

680042

MineQuest
Report 22

223 82E/01W

JAKE CLAIM

COMPILATION OF PREVIOUS WORK
AND RESULTS OF MAGNETOMETRY SURVEY

NTS 82 E 1

Latitude 49° 8'N

Longitude 118° 28'W

Greenwood Mining Division

by

R.V. LONGE

MineQuest Exploration Associates Ltd.

February 1982

CONTENTS

		<u>Page</u>
1	INTRODUCTION	1
2	LOCATION AND ACCESS	2
3	CLAIM STATUS AND OWNERSHIP	3
4	HISTORY AND PREVIOUS WORK	5
5	WORK PERFORMED BY MINEQUEST DURING 1980 and 1981	10
6	GEOLOGY	11
7	MINERALIZATION	12
8	1981 MAGNETOMETRY SURVEY	13
9	DISCUSSION	14
10	CONCLUSIONS	16
11	RECOMMENDATIONS	17
12	REFERENCES	18

ILLUSTRATIONS

Figure 1	Location Map (Plan 221)	after page 2
Figure 2	Geology of SEATTLE Showing by G.R. Peatfield	after page 6
Figure 3	Ownership (Plan 223)	in pocket
Figure 4	Previous Work (Plan 222)	in pocket
Figure 5	Sample Locations and Results (Plan 150)	in pocket
Figure 6	Magnetometer Survey (Plan 370)	in pocket

TABLES

		<u>page</u>
Table I	Status of Claims, Crown Grants and reverted Crown Grants within or near to the JAKE claims	4
Table II	The SEATTLE Group, names and previous work	6
Table III	The HUMMINGBIRD Group, names and previous work	8
Table IV	The SAILOR BOY - SHICKSHOCK Group, names and previous work	9

APPENDICES

- Appendix I Part of Geologic map by Reinsbakken
1969 as reproduced in Peatfield 1978
- Appendix II Capsule accounts of mineral occurrences
within the SEATTLE camp by G.R.
Peatfield
- Appendix III Selected pages from Minfile
- Appendix IV Selections from published material
- Appendix V Assay Reports
- Appendix VI Cost Estimates

1.

INTRODUCTION

During the summer of 1980, MineQuest Exploration Associates operated a regional mapping program in the vicinity of Greenwood, B.C. on behalf of Utah Mines Ltd. and W.R. Financial Consultants Ltd. This mapping program was directed at identifying stratigraphic units equivalent to those containing the Phoenix ore body.

One of the outcomes of this program was the staking of the JAKE claims over a zone of magnetite-chalcopyrite skarn known as the SEATTLE showing. It soon became apparent that the limestone containing the skarn did not correlate with that at Phoenix and that the skarn body, unlike the Phoenix orebody was adjacent to a diorite and was of demonstrably contact metasomatic type.

The width of the skarn zone (up to fifteen metres) was attractive as were some moderately high values in gold indicated by initial sampling. Subsequent sampling, however, failed to indicate that better gold values were persistent and in fact suggested that the deposit was of sub-economic grade. Following a compilation by MineQuest of previously-performed work, Utah Mines and W.R. Financial decided against further work on the property.

In 1981 MineQuest carried out a magnetometer survey to test for extension of the skarn zone. This report incorporates the compilation of previous work, the sampling in 1980, and the magnetometer survey in 1981.

2. LOCATION AND ACCESS (Figure 1)

NTS 82E 1

Latitude: 49°08'N Longitude: 118°28'W

The property is accessible by one kilometre of gravel road which joins the paved road on the west of the Granby River, 15 kilometres north of Grand Forks, B.C.

3. CLAIM STATUS AND OWNERSHIP (Table I)

Figure 3 shows the area covered by the JAKE claim (formerly two claims) and the location and ownership of neighbouring crown grants and reverted crown grants.

The JAKE claim is owned by MineQuest Exploration Associates Ltd.

For the purposes of this report the crown grants and reverted crown grants in the vicinity of the JAKE claim are divided into three groups: a southern group, termed the SEATTLE group, a HUMMINGBIRD group in the north-east, and SAILOR BOY - SHICKSHOCK on the north-west.

The registered owner of the five reverted crown grants referred to as the SEATTLE group is G. Allen of Calgary, Alberta. The crown grants have been under option to Green Bluff Copper Mines Ltd. which is believed to have acquired ownership.

Four of the reverted crown grants within the HUMMINGBIRD group are registered under W.J. Coulter of Vancouver, the others by various individuals listed in Table I.

The two reverted crown grants forming the SAILOR BOY-SHICKSHOCK group are owned by Noranda Exploration Co. Ltd.

As can be seen from Figure 3, the northern part of the JAKE claim is free of ground held by others.

TABLE I

STATUS OF CLAIMS, CROWN GRANTS AND REVERTED CROWN GRANTS WITHIN OR NEAR JAKE CLAIMS

<u>Type*</u>	<u>Name</u>	<u>Grant #</u>	<u>Record #</u>	<u>Due Date</u>	<u>Registered Owner</u>	<u>Other Parties With Interest</u>
Rev CG	Seattle	L652	1861	Nov/86	G. Allen	Optioned to Green Bluff Copper Mines Ltd., ownership believed to have been transferred.
Rev CG	Loyal Canadian	L1608	1994	Jan/82	G. Allen	
Rev CG	Bunker Hill	L1609	1995	Jan/82	G. Allen	
Rev CG	Virginia City	L1606	1997	Jan/82	G. Allen	
Rec CG	No. 1	L1362	1996	Jan/82	G. Allen	
Rev CG	Hummingbird Fr	L1249	36999	Mar/89	W.J. Coulter	
Rev CG	Mammie	L1246	37000	Mar/89	W.J. Coulter	
Rev CG	OK	L1478	36997	May/83	W.J. Coulter	
Rev CG	Hummingbird	L1369	36998	Mar/89	W.J. Coulter	
CG	Jennie May	L1248	Held by Title		L.V. Shannon, 3912 9th Street, Dawson Creek	
Rev CG	Blacktail	L2284	2546	Dec 11/81	Keith George, Box 376, Keremeos	
Rev CG	No. 3 Fr	L2286	2552	Dec 11/81		
Rec CG	Sailor Boy	L1093	36732	Aug 81	Noranda Exploration Co. Ltd.	
Rev CG	Shickshock	L992	36731	Aug 81		
LC	Jake		2739	Jun 8/85	MineQuest Exploration Associates Ltd.	

TABLE I

* LC: Located Claim
CG: Crown Grants
Rev CG: Reverted Crown Grants

4. HISTORY AND PREVIOUS WORK

Figure 4 shows the areas covered by Assessment reports.

Seattle Group

Table II summarizes previous work reported for the area of the SEATTLE group. Work appears to have begun on the SEATTLE showing itself in 1896 with 30 feet of tunnel. Later the Canadian Smelting Company of Trail carried out a further 270 feet of drifting. The information derived from this work is not available in the public domain, although records may exist in Cominco files. Several shipments of copper were made in 1923. By this time additional tunnels had been dug. A further 21 feet of drifting were carried out in 1928. Thereafter, the property remained dormant until 1969 when geological mapping magnetometry and geochemistry were performed over the skarn zone on the north boundary of L652 (Assessment Report 2073).

A gap in the record is indicated by the mention in Assessment Report 2073 of three holes drilled by Ryslo Silver Mines Ltd. Major Resources which took over the records of Ryslo Silver Mines have no record of those drill holes. The then owner of the crown grants, Mr. Isaac Wiebe of Grand Forks, remembers the drilling and recollects seeing the core but has no record of any assays. The Registrar of Companies in Victoria remains a possible source of information on the drilling.

