UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

Chemical Analyses of Soils and Other Surficial Materials, Alaska

By

L. P. Gough, J. L. Peard, R. C. Severson, H. T. Shacklette, M. L. Tompkins, K. C. Stewart, and P. H. Briggs

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CHEMICAL ANALYSES OF SOILS AND OTHER SURFICIAL MATERIALS, ALASKA

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INTRODUCTION

The favorable response to the reports on the geochemistry of unconsolidated surficial materials of the conterminous United States (informally called the "50-mile geochemical survey," Shacklette and others, 1971a, 1971b, 1973, and 1974) led us, in 1975, to initiate a somewhat similar survey of Alaska. The principal objective of studies of this type is to establish estimates of the abundance of elements in soils and other surficial materials. Such information is useful in the evaluation of geochemical data for (1) mineral resources, (2) environmental appraisals, and (3) the definition of broad-scale geochemical patterns. For about six years this effort progressed slowly on a non-funded, time-available basis. During fiscal years 1982 and 1983, however, some funds were made available through the USGS Energy Lands and Alaska Mineral Surveys programs which allowed for the completion of the field-work phase of the project.

The sampling plan was kept simple because, as with the 50-mile study, the acquisition of samples depended on the voluntary cooperation of field personnel (only about 40 percent of the total number of samples was obtained by the authors).

ACKNOWLEDGMENTS

It is clear from the list below that this study would have been impossible without volunteer assistance. The following were either responsible for the collection of one or more samples or assisted in arranging for their collection (affiliations include Boise State Univ., Louisiana State Univ., Univ. of Colorado, Univ. of Alaska, Alaska Division of Geological and Geophysical Surveys, U.S. Department of the Army (CRREL), U.S. Fish and Wildlife Service, U.S. Forest Service, U.S. Soil Conservation Service, U.S. Bureau of Land Management, and U.S. Geological Survey): L. Allen, J. C. Barker, D. Barnes, R. F. Bartel, H. C. Berg, W. W. Bockner, D. A. Brew, W. P. Brosge, G. Brougham, J. Brown, V. Byrd, L. D. Carter, R. M. Chapman, W. D. Crim, B. Csejtey, K. Cunningham, G. C. Curtin, R. L. Delaney, D. E. Detra, R. L. Detterman, J. Ebersole, R. L. Elliott, K. Ehrhardt, O. J. Ferrians, J. Flock, J. Frates, W. Gabriel, C. A. Gardner, R. L. Garrett, E. R. Gross, R. F. Hadley, J. W. Hawke, D. B. Hawkins, D. Helm, T. D. Hessin, J. K. Hoare, J. D. Hoffman, L. Hotchkiss, T. Hudson, B. Huecker, B. R. Johnson, K. J. Kaija, T. A. Kent, H. D. King, V. Komarkova, J. W. Larson, W. D. Loggy, S. P. Marsh, J. L. Martin, C. Mayfield, J. D. McKendrick, A. T. Miesch, M. L. Miller, T. P. Miller, C. M. Molenaar, B. P. Minn, A. T. Ovenshine, I. Palmer, W. W. Patton, G. W. Peterins, D. Pollock, A. A. Roberts, M. Robus, R. G. Schaff, H. R. Schmoll, D. Scholl, V. D. Severns, R. Sheldon, T. N. Smith, B. Stapleton, C. W. Strickland, J.V. Tileston, R.B. Tripp, T.L. Vallier, D.J. Van Patten, D. Walker, H. J. Walker, P. J. Webber, F. Weber, G. Weiner, S. H. Wood, L. A. Yehle, and B. Yount.

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SAMPLE COLLECTION, PREPARATION, AND ANALYSIS

A sampling plan was designed that required a minimum of effort for the volunteer collectors, but provided a level of geochemical information that was adequate for our study. At each site we requested that a sample of soil or unconsolidated surficial material be collected at a depth of 20cm (or until permafrost, bedrock, or impenetrable consolidated material was encountered, which ever came first). We use the term surficial material for purposes of this survey to avoid the technical problem of defining a "soil," and to include many types of unconsolidated surficial deposits. Most samples, by common definition, were soils, but unweathered loess, stony lithosols, sand dune or shore materials, and even highly-organic materials are included in this study.

Because of the likely occurrence of large local geochemical variability, we requested that a replicate sample, of the same type of material, be collected at a distance of approximately 100m--in actuality, this practice was followed for about half of the sites. Nevertheless, with 50 percent of the sites replicated a reliable estimate is available of the relative magnitude of local geochemical variability.

Additional directives that were provided to each sample collector are given in Appendix I.

This study was organized on the basis of 1:250,000-scale quadrangle areas. It was our goal to obtain approximately two replicated sites from each of the 153 quadrangles that cover the state (fig. 1). About 20 percent of the quadrangles have a majority of their areas covered by either water (island and coastal areas), glaciers, and foreign territory (Canada). If these quadrangles are deleted as target areas, then a goal of about 120 quadrangles (240 sites) would provide the desired coverage. Figure 2 shows the coverage (along with sample site numbers) that was actually obtained. A comparison of figs. 1 and 2 shows that, whereas 114 (of 120) quadrangles were visited, and a total of 266 sites were sampled, some were sampled more intensely than others.

A list of sampled areas, shown numerically in Table 2, are presented alphabetically by quadrangle name in Table 1. This listing is given so that the user can readily find the locations and site and soil descriptions for samples from a particular quadrangle.

