

WALDO W. EJTEL.

INTERNATIONAL COAST MINERALS CORP.

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006736

REVIEW OF EXPLORATION DATA

UNITED BEAR AND UNITED TOMMY MINERAL CLAIM GROUPS KENNEDY RIVER AREA ALBERNI MINING DIVISION VANCOUVER ISLAND, B.C.

NTS 92 F/3 W

LATITUDE 49°10'N, LONGITUDE 125°24'W

PROPERTY FILE

Prepared for

INTERNATIONAL COAST MINERALS CORP.

International Coast Minerals Corp.
Ste. 1500 - 1176 West Georgie St.
Vancouver, B.C.
V6E 4A2
685-4335

ARCTEX ENGINEERING SERVICES

Locke B. Goldsmith, P.Eng. Consulting Geologist

June 28, 1986

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Tommy Group, Teck Explorations LimitedInternational Phoenix Energy Corporation
Statement of Expenditures, International Phoenix
Energy Corporation

REVIEW OF EXPLORATION DATA UNITED BEAR AND UNITED TOMMY MINERAL CLAIM GROUPS KENNEDY RIVER AREA ALBERNI MINING DIVISION VANCOUVER ISLAND, B.C.

SUMMARY

Gold is known to occur in two important zones on the property. Exploration. largely by diamond drilling, is required to test the extent and tenor of mineralization. The United Bear quartz veins have potential for a moderate tonnage of high-grade gold; the shear zone which hosts the quartz should be examined for a higher tonnage-lower grade deposit. The United Tommy sheeted veinlet zone has potential for a bulk tonnage-low grade operation. A program in five Phases is estimated to cost \$1.769.000.

INTRODUCTION

The claims are located approximately 55 road kilometres west of Port Alberni and 30 road kilometres northeast of the port of Ucluelet. Highway 4 passes through the northwest corner of the Tommy claim. New logging roads extend northwesterly from the highway across Kennedy River into the Bear group to within 150 metres of an adit driven on gold mineralization in quartz veins. One partially overgrown road which departs easterly from the highway onto the Tommy claim leads to the vicinity of sheeted veinlets which contain gold values.

A hydroelectric power line follows Kennedy River valley and passes through the property.

Elevations range from less than 40 m in Kennedy River valley to 1040 m in the southeast corner of Tommy claim.

The property consists of 24 units, 4 reverted crown grants and 1 staked fraction, for a total of 29 units containing approximately 700 hectares.

Claim Name	Lot No.	Record No.	No. of Units	Expiry Date
	U	NITED BEAR GR	OUP	
Black Bear Cinnamon Bear Grizzly Bear Ironsides Bear Fraction	293 294 300 487	1522(10) 1580(12) 1599(1) 1601(1) 2882(4)	1 1 1 1	Jan. 1989 Dec. 1995 Jan. 1996 Jan. 1990 Apr. 1987
	UN	HITED TOMMY GE	ROUP	
Tommy Golden Gate Water Fall		1029(9) 1035(9) 1560(12)	16 6 2	Sep. 1992 Sep. 1987 Dec. 1987

Owner is Mr. W.W. Ejtel of Vancouver, B.C.



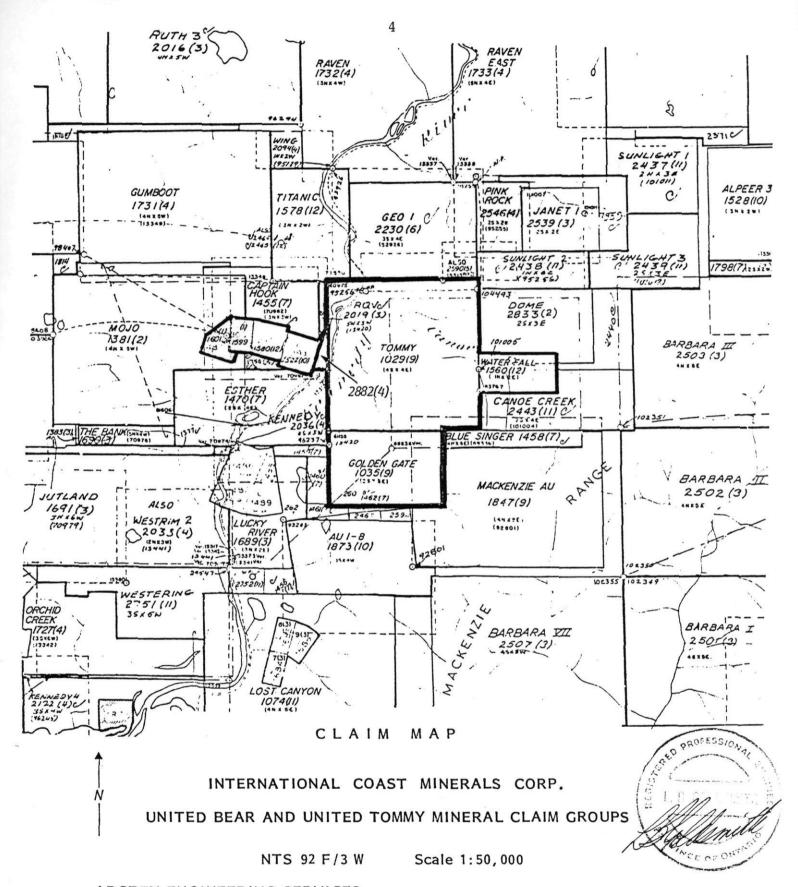
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UNITED BEAR AND UNITED TOMMY MINERAL CLAIM GROUPS

NTS 92 F/3 W

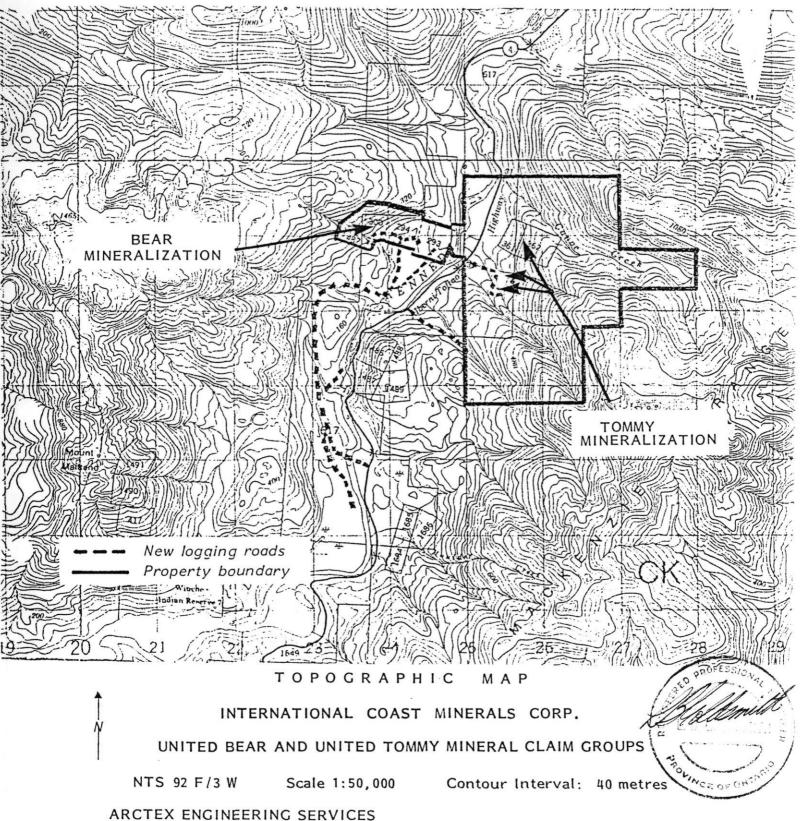
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To Accompany Report By: Locke B. Goldsmith, P.Eng. Consulting Geologist



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HISTORY

Early exploration and development activities of the area from around 1900 to 1939 are summarized in B.C. Minister of Mines Annual Reports (see references) and paraphrased by Drummond (1984). By 1913 the adit on the Bear group had been driven to intersect gold-quartz veins. In 1923, the Grant claim group covered a portion of the present Tommy claim on the eatern slope of Kennedy River valley south of Canoe Creek. A quartz vein, 1.22 m in width (4'), contained 1.3 oz/ton Au and 0.70 oz/ton Ag. By 1935 some surface development had been undertaken on the Tommy K group on narrow but high-grade gold-quartz veins and an adit may have been commenced at about this time. A small tonnage (±100 tons) may have been produced prior to 1947 from the Tommy K claims.

In recent years the Bear group has been examined and sampled in 1984 by Teck Explorations Ltd. (assays reported by Groves, June 2, 1985), by Paul Wilton, B.C.D.M. Regional Geologist (assays reported by Grove, December 9, 1985), by Helsen (1985) for Noranda Exploration Company, Limited, and by R. Brown (circa January 1986) for Lac Minerals Ltd. the author of this report examined mineralization and took two samples from the Bear group on June 7, 1986 (results in Appendix).

Narrow quartz veins in the vicinity of the sheeted zone near the adit on the Tommy claim were sampled by W.G. Stevenson in a report dated 1980 (assays reported and reference quoted by Drummond, January 19, 1984); all ten vein samples contain gold, five of which carry in excess of 1.1 oz/ton Au. Drummond (January 19, 1984) sampled three wider intervals in the same area on behalf of International Phoenix Energy Corporation. While investigating surrounding claims on behalf of Rich Lode Gold Corporation, C.J. Brown (August 20, 1982) took two samples in open cuts and three in the adit on the Tommy claim; type of sample is not specified but all contained gold, the highest grade (0.222 oz/ton Au) being in the adit. Of particular interest is Brown's observastion (p. 9) that "oxidation and weathering had leached most of the sulphides". Personnel of Teck Explorations Limited conducted geological, geochemical, electromagnetic, and magnetometer surveys over portions of the United Tommy group (Spilsbury, September 17, 1984), and rock trenching and sampling of the veinlet zone on the Tommy claim (Spilsbury et al., April 4, 1985); both programs were undertaken on behalf of International

Phoenix Energy Corporation at a cost of \$82,088.20 (see Appendix). The author of this report inspected the veinlet zone between Adit and Walkout creeks on June 8, 1986.

