

**TRENCHING PROGRAM**  
**ON THE**  
**KID 1-8 and MGM 1-44 CLAIMS**  
**Watson Lake Mining District**  
**Yukon Territory**

**NTS: 95 C 5**  
**Latitude: 60° 23'N**  
**Longitude: 125° 47'W**

**by**

**R.A. Quartermain**  
**Consolidated Silver Standard Mines Limited**  
**1100 - 1199 West Hastings Street**  
**Vancouver, B.C.**  
**V6E 3V4**

**July, 1986**

**EIP 86 - 013**

*Vol. 1.*



## SUMMARY

A 10-day sampling, trenching and re-evaluation program was undertaken on the Kid 1-8 and MGM 1-44 claims between July 7 and 17, 1986. Four trenches totalling 40 m in length were excavated in areas of high radioactivity, or where float and/or outcrop with anomalous Rare Earth Elements (REE) had been located. The results of this work indicates that additional exploration of the property is warranted with emphasis towards areas of anomalous REE.

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### APPENDIX

Appendix I Analytical Results (to follow on receipt)

### DRAWINGS

Drawing C30018601	Location Map	1:3,200,000	after pg.1
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## INTRODUCTION

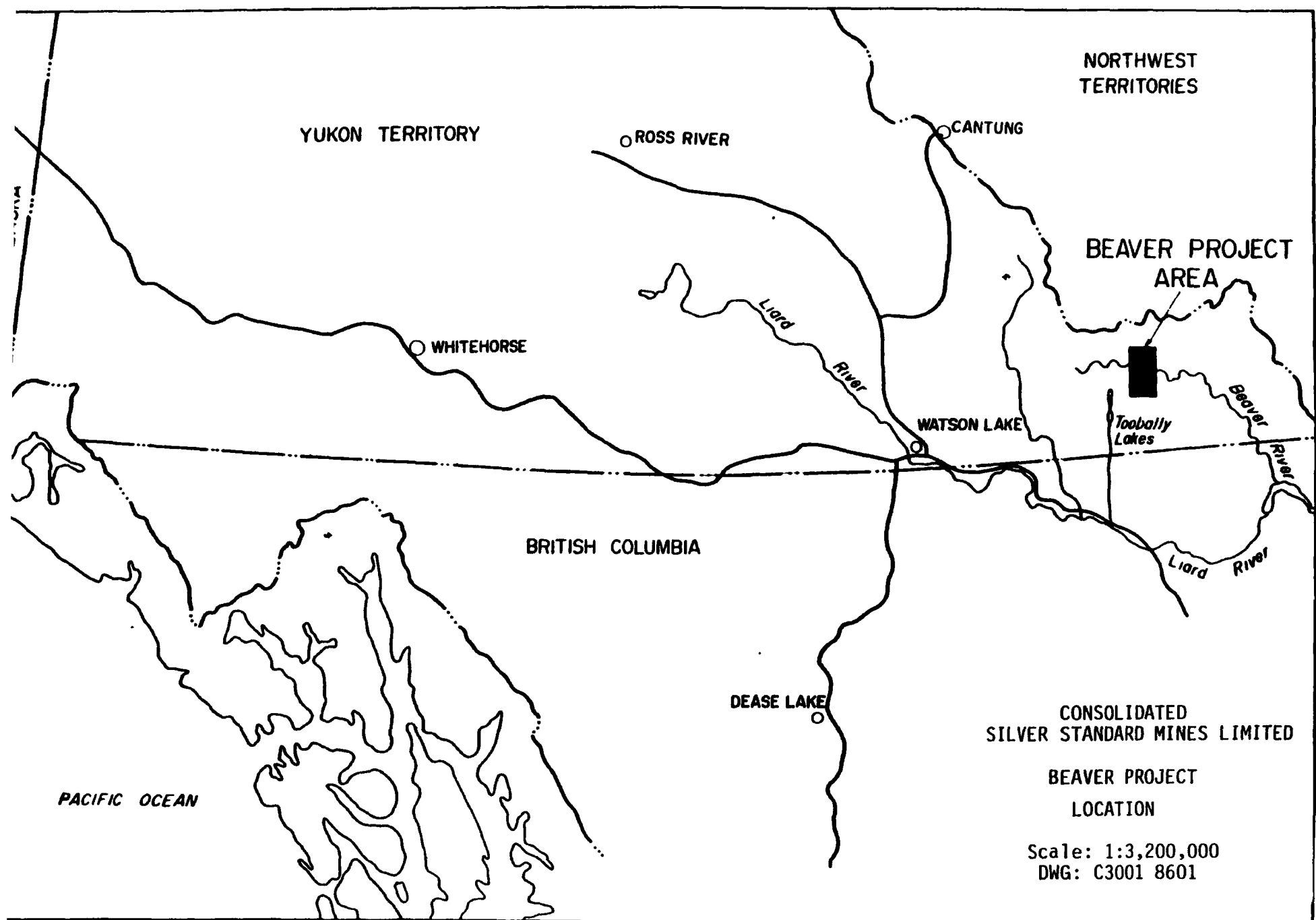
A three-man ten-day exploration program was undertaken on the Beaver property between July 7 and July 17th, 1986. Included as part of this program was a limited amount of trenching on the Kid and certain adjoining claims. It is this 40 meter trenching program that is the subject of this report.

The 1986 program on the Beaver property was largely a re-evaluation combined with orientation exploration surveys. The analytical results of work carried out on the property between 1976 and 1980 indicated that rare earth elements (REE) occur in association with radioactive elements and concentrations of greater than 1% REE were noted. No active exploration was undertaken strictly for rare earths. The potential for economic concentrations of rare earths may exist, however, the property will require a substantial and well-managed program to determine if this is the case.

## LOCATION AND ACCESS

The property is located approximately 200 km east of Watson Lake, Yukon Territory in the Beaver River watershed. The Beaver Claim Group covers a 5 km north-south trending barren height of land at an elevation of 1400 meters, 10 km southwest of the headwaters of the Beaver River.

Accessibility is restricted to aircraft. Fixed-wing float aircraft can fly to Toobally Lakes and from there, equipment can be ferried via helicopter to the property, a distance of 20 km east. In the winter it would be possible to land on the flat height of land covered by claims MGM 43 and 41. The property is approximately a 1 hour helicopter ride east of Watson Lake.



YUKON TERRITORY

NORTHWEST  
TERRITORIES

ROSS RIVER

CANTUNG

WHITEHORSE

BEAVER PROJECT  
AREA

Liard  
River

WATSON LAKE

Toobally  
Lakes

Beaver  
River

BRITISH COLUMBIA

Liard  
River

DEASE LAKE

PACIFIC OCEAN

CONSOLIDATED  
SILVER STANDARD MINES LIMITED

BEAVER PROJECT  
LOCATION

Scale: 1:3,200,000  
DWG: C3001 8601

## CLAIMS

The Beaver property consists of 52 located claims.

Kid 1-8 YA505-YA512 recorded 11 August 76

MGM 1-44 YA90921-YA90964 recorded 20 April 86

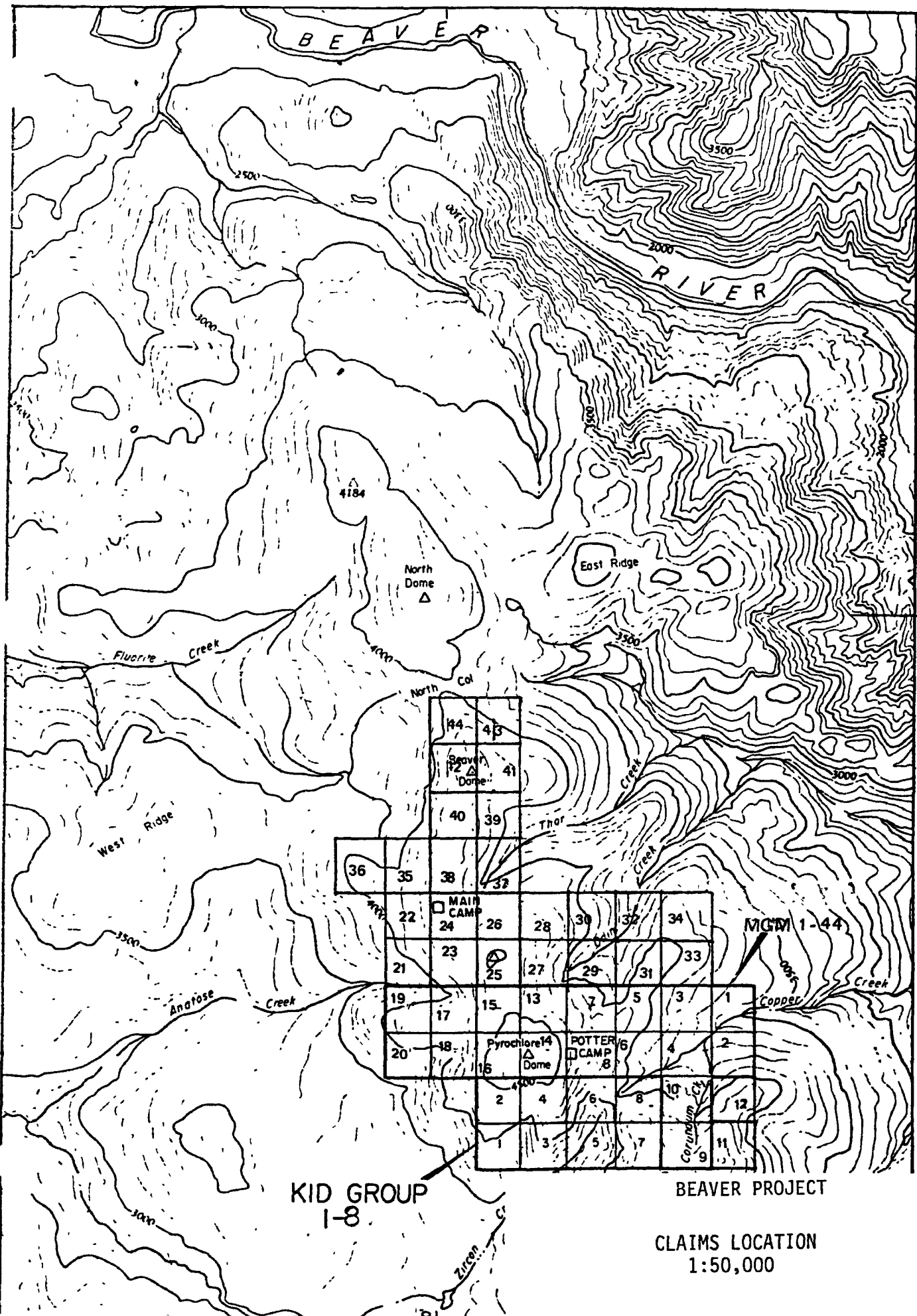
## PREVIOUS WORK

The Beaver property was located in 1976 following an airborne radioactive survey carried out by Silver Standard Mines Limited personnel. Highly radioactive structures cutting the Beaver syenitic stock were sampled and trenched. In 1980 a major program of sampling of radioactive zones was carried out by D.G. Leighton and Associates on behalf of a number of parties. It was the 1980 program which clarified the geological picture of the area and established the association of anomalous rare earth elements with radioactive zones.

No potentially economic concentrations of any elements were found as a result of the 1980 program. However, the focus of that program was for radioactive elements and the rare earth potential received only a cursory evaluation. Orientation surveys which might enable a cost-effective evaluation of the rare earth potential of the property were undertaken in conjunction with trenching of certain radioactive areas in the current program.

## GEOLOGY

Regionally the geology is dominated by Paleozoic shales and carbonates with lesser quartzites, conglomerates and grits. The property is dominated by a variably compositioned Cretaceous (?) nepheline syenite. The syenite consists of a number of different colour and texture variations with assumed gradational contacts though only a few can be inferred. It would appear there may be a compositional zoning to the stock as opposed to it being a complex multi-phased intrusion. The syenite is enriched in



KID GROUP  
1-8

BEAVER PROJECT

CLAIMS LOCATION  
1:50,000

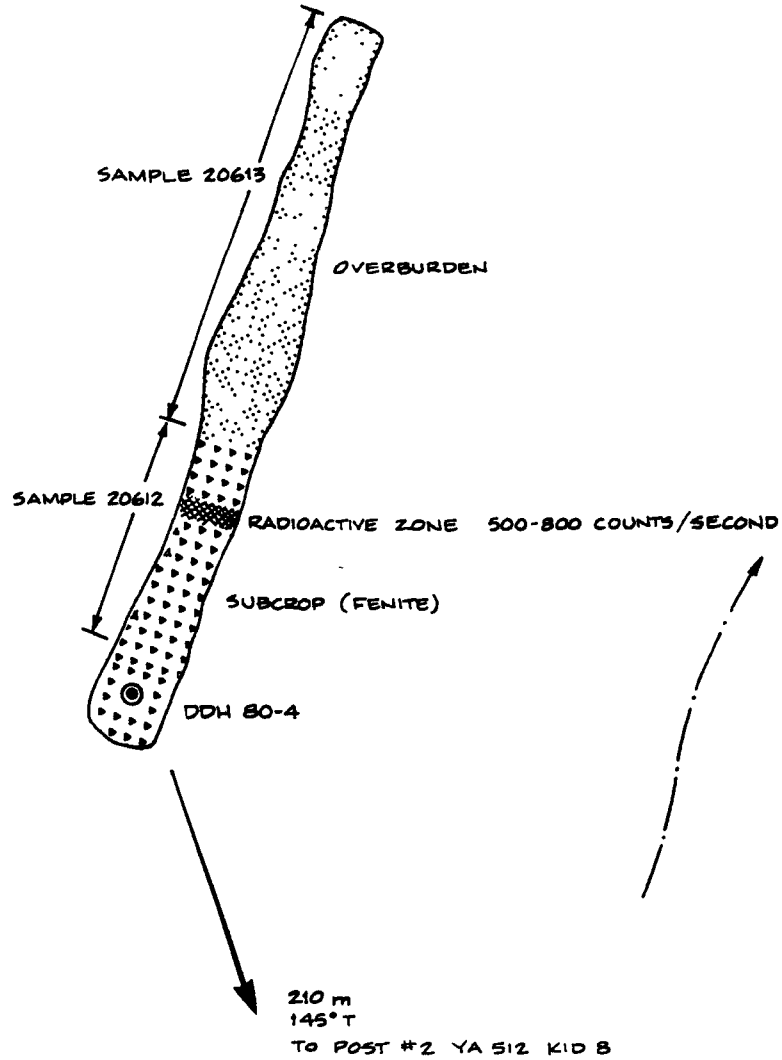
radioactive elements and rare earths. It has at least four distinct phases: fine to medium-grained red syenite, coarse megacrystic pink syenite, mauve medium to coarse-grained syenite, and medium-grained white syenite. The red and pink phases consist of 55% pink, potash feldspar, 25% light green sausseritized nephelise, 10% plagioclase with 5% accessory minerals. The mauve syenite contains less pink potash feldspar and nepheline while the white syenite contains less than 10% mafic minerals and a variety of felsic minerals including about 70% feldspar. Peripheral to the stock are thin-bedded, fault-blocked Proterozoic quartzites and siltstones occurring in about equal amounts on the Kid claims, within lesser dolomite on the northeast corner of Pyrochlore Dome. In places the sediments have been metasomatized to radioactive fenite which have anomalous concentrations of many elements. The fenites have a structurally controlled component and are quite variable in composition. The fenites display a gneissic banding and likely originated when the residual volatile-rich fraction of the syenite stock diffused through the sediments along structurally prepared zones.

### TRENCHING

Four trenches totalling 40 m were excavated on the Beaver property during the recent program. Two in bed-rock while the other two uncovered subcrop and angular float. The trenches have been numbered in sequence with those previously excavated. The overburden-covered trenches were excavated using hand tools assisted by dynamite.

#### Trench 86-09

Located south of Copper Creek near the 1980 #4 drill hole, the trench is 18 m in length, 1 to 1.5 m wide and 0.5 to 1.0 m deep. The trench did not encounter bedrock but very angular subcrop is exposed at the southern end. Radioactive counts as high as 1500 counts per second were obtained from the trench.



CONSOLIDATED SILVER STANDARD MINES LIMITED

BEAVER PROJECT

**TRENCH 9**

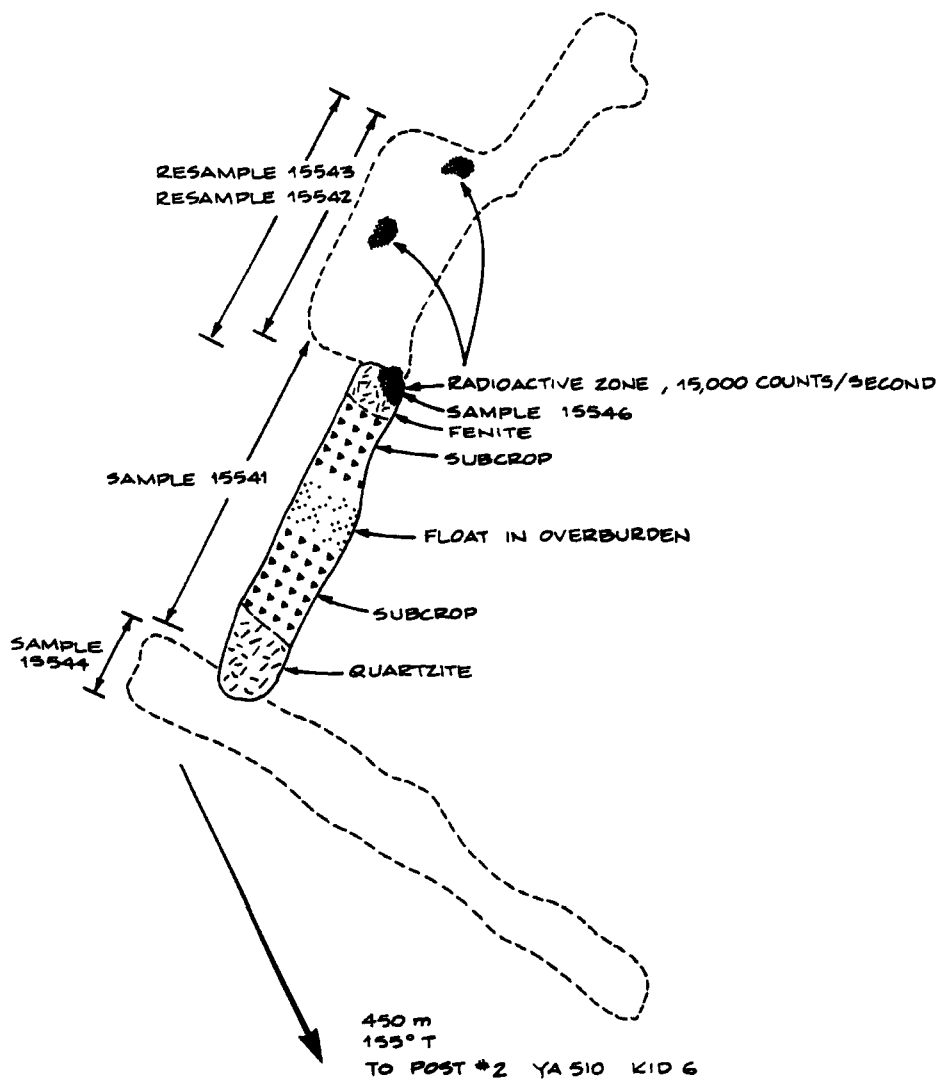
SCALE - 1:200

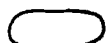
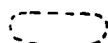
Drawn: WR

Date: July 1986

NTS: 95 C/5

C3001 8604

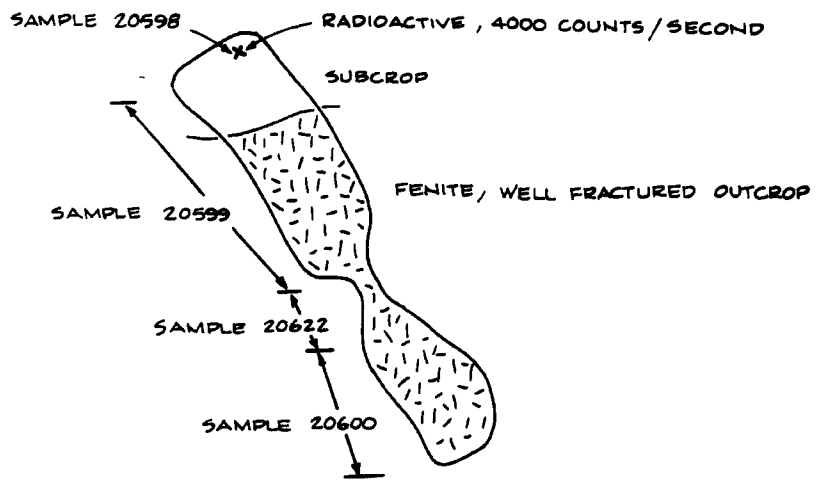


-  1986 TRENCH
-  1980 TRENCH

CONSOLIDATED SILVER STANDARD MINES LIMITED			
BEAVER PROJECT			
<b>TRENCH 10</b>			
SCALE - 1:200			
Drawn: WR	Date: July 1986	NTS: 95 C/5	C3001 8605

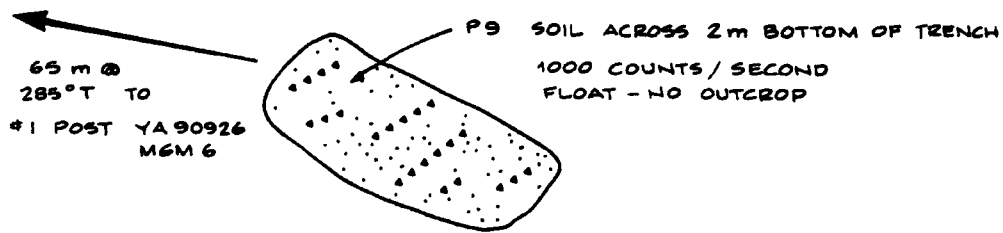


65 m @  
045° T  
TO POST #1 YA 90926 MGM 6



LINE 9 E

CONSOLIDATED SILVER STANDARD MINES LIMITED			
BEAVER PROJECT			
<b>TRENCH 11</b>			
SCALE - 1: 100			
Drawn. WR	Date: July 1986	NTS: 95 C/5	C3001 8606



CONSOLIDATED SILVER STANDARD MINES LIMITED

BEAVER PROJECT

# TRENCH 12

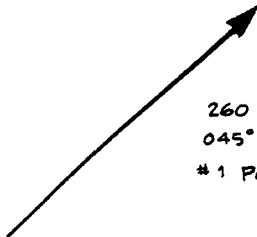
SCALE - 1 : 100

Drawn: WR

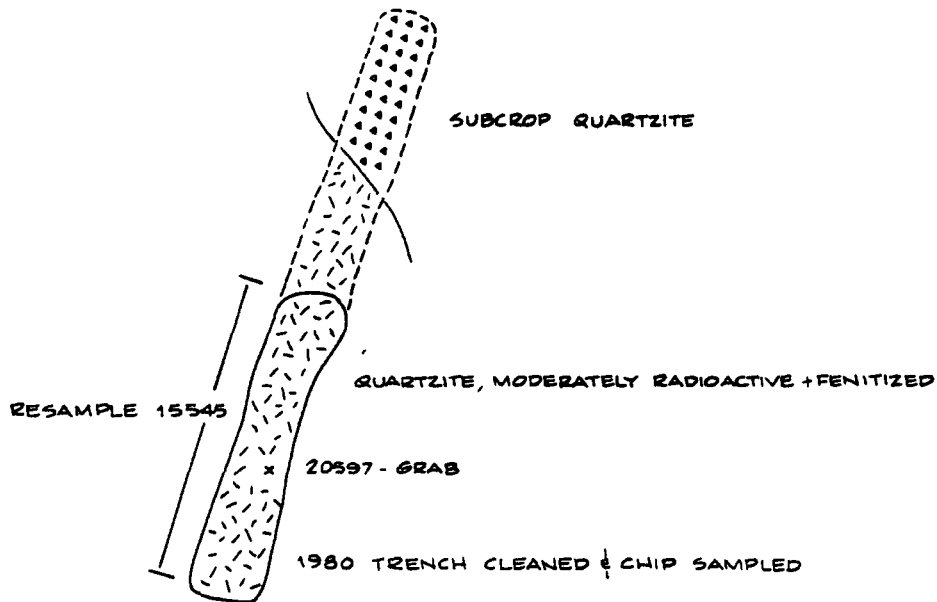
Date: July 1986

NTS: 95 C/3

C3001 8607



260 m @  
045° T TO  
#1 POST YA 90926 MGM 6



CONSOLIDATED SILVER STANDARD MINES LIMITED

BEAVER PROJECT

# TRENCH 13

SCALE - 1: 100

Drawn: WR

Date: July 1986

NTS: 95 C/3

C3001 8608

#### Trench 86-10

The Thor Pit is the area of the original 1976 discovery and exposed very high grade thorium mineralization. Four northwest trending trenches spaced approximately 10 m apart were excavated across the radioactive zone. In 1986, two readings greater than 15,000 counts per second were encountered between the Thor trench and the first to the south. A new 9 m trench was blasted between the two existing trenches over the anomalous readings. Trench 86-10 encountered moderately fenitized quartzite in outcrop and subcrop with minor siltstone float. Radioactivity varies from 500 to 15,000 counts per second. The old trenches were rehabilitated where required and chip sampled for rare earth elements.

#### Trench 86-11

A radioactive (4000 counts per second) outcrop northeast of the campsite was trenched. Less than 0.3 m<sup>2</sup> of outcrop was exposed prior to trenching. The trench exposed 70% outcrop, 20% subcrop and 10% float. Geologically, the trench contains slightly fenitized quartzo-feldspathic sediments and altered red syenite. The trench is in an area where samples containing greater than 1% rare earths were taken in the 1980 program.

#### Trench 86-12

A radioactive area (1000 counts per second) northeast of Trench 86-11 was discovered in 1986. Due to the apparent sympathetic relationship between radioactivity and rare-earths and the apparent enrichment of rare-earths in samples taken from Copper-Adin Ridge, the anomaly was trenched. Although the trench was excavated to a 1 meter depth it did not encounter any bedrock or subcrop. The float in the trench was largely syenite but not highly radioactive. Radioactive values were enhanced at the base of the trench so the source is still buried.

Trench 86-13

Excavated in 1980, this trench was rehabilitated and resampled for its rare earth content. Radioactive readings of 5000 counts per second in quartzite were encountered in the trench.

CONCLUSION

The 1986 trenching program in conjunction with exploration carried out on the MGM claims added to the existing mineral data base of the property and supports the view that the property warrants additional work.

On the Kid claims and, more specifically, at the Thor Pit additional trenching is warranted and a limited amount of shallow drilling should be undertaken. Neither this program nor the previous programs have been definitive in determining the extent of the high grade Thor pit mineralization. Its poddy nature makes it difficult to trace but the high value of the ore indicates that limited tonnage could be economic.

COST STATEMENT

Wages and Benefits \$ 482.00

R. Quartermain 1 day @ \$225.00/day = \$225.00  
A. Potter 2 days @ \$128.50/day = \$257.00

Food and Accommodations \$ 199.50

Food \$650 @ 15% = \$ 97.50  
Accommodations July 18th = \$102.00

Transportation \$ 1570.64

Men & Equipment to camp, 2.6 hours  
at \$546.40 (apportioned) = \$1420.64  
Equipment via floats to camp 15% x \$800 = \$ 120.00  
Men & Equipment transportation  
to Watson Lake (apportioned) = \$ 30.00

Equipment \$ 125.00

Dynamite \$125.00

Sample Analysis \$ 780.00

13 samples at \$60.00 sample = \$780.00  
(analysis 14 REE)

Report Preparation \$ 395.00

R. Quartermain 1 day report writing  
in Watson Lake @ \$225.00/day = \$225.00  
Drafting for maps and prints \$150.00  
Typing \$ 20.00

-----  
\$ 3552.14  
=====

I, ROBERT A. QUARTERMAIN, certify that the Cost Statement on page 6 of this report is an accurate reflection of apportioned amounts of invoices received and estimated costs directly attributable to the trenching program carried out on the Kid and MGM Claims during July, 1986.

DATED this 1<sup>st</sup> day of August, 1986.

  
Robert A. Quartermain

STATEMENT OF AUTHOR'S QUALIFICATIONS

I, Robert Allan Quartermain, of 2303 - 1600-D Beach Avenue, Vancouver, British Columbia, do hereby certify that:

I am a graduate of the University of New Brunswick (BSc, 1977).

I am a graduate of Queen's University (MSc, 1981).

I am a member of the Geological Association of Canada.

I have been practising my profession as a field geologist since 1977, employed by Canadian and American mining companies involved in the exploration for and development of mineral deposits.

