

Diamond Drill Report on the
Alva Mineral Claim Group (Alva 1-8)

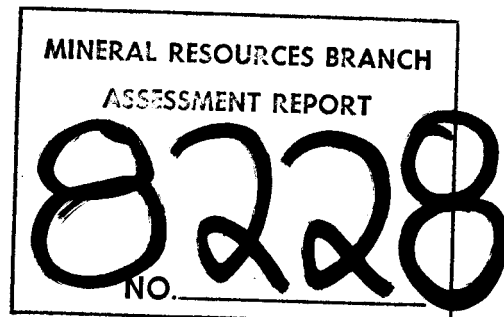
TRAIL CREEK ~~Nelson~~ Mining Division

Nov. 1979

82 F / 4 W

49° 05' N

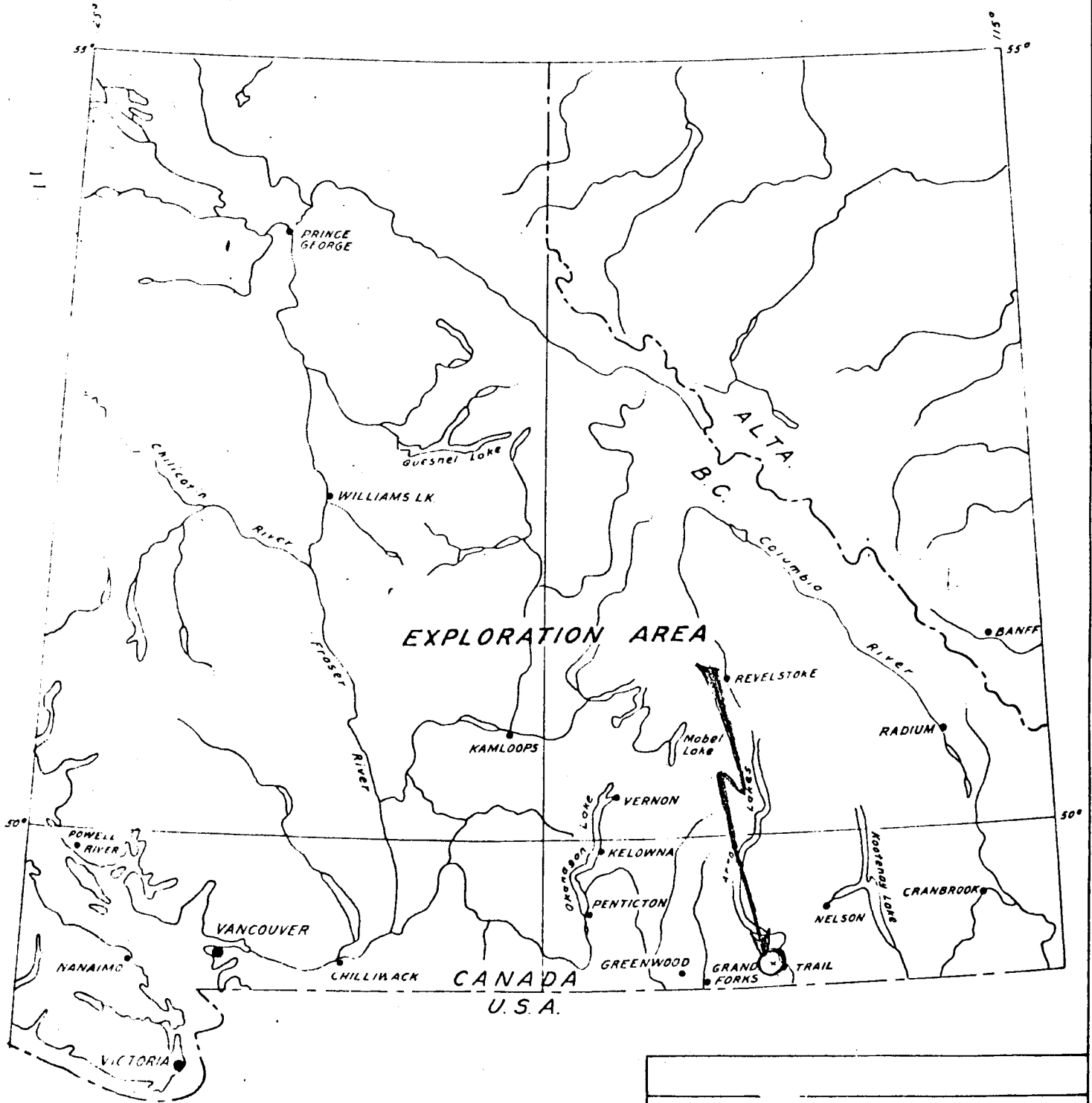
117° 51' W



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Owner of claims - Ray HUTCH - Box 460 - Brooks, Alaska

Figure 1	Location Map
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In Pocket	Claim Map and DDH Location Program Cost Receipts



