. On the Le Croix (L.4983) (current spelling on Record, Form A is Le Croy), adjacent on the east of the Silver Fox claim, surface exposures in 1927 indicated quartz mineralization with copper stain in andesitic country rock, an assay from which gave 0.5% copper and trace gold and silver (Day 1928)).

The first mention of diamond drilling on the property (pertaining to the "High-grade vein") was reported by Lay (1928) who stated:

"The diamond drill with an inch core was sunk at an angle of 35° , and at a depth of 216 feet went through 7 feet of ore, which assayed: Gold, 0.03 oz. to the ton; silver, 12.6 oz. to the ton; lead, 7.8 per cent; zinc, 2.4 per cent; also at a depth of 303 feet the drill went through the high-grade ore appearing in Anderson Creek (now known as Pinkut Creek) for 7 feet, which assayed: Gold, 0.03 oz. to the ton; silver, 77.2 oz. to the ton; copper, 1.9 per cent; zinc, 5.1 per cent."

W.S. Bacon, Registered Mining Engineer, examined the property in July, 1927 and reported that a number of veins within the Silver Fox claim were sampled, the results of which are summarized below:

<u>Location</u>	<u>Width</u>	<u>Au</u> <u>oz/t</u>	<u>Ag</u> <u>oz/t</u>	<u>Cu</u> <u>%</u>	<u>Pb</u> <u>%</u>	<u>Zn</u> <u>%</u>
Creek bed opposite shaft NE strike NW dip	4'	trace	0.62	1	17.5	25
East side creek N-S vein	4'	0.06	1.2	trace	7.2	2.5
East side creek N-S vein	2'	trace	0.9	trace	0.8	1.0

<u>Location</u>	<u>Width</u>	<u>Au</u> <u>oz/t</u>	<u>Ag</u> <u>oz/t</u>	<u>Cu</u> <u>%</u>	<u>Pb</u> <u>%</u>	<u>Zn</u> <u>%</u>
West side creek N-S vein	12'	trace	0.4	0.2	6.3	1.0

(Note: Specific locations are not known as there is presently no accompanying map to the letter report.)

The only other pertinent data available is an internal letter of Taltapin Mining Co. Ltd. dated August 7, 1928 (see Appendix A) in which is indicated that the shaft was deepened 145 feet (43.9 m.), that water seeping into the shaft was a serious problem leading to the abandonment of the shaft, and that the vein or veins pinch and swell. Assays from the Provincial assayer (April 26, 1928, Vancouver, B.C.) are appended and given as:

Silver Fox Mineral Claim Shaft

	<u>Width</u>	<u>Au</u> <u>oz/t</u>	<u>Ag</u> <u>oz/t</u>	<u>Cu</u> <u>%</u>	<u>Pb</u> <u>%</u>	<u>Zn</u> <u>%</u>
Depth at 120'						
"A")	18" to 20"	0.36	67.8	1.2	17.5	13.8
"B")		0.12	31.2	0.6	6.1	8.3
at 130'	Vein Pinched					
at 140'	15"	0.16	257.2	Not Assayed	11.6	12.5

During the writer's examination of 8 June, 1983, two shafts were observed and both were caved. From the available historical record, it is not known when the second shaft was constructed. Presumably the above dump and vein samples pertain to the first shaft, which would appear to be the one nearest to the creek. The second shaft west of the first is slightly higher in collar elevation and further from the creek supposedly to lessen the water problem.

The property appears to have remained dormant until 1970 when the owners renewed their interest (A.R. Allen (1970)). The Silver Fox claim was then jointly held by Mrs. Myrna Paul (granddaughter of Charles S. Anderson), C. Shank, R. Coombs, and R. Therrien. Charles S. Anderson was one of the original stakers. Mr. A.R. Allen, P. Eng., examined the property and recommended a work program. Also in 1970 during August, Mr. R. Coombs received the following assays from Cominco Ltd., Trail, B.C. in response presumably to his shipping a small quantity of mineralized material from the Silver Fox claim. Sample location is not known.

Cominco Co. Ltd., Trail, B.C.
Serial No. 8215

August 27, 1970
Lot. O.P. 447

Au oz/t	Ag oz/t	Pb %	Zn %	SiO ₂ %	Fe %	CaO %	Al ₂ O ₃ %	U ₃ O ₈ %
0.195	184.0	6.8	9.8	68.6	2.5	0.2	1.4	0.01

(See Assay certificate - Appendix B.)

Other mineral prospects in the Pinkut Creek - Babine Lake area are:

- (a) The Radio Gold Mines Ltd. (No. 24) located some 3.4 kilometres (2 miles) to the northeast of the Wind claim and which prospect contains pyrite, chalcopyrite and molybdenite in quartz in metamorphosed Carboniferous rocks adjacent to granodiorite batholithic rocks (Armstrong (1949)).
- (b) Silver Island Mining Company (No. 25) located on Silver Island in Babine Lake some 5.6 kilometres (3.5 miles) north of the Wind claim and which prospect contained tetrahedrite, argentite, native silver and minor galena, sphalerite, chalcopyrite and pyrite in narrow quartz veins at the contact of a rhyolite plug and a larger dioritic body (Armstrong (1938)).

(c) Boling Property (No. 28) located on the north side of Babine Lake some 8 kilometres (5 miles) north-northwest of the Wind claim, and which prospect is only known as silver-lead-zinc mineralization in Carboniferous greenstones (Armstrong (1938)).

(d) Anderson (No. 27) a silver-lead-zinc prospect located some 3.4 kilometres (2 miles) south of the Wind 1 claim (Mineral Inventory Map 93 K).

Locations are shown in Figure 2 for the deposit numbers referred to above.

RECENT WORK

During August, 1982, Windflower Mining Ltd. undertook reconnaissance geochemical stream silt and soil surveys. Of a total of fifty-four samples taken and analyzed for Ag, Cu, and in part for Mo, three locations in the southwest portion of the Wind 1 claim gave:

<u>Sample No.</u>	<u>Ag (ppm)</u>	<u>Cu (ppm)</u>
10	3.2	640
11	4.2	270
12	14.0	1020

A second area of weak response was near the north central portion of the Wind 1 claim which indicated:

<u>Sample No.</u>	<u>Ag (ppm)</u>	<u>Cu (ppm)</u>
39	0.8	163
40	0.8	174
41	0.4	135
42	0.6	100

Sample sites are shown in Figure 4. Analyses was made by Bondar - Clegg and Co., Ltd. of North Vancouver, B.C. Results are appended (Appendix C).