  
\_\_\_\_\_  
R.A. Quartermain

APPENDIX I

ANALYTICAL RESULTS



REPORT: 126-3011

PROJECT: C3001

PAGE 1A

SAMPLE NUMBER	ELEMENT UNITS	Ce PPM	Dy PPM	Er PPM	Eu PPM	Gd PPM	Ho PPM	La PPM	Lu PPM	Nd PPM	Pr PPM	Sc PPM	Sm PPM
R2 15541		67	4	<100	<1	<200	<1	46.1	0.4	23	<50	1.99	3.7
R2 15542		195	9	<100	2	<200	2	141.0	1.0	55	<50	0.70	8.5
R2 15543		3470=	132=	<230=	37=	<850=	22=	>2000.0=	14.7=	1070=	<160=	3.10=	190.0=
R2 15544		277	16	<100	5	<200	3	140.0	1.3	77	<50	0.63	17.1
R2 15545		157	15	<100	3	<220	3	96.3	4.1	34	<61	2.54	8.9
R2 15546		2320=	300	<380	54	<1600	30	900.0	59.3	1460	210	6.07	130.0
R2 15547		3100=	750	<290	140	<1900	85	>2000.0	100.0	1100	<800	5.20	610.0
R2 15548		161	7	<100	2	<230	1	99.1	0.7	53	<71	0.21	7.2
R2 15549		320=	28	<100	6	<250	5	120.0	2.0	197	<50	0.60	21.0
R2 20551		660	16	<100	4	<340	3	592.0	1.4	144	110	1.91	22.4
R2 20552		819	22	<110	5	<370	4	667.0	1.8	186	<92	2.83	26.8
R2 20553		212	5	<110	1	<300	<1	185.0	0.5	36	<73	2.28	6.2
R2 20554		203	7	<100	2	<240	2	175.0	0.5	45	<71	0.89	5.6
R2 20555		257	10	<100	2	<300	3	194.0	1.0	43	<77	0.70	6.1
R2 20556		2130	87	<120	28	<540	11	1480.0	4.0	530	<130	6.95	109.0
R2 20557		174	4	<100	1	<200	<1	120.0	0.3	35	<57	0.46	5.5
R2 20558		669	15	<110	5	<370	3	541.0	1.4	129	<95	1.19	20.5
R2 20559		639	5	<100	2	<310	2	608.0	1.7	111	<78	5.27	11.2
R2 20560		878	8	<100	3	<340	2	846.0	2.1	153	<85	5.02	16.2
R2 20561		134	5	<100	1	<240	<1	127.0	0.3	18	<69	1.03	3.5
R2 20562		743	14	<100	3	<320	3	468.0	1.5	110	<85	1.37	13.9
R2 20563		99	3	<110	<1	<240	<1	73.6	0.3	18	<73	0.89	2.0
R2 20564		156	3	<100	<1	<250	<1	125.0	0.5	26	<75	1.32	3.5
R2 20565		220	2	<100	1	<370	2	184.0	0.3	38	<78	1.01	3.5
R2 20566		371	18	<110	3	<310	3	294.0	1.9	78	<86	1.81	13.9
R2 20567		343	12	<120	2	<300	2	246.0	1.2	59	<86	1.35	11.6
R2 20568		262	10	<110	3	<310	1	209.0	1.1	50	<89	1.13	9.1
R2 20569		12500=	248	<140	106	<3600	20	>2000.0	7.9	3240	<820	8.30	460.0
R2 20570		358	10	<110	4	<290	2	241.0	1.0	89	<80	0.29	16.1
R2 20571		161	9	<100	2	<210	1	91.8	0.6	60	<58	15.60	10.7
R2 20572		459	8	<100	3	<500	3	306.0	0.6	92	<100	0.52	13.0
R2 20573		225	8	<100	2	<220	1	137.0	0.7	49	<62	0.58	7.6
R2 20574		819	25	<100	6	<400	4	597.0	2.3	170	<110	0.53	27.1
R2 20575		508	17	<110	5	<590	4	308.0	1.9	128	<110	0.24	20.8
R2 20576		135	6	<100	2	<200	1	89.5	0.5	36	<54	0.34	7.4
R2 20577		403	19	<100	5	<240	4	207.0	1.9	81	<63	0.33	17.8
R2 20578		424	11	<100	3	<330	1	302.0	1.1	81	<93	11.50	11.8
R2 20579		103	4	<100	<1	<200	<1	78.2	0.5	20	<50	0.70	3.7
R2 20580		68	2	<100	<1	<240	<1	37.2	0.2	10	<76	0.39	2.3
R2 20581		8300=	685	300	165	<3000	100	>2000.0	<20.0	4400	420	2.00	715.0



REPORT: 126-3011

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PAGE 1B

SAMPLE NUMBER	ELEMENT UNITS	Tb PPM	Th PPM	Tm PPM	Yb PPM	U PPM	Y PPM	Li PPM	Sr PPM	Be PPM	Nb PPM	Rb PPM	Ta PPM
R2 15541		<1	28.3	<0.5	3.6	2	8	3	7	12	13	9	9
R2 15542		1	105.0	1.5	8.8	3	57	4	6	35	51	8	<8
R2 15543		18=	>2000.0=	<60.0=	100.0=	<9=	1100	155	55	725	185	20	30
R2 15544		2	119.0	1.7	11.9	2	105	6	7	32	11	<8	<8
R2 15545		2	457.0	2.9	29.5	10	60=	24	70	32	274	13	18
R2 15546		26	>2000.0	<360.0	340.0	17=	1900=	221	90	3014	81	50	48
R2 15547		70	>2000.0	<260.0	600.0	190=	3700=	235	49	1561	275	<8	128
R2 15548		1	275.0	1.6	5.9	6	62	16	428	15	125	105	15
R2 15549		3	>2000.0	16.3	25.3	10=	190=	50	198	31	176	116	9
R2 20551		2	156.0	1.5	13.9	10	100=	42	36	29	331	147	20
R2 20552		3	742.0	4.0	20.0	17	160=	61	32	25	568	137	29
R2 20553		<1	71.3	<0.8	3.9	10	40=	137	25	15	303	158	27
R2 20554		<1	156.0	1.3	5.0	27	50	57	108	6	486	80	58
R2 20555		1	57.3	1.1	8.5	31	55=	75	63	8	698	107	53
R2 20556		12	277.0	6.1	36.5	<4	518	15	53	15	144	53	24
R2 20557		<1	38.3	<0.6	2.7	6	29	72	225	18	235	122	<8
R2 20558		2	189.0	1.5	11.4	22	110=	39	47	18	549	111	44
R2 20559		<1	99.1	1.0	12.0	8	62	73	50	16	281	127	21
R2 20560		1	163.0	1.5	15.8	10	86	69	46	18	410	97	<8
R2 20561		<1	56.3	0.7	3.7	4	36	71	24	9	125	131	<8
R2 20562		1	95.9	1.6	12.8	9	90=	70	22	32	240	97	<8
R2 20563		<1	18.5	<0.6	1.8	14	12	57	101	8	221	71	22
R2 20564		<1	34.3	<0.8	3.7	18=	25	51	93	7	310	77	28
R2 20565		<1	20.7	<0.9	2.5	48	8	36	99	8	463	65	57
R2 20566		2	37.9	1.7	16.9	16	100=	69	86	8	478	54	43
R2 20567		1	25.2	1.4	10.3	<2	75	94	47	14	170	72	26
R2 20568		1	23.8	0.8	9.8	4	65	92	40	11	155	76	<8
R2 20569		29	>2000.0	<94.0	80.0	<18	1100	82	138	5	219	<8	36
R2 20570		2	75.3	1.2	9.3	14	82	657	1459	8	200	118	13
R2 20571		<1	97.2	1.3	5.3	5	36	16	223	5	43	99	<8
R2 20572		1	45.5	1.1	5.6	39	53	46	28	3	355	16	11
R2 20573		<1	41.6	1.1	5.1	10	48	118	251	11	261	109	13
R2 20574		2	63.5	2.0	18.5	11	160=	48	855	10	288	131	25
R2 20575		3	93.9	1.3	15.0	41	130=	20	786	21	561	110	46
R2 20576		<1	21.7	0.7	4.4	3	43	95	428	6	90	113	29
R2 20577		2	42.7	1.0	16.0	7	135	134	493	6	144	117	34
R2 20578		1	77.3	1.2	7.9	<2	53	18	42	40	61	48	18
R2 20579		<1	49.8	<0.6	4.3	4	28	82	10	9	105	94	18
R2 20580		<1	14.0	<0.5	1.6	2	<5	30	22	5	87	92	25
R2 20581		95	>2000.0	<400.0	340.0	420=	4000=	271	21	7	42	<8	124



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PAGE 2A

SAMPLE NUMBER	ELEMENT UNITS	Ce PPM	Dy PPM	Er PPM	Eu PPM	Gd PPM	Ho PPM	La PPM	Lu PPM	Nd PPM	Pr PPM	Sc PPM	Sm PPM
R2 20582		85	21	<100	4	<200	3	50.9	0.6	30	<50	0.20	7.5
R2 20583		2470=	256	<120	33	<1900	42	1680.0	8.7	1250	310	7.75	160.0
R2 20584		431	19	<100	5	<240	3	287.0	1.4	113	<59	0.41	18.8
R2 20585		332	10	<100	3	<240	2	249.0	1.0	74	<58	0.23	9.8
R2 20586		151	4	<100	1	<280	<1	116.0	<0.1	37	<84	<0.05	4.3
R2 20587		314	11	<100	3	<260	2	216.0	0.6	82	<67	0.20	12.5
R2 20588		397	11	<100	3	<250	1	247.0	0.7	88	<67	0.43	12.3
R2 20589		462	6	<100	2	<280	<1	336.0	0.2	111	<74	1.54	10.5
R2 20590		244	8	<100	3	<380	2	170.0	0.5	56	<61	0.31	8.7
R2 20591		15300=	247	<150	136	<4000	21	>2000.0	14.2	6030	<1000	10.50	750.0
R2 20592		4680	50	<100	28	<860	5	>2000.0	9.4	1100	<190	0.82	105.0
R2 20593		361	10	<100	3	<240	2	247.0	0.9	99	<52	0.41	13.2
R2 20594		1060	20	<100	9	<400	3	598.0	1.3	346	<98	1.10	44.2
R2 20595		2980	49	<130	14	<790	8	>2000.0	4.0	632	<190	4.21	72.2
R2 20596		313	4	<100	1	<300	<1	264.0	0.5	52	<69	1.27	5.1
R2 20597		516	7	<100	2	<790	4	290.0	1.6	125	<91	0.99	9.3
R2 20598		731	21	<100	3	<450	3	568.0	1.7	167	<93	1.10	19.8
R2 20599		1320=	58	<110	11	<530	8	795.0	5.0	484	<110	3.30	44.4
R2 20600		814	34	<100	7	<400	6	499.0	2.8	262	<93	7.48	29.3
R2 20601		90	7	<100	1	<200	1	50.9	0.5	37	<50	17.40	6.6
R2 20602		104	8	<100	1	<200	1	52.7	0.7	39	<50	22.20	7.2
R2 20603		164	8	<100	2	<240	<1	95.6	0.8	61	<50	19.40	10.5
R2 20604		10	6	<100	<1	<240	<1	5.6	0.3	<10	<50	14.60	2.4
R2 20605		123	10	<100	2	<230	2	74.9	0.7	52	<50	24.60	10.2
R2 20606		91	9	<100	2	<310	2	54.8	0.5	35	<50	23.60	7.0
R2 20607		729	26	<100	6	<370	4	406.0	1.5	200	<82	2.22	24.1
R2 20608		981	36	<100	7	<480	6	673.0	1.9	255	<99	3.39	33.8
R2 20609		95	8	<100	2	<210	<1	50.7	0.5	45	<50	22.40	7.0
R2 20610		483	8	<100	3	<380	2	356.0	0.5	113	<90	0.72	11.8
R2 20611		593	13	<100	3	<430	2	509.0	0.9	121	<98	0.79	11.9
R2 20612		1140	15	<100	6	<570	3	841.0	0.7	262	120	14.70	28.1
R2 20613		574	11	<100	3	<490	5	454.0	0.9	111	<98	8.00	12.9
R2 20614		2660	30	<100	8	<900	6	1960.0	3.4	519	<200	6.90	50.5
R2 20615		1330	25	<110	6	<660	5	1050.0	2.1	272	<150	7.97	32.4
R2 20616		51	4	<100	2	<270	<1	24.9	0.5	21	<55	25.00	6.6
R2 20617		88	8	<100	2	<260	1	48.8	0.4	38	<50	21.20	7.9
R2 20618		45	6	<100	2	<250	<1	21.3	0.5	24	<50	24.50	5.5
R2 20619		1030	19	<100	5	<930	5	835.0	2.2	209	<150	8.29	24.3
R2 20620		1290	21	<110	6	<680	4	926.0	1.9	287	<150	16.30	32.1
R2 20621		433	9	<100	2	<450	2	266.0	0.9	118	<110	1.75	13.1



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SAMPLE NUMBER	ELEMENT UNITS	Tb PPM	Th PPM	Tm PPM	Yb PPM	U PPM	Y PPM	Li PPM	Sr PPM	Be PPM	Nb PPM	Rb PPM	Ta PPM
R2 20582		2	449.0	2.5	7.2	4	130	15	13	2	120	91	19
R2 20583		27	>2000.0	<140.0	87.0	<10=	1200	44	309	75	25	10	29
R2 20584		2	95.4	1.4	12.2	7	130	119	193	9	147	96	39
R2 20585		<1	457.0	3.0	9.0	6	79	19	52	5	94	112	26
R2 20586		<1	39.0	<0.5	1.5	12	22	68	350	10	106	97	<8
R2 20587		1	125.0	1.1	5.5	6	70	98	621	14	136	111	38
R2 20588		1	52.1	1.1	5.3	7	58	129	724	5	187	73	<8
R2 20589		<1	182.0	1.1	3.4	9	42	64	59	6	219	188	17
R2 20590		1	38.4	<0.9	4.8	14	73	65	135	10	370	162	35
R2 20591		45	>2000.0	37.9	114.0	<15=	1300	46	109	34	81	28	16
R2 20592		7	672.0	11.0	62.6	8	250=	<1	14	4	429	143	14
R2 20593		2	45.4	0.8	7.9	13	71	128	86	7	177	91	<8
R2 20594		3	204.0	2.8	11.9	17	115	138	279	10	262	66	12
R2 20595		6	285.0	5.0	34.1	25	270=	208	138	13	1202	185	42
R2 20596		<1	78.5	<0.8	4.5	11	59	<1	10	8	182	131	<8
R2 20597		2	82.8	<2.4	10.7	718	65=	183	20	9	1383	48	94
R2 20598		2	511.0	4.1	14.2	18	135	52	65	28	199	60	19
R2 20599		7	>2000.0	21.5	45.9	6=	340	271	239	54	225	57	24
R2 20600		4	1220.0	9.5	23.8	10	210	197	133	131	243	83	<8
R2 20601		<1	15.3	<0.6	3.9	5	30	34	17	4	33	67	<8
R2 20602		<1	14.8	0.7	4.3	6	33	34	21	4	40	53	12
R2 20603		1	17.0	<0.7	4.7	6	41	38	24	4	60	58	<8
R2 20604		<1	7.8	<0.6	2.4	5	<5	34	<5	3	22	11	13
R2 20605		2	22.7	1.0	5.4	4	52	23	<5	5	21	64	11
R2 20606		1	12.1	0.7	4.2	11	26	51	81	7	37	87	<8
R2 20607		3	80.0	2.6	11.3	27	160	39	18	7	420	110	31
R2 20608		5	79.0	3.1	16.7	25	160=	64	48	11	537	116	39
R2 20609		1	13.5	0.7	3.4	3	37	33	8	3	19	62	17
R2 20610		1	82.6	1.1	4.3	21	70	231	142	14	556	132	39
R2 20611		2	85.7	1.9	7.4	9	60=	252	126	23	448	160	28
R2 20612		3	477.0	3.8	8.6	12	110=	404	237	70	452	159	27
R2 20613		2	109.0	1.2	8.0	37	95=	195	84	12	810	106	51
R2 20614		4	494.0	5.4	30.6	25	280=	173	158	11	915	94	60
R2 20615		4	508.0	4.5	18.3	17	210=	293	178	50	646	140	28
R2 20616		<1	8.9	<0.6	2.8	2	23	18	65	4	26	33	26
R2 20617		<1	17.5	0.7	3.5	5	20	15	66	5	31	23	<8
R2 20618		1	6.6	0.7	3.3	1	13	66	55	3	21	18	13
R2 20619		3	209.0	2.5	17.7	29	160=	112	533	21	634	48	44
R2 20620		3	225.0	3.1	15.9	14	150=	236	759	30	499	83	40
R2 20621		1	138.0	1.6	6.8	81	52	19	137	17	163	82	19



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SAMPLE NUMBER	ELEMENT UNITS	Ce PPM	Dy PPM	Er PPM	Eu PPM	Gd PPM	Ho PPM	La PPM	Lu PPM	Nd PPM	Pr PPM	Sc PPM	Sr PPM
R2 20622		1120	104	<100	16	<790	16	685.0	5.1	748	<120	4.91	65.8
R2 20623		3680	64	<120	17	<760	9	>2000.0	6.5	669	<190	4.28	83.1
R2 20624		572	5	<120	2	<340	1	541.0	0.4	100	<94	10.20	9.5
R2 20625		687	12	<110	2	<390	2	734.0	1.7	100	<91	12.80	10.2
R2 20626		730	17	<110	4	<280	3	584.0	2.6	149	<67	1.06	21.8
R2 20627		1150	36	<100	4	<420	6	994.0	4.7	210	<110	1.06	26.3
R2 20628		156	5	<100	1	<250	<1	186.0	<0.3	39	<69	27.90	4.7
R2 20629		389	33	<100	5	<220	6	242.0	4.4	79	<57	0.46	15.8
R2 20630		230	6	<100	2	<200	<1	139.0	0.4	47	<56	0.41	6.2
R2 20631		196	23	<100	4	<200	4	112.0	2.0	66	<50	1.00	11.5
R2 20632		378	9	<100	<1	<290	2	204.0	1.3	70	<86	0.95	9.6
R2 20633		337	7	<100	2	<260	<1	217.0	0.5	88	<76	1.14	11.5
R2 20634		149	60	<100	3	<200	16	69.5	11.4	49	<50	4.01	6.9
R2 20635		504	911	1600	32	<1000	185	120.0	289.0	<500	<130	84.16	39.1
R2 20636		276	5	<100	2	<260	1	210.0	0.8	63	<77	0.91	6.5
R2 17		425	37	<100	4	<260	9	250.0	8.3	102	<68	2.53	15.8
R2 20638		56	5	<100	<1	<210	<1	43.3	0.4	11	<64	0.66	1.8
R2 20639		349	13	<100	3	<240	2	216.0	1.2	88	<67	0.40	13.9
R2 20640		218	6	<100	2	<200	1	152.0	0.5	45	<50	0.72	8.3
R2 20641		73	4	<100	<1	<200	<1	48.3	0.6	15	<50	1.43	2.9
R2 20642		105	6	<100	<1	<230	<1	90.0	0.3	19	<66	0.86	2.7
R2 20643		227	6	<100	2	<220	<1	150.0	0.4	65	<62	0.71	8.8
R2 20644		277	10	<100	3	<270	1	196.0	0.9	57	<72	13.10	11.4
R2 20645		186	5	<100	1	<220	<1	104.0	0.4	40	<66	0.52	5.5
R2 20646		552	90	<100	10	<340	15	259.0	6.7	198	<77	7.38	40.8
R2 20647		415	8	<100	1	<300	1	364.0	1.1	64	<81	1.20	6.9
R2 20648		567	8	<100	2	<330	2	481.0	1.6	113	<85	5.50	12.5
R2 20649		294	13	<100	3	<280	2	215.0	0.6	69	<80	0.38	10.7
R2 20650		395	16	<120	4	<350	2	267.0	0.7	113	<100	0.29	20.1
R2 NO NUMBER		669	9	<100	3	<420	2	414.0	0.9	129	<100	0.50	13.2
D2 15535		612	16	<100	3	<340	2	419.0	1.1	98	<84	2.61	13.2
D2 15536		23	2	<100	<1	<200	<1	17.5	0.4	<10	<50	0.51	1.5
D2 15537		438	20	<100	3	<340	3	311.0	1.7	115	<91	3.49	23.0
D2 15538		245	8	<100	2	<230	<1	169.0	0.6	62	<58	11.80	9.8
D2 15539		196	10	<100	2	<210	<1	121.0	0.5	54	<54	9.86	8.5
D2 15540		124	3	<100	<1	<250	1	86.3	0.2	33	<69	1.83	3.4



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SAMPLE NUMBER	ELEMENT UNITS	Tb PPM	Th PPM	Tm PPM	Yb PPM	U PPM	Y PPM	Li PPM	Sr PPM	Be PPM	Nb PPM	Rb PPM	Ta PPM
R2 20622		11	>2000.0	74.0	72.2	25=	790=	98	45	714	202	42	37
R2 20623		10	384.0	7.5	51.5	23	520=	154	131	17	1010	139	74
R2 20624		<1	486.0	1.9	5.2	7	70=	111	58	44	359	122	<8
R2 20625		2	756.0	3.8	13.4	11	140=	196	203	189	818	110	13
R2 20626		2	55.3	2.4	18.9	11	120=	7	361	3	378	64	24
R2 20627		4	625.0	5.4	36.8	30	260=	16	46	298	835	30	79
R2 20628		<1	565.0	2.3	3.1	<2	42	426	436	100	326	160	<8
R2 20629		3	268.0	4.8	34.1	18	230=	2	36	3	453	60	39
R2 20630		<1	33.6	<0.6	3.2	<2	31	149	415	7	75	67	27
R2 20631		3	296.0	3.7	15.8	3	195	71	109	20	130	117	14
R2 20632		1	138.0	1.4	8.9	31	74	<1	33	8	208	97	32
R2 20633		<1	58.0	<0.7	3.9	15	39	20	88	6	116	95	18
R2 20634		4	732.0	12.3	88.5	30	1100	60	117	15	170	124	9
R2 20635		55	>2000.0	240.0	>2000.0	610=	10000	20	25	37	1234	29	<8
R2 20636		<1	117.0	0.8	6.2	8	57	14	64	11	140	81	20
R2 17		3	477.0	8.5	60.8	20	410=	98	626	9	113	61	30
R2 20638		<1	22.1	<0.7	2.2	7	8	49	164	9	204	81	30
R2 20639		2	46.2	1.1	7.8	12	77	128	182	10	265	96	19
R2 20640		<1	51.4	<0.7	3.6	15	32	107	142	12	274	78	26
R2 20641		<1	35.7	0.8	3.9	7	39	137	59	13	161	84	21
R2 20642		<1	26.5	0.7	1.9	19	18	70	92	11	226	75	43
R2 20643		<1	20.7	<0.6	2.8	4	18	41	186	7	88	67	14
R2 20644		1	51.6	0.9	4.8	8	57	37	133	13	134	59	35
R2 20645		<1	26.8	<0.6	3.0	4	24	4	169	5	81	50	<8
R2 20646		9	1650.0	15.7	62.8	34	550=	78	37	30	683	80	42
R2 20647		<1	95.3	<0.9	6.8	11	72	12	23	8	229	62	19
R2 20648		<1	380.0	2.7	12.0	9	79	109	64	27	274	75	37
R2 20649		<1	40.7	<0.8	5.0	13	45	82	631	8	268	30	45
R2 20650		2	44.5	1.3	6.6	7	70	53	440	13	170	72	21
R2 NO NUMBER		1	59.3	<1.9	5.3	36	66	57	50	9	1226	45	105
D2 15535		<1	93.2	<1.2	7.8	13	65=	169	279	19	511	85	31
D2 15536		<1	13.4	<0.5	2.3	<1	6	6	<5	4	11	<8	<8
D2 15537		3	82.2	1.6	11.9	12	115	39	133	22	214	51	30
D2 15538		1	27.7	0.7	3.6	<2	36	26	73	9	16	50	12
D2 15539		<1	32.7	0.9	3.8	3	43	29	64	8	33	57	10
D2 15540		<1	31.2	<0.8	1.2	26	12	72	82	8	270	74	46

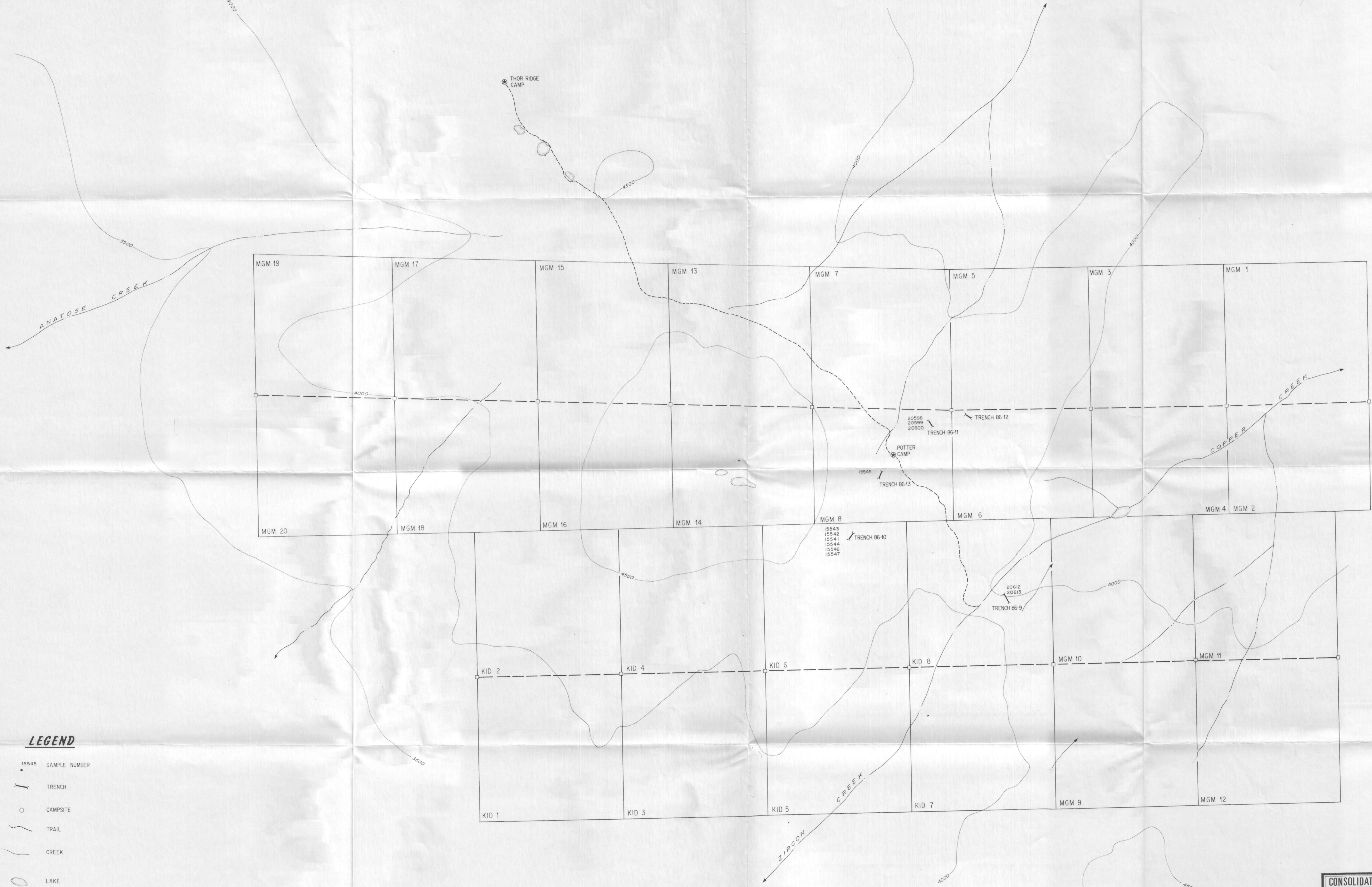


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SAMPLE NUMBER	ELEMENT UNITS	La PPM	Yb PPM	Th PPM
R2 15543		2200		9200
R2 15546				25000
R2 15547		2100		>30000
R2 15549				3400
R2 20569		8400		14000
R2 20581		5400		>30000
R2 20583				21000
R2 20591		8300		2500
R2 20592		2900		
R2 20595		2400		
R2 20599				3400
R2 20622				13000
R2 20623		2700		
R2 20625			2100	15000



**LEGEND**

- 15545    SAMPLE NUMBER
- I —    TRENCH
- CAMPSITE
- / —    TRAIL
- / —    CREEK
- LAKE
- CLAIMPOST
- — —    CLAIM LINE CUT
- — —    CLAIM LINE INFERRED

*Bluestone*

<b>CONSOLIDATED SILVER STANDARD MINES LIMITED</b>	
KID - MGM CLAIMS	
BEAVER PROJECT	
WATSON LAKE MINING DISTRICT - YUKON	
<b>TRENCH LOCATIONS</b>	
m 0 100 200 300 400 500 m	ft 0 500 1000 1500 ft
Compiled: R. Quarterman   Drawn: WR   Date: July 1986   NTS: 95 C/5   Proj: C3001	

**GEOCHEMICAL PROGRAM**  
**ON THE**  
**KID 1-8 and MGM 1-44 CLAIMS**  
**Watson Lake Mining District**  
**Yukon Territory**

**NTS: 95 C 5**  
**Latitude: 60° 23'N**  
**Longitude: 125° 47'W**

**Work Performed: July 4 to July 20, 1986**

**Supervisor: R.A. Quartermain**

**Author: L.R. Haynes**  
**by**

**Consolidated Silver Standard Mines Limited**  
**1100 - 1199 West Hastings Street**  
**Vancouver, B.C.**  
**V6E 3V4**

**February, 1987**

**EIP 86 - 013**

*VOL. 2.*



### SUMMARY

The Kid 1-8 and MGM 1-44 claims cover a Rare-Earth prospect located in the southeast corner of the Yukon Territory. During July 1986 a re-evaluation program of geochemical sampling was carried out over the property. The program was conducted in conjunction with a land trenching program.

The results of rock geochemical sampling confirmed the occurrence of anomalous Rare Earth Elements (REE) identified by earlier workers. Results from two soil orientation lines suggest that soil sampling would be useful in testing covered areas for potential REE mineralization.

Additional exploration of the property is warranted with emphasis towards testing the areas of anomalous REE. A program of detailed sampling, trenching and shallow drilling is recommended.

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GC 1000	Sample Location Map	In pocket
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GC 1002	ppm Nb, Be, Zr	In pocket
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- E. Analytical Results - Silts & Soils
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## 1. INTRODUCTION

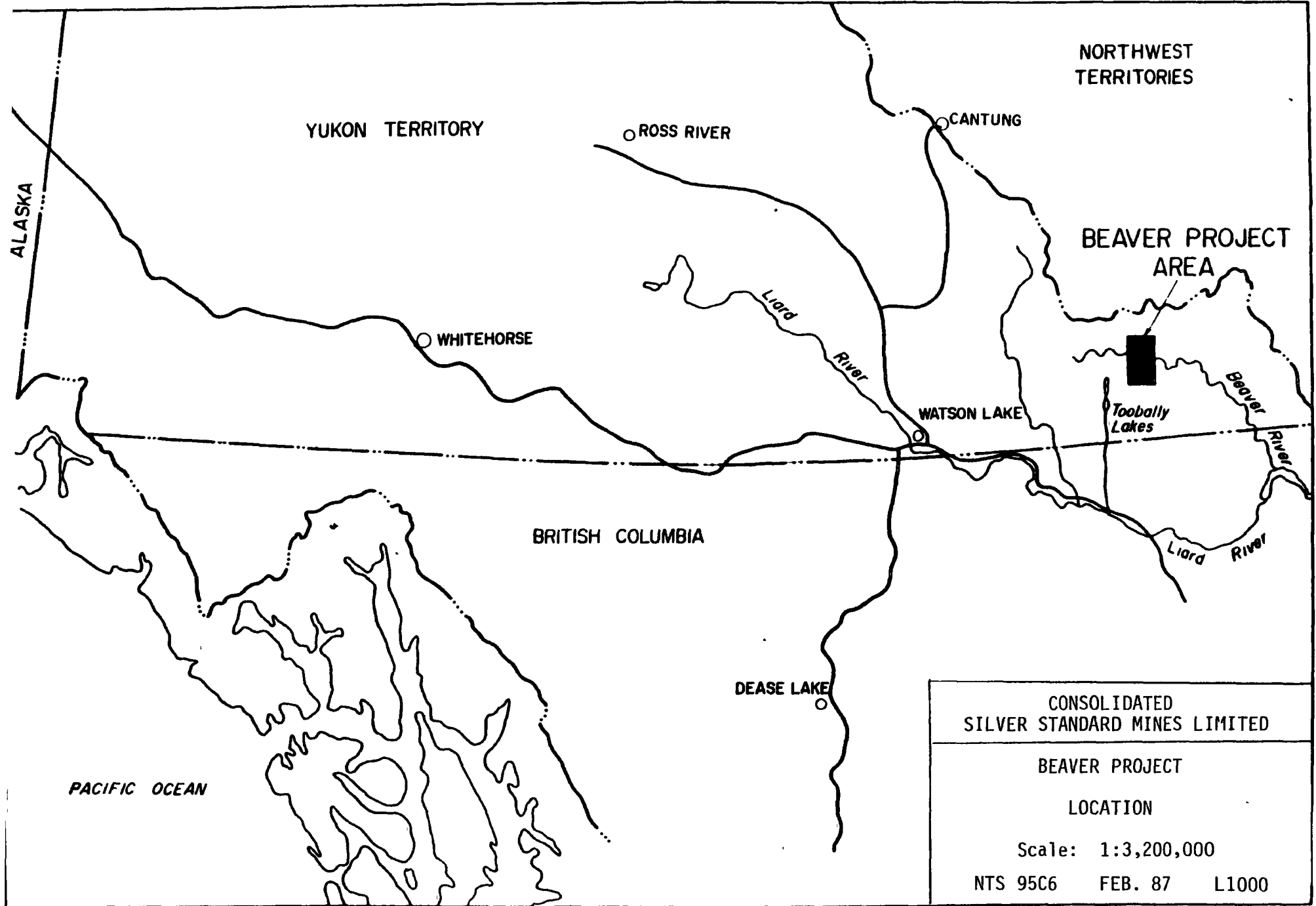
The 1986 exploration program was undertaken on the Beaver claims to improve both the data base and understanding of the distribution of rare-earth bearing minerals on the property. The program was successful as new rare-earth bearing areas were located which are not associated with radioactive elements. The presence of rare-earths and niobium in potentially economic quantities and the large untested area on the property indicates that additional exploration is warranted.

For completeness sake, this report which only describes the results of the 1986 reconnaissance sampling program, has incorporated within it a synopsis of all previous work.

## 2. LOCATION AND ACCESS

The 52-claim Beaver property is located in the southeast corner of the Yukon Territory 200 km east of Watson Lake. The accompanying map on page 2 shows the general location of the property. The property covers an alpine height of land at an elevation of 1450 m which includes the Beaver, Pyrochlore and Corundum Domes. This north-south trending ridge is 6 km southwest of Beaver River.

The property is most readily accessible by rotor-wing aircraft from Watson Lake (Frontier Helicopters Ltd.). In the winter it would be possible for STOL aircraft to land in the flat gorge north of Pyrochlore Dome which forms the headwaters of the Anatose and Odin Creeks. It is also possible for STOL aircraft with large tires to land on the ridge at the north end of the Kid claims in summer and with skis in the winter.



CONSOLIDATED  
SILVER STANDARD MINES LIMITED

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BEAVER PROJECT  
LOCATION

Scale: 1:3,200,000  
NTS 95C6 FEB. 87 L1000

The most cost effective manner to move more than a two-man party to the area is to mobilize equipment from Watson Lake to Toobally Lakes using fixed-wing float aircraft of Watson Lake Flying Services Ltd. From suitable sand bar beaching sites, equipment can be slung the 25 km east to Beaver Ridge.

