UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

Results and Statistical Summary from Analyses of Stream-Sediment and Heavy-Mineral-Concentrate Samples, Chignik and Sutwik Island Quadrangles, Alaska

By

David E. Detra, Elmo F. Cooley, Gordon W. Day,
Richard M. O'Leary, Carleen D. Holloway,
and M. Elizabeth Yount
U.S. Geological Survey

Open-File Report 78-345
1978

Contents

	Page
Introduction	1
Sample Collection and Methods of Preparation	2
Methods of Analysis	5
Explanation of Data	6
References Cited	18

Illustrations

		Page
Plate 1.	Map showing stream-sediment and heavy-mineral-concentrate sample sites, Chignik quadrangle, Alaska	
2.	Map showing stream-sediment and heavy-mineral-concentrate sample sites, Sutwik Island quadrangle, Alaska	
Figure 1.	Flow chart showing the stream-sediment and heavy-mineral-concentrate sample preparation procedure, as applied in the Chignik and Sutwik Island quadrangles, Alaska	4

Tables

Page

Table 1. Simple linear correlation coefficients between logarithmic values of the element concentration in 558 stream-sediment samples, Chignik and Sutwik Island quadrangles, Alaska---------- 7

2. Simple linear correlation coefficients between logarithmic values of the element concentration in 550 heavy-mineral-concentrate samples, Chignik and Sutwik Island quadrangles, Alaska--------- 8

3. Statistical summary of the analytical results for stream-sediment and heavy-mineral-concentrate samples from the combined data sets of Sutwik Island and Chignik quadrangles, Alaska---------- 9

4. Statistical summary of the analytical results for stream-sediment and heavy-mineral-concentrate samples, Chignik quadrangle, Alaska---------- 11

5. Statistical summary of the analytical results for stream-sediment and heavy-mineral-concentrate samples, Sutwik Island quadrangle, Alaska---------- 13

6. Analytical Results:

Minus-80-mesh stream sediments,

Chignik quadrangle, Alaska---------- 19

Nonmagnetic heavy-mineral concentrates,

Chignik quadrangle, Alaska---------- 46

Page

Table 6. Analytical Results--Continued

Minus-80-mesh stream sediments,

Sutwik Island quadrangle, Alaska---------- 73

Nonmagnetic heavy-mineral concentrates,

Sutwik Island quadrangle, Alaska---------- 85

INTRODUCTION

A geochemical reconnaissance investigation was undertaken in the Chignik and Sutwik Island quadrangles, Alaska, during the 1977 field season. The investigation is one segment of the Alaska Mineral Resource Assessment Program, in which the mineral resource potential is evaluated for specific quadrangles. This report includes data for 558 minus-80-mesh (0.18 mm) stream-sediment and 550 heavy-mineral-concentrate samples (pls. 1 and 2), which were collected to aid in the mineral evaluation of these quadrangles. Statistical data compiled from the analytical results of minus-80-mesh (0.18 mm) stream sediments and heavy mineral concentrates are provided in tables 1-5. Analytical results of these two sample media are listed in table 6.

SAMPLE COLLECTION AND METHODS OF PREPARATION

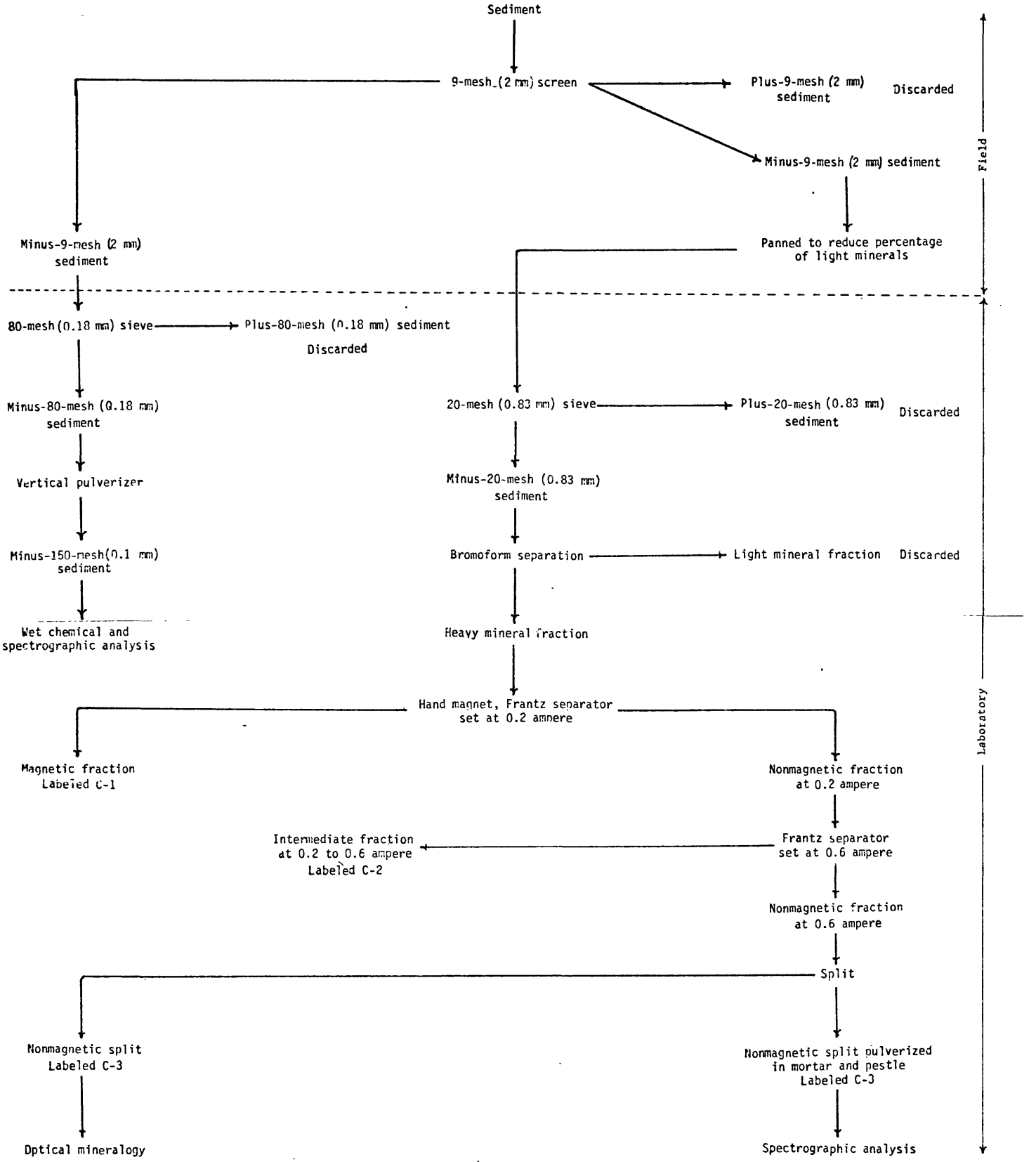
Geochemical sampling was completed during an 8-week field season by a helicopter-assisted U.S. Geological Survey team consisting of D. E. Detra, C. D. Holloway, and M. E. Yount.

Heavy-mineral-concentrate and stream-sediment samples were collected from the active channels of streams draining areas from 5 to 16 square kilometers. Stream-sediment samples consisted of several scoops of fine- to coarse-grained sediment, which were wet sieved through a 9-mesh (2 mm) stainless steel screen at the sample site. The 9-mesh (2 mm) stream sediment sample was oven dried and sieved through an 80-mesh (0.18 mm) stainless steel sieve. This minus-80-mesh fraction was then ground to minus-150-mesh (<0.1 mm) on ceramic plates in a vertical pulverizer and was retained for analysis (fig. 1).

The heavy-mineral concentrates collected at stream sites were initially wet sieved through a 9-mesh (2 mm) stainless steel screen and panned at the collection site to reduce the percentage of light minerals in the sample. The samples were oven dried and sieved through a 20-mesh (0.83 mm) sieve. The minus-20-mesh fraction was further separated with bromoform into two fractions--a light-mineral fraction consisting of minerals having a specific gravity of 2.86 or less, which was discarded, and a heavy-mineral fraction consisting of minerals having a specific gravity greater than 2.86. Magnetite and other magnetic minerals, primarily hematite and ilmenite, were removed from the heavy-mineral fraction with the use of a hand magnet and a Frantz[1/] isodynamic magnetic separator set at 0.2 ampere with forward and side slopes of 5 and 10 degrees, respectively. This magnetic fraction was labeled C-1. The remaining heavy-mineral fraction was again run through the Frantz isodynamic separator at a setting of 0.6 ampere with no change in slopes. The intermediate fraction having magnetic susceptibility between 0.2 and 0.6 ampere was retained and labeled C-2. The nonmagnetic fraction at the 0.6 ampere setting, which contained primarily zircon, apatite, and in some cases metal oxides and sulfides, was labeled C-3 and was retained for analysis. The nonmagnetic fraction (C-3) was split; one fraction was saved for mineralogical analysis, and the other was pulverized with a mortar and pestle and was retained for analysis by semiquantitative emission spectroscopy (fig. 1).

[1/] Use of trade names in this report is for descriptive purposes only and does not constitute endorsement by the U.S. Geological Survey.

Figure I.-- Flow chart showing the stream-sediment and heavy-mineral-concentrate sample preparation procedure, as applied in the Chignik, Sutwik Island quadrangles, Alaska.



METHODS OF ANALYSIS

Stream-sediment samples were analyzed using a six-step d.c. arc semiquantitative emission spectrographic method for the determination of iron, magnesium, calcium, titanium, manganese, silver, gold, arsenic, boron, barium, beryllium, bismuth, cadmium, cobalt, chromium, copper, lanthanum, molybdenum, niobium, nickel, lead, antimony, scandium, tin, strontium, vanadium, tungsten, yttrium, zinc, and zirconium, as described by Grimes and Marranzino (1968). Atomic absorption spectrophotometry was used to determine copper, lead, and zinc (Ward and others, 1969).

The C-3 fraction of the heavy-mineral-concentrate samples was analyzed with the emission spectrograph for determination of the same 30 elements as were analyzed for the stream-sediment samples. The method of analysis was as described by Grimes and Marranzino (1968), except that the following modification was made to eliminate the spectral interferences caused by high concentrations of iron. Five mg of prepared sample were mixed with 20 mg of pure graphite powder and 5 mg of pure Arkansas quartz. This mixture was packed into a 6.35-mm diameter, preformed graphite electrode, and burned in a d.c. arc for 135 seconds using a 1.5-m Wadsworth mounted grating spectrograph. The observed spectra from the 5-mg sample weight were compared visually to standard spectra (based on a 10-mg sample weight) using a 20X comparator. All values were therefore doubled. Results were reported as the approximate midpoints of geometric brackets whose boundaries are 1, 0.7, 0.5, 0.3, 0.2, 0.15, 0.1, etc. Doubled values occurring between midpoints were rounded to the higher midpoint (e.g. 20 ppm x 2 = 40 ppm, but reported as 50 ppm).

The six-step d.c. arc semiquantitative emission spectrographic method used for the analysis of stream-sediment and nonmagnetic heavy-mineral-concentrate samples provides repeatability within one reporting interval of the reported value approximately 83 percent of the time and within two reporting intervals of the reported value approximately 96 percent of the time (Motooka and Grimes, 1976).

The analyses were performed by E. F. Cooley, G. W. Day, R. M. O'Leary, J. T. Hurrell, and G. K. Hoffman.

EXPLANATION OF DATA

The data reported in the analytical listings were entered into the U.S. Geological Survey computer data storage system, RASS (Rock Analyses Storage System), retrieved, and analyzed statistically by S. K. McDanal, C. M. McDougal, and T. M. Billings using the U.S. Geological Survey STATPAC program (VanTrump and Miesch, 1977).

Tables 1 and 2 contain the simple linear correlation coefficients among logarithmic values of element concentrations in stream sediments and heavy-mineral-concentrates from the two quadrangles. The upper half of each table contains correlation coefficients, multiplied by 100; the lower half is the number of pairs of values used to compute coefficients.

Summarized statistics of stream-sediment and heavy-mineral-concentrate data are presented in table 3 for both quadrangles combined, in table 4 for the Chignik quadrangle, and in table 5 for the Sutwik Island quadrangle.

TABLE 1.--*Simple linear correlation coefficients between logarithmic values of the element concentration in 558 stream-sediment samples, Sutwik Island and Chignik quadrangles, Alaska.*

[Upper half of the table contains correlation coefficients, multiplied by 100; lower half is the number of pairs of values used to compute coefficients. Where number of pairs is less than 558, the bivariate frequency distribution was censored owing to limitations of the methods of analysis. * indicates correlation coefficient was not computed. Method of analysis is semiquantitative emission spectroscopy except where element heading is prefaced with AA, which denotes atomic absorption spectroscopy as the method.]

	Fe	Mg	Co	Ti	Mn	Ag	As	B	Ba	Be	Co	Cr	Cu	La	Mo	Ni	Pb	Sc	Sn	Sr	V	Y	Zn	Zr	AA-Cu	AA-Pb	AA-Zn	
Fe		40	10	17	48	-25	*	-14	-2	0	39	32	23	7	5	34	1	21	*	-16	55	23	3	6	6	0	0	Fe
Mg	558		48	26	14	-40	*	-19	-27	0	37	41	11	-22	-4	43	7	56	*	16	31	0	0	-18	-1	-7	-13	Mg
Ca	558	558		43	-22	-37	*	-37	-45	-5	43	28	-4	-25	-13	-2	13	52	*	50	41	-27	-10	-35	-9	-6	-19	Ca
Ti	558	548	548		-31	61	*	-19	-38	-28	50	33	-6	-31	-50	-1	4	64	*	30	46	-19	2	-7	-10	-2	3	Ti
Mn	558	558	558	548		-89	*	-3	30	-9	-24	-10	18	21	-37	16	13	-19	*	-29	3	51	7	17	7	7	10	Mn
Ag	5	5	5	5	5		*	6	-53	-100	-53	92	39	-61	*	53	34	56	*	*	41	-61	*	25	38	22	18	Ag
As	1	1	1	1	1	1		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	As
B	558	558	558	548	558	5	1		17	4	-25	-4	-2	-3	-21	9	9	-17	*	-26	-29	5	-1	17	0	-2	12	B
Ba	558	558	558	548	558	5	1	558		-1	-32	-18	-2	42	31	4	4	-41	*	-12	-31	42	-22	13	4	4	5	Ba
Be	86	86	86	81	86	2	0	86	86		36	-8	7	10	*	19	20	-10	*	-15	-10	10	*	0	9	1	3	Be
Co	558	558	558	548	558	5	1	558	558	86		41	12	8	-14	22	4	43	*	24	55	-8	23	-20	3	12	0	Co
Cr	558	558	558	548	558	5	1	558	558	86	558		9	-25	7	43	3	45	*	2	39	-20	5	0	0	1	6	Cr
Cu	558	558	558	548	558	5	1	558	558	86	558	558		-10	59	16	43	9	*	-12	4	7	84	6	89	29	22	Cu
La	534	534	534	524	534	5	1	534	534	85	534	534	534		7	-9	-11	-60	*	5	-5	57	-32	-13	-3	0	-17	La
Mo	17	17	17	17	17	2	1	17	17	3	17	17	17	17		-24	-11	-60	*	-40	2	-20	100	39	80	-4	-15	Mo
Ni	557	557	557	547	557	5	1	557	557	86	557	557	557	533	17		10	24	*	-16	11	13	28	3	4	0	8	Ni
Pb	537	537	537	527	537	5	1	537	537	86	537	537	537	513	17	536		10	*	-15	-10	10	83	9	29	65	43	Pb
Sc	558	558	558	548	558	5	1	558	558	86	558	558	558	534	17	557	537		*	23	39	-25	40	-6	-3	0	7	Sc
Sn	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	1	1	1		*	*	*	*	*	*	*	*	Sn
Sr	558	558	558	548	558	5	1	558	558	86	558	558	558	534	17	557	537	558	1		10	-8	-19	-29	-18	-9	-18	Sr
V	558	558	558	548	558	5	1	558	558	86	558	558	558	534	17	557	537	558	1	558		-11	-16	-10	-5	2	0	V
Y	557	557	557	547	557	5	1	557	557	86	557	557	557	534	17	557	536	557	1	557	557		-4	6	4	6	1	Y
Zn	23	23	23	22	23	1	1	23	23	3	23	23	23	21	2	22	22	23	0	23	23	23		38	81	79	58	Zn
Zr	558	558	558	548	558	5	1	558	558	86	558	558	558	534	17	557	537	558	1	558	558	557	23		6	2	13	Zr
AA-Cu	557	557	557	547	557	5	1	557	557	86	557	557	557	533	17	556	537	557	1	557	557	556	23	557		26	20	AA-Cu
AA-Pb	555	555	555	545	555	5	1	555	555	84	555	555	555	531	17	554	534	555	1	555	555	554	23	555	554		63	AA-Pb
AA-Zn	558	558	558	548	558	5	1	558	558	86	558	558	558	534	17	557	537	558	1	558	558	557	23	558	557	555		AA-Zn

TABLE 2.--*Simple linear correlation coefficients between logarithmic values of the element concentrations in 550 heavy-mineral-concentrate samples, Sutwik Island and Chignik quadrangles, Alaska.*

[Upper half of the table contains correlation coefficients, multiplied by 100; lower half is the number of pairs of values used to compute coefficients. Where number of pairs is less than 550, the bivariate frequency distribution was censored owing to limitations of the method of analysis. * indicates correlation coefficient was not computed. Computations are based on results determined by semiquantitative emission spectroscopy.]

	Fe	Mg	Ca	Ti	Mn	Ag	As	Au	B	Ba	Be	Bi	Co	Cr	Cu	La	Mo	Nb	Ni	Pb	Sb	Sc	Sn	Sr	V	W	Y	Zn	Zr	
Fe		15	-26	25	16	-10	-7	-8	12	19	-28	40	39	5	27	-6	-11	-14	40	-7	-100	16	-45	0	21	-11	-6	-10	-5	Fe
Mg	510		39	7	47	45	6	48	-12	-17	-19	-36	-13	84	-12	-27	5	-19	51	-6	100	65	-3	-19	12	-14	-34	-16	-8	Mg
Ca	517	543		-4	31	17	11	-44	3	-25	68	-14	-36	47	-22	12	-19	20	5	-9	-100	23	8	-17	-8	-20	21	-8	1	Ca
Ti	185	195	202		19	9	24	*	19	2	0	-100	0	7	12	14	-50	*	3	-9	*	18	100	-9	36	44	37	53	0	Ti
Mn	517	543	505	202		36	3	-11	12	-5	21	-18	-23	25	-10	7	-9	23	10	-10	100	37	19	-25	40	-16	13	21	-2	Mn
Ag	26	40	40	15	40		38	100	-11	11	*	99	-3	47	3	-7	-6	9	2	22	-100	39	-100	-3	14	55	-1	0	-35	Ag
As	21	26	26	9	26	7		*	-8	1	*	-14	-8	16	25	-36	-100	-41	-5	18	*	31	*	5	20	89	-9	82	100	As
Au	3	3	3	0	3	2	1		96	81	*	*	*	*	*	100	*	*	-86	*	*	100	*	50	100	*	50	*	*	Au
B	388	419	421	106	421	40	24	3		2	-8	-22	-3	-14	2	5	-15	-6	-3	-4	*	-3	47	-5	19	-22	18	-10	10	B
Ba	447	460	467	182	467	34	17	3	352		-25	19	6	-12	7	3	-17	0	-1	14	*	-2	-19	0	7	-19	0	-4	-7	Ba
Be	11	11	11	4	11	0	0	0	7	10		*	*	*	-32	-40	*	*	-21	*	*	92	*	*	43	*	-34	*	-100	Be
Bi	8	11	11	2	11	5	3	0	11	10	0		17	-37	84	15	*	-29	12	17	*	-23	*	9	16	-100	-2	*	*	Bi
Co	403	429	436	150	436	36	26	2	335	357	4	11		-8	47	-6	45	-23	28	20	*	-14	-27	-5	-8	52	-14	13	-4	Co
Cr	443	460	467	174	467	35	25	2	364	396	6	8	385		-11	-20	14	-24	51	-3	100	62	-17	-16	10	-27	-34	-16	-10	Cr
Cu	498	523	530	186	530	38	26	2	411	450	11	11	423	451		2	-15	-13	9	15	-100	1	-25	-6	13	5	2	24	4	Cu
La	389	407	407	77	407	27	20	3	345	336	6	10	320	350	393		-24	31	-9	-10	100	0	14	3	11	-24	48	-20	-20	La
Mo	22	26	26	11	26	5	2	0	25	20	1	2	22	26	25	18		-16	-12	3	*	18	-50	8	-6	67	-34	*	-46	Mo
Nb	237	248	248	2	248	16	13	1	224	202	4	8	207	209	245	241	11		-16	-10	*	-10	5	-8	16	-7	56	66	14	Nb
Ni	512	538	545	201	545	39	26	3	418	464	10	11	433	465	525	402	26	246		2	-100	40	6	-8	-1	8	-22	-38	-5	Ni
Pb	160	185	187	42	187	30	23	1	170	131	1	9	171	162	184	152	18	97	187		-100	-2	51	0	-10	-27	-4	6	-22	Pb
Sb	2	2	2	0	2	2	1	1	2	1	0	0	2	2	2	2	1	1	2	2		*	*	100	100	*	-100	*	*	Sb
Sc	462	487	493	183	495	36	23	3	376	422	10	10	398	425	475	364	17	229	490	161	1		36	-13	28	44	-17	-29	-3	Sc
Sn	16	18	18	2	18	3	0	0	18	14	0	0	15	18	17	17	3	13	18	7	1	15		-6	34	*	34	*	-100	Sn
Sr	493	515	518	179	518	33	25	3	404	439	7	10	408	442	502	398	23	242	514	176	2	464	16		-13	44	-9	-11	11	Sr
V	517	543	550	202	550	40	26	3	421	467	11	11	436	467	530	407	26	248	545	187	2	493	18	518		-45	16	3	1	V
W	14	16	16	3	16	5	4	0	16	16	0	2	14	15	15	13	9	7	16	13	0	9	2	13	16		18	-100	*	W
Y	481	506	512	165	512	39	25	3	409	430	11	11	408	441	495	403	24	247	507	184	2	461	18	484	512	16		-22	13	Y
Zn	23	30	31	8	31	9	4	0	26	14	0	1	29	26	31	25	2	13	30	26	1	25	1	28	31	2	29		46	Zn
Zr	70	75	81	75	81	8	2	0	41	75	2	1	68	63	77	17	8	3	81	20	0	68	2	63	81	1	50	5		Zr

TABLE 3.--*Statistical summary of the analytical results for stream sediment and heavy mineral concentrate samples from the combined data sets of Sutwik Island and Chignik quadrangles, Alaska*

[Qualified population is one in which element concentrations are coded with an N, <, or > where N = not detected at limit of detection; < = detected, but below limit of detection; > = greater than upper limit of detection. Unqualified population is one in which element concentrations fall within the sensitivity limits of the methods used. N = 558 for stream sediment samples, N = 550 for heavy mineral concentrates. Leaders (--) denote no data or insufficient data]

Method of Analysis	Element	Sample type	Data based on the qualified population: Number of samples N	<	>	DATA BASED ON THE UNQUALIFIED POPULATION: Number of values	Range of values	Geometric mean	Geometric deviation	Arithmetic mean	Standard deviation	Percentile distribution based on n samples analyzed: 25th	50th	75th	90th
SEMIQUANTITATIVE EMISSION SPECTROGRAPHY[1]	Fe	Stream sediment	0	0	0	558	2 - 20	8.4	1.5	9.2	3.5	6	9	11	14
		Concentrate	0	0	33	517	0.7- 20	5.0	1.9	6.2	4.2	4	5	8	19
	Mg	Stream sediment	0	0	0	558	0.5- 7	1.5	1.3	1.6	0.5	1.2	1.6	2.0	2.4
		Concentrate	0	0	7	543	0.1- 1.5	1.5	3.0	2.7	3.0	.7	1.5	4.1	7.7
	Ca	Stream sediment	0	0	0	558	0.5- 5	1.9	1.4	2.1	0.8	1.5	2.0	2.8	3.4
		Concentrate	0	0	0	550	0.1- 20	9.3	2.1	11.2	5.2	7	11	15	------
	Ti	Stream sediment	0	0	10	548	0.3- 1	0.6	1.4	0.6	0.2	.5	.6	.8	1.0
		Concentrate	0	0	347	202	0.1- 1.5	0.4	1.8	0.5	.29	.7	-----	------	------
	Mn	Stream sediment	0	0	0	558	100 -3000	989.7	1.5	1081.5	470.6	724	965	1261	1919
		Concentrate	0	0	0	550	70 -5000	806.8	1.8	949.8	532.0	533	845	1265	1651
	Ag	Stream sediment	549	4	0	5	.5- 1	0.8	1.3	0.9	0.2	-----	-----	------	------
		Concentrate	510	0	0	40	2 - 700	6.8	4.5	42.2	126.6	-----	-----	------	------
	As	Stream sediment	557	0	0	1	1000	------	-----	1000.0	------	-----	-----	------	------
		Concentrate	523	0	1	26	500 -5000	1517.1	1.9	1861.5	1239.0	-----	-----	------	------
	Au	Stream sediment	558	0	0	0	----------	------	-----	------	------	-----	-----	------	------
		Concentrate	545	1	1	3	20 - 700	65.4	7.7	246.6	392.5	-----	-----	------	------
	B	Stream sediment	0	0	0	558	10 - 200	18.4	2.0	25.2	28.1	-----	18	27	49
		Concentrate	4	105	20	421	20 -5000	117.0	3.5	296.7	592.3	-----	69	237	774
	Ba	Stream sediment	0	0	0	558	100 -1500	511.2	1.4	550.0	203.4	403	494	643	799
		Concentrate	2	1	80	467	50 -5000	388.6	2.7	706.5	1003.0	208	402	1450	------
	Be	Stream sediment	0	472	0	86	1 - 1.5	1.0	1.1	1.0	0.1	-----	-----	------	------
		Concentrate	538	1	0	11	2 - 5	2.5	1.5	2.8	1.4	-----	-----	------	------
	Bi	Stream sediment	558	0	0	0	----------	-----	-----	------	------	-----	-----	------	------
		Concentrate	539	0	0	11	20 - 500	71.4	3.0	127.2	151.2	-----	-----	------	------
	Cd	Stream sediment	558	0	0	0	----------	-----	-----	------	------	-----	-----	------	------
		Concentrate	550	0	0	0	----------	-----	-----	------	------	-----	-----	------	------
	Co	Stream sediment	0	0	0	558	10 - 150	39.2	1.8	46.9	29.8	26	38	54	94
		Concentrate	21	93	0	436	10 - 700	24.6	2.4	43.9	78.7	-----	20	32	50
	Cr	Stream sediment	0	0	0	558	10 -1500	85.7	2.1	115.3	115.0	53	87	133	233
		Concentrate	82	0	1	467	50 -5000	454.0	3.2	879.4	1023.2	111	287	963	2685
SEMIQUANTITATIVE EMISSION SPECTROGRAPHY[1]	Cu	Stream sediment	0	0	0	558	10 -1000	48.7	1.8	61.8	78.0	33	47	67	97
		Concentrate	0	19	1	530	10 -10000	59.4	4.8	272.4	814.6	14	48	153	530
	La	Stream sediment	1	23	0	534	30 - 50	44.1	1.2	45.1	8.5	-----	-----	------	------
		Concentrate	140	0	3	407	50 -2000	131.3	2.3	193.5	202.6	-----	69	206	383
	Mo	Stream sediment	536	5	0	17	5 - 200	16.3	2.7	29.7	47.1	-----	-----	------	------
		Concentrate	524	0	0	26	10 -1500	80.9	4.5	243.8	409.3	-----	-----	------	------
	Nb	Stream sediment	0	558	0	0	----------	-----	-----	------	------	-----	-----	------	------
		Concentrate	242	60	0	248	50 - 200	79.8	1.5	88.5	42.9	-----	-----	66	120
	Ni	Stream sediment	0	1	0	557	10 - 150	31.3	1.6	35.5	19.1	22	31	48	54
		Concentrate	5	0	0	545	10 - 500	37.4	3.0	64.6	66.1	-----	43	95	155
	Pb	Stream sediment	0	21	0	537	10 - 200	16.8	1.5	19.1	15.4	-----	18	23	28
		Concentrate	358	5	0	287	20 -5000	73.6	3.3	204.1	508.5	-----	-----	32	81
	Sb	Stream sediment	558	0	0	0	----------	-----	-----	------	------	-----	-----	------	-----
		Concentrate	548	0	0	2	200 - 300	244.9	1.3	250.0	70.7	-----	-----	------	-----
	Sc	Stream sediment	0	0	0	558	10 - 100	32.5	1.5	35.9	16.1	24	33	45	55
		Concentrate	45	2	10	493	10 - 150	29.5	2.4	42.1	32.6	-----	26	62	88

TABLE 3.--*Statistical summary of the analytical results for stream sediment and heavy mineral concentrate samples from the combined data sets of Sutvik Island and Chignik quadrangles, Alaska*--Continued

[Qualified population is one in which element concentrations are coded with an N, <, or > where N = not detected at limit of detection; < = detected, but below limit of detection; > = greater than upper limit of detection. Unqualified population is one in which element concentrations fall within the sensitivity limits of the methods used. N = 558 for stream sediment samples, N = 550 for heavy mineral concentrates. Leaders (--) denote no data or insufficient data]

Method of Analysis	Element	Sample type	Data based on the qualified population			DATA BASED ON THE UNQUALIFIED POPULATION						Percentile distribution based on n samples analyzed			
			Number of samples			Number of values	Range of values	Geometric mean	Geometric deviation	Arithmetic mean	Standard deviation	25th	50th	75th	90th
			N	<	>										
SEMIQUANTITATIVE EMISSION SPECTROGRAPHY[1]	Sn	Stream sediment	557	0	0	1	100	------	-----	300.0	------	-----	-----	------	-----
		Concentrate	532	0	0	18	20 - 300	88.9	2.6	133.8	114.5	-----	-----	------	-----
	Sr	Stream sediment	0	0	0	558	300 - 1000	342.7	1.4	366.1	133.4	276	347	445	520
		Concentrate	30	0	2	518	200 - 7000	456.1	1.8	558.1	481.2	-----	446	623	320
	V	Stream sediment	0	0	0	558	100 - 700	246.6	1.4	363.8	105.7	203	251	327	399
		Concentrate	0	0	0	550	200 - 2000	263.4	1.9	328.4	235.1	184	283	416	558
	W	Stream sediment	558	0	0	0	----------	------	-----	------	------	-----	-----	------	-----
		Concentrate	534	0	0	16	100 - 3000	247.1	2.7	487.5	812.9	-----	-----	------	-----
	Y	Stream sediment	0	1	0	557	10 - 70	28.9	1.4	31.2	12.3	22	30	39	49
		Concentrate	35	3	0	512	20 - 1500	139.7	3.0	249.9	281.3	50	127	313	609
	Zn	Stream sediment	388	147	0	23	200 - 500	219.4	1.2	226.0	68.8	-----	-----	------	-----
		Concentrate	516	1	2	31	500 - 7000	1189.2	2.3	1780.6	1980.3	-----	-----	------	-----
	Zr	Stream sediment	0	0	0	558	50 - 1000	149.2	1.6	174.3	118.7	99	140	221	311
		Concentrate	0	0	469	81	20 - 2000	348.4	2.6	510.6	416.0	-----	-----	------	-----
ATOMIC ABSORPTION[2]	Cu	Stream sediment	1	0	0	557	5 - 1700	22.7	2.1	34.9	91.1	14	22	34	52
	Pb	Stream sediment	0	3	0	555	5 - 120	13.2	1.6	14.8	8.9	8	13	18	23
	Zn	Stream sediment	0	0	0	558	10 - 350	48.1	1.7	55.0	31.0	34	52	70	88

[1]Grimes and Marranzino, 1968.
[2]Ward and others, 1969.

TABLE 4.--*Statistical summary of the analytical results for stream sediment and heavy mineral concentrate samples, Chignik quadrangle, Alaska*

[Qualified population is one in which element concentrations are coded with an N, <, or > where N = not detected at limit of detection; < = detected, but below limit of detection; > = greater than upper limit of detection. Unqualified population is one in which element concentrations fall within the sensitivity limits of the methods used. N = 398 for stream sediment samples, N = 391 for heavy mineral concentrates. Leaders (--) denote no data or insufficient data]

Method of Analysis	Element	Sample type	Data based on the qualified population: Number of samples N	<	>	DATA BASED ON THE UNQUALIFIED POPULATION: Number of values	Range of values	Geometric mean	Geometric deviation	Arithmetic mean	Standard deviation	Percentile distribution based on n samples analyzed: 25th	50th	75th	90th
SEMIQUANTITATIVE EMISSION SPECTROGRAPHY[1]	Fe	Stream sediment	0	0	0	398	2 - 20	8.9	1.5	9.7	3.7	6	9	12	15
		Concentrate	0	0	25	366	1 - 20	4.9	1.9	6.1	4.1	4	5	8	19
	Mg	Stream sediment	0	0	0	398	.5- 3	1.5	1.3	1.6	0.4	1.2	1.6	2.0	2.4
		Concentrate	0	0	5	386	.1- 10	1.5	2.7	2.4	2.4	.8	1.4	3.1	6.5
	Ca	Stream sediment	0	0	0	398	.5- 5	2.0	1.4	2.1	0.7	1.5	2.0	2.8	3.4
		Concentrate	0	0	0	391	.1- 20	8.9	2.2	10.8	5.1	7	11	15	17
	Ti	Stream sediment	0	0	7	391	.3- 1	0.6	1.4	0.6	0.2	.4	.6	.7	.9
		Concentrate	0	0	241	150	.1- 1.5	0.5	2.0	0.6	0.3	.7	-----	------	------
	Mn	Stream sediment	0	0	0	398	100 - 3000	1022.9	1.6	1133.4	509.3	708	998	1485	2070
		Concentrate	0	0	0	391	70 - 5000	769.0	1.9	914.6	538.1	492	801	1208	1629
	Ag	Stream sediment	394	3	0	1	.5	0.5	-----	0.5	------	-----	-----	------	------
		Concentrate	364	0	0	27	2 - 150	4.8	3.2	12.4	29.2	-----	-----	------	------
	As	Stream sediment	398	0	0	0	----------	------	-----	------	------	-----	-----	------	------
		Concentrate	378	0	0	13	500 - 5000	1291.8	2.0	1646.1	1299.1	-----	-----	------	------
	Au	Stream sediment	398	0	0	0	----------	------	-----	------	------	-----	-----	------	------
		Concentrate	388	1	0	2	20 -	20.0	-----	20.0	0.0	-----	-----	------	------
	B	Stream sediment	0	0	0	398	10 - 150	16.6	1.9	21.2	18.9	-----	12	25	45
		Concentrate	4	78	11	298	20 - 5000	114.7	3.6	287.2	563.0	-----	65	223	705
	Ba	Stream sediment	0	0	0	398	200 - 1500	538.3	1.4	374.9	207.5	416	505	666	850
		Concentrate	2	1	38	350	50 - 5000	370.1	2.7	672.7	1007.2	192	352	959	5440
	Be	Stream sediment	0	340	0	58	1 - 1.5	1.0	1.1	1.1	0.2	-----	-----	------	------
		Concentrate	379	1	0	11	2 - 5	2.6	1.5	2.8	1.4	-----	-----	------	------
	Bi	Stream sediment	398	0	0	0	----------	------	-----	------	------	-----	-----	------	------
		Concentrate	384	0	0	7	20 - 500	57.0	3.3	114.3	173.0	-----	-----	------	------
	Cd	Stream sediment	398	0	0	0	----------	------	-----	------	------	-----	-----	------	------
		Concentrate	391	0	0	0	----------	------	-----	------	------	-----	-----	------	------
	Co	Stream sediment	0	0	0	398	10 - 150	41.2	1.9	50.1	32.5	26	40	61	102
		Concentrate	18	81	0	292	10 - 700	23.6	2.5	43.9	81.4	-----	-----	30	47
	Cr	Stream sediment	0	0	0	398	10 - 1500	77.0	2.2	105.6	115.2	47	77	119	213
		Concentrate	59	0	1	331	50 - 5000	392.3	3.0	723.4	880.6	98	262	747	1751
	Cu	Stream sediment	0	0	0	398	10 - 1000	48.3	1.8	60.8	77.2	33	46	67	97
		Concentrate	0	10	1	380	10 -10000	59.5	4.9	282.4	846.3	14	47	151	583
	La	Stream sediment	1	23	0	374	30 - 50	47.9	1.1	48.3	5.6	-----	-----	------	------
		Concentrate	100	0	1	290	50 - 2000	121.1	2.3	176.2	195.5	-----	62	178	341
	Mo	Stream sediment	379	4	0	15	5 - 200	15.9	2.9	31.0	50.3	-----	-----	------	------
		Concentrate	376	0	0	15	10 - 1500	123.3	5.5	366.7	506.3	-----	-----	------	------
	Nb	Stream sediment	0	398	0	0	----------	------	-----	------	------	-----	-----	------	------
		Concentrate	175	45	0	171	50 - 200	77.9	1.5	86.3	41.7	-----	-----	61	115
	Ni	Stream sediment	0	0	0	398	10 - 100	30.7	1.7	34.8	18.1	22	31	44	54
		Concentrate	3	0	0	388	10 - 300	29.3	2.9	51.3	55.7	-----	23	74	135
	Pb	Stream sediment	0	12	0	386	10 - 150	15.9	1.5	17.7	11.3	-----	16	22	26
		Concentrate	261	4	0	126	20 - 3000	65.9	3.1	167.0	382.8	-----	-----	------	77
	Sb	Stream sediment	398	0	0	0	----------	------	-----	------	------	-----	-----	------	------
		Concentrate	390	0	0	1	200	200.0	-----	200.0	------	-----	-----	------	------
	Sc	Stream sediment	0	0	0	398	10 - 70	29.1	1.5	31.7	13.7	22	30	39	50
		Concentrate	32	2	5	352	10 - 150	24.4	2.5	36.1	30.5	-----	12	55	76

TABLE 4.--*Statistical summary of the analytical results for stream sediment and heavy mineral concentrate samples, Chignik quadrangle, Alaska*--Continued

[Qualified population is one in which element concentrations are coded with an N, <, or > where N = not detected at limit of detection; < = detected, but below limit of detection; > = greater than upper limit of detection. Unqualified population is one in which element concentrations fall within the sensitivity limits of the methods used. N = 398 for stream sediment samples, N = 391 for heavy mineral concentrates. Leaders (--) denote no data or insufficient data]

Method of Analysis	Element	Sample type	Data based on the qualified population: Number of samples N	<	>	DATA BASED ON THE UNQUALIFIED POPULATION: Number of values	Range of values	Geometric mean	Geometric deviation	Arithmetic mean	Standard deviation	Percentile distribution based on n samples analyzed: 25th	50th	75th	90th
SEMIQUANTITATIVE EMISSION SPECTROGRAPHY[1]	Sn	Stream sediment	397	0	0	1	100	------	-----	100.0	------	-----	-----	------	------
		Concentrate	378	0	0	18	20 - 300	82.2	2.8	126.1	111.4	-----	-----	------	------
	Sr	Stream sediment	0	0	0	398	150 - 1000	347.5	1.4	372.1	138.1	276	353	452	525
		Concentrate	20	0	1	370	200 - 7000	462.7	1.8	555.4	479.5	265	454	627	801
	V	Stream sediment	0	0	0	398	100 - 700	255.7	1.4	274.7	112.8	208	258	339	430
		Concentrate	0	0	0	391	20 - 2000	254.3	2.1	331.3	258.7	160	269	437	570
	W	Stream sediment	398	0	0	0	----------	------	-----	------	------	-----	-----	------	------
		Concentrate	379	0	0	12	100 - 3000	254.8	3.2	558.3	934.4	-----	-----	------	------
	Y	Stream sediment	0	1	0	307	10 - 70	31.1	1.4	33.3	12.2	25	32	41	50
		Concentrate	28	2	0	361	20 - 1500	138.0	3.0	249.2	296.1	48	127	274	613
	Zn	Stream sediment	305	77	0	16	200 - 300	210.4	1.1	212.5	34.2	-----	-----	------	------
		Concentrate	371	0	1	19	500 - 7000	1293.2	2.4	1963.2	2114.6	-----	-----	------	------
	Zr	Stream sediment	0	0	0	398	50 - 1000	137.5	1.6	158.7	106.0	95	119	203	282
		Concentrate	0	0	336	55	50 - 2000	340.0	2.6	513.6	465.0	-----	-----	------	------
ATOMIC ABSORPTION[2]	Cu	Stream sediment	0	0	0	398	5 - 1700	21.0	2.2	33.8	100.7	12	21	32	51
	Pb	Stream sediment	0	3	0	395	5 - 100	13.7	1.6	15.2	7.9	8	14	19	24
	Zn	Stream sediment	0	0	0	398	10 - 250	44.2	1.7	50.7	28.1	28	46	67	86

[1]Grimes and Marranzino, 1968.
[2]Ward and others, 1969.

