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GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,012

PROSPECTING REPORT
ON THE
BRUNSWICK MINERAL CLAIM
ROCHER DEBOULE RANGE - HAZELTON, B.C.

for

Operator: Catoosea Resources Corp.

~~Owner/Operator~~

Owner: R. Holland

NTS 93M/4E

Omineca Mining Division

SUB-RECORDED RECEIVED
MAY - 1 1987
M.R. # _____ S
VANCOUVER, B.C.

FILMED

07.0'

Latitude 55°09' N

36.3'

Longitude 127°28' W

February 10, 1987

Robert Holland, B.Sc., F.G.A.C.
Holland Geoservices Ltd.

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SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The Brunswick claim, consisting of eight units, is located within the Rocher Deboule mining camp near Hazelton, B.C. The property is currently under option agreement to Catoosea Resources Corp. Mineralization within the district occurs as lensoidal quartz veins associated with the trace of shears and faults, all of which are related to the emplacement of the Rocher Deboule granodiorite stock. Most of the known mineral occurrences in the area, including those on the Brunswick claim, lie within 1000 meters of the granodiorite-country rock contact. Past producers in the district include the Red Rose and Rocher Deboule Mines which lie 1.2 and 4.0 kilometers to the north and northwest respectively.

Previous records indicate at least four mineralized quartz vein structures are present on the Brunswick claim. During 1986, prospecting work relocated these veins plus an additional two more veins. Of these six structures, only one, the Brunswick, has seen significant amounts of exploration or development work. Known veins in this area appear to be associated with moderate to steeply dipping, northeast trending shear zones which are often traceable on surface as small, linear creek ravines. At least four such structures were noted on the Brunswick property, including the Balsam Creek zone which hosts the Brunswick, Balsam and No. 4 veins. Vein and shear widths appear to vary from stringers to in excess of 3.0 meters

Mineralization consists primarily of pyrite, galena, sphalerite, arsenopyrite and tetrahedrite with lesser amounts of chalcopyrite and stibnite. Gangue material is largely

quartz and silicified wall rock, with lesser amounts of carbonate and gouge. Values are principally in silver with lesser gold, lead, zinc and copper. Silver grades in excess of 100 oz/ton are common however average values would be much less.

The object of the 1986 work was to relocate the old workings and showings and to prospect for new targets. None of the showings were sampled, however assay results for most of these can be found in old records and reports. It appears that all these showings contain some higher grade material and that the shear structures, in most cases, can be traced for several hundreds of meters

None of the showings have been adequately tested and further work is required to assess the strength, continuity and mineral potential of these structures. This work should include detailed geological mapping and sampling of all showings, clearing out of old workings, and V.L.F electromagnetic and magnetic surveys to define structures. Positive results should be followed up with backhoe trenching and diamond drilling.

INTRODUCTION

Holland Geoservices Ltd. was retained by Catoosea Resources Corp. to carry out prospecting and evaluation work on their Brunswick claim. The purpose of this work was to relocate previous showings for future work and to prospect peripheral regions of the claim for additional structures. A total of two man-days were spent on the property and an additional two days were spent in report preparation.

CLAIM STATUS

The Brunswick mineral property is comprised of the following mineral claim located within the Omineca Mining Division of British Columbia.

<u>Claim</u>	<u>Record No.</u>	<u>Units</u>	<u>Record No.</u>
Brunswick	6045	8	Feb 21/84

The claim is registered in the name of the author and is under option agreement to Catoosea Resources Corp.

LOCATION AND ACCESS

The Brunswick claim is situated at the headwaters of Red Rose Creek, in the Rocher Deboule Range of north central British Columbia as shown in figure 1. The towns of Hazelton and Smithers lie 14 kilometers north and 49 kilometers southeast respectively. The property is centered at 55°08'N. latitude and 127°35'W. longitude on N.T.S. map sheet 93M/4. The terrain is generally steep to precipitous with elevations ranging from 1200 to 2000 meters (4000 to 6500 feet). Much of the claim area lies above treeline (about 1400 meters), with lower regions timbered by stunted alpine balsam, spruce and juniper.

Access to the property is via a rough four wheel drive road which leaves Highway 16 at Skeena Crossing, 20 kilometers southwest of Hazelton, and follows Juniper Creek for approximately 11 kilometers. A branch of this road extends up Red Rose Creek, past the old Red Rose mine camp, to a small cabin below the main workings. These roads are rough, grown in, washed out in places and are generally passable only during