SOUTHERN BRITISH COLUMBIA
 LOCATION MAP
 EXPLORATION PROJECT
 ROSSLAND AREA

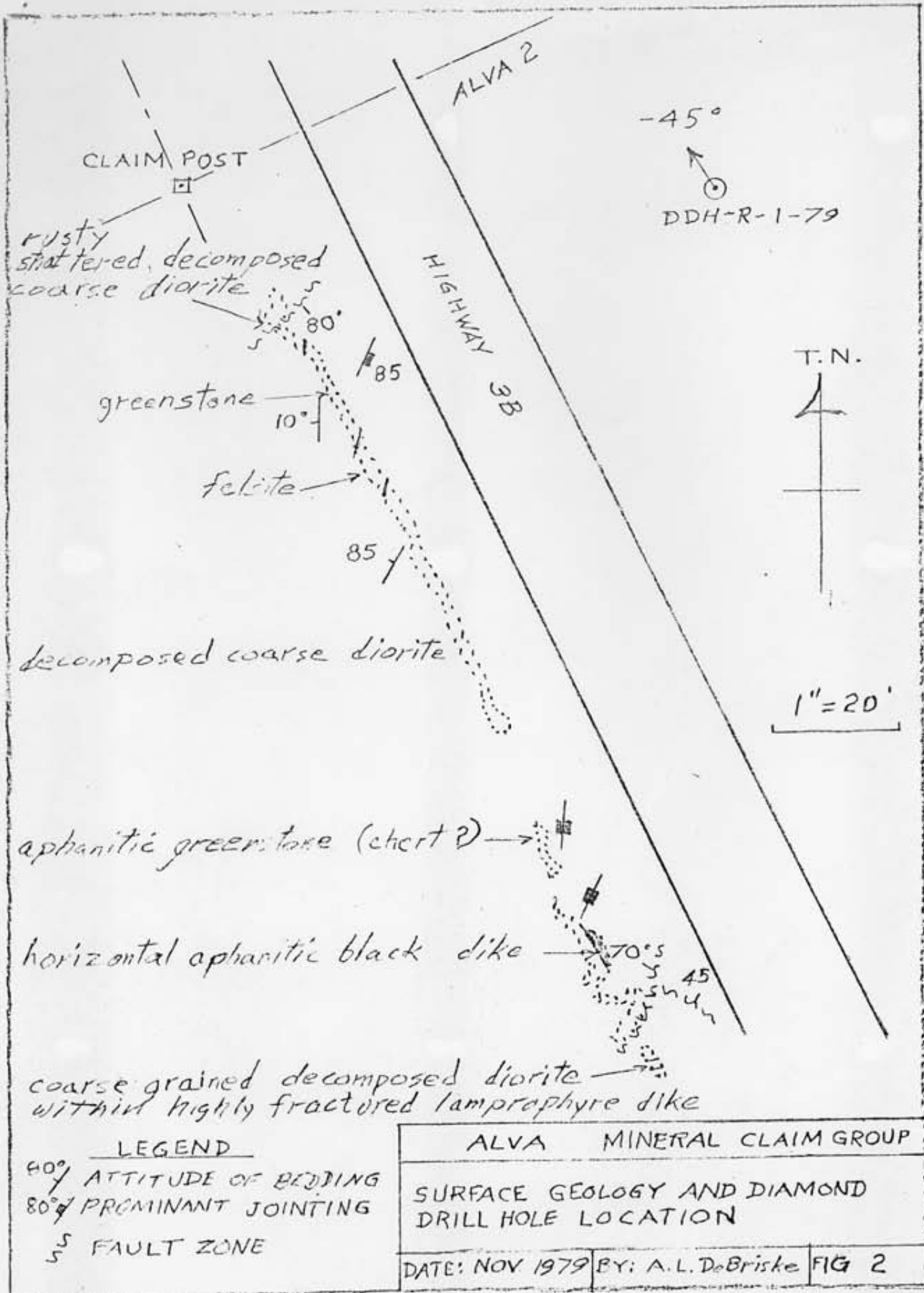
RESEARCH BY

A.L. DeBriske

DATE
 NOV 1979

SCALE
 1" = 64 miles

FIGURE NO.
 1



rusty striated, decomposed coarse diorite

greenstone

felsite

decomposed coarse diorite

aphanitic greenstone (chert?)

horizontal aphanitic black dike

coarse grained decomposed diorite within highly fractured lamprophyre dike

LEGEND

- 80° ATTITUDE OF BEDDING
- 80° PROMINANT JOINTING
- S FAULT ZONE

ALVA MINERAL CLAIM GROUP	
SURFACE GEOLOGY AND DIAMOND DRILL HOLE LOCATION	
DATE: NOV 1979	BY: A.L. DeBriske FIG 2

Report on the Alva Mineral Claim Group

This report includes geological logging of diamond drill core from DDH R-1-79 and mapping of nearby outcroppings. The purpose for drilling was to examine an area of an airborne magnetic low where metallic mineralization was previously noted.

The elevation of the drill hole collar is approximately 5200 feet above sea level.

The diamond drill core will be stored in Brooks Alta. Canada.

Access

The property straddles provincial highway 3B at the headwaters of Murphy creek which is approximately nine miles northerly from Rossland B.C., Canada.

Diamond Drill Core Log Alva Mineral Claim Group

Nelson Mining Division

DDH-R-1-79

Posting Map Coordinates: Latitude 49°5' Longitude 117°51'

Drill Hole Angle: -45° Azimuth: 330°

Core Size: BQ Wireline

<u>Footage</u>	<u>Description</u>
0-14	Overburden
14-91	Coarse grained diorite; 45', 90'-91' moderate fracturing; 90' minor serpentinized fracture 40° to c.a. (Core axis); 73'6" minor lime reaction; 66', 88' moderate magnetic attraction.
