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GOLD EXPLORATION REVIEW

SLOCAN CAMP

1985

BLUE RIDGE MOUNTAINS

KASLO, B.C.

SLOCAN MINING DIVISION

BRITISH COLUMBIA

PROPERTY

- : 1582 Claim Units 1,447.41 Net Claim Units 89,858.31 Net Claim Acres
- : 50°00' North Latitude 117°00' West Longitude
- : NTS 82F/14E, 82F/15W,
- : 82K/2W, 82K/3E

WRITTEN BY

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DATED

: April 30, 1985

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GOLD EXPLORATION REVIEW

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SUMMARY

Five years exploration on mineral claims located on the Blue Ridge Mountains of southeastern British Columbia is the subject of this report. Access is via provincial highways with services and labour required by the mining industry available in the local area. Principal rock groups are Milford, Kaslo and Slocan sedimentary and volcanic assemblages deposited to the west of continental North America in late Paleozoic to early Mesozoic time. Government geologists have recorded gold production on the Blue Ridge Mountain.

An exploration program concluded a successful 1984 season with a drill intersection assaying 0.170 oz/ton gold across 0.9 metres (3 feet). A geophysical exploration model based on airborne surveys of the area drilled has been appplied to the majority of claims in the area. Seventy-five plus conductors, with many lineations that can be important indicators of sulphide and native gold mineralization, were identified.

The gold find has been correlated to epithermal-bonanza deposits around the world, e.g., to the Mother Lode System of California, the Hauraki gold deposits of the Coromandel Peninsula of New Zealand, and the Coeur d'Alene district of Idaho as well as major bonanza deposits in Chile, Peru, Phillippines and Australia. The grades may be very high, such as those at El Indio in the Andes Mountains of Chile where channel samples returned 5,000 - 10,000 grams of gold/ton.

INTRODUCTION

A review of geological and geophysical exploration on mineral claims held in the Blue Ridge Mountains of southeastern British Columbia is the subject of this report. Work completed to date produced 0.170 oz/ton gold across 0.9 metres (3 feet), identified specific targets, and developed a successful gold exploration model.

LOCATION AND ACCESS

Location is in southeastern British Columbia (Figure 1) and comprises portions of NTS map sheets 82F/14E, 82F/15W, 82K/2W and 82K/3E, centered at 50°00' latitude, 117°00' longitude.

Regional access is via Highway 3 and 3A, with the area served on the east by Highway 31, and on the west by Highway 31A. Local access is by fire control, logging and mining roads, trails and helicopter.

Kaslo, New Denver and other communities offer services and skilled labour necessary to a mining/forestry environment. A rail terminus is at Nelson, a commercial airport at Castlegar, and Cominco's smelter is at Trail, B.C.

TOPOGRAPHY

Terrain is mountainous (2000' to 9000'), mining timber is plentiful, with hemlock, fir, cedar, spruce and tamarack predominant. Water is found in all areas. The exploration season begins in April with the first snowfall expected in November. Mining operations can be carried on year round.

PROPERTY

Mineral claim data is detailed in Appendix 1 and shown in Figure 2. The area covers 1,447.41 net claim units and 89,858.31 net claim acres.

HISTORY

Mining history around Kootenay Lake begins in the early 1820's when Indian and Hudson's Bay Company trappers used the lead-zinc-silver deposit at present day Riondel for muzzle-loading rifles. On Blue Ridge, the Highland Surprise production 0.94 oz/ton gold with samples taken by Maconachie assayed as high as 1.04 oz/ton gold (Maconachie, 1940). On the Gold Quartz, provincial geologist samples assayed as high as 0.46 oz/ton gold (Maconachie, 1940). Samples on the Eureka Group assayed 0.22 oz/ton gold (Maconachie, 1940).

REGIONAL GEOLOGY

Klepacki's map and sections are compiled in a regional geology map presented in Figure 3. His geological summary and comments on mineral deposits are:

"The Milford, Kaslo and Slocan groups comprise sedimentary and volcanic assemblages deposited along and west of the North American continental margin from late Paleozoic to early Mesozoic time. The volcanic, ultramafic and related sedimentary rocks of Kaslo Group form part of the Eastern assemblage of Monger et al (1982)".

Under mineral deposits, Klepacki (1985) advises:

"Gold and silver have been extracted from several mines and properties in the map area. Cairnes (1934) and Maconachie (1940) have described many of the mineral deposits in the area. In general, most properties are located on or near northeast-trending, quartz-galena-sphalerite-pyrite-chalco-

pyrite veins with rust-weathering carbonate alteration envelopes. Sulphide minerals are occasionally found in northwest-trending veins. Mineralized quartz veins are commonly found along the margins of the ultramafic unit and are spatially associated with feldspar porphyry or granitic dykes, although genetic relationships between dykes and veins are uncertain. Precious and base metal values have also been reported from alteration zones on the margins of granitic stocks along North Cooper Creek and from the Marten conglomerate near Kane Creek. Pyrite pods occur along bedding in Slocan grey phyllite and sandstone along Wilson Creek."

Examination of Figure 3 reveals the geology of the Blue Ridge is distinctly different from that of the area to the west of Kaslo River, known historically as the "Silvery Slocan". Rather, the structure represented in Blue Ridge is similar to that found to the northwest and southwest where gold occurrences are known.

CLAIM GEOLOGY

A productive five-year exploration program, developed and directed by L.B. Goldsmith, has produced excellent results:

- 1) 0.170 oz/ton gold across 0.9 metres (3 feet) in drill intersection;
- 2) a proven gold exploration model for the Blue Ridge Mountains:
- geochemical/geological anomalies;
- 4) first stage exploration on most properties.

A claim geology map (Figure 4) has been compiled from Goldsmith's reports and maps. Summaries of the reports are reproduced in Appendix 2. Goldsmith's November 1984 report discussed the vein drilled at 13N 11W (Figure 5):

"Comparison of the vein exposed in surface trenches with the vein as intersected in three drill holes reveals:

- continuity of a strong fissure/fault-controlled vein with depth;
- 2. increase in width of vein mineralization with depth;
- 3. dramatic decrease in galena and sphalerite content of vein with depth;
- 4. coincident drop in silver content with decrease of lead/zinc with depth;
- 5. significant gold (0.170 oz Au/ton within a 0.9 m (3 foot) section of core in 84-1 at depth, but negligible at the surface and negligible in the adjacent holes;
- 6. arsenopyrite present in 84-1 and 84-2, but not in 84-3. Anomalous arsenic is contained in geochemical determinations both from the surface samples and from depth.

Goldsmith also discussed the Hill-60 Vein (Figure 5):

"Significant lead, zinc and silver mineralization is present in the surface exposure of the Hill-60 vein. Vein mineralogy, host rock, attitudes and grade are very similar to the surface exposures of the 13N 11W vein which is approximately 175 m to the northeast. Previous exploration by underground drifting failed to encounter similar lead, zinc and silver mineralization. The adit may have been too short to penetrate a sulphide body which may rake slightly south of the surface exposure. As can be seen on the longitudinal section in the pocket of this report, a sulphide body that extends perpendicularly down from the surface would not be exposed by a 72-metre adit. Furthermore, although the adit follows a very strong fault coincident in strike and dip with the surface vein, it is possible that the sulphide mineralization may lie east or west of the adit in parallel structure. A change of a few degrees in dip attitude of the vein 60 m above the adit face may account for the failure to penetrate the target at depth.

Significant values of gold (up to 0.016 oz/ton) are present in vein samples at surface. Arsenopyrite mineralization was not seen but arsenic geochemistry is anomalous. The many similarities between the Hill-60 vein and the 13N 11W vein may extend to depth as well. Core drilling of the Hill-60 vein might encounter more significant gold values, as did 84-1.

Mercury concentrations are highest (up to 6540 ppb) in the samples from the adit. This area is also deficient in base metals. Abundant clay, quartz and calcite are the dominant minerals in the adit vein. These features suggest a transition from mesothermal base metal vein characteristics to decreased temperature and epithermal type vein assemblages."

The importance of these results is analyzed in a discussion of Epithermal-Bonanza Veins:

"In a comprehensive volume of gold deposits of the world, Boyle (1979) has deviated from the traditional temperature classification of ore deposits. He has emphasized rock type and structural setting of gold deposits. The Hill-60, 13N 11W veins would be included in the Mesozoic orogenies of the Western Cordillera. Of his nine main categories, 'Gold-silver and silver-gold veins, stockworks, lodes, mineralized pipes and irregular silicified bodies in fractures, faults, shear zones, sheeted zones and breccia zones essentially in volcanic terranes' best fits the Red Diamond Mines property. Veins of this type are generally composed of a gangue of quartz with minor carbonates, often ankerite. Metallic minerals include pyrite, arsenopyrite, pyrrhotite, chalcopyrite, galena, sphalerite, tetrahedrite, stibnite, molybdenite, and/or scheelite. Gold is in the free state or associated with pyrite or arsenopyrite.

Among the many examples of this type of gold deposit, Boyle (1979) mentioned the Hauraki gold deposits of the Coromandel Peninsula of New Zealand. At the Waihi and Thames districts propylitized andesites are hosts to quartz veins containing calcite, rhodochrosite, barite, ankerite, pyrite, chalcopyrite, galena, spalerite, stibnite, molybdenite, cinnabar, native arsenic, and others. The Hauraki deposits appear to be crudely zoned with cinnabar (Hg) mineralization near the surface, gold-silver mineralization also near surface and passing successively downward into lead-zinc and then copper-rich zones. Many features of the district conform to the epithermal model previously outlined.