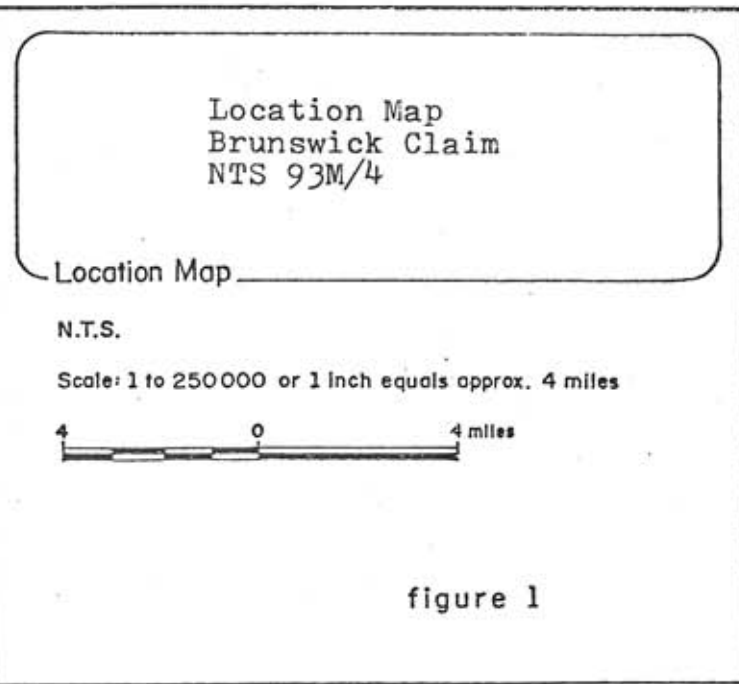
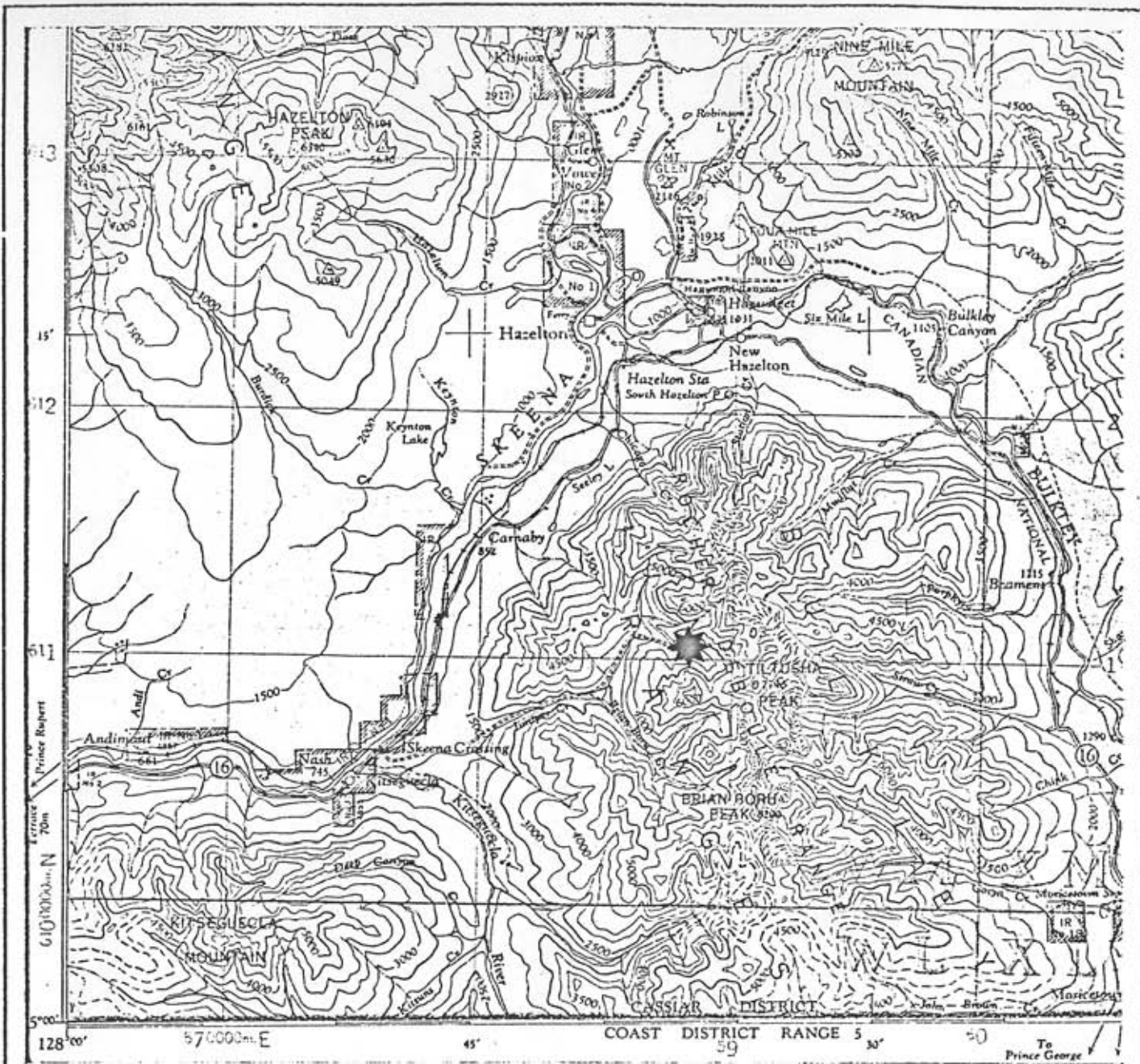


figure 1

the summer. Alternate access can be gained by helicopter from several bases in the Smithers area.