REGIONAL GEOLOGY

The Fort St. James map area was mapped by Armstrong (1938, 1949) and outlined on Map 907 A. The geological setting for the southern end of Babine Lake comprises rocks of the Cache Creek Group of Permian age, which have been intruded by granitic rocks related to the Topley Intrusives during post-middle Permian to Upper Jurassic (?) time. The remainder of the area is covered either with Tertiary Endako Group volcanic rocks (Oligocene or later), or with Quaternary and Recent gravels (See Figure 5).

The stratigraphic column for the southern Babine Lake area is as follows (after Armstrong (1949) and Map 907 A):

<u>Age</u>	<u>Formation</u>	<u>Rock Type</u>
TERTIARY (Oligocene or later)	Endako Group	Vesicular and amygdaloidal basalt, andesite and dacite; flow breccia and agglomerate (15 A).
PERMIAN (?) AND/OR LATER (Post Middle Permian- Pre-Upper Jurassic (?))	Topley Intrusives	Granite and Granodiorite (5 A), Syenite (5 B), Diorite (5 C).
PENNSYLVANIAN (?) AND PERMIAN	Cache Creek Group	Ribbon chert, argillaceous quartzite, argillite, slate, greenstones, minor conglomerate and greywacke and metamorphosed equivalent of the above (2 A).

The silver-lead-zinc deposits of the Wind 1 claim including the Silver Fox Crown Granted claim, Silver Island and Boling, are at or near the contact of the Intrusive rocks and those of the Cache Creek Group. The Radio Gold deposit lies within the Intrusive and not surprisingly contains copper and molybdenite.

PROPERTY GEOLOGY

(a) General Setting

Along a steep gorge on Pinkut Creek within the Silver Fox Crown Granted mineral claim (L. 4097), a set of mineralized quartz veins outcrop near the contact of a siliceous quartz monzonitic-granodioritic intrusive rock and sheared andesitic rocks of the Cache Creek Group (Figure 6). Away from the gorge, outcrop is sparse, but overburden may not be thick. An area of intrusive rock to the east of Pinkut Creek was exposed in a road material quarry where overburden was less than one metre deep.

(b) Intrusive Rocks, Phases and Hydrothermal Alteration

The intrusive rocks adjacent to the contact with the Cache Creek Group andesitic volcanic rocks have been subjected to chloritization. The original rock was a biotite quartz monzonite or siliceous granodiorite. The original biotite has been chloritized and the feldspars have become bleached and clouded. Release of iron from the biotite has been sulphidized to pyrite such that it is not uncommon to have disseminated pyrite present in quantities up to 1 to 2% by volume in the rock. Locally within the quartz monzonitic intrusion, there are zones in which the grain size is noticeably coarser (up to 5 to 10 mm. in largest dimension). This coarser rock contains quartz, clouded whitish feldspar and coarse muscovite and is herewith termed pegmatitic phase (see Figure 6).

Mapping has indicated that a tongue of finer grained chloritized and bleached quartz monzonite about 50 metres (160 feet) wide trends away from the main mass towards the west.

(c) Volcanic Rocks

The andesitic rocks into which the quartz monzonite intruded have been similarly chloritized and subjected to structural readjustments such that the contact rocks, as currently exposed, are well shattered. Foliation (banding) and/or bedding attitudes within the andesitic volcanic rocks appears, on limited exposure, to be sub-parallel to the attitude of, at least, some of the quartz veins and associated veinlets.

(d) Structure

Structurally implications from the exposure along the Pinkut Creek gorge indicate that Pinkut Creek is the location of a fault with the west side down and the east side up; that in this locality the Cache Creek Group - intrusive contact is fault controlled and that the quartz veining forms a sheeted stockwork-like zone within the structurally disrupted zone of the contact area.

(e) Mineralization

Mineralization occurs not only within the quartz veins, but also on fracture surfaces outside of the quartz veins. Texture of the mineralization suggests that sulphide deposition was relatively late during the stage of quartz vein formation, in that the sulphides are on fracture surfaces within shattered quartz veins as well as outside of the quartz veins.

(f) Mineralogy

Mineralogy is relatively simple with, in order

of abundance, pyrite, galena, tetrahedrite and/or silver sulphosalt(s) and/or arsenopyrite, sphalerite, chalcopyrite (locally coated with chalcocite/covellite) in a gangue of quartz. Gold is noted in assay results, but was not observed. Sulphide grain size is generally very fine, being in the order of 100 microns with pyrite and sphalerite being larger (500 microns or more) on the average.

CONCLUSIONS ON EXPLORATION POTENTIAL

Previous work during the period 1919 to 1928 outlined the presence of several quartz-pyrite galena-tetrahedrite-arsenopyrite-sphalerite-chalcopyrite-gold veins in widths varying from veinlets to width in the 1.2 metres (4 feet) to 2.1 metres (7 feet) range. Two shafts and several adits comprise the former physical work on the property.

After examination of the property by the writer, it became clear that several mineralized veins must have been intersected in the shaft. Within the formerly explored area along Pinkut Creek about 150 to 200 feet north of the shafts and on both sides of the fault along Pinkut Creek, a NE to E-W striking and northerly dipping group of sub-parallel quartz veins or zone of sheeting can be observed. There is not only the previously reported one to five mineralized quartz veins, but actually a sub-parallel stockwork of mineralized veins and veinlets. A portion of mineralization was deposited on late fractures within the host andesites. The dyke-like-portion of the intrusive has been extensively chloritized and bleached in the contact area where the sheeted quartz veining occurs.

During the 1919 - 1928 period, reported assays indicated significant silver values (at current metal

prices) near the bottom of the shaft (presumably the easternmost of the two shafts), namely, at 120 feet of depth, 0.36 oz/t Au, 67.8 oz/t Ag, 1.2% Cu, and 31.2% combined Pb-Zn over 18 to 20 inches, and at 140 feet of depth, 0.16 oz/t Au, 257.2 oz/t Ag, and 24.1% combined Pb-Zn (no Cu assay available) over 15 inches. Further, the drill hole (collar location unknown but oriented to test the "High-grade vein") indicated the presence of a reported 7 foot intersection which assayed 0.03 oz/t Au, 77.2 oz/t Ag, 1.9% Cu, and 5.1% Zn (Pb was not given).

The presence of significant silver and gold values combined with copper, lead, and zinc in various mineralized quartz veins which occur in the form of a sheeted stockwork along the shattered and faulted volcanic-intrusive contact, suggest good exploration potential for either defining an economic mineral shoot within specific veins within the contact zone, or along the major fault traversing Pinkut Creek, or both. The presence of mineralization outside of the veins in the country rock may give potential to developing some disseminated mineral reserves. Definition of the gold-silver-copper-lead-zinc mineralized zone as previously indicated, should be evaluated by trenching and diamond drilling.

The presence of anomalous geochemical silver values away from the area of previous work require further detailed follow-up and trenching to locate the source of the silver. To date, because of surface cover, the zone away from the Pinkut Creek gorge along the volcanic-intrusive contact must be considered as being open with regard to potential mineralization. Drilling for both geology and mineralization may be necessary, if the overburden is too thick to be reasonably moved by a bulldozer.