Other deposits which show similarities to the Nevermore claim are also outlined by Boyle (1979). The Mother Lode System of California consists of gold deposits in quartz veins and bodies of pyritized and mineralized country rock in a system of linked and anastomosing faults, fractures and shear zones cutting a complex of Jurassic and Paleozoic greenstones, serpentinites, slates, schists, and granodiorite, the last probably of Cretaceous age. The principal minerals are coarse-grained milky quartz, ankerite,

calcite, mariposite pyrite, arsenopyrite, galena, sphalerite, chalcopyrite, tetrahedrite, scheelite, molybdenite, native gold and various tellurides. Alteration is intense in the greenstones and serpentinites being mainly carbonatization (ankeritization), pyritization and sericitization. The average grade of ore was 0.3 oz Au/ton. On the Nevermore claim, andesite and andesite breccia (greenstone) and significant serpentinite bodies occur near the Voyageur zone. The Hill-60 vein trends southward towards this area and may in fact join the intensely ankeritized zone. Base metals and mariposite accompany the quartz and calcite at Hill-60.

A petrographic study (see Appendix) of the 13N 11W vein indicates a mesothermal type of vein deposit may be present. This implies mineral deposition of moderate temperatures and pressures. Minerals would be deposited at about 200°-300°C from solutions that probably have at least a tenuous connection with the surface. The most abundant products of mesothermal deposits are copper, lead, zinc, silver and gold. Gangue includes quartz, pyrite and carbonates. Wallrock alteration includes sericite, quartz, calcite, dolomite, pyrite, orthoclase, chlorite and clay minerals.

As an example of mesothermal deposits which have some similarities to 13N 11W, Park and MacDiarmid (1964) describe the Coeur d'Alene district of Idaho. Here, lead, zinc, and silver with lesser copper and antimony occur as fillings in faults and fissures caused by tensional stress in sediments of the Belt Series. Ore shoots occur in the more brittle brecciated segments. Arsenopyrite is considered an indicator of economically favourable areas because it apparently describes envelopes around ore shoots" (Goldsmith, November 21, 1984).

The program on Red Diamond's claims has proven successful and an exploration model has been determined for exploration of other properties on the Blue Ridge Mountains.

GEOPHYSICS

Red Diamond claims were surveyed by Columbia Airborne Geophysical Services (1984) Ltd., and a report was produced by David Mark, Geotronics Surveys Ltd. The airborne magnetic and VLF-EM surveys identified additional anomalies and areas for further exploration. In addition other properties in the Blue

Ridge Area were surveyed and exploration targets identified based on the data from Red Diamond's property. Summaries from the geophysical reports are provided in Appendix 3. A claim geophysics map (Figure 6) has been compiled from the reports and maps.

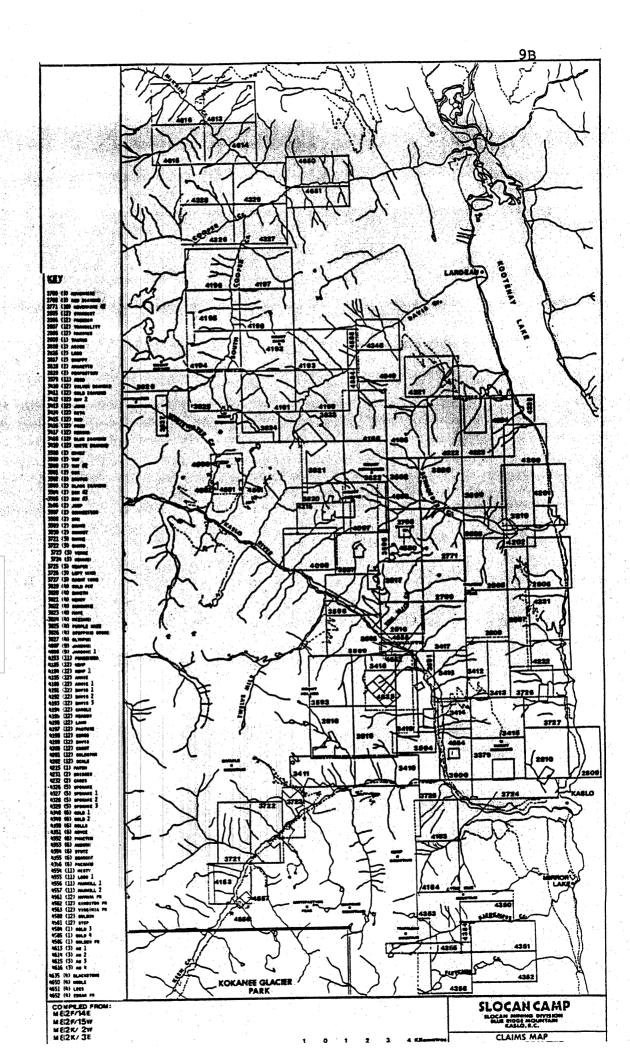
The excellent work and very professional reports surveyed by Columbia and written by David Mark of Geotronics have identified magnetic highs; the VLF-EM survey revealed 75 main conductors and both the VLF-EM and magnetic surveys identified lineations that can be important indicators of sulphide and native gold mineralization.

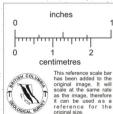
CONCLUSIONS

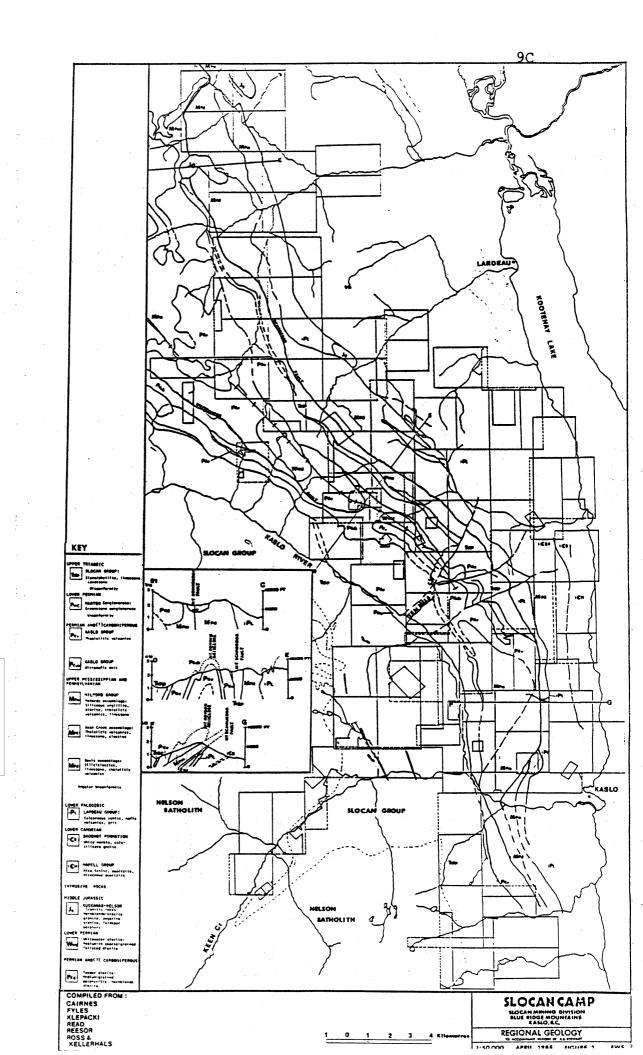
The properties are located in southeastern B.C. in an established mining area, serviced with resident skilled labour, accessible by highway and with a smelter located close by. Regional geology (Klepacki, 1985) indicates a continuation, north and south, of the geology found on Red Diamond's claims. Goldsmith has mapped the Red Diamond claims, successfully drilled gold mineralization and added to the exploration model a definite correlation to known producing gold mines. Columbia and Dave Mark of Geotronics have developed a geophysical model of the known geology and structure on Red Diamond property, found additional targets and, based on the knowledge of Red Diamond's discovery, extrapolated many specific targets on the rest of the property covered in the geophysical survey. Goldsmith in his 1984 report concludes with:

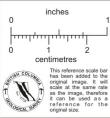
"If these veins are parts of an epithermal system, bonanzatype, high grade gold-silver mineralization may occur in shoots of economic proportion. Single shoots may be productive for up to 200 m in vertical extent (Buchanan, 1981). Thickness varies from a few centimetres to several metres. Grades may be very high in some epithermal

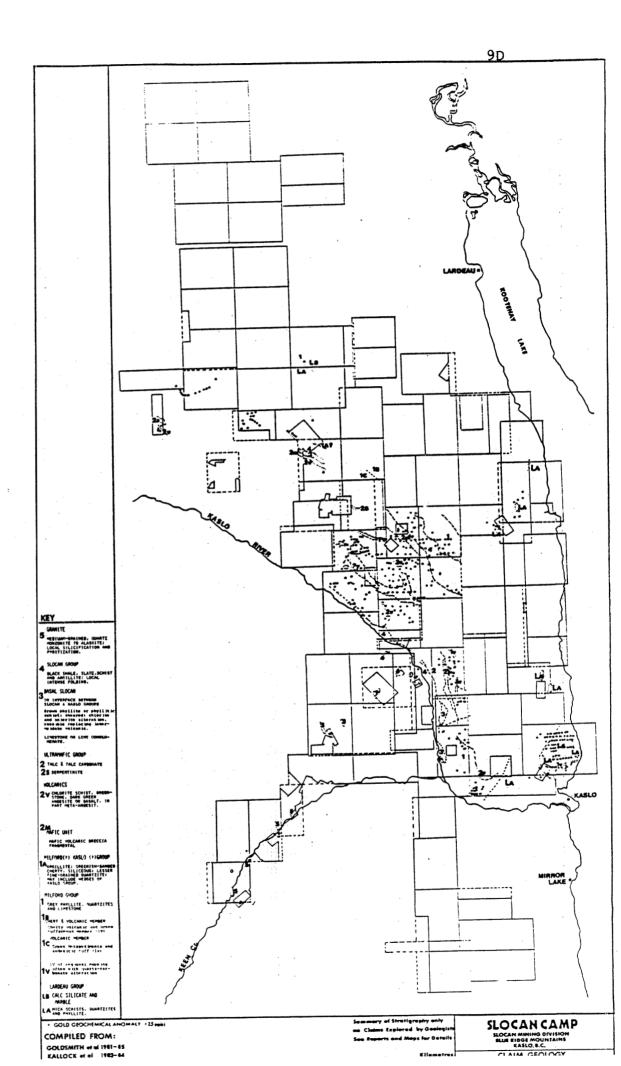
deposits such as those of the recent discovery in the Andes Mountains of Chile where, at the El Indio mine, bonanza lodes have commonly returned channel samples of 5,000-10,000 grams of gold/tonne. Quartz veins of this mine average about 2 metres wide with ore mineralization up to 150 metres in strike length and 270 metres vertically. Direct shipping ore has averaged 267 g Au/ton, 102 g Ag/ton, and 1.81% copper from this mine (Walthier, 1983)."