In the laboratory the samples were dried at ambient temperature and the texture and color of the the material were noted. The material was then crushed in a mechanical mortar, and sieved through a 2-mm screen. The minus-2-mm fraction was used for pH determination (Peech, 1965); the remaining material was pulverized to pass a 200-mesh sieve and a 5 g portion was dried at 105° C and then ashed at 550° C to obtain an ash yield value. Following a randomization of all samples, chemical analyses were performed on the minus 200-mesh fraction by the following methods: x-ray fluorescence spectroscopy (Taggert and others, 1981) for Al, Ca, Fe, K, Mg, Mn, Na, P, Si, and Ti; inductively coupled argon plasma-optical emission spectrometry (Crock and others, 1983) for Ag, As, Au, Ba, Be, Bi, Ce, Cd, Co, Cr, Cu, Dy, Er, Ga, Gd, Ho, La, Li, Mo, Nb, Nd, Ni, Pb, Pm, Sc, Sm, Sn, Sr, Ta, Tb, V, Y, Yb, Zn, and Zr; and neutron activation (Millard, 1975, 1976) for Th and U.

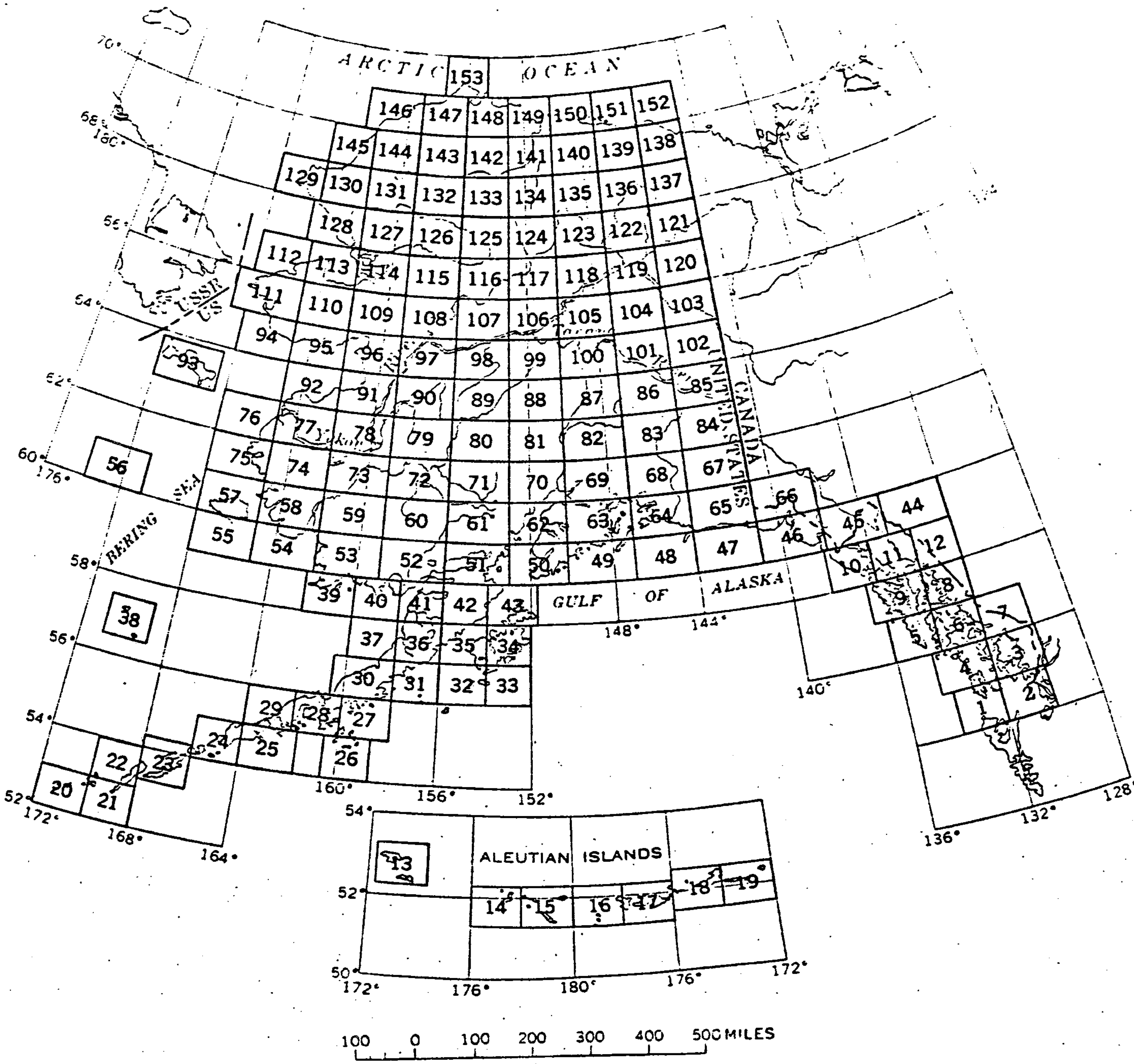


FIGURE 1—*Location of 1:250,000-scale topographic maps.*

EXPLANATION OF FIGURE 1

Map	Name	Map	Name	Map	Name	Map	Name	Map	Name
1	Dixon Entrance	32	Trinity Islands	63	Seward	94	Nome	125	Survey Pass
2	Prince Rupert	33	Kaguyak	64	Cordova	95	Solomon	126	Ambler River
3	Ketchikan	34	Kodiak	65	Bering Glacier	96	Norton Bay	127	Baird Mts.
4	Craig	35	Karluk	66	Mt. St. Elias	97	Nulato	128	Noatak
5	Port Alexander	36	Ugashik	67	McCarthy	98	Ruby	129	Point Hope
6	Petersburg	37	Bristol Bay	68	Valdez	99	Kantishna River	130	De Long Mts.
7	Bradfield Canal	38	Pribilof Islands	69	Anchorage	100	Fairbanks	131	Misheguk Mtn.