3. TOPOGRAPHY

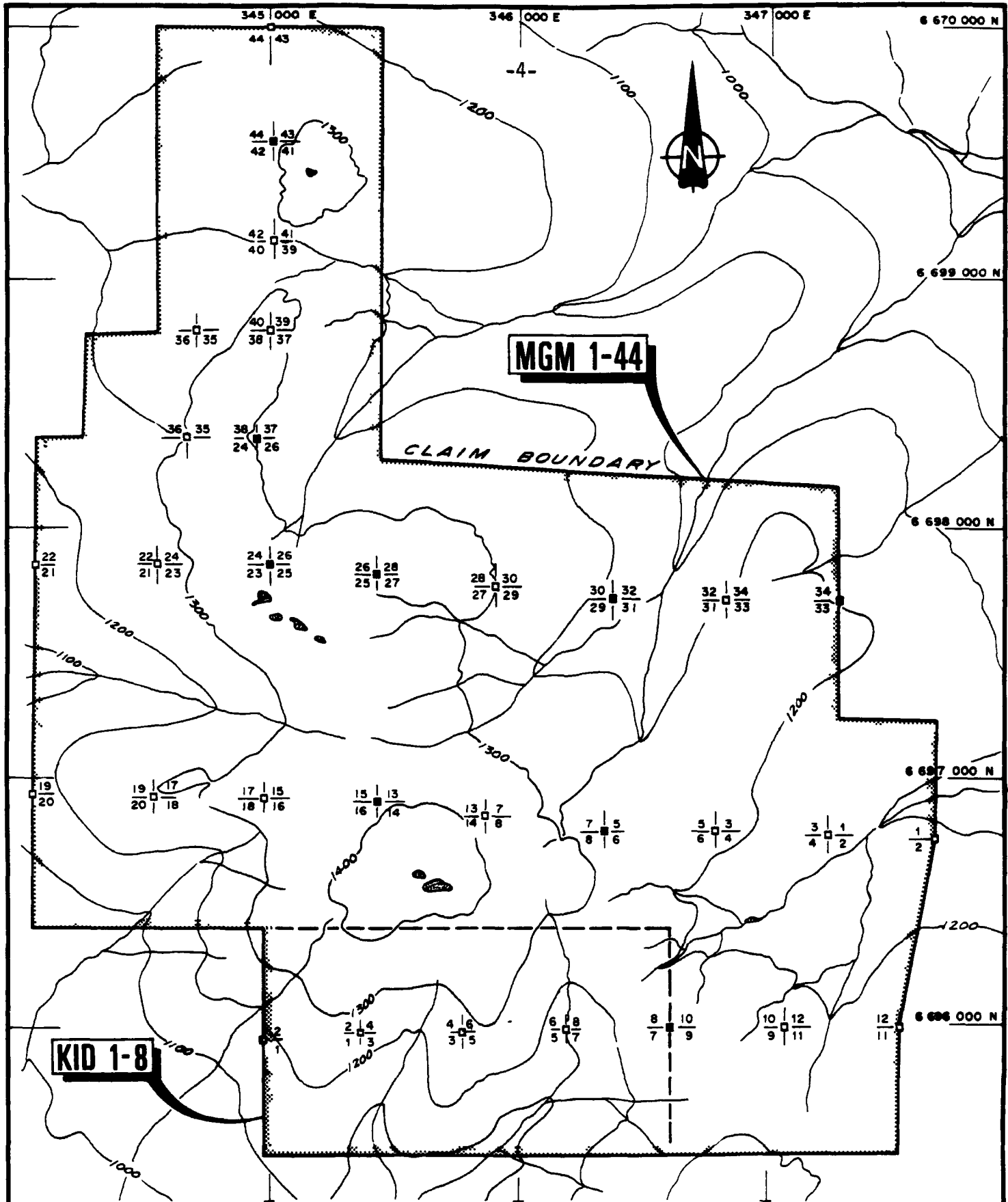
The Beaver Ridge is covered with moss and buckbrush with 15% subcrop float and 10% outcrop. Walking is relatively easy and a trail between the MGM 9 to MGM 44 claims would take 2 hours to hike. Once off the ridge, buckbrush, spruce and moderate slopes (30°) impede lateral movement.

4. CLAIMS

The property consists of 51 claims listed in the table below. Eight claims, Kid 1-8, are the original claims staked in 1976 to cover an airborne radioactive anomaly while MGM 1-44 were staked in 1986 to cover areas with radioactive and REE anomalous values. The accompanying map on page 4 shows the relative location of the claims.

TABLE I  
Claim Status

<u>Claim</u>	<u>Record Number</u>	<u>Record Date</u>	<u>Work Date</u>
Kid 1-5	YA505 - YA509	11 Aug 1976	11 Aug 1990
Kid 7-8	YA510 - YA512	11 Aug 1976	11 Aug 1991
MGM 1-44		05 May 1986	05 May 1987



CONSOLIDATED SILVER STANDARD MINES LIMITED

# CLAIM MAP

KID & MGM CLAIMS



## 5. PREVIOUS WORK

Radioactive mineralization was discovered in the Beaver River area in 1976 by Silver Standard personnel. The Kid and Vista claims were staked to protect the highly radioactive mineralization uncovered in the Thor pits. Trenching and blasting of a number of anomalous areas was carried out by the Company, the same year.

In 1980, the property was optioned, and E & B Explorations Ltd. carried out a \$168,000 exploration program supervised by D.G. Leighton and Associates. The program was principally uranium exploration, though minor attention was paid to rare-earth elements on the main property and lead-zinc mineralization to the west.

The 1980 program lasted for ten weeks and employed 6 field staff. Knowledge of the geology of the multi-phased syenitic intrusion and radioactive zones was enhanced by the program. Twenty-two Thor claims were staked to cover stratabound and cross-cutting lead-zinc mineralization in the sediments 5 km west of Pyrochlore Dome.

## 6. WORK BY CSS DURING 1986

The 1986 exploration program on the Beaver claims had four objectives.

- (1) to systematically sample the known fenite zones,
- (2) to carry out REE orientation surveys to assist in designing future programs,
- (3) to resample the areas with anomalous REE (>1%) values,  
and

- (4) to extend and resample existing trenches for REE content.

No time was lost due to poor weather and the program objectives were met. Details of the trenching program are discussed in a separate assessment report by R.A. Quartermain. This work was submitted for assessment in August of 1986.

## 7. GEOLOGY

### 7.1 Regional Geology

The general geology of this area is shown on GSC Map 1380A, LaBiche River. The claims lie within the southwest corner of the LaBiche River Map Sheet and cover an alkaline intrusive complex which has intruded predominately Paleozoic sediments on the west and a small wedge of Helikian (?) argillites on the east.

A broad anticline of Paleozoic dolomites and shales dominates the Beaver Dome ridge with lesser quartzite, grits and quartz-pebble conglomerate. The sediments have been thrust faulted and intruded by a diverse syenitic (alkaline) complex. There are some linear felsic extrusive phases of limited aerial extent associated with the intrusive complex. Post-intensive block faulting has occurred.

Within the LaBiche River map sheet, the only known alkaline intrusive complex is that at Beaver Ridge. Otherwise the area is underlain by a monotonous sequence of sediments with 10% volcanic flows and tuffs.

## 7.2 Local Geology

The geology of the area covered by the KID and MGM claims is shown on Drawing No. G-1000. The map represents a compilation of mapping carried out in 1980 by D.G. Leighton and Associates. In their report on the program, D.G. Leighton and Associates give an extensive description of the local geology. The following description is abridged from their report.

The property is dominated by a variably compositioned Cretaceous (?) nepheline syenite. The syenite consists of a number of different colour and texture variations with assumed gradational contacts though only a few can be inferred. It would appear there may be a compositional zoning to the stock as opposed to it being a complex multi-phased intrusion. The syenite is enriched in radioactive elements and rare earths. It has at least four distinct phases: fine to medium-grained red syenite, coarse megacrystic pink syenite, mauve medium to coarse-grained syenite, and medium-grained white syenite. The red and pink phases consist of 55% pink, potash feldspar, 25% light green sausseritized nephelise, 10% plagioclase with 5% accessory minerals. The mauve syenite contains less pink potash feldspar and nepheline while the white syenite contains less than 10% mafic minerals and a variety of felsic minerals including about 70% feldspar.

Peripheral to the stock are thin-bedded, fault-blocked Proterozoic quartzites and siltstones occurring in about equal amounts on the Kid claims, within lesser dolomite on the northeast corner of Pyrochlore Dome. In places the sediments have been metasomatized to radioactive fenite which

have anomalous concentrations of many elements. The fenites have a structurally controlled component and are quite variable in composition. The fenites display a gneissic banding and likely originated when the residual volatile-rich fraction of the syenite stock diffused through the sediments along structurally prepared zones.

## 8. GEOPHYSICS

The radioactive mineralization on the Beaver property was discovered during a reconnaissance radiometric airborne survey. A STRAT model geigercounter was flown at 150 rapid counts per second in a Bell 206 along east-west lines across the north-trending Beaver Ridge. Anomalous areas were noted and followed up in the field.

While prospecting and mapping in the 1976, 1980 and 1986 programs, field personnel carried geigercounters with them to locate radioactive mineralization. No grid-controlled ground radiometric survey has been carried out on the property.

## 9. GEOCHEMISTRY

### 9.1 Previous Work (1976-1980)

In the 1976 program reconnaissance soil samples and rock samples were collected for analysis. Three trenches were blasted in the Thor area of anomalous radioactivity and sampled. Interesting mineralization was discovered indicating more sampling and prospecting was required.

In 1980 a flagged grid was established on the property, and soil samples collected at 100 m intervals on lines 200 m apart were analyzed for a variety of elements. In addition numerous reconnaissance soil and stream sediment samples were collected throughout the property particularly along drainages. Using scintillometers as guides, anomalously radioactive (20 to 15,000 counts per second) lithochemical samples were collected on and off the property. A total of 94 samples from the Kid property were analyzed for La, Ce, Y, Zn, Nb and REE.

Considerable effort was made to determine uranium levels in rock samples. Due to the high thorium content of the rocks and the presence of rare earths, it was difficult to determine the absolute uranium content of the rocks. For this reason, the daughter product level (Pb-214) of most rock samples was analyzed to reflect the uranium content. In solid geochemistry, thorium is a good indicator mineral on the Beaver property due to its low mobility. The major thorium soil anomalies were over radioactive zones with little downslope or downstream dispersion.

## 9.2 Sampling, Sample Preparation and Analytical Procedure

During the current program rock and soil sample sites were selectively chosen to test known fenite zones and to resample areas with anomalous (>1%) Rare Earth Elements (REE). Silt samples (DL1-DL15) were collected to test for extensions of the known mineralization. All sample location sites are shown on Dwg. GC 1000.

Fifty soil samples were collected along two orientation lines, L1+25E and L8+50E on the MGM 7, 8, 13 and 14 claims. The lines used the 1980 base line and origin

for control. All samples were collected from "B" horizon soils, 5 to 30 cm deep, using a soft rock hammer. Sample sites were marked with flagging tape. The samples were placed in Kraft paper envelopes and shipped to Bondar Clegg & Company Ltd. in Vancouver. Here the samples were oven dried to -80 mesh. Direct Irradiation/Instrumental Neutron Activation analysis (I.N.A.A.) was used to determine the REE content.

A total of 116 rock chip and grab samples were collected from outcrops and trenches. All samples were submitted to Bondar Clegg Company Ltd., Vancouver, for REE determinations. Samples were crushed and pulverized to -150 mesh and analyzed by I.N.A.A. In addition, rock samples were analyzed for Be, Li, Nb, Rb, Sr and Ta by D.C. Plasma - Atomic Emission Spectroscopy. Zr and U determinations were done by X-Ray Fluorescence.

Check samples (pulps) were submitted to Acme Analytical Laboratories Ltd. (Vancouver, B.C.) and Nuclear Activation Services Ltd. (Hamilton, Ontario).

### 9.3 Presentation of Results

Analytical results showing the distribution of REE in rocks and silts are shown on Dwg. GC 1002. REE results for soil samples are presented in profile form on pages 11 and 12. The results of Nb, Be and Zr rock analysis are shown on Dwg. GC 1003. A summary of all analytical results are included as Appendices B-E. A statistical summary (histograms and correlation table) of rock analyses is included as Appendix F.

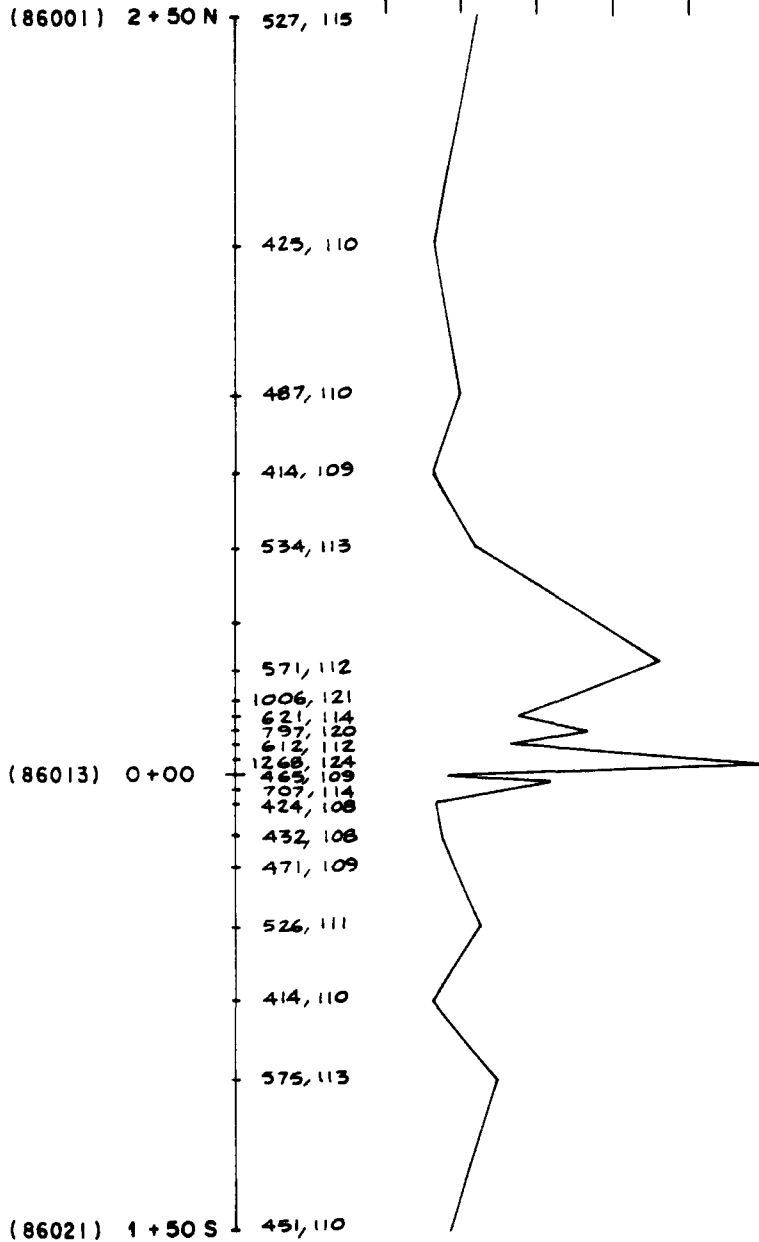
REE elements have been plotted as light REE (Ce, Eu, G, La, Nd, Pr, Sc, Sm) and heavy REE (Dy, Er, Ho, Lu, Tb, Tm, Yb, Y). Normalized Chondrite Plots were generated for all rock samples.

# L 1 + 25 E <sup>-11-</sup>

SAMPLE  
NUMBER

(86001) 2 + 50 N

400 600 800 1000 1200 1400 ppm



ppm REE ( Light, Heavy)

SCALE - 1: 2500

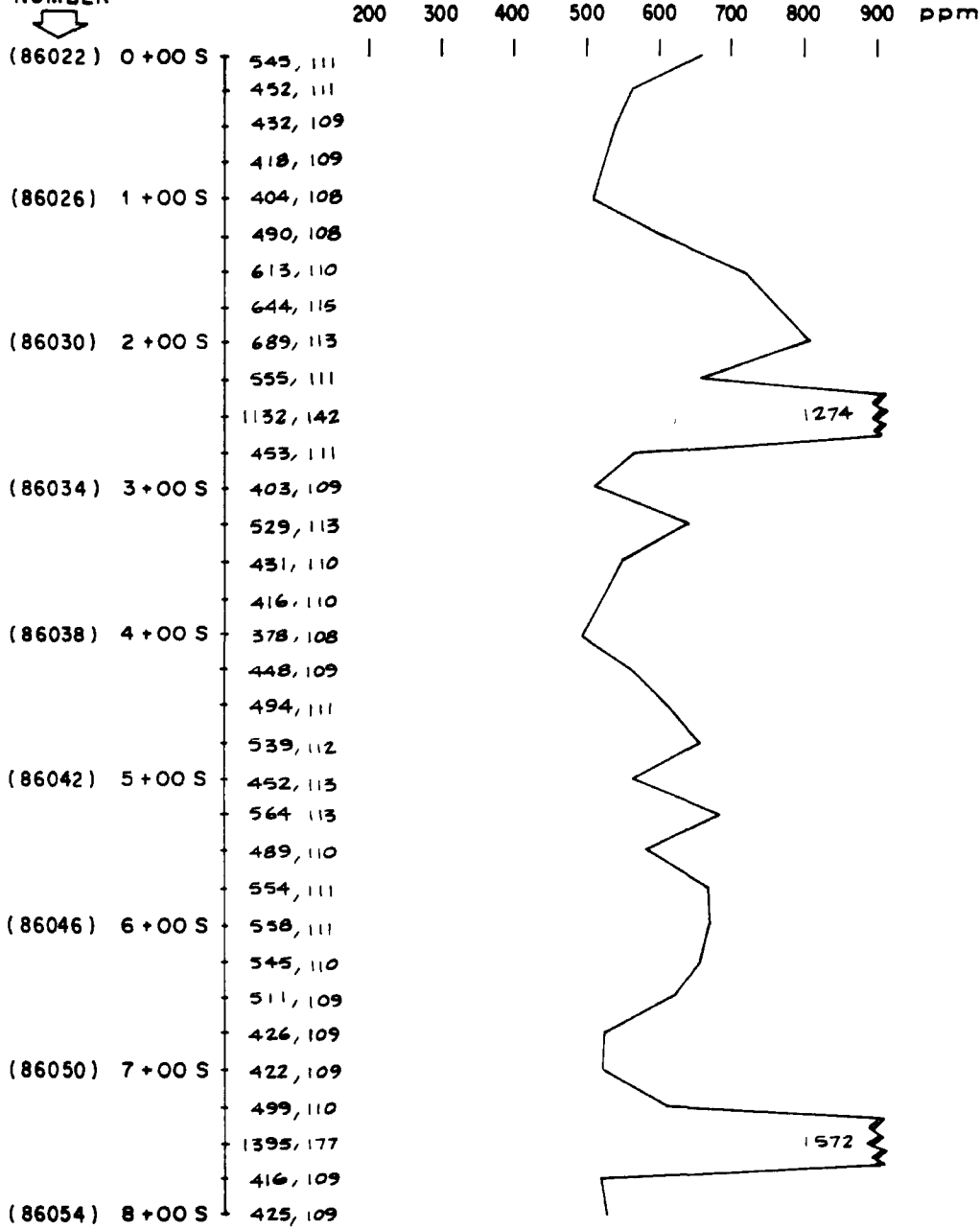
CONSOLIDATED SILVER STANDARD MINES LIMITED

RARE EARTH ELEMENTS  
( ppm )

# L 8 + 50 E



SAMPLE  
NUMBER



ppm REE ( Light, Heavy)

SCALE - 1: 5000

CONSOLIDATED SILVER STANDARD MINES LIMITED

## RARE EARTH ELEMENTS ( ppm )

#### 9.4 Discussion of Results

Results of rock sampling confirmed the occurrence of highly anomalous REE values identified by earlier workers. These earlier discoveries of REE resulted while assessing the property for uranium mineralization.

Rock samples collected during the 1986 program consistently showed anomalous values for REE elements. Included in these are several samples containing >0.5% RRE listed in the table below.

TABLE II

#### List of Significant Values

Sample No.	Total RRE (ppm)	Light RRE (ppm)	Heavy RRE (ppm)
15543	9457	7780	1677
15546	10757	6680	3395
15547	14710	8855	5855
20556	5749	4954	795
20569	23453	22734	1719
20581	24942	19002	5940
20583	9691	7810	1881
20591	31156	29227	1929
20592	9455	8964	495
20614	6764	6304	460
20635	17689	2409	15280

Samples 15543, 15546, 15547, 20556, 20569 and 20614 occur in known "REE rich" fenite zones. Samples 20581, 20583, 20586, 20591 and 20592 outline a broad highly anomalous area on the MGM 29, 31, and 33 claims that has received little investigation in the past.

Results of soil sampling on lines L1+25E and L8+50E show isolated and distinct "REE highs" coincident with fenite zones.

Sample checks by Acme Analytical Laboratories on three rock (pulp) samples and Chondrite Plots by Bondar-Clegg suggest acceptable analytical results. Eight sample Chondrite Plots are shown on pages 15 and 16. The plots show consistent interference patterns for Gd, Er and to some extent, Pr.

Several anomalous values are reported for Nb, Be and Zr (see Dwg. GC 1003). Seven samples, 15546, 15547, 20592, 20595, 20623, 20634 and 20646 carried >1% Zr. In general this anomalous values for Nb, Be and Zr are associated with the high REE values.

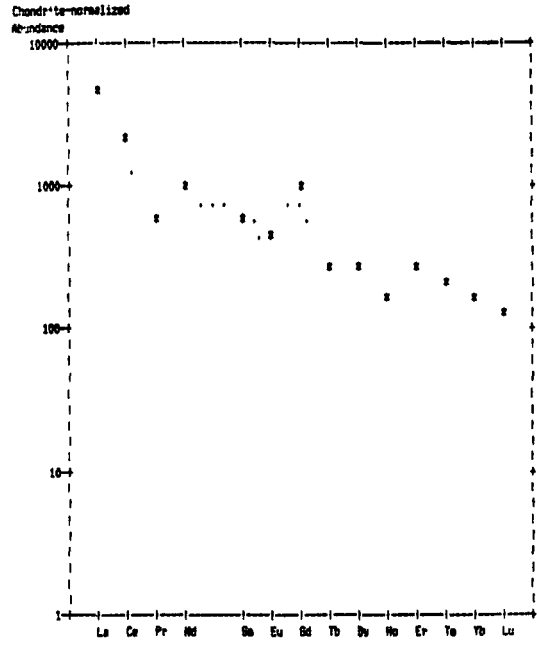
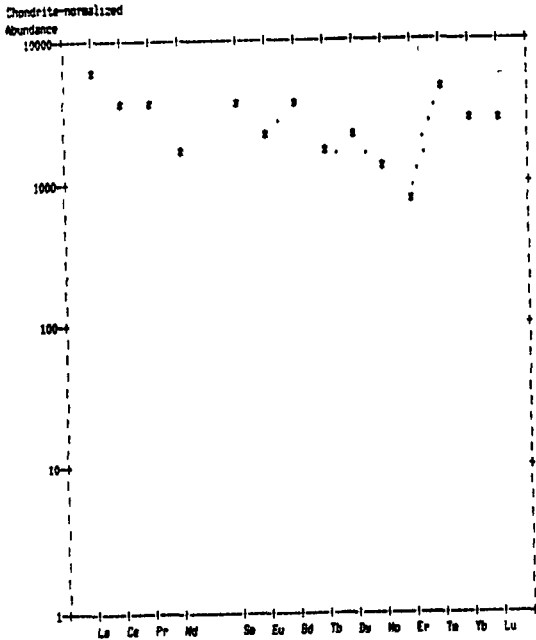
Twelve random rock (pulp) sample analysed for Ga and Ge (Appendix C) show weak responses for Ga.

Chondrite Plot

Chondrite Plot

Sample: 13597

Sample: 20336



Analyses (ppm)

Analyses (ppm)

Lanthanum	62000.0	Europium	140	Erbium	<270
Cerium	3100	Gadolinium	1900	Thulium	<260.0
Praseodymium	<800	Terbium	70	Ytterbium	600.0
Neodymium	1100	Dysprosium	750	Lutetium	100.0
Samarium	610.0	Holmium	85		

Lanthanum	1480.0	Europium	20	Erbium	<120
Cerium	2130	Gadolinium	<540	Thulium	6.1
Praseodymium	730	Terbium	12	Ytterbium	36.5
Neodymium	530	Dysprosium	87	Lutetium	4.0
Samarium	107.0	Holmium	11		

Bondar-Clegg & Company Ltd., Vancouver

Bondar-Clegg & Company Ltd., Vancouver

PCCKPLT

PCCKPLT

CONSOLIDATED SILVER STANDARD

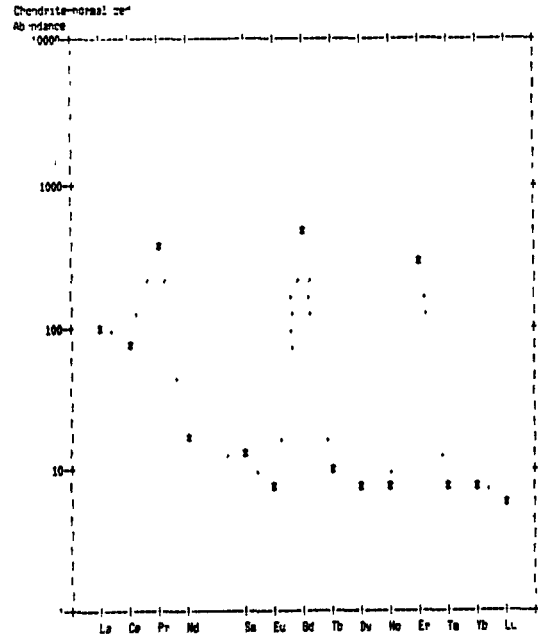
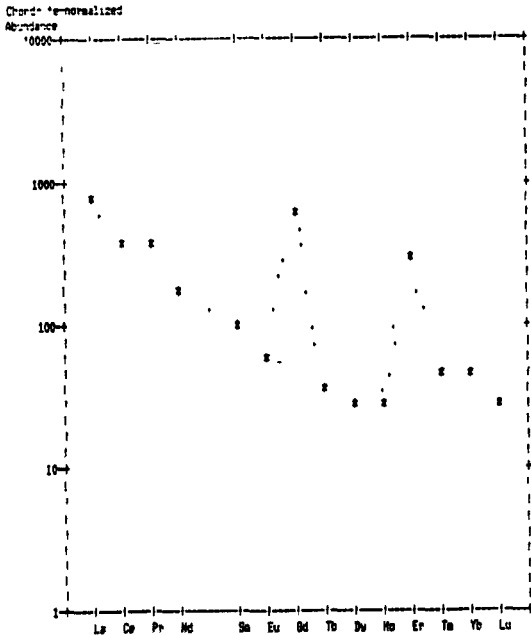
CONSOLIDATED SILVER STANDARD

Chondrite Plot

Chondrite Plot

Sample: 20370

Sample: 20580



Analyses (ppm)

Analyses (ppm)

Lanthanum	241.0	Europium	4	Erbium	<110
Cerium	332	Gadolinium	<270	Thulium	1.2
Praseodymium	286	Terbium	2	Ytterbium	9.3
Neodymium	87	Dysprosium	10	Lutetium	1.0
Samarium	16.1	Holmium	2		

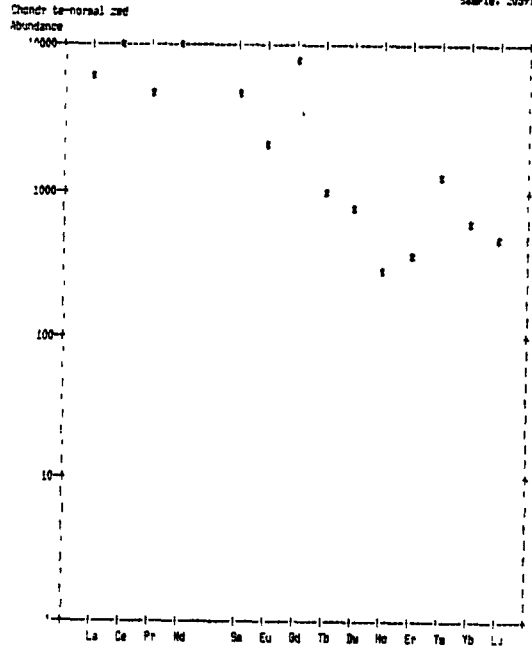
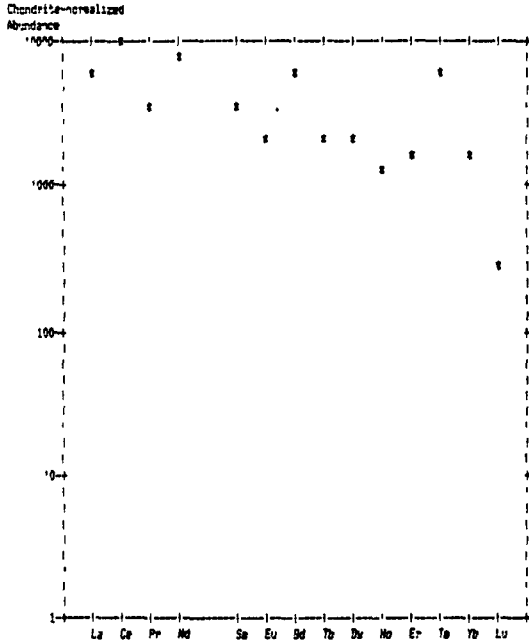
Lanthanum	37.2	Europium	<1	Erbium	100
Cerium	62	Gadolinium	<240	Thulium	<0.5
Praseodymium	76	Terbium	<1	Ytterbium	1.4
Neodymium	10	Dysprosium	2	Lutetium	0.2
Samarium	2.3	Holmium	<1		

Chondrite Plot

Chondrite Plot

Sample 20581

Sample 20591



Analyses (ppm)

Lanthanum	92000.0	Europium	45	Erbium	300
Cerium	9200	Gadolinium	2000	Thulium	400.0
Praseodymium	420	Terbium	95	Ytterbium	340.0
Neodymium	4400	Dysprosium	585	Lutetium	20.0
Samarium	715.0	Holmium	90		

Analyses (ppm)

Lanthanum	92000.0	Europium	136	Erbium	150
Cerium	9300	Gadolinium	4000	Thulium	37.9
Praseodymium	1000	Terbium	45	Ytterbium	14.0
Neodymium	3030	Dysprosium	247	Lutetium	14.2
Samarium	750.9	Holmium	21		

Borden-Clegg & Coopers Ltd., Vancouver

Borden-Clegg & Coopers Ltd., Vancouver

SC017

SC017

CONSOLIDATED SILVER STANDARD

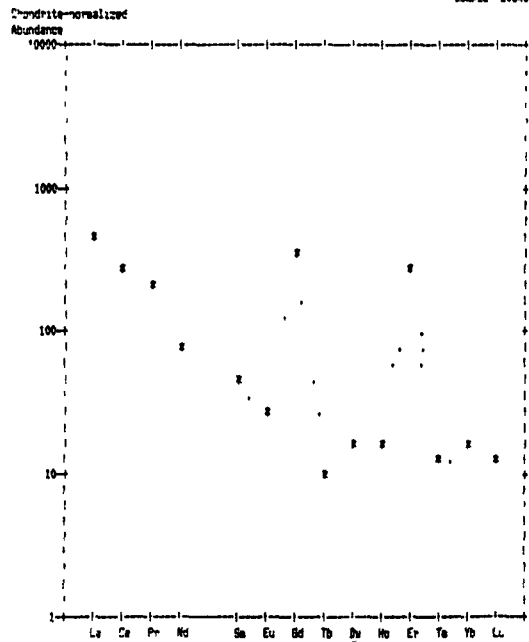
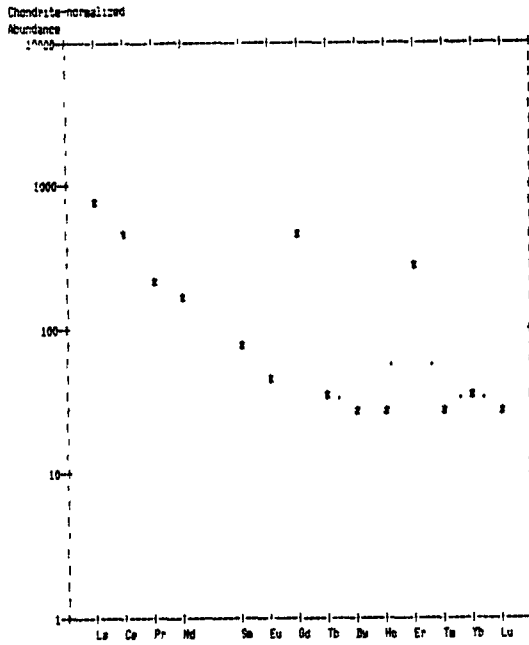
CONSOLIDATED SILVER STANDARD

Chondrite Plot

Chondrite Plot

Sample 20573

Sample 20540



Analyses (ppm)

Lanthanum	247.0	Europium	3	Erbium	110
Cerium	361	Gadolinium	240	Thulium	18
Praseodymium	52	Terbium	2	Ytterbium	7.9
Neodymium	99	Dysprosium	10	Lutetium	0.9
Samarium	13.2	Holmium	2		

Analyses (ppm)

Lanthanum	152.0	Europium	2	Erbium	100
Cerium	218	Gadolinium	2300	Thulium	20.7
Praseodymium	50	Terbium	1	Ytterbium	3.6
Neodymium	4	Dysprosium	6	Lutetium	0.5
Samarium	8.7	Holmium	1		

## 10.0 Conclusions and Recommendations

The 1986 geochemical program confirmed the presence of REE mineralization noted by earlier workers on the property. The focus of these earlier works was for uranium and as a result little attention was paid to the REE mineralization.

