180- # 1028- # 8758

PROSPECTING.

Technical Report
Concerning the Following Claims:

Gold Hill 2
DJ 1 - 10
Ultra III & V

Kamloops Mining Division
92I/4E ; Latitude 50° 13'; Longitude 121° 44'

Owners: J.D.Graham
J.M.Ashton
R.E.Hurley

Operators: Noranda Exploration
Rio Canex
Umex

Author: J.D.Graham, P.Eng.

Submitted: January 30 , 1981

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Maps

1.0 INTRODUCTION

1.1 General Geographic and Physiographic Position

The property lies across Mt. Roach, a 2,644 metre peak located 8 km west of Lytton, B.C., and between the north and south branches of Stryen Creek. Stryen Creek is a tributary of the Stein River, joining it two kilometres from its confluence with the Fraser River, seven kilometres above Lytton.

1.2 Access

Access is only possible by helicopter with Jet Ranger type craft available at Kamloops and Hope.

1.3 Geology & Mineral Deposits

The gold mineralization is in parallel quartz veins that occurs in a shear zone mapped for 3000m from the east side of Mt. Roach to the crest of Akasik Mtn. The shear strikes east-west and dips 45^{o} north. The veins are in the hanging wall portion of the shear in several areas mapped by Williams. The wall rock is granodiorite of the Coast Range or a gneissic to schistose roof pendant of probably Triassic sediments and volcanics. To the south and east the Triassic units contain hornblende diorite and serpentized ultrabasic rocks with several gold propects at or near the contact of the "sediments" and mafic volcanics.

Sampling by Williams gives values from 96.2 gm/tonne Au and

99.9 gm/tonne Ag over 2.44 m to 15.0 gm/tonne Au and 21.9/tonne Ag over 1.83 m.

1.4 Property Definition

The property, worked in the 1930's, is described in a private report written for Lytton Gold Mines Ltd., by M. Y. Williams, dated July 24, 1934. Dr. Williams stated that the vein structure was particularly strong and that values were expected to extend to some depth. The Lytton Gold Mines papers describe rather spectacular gold assays reaching 3 oz/tonne over eight feet of vein width. A small amount of localized physical work has been done since the 1930's.

1.5 Summary of Work Done

The 1980 program consisted of prospecting for showings, mapping the vein structure and related showings, assaying and petrographic study. Forty five samples were assayed; the vein was traced and examined over a length of 700 metres. An adit dump located at elevation 1524 metres almost due east from Mt. Roach in the south Stryen Creek valley, was also examined. The majority of the work described in this report was undertaken on a strong quartz vein outcropping on west and east flanks of the ridge falling to the south from the Mt. Roach peak.

1.6 Mineral Claims on Which Work was Done

Mineral Claim	Record Number
Gold Hill 2	84975N
DJ 7	2280
DJ 8	2281
Ultra V	2483
Ultra III	2481

2.0 TECHNICAL DATA AND INTERPRETATION

2.1 Purpose

The objective of the 1980 program was to locate and sample the numerous showings described in M. Y. Williams's report.

2.2 Techniques

The property is largely above tree line in very rugged, and in places, precipitous topography, necessitating the use of ropes in some areas.

Helicopter reconnaissance was possible because of the large amount of rock exposure and was used extensively to locate and access personnel to specific targets as well as in defining the extent and magnitude of the structure.

Several areas of interest could not be examined in the time available, thus will be evaluated in the next phase of exploration.

A number of hand specimens were collected at various locations. Two of these were submitted for petrographic examination.

2.3 Thin Sections

The thin section study of the quartz indicates the vein is relatively simple with only single stage "boiling" in the area of the sample. Evidence of brecciation, secondary calcite, or serpentine is lacking in the samples. If any of these was

in evidence, two stages of mineralization could be proposed.

The quartz shows normal strain on suture boundaries due to shrinkage during cooling from the primary deposition. The few inclusions of calcite within the quartz indicates the sample location is in the central portion of the "boiling" event that tends to deposit gold.

The sample of vein with wall rock exhibits normal alteration of granite usually on the hanging wall of a vein. The alteration is two stage consisting of albitization of feldspars (aduleria?) with coarse and fine sericite. The coarse flakes (or Muscovite) are after biotite with the fine flakes forming the ubiquitous ground mass. The pyrite deposition is related to the second (cooler) alteration which is normal for this type of assemblage.