The area was mapped for the Texas Gulf Sulfur Company in 1969 by Reinsbakken (see Appendix I). In 1972, 2½ line miles of I.P. were surveyed (Assessment Report 4424). Peatfield (1978) mapped the SEATTLE showing (Figure 2) and wrote a brief summary on this and other mineral showings in the area (Appendix II).

Both the magnetic survey in 1969 (Assessment Report 203) and the I.P. survey in 1972 (Assessment Report 4424) outline features which, although described as anomalies, and although recommended for follow-up, do not appear to have been tested. The significance of these various features is not understood.

TABLE II
SEATTLE GROUP

Names

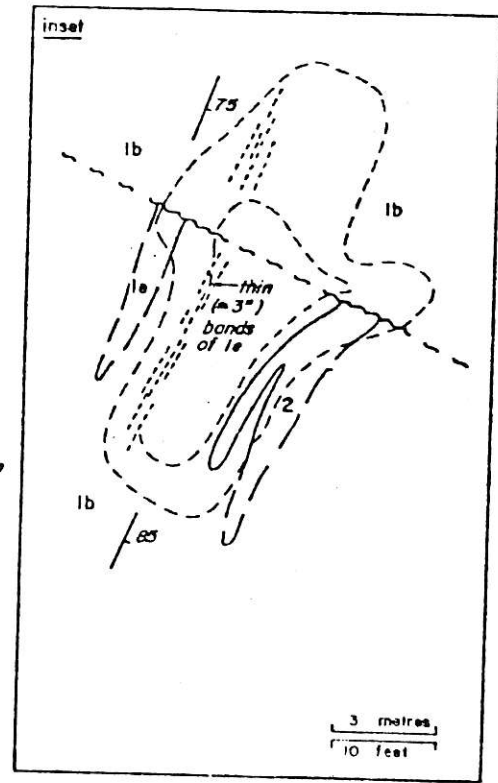
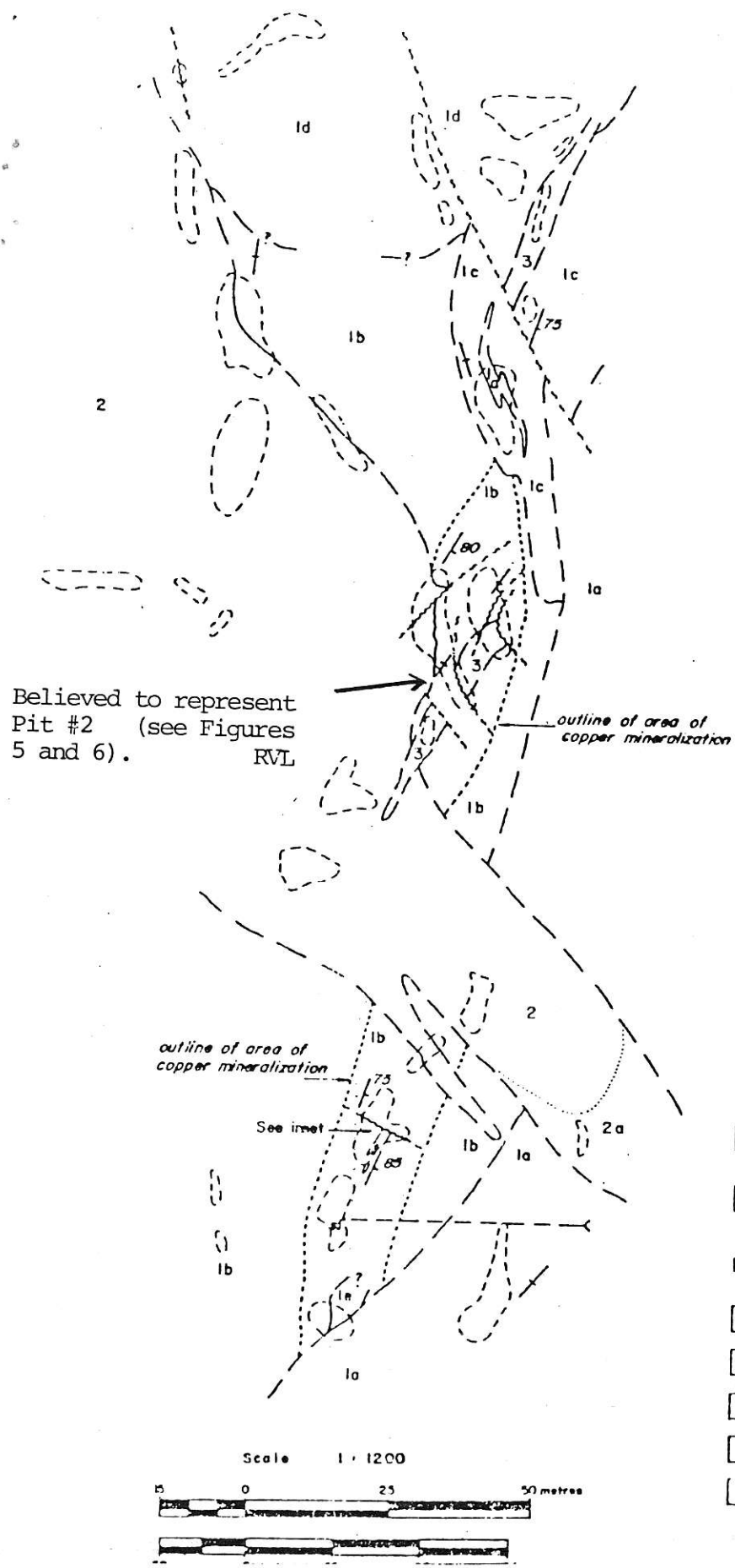
Seattle (L652)	}	Minfile no. 082ESE158
Loyal Canadian (1608)		
Bunker Hill (L1609)	}	Minfile no. 082ESE078
IKE located claim		
Virginia City (L1606)	}	None
No. 1 (L1362)		

Previous Work

<u>Year</u>	<u>Source Document</u>	<u>Type of Work Performed</u>	<u>Document Containing Results</u>
1972	GEM 1973 p 36	2.5 line mi IP	B.C. Assessment Report 4424
1969	GEM 1969 p 309	Geological mapping, geochemical surveys, and magnetometry.	B.C. Assessment Report 2073
1928	BCDM MMAR 1928 p 236	21 ft drifting	
1923	BCDM MMAR 1923 p 179	"several shipments of copper" work performed previously: 321 ft cross cut 180 ft drifts 75 ft raises 2 glory holes	
1905	BCDM MMAR 1925 p 189	Reports 30 ft of tunnel dug in 1896 and 270 ft drifting and raising by Canadian Smelting Co. at Trail	

The remainder of the references listed in the Minfile contain little information.

Geology of
SEATTLE Showing
by
G.R. Peatfield, 1978



LEGEND

- 3** Tertiary alkalic dyke
- 2** Cretaceous (Nelson) qtz. dior.
 - a - dioritic phase
- Brooklyn Formation**
- 1e** Massive magnetite
- 1d** Chlorite - epidote skarn
- 1c** Light garnet - calcite skarn
- 1b** Garnet & garnet - epidote skarn
- 1a** Marble

Figure 2

Hummingbird Group

Previous work on the HUMMINGBIRD is summarized in Table III. References listed in the B.C. Department of Mines Minfile give little information.

The Department of Mines annual reports mention tunnelling in 1899 and minor shipments of ore in 1900, 1901 and 1943.

Work in later years has been directed mainly at uranium. Drilling in 1978 was unsatisfactory and recovery was very poor.

