Assessment Report
on
Geological and Geochemical Work
On The Following Claim

Frances 3 396848
Emma 1 396842
Emma 3 396838
Emma 5 396840
Trafalgar 1 396834
Trafalgar 3 396836
Trafalgar 5 396844

Statement Of Exploration #3200059

Work permit # 3199495

located
32 Km Northeast Of
Stewart, British Columbia
Skeena Mining Division

56 degrees 12 minutes latitude
129 degrees 37 minutes longitude

N.T.S. 104A/4E

Project Period: August 26 to September 16, 2003

On Behalf Of
Pinnacle Mines Ltd.
Vancouver, B.C.

Report By

E.R. Kruchkowski, B.Sc., P.Geo.

Date: December 11, 2003

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SUMMARY

The Surprise property is located about 32 kilometers northeast and southeast of Stewart, British Columbia in the Skeena Mining Division. The property covers an area of Hazelton pyroclastic volcanic rocks and Bowser Lake sediments in contact with a variety of intrusive plutons associated with the main Coast Range Batholith.

The property contains approximately 15000 hectares within three separate claim groups totaling 30 Modified Grid claims.

The property lies within a belt of Jurassic volcanic rocks extending from the Kitsault area, south of Stewart, to north of the Stikine River. This belt is host to numerous gold deposits, in a variety of geological settings, including the producing Eskay Creek and formerly producing Snip and, Premier-Big Missouri mines. Reserves have been reported from a number of other properties including Red Mountain, the Brucejack Lake area and Georgia River. In addition, exploration companies, have reported numerous gold-silver showings along this belt of rocks At least three porphyry type deposits with either Cu-Mo, Cu-Mo-Au or Cu-Au mineralization are also present. Of particular interest is the announcement by Teuton Resource Corp of a new gold-silver discovery between the two of the above Pinnacle claim blocks. In the fall of 2002, Teuton Resources discovered high-grade gold-silver mineralization on the Del Norte Claim group, 10 kilometers south of the northern block of claims and 8 kilometers northeast of the second southern group of claims, comprising the Surprise property. Prior to the onset of winter, Teuton completed trenching and three drill holes. The results of the 2002 trenching include 10 meters of 0.179 opt Au and 8.4 opt Ag. The best drill hole - 2002-3 assayed 0.223 opt Au and 8.09 opt Ag over a drill length of 23.4 meters. Work on the LG vein in 2003 by Teuton indicates several promising mineralized areas have been defined by exploration on the Del Norte property. The most significant occurs along a 2200-meter long trend connecting the Kosciuszko Zone, the LG Vein and the LG Vein Extension. Similar mineralogy and stratigraphic location indicates that all of three of these are related structures, although talus and ice obscure continuity in places. Gold and silver bearing vein mineralization has now been found over a vertical range of 300 meters, from the upper reaches of the Kosciuszko zone to the bottom of Hole DN03-7 (1.49 m of 39.26 opt Ag and 0.337 opt Au) in the LG Vein area. The LG Vein mineralization apparently lies along a contact between mudstones at the base of the Salmon River Formation and felsic pyroclastics believed to be of the Mt. Dilworth Formation.

Pinnacle Mines Ltd conducted an exploration program on the northern portion of the Surprise property consisting of reconnaissance mapping for the above Salmon River/Mt Dilworth geological contact, prospecting and geochemical sampling along the above volcanic – sediment contact within various valleys tributary to Surprise Creek.

Based on the 2003 work by Pinnacle on the Surprise Creek property, there is a thick sequence of rhyolites (Mt Dilworth Formation) in contact with Salmon River sediments to the east. Locally the rhyolites are in excess of 500 meters in thickness, especially on the western edge of the Emma 3 claim. Based on the thickness and coarse fragmental nature of the rhyolites in this area, it is speculated that the area of the Emma 3 claim was a possible volcanic center. This rhyolite horizon was traced along the entire north-south length of the Surprise claim group. West of the rhyolites, Betty Creek maroon –green andesitic fragmental volcanics were mapped. East of the rhyolite, Salmon River argillites and mudstones were mapped.

The 2003 exploration programs on the area of the Surprise property indicated mineralization within the present claim group is as follows:

1. Individual massive pyrite veins up to 0.3 meters over zones up to 5 meters wide traced along several hundreds of meters on the Emma 3 claim. Locally the pyrite may form up to 20 % of the overall zone and occasionally has massive hematite and magnetite lenses 0.5 meters wide along the contacts of the pyritic zone.

2. Pervasive, fine-grained pyrite as well as pyritic bands in the grey lapilli tuff rhyolitic rocks.

3. A weak but pervasive quartz-sulfide veinlet stockwork zone in altered volcanics in the area of the Emma 3 and 5 claims. This stockwork consists of narrow quartz veins 5 to 15 cm in width with coarse cube pyrite. The veinlets show great continuity along strike but are generally widely spaced.

4. A strong quartz - sulfide stockwork in altered volcanics found in float boulders on the Trafalgar 1 claim. Quartz veins up to 15 cm in width form up to 20 % of boulders 1 meter in diameter. Coarse cube pyrite, arsenopyrite, chalcopyrite and pyrrhotite can constitute up to 30 % of the quartz veins. The presence of numerous boulders in the moraine indicates a possible large source.

5. Banded magnetite and hematite in calcareous, maroon volcanics and rhyolites. These are probably related to an iron formation that has been mapped 10-15 kilometers southwest of the above occurrences.

6. Massive sulfide bearing, manganese stained tuffaceous chert boulders possibly from the base of the Salmon River formation on the Emma 5 claim. The boulders are large and can be up to 2 meters in diameter. Sulfide content is generally in semi-massive sulfide

bands from 15 cm to 20 cm in width and can form up to 10 % of the boulders. The rocks carry galena, sphalerite, and chalcopyrite with minor pyrite. Source of these boulders is likely on the south side of the glacier in the NW corner of the Emma 1 and middle of the Pin 4 claim. In the area of the boulders, minor float boulders of massive pyrite and chalcopyrite were noted.

7. Black glassy appearing rhyolites have strong very fine grained pyrite mineralization forming up to 15 % of the rock Disseminated fine-grained galena-sphalerite have been noted in this type of rhyolite boulders in a number of different valleys located on the Trafalgar 1 and 5 claims. This type of mineralized boulder may indicate the presence of Kuroko type Pb-Zn-Ag massive sulphides mineralization in the claim area.

8. An outcrop of argillite near the contact with the Mt Dilworth rhyolite that contained narrow bands of pyrite conformable with bedding and a narrow quartz – sulfide stockwork. The zone of interest was at least 5 meters in width with the rocks carrying 10-15 % quartz-sulfide. It appeared that the sulfide was coarse cube pyrite in the quartz veinlets.

9. Pyrrhotite bearing, hornsfelsed argillites of the Bowser sediments in the area of the Frances 1-4 claims.

10. Narrow, discontinuous galena-sphalerite-carbonate veins in Salmon River formation at the north-central portion of the Emma 3 claim.

A total of 78 rock samples both outcrop and float as well as 23 silt samples were collected during the exploration program. Results of the samples indicate highly anomalous values for gold, silver, lead, zinc, arsenic and copper. Sample values for gold ranged from <1 ppb to a high of 13.02 ppm, for silver from 0.2 to 3076.8 ppm, for lead from 5.7 to >9999 ppm, for zinc from 12 to 56,866 ppm, for arsenic from 1.9 to 9999 ppm and copper from 4.4 to 28,026 ppm.

The presence of favorable geology, high geochemical and assay results for a variety of elements obtained in the exploration programs and apparent numerous mineral occurrences make this property an excellent exploration target. It is underlain by the same stratigraphic sequence hosting the new Teuton discovery as well as the producing Eskay mine (reserves at the end of 2002 were 1.433 million tons of 0.998 opt Au and 44.9 opt Ag in the proven and probable reserve and 480,000 tons of 0.442 opt Au in the mineral reserve category)

An exploration program involving further prospecting, possible trenching, and further geochemical sampling is recommended for the property. Expected cost of the above programs is approximately $250,000.

It is recommended that the following program be conducted:

1. Utilize the helicopter based in Stewart, BC to mobilize the crews to and from the property.

2. Locate any previous mineralized zones from past surveys, particularly a barite bearing felsic zone assaying 0,334 opt on the present day Pin 3 claim that was discovered in 1994 programs.

3. Sample as many of the numerous gossan zones on various parts of the property as possible. Particular attention should be paid to the Salmon River sediment/Mt Dilworth rhyolite contact, especially for massive sulphide occurrences.

4. Continued silt geochemistry of streams in the property area.

5. Trench any highly mineralized zones located.

INTRODUCTION

This report is primarily based on geological and geochemical results of an exploration program conducted by Pinnacle Mines Ltd. on the property during the period August to September 2003. E. Kruchkowski assisted by a field crew conducted the program.

The report was prepared on data accumulated by the above geologist during the work program, data contained in previous assessment reports on the property as well as data obtained by the author from other surveys in the general area.

Location and Access

The northern claims form part of a contiguous group of 22 claims located about 32 kilometers northeast of Stewart and 15 kilometers northwest of Meziadin Lake, British Columbia. The claim area is approximately 56 degrees 12 minutes latitude and 129 degrees 37 minutes longitude on NTS sheet 104A/4E. Figure 1 shows the location of the claim area.

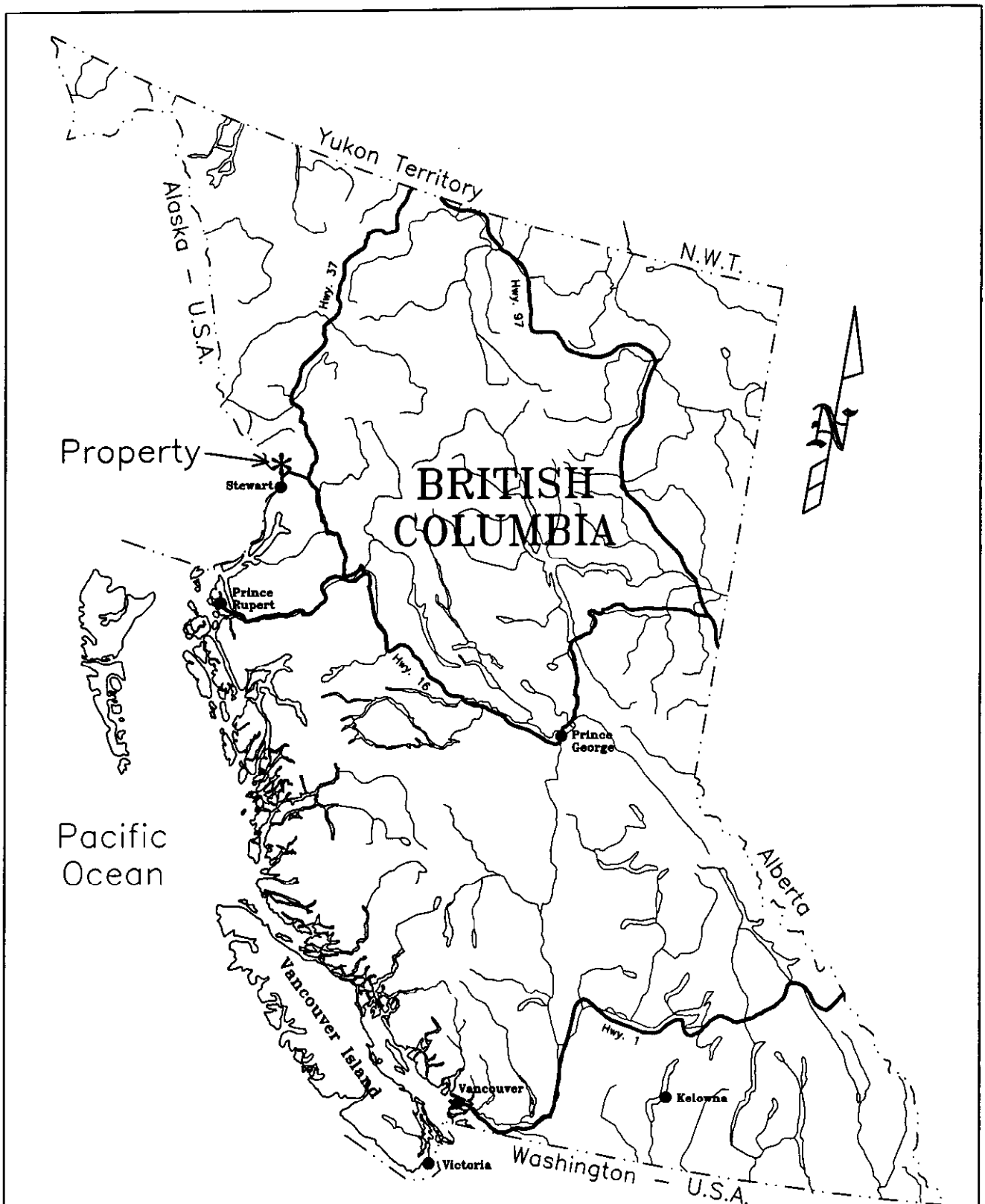
Access to the northern claims at the present time is by helicopter from Stewart or from the Ellsworth logging camp on Highway 37 about 30 km to the southeast. Nearest major road is the paved Highway 37 running between Stewart and Meziadin Junction, which passes within 6 kilometers of the property. Nearest road to the area is a non- maintained, former mine road running north along the west side of Surprise Creek to the former gold-silver producing Nordore mine about just west of the property.

The southern claims consist of 2 but separate contiguous group of 4 claims each located about 32 kilometers southeast of Stewart and 15 kilometers south of Meziadin Lake, British Columbia. The blocks are approximately 10 kilometers apart. The claim area is approximately 55 degrees 54 minutes latitude and 129 degrees 36 minutes longitude on NTS sheet 104A/3W 103P/14E. Figure 1 shows the location of the claim area.

Access to the southern claims at the present time is by helicopter from Stewart or from the Ellsworth logging camp on Highway 37 about 25 km to the east. Nearest major road is the paved Highway 37 running between Meziadin Junction and Kitwanga, which passes 25 kilometers east of the property.

Physiography and Topography

The northern area of the Surprise property claims encompasses steep mountain slopes typical of the Coast Range region of British Columbia. The property is situated over Mount Patullo and



SCALE BAR

100 0 100 200 300

KILOMETERS

PINNACLE MINES LTD.	
SURPRISE PROPERTY, STEWART, B.C., SKEENA M.D.	
LOCATION MAP	
RPM Mapping and Computer Services Ltd.	Date: AUGUST 2003
	Claim Map: 103P093,104A/03W,104A/4E
	Figure: 1

the western headwaters of Surprise Creek. The property is at the eastern edge of the Coast Mountains and near the Interior Plateau. Topography is rugged with several easterly and northeasterly flowing glaciers transecting the area. Slopes range from moderate to precipitous. Elevations vary from about 600 m ASL in the southeastern portion of the property to about 2300 m ASL on ridges jutting out of the surrounding icefields. Just above the glaciers, thick morainal debris obscures the underlying geology. . Maximum rock exposure occurs in early October when most of the annual snowfall has melted. The surface exploration is restricted to late summer and early fall. Most of the property can be traversed safely on foot although local areas contain occasional bluffs and cliffs.

Spruce and hemlock trees as well as small patches of tag spruce are present along the lower slopes of the mountain valleys, particularly the north facing edges. Alders grow along avalanche slopes and moraines. Alpine grasses, heather and arctic willows grow in patches along the talus, moraine and outcrops in the upper regions of the property.

Permanent snow occupies most depressions and gullies.

Thick glacial moraine is primarily restricted to lower elevations and valley floors with good rock exposure along ridge tops and creek beds.

The southern area of the Surprise property claims also encompasses steep mountain slopes typical of the Coast Range region of British Columbia. The property is situated over ridges and tributary streams to the South Willoughby Creek and the Flat River. The property is at the eastern edge of the Coast Mountains and near the Interior Plateau. Elevations vary from about 800 m ASL in the southeastern portion of the property to about 2200 m ASL on ridges. Topography is rugged with several easterly and southerly flowing glaciers transecting the area.

Personnel and Operations

Personnel involved during the exploration program are listed below:

E. Kruchkowski	Consulting Geologist
C. Kruchkowski	Consulting Geologist
S. Kruchkowski	Geological Assistant
J. Morrison	Geological Assistant
R. Kasum	Geological Assistant

Personnel mobilized out of Stewart, British Columbia to the job site utilizing a Hughes 500D helicopter, provided by Prism Helicopters, based in Stewart.

