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GEOLOGICAL BRANCH
ASSESSMENT REPORT

15,961

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ASSESSMENT REPORT
ON THE GEOLOGICAL
RECONNAISSANCE PROGRAM ON THE
UNUK AND COUL CLAIMS,
SULPHURETS AREA, B.C.

NTS 104 B/9W
Skeena Mining Division

56°35' 130°19.5'

FOR

Operator: Cove Energy Corporation
1730 - 999 West Hastings St.
Vancouver, B.C.
V6C 2W2

Owner: M. Bell

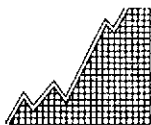
BY

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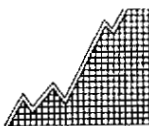
I. INTRODUCTION

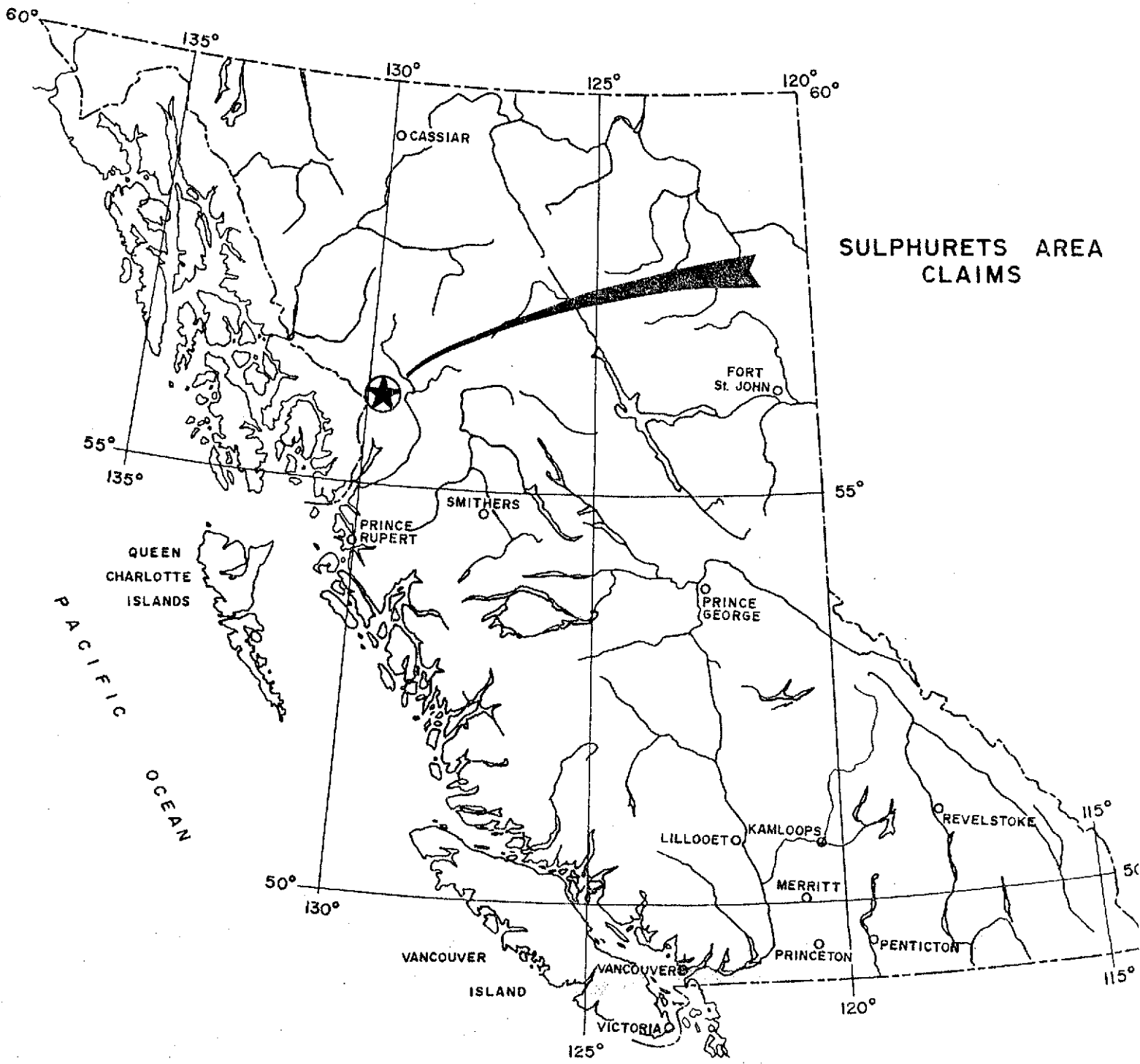
A geological reconnaissance program covering the Unuk 1 to 17, Unuk 21 to 25 and Coul 1 to 4 claims was conducted by the writer on November 7, 1986. This survey was accomplished with a Hughes 500D helicopter and the assistance of G. Parkinson and G. McKenzie. Camp support at Brucejack Lake was supplied by Newhawk Mines Ltd.