Beyond brief accounts of narrow width of material in limestone, one obtains no indication from documents in public domain on the type of occurrence underlying these claims. Appendix II contains a capsule account.

Sailor Boy - Shickshock

Work on these claims is summarized in Table IV. Pyrite, pyrrhotite, magnetite and chalcopyrite are exposed in a skarn zone in Brooklyn rocks. These crown grants, the greater part of which falls outside the JAKE claim, are held by Noranda Exploration Ltd. Gold values reported in Assessment Report 5057 suggest that further work could be justified.

TABLE III
HUMMINGBIRD

Name

Hummingbird (L1369)	1	Minfile no. 082ESE057
Hummingbird FR (L1249)	}	Not listed in Minfile
Mammie (L246)		
OK (L1478)		
No. 3 FR		

Previous Work

<u>Year</u>	<u>Source Document</u>	<u>Type of Work Performed</u>	<u>Document Containing Results</u>
1978		3 drill holes	B.C. Assessment Report 6895
1977		Scintillometer survey	B.C. Assessment Report 6225
1975		Geophysics, geo-chemistry, geology	B.C. Assessment Report 5396
1943	BCDA MMAR 1943 p 63	63 tons ore shipped to Trail	
1942	BCDA MMAR 1942 p 59	65 tons ore shipped to Trail	
1925	BCDA MMAR 1925 p 193	dewatering of tunnel	
1901	BCDA MMAR 1901 p 1065	500 feet of drifting, some ore shipments	
1900	BCDA MMAR 1900 p 878	reported to have shipped 600-700 tons ore	
1899	BQM MMAR 1899 p 755	approx. 170 ft of tunnel. 2-4 ft wide sulphide body dipping into mountain	

The remainder of the references listed in the Minfile contain little information

TABLE IV

SAILOR BOY - SHICKSHOCKName

Sailor Boy (L1093)
 Shickshock (L992)
 Ike Located Claim

)
 Minfile no. 082ESE077

Previous Work

<u>Year</u>	<u>Source Document</u>	<u>Type of Work Performed</u>	<u>Document Containing Results</u>
1974	BCDM GEM 1974 p 32	Magnetometry, trenching and sampling	B.C. Assessment Report 5057
1972	BCDM GEM 1972 p 34	VLF, EM	B.C. Assessment Report 3780

5. WORK PERFORMED BY MINEQUEST
DURING 1980 and 1981

The vicinity of the JAKE claim was geologically mapped during 1980 as part of a regional mapping program at 1:10,000 scale. The stratigraphic position and the major features were established but no detailed mapping was undertaken.

Some of the pits within the SEATTLE crown grant were chip sampled and analyses run for Cu, Ag, Au, and (not all samples) for Pb, Zn and Co (see Section 7 below and Figure 5).

In 1981 a magnetometer survey with readings at 25m spacing on lines 100m apart was carried out over a 1km square area within the JAKE claim (Figure 6).

6.

GEOLOGY

The JAKE claim covers upper members of the Triassic Brooklyn Formation, principally the Upper Limestone and Volcaniclastic members. The sequence dips steeply to the west and is repeated by at least one strike fault. Dioritic intrusives of Jurassic or Cretaceous age are common.

Appendix I contains an interpretation¹ of the regional geology by Reinsbakken (1969) of Texas Gulf Sulfur Co.

The mineral showings on the SEATTLE reverted crown grant lie in a conformable skarn zone developed in limestone at a contact with a diorite. The mineral occurrences in the HUMMINGBIRD and the neighbouring crown grants have not been seen by the writer but are known to occur in a similar, possibly the same, limestone near a similar intrusive. The SAILOR BOY and SHICKSHOCK showings also occur near the contact between limestone and dioritic intrusive.

¹For an alternative interpretation of the regional geology, see MineQuest Report #3, Figure 8.

7.

MINERALIZATION

The SEATTLE mineral occurrences consist of a magnetite-epidote-garnet-chalcopyrite skarn with low copper grades, small quantities of gold, negligible silver and no tungsten.

The skarn zone is exposed in four pits over a strike length of approximately 110 metres. The width ranges from 4 to 15 metres. The results of chip sampling (Figure 5) indicate that, apart from two adjacent 1 metre samples (881 and 882), the values are too low to be economic. These two higher values occur in samples taken from near a Tertiary dike which may (but it is thought unlikely) have been responsible for enhancing grades.

The auriferous zone represented by samples 881 and 882 does not appear to persist to the south side of the trench except as a much thinner (0.5m) band covered by sample J-02-07.

8. 1981 GEOPHYSICAL SURVEY

Ten line kilometres of magnetometer survey were carried out with readings at 25m spacing on lines 100m apart. The instruments used were a Scintrex MF-2 Proton Precession Magnetometer and a CMG MR20 Base Station. Results are shown in Figure 6 contoured to 100 gammas.

The magnetic zone associated with the magnetite skarn appears to continue to the north at a similar width but at considerable less magnetic intensity. A discontinuity, possibly a fault, is suspected between lines 105 and 106N. The zone is open to the north beyond line 109N.

9. DISCUSSION

The SEATTLE crown grant itself appears to have been well explored by trenches, tunnels, shafts and drill holes. Information from the underground work is not available but recent surface sampling suggests that while the greater part of the skarn zone is sub-economic, small pods with moderate grades in gold may be expected.

The recently outlined, still untested, northward extension of the skarn can be expected to have a similar distribution of gold values. Its lower magnetic response indicates less magnetite but as gold is more likely to correlate with sulphide than with magnetite this is not an unfavourable feature.

The ground position is considered adequate as the north part of the JAKE claim between the SEATTLE crown grant and the HUMMINGBIRD crown grant provides some 1,000 metres in which to further extend the magnetic feature already outlined. Although it would be desirable to have the SEATTLE and neighbouring crown grants included with the JAKE claim, this is not considered essential.

In the light of results from sampling the SEATTLE crown grant, it must be recognized that the chances of the extension to the skarn zone containing significant gold values over the greater part of its width, are very small. A deposit of that type does not constitute a valid exploration target. On the other hand the existence of small pods and lenses containing moderate grades of gold (approximately one third of an ounce per ton) is sufficiently likely to make a small tonnage of moderate grade an acceptable target.

The first step in further exploration of the property is to complete delineation of the magnetic feature which appears to represent the extension of the skarn zone. Its continuity as far as the group of crown grants at the north end of the JAKE claim seems

likely. Once the feature is outlined, it will then be necessary to identify those parts of it containing the greatest quantities of sulphide. Induced potential would be the best tool, but the much cheaper Horizontal Loop EM seems likely to be effective.

After identification of the geophysical targets and prior to the decision to drill, a limited amount of field work will be necessary to check for outcrops over the extension of the skarn zone (none is expected), to locate the relative positions of the pits and the boundary of the SEATTLE crown grant (position shown in Figures 5 and 6 are from government topographic maps and assessment reports) and to resample the auriferous zone in Pit #2.

10. CONCLUSIONS

1. The SEATTLE reverted crown grant (L652) contains a north-trending magnetite-garnet-chalcopyrite skarn, up to 15m wide containing copper and gold in sub-economic grades with a 2m section where initial sampling indicates gold grades of 1/3 ounce per ton.
2. A magnetometer survey carried out in 1981 indicates that the skarn zone continues at least 600m to the north of L652 into ground covered by the JAKE claim.
3. Apart from some old workings near the boundary of L652, published information contains no mention of drilling or trenching of the area covered by the north part of the JAKE claim.
4. There exists an acceptable chance of finding within the north part of the JAKE claim, a small tonnage of skarn with gold grades of approximately 1/3 of an ounce (10 grams) per ton over narrow (approximately 2m) mining widths.

