

83-#802 - 11620

12/83

GEOCHEMICAL SOIL SURVEY

AND TRENCHING

THUNDER, THUNDER 2, 3, 4 CLAIMS

CARIBOO M.D.

NTS 93 A - 11W & 14W

Lat 52° 45' N

Long 121° 18' W

OWNER: S.A. Brewer

OPERATOR: SILVER STANDARD MINES LIMITED
904-1199 West Hastings St.
Vancouver, B.C.
V6E 3V4

AUTHOR: R.H. Beaton, P.Eng.

November 3, 1983

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

11,620

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I INTRODUCTION

1. Location and Access

The Thunder claims are situated on the south side of Cariboo Lake opposite Keithly Creek, some 19 kilometres (12 miles) directly north-east of Likely, B.C. Access is via good gravelled road from Likely toward Keithly Creek. Near the outlet of Cariboo Lake a main logging road leaves the aforementioned road to continue along the south side of Cariboo Lake. Two secondary logging roads stem from this at approximately 2 miles (3.2 km.) and 3½ miles (5.6 km.) from its start (bridge crossing Cariboo River) to provide vehicular access to the property.

2. History and Ownership

Placer gold has been taken intermittently since the earliest days from most of the creeks draining into Cariboo Lake from the northwest, from Frank Creek which flows northerly central to the Thunder claim, and from the main Cariboo River. Apart from sporadic staking of mineral claims along the south side of Cariboo Lake in the vicinity of the Thunder property (a few old posts observed), the writer knows of no serious program of mineral exploration there in past years.

Messrs. S.A. Brewer and D. Jourdain, while prospecting logging roads in the early summer of 1983, noted pyrite-chalcopyrite mineralization in a road ditch and staked the Thunder claim to include the showing. Shortly after the staking the property was brought to the attention of Silver Standard Mines Limited. After a brief examination by the writer it was decided to option the Thunder claim, together with additional claims added to the southwest toward a mapped intrusive body. The add-on claims (Thunder 2, 3, & 4) and the original Thunder claim were then subjected in part to a grid soil survey in September 1983, followed by limited cat trenching in late October.

<u>Claim</u>	<u>Record No.</u>	<u>Units</u>	<u>Owner</u>
Thunder	4971 (7)	16	S.A. Brewer
Thunder 2	5125 (9)	12	"
Thunder 3	5126 (9)	2	"
Thunder 4	5127 (9)	6	"

3. Summary of Work Performed

During September, D. Jourdain and helper cut and picketed 2,000 metres of baseline trending southwesterly through parts of Thunder and Thunder 2 & 3 claims. At 125-metre spacing lines were flagged to both the northwest and southeast for an overall distance of 1,200 metres. Total line distance was thus 22.4 km. Soil samples were collected at 50 m. intervals along the lines. A total of 419 samples were run for copper, silver and zinc. In addition, 2 silt samples were taken as well as 3 samples of mineralized outcropping.

In late October a D-6 cat was rented to test by trenching three of the more prominent geochemical anomalies which resulted from the mapping of soil values. Approximately 50% of the soil grid fell in Thunder 2, 41% in Thunder, and 9% in Thunder 3. Trenches dug in Thunder and Thunder 2 were largely backfilled as required by environmental regulation.

II PURPOSE

Examination of the showings in July 1983 revealed that pyrite, with much lesser chalcopyrite, occurred as clots, veinlets and disseminations in small silicious gneissic fingers or lenses of intermediate intrusive rock within a variegated schist host. With an intrusive body of gneissose boitite granodiorite and augen granite mapped immediately to the southwest (G.S.C. Map 3 - 1961, Quesnel Lake, West Half, R.B. Campbell, 1959-60), it was decided that larger bodies of mineralized intrusive might occur in the vicinity. Accordingly, a grid was laid out to include the showings and extending toward the main intrusive mass.

Chip samples of the showings across a few feet provided:

<u>Cu (%)</u>	<u>Ag (oz/t)</u>	<u>Au (oz/t)</u>
< 0.01	2.54	0.008
0.11	0.08	< 0.003
0.01	0.08	< 0.003

Trace amounts of galena and sphalerate were noted as assessorry minerals. Minor amounts of a green (nickel?) mineral associated with calcareous horizons in the schist were of common occurrence within the grid area.

III PROCEDURE

Soil samples were collected by spade and trowel from the B1 horizon where present. Where absent, soil samples were taken from the B2, well below surface or swampy organic matter. Samples were placed in standard kraft envelopes, suitably marked, and shipped damp to Chemex Labs Ltd. of North Vancouver, B.C.

No special procedure was used in analysis. Dried and screened (80 mesh) samples were digested in concentrated perchloric-nitric acid, diluted with distilled water, and then subjected to normal atomic absorption techniques for copper, silver, and zinc.

IV RESULTS

Plotting of soil values revealed two anomalies of interest, and a number of small or weak highs not investigated. Copper and silver generally provided coincidence, zinc to a lesser degree.

From inspection of values it was apparent that copper background was in the order of 45 ppm, silver 0.5 ppm and zinc 200 ppm. Tripling these, as a rule of thumb, indicated anomalous conditions at 135, 1.5, and 600 ppm respectively with a moderate slope (locally steep) toward the lake, it was realized that migration of ions downslope was a distinct possibility. However, out of 4 trenches cut, only one failed to reach bedrock, and that (line 750 north, stn. 600) was well down slope where terrain and absence of bedrock suggested deeper cover. Local swampy conditions and surface drainage were suspected as being contributory in part toward anomalous situations.

V TRENCHING

Three anomalies were checked by employing a D-6 cat. All three, being adjacent to logging roads, produced minimal environmental damage. Backfilling after inspection was conducted in accordance with environmental requirements.

A. North Anomaly - Line 750, Stn. 600 N

A coincident Cu-Ag-Zn anomaly, largely confined to a single determination, was trenched partly because access was easy. Maximum depth reached over a trench length of 42 metres was 3½ metres, immediately east of the station flag. Base was in a tight cobbly till. No float was noted. A low clay-gravel ridge just upslope from the station may have had some bearing on ground water movement or mineral ion distribution.

B. East Anomaly - Line 250, Stn. 150 N

A coincident Cu-Ag anomaly with loosely coincident Zn was trenched to a maximum depth of 4 metres along the soil line immediately above the lower limb of a road switchback. This anomaly is immediately downslope from an original showing in the ditch on the upper limb of the switchback. No mineral was found on schist bedrock; however, the west wall of the trench in the vicinity of the station consisted of rusty soil, with lenses of ferro-concrete and fragments of heavily pyritized float carrying a little chalcopryrite. This mineralization easily accounts for the soil anomaly and its downslope expression. The rusty zone hints at the possibility of a mineralized zone occurring adjacent to or just under the upper road limb and just upslope from the trench. Just below the trench along the road bank of the lower switchback limb a two-metre width of pyritized silicified intrusive-like rock was exposed by the cat blade. Although of little economic significance, its strike attitude (WNW) is in keeping with mineralization seen in the road ditch upslope. It is suspected that a number of these mineralized lenses or fingers occur in a belt or zone following schistosity in the vicinity of the road switchback.

