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Assessment

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REPORT ON GEOLOGICAL AND GEOPHYSICAL SURVEYS ON THE VALLEY VIEW AND GOLDTOP CLAIMS AGASSIZ-HARRISON AREA B.C.

New Westminster Mining Division
Latitude 49°15.5'N Longitude 121°51'W
NTS 92/H5W and 4W

Prepared for

STAR MOUNTAIN RESOURCES INC.

by

K.E. NORTHCOTE AND ASSOCIATES LTD.
AGASSIZ B.C.

March 1984

K.E. Northcote Ph.D.,P.Eng.

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REPORT ON GEOLOGICAL AND GEOPHYSICAL SURVEYS FOR THE VALLEY VIEW AND GOLDTOP CLAIMS

SUMMARY

The VALLEY VIEW-GOLDTOP claims are located approximately 7 kilometres west of Agassiz on the east flank of Mount Woodside, Latitude 49°15.5'N, Longitude 121°51'W, NTS 92H/4W and 5W in the New Westminster Mining Division. The Valley View #1 group comprises 3 metric claims of 29 units and 2 internal two-post claims enclosing approximately 725 hectares. There are no underground workings or surface materials or equipment on site. A cabin in excellent repair is located on the Valley View Zone and could serve well for logging and storage of core.

The Valley View group of claims is underlain by Middle to Upper Jurassic volcanic flows, pyroclastics, and volcanic sediments of the Harrison Lake Formation with Echo Island, Mysterious Creek, Kent and Agassiz Prairie Formations lying to the north and east. These formations are intruded by a Tertiary pluton which crops out on the east end of Agassiz Mountain. This geologic environment affords good potential for viable massive sulphide (volcanogenic) deposits, intrusive related hydrothermal deposits and precious metal-bearing vein-shear systems. Two significant and differing zones of hydrothermal alteration and mineralization are known to occur on the Valley View group of claims.

Geologic mapping, rock geochemical sampling and sampling for assay were conducted on the two known alteration-mineralized zones. A ground magnetometer orientation survey was run on much of the upper Valley View zone and delineates fairly will the most highly altered and best mineralized areas. Aeromagnetic data from provincial-federal surveys show anomalous high and low patterns over the claim group.

The upper Valley View zone is intensely altered by chlorite with lesser epidote, contains local impregnations of feldspar and quartz and is mineralized by very strong disseminated pyrite. This zone is cut by systems of southeasterly striking quartz-carbonate-(epidote) veins which are abundantly and coarsely pyritic and may contain varied amounts of

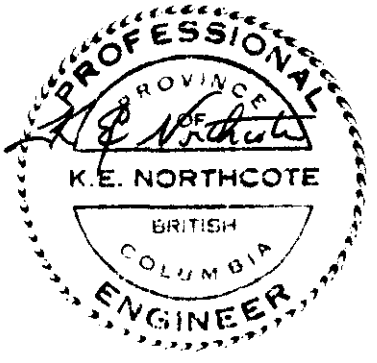
chalcopyrite with lesser sphalerite and galena. Sampling demonstrates significant values of base metals and persistent silver on the Valley View showing. Silver values are commonly associated with higher base metal values but may also occur with pyrite-rich veins. Gold values are generally very low in this zone. The altered zone trends for over 400 metres southwesterly providing ample room to contain a viable ore body.

The Valley View zone has undergone extensive testing previously and is reported to have included aeromagnetic and I.P. surveys, trenching and diamond drilling. Some of these data may be aquired from former operators thereby avoiding unnecessary cost of duplicating programs. There are undocumented reports of a small shipment of hand sorted ore being sent to Britannia.

The Stacey (Constantine) zone differs from the Valley View zone because of strong brecciation and sericite (pyrophyllite?) alteration with lesser feldspathization and quartz vein and breccia infilling. An irregular but strong barite vein cuts a strong brecciated zone of sericite alteration containing weak to moderate pyrite and locally minor chalcopyrite, sphalerite, galena. Precious metals are in small but varied amounts with silver ranging from 0.7 to 30.0 ppm, and gold from 5 to 450 ppb. The higher values are in association with copper, lead and zinc mineralization. The Stacey (Constantine) zone is virtually untested and also provides ample room for localization of viable mineralization with a possibility for gold zonation.

Overburden and vegetation obscure much of the bedrock on the claim group. Because of the readily recognizable alteration mineralogy and sulphide mineralization geologic mapping combined with rock geochemistry provide an effective exploration method in this environment.

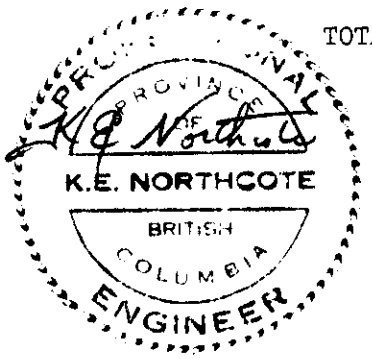
A three stage program is recommended for this property. Progression through successive stages is dependent upon results of the previous stage and requires the recommendation of an independent engineer. Stage I includes geological mapping and geochemical rock sampling, magnetometer and VLF-EM surveys on a closer spaced grid than used in the orientation survey. Trenching by blasting and hand excavating to obtain samples for grade and width is also recommended at this stage. Estimated cost of Stage I is $47,000.00. Stage II may require an I.P. survey in order to further delineate disseminated sulphide zones. An initial diamond drilling program totalling about 1000 feet would be undertaken at this stage to test known zones to a depth of approximately 500 feet. Cost of Stage II is estimated to be $83,000.00. A tentative Stage III is suggested which would involve surface trenching and diamond drilling totalling at least 2000 feet at an estimated cost of $147,000.00.



ESTIMATED COST OF PROGRAM FOR VALLEY VIEW PROPERTY

STAGE I

Orientation		$ 2 000.00
Research and aquire previous data	$1 000.00	
Air photograph interpretation	1 000.00	
Geophysical Surveys		7 000.00
Enlarge and close space existing grid	2 000.00	
Magnetometer & VLF surveys, instrument rental	5 000.00	
Geologic Mapping and Rock Geochemistry		8 600.00
(a) Known showings	1 500.00	
(b) Claims area	2 100.00	
Petrographic studies	2 000.00	
Geochemical analyses	3 000.00	
Trenching and Sampling		9 500.00
Personnel	4 500.00	
Blasting Powder, Copco drill	2 000.00	
Assays	3 000.00	
Accommodation		5 000.00
Food and lodging		
Travel		4 000.00
2 vehicles		
Engineering Report		5 000.00
	Total	$41 100.00
Contingencies 15%		5 900.00
TOTAL STAGE I		$47 000.00

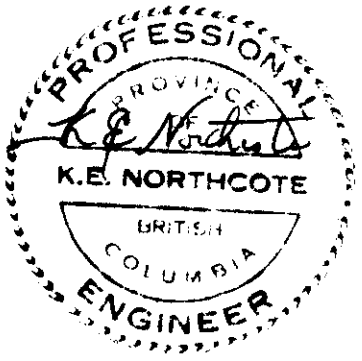


ESTIMATED COST OF PROGRAM FOR VALLEY VIEW PROPERTY

STAGE II — Progression to Stage II is dependent upon favourable results from Stage I and requires the recommendation of an independent engineer.

I.P. Survey		$ 10 000.00
Diamond drilling (1000 feet) @ $35.00/foot		35 000.00
Caterpillar road repair and access, drill sites		10 000.00
Geologist		3 000.00
Assays		3 000.00
Accommodation Food and lodging @ $60/man day		4 000.00
Engineering		2 000.00
Report		2 500.00
	Total	$ 69 500.00
Contingencies @ 20%		13 500.00
TOTAL STAGE II		$ 83 000.00

Total of Stages I and II $47,000.00 + 83,000.00 $130 000.00



ESTIMATED COST OF PROGRAM FOR VALLEY VIEW PROPERTY

STAGE III

Tentative program, subject to revision depending upon results of Stages I and II and would proceed with recommendation of an independent engineer.

Trenching	$ 15 000.00
Caterpillar, drilling, blasting, road building.	10 000.00
Diamond drilling Estimate 2000 ft. @ 35/ft	70 000.00
Mapping, sampling, core logging	6 000.00
Assays	5 000.00
Accommodation	8 000.00
Engineering	4 000.00
Report	4 500.00
Total	$122 500.00
Contingencies @ 20%	24 500.00
TOTAL STAGE III	$147 000.00
Grand Total Stages I, II and III	$277 000.00

REPORT ON GEOLOGICAL AND GEOPHYSICAL SURVEYS ON THE VALLEY VIEW AND GOLDTOP CLAIMS AGASSIZ-HARRISON AREA B.C.

INTRODUCTION

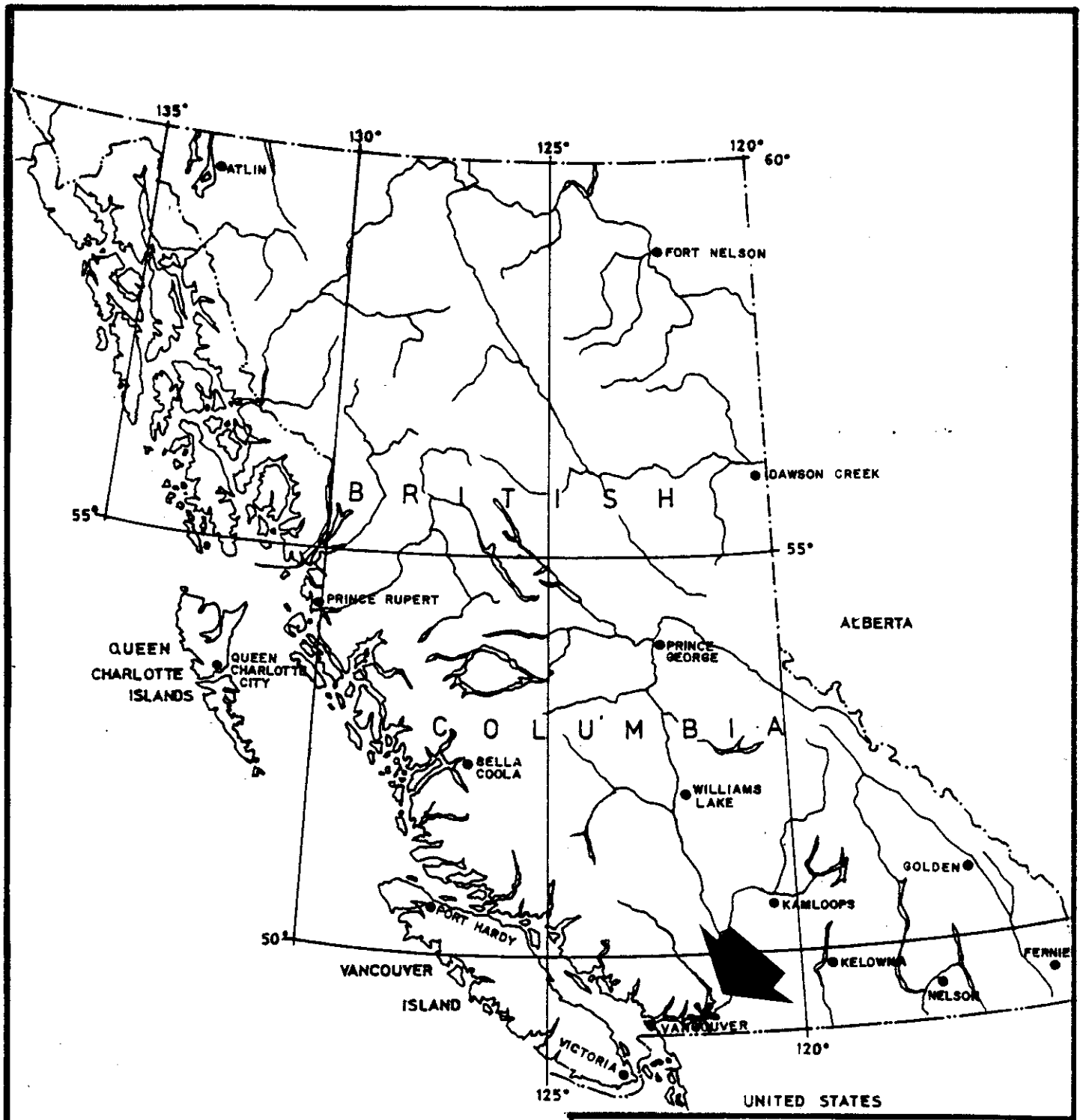
TERMS OF REFERENCE

K.E. Northcote and Associates Ltd. were contracted by Star Mountain Resources Inc. to carry out geological and geophysical surveys on the VALLEY VIEW and GOLDTOP claims, prepare a report outlining the results of this work and, if the property is considered to be of merit, outline a program for evaluation of its potential. This work was done in the period February 1 to March 9, 1984 in cooperation with Gower,Thompson and Associates Ltd.

LOCATION

The VALLEY VIEW-GOLDTOP claims are located in the New Westminster Mining Division approximately 7 kilometres west of Agassiz on the east flank of Mount Woodside, Latitude 49°15.5'N, Longitude 121°51'W, NTS 92H/4W and 5W.

