

823036

GEOLOGICAL SAMPLING REPORT  
ON THE  
STEWART CLAIM GROUP

YMIR-NELSON MINING DIVISION  
N.T.S. 82F/3,6

Latitude: 49°15'N

Longitude 117°15'W

OWNERS - Eric, Jack Denny (Nelson, Ymir, B.C.)

OPERATOR: Minnova Inc.

By:

G.R. Thomson, B.Sc.

November 30, 1988

KERR / 88

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## INTRODUCTION

The Stewart Group of 189 claim units covering over 17 square miles (45 square kilometers) is underlain by Rossland Volcanics and Hall sediments intruded or cut by many granitic stocks, plugs and dykes of various types. Since the property was staked by the Dennys in 1978 there has been well over one million dollars spent on it in exploration -- mostly in trying to prove up a large molybdenum deposit when prices of molybdenum were far higher than at present.

There is a considerable potential for a bedded type gold deposit as the geology is very similar to Northair's Willa Mine near Silverton and the old Rossland Gold Camp (B.C.'s second largest gold producer). Quintana proved up a huge zinc soil anomaly and recent soils taken over the same area run well in gold. There are mineralized quartz monzonite breccia zones, skarn zones, shear zones, gold veins and many lead-zinc showings -- many of the above carrying low gold and silver values. There has been considerable exploration activity which is increasing each year in the area on all sides of the Stewart group. This area is being remapped by Tryg Hoy of the Ministry of Mines and Petroleum Resources. The Dennys have copies of all the geological, geochemical and geophysical reports with accompanying mylars, maps, plans, ortho-photos from Shell's and Selco's work and their drill core, pulps, rejects and samples and maps and a report on U.S. Borax's (K.K.'s) work and some Lacana results. Assessment work is recorded for several years in advance on most of the claims. Access is by 4 different roads connecting to paved highways & a railroad, supply centres of Nelson, Castlegar and Trail are close, a year-round mining operation is quite feasible, mills are nearby and Trail smelter is only 25 miles away. Hydro-electric power is nearby and there is a plentiful supply of experienced miners and equipment operators in Ymir and Salmo.

On behalf of Kerr Addison Mines Ltd., the Stewart property was examined on August 16 and September 4 in the company of owners Eric and Jack Denny. Areas examined were the Rest Creek Gold Hill and Breccia Summit mineral zones. Several samples were taken from these locations for assaying.

The Stewart property was optioned in September/88 by Kerr Addison and subsequently by Minnova Inc. (as a result of cessation of all Kerr Addison exploration activities).

The Stewart property is underlain by a favorable geologic environment such as is found around the Willa Mine near Silverton and the Rossland Copper-Gold Camp. There are also numerous mineral showings surrounding the Stewart claims (see Mineral Inventory Map - Appendix IV).

INTRODUCTION - cont'd

Over the period October 4-18, Kerr Addison (Minnova) carried out a geological reconnaissance over the Stewart property to locate prospective target areas for economic mineralization. A crew of four geologists was utilized during the exploration program.

Work over this period involved a comprehensive stream pan concentrate sampling program over all the major drainage areas throughout the property. Also, rock sampling was carried out on all recognized mineral showings and old workings.

A total of 60 rock samples were taken for geochemical analysis as well as 46 stream sediment pan concentrate samples. Both rock and stream samples were assayed for gold (F.A. + A.A.) as well as by 32 element I.C.P. analysis.

This report does not attempt to discuss major work programs carried out by previous operators, particularly in the area of the Breccia Summit - Arrow Tungsten, molybdenum-tungsten workings. For a complete description of the work carried out by Quintana Minerals Corp., Shell Canada Resources and Selco Inc. the reader is referred to the "Summary of Information" listed at the back of this report.

Over the course of geological sampling, some consideration was given to examination of airborne geophysical anomalies as determined during surveys conducted by Selco Inc. in 1982, 1983. Results of Selco's geophysical surveys over the Stewart property are summarized in B.C. assessment report #12251.

The most recent exploration programs carried out on the Stewart property were by Knox, Kaufman Inc. for U.S. Borax (1985) and by Lacana Mining Corp. (1987). Both Knox, Kaufman and Lacana were concerned with precious metal potential on the property. The Knox, Kaufman program recommends further exploration in the Gold-Hill-Rest Creek area and the Arrow Tungsten area. The 1985 report by Knox, Kaufman Inc. is included in the appendix at the back of this report. Also included is a summary of the 1987 program carried out by Lacana Mining Corp.

The reader is also referred to the minfile reports in the appendix. These reports contain various references pertaining to the various mineral showings occurring on the Stewart property.

### LOCATION AND ACCESS

The Stewart property is located 28 km south of Nelson and 4 km west of Ymir, B.C. in the Nelson M.D. The claims are centered at latitude 49°17'N and longitude 117°17'W on N.T.S. 82F/6W. The property is accessible by logging roads from Hwy. 6 between Nelson and Ymir and by the Erie Creek road branching north from Highway 33, 4 km west of Salmo.

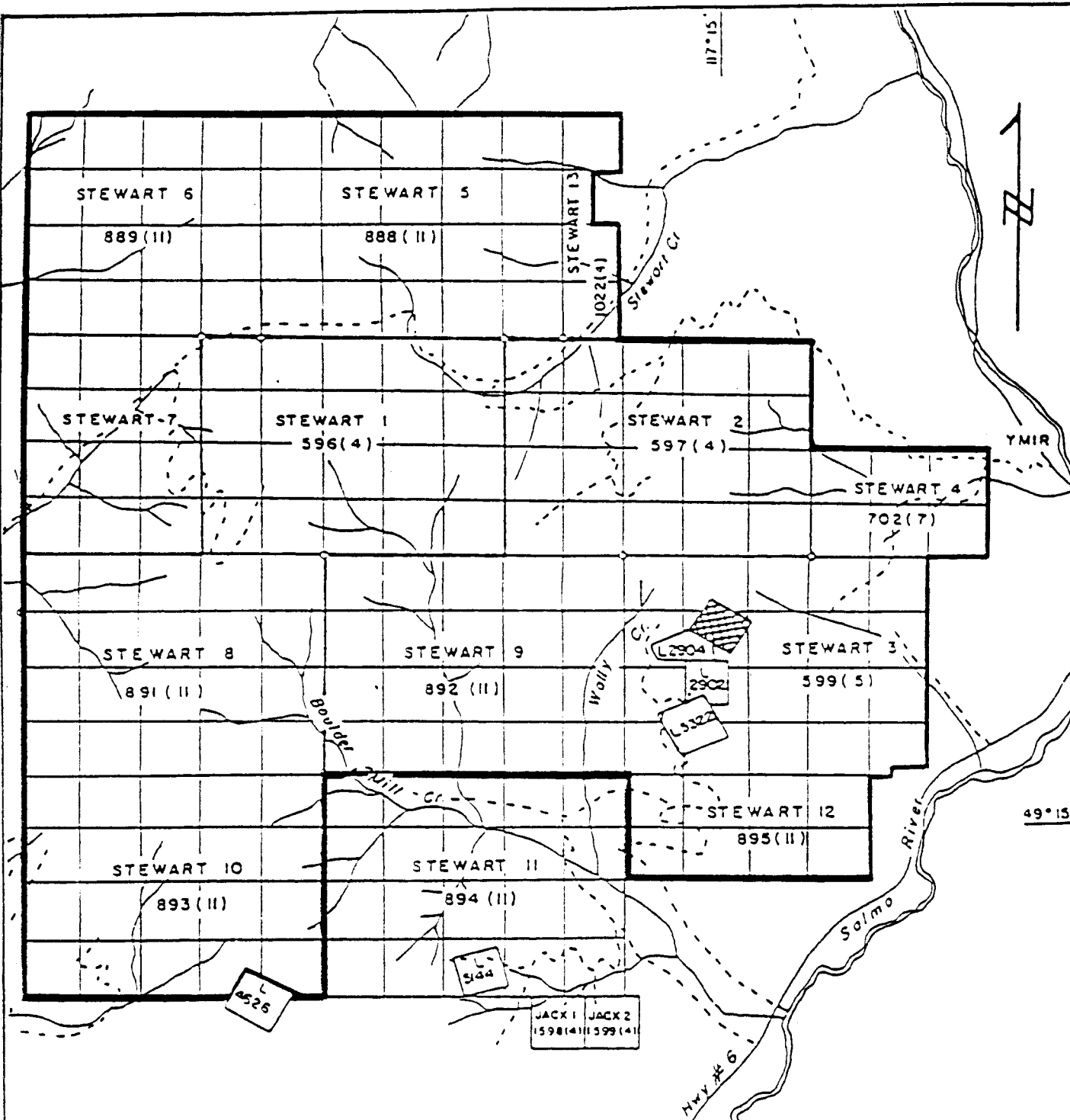
### PHYSIOGRAPHY


The claims, are located in an area of glaciated, moderately rugged terrain ranging in elevation from 750m to 1950m. Summit areas are devoid of trees while lower areas have varied vegetation. Logged areas are densely overgrown with willow and alder. Overburden is variable with considerable outcroppings along the ridges and thick alluvium in the valleys. Soil development is poor and composed of weathered fines and scree from the slopes and underlying bedrock. Drainage basins of the Stewart, Quartz, Boulder Mill, Rest and Craigtown Creeks are present over the property.

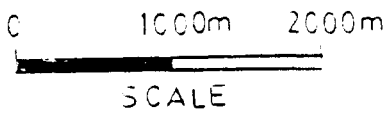
### PROPERTY DATA

The 186 unit Stewart Property was held under option by Lacana Mining Corporation of Vancouver (Fig. 2). The owners of the property are Eric Denny of Nelson, B.C. (50%) and Jack Denny of Ymir, B.C. (50%).

<u>Claim</u>	<u>Record No.</u>	<u>Units</u>	<u>Expiry Date</u>
STEWART 1	596	20	April 28, 1990
STEWART 2	597	20	April 28, 1994
STEWART 3	599	20	May 8, 1993
STEWART 4	702	6	July 14, 1992
STEWART 5	888	20	November 28, 1989
STEWART 6	889	16	November 28, 1989
STEWART 7	890	12	November 28, 1991
STEWART 8	891	20	November 28, 1990
STEWART 9	892	20	November 28, 1994
STEWART 10	893	20	November 28, 1990
STEWART 12	895	8	November 28, 1993
STEWART 13	1022	4	November 28, 1992




 CROWN GRANTED CLAIM  
 NOT PART OF OPTION AGREEMENT



MINNOVA INC.				
STEWART CLAIMS				
PREPARED BY	SCALE	DATE	MAP SHEET	FIGURE
G.T.	1:50000	Nov/88	82F 6W	1

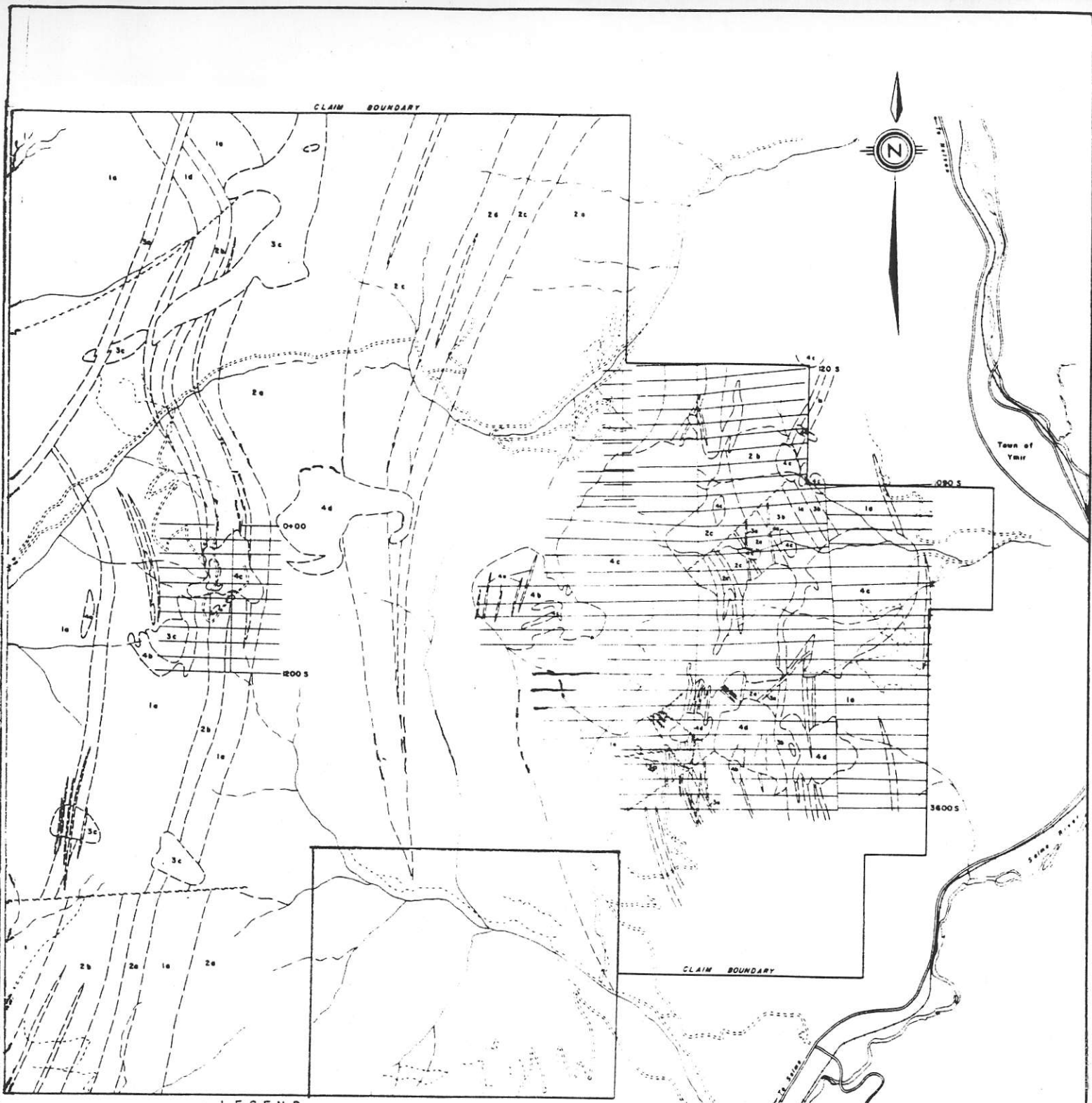
<u>Claim</u>	<u>Record No.</u>	<u>Units</u>	<u>Expiry Date</u>
<u>REVERTED CROWN GRANTS</u>			
FREE SILVER-RUBY	593	1	April 18, 1993
ROYAL	594	1	April 18, 1993
HOULTON	896	1	Nov. 28, 1994

