

REPORT ON THE
WHITEWATER PROPERTY
Rover Creek Area, Nelson, B.C.

Latitude 49° 23' N; Longitude 117° 26' W
NTS 82 F/6W

For

SNOW-WATER RESOURCES LTD.
P.O. Box 850, Nelson, B.C., V1L 5A6

By

R.H. Seraphim, Ph.D., P.Eng.

July 17, 1986

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SUMMARY AND CONCLUSIONS

The Whitewater property, located about 16 kilometres southwest of Nelson, B.C., consists of 76 claims and units controlled by Snow-Water Resources Ltd. The property is in a glacial cirque at the head of Whitewater Creek.

The Whitewater property is underlain by granite and granodiorite of the Lower Cretaceous Nelson Batholith which intrudes and alters sediments and volcanics of the Jurassic Hall (?) and Rosslund Formations. Lamprophyre dykes and quartz veins intrude both granitic rocks and altered metavolcanics and metasediments.

High grade gold bearing float boulders and gold bearing quartz veins were discovered along Whitewater Creek, a tributary of Rover Creek, during the late 1800's. Minor production was achieved from float boulders during the period from 1890 to 1930, however, despite much trenching, tunneling, and drilling the source of the high grade float was not found. Approximately 1200 tons of ore were milled but the overall amount of gold produced is not known. One specimen of the high grade float material assayed 7.06 oz/t gold and 37.6 oz/t silver (B.C. Minister of Mines, Bull. 1). Other samples from these boulders returned gold assays of 3.76, 1.76 and 0.37 oz/t. The size of some boulders exceeds 17 tons. Many boulders are angular and occur in the creek channel and along the sides of the creek, in most or all instances lying on top of cemented gravel or hardpan.

Percussion drilling on VLF-EM anomalies has now yielded an intercept of six feet reported to assay 1.488 oz. gold per ton. The writer's check assay yielded 1.296 oz. gold per ton.

The direction of the initial drill holes, however, does not provide a reasonable test of the normal attitude of veins in the vicinity (ie) strike E-W to N.E.-S.W. and dip to the south or southeast.

RECOMMENDATION

Consequently, several more drill holes are recommended to provide a good test of the gold mineralization disclosed by the percussion drill hole. These holes should be drilled northerly to northwesterly, or southerly to southwesterly, depending on determination of dip. Four holes are recommended initially, each about 250 ft. long approximately, and drilled as shown by dashed lines on the accompanying print. A second and contingent stage, with further drilling to continue to determine strike length of the mineralization if found, could follow.

COST

Stage I

Check of VLF-EM re trend of anomaly	\$ 5,000.00
1,000 ft. @ \$30 per foot	30,000.00
Road building, access	5,000.00
Assays, supervision, engineering	5,000.00
Contingency	<u>5,000.00</u>
	\$ 50,000.00

Stage II - Contingent

Follow up drilling if gold mineralization of importance is intercepted - 2,000 ft. @ \$30 per foot	\$ 60,000.00
Overhead, supervision, assaying, engineering	<u>15,000.00</u>
	\$ 75,000.00
Total	\$ 125,000.00

INTRODUCTION

The most recent examination on site was on August 7, 1984 under the guidance of Henry Zukowski. The several areas of gold-quartz float, and the gold quartz veins of the Whitewater system were re-examined. Previous examinations had been made in October 1962 and June 12, 1973. Data from these examinations is used in conjunction with data and a report supplied by M.H. Sanguinetti, P.Eng. A review of new data including check assay on percussion drill cuttings was completed April 10 to 23, 1986. This information is used herein to update Seraphim's report of February 6, 1985.