Access to the property is by the Mount Woodside-Mount Agassiz forestry access road leading north from Lougheed Highway #7 about 10 kilometres west of Agassiz. Permission may be obtained allowing access to the main showings near the base of the east flank of Mount Woodside through private property of Klaas Schroevers, a resident dairy farmer.



STAR MOUNTAIN RESOURCES INC.	
LOCATION OF VALLEY VIEW PROPERTY	
FIGURE: 1	SCALE: 1:10 000 000
DRAWN BY: P.STOECKLY	DATE: FEB. 84
K.E. NORTHCOTE & ASSOCIATES LTD.	
GOWER THOMPSON & ASSOCIATES LTD.	

Elevations on the property range from approximately 35 metres at the level of Agassiz prairie rising steeply to 900 metres near the top of Mount Woodside. Exploration and development can be conducted on the property throughout the year with exception of occasional short periods of snowfall during the winter months.

CLAIMS STATUS

The claims comprising the Valley View #1 group containing 29 units and 2 internal two-post claims are listed in Table I and are shown on Figure 2.

TABLE I

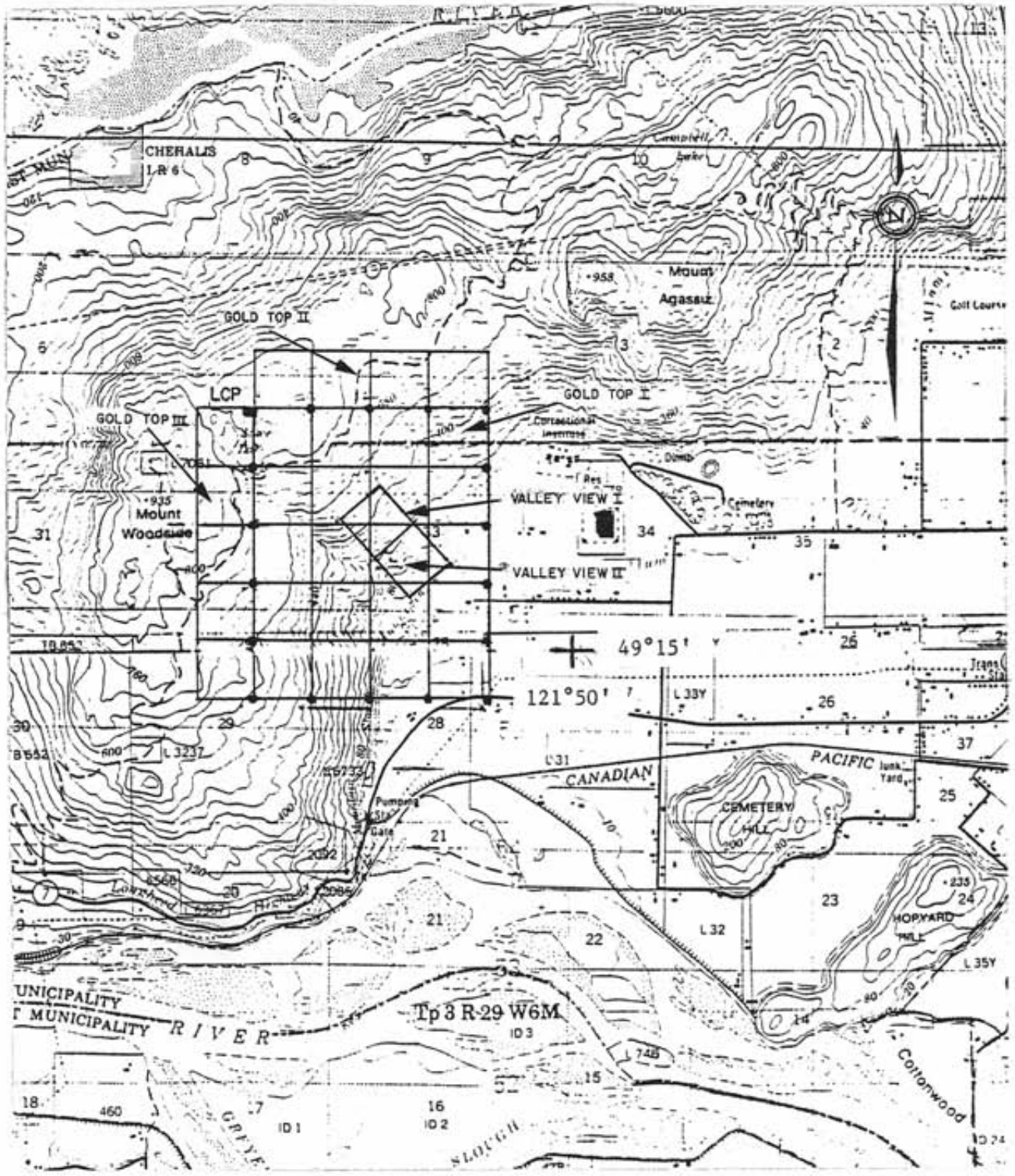
VALLEY VIEW #1 GROUP

CLAIM	UNITS	RECORD NO.	ANNIVERSARY DATE
GOLDTOP I	20	2336-(2)	February 6, 1985
GOLDTOP II	4	2338-(2)	February 13,1985
GOLDTOP III	5	2337-(2)	February 13,1985
VALLEY VIEW I	Two-post claim	1827-(2)	February 24,1984
VALLEY VIEW II	Two-post claim	1828-(2)	February 24,1984

Total 31 units and two-post claims

The common GOLDTOP legal corner post is situated 200 metres north-east of Stacey Lake near the crest of Mount Woodside. The initial post of the VALLEY VIEW claims is located 1830 metres southeast of Stacey Lake on the lower east flank of Mount Woodside.

The VALLEY VIEW I and II claims were staked by S.C. Gower on January 31, 1983 and sold by Western Horizons Resources Ltd. to W. Schoenbaechler by Bill of Sale dated November 21, 1983. GOLDTOP I, II and III were staked by K.E. Northcote as agent for W. Schoenbaechler and recorded in February 1984. All claims were staked in accordance



SCALE 0 1 2 km

0 1 2 miles

STAR MOUNTAIN RESOURCES INC.

LOCATION OF VALLEY VIEW AND GOLDTOP CLAIMS

FIGURE: 2	SCALE: 1 : 50 000
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with the Mineral Act. VALLEY VIEW I, II, and GOLDTOP I, II and III were grouped as Valley View I Group. Legality of the claims and their maintenance in good standing is the responsibility of the registered owner.

GEOLOGY

REGIONAL GEOLOGY

The general geology of the area, has been mapped and/or discussed by a number of early geologists including N.L. Bowen 1913-14 and C.H. Crickmay who completed a Ph.D. thesis on The Geology and Paleontology of the Harrison Lake District, British Columbia, at Leland Stanford Junior University in 1925. Subsequently C.E. Cairnes prepared a compilation map in 1942 of the Hope Map-area in which he incorporated geology by Crickmay, H.C. Horwood and W.E. Snow.

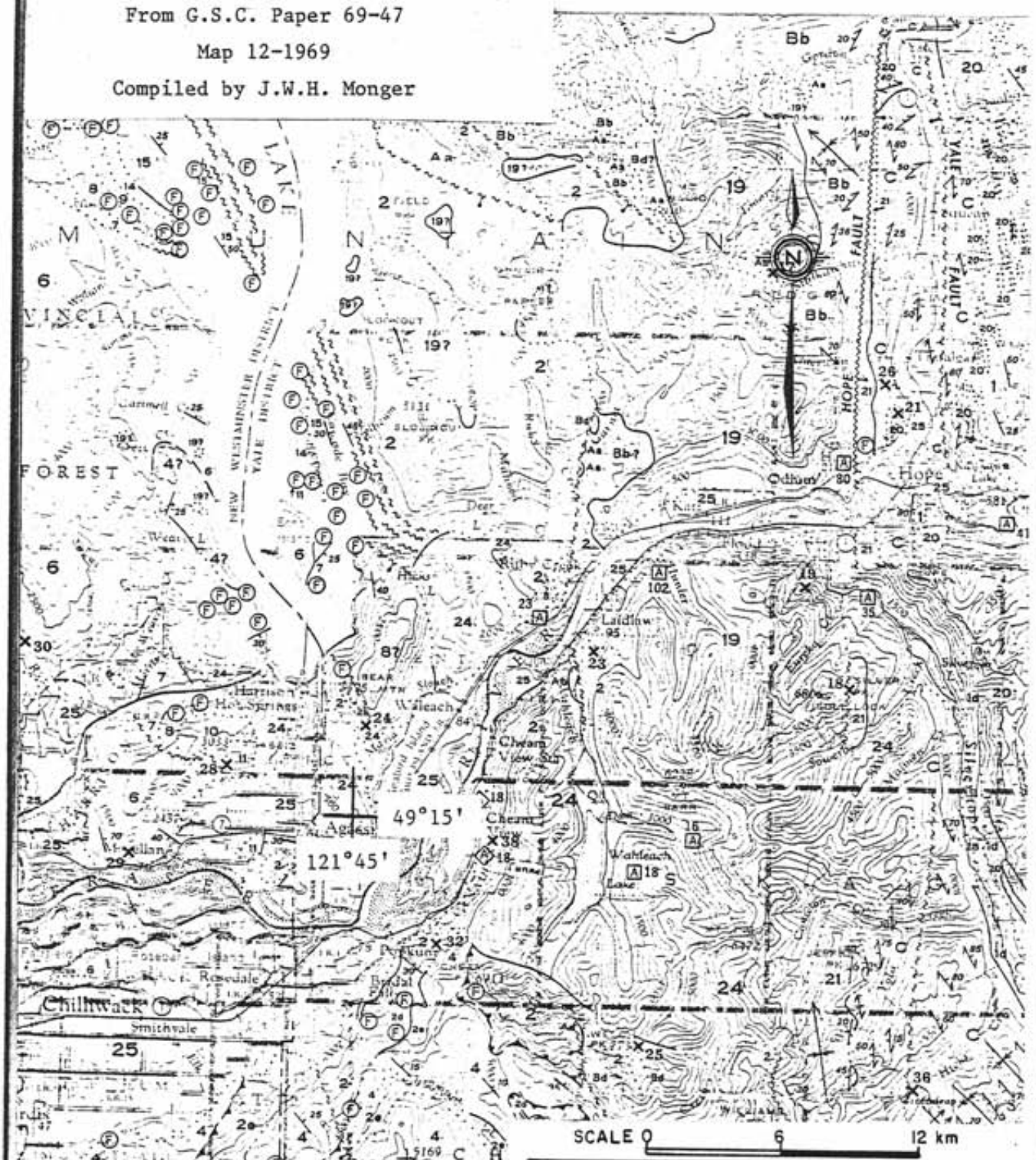
A later compilation map of the Hope (West Half) map area Map 12-1969 was prepared by J.W.H. Monger to accompany GSC Paper 69-47. This map and paper is a revision of Cairne's map and incorporates recent data from detailed studies by Read, Mc Millian, Monger, McTaggart and Thompson, Coates, Richards, Lowes, Roddick and Hutchison. Monger's compilation provides the most complete account of the regional geology of the Hope Map-area to date and is presently again under revision by Monger. The following is a brief summary of Monger's regional geologic description which provides a geologic setting for the Valley View prospect (Monger, 1969).