C. West Anomaly - Lines 1500, 1625, Stns. 250 S

Again, a coincident Cu-Ag-Zn anomaly of size similar to the east anomaly was tested by trenching. On line 1500, Stn. 250 S, a trench was cut northerly for 16 m. from the station along flat ground and for 60 m. southerly up a moderately steep slope. A slight depression at toe of slope where the soil sample was taken suggested water movement, and this was confirmed with cat work. A trickle of water was found to be moving easterly along bedrock only 0.6 metres from surface, draining

swampy ground to the west. Sloping bedrock south of the station was in porphyritic quartz-feldspar augen gneiss. Flat bedrock littered with boulders north of the station was in schists similar to those exposed on the adjacent logging road.

On line 1625 at stn. 250 S a small trench was cut to check for mineralization. Cover was found to be only 0.6 metres deep (0.3 m. black muck over 0.3 m. buff clayey silt). A small stream draining swampy ground was found to be adjacent to anomalous stations 200, 250, and 300 south. Bedrock consisting of medium-grained gneissic intrusive proved to be barren.

From the foregoing it would appear the west anomaly is related to swamp and/or stream flow with attendant buildup of ions in swamp alluvium close to bedrock. Source of mineral remains unknown, but could be small in view of ideal conditions for ion entrapment.

VI INTERPRETATION

Based on exposures in the east anomaly area, it is felt that mineralization within the claim block is related to stringers or lenses of intermediate intrusive rock possibly stemming from the larger mass to the southwest. These follow schistosity and may be lenticular in shape with widths of less than a metre up to the order of 4 metres. Mineralization is largely pyrite (crystalline to massive) with lesser chalcopyrite, and very minor galena and sphalerite. Silver may run to several ounces but gold is relatively insignificant (unusually so in a gold environment). Coarse cubic pyrite is pervasive in the schists and small quartz veinlets and knots are common. Some carry a little mineralization.

Soil anomalies within the grid are probably related primarily to small mineralized tongues or lenses of gneissic intrusive rock and to a lesser degree to quartz veining. Grid work thus far done has not suggested the presence of large masses or of economic mineralization. By no means has all of the claim area or adjacent ground been prospected or tested.

VII CONCLUSIONS

Limited grid work and trenching on the Thunder claims have not provided encouragement for more sophisticated investigation by Silver Standard Mines Limited. Extension of search area with attendant prospecting and soil work may still be warranted.

A handwritten signature in cursive script, appearing to read "A. H. Beaton".

ITEMIZED COST STATEMENT

GEOCHEMICAL SOIL SURVEY

WAGES:

R. Beaton, travelling and property examination	\$ 900.00
D. Jourdain and helper, staking and geochemistry	4,080.00
R. Beaton, project organization, travelling, and start geochemistry program	1,050.00

LIVING EXPENSES:

R. Beaton, motel and meals	\$ 259.46
D. Jourdain and helper, groceries and supplies	331.03

TRAVELLING EXPENSES:

Diesel, oil, propane, and tire for D. Jourdain's vehicle	\$ 137.00
2719 km. on R. Beaton's vehicle, plus miscellaneous expenses	791.27

SAMPLE ANALYSIS:

431 soil samples analyzed for Cu, Zn, and Ag	\$ 1,864.50
6 rock samples analyzed for Cu, Mo, Ag, and Au	135.00
gusset soil bags	50.00

SUPPLIES AND MISCELLANEOUS:

Supplies for field work	\$ 133.09
Map reproductions	129.64
Fee for recording claims	100.00
Shipping of samples to lab	48.00
Long distance phone consultations	28.33

REPORT PREPARATION

R. Beaton	\$ 2,225.00
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TOTAL GEOCHEMICAL COSTS:	<u>\$12,262.32</u>
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ITEMIZED COST STATEMENT

TRENCHING PROGRAM

WAGES:

R. Beaton, supervision \$ 1,000.00

LIVING EXPENSES:

R. Beaton, motel and meals \$ 224.87

TRAVELLING EXPENSES:

Pacific Western Airlines \$ 403.90
Tilden-Rent-A-Car 350.33

CAT RENTAL AND DRIVER FEE:

D-6 Cat operated by G. Monsen \$ 1,696.00

MISCELLANEOUS:


Province of B.C. maps \$ 8.00
Long distance phone consultations 45.32

TOTAL TRENCHING COSTS: \$ 3,728.42

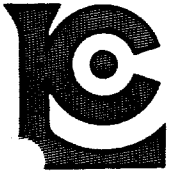
AUTHOR'S QUALIFICATIONS

I, R.H Beaton of the City of Vancouver in the Province of British Columbia certify that I am a Professional Engineer registered in the Province of British Columbia with a B.A.Sc. degree in geological engineering in 1952, that I personally supervised and participated in the geochemical and trenching investigation on the Thunder claims, and that I was employed by and worked under the senior personnel of Silver Standard Mines Limited while so engaged.

Vancouver, British Columbia
November 3, 1983



R.H. Beaton, P.Eng.



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CANADA V7J 2C1

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

• ANALYTICAL CHEMISTS

• GEOCHEMISTS

• REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

TC : SILVER STANDARD MINES LIMITED

904 - 1199 W. HASTINGS STREET
VANCOUVER, B.C.
V6E 3T5

CERT. # : A8315051-CC1-A
INVOICE # : I8315051
DATE : 4-CCT-83
P.C. # : NONE
THUNDER CLAIMS

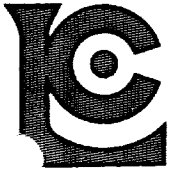
ATTN: ALEX RITCHIE

Sample description	Prep code	Cu %	Ag FA oz/T	Au FA oz/T			
NO. 1	207	<0.01	2.54	0.008	--	--	--
NO. 2	207	0.11	0.08	<0.003	--	--	--
NO. 3	207	0.01	0.08	<0.003	--	--	--

.....
Registered Assayer, Province of British Columbia



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904 - 1199 W. HASTINGS STREET
VANCOUVER, B.C.
V6E 3T5