Since the volcanic-intrusive contact is the site of the mineralized quartz veining, it will be necessary to indirectly define the contact using geophysical methods such as ground magnetometer and possibly V.L.F. - E.M. Test lines should be run to ascertain that the magnetic susceptibility difference between the volcanic rocks and the intrusive is sufficient to be useful as an indirect mapping tool. The V.L.F. used in a similar manner may suggest zones of fracturing along the contact.

RECOMMENDATIONS

In light of the exploration potential indicated on the Pinkut Creek property of the Windflower Mining Ltd. along the, as yet, undefined but mineralized volcanic-intrusive contact, the following program for further work is recommended:

PHASE I

- 1) Geologically map the entire Wind 1 claim with particular emphasis on the exposures along the Pinkut Creek gorge.
- 2) Conduct a ground magnetometer survey using minimum 100 metre grid lines over the entire claim.
- 3) Conduct V.L.F. and detailed geochemical surveys in those areas interpreted as being the volcanic-intrusive zone from the ground magnetometer survey.
- 4) Rehabilitate, if practical, the former underground openings, such work to include geological mapping and sampling.
- 5) Trench using a bulldozer or large backhoe those areas near the Pinkut Creek gorge and elsewhere along the inferred volcanic-intrusive contact to effect exposures for mapping and sampling.

- 6) Diamond drill along both sides of the Pinkut Creek gorge (fault) to define economic significance of the mineralized quartz veining. Some diamond drilling will also be required to test for mineralization along the volcanic-intrusive contact away from the Pinkut Creek gorge.

PHASE II

Diamond drill a "fill-in" pattern to further define the mineralization encountered during the Phase I program.

COST ESTIMATE OF PROPOSED WORK PROGRAM

PHASE I

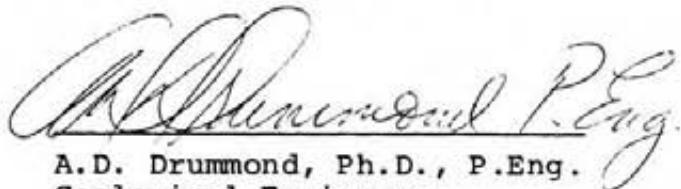
Geological mapping, sampling and supervision	-	\$ 10,000.00
Line cutting (32 line kms. @ 100 m. spacing)	-	7,000.00
Geophysical survey (magnetometer) and interpretation	-	7,000.00
Geochemical survey	-	5,000.00
V.L.F. - E.M. survey	-	5,000.00
Bulldozer trenching	-	10,000.00
Rehabilitate underground openings	-	20,000.00
Diamond drilling - 800 feet at \$40/ft. "all in" (camp included)	-	32,000.00
Assaying	-	<u>5,000.00</u>
Sub-Total	-	\$101,000.00
Contingency @ 10% +/-	-	<u>10,000.00</u>
Total Phase I	-	<u>\$111,000.00</u>

PHASE II

Diamond drilling 3000 feet @ \$40/ft. "all in"	-	\$120,000.00
Assaying	-	7,000.00
Core logging sampling and supervision	-	15,000.00
Report (compilation and writing)	-	<u>5,000.00</u>
Sub-Total	-	\$147,000.00
Contingency @ 10% +/-	-	<u>15,000.00</u>
Total Phase II	-	<u>\$162,000.00</u>

The total estimated cost of Phase I and II is \$273,000.00

Respectfully submitted,
D.D.H. GEOMANAGEMENT LTD.


A.D. Drummond, Ph.D., P.Eng.
Geological Engineer.

REFERENCES:

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- 2) Armstrong, J.E. (1938) Northwest Quarter of the Fort Fraser Map - Area B.C., Preliminary Report; Geol. Surv. Canada, Paper 38-10.

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- 5) Lay, D. (1926) Taltapin Mining Co.; in Annual Report of the Minister of Mines for 1925, British Columbia, p. A 143.

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- 6) Ryznar, G. (1982) Geochemical Survey Report on Mineral Claim Wind 1, Omineca M.D., Windflower Mining Ltd.; report dated September 7, 1982.
- 7) Wilkinson, G. (1926) Taltapin; in Annual Report of the Minister of Mines, British Columbia, Chief Mines Inspector Report, P. A 360.

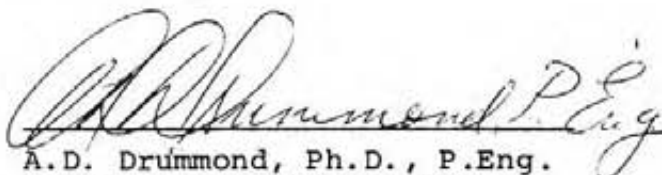
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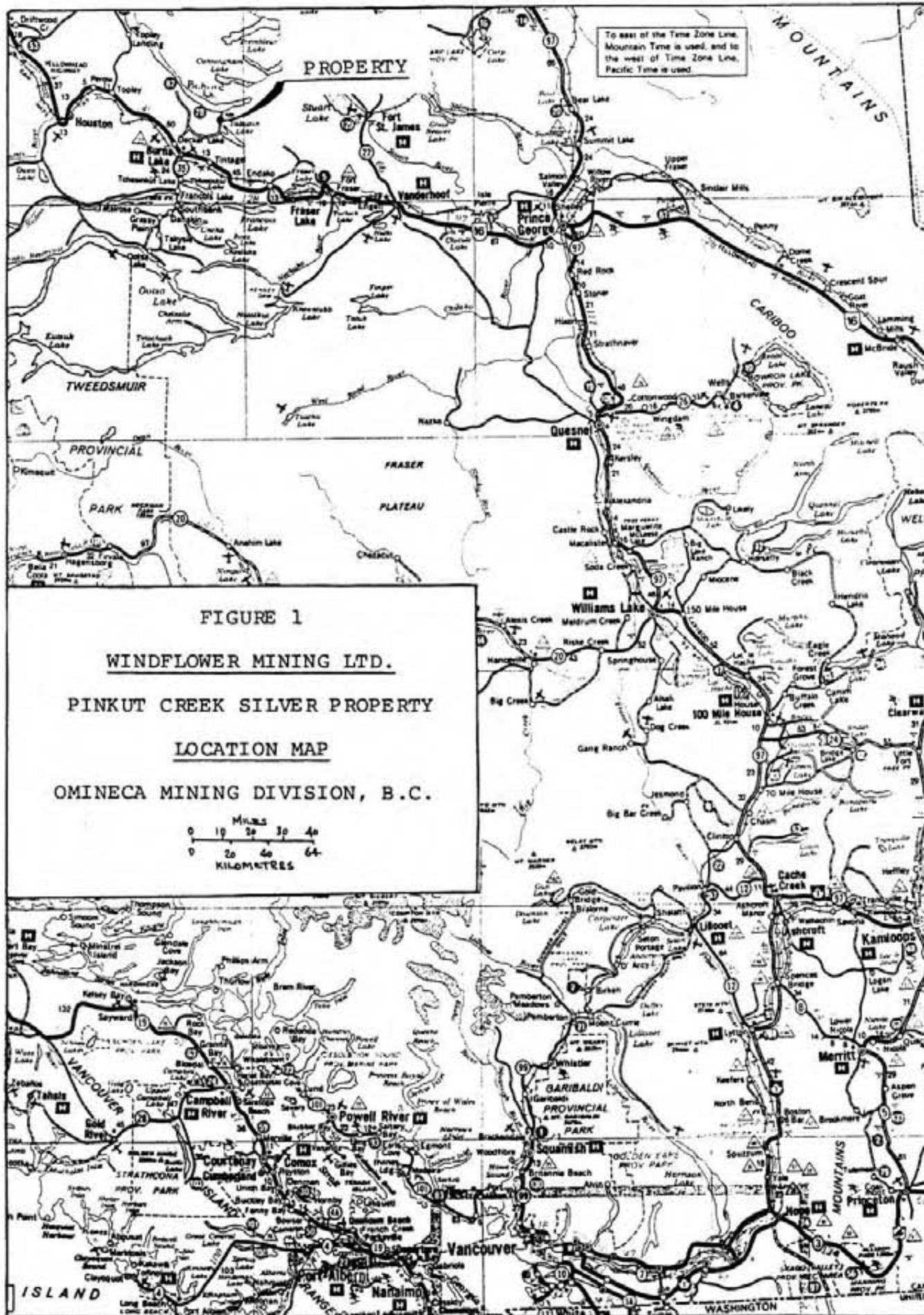
CERTIFICATION