LOCATION, ACCESS, PHYSIOGRAPHY

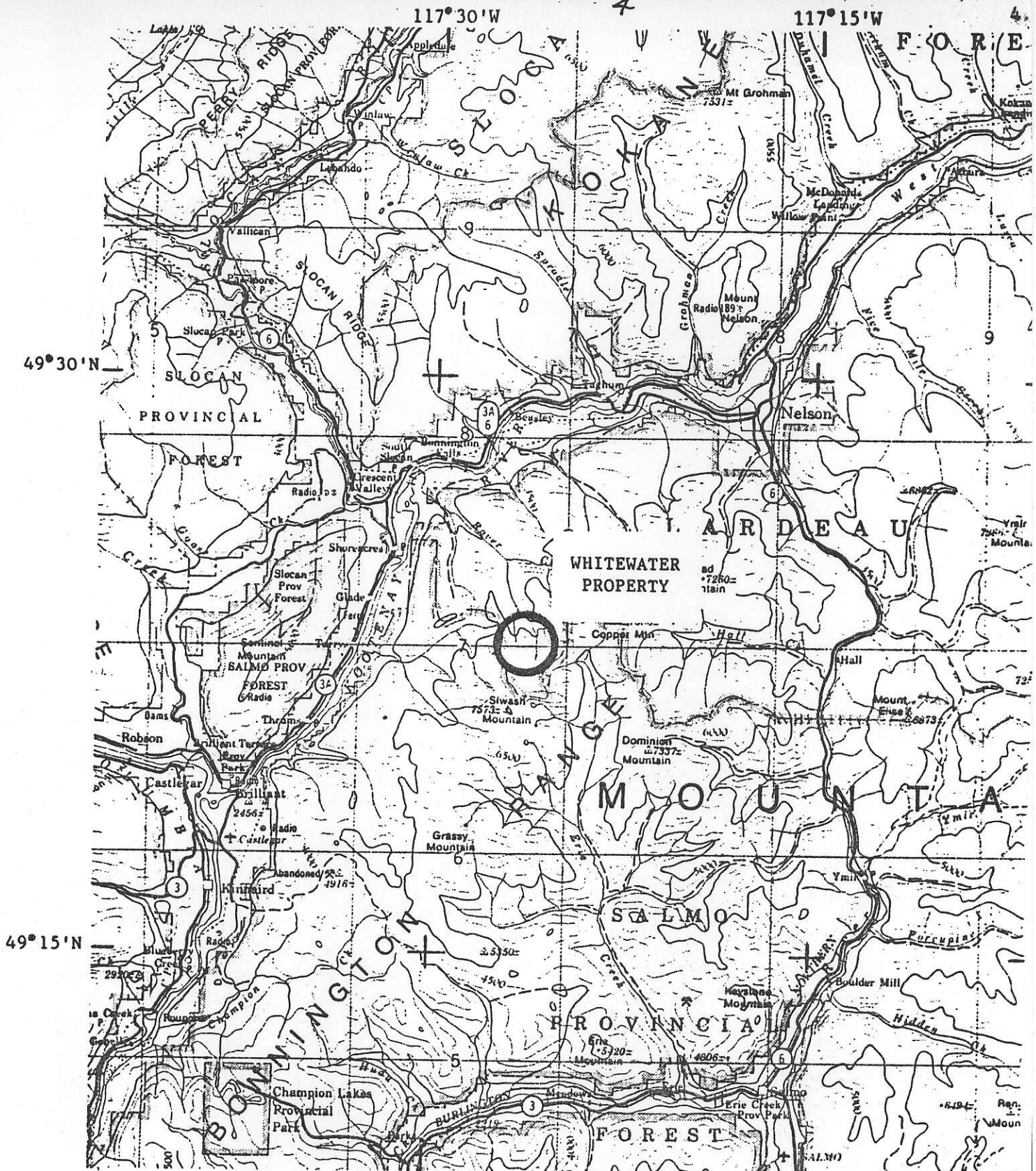
(Figure 1)

The Whitewater property is located in south central British Columbia, approximately 16 kilometres southwest of Nelson at latitude 49° 23' north and longitude 117° 26' west (NTS 82F/6W). This is at the head of Snowwater Creek, a tributary of Rover Creek which flows northwestward from the Bonnington Range into the Kootenay River near South Slocan.

Road access from Nelson is along the south side of the Kootenay River to the Rover Creek logging access road and then southward along Rover Creek on the Whitewater Creek branch of the road to the property, a total distance of approximately 23 kilometres. This road crosses the claim group; in addition, several older roads provide limited access to old workings on the Crown-granted claims.

The topography on the claims is moderate to steep, with elevations ranging from 1460 metres above sea level along Snowwater Creek to more than 2225 metres on the southernmost located claims east of Siwash Mountain.

Vegetation consists of relatively dense, mature hemlock, cedar, fir, balsam and minor underbrush. Recent clearcut logging has been carried out to the south and east of the crown-granted claims. Outcrop area is less than 25%, with glacial till and boulder talus obscuring much of the valley bottom and side hills.



SNOW-WATER RESOURCES LTD.

Nelson, B.C.

WHITEWATER PROPERTY

NTS 82F/6W

LOCATION MAP

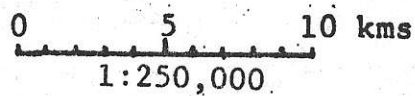


FIGURE 1

HISTORY

The Whitewater property is first mentioned in the 1890 B.C. Minister of Mines report which notes that a tunnel 90 feet long had been driven on a 6 foot wide mineralized quartz vein. Gold values were reported to average \$80 to the ton. A sample shipment of 1½ tons tested at \$110 in gold and \$9 in silver. The property was further developed, a small mill and concentrator were operated and the key claims crown-granted during the period up to 1907. Approximately 1200 tons of ore from surface boulders and from underground were milled but the amount of gold produced is not known. Further work is reported to have been carried out in the late 1920's. In the early 1930's, reference is made to prospecting for the high grade float ore which was reported to occur over a considerable distance along Whitewater Creek. Boulders weighing more than 17 tons and carrying gold in pyrite, galena, sphalerite and chalcopyrite in quartz occur along the creek to the top of the crown-granted claims. A specimen of this material assayed 7.06 oz/t gold and 37.6 oz/t silver (B.C. Minister of Mines, Bull. No. 1, 1932).