8	Sumdum	39	Hagemeister Island	70	Tyonek	101	Big Delta	132	Howard Pass
9	Sitka	40	Nushagak Bay	71	Lime Hills	102	Eagle	133	Killik River
10	Mt. Fairweather	41	Naknek	72	Sleetmute	103	Charley River	134	Chandler Lake
11	Juneau	42	Mt. Katmai	73	Russian Mission	104	Circle	135	Philip Smith Mts.
12	Taku River	43	Afognak	74	Marshall	105	Livengood	136	Arctic
13	Attu	44	Atlin	75	Hooper Bay	106	Tanana	137	Table Mtn.
14	Kiska	45	Skagway	76	Black	107	Melozitna	138	Demarcation Point
15	Rat Islands	46	Yakutat	77	Kwiguk	108	Kateel River	139	Mt. Michelson
16	Gareloi Island	47	Icy Bay	78	Holy Cross	109	Candle	140	Sagavanirktok
17	Adak	48	Middleton Island	79	Iditarod	110	Bendeleben	141	Umiat
18	Atka	49	Blying Sound	80	McGrath	111	Teller	142	Ikpikpuk River
19	Seguam	50	Seldovia	81	Talkeetna	112	Shishmaref	143	Lookout Ridge
20	Amukta	51	Iliamna	82	Talkeetna Mts.	113	Kotzebue	144	Utukok River
21	Samalga Island	52	Dillingham	83	Gulkana	114	Selawik	145	Point Lay
22	Umnak	53	Goodnews	84	Nabesna	115	Shungnak	146	Wainwright
23	Unalaska	54	Kuskokwim Bay	85	Tanacross	116	Hughes	147	Meade River
24	Unimak	55	Cape Mendenhall	86	Mt. Hayes	117	Bettles	148	Teshekpuk
25	False Pass	56	St. Matthew	87	Healy	118	Beaver	149	Harrison Bay
26	Simeonof Island	57	Nunivak Island	88	Mt. McKinley	119	Fort Yukon	150	Beechey Point
27	Stepovak Bay	58	Baird Inlet	89	Medfra	120	Black River	151	Flaxman Island
28	Port Moller	59	Bethel	90	Ophir	121	Coleen	152	Barter Island
29	Cold Bay	60	Taylor Mts.	91	Unalakleet	122	Christian	153	Barrow
30	Chignik	61	Lake Clark	92	St. Michael	123	Chandalar		
31	Sutwik Island	62	Kenai	93	St. Lawrence	124	Wiseman		

(From Orth, 1967)