#### WORK HISTORY

The area has seen considerable exploration since the late 1800's. The Arrow Tungsten showings were evaluated from 1942 to 1952. In 1969-70, Quintana Minerals Corp. carried out surface exploration for base metal and precious metals around the main molybdenum showing. In 1979, Shell carried out an evaluation of the property including geophysical and geochemical surveys, mapping and diamond drilling of the molybdenum showing. Work in 1982 and 1983 by Selco downgraded the potential of the property as a molybdenum deposit. In 1984-85 Selco took soil samples over previously defined geophysical conductors, which defined anomalous gold values in the Rest Creek area. In 1985, U.S. Borax did a geochem survey over the Rest Creek area with favorable Au-Zn results.

#### GENERAL PROPERTY GEOLOGY

Previous mapping programs indicate a large N-S synclinal structure on the property. The Elise Volcanics make up the east and west sides of the structure while the Hall Sediments form the central part. Both the volcanics and sediments are Lower Jurassic in age. The Nelson Intrusive is present on both the east and west sides of the property. The Map-Unit KTP Intrusive and the Coryell Intrusive are found in the middle of the property. The Nelson granodiorite is Jurassic in age while the Map Unit KTP pegmatitic granite is Cretaceous and the Coryell monzonite is Tertiary.



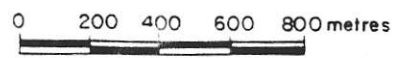
**LEGEND**

- TERTIARY**  
(Eocene or Later)
- 4 CORYELL INTRUSIVES**
- a) Lamprophyre dikes, diabase dikes various compositions
  - b) Breccia pipe
  - c) Porphyritic quartz monzonite
  - d) Biotite - augite monzonite
- CRETACEOUS**  
(Lower ?)
- 3 NELSON INTRUSIVES**
- a) Lamprophyre dikes, biotite, quartz, pegmatite porphyritic (Contains some oxidized host material)
  - b) Rhyolite porphyry
  - c) Feldspar porphyry

- JURASSIC**  
(Middle and Upper)
- 2 MALL. SEDIMENTARY FORMATION**
- a) Argillite
  - b) Sandstone
  - c) Sandstone / Argillite (intercalated)
  - d) Quartz pebble conglomerate
  - e) Mica Schist
  - f) Garnet - epidote schist
  - g) Impure garnet schist
- (Lower Jurassic)
- 1 ELBE (ROSSLAND) VOLCANICS**
- a) Basalt / Andesite - Flow
  - b) Tuff
  - c) Lapilli Tuff
  - d) Agglomerate

FIGURE IV 2

**THE STEWART PROPERTY**  
**YMIR, B.C.**



\* Geology from Shell Resource work, Pre 1982.



### ROCK SAMPLING SUMMARY

Rock sampling on the Stewart property concentrated on areas of known mineralization. Major areas of mineralization that were examined and sampled were:

- i) Free Silver Area and Adit (Pb,Ag)
- ii) May Blossom Adit (Pb,Zn,Au,Mo,Wo)
- iii) Bullion Workings
- iv) Cold Hill + Trixie V Workings - Rest Creek (Au,Ag)
- v) West Grid Area (Mo)
- vi) Breccia Summit Area (Stewart) (Mo,W,Au)
- vii) Stewart Creek Headwater Area (hornfels Au anomaly)
- viii) Arrow Tungsten Adit (W,Mo)
- ix) Rhyolite dykes (stripped area) - Rest Creek - Gold Hill area
- x) Clubine-Comstock Dump (not on property) (Au,Ag,Pb,Zn)

From preliminary sampling of mineralized rock outcrops or workings, only the Gold Hill-Rest Creek area appears to have some economic consideration. Of particular interest is the area of the old Gold Hill dump in which three samples (330124H, 330195H and 330196H) all ran consistantly for gold. The values for these samples were respectively 2.2 g/t, 2.16 g/t and 1.87 g/t.

These values occurred in buff colored siliceous sediments containing multiple milky quartz veinlets with disseminated pyrite, arsenopyrite, chalcopyrite, galena and sphalerite. Some malachite was observed on weathered surfaces.

A description of the Gold Hill Workings are given as follows from G.S.C. Memoir 172 - p. 78, 79.

....."The Gold Hill group comprises seven claims held on location by Louis Matassa, of Erie. The group is situated on the north side of Rest Creek, a tributary to Erie Creek from the east, and is distant 4 1/2 miles from Erie by road and trail. The slope toward Rest Creek is gentle and bedrock is almost everywhere obscured by overburden.

....."An adit driven on the outcrop, exposes a number of closely spaced quartz veinlets that follow the bedding of a decomposed argillaceous and arenaceous sediment that strikes approximately north and dips east at varying angles. The amount of quartz increases where small, flat rolls have developed in the formation. The quartz is milky to watery in appearance and drusy. Some white pyrite, and a trace of chalcopyrite, were present in the quartz near the face of the adit 105 feet in at the time of the writer's visit in 1931. Toward the portal the sulphide has been oxidized and there is considerable brown iron oxide in the quartz. The quartz veinlets make up about 15 inches of vein matter at the greatest width so far exposed. The quartz is reported to carry values in gold but no systematic sampling has been done. An aplite dyke, striking 20 degrees, outcrops just west of the working. The adit is at an elevation of 4,450 feet. Several other aplite dykes outcrop farther west, and also up the hill. The working is apparently in a belt of sediments in the Beaver Mountain-Rosslund group, with volcanics or dykes exposed a quarter of a mile to the northwest...."

Little is known of the economic potential of the Gold Hill area except for minor production in 1932, 1934 and 1942. All underground workings are caved and require major rehabilitation work in order to gain access to the old workings.

The most recent operator on the Rest Creek area was Lacana Mining Corporation Ltd. (1987). Part of the Lacana program was to establish a geochemical soil grid over the area of the old workings. A major zinc anomaly was located, but with only a few erratic anomalous gold values.

Some consideration should also be given to an area near the headwaters of Rest Creek known as the TRIXIE V showings. This is part of the general Gold Hill geologic environment occurring within Hall Formation sediment.

Samples of weakly mineralized (pyrite, chalcopyrite, galena) quartz veinlets assayed weakly for gold. Of four samples taken in and around two old adits, the assays were 380 ppb, 340 ppb, 480 ppb and 140 ppb. These values were associated with high silver values of 25.6 ppm, 3.4 ppm, 86.0 ppm and 55.2 ppm, along with very strong anomalous copper, lead and zinc geochemical values.

The lower of the 2 adits is approximately 20m in length with a short cross-cut. Numerous narrow quartz veins are exposed in the adit walls. A composite grab of quartz was taken near the face of the cross-cut (sample 330200H) which produced an assay of 340 ppb gold and 3.4 ppm silver. A more systematic sampling of this adit is recommended.

The upper adit which also exhibits narrow mineralized quartz veining at the portal, is flooded and would only require minor work to dewater the workings.

The above information, along with coincident high gold values from downstream pan concentrate samples in Rest Creek, indicate a need for a more extensive investigation of the Gold Hill area.

It is likely that the Gold Hill area is the source of alluvial gold occurring in the lower reaches of Rest Creek.

#### STREAM SAMPLING SUMMARY

A comprehensive program of pan concentrate stream sediment sampling was carried out for all accessible drainage on and adjacent to the Stewart property.

Forty six stream samples were taken and analysed for Gold (F.A. + A.A.) as well as 32 element I.C.P. analysis.

Of immediate interest are the gold values obtained immediately above the confluence of the north and south main branches of Rest Creek (Samples P102900H and P339753H). These samples assayed 1920 and 2350 ppb respectively with a gold source presumed to originate with the upstream Gold Hill area.

Also of major interest are the two gold values obtained from the middle branch of Craigtown Creek, at the northwest corner of the Stewart property. A minor creek flowing south into Craigtown Creek yielded a very high assay of 5250 ppb gold (sample P339758H). Of note is another pan sample occurring downstream from sample P339758H and west of the property boundary, assaying 3100 ppb (sample P339761H).

The area at the northwest corner of the Stewart Claim group (Stewart 6) should be thoroughly prospected with additional upstream pan concentrate stream sampling.

Also of consideration, is an area at the west-central portion of the Stewart property. This general area is referred to as the "West Moly" area in which occurs a core of Lower Cretaceous Nelson quartz monzonites and breccias within Lower Jurassic Rosslund Volcanics. Pan concentrate samples from several creeks draining this area were anomalous for gold (e.g. samples P102874H (130 ppb), P102871H (350 ppb), P102872H (280 ppb), P102875H (255 ppb) and P102873H (530 ppb). One value from this area, at the extreme west claim boundary, assayed 2650 ppb.

At present, it is difficult to make meaningful conclusions regarding the precious metal potential of the Stewart property.

As this is a very large claim group, more reconnaissance stream soil and rock sampling would be useful in targeting economic mineralized zones.

At present, the following areas are prioritized for immediate exploration work on the Stewart property:

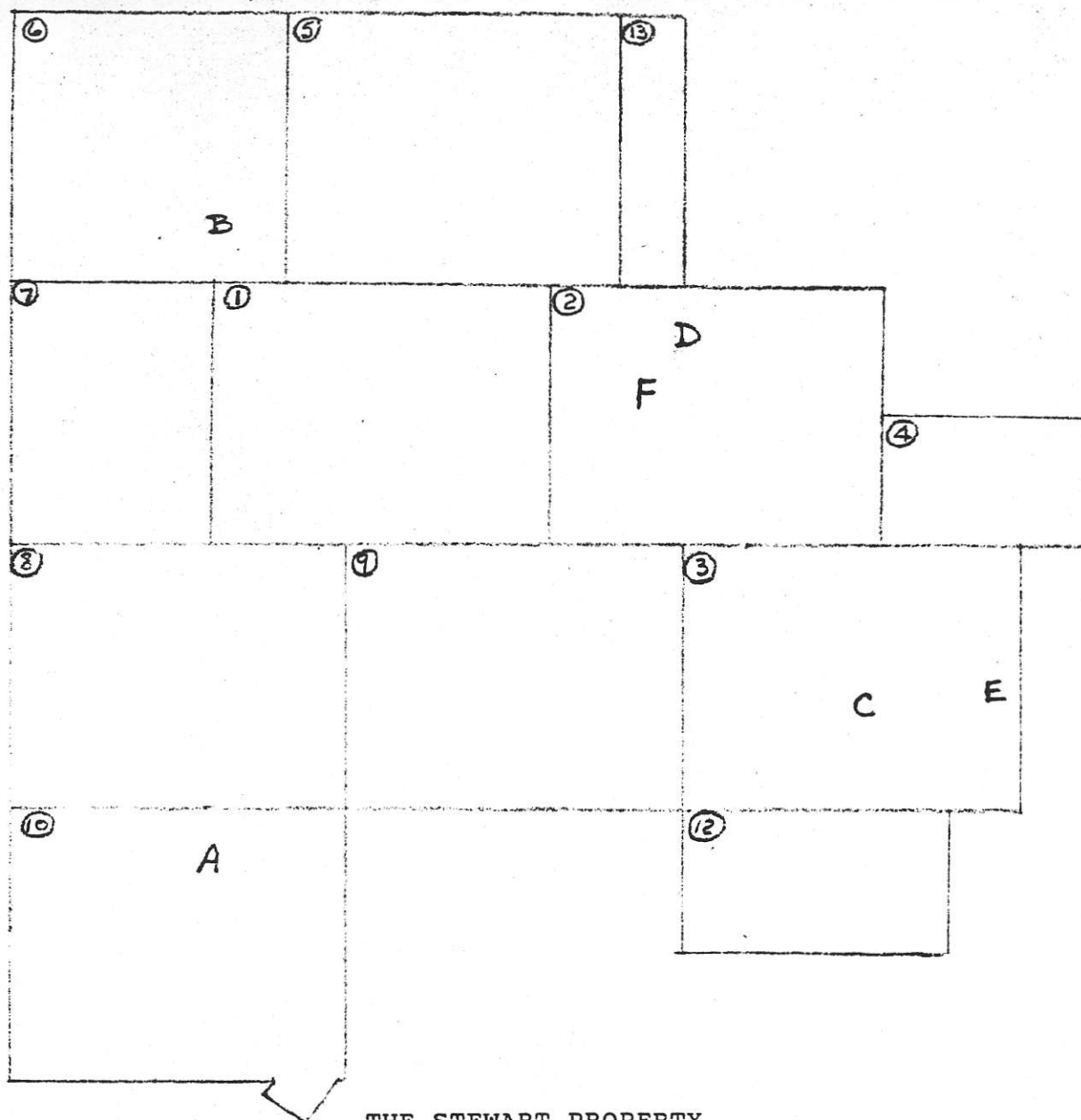
1. Gold Hill and TRIXIE V - Rest Creek Area.
2. Stewart 6 Claim, in area of 5250 ppb Au stream pan concentrate sample.
3. Stream drainage area (N.W. facing slope) of "West Moly" zone with anomalous gold values (e.g. 100-500 ppb Au).