TABLE 5.--*Statistical summary of the analytical results for stream sediment and heavy mineral concentrate samples, Sutwik Island, Alaska*

[Qualified population is one in which element concentrations are coded with an N, <, or > where N = not detected at limit of detection; < = detected, but below limit of detection; > = greater than upper limit of detection. Unqualified population is one in which element concentrations fall within the sensitivity limits of the methods used. N = 160 for stream sediment samples, N = 159 for heavy mineral concentrates. Leaders (--) denote no data or insufficient data]

Method of Analysis	Element	Sample type	Data based on the qualified population: Number of samples N	<	>	DATA BASED ON THE UNQUALIFIED POPULATION: Number of values	Range of values	Geometric mean	Geometric deviation	Arithmetic mean	Standard deviation	Percentile distribution based on n samples analyzed: 25th	50th	75th	90th
SEMIQUANTITATIVE EMISSION SPECTROGRAPHY[1]	Fe	Stream sediment	0	0	0	160	2 - 15	7.5	1.4	7.9	2.8	5	8	10	12
		Concentrate	0	0	8	151	.7- 20	5.3	2.1	6.8	4.6	4	6	9	19
	Mg	Stream sediment	0	0	0	160	.7- 7	1.6	1.3	1.7	0.6	1.3	1.6	2.1	2.5
		Concentrate	0	0	2	157	.1- 15	1.8	3.9	3.7	4.0	.5	2.0	6.3	10.0
	Ca	Stream sediment	0	0	0	160	.5- 5	1.8	1.6	2.0	0.9	1.3	1.9	2.7	3.5
		Concentrate	0	0	0	159	1 - 20	10.4	2.0	12.3	5.6	9	12	17	------
	Ti	Stream sediment	0	0	3	157	.3- 1	0.7	1.3	0.7	0.2	.6	.7	.9	1.0
		Concentrate	0	0	107	52	.2- 1	0.6	1.4	0.7	0.2	.8	-----	------	------
	Mn	Stream sediment	0	0	0	160	200 - 3000	911.7	1.3	952.5	324.3	766	930	1097	1180
		Concentrate	0	0	0	159	100 - 3000	908.0	1.7	1036.4	508.0	625	947	1370	1686
	Ag	Stream sediment	155	1	0	4	1	1.0	-----	1	------	-----	-----	------	------
		Concentrate	146	0	0	13	2 - 700	14.2	7.0	104.3	209.9	-----	-----	------	------
	As	Stream sediment	159	0	0	1	1000	1000.0	-----	1000.0	------	-----	-----	------	------
		Concentrate	145	0	1	13	500 - 5000	178.2	1.8	2076.9	1187.5	-----	-----	------	------
	Au	Stream sediment	160	0	0	------	----------	------	-----	------	------	-----	-----	------	------
		Concentrate	157	0	1	1	700	700	-----	700.0	------	-----	-----	------	------
	B	Stream sediment	0	0	0	160	10 - 200	24.0	2.2	35.3	41.8	-----	22	39	65
		Concentrate	0	27	9	123	20 - 5000	122.8	3.6	319.8	659.9	28	79	287	1259
	Ba	Stream sediment	0	0	0	160	300 - 1000	449.6	1.6	489.3	179.6	346	465	599	729
		Concretrate	0	0	42	117	50 - 5000	450.1	3.0	807.6	987.8	275	740	------	------
	Be	Stream sediment	0	132	0	28	1	1.0	-----	1	------	-----	-----	------	------
		Concentrate	159	0	0	0	----------	------	-----	------	------	-----	-----	------	------
	Bi	Stream sediment	160	0	0	------	----------	------	-----	------	------	-----	-----	------	------
		Concentrate	155	0	0	4	30 - 300	105.9	2.8	150.0	123.6	-----	-----	------	------
	Cd	Stream sediment	160	0	0	------	----------	------	-----	------	------	-----	-----	------	------
		Concentrate	159	0	0	------	----------	------	-----	------	------	-----	-----	------	------
	Co	Stream sediment	0	0	0	160	10 - 150	34.8	1.6	39.0	19.9	27	35	47	56
		Concentrate	3	12	0	144	10 - 500	26.8	2.3	44.0	73.4	-----	26	35	58
	Cr	Stream sediment	0	0	0	160	20 - 700	112.2	1.9	139.5	111.2	74	103	174	285
		Concentrate	23	0	0	136	50 - 5000	647.8	3.6	1259.3	1230.3	117	568	2077	3257
	Cu	Stream sediment	0	0	0	160	10 - 700	49.8	1.9	64.5	80.4	33	48	68	94
		Concentrate	0	9	0	150	10 - 7000	59.5	4.7	247.1	730.2	13	50	156	487
	La	Stream sediment	0	0	0	160	30 - 50	36.7	1.3	37.9	9.8	-----	-----	------	------
		Concentrate	40	0	2	117	50 - 1000	160.4	2.5	236.7	214.3	-----	91	287	496
	Mo	Stream sediment	157	1	0	2	20 - 20	20.0	-----	20.0	------	-----	-----	------	------
		Concentrate	148	0	0	11	20 - 200	45.6	2.8	76.4	81.0	-----	-----	------	------
	Nb	Stream sediment	0	160	0	0	----------	------	-----	------	------	-----	-----	------	------
		Concentrate	67	15	0	77	50 - 200	84.2	1.6	93.8	45.4	-----	-----	77	132
	Ni	Stream sediment	0	1	0	159	15 - 150	33.0	1.6	37.4	21.4	23	32	46	55
		Concentrate	2	0	0	157	10 - 500	68.4	2.6	97.6	77.6	42	79	139	188
	Pb	Stream sediment	0	9	0	151	10 - 200	19.3	1.6	22.7	22.6	13	20	25	33
		Concentrate	97	1	0	61	20 - 5000	92.6	3.6	280.8	698.3	-----	-----	55	139
	Sb	Stream sediment	160	0	0	0	----------	------	-----	------	------	-----	-----	------	------
		Concentrate	158	0	0	1	300	300.0	-----	300.0	------	-----	-----	------	------
	Sc	Stream sediment	0	0	0	160	15 - 100	43.1	1.5	46.5	16.9	33	44	55	70
		Concentrate	13	0	5	141	20 - 150	47.2	1.9	57.2	33.1	-----	48	82	110

TABLE 5.--*Statistical summary of the analytical results for stream sediment and heavy mineral concentrate samples, Sutwik Island, Alaska*--Continued

[Qualified population is one in which element concentrations are coded with an N, <, or > where N = not detected at limit of detection; < = detected, but below limit of detection; > = greater than upper limit of detection. Unqualified population is one in which element concentrations fall within the sensitivity limits of the methods used. N = 160 for stream sediment samples, N = 159 for heavy mineral concentrates. Leaders (--) denote no data or insufficient data]

Method of Analysis	Element	Sample type	Data based on the qualified population			DATA BASED ON THE UNQUALIFIED POPULATION						Percentile distribution based on n samples analyzed			
			Number of samples			Number of values	Range of values	Geometric mean	Geometric deviation	Arithmetic mean	Standard deviation	25th	50th	75th	90th
			N	<	>										
SEMIQUANTITATIVE EMISSION SPECTROGRAPHY[1]	Sn	Stream sediment	160	0	0	0	----------	------	-----	------	------	-----	-----	------	------
		Concentrate	154	0	0	5	50 - 300	109.5	2.5	154.0	133.5	-----	-----	------	------
	Sr	Stream sediment	0	0	0	160	100 - 700	331.1	1.4	351.2	120.3	275	336	424	506
		Concentrate	10	0	1	148	200 - 3000	440.4	2.0	565.5	487.0	-----	426	604	1026
	V	Stream sediment	0	0	0	160	100 - 500	225.4	1.4	236.9	79.6	194	234	298	357
		Concentrate	0	0	0	159	20 - 1000	287.4	1.6	321.5	164.3	226	298	369	532
	W	Stream sediment	160	0	0	0	----------	------	-----	------	------	-----	-----	------	------
		Concentrate	155	0	0	4	200 - 500	251.5	1.6	275.0	150.0	-----	-----	------	------
	Y	Stream sediment	0	0	0	160	10 - 50	24.1	1.5	26.2	11.5	19	24	33	------
		Concentrate	7	1	0	151	20 - 1000	144.1	3.2	251.8	242.2	56	127	398	603
	Zn	Stream sediment	83	70	0	7	200 - 500	241.6	1.4	257.1	113.4	-----	-----	------	------
		Concentrate	145	1	1	12	500 - 7000	1041.4	2.2	1491.7	1797.2	-----	-----	------	------
	Zr	Stream sediment	0	0	0	160	70 - 1000	182.7	1.7	212.0	139.1	124	193	246	383
		Concentrate	0	0	133	26	20 - 1000	366.9	2.8	504.3	294.8	-----	-----	------	-----
ATOMIC ABSORPTION[2]	Cu	Stream sediment	1	0	0	159	5 - 560	27.7	1.9	37.8	60.7	20	26	36	53
	Pb	Stream sediment	0	0	0	160	5 - 120	12.2	1.6	14.1	11.1	7	11	16	22
	Zn	Stream sediment	0	0	0	160	10 - 350	59.6	1.6	65.8	35.1	48	62	75	93

[1]Grimes and Marranzino, 1968.
[2]Ward and others, 1969.

The data listed in table 6 contain all analytical results of the stream-sediment and heavy-mineral-concentrate samples collected in Chignik and Sutwik Island quadrangles, Alaska. For the four sample sets the data are arranged so that column 1 contains the U.S. Geological Survey assigned sample numbers. These numbers coincide with the numbers on the sample site maps (pls. 1 and 2), except that the maps do not show the CG and SW prefixes. Latitude and longitude (in degrees, minutes, and seconds) are given in columns 2 and 3. Columns 4-33, in which element headings (denoted in capital letters) are preceded by an S, contain all semi-quantitative emission spectrographic data. The results of atomic absorption analysis for copper, lead, and zinc are reported in columns 34-36, where in the column heading the element designation is preceded by an AA.

Element concentrations are given in parts per million, except for iron, magnesium, calcium, and titanium, which are recorded in percent. Some of the data are reported simply as "N," or are preceded by < or >, where: N = not detected at lower limit of detection; < = detected but below limits of detection; and > = greater than upper limit of detection. If no data were available, or if sample was not analyzed for this element, a dash (--) is shown.

The approximate visual lower limits of detection for the 30 elements analyzed by semiquantitative emission spectrography included in this report for stream-sediment samples are: for those elements reported in percent--iron and calcium, 0.05; titanium, 0.002; magnesium, 0.02; for those elements reported in ppm--silver, 0.5; beryllium, 1; cobalt, copper, molybdenum, nickel, and scandium, 5; manganese, gold, boron, bismuth, chromium, lead, tin, vanadium, yttrium, and zirconium, 10; barium, cadmium, lanthanum, and niobium, 20; tungsten, 50; antimony and strontium, 100; and arsenic and zinc, 200. Lower limits of detection for atomic absorption analyses are: copper, 5.0; lead, 5.0; zinc, 5.0.

The upper limits of detection for semiquantitative emission spectrography for stream sediments are as follows: for those elements reported in percent--iron and calcium, 20; titanium, 1; magnesium, 20; for those elements reported in ppm--scandium, 100; gold and cadmium, 500; beryllium, bismuth, lanthanum, tin, and zirconium, 1,000; boron, cobalt, molybdenum, niobium, and yttrium, 2,000; manganese, silver, barium, chromium, strontium, and nickel, 5,000; arsenic, antimony, tungsten, vanadium, and zinc, 10,000; and copper and lead, 20,000.

The approximate visual lower limits of detection for the 30 elements analyzed by semiquantitative emission spectrography included in this report for heavy mineral concentrate samples are: for those elements reported in percent--iron and calcium, 0.1; titanium, 0.005; magnesium, 0.05; for those elements reported in ppm--silver, 1; beryllium, 2; cobalt, copper, molybdenum, nickel, and scandium, 10; manganese, gold, boron, bismuth, chromium, lead, tin, vanadium, yttrium, and zirconium, 20; barium, cadmium, lanthanum, and niobium, 50; tungsten, 100; antimony and strontium, 200; and arsenic and zinc, 500.

The upper limits of detection for semiquantitative emission spectrography for the analyses of heavy mineral concentrate samples are identical to those given for minus-80-mesh stream sediment samples.

REFERENCES CITED

Grimes, D. J., and Marranzino, A. P., 1968, Direct-current arc and alternating-current spark emission spectrographic field methods for the semiquantitative analysis of geologic materials: U.S. Geol. Survey Circ. 591, 6 p.

Motooka, J. M., and Grimes, D. J., 1976, Analytical precision of one-sixth order semiquantitative spectrographic analysis: U.S. Geol. Survey Circ. 738.

VanTrump, George, Jr., and Miesch, A. T., 1977, The U.S. Geological Survey RASS-STATPAC system for management and statistical reduction of geochemical data: Computers and Geosciences, v. 3, p. 475-488.

Ward, F. N., Nakagawa, H. M., Harms, T. F., and Van Sickle, G. H., 1969, Atomic-absorption methods of analysis useful in geochemical exploration: U.S. Geol. Survey Bull. 1289, 45 p.

TABLE 6.--Pages 19-96

MINUS-80 MESH STREAM SEDIMENTS, CHIGNIK QUADRANGLE, ALASKA

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI	S-CD
CG001	56 54 5	158 9 51	10	1.5	2.0	.7	1,500	N	N	N	50	700	1.0	N	N
CG002	56 48 0	158 1 36	10	2.0	3.0	>1.0	1,000	N	N	N	20	300	<1.0	N	N
CG003	56 41 32	158 1 55	7	2.0	5.0	>1.0	1,000	N	N	N	10	300	<1.0	N	N
CG004	56 41 44	158 4 20	7	2.0	5.0	>1.0	1,000	N	N	N	10	300	<1.0	N	N
CG005	56 40 56	158 6 50	15	2.0	5.0	>1.0	1,000	N	N	N	10	200	<1.0	N	N
CG006	56 40 5	158 7 35	15	3.0	3.0	>1.0	1,000	N	N	N	10	200	<1.0	N	N
CG007	56 39 36	158 8 [illegible]	5	1.5	2.0	.7	500	N	N	N	10	500	<1.0	N	N
CG008	56 40 2	158 11 15	5	1.5	2.0	1.0	700	N	N	N	10	500	<1.0	N	N
CG009	56 39 34	158 13 24	5	1.5	2.0	.7	500	N	N	N	10	500	<1.0	N	N
CG010	56 37 46	158 11 27	5	1.5	2.0	.7	500	N	N	N	15	500	<1.0	N	N
CG011	56 37 23	158 10 29	5	1.5	3.0	.7	700	N	N	N	20	700	<1.0	N	N
CG012	56 35 16	158 8 57	15	2.0	3.0	1.0	700	N	N	N	10	200	<1.0	N	N
CG013	56 34 54	158 11 48	7	1.5	2.0	.7	700	N	N	N	20	500	<1.0	N	N
CG014	56 36 5	158 11 49	5	1.5	3.0	.7	700	N	N	N	100	300	<1.0	N	N
CG015	56 36 24	158 13 49	7	1.5	3.0	.7	700	N	N	N	10	700	<1.0	N	N
CG016	56 35 44	158 16 47	5	1.5	2.0	.7	700	N	N	N	20	300	<1.0	N	N
CG017	56 36 17	158 17 9	7	1.5	2.0	.7	1,000	N	N	N	50	300	<1.0	N	N
CG018	56 37 16	158 18 51	10	2.0	1.5	.7	700	N	N	N	20	500	<1.0	N	N
CG019	56 37 46	158 21 6	10	1.5	5.0	.7	1,000	N	N	N	10	300	<1.0	N	N
CG020	56 36 33	158 23 8	5	1.5	1.5	.3	500	N	N	N	20	500	<1.0	N	N
CG021	56 34 56	158 21 11	5	1.5	2.0	.3	700	N	N	N	20	300	<1.0	N	N
CG022	56 34 35	158 19 29	5	1.0	1.5	.3	700	N	N	N	30	300	<1.0	N	N
CG023	56 34 23	158 19 23	7	2.0	2.0	.3	700	N	N	N	50	300	<1.0	N	N
CG024	56 36 42	158 2 8	10	3.0	5.0	.7	1,000	N	N	N	10	300	<1.0	N	N
CG025	56 38 30	158 1 20	15	3.0	3.0	>1.0	1,000	N	N	N	10	300	1.0	N	N
CG026	56 36 53	158 1 46	10	2.0	3.0	1.0	1,000	N	N	N	10	200	1.0	N	N
CG027	56 38 17	158 1 44	10	2.0	3.0	1.0	1,000	N	N	N	10	500	1.0	N	N
CG028	56 34 26	158 5 26	15	2.0	3.0	1.0	1,000	N	N	N	10	200	1.0	N	N
CG029	56 35 35	158 3 52	10	2.0	3.0	>1.0	1,000	N	N	N	10	300	1.0	N	N
CG030	56 32 38	158 2 53	15	2.0	3.0	1.0	1,000	N	N	N	10	300	1.0	N	N
CG031	56 32 22	158 4 26	15	2.0	3.0	1.0	1,000	N	N	N	10	300	1.0	N	N
CG032	56 1 54	158 40 59	10	2.0	1.5	.5	1,500	N	N	N	20	700	1.0	N	N
CG033	56 32 57	158 1 31	10	2.0	5.0	.7	1,000	N	N	N	10	500	1.0	N	N
CG034	56 3 16	158 40 51	10	2.0	1.5	.7	2,000	N	N	N	20	700	1.0	N	N
CG035	56 30 47	158 1 27	15	2.0	3.0	1.0	1,000	N	N	N	10	300	1.0	N	N
CG036	56 3 32	158 43 51	10	1.5	1.5	.5	2,000	<.5	N	N	10	700	1.0	N	N
CG037	56 3 39	158 43 45	10	1.5	1.5	.7	1,500	N	N	N	15	700	<1.0	N	N
CG038	56 4 31	158 45 54	10	1.5	1.5	.7	1,500	N	N	N	20	1,000	<1.0	N	N
CG039	56 6 24	158 41 47	10	1.0	1.5	.5	1,500	N	N	N	50	1,000	1.0	N	N
CG040	56 5 54	158 41 15	10	1.5	1.5	.5	1,500	N	N	N	100	700	<1.0	N	N
CG041	56 9 5	158 45 12	15	1.0	1.5	.5	1,500	N	N	N	15	500	<1.0	N	N
CG042	56 9 5	158 37 41	10	1.0	1.0	.3	1,000	N	N	N	20	1,000	<1.0	N	N
CG043	56 9 19	158 37 51	10	1.5	.5	.5	1,500	N	N	N	30	1,000	1.0	N	N
CG044	56 9 26	158 38 3	10	1.0	1.5	.3	700	N	N	N	50	1,000	<1.0	N	N
CG045	56 11 20	158 36 25	15	1.5	1.5	.5	1,500	N	N	N	20	1,000	<1.0	N	N

sample	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
CG001	3[illegible]	5[illegible]	3[illegible]	[illegible]	N	<20	30	15	N	50	N	500	200	N	50	<200	150
CG002	7[illegible]	7[illegible]	7[illegible]	5[illegible]	N	<20	50	20	N	50	N	500	300	N	20	<200	100
CG003	5[illegible]	10[illegible]	5[illegible]	7[illegible]	N	<20	20	20	N	50	N	500	300	N	20	<200	100
CG004	50	10[illegible]	50	30	N	<20	20	20	N	50	N	500	200	N	20	<200	100
CG005	70	300	70	30	N	<20	50	20	N	50	N	500	700	N	20	<200	100
CG006	70	300	70	30	N	<20	50	20	N	50	N	300	700	N	15	200	70
CG007	50	70	30	30	N	<20	20	20	N	50	N	500	150	N	20	N	100
CG008	50	7[illegible]	30	30	N	<20	20	20	N	50	N	500	200	N	20	<200	200
CG009	5[illegible]	10[illegible]	50	30	N	<20	20	20	N	50	N	300	200	N	20	<200	70
CG010	30	70	50	30	N	<20	30	20	N	50	N	500	200	N	20	<200	100
CG011	50	150	70	3[illegible]	N	<20	50	2[illegible]	N	70	N	500	200	N	20	<200	70
CG012	100	50[illegible]	7[illegible]	30	N	<20	30	20	N	50	N	200	500	N	20	<200	100
CG013	3[illegible]	150	50	3[illegible]	N	<20	50	10	N	50	N	300	200	N	20	<200	70
CG014	50	70	50	50	N	<20	30	20	N	50	N	500	200	N	20	<200	70
CG015	30	70	70	30	N	<20	30	20	N	30	N	500	300	N	20	<200	500
CG016	30	70	50	30	N	<20	30	20	N	30	N	300	200	N	20	N	70
CG017	3[illegible]	70	20	30	N	<20	20	20	N	50	N	500	200	N	20	N	300
CG018	50	200	100	30	N	<20	50	20	N	70	N	300	200	N	20	N	500
CG019	5[illegible]	150	100	3[illegible]	N	<20	20	20	N	50	N	500	500	N	20	<200	100
CG020	3[illegible]	10[illegible]	30	30	N	<20	30	20	N	20	N	300	200	N	20	<200	200
CG021	2[illegible]	5[illegible]	20	3[illegible]	N	<20	20	10	N	20	N	300	150	N	15	N	300
CG022	2[illegible]	7[illegible]	20	30	N	<20	30	10	N	20	N	200	150	N	15	N	200
CG023	3[illegible]	10[illegible]	7[illegible]	3[illegible]	N	<20	50	20	N	20	N	200	200	N	15	N	50
CG024	5[illegible]	50[illegible]	7[illegible]	30	N	<20	50	20	N	70	N	300	500	N	15	N	70
CG025	50	150	70	30	N	<20	30	20	N	70	N	500	500	N	20	N	100
CG026	50	10[illegible]	70	30	N	<20	30	30	N	70	N	500	500	N	20	N	100
CG027	50	100	100	30	N	<20	30	20	N	70	N	500	500	N	20	N	100
CG028	50	200	70	30	N	<20	30	20	N	70	N	300	500	N	20	N	100
CG029	50	300	70	30	N	<20	50	20	N	70	N	300	500	N	20	N	100
CG030	100	300	100	30	N	<20	50	20	N	70	N	500	500	N	20	N	70
CG031	50	200	70	30	N	<20	50	20	N	70	N	700	500	N	15	N	100
CG032	3[illegible]	2[illegible]	100	50	<5	<20	20	20	N	20	N	300	200	N	50	N	200
CG033	30	700	70	30	N	<20	30	10	N	50	N	1,000	300	N	15	N	100
CG034	3[illegible]	70	50	50	N	<20	30	20	N	20	N	300	300	N	50	N	200
CG035	50	10[illegible]	10[illegible]	3[illegible]	N	<20	50	20	N	50	N	500	500	N	15	N	100
CG036	3[illegible]	7[illegible]	150	50	10	<20	20	30	N	20	N	300	200	N	50	200	200
CG037	30	1[illegible]	50	50	N	<20	30	30	N	20	N	150	300	N	30	N	300
CG038	3[illegible]	150	70	50	N	<20	50	30	N	20	N	200	200	N	50	N	300
CG039	30	50	50	50	N	<20	50	20	N	20	N	200	200	N	50	N	200
CG040	30	150	70	50	N	<20	50	30	N	20	N	150	300	N	30	N	200
CG041	30	10[illegible]	70	50	5	<20	50	15	N	20	N	200	300	N	50	N	300
CG042	20	7[illegible]	50	50	N	<20	50	20	N	15	N	200	200	N	30	N	100
CG043	20	70	30	50	N	<20	50	20	N	20	N	200	200	N	30	N	300
CG044	3[illegible]	100	30	50	N	<20	50	15	N	20	N	200	200	N	30	N	300
CG045	20	50	70	50	N	<20	50	15	N	20	N	300	200	N	50	N	300

MINUS-80 MESH STREAM SEDIMENTS, CHIGNIK QUADRANGLE, ALASKA

sample	AA-CU-P	AA-PB-P	AA-ZN-P
CG001	25	5	50
CG002	40	15	70
CG003	30	15	75
CG004	20	10	40
CG005	45	20	75
CG006	50	20	90
CG007	30	15	75
CG008	25	20	75
CG009	25	15	70
CG010	40	20	90
CG011	35	20	80
CG012	30	15	65
CG013	35	20	90
CG014	15	10	50
CG015	35	20	80
CG016	10	5	20
CG017	5	5	15
CG018	35	15	80
CG019	50	20	70
CG020	25	15	70
CG021	5	10	20
CG022	15	10	55
CG023	15	10	30
CG024	30	15	55
CG025	25	15	60
CG026	40	15	65
CG027	65	20	95
CG028	40	15	65
CG029	40	15	60
CG030	30	15	65
CG031	25	15	60
CG032	30	10	45
CG033	35	15	55
CG034	20	15	60
CG035	45	15	70
CG036	150	70	140
CG037	20	15	55
CG038	25	15	75
CG039	35	25	100
CG040	45	25	160
CG041	75	15	45
CG042	25	15	75
CG043	20	15	65
CG044	25	15	75
CG045	25	15	70

MINUS-80 MESH STREAM SEDIMENTS, CHIGNIK QUADRANGLE, ALASKA

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI	S-CD
CG046	56 11 39	158 37 2	10	1.0	1.5	.5	1,000	N	N	N	10	500	<1.0	N	N
CG047	56 12 11	158 27 17	15	1.5	1.5	.5	1,500	N	N	N	20	500	<1.0	N	N
CG048	56 11 12	158 26 47	15	1.5	1.5	.5	2,000	N	N	N	50	1,000	<1.0	N	N
CG049	56 10 59	158 27 5	15	1.5	1.5	.5	1,500	N	N	N	20	700	<1.0	N	N
CG050	56 9 32	158 29 5	10	1.5	1.5	.5	3,000	N	N	N	30	1,000	<1.0	N	N
CG051	56 8 56	158 28 54	10	1.5	1.5	.3	2,000	N	N	N	20	700	<1.0	N	N
CG052	56 8 4	158 32 34	10	1.5	1.5	.3	1,000	N	N	N	30	700	<1.0	N	N
CG053	56 6 44	158 32 29	15	1.5	1.5	.5	2,000	N	N	N	20	700	<1.0	N	N
CG054	56 6 11	158 34 54	10	1.5	1.5	.5	2,000	N	N	N	20	700	1.0	N	N
CG055	56 4 45	158 32 38	15	1.5	1.5	.3	2,000	N	N	N	20	700	<1.0	N	N
CG056	56 4 29	158 33 39	10	1.5	1.5	.5	2,000	N	N	N	20	700	<1.0	N	N
CG057	56 3 47	158 35 8	10	1.0	1.5	.5	2,000	N	N	N	10	500	1.0	N	N
CG058	56 8 36	158 6 42	7	1.0	1.5	.5	1,000	N	N	N	10	500	1.0	N	N
CG059	56 11 35	158 11 22	15	1.5	1.5	.7	1,500	N	N	N	50	1,000	<1.0	N	N
CG060	56 9 20	158 20 56	10	1.5	1.5	.5	1,500	N	N	N	10	1,000	<1.0	N	N
CG061	56 9 47	158 24 11	10	1.5	1.5	.5	1,500	N	N	N	10	700	<1.0	N	N
CG062	56 9 6	158 24 29	10	1.5	1.5	.3	1,000	N	N	N	10	1,000	<1.0	N	N
CG063	56 8 32	158 26 8	10	1.5	1.5	.5	1,500	N	N	N	20	700	<1.0	N	N
CG064	56 7 6	158 27 6	10	1.5	1.5	.5	1,500	N	N	N	10	700	<1.0	N	N
CG065	56 6 53	158 29 21	10	1.5	1.5	.5	1,500	N	N	N	20	700	<1.0	N	N
CG066	56 5 7	158 28 17	10	1.5	1.5	.5	1,500	N	N	N	10	500	<1.0	N	N
CG067	56 1 5	158 25 9	15	1.5	1.5	.5	2,000	N	N	N	20	700	<1.0	N	N
CG068	56 1 59	158 30 29	10	1.5	1.5	.5	1,500	N	N	N	10	500	<1.0	N	N
CG069	56 1 1	158 32 0	10	1.5	1.5	.5	1,000	N	N	N	20	500	<1.0	N	N
CG070	56 6 12	158 55 0	10	1.5	1.5	.5	1,000	N	N	N	50	1,000	<1.0	N	N
CG071	56 4 50	158 53 2	10	1.5	1.5	.5	1,000	N	N	N	15	700	<1.0	N	N
CG072	56 5 21	158 50 9	10	1.5	1.5	.3	1,000	N	N	N	30	1,000	<1.0	N	N
CG073	56 5 53	158 48 8	10	1.5	1.5	.3	1,000	N	N	N	50	1,000	<1.0	N	N
CG074	56 3 35	158 50 7	5	1.0	1.5	.3	1,000	N	N	N	30	500	<1.0	N	N
CG075	56 3 20	158 48 30	15	1.5	1.5	.5	1,000	N	N	N	10	700	<1.0	N	N
CG076	56 1 22	158 46 13	10	1.5	1.5	.3	1,500	N	N	N	10	700	<1.0	N	N
CG077	56 1 0	158 46 33	15	1.5	1.5	.5	1,500	N	N	N	10	700	<1.0	N	N
CG078	56 1 36	158 49 19	15	1.5	1.5	.5	2,000	N	N	N	10	1,000	<1.0	N	N
CG079	56 1 0	158 51 56	10	1.5	1.5	.3	1,500	N	N	N	20	1,000	<1.0	N	N
CG080	56 0 14	158 54 33	15	1.5	1.5	.5	2,000	N	N	N	10	1,000	<1.0	N	N
CG081	56 0 23	158 56 41	10	1.5	1.5	.3	1,500	N	N	N	20	700	<1.0	N	N
CG082	56 2 47	159 0 37	15	1.5	1.5	.5	1,500	N	N	N	50	700	<1.0	N	N
CG083	56 3 15	158 58 44	10	1.5	1.5	.3	1,500	N	N	N	10	700	<1.0	N	N
CG084	56 1 50	158 57 6	15	1.5	1.5	.5	2,000	N	N	N	70	1,000	<1.0	N	N
CG085	56 2 48	158 54 5	10	1.5	1.5	.3	1,500	N	N	N	10	700	<1.0	N	N
CG086	56 5 35	159 3 38	10	1.5	1.5	.3	1,500	N	N	N	10	1,000	<1.0	N	N
CG087	56 6 43	159 3 19	10	1.5	1.5	.3	2,000	N	N	N	10	1,000	<1.0	N	N
CG088	56 8 30	159 1 54	10	1.5	1.5	.3	1,500	N	N	N	10	1,000	<1.0	N	N
CG089	56 8 40	159 1 54	10	1.5	1.5	.3	1,500	N	N	N	10	1,000	<1.0	N	N
CG090	56 5 36	158 58 4	15	1.5	1.5	.3	2,000	N	N	N	10	700	<1.0	N	N

MINUS-80 MESH STREAM SEDIMENTS, CHIGNIK QUADRANGLE, ALASKA

sample	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
CG046	20	70	50	50	N	<20	50	15	N	20	N	300	200	N	50	N	300
CG047	30	200	200	50	N	<20	100	20	N	30	N	300	300	N	50	N	200
CG048	30	150	100	50	N	<20	50	50	N	30	N	300	300	N	50	N	300
CG049	30	100	100	50	N	<20	50	20	N	20	N	200	300	N	50	N	200
CG050	30	70	70	50	N	<20	50	20	N	30	N	300	300	N	50	N	200
CG051	20	50	70	50	N	<20	50	20	N	20	N	300	300	N	50	N	150
CG052	20	70	50	50	N	<20	50	20	N	20	N	300	200	N	30	N	50
CG053	30	100	100	50	N	<20	100	20	N	20	N	300	300	N	50	N	200
CG054	20	50	50	50	N	<20	50	20	N	20	N	300	300	N	50	N	200
CG055	30	70	70	50	N	<20	50	20	N	20	N	300	200	N	50	N	100
CG056	20	30	70	50	N	<20	50	20	N	20	N	300	300	N	50	N	200
CG057	20	20	70	50	N	<20	30	10	N	20	N	300	200	N	20	N	100
CG058	20	10	20	50	N	<20	15	10	N	20	N	300	200	N	20	N	100
CG059	30	150	70	50	N	<20	50	20	N	20	N	200	300	N	30	N	200
CG060	20	20	50	50	N	<20	30	150	N	20	N	200	200	N	50	N	150
CG061	20	20	70	50	10	<20	20	15	N	20	N	300	200	N	30	N	150
CG062	30	70	1,000	50	200	<20	20	20	N	15	N	200	200	N	30	N	300
CG063	30	100	150	50	N	<20	70	20	N	30	N	300	300	N	30	N	200
CG064	20	20	150	50	10	<20	20	10	N	20	N	200	300	N	50	N	150
CG065	30	100	150	50	N	<20	50	20	N	20	N	200	300	N	50	N	100
CG066	20	100	150	50	50	<20	20	15	N	20	N	200	300	N	50	N	200
CG067	30	70	150	50	N	<20	20	20	N	30	N	300	500	N	50	N	150
CG068	30	50	50	50	N	<20	20	10	N	30	N	200	500	N	50	N	500
CG069	20	50	70	50	N	<20	20	30	N	20	N	200	300	N	30	N	100
CG070	20	30	30	50	N	<20	20	10	N	20	N	300	200	N	30	N	100
CG071	20	70	50	50	N	<20	30	10	N	20	N	200	200	N	30	N	200
CG072	20	100	50	50	N	<20	50	10	N	20	N	300	200	N	20	N	100
CG073	20	100	50	50	N	<20	50	10	N	20	N	200	200	N	30	N	200
CG074	15	10	30	50	N	<20	10	<10	N	15	N	200	200	N	30	N	100
CG075	50	150	100	50	N	<20	50	20	N	20	N	200	300	N	30	N	200
CG076	20	10	50	50	N	<20	15	<10	N	20	N	200	200	N	50	N	100
CG077	30	70	50	50	N	<20	30	20	N	20	N	200	300	N	50	N	150
CG078	30	70	50	50	N	<20	50	20	N	30	N	200	300	N	50	N	200
CG079	20	100	50	50	N	<20	30	<10	N	20	N	200	200	N	50	N	100
CG080	30	70	50	50	N	<20	20	15	N	30	N	300	300	N	50	N	150
CG081	20	50	50	50	N	<20	20	10	N	20	N	200	200	N	20	N	100
CG082	30	50	50	50	N	<20	20	15	N	20	N	200	300	N	50	N	200
CG083	15	20	30	50	N	<20	15	<10	N	20	N	300	200	N	30	N	100
CG084	30	70	100	50	N	<20	50	10	N	20	N	200	300	N	50	N	150
CG085	20	50	50	50	N	<20	20	10	N	20	N	200	200	N	50	N	100
CG086	30	100	50	50	N	<20	50	10	N	20	N	300	300	N	50	N	100
CG087	20	70	30	50	N	<20	20	10	N	20	N	300	300	N	50	N	1,000
CG088	20	70	30	50	N	<20	30	10	N	15	N	200	200	N	30	N	300
CG089	20	70	30	50	N	<20	20	<10	N	20	N	300	200	N	30	N	200
CG090	30	100	100	50	N	<20	100	<10	N	30	N	300	300	N	30	N	100

sample	AA-CU-P	AA-PB-P	AA-ZN-P
CG046	25	15	70
CG047	30	15	65
CG048	50	40	90
CG049	35	20	70
CG050	35	25	80
CG051	30	15	50
CG052	25	20	60
CG053	35	20	65
CG054	25	20	25
CG055	35	20	65
CG056	25	15	45
CG057	40	20	55
CG058	20	15	55
CG059	20	15	60
CG060	35	100	25
CG061	60	15	25
CG062	1,700	25	25
CG063	55	15	45
CG064	100	15	25
CG065	65	20	35
CG066	120	20	65
CG067	65	40	35
CG068	35	15	30
CG069	65	30	130
CG070	10	10	25
CG071	10	5	15
CG072	20	10	40
CG073	25	15	60
CG074	25	10	50
CG075	55	15	45
CG076	30	15	75
CG077	25	15	70
CG078	45	20	95
CG079	25	10	60
CG080	15	10	35
CG081	30	10	45
CG082	15	5	20
CG083	30	15	40
CG084	50	15	75
CG085	25	10	45
CG086	20	10	40
CG087	20	10	35
CG088	10	5	15
CG089	20	10	40
CG090	35	10	45

MINUS-80 MESH STREAM SEDIMENTS, CHIGNIK QUADRANGLE, ALASKA

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI	S-CD
CG091	56 7 56	158 57 2	10	1.5	1.5	.3	1,500	N	N	N	10	1,000	<1.0	N	N
CG092	56 7 0	158 53 16	7	1.5	1.5	.3	1,000	N	N	N	20	700	<1.0	N	N
CG093	56 7 31	158 53 8	7	1.5	1.5	.3	1,000	N	N	N	15	500	<1.0	N	N
CG094	56 7 42	158 51 56	7	1.5	1.5	.3	1,000	N	N	N	70	700	1.0	N	N
CG095	56 7 59	158 52 10	10	1.5	1.5	.5	1,000	N	N	N	30	500	1.0	N	N
CG096	56 0 6	159 31 50	7	1.5	1.5	.5	1,000	N	N	N	30	500	1.0	N	N
CG097	56 0 6	159 29 57	7	1.5	1.5	.3	1,000	N	N	N	20	700	1.0	N	N
CG098	56 0 25	159 27 34	7	1.5	1.5	.3	1,500	N	N	N	10	500	<1.0	N	N
CG099	56 1 55	159 28 55	10	2.0	2.0	.5	1,500	N	N	N	15	700	<1.0	N	N
CG100	56 1 55	159 29 21	10	1.5	1.5	.5	1,500	N	N	N	10	500	<1.0	N	N
CG101	56 2 2	159 25 15	10	2.0	2.0	.7	1,500	N	N	N	10	500	<1.0	N	N
CG102	56 1 24	159 23 5	15	2.0	1.5	1.0	2,000	N	N	N	10	500	<1.0	N	N
CG103	56 2 8	159 20 39	15	2.0	2.0	.7	2,000	N	N	N	10	500	<1.0	N	N
CG104	56 1 51	159 18 12	15	2.0	2.0	.5	2,000	N	N	N	10	700	<1.0	N	N
CG105	56 1 47	159 18 30	10	2.0	2.0	.5	2,000	N	N	N	10	500	<1.0	N	N
CG106	56 0 50	159 20 16	7	2.0	2.0	.5	2,000	N	N	N	10	500	1.0	N	N
CG107	56 7 28	159 56 3	10	2.0	2.0	.5	1,500	N	N	N	20	500	<1.0	N	N
CG108	56 6 8	159 54 16	10	2.0	2.0	.5	1,500	N	N	N	20	700	<1.0	N	N
CG109	56 6 14	159 51 20	10	2.0	1.5	.5	2,000	N	N	N	20	700	<1.0	N	N
CG110	56 4 4	159 52 42	10	1.5	1.5	.3	1,500	N	N	N	20	700	<1.0	N	N
CG111	56 6 6	159 49 51	10	2.0	2.0	.5	1,500	N	N	N	10	500	<1.0	N	N
CG112	56 6 15	159 47 36	15	3.0	2.0	.7	1,500	N	N	N	10	500	<1.0	N	N
CG113	56 5 35	159 44 20	15	3.0	2.0	.7	1,500	N	N	N	10	500	<1.0	N	N
CG114	56 5 3	159 40 55	10	2.0	2.0	.7	1,500	N	N	N	10	500	<1.0	N	N
CG115	56 3 1	159 41 45	15	2.0	2.0	.5	1,500	N	N	N	20	500	<1.0	N	N
CG116	56 1 49	159 41 53	10	2.0	2.0	.5	1,000	N	N	N	10	500	<1.0	N	N
CG117	56 2 12	159 39 56	15	2.0	2.0	.5	2,000	N	N	N	50	500	<1.0	N	N
CG118	56 4 41	159 38 5	15	2.0	2.0	.5	1,500	N	N	N	20	500	<1.0	N	N
CG119	56 3 48	159 35 17	15	2.0	2.0	.7	2,000	N	N	N	10	500	<1.0	N	N
CG120	56 7 40	159 6 34	15	2.0	2.0	.7	2,000	N	N	N	15	500	<1.0	N	N
CG121	56 7 30	159 7 33	15	2.0	2.0	.5	1,500	N	N	N	10	500	<1.0	N	N
CG122	56 6 44	159 9 1	10	2.0	2.0	.5	2,000	N	N	N	10	500	<1.0	N	N
CG123	56 5 35	159 9 50	15	2.0	2.0	.5	2,000	N	N	N	10	500	<1.0	N	N
CG124	56 3 2	159 8 57	15	2.0	2.0	.7	2,000	N	N	N	15	700	<1.0	N	N
CG125	56 0 57	159 7 40	15	2.0	2.0	.7	2,000	N	N	N	15	700	<1.0	N	N
CG126	56 0 6	159 10 37	10	2.0	2.0	.5	2,000	N	N	N	10	500	<1.0	N	N
CG127	56 3 24	159 13 10	10	2.0	2.0	.5	2,000	N	N	N	10	500	<1.0	N	N
CG128	56 2 23	159 13 35	10	2.0	2.0	.5	2,000	N	N	N	10	500	<1.0	N	N
CG129	56 1 0	159 14 2	10	2.0	2.0	.5	2,000	N	N	N	10	700	<1.0	N	N
CG130	56 4 9	159 57 11	10	2.0	2.0	.5	2,000	N	N	N	10	700	<1.0	N	N
CG131	56 1 55	159 54 59	10	1.5	1.5	.5	1,500	N	N	N	50	1,500	<1.0	N	N
CG132	56 0 55	159 55 6	15	2.0	2.0	.7	2,000	N	N	N	50	500	<1.0	N	N
CG133	56 0 33	159 57 11	10	2.0	2.0	.5	2,000	N	N	N	30	700	<1.0	N	N
CG134	56 1 18	159 58 49	10	1.0	1.5	.7	1,500	N	N	N	50	1,500	1.0	N	N
CG135	56 12 39	158 12 55	10	1.5	2.0	.7	2,000	N	N	N	20	1,000	1.0	N	N