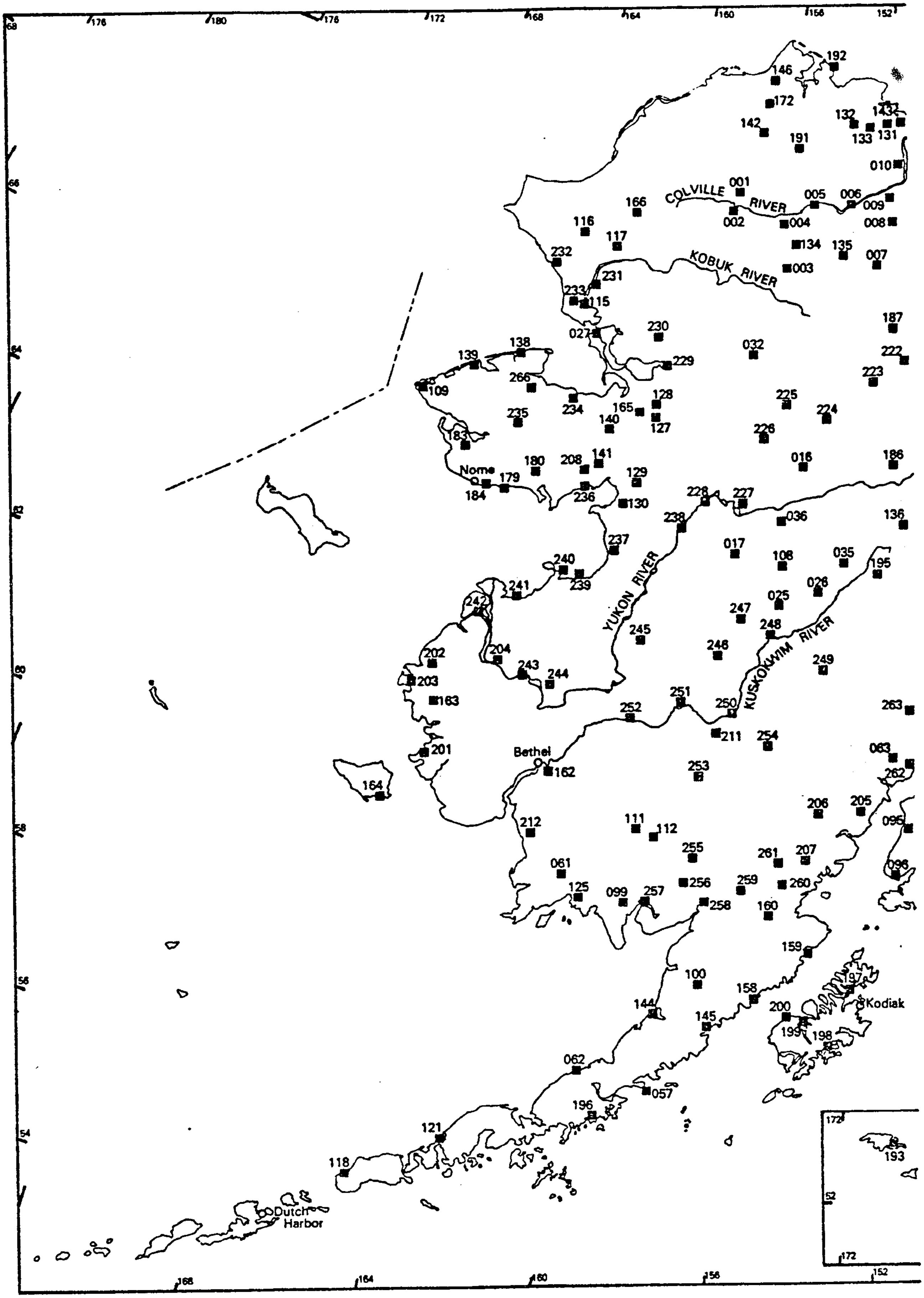
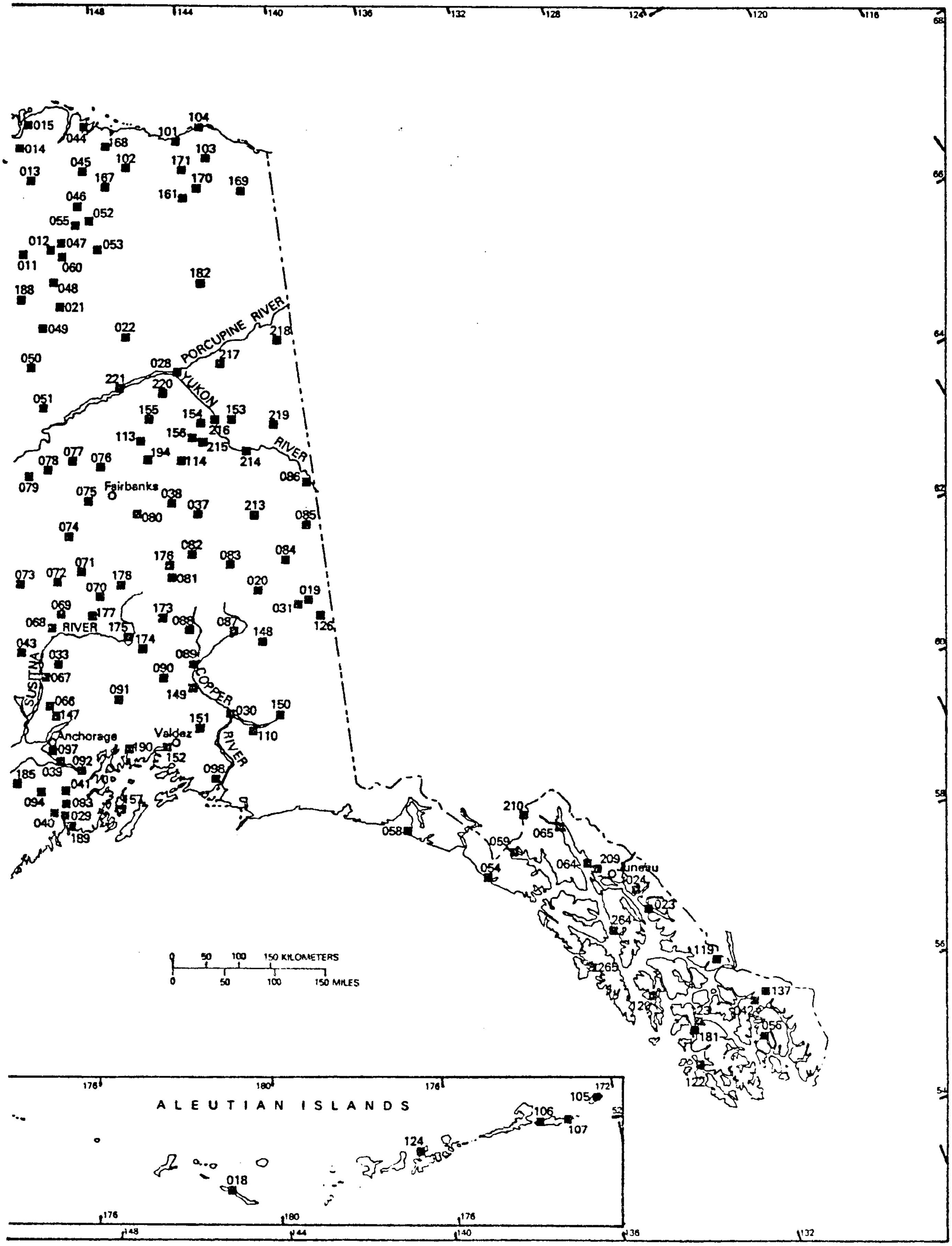


Figure 2.--Sampling sites and field identification numbers for soils and other surficial materials, Alaska.