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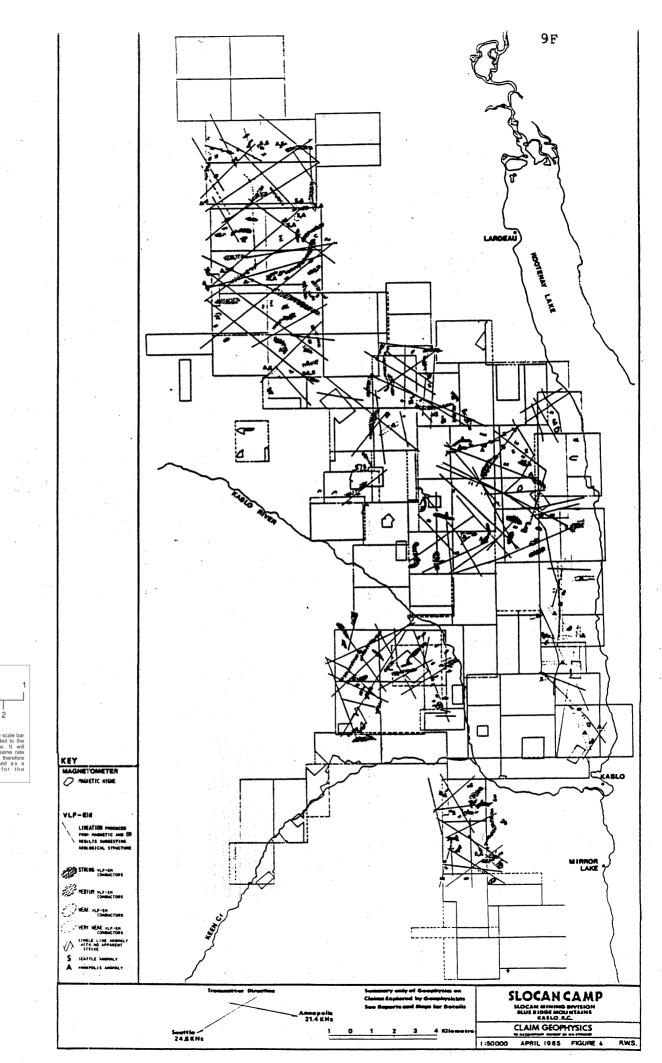
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Assessment Report Index Map - Slocan, 82F/NW

Assessment Report Numbers:

858, 5219, 7079, 7713, 7950, 8437, 8583, 8871, 8950, 9240, 9694, 10,230, 10,712.

Assessment Report Index Map - Lardeau, 82K/SE

Assessment Report Numbers: 1126, 3003, 5337, 6456, 9598, 10,611.

Assessment Report Index Map - Nakusp, 82K/SW

Assessment Report Numbers:

434, 573, 824, 1164, 1622, 1997, 2037, 2661, 3225, 3227, 3650, 3921, 3925, 3926, 3930, 4126, 5401, 5636, 5644, 6051, 6282, 7171, 7835, 8019, 8480, 8516, 8529, 8532, 8593, 9060, 9240, 9480, 9649, 9697, 10,070, 10,228, 10,612.

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APPENDIX 1

MINERAL CLAIMS

No. of Claims	108		
Total Claim Units	1,582		
Net Claim Units (Area Coverage)	1,447.41		
Net Claim Acres (Area Coverage)	89,858.31		

BENEFICIAL OWNERS:	Net Claim Units	Net Claim Acres
(1) ALENIAN ENERGY	15.00	926.70
(2) BLANFORD RESOURCES LTD.	308.92	19,085.08
(3) CHRISTINA RESOURCES LTD.	61.64	3,808.13
(14) HELENA RESOURCES LTD.	178.52	11,028.96
(2) HIGH RIDGE MINES	28.00	1,729.84
(2) HOWARD EXPLORATIONS LTD.	29.00	1,791.62
(1) KELOIL LTD.	17.98	1,110.80
(11) OKANAGAN SYNDICATE	190.41	11,763.22
(28) RAYRICK SYNDICATE	422.31	26,090.30
(7) RED DIAMOND MINES LTD.	99.57	6,151.45
(20) R.B. STEWART	96.06	6,372.21

APPENDIX 1

MINERAL CLAIMS

Record		Record	Claim	Claim	Net Claim	Net Acres	Beneficial	REPOR	TS
Number	Claim Name	Date(D,M,Y)	Size	Units	Units (Est)	(Units x 61.78)	Owner	Geological	Geophy- _sical
2708	Nevermore	21/09/81	5N3W	15	13.25	818.59	Red Diamond	5 Reports	18/02/85
2709	Red Diamond	21/09/81	454E	16	16.00	988.48	Red Diamond	Latest	18/02/85
2771	Nevermore #2	30/10/81	5N4E	20	20.00	1235.60	Red Diamond	24/01/85	18/02/85
2805	Stardust	24/12/81	5N 4W	20	19.50	1204.71	Rayrick	18/12/83	22/03/85
2806	Freedom	24/12/81	5N4E	20	20.00	1235.60	Rayrick	03/12/83	22/03/85
2807	Tranquility	24/12/81	852W	16	15.80	976.12	Rayrick	03/12/83	26/03/85
2808	Maximum	24/12/81	5S4W	20	19.84	1225.72	Christina	Assessment	
2809	Taurus	06/01/82	5S3E	15	15.00	926.70	Rayrick	2 Reports	26/03/85
2810	Aries	06/01/82	5S4W	20	19.01	1174.44	Rayrick	03/12/83	26/03/85
2816	Lobo	04/02/82	3S4E	12	12.00	741.36	Red Diamond	4 Reports	
2817	Snuffy	04/02/82	4N4E	16	16.00	988.48	Red Diamond	21/11/84	18/02/85
2818	Amaretto	04/02/82	5N 4W	20	16.46	1016.90	Rayrick	2 Reports	31/03/85
2819	Perfection	04/02/82	5N4E	20	19.99	1234.98	Rayrick	14/10/82	
3379	Reed	29/11/82	4N 5E	20	16.20	1000.84	Rayrick	Assessment	
3410	Silver Diamond	31/12/83	3N6E	18	17.20	1062.62	Rayrick	Assessment	•
3411	Gold Diamond	31/12/82	3N6W	18	15.00	926.70	Rayrick	Assessment	
3412	Ray2	31/12/82	6N2E	12	11.20	691.94	Christina	Assessment	
3413	John	31/12/82	6N2E	12	11.20	691.94	Christina	Assessment	•
3414	Rita	31/12/82	3S3E	9	8.16	504.13	Red Diamond	14/12/84	
3415	Rođ	31/12/82	4S5E	20	20.00	1235.60	Rayrick	Assessment	
3416	Fred	31/12/82	5N3E	15	14.16	874.81	Red Diamond	14/12/84	
3417	Merina	31/12/82	5N4E	20	19.40	1198.53	Christina	Assessment	
3418	Blue Diamond	31/12/82	5s 4w	20	15.28	944.00	Rayrick	25/12/83	31/03/85
3419	White Diamond	31/12/82	8S2E	16	15.60	963.77	Rayrick	25/12/83	31/03/85
3588	Cinci	21/02/83	3S4E	12	10.63	656.72	Rayrick	18/12/83	22/03/85
3589	TNT	21/02/83	5N 4W	20	20.00	1235.60	Rayrick	18/12/83	22/03/85
3590	TNT #2	21/02/83	5N 4E	20	20.00	1235.60	Rayrick	18/12/83	22/03/85

