

84-365 - 13412
5/85

REPORT ON PHYSICAL WORK, PROSPECTING
GEOLOGICAL MAPPING AND GEOCHEMICAL SURVEYING
ON THE MISSION I CLAIM (16 UNITS)
GREENWOOD MINING DIVISION
BRIDESVILLE, B.C.

N.T.S. Ref. 82 E / 3
Latitude 49° 02' North
Longitude 119° 06' West

RECORDED OWNER - RANDY C. MOLL
OPERATOR - BRITISH CHALLENGER MINING CORPORATION

By

M.P. DICKSON, P. ENG.
ADTEC MINING CONSULTANTS INCORPORATED
811 - 543 Granville Street
Vancouver, B.C.
V6C 1X8
(604) 669-4545

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

May 23, 1984

13,412

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INTRODUCTION

Location

The Mission I claim is situated in the Greenwood Mining Division, 2.5 kilometers east of the town of Bridesville, just south of Highway #3, near the International Boundary. The northwest corner of the property lies just south of the main Rock Creek Bridge on #3 Highway, where the legal corner past is located at the southwest corner of the structure.

Approximate co-ordinates for the centre of the claim block are $49^{\circ} 02'$ north latitude and $119^{\circ} 06'$ west longitude, N.T.S. map sheet 82 E / 3 on a scale of 1:50,000 covers the property.

Rock Creek, which flows east from the property to join the Kettle River, crosses the northern most part of the claim.

The firm of Adtec Mining Consultants Incorporated was engaged to do a preliminary investigation of the property for the purpose of acquainting the owner with the property and to gather enough geological and geochemical information to work out a detailed plan for further exploration.

The work was performed by the writer, M.P. Dickson, P. Eng. and assistant J.E. Hill, between May 17th and May 21st, 1984 and consisted of brush clearing from the main access, general prospecting, minor geological mapping, geochemical soil sampling and selected sampling of known showings.

Physiography

The Mission I property lies in the physiographic transition zone between the Cascade Mountain chain to the south and the Interior Plateau to the northeast.

Topography

Topographically, the area is a glaciated and maturely eroded highland with well

rounded slopes which are partially covered by a thin veneer of glacial material. Major drainage channels are deeply incised with extensive high level stream terraces of fluvial glacial origin. Elevations range from 3,100 feet to 3,950 feet.

Climate

The Bridesville area has an arid climate with vegetation that consists of scrub grasses and extensive stands of fir trees.

Access

Access to the property by vehicle is easily gained by following a dirt road, which leaves Highway #3 at a point 20 kms east of Bridesville, south for 1.2 km to the old Great Northern Railway bed which leads to the property to the east and crosses the northern 1/3 of the claim on its way to Rock Creek. Several old logging roads provide access to most of the property, but need further rehabilitation to allow easy access by 4 wheel drive or all terrain vehicles.

PROPERTY

The Mission I mineral claim consists of 16 units. The legal corner post for the claim lies in the extreme northwest corner with four units to the south and four units to the east.

HISTORY

Mining history of the Rock Creek - Bridesville area dates back to the discovery of placer gold at the junctions of Kettle River and Rock Creek in the early 1860's.

As a consequence of this, several lode gold deposits were found in an area lying mostly north of the Mission I claim.

However, even with the above discoveries, very little work is recorded on the property until 1955 when claims were staked on pyrite and pyrrhotite showings in sediments on ground which was then known as the "Old Nick Claims". This property then covered most of what would now be the northern 1/3 of the Mission I claim.

The "Old Nick Property" was examined several times during the next few years, but the most extensive work was done in 1966, 1967 and 1968 by Utica Mines, Copper Ridge Mines and Newmont Mining Corporation of Canada.

Extensive trenching, percussion and diamond drilling was carried out verifying a rather significant tonnage of nickel bearing pyrite-pyrrhotite sulphide mineralization in pyrometasomatized quartzitic sediments. Nickel grades for the deposit were reported to lie in the 0.15 to 0.25% range and it was felt that good potential existed for developing additional tonnage.

However, the claims were allowed to lapse as metallurgical test work conducted at that time indicated that only 57% recovery could be achieved through a rather complicated extraction process.

As far as is known, very little has been done on the property since that time. The area in general, has received some attention as of late because of renewed interest in precious metals and the fairly large find of gold bearing sediment(?) in Wenatchee, Washington, U.S.A.

Mr. Leonard Bourgh staked the Mission I claim on May 25th & 26th of 1983 with the recorded date being May 27, 1983 (Record No. 3744).

Mr. Bourgh subsequently sold the property through Bill of Sale to Mr. Randy C. Moll, who in turn has optioned the property to British Challenger Mining Corporation of Vancouver, B.C., the present operator.

ECONOMIC ASSESSMENT

Exploration by former owner, operators on the northern part of the Mission I claim has outlined significant tonnage of nickel bearing sediments in the 0.15 - 0.25% range. This program also indicated disseminated, but fairly wide spread pyrite-pyrrhotite mineralization with accompanying lower nickel values over a rather thick series of sediments.

This mode of occurrence for nickel is considered to be rather unique in that although ultrabasic intrusives are present in the area, migration from them has never been known to be so extensive or removed as has been noted on this property. The significance of this has not been dealt with, but the author proposes that it is possible that the mineralization is original in the sediments.

Silica deposits to the south near the International Boundary could occur as original sedimentary deposits as well, and like the nickel deposit, are indications of diverse differentiation processes at work during the geological period of deposition.

Vein type deposits of gold that occur north of the claim and south of the International Boundary Border speaks well for the possibility of this type of mineral occurrence on the Mission I claim as well.

The author and Mr. George P. Krueckl, P. Eng., have further dealt with the economic assessment of the property in their report titled Report on the Mission I Property, dated February 3, 1984 and have recommended a program of exploration to further investigate the properties potential.

PHYSICAL WORK

Physical work consisted of the clearing of brush and debris from the main access and mine trail on the property to further assist in travel entrance to the property.