HISTORY

The first exploration activity in the Rocher Deboule Range occurred around the turn of the last century. By 1910, the area had become very active and most of the major known mineral occurrences were discovered soon after. Much of the early development work occurred between 1914 and 1919 and again during the late 1920's. High metal prices during World War II and the early 1950's lead to renewed activity and production from several properties. The area has been largely dormant since 1954. The better known occurrences in the area include the Red Rose and Rocher Deboule Mines which lie 1.2 and 4.0 kilometers north and northwest respectively from the Brunswick claim. Between 1942 and 1954, the Red Rose Mine produced a reported 114,175 tons of tungsten-copper-gold-silver ore. The Rocher Deboule Mine recovered 52,719 tons of ore grading roughly 6% copper, 2 oz/ton silver, with gold and zinc values. Production was primarily during the periods 1915 to 1919, and 1952.

The Brunswick property was originally located around 1912 by J. Miller, who apparently was responsible for much of the early development work. By 1925, at least four showings had been investigated, however most of the work was confined to the 'Brunswick' vein. At least two drift adits, 20 and 52 meters long, had been driven on this structure at elevations of 1380 and 1410 meters (4540 and 4630 feet) respectively.

The property came open in 1950 and was acquired by Skeena Silver Mines Ltd. Between 1951 and 1952, work included

reopening the two adits, slashing out and extending the lower adit to 63 meters, drilling four holes, and carrying out further prospecting. J.T. Williamson staked the ground during the early 1960's and conducted further work including diamond drilling, prospecting, sampling, and rehabilitation of the adits. During 1972-3, Arcadia Explorations Ltd., under option agreement, advanced the lower drift to 98 meters, conducted limited geological, self potential, electromagnetic, and topographical surveys, and carried out some cat trenching.

The Brunswick claim was staked by the author in January 1984 to cover the above showings. In 1985 the claim was optioned to Catoosea Resources Corp.

GEOLOGY

The Geology of the region is dominated by the Rocher Deboule porphyritic granodiorite stock which forms the core and backbone of the Rocher Deboule Range. The stock is exposed over a northerly trending area 16 kilometers long by up to 5 kilometers wide. These rocks form part of the regionally extensive Bulkley Intrusions and recent age dating suggests a late Cretaceous age of 72 million years (Richards 1980).

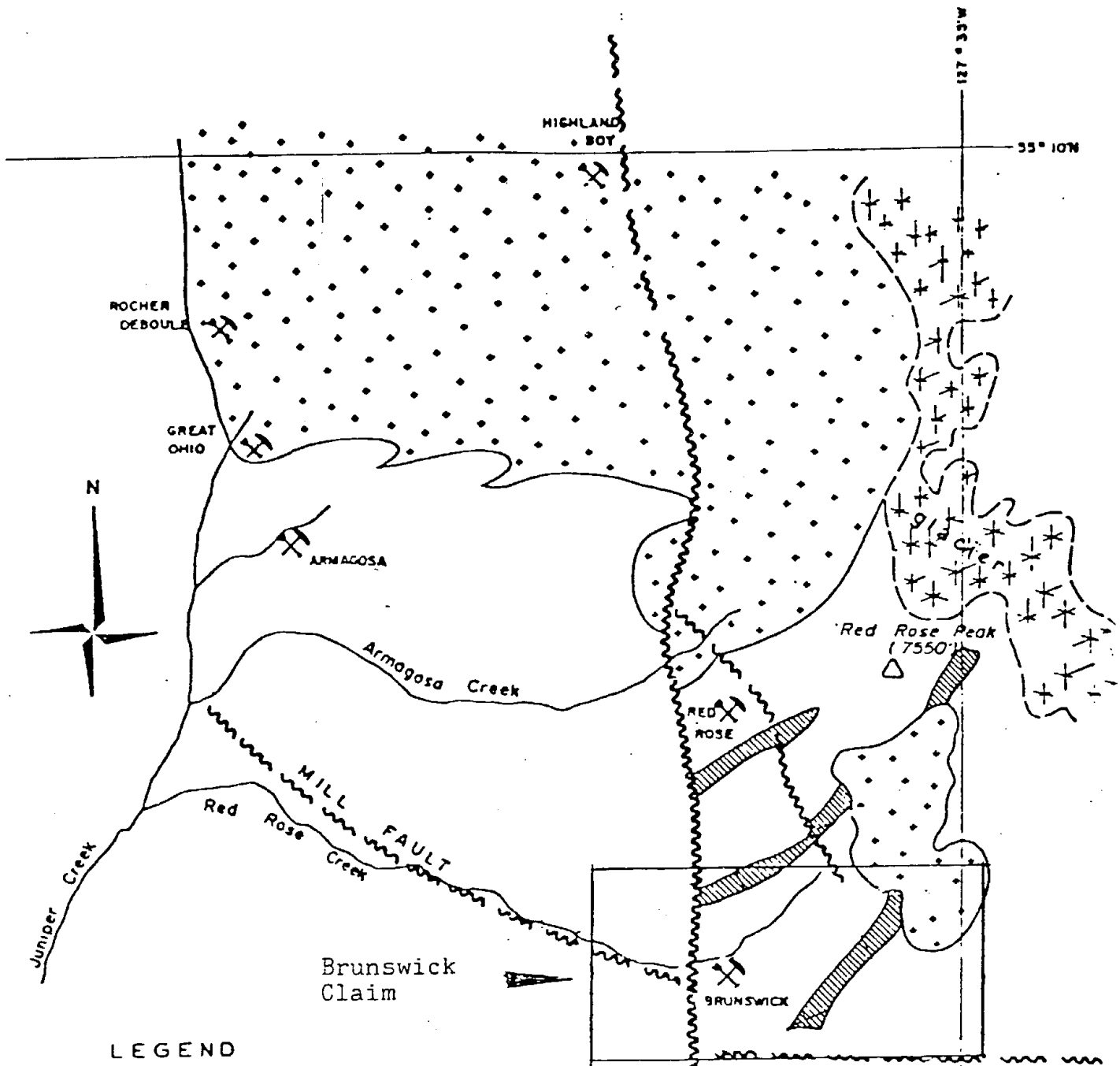
The surrounding country rock consists primarily of upper Jurassic aged pelitic sediments of the Lower Bowser Lake Subdivision of the Bowser Lake Group. These in turn are overlain by acid to intermediate volcanics of the upper Cretaceous aged Brian Boru Formation. Both of these units have previously been mapped as part of the lower to middle Jurassic Hazelton Group sequence. Hornfelsing is strong adjacent to the stock and major fracture and fault systems are common both in and adjacent to the intrusive rocks.

