

VANCOUVER ISLAND COMPILATION

NTS 92B/13

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827143

VANCOUVER ISLAND COMPILATION

NTS 92B/13

FC #1

CLAIM NAME:

POGO

(SEE 92C/16 FC #10, POGO)

FC #2

CLAIM NAME:

VV

(FC #11, 92C/16 YY,ZZ)

HISTORY:

These claims were staked after an airborne electromagnetic and magnetic survey provided several unexplained anomalies.

COMMODITIES:

Copper, zinc

MINERALS:

Pyrite, pyrrhotite, chalcopyrite, molybdenite

WORK DONE:

Airborne geophysics (electromagnetic, magnetic) ground geophysics (magnetic survey) soil geochemistry, diamond drilling (CHEM #6)

GEOLOGY:

These areas were not geologically mapped. Of the three groups (VV, YY, ZZ) only VV produced a coincident ground magnetic anomaly, however on ZZ copper and zinc anomalies were coincident with the electromagnetic anomaly. The coincident anomaly on VV was diamond drilled. The hole passed through a minor amount of graphitic argillite into siliceous, altered (garnet skarnification) tuff, including strongly altered skarn breccia with up to 15% sulphides as pyrite, pyrrhotite, minor chalcopyrite and a trace of molybdenite. The graphitic argillite probably accounted for the ground electromagnetic anomaly, and the pyrrhotite for the magnetic anomaly.

COMMENTS:

According to the accompanying map, and Muller (GSC Paper 79-30), the YY and ZZ claims are underlain by the transitional Sediment-Sill or Sediment-Diabase Unit. The VV claim is underlain by this unit at its contact with Jurassic granite. Further information is available in Assessment Report 7323, File #270 in this office.

Assessment Report 6548, 7323

STATUS:

Prospect

FC #3

CLAIM NAMES:

HOLY

OAK

HISTORY:

These claims were staked as a result of an airborne electromagnetic and magnetic survey flown over an area encompassing Mount Brenton, Mount Hall and Coronation Mountain.

COMMODITIES:

Copper, zinc, silver, gold

MINERALS:

Pyrite

WORK DONE:

Airborne geophysics (electromagnetic, magnetic) ground geophysics (electromagnetic, magnetic), soil geochemistry, diamond drilling (CHEM #3, 4, 5).

GEOLOGY:

Geology is only briefly described as the Sicker volcanic-sediment complex. Three airborne electromagnetic conductors were followed up on the ground with an EM and magnetic survey. The first airborne anomaly did not have a magnetic correlation but there was a change in magnetic contrast, perhaps indicating the presence of a contact. A second airborne anomaly was confirmed on the ground as three conductors appearing as two enechelon conductive zones; the magnetic profile here was featureless. A lesser zinc anomaly was coincident with this anomaly. The third airborne anomaly could not be located on the ground. Soil geochemistry returned scattered high copper values, with no definite trend. Three

diamond drill holes were put down to test three ground EM anomalies. The holes were drilled in a series of badly fractured, siliceous, thin rhyolite and dacite tuffs, and fragmental rocks containing minor graphitic tuff horizons which probably caused the EM anomalies.

COMMENTS:

Further information is available in Assessment Report 7323, File #270 in this office.

Assessment Reports 6548, 7323

STATUS:

Prospect

FC #4

CLAIM NAMES:

ELK
PUMA
MOUSE
(DEER)
(PIKA)
(BEAR)

COMMODITIES:

Copper, lead, zinc

MINERALS:

Unknown

WORK DONE:

Soil geochemistry

GEOLOGY:

The geology of this group has not been reported. 1351 soil samples were assayed for copper, lead and zinc. Anomalous values were obtained as follows: Copper - more than 95 ppm, lead - more than 21 ppm, zinc - more than 110 ppm. Three anomalous areas were delineated: (i) an area of high copper values, probably caused by a high lithological background; (ii) an area of high zinc values, also probably caused by a high lithological background; and (iii) a linear zinc-copper-lead anomaly on the ELK claims, probably caused by mineralization.

