

ALEXIS 1 to 7 MINERAL CLAIMS ASSESSMENT REPORT

Specific Claims:	<u>Name</u>	<u>Record No.</u>
	Alexis 1	(884)
	Alexis 2	(885)
	Alexis 3	(886)
	Alexis 4	(887)
	Alexis 5	(888)
	Alexis 6	(889)
	Alexis 7	(890)

Located within the Clinton Mining Division

NTS Location: 92N/8E

Latitude: 51° 21'

Longitude: 124° 14'

Owner of Claims: JAMES W. MORTON

Operator of Claims: JAMES W. MORTON

Author of Report: JAMES W. MORTON

Submitted: October 5, 1981

9535

RECEIVED
OCT 6 - 1981
SUB MINING RECORDER
WILLIAMS LAKE, B.C.

ALEXIS 1 to 16 MINERAL CLAIMS
ASSESSMENT REPORT

Specific Claims:	<u>Name</u>	<u>Record No.</u>
	Alexis 1	884
	Alexis 2	885
	Alexis 3	386
	Alexis 4	887
	Alexis 5	888
	Alexis 6	889
	Alexis 7	890
	Alexis 8	1032
	Alexis 9	1033
	Alexis 10	1034
	Alexis 11	1035
	Alexis 12	1036
	Alexis 13	1037
	Alexis 14	1038
	Alexis 15	1039
	Alexis 16	1040

Located within the Clinton Mining Division

NTS Location 92N/8E
Latitude 51° 20'
Longitude 124° 14'

Owner of claims James W. MORTON
Operator of claims James W. MORTON
Author of Report James W. MORTON
Submitted October 5, 1981

W. Morton

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INTRODUCTION

Location and Physiographic Position:

The Alexis claim group is located west of Chilko Lake and south of Stikelon Pass in west central British Columbia. The claims occur in a semi-alpine to alpine environment at elevations ranging between 1,775 meters and 2,200 meters. Access to the claim group is presently by helicopter or by boat from the north end of Chilko Lake. At this time the nearest road to the property ends at Wilderness Lake approximately 13 kilometers northwest of the claim group.

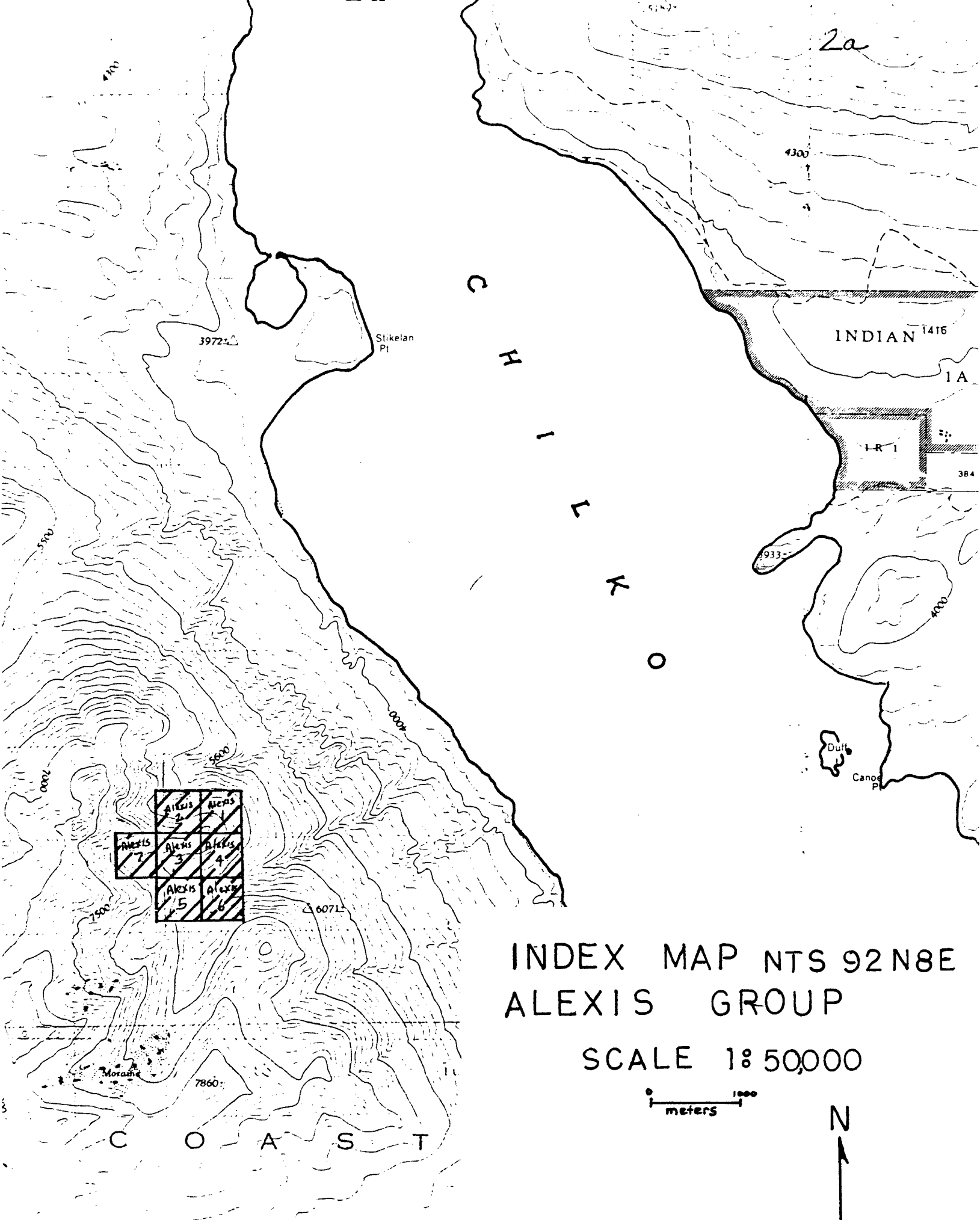
Property Definition:

The Alexis prospect was first noted by Morton several years ago while hunting in the area. A heterolithologic assemblage of intensely brecciated volcanic and sedimentary rocks was noted. Minor malachite staining was observed on some of the breccia clasts. During 1980 Morton made a decision to examine this prospect and subsequently staked the Alexis 1 to 7 claims.

The Alexis claim is broadly geologically situated within a complex region dominated by Cretaceous volcanic rocks. (Dacitic to andesitic agglomerates, porphorys, porphory breccias and tuffs.) The area of the claim group is located within a zone of numerous regional north-west trending faults running parallel to the Tchaikazon Fault. The Tchaikazon Fault, specifically, is located approximately 3 kilometers northeast of the main showing. Numerous smaller fault systems trend normal to or obliquely across the prospect from this regional system.