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3591	Вох	21/02/83	8N2W	16	13.99	864.30	Rayrick	Assessment	
	Brutus	21/092/83	5N 3E	15	15.00	926.70	Alenian	24/06/84	
	Black Diamond	21/02/83	5S 4W	20	20.00	1235.60	Rayrick	25/12/83	31/03/8
	Box #2	21/02/83	2S 4W	08	6.40	395.39	Rayrick	Assessment	31/03/0
	Box #3	21/02/83	1N 4W	04	3.30	203.87	Rayrick	Assessment	
	Jeep	21/02/83	3N 1W	03	2.90	179.16	Helena	06/12/83	
	Connection	21/02/83	4N 4W	16	14.71	908.78	Helena	06/12/83	
	Stx	21/02/83	4N 5W	20	18.19	1123.78	Helena	06/12/83	
	Bravo	21/02/83	4S 5W	20	20.00	1235.60	Rayrick	Assessment	
	Sunset	21/02/83	5N 3W	15	14.00	864.92	Howard	2 Reports	
	Rhyme	21/03/83	6N 3W	18	17.85	1102.77	Rayrick	27/12/83	
	Canto	21/03/83	6N 3E	18	15.85	979.21	Rayrick	27/12/83	
	Verse	21/03/83	5N 2E	10	4.73	292.22	Rayrick	27/12/83	
	Howard	21/03/83	2S8E	16	15.00	926.70	Howard	2 Reports	
	Reaper	21/03/83	2S 5W	10	9.85	608.53	Rayrick	Assessment	
	Left Wing	21/03/83	3S4E	12	10.26	633.86		03/12/83	26/03/
	Right Wing	21/03/83	3N 4W	12	11.68	721.59	Rayrick Rayrick	03/12/83	26/03/
	Goldpot	25/04/83	6N3W	18	15.46	955.12	Blanford	18/12/83	20/03/
	Enneth	25/04/83	2S 4W	08	6.99	431.84	Helena	14/11/83	In Pro
		25/04/83	254W 4N4W	16	12.33	761.75	Helena	03/02/84	III PLO
	Henry	25/04/83	4N 4W 4N 4E	16	16.00	988.48	Helena		
	Sunshine			18		905.08		14/11/83	
	Maye	25/04/83	3N6E	12	14.65		Helena	03/02/84	
	Wizzard	25/04/83	3N 4W		7.50	563.35	Helena	03/02/84	
	Purple Haze	25/04/83	4S5E	20	20.00	1235.60	Helena	03/02/84	
	Stepping Stone	25/04/83	2S6W	12	12.00	741.36	Helena	03/02/84	
	Olympus	25/04/83	1W4N	04	4.00	247.12	Helena	30/01/84	
	Jardine	19/09/83	5N 4W	20	17.98	1110.80	Keloil	3 Reports	
	Jardine 1	19/09/83	4N 5E	20	18.67	1153.43	Helena	14/11/83	
	Ponderosa	40 (40 (00	4S 4W	16	12.73	786.46	Rayrick	2 Reports	In Pro
	Kemp	12/12/83	4N 4W	16	14.25	880.37	Blanford		11/03/
	Kemp 1	12/12/83	5S 4W	20	20.00	1235.60	Helena		12/03/
	Arnie	12/12/83	5S4E	20	20.00	1235.60	Blanford		12/03/
	Arnie 1	12/12/83	5S 4W	20	18.80	1161.46	Blanford		12/03/
	Davis 1	28/12/83	4S5E	20	20.00	1235.60	Blanford		30/03/
	Davis 2	28/12/83	4N5E	20	20.00	1235.60	Blanford	4 = 14 0 10 4	30/03/
4193	Davis 3	28/12/83	4N5E	20	20.00	1235.60	Blanford	17/12/84	
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4194	Carole	28/12/83	4n5w	20	18.16	1121.93	Blanford		30/03/85
4195	Meadow	28/12/83	4S5W	20	18.74	1157.76	Blanford		30/03/85
4196	Lawn	28/12/83	4N 5W	20	20.00	1235.60	Blanford		30/03/85
4197	Pasture	28/12/83	4N5E	20	20.00	1235.60	Blanford	•	30/03/85
4198	Ceres	28/12/83	4S5E	20	20.00	1235.60	Blanford		30/03/85
4199	Davis	28/12/83	4S5E	20	18.80	1161.46	Blanford	17/12/84	, ,
4200	Cabot	28/12/83	4 N 4 W	16	16.00	988.48	Blanford		29/03/85
4201	Goldspar	28/12/83	6N3E	18	14.05	868.01	Blanford		29/03/85
4202	Scale	28/12/83	253W	06	4.36	269.36	Blanford		29/03/85
4215	Patch	27/01/84	3N5E	15	10.58	653.63	Helena		In Proces
4231	Bridges	20/02/84	5N 4W	20	20.00	1235.60	Blanford	• • • •	In Proces
4232	Cases	20/02/84	3S4W	12	10.30	636.33	Blanford		In Proces
4326	Spokane	04/05/84	4S5W	20	20.00	1235.60	Okanagan		22/04/85
4327	Spokane 1	04/05/84	4S5E	20	20.00	1235.60	Ok an ag an		22/04/85
4328	Spokane 2	04/05/84	4N 5W	20	20.00	1235.60	Okanagan		22/04/85
4329	Spokane 3	04/05/84	4N5E	20	20.00	1235.60	Okanagan		22/04/85
4348	Gold 1	06/06/84	3N 4W	12	12.00	741.36	Stewart		In Proces
4349	Gold 2	06/06/84	3S4W	12	12.00	741.36	Stewart		In Proces
4350	Rolls	06/06/84	3S5E	15	10.00	617.80	High Ridge	In Process	In Proces
4351	Royce	06/06/84	3N6E	18	18.00	1112.04	High Ridge	In Process	In Proces
4352	Phaeton	06/06/84	3s5w	15	15.00	926.70	Stewart	In Process	In Proces
4353	Auburn	06/06/84	5S 4W	20	17.12	1057.67	Stewart	In Process	In Proces
4354	Stutz	06/06/84	3N 1W	03.	3.00	185.34	Stewart	In Process	In Proces
4355	Bearcat	06/06/84	1 N 8 W	08	2.85	176.07	Stewart	In Process	In Proces
4356	Packard	06/06/84	4S5W	20	15.60	963.77	Stewart	In Process	In Proces
4554	Misty	27/11/84	1N1E	01	1.00	500.00	Stewart		4
4555	Lobo 1	27/11/84	1S4E	04	3.12	192.75	Stewart		
4556	Maxwell	27/11/84	2Post	01	.836	51.65	Stewart		
4557	Maxwell 2	27/11/84	2Post	01	.836	51.65	Stewart		
4561	Havanna Fr	12/12/84	Fr	⁻ 01	.36	22.24	Stewart		
4562	Kingston Fr	12/12/84	Fr	01	.125	7.72	Stewart		
4563	Virginia Fr	12/12/84	Fr	01	.26	16.06	Stewart		
4580	Golden	12/12/84	1s1w	01	1.00	61.78	Stewart		
4581	Step	12/12/84	4N3W	12	0.00	00.00	Stewart		
4584	Gold 3	11/01/85	2S1E	02	1.77	109.35	Stewart		
4585	Gold 4	11/01/85	4N1E	04	3.20	197.70	Stewart		
			*						

4586	Golden Fr	14/01/85	Fr	01	.96	59.31	Stewart
4613	Au 1	11/03/85	4N5W	20	20.00	1235.60	Ok anag an
4614	Au 2	11/03/85	4N5E	20	19.46	1202.24	Okanagan
4615	Au 3	11/03/85	4S5W	20	20.00	1235.60	Ok anag an
4616	Au 4	11/03/85	4S5E	20	20.00	1235.60	Okanagan
4635	Blackstone	09/04/85	4S5W	20	5.02	309.73	Stewart
4650	Noble	26/04/85	3N6E	18	18.00	1112.04	Okanagan
4651	Lees	26/04/85	2S6E	12	12.00	741.36	Ok anag an
4652	Edgar Fr	26/04/85	Fr	01	.95	58.38	Okanagan

APPENDIX 2

SUMMARIES: GEOLOGICAL REPORTS

December 18, 1980 September 25, 1981	: Nevermore Group, Stewart : Red Diamond Claim, Stewart & Cretain
October 28, 1981 January 29, 1982	: Nevermore, Red Diamond Claim Group, Davies : 2nd Report/Nevermore & Red Diamond, Davies
October 14, 1982 October 19, 1982 October 31, 1982 November 2, 1982	: Kerri & Perfection, Goldsmith: Ponderosa, Goldsmith: Amaretto, Goldsmith: Snuffy & Lobo, Goldsmith
January 1983 January 18, 1983	: Addendum Snuffy & Lobo, Goldsmith : Aries & Taurus, Goldsmith
March 31, 1983	: Review of Base & Precious Metal Resources, Goldsmith
June 20, 1983	: Geological/Geochemical/Geophysical, Nevermore, Goldsmith
June 25, 1983 November 14, 1983	: Geological/Fred & Rita, Kallock, et al: Jardine, Jardine 1, Moonrise, Enneth, Sunshine, Kallock, et al
December 3, 1983 December 6, 1983 December 14, 1983	 Right Wing, Goldsmith Stx, Connection & Jeep, Logan et al Northern Part, Nevermore, Nevermore 2, Red Diamond, Snuffy & Lobo, Goldsmith
December 14, 1983 December 18, 1983 December 25, 1983 December 27, 1983	: Sunset & Howard, Goldsmith: Goldpot, Goldsmith: White Diamond, Goldsmith: Ponderosa, Goldsmith
January 30, 1984 February 3, 1984	: Olympus, Kallock, et al : Henry, Maye, Wizzard, Purple Haze, Kallock et al
June 24, 1984 June 24, 1984 November 24, 1984 December 14, 1984 December 16, 1984 December 17, 1984	: Jardine, Goldsmith : Brutus, Logan, et al : 13N 11W, Nevermore, Goldsmith : Fred & Rita, Kallock, et al : Southwest Part Howard, Kallock et al : Davis & Davis 3, Goldsmith
	: Jardine, Goldsmith: Nevermore 2, Goldsmith

SUMMARY: NEVERMORE GROUP, MINERAL PROSPECT

December 18, 1980 R. Stewart

The general geology and mining history of the Kaslo area was introduced to the writer by a local prospector, Emile Singel. In addition, six locations of particular interest were indicated that led to a general prospecting field survey, during the summer season of 1980. The results of the survey developed a priority list of areas of interest. The subject of this report is the first priority referred to as the Nevermore Group. The following covers a layman's review of the geology of the area combined with a brief comment on the historical mining locations to develop the basis for further research of the geological formations and consideration of the potential for staking the Nevermore Group.

INTRODUCTION: RED DIAMOND CLAIM

September 25, 1981 R. Stewart, R. Cretain

The Red Diamond Claim Group comprises 16 full size mineral claims situated in the Slocan Mining Division, Blue Ridge, north of Kaslo, British Columbia (see Exhibit 1, page 6). Interest in the Red Diamond Claim area was generated in discussions with Emile Singel of Kaslo, British Columbia in the summer of 1980, while prospecting the area northwest of the Red Diamond. On each trip into the latter location, time was devoted to field surveys of the area and a sample assayed in August 1980 proved interesting (see Exhibit 2, page 7). However, interest was limited and secondary to the prime area northwest of this section.