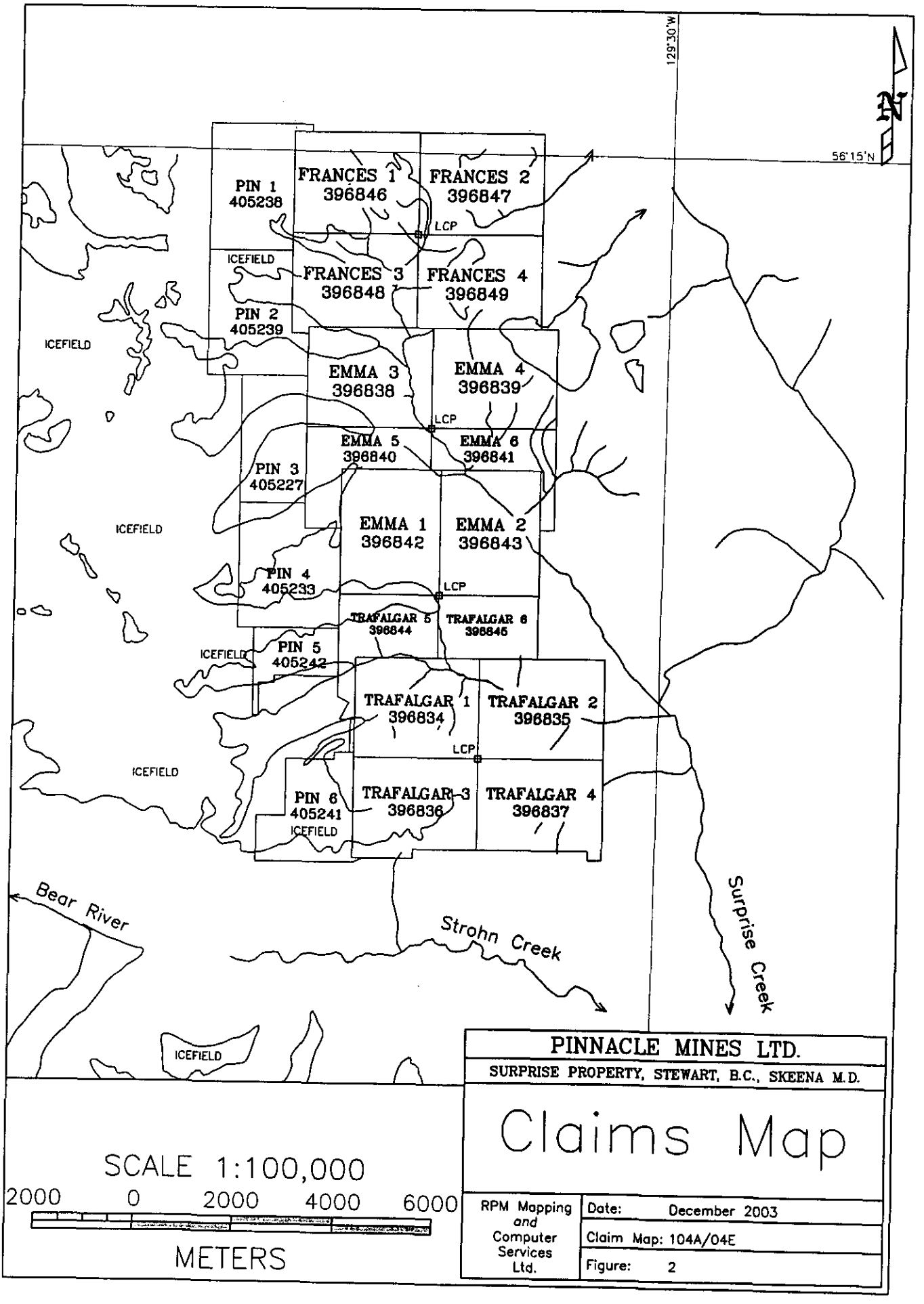
Except for J. Morrison and r. Kasum who live in Stewart, personnel stayed in a motel in Stewart and acquired meals at local restaurants.

All samples were prepared and analyzed by Acme Analytical Laboratories in Vancouver.

Property Ownership

The Surprise property consists of a three separate claim groups located in the Surprise Creek area, the Willoughby Creek area and Flat River area. There are 30 claims totaling 600 units encompassing approximately 15,000 hectares. Relevant claim information with respective NTS map area is summarized below:

Name	Tenure	NTS Map Area	No. of Units	Expiry Date
Victory 1	396822	NTS103P083/103P093	20	September 20/2004
Victory 2	396823	NTS103P083/103P093	20	September 20/2004
Victory 3	396824	NTS103P083	20	September 20/2004
Victory 4	396825	NTS103P083	20	September 20/2004
Victory 5	396826	NTS103P093	20	September 20/2004
Victory 6	396827	NTS103P093	20	September 20/2004
Victory 7	396828	NTS103P093	20	September 20/2004
Victory 8	396829	NTS103P093	20	September 20/2004
Trafalgar 1	396834	NTS Map 104A/4E	20	September 20/2004
Trafalgar 2	396835	NTS Map 104A/4E	20	September 20/2004
Trafalgar 3	396836	NTS Map 104A/4E	20	September 20/2004
Trafalgar 4	396837	NTS Map 104A/4E	20	September 20/2004
Emma 3	396838	NTS Map 104A/4E	20	September 20/2004
Emma 4	396839	NTS Map 104A/4E	20	September 20/2004
Emma 5	396840	NTS Map 104A/4E	20	September 20/2004
Emma 6	396841	NTS Map 104A/4E	20	September 20/2004
Emma 1	396842	NTS Map 104A/4E	20	September 20/2004
Emma 2	396843	NTS Map 104A/4E	20	September 20/2004
Trafalgar 5	396844	NTS Map 104A/4E	20	September 20/2004
Trafalgar 6	396845	NTS Map 104A/4E	20	September 20/2004
Frances 1	396846	NTS Map 104A/4E	20	September 20/2004
Frances 2	396847	NTS Map 104A/4E	20	September 20/2004
Frances 3	396848	NTS Map 104A/4E	20	September 20/2004
Frances 4	396849	NTS Map 104A/4E	20	September 20/2004


129°30'W
56°15'N
PIN 1
405238
FRANCES 1
396846
FRANCES 2
396847
LCP
ICEFIELD
FRANCES 3
396848
FRANCES 4
396849
PIN 2
405239
ICEFIELD
EMMA 3
396838
EMMA 4
396839
LCP
EMMA 5
396840
EMMA 6
396841
PIN 3
405227
ICEFIELD
EMMA 1
396842
EMMA 2
396843
PIN 4
405233
LCP
TRAFALGAR 5
396844
TRAFALGAR 6
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ICEFIELD
PIN 5
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396834
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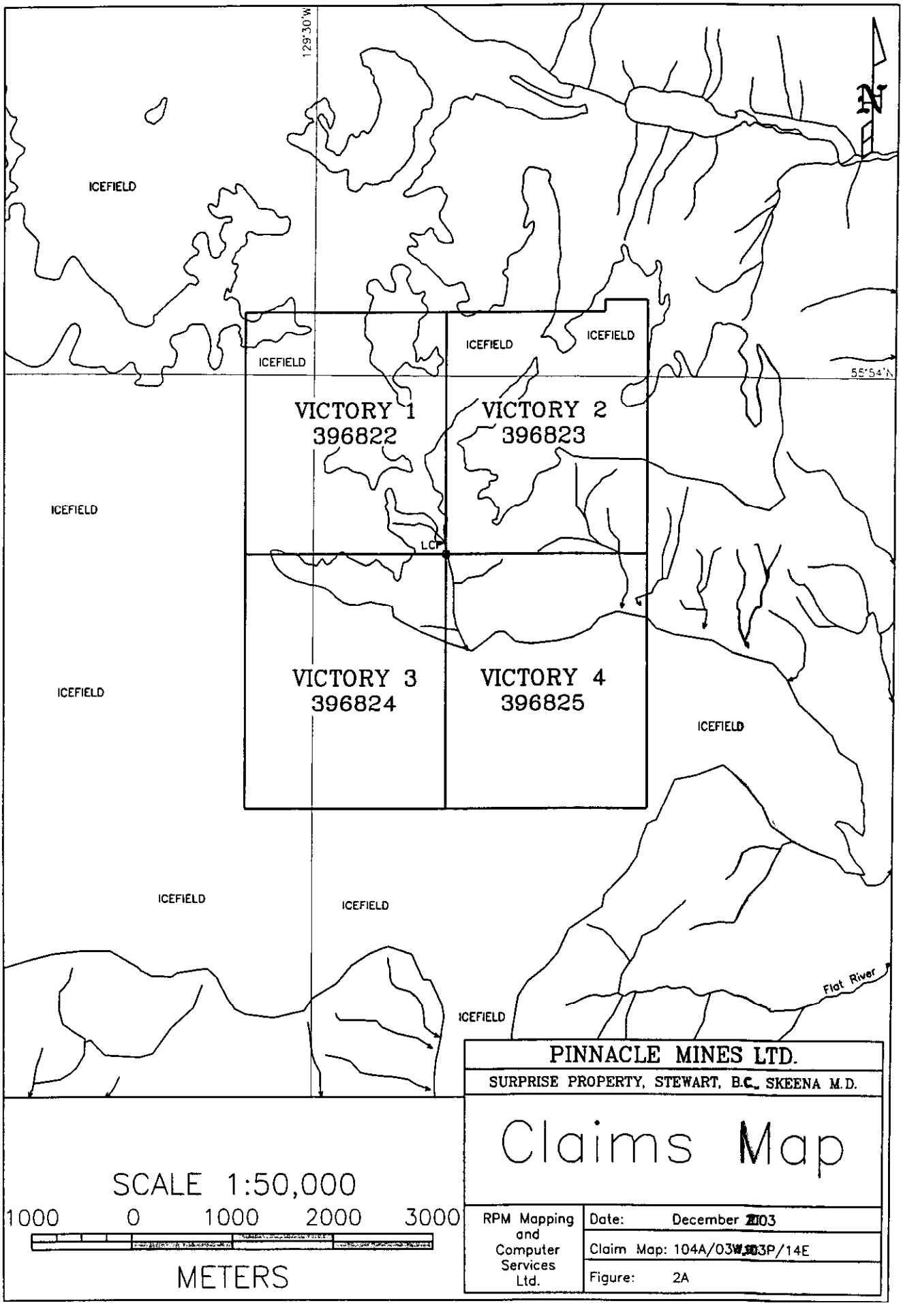
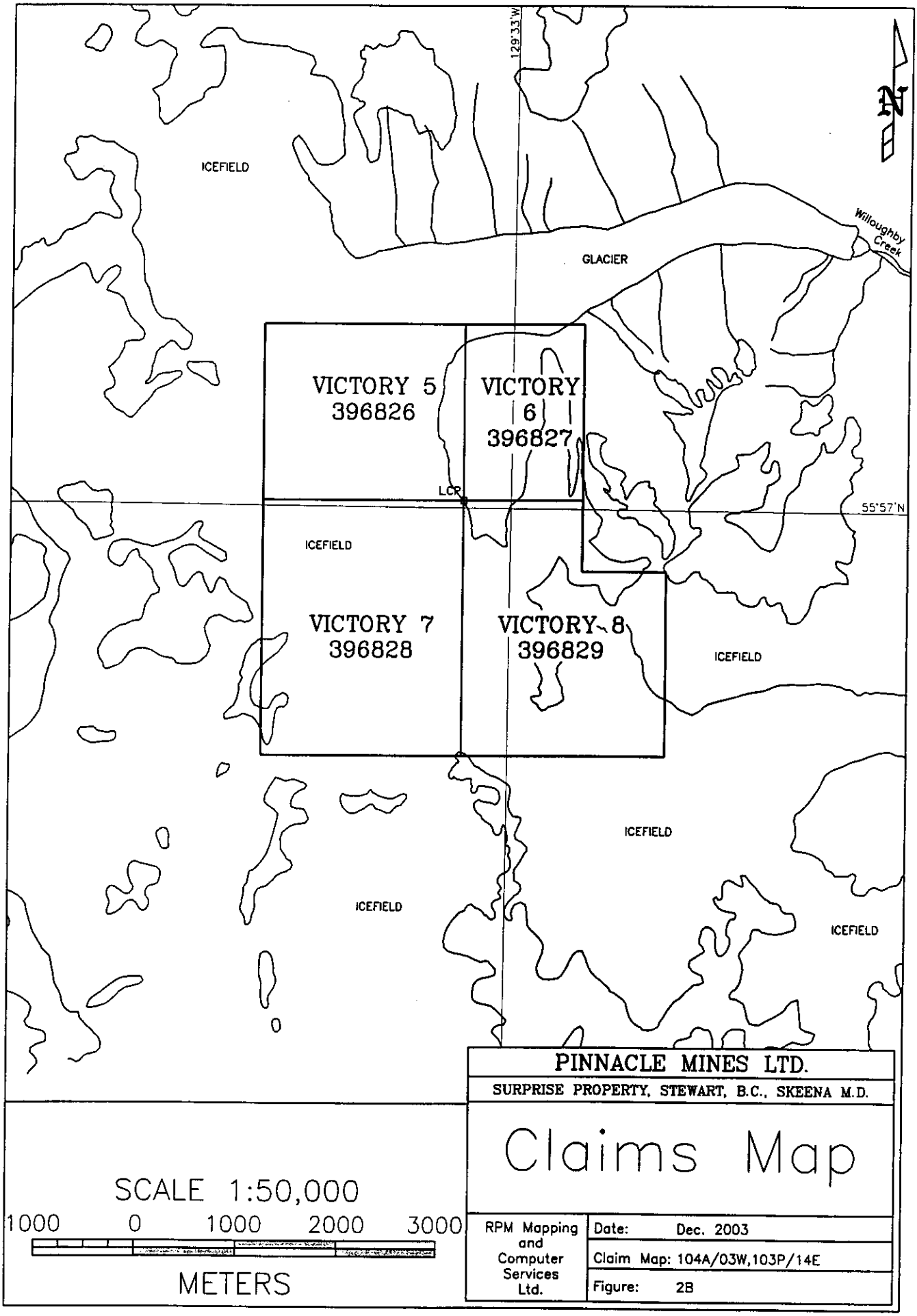
396835
LCP
ICEFIELD
PIN 6
405241
TRAFALGAR 3
396836
TRAFALGAR 4
396837
ICEFIELD
Bear River
Strohn Creek
Surprise Creek
ICEFIELD
SCALE 1:100,000
2000 0 2000 4000 6000
METERS
PINNACLE MINES LTD.
SURPRISE PROPERTY, STEWART, B.C., SKEENA M.D.
Claims Map
RPM Mapping and Computer Services Ltd.
Date: December 2003
Claim Map: 104A/04E
Figure: 2


129°30'W
55°54'N
N
ICEFIELD
ICEFIELD
ICEFIELD
ICEFIELD
VICTORY 1
396822
VICTORY 2
396823
ICEFIELD
LCP
VICTORY 3
396824
VICTORY 4
396825
ICEFIELD
ICEFIELD
ICEFIELD
ICEFIELD
Flat River
SCALE 1:50,000
1000 0 1000 2000 3000
METERS
PINNACLE MINES LTD.
SURPRISE PROPERTY, STEWART, B.C., SKEENA M.D.
Claims Map
RPM Mapping and Computer Services Ltd.
Date: December 2003
Claim Map: 104A/03W, 103P/14E
Figure: 2A



PINNACLE MINES LTD.

SURPRISE PROPERTY, STEWART, B.C., SKEENA M.D.

Claims Map

RPM Mapping and Computer Services Ltd.	Date: Dec. 2003
	Claim Map: 104A/03W,103P/14E
	Figure: 2B

Pin 1	405238	NTS Map 104A/4E	20	September 9/2004
Pin 2	405239	NTS Map 104A/4E	20	September 9/2004
Pin 3	405227	NTS Map 104A/4E	20	September 9/2004
Pin 4	405233	NTS Map 104A/4E	20	September 9/2004
Pin 5	405242	NTS Map 104A/4E	20	September 9/2004
Pin 6	405241	NTS Map 104A/4E	20	September 9/2004
		Total	600 units	

Claim location is illustrated on Figure 2a, 2b and 2c, copied after available government NTS maps. Ownership is presently 100 % registered with Andrew Bowering of Vancouver, British Columbia.

The author located the claim posts on behalf of Andrew Bowering and can verify the quality and accuracy of the staking. The exact location of these claims would be subject to further surveys.

Previous Work

Exploration began in the Stewart region about 1898 after the discovery of mineralized float by a party of placer miners. Sites which could be easily reached from Stewart were the first to be explored among which was the lower Marmot River area. This early phase of exploration culminated in 1910 when both Stewart and the neighboring town of Hyder, Alaska boasted a population of around 10,000 people. Another boom period began in the early 1920's after the discovery of the very rich Premier gold-silver-lead-zinc mine in the Salmon River area, northwest of Stewart.

From 1940 to 1979 there was little activity in the region due to lackluster precious metal prices. However when silver and gold prices skyrocketed in the early 1980's, many of the old properties were re-examined by both small and large exploration companies. Success by a number of exploration companies, particularly in the Unuk River has led to continued exploration in the general area. The relatively recent discovery and ongoing development of the intrusive-related gold deposits at Red Mountain located approximately 16 km east of Stewart, has again rekindled interest in the surrounding area.

The two properties that have recorded work in the late 1970's and in the immediate vicinity of the Surprise property claims are the Surprise Creek molybdenum and Goat Ridge gold-silver occurrences. The Surprise Creek property was held by Falconbridge who optioned it to

Riocanex in 1981. Riocanex drilled three holes to test the larger of two rusty zones found previously by prospecting. The two identified zones measure 800 by 300 m and 1800 by 900 m and are mainly biotite hornfels with coincident anomalous fluorine values. The smaller zone is associated with an exposed porphyritic quartz monzonite stock. Geochemical sampling of the larger showed a concentric distribution of fluorine values, with the centre occupied by an icecap. The theory was that a similar quartz monzonite was responsible for the hornfels and that it was hidden below 55 to 70 m of ice. Three holes tested this hypothesis. The holes all intersected a section of quartz and feldspathetic quartz arenite followed by a section of graphitic siltstone (in holes 2 and 3 these sections repeat). Mineralization consists of < 1 to 2 % combined pyrrhotite and pyrite; Molybdenum and chalcopyrite are present in quartz veinlets with pyrite and pyrrhotite plus or minus calcite with rare fluorite. No assays were reported, just that molybdenum was not that abundant with the best value being 2 m of 0.1 % MoS2.

Report writer Downing concluded that sections cut by drill holes consist of thrust slices that have been selectively moved E-NE from the original position of hornfelsing and mineralization.

The Goat deposit is located about 34 kilometers northeast of Stewart, approximately 5 kilometers north of the Stewart highway (37A) and just south of the Goat Glacier.

Newmont Mining and Granby Mining staked the showings in 1960 as the Surprise claim group. The claims were restaked in 1963 as the Goat group. Noradco acquired the claims in 1964 and completed trenching, sampling and 3 drill holes on the property. In 1968, an agreement with Shield Minerals Corp. ensured continued underground development. In 1971, Abitibi acquired the Shield Minerals interest and incorporated Nordore Mining Co. In 1974, Nordore rehabilitated the workings now on the Ken 1-4 and Goat A-H claims. In 1974, the Remus claims were acquired as a mill site. About 1770 tonnes of ore were stockpiled. In 1976, about 295 tonnes of ore was milled from a portable concentrator. Development work on the E vein recommenced in 1979 and "some" material was put through the concentrator. In 1980, underground development continued and the mill operated for several months. The mill was destroyed by fire in 1981 and all work ceased. Bond Gold carried out a geophysical survey over the property in 1990. In 1991, Cameco conducted geochemical surveys and sampling on the Ken and Hugh claims.

Proven and probable reserves in 1979 were 8800 tonnes grading 4782.9 grams per tonne silver and 10.6 grams per tonne gold. Recorded production during the period 1975 and 1979-81 was 1,794,049 grams of silver, 5,475 grams of gold, 52,641 kilograms of zinc, 4,071 kilograms of lead and 153 kilograms of copper.

During July to October, 1994 and July 1996, Teuton Resource Corp conducted an exploration program consisting of reconnaissance geochemical rock and silt sampling in conjunction with prospecting and reconnaissance geological mapping on the property to primarily evaluate the gold potential with emphasis on any intrusive related mineralization.