A limonitic-calcareous breccia zone occurs within this tectonic framework. This zone, discontinuously having dimensions of 300 meters by 1,000 meters is metallically mineralized at surface in at least two locations. Rock assays of up to 1.47% copper, 0.4% mercury, 0.4% antimony and 0.48 oz/ton silver have been obtained from these surface showings.

The Alexis claim group is currently owned and operated by James W. Morton.



2a

C
H
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K
O

INDIAN 1416

LR 1

384

Duff

Canoe Pt

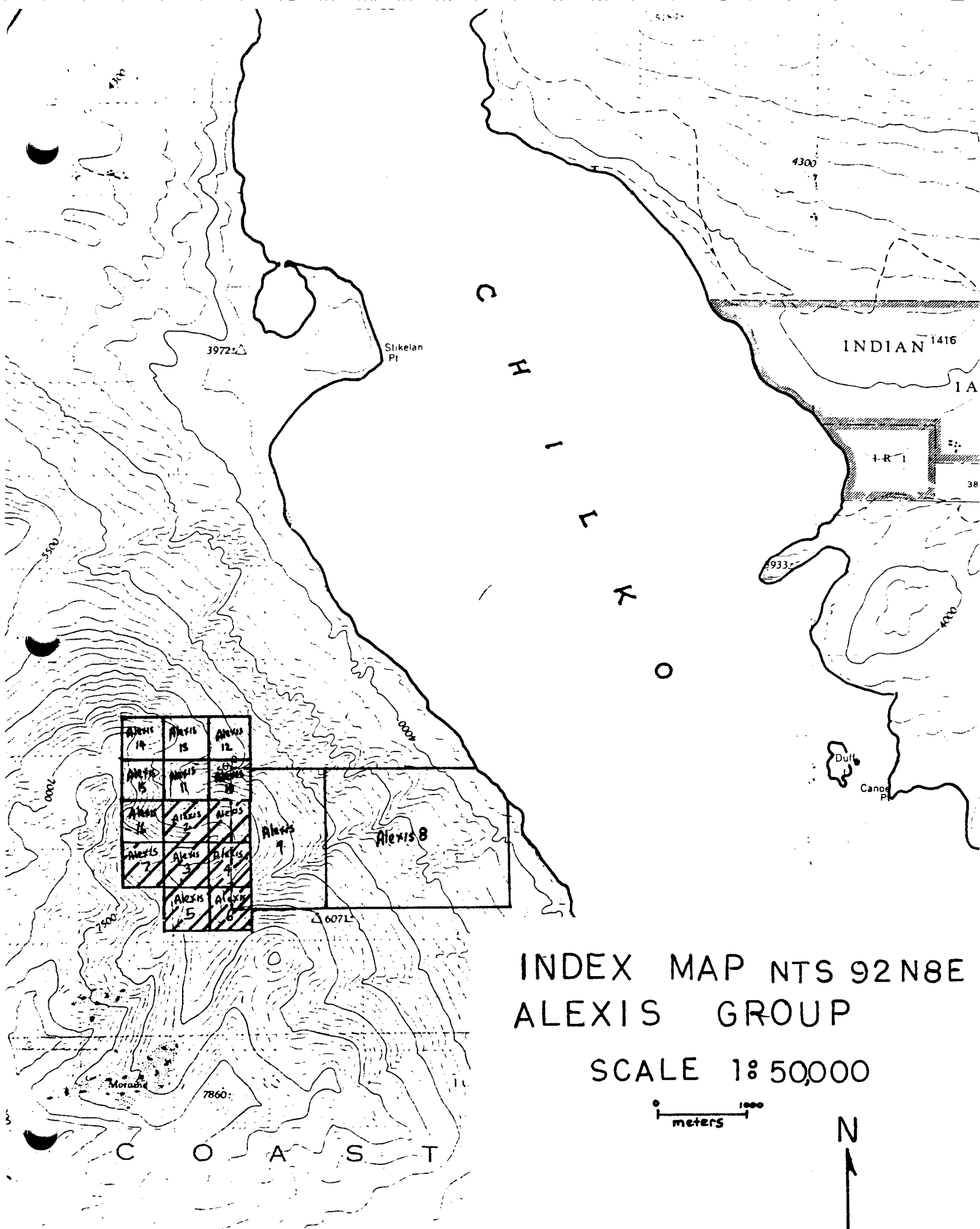


INDEX MAP NTS 92N8E ALEXIS GROUP

SCALE 1:50,000



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INDEX MAP NTS 92N8E
ALEXIS GROUP

SCALE 1:50,000



SUMMARY OF WORKS

Grid Establishment:

A total of 11.8 kilometers of elevation contoured flagged picket line grid was established.

Rock Geochemistry:

A total of 77 rock specimens were sampled and analyzed.

SUMMARY OF COSTS

Establishing Grid and Sampling Rocks:

June 9 - 12	Morton	4 days @ \$150/day	\$ 600.00
	Eberlee	4 days @ \$ 75/day	300.00
	Camp Costs	4 days @ \$ 50/day	200.00

Establishing Grid and Sampling Rocks:

July 8 - 11	Morton	4 days @ \$150/day	\$ 600.00
	Eberlee	4 days @ \$ 75/day	300.00
	Camp Costs	4 days @ \$ 50/day	200.00

Helicopter Costs:

June 9 - 11	White Saddle Air	2.3 hours	\$ 989.00
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Assay Costs:

2 Multi-element Spectrographic analyses - 1 by Chemex Labs, 1 by Acme Labs @ \$ 21 each	\$ 42.00
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1 Cu, Ag, Hg, Sb Fire Assay Chemex Labs	\$ 37.50
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65 rock geochems Cu, Mo, Ag, Hg, Au @ \$ 12.25 each Chemex Labs	\$ 796.25
---	-----------

9 rock geochems Cu, Pb, Zn, Ag, Hg, Sb @ \$ 16.75 each Chemex Labs	\$ 150.75
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Preparation of Report:

Sept. 9 - 11	Morton	3 days @ \$150/day	\$ 450.00
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TOTAL COSTS CLAIMED	\$4,665.50
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~~\$~~ 2100⁰⁰