Research in the spring of '81 indicated a group of crown grants had been deeded in 1905. Additional recorded data has not been found to date. Local information suggested work had been done on the crown grants, and production, high in silver, lead and zinc, was obtained. It was decided that on any staking program to the northwest, time would be devoted to further area surveys and staking, if warranted. Further, the area was included in our research of the general geology and covered in our guide for further work. (See Appendix 1 - Nevermore group - Mineral prospect Blue Ridge - West Kootenays).

CONCLUSIONS: Report on Nevermore and Red Diamond Claim Groups

October 28, 1981

R.D. Davies

There are a number of factors that indicate that the Nevermore and Red Diamond claims have the potential of containing economic mineral deposits, as follows:

- 1) the density of known deposits in the area is substantial being of the order of 5.8 per square mile.
- 2) rocks of the Milford and Kaslo Groups, ore-bearing in the Ainsworth camp, underlie the claims.
- 3) there is an extensive limestone horizon near Milford Peak raising the possibility of replacement mineralization.
- 4) The silver/lead and zinc/lead relations of sulphide deposits in the vicinity of Singel Peak compare favourably with those of a number of mineral producers in the area.
- 5) The property is not remote, has road access and presents any options for development, transportation and mineral processing which would enhance the economic ore deposits are found.

SUMMARY: SECOND REPORT ON THE NEVERMORE 1 & 2, RED DIAMOND CLAIM GROUP

January 29, 1982 R.D. Davies

The primary purpose of this report is to present an exploration program for the Nevermore 1 and 2 and Red Diamond claim groups together with a work schedule and a budget.

Exploration targets are also defined and several sections are devoted to geological, geochemical and geophysical exploration methods and their application to the claim groups.

SUMMARY: GEOLOGICAL INVESTIGATION OF THE KERRI AND PERFECTION MINERAL CLAIMS

October 14, 1982 L.B. Goldsmith, P. Kallock

On October 6th, 9th, and 10th, 1982, a geological and geochemical survey covered part of the Kerri and Perfection mineral claim group. The claims are located 15 km west of Kaslo, B.C., in the Slocan Mining Division. An undocumented report of a silver vein occurrence was sought after but not found. Soil geochemistry and rock chip samples of quartz vein material did not detect significant base or precious metals.

SUMMARY: GEOLOGICAL AND GEOCHEMICAL INVESTIGATION OF THE PONDEROSA MINERAL CLAIM

October 19, 1982

L.B. Goldsmith, P. Kallock

The Ponderosa mineral claim is located on Keen Creek, 15 km southwest of Kaslo, B.C., in the Slocan Mining Division. The property is underlain by granitic rocks of the Nelson

Batholith. There is no history of production from the claim, although adjacent mines have produced a few tons of silver-bearing lead ore. Soil samples and geological mapping during October 1982 did not generate significant exploration targets.

SUMMARY: GEOLOGICAL AND GEOCHEMICAL INVESTIGATION OF THE AMARETTO MINERAL CLAIM

October 31, 1982 L.B. Goldsmith, P. Kallock

The Amaretto mineral claim, which is located 14 km west of Kaslo, B.C., consists of 20 units situated in the upper reaches of Montezuma Creek, south of Mount Holmes, Slocan Mining Division. Excluded from the mineral claim is the former Montezuma mine, an early 1900's lead-silver producer from lime-stone replacement deposits. Brief geological and soil geochemical investigation confirms the exploration potential for galena and sphalerite-type mineralization and possibly for stratiform sulfides as beds within limestone and/or argillite on the Amararetto claim.

SUMMARY: GEOLOGICAL AND GEOCHEMICAL INVESTIGATION OF THE SNUFFY AND LOBO MINERAL CLAIMS

November 2, 1982 L.B. Goldsmith

The Snuffy and Lobo mineral claims, which together comprise 28 units, are situated in the Slocan Mining Division, 12 km northwest of Kaslo, B.C. Most of the property is underlain by greenstone of the Triassic Kaslo Series, however, geologic mapping has indicated the presence of a serpentine belt near the middle of the claims. Additional mapping and sampling is necessary to determine the extent and economic potential of this zone, and of the gold geochemical anomalies.

DISCUSSION: ADDENDUM TO: GEOLOGICAL AND GEOCHEMICAL INVESTIGATION OF THE SNUFFY AND LOBO MINERAL CLAIMS

January 1983 L.B. Goldsmith

Soil samples S-62 to S-93 and rock sample SR-74 were analyzed for gold subsequent to the report of November 2, 1982. Anomalous values were detected at S-63 (50 ppb Au), S-83 to S-86 (50, 215, 60, 115 ppb Au), and S-90 (75 ppb Au). These results are important because they are located near a serpentinite which could be host to gold mineralization.

Thus, the first recommendation of the November report is substantiated. Detailed soil sampling and mapping of the claim block is still required.

SUMMARY: GEOLOGICAL AND GEOCHEMICAL INVESTIGATION OF THE ARIES AND TAURUS MINERAL CLAIMS

January 18, 1983 L.B. Goldsmith, P. Kallock

The Aries and Taurus mineral claims are located on the west side of Kootenay Lake, 1 km north of Kaslo, B.C. The claims are in the Slocan Mining Division and belong to Rayrick Grubstaking Syndicate. Precambrian (?) schist and gneisses belonging to the Lardeau Group underlie most of the claim block. Soil geochemistry and geological traverses have delineated several encouraging exploration targets. Additional soil geochemistry and geologic mapping is recommended.

SUMMARY: REVIEW OF BASE AND PRECIOUS METAL RESOURCES KASLO-LARDEAU-WHITEWATER AREA

March 31, 1983 L.B. Goldsmith, P. Kallock

Research of much of the available data, including assessment reports, ministry of mines investigations, governmental geologic maps and private reports has been compiled for the Kaslo-Lardeau-Whitewater Area of the Slocan Mining Division, southeastern British Columbia. Mineral occurrences and geologic formations are tabulated, and ore deposit types are summarized. Production of lead, zinc and silver from the sediments of the Slocan Group account for most past activity. Recent precious metal exploration has been directed towards investigation of an ultramafic belt north of the Kaslo River. Carbonate-hosted lead-zinc deposits and quartz-sulphide fissure vein deposits also continue to receive attention.

SUMMARY: GEOLOGICAL AND SOIL GEOCHEMICAL INVESTIGATION OF THE JARDINE, JARDINE 1, MOONRISE, ENNETH AND SUNSHINE MINERAL CLAIMS

November 14, 1983

P. Kallock, N.C. Davidson

Geological mapping and soil geochemistry surveys have been undertaken on the Moonrise mineral claim and environs during September, 1983. The claim is underlain by rocks of the Kaslo and Slocan Groups. Weak to moderately strong lead, zinc and silver values with coincident anomalous gold in soils indicate that a potential for veins similar to those of the Whitewater camp may exist on the property. Anomalous nickel and gold in soils of the eastern part of the claim may have a source associated with a southeast-trending serpentinite belt. Additional geological mapping and soil geochemistry are recommended for the remainder of the claims.

SUMMARY: PRELIMINARY GEOLOGY AND SOIL GEOCHEMISTRY OF THE RIGHT WING CLAIM GROUP

December 3, 1983

L. Goldsmith, P. Kallock

Lower Paleozoic Lardeau Group metasediments underlie the portion of the claim group which was examined. Black pyritiferous schist was observed in outcrop. Three soil samples collected in the southeast corner of the Right Wing claim contain anomalous amounts of zinc. This area may lie on the same horizon from which were obtained anomalous zinc values on the Aries claim in a 1982 soil geochemical survey.

A cost of \$172,400 in two phases is estimated to complete reconnaissance geological mapping and soil geochemistry and detailed coverage in anomalous areas. Provision is made for subsequent dozer trenching and drilling, if warranted.

SUMMARY: GEOLOGICAL AND GEOCHEMICAL REPORT ON THE STYX, CONNECTION AND JEEP MINERAL CLAIMS

December 6, 1983

J.M. Logan, N.C. Davidson

An exploration programme comprising geological mapping and soil geochemical sampling was conducted on the Styx, Connection and Jeep mineral claims between mid-August and mid-September 1983. The claims are located in the Slocan Mining Division approximately 13 km northwest of Kaslo, B.C., and are underlain by Upper Mississippian to Permian Kaslo volcanics and Upper Triassic and Jurassic (?) Slocan sediments. Middle Jurassic granitic dykes and sills are common.

Mineralization within the claims is associated with carbonatization and silicification alterations, usually with associated fracture and shear zones in the Kaslo Group.

Geochemical soil sampling has indicated gold values as high as >1000 ppb and outlined three areas containing anomalous gold and/or silver values.

The next phase of exploration includes detailed geological mapping, soil geochemical sampling, and selected magnetic surveys coincident with dozer trenching, followed by diamond drilling, contingent upon results of the aforementioned programme.

A cost of \$395,200 is estimated in two phases.

SUMMARY: GEOLOGICAL AND GEOCHEMISTRY REPORT SUNSET AND HOWARD MINERAL CLAIMS

December 14, 1983

L.B. Goldsmith, J.M. Logan, N.C. Davidson

The Sunset and Howard mineral claims are located in the Slocan Mining Division, and extend from the western margin of the town of Kaslo for 5 km westerly. In mid-July, 1983, geological mapping and soil geochemical sampling was undertaken to explore the mineral potential of the claims in question.

The claims are underlain by chiefly north to northwesterly-trending meta-sedimentary and volcanic rocks which include: calc-silicates, quartzites and mica-schists of the Lardeau Group; siliceous limestones, slates and argillites of the Milford Group; greenstones and metavolcanics of the Kaslo Group; and light-coloured phyllites to black argillites of the Slocan Group. Minor amounts of granite intrude this package.

Soil geochemistry has located anomalous gold and silver values on the claims and two target areas have been selected for dozer-backhoe trenching. Diamond drilling may be undertaken contingent upon results.