CERT. # : A8315050-001-A
INVOICE # : 18315050
DATE : 27-SEP-83
P.C. # : NONE
THUNDER CLAIMS

ATTN: ALEX RITCHIE

Sample description	Prep code	Cu ppm	Zn ppm	Ag ppm			
L-0N 0+50	201	105	380	3.2	--	--	--
L-0N 0+116	201	67	186	0.5	--	--	--
L-0N 0+150	201	105	490	2.0	--	--	--
L-0N 0+200	201	46	136	1.0	--	--	--
L-0N 0+250	201	177	259	2.1	--	--	--
L-0N 0+300	201	95	195	0.3	--	--	--
L-0N 0+350	203	63	320	0.8	--	--	--
L-0N 0+400	201	40	135	0.4	--	--	--
L-0N 0+450	201	62	204	0.6	--	--	--
L-0N 0+500	203	110	205	0.9	--	--	--
L-0N 0+550	203	94	216	0.4	--	--	--
L-0N 0+600	201	48	142	1.2	--	--	--
L-0S 0+00	203	74	285	1.8	--	--	--
L-0S 0+50	201	79	198	0.9	--	--	--
L-0S 0+85	201	80	193	0.2	--	--	--
L-0S 0+150	201	68	184	0.4	--	--	--
L-0S 0+200	201	33	130	0.2	--	--	--
L-0S 0+250	201	68	139	0.1	--	--	--
L-0S 0+300	201	24	92	0.4	--	--	--
L-0S 0+400	201	50	160	0.2	--	--	--
L-0S 0+450	201	47	166	0.2	--	--	--
L-0S 0+500	201	170	356	4.7	--	--	--
L-0S 0+550	201	110	215	0.6	--	--	--
L-0S 0+600	201	44	159	0.2	--	--	--
L-125N 0+50	201	82	255	1.0	--	--	--
L-125N 0+100	201	148	285	0.5	--	--	--
L-125N 0+150	201	110	250	0.7	--	--	--
L-125N 0+200	201	158	451	2.5	--	--	--
L-125N 0+250	201	440	530	2.2	--	--	--
L-125N 0+300	201	102	295	2.1	--	--	--
L-125N 0+350	201	68	270	1.6	--	--	--
L-125N 0+400	201	46	176	0.8	--	--	--
L-125N 0+450	201	42	193	0.5	--	--	--
L-125N 0+500	201	33	186	0.2	--	--	--
L-125N 0+550	201	60	281	0.5	--	--	--
L-125N 0+600	201	98	210	1.5	--	--	--
L-125S 0+00	201	48	151	0.2	--	--	--
L-125S 0+50	201	38	149	0.5	--	--	--
L-125S 0+117	201	130	330	1.5	--	--	--
L-125S 0+150	201	68	190	0.4	--	--	--

Certified by *Hart Buchler*





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V6E 3T5

CERT. # : A8315050-002-A
INVOICE # : I8315050
DATE : 27-SEP-83
P.O. # : NONE
THUNDER CLAIMS

ATTN: ALEX RITCHIE

Sample description	Prep code	Cu ppm	Zn ppm	Ag ppm			
L-125S 0+200	201	38	181	0.4	--	--	--
L-125S 0+250	201	57	196	0.9	--	--	--
L-125S 0+300	201	126	222	1.5	--	--	--
L-125S 0+350	201	44	455	0.8	--	--	--
L-125S 0+400	201	19	113	0.1	--	--	--
L-125S 0+450	201	62	188	0.1	--	--	--
L-125S 0+500	201	132	211	0.7	--	--	--
L-125S 0+550	201	38	246	0.5	--	--	--
L-125S 0+600	201	82	228	0.8	--	--	--
L-250N 0+50	201	36	240	0.3	--	--	--
L-250N 0+100	201	70	185	0.7	--	--	--
L-250N 0+145	201	985	505	1.2	--	--	--
L-250N 0+200	201	85	430	2.7	--	--	--
L-250N 0+250	201	100	307	1.7	--	--	--
L-250N 0+300	201	85	111	4.5	--	--	--
L-250N 0+350	201	85	448	3.7	--	--	--
L-250N 0+400	201	162	1100	1.5	--	--	--
L-250N 0+450	201	30	146	0.5	--	--	--
L-250N 0+500	201	100	260	0.5	--	--	--
L-250N 0+550	201	37	167	0.7	--	--	--
L-250N 0+600	201	35	165	0.2	--	--	--
L-250S 0+00	201	74	220	0.7	--	--	--
L-250S 0+50	201	110	475	1.2	--	--	--
L-250S 0+100	201	115	270	0.7	--	--	--
L-250S 0+150	201	73	335	0.7	--	--	--
L-250S 0+200	201	95	245	1.2	--	--	--
L-250S 0+250	201	27	101	0.2	--	--	--
L-250S 0+300	201	66	153	0.8	--	--	--
L-250S 0+350	201	73	193	0.2	--	--	--
L-250S 0+400	201	63	265	0.7	--	--	--
L-250S 0+450	201	106	165	0.5	--	--	--
L-250S 0+500	201	115	245	1.1	--	--	--
L-250S 0+550	201	210	440	2.1	--	--	--
L-250S 0+600	201	40	210	0.3	--	--	--
L-375N 0+50	201	53	190	0.7	--	--	--
L-375N 0+100	201	110	189	1.2	--	--	--
L-375N 0+150	201	52	285	0.5	--	--	--
L-375N 0+200	201	28	148	0.3	--	--	--
L-375N 0+250	201	40	480	0.3	--	--	--
L-375N 0+300	201	116	550	1.8	--	--	--



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904 - 1199 W. HASTINGS STREET
VANCOUVER, B.C.
V6E 3T5

CERT. # : A8315050-003-A
INVOICE # : I8315050
DATE : 27-SEP-83
P.C. # : NONE
THUNDER CLAIMS

ATTN: ALEX RITCHIE

Sample description	Prep code	Cu ppm	Zn ppm	Ag ppm			
L-375N 0+350	201	49	385	3.2	--	--	--
L-375N 0+400	201	115	430	2.0	--	--	--
L-375N 0+450	201	46	198	0.3	--	--	--
L-375N 0+500	201	30	118	0.1	--	--	--
L-375N 0+550	201	85	190	0.5	--	--	--
L-375N 0+600	201	68	295	0.7	--	--	--
L-375S 0+00	201	30	205	0.3	--	--	--
L-375S 0+50	201	80	170	0.1	--	--	--
L-375S 0+100	201	53	215	0.3	--	--	--
L-375S 0+150	201	55	173	0.4	--	--	--
L-375S 0+200	201	70	360	0.2	--	--	--
L-375S 0+250	201	60	265	0.1	--	--	--
L-375S 0+300	201	37	133	0.2	--	--	--
L-375S 0+350	201	30	137	0.4	--	--	--
L-375S 0+400	201	13	72	0.4	--	--	--
L-375S 0+450	201	35	148	0.2	--	--	--
L-375S 0+500	201	40	129	0.3	--	--	--
L-375S 0+550	201	46	210	0.6	--	--	--
L-375S 0+600	201	38	171	1.3	--	--	--
L-500S 0+00	201	39	154	1.3	--	--	--
L-500S 0+50	201	32	540	1.1	--	--	--
L-500S 0+100	201	36	610	0.2	--	--	--
L-500S 0+150	201	34	150	0.6	--	--	--
L-500S 0+200	201	9	51	0.3	--	--	--
L-500S 0+250	201	150	172	1.4	--	--	--
L-500S 0+300	201	38	310	0.8	--	--	--
L-500S 0+350	201	40	225	0.6	--	--	--
L-500S 0+400	201	22	123	0.1	--	--	--
L-500S 0+450	201	12	74	0.1	--	--	--
L-500S 0+500	201	24	275	0.5	--	--	--
L-500S 0+550	201	25	182	0.3	--	--	--
L-500S 0+600	201	40	168	0.3	--	--	--
L-625S 0+00	201	19	315	0.5	--	--	--
L-625S 0+50	201	14	92	0.1	--	--	--
L-625S 0+100	201	20	275	0.7	--	--	--
L-625S 0+150	201	33	121	0.2	--	--	--
L-625S 0+200	201	240	315	3.2	--	--	--
L-625S 0+250	201	55	220	0.2	--	--	--
L-625S 0+300	201	26	89	0.1	--	--	--
L-625S 0+350	201	25	150	0.3	--	--	--