AUTHOR'S QUALIFICATIONS - JAMES W. MORTON

B(sc) (Geology) Carleton University, Ottawa 1971
M(sc) (Soils) University of British Columbia, Vancouver 1976
Experience: Prospector's Assistant, Bralorne-Canter Mines 1969
Geological Assistant, Bralorne-Canter Mines 1970
Sub-Party Chief, Giant Mascot Mines 1971
Party Chief, Sumitomo Mines 1972
Senior Assistant, Fox Geological Consultants 1973
M(sc) in Mine Reclamation 1974-1975
Range Management, B.C.F.S. Range Div. 1975-1979
President, Western Horizontal Wells 1980 - present
Manager of Exploration, Alexis Joint Venture 1981 -
present

ROCK GEOCHEMICAL REPORT

Grid Establishment:

A total of 11.8 kilometers of elevation controlled grid was established on the central region of the prospect. This grid was, because of the steep topography of the prospect and absence of timber, established using a contour elevation grid system. Constant elevations were maintained with a Thommen Altimeter and grid stations were established at 100 meter spacings along contour grid lines using a Topolite belt chain for meterage control. At each 100 meter station a cedar stake marked with the grid coordinates was driven into the ground and highlighted with a twin fluorescent green and fluorescent red ribbon. The route between stations was marked with fluorescent red ribbon. Elevation grid lines were spaced at 100 feet (30.8 meter) intervals. A linear geophysical grid, established with compass, belt chain and clinometer, was established following the establishment of the elevation grid and was used to correct the map positioning of the grid stations.

Methods of Conducting Rock Geochemical Survey:

As a prelude to the main rock geochemical survey two samples from the mineralized zone were selected and given a wide spectrum multi-element spectrographic analyses. These samples were digested in a hot mixture of 3:1:3 nitric acid to hydrochloric acid to water mixture. The samples were then analyzed semiquantitatively using an emission spectrograph (one analyses was conducted by Acme Analytical Laboratories of Vancouver, B.C. and one was conducted by Chemex Labs of North Vancouver, B.C.). Results of these analyses are listed in appendix of this report. Potential target elements were determined to be copper, silver, antimony and boron. Of these potential elements, copper and silver were selected for the survey. Mercury was added after the spectrographic determinations following the visual identification of cinnebar in mineralized samples. Molybdenum was added to the list of target elements despite its low content in the initial two analyses.

A total of 74 rock samples were collected and analyzed for copper, molybdenum, silver, mercury and gold. Nine of these samples were additionally analyzed for antimony.

Samples were prepared for analyses by pulverizing in a ring grinder to an approximately 100 mesh fraction. Samples were then given a hot digestion in a perchloric-nitric acid mixture and analyzed on an atomic adsorption unit. Gold determinations were preceded by firing a sample to obtain a homogeneous sample pellet. A complete lab procedure is given in the appendix of this report.

Rock geochemical analyses were conducted by Chemex Labs Ltd. of North Vancouver, B.C.

Rock Geochemical Interpretation:

Throughout the property erratic anomalous copper values occur. (Anomalous copper considered to be > 70 p.p.m. cu.) These erratic values of 70 to 4,000 p.p.m. are invariably associated with two generations of breccia, either heterolithologic limonitic vein breccia or intrusive porphyritic breccia. The intense limonitic nature of the breccia suggests that intense leaching, resulting from sulfide oxidation induced acidity, has occurred and that low rock geochemical copper at surface does not necessarily imply low values at greater depths. Silver, like copper, occurs in erratic anomalous concentrations. (Anomalous silver considered to be > 0.2 p.p.m. silver.) Sporadic high values up to 13.5 p.p.m. occur in limonitic vein breccias. It is thought that intensive leaching again may have removed geochemical silver from surface rocks over much of the breccia zone.

Mercury, however, is extremely anomalous in several regions of the breccia. (Anomalous values for this prospect taken as $> 1,000$ p.p.b. mercury.) In the vicinity of the discovery showing breccias consistently contain close to or greater than 10,000 p.p.b. Hg. An anomalous cluster also occurs in the northwest sector of this survey.

A twofold explanation is offered for this more widespread and consistent anomalous occurrence. Firstly, the more volatile nature

of elemental mercury enables it to permeate upwards through the porous breccia despite a general trend for soluble sulfates created by acidic surface conditions to leach downwards. Secondly, the greater affinity of mercury for sulfur than that of copper, silver or iron for sulfur would enable it to survive until last if surface leaching was in any way incomplete. Mercury sulfides would be the last to be completely converted and leached from surface rocks. It is felt that these conditions indeed do prevail at the Alexis prospect and mercury is considered to be a real pathfinder element. To this date, geochemical determinations for antimony have been restricted to nine samples collected largely in the vicinity of the discovery showing. These samples that have been analyzed, however, are nearly all highly anomalous in antimony content. This anomalous geochemical antimony is attributed to the presence of tetrahedrite in the mineralization.

Molybdenum is generally extremely low or non-detectable over the area of the survey and it is inferred that molybdenum is probably not a primary constituent of the mineralization.

Geochemical gold is consistently present over much of the area of the survey although no highly anomalous rock geochemical values have yet been obtained for this element. The presence of an apparent epithermal grade hydrothermal mineralization does, however, suggest an environment capable of hosting economic gold mineralization. In this vein, it is felt that alternative methods of searching for anomalous gold concentrations in the property are warranted.

Summary of Rock Geochemical Results:

- Geochemical concentrations of copper and silver occur erratically throughout a breccia zone. Original surface concentrations may have been much higher but may have been leached out of surface exposures by acid solutions.

- Geochemical gold occurs consistently throughout the area of the survey although no strongly anomalous rock concentrations have yet been recorded. An environment capable of hosting an economic gold

is, however, demonstrated.

- Geochemical mercury is both widespread and strongly anomalous throughout the breccia zone. Mercury may be a useful pathfinder in outlining other metallic minerals leached from surface rocks.

- Rock geochemical results suggest that epithermal grade hydrothermal solutions have permeated heterolithic breccias coincident with and extending from a discovery zone containing ore grade copper, silver, mercury and antimony mineralization.

Recommendations:

Rock geochemical results are sufficiently successful to warrant a more extensive geochemical and geological survey. Geophysical methods such as VLF electromagnetics or induced polarization will be carried out over significant geochemical mercury anomalies in an attempt to define potential drill targets.