A recent report (1985) by Knox, Kaufman Inc. of Spokane, Washington provides some concurrent conclusions regarding recommendations for work on the Stewart property. Of particular note is their work recommendations for the Gold Hill area. They suggest that the Gold Hill area lies within a similar geologic environment to the Arlington Mine located approximately 2 km south of the Gold Hill workings. The Arlington Mine is presently under production by Dragoon Resources Ltd.

### RECOMMENDATIONS

1. Reassessment and possible resampling of diamond drilling carried out by Shell Canada and Selco Inc. in areas of molybdenum mineralization (Arrow Tungsten-Breccia Summit areas) - (See Lacana report, 1987).
2. Backhoe trenching and sampling in area of old workings and rhyolite zone on Gold Hill area.
3. Rehabilitation and sampling of Gold Hill-TRIXIE V adits.
4. Prospecting, rock and stream sampling in area of 5250 ppb stream sample (Stewart 6 claim).
5. Dewatering and sampling of Arrow Tungsten adit and surface outcrop and trench sampling.

A list of similar and additional recommendations are supplied by Eric and Jack Denny and are summarized on the following page.



Areas warranting further work.

- A. Rest Creek Area - GOLD-ZINC soil anomaly should be extended, trenched and drilled.
- B. Stewart Pass - GOLD soil anomaly should be extended.
- C. Free Silver Area - Zinc, Lead, Silver showings - Gold soils.
- D. Possible Gold related to Arrow Tungsten skarn and also follow-up of M.A. Kaufman's advice re this area.
- E. Bullion Workings - Gladstone Creek - Gold, Bismuth, Arsenic, Nickel, etc., high I.C.P. and high silt warrants follow-up.
- F. Gold values in Shell core need further study.
- G. Shell soils could be run for gold in favorable areas.
- H. A complete silt sampling has never been done on the property.

The owners - Eric and Jack Denny (50% each) have copies of the following:-

1. All descriptions in Minister of Mines Reports, G.S.C. Memoirs, Papers including maps and Economic Geology Series Bulletins and B. C. Bulletins.
2. Fresno Group- Copper Horn Mining Ltd. Assessment Report #1083- 1967. Geological mapping, magnetometer and geochemical surveys.
3. Salmo Group - Quintana Minerals Corp. Assessment Report #2301- 1970. Geological and Geochemical Surveys.
4. Stewart Property- E. Denny. Assessment Report #7074- 1978. Line-cutting, geochemical & prospecting report.
5. Stewart Claims- G.W. Turner- Shell Canada Resources- Assessment Report #7722- 1979. Line cutting, geology, soil sampling, stream sediments, magnetometer, and electromagnetic ground survey.
6. Stewart Claims- G.W. Turner- Shell Canada Resources- not an Assessment Report- 1980. Geology, fracture density, detailed geology and sampling. Whole rock analysis and diamond drilling.
7. Stewart Claims- G.W. Turner- Shell Canada Resources- Assessment Report #10072- 1981. Geology, induced polarization, diamond drilling, line cutting.
8. Stewart Project- B. Grant, T. Carpenter, Selco Inc. 1982. Geology and Airborne Input-Mag Survey. Ass. Rept. #11670
9. Stewart Project- T. Carpenter, Selco Inc. 1983. Detailed geology, follow up of Airborne survey, diamond drilling, rock geochem. Ass. Rept. #/225/
10. Stewart Project- T. Carpenter, Selco Inc. 1984. Geology, soil sampling, rock geochem. Ass. Rept. #13166
11. Various private, unpublished reports and maps.
12. Orthophotos costing over \$18,000. prepared for Shell Canada Resources.
13. All drill core from Shell Canada's diamond drilling, and rock samples, pulp, rejects, etc. are stored under cover at R. R. #1, Nelson, B. C.
14. All drill core from Selco's diamond drilling and rock samples, pulps, rejects, etc. are stored under cover at R. R. #1, Nelson, B. C.
15. We have mylar copies of all of Shell's and Selco's maps as well as some prints.
16. We have copies of Knox, Kaufman's reports and maps of work done for U. S. Borax.
17. We have some information on Lacana's work. (~~1987~~, 1997)

APPENDIX I

GEOCHEMICAL ANALYSES OF STEWART PROPERTY  
ROCK SAMPLES





# Chemex Labs Ltd.

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Project : B08(C)A-07  
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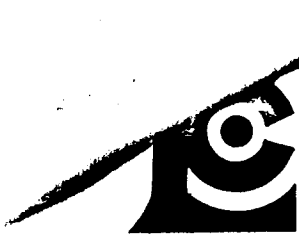
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330122 H	208 238	0.48	89.0	0.10	86.0	350	50	< 0.5	62	0.57	>99.9	19	96	1015	5.25	< 10	1	0.04	< 10	0.12
330123 H	208 238	0.14	56.0	0.61	55.2	>10000	160	< 0.5	2	3.09	16.5	41	84	1680	3.54	< 10	2	0.36	< 10	0.56
330124 H	208 238	2.20	7.1	0.16	8.6	2870	20	< 0.5	10	9.92	20.0	20	161	289	4.45	< 10	< 1	0.08	< 10	0.26
330125 H	208 238	0.07	3.5	0.43	4.0	225	60	1.0	8	0.48	4.5	8	90	76	1.42	< 10	< 1	0.21	20	0.18
330126 H	208 238	0.48	2.0	0.45	2.6	400	70	< 0.5	< 2	0.21	21.0	1	57	54	1.48	< 10	2	0.36	20	< 0.01

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*B. Coughlin*



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SAMPLE DESCRIPTION	PREP CODE	Mb ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
330122 H	208 238	429	< 1	0.01	18	270	>10000	150	< 1	35	< 0.01	< 10	< 10	3	75	>10000
330123 H	208 238	859	12	0.01	63	1180	2880	925	5	266	< 0.01	< 10	< 10	13	5	1625
330124 H	208 238	1430	< 1	0.01	5	270	1160	30	< 1	425	< 0.01	< 10	< 10	4	25	991
330125 H	208 238	340	9820	0.04	8	610	322	20	2	38	0.11	< 10	< 10	35	25	275
330126 H	208 238	115	110	0.04	4	140	190	10	< 1	18	< 0.01	< 10	< 10	< 1	5	964

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Comments: CC: G THOMSON

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Invoice #: I-8822845  
P.O. #: NONE

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SAMPLE DESCRIPTION	PREP CODE		Au oz/T	Ag oz/T	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %
			RUSH	RUSH																	
<i>Clubine - Comstock Dump</i> 119360 H	236	238	0.034	0.34	0.56	10.8	45	60	< 0.5	2	2.39	4.0	15	152	3780	2.13	10	< 1	0.10	20	0.67
	236	238	0.493	5.25	0.20	161.0	90	10	< 0.5	138	1.64	>99.9	23	94	8690	3.07	< 10	< 1	0.01	10	0.19
	236	238	1.444	4.21	0.29	126.5	535	20	< 0.5	26	1.23	45.5	22	92	>10000	4.51	< 10	< 1	0.08	10	0.19
	236	238	0.010	0.04	1.49	1.2	15	120	< 0.5	< 2	2.12	3.0	39	31	246	5.97	10	< 1	0.16	20	1.25
119364 H	236	238	0.008	0.07	0.04	1.8	100	10	< 0.5	8	6.57	9.0	6	70	153	2.44	10	< 1	0.02	< 10	0.08
119365 H	236	238	0.050	0.61	0.09	19.0	510	10	< 0.5	22	0.08	4.5	2	72	44	1.65	< 10	< 1	0.06	< 10	< 0.01
119366 H	236	238	0.046	0.13	0.15	3.8	4340	60	< 0.5	4	0.01	12.0	5	52	80	2.66	< 10	1	0.13	< 10	< 0.01
119367 H	236	238	0.002	0.02	0.13	1.0	545	10	< 0.5	< 2	0.04	9.5	2	30	13	1.74	< 10	< 1	0.06	< 10	< 0.01
119368 H	236	238	0.028	0.06	0.22	2.2	1695	40	< 0.5	2	0.01	52.5	2	30	29	1.53	< 10	< 1	0.18	< 10	< 0.01
119369 H	236	238	0.008	0.04	0.21	0.6	40	30	< 0.5	4	4.99	2.5	21	29	377	4.48	10	< 1	0.16	30	1.37

ALL ASSAY DETERMINATIONS ARE PERFORMED OR SUPERVISED BY B.C. CERTIFIED ASSAYERS

CERTIFICATION :

*B. Coughlin*



# Chemex Labs Ltd.

Analytical Chemists • Geochemists • Registered Assayers

212 BROOKSBANK AVE., NORTH VANCOUVER,  
BRITISH COLUMBIA, CANADA V7J-2C1

PHONE (604) 984-0221

To: KERR ADDISON MINES LTD.  
(ATTN: RAY DUJARDIN)  
703 - 1112 W. PENDER ST.  
VANCOUVER, B.C.  
V6E 2S1

Project: B-08(C)A-07  
Comments: CC: G THOMSON

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Date: 12-SEP-88  
Invoice #: I-8822845  
P.O. #: NONE

## CERTIFICATE OF ANALYSIS A8822845

SAMPLE DESCRIPTION	PREP CODE		Mn	Mo	Na	Ni	P	Pb	Sb	Sc	Sr	Ti	Tl	U	V	W	Zn
			ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
119360 H	236	238	600	< 1	0.01	12	200	48	5	2	80	0.02	< 10	< 10	28	< 5	171
119361 H	236	238	280	8	0.01	3	190	>10000	5	1	71	< 0.01	< 10	< 10	9	85	>10000
119362 H	236	238	180	1	0.01	4	100	482	5	1	55	0.01	< 10	< 10	12	< 5	1635
119363 H	236	238	917	< 1	0.02	18	2050	156	5	3	69	0.03	< 10	< 10	34	5	210
119364 H	236	238	803	< 1	< 0.01	11	140	76	5	1	639	< 0.01	< 10	< 10	4	< 5	282
119365 H	236	238	55	10	< 0.01	3	230	1610	< 5	< 1	9	< 0.01	< 10	< 10	6	< 5	253
119366 H	236	238	31	4	0.01	< 1	50	460	5	< 1	10	< 0.01	< 10	< 10	< 1	< 5	882
119367 H	236	238	171	< 1	0.02	< 1	30	94	< 5	< 1	4	< 0.01	< 10	< 10	< 1	< 5	438
119368 H	236	238	36	1	0.02	< 1	80	198	< 5	< 1	3	< 0.01	< 10	< 10	< 1	< 5	2320
119369 H	236	238	933	5	0.01	11	1120	10	15	10	381	< 0.01	< 10	< 10	21	35	118

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*B. Coughlin*



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212 BROOKSBANK AVE. NORTH VANCOUVER,  
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## CERTIFICATE OF ANALYSIS A8825596

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
102877H	205 238	130	0.43	1.0	50	30	< 0.5	< 2	5.13	< 0.5	20	38	482	4.66	10	< 1	0.22	< 10	1.38	1070
102885H	205 238	20	0.41	0.2	15	30	< 0.5	< 2	2.39	< 0.5	7	64	63	2.46	10	< 1	0.06	10	0.37	972
102892H	205 238	105	0.15	0.2	10	120	< 0.5	< 2	0.07	< 0.5	1	160	31	1.71	< 10	1	0.07	< 10	0.04	1000
102893H	205 238	5	0.03	0.2	5	20	< 0.5	< 2	0.03	< 0.5	1	92	128	0.60	< 10	< 1	0.01	< 10	0.01	41
102896H	205 238	10	0.05	0.2	10	10	< 0.5	< 2	0.05	< 0.5	2	190	12	0.60	< 10	< 1	0.02	< 10	0.01	1000

