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Chemical analyses of rock samples collected in east-central Idaho during a study of mineralization in the northern Lemhi Range, Lemhi County, Idaho

By

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This report is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards nor with the North American stratigraphic code.

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INTRODUCTION

This report provides 182 multi-element chemical analyses of rocks and minerals collected from east-central Idaho, mostly from the northern end of the Lemhi Range southeast of Salmon, Idaho. The samples were taken from surface outcrop, float, and mines and prospects. A brief description of the samples appears in table 1, and approximate sample locations are shown in figures 1 and 2.

The samples were analyzed as part of an on-going geochemical examination of rocks in east-central Idaho (fig. 1), with emphasis on rocks assigned to the Yellowjacket Formation of Middle Proterozoic age. Stratigraphic assignments of the samples, where appropriate, are given in the "Remarks" column of table 1; also given are known or suspected ages of intrusive rocks. Ages of brecciation, vein formation, and mineralization are unknown.

The analyses appear in tables 2 and 3. The use of two tables, rather than one, results from the differing methods of analysis used on two independently generated sample collections. Samples in table 2 were collected by Connor in the summer of 1989 in a narrowly focused study of cobalt mineralization in the northern Lemhi Range (Connor and Evans, 1990); samples in table 3 were collected by Evans in the summers of 1988-89 in a region-wide examination of mines and prospects with an emphasis on gold mineralization. About half of Evans' samples were collected in the northern Lemhi Range.

Historic metal production in the northern Lemhi Range has consisted entirely of copper with minor silver and trace gold (Ross, 1925, p. 31). Many of our samples from that area, however, proved to be anomalously high in other metals as well. Maximum concentrations observed in the northern Lemhi Range (in parts per million, ppm) include:

Ag	670	Co	2000	Sb	1000	W	20
As	1100	Mo	30	Se	120	Y	2000
Au	1.25	Ni	210	Sn	1000	Zn	9000
Bi	1000	Pb	140000	V	1500		

Maximum concentrations of silver, arsenic, gold, cadmium, nickel, lead, and zinc were in samples collected on or near Poison Peak in jasperoidal prospects developed in lower Paleozoic rocks, but anomalous concentrations of all elements listed above were found throughout the area of figure 2.

Many mines and prospects in the northern Lemhi Range are hosted by dark-colored, impure quartzite (lithic arkose) of the Yellowjacket Formation of Middle Proterozoic age. Much of this host quartzite is light-colored (bleached?) and pervasively fractured with bands of hematitic stain along the cracks. A few samples contained substantial amounts of Fe-rich biotite similar to the mafic tuff (Hughes, 1983) associated with cobalt mineralization in the Blackbird Mining District to the west. An additional (rare) host in the northern Lemhi Range is strongly altered quartz diorite(?).

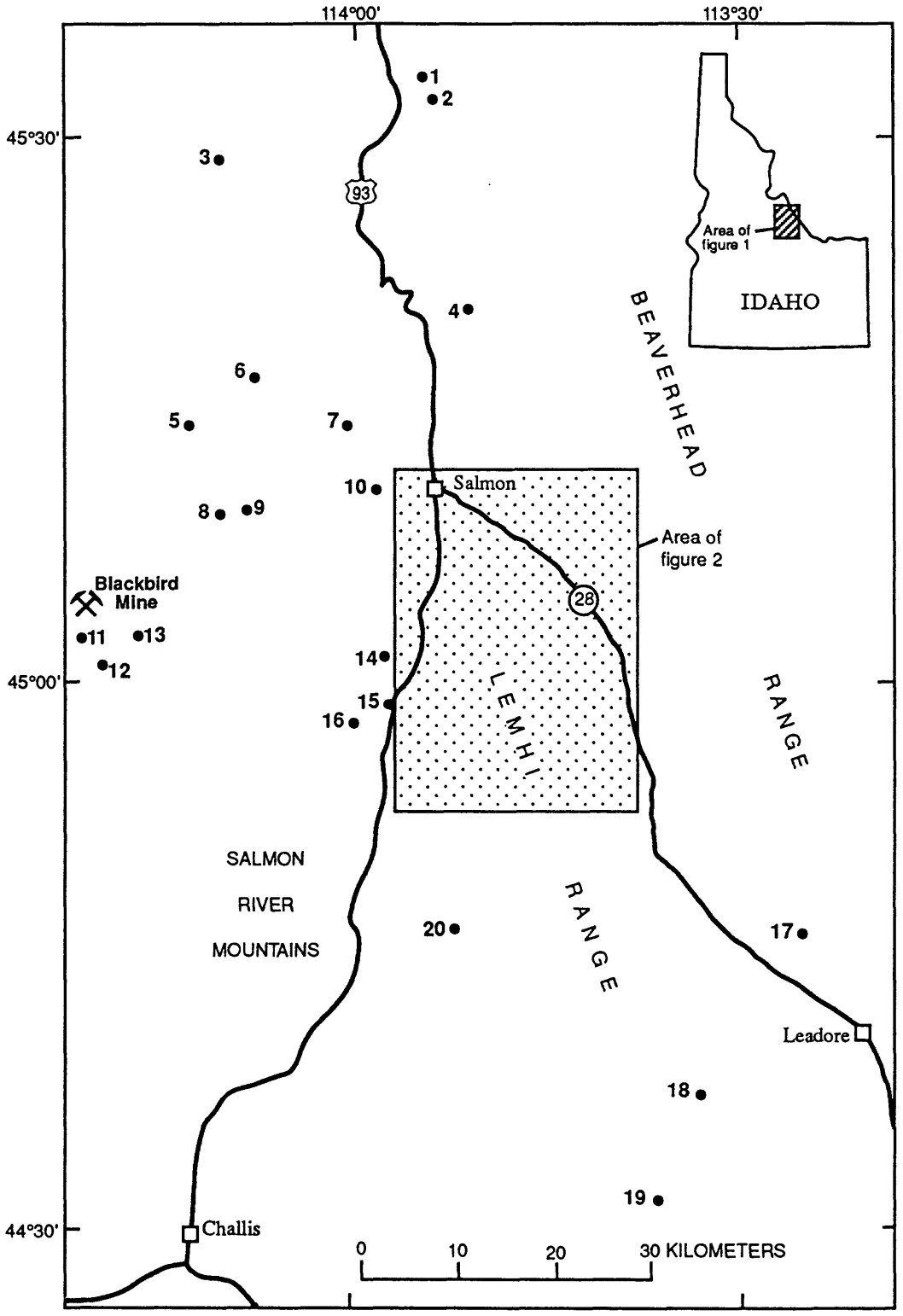

Figure 1.--Index map showing location of the northern Lemhi Range.

Sample Number	Map Location	Geographic location
8KE024A	19	East of Inyo Peak
8KE038A	12	Musgrove Creek (mine)
8KE038B	12	do.
8KE045A	20	Head of Allison Creek
8KE045B	20	do.
8KE048A	18	Big 8-Mile Creek (stock)
8KE049A	17	Little 8-Mile Creek (stock)
9KE020A	16	Twin Peaks Mine
9KE020B	16	do.
9KE021A	5	Beartrack Mine
9KE022A	5	do.
9KE023A	5	do.
9KE025A	5	Haidee Mine
9KE025B	5	do.
9KE032A	10	Silverton prospect
9KE032B	10	do.
9KE032C	10	do.
9KE033A	7	Stormy Peak road
9KE034A	7	Stormy Peak road
9KE035A	12	Musgrove Creek (mine)
9KE035B	12	do.
9KE035C	12	do.
9KE042A	4	Gold Star prospect
9KE043A	4	do.
9KE059A	16	Twin Peaks Mine
9KE063A	2	Lick Creek
9KE063B	2	do.
9KE064A	2	do.
9KE064B	2	do.
9KE065A	1	Dahlonega Creek
9KE074A	5	Arnett Creek
9KE089A	16	Twin Peaks Mine
9KE089B	16	do.
9KE102A	16	do.
9KE107A	3	Indian Creek
9KE108A	3	Indian Creek
9KE117A	14	Williams Lake road
9KE118A	11	Ostrander Gulch
9KE119A	9	Ringbone Cayuse Mine
9KE123A	8	Blue Jay Mine
9KE123B	8	do.
9KE123C	8	do.
9KE124A	12	Moyer Creek
9KE125A	13	Woodtick Creek
9KE128A	16	Twin Peaks Ranch road
9KE132A	15	Salmon River canyon

Figure 1 (Cont.) -- Index to sample locations outside of the northern Lemhi Range.

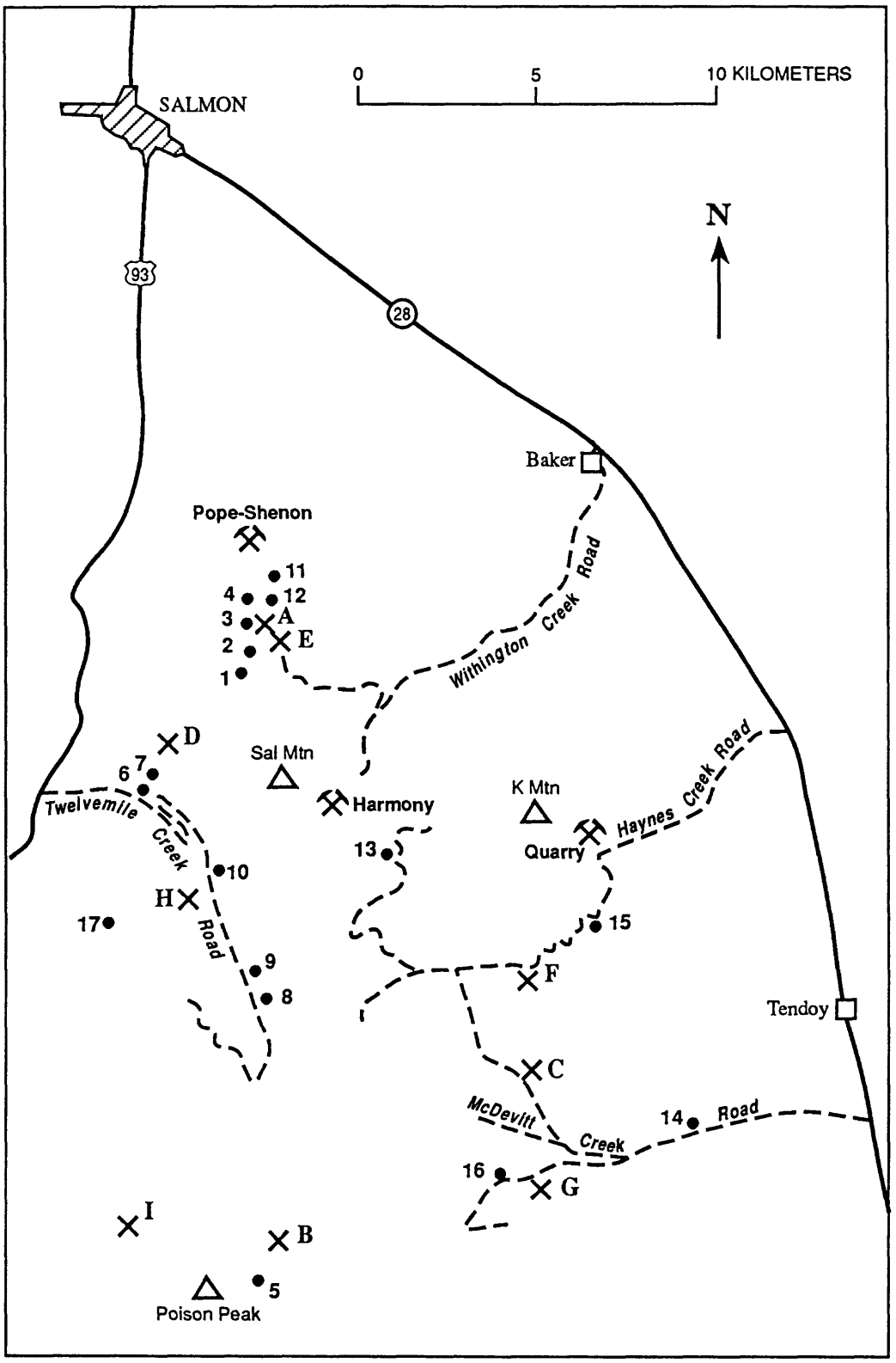

Figure 2.--Index to sample locations in the northern Lemhi Range. Mines and quarries are named, prospects are lettered, and other locations numbered.

GOLD MINERALIZATION

Desborough and others (1990) reported the presence of widely scattered gold in the northern Lemhi Range (among other places). Detectable gold (to 2 ppb) in bedrock in the northern Lemhi Range is summarized in figure 3; the highest bedrock value obtained there was 1100 ppb gold (0.039 oz/t) in sample 9KE121A, from a prospect north of Sal Mountain. However, median gold in the seven gold-bearing sites shown in figure 3 rarely exceeds 100 ppb. Thirteen samples collected outside the northern Lemhi Range contained more than 1 ppm gold; the highest value being 110 ppm (3.9 oz/t) in sample 9KE074A (table 3) collected from known gold-bearing ground in Arnett Creek, west of the Lemhi Range (site 5, fig. 1). In general, high-gold samples were also high in silver, arsenic, bismuth, cadmium, lithium, molybdenum, and yttrium. Although high-gold samples were also routinely high in copper, lead, and zinc, the most base metal-rich samples were not the most gold-rich.

CHEMICAL ANALYSIS

All samples were analyzed in the Denver laboratories of the U.S. Geological Survey. In table 2, all elements except gold were determined by direct-current arc emission spectrography (Grimes and Marranzino, 1968). Gold in both tables was determined by flame atomic absorption spectroscopy (Crock and others, 1987). Most elements in table 3 were determined by inductively coupled argon plasma-atomic emission spectrography (ICAP-AES) (Crock and others, 1983); boron and zirconium were determined by ICAP following a Na_2O_2 sinter digestion (Borsier and Garcia, 1983); and arsenic and selenium by hydride generation atomic absorption spectroscopy (Crock and Lichte, 1982; Sanzolone and Chao, 1987).

All data in tables 2 and 3 are given to 2 decimal places; most of the trace elements, however, are significant to only 2 figures at most and the trailing zeros are superfluous.

