

84-1428-13310
11/85

COMBINED GEOLOGICAL REPORT

ON THE

WINDY 2 CLAIM

^{050Y005}
SIMILKAMEEN MINING DIVISION

49° 20' Latitude - 120° 06' Longitude

FOR

THUMPER RESOURCES CORPORATION

#7040 - 625 Howe Street

Vancouver, B.C., V6C 2T6

BY

Guy A. Royer, B.Sc.

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Vancouver, B.C., V6C 1E2

FEBRUARY 26, 1985

13310



Province of
British Columbia

Ministry of
Energy, Mines and
Petroleum Resources

ASSESSMENT REPORT
TITLE PAGE AND SUMMARY

TYPE OF REPORT/SURVEY(S)

Geological

TOTAL COST

4,500^{xx}

AUTHOR(S)

Guy A. Royer
Trans-Arctic Explorations Ltd.

SIGNATURE(S)

Guy A. Royer

DATE STATEMENT OF EXPLORATION AND DEVELOPMENT FILED

Nov. 28/85

YEAR OF WORK

84

PROPERTY NAME(S)

Windy #2 - 1626 (11)

COMMODITIES PRESENT

N/A

B.C. MINERAL INVENTORY NUMBER(S), IF KNOWN

N/A

MINING DIVISION

0504005

NTS

92 H/8 E

LATITUDE

49° 20'

LONGITUDE

120° 06'

NAMES and NUMBERS of all mineral tenures in good standing (when work was done) that form the property [Examples: TAX 1-4, FIRE 2 (12 units); PHOENIX (Lot 1706); Mineral Lease M 123; Mining or Certified Mining Lease ML 12 (claims involved)]:

Windy #2 - 1626 (11) 20 units

OWNER(S)

(1)

Thumper Resources Corp.

(2)

MAILING ADDRESS

1140-625 Howe St.

Vancouver B.C. V6C-2T6

OPERATOR(S) (that is, Company paying for the work)

(1)

Same as above

(2)

MAILING ADDRESS

Same as above

SUMMARY GEOLOGY (lithology, age, structure, alteration, mineralization, size, and attitude):

Nicola Group of rocks

REFERENCES TO PREVIOUS WORK

Geophysical Airborne 1983 same property
for Western Informational Services; by Columbia Geophysical
Services

(over)

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS				COST APPORTIONED
GEOLOGICAL (scale, area)						
Ground					
Photo					
GEOPHYSICAL (line-kilometres)						
Ground					
Magnetic					
Electromagnetic					
Induced Polarization					
Radiometric					
Seismic					
Other					
Airborne					
GEOCHEMICAL (number of samples analysed for)						
Soil					
Silt					
Rock					
Other					
DRILLING (total metres; number of holes, size)						
Core					
Non-core					
RELATED TECHNICAL						
Sampling/assaying					
Petrographic					
Mineralogic					
Metallurgic					
PROSPECTING (scale, area)						
PREPARATORY/PHYSICAL						
Legal surveys (scale, area)					
Topographic (scale, area)					
Photogrammetric (scale, area)					
Line/grid (kilometres)					
Road, local access (kilometres)					
Trench (metres)					
Underground (metres)					
					TOTAL COST	.....
FOR MINISTRY USE ONLY		NAME OF PAC ACCOUNT	DEBIT	CREDIT	REMARKS:	
Value work done (from report) .....		.....	.....	.....	.....
Value of work approved .....		.....	.....	.....	.....
Value claimed (from statement) .....		.....	.....	.....	.....
Value credited to PAC account .....		.....	.....	.....	.....
Value debited to PAC account .....		.....	.....	.....	.....
Accepted	Date	Rept. No.	Information Class	

GEOLOGICAL BRANCH
ASSESSMENT REPORT

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13,310

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end of report

SUMMARY

The area under discussion is owned by Thumper Resources Corporation and consists of 20 units located in the vicinity of Hedley in south-central British Columbia. The Windy 2 claim lies south of the Similkameen River within two kilometers of Hedley, being accessible by a series of two-wheel drive logging roads. The claim is five kms from the Hedley Mascot Nickel Plate Gold Mines which ceased primary production in 1955. The currently active Banbury Gold Mine is one kilometer northwest.