The survey over only a small portion of the claims indicated numerous types of mineralization; both in outcrop and float boulders. Mineralization noted in outcrop included the following:

1. Massive pyrite veins up to several meters in width occasionally accompanied by fine-grained galena and sphalerite.

2. Pervasive, fine-grained pyrite mineralization in the rhyolitic rocks as well as pyritic bands in the sericite schists.

3. A weak but pervasive quartz-sulfide veinlet stockwork zone over a large portion of the Surp 6 claim.

4. Quartz stringers with pyrite, galena, chalcopyrite, pyrrhotite and sphalerite along fault zones on the Surp 12 claim.

5. Weak quartz stockwork with pyrite and arsenopyrite in argillites on the Surp 8 claim.

6. Banded magnetite and hematite in calcareous, maroon volcanics on the Surp 6 claim.

7. Fine-grained pyrite, pyrrhotite and traces of chalcopyrite in sericitic rocks on the southern portion of the Surp 8 claim.

Results of the geochemical program indicate highly anomalous gold, silver, copper, arsenic, lead and zinc values widespread throughout the limited areas explored. Values as high as 0.334 opt Au, 6.94 opt Ag, 1.61% Cu, 1.25% As, 4.26% Pb and 4.41% Zn were obtained from different zones within the large and only partially explored claim holdings. The area of the former Surp 6 and 8 claims are underlain by the present Emma 3 and Frances 3 claims that comprise part of the Surprise property.

The southern claims are near the Willoughby prospect, which is located on a steep nunatak south of Meziadin Lake and 26 kilometers east of Stewart between the north and central forks of the Willoughby Glacier. A mineralized zone carrying low-grade gold and silver values was investigated in this area in 1941 and the Wilby group of claims was explored in 1945.

To date 11 mineralized occurrences have been located on the Willoughby property. Mineralization consisting of pyrite, pyrrhotite along with lesser sphalerite, galena and rare visible gold occurs in veins, stockwork and fracture fillings. In addition, pyrite and pyrrhotite occur as semi massive to massive occurrences in lenses and pods. Several of the zones appear to be intrusion related. The best drill intersection averages 40.1 grams per tonne gold and 109.6 grams per tonne silver over 11.7 meters in one of the zones.

GEOLOGICAL SURVEYS

Regional Geology

The Surprise claim blocks lie in the Stewart area, east of the Coast Crystalline Complex and within the western boundary of the Bowser Basin. Rocks in the area belong to the Mesozoic Hazelton Group and Bowser Lake Group that have been intruded by plugs of both Cenozoic and Mesozoic age.

According to C.F. Greig, in G.S.C. Open File 2931, the western portion of the claim area is underlain by Lower Jurassic volcanic rocks overlain by the Lower to Middle Jurassic Salmon River Formation at the east edge of the claims. The Salmon River formation is in turn overlain by the Upper Jurassic Bowser Lake sediments, east of the claim holdings.

At the base of the Hazelton Group is the lower Lower Jurassic Marine (submergent) and non-marine (emergent) volcaniclastic Unuk River Formation. This is overlain at steep discordant angles by a second, lithologically similar, middle Lower Jurassic volcanic cycle (Betty Creek Formation), in turn overlain by an upper Lower Jurassic tuff horizon (Mt. Dilworth Formation). Middle Jurassic non-marine sediments with minor volcanics of the Salmon River Formation unconformably overlie the above sequence.

The lower Lower Jurassic Unuk River Formation forms a north-northwesterly trending belt extending from Alice Arm to the Iskut River. It consists of green, red and purple volcanic breccia, volcanic conglomerate, sandstone and siltstone with minor crystal and lithic tuff, limestone, chert and coal. Also included in the sequence are pillow lavas and volcanic flows.

In the property area, the Unuk River Formation is unconformably overlain by middle Lower Jurassic rocks from the Betty Creek Formation. The Betty Creek Formation is another cycle of troughfilling sub-marine pillow lavas, broken pillow breccias, andesitic and basaltic flows, green,

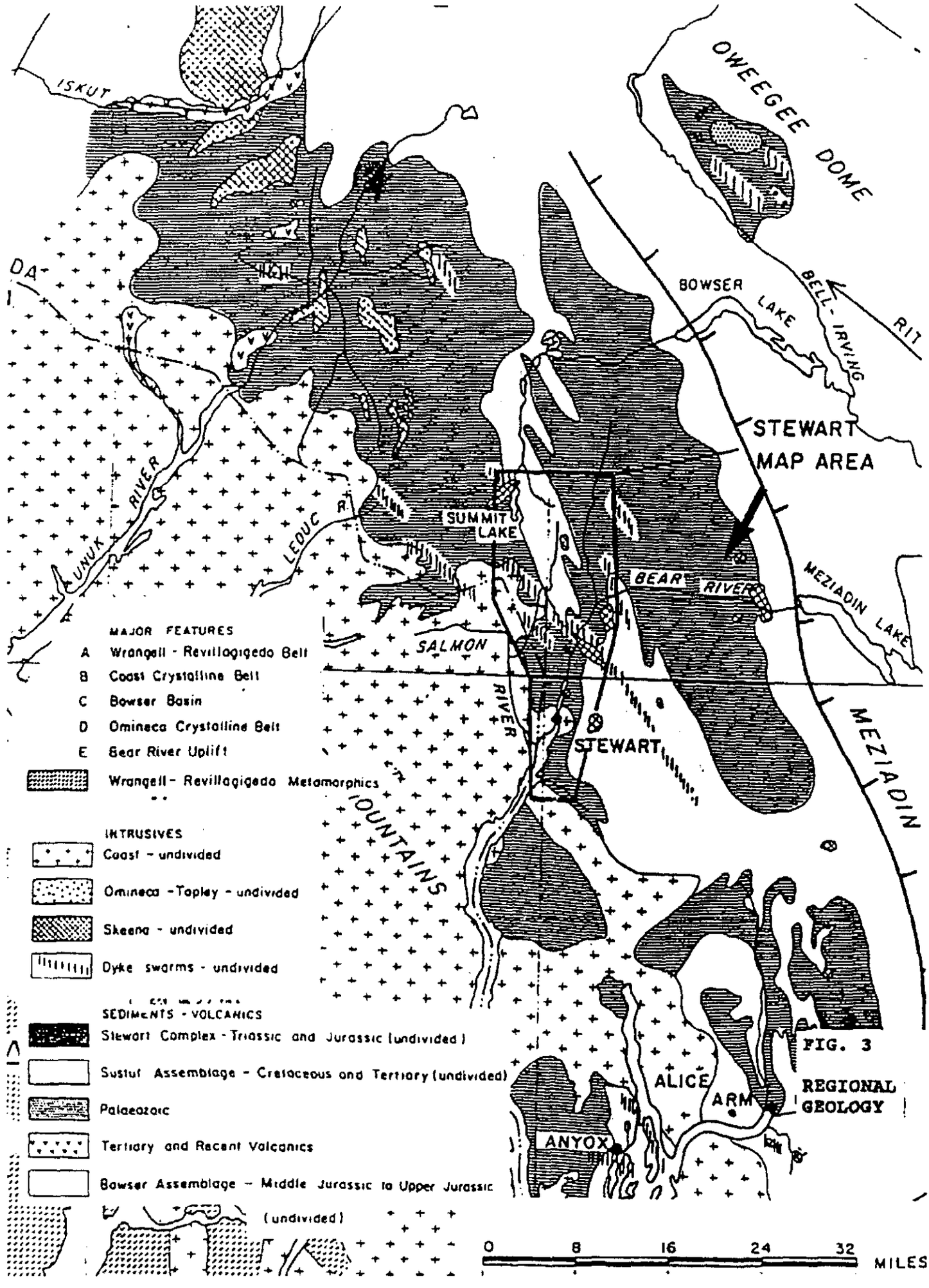


FIG. 3
REGIONAL GEOLOGY

FIGURE 4 GEOLOGY MAP after G.S.C.
Open File 2931

red, purple and black volcanic breccia, with self erosional conglomerate, sandstone and siltstone and minor crystal and lithic tuffs, chert, limestone and lava.

The upper Lower Jurassic Mt. Dilworth Formation consists of a thin sequence varying from black carbonaceous tuffs to siliceous massive tuffs and felsic ash flows. Minor sediments and limestone are present in the sequence. Locally pyritic varieties form strong gossans.

The Middle Jurassic Salmon River Formation is a late to post volcanic episode of banded, predominantly dark colored siltstone, greywacke, sandstone, intercalated clarinet, minor limestone, argillite, conglomerate, littoral deposits, volcanic sediments and minor flows.

Overlying the above sequences are the Upper Jurassic Bowser Lake Group rocks. These rocks mark the western edge of the Bowser Basin and are also located as remnants on mountaintops in the Stewart area. These rocks consist of dark grey to black clastic rocks including silty mudstone and thick beds of massive, dark green to dark grey, fine to medium grained arkosic litharenite.

According to E.W. Grove, the majority of the rocks from the Hazelton Group were derived from the erosion of andesitic volcanoes subsequently deposited as overlapping lenticular beds varying laterally in grain size from breccia to siltstone.

D. Aldrick's work to the north of Stewart has shown several volcanic centers in the surveyed area. Lower Jurassic volcanic centers in the Unuk River Formation are located in the Big Missouri Premier area and in the Brucejack Lake area. Volcanic centers within the Lower Jurassic Betty Creek Formation are in the Mitchell Glacier and Knipple Glacier areas.

There are various intrusives in the area. The granodiorites of the Coast Plutonic Complex largely engulf the Mesozoic volcanic terrain to the west. East of these (in the property area), smaller intrusive plugs range from quartz monzonite to granite to highly felsic. Some are likely related to the late phase offshoots of the Coast plutonism, other are synvolcanic and tertiary. Double plunging, northwesterly - trending synclinal folds of the Salmon River and underlying Betty Creek Formations dominate the structural setting of the area. These folds are locally disrupted by small east-overthrusts on strikes parallel to the major fold axis, cross-axis steep wrench faults which locally turn beds, selective tectonization of tuff units and major northwest faults which turn beds.

Local Geology

Prior to the start of the geochemical program, reconnaissance mapping using the helicopter was carried out. This carried out in order to identify the areas of the Mt Dilworth/Salmon River contact similar to that hosting the Eskay Creek deposit and the nearby Teuton discovery in Nelson Creek, south of the northern Surprise claim block.

The northern Surprise claim group is underlain by a sequence of Lower Jurassic clastic and volcanic rocks intruded by felsic stocks and dykes and /or sills along the western portions of the property. Along the eastern edge of the claims, Lower to Middle Jurassic and Upper Jurassic sediments are present.

Just to the west of Emma 3 claim, large gossaned areas are related to sericite alteration and subsequent infusion of quartz and sulfide mineralization. The most intensely altered zone extends from the west side of the northwest corner of the Emma 3 claim to just west of the Emma 6 claim. In these sericitic zones, it is very difficult to determine what the host rock is. This sericite alteration zone is located in a thick sequence of rhyolite breccia, which is correlated with the Mt. Dilworth formation. This sequence consists of coarse clasts forming up to 30% of the rock surrounded by grey fine-grained matrix. Individual clasts are angular, up to 15 cm in size consisting of porphyritic rhyolite. Feldspars, which are euhedral to subhedral shaped form 20 % of the material in the clasts. Within the rhyolite breccia, discontinuous lenses or blocks of massive banded hematite and magnetite are present. A regional iron formation that has been identified 10-15 kilometers to the southwest of the claim block occurs within the Bear River pass area. The massive hematite and magnetite may represent blocks of that formation that occurred in the vicinity of the rhyolite breccia and that have been incorporated into the formation.

Based on the thick sequence of the rhyolite breccia and the angular nature of the breccia clasts, it is speculated that this area of the Surprise claim group may represent a volcanic center in the Jurassic period.

North and south of the above sequence, rocks in the Mt. Dilworth formation consist of grey, fine-grained to glassy appearing rhyolites along a belt trending north across the Frances 3 claim and south along the Emma 1 and Trafalgar claims. It appears that the grey, fine-grained variety occurs along the west edge of the formation with a black glassy appearing variety in contact with the overlying Salmon River formation. The grey variety consists of small white rhyolite fragments up to 5 mm in a fine-grained ash matrix. Pyrite occurs as both fine-grained disseminations and as later veinlets filling cross cutting fractures. The black glassy variety is aphanitic with disseminated sulfides. Some varieties found in float consist of black rhyolite with

banded massive pyrite forming up to 20 % of the rock. Some rocks also contain minor amounts of galena and sphalerite indicating a possible Kuroko type VMS situation containing Pb-Zn-Ag.

Just west of the above rhyolite breccia, a thick sequence of maroon andesitic rocks occurs. Observed rocks consist of poorly sorted rounded volcanic fragments up to 20-30 cm in a fine-grained groundmass. Near the east contact with the rhyolites, the fragmental volcanic contains aphanitic and very fine-grained felsic volcanic clasts. Along the contact area, it is common to observe thin lenses of maroon colored tuff horizons within the rhyolite formation. These horizons parallel the contact and appear to be restricted to within 10 meters of the contact. Extensive and pervasive carbonate alteration is very common in the maroon pyroclastics and flows.

East of the rhyolite, black argillites with minor interbedded tuffaceous chert are present. The argillites which are pyritiferous and thinly bedded tend to weather to a rusty color. On the Emma 3 claim in the northwest corner of the claim, east west fractures contain narrow discontinuous galena-sphalerite-carbonate veins that are up to 0.3 meters in width.

Along the east side of the northern Surprise claim block, thinly bedded argillites of the Bowser Lake group are present. These are locally pyritiferous weathering to a rusty color.

In the middle of the Frances 3 claim block, a medium grained grey, quartz monzonite outcrops. This intrusive extends from the valley floor to the upper slopes in the northern portion of the Frances 3 claim. Along the upper slopes, the monzonite is carbonate altered and weather into a rusty red color.

In the area of the monzonite, the argillites in the Bowser Lake formation have been hornfelsed to a light pink to dark grey rock containing fine-grained pyrrhotite.

Figure 5 shows the general geology of the Surprise claim block, particularly the Mt Dilworth/Salmon River contact as defined by reconnaissance mapping.

Mineralization

The 2003 exploration programs over parts of the Surprise property indicated abundant and varied mineralization within the present claim group as follows:

1. Individual massive pyrite veins up to 0.3 meters over zones up to 5 meters wide traced along several hundreds of meters on the Emma 3 claim. Locally the pyrite may form up to 20 % of the overall zone and occasionally has massive hematite and magnetite lenses

0.5 meters wide along the contacts of the pyritic zone. The hematite/magnetite also occurs as stringers and blocks up to 20 meters away from the pyrite veining. The zone appears to trend beneath the ice to the southwest on to the northwest corner of the Emma 5 claim. South of the area on the Emma 3 claim, the alteration zone appears to become much wider.

2. Pervasive, fine-grained pyrite as well as pyritic bands in the grey lapilli tuff rhyolitic rocks. Pyrite occurs as both fine-grained disseminations and as later veinlets filling cross cutting fractures and occasionally as massive veins up to 15 cm in width. This rhyolite is present along the entire western length of the northern claim block extending from the Frances 1 claim south to the Pi 6 claim, a distance of approximately 15 kilometers.

3. A weak but pervasive quartz-sulfide veinlet stockwork zone in altered volcanics in the area of the Emma 3 and 5 claims. This stockwork consists of narrow quartz veins 5 to 15 cm in width with coarse cube pyrite and occasionally pyrrhotite. The veinlets show great continuity along strike but are generally widely spaced. Weak sericite alteration accompanies the quartz-sulfide veinlet stockwork.

4. Strong quartz - sulfide stockwork in altered volcanics found in float boulders on the Trafalgar 1 claim. Quartz veins up to 15 cm in width form up to 20 % of boulders 1 meter in diameter. Coarse cube pyrite with semi-massive, coarsely crystalline arsenopyrite, chalcopyrite and pyrrhotite can constitute up to 30 % of the quartz veins. The presence of numerous boulders in the moraine indicates a possible large source.

5. Banded magnetite and hematite in calcareous, maroon volcanics and rhyolites. These are probably related to an iron formation that has been mapped 10-15 kilometers southwest of the above occurrences. This mineralization has been observed on the Emma 3 and Emma 5 claims.

6. Massive sulfide bearing, manganese stained tuffaceous chert boulders possibly from the base of the Salmon River formation on the Emma 5 claim. The boulders are large and can be up to 2 meters in diameter. Sulfide content is generally in semi-massive sulfide bands from 15 cm to 20 cm in width and can form up to 10 % of the boulders. The rocks carry galena, sphalerite, and chalcopyrite with minor pyrite. Source of these boulders is likely on the south side of the glacier in the NW corner of the Emma 1 and middle of the Pin 4 claim. In the area of the boulders, minor float boulders of massive pyrite and chalcopyrite were noted.

7. Black glassy appearing rhyolites have strong very fine grained pyrite mineralization forming up to 15 % of the rock Disseminated fine-grained galena-sphalerite have been noted in this type of rhyolite boulders in a number of different valleys located on the Trafalgar 1 and 5 claims. This type of mineralized boulder may indicate the presence of Kuroko type Pb-Zn-Ag massive sulphides mineralization in the claim area. These types of boulders have been observed a length extending from the Trafalgar 5 to Trafalgar 3 claims, a distance of approximately 6 kilometers.

8. An outcrop of argillite near the contact with the Mt Dilworth rhyolite, on the Trafalgar 5 claim, that contained narrow bands of pyrite conformable with bedding and a narrow quartz – sulfide stockwork. The zone of interest was at least 5 meters in width with the rocks carrying 10-15 % quartz-sulfide. It appeared that the sulfide was coarse cube pyrite in the quartz veinlets.

9. Pyrrhotite bearing, hornsfelsed argillites of the Bowser sediments in the area of the Frances 1-4 claims.

10. Narrow, discontinuous galena-sphalerite-carbonate veins in Salmon River formation at the north-central portion of the Emma 3 claim. These veins, three in total, strike east west and are generally less than 0.3 meter in width. They have been observed over a strike length of approximately 100 meters.