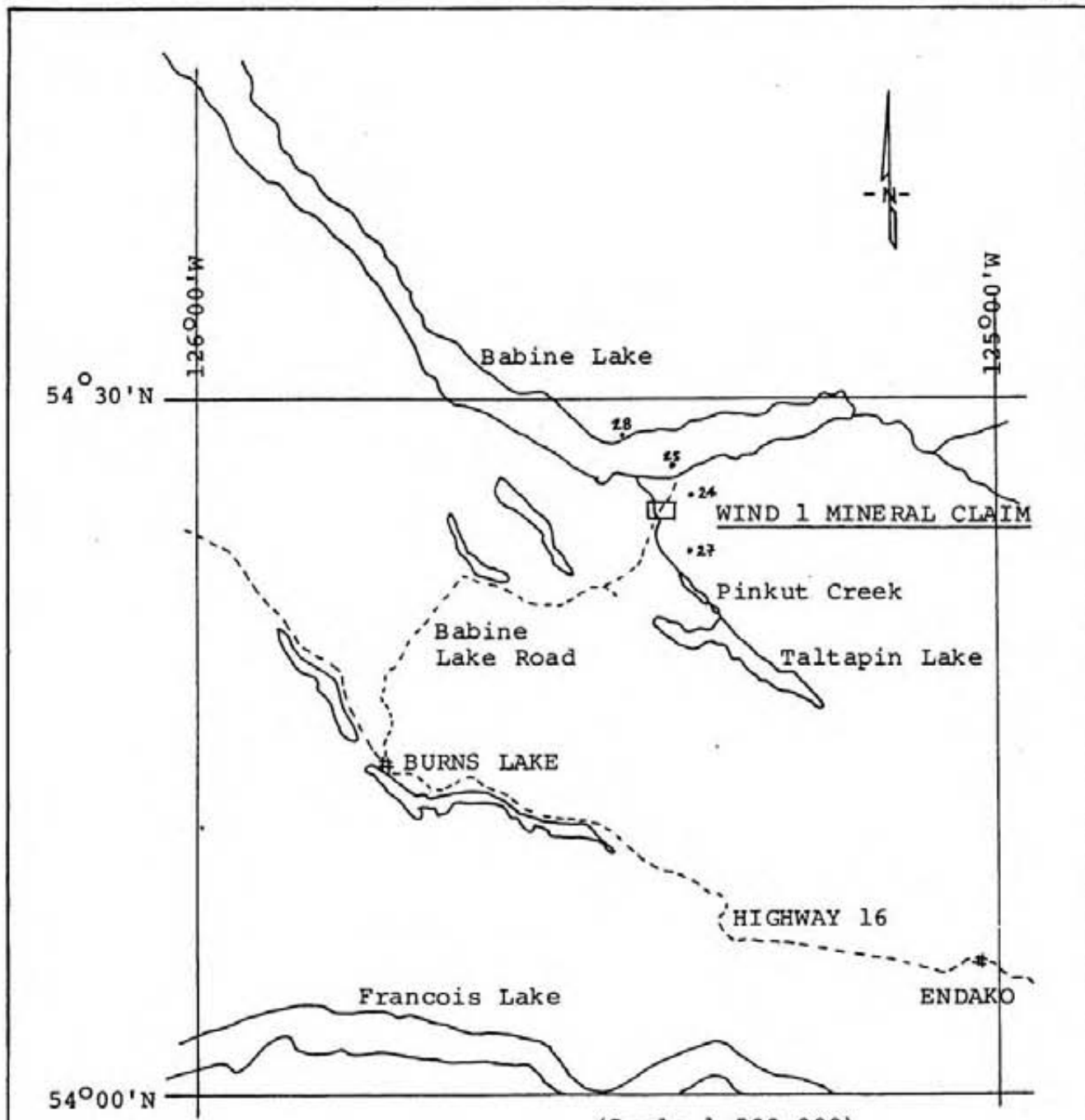
I, Arthur Darryl Drummond of the City of Vancouver, Province of British Columbia, hereby certify as follows:

- 1) I am a geological engineer residing at 3249 West 35th Avenue, Vancouver, B.C. and employed by D.D.H. Geomanagement Ltd., with an office at 422 - 470 Granville Street, Vancouver, B.C.
- 2) I am a registered Professional Engineer of the Province of British Columbia, certificate no. 5778. I graduated from the University of British Columbia in 1959 with a M.A.Sc. in geological engineering, and in 1961 with a M.A.Sc. in geological engineering. I graduated from the University of California in 1966 with a Ph.D. in geology.
- 3) I have practised my profession continuously for 24 years primarily with the Placer Development Group of Companies at Craigmont, Endako and Gibraltar mines, and in mineral exploration in Canada, United States of America, Chile, Argentina, Mexico and the Philippines.
- 4) I am the author of this report which is based on published and unpublished, government and private reports, as well as an examination of the subject property on June 8, 1983.
- 5) I have no interest, direct or indirect, in the property discussed in this report or in the securities of Windflower Mining Ltd., nor do I expect to receive any.
- 6) I consent to the use of this report to satisfy requirements of the Vancouver Stock Exchange and the British Columbia Securities Commission.