The purpose of this work is to supply introductory geological and topographical data to accompany an airborne magnetometer and VLF-EM survey of the same area. All of this work is done on behalf of Cove Energy Corporation of Vancouver, B.C.

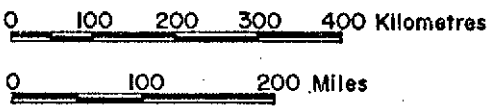
II. LOCATION AND ACCESS

The survey area is centered at latitude 56°34' north and longitude 130°20' west. It is found on NTS map sheet 104 B/9 and 104B/10 and is within the Skeena mining division of British Columbia (Figure 1). Access to the area is gained by helicopter. A road from Stewart, B.C. runs north past the Premier Silbak mine to an airstrip just north of the Scottie Gold mine, some 40 kilometers from Stewart. Helicopter time from this airstrip to the survey area is about 15 to 20 minutes. An alternate staging point is Highway 37 which is east of the survey area. A winter road from Highway 37 to the Lacana/Newhawk joint venture camp at Brucejack Lake is scheduled for construction in early 1987. Brucejack Lake is located 14 kilometers southeast of the center of the survey area.






SULPHURETS AREA CLAIMS



BRITISH COLUMBIA

Cove Energy Corp. / HI-Ash Joint Venture		
SULPHURETS AREA CLAIMS		
GENERAL LOCATION MAP		
 HI-TEC RESOURCE MANAGEMENT LIMITED	Date: December 1986	Figure: 1
	N.T.S. 104-A/B	

III. DISCUSSION

i) Topography

The survey area is characterized by river and creek valleys and mountain peaks. Elevations range from 1,000 feet to 6,800 feet. The highest areas are covered by ice and snow all year. These icefields occur in 3 main zones which cover roughly 40% of the survey area (Figure 2). The remainder of the property is comprised of valleys and hillsides that are in some places forested and elsewhere above the treeline.

The valley of McTagg Creek is roughly central to the survey area and affords an excellent location for a summer exploration base camp. In-camp or nearby-based helicopter support would be necessary for an efficient exploration program. With this support, peaks outcropping above and through the icefields could be mapped, prospected and sampled. Field personnel could be set out and picked up throughout this large property on a daily basis.

Alternate base camp locations would be along Gingras or Mitchell Creeks which lie at the southern edge of the survey area, or along the Unuk River on the Coul claims. Due to the heavy snowfall in the region, summer exploration would not begin until July and could continue until October or possibly November.

In the event of the discovery, within the survey area, of a significant mineral deposit, one with the potential of becoming a mine, the presence of glacial ice would not necessarily make development unfeasible. Any ground discovery would be made in areas that are currently free of ice. Following such a discovery underground, would not prove overly difficult, even if the underground workings did extend under ice cover.

The drawback regarding the ice cover is that a mineral deposit that is now under ice would be more difficult to locate, in that it would rely on airborne geophysics without follow-up prospecting and geochemistry. The feasibility of diamond drilling would depend largely on local topography, as drilling through ice itself is not necessarily a problem.