Teuton Resource Corp has announced a discovery of a new gold-silver occurrence between the two of the above Pinnacle claim blocks. In the fall of 2002, Teuton Resources discovered high-grade gold-silver mineralization on the Del Norte Claim group, 10 kilometers south of the northern block of claims and 8 kilometers northeast of the second southern group of claims, comprising the Surprise property. Prior to the onset of winter, Teuton completed trenching and three drill holes. The results of the 2002 trenching include 10 meters of 0.179 opt Au and 8.4 opt Ag. The best drill hole - 2002-3 assayed 0.223 opt Au and 8.09 opt Ag over a drill length of 23.4 meters. Work on the LG vein in 2003 by Teuton indicates several promising mineralized areas have been defined by exploration on the Del Norte property. The most significant occurs along a 2200-meter long trend connecting the Kosciuszko Zone, the LG Vein and the LG Vein Extension. Similar mineralogy and stratigraphic location indicates that all of three of these are related structures, although talus and ice obscure continuity in places. Gold and silver bearing vein mineralization has now been found over a vertical range of 300 meters, from the upper reaches of the Kosciuszko zone to the bottom of Hole DN03-7 (1.49 m of 39.26 opt Ag and 0.337 opt Au) in the LG Vein area. The LG Vein mineralization apparently lies along a contact between mudstones at the base of the Salmon River Formation and felsic pyroclastics believed to be of the Mt. Dilworth Formation.

In addition, Teuton has announced the discovery of narrow, massive sulfide–gold-silver mineralization along the Mt Dilworth/Salmon River formation south of the above discovery.

The northern Surprise block is under lain by the same stratigraphic sequence hosting the new Teuton discovery as well as the producing Eskay mine (reserves at the end of 2002 were 1.433 million tons of 0.998 opt Au and 44.9 opt Ag in the proven and probable reserve and 480,000 tons of 0.442 opt Au in the mineral reserve category). This mine has been producing since the mid 1990's and reports suggest that there has been a new discovery associated with rhyolites in mine area.

In 1994 geochemical surveys, gold values up to 0.334 opt Au were obtained in quartz veinlets in a silicified felsic volcanic with no obvious sulfides, on the west edge of the Emma 5 claim. This occurrence was associated with abundant barite. Geochemically anomalous gold values were obtained in the surrounding area. Follow-up work in 1995 yielded gold assays up to 0.169 opt Au in this area. This mineralized zone should be sampled and evaluated in future surveys.

GEOCHEMISTRY

Introduction

Reconnaissance rock and silt geochemical samples were taken from the area of the northern Surprise claim group. The location of the samples is shown in figure 6 at a scale of 1: 5,000 in relation to the claim lines. Icefield boundaries have been taken from the most recent government topographic maps, however, these are often inaccurate: pronounced ablation in Stewart during the past years has exposed much new rock outcrop and reduced the size of snow and icefields considerably.

Altogether 78 rock samples were taken: 9 bedrock grab and 69 float. A total of 23 silt samples were collected. Locations for the all samples were located by reference to GPS locations.

Field Procedure and Laboratory Technique

Rock samples were taken in the field with a prospector's pick and collected in standard plastic sample bag. Grab samples were taken to ascertain character of mineralization at any specific locality. These samples consisted generally of three to ten representative pieces with total sample weight ranging between 0.5 to 2.0 kgs. Complete descriptions of the rock samples, in terms of type, noted mineralization and relationship to nearby features are located in Appendix III. In addition, any determined anomalous values (bold values) are noted along with the descriptions.

All rock samples were analyzed at the Acme Analytical Laboratories facilities in Vancouver, British Columbia. Rock samples were first crushed to minus 10 mesh (70 % of sample) using jaw and cone crushers. Then 250 grams of the minus 10-mesh material was pulverized to minus 150 mesh using a ring pulverizer. A modified Aqua Regia solution is added to each sample and leached for 1 hour at greater than 95 degrees Celsius. The resulting solution was then analyzed by atomic absorption. The analytical results were then compared to prepared standards for the determination of the absolute amounts. For the determination of the remaining trace and major elements Inductively Coupled Argon Plasma (ICP) was used. In this procedure a 0.5-gram portion of the minus 140-mesh material is digested with aqua regia for 1 hour at 95 degrees Celsius and made up to a volume of 20 mls prior to the actual analysis in the plasma. Again the absolute amounts were determined by comparing the analytical results to those of prepared standards. Appendix I has the methods and specifications description as supplied by Acme Analytical Laboratories.

Specific samples were subjected to further analysis where the Ag values obtained exceeded certain threshold levels (greater than 200 ppm for Ag). No further analysis was used for follow-up analysis of base metals (where values were too high for quantitative measurement by ICP). Appendix II has the complete analyses results.

Statistical Treatment

As in other small-scale geochemical surveys, a cumulative frequency plot to determine background and threshold values (greater than threshold is considered anomalous) was not deemed practical for either the rock geochemical or silt sampling program. For the rock geochemical program, gold values greater than 100 ppb gold, silver values greater than 3.2 ppm, lead values greater than 160 ppm, zinc values greater than 320 ppm, arsenic values greater than 110 ppm and copper values greater than 360 ppm were considered anomalous in the Stewart area.

The silt sampling did not reveal any obvious anomalies, even though mineralized float rocks are present in the moraines and streambeds.

Figure 6 at a scale of 1:5,000 shows the location plots for all sampling conducted with the values for Au, Ag, Pb, Zn, As and Cu listed in a table for the appropriate samples in the diagram.

Anomalous Zones

Rock geochemical sampling was principally restricted to float sampling of rhyolitic rocks and mineralized argillite down valley from the Mt Dilworth and Salmon River formation in the area of the northern Surprise claims.

Results of the samples indicate highly anomalous values for gold, silver, lead, zinc, arsenic and copper. Sample values for gold ranged from <1 ppb to a high of 13.02 ppm, for silver from 0.2 to 3076.8 ppm, for lead from 5.7 to >9999 ppm, for zinc from 12 to 56,866 ppm, for arsenic from 1.9 to 9999 ppm and copper from 4.4 to 28,026 ppm. Appendix III has a complete list of the above values for the various rocks along with a brief geological description for each rock collected.

The one sample of hornfels (S-29) in the area of the monzonite intrusive on the Frances 3 claim indicated anomalous copper (771 ppm) associated with this rock type.

Quartz cobbles with massive pyrrhotite mineralization on the Frances 3 claim contained anomalous copper and gold values. Samples S-31-S-34 gave copper values ranging from 175 ppm to 1619 ppm with associated gold values of 130 ppb to 1.363 ppm.

On the Emma 3 claim, large manganese stained tuffaceous chert boulders (S-18 to S-26) were anomalous in lead, zinc, copper, arsenic and silver. Values ranged from 43 to 2609 ppm Pb, 1153 to 48098 ppm Zn, 83.4 to 28026 ppm Cu, 15.3 to 871 ppm As and 2.6 to 213 ppm Ag.

Throughout the area surveyed, black glassy appearing rhyolite boulders were anomalous in lead, zinc, silver and rarely copper, gold and arsenic. Samples (S-16-17, S-28, S-41, S-45, S-47, S-49, S-51, S-54, S-56 and S-71) gave values in lead ranging from 63 to >9999 ppm Pb, 47 to 58866 ppm Zn, 0.9 to 132 ppm Ag, 19 to 313 ppm Cu, 37 to 1412 ppm As and <0.5 to 220 ppb Au.

On the Trafalgar 1 claim, quartz – sulfide float (S-57 to S-61 and S-63 to S-69) was anomalous in gold, silver, lead, zinc, copper and arsenic. Values ranged from 5.6 to 13023 ppb Au, 0.7 to 371 ppm Ag, 24 to 3421 ppm Pb, 33 to 1368 ppm Zn, 22 to 1883 ppm Cu and 103 to >9999 ppm As.

Grey pyritic rhyolites (S-11-13, S-15, S-35, S-38-39, S-42—43, S-48, S-50, S-55 and S-72-75) throughout the surveyed area are weakly and variably anomalous in gold, silver, lead, zinc, copper and arsenic.

Bedrock massive pyrite veins (S-1 to S-8) west of the Emma 3 claim are weakly anomalous in lead, zinc, silver and arsenic.

A float boulder (S-9) in the area of the above veins was anomalous in lead, zinc silver and arsenic (8362 ppm Pb, 45950 ppm Zn, 23 ppm Ag and 715 ppm As).

On the Trafalgar 1 claim, a float boulder of brecciated argillite (S-46) gave highly anomalous values in lead, zinc, copper, silver and arsenic (1270 ppm Pb, 1109 ppm Zn, 6708 ppm Cu, 3076 ppm Ag and 721 ppm As). This material may be related to the structure hosting the silver showing on the former nearby Nordore property (approximately 2 kilometers southwest).

Two samples (S-77-78) from the former producing Nordore property were sampled at the mill area near Highway 37A and Surprise Creek. These samples were highly anomalous in lead, zinc, silver, copper, arsenic and gold.

On the Trafalgar 1 claim, an argillite bedrock exposure (S-62) contains a strong quartz stockwork with minor cube pyrite. The argillite contains narrow bands of semi-massive pyrite with associated anomalous arsenic (2142 ppm As).

Further geochemical surveys are recommended to locate the source of the anomalous values and extend survey area.

CONCLUSIONS

1. The property lies within a belt of Jurassic volcanic rocks that is host to numerous gold deposits, extends from the Kitsault area, south of Stewart, to north of the Stikine River.

2. The property contains approximately 15000 hectares within three separate claim groups totaling 30 Modified Grid claims.

3. In the period August 26 to September 17, 2003 Pinnacle Mines Ltd conducted an exploration program on the northern portion of the Surprise property consisting of reconnaissance mapping for the above Salmon River/Mt Dilworth geological contact, prospecting and geochemical sampling along the above volcanic – sediment contact within various valleys tributary to Surprise Creek.

4. Geological observations noted indicate that the property is underlain by a sequence of altered and silicified Lower Jurassic Mt Dilworth rhyolites in contact with the overlying Salmon River sediments. This geological setting is host to the Eskay Creek deposit and the recent gold-silver discovery to the south of the northern Surprise claim block.

5. The preliminary geochemical surveys indicate numerous occurrences of mineralization in outcrop and float boulders.

6. A total of 78 rock samples both outcrop and float as well as 23 silt samples were collected during the exploration program. Results of the samples indicate highly anomalous values for gold, silver, lead, zinc, arsenic and copper. Sample values for gold ranged from <1 ppb to a high of 13.02 ppm, for silver from 0.2 to 3076.8 ppm, for lead from 5.7 to >9999 ppm, for zinc from 12 to 56,866 ppm, for arsenic from 1.9 to 9999 ppm and copper from 4.4 to 28,026 ppm.

7. The presence of favorable geology, high geochemical and assay results for a variety of elements obtained in the exploration programs and apparent numerous mineral occurrences make this property an excellent exploration target.

8. Further work consisting of prospecting, geochemical sampling, geological mapping and trenching is recommended.

9. Expected cost of the program is approximately $250,000.

RECOMMENDATIONS

The recommended program is outlined as follows:

1. **Prospecting**

Prospecting should be carried out on all obvious but un-checked gossaned zones. In addition, prospecting should be conducted along the ridge and valley slopes on the Pin 3 claim. The long alteration zone with massive pyrite on the Emma 3 should be further delineated.

2. **Geological Mapping**

The property should have a grid patterns established over mineralized areas to facilitate survey control. Geological mapping should be conducted in order to establish the extent and nature of any rhyolite-associated mineralization, outline further mineralized zones and identify potential host rocks for any possible mineral deposits.

3. **Geochemical Surveys**

Further rock geochemistry is recommended particularly rock chip sampling in areas of known anomalous metal values and/or newly discovered zones.

4. **Trenching**

Several areas require trenching including the area of high gold values along the ridge top on the Pin 3 claim outlined in 1994-1995 surveys. Trenching should test massive pyrite bearing areas with appreciable lead and zinc values

Trenching would also include any newly discovered mineralization.

Estimated Cost of the Program

Geological Survey - Maps, Reports **$10,000.00**
2 geologists @ $700.00/day for 10 days -$7,000,00
2 assistants @ $300.00/day for 10 days - $3,000.00

Geochemical Survey

Helicopter – 100 hours @ $1200.00/hour- $120,000.00 1000 Rock Samples @ $25.00 All Inclusive-$25,000.00 2 geologists @ $700.00/day for 20 days -$14,000,00 2 assistants @ $300.00/day for 20 days - $6,000.00	**$165,000.00**
Accommodation 120 man days @ $ 60.00/day	**$7,200.00**
Vehicle rental	**$5,000.00**
Mob/Demob	**$6,000.00**
Consumables (plastic bags,fuel, explosives, etc.)	**$3,000.00**
Trenching - drill, compressor rental)	**$10,000.00**
Filing Fees	**$12,000.00**
Reporting	**$10,000.00**
Contingency	**$21,800.00**
Total	**$250,000.00**

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10. KRUCHKOWSKI, E.R., (1995) Report on Surp Property

11. KRUCHKOWSKI, E.R., (2003) Report on Surprise Property

12. TEUTON PRESS RELEASES AND WEBSITE

CERTIFICATE

I, Edward R. Kruchkowski, geologist, residing at 23 Templeside Bay, N.E., in the City of Calgary, in the Province of Alberta, hereby certify that:

1. I received a Bachelor of Science degree in Geology from the University of Alberta in 1972.

2. I have been practicing my profession continuously since graduation.

3. I am a member of the Association of Professional Engineers, Geologists and Geophysicists of Alberta.

4. I am a member of the Association of Professional Engineers and Geoscientists of British Columbia.

5. I am a consulting geologist working on behalf of Pinnacle Mines Ltd.

6. This report is based on data collected during the 2003 survey and a review of reports, documents, maps and other technical data on the property area and on my experience and knowledge of the area obtained during programs in 1974 – 2003.

Dec 11/2003

Date:

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA E.R. KRUCHKOWSKI #28161 GEOSCIENTIST

E.R. Kruchkowski, B.Sc., Geo.

STATEMENT OF EXPENDITURES

Field Personnel---August 26 to September 18, 2003	
E. R. Kruchkowski, geologist	
25 days at $400.00/day	$10,000.00
C. D. Kruchkowski, geologist	
25 days at $300.00/day	$7,500.00
S. Kruchkowski, geological assistant	
16 days at $150.00/day	$2,400.00
J. Morrison, geological assistant	
8.25 days at $200.00/day	$1,650.00
R. Kasum, geological assistant	
4 days at $250,00/day	$1,000.00
Helicopter---Prism Helicopters based in Stewart, B.C.	
Crew drop-off/pick-ups-August 26-28,31 and September 2, 5-8, 12-17	
21.6 hours at $1162.56/hour	$25,111.30
Sample Analysis	$1645.33
Mob/Demob (home base to Stewart, return)	$1406.82
Vehicle Rental	$1963.34
Food/Accomodation	$2680.56
Report Writing, Drafting, Copying	$5000.00
Total	$60,357.35

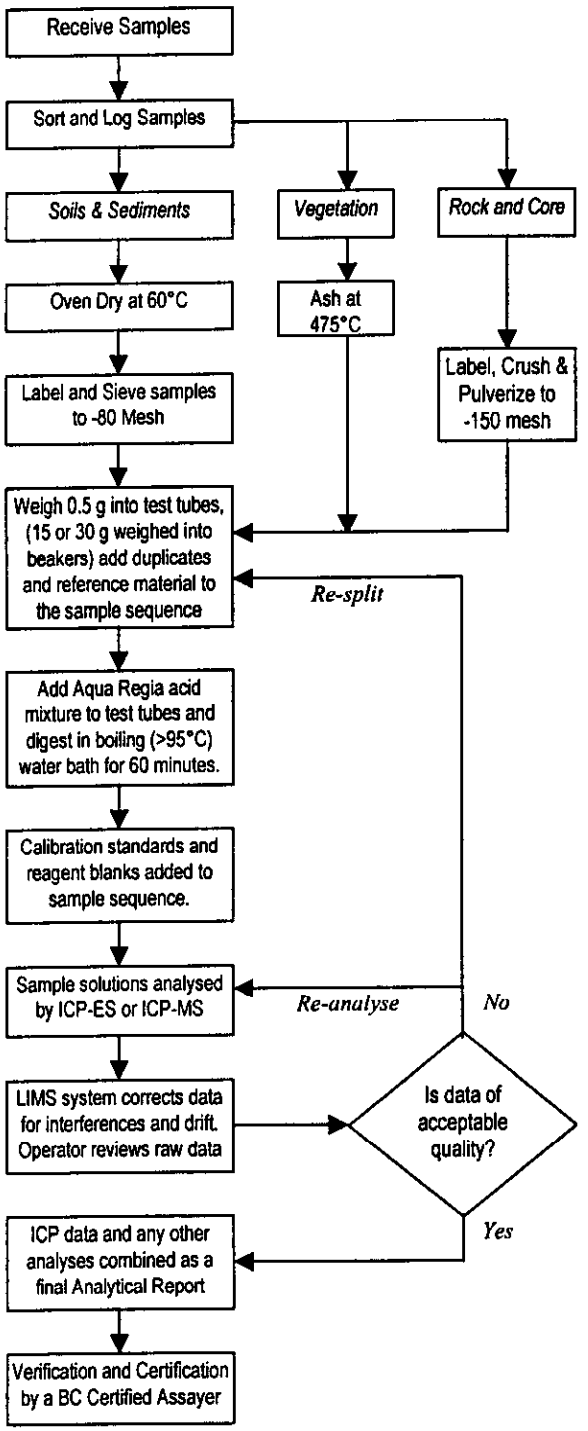
APPENDIX I

LABORATORY METHODS AND SPECIFICATIONS FOR SAMPLE ANALYSIS

ACME ANALYTICAL LABORATORIES LTD.

METHODS AND SPECIFICATIONS FOR ANALYTICAL PACKAGE GROUP 1D & 1DX – ICP & ICP-MS ANALYSIS – AQUA REGIA

Analytical Process



Comments

Sample Preparation

All samples are dried at 60°C. Soil and sediment are sieved to -80 mesh (-177 µm). Moss-mats are disaggregated then sieved to yield -80 mesh sediment. Vegetation is pulverized or ashed (475°C). Rock and drill core is jaw crushed to 70% passing 10 mesh (2 mm), a 250 g riffle split is then pulverized to 95% passing 150 mesh (100 µm) in a mild-steel ring-and-puck mill. Pulp splits of 0.5 g are weighed into test tubes, 15 and 30 g splits are weighed into beakers.