Considerable prospecting and exploration were carried out in attempts to locate the source of the large, high grade float boulders during the years from 1932 to 1970. Road building, trenching, test pitting, diamond drilling (1800 feet in 1943 and 7600 feet in 19 holes in 1944), geophysical and topographic surveys, and underground drifting were conducted in unsuccessful attempts to locate the source of the float and to test the known veins.

The claims were optioned to Scurry-Rainbow Oil Ltd. during 1970. They completed road construction, surface and underground mapping, trenching and 1064 feet of diamond drilling in three holes.

Low gold values (up to 0.260 oz/t gold across 2.2 feet in hole W-3) were intersected in all holes but these were not followed up. The option on the property was dropped in 1971.

More than 320 reconnaissance soil samples were collected in 1973, mostly on the eastern side of the creek on the Snowwater, Gold Coin and Floatstone crown-grants by Dr. R.H. Seraphim during the course of a property examination. The results of the gold and zinc analysis show two elongated zinc anomalies and several isolated

anomalous gold samples. A total of 19 rock chip and stream sediment samples was collected by J.J. Barakso in 1975 as part of an orientation survey. No complete survey was undertaken.

A VLF EM-16 geophysical survey was carried out in 1980 along 10 lines. Three possible conductors were noted but correlation with geology and mineralization was not made. Also in 1980, a small shipment of 19.5 tons was made by Mr. Zukowski from part of one of the float boulders. This material graded 0.359 oz/t gold, 0.60 oz/t silver and 87.2% silica.

Backhoe trenching, road building, geochemical sampling (284 soils), percussion drilling (4 holes) and bulldozing were completed between 1980 and 1983 by Mr. Zukowski through Woodcrest Holdings Ltd. During 1983 and early 1984, a new adit was driven on the known quartz veins below the main road to test the tenor of the vein at depth. A short cross-cut was started to evaluate percussion drill results which returned 5 feet of 0.108 oz/t gold in quartz (D83-4, 145'-150'), however, this work has not been completed.

A VLF-EM Survey was completed in 1985, and was followed by a program of percussion and diamond drilling. Detailed information is available in the office of Snow-Water in Nelson, B.C. The most important result was the assay of 1.488 oz. gold in percussion cuttings representing 6 feet near the end of hole P85-17.