In the case of the Lacana/Newhawk discovery at Brucejack Lake, the cost of their 10' x 10' development worked out to \$450.00/ft. This price included labour, camp and all helicopter support and is readily comparable, if not cheaper, than underground costs in areas of road access.

ii) Geology

The survey area is predominantly underlain by volcanic breccia, conglomerate, sandstone and siltstone of the Lower Jurassic Unuk River Formation, as well as siltstone, greywacke, argillite and minor limestone of the Middle Jurassic Salmon River Formation (Figure 3). The writer observed several small gossan zones within the survey area. These result from sulfide mineralization that is oxidizing at the surface and their presence is encouraging. The writer also collected a piece of float, or loose rock, just north of the survey area that contains abundant stringers of pyrite and carbonate in an calcareous-looking matrix. Outcrop in this area was argillite and topography and ice movement imply that this sample originated south of where it was found, in the direction of the survey area. This sample returned values of .01 oz gold/ton, 31.5 ppm silver (roughly 1 oz/ton), 157 ppm As, 18 ppm Cu, 116 ppm Pb, 35 ppm Sb and 61 ppm Zn.

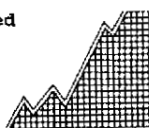
The survey area lies north-northwest of Brucejack Lake where the Lacana/Newhawk joint venture has had excellent exploration results. Between September 1 and November 10

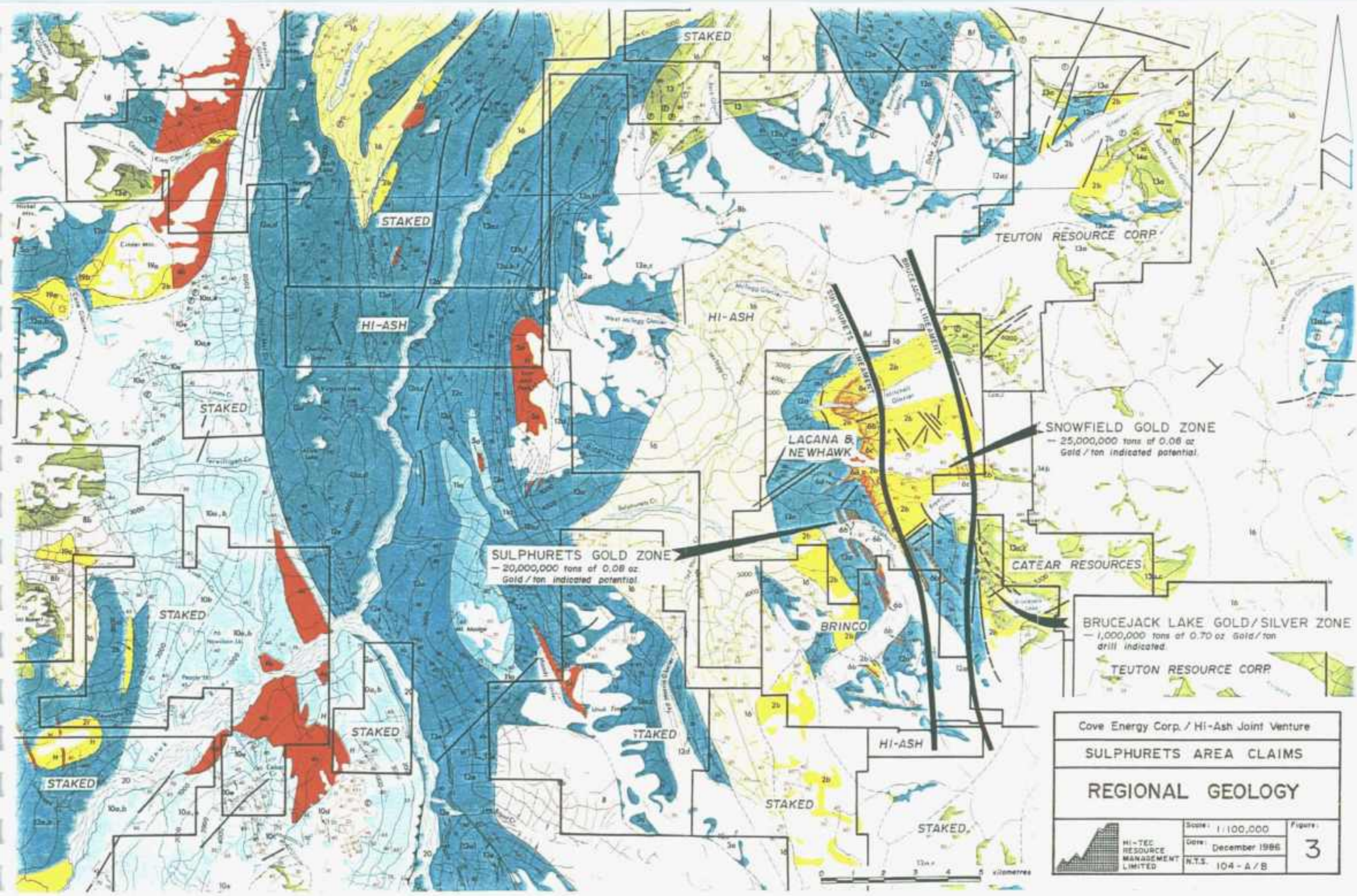
Newhawk put in 1,500 feet of development drifting and crosscutting to obtain a bulk sample from the west zone. During his stay, the writer had the opportunity to examine the underground workings and sample the orebody. Two crosscuts have shown that the width and grade of the body is generally uniform with intermittent spectacular high grade sections. The first crosscut assayed 0.234 oz gold/ton and 6.2 oz silver/ton over a true width of 50 feet and 0.216 oz gold/ton with 14.25 oz silver/ton over a true width of 17 feet (Stockwatch, November 13, 1986). The second crosscut averaged 0.225 oz gold/ton and 16.60 oz silver/ton over a true width of 52.5 feet (Stockwatch, December 2, 1986). Grab samples reported from within this zone returned up to 5.786 oz gold/ton with 890.45 oz silver but these results were not included in the 0.225 oz/gold over 52.5 feet calculations.