PORCUPINE RIVER
YUKON
RIVER
Fairbanks
RIVER
SUSITNA
COPPER
RIVER
Anchorage
Valdez
Juneau
0 50 100 150 KILOMETERS
0 50 100 150 MILES
ALEUTIAN ISLANDS

RESULTS

The sampling site locations and sample descriptions given in Table 2 are, for the most part, those provided by the collectors. Additional notes from observations made in the laboratory were added to descriptions of some samples. In describing the collecting site some collectors gave the common names of characteristic or dominant plant species present (Table 2). These names, with corresponding scientific and family names following Hultén (1968), are given in Appendix II.

The concentrations of 44 elements that were quantitatively determined in more than 50 of the total of 487 samples, and the pH and weight-percent ash yield of these samples, are given in Tables 3 and 4.

Explanations for the column symbols used in Table 3 are as follow:

%: Percent.

ppm: Parts per million.

-S: Elements with this suffix were determined by inductively coupled argon plasma emission optical spectrometry. The elements Ca, Fe, K, Mg, Mn, Na, P, Si, and Ti, which lack this suffix, were determined by X-ray fluorescence.

--: Not determined.

Ash%: Percentage of the total material remaining following ashing at 550°C.

<: Less than the indicated value.

The row symbols (sample identifications) used in Table 3 give the following information: (1) the prefix AC identifies the material as being part of this study; (2) the numbers 001 through 266 are the actual site numbers; (3) the suffix A or D identifies the material as collected either at the primary site, or at the replicate site 100m distant, respectively; and (4) the last digit, 1 or 2, is used to represent samples split in the laboratory for the estimation of laboratory error.

The data for eight elements (B, Cd, Er, Gd, Pr, Sm, and Ag) that were quantitatively determined in 50 or fewer samples of surficial materials are given in Table 4.

Some elements were looked for in all samples, but were not found. These elements, analyzed by inductively coupled argon-plasma optical emission spectroscopy, and their approximate lower limits of determination in parts per million (in parentheses) are as follows: Au (8), Ho (4), Ta (40), and Tb (20).

This report gives only the element content, as reported by the analysts, of each sample of surficial material. Statistical evaluations of these analyses, and map plots of element concentrations grouped by frequency classes, will be presented in a later publication.

Plant material samples were also obtained from a majority of the 266 sampling sites. Whereas the analysis of a soil sample provides a measure of the total concentration of each element at a site, analyses of the associated plant material will permit an estimate to be made of the concentrations of elements existing in an available form for biogeochemical cycling and soil enrichment at the site. Chemical analyses of the plant samples are pending, and results will be released in subsequent reports.

USE OF THE DATA

These data provide a timely release of analytical results preceding the interpretive report that is to follow. It answers the requests of those who wish to have analytical results for specific sites before analyses for these sites are merged for statistical studies or are mapped. This report may also be of use to those who wish to make their own statistical analyses of the data for specific regions or for certain environmental factors, such as geologic, climatic, or vegetational regimes. It is, therefore, complementary to the final report on the geochemistry of Alaskan surficial materials.

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TABLES 1-4

Tables giving mapped areas sampled, with sample identification numbers and map numbers; location, date of collection, and description for samples of surficial materials; identification, location, and chemical composition of samples of surficial materials, Alaska; and data for elements determined in 50 or fewer samples.

Table 1.--Mapped areas (1:250,000 scale) sampled, with sample identification numbers from Table 2 and map numbers from Figure 1.

Map name	Map No.	Sample No. (prefix, AC)
Adak	17	124
Afognak	43	159, 197
Anchorage	69	066, 091, 097, 147, 190
Attu	13	193
Barrow	153	104
Barter Island	152	104
Beaver	118	221
Beechey Point	150	044
Bendeleben	110	234, 235, 266
Bethel	59	162
Bettles	117	050, 051, 222, 223
Big Delta	101	037, 038, 080
Black River	120	217, 218
Blying Sound	49	189
Bradfield Canal	7	137
Candle	109	127, 140, 141, 109
Cape Mendenhall	55	164
Chandalar	123	021, 022, 048
Chandler Lake	134	007, 008, 011
Charley River	103	153, 214, 219
Chignik	30	062
Christian	122	182
Circle	104	113, 114, 154, 155, 156, 194, 215, 216
Cold Bay	29	121
Cordova	64	098
Craig	4	122, 123, 181
DeLong Mts.	130	116, 117
Demarcation Point	138	103, 169
Dillingham	52	112, 255, 256, 257, 258
Eagle	102	085, 086, 213
Fairbanks	100	074, 075
Fort Yukon	119	028, 220
Goodnews	53	061, 212
Gulkana	83	087, 088, 089, 090, 173, 174
Hagemeister Island	39	125
Harrison Bay	149	015, 131, 143
Healy	87	069, 070, 071, 072, 177, 178
Holy Cross	78	245
Hooper Bay	75	163, 202, 203
Howard Pass	132	002, 003, 004

Table 1.--Mapped areas (1:250,000 scale) sampled, with sample identification numbers from Table 2 and map numbers from Figure 1 (continued).

