

5910

GEOLOGICAL REPORT

LAWSON GOLD PROPERTY

BIGHORN CREEK

ATLIN MINING DISTRICT, B.C.

AUGUST, 1975.

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT

NO. 5910 MAP \_\_\_\_\_

LAWSON GOLD PROPERTY

CONTENTS

	Page
INTRODUCTION.....	1
SUMMARY.....	2
GENERAL DESCRIPTION	
LOCATION.....	4
ACCESS.....	4
HISTORY.....	5
GEOLOGY	
REGIONAL GEOLOGY.....	7
GEOLOGY OF BIGHORN CREEK.....	8
GEOLOGY OF LAWSON PROPERTY.....	9
ECONOMIC GEOLOGY	
LAWSON VEIN.....	12
VEIN VALUE AND ASSAYS.....	14
COMMENTS	
CONCLUSION.....	17
RECOMMENDATIONS.....	17
REFERENCES.....	19
DOCUMENTS	
CERTIFICATION.....	20
STATEMENT OF COST.....	21
ATTACHMENTS	
APPENDIX A, ASSAY CERTIFICATION	
APPENDIX B, REFERENCE DOCUMENTATION	

ILLUSTRATIONS

#1	FIGURE NO. 1 LOCATION MAP	Scale 1":128 Mi. In text
#2	FIGURE NO. 2 LAWSON CLAIM MAP	Scale 1:50,000 "
#3	FIGURE NO. 3 GEOLOGY OF THE LAWSON MINERAL CLAIMS	Scale 1:2400 In pocket
#4	FIGURE NO. 4 SECTION INCLINE - BLACKSMITH ADITS	Scale 1:1200 "
	PLAN INCLINE - BLACKSMITH ADITS	Scale 1:240 "

## INTRODUCTION

The geological examination and mapping of the Lawson mineral property was done at the request of Mr. Bill Salt of Lobell Mines Ltd., Calgary, Alberta.

The purpose of the examination was to establish the possible potential of, as well as, to verify the encouraging results of past development. It was decided that during the examination, sufficient work should be done that would allow for recommendations as to cost and method of development of the property.

Previous development work done on the property prior to 1936 had established a lengthy, persistent, quartz vein that contained in places good values in both gold and zinc. The Lawson property consists of three claim units that cover the underground workings of the former Spokane gold property.

The examination and mapping was carried out during July 15-18, 1975. The writer was accompanied and assisted by Mr. Bill Salt, representing Lobell Mines Ltd.

## SUMMARY

The Lawson gold property, located 43 kilometres west of Atlin in northwestern British Columbia, covers the former Spokane gold property worked during the late 1920's and early 1930's.

The work indicated a quartz vein that could be traced intermittently along a horizontal length of 920 metres and through a vertical distance of 460 metres. The vein contains gold values of 10.6 gm. per metric ton with low values in silver, zinc and lead.

The Yukon group of rocks in the Bighorn Creek area consist of hornblende schist and feldspar porphyry that form a small synclinal fold along the creek valley. Coast range intrusives outcrop on the upper slopes of Mt. Lawson.

The Lawson gold-quartz vein occurs in an ill-defined fissure zone that cuts at right angles the host hornblende schist rock of the property. The vein is exposed in the Blacksmith and Incline adits, horizontally 400 metres apart through a vertical distance of 185 metres. The vein averages 1.1 metres in width.

The quartz vein is mineralized with disseminated pyrite,

small amounts of sphalerite, and galena. The sulphide mineralization is consistent in degree throughout the quartz vein being approximately 15 percent of the vein material.

The Lawson vein is exposed for a length of 54 metres in the Blacksmith adit and for a length of 20 metres in the Incline adit. The vein is open to the west beyond the Incline workings.

The sampling during 1975 indicates good values of 10.23 gm. gold per metric ton for the vein in the Incline adit. Low values, although encouraging, were obtained from the Blacksmith adit and the outcrop above the Incline adit.

These results combined with those taken prior to 1936 indicate that the Lawson vein has a value of 13.34 gm. gold per metric ton for the Blacksmith adit and 14.03 gm. gold per metric ton for the Incline adit. Fair values were also obtained in a few samples of up to 5.5 percent zinc and 1.9 percent lead per metric ton.

It has been recommended that an exploration program consisting of diamond drilling several holes totalling 800 metres, geologically mapping in detail the claim area, and prospecting both the claim and surrounding area, be undertaken for the 1976 field season.

Estimated cost for this program is \$110,000.00.