The junction of the Cascade and Coast mountain systems lies within the Hope Map-area. The southern or "Cascade portion" of the map-area contains an northerly trending axial core of gneiss and granitic rock flanked on both sides by folded and faulted sedimentary and volcanic rocks ranging in age from late Paleozoic to mid-Cretaceous. Northwards the axial

From G.S.C. Paper 69-47

Map 12-1969

Compiled by J.W.H. Monger



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GEOLOGY OF HARRISON LAKE AREA

FIGURE: 3	SCALE: 1:250 000
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LEGEND

To Accompany Figure 3

CENOZOIC

QUATERNARY
PLEISTOCENE AND RECENT

25 Glacial, glaciofluvial and fluvial gravel, sand and clay, talus and slope-wash deposits

TERTIARY
MIOCENE AND EARLIER

24 Granodiorite, quartz diorite

COQUIHALLA GROUP

23 Basalt, rhyolite, tuff, agglomerate, diorite

22 SKAGIT FORMATION: andesite, tuff, agglomerate

CRETACEOUS AND/OR TERTIARY
EOCENE AND PALEOCENE OR UPPERMOST CRETACEOUS

21 Conglomerate, sandstone

EARLY TERTIARY AND/OR LATE CRETACEOUS

20 Foliated granodiorite, quartz diorite

CRETACEOUS
UPPER CRETACEOUS OR(?) OLDER

19 Quartz diorite

LOWER CRETACEOUS
KINGSVALE GROUP

18 Basalt, andesite, agglomerate, tuff

PASAYTEN GROUP

17 Sandstone, conglomerate, pelite

JACKASS MOUNTAIN GROUP

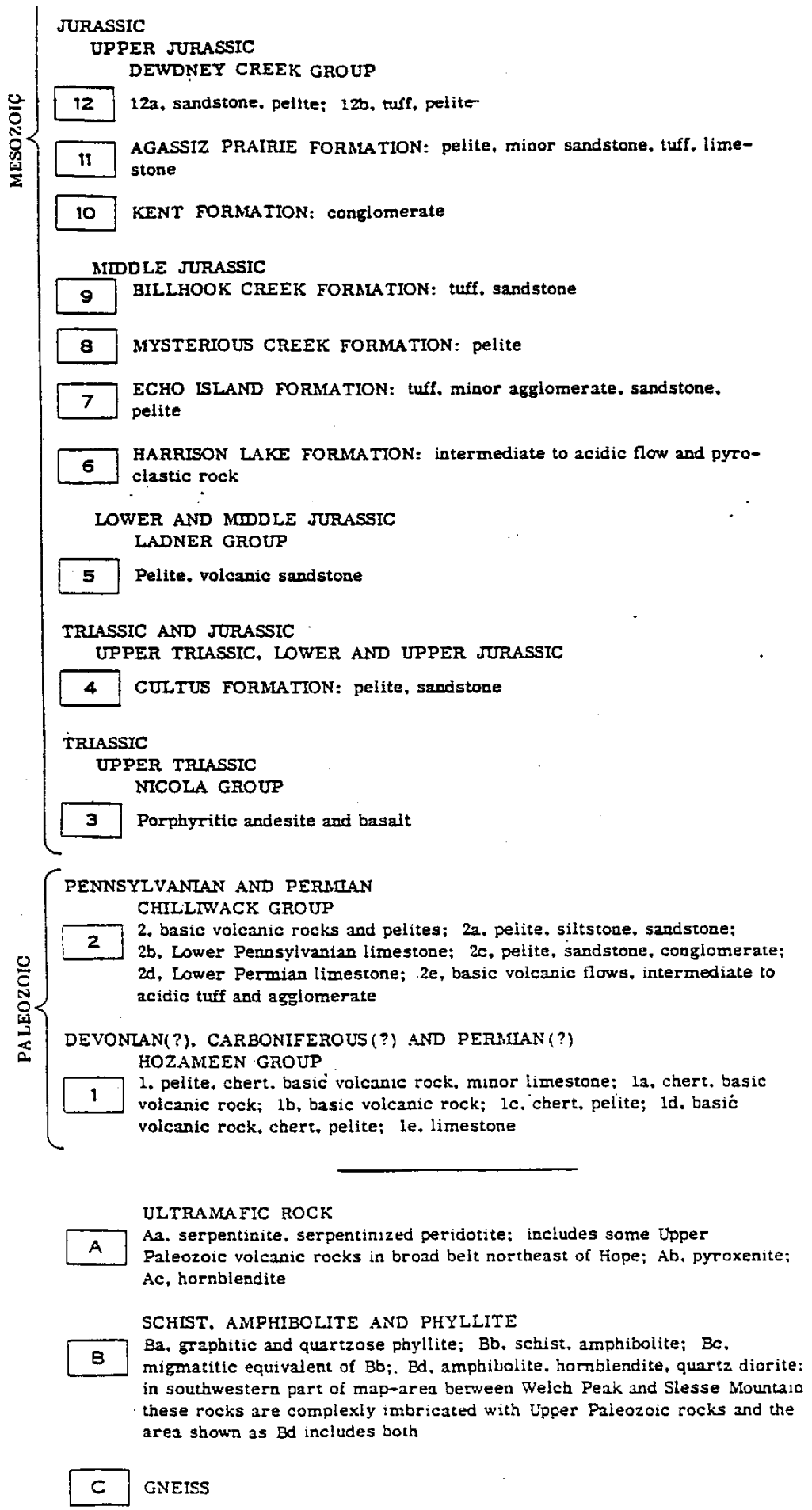
16 16a, sandstone, pelite and conglomerate; 16b, sandstone, minor conglomerate

15 BROKENBACK HILL FORMATION: tuff, agglomerate, sandstone, pelite

14 PENINSULA FORMATION: sandstone, conglomerate

JURASSIC AND/OR LOWER CRETACEOUS

13 Foliated granodiorite


MESOZOIC
JURASSIC
UPPER JURASSIC
DEWDNEY CREEK GROUP
12
12a, sandstone, pelite; 12b, tuff, pelite
11
AGASSIZ PRAIRIE FORMATION: pelite, minor sandstone, tuff, limestone
10
KENT FORMATION: conglomerate
MIDDLE JURASSIC
9
BILLHOOK CREEK FORMATION: tuff, sandstone
8
MYSTERIOUS CREEK FORMATION: pelite
7
ECHO ISLAND FORMATION: tuff, minor agglomerate, sandstone, pelite
6
HARRISON LAKE FORMATION: intermediate to acidic flow and pyroclastic rock
LOWER AND MIDDLE JURASSIC
LADNER GROUP
5
Pelite, volcanic sandstone
TRIASSIC AND JURASSIC
UPPER TRIASSIC, LOWER AND UPPER JURASSIC
4
CULTUS FORMATION: pelite, sandstone
TRIASSIC
UPPER TRIASSIC
NICOLA GROUP
3
Porphyritic andesite and basalt
PALEOZOIC
PENNSYLVANIAN AND PERMIAN
CHILLIWACK GROUP
2
2, basic volcanic rocks and pelites; 2a, pelite, siltstone, sandstone; 2b, Lower Pennsylvanian limestone; 2c, pelite, sandstone, conglomerate; 2d, Lower Permian limestone; 2e, basic volcanic flows, intermediate to acidic tuff and agglomerate
DEVONIAN(?), CARBONIFEROUS(?) AND PERMIAN(?)
HOZAMEEN GROUP
1
1, pelite, chert, basic volcanic rock, minor limestone; 1a, chert, basic volcanic rock; 1b, basic volcanic rock; 1c, chert, pelite; 1d, basic volcanic rock, chert, pelite; 1e, limestone
ULTRAMAFIC ROCK
A
Aa, serpentinite, serpentinized peridotite; includes some Upper Paleozoic volcanic rocks in broad belt northeast of Hope; Ab, pyroxenite; Ac, hornblendite
SCHIST, AMPHIBOLITE AND PHYLLITE
B
Ba, graphitic and quartzose phyllite; Bb, schist, amphibolite; Bc, migmatitic equivalent of Bb;. Bd, amphibolite, hornblendite, quartz diorite; in southwestern part of map-area between Welch Peak and Slesse Mountain these rocks are complexly imbricated with Upper Paleozoic rocks and the area shown as Bd includes both
C
GNEISS

core broadens and merges with the granitic and high grade metamorphic rocks of the apparently more uplifted and more deeply eroded Coast mountain system. All pre-mid-Cretaceous stratified rocks in the map area are marine, with the exception of latest Lower Cretaceous Kingsvale and Pasayten Group on the eastern margin of the map-area, whereas all later rocks are nonmarine.

Intense deformation, primarily in mid-Cretaceous to Early Tertiary time, has resulted in five north-northwest belts or panels of differing structure and lithology in the Hope Map-area. The most easterly is a plutonic belt of Upper Jurassic-Lower Cretaceous foliated granodiorite with minor volcanic rocks of Upper Triassic, Cretaceous and Tertiary age and is separated from the second belt to the west by the Pasayten fault.

The second belt contains unmetamorphosed Jurassic and Lower Cretaceous pelite and conglomerate cut by mid Tertiary granodiorite. These stratified rocks are highly deformed by major folds overturned to the east and by west dipping reverse and thrust faults. This belt is flanked on the west by the Hozameen fault.

The third belt or panel contains low grade greenschist facies metamorphosed upper Paleozoic chert, pelite, basic volcanic rock and limestone which is complexly folded and faulted and is locally intruded by Cretaceous quartz diorite and granodiorite.

A narrow fault zone, along which emplacement of small granodiorite plutons has occurred, separates the third panel from the axial belt of gneiss and schist and partly concordant Cretaceous quartz diorite which lies to the west of this narrow fault structure. These metamorphic rocks are unconformably overlain by Lower Tertiary clastic rocks and intruded by discordant mid-Tertiary granodiorite. The stratified rocks show complex folding and are cut by north-south trending Early Tertiary faults.

Intrusive contacts or major reverse faults separate the axial belt from the fifth or Western belt. The western belt, in which the Valley View property is located, is the most complex of the five panels. The rocks range in age from Pennsylvanian and Permian through Upper Triassic, Jurassic and Lower Cretaceous age and consist of stratified sedimentary and volcanic rocks which were folded, thrust and refolded in mid Cretaceous to Early Tertiary time, metamorphosed to low greenschist facies and were intruded by probable Cretaceous and mid Tertiary granitic rocks.

GEOLOGY OF THE WESTERN BELT

Reference should be made to GSC Map 12-1969,(Monger, 1969). The oldest rocks in the Western belt belong to Chilliwack Group of Lower Pennsylvanian to Lower Permian age (Unit 2, Monger). These rocks are flanked on the east by the gneissic and schistose rocks of the axial belt and lie on the east side of the Harrison Lake fault system. They lie generally to the east of the most westerly of the fault systems south of Rosedale. These rocks (Unit 2, Monger) in the Harrison Lake area consist of weakly metamorphosed pelite, sandstone and minor conglomerate, pyroclastic rock, altered basic volcanic greenstone, limestone and minor chert.

The Cultus Formation (Unit 4, Monger)(Camp Cove Series, Crickmay, 1925) ranges from Upper Triassic to lowermost Lower Jurassic age, and Upper Jurassic, unconformably overlies Chilliwack Group, and occurs mainly south of the Fraser River south of Chilliwack and in the Chilliwack River area. A small body of this formation crops out in the vicinity of Camp Cove on the west shore of Harrison Lake opposite Echo Island and to the west of Harrison Lake fault system. The Cultus Formation is an undivided sequence of pelites and predominantly fine-grained sandstones and siltstones. The Camp Cove Series (Crickmay, 1925), on the west side

of Harrison Lake consists of about 2000 feet of sandstone and black argillite overlain by several hundred feet of tuff.

Harrison Lake Formation (Unit 6, Monger) consists of intermediate to acid dark green, locally purplish pyroclastic rocks and flows of probable Middle Jurassic age. Pyroclastic rocks appear to exceed flow rocks with the pyroclastics ranging from poorly stratified volcanic breccias with large clasts up to 0.30 metres to well-bedded crystal and lithic tuffs. Flow rocks are dark green or dark grey, massive and contain columnar joints.

Echo Island Formation (Unit 7, Monger) consist of tuff, with minor agglomerate, sandstone and argillite of probable Middle Jurassic age. The formation is well stratified and is predominantly fine-grained and lacks intercalated flows.

Mysterious Creek Formation (Unit 8, Monger) is comprised of uniform black argillite of Middle Jurassic age with rare thin sandstone and limestone beds with an increase in arenaceous content at the top.

Billhook Creek Formation (Unit 9, Monger) is composed of grey to green fine-grained well-bedded tuff and volcanic sandstone of Middle Jurassic age. This unit is exposed at Billhook Creek on the west side of Harrison Lake opposite Long Island. A small area of tuff on Mount Agassiz is correlated with the Billhook Formation and is overlain with slight unconformity by the Kent Formation.

Kent Formation (Unit 10, Monger) of Upper Jurassic age consists of poorly sorted conglomerate with minor interbedded shale and sandstone. It contains cobbles of micropegmatite, quartz feldspar porphyry derived from Harrison Lake Formation, and tuff, quartzite, chert and argillite.

Agassiz Prairie Formation (Unit 11, Monger) of Upper Jurassic age, is comprised of black, uniform gypsiferous argillite with interbeds of sandstone, tuff and limestone.

Peninsula Formation (Unit 14, Monger) of Lower Cretaceous age is comprised of dark grey to green locally calcareous sandstone and basal conglomerate. A white arkosic sandstone at the base of the formation contains well-rounded pebbles of granite, porphyry, chert and quartzite.

Brokenback Hill Formation (Unit 15, Monger) of Lower Cretaceous age, is composed mainly of pyroclastic rocks, tuff and agglomerate with minor sandstone and shale. This formation crops out on the west side of Harrison Lake opposite Long Island.

Ultramafic rocks (Unit A, Monger) comprises serpentinite, serpentinized peridotite, minor hornblendite, pyroxinite, dunite and locally associated gabbro, diorite and altered volcanic rocks. In the western belt this unit crops out on the east side of Harrison Lake opposite Long Island and to the south near Vedder Crossing as small bodies along the fault separating metamorphic from sedimentary rocks. Most ultramafic rocks in the map-area are spatially related to major faults.

METASEDIMENTARY AND METAVOLCANIC ROCKS

Metasedimentary and metavolcanic rocks (Unit B, Monger) includes pelitic schist, phyllite, foliated quartz diorite, diorites hornbendites, amphibolites and schistose rocks. The lithology of this unit differs from one locality to another but commonly is associated with granitic plutons. These rocks occur as a disrupted string of exposures trending northerly along the east margin of the western belt from the vicinity of Slesse Mountain, near the international boundary, to the west of Mount Urquhart on the east side of Harrison Lake.