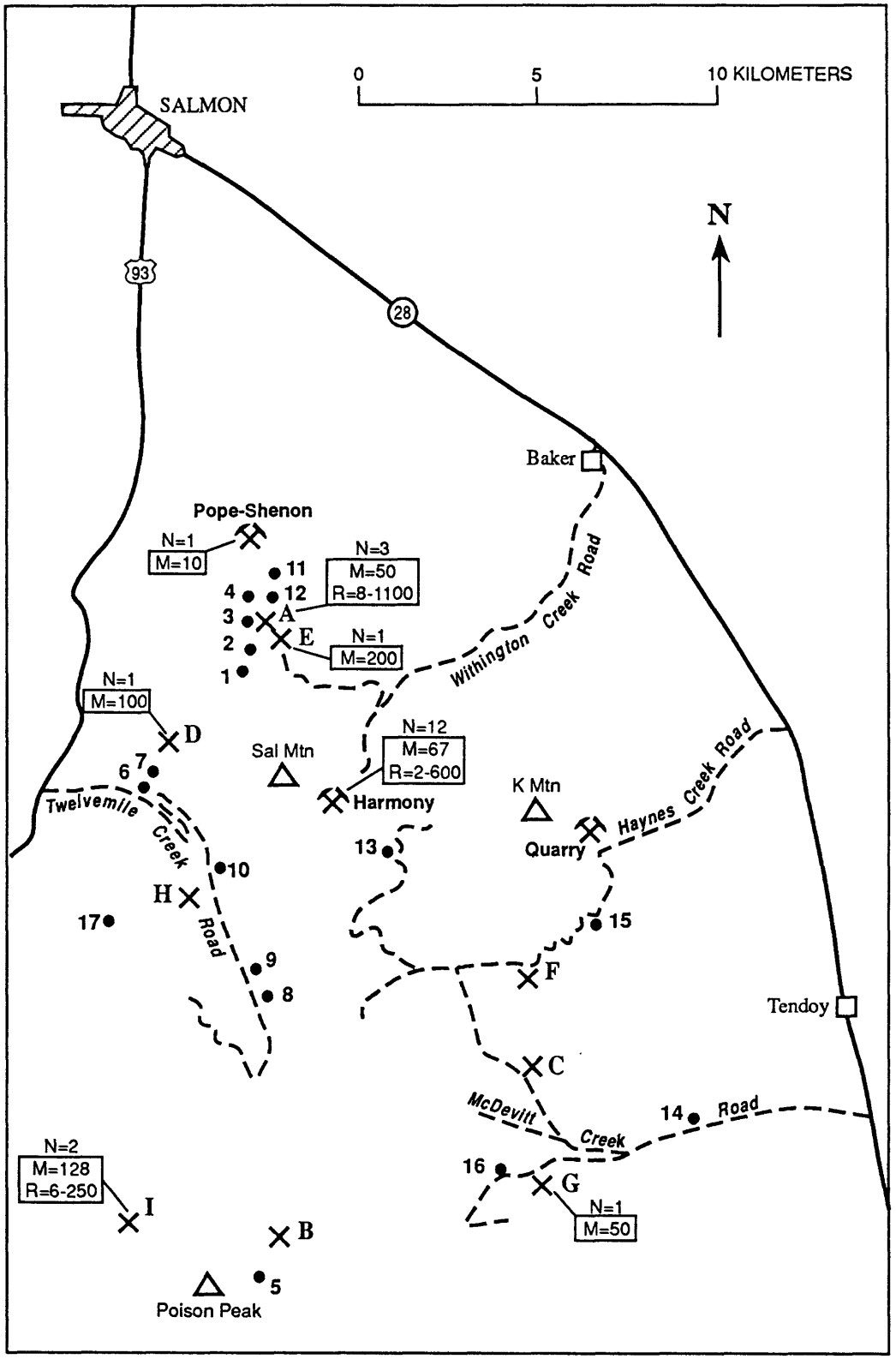

Figure 3.--Gold in the northern Lemhi Range. Data summarized in boxes; N is number of analyses, M is median gold concentration, and R is range of concentrations.

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Table 1.--Sample descriptions

Mine abbreviations:
HM - Harmony mine
KQ - K Mountain Quarry
PS - Pope-Shenon mine

Stratigraphic abbreviations:
Osm - Saturday Mtn Fm
Ok - Kinnikinic Qtzite
Os - Summerhouse Fm
Ys - Swauger Fm
Yb - Big Creek Fm
Yy - Yellowjacket Fm

Sample	Field name	Loc (fig. 2)	Source	Remarks
JC9LM001	Quartzite	1	Float	Yy
JC9LM002	Quartzite	1	Float	Yy
JC9LM003	Qtzite breccia	1	Float	
JC9LM004	Qtz breccia	1	Float	
JC9LM005	Qtzite breccia	2	Outcrop	
JC9LM006	Qtzite breccia	2	Outcrop	
JC9LM007	Qtzite breccia	2	Outcrop	
JC9LM008	Qtz breccia	2	Outcrop	
JC9LM009	Qtzite breccia	2	Float	
JC9LM010	Qtz breccia	2	Float	
JC9LM011	Quartzite	3	Float	Yy
JC9LM012	Qtz breccia	3	Float	
JC9LM013	Quartzite	4	Outcrop	Yy
JC9LM014	Sulfide?	A	Rubble	Chalcopyrite?
JC9LM015	Qtz breccia	A	Rubble	Malachite
JC9LM016	Qtzite breccia	A	Rubble	
JC9LM017	Qtzite breccia	A	Rubble	
JC9LM018	Qtzite breccia	A	Rubble	Malachite, sheared
JC9LM019	Quartz	B	Rubble	Malachite
JC9LM020	Quartz	B	Rubble	Malachite
JC9LM021	Qtz diorite?	B	Rubble	Tertiary?, malachite
JC9LM022	Chert?	B	Rubble	
JC9LM023	Qtz diorite	B	Rubble	Tertiary?, magnetic
JC9LM024	Ls? breccia	5	Float	Ordovician?, silicified
JC9LM025	Ls? breccia	5	Float	Ordovician?, silicified
JC9LM026	Jasperoid?	5	Float	Ordovician?
JC9LM027	Jasperoid?	5	Float	Ordovician?
JC9LM028	Jasperoid?	5	Float	Ordovician?
JC9LM029	Qtzite breccia	C	Rubble	Malachite, silicified
JC9LM030	Quartzite	C	Rubble	Yy, malachite
JC9LM031	Qtzite breccia	C	Float	
JC9LM032	Quartzite	6	Outcrop	Yy
JC9LM033	Quartzite	6	Outcrop	Yy
JC9LM034	Qtz diorite?	7	Roadcut	Tertiary?, sheared
JC9LM035	Qtz diorite?	7	Roadcut	Tertiary?

Sample	Field name	Loc (fig. 2)	Source	Remarks
JC9LM036	Qtz diorite?	7	Roadcut	Tertiary?, sheared
JC9LM037	Qtzite breccia	D	Dump	Malachite
JC9LM038	Quartzite	D	Dump	Yy
JC9LM039	Qtzite breccia	D	Dump	
JC9LM040	Qtz breccia	D	Float	Malachite
JC9LM041	Quartzite	D	Dump	Yy, Chalcopyrite?
JC9LM042	Quartzite	D	Outcrop	Yy, sheared, silicified
JC9LM043	Quartzite	D	Outcrop	Yy, sheared, silicified
JC9LM044	Quartzite	8	Float	Yy
JC9LM045	Quartzite	9	Float	Yy
JC9LM046	Phyllite	10	Float	Yy
JC9LM047	Quartzite	10	Float	Yy
JC9LM048	Quartzite	10	Roadcut	Yy
JC9LM049	Quartzite	10	Roadcut	Yy
JC9LM050	Quartzite	10	Roadcut	Yy, malachite
JC9LM051	Quartzite	10	Roadcut	Yy
JC9LM052	Quartzite	11	Outcrop	Yy
JC9LM053	Qtzite breccia	12	Float	
JC9LM054	Qtzite breccia	E	Face	Malachite
JC9LM055	Quartzite	E	Face	Yy
JC9LM056	Qtzite breccia?	E	Face	Malachite
JC9LM057	Quartzite	E	Rubble	Yy
JC9LM058	Qtzite breccia	E	Outcrop	
JC9LM059	Quartzite	HM	Rubble	Yy, quartz veins
JC9LM060	Sulfide	HM	Rubble	Chalcopyrite
JC9LM061	Quartzite	HM	Rubble	Yy, chalcopyrite
JC9LM062	Qtzite breccia	HM	Rubble	
JC9LM063	Quartzite	HM	Rubble	Yy
JC9LM064	Mill tailings	HM	Mill	
JC9LM065	Quartzite	13	Float	Yy
JC9LM066	Qtzite breccia	13	Float	Magnetic
JC9LM067	Qtzite breccia	13	Float	
JC9LM068	Quartzite	F	Face	Yy
JC9LM069	Qtzite breccia	F	Face	
JC9LM070	Quartzite	F	Float	Yy, silicified
JC9LM071	Quartzite	KQ	Rubble	Yy
JC9LM072	Quartzite	KQ	Rubble	Yy
JC9LM073	Qtzite breccia	KQ	Rubble	
JC9LM074	Qtzite breccia	KQ	Rubble	
JC9LM075	Qtzite breccia	14	Outcrop	

Sample	Field name	Loc (fig. 2)	Source	Remarks
JC9LM076	Gouge?	14	Outcrop	
JC9LM077	Gouge	14	Outcrop	
JC9LM078	Quartzite	14	Float	Ybc?
JC9LM079	Qtzite breccia	14	Outcrop	
JC9LM080	Qtzite breccia	15	Float	
JC9LM081	Qtzite breccia	15	Float	
JC9LM082	Qtzite breccia	G	Rubble	
JC9LM083	Qtzite breccia	G	Rubble	Chalcopyrite, silicified
JC9LM084	Qtzite breccia	G	Rubble	Chalcopyrite, silicified
JC9LM085	Qtzite breccia	16	Float	
JC9LM086	Quartzite	16	Float	Ybc?
JC9LM087	Qtz breccia	PS	Dump	Malachite
JC9LM088	Qtzite breccia	PS	Dump	
JC9LM089	Qtzite breccia	PS	Dump	Malachite
JC9LM090	Qtzite breccia	PS	Dump	
JC9LM091	Quartzite	PS	Dump	Yy, malachite
JC9LM092	Quartzite	PS	Dump	Yy, malachite
JC9LM093	Quartzite	PS	Dump	Yy
JC9LM094	Quartzite	PS	Dump	Yy
JC9LM095	Qtzite breccia	PS	Dump	Cuprite
JC9LM096	Mill tailings	PS	Mill	
JC9LM097	Quartzite	17	Outcrop	Yy
JC9LM098	Qtzite breccia	17	Outcrop	
JC9LM099	Quartzite	H	Rubble	Yy
JC9LM100	Quartzite	H	Rubble	Yy
JC9LM101	Quartz	H	Face	Pyrite?
JC9LM102	Quartzite	H	Face	Yy, pyrite?
JC9LM103	Sulfide	HM	Dump	
JC9LM104	Quartzite	HM	Dump	Yy
JC9LM105	Quartzite	HM	Dump	Yy
JC9LM106	Quartzite	HM	Float	Yy
JC9LM107	Magnetite?	HM	Float	
JC9LM108	Qtz breccia	HM	Dump	Pyrite
8KE024A	Mafic sill?	**	Outcrop	
8KE038A	Siltite breccia	**	Dump	
8KE038B	Qtz vein	**	Dump	
8KE043A	Jasperoid	I	Prospect	Osm?
8KE043B	Jasperoid	I	Prospect	Osm?, silicified
8KE045A	Quartzite	**	Prospect	Ybc, chalcopyrite
8KE045B	Mafic dike	**	Outcrop	Chalcopyrite

Sample	Field name	Loc (fig. 2)	Source	Remarks
8KE048A	Granodiorite	**	Outcrop	Tertiary?
8KE049A	Qtz diorite	**	Outcrop	Tertiary?
9KE001A	Qtz vein	HM	Dump	Chalcopyrite
9KE001B	Mill tailings	HM	Mill	
9KE002A	Massive ore	HM	Dump	Chalcopyrite
9KE002B	Quartzite	HM	Dump	Yy, chalcopyrite
9KE007A	Qtzite breccia	17	Outcrop	Silicified
9KE009A	Quartzite	8	Roadcut	Yy
9KE012A	Quartzite	H	Outcrop	Yy, malachite
9KE013A	Quartzite	H	Outcrop	Yy, malachite
9KE014A	Quartzite	H	Outcrop	Yy, malachite
9KE015A	Quartzite	H	Outcrop	Yy, malachite
9KE015B	Quartzite	H	Outcrop	Yy
9KE015C	Qtz vein	H	Outcrop	
9KE020A	Quartzite	**	Dump	Yy, galena
9KE020B	Qtz vein	**	Dump	Chalcopyrite
9KE021A	Quartzite	**	Roadcut	Yy
9KE022A	Granite	**	Outcrop	Proterozoic
9KE023A	Granite	**	Roadcut	Proterozoic
9KE025A	Granite	**	Dump	Ordovician
9KE025B	Massive ore	**	Dump	
9KE029A	Quartzite	PS	Dump	Yy, malachite
9KE032A	Qtz vein	**	Dump	
9KE032B	Quartzite	**	Dump	Yy
9KE032C	Jasperoid?	**	Dump	
9KE033A	Granite	**	Outcrop	Proterozoic
9KE034A	Granite	**	Roadcut	Proterozoic
9KE035A	Qtz vein	**	Dump	
9KE035B	Gossan	**	Dump	
9KE035C	Siltite	**	Dump	Bleached
9KE035D	Qtz vein	**	Dump	Limonitic
9KE042A	Siltite	**	Prospect	Yy
9KE043A	Massive ore	**	Prospect	
9KE048A	Jasperoid	I	Outcrop	Ok
9KE052A	Jasperoid	I	Outcrop	Osm?
9KE052B	Jasperoid	I	Outcrop	Osm?
9KE055A	Quartzite	H	Outcrop	Yy, malachite
9KE056A	Quartzite	H	Outcrop	Yy, malachite
9KE056B	Quartzite	H	Outcrop	Yy
9KE057A	Quartzite	H	Outcrop	Yy, malachite

Sample	Field name	Loc (fig. 2)	Source	Remarks
9KE058A	Quartzite	H	Dump	Yy, chalcopyrite, silicified
9KE058B	Quartzite	H	Adit	Yy
9KE059A	Jasperoid	**	Prospect	Os
9KE063A	Quartzite	**	Roadcut	Yy
9KE063B	Quartzite	**	Roadcut	Yy
9KE064A	Quartzite	**	Prospect	Yy
9KE064B	Quartzite	**	Prospect	Yy, malachite
9KE065A	Quartzite	**	Dump	Yy, malachite, silicified
9KE074A	Granite	**	Mine	Ordovician, silicified
9KE089A	Fault breccia	**	Outcrop	Ys over Yb
9KE089B	Quartzite	**	Outcrop	Ys
9KE102A	Jasperoid	**	Outcrop	Os
9KE107A	Rhyolite	**	Roadcut	Malachite
9KE108A	Siltite	**	Roadcut	Yy
9KE117A	Quartzite	**	Roadcut	Yy, chalcopyrite
9KE118A	Siltite	**	Outcrop	Yy
9KE119A	Granite	**	Dump	Quartz veins
9KE120A	Quartzite	A	Dump	Yy, malachite
9KE121A	Qtz vein	A	Prospect	Malachite
9KE121B	Quartzite	A	Prospect	Yy, malachite
9KE123A	Granite	**	Dump	Quartz veins
9KE123B	Gossan	**	Dump	
9KE123C	Granite	**	Dump	Proterozoic
9KE124A	Siltite	**	Roadcut	Yy
9KE125A	Siltite	**	Rubble	Yy
9KE128A	Jasperoid	**	Outcrop	Os, silicified
9KE132A	Quartzite	**	Outcrop	Yy

** Outside of northern Lemhi Range, see fig. 1 for location.

Table 2.--Geochemical analyses

[Rocks collected by J. J. Connor; analyses by R. T. Hopkins, Jr., and B. H. Roushey]

Data are in parts per million (ppm) except where shown as percent (%).