11.

RECOMMENDATIONS

That the extension of the skarn zone exposed in the SEATTLE crown grant be further explored as follows:

Phase I

March or April: completion of magnetometer survey to the north end of the JAKE claim followed by Horizontal Loop EM survey over the magnetic feature which appears to represent the extension of the SEATTLE skarn zone.

This to be followed by: geological mapping of the north end of the JAKE claim in the vicinity of the magnetic feature, checking for evidence of un-reported drill sites or exposures, re-sampling of anomalous zones from Pit #2, checking the reported location of the skarn zone exposure in relation to position of SEATTLE crown grant.

Cost: \$15,000

Phase II

May or June: drilling of four 90m holes

Cost:	Drilling	\$70,000
	Cash payment to MineQuest	12,500
		<hr/>
		\$82,500

12.

REFERENCES

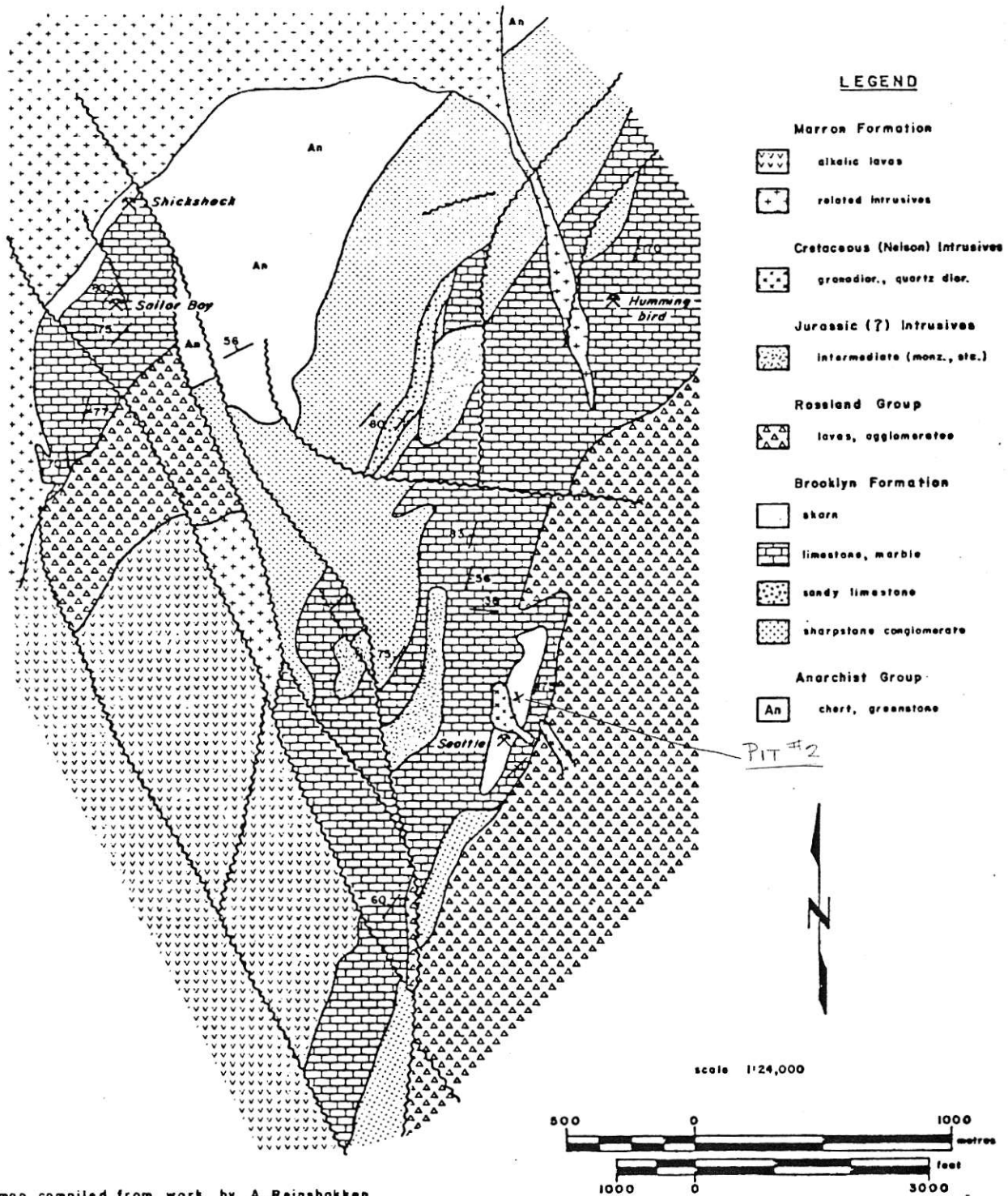
Carswell, H.D., 1957
The Geology and Ore Deposit Summit Camp,
Boundary District, B.C.
Unpublished MSc thesis, University of B.C.

Longe, R.V., 1980
Greenwood Joint Venture 1980 Regional
Programme. MineQuest Report #3.

Peatfield, G.R., 1978
Geologic History and Metalogeny of the
Boundary District, Southern British
Columbia and Northern Washington.
Unpublished doctoral thesis, Queens
University, Kingston, Ontario.

See also Tables II, III, IV, and Appendix III.

Appendix I



Part of Geologic Map by Reinsbakken, 1969
As Reproduced in Peatfield (1978)

Deposits

Synopses

- Seattle This is a small showing of copper mineralization consisting of disseminated chalcopyrite and pyrite in garnet and garnet-epidote skarn, and some small lenses of massive magnetite - chalcopyrite. The skarn lies within a limestone succession, probably toward the top of the Brooklyn Formation, and has been cut by a tongue of Nelson quartz diorite. Refer to Figure V-C (1) - 6 for details of geology.
- Shickshock This very small showing consists of "massive magnetite replaced and cut by chalcopyrite and calcite," in a "gangue of fine-grained garnet skarn." No production has been recorded.
The showing is in skarn near the contact of a Tertiary intrusive body, and probably near the top of the Brooklyn Formation.
- Sailor Boy This showing consists of mineralization which is made up of "large euhedral crystals of pyrite in a gangue of skarn." The host is a fine-grained foliated light-brown garnet skarn," which is probably "metasomatized Brooklyn limestone." No production is recorded, but "some strongly pyritized skarn was stockpiled."
The showing is probably near the top of the Brooklyn Formation.
- Hummingbird This anomalous deposit consists of very small apparently strata-bound lenses of coarse, dark sphalerite in banded Brooklyn Formation limestone, with some very small amounts of chalcopyrite associated with quartzose bands.

A P P E N D I X I I I

Minfile Listings

082 ESE 158	SEATTLE LOYAL CANADIAN
082 ESE 078	BUNKER HILL SEATTLE IKE
082 ESE 057	HUMMINGBIRD
082 ESE 077	SAILOR BOY SHICKSHOCK IKE

Selections from B.C. Government
publications on the SEATTLE reverted
Crown Grant and neighbouring mineral
properties.

BCDM MMAR 1905 p. 185

On the west side of the river, from 10 to 12 miles up, there are three claims worthy of notice, viz., the *Strawberry*, the *Humming Bird* and the *Seattle*. The two former are meritorious properties with considerable development work done and good values, the lack of transportation being the cause of cessation of further work. The *Seattle* is another mineral claim which has merits. The proposition is a copper-gold one with large bodies of magnetic iron. A 30-foot tunnel was driven as far back as 1896. Later a bond was taken by the Canadian Smelting Co., at Trail, which did 270 feet of drifting and raising, and then threw up the bond. In 1905, W. T. Hunter and Mr. Pemberton, of Greenwood, took a bond on the *Seattle* at a high figure, and after 130 feet of tunnelling ceased work.