## LOCATION

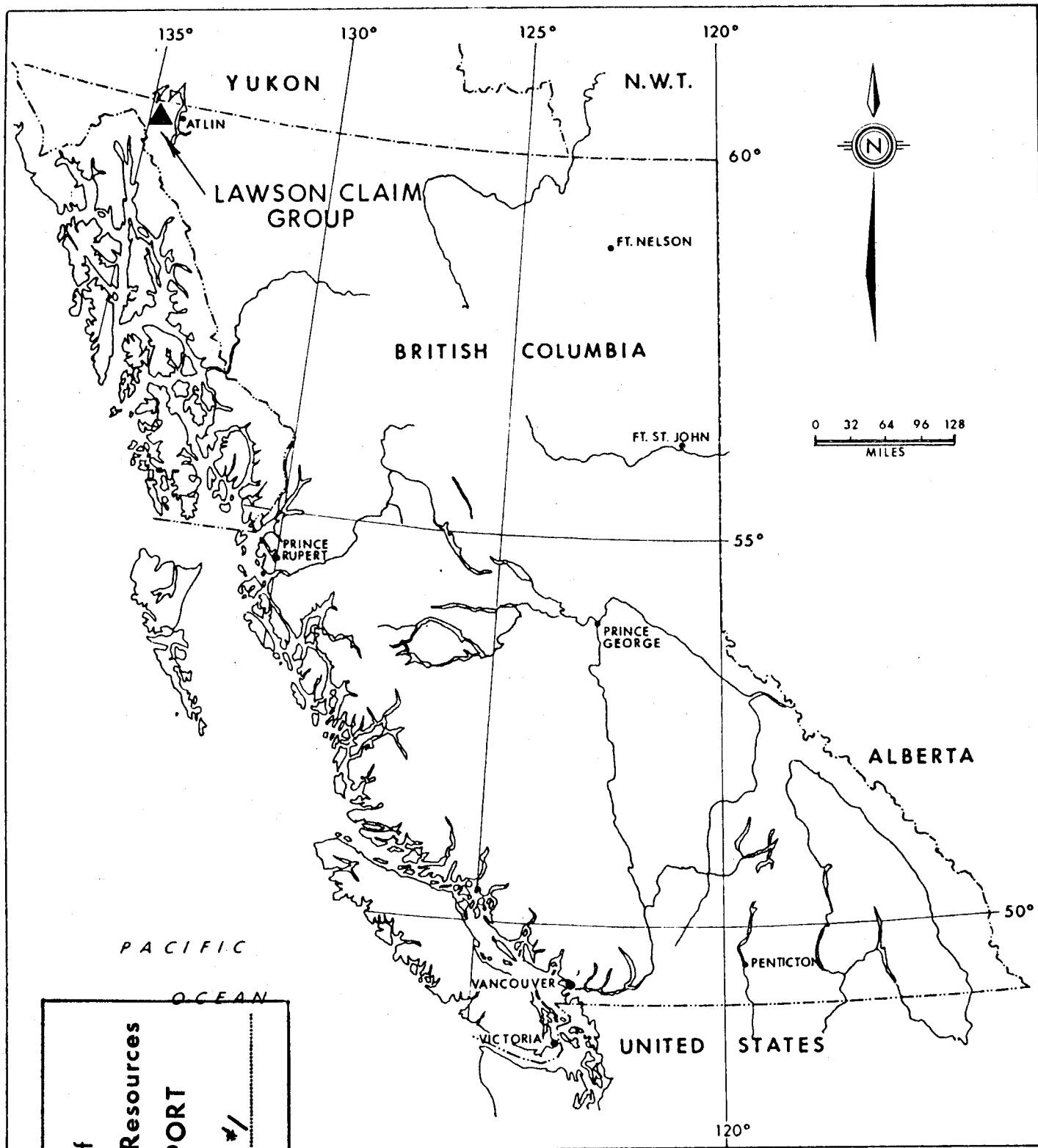
The Lawson gold property is located 43 kilometres due west of the community of Atlin in the north-western part of British Columbia. The property is on the western slope of the valley of Bighorn Creek, some 11 kilometres upstream of its confluence with Fantail River. Fantail River flows eastward to the west shore of Taku Arm of Tagish Lake near Hale. More accurately the property is located at  $N59^{\circ}32'$  lat.,  $W134^{\circ}25'$  long., Fig. 1 & 2.

## ACCESS

There are presently three routes of access to the Lawson gold property:- helicopter directly to the property from Atlin or Whitehorse, float plane from Whitehorse to the east end of Fantail Lake, or boat from Tagish or Carcross to the abandoned cabins at Kirkland on the west shore of Taku Arm of Tagish Lake. The two latter means of access also require an overland trek along the old trail on the west side of Bighorn Creek.

The Carcross - Skagway highway presently being constructed along the west shore of Windy Arm and Tutshi Lake is approximately 48 kilometres northwest of the Lawson gold property.

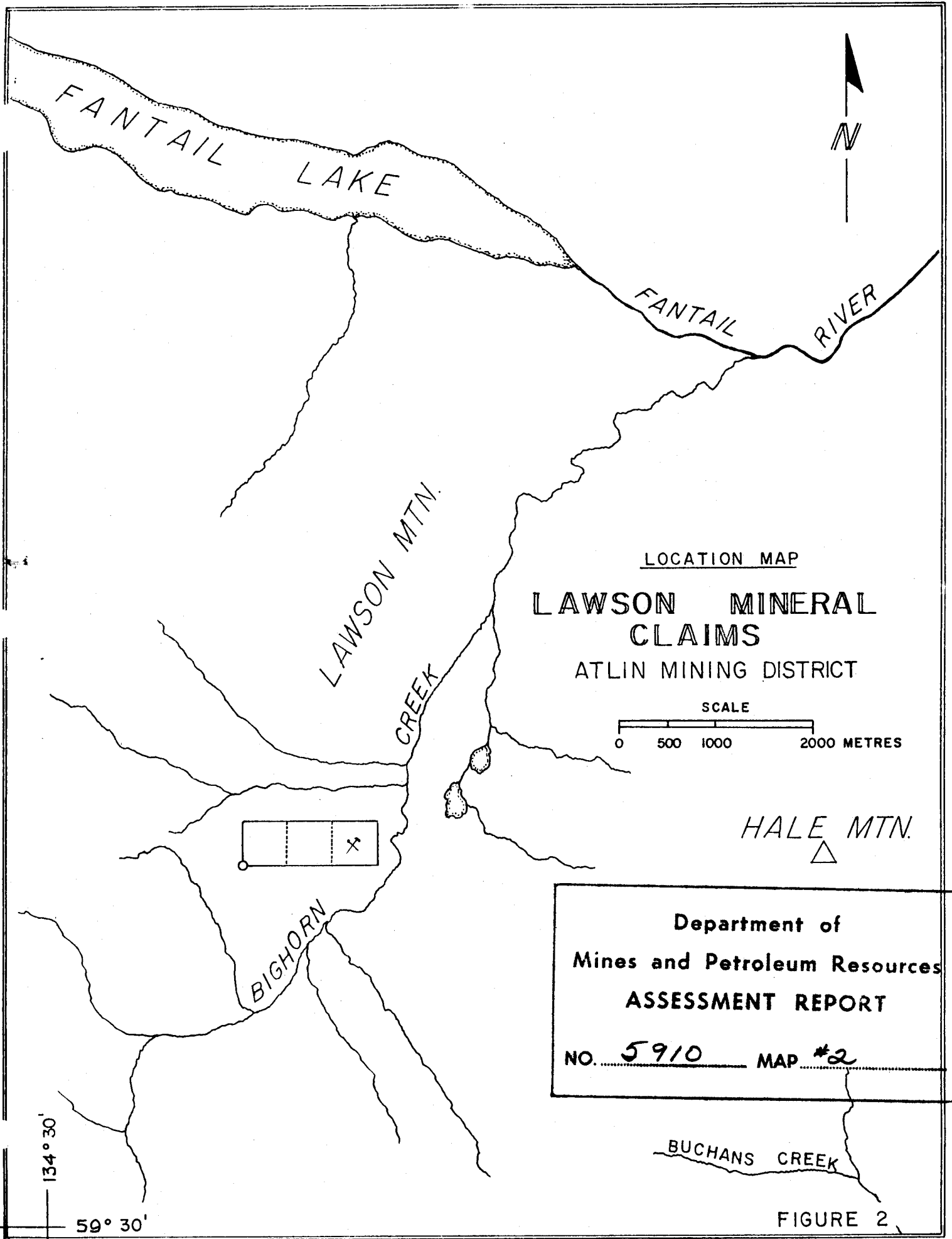
For the examination of the Lawson property a Trans West Hughes 500 helicopter was used from Atlin, B.C. Two



Department of  
 Mines and Petroleum Resources  
**ASSESSMENT REPORT**  
 NO. 5910 MAP #1

FIG. No. 1

**REGIONAL LOCATION MAP**  
**LAWSON MINERAL CLAIM GROUP**  
**ATLIN MINING DISTRICT**  
**BRITISH COLUMBIA**





trips were required to transport three men and supplies to and from the property.