Hlexis Geochemistry

Rocks

Station	Sample #	Cu p.p.m.	Mo p.p.m.	Ag. p.p.m.	Hg p.p.b.	Au. p.p.b.	Sb p.p.m.	Rock Type code
AX-69-S-1	AX2-R-13	42	1	0.1	5800	15		b
AX-68.75-S-1.25	AX2-R-12	7	3	0.1	710,000	5		b
AX-68.5-S-1	AX2-R-7	22	1	0.1	5400	5		b
AX-69-S-2.5	AX2-R-14	48	1	0.1	430	10		b
AX-69-S-3	AX2-R-15	47	1	0.1	90	10		d
AX-69-S-4.5	AX2-R-16	31	1	0.1	50	5		d
AX69-S-5.5	AX2-R-17	21	1	0.1	30	10		b
AX69-S-8.1	AX2-R-33	26	1	0.1	80	5		d
AX69-S-10.25	AX2-R-18	11	1	0.1	320	5		d
AX69-S-11.5	AX2-R-19	83	1	0.1	—	5		d
AX69-S-13	AX2-R-20	46	1	0.1	80	5		c
AX68-S-2	AX2-R-8	10	1	0.1	110	5		b
AX68-S-3	AX2-R-9	56	1	0.1	270	5		d
AX68-S-3.5	^{6800 R} S-3.5	4000	1	2.3	1700	10		b
AX68-S-5	AX2-R-10	11	1	0.1	250	5		d
AX68-S-8	AX2-R-11	31	1	0.1	390	5		d
AX68-S-11	AX2-R-21	33	1	0.1	210	10		d
AX67.5-S-2.75	AX2-R-24	17	1	0.1	40	10		d
AX67-S-4	AX2-R-25	40	1	0.1	50	5		b
AX67.5-S-8	AX2-R-26	45	1	0.1	930	5		c
AX67-S-8	AX2-R-34	22	1	0.1	150	5		c
AX67-S-8.1	AX2-R-27	9	1	0.1	50	5		c
AX67-S-8.2	AX2-R-28	26	1	0.1	50	5		c
AX67-S-8	AX-678	73	1	0.1	1500	10		b
AX67-S-11.5	AX2-R-29	19	1	0.1	30	5		b
AX67-S-14	AX2-R-30	9	1	0.1	290	5		b
AX67-S-18	AX2-R-36	12	1	0.1	40	5		d
AX66-S-1	AX2-R-31	34	1	0.1	540	5		d.

10a

ALEXIS Geochemistry Rocks

Station	Sample #	Cu. p.p.m	Mo. p.p.m	Ag p.p.m	Hg p.p.b	Au p.p.b	Sb p.p.m.	Rock Type Code	
								106	
AX65-S-2	AX2-R-37	55	1	0.1	40	5		b	
AX65-S-9.5	AX2-R-35	56	1	0.1	350	5		d	
AX65-10.5	AX2-R-32	59	1	0.1	60	5		d	
AX65-S-68	AX2-R-43	3	1	0.1	50	410	1.2	b	
AX64-S-8	AX2-R-47	47	1	0.1	120	410	1.0	d	
AX63-S-5	AX2-R-41	20	1	0.1	120	410	0.8	b	
AX63-S-5	AX2-R-42	8	1	0.1	70	410	1.2	b	
AXT-6	AX2-R-22	39	1	0.1	100	5		d	
AXT-7.1	AX2-R-23	50	1	0.1	70	5		d	
Vicinity AX62-S-35	Ind. Pol. 4.5N-3W	AX2-R-44	23	1	0.1	440	410	0.8	e
	Ind. Pol. 4.5N-1.9W	AX2-R-45	15	1	0.1	50	10	13.8	b
	Ind. Pol. 4.4N-1.9W.	AX2-R-46	26	1	0.1	70	410	5.6	b
	Ind. Pol. 4.4N-2W.	AX2-R-48	355	1	0.1	770	410	27.0	b
		AX66-4	AX2-R-38	35	1	0.1	40	5	d
	AX65-14	AX2-R-39	11	7	0.1	210	10	b	
Alexis 14	0.3N 0.4W F.P. ALX14	AX2-R-40	12	1	0.1	460	410	3.0	a
Alexis 10	0.7N I.P. ALX10	ALX-R-3	4	—	0.3	670	45	1.0	e
Vicinity AX63-16	0.6N I.P. ALX9	ALX-R-4	5	—	0.3	750	45	1.2	a
	AX63-18	ALX-R-2	63	—	0.6	100	45	9.2	a
Final Post Alexis 16	Ind. Pol. 4.5N 3+20W	ALX-R-5	16	—	0.4	340	45	0.8	c

Alexis Leo Chemistry Rocks

Station	Sample #	Cu. p.p.m	Mo p.p.m	Ag p.p.m	Hg p.p.b.	Au. p.p.b	Sb p.p.m	Rock Type Code	10c
within Dashed Lines	AX 69-1	ALX-R-6	3800		13.5	710,000	25	430.0	a
	0 + 30 m 250° from AX69-1	ALX-R-7	255		0.8	710,000	25	33.0	C
	0 + 30 m 90° from 1P AX69-1	ALX-R-8	84		0.5	710,000	25	12.0	a
	1 + 00 m N from AX69-1	ALX-R-9	70		0.6	710,000	25	16.2	C
	0 + 30 S of AX69-1	ALX-R-11	115		0.5	710,000	25	47.0	a
AX66-5-15.5	Ind. Pol. 1 + 00 S, 1 + 50 W.	AX2-R-49	18	1	0.1	130	410	1.8	a.
within dashed lines		B-1	8	1	0.1	710,000	20		a.
		B-2	42	1	0.1	100	10		b
		B-3	52	1	0.1	260	15		b
		B-4	48	1	0.1	90	5		b
		B-5	29	1	0.1	1100	15		a
		B-6	29	1	0.1	580	25		a
		B-7	19	1	0.1	1300	10		C
		B-8	8	1	0.1	360	15		C
		B-9	7	1	0.2	1100	5		C
		B-10	—	—	—	—	—		
		B-11	9	1	0.1	530	25		C
		B-12	17	1	0.1	2000	10		C
		B-13	3	1	0.1	120	10		b
		B-14	4200	3	9.6	710,000	10		a
		B-15	700	3	1.4	710,000	5		a
		B-16	74	2	0.3	710,000	5		a
		B-17	73	1	0.1	710,000	10		b
		B-18	26	5	0.1	2700	5		C
		B-19	17	2	0.1	580	15		C
		B-20	4	3	0.1	620	10		b
		B-21	275	3	0.4	710,000	5		a
		B-22	—	—	—	—	—		
	B-23	11	1	0.1	820	10	2.2	C	
	B-24	28	1	0.1	5400	410	4.0	C	



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 TELEX 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO : MORTON, MR. BILL
 BOX 4438
 WILLIAMS LAKE, B.C.

CERT. # : A8112559-001-A
 INVOICE # : 18112559
 DATE : 13-AUG-81
 P.O. # : NONE
 A.J.V.