MINUS-80 MESH STREAM SEDIMENTS, CHIGNIK QUADRANGLE, ALASKA

sample	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
CG091	20	70	50	50	N	<20	30	<10	N	20	N	300	200	N	30	N	500
CG092	20	50	50	50	N	<20	50	20	N	20	N	200	100	N	10	N	150
CG093	20	20	30	50	N	<20	50	10	N	20	N	500	100	N	15	N	100
CG094	20	70	30	50	N	<20	50	20	N	20	N	300	150	N	30	N	200
CG095	20	30	30	50	N	<20	50	30	N	20	N	300	150	N	30	N	100
CG096	20	70	50	50	N	<20	50	20	N	20	N	200	200	N	30	N	200
CG097	20	70	20	50	N	<20	50	15	N	20	N	200	100	N	30	N	150
CG098	20	50	30	50	N	<20	30	15	N	20	N	300	100	N	20	N	70
CG099	30	200	70	50	N	<20	70	20	N	20	N	200	200	N	30	N	70
CG100	30	30	50	50	N	<20	30	20	N	30	N	200	200	N	50	N	100
CG101	30	50	70	50	N	<20	50	20	N	50	N	200	200	N	70	N	200
CG102	30	100	70	50	N	<20	50	15	N	50	N	200	300	N	70	N	200
CG103	50	150	70	50	N	<20	50	20	N	50	N	200	300	N	50	N	200
CG104	50	100	70	50	N	<20	50	20	N	50	N	300	300	N	50	N	200
CG105	30	30	50	50	N	<20	50	15	N	30	N	300	200	N	50	N	150
CG106	20	20	30	50	N	<20	20	10	N	30	N	300	200	N	50	N	100
CG107	30	100	30	50	N	<20	50	20	N	30	N	200	200	N	50	N	100
CG108	20	150	50	50	N	<20	30	20	N	30	N	200	200	N	50	N	200
CG109	20	50	70	50	N	<20	20	20	N	30	N	300	200	N	50	N	150
CG110	20	50	30	50	N	<20	20	15	N	20	N	200	200	N	30	N	100
CG111	30	100	100	50	N	<20	50	15	N	30	N	500	300	N	30	N	100
CG112	50	150	70	50	N	<20	50	20	N	50	N	500	300	N	50	N	200
CG113	50	200	100	50	N	<20	70	20	N	50	N	500	300	N	50	N	200
CG114	30	100	50	50	N	<20	50	20	N	30	N	500	300	N	50	N	100
CG115	30	100	100	50	N	<20	30	20	N	30	N	300	300	N	30	N	100
CG116	30	70	50	50	N	<20	20	20	N	30	N	500	300	N	30	N	100
CG117	30	100	70	50	N	<20	50	20	N	30	N	500	300	N	50	N	200
CG118	30	100	50	50	N	<20	50	15	N	30	N	300	300	N	50	N	200
CG119	30	30	50	50	N	<20	30	20	N	30	N	500	300	N	50	N	200
CG120	30	50	70	50	N	<20	50	20	N	30	N	500	300	N	50	N	200
CG121	50	500	70	50	N	<20	50	20	N	30	N	300	200	N	50	N	200
CG122	30	20	50	50	N	<20	30	15	N	30	N	500	200	N	50	N	200
CG123	30	70	100	50	N	<20	50	20	N	30	N	500	300	N	50	N	150
CG124	30	20	100	50	N	<20	30	20	N	30	N	500	200	N	50	N	200
CG125	50	100	100	50	N	<20	50	20	N	30	N	500	200	N	50	N	200
CG126	30	30	70	50	N	<20	30	15	N	30	N	500	200	N	50	N	150
CG127	30	15	150	50	N	<20	20	15	N	30	N	500	300	N	50	N	150
CG128	20	20	70	50	N	<20	20	15	N	30	N	500	200	N	50	N	150
CG129	20	20	70	50	N	<20	20	20	N	30	N	500	200	N	50	N	150
CG130	20	100	50	50	N	<20	50	20	N	30	N	300	300	N	50	N	150
CG131	30	100	30	50	N	<20	70	20	N	20	N	300	200	N	50	N	200
CG132	50	100	200	50	N	<20	70	20	N	30	N	500	300	N	50	N	200
CG133	20	100	100	50	N	<20	50	20	N	30	N	300	300	N	50	200	150
CG134	20	200	30	50	N	<20	50	20	N	20	N	300	200	N	50	<200	150
CG135	20	50	50	50	N	<20	30	20	N	30	N	500	200	N	50	N	200

MINUS-80 MESH STREAM SEDIMENTS, CHIGNIK QUADRANGLE, ALASKA

sample	AA-CU-P	AA-PB-P	AA-ZN-P
CG091	10	5	20
CG092	5	5	15
CG093	20	10	35
CG094	10	5	25
CG095	20	15	60
CG096	35	15	70
CG097	15	15	60
CG098	20	10	35
CG099	30	15	45
CG100	15	10	25
CG101	15	5	25
CG102	15	10	45
CG103	15	10	35
CG104	10	10	20
CG105	15	10	25
CG106	25	15	50
CG107	10	15	35
CG108	10	10	45
CG109	15	10	30
CG110	15	10	35
CG111	40	10	25
CG112	20	10	25
CG113	20	5	25
CG114	25	10	50
CG115	30	10	25
CG116	20	10	35
CG117	45	15	70
CG118	20	10	35
CG119	15	10	30
CG120	20	5	30
CG121	15	5	20
CG122	10	5	15
CG123	15	5	20
CG124	15	5	15
CG125	20	10	35
CG126	25	10	30
CG127	20	5	10
CG128	15	5	15
CG129	10	5	15
CG130	10	10	35
CG131	15	10	60
CG132	65	15	65
CG133	30	10	35
CG134	15	10	55
CG135	20	15	50

MINUS-80 MESH STREAM SEDIMENTS, CHIGNIK QUADRANGLE, ALASKA

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI	S-CD
CG136	56 11 53	158 14 34	10	1.5	2.0	.7	2,000	N	N	N	20	1,000	1.0	N	N
CG137	56 10 55	158 17 36	10	1.5	2.0	.5	2,000	N	N	N	20	1,000	1.0	N	N
CG138	56 10 41	158 20 23	10	1.5	2.0	.5	2,000	N	N	N	10	1,000	1.0	N	N
CG139	56 10 55	158 20 30	10	1.5	1.5	.5	3,000	N	N	N	50	500	1.0	N	N
CG140	56 11 44	158 19 0	10	1.0	1.5	.5	2,000	N	N	N	20	500	1.0	N	N
CG141	56 12 47	158 19 47	10	1.5	2.0	.5	2,000	N	N	N	50	500	<1.0	N	N
CG142	56 12 8	158 23 50	10	1.5	1.5	.5	2,000	N	N	N	10	700	<1.0	N	N
CG143	56 14 32	158 24 23	10	1.5	1.5	.5	2,000	N	N	N	50	1,000	<1.0	N	N
CG144	56 14 31	158 21 59	10	1.0	1.5	.5	1,500	N	N	N	10	700	<1.0	N	N
CG145	56 16 22	158 20 27	10	1.5	1.5	.5	2,000	N	N	N	50	1,000	<1.0	N	N
CG146	56 16 51	158 19 24	10	1.0	1.0	.5	1,000	N	N	N	50	1,000	<1.0	N	N
CG147	56 17 26	158 19 41	10	1.0	1.0	.5	1,000	N	N	N	70	1,000	<1.0	N	N
CG148	56 18 56	158 18 56	5	1.0	1.0	.3	1,000	N	N	N	30	500	<1.0	N	N
CG149	56 17 21	158 15 15	10	1.0	1.0	.5	2,000	N	N	N	50	700	<1.0	N	N
CG150	56 17 39	158 14 30	10	1.0	1.0	.3	1,000	N	N	N	70	700	1.0	N	N
CG151	56 16 4	158 14 7	7	1.0	.7	.3	1,000	N	N	N	70	700	1.0	N	N
CG152	56 15 32	158 15 20	10	1.5	1.0	.3	1,500	N	N	N	50	1,000	<1.0	N	N
CG153	56 14 43	158 17 40	10	1.5	1.0	.5	2,000	N	N	N	50	1,000	1.0	N	N
CG154	56 32 45	158 14 43	5	1.0	1.0	.5	100	N	N	N	70	1,000	<1.0	N	N
CG155	56 32 9	158 13 9	10	1.5	1.5	.5	2,000	N	N	N	10	500	<1.0	N	N
CG156	56 31 9	158 14 16	10	1.5	1.5	.5	2,000	N	N	N	50	700	<1.0	N	N
CG157	56 31 13	158 13 45	10	1.5	1.5	.3	1,500	N	N	N	20	700	<1.0	N	N
CG158	56 31 41	158 13 20	10	1.5	1.5	.3	1,500	N	N	N	10	700	<1.0	N	N
CG159	56 30 2	158 8 56	15	1.5	1.0	.3	700	N	N	N	30	500	<1.0	N	N
CG160	56 29 52	158 8 40	10	1.5	1.5	.3	2,000	N	N	N	30	1,000	<1.0	N	N
CG161	56 27 55	158 10 42	15	1.5	1.5	.3	2,000	N	N	N	30	700	<1.0	N	N
CG162	56 31 35	158 16 35	10	1.5	1.5	.3	1,500	N	N	N	100	1,000	<1.0	N	N
CG163	56 31 5	158 18 2	15	2.0	1.5	.3	1,500	N	N	N	10	700	<1.0	N	N
CG164	56 18 56	158 21 39	5	1.0	1.5	.3	1,000	N	N	N	50	500	1.5	N	N
CG165	56 17 40	158 22 53	10	1.5	1.5	.5	1,000	N	N	N	50	700	1.5	N	N
CG166	56 18 2	158 24 55	10	2.0	2.0	.5	1,500	.5	N	N	30	700	1.5	N	N
CG167	56 16 51	158 27 29	10	1.5	1.5	.3	1,000	N	N	N	30	700	1.5	N	N
CG168	56 20 3	158 26 13	10	2.0	1.5	.5	1,500	N	N	N	20	700	1.5	N	N
CG169	56 18 38	158 31 49	10	1.5	1.5	.3	1,000	N	N	N	50	500	1.5	N	N
CG170	56 16 22	158 32 53	10	2.0	1.0	.3	1,000	N	N	N	100	300	1.5	N	N
CG171	56 14 41	158 29 57	10	3.0	2.0	.5	1,500	N	N	N	100	500	1.0	N	N
CG172	56 14 27	158 29 54	7	2.0	1.5	.5	1,000	N	N	N	50	500	1.0	N	N
CG173	56 15 46	158 35 27	5	1.5	1.0	.5	1,000	N	N	N	20	500	1.0	N	N
CG174	56 12 44	158 34 54	10	2.0	1.5	.5	1,500	N	N	N	20	500	1.0	N	N
CG175	56 12 52	158 34 51	10	1.5	1.5	.5	1,500	N	N	N	30	500	1.0	N	N
CG176	56 13 18	158 37 37	10	2.0	1.5	.7	1,500	N	N	N	10	500	1.0	N	N
CG177	56 15 34	158 37 44	10	2.0	1.5	.5	1,500	N	N	N	10	500	1.0	N	N
CG178	56 11 15	158 53 3	10	2.0	1.5	.5	1,500	N	N	N	20	500	1.0	N	N
CG179	56 11 5	158 52 45	10	2.0	2.0	.5	1,500	N	N	N	15	500	1.0	N	N
CG180	56 11 2	158 52 5	7	2.0	1.5	.3	1,500	N	N	N	20	500	1.0	N	N

MINUS-80 MESH STREAM SEDIMENTS, CHIGNIK QUADRANGLE, ALASKA

sample	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
CG136	20	30	50	50	N	<20	20	20	N	30	N	500	200	N	50	N	200
CG137	20	20	50	50	N	<20	20	20	N	30	N	300	200	N	50	N	150
CG138	30	20	70	50	N	<20	20	30	N	30	N	300	300	N	30	N	150
CG139	20	30	100	50	<5	<20	30	50	N	20	N	300	200	N	50	200	100
CG140	20	15	100	50	N	<20	20	20	N	20	N	300	200	N	50	<200	100
CG141	30	50	200	50	20	<20	50	30	N	30	N	300	300	N	50	N	150
CG142	20	70	150	50	5	<20	30	20	N	30	N	300	200	N	50	N	200
CG143	30	50	150	50	10	<20	20	20	N	30	N	300	200	N	50	N	200
CG144	15	50	100	50	10	<20	20	20	N	30	N	300	200	N	50	N	150
CG145	30	50	100	50	N	<20	30	30	N	20	N	300	300	N	30	N	200
CG146	20	100	50	50	N	<20	50	20	N	30	N	300	200	N	30	N	200
CG147	20	70	50	50	N	<20	50	15	N	20	N	200	200	N	30	N	700
CG148	15	20	30	50	N	<20	20	10	N	20	N	200	200	N	50	N	100
CG149	20	150	70	50	N	<20	50	20	N	20	N	200	200	N	50	N	200
CG150	10	100	50	50	N	<20	70	20	N	20	N	200	200	N	50	N	150
CG151	20	100	70	50	N	<20	70	20	N	20	N	200	200	N	50	N	200
CG152	20	100	50	50	N	<20	70	20	N	20	N	200	200	N	50	N	200
CG153	20	70	30	50	N	<20	30	15	N	20	N	200	200	N	30	N	200
CG154	15	70	30	50	N	<20	50	10	N	15	N	300	100	N	30	N	100
CG155	20	100	50	50	N	<20	30	15	N	20	N	300	300	N	50	N	70
CG156	20	150	100	50	N	<20	30	20	N	20	N	300	200	N	50	N	100
CG157	20	50	70	50	N	<20	20	10	N	20	N	300	200	N	30	N	70
CG158	20	70	50	50	N	<20	30	10	N	20	N	300	300	N	30	N	50
CG159	10	20	150	50	30	<20	10	20	N	15	N	200	200	N	15	N	50
CG160	20	50	70	50	N	<20	50	20	N	20	N	300	300	N	50	N	300
CG161	20	30	70	50	N	<20	30	30	N	20	N	300	300	N	30	N	200
CG162	20	30	30	50	N	<20	50	10	N	15	N	300	200	N	20	N	200
CG163	30	200	100	50	N	<20	100	10	N	20	N	500	300	N	20	N	100
CG164	50	30	50	50	N	<20	20	20	N	20	N	200	200	N	30	N	150
CG165	70	200	70	50	N	<20	50	50	N	30	N	200	200	N	50	N	200
CG166	100	70	100	50	<5	<20	30	50	N	30	100	300	200	N	50	N	200
CG167	50	50	50	50	N	<20	30	30	N	30	N	200	200	N	50	N	150
CG168	50	50	50	50	N	<20	30	30	N	30	N	500	200	N	50	N	300
CG169	70	50	70	50	N	<20	50	30	N	30	N	200	200	N	50	N	150
CG170	70	30	70	50	N	<20	30	30	N	20	N	200	150	N	30	N	200
CG171	100	150	100	50	N	<20	70	50	N	50	N	300	200	N	50	N	150
CG172	100	50	100	50	10	<20	50	100	N	30	N	200	150	N	30	N	200
CG173	50	30	50	50	<5	<20	20	50	N	30	N	200	150	N	30	N	200
CG174	70	100	70	50	N	<20	70	50	N	30	N	200	200	N	50	N	200
CG175	100	70	100	50	N	<20	50	50	N	30	N	200	200	N	50	N	200
CG176	100	70	100	50	N	<20	70	50	N	30	N	200	200	N	50	N	200
CG177	50	50	50	50	N	<20	50	20	N	30	N	200	200	N	50	N	300
CG178	70	20	70	50	N	<20	50	50	N	20	N	300	200	N	50	N	100
CG179	50	20	50	50	N	<20	30	20	N	30	N	300	200	N	50	N	100
CG180	50	30	50	50	N	<20	30	20	N	20	N	500	100	N	30	N	150

sample	AA-CU-P	AA-PB-P	AA-ZN-P
CG136	20	15	40
CG137	15	15	50
CG138	30	20	90
CG139	95	45	250
CG140	75	20	45
CG141	200	20	55
CG142	180	25	50
CG143	65	20	50
CG144	45	15	40
CG145	45	20	85
CG146	30	15	75
CG147	25	15	70
CG148	30	15	65
CG149	35	20	75
CG150	35	15	90
CG151	50	25	100
CG152	35	20	95
CG153	25	15	65
CG154	30	10	60
CG155	40	15	55
CG156	45	30	100
CG157	55	20	85
CG158	45	15	60
CG159	140	20	40
CG160	35	20	70
CG161	25	20	65
CG162	15	10	30
CG163	60	20	55
CG164	30	15	45
CG165	40	15	100
CG166	80	20	75
CG167	40	15	85
CG168	35	15	70
CG169	50	20	100
CG170	50	25	55
CG171	67	40	90
CG172	75	50	80
CG173	30	30	50
CG174	45	25	80
CG175	60	35	120
CG176	55	20	85
CG177	25	10	60
CG178	40	20	90
CG179	30	15	70
CG180	15	5	30

MINUS-80 MESH STREAM SEDIMENTS, CHIGNIK QUADRANGLE, ALASKA

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI	S-CD
CG181	56 11 36	158 49 1	10	2.0	1.5	.3	1,500	N	N	N	30	500	1.0	N	N
CG182	56 12 37	158 47 48	10	2.0	1.5	.5	2,000	N	N	N	20	500	1.0	N	N
CG183	56 13 6	158 49 18	7	1.5	1.5	.3	1,000	N	N	N	20	500	1.0	N	N
CG184	56 19 14	158 35 31	10	2.0	1.5	.5	1,500	N	N	N	20	700	<1.0	N	N
CG185	56 21 1	158 33 50	10	2.0	1.5	.3	1,500	N	N	N	30	500	1.0	N	N
CG186	56 22 19	158 31 31	10	2.0	1.5	.5	1,500	N	N	N	70	500	1.0	N	N
CG187	56 22 54	158 30 17	7	1.0	1.0	.5	1,000	N	N	N	150	500	<1.0	N	N
CG188	56 24 2	158 31 36	10	1.5	1.5	.5	1,500	N	N	N	50	700	<1.0	N	N
CG189	56 24 15	158 31 26	5	1.0	1.5	.3	1,000	N	N	N	50	700	<1.0	N	N
CG190	56 25 11	158 29 2	7	1.0	1.5	.5	1,000	N	N	N	50	500	<1.0	N	N
CG191	56 25 47	158 28 40	7	1.0	1.5	.3	1,500	N	N	N	50	700	<1.0	N	N
CG192	56 26 39	158 25 42	10	1.5	1.5	.3	1,000	N	N	N	50	1,000	<1.0	N	N
CG193	56 26 49	158 28 32	10	1.0	1.5	.5	1,000	N	N	N	100	1,000	<1.0	N	N
CG194	56 29 30	158 31 35	10	1.0	1.5	.5	2,000	N	N	N	10	500	<1.0	N	N
CG195	56 29 22	158 31 19	10	1.5	1.5	.5	2,000	N	N	N	10	500	<1.0	N	N
CG196	56 29 2	158 29 43	10	1.5	1.5	.7	2,000	N	N	N	10	500	1.0	N	N
CG197	56 27 34	158 33 48	10	1.5	1.0	.5	1,500	N	N	N	50	1,000	<1.0	N	N
CG198	56 28 46	158 21 14	15	1.5	1.0	.5	2,000	N	N	N	30	700	<1.0	N	N
CG199	56 30 11	158 19 50	15	2.0	2.0	.7	2,000	N	N	N	10	500	1.0	N	N
CG200	56 31 46	158 20 21	10	1.5	1.5	.5	1,500	N	N	N	100	700	<1.0	N	N
CG201	56 30 41	158 22 51	15	1.5	1.0	.5	2,000	<.5	N	N	30	500	<1.0	N	N
CG202	56 30 56	158 22 55	15	1.5	1.0	.5	1,000	<.5	N	N	15	300	<1.0	N	N
CG203	56 33 6	158 23 16	5	1.0	2.0	.5	500	N	N	N	20	500	<1.0	N	N
CG204	56 33 15	158 23 8	10	1.5	1.5	.3	2,000	N	N	N	70	700	<1.0	N	N
CG205	56 17 49	158 37 20	10	1.5	1.5	.3	1,500	N	N	N	50	1,000	<1.0	N	N
CG206	56 16 45	158 42 44	15	2.0	1.5	.5	2,000	N	N	N	50	500	<1.0	N	N
CG207	56 16 51	158 43 18	15	2.0	2.0	.5	2,000	N	N	N	10	700	<1.0	N	N
CG208	56 16 55	158 47 58	15	2.0	1.5	.5	2,000	N	N	N	10	500	<1.0	N	N
CG209	56 17 30	158 47 48	15	2.0	1.5	.5	2,000	N	N	N	10	500	<1.0	N	N
CG210	56 18 24	158 52 35	5	1.5	3.0	.7	500	N	N	N	15	500	<1.0	N	N
CG211	56 20 57	158 51 2	5	1.5	3.0	.7	700	N	N	N	15	500	<1.0	N	N
CG212	56 22 26	158 52 6	5	1.0	3.0	.5	500	N	N	N	15	500	<1.0	N	N
CG213	56 22 20	158 51 7	3	1.0	2.0	.5	300	N	N	N	10	500	<1.0	N	N
CG214	56 21 51	158 49 15	5	1.0	2.0	.5	500	N	N	N	20	500	<1.0	N	N
CG215	56 20 7	158 47 14	5	1.0	3.0	.7	500	N	N	N	15	500	<1.0	N	N
CG216	56 19 58	158 44 21	5	1.0	3.0	.5	500	N	N	N	20	500	<1.0	N	N
CG217	56 20 5	158 44 11	5	1.5	3.0	.7	500	N	N	N	15	500	<1.0	N	N
CG218	56 23 30	158 48 30	2	.7	2.0	.5	300	N	N	N	20	700	<1.0	N	N
CG219	56 21 51	158 42 59	7	1.0	2.0	1.0	500	N	N	N	30	500	<1.0	N	N
CG220	56 21 51	158 43 14	10	1.0	2.0	1.0	1,000	N	N	N	10	500	<1.0	N	N
CG221	56 22 44	158 45 12	7	1.0	2.0	1.0	700	N	N	N	10	500	<1.0	N	N
CG222	56 22 40	158 46 9	7	1.5	3.0	.7	700	N	N	N	10	500	<1.0	N	N
CG223	56 25 4	158 47 21	7	1.5	3.0	.7	700	N	N	N	30	500	<1.0	N	N
CG224	56 24 41	158 43 54	5	1.0	3.0	.7	700	N	N	N	10	500	<1.0	N	N
CG225	56 24 3	158 44 18	5	1.5	3.0	.7	700	N	N	N	20	500	<1.0	N	N

MINUS-80 MESH STREAM SEDIMENTS, CHIGNIK QUADRANGLE, ALASKA

sample	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
CG181	50	50	50	50	N	<20	50	20	N	20	N	200	150	N	30	N	150
CG182	50	20	50	50	5	<20	30	30	N	20	N	300	200	N	50	N	150
CG183	50	50	50	50	N	<20	50	20	N	20	N	200	150	N	20	N	200
CG184	50	70	50	50	N	<20	50	20	N	30	N	200	200	N	30	N	300
CG185	50	30	50	50	N	<20	30	20	N	20	N	300	150	N	20	N	100
CG186	50	30	50	50	N	<20	30	20	N	20	N	300	150	N	30	N	100
CG187	20	50	50	50	N	<20	50	20	N	15	N	200	200	N	20	N	100
CG188	20	50	50	50	N	<20	20	20	N	15	N	300	200	N	30	N	300
CG189	15	15	30	50	N	<20	20	10	N	10	N	500	150	N	20	N	150
CG190	15	20	20	50	N	<20	20	10	N	10	N	300	150	N	20	N	300
CG191	15	20	30	50	N	<20	20	10	N	10	N	300	100	N	20	N	70
CG192	15	50	50	50	N	<20	30	15	N	15	N	500	150	N	30	N	200
CG193	15	30	50	50	N	<20	30	15	N	15	N	300	200	N	20	N	70
CG194	15	20	30	50	N	<20	20	15	N	15	N	300	200	N	20	N	200
CG195	20	70	50	50	N	<20	30	15	N	20	N	300	200	N	30	N	500
CG196	20	50	70	50	N	<20	30	10	N	30	N	300	200	N	30	N	100
CG197	15	100	50	50	N	<20	30	50	N	20	N	300	150	N	50	N	500
CG198	20	100	70	50	N	<20	50	20	N	15	N	200	200	N	20	N	300
CG199	30	200	100	50	N	<20	50	15	N	50	N	500	500	N	30	N	100
CG200	15	50	50	50	N	<20	30	15	N	20	N	300	150	N	30	N	200
CG201	150	70	1,000	50	20	<20	70	15	N	20	N	200	200	N	50	N	150
CG202	15	70	500	50	70	<20	20	15	N	20	N	200	300	N	50	N	200
CG203	50	70	30	50	N	<20	30	10	N	20	N	500	200	N	20	N	100
CG204	20	70	70	50	N	<20	50	15	N	20	N	300	200	N	30	N	300
CG205	20	150	70	50	N	<20	70	10	N	20	N	300	200	N	50	N	500
CG206	30	70	50	50	N	<20	30	10	N	30	N	300	500	N	20	N	500
CG207	30	70	70	50	N	<20	50	10	N	30	N	500	300	N	50	N	300
CG208	20	50	70	50	N	<20	30	10	N	30	N	300	300	N	50	N	300
CG209	20	70	70	50	N	<20	30	10	N	20	N	300	200	N	30	N	200
CG210	50	100	30	50	N	<20	30	10	N	30	N	500	200	N	30	<200	100
CG211	50	100	50	50	N	<20	50	15	N	30	N	500	300	N	20	<200	100
CG212	50	70	30	50	N	<20	30	10	N	30	N	500	200	N	30	<200	70
CG213	20	50	15	50	N	<20	20	10	N	20	N	700	200	N	20	<200	70
CG214	30	50	20	50	N	<20	20	10	N	20	N	500	200	N	20	<200	100
CG215	50	50	30	50	N	<20	20	15	N	30	N	500	200	N	20	<200	100
CG216	50	70	30	50	N	<20	30	20	N	20	N	700	200	N	20	<200	70
CG217	70	70	30	50	N	<20	30	15	N	30	N	500	300	N	20	<200	100
CG218	20	50	10	50	N	<20	10	15	N	10	N	700	100	N	20	N	300
CG219	70	70	50	50	N	<20	30	10	N	30	N	500	500	N	30	200	150
CG220	100	100	50	50	N	<20	30	10	N	50	N	300	500	N	30	300	200
CG221	50	100	30	50	N	<20	20	10	N	30	N	500	300	N	20	<200	70
CG222	50	70	30	50	N	<20	20	10	N	30	N	500	300	N	20	N	150
CG223	70	70	30	50	N	<20	20	15	N	30	N	300	300	N	30	N	100
CG224	30	70	30	50	N	<20	15	10	N	20	N	300	300	N	20	<200	100
CG225	50	70	30	50	N	<20	20	10	N	30	N	500	300	N	30	N	100

sample	AA-CU-P	AA-PB-P	AA-ZN-P
CG181	30	10	65
CG182	30	10	50
CG183	25	10	60
CG184	20	10	50
CG185	5	<5	15
CG186	10	<5	20
CG187	25	5	55
CG188	20	5	40
CG189	15	5	25
CG190	15	5	20
CG191	10	<5	20
CG192	25	5	45
CG193	30	10	65
CG194	15	10	40
CG195	15	5	35
CG196	10	5	25
CG197	25	25	90
CG198	25	10	75
CG199	40	10	75
CG200	15	5	35
CG201	1,000	15	95
CG202	280	10	40
CG203	10	5	20
CG204	30	10	55
CG205	25	10	60
CG206	15	5	35
CG207	20	5	45
CG208	20	5	45
CG209	20	5	45
CG210	25	15	50
CG211	30	15	55
CG212	30	15	55
CG213	20	15	50
CG214	30	15	55
CG215	20	15	40
CG216	10	10	20
CG217	30	15	55
CG218	15	10	40
CG219	30	15	70
CG220	15	10	45
CG221	20	15	65
CG222	15	10	40
CG223	25	10	60
CG224	15	10	30
CG225	25	15	45

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI	S-CD
CG226	56 24 6	158 43 31	7	1.5	3.0	.7	700	N	N	N	20	500	<1.0	N	N
CG227	56 22 59	158 41 23	5	1.5	3.0	.7	700	N	N	N	30	500	<1.0	N	N
CG228	56 23 4	158 39 29	7	1.5	3.0	.7	700	N	N	N	20	500	<1.0	N	N
CG229	56 23 41	158 35 26	3	1.0	2.0	.5	500	N	N	N	20	500	<1.0	N	N
CG230	56 32 40	158 57 50	10	1.5	3.0	.7	700	N	N	N	10	300	<1.0	N	N
CG231	56 31 8	158 57 39	7	1.5	3.0	.7	1,000	N	N	N	10	300	<1.0	N	N
CG232	56 30 30	158 56 5	3	1.5	3.0	.7	700	N	N	N	10	300	<1.0	N	N
CG233	56 29 53	158 53 21	15	2.0	3.0	1.0	1,000	N	N	N	10	300	<1.0	N	N
CG234	56 29 21	158 51 41	10	2.0	3.0	.7	700	N	N	N	10	500	<1.0	N	N
CG235	56 28 38	158 50 11	5	1.5	3.0	.5	500	N	N	N	10	500	<1.0	N	N
CG236	56 30 25	158 45 38	10	1.5	2.0	.7	700	N	N	N	30	500	<1.0	N	N
CG237	56 28 58	158 45 59	5	1.0	2.0	.7	700	N	N	N	20	500	<1.0	N	N
CG238	56 28 19	158 49 32	5	1.0	2.0	.7	500	N	N	N	30	500	<1.0	N	N
CG239	56 30 17	158 41 56	5	1.0	1.0	.7	300	N	N	N	70	1,000	<1.0	N	N
CG240	56 30 26	158 41 32	5	1.0	2.0	.7	1,000	N	N	N	50	500	<1.0	N	N
CG241	56 16 8	158 59 21	5	1.0	2.0	.7	700	N	N	N	20	500	<1.0	N	N
CG242	56 15 42	158 59 45	5	1.5	2.0	.7	700	N	N	N	20	500	<1.0	N	N
CG243	56 16 53	159 0 10	3	1.5	2.0	.5	700	N	N	N	15	500	<1.0	N	N
CG244	56 19 9	159 2 26	5	1.5	3.0	.7	700	N	N	N	10	500	<1.0	N	N
CG245	56 19 8	158 56 50	5	1.5	2.0	1.0	700	N	N	N	10	500	<1.0	N	N
CG246	56 16 36	158 53 45	7	1.5	3.0	1.0	700	N	N	N	10	500	<1.0	N	N
CG247	56 14 45	158 52 14	5	1.5	2.0	.7	300	N	N	N	20	500	<1.0	N	N
CG248	56 14 7	158 53 26	7	1.5	3.0	.7	700	N	N	N	10	500	<1.0	N	N
CG249	56 13 59	158 53 8	5	1.5	2.0	.7	700	N	N	N	20	500	<1.0	N	N
CG250	56 13 10	158 44 48	5	1.5	2.0	.7	700	N	N	N	15	500	<1.0	N	N
CG251	56 11 50	158 42 52	5	1.5	2.0	.7	700	N	N	N	15	500	<1.0	N	N
CG252	56 11 21	158 42 56	5	1.5	1.5	.7	700	N	N	N	20	500	<1.0	N	N
CG253	56 15 21	158 42 14	10	1.5	3.0	.7	700	N	N	N	10	700	<1.0	N	N
CG254	56 29 32	158 41 39	10	1.5	3.0	.7	700	N	N	N	20	500	<1.0	N	N
CG255	56 28 2	158 42 37	7	1.5	3.0	.7	700	N	N	N	10	500	<1.0	N	N
CG256	56 27 41	158 43 14	7	1.5	3.0	.7	700	N	N	N	10	500	<1.0	N	N
CG257	56 28 32	158 37 36	10	2.0	3.0	.7	700	N	N	N	10	500	<1.0	N	N
CG258	56 27 55	158 37 50	10	2.0	3.0	.7	700	N	N	N	10	500	<1.0	N	N
CG259	56 27 15	158 41 11	10	2.0	3.0	.7	700	N	N	N	10	500	<1.0	N	N
CG260	56 16 3	159 3 23	10	2.0	3.0	.7	700	N	N	N	10	500	<1.0	N	N
CG261	56 10 50	159 4 50	7	1.5	2.0	.7	700	N	N	N	10	500	<1.0	N	N
CG262	56 10 47	159 4 28	10	3.0	2.0	.7	700	N	N	N	10	300	<1.0	N	N
CG263	56 12 10	159 2 54	7	3.0	3.0	.7	700	N	N	N	10	300	<1.0	N	N
CG264	56 12 3	158 59 7	7	2.0	3.0	.7	700	N	N	N	10	300	<1.0	N	N
CG265	56 12 17	158 59 3	10	2.0	3.0	.7	700	N	N	N	10	500	<1.0	N	N
CG266	56 12 41	159 4 46	10	2.0	3.0	.7	700	N	N	N	10	500	<1.0	N	N
CG267	56 13 14	159 5 43	10	2.0	3.0	.7	700	N	N	N	10	500	<1.0	N	N
CG268	56 13 54	159 6 24	10	2.0	3.0	.7	700	N	N	N	10	500	<1.0	N	N
CG269	56 14 47	159 7 32	10	2.0	3.0	.7	700	N	N	N	10	500	<1.0	N	N
CG270	56 15 8	159 5 43	10	2.0	3.0	.7	700	N	N	N	10	500	<1.0	N	N

MINUS-80 MESH STREAM SEDIMENTS, CHIGNIK QUADRANGLE, ALASKA

sample	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
CG226	50	100	30	50	N	<20	30	10	N	30	N	500	300	N	30	<200	100
CG227	50	70	30	50	N	<20	30	10	N	20	N	500	200	N	20	N	100
CG228	30	70	30	50	N	<20	20	10	N	20	N	300	300	N	20	N	100
CG229	20	50	20	50	N	<20	20	10	N	10	N	500	200	N	20	N	70
CG230	50	100	30	50	N	<20	20	10	N	30	N	300	300	N	30	<200	150
CG231	50	100	20	50	N	<20	20	10	N	30	N	300	500	N	30	200	150
CG232	20	100	20	50	N	<20	10	10	N	20	N	300	200	N	30	<200	70
CG233	100	200	50	50	N	<20	50	10	N	50	N	300	500	N	30	300	150
CG234	70	150	30	50	N	<20	30	15	N	30	N	500	200	N	30	<200	100
CG235	30	100	20	50	N	<20	20	10	N	20	N	500	200	N	30	N	100
CG236	50	200	100	50	N	<20	30	30	N	30	N	300	300	N	30	<200	200
CG237	50	200	30	50	N	<20	30	20	N	30	N	500	200	N	30	N	150
CG238	30	70	50	50	N	<20	20	20	N	20	N	300	200	N	30	N	100
CG239	20	200	50	50	N	<20	10	30	N	30	N	300	200	N	30	N	300
CG240	50	20	70	50	N	<20	10	30	N	20	N	300	200	N	30	<200	100
CG241	50	20	150	50	N	<20	20	20	N	20	N	500	200	N	30	<200	100
CG242	50	50	70	50	N	<20	20	30	N	30	N	500	200	N	30	200	100
CG243	30	20	70	50	N	<20	20	20	N	20	N	500	200	N	30	<200	70
CG244	50	20	30	50	N	<20	20	20	N	50	N	500	200	N	50	<200	100
CG245	30	50	30	50	N	<20	20	15	N	30	N	700	300	N	30	<200	100
CG246	50	50	50	50	N	<20	30	15	N	20	N	500	200	N	30	<200	100
CG247	30	30	30	50	N	<20	20	15	N	20	N	500	200	N	20	N	70
CG248	30	30	30	50	N	<20	20	10	N	30	N	500	300	N	30	200	70
CG249	30	30	30	50	N	<20	20	10	N	30	N	500	200	N	30	N	70
CG250	50	200	30	50	N	<20	30	10	N	20	N	300	200	N	30	N	150
CG251	50	70	30	50	N	<20	50	20	N	30	N	300	300	N	30	N	150
CG252	50	100	30	50	N	<20	30	15	N	30	N	300	300	N	30	N	150
CG253	70	200	50	50	N	<20	20	15	N	50	N	500	200	N	50	N	100
CG254	70	70	70	50	N	<20	20	15	N	50	N	500	200	N	30	N	100
CG255	50	30	30	50	N	<20	20	10	N	30	N	500	200	N	30	N	100
CG256	50	30	50	50	N	<20	15	10	N	50	N	500	200	N	50	N	100
CG257	100	150	70	50	N	<20	50	10	N	50	N	500	300	N	30	N	100
CG258	100	100	150	50	N	<20	30	20	N	50	N	500	300	N	30	N	100
CG259	100	100	70	50	N	<20	30	15	N	50	N	500	200	N	30	N	150
CG260	100	200	70	50	N	<20	50	10	N	50	N	500	300	N	30	N	100
CG261	50	30	30	50	N	<20	10	15	N	30	N	500	300	N	30	N	100
CG262	150	300	30	50	N	<20	100	10	N	50	N	500	300	N	30	N	100
CG263	100	200	30	50	N	<20	100	10	N	50	N	500	300	N	30	N	100
CG264	100	70	50	50	N	<20	30	10	N	50	N	500	300	N	30	N	100
CG265	70	70	50	50	N	<20	30	10	N	50	N	500	300	N	30	N	100
CG266	100	100	50	50	N	<20	50	10	N	50	N	500	300	N	30	N	100
CG267	100	100	50	50	N	<20	50	10	N	50	N	500	300	N	30	N	100
CG268	100	100	70	50	N	<20	50	10	N	50	N	500	300	N	30	N	100
CG269	100	70	50	50	N	<20	50	10	N	50	N	500	300	N	30	N	100
CG270	70	50	50	50	N	<20	20	10	N	50	N	500	300	N	30	N	100

sample	AA-CU-P	AA-PB-P	AA-ZN-P
CG226	15	10	40
CG227	10	5	20
CG228	10	10	20
CG229	20	10	35
CG230	15	10	45
CG231	5	10	30
CG232	10	10	30
CG233	10	10	50
CG234	20	15	50
CG235	20	15	50
CG236	50	20	50
CG237	15	15	50
CG238	50	20	80
CG239	40	30	65
CG240	60	40	83
CG241	220	20	75
CG242	30	20	100
CG243	100	20	95
CG244	5	10	30
CG245	15	15	50
CG246	5	10	15
CG247	20	15	55
CG248	20	20	90
CG249	20	20	60
CG250	25	10	65
CG251	20	20	70
CG252	20	15	65
CG253	30	20	60
CG254	30	25	90
CG255	30	25	60
CG256	20	15	45
CG257	30	20	60
CG258	10	10	15
CG259	10	15	35
CG260	15	20	40
CG261	10	10	20
CG262	10	10	25
CG263	20	15	40
CG264	25	15	40
CG265	45	20	60
CG266	20	20	35
CG267	10	15	25
CG268	15	15	15
CG269	10	15	15
CG270	5	15	35