Rock sample results show a number of fenite occurrences with > 0.5% REE, including three samples with > 2.0% REE. The results of soil orientation lines suggest that soil sampling is effective in identifying fenite zones.

With the successful confirmation of REE values on the property, additional work is recommended. The results of a trenching program carried out in conjunction with the geochemical program support the view that the property warrants additional work.

A program of trenching and shallow drilling is recommended to better define and test known REE occurrences. Additional geochemical surveys are recommended to test the general anomalous areas on the MGM 29, 31 and 33 claims.

Respectfully submitted



Larry R. Haynes

**APPENDIX A**

**COST STATEMENT**

COST STATEMENT

			Trenching Program 07/07/86 to 17/07/86	Geochemical 04/07/86 to 31/12/86	Program 01/01/87 to 28/02/87
<u>Wages &amp; Benefits</u>					
R. Quartermain	15 days @ \$225.00/day	(July 4 - July 19, 1986)	\$225.00	\$3,150.00	-
A. Potter	16 days @ \$125.00/day	(July 4 - July 20, 1986)	257.00	1,743.00	-
<u>Consultant Services</u>					
Beaty Geological	8.5 days @ \$250.00/day	(July 6 - July 14, 1986)	-	\$2,125.00	-
<u>Food &amp; Accommodation</u>					
<u>Groceries</u>					
Accommodation			97.50	519.51	-
			102.00	-	-
<u>Transportation</u>					
<u>Scheduled Air</u>					
Air Charter			-	562.00	-
Fixed Wing	(Watson Lake Flying Services Ltd.)		120.00	430.00	-
Helicopter	(Frontier Helicopters Ltd.)		1,420.64	3,627.32	-
Truck & Fuel			30.00	158.85	-
<u>Equipment &amp; Supplies</u>					
Radio Rental	16 days @ \$12.50/day		-	200.00	-
Supplies			-	279.24	-
Dynamite			125.00	-	-
<u>Assays and Analyses</u>					
116 Analyses @ \$56.50	(Bondar-Clegg & Company Ltd.)		780.00	5,774.00	-
123 Analyses @ \$4.50	(Bondar-Clegg & Company Ltd.)		-	553.50	-
75 Analyses @ \$37.90	(Bondar-Clegg & Company Ltd.)		-	2,842.50	-
27 Analyses	(Acme Analytical Laboratories Ltd.)		-	-	161.00
<u>Report Preparation</u>					
Base Map			-	3,475.00	-
Computer Processing			-	266.00	-
R. Quartermain	8 days @ \$225.00/day		225.00	787.50	562.50
L. Haynes	6 days @ \$150.00/day		-	-	900.00
J. Havlik	1 day @ \$100.00/day		-	100.00	-
Drafting			150.00	-	600.00
Typing			20.00	-	200.00
			\$3,552.14	\$26,593.42	\$2,423.50

I, Larry R. Haynes, certify that the Cost Statement (Appendix A) of this report is an accurate reflection of apportioned amounts of invoices received and estimated costs directly attributable to the geochemical program carried out on the Kid and MGM Claims.

DATED this 20 day of February, 1987.

  
\_\_\_\_\_  
Larry R. Haynes

**APPENDIX B**

**CONSECUTIVE LISTING - ROCK SAMPLES**

Consecutive Listing - Rock Samples

SAMPLE NO.	LOCATION	TOTAL REE (ppm)	LIGHT REE (ppm)	HEAVY REE (ppm)
15535	DDH 4	1766	1572	194
15536	DDH 5	417	304	113
15537	DDH 8	1580	1324	256
15538	DDH 6	939	788	151
15539	DDH 6	815	655	160
15540	DDH 7	686	568	118
15541	TR 86-10	512	393	119
15542	TR 86-10	832	652	180
15543	TR 86-10	9457	7780	1677
15544	TR 86-10	1008	767	241
15545	TR 86-13	800	583	217
15546	TR 86-10	10075	6680	3395
15547	TR 86-10	14710	8855	5855
15548		803	624	179
15549		1334	964	370
20551		2112	1874	238
20552		2494	2169	325
20553		977	815	162
20554		909	742	167
20555		1060	880	180
20556		5749	4954	795
20557		732	593	139
20558		2084	1830	254
20559		1950	1765	185
20560		2542	2326	216
20561		741	593	148
20562		1968	1744	224
20563		637	507	130
20564		773	638	135
20565		1012	895	117
20566		1411	1158	253
20567		1272	1049	223
20568		1132	933	199
20569		23453	22734	1719

Consecutive Listing - Rock Samples

SAMPLE NO.	TOTAL REE (ppm)	LIGHT REE (ppm)	HEAVY REE (ppm)
20570	1296	1078	218
20571	763	609	154
20572	1645	1473	172
20573	868	703	165
20574	2443	2129	314
20575	1952	1670	282
20576	681	524	157
20577	1296	1017	279
20578	1432	1256	176
20579	595	456	139
20580	546	435	111
20581	24942	19002	5940
20582	694	428	266
20583	9691	7810	1881
20584	1423	1154	269
20585	1171	966	205
20586	803	673	130
20587	1146	955	191
20588	1242	1064	178
20589	1431	1277	154
20590	1113	923	190
20591	31156	29227	1929
20592	9459	8964	495
20593	1211	1016	195
20594	2813	2556	257
20595	7188	6682	506
20596	1176	1005	171
20597	2017	1824	193
20598	2314	2033	281
20599	3893	3298	595
20600	2502	2112	390
20601	597	453	144
20602	625	476	149
20603	800	643	157
20604	450	334	116
20605	740	567	173
20606	716	573	143
20607	2127	1819	308
20608	2861	2532	329
20609	634	482	152

Consecutive Listing - Rock Samples

SAMPLE NO.	TOTAL REE (ppm)	LIGHT REE (ppm)	HEAVY REE (ppm)
20610	1625	1438	187
20611	1954	1767	187
20612	3226	2982	244
20613	1974	1751	223
20614	6764	6304	460
20615	3887	3508	379
20616	589	456	133
20617	550	516	134
20618	547	422	125
20619	3501	3192	309
20620	3696	3387	309
20621	1566	1394	172
20622	4712	3550	1162
20623	8192	7403	789
20624	1872	1668	204
20625	2312	2027	285
20626	2113	1837	276
20627	3367	2915	453
20628	889	734	155
20629	1423	1008	415
20630	822	681	142
20631	987	640	347
20632	1238	1040	198
20633	1145	992	153
20634	1923	531	1392
20635	17689	2409	15280
20636	1067	895	172
20637	1765	1128	637
20638	506	388	118
20639	1180	977	204
20640	821	676	145
20641	342	392	150
20642	644	515	129
20643	865	735	130
20644	1075	899	176
20645	758	623	135
20646	2333	1484	849
20647	1424	1233	191
20648	1802	1596	206
20649	1120	952	167
20650	1468	1249	219
20651	1934	1748	186

**APPENDIX C**

**ANALYTICAL RESULTS - ROCK SAMPLES**

ACME ANALYTICAL LABORATORIES

852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6

PHONE 253-3158

DATA LINE 251-1011

WHOLE ROCK ICP-MS ANALYSIS

.100 GRAM SAMPLE FUSED WITH 6 GM LiBO2 AND IS DISSOLVED AND DILUTED TO 50 ML WITH 5% HNO3.

ANALYSIS BY ICP MASS SPECTROMETER

- Sample Type: Pulp

DATE RECEIVED: JAN 28 1987

DATE REPORT MAILED: Feb 6/87

ASSAYER: D. J. DEAN, (CP) LIMITED P ASSAYER

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SAMPLE#	Be	Rb	Y	Zr	Nb	Sn	Cs	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Hf	Ta	W	Th	U
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM
20551	17	313	113	4260	482	24	3	473	714	44	192	194	1	15	2	15	2	9	2	12	1	70	20	2	237	13
20564	10	188	34	2410	558	13	2	127	191	11	43	37	1	5	1	1	1	1	1	5	1	40	32	2	66	27
20620	10	256	138	4990	708	13	6	732	1113	62	276	260	5	25	3	13	2	7	2	9	1	90	24	2	290	22
DETECTION	10	2	2	2	2	2	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1

ACME ANALYTICAL LABORATORIES LTD.  
852 E. HASTINGS, VANCOUVER B.C.  
PH: (604) 253-3158 COMPUTER LINE: 251-1011

DATE RECEIVED JAN 28 1987

DATE REPORTS MAILED

*July 6/87*

### GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE TYPE : PULP

Ga & Ge - .5 GM, HNO3 & HF DIGESTION IN TELFON BOMBS. GRAPHITE FURNACE AA ANALYSIS.

ASSAYER: *D. Toye* DEAN TOYE, CERTIFIED B.C. ASSAYER

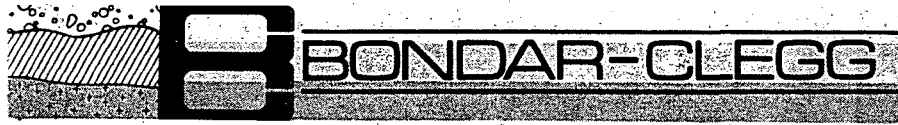
CONS. SILVER STANDARD

PROJECT C 1001

FILE# 87-0182

PAGE# 1

SAMPLE	Ga ppm	Ge ppm
20551	1	1
20559	1	1
20560	1	1
20561	2	1
20564	1	1
20567	2	1
20606	1	1
20611	25	1
20616	1	1
20620	14	1
20626	24	1
20638	20	1

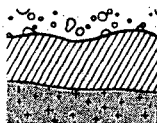


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SAMPLE NUMBER	ELEMENT UNITS	Zr PPM	Zr SO PCT	SAMPLE NUMBER	ELEMENT UNITS	Zr PPM	Zr SO PCT
R2 20622		1600					
R2 20623		>10000	1.4				
R2 20624		5900					
R2 20625		3600					
R2 20626		2900					
R2 20627		7400					
R2 20628		1600					
R2 20629		6500					
R2 20630		295					
R2 20631		605					
R2 20632		1400					
R2 20633		605					
R2 20634		>10000	1.2				
R2 20635		>10000					
R2 20636		1200					
R2 20637		9000					
R2 20638		2100					
R2 20639		965					
R2 20640		860					
R2 20641		1300					
R2 20642		800					
R2 20643		390					
R2 20644		785					
R2 20645		475					
R2 20646		>10000	1.2				
R2 20647		2300					
R2 20648		1400					
R2 20649		1200					
R2 20650		505					
R2 NO NUMBER		1300					
R2 15535		4000					
R2 15536		350					
R2 15537		1900					
R2 15538		395					
R2 15539		455					
R2 15540		635					



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SAMPLE NUMBER	ELEMENT UNITS	Zr PPM	Zr SG PCT	SAMPLE NUMBER	ELEMENT UNITS	Zr PPM	Zr SG PCT
R2 15541		275		R2 20582		415	
R2 15542		1125		R2 20583		625	
R2 15543		3000		R2 20584		465	
R2 15544		385		R2 20585		1000	
R2 15545		6000		R2 20586		250	
R2 15546		>10000	2.7	R2 20587		660	
R2 15547		>10000	3.5	R2 20588		1000	
R2 15548		700		R2 20589		830	
R2 15549		2800		R2 20590		985	
R2 20551		3300		R2 20591		830	
R2 20552		3600		R2 20592		>10000	1.3
R2 20553		2900		R2 20593		985	
R2 20554		3100		R2 20594		1000	
R2 20555		4700		R2 20595		>10000	1.2
R2 20556		570		R2 20596		1600	
R2 20557		1400		R2 20597		3200	
R2 20558		3600		R2 20598		1200	
R2 20559		2300		R2 20599		1600	
R2 20560		2000		R2 20600		1000	
R2 20561		1600		R2 20601		290	
R2 20562		3000		R2 20602		315	
R2 20563		700		R2 20603		360	
R2 20564		1100		R2 20604		190	
R2 20565		580		R2 20605		200	
R2 20566		4300		R2 20606		235	
R2 20567		1900		R2 20607		1500	
R2 20568		1900		R2 20608		3300	
R2 20569		1100		R2 20609		185	
R2 20570		775		R2 20610		2400	
R2 20571		300		R2 20611		4700	
R2 20572		1100		R2 20612		3000	
R2 20573		805		R2 20613		2900	
R2 20574		3500		R2 20614		3500	
R2 20575		3500		R2 20615		6000	
R2 20576		235		R2 20616		205	
R2 20577		680		R2 20617		225	
R2 20578		1580		R2 20618		155	
R2 20579		1200		R2 20619		5800	
R2 20580		1300		R2 20620		4500	
R2 20581		1900		R2 20621		1100	



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SAMPLE NUMBER	ELEMENT UNITS	Ce PPM	Dy PPM	Er PPM	Eu PPM	Gd PPM	Ho PPM	La PPM	Lu PPM	Nd PPM	Pr PPM	Sc PPM	Sm PPM
R2 15541		67	4	<100	<1	<200	<1	46.1	0.4	23	<50	1.99	3.7
R2 15542		195	9	<100	2	<200	2	141.0	1.0	55	<50	0.70	8.5
R2 15543		3470=	132=	<230=	37=	<850=	22=	>2000.0=	14.7=	1070=	<160=	3.10=	190.0=
R2 15544		277	16	<100	5	<200	3	140.0	1.3	77	<50	0.63	17.1
R2 15545		157	15	<100	3	<220	3	96.3	4.1	34	<61	2.54	8.9
R2 15546		2320=	300	<380	54	<1600	30	900.0	59.3	1460	210	6.07	130.0
R2 15547		3100=	750	<290	140	<1900	85	>2000.0	100.0	1100	<800	5.20	610.0
R2 15548		161	7	<100	2	<230	1	99.1	0.7	53	<71	0.21	7.2
R2 15549		320=	28	<100	6	<250	5	120.0	2.0	197	<50	0.60	21.0
R2 20551		660	16	<100	4	<340	3	592.0	1.4	144	110	1.91	22.4
R2 20552		819	22	<110	5	<370	4	667.0	1.8	186	<92	2.83	26.8
R2 20553		212	5	<110	1	<300	<1	185.0	0.5	36	<73	2.20	6.2
R2 20554		203	7	<100	2	<240	2	175.0	0.5	45	<71	0.89	5.6
R2 20555		257	10	<100	2	<300	3	194.0	1.0	43	<71	0.70	6.1
R2 20556		2130	87	<120	28	<540	11	1480.0	4.0	530	<130	6.95	109.0
R2 20557		174	4	<100	1	<200	<1	120.0	0.3	35	<57	0.46	5.5
R2 20558		669	15	<110	5	<370	3	541.0	1.4	129	<95	1.19	20.5
R2 20559		639	5	<100	2	<310	2	608.0	1.7	111	<78	5.27	11.2
R2 20560		878	8	<100	3	<340	2	846.0	2.1	153	<85	5.02	16.2
R2 20561		134	5	<100	1	<240	<1	127.0	0.3	18	<69	1.03	3.5
R2 20562		743	14	<100	3	<320	3	468.0	1.5	110	<85	1.37	13.9
R2 20563		99	3	<110	<1	<240	<1	73.6	0.3	18	<73	0.89	2.0
R2 20564		156	3	<100	<1	<250	<1	125.0	0.5	26	<75	1.32	3.5
R2 20565		220	2	<100	1	<370	2	184.0	0.3	38	<78	1.01	3.5
R2 20566		371	18	<110	3	<310	3	294.0	1.9	78	<86	1.81	13.9
R2 20567		343	12	<120	2	<300	2	246.0	1.2	59	<86	1.35	11.6
R2 20568		262	10	<110	3	<310	1	209.0	1.1	50	<89	1.13	9.1
R2 20569		12500=	248	<140	106	<3600	20	>2000.0	7.9	3240	<820	8.30	460.0
R2 20570		358	10	<110	4	<290	2	241.0	1.0	89	<80	0.29	16.1
R2 20571		161	9	<100	2	<210	1	91.8	0.6	60	<58	15.60	10.7
R2 20572		459	8	<100	3	<500	3	306.0	0.6	92	<100	0.52	13.0
R2 20573		225	8	<100	2	<220	1	137.0	0.7	49	<62	0.58	7.6
R2 20574		819	25	<100	6	<400	4	597.0	2.3	170	<110	0.53	27.1
R2 20575		508	17	<110	5	<590	4	308.0	1.9	128	<110	0.24	20.8
R2 20576		135	6	<100	2	<200	1	89.5	0.5	36	<54	0.34	7.4
R2 20577		403	19	<100	5	<240	4	207.0	1.9	81	<63	0.33	17.8
R2 20578		424	11	<100	3	<330	1	302.0	1.1	81	<93	11.50	11.8
R2 20579		103	4	<100	<1	<200	<1	78.2	0.5	20	<50	0.70	3.7
R2 20580		68	2	<100	<1	<240	<1	37.2	0.2	10	<76	0.39	2.3
R2 20581		8300=	685	300	165	<3000	100	>2000.0	<20.0	4400	420	2.00	715.0



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SAMPLE NUMBER	ELEMENT UNITS	Tb PPM	Th PPM	Tm PPM	Yb PPM	U PPM	Y PPM	Li PPM	Sr PPM	Be PPM	Nb PPM	Rb PPM	Ta PPM
R2 15541		<1	28.3	<0.5	3.6	2	8	3	7	12	13	9	9
R2 15542		1	105.0	1.5	8.8	3	57	4	6	35	51	8	<8
R2 15543		18=	>2000.0=	<60.0=	100.0=	<9=	1100	155	55	725	185	20	30
R2 15544		2	119.0	1.7	11.9	2	105	6	7	32	11	<8	<8
R2 15545		2	457.0	2.9	29.5	10	60=	24	70	32	274	13	18
R2 15546		26	>2000.0	<360.0	340.0	17=	1900=	221	90	3014	81	50	48
R2 15547		70	>2000.0	<260.0	600.0	190=	3700=	235	49	1561	275	<8	128
R2 15548		1	275.0	1.6	5.9	6	62	16	428	15	125	105	15
R2 15549		3	>2000.0	16.3	25.3	10=	190=	50	198	31	176	116	9
R2 20551		2	156.0	1.5	13.9	10	100=	42	36	29	331	147	20
R2 20552		3	742.0	4.0	20.0	17	160=	61	32	25	568	137	29
R2 20553		<1	71.3	<0.8	3.9	10	40=	137	25	15	303	159	27
R2 20554		<1	156.0	1.3	5.0	27	50	57	108	6	486	80	58
R2 20555		1	57.3	1.1	8.5	31	55=	75	63	8	698	107	53
R2 20556		12	277.0	6.1	36.5	<4	518	15	53	15	144	53	24
R2 20557		<1	38.3	<0.6	2.7	6	29	72	225	18	235	122	<8
R2 20558		2	189.0	1.5	11.4	22	110=	39	47	18	549	111	44
R2 20559		<1	99.1	1.0	12.0	8	62	73	50	16	281	127	21
R2 20560		1	163.0	1.5	15.8	10	86	69	46	18	410	97	<8
R2 20561		<1	56.3	0.7	3.7	4	36	71	24	9	125	131	<8
R2 20562		1	95.9	1.6	12.8	9	90=	70	22	32	240	97	<8
R2 20563		<1	18.5	<0.6	1.8	14	12	57	101	8	221	71	22
R2 20564		<1	34.3	<0.8	3.7	18=	25	51	93	7	310	77	28
R2 20565		<1	20.7	<0.9	2.5	48	8	36	99	8	463	65	57
R2 20566		2	37.9	1.7	16.9	16	100=	69	86	8	478	54	43
R2 20567		1	25.2	1.4	10.3	<2	75	94	47	14	170	72	26
R2 20568		1	23.8	0.8	9.8	4	65	92	40	11	155	76	<8
R2 20569		29	>2000.0	<94.0	80.0	<18	1100	82	138	5	219	<8	36
R2 20570		2	75.3	1.2	9.3	14	82	657	1459	8	200	118	13
R2 20571		<1	97.2	1.3	5.3	5	36	16	223	5	43	99	<8
R2 20572		1	45.5	1.1	5.6	39	53	46	28	3	355	16	11
R2 20573		<1	41.6	1.1	5.1	10	48	118	251	11	261	109	13
R2 20574		2	63.5	2.0	18.5	11	160=	48	855	10	288	131	25
R2 20575		3	93.9	1.3	15.0	41	130=	20	786	21	561	110	46
R2 20576		<1	21.7	0.7	4.4	3	43	95	428	6	90	113	29
R2 20577		2	42.7	1.0	16.0	7	135	134	493	6	144	117	34
R2 20578		1	77.3	1.2	7.9	<2	53	18	42	40	61	48	18
R2 20579		<1	49.8	<0.6	4.3	4	28	82	10	9	105	94	18
R2 20580		<1	14.0	<0.5	1.6	2	<5	30	22	5	87	92	25
R2 20581		95	>2000.0	<400.0	340.0	420=	4000=	271	21	7	42	<8	124

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SAMPLE NUMBER	ELEMENT UNITS	Ce PPM	Dy PPM	Er PPM	Eu PPM	Gd PPM	Ho PPM	La PPM	Lu PPM	Nd PPM	Pr PPM	Sc PPM	Sm PPM
R2 20582		85	21	<100	4	<200	3	50.9	0.6	30	<50	0.20	7.5
R2 20583		2470=	256	<120	33	<1900	42	1680.0	8.7	1250	310	7.75	160.0
R2 20584		431	19	<100	5	<240	3	287.0	1.4	113	<59	0.41	18.8
R2 20585		332	10	<100	3	<240	2	249.0	1.0	74	<58	0.23	9.8
R2 20586		151	4	<100	1	<280	<1	116.0	<0.1	37	<84	<0.05	4.3
R2 20587		314	11	<100	3	<260	2	216.0	0.6	82	<67	0.20	12.5
R2 20588		397	11	<100	3	<250	1	247.0	0.7	88	<67	0.43	12.3
R2 20589		462	6	<100	2	<280	<1	336.0	0.2	111	<74	1.54	10.5
R2 20590		244	8	<100	3	<380	2	170.0	0.5	56	<61	0.31	8.7
R2 20591		15300=	247	<150	136	<4000	21	>2000.0	14.2	6030	<1000	10.50	750.0
R2 20592		4680	50	<100	28	<860	5	>2000.0	9.4	1100	<190	0.82	105.0
R2 20593		361	10	<100	3	<240	2	247.0	0.9	99	<52	0.41	13.2
R2 20594		1060	20	<100	9	<400	3	598.0	1.3	346	<98	1.10	44.2
R2 20595		2980	49	<130	14	<790	8	>2000.0	4.0	632	<190	4.21	72.2
R2 20596		313	4	<100	1	<300	<1	264.0	0.5	52	<69	1.27	5.1
R2 20597		516	7	<100	2	<790	4	290.0	1.6	125	<91	0.99	9.3
R2 20598		731	21	<100	3	<450	3	568.0	1.7	167	<93	1.10	19.8
R2 20599		1320=	58	<110	11	<530	8	795.0	5.0	484	<110	3.30	44.4
R2 20600		814	34	<100	7	<400	6	499.0	2.8	262	<93	7.48	29.3
R2 20601		90	7	<100	1	<200	1	50.9	0.5	37	<50	17.40	6.6
R2 20602		104	8	<100	1	<200	1	52.7	0.7	39	<50	22.20	7.2
R2 20603		164	8	<100	2	<240	<1	95.6	0.8	61	<50	19.40	10.5
R2 20604		10	6	<100	<1	<240	<1	5.6	0.3	<10	<50	14.60	2.4
R2 20605		123	10	<100	2	<230	2	74.9	0.7	52	<50	24.60	10.2
R2 20606		91	9	<100	2	<310	2	54.8	0.5	35	<50	23.60	7.0
R2 20607		729	26	<100	6	<370	4	406.0	1.5	200	<82	2.22	24.1
R2 20608		981	36	<100	7	<480	6	673.0	1.9	255	<99	3.39	33.8
R2 20609		95	8	<100	2	<210	<1	50.7	0.5	45	<50	22.40	7.0
R2 20610		483	8	<100	3	<380	2	356.0	0.5	113	<90	0.72	11.8
R2 20611		593	13	<100	3	<430	2	509.0	0.9	121	<98	0.79	11.9
R2 20612		1140	15	<100	6	<570	3	841.0	0.7	262	120	14.70	28.1
R2 20613		574	11	<100	3	<490	5	454.0	0.9	111	<98	8.00	12.9
R2 20614		2660	30	<100	8	<900	6	1960.0	3.4	519	<200	6.90	50.5
R2 20615		1330	25	<110	6	<660	5	1050.0	2.1	272	<150	7.97	32.4
R2 20616		51	4	<100	2	<270	<1	24.9	0.5	21	<55	25.00	6.6
R2 20617		88	8	<100	2	<260	1	48.8	0.4	38	<50	21.20	7.9
R2 20618		45	6	<100	2	<250	<1	21.3	0.5	24	<50	24.50	5.5
R2 20619		1030	19	<100	5	<930	5	835.0	2.2	209	<150	8.29	24.3
R2 20620		1290	21	<110	6	<680	4	926.0	1.9	287	<150	16.30	32.1
R2 20621		433	9	<100	2	<450	2	266.0	0.9	118	<110	1.75	13.1



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SAMPLE NUMBER	ELEMENT UNITS	Tb PPM	Th PPM	Tm PPM	Yb PPM	U PPM	Y PPM	Li PPM	Sr PPM	Be PPM	Nb PPM	Rb PPM	Ta PPM
R2 20582		2	449.0	2.5	7.2	4	130	15	13	2	120	91	19
R2 20583		27	>2000.0	<140.0	87.0	<10=	1200	44	309	75	25	10	29
R2 20584		2	95.4	1.4	12.2	7	130	119	193	9	147	96	39
R2 20585		<1	457.0	3.0	9.0	6	79	19	52	5	94	112	26
R2 20586		<1	39.0	<0.5	1.5	12	22	68	350	10	106	97	<8
R2 20587		1	125.0	1.1	5.5	6	70	98	621	14	136	111	38
R2 20588		1	52.1	1.1	5.3	7	58	129	724	5	187	73	<8
R2 20589		<1	182.0	1.1	3.4	9	42	64	59	6	219	188	17
R2 20590		1	38.4	<0.9	4.8	14	73	65	135	10	370	162	35
R2 20591		45	>2000.0	37.9	114.0	<15=	1300	46	109	34	81	28	16
R2 20592		7	672.0	11.0	62.6	8	250=	<1	14	4	429	143	14
R2 20593		2	45.4	0.8	7.9	13	71	128	86	7	177	91	<8
R2 20594		3	204.0	2.8	11.9	17	115	138	279	10	262	66	12
R2 20595		6	285.0	5.0	34.1	25	270=	208	138	13	1202	185	42
R2 20596		<1	78.5	<0.8	4.5	11	59	<1	10	8	182	131	<8
R2 20597		2	82.8	<2.4	10.7	718	65=	183	20	9	1383	48	94
R2 20598		2	511.0	4.1	14.2	18	135	52	65	28	199	60	19
R2 20599		7	>2000.0	21.5	45.9	6=	340	271	239	54	225	57	24
R2 20600		4	1220.0	9.5	23.8	10	210	197	133	131	243	83	<8
R2 20601		<1	15.3	<0.6	3.9	5	30	34	17	4	33	67	<8
R2 20602		<1	14.8	0.7	4.3	6	33	34	21	4	40	53	12
R2 20603		1	17.0	<0.7	4.7	6	41	38	24	4	60	58	<8
R2 20604		<1	7.8	<0.6	2.4	5	<5	34	<5	3	22	11	13
R2 20605		2	22.7	1.0	5.4	4	52	23	<5	5	21	64	11
R2 20606		1	12.1	0.7	4.2	11	26	51	81	7	37	87	<8
R2 20607		3	80.0	2.6	11.3	27	160	39	18	7	420	110	31
R2 20608		5	79.0	3.1	16.7	25	160=	64	48	11	537	116	39
R2 20609		1	13.5	0.7	3.4	3	37	33	8	3	19	62	17
R2 20610		1	82.6	1.1	4.3	21	70	231	142	14	556	132	39
R2 20611		2	85.7	1.9	7.4	9	60=	252	126	23	448	160	28
R2 20612		3	477.0	3.8	8.6	12	110=	404	237	70	452	159	27
R2 20613		2	109.0	1.2	8.0	37	95=	195	84	12	810	106	51
R2 20614		4	494.0	5.4	30.6	25	280=	173	158	11	915	94	60
R2 20615		4	508.0	4.5	18.3	17	210=	293	178	50	646	140	28
R2 20616		<1	8.9	<0.6	2.8	2	23	18	65	4	26	33	26
R2 20617		<1	17.5	0.7	3.5	5	20	15	66	5	31	23	<8
R2 20618		1	6.6	0.7	3.3	1	13	66	55	3	21	18	13
R2 20619		3	209.0	2.5	17.7	29	160=	112	533	21	634	48	44
R2 20620		3	225.0	3.1	15.9	14	150=	236	759	30	499	83	40
R2 20621		1	138.0	1.6	6.8	81	52	19	137	17	163	82	19



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SAMPLE NUMBER	ELEMENT UNITS	Ce PPM	Dy PPM	Er PPM	Eu PPM	Gd PPM	Ho PPM	La PPM	Lu PPM	Nd PPM	Pr PPM	Sc PPM	Sm PPM
R2 20622		1120	104	<100	16	<790	16	685.0	5.1	748	<120	4.91	65.8
R2 20623		3680	64	<120	17	<760	9	>2000.0	6.5	669	<190	4.28	83.1
R2 20624		572	5	<120	2	<340	1	541.0	0.4	100	<94	10.20	9.5
R2 20625		687	12	<110	2	<390	2	734.0	1.7	100	<91	12.80	10.2
R2 20626		730	17	<110	4	<280	3	584.0	2.6	149	<67	1.06	21.8
R2 20627		1150	36	<100	4	<420	6	994.0	4.7	210	<110	1.06	26.3
R2 20628		156	5	<100	1	<250	<1	186.0	<0.3	39	<69	27.90	4.7
R2 20629		389	33	<100	5	<220	6	242.0	4.4	79	<57	0.46	15.8
R2 20630		230	6	<100	2	<200	<1	139.0	0.4	47	<56	0.41	6.2
R2 20631		196	23	<100	4	<200	4	112.0	2.0	66	<50	1.00	11.5
R2 20632		378	9	<100	<1	<290	2	204.0	1.3	70	<86	0.95	9.6
R2 20633		337	7	<100	2	<260	<1	217.0	0.5	88	<76	1.14	11.5
R2 20634		149	60	<100	3	<200	16	69.5	11.4	49	<50	4.01	6.9
R2 20635		504	911	1600	32	<1000	185	120.0	289.0	<500	<130	84.10	39.1
R2 20636		276	5	<100	2	<260	1	210.0	0.8	63	<77	0.91	6.5
R2 20637		425	37	<100	4	<260	9	250.0	8.3	102	<68	2.53	15.8
R2 20638		56	5	<100	<1	<210	<1	43.3	0.4	11	<64	0.66	1.8
R2 20639		349	13	<100	3	<240	2	216.0	1.2	88	<67	0.40	13.9
R2 20640		218	6	<100	2	<200	1	152.0	0.5	45	<50	0.72	8.3
R2 20641		73	4	<100	<1	<200	<1	48.3	0.6	15	<50	1.43	2.9
R2 20642		105	6	<100	<1	<230	<1	90.0	0.3	19	<66	0.86	2.7
R2 20643		227	6	<100	2	<220	<1	150.0	0.4	65	<62	0.71	8.8
R2 20644		277	10	<100	3	<270	1	196.0	0.9	57	<72	13.10	11.4
R2 20645		186	5	<100	1	<220	<1	104.0	0.4	40	<66	0.52	5.5
R2 20646		552	90	<100	10	<340	15	259.0	6.7	198	<77	7.38	40.8
R2 20647		415	8	<100	1	<300	1	364.0	1.1	64	<81	1.20	6.9
R2 20648		567	8	<100	2	<330	2	481.0	1.6	113	<85	5.50	12.5
R2 20649		294	13	<100	3	<280	2	215.0	0.6	69	<80	0.38	10.7
R2 20650		395	16	<120	4	<350	2	267.0	0.7	113	<100	0.29	20.1
R2 NO NUMBER		669	9	<100	3	<420	2	414.0	0.9	129	<100	0.50	13.2
D2 15535		612	16	<100	3	<340	2	419.0	1.1	98	<84	2.61	13.2
D2 15536		23	2	<100	<1	<200	<1	17.5	0.4	<10	<50	0.51	1.5
D2 15537		438	20	<100	3	<340	3	311.0	1.7	115	<91	3.49	23.0
D2 15538		245	8	<100	2	<230	<1	169.0	0.6	62	<58	11.80	9.8
D2 15539		196	10	<100	2	<210	<1	121.0	0.5	54	<54	9.86	8.5
5540		124	3	<100	<1	<250	1	86.3	0.2	33	<69	1.83	3.4