99-5-01 88-5-01 -03 -04	<del>330163H</del>	<del>205 238</del>	<del>75</del>	<del>0.89</del>	<del>0.8</del>	<del>190</del>	<del>20</del>	<del>&lt; 0.5</del>	<del>&lt; 2</del>	<del>1.67</del>	<del>&lt; 0.5</del>	<del>24</del>	<del>55</del>	<del>203</del>	<del>9.53</del>	<del>10</del>	<del>&lt; 1</del>	<del>0.01</del>	<del>40</del>	<del>0.18</del>	<del>160</del>
	330175H	205 238	20	1.06	0.6	35	20	< 0.5	< 2	0.96	< 0.5	49	67	394	5.32	< 10	< 1	0.10	10	0.74	238
	330176H	205 238	15	1.17	17.0	50	160	1.0	2	4.10	> 99.9	41	79	1145	7.97	30	< 1	0.39	80	2.29	> 10000
	330177H	205 238	5	1.00	0.2	30	40	< 0.5	< 2	0.87	< 0.5	37	23	187	5.32	< 10	< 1	0.12	10	0.84	633
	330178H	205 238	5	0.46	1.2	15	10	< 0.5	< 2	1.11	< 0.5	23	87	151	5.66	< 10	< 1	0.04	10	0.42	350
01 00 07	330179H	205 238	30	0.45	155.0	110	10	< 0.5	40	0.52	> 99.9	49	33	3400	14.75	< 10	< 1	0.15	30	1.64	> 10000
	330180H	205 238	850	1.15	52.0	1565	20	< 0.5	< 2	1.65	9.0	110	57	665	> 15.00	10	2	0.15	30	2.34	> 10000
	330181H	205 238	600	0.25	6.2	5240	10	< 0.5	150	0.12	12.0	24	85	46	4.00	< 10	1	0.13	< 10	0.26	659
	339759H	205 238	10	0.49	0.8	15	20	< 0.5	< 2	0.10	1.5	7	91	33	1.22	< 10	< 1	0.07	< 10	0.37	733
	339765H	205 238	10	0.06	0.2	15	20	< 0.5	< 2	0.03	1.5	2	211	11	0.74	< 10	< 1	< 0.01	< 10	0.05	617

CERTIFICATION :

*B. Coughlin*



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212 BROOKSBANK AVE. NORTH VANCOUVER,  
BRITISH COLUMBIA, CANADA V7J-1C1

PHONE (604) 984-0221

To: KERR ADDISON MINES LTD  
(ATTN: RAY DUJARDIN)  
703 - 1112 W. PENDER ST.  
VANCOUVER, B.C.  
V6E 2S1

Project : B-08(C)-07  
Comments: CC: G. THOMPSON

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Date : 21-OCT-88  
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## CERTIFICATE OF ANALYSIS A8825596

SAMPLE DESCRIPTION	PREP CODE		Mo	Na	Ni	P	Pb	Sb	Sc	Sr	Ti	Tl	U	V	W	Zn
			ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
102877H	205	238	11	0.03	15	1570	2	10	11	501	< 0.01	< 10	< 10	24	10	71
102885H	205	238	< 1	0.01	5	370	< 2	< 5	2	95	< 0.01	< 10	< 10	2	< 5	35
102892H	205	238	13	0.02	5	70	6	< 5	< 1	19	< 0.01	10	10	5	< 5	17
102893H	205	238	15	< 0.01	5	40	2	< 5	< 1	4	< 0.01	< 10	< 10	3	5	11
102896H	205	238	44	0.01	3	50	172	< 5	< 1	6	< 0.01	< 10	< 10	2	5	12

<del>330163H</del>	<del>205</del>	<del>238</del>	<del>25</del>	<del>0.14</del>	<del>110</del>	<del>2820</del>	<del>28</del>	<del>&lt; 5</del>	<del>2</del>	<del>21</del>	<del>0.06</del>	<del>&lt; 10</del>	<del>&lt; 10</del>	<del>50</del>	<del>&lt; 5</del>	<del>125</del>
330175H	205	238	5	0.03	59	1900	4	< 5	4	22	0.11	< 10	< 10	78	5	49
330176H	205	238	< 1	0.01	94	8100	>10000	< 5	11	615	< 0.01	< 10	< 10	45	75	>10000
330177H	205	238	< 1	0.04	12	1960	144	< 5	4	53	0.13	< 10	< 10	85	< 5	232
330178H	205	238	1	0.01	24	460	82	< 5	2	51	0.02	10	10	23	20	108
330179H	205	238	< 1	< 0.01	33	1760	>10000	< 5	6	35	< 0.01	10	< 10	8	—	>10000
330180H	205	238	32	0.01	738	940	>10000	< 5	6	57	0.03	10	< 10	43	55	2310
330181H	205	238	24	< 0.01	29	140	424	< 5	1	9	0.01	20	10	20	< 5	637
339759H	205	238	< 1	0.01	8	380	730	< 5	< 1	7	< 0.01	< 10	< 10	11	< 5	356
339765H	205	238	< 1	< 0.01	5	50	234	< 5	< 1	2	< 0.01	< 10	< 10	5	< 5	283

CERTIFICATION :

*B. Coughlin*



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 212 BROOKSBANK AVE., NORTH VANCOUVER.  
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To: MINNOVA INC.  
 ATTN: IAN PIRIE  
 4TH FLOOR, 311 WATER ST.  
 VANCOUVER, BC  
 V6B 1B8

Project: B08(C)C07  
 Comments:

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## CERTIFICATE OF ANALYSIS A8826167

SAMPLE DESCRIPTION	PREP CODE		Au ppb	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
			RUSH																		
330182 H	255	238	< 5	1.70	0.4	< 5	70	< 0.5	6	2.14	< 0.5	18	186	34	2.95	< 10	< 1	0.22	< 10	1.26	475
330183 H	255	238	25	0.16	1.2	405	10	< 0.5	6	0.04	< 0.5	41	416	55	2.90	< 10	< 1	< 0.01	< 10	0.11	88
330184 H	255	238	5	0.76	0.2	< 5	70	< 0.5	4	0.87	< 0.5	44	284	85	3.85	< 10	< 1	0.15	< 10	0.60	376
330185 H	255	238	< 5	1.35	0.2	5	120	1.0	< 2	4.82	< 0.5	18	64	42	5.05	< 10	< 1	0.72	< 10	1.57	1150
330186 H	255	238	25	0.78	1.6	< 5	160	< 0.5	4	1.83	0.5	3	133	32	1.47	< 10	< 1	0.46	20	0.31	880
330187 H	255	238	< 5	0.17	0.2	5	10	< 0.5	4	0.09	< 0.5	2	419	16	1.02	< 10	< 1	0.01	< 10	0.06	127
330188 H	255	238	165	0.78	71.6	660	20	1.5	24	2.49	>99.9	61	44	107	4.68	< 10	< 1	0.25	< 10	1.15	8840
330189 H	255	238	35	0.76	23.4	20	10	1.0	40	2.92	>99.9	25	97	334	3.09	< 10	1	0.16	< 10	0.79	5110
330190 H	255	238	30	1.20	>200	< 5	20	2.0	< 2	0.43	>99.9	26	113	79	7.90	< 10	< 1	0.43	10	0.40	>10000
330191 H	255	238	655	0.05	5.8	5	< 10	0.5	56	0.03	8.5	11	442	372	1.38	< 10	< 1	< 0.01	< 10	0.01	178
330192 H	255	238	65	1.20	85.8	< 5	50	2.5	< 2	0.27	>99.9	22	108	288	8.59	< 10	< 1	0.46	< 10	0.86	>10000
330193 H	255	238	< 5	0.63	2.2	< 5	60	1.0	< 2	0.68	5.0	3	101	69	1.80	10	< 1	0.11	20	0.17	519
330194 H	255	238	85	0.16	1.2	25	10	0.5	4	< 0.01	1.0	2	366	24	1.77	< 10	< 1	0.04	< 10	0.01	56
330195 H	255	238	2160	1.05	6.0	5210	140	0.5	4	4.12	73.0	13	121	203	3.67	< 10	< 1	0.56	< 10	0.94	1200
330196 H	255	238	1870	1.22	12.8	160	160	2.0	10	4.36	>99.9	11	47	1195	5.12	< 10	< 1	0.73	< 10	1.09	2400
330197 H	255	238	55	2.56	< 0.2	< 5	220	1.0	< 2	3.37	2.5	18	72	82	4.60	< 10	< 1	0.31	< 10	2.53	1150
330198 H	255	238	15	2.73	< 0.2	60	80	2.0	< 2	1.85	0.5	18	32	91	6.17	< 10	< 1	0.31	< 10	1.80	1135
330199 H	255	238	25	1.42	0.6	5	60	1.5	4	1.58	0.5	16	48	245	3.52	< 10	< 1	0.18	< 10	0.60	402
330200 H	255	238	340	0.64	3.4	105	90	2.0	4	1.46	1.5	21	181	390	4.91	< 10	< 1	0.32	< 10	0.36	512
339766 H	255	238	15	1.06	0.4	10	50	1.5	6	1.07	< 0.5	16	46	217	3.04	10	< 1	0.45	< 10	1.16	326
339767 H	255	238	5	0.16	0.2	< 5	20	0.5	< 2	0.06	< 0.5	2	438	4	0.82	< 10	< 1	< 0.01	< 10	0.10	254
339768 H	255	238	< 5	1.32	< 0.2	5	80	1.5	4	1.48	< 0.5	13	80	71	3.82	< 10	< 1	0.21	< 10	0.65	308
339769 H	255	238	< 5	0.09	0.4	15	10	0.5	4	0.02	< 0.5	2	421	26	1.40	< 10	< 1	< 0.01	< 10	0.04	72
339770 H	255	238	< 5	1.37	< 0.2	< 5	40	2.5	< 2	0.74	< 0.5	26	57	169	5.93	< 10	< 1	0.15	< 10	0.88	303
339771 H	255	238	< 5	2.52	< 0.2	< 5	90	2.5	< 2	1.16	0.5	17	31	123	5.25	< 10	< 1	0.34	10	1.61	941
339772 H	255	238	125	0.16	1.0	25	10	0.5	6	0.01	< 0.5	2	361	18	2.51	< 10	< 1	0.02	< 10	0.01	36
339773 H	255	238	205	1.73	< 0.2	45	170	2.0	< 2	3.37	< 0.5	12	54	73	3.91	< 10	< 1	0.58	< 10	0.97	900
339774 H	255	238	< 5	0.16	0.4	< 5	10	< 0.5	2	0.10	< 0.5	1	438	2	0.49	< 10	< 1	< 0.01	< 10	0.02	71
339775 H	255	238	< 5	0.32	0.4	< 5	10	< 0.5	2	0.07	< 0.5	2	476	1	0.79	< 10	< 1	< 0.01	< 10	0.29	194
339776 H	255	238	305	1.70	< 0.2	30	110	1.5	< 2	4.50	< 0.5	8	115	49	2.89	< 10	< 1	0.31	< 10	1.03	1100
339777 H	255	238	380	0.21	25.6	305	30	< 0.5	44	0.76	>99.9	15	379	564	4.63	< 10	< 1	0.04	< 10	0.16	511

CERTIFICATION :



# Chemex Labs Ltd.

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 212 BROOKSBANK AVE., NORTH VANCOUVER,  
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To: MINNOVA INC.  
 ATTN: IAN PIRIE  
 4TH FLOOR, 311 WATER ST.  
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 V6B 1B8

Project: B08(C)C07  
 Comments:

Page No.: 1-B  
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## CERTIFICATE OF ANALYSIS A8826167