### HISTORY

Mr. Fred Lawson and associates prospected the Bighorn Creek area during the early 1900's. This prospecting eventually led to the staking of the Spokane group, which comprised three mineral claims, the Spokane, Mohawk and Edwin.

The Edwin claim is presently crown-granted.

Work on the property from 1921-1935 consisted of several open-cut trenches and three adits, named in ascending order the Peters, Blacksmith and Incline. The work indicated that a quartz vein could be traced intermittently along a horizontal length of 920 metres and through a vertical distance of over 460 metres. The vein where exposed has an average thickness of 1.1 metres.

The property was bonded to Norgold Mines Limited in 1933. The company's name was later changed to Atlin-Pacific Mining Co. Ltd., (NPL). Late in 1934, Bobjo Mines, Limited, an Ontario company, acquired an interest in the company and assumed management of the property. Bobjo Mines relinquished its interest in February, 1935.

In 1933 a group of samples channelled across the vein at

six places in the upper "Incline" adit, over an average width of 0.76 metres, by a reliable engineer, assayed 9.4 gm. gold per metric ton. In 1934, systematic sampling by a reliable independent engineer is reported to indicate ore-shoots of about 10.6 gm. gold per metric ton across an average width of 0.91 metres.

No development work has been done on the property since 1936.

## REGIONAL GEOLOGY

The geology of the area west of Atlin is typical of that of the coast range of British Columbia. Metamorphic, volcanic, and sedimentary rock units of uncertain age, but presumed to be Pre-Permian, have been intruded by younger batholithic complexes of Jurassic to Cretaceous age.

The metamorphic, volcanic and sedimentary rock units lie in and along a belt on the northeast flank of the massive Coast Intrusions. The northeast flank of the intrusions trends roughly southeastward from the area of Bennett Lake to the southern tips of Taku Arm and Atlin Lake.

The belt to the northeast exposes a series of strata of the Laberge group that comprises greywacke, siltstone, argillite, slate, conglomerate and limestone. This series overlies the metamorphic rocks of the older Yukon group. The Yukon group consists of quartzite, gneiss, schist, chlorite schist, feldspar chlorite gneiss and amphibole gneiss.

Volcanic rocks cap some hills of the area and consist of rhyolite and trachyte flows and breccias, and feldspathic tuffs, with felsite sills and dykes. The volcanics are

flat-lying and overlie the older rock units with angular unconformity.

The Coast Intrusions occur as large, generally distinct batholithic complexes, however, in places some intrude others of slightly different composition. The most abundant rock types are medium to coarse grained biotite granodiorite, foliated biotite-hornblende granodiorite, and quartz diorite. The youngest intruded rock appears to be a leucocratic granite.

The main structural feature occurs within the sedimentary and metamorphic rock units as open and closed folds. These folds generally trend northwest-southeast, however, some do trend north-south. Faults are numerous throughout the area mainly illustrating only minor displacements. A series of numerous faults occur in the Coast Intrusions immediately south of Bennett Lake.

#### GEOLOGY OF BIGHORN CREEK

The rock exposed along the valley of Bighorn Creek consist of a schistose to gneissoid unit of the Yukon group referred to as the oldest rocks of the Atlin area.

The Yukon group generally includes quartzite, chlorite schist, feldspar chlorite gneiss and amphibolite gneiss.

Intruded into this series are younger dykes of andesite, rhyolite and feldspar porphyry.

On the upper slopes of the east flank of Mt. Lawson is exposed granite, granodiorite and quartz-diorite of the Coast Intrusions.

In general the rock of the Yukon group strike slightly east of north paralleling Bighorn Creek and dip at varying angles to the east and west. The rocks form a slight synclinal fold the axis of which trends north and occupies part of the creek bed of Bighorn Creek.

North-south faults of little displacement are known to occur within the metamorphic rocks.

#### GEOLOGY OF THE LAWSON PROPERTY

The geology of the Lawson mineral claim is derived from several traverses on the lower slope of Mt. Lawson, and from aerial photographic interpretation made at a later date.

Two rock types outcrop on the property as mapped, a hornblende schist and a feldspar porphyry, Fig. 3 & 4. The schist rock is composed mainly of hornblende with minor quartz and plagioclase, and is very fine grained. There appears

to be little chloritic or biotitic alteration indicating a tendency to rather low metamorphism. The feldspar porphyry consists of large phenocrysts of white feldspar numerously disseminated in a fine grained, dark, possibly augite matrix.

The strike of the rock sequence is near north-south with gentle dip to the east. The hornblende schist appears to overlie the feldspar porphyry. The schist is exposed on the upper slopes near the Incline and Blacksmith adits while the feldspar porphyry is exposed, dyke-like, in a narrow band along the lower slopes. The feldspar porphyry is also exposed in the underground workings of the Blacksmith adit at survey station No. 8, Fig. 4.

A strong shear zone or fault is mapped at an elevation of approximately 1220 metres. The fault is observed in a gully mid way between the Blacksmith and Incline adits. The fault is traceable in a north-south direction by the exposure of a brecciated, crumpled, iron-stained rock of unidentifiable character. The geological mapping indicates that the fault has a horizontal displacement of some 75 metres and is right-handed in movement. The mineralized quartz vein in the Blacksmith adit has been displaced southward to that of the vein in the Incline adit.

Photogeological interpretation of the Lawson property indicates a possible second fault zone or a dominant dyke

along the lower slopes. One traverse over this area was across cliff exposures of feldspar porphyry. Unfortunately, due to overburden and thick vegetation the relationship of these outcrops to the hornblende schist on the upper slopes is not known. There is no indication of fault material or displacement of the rock.

The mineralized vein on the Lawson property is confined to a narrow, however persistent, fissure zone that cuts at right angles the rock sequence of the area. In the vicinity of the underground workings no associated gouge material, rock alteration or rock brecciation can be found to define the fissure zone. The vein has been traced intermittently over a horizontal length of 920 metres through a vertical distance of 460 metres, Fig.3.

