84-1160-13251 :2185

ASSESSMENT REPORT

A GEOLOGICAL REPORT ON THE

ORO 4 CLAIM
BEARSKIN LAKE AREA, B.C.
ATLIN MINING DIVISION
104K/1E

CO-ORDINATES
58°07' NORTH LATITUDE
132°13' WEST LONGITUDE

OWNER OF CLAIM

LOUIS MAJCEN 3732 Linwood Drive Burnaby, B.C., V5C 1N5

OPERATOR

LOUIS MAJCEN 3732 Linwood Drive Burnaby, B.C. V5C 1N5

CONSULTANT

HAROLD M. JONES, P.Eng. 721 - 602 West Hastings Street Vancouver, B.C.

AUTHORS

ROBERT H. SIMPSON, B.Sc. HAROLD M. JONES, P.Eng.

DATE: 12 September 1984

HAROLD M. JONES CONSULTING GEOLG VANCOUVER, B



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AUTHORS

ROBERT H. SIMPSON, B.Sc. HAROLD M. JONES, P.Eng.

DATE: 12 September 1984

GEOLOGICAL BRANCH ASSESSMENT REPORT

13,251

HAROLD M. JONES, P.ENG. CONSULTING GEOLOGIST

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SUMMARY

A reconnaissance geological mapping and sampling program was conducted between August 16-18, 1984 on Oro 4 claim, located in the Atlin Mining Division 71 km northwest of Telegraph Creek.

The property consists of one claim - Oro 4 - totalling 20 units. It is underlain by Pre-Upper Triassic sediments and volcanics which include greenstone, tuff breccia, and minor argillite, limestone and quartzite. All volcanic rocks are altered to the greenschist grade.

A number of tuffaceous units, well pyritized, are present on the claim. They are characterized by prominent iron gossans. Local areas contain numerous quartz and calcite veinlets.

One sample of altered tuff returned an assay of $0.066\ \text{oz/ton}$ gold.

It is concluded that the property is well mineralized and that, at one location, has low values in gold.

A detailed geological-geochemical program is warranted and recommended to assess the claim for its gold potential.

2

INTRODUCTION

A reconnaissance geological mapping and sampling program was carried out between August 16-18, 1984 on the Oro 4 claim located in the Atlin Mining Division.

The claim was staked in June 1983 as a result of Chevron Canada Resources Ltd.'s drilling activity on a strong gold geochemical anomaly located to the north in the Bearskin Lake area.

The 1984 program on th Oro 4 claim consisted of prospecting, sampling and geological mapping of the claim block. Data was plotted on a map on a scale of 1:10,000. A total of twenty-eight rock samples were taken and assayed for gold and copper. Two stream sediment samples were taken and assayed for gold, silver, copper, antimony and arsenic.

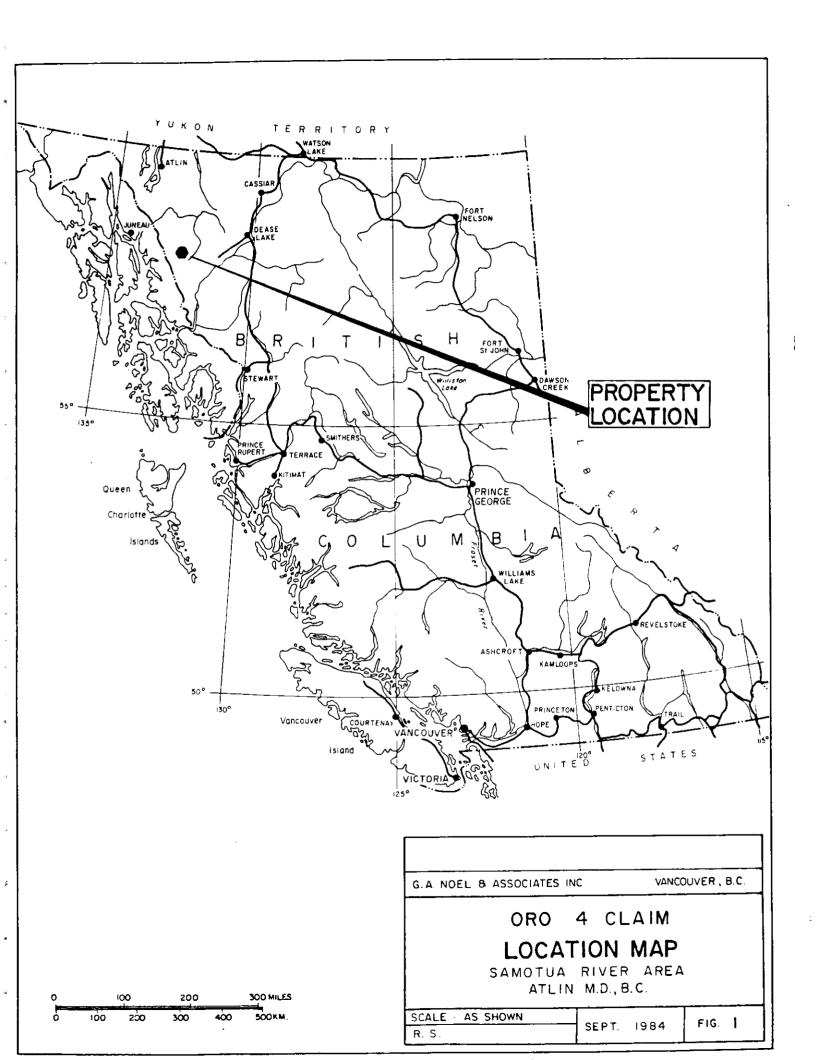
Traverses were run on the claim using a Brunton compass and a metric hip chain. Stations were marked using orange fluorescent flagging.