SAMPLE DESCRIPTION	PREP CODE		Mo	Na	Ni	P	Pb	Sb	Sc	Sr	Ti	Tl	U	V	W	Zn
			ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
330182 H	255	238	21	0.27	41	1100	8	< 5	10	120	0.28	< 10	< 10	116	< 5	69
330183 H	255	238	99	0.01	20	40	6	< 5	< 1	1	< 0.01	10	< 10	9	5	16
330184 H	255	238	275	0.11	7	340	< 2	< 5	6	38	0.13	< 10	< 10	68	20	44
330185 H	255	238	41	0.07	7	1150	6	5	14	820	0.01	10	< 10	68	< 5	82
330186 H	255	238	4600	0.03	7	500	12	20	3	181	0.03	10	< 10	< 1	5	29
330187 H	255	238	26	0.01	5	100	10	< 5	1	7	0.01	< 10	< 10	12	< 5	15
330188 H	255	238	7	0.01	166	910	>10000	< 5	6	105	< 0.01	10	< 10	33	140	>10000
330189 H	255	238	2	< 0.01	3	830	4370	< 5	3	236	< 0.01	< 10	< 10	27	175	>10000
330190 H	255	238	21	0.01	34	1610	>10000	95	8	68	< 0.01	10	< 10	36	40	>10000
330191 H	255	238	2	< 0.01	5	20	2690	< 5	< 1	3	< 0.01	10	< 10	2	5	1690
330192 H	255	238	20	0.01	14	1030	>10000	20	5	20	< 0.01	< 10	< 10	32	65	>10000
330193 H	255	238	33	0.13	3	920	686	< 5	2	79	0.16	10	< 10	33	< 5	1025
330194 H	255	238	5	< 0.01	4	30	128	< 5	< 1	2	< 0.01	< 10	< 10	3	< 5	235
330195 H	255	238	2	0.01	7	840	782	5	4	303	< 0.01	< 10	< 10	24	< 5	2050
330196 H	255	238	2	0.01	8	1030	1475	5	4	274	< 0.01	< 10	< 10	30	< 5	5780
330197 H	255	238	3	0.06	24	1200	14	< 5	7	142	0.06	< 10	< 10	88	< 5	169
330198 H	255	238	3	0.06	10	1660	6	< 5	12	75	< 0.01	< 10	< 10	141	< 5	114
330199 H	255	238	3	0.10	7	1320	6	< 5	5	113	0.22	< 10	< 10	78	< 5	62
330200 H	255	238	7	0.01	17	460	118	5	3	93	< 0.01	< 10	< 10	17	< 5	115
339766 H	255	238	33	0.10	10	1280	6	< 5	8	36	0.26	< 10	< 10	127	< 5	85
339767 H	255	238	1	0.01	5	60	6	< 5	< 1	6	< 0.01	< 10	< 10	6	5	43
339768 H	255	238	9	0.23	12	1270	14	5	8	85	0.30	< 10	< 10	127	< 5	78
339769 H	255	238	17	0.01	4	40	140	< 5	< 1	2	< 0.01	< 10	< 10	9	35	40
339770 H	255	238	8	0.09	7	1730	6	5	7	57	0.21	< 10	< 10	134	< 5	34
339771 H	255	238	12	0.19	3	1910	10	5	9	102	0.19	< 10	< 10	188	< 5	94
339772 H	255	238	3	0.01	2	70	8	< 5	< 1	2	< 0.01	< 10	< 10	2	< 5	34
339773 H	255	238	6	0.07	22	1190	< 2	5	5	183	0.01	< 10	< 10	64	< 5	58
339774 H	255	238	1	0.01	3	30	4	< 5	< 1	11	< 0.01	< 10	< 10	9	10	9
339775 H	255	238	1	0.01	4	110	6	< 5	1	4	0.01	10	20	17	10	24
339776 H	255	238	9	0.08	25	1080	< 2	< 5	6	124	< 0.01	< 10	< 10	123	< 5	85
339777 H	255	238	10	0.01	39	140	6250	15	1	46	< 0.01	< 10	< 10	8	30	6820

CERTIFICATION :

*B. Coghlan*



APPENDIX II

GEOCHEMICAL ANALYSES OF STEWART PROPERTY  
STREAM SEDIMENT PAN CONCENTRATE SAMPLES



# Chemex Labs Ltd.

Analytical Chemists • Geochemists • Registered Assayers

212 BROOKSBANK AVE., NORTH VANCOUVER,  
BRITISH COLUMBIA, CANADA V7J-2C1

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To: KERR ADDISON MINES LTD.  
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V6E 2S1

Project: B-08(C)-07  
Comments: G. THOMPSON

Page No.: 1-A  
Tot. Pages: 2  
Date: 3-NOV-88  
Invoice #: I-8825595  
P.O. #: NONE

## CERTIFICATE OF ANALYSIS A8825595

SAMPLE DESCRIPTION	PREP CODE	Au ppb FAAA	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
P102871	213 238	350	2.58	1.0	85	60	< 0.5	< 2	4.11	< 0.5	74	135	109	10.80	20	< 1	0.17	< 10	0.70	1305
P102872	213 238	280	2.29	< 0.2	85	80	< 0.5	< 2	2.85	< 0.5	56	112	85	9.48	10	1	0.16	20	0.78	856
P102873	213 238	530	2.12	< 0.2	15	40	< 0.5	< 2	1.94	< 0.5	38	105	152	4.79	10	< 1	0.19	10	0.79	425
P102874	213 238	130	2.07	< 0.2	45	40	< 0.5	< 2	2.65	< 0.5	49	111	99	6.24	10	< 1	0.26	10	0.79	901
P102875	213 238	255	1.90	1.4	130	70	< 0.5	< 2	1.73	1.5	71	90	144	14.50	10	< 1	0.15	20	0.94	838
P102876	213 238	30	2.26	< 0.2	30	60	< 0.5	< 2	2.68	< 0.5	37	105	121	12.75	10	< 1	0.13	20	0.85	1125
P102878	213 238	< 10	1.93	< 0.2	70	50	< 0.5	2	1.92	2.0	30	116	92	10.05	10	< 1	0.10	30	0.86	567
P102879	213 238	25	1.96	< 0.2	65	50	< 0.5	< 2	1.90	2.0	25	122	73	9.17	10	< 1	0.09	30	0.87	573
P102880	213 238	10	1.77	< 0.2	30	70	< 0.5	6	1.79	2.0	21	111	56	8.06	10	< 1	0.11	40	0.79	509
P102881	213 238	90	1.72	< 0.2	50	50	< 0.5	2	1.76	1.5	29	104	65	7.97	10	< 1	0.11	30	0.76	548
P102882	213 238	50	1.19	< 0.2	20	80	1.0	4	1.99	< 0.5	13	255	16	2.34	10	< 1	0.13	50	1.37	394
P102883	213 238	< 5	1.23	< 0.2	30	70	0.5	8	1.68	1.0	16	194	29	3.70	10	< 1	0.11	60	1.01	408
P102884	213 238	30	1.92	< 0.2	110	60	< 0.5	6	1.86	2.0	31	102	54	7.60	10	< 1	0.10	40	0.79	599
P102886	213 238	10	1.76	< 0.2	455	60	< 0.5	12	1.96	4.5	19	92	61	7.12	10	< 1	0.09	30	0.64	781
P102887	213 238	65	2.36	< 0.2	110	60	0.5	< 2	2.39	3.0	21	84	75	8.11	10	< 1	0.08	30	0.72	763
P102888	213 238	10	2.52	< 0.2	100	50	0.5	2	3.53	< 0.5	19	101	112	7.66	10	< 1	0.13	10	0.55	2090
P102889	213 238	< 5	2.21	< 0.2	45	60	< 0.5	6	2.51	2.5	18	115	46	6.83	10	< 1	0.11	30	0.81	753
P102890	213 238	< 5	1.64	< 0.2	15	90	0.5	2	2.54	< 0.5	16	119	58	4.19	10	< 1	0.15	20	0.88	949
P102891	213 238	< 5	1.45	< 0.2	< 5	60	< 0.5	6	2.27	0.5	12	120	20	2.80	10	< 1	0.15	20	0.81	802
P102894	213 238	< 5	1.71	< 0.2	30	80	0.5	< 2	2.58	1.5	17	80	51	4.97	10	< 1	0.09	30	0.59	1025
P102895	213 238	10	2.12	< 0.2	35	70	0.5	8	3.42	< 0.5	21	106	75	5.80	10	< 1	0.15	20	0.87	1255
P102897	213 238	< 5	2.23	< 0.2	25	70	< 0.5	< 2	3.11	< 0.5	13	105	26	3.89	10	< 1	0.14	30	0.78	927
P102898	213 238	< 5	1.90	< 0.2	< 5	40	< 0.5	8	2.78	0.5	17	96	34	3.82	10	< 1	0.16	20	0.97	861
P102900	213 238	1920	2.13	< 0.2	30	80	< 0.5	4	2.17	0.5	28	105	63	5.48	10	< 1	0.20	20	1.11	693
330164H	213 238	10	1.68	< 0.2	35	50	< 0.5	2	1.82	1.0	15	111	56	7.04	10	< 1	0.14	30	0.71	586
330165H	213 238	15	2.17	< 0.2	50	90	< 0.5	2	2.28	1.5	27	89	82	7.86	10	< 1	0.20	50	0.81	865
330166H	213 238	< 5	1.84	< 0.2	55	70	< 0.5	< 2	2.04	1.0	17	107	60	7.28	10	1	0.14	30	0.67	697
330167H	213 238	20	1.73	< 0.2	90	100	< 0.5	< 2	2.07	3.5	29	76	132	12.55	20	< 1	0.11	50	0.63	1300
330168H	213 238	300	2.08	< 0.2	80	80	< 0.5	< 2	2.66	1.0	25	93	84	9.29	20	< 1	0.14	50	0.66	1115
330169H	213 238	15	1.78	< 0.2	35	60	< 0.5	< 2	2.59	1.0	16	103	42	5.56	10	< 1	0.14	20	0.77	1225
330170H	213 238	10	2.12	1.0	135	230	< 0.5	< 2	2.26	7.5	34	120	156	>15.00	20	1	0.14	60	0.76	1905
330171H	213 238	10	1.80	< 0.2	35	100	0.5	10	2.38	< 0.5	17	63	58	4.85	10	< 1	0.12	60	0.66	896
330172H	213 238	30	2.30	< 0.2	25	60	0.5	6	3.20	< 0.5	17	69	53	4.72	10	< 1	0.21	30	0.87	1235
330173H	213 238	85	1.53	< 0.2	35	270	< 0.5	12	2.06	< 0.5	20	67	51	5.55	10	< 1	0.08	70	0.54	761
330174H	213 238	200	1.97	< 0.2	40	100	< 0.5	6	3.26	< 0.5	22	108	48	4.89	10	1	0.14	30	0.72	1450
P339753	213 238	2350	2.31	< 0.2	100	110	< 0.5	2	2.18	2.5	33	103	83	9.68	10	< 1	0.18	30	0.90	954
P339754	213 238	10	1.59	< 0.2	30	50	< 0.5	4	1.46	< 0.5	20	88	32	2.82	< 10	< 1	0.12	10	0.95	408
P339755	213 238	45	1.99	< 0.2	60	80	< 0.5	< 2	1.98	2.5	40	76	108	8.41	10	1	0.19	20	0.75	859
P339756	213 238	120	3.25	< 0.2	75	110	0.5	< 2	3.14	2.0	25	83	73	7.45	10	< 1	0.24	20	1.02	1085
P339757	213 238	< 20	2.65	< 0.2	50	120	< 0.5	< 2	2.55	2.5	24	105	81	8.54	10	< 1	0.19	30	0.85	1130

CERTIFICATION :



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SAMPLE DESCRIPTION	PREP CODE		Mo	Na	Ni	P	Pb	Sb	Sc	Sr	Ti	Tl	U	V	W	Zn
			ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
P102871	213	238	10	0.09	31	900	26	< 5	10	237	0.19	< 10	< 10	176	300	174
P102872	213	238	8	0.08	33	1070	24	< 5	10	177	0.22	< 10	< 10	155	60	160
P102873	213	238	1	0.06	36	510	16	5	7	264	0.20	< 10	< 10	116	10	45
P102874	213	238	7	0.07	34	820	36	< 5	7	219	0.17	< 10	< 10	118	25	83
P102875	213	238	12	0.09	57	1070	14	5	10	138	0.19	20	10	147	50	317
P102876	213	238	56	0.07	37	1300	32	< 5	10	155	0.21	10	< 10	209	45	206
P102878	213	238	5	0.04	70	880	34	< 5	13	186	0.26	< 10	< 10	148	20	309
P102879	213	238	4	0.04	58	830	24	5	12	190	0.24	< 10	< 10	151	5	283
P102880	213	238	2	0.05	42	980	2	5	7	138	0.24	< 10	< 10	131	40	225
P102881	213	238	2	0.04	48	590	20	< 5	8	132	0.21	< 10	< 10	123	15	205
P102882	213	238	< 1	0.07	36	2140	8	5	6	116	0.13	< 10	< 10	62	10	94
P102883	213	238	< 1	0.04	38	2360	10	5	5	121	0.14	< 10	< 10	64	15	147
P102884	213	238	1	0.04	42	980	60	5	8	179	0.22	< 10	< 10	110	70	215
P102886	213	238	7	0.04	58	1240	30	< 5	5	162	0.16	< 10	< 10	103	445	783
P102887	213	238	34	0.04	45	1860	54	5	6	141	0.19	< 10	< 10	114	240	480
P102888	213	238	22	0.06	18	1470	28	< 5	9	199	0.22	< 10	< 10	153	65	188
P102889	213	238	6	0.08	38	1060	24	< 5	7	215	0.22	< 10	< 10	116	25	372
P102890	213	238	14	0.11	40	1150	4	< 5	7	129	0.21	< 10	< 10	157	35	165
P102891	213	238	4	0.10	44	790	14	< 5	6	130	0.21	< 10	< 10	116	35	78
P102894	213	238	13	0.06	24	1230	86	< 5	6	132	0.18	< 10	< 10	145	20	391
P102895	213	238	18	0.12	23	1260	32	< 5	11	220	0.27	< 10	< 10	206	10	129
P102897	213	238	1	0.11	19	660	20	5	8	260	0.31	< 10	< 10	152	25	73
P102898	213	238	7	0.15	22	800	12	< 5	10	220	0.30	< 10	< 10	164	155	121
P102900	213	238	1	0.11	36	900	26	< 5	8	191	0.24	< 10	< 10	116	5	132
330164H	213	238	7	0.06	29	1610	36	< 5	6	125	0.15	10	< 10	116	< 5	227
330165H	213	238	6	0.07	44	1560	26	5	8	222	0.23	< 10	< 10	130	10	292
330166H	213	238	7	0.05	33	1520	32	< 5	6	165	0.16	< 10	< 10	115	5	230
330167H	213	238	26	0.05	76	1750	38	< 5	8	144	0.18	< 10	< 10	135	95	622
330168H	213	238	15	0.06	41	1500	30	< 5	7	190	0.20	< 10	< 10	141	90	314
330169H	213	238	3	0.07	23	1490	48	< 5	7	157	0.17	< 10	< 10	132	45	232
330170H	213	238	28	0.05	100	2640	214	5	11	235	0.23	10	< 10	149	20	1160
330171H	213	238	10	0.06	15	1740	16	5	5	151	0.18	< 10	< 10	117	55	143
330172H	213	238	8	0.12	12	1960	24	< 5	8	200	0.21	< 10	< 10	152	30	131
330173H	213	238	12	0.04	21	2060	40	< 5	4	175	0.16	< 10	< 10	100	60	126
330174H	213	238	2	0.07	22	1920	34	5	7	244	0.19	< 10	< 10	136	20	102
P339753	213	238	5	0.09	47	1400	52	5	9	224	0.24	10	< 10	131	5	389
P339754	213	238	< 1	0.07	26	370	26	< 5	6	109	0.23	< 10	< 10	81	5	57
P339755	213	238	3	0.06	38	1270	60	< 5	7	218	0.22	< 10	< 10	122	< 5	243
P339756	213	238	3	0.12	32	1420	22	< 5	12	325	0.30	< 10	< 10	156	5	338
P339757	213	238	8	0.09	48	1860	50	5	10	279	0.26	< 10	< 10	134	< 5	478