Sample Digestion

A modified Aqua Regia solution of equal parts concentrated ACS grade HCl and HNO_3 and de-mineralised H_2O is added to each sample to leach for one hour in a hot water bath (>95°C). After cooling the solution is made up to final volume with 5% HCl. Sample weight to solution volume is 1 g per 20 mL.

Sample Analysis

Group 1D: solutions aspirated into a Jarrel Ash AtomComp 800 or 975 ICP emission spectrometer are analysed for 30 elements: Ag, Al, As, Au, B, Ba, Bi, Ca, Cd, Co, Cr, Cu, Fe, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Sr, Th, Ti, U, V, W, Zn.

Group 1DX: solutions aspirated into a Perkin Elmer Elan6000 ICP mass spectrometer are analysed for 36 elements: Ag, Al, As, Au, B, Ba, Bi, Ca, Cd, Co, Cr, Cu, Fe, *Ga*, *Hg*, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, *S*, Sb, *Sc*, *Se*, *Tl*, Sr, Th, Ti, U, V, W, Zn.

Quality Control and Data Verification

An Analytical Batch (1 page) comprises 34 samples. QA/QC protocol incorporates a sample-prep blank (SI or G-1) carried through all stages of preparation and analysis as the first sample, a pulp duplicate to monitor analytical precision, a -10 mesh rejects duplicate to monitor sub-sampling variation (drill core only), two reagent blanks to measure background and aliquots of in-house Standard Reference Materials like STD DS5 to monitor accuracy.

Raw and final data undergo a final verification by a British Columbia Certified Assayer who signs the Analytical Report before it is released to the client. Chief Assayer is Clarence Leong, other certified assayers are Dean Toye, Jacky Wang and Ken Kwock.

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APPENDIX II

DESCRIPTIONS WITH INDICATED ANOMALOUS VALUES FOR AU, AG, AS, CU, PB and ZN

S-1 Rhyolite, grey, sericite-altered, fractured with massive pyrite veinlets approximately 1-2 cm approximately as well as disseminated pyrite up to 20% of zone. Minor silicification, zone approximately 4 m wide – strike 320 deg.

Au – 0.9 ppb	Ag – 1.0 ppm
Pb – 20.8 ppm	Zn – 103 ppm
Cu – 9.7 ppm	As – 31 ppm

S-2 Approximately 5 m west of S1 – sericite-altered rhyolite, pyrite approximately 5-10 % as fine dissemination and veinlets approximately 0.5 cm wide, weakly silicified with weak quartz-carbonate stockwork approximately 10 % of rock. .

Au – 1.3 ppb	Ag – 1.3 ppm
Pb – 25.8 ppm	Zn – 133 ppm
Cu – 12.9 ppm	As – 99.8 ppm

S-3 Massive pyrite to semi-massive pyrite with quartz-carbonate up to 0.15 m wide in zone. Grab of massive pyrite.

Au – <0.1 ppb	**Ag – 19.1 ppm**
Pb – 384 ppm	Zn – 113 ppm
Cu – 50.7 ppm	**As – 145.9 ppm**

S-4 Massive hematite and magnetite lense along contact of massive pyrite.

Au – 0.7 ppb	Ag – 1.6 ppm
Pb – 43.6 ppm	Zn – 245 ppm
Cu – 5.7 ppm	As – 21.3 ppm

S-5 Approximately 30 m northwest from S-7 – quartz with massive fine-grained pyrite from 0.15 m stringer.

Au – 1.4 ppb	**Ag – 6.2 ppm**
Pb – 344.2 ppm	**Zn – 714 ppm**
Cu – 33.9 ppm	As – 42.2 ppm

S-6 Approximately 15 m northwest from S-7 – quartz with massive fine-grained pyrite from 0.15 m stringer.

	Au – <0.1 ppb	Ag – **10.5 ppm**
	Pb – 115.7 ppm	Zn – **621 ppm**
	Cu – 21.4 ppm	As – **336.8 ppm**

S-7 Quartz with semi-massive to massive pyrite from 0.10 m stringer.

Au – 1.3 ppb	**Ag – 17.5 ppm**
Pb – 475.2 ppm	**Zn – 781 ppm**
Cu – 36.3 ppm	**As – 222.5 ppm**

S-8 Massive hematite, magnetite, minor pyrite approximately 1" wide – conformable to bedding.

Au – 1.5 ppb	Ag – 1.0 ppm
Pb – 63.9 ppm	Zn – 107 ppm
Cu – 1.5 ppm	As – 33.4 ppm

S-9 Float – approximately 0.3 m in diameter, weakly silicified fragmental andesitic volcanic, strong sulphides both disseminated and along minute veinlets, galena, pyrite, and strong arsenopyrite stain. Sulphides approximately 10-15%.

Au – 0.7 ppb	**Ag – 23.1 ppm**
Pb – 8362.6 ppm	**Zn – 45950 ppm**
Cu – 19.7 ppm	**As – 715.4 ppm**

S-10 Float – approximately 0.3 m in diameter, silicified rhyolite, strong coarse pyrite approximately 10%, narrow quartz carbonate veining up to 10 % of rock.

Au – 24.6 ppb	Ag – 2.3 ppm
Pb – 193.4 ppm	**Zn – 2839 ppm**
Cu – 69.3 ppm	**As – 248.7 ppm**

S-11 Float – 0.6 m x 0.6 m boulder, rhyolite with quartz and pyrite. Pyrite approximately 30%. Stains a light yellow color.

Au – 17.6 ppb	**Ag – 4.0 ppm**
Pb – 142 ppm	Zn – 136 ppm
Cu – 31.4 ppm	**As – 288 ppm**

S-12 Float – grey, rhyolite lapilli tuff boulder 0.6 m x 1.3 m with a massive pyrite vein up to 0.15 m in width. Distinct yellow color on fractures probably due to jarosite. Fragments appear rounded and are up to 2-3 mm in diameter.

Au – 38.3 ppb	**Ag – 5.3 ppm**
Pb – 254.2 ppm	Zn – 42 ppm
Cu – 51.4 ppm	**As – 148.3 ppm**

S-13 40 m west of S-12 – massive pyrite pebble approximately 10 cm in diameter.

Au – 131.2 ppb	**Ag – 8.1 ppm**
Pb – 409.7 ppm	**Zn – 2096 ppm**
Cu – 108.7 ppm	**As – 457 ppm**

S-14 Float – 0.15 m boulder, altered intrusive, pyrite approximately 5%. Traces chalcopyrite, original rock is feldspar, porphyry, medium grained.

Au – 40.2 ppb	**Ag – 5.6 ppm**
Pb – 100.8 ppm	Zn – 120 ppm
Cu – 23.2 ppm	**As – 135.8 ppm**

S-15 Float – grey rhyolite, brecciated with 10% pyrite (fine grained) along veinlets. Coarse, crude pyrite band in rock as well.

Au – 282.2 ppb	**Ag – 14.5 ppm**
Pb – 232.7 ppm	Zn – 248 ppm
Cu – 227 ppm	**As – 807.2 ppm**

S-16 Float – 0.3 m boulder, black glassy appearing, very fine-grained rhyolite, brecciated with veinlets of quartz. Fine-grained pyrite as coarse blebs approximately 30%.

Au – 142.7 ppb	**Ag – 25.5 ppm**
Pb – 304.8 ppm	Zn – 47 ppm
Cu – 132.8 ppm	**As – 1412.8 ppm**

S-17 Float – 0.3 m in diameter, local semi-massive pyrite and minor sphalerite in black, lapilli tuff rhyolite.

Au – 220.7 ppb	**Ag – 132.3 ppm**

Pb – 738.4 ppm **Zn – 56866 ppm**
Cu – 313.5 ppm **As – 1093.5 ppm**

S-18 Float – quartz/rhyolite boulder 1.3 m x 1.3 m – approximately 15% pyrite, sphalerite, minor galena. The rock is grey with strong silicification. Well rounded with distinct manganese stain on weathered surface,

Au – 44.1 ppb **Ag – 4.6 ppm**
Pb – 109.2 ppm **Zn – 31730 ppm**
Cu – 83.4 ppm As – 84.4 ppm

S-19 1.3 m x 1.3 m quartz/rhyolite boulder, same as above – sparse pyrite, sphalerite, minor chalcopyrite. Sulphides approximately 5 – 7 %. The rock is grey with strong silicification. Well rounded with distinct manganese stain on weathered surface.

Au – 31 ppb **Ag – 4.4 ppm**
Pb – 155 ppm **Zn – 20159 ppm**
Cu – 116.6 ppm As – 47.9 ppm

S-20 Same location as S-19 – 2 m x 1.3 m float piece, strong sphalerite, minor pyrite. The rock is grey with strong silicification. Well rounded with distinct manganese stain on weathered surface. Barren narrow quartz veinlets approximately 0.5 cm in width are cut by later sulphide bearing fractures.

Au – 51.1 ppb **Ag – 13.7 ppm**
Pb – 203.7 ppm **Zn - 48084 ppm**
Cu – 230.4 ppm As – 76.1 ppm

S-21 10 m southeast of S-20 – quartz with trace sphalerite, contains pyrite bands. Sulphides approximately 5-7%. The rock is grey with strong silicification. Well rounded with distinct manganese stain on weathered surface. The rock is fragmental rhyolite with rounded clasts up to 2 cm in siliceous matrix.

Au – 9.6 ppb **Ag – 2.6 ppm**
Pb – 43.9 ppm **Zn - 4110 ppm**
Cu – 716.2 ppm As – 15.3 ppm

S-22 1.3 m x 1.3 m boulder – quartz with heavy chalcopyrite and sphalerite, minor pyrite. Sulphides approximately 7%. Well rounded with distinct manganese stain on weathered surface. Narrow 2 cm black siliceous bands in lighter colored grey silicified rhyolite.

Au – 7.9 ppb	**Ag – 32.2 ppm**
Pb – 1880.8 ppm	**Zn - 10090 ppm**
Cu – 2833.7 ppm	**As – 227.3 ppm**

S-23 Same boulder as S-22.

Au – 61 ppb	**Ag – 213.6 ppm**
Pb – 2609.9 ppm	**Zn - 9623 ppm**
Cu – 11092 ppm	**As – 599.3 ppm**

S-24 1.3 m x 1.5 m boulder – rhyolite, brecciated with approximately 10% sulphide. Same as samples S-18 to S-23

Au – 114.3 ppb	**Ag – 10.8 ppm**
Pb – 494.4 ppm	**Zn - 15893 ppm**
Cu – 891.9 ppm	**As – 871.3 ppm**

S-25 0.45 m x 0.45 m – rhyolite, grey siliceous with pyrite with traces tetrahedrite. Sulphides approximately 4%.

Au – 29.1 ppb	Ag – **4.1 ppm**
Pb – 192.9 ppm	**Zn - 7076 ppm**
Cu – 88.6 ppm	**As – 186.3 ppm**

S-26 0.45 m x 0.45 m boulder – magnesium stained, pyrite and chalcopyrite approximately 5% - rhyolite same as S - 18 to S - 25.

Au – 98.1 ppb	**Ag – 31.8 ppm**
Pb – 805.1 ppm	**Zn - 1153 ppm**
Cu – 28026.2 ppm	**As – 131.6 ppm**

S-27 2 m northwest of S-26 – 0.15 m float boulder with massive pyrite, minor chalcopyrite, galena?

Au – 30.7 ppb	Ag – 3.8 ppm
Pb – 44.1 ppm	Zn - 100 ppm
Cu – 2982.5 ppm	**As – 281.5 ppm**

S-28 Black, glassy appearing rhyolite – thinly banded with fine-grained pyrite layers 1 mm wide along bedding. Almost semi-massive pyrite in the rhyolite. Some pyrite is in crosscutting fractures. There is fine silver sulphide, possibly galena? Sulphides form approximately 30% of the rock.

Au – <0.5 ppb	**Ag – 13.3 ppm**
Pb – 2216.3 ppm	**Zn - 8473 ppm**
Cu – 123 ppm	**As – 473.4 ppm**

S-29 Hornfels, pink/grey fine grained with approximately 20% pyrrhotite. Float – 0.3 m boulder.

Au – 6.8 ppb	Ag – 0.6 ppm
Pb – 8.6 ppm	Zn - 85 ppm
Cu – 771.4 ppm	As – 2.1 ppm

S-30 0.3 m x 0.45 m boulder – carbonate altered sediment, pyrite stockwork approximately 20%. Strong tetrahedrite?

Au – 8.5 ppb	Ag – 1.8 ppm
Pb – 828.3 ppm	Zn - 210 ppm
Cu – 105.3 ppm	As – 57.4 ppm
Sb - >2000ppm	

S-31 0.15 m quartz cobble with approximately 15% coarse pyrrhotite.

Au – 130.1 ppb	Ag – 1.1 ppm
Pb – 38.6 ppm	Zn - 17 ppm
Cu – 569.5 ppm	As – 4.5 ppm

S-32 10 cm quartz cobble with 20% coarse pyrrhotite – Float approximately 4 m from S-31.

Au – 1363.8 ppb	Ag – 0.9 ppm
Pb – 29.3 ppm	Zn - 28 ppm
Cu – 875.9 ppm	As – 3.2 ppm

S-33 12 cm x 12 cm cobble – quartz with 10% coarse pyrrhotite, minor chalcopyrite.

Au – 412.3 ppb	Ag – 1.1 ppm
Pb – 5.7 ppm	Zn - 12 ppm
Cu – 175 ppm	As – 11.5 ppm

S-34 Quartz with 25% pyrrhotite, minor chalcopyrite – 12 cm x 12 cm cobble

Au – 372.2 ppb	Ag – 2.0 ppm
Pb – 12.8 ppm	Zn - 85 ppm
Cu – 1619.8 ppm	As – 1.95 ppm

S-35 Massive rhyolite boulder 3 m x 2 m – pyritic, pyrite approximately 4-5%, weakly sericite altered. Light yellow stain along fractures. Composed of rounded quartz grains surrounded by black chlorite.

Au – 0.5 ppb	Ag – 0.4 ppm
Pb – 30.2 ppm	Zn - 107 ppm
Cu – 13.7 ppm	As – 16.8 ppm

S-36 Massive pyrite, 0.15 m float piece.

Au – 0.9 ppb	Ag – 1.4 ppm
Pb – 21.5 ppm	Zn - 30 ppm
Cu – 23.5 ppm	**As – 479.9 ppm**
Mo – 1639.3	

S-37 Argillite with massive to semi-massive pyrite, graphitic – seams approximately 0.3 m wide with rounded rhyolite fragments up to 0.15 m in diameter, appears from contact zone. Approximately 15% fine rhyolite fragments.

Au – < 0.5 ppb	Ag – 1.1 ppm
Pb – 52.1 ppm	Zn - 29 ppm
Cu – 14.8 ppm	As – 48.5 ppm

S-38 10 m south of S-37 – sample is grey rhyolite lapilli tuff, clast supported, abundant fine grain pyrite. Boulder 5 m x 5 m in diameter.

Au – < 0.5 ppb	Ag – 0.5 ppm

Pb – 32.7 ppm	Zn - 25 ppm
Cu – 12.4 ppm	As – 28.7 ppm

S-39 Rhyolite boulder, strong quartz veining. Contains large angular clasts up to 6 cm in diameter. Fine grained pyrite approximately 10 %.

Au – 6.8 ppb	Ag – 1.2 ppm
Pb – 39.9 ppm	Zn - 47 ppm
Cu – 13.1 ppm	As – 48.4 ppm

S-40 1.5 m x 2 m boulder – carbonate-altered with approximately 20% barren quartz stockwork u to 0.15 m wide. Fragments carry up to 7% pyrite – fragments are grey sericite-altered volcanic.

Au – 6.8 ppb	Ag – 1.2 ppm
Pb – 39.9 ppm	Zn - 47 ppm
Cu – 13.1 ppm	As – 48.4 ppm

S-41 Rhyolite boulder (0.75 x 0.45 m) – Black, glassy appearing with minor pyrite and galena, traces sphalerite sulphides approximately 3-4%.

Au – 0.9 ppb	**Ag – 50.5 ppm**
Pb – >9999 ppm	**Zn - 29654 ppm**
Cu – 119.7 ppm	As – 51.0 ppm

S-42 Rhyolite boulder (0.3 m x 0.3 m) – grey, weakly brecciated with strong barren quartz-carbonate veinlets approximately 10%. Semi-massive fine grain pyrite along fractures, sulphides approximately 15%.

Au – 6.5 ppb	Ag – 3.4 ppm
Pb – 200.4 ppm	**Zn - 481 ppm**
Cu – 36.3 ppm	**As – 199.6 ppm**

S-43 Grey, glassy rhyolite, fine grained pyrite approximately 2-3%, Quartz veinlet stockwork approximately 5%. Traces galena in quartz veinlets. Minor small angular sericite clasts approximately 2-3 mm up to 5 % of rock.

Au – 2.6 ppb	Ag – 1.4 ppm
Pb – 560.2 ppm	Zn - 124 ppm

Cu – 4.4 ppm As – 15.1 ppm

S-44 Black, graphitic, pyritic argillite with 25% quartz stockwork breccia. Small angular argillite fragments up to 5 mm are parallel to quartz wall boundaries. Traces galena.

Au – 4.7 ppb **Ag – 28 ppm**
Pb – 2360.9 ppm **Zn - 946 ppm**
Cu – 58.6 ppm As – 65.8 ppm

S-45 Grey, glassy appearing rhyolite with fine grain pyrite, 2-3 %. Minor small feldspar phenocrysts.

Au – 1.0 ppb Ag – 0.9 ppm
Pb – 63.8 ppm Zn - 48 ppm
Cu – 19.6 ppm As – 60.8 ppm

S-46 Black argillite boulder – 0.3 m in diameter, strong quartz stockwork up to 30 % of rock with locally 25% fine grained black mineral – graphite? Abundant green arsenopyrite stain? Minor pyrite along quartz veinlets.

Au – 18.3 ppb **Ag – 3076.8 ppm**
Pb – 1270 ppm **Zn - 1109 ppm**
Cu – 6708.1 ppm **As – 721.4 ppm**

S-47 0.2 m boulder – black glassy appearing rhyolite, brecciated with fine-grained pyrite along fractures. Pyrite approximately 15%.

Au – 2.0 ppb **Ag – 13 ppm**
Pb – 75 ppm Zn - 225 ppm
Cu – 54.9 ppm As – 37.7 ppm

S-48 0.45 m boulder – rhyolite with massive pyrite seams. Sample of semi-massive pyrite – 5 m east of S-47.