Two contrasting rock types are present on the claim. The Nicola group of Upper Triassic Age, consisting of sediments, is intruded by Jurassic granodiorites of the Coast Intrusions. Only in the southwestern part of the claim was the latter rock type noted. Traces of sulphides are quite ubiquitous in almost all of the sediments mapped but none are visible in hand specimens in the granodiorite. Some skarn was also noted on the southwest part of the claim.

INTRODUCTION

On behalf of Thumper Resources Corporation, the writer mapped most of the surface outcrops on the Windy 2 claim. The writer was engaged in mid May being contracted by Trans-Arctic Explorations. The mapping scale used was 1:5,000. He was assisted by E. Dodd and F. Myberg.

PROPERTY AND OWNERSHIP

<u>Claim Name</u>	<u>No. of Units</u>	<u>Record No.</u>	<u>Expiry Date</u>
Windy #2	20	1626	Nov. 4, 1984

The expiry date shown does not take into account the work under discussion as being accepted for assessment credits.

The claim is owned by Thumper Resources Corporation of Vancouver, British Columbia.

LOCATION AND ACCESS

The Windy 2 claim is located at geographical co-ordinates 120° 06' longitude and 49° 20' latitude. Access to the Windy 2 claim is made possible by following a long series of two-wheel drive logging roads which splay off the Whistle Creek main haulage road, which commences south from Highway #3 approximately seven kilometers west of Hedley. This road runs along the western side of Whistle Creek (Stirling Creek) approximately four km south at the confluence of Pettigrew Creek, a second road branches to the southeast. This second road leads you approximately ten km farther to the property. One must use a snowmobile during the winter months.

PHYSIOGRAPHY

This area is located in the south end of the Thompson Plateau. The Okanogan valley lies eastward, the Cascade mountains westward and the Cathedrals southward. Being a part of the Plateau, the topography is quite subdued by Cordilleran standards featuring rounded, prominent hills. The terrain is often deeply incised by valleys. A small creek flows through the heart of the Windy 2 claim. The relief of the claim varies from 850 meters to 1,500 meters above sea level, with the highest elevation in the southwestern part. Precipitous cliffs are located on the north part of the claim on the edge of the creek.

FLORA

The Windy claim is moderately forested with spruce and fir being the dominant tree types. The creek valley is thickly forested with much fir and birch. The hills are sparsely forested and are covered by grass and a few shrubs.

FAUNA

Many domestic cattle and a few horses are present on the claim, though not in winter. The most prolific large wild animals include black bear, mule deer and cougar.

CLIMATE

Summers are quite arid and hot. By coastal standards winters are cool with moderate snowfall. The higher elevations have somewhat cooler and damper conditions than the valley floor.

EXPLORATION LOGISTICS

The year-round small creek which flows through the heart of the claim would provide sufficient water for drilling purposes. A good supply of timber is present on the Windy 2 claim. Any required supplies would be easily attainable from Princeton or Penticton. Truck and rail services are available in both centers with Penticton being serviced by commercial airlines. Hedley is serviced with regular Greyhound Bus express and passenger service.

HISTORY OF PREVIOUS WORK

The Hedley area has received attention from miners and prospectors for well over a century. Placer miners worked the area the 1860's, the first lode claims being staked in 1894 on Nickel Plate Mountain. Periods of gold production were 1904-1927 and 1934-1955. Recently Banbury has undertaken major underground and surface development work on its property. The Banbury Mine is contiguous to the Windy 2 claim.

GENERAL DESCRIPTION OF ROCK TYPES

The Nicola group of rocks are Upper Triassic in age and they cover a greater percentage of the Princeton area than any other map unit. They are composed mainly of lavas whose thickness is unknown. The common type is a massive andesite porphyry with a groundmass of andesine, pyroxene, chlorite epidote, actinolite and magnetite; phenocrysts of either plagioclase or pyroxene are present. The sedimentary rocks in the sequence are usually more restricted, they are usually found as lenses of tuffaceous, argillaceous and carbonate rocks.

