

2J02SE2102 52J02SE0078 SQUAW LAKE

010

REPORT ON THE
SIM'S NARROWS CLAIM GROUP
FOR
BRESEA RESOURCES LTD.

RECEIVED

NOV 27 1984

MINING LANDS SECTION

REPORT ON THE

SIM'S NARROWS CLAIM GROUP

SQUAW LAKE CLAIM MAP

PATRICIA MINING DIVISION

STURGEON LAKE, ONTARIO

FOR

BRESEA RESOURCES LTD.



52J02SE2102 52J02SE0078 SQUAW LAKE

Ø10C

### TABLE OF CONTENTS

		Page No.
Summary		I
Introduction		1
Property Locatio	n Map	2
Location, Access	and Physiography	3
Claim Location M	ap	5
Exploration Hist	ory	$\epsilon$
Geology		Ą
Mineralization		12
Geochemistry		15
Conclusions		18
Recommendations		21
Cost Statement		22
Certificate		24
References		25
APPENDIX I - Ar	alytical Procedures	
APPENDIX II - Ar	nalytical Report	
FIGURES IN MAP E	POCKET -	
Figure 3	Geological Map (1983)	
Figure 4	Geology and Sample Sites; South Area	Structure
Figure 5	Geology and Sample Sites; Centr Vein Area	ral Quartz
Figure 6	Longitudinal Geochemical Section Structure Area	on: South
Figure 7a to 7c	Longitudinal Geochemical Section Quartz Vein Area	ons: Central

### W. G. TIMMINS EXPLORATION & DEVELOPMENT LTD.

**CONSULTING GEOLOGISTS** 

### SUMMARY

W.G. Timmins Exploration & Development Ltd. was retained by Bresea Resources Ltd. to carry out a rock lithogeochemical survey on Bresea's 15 unit claim group, situated in the Sturgeon Lake area of Ontario.

A total of 95 rock samples were taken along two structures. the first being the strongly carbonatized andesitic foot wall of a buried shear zone, the second being a grey, quartz-vein hosted by sheared volcanic rocks. The purpose of the sampling programme was to determine the presence of base and trace element dispersion halos such as those which commonly surround economic ore deposits.

Copper, silver and gold occur in anomalous concentrations only at the pyritized northeastern extremity of the quartz vein. The association between pyrite, grey quartz (silicification) and anomalous patterns of copper, silver and gold, is one which is typically encountered in proximity to economic base-precious metal vein deposits.

It is therefore concluded that the quartz vein environment on Bresea's property still has potential for economic gold-silver mireralization. A limited drill programme is recommended

using "Winkie" drills to test the veit at depths of 50 meters.

November 5, 1984

W. G. TIMMINS EXPLORATION & DEVELOPMENT LTD.

**CONSULTING GEOLOGISTS** 

### INTRODUCTION

This report describes work undertaken on a group of 15 contiguous mining claims owned by Bresea Resources Ltd. and located in the Sturgeon Lake area of Ontario (figure 1). The work involved a rock lithogeochemical survey along two separate structures which were believed to have potential for gold mineralization.

The exploration was carried out in late August and early September, 1984 by a two-man crew under the direction of W.G. Timmins Exploration & Development Ltd.

The claims are shown on the Ontario Ministry of Natural Resources Claim Map for the Squaw Lake area, plan no. M1904; Patricia Mining Division; claim numbers Pa440031-35, 676777-82 and 676784-87 inclusive (figure 2).

### LOCATION, ACCESS AND PHYSIOGRAPHY

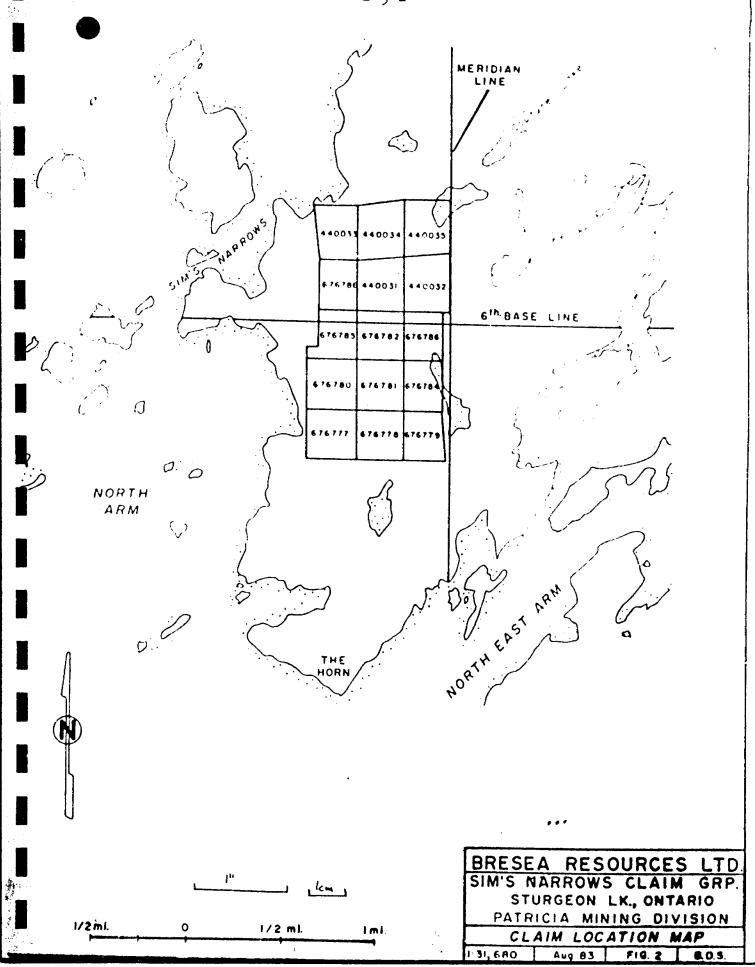
The property is centered at latitude 50°04'N, longitude  $90^{\circ}$  L2'W in NTS map sheet 52 J/l. This is situated on the peninsula which separates the North and Northeast Arms of Sturgeon Lake (figures 1, 2). The claims are 9 kilometres by water from the Horizontal Bay road, the classest point of access. The Horizontal Bay road itself is 4 kilometres north of Ignace, along highway 599; Ignace being 250 kilometres metres northwest along highway 17, from Thunder Bay.

Access to the claims is by boat from the landing on the Horizontal Bay road; supplies being obtainable from Savant Lake, 20 kilometres north of the landing. There is also a float plane service from Savant Lake. Heavy equipment would have to be barged in, during the summer months, or taken acress the ice during the winter.

Sturgeon Lake lies 409 metres above mean sea level; the highest point on the property is 460 metres. There are numerous small cliffs up to 10 metres in height, and many areas of swamp. The northwestern part of the property, in particular, is swampy and largely covered in windfall, making foot progress difficult. Although the area is well forested, undergrowth is not particularly thick, except in areas of

swamp or windfall. Vegetation consists principally of spruce
and poplar.

Glacial overburden is minimal, being thickest in swampy areas and in gullies. Outcrop exposure is therefore usually excellent.



### EXPLORATION HISTORY

Exploration in the North Sturgeon Lake area dates back to the late 1890's and early 1900's when the construction of the Canadian National Railway made the region accessible to prospectors. By 1911, numerous gold and silver showings had been discovered in the area, particularly along the shore of the peninsula separating the North and Northeast Arms of the lake.

One of these, located 4.4 kilometres north-northeast of Bresea's property, became the St. Anthony mine; the only gold producer in the Sturgeon Lake region (1905 to 1941). The mine has seen several owners since the 1940's, however, none have been able to put it back into production. It is presently held by Aubet Resources Ltd.

Moore (1911) mentions trenching along a quartz vein, within the present boundaries of the Bresea property; the same quartz vein which is the subject of this report. Despite the many discoveries and the opening of the St. Anthony mine, exploration went to a standstill by the late 1920's.

In 1969, the discovery of the Mattabi base metal deposits in the South Sturgeon Lake area sparked renewed activity

throughout the region.

Buring 1970 and 1971 Selco Exploration Company Ltd. conducted a programme of exploration for base metals over a large area of the peninsula, including Bresea's property (Austin 1970 and Reed 1971). Electromagnetic and magnetic ground surveys were completed. Follow-up drilling located several manes of conductive pyrite-pyrrhotite enrichment; one of these holes being sited on the property (see figure 3). These conductive horizons represent felsic metapolcanic (tuffs, volcaniclastics) and metasedimentary rocks. No gold and silver values are noted in the assessment files. The property was allowed to lapse.