Au – 0.8 ppb Ag – 6.8 ppm
Pb – 46.2 ppm Zn - 85 ppm
Cu – 27.6 ppm **As – 202.2 ppm**

S-49 0.45 m boulder – black glassy appearing rhyolite, brecciated with fine-grained pyrite approximately 15%.

Au – 2.1 ppb	**Ag – 5.5 ppm**
Pb – 80.5 ppm	Zn - 14 ppm
Cu – 41.6 ppm	**As – 136.7 ppm**

S-50 0.45 m boulder – rhyolite, semi-massive pyrite, traces sphalerite, arsenopyrite?

Au – <0.5 ppb	**Ag – 5.5 ppm**
Pb – 415.3 ppm	**Zn - 3549 ppm**
Cu – 97.3 ppm	**As – 333.8 ppm**

S-51 0.2 m boulder – glassy black rhyolite with pyrite approximately 3-4%. Fine grain black shiny crystals – arsenopyrite? Or galena? Trace amounts.

Au – <0.5 ppb	**Ag – 12.6 ppm**
Pb – 1666.9 ppm	**Zn - 17487 ppm**
Cu – 91.2 ppm	**As – 645.1 ppm**

S-52 0.45 m boulder – altered andesitic volcanic with 0.15 m quartz vein with coarse pyrite and pyrrhotite, minor chalcopyrite – sulphides approximately 5%.

Au – 265.7 ppb	**Ag – 11.4 ppm**
Pb – 37 ppm	Zn - 108 ppm
Cu – 265.8 ppm	**As – 171.3 ppm**

S-53 0.3 m boulder – quartz with strong pyrite, minor pyrrhotite, traces chalcopyrite.

Au – 30.8 ppb	Ag – 1.5 ppm
Pb – 18.3 ppm	Zn - 84 ppm
Cu – 702.6 ppm	**As – 687.4 ppm**

S-54 0.3 m boulder – black glassy rhyolite with brecciation, fine-grained pyrite approximately 10% along fractures.

Au – 1.4 ppb	**Ag – 20.9 ppm**
Pb – 2782.9 ppm	**Zn - 11935 ppm**
Cu – 38 ppm	**As – 1013.7 ppm**

S-55 0.3 m boulder – grey rhyolite, fine grain pyrite approximately 7%. As wispy stringers up to 1 mm wide

Au – 6.8 ppb	Ag – 0.6 ppm
Pb – 43.3 ppm	Zn - 70 ppm
Cu – 14.7 ppm	As – 26 ppm

S-56 0.3 m boulder – black glassy appearing rhyolite, fine grain pyrite approximately 5-7%. Traces galena.

Au – <0.5 ppb	**Ag – 5.2ppm**
Pb – 1257.5 ppm	**Zn - 6538 ppm**
Cu – 22.4 ppm	**As – 397.3 ppm**

S-57(58A) 0.15 m quartz boulder – coarse pyrite, traces pyrrhotite.

Au – 5.6 ppb	Ag – 0.7 ppm
Pb – 24.6 ppm	Zn - 33 ppm
Cu – 22.5 ppm	As – 103.4 ppm

S-58 0.6 x 1.0 m boulder – grey weakly silicified andesitic boulder approximately 30% quartz stockwork, rusty. Minor pyrite and pyrrhotite.

Au – 74.4 ppb	Ag – 4.5 ppm
Pb – 196.4 ppm	Zn - 243 ppm
Cu – 318.8 ppm	**As – 507.3 ppm**

S-59 0.15 m boulder – quartz with approximately 50% sulphides, coarse pyrite, minor pyrrhotite, chalcopyrite, arsenopyrite, galena.

Au – 1568.6 ppb	**Ag – 125.6 ppm**
Pb – 1763.3 ppm	Zn - 97 ppm
Cu – 1468.9 ppm	**As – 8018.3 ppm**

S-60 0.3 m quartz boulder – same as S-59. Quartz approximately 60%.

Au – 13023.7 ppb	**Ag – 371.2 ppm**
Pb – 3421.3 ppm	**Zn - 1368 ppm**
Cu –1287.6 ppm	**As – 1580.2 ppm**

S-61 0.3 m boulder – sheared argillite with quartz stockwork approximately 30%. Quartz is crystalline, vuggy with local coarse pyrite streaks up to 0.5 mm. Pyrite approximately 5% in quartz, strongly pyritic in argillite portion.

Au – 12.6 ppb	**Ag – 6.1 ppm**
Pb – 111.2 ppm	Zn - 39 ppm
Cu – 31.5 ppm	**As – 3062.7 ppm**

S-62 Bedrock – 5 m wide zone of quartz veinlets in argillite. Quartz veinlets with coarse pyrite along northwest strike, near argillite/rhyolite contact. Veinlets approximately 10% of rock, pyrite approximately 7-8%. Narrow, 0.5 m massive pyrite seams.

Au – 12.6 ppb	**Ag – 5.6 ppm**
Pb – 59.4 ppm	Zn - 57 ppm
Cu – 37.6 ppm	**As – 2142.8 ppm**

S-63 0.15 m boulder – quartz with 30% pyrite, arsenopyrite, traces chalcopyrite?

Au – 3712.4 ppb	**Ag – 17.2 ppm**
Pb – 356.1 ppm	Zn - 62 ppm
Cu – 587.6 ppm	**As – >9999 ppm**

S-64 0.15 m quartz vein in boulder – @ S-63 site, vein is on one edge of 0.6 m x 0.3 m boulder. Quartz with approximately 15% pyrite, chalcopyrite, traces arsenopyrite?

Au – 2198.4 ppb	**Ag – 90.9 ppm**
Pb – 722.6 ppm	**Zn - 1266 ppm**
Cu – 983.7 ppm	**As – 2169.5 ppm**

S-65 0.45 m boulder – quartz sulphide veins in grey silicified volcanic. Veins approximately 10%, pyrite and arsenopyrite in quartz – overall, approximately 5%. Pyrite occurs as coarse cubes.

Au – 1586 ppb	**Ag – 65 ppm**
Pb – 615.1 ppm	**Zn - 854 ppm**
Cu – 905.1 ppm	**As – 4658 ppm**

S-66 Quartz boulder 0.15 m x 0.3 m – pyrite and coarse arsenopyrite approximately 15%.

Au – 5627.9 ppb	**Ag – 103.3 ppm**
Pb – 2292.2 ppm	Zn - 148 ppm
Cu – 34.4 ppm	**As – >9999 ppm**

S-67 Same as S-65 – minor to trace arsenopyrite,

Au – 5627.9 ppb	**Ag – 103.3 ppm**
Pb – 2292.2 ppm	Zn - 148 ppm
Cu – 266.6 ppm	**As – >9999 ppm**

S-68(S59B) 0.6 m boulder – quartz vein up to 0.15 m, appears to be stockwork. Sample of massive pyrrhotite, chalcopyrite and arsenopyrite with minor quartz.

Au – 196.6 ppb	**Ag – 5.0 ppm**
Pb – 105.5 ppm	Zn - 271 ppm
Cu –1883.7 ppm	**As – 367.3 ppm**

S-69 Silicified volcanic with 10 cm quartz sulphide stringer – minor arsenopyrite, pyrite approximately 5%. Boulder 0.3 m in diameter.

Au – 84.6 ppb	**Ag – 3.3 ppm**
Pb – 60.1 ppm	Zn - 193 ppm
Cu – 533.3 ppm	**As – 235.5 ppm**

S-70 Medium grained feldspar porphyry, fine grain pyrite approximately 4-5%. Boulder 0.45 m – abundant pyritic intrusive in moraine?

Au – 4.3 ppb	Ag – 0.2 ppm
Pb – 17.4 ppm	Zn - 59 ppm
Cu – 7.1 ppm	**As – 132.8 ppm**

S-71 0.3 x 0.6 m boulder – black glassy appearing rhyolite with fine grain galena, sphalerite, arsenopyrite? Sulphides approximately 2%.

Au – 1.5 ppb	**Ag – 32.1 ppm**
Pb – 6746.7 ppm	**Zn - 27016 ppm**
Cu – 68 ppm	**As – 373.5 ppm**

S-72 0.3 x 0.6 m rhyolite boulder – pyritic with traces black sulphides. Sulphides approximately 5%.

Au – 2.1 ppb	Ag – 3.1 ppm
Pb – 40.5 ppm	Zn - 206 ppm
Cu – 10.2 ppm	As – 34.6 ppm

S-73 0.6 m boulder – grey rhyolite, rusty with approximately 4% fine grain pyrite.

Au – 1.8 ppb	**Ag – 15 ppm**
Pb – 412 ppm	**Zn - 372 ppm**
Cu – 25.5 ppm	As – 59.8 ppm

S-74 0.6 x 1.0 m boulder – rhyolite, very rusty, grey, pyrite approximately 4%.

Au – 4.5 ppb	Ag – 0.7 ppm
Pb – 84.2 ppm	Zn - 99 ppm
Cu – 12.6 ppm	As – 74.5 ppm

S-75 Grey rhyolite, coarse blebs of pyrite approximately 2%. Trace fine grained black mineral.

Au – 2.8 ppb	Ag – 0.7 ppm
Pb – 11.8 ppm	Zn - 106 ppm
Cu – 9.4 ppm	As – 26.8 ppm

S-76 0.3 m boulder – banded tuff, minor quartz veinlets and pyrrhotite – fine-grained pyrrhotite? or arsenopyrite? with minor pyrite approximately 4%. Traces chalcopyrite.

Au – 11.7 ppb	Ag – 0.6 ppm
Pb – 9.7 ppm	Zn - 61 ppm
Cu – 509.7 ppm	As – 9.3 ppm

S-77 Mill feed pile to Nordore Mill located near Surprise Creek- From Yahoo claim. Material is brecciated argillite with coarse sphalerite, minor galena, pyrite and chalcopyrite. Sulphides approximately 15 %

Au – 2184.5 ppb	**Ag – 28.5 ppm**

Pb – 807.1 ppm **Zn - 31100 ppm**
Cu – 354.4 ppm **As – 4269.4 ppm**

S-78 Mill feed pile to Nordore Mill located near Surprise Creek- From Yahoo claim. Material is brecciated argillite with coarse galena and sphalerite, with minor pyrite and chalcopyrite. Sulphides approximately 15 %

Au – 4112 ppb **Ag – 148.8 ppm**
Pb – >9999 ppm **Zn - 63020 ppm**
Cu – 747.8 ppm **As – >9999 ppm**

APPENDIX III

ANALYSIS RESULTS

ACME ANALYTICAL LABORATORIES LTD. (ISO 9002 Accredited Co.)
852 E. HASTINGS ST. VANCOUVER BC V6A 1R6
PHONE(604)253-3158 FAX(604)253-1716

ASSAY CERTIFICATE

Pinnacle Mines File # A304726R

305 - 1549 Marine Drive, West Vancouver BC V7V 1H9 Submitted by: Andy Bowering

SAMPLE#	Ag** gm/mt
S-23	213.6
S-46	3076.8
S-60	371.2

GROUP 6 - PRECIOUS METALS BY FIRE ASSAY FROM 1 A.T. SAMPLE, ANALYSIS BY ICP-ES.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK PULP

DATE RECEIVED: OCT 21 2003 **DATE REPORT MAILED:** Oct 24/2003 **SIGNED BY** ..D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data FA

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716
(ISO 9002 Accredited Co.)

GEOCHEMICAL ANALYSIS CERTIFICATE

Pinnacle Mines File # A304725

305 - 1549 Marine Drive, West Vancouver BC V7V 1H9 Submitted by: Andy Bowering

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm
SS-1	1.9	29.8	51.4	189	.4	2.9	10.2	1745	2.85	30.6	.7	9.7	3.7	32	1.4	3.3	.4	20	.87	.094	15	3.6	.25	204	.019	2	.46	.003	.13	.3	.09	2.2	.2	.09	1	<.5
SS-2	2.5	37.8	101.5	349	.8	3.2	12.1	2314	3.05	43.9	.8	7.2	4.3	27	2.3	4.1	.5	19	.49	.100	18	2.8	.22	309	.020	3	.54	.003	.16	.3	.17	2.6	.3	.06	2	<.5
SS-3	2.0	28.6	49.6	193	.5	3.9	11.4	1868	2.89	43.0	.7	6.8	3.7	15	1.5	3.2	.4	20	.28	.097	14	3.6	.25	211	.018	2	.47	.003	.11	.2	.09	2.4	.3	.14	1	<.5
SS-4	3.3	34.4	92.2	432	.8	3.2	14.8	2926	3.84	61.3	.8	3.4	3.5	66	3.6	3.9	1.0	33	2.12	.154	17	3.9	.39	607	.058	2	.77	.005	.12	.6	.35	3.9	.6	.13	2	<.5
SS-5	5.2	36.8	149.2	592	1.4	2.5	15.9	3223	4.00	66.3	1.1	4.5	3.4	109	5.4	5.1	.9	30	3.35	.147	16	3.2	.41	804	.044	3	.85	.005	.15	.7	.72	3.7	1.0	.12	2	<.5
SS-6	3.2	54.9	22.5	133	.2	71.4	19.4	950	3.80	79.1	.2	2.4	1.2	26	.5	2.0	1.7	33	.16	.086	10	42.8	.63	65	.021	1	1.10	.008	.13	.7	.04	3.3	.2	.08	3	1.1
SS-7	2.3	54.0	31.9	149	.3	92.1	21.3	1320	4.25	39.8	.2	1.0	1.4	36	.5	2.0	.3	36	.21	.113	11	63.0	1.04	75	.002	1	1.66	.004	.04	<.1	.05	3.4	.1	<.05	4	1.2
SS-8	8.3	60.0	14.6	248	.2	109.2	23.4	1895	4.15	58.9	.4	.7	1.9	83	2.4	6.3	.4	28	.21	.095	11	41.4	.62	142	.001	1	.91	.004	.06	<.1	.03	3.5	.1	<.05	3	1.6
SS-9	64.4	51.2	13.8	138	.1	62.4	18.3	1216	3.62	30.1	3.2	2.1	5.3	30	.6	1.8	1.6	44	.15	.101	31	53.5	.61	150	.013	<1	1.45	.007	.12	.1	.03	3.1	.2	<.05	4	1.1
SS-10	12.3	79.5	19.6	126	.3	74.2	18.9	740	4.48	110.8	.3	2.9	1.4	30	.6	3.9	7.6	44	.24	.080	7	57.6	.82	85	.043	<1	1.19	.017	.28	7.7	.05	3.8	.3	.66	4	2.2
SS-11	5.1	49.4	18.1	350	.7	34.2	11.3	1287	4.43	105.7	.2	<.5	1.7	61	4.9	6.2	.2	26	.59	.130	12	15.7	.53	65	.013	<1	.81	.006	.06	.1	.04	2.7	.1	.45	2	8.6
SS-12	3.6	41.5	26.7	284	.5	22.6	13.6	1138	4.72	137.7	.5	<.5	2.0	70	3.5	5.3	.2	51	.99	.121	11	14.4	.68	128	.056	<1	1.19	.006	.08	.1	.06	4.1	.2	.17	3	3.5
SS-13	4.8	38.7	189.1	674	1.3	5.2	14.5	2956	3.22	83.3	.8	5.0	4.0	19	5.4	8.0	.2	19	.34	.094	25	3.9	.18	236	.016	3	.51	.003	.12	.1	.37	3.3	1.1	<.05	1	<.5
SS-14	1.8	25.5	49.6	294	.4	2.9	8.2	1436	2.51	28.0	.7	.8	3.5	33	1.5	2.9	.1	22	1.08	.082	16	3.1	.25	124	.034	2	.56	.003	.08	.1	.13	2.2	.4	<.05	2	<.5
SS-15	2.2	28.3	59.5	301	.6	3.0	7.9	1540	2.58	31.7	.8	1.8	3.6	34	1.8	3.4	.1	23	1.11	.091	17	3.6	.28	141	.036	2	.58	.004	.09	.1	.13	2.5	.4	<.05	2	<.5
RE SS-15	2.1	30.8	60.4	315	.6	3.0	9.2	1593	2.69	37.6	.8	1.4	3.7	34	1.7	3.7	.1	24	1.08	.099	18	3.9	.27	138	.039	3	.58	.004	.09	.1	.13	2.4	.5	<.05	2	<.5
SS-16	1.5	21.4	51.6	222	.4	3.0	7.5	1534	2.37	23.5	.7	1.5	3.5	29	1.5	2.7	.1	23	1.07	.086	19	3.4	.25	139	.037	1	.56	.003	.09	.1	.10	2.6	.4	<.05	2	<.5
SS-17	1.2	28.0	22.0	120	.2	7.0	9.0	1232	2.64	45.8	.6	1.6	2.8	65	.8	2.5	.2	26	1.62	.089	14	6.7	.47	113	.026	1	.59	.004	.07	.1	.05	2.3	.2	<.05	2	<.5
SS-18	1.3	29.9	22.2	129	.2	6.5	9.7	1397	2.83	45.5	.6	9.1	2.8	71	.8	2.7	.2	27	1.87	.104	14	6.7	.43	145	.030	1	.63	.004	.08	.1	.05	2.6	.2	<.05	2	.5
SS-19	1.1	60.8	23.5	147	.3	13.0	12.3	1428	2.74	50.1	.5	1.8	2.1	133	1.0	2.5	.2	23	3.12	.112	10	10.2	.59	72	.016	1	.65	.004	.07	.1	.05	2.2	.1	.17	2	.6
SS-20	1.3	32.5	31.3	127	.2	7.0	11.4	1245	3.13	133.8	.6	3.4	2.3	87	.9	2.6	.2	27	2.16	.093	10	7.8	.53	90	.027	1	.63	.004	.08	.1	.04	2.4	.3	.29	2	.6
SS-21	1.6	26.5	83.4	318	.6	7.9	9.4	1151	3.33	30.8	.6	1.0	3.4	40	2.0	3.1	.2	32	1.09	.107	17	10.0	.34	122	.022	<1	.64	.005	.09	.8	.10	2.3	.2	<.05	2	<.5
SS-22	1.5	18.8	76.3	358	.6	4.6	8.0	1120	2.64	28.8	.6	.9	3.7	25	2.3	3.2	.1	25	.72	.084	17	5.6	.28	109	.022	1	.57	.005	.09	.2	.09	2.1	.2	<.05	2	<.5
SS-23	1.8	13.3	66.3	355	.5	2.9	6.7	1145	2.31	22.0	.7	1.2	4.0	25	2.4	2.9	.1	23	.71	.076	20	3.3	.22	94	.023	1	.51	.003	.10	.1	.13	2.2	.2	<.05	2	<.5
STANDARD DS5	12.8	139.1	25.0	136	.2	24.2	12.2	775	3.05	19.3	6.1	40.5	2.6	51	5.6	3.5	6.3	60	.76	.097	13	183.6	.64	146	.103	16	2.11	.036	.15	4.5	.17	3.8	1.2	<.05	7	5.0