Drilling has implied this body is 1,000 feet long and extends at least 1,000 feet down dip. High grade pockets and veins within the ore zone are reported to run up to 3 or 4 ounces of gold and hundreds of ounces of silver. A sample collected by the writer from the lowest crosscut returned values of 2.348 oz gold/ton and 1061.67 oz silver/ton.

The writer feels that this deposit will become a new major mine. The site geologist described the Brucejack deposit as being a lineal stockwork that trends north-northwest. Several other mineralized zones have been found along this trend which leads directly onto the survey area (Figure 3). The tonnage and grade of the west zone and other deposits very near to it are tabled below.

<u>Zone</u>	<u>Category</u>	<u>Tons</u>	<u>Au oz/t</u>	<u>Ag oz/t</u>
West	Drill indicated	535,765	0.332	21.06
West	Inferred	<u>480,965</u>	<u>0.332</u>	<u>21.06</u>
Total West Zone		1,016,730	0.332	21.06
Shore	Inferred	539,776	0.263	27.23
Gossan Hill	Inferred	<u>27,639</u>	<u>1.940</u>	<u>3.51</u>
Total Brucejack Area	Indicated & Inferred	1,584,145	0.336	22.86





Cove Energy Corp. / Hi-Ash Joint Venture		
SULPHURETS AREA CLAIMS		
REGIONAL GEOLOGY		
 HI-TEC RESOURCE MANAGEMENT LIMITED	Scale: 1/100,000	Figure: 3
	Date: December 1986	
	N.T.S. 104-A/B	

iii) Geophysical Results

The test lines flown over the Brucejack Lake deposit showed that the Lacana/Newhawk mineralization is associated with a sharp magnetic low with local conductivity highs (see geophysical report). The magnetic results (Figure 3A) of the airborne survey report show a general magnetic low striking north-northwest along McTagg Creek with up to 10 local lows along this trend. In addition three or four conductivity highs (VLF conductor) also occur along the trend. Two of these are associated with a local magnetic low on the east side of McTagg Creek on the Unuk 21 claim. These results are very encouraging especially in light of the fact that McTagg Creek is relatively easily workable and would provide an excellent base camp location.

Numerous other magnetic lows and highs occur throughout the property including a coincident magnetic low and VLF conductor on the northern part of the Unuk 14 claim. The writers reconnaissance geological work (Figure 2) showed this area to be in the vicinity of a gossan that may have been the source of the stop 1 float sample which contained abundant pyrite and 1 oz Ag/ton. This area is also ice-free and should be given a high priority.

The headwater of Gingrass Creek on the Unuk 24 claim also has coincident mag lows and VLF conductors in an area that is easily workable. This target area should also be given a high priority.

The northwest extension of the 2 parallel Brucejack lineaments can be identified on the eastern side of the Unuk claim block. Much of this area is under ice, however, some areas are exposed and with helicopter support these might be able to be examined.