The thin sections thus indicate a very hot acueous solution rich in sodium invaded an opening in the granite. The solutions boiled in a portion of the opening fractionating the solution to a low pH vapour and high pH liquid. The vapour invaded the hanging wall granite altering the rock to pyrite-soda feldspar-sericite quartz assemblage and leaving behind a liquid that deposited quartz and minor base metals with some gold.

2.4 Results

2.4.1 Assay Sample Location and Description

sample #	location
1	southeast side of ridge, 25 metres northeast of DJ 9 and 10, No. 1 post (Pt.A), adjoins sample 2
2	35 metres northeast of Pt.A, adjoins samples 1 and 2
3	45 metres northeast of Pt.A, adjoins samples 2 and 4
4	55 metres northeast of Pt.A, adjoins samples 3 and 5
5	65 metres northeast of Pt.A below trench, adjoins samples 4 and 7
6	70 metres northeast of Pt.A below samples 5 and 7
7	75 metres northeast of Pt.A, adjoins samples 5 and 8
8	85 metres northeast of Pt.A, adjoins sample 7
9	below trench, on northeast
10	stn. 153m on traverse leg 3, swarm of quartz veins 1 cm to 4 cm, 10 to 15 metres up slope from trail
11	stn. 153m, 50 cm quartz vein
12	at end of leg 13, southeast side of ridge, up slope from adit, includes 3 veins each approximately 60 cm across plus wall rock
13	at end of leg 12, southeast side of ridge, massive arsenopyrite bleb 20 cm across, (see hand specimen 11)
14	at end of leg 13 (close to sample site 12), includes 5 veins, wall rock shows alteration and rusty sulfide grains (see hand specimen 14)
15	in short adit on main vein
16	stn. 170m, leg 3, quartz vein 60 to 70 cm, shows iron oxide locally
17	stn. 212m, leg 4, from small cut showing fine grained sulfides and iron oxide (see hand specimen 14)
18	stn. 275m, leg 4, from quartz vein just above snow patch (see hand specimen 15)
19	stn. 294m, leg 4, quartz vein to side of snow, just below Hurley's workings, tools and hand steel cached here, may be Cut No. 1 referred to by M.Y.Williams,

19 (cont'd)	snow prevented sampling the working (open 2 to 3 metres deep into vein), (see hand specimen 15a), some galena noted
20	in footwall of main vein
21	dump, adit on hillside northwest of southeast branch of Stryen creek
22	ridge, start of leg 1, 10 cm vein plus veinlets
23	halfway along leg 1, quartz veinlets in small shear
24	lower section of leg 1, quartz lens, 2.5 metres by .5 metres
25	stn. 73m, leg 2, verticle quartz lens
26	stn. 140m, leg 3, sample taken across main vein and vein swarm for 13 metres
27	stn. 175m, leg 3, vein material only from vein swarm area
28	stn. 212m, start of leg 4, float from upper vein
29	stn. 275m, leg 4, vuggy quartz
30	stn. 294m, leg 4
31	below core boxes, leg 4, vein quartz, 1.5 metres
32	stn. 374m, leg 4, in area of vein offset
33	stn. 380m, leg 4, banded quartz vein (see hand specimen)
34	leg 5, quartz vein near pits and basic dikes
35	leg 6, vein across from rope cradle
36	end of leg 13, vein and country rock across 2.5 metres
37	end of leg 13, quartz vein 25 metres down slope from 36, vein 1.5 metres across
38	same as 36, quartz vein material only
39	south ridge of Mt. Roach across 6.1 metres (see drawing)
40	south ridge of Mt. Roach across 6.1 metres (see drawing)
41	south ridge of Mt. Roach across 0.9 metres (see drawing)
42	south ridge of Mt. Roach across 6.1 metres (see drawing)
43	selected samples from dump at northeast adit