GEOLOLGY

United Bear Group

Triassic Karmutsen volcanics are shown on the regional geology map (Muller, 1969) as underlying the claims. Field inspection suggests that the northern two-thirds of the claims, particularly north of the shear zone which hosts the gold-quartz veins, is underlain by Karmutsen volcanics, and the southwestern portion of the claims is underlain by Jurassic Island intrusions of diorite or quartz diorite. Geology near the Bear Creek shear zone is shown on maps accompanying the report by Helsen (September 17, 1985) in the Appendix of this report. Felsic dykes hosted by Karmutsen volcanics are cut in new logging roads.

United Tommy Group

Where mapped by personnel of Teck Explorations Limited (Spilsbury, September 17. 1984; see Appendix) the Karmutsen is subdivided into a thick volcanic breccia and an andesite. In the southwestern corner of the Golden Gate claim biotite granite and quartz-feldspar porphyry of the Island Intrusions are shown in a creek valley. One felsite dyke is shown at the west side of the veinlet zone in Adit Creek. Chlorite alteration with discontinuous fine quartz veinlets was noted, generally along the eastern side of the sheeted veinlet zone. Parallel quartz-carbonate-sulphide veinlets in concentrations of up to 5/metre are depicted as trending 030°-040° in Adit Creek, between 040°-065° in Walkout Creek, and 045° in Canyon Creek. These were considered by Spilsbury (September 17, 1984) to postdate chlorite alteration. The veinlet zone could extend southwesterly for 2 km and in Canyon Creek is shown to be +350 metres wide. A fault in Adit Creek appears to truncate the zone on the north end.

MINERALIZATION

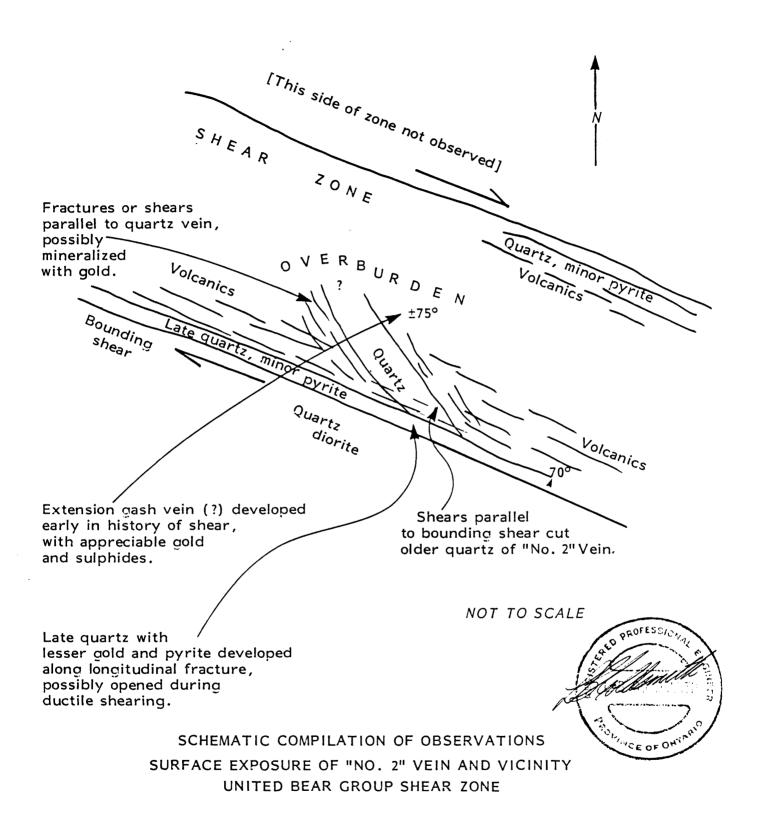
United Bear Group

appreciable pyrrhotite-pyrite-sphalerite-Gold-bearing quartz veins with chalcopyrite are hosted within a shear zone which may be of regional extent. All investigators have obtained significant gold values from veins, and gold has been noted in sheared volcanics adjacent to veins (Helsen, September 17, 1985). A composite chip sample of 60 cm of sheared volcanics and 1.5 m of quartz in the No. 2 vein taken by the author of this report assayed 1.228 oz/ton Au and 0.89 oz/ton Ag (location shown on detailed plan, sketch 2B, of Helsen). A value of 0.146 oz/ton Au and 0.21 oz/ton Ag in a chip sample taken by this author over 2.0 metres east-west of quartz and sulphides in the Black vein (location shown on the map of R. Brown, circa January 1986) corresponds reasonably well with a 4.82 ton bulk sample shipped to Cominco which contained 0.280 oz Au/ton and 0.65 oz/ton Ag. Higher grade chip samples (R. Brown, January 1986, and Helsen, September 17, 1984) may have been oriented north-south, perhaps along the strike of the vein, although the attitude is not readily discernible because of soil cover and disturbance from blasting. Gold in the order of 3 gm/tonne is present in a stockwork of veinlets ±300 m downslope from the adit near the new logging roads.

Veins, whether exposed in the adit or on surface, appear to have widely variable grades of gold. Structural controls within the shear zone may be of prime importance in localizing the gold either in quartz or sheared volanics.

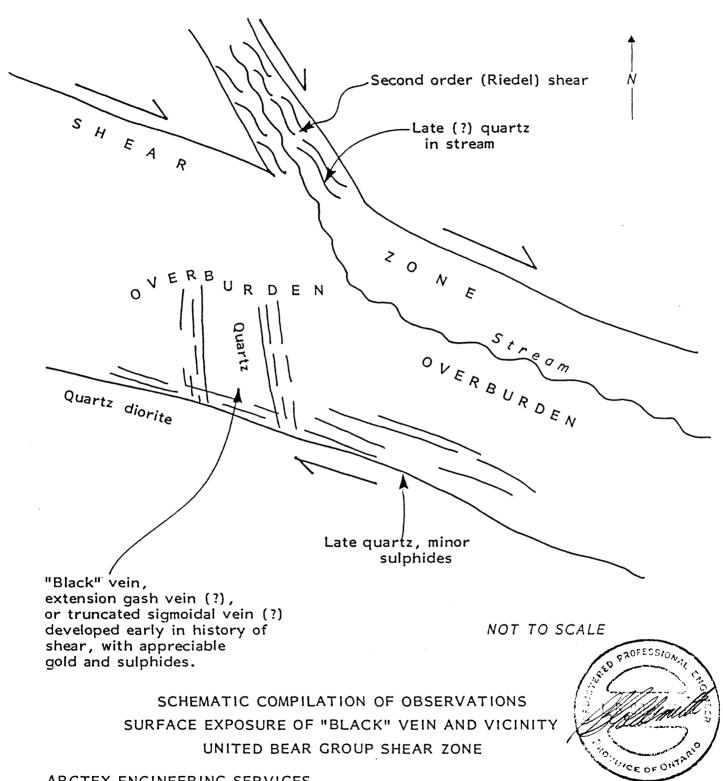
With reference to the figure on p. [10], a right lateral movement along a brittle shear zone is assumed to have produced extensional (tension) gash openings diagonal to the direction of shear movement. An early mineralizing event could have provided quartz + gold + sulphides to fill these structures. Later brittle to ductile shearing may have produced open spaces (sub)parallel to the zone. A late stage of quartz with lesser gold and sulphides may have been introduced into these openings. The north side of the shear zone has not been observed, so no estimate of the potential length of gash veins can be made. A similar interpretation is shown in the figure on p. [11] for the Black vein.

Exploration of this shear zone by drilling must be carefully planned to intersect gash veins and to allow interpretation of the geometry of mineralization within the main shear.



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United Tommy Group

The presence of high-grade gold values in narrow northeasterly trending parallel quartz veins and veinlets is well documented (Stephenson as quoted in Drummond, January 19, 1984; C.J. Brown, August 20, 1982; Spilsbury, September 17, 1984). Sulphides are leached from the veinlets at surface and in shallow rock trenches; presumably gold has also been leached. With reference to gold geochemistry reported from a surface trench on a narrow vein and in the adit which intersects and follows the vein, the tenor of gold is higher in vein samples from the adit, thus tending to support the observation that gold content may increase with depth. The adit does not appear to have intersected the main veinlet zone, but rather followed one narrow quartz vein.

The report of Spilsbury et al. (April 4, 1985) summarizing the results of sampling and assaying in shallow rock trenches concludes that gold values in the veinlet zone across widths which would be required for bulk mining are too low to be economic. However, as noted above, the veinlets where exposed at depths of 0.2 to 0.4 m in these trenches display leaching of sulphides. It appears that below the leached zone the grade of gold may increase.

CONCLUSIONS

General

A considerable amount of work has been completed recently on the properties. Both claim groups are essentially ready for drill tests.

1) United Bear Group

Gold occurs in quartz veins within a wide, persistent, regional shear zone in volcanics. Structural controls are of importance in defining the geometry of quartz veins which appear to trend obliquely across the zone of shearing. Gold may also be hosted in the shear separate from obvious quartz veining. Moderate tonnages of high-grade gold mineralization (assays to 1.626 oz Au/ton) could possibly be developed within the various

discrete quartz veins; a larger, bulk tonnage potential should be investigated by sampling the entire width and length of the shear zone. Stockworks of quartz veinlets also contain gold and should be investigated.

2) United Tommy Group

Exposures of mineralized veinlets more than 350 m wide can be traced for at least 400 m of strike and possibly for 2 km. Various investigators have sampled individual veinlets and obtained very high gold values. Frequency of veinlets is variable but is often in the order of 3 to 5/metre. Surface exposures of veinlets both undisturbed and in shallow rock trenches show leaching of sulphides and thence probable leaching of gold values has occurred. The section which is intersected in the adit is not considered to have crossed the main veinlet zone. A representative valuation of the gold mineralization will require sampling at depths below the surface leaching. If gold values persist to moderate depths, potential exists for an economic bulk tonnage deposit.

RECOMMENDATIONS

1) United Bear Group

Phase 1

Some preliminary geological mapping and soil sampling should be completed to assist in defining drill targets. A preliminary diamond drill program of 500 metres to test both quartz veins and shear zones is recommended.

Phase 2

A second diamond drill program consisting of some 3000 metres might be required if encouragement is obtained from Phase 1.