The Coul claims on the west side of the property are also easily workable and contain numerous north-south VLF anomalies. This area is easily workable and a fly camp could be established here to conduct reconnaissance geochemistry, mapping and prospecting.

The Coul 1 claim is along strike from showings on the Kay, Tok and GNC claims owned by Stikine Silver Ltd. and therefore work on the Coul group should start on the Coul 1.

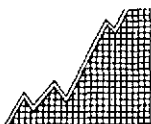
V. CONCLUSIONS

The Unuk and Coul claims are underlain by volcanic and sedimentary rocks and contain favourable gossan zones. Part of the claim area (roughly 40%) is covered by ice and cannot be explored on the ground. The remaining 60% of the property is characterized by wooded and barren valleys that afford good camp sites and excellent exposure for prospecting.

The property lies directly along the trend of several recently-discovered mineralized zones, including the west zone at Brucejack Lake where underground development has been started on what may become a major producing mine. Accessibility has not proved to be a major problem for this development work.

Results from the airborne magnetometer and VLF-EM survey, which accompany this report, show that the two parallel Brucejack lineaments, defined on the Lacana/Newhawk ground continue in a somewhat disjointed fashion across the Cove Energy/Hi-Ash Ventures property.

The Brucejack Lake deposit is characterized by a sharp magnetic low with local conductivity highs on VLF-EM conductors. The airborne geophysical survey has shown that coincident and/or associated magnetic lows and VLF-EM conductors occur in several locations on the joint venture property. Some of these occur in



areas of ice cover but many lie in areas that are easily workable, such as the valley of McTagg Creek. These results are seen as highly encouraging and should be followed up by ground exploration.

V. RECOMMENDATIONS

In order to properly evaluate the Unuk and Coul claims an extensive summer exploration program of geological mapping, prospecting and reconnaissance soil sampling is necessary. This work should also include some ground magnetometer and VLF-EM follow-up of the anomalies discovered by the airborne geophysical survey.

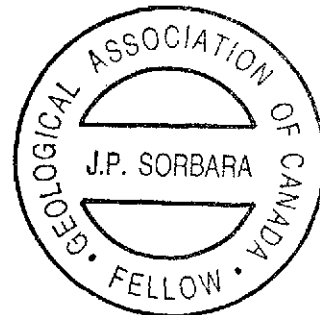
In order to accomplish this work a helicopter-supported 8 man crew (project geologist, assistant geologist, prospector/blaster, 4 geological technicians and 1 cook) will be needed for at least 2 1/2 months in the field. Work should start from a base camp on McTagg Creek with helicopter set-outs and fly camps for some of the targets. Base camp may be moved to the Coul claims at the appropriate time.

Helicopter supported evaluations of the claim groups south of Brucejack Lake, which are part of the joint venture but were not covered by the airborne survey, should also be carried out.

An estimate and cost breakdown for this project is given in Appendix I.



J. Paul Sorbara, M.Sc., F.G.A.C.,
Exploration Manager



STATEMENT OF QUALIFICATIONS

I, J. PAUL SORBARA, of the Municipality of Delta, in the Province of British Columbia, hereby certify:

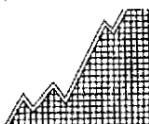
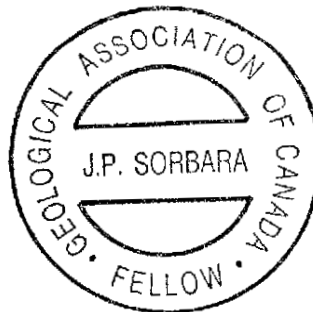
1. THAT I am a geologist residing at 6703 Nicholson Road, in the Municipality of Delta, in the Province of British Columbia.
2. THAT I graduated with a B.Sc. in geology from the University of Toronto, in the City of Toronto, in the Province of Ontario, in 1976, and with a M.Sc. in geology from the University of Toronto in 1979.
3. THAT I have practiced geology professionally from 1979 to 1986, including 5 years as an exploration geologist for Cominco Ltd.
4. THAT I am a registered Fellow of the Geological Association of Canada.