2.4.2 Technique and Results

sample #	sample technique	Au (oz/ton)	Ag (oz/ton)
1	composite small pieces of talus	0.003	0.01
2	same as 1	0.003	0.01
3	same as 1	0.003	0.12
4	same as 1	0.003	0.01
5	same as 1	0.003	0.02
6	same as 1	0.003	0.04
7	same as 1	0.003	0.12
8	same as 1	0.003	0.02
9	composite, small talus pieces taken along 13 metres	0.005	N.A.
10	chip sample across 13 metres	0.003	0.04
11	chip sample across 0.5 metre	0.003	0.02
12	chip sample across 9 metres	0.010	N.A.
13	hand specimen of arsenopyrite	0.03	0.3
14	chip sample across 8.5 metres	0.01	0.04
15	grab sample	0.003	0.04
16	chip sample across 0.7 metre	nil	nil
17	grab sample	0.06	0.05
18	grab sample	0.03	0.1
19	grab sample	nil	nil
20	chip sample across 10 cm of sulphides	nil	0.03
21	composite of several pieces of dump material	0.001	0.02
22	composite	0.015	0.06
23	composite	0.005	0.04
24	chip sample across 0.5 metre	0.001	0.02
25	chip sample across 0.5 metre	0.5	0.3
26	composite sample	0.13	0.02
27	composite sample	0.015	0.04

28	float	0.045	0.12
29	composite sample	nil	0.02
30	composite sample	nil	0.02
31	composite sample	0.26	0.08
32	composite sample	0.002	0.02
33	composite sample	0.001	0.06
34	composite sample	0.05	0.1
35	composite sample	0.002	0.02
36	chip across 2.5 metres	0.005	0.02
37	composite across 1.5 metres	0.005	0.02
38	composite sample	0.002	0.02
39	composite sample	0.003	0.05
40	composite sample	0.034	0.03
41	composite sample	0.002	0.01
42	composite sample	0.003	0.01
43	composite sample	0.001	0.01

2.4.3

Leg	Chainage (continuous)	Distance	Bearing	Vertical Angle	Remarks	Horizontal Distance
1	0 - 73m	73m	N 10° W	40°	ridge	56
2	73 - 122m	49m	S 85° W	40°		38
3	122 - 212m	90m	N 40° W	35°		74
4	212 - 411m	199m	N 25° W	29°		173
5	411 - 450m	39m	N 30° W	29°		34
6	450 - 500m	50m	N 25° W	29°		44
7	500 - 540m	40m	N 35° W	42°		30
8	540 - 630m	90m	N 0° W	42°		67
9	630 - 650m	20m	N 0° W	25°		18
10	650 - 900m	250m	S 70° W	32°		212
11	900 - 1050m	150m	S 70° W	15°	lake	145

TABLE OF MEASUREMENTS

Traverse Down Northwest Side of Mt. Roach, South Ridge

3.0 Detailed Cost Statement

3.1 Summary

Labour	$ 4,051.00
Helicopter Transportation	3,782.92
Assay & Petrographical	498.75
Report Preparation	1,686.40
TOTAL	$10,019.07

3.2 Labour

July 19, 1980	
V. F. Hollister, P. Eng.	$ 400.00
V. F. Hollister assistant	80.00
J. M. Ashton, P. Eng.	300.00
July 21, 1980	
D. B. Peterson, P. Eng.	400.00
J. D. Graham, P. Eng.	400.00
R. E. Hurley	100.00
July 25, 1980	
F. Felder, P. Eng.	400.00
J. D. Graham	400.00
J. M. Ashton	300.00
July 29,1980	
D. Cross, P. Eng.	400.00
G. Dirom	400.00
G. Camsell	171.00
J. M. Ashton	300.00
TOTAL	$ 4,051.00

3.3 Helicopter Transportation

Date	Company	
July 19, 1980	Okanagan Helicopters Ltd.	$ 690.99
July 21, 1980	Okanagan Helicopters Ltd.	968.84
July 25, 1980	Okanagan Helicopters Ltd.	980.95
July 29, 1980	Highland Helicopters Ltd.	1,142.14
TOTAL		$3,782.92

3.4 Assay & Petrographical

45 Au assays @ 5.50	$ 247.50
43 Ag assays @ 3.25	139.75
7 WO_3 assays @ 6.50	45.50
Petrographical Report	66.00
TOTAL	$ 498.75

3.5 Report Preparation

J. Howe (secretary) 16 hrs. @ $20.00/hr.	$ 320.00
A. Hyde (secretary) 3 hrs @ $20.00/hr.	60.00
E. Catapia (draftsman) 11 hrs @ $30.00/hr.	330.00
J. D. Graham, P. Eng. 19 hrs @ $50.00/hr.	950.00
Reproduction Costs	26.40
TOTAL	$1,686.40

4.0

AUTHOR'S QUALIFICATIONS

J.D.Graham holds a Bachelor of Science degree in Geological Engineering (1962) and a Master of Science degree in Mining Engineering (1964). Both degrees were conferred by the University of British Columbia.