Three elements looked for in the spectrographic analysis but not detected in any samples were:

Cd	<20 ppm
Ge	<10 ppm
Th	<100 ppm

Special symbols in the table:

<	less than stated concentration
>	greater than stated concentration
--	No data

Sample	Ca %-S	Fe %-S	Mg %-S	Na %-S	P %-S	Ti %-S
JC9LM001	<.05	5.00	.70	.30	<.20	.30
JC9LM002	.30	3.00	.70	<.20	<.20	.30
JC9LM003	<.05	5.00	.70	.20	<.20	.50
JC9LM004	<.05	.70	.03	<.20	<.20	.05
JC9LM005	<.05	5.00	.30	<.20	<.20	.15
JC9LM006	<.05	5.00	.30	<.20	<.20	.15
JC9LM007	<.05	7.00	.50	<.20	<.20	.30
JC9LM008	<.05	15.00	.10	<.20	<.20	.10
JC9LM009	<.05	7.00	.30	<.20	<.20	.15
JC9LM010	<.05	3.00	.07	<.20	<.20	.07
JC9LM011	<.05	7.00	.30	<.20	<.20	.15
JC9LM012	<.05	10.00	.07	<.20	<.20	.07
JC9LM013	<.05	3.00	.50	<.20	<.20	.30
JC9LM014	.10	10.00	.30	<.20	.30	.15
JC9LM015	<.05	3.00	.05	<.20	<.20	.05
JC9LM016	<.05	7.00	.15	<.20	<.20	.15
JC9LM017	.15	7.00	.50	<.20	<.20	.20
JC9LM018	<.05	3.00	.05	<.20	<.20	.07
JC9LM019	<.05	5.00	.03	<.20	<.20	<.01
JC9LM020	.05	5.00	.50	<.20	<.20	.05
JC9LM021	.30	10.00	2.00	.70	<.20	1.00
JC9LM022	.30	7.00	.20	<.20	<.20	.01
JC9LM023	3.00	7.00	2.00	1.50	<.20	>1.00
JC9LM024	2.00	5.00	.70	2.00	<.20	.70
JC9LM025	3.00	5.00	1.00	3.00	<.20	.50
JC9LM026	<.05	15.00	.15	<.20	<.20	.07
JC9LM027	<.05	.30	.15	<.20	<.20	.05
JC9LM028	.05	.20	.15	<.20	<.20	.07
JC9LM029	<.05	5.00	.70	<.20	<.20	.10
JC9LM030	.07	7.00	1.00	.70	<.20	.30
JC9LM031	.07	7.00	.70	1.00	<.20	.30
JC9LM032	.15	7.00	1.00	1.00	<.20	.50
JC9LM033	.15	7.00	1.50	.50	<.20	.70
JC9LM034	10.00	5.00	2.00	1.50	<.20	.30
JC9LM035	10.00	7.00	3.00	1.50	<.20	.70
JC9LM036	1.50	10.00	3.00	1.00	<.20	1.00
JC9LM037	.15	5.00	.50	<.20	<.20	.30
JC9LM038	.10	7.00	.70	<.20	<.20	.70
JC9LM039	<.05	7.00	.30	<.20	<.20	.30
JC9LM040	<.05	10.00	.07	<.20	<.20	.07
JC9LM041	<.05	10.00	.70	<.20	<.20	.20
JC9LM042	<.05	15.00	1.00	<.20	<.20	.30
JC9LM043	<.05	15.00	1.00	<.20	<.20	.50
JC9LM044	.07	10.00	.70	.20	<.20	.50
JC9LM045	.15	5.00	.70	1.50	<.20	.70

Sample	Ag ppm-S	As ppm-S	B ppm-S	Ba ppm-S	Be ppm-S	Bi ppm-S
JC9LM001	<.50	<200.00	30.00	1000.00	2.00	<10.00
JC9LM002	<.50	<200.00	30.00	1000.00	2.00	<10.00
JC9LM003	<.50	<200.00	30.00	1000.00	2.00	<10.00
JC9LM004	<.50	<200.00	<10.00	70.00	<1.00	<10.00
JC9LM005	<.50	<200.00	50.00	1000.00	3.00	<10.00
JC9LM006	<.50	<200.00	70.00	1500.00	5.00	<10.00
JC9LM007	<.50	<200.00	150.00	700.00	3.00	<10.00
JC9LM008	<.50	<200.00	30.00	1000.00	10.00	<10.00
JC9LM009	<.50	<200.00	30.00	500.00	3.00	<10.00
JC9LM010	<.50	<200.00	20.00	500.00	2.00	<10.00
JC9LM011	<.50	<200.00	30.00	300.00	3.00	<10.00
JC9LM012	7.00	<200.00	<10.00	300.00	3.00	<10.00
JC9LM013	<.50	<200.00	10.00	1000.00	1.50	<10.00
JC9LM014	3.00	<200.00	30.00	1500.00	7.00	<10.00
JC9LM015	1.00	<200.00	20.00	150.00	3.00	<10.00
JC9LM016	.50	<200.00	50.00	500.00	3.00	<10.00
JC9LM017	<.50	<200.00	30.00	500.00	5.00	<10.00
JC9LM018	5.00	<200.00	10.00	150.00	1.50	<10.00
JC9LM019	200.00	<200.00	<10.00	200.00	1.50	20.00
JC9LM020	5.00	<200.00	15.00	200.00	2.00	<10.00
JC9LM021	3.00	<200.00	20.00	300.00	1.50	<10.00
JC9LM022	3.00	<200.00	15.00	70.00	5.00	<10.00
JC9LM023	<.50	<200.00	50.00	500.00	<1.00	<10.00
JC9LM024	<.50	<200.00	15.00	1500.00	1.00	<10.00
JC9LM025	<.50	<200.00	15.00	1500.00	1.00	<10.00
JC9LM026	<.50	500.00	10.00	70.00	<1.00	<10.00
JC9LM027	2.00	<200.00	10.00	100.00	<1.00	<10.00
JC9LM028	2.00	<200.00	15.00	100.00	<1.00	<10.00
JC9LM029	.70	<200.00	15.00	100.00	<1.00	<10.00
JC9LM030	<.50	<200.00	30.00	300.00	1.00	<10.00
JC9LM031	<.50	<200.00	30.00	300.00	1.00	<10.00
JC9LM032	<.50	<200.00	30.00	500.00	2.00	<10.00
JC9LM033	<.50	<200.00	50.00	2000.00	2.00	<10.00
JC9LM034	<.50	<200.00	30.00	150.00	<1.00	<10.00
JC9LM035	<.50	<200.00	30.00	300.00	<1.00	<10.00
JC9LM036	<.50	<200.00	200.00	500.00	<1.00	<10.00
JC9LM037	10.00	<200.00	50.00	700.00	1.00	<10.00
JC9LM038	<.50	<200.00	50.00	1000.00	1.50	<10.00
JC9LM039	<.50	<200.00	15.00	700.00	1.00	<10.00
JC9LM040	7.00	<200.00	15.00	300.00	<1.00	15.00
JC9LM041	3.00	<200.00	30.00	300.00	1.50	<10.00
JC9LM042	3.00	<200.00	30.00	100.00	<1.00	<10.00
JC9LM043	2.00	<200.00	30.00	150.00	<1.00	<10.00
JC9LM044	<.50	<200.00	30.00	200.00	1.50	<10.00
JC9LM045	<.50	<200.00	30.00	300.00	1.50	<10.00

Sample	Co ppm-S	Cr ppm-S	Cu ppm-S	Ga ppm-S	La ppm-S	Mn ppm-S
JC9LM001	10.00	70.00	30.00	30.00	<50.00	200.00
JC9LM002	<10.00	70.00	20.00	20.00	<50.00	1500.00
JC9LM003	10.00	100.00	20.00	30.00	70.00	200.00
JC9LM004	<10.00	10.00	7.00	<5.00	<50.00	300.00
JC9LM005	10.00	50.00	20.00	15.00	<50.00	500.00
JC9LM006	<10.00	50.00	20.00	10.00	<50.00	500.00
JC9LM007	<10.00	30.00	20.00	20.00	50.00	150.00
JC9LM008	20.00	15.00	30.00	20.00	<50.00	500.00
JC9LM009	10.00	50.00	15.00	30.00	<50.00	150.00
JC9LM010	<10.00	10.00	10.00	<5.00	<50.00	200.00
JC9LM011	70.00	50.00	700.00	20.00	<50.00	150.00
JC9LM012	<10.00	15.00	300.00	20.00	<50.00	100.00
JC9LM013	30.00	70.00	30.00	20.00	<50.00	150.00
JC9LM014	700.00	30.00	>20000.00	20.00	<50.00	>5000.00
JC9LM015	30.00	<10.00	1000.00	7.00	<50.00	200.00
JC9LM016	50.00	30.00	700.00	30.00	<50.00	150.00
JC9LM017	20.00	50.00	200.00	30.00	<50.00	100.00
JC9LM018	10.00	<10.00	1500.00	10.00	<50.00	20.00
JC9LM019	<10.00	15.00	>20000.00	5.00	<50.00	50.00
JC9LM020	15.00	<10.00	10000.00	10.00	<50.00	200.00
JC9LM021	20.00	<10.00	7000.00	50.00	<50.00	700.00
JC9LM022	<10.00	<10.00	15000.00	5.00	<50.00	500.00
JC9LM023	70.00	30.00	150.00	20.00	<50.00	1000.00
JC9LM024	20.00	100.00	30.00	30.00	50.00	500.00
JC9LM025	15.00	50.00	30.00	50.00	150.00	500.00
JC9LM026	<10.00	20.00	50.00	15.00	<50.00	200.00
JC9LM027	<10.00	30.00	30.00	<5.00	<50.00	30.00
JC9LM028	<10.00	30.00	30.00	<5.00	<50.00	30.00
JC9LM029	10.00	15.00	7000.00	7.00	<50.00	200.00
JC9LM030	15.00	100.00	3000.00	20.00	50.00	200.00
JC9LM031	10.00	100.00	1000.00	30.00	50.00	150.00
JC9LM032	30.00	100.00	200.00	30.00	50.00	500.00
JC9LM033	15.00	150.00	15.00	30.00	50.00	1500.00
JC9LM034	20.00	150.00	150.00	20.00	<50.00	1000.00
JC9LM035	50.00	300.00	150.00	30.00	<50.00	1000.00
JC9LM036	70.00	500.00	200.00	30.00	<50.00	1000.00
JC9LM037	15.00	50.00	20000.00	20.00	<50.00	200.00
JC9LM038	20.00	100.00	700.00	30.00	<50.00	200.00
JC9LM039	20.00	50.00	300.00	15.00	<50.00	200.00
JC9LM040	15.00	15.00	7000.00	20.00	<50.00	100.00
JC9LM041	15.00	20.00	1500.00	15.00	<50.00	150.00
JC9LM042	15.00	30.00	1000.00	20.00	<50.00	700.00
JC9LM043	15.00	70.00	2000.00	50.00	50.00	700.00
JC9LM044	15.00	100.00	30.00	20.00	<50.00	700.00
JC9LM045	15.00	100.00	7.00	15.00	<50.00	300.00

Sample	Mo ppm-S	Nb ppm-S	Ni ppm-S	Pb ppm-S	Sb ppm-S	Sc ppm-S
JC9LM001	<5.00	<20.00	15.00	30.00	<100.00	10.00
JC9LM002	<5.00	<20.00	20.00	20.00	<100.00	7.00
JC9LM003	<5.00	<20.00	15.00	20.00	<100.00	7.00
JC9LM004	<5.00	<20.00	<5.00	20.00	<100.00	<5.00
JC9LM005	<5.00	<20.00	15.00	20.00	<100.00	5.00
JC9LM006	<5.00	<20.00	15.00	20.00	<100.00	7.00
JC9LM007	<5.00	<20.00	15.00	20.00	<100.00	7.00
JC9LM008	<5.00	<20.00	50.00	30.00	500.00	7.00
JC9LM009	<5.00	<20.00	30.00	15.00	<100.00	7.00
JC9LM010	<5.00	<20.00	10.00	15.00	<100.00	<5.00
JC9LM011	<5.00	<20.00	70.00	15.00	<100.00	7.00
JC9LM012	<5.00	<20.00	5.00	20.00	<100.00	5.00
JC9LM013	<5.00	<20.00	7.00	70.00	<100.00	7.00
JC9LM014	<5.00	<20.00	100.00	150.00	<100.00	7.00
JC9LM015	<5.00	<20.00	7.00	15.00	<100.00	<5.00
JC9LM016	<5.00	<20.00	20.00	15.00	<100.00	7.00
JC9LM017	<5.00	<20.00	20.00	30.00	<100.00	7.00
JC9LM018	<5.00	<20.00	5.00	20.00	<100.00	<5.00
JC9LM019	<5.00	<20.00	<5.00	700.00	<100.00	<5.00
JC9LM020	<5.00	<20.00	30.00	700.00	<100.00	7.00
JC9LM021	<5.00	<20.00	15.00	700.00	<100.00	15.00
JC9LM022	<5.00	<20.00	20.00	1000.00	<100.00	30.00
JC9LM023	<5.00	<20.00	100.00	20.00	<100.00	20.00
JC9LM024	<5.00	<20.00	15.00	30.00	<100.00	10.00
JC9LM025	<5.00	20.00	15.00	30.00	<100.00	10.00
JC9LM026	7.00	<20.00	30.00	300.00	100.00	<5.00
JC9LM027	<5.00	<20.00	7.00	15.00	<100.00	<5.00
JC9LM028	<5.00	<20.00	7.00	20.00	<100.00	<5.00
JC9LM029	<5.00	<20.00	10.00	<10.00	<100.00	<5.00
JC9LM030	<5.00	<20.00	30.00	<10.00	<100.00	7.00
JC9LM031	<5.00	<20.00	20.00	<10.00	<100.00	7.00
JC9LM032	<5.00	20.00	50.00	10.00	<100.00	15.00
JC9LM033	<5.00	20.00	50.00	50.00	<100.00	20.00
JC9LM034	<5.00	<20.00	70.00	15.00	<100.00	15.00
JC9LM035	<5.00	<20.00	100.00	15.00	<100.00	15.00
JC9LM036	<5.00	<20.00	150.00	<10.00	<100.00	20.00
JC9LM037	<5.00	<20.00	20.00	30.00	<100.00	7.00
JC9LM038	<5.00	<20.00	30.00	15.00	<100.00	15.00
JC9LM039	<5.00	<20.00	30.00	15.00	<100.00	7.00
JC9LM040	<5.00	<20.00	20.00	15.00	<100.00	5.00
JC9LM041	<5.00	<20.00	15.00	20.00	<100.00	5.00
JC9LM042	<5.00	<20.00	30.00	15.00	<100.00	7.00
JC9LM043	<5.00	<20.00	30.00	20.00	<100.00	7.00
JC9LM044	<5.00	<20.00	30.00	10.00	<100.00	10.00
JC9LM045	<5.00	<20.00	15.00	<10.00	<100.00	7.00

Sample	Sn ppm-S	Sr ppm-S	V ppm-S	W ppm-S	Y PPM-S	Zn ppm-S
JC9LM001	<10.00	<100.00	100.00	<20.00	50.00	<200.00
JC9LM002	<10.00	<100.00	100.00	<20.00	30.00	<200.00
JC9LM003	<10.00	<100.00	100.00	<20.00	70.00	<200.00
JC9LM004	<10.00	<100.00	10.00	<20.00	<10.00	<200.00
JC9LM005	<10.00	<100.00	50.00	<20.00	30.00	<200.00
JC9LM006	<10.00	<100.00	70.00	<20.00	30.00	<200.00
JC9LM007	<10.00	<100.00	70.00	<20.00	50.00	<200.00
JC9LM008	<10.00	<100.00	70.00	20.00	30.00	<200.00
JC9LM009	<10.00	<100.00	70.00	<20.00	30.00	<200.00
JC9LM010	<10.00	<100.00	30.00	<20.00	15.00	<200.00
JC9LM011	<10.00	<100.00	50.00	<20.00	70.00	<200.00
JC9LM012	<10.00	<100.00	30.00	<20.00	<10.00	<200.00
JC9LM013	<10.00	<100.00	70.00	<20.00	50.00	<200.00
JC9LM014	<10.00	<100.00	150.00	<20.00	70.00	3000.00
JC9LM015	<10.00	<100.00	20.00	<20.00	10.00	<200.00
JC9LM016	<10.00	<100.00	50.00	<20.00	100.00	<200.00
JC9LM017	<10.00	<100.00	100.00	<20.00	50.00	<200.00
JC9LM018	<10.00	<100.00	30.00	<20.00	15.00	<200.00
JC9LM019	<10.00	<100.00	100.00	<20.00	<10.00	<200.00
JC9LM020	<10.00	<100.00	200.00	<20.00	70.00	700.00
JC9LM021	<10.00	<100.00	150.00	<20.00	70.00	700.00
JC9LM022	<10.00	<100.00	70.00	<20.00	200.00	300.00
JC9LM023	<10.00	300.00	300.00	<20.00	30.00	<200.00
JC9LM024	<10.00	700.00	150.00	<20.00	30.00	<200.00
JC9LM025	<10.00	1000.00	150.00	<20.00	70.00	<200.00
JC9LM026	<10.00	<100.00	70.00	<20.00	<10.00	700.00
JC9LM027	<10.00	<100.00	1000.00	<20.00	<10.00	<200.00
JC9LM028	<10.00	<100.00	1500.00	<20.00	<10.00	<200.00
JC9LM029	<10.00	<100.00	150.00	<20.00	100.00	<200.00
JC9LM030	<10.00	<100.00	70.00	<20.00	70.00	<200.00
JC9LM031	<10.00	<100.00	150.00	<20.00	70.00	<200.00
JC9LM032	<10.00	<100.00	100.00	<20.00	70.00	700.00
JC9LM033	<10.00	<100.00	150.00	<20.00	70.00	<200.00
JC9LM034	<10.00	200.00	150.00	<20.00	20.00	<200.00
JC9LM035	<10.00	300.00	150.00	<20.00	30.00	<200.00
JC9LM036	<10.00	150.00	150.00	<20.00	30.00	<200.00
JC9LM037	10.00	<100.00	70.00	<20.00	700.00	<200.00
JC9LM038	30.00	<100.00	100.00	<20.00	50.00	<200.00
JC9LM039	<10.00	<100.00	70.00	<20.00	15.00	<200.00
JC9LM040	<10.00	<100.00	50.00	<20.00	700.00	<200.00
JC9LM041	<10.00	<100.00	50.00	<20.00	100.00	<200.00
JC9LM042	<10.00	<100.00	70.00	<20.00	300.00	<200.00
JC9LM043	<10.00	<100.00	100.00	<20.00	500.00	<200.00
JC9LM044	<10.00	<100.00	100.00	<20.00	50.00	<200.00
JC9LM045	<10.00	<100.00	100.00	<20.00	20.00	<200.00