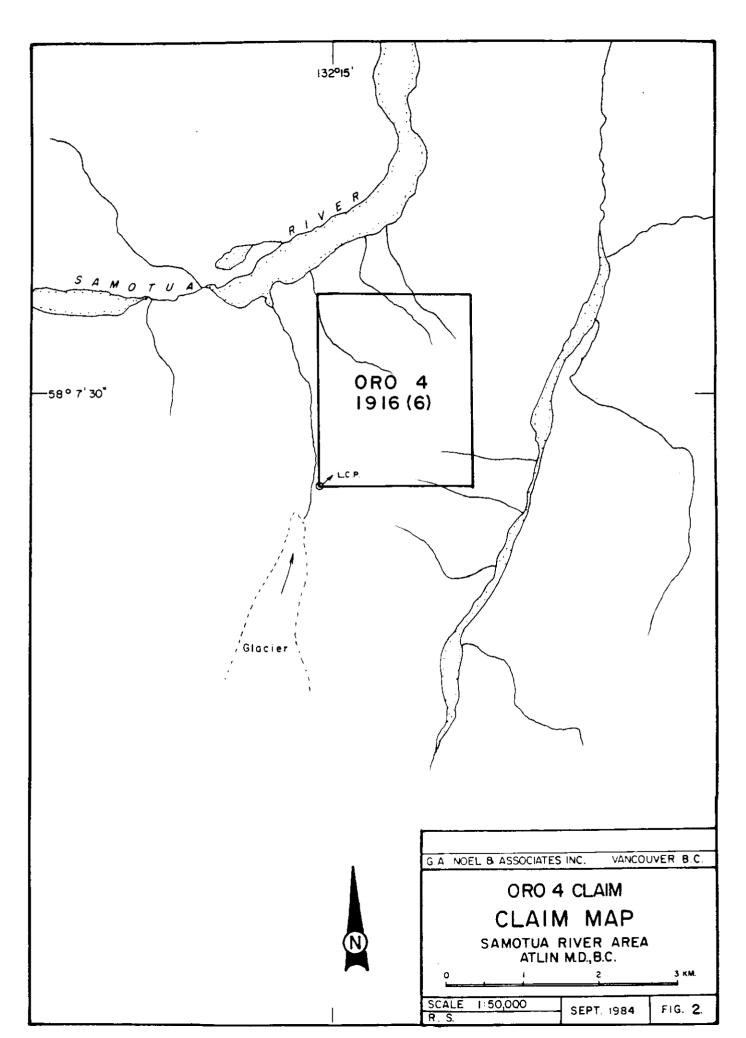
The above work on Oro 4 claim was conducted by one geologist and one assistant.

Location and Access

58⁰07' North Latitude) to the approximate 132⁰13' West Longitude) center of the claims

The Oro 4 claim is located in the Atlin Mining Division approximately 174 kilometers southeast of Atlin, B.C., and 71 kilometers northwest of Telegraph Creek, B.C. Locally, the claims are south of the Samotua River and east of its headwaters, lying on a





-

north-south-trending ridge. (Figure 1 & 2.)

Access to the property is by helicopter from Dease Lake, which is approximately 140 kilometers east of the claim.