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SAMPLE NUMBER	ELEMENT UNITS	Tb PPM	Th PPM	Tm PPM	Yb PPM	U PPM	Y PPM	Li PPM	Sr PPM	Be PPM	Nb PPM	Rb PPM	Ta PPM
R2 20622		11	>2000.0	74.0	72.2	25=	780=	98	45	714	202	42	37
R2 20623		10	384.0	7.5	51.5	23	520=	154	131	17	1010	139	74
R2 20624		<1	486.0	1.9	5.2	7	70=	111	58	44	359	122	<8
R2 20625		2	756.0	3.8	13.4	11	140=	196	203	189	818	110	13
R2 20626		2	55.3	2.4	18.9	11	120=	7	361	3	378	64	24
R2 20627		4	625.0	5.4	36.8	30	260=	16	46	298	835	30	79
R2 20628		<1	565.0	2.3	3.1	<2	42	426	436	100	326	160	<8
R2 20629		3	268.0	4.8	34.1	18	230=	2	36	3	453	60	39
R2 20630		<1	33.6	<0.6	3.2	<2	31	149	415	7	75	67	27
R2 20631		3	296.0	3.7	15.8	3	195	71	109	20	136	117	14
R2 20632		1	138.0	1.4	8.9	31	74	<1	33	8	268	97	32
R2 20633		<1	58.0	<0.7	3.9	15	39	20	88	6	116	95	18
R2 20634		4	732.0	12.3	88.5	30	1100	60	117	15	178	124	9
R2 20635		55	>2000.0	240.0	>2000.0	610=	10000	20	25	37	1234	29	<8
R2 20636		<1	117.0	0.8	6.2	8	57	14	64	11	140	81	20
R2 20637		3	477.0	8.5	60.8	20	410=	98	626	9	113	61	30
R2 20638		<1	22.1	<0.7	2.2	7	8	49	164	9	204	81	30
R2 20639		2	46.2	1.1	7.8	12	77	128	182	10	265	96	19
R2 20640		<1	51.4	<0.7	3.6	15	32	107	142	12	274	78	26
R2 20641		<1	35.7	0.8	3.9	7	39	137	59	13	161	84	21
R2 20642		<1	26.5	0.7	1.9	19	18	70	92	11	226	75	43
R2 20643		<1	20.7	<0.6	2.8	4	18	41	186	7	88	67	14
R2 20644		1	51.6	0.9	4.8	8	57	37	133	13	134	59	35
R2 20645		<1	26.8	<0.6	3.0	4	24	4	169	5	81	50	<8
R2 20646		9	1650.0	15.7	62.8	34	550=	78	37	30	683	80	42
R2 20647		<1	95.3	<0.9	6.8	11	72	12	23	8	229	62	19
R2 20648		<1	380.0	2.7	12.0	9	79	109	64	27	274	75	37
R2 20649		<1	40.7	<0.8	5.0	13	45	82	631	8	268	30	45
R2 20650		2	44.5	1.3	6.6	7	70	53	440	13	170	72	21
R2 NO NUMBER		1	59.3	<1.9	5.3	36	66	57	50	9	1226	45	105
D2 15535		<1	93.2	<1.2	7.8	13	65=	169	279	19	511	85	31
D2 15536		<1	13.4	<0.5	2.3	<1	6	6	<5	4	11	<8	<8
D2 15537		3	82.2	1.6	11.9	12	115	39	133	22	214	51	30
D2 15538		1	27.7	0.7	3.6	<2	36	26	73	9	16	50	12
D2 15539		<1	32.7	0.9	3.8	3	43	29	64	8	33	57	10
P2 15540		<1	31.2	<0.8	1.2	26	12	72	82	8	270	74	46



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SAMPLE NUMBER	ELEMENT UNITS	La PPM	Yb PPM	Th PPM
R2 15543		2200		9200
R2 15546				25000
R2 15547		2100		>30000
R2 15549				3400
R2 20569		8400		14000
R2 20581		5400		>30000
R2 20583				21000
R2 20591		8300		2500
R2 20592		2900		
R2 20595		2400		
R2 20599				3400
R2 20622				13000
R2 20623		2700		
R2 20625			2100	15000

**APPENDIX D**

**CONSECUTIVE LISTING - SILT AND SOIL SAMPLES**

Consecutive Listing - Silt and Soil Samples

SAMPLE NO.	LOCATION	TOTAL REE (ppm)	LIGHT REE (ppm)	HEAVY REE (ppm)
DL 1	S11t	1017	890	127
DL 2	S11t	1005	875	130
DL 3	S11t	852	733	119
DL 4	S11t	823	704	119
DL 5	S11t	860	746	114
DL 6	S11t	714	599	115
DL 7	S11t	1445	617	114
DL 8	S11t	827	710	117
DL 9	S11t	762	650	112
DL 10	S11t	759	644	115
DL 11	S11t	746	632	114
DL 12	S11t	771	659	112
DL 13	S11t	1036	914	122
DL 14	S11t	1134	1011	123
DL 15	S11t	852	737	115
P5E	TR 86-11	573	463	110
P5W	TR 86-11	610	498	112
P9	TR 86-12	2292	2158	134
86001	L1+25E, 2+50N	642	527	115
86002	L1+25E, 1+75N	535	425	110
86003	L1+25E, 1+25N	597	487	110
86004	L1+25E, 1+00N	523	414	109
86005	L1+25E, 0+75N	647	534	113
86006	L1+25E, 0+50N	-	-	-
86007	L1+25E, 0+35N	683	571	112
86008	L1+25E, 0+25N	1125	1004	121
86009	L1+25E, 0+20N	735	621	114
86010	L1+25E, 0+15N	917	797	120
86011	L1+25E, 0+10N	724	612	112
86012	L1+25E, 0+05N	1392	1268	124
86013	L1+25E, 0+00S	574	465	109
86014	L1+25E, 0+05S	821	707	114
86015	L1+25E, 0+10S	532	424	108
86016	L1+25E, 0+20S	540	432	108
86017	L1+25E, 0+30S	580	471	109
86018	L1+25E, 0+50S	637	526	111
86019	L1+25E, 0+75S	524	414	110
86020	L1+25E, 1+00S	688	575	113
86021	L1+25E, 1+50S	561	451	110

Consecutive Listing - Silt and Soil Samples

SAMPLE NO.	LOCATION	TOTAL REE (ppm)	LIGHT REE (ppm)	HEAVY REE (ppm)
86022	L8+50E, 0+00S	656	545	111
86023	L8+50E, 0+25S	563	452	111
86024	L8+50E, 0+50S	541	432	109
86025	L8+50E, 0+75S	527	418	109
86026	L8+50E, 1+00S	512	404	108
86027	L8+50E, 1+25S	598	490	108
86028	L8+50E, 1+50S	723	613	110
86029	L8+50E, 1+75S	759	644	115
86030	L8+50E, 2+00S	802	689	113
86031	L8+50E, 2+25S	666	555	111
86032	L8+50E, 2+50S	1274	1132	142
86033	L8+50E, 2+75S	564	453	111
86034	L8+50E, 3+00S	512	403	109
86035	L8+50E, 3+25S	642	529	113
86036	L8+50E, 3+50S	541	431	110
86037	L8+50E, 3+75S	526	416	110
86038	L8+50E, 4+00S	486	378	108
86039	L8+50E, 4+25S	557	448	109
86040	L8+50E, 4+50S	605	494	111
86041	L8+50E, 4+75S	651	539	112
86042	L8+50E, 5+00S	565	452	113
86043	L8+50E, 5+25S	677	564	113
86044	L8+50E, 5+50S	579	469	110
86045	L8+50E, 5+75S	665	554	111
86046	L8+50E, 6+00S	669	558	111
86047	L8+50E, 6+25S	655	545	110
86048	L8+50E, 6+50S	620	511	109
86049	L8+50E, 6+75S	534	426	108
86050	L8+50E, 7+00S	531	422	109
86051	L8+50E, 7+25S	609	499	110
86052	L8+50E, 7+50S	1572	1395	177
86053	L8+50E, 7+75S	525	416	109
86054	L8+50E, 8+00S	534	425	109
86055	9+00E, 0+00S	551	443	108
86056	9+00E, 0+50S	629	516	113
86057	12+00W, 1+75N	1166	1048	118

**APPENDIX E**

**ANALYTICAL RESULTS - SILT AND SOIL SAMPLES**



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SAMPLE NUMBER	ELEMENT UNITS	Ce PPM	Dy PPM	Er PPM	Eu PPM	Gd PPM	Hf PPM	La PPM	Lu PPM	Nd PPM	Pr PPM	Sc PPM
S1 CHECK		105	4	<100	<1	<200	<1	64.7	0.4	30	<50	9.07
S1 GCM CHECK		159	5	<100	2	<200	1	106.0	0.4	47	<50	7.96
S1 DL-1		260	14	<100	5	<200	2	215.0	0.9	132	<50	7.48
S1 DL-2		268	16	<100	6	<200	3	203.0	0.8	120	<50	7.48
S1 DL-3		214	9	<100	3	<200	2	159.0	0.7	89	<50	5.27
S1 DL-4		206	10	<100	3	<200	1	147.0	0.6	81	<50	5.04
S1 DL-5		253	6	<100	2	<200	1	149.0	0.6	79	<50	3.46
S1 DL-6		169	4	<100	2	<200	1	105.0	0.9	62	<50	1.21
S1 DL-7		181	7	<100	2	<200	<1	113.0	0.4	58	<50	4.63
S1 DL-8		213	9	<100	3	<200	1	142.0	0.7	84	<50	5.33
S1 DL-9		195	5	<100	2	<200	<1	129.0	0.6	59	<53	3.38
S1 DL-10		177	7	<100	2	<200	1	132.0	0.5	68	<50	4.31
S1 DL-11		180	6	<100	2	<200	<1	121.0	0.5	63	<54	3.40
S1 DL-12		197	5	<100	2	<200	<1	131.0	0.5	66	<50	3.82
S1 DL-13		295	11	<100	4	<220	1	220.0	0.7	97	<55	7.15
S1 DL-14		308	11	<100	4	<240	2	250.0	0.8	120	<61	9.51
S1 DL-15		224	3	<100	3	<200	1	153.0	0.5	76	<53	6.01
S1 GCM 0+25N		297	14	<100	5	<250	2	263.0	0.5	150	<61	11.00
S1 GCM 0+10N		162	6	<100	2	<200	<1	132.0	0.4	48	<50	9.13
S1 GCM 0+15N		244	10	<100	4	<230	2	149.0	0.6	79	<50	25.70
S1 GCM 0+20N		164	6	<100	2	<200	1	112.0	0.5	66	<50	17.30
S1 GCM 0+25N		321	10	<100	3	<230	1	224.0	0.8	102	<55	14.40
S1 GCM 0+35N		158	5	<100	2	<200	<1	93.3	0.5	53	<50	7.89
S1 GCM 0+75N		140	6	<100	2	<200	<1	88.5	0.5	46	<50	7.81
S1 GCM 1+00N		73	4	<100	<1	<200	1	44.6	0.3	32	<50	8.06
S1 GCM 1+25N		113	4	<100	1	<200	1	59.1	0.4	40	<50	8.05
S1 GCM 1+75N		84	4	<100	<1	<200	1	49.5	0.4	28	<50	7.30
S1 GCM 2+50N		112	7	<100	2	<200	<1	88.5	0.5	54	<50	11.20
S1 GCM 0+05S		222	6	<100	2	<210	<1	138.0	0.5	63	<55	8.16
S1 GCM 0+10S		80	3	<100	<1	<200	<1	48.2	0.3	32	<50	7.91
S1 GCM 0+20S		84	3	<100	<1	<200	<1	52.6	0.4	31	<50	7.91
S1 GCM 0+30S		106	4	<100	1	<200	<1	65.4	0.3	37	<50	7.05
S1 GCM 0+50S		132	5	<100	2	<200	1	80.2	0.5	46	<50	8.78
S1 GCM 0+75S		79	5	<100	1	<200	<1	47.1	0.3	25	<50	6.99
S1 GCM 1+00S		150	6	<100	2	<200	<1	103.0	0.4	49	<53	9.38
S1 GCM 1+50S		79	4	<100	1	<200	<1	53.5	0.4	33	<50	9.40
S1 GCM 0+00		147	5	<100	1	<200	<1	89.5	0.5	41	<52	8.00
S1 GCM 0+50		90	4	<100	<1	<200	<1	50.7	0.4	29	<50	6.83
S1 P5E		95	4	<100	1	<200	1	65.7	0.4	35	<52	8.43
S1 P5W		114	6	<100	1	<200	<1	67.8	0.4	47	<52	9.20



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SAMPLE NUMBER	ELEMENT UNITS	Sm PPM	Tb PPM	Th PPM	Tm PPM	U PPM	J PPM
S1 CHECK		5.4	<1	17.7	<0.5	2.4	3
S1 GCM CHECK		7.0	<1	21.9	0.7	3.7	3
S1 DL-1		20.6	2	29.4	1.3	6.9	21
S1 DL-2		20.0	2	24.5	1.2	6.5	38
S1 DL-3		12.7	1	25.8	0.8	5.3	17
S1 DL-4		12.4	1	26.3	1.1	5.3	12
S1 DL-5		9.5	<1	28.6	0.6	5.1	11
S1 DL-6		9.4	<1	50.5	1.2	6.9	9
S1 DL-7		8.0	<1	21.8	0.7	3.6	15
S1 DL-8		12.1	1	31.9	0.6	4.8	13
S1 DL-9		8.7	<1	33.3	<0.5	4.0	8
S1 DL-10		10.6	1	26.6	0.7	4.6	14
S1 DL-11		8.7	<1	27.0	0.8	4.7	10
S1 DL-12		8.9	<1	21.2	0.6	3.8	5
S1 DL-13		15.4	2	33.1	1.2	6.4	14
S1 DL-14		18.7	1	39.9	1.1	6.7	16
S1 DL-15		11.5	1	25.9	<0.5	4.4	14
S1 GCM 0+05N		21.3	2	33.6	1.1	4.7	6
S1 GCM 0+10N		3.4	<1	24.6	<0.5	3.5	4
S1 GCM 0+15N		15.2	2	34.7	<0.7	4.9	5
S1 GCM 0+20N		9.7	1	27.7	1.1	4.2	3
S1 GCM 0+25N		14.4	2	48.2	1.0	5.8	6
S1 GCM 0+35N		5.7	<1	24.0	0.6	3.5	4
S1 GCM 0+75N		6.9	<1	19.3	0.7	3.8	4
S1 GCM 1+00N		4.8	<1	10.5	<0.5	2.4	3
S1 GCM 1+25N		5.9	<1	13.8	0.5	3.1	4
S1 GCM 1+75N		5.0	<1	10.3	<0.5	3.0	4
S1 GCM 2+50N		9.5	<1	18.9	0.6	4.4	5
S1 GCM 0+05S		8.6	<1	31.1	0.7	4.6	3
S1 GCM 0+10S		4.8	<1	11.7	0.6	2.3	3
S1 GCM 0+20S		5.3	<1	12.3	<0.5	2.9	4
S1 GCM 0+30S		5.3	<1	14.9	<0.5	3.0	3
S1 GCM 0+50S		7.3	<1	18.9	<0.5	3.0	3
S1 GCM 0+75S		5.0	<1	9.8	<0.5	2.2	3
S1 GCM 1+00S		8.3	<1	23.8	0.7	3.7	3
S1 GCM 1+50S		6.1	<1	15.1	0.7	2.9	4
S1 GCM 0+00		6.4	1	20.6	0.7	3.2	3
S1 GCM 0+50		4.8	<1	13.4	<0.5	2.5	3
S1 P5E		5.9	<1	30.7	0.5	3.0	4
S1 P5W		6.7	<1	24.9	0.6	3.2	4



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SAMPLE NUMBER	ELEMENT UNITS	Ce PPM	Yb PPM	Er PPM	Eu PPM	Gd PPM	Ho PPM	La PPM	Lu PPM	Nd PPM	Pr PPM	Sm PPM
S1 P9		645	17	100	11	<390	2	610.0	0.8	342	<97	15.60
S1 0+255		94	5	<100	1	<200	<1	56.1	0.4	36	<50	8.91
S1 0+755		80	3	<100	<1	<200	<1	53.1	0.4	22	<50	7.11
S1 1+005		74	3	<100	<1	<200	<1	39.7	0.4	28	<50	8.65
S1 1+255		113	4	<100	1	<200	<1	71.9	0.3	40	<50	7.75
S1 1+505		163	4	<100	2	<220	1	108.0	0.4	54	<50	7.93
S1 1+755		179	7	<100	2	<230	1	122.0	0.5	49	<57	9.15
S1 2+005		183	6	100	2	<250	1	121.0	0.6	50	<62	13.80
S1 2+255		137	4	<100	1	<220	<1	93.2	0.5	38	<61	8.73
S1 2+505		430	16	<100	4	<280	4	212.0	1.9	115	<70	6.22
S1 2+755		95	5	<100	1	<200	<1	56.6	0.4	36	<50	8.07
S1 3+005		73	3	<100	1	<200	<1	39.9	0.3	27	<50	7.98
S1 3+255		97	5	<100	1	<250	1	62.2	0.5	35	<68	11.40
S1 3+505		93	4	100	1	<200	<1	55.4	0.5	28	<50	8.84
S1 3+755		77	4	100	1	<200	<1	45.5	0.4	28	<50	10.00
S1 4+005		61	3	<100	<1	<200	<1	33.7	0.2	20	<50	9.39
S1 4+505		113	5	100	1	<210	1	67.9	0.5	31	<53	12.90
S1 4+755		126	5	<100	1	<220	<1	82.1	0.4	40	<52	11.50
S1 5+005		99	6	<100	1	200	1	61.7	0.4	27	<50	7.74
S1 5+255		121	6	<100	1	<240	<1	79.0	0.5	42	<60	14.50
S1 5+505		96	4	<100	1	<210	1	58.0	0.4	33	<54	11.80
S1 5+005		133	4	<100	1	230	<1	92.3	0.4	41	<56	9.24
S1 5+505		98	4	<100	1	240	<1	51.6	0.3	38	<58	16.20
S1 5+755		76	3	<100	1	<210	<1	44.4	0.2	30	<55	6.28
S1 7+005		81	4	<100	<1	<200	<1	43.0	0.3	34	<50	8.50
S1 7+255		116	3	<100	1	<210	1	67.9	0.5	38	<51	9.18
S1 7+505		547	44	<100	10	<300	5	244.0	1.8	188	<69	6.48
S1 7+755		76	3	<100	1	<200	<1	48.0	0.4	29	<50	7.51
S1 8+005		82	4	<100	<1	<200	<1	48.3	0.4	32	<50	7.49
S1 8+005 9+00E		89	3	<100	<1	<200	1	57.8	0.3	32	<50	7.60
S1 0+505 9+00E		114	7	<100	1	<210	<1	78.0	0.5	42	<55	8.05
S1 1200w-175N MGM 1		325	8	<100	2	<300	2	243.0	0.5	88	<70	7.80
S1 4+25		87	4	<100	<1	220	<1	59.5	0.4	30	<55	10.90
S1 5+75		115	4	<100	1	<250	<1	72.6	0.4	36	<60	13.70
S1 5+25		122	3	<100	1	<230	<1	76.6	0.4	39	<59	11.80



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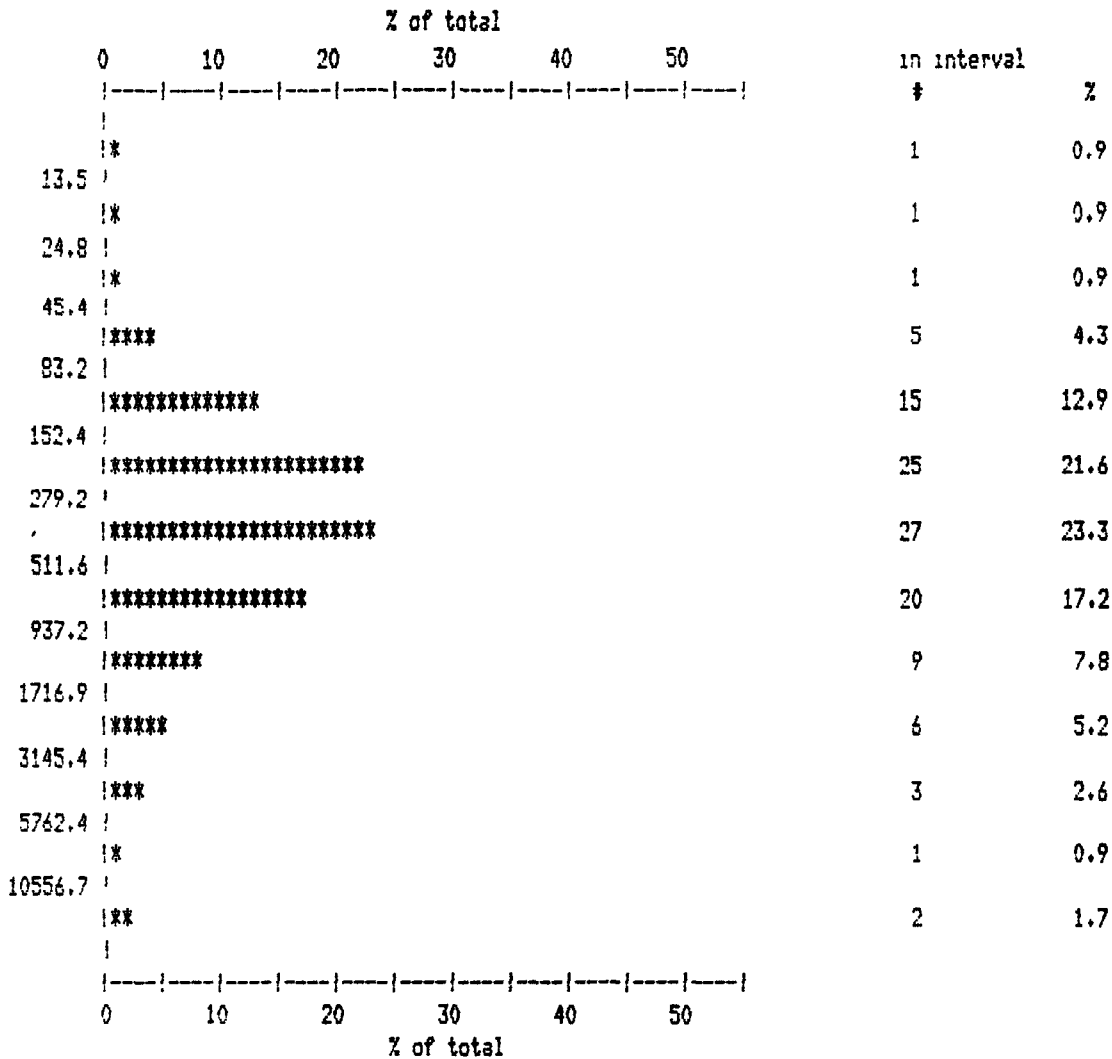
SAMPLE NUMBER	ELEMENT UNITS	Sp PPM	Td PPM	Tn PPM	Tb PPM	Yd PPM	U PPM
SI 9		45.0	3	115.0	2.0	9.0	4
SI 7+255		6.0	1	13.3	<0.5	3.3	4
SI 0+755		4.6	<1	11.5	<0.5	2.8	4
SI 1+603		4.5	<1	10.8	<0.5	2.5	4
SI 1+355		5.3	<1	14.0	<0.5	2.7	3
SI 1+505		7.8	<1	23.6	<0.5	3.5	5
SI 1+755		7.3	<1	27.4	0.7	4.0	5
SI 2+005		7.5	<1	34.0	0.8	3.9	6
SI 2+255		6.1	<1	24.5	0.7	4.6	5
SI 2+505		15.1	2	79.6	2.4	16.0	16
SI 2+755		5.7	<1	15.5	<0.5	3.3	4
SI 3+005		4.4	<1	10.9	<0.5	2.7	4
SI 3+255		4.5	<1	15.4	<0.5	3.9	3
SI 3+503		5.5	1	12.8	0.5	2.9	4
SI 3+755		4.7	<1	18.0	0.5	2.7	4
SI 4+005		3.4	<1	9.4	<0.5	2.4	2
SI 4+255		5.4	-	18.2	<0.5	2.9	3
SI 4+755		5.1	1	26.5	0.5	3.6	3
SI 5+005		5.2	<1	15.9	0.8	3.8	3
SI 5+255		5.2	<1	22.9	1.0	4.1	4
SI 5+755		5.6	<1	13.1	0.5	3.3	4
SI 6+005		5.6	<1	23.5	0.6	2.7	6
SI 6+303		7.4	<1	9.6	<0.5	2.5	2
SI 6+755		2.8	<1	14.5	<0.5	2.5	5
SI 7+005		4.6	<1	12.6	<0.5	2.5	4
SI 7+255		5.8	<1	21.5	0.6	3.8	4
SI 7+505		30.3	4	139.0	3.3	18.7	4
SI 7+755		5.1	1	10.4	<0.5	2.7	4
SI 8+005		4.8	<1	10.6	<0.5	2.4	4
SI 0+005 9+00E		5.0	<1	14.7	<0.5	2.3	4
SI 0+505 9+00E		7.3	<1	15.8	<0.5	3.4	4
SI 1200W-17EV MGH 1		11.5	1	37.6	0.9	4.9	5
SI 4+25		4.8	<1	12.1	<0.5	2.5	4
SI 5+75		5.8	-	20.7	<0.5	4.3	5
SI 6+25		5.4	1	22.6	0.8	3.5	4

**APPENDIX F**

**HISTOGRAMS, SUMMARY STATISTICS**

CONSOLIDATED SILVER STANDARD

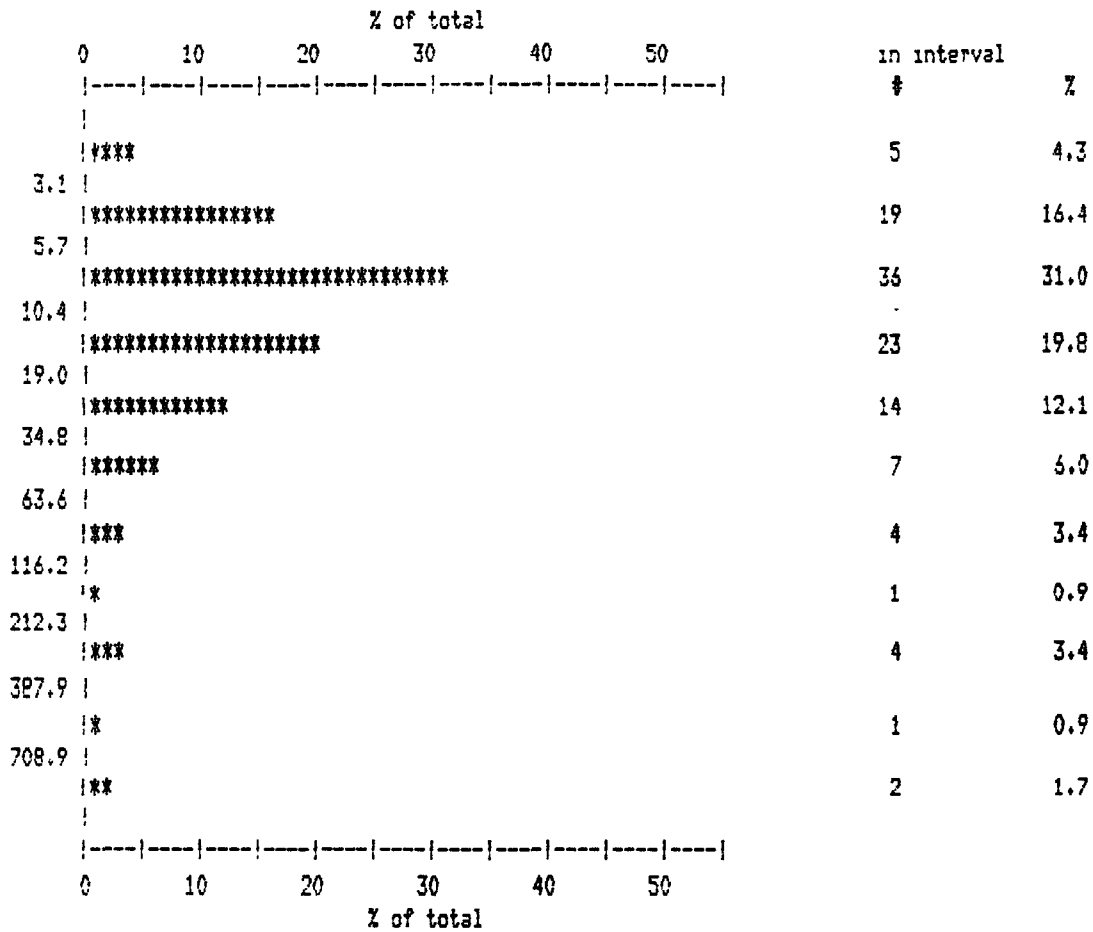
Histogram for Cerium ( CE ) Values in PPM



Summary Statistics ( Log transformed values )			
Number of samples	: 116	Mean value	: 378.0
Number of intervals	: 13	Standard Deviation	: 0.526
Minimum value	: 10	Skewness	: 0.36
Maximum value	: 15300	Kurtosis	: 2166.725
Median value	: 361		
Modal Range	: greater than 279.2 to less than 511.6		
Values in modal range	: 27 ( 23.3 % of total )		

CONSOLIDATED SILVER STANDARD

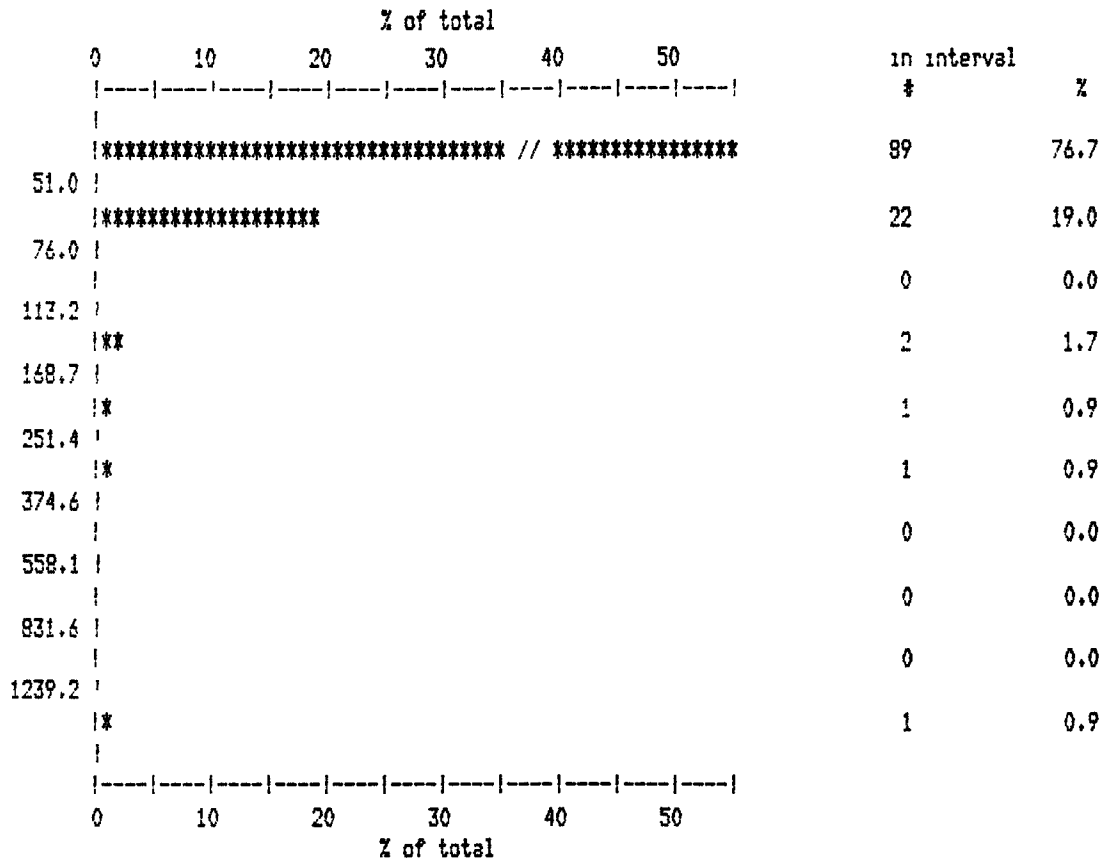
Histogram for Dysprosium ( DY ) Values in PPM