Approximately 2.1 line kms (Figure 4) were cleared with use of chain saw and axe with the minor debris being piled on side of road or trail.

PROSPECTING

An area (Figure 3), approximately 130 hectares in size, received general overall reconnaissance prospecting. Mine trails and old logging roads were used mainly to search for possible outcrops which are very scarce in the area. Some general prospecting was also performed in conjunction with the geochemical soil sampling program (refer to report on Geological Mapping, Rock Sampling and assaying for details).

GEOCHEMICAL SURVEY

A total of 35 soil samples were collected for geochemical analysis over 2.4 line kms. Samples were collected with a mattock on pace and compass lines at 60 meter intervals. In all cases the B horizon was taken and was reached at a depth of from 20 to 25 cms with an organic cover of approximately 5 cms throughout most of the survey. Soils were generally fine and sandy with colours being mainly in the light to medium brown ranges.

The samples were analyzed by Chemex Labs Ltd. of North Vancouver for Cu, Ni, Zn, Au, Ag & As. Sample preparation and analysis was done by standard, reliable methods. (Refer to Appendix 3 for details.) Results of the analysis are plotted on Figures 5, 6 and 7.

One of the purposes of the survey was to determine if a reliable indicator could be found for gold. The results are inconclusive for this purpose except that sample No. 9069 ran 25 ppb near a rock sample from a boulder which ran 0.026 ozs Au/ton. Further evaluation of the results and cross-examination with other metals is required before the next geochemical program is to be carried out.

Appendix 2 shows the reported values with sample locations.

GEOLOGICAL MAPPING, ROCK SAMPLING AND ASSAYING

Minor geological mapping and rock sampling was carried out on the property (see Figure 8). Rock chip sampling was carried out mainly in the area of old trenches with a view toward determining any association between gold and the Ni-Cu sulphide mineralization. Six samples were collected in old trenched areas, two samples were collected on the Abandoned Railway Grade and one sample collected at geochem station 754S + 00E. The results of the analysis, performed by Chemex Labs are listed in Appendix 1 with Map location reference and sample description. Appendix 3 refers to analytical methods.

There is some gold associated with sediments sampled in sample Nos. 9051 and 9053. Of particular interest is the 0.026 ozs Au/ton assay obtained from chip sampling of the boulder on geochem station 745S & 00E and sample No. 9068. Follow-up work will be required to investigate the significance of this.

The author did reconnaissance mapping on a stretch of the Abandoned Railway Grade for the purpose of examining the sediments for sulphide (mainly pyrite) and cross structures (faults) for possible quartz and gold mineralization.

Further work is required along these lines on the Mission I claim.

REFERENCES

1. J.A. Coope, W.M. Dolan, C. P. Costin of Newmont Mining Corporation - Geological, Geochemical and Geophysical Reports on Exploration of the Nickel Ridge Property, May 7, 1968.
2. W.H. Cannon. Magnetometer Survey, Budy Group, June, 1967.
3. A.R. Bullis, P. Eng. Geological Report on E.K. 281 (5) Claim, February 24, 1977.
4. Reports of the Minister of Mines B.C.

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1958 Page 32 & 33
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5. Division of Mines and Geology - Bulletin No. 42, State of Washington, 1955, pages 70, 71, 72, 72, 73, 80, 81, 82 and 83.
6. Washington Geological Survey - Bulletin No. 5, 1911, Pages 50 & 51.
7. Krueckl, G.P., P. Eng. and Dickson, M.P., P. Eng., Report on the Mission I Property, Greenwood Mining Division, February 3, 1984.

CERTIFICATE

I, Melvin Plenny Dickson of 2731 Mathers Avenue, in the City of Vancouver, in the Province of British Columbia, Canada hereby certify as follows:

1. I am a graduate of Mount Allison University, Sackville, New Brunswick and hold a Bachelor of Science Degree in Geology.
2. I am a Registered Professional Engineer of the Province of British Columbia Registration No. 11456.
3. I have actively practised my profession on a full-time basis in mineral exploration, mine development, production, management and consulting since graduation in 1965.
4. That the information contained in this report is based on published and unpublished reports on the property, and work performed by the author on the property between May 17th and May 21st, 1984.

Dated at Vancouver, B.C., this 7th day of June, 1984



M.P. Dickson, P. Eng.



CHEMEX LABS LTD.

Appendix -1

84-365

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1

TELEPHONE: (604) 984-0221
TELEX: 043-52597

• ANALYTICAL CHEMISTS

• GEOCHEMISTS

• REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

TO : ADTEC MINING CONSULTANTS INCORPORATED

811 - 543 GRANVILLE STREET
VANCOUVER, B.C.
V6C 1X8

CERT. # : A8411917-001-A
INVOICE # : 18411917
DATE : 5-JUN-84
P.O. # : NONE

Sample No.	Sample Location	Prep code	Cu %	Zn %	Ni %	As NAA %	Ag FA oz/T	Au FA oz/T
9051	See Map#8	207	<0.01	0.01	0.03	0.002	0.04	0.018
9052	"	207	--	--	0.09	--	--	0.010
9053	"	207	<0.01	<0.01	0.03	0.002	0.12	0.005
9054	"	207	<0.01	<0.01	0.14	0.002	0.06	0.008
9068	See Map#5	207	--	--	<0.01	--	--	0.026
9091	See Map#8	207	<0.01	<0.01	0.08	0.001	0.01	0.008
9092	"	207	<0.01	<0.01	0.08	0.001	0.12	0.005
9093	"	207	--	--	<0.01	--	0.08	0.003
9094	"	207	--	--	0.02	--	0.10	<0.003

Sample Description

9051 Oxidized and leached sed. beds- Cu, & Ni. stain
 9052 Rusty sed. beds
 9053 Selected grab of best sulphide mineralization
 9054 Sulphide character sample
 9068 Chip of sed. boulder on gechem. line 754 S. +00E
 9091 Sel. Chip of heavy sulphide mineralization
 9092 " " " "
 9093 Fault zone minor qtz.
 9094 Fault Zone minor qtz.