The Brunswick claim is underlain largely by hornfelsic argillites and greywacke of the Lower Bowser Lake Subdivision. These rocks strike northeast and dip 45° southeast. An apophysis of the Rocher Deboule stock cuts these rocks in the northeastern corner of the claim and the main mass of the stock lies just north and east of the property as shown in figure 2. Also cutting the sediments are several large, northeast trending diorite dykes. These dykes predate and are cut by the Rocher Deboule granodiorite.

At least two major fault systems appear to cross the property, intersecting just west of the main Brunswick showings. The Chicago Creek Fault trends north-south with an estimated normal fault displacement of 600 to 900 meters. At least three mineral systems, the Red Rose, Brunswick, and Highland Boy occurrences, lie adjacent to this fault in this area. The Chicago Creek Fault has been traced to the south for at least 17 kilometers. The Mill Fault trends east southeast, following Red Rose Creek and appears to be displaced several hundred meters to the right by the Chicago Creek Fault.

MINERALIZATION

Mineralization in the Rocher Deboule area consists essentially of base and precious metal values in quartz vein structures located along subsidiary fractures and shears related to northeast or northwest trending faults. Known mineral occurrences are concentrated peripherally about the northern dome of the stock and most occur within 1000 meters of the contact. Much of the past production has been for tungsten and copper but values for gold, silver, arsenic, cobalt, molybdenum, lead and zinc are also found.



LEGEND

(Geology after A. Sutherland Brown)



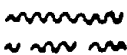
DIORITE DIKE



ROCHER DEBOULE STOCK (GRANODIORITE)



HAZELTON GROUP (SEDIMENTS and METAFELS)



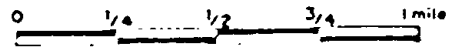
DEFINITE FAULTS



APPROX



MINING PROPERTY



BRUNSWICK GENERAL GEOLOGY

Figure 2

BY D R COCHRANE P. Eng
DATED APRIL 7, 1972

Three stages of mineralization have been recognized, one or more of which may be present in any one vein system. The first and earliest phase is pegmatitic forming veins of black hornblende, glassy quartz, feldspar, apatite, magnetite, scheelite, tourmaline, ferberite, molybdenite, and possibly uraninite. The second stage is closely related to the first and forms the main sulfide event. Mineralization consists mainly of chalcopyrite, arsenopyrite, pyrite and cobalt-nickel sulfarsenides. The final phase consist of late stage quartz containing sphalerite, tetrahedrite, galena, pyrite with lesser chalcopyrite, siderite and calcite. Mineralization at the Brunswick is primarily of this last type.