Gneiss (Unit C, Monger) of granitoid nature underlies an extensive area in the vicinity of Mount Breakenridge in the northwestern part of the map-area.

GRANITIC ROCKS

The granitic rocks of the western belt, excluding ultramafics discussed above, comprise two groups of Upper Cretaceous (Unit 19, Monger) and Oligocene-Miocene age which are primarily quartz diorite and granodiorite composition. (Unit 24, Monger)

GEOLOGY OF THE VALLEY VIEW PROPERTY

Geologic maps of the Harrison Lake area by C.H. Crickmay, 1924, and Map 12-1969, Paper 69-47 by Monger, 1969, indicate that the Valley View property is underlain by Harrison Lake Formation, possibly straddling contacts with Mysterious Creek and Kent Formations on the north and Agassiz Prairie Formation on the northeast. Crickmay includes Harrison Lake, Mysterious Creek and Echo Island Formations in the Porphyrite Series and the Kent and Agassiz Prairie Formations in the Agassiz Series.

THE PORPHYRITE SERIES (C.H. Crickmay, 1924)

The Middle Jurassic Porphyrite Series is estimated to be about 14,500 feet (4,500 metres) thick with the lower part consisting of volcanic deposits; the middle part subaqueous pyroclastic materials; and the upper part of black argillite of marine origin. On the basis of these three distinct lithologies the Porphyrite Series is subdivided into the lower Harrison Lake, middle Mysterious Creek and upper Echo Island Formations.

The Harrison Lake Formation is composed of interbedded effusive and pyroclastic rock including tuff and agglomerate with minor chert and argillite with a total estimated thickness of greater than 9,000 feet (2750 metres). The lower portion of the flows resemble intrusive porphyries as a result of their commonly strongly porphyritic texture in the lower parts of the flows.

Rocks of the Echo Island Formation lie on the south side of Harrison River, to the north of GOLDTOP II claims, resting conformably on the Harrison Lake Formation. At the type locality on Echo Island it is estimated to be over 1000 feet (300 metres) thick consisting of interbedded sandstone, arkose, tuff, chert, argillite and minor agglomerate. It is well stratified and contains no intercalated flows and very few coarse pyroclastic beds.

Mysterious Creek Formation consists almost entirely of black argillite with very minor limestone and arkose interbeds for an estimated total thickness of approximately 2500 feet (750 metres). The argillite is slightly arenaceous at the top of the formation.

THE AGASSIZ SERIES (C.H. Crickmay, 1924)

The Upper Jurassic Agassiz Series is readily divisable into two formations: the Kent and Agassiz Prairie Formations.

The Kent Formation on Mount Woodside-Agassiz Mountain consists of approximately 3000 feet (900 metres) of conglomerate containing interbedded shale and sandstone with very minor effusive rock at the top of the sequence.

The Agassiz Prairie Formation is composed of approximately 3700 feet (1100 metres) of black argillite containing much gypsum with some interbeds of quartzite, arkose, tuffs and limestone.

ECONOMIC POTENTIAL OF THE HARRISON LAKE AREA

Late Paleozoic, Upper Triassic, Lower and Middle Jurassic and Upper Jurassic-Cretaceous volcanic-sedimentary pendants and associated plutons in the Coast Plutonic Complex in the Harrison Lake area and elsewhere provide suitable environments for volcanogenic massive sulphide deposits and gold and silver bearing hydrothermal sulphide deposits. Active exploration is presently being conducted by a number of mining companies and individuals working throughout the Harrison Lake region.

Massive Sulphide Deposits

The Britannia mine, a model of a massive sulphide deposit is located on the east side of Howe Sound. Over its 69 year production period this mine produced 1,139,223,376 lbs of copper, 276,220,086 lbs of zinc, 492,968 ounces of gold, 5,814,026 ounces of silver, 34,310,727 lbs of lead and 980,631 lbs of cadmium. The Britannia mine, which ceased production in 1974, considered to be of volcanogenic origin, is located in a pendant of Lower Cretaceous volcanic-sedimentary Gambier Group rocks. (Sutherland Brown 1970, 1974) Similar favourable environments for such deposits exist in the Harrison area as demonstrated by the Seneca property.

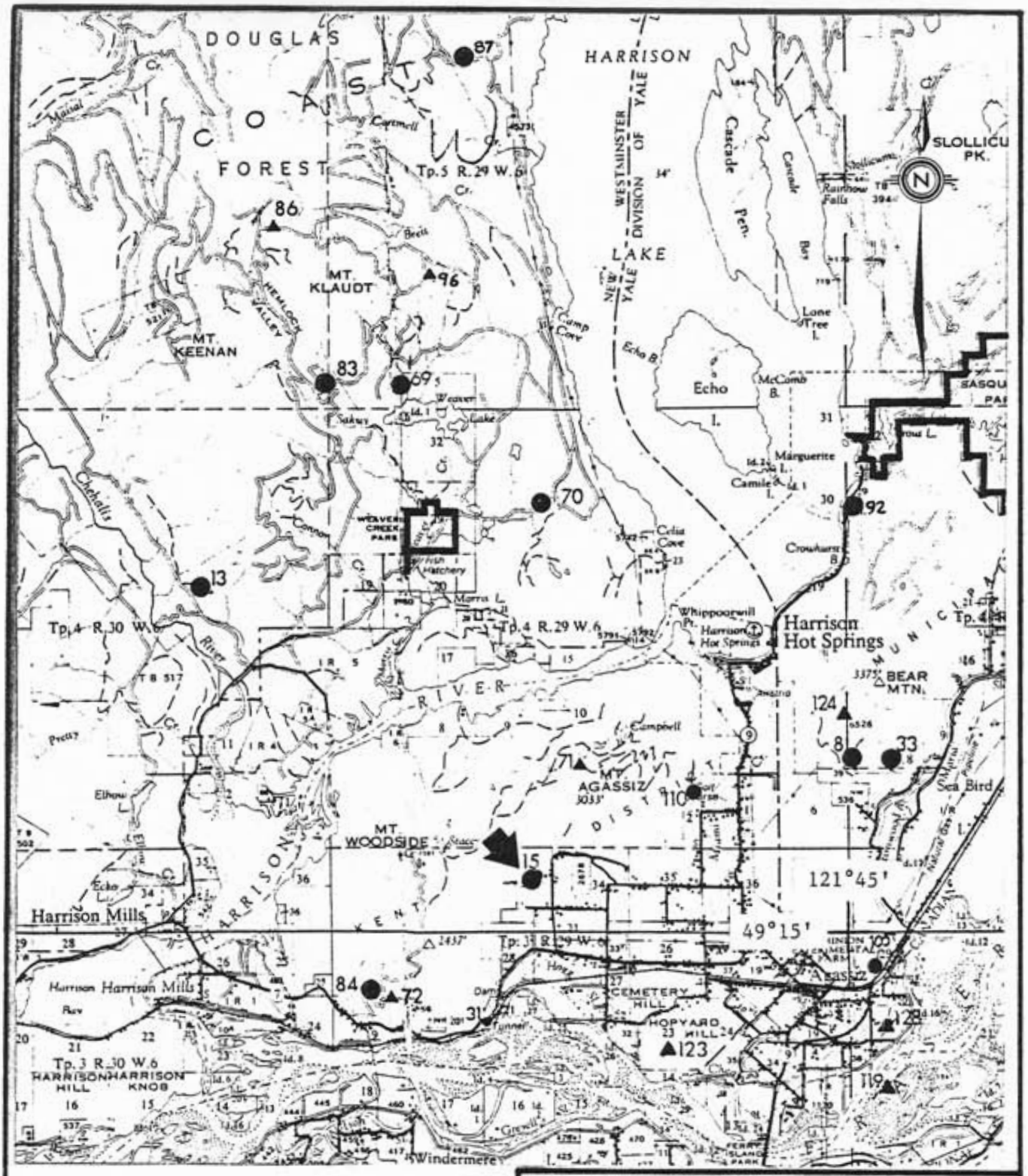
The Seneca property, although it has not yet achieved production, is a somewhat similar massive sulphide deposit in a pendant of volcanic-sedimentary rocks of the Harrison Lake Formation, of Middle Jurassic age. This property is located on the east side of Chehalis River about 8 kilometres north of Harrison Mills. Both Britannia and Seneca are thought to be synvolcanogenic and need bear no direct genetic relationship to nearby plutons of the Coast Plutonic Complex.

Gold Silver-Sulphide Deposits

A number of gold-silver prospects and deposits occur in the Harrison Lake area within plutons of the Coast Plutonic Complex and volcanic-sedimentary rocks of Jurassic to Cretaceous age variously called Harrison Lake Formation, Mysterious Creek Formation, Fire Lake Group. The volcanic-sedimentary rocks are intruded by plutons and cut by numerous dykes of the Coast Plutonic Complex and show widespread effects of that intrusion by varied intensity of metamorphism and hyrdrothermal alteration. The metamorphism ranges from virtually unaltered to hornfelsic, generally chlorite-biotite to locally amphibole grade and these rocks are commonly abundantly pyritized. Superimposed on this metamorphism are structurally controlled vertical to near horizontal screens of hydrothermal alteration passing from plutons into the volcanic-sedimentary sequence. The hydrothermally altered zones are commonly enriched in silica, carbonate, sericite and locally are argillic. In limy rocks calc-silicates may occur. Late quartz or quartz-carbonate veins associated with but cutting these hydrothermally altered zones are commonly richly mineralized by pyrite with lesser amounts of pyrrhotite, sphalerite, chalcopyrite, arsenopyrite which may have associated gold and/or silver values.

Examples of gold-silver-sulphide deposits in this environment in the Harrison Lake area include:

(1) Fire Mountain Properties
Money Spinner (Minfile 92G NE2)
Quartz veins containing sparse pyrite, chalcopyrite, bornite and erratic gold values are located on the southwest slope of Fire Mountain. These veins are in the Fire Lake pendant, 16 kilometres northwest of the north end of Harrison Lake.



MEMPR Minfile Map 92H/SW

SCALE 0 2 4 km

STAR MOUNTAIN RESOURCES INC.

MINERAL PROPERTIES OF HARRISON LAKE AREA

FIGURE: 4	SCALE: 1:125,000
DRAWN BY: P.STOECKLY	DATE: MAR. 84

K.E. NORTHCOTE & ASSOCIATES LTD.

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LEGEND

To accompany Figure 4

Property Number	
92H/SW8	Empress Cu Mo Ag
13	Seneca (Harrison, Lucky Jim) Cu,Zn,Ag,Au,Pb.
15	Valley View Cu,Ag
33	Anna(Contact) Au,Ag,Cu
69	Lov, Stoney, DS,Cu,Zn
70	Arany, Emile(Rye) Cu,Pb,Zn,Ag,Au
71	Nik Ni, Cu
72	Ascot (Few) Cu,Zn
83	I,A,M Cu,Pb,Zn
84	F,A,B Cu,Zn
86	SKU Cu
87	SF Cu.Zn
92	Geo Au
96	Robyn Cu,Zn
105	Agassiz Gr
110	Bee Cu,U
119	Agassiz Ae
123	Agassiz Ls
124	Bear Mt. Ls
128	Agassiz Gr

Gold is reported at the Mayflower-Dandy showing (Minfile 92G NE10) on Lillooet River, 30 kilometres northwest of Harrison Lake, in a belt of volcanic breccia 30 to 60 metres wide with sulphides including a little galena and sphalerite. This mineralization is also within Fire Lake Group volcanic and sedimentary rocks.

Cairnes (1927) also reports gold at Gowan Creek, east of Lillooet River approximately 26 kilometres northwest of Harrison Lake, where chalcopyrite-bearing sericite-pyrite schists are said to be associated with arsenopyrite, stibnite, chalcopyrite, sphalerite-bearing lapilli tuffs.

(2) Doctors Point Properties

Gold and silver values occur with sulphide bearing (pyrite, arsenopyrite and lesser sphalerite and chalcopyrite) quartz-carbonate veinlets in hydrothermally altered fracture zones in diorite and adjacent metamorphosed volcanic, sedimentary rocks and intrusion breccias. These properties are at Doctors Point on the west side of Harrison Lake, 40 kilometres from Harrison Hot Springs.

(3) Harrison Hot Springs Gold Deposit Geo., RN (Minfile 92G SW92)

The RN property is located at the southeast end of Harrison Lake approximately 3 kilometres northeast of Harrison Hot Springs village. Pyrite, pyrrhotite and sphalerite-bearing quartz (-carbonate) veins in Middle Jurassic Mysterious Creek pelites and Tertiary plutonic rocks contain silver values and gold as free grains and inclusions in sulphides. Several tons of hand sorted ore are reported to have been shipped from this property during 1982.

(4) Mount Woodside Properties

Ascot (Minfile 92H SW72), Fab (Minfile 92H SW84), Valleyview (Minfile 92H SW15) are similar quartz-sericite-carbonate-epidote-pyrite structurally controlled alteration screens in volcanic-sedimentary rocks of the Harrison Lake Formation. The hydrothermally altered screens are pyritized and cut by quartz-carbonate veins which contain second generation pyrite, chalcopyrite and lesser sphalerite and galena with some silver values. The Ascot and Fab properties are located on the south end of Mount Woodside, 10 kilometres west of Agassiz and 3.5 kilometres southwest of the Valley View property.