COMMENTS:

Without a geological report it is difficult to explain why it is assumed that certain lithologies have higher base metal contents. The claims appear to be underlain by Sicker and Nanaimo Group rocks. Gold and silver were not assayed for.

Assessment Report 7384

STATUS:

Prospect

FC #5

CLAIM NAMES:

TOT
RUM
LOT
HOPE
CHARITY
QQ
MONS
BRENT

COMMODITIES:

Copper, zinc, lead

MINERALS:

Pyrite, sphalerite, pyrrhotite?, chalcopyrite

WORK DONE:

Ground geophysics (induced polarization, shootback - electromagnetic, VLF-EM, magnetic, self-potential surveys) airborne geophysics (electromagnetic survey), soil geochemistry, diamond drilling.

GEOLOGY:

The regional geology consists of Sicker volcanics and sediments, dioritic intrusives and Nanaimo Group sediments. The Sicker Group rocks are quartz-sericite schists and fine quartz-eye porphyries that do not have well-developed schistosity or foliation, and andesite flows or agglomerates. The intrusives are diorite and gabbro sills. Further north, on TOT, RUM, and LOT, volcanic rocks are less common and schistosity (where observable) and bedding dip steeply, mainly to the north. Structural trend here is northwest. Belts of sediments and intrusives flank a main, centrally located body of basic intrusives. Disseminated pyrite, up to 5%, was

observed in schists and quartz-eye porphyry along the road. Pyrite, sphalerite, pyrrhotite? and minor chalcopyrite occur in a small, narrow fault at an andesite-rhyolite contact adjacent to a diorite dyke or sill contact. On the HOPE claims, 204 soil samples were analyzed and produced the following statistical results:

	Threshold (ppm)	Anomalous (ppm)
Copper	60	80
Zinc	70	90

On the CHARITY, HOPE, COPPERMINT (FC #9) and SUSAN (FC #9) claims, the following statistically anomalous values were reported: For copper, more than 160 ppm; for lead, more than 16 ppm; for zinc, more than 160 ppm. Several large copper-zinc anomalous areas were delineated, with lead anomalies partially overlapping. Geochemical anomalies at the base of the hill probably originated up-slope. The IP survey, on TOT, RUM and LOT, generated many anomalies, the most probable of which have been shown on the accompanying map. These occur in schistose porphyry and Sicker sediments; some correlate with mapped occurrences of minor pyrite. A shootback EM survey on HOPE showed seven narrow conductors, some corresponding roughly with soil geochemical anomalies or visible mineralization. A ground magnetic survey and VLF-EM on CHARITY, VICTORIA FRACTION (FC #9), SUSAN (FC #9) and COPPERMINT I (FC #9) delineated six EM-conductive zones which could not be evaluated because of a lack of geological information. Magnetic trends are east-west (parallel to the strike of schistosity and lithologies in the area of this Survey) but there were not apparent anomalies. The self-potential survey on BRENT (MONS) produced an anomaly which was subsequently diamond-drilled. This hole intersected a series of quartz-eye and quartz-chlorite schists, up to 10% pyrite with minor copper values. There were also traces of a mineral thought to be barite at a depth of 65 feet. This hole

ended in mineralization, and at the best reported intersection 6.393% Cu, 0.07% Zn, 0.16 oz. Ag/ton, 0.002 oz. Au/ton). It remains uncertain whether the sulphides encountered in this hole could account for the SP anomaly. Horizontal-loop EM was used to pinpoint an anomaly previously known from an airborne survey on QQ. Graphitic tuff and argillite horizons encountered in drilling adequately explained this anomaly.

COMMENTS:

An adit is indicated on the property, on Lot 36 (SHARON? PAUPER?) at the volcanic-sediment contact (see accompanying map). This area has been explored almost continuously since Mt. Sicker was discovered. Certainly the right lithologies are present, as is mineralization. The land situation, though, is tight.