2) United Tommy Group

Phase 3

Several long drill holes across the veinlet zone are recommended to provide continuous sample intervals of unleached material. Approximately 2000 metres of drilling may be necessary for an initial test.

Phase 4

Detailed drilling of the veinlet zones should be undertaken if gold values obtained from Phase 3 are encouraging. Approximately 5000 metres might be required.

Phase 5

Fill-in drilling may be required on either of the known targets.

COST ESTIMATE

Phase 1 (United Bear Group)

Geological mapping. sampling	\$ 3,000	
Soil sampling	2,000	
Analyses	2,000	
Roads and drill site preparation	9,000	
Diamond drilling, 500 m at \$75/m	37,500	
Support equipment, services, supplies	3,000	
Supervision, engineering	4,000	
Report	2.000	
	62,500	
Contingencies at 20%	12,500	
Total, Phase 1	\$ 75,000	\$ 75,000

Phase 2 (United Bear Group)

Diamond drilling, 3000 m at \$75/m	\$225,000	
Assays	10,000	
Support services	10.000	
Supervision, engineering, geology	25,000	
Report	<u>5,000</u>	
	275,000	
Contingencies at 20%	55,000	
Total, Phase 2	\$330,000	\$330,000
Phase 3 (United Tommy Group)		
Diamond drilling, 2000 m at \$75/m	\$150,000	
Assays	25,000	
Support services	10,000	
Supervision, engineering, geology	20,000	
Report	5,000	
	210,000	
Contingencies at 20%	42,000	
Total, Phase 3	\$252,000	\$252,000
Phase 4 (United Tommy Group)		
Diamond drilling, 5000 m at \$75/m	\$375,000	
Assays	50,000	
Support services	25,000	
Supervision, engineering, geology	50,000	
Report	10,000	
	\$510,000	
Contingencies at 20%	102,000	
Total, Phase 4	\$612,000	\$612,000

Phase 5

A budget of \$500,000 should be available for additional drilling as required on either sector of the property

\$500,000

Total, Phases 1-5

\$1,769,000

Results of each Phase should be compiled into an engineering report; continuance to the subsequent Phase should be contingent upon receiving favourable conclusions and recommendations from an Engineer.

Respectfully submitted.

Locke B. Goldsmith, P.Eng. Consulting Geologist

Vancouver, B.C.

June 26, 1986

ENGINEER'S CERTIFICATE LOCKE B. GOLDSMITH

- 1. I, Locke B. Goldsmith, am a Registered Professional Engineer in the Province of Ontario and the Northwest Territories, and a Registered Professional Geologist in the State of Oregon. My address is 301, 1855 Balsam Street, Vancouver, B.C.
- 2. I have a B.Sc. (Honours) degree in Geology from Michigan Technological University, a M.Sc. degree in Geology from the University of British Columbia, and have done postgraduate study in Geology at Michigan Tech and the University of Nevada. I am a graduate of the Haileybury School of Mines, and am a Certified Mining Technician. I am a Member of the Society of Economic Geologists, the AIME, and the Australasian Institute of Mining and Metallurgy, and a Fellow of the Geological Association of Canada.
- 3. I have been engaged in mining exploration for the past 27 years.
- 4. I have authored the report entitled, "Review of Exploration Data, United Bear and United Tommy Mineral Claim Groups, Kennedy River Area, Alberni Mining Division, Vancouver Island, B.C.", dated June 26, 1986. The report is based upon fieldwork and research supervised by the author.
- 5. I have no ownership in the property, nor in the stocks of International Coast Minerals Corp..
- 6. I consent to the use of this report in a prospectus, or in a statement of material facts related to the raising of funds.

Respectfully submitted.

Locke B. Goldsmith, P.Eng.

Consulting Geologist

Vancouver, B.C. June 26, 1986

REFERENCES

- Bancroft, M.F. 1937. Gold deposits on the west coast of Vancouver Island betwee Esperanza Inlet and Alberni Canal. G.S.C. Memoir 204.
- B.C. Minister of Mines, Annual Reports: 1903, p. H232; 1904, p. H192; 1914, p. K219; 1923, pp. A245-A246; 1935, pp. F46-F48; 1939, p. A42.
- Brown, C.J. August 20, 1982. Report on Kennedy River claims, Alberni Mining Division, British Columbia. Private report for Rich Lode Gold Corporation.
- Brown, C.J. November, 1982. Report on Kennedy River claims, Alberni Mining Division, British Columbia. <u>In Prospectus for Rich Lode Gold Corporation; dated February 28, 1983.</u> (Assays from sampling on the Tommy claim are edited from this report.)
- Brown, R. <u>Circa January</u>, 1986. Geology map and sampling of Bear mineralization for Lac Minerals Ltd. (reproduced in the Appendix of this report).
- Drummond, A.D. January 19, 1984. Report on the Tommy, Golden Gate, and Waterfall Mineral Claims, Alberni Mining Division, Kennedy River, West of Port Alberni, B.C. In Statement of Material Facts for International Phoenix Energy Corporation, dated May 17, 1984.
- Eastwood, G.E.P. 1968. Geology of the Kennedy Lake area. Vancouver Island. B.C. B.C. Department of Mines and Petroleum Resources, Bull. No. 55.
- Groves, W.D. June 2, 1985. Examination of Bear Group property. Kennedy River area. Alberni Mining Division, Vancouver Island, B.C. Private report for First Coast Minerals Corporation.
- Groves, W.D. December 9, 1985. Letter report documenting a property visit subsequent to June 2, 1985, submitted for First Coast Minerals Corporation.
- Helsen, J.N. September 17, 1985. Property examination report, Bear Group, Alberni Mining Division, B.C. Private report for Noranda Exploration Company, Limited (reproduced in the Appendix of this report; also subsequent sampling October 2, 1985, which has no locations plotted on maps).
- Muller, J.E. and Carson, D.J.T. 1969. Geology and mineral deposits of Alberni Map-Area. B.C. G.S.C. Paper 68-50 and Map 17-1968.
- Spilsbury, T.W. September 17, 1984. Report on the geological, geochemical, electromagnetic, and magnetometer surveys conducted on the Tommy, Golden Gate, and Waterfall claims, Alberni Mining Division. Private report for Teck Explorations Limited and International Phoenix Energy Corporation.

Spilsbury, T.W. et al. April 4, 1985. Report on trenching and sampling program on the Tommy mineral claim, Alberni Mining Division. Private report for Teck Exploration Limited and International Phoenix Energy Corporation.

APPENDIX

SAMPLE DESCRIPTIONS, BEAR MINERALIZATION

L.B. GOLDSMITH

SAMPLE DESCRIPTIONS

BEAR MINERALIZATION

		Assays		
Sample No.	Description.	oz/ton Au	oz/ton Ag	
2V	Number 2 Vein, chip sample across 60 cm of sheared footwall (south-west side of vein) volcanics and 1.5 m of quartz vein. Volcanics with disseminated pyrite. Vein contains pyrite-pyrrhotite to 5% with lesser chalcopyrite. The vein trends ±300° at an acute angle (±30°) with the main east-west shear zone.	1.228	0.89	
Black-1	Black Vein, chip sample 2.0 m eastwest across a quartz vein with sections of massive pyrrhotite, pyrite, variable (½% to 5%) amounts of sphalerite, and lesser chalcopyrite. Quartz terminates against an east-west shear on the south side; smears of quartz towards the east on the north side of the shear may be of a later generation. Attitude of quartz is not discernible from the exposure but a trend at an angle to the east-west shear is suggested.	0.146	0.21	

ASSAYS, BEAR MINERALIZATION

L.B. GOLDSMITH



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Analytical Chemists

Geochemists

Registered Assayers

CERTIFICATE OF ASSAY

CERT. #

: A8613472-001-A

INVGICE # : 18613472

DATE

: 11-JLN-86

P.C. # : NGNE

301 - 1855 BALSAM ST.

VANCOUVER, B.C.

TO : ARCTEX ENGINEERING

V6K 3M3

CC: L. B. GOLDSMITH

Sample description		Ag oz/T RUSH FA			
27	236	0.89	1.228	 	
BLACK-1	236	0.21	0-146	 	

Registered Assayer, Province of British Columbia

J.N. HELSEN PROPERTY EXAMINATION REPORT

BEAR GROUP

NORANDA EXPLORATION COMPANY, LIMITED

NORANDA EXPLORATION COMPANY, LIMITED. (No Personal Liability)

NTS

: 92F/3W

PROPERTY NAME: BEAR GROUP

PROPERTY EXAMINATION REPORT

DIVISION: CORDILLERA

Commodity : Au-Ag-Zn

Date of Report: September 17, 1985 Date of Exam : September 5, 1985

Examined By : J.N. Helsen

Additional Report/2nd. visit.

1) PROPERTY NAME(S)

BEAR GROUP

2) LOCATION: - General Statement (Attach Location Map)

Province: B.C. District: Southern Mining Division: Pt. Alberni

Long.: 125°25'W Lat.: 49°10'20"N Additional:

Accessibility: Accessible via the Alberni-Ucluelet Road #4 (about 40 minutes from Pt. Alberni). At the moment the Kennedy River must be crossed on foot but there are good indications that within a few months the property may be accessible by 4 x 4 via a new logging road. Distance to Pt. Alberni about 60 km and about 30 km to Ucluelet.

3) CONCLUSIONS AND RECOMMENDATIONS:

Additional sampling was carried out on the cleaned newly exposed "Black Vein". Results over 2.9 m (across vein) show 28.97 gpt Au, 13.37 gpt Ag, more than 2% Zn. There are good indications that the gold mineralization extends into the Karmutsen H.W. Gold also occurs in stockworks in the granitic intrusion east of the adit and along the Bear Creek fault zone.

4) ACTION TAKEN:

Meeting with Waldo Ejtel on September 17, 1985 during which he cutlined his conditions for a 60% or alternative 100% ownership for Noranda.