Sample description	Prep code	Cu ppm	Mo ppm	Ag ppm	Hg ppb	AU-FA+AA ppb	
AX2 R-01	205	50	1	0.1	20	10	--
AX2 R-02	205	14	5	0.1	50	5	--
AX2 R-03	205	6	3	0.1	40	5	--
AX2 R-04	205	41	1	0.1	60	5	--
AX2 R-05	205	21	1	0.1	20	<5	--
AX2 R-06	205	36	1	0.1	3800	5	--
AX2 R-07	205	22	1	0.1	5400	5	--
AX2 R-08	205	10	1	0.1	110	5	--
AX2 R-09	205	56	1	0.1	270	5	--
AX2 R-10	205	11	1	0.1	250	5	--
AX2 R-11	205	31	1	0.1	390	5	--
AX2 R-12	205	7	3	0.1	>10000	5	--
AX2 R-13	205	42	1	0.1	5800	15	--
AX2 R-14	205	48	1	0.1	430	10	--
AX2 R-15	205	47	1	0.1	90	10	--
AX2 R-16	205	31	1	0.1	50	5	--
AX2 R-17	205	21	1	0.1	30	10	--
AX2 R-18	205	11	1	0.1	320	5	--
AX2 R-19	205	83	1	0.1	--	5	--
AX2 R-20	205	46	1	0.1	80	5	--
AX2 R-21	205	33	1	0.1	210	10	--
AX2 R-22	205	39	1	0.1	100	5	--
AX2 R-23	205	50	1	0.1	70	5	--
AX2 R-24	205	17	1	0.1	40	10	--
AX2 R-25	205	40	1	0.1	50	5	--
AX2 R-26	205	45	1	0.1	930	5	--
AX2 R-27	205	9	1	0.1	50	5	--
AX2 R-28	205	26	1	0.1	50	5	--
AX2 R-29	205	19	1	0.1	30	5	--
AX2 R-30	205	9	1	0.1	290	5	--
AX2 R-31	205	34	1	0.1	540	5	--
AX2 R-32	205	59	1	0.1	60	5	--
AX2 R-33	205	26	1	0.1	80	5	--
AX2 R-34	205	22	1	0.1	150	5	--
AX2 R-35	205	56	1	0.1	350	5	--
AX2 R-36	205	12	1	0.1	40	5	--
AX2 R-37	205	55	1	0.1	40	5	--
AX2 R-38	205	35	1	0.1	40	5	--
AX2 R-39	205	11	7	0.1	210	10	--
AX4 R-02	205	27	5	0.1	50	<5	--

Certified by *Hart Bichler*



MEMBER
 CANADIAN TESTING
 ASSOCIATION



CHEMEX LABS LTD.

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TELEX 043-52597

• ANALYTICAL CHEMISTS

• GEOCHEMISTS

• REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO : MORTON, MR. BILL
BOX 4438
WILLIAMS LAKE, B.C.

CERT. # : A8113560-001-A
INVOICE # : 18113560
DATE : 12-SEP-81
P.O. # : NONE
ALEXIS JOINT VENTURE

ATTN: BILL MORTON

Sample description	Prep code	Cu ppm	Mo ppm	Ag ppm	Au -(AA) ppb	Hg ppb	Sb ppm
SS-R-1	205	6	1	0.1	<10	30	0.8
SS-R-2	205	6	1	0.1	<10	50	0.8
B-23	205	11	1	0.1	10	820	2.2
B-24	205	28	1	0.1	<10	5400	4.0
AX2-R-40	205	12	1	0.1	<10	460	3.0
AX2-R-41	205	20	1	0.1	<10	120	0.8
AX2-R-42	205	8	1	0.1	<10	70	1.2
AX2-R-43	205	3	1	0.1	<10	50	1.2
AX2-R-44	205	23	1	0.1	<10	440	0.8
AX2-R-45	205	15	1	0.1	10	50	13.8
AX2-R-46	205	26	1	0.1	<10	70	5.6
AX2-R-47	205	47	1	0.1	<10	120	1.0
AX2-R-48	205	355	1	0.1	<10	770	27.0
AX2-R-49	205	18	1	0.1	<10	130	1.8

Certified by *Hart Bichler*



MEMBER
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ASSOCIATION



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

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CERTIFICATE OF ANALYSIS

TO : MORTON, MR. BILL
 BOX 4438
 WILLIAMS LAKE, B.C.

CERT. # : A8111723-001-A
 INVOICE # : I8111723
 DATE : 03-JUL-81
 P.O. # : NONE
 ALEXIS JOINT VENTURE

Sample description	Prep code	Cu ppm	Mo ppm	Pb ppm	Zn ppm	Ag ppm	W ppm
BR-F-14	205	--	--	--	--	--	1
Alexis { ALX-R-01 ALX-R-02 ALX-R-03 ALX-R-04 ALX-R-05 ALX-R-06 ALX-R-07 ALX-R-08 ALX-R-09 ALX-R-10 ALX-R-11	205	--	--	--	--	--	1
	205	63	--	14	63	0.6	--
	205	4	--	5	81	0.3	--
	205	5	--	8	52	0.3	--
	205	16	--	14	85	0.4	--
	205	3800	--	10	280	13.5	--
	205	255	--	3	160	0.9	--
	205	84	--	7	62	0.5	--
	205	70	--	2	135	0.6	--
	205	11	--	11	36	0.2	--
	205	115	--	6	140	0.5	--
HC-R-1	205	25	2	--	75	--	--
HC-R-2	205	35	4	--	30	--	--
HC-R-3	205	39	3	--	77	--	--
HC-R-4	205	40	2	--	47	--	--

Certified by *Hart Bickler*



MEMBER
 CANADIAN TESTING
 ASSOCIATION



CHEMEX LABS LTD.

13d.
 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 : MORTON, MR. BILL
 BOX 4436
 WILLIAMS LAKE, B.C.

CERT. # : A8112559-002-A
 INVOICE # : I8112559
 DATE : 13-AUG-81
 P.O. # : NONE
 A.J.V.