GROUP 1DX - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-MS.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
- SAMPLE TYPE: SOIL SS80 60C Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: OCT 1 2003 **DATE REPORT MAILED:** Oct 15/2003 **SIGNED BY** ..D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data FA

ACME ANALYTICAL LABORATORIES LTD. (ISO 9002 Accredited Co.) 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Pinnacle Mines File # A304726 Page 1

305 - 1549 Marine Drive, West Vancouver BC V7V 1H9 Submitted by: Andy Bowering

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Ti ppm	S %	Ga ppm	Se ppm
SI	.1	.8	.4	<1	<.1	.4	.1	<1	.08	<.5	<.1	.5	<.1	3	<.1	.1	<.1	1	.10	<.001	<1	2.2	<.01	3	.003	1	.01	.548	.01	.2	<.01	<.1	<.1	.12	<1	<.5
S-1	4.7	9.7	20.6	103	1.0	1.5	11.4	960	6.75	31.0	.3	.9	1.3	41	.4	6.5	<.1	13	1.81	.114	8	2.9	.06	12	.003	5	.31	.004	.31	.1	.22	1.9	6.1	6.66	1	<.5
S-2	4.9	12.9	25.8	133	1.3	1.8	11.3	428	4.74	99.8	.3	1.3	1.4	26	.4	5.7	<.1	13	1.07	.091	8	2.9	.05	16	.003	5	.33	.007	.30	.3	.19	1.4	2.3	3.91	1	<.5
S-3	16.7	50.7	384.0	113	19.1	.7	1.1	138	30.70	145.9	<.1	<.5	<.1	2	1.0	29.6	<.1	<1	.01	.001	<1	2.1	<.01	1	.007	<1	.05	.002	.07	<.1	1.56	.1	25.6	32.27	<1	1.3
S-4	85.6	5.7	43.6	245	1.6	<.1	3.5	2170	15.17	21.3	.9	.7	.1	84	1.8	6.2	<.1	10	3.47	.009	5	9.3	.04	114	.006	<1	.21	.002	.04	31.2	.05	.4	.6	.54	1	<.5
S-5	29.5	33.9	344.2	714	6.2	.7	1.0	22	11.16	42.2	.1	1.4	1.4	5	4.5	15.6	.1	2	.02	.011	8	4.4	.02	4	<.001	7	.22	.002	.19	.1	2.80	.7	34.9	12.19	1	.6
S-6	3.7	21.4	115.7	621	10.5	.5	.8	17	28.12	336.8	<.1	<.5	<.1	1	4.3	88.6	<.1	<1	.01	<.001	<1	3.4	<.01	1	<.001	<1	.03	.003	.03	.5	4.93	.1	29.9	30.84	<1	1.4
S-7	46.3	36.3	475.2	781	17.5	1.0	3.3	27	23.83	222.5	.1	1.3	.7	3	4.9	52.7	.1	1	.04	.009	2	2.5	.01	1	.002	3	.19	.001	.15	.1	3.95	.7	14.2	25.25	1	1.4
S-8	65.3	13.5	63.9	107	1.0	1.3	17.1	5061	18.84	33.4	.8	1.5	.1	141	.7	13.9	<.1	12	5.76	.013	8	3.9	.04	316	<.001	<1	.05	.002	.04	7.9	.18	.8	1.2	.35	<1	<.5
S-9	7.4	19.7	8362.6	45950	23.1	.3	10.1	1767	2.30	715.4	.5	.7	.9	126	365.2	5.5	.1	13	3.19	.113	5	1.2	.04	15	.004	6	.37	.008	.25	<.1	28.68	2.8	1.0	3.54	1	<.5
S-10	6.8	69.3	193.4	2839	2.3	2.8	19.2	2810	2.54	248.7	.9	24.6	.1	148	28.1	5.5	3.2	2	3.27	.002	1	4.8	.03	40	<.001	<1	.02	.004	.01	.8	.71	1.9	1.2	2.02	<1	<.5
S-11	62.7	31.4	142.0	136	4.0	2.6	9.1	43	7.54	288.0	.6	17.6	2.0	7	1.4	10.7	<.1	3	.03	.007	6	2.7	.01	6	.004	3	.18	.003	.21	.1	.23	.5	4.6	7.60	1	<.5
S-12	19.5	51.4	254.2	42	5.3	2.9	5.8	63	5.32	148.3	.5	38.3	1.9	7	.3	8.2	.2	7	.08	.014	10	5.2	.03	15	.010	4	.34	.004	.38	.4	.22	.5	2.6	4.99	1	.7
S-13	26.3	108.7	409.7	2096	8.1	3.3	11.6	105	15.18	457.0	1.0	131.2	3.4	9	17.3	10.1	5.4	2	.17	.011	3	2.7	.03	3	.001	1	.19	.004	.20	.2	.98	.5	6.2	16.18	1	1.1
S-14	1.9	23.2	100.8	120	5.6	3.0	16.4	890	2.70	135.8	.3	40.2	1.7	88	1.0	3.2	2.9	4	1.59	.078	8	2.8	.02	37	.006	3	.23	.002	.23	.4	2.43	1.1	1.6	2.88	1	<.5
S-15	86.2	227.0	232.7	248	14.5	5.7	32.7	212	18.20	807.2	1.8	282.2	2.7	3	.7	63.1	24.1	1	.03	.017	3	2.0	.01	5	.002	1	.18	.002	.17	.6	.07	.6	1.0	14.83	1	1.1
S-16	30.7	132.8	304.8	47	25.5	5.1	26.3	400	11.80	1412.8	.2	142.7	.1	61	.3	71.8	.2	3	.70	.014	1	10.4	.03	3	.001	<1	.03	.002	.03	1.0	3.14	.2	48.3	12.05	<1	.8
S-17	80.9	313.5	738.4	56866	132.3	3.5	14.7	178	11.45	1093.5	1.5	220.7	.5	41	265.0	157.8	.1	30	.39	.060	<1	3.0	.01	3	.009	<1	.12	.006	.09	.6	154.62	1.8	33.0	16.36	1	.8
S-18	44.0	83.4	109.2	31730	4.6	3.4	11.0	1222	2.54	84.4	1.7	44.1	.1	61	215.3	8.9	2.9	4	.73	.009	1	8.5	.14	24	<.001	1	.04	.001	.03	2.4	4.54	.8	.4	2.68	<1	.6
S-19	109.9	116.6	155.0	20159	4.4	2.4	10.2	1963	2.37	47.9	.5	31.0	.1	397	148.5	27.3	1.0	10	2.09	.003	2	9.8	.60	52	.003	<1	.03	.001	.02	.4	4.34	2.0	.5	1.75	<1.	<.5
S-20	100.7	230.4	203.7	48084	13.7	3.4	13.5	2004	3.21	76.1	1.0	51.1	.1	469	290.2	91.7	.4	10	2.21	.005	2	10.8	.61	52	<.001	<1	.03	.002	.02	1.2	13.07	1.9	.4	2.70	<1	.6
RE S-20	98.7	229.7	202.5	48098	13.7	3.3	12.9	2001	3.21	74.1	1.1	51.2	.1	476	289.5	89.8	.4	10	2.21	.005	2	11.0	.61	50	<.001	1	.03	.002	.02	1.2	13.36	2.0	.4	2.64	<1	.5
S-21	61.9	716.2	43.9	4110	2.6	2.5	6.7	2578	4.21	15.3	1.1	9.6	.4	523	33.8	15.8	4.6	7	2.00	.017	2	8.1	.61	46	<.001	<1	.11	.002	.04	.6	1.29	2.0	.1	1.81	<1	.5
S-22	47.4	2833.7	1880.8	10090	32.2	2.9	10.9	3863	1.63	227.3	.3	7.9	<.1	778	89.2	223.1	.6	3	7.43	.003	7	8.2	.17	57	.002	1	.03	.002	.01	.8	8.29	1.4	4.6	1.80	<1	<.5
S-23	92.8	11092.0	2609.9	9263	>200	2.9	15.0	1214	4.43	599.3	1.5	61.0	.1	587	78.8	>2000	.4	6	2.14	.003	<1	8.6	.06	24	.004	<1	.08	.002	.03	.7	7.46	1.2	5.2	4.33	1	.5
S-24	54.6	891.9	494.4	15893	10.8	7.5	92.1	2445	16.82	871.3	1.2	114.3	.3	312	133.7	24.2	43.4	8	2.11	.012	15	6.6	.19	4	<.001	<1	.07	.001	.02	1.6	2.98	1.0	.2	14.71	<1	2.7
S-25	21.8	88.6	192.9	7076	4.1	.1	2.9	1111	1.73	186.3	8.9	29.1	<.1	385	43.3	21.2	2.6	3	1.78	.001	1	9.1	.02	54	.002	<1	.02	.001	.01	.8	6.97	1.1	.6	1.91	<1	.5
S-26	28.1	28026.2	805.1	1153	31.8	3.2	10.4	686	6.85	131.6	6.4	98.1	.2	111	12.3	15.7	3.5	8	.88	.061	1	6.9	.18	14	.005	2	.13	.001	.08	1.8	.50	.6	1.6	5.45	1	2.0
S-27	191.1	2982.5	44.1	100	3.8	14.5	94.7	4416	20.41	281.5	1.8	30.7	.1	82	1.2	4.0	19.4	14	3.54	.074	1	2.3	.86	9	.004	<1	.52	.006	.21	1.5	.06	7.3	.3	10.83	2	6.1
S-28	14.4	123.0	2216.3	8473	13.3	.4	7.3	4821	6.63	473.4	24.8	<.5	.1	176	72.3	35.3	.1	8	7.73	.006	3	9.1	.02	15	<.001	2	.02	.002	.01	1.2	2.45	.2	26.2	7.64	<1	4.6
S-29	25.4	771.4	8.6	85	.6	31.0	50.3	323	9.61	2.1	4.0	6.8	.4	28	.3	1.1	9.9	192	1.85	.698	9	24.6	1.30	14	.065	1	1.26	.011	.95	2.3	.05	9.3	.5	6.58	10	4.1
S-30	.6	105.3	628.8	210	1.8	37.3	8.4	1207	3.76	57.4	.2	8.5	.4	322	6.6	>2000	.2	18	5.76	.035	<1	15.2	2.06	59	.001	4	.15	.008	.08	.1	.10	3.8	.2	1.19	<1	1.6
S-31	3.2	569.5	38.6	17	1.1	31.6	53.1	42	7.51	4.5	.1	130.1	<.1	7	.3	496.3	55.5	3	.11	.003	<1	9.1	.05	16	.001	<1	.05	.004	.02	1.2	.06	.2	.1	5.90	<1	3.7
S-32	7.1	875.9	29.3	28	.9	116.6	121.3	44	17.86	3.2	<.1	1363.8	<.1	5	.3	215.1	193.2	3	.06	.003	<1	11.1	.05	13	.001	<1	.07	.004	.02	9.8	.05	.3	.1	12.10	<1	15.0
S-33	17.9	175.0	5.7	12	1.1	9.2	14.6	24	1.82	11.5	.1	412.3	<.1	2	.1	52.5	59.6	<1	.02	.001	<1	13.3	.01	11	.004	<1	.01	.003	<.01	5.5	.06	.2	<.1	3.17	<1	3.4
STANDARD DS5	12.5	141.3	25.3	138	.3	24.5	12.0	788	3.08	19.1	6.1	43.6	3.0	51	5.6	3.9	6.4	64	.77	.092	13	188.1	.67	142	.102	17	2.11	.032	.15	5.1	.19	3.8	1.1	<.05	7	4.9

GROUP 1DX - 15.0 GM SAMPLE LEACHED WITH 90 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 300 ML, ANALYSED BY ICP-MS.
UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
- SAMPLE TYPE: ROCK R150 60C Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: OCT 1 2003 DATE REPORT MAILED: Oct 16/2003 SIGNED BY .D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data FA

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm
S-34	2.4	1619.6	12.8	85	2.0	101.8	72.4	266	18.35	1.9	.1	372.2	.3	3	.4	1.3	31.7	15	.14	.026	<1	29.8	.51	10	.019	<1	.65	.005	.06	42.2	<.01	.8	.1	8.22	2	6.7
S-35	3.3	13.7	30.2	107	.4	2.1	7.3	129	1.91	16.8	.8	<.5	5.2	148	.2	4.1	.3	7	1.25	.046	7	3.0	.06	81	.004	2	.33	.029	.27	.3	.06	1.0	.2	1.57	1	<.5
S-36	1639.3	23.5	21.5	30	1.4	5.3	2.6	30	15.22	479.9	.4	.9	.8	4	.4	5.3	.4	<1	.06	.001	1	9.5	.01	5	<.001	2	.15	.006	.08	.5	2.17	.2	12.8	15.26	<1	1.1
S-37	27.4	14.8	52.1	29	1.1	4.1	8.4	54	3.55	48.5	.1	<.5	1.6	5	.1	16.2	.1	6	.02	.031	5	3.1	.01	30	.001	2	.25	.009	.27	.2	.11	.7	.4	3.90	1	.5
S-38	15.8	12.4	32.7	25	.5	4.4	10.7	58	2.89	28.7	.3	<.5	2.5	22	.1	11.3	.1	6	.28	.055	6	3.2	.02	35	<.001	1	.26	.016	.24	<.1	.08	.9	.3	2.95	1	.5
S-39	6.2	13.1	39.9	47	1.2	3.5	7.4	21	5.32	48.4	.2	6.8	4.1	5	.3	4.4	<.1	<1	.02	.024	14	4.8	.01	17	.001	1	.18	.004	.21	.4	.33	.6	.4	5.25	1	<.5
S-40	7.5	22.6	68.1	172	2.0	4.6	24.8	2699	4.72	51.3	.2	12.4	2.2	48	1.2	6.1	<.1	10	1.63	.050	7	3.3	.34	36	.001	2	.25	.004	.22	<.1	.49	4.8	.5	2.55	1	.5
S-41	7.1	119.7	>9999	29654	50.5	4.2	3.1	121	1.24	51.0	3.9	.9	.1	19	497.4	92.0	.1	41	.05	.007	1	22.0	.02	39	.007	<1	.06	.002	.03	1.8	38.91	.9	.9	2.29	1	9.9
S-42	3.2	36.3	200.4	481	3.4	3.1	21.8	2231	6.76	199.6	.3	6.5	.5	103	5.8	55.6	.3	7	1.61	.054	2	4.0	.39	16	.003	1	.14	.004	.12	<.1	1.15	7.1	6.8	4.91	<1	1.1
S-43	9.2	4.4	560.2	124	1.4	1.1	1.0	27	.75	15.1	.2	2.6	4.1	3	1.8	4.0	.2	2	.01	.011	18	6.9	.01	181	.003	3	.15	.003	.17	.8	.54	.5	.5	.23	<1	.5
S-44	63.8	58.6	2360.9	947	28.0	202.8	7.1	58	1.03	65.8	.8	4.7	.5	2	8.7	31.5	1.0	9	.01	.004	5	321.6	.01	140	<.001	2	.08	.002	.09	1.4	23.94	.3	1.4	.48	<1	7.5
S-45	6.7	19.6	63.8	48	.9	1.9	3.6	26	1.65	60.8	.5	1.0	4.3	5	.3	9.0	.1	2	.02	.019	12	7.9	.01	109	.003	1	.15	.005	.17	.9	.65	.6	.5	1.31	<1	<.5
S-46	40.2	6708.1	1270.0	1109	>200	1.4	1.7	43	2.58	721.4	.5	18.3	.7	8	61.1	>2000	6.5	10	.02	.020	1	7.7	.01	64	<.001	2	.10	.002	.09	<.1	10.53	.7	4.9	.58	<1	2.1
S-47	2.5	54.9	75.0	225	13.0	6.2	16.4	25	2.43	37.7	.3	2.0	1.4	2	1.5	37.5	.3	4	.01	.012	4	7.4	.01	55	.002	3	.19	.002	.18	1.0	.37	.4	2.0	2.21	<1	.7
S-48	7.3	27.6	46.2	85	6.8	3.7	25.5	1169	7.68	202.2	.2	.8	.8	24	.4	32.1	<.1	19	1.36	.059	7	2.0	.27	11	<.001	3	.32	.002	.24	<.1	1.23	4.7	3.1	5.50	1	.8
S-49	8.9	41.6	80.5	14	5.5	3.0	27.3	27	5.52	136.7	7.4	2.1	4.4	3	.2	32.0	.1	3	.01	.006	24	5.4	.01	16	.004	1	.16	.003	.18	.8	1.51	.8	1.5	5.23	<1	2.6
S-50	45.2	97.3	415.3	3549	6.5	5.0	45.0	2230	8.14	333.8	.6	<.5	2.1	29	42.6	18.3	<.1	25	3.75	.110	9	1.9	.08	11	.078	3	1.31	.013	.14	.4	3.56	2.3	2.4	6.82	2	1.2
S-51	160.4	91.2	1666.9	17487	12.6	12.7	50.3	4177	5.45	645.1	6.1	<.5	.6	7	234.7	66.7	.1	26	.10	.028	14	8.1	.21	25	.001	2	.44	.002	.08	.9	10.97	3.1	15.6	2.53	3	1.4
S-52	1.6	265.8	37.0	108	11.4	.2	7.9	1039	9.29	171.3	2.3	265.7	7.8	60	.9	3.2	74.4	3	1.84	.032	5	3.2	.21	35	<.001	<1	.22	.004	.18	11.9	.08	1.0	.1	4.00	1	4.0
RE S-52	1.4	263.6	33.5	99	7.6	<.1	7.4	1094	9.25	162.9	2.1	217.5	7.0	55	.8	2.8	66.5	3	1.83	.029	4	2.8	.21	32	<.001	<1	.21	.004	.17	10.4	.05	1.0	.1	3.75	1	3.6
S-53	.9	702.6	18.3	84	1.5	1.1	7.1	879	18.27	687.4	.8	30.8	.2	14	.8	2.1	2.0	<1	.50	.006	3	5.0	.06	9	.006	<1	.05	.002	.05	1.6	.06	.3	.1	9.50	<1	2.9
S-54	6.3	38.0	2782.9	11935	20.9	1.4	7.1	2823	6.05	1013.7	11.6	1.4	.4	218	115.4	41.3	.4	54	5.48	.006	2	7.7	.08	13	<.001	1	.04	.003	.03	.1	3.88	.4	19.1	5.47	<1	9.9
S-55	6.0	14.7	43.3	70	.6	4.3	10.8	837	5.11	27.0	.7	6.8	3.2	33	.4	4.9	.2	14	1.09	.035	10	4.1	.18	37	.002	4	.32	.002	.27	.5	.08	2.2	.2	3.95	1	.6
S-56	15.9	22.4	1257.5	6538	5.2	2.2	4.5	67	1.87	393.7	.3	<.5	.1	5	82.6	21.1	.1	3	.10	.010	2	10.0	.01	12	.004	1	.04	.001	.04	<.1	4.19	.2	16.1	1.55	<1	.8
S-58	.7	318.8	196.4	243	4.5	1.3	5.8	157	5.94	507.3	.9	74.4	.8	3	2.7	3.3	3.6	1	.04	.014	1	8.8	.02	14	<.001	1	.09	.004	.09	1.2	.09	.3	.1	3.23	<1	2.1
S-58A	10.2	22.5	24.6	33	.7	2.0	11.5	215	2.16	103.4	2.6	5.6	16.7	13	.2	4.0	.1	12	.22	.083	14	2.5	.40	164	<.001	4	.90	.013	.36	<.1	.07	.8	.7	.70	2	.9
S-59	1.0	1468.9	1763.3	97	125.6	1.1	6.9	1862	40.11	8018.3	<.1	1568.6	<.1	1	1.1	12.0	101.3	<1	.10	<.001	<1	2.7	.05	3	<.001	<1	.01	.001	.01	1.3	.05	.1	<.1	21.41	<1	27.7
S-59B	4.7	1883.7	296.1	858	21.6	.4	37.7	843	37.08	>9999	<.1	828.3	<.1	2	10.0	29.9	1097.1	<1	.04	<.001	<1	2.6	.02	7	<.001	<1	.03	.001	.01	2.7	.11	.1	.3	7.96	<1	40.6
S-60	1.8	1287.6	3421.3	1368	>200	.8	12.3	1418	17.55	1580.2	.9	13023.7	1.3	3	13.5	13.7	679.7	<1	.12	.004	1	4.3	.10	11	<.001	<1	.05	.003	.06	2.6	.25	.5	.2	7.39	<1	16.5
S-61	4.9	31.5	111.2	39	6.1	15.6	9.0	641	13.58	3062.7	.1	12.6	.1	181	.4	4.8	45.2	4	2.44	.029	4	6.8	.09	13	<.001	1	.14	.006	.09	1.0	.03	.9	.2	14.71	<1	15.0
S-62	4.5	37.6	59.4	57	5.8	37.7	11.5	919	13.23	2142.8	<.1	12.6	.1	55	.5	6.8	98.3	3	.88	.019	1	2.9	.33	13	.002	1	.19	.004	.10	.1	.06	1.0	.1	12.73	1	15.8
S-63	1.5	587.6	356.1	62	17.2	1.9	20.8	192	20.58	>9999	.1	3712.4	<.1	4	.8	136.6	92.5	<1	.02	.003	1	6.9	.01	10	<.001	<1	.03	.002	.01	1.9	.04	.2	<.1	11.89	<1	2.8
S-64	1.5	983.7	722.6	1266	90.9	.8	25.1	1666	17.08	2169.5	.1	2198.4	<.1	6	12.6	5.9	230.1	<1	.22	<.001	<1	6.6	.03	4	.003	1	.02	.003	.01	>200	.21	.1	<.1	10.52	<1	14.6
S-65	1.6	905.1	615.1	854	65.0	1.2	20.2	870	13.38	4658.0	1.1	1586.0	4.9	4	9.0	4.3	154.3	<1	.11	.016	2	7.5	.07	24	<.001	1	.14	.004	.14	175.1	.18	.5	.1	6.96	<1	7.9
STANDARD DS5	12.2	141.8	25.5	136	.3	24.4	11.8	751	2.94	18.8	6.0	43.5	2.7	46	5.3	3.9	6.4	56	.71	.086	13	181.7	.65	135	.092	19	2.02	.034	.13	4.8	.20	3.4	1.1	<.05	6	4.9