SUMMARY: GEOLOGICAL AND GEOCHEMICAL INVESTIGATION OF THE NORTHERN PART OF THE NEVERMORE, NEVERMORE 2, RED DIAMOND, SNUFFY, AND LOBO MINERAL CLAIM GROUP

December 14, 1983

L.B. Goldsmith, N.C. Davidson, J.M. Logan, P. Kallock

Extensive soil geochemical sampling and geological mapping have taken place on the Nevermore, Nevermore 2 and Red Diamond claims since the interim report of June 20, 1983. A broad wedge of Slocan Group argillites and limestone trends northwesterly through the northern part of the claim group and is in contact with a narrow, perhaps discontinuous, zone of felsic (?) phyllites or volcanics which may be part of the Kaslo Group. Tributaries of Schroeder Creek have also exposed the Milford Group and the Lardeau Group at the northern limit of the claims. Lead, zinc and silver vein mineralization has been observed at several locations on the property. Most occurrences lie in veins which extend at oblique to nearly perpendicular angles to two major northwest-trending shear zones. In addition to observed sulphide mineralization, soil geochemical sampling has returned extensive areas of anomalous gold enrichment in soils. Rock types which appear to underlie auriferous areas include the Milford Group, Kaslo Group, and serpentinized/sheared zones Detailed mapping of several altered within the Kaslo Group. areas, additional fill-in geochemical sampling, and geophysical surveys are recommended. Dozer trenching and/or drilling may follow.

A cost of \$551,700 in two phases is estimated for the 1984 programme.

SUMMARY: PRELIMINARY GEOLOGY AND SOIL GEOCHEMISTRY OF THE GOLDPOST CLAIM GROUP

December 18, 1983

L.B. Goldsmith, P. Kallock, N. H. Ursel

The eastern portion of the claim block is underlain by Lardeau Group metasediments. Quartz veins with pyrite, and concordant lenses of pyrite in quartz-biotite schist occur at various locations. Several soil samples and two rocks samples, all from the northeast corner of the Goldpot claim, are anomalous in copper, lead, and zinc, and subanomalous in silver. The possibility of massive base metal sulphide deposits should be investigated in future exploration. A cost of \$199,900 is estimated to complete reconnaissance and detailed soil geochemistry.

SUMMARY: PRELIMINARY GEOLOGY AND SOIL GEOCHEMISTRY OF THE WHITE DIAMOND CLAIM GROUP

December 25, 1983

L.B. Goldsmith, P. Kallock, N. H. Ursel

The portion of the White Diamond claim group which was examined is underlain by Triassic Slocan sediments. No mineralization was observed in place. Two soil samples taken near the Kaslo River contain anomalous amounts of silver, lead, and zinc. These may be contaminated by material originating from former milling operations upstream, but the immediate vicinity to the west must be investigated.

A cost of \$190,000 in two phases is estimated to complete reconnaissance geological mapping and soil geochemistry, and detailed coverage in anomalous areas, with provision for subsequent trenching and drilling if warranted.

SUMMARY: PRELIMINARY GEOLOGY AND SOIL GEOCHEMISTRY OF THE PONDEROSA CLAIM GROUP

December 27, 1983

L.B. Goldsmith, P. Kallock, N. H. Ursel

The claim group covers part of the Nelson Batholith and adjacent Slocan Group sediments. Portions which were geologically mapped and sampled lie in the Keen Creek valley. A sample at location CG-7 contains anomalous lead and subanomalous silver for soil derived from the Nelson Batholith. Three samples from a drainage on the east side of Keen Creek (CPK-1, CPK-2, CJR-23) contain slightly elevated amounts of silver, lead, and gold. The areas should be detailed with soil geochemistry as part of the ongoing coverage of the property. A cost of \$64,600 is estimated to complete the reconnaissance geological mapping and soil geochemistry.

SUMMARY: RECONNAISSANCE GEOLOGICAL AND GEOCHEMICAL INVESTIGATION OF THE OLYMPUS MINERAL CLAIM

January 30, 1984

P. Kallock, N.C. Davidson

Geological mapping and preliminary rock geochemical surveys have been undertaken on the Olympus mineral claim and environs on September 22, 1983. The claim is underlain by intermediate volcanics and ultramafics (serpentinite) of the Kaslo Group. Sulphide mineralization, including sphalerite, galena and chalcopyrite is exposed in old workings which have been developed on two subparallel vuggy, quartz and hematite veins. The veins occur within greenstones of the Kaslo Group near the serpentinite contact. Additional geological mapping and geophysical surveys are recommended. A cost of \$400,150 in three phases is estimated.

SUMMARY: RECONNAISSANCE GEOLOGICAL AND GEOCHEMICAL INVESTIGATION HENRY, MAYE, WIZZARD, PURPLE HAZE & STEPPING STONE MINERAL CLAIM December 25, 1983

L.B. Goldsmith, P. Kallock, N. H. Ursel

Geological mapping and geochemical surveys including soil, stream sediment and rock sampling have taken place on the Henry et al. mineral claims during September 1983. The claims are underlain by rocks of the Milford, Kaslo and Slocan Groups. Numerous samples of soil and rock float contain greater than 100 parts per billion gold and more than 2 parts per million silver. Local anomalous base metals are also present. At least three areas with multi-sample anomalous values warrant detailed rock geochemistry. A cost of \$358,500 is estimated in three phases.

SUMMARY: PRELIMINARY REVIEW OF THE GEOLOGY OF THE JARDINE MINERAL CLAIM

June 24, 1984

L.B. Goldsmith, J.M. Logan

The Jardine mineral claim is located in the Slocan Mining Division, 17.5 km northwest of Kaslo, B.C. Autochthonous continental margin phyllites and meta-sandstones of the Mississippian to Pennsylvanian Milford Group, an allochthonous package of rocks including andesitic metavolcanics, ultramafic/serpentinites and mafic intrusives of the Upper Mississippian to Permian Kaslo Group, and greenstone conglomerate, limestone and argillite of the Triassic Slocan Group, occur on the property. The claim straddles the suture zone (Mount Schroeder fault) between autochthonous and allochthonous terranes.

Lithological and structural relationships present on the Nevermore mineral claim (adjacent to the southeat) associated with precious and base metal mineralization and anomalous gold

in soil geochemistry are believed to extend northwesterly onto the Jardine claim.

Geological mapping and soil geochemistry are proposed to test the claim area for economic concentrations of precious and base metals. A budget of \$49,500 should be available for Phase 1; a total of \$411,050 may be required in three phases.

SUMMARY: PRELIMINARY REVIEW OF THE GEOLOGY OF THE BRUTUS MINERAL CLAIM

June 24, 1984
J.M. Logan, L.B. Goldsmith

The Brutus mineral claim is located in the Slocan Mining Division, 17 km northwest of Kaslo, B.C. Underlain predominantly by Mississippian to Pennsylvanian Milford Group limestone, meta-sandstone, phyllite and chert, this autochthonous continental sequence is flanked on the northeast by a narrow band of Cambrian to Devonian Lardeau Group grits and mica schists, and on the southwest (across the Mount Schroeder fault) by allochthonous limestone and argillites of the Triassic Slocan Group. Granite ubiquitous regionally is inferred to intrude this package of rocks within the claim area.

Established stratigraphy and favourable structural relationships present on the Nevermore 2 mineral claim (adjacent to the southeast) are believed to extend northwesterly into the Brutus claim. These include stratiform sulphide horizons, coincident anomalous gold values in soils, and northwest-trending shear zones.

Geological mapping, prospecting and soil geochemistry are proposed as an initial phase to investigate the economic potential of the claim area. A budget of \$52,800 should be available to carry out Phase 1; a total of \$416,000 in three phases may be required.

SUMMARY: SURFACE AND SUBSURFACE EXPLORATION OF BASE AND PRECIOUS METAL VEINS 13W, 11N AND HILL-60 VEIN AREAS, NEVERMORE CLAIM

November 21, 1984

L.B. Goldsmith, P. Kallock

During September and October 1984, three diamond drill holes were cored to test lead, zinc and silver vein mineralization in the Nevermore claim of Red Diamond Mines Ltd. The property is located in the Slocan Mining Division, 14 km northwest of Kaslo, B.C. Results of drilling indicated an increase in vein width with depth, but a decrease in lead, zinc and silver values. However, 0.68 metres (true width) of quartz-limonite vein material in DDH-84-1 returned 0.170 ounces gold per ton. This hole intersected the vein 16.5 metres below the surface.

During the drilling programme, galena-bearing float was discovered in a fault-controlled ravine 75 m west of the drill site. Subsequently a galena, sphalerite, and chalcopyrite-bearing quartz-carbonate vein was located. An adit from past exploration was re-opened. Mapping and sampling of surface and underground indicate the surface exposure to be 48 metres long with an average width of 0.5 metres and weighted average assays of 6.31% zinc, 8.78% lead and 4.27 oz silver/ton. Drifting by operators many years ago along 72 metres of the shear zone apparently failed to intercept similar grade material. Past efforts may have stopped short of the mineralization.

Future exploration of the Nevermore claim should include detailed geological mapping and soil sampling. Diamond drilling should resume on the 13N 11W vein to extend the area of the gold mineralization intersected in DDH-84-1. Drilling should also be planned to test the Hill-60 vein at depth and to the southwest beyond the farthest penetration of the old exploration drift.

SUMMARY: DETAILED SOIL GEOCHEMISTRY AND GEOLOGICAL INVESTIGATION OF SELECTED AREAS WITHIN THE FRED AND RITA MINERAL CLAIMS

December 14, 1984

P. Kallock, L.B. Goldsmith

During October 1984, soil sampling on 25-metre centres was carried out on three areas of the Fred and Rita mineral claims. Three hundred and forty-seven soil samples together with 13 rock chip samples and 12 stream sediment samples were gathered from areas underlain by serpentinite, granite, diorite or metasediments, the latter of which belong to the Milford Group of Upper Mississippian age. Two areas of particular interest were delineated containing up to 140 ppb gold and 3.4 ppm silver in soils. More investigation of these areas, together with detailed geological mapping, geochemical sampling and magnetics along the granite-serpentinite belt of the Fred claim are recommended as next steps of exploration. Cost of the next two phases is estimated to be \$100,850.