TO WEST SEE MAP 82 F / 5 E

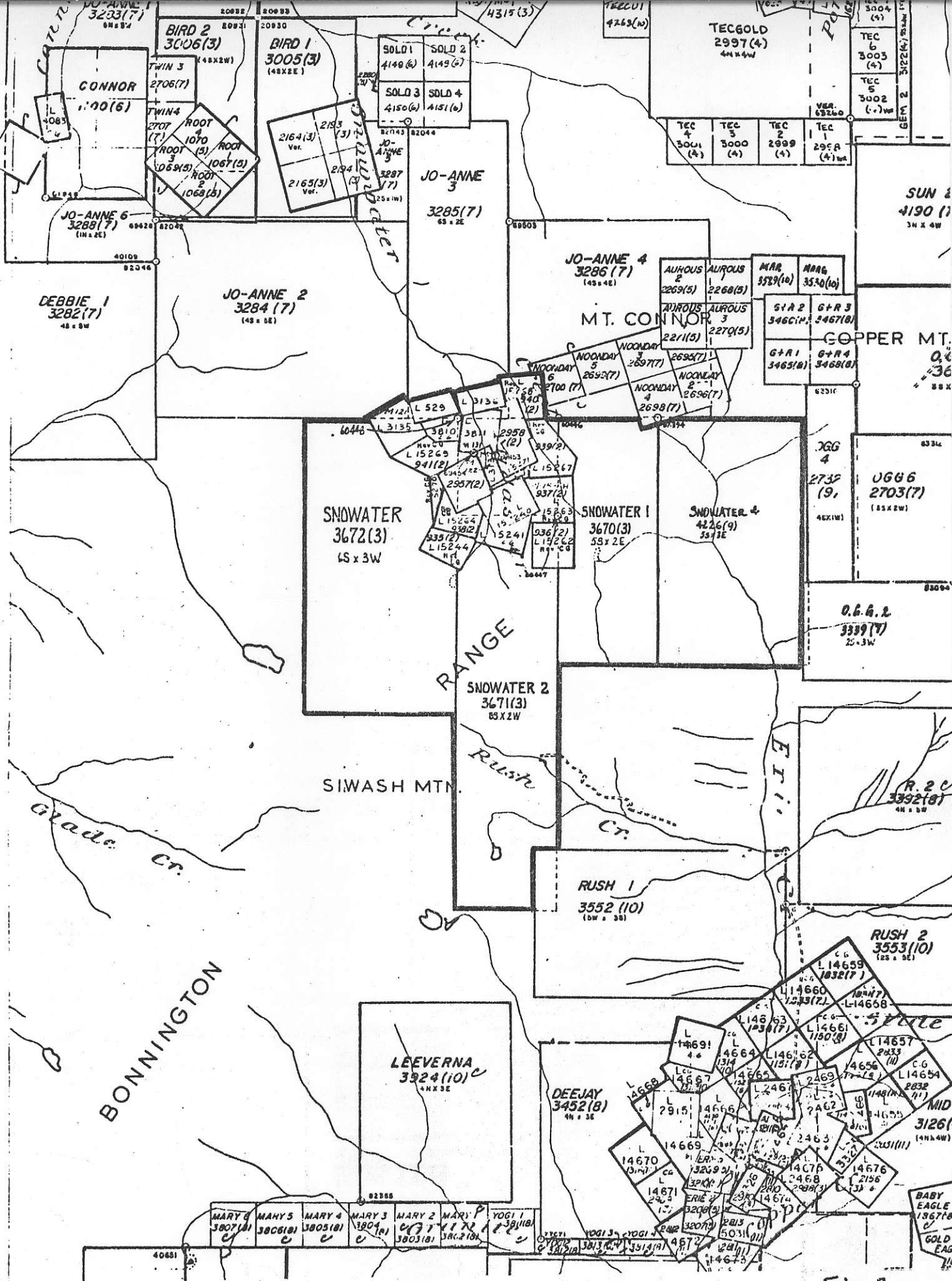


Fig. 2

CLAIMS

(Figure 2; Appendix "A")

The Whitewater property is in the Nelson Mining Division and is comprised of 59 claims and fractions as noted in Appendix A. Assessment work for the 1983-4 underground exploration program was recorded in February, 1984. All claims are presently in good standing. Title is held in trust by Margaret Whitelock, Henry Zukowski and Cameron Zukowski for Snow-Water Resources Ltd. The Snow-Water 1 to 3 located claims staked in March, 1984 cover ground previously held by the Dixie group to the south of the Whitewater crown-granted claims. Three claims, the Gold Coin, Floatstone and Snow-Water 4 were added to the group recently.

GEOLOGY

The Whitewater property is situated in the region between Nelson and Castlegar which is underlain by Early to Middle Mesozoic sedimentary and volcanic rocks which have been intruded by Lower Cretaceous (?) plutonic rocks.

Regional mapping by H.W. Little (G S C Mem. 308, Map 109A) shows the area is underlain by metasediments (argillite, argillaceous quartzite, conglomerate and minor pyroclastics) of possible Jurassic age (unit B) which may correspond in part to the Upper Jurassic Hall Formation. These rocks are in contact with (overlie ?) volcanics and metavolcanics of the Lower Jurassic Rossland Formation. Granite, granodiorite and diorite of the Lower Cretaceous Nelson Batholith have intruded both of the above formations. The intrusion in the vicinity of the property is typically a medium-grained, equigranular granite with a well developed coarse foliation. Alteration along the contacts has resulted in the formation of schistose metavolcanics and metasediments, locally containing abundant chlorite, epidote and calcite. The chill margins of the granite, where noted, are narrow. Younger pegmatite lenses, aplite, rhyolite porphyry, and lamprophyre dykes intrude the granitic rocks; only the basic dykes have been observed intruding the older formations.

Two sets of faulting and fracturing were observed on the Whitewater property. A predominant set which trends between 030° and 040° appears to cross all major units and is also subparallel to some of the mineralized vein segments. The second major

set trends between 150° and 180° and appears to be parallel to many of the lamprophyre dykes which intrude the granitic rocks.

MINERALIZATION

Mineralized quartz veins occur mostly within the granite and some are reported to be partly within chloritic schists, argillite and "greenstone" of the Rosslund Formation. These are described as fissure-filled quartz veins which occasionally carry fragments of crushed country rock.

Pyrite is the predominant metallic mineral present in the quartz veins. It occurs as clusters in pockets and partial vug fillings of euhedral to subhedral crystals. Minor galena and sphalerite occur at irregular intervals with the pyrite. Molybdenite is present alongside some of the veins and may be associated with both pegmatites and with lamprophyre dykes. Gold is the principal economic commodity and this occurs with the pyrite.