91-98	Coarse grained diorite, extensively serpentinized with moderate fracturing; 94'6" thin calcite bands 40° to 60° to c.a.; 92'-93' minor lime reaction; 94'6" moderate magnetic attraction.
98-115	Aphanitic breccia grading to coarse granodiorite; 90'-106' moderate fracturing; 106'-109' strong fracturing; 100'-105' fractures, chlorite and calcite bands 10°-30° to c.a.; 105'-115' chloritic foliation in severely shattered zone 30°-90° to c.a.; 100'-110' moderate lime reaction.
115-148	Coarse grained granodiorite; 130', 146'-148' moderate fracturing; 124', 145'-148' minor lime reaction; 121', 134' moderate magnetic attraction.
148-154	Aphanitic to fine grained argillite; 154' moderate fracturing at transition zone; minor lime reaction throughout, noticeably in fractures.
154-158	Fine grained augite porphyry with minor calcite banding 30°-70° to c.a.; minor lime reaction throughout.
158-170	Aphanitic to fine grained argillite; 155'-170' minor calcite banding 30°-70° to c.a.; 165' contact 30° to c.a.; minor lime reaction throughout.
170-187	Coarse grained silicified porphyritic granodiorite; 187' moderate to strong fracturing around contact; minor lime reaction throughout, noticeably in fractures.
187-201	Highly altered fine to coarse grained dark breccia; 190'-193' minor calcic banding 60°-70° to c.a.; 199-201 moderate fracturing; minor lime reaction throughout, noticeably in fractures.
E.O.H.	End of Hole

Notes on DDH-R-1-79, Alva Mineral Claim Group, Nelson M.D.