Rock Samples

British Challenger Mining Corp.
 Mission 1 Claim
 Greenwood Mining District

Registered Assayer, Province of British Columbia





CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1

TELEPHONE: (604) 984-0221
TELEX: 043-52597

• ANALYTICAL CHEMISTS

• GEOCHEMISTS

• REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO : ADTEC MINING CONSULTANTS INCORPORATED

811 - 543 GRANVILLE STREET
VANCOUVER, B.C.
V6C 1X8

CERT. # : A8411918-001-A
INVOICE # : 18411918
DATE : 5-JUN-84
P.O. # : NONE

Sample No.	Sample Location	Prep code	Cu ppm	Zn ppm	Ag ppm	Ni ppm	AS ppm	Au ppb FA+AA
9055	00+00S	201	18	73	0.1	22	5	25
9056	00+60S	201	30	163	0.1	46	7	10
9057	00+120S	201	17	96	0.1	23	6	15
9058	00+180S	201	35	185	0.2	45	7	10
9059	00+240S	201	35	153	0.2	128	20	20
9060	00+300S	201	47	225	0.7	95	43	15
9061	00+360S	201	30	125	0.2	45	7	15
9062	00+420S	201	19	100	0.1	27	9	15
9063	00+480S	201	21	98	0.1	22	9	10
9064	00+540S	201	28	145	0.1	28	6	5
9065	00+600S	201	31	113	0.2	29	9	5
9066	00+660S	201	28	258	0.2	52	11	10
9067	00+720S	201	30	102	0.2	26	12	10
9069	00+780S	201	75	150	1.1	43	22	25
9070	00+840S	201	33	115	0.1	31	10	10
9071	00+900S	201	33	98	0.2	42	12	10
9072	00+960S	201	29	113	0.1	47	10	5
9073	00+1020S	201	25	88	0.1	37	12	10
9074	270W+1020S	201	22	105	0.1	26	9	20
9075	" +960S	201	28	108	0.1	16	7	10
9076	" +900S	201	25	100	0.1	29	4	10
9077	" +840S	201	27	105	0.1	30	7	10
9078	" +780S	201	36	103	0.1	26	11	10
9079	" +720S	201	39	150	0.1	44	11	5
9080	" +660S	201	31	100	0.1	28	9	15
9081	" +600S	201	42	155	0.2	46	14	10
9082	" +540S	201	30	115	0.1	33	10	10
9083	" +480S	201	30	114	0.1	32	9	10
9084	" +420 S	201	17	78	0.1	19	6	15
9085	" +360S	201	19	68	0.1	35	9	10
9086	" +300S	201	40	123	0.4	50	12	15
9087	" +240S	201	33	172	0.1	38	10	10
9088	" +180S	201	25	136	0.1	10	6	5
9089	" +120S	201	30	77	0.1	25	9	15
9090	" +60S	201	20	57	0.1	41	9	20

ne distances in meters

British Challenger Mining Corp.

Mission 1 Claim -Greenwood Mining District



MEMBER
CANADIAN TESTING
ASSOCIATION

Certified by *Hart Buchler*

GEOCHEMICAL PROCEDURES FOR GOLD AND RELATED ELEMENTS

GOLD FA-AA COMBO METHOD:

For low grade samples and geochemical materials a 10 gram sample is fused in litharge, carbonate and siliceous flux with the addition of 10 mg of Au-free Ag metal and cupelled. The silver bead is parted with dilute HNO_3 and then treated with aqua regia. The salts are dissolved in dilute HCl and analyzed for Au on an atomic absorption spectrophotometer.

Detection limit - 5 ppb.

SILVER PPM:

A 1.0 gm portion of sample is digested in conc. perchloric-nitric acid ($\text{HClO}_4\text{-HNO}_3$) for approx. 2 hours. The digested sample is cooled and made up to 25 mls with distilled water. The solution is mixed and solids are allowed to settle. Silver is determined by atomic absorption technique using background correction on analysis.

Detection limit - 0.1 ppm.

COPPER, ZINC, NICKEL:

A 1.00 gram portion of sample is weighed into a calibrated test tube. The sample is digested using hot 70% perchloric acid and concentrated nitric acid. Digestion time = 2 hours. Sample volume is adjusted to 25 mls. using demineralized water. Sample solutions are homogenized and allowed to settle before being analyzed by atomic absorption procedures.

Detection limits using Varian atomic absorption unit are as follows:

Copper	-	1 ppm
Zinc	-	1 ppm
Nickel	-	1 ppm

GEOCHEM PROCEDURE FOR ARSENIC

A 1.0 gram sample is digested with a mixture of perchloric and nitric acid to strong fumes of perchloric acid. The digested solution is diluted to volume and mixed. An aliquot of the digest is acidified, reduced with KI and mixed. A portion of the reduced solution is converted to arsine with NaBH_4 and the arsenic content determined using flameless atomic absorption.

Detection limit: 1 ppm

GEOCHEM PREPARATION FOR SOILS & SILTS

Samples are dried at 80 deg. C for a period of 12 to 24 hours. The dried sample is sieved to -80 mesh fraction through a nylon and stainless steel sieve. Rock geochemical materials are crushed, dried and pulverized to -100 mesh.