Signed:



J. Paul Sorbara, M.Sc., F.G.A.C.

February 19, 1987

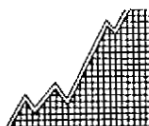


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APPENDIX I

Estimated Cost Breakdown for
Sulphurets Exploration Program

Mobilization/Demobilization		\$ 40,000.00
Domicile Costs		28,000.00
Geochemistry (approx. 6,000 samples)		70,000.00
Field Equipment and Geological Supplies		6,000.00
Blasting/Trenching Equipment and Powder		8,000.00
Geophysical Equipment		15,000.00
Helicopter Support		144,000.00
Communications		8,000.00
Project Preparation		5,000.00
Report Compilation and Drafting		10,000.00
Assessment Documentation and Filing (not including filing fees)		1,500.00
Expediting		<u>7,000.00</u>
	Subtotal:	\$342,500.00
Project Management (@ 15%)		<u>51,375.00</u>
	Subtotal:	\$393,875.00
Salaries (Project geologist, assistant geologist, prospector/blaster, four geological technicians, cook and supervision)		<u>137,000.00</u>
	Subtotal:	\$530,875.00
10% Contingency Factor		<u>53,000.00</u>
	TOTAL:	\$583,875.00
	SAY:	<u>\$585,000.00</u>



APPENDIX II

References

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APPENDIX III

Statement of Costs

- 785 line kilometers of airborne geophysics
 - geological reconnaissance
 - as per contract price \$60,000.00
- (\$76.43/line kilometer)