Sample description	Prep code	Cu ppm	Mo ppm	Ag ppm	Hg ppb	AU-FA+AA ppb	
B-01	205	8	1	0.1	>10000	20	--
B-02	205	42	1	0.1	100	10	--
B-03	205	52	1	0.1	260	15	--
B-04	205	48	1	0.1	90	5	--
B-05	205	29	1	0.1	1100	15	--
B-06	205	29	1	0.1	580	<5	--
B-07	205	19	1	0.1	1300	10	--
B-08	205	8	1	0.1	360	15	--
B-09	205	7	1	0.2	1100	5	--
B-11	205	9	1	0.1	530	<5	--
B-12	205	17	1	0.1	2000	10	--
B-13	205	3	1	0.1	120	10	--
B-14	205	4200	3	9.6	>10000	10	--
B-15	205	700	3	1.4	>10000	5	--
B-16	205	74	2	0.3	>10000	5	--
B-17	205	73	1	0.1	40000	10	--
B-18	205	26	5	0.1	2700	5	--
B-19	205	17	2	0.1	580	15	--
B-20	205	4	3	0.1	620	10	--
B-21	205	275	3	0.4	>10000	5	--
AX 678	205	73	1	0.1	1500	10	--
AX 67	205	39	1	0.1	470	15	--
6800R S-3.5	205	4000	1	2.3	1700	10	--

Certified by *Hart Bisher*



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 CANADA V7J 2C1
 TELEPHONE (604)984-0221
 TELEX 043-52597

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CERTIFICATE OF ANALYSIS

TO : MORTON, MR. BILL
 BOX 4432
 WILLIAMS LAKE, B.C.

CERT. # : A8111723-001-B
 INVOICE # : I8111723
 DATE : 03-JUL-81
 P.C. # : NONE
 ALEXIS JOINT VENTURE

Sample description	Prep code	Hg ppb	Sb ppm	AU-PA+AA	ppb			
BK-R-14	205	--	--	--	--	--	--	--
ALX-R-01	205	--	--	--	--	--	--	--
ALX-R-02	205	100	9.2	<5	--	--	--	--
ALX-R-03	205	670	1.0	<5	--	--	--	--
ALX-R-04	205	750	1.2	<5	--	--	--	--
ALX-R-05	205	340	0.8	<5	--	--	--	--
ALX-R-06	205	>10000	430.0	<5	--	--	--	--
ALX-R-07	205	>10000	33.0	<5	--	--	--	--
ALX-R-08	205	>10000	12.0	<5	--	--	--	--
ALX-R-09	205	>10000	16.2	<5	--	--	--	--
ALX-R-10	205	2700	2.3	<5	--	--	--	--
ALX-R-11	205	>10000	47.0	<5	--	--	--	--
HC-R-1	205	--	--	<5	--	--	--	--
HC-R-2	205	--	--	<5	--	--	--	--
HC-R-3	205	--	--	<5	--	--	--	--
HC-R-4	205	--	--	<5	--	--	--	--

Alexis

Certified by *Hart Fuchs*





CHEMEX LABS LTD.

13g
 212 BROOKSBANK AVE
 NORTH VANCOUVER, B.C.
 CANADA V7J 2C1
 TELEPHONE 984-0221
 AREA CODE 604
 TELEX 04-352597

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CERTIFICATE OF ANALYSIS

TO: **ALEXIS JOINT VENTURE**
 c/o Mr. Bill Morton
 Box 4438
 Williams Lake, B.C.

Also on A8110620

CERTIFICATE NO. **SP 915**
 INVOICE NO. **41715**
 RECEIVED **April 1, 1981**
 ANALYSED **April 10, 1981**

ATTN: **PROJECT: AJV**

SAMPLE NO.	Lower Concentration Limit (PPM)	ROCK -1 EF	ROCK -2 EF / K	ROCK -3 ALX
Aluminum	0.02%	-	-	-
Antimony	100	bcl	bcl	1000
Arsenic	100	bcl	bcl	1000
Barium	2	-	-	-
Beryllium	5	bcl	bcl	bcl
Bismuth	10	bcl	bcl	bcl
Boron	20	20	bcl	70
Cadmium	50	bcl	bcl	bcl
Calcium	0.05%	-	-	-
Chromium	10	100	100	50
Cobalt	20	bcl	20	20
Copper	2	50	30	5000
Germanium	10	-	-	-
Iron	0.05%	-	-	-
Lead	10	150	50	20
Magnesium	0.02%	-	-	-
Manganese	5	700	700	1000
Molybdenum	100	bcl	bcl	bcl
Nickel	20	bcl	bcl	20
Niobium	200	-	-	-
Potassium	0.5%	-	-	-
Silica	0.05%	-	-	-
Silver	1	2	bcl	10
Sodium	0.1%	-	-	-
Thorium	200	bcl	bcl	bcl
Tin	10	bcl	bcl	bcl
Titanium	20	700	2000	1500
Vanadium	50	bcl	100	100
Zinc	20	150	70	150
Zirconium	20	100	50	70

Alexis

SEMI QUANTITATIVE SPECTROGRAPHIC ANALYSES

>5000 ppm => 5000 ppm 50 ppm = 25-100 ppm
 5000 ppm = 2500-10000 ppm 20 ppm = 10-50 ppm
 2000 ppm = 1000-4000 ppm 10 ppm = 5-20 ppm
 1000 ppm = 500-2000 ppm 5 ppm = 2-10 ppm

500 ppm = 250-1000 ppm 2 ppm = 1-4 ppm
 200 ppm = 100-400 ppm 1 ppm = 0.5-2 ppm
 100 ppm = 50-200 ppm bcl = below concentration limit

Ranges for Iron, Calcium & Magnesium are reported in %



MEMBER
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CERTIFIED BY: *[Signature]*



CHEMEX LABS LTD.

137
212 BROOKSBANK AVE
NORTH VANCOUVER B.C.
CANADA V7V 1C7
TELEPHONE (604) 884-1111
TELEX 043820

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO : MORTON, MR. BILL
GENERAL DELIVERY
ALEXIS CREEK, B.C.
VOL 1A0

CERT. # : A8110620-001-
INVOICE # : 18110620
DATE : 08-APR-81
P.O. # : NONE
AJV

ATTN: ALEXIS JOINT VENTURE

Sample description	Prep Au code	-(AA) ppb						
ROCK -1 EF	205	<10	--	--	--	--	--	--
ROCK -2 EF	205	<10	--	--	--	--	--	--
ROCK -3 ALX	205	<10	--	--	--	--	--	--

Certified by *Hart Bickle*.....



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13i

ACME ANALYTICAL LABORATORIES LTD.

852 E HASTINGS ST. VANCOUVER, B.C. V6A 9R6
(604) 253-3158 TELEX 04-53124

ICP GEOCHEMICAL ANALYSES
=====

A .500 GRAM OF SAMPLE IS DIGESTED WITH 3 ML OF 3:1:3 NITRIC ACID TO HYDROCHLORIC ACID TO WATER AT 90 DEG. C FOR 1 HOUR. THE SAMPLE IS DILUTED WITH WATER TO 10.0 ML5. THE RESULTS ARE REPORTED IN PPM EXCEPT FOR : FE, CA, P, MG, BA, AND AL WHICH IS IN PERCENT. THIS LEACH IS PARTIAL FOR: CA, P, MG, AL, TI, LA, AND W. VERY LITTLE BA IS DISSOLVED. IS = INTERNAL STANDARD.