5) SIZE AND LEGAL STATUS OF PROPERTY:

4 reverted Crown Grants i.e. #293, #294, #300, #487.
These claims are surrounded by claims of three other junior companies and are:

Mojo Captain Hook Esthez

6) OWNERSHIP

Waldo EJTEL, President
First Coast Mineral Corporation,
1614 - 675 W. Hastings Street,
Vancouver, B.C.
V6B 1N2
PHONE: (604) 669-0712

7) VENDOR'S PROPOSED TERMS:

[Non-technical data]

8) HISTORY OF DEVELOPMENT AND PRODUCTION:

The Bear Creek property goes back as far as 1902 when a tunnel was driven. Little information, however, is available. The youngest report (Minfile) was written in 1916.

The tunnel, contrary to indications on Figure 5, is not straight but changes directions several times. The tunnel goes into the hillside for 200'.

Several veins are crossed by the tunnel and on one occasion the last vein hit, disappears to reappear again after tunneling through 30' of barren rock.

9) REGIONAL GEOLOGY: (Attach Maps)

The regional geology is made up mainly by:

- Triassic and older Karmutsen Formation: mafic volcanics predominantly with jasperoid tuffs, breccias and conglomerates at the base.
- Upper Triassic Quatsino Formation: predominantly thickly bedded massive limestones.
- 3. Lower Jurassic Bonanza Subgroup: mainly andesitic volcanics with minor amounts of greywackes, argillites, sandstones.
- 4. Middle to Upper Jurassic Island Intrusions: i.e. granodiorites and diorites.

10) GEOLOGY OF THE DEPOSIT: (Geology, minerology, length, width, dip Strike)

The property lies for about 2/3 in the Karmutsen Group (Triassic) and 1/3 (western part) Younger Island Intrusions (granitic). These intrusions are Jurassic or even younger in age.

A major fault zone strikes in a NW-SE direction south of the property, to form two branches on the property itself. These are named the

- i) Bear Creek fault zone forming the contact between younger intrusives and Karmutsen volcanics;
- ii) Mine Creek fault zone which runs entirely in intrusive rocks (Figure 3).

The mineralization occurs in and along the Bear Creek fault zone. Gold mineralization has been shown to occur in variable amounts in:

- 1) Quartz veins in tunnel and at surface (Figures 5 & 6)
- 2) Karmutsen H.W. (Sketch #2)
- 3) Stockwork in granitic intrusions F.W. Below adit.

The best mineralization was found in a newly discovered vein west and uphill from the adit @ about 150 m distance. In this new "Black Vein" mineralization consists of pyrite, chalcopyrite, sphalerite, minor galena and apparently also visible gold (not seen by author). This vein is almost vertical and has an E-W strike. Vein #2 in the tunnel also strikes about E-W with a 50° dip to the north and a thickness of 5'. There is no indication how the new vein relates to the older vein system except that it lies along the same fault creek zone. VLF info indicates an anomalous zone of about 40' wide uphill from the Black Vein exposure.

- P. Wilton from observations in the tunnel believes the veins to pinch and swell and they may be even on echelon.
- 11) SAMPLES TAKEN (Note Sample Numbers and refer to Sample Report)

In addition to previous samples taken (Figures 5 & 6 and Sketch #1), samples were taken across remnants of Vein #2 in the tunnel, from vein exposures at surface and from the newly discovered vein uphill.

The results are in Table #1.

12) ESTIMATE OF RESERVE POTENTIAL: (State dimensions and source of information).

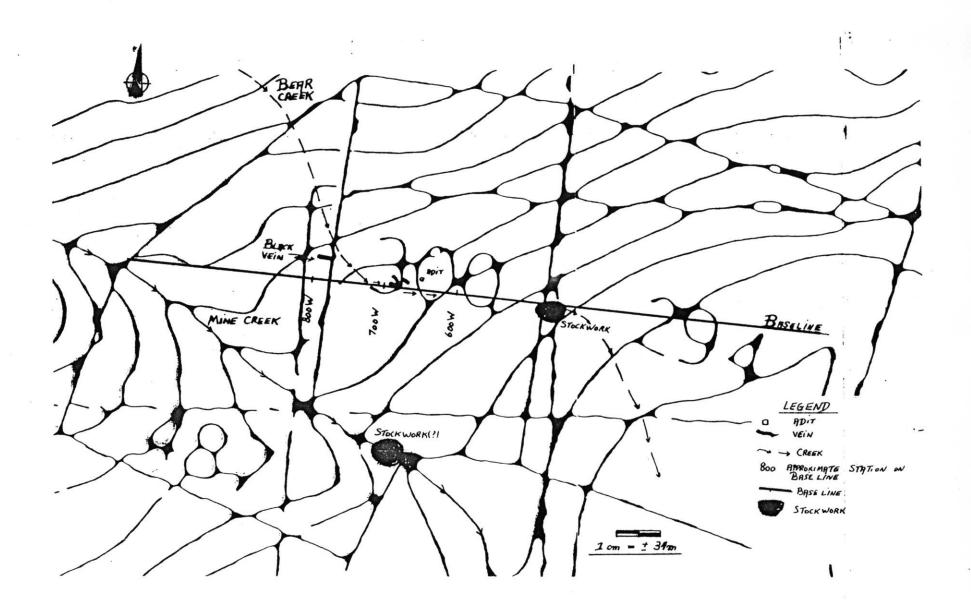
Potential exist for Au mineralization in veins, disseminated in wallrock and in stockwork. The distance between the downhill stock work and uphill black vein exposure is in the order of 200 m.

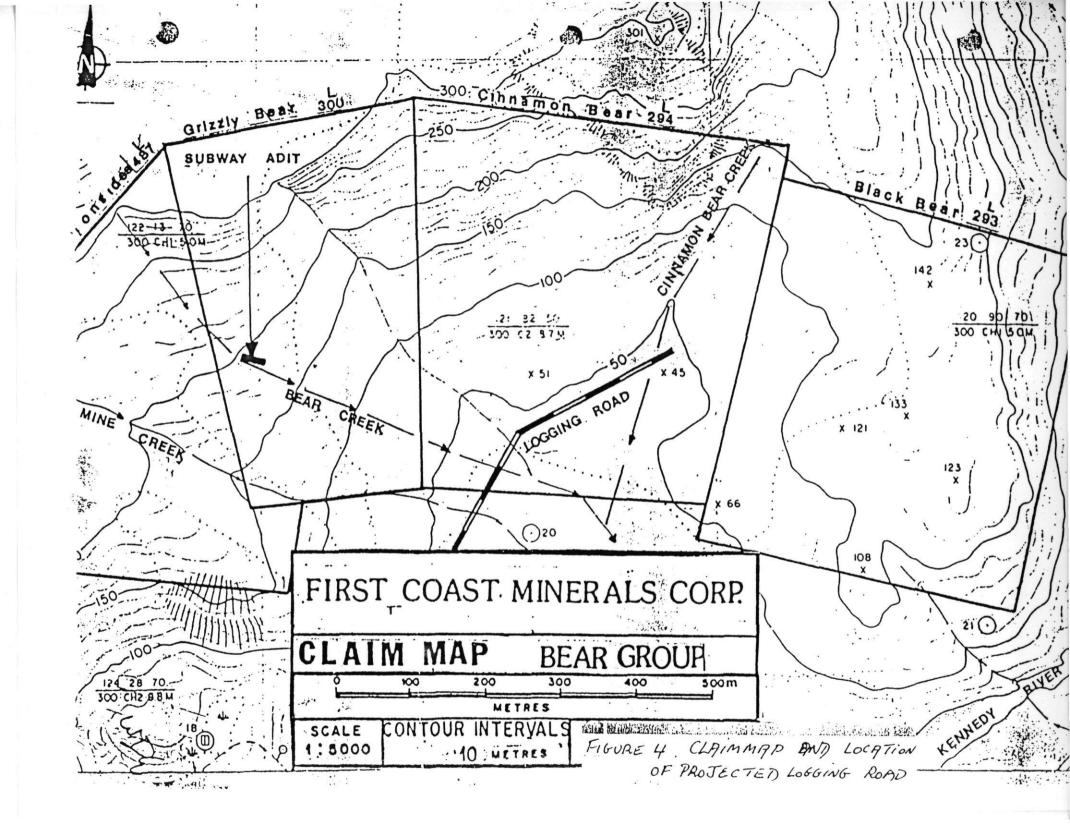
13) REFERENCES:

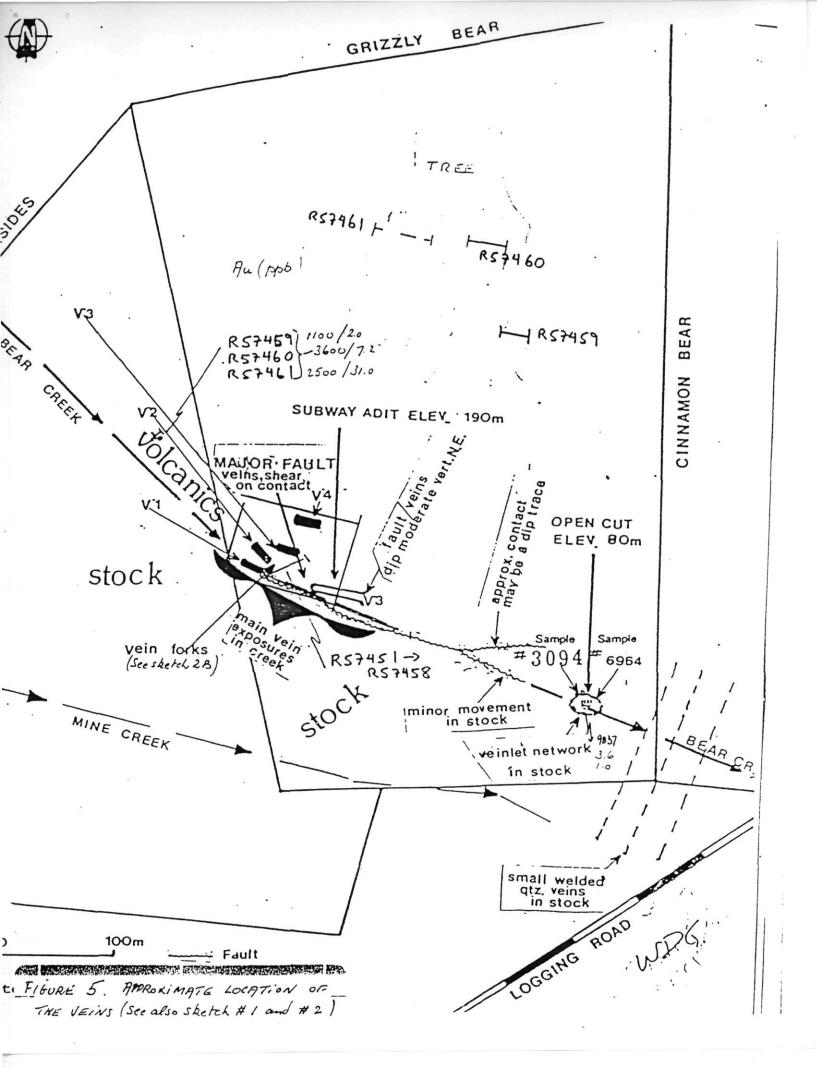
- G.S.C. §Map 17-1968, J.E. Muller §Paper 68-50
- W.D. Groves. Archean Resources Corp., "Examination of Bear Group" for First Coast Minerals Corporation, June 1985.