Topography and Vegetation

The Oro 4 claim covers a north to northeast-trending ridge in very rugged mountainous terrain. Slopes are generally steep to precipitous with elevations ranging from 1000 to 1600 meters.

The property is almost entirely above tree-line. A valley bottom at the west boundary of the claim is forested.

Climate

The property is located in the Coast Range mountains at relatively high elevations. There is a heavy snow accumulation from October until April. Glaciers are common throughout the area.

Property

The property consists of one 20 unit claim. It is described as follows:

CLAIM	NAME	RECORD NO.	NUMBER (OF UNITS	RECORD DATE
Oro	4	1916	2	20	17 June 1983

The claim is owned by Louis Majcen, 3732 Linwood Drive, Burnaby, B.C. Any legal aspects pertaining to the claim is beyond the scope of this report.

History

There is no reported mining history in this area except for a copper occurrence located approximately 5 kilometers northwest of the claim block.

The Bearskin Lake area, located about 7 km north-northwest of the Oro 4 claim, became active in about 1982 when Chevron Canada Resources Ltd. commenced a gold exploration program in the district. They now hold a large block of claims located mostly north of Bearskin Lake. In 1983 and 1984 they conducted diamond drill programs on their claims.

In 1983, L. Majcen acquired the Oro 4 claim. This claim is thought to possibly cover a south extension of a fault along which gold mineralization is thought to be associated with on the Chevron ground.

In 1984 Dr.R.E. Kucera was contracted by Mr. Louis Majcen to make a photogeological study of the claim area. He identified several faults to the east of the property. He could not identify any major features on the claims due to the small scale of the air photos.

Placer Development Ltd. examined the Oro 4 claim several days before the writer. Their sample sites were seen in the field.

GEOLOGY

General Geology

In the general area of the property, Permian sediments and Pre-Upper Triassic sediments and volcanics are intruded by plutons of Coast Intrusions. Within the claims area only the Pre-Upper Triassic rocks are present. These include fine-grained clastic sediments and intercalated volcanic rocks, largely altered greenstone and phyllite, chert, jasper, greywacke and limestone. (Souther 1971.)

Property Geology

The intercalated volcanic-sedimentary package on the Oro 4 claim consists of tuffs, tuff breccias and andesitic flows.

These rocks trend northwesterly, dip $15-17^{\circ}$ NE and exhibit a prominent vertical slatey cleavage. The tuff units are fine-grained, silicified, and contain appreciable disseminated pyrite. Shear zones and contacts within the unit weather to orange-brown gossans.