Exploration activity again died down in the mid 1970's until 1982 when Steep Rock Resources (then Steep Rock Iron Mines Lad.) discovered significant gold mineralization on the north shore of King Bay, 7.5 kilometres southwest of the property. This discovery precipitated a staking rush during the latter part of 1982 and early 1983.

The small showings discovered prior to 1911 are presently held by individuals or by junior companies and a few of these showings are being hand-cobbed by the proprietors.

### GEOLOGY

The following is extracted from Hansen 1983:

"The Precambrian rocks of the Sturgeon Lake area are part of the Wabigoon Subprovince of the Superior Province. The Sturgeon Lake Metavolcanic-Metasedimentary Belt, has been subdivided by Trowell (1983 a,b) into four assemblager on the basis of lithology and geographic distribution. Subvolcanic intrusions are extensive, batholithic granitic complexes form southern, eastern and northwestern boundaries to the greenstone belt. Plutons of varied composition (granodiorite, syenite, etc.) and varied age were emplaced within and marginal to the greenstone belt. Ages of these stocks and plutons varies from syn- to post-tectonic. Most of the rocks of the area have been subjected to greenschist to lower almandine-amphibolite facies metamorphism.

According to Trowell (1983 b) the central and northern parts of the property consist of metavolcanics and metasediments of the North Arm cycle; the southeastern part consists of greenstone of the Northeast Arm cycle. Both cycles belong to the Northeast Arm Assemblage, one of the four assemblages mentioned above. The North Arm cycle consists of an upper formation of massive to porphyritic flows and pillowed flows, underlain by a formation consisting

of mafic to intermediate fragmental rocks. The upper formation of the Northeast Arm cycle consists of massive, pillowed and amygdaloidal flows, with associated minor autoclastic and hyaloclastic breccias. This stratigraphic sequence, although no doubt accurate on a regional scale, does not entirely correspond with observations made during mapping on the property.

The Western Granitic Complex, composed largely of granodicrite (troudhjemite), forms the eastern boundary to the peninsula. It outcrops in the northwestern and central western areas of the property. Gabbroic dykes intrude the above mentioned sequence in the northwest corner."

The geology of the Bresea property is shown on figure 3 (as determined in 1983).

The stratigraphic sequence strikes  $030^{\circ}$  and has a near vertical dip. The base of the sequence is believed to be to the northwest (Hansen 1983).

The dominant formations are pillowed to massive intermediate to mafic volcanic rocks. Occasional rhyolite tuff and rhyodacitic flows or intrusions have also been observed.

The Western Granitic Complex forms the western margin of

the property. It comprises xenolithic granodiorite. In the vicinity of the 1984 study area, the rocks are composed of green and weakly chloritized, massive, andesitic tuff. A large plug or sill of cherty, quartz-feldspar porphyritic rhyodacite, containing up to 10% angular rock fragments of rhyolite, andesite and feldspar porphyry was observed adjacent to the quartz vein in the center of the property. This rhyodacite is also host to disseminated pyrite (1-2%), minor amounts of chalcopyrite and numerous "pebbles" of fine-grained massive pyrite.

Fracturing is extensively developed particularly in the vicinity of the shear structures. In these regions, the fractures are commonly impregnated with calcite and/or quartz.

Several shear zones, to 50 metres in width, pervade the region. The better developed shears trend  $020^{\circ}$  to  $045^{\circ}$  and  $090^{\circ}$  to  $110^{\circ}$  and have subvertical dips. They consist principally of pervasively carbonatized chloritic schist with quartz veins, veinlets and segregations also being present. Two such shears were the targets of exploration in 1984 (figure 3).

#### i) South Structure

This consists of the exposed footwall of a buried shear zone which trends  $020^{\circ}$  and is traceable over 340 metres, from the southern edge of the claim block (0+00H 8+75E). The exposure consists of a vertical "fault" face which is intensely carbonatized (pervasive and as veinlets) and locally silicified (pervasive). Host rocks consist of very fine-grained and massive andesite (figure 4).

### ii) Central Quartz Vein

The vein, centered about station 12+96N. 4+15E, trends 045° and dips steeply to the northwest. Its average width is 1.0 metre although it reaches 1.7 metres and it has been traced over 220 metres (figure 5).

The vein consists of massive to vaguely banded, brittle, white and grey to black quartz, locally with small fragments of wall rock. The wall rock consists of fine-grained, massive andepite in the foot wall and in the scuthwestern half of the hanging wall. The northern half of the hanging wall comprises the rhyodacite intrusive previously mentioned

The host rock is intensely sheared and carbonatized to a distance of 0.5 metres from the vein, suggesting that it was probably emplaced along a fault structure.

### MINERALIZATION

The St. Anthony mine produced 63310 ounces of gold at a grade of 0.19 oz/T gold and 16341 ounces of silver at a grade of 0.05 oz/T silver from a network of grey quartz veins cutting Western Granitic Complex granodicrites (Hansen 1983).

The Mattabi, "F"-Zone, Lyon Lake and NBU (Boundary) deposits at the south end of the lake contain zinc dominant massive sulphide ore and are typical volcanogenic massive sulphide deposits.

The only other "production" in the region is from a series of blue-black quartz veins, cutting greenstone and feldspar porphyry, occurring on Rainbow Island, 2.8 kilometres southwest of the property. Two individuals are presently handmining the vein system (R. Krause, personal communication 1984). Grades from the ore dump range from 0.978 oz/T gold to 5.302 oz/T gold (Hansen 1983).

Several showings are located in the vicinity of the Bresea property.

Moore (1911) describes a showing 1 kilometre north of the property known as the Coveney Prospects which have been trenched and on which a number of shafts were sure. One assay reported by Moore carries 0.2 oz/T gold and 22.72 oz/T silver. This showing is near the contact between granodionite and greenstone. A showing on the coast 0.5 kilometres to the south of the property is also on the contact between granodionite and greenstone. This has been trenched at some time in the past. On the Horn, 1.7 kilometres south of the property, a quartz vein on the contact between intermediate to felsic and mafic metavolcanics is presently owned, and intermittently worked by Rickabee Mines Ltd.

Grades from samples collected in 1983 range from 0.032 to 0.662 oz/T gold.

Mineralization discovered by Steep Rock Resources in 1982 consists of a network of dark quartz veins within intermediate volcanic rocks. Grades as reported in 1983 range from 0.23 oz/T gold over 10.9 feet of core (3.3 metres) to 1.36 oz/T gold over 29.7 feet of core (9.1 metres), (Northern Miner, January 13, 1983). Results of exploration work from 1983 and 1984 are not known to the author.

Mineralization on Bresea property consists of minor amounts of disseminated pyrite associated with the felsic volcanic

horizons, the quartz vein and the sheared foot wall/hanging wall of the vein. Trace amounts of chalcopyrite were also noted in both the vein and the rhyodacitic intrusion adjacent to the vein.

### GEOCHEMISTRY

A total of 95 rock samples were collected in the vicinity of the two structures. All of the samples were analysed for copper, lead, zinc, silver, gold, arsenic, antimony and mercury. Results are indicated in Appendix I, sample sites shown in figures 4 and 5. Element distributions of interest are shown in figures 6 and 7a to 7c.

#### i) South Structure

A total of 20 one metre rock chip samples and 35 grab samples were taken near the south structure. Of these, 21 were collected at 3 and 25 metre intervals along the structure itself. The others were taken as representative of non-altered host lithologies. The purpose for this lithogeochemical approach was to determine the presence of potential base metal or trace element dispersion halos, such as the primary alteration halos which commonly surround ore deposits.

Results indicate low level background values for all elements throughout the immediate area. There is no difference in background between altered and non-altered rocks. Values for silver, arsenic, lead and mercury are well below regional averages (Appendix II).

Of interest, however, is a very weak but discreet, 50 metre long, anomaly associated with a silicified zone near the northeastern extremity of the structure. Within this silicified zone is a gold-antimony anomaly (single sample) whereas silver and copper are very weakly enriched immediately beyond the limits of silicification (2 samples). This is an indication that silicification which is a degree of alteration more closely related to economic mineralization than is carbonatization, has occurred along the buried part of the structure and that the silicification has probably been accompanied by some form of mineralization as evidenced by the higher metal values associated with the quartz alteration.