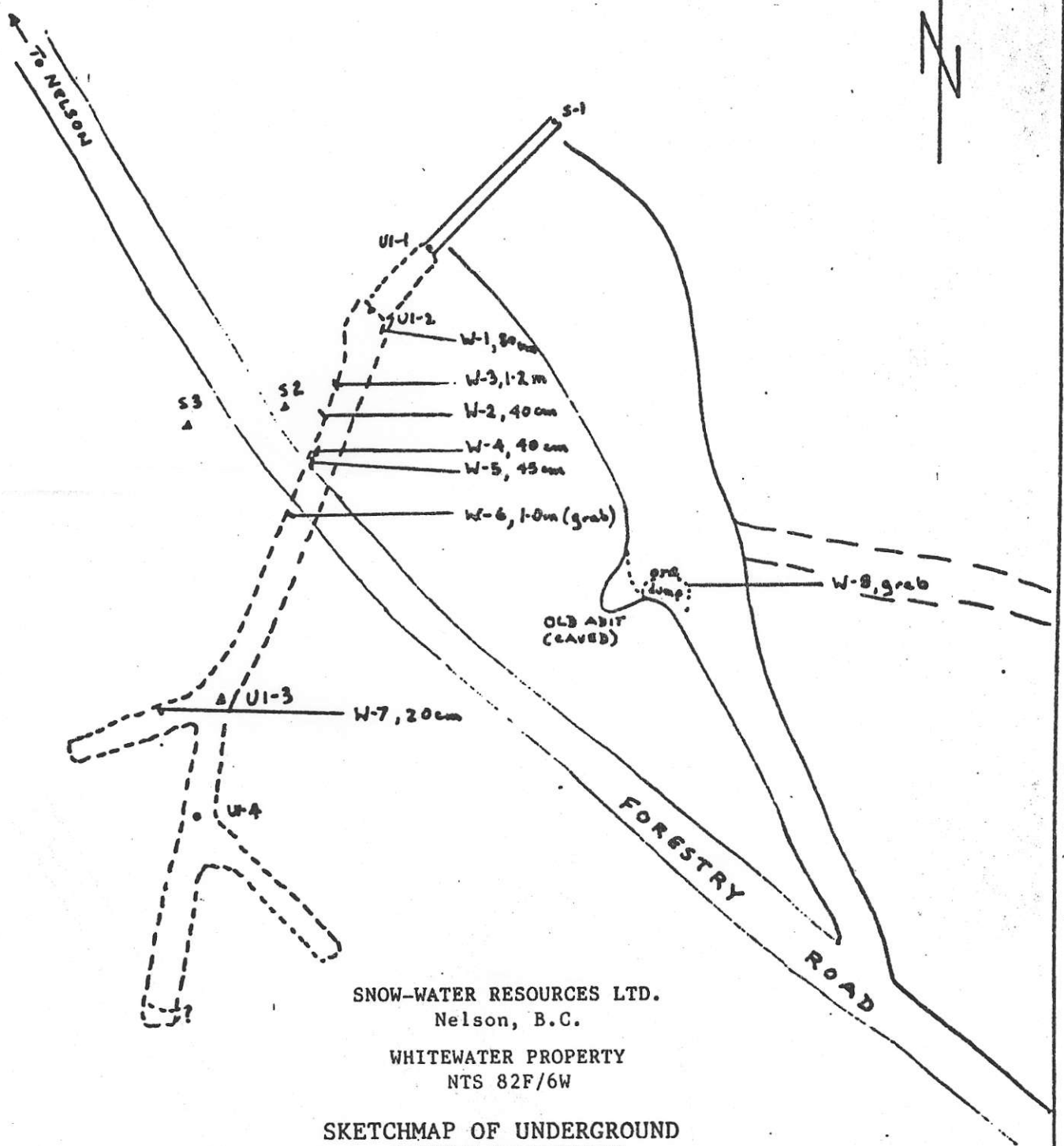
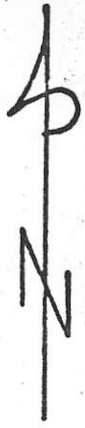
Sample results from quartz veins both on surface and underground have returned high assay results in gold. Sampling by the B.C. Dept. of Mines (B.C. Bull #1, 1932) indicated some gold assays during the time of operation, one of which was considerably higher than average:

<u>Width (inches)</u>	<u>Gold (oz/t)</u>	<u>Remarks</u>
66	0.54	Whitewater, outcrop
50	0.29	Upper tunnel
32	4.08	Upper tunnel, heavily oxidized

These earlier government assays and the results from limited production were confirmed by Scurry-Rainbow Oil Ltd. on samples from vein material in two older adits (upper and lower) above the road. This work showed the presence of narrow pockets or shoots of significant gold mineralization as follows:

<u>Tag No.</u>	<u>Width (feet)</u>	<u>Gold (oz/ton)</u>	<u>Remarks</u>
8956	0.4	0.320	Upper adit
8963	0.7	0.380	Upper adit
8967	2.5	0.600	Outcrop between adits
8972	1.0	3.020	Lower adit, small stope
8952	1.5	1.10	Lower adit
8970	1.5	0.460	Lower adit, quartz pocket

Recent underground development (1983-4) on this same vein but at a lower elevation was undertaken by Mr. Zukowski. Preliminary chip samples collected in June, 1984 by M. Sanguinetti across the vein returned the results shown in Figure 3.