## LAWSON VEIN

The Lawson gold-quartz vein occurs in an ill-defined fissure zone that cuts at right angles the host hornblende schist rock of the property. The vein strikes N 86°W and dips to the north at 80-85 degrees.

The Lawson vein was examined at three places on the property; in the Blacksmith adit, elevation 1080 metres; in the Incline adit, elevation 1265 metres; and, immediately above the Incline adit in outcrop. The vein exposure in the adits are horizontally 400 metres apart through a vertical distance of 185 metres, Fig. 4. The vein averages 1.1 metres in width.

The vein-filling is composed of white quartz and minor amounts of crushed wall-rock. It is mineralized with fine crystals of pyrite, small amounts of sphalerite and galena, and numerous samples show appreciable gold values with low silver values. In the mineralization free gold is not visible. The sulphide mineralization is consistent in degree throughout the quartz being approximately 15 percent of the vein material. The vein appears to have caused little if any wall-rock alteration to the host schists.

The Lawson vein has been exposed for a length of 54 metres in the main drift of the Blacksmith adit. Past sampling



indicates an ore shoot that carries good values in gold over a length of 40 metres. The vein has been offset to the north by four minor shears. It could not be traced beyond survey station No. 10, Fig. 4.

The Incline adit has been driven a length of 20 metres entirely on the Lawson vein. The vein exposed in this adit has a maximum width of 1.68 metres. The vein is open to the west being 1.07 metres wide in the face of the drift. Present and past sampling along the 20 metre length of vein indicates an ore shoot carrying good values in gold.

Above the Incline adit a narrow, iron-stained shear is exposed on a large, flatish knoll of hornblende schist. The shear appears to be slightly north of the vein extension from the Incline adit. The shear could be traced intermittently for a distance of 360 metres along which occurred only minor quartz vein material. The quartz returned a low, however, encouraging value of gold.

Old reports indicate that the Lawson vein could be traced intermittently from a lower unnamed adit to the upper Incline adit a horizontal length of 920 metres through a vertical distance of 460 metres, Fig. 3.

The Peters and the lower unnamed adit are presently inaccessible, however, quartz vein material was found on

the dumps, particularly that of the Peters adit.

The vein in the Peters adit is reported to be 1.12 metres wide. Pits that were previously reported to expose the vein between the various workings could not be found.

#### VEIN VALUE AND ASSAYS

Twenty vein samples were taken for assay of gold and silver during the recent examination and mapping program. Of these, thirteen samples were random grab and seven were vein channel. Samples No.'s 23508 - 23511 are channel samples of the vein in the Incline adit, samples No.'s 23518 - 20 are channel samples of the vein in the Blacksmith adit. For sample location reference should also be made to Figure No. 4. Certification of the assay value is in Appendix A.

TABLE NO. 1

SAMPLE NO.	GOLD OZ/TON	SILVER OZ/TON	VEIN WIDTH	SAMPLE LOCATION FIG.4	METRIC CONVERSION GM/METRIC TON	
					GOLD	SILVER
23501	0.20	0.94	grab	Peters Adit-Dump	6.84	32.10
23502	Tr.	0.12	grab	Blacksmith " "	Tr.	4.10
23503	0.32	1.98	grab	Incline Adit "	10.95	67.76
23504	0.01	1.00	grab	Above Incline-	0.34	34.21
23505	Tr.	0.08	grab	Above Incline-	Tr.	2.74
23506	0.02	0.14	grab	Edwin Dyke	0.68	4.79
23507	0.01	0.10	grab	Edwin Vein	0.34	3.42
23508	0.15	0.34	1.07m	Incline Adit-20m	5.14	11.66

SAMPLE NO.	GOLD OZ/TON	SILVER OZ/TON	VEIN WIDTH	SAMPLE LOCATION FIG.4	METRIC CONVERSION	
					GM/METRIC TON GOLD	SILVER
23509	0.52	0.26	1.52m	Incline Adit-17m	17.82	8.90
23510	0.38	0.22	1.68m	Incline Adit- 7m	12.78	7.50
23511	0.40	0.36	0.66m	Incline Adit- 3m	1.36	12.32
23512	0.02	0.26	grab	Above Incline-45m	0.68	8.90
23513	0.12	0.96	grab	Above Incline-45m	4.10	32.89
23514	0.03	0.24	grab	Above Incline-45m	1.02	8.21
23515	0.02	0.08	grab	Above Incline-30m	0.68	2.74
23516	0.01	0.06	grab	Above Incline120m	0.34	2.06
23517	0.01	0.08	grab	Above Incline360m	0.34	2.74
23518	0.02	0.04	1.07m	Blacksmith Adit6m	0.68	1.36
23519	0.16	0.98	0.30m	Blacksmith Adit14m	5.48	33.53
23520	0.14	1.36	0.60m	Blacksmith Adit36m	4.79	46.53

The sampling during 1975 indicates good values of gold with low values of silver along the length of the Lawson vein exposed in the Incline adit. A calculated average value for the vein is 10.23 gm. gold per metric ton across 1.1 metres.

The sampling indicates rather low, however encouraging, values of gold for the vein exposed in the Blacksmith adit and in outcrop above the Incline adit. Maximum values returned are 5.48 gm. gold and 4.10 gm. gold per metric ton, respectively.

The results of sampling done prior to 1936 are outlined in Appendix B. These results combined with those recently taken indicate that the Lawson vein has a value of 13.34 gm. gold per metric ton for the Blacksmith adit and 14.03 gm. gold per metric ton for the Incline adit. Fair values were also obtained in a few samples of up to 5.5 percent zinc and 1.9 percent lead per metric ton.

The in ground value of the gold content of the ore of the Lawson vein will average between \$56.00 and \$59.00 per metric ton, based on a price of \$4.20 per troy gram.

## CONCLUSION

The Lawson gold property is a mining situation of considerable merit that warrants more exploration and development to prove its potential as a future mine.

Two factors stand out in the assessment of the results of recent mapping and sampling, and of past development work done on the property prior to 1936.

(1) two fair size ore shoots do exist on the property that contain economical grades of gold, 13.34 and 14.03 gm. per metric ton with minor values in silver, lead and zinc; across a mineable width of vein of 1.1 metres.

(2) the two ore shoots, thought to be of the same vein, are horizontally 400 metres apart through a vertical distance of 185 metres. The vein is open at both ends particularly to the west beyond the Incline adit.

The area between and beyond the two ore shoots is of a considerable area for the development of ore reserves.