PREVIOUS WORK

There is evidence of extensive previous exploratory work on the upper or Valley View showing while the lower Stacey Creek (Constantine) alteration zone appears to have been virtually untested.

MEMPR reports for the years 1955, 1966, 1970, 1971 and 1974 under the various names of Midnight, P.F., Noreen and Valley View indicates previous aeromagnetic, electromagnetic and I.P. surveys, diamond drilling, surface stripping and trenching. An access road, presently washed out over about 200 metres by Stacey Creek, provides access by foot to the upper Valley View showing. Extensive bulldozer trenching has been done on and around this showing to such extent that a soil sampling survey is precluded. Several old drill sites are also in evidence at the upper showing. Trenching and test pitting has exposed several mineralized outcrops, all with significant mineralization. It has also been reported, but without documentation that about 100 tons of material was hand sorted and shipped to Britannia.

PRESENT WORK

Data from previous diamond drilling, trenching and geophysical surveys are not presently available. Duplication of some of the work carried out previously will be necessary in order to adequately test and document this property.

Aeromagnetic data are available on Provinical-Federal Maps 8537G (Chilliwack) and 8538G (Harrison Lake). These data over the area of the VALLEY VIEW and GOLDTOP claims are reproduced on Figure 5.

A geological survey was made of the area of the upper Valley View and lower Stacey Creek (Constantine) zones. These data are presented on Figure 6.

An orientation ground magnetometer survey was conducted by J.F. Bristow, P. Eng. over the east half of the upper Valley View showing where terrain is relatively flat or gently sloping. The instrument used is a Scintrex M.P. 2 Portable Proton Precession Magnetometer Serial No #8208840. Corrections were made for time and diurnal variation. (See Figure 7)

RESULTS

Geologic Mapping (See Figure 6)

The rocks exposed in the vicinity of mineralization on VALLEY VIEW I and II claims consist of volcanic flow and tuff breccia pyroclastic rocks containing interbedded volcanic-sedimentary fine to coarse-grained greywacke, tuff and minor arkose probably of the Harrison Lake Formation. The lower part of Stacey Creek on GOLDTOP I claim contains interbedded chert, arkose, tuff and agglomerate. There is some

uncertainty regarding which formation these rocks represent but they too are probably part of the Porphyrite Series.

A strong northeasterly trending zone of hydrothermal alteration extending for 350 metres pervades the volcanogenic rocks on VALLEY VIEW I and II claims. This alteration consists of chlorite, locally strong sericite, lesser epidote with some pervasive impregnation by feldspar (albite?) and quartz. Disseminated pyrite occurs throughout the alteration zone with much lesser localized pyrrhotite. Southeasterly trending vertical to steep southwesterly and northeasterly dipping mineralized open space quartz-sericite-(carbonate)-epidote veins are superimposed on the alteration zones. These veins locally extend several centimetres outwards pervading and replacing wallrock and are mineralized by coarse crystalline pyrite, lesser chalcopyrite, minor sphalerite and galena with silver values and noneconomic but locally significant trace amounts of gold.

A second very significant zone of hydrothermal alteration and mineralization is located in the lower reaches of Stacey Creek where it is well exposed on the recently scoured northeast bank and locally in the streambed. The zone extends for approximately 75 metres along the stream bank from stations 15 to 22 and for an unknown distance to the southeast. The southwest wall of the gully does not appear to contain the same intensity of alteration. Virtually unaltered volcanics occur on the north side of a fault between stations 22 and 23. See Figure 6. The altered zone occurs in bedded siliceous rocks, chert, arkose, breccias which have undergone extensive sericitic, and lesser but locally very strong brecciation with strong silicic and feldspathic impregnation and veining. An irregular vein to 0.5 metres wide of barite occurs in an intensely sericitic, (pyrophyllite) brecciated alteration at station 19 in the streambed. Minor sulphide mineralization consisting of pyrite, chalcopyrite, galena and sphalerite occurs locally in association with sericitic and siliceous alteration. Significant

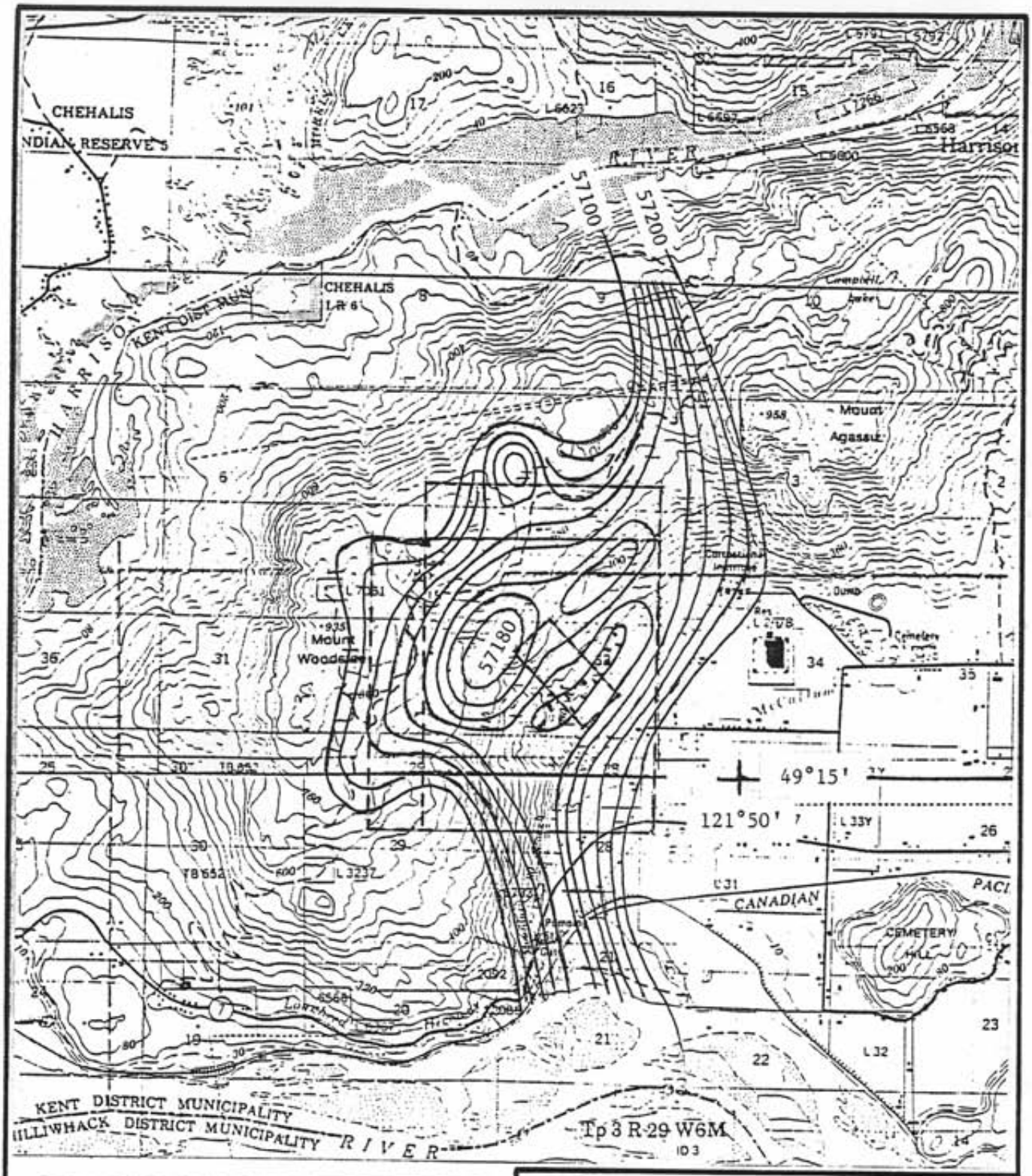
differences between the Stacey Creek (Constantine) zone and Valley View zone is much more intense sericitic (pyrophyllite) alteration, stronger brecciation and much less disseminated pyrite and other sulphides in the former.

Aeromagnetic Survey

An aeromagnetic survey run jointly by federal and provincial agencies, Maps 8537 G and 8538 G shows an anomalous magnetic pattern over the claims area. A northeasterly trending trough of 57,140 gammas extends from the southwest side of Stacey Creek on GOLDTOP I claim northeasterly across VALLEY VIEW I and II claims and is flanked on the northwest by a high ranging from 57,170 to 180 gammas. The low trough corresponds almost perfectly with the zones of intense hydrothermal alteration and mineralization. The high sulphide content of this zone would be expected to result in higher magnetic values in this zone, particularly if pyrrhotite is present. Possibly intense chloritic and sericitic alteration with destruction of magnetite accounts for regionally lower magnetic values in this small area. See Figure 5.

Ground Magnetometer Survey

The ground magnetic survey run by J.F. Bristow, P.Eng., indicates slightly higher magnetic values of up to 57,017 gammas across the intensely altered pyritized mineralized zone on VALLEY VIEW I and II claims with a slight decrease in values on the flanks of the altered zone, the order of 56,700 to 56,850 gammas. There is a suggestion of slightly increasing values in fresher volcanicgenic rocks to the northwest. The narrow northeasterly trending magnetic pattern of ground magnetics outlines quite closely the zone of most intense alteration, pyritization, and (pyrrhotitization) See Figures 6 and 7.



FROM EMR/MEMPR AEROMAGNETIC
MAPS 8537 G and 8538 G

SCALE 0 1 2 km

STAR MOUNTAIN RESOURCES INC.

AEROMAGNETIC SURVEY

FIGURE: 5	SCALE: 1:50 000
DRAWN BY: P. STOECKLY	DATE: MAR 84

K.E. NORTHCOTE & ASSOCIATES LTD.

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Rock Geochemistry and Assays

Selective sampling of mineralized veins and chip sampling of the Valley View and Stacey Creek (Constantine) zones has produced the following results: (See Tables II,III and Appendix B.)

TABLE II ROCK GEOCHEMISTRY

SAMPLE	CU PPM	PB PPM	ZN PPM	AG PPM	AU PPB	
84 VV-1 [20378]	44	29	68	0.2	15	Outcrop chip samples
84 VV-2 [20379]	62	560	1300	0.4	20	Outcrop chip samples
84 VV-14 [20380]		30	88			Chip sample including vein material
84 VV-19 [20381]	500	1030	3200	2.4	10	Chip samples including some mineralization
84 VV-26-5 [20386]	240	24	100	1.0	15	Wall rock chip samples between veins 0.2 metres
84 VV-26-6 [20387]	122	26	83	0.6	5	Wall rock chip samples between veins 0.2 metres
84 VV-16	2	8	6	0.7	5	Chip sample across outcrop
84 VV-17	4	21	9	1.3	5	Chip sample across outcrop
84 VV-17-1	3	12	8	1.1	5	Chip sample across outcrop
84 VV-18	29	18	360	1.1	10	Chip sample across outcrop
84 VV18-1	1380	8600	3000	2.9	10	Chip sample across outcrop
84 VV-19	2950	9000	14000	30.0	450	Chip sample across mineralized zone approx. 0.5 m.
84 VV19-1	870	1260	3640	10.4	140	Chip sample across approx. 0.5 m. same zone as VV-19
84VV25-V	3320	28	2300	18.9	10	Chip sample across 1.5m
84VV25-VI	640	26	31	10.4	5	Chip sample across 1.5m continuation of 25-V
84 VV 31	360	18	32	26.0	50	Chip samples of mineralized outcrop
84 VV-40	9300	14	62	50.0	80	Chip samples from small hand dug pit.

TABLE III ASSAYS

SAMPLE	%CU	%PB	%ZN	AG oz/t	AU oz/t	
84 VV-14 [20380]	0.64			0.82	.001	Chip samples including vein material
84 VV25-1 [20382]	10.2	.03	.05	9.60	.001	Selected mineralized material from dump Not representative of thickness
84VV-25-2 [20383]	0.016	.02	.01	0.18	.009	As for 25-1
84VV25-3 [20384]	6.450	.02	.89	6.65	.008	As for 25-1
84VV26-1 [20385]	2.780	.02	.04	1.10	.002	Chip sample across 0.4 m including vein

Selected samples of the best mineralization obtainable were taken to test for gold and silver content with copper, zinc, lead or pyrite mineralization. Gold values occur in trace amount only with the highest values being .008 and .009 oz/ton with no particular relationship to other metals. These trace amounts of gold show erratic distribution and are varied in replicate samples from the same outcrop area. Trace values ranging from 10 to 450 ppb Au were obtained from samples containing some Cu, Pb and Zn mineralization at Stacey Creek (Constantine) zone.

Silver, on the other hand, is more predictable with the best mineralized material generally producing the best silver values. Silver content shows good correlation with better copper values. A selected sample containing 10% copper gave 9.6 oz/ton Ag. There are exceptions to this general rule, however, as in the abundantly pyritic veins of 84 VV-31 which shows trace amounts of copper, lead and zinc but contains 26.0 ppm Ag. or approximately 0.75 oz/ton. Silver may be associated with pyrite in this case.