It should be noted, however, that the "anomalous" values are nevertheless very low.

### ii) Central Quartz Vein

Forty (40) rock chip samples, varying in length from 0.5 to 1.7 metres were taken along the length of the vein. Sample sites were located at 15 metre intervals, with up to three samples taken at each site. A sample was collected from each of the foot wall, hanging wall and vein (where exposed). Determining the presence of potential primary dispersion halos was also the target in this area.

Background levels of all elements is low except at the northeastern extremity of the vein system. In that area, both the vein and the hanging wall rocks (pyritized rhyodacite intrusive) host narrow veinlets of chalcopyrite and pyrite, reflected by strongly anomalous silver (to 21 ppm), copper (to 3%) and gold (to 472 ppb) geochemistry. Values in the foot wall are erratic.

The anomalous copper, silver and gold values are significant in that they are coincident and that they may represent part of a dispersion halo, typically associated with economic mineralization. Gradual increase in pyrite content and darker colour of the quartz vein in the anomalous zone add further support to this possibility.

### CONCLUSIONS

The geology of the property, particularly of the quartz vein area, has many similarities to that of other gold properties elsewhere in the North Sturgeon Lake region.

Intense carbonate alteration is an indication of low temperature (distal) hydrothermal activity hence both structures stabled in 1984 have been invaded by cool hydrothermal fluids. The presence of pervasive and vein-type silicification suggests the area has experienced more intense, localized, hydrothermal activity as well.

The dark colour of the quartz is caused by microscopic impurities such as carbon or sulphides; these impurities being the host for gold in typical gold-quartz vein deposits.

The siliceous zones on the Bresea property are also accompanied by weak but distinct copper-silver-gold-antimony anomaly patterns, suggesting silicification has been accompanied by some form of mineralization.

The total lack of arsenic, antimony and mercury suggests that these mobile elements may be completely absent on a regional scale. They have not been remobilized during

shearing and veining. Furthermore, the regional background concentration for all other elements analysed is extremely low with the result that weak anomalies may be considered as significant particularly when these are associated with silicification.

On the basis of the above mentioned observations, it appears the northeastern extremity of the Central Quarts Vein has many of the characteristics associated with primary dispersion halos located adjacent to, or above economic vein mineralization.

A potential ore zone may therefore be located directly below or to the northeast of the anomalous zone. Furthermore, the close association of copper, gold and silver is indicative of the possibility that economic grades of copper may be accompanied by economic grades of silver and gold.

The presence of a narrow, weakly metal-enriched, silicified zone in the foot wall of the buried South Structure shear zone suggests there may be potential for a mineralized siliceous zone at depth below the surface exposure. The small size and weakness of the surface anomaly indicates that such a potential ore zone would be located at a moderate depth.

It is therefore believed that the quartz-vein structure has good potential for base-precious metal, quartz-vein hosted mineralization. A similar but much less important potential exists below the silicified zone of the South Structure.

### RECOMMENDATIONS

Two "Winkie" holes should be drilled beneath the anomalous zone of the quartz vein. Both holes should be drilled to vertical depths of 250 feet (75 metres) in order to intersect the vein at a dip depth of 160 feet (50 metres). This would determine whether or not the surface mineralization is associated with a more extensive alteration halo or to actual economic mineralization. A more detailed and extensive drilling programme will be recommended should results from the "Winkie" drilling warrant such a programme.

### COST STATEMENT

This budget assumes drilling would take place over a period of two weeks, and would employ two drillers working on an 8 to 10 hour per day basis. One geologist would be involved as well.

### Geological:

Labour (field) 15 days @ \$300/day	\$	4,500
Accommodation/Food/Mobilization - 15 days @ \$60/day		900
Geochemistry 12 rock samples @ \$25/sample		300
Report Preparation 5 days including labour plus typing, drafting, copying, etc.		2,000
Total Geological		7,700
15% Contingency		1,100
Total	\$	8,800
Drilling:		
Drilling (incl. labour) 500 feet @ \$10/foot	\$	5,000
Accommodation/Food, etc. 2 men @ \$50/day x 15		1,500
Materials (oil, drill bits, etc) @ 10% of drilling	g	500
Mobilization/demobilization costs @ 20% of drilling		1,000
Total Drilling		8,000
15% Contingency		1,200
Total	\$	9,200
Grand Total - Exploration	\$	18,000

Further work would be contingent upon results of the aforementioned exploration programme.

Respectfully submitted,

P.D. Van Angeren, Geol.

W.G. Timmins Exploration

& Development Ltd.

November 5, 1984

W. G. TIMMINS EXPLORATION & DEVELOPMENT LTD.

**CONSULTING GEOLOGISTS** 

#### CERTIFICATE

- I, PHILIP D. VAN ANGEREN residing at 506. 521 57 Avenue S.W., Calgary, Alberta do hereby certify that:
- I am a geologist having been practising my profession for seven years.
- 2. I am a graduate of McGill University, Montreal, P.Q., having received an honours B.Sc. degree in Geology in 1977.
- 3. I have no interest direct or indirect in the property or securities of Eresea Resources Ltd., nor do I expect to receive any such interest.
- 4. I am the author of this report which is based on personal knowledge of the area gained during an exploration programme supervised by W.G. Timmins and conducted by myself and a field assistant between August 28 and September 9, 1984.

Dated at Calgary, Alberta this 5th day of November, 1984:

P.D. Van Angeren, Geologist

W.G. Timmins Exploration

& Development Ltd.

### REFERENCES

- AUSTIN, J.S. (1970); Geophysical Report for Selco Exploration

  Co. Ltd., Patricia Mining Division, Ontario, unpublished report submitted for assessment purposes.
- HANSEN, M. (1983); Report on the Sims Narrows Claim Group,
  Patricia Mining Divison, Sturgeon Lake Ontario, report
  for Bresea Resources Ltd., unpublished.
- MOORE, E.S. (1911); The Sturgeon Lake Gold Field; Ontario Bureau of Mines, Vol. 20, pt. 1, p. 133-157.
- NORTHERN MINER, THE; Issues of January 13, January 20, February 17, and June 30, 1983.
- REED, L. (1971); Geophysical Report for Selco Exploration
  Co. Ltd., Patricia Mining Division, Ontario,
  unpublished report submitted for assessment purposes.
- TROWELL, N.F. (1983a); Geology of the Squaw Lake-Sturgeon Lake Area, Distric, of Thunder Bay; Ontario Geological Survey, Report 227, 114p. Accompanied by Map 2420, scale 1:31,680.

TROWELL, N.F. (1983b); Geology of the Sturgeon Lake Area,
Districts of Thunder Bay and Kenora; Ontario
Geological Survey Report 221, 97p. Accompanied
by Maps 2456, 2457, 2458, scale 1:50,000, 1 Chart,
and 1 sheet of Microfiche.

APPENDIX I

47774

#### APPENDIX I

#### ANALYTICAL PROCEDURES

All of the grochemical samples were prepared and analysed by Terramin Research Laboratories Ltd. in Calgary.

Rock samples were pulverized to -200 mesh before a split of this fraction was analysed.

Copper, lead, zinc, silver and antimony are analysed by the atomic absorption technique. For each element, a 0.5 gram sample was previously dissolved in hot aqua regia. Silver, antimony and lead require a correction for background.

Arsenic analyses are by an arsine solution extraction (H Cl  $\rm O_4$  -  $\rm HNO_3)$  followed by colorimetric determination.

Gold analyses are by fire assay techniques using a 10.0 gram sample. By igniting the sample to 600°C, a lead bead is obtained. This bead is then dissolved in hot aqua regia and gold content is determined by the atomic absorption method.

Mercury is analysed by cold vapor AA after a 0.5 gram sample is dissolved in aqua regia and an aliquot of the extract is added to a stannous chloride and hydrocloric acid solution.

APENDIX II



### **ANALYTICAL REPORT**

Job # 84-251

W.G. Timmins

Date Oct. 9, 1984

Client Project Bres.