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TELEPHONE: (604) 984-0221

TELEX: 043-52597

CERTIFICATE OF ANALYSIS

TO : SILVER STANDARD MINES LIMITED

904 - 1199 W. HASTINGS STREET
VANCOUVER, B.C.
V6E 3T5

CERT. # : A8315050-004-A

INVOICE # : I8315050

DATE : 27-SEP-83

P.C. # : NONE

THUNDER CLAIMS

ATTN: ALEX RITCHIE

Sample description	Prep code	Cu ppm	Zn ppm	Ag ppm			
L-625S 0+400	201	41	350	1.6	--	--	--
L-625S 0+450	201	25	115	0.4	--	--	--
L-625S 0+500	201	43	485	0.8	--	--	--
L-625S 0+550	201	44	280	0.1	--	--	--
L-625S 0+600	201	69	495	1.3	--	--	--
L-750S 0+00	201	32	175	0.6	--	--	--
L-750S 0+50	201	43	161	0.1	--	--	--
L-750S 0+100	201	48	192	0.2	--	--	--
L-750S 0+150	203	215	5300	0.7	--	--	--
L-750S 0+200	201	65	200	0.6	--	--	--
L-750S 0+250	201	34	235	0.6	--	--	--
L-750S 0+300	201	37	101	0.1	--	--	--
L-750S 0+350	201	30	103	0.1	--	--	--
L-750S 0+400	201	14	63	0.1	--	--	--
L-750S 0+450	201	41	117	0.1	--	--	--
L-750S 0+500	201	85	215	0.3	--	--	--
L-750S 0+550	201	30	140	1.0	--	--	--
L-750S 0+600	201	16	160	1.2	--	--	--
L-875S 0+00	201	44	176	0.2	--	--	--
L-875S 0+50	201	27	310	1.6	--	--	--
L-875S 0+100	201	29	205	1.0	--	--	--
L-875S 0+200	201	46	245	0.7	--	--	--
L-875S 0+300	201	90	61	0.1	--	--	--
L-875S 0+350	201	190	137	0.1	--	--	--
L-875S 0+400	201	26	121	0.3	--	--	--
L-875S 0+450	201	82	240	3.1	--	--	--
L-875S 0+500	201	30	108	0.6	--	--	--
L-875S 0+550	201	33	118	0.3	--	--	--
L-875S 0+600	201	140	172	0.9	--	--	--
L-1000S 0+00	201	255	185	0.7	--	--	--
L-1000S 0+50	201	26	96	0.2	--	--	--
L-1000S 0+100	201	6	43	0.2	--	--	--
L-1000S 0+150	201	27	130	0.2	--	--	--
L-1000S 0+200	201	32	122	0.2	--	--	--
L-1000S 0+250	201	35	420	0.9	--	--	--
L-1000S 0+300	201	54	280	1.2	--	--	--
L-1000S 0+350	201	70	475	0.9	--	--	--
L-1000S 0+400	201	118	640	0.6	--	--	--
L-1000S 0+450	201	42	172	0.7	--	--	--
L-1000S 0+500	201	47	130	0.2	--	--	--



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CHEMEX LABS LTD.

212 BROOKSBANK AVE.
 NORTH VANCOUVER, B.C.
 CANADA V7J 2C1
 TELEPHONE: (604) 984-0221
 TELEX: 043-52597

ANALYTICAL CHEMISTS GEOCHEMISTS REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO : SILVER STANDARD MINES LIMITED

904 - 1199 W. HASTINGS STREET
 VANCOUVER, B.C.
 V6E 3T5

CERT. # : A8315050-005-A
 INVOICE # : 18315050
 DATE : 27-SEP-83
 P.O. # : NONE
 THUNDER CLAIMS

ATTN: ALEX RITCHIE

Sample description	Prep code	Cu ppm	Zn ppm	Ag ppm			
L-1000S 0+550	201	16	37	0.7	--	--	--
L-1000S 0+600	201	150	260	0.8	--	--	--
L-1125S 0+00	201	102	335	0.8	--	--	--
L-1125S 0+50	201	76	220	0.5	--	--	--
L-1125S 0+100	201	78	230	0.7	--	--	--
L-1125S 0+150	201	66	200	0.2	--	--	--
L-1125S 0+200	201	76	220	0.4	--	--	--
L-1125S 0+250	201	54	172	0.2	--	--	--
L-1125S 0+300	201	44	195	0.1	--	--	--
L-1125S 0+350	201	30	142	0.1	--	--	--
L-1125S 0+400	201	22	120	0.1	--	--	--
L-1125S 0+450	201	24	145	0.1	--	--	--
L-1125S 0+500	201	54	210	0.3	--	--	--
L-1125S 0+550	201	40	135	1.0	--	--	--
L-1125S 0+600	201	130	405	1.8	--	--	--
L-1250S 0+00	201	52	178	0.1	--	--	--
L-1250S 0+50	201	16	77	0.6	--	--	--
L-1250S 0+100	201	43	139	0.2	--	--	--
L-1250S 0+150	201	75	188	0.4	--	--	--
L-1250S 0+200	201	26	350	0.5	--	--	--
L-1250S 0+250	201	46	800	0.8	--	--	--
L-1250S 0+300	201	37	184	0.4	--	--	--
L-1250S 0+350	201	57	1350	0.6	--	--	--
L-1250S 0+400	201	27	225	0.2	--	--	--
L-1250S 0+450	201	205	255	0.5	--	--	--
L-1250S 0+500	201	73	240	0.1	--	--	--
L-1250S 0+550	201	21	77	0.1	--	--	--
L-1250S 0+600	201	70	250	0.6	--	--	--
L-1375S 0+00	201	58	195	0.1	--	--	--
L-1375S 0+50	201	38	187	0.3	--	--	--
L-1375S 0+100	201	182	350	0.4	--	--	--
L-1375S 0+150	201	50	210	0.1	--	--	--
L-1375S 0+200	201	46	390	0.2	--	--	--
L-1375S 0+250	201	30	200	1.6	--	--	--
L-1375S 0+300	201	32	187	1.2	--	--	--
L-1375S 0+350	201	75	290	0.3	--	--	--
L-1375S 0+400	201	46	159	0.4	--	--	--
L-1375S 0+450	201	78	184	0.1	--	--	--
L-1375S 0+500	201	120	210	0.1	--	--	--
L-1375S 0+550	201	30	152	0.1	--	--	--

Hart Bichler

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CHEMEX LABS LTD.