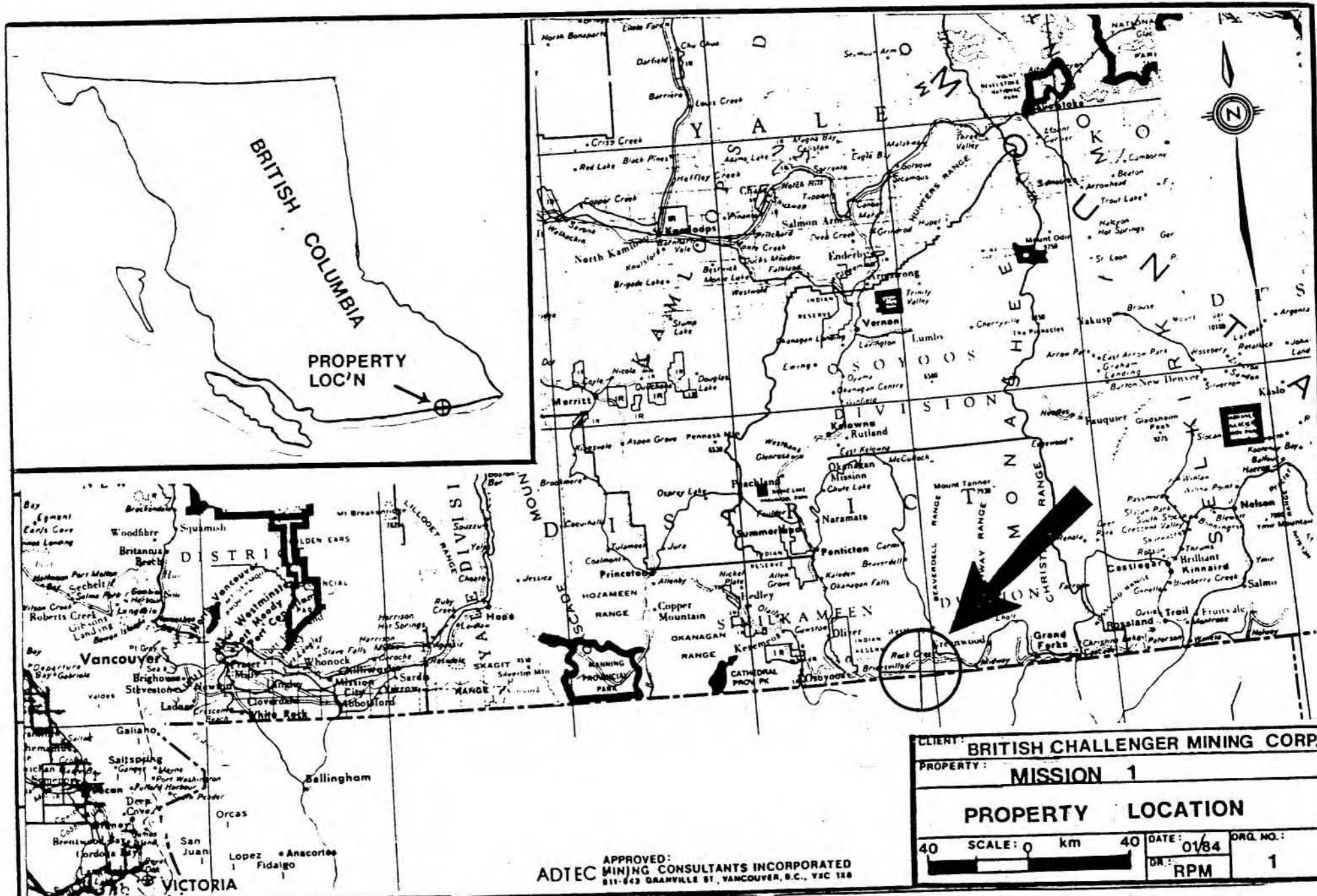
ASSAY PREPARATION & ANALYSIS FOR AG & AU OZ/T

Silver and gold analysis are done by standard fire assay techniques. In the sample preparation stage the screens are checked for metallics which, if present, are assayed separately and calculated into the results obtained from the pulp assay.

0.5 assay ton sub samples are fused in litharge, carbonate and silicious fluxes. The lead button containing the precious metals is cupelled in a muffle furnace. The combined Ag & Au is weighed on a microbalance, parted, annealed and again weighed as Au. The difference in the two weighing is Ag.