Page 1/4

Sample No.	Au ppb	Ag	Hg	As ppm	Sb	Cu ppm	Pb ppm	Zn ppm
1201	-2	30	10	2	0.4	65	-1	46
1202	-2	30	5	2	-0.2	86	-1	41
1203	-2	10	10	-1	-0.2	77	-1	27
1204	-2	20	5	3	-0.2	91	-1	52
1205	-2	20	10	2	-0.2	48	-1	36
1206	10	20	5	2	-0.1	79	-1	66
1207	2	60	<del>-</del> 5	3	1.6	92	2	43
1208	4	40	5	2	-0.2	95	-1	38
1209	-2	40	15	2	2.7	90	13	41
1210	-2	20	10	2	0.2	59	-1	46
1211	-2	10	5	2	-0.2	66	-1	38
1212	-2	10	10	-1	-0.2	58	2	33
1213	-2	30	10	-1	-0.2	61	-1	39
1214	-2	10	10	-1	-0.2	43	1	10
1215	-2	40	5	2	-0.2	102	-1	64
1216	-2	20	5	2	0.2	43	-1	30
1217	-2	40	10	2	0.2	76	-1	39
1218	-2	20	5	-1	0.2	69	-1	35
1219	12	140	<b>-</b> 5	1	0.4	440	-1	54
1220	-2	50	-5	-1	-0.2	136	-1	38
1221	38	20	-5	2	1.2	76	1	48
1222	2	130	<del>-</del> 5	-1	0.7	350	-1	54
1223	4	10	5	-1	0.2	.64	-1	40
1224	6	60	5	-1	0.2	55	-1	8
1225	-2	10	5	2	-0.2	72	-1	36



### **ANALYTICAL REPORT**

Job # 84-251

D8: 3

Client Project Bres

Page 2/4

Sample No.	Au	Ag ppb	Hg ppb	As ppm	Sb ppm	Cu ppm	Pb ppm	Zn ppm
	ppb	ppn	ppn	ppm	PPm	P.M.	PPIII	PP···
1226	10	180	-5	-1	0.2	370	-1	69
1227	12	80	-5	-1	0.2	300	1	109
1300	-2	30	-5	1	-0.2	<del>3</del> 9	-1	64
1301	2	30	-5	2	-0.2	73	-1	89
1302	-2	20	<del>-</del> 5	-1	-0.2	63	-1	40
1303	-2	40	-5	3	-0.2	66	-1	38
1304	-2	40	-5	4	-0.2	77	-1	42
1305	2	50	-5	-1	-0.2	70	-1	48
1306	-2	10	-5	1	1.2	67	16	36
1307	-2	40	-5	ı	1.4	81	3	45
1308	-2	10	1	1	-0.2	74	-1	41
1309	-2	30	10	1	0.2	60	-1.	34
1310	4	40	5	1	0.2	94	-1	57
1311	2	40	5	2	0.4	85	-1	49
1312	-2	40	5	2	-0.2	82	-1	45
1313	-2	110	<b>~</b> 5	2	0.4	79	-1	36
1314	-2	40	-5	1	1.4	82	2	50
1315	24	20	-5	-1	-0.2	85	-1	39
1316	- 2	20	5	1	-0.2	56	-1	37
1317	4	40	-5	1	1.9	97	В	35
1318	-2	30	<del>-</del> 5	2	-0.2	80	-1	39
1319	-2	10	5	-1	0.2	55	-1	32
1320	-2	10	5	2	-0.2	<b>1</b> 7	-1	36
1321	-2	20	5	1	1.1	33	2	17
1322	-2	30	-5	2	-0.2	116	-1	60

14, 2235 - 30th Avenue N.E., Calgary, Alberta T2E 7C7 (403) 276-8668 Telex 03-821172 CGY



#### **ANALYTICAL REPORT**

Job # 84-251

Date

Client Project Bres

Page 3/4

Sample No.	Au	λg	Нg	As	Sb	Cu	Pb	Zr.
	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm
1323	-2	10	-5	2	0.2	3	-1	62
1324	4	50	5	2	-0.2	94	-1	75
1325	-2	20	5	3	0.4	66	-1	43
1326	-2	20	<b>-</b> 5	4	-0.2	56	-1	36
1327	-2	20	<b>-</b> 5	2	-0.2	64	-1	72
1328	2	40	-5	3	1.9	60	3	38
1329	18	250	-5	-1	-0.2	450	-1	195
1330	-2	10	<b>5</b> .	2	-0.2	86	-1	17
1331	-2	10	-5	2	-0.2	33	1	4
1332	-2	10	5	3	-0.2	41	-1	95
1333	-2	40	5	9	-0.2	113	-1	108
1334	2	30	-5	1	-0.2	45	-1	18
1335	-2	40	-5	1	0.7	82	1	4
1336	-2	20	-5	2	-0.2	115	-1	103
1337	-2	40	-5	1	-0.2	87	-1	85
1338	-2	20	<del>-</del> 5	4	-0.2	17	-1	81
1339	12	40	-5	2	-0.2	8	-1	6
1340	-2	110	-5	1	-0.2	207	-1	5
1341	2	450	<del>-</del> 5	2	-0.2	390	-1	30
1342	-2	50	<b>-</b> 5	1	-0.2	85	-1	68
1343	-2	10	-5	1	-0.2	41	-1	94
1344	-2	10	-5	2	-0.2	35	-1	5
1345	-2	10	10	-1	-0.2	10	-1	52
1346	2	100	5	-1	-0.2	125	-1	47
1347	-2	90	5	-1	-0.2	82	-1	8