Dated at Vancouver, B.C., this 22nd day of June, 1983


 A.D. Drummond, Ph.D., P.Eng.
 D.D.H. GEOMANAGEMENT LTD.
 Geological Engineer.





(Scale 1:500,000)

0 10 km

FIGURE 2

WINDFLOWER MINING LTD.

WIND 1 MINERAL CLAIM LOCATION MAP

BABINE LAKE AREA,

BRITISH COLUMBIA

(To accompany a report by A. D. Drummond, P.Eng.)

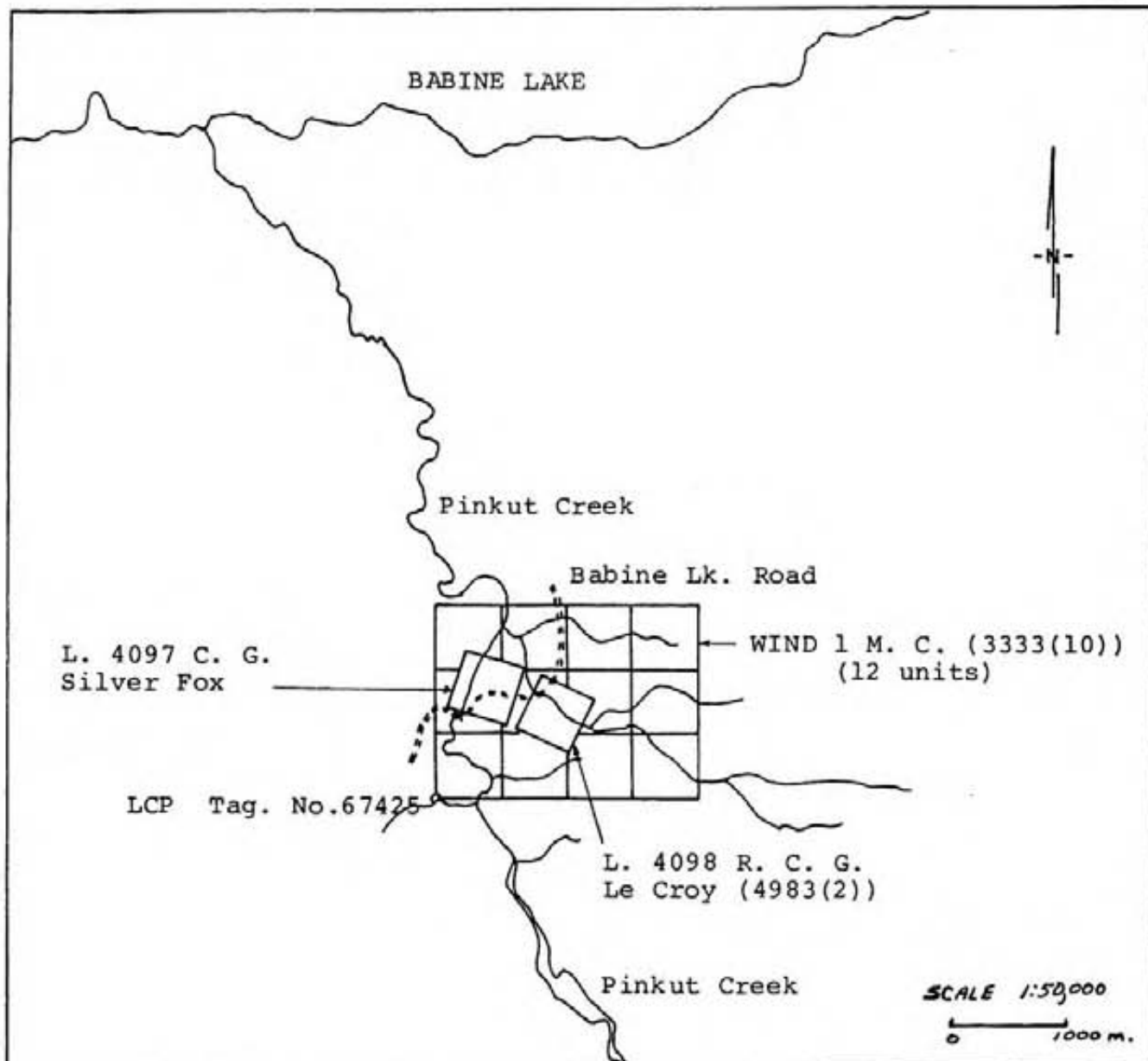


FIGURE 3

WINDFLOWER MINING LTD.CLAIM MAP

OMINECA MINING DIVISION, B.C.

June 1983

(To accompany a report by A.D. Drummond, P.Eng.)