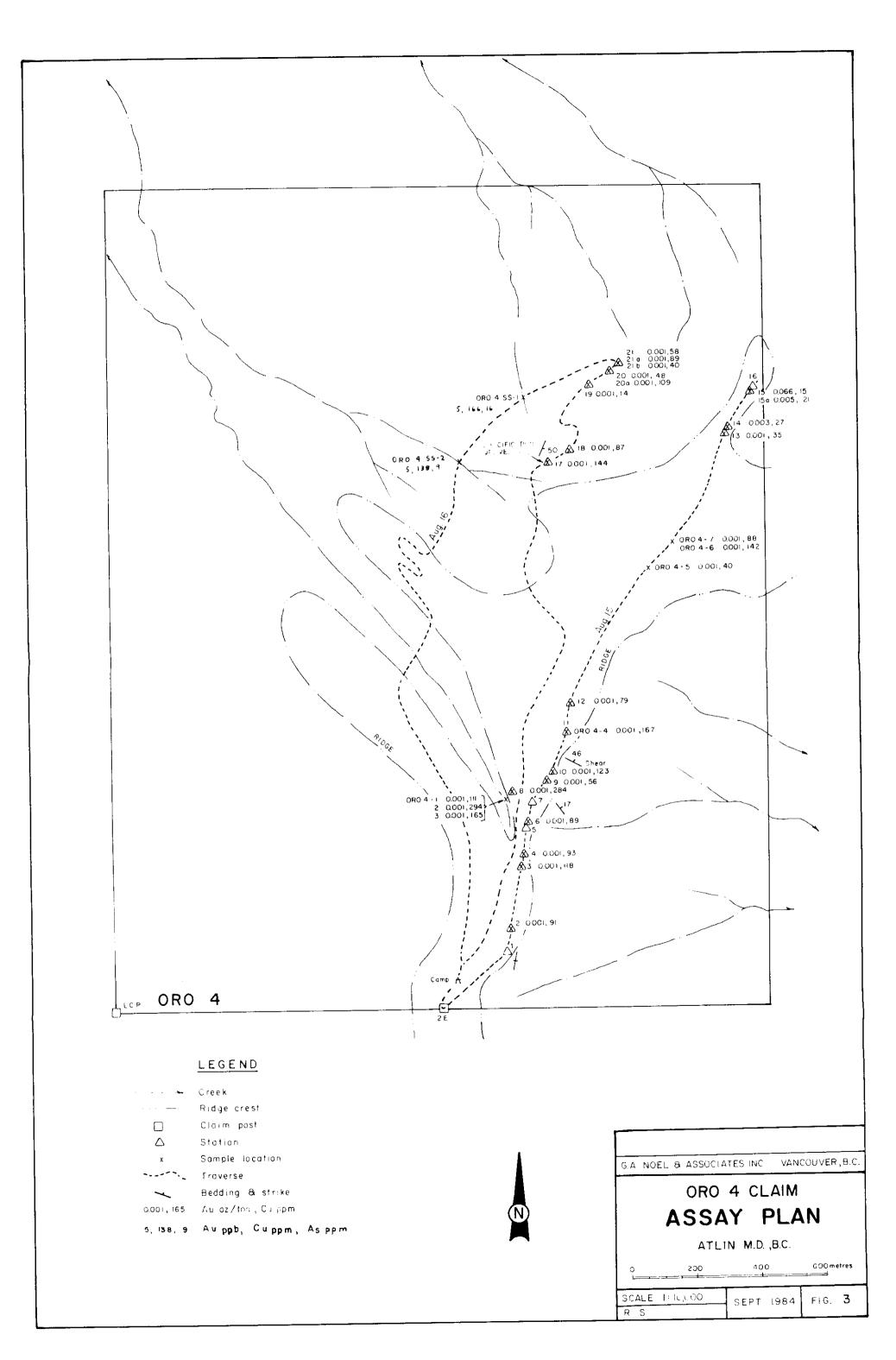
The andesitic flows are generally medium-grained, and have undergone greenschist grade metamorphism, thus obscuring much of the original textures.

Quartz and calcite occur as veinlets cutting many of the rock units and are the main alteration minerals. A large quartz vein structure (1 meter thick) trending north and dipping 50° E occurs in the north central area of the claim block (Station 17) (Figure 3). This vein weathers to a pale brown color and is barren of any sulfides.

GEOCHEMISTRY AND ASSAY RESULTS

Traverses were run on the Oro 4 claim between August 16 and 18. Rock samples were taken of the volcanic-sedimentary package in areas of gossans and/or alteration. A total of 29 samples were taken over the claim area (Figure 3). They were sent to Acme Analytical Laboratory, 852 East Hastings Street, Vancouver, B.C. to be assayed for gold (by fire asay) and copper (geochemically).

The following is a table of all samples and their assay results:



Samples and Assays

Sample No.		Туре	Assay Au Oz/Ton	Cu p pn	Description
Oro #4-1	14711	Grab	0.001	111	Quartzite (Sheared)
Oro #4-2	14712	Grab	0.001	294	Dark grey, brown weathering silicified tuff, disseminated pyrite throughout
Oro #4-3	14713	Grab	0.001	165	Dark green, fine-grained tuffs, disseminated pyrite throughout
Oro #4-4	14714	Grab	0.001	167	Dark grey, fine-grained tuffs
Oro #4-5	14715	Grab	0.001	40	Silicified, brecciated, highly hematized rock
Oro #4-6	14716	Grab	0.001	142	Brown weathering, oxidizing andesite
Oro #4-7	14717	Grab	0.001	88	Brown weathering, alterd andesite
Station 2	14718	Grab	0.001	91	Brown weathering, pale brown to grey, silicified, weakly lamin-iated tuff
Station 3	14719	Grab	0.001	118	Brown weathering, silicified quartzite, trace pyrite
Station 4	14720	Grab	0.001	93	Muddy, altered tuffs, brown weathering with qtz. veinlets and traces pyrite
Station 6	14721	Grab	0.001	89	Rusty brown weathering, sheared, silicified tuff
Station 8	14722	Grab	0.001	284	Pale grey-grey brown weathering andesite with diss. pyrite on fractures
Station 9	14723	Grab	0.001	56	Alterd flow tuff breccia (shear), mottled, vari-colored
Station 10	14724	Grab	0.001	123	Andesite with minor disseminated pyrite