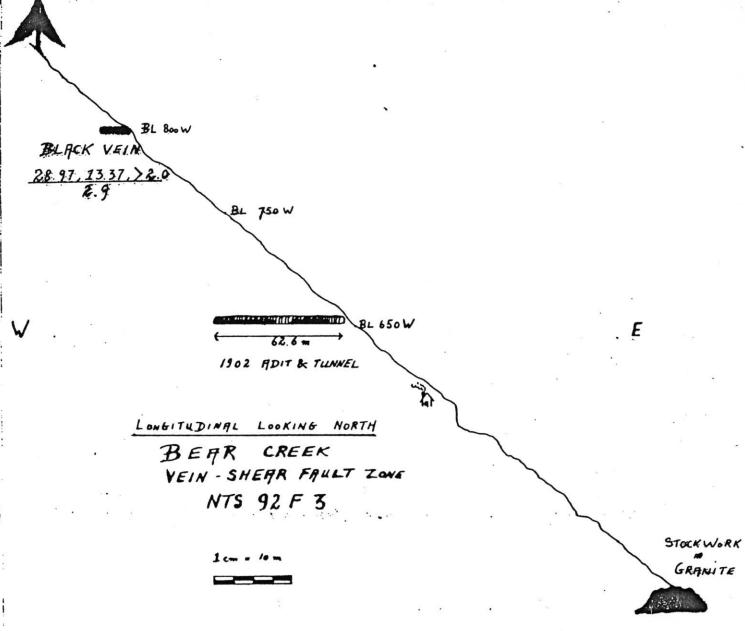
14) APPENDICES:

Figure	1	Topographic Map
Figure	2	Claim Map.
Figure	3	Geology on and around the Bear Group property.
Figure	4	Claim map with location of projected logging road.
Figure	5	Approximate location of the veins at the surface. (See also Sketches #1 & #2)
Figure	6	Location of Black Vein in relation to other veins.
Sketch	1	Sketch of veins (yellow area on Figure 5)
Sketch	2A	Cross section of vein at 90 m station in tunnel
Sketch	2B	Quartz vein at surface branching out.

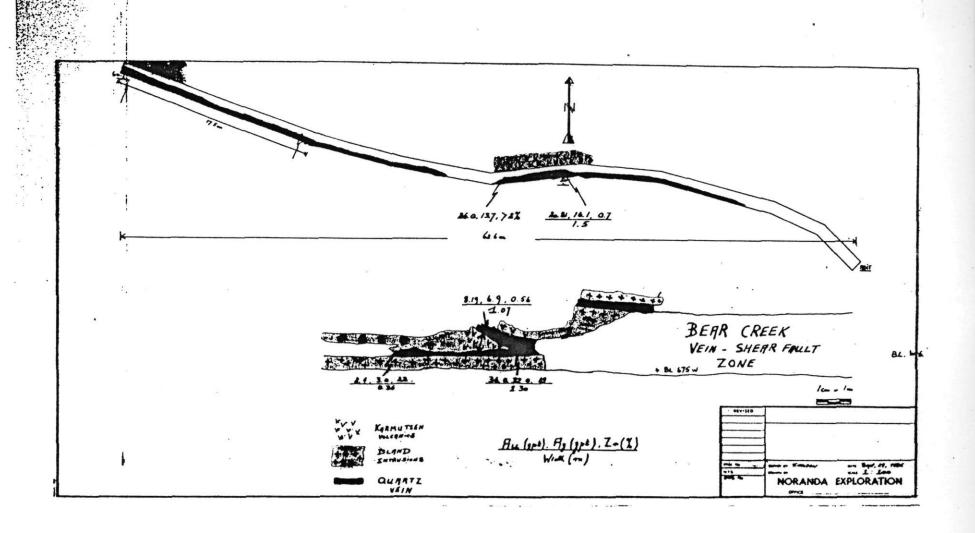




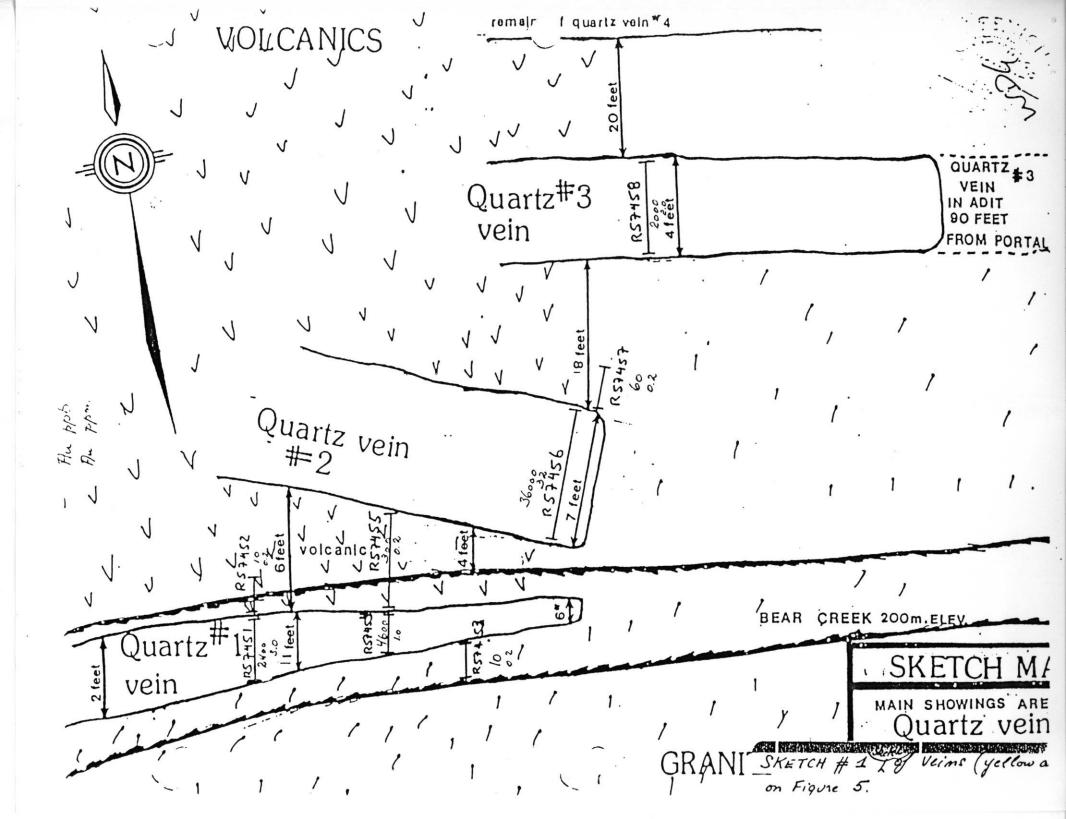


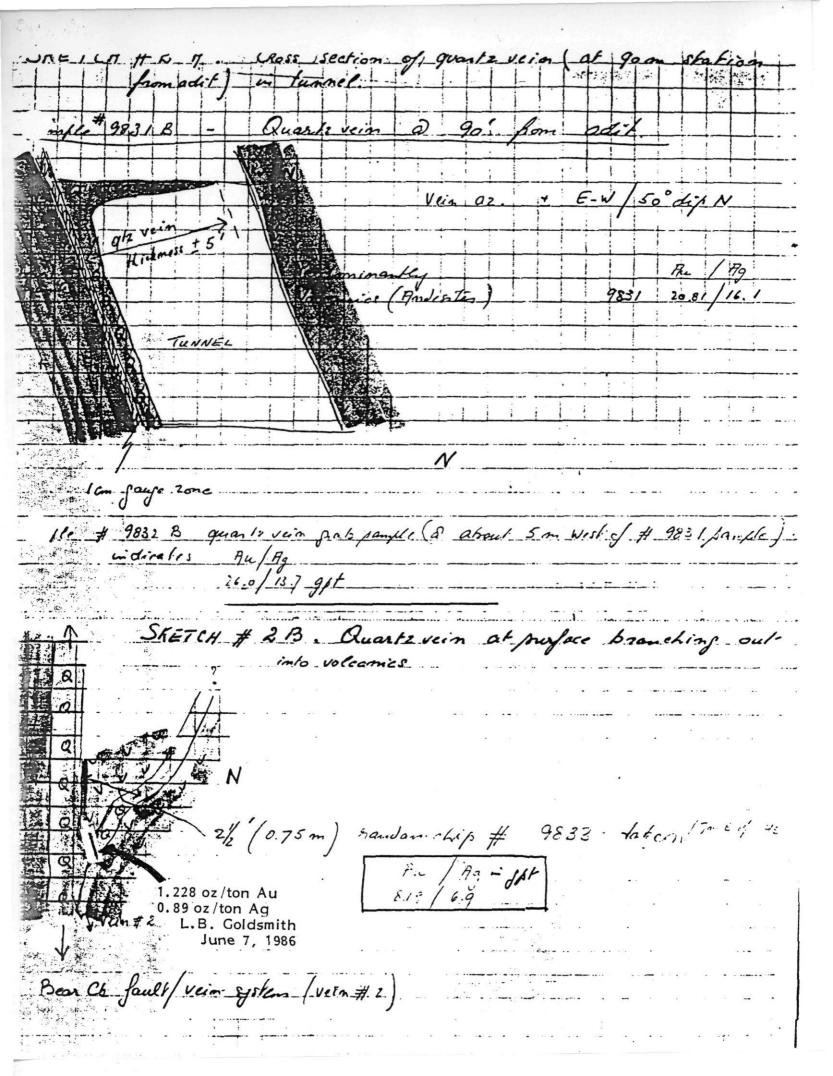


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NORANDA VANCOUVER LABORATORY

COOPERTY/LOCATION:Bear Group 92F/3

CODE : 8507-019

GCI 51275

Project No. Material

127 Rock

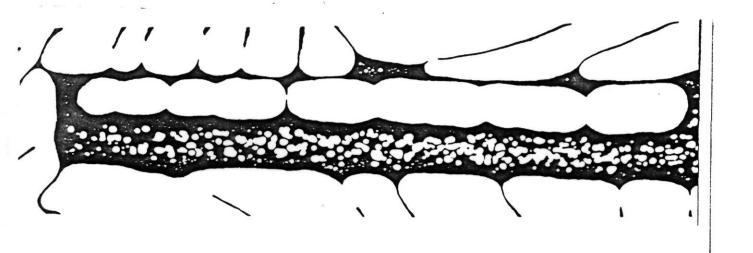
Sheet: 1 Geol.:R.W. Date rec'd: July 2

Date compl:July 18

Remarks

Values in PPM, except where noted.