BCDM MMAR 1923 p. 179

This claim is situated $9\frac{1}{2}$ miles from Grand Forks and three-quarters of a mile west of the Granby river. Twenty years ago a company was formed by a Mr. Clark, of Grand Forks, and the property developed by tunnels and open-cuts. Several shipments of copper ore were made to the smelter, although no figures as to values are to hand.

The formations are limestone of a grey and white variety, intruded by small granite-porphry dykes and bounded on the north by granite and on the south by greenstone. The limestone is highly altered and traversed by siliceous bands, which are mineral-bearing. The width of the banding varies from a fraction of an inch to 18 inches and forms lenticular-shaped ore-bodies. The mineralized area varies from 4 to 20 feet in width and 85 feet in length.

This claim was staked on what probably is an extension of a mineral-zone, traceable over several claims to Volcanic mountain across the Granby river and containing the same formations and minerals. No large ore-bodies have ever been discovered in this locality up to the present, and exploration of the properties has been spasmodic owing to the exorbitant prices and short terms asked by the owners.

The development done in the *Seattle* claim consists of a crosscut tunnel 321 feet long, with two drifts 60 feet to the south and 120 feet to the north and an upraise to the surface 75 feet above. There are two glory-holes, 40 by 10 feet and 43 by 8 feet and approximately 15 feet deep, besides several shallow pits and trenches.

The ore-minerals are chalcopryrite, chalcocite, pyrite, and magnetite carrying gold and silver. Sorted ore from the glory-holes assayed 0.18 oz. in gold, 1.60 oz. in silver to the ton, and 7.10 per cent. copper.

NORTH FORK OF KETTLE RIVER.

The shipment of a little ore during the past six months from two or three mining properties situate on the north fork of Kettle river has had the effect of once more directing attention to several groups of claims distant 10 to 15 miles from Grand Forks. The best known of these are the *Earthquake*, *Golden Eagle*, *Volcanic*, *Pathfinder*, and *Little Bertha*, on the eastern side of the river, and the *Seattle*, *Humming Bird*, and *Strawberry* on the western side. Quite recently a short switch was put in on the Columbia and Western Railway, its location being on the Grand Forks side of Eholt and between the latter place and Fisherman station. As there is only room for three or four cars at a time on the switch, it is evident that it is not expected that immediate shipments will be large. However, it is the intention to send ore to one or other of the smelters from the *Humming Bird*, which has already made several small shipments to the Granby smelter at Grand Forks, and, after a bridge shall have been built across the river, from the *Golden Eagle*, *Pathfinder*, and *Little Bertha*. Of the above claims, the *Humming Bird* and *Pathfinder* appear likely to make the best showing as regards early output. Of the former, which is reported to have shipped 600 or 700 tons of ore, only this passing mention will at present be made, no reliable particulars of it being just now available to the writer.

BCDM MMAR 1901 p. 1065

The *Humming Bird* (Humming Bird (B. C.) Gold Mines, Ltd.) was leased last year by Messrs. Shannon and Layeux, who have worked the property continuously and have been shipping ore. They have advanced the tunnel about 40 feet, besides doing considerable stoping, and a total of about 500 feet of drifting and cross-cutting has been done.

BCDM MMAR 1925 p. 193

This claim, situated directly west of the *Bonanza Fraction* group and about Humming Bird, three-quarters of a mile across the valley, was leased to J. McDonald *et al.*, of Grand Forks, and the old workings unwatered and sampled, with the idea of making a shipment to the smelter. These old workings consisted of a shaft 150 feet deep and a tunnel 144 feet in length. An exploration of the shaft and upraise disclosed the fact that there were no minable ore-bodies or veins developed.

The formation is a bedded limestone, which has been tilted about 12° to the west and into the hillside. The ore is pyrite and marcasite, containing gold and silver, and occurs in stringers and isolated segregations along the bedding-planes of the limestone. A considerable amount of alteration has taken place along the fractures; the limestone being replaced by silica.

To the north the sedimentaries have been intruded by a dark, fine-grained diabase dyke, which has apparently cut off the ore on that side. Further development along the strike, south-west (mag.) of the limestone, might discover other ore-bodies, seeing that swelling and pinching of a vein is characteristic in sedimentary rocks.

A shipment was made from this mine about twenty-five years ago, which was reported to contain values of \$25 a ton in gold and silver. A sample of the ore from the shaft assayed 1.05 oz. in gold and 0.70 oz. in silver to the ton.



CHEMEX LABS LTD.

212 BROOKSBANK AVE.
 NORTH VANCOUVER, B.C.
 CANADA V7J 2C1
 TELEPHONE: (604)984-0221
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

TO : MINE QUEST EXPLORATIONS & ASSOC. LTD.
 311 WATER ST;
 VANCOUVER, B.C.
 V6B 1B9

CERT. # : A8011303-001-A
 INVOICE # : 41280
 DATE : 18-DEC-80
 P.O. # : NONE

Sample description	Prep code	Cu percent	Ag oz/t	Au oz/t			
J-01-01	207	0.74	0.20	0.016	--	--	--
J-01-02	207	0.04	0.14	<0.003	--	--	--
J-02-01	207	1.20	0.42	0.042	--	--	--
J-02-02	207	0.26	0.15	0.030	--	--	--
J-02-03	207	0.34	0.16	0.016	--	--	--
J-02-04	207	0.12	0.29	0.008	--	--	--
J-02-05	207	0.13	0.10	0.005	--	--	--
J-02-06	207	0.39	0.18	0.038	--	--	--
J-02-07	207	0.40	0.34	0.116	--	--	--
J-02-08	207	0.70	0.41	0.050	--	--	--
J-02-09	207	0.35	0.19	0.032	--	--	--
J-02-10	207	0.38	0.17	0.022	--	--	--
J-02-12	207	0.44	0.23	0.034	--	--	--
J-02-13	207	0.31	0.27	0.030	--	--	--
J-02-14	207	0.25	0.17	0.005	--	--	--
J-02-15	207	0.29	0.18	0.005	--	--	--
J-03-01	207	0.82	0.14	<0.003	--	--	--
J-03-02	207	0.45	0.11	0.028	--	--	--
J-03-03	207	0.72	0.17	0.010	--	--	--
J-03-04	207	0.17	0.06	0.003	--	--	--
J-03-05	207	0.25	0.07	0.012	--	--	--
J-03-06	207	0.33	0.11	0.028	--	--	--
J-03-07	207	0.44	0.16	0.036	--	--	--
J-03-08	207	0.61	0.16	0.034	--	--	--
J-03-(17-19)	207	0.35	0.14	0.022	--	--	--
J-03-20	207	0.77	0.22	0.042	--	--	--
R-01-00	207	0.01	0.02	<0.003	--	--	--
R-01-01	207	<0.01	0.06	<0.003	--	--	--
R-01-02	207	<0.01	0.08	<0.003	--	--	--
R-01-03	207	<0.01	0.04	<0.003	--	--	--
R-01-04	207	<0.01	0.10	<0.003	--	--	--
R-02-01	207	<0.01	0.10	<0.003	--	--	--
R-02-02	207	<0.01	0.06	<0.003	--	--	--
T-01-01	207	2.61	0.58	0.003	--	--	--
T-01-02	207	4.22	0.74	0.003	--	--	--
T-01-03	207	2.44	0.58	0.003	--	--	--
T-01-04	207	2.80	0.92	0.005	--	--	--
T-01-DUMP	207	0.34	0.14	<0.003	--	--	--
T-02-01	207	1.46	0.60	<0.003	--	--	--
T-02-02	207	2.00	0.58	<0.003	--	--	--

B. Swales

.....
 Registered Assayer, Province of British Columbia





CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: (604)984-0221
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

TO : MINE QUEST EXPLORATIONS & ASSOC. LTD.
311 WATER ST;
VANCOUVER, B.C.
V69 1B9

CERT. # : A8011303-002-A
INVOICE # : 41280
DATE : 18-DEC-80
P.O. # : NONE

Sample description	Prep code	Cu percent	Ag oz/t	Au oz/t			
T-02-03	207	1.74	0.42	0.003	--	--	--
T-02-04	207	0.52	0.20	0.005	--	--	--
T-02-DUMP	207	0.53	0.16	0.005	--	--	--

B. Swaites

.....
Registered Assayer, Province of British Columbia





CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: (604)984-0221
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

• MINE QUEST EXPLORATIONS & ASSOC. LTD.
311 WATER ST.
VANCOUVER, B.C.