#### **ANALYTICAL REPORT**

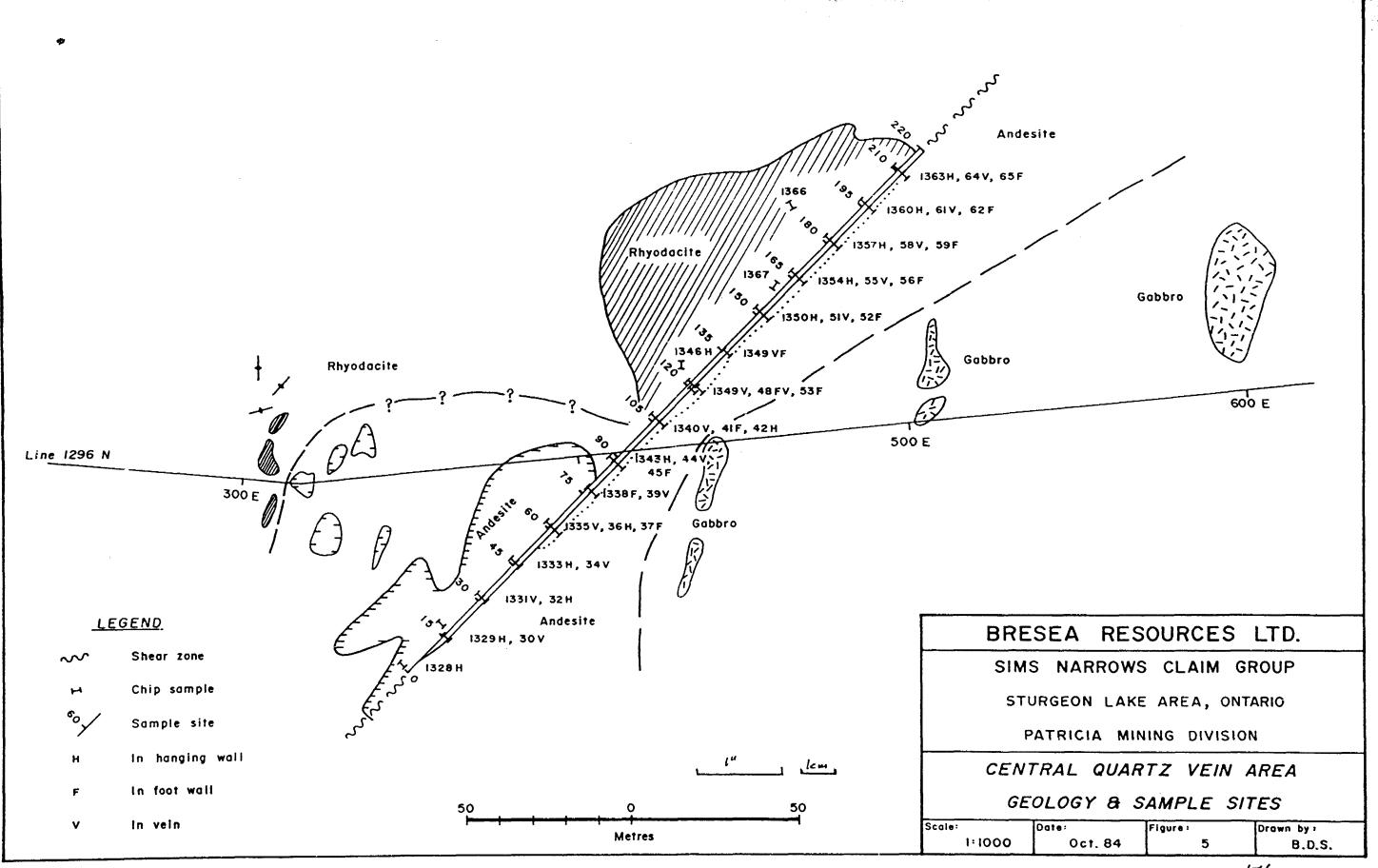
Job # 84-251

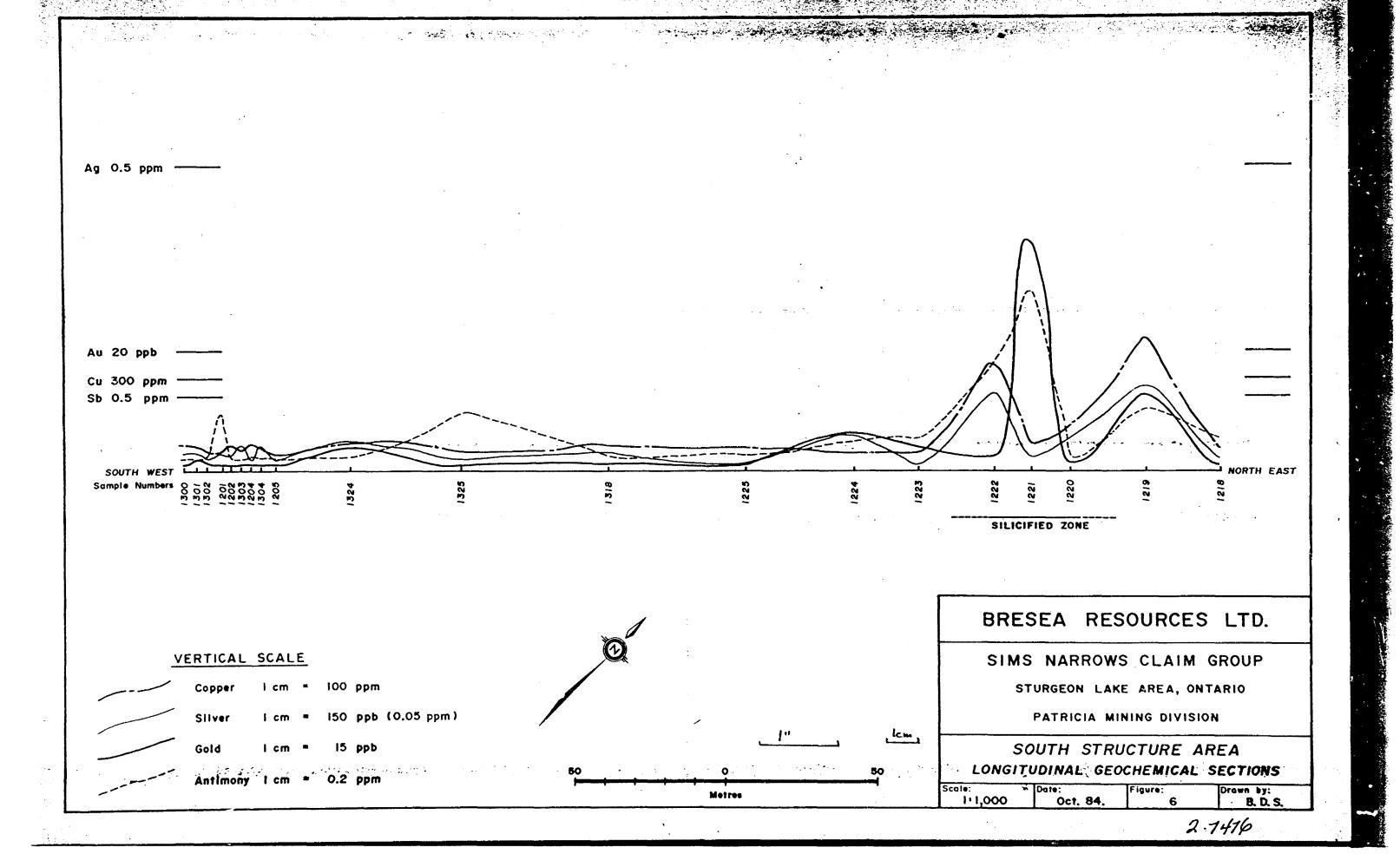
Date

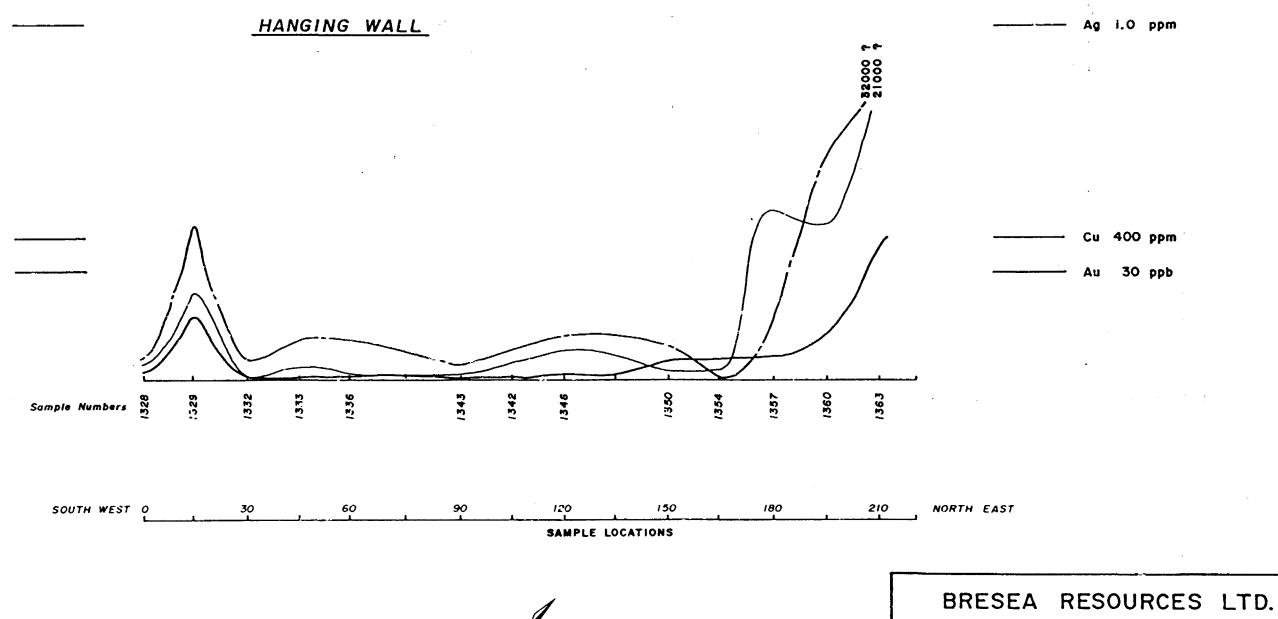
Client Project Bres

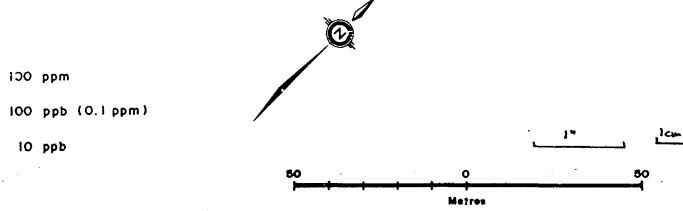
Page 4/4

Sample No.	Au	Ag	Нд	As	Sb	Cu	Pb	Zn
	ppb	ppb	ppb	ppm	ppm	ppm	ppm .	ppm
1348	-2	60	5	-1	-0.2	87	-1	59
1349	14	900	-5	-1	-0.2	920	-1	43
1350	6	30	-5	3	-0.2	102	-1	98
1351	-2	80	5	-1	-0.2	145	1	12
1352	-2	230	10	-1	-0.2	300	-1	48
1353	4	30	10	27	-0.2	27	-1	92
1354	6	30	10	-1	-0.2	16	-1	34
1355	-2	270	5	-1	0.9	195	12	26
1356	-2	20	5	1	-0.2	32	-1	87
1357	6	490	10	-1	-0.2	163	4	59
1358	2	550	10	-1	-0.2	147	2	47
1359	14	1240	5	-1	-0.2	480	1	108
1360	12	440	5	-1	-0.2	650	-1	91
1361	472	8200	<b>-</b> 5	-1	-0.2	2800	27	51
1362	-2	60	5	-1	-0.2	14	-1	75
1363	38	21000	10	-1	-0.2	32000	-1	175
1364	2	470	-5	-1	-0.2	790	-1	63
	16	620	-5	6	-0.2	35C	8	78
1365			5	-1	0.2	204	-1	43
1365 1366	2	80	•					