т. т.	SAMPLE						PPB			
No.	'No.	Cu	Zn	РЬ	Ag	As	Au	TYPE		WIDTH
 75	57451	180	23000	24	3.0	24	2400	Chip		36
7E	52	22	180	1	0.2	2	10	Chip		45
77	53	12	64	1	0.2	2	10	Chip		60
78	54	68	5000	1	1.0	2	4600	Chip		26
79	55	72	220	1	0.2	2	300	Chip		190
80	56	850	19000	520	32.0	120	√36000	Chip		130
81	57	38	260	1	0.2	2	60	Chip		71
82	58	170	860	6	2.0	2	2000	Chip		75
83	59	52	120	4	2.0	2	1100	Random	chip	30
84	60	2600	5400	14	7.2	2	3600	Random	chip	35
85	57461	6500	17000	6	31.0	2	2500	Random	chip	60



NORANDA EXPLORATION COMPANY, LIMITED TABLE #1 RESULTS OF ASSAYS (Ag-Au)

427-A4

AND GEOCHEM (Cu-Pb-Zn)
BEAR GROUP (First Coast Minerals Corp)

PROPERTY BEAR GROUP (First Coast Minerals Corp)

8509-048

N.T.S. <u>92F/3W</u>

DATE September 6, 1985

PROPERTY EV	ALUATIONS A M P	LE	R	ΕP	O R	T
-------------	-----------------	----	---	----	-----	---

SAMPLE NO.	LOCATION & DESCRIPTION	TYPE	WIDTH				ASSAYS			SAMPLE
, A	COCATION & DESCRIPTION			Au	Ag	Cu	Pb	Zn		BY
9831B	chip sample across vein in adit @ 90' station	chip	± 5'	20.81	16.1	320	660	7000		J. Helse
	(at edge of vein near gange zone) Vein E-W/50 ^O N									
9832B	5 m to W of above - same vein	grab		26.0	13.7	1000	450 >	20,000		
9833B)	Combine 2 bags. Random chip in volcanics be-	random	3 1/2"	8.19	6.9	920	80	5600		
9833B)	tween 2 branches of split vein la (taken @ 7 m E	chip								
	from VR 57451 Station									
9834B	chip sample across vein (Total width 2.9 m)	chip	1 m	38.44	13.7	950	51	12400		
	0-1 m section (with gal; sph; py & Au)									
9835B	Same as 9834B section 1-2 m	chip	1 m	26.64	11.7	1540	37	20,00	p	
9836B	Same as 9834B section 2-2.9 m	chip	0.9 m	21.84	14.7	1630	57	20,00	D	
9837B	grab of veins (1 cm) in 2 m wide stockwork	grab		3.60	1.0	45	11	1300		
	also host rock included because of tiny veinlets.									

Certificate of Analysis

PEPORI- (PS-2016)	PROJECT: 427, 8509-048 PAGE 1
SAMPLE SELEMENT OF ANY	
22 (2018) 20.81	
22 98368 2 21.84 1514.7 22 98378 2 2 3.60 1.0	

71270R7 12125-2716 A 3		BEAR	Ge (JH)	#PROJECT: 427 8509	_048 (PAGE 2)
SAMPLE SILEMENT	CU S. Pb. F S. PPN PPN	PPN			
82 0831B 97 0832B 82 0833B 82 0834B	1000 450 2920 80	7000 20000 5600 \$25 2400			
PZ 9836B	1630 57 15 11 2	20000 1300			
			- 10	pety Sub	ent Story
			So Bi	ullem -AR	
		0 8 4 2			
			2 .		

Bonder-Clegg & Company Li 130 Pemberion Ave, North Vancouver, B.C. Canada VTP 2RS vie: (604) 983-0681 ix: 04-352667



Certificate of Analysis

REPORT: 625-2716		BEAR GR (J4)	PROJECT: 427 0 509 0 48 PAGE 1
SAMPLE ELEMEN MUMBER UNIT	Tan Zovana salah San PCT		
P2 98328 2 P2 98358 2 P2 98368	2:48 2.50 4.20		
	» ু শু ং	, a .	
		,	

8/9/81 JH DB WM DP

They -

231010

NORANDA EXPLORATION COMPANY, LIMITED

PROPERTY BEAR GROUP 427-A4

N.T.S. GAL 30.81

SAMPLE REPORT

	A DEPOSITE OF THE PROPERTY OF	TYPE	WIDTH				**** *\$	6E0	CHEM	SAMPLE
SAMPLE NO.	LOCATION & DESCRIPTION	1176	WIDTA	Au	Ps	Cu	Pb	Z_n	P/S	8 Y
820 W-405	Seile from BEAR Group				70					K. CROS
· - 355	820 W = + 20 m West of Black Vein									J.HELL
1 - 305	Showing and then 40 m to 5 & N		<u> </u>							
" - 15S	U					<u> </u>	<u> </u>			
<u>, - 205</u>							<u> </u>	ļ		
<u>1 - 155</u>					ļ	ļ	ļ			
<u> 105</u>						ļ	ļ	ļ		
055	107					ļ	ļ	-	1	
n - 00 S	SBC 42/			ļ	ļ	ļ	ļ	<u> </u>		
· - 05N	SBC 427 SOIL 8510-021				<u> </u>	ļ	ļ	<u> </u>	1	
" - 10 N	SUIL		<u> </u>	 	 	 	ļ	ļ	-	
15 N			 	 	ļ		 		-	
· - 20 N	SBC 427			 	 				-	
1 - 25 N	Soil 8210-021	 	<u> </u>	 		 	 	 	-	
30N				 	-	-	-		-	
35 N	.)		_		 	 			-	
· - 40 A			- `	 	 					
	Guis of W. EJTEL		_	 			-			
<u>* - 151</u>					 	 			-	
825W-15			-	 	 	 		+		
" 0	· ·	-		 	 		-	 	-	
<u>" - 15</u>				┤	+	+	-	+	-	
·· · · 3a	, W	<u> </u>		J	1				لـــــــــــــــــــــــــــــــــــــ	

NORANDA VANCOUVER LABORATORY

PROPERTY/LOCATION: BEAR GROUP

CODE :8510-021

Project No. Material :427-A4 :SOIL Sheet:1 of 1 Geol.:J.H. Date rec'd:SEP.02

Date compl:NOV.04

Remarks :

Values in PPM, except where noted.

т. т.	SAMPLE						PPB
No.	No.	Cu	Zn	РЬ	Ag	As	Au
43	820W-40S	10	<u>-</u> 30	2	0.2	1	10
44	35	14	48	6	0.2	1	10
45	30	16	60	2	0.2	1	10
4 E	25	14	60	2	0.2	1	10
47	20	38	110	14	0.6	1	10
48	15	14	70	20	0.2	1	10
49	10	12	58	14	0.2	1	10
50	5	12	66	4	0.2	1	50
51	820W-0S	12	46	4	0.2	1	10
52	820W-5N	10	44	4	0.2	1	10
53	10	10	200	6	0.2	1	10
54	15	10	44	4	0.2	1	10
55	20	34	100	8	0.2	1	10
	25	12	50	6	0.2	1	10
/ن	30	6	30	2	0.2	1	10
58	35	10	36	4	0.2	1	10
59	820W-40N	16	52	2	0.2	1	10
60	825W-15S	10	44	4	0.2	1	10
61	825W-0S	14	50	4	0.2	1	10
62	825W-15N	8	34	2	0.2	1	10
63	825W-30N	28	94	10	0.2	1	10
64	BOOW-ON	18	96	18	0.2	1	10
65	800W-15N	8	34	4	0.2	1	10

DARC

11 RX

NORANDA EXPLORATION COMPANY, LIMITED

PROPERTY BEAR GROUP

427-A4

SAMPLE REPORT

	- CONTINUE DESCRIPTION	TVDE					ASSAYS				SAMPLET
AMPLE NO.	LOCATION & DESCRIPTION	TYPE	(m)	Au	Cu	Pb	Zm	As			BY
	BEAR GROUP			Assay	600	chem	6coch	422			J.HELO
9790	atz vein / Bz 280°/80°N/exp over 1 6m	Chip	0.45	15.87					 		
	Close to 675 W Wation, Q/2 with mind for filling	, 					 				
751	gleveia a 10.5 m from 675 W to west / pah	pab					ļ	ļ 			
	in erech bed of loose material, white and pery		 			ļ				-	
	quarks (per contains outpides along packs	<u> </u>	 					İ	 	ļ	
792	9/2 vien with later py sph, tonn, Jalena, Chpy	pas	109.6	5.					<u> </u>		
	from the 2 both on for the Fractured str					 -					
	Vin filled with outfides along cracks and a	,						. i		 	
	Marte vem warmy along strike within 1/2 veia										
7793		chip	0.8								
	adit sheard gte vicin with chlark/clay	/								ļ <u></u>	<u>.</u>
	layers (a few mon to com) within gto vien		ļ					-		·	
794	pah in gh vin (a I can from stope)	pah		3.53				 		ļ <u></u>	
	of pyrik filling in Openings (vigs) in gts			ļ			ļ				
755	pat along gt 2 vein from Stope to 49 m	Aas	17.5	<u> </u>		-	 -	-	ļ <u>.</u>		
3701	Station (along otherse)		-			-	 -	 		<u> </u>	
7796	hat of past with pyrite at 50 molation		0.4	 	 	ļ	 		 		
1797	stockwork in parte (chip every 10 cm) 0-5 m	exis.	5.0			-		-			
1798 1700	5-10 m	***	5.0					1		 	
17 <i>55</i> 1811 11	10.150	· · · · ·	<u>5.0</u>	 		-	 	-	 		

indar //Terg/ & Company Ltd. 130 Pemberian Ave North Vancouver: B. C Canada V79 2R5 Phone 10141 985-0681 7 04 352667