Assessment Reports 936, 6698, 7183, 7323, 7435

STATUS:

Past-producer?

FC #6

CLAIM NAMES:

NUGGET GROUP
(PATRICIA-JANE)
(PEGGY FRACTION)
(ALLIANCE FRACTION)
FAITH

COMMODITIES:

Copper, lead, zinc, silver

MINERALS:

Pyrite

WORK DONE:

Ground geophysics (shootback-EM), soil geochemistry

GEOLOGY:

The claims are underlain by the east limb of an anticline of Sicker Group volcanics and sediments, intruded by diorite sills, dykes and mosses, Cherts, or siliceous fine-grained tuffs outcrop to the north. The volcanics are rhyolitic to andesitic in composition. Almost all rocks display a regional foliation of east-west to northwest-southeast. Dips are shallow to steep in either a north or south direction. (Assessment Report 7714 contains a detailed lithological description of the units present. The reader is referred to this report if such a description is required.) Disseminations, stringers and veins of pyrite were found on foliation planes in andesites and rhyolites. One conductor was delineated by the shootback-electromagnetic survey. 243 soil samples were assayed for copper, lead and zinc. Statistical analyses provided the following anomalous values: more than 150 ppm for copper, more than 18 ppm for lead and more than 150 ppm for zinc. A large cluster of copper-lead-zinc anomalies

occurred in the southwest corner of FAITH; anomalous copper and lead values coincide in the north-central portion of the same group. Both areas are on steep slopes and may originate towards the summit of Mount Brenton. 2000 soil samples from the NUGGET GROUP were assayed for the same metals, with the addition of silver. The following values were derived:

	Anomalous (ppm)	Very Anomalous (ppm)
Copper	86	270
Lead	42	---
Zinc	125	410
Silver	1.8	---

COMMENTS:

Assessment Reports 6699, 7434, 7714

STATUS:

Prospect

FC #7

CLAIM NAME:

MILDRED (LOT 96G)

COMMODITIES:

Copper, lead, zinc, silver

MINERALS:

Pyrite, chalcopyrite

WORK DONE:

Soil geochemistry

GEOLOGY:

This crown-granted mineral claim is underlain by Sicker Group rocks and intrusives. A major vertical, left-handed transverse fault strikes 020° and dips vertically; a second major fault system is represented by regional foliation, trending 110° to 120° , with vertical dips. Pyrite stringers and lenses, and disseminated to minor chalcopyrite were found within schistose units. These schistose units contain 2% to 5% sulphides. A total of 58 soil samples were assayed for copper, lead and zinc. For statistical purposes, these results were grouped with those obtained from a 243 sample survey on FAITH (FC #6). Anomalies appear to coincide on the south part of the claim. This area is open to the west and south. Although an explanation for the anomalies is not readily available it is noted that the area is on steeply sloping terrain.

COMMENTS:

Assessment Reports 6216 and 7273

STATUS:

Prospect

FC #8

CLAIM NAME:

NONSUCH (LOT 66G)

COMMODITIES:

Copper, lead zinc

MINERALS:

Pyrite, pyrrhotite

GEOLOGY:

The southern and western portions of the claim are underlain by andesite to dacite flows. Rhyolite schists and dacite tuffs underlie the northern and eastern portions of the claim. An east-west trending band of hornblende-feldspar porphyry transects the midsection. Any alteration of Sicker volcanics is not apparent at the intrusive contact. Quartz veins are found at the southern intrusive-volcanic contact, and within the intrusive. These veins strike 85° to 95° and are two to three feet wide. Gossanous material, pyrite and calcite veinlets characterize the northern walls of the veins. Disseminated pyrite and pyrrhotite were seen in a small outcrop of chlorite-sericite schist in the west-southwest corner of the claim. Calcite veining was prominent here. The schistosity in this outcrop trend 084° , dipping 70° south.