On the Brunswick claim, at least four mineralized structures have been recognized, although three of these have not seen significant development. The main or 'Brunswick' vein is comprised of vuggy quartz, silicified wall rock, carbonates, gouge, and sulfides contained within a shear zone up to 3.0 meters wide. Sulfides vary from trace to near massive and consist primarily of galena, sphalerite, pyrite, tetrahedrite and chalcopyrite. The shear strikes N 50-60°E and dips 45° to 60° northwest. Vein walls are generally sharp to brecciated and often show some silicified alteration envelopes. Other vein structures appear to have a similar mineralogy although arsenopyrite and some stibnite may also occur. Likewise most of these veins parallel the Brunswick vein and have similar dips and widths. Old reports and references indicate that these shear-vein structures appear to have a strike potential of several hundred meters and this is confirmed by field observations.

PROSPECTING RESULTS

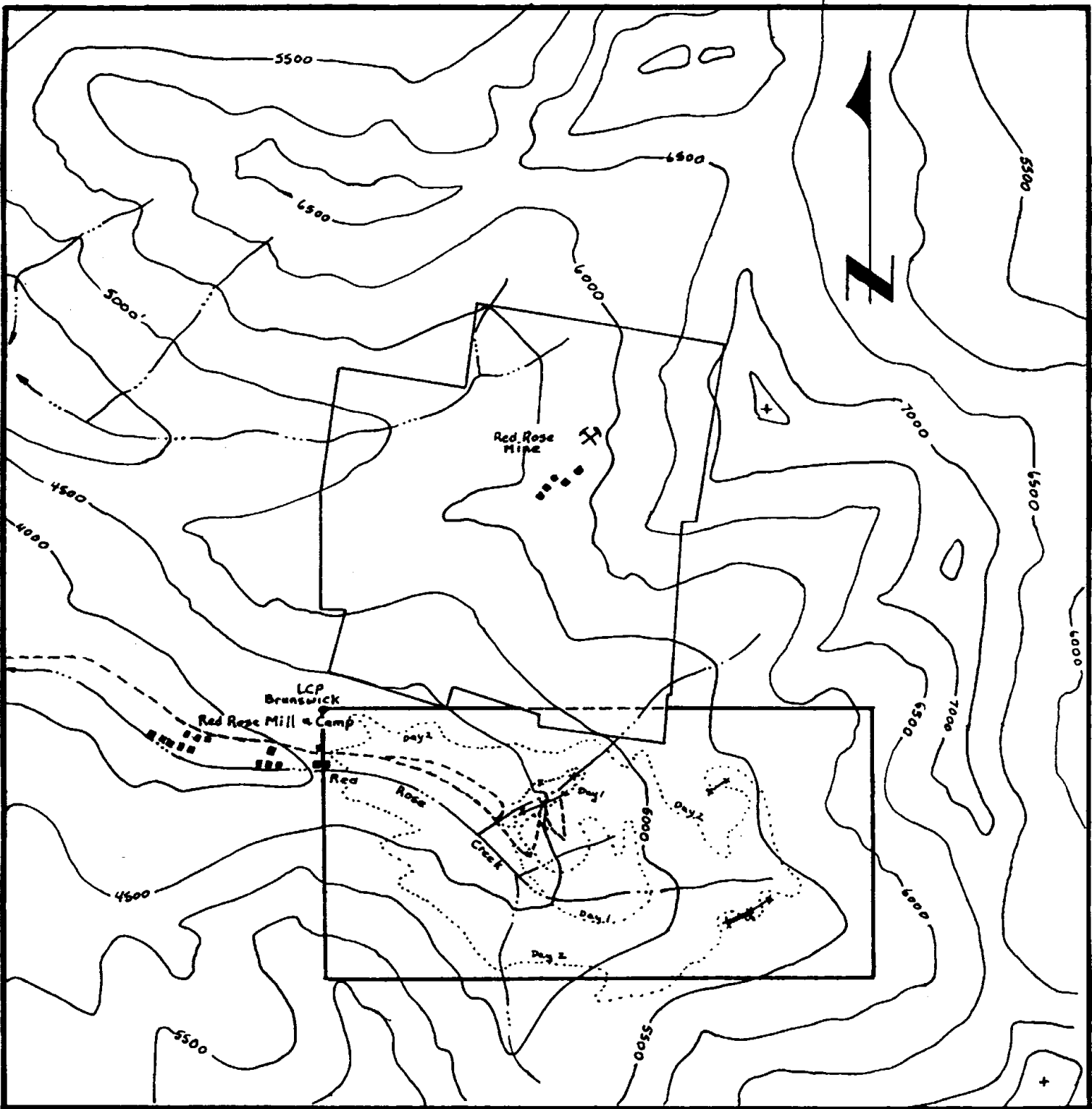
At least four mineralized veins have been reported in the Brunswick claim area in the past. The location of three of these was not known for certain, although vague descriptions have been made in some of the old references. Work conducted in 1986 was successful in locating all four showings plus an additional two veins which were not previously known about. Brief summarizations of these occurrences are presented below and the approximate locations of these are shown in figures 3 and 4. Prospecting traverses are also shown in figure 3. Figure 4 shows a more detailed sketch of the showing areas.