VERTICAL SCALE

Copper

Silver

Gold

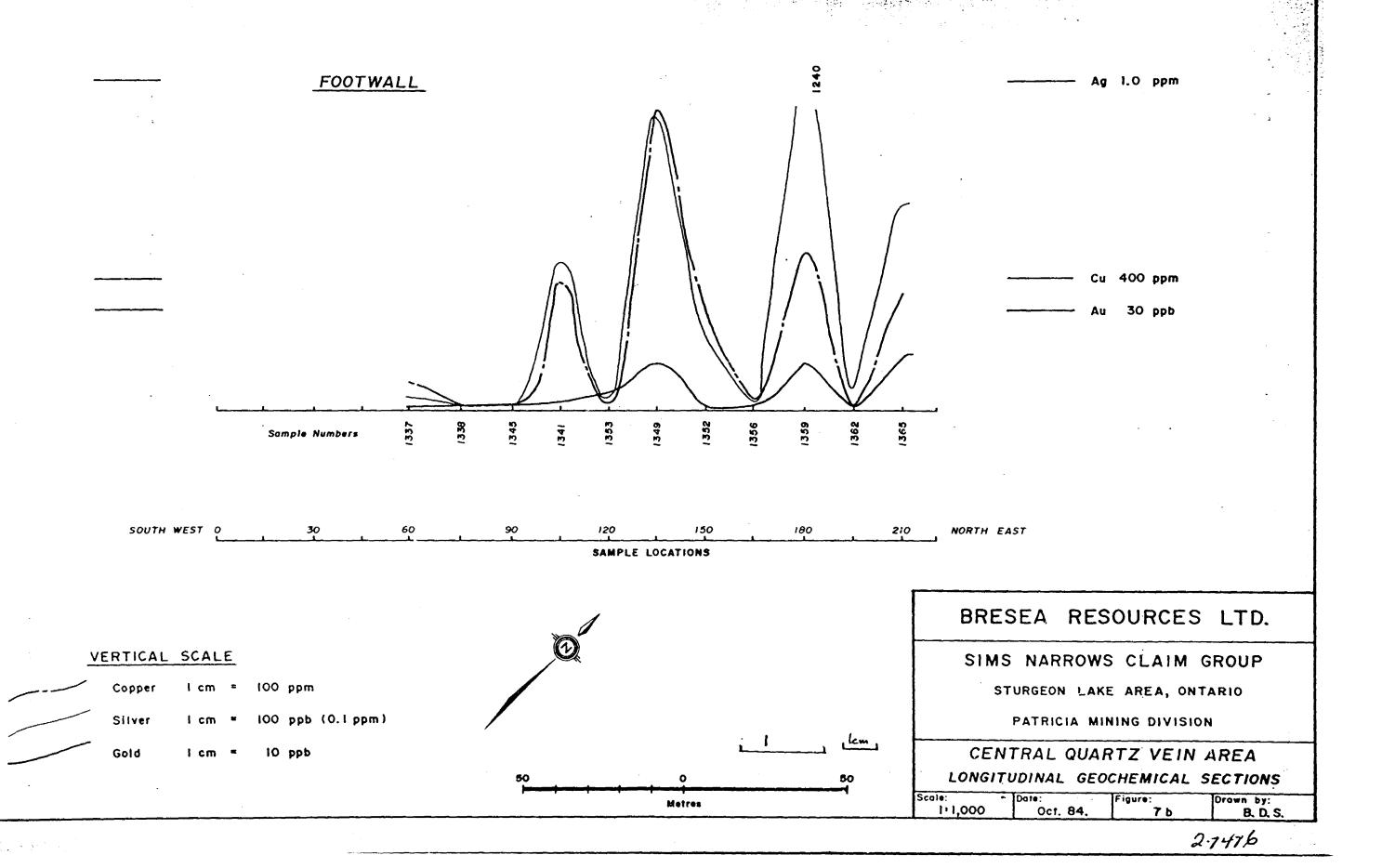
1 cm = 100 ppm

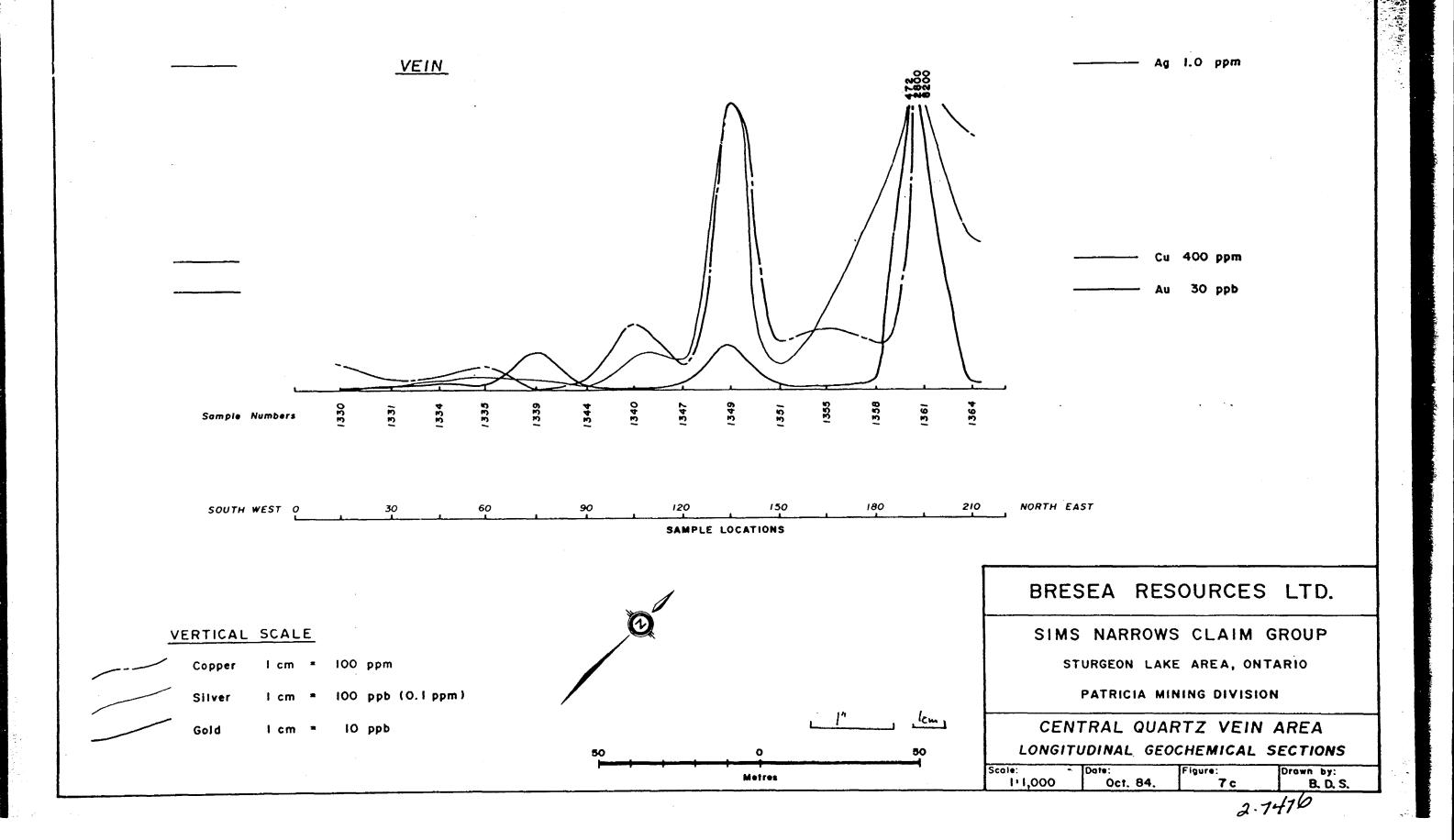
1 cm =

SIMS NARROWS CLAIM GROUP STURGEON LAKE AREA, ONTARIO PATRICIA MINING DIVISION

CENTRAL QUARTZ VEIN AREA LONGITUDINAL GEOCHEMICAL SECTIONS

Scole: - Date: Figure: 1:1,000 Oct. 84.