Scheelite Fluoresence

- Minor disseminated scheelite in coarse grained diorite and only an occasional trace in the remainder.
- Obvious scheelite fluoresence noted at 66', 73'6", 74', 88', 94'6", 106'.

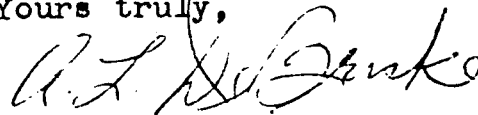
Scintillometer scanning showed a very slight rise above neutral background from 169' - 171'.

Qualifications

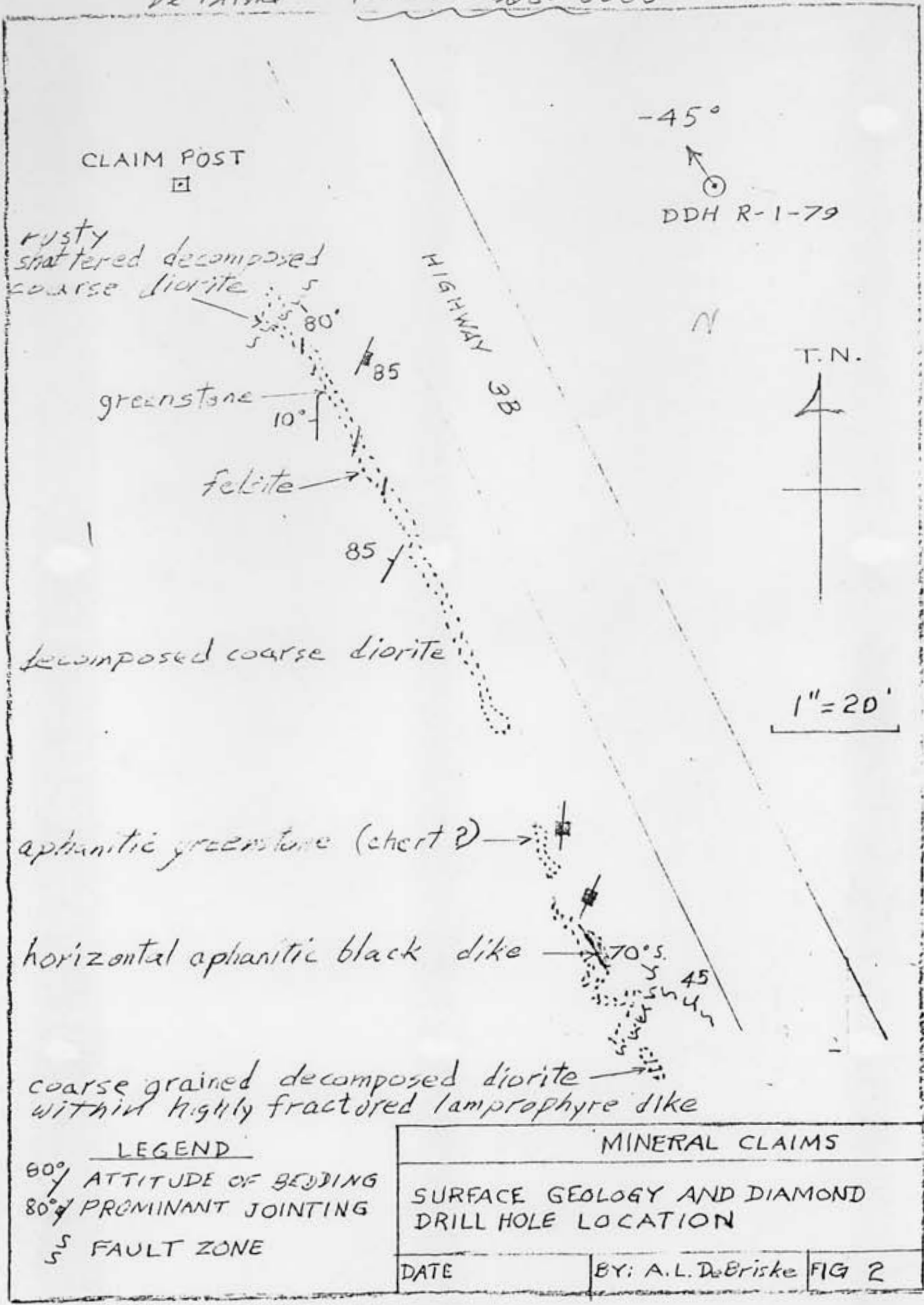
I have a B.Sc degree in geology obtained from The University of British Columbia in 1964.