## RECOMMENDATIONS

An exploration program consisting of diamond drilling several holes, geologically mapping in detail the claim

area, and prospecting both the claim and the surrounding area for other mineralized veins is recommended for the 1976 field season.

It should be pointed out that the terrain in the vicinity of the Incline adit is ideally suited for a diamond drill program. The ground is fairly flat, lacks vegetation and contains a small pond with sufficient water for drill and camp purposes.

It is therefore recommended that several 30 and 70 metre holes be drilled near the Incline adit extending mainly westward as good vein returns are encountered. Total drilling required initially has been calculated at 800 metres.

Cost Estimate:

Diamond Drilling -	
800 metres @ \$100.00 per metre.....	\$ 80,000.00
Geologist, (Student) @ \$1,200.00/month....	\$ 4,000.00
Prospector, @ \$1,000.00/month.....	\$ 3,000.00
Consulting Geologist.....	\$ 10,000.00
Camp, 3 months.....	\$ 3,000.00
	<hr/>
	\$100,000.00
Contingency.....	\$ 10,000.00
	<hr/>
	\$110,000.00
	=====

*M.J. Cooper*  
M.J. Cooper

P. Eng. Geology  
Province of Alberta.

REFERENCES

- G.S.C. Memoir 37, Atlin Mining District, B.C.  
D.D. Cairnes. 1913
- Annual Report of the Minister of Mines, B.C. 1921
- Annual Report of the Minister of Mines, B.C. 1933
- Annual Report of the Minister of Mines, B.C. 1934
- NTS Map, Fantail Lake --104 M/9, scale 1:50,000.
- NTS Map, Atlin --104 N/12, scale 1:50,000.
- Aerial Photographic Prints  
Roll No. A11379; 358-363  
Roll No. A11390; 377-381

CERTIFICATION

I, MICHAEL J. COOPER OF THE CITY OF CALGARY,  
ALBERTA, HEREBY CERTIFY THAT:

I am a graduate of McGill University, Montreal,  
Province of Quebec, in 1957, with a B.Sc. degree in  
Geology and Mathematics.

I have practiced my profession in exploration  
for the past 18 years.

I am a member in good standing of the Association  
of Professional Engineers of Alberta.

*M J Cooper*

Calgary, Alberta.



STATEMENT OF COST

- Transportation	
Hughes 500 Helicopter Atlin-Bighorn Cr.-----	\$ 405.00
"          "          "          Bighorn Cr-Tutshi Lake-----	175.00
- Camp supplies, 3 men @ 4 days-----	100.00
- Assays, 20 chip samples-----	130.00
- Report preparation, aerial photo interpretation-----	750.00
- Report documentation, drafting, reproduction-----	250.00
	<hr/>
	\$1,810.00

M. J. Cooper

Calgary, Alberta.

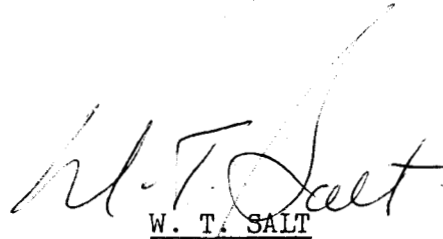
W. T. Salt  
W. T. SALT

Lobell Mines Ltd.

STATEMENT OF COSTS.

"LOOT" MINERAL CLAIM (4 units)  
TUTSHI LAKE, ATLIN MINING DISTRICT, B.C.  
RECORD NO. 50

Transportation -	
Hughes 500 helicopter, Bighorn Cr. - Tutshi Lk. -- -- --	\$175.50
Beaver fixed wing, Tutshi Lk. - Whitehorse, Y.T. -- --	168.00
Camp Supplies, 3 men for 4 days -- -- -- -- -- -- -- -- -- --	100.00
Assays, 8 chip and channel samples -- -- -- -- -- -- -- --	75.50
Trenching, 3 men at \$40.00/ day, 3 days -- -- -- -- -- -- -- --	360.00
	<hr/>
	\$879.00

  
W. T. SALT

Lobell Mines Ltd.

  
M. J. COOPER

P. ENG.  
Province of Alberta.



# TRANSWEST HELICOPTERS (1965) LTD.

2792 NORLAND AVENUE, NORTH BURNABY, B.C. V5B 3A6 CANADA

PHONE: AREA (604) 291-7578

Overland Exploration Ltd.,  
1307 - 12th Ave S.W.  
Calgary, Alta.

DATE: July 24th, 1975

INVOICE NO.: 243

Flight report 4714  
July 15th

1.5 hrs.

Flight report 4713  
July 13th

1.3 hrs.

---

2.8 hrs. @ 250.00

.....\$700.00

Fuel..... 50.00

---

\$750.00

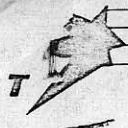
Plus Groceries ..... 28.00  
for crew

2 Foamy ..... 20.00

---

\$ 804.00

Helicopter Hughes 500  
Crewed, D. Bruns,  
Whitchorse  
Area 9.0



TANS NORTH TURBO AIR (1971) LTD.  
 BOX 433B, WHITEHORSE, YUKON

TELEPHONE (403) 668-2177 • TELEX 036-8-290

Overland Exploration  
 TRANSLWEST

ACCOUNT NUMBER	2785
8363	
INVOICE DATE	21567715
A/C TYPE	BEAVER
AIRCRAFT REGISTRATION	FJPM
FLIGHT DATE	220775
PURCHASE ORDER NO.	

CHARTERER  
 1347 - 12 Ave S.W. Calgary

BILLING ADDRESS  
 AITA

FUEL & OIL-X	TNTA FUEL USED	HRS.-GALS.	FROM
TNTA	CUST.		
-		1.2	

FROM	MILES	HOURS	ZONE	FREIGHT LBS.	NO. OF PASS. - REMARKS
WHITEHORSE					
TO TUTSHI	70				
WHITEHORSE	70				3 PASS & GEAR

SUB	S.L.	AMOUNT
133	602	168.00

	@		
	@		
	@		
140	@	1.20	168.00
135	@		

TERMS: ONE PERCENT INTEREST PER MONTH WILL BE CHARGED ON ALL INVOICES NOT PAID WITHIN 30 DAYS OF DATE ISSUED.

*W.T. O'Leary*  
 CHARTERER'S SIGNATURE

*W. T. O'Leary*  
 PILOT'S SIGNATURE

ENGINEER'S NAME

WAITING TIME	@	/HR.	
FUEL:	@	/GAL.	
FUEL:	@	/GAL.	
MEALS & LODGING			
OTHER			
OTHER			

TOTAL \$ 168.00

INVOICE



# LORING LABORATORIES LTD.

629 BEAVERDAM RD. N.E. CALGARY, ALTA. T2K 4W2

TO LOBELL MINES LTD., .....