CERTIFICATION :

*B. Coughlin*



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SAMPLE DESCRIPTION	PREP CODE		Au ppb	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
			FATAA	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	%	ppm
P339758	213	238	5250	2.57	0.4	60	40	< 0.5	2	2.31	< 0.5	46	60	72	5.20	10	< 1	0.10	20	0.89	576
P339760	213	238	135	3.18	< 0.2	95	50	< 0.5	< 2	3.57	0.5	52	103	83	7.43	10	< 1	0.13	20	0.93	778
P339761	213	238	20	2.36	< 0.2	40	50	< 0.5	2	2.15	< 0.5	37	122	62	4.39	< 10	< 1	0.13	10	1.08	459
P339762	213	238	3100	2.76	< 0.2	85	60	< 0.5	< 2	2.62	< 0.5	73	105	118	7.55	10	< 1	0.19	20	1.02	615
P339763	213	238	45	2.36	< 0.2	30	50	< 0.5	< 2	2.37	< 0.5	23	118	54	3.64	10	< 1	0.26	10	1.05	577
P339764	213	238	2650	2.19	< 0.2	50	40	< 0.5	< 2	2.21	< 0.5	55	104	97	5.77	10	< 1	0.25	20	0.85	572

CERTIFICATION :

*B. Coughlin*



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---

SAMPLE DESCRIPTION	PREP CODE		Mo	Na	Ni	P	Pb	Sb	Sc	Sr	Ti	Tl	U	V	W	Zn
			ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
P339758	213	238	< 1	0.05	19	730	20	< 5	7	323	0.27	< 10	< 10	132	10	65
P339760	213	238	< 1	0.08	30	880	22	5	10	430	0.25	< 10	< 10	158	10	110
P339761	213	238	< 1	0.05	38	500	20	< 5	8	290	0.24	< 10	< 10	126	5	49
P339762	213	238	< 1	0.08	46	860	20	< 5	10	364	0.26	10	< 10	147	10	75
P339763	213	238	< 1	0.08	31	860	36	5	7	270	0.21	< 10	< 10	111	5	76
P339764	213	238	1	0.07	32	900	52	< 5	7	280	0.19	< 10	< 10	110	10	82

CERTIFICATION : B. Coughlin

APPENDIX III

STEWART CLAIMS - YMIR - ROCK SAMPLE DESCRIPTIONS

<u>SAMPLE #</u>	<u>DESCRIPTION</u>
102877H	Float on Stewart Creek Road -silicified, carb altered andesite? -pyritic with malachite coating.
102885H	Stewart Creek Road quartz veins in volcanic host rock, 0.5m wide, 2m long (pyritic)
102892H	Quartz Creek -white quartz float, minor pyrite, magnetite
102893H	Quartz Creek -quartz float, minor pyrite, magnetite
102896H	Quartz Creek quartz float, pyritic, magnetite
119360H 119361H 119362H	Samples of high grade, siliceous ore rock from Clubine-Comstock dumps (Stewart II). Samples contain variable pyrite, chalcopyrite, galena and sphalerite.
119363H	pyritic, silicified sediments, near Gold Hill Dump.
119364H	Gold Hill-Rest Creek area - upper dump area grab sample of pyritic, quartz-carb veined argillites.
119365H	Gold Hill-Rest Creek area - bulldozer cut above dump area (as sample 119364H) - pyritic massive quartz.
119366H	Gold Hill-Rest Creek area - Rhyolite stripping area - float sample, quartz veining in rhyolite with diss. pyrite, arsenopyrite, sphalerite.
119367H	Gold Hill-Rest Creek area - Rhyolite stripping area - upper trench sample - pyritic, siliceous rhyolite at sediment contact.
119368H	Gold Hill-Rest Creek area - Upper Rhyolite stripping area - rhyolite float with disseminated pyrite, sphalerite (siliceous).

<u>SAMPLE #</u>	<u>DESCRIPTION</u>
119369H	Stewart Pass Road -quartz, carbonated altered float (on road)
330122H (Stew 1)	Gold Hill-Rest Creek Area - Blackrock, upper adit, - disseminated pyrite, galena, chalcopyrite, sphalerite in narrow quartz veins at adit portal.
330123H (Stew 2)	Same location as sample 330122H, but approx. 1m south of portal, similar mineralogy as above within siliceous band in narrow creek bed.
330124H (Stew 3)	Gold Hill - main dump area. grab of siliceous sediments with multiple quartz veinlets, minor diss. arsenopyrite, pyrite, galena.
330125H (Stew 4)	Molybdenum mineralization from phase II breccia zones (Breccia Summit) - fine grained disseminated molybdenum as part of siliceous breccia matrix.
330126H (Stew 5)	Cold Hill-Rest Creek area - rhyolite stripping area, diss. pyrite.
330175H (88-S-01)	Float on road above Boulder Mill Creek. Silicified grey-green volcanics - contains disseminated pyrite, chalcopyrite, pyrrhotite, oxidized rusty surface.
330176H (88-S-02)	Sample from outcrop - on Free Silver road Felsic volcanic (rhyolite?), very sheared, (398°/70°W) chloritic alteration, containing galena & chalcopyrite, siliceous in part, oxidized surface.
330177H (88-S-03)	Sample from outcrop - Breccia Summit road Siliceous argillite (Hall Fm. sediments) chloritic alteration, contains disseminated pyrrhotite and pyrite, surface oxidized, rusty.
330178H (88-S-04)	Grab from dump of Mayflower Quartz-massive, white, sugary quartz contains pyrite and pyrrhotite.
330179H (88-S-05)	At <u>West</u> Free Silver Adit Grab from dump - siliceous - fracture filling quartz hosted in biotite-augite monzonite, contains sphalerite, galena, chalcopyrite and siderite.



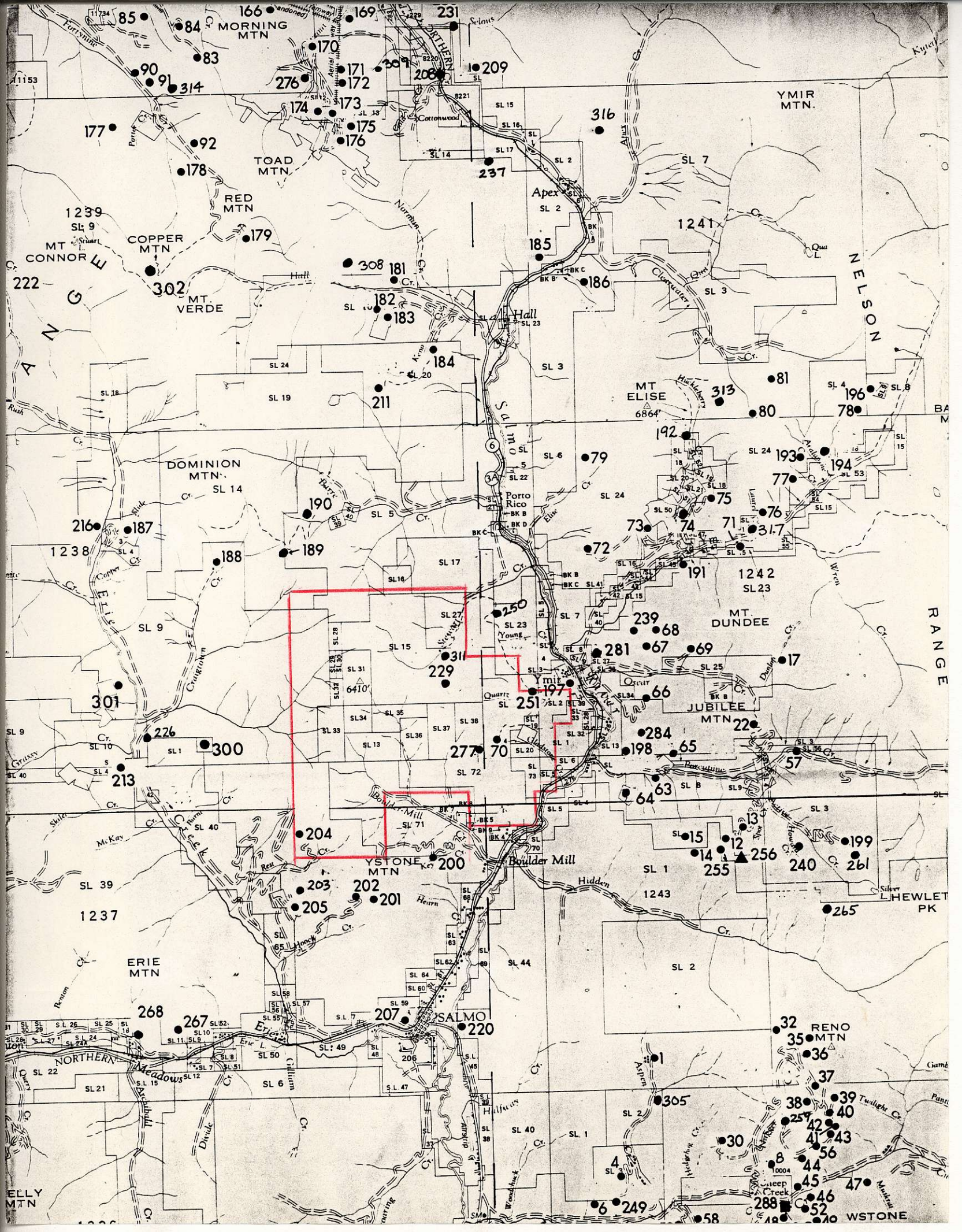
<u>SAMPLE #</u>	<u>DESCRIPTION</u>
330180H (88-S-06)	At <u>Main 'EAST'</u> Free Silver Adit Grab from dump - quartz - containing galena, sphalerite, chalcopyrite and siderite, surface oxidized.
330181H (88-S-07)	At Bullion Working - inclined shaft Grab from dump. Vuggy white crystalline quartz, contains pyrite, surface oxidized.
330182H	Bullion Area East of Stewart #3 boundary (Round 1) Grab from old trench, andesite - hornblend porphyry - very siliceous, contains disseminated pyrite.
330183H	East boundary of Stewart #3, S.E. of Main incline (Grab). White massive to vuggy quartz - contains massive to disseminated pyrite, surface rusty, oxidized - hosted in andesite (hornblend porphyry).
330184H	Pit N.W. (25m) from main incline (As Bull #8) (Grab) Massive white quartz - contains crystalline pyrite, pyrrhotite - quartz in part intermixed andesite (hornblend porphyry), surface rusty-oxidized.
330185H	N.W. (~50.0m) from main incline - small outcrop on road. Very siliceous argillite or volcanic - contains numerous quartz veinlets ~1-2% pyrite - surface rusty-oxidized.
330186H	Breccia Summit Grab near main shaft - brecciated quartz intermixed with monzonite intrusive - contains molybdenite, pyrite and chalcopyrite, surface oxidized.
330187H	Free Silver-Cat Road (above Boulder Mill Creek) Small trench near end of road - grab - quartz in felsic volcanic. No visible mineralization - surface very rusty-oxidized.