I have been involved in the mining business regularly since 1964.

Yours truly,



(A.L. DeBriske)



CLAIM POST

-45°
DDH R-1-79

rusty
shattered decomposed
coarse diorite

HIGHWAY 3B

greenstone

felcite

decomposed coarse diorite

aphanitic greenstone (chert?)

horizontal aphanitic black dike

coarse grained decomposed diorite
within highly fractured lamprophyre dike

LEGEND
80° ATTITUDE OF BEDDING
80° PROMINANT JOINTING
S FAULT ZONE

MINERAL CLAIMS	
SURFACE GEOLOGY AND DIAMOND DRILL HOLE LOCATION	
DATE	BY: A.L. DeBriske FIG 2

180-21246-11

TABLE OF CONTENTS

RE: ALVA CLAIMS 1 TO 8 INCLUSIVE

Trail Creek
NELSON MINING DIVISION

1.	Ron Cochron attended claim site with driller 5 days - site preparation and water haul No claim for costs	-
2.	Drilling	5,097.00
3.	Assay Costs	215.00
	Assay Costs	125.00
4.	Diamond Drill Report	150.00
5.	Sundry costs - phone, mailing, bank costs on wiring funds	<u>25.00</u>
		<u>5,612.00</u>

Submitted by R. Hutch

March 31, 1980

Hutch

\$5,612.00

This should cover claims fee

1980 - 8 x 100.00	800.00
1981 - 8 x 100.00	800.00
1982 - 8 x 100.00	800.00
198 2 - 8 x 200.00	1,600.00
198 2 ⁴ - 8 x 200.00	<u>1,600.00</u>
Applied	4,800.00
	<u>5,600.00</u>
Actual	5,612.00
Unapplied Forward	<u>12.00</u>

TRALNBERG DIAMOND DRILLING CO. LTD.

RICHCORE EXPLORATIONS LTD.(N.P.L.)

PHONE 442-3030, P.O. BOX 1421, GRAND FORKS, B.C. V0H 1H0

Date: Oct 22 - 23

Job Name: Ray Harkoff

NAME	SHIFT	DRILLING	CASING	MOVING	CEMENT	TRAVEL	WATER SUPPLY	STAND BY	OTHER	REMARKS	TOTAL HOURS
<i>G. L. Lumberg</i>				1						<i>Moving Equipment</i>	9
<i>Raymond Harkoff</i>				1						<i>to property Nancy</i>	9
<i>Al Kabatoff</i>				1						<i>Greene</i>	9
<i>Peter</i>				1						<i>2 trucks to his</i>	4
<i>G. L. Lumberg</i>							3			<i>help haul water</i>	5
<i>R. Harkoff</i>			1	2			2		4	<i>waiting for water</i>	9
<i>Al Kabatoff</i>			1	2			2		4		9
<i>Jack Harkoff</i>			1	2			2				5

DRILLING: D. Shift From _____ to _____ Total _____ Feet From _____ to _____ Total _____ Feet Size _____
 A. Shift From _____ to _____ Total _____ Feet From _____ to _____ Total _____ Feet Size _____
 N. Shift From _____ to _____ Total _____ Feet From _____ to _____ Total _____ Feet Size _____

Hole No. _____ Casing Shoes-Bits Used _____ Total Casing in Feet EX _____ AX _____ BX _____ NX _____
 Hole No. _____ Date Completed _____ Depth of Hole _____ Feet Angle of Hole _____ Degrees _____
 Hole No. _____ Cemented From _____ to _____ Caving Lost Water at _____ Feet Cement Used _____ Bags _____
 Moving from Hole No. _____ to Hole No. _____ Distance in Feet _____ by Road or Skid Trail _____

Additional Information: _____

Raymond Harkoff Al Kabatoff 4 hours waiting for water.