Sample	Zr ppm-S	Au ppm	N Latitude	W Longitude
JC9LM001	500.00	--	45 02 30	113 51 45
JC9LM002	500.00	--	45 02 15	113 51 45
JC9LM003	500.00	--	45 02 30	113 51 45
JC9LM004	10.00	--	45 02 30	113 51 45
JC9LM005	300.00	<.05	45 02 50	113 51 15
JC9LM006	300.00	--	45 02 50	113 51 15
JC9LM007	700.00	<.05	45 02 50	113 51 15
JC9LM008	300.00	--	45 02 50	113 51 15
JC9LM009	200.00	--	45 02 50	113 51 25
JC9LM010	100.00	--	45 02 50	113 51 25
JC9LM011	300.00	--	45 03 07	113 51 15
JC9LM012	10.00	--	45 03 07	113 51 15
JC9LM013	700.00	<.05	45 03 20	113 51 15
JC9LM014	200.00	<.05	45 03 05	113 51 07
JC9LM015	150.00	<.05	45 03 05	113 51 07
JC9LM016	300.00	<.05	45 03 05	113 51 07
JC9LM017	300.00	--	45 03 05	113 51 07
JC9LM018	70.00	--	45 03 05	113 51 07
JC9LM019	15.00	--	44 54 45	113 50 45
JC9LM020	15.00	--	44 54 45	113 50 45
JC9LM021	150.00	--	44 54 45	113 50 45
JC9LM022	100.00	--	44 54 45	113 50 45
JC9LM023	150.00	--	44 54 45	113 50 45
JC9LM024	300.00	--	44 54 15	113 50 45
JC9LM025	500.00	--	44 54 15	113 50 45
JC9LM026	50.00	--	44 54 15	113 50 45
JC9LM027	30.00	--	44 54 15	113 50 45
JC9LM028	30.00	--	44 54 15	113 50 45
JC9LM029	70.00	--	44 56 45	113 45 55
JC9LM030	300.00	<.05	44 56 45	113 45 55
JC9LM031	500.00	--	44 56 45	113 45 55
JC9LM032	300.00	<.05	45 00 40	113 53 40
JC9LM033	500.00	--	45 00 50	113 53 30
JC9LM034	50.00	--	45 00 50	113 53 30
JC9LM035	70.00	--	45 00 50	113 53 30
JC9LM036	150.00	--	45 00 50	113 53 30
JC9LM037	150.00	--	45 01 30	113 53 00
JC9LM038	300.00	--	45 01 30	113 53 00
JC9LM039	300.00	<.05	45 01 30	113 53 00
JC9LM040	150.00	--	45 01 30	113 53 00
JC9LM041	150.00	--	45 01 30	113 53 00
JC9LM042	150.00	.10	45 01 30	113 53 00
JC9LM043	100.00	--	45 01 30	113 53 00
JC9LM044	300.00	--	45 57 20	113 50 50
JC9LM045	300.00	--	44 58 00	113 31 05

Sample	Ca %-S	Fe %-S	Mg %-S	Na %-S	P %-S	Ti %-S
JC9LM046	.20	7.00	1.50	.50	<.20	.70
JC9LM047	.15	20.00	1.50	.50	<.20	.50
JC9LM048	<.05	5.00	.30	<.20	<.20	.20
JC9LM049	.07	10.00	.70	.20	<.20	.70
JC9LM050	.07	15.00	.70	<.20	<.20	.70
JC9LM051	.10	15.00	.70	.50	<.20	.70
JC9LM052	.15	7.00	.70	<.20	<.20	.50
JC9LM053	<.05	5.00	.30	<.20	<.20	.30
JC9LM054	<.05	15.00	.10	<.20	<.20	.30
JC9LM055	<.05	15.00	1.00	.20	<.20	.70
JC9LM056	<.05	20.00	.10	<.20	<.20	.15
JC9LM057	<.05	15.00	.15	<.20	<.20	.30
JC9LM058	.07	7.00	.70	<.20	<.20	.50
JC9LM059	<.05	15.00	.15	<.20	<.20	.20
JC9LM060	<.05	>20.00	.15	<.20	<.20	.01
JC9LM061	<.05	15.00	.70	<.20	<.20	.30
JC9LM062	<.05	20.00	.30	.20	<.20	.50
JC9LM063	<.05	10.00	1.00	.50	<.20	.30
JC9LM064	<.05	15.00	1.00	.20	<.20	.20
JC9LM065	<.05	7.00	.70	<.20	<.20	.30
JC9LM066	<.05	10.00	.03	<.20	<.20	.05
JC9LM067	<.05	7.00	.50	<.20	<.20	.15
JC9LM068	.05	7.00	.70	<.20	<.20	.50
JC9LM069	.05	7.00	.30	<.20	<.20	.15
JC9LM070	.07	3.00	.30	<.20	<.20	.20
JC9LM071	.07	7.00	1.00	<.20	<.20	.20
JC9LM072	.10	5.00	1.00	<.20	<.20	.30
JC9LM073	.07	7.00	.50	<.20	<.20	.15
JC9LM074	.30	5.00	.30	.20	.30	.15
JC9LM075	.10	2.00	.30	<.20	<.20	.10
JC9LM076	.15	3.00	1.00	.70	<.20	.50
JC9LM077	.10	10.00	.70	.70	<.20	.20
JC9LM078	<.05	1.50	.50	<.20	<.20	.15
JC9LM079	.30	5.00	1.00	.50	<.20	.30
JC9LM080	.07	1.50	.30	<.20	<.20	.15
JC9LM081	<.05	5.00	.30	<.20	<.20	.20
JC9LM082	.15	7.00	.30	<.20	<.20	.20
JC9LM083	15.00	7.00	5.00	<.20	<.20	<.01
JC9LM084	15.00	5.00	3.00	<.20	<.20	<.01
JC9LM085	.05	10.00	.30	<.20	<.20	.03
JC9LM086	.07	5.00	.70	<.20	<.20	.15
JC9LM087	<.05	.30	.03	<.20	<.20	.00
JC9LM088	<.05	2.00	.20	<.20	<.20	.30
JC9LM089	<.05	3.00	.05	<.20	<.20	.07
JC9LM090	<.05	7.00	.50	<.20	<.20	.20

Sample	Ag ppm-S	As ppm-S	B ppm-S	Ba ppm-S	Be ppm-S	Bi ppm-S
JC9LM046	<.50	<200.00	50.00	1000.00	5.00	<10.00
JC9LM047	<.50	<200.00	50.00	150.00	2.00	<10.00
JC9LM048	<.50	<200.00	15.00	70.00	1.00	<10.00
JC9LM049	<.50	<200.00	50.00	150.00	3.00	<10.00
JC9LM050	<.50	<200.00	30.00	100.00	1.00	<10.00
JC9LM051	<.50	<200.00	30.00	150.00	2.00	<10.00
JC9LM052	<.50	<200.00	15.00	700.00	1.50	<10.00
JC9LM053	<.50	<200.00	20.00	700.00	3.00	<10.00
JC9LM054	15.00	<200.00	10.00	300.00	1.00	<10.00
JC9LM055	<.50	<200.00	30.00	700.00	1.50	<10.00
JC9LM056	10.00	<200.00	<10.00	300.00	1.50	<10.00
JC9LM057	<.50	<200.00	30.00	300.00	2.00	<10.00
JC9LM058	<.50	<200.00	30.00	700.00	2.00	<10.00
JC9LM059	1.00	<200.00	20.00	50.00	1.00	<10.00
JC9LM060	7.00	<200.00	<10.00	<20.00	<1.00	15.00
JC9LM061	<.50	<200.00	<10.00	50.00	<1.00	<10.00
JC9LM062	<.50	<200.00	15.00	300.00	1.50	<10.00
JC9LM063	<.50	<200.00	<10.00	300.00	2.00	<10.00
JC9LM064	5.00	<200.00	10.00	300.00	1.50	15.00
JC9LM065	<.50	<200.00	30.00	500.00	1.50	<10.00
JC9LM066	<.50	<200.00	<10.00	50.00	<1.00	<10.00
JC9LM067	<.50	<200.00	15.00	150.00	<1.00	<10.00
JC9LM068	<.50	<200.00	30.00	200.00	<1.00	<10.00
JC9LM069	<.50	500.00	20.00	200.00	<1.00	15.00
JC9LM070	<.50	<200.00	50.00	500.00	1.50	<10.00
JC9LM071	<.50	<200.00	20.00	1500.00	<1.00	<10.00
JC9LM072	<.50	<200.00	20.00	700.00	<1.00	<10.00
JC9LM073	<.50	<200.00	20.00	700.00	1.00	<10.00
JC9LM074	<.50	<200.00	30.00	2000.00	1.00	<10.00
JC9LM075	<.50	<200.00	15.00	500.00	1.50	<10.00
JC9LM076	<.50	<200.00	70.00	1000.00	3.00	<10.00
JC9LM077	<.50	<200.00	20.00	700.00	5.00	<10.00
JC9LM078	<.50	<200.00	20.00	700.00	1.50	<10.00
JC9LM079	<.50	<200.00	30.00	700.00	1.50	<10.00
JC9LM080	<.50	<200.00	20.00	500.00	1.50	<10.00
JC9LM081	<.50	<200.00	30.00	300.00	1.50	<10.00
JC9LM082	<.50	<200.00	30.00	300.00	1.00	<10.00
JC9LM083	3.00	<200.00	<10.00	<20.00	<1.00	<10.00
JC9LM084	5.00	<200.00	<10.00	<20.00	<1.00	<10.00
JC9LM085	<.50	<200.00	<10.00	150.00	<1.00	<10.00
JC9LM086	<.50	<200.00	20.00	300.00	<1.00	<10.00
JC9LM087	3.00	<200.00	<10.00	200.00	<1.00	<10.00
JC9LM088	.70	<200.00	30.00	>5000.00	1.50	<10.00
JC9LM089	.70	<200.00	<10.00	700.00	<1.00	<10.00
JC9LM090	<.50	<200.00	15.00	700.00	2.00	<10.00

Sample	Co ppm-S	Cr ppm-S	Cu ppm-S	Ga ppm-S	La ppm-S	Mn ppm-S
JC9LM046	15.00	15.00	<5.00	50.00	70.00	200.00
JC9LM047	20.00	100.00	7.00	50.00	<50.00	1000.00
JC9LM048	<10.00	30.00	150.00	7.00	<50.00	200.00
JC9LM049	15.00	100.00	30.00	30.00	50.00	700.00
JC9LM050	15.00	70.00	500.00	20.00	<50.00	500.00
JC9LM051	15.00	100.00	70.00	50.00	<50.00	500.00
JC9LM052	<10.00	70.00	20.00	15.00	<50.00	500.00
JC9LM053	10.00	70.00	30.00	15.00	<50.00	700.00
JC9LM054	20.00	30.00	>20000.00	20.00	<50.00	500.00
JC9LM055	30.00	150.00	700.00	30.00	<50.00	500.00
JC9LM056	15.00	15.00	>20000.00	15.00	<50.00	50.00
JC9LM057	30.00	50.00	700.00	30.00	<50.00	1000.00
JC9LM058	<10.00	70.00	70.00	30.00	<50.00	500.00
JC9LM059	300.00	20.00	700.00	15.00	<50.00	100.00
JC9LM060	1000.00	<10.00	>20000.00	15.00	<50.00	150.00
JC9LM061	70.00	50.00	2000.00	30.00	<50.00	700.00
JC9LM062	15.00	100.00	150.00	30.00	200.00	200.00
JC9LM063	70.00	150.00	150.00	50.00	<50.00	700.00
JC9LM064	100.00	100.00	1500.00	50.00	<50.00	300.00
JC9LM065	30.00	70.00	700.00	30.00	50.00	700.00
JC9LM066	<10.00	10.00	70.00	15.00	<50.00	100.00
JC9LM067	15.00	30.00	200.00	10.00	<50.00	300.00
JC9LM068	70.00	70.00	20.00	20.00	<50.00	300.00
JC9LM069	150.00	30.00	70.00	15.00	<50.00	150.00
JC9LM070	<10.00	30.00	10.00	5.00	<50.00	50.00
JC9LM071	15.00	50.00	15.00	30.00	50.00	500.00
JC9LM072	10.00	100.00	7.00	30.00	<50.00	300.00
JC9LM073	15.00	30.00	15.00	20.00	50.00	200.00
JC9LM074	<10.00	100.00	30.00	20.00	500.00	700.00
JC9LM075	<10.00	20.00	20.00	<5.00	<50.00	100.00
JC9LM076	<10.00	100.00	7.00	50.00	<50.00	70.00
JC9LM077	15.00	70.00	20.00	50.00	50.00	100.00
JC9LM078	<10.00	30.00	15.00	5.00	<50.00	150.00
JC9LM079	10.00	150.00	7.00	20.00	<50.00	150.00
JC9LM080	<10.00	30.00	<5.00	7.00	<50.00	50.00
JC9LM081	10.00	100.00	30.00	10.00	<50.00	150.00
JC9LM082	150.00	70.00	1500.00	15.00	150.00	1500.00
JC9LM083	20.00	<10.00	10000.00	<5.00	<50.00	3000.00
JC9LM084	15.00	<10.00	15000.00	<5.00	<50.00	3000.00
JC9LM085	15.00	<10.00	100.00	10.00	<50.00	300.00
JC9LM086	20.00	30.00	200.00	10.00	50.00	200.00
JC9LM087	<10.00	<10.00	3000.00	<5.00	<50.00	20.00
JC9LM088	<10.00	70.00	300.00	15.00	<50.00	150.00
JC9LM089	<10.00	20.00	3000.00	5.00	<50.00	30.00
JC9LM090	30.00	70.00	150.00	20.00	<50.00	200.00