HO/ ALEX INVEX FILE# 81-0119
EGC

BURN # 1 GE16 9:01 19FEB81

IS									
1359									
MO	CU ⁺	PB	ZN	AG	NI	CO	MN	FE	AS
.755	6989	13.7	311	16.5	17.3	12.4	954	4.615	783
U	IS	TH	IS	CD	SB ⁺	BI	V	CA	P
-1.5	-2.5	1.21	1169	10.3	1731	11.8	99.7	12.25	.010
LA	IN	MG	BA	TI	B	AL	IS	IS	W
-1.3	1.04	.5369	.1304	.0007	26.0	.1706	0	4.01	-9.4

GEOCHEMICAL PROCEDURES

14a.

1. Geochemical samples (soils, silts) are dried at 80°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.
2. A 1.00 gram portion of the sample is weighed into a calibrated test tube. The sample is digested using hot 70% HClO₄ and concentrated HNO₃. Digestion time = 2 hours.
3. Sample volume is adjusted to 25 mls. using demineralized water. Sample solutions are homogenized and allowed to settle before being analysed to atomic absorption procedures.
4. Detection limits using Techtron A.A.5 atomic absorption unit.

Copper	-	1 ppm
Molybdenum	-	1 ppm
Zinc	-	1 ppm
* Silver	-	0.2 ppm
* Lead	-	1 ppm

* Ag & Pb are corrected for background absorption.

5. Elements present in concentrations below the detection limits are reported as one half the detection limit, i.e. Ag - 0.1 ppm.

GOLD:

5 gm samples ashed @800°C for one hour, digested with aqua regia to dryness - taken up in 25% HCl, the gold then extracted as the bromide complex into MIBK and analyzed via A.A.
Detection limit - 10 PPM

TUNGSTEN:

0.50 gm sample is fused with potassium bisulfate and leached with hydrochloric acid. The reduced form of tungsten is complexed with toluene 3,4 dithiol and extracted into an organic phase. The resulting color is visually compared to similarly prepared standards.
Detection limit - 2 PPM

BARIUM:

A 0.20 gm sample is digested with a mixture of HF-HClO₄ - NH₃ acids to dryness. The baked residue is leached with 25 ml of 10% HCl with NaCl added to reduce ionization effects in the A.A. flame. Analysis is by AAS using a N₂O - C₂H₂ gas mixture.

GEOCHEM PROCEDURES

PPB Gold: 5 gm samples ashed @ 800°C for one hour, digested with aqua regia - twice to dryness - taken up in 25% HCL-, the gold then extracted as the bromide complex into MIBK and analyzed via A.A.
Detection limit - 10 PPB

PPB Mercury: The sample is digested with nitric acid plus a small amount of hydrochloric acid. Following digestion the resulting clear solution is transferred to a reaction flask connected to a closed system absorption cell. Stannous sulfate is rapidly added to reduce mercury to its elemental state. The mercury is then flushed out of the reaction vessel into the absorption cell where it is measured by cold vapour atomic absorption methods with a Jarrell Ash Multi-Versatility Spectrophotometer. The absorbance of samples is compared with the absorbance of freshly-prepared mercury standard solutions carried through the same procedure. The detection limit of this method is 5 ppb.

PPM 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

PPM Silver: 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 - 0.2 PPM

PPM Molybdenum: 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. Copper and Molybdenum are determined by atomic absorption techniques.
Detection Limit - 1.0 PPM

GEOCHEM PROCEDURES

2.0

PPM Antimony: a gm sample digested with conc. HCl in hot water bath. The iron is reduced to Fe⁺² state and the Sb complexed with I⁻. The complex is extracted with TOPO-MIBK and analyzed via A.A. Correcting for background absorption 0.2 ppm ± 0.2 Detection limit.

PPM 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 NaBH₄ and the arsenic content determined using flameless atomic absorption.
Detection limit - 1 PPM

PPB Gold: 5 gm samples ashed @800°C for one hour, digested with aqua regia - twice to dryness - taken up in 25% HCl⁻, the gold then extracted as the bromide complex into MIBK and analyzed via A.A.
Detection limit - 10 PPB

ASSAY PROCEDURES

Gold: - Fire Assay Method.

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.

14c.