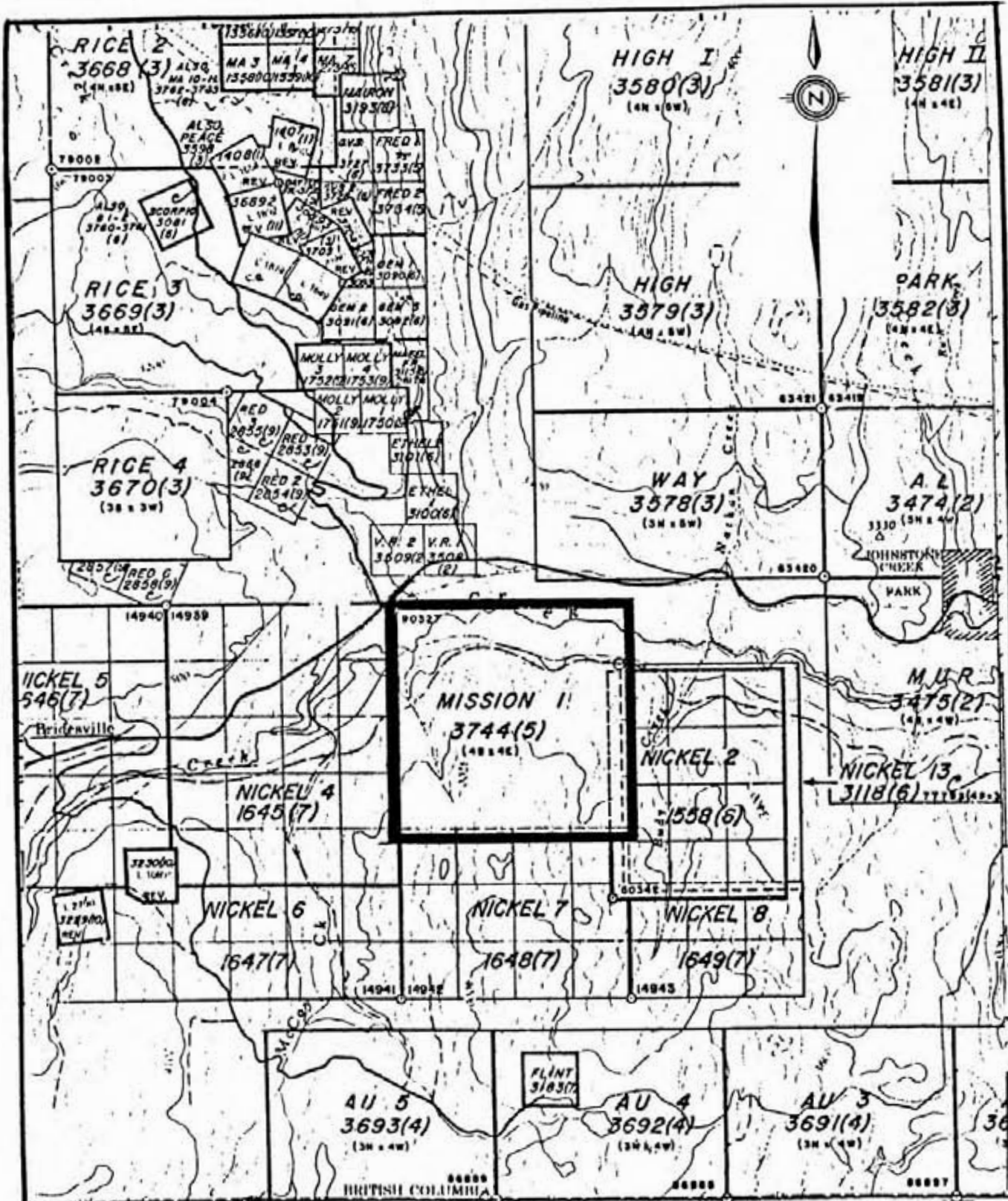
Detection limit for Ag - 0.01 oz/T

Detection limit for Au - 0.003 oz/T



CLIENT:	BRITISH CHALLENGER MINING CORP.		
PROPERTY:	MISSION 1		
PROPERTY LOCATION			
40	SCALE: 0 km	40	DATE: 01/84
			DRG. NO.:
			RPM 1

ADTEC APPROVED:
 MINING CONSULTANTS INCORPORATED
 811-643 GRANVILLE ST., VANCOUVER, B.C., V2C 1E8

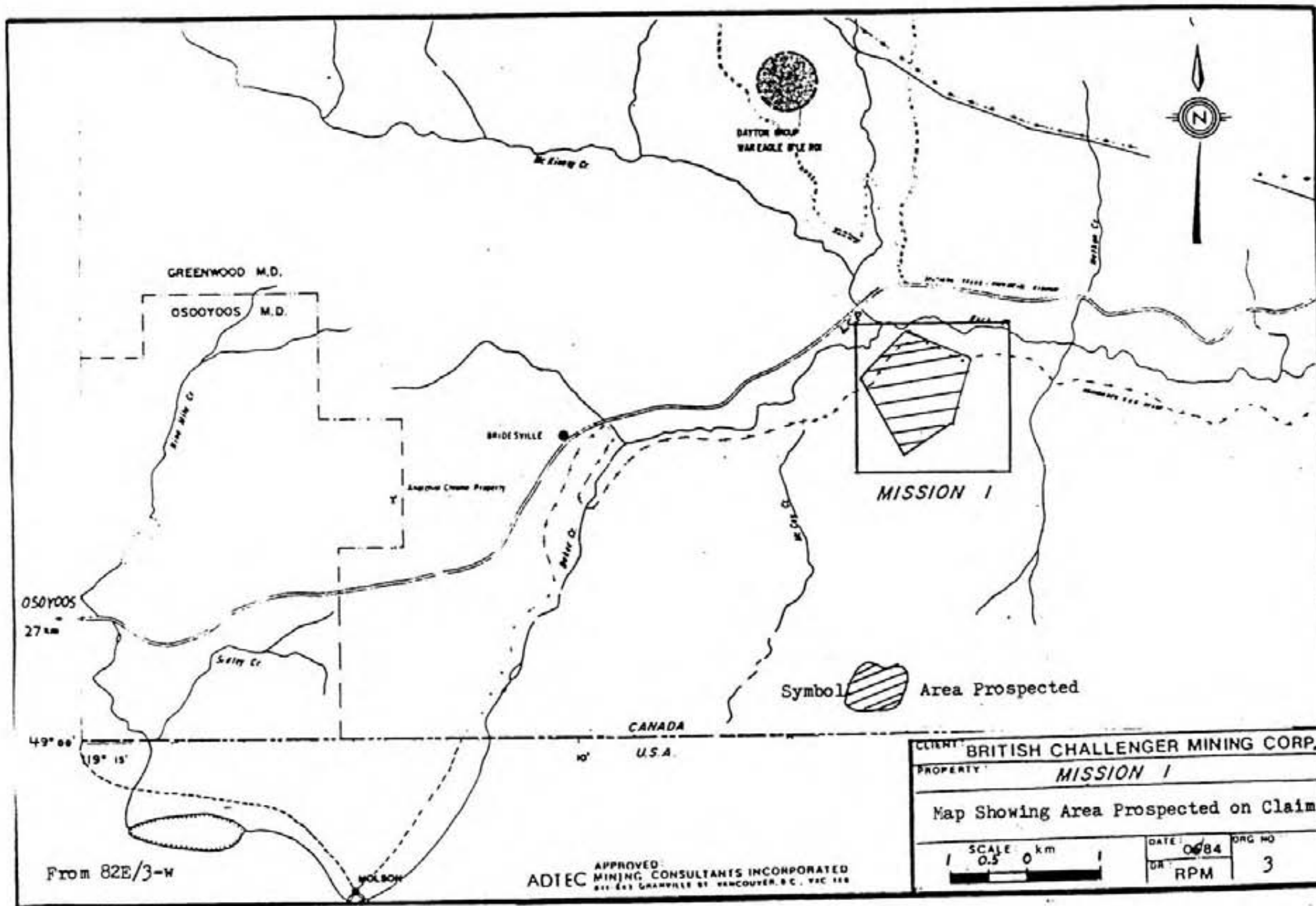


WASHINGTON — U.S.A.