COMMENTS:

Assessment Reports 6216 and 7434

STATUS:

Prospect

FC #9

CLAIM NAMES:

VICTORIA FRACTION (LOT 90G)
SUSAN (LOT 23G)
COPPERMINT I
VICTORIA (LOT 21G)
ELMORE FRACTION (LOT 91G)
COPPER CANYON (CANYON)
MURIEL FRACTION (LOT 108G)
COPPER (LOT 22G)
KLONDYKE (LOT 68G)

HISTORY:

Numerous tunnels and adits date back to the turn of the century. Early workings were in schists and pyritic quartz veins with small percentages of copper and low gold values.

COMMODITIES:

Copper, lead, zinc, gold, silver

MINERALS:

Pyrite, chalcopyrite

WORK DONE:

Soil and rock geochemistry, ground geophysics (IP, JEM, VLF-EM, magnetic and seismic surveys, SP).

GEOLOGY:

Sicker sericitic and chloritic-sericitic schist with a strong east-west foliation contains bands of agglomeratic volcanics which have been partially altered to chlorite schist. The agglomerate contains bombs, fragments, and knots of quartz-epidote with an andesitic to rhyolitic matrix of aphanitic texture. Faulting is parallel to schistosity and northeast-southwest, with all faults dipping steeply. A

northeast-southwest fault displays left-handed lateral movement. Schist zones on the river bank strike north 80° east, and dip 70° south. These schist zones are more compact, siliceous and less foliated than the Mt. Sicker deposit schists. Small, localized quartz veins strike in different directions from shear zones. Mineralization consists of pyrite and minor chalcopyrite in shear zones, and disseminated pyrite (to 5%) in schists. A small adit on the river bank, indicated on the accompanying map, is in a shear zone. Another small adit on the hillside of KLONDYKE has a different strike from the river bank adit. In general, geochemical results were disappointing. A grab sample from a blast hole in one of the quartz veins returned 10.2% copper but, on the whole, rock geochemistry gave very low copper values. Thirty-seven silt and soil samples were collected from SUSAN and VICTORIA. These were not statistically analyzed, due to the small sample size. Ranges were provided as follows:

	Soil Ranges (ppm)	Silt Ranges (ppm)
Copper	49 - 996	168 - 798
Lead	12 - 30	18 - 24
Zinc	60 - 416	86 - 163
Silver	0.7 - 1.6	N/A

A coincident copper-zinc-silver anomaly has been indicated on the accompanying map. A variety of geophysical surveys were done in the general vicinity of the river bank adit. Five anomalous EM zones were established on either side of the river, and on Lot 68G. An IP effect was produced by changes in degree of metamorphism of the schist, but the response was not good over known mineralized zones. Hard, crystalline metavolcanics may be a barrier to current flow. It was concluded that mineralization is probably disseminated, in pyrite, or narrow veins at best because 1) SP results are small; 2) the JEM response was not significant (penetration was only to fifty feet); 3) the IP response was low; and 4)

there is a lack of geochemical evidence of heavy metals and copper. The geophysical results did provide evidence of folding, rather than faulting of mineralized horizons. Folds can be inferred to run almost north-south, with dips to the east and a total north-south displacement of approximately 270 feet.

COMMENTS:

Assessment Reports 3099, 4626, 6972, 6599, 6600, 7183, and 7714

STATUS:

Prospect

FC #10:

CLAIM NAME:

TWIN G

COMMODITIES:

Copper, lead, zinc

MINERALS:

Unknown

WORK DONE:

Soil geochemistry

GEOLOGY:

The claims are reportedly underlain by Sicker andesitic to rhyolitic metavolcanics. 156 soil samples were analyzed for copper, lead and zinc to produce the following anomalous values: for copper, greater than 78 ppm; for lead, greater than 12 ppm; for zinc, greater than 103 ppm. On this basis, three distinct copper-lead anomalies were defined, while zinc anomalies occurred at isolated points. The main anomalous area is in the northeastern part of the claims.

COMMENTS:

Assessment Report 6807

STATUS:

Prospect

FC #11

CLAIM NAME:

CF GROUP
M.L. 13
DAWN
B
GOLDEN ROD
MOLINE FRACTION
CPOG M.L.