ALEXIS CLAIM GROUP

ROCK GEOCHEMISTRY

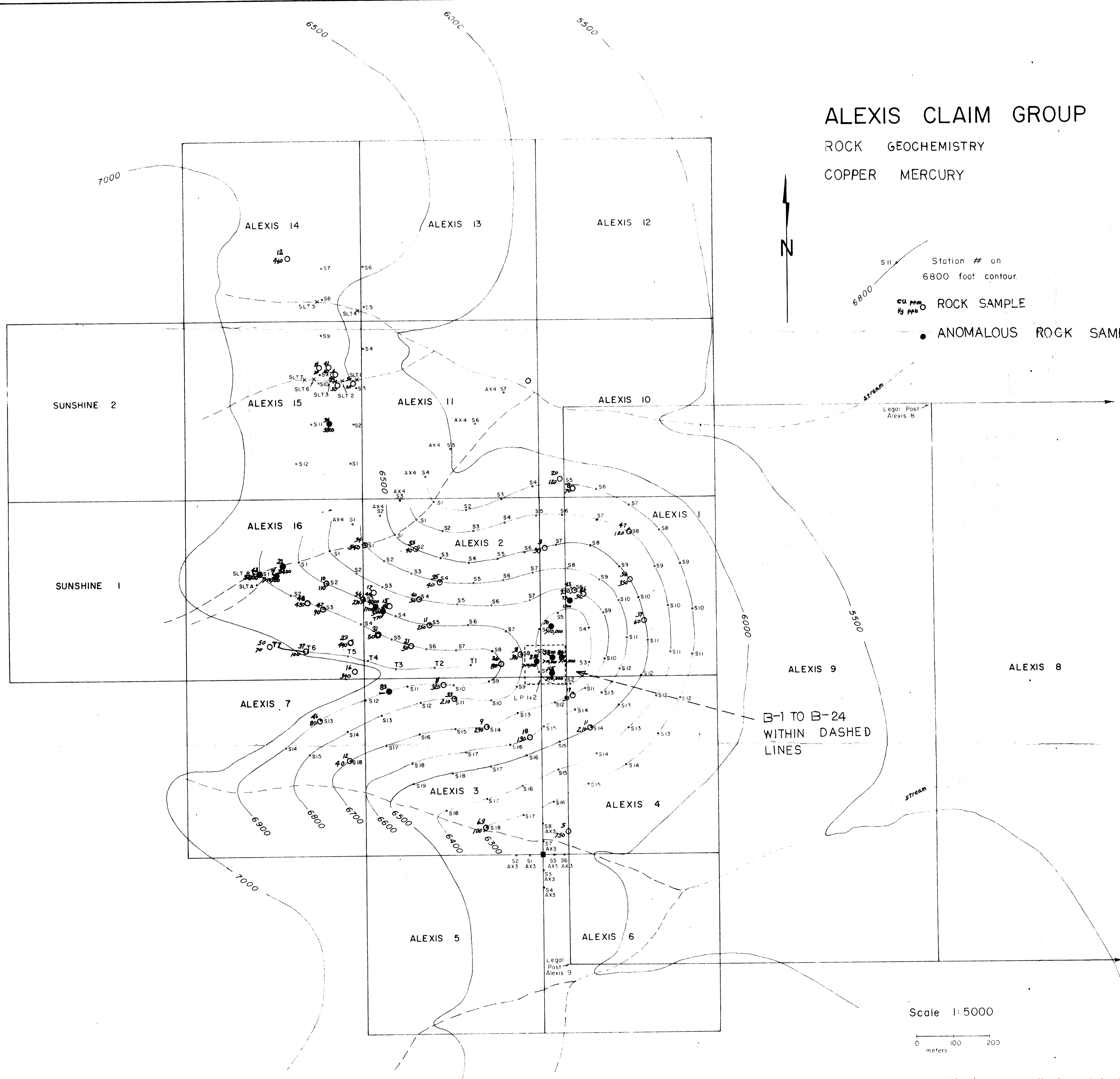
COPPER MERCURY



Station # on
6800 foot contour.

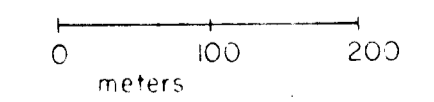
ROCK SAMPLE

ANOMALOUS ROCK SAMPLE



B-1 TO B-24
WITHIN DASHED
LINES

Scale 1:5000



control by compass, altimeter and topolite chain.

ALEXIS CLAIM GROUP

ROCK GEOCHEMISTRY

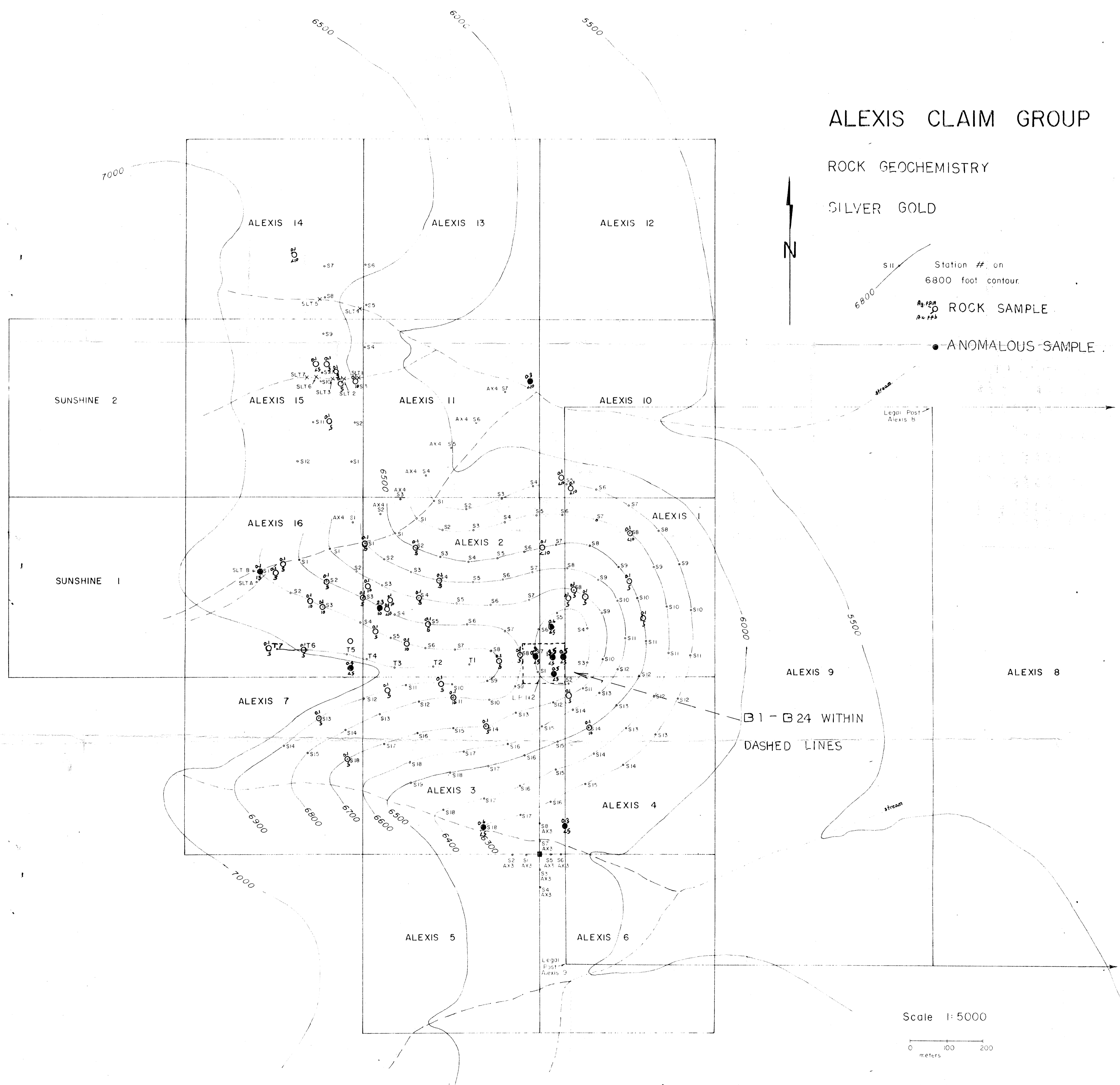
SILVER GOLD



S11 Station #. on 6800 foot contour.

ROCK SAMPLE

ANOMALOUS SAMPLE



B1 - B24 WITHIN DASHED LINES

Scale 1:5000
0 100 200
meters

MINERAL RESOURCES DIVISION
ANNUAL REPORT
9536

control by compass, altimeter and topolite chain