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

- ANALYTICAL CHEMISTS

- GEOCHEMISTS

- REGISTERED ASSAYERS

TELEPHONE: (604) 984-0221

TELEX: 043-52597

CERTIFICATE OF ANALYSIS

TO : SILVER STANDARD MINES LIMITED

904 - 1199 W. HASTINGS STREET
VANCOUVER, B.C.
V6E 3T5

CERT. # : A8315050-006-A
INVOICE # : I8315050
DATE : 27-SEP-83
P.O. # : NONE
THUNDER CLAIMS

ATTN: ALEX RITCHIE

Sample description	Prep code	Cu ppr	Zn ppm	Ag ppm			
L-1375S 0+600	201	56	190	0.4	--	--	--
L-1500S 0+00	201	24	92	2.5	--	--	--
L-1500S 0+50	201	14	87	0.1	--	--	--
L-1500S 0+100	201	17	108	1.3	--	--	--
L-1500S 0+150	201	50	220	0.1	--	--	--
L-1500S 0+200	201	8	64	0.4	--	--	--
L-1500S 0+250	203	555	1100	7.5	--	--	--
L-1500S 0+300	201	24	130	1.6	--	--	--
L-1500S 0+350	201	28	110	0.7	--	--	--
L-1500S 0+400	201	30	153	0.4	--	--	--
L-1500S 0+450	201	42	310	0.3	--	--	--
L-1500S 0+500	201	56	220	0.5	--	--	--
L-1500S 0+550	201	57	127	0.3	--	--	--
L-1500S 0+600	201	128	595	1.0	--	--	--
L-1625S 0+00	201	203	280	0.5	--	--	--
L-1625S 0+50	201	27	230	0.2	--	--	--
L-1625S 0+107	203	55	335	0.6	--	--	--
L-1625S 0+150	201	190	440	4.1	--	--	--
L-1625S 0+200	201	150	600	2.4	--	--	--
L-1625S 0+250	201	400	590	2.6	--	--	--
L-1625S 0+300	201	135	445	2.0	--	--	--
L-1625S 0+350	201	80	395	1.2	--	--	--
L-1625S 0+400	201	70	280	0.4	--	--	--
L-1625S 0+450	201	57	120	0.5	--	--	--
L-1625S 0+500	201	32	125	0.2	--	--	--
L-1625S 0+550	201	152	215	1.4	--	--	--
L-1625S 0+600	201	33	107	0.7	--	--	--
L-1750S 0+00	201	38	135	0.6	--	--	--
L-1750S 0+50	201	27	182	1.0	--	--	--
L-1750S 0+100	201	113	900	2.0	--	--	--
L-1750S 0+150	201	7	33	0.2	--	--	--
L-1750S 0+200	201	40	82	0.5	--	--	--
L-1750S 0+250	201	115	250	1.2	--	--	--
L-1750S 0+300	201	175	485	1.4	--	--	--
L-1750S 0+350	201	58	174	0.9	--	--	--
L-1750S 0+400	201	40	122	0.8	--	--	--
L-1750S 0+450	201	105	173	0.2	--	--	--
L-1750S 0+500	201	20	48	0.1	--	--	--
L-1750S 0+550	201	36	115	0.2	--	--	--
L-1750S 0+600	201	34	104	0.7	--	--	--



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CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: (604) 984-0221
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO : SILVER STANDARD MINES LIMITED

904 - 1199 W. HASTINGS STREET
VANCOUVER, B.C.
V6E 3T5

CERT. # : A8315050-007-A
INVOICE # : I8315050
DATE : 27-SEP-83
P.C. # : NONE
THUNDER CLAIMS

ATTN: ALEX RITCHIE

Sample description	Prep code	Cu ppm	Zn ppm	Ag ppm			
L-1875S 0+00	201	61	225	0.6	--	--	--
L-1875S 0+50	201	25	163	0.1	--	--	--
L-1875S 0+100	201	42	108	0.1	--	--	--
L-1875S 0+150	201	32	83	0.2	--	--	--
L-1875S 0+200	201	40	69	0.1	--	--	--
L-1875S 0+250	201	153	185	0.2	--	--	--
L-1875S 0+300	201	10	46	0.1	--	--	--
L-1875S 0+350	201	22	113	0.2	--	--	--
L-1875S 0+400	201	75	124	0.1	--	--	--
L-1875S 0+450	201	90	365	0.4	--	--	--
L-1875S 0+500	201	74	157	0.1	--	--	--
L-1875S 0+550	201	8	45	0.1	--	--	--
L-1875S 0+600	201	46	183	0.9	--	--	--
L-2000S 0+00	201	42	128	0.1	--	--	--
L-2000S 0+50	201	32	133	0.1	--	--	--
L-2000S 0+100	201	115	215	0.5	--	--	--
L-2000S 0+150	203	9	59	0.1	--	--	--
L-2000S 0+200	201	24	101	0.2	--	--	--
L-2000S 0+250	201	23	88	0.1	--	--	--
L-2000S 0+300	201	26	92	0.3	--	--	--
L-2000S 0+350	201	47	108	0.2	--	--	--
L-2000S 0+400	201	8	33	0.1	--	--	--
L-2000S 0+450	201	23	64	0.1	--	--	--
L-2000S 0+500	201	36	81	0.3	--	--	--



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

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

• ANALYTICAL CHEMISTS

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CERTIFICATE OF ANALYSIS

TO : SILVER STANDARD MINES LIMITED

904 - 1199 W. HASTINGS STREET
VANCOUVER, B.C.
V6E 3T5

CERT. # : A8315268-001-A
INVOICE # : 18315268
DATE : 7-OCT-83
P.C. # : NONE
THUNDER PROPERTY

ATTN: ALEX RITCHIE

Sample description	Prep code	Cu ppm	Zn ppm	Ag ppm			
L500N 0+50	201	52	182	0.2	--	--	--
L500N 0+100	201	80	184	0.8	--	--	--
L500N 0+150	201	110	230	0.3	--	--	--
L500N 0+200	201	60	580	1.9	--	--	--
L500N 0+250	201	53	183	0.5	--	--	--
L500N 0+300	201	64	133	0.1	--	--	--
L500N 0+350	201	66	144	0.1	--	--	--
L500N 0+400	201	58	156	0.4	--	--	--
L500N 0+450	201	56	150	0.6	--	--	--
L500N 0+500	201	22	106	0.2	--	--	--
L500N 0+550	201	55	130	0.4	--	--	--
L500N 0+600	201	153	270	0.6	--	--	--
L625N 0+50	201	50	182	0.1	--	--	--
L625N 0+100	201	28	101	0.3	--	--	--
L625N 0+150	201	48	260	0.8	--	--	--
L625N 0+200	201	75	300	0.6	--	--	--
L625N 0+250	201	24	100	0.2	--	--	--
L625N 0+300	201	34	135	0.2	--	--	--
L625N 0+350	201	28	141	0.5	--	--	--
L625N 0+400	201	33	157	0.6	--	--	--
L625N 0+450	201	38	142	0.6	--	--	--
L625N 0+500	201	74	215	0.2	--	--	--
L625N 0+550	201	28	95	0.3	--	--	--
L625N 0+600	201	65	200	0.5	--	--	--
L750N 0+50	201	48	142	0.2	--	--	--
L750N 0+100	201	62	190	0.3	--	--	--
L750N 0+150	201	28	245	2.0	--	--	--
L750N 0+200	201	90	163	1.0	--	--	--
L750N 0+250	201	61	164	0.2	--	--	--
L750N 0+300	201	66	169	0.2	--	--	--
L750N 0+350	201	49	189	0.7	--	--	--
L750N 0+400	201	26	119	0.3	--	--	--
L750N 0+450	201	50	153	0.5	--	--	--
L750N 0+500	201	77	365	0.8	--	--	--
L750N 0+550	201	51	390	0.8	--	--	--
L750N 0+600	201	390	1900	11.0	--	--	--
L875N 0+50	201	72	205	0.2	--	--	--
L875N 0+100	201	27	195	0.6	--	--	--
L875N 0+150	201	56	200	1.0	--	--	--
L875N 0+200	201	60	280	1.0	--	--	--



CHEMEX LABS LTD.