COMMODITIES:

Copper, lead, zinc, silver

MINERALS:

Pyrite, chalcopyrite

WORK DONE:

Ground geophysics (horizontal and vertical shootback EM, IP),
diamond drilling

GEOLOGY:

The claims are underlain by Sicker andesite tuffs and flows, metamorphosed to quartz-sericite, quartz-chlorite and chlorite schists, and intruded by gabbro-diorite sills and dykes. Assessment Report 3950 contains detailed descriptions of the various lithologies and should be consulted if such information is desired. Mapping failed to reveal any showings of LENORA-TYEE type mineralization. EM results were negative over the survey area, however penetration was only to 100 feet. The IP survey, on CF 17, 18, 13, 7, 8, and GOLDEN ROD delineated a conductive zone open to the east, and possibly to the west. This was described as three areas of correlating high chargeability and low resistivity, elongated east-west in the southeast grid quadrant. The two southerly areas were coincident with copper geochemistry of more than

150 ppm and surface outcrop of quartz-sericite schist. Drill hole MS74-3, on CF 4 encountered chloritic schist with traces of pyrite and/or chalcopyrite. Occassionally, pyrite concentration increased, to a maximum average of 17% at 387 - 395 feet. Toward the end of the hole a dioritic schist was intersected, occassionally pyritic and porphyritic in appearance. The hole ended in argillaceous shales at 740 feet. Assay results were not reported.

COMMENTS:

Assessment Reports 3950, 3951, 4904 and 5164

STATUS:

Prospect

FC #12

CLAIM NAMES:

LENORA
TYEE
RICHARD III

HISTORY:

In 1897, a forest fire and subsequent rains swept bare the hillsides of Mount Sicker, disclosing a gossan which later proved to be the surface exposure of the LENORA and TYEE SOUTH ore bodies. The following brief chronological history of the three main claims was obtained from Assessment Report 1104.

LENORA

- 1898 Drifting, crosscutting and sinking. Two parallel ore zones identified.
- 1899 Development and stoped ore stored in dumps. Some handpicked ore sent to a smelter.
- 1900 Lenora-Mount Sicker Mining Company formed. Development and stoping continued. Shipped ore by wagon, narrow-gauge railway, E & N Railway, to Ladysmith thence by steamer to Van Anda, Everett and Tacoma smelters.
- 1902 Railroad completed to the mine. Smelter completed at Crofton. Shortly after shipments commenced to Crofton the mine was closed because of litigation.
- 1903 Minor work done and small shipments of ore from the dump made to Crofton

- 1924 Re-opened under lease and bond by R. C. Mellin, primarily to re-examine the north ore zone, which was reported to assay 2% copper, 7% zinc, with \$1.50 in gold and silver. This ore had become attractive because of advances made in separating copper and zinc by flotation.
- 1925 No work.
- 1926 Ladysmith Tidewater Smelters Ltd. took over assets of Tyee mine and smelter and leased the Lenora. Under the direction of R. C. Mellin an adit was started on the Lenora to connect both mines to provide efficient working conditions.
- 1929 The lease on Lenora was dropped and work ceased.

TYEE

- 1897 Explored and developed the property with drifts, crosscuts and shafts. Made a small shipment of sorted ore in 1901 which ran 8% copper, \$5 in gold and \$5 in silver per ton. The bulk of production stored in surface dumps.
- 1902 Completed construction of aerial tramway to Somenos where ore was transshipped by E & N Railway to the newly-built Tyee smelter at Ladysmith. A 1250-foot shaft sunk to develop lower grade ore zone found on 1000, 1150 and 1250 levels. Much development, exploration and production during these years. Concentration tests were being made on low grade ore when mine closed due to low price of copper. Work

done on Tony, XL, Key City and Westholme claims disclosed some copper mineralization.

1928 Tyee holdings taken over by Pacific Tidewater Mines, Ltd., which then obtained from Mellin the Lenora lease. The adit being driven on the Lenora towards the Tyee was continued and ore was encountered.