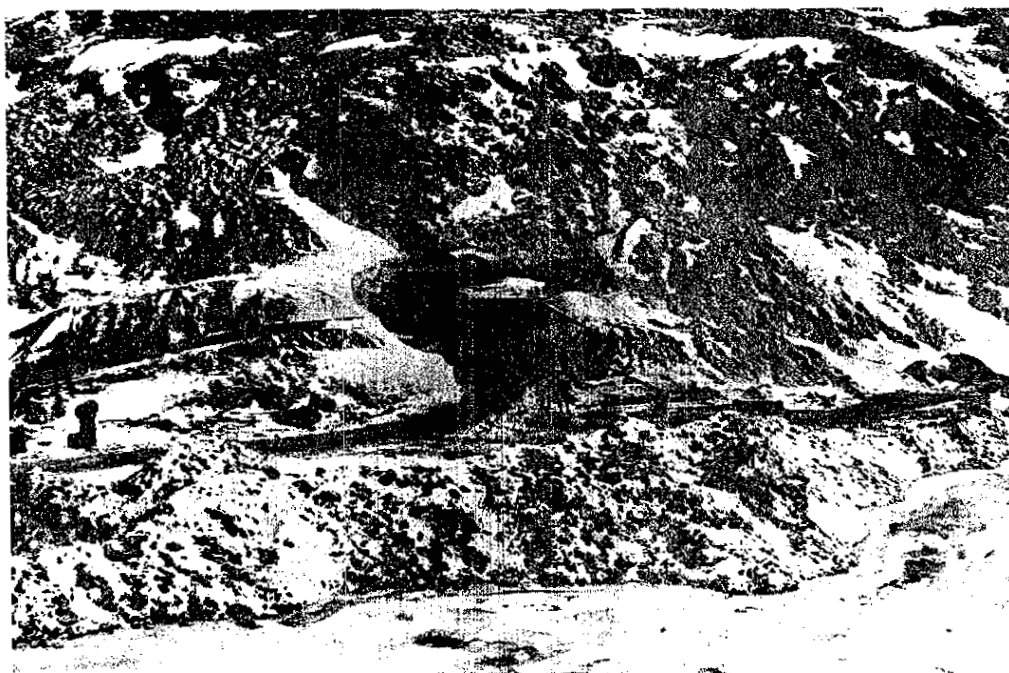
APPENDIX IV
Photos from Survey Area



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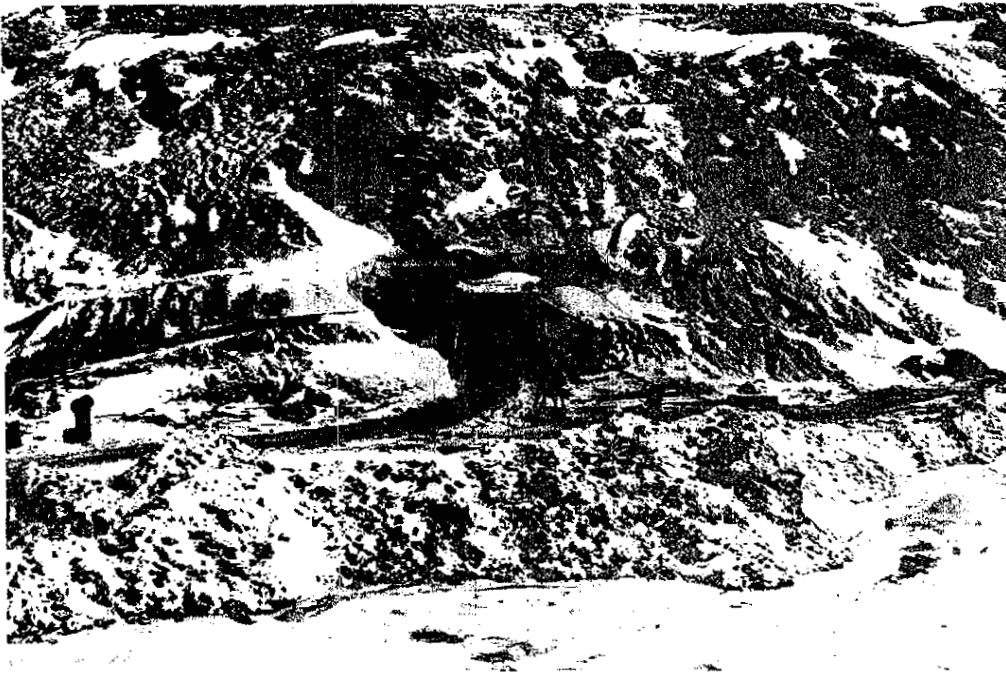
Ore Piles at Brucejack Lake Camp