After graduation, Mr. Graham practiced Mining Engineering in British Columbia and Quebec. From 1968 to 1972 he consulted to the mining industry in Arizona and is a Registered Professional Engineer in Arizona. From 1972 to 1979 Mr. Graham was engaged by a large British Columbia metal mine with the position of Chief Mine Engineer for five years. Registered as a Professional Engineer in British Columbia, he is currently consulting to the mining industry.

Appendix I

Petrography of Specimens

David Klepacki

Specimen F-7

Hand Specimen Description: White vein quartz distinguished by small open space grown, six-sided quartz crystals in cavities, coated with iron oxide. Striated quartz prism faces can be seen in the groundmass Small, discontinous veinlets of sulphides, with rusty haloes comprise 2% of the rock. Sulphide is tin white with striated crystal faces, tentatively identified as arsenopyrite.

Thin Section Description:

Quartz: 99% of thin section. Characterizing features: Colorless in plane polarized light, nonpleochroic, low relief, low birefringence. no visible cleavage, uniaxial positive optical sign. Textures: Small inclusion trails of opaque and anisotropic dust,sutured and intergrown grain boundries, undulatory extinction and extesive polygonalization, indicating strain after crystallization.

Muscovite: 1% of thin section. Characterizing features: Good cleavage in one direction, parallel extinction, moderate birefringence, length slow elongation, strong varible relief. Textures: Only found in one area of the thin section, as small flakes intergranular with respect to quartz and discontinuous along a thin veinlet. Some iron oxides stain edges of the grains and impose a pseudopleochroism.

Hand Specimen Description: Rusty weathering, sulphidic quartz-muscovite pyrite rock. Most of the specimen is a crudely foliated quartz-sericite pyritic granitic rock. A large quartz vein, distinguished by well developed quartz crystals in a cavity, cuts the hand specimen. The margins of the quartz vein are extensively stained with iron oxides.

Thin specimen Description:

Quartz: 65% of thin section. Characterizing features: Colorless in plane polarized light, low relief, low birefringence, no cleavage, uniaxial positive optical sign. Textures: Large grains with trails of dust and sutured boundries, undulatory extinction, showing evidence of strain. Small grains involved with sericite mica are clearer and show less strain features.

Muscovite: 25% of thin section. Characterizing features: Colorless in plane polarizedlight, moderate relief and absorption, moderate birefringe, parallel extinction and biaxial negetive optical sigh. Textures: Bimodal grain sixe, latge corroded grains that are kinked repeatedly, abundant ascicular rutile pack cleavage traces and suggest this mica is altered biotite. The small groundmass white micas (sercite) have a relief identical to the large grains, and identical optical properties. The small flake form radial clusters associated with small quartz grains and define the matrix. The groundmass overprints quartz, large mica grains, and albitic plagioclase grains and so is associated with the alteration of the rock.

Pyrite: 2% of the thin section. Characterizing features: Cubic to pentagonal outline, brassy yellow in hand specimen and in hand held reflected light. Textures: corroded grain boundries, poikilitic inclusions of matrix sercite.

Plagioclase: 2% of the thin section. Characterizing features: clear in plane polarized light, low negative relief relative to quartz, polysynthetic twinning, two (010, 001) good cleavages, slightly inclined extinction. Albite content from perpendicular to a method; Ab=88-92%. Textu es: Corroded boundries, overprinted by Quartz-sercite matrix.

Rutile: 2% of the thin section: Characterizing features: Anisotropic, brownish in plane polarized light, high relief, moderate birefringence, needle-like form. textures: As needles along mica cleavage planes and in quartz inclusions.

Leucoxene: White semi-opaque rinds associated with clumps of rutile needles along mica cleavage planes and in quartz inclusions. White reflectandein hand held refecting light.