The Nicola group was first named in 1877 by Dawson. In 1940, Bostock divided the group bottom into: (1) Redtop formation; (2) Sunnyside formation; (3) Hedley formation; (4) Henry formation and (5) Wolf Creek formation. This group contains most of the mineralized zones known in the Princeton area. The Redtop is recognized by thin, light and dark grey quartzite beds. The Sunnyside consists of alternating thin and thick beds of limestone. The Hedley formation consists of thinly bedded, pure and impure limestones and quartzites intercalated with massive limestone beds. The Henry formation essentially consists of black argillite, tuff and impure limestone whilst the Wolf Creek formation is conformable with the Henry and consists of the aforementioned rock types. In general, the Nicola rocks are only mildly metamorphosed, the group represents an epoch of widespread vulcanism. The lavas were poured into a deep and extensive marine basin of great extent, it was of such depth that only a little quartzite was deposited.

The granodiorites are of Lower Cretaceous age and are often correlated with the Coast Range intrusions. All these rocks are gradational but in the Princeton area it is possible to distin-

guish three types of granodiorite. The grey variation has a normal granitic texture, its average composition being that of a tonalite. The red granodiorite is coarser grained and is variable in texture and grain size with aplitic and pegmatitic phases. The white granodiorite has a fine to coarse grained texture, needles of amphibole and typically adioritic composition.

GEOLOGY OF THE WINDY 2 CLAIM

The majority of the rocks on the Windy 2 claim are sedimentary, the igneous rocks are restricted to the southwestern portion of the claim. These sediments belong to the Nicola group and are Upper Triassic in age. The most abundant rock is black aphanitic argillite. There is some variation in its composition and grain size, often being quite calcareous or siliceous. Indeed some beds grade into chert. The content of the argillite can be somewhat deduced by its hardness and weathering characteristics even when the rock is aphanitic. Where the silica calcareous content of the rock is particularly prominent, the rocks often contain numerous quartz and calcite veinlets. These veinlets usually measure only three cm or less. Frequently quartz and calcite are intercalated within one vein. The argillites are somewhat arbitrarily divided into three categories which include the "typical" black aphanitic argillite, siliceous argillite and calcareous argillite. Some of the argillites on the eastern portion of the claims reveal excellent slaty cleavage - these could be called slates.

Some of the argillites with increasing grain size grade into siltstones or sandstones. Flecks of biotite up to two mm long were frequently noted as was the occasional gypsum crystal. The argillite is very well fractured but in some outcrops the bedding

planes are impossible to discern. Carbonate is the second most abundant rock. It is a soft buff to yellowish rock, frequently quite vuggy. Beyond the southeast claim boundary much skarn is associated with this rock. The carbonate is closely interbedded with siliceous and argillaceous rocks, particularly the former. It is quite fine grained and lacks visible sulphides. The quartzites have a restricted distribution. The beds are usually no more than a few cm thick and are in close proximity to the carbonates.

The argillites almost always contain visible sulphides. These usually occur as tiny flecks barely visible to the naked eye. They occur usually in trace amounts, though in a few cases they compose about 3% of the rock. Pyrite was usually the only sulphide noted, though in a few cases pyrrhotite was spotted. On the southwest corner of the claim a couple of flecks of galena and chalcopryite were identified. Although quartz calcite veining was frequently noted, there was no discernable correlation between their occurrence and that of the sulphides. None of the veins seen had any visible mineralization. No pyrite was noted in the igneous rocks.

Skarn is found only on the southwestern area of the Windy 2 claim. It is intimately associated with carbonate. The carbonate here is very fine grained and dark grey in colour. Igneous rock is in the vicinity and obviously the skarn evolved metasomatically. The skarn is frequently porphyritic with a grey groundmass. The phenocrysts are composed of tremolite, actinolite, diopside and epidote. These phenocrysts are no more than three mm long. A little wollastonite and rutile may be present. This skarn contained traces of sulphides including traces of galena and chalcopryite.