HAROLD M. JONES, P.ENG. CONSULTING GEOLOGIST

Station 12 14725	Grab	0.001	79	Altered meta-sediment with quartz veinlets running through it
Station 12a 14726	Grab	0.001	154	Limonite-rich, altered sediment
Station 13 14727	Grab	0.001	35	Silicified zone, pyrite blebs stringers and disseminations
Station 14 14728	Grab	0.003	27	Disseminated pyrite in a sheared, silicified tuff
Station 15 14729	Grab	0.066	15	Pale brown weathering, tuff, disseminated pyrite
Station 15a 14730	Grab	0.005	21	Sheared, silicified zone, specular hematite occurring as blebs and stringers, coarse calcite in cavities
Station 17 14731	Grab	0.001	144	Brown, fine-grained altered tuffs, hematite coated, quartz veinlets
Station 18 14732	Grab	0.001	87	Brown, fine-grained tuffs, quartz stringers
Station 19 14733	Grab	0.001	14	Quartz vein with hematite coating
Station 20 14734	Grab	0.001	48	Quartz vein with hematite coating
Station 20a 14735	Grab	0.001	109	Fine-grained tuffs with sulfide veinlets and trees of chalcopyrite
Station 21 14736	Grab	0.001	58	Dark grey, fine-grained laminated tuff
Station 21a 14737	Grab	0.001	89	Pale grey-brown tuff with diss. pyrite of fracture planes
Station 21b 14738	Grab	0.001	40	Silicified argillite with pyrite veinlets cutting through it.

MINERALIZATION

The tuffaceous sediments of the Oro 4 claim exhibit brilliant orange-brown gossans. These are for the most part due to the weathering out of pyrite and the precipitation of iron carbonates on the surface of the rock.

Specular hematite occurs at Station 15 (Figure 3) and is possibly related to a minor northwest-trending gouge or shear zone.

An assay value of 0.066 ounces per ton gold was obtained from a sample of tuff situated adjacent to Station 15 from an outcrop with minor veinlets and disseminations of hematite. The gold value may be related to the mineralized outcrops.

Placer Development Ltd. did a traverse over Oro 4 and their sample results confirm a weak gold anomaly in the vicinity of Station 15.

Further work should be done in the area to delineate the extent of the above mineralization.

CONCLUSION

It is concluded that, while only a small part of the claim was examined, the property is well mineralized. Evidence for this is the presence of a number of tuffaceous units, well pyritized, now marked by prominent iron gossans.

One sample of altered tuff returned an assay of 0.066 oz/ton gold. While this is a low value, it indicates that gold is present in the altered tuffs.

It is concluded that additional work is warranted to

explore the claim for gold mineralization.

RECOMMENDATION

It is recommended that detailed geological mapping, soil and rock sampling be conducted on the Oro 4 claim to delimit areas of gold mineralization.

Respectfully submitted,

Robert H. Simpson, B.Sc.,

Harold M. Jones P. Eng

REFERENCES

Kucera, R.E. - and - McRae, R. (1984)

Photogeologic Interpretation of the Oro No. 1-3 and Oro No. 5-12 Claims, Atlin Mining Division, B.C. - private report for Sage Resources Ltd.

Souther, J.G. (1984)

Geology ad Mineral Deposits of Tulsequah Map Area, British Columbia; Geological Survey of Canada, Memoir 362

CERTIFICATE

- I, Robert Simpson, of 316 1730 Pendrell Street, Vancouver, British Columbia, hereby certify:
- 1. I am a graduate of the University of Ottawa (1979) and hold a B.Sc., Honours degree in geology.
- 2. I have been working in the mining industry for the past 5 years in Canada, United States and Australia.
- I am presently self-employed and do contract work for G.A. Noel & Associates Ltd. of 721-602 West Hastings Street, Vancouver, B.C.

Robert H. Simpson, B.Sc.

12 September 1984

CERTIFICATE

- I, Harold M. Jones, of the City of Vancouver, British Columbia, do hereby certify that:
- 1. I am a Consulting Geological Engineer with offices at 721-602 West Hastings Street, Vancouver British Columbia.
- 2. I am a graduate of the University of British Columbia in Geological Engineering, 1956.
- 3. I have practised my profession as a Geological Engineer for over 25 years.
- 4. I am a member of the Association of Professional Engineers of British Columbia, Registration No. 4681.
- I have not examined the subject property, but have reviewed the results of the field program and the data listed under references in this report. Mr. R. Simpson, geologist, conducted the field work under my direction.