Map name	Map No.	Sample No. (prefix, AC)
Hughes	116	224, 225
Iditarod	79	246
Ikpikpuk River	142	005, 006, 191
Iliamna	51	207, 259, 260, 261
Juneau	11	064, 209, 264
Kantishna River	99	136
Karluk	35	159, 200
Kateel River	108	226
Kenai	62	094, 095, 185, 205
Ketchikan	3	042, 056
Killik River	133	134, 135, 136
Kodiak	34	198, 199
Kotzebue	113	027
Kwiguk	77	204, 242
Lake Clark	61	206
Lime Hills	71	254
Livengood	105	076, 077, 078
Lookout Ridge	143	001
Marshall	74	243, 244
McCarthy	67	110, 150
McGrath	80	248, 249
Meade River	147	142, 146, 172
Medfra	89	025, 026, 108
Melozitna	107	016
Misheguk Mtn.	131	166
Mt. Fairweather	10	054, 059
Mt. Hayes	86	081, 082, 083, 176
Mt. Katmai	42	160
Mt. McKinley	88	073, 195
Mt. Michelson	139	101, 102, 161, 170, 171
Nabesna	84	126, 148
Noatak	128	115, 231, 232, 233
Nome	94	183, 184
Norton Bay	96	129, 130
Nulato	97	017, 227, 228, 238
Nunivak Island	57	201
Nushagak Bay	40	099
Ophir	90	247
Petersburg	6	119, 120
Philip Smith Mts.	135	012, 047, 052, 053, 055, 060

Table 1.--Mapped areas (1:250,000 scale) sampled, with sample identification numbers from Table 2 and map numbers from Figure 1 (continued).

Map name	Map No.	Sample No. (prefix, AC)
Rat Islands	15	018
Ruby	98	035, 036
Russian Mission	73	252
Sagavanirktok	140	045, 046, 167, 168
Seguam	19	105, 106, 107
Selawik	114	128
Seldovia	50	096
Seward	63	029, 039, 040, 041, 092, 093, 157
Shishmaref	112	138, 139
Shungnak	115	032
Sitka	9	265
Skagway	45	065, 210
Sleetmute	72	211, 250, 251
Solomon	95	179, 180, 208, 236
Stepovak Bay	27	196
St. Michael	92	239, 240, 241
Sumdum	8	023
Sutwik Island	31	057
Taku River	12	024
Talkeetna	81	043, 067
Talkeetna Mts.	82	033, 068, 175
Tanacross	85	019, 020, 031, 084
Tanana	106	079, 186
Taylor Mts.	60	111, 253
Teller	111	109
Teshekpuk	148	132, 133
Tyonek	70	063, 262, 263
Ugashik	36	100, 144, 145
Umiat	141	009, 010, 013, 014
Unalakleet	91	237
Unimak	24	118
Valdez	68	030, 149, 151, 152
Wiseman	124	049, 187, 188
Yakutat	46	058

Table 2.--Location, date of collection, and description for samples of surficial materials

Sample No.	Name of 1:250,000-scale topographic map	Date of collection	Site and description of material
AC001	Lookout Ridge	8/73	Tundra; gray to tan silt.
AC002	Howard Pass	8/73	Tundra; gray to tan silt, slight organic mixture.
AC003	Howard Pass	8/73	Tundra; gray clay, slight organic mixture.
AC004	Howard Pass	8/73	Tundra; dark brown highly organic muck.
AC005	Ikpikpuk River	8/73	Tundra; light tan very fine clay.
AC006	Ikpikpuk River	8/73	Tundra; medium brown fine clay and organic mixture.
OC007	Chandler Lake	8/73	Tundra; light brown silt with organic stain.
AC008	Chandler Lake	8/73	Tundra; medium brown clay and organic mixture.
AC009	Umiat	8/73	Tundra at Nakaktuk Lake; very fine gray clay.
AC010	Umiat	8/73	Tundra; fine sand and silt, slight organic stain.
AC011	Chandler Lake	8/73	Tundra at Shainan Lake; tan silt and sand, moderately organic.
AC012	Philip Smith Mts.	8/73	Tundra; dark brown fibrous muck, slight amount of clay.
AC013	Umiat	8/73	Tundra; mixture of fine organic material and gray clay.
AC014	Umiat	8/73	Tundra; light gray clay.
AC015	Harrison Bay	6/73	Tundra; medium brown mixture of silt and organic matter.
AC016	Melozitna	8/74	Hillside; dark brown loam high in organic matter with some sand and colluvial rock of cretaceous graywacke and mudstone.
AC017	Nulato	8/74	Open hilltop; mountain tundra to lithosol, light yellow-tan very sandy silt over bedrock rubble of diabase, basalt, and some shale.
AC018	Rat Islands	11/65	Marine terrace; light brown sand and coarse breccia fragments under tundra mat.
AC019	Tanacross	8/74	Near Damundtali Lake; light brown silty loam with quartzite and schist colluvium and 30% humus, 8-10 in. to permafrost.
AC020	Tanacross	8/74	Colluvium from biotite gneiss and schist; dark brown organic loam of mica-like fine sand.
AC021	Chandalar	7/75	Five mi. NW of Big Lake at S base of Wiehl Mt.; medium brown sand with coarse rock fragments, on slate and marble.
AC022	Chandalar	7/75	Venetie Indian Reservation, N bank of Chandalar River 4 mi E of East Fork and reservation boundary; extremely sandy light brown soil on granitic or metagranitic basement.
AC023	Sumdum	7/75	At Sumdum, Sanford Cove in Endicott Arm; mottled slate-gray and orange very sandy silt with mica-like fragments.
AC024	Taku River	7/75	Near N tip of Snettisham Peninsula at mouth of Whitney River into Gilbert Bay; sandy silt, medium brown, high in organic matter, about 12 in. deep, 164 ft. above high-tide level, under tall trees.
AC025	Medfra	7/75	Ridge, altitude 1,800 ft.; rocky silt and sand 6-8 in. below organic mat, over sandstone, siltstone, and shale of Cretaceous age.
AC026	Medfra	8/75	Ridge, altitude 2,350 ft.; light brown sandy residual soil with rock fragments, below organic mat over bedrock of iron-stained calcareous sandstone of Cretaceous age, possibly altered by rhyolite intrusion at 300 yds.
AC027	Kotzebue	8/75	At Kotzebue; black and white sand with about 5% plant litter.
AC028	Ft. Yukon	7/75	At Ft. Yukon; dark gray-brown silt, high in organic material, with some very fine sand.
AC029	Seward	6/75	At Seward; light gray silty sand with about 60% pebbles; high in organic matter.
AC030	Valdez	6/75	At Chitina; medium brown silt, very high in organic material.
AC031	Tanacross	7/75	At Northway Junction; light brown very sandy silt with about 20% plant litter.
AC032	Shungnak	8/75	At Shungnak; light brown silt with mica-like very fine sand.