Sample	Mo ppm-S	Nb ppm-S	Ni ppm-S	Pb ppm-S	Sb ppm-S	Sc ppm-S
JC9LM046	<5.00	<20.00	7.00	<10.00	<100.00	20.00
JC9LM047	<5.00	<20.00	15.00	<10.00	<100.00	7.00
JC9LM048	<5.00	<20.00	7.00	10.00	<100.00	<5.00
JC9LM049	<5.00	<20.00	15.00	10.00	<100.00	15.00
JC9LM050	<5.00	<20.00	15.00	<10.00	<100.00	7.00
JC9LM051	<5.00	<20.00	20.00	10.00	<100.00	15.00
JC9LM052	<5.00	<20.00	7.00	20.00	<100.00	7.00
JC9LM053	<5.00	<20.00	20.00	30.00	200.00	7.00
JC9LM054	20.00	<20.00	5.00	70.00	<100.00	5.00
JC9LM055	<5.00	20.00	30.00	15.00	<100.00	20.00
JC9LM056	15.00	<20.00	5.00	100.00	<100.00	7.00
JC9LM057	<5.00	<20.00	15.00	50.00	100.00	7.00
JC9LM058	<5.00	<20.00	15.00	15.00	<100.00	7.00
JC9LM059	<5.00	<20.00	20.00	30.00	<100.00	5.00
JC9LM060	<5.00	<20.00	30.00	30.00	<100.00	<5.00
JC9LM061	<5.00	<20.00	15.00	15.00	<100.00	7.00
JC9LM062	<5.00	20.00	50.00	30.00	150.00	10.00
JC9LM063	<5.00	<20.00	15.00	20.00	<100.00	20.00
JC9LM064	<5.00	<20.00	20.00	70.00	<100.00	15.00
JC9LM065	<5.00	20.00	20.00	15.00	<100.00	10.00
JC9LM066	7.00	<20.00	<5.00	15.00	<100.00	<5.00
JC9LM067	<5.00	<20.00	15.00	10.00	<100.00	7.00
JC9LM068	<5.00	<20.00	30.00	10.00	<100.00	7.00
JC9LM069	20.00	<20.00	30.00	50.00	<100.00	7.00
JC9LM070	<5.00	<20.00	7.00	10.00	<100.00	5.00
JC9LM071	<5.00	<20.00	50.00	15.00	<100.00	5.00
JC9LM072	<5.00	<20.00	30.00	10.00	<100.00	7.00
JC9LM073	<5.00	<20.00	70.00	30.00	<100.00	7.00
JC9LM074	<5.00	70.00	50.00	50.00	<100.00	<5.00
JC9LM075	<5.00	<20.00	7.00	30.00	<100.00	<5.00
JC9LM076	<5.00	<20.00	30.00	30.00	<100.00	20.00
JC9LM077	<5.00	<20.00	50.00	200.00	<100.00	15.00
JC9LM078	<5.00	<20.00	5.00	15.00	<100.00	<5.00
JC9LM079	<5.00	<20.00	50.00	10.00	<100.00	15.00
JC9LM080	<5.00	<20.00	<5.00	<10.00	<100.00	<5.00
JC9LM081	<5.00	<20.00	5.00	20.00	<100.00	7.00
JC9LM082	<5.00	<20.00	30.00	15.00	<100.00	7.00
JC9LM083	<5.00	<20.00	5.00	150.00	<100.00	5.00
JC9LM084	<5.00	<20.00	5.00	300.00	<100.00	<5.0L
JC9LM085	5.00	<20.00	10.00	15.00	<100.00	<5.0L
JC9LM086	<5.00	<20.00	15.00	<10.00	<100.00	5.00
JC9LM087	<5.00	<20.00	<5.00	20.00	<100.00	<5.00
JC9LM088	30.00	<20.00	<5.00	30.00	<100.00	7.00
JC9LM089	<5.00	<20.00	<5.00	30.00	<100.00	<5.00
JC9LM090	<5.00	<20.00	15.00	30.00	<100.00	10.00

Sample	Sn ppm-S	Sr ppm-S	V ppm-S	W ppm-S	Y PPM-S	Zn ppm-S
JC9LM046	<10.00	<100.00	150.00	<20.00	70.00	<200.00
JC9LM047	<10.00	<100.00	50.00	<20.00	20.00	<200.00
JC9LM048	<10.00	<100.00	50.00	<20.00	15.00	<200.00
JC9LM049	<10.00	<100.00	150.00	<20.00	20.00	<200.00
JC9LM050	<10.00	<100.00	100.00	<20.00	50.00	<200.00
JC9LM051	<10.00	<100.00	150.00	<20.00	30.00	<200.00
JC9LM052	<10.00	<100.00	100.00	<20.00	30.00	<200.00
JC9LM053	<10.00	<100.00	100.00	<20.00	20.00	<200.00
JC9LM054	<10.00	150.00	100.00	<20.00	50.00	<200.00
JC9LM055	20.00	<100.00	150.00	<20.00	50.00	<200.00
JC9LM056	<10.00	<100.00	70.00	<20.00	50.00	<200.00
JC9LM057	<10.00	<100.00	70.00	<20.00	30.00	<200.00
JC9LM058	10.00	<100.00	100.00	<20.00	30.00	<200.00
JC9LM059	<10.00	<100.00	50.00	<20.00	50.00	<200.00
JC9LM060	<10.00	<100.00	15.00	<20.00	<10.00	<200.00
JC9LM061	<10.00	<100.00	70.00	<20.00	30.00	<200.00
JC9LM062	<10.00	<100.00	150.00	<20.00	30.00	200.00
JC9LM063	50.00	<100.00	100.00	<20.00	50.00	<200.00
JC9LM064	30.00	<100.00	70.00	<20.00	30.00	<200.00
JC9LM065	20.00	<100.00	70.00	<20.00	50.00	<200.00
JC9LM066	100.00	<100.00	70.00	<20.00	20.00	<200.00
JC9LM067	<10.00	<100.00	30.00	<20.00	15.00	<200.00
JC9LM068	<10.00	<100.00	70.00	<20.00	100.00	<200.00
JC9LM069	<10.00	300.00	70.00	<20.00	30.00	<200.00
JC9LM070	<10.00	<100.00	30.00	<20.00	30.00	<200.00
JC9LM071	<10.00	<100.00	50.00	<20.00	70.00	<200.00
JC9LM072	20.00	<100.00	70.00	<20.00	20.00	<200.00
JC9LM073	<10.00	<100.00	50.00	<20.00	100.00	<200.00
JC9LM074	<10.00	1500.00	70.00	<20.00	2000.00	<200.00
JC9LM075	<10.00	<100.00	30.00	<20.00	20.00	<200.00
JC9LM076	<10.00	<100.00	150.00	<20.00	50.00	<200.00
JC9LM077	<10.00	<100.00	100.00	<20.00	30.00	<200.00
JC9LM078	<10.00	<100.00	70.00	<20.00	15.00	<200.00
JC9LM079	<10.00	<100.00	100.00	<20.00	70.00	<200.00
JC9LM080	<10.00	<100.00	50.00	<20.00	15.00	<200.00
JC9LM081	<10.00	<100.00	70.00	<20.00	30.00	<200.00
JC9LM082	<10.00	<100.00	70.00	<20.00	50.00	<200.00
JC9LM083	<10.00	<100.00	15.00	<20.00	200.00	<200.00
JC9LM084	<10.00	<100.00	10.00	<20.00	200.00	<200.00
JC9LM085	<10.00	<100.00	15.00	<20.00	50.00	<200.00
JC9LM086	<10.00	<100.00	30.00	<20.00	20.00	<200.00
JC9LM087	<10.00	<100.00	<10.00	<20.00	<10.00	<200.00
JC9LM088	<10.00	200.00	70.00	<20.00	70.00	<200.00
JC9LM089	<10.00	<100.00	30.00	<20.00	30.00	<200.00
JC9LM090	<10.00	<100.00	70.00	<20.00	20.00	<200.00

Sample	Zr ppm-S	Au ppm	N Latitude	W Longitude
JC9LM046	500.00	--	44 58 40	113 52 00
JC9LM047	200.00	--	44 59 50	113 52 05
JC9LM048	150.00	--	44 59 50	113 52 05
JC9LM049	300.00	--	44 59 50	113 52 05
JC9LM050	200.00	--	44 59 50	113 52 05
JC9LM051	200.00	--	44 59 50	113 52 05
JC9LM052	500.00	--	45 03 50	113 50 45
JC9LM053	300.00	--	45 03 45	113 50 45
JC9LM054	150.00	.20	45 03 00	113 50 40
JC9LM055	300.00	<.05	45 03 00	113 50 40
JC9LM056	70.00	--	45 03 00	113 50 40
JC9LM057	300.00	--	45 03 00	113 50 40
JC9LM058	300.00	<.05	45 03 00	113 50 40
JC9LM059	300.00	--	45 01 05	113 49 15
JC9LM060	<10.00	--	45 01 05	113 49 15
JC9LM061	300.00	<.05	45 01 05	113 49 15
JC9LM062	300.00	--	45 01 05	113 49 15
JC9LM063	70.00	--	45 01 05	113 49 15
JC9LM064	100.00	--	45 01 05	113 49 15
JC9LM065	200.00	--	45 00 10	113 48 25
JC9LM066	30.00	--	45 00 10	113 48 25
JC9LM067	150.00	--	45 00 10	113 48 25
JC9LM068	500.00	--	44 58 15	113 45 35
JC9LM069	150.00	--	44 58 15	113 45 35
JC9LM070	700.00	--	44 58 15	113 45 35
JC9LM071	300.00	--	45 00 00	113 44 00
JC9LM072	500.00	--	45 00 00	113 44 00
JC9LM073	150.00	<.05	45 00 00	113 44 00
JC9LM074	200.00	--	45 00 00	113 44 00
JC9LM075	200.00	--	44 55 45	113 41 30
JC9LM076	200.00	--	44 55 45	113 41 30
JC9LM077	150.00	<.05	44 55 45	113 41 30
JC9LM078	300.00	--	44 55 45	113 41 30
JC9LM079	500.00	--	44 55 45	113 42 00
JC9LM080	300.00	--	44 58 40	113 44 00
JC9LM081	300.00	--	44 58 40	113 44 00
JC9LM082	300.00	--	44 55 00	113 45 25
JC9LM083	<10.00	.05	44 55 00	113 45 25
JC9LM084	<10.00	--	44 55 00	113 45 25
JC9LM085	70.00	--	44 54 45	113 46 05
JC9LM086	300.00	--	44 54 45	113 46 05
JC9LM087	30.00	--	45 04 30	113 51 15
JC9LM088	500.00	<.05	45 04 30	113 51 15
JC9LM089	150.00	--	45 04 30	113 51 15
JC9LM090	200.00	--	45 04 30	113 51 15

Sample	Ca %-S	Fe %-S	Mg %-S	Na %-S	P %-S	Ti %-S
JC9LM091	<.05	7.00	.70	<.20	<.20	.20
JC9LM092	<.05	5.00	.50	<.20	<.20	.15
JC9LM093	<.05	7.00	.70	<.20	<.20	.15
JC9LM094	<.05	7.00	.70	<.20	<.20	.15
JC9LM095	<.05	2.00	.20	<.20	<.20	.15
JC9LM096	.20	5.00	.50	<.20	<.20	.30
JC9LM097	.10	7.00	.70	<.20	<.20	.30
JC9LM098	.15	7.00	.50	<.20	<.20	.15
JC9LM099	.07	7.00	1.00	.50	<.20	.50
JC9LM100	.05	7.00	1.00	<.20	<.20	.30
JC9LM101	<.05	1.50	.20	<.20	<.20	.01
JC9LM102	<.05	7.00	.70	<.20	<.20	.15
JC9LM103	<.05	20.00	.30	<.20	<.20	.02
JC9LM104	.05	7.00	1.00	<.20	<.20	.50
JC9LM105	<.05	10.00	1.00	<.20	<.20	.20
JC9LM106	<.05	7.00	.70	<.20	<.20	.07
JC9LM107	<.05	20.00	.70	<.20	<.20	.07
JC9LM108	.07	7.00	.10	<.20	<.20	.05

Sample	Ag ppm-S	As ppm-S	B ppm-S	Ba ppm-S	Be ppm-S	Bi ppm-S
JC9LM091	<.50	<200.00	15.00	300.00	<1.00	<10.00
JC9LM092	<.50	<200.00	15.00	300.00	1.00	<10.00
JC9LM093	<.50	<200.00	<10.00	700.00	<1.00	<10.00
JC9LM094	<.50	<200.00	15.00	500.00	<1.00	<10.00
JC9LM095	3.00	<200.00	20.00	500.00	1.00	<10.00
JC9LM096	5.00	<200.00	15.00	1000.00	<1.00	150.00
JC9LM097	<.50	<200.00	30.00	150.00	1.00	<10.00
JC9LM098	<.50	<200.00	30.00	300.00	1.50	<10.00
JC9LM099	<.50	<200.00	50.00	500.00	2.00	<10.00
JC9LM100	<.50	<200.00	50.00	200.00	1.50	<10.00
JC9LM101	1.00	<200.00	<10.00	30.00	<1.00	1000.00
JC9LM102	<.50	<200.00	<10.00	50.00	<1.00	15.00
JC9LM103	15.00	<200.00	<10.00	150.00	<1.00	20.00
JC9LM104	<.50	<200.00	20.00	300.00	2.00	<10.00
JC9LM105	<.50	<200.00	15.00	200.00	<1.00	<10.00
JC9LM106	<.50	<200.00	<10.00	20.00	<1.00	<10.00
JC9LM107	<.50	<200.00	<10.00	30.00	<1.00	<10.00
JC9LM108	1.50	<200.00	10.00	30.00	<1.00	20.00

Sample	Co ppm-S	Cr ppm-S	Cu ppm-S	Ga ppm-S	La ppm-S	Mn ppm-S
JC9LM091	15.00	70.00	3000.00	20.00	<50.00	300.00
JC9LM092	15.00	50.00	15000.00	15.00	<50.00	150.00
JC9LM093	30.00	50.00	5000.00	15.00	<50.00	500.00
JC9LM094	15.00	70.00	7000.00	15.00	<50.00	300.00
JC9LM095	<10.00	100.00	>20000.00	15.00	<50.00	20.00
JC9LM096	15.00	100.00	15000.00	15.00	<50.00	200.00
JC9LM097	20.00	100.00	150.00	20.00	<50.00	500.00
JC9LM098	15.00	70.00	70.00	15.00	<50.00	300.00
JC9LM099	15.00	150.00	100.00	50.00	<50.00	700.00
JC9LM100	15.00	70.00	70.00	15.00	<50.00	500.00
JC9LM101	<10.00	<10.00	3000.00	<5.00	<50.00	150.00
JC9LM102	20.00	30.00	2000.00	15.00	<50.00	700.00
JC9LM103	300.00	10.00	>20000.00	20.00	<50.00	300.00
JC9LM104	15.00	100.00	20.00	20.00	<50.00	500.00
JC9LM105	70.00	70.00	70.00	20.00	50.00	700.00
JC9LM106	15.00	<10.00	200.00	15.00	<50.00	700.00
JC9LM107	30.00	30.00	150.00	30.00	<50.00	1000.00
JC9LM108	2000.00	10.00	1500.00	7.00	<50.00	100.00

Sample	Mo ppm-S	Nb ppm-S	Ni ppm-S	Pb ppm-S	Sb ppm-S	Sc ppm-S
JC9LM091	<5.00	<20.00	30.00	20.00	<100.00	7.00
JC9LM092	<5.00	<20.00	10.00	20.00	<100.00	7.00
JC9LM093	<5.00	<20.00	20.00	15.00	<100.00	7.00
JC9LM094	<5.00	<20.00	20.00	20.00	<100.00	7.00
JC9LM095	<5.00	<20.00	5.00	30.00	1000.00	7.00
JC9LM096	<5.00	20.00	15.00	70.00	300.00	7.00
JC9LM097	<5.00	<20.00	30.00	15.00	<100.00	10.00
JC9LM098	<5.00	<20.00	15.00	15.00	<100.00	7.00
JC9LM099	<5.00	20.00	20.00	30.00	<100.00	15.00
JC9LM100	<5.00	<20.00	20.00	10.00	<100.00	10.00
JC9LM101	<5.00	<20.00	10.00	70.00	<100.00	<5.00
JC9LM102	<5.00	<20.00	20.00	15.00	<100.00	7.00
JC9LM103	<5.00	<20.00	150.00	70.00	<100.00	<5.00
JC9LM104	<5.00	<20.00	30.00	15.00	<100.00	15.00
JC9LM105	<5.00	<20.00	30.00	<10.00	<100.00	10.00
JC9LM106	7.00	<20.00	20.00	150.00	<100.00	5.00
JC9LM107	<5.00	<20.00	15.00	15.00	<100.00	7.00
JC9LM108	<5.00	<20.00	100.00	100.00	<100.00	<5.00