MINUS-80 MESH STREAM SEDIMENTS, CHIGNIK QUADRANGLE, ALASKA

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI	S-CD
CG271	56 16 37	159 9 5	10	2.0	3.0	.7	700	N	N	N	10	500	<1.0	N	N
CG272	56 25 54	158 53 44	10	2.0	3.0	.7	700	N	N	N	10	500	<1.0	N	N
CG273	56 26 39	158 53 39	10	2.0	3.0	.7	700	N	N	N	10	500	<1.0	N	N
CG274	56 17 44	159 5 14	10	2.0	3.0	.7	700	N	N	N	10	500	<1.0	N	N
CG275	56 7 40	159 38 29	10	3.0	3.0	.7	700	N	N	N	10	500	<1.0	N	N
CG276	56 7 19	159 36 29	5	1.0	1.5	.7	500	N	N	N	10	500	<1.0	N	N
CG277	56 8 20	159 36 57	5	1.5	1.5	.7	500	N	N	N	50	700	<1.0	N	N
CG278	56 8 26	159 36 51	5	1.5	2.0	.7	500	N	N	N	20	500	<1.0	N	N
CG279	56 10 38	159 39 16	5	1.5	2.0	.7	500	N	N	N	20	500	<1.0	N	N
CG280	56 9 44	159 42 29	5	1.5	2.0	.7	700	N	N	N	50	700	<1.0	N	N
CG281	56 11 40	159 33 51	3	1.5	2.0	.5	500	N	N	N	20	500	<1.0	N	N
CG282	56 13 29	159 34 33	3	1.0	1.5	.5	500	N	N	N	20	700	<1.0	N	N
CG283	56 9 14	159 52 50	5	1.5	2.0	.7	500	N	N	N	15	500	<1.0	N	N
CG284	56 11 42	159 50 57	10	1.5	3.0	.7	700	N	N	N	10	500	<1.0	N	N
CG285	56 14 30	159 52 59	5	1.0	2.0	.7	700	N	N	N	20	500	<1.0	N	N
CG286	56 14 30	159 45 29	5	1.0	2.0	.7	500	N	N	N	15	500	<1.0	N	N
CG287	56 11 48	159 47 16	10	1.5	3.0	.7	700	N	N	N	15	500	<1.0	N	N
CG288	56 9 35	159 47 35	10	1.5	3.0	.7	1,000	N	N	N	10	500	<1.0	N	N
CG289	56 10 45	159 44 41	5	1.0	2.0	.7	500	N	N	N	20	500	<1.0	N	N
CG290	56 12 29	159 29 35	10	2.0	3.0	.7	1,000	N	N	N	10	500	<1.0	N	N
CG291	56 12 59	159 34 36	7	1.5	3.0	.7	700	N	N	N	10	300	<1.0	N	N
CG292	56 14 21	159 39 26	10	2.0	3.0	.7	700	N	N	N	10	500	<1.0	N	N
CG293	56 16 9	159 38 48	5	1.0	2.0	.5	1,000	N	N	N	20	700	<1.0	N	N
CG294	56 17 58	159 31 54	10	2.0	3.0	.7	1,000	N	N	N	10	300	<1.0	N	N
CG295	56 18 35	159 27 52	10	2.0	3.0	.5	700	N	N	N	15	500	<1.0	N	N
CG296	56 18 14	159 24 51	20	2.0	2.0	1.0	1,000	N	N	N	10	500	<1.0	N	N
CG297	56 18 15	159 20 39	10	2.0	3.0	.5	1,000	N	N	N	10	500	<1.0	N	N
CG298	56 18 33	159 15 33	10	2.0	3.0	.5	1,000	N	N	N	10	300	<1.0	N	N
CG299	56 15 6	159 53 25	10	3.0	3.0	.7	700	N	N	N	10	500	<1.0	N	N
CG300	56 22 23	159 54 56	10	2.0	3.0	.7	700	N	N	N	10	500	<1.0	N	N
CG301	56 26 43	159 58 59	10	1.5	3.0	.7	2,000	N	N	N	10	500	<1.0	N	N
CG302	56 26 59	159 54 11	15	3.0	3.0	1.0	1,000	N	N	N	10	500	<1.0	N	N
CG303	56 24 57	159 51 6	10	2.0	3.0	.7	700	N	N	N	10	500	<1.0	N	N
CG304	56 17 12	159 45 37	15	3.0	3.0	1.0	1,000	N	N	N	10	300	<1.0	N	N
CG305	56 17 56	159 42 5	10	2.0	3.0	.7	1,000	N	N	N	10	700	<1.0	N	N
CG306	56 24 24	159 44 3	10	1.5	3.0	.7	1,000	N	N	N	10	700	<1.0	N	N
CG307	56 27 21	159 44 48	10	1.5	3.0	1.0	1,000	N	N	N	10	500	<1.0	N	N
CG308	56 17 14	160 12 32	10	2.0	3.0	1.0	1,000	N	N	N	10	500	<1.0	N	N
CG309	56 16 45	160 9 6	10	2.0	3.0	.7	1,000	N	N	N	10	500	<1.0	N	N
CG310	56 18 2	160 4 29	10	2.0	3.0	.7	1,000	N	N	N	10	300	<1.0	N	N
CG311	56 19 50	160 1 1	10	1.5	3.0	.7	1,000	N	N	N	10	500	<1.0	N	N
CG312	56 23 23	160 4 29	15	3.0	3.0	.7	1,000	N	N	N	10	500	<1.0	N	N
CG313	56 23 29	160 2 17	15	3.0	3.0	.7	1,000	N	N	N	10	500	<1.0	N	N
CG314	56 25 36	160 2 0	15	2.0	3.0	.7	1,000	N	N	N	10	500	<1.0	N	N
CG315	56 43 23	158 12 56	10	1.5	3.0	.7	700	N	N	N	10	500	<1.0	N	N

MINUS-80 MESH STREAM SEDIMENTS, CHIGNIK QUADRANGLE, ALASKA

sample	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
CG271	100	150	50	50	N	<20	50	10	N	50	N	500	300	N	30	N	100
CG272	100	100	70	50	N	<20	50	10	N	50	N	500	300	N	30	N	100
CG273	100	70	70	50	N	<20	50	10	N	50	N	500	300	N	30	N	100
CG274	100	100	70	50	N	<20	50	10	N	50	N	500	300	N	30	N	100
CG275	100	200	70	50	N	<20	50	10	N	50	N	500	300	N	30	N	100
CG276	50	70	30	50	N	<20	30	10	N	20	N	300	200	N	30	N	200
CG277	70	200	50	50	N	<20	50	50	N	30	N	300	200	N	30	<200	150
CG278	50	100	20	50	N	<20	20	10	N	30	N	500	200	N	30	N	100
CG279	50	50	20	50	N	<20	20	10	N	30	N	300	200	N	20	N	100
CG280	50	100	30	50	N	<20	20	20	N	30	N	500	300	N	30	N	200
CG281	30	50	20	50	N	<20	20	10	N	20	N	300	200	N	20	N	70
CG282	20	30	10	50	N	<20	15	10	N	10	N	500	150	N	20	N	200
CG283	50	50	20	50	N	<20	15	10	N	20	N	500	200	N	20	N	70
CG284	70	100	30	50	N	<20	30	10	N	30	N	500	300	N	30	N	100
CG285	50	50	10	50	N	<20	10	10	N	20	N	500	200	N	30	N	500
CG286	50	20	20	50	N	<20	15	<10	N	20	N	500	200	N	20	N	100
CG287	70	50	70	50	N	<20	15	20	N	30	N	500	200	N	30	N	100
CG288	100	100	100	50	N	<20	30	20	N	30	N	500	500	N	30	N	100
CG289	50	100	50	50	N	<20	20	15	N	30	N	500	300	N	30	N	100
CG290	100	100	50	50	N	<20	30	10	N	50	N	500	300	N	30	N	100
CG291	50	50	30	50	N	<20	20	<10	N	30	N	500	300	N	30	N	100
CG292	70	70	50	50	N	<20	30	<10	N	50	N	500	300	N	30	N	100
CG293	30	10	15	50	N	<20	10	20	N	20	N	500	200	N	30	N	100
CG294	100	200	50	50	N	<20	50	<10	N	50	N	500	300	N	30	N	100
CG295	100	100	50	50	N	<20	20	10	N	30	N	500	200	N	30	N	100
CG296	150	500	70	50	N	<20	70	10	N	50	N	300	700	N	20	N	150
CG297	100	150	70	50	N	<20	70	15	N	30	N	500	500	N	30	N	100
CG298	100	70	70	50	N	<20	50	<10	N	30	N	500	500	N	30	N	100
CG299	100	200	50	50	N	<20	100	10	N	50	N	500	200	N	30	<200	100
CG300	100	100	30	50	N	<20	50	15	N	50	N	500	300	N	50	<200	100
CG301	50	50	30	50	N	<20	20	15	N	30	N	300	200	N	50	N	100
CG302	100	200	50	50	N	<20	50	15	N	50	N	200	500	N	30	200	100
CG303	70	100	30	50	N	<20	50	10	N	30	N	500	200	N	50	<200	100
CG304	100	150	30	50	N	<20	50	10	N	50	N	500	500	N	30	<200	100
CG305	70	50	50	50	N	<20	20	15	N	30	N	700	200	N	50	<200	100
CG306	70	50	50	50	N	<20	20	20	N	30	N	700	200	N	50	<200	100
CG307	100	100	30	50	N	<20	50	10	N	50	N	300	300	N	50	<200	100
CG308	100	100	50	50	N	<20	50	10	N	30	N	500	300	N	30	<200	100
CG309	100	100	50	50	N	<20	50	10	N	30	N	700	300	N	30	N	100
CG310	100	100	30	50	N	<20	50	10	N	30	N	500	500	N	30	<200	100
CG311	70	100	30	50	N	<20	30	10	N	50	N	500	300	N	30	N	150
CG312	100	200	50	50	N	<20	100	10	N	50	N	500	300	N	30	N	100
CG313	100	150	30	50	N	<20	50	10	N	50	N	500	300	N	50	N	70
CG314	70	50	30	50	N	<20	20	10	N	30	N	500	200	N	50	N	150
CG315	50	50	30	50	N	<20	20	20	N	30	N	500	300	N	50	N	100

MINUS-80 MESH STREAM SEDIMENTS, CHIGNIK QUADRANGLE, ALASKA

sample	AA-CU-P	AA-PB-P	AA-ZN-P
CG271	10	15	15
CG272	10	15	45
CG273	10	15	45
CG274	15	15	30
CG275	20	20	35
CG276	10	15	20
CG277	25	30	30
CG278	10	15	25
CG279	10	15	20
CG280	20	20	35
CG281	20	15	20
CG282	10	20	20
CG283	25	20	40
CG284	5	20	45
CG285	5	20	45
CG286	10	15	35
CG287	15	15	35
CG288	10	15	20
CG289	10	15	20
CG290	10	15	20
CG291	10	15	20
CG292	10	15	20
CG293	10	15	20
CG294	5	15	25
CG295	10	15	20
CG296	10	15	25
CG297	15	15	30
CG298	10	20	30
CG299	5	10	25
CG300	5	10	20
CG301	10	15	25
CG302	10	10	30
CG303	10	10	25
CG304	10	15	40
CG305	15	10	20
CG306	10	10	20
CG307	10	10	25
CG308	5	15	30
CG309	10	10	25
CG310	5	10	30
CG311	15	10	45
CG312	5	10	35
CG313	5	10	25
CG314	10	10	25
CG315	15	15	60

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI	S-CD
CG316	56 44 5	158 13 0	15	2.0	3.0	.7	1,000	N	N	N	10	500	<1.0	N	N
CG317	56 44 39	158 13 27	10	1.5	2.0	.7	1,000	N	N	N	10	500	<1.0	N	N
CG318	56 48 20	158 12 3	10	1.5	2.0	.5	1,000	N	N	N	15	500	<1.0	N	N
CG319	56 47 8	158 13 40	5	1.5	2.0	.5	700	N	N	N	15	700	<1.0	N	N
CG320	56 47 0	158 14 21	10	1.5	2.0	.7	1,000	N	N	N	15	700	<1.0	N	N
CG321	56 44 29	158 17 59	10	1.5	2.0	.7	1,000	N	N	N	15	700	<1.0	N	N
CG322	56 43 56	158 19 47	5	1.0	2.0	.7	700	N	N	N	10	700	<1.0	N	N
CG323	56 43 51	158 21 2	10	1.5	2.0	1.0	700	N	N	N	10	700	<1.0	N	N
CG324	56 44 40	158 24 17	5	1.5	2.0	.7	500	N	N	N	10	700	<1.0	N	N
CG325	56 45 26	158 26 5	15	2.0	2.0	1.0	1,000	N	N	N	10	500	<1.0	N	N
CG326	56 46 0	158 26 44	10	1.5	2.0	1.0	700	N	N	N	10	500	<1.0	N	N
CG327	56 47 35	158 27 42	10	1.5	2.0	.7	700	N	N	N	10	500	<1.0	N	N
CG328	56 48 15	158 27 38	5	1.5	3.0	.7	500	N	N	N	10	500	<1.0	N	N
CG329	56 49 14	158 25 54	5	1.5	3.0	.7	700	N	N	N	10	500	<1.0	N	N
CG330	56 50 23	158 18 33	10	1.5	2.0	1.0	1,000	N	N	N	15	700	<1.0	N	N
CG331	56 50 17	158 18 33	10	1.5	2.0	1.0	700	N	N	N	10	500	<1.0	N	N
CG332	56 50 47	158 19 19	15	2.0	2.0	1.0	1,000	N	N	N	15	500	<1.0	N	N
CG333	56 50 5	158 21 5	10	1.5	2.0	1.0	700	N	N	N	10	500	<1.0	N	N
CG334	56 50 4	158 24 44	10	1.5	3.0	1.0	1,000	N	N	N	10	500	<1.0	N	N
CG335	56 51 14	158 23 53	10	2.0	3.0	.7	700	N	N	N	10	700	<1.0	N	N
CG336	56 51 48	158 27 20	10	1.5	2.0	.7	700	N	N	N	15	700	<1.0	N	N
CG337	56 54 14	158 29 32	15	2.0	2.0	1.0	1,000	N	N	N	10	500	<1.0	N	N
CG338	56 53 48	158 25 18	10	1.5	2.0	.7	1,000	N	N	N	10	700	<1.0	N	N
CG339	56 56 18	158 26 0	20	3.0	2.0	1.0	1,500	N	N	N	10	500	<1.0	N	N
CG340	56 56 26	158 25 32	10	1.5	2.0	.7	1,000	N	N	N	10	500	<1.0	N	N
CG341	56 56 36	158 24 38	10	1.5	3.0	.7	1,000	N	N	N	15	700	<1.0	N	N
CG342	56 57 12	158 23 17	15	2.0	3.0	.7	1,000	N	N	N	15	700	<1.0	N	N
CG343	56 58 46	158 25 18	20	3.0	2.0	1.0	1,500	N	N	N	10	500	<1.0	N	N
CG344	56 58 54	158 32 22	10	2.0	3.0	.7	1,500	N	N	N	15	700	<1.0	N	N
CG345	56 56 13	158 7 10	5	1.5	3.0	.7	700	N	N	N	20	700	<1.0	N	N
CG346	56 54 20	158 4 59	5	1.5	3.0	.7	700	N	N	N	20	700	<1.0	N	N
CG347	56 49 0	158 1 23	5	1.5	3.0	.5	1,000	N	N	N	20	500	<1.0	N	N
CG348	56 48 47	158 3 34	5	1.0	3.0	.5	700	N	N	N	20	500	<1.0	N	N
CG349	56 48 8	158 5 12	5	1.0	2.0	.7	700	N	N	N	30	500	<1.0	N	N
CG350	56 47 2	158 6 15	10	1.5	2.0	.7	1,000	N	N	N	20	700	<1.0	N	N
CG351	56 19 50	159 35 53	10	2.0	3.0	.7	700	N	N	N	10	500	<1.0	N	N
CG352	56 22 40	159 31 19	10	3.0	3.0	1.0	700	N	N	N	10	500	<1.0	N	N
CG353	56 27 16	159 35 5	5	1.5	2.0	.7	1,000	N	N	N	10	700	<1.0	N	N
CG354	56 33 39	158 23 39	3	1.0	2.0	.5	700	N	N	N	20	700	<1.0	N	N
CG355	56 35 39	158 25 2	5	.7	.5	.5	500	N	N	N	30	700	1.0	N	N
CG356	56 35 50	158 29 27	7	2.0	2.0	.5	1,000	N	N	N	10	500	<1.0	N	N
CG357	56 31 19	158 27 52	5	1.0	1.5	.5	700	N	N	N	20	500	<1.0	N	N
CG358	56 32 3	158 28 1	5	1.0	1.5	.5	700	N	N	N	20	700	<1.0	N	N
CG359	56 32 18	158 30 15	5	1.0	1.0	.5	700	N	N	N	20	500	<1.0	N	N
CG360	56 32 11	158 30 11	5	1.0	1.0	.5	700	N	N	N	20	700	<1.0	N	N

MINUS-80 MESH STREAM SEDIMENTS, CHIGNIK QUADRANGLE, ALASKA

sample	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
CG316	70	150	30	50	N	<20	20	15	N	50	N	500	300	N	30	200	100
CG317	50	100	20	50	N	<20	20	15	N	50	N	500	300	N	30	N	150
CG318	50	150	30	50	N	<20	50	10	N	30	N	300	300	N	30	N	100
CG319	30	70	30	50	N	<20	30	15	N	20	N	500	300	N	30	N	100
CG320	50	100	30	50	N	<20	30	15	N	30	N	500	300	N	30	N	150
CG321	70	100	30	50	N	<20	30	20	N	30	N	500	300	N	30	N	100
CG322	50	70	50	50	N	<20	20	20	N	30	N	700	300	N	30	N	100
CG323	70	200	50	50	N	<20	30	20	N	50	N	500	300	N	30	<200	100
CG324	50	200	50	50	N	<20	30	20	N	30	N	1,000	200	N	30	N	100
CG325	150	300	70	50	N	<20	50	20	N	70	N	300	500	N	50	N	300
CG326	100	200	50	50	N	<20	30	20	N	50	N	500	300	N	30	<200	100
CG327	70	150	50	50	N	<20	30	20	N	50	N	500	300	N	30	N	100
CG328	70	150	30	50	N	<20	30	15	N	30	N	500	300	N	30	N	100
CG329	50	150	30	50	N	<20	20	15	N	30	N	500	300	N	30	N	100
CG330	100	150	50	50	N	<20	30	15	N	50	N	500	300	N	50	N	100
CG331	100	200	50	50	N	<20	30	20	N	50	N	300	300	N	30	N	100
CG332	100	200	50	50	N	<20	50	20	N	50	N	500	500	N	30	<200	100
CG333	100	200	50	50	N	<20	50	20	N	50	N	500	300	N	50	N	100
CG334	100	300	50	50	N	<20	30	15	N	50	N	300	500	N	30	N	300
CG335	100	200	50	50	N	<20	30	20	N	50	N	700	500	N	30	N	100
CG336	70	150	30	50	N	<20	30	15	N	30	N	500	300	N	30	N	100
CG337	100	500	50	50	N	<20	50	15	N	50	N	300	500	N	30	<200	100
CG338	70	100	30	50	N	<20	20	10	N	50	N	500	300	N	50	N	150
CG339	150	1,500	150	50	N	<20	100	15	N	70	N	200	500	N	<10	N	100
CG340	50	70	20	50	N	<20	20	10	N	30	N	300	300	N	50	N	100
CG341	50	70	30	50	N	<20	20	15	N	50	N	300	300	N	50	N	100
CG342	50	100	50	50	N	<20	20	10	N	50	N	300	500	N	20	N	100
CG343	100	300	70	50	N	<20	50	10	N	50	N	200	500	N	10	200	100
CG344	50	150	50	50	N	<20	30	20	N	30	N	500	300	N	30	N	100
CG345	50	70	20	50	N	<20	20	10	N	30	N	500	200	N	30	N	150
CG346	50	50	50	50	N	<20	20	20	N	30	N	500	200	N	30	N	100
CG347	30	70	30	50	N	<20	20	10	N	20	N	300	200	N	30	N	200
CG348	20	70	30	50	N	<20	20	10	N	20	N	300	200	N	30	N	100
CG349	30	50	20	50	N	<20	20	10	N	20	N	300	200	N	30	N	100
CG350	50	100	30	50	N	<20	20	20	N	50	N	500	200	N	50	N	100
CG351	100	150	70	50	N	<20	20	20	N	50	N	500	200	N	20	N	70
CG352	150	150	50	50	N	<20	50	10	N	50	N	500	500	N	30	N	100
CG353	50	20	30	50	N	<20	10	10	N	50	N	500	200	N	30	N	100
CG354	20	70	15	50	N	<20	10	10	N	15	N	700	150	N	20	N	300
CG355	30	200	30	50	N	<20	50	10	N	20	N	300	200	N	30	<200	500
CG356	30	200	50	50	N	<20	20	20	N	50	N	500	500	N	20	N	70
CG357	30	70	30	50	N	<20	20	10	N	20	N	300	200	N	20	<200	70
CG358	30	70	20	50	N	<20	20	10	N	20	N	500	200	N	20	N	100
CG359	30	50	100	50	N	<20	20	20	N	20	N	500	300	N	20	<200	100
CG360	30	70	10	50	N	<20	10	10	N	15	N	500	300	N	30	N	300

sample	AA-CU-P	AA-PB-P	AA-ZN-P
CG316	10	10	50
CG317	10	10	50
CG318	10	10	30
CG319	15	15	45
CG320	15	15	55
CG321	20	20	90
CG322	30	20	70
CG323	30	20	90
CG324	30	20	60
CG325	20	20	80
CG326	30	20	75
CG327	20	20	65
CG328	25	25	70
CG329	20	15	70
CG330	10	15	35
CG331	15	20	70
CG332	10	10	35
CG333	15	15	55
CG334	25	20	55
CG335	20	20	60
CG336	10	15	45
CG337	10	15	40
CG338	5	10	20
CG339	10	10	45
CG340	5	10	20
CG341	5	10	20
CG342	5	5	25
CG343	10	10	45
CG344	10	15	35
CG345	15	10	25
CG346	20	15	50
CG347	10	10	25
CG348	10	10	20
CG349	15	10	40
CG350	10	10	25
CG351	10	10	20
CG352	10	15	35
CG353	15	15	35
CG354	5	10	15
CG355	40	25	95
CG356	45	30	30
CG357	10	15	20
CG358	5	15	15
CG359	100	30	100
CG360	5	10	15

MINUS-80 MESH STREAM SEDIMENTS, CHIGNIK QUADRANGLE, ALASKA

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI	S-CD
CG361	56 33 51	158 28 28	2	1.0	1.0	.5	500	N	N	N	20	700	<1.0	N	N
CG362	56 34 8	158 32 8	5	1.0	1.0	.5	500	N	N	N	30	700	<1.0	N	N
CG363	56 34 11	158 31 27	7	1.5	2.0	.5	1,000	N	N	N	20	500	<1.0	N	N
CG364	56 34 32	158 31 58	5	1.0	1.0	.5	1,000	N	N	N	30	700	<1.0	N	N
CG365	56 35 26	158 32 25	5	1.0	1.0	.5	700	N	N	N	30	700	<1.0	N	N
CG366	56 36 24	158 33 33	20	2.0	2.0	.7	1,000	N	N	N	10	500	<1.0	N	N
CG367	56 37 56	158 33 52	20	2.0	2.0	.7	1,000	N	N	N	10	500	<1.0	N	N
CG368	56 39 6	158 35 27	5	1.0	3.0	.5	500	N	N	N	10	300	<1.0	N	N
CG369	56 39 34	158 38 49	10	1.5	3.0	1.0	1,000	N	N	N	10	300	<1.0	N	N
CG370	56 33 38	158 39 11	5	1.0	2.0	.7	700	N	N	N	20	300	<1.0	N	N
CG371	56 33 42	158 39 26	5	1.0	2.0	.7	500	N	N	N	30	700	<1.0	N	N
CG372	56 33 38	158 39 2	5	1.0	1.0	.7	700	N	N	N	30	700	<1.0	N	N
CG373	56 34 13	158 39 14	5	.5	1.0	.5	300	N	N	N	30	700	<1.0	N	N
CG374	56 34 42	158 40 23	20	1.5	2.0	1.0	500	N	N	N	10	300	<1.0	N	N
CG375	56 35 21	158 39 29	15	1.5	2.0	1.0	1,000	N	N	N	10	300	<1.0	N	N
CG376	56 36 12	158 40 51	15	1.5	2.0	1.0	1,000	N	N	N	10	200	<1.0	N	N
CG377	56 34 55	158 43 53	20	1.0	2.0	1.0	1,000	N	N	N	10	200	<1.0	N	N
CG378	56 35 2	158 44 8	20	1.0	2.0	1.0	1,000	N	N	N	10	300	<1.0	N	N
CG379	56 37 3	158 45 24	10	1.5	2.0	1.0	1,000	N	N	N	10	200	<1.0	N	N
CG380	56 37 23	158 44 18	10	1.5	2.0	1.0	700	N	N	N	10	200	<1.0	N	N
CG381	56 38 26	158 47 44	15	1.5	3.0	1.0	700	N	N	N	10	300	<1.0	N	N
CG382	56 40 59	158 46 41	3	.5	2.0	.7	500	N	N	N	10	200	<1.0	N	N
CG383	56 38 40	158 52 36	20	1.5	2.0	1.0	1,000	N	N	N	10	300	<1.0	N	N
CG384	56 37 4	158 52 45	15	1.5	3.0	.7	1,000	N	N	N	10	200	<1.0	N	N
CG385	56 37 1	158 52 14	15	1.5	3.0	.7	1,000	N	N	N	10	300	<1.0	N	N
CG386	56 36 38	158 53 50	5	1.5	3.0	.7	700	N	N	N	10	300	<1.0	N	N
CG387	56 34 18	158 53 21	20	1.5	2.0	.7	1,000	N	N	N	10	200	<1.0	N	N
CG388	56 33 42	158 53 53	20	1.5	3.0	1.0	1,000	N	N	N	10	200	<1.0	N	N
CG389	56 32 38	158 53 22	15	1.5	3.0	.7	1,000	N	N	N	10	200	<1.0	N	N
CG390	56 37 23	158 58 58	15	1.5	3.0	1.0	1,000	N	N	N	10	200	<1.0	N	N
CG391	56 39 50	158 59 8	10	1.5	3.0	.7	1,000	N	N	N	10	500	<1.0	N	N
CG392	56 41 3	158 58 45	10	1.5	3.0	.7	1,000	N	N	N	10	300	<1.0	N	N
CG393	56 41 59	158 53 18	10	2.0	3.0	.7	1,000	N	N	N	10	500	<1.0	N	N
CG394	56 27 35	159 28 18	7	1.5	3.0	.7	1,000	N	N	N	10	500	<1.0	N	N
CG395	56 28 45	159 24 30	10	2.0	3.0	.7	1,000	N	N	N	10	500	<1.0	N	N
CG396	56 25 6	159 9 29	10	2.0	3.0	.7	1,000	N	N	N	10	700	<1.0	N	N
CG397	56 21 50	159 8 20	7	2.0	3.0	.7	1,000	N	N	N	10	500	<1.0	N	N
CG398	56 26 12	159 14 21	5	2.0	3.0	.5	700	N	N	N	10	300	<1.0	N	N

MINUS-80 MESH STREAM SEDIMENTS, CHIGNIK QUADRANGLE, ALASKA

sample	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
CG361	20	100	15	50	N	<20	10	10	N	15	N	500	200	N	20	N	300
CG362	50	100	50	50	N	<20	20	20	N	20	N	300	200	N	20	N	100
CG363	50	100	50	50	N	<20	20	20	N	50	N	500	500	N	30	N	150
CG364	50	100	100	50	N	<20	30	20	N	20	N	300	200	N	30	200	200
CG365	50	100	10	50	N	<20	20	10	N	20	N	300	200	N	20	N	150
CG366	150	500	100	50	N	<20	70	10	N	50	N	300	500	N	20	N	200
CG367	150	300	100	50	N	<20	70	10	N	50	N	300	500	N	20	<200	500
CG368	30	100	20	<20	N	<20	20	10	N	20	N	500	200	N	20	N	100
CG369	100	200	30	<20	N	<20	50	10	N	50	N	300	500	N	20	<200	100
CG370	50	20	30	<20	N	<20	15	20	N	30	N	300	200	N	30	N	200
CG371	50	150	30	<20	N	<20	30	20	N	20	N	500	200	N	20	N	100
CG372	50	200	20	<20	N	<20	20	30	N	30	N	300	200	N	30	N	300
CG373	30	150	10	<20	N	<20	30	10	N	20	N	300	200	N	20	N	150
CG374	150	200	70	<20	N	<20	30	15	N	50	N	300	500	N	30	<200	200
CG375	100	200	30	<20	N	<20	30	20	N	30	N	300	500	N	20	<200	150
CG376	100	150	50	<20	N	<20	50	15	N	50	N	300	500	N	20	<200	100
CG377	150	150	50	<20	N	<20	30	15	N	50	N	200	700	N	20	200	150
CG378	150	150	50	<20	N	<20	30	20	N	50	N	200	500	N	20	200	200
CG379	50	50	30	<20	N	<20	20	10	N	30	N	300	300	N	20	<200	200
CG380	50	70	20	<20	N	<20	20	15	N	30	N	300	300	N	20	<200	150
CG381	100	200	50	<20	N	<20	20	20	N	30	N	300	300	N	20	<200	150
CG382	15	20	10	<20	N	<20	10	10	N	20	N	300	200	N	20	<200	700
CG383	150	500	70	<20	N	<20	50	20	N	50	N	200	500	N	30	<200	500
CG384	100	70	50	<20	N	<20	20	10	N	30	N	300	500	N	20	<200	150
CG385	100	100	70	<20	N	<20	20	10	N	30	N	300	500	N	20	<200	100
CG386	20	20	20	<20	N	<20	15	10	N	30	N	300	200	N	20	<200	100
CG387	100	200	70	<20	N	<20	20	10	N	30	N	300	700	N	20	<200	500
CG388	100	200	50	<20	N	<20	20	10	N	30	N	300	500	N	20	<200	150
CG389	70	70	50	<20	N	<20	20	10	N	30	N	300	500	N	20	<200	200
CG390	100	100	50	<20	N	<20	20	15	N	30	N	300	500	N	20	<200	150
CG391	50	50	20	50	N	<20	10	20	N	30	N	300	300	N	30	<200	100
CG392	50	20	10	50	N	<20	10	20	N	30	N	300	300	N	30	<200	70
CG393	70	70	20	50	N	<20	20	20	N	50	N	300	500	N	30	<200	300
CG394	50	20	20	50	N	<20	10	20	N	30	N	300	300	N	30	N	70
CG395	100	100	30	50	N	<20	20	20	N	50	N	500	300	N	30	<200	70
CG396	100	100	30	50	N	<20	20	20	N	50	N	500	300	N	30	<200	100
CG397	50	20	20	50	N	<20	15	10	N	30	N	300	300	N	30	N	70
CG398	50	50	20	50	N	<20	20	10	N	30	N	300	300	N	20	N	50

MINUS-80 MESH STREAM SEDIMENTS, CHIGNIK QUADRANGLE, ALASKA

sample	AA-CU-P	AA-PB-P	AA-ZN-P
CG361	20	15	55
CG362	30	25	65
CG363	30	25	65
CG364	90	30	240
CG365	20	20	65
CG366	20	15	40
CG367	10	15	50
CG368	10	15	30
CG369	15	20	50
CG370	40	25	60
CG371	25	25	65
CG372	20	25	110
CG373	15	20	65
CG374	20	20	85
CG375	15	20	90
CG376	25	20	45
CG377	25	25	140
CG378	35	25	95
CG379	35	15	40
CG380	20	20	55
CG381	25	20	45
CG382	15	25	60
CG383	15	20	80
CG384	25	15	55
CG385	30	15	55
CG386	15	15	55
CG387	45	10	60
CG388	45	10	45
CG389	25	10	35
CG390	20	10	45
CG391	10	10	35
CG392	10	15	50
CG393	10	15	50
CG394	10	10	50
CG395	10	10	40
CG396	10	10	20
CG397	10	10	30
CG398	20	10	25

NONMAGNETIC HEAVY MINERAL CONCENTRATES, CHIGNIK QUADRANGLE, ALASKA

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
CG001C	56 54 5	158 0 51	5.0	1.5	7.0	>1.00	1,500	N	N	N	200	500	N	N
CG002C	56 43 0	158 1 36	7.0	10.0	15.0	.50	1,500	N	N	N	<20	50	N	N
CG003C	56 41 32	158 1 55	10.0	10.0	15.0	.70	2,000	N	N	N	<20	100	N	N
CG004C	56 41 44	158 4 20	7.0	5.0	10.0	.70	1,500	N	N	N	150	200	N	N
CG005C	56 40 56	158 6 50	7.0	7.0	15.0	.50	1,500	N	N	N	<20	1,500	N	N
CG006C	56 40 6	158 7 35	7.0	7.0	15.0	.70	1,500	N	N	N	20	150	N	N
CG007C	56 38 39	158 8 8	7.0	7.0	15.0	>1.00	1,500	N	N	N	70	5,000	N	N
CG008C	56 40 2	158 11 15	7.0	5.0	15.0	>1.00	1,500	N	N	N	70	5,000	N	N
CG009C	56 39 38	158 13 28	7.0	5.0	15.0	>1.00	1,500	N	N	N	20	5,000	N	N
CG010C	56 37 46	158 11 27	7.0	2.0	5.0	>1.00	1,000	N	N	N	50	>5,000	N	N
CG011C	56 37 23	158 10 28	7.0	7.0	15.0	.70	1,500	N	N	N	500	700	N	N
CG012C	56 33 16	158 8 57	7.0	10.0	15.0	.70	1,500	N	N	N	50	150	N	N
CG013C	56 34 54	158 11 48	7.0	5.0	10.0	>1.00	2,000	N	N	N	700	1,500	N	N
CG014C	56 36 5	158 11 49	7.0	10.0	15.0	>1.00	1,500	N	N	N	150	>5,000	N	N
CG015C	56 36 24	158 13 49	3.0	1.0	20.0	.50	1,500	N	N	N	>2,000	200	5	N
CG016C	56 35 44	158 16 47	5.0	1.0	15.0	.70	1,500	N	N	N	700	100	5	N
CG017C	56 36 17	158 17 9	5.0	.7	15.0	>1.00	2,000	N	N	N	1,500	700	N	N
CG018C	56 37 18	158 18 51	5.0	1.0	10.0	>1.00	1,500	N	1,000	N	200	>5,000	N	N
CG019C	56 37 46	158 21 6	10.0	>10.0	20.0	1.00	2,000	N	N	N	<20	200	N	N
CG020C	56 36 33	158 23 8	5.0	1.0	15.0	>1.00	1,000	2	N	<20	70	>5,000	N	N
CG021C	56 34 50	158 21 11	5.0	1.0	20.0	>1.00	1,500	N	N	N	>2,000	300	N	N
CG022C	56 34 35	158 19 29	7.0	.5	15.0	.50	700	N	N	N	>2,000	N	2	N
CG023C	56 34 23	156 19 23	5.0	.5	20.0	>1.00	700	N	N	N	>2,000	300	5	N
CG024C	56 36 42	158 2 8	7.0	10.0	15.0	.50	1,500	N	N	N	100	150	N	N
CG025C	56 38 30	158 1 20	5.0	5.0	15.0	.50	700	N	N	N	30	500	N	N
CG026C	56 36 53	158 1 46	5.0	7.0	15.0	.70	1,000	N	N	N	30	150	N	N
CG027C	56 38 17	158 1 44	7.0	7.0	10.0	.50	700	N	700	N	<20	300	N	N
CG028C	56 34 28	158 5 26	7.0	7.0	15.0	.70	700	N	N	N	<20	150	N	N
CG029C	56 35 35	158 3 52	5.0	5.0	10.0	.50	700	N	N	N	<20	300	N	N
CG030C	56 32 38	158 2 56	5.0	2.0	10.0	.30	300	N	N	N	N	>5,000	N	N
CG031C	56 32 22	158 4 26	2.0	3.0	15.0	.20	500	N	N	N	<20	1,500	N	N
CG032C	56 1 54	158 40 58	5.0	2.0	10.0	>1.00	1,000	N	N	N	200	1,000	N	N
CG033C	56 32 57	158 1 31	5.0	3.0	10.0	.30	700	N	N	N	<20	>5,000	N	N
CG034C	56 3 16	158 40 51	5.0	2.0	10.0	>1.00	700	N	N	N	300	1,000	N	N
CG035C	56 30 47	158 1 27	5.0	7.0	15.0	.70	700	N	N	N	<20	>5,000	N	N
CG036C	56 3 32	158 43 51	7.0	1.0	15.0	>1.00	1,500	7	N	N	50	700	N	N
CG037C	56 3 39	158 43 45	5.0	1.0	5.0	>1.00	700	N	N	N	500	500	N	N
CG038C	56 4 51	158 40 54	5.0	1.5	5.0	>1.00	700	N	N	N	50	1,500	N	N
CG039C	56 6 24	155 41 47	10.0	1.5	3.0	>1.00	1,000	N	N	N	500	3,000	N	N
CG040C	56 6 59	158 41 15	20.0	1.5	5.0	>1.00	1,000	N	N	N	500	5,000	N	N
CG041C	56 9 5	158 45 12	7.0	.2	5.0	>1.00	700	N	N	N	50	300	N	N
CG042C	56 9 5	158 37 41	7.0	1.0	7.0	>1.00	700	N	N	N	20	5,000	N	N
CG043C	56 9 19	158 37 51	5.0	.7	5.0	>1.00	500	N	N	N	200	700	N	N
CG044C	56 9 26	158 38 3	5.0	.2	7.0	>1.00	300	N	N	N	100	>5,000	N	N
CG045C	56 11 20	158 36 25	5.0	1.0	15.0	>1.00	1,000	N	N	N	300	700	N	N

NONMAGNETIC HEAVY MINERAL CONCENTRATES, CHIGNIK QUADRANGLE, ALASKA

sample	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W
CG001C	N	10	N	100	50	N	70	10	N	N	20	N	500	200	N
CG002C	N	30	5,000	10	N	N	N	150	N	N	100	N	200	500	N
CG003C	N	30	1,500	20	N	N	N	100	N	N	>100	N	200	700	N
CG004C	N	20	1,500	20	N	1,500	N	70	N	N	70	N	500	500	N
CG005C	N	20	3,000	15	N	N	N	100	N	N	70	N	500	500	N
CG006C	N	20	3,000	10	N	N	N	150	N	N	70	N	200	500	N
CG007C	N	20	3,000	10	50	N	50	150	N	N	70	N	200	500	N
CG008C	N	20	1,500	15	100	N	100	70	N	N	50	N	500	500	N
CG009C	N	20	1,500	15	200	N	200	70	N	N	50	N	500	700	N
CG010C	N	20	300	70	100	N	50	50	70	N	50	N	700	500	N
CG011C	N	30	2,000	20	50	N	<50	150	20	N	70	N	500	500	N
CG012C	N	30	3,000	10	N	N	N	150	N	N	100	N	500	500	N
CG013C	N	30	1,500	20	150	N	70	70	20	N	70	N	500	1,000	N
CG014C	N	30	3,000	10	100	N	N	150	N	N	>100	N	200	700	N
CG015C	N	N	N	10	N	N	N	15	N	N	15	N	N	500	N
CG016C	N	N	N	15	N	N	N	10	N	N	15	N	N	500	N
CG017C	N	10	100	50	500	N	150	20	N	N	20	N	500	700	N
CG018C	N	30	300	100	500	N	100	50	70	N	100	N	500	500	N
CG019C	N	30	3,000	10	N	N	<50	150	N	N	>100	N	200	700	N
CG020C	N	30	150	100	300	N	70	50	N	N	50	N	700	500	N
CG021C	N	<10	100	15	300	N	200	N	N	N	10	N	500	700	N
CG022C	N	<10	N	15	N	N	N	50	N	N	10	N	N	200	N
CG023C	N	<10	N	20	50	N	<50	N	N	N	20	N	N	300	N
CG024C	N	20	5,000	10	N	N	N	150	N	N	50	N	500	500	N
CG025C	N	20	1,500	15	50	N	N	70	N	N	50	N	500	300	N
CG026C	N	20	3,000	15	50	N	N	150	N	N	100	N	200	500	N
CG027C	N	70	2,000	500	N	N	N	150	20	N	50	N	500	200	N
CG028C	N	20	3,000	10	N	N	N	150	N	N	70	N	300	300	N
CG029C	N	10	2,000	10	N	N	N	70	N	N	70	N	500	200	N
CG030C	N	<10	500	15	N	N	N	15	N	N	20	N	1,500	70	N
CG031C	N	10	1,000	15	N	N	N	50	N	N	N	N	1,000	100	N
CG032C	N	10	500	20	500	N	<50	20	N	N	50	N	500	500	N
CG033C	N	10	1,000	15	50	N	N	70	N	N	30	N	1,000	150	N
CG034C	N	10	700	15	100	N	N	50	N	N	N	N	200	500	N
CG035C	N	10	2,000	20	50	N	N	70	N	N	50	N	1,000	300	N
CG036C	N	20	200	5,000	700	200	70	20	20	N	50	N	200	500	200
CG037C	N	<10	100	700	150	N	N	20	N	N	N	N	200	200	N
CG038C	N	<10	200	700	300	N	N	20	N	N	N	N	300	300	N
CG039C	N	20	150	70	100	N	<50	100	20	N	N	N	200	300	N
CG040C	N	70	150	1,500	100	N	<50	100	100	N	N	N	200	300	N
CG041C	N	100	N	3,000	100	N	N	20	100	N	N	N	300	150	N
CG042C	N	10	100	100	700	N	100	20	N	N	50	N	300	500	N
CG043C	N	10	150	70	700	N	100	20	N	N	70	N	1,000	500	N
CG044C	N	10	50	70	300	N	50	20	N	N	70	N	1,500	300	N
CG045C	N	10	100	70	300	N	150	20	N	N	70	N	200	500	N

sample	S-Y	S-ZN	S-ZR
CG001C	150	N	>1,000
CG002C	N	N	150
CG003C	20	N	200
CG004C	20	N	70
CG005C	N	N	>1,000
CG006C	30	N	>1,000
CG007C	100	N	>1,000
CG008C	300	1,000	>1,000
CG009C	1,000	N	>1,000
CG010C	300	N	>1,000
CG011C	100	N	>1,000
CG012C	20	N	>1,000
CG013C	200	N	>1,000
CG014C	70	N	>1,000
CG015C	20	N	500
CG016C	20	N	>1,000
CG017C	1,500	N	>1,000
CG018C	1,000	N	>1,000
CG019C	70	N	500
CG020C	700	N	>1,000
CG021C	1,000	N	>1,000
CG022C	20	N	>1,000
CG023C	100	N	>1,000
CG024C	N	N	>1,000
CG025C	20	N	>1,000
CG026C	50	N	>1,000
CG027C	N	700	>1,000
CG028C	20	N	>1,000
CG029C	20	N	>1,000
CG030C	N	N	500
CG031C	20	N	>1,000
CG032C	500	N	>1,000
CG033C	20	N	500
CG034C	150	N	>1,000
CG035C	20	N	>1,000
CG036C	700	N	>1,000
CG037C	100	N	>1,000
CG038C	150	N	>1,000
CG039C	100	700	>1,000
CG040C	100	3,000	>1,000
CG041C	700	N	>1,000
CG042C	200	N	>1,000
CG043C	300	N	>1,000
CG044C	700	700	>1,000
CG045C	500	N	>1,000

