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The Mt. Saugstad Mineralized Area,
Skeena M.D., B.C.
(Patch Claim)

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Jan. 1983

TABLE OF CONTENTS

1. Introduction
2. History
3. Location and Access
4. Topography
5. Geology
6. Mineralization
7. Recommendations
8. Logistics
9. Cost Estimate
10. References

1:50,000 map of Mt. Saugstad area

In pocket

1. Introduction

This report outlines recommendations for work in the Mt. Saugstad mineralized area, near Bella Coola, B.C., during the 1983 field season.

2. History

Mineralization in the Mt. Saugstad area was first discovered by the author during the 1980 field season, while working for Noranda Explorations Ltd. The "SNOOTLI", "SMITLEY 1, 2 and 3", and "BIG SNOW" claims were staked during August 1980 to cover the important showings, but Noranda apparently did no follow-up work in the area and allowed the claims to lapse in 1982. During September 1982 the author staked the "PATCH" claim, 18 units, on behalf of Queenstake Resources Ltd., to cover the most important showing, a quartz vein carrying good values in copper, gold and silver.

3. Location and Access

Mt. Saugstad, 9532 ft (2905 m), is located in the B.C. Coast Mountains, about 21 km southeast of Bella Coola, in the Skeena Mining Division; it is at the extreme southeast corner of NTS 1:50,000 map sheet 93D/7. The known mineralized zone extends mainly to the south and west of the mountain, and encompasses an area of about 40 km².

Access to the area is presently by helicopter from Bella Coola airstrip, about 15 km to the north; however, road access could be provided at moderate cost from the Williams Lake - Bella Coola highway by way of the Snootli Creek valley, a distance of about 15 km at not more than 10% grade. A rough gravel road presently extends about 3 km up the valley.

4. Topography

The Mt. Saugstad area is fairly typical of the B.C. Coast Mountains, and is characterized by extreme relief, precipitous slopes and extensive glaciation. The higher elevations, above 5000 ft (1500 m), consist largely of steep to vertical rock cliffs, knife-edged ridges and peaks, and extensive icefields. The intermediate slopes, down to 3000 ft (900 m) are blanketed by extensive deposits of talus and moraine with patches of scrub alder, juniper and dwarf spruce. The lower slopes and valley floors are covered by typical subalpine coniferous forest, the dominant species being spruce, alpine fir and hemlock, with an almost impenetrable growth of alder on recently-active talus slopes and alluvial fans. Ample supplies of timber and water are available for mining and drilling purposes.

Climate is also typical of the Coast Mountains, with heavy winter snowfall. Fieldwork in the area is possible from June until early October: fog and low cloud occasionally hamper helicopter operations.

5. Geology

The oldest rock unit in the area is a strongly altered assemblage of greenstone, chlorite schist and minor rusty-weathering black argillite and slate, of probable Jurassic and/or Triassic age. These rocks exhibit a well developed foliation, striking northwesterly with steep to vertical dips. Southwest of Mt. Saugstad, a roughly triangular stock of granodioritic composition and Eocene or Palaeocene age is intrusive into the greenstone-schist unit (Baer, 1973). This stock outcrops over an area of about 24 km², and most of the important mineralization in the area is associated with it or with small satellitic plugs (not shown on Baer's map). Other large intrusive bodies, of granodioritic to quartz-dioritic composition and also of Eocene or Palaeocene age, fringe the mineralized zone to the north, east and west.

6. Mineralization

Two major mineralized structures and numerous smaller associated veins are known in the Mt. Saugstad area: for the purposes of this report, these structures have been designated the Patch Vein and the Snootli Vein.

The Patch Vein, striking 153 degrees and dipping 25 - 30 degrees south, outcrops on a precipitous north-facing slope about 4 km south of Mt. Saugstad summit. It consists of rusty quartz carrying abundant but erratically distributed coarse pyrite, chalcopyrite and minor bornite. A pale cream-coloured carbonate, probably dolomite, occurs locally. The vein has an exposed strike length of about 1.5 km; at its east end it disappears under a glacier, and to the west it is covered by moraine and overburden. Where exposed it is at least 3 m wide, and locally in excess of 5 m. This vein carries erratic values in copper, gold and silver, including one assay of 0.41 oz/ton Au, 3.45 oz/ton Ag and 0.15% Cu over a 1.5 m width in the footwall (Price, 1982). A grab sample taken at this point in 1980 assayed 15% Cu and 1 oz/ton Ag.

The PATCH claim, 18 units, was staked in September 1982 to cover the outcrop of this vein.

An extensive stockwork of molybdenum-bearing quartz veins outcrops in the floor of the valley to the north of the Patch Vein, and several quartz stringers from a few cm to 0.5 m in width carrying coarse pyrite, molybdenite and minor chalcopyrite outcrop about 3 km to the west. Neither of these occurrences has received much attention.