DISCUSSION

The Valley View group of claims is located in Porphyrite and Agassiz Series with associated Tertiary intrusives. This geologic environment affords good potential for viable massive sulphide (volcanogenic) deposits, and precious metal-bearing vein-shear systems. The general Mount Woodside-Agassiz Mountain area contains numerous zones of strong hydrothermal alteration and sulphide mineralization with pyrite as the main sulphide occurring throughout the alteration zones. Locally, second generation pyrite in veins and fractures is accompanied by chalcopyrite, sphalerite and galena and may have significant silver values. Two significant and differing zones of hydrothermal alteration and mineralization are known to occur on the Valley View claims.

The Valley View zone is intensely altered chloritic, lesser epidote with local impregnations of feldspar and quartz with weak to very strong disseminated pyrite. This zone is cut by systems of southeaserly striking moderate to steeply dipping quartz-carbonate-(epidote) veins which are abundantly and coarsely pyritic and contain varied amounts of chalcopyrite with lesser sphalerite and galena. Sampling demonstrates significant values of base metals and silver on the Valley View showing. Gold values are consistently very low to weakly anomalous in this zone. The alteration zone is of sufficient size to accommodate viable base metal-silver mineral deposits. This zone has undergone extensive testing previously. Although that information is not presently in hand an effort should be made to aquire that data from former operators in order to avoid unnecessary cost of duplicating programs.

The Stacey (Constantine) zone is virtually untested. This zone differs from the Valley View zone in that it is strongly brecciated and altered by sericite (pyrophyllite?) and lesser vein quartz, feldspar

and has at least one strong barite vein. Observed mineralization consists of weak to moderate pyrite and locally weak chalcopyrite, galena and sphalerite. Because this zone is virtually untested at depth, length and width there is ample room for localization of viable mineralization, possibly with gold zonation.

There is room for alteration zones on the Valley View property in addition to the two presently known. Geologic mapping and prospecting is the most direct method of locating additional such zones, because the alteration mineralogy and/or sulphide mineralization are readily recognizable. Although the area is largely obscured by vegetation or overburden geologic mapping with rock geochemistry provide an effective exploration procedure.

Magnetic and possibly VLF-EM surveys would also be helpful for tracing such zones through areas of overburden. Both high and low magnetic zones could be of significance. I.P. surveys would be useful in delineating the abundantly disseminated pyrite or Valley View type of alteration zone.

RECOMMENDATIONS

A three stage program is recommended for the Valley View property. Progression from Stage I to diamond drilling, Stage II, and then to the main diamond drilling stage, Stage III, a tentative program subject to revision, would be dependent upon favourable results from the preceding stages and requires the recommendation of an independent engineer.

STAGE I

(1) Aquire whatever data may be available from previous operators on the Valley View zone.

(2) Air photographic interpretation of the Mount Woodside-Agassiz Mountain area.

(3) Close the spacing of the grid by establishing cross lines at 25 metre intervals and by establishing stations every 12.5 metres. Complete the magnetic survey over remainder of the two known alteration zones and run a VLF-EM survey over the entire grid.

(4) Complete geologic mapping and rock geochemistry sampling of Valley View and Stacey Creek (Constantine) zones. Carry out a modest petrographic study to confirm alteration assemblage of minerals.

(5) Prepare a geologic map of the entire claim group and add claims as is deemed necessary.

(6) Conduct surface trenching by blasting and hand excavating mineralized areas on the Valley View and Stacey (Constantine) zones in order to obtain samples representative of width and grade.

STAGE II

(1) An I.P. survey may be required at this stage.

(2) A small two hole, 1000 feet total, diamond drill program is suggested for this stage using either a light rig moved by helicopter or a heavier rig moved across Stacey Creek wash-out by caterpillar.

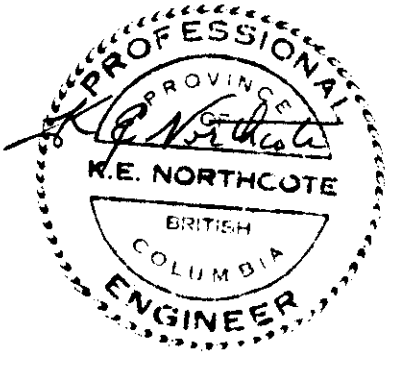
STAGE III

A tentative program subject to revision depending upon results of Stages I and II and which would proceed at the recommendation of an independent engineer.

(1) Rebuild road and prepare new access roads to provide access for drilling rig and support equipment .

(2) The main diamond drilling program would be undertaken at this stage and would constitute a minimum of 2000 feet in 4 holes of approximately 500 feet each.

(3) More extensive surface trenching would also be undertaken during this stage.



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MEMPR MMAR 1955-74; 1961-88; 1966-62
GEM 1970-247; 1971-264; 1974-105; 1975-E62
Minfile 92H SW 015 Valley View Property File
92H SW & NW; 92 G NE

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Sutherland Brown, A 1974, Britannia Mine MEMPR GEM 1974 pp 190-197

VALLEY VIEW #I GROUP

CHARGES FOR ASSESSMENT CREDIT

Professional Fees		
K.E. Northcote $300.00/day 8 days field 6.5 days report preparation		$4 350.00
S.C. Gower 300.00/day 5 days field 3.25 days report preparation		2 500.00
Field assistance		
Pius Stoeckly ½day		46.00
Magnetometer Survey		
J.F. Bristow 300/day 1.5 days		450.00
Petrographic studies		
K.E. Northcote		300.00
Kilometerage 1800 km @ $.25		450.00
Assays and shipping		465.00
Report Production		
Typing & Compilation	240.00	
Draughting	563.00	
Reproduction	105.00	908.00
Supplies and Equipment		80.00
Telephone Charges		
S.C.G. & K.E.N. Jan.1 to April 5/84 this project		151.00
Total		$9 700.00

$5,000.00 of this work was completed prior to February 20, 1984 and was applied for assessment on VALLEY VIEW I & II.

An additional $4,700.00 assessment work was completed after February 20th and is to be applied for assessment on GOLDTOP I,II & III.

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
K.E. NORTHCOTE

CERTIFICATE

I, Kenneth E. Northcote of 2346 Ashton Road, R.R. #1, Agassiz B.C. do hereby certify that:

1] I have been practising as a professional geologist for a period of approximately 25 years for petroleum exploration companies, mining exploration and consulting companies, federal and provincial agencies.

2] I obtained a Ph.D. in geology from U.B.C. in 1968 and qualified for registration with the Association of Professional Engineers of B.C. in 1967.

3] This report is a result of work done personally on the Valley View property during the period February 1 to March 15, 1984. The ground magnetometer survey was done by J.F. Bristow, P.Eng. assisted by Northcote. Use was made of available pertinent maps and publications

4] I have no interest either directly or indirectly in the properties or securities of Star Mountain Resources Inc., nor do I expect to receive any.

5] I consent to the use of this report in, or in connection with, a prospectus relating to the raising of funds

Dated at Agassiz, B.C this 4th day of April, 1984

K.E. Northcote Ph.D., P.Eng.

APPENDIX A

VALLEY VIEW SAMPLE DESCRIPTIONS

VALLEY VIEW PROPERTY

SAMPLE DESCRIPTIONS

84 VV 1 [20378] Quartz rock light grey-cream, mottled medium grey mixture of coarse crystalline and cherty to waxy appearing quartz, veined by clear quartz veinlets and segregations possible feldspar impregnation, fine to medium crystalline. Suggestion of brecciated texture. Iron staining on fracture surfaces. The origin of this rock is uncertain, possibly a chert which has been partly recrystallized and invaded by quartz. Fine to medium crystalline pyrite. Coarser pyrite associated with more vitreous coarser-grained quartz. Fine disseminated pyrite associated with waxy quartz.
Cu 44ppm, Pb 29ppm, Zn 68ppm, Ag 0.2ppm, Au 15 ppb.

84 VV 2 [20379] Altered impregnated breccia (?); diffuse green grey crystalline chloritic-sericitic-pyritic patches in a pale purplish cream finer crystalline sericitic (?)-felspathic matrix. Weak siliceous impregnation. Fine to medium crystalline pyrite disseminated throughout with tendency for greater concentration with chloritic patches. Requires thin section study.
Cu 62ppm, Pb 560ppm, Zn 1300ppm, Ag 0.4ppm, Au 20ppb.

84 VV 3 (a) ? altered, mottled medium to dark greenish grey and medium grey with slight purplish tint. Fine to medium crystalline, sericitic, weak chloritic, feldspathic moderate disseminated fine to medium crystalline pyrite. Strong iron staining on fractures. Some veining by epidote and quartz . Locally siliceous.

(b) ? altered, light/medium purplish grey, medium crystalline, feldspathic sericitic, weak chloritic, moderate disseminated fine to medium crystalline pyrite. Strong iron staining on fractures.

84 VV 4 Altered metavolcanic, crystal lithic tuff (?) tuff breccia fragmental (?) pseudoporphyritic plagioclase crystals, hematitic flecks, mottled dark grey-green and medium purplish grey, feldspathic, chloritic, weakly epidotized, moderate disseminated pyrite. Shows variation in coloring throughout which may be reflecting original fragmental nature, minor quartz.

84 VV 5 (a) Metavolcanic crystal lithic tuff/tuff breccia, plagioclase crystal fragments and lithic fragments, mafic fragments and mafic in lithic fragments fresh, well indurated. Has a pseudo-porphyritic appearance but dark green grey lithic fragments approximately 0.5cm clearly visible in hand specimen. Weakly to locally moderately epidotized particularly in incipient fractures. Disseminated pyrite.

84 VV 5 (b) Metavolcanic/volcanic metasediment, fine crystalline/granular, gives appearance of interlocking grains, massive, contains subhedral feldspar crystals in a fine granular dark green-grey groundmass, chloritic.

84 VV 6 (a) Metavolcanic/volcanic metasediment fine/medium crystalline/granular massive, gives appearance of interlocking grains, subhedral feldspar crystals or crystal fragments in a fine granular dark green-grey groundmass, chloritic. Moderate to weak disseminated pyrite.

(b) Volcanic metasediment, fine crystalline/granular, give appearance of interlocking grains, uniform dark green-grey, massive, dense.

84 VV 7 Altered volcanic metasediment, medium grey, fine to very fine-grained medium/dark grey massive. Sericite, chlorite and weak epidote and carbonate alteration. Weak to moderate disseminated pyrite. Iron stained fracture surfaces.
Minor copper staining.

84 VV 8 Altered metavolcanic/volcanic sediment relic fragmental texture, chloritic clots possibly representing former lithic fragments, chloritic, weak to moderate epidotization. Irregularly veined by drusy quartz-epidote veins. Feldspar impregnation.

84 VV 9 (a) Volcanic metasediment very fine grained, medium/dark grey, small feldspar laths or crystal fragments in a very fine granular matrix massive. Minor copper staining.

(b) Metavolcanic lithic tuff breccia (?) altered, fine fragmental texture suggested on fresh surfaces, moderate to abundant fine to medium crystalline pyrite cubes, chloritic, weak epidotized, massive dense.

(c) Metavolcanic lithic tuff breccia (?), altered, light/medium purplish grey, mottled by shades of green fine fragmental texture suggested on fresh surfaces, scattered feldspar laths or crystal fragments, weak to moderate chlorite and epidote, weak pyrite, massive dense.

84 VV 10 (a) Metavolcanic lithic tuff breccia, strongly altered recrystallized, mottled by ghost-like outlines of possible former crystal and lithic fragments. Feldspathic chloritic, weak epidotized. Strong disseminated pyrite crystals and clusters of crystals. Strong iron-staining.

84 VV 10 (b) Metavolcanic lithic tuff breccia, strongly altered, recrystallized, mottled by ghost-like outlines of probable former crystal and lithic fragments, moderate chloritic, feldspathic. Moderate disseminated pyrite crystals. Minor drusy silicification.

84 VV 11 Metavolcanic lithic tuff breccia strongly altered recrystallized mottled by ghost-like outlines of probable former crystal and lithic fragments, moderate chloritic, feldspathic. Strong fine to medium scattered coarse disseminated pyrite crystals and crystal clusters.

84 VV 12 Metavolcanic lithic tuff breccia (?) strongly altered, sericitic, chloritic, mottled shades of grey and green, feldspathic. Moderate disseminated pyrite and clusters of grains and fracture fillings. Original texture is masked by alteration. Strong iron staining on fracture surfaces.

84 VV 13 Altered metavolcanic lithic tuff breccia (?), original breccia textures masked by intense alteration, mottled shales of green and grey, recrystallized feldspathic, chloritic, strong disseminated pyrite crystals, in clusters and filling fractures. Minor chalcopyrite. Minor quartz veining. Strong iron staining on fracture surfaces

84 VV 14 Trenched area
[20380] The rock is a strongly altered epidotized pseudoporphyritic metavolcanic with original textures and structures masked by alteration. Crackle fractures partially filled by pyrite and minor chalcopyrite which, along with silica, impregnate into the wall rock. Pyrite is disseminated throughout the rock matrix and may be of earlier generation than in fractures. Fresh surfaces of country rock are fine to medium grained with a texture of chloritic epidotized basic intrusives but are probably coarse volcanic flows.