Summary Statistics ( Log transformed values )			
Number of samples	: 116	Mean value	: 14.1
Number of intervals	: 11	Standard Deviation	: 0.524
Minimum value	: 1.9	Skewness	: 1.39
Maximum value	: 911	Kurtosis	: 66.086
Median value	: .10		
Modal Range	: greater than 5.7 to less than 10.4		
Values in modal range	: 36 ( 31.0 % of total )		

CONSOLIDATED SILVER STANDARD

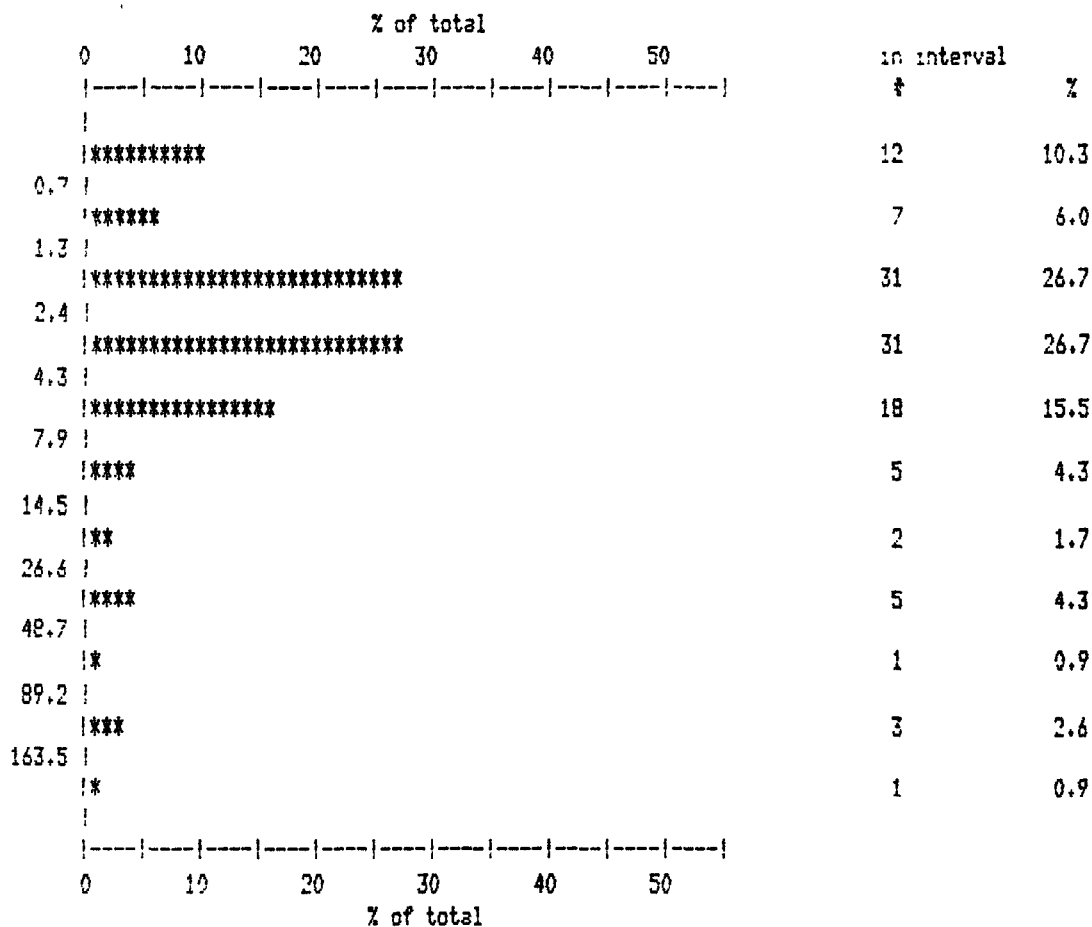
Histogram for Erbium ( ER ) Values in PPM



Summary Statistics ( Log transformed values )			
Number of samples	: 116	Mean value	: 55.4
Number of intervals	: 10	Standard Deviation	: 0.173
Minimum value	: 50	Skewness	: 6.25
Maximum value	: 1600	Kurtosis	: *.***
Median value	: 50		
Modal Range	: less than 51.0		
Values in modal range	: 89 ( 76.7 % of total )		

CONSOLIDATED SILVER STANDARD

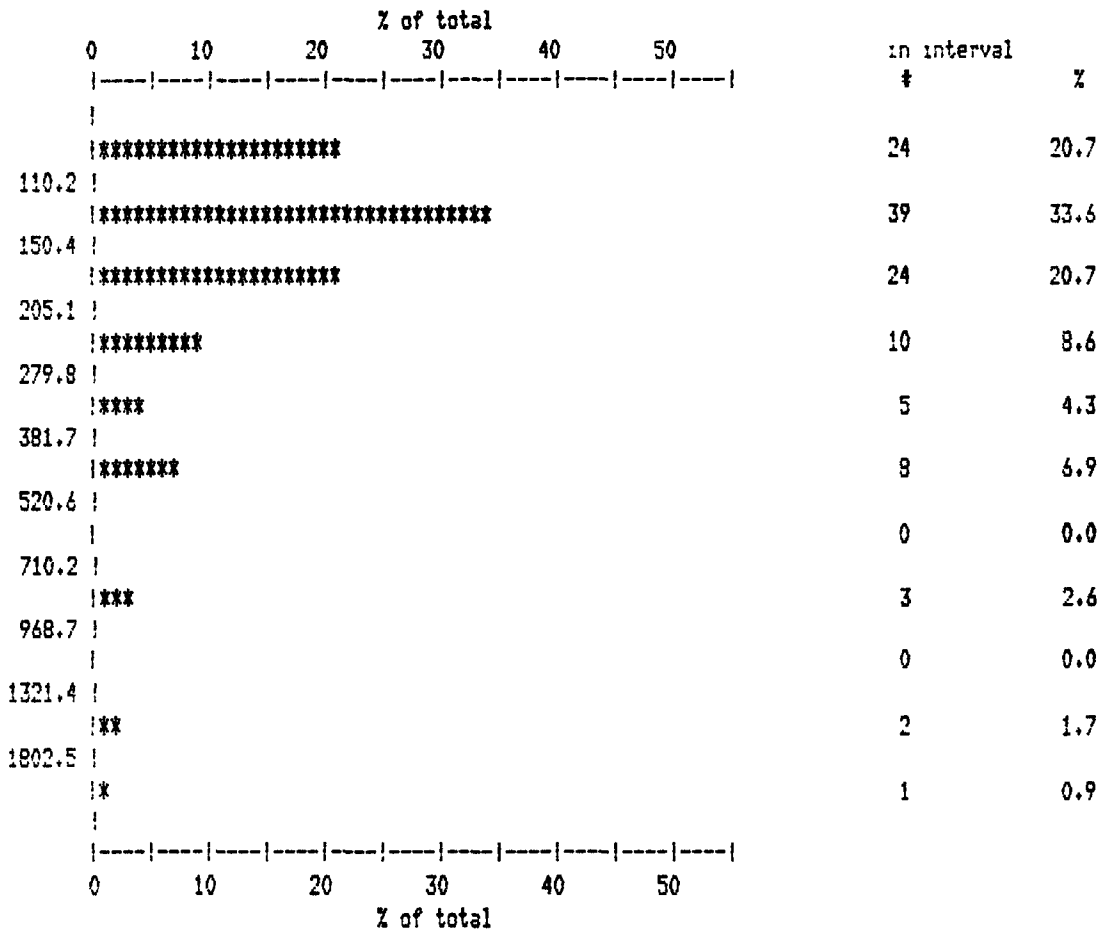
Histogram for Europium ( EU ) Values in PPM



Summary Statistics ( Log transformed values )			
Number of samples	: 116	Mean value	: 3.2
Number of intervals	: 11	Standard Deviation	: 0.526
Minimum value	: 0.5	Skewness	: 1.09
Maximum value	: 165	Kurtosis	: -0.359
Median value	: 2.8		
Modal Range	: greater than 1.3 to less than 2.4		
Values in modal range	: 31 ( 26.7 % of total )		

CONSOLIDATED SILVER STANDARD

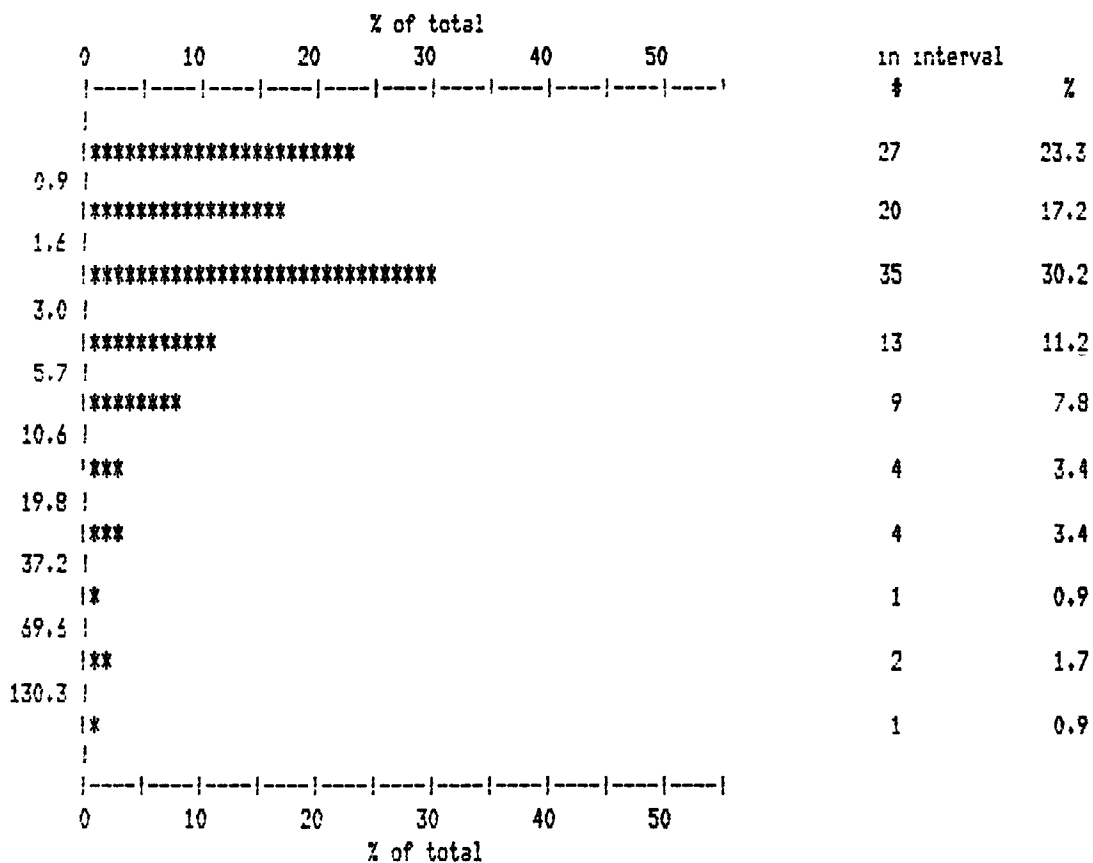
Histogram for Gadolinium ( GD ) Values in PPM



Summary Statistics ( Log transformed values )			
Number of samples	: 116	Mean value	: 175.6
Number of intervals	: 11	Standard Deviation	: 0.270
Minimum value	: 100	Skewness	: 1.88
Maximum value	: 2000	Kurtosis	: *.***
Median value	: 145		
Modal Range	: greater than 110.2 to less than 150.4		
Values in modal range	: 39 ( 33.6 % of total )		

CONSOLIDATED SILVER STANDARD

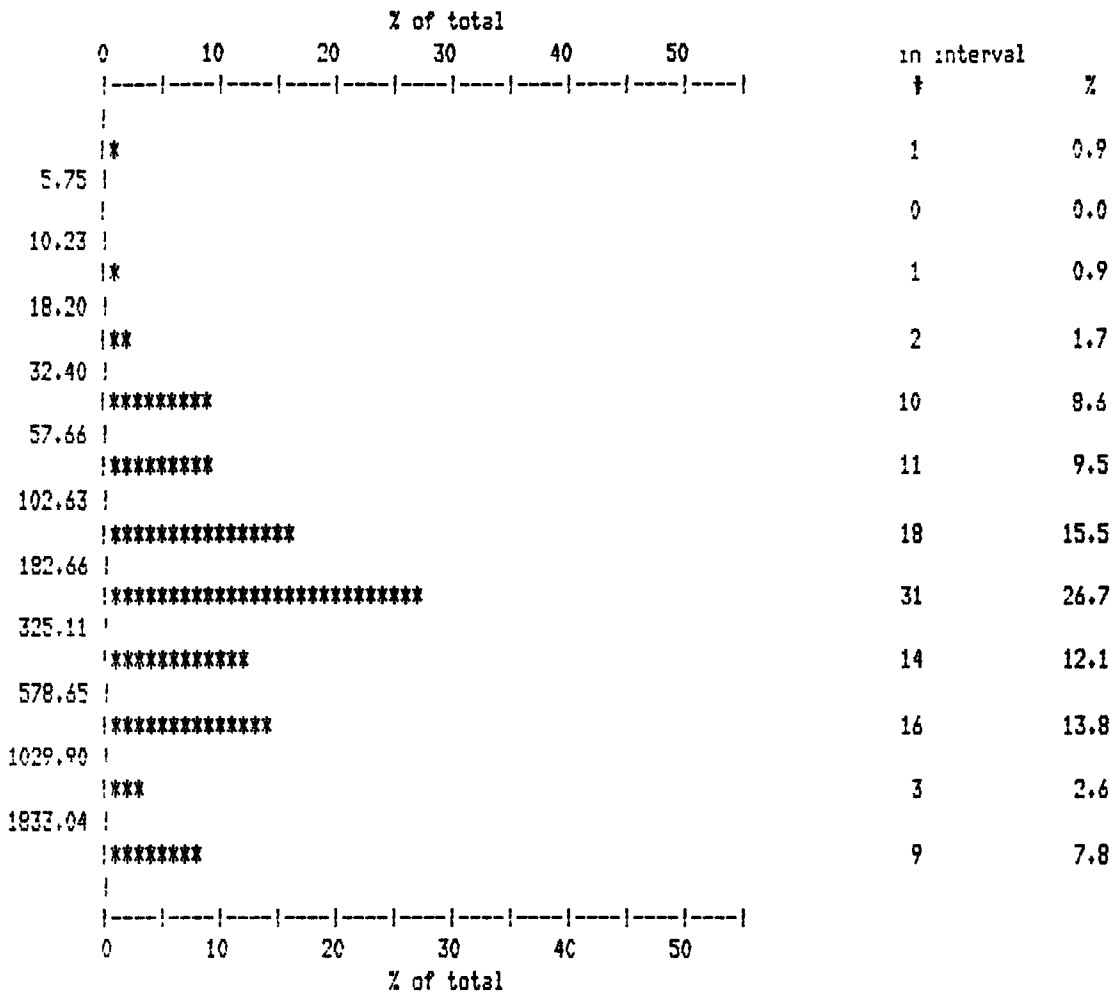
Histogram for Holmium ( HO ) Values in PPM



Summary Statistics ( Log transformed values )			
Number of samples	: 116	Mean value	: 2.2
Number of intervals	: 10	Standard Deviation	: 0.545
Minimum value	: 0.5	Skewness	: 0.96
Maximum value	: 185	Kurtosis	: -0.624
Median value	: 2		
Modal Range	: greater than 1.6 to less than 3.0		
Values in modal range	: 35 ( 30.2 % of total )		

CONSOLIDATED SILVER STANDARD

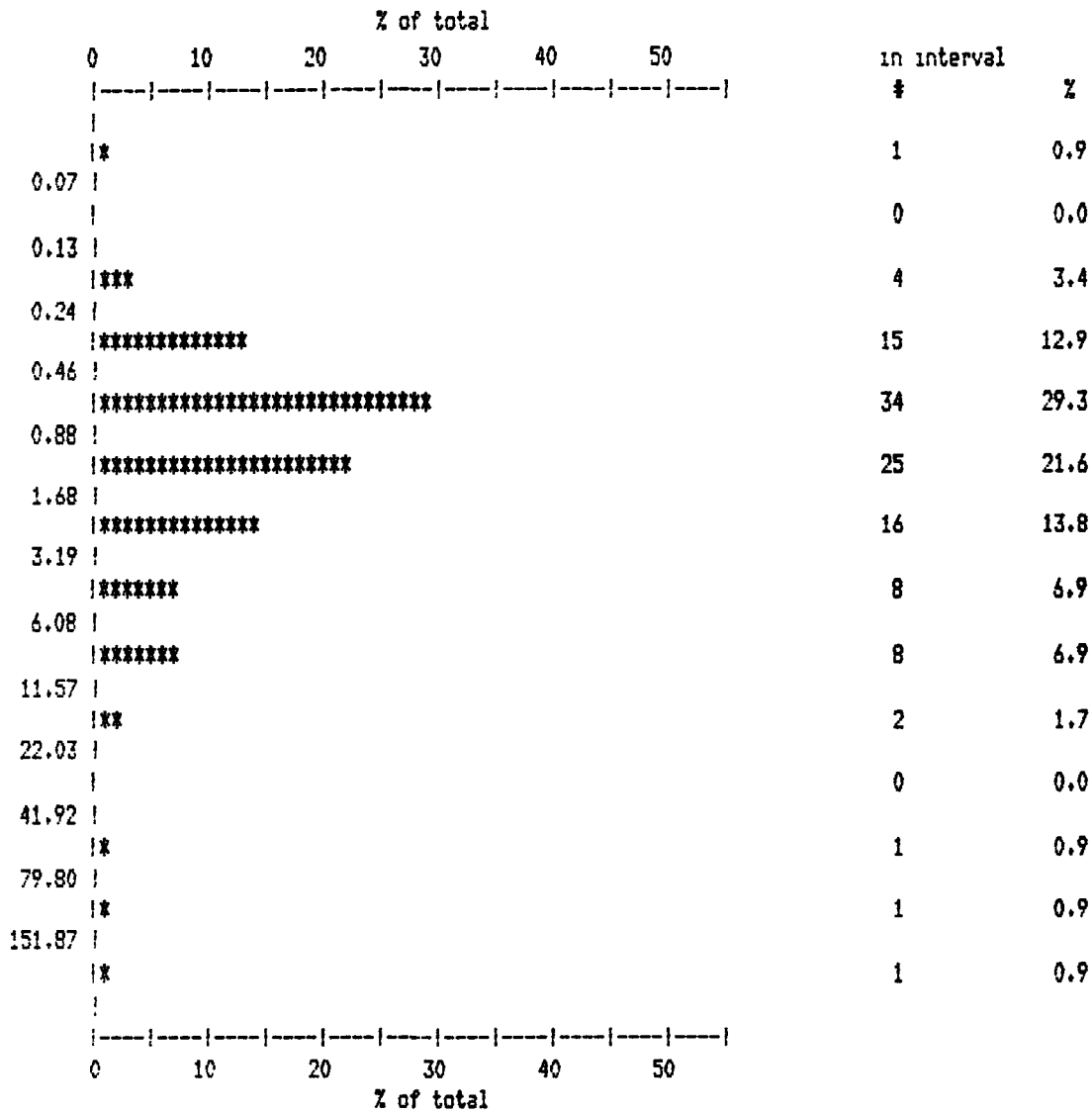
Histogram for Lanthanum ( LA ) Values in PPM



Summary Statistics ( Log transformed values )			
Number of samples	: 116	Mean value	: 243.69
Number of intervals	: 12	Standard Deviation	: 0.501
Minimum value	: 5.63	Skewness	: -0.194
Maximum value	: 2000.0	Kurtosis	: *.****
Median value	: 242.00		
Modal Range	: greater than 182.66 to less than 325.11		
Values in modal range	: 31 ( 26.7 % of total )		

CONSOLIDATED SILVER STANDARD

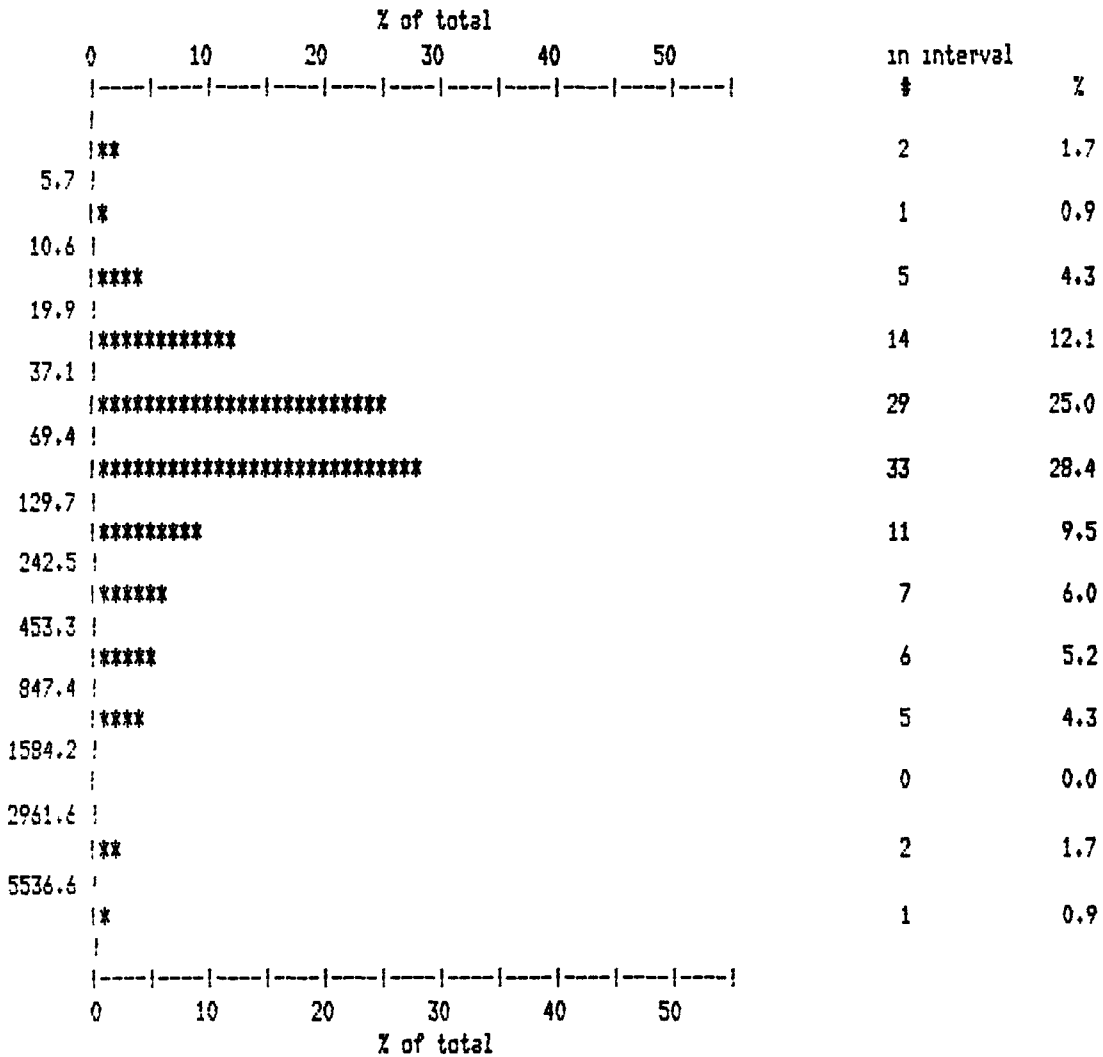
Histogram for Lutetium ( LU ) Values in PPM



Summary Statistics ( Log transformed values )			
Number of samples	: 116	Mean value	: 1.22
Number of intervals	: 14	Standard Deviation	: 0.559
Minimum value	: 0.0	Skewness	: 1.270
Maximum value	: 289.0	Kurtosis	: 2.9159
Median value	: 1.0		
Modal Range	: greater than 0.46 to less than 0.88		
Values in modal range	: 34 ( 29.3 % of total )		

CONSOLIDATED SILVER STANDARD

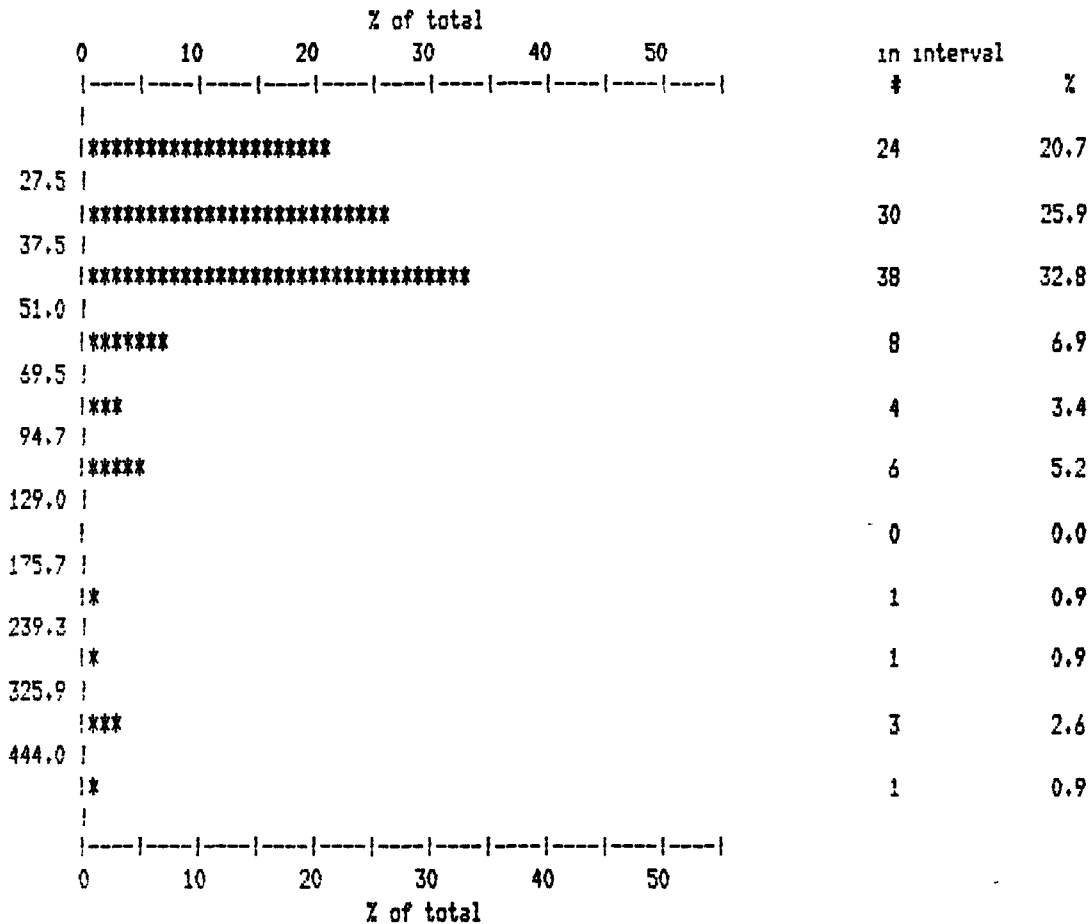
Histogram for Neodymium ( ND ) Values in PPM



Summary Statistics ( Log transformed values )			
Number of samples	: 116	Mean value	: 94.9
Number of intervals	: 13	Standard Deviation	: 0.543
Minimum value	: 5.0	Skewness	: 0.78
Maximum value	: 6030	Kurtosis	: 623.377
Median value	: 80.6		
Modal Range	: greater than 69.4 to less than 129.7		
Values in modal range	: 33 ( 28.4 % of total )		

CONSOLIDATED SILVER STANDARD

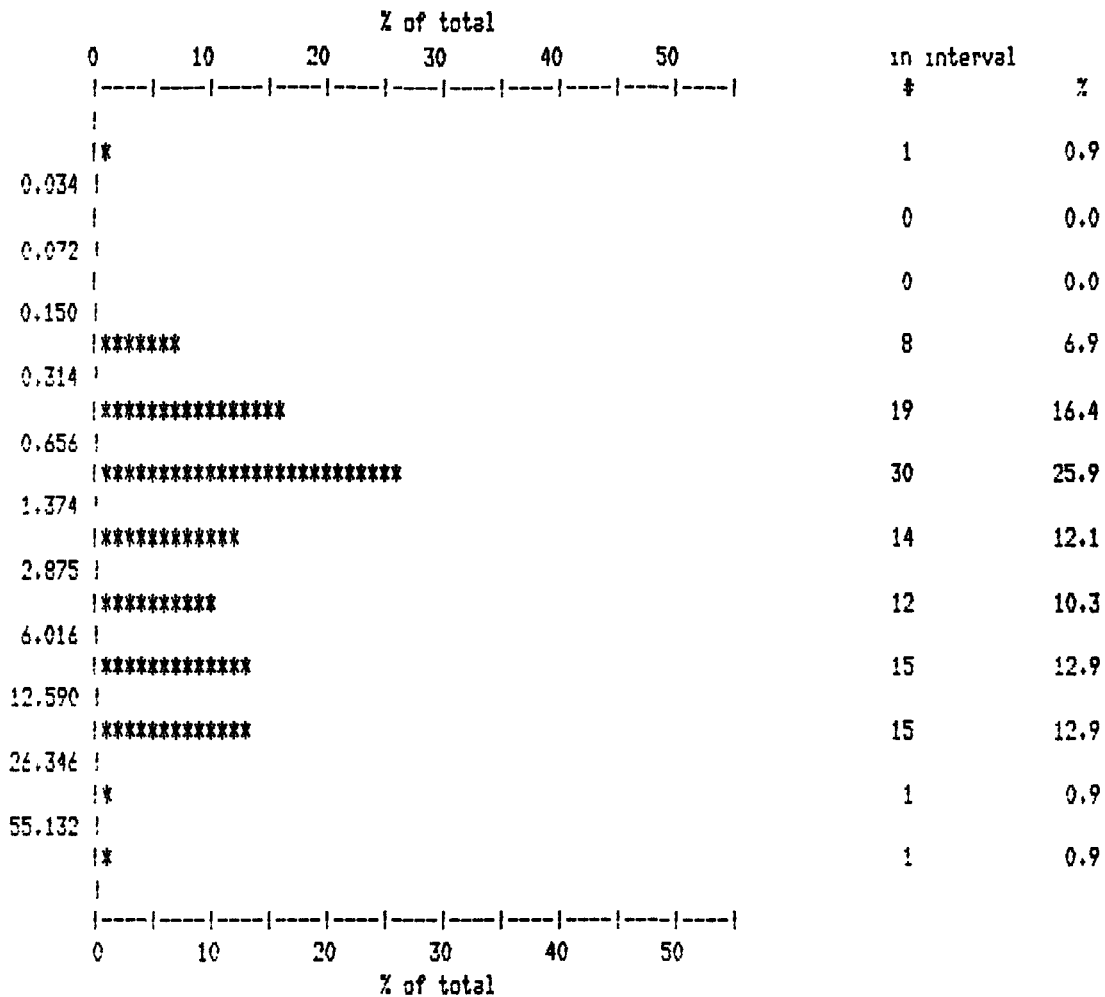
Histogram for Praeseodymium ( PR ) Values in PPM



Summary Statistics ( Log transformed values )			
Number of samples	: 116	Mean value	: 43.7
Number of intervals	: 11	Standard Deviation	: 0.268
Minimum value	: 25	Skewness	: 2.16
Maximum value	: 500	Kurtosis	: 5368.689
Median value	: 38.5		
Modal Range	: greater than 37.5 to less than 51.0		
Values in modal range	: 38 ( 32.8 % of total )		

