

MINEFILES BRANCH Rec'd. OCT 14 1998 L.I.# _____ File _____ VANCOUVER, B.C.

ASSESSMENT REPORT

on the

PLEASANT SURPRISE

Mineral Claims

Fort Steele Mining Division, Southeastern British Columbia

N.T.S. 82G/06W 11W

Latitude 49° 29' N, Longitude 115° 24' W

by

C.C. Downie, P. Geo.
Hwy 93/95 Fort Steele
P.O. Box 155, Cranbrook, B.C.
VIC 4H7
owner/report author

October 10th 1998

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

25,678

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SUMMARY

The **Pleasant Surprise** Mineral Claim was staked on May 28, 1997 to cover three historical Crown Grants that came open for staking. The claims consist of 6 MGS units and cover a package of Devonian to Mississippian limestones and dolomites and Precambrian Aldridge Formation argillite and quartzite. The claims straddle the lower part of the Bull River.

A one day geological reconnaissance program was undertaken on April 28 1997 consisting of prospecting, rock sampling and preliminary 1 : 10000 scale mapping. A total of 4 rock samples were collected during program. A total of \$2256.60 in assessment work was carried out on the claims in 1998.

Although none of the rock samples returned strongly anomalous values, preliminary mapping indicates that Aldridge Formation sediments occur on the property and could be the host for either Sullivan type Pb - Zn mineralization or shear hosted Cu - Au mineralization similar to that found at the Bull River Mine.