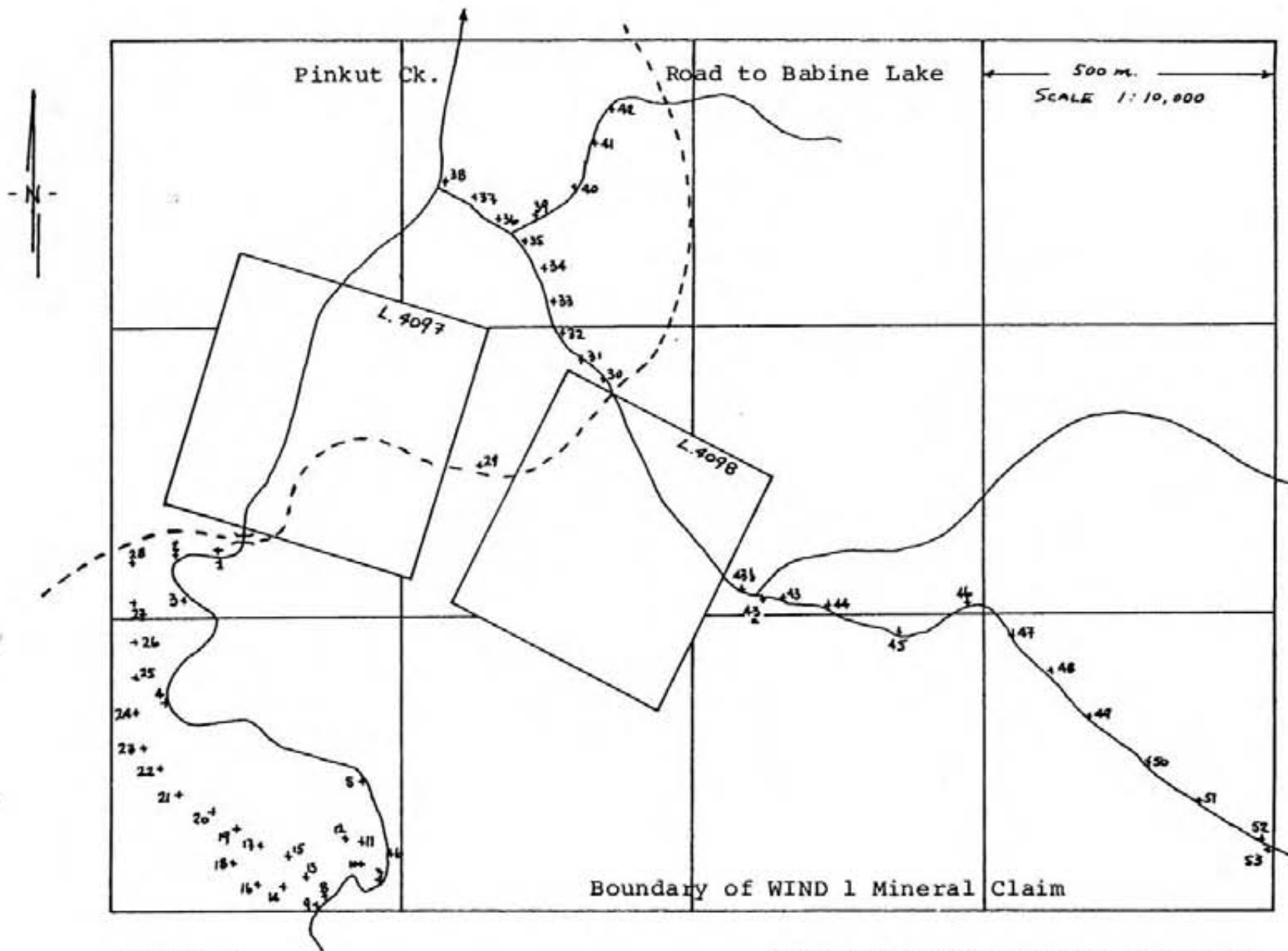


FIGURE 4

WINDFLOWER MINING LTD.

GEOCHEMICAL SAMPLE SITE LOCATIONS

(After G. Ryznar, P.Eng. (1982))

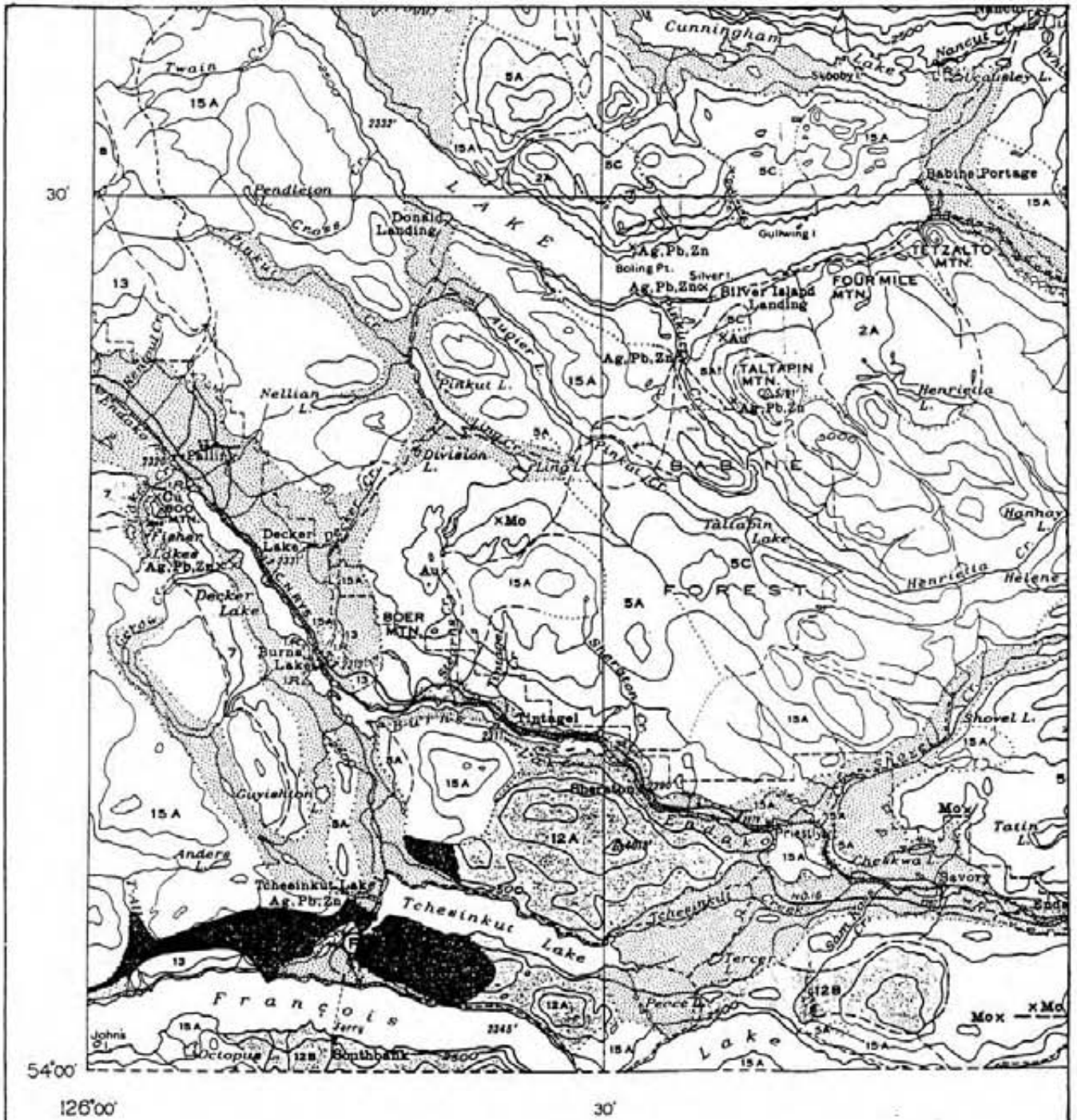
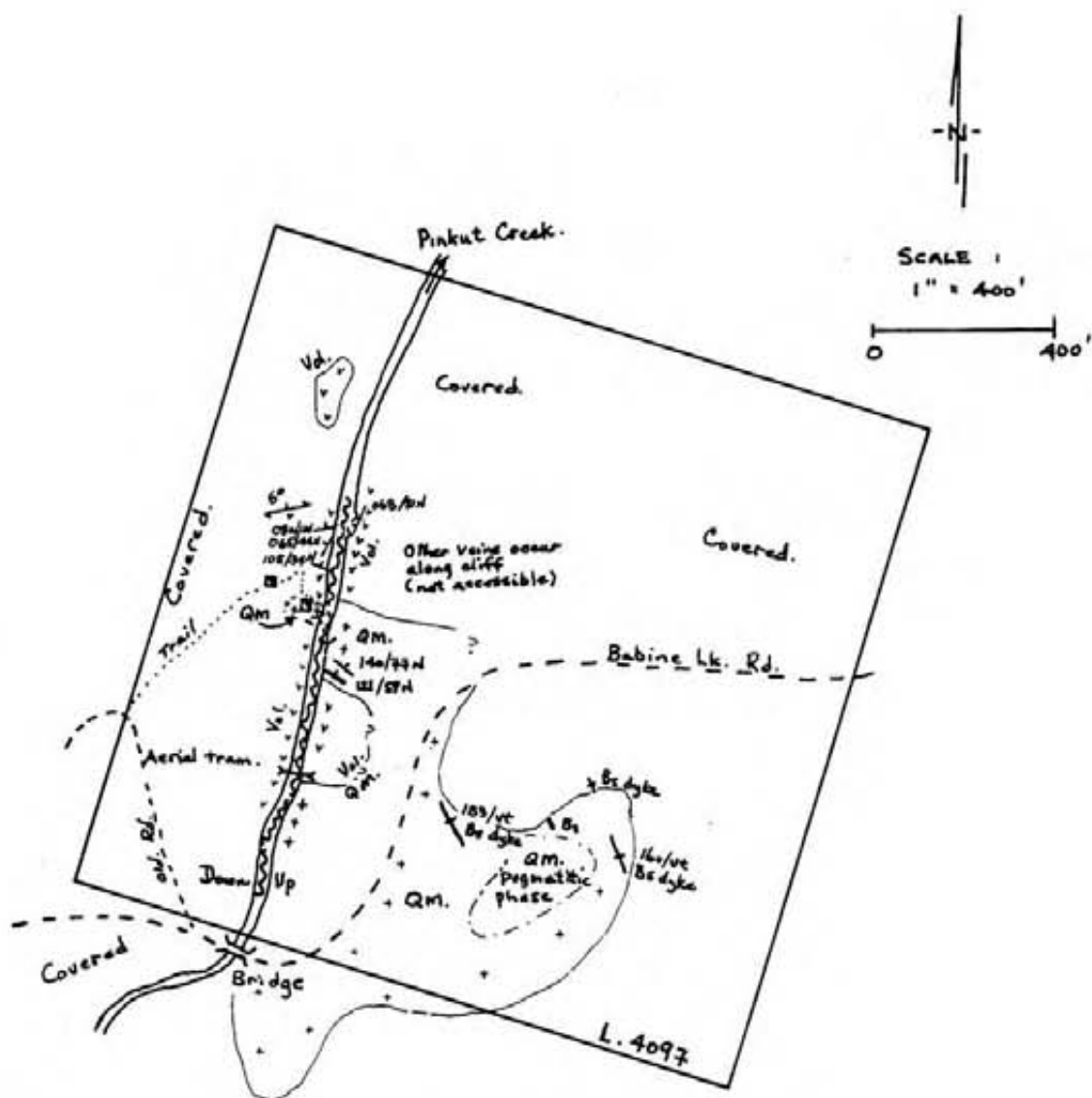