Certificate of Analysis

PORT: 425-	-3244			•		*	PROJECT:	427	PAGE	1
AMPLE JHRER	ELEMENT UNITS	GHI GHI	IND Pa							
9790		15.87	8.2							
9791		0.65	1.4							
9792		109.65	51.8							
9793		0.51	1.0		· ·					
2 9794		3.53	2.4							
9795		0.86	1.0							
9796		1.71	2.4							
9797		0.07	<0.7							
9798		0.69	<0.7							
9799		<0.07	<0.7							
9300		0.07	<0.7							

Councitating

B. arting & Compan Lid

130 Pandenini Ave North Varicouver, B C Canada VTP 2R5 Phone (6/4) 985-0681 Tr. 04-352667



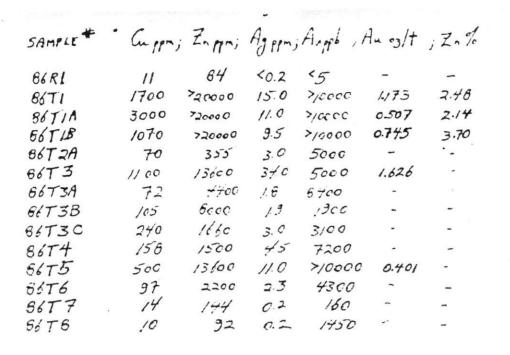
Geochemical Lab Report

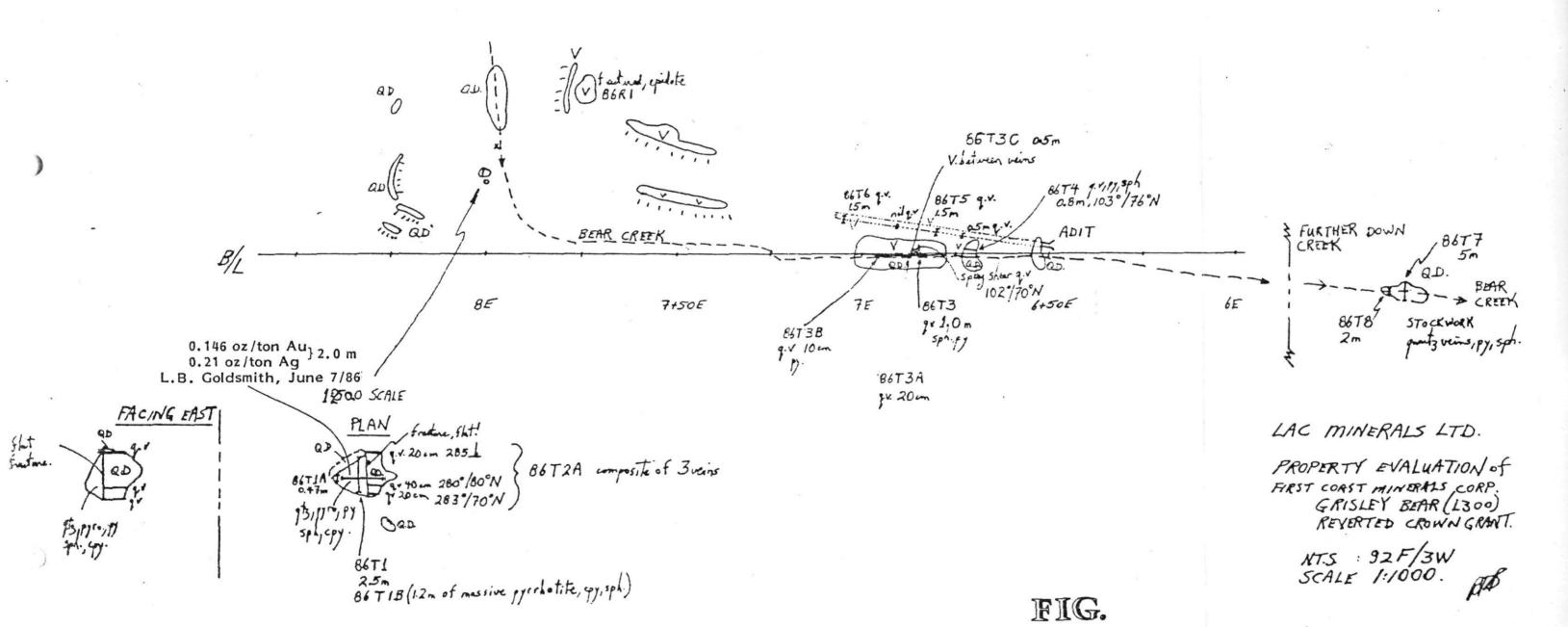
HAPLE ELDHENT CU PD Zn UNHER UNITS PPH PPH PPH 1 9790	EPUKI: 125	-3244				GEAR GR	(JU) -	PROJECT	: 427 8	510-025	PAGE 1	
1 9790						- Volle O						
1 9791	URREK	CTINII	PPH	PPH	PPH							
1 9722	1 9790		255	18	670							
1 9793			49	18	2700							
1 9794 103 53 1120 1 9775 240 70 2200 1 9776 550 19 48 1 9797 1) 5 79 1 9798 24 5 1360 1 9799 5 3 85 1 9300 4 5 53					>20000							
1 9795												
1 9796	1 9794		103	53	1120							
1 9797 11 5 79 1 9798 24 5 1960 1 9799 5 3 85	9795		26.0	20	2300							
1 9798												
19799 5 3 85												
1 9300 4 5 53												
	1 9799		- 5	3	85			7				
•	1 9300		4	5	53							
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ROBERT BROWN GEOLOGY MAP AND ASSAYS

BEAR GROUP

LAC MINERALS LTD.





LAC MINERALS

क्याः 126	-0026 (COM	PLETE)				1618	o sive pai (I	5 Detu:	, Ed.	
	MINEBALS I	10.		J				BY: R. BROWN CTED: 13-JAN-86		
E GETT	ORDER	ELDERT	ikus.	MUMRER OF AMALYSES	LOWER DETECTION LIN	T EXTRACTION		HETHON		•
	1 2	Cu Dapper Zn Zinc		14	1 PPH 1 PPH	HMO3-HCT H	II EXTE	Atomic Absorp		
3 I.K	4	Ag Silver Au Gold -	Fire Assay	14	0.2 FFR 5 PFR	FIRE-ASSAY		Michie Mostry Fire Assay M		
•	SAMPLE TY	PES	MUMBER	SIZE FI	RACTIONS	NUMBER	SAMPLE	PREPARATIONS	NUMBER	
• :	1 1000 0	BE NOX	14	2 -1:	50	14	CRUSH,	PULVERIZE -150	Ti.	
	REMARKS:	assay de hie	SH Au I Ag I	D FOLLOW ON 62	×6-∞26.				:	
	KEPUKI CUI	IES IU: AK.	KUREKI EKU	ur		2.00	LE IU: M	DEEKI BROOM		7
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X.										

1 A re France, B C FTP 2.RS (64.15767



Geochemical Lab Report

NI: 125-7						PROJECT: NONE GIVEN PAGE 1
LE	ELEMENT	- Cu	Zn	Ag	Au	
ER	UNIIS	PPH	PPM	PPH	PPB	
e Bl		11	84	(0.2	75	
6 T1 ·		1770	>20000	15.0	>10000	
6 TIA		3000	>20000	11.0	>10000	
6 T1B		1070	>20000	9.5	>10000	
6 T2A		70	355	3.0	5000	
6 13		1100	13600	34.0	5000	
6 T3A		72	4400	1.9	8400	
5 138		105	9000	1.9	1900	<i>[</i> ,
6 I3C		240	1660	3.0	3100	1
6 14		158	1500	4.5	7200	, V \
6. 12		500	13600	11.0	>10000	\(\alpha\):
6 76		97	2200	2.3	4300	
6 T 7		14	144	0.2	160	·N. ic-
5 T 9	965	10	92	0.2	1450	$\mathcal{M}\mathcal{I}$
			•••		,	(con)
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REPORT: 626-0026 (COMPLETE) -----

CLIENT: LAC MINERALS LTD. PROJECT: MONE BIVEN

SUBMITTED BY: R. BROWN DATE PRINTED: 20-JAN-86

ORDER ELEMENT

NUMBER OF LOWER

ANALYSES PETECTION LIMIT EXTRACTION METHOD

Au Gold - FIRE ASSAY

5

0.001 CPT

In Zinc

0.01 PCT

SAMPLE TYPES NUMBER

BIZE FRACTIONS

MUMBER

SAMPLE PREPARATIONS NUMBER

R ROOK OR BED POOK 5

2 -150

49 RECEIVED. NO SP

MOTES: = indicates SEE CSS REMARKS

REMARKS: = 49 WAS EGUND IN THE -100 MESH ERACTION AFTER SCREENING AND CALCULATED INTO THE

REPORT COPIES TO: HR. ROBERT BROWN

INVOICE TO: FR. POPERT BROWN First looks Miner

RECEIVED MAY 2 0 1003



PORT: 626-	0026						; .	PROJECT:	NONE GIVEN		PAGE	1	
PLE 1BER	ELEMENT UNITS	Au CPT	Zn PCI	ere e		 		•		E 543		*) 0	N 40 NO.
96 TI		1.173	2.48			 	•						
95 T14		0.507=	2.14										
96 TIR		0.745=	3.70										
96 I3		1.526=				180							
96 15		0.401											
					-	 							

RESULTS OF 4.82-TON BULK SAMPLE
FROM BLACK VEIN SHIPPED TO
COMINCO LTD.