DATED AT VANCOUVER, BRITISH COLUMBIA this 12 th day of September 1984.

Harold M. John Des P Eng.

VALUATION OF WOPK - ORO No. 4 MINERAL CLAIM, ATLIN MINING DIVISION

i. Preliminary Geologic Investigation - May 1, 1984 to June 1, 1984 i) Photogeologic Interpretation (See Report in Appendix) ii) Aerial Photographs and maps iii) Enlargement of Aerial Photo to 36*x36" for field work	\$	400.00 10.00 50.95
2. Geological Feconnaissance, Mapping and Sampling- August 16 to 18,	1984	<u>4</u>
i) Travel - Sharing Cargo Van - \$405.79 Sharing Helicopter 388.00		
ii) Meals, Provisions and Supplies - 120.45		
iii) Geologist in Field and travelling, 4 mandays - 800.00		
iv) Assistance to Geologist, 7 mandays at \$80.00 - 560.00		
v) Engineering Report - 1408.20	\$	3,682,44
3. Examination of Property by Placer Development Ltd August 9 to	11,	1984
i) Salary and Benefits (Two Geologists) -\$1,650.00		
ii) Air Fares - 1,097.00		
iii) Taxiis, Motel, Meals etc - 399.00		
iv) Frontier Helicopter Rental - 1,164.00		
v) Sample Assay Charges: (18 Rock & 2 Stream Sediment samples) - 332.00	\$	4,642.00
TOTAL	\$	8,785.39

AFFIDAVIT SUPPORTING SUMMARY OF COSTS

I, Louis Majcen of 3732 Linwood Street, Burnaby, British Columbia, do hereby state, that to the best of my knowledge, the statement of costs in this report, is a true account of the expenditures incurred on the ORO No. 4 Mineral Claim, situated in the Atlin Mining Division of British Columbia.

Signed: Louis Majcen

Date: NOV 16 1984

APPENDIX I

TITLE PAGE

This Report covers a Photogeologic Interpretation of the OFO No. 4 Claim (20 modified grid units), in the Atlin Mining Division of British Columbia, as a preliminary investigation for assessment purpose, for the assessment year June 17, 1983 to June 17, 1984.

LOCATION OF CLAIM

Atlin Mining Division

N.T.S. 104K/1E

132° 13' longitude west 58° 7' latitude north

OWNER OF CLAIM

Mr. Louis Majcen

3732 Linwood

Burnaby B.C. V5C 1N5

OPEFATOF

Mr. Louis Majcen

3732 Linwood

Burnaby B.C. V5C 1N5

CONSULTANT

Richard E. Kucera, Ph. Γ.

AUTHOR

Richard E. Kucera, Ph. D.

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June 4, 2984

Mr. Louis Majcen, 3732 Linwood, Burnaby, B.C. V5C 1N5

Mr. Majcen:

In accordance with your instructions, the writer has prepared and submits herewith the ensuing report on your ORO No. 4 mineral claim, located south of the Samotua River, in the Atlin Mining Division of British Columbia, This report is a photogeologic interpretation of the claim from aerial photographs obtained from the Provincial Government in Victoria.

SUMMARY:

This Claim Block is located in a large area of Pre-Upper Triassic sediments and Triassic diorites, south of Tetsamenie Lake. Regional scale faulting is common in the area. The two main strike orientations of the regional faulting are northwest-southeast and north-south.

LOCATION AND ACCESS:

The ORO No. 4 claim is situated at approximately 132° 13'west longitude and 58° 7' north latitude, just southeast of Samotua River. (Refer to Mineral Titles Map 104K/1E). The claim block is 174 Km southeast of Atlin, B.C. and 71 Km northwest of Telegraph Creek, B.C.

Access is by fixed wing aircraft from Dease Lake or Telegraph Creek, or by helicopter from Dease Lake, approximately 140 Km to the east.

PROPERTY:

The property consists of 20 modified grid units, staked in June 1983. The name of the claim, record number and record date is shown below:

Claim Name	No. of Units	Record No.	Record Date
ORO 4	20	1916	June 17, 1983

PHYSICAL FEATURES AND CLIMATE:

This area in the Atlin Mining Division is rugged mountainous country ranging in elevation from 1000 meters to 1600 meters and occupies the drainage divide between the Samotua Fiver and the river to the south. Usable timber is found to about 1000 meter elevation, above this elevation vegetation is sparce. Glacial ice often covers the north facing slopes at higher elevation. There is heavy snow accumulation from October to April. This results in a relatively short field season, lasting from mid-May to mid-September. The weather is unpredictable. Hot, dry spells can last for weeks during the summer, but low clouds and rain can move in very quickly and persist for days.