The Snootli Vein strikes about northwest, with a vertical dip, and trends from the summit of Mt. Saugstad towards the Snootli Creek valley. It outcrops for about 1 km strike length in a vertical rockface above a badly crevassed glacier close northwest of the summit, but is almost inaccessible at this point. A central portion is covered with talus and overburden, but a short length of vein outcrops in a vertical face about 4 km northwest of Mt. Saugstad at the Snootli Creek/Smitley River divide. The vein at this point carries abundant coarse pyrite, molybdenite and chalcopyrite, and grab samples from this vicinity (taken in 1980) assayed up to 2% MoS₂ and 5% Cu. Up to 35 ppm silver was found in stream silts in this area.

The Snootli Vein is associated with an extensive and very prominent, deep red coloured gossan zone which encompasses virtually the whole of Mt. Saugstad. The mountain consists of steep to vertical rock faces and is almost completely surrounded by badly crevassed glaciers, and thus is very difficult of access.

7. Recommendations

The Mt. Saugstad mineralized zone is a possibly important new discovery in an area where, according to Baer (1973, p. 98) "chances of a major find appear to be small." Its potential as a commercial gold-silver-copper-molybdenum deposit is at present conjectural, but is felt to be sufficient to warrant a reconnaissance level exploration program during the 1983 season.

- i) Further claims should be staked in the area to cover all the known showings, as indicated on the accompanying map: 9 claims comprising of 153 units are recommended, which, with the existing "PATCH" claim, will total 171 units.

For assessment purposes the claims should be grouped; the "PATCH" and the 4 adjacent claims as one group (71 units), and the remaining 5 claims as a separate group (100 units).

- ii) The known veins and gossan zones should be systematically sampled wherever practicable, and the samples assayed for Au, Ag, Cu and Mo.
- iii) Reconnaissance level geological mapping should be conducted over the claim area.
- iv) A small amount of geophysics (EM or IP) and soil geochemistry might be useful to trace possible extensions of known veins beneath overburden and glacial ice.

The overall purposes of this program should be, firstly, to determine whether further work is justified, and secondly to identify drill targets.

8. Logistics

The difficult terrain of the Mt. Saugstad area is offset to some extent by its closeness to communications and transport. Helicopter support will be required, both for claim staking and assessment work: road building is not recommended at this early stage.

Staking can be most efficiently carried out in mountainous terrain by helicopter, using a 2-man crew. Sampling and mapping would be best accomplished by two 2-man crews, serviced by helicopter.

Transwest Helicopters (P.O. Box 16, Pitt Meadows, B.C.) have two Hughes 500's based at Hagensborg. Charter rates are presently (1982) \$460 per hour, plus

fuel.

Good motel accomodation is available either in Bella Coola or Hagensborg; alternatively, a good level campsite with an ample water supply is available within the claim area close to the head of the Smitley River. Timber is scarce in the immediate area, however, so aluminum-frame tents would be required.

The proposed program should take about a month, and should cost not more than \$76,000., of which about \$14,500 would be staking costs (see cost estimates, attached).

9. Cost Estimate (1983 season only)

a) Staking: 4 - 5 days, 2 man crew and helicopter

Salaries & benefits: 2 crew @ approx. \$2,000/mo:	\$ 670
Helicopter charter: 24 hrs @ \$460/hr:	11,040
Helicopter fuel:	1,500
Claim recording: 153 units @ \$5/unit, + tags:	800
Accommodation & food @ \$50/man/day:	<u>400</u>
Subtotal	\$14,410

b) Assessment work 25 days, 4 man crew & part-time helicopter

Salaries & benefits: 4 crew @ approx. \$2,000/mo:	6,800
Helicopter charter: 30 hrs @ \$460/hr:	13,800
Helicopter fuel:	2,000
Accommodation & food @ \$50/man/day:	5,000
Mobilization - demobilization:	6,000
Equipment purchases:	1,000
Sample assays: approx. 200 sample @ \$30/sample:	6,000
Office expenses, drafting, etc.:	<u>8,000</u>

Subtotal \$48,600

Add: staking costs: 14,410
Contingencies @ 20%: 12,600

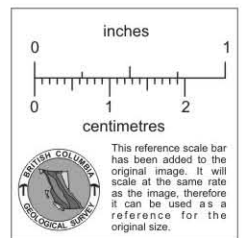
Total \$75,610

Or approximately \$76,000

10. References

Baer, A. J. (1973): Bella Coola - Laredo Sound Map-areas, British Columbia. Geol. Surv. Can. Memoir 372.

Price, M.G. (1982): Preliminary Report on the "Patch" claim, Bella Coola Area, Skeena M.D., B.C. Queenstake Resources Ltd., Unpubl. Rept.



MOUNT SAUGSTAD MINERALIZED AREA,
SKEENA M.D., B.C.