<u>SAMPLE #</u>	<u>DESCRIPTION</u>
	Prospecting along ridge east of road - N.W. to S.E.
330188H	Old trench - quartz vein 38°/70°W. Chip across 0.20m - hosted silicified felsic volcanic - contains galena and sphalerite - very rusty-oxidized surface.
330189H	2nd sample - as above but containing mostly sphalerite.
330190H	Trench - contains quartz vein in shear 320°/90°, chip across 0.20m - hosted in hornblend porphyry - quartz contains minor amount of galena - surface rusty-oxidized.
330191H	Grab from dump by T.V. towers Quartz - containing disseminated pyrite - surface rusty-oxidized.
330192H	Trench below top (lamprophyre dyke) just off road, grab of siliceous sediment (volcanic?) - contains minor galena.  West Grid Area - at top of summit road
330193H	Trenches close to road Porphyritic quartz monzonite containing minor amounts of disseminated molybdenum and pyrite, surface rusty-oxidized.  To N.W., downhill
330194H	Quartz trench (Grab) Massive white crystalline quartz partly vuggy, contains crystalline pyrite, surface rusty-oxidized.  Rest Creek - Gold Hill Dump
330195H	Grab - Felsic Volcanic (Rhyolite), containing quartz veins and veinlets - pyrite and chalcopyrite.
330196H	Grab from dump - Felsic Volcanic (Rhyolite) Quartz stockwork containing pyrite, chalcopyrite, galena, malachite, sphalerite, (K-feldspar) - surface slightly oxidized.

<u>SAMPLE #</u>	<u>DESCRIPTION</u>
	Ridge North of Stewart Creek (Hornfels)
330197H	Grab from trench (near top of mountain), hornfels argillite - dark grey to black - contains minor disseminated pyrite, surface slightly rusty-oxidized.
	On Western part of Stewart North Ridge
330198H	Grab of loose rocks scree (In place?) Andesite (plug porphyry) - contains minor disseminated pyrite - partly hematitic. (very rusty red)
330199H	Furthest West Sample on Ridge - close to small trench. Felsic volcanic - very siliceous (rhyolite) hornfels? Minor epidote alteration, disseminated pyrite throughout - surface very rusty-oxidized.
	TRIXIE V Workings (Rest Creek)
330200H	Sample from back of lower adit - composite sample of small stockwork to quartz veins - massive white quartz hosted in siliceous sediments - contains disseminated pyrite.
339766H	Ridge south of central fork of Craigtown Creek (east of W. Moly area) - siliceous, carb altered rock with pyrite, graphite.
339767H	Ridge south of central fork of Craigtown Creek - quartz float, no visible sulphides.
339768H	Bullion area - siliceous hornblende porphyry, pyrite.
339769H	Bullion area - quartz vein, pyritic.
339770H	Free Silver area, along road Grab of sedimentary rock, with schistose sediments (quartzose), pyritic.
339771H	Free Silver area - on road Grab of sedimentary rock, pyritic.

<u>SAMPLE #</u>	<u>DESCRIPTION</u>
339772H	West Moly Grid area Grab of quartz float, minor hematite stain, visible disseminated pyrite, highly pitted.
339773H	Ridge near Stewart Creek Headwaters Composite grab of quartz float in creek bed on way up to top of ridge.
339774H	Ridge, near Headwaters of Stewart Creek Grab from white, barren quartz vein (old trench) hosted in fine grain volcanics (>30cm wide)
339775H	Ridge, near Headwaters of Stewart Creek Grab of quartz float in argillites, no visible sulphides.
339776H	Ridge, near Headwaters of Stewart Creek Grab of siliceous volcanic with quartz stringers, minor pyrite.
339777H	Gold Hill - Rest Creek area - Blackrock - upper adit. Grab of quartz vein material from dump pile & stream outcrop with disseminated pyrite, galena, sphalerite, chalcopyrite (veining at least 25cm wide hosted in argillites).







## APPENDIX IV

BCPM - MINERAL INVENTORY MAP  
82F/SW  
1:126,720

<u>No.</u>	<u>Name</u>	<u>Product</u>
187	Second Relict	Au
188	Harriet	Au, Ag
189	Porto Rico	Au, Ag
190	Spotted Horse	Au, Ag
70	May Blossom	Pb, Zn, Au, Mo, Wo
197	Myrtle	Au, Ag, Pb, Zn
229	Stewart	<i>205 Tt. of .37%</i> Mo, Wo, Au
251	Fresno	Mo
277	Free Silver	Pb, Ag
311	Arrow Tungsten	W, Mo
200	Clubine	Au, Ag, Pb, Zn
201	Second Chance	Au, Ag
202	Keystone	Au, Ag, Pb, Zn
203	Canadian King	Au, Ag
204	Gold Hill	Au, Ag
205	Arlington	Au, Ag, Pb, Zn
250	Bobbi	Mo, Wo

MINFILE NO.: 082FSW229

NATIONAL MINERAL INVENTORY NO.: 82F6 W1

NAME(S): STEWART

STATUS: Developed Prospect

MINING DIVISION: Nelson

N.T.S.: 082F06W

LATITUDE: 49 16 53

UTM ZONE: 11

LONGITUDE: 117 15 52

UTM NORTHING: 5458551

ELEVATION: 1620 Metres

UTM EASTING: 480766

COMMENTS: Centre of mineralized breccia and old adit.

LOCATION ACCURACY: Within 500 M

COMMODITIES:	Molybdenum		Tungsten		Gold	
SIGNIFICANT MINERALS:	Molybdenite	Scheelite		Pyrite	Pyrrhotite	Powellite
ASSOCIATED MINERALS:	Silica					
ALTERATION MINERALS:	Pyrite	Sericite		Silica	Calcite	
ALTERATION TYPE(S):	Silicific'n	Propylitic		Sericitic	Potassic	Argillic
	Skarn					

AGE OF MINERALIZATION: Unknown

DEPOSIT CHARACTER: Pipe

DEPOSIT CLASS.: Magmatic Porphyry

SHAPE: Cylindrical

MODIFIER: Fractured

DOMINANT HOST ROCK: Plutonic

GROUP: Rossland

FORMATION: Hall

STRATIGRAPHIC AGE: Lower Jurassic

IGNEOUS/METAMORPHIC/OTHER: Nelson Plutonic Rocks

STRATIGRAPHIC AGE: Lower Cretaceous

LITHOLOGY: Argillite  
Quartzite  
Alkalic Rock  
Quartz Monzonite

COMMENTS: Intrusives form a multi-stage intrusive complex within both Hall sedi-  
ments & Elise volcanics.

TECTONIC BELT: Omineca

TERRANE: Quesnellia

PHYSIOGRAPHIC AREA: Selkirk Mountains

GEOLOGY: The Jurassic Rossland Group stratigraphy contains a multi-stage intrusive complex of Cretaceous, Nelson quartz-monzonite-porphyrines, Tertiary aged Coryell biotite-augite-monzonite with related aplite, diabase and lamprophyre dykes. The intrusive complex and surrounding sediments and volcanics are host locally, and in places overlapping, silica flooding, potassium metasomatism, quartz-stockwork development, argillic, sericitic, and propylitic alteration. Tungsten bearing skarns, pyrite-pyrrhotite and lead-zinc-silver plus pyrite and pyrrhotite veins have been documented around the margins of the complex. Gold has been identified only in trace amounts within the

MINFILE NO.: 082FSW229  
CONTINUED...

intrusives but occurs as free gold and with pyrite within quartz veins peripheral to the intrusive complex. Molybdenite has been identified as sparse disseminations and selvages on fracture surfaces within quartz-stockwork zones and in the Phase I Breccia Unit. It is most extensive within the Phase II Breccia on the northwest margin of the Complex where it occurs in a pipelike breccia body as fine disseminations within the matrix, as selvages on fractures and within quartz veinlets. Molybdenite is also disseminated within the quartz-monzonite-porphry breccia fragments and more rarely forms quartz-molybdenite fragments within the moly rich matrix of the Phase II breccia. Powellite is a common alteration mineral on surface of the Phase II breccia and the breccia is associated with strong pyrite-sericite alteration. Drill testing has identified reserves of 204000 tonnes grading 0.37 per cent MoS<sub>2</sub> within the Phase II breccia zone.

Extensive geological mapping, rock geochemistry, ground and airborne geophysics and diamond drilling have been carried out over the intrusive complex and the surrounding country rocks.

BIBLIOGRAPHY:

EMPR ASS RPT 1083, 2301, 7074, 7722, \*10072, \*11670, \*12251, 13166.  
EMPR EXPL 1977-E46; 1978-E55; 1979-57; 1983-57,65; 1984-40,1986  
EMPR PF (082FSW229; 082FSW311)  
GSC P 51-4; 52-13  
GSC MAP 1090A; 1144A  
GSC MEM 77; 172; 308  
EMPR AR 1902-298; 1908-108; 1912-154; 1915-155; 1920-134; 1921-172;  
1929-351; 1942-79; 1943-80; 1951-137; 1952-145  
EMPR BULL 9; 10 (Rev), p. 150  
GSC EC GEOL 1959, #17, p. 115  
GSC OF 1195  
EMR MP CORPFILE (Premier Gold Mining Company Ltd.; Arrow Tungsten  
Mines Ltd.)

DATE CODED: 850724  
DATE REVISED: 871103

CODED BY: GSB  
REVISED BY: LLC

FIELD CHECK: NO  
FIELD CHECK: YES

MINFILE NO.: 082FSW229



RUN DATE: 88/08/13  
RUN TIME: 00:02:06

MINISTRY OF ENERGY, MINES AND PETROLEUM RESOURCES  
MINERAL RESOURCES DIVISION - GEOLOGICAL SURVEY BRANCH  
MINFILE - REPORT

PAGE: 2,039

MINFILE NO.: 082FSW311

NAME(S): ARROW TUNGSTEN

STATUS: Prospect  
N.T.S.: 082F06W  
LATITUDE: 49 17 50  
LONGITUDE: 117 15 56  
ELEVATION: 1430 Metres  
LOCATION ACCURACY: Within 500 M

MINING DIVISION: Nelson

UTM ZONE: 11  
UTM NORTHING: 5460312  
UTM EASTING: 480691

COMMODITIES: Tungsten Molybdenum  
SIGNIFICANT MINERALS: Scheelite Molybdenite Sphalerite Pyrite Powellite  
ASSOCIATED MINERALS: Diopside Garnet Silica  
ALTERATION TYPE(S): Skarn  
AGE OF MINERALIZATION: Unknown  
DEPOSIT CHARACTER: Unknown  
DEPOSIT CLASS.: Magmatic Skarn

DOMINANT HOST ROCK: Sedimentary

GROUP: Rossland

FORMATION: Hall

STRATIGRAPHIC AGE: Lower Jurassic

IGNEOUS/METAMORPHIC/OTHER: Nelson Plutonic Rocks

STRATIGRAPHIC AGE: Lower Cretaceous

LITHOLOGY: Argillite  
Quartzite  
Quartz Monzonite

TECTONIC BELT: Omineca  
TERRANE: Quesnellia  
PHYSIOGRAPHIC AREA: Selkirk Mountains  
METAMORPHIC TYPE: Contact

METAMORPHIC RELATIONSHIP: Syn-mineralization

GEOLOGY:

Garnet-diopside skarn is developed within Hall Formation sediments of Jurassic age in proximity to the Stewart intrusive complex. The skarn is predominantly diopside and hosts finely disseminated scheelite with minor sphalerite and traces of molybdenite. The skarn averages about 1.5 metres in width but is developed erratically along a north-south trend, conformable to the regional stratigraphy, on the northwest margin of the Stewart Complex. Tungsten values vary widely from 0.05 per cent to 0.5 per cent W03 with local highs up to two and three per cent.

BIBLIOGRAPHY:

EMPR PF (\*082FSW311)  
EMPR BULL \*10 (Rev), p. 150  
EMPR AR 1942-79; 1943-80; 1951-137; 1952-145  
EMPR ASS RPT 1083, 2301, \*7074, 7722  
GSC EC GEOL RPT #17, 1959  
GSC OF 1195  
GSC MEM 308  
GSC P 49-22; 50-19; 52-13

MINFILE NO.: 082FSW311  
CONTINUED...

MINFILE NO.: 082FSW204

NAME(S): GOLD HILL, REST CREEK

STATUS: Showing  
 N.T.S.: 082F03W  
 LATITUDE: 49 14 25  
 LONGITUDE: 117 19 30  
 ELEVATION: 1357 Metres  
 LOCATION ACCURACY: Within 500 M

MINING DIVISION: Nelson  
 UTM ZONE: 11  
 UTM NORTHING: 5453998  
 UTM EASTING: 476342

COMMODITIES: Gold Silver  
 SIGNIFICANT MINERALS: Arsenopyrite Chalcopyrite  
 ASSOCIATED MINERALS: Quartz  
 AGE OF MINERALIZATION: Unknown  
 DEPOSIT CHARACTER: Vein  
 DEPOSIT CLASS.: Hydrothermal

DOMINANT HOST ROCK: Sedimentary

GROUP: Rossland FORMATION: Hall STRATIGRAPHIC AGE: Lower Jurassic  
 LITHOLOGY: Argillite  
 Arenite

TECTONIC BELT: Omineca  
 TERRANE: Quesnelia  
 PHYSIOGRAPHIC AREA: Selkirk Mountains

PRODUCTION: \*\* ALL METRIC VALUES ARE IN KILOGRAMS EXCEPT PRECIOUS METALS WHICH ARE IN GRAMS \*\*  
 \*\* ALL IMPERIAL VALUES ARE IN POUNDS EXCEPT PRECIOUS METALS WHICH ARE IN OUNCES \*\*

YEAR	Tonnes Mined	Tonnes Milled	Gold	Silver
1942	5	0	342	467
1934	12	0	156	404
1932	2	0	62	156
METRIC TOTAL:	19	0	560	1,027
IMPERIAL TOTAL: Tons		Tons		
20		0	18	33

GEOLOGY: Argillites and arenaceous sediments of the Lower to Middle Jurassic Hall Formation are host to a number of closely spaced, quartz veinlets which follow the trend of the bedding. The stratigraphy is gently folded and the amount of quartz increases where small, flat rolls developed in the sediments. Arsenopyrite and minor chalcopyrite were identified in quartz veinlets.