To be Signed by:
 Contractor Representative
G. L. Lumberg

To be Signed by:
 Company Representative

LTD

TRAMBERG DIAMOND DRILLING CO.
BOX 1421 GRAND FORKS BC.

RAY HUTCH
BOX 1137
BROOKS ALBERTA

MOVING EQUIPMENT FROM GRAND FORKS TO NANCY GREENE, AND RETURN.	= \$ 568.00
PLUS 10% ON \$ 254.00	\$ 85.40
WATER HAUL.	\$ 138.00
TRUCK TIME	\$ 132.00
CORE BOXES	\$ 34.00
CASING HOLE R. 1. 79.	\$ 300.00

CORING HOLE NO. R. 1. 79. \$ 4158.00

	<hr/>
	\$ 5097.00
LESS. \$ 1000.00 ADVANCE	
TOTAL OWEN	<hr/>
	\$ 4097.00

TRAMBERG DIAMOND DRILLING LTD
 G. D. Tramborg
 RAY HUTCH
 agd. R. S. Beck

TRALNBERG DIAMOND DRILLING CO. LTD.

RICHCORE EXPLORATIONS LTD.(N.P.L.)

PHONE 442-3030, P.O. BOX 1421, GRAND FORKS, B.C. V0H 1H0

Date: Oct 24 - 25 1979 Job Name: Ray Hutch

NAME	SHIFT	DRILLING	CASING	MOVING	CEMENT	TRAVEL	WATER SUPPLY	STAND BY	OTHER	REMARKS	TOTAL HOURS
<i>G. Lushberg</i>		5	9				9			<i>2 men 2 hours hauling water with 4x4 truck.</i>	9
<i>Jack Howard</i>		5	9			9			9		
<i>Ch. Kobotoff</i>		5	9	2					9		
<i>Geo. Lushberg</i>											9
<i>Jack Howard</i>		9									9
<i>Raymond Harkoff</i>		9									9

DRILLING:
 D. Shift From 12 to 46 Total 34
 A. Shift From 46 to 100 Total 54
 N. Shift From _____ to _____ Total _____

CASING:
 Feet From 0 to 12 Total 12 Feet Size BW
 Feet From _____ to _____ Total _____ Feet Size _____
 Feet From _____ to _____ Total _____ Feet Size _____

Hole No. _____ Casing Shoes-Bits Used _____ Total Casing in Feet EX _____ AX _____ BX _____ NX _____
 Hole No. _____ Date Completed _____ Depth of Hole _____ Feet Angle of Hole _____ Degrees
 Hole No. _____ Cemented From _____ to _____ Caving Lost Water at _____ Feet Cement Used _____ Bags
 Moving from Hole No. _____ to Hole No. _____ Distance in Feet _____ by Road or Skid Trail

Additional Information:

To be Signed by:
 Contractor Representative
G. L. Lushberg

To be Signed by:
 Company Representative

September 10, 1979

Letter Agreement Between Raymond P. Hutch of Brooks, Alberta and
Ron Cochran of Brooks, Alberta

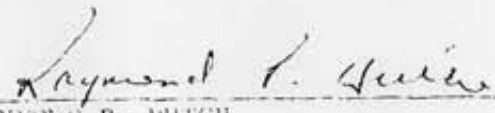
I Ron Cochran agree to stake mineral claims near Rossland B.C. in
the name of Raymond P. Hutch. Raymond P. Hutch agrees to pay for
the cost of staking claims. Any development costs on the claims
shall be determined by Raymond P. Hutch and shall be solely pay-
able by Raymond P. Hutch.

It is agreed the ownership of the claims will be as follows:

Raymond P. Hutch - 90%

Ronald Cochran)
Alex Varabioff) - 10%
Charles Varabioff)

The above terms are agreed to and accepted.


RAYMOND P. HUTCH


RON COCHRAN



LORING LABORATORIES LTD.