CONSOLIDATED SILVER STANDARD

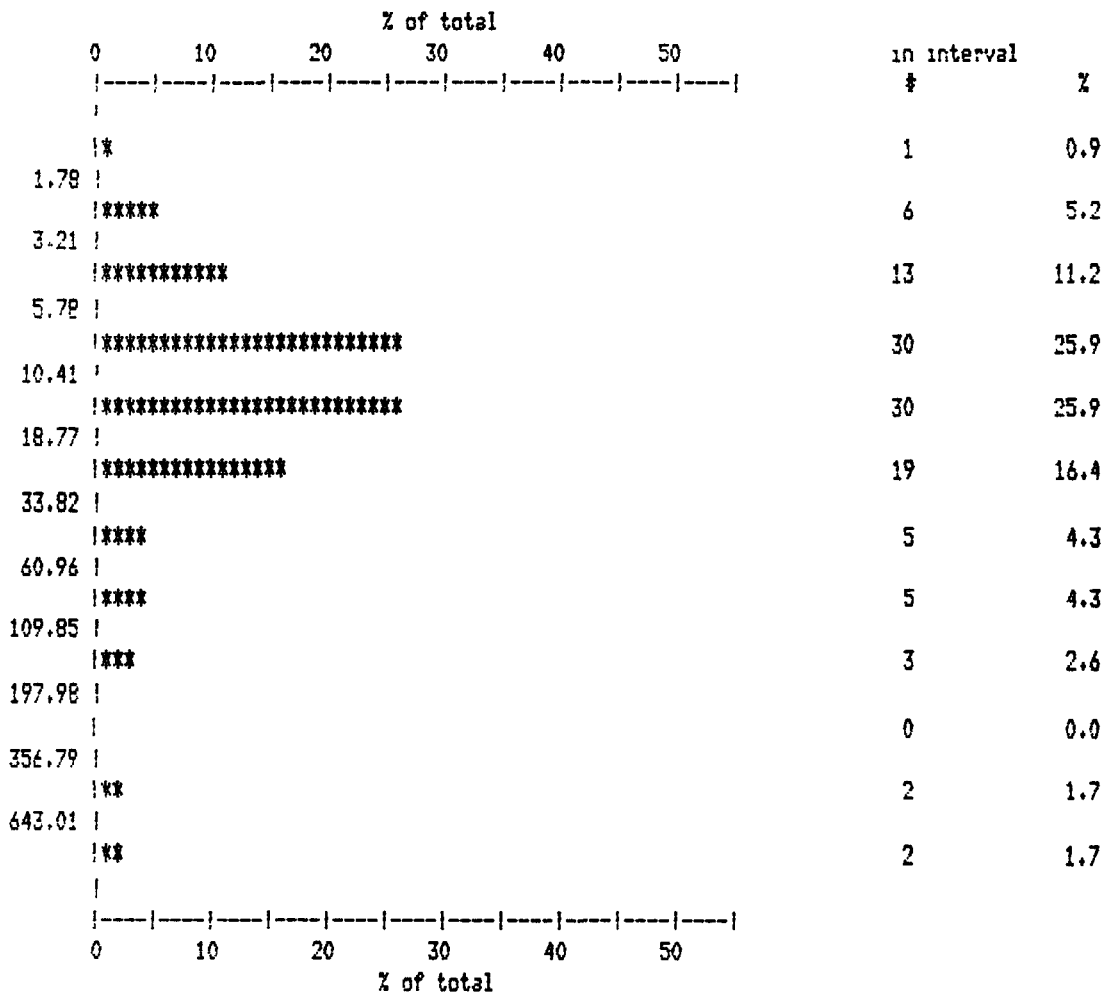
Histogram for Scandium ( SC ) Values in PPM



Summary Statistics ( Log transformed values )			
Number of samples	: 116	Mean value	: 1.987
Number of intervals	: 12	Standard Deviation	: 0.641
Minimum value	: 0.02	Skewness	: 0.1635
Maximum value	: 94.10	Kurtosis	: -1.6257
Median value	: 1.37		
Modal Range	: greater than 0.656 to less than 1.374		
Values in modal range	: 30 ( 25.9 % of total )		

CONSOLIDATED SILVER STANDARD

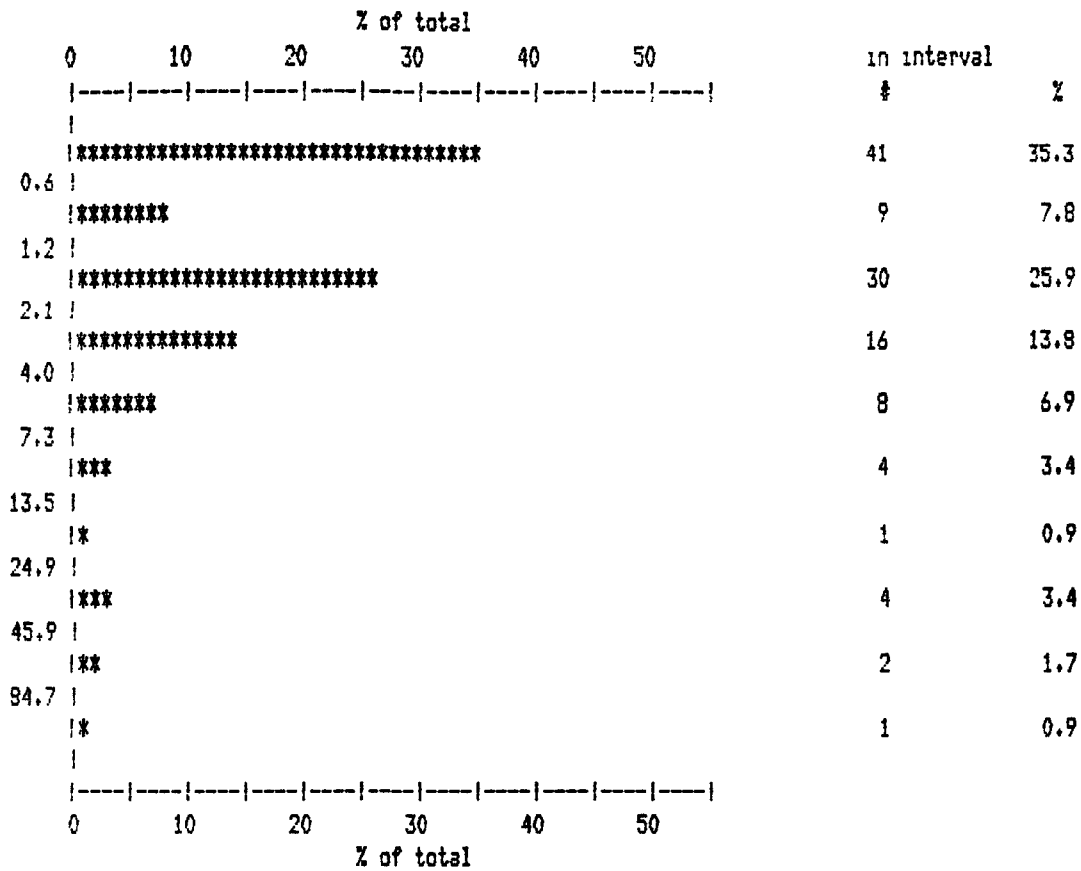
Histogram for Samarium ( SM ) Values in PPM



Summary Statistics ( Log transformed values )			
Number of samples	: 116	Mean value	: 13.98
Number of intervals	: 12	Standard Deviation	: 0.512
Minimum value	: 1.48	Skewness	: 1.210
Maximum value	: 750.0	Kurtosis	: 72.8381
Median value	: 11.50		
Modal Range	: greater than 5.78 to less than 10.41		
Values in modal range	: 30 ( 25.9 % of total )		

CONSOLIDATED SILVER STANDARD

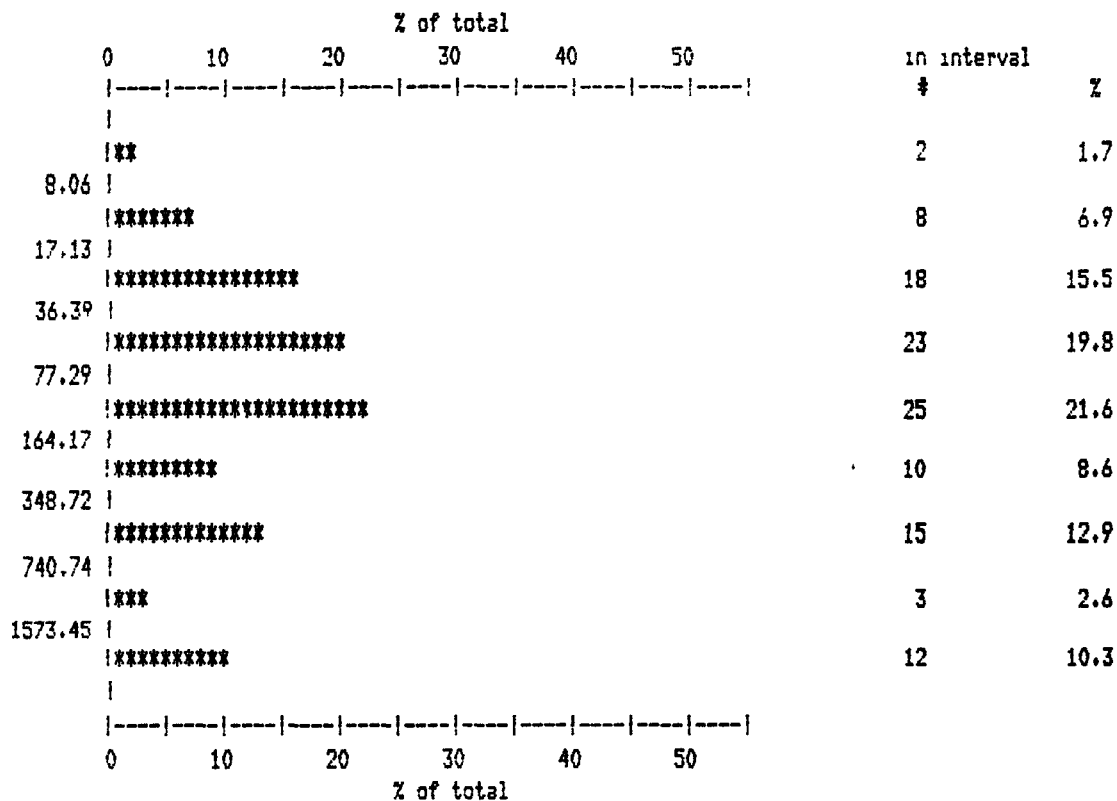
Histogram for Terbium ( TB ) Values in PPM



Summary Statistics ( Log transformed values )			
Number of samples	: 116	Mean value	: 1.6
Number of intervals	: 10	Standard Deviation	: 0.532
Minimum value	: 0.5	Skewness	: 1.27
Maximum value	: 95	Kurtosis	: 0.644
Median value	: 1.3		
Modal Range	: less than 0.6		
Values in modal range	: 41 ( 35.3 % of total )		

CONSOLIDATED SILVER STANDARD

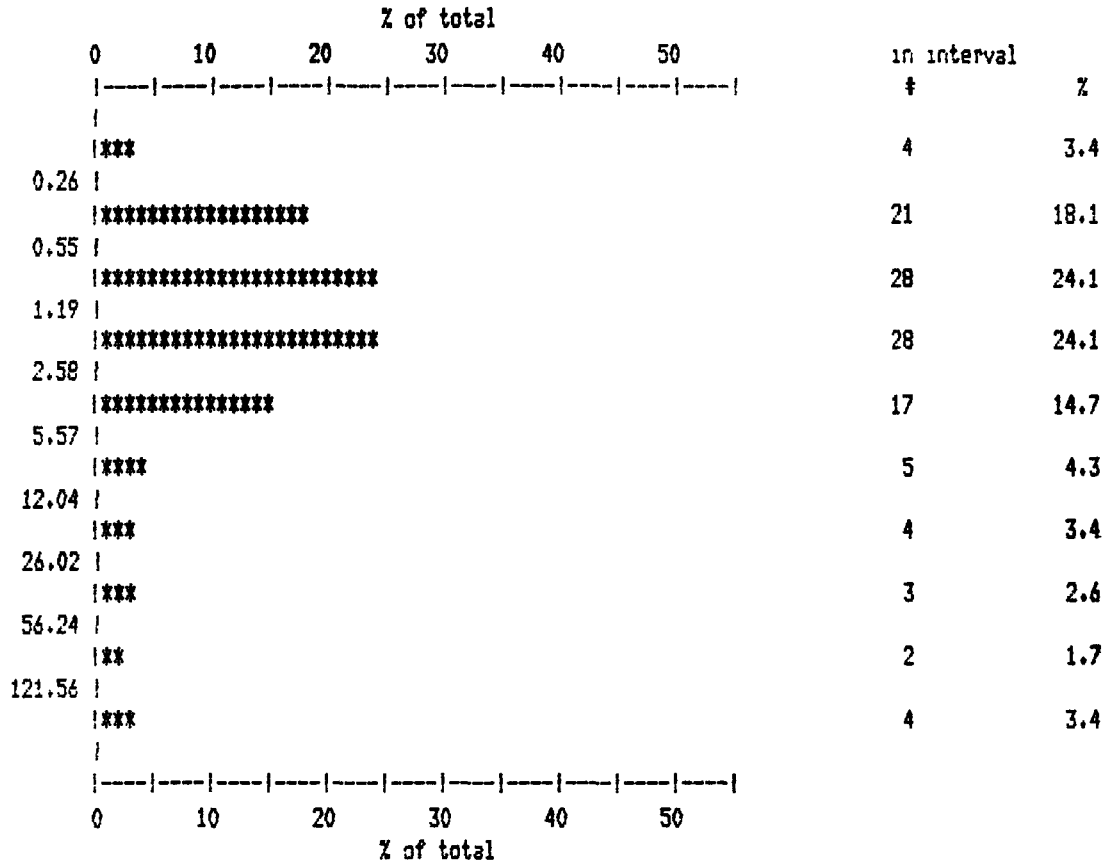
Histogram for Thorium ( TH ) Values in PPM



Summary Statistics ( Log transformed values )			
Number of samples	: 116	Mean value	: 112.64
Number of intervals	: 9	Standard Deviation	: 0.654
Minimum value	: 6.60	Skewness	: 0.422
Maximum value	: 2000.0	Kurtosis	: 327.3452
Median value	: 82.80		
Modal Range	: greater than 77.29 to less than 164.17		
Values in modal range	: 25 ( 21.6 % of total )		

CONSOLIDATED SILVER STANDARD

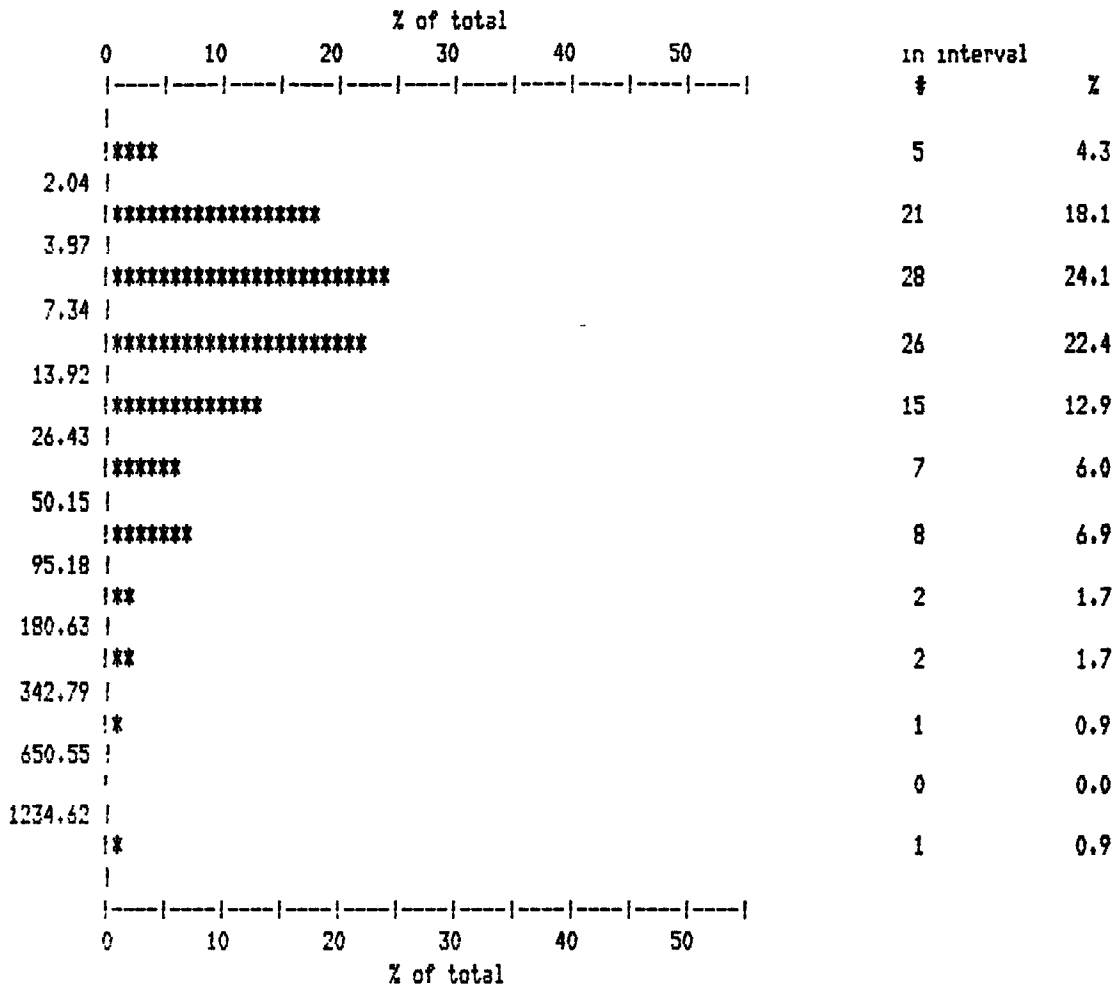
Histogram for Thulium ( TH ) Values in PPM



Summary Statistics ( Log transformed values )			
Number of samples	: 116	Mean value	: 1.75
Number of intervals	: 10	Standard Deviation	: 0.669
Minimum value	: 0.2	Skewness	: 1.257
Maximum value	: 240.0	Kurtosis	: 0.7276
Median value	: 1.26		
Modal Range	: greater than 0.55 to less than 1.19		
Values in modal range	: 28 ( 24.1 % of total )		

CONSOLIDATED SILVER STANDARD

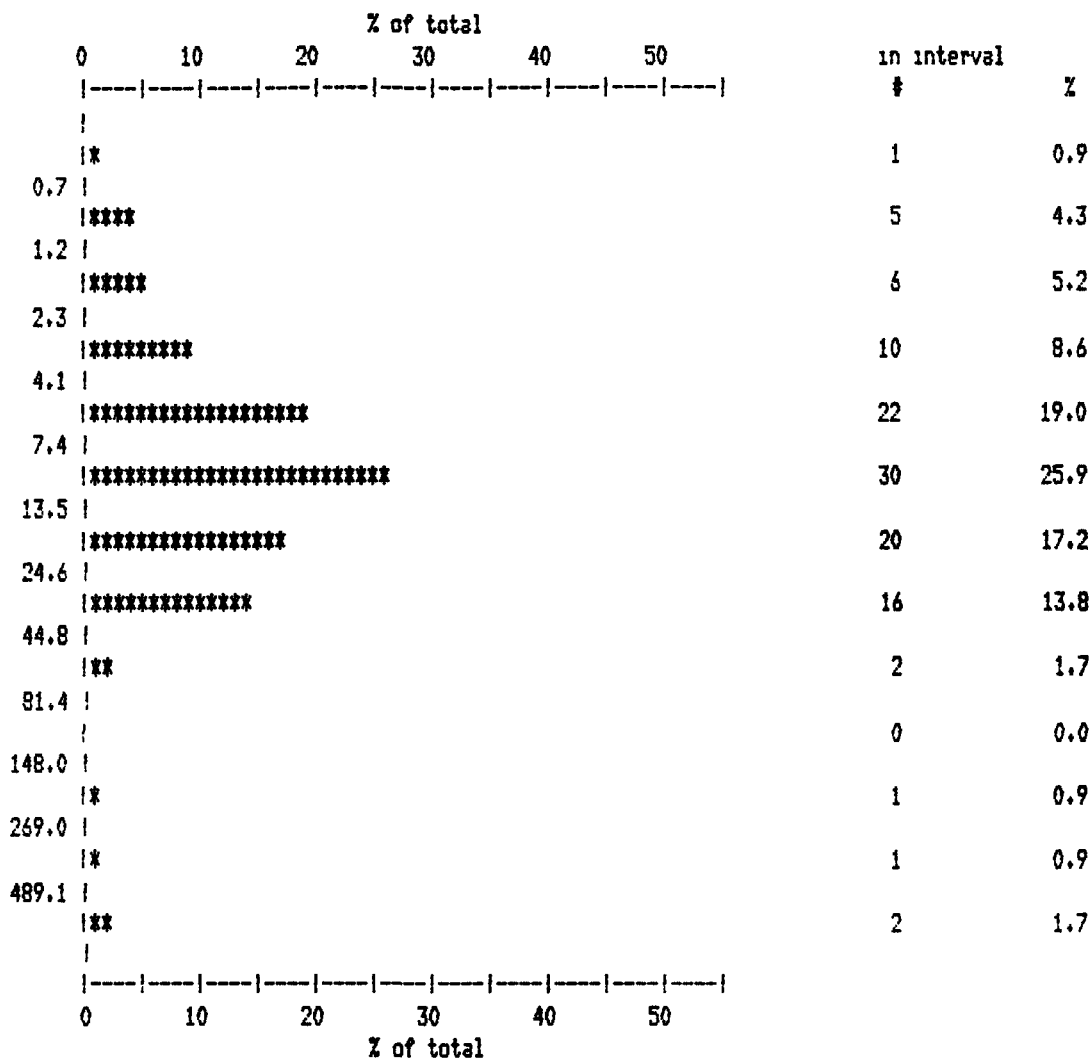
Histogram for Ytterbium ( YB ) Values in PPM



Summary Statistics ( Log transformed values )			
Number of samples	: 116	Mean value	: 10.11
Number of intervals	: 12	Standard Deviation	: 0.556
Minimum value	: 1.20	Skewness	: 1.332
Maximum value	: 2000.0	Kurtosis	: 25.4781
Median value	: 7.87		
Modal Range	: greater than 3.87 to less than 7.34		
Values in modal range	: 28 ( 24.1 % of total )		

CONSOLIDATED SILVER STANDARD

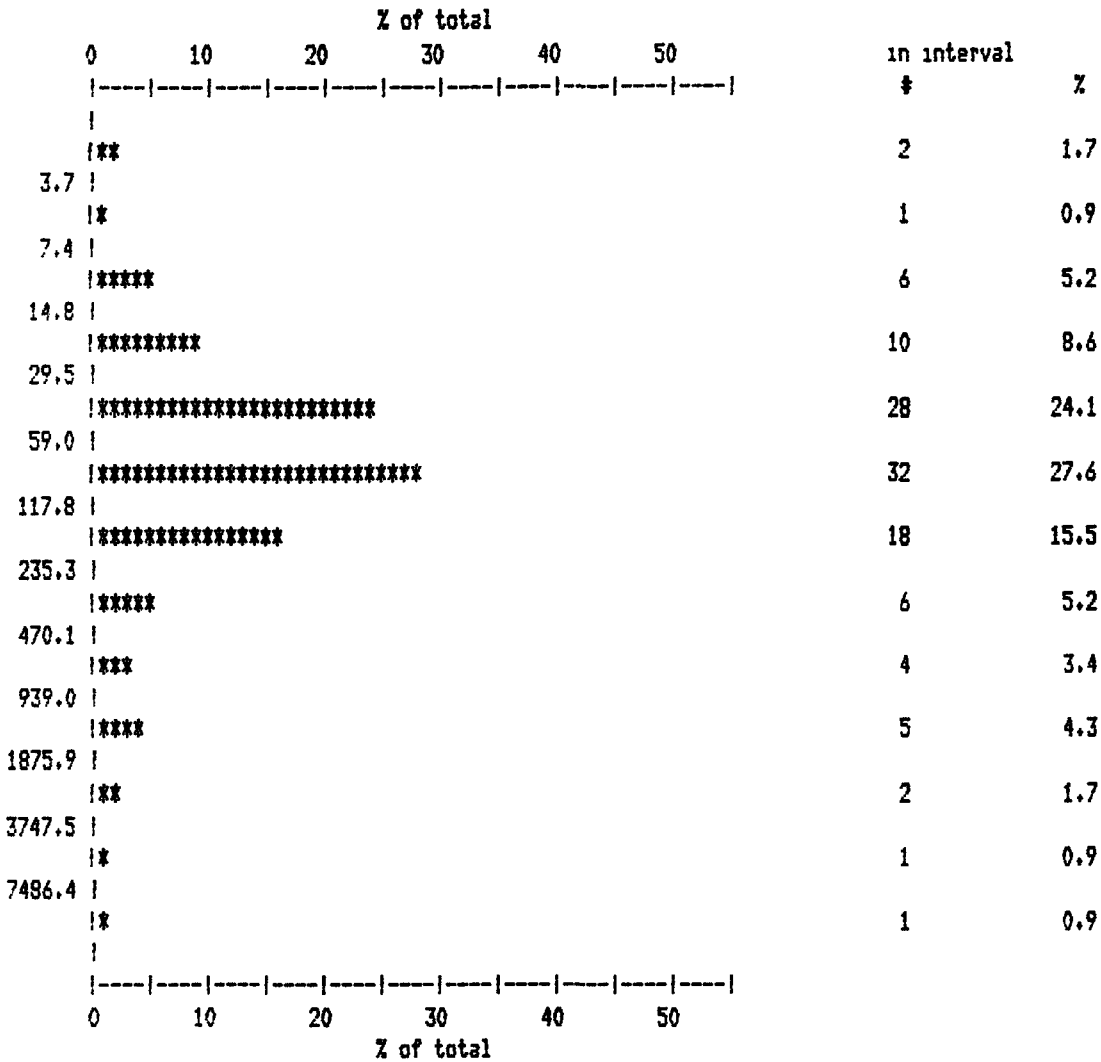
Histogram for Uranium ( U ) Values in PPM



Summary Statistics ( Log transformed values )			
Number of samples	: 116	Mean value	: 10.0
Number of intervals	: 13	Standard Deviation	: 0.519
Minimum value	: 0.5	Skewness	: 0.63
Maximum value	: 718	Kurtosis	: 35.555
Median value	: 10		
Modal Range	: greater than 7.4 to less than 13.5		
Values in modal range	: 30 ( 25.9 % of total )		

CONSOLIDATED SILVER STANDARD

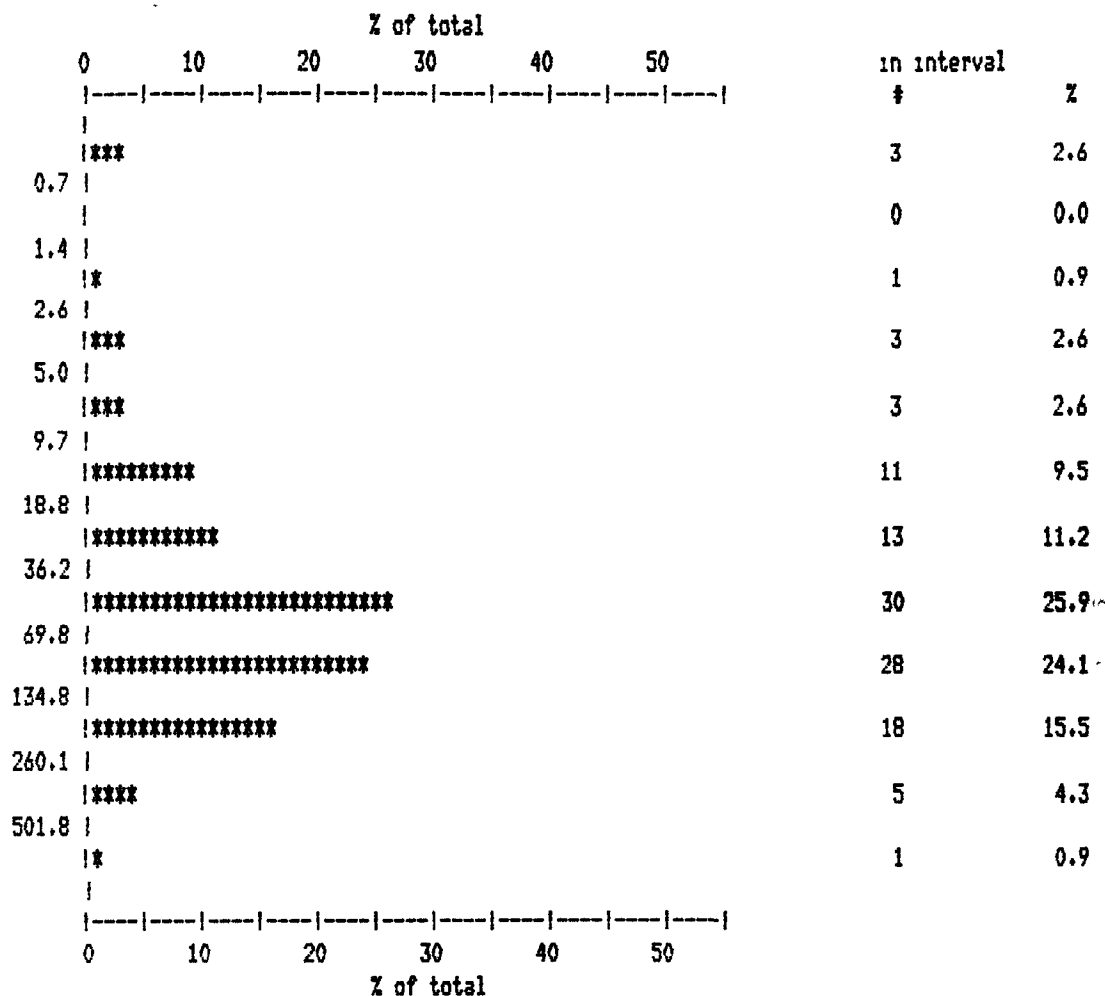
Histogram for Yttrium ( Y ) Values in PPM



Summary Statistics ( Log transformed values )			
Number of samples	: 116	Mean value	: 83.3
Number of intervals	: 13	Standard Deviation	: 0.601
Minimum value	: 2.5	Skewness	: 0.64
Maximum value	: 10000	Kurtosis	: 357.925
Median value	: 70		
Modal Range	: greater than 59.0 to less than 117.8		
Values in modal range	: 32 ( 27.6 % of total )		

CONSOLIDATED SILVER STANDARD

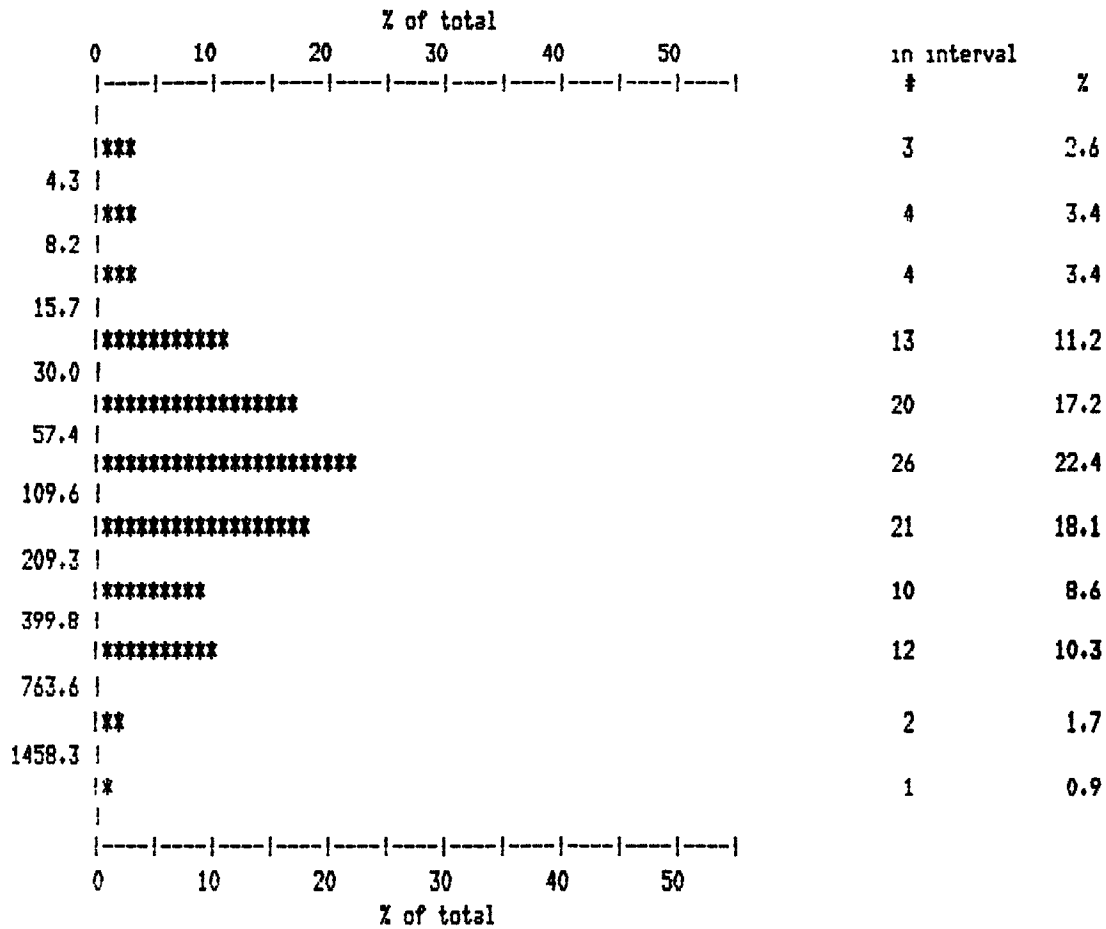
Histogram for Lithium ( LI ) Values in PPM