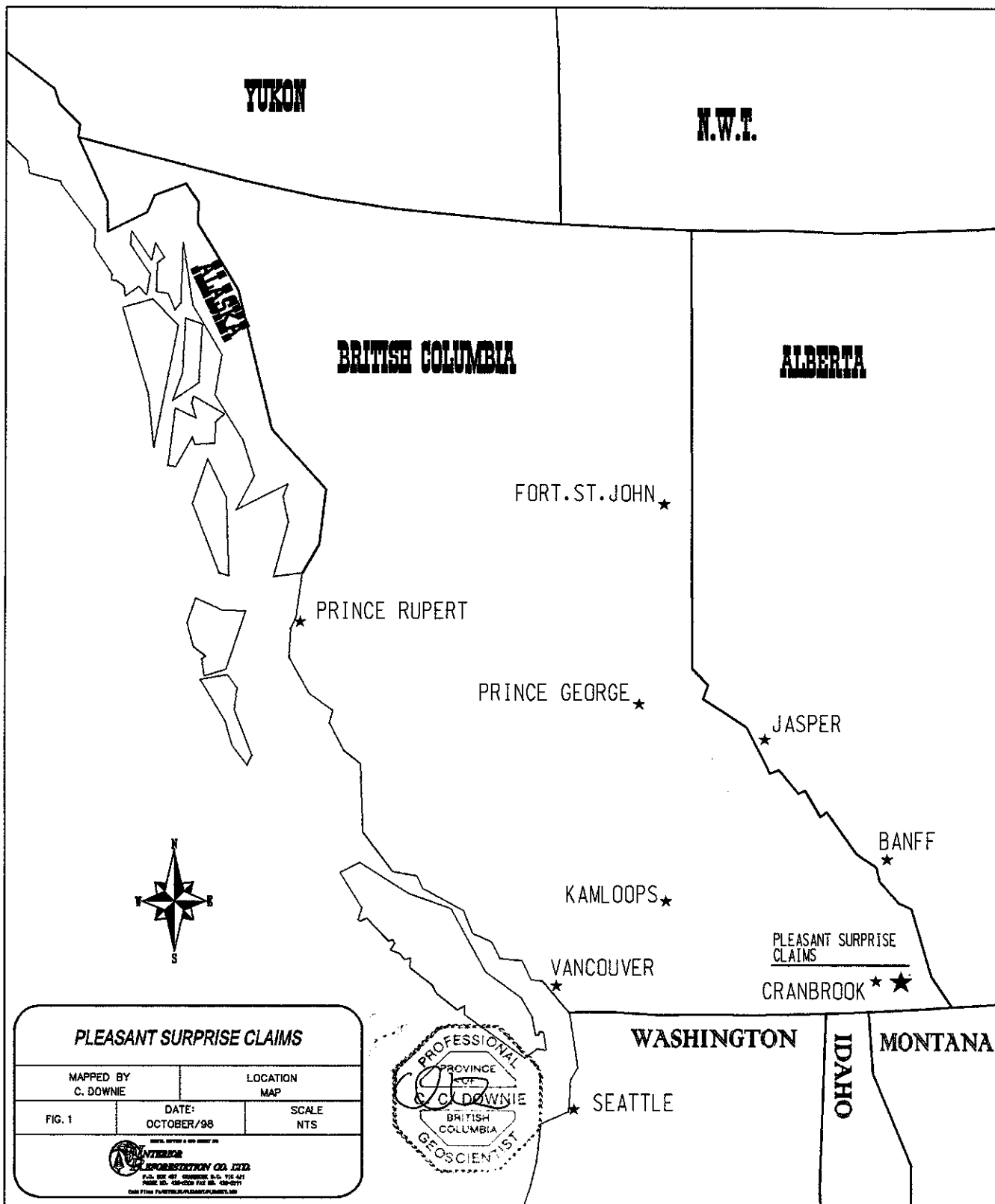
LOCATION AND ACCESS

The **Pleasant Surprise** property is located within the Fort Steele Mining Division, along the border of NTS mapsheets 82G/06W and 11W at 49° 29' North latitude and 115° 24' West longitude (see Location Map; Figure 1, following). It is situated on the Bull River Road between Wardner and Fort Steele approximately 40 km by road from Cranbrook, B.C.. The historic Cu - Au producer Bull River Mine is located approximately 1 km east of the property. The northern claims have excellent year round road access. The southern claims are traversed by a high voltage hydro power line and can be accessed by ATV.

The rectangular claim group consists of 6 MGS units which straddle the westward flowing meandering Bull River approximately 5 km above the point it discharges into the Kootenay River. The property is cut by a few small intermittent streams.

Elevations within the property range from 940m (3080') to 780m (2560'). The property is subjected to moderate precipitation, and is free of snow from May to October. Vegetation on the property includes bull pine and low prairie grass on the drier, central and southern part of the property to aspen and willow stands along the river and in the damper part of the property. Physiography consists of flat benches along the deeply incised Bull River valley. Most of the property is covered with thick boulder till and outcrop exposure is generally limited to steep bluffs along the river banks.

The **Pleasant Surprise** Claim group has an excellent location with respect to mining infrastructure. Concentrator and crushing facilities of the historic Bull River Mine are located approximately 2 km east of the Pleasant Surprise Claims and Cominco Ltd.'s Sullivan Mine and concentrator facility (including concentrate loading and shipping via rail) are located approximately 60 km by road west of the claims. A hydroelectric powerline traverses the southern part of the claims. There also exists local well established mining support industries in both Cranbrook and Kimberley.



PROPERTY TENURE

The **Pleasant Surprise** consists of a single 6 unit MGS claim block. The claims were located on May 28, 1997. Claim boundaries and post locations are shown on Fig. 2, in pocket. The claims are 100% owned by Charles Claude Downie FMC 135211 of Hwy 93/95 Fort Steele, Box 155 Cranbrook, B.C. VIC 4H7.

A summary of tenure information is provided below:

<u>Claim Name</u>	<u>Record No.</u>	<u>Units</u>	<u>Location Date</u>	<u>Expiry Date *</u>
PLEASANT SURPRISE	356311	6	May 28, 1997	May 28 2000
	TOTAL :	6 units		

* expiry date after assessment filed

REGIONAL ECONOMIC HISTORY

The East Kootenay area has long been known as a mineral resource-rich area, with numerous mineral showings documented over the years. The turn of the century discovery of Cominco's world-class Sullivan deposit near the present city of Kimberley, put the area into focus with mineral explorationists world-wide. The Sullivan massive sulphide ore body hosted 180,000,000 tons of ore averaging 6.5% zinc, 6.4% lead and 1.90 oz/t silver, with a mineable lifetime of over 100 years, and a contained metal value in present dollars estimated to be in excess of 25 billion dollars. The mine is scheduled to close in 2001.