The igneous rock is found only in the southwestern portion of the claim. A topographically conspicuous pluton is located here with

outcrops found only on the southern edge of it. It is somewhat variable in composition and grain size but is probably of granodiorite composition. The coarser grained phase is more felsic in composition with colour index of 15. The grain size varies from four to ten mm. Quartz composes at least 25% of rock with biotite being the only common mafic. Depending upon the feldspar composition, the rock may be a true granite. The fine grained phase is more mafic with a colour index of 35. The grain size varies from one to three mm. The rock is dark grey in colour; biotite is the most prolific mafic. A little hornblende and quartz are present. On the southern edge of the claim on the contact with the sediments, this rock is quite heavily altered. It is very rusty and friable. The reaction of this rock with the carbonates obviously produced the skarn. Also in intimate proximity are layers of quartzite and argillite. The igneous intrusion probably affected them also.

STRUCTURAL GEOLOGY OF THE WINDY 2 CLAIM

No faulting was apparent on the Windy 2 claim. The variation in the sedimentary rocks would solely result from facies changes and not faulting. Small scale folding was detected on the western extent of the claim. These folds had an amplitude of about 15 cm and were plunging away from the igneous pluton. Thus this intrusion was probably responsible for the folding. Most of the argillites are heavily fractured and the rock tends to break along cleavage planes rather than bedding planes. Two main fracture orientations are usually discernable in one outcrop but these orientations are quite variable between outcrops. The other rock types are also fractured but not to the degree that the argillites are. The dips of the strata are relatively gentle compared to

those toward the east or north. It is often impossible to discern any bedding planes in an outcrop with the exception of the slates. Where measureable the argillites typically have a thickness of ten to thirty-five cm, carbonates six to twenty cm, skarn seven to eighteen cm. On the northern edge of the claim the argillite beds are only three cm thick and many quartzite beds are just as thin.

Whether the fracturing of the argillites is due primarily to tectonic forces or to the top (up-welling) plutonic intrusions is difficult to determine though both probably played a role. Actually the structures in the area probably resulted from both causes.

STRUCTURAL GEOLOGY - REGIONAL

The structure of the Princeton area is rather imperfectly known mainly because it is underlain by igneous rocks. Three generations of folding are recorded; (1) Early Cretaceous, (2) Late Cretaceous/Early Tertiary and (3) Mid Tertiary time. Highly complex structures have evolved from these forces. This area occupies the eastern limb of a broad and complex geosyncline with the formations being progressively older from west to east. The major faults in the area generally radiate northwards, most have a northwestern trend but those near Hedley usually strike northeast. The period of faulting commenced early in Jurassic time and continued into the early Tertiary according to the evidence of the igneous intrusions. Folding occurs in the Triassic, Cretaceous and Tertiary formations. The general trend of Nicola rocks is approximately north-south with the direction of younging being east to west. This generalized picture is complicated by a number

of quite steep folds truncated by faults.

HISTORICAL GEOLOGY

The earliest geological record in the Princeton area is of carboniferous age. These Hozameen group rocks were deposited in a marine basin which probably extended over the area. It would seem that similar conditions that produced these rocks continued into Upper Triassic time since the Nicola group also consists of marine sediments together with much lava and pyroclastic material which formed well bedded tuffs. At the end of the Triassic the sea regressed and a period of deformation commenced in the Early Jurassic along with erosion. Magmas were intruded into these deformed strata resulting in the present granodiorites. These were probably the source of the economic mineralization.

By Mid Cretaceous time unfossiliferous sediments were laid down in certain areas while in other much vulcanism occurred, resulting in lavas, breccias and tuffs. Widespread vulcanism occurred in Mid Tertiary time and the resultant volcanics are associated with sediments deposited in local lake basins. More folding and erosion occurred afterwards followed by extrusions of basalt. Most of this basalt was eroded away later on, though as late as Pliocene times basalt was extruded, In Pliocene time the area was covered by a glacier which moved generally in a southerly direction. The degree of erosion varied considerably from area to area.

ECONOMIC POTENTIAL

There are several reasons why this claim may be worthy of future study. Sulphides are quite widespread in the (Nicola) sedimentary rocks. Iron sulphides are usually the only ones visible in hand specimens but there are traces of galena and chalcopyrite in one outcrop. The iron sulphides sometimes compose up to 3% of rock so they occur in more than trace amounts.