1) **Brunswick (No. 1) vein**

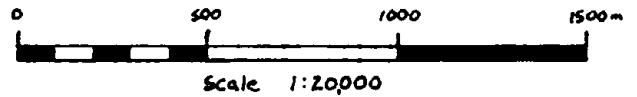
The upper and lower adits on the Brunswick vein were located on the southeast side of Balsam Creek, a tributary of Red Rose Creek, at approximate elevations of 1415 and 1390 meters (4640 and 4550 feet) respectively. Both portals were caved and no vein material was exposed in outcrop. An old cat trench between the adits showed no bedrock and a second trench above the upper adit revealed some diorite outcrop but no vein material.

Good rock exposure was found along Balsam Creek in this area. This consisted mainly of fine to medium grained, chloritic diorite overlying strongly hornfelsed argillite. The contact between the two units is gradational and highly irregular, with the two rock types often indistinguishable from each other. Away from the creek ravine, the area is largely covered by poorly cemented till with some talus and felsenmeer.

Approximately 10 meters below the lower adit, the



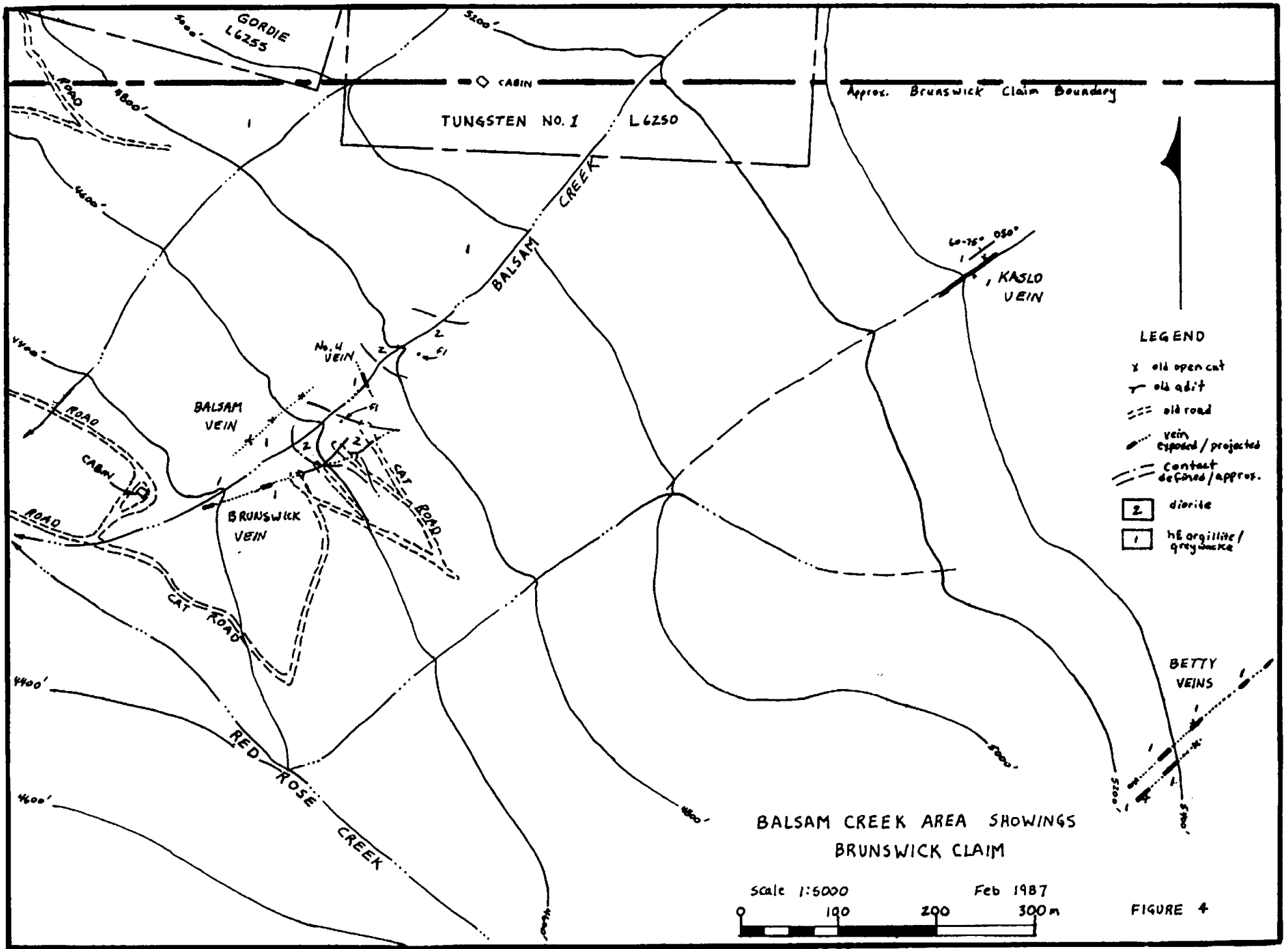
- X → mineral occurrences
- traverse paths
- - - old road
- old building
- ~ creek



SHOWING AND TRAVERSE LOCATIONS
BRUNSWICK CLAIM

Feb 1987

Figure 3



Brunswick shear zone is poorly exposed in the steep southeast bank of Balsam Creek. This zone appears to be 3.0 meters wide and consists of weak to strong fracturing, oxidation and silicification, with some quartz and sparse sulfide mineralization where observed. In addition, a 10-15 centimeter quartz vein was noted along the footwall contact. This was well mineralized with pyrite, tetrahedrite, galena and sphalerite. A second exposure of this shear zone was encountered approximately 80 meters further downstream in the creek bed. Here the zone is also 3.0 meters wide with some rusty quartz and sparse mineralization.