SUMMARY: DETAILED SOIL GEOCHEMICAL SURVEY AND GEOLOGICAL OBSERVATIONS OF THE SOUTHWEST PART OF THE HOWARD MINERAL CLAIM

December 16, 1984

P. Kallock, L.B. Goldsmith

During October 1984, detailed soil sampling and limited geological mapping were carried out at the Howard mineral claim near Kaslo, B.C. Previous sampling had found anomalous gold in soil near the southwest corner of the claim, in addition to strongly anomalous zinc which had also been received from geochemical soil sampling. Mapping and sampling from this season's exploration suggest that zinc together with lesser lead and possibly minor silver are concentrated near surface in calcareous tufa deposits. Additional anomalous gold in soils was not found in the most recent survey. Source of metals in the extensive zinc anomaly may originate from fissure vein or sulphide replacement

in beds of the Mississippian Milford Group. Dozer trenching and sampling of anomalous areas are recommended as the next stage of exploration. A cost of \$36,300 is estimated for the next exploration, and a total budget of \$372,300 in two phases may be required if favourable results are obtained.

SUMMARY: GEOLOGY AND ROCK GEOCHEMISTRY OF THE DAVIS AND DAVIS 3 MINERAL CLAIMS

December 17, 1984 L.B. Goldsmith

The Davis 3 claim and the northeastern corner of the Davis claim are largely underlain by sediments of the Lardeau Group. Milford limestone and phyllite are mapped in the central and western portions of the Davis claim. Snow conditions restricted rock sampling to ridge tops in the northwestern corner of the Davis 3 claim, entirely within the Lardeau Group limestone and phyllite. A gold value of 150 ppb was obtained from a sample of grey foliated limestone with minor pyrite and quartz. Reconnaissance exploration of the balance of the claims with emphasis on the Milford Group strata is recommended at an estimated cost of \$106,700 for the next phase, and a total of \$206,700 in two phases.

SUMMARY: RECONNAISSANCE GEOLOGY AND ROCK GEOCHEMISTRY JARDINE MINERAL CLAIM

January 12, 1985 L.B. Goldsmith

The Jardine mineral claim is located in the Slocan Mining Division, 17.5 km northwest of Kaslo, B.C. Autochthonous continental margin phyllites and meta-sandstones of the Mississippian to Pennsylvanian Milford Group, an allochthonous package of rocks including andesitic metavolcanics, ultramafic/serpenti-

nites and mafic intrusives of the Upper Mississippian to Permian Kaslo Group, and greenstone conglomerate, limestone and argillite of the Triassic Slocan Group, occur on the property. The claim straddles the suture zone (Mount Schroeder fault) between autochthonous and allochthonous terranes).

Lithological and structural relationships present on the Nevermore mineral claim (adjacent to the southeast) associated with precious and base metal mineralization and anomalous gold in soil geochemistry are believed to extend northwesterly onto the Jardine claim.

Preliminary rock geochemistry was limited by snow conditions to bare spur ridge tops which descend southeasterly and southerly from Mount Schroeder and Mount Jardine.

Geological mapping and soil geochemistry are proposed to test the claim area for economic concentrations of precious and base metals. A budget of \$49,500 should be available for Phase 1; a total of \$411,050 may be required in three phases.

SUMMARY: GEOLOGICAL MAPPING, SOIL AND ROCK GEOCHEMISTRY, TRENCHING AND DIAMOND DRILLING: NEVERMORE 2 MINERAL CLAIM

January 24, 1985

L.B. Goldsmith, J.M. Logan, J. Fillipone, P. Kallock

Geochemically anomalous amounts of gold have been obtained from soil and talus adjacent to a coarse-grained diorite which intrudes Milford Group andesite tuff and pelitic sediments. Trenching with a backhoe was unable to reach bedrock in the anomalous area. Winter conditions halted diamond drilling before the first hole was completed.

The geological setting is similar to that in the Tillicum area to the west where gold and silver deposits have been discovered

recently. Diamond drilling and geophysical surveys as recommended for 1984 should be completed during the next field season at a total cost in two phases of \$480,000.

APPENDIX 3

CONCLUSIONS: GEOPHYSICS REPORTS

Survey by: Columbia Airborne Geophysical Services (1984) Ltd.

Survey by: Columb Written by: David	ia Airborne Geophysical Services (1961). G. Mark, Geophysicist, Geotronics Surveys Ltd.
February 18, 1985	: Geophysical Report on Airborne Magnetic and VLF-EM Surveys over the Snuffy Claim Group.
March 11, 1985	: Geophysical Report on Airborne Magnetic and VIE-EM Surveys over the Kemp Claim.
March 12, 1985	: Geophysical Report on Airborne Magnetic and W.F-EM Surveys over the Kemp 1 Claim.
March 12, 1985	: Geophysical Report on Airborne Magnetic and VLF-EM Surveys over the Arnie and Arnie 1 Claim.
March 22, 1985	: Geophysical Report on Airborne Magnetic and VLF-EM Surveys over the TNT, TNT 2, Cinci, Stardust and Freedom Claims.
March 26, 1985	: Geophysical Report on Airborne Magnetic and VLF-EM Surveys over the Aries Claim Group.
March 29, 1985	: Geophysical Report on Airborne Magnetic and VLF-EM Surveys over the Cabot, Gold Spar and Scale Claims.
March 30, 1985	: Geophysical Report on Airborne Magnetic and VLF-EM Surveys over the South Cooper Creek Property.
March 31, 1985	: Geophysical Report on Airborne Magnetic and VLF-EM Surveys over the Amaretto Claim
April 22, 1985	: Geophysical Report on Airborne Magnetic and U.F-EM Surveys over the Spokane Claim Group.
April 23, 1985	Report on Airborne Magnetic and

Claims.

CONCLUSIONS: Geophysical Report on Airborne Magnetic and VLF-EM

Surveys over the Snuffy Claim Group. Surveyed by:
Columbia Airborne Geophysical Services (1984)

Ltd. Written by: David G. Mark, Geophysicist,
Geotronics Surveys Ltd. February 18, 1985.

- 1. The magnetic survey has successfully mapped the following:
 - (a) Serpentinite of the Kaslo group.
 - (b) Basic volcanics (andesite and basalt) of the Kaslo group.
 - (c) Sediments of the Lardeau, Milford, Slocan and Kaslo groups.
- 2. Mineralization on this property is often related to Kaslo volcanics with andesite breccia often being the host rock. Also, throughout the area, it commonly occurs in proximity to bodies of serpentinite. As a result, magnetic highs, which reflect both these rock types, indicate important areas for further exploration.
- 3. The VLF-EM survey revealed five conductors, two of which correlated with moderately strong gold values within the soils. These two which have been labelled A and B respectively, also correlate with bodies of serpentinite. The length of each of these two conductors is 1,100 m. Conductor C correlates with moderately anomalous gold values as well as old workings. Conductor D may simply be reflecting a granitic body. Little exploration has been done in the area of conductor D.
- 4. Both the VLF-EM and magnetic surveys revealed lineations within the survey area that are likely caused by fault, shear and/or contact zones. These can be important indicators of sulphide and native gold mineralization, especially where the lineations cross. Examples are the Voyageur deposit and the Hill-60 mineral zone.

CONCLUSIONS: Geophysical Report on Airborne Magnetic and VLF-EM

Surveys over the Kemp Claim. Surveyed by:

Columbia Airborne Geophysical Services (1984)

Ltd. Written by: David G. Mark, Geophysicist,

Geotronics Surveys Ltd. March 11, 1985.

- 1. The magnetic survey has successfully mapped the following:
 - (a) Basic volcanics (andesite and basalt) of the Kaslo group.
 - (b) Sediments of the Slocan and Milford Groups.
- 2. Mineralization in the Blue Ridge area is often related to Kaslo volcanics with andesite breccia often being the host rock. As a result, magnetic highs, which reflect this rock type, indicate important areas for further exploration.
- 3. The VLF-EM survey revealed four conductors, two of which occur close to the Slocan/Kaslo contact. This contact is known in the area to be related to gold and sulphide mineralization. The other two conductors occur entirely within the Slocan Group.
- 4. Both the VLF-EM and magnetic surveys revealed lineations within the survey area that are likely caused by fault, shear and/or contact zones. These can be important indicators of sulphide and native gold mineralization, especially where the lineations cross.

CONCLUSIONS: Geophysical Report on Airborne Magnetic and VLF-EM

Surveys over the Kemp 1 Claim. Surveyed by:

Columbia Airborne Geophysical Services (1984)

Ltd. Written by: David G. Mark, Geophysicist,

Geotronics Surveys Ltd. March 11, 1985.

- 1. The magnetic survey has successfully mapped the following:
 - (a) Basic volcanics (andesite and basalt) of the Kaslo group.
 - (b) Sediments of the Slocan Group.
 - (c) Possibly serpentinite just off the southeast corner of the property.
- 2. Mineralization in the Blue Ridge area is often related to Kaslo volcanics with andesite breccia often being the host rock. As a result magnetic highs, which reflect this rock type, indicate important areas for further exploration.
- 3. The VLF-EM survey revealed four main conductors, two of which occur close to the Slocan/Kaslo contact. This contact is known in the area to be related to gold and sulphide mineralization. The other two conductors occur entirely within the Slocan Group, one occurring close to the Nelson Batholith. Several mineral zones, some of which have been mined, occur within Slocan sediments next to the Nelson Batholith contact.
- 4. Both the VLF-EM and magnetic surveys revealed lineations within the survey area that are likely caused by fault, shear and/or contact zones. These can be important indicators of sulphide and native gold mineralization, especially where the lineations cross.

CONCLUSIONS: Geophysical Report on Airborne Magnetic and VLF-EM

Surveys over the Arnie and Arnie 1 Claim.