A second compelling reason is the presence of skarn on the southwestern edge of the claim. Albeit not fully developed, this skarn does bear resemblances to that at the Nickel Plate gold mine. In both examples thin bedded stratified Nicola rocks are intruded by granodiorite. Both examples also feature heavy silicification of the rocks and development of the skarn where the granodiorite contacts the limestone.

A third reason is the proximity of the Banbury Gold mine to this property. This claim is contiguous to the Banbury crown grants. The old Nickel Plate gold mine is only a few km away.

BIBLIOGRAPHY

Billingsley, Paul and Hume, C.B. - Ore Deposits on Nickel Plate Mountain, Hedley, B.C., C.I.M.M., Vancouver, four installments, Pub: 1940, 1941.

Rice, H.M.A. - Geology and Mineral Deposits of the Princeton Map Area, B.C., Geological Survey of Canada, Memoir 243, 1960, Ottawa.

Stevenson, W.G. & Associates - Geological Report on Mineral Claims in Hedley District for Banbury Gold Mines, April, 1979, Vancouver.

Tough, Thomas R. - Preliminary Geological Report on the Jan and Louise Claim Groups, Hedley Area, B.C., February, 1983, Vancouver.

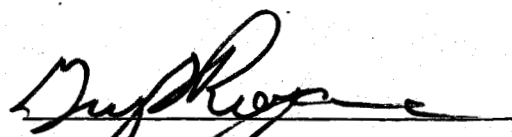
CERTIFICATE

I, Guy A. Royer am a consulting geologist for Trans-Arctic Explorations Ltd. of Vancouver, British Columbia.

I hereby certify that:

1. I am a graduate of the University of Saskatchewan with a B.Sc. degree in geology.
2. I have been practising my profession for five years.
3. I have no interest, beneficial or otherwise in the property of this company.
4. I am the author of this report, which is primarily based upon my personal observations made while in the field.

Dated at Vancouver, B.C. this 27th day of February, 1985.



Guy A. Royer, B.Sc.

THUMPER RESOURCES CORPORATIONCOST BREAKDOWN

<u>Claim Name</u>	<u>No. of Units</u>	<u>Record No.</u>	<u>Expiry Date</u>
Windy #2	20	1626	Nov. 4, 1984

Osoyoos Mining Division
N.T.S. 92H/8E
Geological Mapping

Work was conducted between May 18th to 22nd, 1984 inclusive.