HISTORY AND PREVIOUS WORK:

A number of companies and individuals, including several major companies have explored the area over the years, and a number of relatively important mineralized discoveries have been made, however, there are no producing mines in the area at present. During the last couple of years, Chevron Canada Resources Ltd. has been exploring an area just north of Bearskin Lake, which indicated good gold, arsenic and antimony geochemical soil values, according to Assessment Peport No. 10,754 filed in November, 1982. Chevron is reportedly diamond drilling in this area.

PHOTOGEOLOGIC INTEFPRETATION OF ORO No. 4 CLAIM:

Photographs used in this study included flight line BC 82017, oriented in an E-W direction; photo numbers 214, 215, 216 and 217. Owing to scale variations caused by relief of the terrain, it should be noted that some parts of the landscape within a single photograph will be shown at different scales. Calculations indicate that terrain at 1250 meter elevation on the photographs will have a scale of about 350 m/cm, whereas ridge crests at elevation of 1800 meters will have a scale of about 250 m/cm.

Regional Geology

The ORO No. 4 claim block is located in a large area of Pre-Upper Triassic clastic sediment and intercalated volcanic rocks, mainly altered to phyllite and greenstone. Massive limestone is exposed in a stream valley 2 Km northwest of the claim block. Strongly foliated crystalline diorite displays a discordant contact with greenstone and phyllite two Km north of OPO No. 4 on both sides of Samotua River Valley.

Structure

Regional-scale faulting is common in the area as evidenced by air photo lineaments. A major northeast trending fault follows the stream valley east of ORO No. 4 claim and appears to terminate along the axis of an anticline. Two minor west to northwest trending fractures can be discerned on the east side of the claim.

The axis of a northeast-southwest trending anticline coincides with the alignment of the stream valley, northeast of ORO 4. Permian limestone is exposed in the core and is flanked by successively younger members of Pre-Upper Triassic sediments.

CONCLUSIONS

A photogeologic study such as this would be greatly enchanced by checking certain stratigraphic and structural features in the field. Some rock units i.e., intrusive rocks and massive limestone are easily discernable in the stereomodel, whereas differentiation of phyllite and greenstone is difficult because of their somewhat similiar photo characteristics. Unfortunately, the scale of the photographs did not permit the examination of subtle features that might be important to the investigation, i.e., the minor folds and fractures in the Pre-Upper Triassic rocks. Only larger lineamonts such as faults have been mapped.

Richard E. Kucera, Ph. D.

Dr. R. E. KUCERA

CERTIFICATE OF QUALIFICATIONS

- I, Richard E. Kucera, certify:
- 1. That I am a Consulting Geologist at 845 Hendecourt, North Vancouver, B.C.
- 2. That I am a Fellow of the Geological Association of Canada, and a member of the Geological Society of America.
- 3. That I hold B.Sc. and M.Sc. degrees from Ohio State University, and a Ph. D. from the University of Colorado, U.S.A.
- 4. That I have been practicing my profession as a Geologist for over 25 years.
- 5. That I personally carried out the photogeologic interpretation on the ORO Claims as described in this report.