Mineralized fractures	115°/v to 85°NE SW 090 /v 125°/70-75° NE
Barren cross fractures	025/80 NW 015/75 NW

Geochemistry 20380
Selected sample of mineralized vein; pyrite, chalocopyrite Cu 0.64% Pb 30 ppm, Zn 88 ppm, Ag 0.82 oz/ton, Au 0.001 oz/ton

84 VV 15 (At mine-road access at lower Stacey Creek)
Bank has been scoured by Spring freshet. The rocks in outcrop are siliceous and siliceous/feldspathic and appear to be bedded. Weathered surfaces indicate a brecciated texture. The rocks are probably originally cherty/siliceous generally very light cream grey to cream mottled, weak to moderate disseminated pyrite.

84 VV 15
Continued Small fractures are filled with clear vitreous quartz, some evidence of open space filling. Locally sericitic (?). Strong iron staining of fracture surfaces.
Fractures 038/35 NW & 60 NW

84 VV 16 Siliceous, silceous-feldspathic breccias which appear to be bedded
[84 VV 16] Probably originally cherty/siliceous, similar to Stn.15.
Disseminated pyrite occurs throughout the rocks in this area resulting in strong iron-staining on fracture surfaces.
Shear zone
Geochemistry 84 VV 16 Cu 2 ppm, Pb 8 ppm, Zn 6 ppm, Ag 0.7 ppm, Au 5 ppb

84 VV 17 Siliceous, siliceous/feldspathic breccias, sericitic, disseminated
[84 VV 17] pyritic. Contains clear vitreous quartz veinlets and irregular infillings.
[84 VV 17-I] Late shattering 010/V

Geochemistry 84 VV 17 Cu 4ppm, Pb 21 ppm, Zn 9 ppm, Ag 1.3 ppm. Au 5 ppb

84 VV 17-I Cu 3 ppm, Pb 12 ppm, Zn 8 ppm, Ag 1.1 ppm, Au 5 ppb

84 VV 18 A sinuous bedded zone of primary siliceous-feldspathic fragmental
[84 VV 18] rocks, indurated tuff/ shaly siltstone and coarse breccia composed
[84 VV 18-I] of cherty and altered metavolcanic fragments in a strongly altered sericitic matrix. Original rock textures and structures are masked by strong sericite, moderately disseminated pyrite and siliceous. (quartz veinlets and impregnations with superimposed late shattering).

Geochemistry 84 VV 18 Cu 29 ppm, Pb 18 ppm, Zn 360 ppm, Ag 1.1 ppm, Au 10 ppb

84 VV 18-I Cu 1380 ppm, Pb 8600 ppm, Zn 3000 ppm, Ag 2.9 ppm Au 10 ppb

84 VV 19 Outcrop in centre of creek is strongly altered sericitized, weakly
[20381] siliceous breccia rock with original textures and structures masked
[84VV19] by alteration, late fracturing and brecciation. These rocks are
[84VV19-I] cut by an irregular diffuse southeasterly trending zone 1 to 2 metres wide of more intense sericitic (pyrophyllitic) minor silica, pyritic alteration containing scattered irregular clusters and disseminations of pyrite, sphalerite, galena, chalcopyrite. This zone is also intensely shattered and is cut by late sinuous less mineralized barite. veins and irregular masses.

Geochemistry 20381 Cu 500 ppm, Pb 1030 ppm, Zn 3200 ppm, Ag 2.4 ppm, Au 10 ppb

84 VV 19 Cu 2950 ppm, Pb 9000 ppm, Zn 14000 ppm, Ag 30.0 ppm, Au 450 ppb

84 VV 19-I Cu 870 ppm, Pb 1260 ppm, Zn 3640 ppm, Ag 10.4 ppm, Au 140 ppb

84 VV 20 Abundantly shattered re brecciated quartz-sericite-altered meta-volcanic (?) breccia. Strong iron staining.

84 VV 21 Massive sericite (quartz) granular rock of uncertain origin which has a pseudogranitic texture. Abundant veining by coarse sericite-(quartz)-rich material. Disseminated pyrite which is less evident in massive sections. Weathered surfaces give some evidence of coarse granular to breccia layering with gentle southeast dip. The massive material is overlain by a thick zone of sericite-(quartz) breccia with dark lensoids of pyritic tuff (?). sericitic veining. The outcrop is abundantly iron-stained and has late shear planes 055 to 065/25 to 35 NW.

84 VV 22 At the upper end of an almost continuous light grey sericitic-siliceous (?) zone abundantly shattered and sheared 120°/V. More massive sections are generally mottled light grey to creamy with screens of abundant disseminated to massive fine-grained sulphides (pyrite). Weak layered patches of salt and pepper appearance of altered crystal tuff (?)

84 VV 23 Approaching base of waterfall. Massive green-grey volcanics, porphyritic flows and flow breccia/tuff breccia

84 VV 24 At base of waterfall. Massive green-grey volcanic porphritic flows, flow and tuff breccia. Weak to moderately chloritic weakly epidotized. Iron staining in fractures.

84 VV 25 [20382] [20383] [20384] [84VV 25-V] [84VV 25-VI] Altered volcanics/volcanic sediments chloritic, weakly epidotized, disseminated pyrite with superimposed sericitic, siliceous (felspathic ?) carbonate, alteration/veining and sulphide mineralization. Easterly to southeasterly moderately steep to steep northerly to northeasterly dipping fractures. Alteration/veining extends irregularly outwards from hairline to several cms, locally replacing wall rock. Sulphide mineralization consists of crystalline to 0.5 cm pyrite and chalcopyrite with lesser spahlerite and galena. Some veins are vuggy indicating open space filling. Veins are spaced from about 0.5 to locally 0.1 metres apart at the east end of the outcrop area. Blocks in dump show branching vein systems in close proximity to 0.5 metres wide.

Geochemistry 20382 Cu 10.2%, Pb .03%, Zn .05%, Ag 9.6 oz/ton Au .001 oz/ton

20383 Cu .02%, Pb .02%, Zn .01%, Ag 0.18 oz/ton, Au .009 oz/ton

20384 Cu 6.45%, Pb .02%, Zn .89%, Ag 6.65 oz/ton, Au .008 oz/ton

84 VV 25-V Cu 3320 ppm, Pb 28 ppm, Zn 2300 ppm, Ag 18.9 ppm, Au 10 ppb

84 VV 25-VI Cu 640 ppm, Pb 26 ppm, Zn 31 ppm, Ag 10.4 ppm, Au 5 ppb

84 VV 26 Altered volcanics/volcanic sediment, fragmental texture, sericitic, feldspathic (?) alteration disseminated pyrite, pyrrhotite mineralization with superimposed sericitic, siliceous alteration/veining

84 VV 26
Continued and sulphide mineralization along narrow easterly to southeasterly striking moderately steep to steep northerly to northeasterly dipping structures.

84 VV 26-1 Mineralized vein-shear 0.4 metres in bleached altered sericitic volcanics/volcanic sediments.Brg. 094/85 N to V. Abundantly mineralized by coarse pyrite, lesser chalcopyrite.

Geochemistry 20385 Cu 2.78%, Pb .02%, Zn .04%, Ag 1.10 oz/ton, Au .002 oz/ton

84 VV 26-2 Mineralized vein-shear 0.3 metres in bleached altered sericitic volcanics/volcanic sediments.

84 VV 26-3 As for 26-2 across 0.2 metres

84 VV 26-4 As for 26-2 across 0.2 metres Brg 105/85N

84 VV 26-5 Across 0.2 metres, mineralized wall rock between coarser mineralized veins, wallrock background.

Geochemistry 20386 Cu 240 ppm, Pb 24 ppm, Zn 100 ppm, Ag 1.0 ppm, Au 15 ppb

84 VV 26-6 Across 0.2 metres, mineralized wall rock between coarser mineralized veins, wallrock background.

Geochemistry 20387 Cu 122 ppm, Pb 26 ppm, Zn 83 ppm, Ag 0.6 ppm, Au 5 ppb

84 VV 26-7 Across 0.3 metres, mixture wall rock and poorly developed vein

84 VV 27 Volcanic/volcanic sediment dark grey, very fine grained to very fine fragmental, massive, virtually unaltered, Suggestion of ghost-like breccia fragment outlines. Iron-stained fracture surfaces Sparsely disseminated fine-grained pyrite.

84 VV 28 Volcanic/ volcanic sediment, ghost-like breccia fragment outlines pseudo porphyritic, weak chlorite-epidote alteration, slightly siliceous, moderate disseminated pyrite.

84 VV 29 Metavolcnic- volcanic metasediment, fine to medium grained pale cream-green, feldspathic, widely scattered plagioclase crystals, disseminated pyrite cubes, hematitic pits.

84 VV 30 Altered metavolcanic/volcanic sediment, light to medium grey, fine-grained, sericite,quartz, abundant disseminated pyrite and whispy networks with coarse pyrite in veinlets. Abundantly iron-stained fracture surfaces.

84 VV 31 Altered metavolcanic/volcanic metasediment, light to medium grey, fine-
[84 VV 31] grained, sericite, quartz, irregular diffuse quartz veining with associated disseminated coarse pyrite crystals, finely disseminated sulphides other than pyrite. Small hand trenched and blasted pit.

Geochemistry 84 VV 31 Cu 360 ppm, Pb 18 ppm, Zn 32 ppm, Ag 26.0 ppm, Au 50 ppb

84 VV 32 Quartz sericite breccia, drusy cavities, disseminated very fine pyrite, diffuse quartz veinlets. Strong iron-stained fracture surfaces.

84 VV 33 Volcanic tuff breccia, mottled purplish grey and medium green grey, lithic fragmental, virtually unaltered.

84 VV 34 Altered metavolcanic/volcanic metasediment, light to medium grey, fine-grained, sericite, quartz (?) rounded blebs of chloritic (?) material similar to amygdules, very fine disseminated pyrite, limonitic pits, iron staining on fracture surfaces.

84 VV 35 Talus slope, large blocks volcaniclastic breccia, volcanic sediments unaltered. Volcanic debris with some widely disseminated quartz grains in sandy textured blocks. Some blocks show rough fragmental breccia structure on weathered surfaces, others show indistinct bedding and others consists of fine-grained feldspathic granular and fine to medium grained feldspathic and quartz grains.

84 VV 36 Talus slope below cliff. Talus consists of
(a) volcanic breccia with fragments of flow volcanics
(b) volcaniclastic grit, sandstone composed mainly of grains of lithic volcanics
(c) light cream to tan-grey felsic rock, pitted with limonite and with disseminated pyrite, vitreous patches suggesting quartz

These rocks are unaltered with exception of some sericitic patches in felsic rocks

84 VV 37 At base of cliffs. Volcanic sandstone/grit composed mainly of volcanic lithic fragments and moderate amounts of disseminated rounded quartz grains, unaltered.

84 VV 38 Volcanic breccia, fragmental nature clearly visible, unaltered.

84 VV 39 On talus slope below cliffs, unaltered/very weak alteration, porphyritic flows and pyroclastics
(a) Volcanic flow light grey, porphyritic plagioclase, mafic and traces of quartz
(b) Pyroclastic/flow, fine grained, massive, weak epidote

84 VV 40 Altered mineralized metavolcanic/metavolcaniclastic disseminated pyrite with veins of coarse pyrite and chalcopyrite

Geochemistry 84 VV 40 Cu 9300 ppm, Pb 14 ppm, Zn 62 ppm, Ag 50,0 ppm, Au 80 ppb

84 VV 41 Altered volcanic metasediments (?) with suggestion of rounded grains quartz; and metavolcanic breccias, chloritic, epidotized, feldspathic? siliceous, disseminated pyrite. Open space quartz veining. Strong iron stain.

84 VV 42 Altered metasediments (?) medium to coarse granular/crystalline, epidote, chlorite, feldspar (?), disseminated pyrite

84 VV 43 Volcanic metasediment (?) medium/dark grey green and medium purplish grey fine/medium grained, chloritic, lesser epidote, very locally siliceous/ feldspathic appearance, mottled, weak disseminated pyrite

84 VV 44 Volcanic metasediment (?)pseudo porphritic, chloritic, moderately epidotized, feldspathic (?), weak/moderate disseminated pyrite, Iron staining.

APPENDIX B

ASSAYS

MIN-EN Laboratories Ltd.

705 WEST 15th STREET,
NORTH VANCOUVER, B.C., CANADA V7M 1T2
TELEPHONE (604) 980-5814

ANALYTICAL REPORT

Project Star Mtn. 84-1 Date of report February 23/84

File No. 4-83 Date samples received Febmary 21/84

Samples submitted by: 1

Company: K. E. Northcote

Report on: 10 rock (assay prep) Geochem samples

5 Assay samples

Copies sent to:

1. K. E. Northcote, Agassiz, B.C.
2.
3.

Samples: Sieved to mesh Ground to mesh -100

Prepared samples stored ☒ discarded ☐

rejects assay stored ☒ geo discarded ☒

Methods of analysis: Cu,Pb,Zn,Ag nitric,perchloric digestion A.A. analysi
Au aqua regia A.A.analysis., Cu,Pb,Zn,Ag, acid digestion
chemical analysis., Au fire assay.