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 WHITewater PROPERTY
 NTS 82F/6W

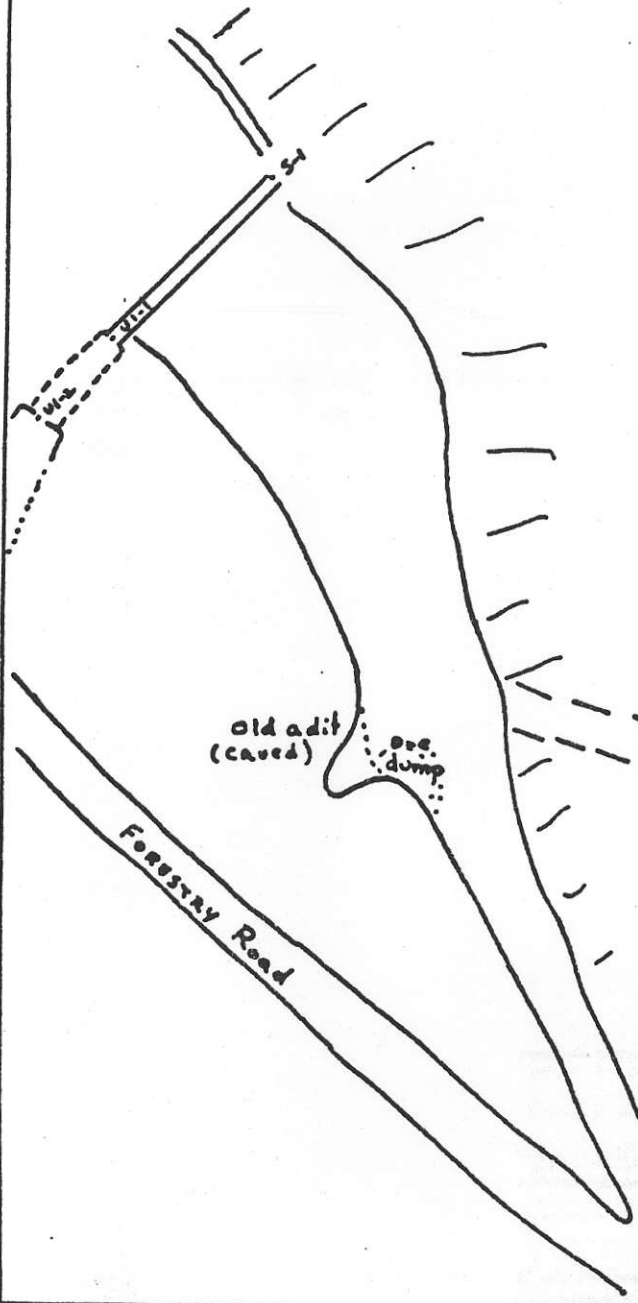
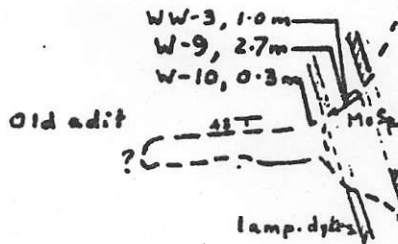
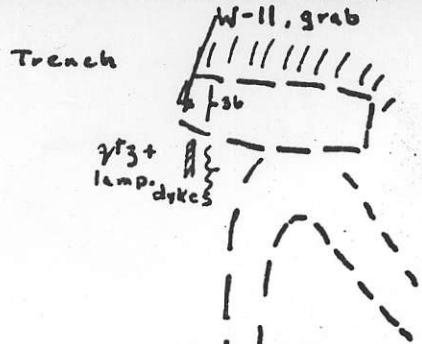
SKETCHMAP OF UNDERGROUND
 SAMPLE LOCATIONS

0 10 20 m

1:500
 June, 1984

TRACED FROM COMPANY PLAN
 BY RAY JOHNSON & ASSOC.

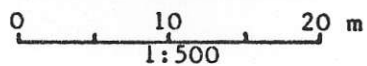
FIGURE 3



SNOW-WATER RESOURCES LTD.
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WHITEWATER PROPERTY
NTS 82F/6W

SKETCH MAP OF SURFACE
SAMPLE LOCATIONS



June, 1984

FIGURE 4

Tag No.	Sample No.	Width (m)	Gold (oz/ton)	Silver (oz/ton)	Remarks
2793	W-1	0.8	0.086	0.06	Footwall vein, 1 m
2794	W-2	0.4	0.006	0.02	At 9.7 m, pyrite clusters
2795	W-3	1.2	0.036	0.02	At 7.0 m, pyritized granite
2796	W-4	0.4	0.021	0.03	At 13 m, minor pyrite
2797	W-5	0.45	0.439	0.36	At 13.7 m, pyrite pods
2798	W-6	1.0	0.092	0.10	At 18.4 m, near fault
2799	W-7	0.2	0.135	0.08	Side drift, across vein
2800	W-8	grab	0.117	0.21	Vein material on dump

Surface quartz veins above and below (Figure 5) the main workings were chip sampled by M. Sanguinetti. In all instances minor gold values were obtained indicating a low grade, widespread, nature of mineralization within quartz veins; higher grades have erratic distribution.