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

• ANALYTICAL CHEMISTS

• GEOCHEMISTS

• REGISTERED ASSAYERS

TELEPHONE: (604) 984-0221

TELEX: 043-52597

CERTIFICATE OF ANALYSIS

TO : SILVER STANDARD MINES LIMITED

904 - 1199 W. HASTINGS STREET
VANCOUVER, B.C.
V6E 3T5

CERT. # : A8315268-002-A

INVOICE # : I8315268

DATE : 7-OCT-83

P.C. # : NONE

THUNDER PROPERTY

ATTN: ALEX RITCHIE

Sample description	Prep code	Cu ppm	Zn ppm	Ag ppm			
L875N 0+250	201	40	225	0.2	--	--	--
L875N 0+300	201	40	112	0.6	--	--	--
L875N 0+350	201	41	129	0.3	--	--	--
L875N 0+400	201	41	132	0.1	--	--	--
L875N 0+450	201	100	430	1.1	--	--	--
L875N 0+500	201	33	151	0.5	--	--	--
L875N 0+550	201	142	250	0.5	--	--	--
L875N 0+600	201	155	300	0.8	--	--	--
L1000N 0+50	201	40	183	0.2	--	--	--
L1000N 0+100	201	52	180	0.2	--	--	--
L1000N 0+150	201	25	109	0.6	--	--	--
L1000N 0+200	201	108	220	0.5	--	--	--
L1000N 0+250	201	88	155	0.1	--	--	--
L1000N 0+300	201	78	250	0.4	--	--	--
L1000N 0+350	201	77	210	0.2	--	--	--
L1000N 0+400	201	75	245	0.4	--	--	--
L1000N 0+450	201	76	220	0.1	--	--	--
L1000N 0+500	201	33	173	0.4	--	--	--
L1000N 0+550	201	50	200	0.1	--	--	--
L1000N 0+600	201	65	205	0.4	--	--	--
L1125N 0+50	201	93	285	0.9	--	--	--
L1125N 0+100	201	90	260	1.0	--	--	--
L1125N 0+150	201	90	315	0.8	--	--	--
L1125N 0+200	201	76	240	0.6	--	--	--
L1125N 0+250	201	100	370	1.7	--	--	--
L1125N 0+300	201	102	270	1.4	--	--	--
L1125N 0+350	201	230	950	1.0	--	--	--
L1125N 0+400	201	173	770	0.5	--	--	--
L1125N 0+450	201	164	525	1.5	--	--	--
L1125N 0+500	201	100	555	0.8	--	--	--
L1125N 0+550	201	76	487	0.4	--	--	--
L1125N 0+600	201	100	390	0.3	--	--	--
L1250N 0+50	201	43	156	0.2	--	--	--
L1250N 0+100	201	50	190	0.4	--	--	--
L1250N 0+150	201	45	174	0.3	--	--	--
L1250N 0+200	201	50	210	0.3	--	--	--
L1250N 0+250	201	40	156	0.1	--	--	--
L1250N 0+300	201	45	176	0.1	--	--	--
L1250N 0+350	201	53	193	0.2	--	--	--
L1250N 0+400	201	53	184	0.3	--	--	--



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CHEMEX LABS LTD.

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

• ANALYTICAL CHEMISTS

• GEOCHEMISTS

• REGISTERED ASSAYERS

TELEPHONE: (604) 984-0221

TELEX: 043-52597

CERTIFICATE OF ANALYSIS

TO : SILVER STANDARD MINES LIMITED

904 - 1199 W. HASTINGS STREET
VANCOUVER, B.C.
V6E 2T5

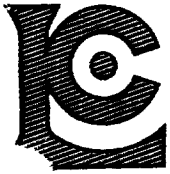
CERT. # : AB315268-003-A
INVOICE # : 18315268
DATE : 7-OCT-83
P.O. # : NONE
THUNDER PROPERTY

ATTN: ALEX RITCHIE

Sample description	Prep code	Cu ppm	Zn ppm	Ag ppm			
L1250N C+450	201	54	210	0.2	--	--	--
L1250N C+500	201	49	200	0.1	--	--	--
L1250N C+550	201	70	220	0.4	--	--	--
L1250N C+600	201	95	225	0.4	--	--	--
L1375N C+50	201	19	79	0.3	--	--	--
L1375N C+100	201	57	365	1.0	--	--	--
L1375N C+150	201	59	380	0.1	--	--	--
L1375N C+200	201	54	235	0.7	--	--	--
L1375N C+250	201	35	180	0.8	--	--	--
L1375N C+300	201	57	215	0.3	--	--	--
L1375N C+350	201	59	240	0.4	--	--	--
L1375N C+400	201	36	197	0.4	--	--	--
L1375N C+450	201	45	187	0.6	--	--	--
L1375N C+500	201	83	275	0.6	--	--	--
L1375N C+550	201	100	330	0.4	--	--	--
L1375N C+600	201	76	335	1.5	--	--	--
L1500N C+50	201	48	110	0.5	--	--	--
L1500N C+100	201	32	152	1.2	--	--	--
L1500N C+150	201	28	86	1.2	--	--	--
L1500N C+200	201	86	200	1.3	--	--	--
L1500N C+250	201	52	265	0.2	--	--	--
L1500N C+300	201	65	340	0.5	--	--	--
L1500N C+350	201	60	330	0.5	--	--	--
L1500N C+400	201	70	355	0.6	--	--	--
L1500N C+450	201	64	340	0.5	--	--	--
L1500N C+500	201	130	260	0.3	--	--	--
L1500N C+550	201	75	225	1.0	--	--	--
L1500N C+600	201	225	250	0.5	--	--	--
L1625N C+50	201	158	740	4.0	--	--	--
L1625N C+100	201	128	1000	1.0	--	--	--
L1625N C+150	201	68	290	0.1	--	--	--
L1625N C+200	201	133	545	0.6	--	--	--
L1625N C+250	201	38	171	0.1	--	--	--
L1625N C+300	201	40	161	0.2	--	--	--
L1625N C+350	201	44	210	0.4	--	--	--
L1625N C+400	201	70	205	0.8	--	--	--
L1625N C+450	201	30	215	0.3	--	--	--
L1625N C+500	201	44	200	0.4	--	--	--
L1625N C+550	201	68	200	0.2	--	--	--
L1625N C+600	201	32	79	0.4	--	--	--



Certified by *Hart Bickler*



CHEMEX LABS LTD.