Summary Statistics ( Log transformed values )			
Number of samples	: 116	Mean value	: 50.3
Number of intervals	: 12	Standard Deviation	: 0.571
Minimum value	: 0.5	Skewness	: -1.27
Maximum value	: 657	Kurtosis	: 264.856
Median value	: 63.5		
Modal Range	: greater than 36.2 to less than 69.8		
Values in modal range	: 30 ( 25.9 % of total )		

CONSOLIDATED SILVER STANDARD

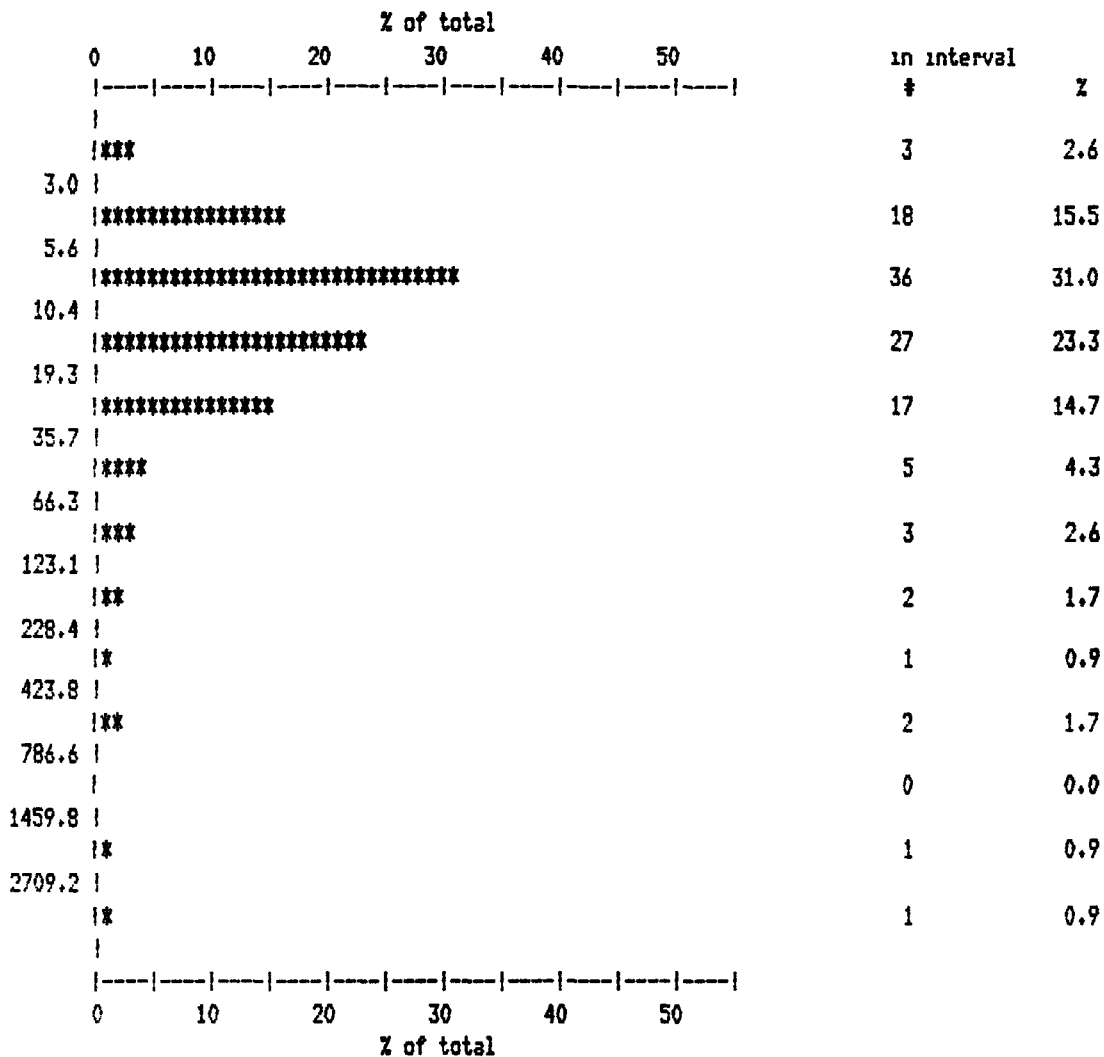
Histogram for Strontium ( SR ) Values in PPM



Summary Statistics ( Log transformed values )			
Number of samples	: 116	Mean value	: 79.3
Number of intervals	: 11	Standard Deviation	: 0.562
Minimum value	: 2.5	Skewness	: -0.32
Maximum value	: 1459	Kurtosis	: 453.930
Median value	: 81.7		
Modal Range	: greater than 57.4 to less than 109.6		
Values in modal range	: 26 ( 22.4 % of total )		

CONSOLIDATED SILVER STANDARD

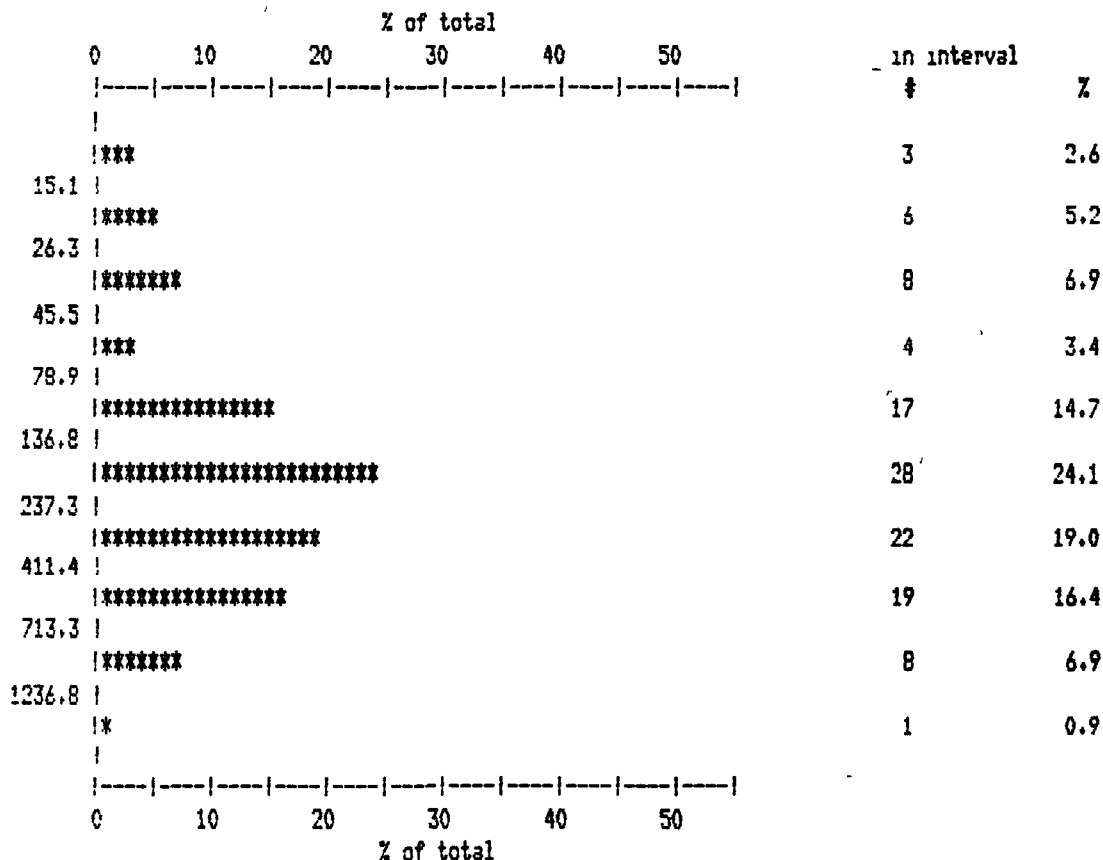
Histogram for Beryllium ( BE ) Values in PPM



Summary Statistics ( Log transformed values )			
Number of samples	: 116	Mean value	: 14.1
Number of intervals	: 13	Standard Deviation	: 0.537
Minimum value	: 2	Skewness	: 1.86
Maximum value	: 3014	Kurtosis	: 51.474
Median value	: 10.8		
Modal Range	: greater than 5.6 to less than 10.4		
Values in modal range	: 36 ( 31.0 % of total )		

CONSOLIDATED SILVER STANDARD

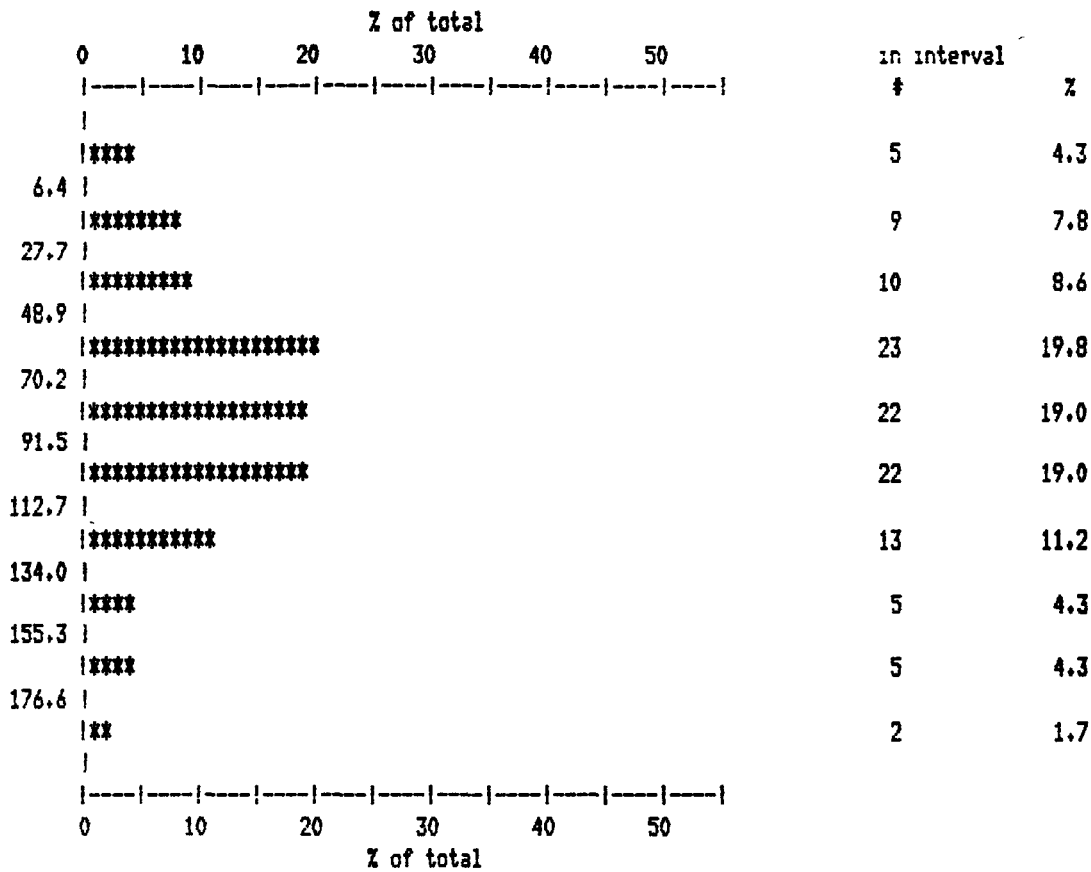
Histogram for Niobium ( NB ) Values in PPM



Summary Statistics ( Log transformed values )			
Number of samples	: 116	Mean value	: 180.2
Number of intervals	: 10	Standard Deviation	: 0.478
Minimum value	: 10.9	Skewness	: -0.59
Maximum value	: 1383	Kurtosis	: 1850.625
Median value	: 208.2		
Modal Range	: greater than 136.8 to less than 237.3		
Values in modal range	: 28 ( 24.1 % of total )		

CONSOLIDATED SILVER STANDARD

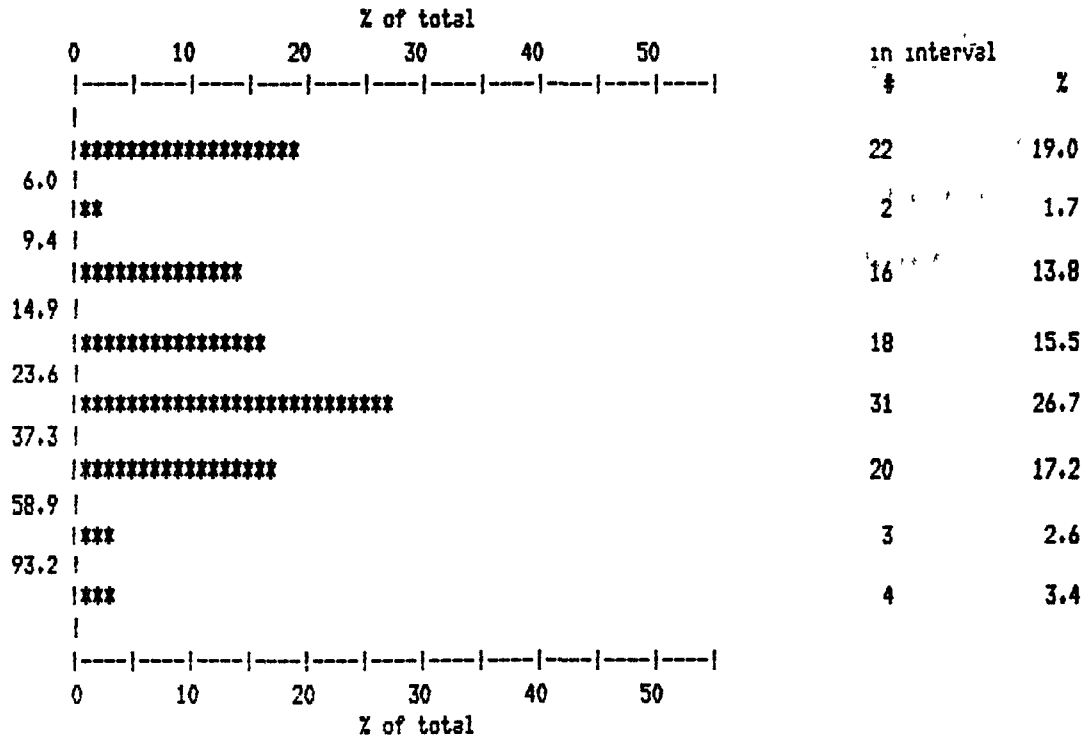
Histogram for Rubidium ( RB ) Values in PPM



Summary Statistics			
Number of samples	: 116	Mean value	: 80.8
Number of intervals	: 10	Standard Deviation	: 42.54
Minimum value	: 4	Skewness	: 0.13
Maximum value	: 188	Kurtosis	: 30.246
Median value	: 79.9		
Modal Range	: greater than 48.9 to less than 70.2		
Values in modal range	: 23 ( 19.8 % of total )		

CONSOLIDATED SILVER STANDARD

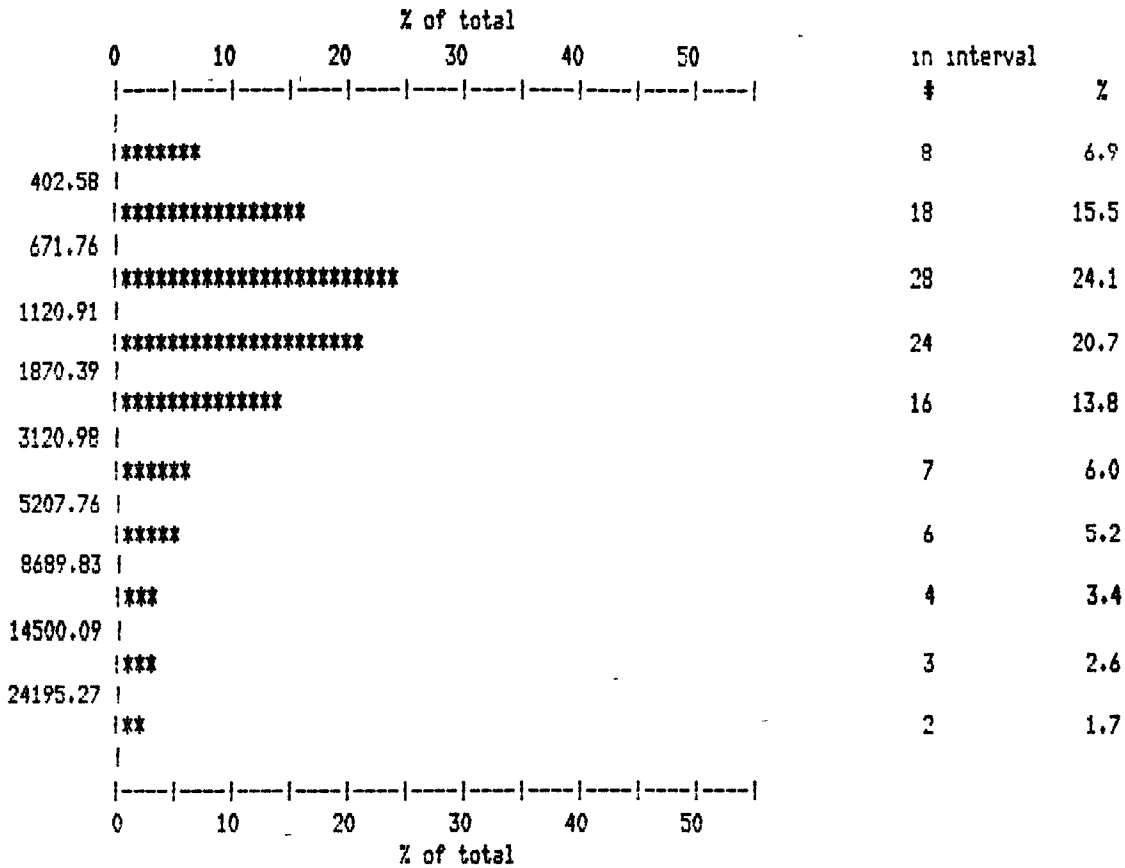
Histogram for Tantalum ( TA ) Values in PPM



Summary Statistics ( Log transformed values )			
Number of samples	: 116	Mean value	: 18.7
Number of intervals	: 8	Standard Deviation	: 0.398
Minimum value	: 4	Skewness	: -0.41
Maximum value	: 128	Kurtosis	: 356.930
Median value	: 21.6		
Modal Range	: greater than 23.6 to less than 37.3		
Values in modal range	: 31 ( 26.7 % of total )		

CONSOLIDATED SILVER STANDARD

Histogram for RE Sum ( SUM ) Values in PPM



Summary Statistics ( Log transformed values )			
Number of samples	: 116	Mean value	: 1447.94
Number of intervals	: 10	Standard Deviation	: 0.445
Minimum value	: 247.74	Skewness	: 0.901
Maximum value	: 30535.6	Kurtosis	: 1.***
Median value	: 1194.32		
Modal Range	: greater than 671.76 to less than 1120.91		
Values in modal range	: 28 ( 24.1 % of total )		

CONSOLIDATED SILVER STANDARD

Correlation Matrix

	CE	BY	ER	EU	GD	HD	LA	LU	ND	PR	SC	SH	TB	TH	TH	YB	U	Y	LI	SR	BE	NB	RB	TA	SUM
CE	1.000																								
	116																								
BY	0.456*	1.000																							
	116	116																							
ER	0.071	0.734*	1.000																						
	116	116	116																						
EU	0.837*	0.772*	0.229*	1.000																					
	116	116	116	116																					
GD	0.937*	0.638*	0.198*	0.906*	1.000																				
	116	116	116	116	116																				
HD	0.310*	0.961*	0.875*	0.598*	0.492*	1.000																			
	116	116	116	116	116	116																			
LA	0.754*	0.452*	0.036	0.681*	0.732*	0.329*	1.000																		
	116	116	116	116	116	116	116																		
LU	0.093	0.804*	0.949*	0.313*	0.246*	0.890*	0.114	1.000																	
	116	116	116	116	116	116	116	116																	
ND	0.955*	0.538*	0.115	0.891*	0.942*	0.393*	0.674*	0.120	1.000																
	116	116	116	116	116	116	116	116	116																
PR	0.875*	0.669*	0.131*	0.938*	0.961*	0.491*	0.732*	0.223*	0.901*	1.000															
	116	116	116	116	116	116	116	116	116	116															
SC	0.015	0.458*	0.719*	0.079	0.106	0.571*	-0.047	0.682*	0.029	0.038	1.000														
	116	116	116	116	116	116	116	116	116	116	116														
SH	0.874*	0.688*	0.134*	0.985*	0.913*	0.506*	0.691*	0.213*	0.922*	0.944*	0.024	1.000													
	116	116	116	116	116	116	116	116	116	116	116	116													
TB	0.644*	0.936*	0.509*	0.922*	0.788*	0.838*	0.588*	0.359*	0.747*	0.825*	0.272*	0.871*	1.000												
	116	116	116	116	116	116	116	116	116	116	116	116	116												
TH	0.585*	0.689*	0.358*	0.685*	0.687*	0.613*	0.586*	0.439*	0.631*	0.666*	0.214*	0.644*	0.715*	1.000											
	116	116	116	116	116	116	116	116	116	116	116	116	116	116											
TH	0.381*	0.934*	0.725*	0.685*	0.587*	0.910*	0.376*	0.764*	0.505*	0.589*	0.439*	0.575*	0.868*	0.714*	1.000										
	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116										
YB	0.143*	0.845*	0.969*	0.369*	0.297*	0.935*	0.146*	0.990*	0.187*	0.267*	0.682*	0.269*	0.627*	0.473*	0.810*	1.000									
	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116									
U	0.129	0.611*	0.631*	0.333*	0.293*	0.678*	0.115	0.592*	0.200*	0.234*	0.367*	0.268*	0.531*	0.276*	0.581*	0.637*	1.000								
	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116								
Y	0.291*	0.933*	0.922*	0.543*	0.433*	0.988*	0.279*	0.937*	0.359*	0.432*	0.621*	0.448*	0.780*	0.588*	0.894*	0.971*	0.663*	1.000							
	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116						
LI	0.118	0.137*	-0.014	0.182*	0.169*	0.093	0.273*	0.011	0.129	0.194*	0.002	0.167*	0.184*	0.213*	0.159*	0.024	0.118	0.071	1.000						
	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116					
SR	-0.047	-0.097	-0.072	-0.079	-0.032	-0.086	-0.019	-0.078	-0.059	-0.031	-0.117	-0.071	-0.095	-0.082	-0.101	-0.082	-0.105	-0.090	0.465*	1.000					
	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116				
BE	0.130*	0.403*	0.095	0.373*	0.285*	0.267*	0.271*	0.294*	0.201*	0.343*	0.007	0.288*	0.367*	0.474*	0.359*	0.251*	0.053	0.278*	0.204*	-0.067	1.000				
	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116				
NB	0.052	0.142*	0.291*	-0.044	0.076	0.226*	0.315*	0.285*	-0.047	-0.002	0.120	-0.061	0.053	0.079	0.100	0.280*	0.458*	0.238*	0.234*	-0.009	-0.047	1.000			
	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116			
RB	-0.199*	-0.331*	-0.160*	-0.333*	-0.297*	-0.283*	-0.037	-0.190*	-0.263*	-0.201*	-0.187*	-0.318*	-0.348*	-0.254*	-0.314*	-0.206*	-0.200*	-0.256*	0.289*	0.169*	-0.176*	0.252*	1.000		
	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	
TA	0.266*	0.384*	0.005	0.456*	0.377*	0.288*	0.443*	0.081	0.289*	0.424*	-0.202*	0.433*	0.471*	0.248*	0.334*	0.112	0.412*	0.215*	0.219*	-0.015	0.272*	0.500*	-0.131*	1.000	
	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116
SUM	0.902*	0.778*	0.418*	0.913*	0.944*	0.675*	0.760*	0.458*	0.911*	0.901*	0.247*	0.899*	0.871*	0.784*	0.717*	0.512*	0.377*	0.653*	0.164*	-0.075	0.295*	0.140*	-0.273*	0.342*	1.000
	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116

\* indicates significant correlation at 95% confidence level  
Bondar-Cless & Company Ltd., Vancouver

CONSOLIDATED SILVER STANDARD

Correlation Matrix

\* indicates significant correlation at 95% confidence level  
Bondar-Cless & Company Ltd., Vancouver

CONSOLIDATED SILVER STANDARD

Correlation Matrix

\* indicates significant correlation at 95% confidence level  
Bondar-Cless & Company Ltd., Vancouver

**APPENDIX G**

**STATEMENT OF QUALIFICATIONS**

## STATEMENT OF QUALIFICATIONS

LARRY HAYNES

### Academic

October, 1983	F.G.A.C.	Geological Association of Canada
May, 1972	B.Sc.	University of British Columbia

### Practical

December 1985 - Present	Geological Consultant	
May 1983 - November 1985	Exploration Manager, Golden Dividend Resources	Property appraisal and acquisition in B.C., and Northwestern U.S.A.
November, 1982 - May, 1983	Associate Geologist Alionis & Lohman	Contract Geologist
May, 1972 - October 1982	Geologist Riocanex Inc.	Geologist involved in all aspects of mineral exploration in B.C., Yukon and N.W.T.



670000N

6699000N

6698000N

6697000N

6696000N

— CONTOUR INTERVAL 10 METRES

**LEGEND**

- 8 Disturbed syenite, radioactive zircon, fluorite, rutile common, rare earth elements
- 7 Coarse grained red-pink syenite, fluorite ubiquitous
- 6 Dolomite, limy dolomite, dolomitic shale
- 5 Green banded argillite
- 4 Quartzite
- 3 Blocky grey laminated siltstone, fine grained quartzite
- 2 Black shale, rusty shaly siltstone
- 1 Volcanic rocks, dykes, lapilli tuff, tuff

— Geological contact

~~~~~ Fault

**CONSOLIDATED SILVER STANDARD MINES LIMITED**

BEAVER PROPERTY  
WATSON LAKE MINING DISTRICT, YUKON

**GEOLOGY**  
(COMPILATION FROM 1980 MAPPING)  
D.G. LEIGHTON & ASSOCIATES LTD.

metres 0 100 200 300 400 500 metres

Compiled by L.R.H. Date Feb. 1987 FIG  
Drawn by W.R. Scale 1:5000 NTS-95C5 G 1000

MAP BY: EAGLE MAPPING SERVICES LTD. (86-78) DECEMBER, 1986  
COMPILED FROM 1977 AIR PHOTOS



6700000 N

6699000 N

6698000 N

6697000 N

6696000 N

**LEGEND**

Location 1017, 279  
Light REE    Heavy REE

**CONSOLIDATED SILVER STANDARD MINES LIMITED**  
BEAVER PROPERTY  
WATSON LAKE MINING DISTRICT, YUKON

**ppm REE**

metres 0 100 200 300 400 500 metres

Compiled by L.R.H.    Date Feb. 1987    FIG.  
Drawn by W.L.    Scale 1:5000    NTS-95C5    GC 1001  
MAP BY EAGLE MAPPING SERVICES LTD. (86-78) DECEMBER, 1986  
COMPILED FROM 1977 AIR PHOTOS



881, 142  
895, 172  
992, 153  
640, 347  
331, 1352  
2409, 12280  
1040, 198

70, 117  
650, 112  
644, 115  
617, 114  
598, 115

746, 114  
632, 114  
659, 112

104, 119  
733, 119  
875, 130  
890, 127

914, 122

1008, 415

1078, 218  
952, 167

2129, 314  
1670, 282

923, 190  
29227, 1929

673, 130  
1064, 178  
1011, 123  
2556, 253  
366, 205

255, 181  
1016, 195

977, 204  
703, 165  
388, 118  
593, 139  
609, 154

1488, 849  
1295, 191

1765, 183  
2326, 216  
593, 148

898, 117  
507, 130  
638, 135

1744, 224  
1158, 253

933, 199  
1049, 223  
1830, 254

4954, 795  
734, 155  
1324, 256

428, 266  
8964, 495  
737, 115

435, 111  
1154, 269  
7810, 1881

456, 139  
1256, 176

19002, 5940

1277, 154

1154, 269

1473, 172  
815, 162  
2169, 325  
1874, 238

623, 135  
22794, 1719  
735, 130  
2158, 134  
515, 129  
382, 150  
899, 176

2033, 281  
1330, 599  
1212, 390  
583, 217  
1824, 183

798, 151  
659, 501  
935, 119  
364, 119  
6686, 3395

457, 144  
476, 149  
643, 157  
573, 143  
334, 116  
1439, 187  
1170, 187  
395, 253  
1819, 308  
2532, 329  
482, 102  
3550, 1162

1567, 173  
3387, 309  
1394, 172  
3508, 379

422, 125  
1837, 276  
295, 453  
1668, 204  
2027, 288  
6309, 460

3182, 309  
156, 133  
316, 134

344 000 E

345 000 E

346 000 E

347 000 E

670000N



669000N

669000N

6697000N

6696000N

— CONTOUR INTERVAL 10 METRES

**CONSOLIDATED SILVER STANDARD MINES LIMITED**  
BEAVER PROPERTY  
WATSON LAKE MINING DISTRICT, YUKON

**ppm Nb, Be, Zr**

metres 0 100 200 300 400 500 metres

Compiled by: L.R.H. Date: Feb. 1987 FIG.

Drawn by: WR Scale: 1:5000 NTS: 95C5 GC 1002

MAP BY: EAGLE MAPPING SERVICES LTD. (86-78) DECEMBER, 1986  
COMPILED FROM 1977 AIR PHOTOS

13,9,9300  
75,7,285  
140,11,020  
170,15,15000  
1234,37,10000

208,8,1400

125,15,700  
453,3,6500

200,8,775

268,8,1200

288,10,2300  
561,21,2800

90,6,335

274,12,860

370,10,985

81,34,630

106,10,250

187,5,1000

94,5,1000

136,14,660

177,7,985

262,10,1000

261,11,805

265,10,965

170,13,505

204,9,2100

235,18,1400

43,5,300

683,30,13000

229,8,2200

182,8,1600

281,16,2300

65,463,880

40,18,2000

125,9,1600

221,8,700

30,7,1100

478,8,4300

155,111,1900

170,14,1900

549,8,3600

144,15,870

326,100,1600

214,22,1900

274,27,1400

698,8,4700

255,3,1100

303,15,2300

568,25,3400

131,29,3300

81,5,475

219,5,1100

275,8,635

88,7,390

226,11,800

181,13,1200

134,13,795

198,28,900

122,54,600

137,245,1000

274,32,6000

1083,9,3200

185,20,5000

31,8,1125

13,12,375

11,32,385

81,304,27000

215,1561,35000

21,5,200

7,7,235

56,14,2400

448,23,4700

19,4000

452,128,3000

180,12,3900

430,11,3000

23,7,1000

18,3,185

202,74,1600

99,30,4500

634,21,8800

646,50,8000

26,4,205

31,5,225

21,3,155

378,3,2900

635,298,7400

359,44,5900

818,189,3600

344 000E

345 000E

346 000E

347 000E

6700 000 N



6699 000 N

6698 000 N

6697 000 N

6696 000 N

**LEGEND**

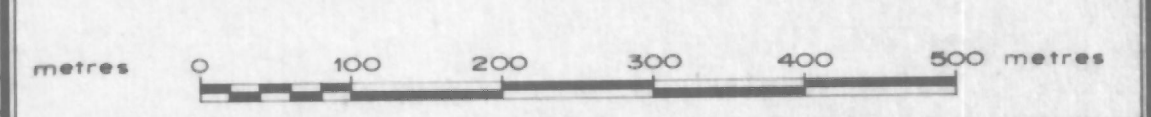
- DIAMOND DRILL HOLE
- TRENCH
- ROCK - CHIP SAMPLE
- ROCK - GRAB SAMPLE
- SOIL SAMPLE
- GIT SAMPLE

SAMPLE NUMBER 20584 x

— CONTOUR INTERVAL 10 METRES

**CONSOLIDATED SILVER STANDARD MINES LIMITED**  
**BEAVER PROPERTY**  
 WATSON LAKE MINING DISTRICT, YUKON

**SAMPLE LOCATION**



Compiled by: L.R.H. Date: Feb 1987 FIG.  
 Drawn by: WR Scale: 1:5000 NTS-95C5 GC 1000  
 MAP BY EAGLE MAPPING SERVICES LTD. (86-78) DECEMBER, 1986  
 COMPILED FROM 1977 AIR PHOTOS



344 000 E

345 000 E

346 000 E

347 000 E