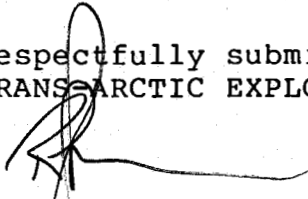
FIELD

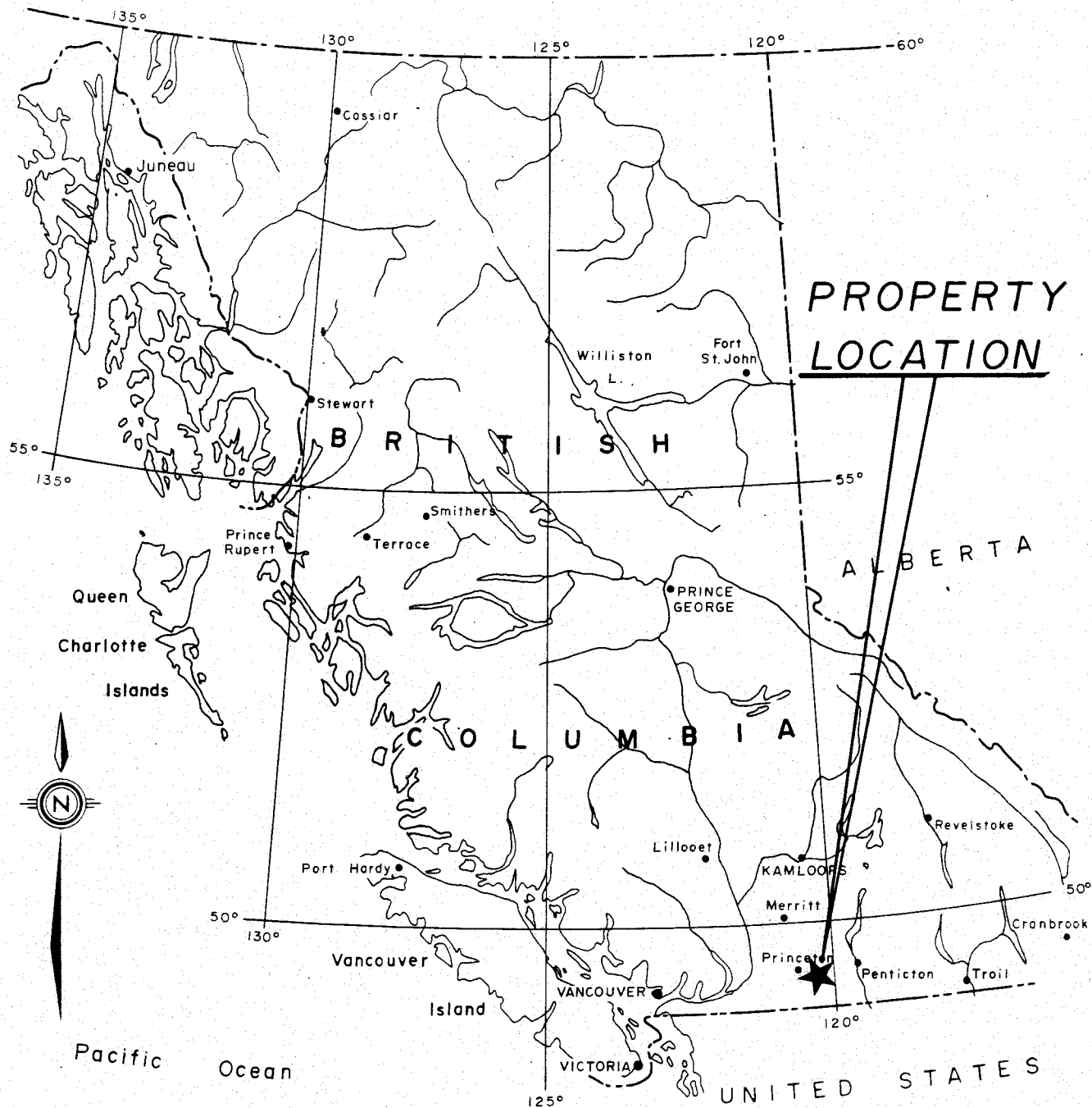
1 geologist, 45 hours at \$35/hour	\$ 1,575.00
1 assistant, 45 hours at \$15/hour	675.00
1 supervisor, 2 days at \$150/day	300.00
1 4x4, 3/4 ton truck, 5 days at \$90/day (including gas and oil)	450.00
5 days room and board, 2 men at \$100/day	500.00
	<u>\$ 3,500.00</u>

OFFICE - Report

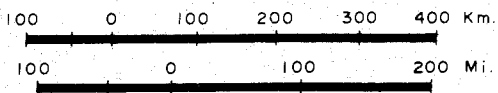
Report compilation and drafting	<u>\$ 1,000.00</u>
Grant total	<u><u>\$ 4,500.00</u></u>