2) Balsam (No. 2) vein

Approximately 70 meters northwest and across Balsam Creek from the lower adit, is a badly caved open cut or short adit. Outcrop and debris in the area is largely hornfelsed, rusty argillites and greywacke. Some rusty quartz debris was noted on the adjoining dump and several pieces were found to be well mineralized with galena, pyrite, sphalerite and lesser tetrahedrite. This is likely debris from the Balsam vein which is reportedly 35 centimeters wide here and believed to parallel the Brunswick vein and Balsam Creek. At least two other caved trenches were found, over a distance of 60 meters, along strike to the northeast.

3) No. 4? vein

Approximately 60 meters upstream and 30 meters above the upper adit, a 10-15 centimeter quartz vein is exposed in Balsam Creek. This vein appears to strike northwest and dips roughly 20° to the northeast. The vein is well oxidized and pitted and minor remnant galena and pyrite was noted. The host rock is hornfelsed greywacke with diorite outcropping just upstream to the northeast.

The projected intersection of this vein with the Brunswick vein was also prospected, however this area was overburden covered and disturbed by previous cat work. A small shaft or adit was report in this area but appears to have been obliterated.

Upstream from the No. 4 vein, diorite is exposed in the creek for about 50 meters. Further uphill more rusty hornfels was noted. A large block of rusty quartz was found in the creek cuts about 90 meter above the No. 4 vein. The source of this is unknown. A second strongly mineralized slab of quartz was also found about 30 meters below the No. 4 vein. This may have came from the upper adit.

4) Kaslo (No. 3) vein

Approximately 250 meters southeast of Balsam Creek is a second parallel creek ravine on some length. At about 1675 meters (5500 feet) elevation, a quartz vein-shear is exposed, in outcrop and by several small open cuts, for a distance of at least 40 meters along and parallel to the ravine. The vein strikes about N 50°E, dips 60-75° northwest, and ranges up to 1.0 meters in width. Sulfide mineralization is fairly strong, consisting mainly of arsenopyrite and pyrite with locally abundant galena, sphalerite, and minor stibnite. Silicification and alteration envelopes up to 40 centimeters wide are common, often containing minor disseminated pyrite. This zone appears to be the old Kaslo vein which reported two assays of 18 oz/ton silver (M.M.A.R. 1914).

5) Betty veins

Prospecting further to the southeast, near the head of Red Rose Creek, resulted in the discovery of two additional

shear veins. These are located approximately 700 meters east of the Brunswick showing at an elevation of about 1600 meters (5250 feet). The veins are separated by about 15 meters and have been trace at intervals, in sporadic outcrop and by several small open cuts, for at least 200 meters northeast up a steep slope. Shear widths range from 30 to 150 centimeters with quartz bands and seams over widths up to 80 centimeters. Mineralization consists of minor to locally abundant pyrite, galena, sphalerite, arsenopyrite, tetrahedrite with some stibnite. The veins are strongly oxidized.

6) Other areas

South of Red Rose Creek, in the southern claim area, steep talus slopes cover much of the region. The sources of this debris are large outcrops and cliffs located near the ridge top and off the claim. These rocks are largely hornfelsed greywacke and argillite but they tend to be less hornfelsed and more fissile than those to the north. No significant mineralized float was noted in this region, however occasional blocks of rusty bull quartz were noted in places.

SELECTED REFERENCES

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- Kindle, E.D., 1954, "Mineral Resources, Hazelton and Smithers Area", G.S.C. Memoir 223.
- Richards, T.A., 1980, "Geology of Hazelton (93M) Map Area", Geol. Surv. Can. Open File 720.
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STATEMENT OF COST

The following costs were incurred by Holland Geoservices Ltd. on behalf of Catoosea Resources Corp., for work related to their Brunswick mineral claim located near Hazelton, B.C. Work was carried out during the periods July 16-23, 1986 and February 7-8, 1987.