Table 2.--Location, date of collection, and description for samples of surficial materials--continued

Sample No.	Name of 1:250,000-scale topographic map	Date Colln.	Site and Soil Descriptions
AC033	Talkeetna Mts.	10/75	Mountain tundra; tan to brown fine-sand silt, with some organic matter and pebbles.
AC035	Ruby	8/75	Point of ridge top at 1,980 ft. elevation; residual very light tan silt with some sand and pebbles, below organic mat, over chert of Lower Paleozoic age.
AC036	Ruby	8/75	On hill at 1,050 ft.; yellow-brown silty loam, at 6-10-in. depth, over limestone bedrock of Lower Paleozoic age.
AC037	Big Delta	Summer/75	Medium brown silt with very fine sand and organic matter, collected at 8 in. depth.
AC038	Big Delta	Summer/75	Dark brown highly organic with some sand and about 30% plant litter, collected at 8-in.-depth.
AC039	Seward	Summer/75	Medium brown, very sandy, with some pebbles and about 10% plant litter, collected at 6-8-in. depth.
AC040	Seward	Summer/75	Medium brown sandy silt with about 20% plant litter, no coarse rock fragments, collected at a depth of 4-12 in.
AC041	Seward	Summer/75	Light gray silty sand with about 80% rock fragments and pebbles, collected at a depth of 6-14 in.
AC042	Ketchikan	8/77	North of Bell Island, elevation about 16 ft. above high tide; black and white coarse sand, with about 70% cinder-like pebbles, collected at 10 in. below organic layer.
AC043	Talkeetna	7/75	Along Peters Creek about 3 mi. NW of Petersville; medium-brown sandy silt with some clumps of gray silt, no coarse rock fragments, collected at a depth of 3-8 in.
AC044	Beechey Point	7/76	Arctic Coastal Plain, 2 mi. W of Deadhorse airport, mesic site adjacent to small creek at Mile 870; medium dark-brown silt with some fine sand, collected at a depth of 9 in. just above permafrost.
AC045	Sagavanirktok	7/76	Arctic Coastal Plain, 4 mi. S of Franklin camp, 110 yds. W of Benchmark K/47, Mile 320; dark brown highly organic with some fine sand and abundant roots, 9 in. below moss-sedge hummock.
AC046	Sagavanirktok	7/76	Upland site, northern foothills, half way between Happy Valley and Pump Station 3, Mile 270; dark reddish-brown peat with orange streaks, coarse textured like sedge peat, at a depth of 5 in. over permafrost.
AC047	Philip Smith Mts.	7/76	Brooks Range, turnoff to Galbraith Lake camp, 100 yds. W of road, at Mile 220.
AC048	Chandalar	7/76	Junction of Trimbley Creek and Dietrich Road, E side of road at Material Site 107-2, Mile 170, on hillside; light gray to tan clayey silt with coarse shale gravel, on very coarse gravel.
AC049	Wiseman	7/76	North of Coldfoot camp at Material Site 98-4, Mile 12, at top of well-drained terrace; yellow to tan silt and very coarse sand with many pebbles, collected at a depth of 8 in.
AC050	Bettles	7/76	Nine mi. S of Prospect camp at Material Site 90-1, Mile 70, in paper birch forest with lichen understory on a broad hill; orange-brown silt and sand with 80% pebbles, collected at depth of 8 in.
AC051	Bettles	7/76	Fifteen mi. N of Five Mile Creek at Material Site 81-3, Mile 20, in dense black spruce forest on rolling terrain; gray clayey silt below layer of black organic soil, collected at depth of 8 in.
AC052	Philip Smith Mts.	7/76	Tributary of Lupine River at 2,000-ft. elevation; dark gray lithosol with a small amount of silt.
AC053	Philip Smith Mts.	7/76	At 4,200-ft. elevation; dark brown sandy silt, but sample mostly plant roots and litter and dark gray stones.
AC054	Mt. Fairweather	8/77	Below scarp of 1958 giant wave at Lituya Bay; black and white sand and pebbles with dark-brown organic silt and some plant litter, collected at a depth of 4-6 in.
AC055	Philip Smith Mts.	6/77	Archeological site near pipeline, 200 yds. S of Material Site 060-1, elevation 1,750 ft.; dark brown highly organic silt on glacial drift over Albian shale and sandstone.
AC056	Ketchikan	8/77	Elevation about 340 ft.; orange sandy silt and pebbles 10 in. below top of soil 15 ft. thick over marble and phyllite bedrock of Paleozoic age.
AC057	Sutwik Island	6/77	Creek valley; mixture of 20% dark brown organic silt with plant roots and 80% orange-medium brown sandy silt.
AC058	Yakutat	7/77	Medium brown very sandy silt with pebbles and plant litter, collected at a depth of 8 in.