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
CG046C	56 11 39	158 37 2	10.0	1.0	7.0	>1.00	700	N	N	N	20	700	N	N
CG047C	56 12 11	158 27 17	7.0	5.0	10.0	>1.00	1,500	N	N	N	500	300	N	N
CG048C	56 11 12	158 26 47	7.0	3.0	5.0	>1.00	1,000	2	N	N	500	1,000	N	N
CG049C	56 10 59	158 27 5	5.0	2.0	5.0	>1.00	700	2	N	N	500	300	N	N
CG050C	56 9 32	158 29 5	7.0	2.0	5.0	>1.00	700	N	N	N	500	500	N	N
CG051C	56 8 58	158 28 54	2.0	1.0	7.0	>1.00	700	N	1,500	N	300	300	N	N
CG052C	56 8 4	158 32 34	5.0	1.5	5.0	>1.00	1,000	N	N	N	1,500	300	N	N
CG053C	56 6 44	158 32 29	7.0	2.0	10.0	>1.00	3,000	N	N	N	100	300	N	N
CG054C	56 6 11	158 34 54	5.0	3.0	10.0	>1.00	1,500	N	N	N	200	300	N	N
CG055C	56 4 45	158 32 38	7.0	2.0	7.0	1.00	2,000	N	N	N	150	500	N	N
CG056C	56 4 29	158 33 39	7.0	1.5	7.0	1.00	1,500	N	500	N	150	500	N	N
CG057C	56 3 47	158 35 8	10.0	5.0	10.0	>1.00	2,000	N	N	N	200	300	N	N
CG058C	56 8 36	158 6 42	5.0	2.0	5.0	>1.00	1,000	N	N	N	300	1,500	N	N
CG059C	56 11 35	158 11 22	5.0	1.0	2.0	>1.00	700	N	N	N	200	500	N	N
CG060C	56 9 20	158 20 56	7.0	1.0	2.0	>1.00	1,500	15	N	N	200	5,000	N	N
CG061C	56 9 47	158 24 11	2.0	1.0	5.0	>1.00	1,000	N	N	N	500	300	N	N
CG062C	56 9 6	158 24 29	>20.0	.1	1.5	.50	200	15	N	N	70	200	N	N
CG063C	56 8 32	158 26 8	3.0	1.0	3.0	>1.00	700	N	N	N	150	500	N	N
CG064C	56 7 6	158 27 6	20.0	.2	10.0	>1.00	300	N	N	N	150	100	N	N
CG065C	56 6 53	158 29 21	5.0	2.0	7.0	1.00	1,000	50	N	N	100	300	N	70
CG066C	56 5 7	158 28 17	2.0	1.0	7.0	1.00	500	N	N	N	70	300	N	N
CG067C	56 1 5	158 25 9	2.0	.5	5.0	.50	300	N	N	N	200	300	N	N
CG068C	56 1 59	158 30 29	2.0	.7	10.0	>1.00	500	N	N	N	70	150	N	N
CG069C	56 1 1	158 32 0	2.0	.7	10.0	1.00	700	N	5,000	N	70	300	N	N
CG070C	56 6 12	158 55 0	7.0	1.0	10.0	>1.00	700	N	N	N	>2,000	200	N	N
CG071C	56 4 50	158 55 2	5.0	.5	15.0	>1.00	500	N	N	N	700	150	2	N
CG072C	56 5 21	158 50 9	5.0	.7	10.0	>1.00	1,000	N	N	N	1,500	5,000	N	N
CG073C	56 5 53	158 48 2	5.0	.7	7.0	>1.00	1,000	N	N	N	1,000	>5,000	N	N
CG074C	56 3 35	158 50 7	2.0	.5	10.0	>1.00	700	N	N	N	500	150	2	N
CG075C	56 3 28	158 48 30	2.0	.7	5.0	1.00	300	N	N	N	20	300	N	N
CG076C	56 1 22	158 46 13	2.0	.7	7.0	.70	300	N	N	N	20	300	N	N
CG077C	56 1 0	158 46 33	3.0	1.0	5.0	>1.00	500	N	N	N	30	1,500	N	N
CG078C	56 1 36	158 49 19	5.0	1.0	5.0	>1.00	700	N	N	N	70	500	N	N
CG079C	56 1 0	158 51 56	5.0	.7	7.0	.50	500	N	N	N	20	500	N	N
CG080C	56 0 14	158 54 33	5.0	2.0	15.0	>1.00	1,500	N	N	N	100	150	N	N
CG081C	56 0 23	158 56 41	7.0	1.5	10.0	>1.00	1,500	N	N	N	200	1,000	<2	N
CG082C	56 2 47	159 0 37	10.0	1.0	15.0	>1.00	1,000	N	N	N	5,000	70	2	N
CG083C	56 3 15	158 58 44	5.0	2.0	15.0	>1.00	1,500	N	N	N	1,500	100	N	N
CG084C	56 1 50	158 57 6	7.0	.7	10.0	.70	1,500	N	N	N	200	1,500	2	N
CG085C	56 2 48	158 54 5	5.0	.7	10.0	>1.00	1,000	N	N	N	200	700	N	N
CG086C	56 5 35	159 3 38	7.0	1.5	10.0	>1.00	1,000	N	N	N	50	200	N	N
CG087C	56 6 43	159 3 19	10.0	.5	10.0	>1.00	1,000	N	N	N	<20	1,500	N	N
CG088C	56 8 30	159 1 54	5.0	.2	15.0	>1.00	1,000	N	N	N	30	300	N	N
CG089C	56 8 40	159 1 54	7.0	.5	10.0	>1.00	700	N	N	N	<20	500	N	N
CG090C	56 5 36	158 58 4	2.0	1.0	10.0	>1.00	500	N	N	N	100	150	N	N

NONMAGNETIC HEAVY MINERAL CONCENTRATES, CHIGNIK QUADRANGLE, ALASKA

sample	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W
CG046C	N	20	100	700	150	N	100	20	20	N	70	N	300	500	N
CG047C	N	30	500	150	50	N	<50	30	<20	N	70	N	200	700	N
CG048C	N	10	200	500	N	N	N	50	1,500	N	20	N	500	300	N
CG049C	N	<10	700	1,500	100	N	N	50	50	N	20	N	300	500	N
CG050C	N	<10	300	1,500	70	N	50	20	500	N	20	N	300	700	N
CG051C	N	50	500	150	300	N	70	10	1,000	N	N	N	200	500	150
CG052C	N	<10	150	70	100	N	70	10	500	N	N	N	500	500	N
CG053C	N	10	150	70	N	N	N	10	70	N	N	N	200	500	N
CG054C	N	<10	700	15	150	N	N	10	70	N	N	N	700	500	N
CG055C	N	<10	150	150	N	50	N	10	20	N	N	N	500	300	N
CG056C	N	30	150	20	50	N	N	10	20	N	N	N	500	300	N
CG057C	N	20	700	70	N	N	N	70	<20	N	50	N	200	700	N
CG058C	N	10	1,000	10	N	N	N	10	N	N	50	N	500	700	N
CG059C	N	10	200	100	100	N	70	10	N	N	50	N	500	500	N
CG060C	N	<10	200	100	50	N	N	10	2,000	N	N	N	500	500	N
CG061C	N	<10	500	70	50	700	N	10	500	N	N	N	500	500	300
CG062C	N	700	100	>20,000	100	1,500	N	100	70	N	N	20	N	100	3,000
CG063C	N	30	300	500	70	N	N	10	N	N	N	N	500	500	100
CG064C	N	300	100	10,000	500	70	50	100	N	N	N	20	N	200	300
CG065C	N	30	200	2,000	70	20	N	10	50	N	N	N	700	150	2,000
CG066C	N	<10	200	70	70	10	N	10	50	N	N	N	500	150	N
CG067C	N	<10	N	500	N	N	N	20	500	N	N	N	700	100	150
CG068C	N	10	150	15	100	N	N	10	N	N	N	N	700	150	N
CG069C	N	30	150	150	70	N	N	10	50	N	N	N	500	100	N
CG070C	N	10	300	70	150	N	70	10	N	N	N	N	500	150	N
CG071C	N	<10	100	15	100	N	50	10	<20	N	N	N	200	200	N
CG072C	N	<10	100	70	200	N	100	10	<20	N	N	N	500	200	N
CG073C	N	10	150	700	70	N	N	10	700	N	N	N	500	200	N
CG074C	N	<10	200	300	N	N	N	10	N	N	10	N	200	300	N
CG075C	N	<10	150	15	N	N	N	10	N	N	10	N	500	200	N
CG076C	N	<10	N	1,500	N	N	N	10	1,000	N	10	N	700	100	N
CG077C	N	<10	100	300	50	N	<50	10	20	N	10	N	300	200	N
CG078C	N	10	150	100	300	N	50	10	20	N	10	N	300	300	N
CG079C	N	<10	N	15	N	N	N	10	N	N	10	N	500	150	N
CG080C	N	<10	200	15	150	N	N	10	N	N	10	N	500	200	N
CG081C	N	<10	200	30	100	N	N	10	N	N	10	N	200	300	N
CG082C	N	10	200	100	100	10	50	10	N	N	10	N	200	500	N
CG083C	N	<10	700	70	100	N	70	10	N	N	10	N	300	700	N
CG084C	N	10	N	70	N	N	N	15	N	N	10	N	300	500	N
CG085C	N	<10	N	70	50	N	N	10	N	N	10	N	300	200	N
CG086C	N	<10	300	15	150	N	100	10	N	N	10	N	300	500	N
CG087C	N	20	N	70	200	N	50	10	50	N	10	N	200	300	N
CG088C	N	<10	N	200	500	N	100	10	N	N	10	N	200	500	N
CG089C	N	10	N	100	150	N	<50	10	N	N	10	N	300	200	N
CG090C	N	<10	200	15	70	N	50	10	N	N	10	N	500	200	N

sample	S-Y	S-ZN	S-ZR
CG046C	700	N	>1,000
CG047C	150	N	>1,000
CG048C	70	N	>1,000
CG049C	70	N	>1,000
CG050C	150	N	>1,000
CG051C	150	N	>1,000
CG052C	150	N	>1,000
CG053C	70	N	>1,000
CG054C	200	N	>1,000
CG055C	70	N	>1,000
CG056C	70	N	>1,000
CG057C	100	N	>1,000
CG058C	70	N	>1,000
CG059C	200	N	>1,000
CG060C	50	5,000	>1,000
CG061C	70	N	>1,000
CG062C	100	N	700
CG063C	70	N	>1,000
CG064C	700	N	>1,000
CG065C	70	N	>1,000
CG066C	150	N	>1,000
CG067C	20	N	>1,000
CG068C	300	N	>1,000
CG069C	150	N	>1,000
CG070C	200	N	>1,000
CG071C	150	N	>1,000
CG072C	300	N	>1,000
CG073C	100	N	>1,000
CG074C	50	N	>1,000
CG075C	50	N	>1,000
CG076C	20	N	>1,000
CG077C	50	N	>1,000
CG078C	150	N	>1,000
CG079C	N	N	150
CG080C	150	N	>1,000
CG081C	150	N	>1,000
CG082C	500	N	>1,000
CG083C	700	N	>1,000
CG084C	20	N	1,000
CG085C	70	N	>1,000
CG086C	500	N	>1,000
CG087C	1,000	N	>1,000
CG088C	700	N	>1,000
CG089C	500	N	>1,000
CG090C	150	N	>1,000

NONMAGNETIC HEAVY MINERAL CONCENTRATES, CHIGNIK QUADRANGLE, ALASKA

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
CG091C	56 7 56	158 57 2	7.0	.7	10.0	>1.00	1,000	N	N	N	150	200	N	N
CG092C	56 7 0	158 53 16	5.0	1.0	15.0	>1.00	1,500	N	N	N	300	500	N	N
CG094C	56 7 42	158 51 56	10.0	1.0	10.0	>1.00	1,000	N	N	N	1,500	1,500	N	N
CG095C	56 7 59	158 52 10	5.0	1.5	15.0	>1.00	1,500	N	N	N	1,500	700	N	N
CG096C	56 0 6	159 31 50	10.0	2.0	7.0	>1.00	700	N	N	N	70	2,000	N	N
CG097C	56 0 6	159 29 57	7.0	3.0	10.0	>1.00	1,000	N	N	N	100	500	N	N
CG098C	56 0 25	159 27 34	5.0	3.0	15.0	1.00	700	N	N	N	<20	300	N	N
CG099C	56 1 55	159 28 55	20.0	5.0	10.0	1.00	700	N	N	N	20	>5,000	N	N
CG100C	56 1 58	159 29 21	15.0	2.0	10.0	1.00	1,000	N	N	N	<20	1,500	N	N
CG101C	56 2 2	159 25 15	5.0	1.0	10.0	.30	300	N	N	N	<20	300	N	N
CG102C	56 1 24	159 23 5	7.0	1.5	10.0	.70	300	N	N	N	<20	300	N	N
CG103C	56 2 8	159 20 39	10.0	1.5	10.0	1.00	500	N	N	N	20	700	N	N
CG104C	56 1 51	159 18 12	5.0	1.5	10.0	.50	700	N	N	N	<20	200	N	N
CG105C	56 1 47	159 18 30	10.0	7.0	10.0	.70	2,000	N	N	N	<20	300	N	N
CG106C	56 0 50	159 20 16	7.0	7.0	20.0	>1.00	1,500	N	N	N	<20	150	N	N
CG107C	56 7 28	159 56 3	20.0	5.0	10.0	>1.00	1,000	N	N	N	200	1,000	N	N
CG108C	56 6 8	159 54 16	5.0	3.0	10.0	>1.00	700	N	N	N	50	300	N	N
CG109C	56 6 14	159 51 20	10.0	7.0	10.0	>1.00	1,000	N	N	N	150	200	N	N
CG110C	56 4 4	159 52 42	>20.0	2.0	3.0	.70	500	N	N	N	200	700	N	N
CG111C	56 6 6	159 49 51	7.0	2.0	10.0	.70	700	N	N	N	N	1,500	N	N
CG112C	56 6 15	159 47 36	3.0	1.5	10.0	.20	300	N	N	N	N	200	N	N
CG113C	56 5 35	159 44 20	7.0	10.0	15.0	.30	1,500	N	N	N	N	100	N	N
CG114C	56 5 3	159 40 55	7.0	7.0	15.0	>1.00	1,500	N	N	N	20	300	N	N
CG115C	56 3 1	159 41 45	>20.0	.7	2.0	.30	300	N	N	N	70	3,000	N	N
CG116C	56 1 49	159 41 53	>20.0	1.0	2.0	.50	700	N	N	N	70	>5,000	N	N
CG117C	56 2 12	159 39 56	20.0	2.0	7.0	>1.00	200	N	N	N	200	500	N	N
CG118C	56 4 41	159 38 5	10.0	7.0	10.0	1.00	1,500	N	N	N	20	500	N	N
CG119C	56 3 48	159 35 17	7.0	7.0	10.0	.70	1,500	N	N	N	<20	200	N	N
CG120C	56 7 40	159 6 34	7.0	2.0	15.0	>1.00	1,500	N	N	N	20	200	N	N
CG121C	56 7 30	159 7 33	7.0	5.0	15.0	>1.00	1,500	N	N	N	70	150	N	N
CG122C	56 6 44	159 9 1	10.0	5.0	10.0	.70	1,500	N	N	N	1,000	1,000	N	N
CG123C	56 5 35	159 9 50	10.0	5.0	7.0	>1.00	2,000	N	N	N	30	300	N	N
CG125C	56 0 57	159 7 40	5.0	2.0	15.0	>1.00	700	N	N	N	70	100	2	N
CG126C	56 0 6	159 10 37	5.0	2.0	10.0	>1.00	700	N	N	N	70	300	N	N
CG127C	56 3 24	159 13 10	>20.0	.7	1.5	.20	300	N	N	N	20	300	N	N
CG128C	56 2 23	159 13 35	7.0	5.0	10.0	.50	1,000	N	N	N	<20	200	N	N
CG129C	56 1 0	159 14 2	7.0	7.0	10.0	>1.00	1,500	N	N	N	30	150	N	N
CG130C	56 4 9	159 57 11	5.0	5.0	10.0	>1.00	700	N	N	N	70	500	N	N
CG131C	56 1 55	159 54 59	7.0	5.0	10.0	>1.00	1,000	N	N	N	200	500	N	N
CG132C	56 0 55	159 55 6	>20.0	.5	1.0	.50	300	N	N	N	50	1,000	N	N
CG133C	56 0 35	159 57 11	>20.0	.5	1.0	.50	300	N	500	N	150	1,000	N	N
CG134C	56 1 16	159 58 49	7.0	2.0	10.0	>1.00	1,000	N	N	N	100	5,000	N	N
CG135C	56 12 39	158 12 55	5.0	1.5	10.0	>1.00	1,000	N	N	N	200	500	N	N
CG136C	56 11 53	158 14 34	3.0	1.5	3.0	>1.00	500	N	N	N	500	300	N	N
CG137C	56 10 55	158 17 38	3.0	1.5	3.0	>1.00	700	N	N	N	300	500	N	N

NONMAGNETIC HEAVY MINERAL CONCENTRATES, CHIGNIK QUADRANGLE, ALASKA

sample	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W
CG091C	N	10	100	150	200	N	50	10	N	N	10	N	500	300	N
CG092C	N	<10	150	100	200	N	100	10	N	N	10	N	300	500	N
CG094C	N	30	200	100	100	N	70	10	N	N	10	N	300	500	N
CG095C	N	<10	100	200	100	N	50	10	N	N	10	N	300	500	N
CG096C	N	50	500	500	50	N	<50	70	N	N	10	70	300	150	N
CG097C	N	30	1,500	70	100	N	70	70	N	N	50	N	500	300	N
CG098C	N	10	1,500	10	N	N	N	50	N	N	10	N	700	150	N
CG099C	N	20	2,000	200	N	500	N	70	N	N	50	N	1,500	300	N
CG100C	N	10	150	150	N	N	N	20	N	N	15	N	700	150	N
CG101C	N	10	N	20	N	N	N	10	N	N	10	N	700	150	N
CG102C	N	10	200	20	50	N	N	10	N	N	20	N	700	100	N
CG103C	N	20	200	1,500	50	N	50	30	N	N	10	N	500	100	N
CG104C	N	10	N	50	N	N	N	10	N	N	10	N	1,000	100	N
CG105C	N	30	500	70	N	N	N	70	N	N	70	N	200	300	N
CG106C	N	20	3,000	15	70	N	70	100	N	N	100	N	200	500	N
CG107C	N	30	1,500	70	70	N	50	70	N	N	70	N	200	300	N
CG108C	N	10	1,000	10	50	N	50	50	N	N	10	N	700	200	N
CG109C	N	20	2,000	20	50	N	50	70	N	N	70	N	500	300	N
CG110C	N	50	500	200	50	N	N	70	20	N	30	N	200	500	N
CG111C	N	10	300	70	N	N	N	10	N	N	10	N	1,000	150	N
CG112C	N	N	200	10	N	N	N	10	N	N	10	N	700	70	N
CG113C	N	30	3,000	20	N	N	N	150	N	N	70	N	300	300	N
CG114C	N	10	1,500	15	N	N	N	70	N	N	50	N	500	300	N
CG115C	N	50	100	150	N	N	N	50	N	N	10	N	200	200	N
CG116C	N	50	200	200	N	N	N	50	N	N	20	N	200	200	N
CG117C	N	50	N	200	N	N	N	10	70	N	30	N	500	500	N
CG118C	N	30	2,000	500	N	N	N	70	N	N	50	N	200	300	N
CG119C	N	30	1,500	15	N	N	N	70	N	N	50	N	200	500	N
CG120C	N	30	500	100	200	N	150	100	20	N	10	N	500	500	N
CG121C	N	30	1,000	20	100	N	50	70	N	N	50	N	500	300	N
CG122C	N	30	500	300	50	N	N	70	20	N	30	N	500	300	N
CG123C	N	30	150	300	50	N	N	70	N	N	50	N	500	500	N
CG125C	N	10	300	10	50	N	50	10	N	N	10	N	200	300	N
CG126C	N	10	700	15	50	N	50	10	N	N	10	N	500	200	N
CG127C	N	50	N	700	N	N	N	50	N	N	10	N	200	200	N
CG128C	N	30	N	50	N	N	N	10	N	N	10	N	700	100	N
CG129C	N	30	500	15	50	N	50	10	N	N	10	N	500	150	N
CG130C	N	<10	1,500	10	100	N	50	10	N	N	10	N	500	200	N
CG131C	N	10	1,500	15	300	N	50	10	N	N	70	N	200	300	N
CG132C	N	300	N	300	N	N	N	10	N	N	10	N	200	150	N
CG133C	N	300	100	100	N	N	N	70	70	N	10	N	200	100	N
CG134C	N	30	700	70	200	N	100	10	30	N	10	70	500	200	N
CG135C	N	<10	300	15	100	N	50	10	20	N	10	N	200	300	N
CG136C	N	<10	500	15	150	N	50	10	70	N	10	N	200	500	N
CG137C	N	<10	300	200	50	500	<50	10	200	N	10	N	200	500	N

sample	S-Y	S-ZN	S-ZR
CG091C	500	N	>1,000
CG092C	700	N	>1,000
CG094C	300	N	>1,000
CG095C	300	N	>1,000
CG096C	150	N	>1,000
CG097C	200	N	>1,000
CG098C	30	N	>1,000
CG099C	20	N	>1,000
CG100C	30	N	>1,000
CG101C	N	N	150
CG102C	100	N	>1,000
CG103C	150	N	>1,000
CG104C	N	N	150
CG105C	70	N	>1,000
CG106C	200	N	>1,000
CG107C	150	N	>1,000
CG108C	100	N	>1,000
CG109C	100	N	>1,000
CG110C	50	N	>1,000
CG111C	20	N	>1,000
CG112C	N	N	150
CG113C	N	N	>1,000
CG114C	50	N	>1,000
CG115C	N	N	100
CG116C	30	N	>1,000
CG117C	70	N	>1,000
CG118C	50	N	>1,000
CG119C	20	N	500
CG120C	700	N	>1,000
CG121C	200	N	>1,000
CG122C	50	N	>1,000
CG123C	50	N	>1,000
CG125C	150	N	>1,000
CG126C	100	N	>1,000
CG127C	20	N	200
CG128C	N	N	>1,000
CG129C	150	N	>1,000
CG130C	200	N	>1,000
CG131C	300	N	>1,000
CG132C	30	N	300
CG133C	20	N	200
CG134C	300	N	>1,000
CG135C	150	N	>1,000
CG136C	150	N	>1,000
CG137C	100	N	>1,000

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
CG138C	56 10 41	158 20 23	>20.0	1.0	2.0	1.00	500	2	N	N	300	300	N	N
CG139C	56 10 55	158 20 30	>20.0	.5	2.0	1.00	500	2	N	N	300	150	N	N
CG140C	56 11 44	158 19 0	>20.0	.2	1.5	>1.00	200	2	1,500	N	150	1,500	N	N
CG141C	56 12 47	158 19 47	>20.0	.2	1.5	>1.00	200	2	1,500	N	100	1,000	N	N
CG142C	56 12 8	158 23 50	2.0	1.5	10.0	>1.00	700	N	N	N	700	200	N	N
CG143C	56 14 32	158 24 23	5.0	2.0	7.0	>1.00	700	N	N	N	>2,000	300	N	N
CG144C	56 14 31	158 21 59	7.0	1.5	5.0	>1.00	1,000	N	N	N	1,500	200	N	N
CG145C	56 16 22	158 20 27	5.0	2.0	5.0	>1.00	700	10	N	N	1,500	300	N	N
CG146C	56 16 51	158 19 24	5.0	1.0	2.0	>1.00	500	N	N	N	500	3,000	N	N
CG147C	56 17 26	158 19 41	5.0	.5	.5	>1.00	500	N	N	N	300	2,000	N	N
CG148C	56 18 56	158 18 56	5.0	.7	2.0	>1.00	500	N	N	N	300	5,000	N	N
CG149C	56 17 21	158 15 15	5.0	1.0	2.0	>1.00	1,000	N	N	N	500	500	N	N
CG150C	56 17 39	158 14 30	20.0	.7	5.0	>1.00	500	N	700	N	500	200	N	N
CG151C	56 16 4	158 14 7	7.0	.2	2.0	>1.00	500	N	N	N	50	>5,000	N	N
CG152C	56 15 32	158 15 20	7.0	1.0	5.0	>1.00	700	N	N	N	500	>5,000	N	N
CG153C	56 14 48	158 17 40	20.0	10.0	10.0	>1.00	5,000	N	N	N	50	1,000	N	N
CG154C	56 32 45	158 14 43	20.0	5.0	10.0	>1.00	1,000	N	N	N	2,000	>5,000	N	N
CG155C	56 32 9	158 13 9	7.0	10.0	10.0	1.00	1,500	N	N	N	<20	150	N	N
CG156C	56 31 9	158 14 16	10.0	7.0	7.0	>1.00	1,000	N	3,000	N	1,000	500	N	N
CG157C	56 31 13	158 13 45	>20.0	2.0	5.0	1.00	1,000	N	N	N	1,500	1,500	N	N
CG158C	56 31 41	158 13 20	7.0	10.0	10.0	.70	1,500	N	N	N	<20	50	N	N
CG159C	56 30 2	158 8 56	>20.0	2.0	5.0	>1.00	1,500	N	N	N	1,500	>5,000	N	N
CG160C	56 29 52	158 8 40	5.0	2.0	10.0	>1.00	1,500	N	N	N	500	1,500	N	N
CG161C	56 27 53	158 10 42	5.0	.7	20.0	>1.00	1,500	N	N	N	>2,000	500	N	N
CG162C	56 31 33	158 18 35	5.0	3.0	7.0	>1.00	1,500	N	N	N	500	300	N	100
CG163C	56 31 5	158 18 2	7.0	10.0	15.0	>1.00	1,500	N	N	N	100	150	N	N
CG164C	56 18 56	158 21 39	5.0	1.5	2.0	>1.00	500	N	N	N	700	500	N	N
CG165C	56 17 40	158 22 53	10.0	1.5	5.0	>1.00	700	N	N	N	700	700	N	N
CG166C	56 18 2	158 24 55	10.0	1.5	7.0	>1.00	700	N	N	N	500	500	N	N
CG167C	56 16 51	158 27 29	10.0	3.0	10.0	>1.00	1,500	N	N	N	300	1,000	N	N
CG168C	56 20 3	158 26 13	10.0	3.0	10.0	>1.00	1,500	N	N	N	300	>5,000	N	N
CG169C	56 18 36	158 31 49	>20.0	.5	2.0	>1.00	300	N	N	N	500	>5,000	N	N
CG170C	56 16 22	158 32 53	>20.0	1.0	1.5	>1.00	200	N	N	N	500	>5,000	N	N
CG171C	56 14 41	158 29 57	7.0	3.0	15.0	>1.00	2,000	N	N	N	3,000	700	N	N
CG172C	56 14 27	158 29 54	7.0	1.0	1.0	>1.00	150	N	N	N	1,000	300	N	N
CG173C	56 15 46	158 35 27	10.0	.5	.7	>1.00	200	15	N	N	20	1,500	N	N
CG174C	56 12 44	158 34 54	10.0	2.0	5.0	>1.00	1,500	N	N	N	700	700	N	N
CG175C	56 12 52	158 34 51	7.0	2.0	2.0	>1.00	1,500	N	N	N	700	300	N	N
CG176C	56 13 18	158 37 37	15.0	1.5	10.0	>1.00	1,500	N	N	N	20	3,000	N	N
CG177C	56 15 34	158 37 44	5.0	1.0	7.0	>1.00	1,000	N	N	N	100	300	N	N
CG178C	56 11 15	158 53 3	7.0	1.5	10.0	>1.00	2,000	N	N	N	50	300	N	N
CG179C	56 11 5	158 52 45	5.0	1.5	10.0	>1.00	1,500	N	N	N	50	300	N	N
CG180C	56 11 2	158 52 5	10.0	1.5	10.0	>1.00	1,000	N	N	N	100	2,000	N	N
CG181C	56 11 38	158 49 1	5.0	1.5	15.0	>1.00	1,500	N	N	N	30	1,000	N	N
CG182C	56 12 37	158 47 48	5.0	1.0	7.0	>1.00	1,500	N	N	N	20	500	N	N

NONMAGNETIC HEAVY MINERAL CONCENTRATES, CHIGNIK QUADRANGLE, ALASKA

sample	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W
CG135C	N	500	200	1,000	N	N	N	10	70	N	10	N	200	300	N
CG139C	N	500	N	700	N	N	N	10	20	N	10	N	N	200	N
CG140C	N	300	150	150	50	N	50	10	70	N	10	N	N	200	N
CG141C	N	300	150	150	50	N	50	10	70	N	10	N	200	200	N
CG142C	N	10	150	15	200	N	<50	10	N	N	10	N	500	300	N
CG143C	N	10	300	3,000	200	N	<50	10	N	N	100	N	200	700	N
CG144C	N	30	200	300	100	150	<50	10	200	N	70	N	300	500	100
CG145C	N	10	500	70	200	N	50	10	1,000	N	70	N	200	300	N
CG146C	N	20	300	700	>1,000	N	100	10	50	N	70	N	1,500	300	N
CG147C	N	30	300	100	300	N	150	10	50	N	>100	N	700	500	N
CG148C	N	30	500	20	500	N	70	10	30	N	70	N	700	300	N
CG149C	N	10	300	50	700	N	100	10	30	N	70	N	700	500	N
CG150C	N	300	200	300	700	N	70	150	20	N	50	N	700	300	200
CG151C	N	50	300	500	300	N	100	100	150	N	70	N	1,500	500	N
CG152C	N	30	300	100	700	N	100	70	70	N	70	N	1,500	1,000	N
CG153C	N	30	500	20	100	N	N	70	50	N	100	N	200	700	N
CG154C	N	30	2,000	200	50	N	50	200	70	N	70	N	300	300	N
CG155C	N	30	5,000	10	N	N	N	200	N	N	150	N	N	500	N
CG156C	N	30	2,000	3,000	50	N	N	100	70	N	100	N	200	1,000	N
CG157C	N	200	1,500	2,000	N	N	N	100	70	N	50	N	500	700	N
CG158C	N	30	>5,000	15	N	N	N	200	N	N	150	N	N	700	N
CG159C	N	70	300	7,000	50	N	50	10	20	N	70	N	700	1,000	N
CG160C	N	10	700	200	200	N	100	10	20	N	70	N	500	500	N
CG161C	N	10	200	50	500	N	150	10	N	N	50	N	500	500	N
CG162C	N	10	1,000	15	70	N	N	10	N	N	70	N	200	1,000	N
CG163C	N	20	3,000	150	50	N	50	150	20	N	70	N	200	700	N
CG164C	N	10	300	50	2,000	N	100	10	20	N	50	N	2,000	1,000	N
CG165C	N	10	300	2,000	70	N	100	10	70	N	70	N	200	700	N
CG166C	N	70	300	1,000	70	N	70	70	150	N	70	300	500	700	N
CG167C	N	30	700	1,000	70	N	50	70	50	N	70	N	200	700	N
CG168C	N	20	700	1,000	200	N	150	70	30	N	70	N	500	500	N
CG169C	N	500	N	1,500	N	N	50	500	70	N	20	N	300	300	N
CG170C	N	300	200	1,000	50	N	50	300	70	N	10	N	700	700	N
CG171C	N	10	200	200	100	N	50	10	50	N	70	N	300	1,000	N
CG172C	N	10	300	70	50	20	50	10	200	N	10	N	1,000	1,000	N
CG173C	N	10	300	300	50	N	70	20	70	N	50	N	500	1,500	N
CG174C	N	10	500	200	50	N	100	10	300	N	70	N	500	2,000	N
CG175C	N	10	700	700	50	N	150	10	70	N	70	N	500	2,000	N
CG176C	N	30	150	500	50	N	50	10	70	N	50	N	500	1,000	N
CG177C	N	10	200	200	200	N	100	10	50	N	70	N	500	1,500	N
CG178C	N	10	N	100	N	N	<50	10	20	N	10	N	500	500	N
CG179C	N	10	N	15	50	N	<50	10	N	N	10	N	500	500	N
CG180C	N	30	300	100	50	N	70	70	50	N	10	N	500	700	N
CG181C	N	10	100	100	150	N	70	10	50	N	50	N	500	500	N
CG182C	N	10	200	70	50	N	70	10	50	N	50	N	500	1,000	N

sample	S-Y	S-ZN	S-ZR
CG138C	30	7,000	>1,000
CG139C	100	>10,000	500
CG140C	70	N	>1,000
CG141C	100	N	>1,000
CG142C	200	N	>1,000
CG143C	200	N	1,000
CG144C	300	N	>1,000
CG145C	150	N	>1,000
CG146C	150	N	>1,000
CG147C	200	N	>1,000
CG148C	150	N	>1,000
CG149C	100	N	>1,000
CG150C	150	N	>1,000
CG151C	50	N	>1,000
CG152C	200	N	>1,000
CG153C	100	N	>1,000
CG154C	200	N	>1,000
CG155C	20	N	>1,000
CG156C	50	N	>1,000
CG157C	50	N	>1,000
CG158C	N	N	150
CG159C	100	2,000	>1,000
CG160C	200	N	>1,000
CG161C	1,000	N	>1,000
CG162C	150	N	>1,000
CG163C	100	N	>1,000
CG164C	150	N	>1,000
CG165C	500	N	>1,000
CG166C	500	N	>1,000
CG167C	150	N	>1,000
CG168C	500	N	>1,000
CG169C	70	N	>1,000
CG170C	50	500	>1,000
CG171C	700	N	>1,000
CG172C	N	N	1,000
CG173C	50	N	>1,000
CG174C	70	N	>1,000
CG175C	70	N	>1,000
CG176C	100	N	>1,000
CG177C	150	N	>1,000
CG178C	50	N	>1,000
CG179C	70	N	>1,000
CG180C	150	N	>1,000
CG181C	500	N	>1,000
CG182C	100	N	>1,000

NONMAGNETIC HEAVY MINERAL CONCENTRATES, CHIGNIK QUADRANGLE, ALASKA

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
CG183C	56 13 6	158 49 18	>20.0	.5	15.0	>1.00	1,000	N	1,000	N	50	1,500	N	N
CG184C	56 19 14	158 35 31	20.0	.7	2.0	>1.00	300	N	N	N	70	500	N	N
CG185C	56 21 1	158 33 50	5.0	1.5	15.0	>1.00	1,500	N	N	N	>2,000	300	N	N
CG186C	56 22 19	158 31 31	5.0	1.5	15.0	>1.00	1,500	N	N	N	>2,000	300	N	N
CG187C	56 22 54	158 30 17	5.0	1.5	15.0	>1.00	1,500	N	N	N	>2,000	150	N	N
CG188C	56 24 2	158 31 36	5.0	1.5	15.0	>1.00	1,500	N	N	N	100	300	N	N
CG189C	56 24 15	158 31 26	20.0	1.0	15.0	>1.00	2,000	N	N	N	700	200	N	N
CG190C	56 25 11	158 29 2	7.0	1.5	15.0	>1.00	1,500	N	N	N	2,000	150	N	N
CG191C	56 25 47	158 28 40	5.0	1.5	15.0	>1.00	1,500	N	N	N	1,000	500	N	N
CG192C	56 26 39	158 25 42	7.0	.7	15.0	>1.00	1,500	N	N	N	200	700	N	N
CG193C	56 28 49	158 28 32	>20.0	1.0	7.0	>1.00	1,000	N	N	N	2,000	>5,000	N	N
CG194C	56 29 30	158 31 35	5.0	2.0	15.0	>1.00	1,500	N	N	N	50	150	N	N
CG195C	56 29 22	158 31 19	5.0	1.5	15.0	>1.00	1,000	N	N	N	150	150	N	N
CG196C	56 29 2	158 29 43	5.0	.7	15.0	>1.00	700	N	N	N	150	200	N	N
CG197C	56 27 34	158 23 48	10.0	.2	2.0	>1.00	500	10	3,000	20	50	3,000	N	N
CG198C	56 28 46	158 21 14	2.0	1.5	10.0	>1.00	1,000	5	N	N	50	700	N	N
CG199C	56 30 11	158 19 50	10.0	10.0	15.0	.70	1,500	N	N	N	50	50	N	N
CG200C	56 31 46	158 20 21	10.0	3.0	15.0	>1.00	2,000	N	N	N	>2,000	1,000	2	N
CG201C	56 30 41	158 22 51	>20.0	.5	1.0	.50	300	2	N	N	100	5,000	N	N
CG202C	56 30 56	158 22 55	10.0	1.5	1.0	>1.00	500	N	N	N	20	300	N	N
CG203C	56 33 6	158 23 16	5.0	1.0	15.0	>1.00	1,000	N	N	N	300	300	N	N
CG204C	56 33 15	158 23 8	10.0	1.5	15.0	>1.00	1,500	N	N	N	5,000	2,000	N	N
CG205C	56 17 49	158 37 20	20.0	1.0	5.0	>1.00	700	N	N	N	200	2,000	N	N
CG206C	56 16 45	158 42 44	3.0	3.0	10.0	>1.00	1,000	N	N	N	200	200	N	N
CG207C	56 16 51	158 43 18	5.0	2.0	10.0	>1.00	1,000	N	N	N	1,500	200	N	N
CG208C	56 16 55	158 47 58	3.0	2.0	7.0	1.00	500	N	N	N	<20	200	N	N
CG209C	56 17 30	158 47 48	2.0	.5	7.0	.70	300	N	N	N	<20	300	N	N
CG210C	56 18 24	158 52 35	3.0	1.0	15.0	>1.00	1,000	N	N	N	20	150	N	N
CG211C	56 20 57	158 51 2	5.0	2.0	15.0	>1.00	2,000	N	N	N	50	150	N	N
CG212C	56 22 26	158 52 6	2.0	2.0	15.0	>1.00	700	N	N	N	500	150	N	N
CG213C	56 22 20	158 51 7	2.0	.7	10.0	>1.00	700	N	N	N	50	500	N	N
CG214C	56 21 51	158 49 15	5.0	2.0	10.0	>1.00	1,000	N	N	N	200	300	N	N
CG215C	56 20 7	158 47 14	5.0	2.0	15.0	>1.00	1,500	N	N	N	100	200	N	N
CG216C	56 19 58	158 44 21	10.0	1.5	15.0	>1.00	1,000	N	N	N	1,500	200	N	N
CG217C	56 20 5	158 44 11	5.0	2.0	15.0	>1.00	1,500	N	N	N	100	200	N	N
CG218C	56 23 30	158 48 30	5.0	.5	2.0	1.00	200	N	N	N	20	500	N	N
CG219C	56 21 51	158 42 59	7.0	2.0	15.0	>1.00	1,000	N	N	N	200	500	N	N
CG220C	56 21 51	158 43 14	5.0	1.0	10.0	>1.00	700	N	N	N	200	500	N	N
CG221C	56 22 44	158 45 12	5.0	1.0	10.0	>1.00	1,500	N	N	N	20	500	N	N
CG222C	56 22 40	158 46 9	5.0	1.0	10.0	>1.00	700	N	N	N	100	500	N	N
CG223C	56 25 4	158 47 21	5.0	3.0	15.0	>1.00	1,000	N	N	N	200	300	N	70
CG224C	56 24 41	158 43 54	7.0	1.0	15.0	>1.00	1,000	N	N	N	20	300	N	N
CG225C	56 22 40	158 46 9	10.0	1.0	10.0	>1.00	700	N	N	N	200	300	N	N
CG226C	56 24 6	158 43 31	2.0	2.0	10.0	>1.00	500	N	N	N	50	300	N	N
CG227C	56 22 59	158 41 23	5.0	1.0	15.0	>1.00	700	N	N	N	300	300	N	N

sample	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W
CG183C	N	100	N	300	200	N	<50	150	100	N	10	N	500	200	N
CG184C	N	50	N	100	50	N	N	100	20	N	10	N	300	100	N
CG185C	N	10	N	15	300	N	100	10	N	N	10	N	500	500	N
CG186C	N	N	N	15	150	N	100	10	N	N	10	N	500	500	N
CG187C	N	10	300	20	200	N	150	10	N	N	50	N	500	500	N
CG188C	N	10	100	20	200	N	100	150	N	N	50	N	500	500	N
CG189C	N	20	100	300	200	N	150	10	20	N	20	N	700	700	N
CG190C	N	20	150	300	200	N	150	10	N	N	10	N	700	700	N
CG191C	N	10	100	200	300	N	150	10	N	N	10	N	700	700	N
CG192C	N	20	N	200	200	N	50	10	N	N	10	N	700	500	N
CG193C	N	50	N	500	50	N	N	150	100	N	10	N	700	200	N
CG194C	N	20	700	100	500	N	150	10	N	N	50	N	200	500	N
CG195C	N	10	300	70	200	N	150	20	N	N	10	N	300	300	N
CG196C	N	10	100	100	50	N	<50	20	N	N	10	N	N	300	N
CG197C	N	30	100	1,000	50	N	N	70	3,000	200	70	N	300	200	N
CG198C	N	10	200	70	300	N	<50	N	N	N	70	N	200	300	N
CG199C	N	30	3,000	50	N	N	N	150	N	N	70	N	N	300	N
CG200C	N	20	100	70	50	N	<50	50	1,000	N	10	N	300	300	N
CG201C	N	300	100	3,000	N	N	N	100	N	N	10	N	200	100	N
CG202C	N	20	200	1,000	N	200	70	20	N	N	50	N	200	1,000	100
CG203C	N	<10	100	15	150	N	70	20	N	N	10	N	300	700	N
CG204C	N	30	200	100	100	N	50	50	N	N	70	N	500	500	N
CG205C	N	30	200	200	150	N	50	100	N	N	50	N	700	300	N
CG206C	N	10	1,500	15	150	N	50	50	N	N	10	N	500	300	N
CG207C	N	20	100	20	150	N	<50	20	N	N	10	N	500	150	N
CG208C	N	<10	500	15	50	N	<50	20	N	N	10	N	700	100	N
CG209C	N	<10	N	15	50	N	<50	20	N	N	10	N	700	30	N
CG210C	N	<10	100	20	500	N	150	20	N	N	10	N	500	300	N
CG211C	N	10	500	30	700	N	150	20	30	N	10	N	500	500	N
CG212C	N	<10	700	15	200	N	100	20	N	N	10	N	300	300	N
CG213C	N	<10	N	15	300	N	200	20	N	N	10	N	300	500	N
CG214C	N	<10	200	15	200	N	150	20	N	N	10	N	500	300	N
CG215C	N	10	200	300	300	N	50	20	N	N	10	N	500	300	N
CG216C	N	20	200	300	500	N	100	30	20	N	10	N	500	300	N
CG217C	N	10	100	20	300	N	50	20	N	N	10	N	500	300	N
CG218C	N	10	N	50	N	N	N	20	50	N	10	N	2,000	70	N
CG219C	N	10	700	50	300	N	50	10	N	N	10	N	500	300	N
CG220C	N	10	N	50	300	N	150	10	N	N	10	N	500	300	N
CG221C	N	<10	100	15	500	N	150	10	N	N	10	N	500	300	N
CG222C	N	<10	50	150	300	N	100	10	N	N	10	N	700	200	N
CG223C	N	10	1,000	200	300	N	70	50	N	N	50	N	500	500	N
CG224C	N	30	N	150	500	N	150	10	N	N	10	N	500	300	N
CG225C	N	30	N	150	500	N	150	50	20	N	10	N	500	500	N
CG226C	N	<10	700	100	100	N	<50	10	N	N	10	N	700	200	N
CG227C	N	10	N	50	300	N	200	10	N	N	10	N	200	300	N

sample	S-Y	S-ZN	S-ZR
CG183C	500	N	>1,000
CG184C	100	N	>1,000
CG185C	700	N	>1,000
CG186C	300	N	>1,000
CG187C	700	N	>1,000
CG188C	1,000	N	>1,000
CG189C	1,500	N	>1,000
CG190C	1,500	N	>1,000
CG191C	1,500	N	>1,000
CG192C	1,000	N	>1,000
CG193C	200	N	>1,000
CG194C	1,500	N	>1,000
CG195C	300	N	>1,000
CG196C	150	N	>1,000
CG197C	700	N	>1,000
CG198C	700	N	>1,000
CG199C	20	N	>1,000
CG200C	150	N	>1,000
CG201C	20	N	>1,000
CG202C	70	N	>1,000
CG203C	500	N	>1,000
CG204C	200	N	>1,000
CG205C	700	N	>1,000
CG206C	300	N	>1,000
CG207C	150	N	>1,000
CG208C	100	N	>1,000
CG209C	100	N	>1,000
CG210C	500	N	>1,000
CG211C	1,000	N	>1,000
CG212C	700	N	>1,000
CG213C	700	N	>1,000
CG214C	700	N	>1,000
CG215C	500	N	>1,000
CG216C	500	N	>1,000
CG217C	500	N	>1,000
CG218C	50	N	>1,000
CG219C	500	N	>1,000
CG220C	1,000	N	>1,000
CG221C	1,000	N	>1,000
CG222C	500	N	>1,000
CG223C	300	N	>1,000
CG224C	1,500	N	>1,000
CG225C	1,000	N	>1,000
CG226C	100	N	>1,000
CG227C	700	N	>1,000