Portal to Underground Development on West Zone



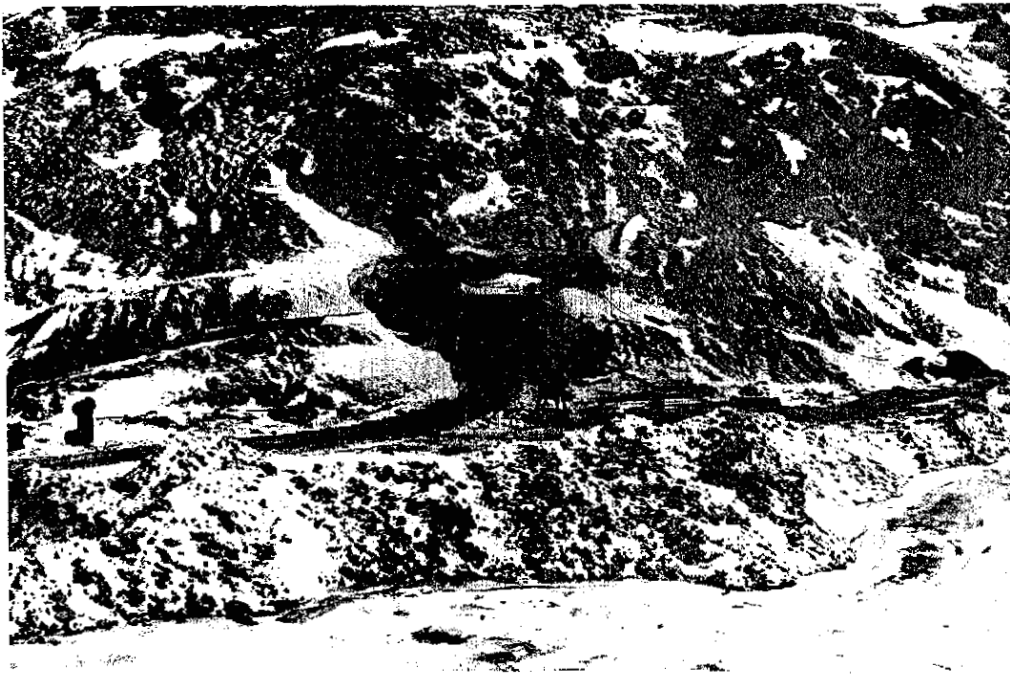
Ore Piles at Brucejack Lake Camp



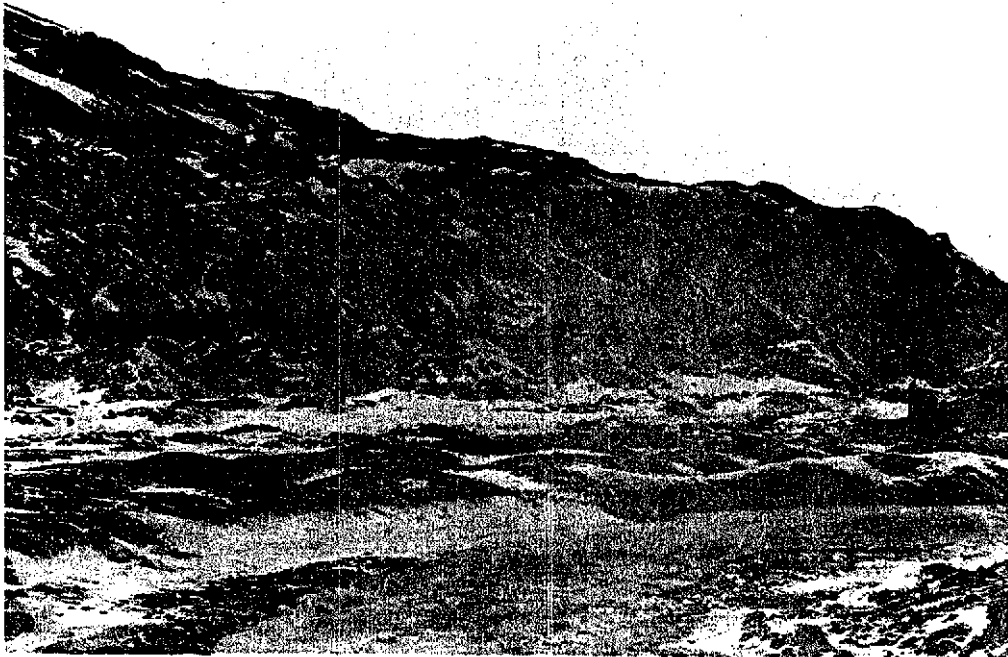
Portal to Underground Development on West Zone



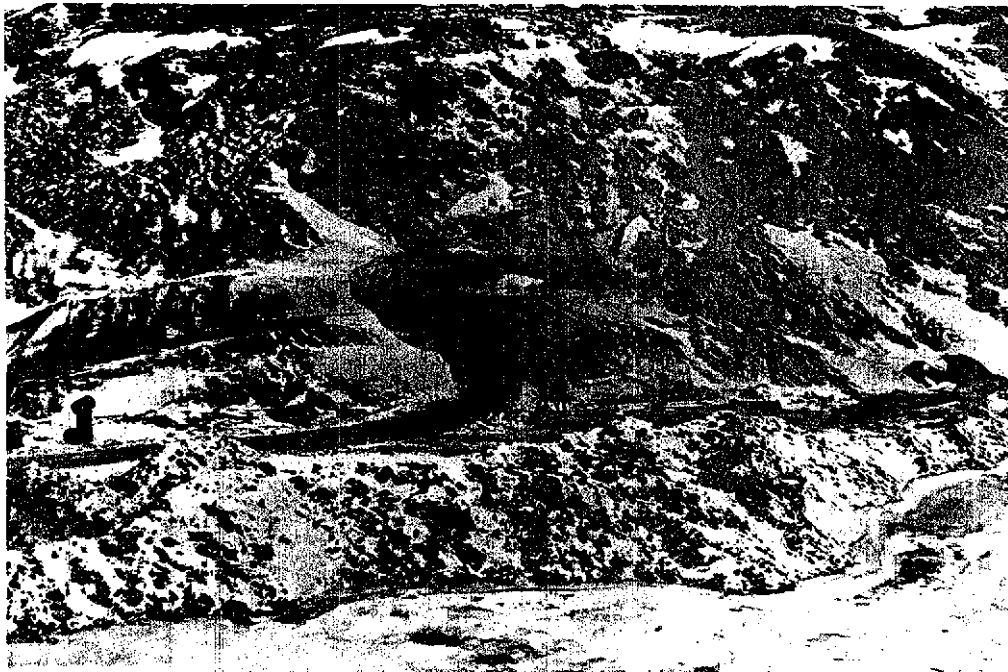
Ore Piles at Brucejack Lake Camp



Portal to Underground Development on West Zone



Ore Piles at Brucejack Lake Camp



Portal to Underground Development on West Zone