Remarks:

MIN—EN Laboratories Ltd.
Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PHONE:(604)980-5814 OR (604)988-4524 TELEX: 04-352828

GEOCHEMICAL ANALYSIS CERTIFICATE

COMPANY K. E. NORTHCOTE
PROJECT NO STAR MTN. 84-1

FILE NO 4-83
DATE FEB. 23/84

We hereby certify that the following are the results of the geochemical analysis made on 10 samples submitted.

SAMPLE NUMBER	CU PPM	PB PPM	ZN PPM	AG PPM	AU PPB	
20374	16	40	178	0.4	10	Constantine #12
75	85	500	1020	0.5	20	Constantine #14
76	8	32	104	0.6	5	Constantine #15
77	6300	48	6750	3.0	65	Constantine #16
78	44	29	68	0.2	15	84VV-1
79	62	560	1300	0.4	20	84VV-2
80		30	88			84VV-14
81	500	1030	3200	2.4	10	84VV-19
86	240	24	100	1.0	15	84VV-26-5
20387	122	26	83	0.6	5	84VV-26-6

Certified by Ron Jones

MIN-EN Laboratories Ltd.
Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PHONE: (604) 980-5814 OR (604) 988-4524 TELEX: 04-352828

CERTIFICATE OF ASSAY

COMPANY K. E. NORTHCOTE
PROJECT NO STAR MTN. 84-1

FILE NO 4-83
DATE FEB. 23/84

We hereby certify that the following are assay results for samples submitted.

SAMPLE NUMBER	CU %	PB %	ZN %	AG OZ/TON	AU OZ/TON	
20380	0.640			0.82	.001	84VV-14
82	10.200	.03	.05	9.60	.001	84VV-25-1
83	0.016	.02	.01	0.18	.009	84VV-25-2
84	6.450	.02	.89	6.65	.008	84VV-25-3
20385	2.780	.02	.04	1.10	.002	84VV-26-1

Certified by [signature]

MIN-EN LABORATORIES LTD.

MIN-EN Laboratories Ltd.

705 WEST 15th STREET,
NORTH VANCOUVER, B.C., CANADA V7M 1T2
TELEPHONE (604) 980-5814

ANALYTICAL REPORT

Project Star Mtn. Date of report March 19/84

File No. 4-113 Date samples received March 12/84

Samples submitted by:

Company: K. E. Northcote

Report on: 11 rock Geochem samples

Assay samples

Copies sent to:

1. K. E. Northcote, Agassiz, B.C.
2.
3.

Samples: Sieved to mesh Ground to mesh -80

Prepared samples stored ☒ discarded ☐

rejects stored ☐ geo discarded ☒

Methods of analysis: Cu,Pb,Zn,Ag nitric,perchloric digestion A.A. analys:
Au-Aqua regia analysis.

Remarks:

MIN-EN Laboratories Ltd.
Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PHONE:(604)980-5814 OR (604)988-4524 TELEX: 04-352828

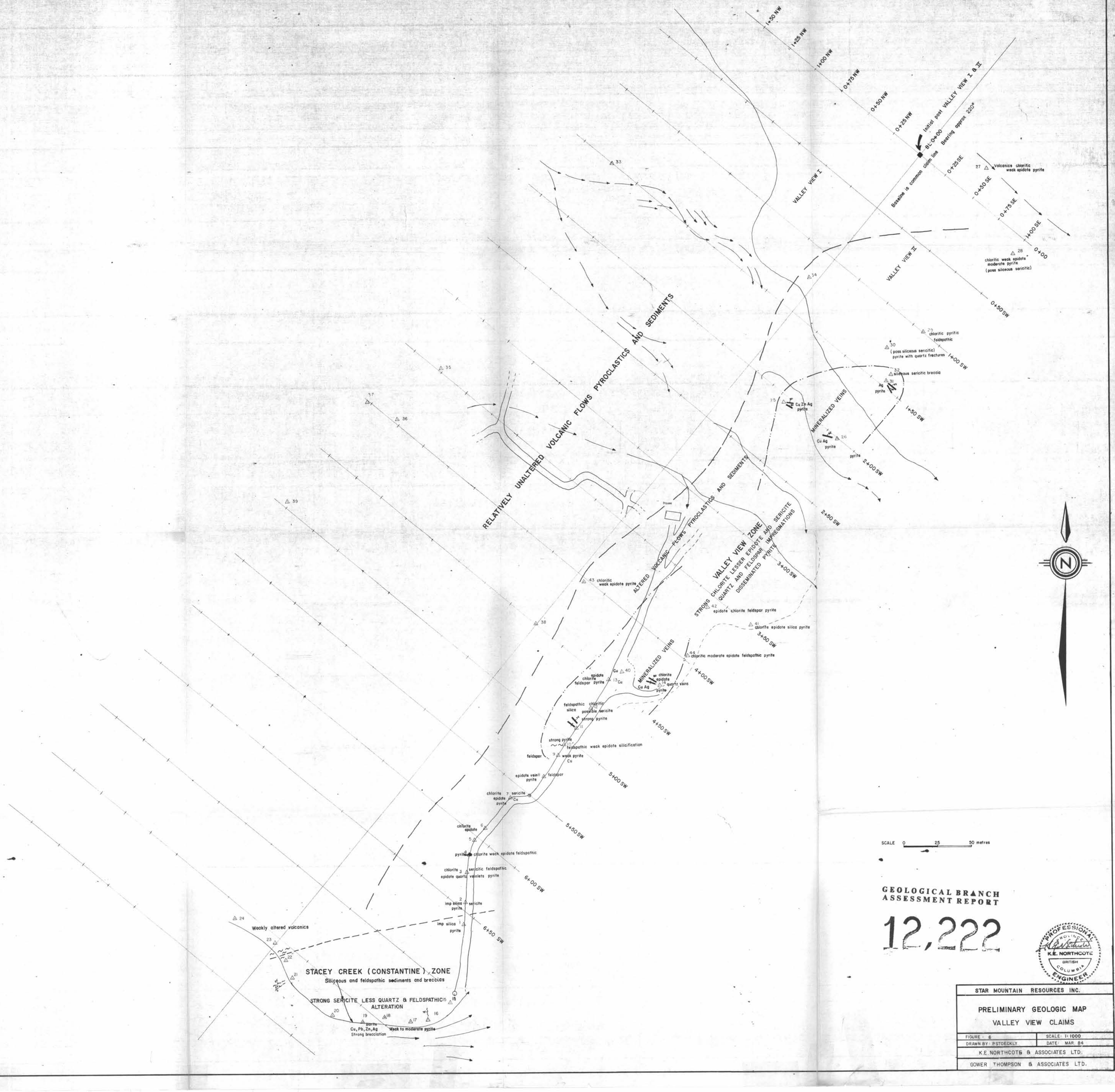
GEOCHEMICAL ANALYSIS CERTIFICATE

COMPANY K. E. NORTHCOTE FILE NO 4-113
PROJECT NO STAR MTN. DATE MARCH 19/84

We hereby certify that the following are the results of the geochemical analysis made on 11 samples submitted.

SAMPLE NUMBER	CU PPM	PB PPM	ZN PPM	AG PPM	AU PPB
84VV16	2	8	6	0.7	5
84VV17	4	21	9	1.3	5
84VV17I	3	12	8	1.1	5
84VV18	29	18	360	1.1	10
84VV18I	1380	8600	3000	2.9	10
84VV19	2950	9000	14000	30.0	450
84VV19I	870	1260	3640	10.4	140
84VV25V	3320	28	2300	18.9	10
84VV25VI	640	26	31	10.4	5
84VV40	9300	14	62	50.0	80
84VV31	360	18	32	26.0	50

Certified by



GEOLOGICAL BRANCH
ASSESSMENT REPORT

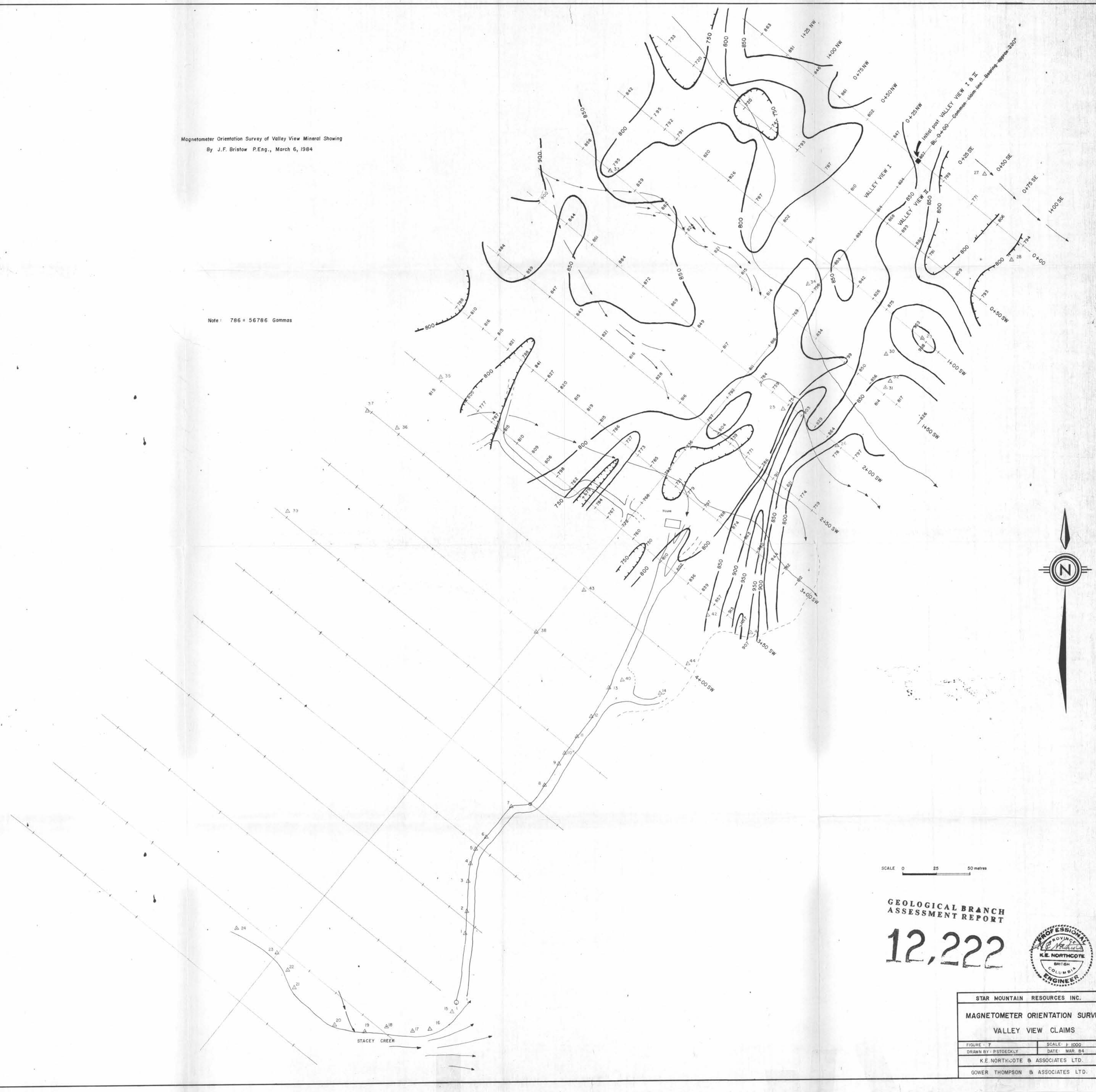
12,222

PROFESSIONAL ENGINEER
K.E. NORTHCOTE
BRITISH COLUMBIA

STAR MOUNTAIN RESOURCES INC.	
PRELIMINARY GEOLOGIC MAP VALLEY VIEW CLAIMS	
FIGURE : 6	SCALE: 1:1000
DRAWN BY : PSTOECKLY	DATE: MAR. 84
K.E. NORTHCOTE & ASSOCIATES LTD.	
GOWER THOMPSON & ASSOCIATES LTD.	

Magnetometer Orientation Survey of Valley View Mineral Showing
By J.F. Bristow P.Eng., March 6, 1984

Note : 786 = 56786 Gammas



GEOLOGICAL BRANCH
ASSESSMENT REPORT

12,222

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
K.E. NORTHCOTE

STAR MOUNTAIN RESOURCES INC.

MAGNETOMETER ORIENTATION SURVEY

VALLEY VIEW CLAIMS

FIGURE : 7	SCALE : 1:1000
DRAWN BY : PSTOECKLY	DATE : MAR. 84

K.E. NORTHCOTE & ASSOCIATES LTD.

GOWER THOMPSON & ASSOCIATES LTD.