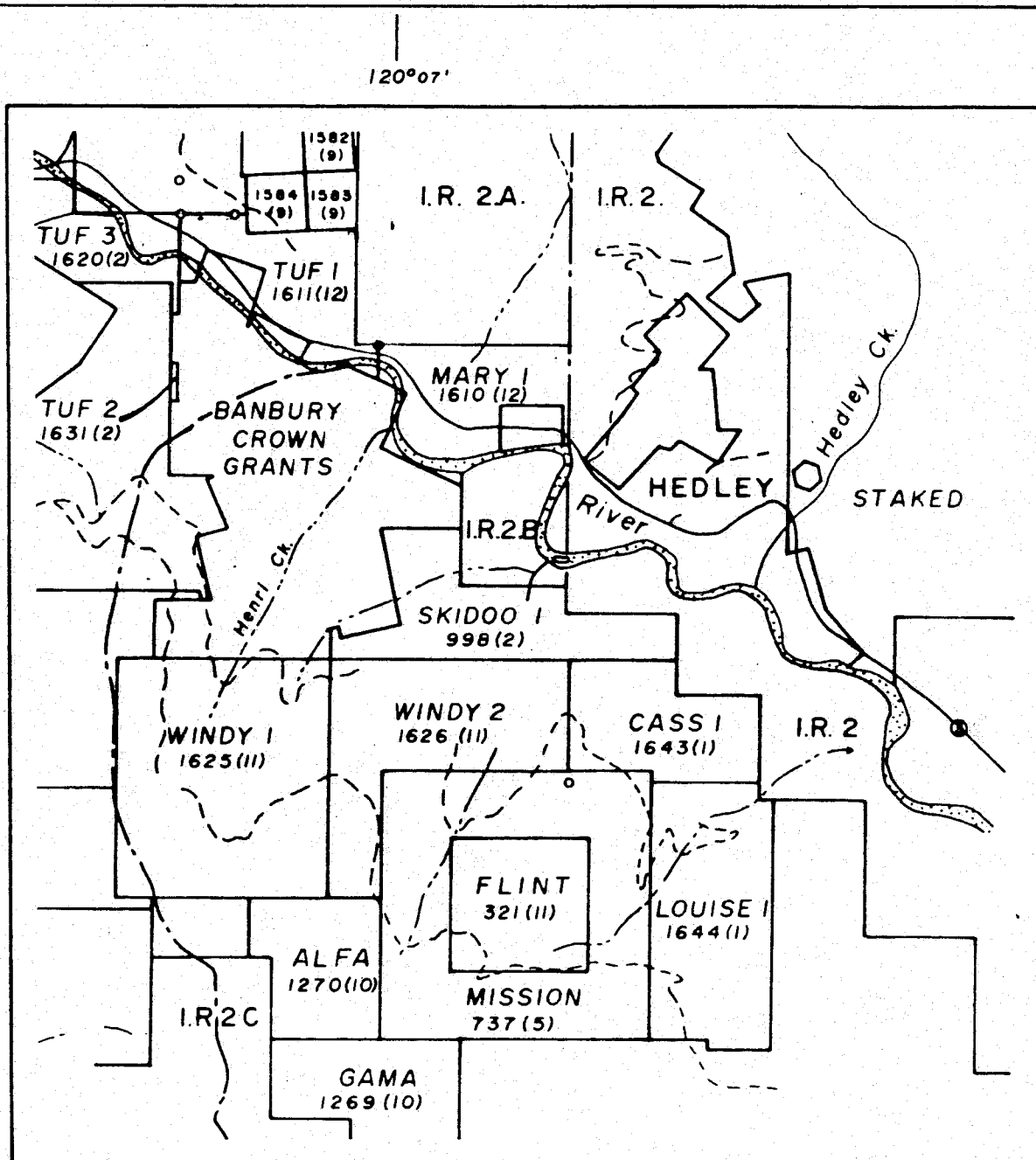
Respectfully submitted
TRANSARCTIC EXPLORATIONS LTD.


R.S. Simpson
General Manager



WINDY 2 CLAIM





1 0.5 0 1 2
KILOMETRES

THUMPER RESOURCES CORP.