		UNE 1986
	FIRST COAST MINERALS CORP. 400 - 1455 ROBSON STREET FIRST COAST MINERAL VANCOUVER. B.C. PRELIMINARY LOT NO V6G-1C1	
0	CAR NUMBERS: 1 TRUCK DATE RECEIVED: 1986 05 12 (11 BARREL)	
C	WEIGHTS: NET WET 9700 MOIST 0.5 % NET DRY 9651 S.D.	T. 4.8255
0	ASSAYS:	
•	LEAD 0.4% ZINC 3.4% SILVER 0.65 CZ/TN GOLD COPPER C.23% IRCN 24.2% ANTIMONY 0.14% ARSENI SULPHUR 18.0% ALUMINA 0.8%	J•230 JZ/T : C J•05 %
	GUGTATIONS: JUNE AVERAGE - LEAC ZINC SILVER GOLD COPPER	
0	EXCHANGE: JUNE SUS TO SCDN 1.378500 STERLING TO SU LABOUR RATE: \$ 19.13 CPI: 312.00	\$ 1.481000
0	CALGULATED PRICES:	
O	GOLD 343.2C # 1.3785 # .98 PAYMENTS: (PER SHORT DRY TCN)	463.63918 \$/02
(:	GOLD CONTENT DEDUCTIONS PAID FOR 0.2500 0Z 0.2500 0Z TOTAL PAYMENT \$	
	DEDUCTIONS: (PER SHORT DRY TON)	
0	BASIC TREATMENT CHARGE: C.P. INDEX: (312 300.) # .25 LABOUR: LABOUR RATE: (19.13 - 18.25) # 160. # .05	-207.23 -3.00 -4.40
0	IRCN PENALTY : (24.20 - (5. + (1.44 ± 3.40))) # 3.55 ALUMINA PENALTY : (.8050) ± .90 NET CEDUCTIONS \$	-50.78 -0.27 -265.68
0	NET VALUE (PER SHORT DRY TON) \$	-149.77
	GROSS LOT VALUE \$	-722•72
C	NET LCT VALUE	-722•72

Analysis Certificate	Anal	vsis	Certificate
-----------------------------	------	------	-------------

Analytical Services, Trail, B.C.



45P08 860512 8406 1ST COAST MN LOT #1 LEAD ORE

ZN Z	S % 18.0	S102 % 51.0	AL203 % 0.8	FE % 24.2	CAO % 0.04	SH %	AS % 0.05	BI % 0.01	
#20	AU(FULF)	AU(MET)	AU(TOT)	AG(PULP)	AG (MET)	AG(TOT)	CU	PB	
%	0Z/TON	OZ/TON	OZ/TON	OZ/TON	0Z/TON	OZ/TON	%	%	
0.5	0.280	(0.001	0.280	0.65	(0.01	0.65	0.23	0.4	

CD 0.06

Certificate Number

Page 1 CERTIFICATE

Original

SAMPLING BY W.D. GROVES, MAY 1986

Samples T1 to T4 are from the Tommy claim, locations unspecified.

Samples BP-1 to BP-3 are from the Black vein, taken subsequent to blasting and removal of a bulk sample. Orientation and nature of samples unspecified.

ACME ANALYTICAL LABORATORIES LTD. 852 E.HASTINGS ST. VANCOUVER B.C. V6A 1R6 TELEX 04-53124 PHONE 253-3158

DATE RECEIVED: MAY 26 1986

DATE REPORT MAILED: June 3/86.

ASSAY CERTIFICATE

SAMPLE TYPE: ROCK CHIPS AU** AND AG** BY FIRE ASSAY

DEAN TOYE. CERTIFIED B.C. ASSAYER.

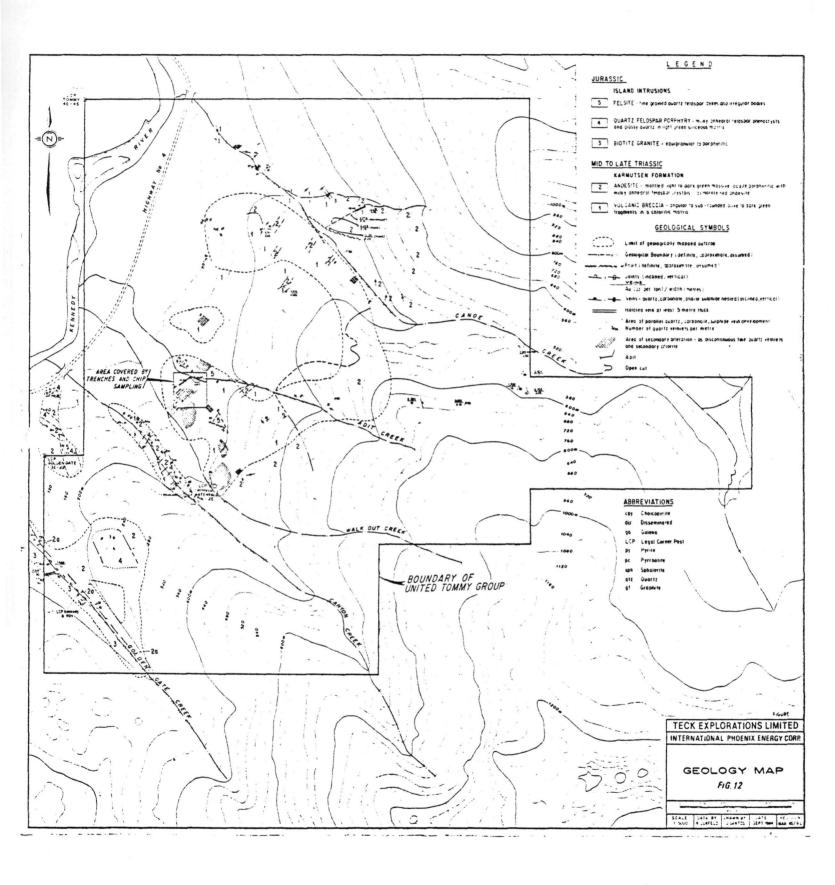
FIRST COAST MINERALS FILE # 86-0774A

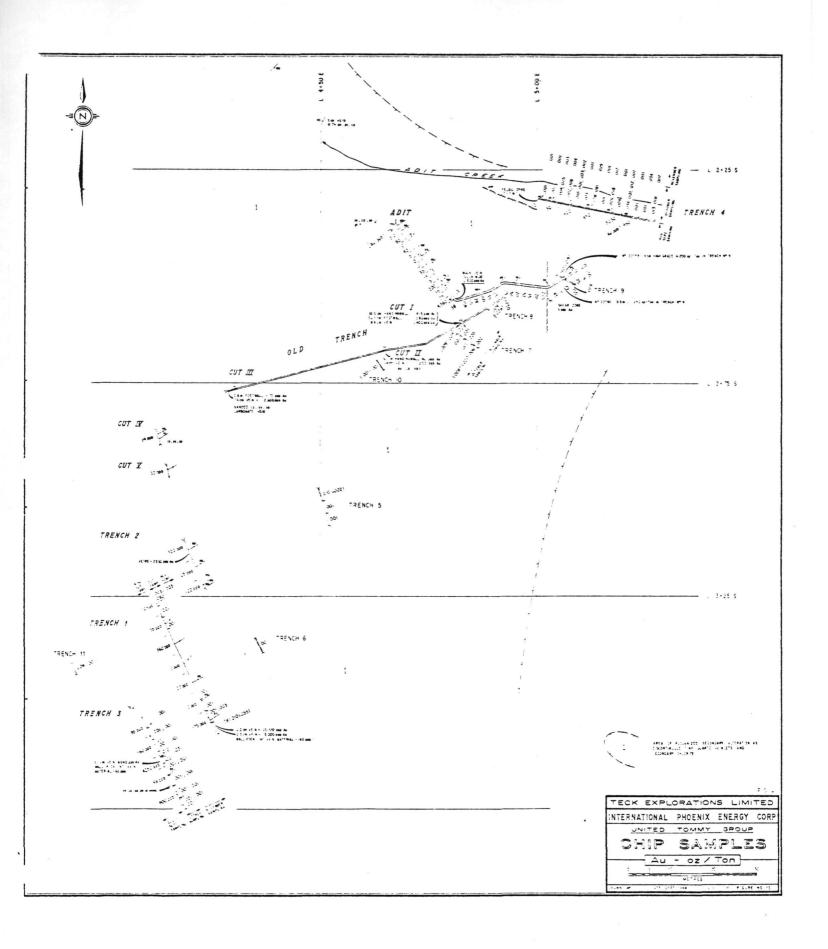
PAGE 1

SAMPLE#	Ag** OZ/T	Au** OZ/T
T-1 T-2 T-3 T-4 TONY-1	1.27 1.27 3.42 .76	.320 .294 6.140 .618 .023
TONY-2 BP-1 BP-2 BP-3 G-1	.15 .36 .31 .55 .19	.032 .762 .492 .942 .074
WF-1	.55	. 768

T.W. SPILSBURY MAPS GEOLOGY AND CHIP SAMPLES, UNITED TOMMY GROUP

TECK EXPLORATIONS LIMITED INTERNATIONAL PHOENIX ENERGY CORPORATION





STATEMENT OF EXPENDITURES INTERNATIONAL PHOENIX ENERGY CORPORATION

INTERNATIONAL PHOENIX ENERGY CORPORATION

#200-595 Hornby Street Vancouver, B.C. V6C 2E8 (604)681-4018

June 17th, 1986

Mr. Waldo Ejtel 316-1045 Haro Street Vancouver, B. C.

Dear Sirs:

Re: United Tommy Group

Per your request, the amount of monies spent on exploration, re the United Tommy Group was \$82,088.20.

If you have any further questions contact the Auditors, MacKay and Partners, 10th floor, 1190 Hornby Street, Vancouver, B. C., V6Z 2H6, to the attention of Liisa.

Sincerely,

INTERNATIONAL PHOENIX ENERGY CORPORATION

H. P. Capozzi

President

HPC/dm