FIGURE 5

REGIONAL GEOLOGY
SOUTHERN BABINE LAKE AREA

Geology after Armstrong, MAF 907A
 Fort St. James, B.C.
 Scale 1 inch = 6 miles
 (See text for legend)

(To accompany a report by A.D. Drummond, P.Eng.)

**LEGEND.**

- | | | | | | |
|--|-------------------------|--------------------|---------------------------|--|--------------|
| | Attitude of quartz vein | $\frac{1}{2}$ Qm. | Quartz Monzonite | | Adit |
| | Attitude of foliation | $\frac{1}{2}$ Vol. | Volcanic Rocks | | Shaft |
| | Attitude of basalt dyke | | Limit of outcrop | | Aerial tram. |
| | Fault | | Limit of pegmatitic phase | | Bridge |

FIGURE 6

WINDFLOWER MINING LTD.PROPERTY GEOLOGYSILVER FOX CROWN GRANTED MINERAL CLAIM

(To accompany a report by A.D. Drummond, P.Eng.)

APPENDIX A

Taltapin Mining Co. Ltd. Internal
Letter of August 7, 1928 by R.M.
Morgan, General Manager, including
Report of Provincial Assayer (B.C.)

TALTAPIN MINING COMPANY LIMITED

Office:

612 VANCOUVER BLOCK
VANCOUVER, B.C.

Directors:

W. C. STEARMAN
President
CAPT. DAVID BAIRD
Vice-President
W. D. GILLESPIE
Secretary-Treasurer
R. M. MORGAN
General Manager
ARTHUR WOOD
WM. GREENLEES

The Directors,
Taltapin Mining Co. Ltd.,
Vancouver, B. C.

August 7th, 1928.

Dear Sirs,

The shaft on the Silver Fox mineral claim on Anderson Creek is sunk to a depth of 145 feet. At 107' I encountered an ore lead standing at a high angle from 85 to 87 degrees. At 120' the ore vein widened out from 18" to 20" giving the following assays:-

Gold \$2.40; Silver \$17.78; Copper \$1.68; Lead \$7.32; Zinc \$9.13;
Gross Value \$38.31.

Gold \$7.20; Silver \$38.64; Copper \$3.36; Lead \$21.00; Zinc \$15.18;
Gross Value \$85.38.

This lead pinched at a depth of 130' but came in strong again at 145' and widened out to about 15" and assayed as follows:-

Gold \$3.20; Silver \$172.32; Copper trace; Lead \$13.92; Zinc \$15.00;
Gross Value \$204.44;

On our last round of shots we encountered a greater volume of water and had to abandon our shaft as our pumps were not large enough. I decided to drive a tunnel from the high-water mark in the creek from the side of the ravine to try and cut off the water in the shaft. At 63' in this tunnel we cross-cut a mud seam from 12" to 15" wide through which I believe the water is getting into the shaft. At 85' we encountered an ore lead which we drifted on for 90' and at that point we encountered another ore lead running in a North Easterly direction which appears to be the same ore lead we were sinking on in the shaft. I strongly recommend 2 cross-cut in the tunnel 35' long to be driven at a point 150' from the entrance of the tunnel to encounter further ore leads that appear on the surface.

The possibilities of stopping the water in the shaft are favorable and I recommend sinking on the mud seam to a depth of 25'. This will place us about 35' below the creek and by putting in a sump this water could be turned back to the creek through the tunnel. If the water cannot be stopped in the present shaft I would recommend sinking a standard shaft about 150' west of the present one away from water trouble which would enable us to handle a much larger tonnage of ore.