NONMAGNETIC HEAVY MINERAL CONCENTRATES, CHIGNIK QUADRANGLE, ALASKA

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
CG225C	56 23 4	158 39 29	5.0	2.0	15.0	>1.00	1,000	N	N	N	500	700	N	N
CG229C	56 23 41	156 35 26	5.0	1.0	10.0	>1.00	700	N	N	N	1,000	300	N	N
CG230C	56 32 40	158 57 50	10.0	1.5	10.0	>1.00	700	N	N	N	70	2,000	N	N
CG231C	56 31 6	158 57 39	10.0	2.0	10.0	>1.00	1,000	N	N	N	100	1,500	N	N
CG232C	56 30 30	158 56 5	5.0	2.0	5.0	>1.00	300	N	N	N	20	1,000	N	N
CG233C	56 29 53	158 57 21	2.0	3.0	10.0	>1.00	300	N	N	N	<20	200	N	N
CG234C	56 29 21	158 51 41	2.0	2.0	15.0	>1.00	1,500	N	N	N	200	200	N	N
CG235C	56 28 38	158 50 11	2.0	1.5	10.0	1.00	300	N	N	N	<20	500	N	N
CG236C	56 30 25	158 45 38	20.0	.5	5.0	>1.00	300	N	N	N	20	1,000	N	500
CG237C	56 28 58	158 45 59	20.0	.2	.1	>1.00	70	N	N	N	300	>5,000	N	N
CG238C	56 28 16	158 49 32	>20.0	.5	1.0	>1.00	200	N	N	N	100	>5,000	N	N
CG239C	56 30 17	158 41 56	2.0	.5	7.0	>1.00	500	N	N	N	200	1,000	N	N
CG240C	56 30 26	158 41 32	>20.0	.5	.5	>1.00	100	N	N	N	200	>5,000	N	N
CG241C	56 16 6	158 59 21	>20.0	.7	1.0	>1.00	200	N	N	N	700	>5,000	N	N
CG242C	56 15 42	158 59 45	10.0	1.0	15.0	>1.00	1,500	N	N	N	500	1,000	N	N
CG243C	56 16 53	159 0 10	20.0	.5	15.0	>1.00	500	15	N	N	100	1,500	N	20
CG244C	56 19 9	159 2 26	5.0	2.0	15.0	>1.00	1,500	N	N	N	20	200	N	N
CG245C	56 19 6	156 56 50	7.0	1.0	15.0	>1.00	1,000	N	N	N	20	300	N	N
CG246C	56 16 36	158 53 45	10.0	3.0	10.0	>1.00	1,500	N	N	N	20	150	N	N
CG247C	56 14 45	158 52 14	5.0	.3	15.0	>1.00	1,000	N	N	N	70	700	N	N
CG248C	56 14 7	158 53 26	5.0	.3	15.0	>1.00	1,500	150	N	N	30	300	N	N
CG249C	56 13 59	158 53 8	5.0	.3	15.0	>1.00	700	N	N	N	30	700	N	N
CG250C	56 13 10	158 44 48	10.0	.2	.5	>1.00	300	N	N	N	30	>5,000	N	N
CG251C	56 11 50	158 42 52	5.0	.2	5.0	>1.00	500	N	N	N	30	>5,000	N	N
CG252C	56 11 21	158 42 56	5.0	.5	5.0	>1.00	500	N	N	N	70	700	N	N
CG253C	56 15 21	158 42 14	20.0	.2	1.0	>1.00	300	N	N	N	<20	>5,000	N	N
CG254C	56 29 32	158 41 39	20.0	.5	2.0	>1.00	300	N	N	N	100	>5,000	N	N
CG255C	56 28 2	158 42 37	5.0	7.0	20.0	.70	700	N	N	N	<20	300	N	N
CG256C	56 27 41	158 43 14	5.0	5.0	15.0	>1.00	1,000	N	N	N	100	100	N	N
CG257C	56 28 32	158 37 36	7.0	1.0	15.0	>1.00	1,000	N	1,500	N	70	>5,000	N	N
CG258C	56 27 55	158 37 50	2.0	1.0	15.0	>1.00	1,000	N	N	N	200	150	2	N
CG259C	56 27 15	158 41 11	5.0	.1	10.0	>1.00	700	N	N	N	<20	700	N	N
CG260C	56 16 8	159 3 28	5.0	.5	10.0	>1.00	500	N	N	N	20	>5,000	N	N
CG261C	56 10 50	159 4 50	7.0	1.0	10.0	1.00	500	N	N	N	50	3,000	N	N
CG262C	56 10 47	159 4 28	7.0	.2	15.0	>1.00	500	N	N	N	<20	2,000	N	N
CG263C	56 12 10	159 2 54	3.0	.5	10.0	>1.00	1,000	N	N	N	20	500	N	N
CG264C	56 12 8	158 59 7	5.0	.7	10.0	>1.00	700	N	N	N	100	200	N	N
CG265C	56 12 17	158 59 3	7.0	.5	10.0	>1.00	300	N	N	N	100	5,000	N	N
CG266C	56 12 41	159 4 46	5.0	2.0	15.0	>1.00	500	N	N	N	150	700	N	N
CG267C	56 13 14	159 5 43	10.0	10.0	7.0	.20	2,000	N	N	N	<20	100	N	N
CG268C	56 13 54	159 6 24	10.0	7.0	10.0	.20	1,000	N	N	N	<20	100	N	N
CG269C	56 14 47	159 7 32	2.0	1.0	10.0	>1.00	500	N	N	N	<20	100	N	N
CG270C	56 15 8	159 5 43	5.0	.5	7.0	>1.00	700	N	N	N	70	>5,000	N	N
CG271C	56 16 37	159 9 5	5.0	2.0	15.0	.70	500	N	N	N	<20	1,500	N	N
CG272C	56 25 54	158 53 44	2.0	1.0	15.0	.10	300	N	N	N	<20	300	N	N

NONMAGNETIC HEAVY MINERAL CONCENTRATES, CHIGNIK QUADRANGLE, ALASKA

sample	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W
CG228C	N	10	N	50	500	N	200	10	N	N	10	N	500	500	N
CG229C	N	<10	N	100	200	N	70	10	N	N	10	N	500	300	N
CG230C	N	20	150	100	100	N	50	150	70	N	10	N	500	200	N
CG231C	N	30	300	15	200	N	70	70	20	N	10	N	700	300	N
CG232C	N	10	300	15	50	N	<50	10	N	N	10	N	500	100	N
CG233C	N	<10	700	15	50	N	<50	10	N	N	10	N	500	150	N
CG234C	N	<10	500	15	200	N	50	70	N	N	10	N	500	300	N
CG235C	N	<10	150	15	50	N	<50	10	N	N	10	N	700	100	N
CG236C	N	100	50	5,000	50	N	50	70	300	N	10	N	500	500	N
CG237C	N	30	150	150	50	N	N	100	150	N	10	N	1,000	500	N
CG238C	N	200	150	500	100	N	50	200	70	N	10	N	500	300	N
CG239C	N	10	200	50	150	N	200	10	N	N	50	150	700	500	N
CG240C	N	200	50	300	50	N	N	150	100	N	10	N	500	500	N
CG241C	N	200	50	300	50	N	N	70	70	N	10	N	500	300	N
CG242C	N	30	50	700	150	N	150	10	70	N	10	N	500	500	N
CG243C	N	50	50	1,000	150	N	150	10	300	N	10	N	700	500	N
CG244C	N	<10	N	15	150	N	100	10	N	N	10	N	700	200	N
CG245C	N	<10	N	150	200	N	150	10	N	N	10	N	700	500	N
CG246C	N	20	150	100	150	N	<50	70	N	N	70	N	200	200	N
CG247C	N	15	N	150	200	N	50	10	N	N	10	N	700	150	N
CG248C	N	15	100	5,000	100	N	<50	10	500	N	10	N	700	150	N
CG249C	N	10	N	50	150	N	<50	10	70	N	10	N	500	150	N
CG250C	N	30	50	100	150	N	50	30	70	N	70	N	700	200	N
CG251C	N	20	100	150	300	N	50	30	20	N	70	N	700	150	N
CG252C	N	20	150	70	150	N	70	10	20	N	70	N	200	200	N
CG253C	N	30	100	150	150	N	70	70	20	N	70	N	1,000	200	N
CG254C	N	50	150	2,000	150	N	70	200	70	N	50	N	300	150	N
CG255C	N	30	3,000	10	N	N	N	150	N	N	100	N	N	200	N
CG256C	N	20	2,000	15	50	N	N	100	N	N	70	N	200	300	N
CG257C	N	20	150	70	150	N	50	10	N	N	10	N	500	200	N
CG258C	N	<10	200	10	150	N	50	10	N	N	10	N	200	200	N
CG259C	N	10	N	100	200	N	<50	70	50	N	50	N	200	150	N
CG260C	N	20	N	100	200	N	50	50	100	N	10	N	500	150	N
CG261C	N	30	300	70	100	N	<50	100	N	N	10	N	500	100	N
CG262C	N	30	N	100	300	N	70	70	20	N	10	N	500	150	N
CG263C	N	10	50	70	150	N	70	10	N	N	10	N	300	150	N
CG264C	N	30	100	150	100	N	<50	10	20	N	10	N	300	300	N
CG265C	N	200	100	2,000	100	70	N	70	100	N	10	N	500	200	100
CG266C	N	20	1,000	100	150	N	70	70	N	N	10	N	300	200	N
CG267C	N	50	200	10	N	N	N	150	N	N	30	N	300	70	N
CG268C	N	30	700	20	N	N	N	150	N	N	30	N	300	100	N
CG269C	N	10	700	15	50	N	50	10	N	N	10	N	700	150	N
CG270C	N	<10	100	15	50	N	50	10	N	N	20	N	1,500	150	N
CG271C	N	20	1,000	150	N	N	N	70	N	N	50	N	700	150	N
CG272C	N	<10	300	15	N	N	N	10	N	N	10	N	700	50	N

sample	S-Y	S-ZN	S-ZR
CG228C	1,500	N	>1,000
CG229C	300	N	>1,000
CG230C	150	N	>1,000
CG231C	300	N	>1,000
CG232C	100	N	>1,000
CG233C	100	N	>1,000
CG234C	200	N	>1,000
CG235C	70	N	>1,000
CG236C	200	N	>1,000
CG237C	50	1,000	>1,000
CG238C	200	N	>1,000
CG239C	500	N	>1,000
CG240C	50	700	>1,000
CG241C	50	500	>1,000
CG242C	500	N	>1,000
CG243C	700	N	>1,000
CG244C	300	N	>1,000
CG245C	700	N	>1,000
CG246C	150	N	>1,000
CG247C	200	N	>1,000
CG248C	150	7,000	>1,000
CG249C	150	N	>1,000
CG250C	200	N	>1,000
CG251C	300	N	>1,000
CG252C	200	N	>1,000
CG253C	200	N	>1,000
CG254C	100	3,000	>1,000
CG255C	20	N	200
CG256C	70	N	>1,000
CG257C	300	N	>1,000
CG258C	150	N	>1,000
CG259C	500	1,000	>1,000
CG260C	500	N	>1,000
CG261C	100	N	>1,000
CG262C	300	N	>1,000
CG263C	150	N	>1,000
CG264C	200	N	>1,000
CG265C	300	1,000	>1,000
CG266C	150	N	>1,000
CG267C	20	N	1,000
CG268C	<20	N	500
CG269C	150	N	>1,000
CG270C	70	1,000	>1,000
CG271C	70	N	>1,000
CG272C	30	N	>1,000

NONMAGNETIC HEAVY MINERAL CONCENTRATES, CHIGNIK QUADRANGLE, ALASKA

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
CG273C	56 26 39	158 53 39	2.0	1.0	15.0	>1.00	300	N	N	N	50	300	N	N
CG274C	56 17 44	159 5 14	2.0	1.0	15.0	>1.00	300	N	N	N	50	700	N	N
CG275C	56 7 40	159 38 29	10.0	>10.0	5.0	.50	2,000	N	N	N	<20	100	N	N
CG276C	56 7 19	159 36 29	2.0	2.0	10.0	.10	500	N	N	N	<20	1,000	N	N
CG277C	56 8 20	159 36 57	>20.0	2.0	2.0	.20	500	N	N	N	200	2,000	N	N
CG278C	56 8 26	159 36 51	10.0	10.0	7.0	.10	1,500	N	N	N	<20	150	N	N
CG279C	56 10 38	159 39 16	10.0	>10.0	7.0	.20	2,000	N	N	N	<20	100	N	N
CG280C	56 9 44	159 42 29	2.0	1.0	15.0	.30	500	N	N	N	20	200	N	N
CG281C	56 11 40	159 33 51	15.0	>10.0	5.0	.30	2,000	N	N	N	<20	150	N	N
CG282C	56 13 29	159 34 33	1.0	.5	10.0	.10	300	N	N	N	<50	200	N	N
CG283C	56 9 14	159 52 50	10.0	>10.0	10.0	.50	2,000	N	N	N	50	150	N	N
CG284C	56 11 46	159 50 57	5.0	7.0	15.0	.50	1,500	N	N	N	20	200	N	N
CG285C	56 14 30	159 52 59	7.0	7.0	15.0	.20	1,500	N	N	N	<20	150	N	N
CG286C	56 14 30	159 45 29	3.0	2.0	15.0	.15	500	N	N	N	<20	150	N	N
CG287C	56 11 48	159 47 16	2.0	5.0	15.0	.50	1,000	N	N	N	<20	200	N	N
CG288C	56 9 35	159 47 35	7.0	10.0	15.0	.20	1,000	N	N	N	20	150	N	N
CG290C	56 12 29	159 29 35	5.0	2.0	15.0	.10	500	N	N	N	20	150	N	N
CG291C	56 12 59	159 34 36	1.5	.5	15.0	.10	300	N	N	N	50	150	N	N
CG292C	56 14 21	159 39 26	2.0	.5	15.0	.10	300	N	N	N	<20	150	N	N
CG293C	56 16 9	159 38 48	5.0	.3	15.0	.20	200	N	N	N	<20	150	N	N
CG294C	56 17 58	159 31 54	2.0	.3	15.0	.10	200	N	N	N	<20	100	N	N
CG295C	56 18 35	159 27 52	5.0	.5	15.0	.15	300	N	N	N	<20	100	N	N
CG296C	56 18 14	159 24 51	1.5	.2	15.0	.15	300	N	N	N	<20	100	N	N
CG298C	56 18 33	159 15 33	7.0	5.0	10.0	.20	1,000	N	N	N	30	150	N	N
CG299C	56 18 6	159 53 25	5.0	5.0	15.0	.30	1,000	N	N	N	20	150	N	N
CG300C	56 22 28	159 54 56	5.0	2.0	15.0	.20	1,000	N	N	N	<20	150	N	N
CG302C	56 26 59	159 54 11	7.0	3.0	10.0	.20	700	N	N	N	<20	150	N	N
CG304C	56 17 12	159 45 37	2.0	1.0	15.0	.20	700	N	N	N	<20	150	N	N
CG305C	56 17 56	159 42 5	2.0	1.0	15.0	.20	700	N	N	N	20	150	N	N
CG306C	0 0 0	0 0 0	10.0	5.0	15.0	1.00	1,500	N	N	N	20	300	N	N
CG307C	56 27 21	159 44 48	5.0	5.0	20.0	.70	1,000	5	N	N	30	150	N	N
CG308C	56 17 14	160 12 32	7.0	5.0	10.0	.50	1,000	N	N	N	<20	150	N	N
CG309C	56 16 45	160 9 6	1.0	1.0	15.0	.30	500	N	N	N	30	100	N	N
CG310C	56 18 2	160 4 29	5.0	2.0	10.0	.30	700	N	N	N	<20	200	N	N
CG311C	56 19 50	160 1 1	7.0	7.0	20.0	1.50	1,000	N	N	N	<20	70	N	N
CG312C	56 23 23	160 4 29	1.5	1.0	15.0	.20	300	N	N	N	<20	150	N	N
CG313C	56 23 29	160 2 17	3.0	5.0	15.0	.30	700	N	N	N	<20	150	N	N
CG314C	56 25 36	160 2 0	5.0	5.0	15.0	.30	700	2	N	N	70	150	N	N
CG315C	56 43 23	158 12 56	2.0	3.0	15.0	>1.00	1,000	N	N	N	150	200	N	N
CG316C	56 44 5	158 13 0	2.0	5.0	20.0	>1.00	1,000	N	N	N	100	200	N	N
CG317C	56 44 39	158 13 27	2.0	2.0	20.0	>1.00	1,000	2	N	N	100	200	N	N
CG318C	56 48 20	158 12 3	2.0	1.0	20.0	>1.00	1,000	2	N	N	100	300	N	N
CG319C	56 47 8	158 13 40	1.5	.5	15.0	>1.00	700	2	N	N	100	300	N	N
CG320C	56 47 0	158 14 21	3.0	2.0	15.0	>1.00	1,500	N	N	N	150	150	N	N
CG321C	56 44 29	158 17 59	2.0	1.5	10.0	>1.00	1,000	N	N	N	<20	1,000	N	N

NONMAGNETIC HEAVY MINERAL CONCENTRATES, CHIGNIK QUADRANGLE, ALASKA

sample	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W
CG273C	N	10	500	10	50	N	N	10	N	N	10	300	500	150	N
CG274C	N	<10	700	15	N	N	50	10	N	N	10	200	700	150	N
CG275C	N	100	500	20	N	N	N	150	20	N	50	N	N	150	N
CG276C	N	10	700	500	N	N	N	10	N	N	15	N	500	70	N
CG277C	N	200	200	70	N	N	N	100	20	N	10	N	N	200	N
CG278C	N	70	300	15	N	N	N	150	N	N	20	N	1,000	100	N
CG279C	N	100	700	15	N	N	N	200	N	N	70	N	N	200	N
CG280C	N	<10	500	15	50	N	N	10	N	N	10	N	700	70	N
CG281C	N	100	150	500	N	N	N	200	20	N	50	N	N	150	N
CG282C	N	N	N	<20	100	N	N	20	N	N	N	N	700	50	N
CG283C	N	50	1,000	50	N	N	N	300	N	N	10	N	N	300	N
CG284C	N	30	1,000	20	N	N	N	70	30	N	100	N	300	200	N
CG285C	N	50	N	15	N	N	N	150	N	N	50	N	300	150	N
CG286C	N	20	150	15	N	N	N	50	N	N	20	N	700	100	N
CG287C	N	20	1,500	15	N	N	N	100	N	N	50	N	500	150	N
CG288C	N	50	200	15	N	N	N	100	N	N	50	N	500	150	N
CG290C	N	10	300	20	N	N	N	50	N	N	15	N	700	70	N
CG291C	N	N	N	15	N	N	N	10	N	N	<10	N	700	50	N
CG292C	N	N	N	10	N	N	N	10	N	N	<10	N	700	50	N
CG293C	N	<10	N	15	N	N	N	10	N	N	N	N	700	50	N
CG294C	N	N	N	15	N	N	N	10	N	N	N	N	700	50	N
CG295C	N	<10	N	15	N	N	N	10	N	N	N	N	700	70	N
CG296C	N	N	N	10	N	N	N	10	N	N	N	N	700	50	N
CG298C	N	30	100	15	N	N	N	70	N	N	10	N	700	100	N
CG299C	N	30	700	15	N	N	N	70	N	N	50	N	700	200	N
CG300C	N	10	200	10	50	N	N	20	N	N	15	N	700	70	N
CG302C	N	20	1,000	15	N	N	N	70	N	N	30	N	700	150	N
CG304C	N	<10	300	15	70	N	N	20	N	N	30	N	700	70	N
CG305C	N	<10	300	15	70	N	N	10	N	N	10	N	700	100	N
CG306C	N	30	700	15	N	N	N	50	150	N	150	N	N	500	N
CG307C	N	20	1,500	15	70	N	N	100	200	N	50	N	500	200	N
CG308C	N	30	1,000	15	N	N	N	100	N	N	50	N	500	200	N
CG309C	N	N	300	10	N	N	N	20	N	N	10	N	700	70	N
CG310C	N	10	150	15	N	N	N	30	N	N	20	N	700	150	N
CG311C	N	30	2,000	15	50	N	N	150	N	N	100	N	500	200	N
CG312C	N	<10	500	10	N	N	N	20	N	N	10	N	700	70	N
CG313C	N	30	1,500	15	N	N	N	100	N	N	30	N	700	200	N
CG314C	N	30	1,500	20	N	N	N	100	N	N	30	N	2,000	200	N
CG315C	N	20	1,500	15	70	N	70	70	N	N	70	N	500	500	N
CG316C	N	20	1,500	50	200	N	150	100	N	N	100	N	500	500	N
CG317C	N	10	1,000	15	200	N	70	70	N	N	70	N	>5,000	300	N
CG318C	N	10	500	100	200	N	100	20	N	N	70	N	500	300	N
CG319C	N	10	150	15	200	N	150	20	N	N	50	N	500	300	N
CG320C	N	10	500	100	200	N	150	20	N	N	70	N	500	300	N
CG321C	N	10	700	10	70	N	50	20	N	N	20	N	500	150	N

sample	S-Y	S-ZN	S-ZR
CG273C	200	N	>1,000
CG274C	200	N	>1,000
CG275C	20	N	1,000
CG276C	20	N	2,000
CG277C	20	N	500
CG278C	N	N	500
CG279C	20	N	200
CG280C	70	N	>1,000
CG281C	20	500	200
CG282C	N	N	200
CG283C	20	N	700
CG284C	30	N	1,000
CG285C	<20	N	70
CG286C	N	N	70
CG287C	30	N	>1,000
CG288C	N	N	150
CG289C	N	N	200
CG290C	N	N	1,500
CG291C	N	N	2,000
CG292C	N	N	500
CG293C	N	N	50
CG294C	N	N	100
CG295C	20	N	200
CG296C	N	N	70
CG298C	30	N	500
CG299C	70	N	700
CG300C	20	N	>1,000
CG302C	150	N	>1,000
CG304C	70	N	>1,000
CG305C	70	N	>1,000
CG306C	150	N	1,500
CG307C	20	N	300
CG308C	50	N	>1,000
CG309C	N	N	70
CG310C	150	N	>1,000
CG311C	20	N	>1,000
CG312C	70	N	700
CG313C	30	N	700
CG314C	150	N	>1,000
CG315C	500	N	>1,000
CG316C	500	N	>1,000
CG317C	500	N	>1,000
CG318C	500	N	>1,000
CG319C	500	N	>1,000
CG320C	150	N	>1,000

NONMAGNETIC HEAVY MINERAL CONCENTRATES, CHIGNIK QUADRANGLE, ALASKA

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
CG322C	56 43 56	158 19 47	2.0	1.5	10.0	.70	500	5	N	N	30	500	N	N
CG323C	56 43 51	158 21 2	5.0	5.0	20.0	1.00	1,000	N	N	N	30	100	N	N
CG324C	56 44 40	158 24 17	5.0	7.0	20.0	.30	1,000	N	N	N	<20	N	N	N
CG325C	56 45 26	158 26 5	5.0	7.0	15.0	.30	1,000	N	N	N	<20	50	N	N
CG326C	56 46 0	158 26 44	5.0	7.0	20.0	.50	1,000	N	N	N	100	50	N	N
CG327C	56 47 35	158 27 42	5.0	7.0	15.0	.20	1,000	N	N	N	<20	50	N	N
CG328C	56 48 15	158 27 38	5.0	7.0	20.0	.30	1,000	N	N	N	<20	<50	N	N
CG329C	56 49 14	158 25 54	5.0	7.0	15.0	.70	700	N	N	N	<20	70	N	N
CG330C	56 50 23	158 18 33	5.0	5.0	20.0	>1.00	1,000	N	N	N	100	200	N	N
CG331C	56 50 17	158 18 33	2.0	1.0	10.0	.50	500	N	N	N	30	700	N	N
CG332C	56 50 47	158 19 19	7.0	7.0	10.0	.70	2,000	N	N	N	70	200	N	N
CG333C	56 50 5	158 21 3	2.0	1.0	10.0	.50	500	N	N	N	<20	700	N	N
CG334C	56 50 4	158 24 44	5.0	7.0	15.0	.70	1,000	N	N	N	20	100	N	N
CG335C	56 51 14	158 23 53	5.0	7.0	20.0	.30	1,000	N	N	N	<20	150	N	N
CG336C	56 51 43	158 27 20	2.0	3.0	15.0	>1.00	700	5	N	N	50	300	N	N
CG337C	56 54 14	158 29 32	2.0	5.0	15.0	>1.00	700	N	N	N	70	200	N	N
CG338C	56 53 48	158 25 18	2.0	2.0	15.0	>1.00	700	N	N	N	70	200	N	N
CG339C	56 56 13	158 26 0	2.0	1.0	10.0	.50	500	N	N	N	<20	500	N	N
CG340C	56 56 26	158 25 32	2.0	2.0	15.0	>1.00	700	N	N	N	30	150	N	N
CG341C	56 56 36	158 24 58	5.0	5.0	15.0	>1.00	700	N	N	N	50	150	N	N
CG342C	56 57 12	158 23 17	2.0	2.0	15.0	>1.00	700	N	N	N	50	200	N	N
CG343C	56 58 46	158 25 18	2.0	5.0	15.0	1.00	700	N	N	N	<20	150	N	N
CG344C	56 58 54	158 32 22	2.0	1.5	15.0	1.00	700	N	N	N	70	300	N	N
CG345C	56 56 13	158 7 10	2.0	1.5	15.0	1.00	700	N	N	N	20	300	N	N
CG346C	56 54 20	158 4 59	2.0	1.0	15.0	>1.00	700	N	N	N	150	150	N	N
CG347C	56 49 0	158 1 23	2.0	.7	15.0	>1.00	700	N	N	N	150	300	N	N
CG348C	56 48 47	158 3 34	2.0	.5	15.0	>1.00	1,000	N	N	N	70	300	N	N
CG349C	56 48 8	158 5 12	2.0	.7	20.0	>1.00	1,000	N	N	N	500	200	N	N
CG350C	56 47 2	158 6 15	2.0	.5	15.0	>1.00	500	N	N	N	70	500	N	N
CG351C	56 19 50	159 35 53	2.0	.7	15.0	.50	500	N	N	N	30	200	N	N
CG352C	56 22 40	159 31 18	1.5	.5	10.0	.50	300	N	N	N	30	500	N	N
CG353C	56 27 16	159 35 5	2.0	2.0	20.0	>1.00	500	N	N	N	50	500	N	N
CG354C	56 33 39	158 23 39	2.0	.5	20.0	>1.00	1,000	N	N	N	50	300	N	N
CG355C	56 35 39	158 25 2	5.0	.7	15.0	>1.00	500	N	N	N	30	1,000	N	N
CG356C	56 35 50	158 26 27	5.0	7.0	20.0	.70	700	N	N	N	<20	100	N	N
CG357C	56 31 19	158 27 52	5.0	2.0	20.0	>1.00	1,000	N	N	N	150	700	N	N
CG358C	56 32 3	158 28 1	>20.0	.5	5.0	>1.00	700	2	N	N	150	700	N	20
CG359C	56 32 18	158 30 15	>20.0	.5	5.0	>1.00	700	2	N	N	150	700	N	20
CG360C	56 32 11	158 30 11	2.0	.5	20.0	>1.00	1,000	N	N	N	50	200	N	N
CG361C	56 33 51	158 28 28	5.0	.3	20.0	>1.00	1,000	N	N	N	70	700	N	N
CG362C	56 34 8	158 32 8	15.0	2.0	10.0	>1.00	500	N	N	N	200	>5,000	N	N
CG363C	56 34 11	158 31 27	2.0	3.0	20.0	1.00	1,000	N	N	N	70	1,500	N	N
CG364C	56 34 32	158 31 58	>20.0	.2	1.5	>1.00	500	N	N	N	100	>5,000	N	N
CG365C	56 35 26	158 32 25	10.0	1.0	10.0	>1.00	500	N	N	N	100	>5,000	N	N
CG366C	56 36 24	158 33 33	3.0	3.0	15.0	>1.00	500	N	N	N	50	500	N	N

NONMAGNETIC HEAVY MINERAL CONCENTRATES, CHIGNIK QUADRANGLE, ALASKA

sample	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W
CG322C	N	<10	700	10	N	N	N	20	N	N	20	N	700	100	N
CG323C	N	30	2,000	<10	N	N	N	100	N	N	150	N	200	200	N
CG324C	N	30	3,000	<10	N	N	N	150	N	N	70	N	N	200	N
CG325C	N	30	3,000	<10	N	N	N	150	100	N	70	N	200	200	N
CG326C	N	30	3,000	15	50	N	N	150	N	N	70	N	200	200	N
CG327C	N	30	2,000	<10	50	N	N	150	N	N	70	N	200	200	N
CG328C	N	30	2,000	<10	50	N	N	150	N	N	70	N	200	200	N
CG329C	N	30	3,000	<10	50	N	N	150	N	N	70	N	200	200	N
CG330C	N	30	1,500	100	100	N	50	150	N	N	70	N	300	200	N
CG331C	N	<10	300	10	N	N	N	20	N	N	10	N	700	100	N
CG332C	N	30	700	15	50	N	N	100	N	N	70	N	200	200	N
CG333C	N	<10	300	70	N	N	N	20	N	N	10	N	700	70	N
CG334C	N	30	3,000	10	50	N	N	150	N	N	70	N	200	200	N
CG335C	N	30	3,000	15	50	N	N	150	N	N	70	N	300	200	N
CG336C	N	20	1,000	15	150	N	70	70	N	N	50	70	500	200	N
CG337C	N	10	1,500	10	150	N	50	70	N	N	50	N	500	200	N
CG338C	N	<10	700	15	70	N	70	20	N	N	50	N	700	150	N
CG339C	N	<10	500	50	50	N	<50	20	N	N	50	N	700	100	N
CG340C	N	<10	700	15	70	N	<50	20	N	N	50	N	700	150	N
CG341C	N	20	1,500	15	70	N	50	70	N	N	70	N	500	200	N
CG342C	N	<10	700	10	70	N	50	20	N	N	50	N	700	150	N
CG343C	N	10	1,000	15	70	N	<50	50	N	N	50	N	700	150	N
CG344C	N	10	700	10	150	N	<50	10	N	N	10	N	700	150	N
CG345C	N	<10	300	10	50	N	<50	10	N	N	10	N	500	100	N
CG346C	N	<10	150	15	150	N	150	10	N	N	10	N	500	200	N
CG347C	N	<10	200	15	200	N	150	10	N	N	10	N	300	200	N
CG348C	N	10	100	15	500	N	70	20	N	N	10	N	200	500	N
CG349C	N	10	300	70	500	N	70	20	N	N	10	N	200	500	N
CG350C	N	<10	150	200	100	N	<50	20	N	N	10	N	500	150	N
CG351C	N	<10	150	20	50	N	N	20	N	N	15	N	1,000	100	N
CG352C	N	N	100	15	50	N	N	20	N	N	15	N	700	70	N
CG353C	N	10	1,000	10	150	N	N	50	N	N	10	N	700	200	N
CG354C	N	10	100	20	700	N	150	20	N	N	10	N	200	500	N
CG355C	N	30	300	150	200	N	100	70	70	N	>100	N	500	500	N
CG356C	N	30	3,000	10	N	N	N	150	N	N	100	N	200	200	N
CG357C	N	30	1,000	100	500	N	70	70	N	N	70	N	200	500	N
CG358C	N	300	N	1,000	200	N	70	100	70	N	30	N	200	300	N
CG359C	N	300	N	2,000	150	N	50	100	70	N	30	N	200	300	N
CG360C	N	10	N	100	700	N	100	20	N	N	50	N	200	500	N
CG361C	N	10	N	100	700	N	100	20	N	N	70	N	200	500	N
CG362C	N	30	1,000	500	500	N	70	100	20	N	100	N	1,500	200	N
CG363C	N	20	1,500	15	1,000	N	N	70	N	N	50	N	500	150	N
CG364C	N	200	150	500	200	N	50	300	70	N	50	500	1,000	200	N
CG365C	N	30	500	200	300	N	100	150	50	N	50	50	500	300	N
CG366C	N	20	1,500	15	70	N	<50	70	N	N	70	N	700	200	N

sample	S-Y	S-ZN	S-ZR
CG322C	100	N	>1,000
CG323C	100	N	>1,000
CG324C	20	N	500
CG325C	50	N	>1,000
CG326C	100	N	>1,000
CG327C	N	N	>1,000
CG328C	50	N	>1,000
CG329C	50	N	>1,000
CG330C	200	N	>1,000
CG331C	50	N	>1,000
CG332C	70	N	>1,000
CG333C	70	N	>1,000
CG334C	70	N	700
CG335C	50	N	>1,000
CG336C	200	N	>1,000
CG337C	150	N	>1,000
CG338C	200	N	>1,000
CG339C	100	N	>1,000
CG340C	150	N	>1,000
CG341C	150	N	>1,000
CG342C	200	N	>1,000
CG343C	150	N	>1,000
CG344C	150	N	>1,000
CG345C	150	N	>1,000
CG346C	300	N	>1,000
CG347C	500	N	>1,000
CG348C	700	N	>1,000
CG349C	700	N	>1,000
CG350C	200	N	>1,000
CG351C	70	N	>1,000
CG352C	70	N	>1,000
CG353C	200	N	>1,000
CG354C	700	N	>1,000
CG355C	500	N	>1,000
CG356C	50	N	>1,000
CG357C	500	N	>1,000
CG358C	200	N	>1,000
CG359C	200	N	>1,000
CG360C	1,000	N	>1,000
CG361C	700	N	>1,000
CG362C	300	N	>1,000
CG363C	300	N	>1,000
CG364C	500	N	>1,000
CG365C	300	N	>1,000
CG366C	150	N	>1,000

NONMAGNETIC HEAVY MINERAL CONCENTRATES, CHIGNIK QUADRANGLE, ALASKA

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
CG368C	56 39 6	158 35 27	5.0	5.0	15.0	>1.00	1,000	N	N	N	30	200	N	N
CG369C	56 39 34	158 38 49	2.0	3.0	15.0	>1.00	500	N	N	N	100	500	N	N
CG370C	56 33 38	158 39 11	7.0	.3	2.0	>1.00	500	N	N	N	300	>5,000	N	N
CG371C	56 33 42	156 39 26	5.0	1.5	15.0	>1.00	700	N	N	N	150	5,000	N	N
CG372C	56 33 36	158 39 2	7.0	.5	5.0	>1.00	1,500	N	N	N	100	>5,000	N	N
CG373C	56 34 13	158 39 14	20.0	.7	5.0	>1.00	500	N	N	N	70	>5,000	N	N
CG374C	56 34 42	158 40 23	1.0	.2	10.0	.10	300	N	N	N	70	5,000	N	N
CG375C	56 35 21	158 39 29	2.0	1.0	7.0	.70	500	N	N	N	30	500	N	N
CG376C	56 36 12	158 40 51	2.0	1.0	7.0	.20	300	N	N	N	30	300	N	N
CG377C	56 34 55	158 43 53	10.0	.2	7.0	.50	300	N	N	N	<20	>5,000	N	N
CG378C	56 35 2	158 44 8	20.0	.5	3.0	1.00	300	N	N	N	100	>5,000	N	N
CG379C	56 37 8	158 45 24	3.0	.7	10.0	1.00	700	N	N	N	70	1,000	N	N
CG380C	56 37 23	158 44 18	3.0	1.5	5.0	1.00	500	N	N	N	70	500	N	N
CG381C	56 38 26	158 47 44	5.0	7.0	10.0	.70	3,000	N	N	N	50	200	N	N
CG382C	56 40 59	158 46 41	3.0	3.0	15.0	1.00	700	N	N	N	<20	500	N	N
CG383C	56 38 40	158 52 36	3.0	3.0	15.0	>1.00	1,000	N	N	N	50	300	N	N
CG384C	56 37 4	158 52 45	1.0	.7	10.0	.20	500	N	N	N	<20	700	N	N
CG385C	56 37 1	158 52 14	2.0	.5	7.0	.50	300	N	N	N	30	300	N	N
CG386C	56 36 38	158 53 50	5.0	2.0	15.0	1.00	700	N	N	N	100	300	N	N
CG387C	56 34 18	158 53 21	5.0	.7	15.0	.50	500	N	N	N	50	700	N	N
CG388C	56 33 42	158 53 53	5.0	.5	15.0	.50	500	N	N	N	20	200	N	N
CG389C	56 32 38	158 53 22	2.0	.2	15.0	.20	300	N	N	N	20	300	N	N
CG390C	56 37 23	158 58 58	1.0	.5	20.0	1.00	1,000	N	N	N	70	200	N	N
CG391C	56 39 50	158 59 8	2.0	1.5	15.0	1.00	500	N	N	N	<20	300	N	N
CG392C	56 41 3	158 58 45	2.0	3.0	15.0	1.00	700	N	N	N	70	200	N	N
CG393C	56 41 59	158 53 18	5.0	5.0	15.0	>1.00	1,000	N	N	20	30	200	N	N
CG394C	56 27 35	159 28 18	1.5	1.0	7.0	.50	300	N	N	N	<20	100	N	N
CG395C	56 28 45	159 24 30	5.0	1.5	15.0	.50	700	N	N	N	<20	150	N	N
CG396C	56 25 6	159 9 29	1.5	1.0	5.0	.20	300	N	N	N	<20	100	N	N
CG397C	56 21 50	159 8 20	5.0	7.0	15.0	.30	1,000	N	N	N	<20	100	N	N
CG398C	56 26 12	159 14 21	2.0	1.0	15.0	.20	300	N	N	N	<20	200	N	N

sample	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W
CG368C	N	20	1,500	15	50	N	<50	70	N	N	100	N	300	300	N
CG369C	N	10	1,500	15	50	N	<50	70	N	N	70	N	500	200	N
CG370C	N	30	500	300	200	N	<50	70	50	N	70	N	3,000	500	N
CG371C	N	20	700	100	300	N	70	50	N	N	70	N	700	300	N
CG372C	N	20	150	100	500	N	100	30	70	N	50	N	1,000	500	N
CG373C	N	30	200	100	200	N	<50	100	100	N	10	20	700	200	N
CG374C	N	N	N	10	50	N	N	10	N	N	10	N	1,000	20	N
CG375C	N	N	200	10	50	N	N	10	N	N	10	70	700	150	N
CG376C	N	N	150	10	N	N	N	10	N	N	10	N	700	70	N
CG377C	N	10	100	50	50	N	N	10	N	N	10	N	2,000	50	N
CG378C	N	20	150	70	50	N	N	30	50	N	10	N	700	200	N
CG379C	N	<10	500	50	150	N	N	10	N	N	10	N	700	150	N
CG380C	N	N	700	15	50	N	N	10	N	N	10	N	700	150	N
CG381C	N	30	300	15	70	N	N	10	N	N	70	N	500	200	N
CG382C	N	10	1,000	10	50	N	N	50	N	N	10	N	700	200	N
CG383C	N	10	1,500	15	150	N	50	50	N	N	10	N	700	300	N
CG384C	N	N	200	10	70	N	N	10	N	N	10	N	700	50	N
CG385C	N	N	150	15	50	N	N	10	N	N	10	N	500	100	N
CG386C	N	10	1,000	100	100	N	N	30	N	N	50	N	700	200	N
CG387C	N	<10	200	100	150	N	N	10	N	N	10	N	700	100	N
CG388C	N	10	100	300	100	N	N	10	N	N	10	N	700	70	N
CG389C	N	<10	50	50	50	N	N	10	N	N	10	N	700	20	N
CG390C	N	N	200	10	300	N	N	10	N	N	10	N	700	150	N
CG391C	N	<10	300	10	70	N	N	10	N	N	10	N	700	100	N
CG392C	N	<10	700	<10	50	N	N	10	N	N	50	N	500	150	N
CG393C	N	20	1,000	15	50	N	<50	50	N	N	70	N	500	200	N
CG394C	N	<10	300	<10	50	N	N	10	N	N	10	N	300	70	N
CG395C	N	10	500	15	150	N	N	20	N	N	10	N	7,000	150	N
CG396C	N	<10	500	<10	50	N	N	10	N	N	10	N	2,000	70	N
CG397C	N	30	700	10	50	N	N	150	N	N	30	N	1,000	150	N
CG398C	N	<10	200	20	50	N	N	20	N	N	10	N	2,000	70	N

sample	S-Y	S-ZN	S-ZR
CG368C	150	N	>1,000
CG369C	150	N	>1,000
CG370C	200	N	>1,000
CG371C	200	N	>1,000
CG372C	150	1,000	>1,000
CG373C	200	N	>1,000
CG374C	50	N	>1,000
CG375C	70	N	>1,000
CG376C	50	N	>1,000
CG377C	100	N	>1,000
CG378C	70	N	>1,000
CG379C	150	N	>1,000
CG380C	50	N	>1,000
CG381C	150	N	>1,000
CG382C	70	N	>1,000
CG383C	200	N	>1,000
CG384C	50	N	>1,000
CG385C	50	N	>1,000
CG386C	70	N	>1,000
CG387C	150	N	>1,000
CG388C	150	N	>1,000
CG389C	50	N	>1,000
CG390C	150	N	>1,000
CG391C	70	N	>1,000
CG392C	70	N	>1,000
CG393C	150	N	>1,000
CG394C	70	N	>1,000
CG395C	200	N	>1,000
CG396C	50	N	>1,000
CG397C	50	N	>1,000
CG398C	N	N	1,000