Tag No.	Sample No.	Width (m)	Gold (oz/ton)	Silver (oz/ton)	Remarks
10551	W-9	2.7	0.087	0.09	Vein, old road adit
10552	W-10	0.3	0.010	0.04	Vein, old road adit
10553	W-11	grab	0.005	0.02	Fault, vein in lower trench
2740	WW1	0.25	0.038	0.02	Vein, trench above adits
2741	WW2	0.6	0.036	0.04	Vein, trench above adits
2742	WW3	1.0	0.087	0.10	Vein, old road adit

The mineralized float boulders, which are found along Whitewater Creek from the Columbia CG to above the Snowwater CG (up to an elevation of approximately 5200 feet), contain more spectacular gold mineralization than any encountered in the underground workings. Because of the large size, frequency of occurrence, and the exceptionally high gold values, the source of these boulders constitutes a most important target on the Whitewater property. Some representative results of chip samples from these boulders are:

<u>Gold oz/ton</u>	<u>Silver oz/ton</u>	<u>Remarks</u>
0.37	3.6	B.C. Govt. (1932), composite
7.06	37.6	B.C. Govt. (1932), specimen
3.76	16.3	B.C. Govt. (1932), misc. specimens
1.76	-	J.W. Stollery (1974), chip samples

The boulders are primarily quartz, in places with portions of granite wall rock attached. Good values in gold and silver accompany pyrite and minor sphalerite and galena. Native gold has been reported with the pyrite (B.C. Dept. of Mines, Bull #1, 1932). These boulders are found along the creek channel and along the sides of the creek, in most or all instances lying on top of cemented gravel or hardpan. Most of the boulders are relatively angular indicating very little movement on glaciation from their source. Previous prospecting by J.W. Mulholland (1948) suggested the source of the float may be from a north-south striking vein which lies to the west of and is parallel to a wide (500 feet) lamprophyre dyke striking N10°E. H. Zukowski found more float while building road towards the west head wall of the cirque last summer. A chip sample assayed 0.218 oz. gold and 0.12 oz. silver per ton.

The location of these boulders, on top of the till, as well as their angular and somewhat incompetent nature, affirm that they were carried on top of ice. Inasmuch as drilling and trenching nearby has showed 25 to 30 feet of till, without quartz boulders, their source is believed to be near the rim of the basin.

The program of percussion and diamond drilling may have resulted in the discovery of the source of the gold-bearing float that has attracted attention for many years. The most pertinent result was from hold P-87-17 reported to assay 1.488 oz. gold per ton. The writer's check assay yielded 1.296 ounces gold per ton (Appendix B). The hole was drilled on a VLF-EM anomaly, and upstream from abundant gold-bearing quartz float described in the February 6, 1985 report (shown as X on the accompanying copy of part of the map compiled by Geoquest Consulting Ltd.)

The direction of the initial diamond drill holes, however, does not provide a reasonable test of the normal attitude of veins in the vicinity (ie) strike E-W to N.E.-S.W. and dip to the south or southeast. Consequently, several more drill holes are recommended to provide a good test of the gold mineralization disclosed by the percussion drill hole.

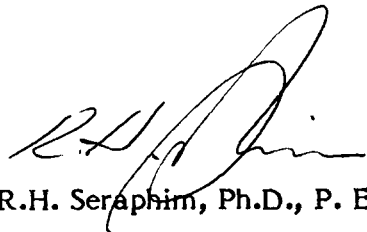
These holes should be drilled northerly to northwesterly, or southerly to southwesterly, depending on determination of dip. Four holes are recommended initially, each about 250 ft. long approximately, and drilled as shown on the accompanying print. A second and contingent stage, with further drilling to continue to determine strike length of the mineralization if found, could follow.

ECONOMIC POTENTIAL

Exploration work to date has resulted in the development of at least two specific targets on the Whitewater property.

The prime exploration target is the source of high grade, gold bearing quartz float boulders found along Whitewater Creek. The size and distribution of these boulders suggest that the source is a vein of up to 1.5 metres in width which is probably located on the west side of the creek. Assay results from this material are consistently high with some spectacular grades exceeding 7 oz/t gold. Previous exploration has been hampered by extensive amounts of large talus boulders. Percussion hole P-85-17 may have determined the source.

The second target is the exploration of the known gold bearing veins, both along strike and down dip, and the location of additional, parallel veins. Gold mineralization is erratic within the veins and, even combined with the credits for the silica content, these veins are presently uneconomic at current low gold prices. The potential to locate sections of higher grade material is good and further testing of these veins is warranted.



R.H. Seraphim, Ph.D., P. Eng.