CERT. # : A8C10159-001-A
INVOICE # : 32734
DATE : 12-SEP-80

PROJECT GJV

Sample Description	Cu ppm	Pb ppm	Zn ppm	Ag ppm
1	>4000	4	225	6.3
2	>4000	1	290	16.0
3	>4000	1	280	15.0
4	1450	1	170	1.4
5	>4000	1	154	4.2
6	500	1	59	0.6
7	>4000	2	230	3.5
8	750	4	540	1.0
9	500	10	78	1.0
0	>4000	4	134	9.1
1	2700	1	62	2.1
2	1250	1	54	1.5
3	1250	1	78	0.9
4	1200	1	139	1.0

Certified by *Hart Bickle*





CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: (604)984-0221
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

WINE QUEST EXPLORATIONS & ASSOC. LTD.
311 WATER ST.
VANCOUVER, B.C.

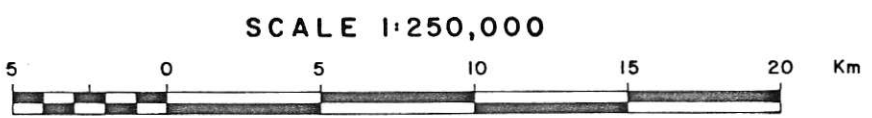
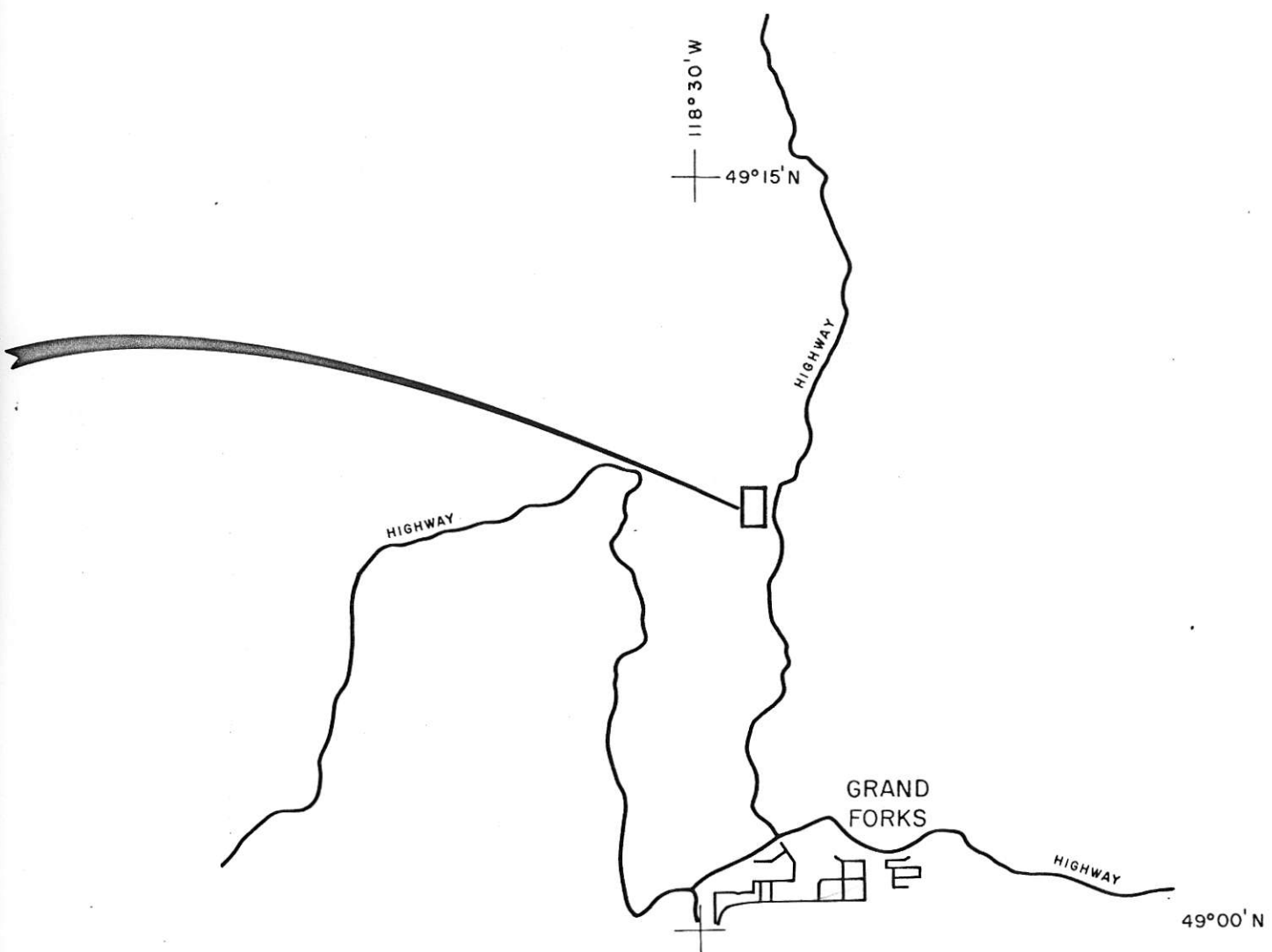
CERT. # : A3010159-001-2
INVOICE # : 38734
DATE : 12-SEP-80

PROJECT GJV

Sample Description	Co ppm	Au -(AA) ppt	W ppm	
1	56	780	1	--
2	265	>10000	2	--
3	66	1200	1	--
4	24	900	1	--
5	26	500	1	--
6	8	100	2	--
7	20	230	1	--
8	12	40	1	--
9	8	30	1	--
0	14	1740	1	--
1	8	460	1	--
2	8	220	1	--
3	10	220	1	--
4	20	300	1	--

Certified by Herb Bickle





82E/1

UTAH MINES LTD. AND W.R. FINANCIAL CONSULTANTS LTD.			
GREENWOOD JOINT VENTURE			
JAKE CLAIM LOCATION MAP			
PLAN No. 221	DRAWN EXCLUSIVE	DATE FEB. 1981	FIGURE 1
Revised _____		N.T.S. 82 E1	
MINEQUEST EXPLORATION ASSOCIATES LTD.			