Sample	Sn ppm-S	Sr ppm-S	V ppm-S	W ppm-S	Y PPM-S	Zn ppm-S
JC9LM091	<10.00	<100.00	70.00	<20.00	50.00	<200.00
JC9LM092	<10.00	<100.00	70.00	<20.00	20.00	<200.00
JC9LM093	<10.00	<100.00	50.00	<20.00	50.00	<200.00
JC9LM094	<10.00	<100.00	70.00	<20.00	50.00	<200.00
JC9LM095	<10.00	<100.00	100.00	<20.00	20.00	<200.00
JC9LM096	<10.00	<100.00	100.00	<20.00	30.00	<200.00
JC9LM097	<10.00	<100.00	70.00	<20.00	70.00	<200.00
JC9LM098	<10.00	<100.00	70.00	<20.00	15.00	<200.00
JC9LM099	<10.00	<100.00	100.00	<20.00	50.00	<200.00
JC9LM100	<10.00	<100.00	70.00	<20.00	50.00	<200.00
JC9LM101	<10.00	<100.00	<10.00	<20.00	<10.00	<200.00
JC9LM102	<10.00	<100.00	50.00	<20.00	70.00	<200.00
JC9LM103	<10.00	150.00	15.00	<20.00	15.00	200.00
JC9LM104	<10.00	<100.00	100.00	<20.00	50.00	<200.00
JC9LM105	15.00	<100.00	50.00	<20.00	50.00	<200.00
JC9LM106	<10.00	<100.00	30.00	<20.00	30.00	<200.00
JC9LM107	700.00	<100.00	100.00	20.00	70.00	200.00
JC9LM108	15.00	<100.00	20.00	<20.00	15.00	<200.00

Sample	Zr ppm-S	Au ppm	N Latitude	W Longitude
JC9LM091	700.00	--	45 04 30	113 51 15
JC9LM092	150.00	--	45 04 30	113 51 15
JC9LM093	200.00	<.05	45 04 30	113 51 15
JC9LM094	200.00	--	45 04 30	113 51 15
JC9LM095	100.00	--	45 04 30	113 51 15
JC9LM096	200.00	--	45 04 30	113 51 15
JC9LM097	200.00	<.05	44 59 10	113 52 10
JC9LM098	200.00	<.05	44 59 10	113 52 10
JC9LM099	200.00	--	44 59 10	113 52 10
JC9LM100	700.00	--	44 59 10	113 52 10
JC9LM101	20.00	.20	44 59 10	113 52 10
JC9LM102	150.00	.20	44 59 10	113 52 10
JC9LM103	15.00	--	45 00 45	113 49 30
JC9LM104	300.00	--	45 00 45	113 49 30
JC9LM105	300.00	--	45 00 45	113 49 30
JC9LM106	150.00	<.05	45 00 45	113 49 30
JC9LM107	150.00	<.05	45 00 45	113 49 45
JC9LM108	70.00	<.05	45 00 35	113 49 30

Table 3.--Geochemical analyses

[Samples collected by K.V. Evans; analyses by P.H. Briggs, J.G. Crock, K.R. Kennedy, R.M. O'Leary, B.H. Roushey, K.E. Slaughter, and E.P. Welsch]

Data are in parts per million (ppm) except where shown as percent (%).

Two elements looked for in the spectrographic analysis but not detected in any samples were:

Ta	<40 ppm
U	<200 ppm

Special symbols in the table:

<	less than stated concentration
--	No data

Sample	AL %-S	CA %-S	FE %-S	K %-S	MG %-S	NA %-S
8KE024A	7.90	3.00	5.80	3.30	2.10	3.10
8KE038A	2.90	.03	3.40	2.00	.19	.05
8KE038B	.50	.01	1.20	.20	.03	.02
8KE043A	.06	.08	40.00	<.10	.04	.01
8KE043B	.09	.17	.11	<.10	.04	<.01
8KE045A	3.50	.03	1.90	1.80	.49	.04
8KE045B	6.10	.18	10.00	1.80	3.20	.04
8KE048A	7.90	2.60	3.40	3.10	1.50	2.50
8KE049A	8.50	3.00	3.70	2.30	1.50	3.00
9KE001A	1.62	<.01	11.30	.20	.12	.02
9KE001B	3.53	.03	9.19	1.20	.46	.06
9KE002A	.18	<.01	30.40	<.10	.06	.01
9KE002B	4.54	.03	10.00	.60	1.17	.02
9KE007A	.70	.01	.28	.70	.04	.02
9KE009A	4.88	.08	3.49	1.60	.69	.28
9KE012A	4.55	.10	3.23	1.80	.44	.74
9KE013A	5.46	.22	3.76	1.80	.46	1.40
9KE014A	3.73	.04	3.62	1.40	.55	.04
9KE015A	4.28	.10	3.67	1.90	.67	.04
9KE015B	3.49	.03	3.61	1.40	.60	.03
9KE015C	1.31	<.01	2.25	.50	.23	.02
9KE020A	2.55	.02	5.87	.30	.59	.01
9KE020B	3.00	.02	6.25	1.00	.46	.04
9KE021A	3.52	.01	1.65	3.10	.12	.04
9KE022A	7.04	.04	2.06	5.20	.18	.10
9KE023A	6.66	.02	3.15	3.60	.32	.05
9KE025A	7.55	.03	1.09	8.50	.08	.80
9KE025B	.29	.01	23.20	.10	.03	.01
9KE029A	3.79	<.01	6.27	.80	.50	.02
9KE032A	.23	.03	1.57	<.10	.02	.01
9KE032B	9.07	1.00	3.71	3.30	1.08	2.30
9KE032C	.22	.07	2.78	<.10	.03	.03
9KE033A	6.82	.96	2.48	4.70	.30	1.69
9KE034A	7.01	.27	1.72	4.20	.14	2.05
9KE035A	.34	.02	1.00	.10	.02	.02
9KE035B	4.07	.02	4.20	2.40	.22	.06
9KE035C	4.45	.02	5.34	2.30	.21	.06
9KE035D	1.78	.03	5.81	1.10	.09	.04
9KE042A	.81	6.61	3.69	<.10	2.63	.03
9KE043A	1.30	.03	1.81	.70	.12	.01
9KE048A	.78	.16	.76	.40	.13	.01
9KE052A	.39	.52	.33	.10	.07	.01
9KE052B	2.02	.06	.88	1.10	.50	.01
9KE055A	5.85	.05	5.22	2.10	.73	.07
9KE056A	4.70	.30	3.94	1.80	.52	.07

Sample	P %-S	TI %-S	MN PPM-S	AG PPM-S	BA PPM-S
8KE024A	.24	.55	900.00	<4.00	2000.00
8KE038A	.01	.11	28.00	<4.00	290.00
8KE038B	.01	.01	14.00	<4.00	50.00
8KE043A	.03	<.01	34.00	34.00	22.00
8KE043B	.03	<.01	24.00	670.00	370.00
8KE045A	.01	.06	320.00	<4.00	320.00
8KE045B	.08	.12	360.00	<4.00	610.00
8KE048A	.10	.38	550.00	<4.00	1500.00
8KE049A	.11	.37	640.00	<4.00	1400.00
9KE001A	<.01	.05	52.00	7.00	21.00
9KE001B	.02	.16	135.00	<4.00	128.00
9KE002A	<.01	<.01	189.00	31.00	3.00
9KE002B	.01	.12	521.00	<4.00	54.00
9KE007A	<.01	.02	32.00	<4.00	158.00
9KE009A	.02	.06	197.00	<4.00	102.00
9KE012A	.03	.19	315.00	<4.00	245.00
9KE013A	.08	.21	492.00	<4.00	254.00
9KE014A	.02	.08	215.00	<4.00	153.00
9KE015A	.04	.19	293.00	<4.00	245.00
9KE015B	.01	.12	256.00	<4.00	125.00
9KE015C	.02	.04	128.00	<4.00	43.00
9KE020A	<.01	.06	488.00	9.00	51.00
9KE020B	<.01	.06	281.00	14.00	93.00
9KE021A	.01	.10	201.00	<4.00	696.00
9KE022A	.12	.24	259.00	<4.00	1270.00
9KE023A	.04	.21	27.00	<4.00	391.00
9KE025A	.02	.07	28.00	<4.00	980.00
9KE025B	<.01	.02	512.00	464.00	13.00
9KE029A	.01	.15	262.00	<4.00	207.00
9KE032A	.03	<.01	43.00	611.00	76.00
9KE032B	.04	.47	251.00	<4.00	1180.00
9KE032C	.01	<.01	162.00	415.00	168.00
9KE033A	.04	.26	261.00	<4.00	617.00
9KE034A	.02	.12	85.00	<4.00	520.00
9KE035A	.01	<.01	26.00	<4.00	25.00
9KE035B	.05	.18	43.00	<4.00	357.00
9KE035C	.09	.16	22.00	<4.00	293.00
9KE035D	.07	.07	39.00	<4.00	150.00
9KE042A	.05	.02	4510.00	27.00	585.00
9KE043A	.03	.03	41.00	385.00	202.00
9KE048A	.07	.03	61.00	<4.00	42.00
9KE052A	.06	.01	61.00	<4.00	82.00
9KE052B	.01	.10	83.00	<4.00	118.00
9KE055A	.03	.12	383.00	<4.00	143.00
9KE056A	.06	.11	433.00	<4.00	110.00

Sample	BE PPM-S	BI PPM-S	CD PPM-S	CE PPM-S	CO PPM-S	CR PPM-S
8KE024A	3.00	<20.00	<4.00	99.00	28.00	8.00
8KE038A	3.00	<20.00	<4.00	14.00	<2.00	20.00
8KE038B	6.00	<20.00	<4.00	<8.00	<2.00	4.00
8KE043A	7.00	<20.00	<4.00	<8.00	31.00	6.00
8KE043B	<2.00	<20.00	48.00	<8.00	2.00	11.00
8KE045A	<2.00	<20.00	<4.00	18.00	9.00	17.00
8KE045B	<2.00	<20.00	<4.00	33.00	31.00	220.00
8KE048A	3.00	<20.00	<4.00	160.00	17.00	40.00
8KE049A	2.00	<20.00	<4.00	100.00	16.00	19.00
9KE001A	<2.00	<20.00	<4.00	<8.00	533.00	15.00
9KE001B	<2.00	<20.00	<4.00	41.00	55.00	28.00
9KE002A	<2.00	<20.00	<4.00	<8.00	450.00	2.00
9KE002B	<2.00	<20.00	<4.00	29.00	72.00	33.00
9KE007A	<2.00	<20.00	<4.00	14.00	<2.00	7.00
9KE009A	<2.00	<20.00	<4.00	34.00	36.00	24.00
9KE012A	2.00	<20.00	<4.00	39.00	10.00	36.00
9KE013A	<2.00	<20.00	<4.00	54.00	10.00	36.00
9KE014A	<2.00	<20.00	<4.00	37.00	8.00	18.00
9KE015A	<2.00	<20.00	<4.00	68.00	8.00	28.00
9KE015B	<2.00	<20.00	<4.00	43.00	7.00	19.00
9KE015C	<2.00	<20.00	<4.00	18.00	3.00	9.00
9KE020A	<2.00	<20.00	<4.00	<8.00	3.00	12.00
9KE020B	<2.00	<20.00	<4.00	41.00	13.00	11.00
9KE021A	<2.00	<20.00	<4.00	61.00	4.00	27.00
9KE022A	3.00	<20.00	<4.00	127.00	5.00	24.00
9KE023A	4.00	<20.00	<4.00	118.00	3.00	39.00
9KE025A	<2.00	<20.00	<4.00	158.00	<2.00	4.00
9KE025B	<2.00	1070.00	<4.00	<8.00	24.00	10.00
9KE029A	<2.00	<20.00	<4.00	<8.00	6.00	28.00
9KE032A	<2.00	<20.00	5.00	<8.00	<2.00	3.00
9KE032B	3.00	<20.00	<4.00	49.00	8.00	111.00
9KE032C	<2.00	<20.00	6.00	<8.00	2.00	5.00
9KE033A	3.00	<20.00	<4.00	114.00	6.00	13.00
9KE034A	4.00	<20.00	<4.00	65.00	3.00	8.00
9KE035A	5.00	<20.00	<4.00	<8.00	<2.00	3.00
9KE035B	4.00	<20.00	<4.00	37.00	<2.00	29.00
9KE035C	3.00	<20.00	<4.00	46.00	<2.00	28.00
9KE035D	4.00	<20.00	<4.00	17.00	<2.00	17.00
9KE042A	<2.00	60.00	<4.00	19.00	7.00	4.00
9KE043A	<2.00	230.00	13.00	<8.00	<2.00	9.00
9KE048A	3.00	<20.00	<4.00	<8.00	<2.00	30.00
9KE052A	2.00	<20.00	<4.00	<8.00	3.00	177.00
9KE052B	4.00	<20.00	<4.00	20.00	2.00	45.00
9KE055A	<2.00	<20.00	<4.00	26.00	12.00	41.00
9KE056A	<2.00	<20.00	<4.00	58.00	10.00	29.00

Sample	CU PPM-S	EU PPM-S	GA PPM-S	HO PPM-S	LA PPM-S	LI PPM-S
8KE024A	64.00	<4.00	18.00	<8.00	57.00	58.00
8KE038A	4.00	<4.00	9.00	<8.00	10.00	87.00
8KE038B	5.00	<4.00	<8.00	<8.00	4.00	96.00
8KE043A	600.00	<4.00	<8.00	<8.00	<4.00	12.00
8KE043B	13000.00	<4.00	<8.00	<8.00	<4.00	18.00
8KE045A	4200.00	<4.00	<8.00	<8.00	9.00	7.00
8KE045B	13000.00	<4.00	16.00	<8.00	16.00	37.00
8KE048A	92.00	<4.00	20.00	<8.00	96.00	27.00
8KE049A	10.00	<4.00	19.00	<8.00	60.00	20.00
9KE001A	79000.00	<4.00	<8.00	<8.00	<4.00	<4.00
9KE001B	12500.00	<4.00	9.00	<8.00	20.00	9.00
9KE002A	307000.00	<4.00	<8.00	<8.00	<4.00	<4.00
9KE002B	207.00	<4.00	9.00	<8.00	13.00	12.00
9KE007A	86.00	<4.00	<8.00	<8.00	10.00	<4.00
9KE009A	17.00	<4.00	10.00	<8.00	18.00	19.00
9KE012A	610.00	<4.00	12.00	<8.00	18.00	14.00
9KE013A	331.00	<4.00	14.00	<8.00	25.00	16.00
9KE014A	369.00	<4.00	11.00	<8.00	18.00	14.00
9KE015A	2600.00	<4.00	11.00	<8.00	30.00	20.00
9KE015B	110.00	<4.00	8.00	<8.00	20.00	18.00
9KE015C	1640.00	<4.00	<8.00	<8.00	10.00	5.00
9KE020A	92.00	<4.00	13.00	<8.00	<4.00	10.00
9KE020B	8490.00	<4.00	16.00	<8.00	16.00	10.00
9KE021A	19.00	<4.00	9.00	<8.00	30.00	29.00
9KE022A	31.00	<4.00	19.00	<8.00	72.00	33.00
9KE023A	6.00	<4.00	21.00	<8.00	53.00	26.00
9KE025A	5.00	<4.00	26.00	<8.00	96.00	7.00
9KE025B	146000.00	<4.00	<8.00	<8.00	<4.00	<4.00
9KE029A	10000.00	<4.00	14.00	<8.00	<4.00	12.00
9KE032A	1530.00	<4.00	<8.00	<8.00	<4.00	7.00
9KE032B	15.00	<4.00	24.00	<8.00	25.00	13.00
9KE032C	531.00	<4.00	<8.00	<8.00	<4.00	<4.00
9KE033A	23.00	<4.00	18.00	<8.00	53.00	27.00
9KE034A	4.00	<4.00	18.00	<8.00	30.00	12.00
9KE035A	6.00	<4.00	<8.00	<8.00	<4.00	120.00
9KE035B	1.00	<4.00	13.00	<8.00	20.00	69.00
9KE035C	20.00	<4.00	12.00	<8.00	22.00	65.00
9KE035D	45.00	<4.00	<8.00	<8.00	9.00	110.00
9KE042A	4120.00	<4.00	<8.00	<8.00	14.00	5.00
9KE043A	10800.00	<4.00	<8.00	<8.00	5.00	8.00
9KE048A	160.00	<4.00	<8.00	<8.00	<4.00	38.00
9KE052A	15.00	<4.00	<8.00	<8.00	4.00	39.00
9KE052B	46.00	<4.00	8.00	<8.00	14.00	19.00
9KE055A	396.00	<4.00	14.00	<8.00	11.00	16.00
9KE056A	680.00	<4.00	11.00	<8.00	28.00	14.00