Sample type: ROCK R150 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data FA

ACME ANALYTICAL

Pinnacle Mines FILE # A304726

ACME ANALYTICAL

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm
S-66	1.3	34.4	2292.2	148	103.3	.2	94.8	4597	15.43	>9999	.3	5627.9	.1	643	1.8	102.9	153.3	1	6.58	<.001	3	3.9	.11	10	.001	<1	.02	.003	.02	14.7	.05	.3	.1	6.27	<1	14.2
S-67	3.3	266.6	105.5	271	5.0	1.7	6.7	997	7.34	367.3	2.5	196.6	8.3	10	2.2	.9	11.8	2	.18	.030	2	7.4	.06	35	.001	1	.22	.005	.22	70.3	.04	.5	.1	4.11	1	2.4
S-69	2.2	533.3	60.1	193	3.3	.6	12.9	457	7.93	235.5	2.8	84.6	13.0	11	1.7	1.9	6.5	1	.20	.046	4	4.0	.05	28	.001	1	.21	.004	.21	27.6	.02	.5	.1	6.02	1	4.5
S-70	.8	7.1	17.4	59	.2	3.7	5.5	962	2.70	132.8	1.1	4.3	7.2	47	.2	3.1	.3	15	2.33	.050	10	4.5	.34	168	.065	1	.63	.023	.10	6.7	.04	1.2	5.5	.80	3	<.5
S-71	26.1	68.0	6746.7	27016	32.1	3.9	21.1	224	1.71	373.5	6.3	1.5	.9	6	450.7	37.8	.4	2	.05	.027	4	7.0	.01	27	.001	2	.09	.002	.07	.8	12.13	.7	15.6	2.55	<1	2.0
S-72	2.7	10.2	40.5	206	3.1	9.1	5.5	55	2.37	34.6	1.1	2.1	6.7	14	1.3	6.4	.3	6	.25	.061	14	5.4	.03	65	.002	5	.31	.004	.35	.7	.17	.9	.2	2.41	1	.8
S-73	2.5	25.5	412.0	372	15.0	1.6	4.5	73	1.24	59.8	.3	1.8	2.5	13	4.5	15.7	.4	7	.15	.069	12	6.6	.01	59	.002	2	.15	.003	.17	.5	.39	.9	.8	1.17	1	<.5
S-74	5.9	12.6	84.2	99	.7	8.5	3.9	106	2.83	74.5	.9	4.5	3.6	13	.3	11.6	.5	12	.20	.054	10	7.6	.14	62	.004	3	.40	.013	.24	.6	.19	1.2	.1	2.72	2	<.5
S-75	.7	9.4	11.8	106	.7	3.3	4.9	776	1.70	26.8	1.0	2.8	3.7	89	.2	5.9	.3	9	2.52	.040	11	3.1	.04	83	.001	4	.31	.006	.27	.2	.08	1.8	.1	1.81	1	<.5
S-76	35.8	509.7	9.7	61	.6	6.8	28.1	817	5.07	9.3	2.2	11.7	1.3	58	.1	.3	.9	55	1.30	.090	5	4.6	.78	66	.090	1	1.84	.166	.37	1.3	.01	3.4	.1	2.31	5	2.7
RE S-76	36.4	518.2	9.1	61	.5	6.9	28.6	834	5.15	8.8	2.1	11.8	1.2	56	.1	.3	.9	56	1.32	.086	5	4.6	.79	66	.093	1	1.89	.172	.38	1.2	.01	3.3	.1	2.25	5	2.8
S-77	2.0	345.4	807.1	31100	28.5	29.4	18.2	410	3.71	4269.4	.3	2184.5	.5	7	297.2	4.3	1.0	12	.31	.029	3	11.4	.07	13	.002	1	.20	.004	.12	.5	.26	.9	.1	4.84	1	11.9
S-78	2.1	747.8	>9999	63020	148.8	28.7	5.6	156	13.26	>9999	.2	4112.0	.2	5	612.0	64.7	2.5	6	.18	.059	2	9.2	.04	9	.001	<1	.18	.002	.09	.6	.23	.5	.1	16.08	1	38.9
STANDARD	12.3	136.2	25.5	129	.3	23.5	11.7	737	2.83	18.8	6.1	44.9	2.6	44	5.5	3.8	6.4	57	.70	.089	12	177.8	.64	136	.085	17	1.98	.032	.13	4.9	.19	3.4	1.1	<.05	6	4.8

Standard is STANDARD DS5. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Date 94

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

27,290

M01

129°30'W

56°15'N

PIN 1
405238

FRANCES 1
396846

FRANCES 2
396847

FRANCES 3
396848

FRANCES 4
396849

PIN 2
405239

EMMA 3
396838

EMMA 4
396839

EMMA 5
396840

EMMA 6
396841

PIN 3
405227

EMMA 1
396842

EMMA 2
396843

PIN 4
405233

TRAFALGAR 5
396844

TRAFALGAR 6
396845

PIN 5
405242

TRAFALGAR 1
396834

TRAFALGAR 2
396835

PIN 6
405241

TRAFALGAR 3
396836

TRAFALGAR 4
396837

LCP

ICEFIELD

Surprise Creek

LEGEND

6	Argillite, thinly bedded, pyritic
5	Green Andesite, mainly epiclasitc
4	Rhyolite, pyroclastic, grey
3	Rhyolite Tuff, grey, sericitic
2	Maroon Tuff, thinly bedded
1	Quartz Monzonite, grey, medium grained

SCALE 1:20,000

500 0 500 1000 1500

METERS

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
E. R. KRUCHKOWSKI
#28181
GEOSCIENTIST

PINNACLE MINES LTD.

SURPRISE PROPERTY, STEWART, B.C., SKEENA M.D.

Property Geology Map

RPM Mapping and Computer Services Ltd.

Date: December 2003

Claim Map: 104A/04E

Figure: 5

Inset Map 1

Inset Map 2

MORAINE
PIN 3
405227
GLACIER
EMMA 5
396840
SCREE
Surprise Creek
EMMA 1
396842
MORAINE
FRANCES 3
396848
FRANCES 4
396849
GLACIER
MORAINE
EMMA 1
396842
EMMA 2
396843
GLACIER
SCREE
TRAFALGAR 5
396844
TRAFALGAR 6
396845
SCREE
PIN 5
405242
GLACIER
SCREE
GLACIER
SCREE
MORAINE
LCP
56°10'N

SAMPLE NO.	SAMPLE TYPE	AU ppb	AG ppm (oz/t)	AS ppm	PB ppm	ZN ppm
S-1	GRAB	0.9	1.0	31.0	20.6	103
S-2	GRAB	1.3	1.3	99.8	25.8	133
S-3	GRAB	<0.5	19.1	145.9	384.0	113
S-4	GRAB	0.7	1.6	21.3	43.6	245
S-5	GRAB	1.4	6.2	42.2	344.2	714
S-6	GRAB	<0.5	10.5	336.8	115.7	621
S-7	GRAB	1.3	17.3	222.5	475.2	781
S-8	GRAB	1.5	1.0	33.4	63.9	107
S-9	FLOAT	0.7	23.1	715.4	8362.6	45950
S-10	FLOAT	24.6	2.3	248.7	193.4	2839
S-11	FLOAT	17.6	4.0	288	142.0	136
S-12	FLOAT	38.9	5.3	148.3	254.2	42
S-13	FLOAT	131.2	9.1	457	409.7	2096
S-14	FLOAT	40.2	5.6	135.8	100.8	120
S-15	FLOAT	282.2	14.5	807.2	332.7	248
S-16	FLOAT	142.7	25.5	1412.8	304.8	47
S-17	FLOAT	220.7	132.3	1093.5	738.4	56866
S-18	FLOAT	44.1	4.6	84.4	109.2	31730
S-19	FLOAT	31.0	4.4	47.9	155.0	20139
S-20	FLOAT	51.1	13.7	76.1	203.7	48084
S-21	FLOAT	9.6	2.6	15.3	43.9	4110
S-22	FLOAT	7.9	32.5	227.3	1880.8	10090
S-23	FLOAT	61.0	(213.6)	599.3	2609.9	9263
S-24	FLOAT	114.3	10.8	871.3	494.4	15993
S-25	FLOAT	29.1	4.1	186.3	192.9	7076
S-26	FLOAT	98.1	31.8	131.6	805.1	1153
S-27	FLOAT	30.7	3.8	281.5	44.1	100
S-28	FLOAT	<0.5	13.3	473.4	2216.3	8473
S-29	FLOAT	6.8	0.6	2.1	8.6	85
S-30	FLOAT	8.5	1.8	57.4	628.8	210
S-31	FLOAT	130.1	1.1	4.5	38.6	17
S-32	FLOAT	1363.8	0.9	3.2	29.3	28
S-33	FLOAT	412.3	1.1	11.5	5.7	12
S-34	FLOAT	372.2	2.0	1.9	12.8	85
S-35	FLOAT	<0.5	0.4	16.8	30.6	107
S-36	FLOAT	0.9	1.4	479.9	21.3	30
S-37	FLOAT	<0.5	1.1	48.5	52.1	29
S-38	FLOAT	<0.5	0.5	28.7	38.7	25
S-39	FLOAT	6.8	1.2	48.4	39.9	47
S-40	FLOAT	12.4	2.0	51.3	68.1	172
S-41	FLOAT	0.9	50.5	51.0	>9999	29654
S-42	FLOAT	6.5	3.4	199.6	200.4	481
S-43	FLOAT	2.6	1.4	15.1	560.2	124
S-44	FLOAT	4.7	28.0	65.8	2360.9	947
S-45	FLOAT	1.0	0.9	60.8	63.8	48
S-46	FLOAT	18.3	(3078.8)	721.4	1270.0	1109
S-47	FLOAT	2.0	13.0	37.7	75.0	225
S-48	FLOAT	0.8	6.8	202.2	46.2	85
S-49	FLOAT	2.1	5.5	136.7	80.5	14
S-50	FLOAT	<0.5	6.5	333.8	415.3	3549
S-51	FLOAT	<0.5	12.6	645.1	1666.9	17487
S-52	FLOAT	265.7	11.4	171.3	37.0	108
S-53	FLOAT	30.8	1.3	697.4	18.3	84
S-54	FLOAT	1.4	20.9	1013.7	2782.9	11935
S-55	FLOAT	6.8	0.6	57.0	43.3	70
S-56	FLOAT	<0.5	5.2	393.7	1257.5	6538
S-57	FLOAT	5.6	0.7	103.4	24.6	33
S-58	FLOAT	74.4	4.5	907.3	196.4	849
S-59	FLOAT	1568.6	125.6	8018.3	1763.3	97
S-60	FLOAT	13023.7	(371.2)	1580.2	3481.3	1368
S-61	FLOAT	12.6	5.1	3062.7	111.2	39
S-62	GRAB	12.6	5.8	2142.8	39.4	57
S-63	FLOAT	3712.4	17.2	>9999	356.1	62
S-64	FLOAT	2198.4	90.9	2169.5	725.6	1266
S-65	FLOAT	1586.0	65.0	4658.0	615.1	854
S-66	FLOAT	5627.9	103.3	>9999	2292.2	148
S-67	FLOAT	196.6	5.0	367.3	105.5	271
S-68	FLOAT	828.3	21.6	>9999	296.1	858
S-69	FLOAT	84.6	3.3	235.5	60.1	193
S-70	FLOAT	4.3	0.2	132.8	17.4	59
S-71	FLOAT	1.5	32.1	373.5	6746.7	27016
S-72	FLOAT	2.1	3.1	34.6	40.5	206
S-73	FLOAT	1.8	15.0	39.8	412.0	372
S-74	FLOAT	4.5	0.7	74.5	84.2	99
S-75	FLOAT	2.8	0.7	26.8	11.8	106
S-76	FLOAT	11.7	0.6	9.3	9.7	61
SS-1	SILT	9.7	0.4	30.6	51.4	189
SS-2	SILT	7.2	0.8	43.9	101.5	349
SS-3	SILT	6.8	0.5	43.0	49.6	193
SS-4	SILT	3.4	0.8	61.3	92.2	432
SS-5	SILT	4.5	1.4	66.3	145.6	592
SS-6	SILT	2.4	0.2	79.1	22.5	133
SS-7	SILT	1.0	0.3	39.8	31.9	149
SS-8	SILT	0.7	0.2	38.9	14.6	248
SS-9	SILT	2.1	0.1	30.1	13.8	138
SS-10	SILT	2.9	0.3	110.8	19.6	126
SS-11	SILT	<0.5	0.7	105.7	18.1	350
SS-12	SILT	<0.5	0.9	137.7	26.7	264
SS-13	SILT	5.0	1.3	93.3	189.1	674
SS-14	SILT	0.8	0.4	28.0	49.6	294
SS-15	SILT	1.8	0.6	31.7	59.5	301
SS-16	SILT	1.5	0.4	93.5	51.6	228
SS-17	SILT	1.6	0.2	45.8	22.0	189
SS-18	SILT	9.1	0.2	45.5	28.2	129
SS-19	SILT	1.8	0.3	50.1	23.5	147
SS-20	SILT	3.4	0.2	133.8	31.3	127
SS-21	SILT	1.0	0.6	30.8	83.4	318
SS-22	SILT	0.9	0.6	28.8	76.3	358
SS-23	SILT	1.2	0.3	22.0	66.3	355

LEGEND

- ▲S-3 ROCK SAMPLE
- ×S-12 FLOAT SAMPLE
- ●SS-23 SILT SAMPLE
- GLACIER OR MORAINE EDGE
- STREAM
- 1200 CONTOUR INTERVAL: 100m
- + + NAD 83 GRID (1000m, 5000m)
- 56°10'N LATITUDE/LONGITUDE
- CLAIM BOUNDARY
- ROUGH ROAD

SCALE 1:5000
100 0 100 200 300
METERS

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

27,290

TRAFALGAR 1
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SCIENTIST

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RPM Mapping and Computer Services Ltd.

Date: December 2003
NTS No.: 104A/04E
Figure: 6