TABLE II
SEATTLE GROUP

Names

Seattle (L652)	}	Minfile no. 082ESE158
Loyal Canadian (1608)		
Bunker Hill (L1609)	}	Minfile no. 082ESE078
IKE located claim		
Virginia City (L1606)	}	None
No. 1 (L1362)		

Previous Work

<u>Year</u>	<u>Source Document</u>	<u>Type of Work Performed</u>	<u>Document Containing Results</u>
1972	GEM 1973 p 36	2.5 line mi IP	B.C. Assessment Report 4424
1969	GEM 1969 p 309	Geological mapping, geochemical surveys, and magnetometry.	B.C. Assessment Report 2073
1928	BCDM MMAR 1928 p 236	21 ft drifting	
1923	BCDM MMAR 1923 p 179	"several shipments of copper" work performed previously: 321 ft cross cut 180 ft drifts 75 ft raises 2 glory holes	
1905	BCDM MMAR 1925 p 189	Reports 30 ft of tunnel dug in 1896 and 270 ft drifting and raising by Canadian Smelting Co. at Trail	

The remainder of the references listed in the Minfile contain little information.

TABLE III
HUMMINGBIRD

Name

Hummingbird (L1369)	1	Minfile no. 082ESE057
Hummingbird FR (L1249)	}	Not listed in Minfile
Mammie (L246)		
OK (L1478)		
No. 3 FR		

Previous Work

<u>Year</u>	<u>Source Document</u>	<u>Type of Work Performed</u>	<u>Document Containing Results</u>
1978		3 drill holes	B.C. Assessment Report 6895
1977		Scintillometer survey	B.C. Assessment Report 6225
1975		Geophysics, geo-chemistry, geology	B.C. Assessment Report 5396
1943	BCDA MMAR 1943 p 63	63 tons ore shipped to Trail	
1942	BCDA MMAR 1942 p 59	65 tons ore shipped to Trail	
1925	BCDA MMAR 1925 p 193	dewatering of tunnel	
1901	BCDA MMAR 1901 p 1065	500 feet of drifting, some ore shipments	
1900	BCDA MMAR 1900 p 878	reported to have shipped 600-700 tons ore	
1899	BQM MMAR 1899 p 755	approx. 170 ft of tunnel. 2-4 ft wide sulphide body dipping into mountain	

The remainder of the references listed in the Minfile contain little information

TABLE IV

SAILOR BOY - SHICKSHOCKName

Sailor Boy (L1093)
 Shickshock (L992)
 Ike Located Claim

)
 Minfile no. 082ESE077

Previous Work

<u>Year</u>	<u>Source Document</u>	<u>Type of Work Performed</u>	<u>Document Containing Results</u>
1974	BCDM GEM 1974 p 32	Magnetometry, trenching and sampling	B.C. Assessment Report 5057
1972	BCDM GEM 1972 p 34	VLF, EM	B.C. Assessment Report 3780

5. WORK PERFORMED BY MINEQUEST
DURING 1980 and 1981

The vicinity of the JAKE claim was geologically mapped during 1980 as part of a regional mapping program at 1:10,000 scale. The stratigraphic position and the major features were established but no detailed mapping was undertaken.

Some of the pits within the SEATTLE crown grant were chip sampled and analyses run for Cu, Ag, Au, and (not all samples) for Pb, Zn and Co (see Section 7 below and Figure 5).

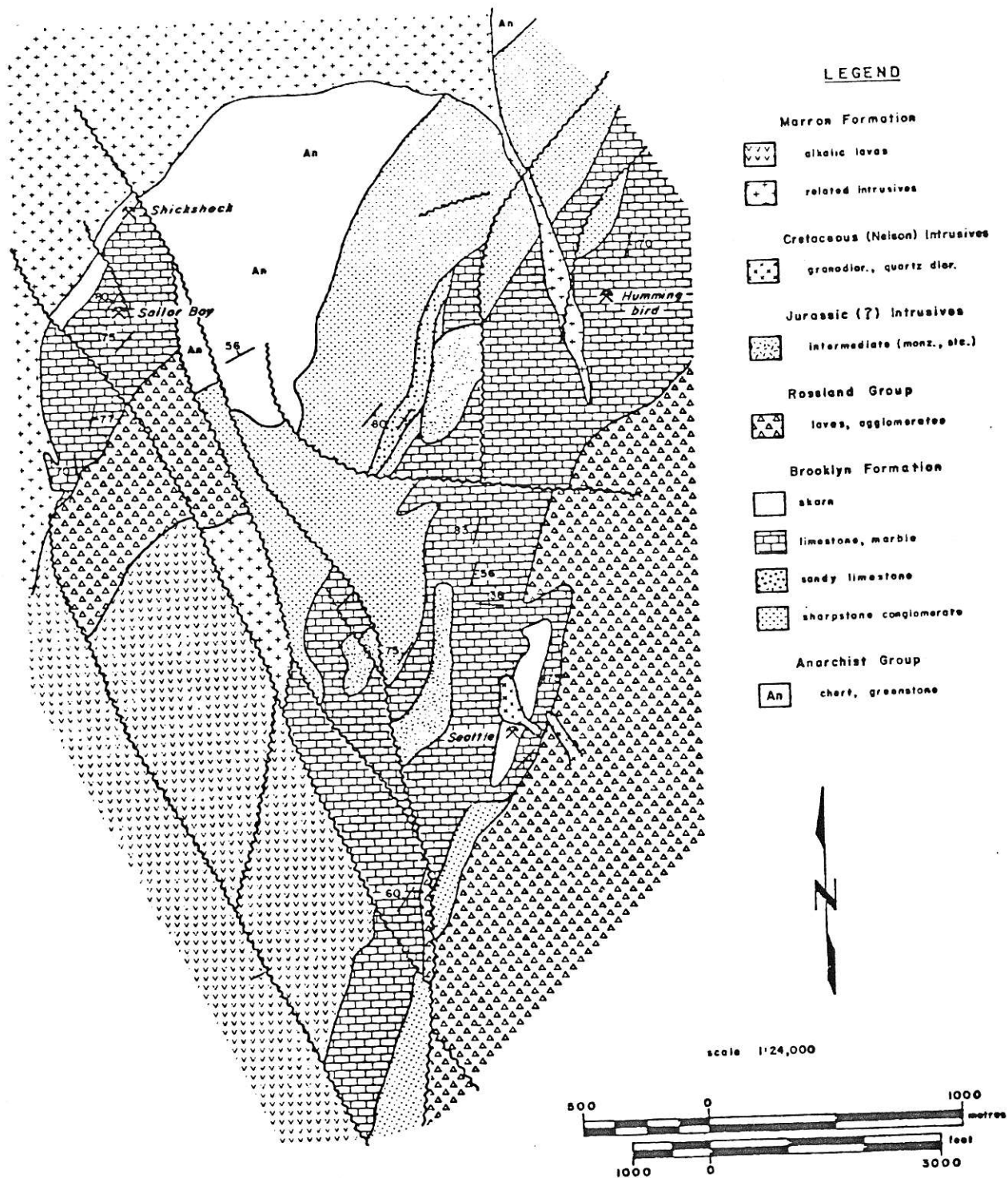
In 1981 a magnetometer survey with readings at 25m spacing on lines 100m apart was carried out over a 1km square area within the JAKE claim (Figure 6).

10.

CONCLUSIONS

1. The SEATTLE reverted crown grant (L652) contains a north-trending magnetite-garnet-chalcopyrite skarn, up to 15m wide containing copper and gold in sub-economic grades with a 2m section where initial sampling indicates gold grades of 1/3 ounce per ton.
2. A magnetometer survey carried out in 1981 indicates that the skarn zone continues at least 600m to the north of L652 into ground covered by the JAKE claim.
3. Apart from some old workings near the boundary of L652, published information contains no mention of drilling or trenching of the area covered by the north part of the JAKE claim.
4. There exists an acceptable chance of finding within the north part of the JAKE claim, a small tonnage of skarn with gold grades of approximately 1/3 of an ounce (10 grams) per ton over narrow (approximately 2m) mining widths.