INVOICE No 10105

1230-10th Ave. S.W., .....

CALGARY, Alberta. ....

DATE July 24, 1975 .....

ATTN: Mr. Salt

8 chip..... SAMPLES

8	Gold & Silvers	@ 6.50	52.00
2	Coppers	@	7.00
1	Zinc	@	5.00
1	Nickel	@	5.50
1	Molybdenum	@	6.00
		@	
		TOTAL	\$ 75.50

THIS IS YOUR INVOICE

PLEASE PAY THE AMOUNT SHOWN

TERMS — 30 DAYS



# LORING LABORATORIES LTD.

629 BEAVERDAM RD. N.E. CALGARY, ALTA. T2K 4W2

TO LOBELL MINES LTD., .....

INVOICE N<sup>o</sup> 10221

1230-10th Ave. S.W., .....

CALGARY, Alberta. ....

DATE August 8, 1975 .....

ATTN: M. Salt

20 chip SAMPLES

20	Gold & Silver	@ 6.50	130.00
		@	
		@	
		@	
		@	
		@	
		TOTAL	\$ 130.00

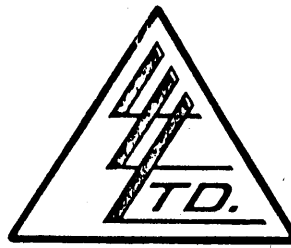
THIS IS YOUR INVOICE

PLEASE PAY THE AMOUNT SHOWN

TERMS — 30 DAYS

*10221*  
*HF 40*

To: LORING MINE, LTD.,  
 1220-10th Ave. S.W.,  
 CALGARY, Alberta.  
 ATTN: Mr. S. L. L.



File No. 10221  
 Date August 3, 1975  
 Samples Chip

Certificate of  
 ASSAY of  
 LORING LABORATORIES LTD.

SAMPLE No.	OZ./TON GOLD	OZ./TON SILVER
23501	.200	.94
23502	Trace	.12
23503	.320	1.98
23504	.010	.10
23505	Trace	.08
23506	.020	.14
23507	.010	.10
23508	.150	.34
23509	.520	.26
23510	.380	.22
23511	.400	.36
23512	.020	.26
23513	.120	.96
23514	.030	.24
23515	.020	.08
23516	.010	.06
23517	.010	.08
23518	.020	.04
23519	.160	.98
23520	.140	1.36

I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE  
 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES . . . .

Rejects Retained one month.  
 Pulps Retained one month  
 unless specific arrangements  
 made in advance.

*e d m f o a c c e*

Licensed Assayer of British Columbia

APPENDIX "B"

DEVELOPMENT

B.C. MINISTER OF MINES, 1921.

"The 'Incline' tunnel is in about 12 feet, with a 15-foot open-cut at the collar. The work shows a 2-foot vein of quartz, sparingly mineralized with disseminated iron-sulphides, lying in a schistose country-rock. A grab sample taken from about 20 tons of quartz on the dump gave returns of 0.76 oz. gold and 0.40 oz. silver to the ton."

B.C. MINISTER OF MINES, 1933.

"The best showing is at the upper (or Incline) tunnel, where the vein averages 30 inches wide in the 12-foot tunnel-length. Two channel samples across 30 inches at the face and five feet back assayed 0.40 oz. gold, 0.06 oz. silver, and 1.32 oz. gold, 0.3 oz. silver per ton, respectively. This gives an average of 0.68 oz. gold and 0.18 oz. silver per ton. Another group of sample channelled across the vein at six places in the Incline tunnel over an average width of 30 inches, by a reliable engineer, assayed 0.275 oz. gold per ton. Further up the hill from the Incline tunnel are found the ruins of an old arrastra, and a sample of the roasted quartz lying on a small dump beside the vein assayed 0.64 oz. gold per ton."



B.C. MINISTER OF MINES, 1934.

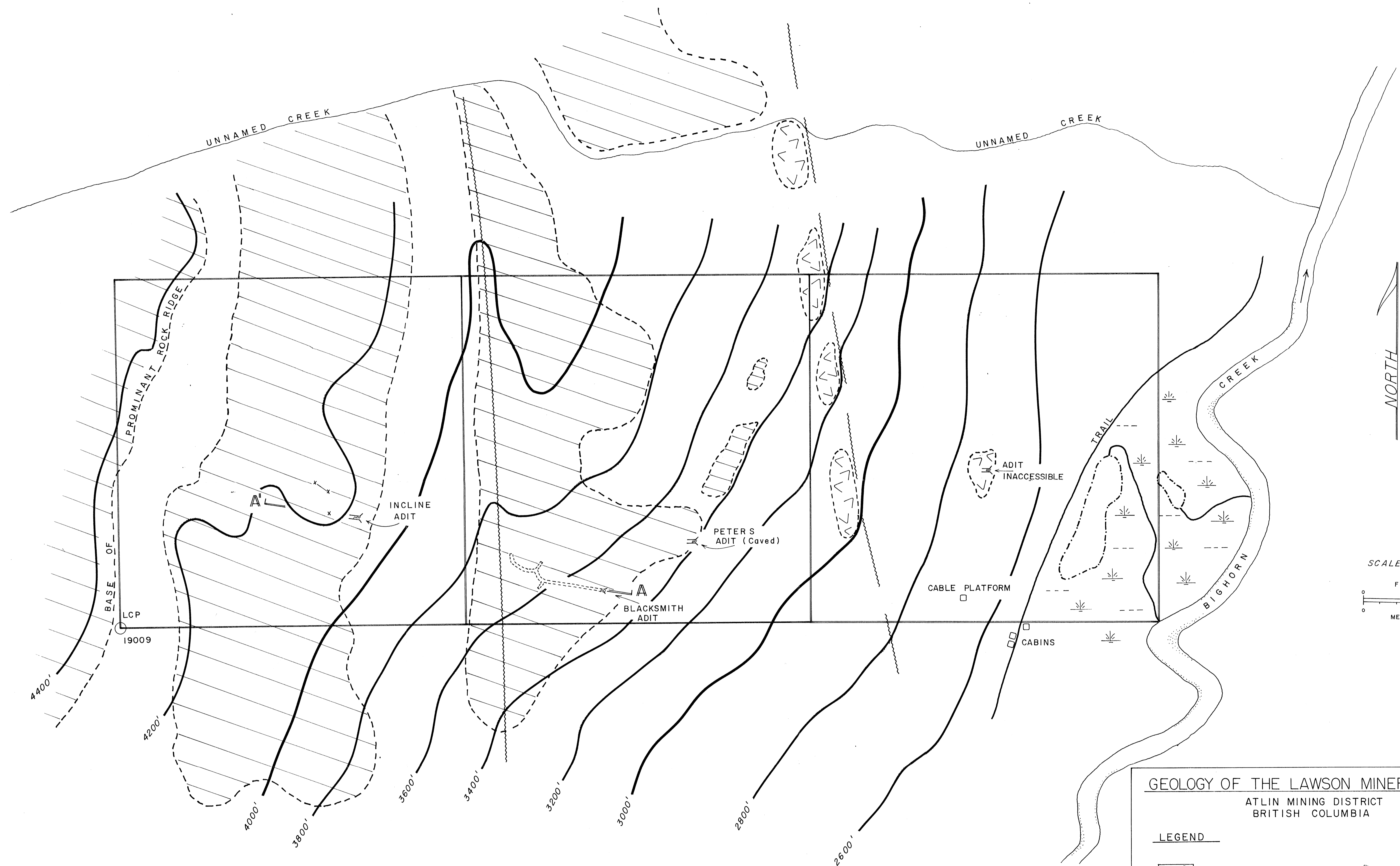
"At the time of examination, exploration was being carried out in three short adits. The "Incline" adit at elevation 4125 feet had advanced about 67 feet on the vein. A sample across 27 inches about 42 feet from the portal assayed: gold, 0.60 oz. per ton; silver, 0.80 oz. per ton; lead, nil; zinc, 2.4 percent. A sample across 51 inches at the face assayed: gold, 0.06 oz. per ton; silver, trace; lead, nil; zinc, 1.5 percent.