Numerous other past-producers in the area reflect the excellent mineralogic potential of the region. These include:

- 1) St. Eugene Mine (1899-1929) - 1.63 million tons grading approximately 8% lead, 1% zinc, 4.4 oz/t silver
- 2) Estella Mine (1951-1967) - 120,000 tons grading 4.8% lead, 9.0% zinc, 6.4 oz/t silver
- 3) Kootenay King Mine (1952-1953) - 14,616 tons grading 5.3% lead, 15.1% zinc, 1.94 oz/t silver.
- 4) Bull River Mine (1972-1974) - 520180 tons mined yielding 204274 oz Ag, 4055 oz. Au, and 15,996,847 lbs Cu.

The area is also well known for the presence of once-rich placer gold deposits, though no economic hard-rock gold concentrations have yet been located. The Wildhorse River, located approximately 15 km west of the **Pleasant Surprise** Claims, saw frenzied placer mining activity beginning in 1864, with over 1,500,000 ounces of gold extracted from its gravels. Placer mining operations are still in place along the river.

PROPERTY HISTORY

The **Pleasant Surprise** claims cover, in part, the Bull River gypsum deposit. Located on historical lease # 7806, the deposit saw production in 1937 when a total of 317 tonnes of gypsum was shipped for testing. The material analyzed approximately 30.5 percent CaO, 39.2 percent SO₃, 18 percent H₂O, 2.5 percent MgO, and 0.8 percent Fe₂O₃ and Al₂O₃. The host for the gypsum is Lower Mississippian Banff Formation limestone.

The historic Bull River mine is located approximately 1 km east of the northeast boundary of the Pleasant Surprise claims. The Bull River produced Au, Ag and Cu associated with quart-siderite veins within Aldridge Formation argillites and quartzites. Chalcopyrite, pyrite and pyrrhotite occur in association with these E-W striking, south dipping veins and chalcopyrite also occurs as fracture filling in some of the more brittle host rocks. The veins are concentrated within shear zones(EMPR MINFILE 082GNW002)

GEOLOGY

REGIONAL GEOLOGY

The Pleasant Surprise property is located along the south slope of the Steeples Range which forms the highest structural portion of the southern part of the Western Rocky Mountains. Local geology is controlled by a series of thrust faults and block faults.

Regionally the area is underlain by rocks of the Purcell Supergroup and Rundle Group. The Purcell Anticlinorium is a broad, north-plunging arch-like structure in Helikian and Hadrynian aged rocks. The anticlinorium is allochthonous, carried eastward and onto the underlying cratonic basement by generally north trending thrusts throughout the Laramide orogeny during late Mesozoic and early Tertiary time (Price, 1981).

PROPERTY GEOLOGY

The Pleasant Surprise claims are underlain by Mississippian age Rundle Group limestone and dolomite and Proterozoic Aldridge Formation argillite and quartzite. Property geology is not yet well understood due to paucity of outcrop and lack of geological data for the area. It is postulated that older Aldridge Formation rocks have been thrust over younger Rundle Group rocks along a roughly east - west trending structure. Bedding on the property is generally oriented North to Northeast with dips varying from 30° to 72°.

1998 PROGRAM (Fig.2 in pocket)

The primary focus of the 1998 exploration program on the Pleasant Surprise claims was reconnaissance type mapping and prospecting to establish a base for future work. A total of two man days were spent on the property north of the Bull River. A total of four rock samples were collected and approximately 1 square km of 1:10000 scale mapping was undertaken.

Samples were shipped to Eco-Tech Labs at Kamloops, BC. Samples were then dried, sieved to -80 mesh and analyzed for 30 element ICP using aqua-regia digestion.