MINUS-80 MESH STREAM SEDIMENTS, SUTWIK ISLAND QUADRANGLE, ALASKA

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI	S-CD
SW001	56 59 20	156 46 22	5	2.0	1.0	>1.0	1,000	N	N	N	50	500	1	N	N
SW002	56 57 41	156 48 15	5	2.0	2.0	1.0	1,000	N	N	N	20	500	1	N	N
SW003	56 56 30	156 47 48	10	2.0	2.0	>1.0	1,500	N	N	N	20	500	1	N	N
SW004	56 54 52	156 48 48	10	2.0	2.0	>1.0	1,000	N	N	N	20	500	1	N	N
SW005	56 54 24	156 50 8	7	2.0	2.0	1.0	700	N	N	N	20	300	1	N	N
SW006	56 55 40	156 50 48	5	1.5	1.5	1.0	700	N	N	N	30	700	1	N	N
SW007	56 56 39	156 52 18	10	2.0	2.0	1.0	1,000	N	N	N	20	300	1	N	N
SW008	56 58 32	156 53 3	5	1.5	1.5	1.0	700	N	N	N	20	500	1	N	N
SW009	56 58 45	156 55 41	10	1.5	1.0	1.0	700	N	N	N	30	700	1	N	N
SW010	56 59 9	156 58 27	7	1.5	1.0	1.0	700	N	N	N	50	700	1	N	N
SW011	56 57 34	156 57 56	2	1.0	.7	.5	700	N	N	N	10	300	1	N	N
SW012	56 56 8	156 56 22	7	1.5	1.0	.7	200	N	N	N	200	700	1	N	N
SW013	56 55 5	156 57 52	5	1.0	.7	.5	700	N	N	N	200	700	1	N	N
SW014	56 55 9	156 59 38	5	1.0	.5	.5	700	N	N	N	200	500	1	N	N
SW015	56 56 43	157 2 8	10	1.5	1.5	.7	700	N	N	N	200	700	1	N	N
SW016	56 59 35	157 3 16	10	1.5	1.0	.7	1,000	N	N	N	200	700	1	N	N
SW017	56 58 36	157 7 13	10	1.5	1.5	.7	1,000	N	N	N	50	700	1	N	N
SW018	56 57 29	157 6 30	10	1.5	1.0	.7	1,000	N	N	N	50	700	1	N	N
SW019	56 56 8	157 5 45	10	1.5	1.0	.5	700	N	N	N	100	700	1	N	N
SW020	56 55 24	157 9 42	10	1.5	1.0	.7	1,500	N	N	N	70	700	1	N	N
SW021	56 56 27	157 16 13	10	1.5	1.5	.5	1,000	N	N	N	70	700	1	N	N
SW022	56 58 23	157 18 6	7	1.5	1.0	.5	1,000	1.0	N	N	50	700	1	N	N
SW023	56 54 2	157 14 52	7	1.5	1.5	1.0	1,000	N	N	N	30	700	1	N	N
SW024	56 54 15	157 5 44	7	1.5	1.5	.7	1,000	N	N	N	50	700	1	N	N
SW025	56 56 26	157 9 42	3	.7	.7	.5	500	<.5	N	N	50	300	<1	N	N
SW026	56 56 32	157 9 30	5	1.5	1.5	.5	500	N	N	N	70	500	<1	N	N
SW027	56 52 14	157 5 21	7	1.5	1.5	.7	1,000	N	N	N	50	500	<1	N	N
SW028	56 52 38	157 12 47	10	2.0	1.5	.7	1,000	N	N	N	50	700	<1	N	N
SW029	56 49 38	157 10 53	7	1.5	1.5	.7	1,000	N	N	N	70	700	<1	N	N
SW030	56 46 23	157 11 2	10	2.0	2.0	.7	1,000	N	N	N	30	300	<1	N	N
SW031	56 47 48	157 14 47	7	1.5	1.0	.7	1,000	N	N	N	50	500	<1	N	N
SW032	56 47 56	157 16 5	10	3.0	2.0	.7	1,000	N	N	N	50	500	<1	N	N
SW033	56 49 32	157 18 17	5	1.5	1.0	.5	700	N	N	N	50	500	<1	N	N
SW034	56 52 44	157 19 24	10	1.5	1.5	.7	1,000	1.0	N	N	50	500	<1	N	N
SW035	56 54 19	157 20 48	5	1.5	1.0	.5	500	N	N	N	15	500	<1	N	N
SW036	56 55 9	157 21 52	10	1.0	.7	.5	1,000	N	N	N	50	300	<1	N	N
SW037	56 56 25	157 21 57	10	1.0	.7	.5	700	N	N	N	30	500	<1	N	N
SW038	56 56 17	157 22 5	10	1.5	1.5	.5	1,000	N	N	N	150	500	<1	N	N
SW039	56 57 20	157 20 35	7	1.5	1.0	.5	700	N	N	N	50	300	<1	N	N
SW040	56 56 30	157 28 32	7	1.5	1.0	.5	700	N	N	N	50	300	<1	N	N
SW041	56 54 57	157 28 29	10	1.0	1.0	.5	1,000	N	N	N	70	200	<1	N	N
SW042	56 54 55	157 26 38	5	1.0	1.5	.3	1,000	N	N	N	50	200	<1	N	N
SW043	56 53 21	157 27 10	10	1.5	1.5	.7	1,500	N	N	N	100	500	<1	N	N
SW044	56 54 2	157 30 6	5	1.5	1.5	.5	700	N	N	N	200	200	<1	N	N
SW045	56 53 50	157 30 10	5	1.0	1.5	.7	1,000	N	N	N	50	200	<1	N	N

MINUS-80 MESH STREAM SEDIMENTS, SUTWIK ISLAND QUADRANGLE, ALASKA

sample	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
SW001	30	100	30	50	N	<20	20	30	N	50	N	500	200	N	50	<200	200
SW002	30	70	30	50	N	<20	20	20	N	50	N	500	150	N	50	<200	200
SW003	50	150	30	50	N	<20	50	30	N	50	N	500	200	N	50	<200	200
SW004	30	70	20	50	N	<20	20	20	N	50	N	500	200	N	50	<200	200
SW005	30	70	30	50	N	<20	20	20	N	30	N	500	150	N	30	<200	200
SW006	20	70	30	50	N	<20	30	20	N	30	N	500	150	N	50	<200	200
SW007	30	70	30	50	N	<20	30	20	N	50	N	500	200	N	50	<200	200
SW008	20	50	20	50	N	<20	20	15	N	30	N	300	150	N	50	<200	200
SW009	20	100	30	50	N	<20	50	15	N	30	N	200	200	N	50	<200	200
SW010	30	150	30	50	N	<20	50	30	N	30	N	300	200	N	50	<200	200
SW011	10	100	15	50	N	<20	30	10	N	15	N	100	150	N	30	<200	150
SW012	30	150	30	50	N	<20	50	20	N	30	N	300	200	N	50	<200	200
SW013	30	100	30	50	N	<20	50	20	N	20	N	300	150	N	50	<200	200
SW014	30	150	50	50	N	<20	50	20	N	20	N	200	150	N	30	<200	300
SW015	30	200	50	50	N	<20	100	20	N	30	N	300	200	N	50	<200	300
SW016	30	300	50	50	N	<20	50	30	N	30	N	300	200	N	50	<200	300
SW017	30	50	50	50	N	<20	20	20	N	50	N	300	300	N	50	<200	200
SW018	30	150	50	50	N	<20	70	20	N	50	N	300	300	N	50	<200	300
SW019	30	100	50	50	N	<20	70	15	N	30	N	300	200	N	50	<200	200
SW020	30	150	30	50	N	<20	70	20	N	50	N	300	300	N	50	<200	500
SW021	30	100	50	50	N	<20	70	20	N	30	N	500	200	N	50	<200	150
SW022	20	150	30	50	N	<20	70	20	N	30	N	300	200	N	50	<200	300
SW023	30	70	150	50	N	<20	50	30	N	50	N	500	200	N	50	<200	150
SW024	30	100	50	50	N	<20	50	20	N	50	N	500	200	N	50	<200	150
SW025	20	200	30	30	N	<20	50	10	N	30	N	200	100	N	15	N	200
SW026	20	100	70	30	N	<20	50	20	N	50	N	300	200	N	20	N	200
SW027	30	70	50	30	N	<20	50	20	N	50	N	300	200	N	20	<200	150
SW028	50	300	150	30	N	<20	70	50	N	50	N	300	300	N	20	<200	150
SW029	30	100	70	30	N	<20	70	50	N	70	N	200	200	N	50	<200	300
SW030	50	300	70	30	N	<20	70	30	N	70	N	300	200	N	30	<200	300
SW031	30	100	50	30	N	<20	70	30	N	50	N	200	200	N	20	<200	150
SW032	50	300	70	30	N	<20	150	30	N	70	N	300	200	N	20	<200	150
SW033	30	100	50	30	N	<20	50	30	N	30	N	200	150	N	20	<200	150
SW034	30	200	150	30	N	<20	30	50	N	50	N	300	300	N	20	<200	150
SW035	15	100	30	30	N	<20	20	15	N	30	N	200	150	N	20	N	150
SW036	15	70	50	30	N	<20	20	10	N	30	N	200	200	N	15	N	500
SW037	20	70	70	30	N	<20	50	10	N	30	N	300	150	N	15	N	70
SW038	20	100	70	30	N	<20	20	15	N	30	N	300	200	N	15	N	200
SW039	15	70	50	30	N	<20	20	10	N	20	N	200	200	N	15	N	150
SW040	20	100	70	30	N	<20	50	10	N	30	N	200	200	N	10	N	200
SW041	15	70	70	30	N	<20	20	<10	N	20	N	200	150	N	15	N	500
SW042	10	50	30	30	N	<20	20	<10	N	20	N	200	100	N	15	N	500
SW043	20	200	70	30	N	<20	20	<10	N	50	N	300	200	N	20	N	200
SW044	10	50	30	50	N	<20	20	<10	N	20	N	200	100	N	15	N	200
SW045	10	50	20	50	N	<20	20	<10	N	20	N	200	150	N	20	N	500

MINUS-80 MESH STREAM SEDIMENTS, SUTWIK ISLAND QUADRANGLE, ALASKA

sample	AA-CU-P	AA-PB-P	AA-ZN-P
SW001	20	20	75
SW002	15	10	50
SW003	20	15	70
SW004	10	10	65
SW005	20	10	60
SW006	20	10	60
SW007	20	10	50
SW008	30	15	65
SW009	30	20	70
SW010	25	20	65
SW011	30	20	75
SW012	25	10	55
SW013	30	10	70
SW014	70	10	85
SW015	35	15	85
SW016	40	15	85
SW017	25	10	60
SW018	30	10	70
SW019	30	10	55
SW020	20	10	50
SW021	40	10	55
SW022	30	10	55
SW023	85	10	55
SW024	50	10	55
SW025	35	10	60
SW026	45	10	80
SW027	25	10	75
SW028	75	15	85
SW029	35	20	85
SW030	40	10	55
SW031	35	15	75
SW032	55	15	65
SW033	40	20	85
SW034	100	20	60
SW035	25	15	50
SW036	20	10	35
SW037	40	10	80
SW038	10	5	25
SW039	30	15	70
SW040	40	10	80
SW041	20	10	30
SW042	10	5	10
SW043	10	5	25
SW044	5	5	10
SW045	5	5	10

MINUS-80 MESH STREAM SEDIMENTS, SUTWIK ISLAND QUADRANGLE, ALASKA

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI	S-CD
SW046	56 57 48	157 27 11	10	1.5	1.5	.7	1,000	N	N	N	50	500	<1	N	N
SW047	56 58 6	157 26 34	5	1.0	1.0	.5	700	N	N	N	30	300	<1	N	N
SW048	56 58 22	157 26 40	7	1.5	1.5	.7	1,000	N	N	N	30	700	<1	N	N
SW049	56 58 20	157 30 26	10	1.5	1.5	.7	1,000	N	N	N	50	1,000	<1	N	N
SW050	56 57 41	157 30 47	7	1.5	1.5	.7	1,000	N	N	N	30	700	<1	N	N
SW051	56 57 56	157 30 11	7	1.5	1.5	.7	1,000	N	N	N	30	500	<1	N	N
SW052	56 56 12	157 32 23	5	1.5	1.5	.7	1,000	N	N	N	20	700	<1	N	N
SW053	56 55 59	157 32 20	7	1.5	1.0	.7	1,000	N	N	N	30	500	<1	N	N
SW054	56 56 7	157 31 58	7	1.5	1.0	.7	700	N	N	N	30	500	<1	N	N
SW055	56 58 36	157 36 26	7	1.5	1.5	.7	1,000	N	N	N	15	700	<1	N	N
SW056	56 58 32	157 36 38	10	1.5	1.5	.7	1,000	N	N	N	10	700	<1	N	N
SW057	56 59 7	157 37 17	7	1.5	1.5	.7	1,000	N	N	N	10	700	<1	N	N
SW058	56 58 42	157 39 2	10	1.5	1.5	.7	1,000	N	N	N	10	700	<1	N	N
SW059	56 59 35	157 46 29	7	1.5	2.0	.7	1,000	N	N	N	15	500	<1	N	N
SW060	56 58 14	157 47 32	10	1.5	1.5	.7	1,000	N	N	N	10	500	<1	N	N
SW061	56 56 59	157 44 48	15	1.5	1.5	.7	1,000	N	N	N	10	700	<1	N	N
SW062	56 56 50	157 41 56	7	1.5	1.5	.7	1,000	N	N	N	15	700	<1	N	N
SW063	56 55 54	157 42 16	10	1.5	1.5	.7	1,000	N	N	N	15	700	<1	N	N
SW064	56 46 11	157 31 27	10	2.0	1.5	1.0	1,000	N	N	N	100	500	<1	N	N
SW065	56 45 51	157 37 36	10	2.0	2.0	1.0	1,000	N	N	N	10	200	<1	N	N
SW066	56 47 56	157 36 24	10	3.0	3.0	1.0	1,000	N	N	N	10	300	<1	N	N
SW067	56 48 29	157 37 32	7	3.0	3.0	.7	1,000	N	N	N	10	200	<1	N	N
SW068	56 49 54	157 37 23	5	1.5	1.5	.7	700	N	N	N	50	500	<1	N	N
SW069	56 50 21	157 35 17	5	1.5	1.5	.7	700	N	N	N	100	500	<1	N	N
SW070	56 50 6	157 32 27	5	1.5	1.5	.5	700	N	N	N	50	700	<1	N	N
SW071	56 52 14	157 33 15	5	2.0	2.0	.7	1,000	N	N	N	100	500	<1	N	N
SW072	56 51 42	157 31 53	5	1.5	2.0	.7	700	N	N	N	200	200	<1	N	N
SW073	56 51 17	157 29 3	5	1.5	2.0	1.0	1,000	N	N	N	30	300	<1	N	N
SW074	56 48 20	157 31 22	5	1.5	1.5	1.0	1,000	N	N	N	20	500	<1	N	N
SW075	56 47 56	157 31 32	10	2.0	3.0	1.0	1,000	N	N	N	10	300	<1	N	N
SW076	56 47 35	157 29 44	5	1.5	2.0	.7	1,000	N	N	N	10	500	<1	N	N
SW077	56 49 37	157 40 10	10	2.0	3.0	.7	1,000	N	N	N	10	500	<1	N	N
SW078	56 51 19	157 41 25	5	1.5	1.0	.7	500	N	N	N	20	300	<1	N	N
SW079	56 52 19	157 40 59	5	1.5	2.0	.7	1,000	N	N	N	10	700	<1	N	N
SW080	56 53 22	157 38 57	10	1.5	1.5	1.0	1,000	N	N	N	10	500	<1	N	N
SW081	56 53 21	157 38 43	5	1.5	1.5	.7	1,000	N	N	N	10	300	<1	N	N
SW082	56 52 30	157 39 52	5	1.5	1.5	.7	1,000	N	N	N	20	500	<1	N	N
SW083	56 47 17	157 42 38	10	2.0	3.0	1.0	1,000	N	N	N	15	300	<1	N	N
SW084	56 44 17	157 39 11	5	2.0	2.0	.7	1,000	N	N	N	10	200	<1	N	N
SW085	56 43 27	157 40 36	5	2.0	3.0	.7	1,000	N	N	N	10	300	<1	N	N
SW086	56 42 33	157 36 51	15	3.0	3.0	.7	1,000	N	N	N	10	300	<1	N	N
SW087	56 42 7	157 36 42	7	2.0	5.0	.5	1,000	N	N	N	10	200	<1	N	N
SW088	56 39 51	157 35 44	5	1.5	2.0	.7	1,000	N	N	N	30	500	<1	N	N
SW089	56 39 53	157 35 54	10	3.0	5.0	.7	1,000	N	N	N	10	500	<1	N	N
SW090	56 40 24	157 31 42	5	2.0	3.0	.7	1,000	N	N	N	20	500	<1	N	N

MINUS-80 MESH STREAM SEDIMENTS, SUTWIK ISLAND QUADRANGLE, ALASKA

sample	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
SW046	30	200	70	30	N	<20	50	10	N	30	N	300	200	N	20	N	200
SW047	20	50	50	30	N	<20	30	<10	N	20	N	200	100	N	15	N	200
SW048	30	100	50	30	N	<20	50	20	N	50	N	200	200	N	20	N	100
SW049	50	100	70	30	N	<20	50	20	N	50	N	200	200	N	20	<200	200
SW050	30	100	70	30	N	<20	50	20	N	50	N	200	200	N	20	N	200
SW051	20	100	50	30	N	<20	50	15	N	50	N	300	200	N	20	N	200
SW052	20	50	50	30	N	<20	30	20	N	50	N	300	200	N	20	N	500
SW053	20	150	50	30	N	<20	50	10	N	50	N	200	200	N	20	N	1,000
SW054	20	150	50	30	N	<20	50	10	N	30	N	200	200	N	20	N	150
SW055	20	30	30	30	N	<20	30	20	N	30	N	300	150	N	20	N	200
SW056	30	70	100	30	N	<20	30	20	N	50	N	300	200	N	20	N	200
SW057	20	50	50	30	N	<20	20	20	N	50	N	300	200	N	20	N	200
SW058	20	50	50	30	N	<20	30	30	N	50	N	300	200	N	20	N	300
SW059	20	20	50	30	N	<20	20	20	N	50	N	300	200	N	20	N	500
SW060	20	100	50	30	N	<20	20	20	N	50	N	200	200	N	20	N	200
SW061	30	70	50	30	N	<20	30	20	N	50	N	200	200	N	20	N	500
SW062	20	50	30	30	N	<20	20	15	N	50	N	200	200	N	20	N	300
SW063	20	50	50	50	N	<20	20	20	N	50	N	300	200	N	20	N	300
SW064	50	300	100	30	N	<20	50	30	N	70	N	300	300	N	30	<200	200
SW065	30	70	30	30	N	<20	20	10	N	50	N	300	300	N	20	<200	100
SW066	50	200	100	30	N	<20	50	20	N	50	N	500	300	N	20	<200	100
SW067	30	100	70	30	N	<20	20	15	N	50	N	500	300	N	15	<200	70
SW068	30	70	50	30	N	<20	50	20	N	50	N	300	200	N	20	<200	200
SW069	30	100	50	30	N	<20	50	10	N	50	N	300	150	N	15	N	500
SW070	30	150	50	30	N	<20	50	15	N	50	N	300	150	N	15	N	100
SW071	30	100	70	30	N	<20	50	15	N	50	N	300	200	N	20	N	200
SW072	30	100	50	30	N	<20	50	15	N	50	N	300	200	N	15	N	100
SW073	30	100	70	30	N	<20	30	10	N	50	N	300	200	N	20	N	700
SW074	30	50	50	30	N	<20	20	10	N	50	N	300	200	N	20	<200	200
SW075	50	100	70	30	N	<20	20	10	N	70	N	300	300	N	20	<200	100
SW076	30	20	30	30	N	<20	20	20	N	50	N	300	200	N	20	<200	150
SW077	50	150	100	30	N	<20	50	20	N	70	N	300	300	N	20	<200	200
SW078	30	100	50	30	N	<20	30	10	N	50	N	300	200	N	20	N	500
SW079	30	100	70	30	N	<20	30	20	N	50	N	300	200	N	20	<200	200
SW080	50	700	70	30	N	<20	30	20	N	50	N	300	300	N	20	<200	700
SW081	30	70	50	30	N	<20	30	30	N	50	N	300	200	N	20	<200	500
SW082	20	100	30	30	N	<20	50	10	N	50	N	300	200	N	20	N	200
SW083	30	200	70	30	N	<20	20	20	N	70	N	300	300	N	20	<200	150
SW084	30	100	50	30	N	<20	20	15	N	70	N	300	500	N	20	N	100
SW085	30	100	70	30	N	<20	20	15	N	70	N	300	300	N	20	N	150
SW086	50	300	70	30	N	<20	50	20	N	70	N	300	500	N	20	<200	150
SW087	50	200	70	30	N	<20	50	20	N	70	N	500	200	N	10	N	70
SW088	50	70	100	30	N	<20	20	70	N	50	N	300	200	N	20	<200	200
SW089	70	300	150	30	N	<20	50	10	N	70	N	500	300	N	30	N	70
SW090	30	100	70	30	N	<20	20	50	N	50	N	500	150	N	20	200	150

sample	AA-CU-P	AA-PB-P	AA-ZN-P
SW046	35	10	85
SW047	30	10	70
SW048	35	10	80
SW049	30	15	100
SW050	35	10	75
SW051	35	10	75
SW052	25	15	75
SW053	30	10	55
SW054	30	10	65
SW055	20	15	75
SW056	25	10	70
SW057	20	15	70
SW058	20	10	70
SW059	15	5	45
SW060	15	5	45
SW061	20	10	55
SW062	20	10	65
SW063	25	10	65
SW064	65	30	110
SW065	20	15	55
SW066	45	15	65
SW067	45	15	60
SW068	35	15	80
SW069	30	15	65
SW070	30	10	65
SW071	30	15	60
SW072	5	5	10
SW073	10	5	15
SW074	20	10	65
SW075	30	5	70
SW076	20	10	60
SW077	30	15	60
SW078	35	5	65
SW079	30	15	70
SW080	40	15	75
SW081	25	15	60
SW082	25	15	60
SW083	15	10	45
SW084	25	10	50
SW085	35	10	50
SW086	35	15	55
SW087	60	15	50
SW088	60	35	110
SW089	65	15	55
SW090	40	30	110

MINUS-80 MESH STREAM SEDIMENTS, SUTWIK ISLAND QUADRANGLE, ALASKA

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI	S-CD
SW091	56 40 0	157 29 43	10	2.0	3.0	.7	1,000	N	N	N	15	500	<1	N	N
SW092	56 38 3	157 27 20	10	2.0	2.0	.7	1,000	1.0	1,000	N	20	300	<1	N	N
SW093	56 37 1	157 30 50	10	2.0	2.0	.7	700	1.0	N	N	10	200	<1	N	N
SW094	56 37 53	157 36 25	10	2.0	3.0	.7	1,000	N	N	N	20	200	<1	N	N
SW095	56 38 52	157 41 11	10	3.0	3.0	.7	1,000	N	N	N	10	500	<1	N	N
SW096	56 39 33	157 41 34	10	3.0	5.0	.7	1,000	N	N	N	10	500	<1	N	N
SW097	56 38 16	157 37 30	10	2.0	5.0	.7	1,000	N	N	N	10	100	<1	N	N
SW098	56 34 42	157 14 16	7	2.0	3.0	.7	1,000	N	N	N	20	500	<1	N	N
SW099	56 31 50	157 16 45	7	2.0	3.0	.7	1,000	N	N	N	20	500	<1	N	N
SW100	56 32 4	157 14 43	5	2.0	3.0	.5	1,000	N	N	N	20	500	<1	N	N
SW101	56 32 3	157 11 3	10	2.0	3.0	.7	1,000	N	N	N	10	500	<1	N	N
SW102	56 32 18	157 8 57	15	7.0	5.0	.7	1,500	N	N	N	10	100	<1	N	N
SW103	56 33 26	157 7 18	7	2.0	5.0	.7	1,000	N	N	N	10	200	<1	N	N
SW104	56 35 7	157 4 54	5	1.5	3.0	.5	1,000	N	N	N	10	200	<1	N	N
SW106	56 43 20	157 57 42	7	2.0	3.0	.5	1,000	N	N	N	10	200	<1	N	N
SW107	56 41 54	157 48 1	10	2.0	3.0	1.0	1,000	N	N	N	20	500	<1	N	N
SW108	56 44 13	157 46 20	10	2.0	3.0	1.0	1,000	N	N	N	20	500	<1	N	N
SW109	56 42 52	157 44 18	10	2.0	3.0	1.0	1,000	N	N	N	20	500	<1	N	N
SW110	56 40 10	157 43 45	10	2.0	3.0	1.0	1,000	N	N	N	20	500	<1	N	N
SW111	56 43 0	157 44 30	10	2.0	3.0	1.0	1,000	N	N	N	20	300	<1	N	N
SW112	56 39 26	157 55 1	10	2.0	5.0	1.0	1,000	N	N	N	20	300	<1	N	N
SW113	56 39 50	157 50 57	10	2.0	3.0	1.0	1,000	N	N	N	20	200	<1	N	N
SW114	56 39 37	157 54 39	10	2.0	3.0	1.0	1,000	N	N	N	20	200	<1	N	N
SW115	56 38 34	157 57 6	10	2.0	3.0	1.0	1,000	N	N	N	20	200	<1	N	N
SW116	56 37 14	157 57 3	15	2.0	3.0	1.0	1,000	N	N	N	20	300	<1	N	N
SW117	56 32 17	157 56 50	10	2.0	3.0	1.0	700	N	N	N	20	300	<1	N	N
SW118	56 32 8	157 57 32	10	2.0	3.0	1.0	700	N	N	N	20	500	<1	N	N
SW119	56 32 25	157 50 21	10	2.0	2.0	1.0	700	N	N	N	20	300	<1	N	N
SW120	56 33 47	157 53 30	15	2.0	3.0	1.0	1,000	N	N	N	20	500	<1	N	N
SW121	56 30 17	157 49 41	15	2.0	3.0	1.0	1,000	N	N	N	20	300	<1	N	N
SW122	56 31 15	157 52 41	10	2.0	3.0	1.0	1,000	N	N	N	20	300	<1	N	N
SW123	56 29 11	157 55 13	15	2.0	3.0	1.0	1,000	N	N	N	20	500	<1	N	N
SW124	56 31 19	157 52 36	10	2.0	3.0	1.0	1,000	N	N	N	20	500	<1	N	N
SW125	56 20 7	157 51 51	10	1.5	1.0	.3	2,000	N	N	N	50	700	1	N	N
SW126	56 29 17	157 51 26	10	2.0	3.0	1.0	1,000	N	N	N	10	300	<1	N	N
SW127	56 21 15	157 51 34	5	1.0	1.5	.3	1,500	N	N	N	20	500	1	N	N
SW128	56 30 6	157 58 31	10	1.5	3.0	.7	700	N	N	N	10	200	<1	N	N
SW129	56 20 35	157 49 36	10	1.0	1.5	.3	2,000	N	N	N	20	500	<1	N	N
SW130	56 20 52	157 49 20	15	1.5	1.5	.7	3,000	N	N	N	20	500	1	N	N
SW131	56 19 37	157 48 53	10	1.0	1.5	.3	3,000	N	N	N	20	500	1	N	N
SW132	56 44 47	157 54 33	7	2.0	3.0	.7	1,000	N	N	N	10	700	<1	N	N
SW133	56 44 22	157 48 34	10	2.0	2.0	1.0	1,000	N	N	N	10	500	<1	N	N
SW134	56 46 29	157 50 22	5	2.0	2.0	.7	700	N	N	N	20	700	<1	N	N
SW135	56 46 31	157 46 54	7	2.0	2.0	1.0	1,000	N	N	N	20	700	<1	N	N
SW136	56 46 32	157 45 6	5	1.5	2.0	.5	700	N	N	N	20	700	<1	N	N

MINUS-80 MESH STREAM SEDIMENTS, SUTWIK ISLAND QUADRANGLE, ALASKA

sample	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
SW091	50	150	300	30	<5	<20	50	20	N	70	N	500	200	N	20	<200	200
SW092	100	200	700	30	20	<20	50	200	N	70	N	300	200	N	20	500	200
SW093	70	200	700	30	20	<20	50	200	N	70	N	300	300	N	20	N	300
SW094	70	200	150	30	N	<20	50	30	N	70	N	500	300	N	20	N	100
SW095	50	150	100	30	N	<20	50	20	N	50	N	300	300	N	15	N	100
SW096	50	500	100	30	N	<20	50	20	N	50	N	300	300	N	15	N	100
SW097	50	150	150	30	N	<20	50	20	N	50	N	300	300	N	15	N	70
SW098	30	300	70	30	N	<20	70	30	N	50	N	500	300	N	15	N	200
SW099	30	300	50	30	N	<20	50	30	N	50	N	300	300	N	15	N	200
SW100	30	100	30	30	N	<20	50	20	N	50	N	300	200	N	15	N	100
SW101	30	200	70	30	N	<20	50	20	N	50	N	500	200	N	15	N	150
SW102	70	700	50	30	N	<20	150	<10	N	100	N	200	300	N	20	<200	100
SW103	30	500	70	30	N	<20	50	<10	N	70	N	300	500	N	15	200	100
SW104	30	300	30	30	N	<20	50	<10	N	50	N	300	200	N	15	N	100
SW106	30	200	100	30	N	<20	30	20	N	70	N	300	300	N	20	N	150
SW107	70	150	70	30	N	<20	30	20	N	70	N	500	200	N	20	N	100
SW108	50	100	70	30	N	<20	30	15	N	70	N	500	300	N	20	N	200
SW109	50	500	70	30	N	<20	30	15	N	70	N	500	300	N	20	N	200
SW110	50	200	70	30	N	<20	30	15	N	70	N	500	300	N	20	N	200
SW111	50	50	70	30	N	<20	30	15	N	70	N	500	300	N	20	N	200
SW112	50	150	70	30	N	<20	30	15	N	70	N	500	300	N	20	N	200
SW113	70	150	70	30	N	<20	50	20	N	70	N	500	300	N	20	N	200
SW114	70	100	70	30	N	<20	50	10	N	70	N	500	300	N	20	N	200
SW115	70	200	70	30	N	<20	50	15	N	70	N	500	300	N	20	N	200
SW116	50	200	70	30	N	<20	30	15	N	50	N	500	300	N	20	N	200
SW117	50	100	70	30	N	<20	30	15	N	50	N	500	300	N	20	N	200
SW118	50	100	70	30	N	<20	20	15	N	70	N	700	300	N	20	N	200
SW119	50	70	50	30	N	<20	20	15	N	70	N	300	300	N	20	N	200
SW120	50	100	50	30	N	<20	20	15	N	70	N	500	300	N	20	<200	200
SW121	70	100	50	30	N	<20	20	10	N	70	N	300	300	N	20	<200	200
SW122	50	70	70	30	N	<20	20	20	N	70	N	500	300	N	20	<200	200
SW123	150	500	100	30	N	<20	100	20	N	70	N	300	300	N	20	<200	200
SW124	50	50	70	30	N	<20	20	30	N	70	N	500	300	N	20	<200	200
SW125	30	70	200	50	N	<20	20	50	N	15	N	200	150	N	50	N	700
SW126	50	100	50	30	N	<20	50	10	N	50	N	500	300	N	20	N	200
SW127	15	50	50	50	N	<20	20	30	N	15	N	200	150	N	30	N	100
SW128	30	50	70	50	N	<20	20	10	N	50	N	500	200	N	10	N	100
SW129	20	100	30	50	N	<20	20	20	N	20	N	200	200	N	30	N	300
SW130	30	50	70	50	N	<20	30	30	N	20	N	300	300	N	30	<200	300
SW131	20	30	70	50	N	<20	20	50	N	20	N	200	200	N	50	500	500
SW132	100	300	50	50	N	<20	30	20	N	50	N	700	200	N	30	<200	100
SW133	100	200	30	50	N	<20	50	20	N	50	N	500	500	N	30	<200	100
SW134	50	100	20	50	N	<20	20	20	N	50	N	500	200	N	30	<200	100
SW135	50	100	30	50	N	<20	20	20	N	50	N	500	300	N	30	<200	100
SW136	50	100	30	50	N	<20	20	20	N	50	N	500	300	N	30	N	100

MINUS-80 MESH STREAM SEDIMENTS, SUTWIK ISLAND QUADRANGLE, ALASKA

sample	AA-CU-P	AA-PB-P	AA-ZN-P
SW091	150	15	55
SW092	560	120	350
SW093	500	20	45
SW094	70	20	70
SW095	35	15	55
SW096	50	15	50
SW097	90	25	70
SW098	40	30	65
SW099	20	10	50
SW100	25	10	50
SW101	25	10	50
SW102	N	5	10
SW103	15	10	55
SW104	15	10	40
SW106	45	15	50
SW107	40	20	70
SW108	15	10	50
SW109	35	15	60
SW110	40	15	60
SW111	30	15	70
SW112	35	15	65
SW113	30	20	85
SW114	25	15	70
SW115	25	15	55
SW116	25	15	65
SW117	30	15	70
SW118	40	10	60
SW119	10	15	60
SW120	15	15	75
SW121	10	10	65
SW122	35	15	65
SW123	30	15	70
SW124	25	20	70
SW125	230	45	140
SW126	30	15	70
SW127	35	35	80
SW128	55	15	70
SW129	25	35	85
SW130	30	25	85
SW131	50	60	300
SW132	30	15	70
SW133	15	10	75
SW134	15	10	55
SW135	15	5	50
SW136	20	10	55

MINUS-80 MESH STREAM SEDIMENTS, SUTWIK ISLAND QUADRANGLE, ALASKA

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI	S-CD
SW137	56 52 14	157 43 26	5	2.0	2.0	.7	700	N	N	N	20	700	<1	N	N
SW138	56 52 36	157 44 44	5	2.0	2.0	.7	700	N	N	N	20	700	<1	N	N
SW139	56 49 4	157 43 40	5	2.0	2.0	.7	700	N	N	N	10	700	<1	N	N
SW140	56 50 30	157 47 41	5	1.0	1.5	.7	700	N	N	N	10	700	<1	N	N
SW141	56 50 18	157 47 44	10	1.5	2.0	.7	700	N	N	N	10	700	<1	N	N
SW142	56 50 5	157 52 6	5	1.0	1.0	.5	500	N	N	N	20	700	<1	N	N
SW143	56 48 1	157 52 36	10	1.5	2.0	.7	1,000	N	N	N	10	300	<1	N	N
SW144	56 48 11	157 56 54	5	1.5	1.5	.5	700	N	N	N	20	500	<1	N	N
SW145	56 49 50	157 58 17	5	1.5	2.0	.5	1,000	N	N	N	10	500	<1	N	N
SW146	56 50 44	157 54 11	5	1.0	2.0	.5	1,000	N	N	N	10	500	<1	N	N
SW147	56 51 53	157 57 42	5	1.5	2.0	.5	700	N	N	N	20	500	<1	N	N
SW148	56 53 49	157 53 25	5	1.5	2.0	.5	700	N	N	N	20	500	<1	N	N
SW149	56 54 47	157 52 45	5	1.0	2.0	.5	700	N	N	N	20	500	<1	N	N
SW150	56 54 56	157 55 11	10	1.5	3.0	.5	1,000	N	N	N	50	500	<1	N	N
SW151	56 55 46	157 53 31	3	1.0	1.5	.5	700	N	N	N	20	500	<1	N	N
SW152	56 57 3	157 54 42	5	1.0	1.0	.5	500	N	N	N	20	700	<1	N	N
SW153	56 56 23	157 40 50	7	1.5	2.0	.7	1,000	N	N	N	20	500	<1	N	N
SW154	56 56 12	157 40 42	5	1.0	1.5	.5	700	N	N	N	20	500	<1	N	N
SW155	56 56 26	157 48 10	10	2.0	2.0	1.0	1,000	N	N	N	20	700	<1	N	N
SW156	56 56 50	157 49 51	5	1.0	2.0	1.0	700	N	N	N	20	700	<1	N	N
SW157	56 57 6	157 49 23	10	1.5	2.0	1.0	1,000	N	N	N	10	700	<1	N	N
SW158	56 59 57	157 50 49	5	1.5	2.0	.7	700	N	N	N	20	700	<1	N	N
SW159	56 59 54	157 54 2	7	1.5	2.0	.7	1,000	N	N	N	20	700	<1	N	N
SW160	56 58 4	157 55 24	7	1.0	2.0	1.0	1,000	N	N	N	10	700	<1	N	N
SW161	56 59 8	157 58 50	10	1.5	2.0	1.0	1,000	N	N	N	20	500	<1	N	N

MINUS-80 MESH STREAM SEDIMENTS, SUTWIK ISLAND QUADRANGLE, ALASKA

sample	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
SW137	50	100	30	50	N	<20	20	20	N	30	N	500	200	N	30	N	100
SW138	50	100	30	50	N	<20	20	20	N	30	N	500	200	N	30	N	100
SW139	50	100	30	50	N	<20	20	20	N	30	N	500	300	N	30	N	100
SW140	50	100	50	50	N	<20	20	20	N	30	N	500	200	N	50	N	200
SW141	50	200	30	50	N	<20	30	20	N	50	N	500	300	N	30	N	100
SW142	30	200	30	50	N	<20	30	10	N	30	N	300	200	N	30	<200	300
SW143	70	300	30	50	N	<20	30	20	N	50	N	300	500	N	30	N	200
SW144	50	200	30	50	N	<20	30	20	N	30	N	300	200	N	30	200	150
SW145	30	70	20	50	N	<20	15	10	N	30	N	500	300	N	30	<200	100
SW146	30	50	10	50	N	<20	<5	10	N	30	N	500	300	N	30	200	150
SW147	50	50	30	50	N	<20	20	15	N	30	N	500	200	N	30	<200	100
SW148	50	70	30	50	N	<20	20	20	N	30	N	500	200	N	30	<200	200
SW149	50	70	30	50	N	<20	20	20	N	30	N	500	200	N	30	<200	150
SW150	50	100	30	50	N	<20	20	20	N	30	N	500	200	N	30	N	150
SW151	30	70	20	50	N	<20	20	10	N	20	N	300	200	N	30	N	150
SW152	50	100	30	50	N	<20	20	30	N	30	N	300	200	N	30	N	200
SW153	50	100	30	50	N	<20	20	30	N	30	N	500	300	N	30	200	200
SW154	50	300	30	50	N	<20	30	20	N	30	N	300	200	N	30	<200	150
SW155	50	100	20	50	N	<20	20	20	N	50	N	300	200	N	30	<200	100
SW156	50	100	20	50	N	<20	30	20	N	20	N	300	200	N	30	N	150
SW157	50	100	15	50	N	<20	20	20	N	30	N	300	300	N	30	<200	100
SW158	50	100	20	50	N	<20	20	20	N	30	N	300	200	N	30	N	100
SW159	50	100	20	50	N	<20	20	20	N	30	N	500	200	N	30	N	100
SW160	50	150	10	50	N	<20	20	20	N	30	N	300	500	N	30	<200	150
SW161	100	100	30	50	N	<20	30	20	N	50	N	300	500	N	30	<200	70