1929 Pacific Tidewater Mines, Ltd. taken over by Ladysmith Tidewater Smelters, Ltd. No work done on Tyee or Lenora, and Lenora lease dropped.

RICHARD III

1898 Developed and explored sporadically but lacked sufficient working capital for efficient operations. Shipped some ore from dump to Tyee Smelter. When work stopped ore was showing on floor of the 500 level.

1924 Victoria interests undertook further exploration of north ore zone through drifting, crosscutting and sinking after which no further work done until the beginning of World War II.

SHEEP CREEK GOLD MINES LTD.

1939 Sheep Creek optioned Lenora, Tyee and Richard III.

1940 A considerable amount of diamond drilling and development was done before option dropped due to low zinc price.

TWIN J MINES LTD.

- 1942 Taken over by Twin J Mines Ltd. who drilled and sampled followed by underground rehabilitation and preparation of mine site. Milling began in mid-1943 at 125-150 tons daily. Much exploration and development done. Operations suspended in 1944 when sales contract with Wartime Metals Corporation was cancelled. Most production came from the Lenora North ore zone.
- 1946 Retimbered underground operations. Mining and milling resumed. Concentrate shipped to Tacoma and Trail. Closed in September, 1947.
- 1949 Property taken over by Vancouver Island Base Metals Ltd. They repaired Tyee shaft, retimbered tunnels, developed and drilled before ceasing work.
- 1951 Re-opened and milled 9,754 tons. Modest exploration program carried out. Closed in January 1952.
- 1964 The present interests blasted an outcrop on the Lenora and shipped 167 tons to Tacoma Smelter. Subsequently, Mt. Sicker Mines Ltd. was formed to work the property. A feasibility study has been made with regard to leaching of copper from the ore zones and dumps.

PRODUCTION RECORD

<u>Period</u>	<u>Tons</u>	Gold <u>ounces</u>	Silver <u>ounces</u>	Copper <u>pounds</u>	Zinc <u>pounds</u>	Lead <u>pounds</u>
1898-1907	252,678	35,600	738,019	19,078,049		
1943-1944	34,893	2,617	71,531	921,175	4,270,903	418,716
1947	8,295	507	15,878	173,952	536,995	
1951-1952	9,754	316	15,554	86,773	713,954	85,757
1964	167	12	294	5,814		

COMPARATIVE METAL PRICES

	Copper U.S. cents/ <u>pound</u>	Copper L.M.E. pounds/ <u>l.ton</u>	Silver U.S. cents/ <u>ounce</u>	Lead U.S. cents/ <u>pound</u>	Zinc U.S. cents/ <u>pound</u>	Gold U.S. dollars <u>ounce</u>
1901	16.12	66.79	58.95	4.33	4.08	20.67
1902	11.63	52.46	52.16	4.07	4.84	"
1903	13.24	57.97	53.57	4.24	5.40	"
1904	12.82	58.59	57.22	4.31	4.93	"
1905	15.59	69.47	60.35	4.71	5.88	"
1906	19.28	87.28	66.79	5.66	6.20	"
1907	20.04	87.01	65.33	5.33	5.96	"
1908	13.21	59.90	52.86	4.20	4.73	"
1939	10.97	48.26	39.08	5.05	5.11	35.00
1940	11.30	62.00	34.77	5.18	6.34	"
1943	11.78	62.00	44.75	6.50	8.25	"
1944	11.78	62.00	44.75	6.50	8.25	"
1947	20.96	130.54	71.82	14.67	10.50	"
1951	24.20	233.00	89.37	17.50	18.00	"
1952	24.20	259.48	84.91	16.47	16.22	"
1966	36.09	408.89	129.30	15.00	15.00	"
<u>Canadian Prices:</u>						
1966 Nov.	45.00	490.00	140.50	14.00	14.50	37.85
1967 June	47.25	402.50	180.17	14.00	13.75	37.84

COMMODITIES:

Copper, zinc, silver, lead, gold

MINERALS:

Pyrite, chalcopyrite, sphalerite, galena, azurite

WORK DONE:

Ground geophysics (VLF-EM, magnetic survey, horizontal and vertical shootback EM), diamond drilling

GEOLOGY:

The geology and ore deposits of Mt. Sicker have been previously described in many publications. A brief description of faulting and the ores follows. Two faults, striking east-west and dipping vertically displace the orebodies. The north fault, between the orebodies displaces the southern orebody 200 feet upward and an unknown distance to the east with respect to the north orebody. Little is known about the south fault, which lies 80 to 100 feet south of the south orebody. Two types of ore were mined: (1) a fine-grained mixture of pyrite, chalcopyrite, sphalerite and galena in a gangue of barite, quartz and calcite. This ore is characteristically banded; (2) chalcopyrite in a quartz gangue, sometimes as layers or streaks that follow unreplaced layers of schist in quartz. Ores are later than folding and metamorphism of the sediments and are closely related to sodic-rhyolite porphyry and sodic-diorite. Localization of mineralization is controlled structurally, by regional fracture zones and drag folds in narrow bands of tuffs and graphitic schists. Results of a horizontal and vertical loop shootback EM survey over the TYEE shaft were negative, with a depth penetration of 100 feet. The magnetic survey was discontinued after three profiles as it did not detect significant variations. The VLF-EM survey located seven east-west trending anomalies, including one over TYEE and LENORA which showed flexures to the north and south, representing folding in the ore zones.

These are called anomalies A, B, C, D etc. on maps from Assessment Report 1714. These maps are on file in this office. Diamond drill hole MS74-1, on LENORA, had a best intersection of 2 to 3% copper, 1 to 2% lead, 1 to 2% zinc and 2 to 3 ounces of silver over two feet. This was in a hard, siliceous argillite? with 5% pyrite, 2% chalcopyrite and minor azurite. The most common units in this hole were argillite, graphitic argillite and schist. On the TYEE claim, diamond drill hole MS74-2 intersected chloritic schist and diorite with occasional calcite stringers and minor pyrite. Toward the end of the hole, a dark grey or black argillite, occasionally pyritic and/or graphitic was encountered. None of the assays from this hole were reported. Diamond drill hole MS74-4, collared on RICHARD III encountered schist and diorite with occasional traces (to 1%) of copper, pyrite and sphalerite. Assays from this hole were not reported.

COMMENTS:

Assessment Reports 1104, 1714, 3951, 5164

STATUS:

Past-producer

FC #13

CLAIM NAMES:

YANKEE (LOT 89G)
MARGIE (LOT 5G)
MOLLIE (LOT 6G)
MOLLIE FRACTION (LOT 7G)

COMMODITIES:

Unknown

MINERALS:

Pyrite

GEOLOGY:

Andesite flows, generally chloritized, underlie the northeastern portion of MARGIE. Some of the andesites are tuffaceous, and these too are highly chloritized. The central portion of the claims is occupied by a band of sericite and chlorite schist, probably derived from rhyolitic and dacitic masses. A lack of continuity of outcrop and observable structural features make relationships difficult to determine. An agglomerate-breccia unit outcrops in the northern portion of MOLLIE FRACTION. Both schistosity and foliation of this unit trends east-west; schistosity dips vertically to steeply to the south. Diorite intrusives have steep, sharp contacts where observed. A pyritic vein, ten centimetres wide was noted in a small pit on YANKEE. The vein follows the schistosity of outcrop.

COMMENTS:

Assessment Report 6602

STATUS:

Showing

FC #14

CLAIM NAMES:

MARGARET
ROCKY
ACME

COMMODITIES:

Copper, zinc, silver, lead

MINERALS:

Unknown

WORK DONE:

Soil geochemistry

GEOLOGY:

Assessment Report 7875 contains a detailed lithological description of the claims and mine geology. The reader is referred to this report for this information. A soil geochemical survey delineated two targets: (i) on HERBERT, south of the mine, all four elements are concentrated; (ii) a copper anomaly was found around the "northeast copper zone". A lesser anomalous area for copper, zinc and silver was located near the FORTUNA adit.