Carbonate: Less than 1% of the thin section: Characterizing features: Colorless in plane polarized light, high relief, high birefringence, two good cleavages visible. Textures: Very small grains in quartz grains.

Sphene: Less than 1% of the thin section: Characterizing features: Brown, pleochrioc in plane polarized light, high relief, high birefringence, elongate diamond section. Texture: Two very small euhedral grains included in quartz crystals.

Apatite: Less then 1% of the thin section: Characterizing features: High relief, low birefringence, uniaxial negative optical sign, prismatic shape, Textures: Numerous small euhedral grains in quartz-sericite groundmass.

121 45'

50 15'

M921 / 4E

STRYEN CREEK

NOHOMIN CREEK

NIKAIA CREEK

KWELLANAK CR.

KLOWA

KAMIAK CREEK

PAOEYELTH CREEK

NAHUMP CR.

MARINERS BAR

CANTILEVER BAR

FRASER RIVER

THOMPSON RIVER

LYTTON

LYTTON CREEK

WINCH

SAW CR.

GEORGE CR.

SKAPPA CR.

GLACIER

NIKAIA MTN.

KLOWA MTN.

IN 84975 GOLD HILL 2

ALSO 66351N

MT. ROACH

LAKE

MAP NO. 2

N

ASTRO NORTH

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
8758
NO.