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

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

ANALYTICAL CHEMISTS

GEOCHEMISTS

REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO : SILVER STANDARD MINES LIMITED

904 - 1199 W. HASTINGS STREET
VANCOUVER, B.C.
V6E 3T5

CERT. # : A8315268-004-A
INVOICE # : I8315268
DATE : 7-OCT-83
P.C. # : NONE
THUNDER PROPERTY

ATTN: ALEX RITCHIE

Sample description	Prep code	Cu ppm	Zn ppm	Ag ppm			
L1750N 0+50	201	17	75	0.1	--	--	--
L1750N 0+100	201	38	107	0.2	--	--	--
L1750N 0+150	201	140	315	1.1	--	--	--
L1750N 0+200	201	122	390	2.0	--	--	--
L1750N 0+250	201	30	195	0.8	--	--	--
L1750N 0+300	201	37	105	0.1	--	--	--
L1750N 0+350	201	200	116	0.1	--	--	--
L1750N 0+400	201	90	82	0.1	--	--	--
L1750N 0+450	201	440	410	0.3	--	--	--
L1750N 0+500	201	70	500	1.1	--	--	--
L1750N 0+550	201	60	210	0.6	--	--	--
L1750N 0+600	201	72	124	0.3	--	--	--
L1875N 0+50	201	37	100	0.6	--	--	--
L1875N 0+100	201	17	78	0.2	--	--	--
L1875N 0+150	201	35	130	0.2	--	--	--
L1875N 0+200	201	25	117	0.4	--	--	--
L1875N 0+250	201	72	630	0.3	--	--	--
L1875N 0+300	201	42	355	0.4	--	--	--
L1875N 0+350	201	40	260	0.4	--	--	--
L1875N 0+400	201	13	82	0.2	--	--	--
L1875N 0+450	201	29	103	0.6	--	--	--
L1875N 0+500	201	175	104	0.1	--	--	--
L1875N 0+550	201	72	157	0.4	--	--	--
L1875N 0+600	201	120	152	0.6	--	--	--
L2000N 0+100	201	28	90	0.1	--	--	--
L2000N 0+150	201	17	81	0.1	--	--	--
L2000N 0+200	201	24	82	0.3	--	--	--
L2000N 0+250	201	59	125	0.3	--	--	--
L2000N 0+300	201	65	134	0.2	--	--	--
L2000N 0+350	201	90	85	0.3	--	--	--
L2000N 0+400	201	80	82	0.4	--	--	--
L2000N 0+450	201	140	340	1.3	--	--	--
L2000N 0+500	201	31	134	0.4	--	--	--
L2000N 0+550	201	44	95	0.3	--	--	--
L2000N 0+600	201	110	174	1.3	--	--	--
THUNDER 2 SILT	201	48	133	0.1	--	--	--
THUNDER IV SILT	201	132	265	0.5	--	--	--