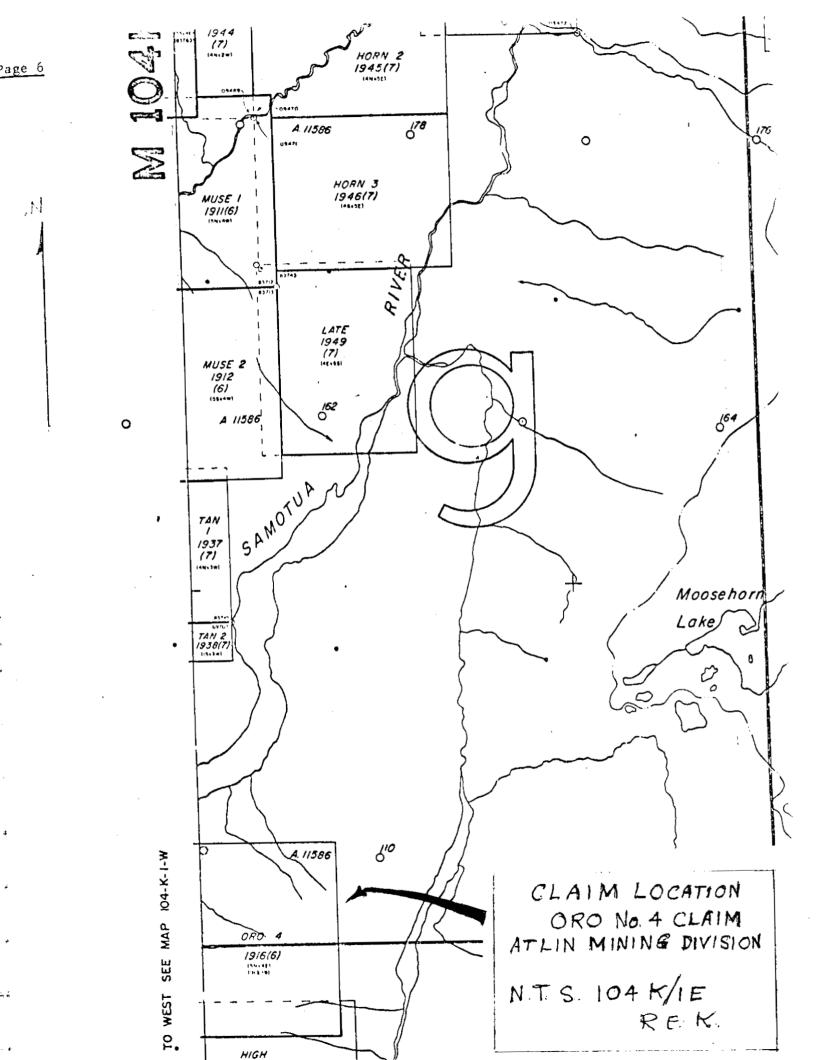
Dated at Vancouver, British Columbia, this 4th day of June 1984

Philad E. Kucera, Ph.D.

Dr. R. E. NUGERA



PLACE-FIX 30 N.TS. 104K 15



VALUATION OF WORK

Preliminary Geologic Investigation

May 1, 1984 to June 1, 1984

Photogeologic Interpretation of Aerial Photographs and Report, pertaining to OFO No. 4 Mineral Claim	\$ 400.00
Maps	10.00
Enlargement of Aerial Photo to 36"x36" for Field Work	50.95
Total	\$ 460.95

AFFIDAVIT SUPPORTING SUMMARY OF COSTS

I, Louis Majcen of 3732 Linwood Street, Burnaby, B.C., do hereby state that, to the best of my knowledge, the statement of costs in this report, is a true account of the expenditures incurred on the OPO No. 4 mineral claim, situated in the Atlin Mining Division of British Columbia.

Louis Majcen

JUNE 13, 1984

Date

APPENDIX II

ACME ANALYTICAL LABORATORIES LTD. 852 E.HASTINGS ST.VANCOUVER B.C. V6A 1R6 PHONE 253-3158 DATA LINE 251-1011

DATE RECEIVED:

DATE REPORT MAILED: Aug 28/84

ASSAY CERTIFICATE

.500 GRAM SAMPLE IS DISESTED WITH 3ML 3-1-3 HCL-HN03-H20 AT 95 DEG. C FOR DNE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN.FE.CA.P.CR.MG.BA.TI.B.AL.NA.K.W.SI.ZR.CE.SN.Y.NB AND TA. AU DETECTION LIMIT BY ICP IS 3 PPM. - SAMPLE TYPE: ROCK CHIPS - QUIT BY FIRE ASSAY

ASSAYER: ALLIA. DEAN TOYE. CERTIFIED B.C. ASSAYER

G.A. NOEL

FILE # 84-2255

PAGE 1

SAMPLE#

CU AU** PPM DZ/T

14711 14712 14713 14714 14715	111 294 165 167 40	.001 .001 .001 .001
14716 14717 14718 14719 14720	147 88 91 119	.001 .001 .001 .001 .001
14701 14722 14723 14724 14725	96 284 54 127 76	.001 .001 .001 .001
14725 14727 14728 14729 14730	154 55 27 15	.001 .001 .007 .066
14701 14700 14700 14704 14700	144 87 14 48 109	.001 .001 .001 .001
14776 14737 14738 STD C	58 99 40 59	,001 ,001 ,001

G.A. NOEL FILE # 84-2206 PAGE 3

SAMPLE# CU AG AS SB AU*
FPM PPM PPM PPM PPB

ORO-4 SS-1 166 .2 16 2 5 ORO-4 SS-2 138 .1 9 2 5

13.∰

4

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