1998 RESULTS(Fig. 2 in pocket)

One of the four rock samples collected during the 1998 field program returned weakly anomalous metal values. CDRS98R-04, a sample of Aldridge Formation quartzite float collected near the eastern boundary of the property, returned weakly anomalous geochemical values of 75 ppm Zn, 29ppm Cu and 34 ppm Cr. The other three samples collected were Rundle Group limestone and dolomite and did not return anomalous metal values.

Mapping undertaken on the northern part of the claims in the area of the river valley suggests thrust faults are a dominant structural control on the Pleasant Surprise claims. Field observations indicate that Proterozoic Aldridge Formation quartzites and wackes exposed on the south side of the Bull River have been thrust northward on top of younger Rundle Group Limestones and dolomites. In 1987 a seven hole rotary and core drilling program was undertaken on claims directly north of the Pleasant Surprise(EMPR ASS RPT 15471). Results from the drilling in hole S 12 indicate that Aldridge Formation argillites occur approximately 200 meters north of the northern boundary of the Pleasant Surprise claims. It is postulated that another thrust fault occurs in the area of the main road which brings Rundle group rocks over top of Proterozoic Aldridge sediments. The trace of this fault is concealed beneath a thick layer of boulder till which had a true thickness of 80m in hole S 12.

CONCLUSIONS and RECOMMENDATIONS

A follow up program consisting of mapping and prospecting is recommended for the Pleasant Surprise claims. The work should focus on locating and mapping outcrop on the south side of the Bull River to better define the location of prospective Aldridge Formation sediments. Rock samples should be collected to establish either Bull River type Au-Cu or Sullivan type base metal geochemical signatures.

A budget for proposed initial follow-up work is included following:

PROPOSED BUDGET

Personnel	\$1000.00
Analytical	\$500.00
Meals/Grocery	\$100.00
Truck and Equipment Rentals	\$250.00
Supplies	\$100.00
Miscellaneous	\$100.00
Report/Reproduction	<u>\$1200.00</u>
	Subtotal : \$3250.00
	plus 10% contingency : <u>\$325.00</u>
	TOTAL : \$3575.00

REFERENCES

Allen, Alfred R. (1984, 1986) : EMPR ASSESSMENT REPORTS #12575, 15471, 15624,

Hoy, T. (1993) : Geology of the Purcell Supergroup in the Fernie West-Half Map Area, Southeastern British Columbia, BCMMPR Bulletin #84.

McMechan, M.E. and Price, R.A.(1882) : Transverse folding and superimposed deformation, Mount Fisher area, southwestern Canadian Rocky Mountain thrust and fold belt. National Research Council of Canada.

Price, R.A. (1981) : The Cordilleran Foreland Thrust and Fold Belt in the Southern Canadian Rocky Mountains. Geological Society of London.

EMPR MINFILE # 082GNW002, 082GNW006, 082GNW028, 082GNW072, 082GSW031, 082GSW032, 082GSW036

EMPR ASSESSMENT REPORT # 3929, 20796

APPENDIX I

Certificate of Qualification

STATEMENT OF QUALIFICATIONS

I, Charles C. Downie of Highway 93/95 Fort Steele, in the Province of British Columbia hereby certify that:

- 1) I am a Professional Geoscientist registered with the Association of Professional Engineers and Geoscientists of British Columbia (#20137).
- 2) I am a graduate of the University of Alberta (1988) with a B.Sc. degree and have practiced my profession as a geologist continuously since graduation.
- 3) This report is supported by data collected by myself during fieldwork as well as information gathered through research.

Dated this 10th day of October, 1998 in Cranbrook, British Columbia

Charles C. Downie, P.Geo.

APPENDIX II

Statement of Expenditures

STATEMENT OF EXPENDITURES PLEASANT SURPRISE MINERAL CLAIMS

The following expenses were incurred on the **PLEASANT SURPRISE** mineral claims for the purpose of mineral exploration between the dates of April 27th - May 14th, 1998.