From NTS-82E/3-W

APPROVED:
 ADTEC MINING CONSULTANTS INCORPORATED
 911 642 DRAWVILLE ST. VANCOUVER, B.C., V6C 1E8

CLIENT: BRITISH CHALLENGER MINING CORP.	
PROPERTY: MISSION 1	
CLAIM LOCATION MAP	
SCALE: 0 km 1	DATE: 01/84
DR: RPM	DRG. NO.: 2




DAYTON GROUP
WAS EAGLE ISLE RD

GREENWOOD M.D.
OSOOYOOOS M.D.

BRIDE SVILLE

MISSION 1

Symbol  Area Prospected


CANADA
U.S.A.

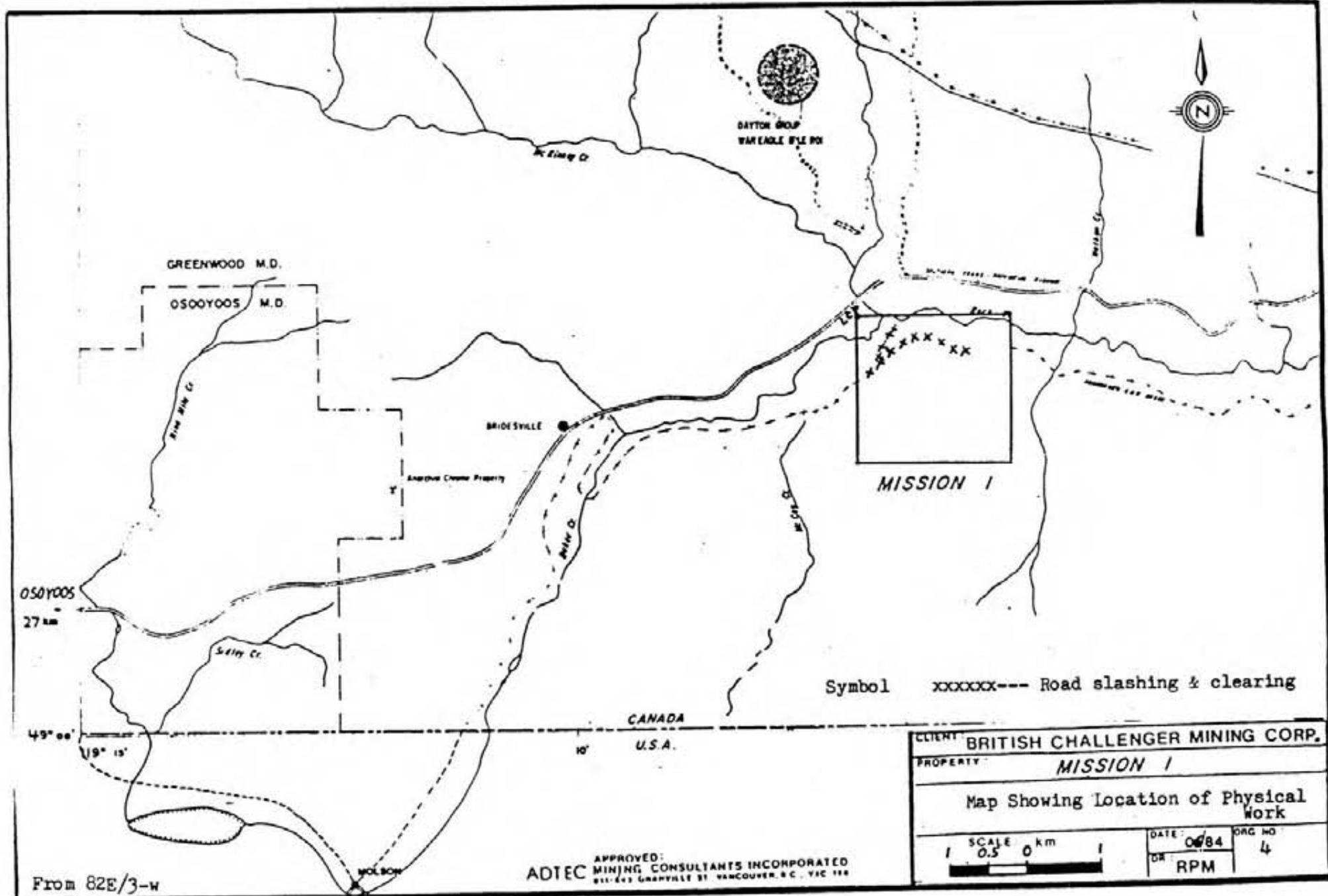
OSOOYOOOS
27 km

49° 00'
19° 15'

From 82E/3-W

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211-213 GRANVILLE ST. VANCOUVER, B.C. V6C 1E8

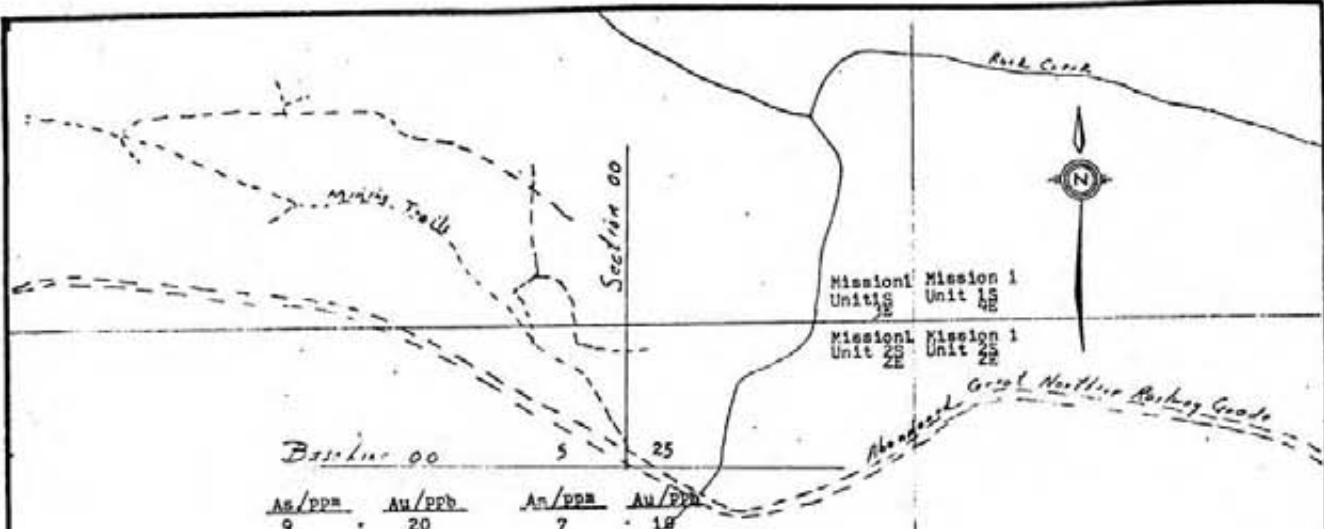
CLIENT:	BRITISH CHALLENGER MINING CORP.		
PROPERTY:	MISSION 1		
Map Showing Area Prospected on Claim			
SCALE:	0.5 km	DATE:	06/84
		UR:	RPM
			ORG NO: 3