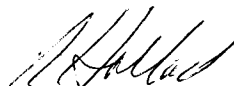
Camp Costs (food and lodging)	
2 days @ \$20.00/day	\$40.00
Equipment and Supplies	10.00
Fuel (gas)	76.00
Printing and Copying	15.00
Truck Rental	
2 days @ \$30.00/day	60.00
Wages	
R. Holland, geologist	
4 days @ \$200.00/day	800.00
July 16, 23, Feb. 7, 8	
Total Costs	\$1001.00



QUALIFICATION

I, ROBERT HOLLAND, of 13451 - 112A Avenue, Surrey, British Columbia, hereby certify that the following are true and correct:

1. I graduated from the University of British Columbia in 1976 and hold a B.Sc. degree in geology.
2. I am currently employed as a consulting geologist with Holland Geoservices Ltd., of 13451 - 112A Avenue, Surrey, British Columbia
3. I have been employed in my profession by various mining exploration companies for the past eleven years.
4. I am a Fellow of the Geological Association of Canada.
5. The information contained in this report was obtained as a result of field work carried out by Holland Geoservices Ltd., under my direction and supervision.
6. I currently am the registered owner of the Brunswick claim which is under option agreement with Catoosea Resources Corp. As part of this agreement I may receive shares in Catoosea in the future.



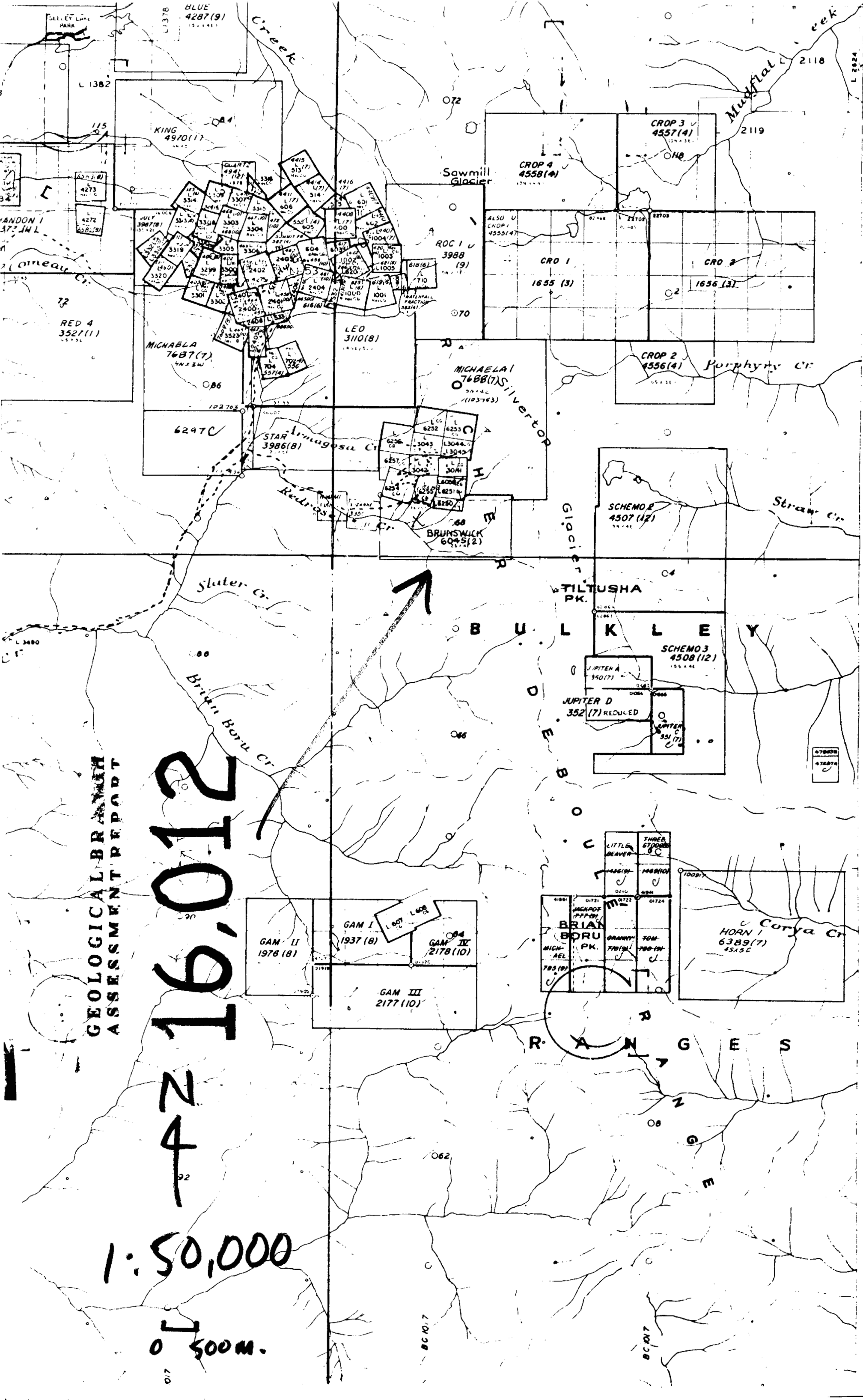
Robert Holland, B.Sc., F.G.A.C.
consulting geologist

GEOLOGICAL BRANCH
ASSESSMENT REPORT

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TO EAST SEE MAP 93 M/3 W