Sample	MO PPM-S	NB PPM-S	ND PPM-S	NI PPM-S	PB PPM-S	SC PPM-S
8KE024A	<4.00	13.00	49.00	11.00	14.00	17.00
8KE038A	<4.00	<8.00	<8.00	<4.00	<8.00	4.00
8KE038B	<4.00	<8.00	<8.00	<4.00	<8.00	<4.00
8KE043A	6.00	<8.00	<8.00	210.00	1400.00	<4.00
8KE043B	<4.00	<8.00	<8.00	14.00	140000.00	<4.00
8KE045	<4.00	<8.00	11.00	15.00	230.00	<4.00
8KE045B	<4.00	<8.00	27.00	130.00	43.00	13.00
8KE048A	<4.00	42.00	63.00	18.00	66.00	9.00
8KE049A	<4.00	15.00	40.00	9.00	30.00	9.00
9KE001A	<4.00	14.00	<8.00	17.00	58.00	<4.00
9KE001B	<4.00	8.00	18.00	8.00	45.00	4.00
9KE002A	<4.00	54.00	<8.00	43.00	145.00	<4.00
9KE002B	<4.00	<8.00	16.00	21.00	12.00	4.00
9KE007A	<4.00	<8.00	8.00	<4.00	<8.00	<4.00
9KE009A	<4.00	<8.00	17.00	11.00	<8.00	4.00
9KE012A	<4.00	<8.00	19.00	15.00	<8.00	7.00
9KE013A	<4.00	<8.00	22.00	14.00	<8.00	6.00
9KE014A	<4.00	<8.00	14.00	7.00	<8.00	<4.00
9KE015A	<4.00	<8.00	27.00	6.00	<8.00	<4.00
9KE015B	<4.00	<8.00	19.00	7.00	<8.00	<4.00
9KE015C	<4.00	<8.00	12.00	<4.00	13.00	<4.00
9KE020A	<4.00	<8.00	<8.00	5.00	5230.00	<4.00
9KE020B	<4.00	<8.00	15.00	10.00	791.00	<4.00
9KE021A	<4.00	<8.00	30.00	10.00	<8.00	4.00
9KE022A	<4.00	<8.00	58.00	6.00	1030.00	10.00
9KE023A	<4.00	<8.00	54.00	4.00	10.00	13.00
9KE025A	<4.00	32.00	68.00	<4.00	71.00	<4.00
9KE025B	5.00	27.00	<8.00	76.00	36400.00	<4.00
9KE029A	<4.00	<8.00	<8.00	12.00	32.00	<4.00
9KE032A	<4.00	<8.00	<8.00	<4.00	25300.00	<4.00
9KE032B	<4.00	11.00	23.00	33.00	16.00	21.00
9KE032C	<4.00	<8.00	<8.00	7.00	5130.00	<4.00
9KE033A	<4.00	9.00	53.00	7.00	73.00	8.00
9KE034A	<4.00	<8.00	32.00	<4.00	19.00	5.00
9KE035A	<4.00	<8.00	<8.00	<4.00	8.00	<4.00
9KE035B	<4.00	<8.00	17.00	<4.00	11.00	6.00
9KE035C	<4.00	<8.00	21.00	<4.00	21.00	5.00
9KE035D	<4.00	<8.00	10.00	<4.00	13.00	<4.00
9KE042A	<4.00	<8.00	17.00	<4.00	9.00	7.00
9KE043A	8.00	<8.00	<8.00	<4.00	62000.00	<4.00
9KE048A	<4.00	<8.00	<8.00	6.00	2740.00	<4.00
9KE052A	<4.00	<8.00	<8.00	28.00	90.00	<4.00
9KE052B	4.00	<8.00	15.00	63.00	40.00	<4.00
9KE055A	<4.00	<8.00	12.00	14.00	<8.00	7.00
9KE056A	<4.00	<8.00	27.00	17.00	<8.00	6.00

Sample	SN PPM-S	SR PPM-S	TH PPM-S	V PPM-S	Y PPM-S	YB PPM-S
8KE024A	<20.00	800.00	11.00	160.00	21.00	2.00
8KE038A	<20.00	15.00	<8.00	23.00	4.00	<2.00
8KE038B	<20.00	10.00	<8.00	<4.00	<4.00	<2.00
8KE043A	<20.00	8.00	<8.00	60.00	<4.00	<2.00
8KE043B	<20.00	110.00	<8.00	6.00	<4.00	<2.00
8KE045A	<20.00	10.00	<8.00	20.00	<4.00	<2.00
8KE045B	<20.00	17.00	<8.00	76.00	5.00	<2.00
8KE048A	<20.00	500.00	44.00	74.00	20.00	2.00
8KE049A	<20.00	670.00	<8.00	74.00	21.00	3.00
9KE001A	20.00	7.00	<8.00	17.00	<4.00	<2.00
9KE001B	30.00	20.00	<8.00	26.00	<4.00	<2.00
9KE002A	150.00	<4.00	<8.00	<4.00	<4.00	<2.00
9KE002B	<20.00	4.00	9.00	25.00	5.00	<2.00
9KE007A	<20.00	6.00	<8.00	5.00	<4.00	<2.00
9KE009A	<20.00	12.00	<8.00	23.00	6.00	<2.00
9KE012A	<20.00	20.00	<8.00	42.00	5.00	<2.00
9KE013A	<20.00	30.00	8.00	35.00	8.00	<2.00
9KE014A	<20.00	8.00	<8.00	20.00	<4.00	<2.00
9KE015A	<20.00	15.00	14.00	23.00	4.00	<2.00
9KE015B	<20.00	6.00	9.00	19.00	4.00	<2.00
9KE015C	<20.00	4.00	<8.00	7.00	<4.00	<2.00
9KE020A	<20.00	<4.00	<8.00	8.00	<4.00	<2.00
9KE020B	<20.00	12.00	<8.00	9.00	<4.00	<2.00
9KE021A	<20.00	32.00	<8.00	30.00	6.00	<2.00
9KE022A	<20.00	594.00	18.00	49.00	24.00	2.00
9KE023A	<20.00	21.00	25.00	64.00	12.00	<2.00
9KE025A	<20.00	86.00	35.00	6.00	20.00	<2.00
9KE025B	<20.00	6.00	<8.00	10.00	<4.00	<2.00
9KE029A	<20.00	6.00	<8.00	24.00	6.00	<2.00
9KE032A	<20.00	51.00	<8.00	<4.00	<4.00	<2.00
9KE032B	<20.00	245.00	13.00	113.00	13.00	2.00
9KE032C	<20.00	13.00	<8.00	122.00	<4.00	<2.00
9KE033A	<20.00	71.00	28.00	28.00	68.00	8.00
9KE034A	<20.00	54.00	23.00	14.00	36.00	4.00
9KE035A	<20.00	7.00	<8.00	<4.00	<4.00	<2.00
9KE035B	<20.00	16.00	<8.00	30.00	7.00	<2.00
9KE035C	<20.00	20.00	11.00	28.00	6.00	<2.00
9KE035D	<20.00	13.00	<8.00	15.00	<4.00	<2.00
9KE042A	<20.00	115.00	<8.00	8.00	78.00	9.00
9KE043A	<20.00	10.00	<8.00	6.00	<4.00	<2.00
9KE048A	<20.00	6.00	<8.00	338.00	<4.00	<2.00
9KE052A	<20.00	16.00	<8.00	16.00	5.00	<2.00
9KE052B	<20.00	22.00	<8.00	1350.00	12.00	<2.00
9KE055A	<20.00	9.00	<8.00	41.00	<4.00	<2.00
9KE056A	<20.00	16.00	<8.00	34.00	5.00	<2.00

Sample	ZN PPM-S	B PPM-S	ZR PPM-S	AS PPM	SE PPM	AU PPM
8KE024A	73.00	40.00	227.00	5.90	.20	.002
8KE038A	8.00	30.00	115.00	--	.10	2.050
8KE038B	<4.00	<20.00	13.00	--	<.10	1.050
8KE043A	1300.00	50.00	14.00	--	2.00	.006
8KE043B	9000.00	<20.00	<8.00	37.00	9.00	.250
8KE045A	9.00	30.00	158.00	17.00	.10	1.250
8KE045B	30.00	30.00	57.00	4.10	2.00	.100
8KE048A	56.00	20.00	326.00	4.30	<.10	<.002
8KE049A	61.00	20.00	210.00	3.10	<.10	<.002
9KE001A	26.00	20.00	49.00	100.00	33.00	.100
9KE001B	43.00	30.00	234.00	51.00	12.00	.034
9KE002A	415.00	<20.00	9.00	3.80	120.00	.012
9KE002B	17.00	<20.00	178.00	1.70	.40	<.002
9KE007A	20.00	<20.00	168.00	1.50	<.10	<.002
9KE009A	38.00	20.00	91.00	1.80	.10	<.002
9KE012A	27.00	20.00	179.00	.80	<.10	<.002
9KE013A	37.00	20.00	191.00	1.00	<.10	<.002
9KE014A	26.00	20.00	102.00	1.00	.10	.004
9KE015A	29.00	30.00	368.00	1.60	<.10	<.002
9KE015B	26.00	30.00	235.00	.80	<.10	<.002
9KE015C	13.00	<20.00	32.00	2.00	1.00	.250
9KE020A	41.00	<20.00	44.00	.40	<.10	.002
9KE020B	66.00	30.00	83.00	14.00	3.80	.020
9KE021A	42.00	30.00	98.00	280.00	<.10	1.300
9KE022A	46.00	100.00	280.00	280.00	<.10	.100
9KE023A	23.00	60.00	375.00	1800.00	1.20	1.300
9KE025A	8.00	<20.00	329.00	6.00	<.10	.600
9KE025B	101.00	<20.00	13.00	2000.00	1.10	.250
9KE029A	17.00	<20.00	123.00	3.00	.70	.010
9KE032A	112.00	<20.00	<8.00	61.00	<.10	.300
9KE032B	27.00	<20.00	265.00	.80	<.10	<.002
9KE032C	142.00	<20.00	<8.00	20.00	<.10	13.500
9KE033A	26.00	<20.00	329.00	1.10	<.10	<.002
9KE034A	12.00	<20.00	133.00	1.10	<.10	.002
9KE035A	<4.00	<20.00	<8.00	1400.00	<.10	1.900
9KE035B	15.00	30.00	114.00	790.00	<.10	2.700
9KE035C	17.00	30.00	156.00	710.00	<.10	.550
9KE035D	9.00	<20.00	52.00	4000.00	<.10	.600
9KE042A	6.00	<20.00	16.00	2.80	.90	.300
9KE043A	237.00	<20.00	24.00	220.00	11.00	60.900
9KE048A	651.00	20.00	11.00	86.00	<.10	.002
9KE052A	43.00	<20.00	<8.00	14.00	<.10	.004
9KE052B	67.00	40.00	29.00	19.00	.70	<.002
9KE055A	30.00	30.00	135.00	1.50	<.10	<.002
9KE056A	45.00	30.00	116.00	2.10	<.10	<.002

Sample	N Latitude	W Longitude
8KE024A	44 32 46	113 35 51
8KE038A	45 01 18	114 18 51
8KE038B	45 01 18	114 18 51
8KE043A	44 54 04	113 54 00
8KE043B	44 54 04	113 54 00
8KE045A	44 47 05	113 52 16
8KE045B	44 47 05	113 52 16
8KE048A	44 36 22	113 32 46
8KE049A	44 47 15	113 25 14
9KE001A	45 01 00	113 49 16
9KE001B	45 01 00	113 49 16
9KE002A	45 00 46	113 49 32
9KE002B	45 00 46	113 49 32
9KE007A	44 58 47	113 54 10
9KE009A	44 57 30	113 50 47
9KE012A	44 59 23	113 52 17
9KE013A	44 59 22	113 52 17
9KE014A	44 59 21	113 52 18
9KE015A	44 59 17	113 52 18
9KE015B	44 59 17	113 52 18
9KE015C	44 59 17	113 52 18
9KE020A	44 57 12	114 00 09
9KE020B	44 57 12	114 00 09
9KE021A	45 13 32	114 06 40
9KE022A	45 13 38	114 06 39
9KE023A	45 13 47	114 06 39
9KE025A	45 14 03	114 12 35
9KE025B	45 14 03	114 12 35
9KE029A	45 04 26	113 51 19
9KE032A	45 11 41	113 57 10
9KE032B	45 11 41	113 57 10
9KE032C	45 11 41	113 57 10
9KE033A	45 14 21	114 01 00
9KE034A	45 15 23	113 57 26
9KE035A	45 01 04	114 19 46
9KE035B	45 01 04	114 19 46
9KE035C	45 01 04	114 19 46
9KE035D	45 01 04	114 19 46
9KE042A	45 20 09	113 49 19
9KE043A	45 20 10	113 49 50
9KE048A	44 53 26	113 51 58
9KE052A	44 53 57	113 52 36
9KE052B	44 53 57	113 52 36
9KE055A	44 59 13	113 52 06
9KE056A	44 59 08	113 52 12

Sample	AL %-S	CA %-S	FE %-S	K %-S	MG %-S	NA %-S
9KE056B	3.12	.02	2.37	1.20	.29	.03
9KE057A	2.94	.04	3.98	.80	.54	.03
9KE058A	.79	<.01	.81	.40	.05	.02
9KE058B	3.03	.01	1.97	1.20	.39	.04
9KE059A	2.69	1.22	9.76	1.50	.35	.02
9KE063A	3.88	.67	3.05	2.00	2.21	.51
9KE063B	5.08	.67	1.80	2.10	1.47	1.85
9KE064A	3.11	.11	.80	1.20	.29	.85
9KE064B	4.15	.17	.72	1.80	.93	1.07
9KE065A	4.38	.76	1.73	2.60	.55	.09
9KE074A	3.45	.01	12.30	4.10	.04	.17
9KE089A	.98	.04	.68	.50	.04	.02
9KE089B	1.53	<.01	.25	.80	.05	.03
9KE102A	.75	.57	.99	.50	.35	.01
9KE107A	1.34	.09	10.20	.40	.05	.01
9KE108A	8.90	.83	4.10	5.40	1.10	2.52
9KE117A	8.89	.05	7.22	5.60	.79	.05
9KE118A	5.84	.01	7.61	2.90	.32	.05
9KE119A	3.93	.05	10.70	3.50	.14	.06
9KE120A	3.45	.01	7.63	.90	.08	.02
9KE121A	.38	.01	5.10	<.10	.01	<.01
9KE121B	3.31	.02	5.64	.70	.09	.01
9KE123A	5.20	.10	2.39	3.60	.22	.12
9KE123B	2.15	.04	8.40	.70	.08	.01
9KE123C	5.87	.13	1.16	3.40	.41	.34
9KE124A	7.04	.18	1.36	2.50	.30	1.87
9KE125A	7.65	.15	5.51	3.70	.38	.52
9KE128A	.91	.82	.80	.50	.22	.01
9KE132A	4.79	.09	1.63	2.80	.33	.99