52.1025E2102 52J02SE0078 SQUAW LAKE

900

							Service Courtes	will a
.W.M.			•				Feb.	W.
ining lands	t of Work 🕝	_	#84-	1/1	Instructions: •	PE - Je Type 11 mombra		1.
4	ysical, Geological, mical and Expendi	eurael -	7.04.		7	Lacticity Spa	re or this form,	attuch a l
, , , , , , , , , , , , , , , , , , ,	mical and Expendi	(0/63)		12.74	16] Nois: -	"Expenditu	cricitits calcula res' section ma	y be enter
			The Mining	Act L	-		xpend Days G shaded areas belo	
Type of Survey(s)					Township		0	. 4 .
Rock Lithogeo		- · · · · · · · · · · · · · · · · · · ·	** **		<u>S</u>	quaw La	ake G	140
Bresea Resour	ces Ltd.				F- 15 AND AND SOUND TO THE THE AND ADDRESS.	T 18	859	
#200, 700 - 4	Ave. S. <u>W</u> .,	Calgar	ry, Albe	rta	y (from & to)	!•	otal Miles of line	
W.G. Timmins					84   99, 1			
Philip Van Ange				S.W., Cal	gary, Al	berta		
iredits Requested her Each C			Mining C	lai <mark>ms Traverse</mark> d			rce)	
Special Provisions	Geophysical	Days per Claim	Prefix	fining Claim Number	Expend. Days Cr	Pretix	Number	Days C
For first survey:	- Electromagnetic		Pa	440031	9			
Enter 40 days, (This includes line cutting)	- Magnetometer	)	· · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·			-
	Radiometric			440032	. 8	1		-
For each additional survey: using the same grid:		İ		440033	8			
Enter 20 days (for each)	Other	! 		440034	31			
	Geological	ļ		440035	31			1
	Geochemical							
Man Days	Geophysical	Days per Claim		676778	8			
Complete (everse side	Electromagnetic	:		676779	8	-		
and enter total(s) here	·	i	1				, <del></del>	
	Magnetometer	ļ		676781	8			.
	. Radiometric			676782	8		y des	
	Other	: 				į		
	⊢ Geological		:	676784	8		. B	
	Geochemical		1	676785	31			
Korizeria Capitals	- <del> </del>	Days per	1	. 01910)		RECE	IVED	-
Note: Operial per entrins	Electromagnetic	Claim	1					
red ty do not apply		•				1 . 1.6. 2	8 1984	
ter Airthonn Surveys	Magnetometer	i • • • •						
	Pathonietric	<u>.                                    </u>				YING LAN	DS SECTION	4
aprinctures fear faries pove			PA	TRICIA MIN	ING DIV		<b>60.</b>	
Cocchemical (Ac	Section 77	- 14			A E IUII		Was K	,
<u>Geochemical (As</u>	Saysı			DEC 191	العا م		Ja / Jagar	
Pa 676777, 778,	782, 784	,	A.M.	• • • • • • • • • • • • • • • • • • • •	P.M.	5	se southably and	
and Pa 440031			7181	9110111112111	218141516	,,	V Or	
the James of Lependiture Days	•	Total Credits	]	•	1			
\$ 2,375.00	+ 15 =	158				harman.	net of maning [	
2,5/5.00		170	la. 4	4003	/	10000	*****	11
	portioned at the Claim for the Claim f			For Office Use	Only	¬	4	
or or at true?			Her protect	s Cr. Date Record		Lange Free	01/10	··
Her	11	Signature		Dec.	19, 1984		Thoras	4
Dec. 11, 1984 -	Cellatia	مند الداري	198	, prate Approv	sizas necurcieo	in and it	7, o. 1	
ment at a density my Repor	1	Kls	ionesol					
and a root of the first first to the second		-		tooth in the Repo	et of Work acce	wert! to,!	is to performing	the work
Triessed same stance and a	consistent tramp's trans- son Carlots rig	5*10 EHP (#f)	oe red tripoti S	, .tur				
	•							

Dec. 11,

1984

MESSONA MAS GOING



### **Technical Assessment** Work Credits

2.7476

1985 03 07

Mining Recorder's Report of Work No. QA 16A 84-164

Recorded Holder	
BRESEA RESOURCES LTD Township or Area	
SQUAW LAKE AREA	
Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	
Electromagnetic days	
Magnetometer days	\$2,375.00 SPENT ON ASSAYING SAMPLES TAKEN FROM MINING CLAIMS:
Radiometric days	PA 440031 676778-79
Induced polarization days	676782
Other days	158 DAYS CREDIT ALLOWED WHICH MAY BE
Section 77 (19) See "Mining Claims Assessed" column	GROUPED IN ACCORDANCE WITH SECTION 76(6) OF THE MINING ACT.
Geological days	
Geochemical days	
Man days 🗌 Airborne 🗆	
Special provision 🗌 Ground 🔲	
Credits have been reduced because of partial coverage of claims.	
Credits have been reduced because of corrections to work dates and figures of applicant.	
Special credits under section 77 (16) for the following min	ino claims
No credits have been allowed for the following mining claim	ms
not sufficiently covered by the survey	sufficient technical data filed
	and in order that the total number of approved approximate days recorded an

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical — 80; Geological — 40; Geochemical — 40; Section 77 (19)—60:

628 (83/6)

TerraMin Research Labs Ltd. 14 - 2235 30th Ave. N.E. Calgary, Alberta T2E 7C7

SOLD 10

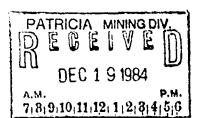
W.G. Timmins Expl. & Dev't.

201 - 4723 1st Street S.W.

Calgary,		FED LICENCE NO	PROV. LICENCE NO.	YOUR ORDER NO	OUR DADER NO		TE MAS	SALESMAN	
Oct. 9/84					84-251		30 days		
CH CHEEPED OTY	CANADENO	. ~ 0	ESCRIPTION			OLA SHIBALD	UNIT PRICE	AMO	J
A STATE OF		Rock sample pro	eparation			102	2.75	280	
1 mai 2 m		Au, Ag analysi:	s (Fire Assay/A	A)		102	7.30	744	1
A CONTRACT		As analysis				102	3.25	331	
25 22		Sb "				102	3.25	331	1 1 1 1
	ŀ	Нд "				102	4.50	459	11111
10000000000000000000000000000000000000		Cu, Pb, Zn ana	lysis			102	3.60	367	+,
	:							\$ 2514	
		Re: Project "	Bres"						
INVOI	CE	BACK ORDERED ITEMS WILL BE WE ARE OTHERWISE ADVISED N/A ITEMS ARE NOT AVAILABLE		COME DIVERS	SHIPPE D		6-0 FROM	<b>6</b> 0 to	

IN VOIGE

Note: Only \$2,375.00 is related to the Bresea Resources Ltd project.



## W. G. Timmins Exploration & Development Ltd.

#### **CONSULTING GEOLOGISTS**

#201, 47:3 - 1 ST. S.W. CALGARY, ALBERTA T2G 4Y8 (403) 287-3277 TELEX 03822059

November 20, 1984

RECEIVED

Mr. F.W. Matthews Supervisor, Project Unit Mining Land Section Ministry of Natural Resources Room 6450 Whitney Block Toronto, Ontario M7A 1W3

NOV 27 1984

MINING LANDS SECTION

Dear Sir:

Re: Bresca Resources Ltd. Assessment Report

Flease accept the enclosed Assessment Report on behalf of Bresea Resources Ltd. The work described in this report was filed for assessment credit by Mr. P.D. Van Angeren on behalf of Bresea Resources Ltd.

I would appreciate it if you would contact me or Mr. David Walsh to confirm your receipt of this report, and to discuss any further requirements you may have.

I ask that the contents of the report be kept confidential.

Sincerely yours,

P.D. Van Angeren, Geologist

W.G. Timmins Exploration & Development Ltd.