LEGEND

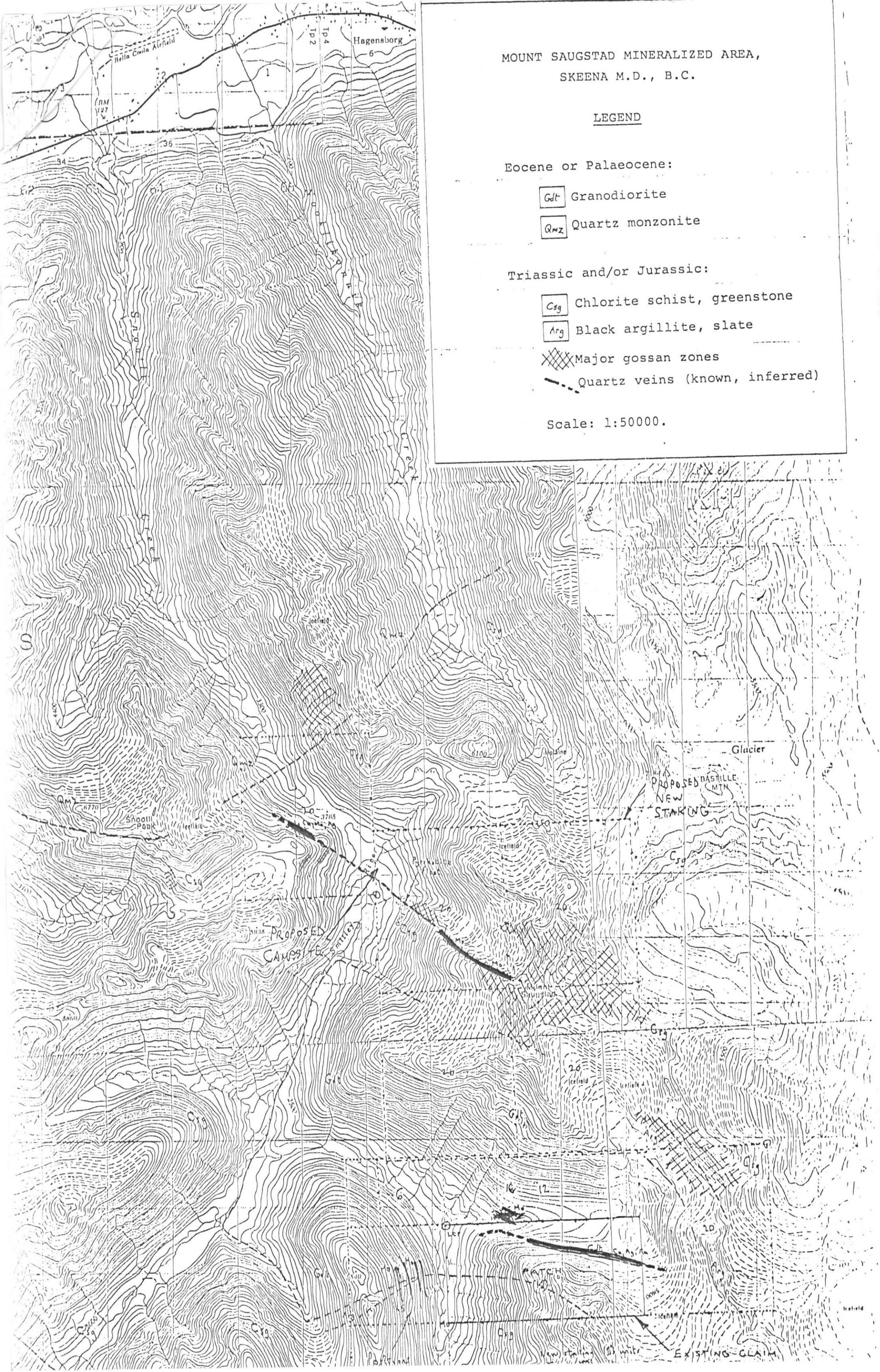
Eocene or Palaeocene:

- Gdt Granodiorite
- Qmz Quartz monzonite

Triassic and/or Jurassic:

- Csg Chlorite schist, greenstone
- Arg Black argillite, slate
- Major gossan zones
- Quartz veins (known, inferred)

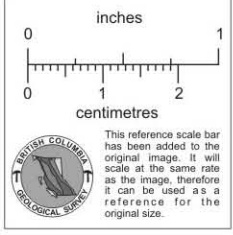
Scale: 1:50000.



Location Map of the ALEETA 1-8 claims

Sheena M.D., British Columbia

Scale 1:50,000



ALEETA 1

ALEETA 2

ALEETA 3

ALEETA 4

ALEETA 5

ALEETA 6

ALEETA 7

ALEETA 8

93 D/7 & 93 D/8
93 D/2 & 93 D/1