From 82E/3-w

ADTEC APPROVED:
MINING CONSULTANTS INCORPORATED
811-643 GREENVILLE ST VANCOUVER, B.C. V6C 1K8

CLIENT		BRITISH CHALLENGER MINING CORP.	
PROPERTY		MISSION 1	
Map Showing Location of Physical Work			
SCALE		0.5	1 km
DATE		06/84	DRG NO 4
DR		RPM	

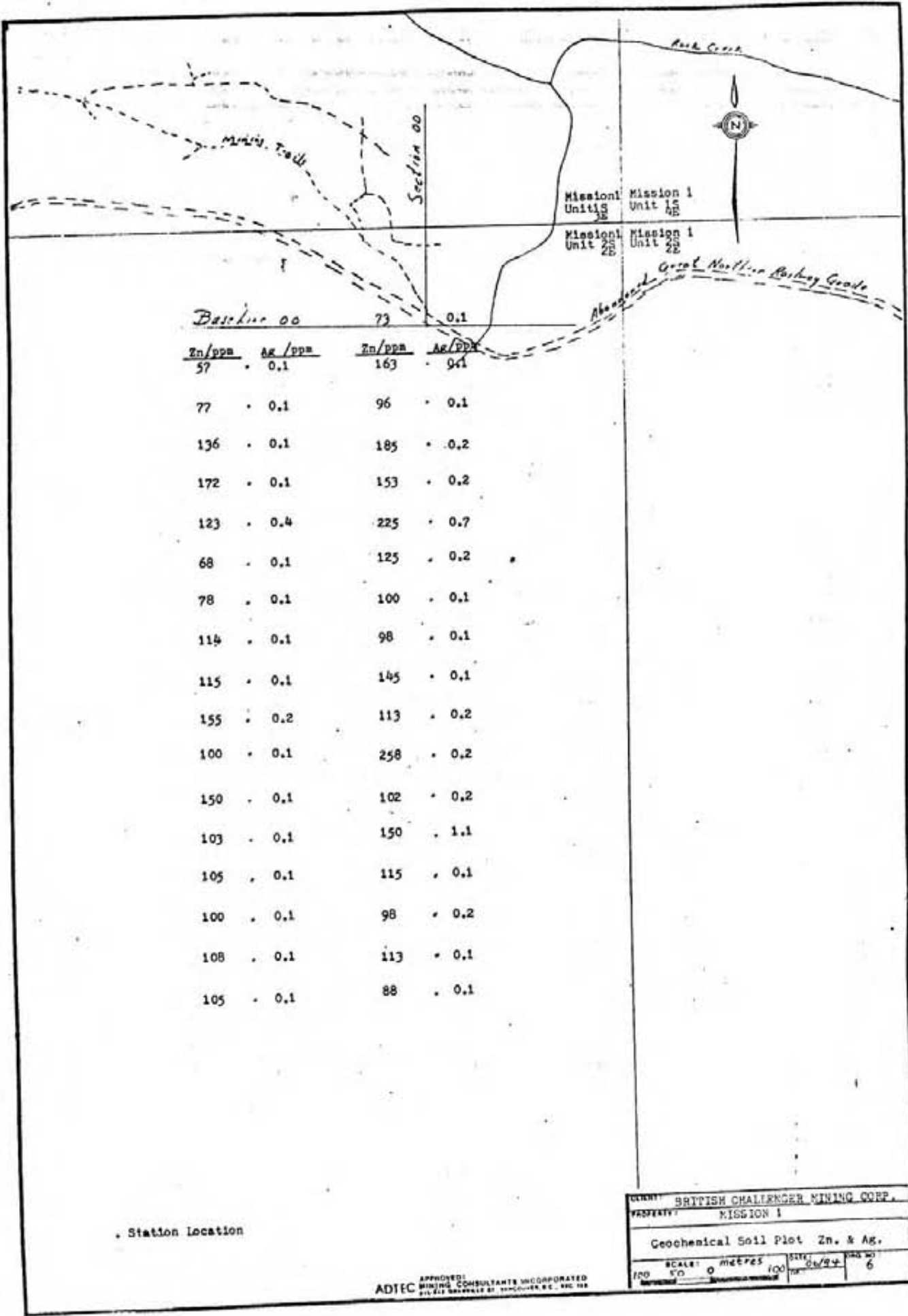


Baseline 00		5	25
As/ppm	Au/ppb	As/ppm	Au/ppb
9	20	7	18
9	15	6	15
6	5	7	10
10	10	20	20
12	15	43	15
9	10	7	15
6	15	9	15
9	10	9	10
10	10	6	5
14	10	9	5
9	15	11	10
11	5	12	10
11	10	22	25
7	10	10	10
4	10	12	10
7	10	10	5
9	20	12	10

Station Location

CLIENT	BRITISH CHALLENGER MINING CORP.		
PROPERTY	MISSION 1		
Geochemical Soil Plot Au. & As.			
SCALE:	0 metres	SITE:	02/84
100	50	DATE:	7