/bk

Contact: P.D. Van Angeren

403-287-3277

or:

David Walsh 403-265-5997

1984 12 04

Your File: 2.7476

Mining Recorder
Ministry of Natural Resources
P.O. Box 309
Sioux Lookout, Ontario
POV 2TO

Dear Sir:

We received reports and maps on November 27, 1984 for a Geological Survey submitted under Special Provisions (credit for Performance and Coverage) on Mining Claims PA 440031 et al in the Area of Squaw Lake.

This material will be examined and assessed and a statement of assessment work credits will be issued.

We do not have a copy of the report of work which is normally filed with you prior to the submission of this technical data. Please forward a copy as soon as possible.

Yours sincerely,

S.E. Yundt Director Land Management Branch

Whitney Block, Room 6643 Queen's Park Toronto, Ontario M7A 1W3 Phone: (416)965-4888

#### A. Barr:sc

cc: Bresea Resources Limited
Suite 200
700 - 4th AVe S.W.
Calgary, Alberta.
T2P 3J4

cc: W.G. Timmins, Exploration & & Development Ltd 201 - 4723 - 1st St. S.w. Calgary, Alberta T2G 4Y8 Attn: P.D. Van Angeren.

January 9, 1985

File: 2.7476

Bresea Resources Ltd Suite 200 700 - 4th Avenue SW Calgary, Alberta T2P 3J4

Dear Sirs:

RE: Data for Assaying submitted on Mining Claims PA 440031 et al in the Area of Squaw Lake

In order to complete the above-mentioned submission, please submit (in duplicate) receipts or cancelled cheques as proof of paymann for the \$2,375.00 expenditure credits claimed.

When submitting this information, please quote file 2.7476.

Yours sincerely,

S.E. Yundt Director Land Management Branch

Whitney Block, Room 6643 Queen's Park Toronto, Ontario H7A 1W3 Phone: (416)965-4888

#### D. Kinvig:mc

cc: W.G. Timmins Exploration & Development Ltd Suite 201 4723 - 1st S.W. Calgary, Alberta T2G 4Y8 Attention: P.D. VanAngeren

cc: Mining Recorder
Sioux Lookout, Ontario

File: #84-164

February 18, 1985

Your File. 2.7475

Bresea Resources Ltd Suite 200 700 - 4th Avenue S.W. Calgary, Alberta T2P 3J4

Dear Sirs:

RE: Data for Assying submitted on Hining Claims PA 440031, et al, in the Area of Squaw Lake

Enclosed is a copy of our letter dated January 9, 1985 requesting additional information for the above-mentioned survey.

Unless you can provide the required data by February 25, 1985 the mining recorder will be directed to cancel the work credits recorded on December 19, 1984.

For further information, please contact Nr. Ray Pichette at (416)965-4888.

Yours sincerely,

S.E. Yundt Director Land Management Branch

Whitney Block, Room 6643 Queen's Park Toronto, Ontario M7A 1W3 Phone: (416)965-4888

S. Hurst:mc

cc: Mining Recorder
Sioux Lookout, Ontario

cc: W.G. Timmins Exploration & Development Ltd Suite 201 4723 - 1st S.W. Calgary, Alberta T2G 4Y8 Attention: P.D. Van Angeren

Encl.



#### REGISTERED

February 18, 1985

Your File: 2.7476

Bresea Resources Ltd Suite 200 700 - 4th Avenue S.W. Calgary, Alberta T2P 3J4

Dear Sirs:

RE: Data for Assying submitted on Mining Claims PA 440031, et al, in the Area of Squaw Lake

Enclosed is a copy of our letter dated January 9, 1985 requesting additional information for the above-mentioned survey.

Unless you can provide the required data by February 25, 1985 the mining recorder will be directed to cancel the work credits recorded on December 19, 1984.

For further information, please contact Mr. Ray Pichette at (416)965-4888.

Yours sincerely,

S.E. Yundt Director

Land Management Branch

Whitney Block, Room 6643 Queen's Park Toronto, Ontario M7A 1W3

Phone: (416)965-4888

S. Hurst:mc

cc: Mining Recorder

Sioux Lookout, Ontario

cc: W.G. Timmins Exploration & Development Ltd Suite 201 4723 - 1st S.W. Calgary, Alberta T2G.4Y8

Attention: P.D. Van Angeren

Encl.

#### BRESEA RESOURCES LTD.

200, 700 - 4th Avenue S.W. Calgary, Alberta, Canada T2P 3|4 Tel: (403) 265-5997 Telex: 03-822764

February 20, 1985

Ministry of Natural Resources Whitney Block, Room 6643 Queen's Park Toronto, Citario M7A 1W3

Attention: Mr. Ray Pichette

Dear Sir:

#### Re: File Number 2.7476

Please find enclosed a copy of your registered letter dated February 18, 1985 received today for reference.

We had assumed W.G. Timmins Exploration & Development had supplied the proof of expenditures.

We have been advised that the necessary proof of payment will be mailed no later than February 22, 1985 by special post to your attention.

Yours very bruly,

David G. Walsh President

DGW/mm Enclosure

RECEIVED

FEB 2 5 1985

MINING LANDS SECTION

February 22,1985

Mr. Ray Pichette Ministry of Natural Resources Whitney Block, Room 6643 Queen's Park Toronto, Ontario M7A 1W3

Dear Sir,

Enclosed please find a receipt pertaining to work credits recorded by Bresea Resources Ltd. as of Dec. 19,1984. Refer to file 2.7476. For further information, please contact Mr. David Walsh at (403) 265-5997 or myself, at (403) 287-3277.

Yours Sincerely,

Phil Va Oyen

Philip Van Angeren W.G.Timmins Exploration & Development Ltd. 201 4723 1St S.W. Calgary, Alberta E2G 4Y8

PDva

Enol.

RECEIVED

FEB 2 5 1985

MINING LANDS SECTION

MNR CC TOR

## RECEIVED

FEB 25 1985

MINING LANDS SECTION

ARGUS CGY

NG LANDS SECTION FEB 25 1985

RECEIVED

Land Management Branch

CIRCULATE

COMMENTS PLEASE

J. R. MORTON
J. C. SMITH
W. L. GOOD
M. J. HOGAN
W. P. BROOK

PETUEN 10 R. 6643

DATE: FEBUARY 22, 1985

TO: MINISTRY OF NATURAL RESOURCES

WHITNEY BLOCK, ROOM 6643, QUEENS

ATTENTION: RAY PICHETTE

RE: FILE: 2.7476

BRESEA RESOURCES LTD.

RE: YOUR REGISTERED LETTER OF FEBRUARY 10, PLS BE ADVISED PROOF OF PAYMENT IS BEING MAILED PRIORITY POST TODAY.

THANKS.

DAVID G. WALSH
BRESEA RESOURCES LTD.
TELEX NO. 03-822764

HNR CC TOR

1985 03 07

Your File: 84-164 Our File: 2.7476

Mining Recorder
Ministry of Natural Resources
P.O. Box 309
Sioux Lookout, Ontario
POV 2TO

Dear Sir:

RE: Assaying submitted under Section 77(19) of the Mining Act RSO 1980, on Mining Claims PA 440031, et. al., in the Squaw Lake Area

The enclosed statement of assessment work credits for assaying expenditures has been approved as of the above date.

Please inform the recorded holder of these mining claims and so indicate on your records.

Yours sincerely,

S.E. Yundt Director Land Management Branch

Whitney Block, Room 6643 Queen's Park Toronto, Ontario M7A 1W3 Phone: (416)965-4888

D. Kinvig:mc

cc: Bresea Resources Ltd Suite 200 700 - 4 Avenue S.W. Calgary, Alberta T2G 4Y8 cc: Resident Geologist
Sigux Lookout, Ontario

cc: W.G. Timmins Exploration & Development Ltd Suite 506 521 - 57 Avenue S.W. Calgary, Alberta T2V 0H3

Encl.

14-2235 - 30th Avenue N.E. Calgary, Alberta T2E 7C7 (403) 276-8668

#### RECEIPT

December 28, 1984

Received from W.G. Timmins Exploration & Development Ltd. Two thousand five hundred and fourteen dollars thirty \$ 2514.30 re our job number 84-251.

Yvonne M. Hazeldene, Vice-President

TerraMin Research Labs Ltd.

ym Hazeldane

# FOR ADDITIONAL

INFORMATION

SEE MAPS:

525/02SE-0078 # 1-2