PERSONNEL

C.C. Downie, P.Geo.; Geologist: 1.0 day x \$400/day	\$400.00
Tim J. Termuende, P.Geo; Geologist: 1.0 day X \$400/day.....	\$400.00

EQUIPMENT RENTAL

4x4 Pickup:1.0 days x \$50/day.....	\$50.00
Mileage: 80 km x \$.20/km.....	\$16.00
Field Supply: 2 man days x \$25.00/day	\$50.00

ANALYTICAL	\$85.60
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MEALS	\$20.00
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FUEL	\$20.00
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DRAFTING AND REPORT REPRODUCTION (ESTIMATE)

C. Downie , P.Geo.; 2.0 days x \$400/day.....	\$800.00
Drafting(includes digitizing, generating base maps).....	\$400.00
Reproduction	\$15.00
	<u>\$2256.60</u>

Total : \$ 2256.60

APPENDIX III

Analytical Results

15-May-98

ECO-TECH LABORATORIES LTD.
10041 East Trans Canada HWY
KAMLOOP8, B.C.
V2C 6T4

Phone: 804-573-5700
Fax : 804-573-4557

ICP CERTIFICATE OF ANALYSIS AK98-140

TIM TERMUENDE
2720-17th STREET SOUTH
CRANBROOK, B.C.
V1C 4H4

ATTENTION: TIM TERMUENDE

No. of samples received: 4
Sample Type: Rock
PROJECT #: PS98
SHIPMENT #: None Given
Samples submitted by: T. Termuende

Values in ppm unless otherwise reported

Et #.	Tag #	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
1	CDRS98R-01	0.2	0.05	5	115	<5	>10	<1	6	4	4	0.50	<10	0.30	484	<1	0.06	5	300	<2	10	<20	706	<0.01	<10	4	10	2	2
2	CDRS98R-02	<0.2	0.12	<5	<5	<5	>10	<1	<1	3	1	0.17	<10	1.42	22	<1	<0.01	<1	50	<2	30	<20	340	<0.01	<10	2	10	<1	<1
3	CDRS98R-03	<0.2	0.14	10	<5	<5	>10	<1	2	10	2	0.39	<10	1.76	39	<1	0.01	2	120	<2	35	<20	580	<0.01	<10	4	10	1	<1
4	CDRS98R-04	0.4	1.20	15	50	10	1.00	<1	20	34	29	3.74	<10	0.67	429	4	0.02	18	240	60	<5	<20	15	<0.01	<10	6	10	<1	75

QC/DATA:

Resplit:

1	CDRS98R-01	0.2	0.06	15	120	<5	>10	<1	6	6	4	0.52	<10	0.29	510	<1	0.05	5	340	<2	15	<20	696	<0.01	<10	4	10	2	2
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Standard:

GEO'98	1.2	1.76	65	155	<5	1.77	<1	20	60	74	4.08	<10	0.92	685	<1	0.02	22	730	22	<5	<20	54	0.10	<10	71	10	4	80
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df/143
XLS/98
fax:250-426-6899

ECO-TECH LABORATORIES LTD.
Frank J. Pezzotti, A.Sc.T.
B.C. Certified Assayer

APPENDIX IV

Rock Sample Descriptions

ROCK SAMPLE DESCRIPTIONS

CDPS98R-01 : ROCK/FLOAT

dolomite boulder; dirty grey to white with local recrystallized dolomite

CDPS98R-02 : ROCK/IN SITU

dirty grey limestone; fetid smell on fresh surface; strong reaction to 10% HCl

CDPS98R-03 : ROCK/IN SITU

brown dolomite with 30% white to grey calcite veining; dolomite is locally recrystallized with coarse saddle dolomite

CDPS98R-04 : ROCK/FLOAT

Aldridge formation quartzite; fine to med. grained; mod. silicified; trace disseminated pyrrhotite

NOTE : THE SAMPLES WERE INCORRECTLY LABELLED AT THE LAB. CDPS98R-01 IS LISTED AS CDRS98R-01 ON THE ASSAY SHEET. THE LABELS ON THE MAPS AND IN THE TEXT REFLECT THE LABORATORY CONVENTION.