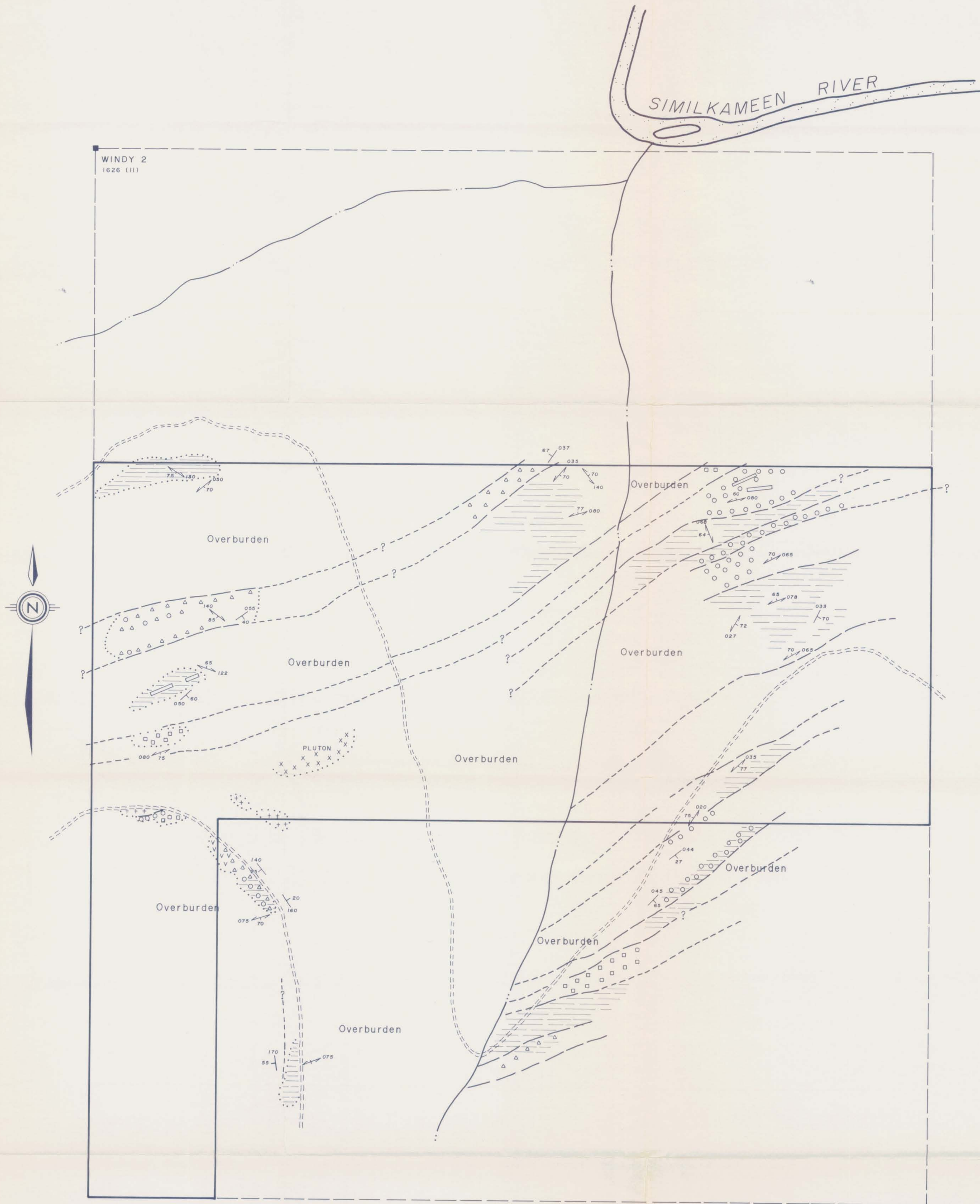
WINDY 2 CLAIM

SIMILKAMEEN RIVER, HEDLEY AREA, B. C.

SIMILKAMEEN M. D.

CLAIM LOCATION MAP

SCALE: 1:50,000	DATE: Feb. 85.	MAP: 2	N.T.S. 92 H/8 E
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LITHOLOGY

Sediments

	Argillite
<u>Variations</u>	
	Siliceous argillite
	Calcareous argillite
	Siltstone/sandstone
	Quartzite
	Calcareous rocks
	Ubiquitous quartz/calcite veinlets

Metamorphic

	Skarn
--	-------

Igneous

	Granodiorite
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SYMBOLS

	Strike and dip
	Fracture
	Geological contact, defined, inferred
	Limit of outcrop
	Road
	Creek
	Legal corner post
	Claim boundary
	Claim overlap

250 m 0 250 m

Field Work Carried Out By: TRANS-ARCTIC EXPLORATIONS LTD.

GEOLOGICAL BRANCH ASSESSMENT REPORT

13,310

To Accompany Report By: GUY ROYER, Geologist.

THUMPER RESOURCES CORP.

WINDY 2 CLAIM

SIMILKAMEEN RIVER, HEDLEY AREA, B.C.

SIMILKAMEEN M.D.

GEOLOGY MAP

SCALE: 1:5,000	DATE: Feb. 85.	N.T.S. 92 H/8 E	MAP: 3	DRAFTED BY: B.D.S.
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