COMMENTS:

Assessment Report 7875

STATUS:

Past-producer

FC #15

CLAIM NAMES:

LUCKY STRIKE
NEW IRONCLAD
PETER
BOBS

HISTORY:

The claims were staked to cover a copper deposit discovered during the building of the railroad. A small amount of work was done then and the title made secure and independent of the E and N Land Grant.

COMMODITIES:

Copper, zinc, gold, silver

MINERALS:

Pyrrhotite, chalcopyrite, sphalerite

GEOLOGY:

The LUCKY STRIKE zinc showing occurs in a shear zone in a narrow band of quartz-sericite schist, bounded to the south by a wide band of quartz-feldspar porphyry. Two tunnels are mineralized with lenses of pyrrhotite, chalcopyrite and sphalerite. A sample from one of these mineralized zones yielded 6.7% zinc, 0.9% copper, and traces of gold and silver.

COMMENTS:

Assessment Report 19

STATUS:

Prospect

FC #16

CLAIM NAMES:

SIRIUS
CROFT
(YREKA)

HISTORY:

The area was selected on the basis of its position, at the eastern termination of a shear zone known to carry economic concentrations of base metals further to the west (cf. TYEE, LENORA et al) and on the basis of old reports.

COMMODITIES:

Copper, zinc, silver

MINERALS:

Pyrite, chalcopyrite, arsenopyrite, malachite, chalcocite, tetrahedrite, bornite, sphalerite, magnetite.

WORK DONE:

Soil geochemistry

GEOLOGY:

The geology of the two claim groups will be discussed separately.

CROFT: Five main units outcrop on this group (i) quartz-eye porphyry (ii) a white chert unit that may be a silicified tuff (iii) felsic volcanic rocks which are fine-grained and pyritic with occasional feldspar phenocrysts (iv) banded greenstone, mostly andesitic but some are siliceous (v) gabbroic to dioritic intrusive. Mineralization occurs at the contact of the felsic volcanic unit with intrusives. There is no evidence of copper mineralization in the volcanics but chalcopyrite (+arsenopyrite) is found in a quartz vein at the intrusive contact, and with malachite, chalcocite, tetrahedrite and

minor bornite. Chalcopyrite and sphalerite predominate in a muck pile near an adit at the volcanic-intrusive contact. 255 soil samples showed that high copper and zinc values are associated with felsic volcanics and sediments. The highest values were: copper - 190 ppm, zinc - 1700 ppm and silver - 1.3 ppm.

SIRIUS: Four major rock types are present on this claim group (i) Sicker Group mafic to intermediate andesites with epidote or epidote-quartz nodules in the eastern and southern portions of the property (ii) Porphyritic volcanic rocks containing amphibole crystals are found throughout the area but are most common to the west (iii) Non-porphyritic andesites without nodules and (iv) Porphyritic, nodule-bearing andesite. Two bands of siliceous, pyritized felsic volcanics and tuffs were found in the north and northwest parts of the property. Hard, cherty, schistose tuffs were located within one of these felsic bands and at one other location on the property. Two types of quartz-feldspar porphyry were identified; one appeared to be intrusive, and the other an altered tuff? A gabbro-diorite unit is the second most common rock type on the property. Contacts are generally abrupt and accompanied by chloritic alteration. Regionally, rocks strike 120° and dip vertically. This is reflected in foliation planes within volcanics, tuffs and porphyries. Jointing is rare, as is shearing representing faulting. Some chert displays evidence of small-scale folding. The area abounds in old workings, most of which followed quartz veins and shears. Weak concentrations of magnetite are found within mafic volcanic rocks, and sometimes within intrusives. It was concluded that no obvious deposit of commercial sulphides is present.

COMMENTS:

Assessment Report 2397

STATUS:

Fast-producer