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
DONALD GRAHAM

SCALE : 1 : 50,000 0 1000 2000 3000m

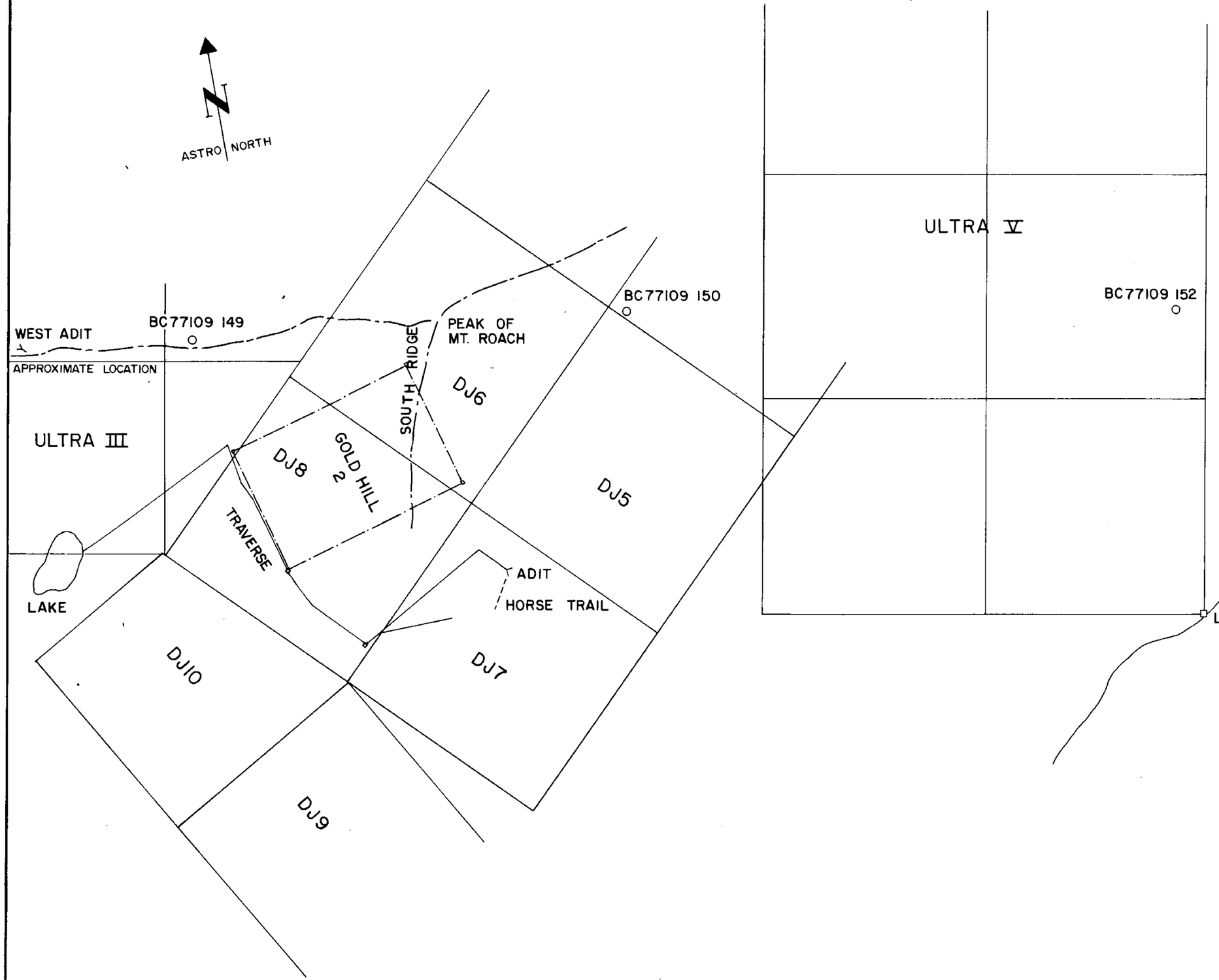
MT. ROACH PROSPECT

DECEMBER 10, 1980

MAP NO. 1

INDEX MAP

J. D. GRAHAM , P. ENG.



LEGEND:

LOCATION OF ADITS AND TRAVERSE SKETCH MAP TAKEN FROM AIR PHOTOS IDENTIFIED ON MAP

SCALE: APROX. 1:10,000

CLAIM POSTS AND BOUNDARIES LOCATED BY AIR PHOTO

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
J. DONALD GRAHAM

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
8758
NO.

0 100 200 300 400 500 600 m

MT. ROACH PROSPECT

DECEMBER 10, 1980

MAP NO. 2

LOCATION OF ADITS & TRAVERSES

J.D. GRAHAM, P. ENG.

ASTRO NORTH

DJ 8 MC

GOLD HILL 2 MC

DJ 7 MC

DJ 10 MC

DJ 9 MC

WITNESS POST DJ 5,6,7 & 8

LOCATION OF GOLD HILL NO. 2 I. P.

HS17

CLIFF

CLIFF

TALUS

TALUS

CLIFF

CHUTE

LADDERS & ROPES

SMALL CUTS

BASIC DIKES OFFSET VEIN

GRAY FINE GRAINED SULFIDES FOLIATION ALONG FOOTWALL

HS16

CORE BOXES SITE OF DDH

SNOW

PROBABLY M.Y. WILLIAMS CUT # 1 FREE GOLD REPORTED SITE OF MOST RECENT HAND WORK COVERED BY SNOW

HS15

GOLD HILL NO.2 POST F.P.

HS14 SMALL CUT OXIDATION

ZONE OF RED & YELLOW OXIDATION

TRAIL CROSSES SMALL RIDGE

HEAVY OXIDATION

SHEAR ZONE CONTAINS LOCAL VEIN SWARMS

45°

LAKE

1050m

630m

540 m

500 m

450 m

411m

374m

394m

275m

212m

170 m

153 m

138 m

122 m

73 m

45m

2530

2500

2469

162 m

300m

105 m

400m

20cm OF MASSIVE ARSENOPYRITE

HS11

S 45° E

HS12

2 metre ADIT

HS14

CHUTE

45°

HORSE TRAIL

QUARTZ BOULDERS

TALUS

TRENCH

N 65° E

S 80° E

POINT A

NO. 1 POST DJ 9 & 10

NO. 1 POST DJ 7 & 8

HELICOPTER LANDING SPOT

LEGEND:

HS14 HAND SPECIMEN SITE

(12) SAMPLE SITE

[4] TRAVERSE LEG

374 m SLOPE CHAINAGE STATION ALONG TRAVERSE

NOTES:

CLAIM POST LOCATIONS ESTABLISHED BY MEASURING THREAD AND COMPASS, MODIFIED BY TOPOGRAPHY MAPS.

0 10 20 30 40 50 60 70 80 90 100 m

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MT. ROACH PROSPECT

DECEMBER 10, 1980

MAP NO. 3

TRAVERSE DETAILS

J. D. GRAHAM , P. ENG.

DRAWN EBC

APPROVED