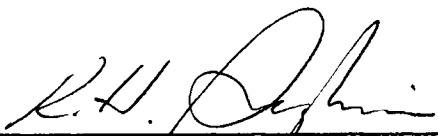
July 17, 1986

CERTIFICATION

I, Dr. R.H. Seraphim, of the City of Vancouver, Province of British Columbia, hereby certify as follows:

1. I am a Geological Engineer residing at 4636 West 3rd Avenue, Vancouver, B.C., and with office at #316, 470 Granville Street, Vancouver, B.C.
2. I am a registered Professional Engineer of British Columbia. I graduated with a Master of Applied Science from the University of British Columbia in 1948, and with a Doctor of Philosophy in geology from the Massachusetts Institute of Technology in 1951.
3. I have practiced my profession continually since graduation.
4. I have no interest, direct or indirect, in the claims of Snow-Water Resources Ltd. or in the shares of the company, or its affiliates and I do not expect to receive any.
5. The attached report is based on a study of maps and reports and several examinations of the property.
6. I consent to the use of this report in or in connection with the prospectus or in a statement of material facts relating to the raising of funds for this project.

DATED at Vancouver, British Columbia, this 21st day of July, 1986.



R.H. Seraphim, Ph.D., P.Eng.

APPENDIX "A"

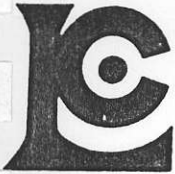
Mineral Leases

<u>Claim Name</u>	<u>Mineral Lease No.</u>	<u>Lot No.</u>	<u>Current Expiry Date</u>
Whitewater	M-121	529	July 25, 1987
Columbia	M-121	3136	July 25, 1987
Midas	M-121	3135	July 25, 1987
Snowwater	M-122	3137	July 25, 1987
Stillwater	M-131	3811	December 5, 1987
Peter Fraction	M-153	15271	July 15, 1987

Mineral Claims

<u>Claim Name</u>	<u>No. of Units</u>	<u>Record Number</u>	<u>Lot No.</u>	<u>Current Expiry Date</u>
Siwash	1	935		February 8, 1994
Roosevelt FR	1	936		February 8, 1994
Victory FR	1	937		February 8, 1994
Virginia FR	1	938		February 8, 1994
Churchill	1	939		February 8, 1994
Ambassador FR	1	940		February 8, 1994
Veronica FR)	1	941		February 8, 1994
Hyland FR)		941		February 8, 1994
Silver #1 FR	1	2957		February 28, 1994
Silver #2 FR	1	2958		February 28, 1994
Snowwater 1	10	3670		March 21, 1988
Snowwater 2	16	3671		March 21, 1988
Snowwater 3	18	3672		March 21, 1988
Gold Coin	1		15240	
Floatstone	1		15241	
Snowwater 4	15	4226		September 23, 1986*

* Expiry dates subject to revision.



Chemex Labs Ltd.

212 Brooksbank Ave.
North Vancouver, B.C.
Canada V7J 2C1

Analytical Chemists • Geochemists • Registered Assayers

Phone: (604) 984-0221
Telex: 043-52597

CERTIFICATE OF ASSAY

TO : SERAPHIM, DR. R. H.

422 - 470 GRANVILLE ST.
VANCOUVER, B.C.
V6C 1V5

CERT. # : A8611977-001-A
INVOICE # : I8611977
DATE : 17-APR-86
P.O. # : NONE
ELDEN #22680

Sample description	Prep code	Ag oz/T RUSH FA	Au oz/T RUSH FA				
20906 B	207	0.18	1.296	--	--	--	--

check on the percussion drill hole assay.

REFERENCES

- Barakso, J.J., 1975: "SnowWater Gold Prospect, Geochemical Orientation Survey", B.C. Assessment Report No. 05558.
- British Columbia, Minister of Mines Reports for the years: 1890 - 3, 1895, 1896, 1898, 1900, 1907, 1928, 1932, 1941 - 4, 1948, 1953, 1970, 1975.
- Cartwright, P.A., 1984: Personal Communication regarding a 1980 VLF EM survey on behalf of Woodcrest Holdings Ltd.
- Little, H.W., 1960: "Nelson Map-Area, West Half, British Columbia", Geol. Surv. Can., Mem. 308.
- Mulholland, J.W., 1948: "Float Ore Situation", Private Report on the Whitewater Creek Group for J.W. Gerrard.
- O'Grady, B.T., 1932: "Stillwater, Gold Coin, Whitewater, Snow Water and Columbia", in Lode-Gold Deposits of British Columbia, B.C. Dept. of Mines, Bull. No. 1, compiled by J.D. Galloway.
- Rota, D., 1971: "Final Report, Whitelock Gold Prospect, Nelson Mining Division, B.C." Private Report by Scurry-Rainbow Oil Ltd.
- Santos, P.J., 1983: "Report on the Property of Noramex Minerals Inc., Root Gold Project, Connors Creek Area", in Noramex Minerals Inc. Prospectus, Feb. 1984.
- Seraphim, R.H., 1975: "Results of Reconnaissance Geochemical Soil Survey. Private Map for Silver Standard Mines Ltd.
- Zukowski, H., 1984: Personal Communication.
- Seraphim, R.H., 1985: "Report on the Whitewater Property, Rover Creek Area, Nelson, B.C.