The "Blacksmith" adit at elevation 3540 feet had advanced 81 feet on the vein. A sample from this working across 30 inches, 42 feet from the portal, assayed; gold, 0.64 oz. per ton; silver, 0.80 oz. per ton; lead, trace; zinc, 3.0 percent. A selected specimen sample of a streak of fairly massive mineralization at about this point assayed: gold, 1.40 oz. per ton; silver, 0.80 oz. per ton; lead, 1.70 percent; zinc, 5.0 percent. A sample from the face across 22.5 inches on the foot-wall side assayed: gold, 0.04 oz. per ton; silver, trace. A sample across 31 inches on the hanging-wall side assayed: gold, 0.34 oz. per ton; silver, 0.60 oz. per ton; lead, nil; zinc, 2.2 percent.

The "Peters" adit at elevation 3370 feet parallels the vein for about 87 feet, where a crosscut to the south for 23

feet intersects the vein at 12 feet, showing a width of about 44 inches. A sample of the face across 44 inches assayed: gold, 0.04 oz. per ton; silver, 0.20 oz. per ton. A sample of three feet of wall-rock on either side of the vein at this face assayed: gold, 0.02 oz. per ton; silver, trace.

Systematic sampling of the workings at about the beginning of September by a reliable engineer is reported to indicate ore-shoots of about 0.31 oz. gold per ton grade across an average width of 3.0 feet. Length, attitude, and frequency of these will be determined by further exploration. Other veins are known on the property, but no work has been done on them."



NOTE: THE GEOLOGY OF THE LAWSON CLAIMS HAS BEEN DERIVED FROM SEVERAL MOUNTAIN TRAVERSES PLUS THE AID OF AIR-PHOTO INTERPRETATIONS.

REFER TO: DEPT. OF ENERGY, MINES & RESOURCES OTTAWA, ONTARIO  
 TOPOGRAPHIC MAP - FANTAIL LAKE, 104 M/9W  
 CASSIAR DISTRICT, B.C. SCALE 1:50,000

AERIAL PHOTOGRAPHY PRINTS  
 ROLL NO. A 11379: 358-363  
 A 11390: 377-381

**GEOLOGY OF THE LAWSON MINERAL CLAIMS**  
 ATLIN MINING DISTRICT  
 BRITISH COLUMBIA

Department of  
**Mines and Petroleum Resources**  
 ASSESSMENT REPORT  
 NO. 5910 MAP #3

**LEGEND**

HORNBLENDE GNEISS & SCHIST	UNDERGROUND WORKINGS
FELDSPAR PORPHYRY	ADIT WITH EXPOSED QUARTZ VEIN
ROCK OUTCROP	SHEAR ZONE WITH VEIN
TOPOGRAPHIC CONTOURS	CROSS SECTION (FIG. 4)
FAULT ZONE	SWAMP
FAULT (ASSUMED)	CLAIM BOUNDARY