MINFILE NO.: 082FSW204  
 CONTINUED...

RUN DATE: 88/08/13  
RUN TIME: 00:02:06

MINISTRY OF ENERGY, MINES AND PETROLEUM RESOURCES  
MINERAL RESOURCES DIVISION - GEOLOGICAL SURVEY BRANCH  
MINFILE - REPORT

PAGE: 1,863

Quartz composed about 0.4 metres of the adit face. No reliable  
precious metal assays are recorded.

Note: Old records confused this showing with an occurrence  
on 49 Creek near Nelson of the same name which also produced  
copper.

BIBLIOGRAPHY:

GSC MEM \*172, p. 78  
EMPR AR 1934-A27; 1942-64,27  
GSC MAP \*299A, 1090A, \*1145A  
GSC OF 1195

DATE CODED: 850724  
DATE REVISED: 860716

CODED BY: GSB  
REVISED BY: BG

FIELD CHECK: NO  
FIELD CHECK: NO

MINFILE NO.: 082FSW204

RUN DATE: 88/08/13  
RUN TIME: 00:02:06

MINISTRY OF ENERGY, MINES AND PETROLEUM RESOURCES  
MINERAL RESOURCES DIVISION - GEOLOGICAL SURVEY BRANCH  
MINFILE - REPORT

PAGE: 1,989

MINFILE NO.: 082FSW277

NAME(S): FREE SILVER (L.2902), RUBY (L.2904), ROYAL (L.5322)

STATUS: Showing  
N.T.S.: 082F06W  
LATITUDE: 49 15 49  
LONGITUDE: 117 15 10  
ELEVATION: 1494 Metres  
LOCATION ACCURACY: Within 500 M

MINING DIVISION: Nelson  
UTM ZONE: 11  
UTM NORTHING: 5456572  
UTM EASTING: 481608

COMMODITIES: Lead Silver  
SIGNIFICANT MINERALS: Pyrite Pyrrhotite Galena Sphalerite  
ASSOCIATED MINERALS: Quartz Sylvanite  
ASSOCIATED MINERALS COMMENTS: Sylvanite found with calcite filling vugs in volcanics with traces of chalcopyrite and galena.

AGE OF MINERALIZATION: Unknown  
DEPOSIT CHARACTER: Vein  
DEPOSIT CLASS.: Hydrothermal

DOMINANT HOST ROCK: Sedimentary

GROUP: Rossland FORMATION: Hall STRATIGRAPHIC AGE: Middle Jurassic

IGNEOUS/METAMORPHIC/OTHER: Nelson Plutonic Rocks STRATIGRAPHIC AGE: Lower Cretaceous  
LITHOLOGY: Argillite  
Quartzite  
Quartz Monzonite

TECTONIC BELT: Omineca  
TERRANE: Quesnellia  
PHYSIOGRAPHIC AREA: Selkirk Mountains

GEOLOGY: Quartzitic sediments of the Hall Formation, of the Jurassic Rossland Group, contain a number of relatively parallel veins near the contact of the sediments with quartz-monzonite-porphyry. The veins vary from 0.1 to 3 metres wide and trend in a general east-west direction. Mineralization varies from massive pyrite-pyrrhotite to galena with subordinant pyrite and sphalerite. Minor molybdenite is reported locally within the veins.

BIBLIOGRAPHY: EMPR AR 1902-298; 1908-108; 1915-155; 1921-172  
EMPR EXPL 1977-E46; 1978-E55; 1979-57; 1983-65; 1984-40  
EMPR ASS RPT 7074, 7722, 10072, 11670, 12251, 13166  
EMPR BULL 9, p. 47  
GSC MAP 175A; 1090A  
GSC P 49-22; 52-13  
GSC OF 1195  
GSC MEM 76; 94; 308

DATE CODED: 850724 CODED BY: GSB FIELD CHECK: NO  
DATE REVISED: 860711 REVISED BY: BG FIELD CHECK: YES

MINFILE NO.: 082FSW277

MINFILE NO.: 082FSW070

NATIONAL MINERAL INVENTORY NO.: 82F6 AG4

NAME(S): MAY BLOSSOM (L.5666)

STATUS: Showing  
N.T.S.: 082F06E

MINING DIVISION: Nelson

LATITUDE: 49 15 55  
LONGITUDE: 117 14 35  
ELEVATION: 1265 Metres

UTM ZONE: 11  
UTM NORTHING: 5456755  
UTM EASTING: 482316

COMMENTS: Showing is actually within Lot 13468 on the quartz-Creek side of the Quartz-Creek and Boulder Creek drainages.

LOCATION ACCURACY: Within 500 M

COMMODITIES: Lead Zinc Gold  
Molybdenum Tungsten

SIGNIFICANT MINERALS: Galena Pyrite Chalcopyrite Molybdenite Scheelite

SIGNIFICANT MINERALS COMMENTS: Gold contents are unreported but typical for such quartz vein deposits locally. Only trace amounts of moly or scheelite reported.

ASSOCIATED MINERALS: Quartz  
ALTERATION MINERALS: Silica  
ALTERATION TYPE(S): Silicific'n Skarn

AGE OF MINERALIZATION: Unknown  
DEPOSIT CHARACTER: Vein Massive  
DEPOSIT CLASS.: Magmatic Hydrothermal Skarn

SHAPE: Regular  
MODIFIER: Sheared  
COMMENTS: Striations recorded on vein walls.

DOMINANT HOST ROCK: Volcanic

GROUP: Rossland FORMATION: Elise STRATIGRAPHIC AGE: Lower Jurassic

IGNEOUS/METAMORPHIC/OTHER: Nelson Plutonic Rocks STRATIGRAPHIC AGE: Lower Cretaceous

LITHOLOGY: Augite Porphyry  
Quartz Monzonite

TECTONIC BELT: Omineca  
TERRANE: Quesnellia  
PHYSIOGRAPHIC AREA: Selkirk Mountains

GEOLOGY: A quartz vein carrying some galena, pyrite, and chalcopyrite occurs at the contact of a quartz-monzonite-porphyry chonolith and augite porphyry of the Lower Jurassic Elise Formation volcanics. The vein is reported to be narrow (about 1 to 4 centimetres) but is silicified and "altered" (?) for about 0.5 metres on each side of the vein. The vein strikes 322 degrees and dips 82 degrees northeast. Later reports identify some scheelite in skarn mineralization and probably some molybdenite in the quartz veining. The records indicate the mineralization is not extensive and that the best accumulation of sulphide was the galena rich material near the

MINFILE NO.: 082FSW070  
CONTINUED...

RUN DATE: 88/08/13  
RUN TIME: 00:02:06

MINISTRY OF ENERGY, MINES AND PETROLEUM RESOURCES  
MINERAL RESOURCES DIVISION - GEOLOGICAL SURVEY BRANCH  
MINFILE - REPORT

PAGE: 1,565

portal.

BIBLIOGRAPHY:

GSC MEM \*94, pp. 37,43,124; 308  
GSC OF 1195  
GSC P 51-4; 52-13  
EMPR AR 1912-154; 1915-156; 1920-134; 1923-217; 1929-351; 1930-274  
EMPR EXPL 1977-E45; 1978-E55; 1979-57  
EMPR ASS RPT 1083, 7074, 7722, 10072, 11670, 12251, 13166  
GSC MAP \*175A; 1090A; 1144A

DATE CODED: 850724  
DATE REVISED: 860714

CODED BY: GSB FIELD CHECK: NO  
REVISED BY: BG FIELD CHECK: NO

MINFILE NO.: 082FSW070

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RUN DATE: 88/08/13  
RUN TIME: 00:02:06

MINISTRY OF ENERGY, MINES AND PETROLEUM RESOURCES  
MINERAL RESOURCES DIVISION - GEOLOGICAL SURVEY BRANCH  
MINFILE - REPORT

PAGE: 1,949

MINFILE NO.: 082FSW251

NAME(S): FRESNO, FRENUE, TRASK, LION

STATUS: Showing  
N.T.S.: 082F06E  
LATITUDE: 49 16 40  
LONGITUDE: 117 13 46  
ELEVATION: 0930 Metres  
LOCATION ACCURACY: Within 500 M

MINING DIVISION: Nelson  
UTM ZONE: 11  
UTM NORTHING: 5458142  
UTM EASTING: 483310

COMMODITIES: Molybdenum  
SIGNIFICANT MINERALS: Molybdenite Pyrite  
AGE OF MINERALIZATION: Unknown  
DEPOSIT CHARACTER: Stockwork  
DEPOSIT CLASS.: Magmatic  
SHAPE: Irregular  
MODIFIER: Fractured

DOMINANT HOST ROCK: Plutonic

GROUP: Rossland

FORMATION: Elise

STRATIGRAPHIC AGE: Middle Jurassic

IGNEOUS/METAMORPHIC/OTHER: Nelson Plutonic Rocks

STRATIGRAPHIC AGE: Lower Cretaceous

LITHOLOGY: Alkalic Rock  
Quartz Monzonite

TECTONIC BELT: Omineca  
TERRANE: Quesnellia  
PHYSIOGRAPHIC AREA: Selkirk Mountains

GEOLOGY:

Molybdenite mineralization is observed to occur as selvages on fracture surfaces within sheared, felsic intrusives within Elise volcanics of the Jurassic Rossland Formation.

The showing was originally staked as a galena prospect but later evaluation indicated that the galena was in fact molybdenite and was associated in surrounding outcrops with disseminated pyrite. In the late 1960's x-ray drilling outlined a zone of subeconomic moly mineralization on Quartz Creek. The "Trask" workings are west of the Fresno showing but no specific details of the mineralization are recorded. The Lion was staked in 1949 and may in fact be the same as the Fresno showing.

BIBLIOGRAPHY:

EMPR ASS RPT \*1083, \*7074, 11670, 13166  
EMPR AR 1966-212; 1967-243; 1968-240  
EMPR EXPL 1969-316; 1978-E55; 1979-57; 1983-57,65; 1984-40  
GSC P 52-13  
GSC MEM 308

DATE CODED: 850724  
DATE REVISED: 870922

CODED BY: GSB  
REVISED BY: LLC

FIELD CHECK: NO  
FIELD CHECK: NO

MINFILE NO.: 082FSW251

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APPENDIX V

KNOX, KAUFMAN, INC.  
REPORT ON STEWART PROPERTY (1985)



# KNOX, KAUFMAN, INC.

MINERAL EXPLORATION MANAGEMENT  
GEOLOGICAL CONSULTING

SPOKANE, WASHINGTON

P. O. BOX 14330, ZIP 08214  
TELEPHONE (509) 024-0003

November 19, 1985

TO: J. E. Stephens  
Pacific Coast Mines, Inc.

FROM: Knox, Kaufman, Inc.

RE: PCMI (BC) Project - Report on Stewart Property 1985 Work

## References:

PCMI (BC) Project Monthly Reports for January - October 1985  
The following Maps and sections; Shell 1:10000 geologic map, BP-Selco 1:10000 geologic map, KK 1:40000 Index map, KK 1:5000 Rest Creek map, KK 1:5000 Arrow Tungsten-Breccia Summit map, KK 1:2000 Arrow Tungsten Area map, KK 1:1000 Breccia Summit map, KK 1:1000 North of Breccia Summit map, KK 1:1000 West Moly Area map, KK 1:1000 Free Silver Area sample map, KK 1:500 X Sections of Shell drill holes in Arrow tungsten Area, KK (1982) 1:10000 Arlington-Keystone geology and geochemical maps.

## PART I

### I. SUMMARY

#### General Information

The Stewart prospect, which encompasses an area roughly 4.5 by 5 miles underlain by Hall formation sediments and Rossland formation volcanics cut by later felsic plutons, was acquired during 1985 primarily to conduct precious metals sampling over a number of mineralized areas previously identified by past exploration. Two of the localities investigated deserve additional exploration, the Gold-Hill - Rest Creek Area and the Arrow tungsten Area.

#### Gold-Hill - Rest Creek Area

At the Gold Hill - Rest Creek Area reconnaissance soils sampling was undertaken to determine whether extensive soils Zn anomalies previously discovered by Quintana might have associated precious metals. A number of areas anomalous in gold were detected, and further exploration is justified. The principal target here would be for a stratabound or replacement manto type high grade gold deposit similar to the Arlington mine located 1 KM. south of Gold Hill. At the Arlington mine 29,000 tons averaging +1.8 opt Au and + 2 opt Ag were milled, and a total resource of about 252,000 tons averaging .35 opt Au has been identified within a gently dipping stratabound zone or manto localized in high Zn bearing Argillites.