Surveyed by: Columbia Airborne Geophysical

Services (1984) Ltd. Written by: David G. Mark,

Geophysicist, Geotronics Surveys Ltd. March 12,

1985.

- 1. The magnetic survey has successfully mapped the following:
 - (a) Basic volcanics (andesite and basalt) of the Kaslo group. Also, one anomaly could have mapped serpentinite.
 - (b) Sediments of the Lardeau and Milford Groups.
- 2. Mineralization in the Blue Ridge area is often related to Kaslo volcanics with an andesite flow breccia often being the host rock. As a result magnetic highs, which reflect this rock type, indicate important areas for further exploration.
- 3. The VLF-EM survey revealed eight conductors. Some of these correlate with magnetic highs and therefore could be related to Kaslo volcanics. Three of the conductors are very lineal, strongly suggesting the causative sources are fault or shear zones.
- 4. Both the VLF-EM and magnetic surveys revealed lineations within the survey area that are likely caused by fault, shear and/or contact zones. These can be important indicators of sulphide and native gold mineralization, especially where the lineations cross.

CONCLUSIONS: Geophysical Report on Airborne Magnetic and VLF-EM

Surveys over the TNT, TNT 2, Cinci, Stardust and

Freedom Claims. Surveyed by: Columbia Airborne

Geophysical Services (1984) Ltd. Written by:

David G. Mark, Geophysicist, Geotronics Surveys

Ltd. March 22, 1985.

- 1. The magnetic survey has successfully mapped the following:
 - (a) Two magnetic highs that are probably reflecting basic volcanics (andesite and basalt) of the Kaslo group.
 - (b) Sediments of the Hamill, Lardeau, Milford and Slocan Groups.
- 2. Mineralization in the Blue Ridge area is often related to Kaslo volcanics with an andesite flow breccia often being the host rock. As a result magnetic highs, which reflect this rock type, indicate important areas for further exploration. Of strong interest, therefore, is the highest soil anomaly in gold (out of only 21 samples taken on the property) which occurs to the immediate south of the magnetic high within the Cinci claim.
- 3. The VLF-EM survey revealed ten main conductors throughout the property and within all rock groups. On the adjacent Red Diamond property, where much more ground work has been done, VLF-EM conductors correlate with known mineralization and with soil anomalies in gold.
- 4. Both the VLF-EM and magnetic surveys revealed lineations within the survey area that are likely caused by fault, shear and/or contact zones. These can be important indicators of sulphide and native gold mineralization, especially where the lineations cross. Two of the lineations mapped two faults that were mapped by G.S.C. geologists.

CONCLUSIONS: Geophysical Report on Airborne Magnetic and VLF-EM

Surveys over the Aries Claim Group. Surveyed by:

Columbia Airborne Geophysical Services (1984)

Ltd. Written by: David G. Mark, Geophysicist,

Geotronics Surveys Ltd. March 26, 1985.

- 1. The magnetic survey has successfully mapped the following:
 - (a) Basic volcanics (andesite and basalt) of the Kaslo group.
 - (b) Sediments of the Hamill, Lardeau, Milford and Slocan Groups.
- 2. Mineralization in the Blue Ridge area is often related to Kaslo volcanics with an andesite flow breccia often being the host rock. As a result magnetic highs, which reflect this rock type, indicate important areas for further exploration.
- 3. The VLF-EM survey revealed five main conductors throughout the property and within all rock groups. On the nearby Red Diamond property, where much more ground work has been done, VLF-EM conductors correlate with known mineralization and with soil anomalies in gold.
- 4. Both the VLF-EM and magnetic surveys revealed lineations within the survey area that are likely caused by fault, shear and/or contact zones. These can be important indicators of sulphide and native gold mineralization, especially where the lineations cross. Two of the lineations delineate two faults that were mapped by G.S.C. geologists.

CONCLUSIONS: Geophysical Report on Airborne Magnetic and VLF-EM

Surveys over the Cabot, Gold Spar and Scale

Claims. Surveyed by: Columbia Airborne

Geophysical Services (1984) Ltd. Written by:

David G. Mark, Geophysicist, Geotronics Surveys

Ltd. March 29, 1985.

- 1. The magnetic survey shows the entire property is probably underlain by sedments of the Hamill and Lardeau Groups. Four magnetic highs of very low intensity could possibly be reflecting basic volcanics (andesite and basalt) of the Kaslo Group.
- 2. Mineralization in the Blue Ridge area is often related to Kaslo volcanics with an andesite flow breccia often being the host rock. As a result magnetic highs, which reflect this rock type, indicate important areas for further exploration.
- 3. The VLF-EM survey revealed five 1-line conductors two on the Cabot claim and three on the Scale claim. On the nearby Red Diamond property, where much more ground work has been done, VLF-EM conductors correlate with known mineralization and with soil anomalies in gold.
- 4. Both the VLF-EM and magnetic surveys revealed lineations within the survey area that are likely caused by fault, shear and/or contact zones. These can be important indicators of sulphide and native gold mineralization, especially where the lineations cross. Two of the lineations delineate two faults that were mapped by G.S.C. geologists.

CONCLUSIONS: Geophysical Report on Airborne Magnetic and VLF-EM

Surveys over the South Cooper Creek Property.

Surveyed by: Columbia Airborne Geophysical

Services (1984) Ltd. Written by: David G. Mark,

Geophysicist, Geotronics Surveys Ltd. March 29,

1985.

- 1. The magnetic survey has mapped the following:
 - (a) Basic volcanics (andesite and basalt) of the Kaslo Group.
 - (b) Sediments of the Lardeau, Milford, and Slocan Groups as well as sediments and meta-volcanics of the Kaslo Group.
 - (c) Possibly intrusions that may or may not be related to the Nelson Batholith and/or Kuskanax Stock.
- 2. Mineralization in the Blue Ridge area is often related to Kaslo volcanics with an andesite flow breccia often being the host rock. As a result magnetic highs, which reflect this rock type, indicate important areas for further exploration.
- 3. The VLF-EM survey revealed 37 conductors. Some of these correlate with magnetic highs and therefore could be related to Kaslo volcanics. Many of the conductors are very lineal, strongly suggesting the causative sources are fault, shear and contact zones.
- 4. Both the VLF-EM and magnetic surveys revealed lineations within the survey area that are likely caused by fault, shear and/or contact zones. These can be important indicators of sulphide and native gold mineralization, especially where the lineations cross.

CONCLUSIONS: Geophysical Report on Airborne Magnetic and VLF-EM

Surveys over the Amaretto Claim Group. Surveyed

by: Columbia Airborne Geophysical Services (1984)

Ltd. Written by: David G. Mark, Geophysicist,

Geotronics Surveys Ltd. March 31, 1985.

- 1. The magnetic survey indicates the entire property is underlain by the Slocan sediments as has been mapped by the G.S.C. It also maps the Nelson Batholith along the western edge of the property. It shows the batholith contact is somewhat different than has been mapped by the G.S.C.
- 2. The VLF-EM survey revealed 19 conductors, three of which occur close to the Slocan/Kaslo contact. This contact is known in the area to be related to gold and sulphide mineralization. The other conductors occur entirely within the Slocan Group.
- 3. An EM conductive zone, occurring mostly within the White Diamond claim, could be reflecting a different lithological unit or possibly a zone of alteration that is hopefully associated with mineralization.
- 4. Both the VLF-EM and magnetic surveys revealed lineations within the survey area that are likely caused by fault, shear and/or contact zones. These can be important indicators of sulphide and native gold mineralization, especially where the lineations cross.

CONCLUSIONS: Geophysical Report on Airborne Magnetic and VLF-EM

Surveys over the Spokane Claim Group. Surveyed

by: Columbia Airborne Geophysical Services (1984)

Ltd. Written by: David G. Mark, Geophysicist,

Geotronics Surveys Ltd. April 22, 1985.

- (a) At least three, and possibly four, intrusions of the Kuskanax Stock.
 - (b) Sediments of the Lardeau, Milford, and Slocan Groups as well as sediments and meta-volcanics of the Kaslo Group.
- 2. A lineation of magnetic highs occur on the western side of the property. The highs could be intrusives of Kaslo volcanics occurring along a fault zone.

Mineralization in the Blue Ridge area is often related to Kaslo volcanics with an andesite flow breccia often being the host rock. As a result, magnetic highs, which reflect this rock type, indicate important areas for further exploration.

- 3. The VLF-EM survey revealed 14 conductors. Many of the conductors are very lineal, strongly suggesting the causative sources are fault, shear and contact zones.
- 4. Both the VLF-EM and magnetic surveys revealed lineations within the survey area that are likely caused by fault, shear and/or contact zones. These can be important indicators of sulphide and native gold mineralization, especially where the lineations cross.

CONCLUSIONS: Geophysical Report on Airborne Magnetic and VLF-EM the Bridges Surveys over and Cases Claims. Columbia Surveyed by: Airborne Geophysical Services (1984) Ltd. Written by: David G. Mark, Geophysicist, Geotronics Surveys Ltd. April 23, 1985.

- 1. The magnetic survey shows the entire property is probably underlain by sediments of the Hamill and Lardeau Groups. One magnetic high of very low intensity could possibly be reflecting basic volcanics (andesite and basalt) of the Kaslo Group.
- 2. Mineralization in the Blue Ridge area is often related to Kaslo volcanics with an andesite flow breccia often being the host rock. As a result, magnetic highs, which reflect this rock type, indicate important areas for further exploration.
- 3. The VLF-EM survey revealed four conductors one on the Bridges claim and three on the Cases claim. On the nearby Red Diamond property, where much more ground work has been done, VLF-EM conductors correlate with known mineralization and with soil anomalies in gold.
- 4. Both the VLF-EM and magnetic surveys revealed lineations within the survey area that are likely caused by fault, shear and/or contact zones. These can be important indicators of sulphide and native gold mineralization, especially where the lineations cross. Two of the lineations delineated two faults that were mapped by G.S.C. geologists.