MINUS-80 MESH STREAM SEDIMENTS, SUTWIK ISLAND QUADRANGLE, ALASKA

Sample	AA-CU-P	AA-PB-P	AA-ZN-P
SW137	30	20	95
SW138	20	10	55
SW139	30	10	55
SW140	20	15	65
SW141	20	15	85
SW142	35	10	65
SW143	15	10	85
SW144	30	10	60
SW145	20	5	35
SW146	10	5	30
SW147	30	5	35
SW148	25	5	70
SW149	25	10	45
SW150	10	5	50
SW151	25	10	50
SW152	25	15	85
SW153	20	15	90
SW154	30	10	55
SW155	20	10	50
SW156	25	10	55
SW157	15	10	75
SW158	20	10	65
SW159	20	10	60
SW160	20	15	70
SW161	15	5	30

NONMAGNETIC HEAVY MINERAL CONCENTRATES, SUTWIK ISLAND QUADRANGLE, ALASKA

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
SW001C	56 59 20	156 46 22	7.0	1.0	1.0	>1.0	1,000	5	N	N	50	>5,000	N	N
SW002C	56 57 41	156 48 15	>20.0	3.0	2.0	>1.0	3,000	N	N	N	20	>5,000	N	N
SW003C	56 56 30	156 47 43	5.0	10.0	15.0	>1.0	1,000	N	N	N	30	300	N	N
SW004C	56 54 52	156 48 48	5.0	5.0	15.0	>1.0	1,000	N	N	N	70	200	N	N
SW005C	56 54 24	156 50 9	7.0	2.0	10.0	>1.0	700	N	N	N	20	>5,000	N	N
SW006C	56 55 40	156 50 48	5.0	.2	5.0	>1.0	500	N	N	N	<20	>5,000	N	N
SW007C	56 56 39	156 52 18	10.0	5.0	10.0	>1.0	1,500	N	N	N	<20	2,000	N	N
SW008C	56 58 32	156 53 3	2.0	.2	10.0	>1.0	300	N	N	N	<20	>5,000	N	N
SW009C	56 58 45	156 55 41	2.0	.2	20.0	>1.0	500	N	N	N	30	>5,000	N	N
SW010C	56 59 9	156 58 27	10.0	1.0	10.0	>1.0	500	N	N	N	200	>5,000	N	N
SW011C	56 57 34	156 57 56	7.0	3.0	10.0	>1.0	700	N	N	N	500	>5,000	N	N
SW012C	56 56 8	156 56 22	7.0	10.0	20.0	>1.0	1,000	N	N	N	50	700	N	N
SW013C	56 55 5	156 57 52	5.0	.2	7.0	>1.0	500	N	N	N	70	>5,000	N	N
SW014C	56 55 9	156 59 38	2.0	.5	2.0	>1.0	500	N	N	N	30	>5,000	N	N
SW015C	56 56 48	157 2 8	7.0	1.0	2.0	>1.0	700	N	N	N	300	>5,000	N	N
SW016C	56 59 35	157 3 16	10.0	.2	10.0	>1.0	700	N	N	N	100	>5,000	N	N
SW017C	56 58 35	157 7 13	20.0	.2	2.0	1.0	200	N	N	N	30	>5,000	N	N
SW018C	56 57 29	157 6 30	10.0	.5	5.0	>1.0	300	N	N	N	30	>5,000	N	N
SW019C	56 56 8	157 5 45	2.0	.2	5.0	>1.0	300	N	N	N	50	>5,000	N	N
SW020C	56 55 24	157 9 42	2.0	.5	5.0	>1.0	500	N	N	N	100	>5,000	N	N
SW021C	56 56 27	157 16 13	20.0	.2	10.0	>1.0	300	N	N	N	3,000	>5,000	N	N
SW022C	56 58 23	157 18 6	20.0	.7	7.0	>1.0	500	N	N	N	3,000	>5,000	N	N
SW023C	56 54 2	157 14 52	7.0	.2	15.0	>1.0	1,500	N	3,000	N	150	500	N	300
SW024C	56 54 15	157 5 44	10.0	.7	10.0	>1.0	1,000	N	N	N	50	3,000	N	N
SW025C	56 56 26	157 9 42	20.0	.7	2.0	>1.0	300	N	N	N	30	>5,000	N	N
SW026C	56 56 32	157 9 30	>20.0	.5	1.5	1.0	300	5	N	N	500	>5,000	N	N
SW027C	56 52 14	157 5 21	5.0	3.0	15.0	>1.0	1,500	N	N	N	50	1,000	N	N
SW028C	56 52 38	157 12 47	5.0	7.0	15.0	>1.0	1,000	N	1,500	N	50	300	N	N
SW029C	56 49 48	157 10 53	10.0	7.0	15.0	.5	1,000	N	N	N	500	200	N	N
SW030C	56 46 23	157 11 2	5.0	7.0	15.0	.5	1,000	N	N	N	<20	50	N	N
SW031C	56 47 48	157 14 47	10.0	7.0	15.0	.5	1,000	N	N	N	30	2,000	N	N
SW032C	56 47 56	157 16 5	5.0	7.0	10.0	.5	1,000	N	N	N	100	500	N	N
SW033C	56 49 32	157 18 17	10.0	5.0	10.0	>1.0	700	N	3,000	N	<20	>5,000	N	N
SW034C	56 52 44	157 19 24	7.0	2.0	10.0	>1.0	1,000	N	1,000	N	300	700	N	N
SW035C	56 54 19	157 20 48	5.0	1.0	10.0	>1.0	1,000	N	500	N	200	>5,000	N	N
SW036C	56 55 9	157 21 52	10.0	.5	15.0	>1.0	1,000	N	N	N	500	1,500	N	N
SW037C	56 56 25	157 21 57	20.0	.7	10.0	>1.0	1,000	N	N	N	200	1,500	N	N
SW038C	56 56 17	157 22 5	10.0	.2	15.0	>1.0	1,000	N	N	N	>2,000	300	N	N
SW039C	56 57 20	157 20 35	10.0	.5	15.0	>1.0	1,000	N	N	N	1,000	>5,000	N	N
SW040C	56 56 30	157 28 32	7.0	2.0	10.0	>1.0	1,000	N	N	N	100	700	N	N
SW041C	56 54 57	157 28 29	7.0	.2	15.0	>1.0	1,500	N	N	N	500	1,500	N	N
SW042C	56 54 55	157 26 38	10.0	.5	15.0	>1.0	1,500	N	N	N	2,000	3,000	N	N
SW043C	56 53 21	157 27 10	2.0	.2	15.0	>1.0	1,000	N	N	N	500	700	N	N
SW044C	56 54 2	157 30 6	5.0	.2	15.0	>1.0	1,000	N	N	N	>2,000	50	N	N
SW045C	56 53 50	157 30 10	2.0	.2	15.0	>1.0	1,500	N	N	N	2,000	500	N	N

NONMAGNETIC HEAVY MINERAL CONCENTRATES, SUTWIK ISLAND QUADRANGLE, ALASKA

sample	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y
SW001C	N	30	500	700	70	70	200	50	70	300	N	70	1,000	500	N	70
SW002C	N	100	500	70	70	200	70	70	N	N	>100	N	N	700	N	100
SW003C	N	30	5,000	10	100	N	N	200	N	N	>100	N	200	300	N	70
SW004C	N	20	1,500	10	70	N	<50	70	N	N	70	N	500	300	N	150
SW005C	N	30	700	70	200	N	70	70	N	N	70	N	700	300	N	150
SW006C	N	20	N	15	200	N	<50	70	N	N	N	N	3,000	200	N	150
SW007C	N	30	300	50	100	N	<50	70	20	N	70	N	700	300	N	100
SW008C	N	10	N	50	300	N	50	30	N	N	50	N	700	200	N	300
SW009C	N	<10	N	10	1,000	N	N	30	N	N	N	N	700	150	N	500
SW010C	N	50	300	1,000	300	N	50	100	70	N	50	N	700	150	N	200
SW011C	N	30	700	70	150	N	50	100	N	N	70	N	500	200	N	200
SW012C	N	30	3,000	15	100	N	<50	300	N	N	100	N	500	300	N	70
SW013C	N	20	200	150	>1,000	N	150	70	N	N	70	N	>5,000	300	N	500
SW014C	N	20	200	150	>1,000	N	50	70	N	N	70	N	3,000	300	N	500
SW015C	N	30	150	100	300	N	50	100	70	N	N	N	1,500	300	N	100
SW016C	N	30	150	200	300	N	50	100	1,000	N	50	N	1,500	300	N	200
SW017C	N	30	N	70	70	N	<50	N	N	N	N	N	500	300	N	50
SW018C	N	20	N	150	200	N	<50	150	70	N	N	N	1,000	300	N	150
SW019C	N	20	100	15	300	N	50	50	N	N	50	N	1,500	300	N	300
SW020C	N	10	N	15	100	N	50	N	N	N	N	N	1,000	300	N	200
SW021C	N	50	N	100	200	N	50	100	70	N	N	N	1,000	150	N	200
SW022C	N	30	200	300	200	N	100	200	70	N	N	N	700	200	N	300
SW023C	N	300	700	3,000	500	20	70	50	150	N	70	N	500	700	500	500
SW024C	N	20	200	100	200	N	100	100	N	N	20	N	500	300	N	500
SW025C	N	50	150	100	100	N	50	150	50	N	20	N	700	200	N	150
SW026C	N	100	100	300	50	N	N	300	100	N	20	N	1,000	150	N	70
SW027C	N	20	1,000	50	200	N	50	50	N	N	50	N	500	300	N	200
SW028C	N	50	2,000	500	50	N	N	150	N	N	50	N	200	300	N	100
SW029C	N	50	2,000	70	N	N	N	200	70	N	100	N	200	300	N	50
SW030C	N	20	3,000	10	N	N	N	150	N	N	50	N	N	300	N	20
SW031C	N	50	2,000	500	N	N	N	200	70	N	50	N	200	200	N	50
SW032C	N	30	1,500	200	N	N	N	150	N	N	30	N	200	300	N	20
SW033C	N	100	1,500	200	100	N	50	150	300	N	30	N	200	200	N	100
SW034C	N	200	700	3,000	100	N	50	70	70	N	30	N	200	300	200	200
SW035C	N	50	200	100	500	N	150	70	50	N	30	N	1,000	200	N	500
SW036C	N	30	100	200	500	N	70	150	20	N	20	N	500	300	N	700
SW037C	N	30	100	200	300	20	150	150	50	N	20	N	500	300	N	500
SW038C	N	30	50	100	300	N	150	100	20	N	70	N	200	200	N	500
SW039C	N	30	100	150	500	20	100	100	1,000	N	70	N	500	300	N	700
SW040C	N	30	1,000	70	150	N	50	100	20	N	70	N	500	200	N	500
SW041C	N	30	N	300	700	N	100	70	N	N	50	N	500	500	N	700
SW042C	N	30	150	200	500	N	100	150	50	N	20	N	700	300	N	700
SW043C	N	10	N	150	500	N	100	50	N	N	20	N	500	300	N	700
SW044C	N	10	N	70	700	N	150	50	N	N	20	N	200	300	N	700
SW045C	N	10	N	200	700	N	150	50	N	N	20	N	200	300	N	1,000

sample	S-ZN	S-ZR
SW001C	7,000	>1,000
SW002C	N	700
SW003C	N	700
SW004C	N	>1,000
SW005C	N	>1,000
SW006C	>10,000	>1,000
SW007C	N	>1,000
SW008C	500	>1,000
SW009C	N	>1,000
SW010C	N	>1,000
SW011C	N	>1,000
SW012C	N	>1,000
SW013C	N	>1,000
SW014C	N	>1,000
SW015C	N	>1,000
SW016C	N	>1,000
SW017C	N	>1,000
SW018C	N	>1,000
SW019C	N	>1,000
SW020C	1,500	>1,000
SW021C	1,500	>1,000
SW022C	N	>1,000
SW023C	N	>1,000
SW024C	N	>1,000
SW025C	N	>1,000
SW026C	500	>1,000
SW027C	N	>1,000
SW028C	N	>1,000
SW029C	N	70
SW030C	N	500
SW031C	N	>1,000
SW032C	N	500
SW033C	1,500	>1,000
SW034C	N	>1,000
SW035C	700	>1,000
SW036C	N	>1,000
SW037C	N	>1,000
SW038C	N	>1,000
SW039C	N	>1,000
SW040C	N	>1,000
SW041C	N	>1,000
SW042C	N	>1,000
SW043C	N	>1,000
SW044C	N	>1,000
SW045C	N	>1,000

NONMAGNETIC HEAVY MINERAL CONCENTRATES, SUTWIK ISLAND QUADRANGLE, ALASKA

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
SW046C	56 57 48	157 27 11	>20.0	.7	1.0	.7	500	2	N	N	100	700	N	N
SW047C	56 58 6	157 26 34	10.0	.7	10.0	>1.0	500	N	N	N	>2,000	200	N	N
SW048C	56 58 22	157 26 40	>20.0	.7	5.0	>1.0	700	N	N	N	500	>5,000	N	N
SW049C	56 58 20	157 30 26	7.0	2.0	7.0	>1.0	700	N	1,000	N	1,500	>5,000	N	70
SW050C	56 57 41	157 30 47	15.0	.7	5.0	>1.0	700	N	N	N	150	>5,000	N	N
SW051C	56 57 35	157 30 11	5.0	1.0	2.0	>1.0	500	N	N	N	200	1,500	N	N
SW052C	56 56 12	157 32 23	2.0	.5	7.0	>1.0	700	N	N	N	20	700	N	N
SW053C	56 55 59	157 32 20	10.0	.5	2.0	>1.0	500	N	N	N	30	>5,000	N	N
SW055C	56 58 36	157 36 28	5.0	.7	15.0	>1.0	700	N	N	N	100	1,500	N	N
SW056C	56 58 32	157 36 38	5.0	1.5	10.0	>1.0	1,000	N	N	N	100	2,000	N	N
SW057C	56 59 7	157 37 17	5.0	1.5	10.0	>1.0	1,500	N	N	N	200	700	N	N
SW058C	56 58 52	157 39 2	5.0	1.5	10.0	>1.0	1,000	N	N	N	200	300	N	N
SW059C	56 59 35	157 46 29	5.0	1.0	15.0	>1.0	1,500	N	N	N	150	200	N	N
SW060C	56 58 14	157 43 32	3.0	1.0	15.0	>1.0	1,500	N	N	N	70	200	N	N
SW061C	56 56 59	157 44 48	5.0	3.0	15.0	>1.0	1,500	N	N	N	500	300	N	N
SW062C	56 56 50	157 41 56	3.0	1.5	7.0	>1.0	1,000	N	N	N	500	1,500	N	N
SW063C	56 55 54	157 42 16	3.0	1.0	10.0	>1.0	1,500	N	N	N	150	1,000	N	N
SW064C	56 46 11	157 31 27	10.0	15.0	15.0	.5	1,500	N	N	N	<20	300	N	N
SW065C	56 45 51	157 37 36	5.0	10.0	15.0	.5	1,500	N	N	N	<20	100	N	N
SW066C	56 47 56	157 36 24	7.0	15.0	15.0	.5	1,500	N	N	N	<20	70	N	N
SW067C	56 48 29	157 37 32	5.0	15.0	15.0	.3	1,500	N	N	N	20	150	N	N
SW068C	56 49 54	157 37 23	10.0	2.0	15.0	>1.0	700	N	N	N	>2,000	>5,000	N	N
SW069C	56 50 21	157 35 17	7.0	.7	15.0	>1.0	1,000	N	N	N	>2,000	300	N	N
SW070C	56 50 8	157 32 27	5.0	.5	10.0	>1.0	700	N	N	N	>2,000	>5,000	N	N
SW071C	56 52 14	157 33 15	2.0	.5	20.0	>1.0	700	N	N	N	>2,000	200	N	N
SW072C	56 51 42	157 31 53	2.0	.5	20.0	>1.0	1,000	N	N	N	>2,000	500	N	N
SW073C	56 51 17	157 29 3	5.0	.5	15.0	>1.0	1,000	N	N	N	500	700	N	N
SW074C	56 48 20	157 31 22	2.0	1.0	10.0	>1.0	700	N	N	N	200	500	N	N
SW075C	56 47 56	157 31 32	5.0	10.0	15.0	.5	1,000	N	N	N	<20	200	N	N
SW076C	56 47 35	157 29 44	2.0	1.0	5.0	>1.0	500	N	N	N	30	1,000	N	N
SW077C	56 49 37	157 40 10	7.0	10.0	20.0	1.0	1,000	N	N	N	50	100	N	N
SW078C	56 51 19	157 41 25	7.0	.5	15.0	>1.0	300	N	N	N	>2,000	200	N	N
SW079C	56 52 19	157 40 59	5.0	1.0	15.0	>1.0	1,000	N	N	N	50	1,500	N	N
SW080C	56 53 22	157 38 57	5.0	2.0	10.0	>1.0	700	N	N	N	200	1,500	N	N
SW081C	56 53 21	157 38 43	2.0	.7	5.0	>1.0	700	N	N	N	<20	300	N	N
SW082C	56 52 30	157 39 52	2.0	1.5	10.0	>1.0	1,000	N	N	N	500	300	N	N
SW083C	56 47 17	157 42 38	2.0	5.0	15.0	.7	700	N	N	N	30	150	N	N
SW084C	56 44 17	157 39 11	2.0	7.0	15.0	.5	700	N	N	N	20	100	N	N
SW085C	56 43 27	157 40 36	2.0	10.0	20.0	.2	1,500	N	N	N	<20	70	N	N
SW086C	56 42 55	157 36 51	7.0	10.0	20.0	.5	1,500	N	N	N	<20	50	N	N
SW087C	56 42 2	157 36 42	7.0	10.0	20.0	.5	1,500	N	N	N	<20	700	N	N
SW088C	56 39 51	157 35 44	15.0	3.0	10.0	>1.0	700	10	1,500	N	300	>5,000	N	N
SW089C	56 39 53	157 35 54	7.0	10.0	20.0	.5	1,500	N	N	N	<20	100	N	N
SW090C	56 48 24	157 31 42	10.0	2.0	10.0	>1.0	1,000	N	5,000	N	300	500	N	30
SW091C	56 40 0	157 29 43	10.0	7.0	10.0	>1.0	1,000	N	N	N	20	1,500	N	N

NONMAGNETIC HEAVY MINERAL CONCENTRATES, SUTWIK ISLAND QUADRANGLE, ALASKA

sample	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y
SW046C	N	200	100	700	N	20	N	500	70	N	20	N	200	150	N	50
SW047C	N	30	300	100	200	N	70	200	30	N	20	N	500	200	N	500
SW048C	N	150	200	300	300	20	100	500	70	N	20	N	500	300	N	500
SW049C	N	30	700	150	100	N	70	100	50	N	100	N	700	500	N	200
SW050C	N	30	150	150	1,000	N	70	150	20	N	20	N	500	200	N	200
SW051C	N	20	200	70	100	N	100	70	N	N	20	N	300	300	N	200
SW052C	N	20	150	15	700	N	100	20	N	N	20	300	200	300	N	700
SW053C	N	30	70	100	200	N	<50	150	N	N	50	N	500	200	N	700
SW055C	N	10	100	50	300	N	<50	10	N	N	50	N	500	300	N	70
SW056C	N	20	150	30	500	N	150	20	N	N	N	N	700	300	N	500
SW057C	N	10	200	30	300	N	100	20	N	N	50	N	300	300	N	300
SW058C	N	10	200	15	700	N	70	20	N	N	50	N	700	300	N	300
SW059C	N	10	100	20	300	N	200	20	N	N	N	N	300	300	N	700
SW060C	N	10	100	20	300	N	200	20	N	N	N	N	500	300	N	700
SW061C	N	10	300	15	700	N	100	20	N	N	100	N	500	300	N	500
SW062C	N	10	150	20	200	N	150	20	N	N	50	300	500	300	N	300
SW063C	N	10	200	20	300	N	150	20	N	N	50	N	500	300	N	500
SW064C	N	30	3,000	50	N	N	N	200	N	N	150	N	N	300	N	N
SW065C	N	30	3,000	10	N	N	N	150	N	N	100	N	300	300	N	50
SW066C	N	30	3,000	10	N	200	N	200	N	N	150	N	200	300	N	N
SW067C	N	30	3,000	10	N	N	N	150	N	N	150	N	300	300	N	N
SW068C	N	20	700	70	50	N	<50	150	20	N	50	N	500	200	N	150
SW069C	N	10	100	70	200	N	70	70	N	N	N	N	200	200	N	300
SW070C	N	10	N	150	300	N	150	70	20	N	20	N	700	200	N	500
SW071C	N	10	100	50	300	N	150	50	N	N	20	N	N	300	N	500
SW072C	N	10	50	150	300	N	150	50	N	N	20	N	200	300	N	700
SW073C	N	10	100	70	200	N	100	50	N	N	70	N	200	300	N	500
SW074C	N	10	300	15	150	N	150	50	N	N	20	N	200	200	N	500
SW075C	N	30	3,000	10	N	N	N	150	N	N	100	N	200	200	N	50
SW076C	N	<10	200	10	50	N	50	50	N	N	20	N	500	150	N	150
SW077C	N	50	3,000	100	50	N	<50	200	50	N	100	N	N	200	N	70
SW078C	N	20	150	70	100	N	50	100	20	N	20	N	200	200	N	200
SW079C	N	10	300	200	700	N	200	50	20	N	20	N	500	300	N	500
SW080C	N	10	700	300	200	N	100	50	N	N	20	N	200	200	N	500
SW081C	N	10	200	300	300	N	200	50	N	N	20	N	200	300	N	500
SW082C	N	10	700	70	500	N	100	50	N	N	20	N	200	300	N	500
SW083C	N	10	1,500	<10	50	N	50	70	N	N	70	N	500	200	N	70
SW084C	N	30	3,000	10	N	N	N	150	N	N	100	N	300	200	N	20
SW085C	N	30	3,000	10	N	N	N	150	N	N	100	N	200	200	N	20
SW086C	N	30	3,000	<10	N	N	N	150	N	N	70	N	N	300	N	N
SW087C	N	30	3,000	150	N	N	N	150	20	N	70	N	500	300	N	20
SW088C	N	30	1,000	500	N	N	50	100	1,000	N	70	N	500	300	N	100
SW089C	N	30	3,000	300	N	N	N	150	<20	N	100	N	200	500	N	20
SW090C	N	100	1,000	1,000	50	N	50	70	150	N	70	N	500	500	N	150
SW091C	N	100	3,000	1,000	50	N	N	150	50	N	100	N	200	500	N	100

sample	S-ZN	S-ZN
SW046C	<500	1,000
SW047C	N	>1,000
SW048C	N	>1,000
SW049C	N	>1,000
SW050C	N	>1,000
SW051C	N	>1,000
SW052C	N	>1,000
SW053C	N	>1,000
SW055C	N	>1,000
SW056C	N	>1,000
SW057C	N	>1,000
SW058C	N	>1,000
SW059C	N	>1,000
SW060C	N	>1,000
SW061C	N	>1,000
SW062C	N	>1,000
SW063C	N	>1,000
SW064C	N	700
SW065C	N	>1,000
SW066C	N	200
SW067C	N	1,000
SW068C	N	>1,000
SW069C	N	>1,000
SW070C	N	>1,000
SW071C	N	>1,000
SW072C	N	>1,000
SW073C	N	>1,000
SW074C	N	>1,000
SW075C	N	>1,000
SW076C	N	>1,000
SW077C	N	500
SW078C	N	>1,000
SW079C	N	>1,000
SW080C	N	>1,000
SW081C	N	>1,000
SW082C	N	>1,000
SW083C	N	>1,000
SW084C	N	700
SW085C	N	300
SW086C	N	20
SW087C	N	70
SW088C	N	>1,000
SW089C	N	>1,000
SW090C	N	>1,000
SW091C	N	>1,000

NONMAGNETIC HEAVY MINERAL CONCENTRATES, SUTWIK ISLAND QUADRANGLE, ALASKA

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
SW092C	56 38 3	157 27 20	>20.0	.5	1.0	.7	100	300	>10,000	N	200	2,000	N	200
SW093C	56 37 1	157 30 50	>20.0	2.0	5.0	>1.0	300	5	N	N	100	300	N	N
SW094C	56 37 53	157 36 25	20.0	7.0	20.0	.5	1,000	5	2,000	N	20	300	N	N
SW095C	56 32 52	157 41 11	7.0	10.0	20.0	.7	1,500	N	2,000	N	20	500	N	N
SW096C	56 39 33	157 41 34	7.0	>10.0	20.0	.5	1,500	N	N	N	30	5,000	N	N
SW097C	56 35 16	157 37 30	>20.0	3.0	5.0	.3	1,000	5	N	N	30	200	N	N
SW098C	56 34 42	157 14 16	>20.0	3.0	10.0	.5	700	5	3,000	N	30	>5,000	N	N
SW099C	56 31 50	157 16 45	7.0	7.0	20.0	.7	2,000	N	N	N	<20	1,000	N	N
SW100C	56 32 4	157 14 43	7.0	10.0	20.0	.7	1,500	N	N	N	30	100	N	N
SW101C	56 32 8	157 11 3	10.0	10.0	15.0	1.0	1,500	N	N	N	<20	500	N	N
SW102C	56 32 18	157 8 57	7.0	15.0	20.0	1.0	1,500	N	N	N	<20	1,000	N	N
SW103C	56 33 26	157 7 18	7.0	15.0	20.0	.7	1,500	N	N	N	<20	150	N	N
SW104C	56 33 7	157 4 54	7.0	10.0	20.0	.7	1,500	N	N	N	<20	300	N	N
SW106C	56 43 20	157 57 42	7.0	10.0	20.0	1.0	1,500	N	N	N	50	100	N	N
SW107C	56 41 54	157 48 1	7.0	10.0	20.0	>1.0	2,000	700	N	>500	20	200	N	N
SW108C	56 44 13	157 46 20	15.0	5.0	10.0	.7	1,500	N	N	N	200	>5,000	N	N
SW109C	56 42 52	157 44 18	7.0	10.0	15.0	.5	1,500	N	N	N	<20	500	N	N
SW110C	56 40 12	157 43 45	10.0	>10.0	20.0	.5	1,500	N	N	N	<20	150	N	N
SW111C	56 43 0	157 44 30	5.0	7.0	15.0	1.0	1,000	N	N	N	30	700	N	N
SW112C	56 39 26	157 55 1	10.0	5.0	10.0	>1.0	700	N	N	N	150	>5,000	N	N
SW113C	56 39 50	157 50 57	10.0	5.0	10.0	.5	700	7	2,000	N	20	>5,000	N	N
SW114C	56 39 37	157 54 39	10.0	7.0	10.0	>1.0	1,500	N	N	N	200	>5,000	N	N
SW115C	56 38 34	157 57 6	5.0	7.0	15.0	.7	1,500	N	N	N	70	700	N	N
SW116C	56 37 14	157 57 3	5.0	5.0	15.0	1.0	1,500	N	N	N	<20	300	N	N
SW117C	56 32 17	157 56 50	7.0	7.0	10.0	>1.0	1,500	N	N	N	70	1,500	N	N
SW118C	56 32 8	157 57 32	7.0	7.0	15.0	>1.0	1,500	N	N	N	70	1,000	N	N
SW119C	56 32 25	157 50 21	5.0	2.0	10.0	>1.0	1,000	N	N	N	70	300	N	N
SW120C	56 33 47	157 53 30	5.0	5.0	10.0	>1.0	1,500	N	N	N	100	200	N	N
SW121C	56 30 17	157 49 41	5.0	2.0	10.0	>1.0	1,500	N	N	N	1,000	300	N	N
SW122C	56 31 15	157 52 41	20.0	15.0	20.0	>1.0	1,500	N	N	N	200	700	N	N
SW123C	56 29 11	157 55 13	7.0	7.0	10.0	1.0	1,500	N	N	N	<20	150	N	N
SW124C	56 31 19	157 52 36	10.0	7.0	10.0	1.0	3,000	N	N	N	150	100	N	N
SW125C	56 20 7	157 51 51	20.0	2.0	2.0	1.0	700	N	N	N	500	>5,000	N	N
SW126C	56 29 17	157 51 26	5.0	3.0	15.0	>1.0	700	N	N	N	100	1,500	N	N
SW127C	56 21 15	157 51 34	10.0	1.0	10.0	>1.0	1,000	N	N	N	100	>5,000	N	N
SW128C	56 30 6	157 58 31	15.0	1.5	10.0	.5	500	N	N	N	70	>5,000	N	N
SW129C	56 20 36	157 49 36	10.0	2.0	5.0	>1.0	1,500	N	N	N	500	5,000	N	N
SW130C	56 20 52	157 49 20	7.0	3.0	5.0	>1.0	1,500	N	N	N	200	>5,000	N	N
SW131C	56 19 37	157 48 53	20.0	1.0	2.0	>1.0	1,500	7	N	N	200	3,000	N	N
SW132C	56 44 47	157 54 33	5.0	10.0	20.0	.5	700	N	N	N	70	150	N	N
SW133C	56 44 22	157 48 34	2.0	2.0	15.0	.5	500	N	N	N	<20	700	N	N
SW134C	56 46 29	157 50 22	3.0	1.0	10.0	.7	500	N	N	N	30	1,000	N	N
SW135C	56 46 31	157 46 54	5.0	1.0	10.0	>1.0	500	N	N	N	30	500	N	N
SW136C	56 46 32	157 45 6	3.0	5.0	15.0	>1.0	700	N	N	N	50	700	N	N
SW137C	56 52 14	157 43 26	3.0	2.0	15.0	>1.0	700	N	N	N	150	3,000	N	N

NONMAGNETIC HEAVY MINERAL CONCENTRATES, SUTWIK ISLAND QUADRANGLE, ALASKA

sample	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y
SW092C	N	500	N	3,000	N	N	N	200	5,000	N	20	N	N	150	N	50
SW093C	N	500	700	7,000	N	N	N	200	300	N	50	N	N	700	200	150
SW094C	N	150	3,000	1,000	N	N	N	150	1,000	N	70	N	200	300	N	20
SW095C	N	30	5,000	15	N	N	N	100	N	N	100	N	500	500	N	20
SW096C	N	30	3,000	15	N	N	N	150	N	N	100	N	200	500	N	N
SW097C	N	300	1,000	2,000	N	N	N	200	1,000	N	50	N	N	200	N	N
SW098C	N	300	2,000	200	50	N	N	200	300	N	50	N	2,000	200	N	20
SW099C	N	20	3,000	15	700	N	N	100	N	N	70	N	500	500	N	100
SW100C	N	20	3,000	10	50	N	N	150	N	N	100	N	200	500	N	20
SW101C	N	20	3,000	15	70	N	N	150	N	N	100	N	200	1,000	N	50
SW102C	N	20	3,000	10	N	N	N	200	N	N	100	N	200	700	N	70
SW103C	N	20	3,000	10	N	N	N	150	N	N	100	N	200	700	N	20
SW104C	N	20	3,000	10	N	N	N	100	N	N	100	N	500	700	N	20
SW106C	N	30	3,000	500	N	N	N	150	N	N	100	N	200	500	N	50
SW107C	N	20	3,000	20	50	N	N	100	200	N	100	N	500	700	N	70
SW108C	N	30	1,000	150	N	N	N	70	70	N	50	N	700	200	N	20
SW109C	N	30	3,000	15	N	N	N	150	N	N	70	N	300	300	N	N
SW110C	N	30	3,000	15	N	N	N	150	N	N	100	N	200	500	N	20
SW111C	N	20	3,000	10	N	N	N	100	N	N	100	N	500	300	N	70
SW112C	N	30	2,000	300	50	N	N	100	50	N	100	N	500	300	N	100
SW113C	N	30	2,000	100	N	N	N	100	1,000	N	50	N	2,000	200	N	20
SW114C	N	30	3,000	100	50	N	N	100	20	N	100	N	500	500	N	70
SW115C	N	30	3,000	10	N	20	N	100	N	N	70	N	500	300	N	20
SW116C	N	20	2,000	10	50	N	N	70	N	N	70	N	700	300	N	70
SW117C	N	30	3,000	150	70	N	N	100	70	N	50	N	700	300	N	100
SW118C	N	30	3,000	15	50	N	N	150	N	N	100	N	700	500	N	70
SW119C	N	N	700	10	N	N	N	20	N	N	20	N	700	300	N	100
SW120C	N	10	1,500	15	50	N	N	50	N	N	70	N	500	700	N	100
SW121C	N	<10	700	15	50	N	N	20	N	N	50	N	700	500	N	150
SW122C	N	70	5,000	100	N	N	N	200	70	N	>100	N	500	700	N	100
SW123C	N	20	2,000	15	N	N	N	100	N	N	70	N	500	300	N	20
SW124C	N	50	300	15	N	50	N	50	70	N	>100	N	200	500	N	70
SW125C	N	50	300	700	50	N	N	70	100	N	20	N	2,000	500	N	20
SW126C	N	20	1,500	50	50	N	N	70	N	N	50	N	700	200	N	100
SW127C	N	30	300	500	200	N	N	100	150	N	30	N	2,000	200	N	70
SW128C	N	50	700	100	50	N	N	50	70	N	20	N	1,000	150	N	20
SW129C	N	20	700	70	100	N	N	50	70	N	50	N	700	1,000	N	70
SW130C	N	20	1,000	150	50	N	N	50	50	N	30	N	700	700	N	50
SW131C	N	30	200	150	50	N	N	50	70	N	50	N	300	700	200	70
SW132C	N	30	5,000	10	N	N	N	150	N	N	70	N	200	200	N	<20
SW133C	N	<10	1,000	10	N	N	N	10	N	N	30	N	1,000	100	N	30
SW134C	N	<10	700	10	50	N	N	10	N	N	20	N	500	300	N	50
SW135C	N	<10	700	15	70	N	50	10	N	N	20	50	500	150	N	150
SW136C	N	20	1,000	<10	70	N	<50	70	N	N	70	N	500	200	N	70
SW137C	N	10	700	10	100	N	70	50	N	N	70	N	500	200	N	100

sample	S-ZN	S-ZR
SW092C	1,500	300
SW093C	N	>1,000
SW094C	700	700
SW095C	N	>1,000
SW096C	N	300
SW097C	500	50
SW098C	N	>1,000
SW099C	N	>1,000
SW100C	N	>1,000
SW101C	N	>1,000
SW102C	N	>1,000
SW103C	N	>1,000
SW104C	N	>1,000
SW106C	N	>1,000
SW107C	N	>1,000
SW108C	N	>1,000
SW109C	N	>1,000
SW110C	N	>1,000
SW111C	N	>1,000
SW112C	N	>1,000
SW113C	N	>1,000
SW114C	N	>1,000
SW115C	N	500
SW116C	N	>1,000
SW117C	N	>1,000
SW118C	N	>1,000
SW119C	N	>1,000
SW120C	N	>1,000
SW121C	N	>1,000
SW122C	N	>1,000
SW123C	N	>1,000
SW124C	N	700
SW125C	1,500	700
SW126C	N	>1,000
SW127C	N	>1,000
SW128C	N	1,000
SW129C	N	>1,000
SW130C	N	>1,000
SW131C	500	>1,000
SW132C	N	500
SW133C	N	>1,000
SW134C	N	500
SW135C	N	>1,000
SW136C	N	>1,000
SW137C	N	>1,000

NONMAGNETIC HEAVY MINERAL CONCENTRATES, SUTWIK ISLAND QUADRANGLE, ALASKA

sample	LATITUDE	LONGITUD	S-FE%	S-MG%	S-CA%	S-TI%	S-MN	S-AG	S-AS	S-AU	S-B	S-BA	S-BE	S-BI
SW138C	56 52 36	157 44 44	7.0	5.0	15.0	>1.0	1,500	N	N	N	50	2,000	N	N
SW139C	56 49 4	157 43 40	5.0	7.0	20.0	.5	1,000	N	N	N	<20	300	N	N
SW140C	56 50 30	157 47 41	3.0	.5	7.0	>1.0	500	N	N	N	70	3,000	N	N
SW141C	56 50 18	157 47 44	10.0	7.0	20.0	.7	2,000	N	N	N	<20	>5,000	N	N
SW142C	56 50 5	157 52 6	7.0	7.0	20.0	>1.0	700	N	N	N	700	300	N	N
SW143C	56 48 1	157 52 36	2.0	2.0	20.0	>1.0	700	N	N	N	200	300	N	N
SW144C	56 48 11	157 56 54	10.0	5.0	15.0	1.0	700	N	1,500	N	50	>5,000	N	N
SW145C	56 49 50	157 58 17	2.0	1.0	10.0	>1.0	700	N	N	N	150	200	N	N
SW146C	56 50 44	157 54 11	1.0	.2	15.0	>1.0	700	N	N	N	<20	200	N	N
SW147C	56 51 53	157 57 42	7.0	10.0	15.0	1.0	2,000	N	N	N	100	150	N	N
SW148C	56 53 49	157 53 25	1.0	.2	5.0	>1.0	300	N	N	N	70	500	N	N
SW149C	56 54 47	157 52 45	1.0	.1	20.0	>1.0	700	N	N	N	70	100	N	N
SW150C	56 54 56	157 55 11	2.0	.5	20.0	>1.0	2,000	N	N	N	5,000	300	N	N
SW151C	56 55 46	157 53 31	1.5	.2	20.0	>1.0	1,500	N	N	N	500	100	N	N
SW152C	56 57 3	157 54 42	7.0	7.0	15.0	>1.0	2,000	N	N	N	300	150	N	N
SW153C	56 56 23	157 48 50	.7	.3	3.0	>1.0	700	300	N	700	100	5,000	N	N
SW154C	56 56 12	157 48 42	5.0	3.0	10.0	>1.0	2,000	N	N	N	100	700	N	N
SW155C	56 56 26	157 48 10	5.0	5.0	15.0	>1.0	2,000	N	N	N	70	300	N	N
SW156C	56 56 30	157 49 51	2.0	.5	20.0	>1.0	1,000	N	N	N	500	200	N	N
SW157C	56 57 6	157 49 23	1.5	.3	20.0	>1.0	1,000	N	N	N	700	100	N	N
SW158C	56 59 57	157 50 49	1.0	.3	15.0	>1.0	500	N	N	N	500	1,500	N	N
SW159C	56 59 54	157 54 2	1.0	.2	20.0	>1.0	700	N	N	N	2,000	1,500	N	N
SW160C	56 58 4	157 55 24	3.0	2.0	7.0	.5	1,000	N	N	N	70	>5,000	N	N
SW161C	56 59 8	157 58 50	.7	.2	15.0	.5	300	N	N	N	50	700	N	N

NONMAGNETIC HEAVY MINERAL CONCENTRATES, SUTWIK ISLAND QUADRANGLE, ALASKA

sample	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y
SW138C	N	30	700	15	150	N	70	70	N	N	70	N	200	200	N	200
SW139C	N	30	1,500	<10	N	N	N	100	N	N	100	N	N	300	N	20
SW140C	N	10	150	70	200	N	50	10	N	N	20	50	500	200	N	300
SW141C	N	30	700	15	50	N	N	70	N	N	100	N	500	500	N	70
SW142C	N	30	1,500	15	50	N	<50	150	100	N	100	N	200	200	N	100
SW143C	N	10	700	10	150	N	50	50	N	N	70	N	500	200	N	300
SW144C	N	100	1,500	500	150	200	N	150	500	N	70	N	700	200	N	100
SW145C	N	10	100	15	100	N	100	10	1,500	N	20	N	700	200	N	300
SW146C	N	10	N	15	300	N	70	10	N	N	20	N	200	300	N	700
SW147C	N	30	200	15	70	N	<50	150	N	N	70	N	200	200	N	150
SW148C	N	<10	N	<10	100	N	70	10	N	N	20	N	700	150	N	200
SW149C	N	<10	N	15	500	N	50	10	N	N	20	N	200	300	N	700
SW150C	N	<10	N	15	500	N	70	10	N	N	20	N	200	300	N	700
SW151C	N	<10	N	15	500	N	100	10	N	N	20	N	200	500	N	1,000
SW152C	N	20	300	<10	70	N	<50	50	N	N	100	N	200	200	N	150
SW153C	N	N	N	<30	300	N	100	30	N	N	100	N	500	300	N	700
SW154C	N	10	300	15	300	N	70	10	N	N	100	N	200	300	N	300
SW155C	N	20	200	15	150	N	70	10	N	N	>100	N	200	300	N	300
SW156C	N	10	100	50	500	N	150	10	N	N	50	N	200	500	N	700
SW157C	N	10	N	20	300	N	100	10	N	N	20	N	200	300	N	700
SW158C	N	<10	N	15	150	N	<50	10	200	N	20	N	1,500	150	N	300
SW159C	N	<10	N	15	200	N	50	10	50	N	20	N	500	300	N	500
SW160C	N	20	100	<10	N	N	N	50	70	N	20	N	2,000	150	N	70
SW161C	N	N	N	<10	50	N	N	10	N	N	20	N	1,000	20	N	100

sample	S-ZN	S-ZR
SW138C	N	>1,000
SW139C	N	>1,000
SW140C	N	200
SW141C	N	>1,000
SW142C	N	700
SW143C	N	>1,000
SW144C	N	>1,000
SW145C	N	>1,000
SW146C	N	>1,000
SW147C	N	>1,000
SW148C	N	>1,000
SW149C	N	>1,000
SW150C	N	>1,000
SW151C	N	>1,000
SW152C	N	>1,000
SW153C	N	>1,000
SW154C	N	>1,000
SW155C	N	>1,000
SW156C	N	>1,000
SW157C	N	>1,000
SW158C	N	>1,000
SW159C	N	>1,000
SW160C	N	>1,000
SW161C	N	>1,000