The Sunrise claims about $3\frac{1}{2}$ miles E.E. of the main workings have a number of strong quartz leads, the widest being about 60', outcroppin in a number of places and traceable across several claims. I cross-cut thi lead in 2 places, also did some work on the other leads and sank a shaft about 20'. There is a good showing of molybdenite ore, also traces of Gold and Silver. This part of the property should be diamond drilled and the shaft should be sunk deeper as this is one of the best surface showings I have ever seen and should develop a very large tonnage. A further expenditure of \$25,000.00 should put this property on a shipping basis.

Yours truly,

"R. M. Morgan"

General Manager.

CERTIFICATE OF ASSAY of two Samples of Ore, Lead Zinc sulphides received from Taltapin Mining Co. Ltd. Vancouver Block.

Mark	Gold ozs per ton	Value per ton	Silver ozs per ton	Value per ton	Copper per cent	Value per ton
SILVER; FOX SHAFT (120 ft)						
"A"	0.36	\$7.20	67.8	\$38.64	1.2	\$3.36
"B"	0.12	\$2.40	31.2	\$17.78	0.6	\$1.68

Lead per cent	Value per ton	Zinc per cent	Value per ton	Gross Value per ton 2000 lbs.
17.5	\$21.00	13.8	\$15.18	\$85.38
6.1	\$ 7.32	8.3	\$ 9.13	\$38.31

Gold Calculated at \$20.00 per oz

Silver " .57¢ "

Copper Calculated at 14¢ per lb.

Zinc " 5½¢ "

Lead " 6¢ "

"P. W. Thomas"

Provincial Assayer.

APPENDIX A

CERTIFICATE OF ASSAY of one Sample of Ore, Lead Zinc sulphides in Quartzite received from Taltapin Mining Co. Ltd. Vancouver Block.

Mark	Gold : ozs : per ton	Value per ton	Silver : ozs : per ton	Value per ton	Lead : per : cent	Value per ton	Zinc : per : cent	Value per ton
Shaft 140 ft:	0.16	\$3.20	257.2	\$172.32	11.6	\$13.92	12.5	\$15.00

Gross Value per ton 2000 lbs. \$204.44.

Gold Calculated at \$20.00 per oz
Silver " .67¢ "

Zinc Calculated at 6¢ per lb.
Lead " 6¢ "

"P. W. Thomas"

Provincial Assayer.

APPENDIX B

Cominco Ltd., Trail, B.C. Assay
Certificate, Serial No. 8215
(O.P.447) dated August 27, 1970

APPENDIX B



Mr. R. Coombs
General Delivery
Williams Lake, B.C.

August 31, 1970

Dear Mr. Coombs:

We have completed an assay of the ore sample forwarded with your letter of August 4 and I enclose certificate No. 8215 (O.P. 447) for your information.

Ore of the sample grade would be valued at about \$319 per ton delivered to Trail and based on the Cominco Open Schedule for Purchase of Lead Ores and July 1970 metal prices.

We are prepared to accept a trial truckload of the ore but before shipping, you should forward me some proof of ownership (a copy of your lease) and advise me in advance of your actual shipment.

Yours very truly,

W. J. Coombs

Enc.

Assay Certificate



Uranium

Date Aug. 27 19 70

Cominco Ltd., Trail, B.C.

Description Ores Purchasing	Lot	oz/ton	oz/ton	%	%	%	%	<i>Calcium alum.</i>			U ₃ O ₈
		<i>Au</i>	<i>Ag</i>	Pb	Zn	SiO ₂	Fe	CaO	Al ₂ O ₃		
R. Cocobs	O.P. 447	.195	184.0	6.8	9.8	68.6	2.5	.2	1.4		.01
Cre sample											

APPENDIX B

Serial No. 8215

Supervisor *C. J. Mitchell*

APPENDIX C

Bondar-Clegg and Co., Ltd., North
Vancouver, B.C., Geochemical Lab.
Report No. 122-2780 dated 28 Aug.,
1982



APPENDIX C

REPORT: 122-2780 PROJECT: NONE GIVEN

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Mo PPM	As PPM	NOTES	SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Mo PPM	As PPM
S 01		20		0.2		S 41		135	3	0.4
S 02		25		0.2		S 42		101	6	0.6
S 03		24		0.2		S 43		43	3	0.2
S 04		22		0.2		S 43A		58	3	0.2
S 05		13		0.2		S 43B		40	3	0.2
S 06		26		0.2		S 44		41	2	0.2
S 07		13		0.2		S 45		43	3	0.2
S 08		36		0.2		S 46		48	3	0.3
S 09		58		0.2		S 47		49	3	0.3
S 10		640		3.2		S 48		44	4	0.2
S 11		270		4.2		S 49		33	3	0.2
S 12		1020		14.0		S 50		32	2	0.2
S 13		24		0.2		S 51		40	3	0.2
S 14		7		0.2		S 53		32	3	0.2
S 15		7		0.2						
S 16		12		0.2						
S 17		9		0.2						
S 18		8		0.2						
S 19		6		0.2						
S 20		5		0.2						
S 21		8		0.2						
S 22		7		0.2						
S 23		8		0.2						
S 24		14		0.2						
S 25		25		0.2						
S 26		12		0.2						
S 27		12		0.2						
S 28		14		0.2						
S 29		361		0.5						
S 30		19	2	0.2						
S 31		60	3	0.3						
S 32		44	3	0.2						
S 33		68	3	0.4						
S 34		52	2	0.2						
S 35		48	2	0.2						
S 36		44	1	0.3						
S 37		44	1	0.2						
S 38		42	2	0.2						
S 39		163	3	0.8						
S 40		174	2	0.8						

STATEMENT OF COSTS INCURRED
FOR GEOLOGICAL EVALUATION REPORT
ON WIND 1, SILVER FOX, and LECROY MINERAL CLAIMS
OMINECA MINING DIVISION, BRITISH COLUMBIA

Fees, Salaries, Wages

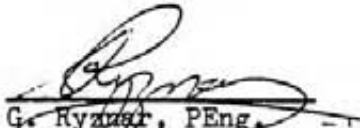
A.D. Drummond - Consultant Fees	
June 8, 1983 - Field Time - 1 day @\$400/day	\$ 400.00
June 9- 13, 1983- Report writing & preparation 2.5 days @ \$400/day	\$1000.00
G. Ryznar, P.Eng. - Field Time 1 day at \$400/day	\$ 400.00

Travel Expenses

Car rental	\$142.85	
Air Fares	<u>\$488.20</u>	
		\$ 631.05

Office Expense - typing, drafting, xerox	\$ 300.00
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Total Costs	<u>\$2731.05</u>
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G. Ryznar, PEng.
Oct. 17/1983