Sample	P %-S	TI %-S	MN PPM-S	AG PPM-S	BA PPM-S
9KE056B	<.01	.06	202.00	<4.00	64.00
9KE057A	.01	.04	304.00	<4.00	59.00
9KE058A	<.01	.02	33.00	<4.00	25.00
9KE058B	<.01	.04	93.00	<4.00	60.00
9KE059A	.01	.11	923.00	<4.00	257.00
9KE063A	.03	.16	306.00	<4.00	307.00
9KE063B	.05	.20	154.00	<4.00	571.00
9KE064A	.02	.05	75.00	<4.00	245.00
9KE064B	.04	.10	398.00	<4.00	851.00
9KE065A	.04	.11	1180.00	<4.00	402.00
9KE074A	.08	.03	62.00	<4.00	640.00
9KE089A	.01	.01	32.00	<4.00	77.00
9KE089B	<.01	.02	20.00	<4.00	194.00
9KE102A	.09	.03	62.00	<4.00	258.00
9KE107A	.05	.03	1050.00	13.00	48.00
9KE108A	.05	.43	712.00	<4.00	1170.00
9KE117A	.03	.38	845.00	<4.00	966.00
9KE118A	.06	.12	82.00	<4.00	244.00
9KE119A	.09	.08	647.00	31.00	379.00
9KE120A	.03	.11	177.00	<4.00	218.00
9KE121A	.06	.02	23.00	15.00	3760.00
9KE121B	.05	.12	67.00	<4.00	206.00
9KE123A	.05	.20	134.00	7.00	257.00
9KE123B	.01	.03	445.00	189.00	30.00
9KE123C	.05	.27	64.00	<4.00	406.00
9KE124A	.02	.13	59.00	<4.00	273.00
9KE125A	.06	.31	380.00	<4.00	517.00
9KE128A	.12	.03	62.00	<4.00	83.00
9KE132A	.03	.17	296.00	<4.00	611.00

Sample	BE PPM-S	BI PPM-S	CD PPM-S	CE PPM-S	CO PPM-S	CR PPM-S
9KE056B	<2.00	<20.00	<4.00	19.00	5.00	12.00
9KE057A	<2.00	<20.00	<4.00	45.00	6.00	21.00
9KE058A	<2.00	<20.00	<4.00	66.00	<2.00	9.00
9KE058B	<2.00	<20.00	<4.00	38.00	4.00	14.00
9KE059A	3.00	20.00	<4.00	<8.00	5.00	33.00
9KE063A	<2.00	<20.00	<4.00	40.00	24.00	23.00
9KE063B	<2.00	<20.00	<4.00	55.00	13.00	42.00
9KE064A	<2.00	<20.00	<4.00	14.00	2.00	15.00
9KE064B	<2.00	<20.00	7.00	47.00	25.00	27.00
9KE065A	3.00	<20.00	<4.00	38.00	2.00	31.00
9KE074A	<2.00	140.00	<4.00	66.00	12.00	2.00
9KE089A	<2.00	<20.00	<4.00	13.00	<2.00	7.00
9KE089B	<2.00	<20.00	<4.00	15.00	3.00	2010.00
9KE102A	<2.00	<20.00	<4.00	<8.00	3.00	23.00
9KE107A	<2.00	70.00	<4.00	198.00	281.00	9.00
9KE108A	3.00	<20.00	<4.00	67.00	17.00	74.00
9KE117A	3.00	<20.00	<4.00	41.00	16.00	86.00
9KE118A	3.00	<20.00	<4.00	19.00	16.00	49.00
9KE119A	4.00	<20.00	<4.00	74.00	16.00	23.00
9KE120A	<2.00	<20.00	<4.00	11.00	163.00	23.00
9KE121A	<2.00	<20.00	<4.00	<8.00	11.00	4.00
9KE121B	<2.00	<20.00	<4.00	9.00	25.00	21.00
9KE123A	2.00	<20.00	<4.00	89.00	2.00	23.00
9KE123B	4.00	240.00	<4.00	12.00	10.00	6.00
9KE123C	3.00	<20.00	<4.00	96.00	3.00	31.00
9KE124A	3.00	<20.00	<4.00	47.00	2.00	17.00
9KE125A	3.00	<20.00	<4.00	52.00	8.00	61.00
9KE128A	<2.00	<20.00	<4.00	<8.00	4.00	25.00
9KE132A	<2.00	<20.00	<4.00	76.00	5.00	31.00

Sample	CU PPM-S	EU PPM-S	GA PPM-S	HO PPM-S	LA PPM-S	LI PPM-S
9KE056B	54.00	<4.00	<8.00	<8.00	10.00	8.00
9KE057A	1590.00	<4.00	<8.00	<8.00	21.00	11.00
9KE058A	11300.00	<4.00	<8.00	<8.00	54.00	<4.00
9KE058B	38.00	<4.00	<8.00	<8.00	17.00	8.00
9KE059A	32.00	<4.00	8.00	<8.00	4.00	37.00
9KE063A	36.00	<4.00	11.00	<8.00	20.00	28.00
9KE063B	27.00	<4.00	12.00	<8.00	28.00	18.00
9KE064A	102.00	<4.00	<8.00	<8.00	9.00	7.00
9KE064B	29100.00	<4.00	<8.00	<8.00	24.00	15.00
9KE065A	298.00	<4.00	9.00	<8.00	19.00	7.00
9KE074A	340.00	<4.00	15.00	<8.00	36.00	4.00
9KE089A	32.00	<4.00	<8.00	<8.00	7.00	<4.00
9KE089B	11.00	<4.00	<8.00	<8.00	7.00	<4.00
9KE102A	19.00	<4.00	<8.00	<8.00	<4.00	34.00
9KE107A	41000.00	13.00	<8.00	12.00	49.00	46.00
9KE108A	80.00	<4.00	24.00	<8.00	38.00	66.00
9KE117A	1050.00	<4.00	24.00	<8.00	19.00	21.00
9KE118A	86.00	<4.00	14.00	<8.00	11.00	27.00
9KE119A	1440.00	<4.00	11.00	<8.00	34.00	5.00
9KE120A	6860.00	<4.00	11.00	<8.00	7.00	18.00
9KE121A	57500.00	<4.00	<8.00	<8.00	<4.00	<4.00
9KE121B	8460.00	<4.00	11.00	<8.00	4.00	16.00
9KE123A	100.00	<4.00	16.00	<8.00	42.00	18.00
9KE123B	2200.00	<4.00	9.00	<8.00	8.00	60.00
9KE123C	36.00	<4.00	14.00	<8.00	50.00	24.00
9KE124A	10.00	<4.00	22.00	<8.00	22.00	15.00
9KE125A	156.00	<4.00	20.00	<8.00	25.00	21.00
9KE128A	22.00	<4.00	<8.00	<8.00	5.00	90.00
9KE132A	8.00	<4.00	10.00	<8.00	35.00	12.00

Sample	MO PPM-S	NB PPM-S	ND PPM-S	NI PPM-S	PB PPM-S	SC PPM-S
9KE056B	<4.00	<8.00	<8.00	6.00	<8.00	<4.00
9KE057A	<4.00	<8.00	17.00	5.00	<8.00	<4.00
9KE058A	<4.00	<8.00	17.00	<4.00	13.00	<4.00
9KE058B	<4.00	<8.00	13.00	6.00	<8.00	<4.00
9KE059A	<4.00	<8.00	<8.00	11.00	646.00	<4.00
9KE063A	<4.00	<8.00	22.00	18.00	<8.00	6.00
9KE063B	<4.00	<8.00	24.00	14.00	<8.00	7.00
9KE064A	<4.00	<8.00	<8.00	6.00	<8.00	<4.00
9KE064B	<4.00	11.00	20.00	15.00	23.00	5.00
9KE065A	<4.00	<8.00	19.00	<4.00	<8.00	5.00
9KE074A	18.00	22.00	28.00	<4.00	50.00	<4.00
9KE089A	<4.00	<8.00	<8.00	<4.00	21.00	<4.00
9KE089B	<4.00	<8.00	10.00	<4.00	9.00	<4.00
9KE102A	<4.00	<8.00	<8.00	15.00	225.00	<4.00
9KE107A	70.00	10.00	140.00	38.00	254.00	6.00
9KE108A	<4.00	15.00	39.00	29.00	102.00	15.00
9KE117A	<4.00	16.00	18.00	24.00	<8.00	15.00
9KE118A	70.00	9.00	10.00	18.00	44.00	8.00
9KE119A	4.00	<8.00	34.00	15.00	8940.00	5.00
9KE120A	<4.00	<8.00	9.00	24.00	42.00	<4.00
9KE121A	<4.00	14.00	<8.00	6.00	27.00	<4.00
9KE121B	<4.00	<8.00	<8.00	9.00	13.00	<4.00
9KE123A	<4.00	10.00	40.00	<4.00	6360.00	9.00
9KE123B	<4.00	<8.00	10.00	6.00	42000.00	6.00
9KE123C	<4.00	<8.00	46.00	8.00	474.00	13.00
9KE124A	<4.00	15.00	24.00	<4.00	15.00	5.00
9KE125A	<4.00	13.00	25.00	16.00	<8.00	13.00
9KE128A	<4.00	<8.00	<8.00	9.00	165.00	<4.00
9KE132A	<4.00	43.00	32.00	6.00	10.00	4.00

Sample	SN PPM-S	SR PPM-S	TH PPM-S	V PPM-S	Y PPM-S	YB PPM-S
9KE056B	<20.00	6.00	<8.00	12.00	<4.00	<2.00
9KE057A	<20.00	7.00	<8.00	17.00	<4.00	<2.00
9KE058A	<20.00	5.00	<8.00	6.00	<4.00	<2.00
9KE058B	<20.00	5.00	<8.00	13.00	<4.00	<2.00
9KE059A	<20.00	17.00	<8.00	143.00	<4.00	<2.00
9KE063A	<20.00	22.00	<8.00	36.00	12.00	<2.00
9KE063B	<20.00	58.00	<8.00	39.00	9.00	<2.00
9KE064A	<20.00	14.00	<8.00	17.00	<4.00	<2.00
9KE064B	<20.00	23.00	<8.00	29.00	9.00	<2.00
9KE065A	<20.00	12.00	<8.00	28.00	6.00	<2.00
9KE074A	<20.00	81.00	14.00	10.00	7.00	<2.00
9KE089A	<20.00	43.00	<8.00	13.00	<4.00	<2.00
9KE089B	<20.00	11.00	<8.00	17.00	<4.00	<2.00
9KE102A	<20.00	8.00	<8.00	13.00	<4.00	<2.00
9KE107A	<20.00	7.00	<8.00	13.00	285.00	21.00
9KE108A	<20.00	175.00	17.00	81.00	18.00	2.00
9KE117A	<20.00	13.00	12.00	76.00	<4.00	<2.00
9KE118A	<20.00	9.00	14.00	48.00	9.00	<2.00
9KE119A	<20.00	22.00	16.00	43.00	13.00	<2.00
9KE120A	<20.00	15.00	8.00	22.00	9.00	<2.00
9KE121A	<20.00	109.00	<8.00	9.00	5.00	<2.00
9KE121B	<20.00	35.00	<8.00	22.00	<4.00	<2.00
9KE123A	<20.00	10.00	17.00	41.00	17.00	<2.00
9KE123B	<20.00	10.00	13.00	13.00	8.00	<2.00
9KE123C	<20.00	29.00	27.00	62.00	22.00	2.00
9KE124A	<20.00	28.00	16.00	17.00	19.00	3.00
9KE125A	<20.00	33.00	13.00	67.00	9.00	<2.00
9KE128A	<20.00	11.00	<8.00	15.00	<4.00	<2.00
9KE132A	<20.00	26.00	11.00	24.00	4.00	<2.00

Sample	ZN PPM-S	B PPM-S	ZR PPM-S	AS PPM	SE PPM	AU PPM
9KE056B	21.00	20.00	80.00	1.00	<.10	<.002
9KE057A	22.00	20.00	88.00	1.30	<.10	.600
9KE058A	<4.00	<20.00	26.00	.60	1.20	.100
9KE058B	9.00	20.00	137.00	.40	<.10	.004
9KE059A	388.00	70.00	47.00	34.00	.90	.004
9KE063A	<4.00	<20.00	120.00	1.90	<.10	<.002
9KE063B	<4.00	50.00	206.00	.90	<.10	<.002
9KE064A	50.00	<20.00	114.00	11.00	<.10	<.002
9KE064B	810.00	70.00	211.00	3.20	<.10	.010
9KE065A	15.00	40.00	207.00	2.40	<.10	.002
9KE074A	25.00	<20.00	171.00	68.00	1.00	110.100
9KE089A	10.00	<20.00	58.00	3.20	<.10	37.100
9KE089B	1790.00	60.00	132.00	.40	<.10	.650
9KE102A	150.00	<20.00	56.00	37.00	<.10	.004
9KE107A	295.00	<20.00	31.00	980.00	7.80	1.450
9KE108A	359.00	30.00	232.00	4.50	<.10	<.002
9KE117A	68.00	50.00	189.00	5.20	.10	.008
9KE118A	119.00	20.00	298.00	56.00	.40	.006
9KE119A	2210.00	30.00	190.00	110.00	<.10	7.000
9KE120A	69.00	50.00	134.00	270.00	1.10	.050
9KE121A	28.00	<20.00	18.00	30.00	2.40	1.100
9KE121B	36.00	50.00	186.00	12.00	.40	.008
9KE123A	371.00	20.00	215.00	5.40	<.10	.008
9KE123B	766.00	<20.00	56.00	8.80	2.30	.550
9KE123C	224.00	30.00	359.00	1.50	<.10	<.002
9KE124A	7.00	20.00	331.00	.30	<.10	<.002
9KE125A	50.00	130.00	200.00	9.10	<.10	<.002
9KE128A	193.00	20.00	29.00	31.00	<.10	<.002
9KE132A	67.00	30.00	307.00	4.30	<.10	<.002

Sample	N Latitude	W Longitude
9KE056B	44 59 08	113 52 12
9KE057A	44 59 10	113 52 07
9KE058A	44 59 09	113 52 05
9KE058B	44 59 09	113 52 05
9KE059A	44 58 18	114 00 40
9KE063A	45 32 12	113 53 21
9KE063B	45 32 12	113 53 21
9KE064A	45 32 01	113 53 11
9KE064B	45 32 01	113 53 11
9KE065A	45 33 26	113 55 00
9KE074A	45 14 17	114 12 53
9KE089A	44 57 16	113 58 38
9KE089B	44 57 16	113 58 38
9KE102A	44 56 58	114 00 05
9KE107A	45 29 02	114 10 09
9KE108A	45 28 57	114 10 08
9KE117A	45 01 35	113 55 10
9KE118A	45 02 24	114 20 44
9KE119A	45 09 37	114 09 19
9KE120A	45 02 57	113 51 02
9KE121A	45 02 54	113 51 03
9KE121B	45 02 54	113 51 03
9KE123A	45 09 23	114 10 50
9KE123B	45 09 23	114 10 50
9KE123C	45 09 23	114 10 50
9KE124A	45 01 15	114 18 26
9KE125A	45 02 50	114 17 00
9KE128A	44 57 53	113 59 27
9KE132A	44 59 38	113 56 44