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

TO Mr. Ray Hutch
P.O. Box 460
Brooks, Alberta

INVOICE N° 18256

DATE November 23, 1979

5 Core SAMPLES

5	Gold and Silver Assays	@ 9.50	47.50
5	Copper Assays	@ 4.50	22.50
5	Lead Assays	@ 6.00	30.00
5	Zinc Assays	@ 6.00	30.00
5	Molybdenum Assays	@ 7.00	35.00
5	Tungsten Assays	@ 10.00	50.00
		TOTAL	\$ 215.00

THIS IS YOUR INVOICE

PLEASE PAY THE AMOUNT SHOWN

TERMS — 30 DAYS

3806

Trace

.10

Trace

Trace

.01

.002

.006

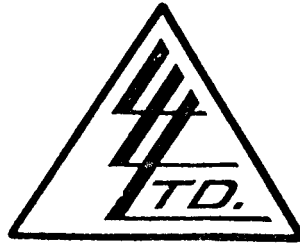
I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE
ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES

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

E. J. McAsaac

Licensed Assayer of British Columbia

Mr. Ray Hutch
P.O. Box 460
Brooks, Alberta



File No. 18256
Date November 23, 1979
Samples Core

Certificate of
ASSAY of
LORING LABORATORIES LTD.

SAMPLE No.	OZ./TON GOLD	OZ./TON SILVER	% Cu	% Pb	% Zn	% MoS2	% WO3
<u>DDH #1-79</u>							
3802	Trace	.16	Trace	Trace	.01	.003	.010
3803	Trace	.04	Trace	Trace	Trace	.002	.004
3804	Trace	.16	Trace	Trace	.01	.003	.010
3805	Trace	.06	Trace	Trace	Trace	.002	.018
3806	Trace	.10	Trace	Trace	.01	.002	.006

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. M. J. ...
Licensed Assayer of British Columbia



LORING LABORATORIES LTD.

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

TO Mr. Ray Hutch
P.O. Box 460
Brooks, Alberta

INVOICE N° 18374

DATE December 12, 1979
 Continuation of File #18256.

5 Core SAMPLES

5	Thirty Metal Spectros	@ 25.00	<u>125.00</u>
		@	
		@	
		@	
		@	
		@	
		TOTAL	\$ 125.00

THIS IS YOUR INVOICE
 PLEASE PAY THE AMOUNT SHOWN

TERMS — 30 DAYS

NIOBIUM						
Nickel	Ni	N.D.	N.D.	Trace	0.005	3.+
Potassium	K	3.+	3.+	2.	2.	3.+
Silicon	Si	Matrix	Matrix	Matrix	Matrix	Matrix
Silver	Ag	Trace	Trace	Trace	0.001	Trace
Sodium	Na	3.+	3.+	2.	2.	3.+
Strontium	Sr	0.07	0.1	0.1	0.2	0.03
Tantalum	Ta	N.D.	N.D.	N.D.	N.D.	N.D.
Thorium	Th	N.D.	N.D.	N.D.	N.D.	N.D.
Tin	Sn	N.D.	N.D.	N.D.	N.D.	N.D.
Titanium	Ti	0.5	0.5	0.6	0.6	0.3
Tungsten	W	N.D.	N.D.	N.D.	N.D.	N.D.
Uranium	U	N.D.	N.D.	N.D.	N.D.	N.D.
Vanadium	V	0.01	0.01	0.03	0.05	0.005
Zinc	Zn	N.D.	N.D.	N.D.	N.D.	N.D.

All results expressed as Percent
 Note: Pulps retained one week.

ALL REPORTS ARE THE CONFIDENTIAL PROPERTY OF CLIENTS. PUBLICATION OF STATEMENTS, CONCLUSION OR EXTRACTS FROM OR REGARDING OUR REPORTS IS NOT PERMITTED WITHOUT OUR WRITTEN APPROVAL. ANY LIABILITY ATTACHED THERETO IS LIMITED TO THE FEE CHARGED.

CAN TEST LTD.

F. C. Burgess
 Spectroscopist



can test ltd.

1650 PANDORA STREET, VANCOUVER, B.C. V5L 1L6 • TELEPHONE 254-7278

Telex 04-54210

Loring Laboratories Ltd.

SEMI QUANTITATIVE SPECTROGRAPHIC ANALYSIS CERTIFICATE

629 Beaverdam Road N.E.

File No. 3538D

Calgary, Alberta

File 18256

Date Dec. 3/79

T2K 4W2

We hereby Certify that the following are the results of semi quantitative spectrographic analysis made on Ore samples submitted.