Certified by

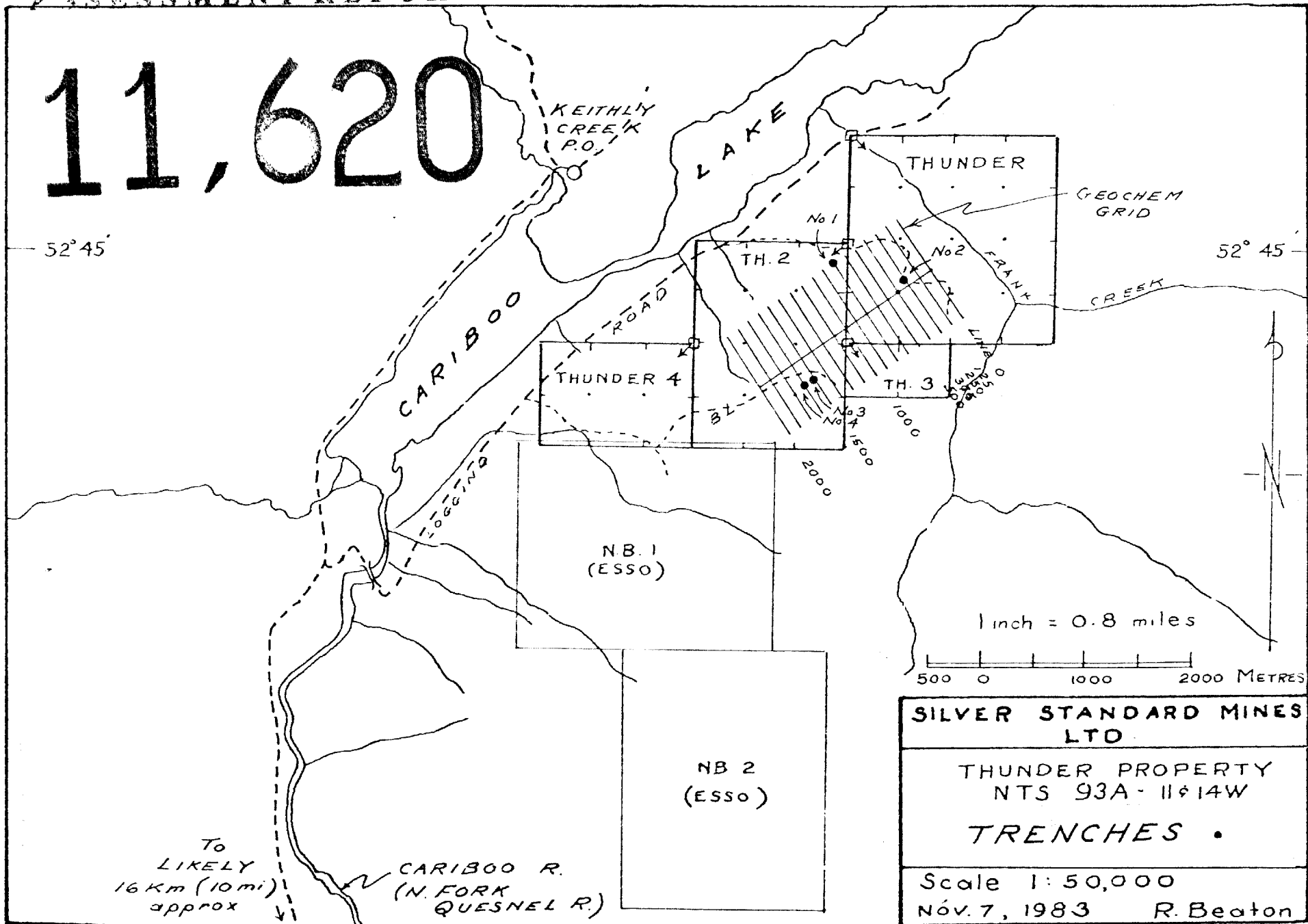
Hart Bichler



MEMBER
CANADIAN TESTING
ASSOCIATION

GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,620



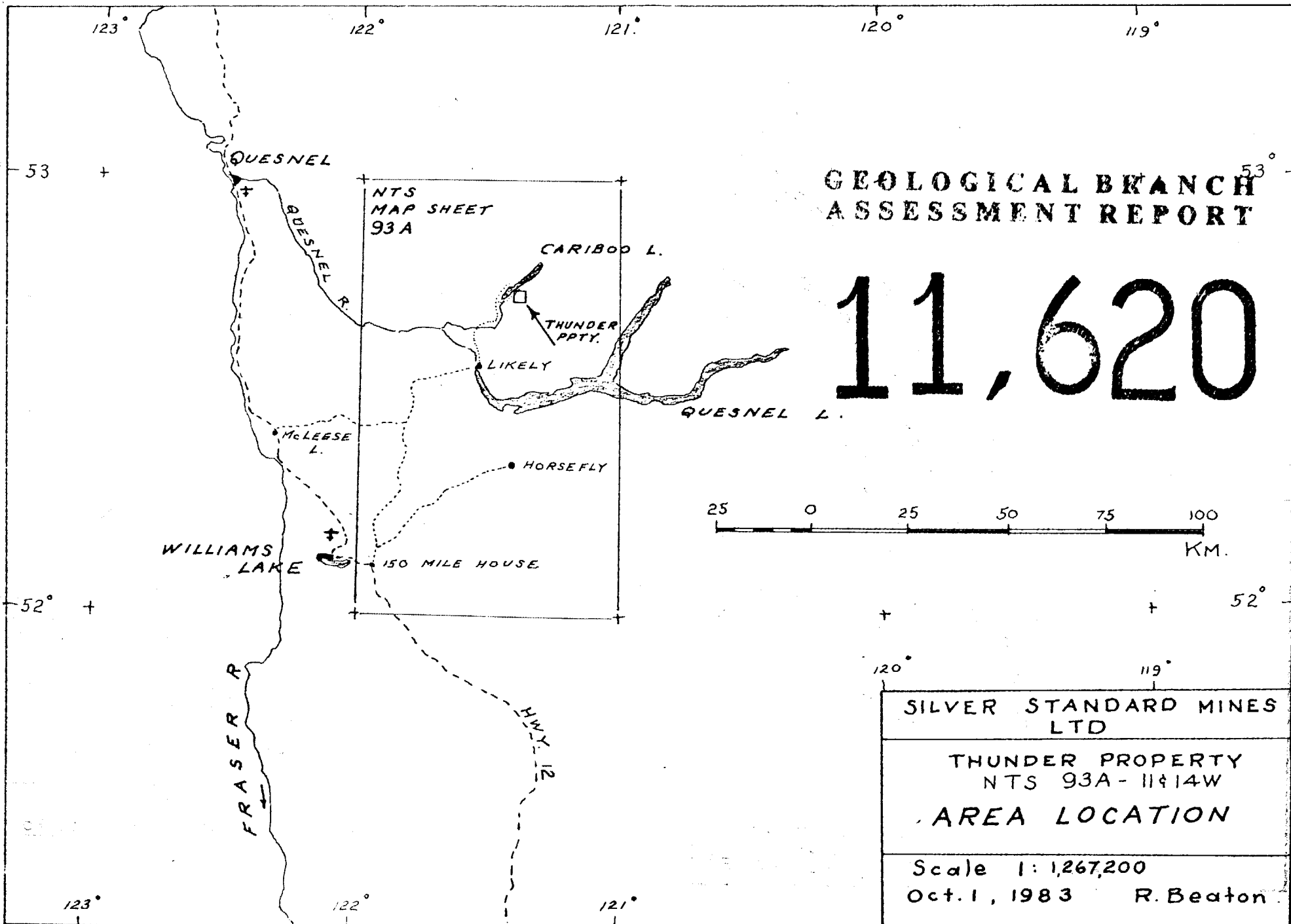
SILVER STANDARD MINES LTD.

THUNDER PROPERTY
NTS 93A-11914W

TRENCHES •

Scale 1:50,000

Nov. 7, 1983 R. Beaton



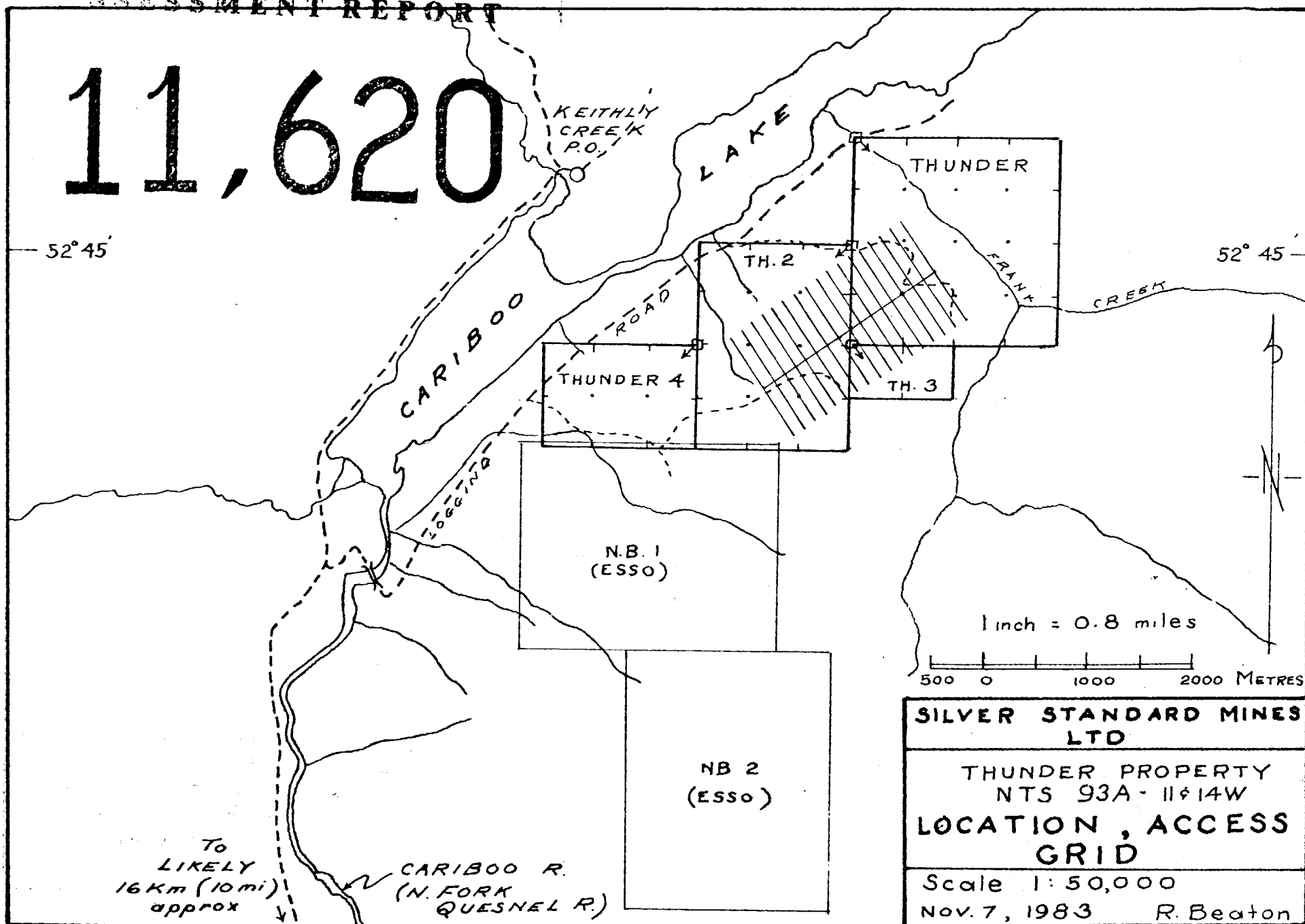
**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

11,620

SILVER STANDARD MINES LTD
THUNDER PROPERTY NTS 93A - 11 & 14W
AREA LOCATION
Scale 1:1,267,200 Oct. 1, 1983 R. Beaton

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ASSESSMENT REPORT

11,620



To
LIKELY
16 Km (10 mi)
approx

CARIBOO R.
(N. FORK
QUESNEL R.)

SILVER STANDARD MINES LTD

THUNDER PROPERTY
NTS 93A - 11 & 14W
**LOCATION, ACCESS
GRID**

Scale 1:50,000
Nov. 7, 1983 R. Beaton