84-325

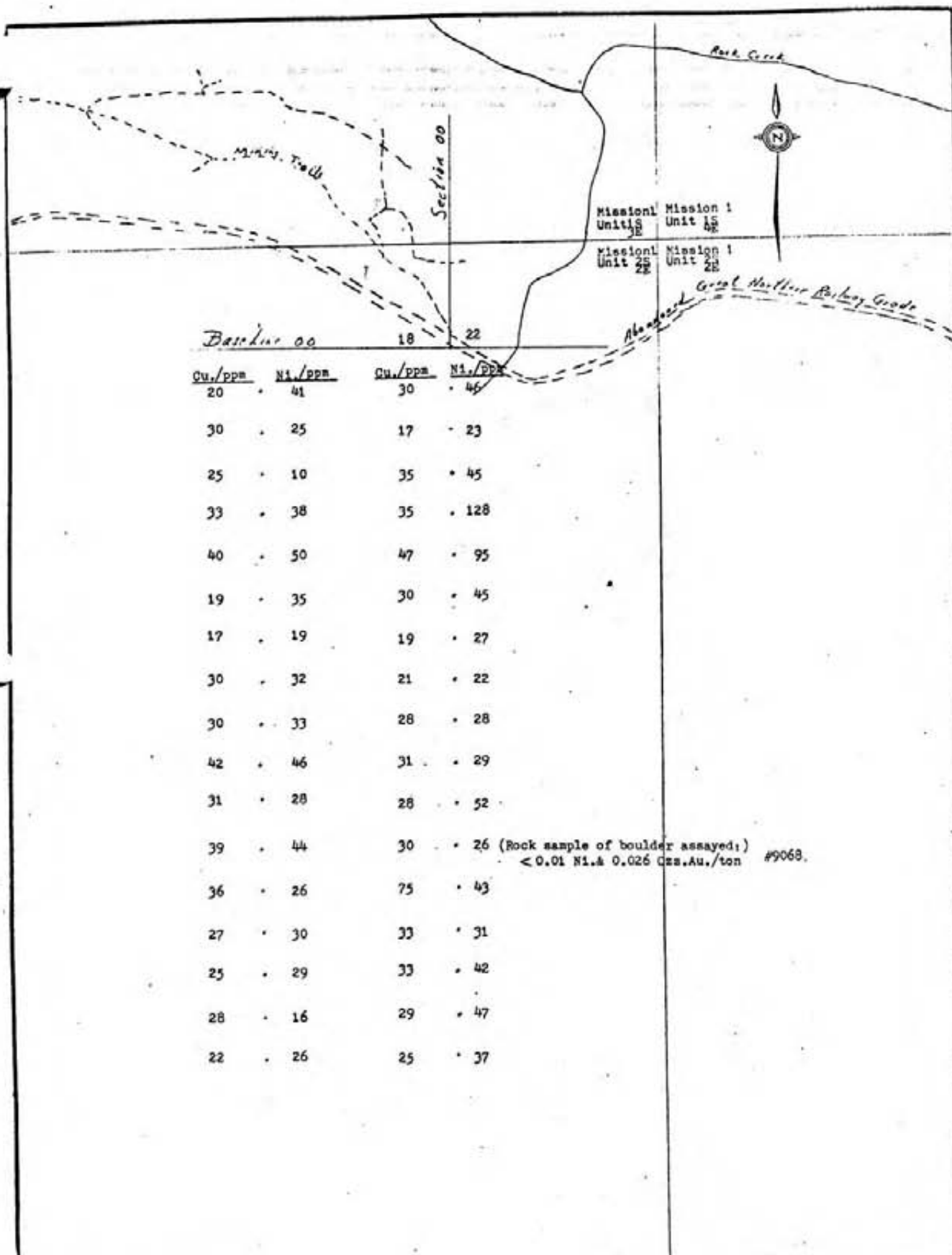


Baseline 00		73	0.1	
Zn/ppm	Ag/ppm	Zn/ppm	Ag/ppm	
57	0.1	163	0.1	
77	0.1	96	0.1	
136	0.1	185	0.2	
172	0.1	153	0.2	
123	0.4	225	0.7	
68	0.1	125	0.2	
78	0.1	100	0.1	
114	0.1	98	0.1	
115	0.1	145	0.1	
155	0.2	113	0.2	
100	0.1	258	0.2	
150	0.1	102	0.2	
103	0.1	150	1.1	
105	0.1	115	0.1	
100	0.1	98	0.2	
108	0.1	113	0.1	
105	0.1	88	0.1	

CLIENT: BRITISH CHALLENGER MINING CORP.
 PROPERTY: MISSION 1
 Geochemical Soil Plot Zn. & Ag.
 SCALE: 0 metres 100
 SHEET: 2/24
 PAGE NO: 6

APPROVED:
 ADTEC MINING CONSULTANTS INCORPORATED
 21111 BRANFORD ST. WILLOW, B.C., V1C 1B8

84-345



Baseline 00		Section 00	
Cu./ppm	Ni./ppm	Cu./ppm	Ni./ppm
20	41	30	46
30	25	17	23
25	10	35	45
33	38	35	128
40	50	47	95
19	35	30	45
17	19	19	27
30	32	21	22
30	33	28	28
42	46	31	29
31	28	28	52
39	44	30	26
36	26	75	43
27	30	33	31
25	29	33	42
28	16	29	47
22	26	25	37

(Rock sample of boulder assayed)
 < 0.01 Ni. & 0.026 Gms. Au./ton #9068.

• Station location

APPROVED:
 ADTEC MINING CONSULTANTS INCORPORATED
 411-212 BROADWAY ST. VANCOUVER, B.C. CAN. 114

CLIENT: BRITISH CHALLENGER MINING CORP.	
PROPERTY: MISSION 1	
Geochemical Soil Plot Cu, AN1.	
SCALE: 0 metres	DRAWN BY: 26/24
100 50 0	SHEET NO.: 5

04-345