		1	2	3	4	5	Sample Identification
Aluminum	Al	5.	8.	7.	8.	3.	Sample 1: 3802
Antimony	Sb	N.D.	N.D.	N.D.	N.D.	N.D.	
Arsenic	As	N.D.	N.D.	N.D.	N.D.	N.D.	Sample 2: 3803
Barium	Ba	0.3	0.3	0.1	0.05	0.1	
Beryllium	Be	N.D.	N.D.	N.D.	N.D.	N.D.	Sample 3: 3804
Bismuth	Bi	N.D.	N.D.	N.D.	N.D.	N.D.	Sample 4: 3805
Boron	B	N.D.	N.D.	N.D.	N.D.	N.D.	
Cadmium	Cd	N.D.	N.D.	N.D.	N.D.	N.D.	Sample 5: 3806
Calcium	Ca	3.	3.	Major	Major	1.	
Chromium	Cr	0.01	0.01	0.01	0.01	0.01	
Cobalt	Co	N.D.	N.D.	N.D.	N.D.	N.D.	<p>Percentages of the various elements expressed in these analyses may be considered accurate to within plus or minus 35 to 50% of the amount present.</p> <p>Semi-quantitative spectrographic analytical results for gold and silver are normally not of a sufficient degree of precision to enable calculation of the true value of ores. Therefore, should exact values be required, it is recommended that these elements be assayed by the conventional Fire Assay Method. Quantitative and Fire Assays may be carried out on the retained pulp samples.</p> <p>Silicon, aluminum, magnesium, calcium and iron are normal components of complex silicates.</p> <p>MATRIX - Major constituent MAJOR - Above normal spectrographic range TRACE - Detected but minor amounts N.D. - Not detected * - Suggest assay (above 0.3%)</p> <p>All results expressed as <u>Percent</u></p> <p>Note: Pulps retained one week.</p> <p>ALL REPORTS ARE THE CONFIDENTIAL PROPERTY OF CLIENTS. PUBLICATION OF STATEMENTS, CONCLUSION OR EXTRACTS FROM OR REGARDING OUR REPORTS IS NOT PERMITTED WITHOUT OUR WRITTEN APPROVAL. ANY LIABILITY ATTACHED THERETO IS LIMITED TO THE FEE CHARGED.</p>
Copper	Cu	Trace	Trace	Trace	0.005	Trace	
Gallium	Ga	N.D.	N.D.	N.D.	N.D.	N.D.	
Gold	Au	Trace	Trace	Trace	Trace	Trace	
Iron	Fe	2.	2.	Major	Major	2.	
Lead	Pb	N.D.	N.D.	N.D.	N.D.	N.D.	
Magnesium	Mg	2.	2.	3.	3.+	0.3	
Manganese	Mn	0.03	0.03	0.07	0.1	0.03	
Molybdenum	Mo	N.D.	N.D.	N.D.	N.D.	N.D.	
Niobium	Nb	N.D.	N.D.	N.D.	N.D.	N.D.	
Nickel	Ni	N.D.	N.D.	Trace	0.005	N.D.	
Potassium	K	3.+	3.+	2.	2.	3.+	
Silicon	Si	Matrix	Matrix	Matrix	Matrix	Matrix	
Silver	Ag	Trace	Trace	Trace	0.001	Trace	
Sodium	Na	3.+	3.+	2.	2.	3.+	
Strontium	Sr	0.07	0.1	0.1	0.2	0.03	
Tantalum	Ta	N.D.	N.D.	N.D.	N.D.	N.D.	
Thorium	Th	N.D.	N.D.	N.D.	N.D.	N.D.	
Tin	Sn	N.D.	N.D.	N.D.	N.D.	N.D.	
Titanium	Ti	0.5	0.5	0.6	0.6	0.3	
Tungsten	W	N.D.	N.D.	N.D.	N.D.	N.D.	
Uranium	U	N.D.	N.D.	N.D.	N.D.	N.D.	
Vanadium	V	0.01	0.01	0.03	0.05	0.005	
Zinc	Zn	N.D.	N.D.	N.D.	N.D.	N.D.	

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Spectroscopist