Appendix I



map compiled from work by A. Reinsbakken
for Texas Gulf Sulphur Co., 1969

Part of Geologic Map by Reinsbakken, 1969
As Reproduced in Peatfield (1978)

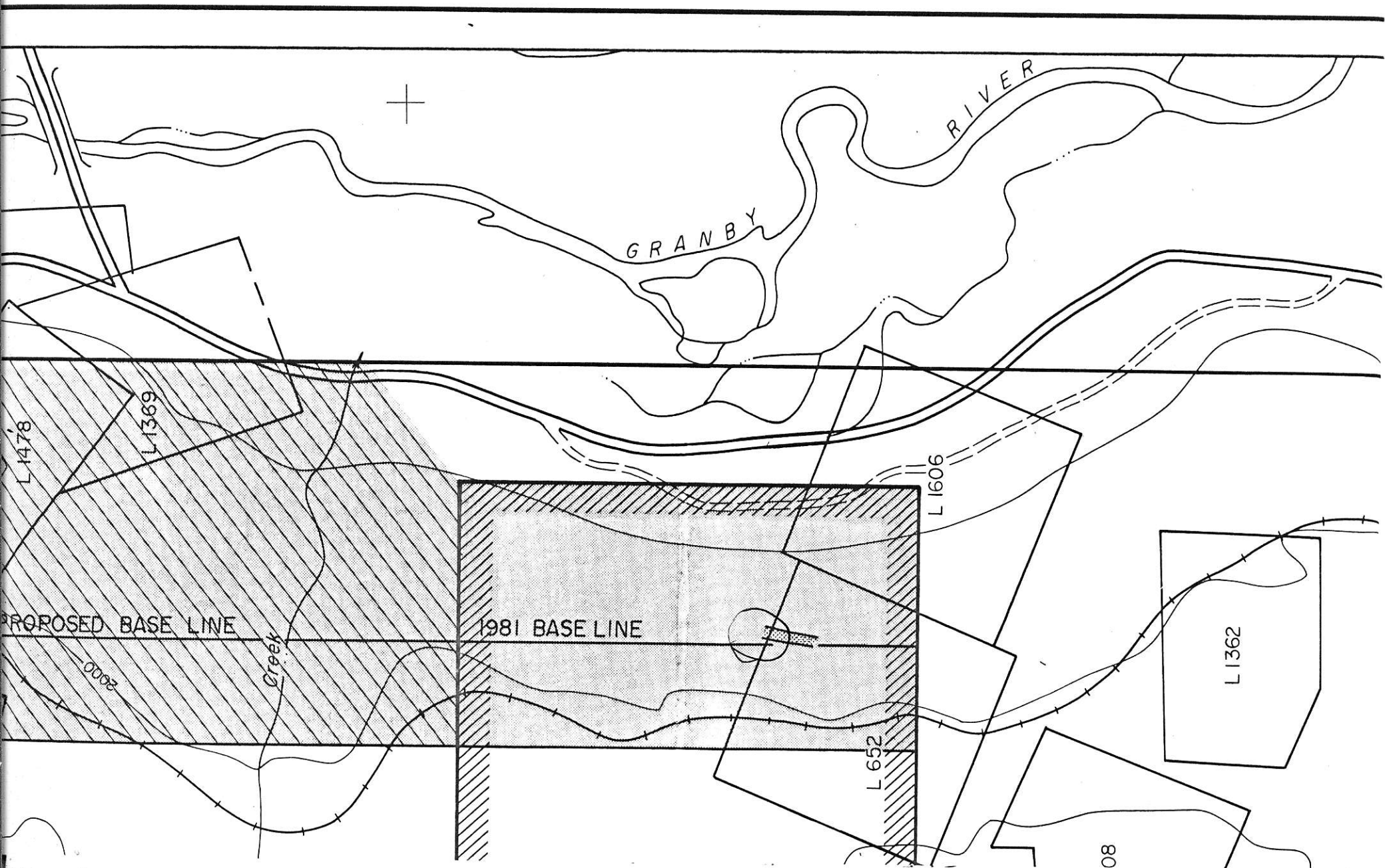
TABLE I

STATUS OF CLAIMS, CROWN GRANTS AND REVERTED CROWN GRANTS WITHIN OR NEAR JAKE CLAIMS

<u>Type*</u>	<u>Name</u>	<u>Grant #</u>	<u>Record #</u>	<u>Due Date</u>	<u>Registered Owner</u>	<u>Other Parties With Interest</u>
Rev CG	Seattle	L652	1861	Nov/86	G. Allen	Optioned to Green Bluff Copper Mines Ltd., ownership believed to have been transferred.
Rev CG	Loyal Canadian	L1608	1994	Jan/82	G. Allen	
Rev CG	Bunker Hill	L1609	1995	Jan/82	G. Allen	
Rev CG	Virginia City	L1606	1997	Jan/82	G. Allen	
Rec CG	No. 1	L1362	1996	Jan/82	G. Allen	
Rev CG	Hummingbird Fr	L1249	36999	Mar/89	W.J. Coulter	
Rev CG	Mammie	L1246	37000	Mar/89	W.J. Coulter	
Rev CG	OK	L1478	36997	May/83	W.J. Coulter	
Rev CG	Hummingbird	L1369	36998	Mar/89	W.J. Coulter	
CG	Jennie May	L1248	Held by Title		L.V. Shannon, 3912 9th Street, Dawson Creek	
Rev CG	Blacktail	L2284	2546	Dec 11/81	Keith George, Box 376, Keremeos	
Rev CG	No. 3 Fr	L2286	2552	Dec 11/81		
Rec CG	Sailor Boy	L1093	36732	Aug 81	Noranda Exploration Co. Ltd.	
Rev CG	Shickshock	L992	36731	Aug 81		
LC	Jake 1		2379	Aug 12/81	MineQuest Exploration Associates Ltd. Claims held for Utah Mines Ltd. and W.R. Financial Consultants Ltd.	
	Jake 2		2380	Aug 12/81		

* LC: Located Claim
 CG: Crown Grants
 Rev CG: Reverted Crown Grants

TABLE I



ASSAY RESULTS FROM PIT #2

<u>Sample number</u>	<u>Cu %</u>	<u>Ag oz/ton</u>	<u>Au oz/ton</u>
881	0.87	0.12	0.254
882	2.24	0.44	0.416
883	1.86	0.43	0.070
884	-	-	-
885	0.36	-	-
886	-	-	-
887	0.36	-	-
888	-	-	-
889	-	-	-
890	0.98	-	0.078
891	-	-	-
892	-	-	-
893	-	-	-
894	-	-	-
J-02-01	1.20	0.42	0.042
J-02-02	0.26	0.15	0.030
J-02-03	0.34	0.16	0.016
J-02-04	0.12	0.29	0.008
J-02-05	0.13	0.10	0.005
J-02-06	0.39	0.18	0.038
J-02-07	0.40	0.34	0.116
J-02-08	0.70	0.41	0.050
J-02-09	0.35	0.19	0.032
J-02-10	0.38	0.17	0.022
J-02-12	0.44	0.23	0.034
J-02-13	0.31	0.27	0.030
J-02-14	0.25	0.17	0.005
J-02-15	0.29	0.18	0.005

- indicates results from preliminary analysis by atomic absorption were low and did not justify assay. See Plan 150 for further details.

Robert Long

Bill Coulter Crown Grants
north end of Minequest
claims

16 mi north of Grandforks.

South end Mr. Turkow.

\$15,000 May Fern.

12,500 cash payment. then

12500

Work sched.

NSR carried
int.