*M.J. Cooper*

5910 M-3

FIGURE NO. 3

LAWSON MINERAL PROPERTY  
ATLIN MINING DISTRICT  
BRITISH COLUMBIA

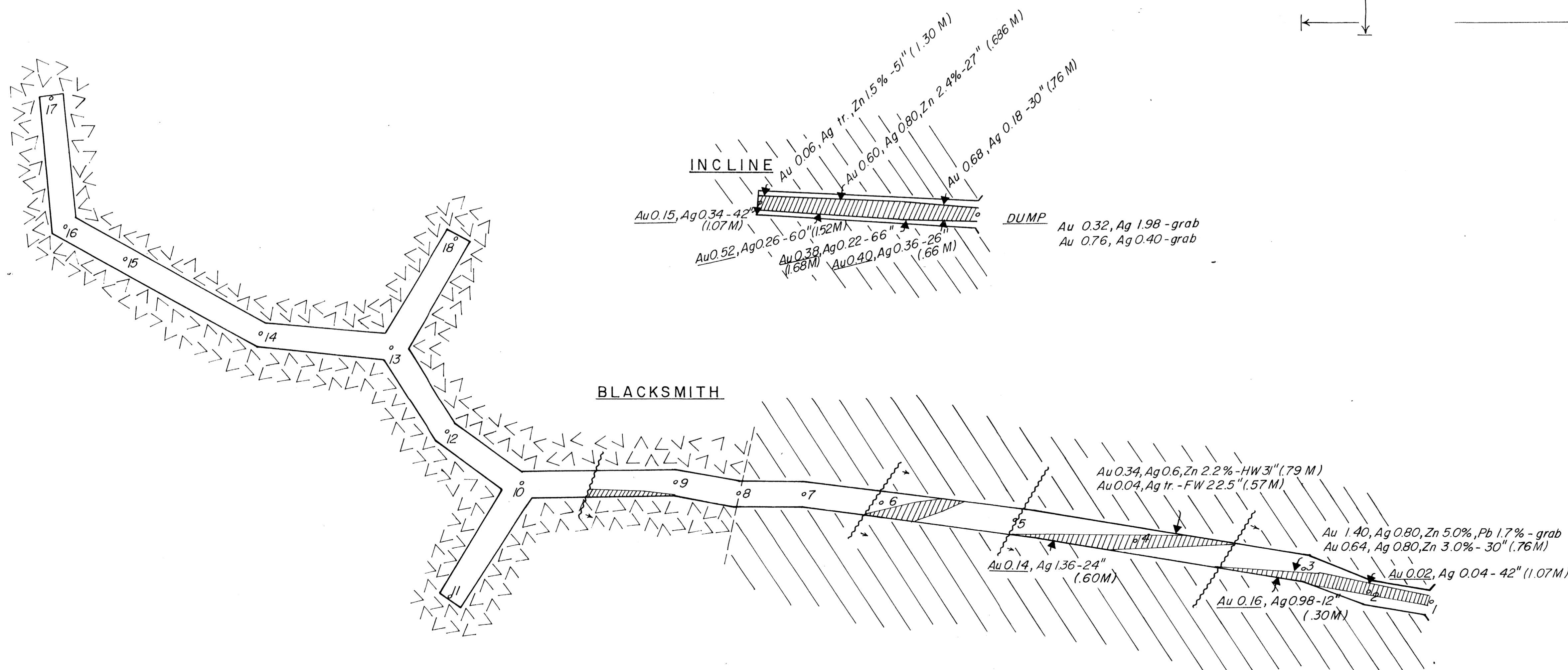
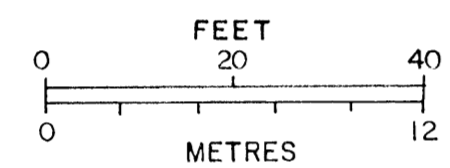
A"

A — 4400'

PLAN

INCLINE - BLACKSMITH ADITS

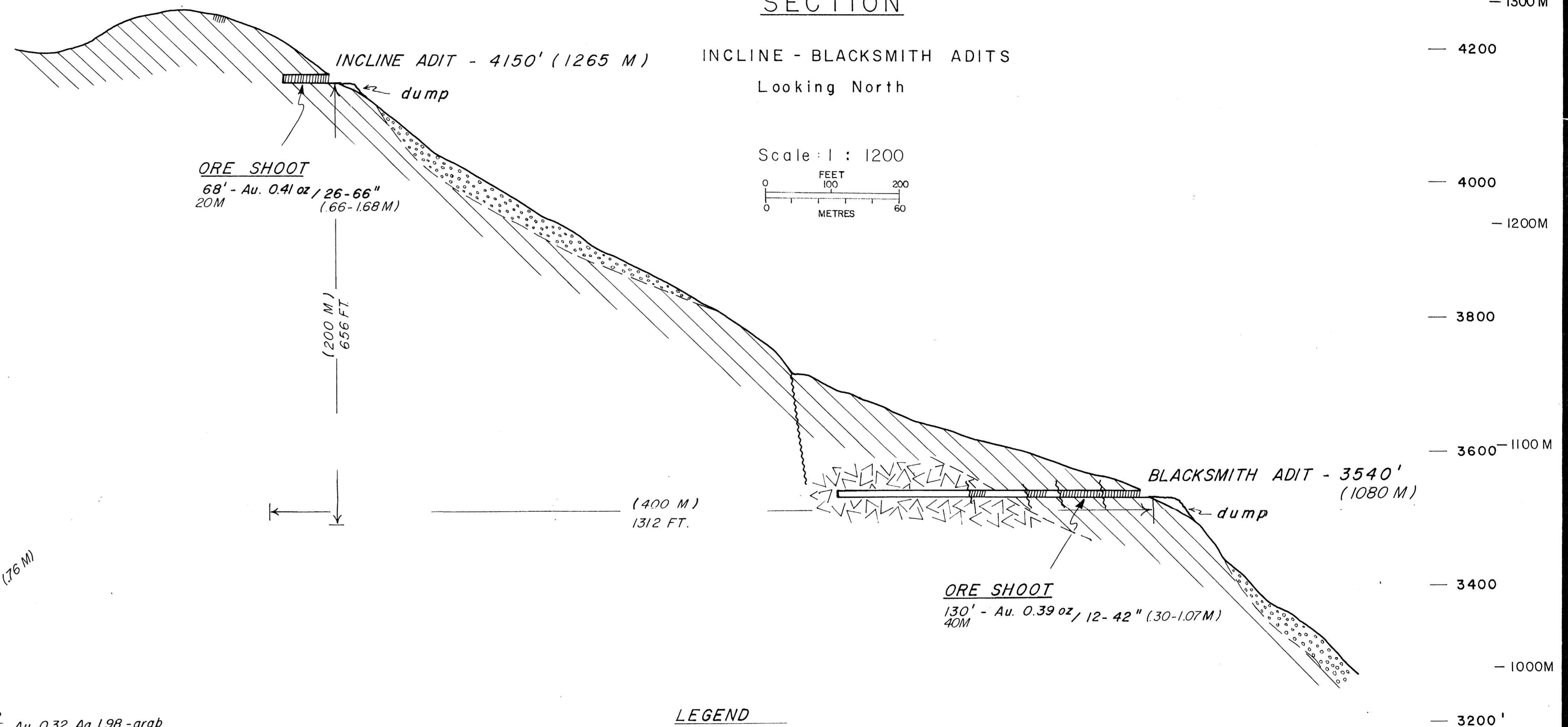
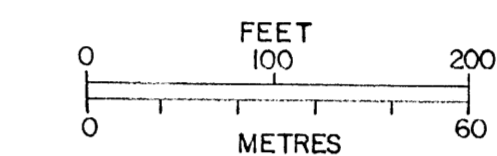
Scale: 1 : 240



SECTION

INCLINE - BLACKSMITH ADITS  
Looking North

Scale: 1 : 1200



LEGEND

- HORNBLLENDE GNEISS and SCHIST
- FELDSPAR PORPHYRY
- OVERBURDEN
- QUARTZ VEIN
- FAULTS, SHEARS
- GEOLOGICAL CONTACT
- SURVEY STATION
- ASSAY VALUE and WIDTH  
 Au - 0.34 oz / 11-24" (28-.60M) 1975

5910 M-4

M J Cooper

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 5910 MAP # 4

FIGURE 4