Table 2.--Location, date of collection, and description for samples of surficial materials--continued

Sample No.	Name of 1:250,000-scale topographic map	Date Colln.	Site and Soil Descriptions
AC059	Mt. Fairweather	8/77	Recently glaciated island in Glacier Bay; light gray very sandy silt with 30% rocks and pebbles at a depth of 6 in., over coarse-grained amphibolite with pervasive tonalitic veining and dikes.
AC060	Philip Smith Mts.	7/75	Well-drained tundra at foot of limestone cliff 1.5 mi. S of Galbraith Aleyeska camp; light brown very sandy and gravely silt drift overlying limestone and shale of, respectively, Mississippian and Permian ages.
AC061	Goodnews	7/75	Reddish-brown fine sandy silt, with some organic material and pebbles.
AC062	Chignik	7/78	Sample consists of about 70% medium-brown sandy silt with pebbles, and 30% dark-brown fine organic silt with plant roots.
AC063	Tyonek	8/78	Very sandy fine-textured dark-brown peat over gray sandy till.
AC064	Juneau	6/79	About 2 mi. N of Eagle Creek off Highway 7, in western hemlock forest; orange-brown fine sand with some plant litter and 10% stones, under an organic layer 5 in. thick.
AC065	Skagway	6/79	About 1 mi. E of Letnikof Cove on Chilkat Peninsula; tannish-gray very sandy silt with 20% pebbles and stones, sample a mixture of B-2 and C horizon soils below a 4 in. organic layer and a gray leached A horizon.
AC066	Anchorage	6/79	About 15 mi. W of Wasilla, site 300 yds. W of highway near gravel workings; tan silt with fine sand and 10% pebbles.
AC067	Talkeetna	6/79	About 0.6 mi. N of Talkeetna Junction; wet light tan silt with fine sand, no coarse rock fragments, either a beach ridge or a loess deposit.
AC068	Talkeetna Mts.	6/79	About 10 mi. S of Hurricane, wet habitat but not muskeg, with dense moss cover; orange-brown sandy silt, no coarse rock fragments.
AC069	Healy	6/79	About 6 mi. N of Hurricane Gulch in closed white spruce-hardwood forest; medium-brown sandy silt, B-2 horizon, poorly drained but no mottling.
AC070	Healy	6/79	About 1 mi. W of Seattle Creek and 25 mi. E of Cantwell on Denali Highway, open high tundra with scattered white spruce and Labrador tea; orange-brown very sandy silt, 10% rocks and pebbles, B-2 horizon sampled.
AC071	Healy	6/79	Open white spruce forest on high ridge 2 mi. S of Mt. McKinley Park headquarters, near service road; light brown loess, silty to fine sandy, B horizon and part of C horizon sampled.
AC072	Healy	6/79	Sable Pass in Mt. McKinley Park at 4,000-ft. elevation, open tundra with scattered willows; brown sandy soil with about 20% coarse rock fragments, sample from depth of 6 in. on permafrost.
AC073	Mt. McKinley	6/79	Just N of N boundary of park and S of Kantishna, open tundra with scattered black spruce and muskeg; alluvial material with a silt matrix on permafrost at a depth of 12 in.
AC074	Fairbanks	6/70	At Nenana bridge, about 28 mi. S of Nenana, closed aspen forest with bearberry understory and scattered small white spruce; soil with A and B horizons only 1 in. thick each, C-horizon of very silty light loam was sampled.
AC075	Fairbanks	6/70	Site 20 mi. N of Nenana, mixed aspen and white spruce with viburnum and alder understory; dry silty material (no coarse rock fragments) was sampled.
AC076	Livengood	6/70	About 32 mi. NW of Fox in closed white spruce-hardwood forest, all trees less than 15 ft. high, but area does not seem to be over shallow permafrost; clay with abundant small chunks of schist, B-2 horizon was sampled.
AC077	Livengood	6/70	About 24 mi. W of livengood, closed white spruce-hardwood forest on gentle slope with southern exposure, willow, aspen, paper birch, alder, and white spruce dominating; light-brown silt with no coarse rock fragments.
AC078	Livengood	6/70	About 1 mi. E of Tanana Quadrangle boundary and 29 mi. from Manly Hot Springs, open spruce forest with dwarf birch understory; light-brown silt with some sand, saturated from thawing of permafrost, sampled at 12 in. depth

Table 2.--Location, date of collection, and description for samples of surficial materials--continued

Sample No.	Name of 1:250,000-scale topographic map	Date Colln.	Site and Soil Descriptions
AC079	Tanana	6/79	About 10 mi. NW of Manley on the road to Tofty, open burn area with scattered Labrador tea, willow, and young white spruce, low lying but not muskeg; medium-brown clayey silt, no coarse rock fragments, C horizon was sampled.
AC080	Big Delta	6/79	Side road 0.5 mi. E of Highway 2 junction, 0.4 mi. S of Little Salcha River crossing, closed white spruce forest with sparse understory of rose and blueberry; light brown silty soil with gray areas, B and C horizons combined in the sample.
AC081	Mt. Hayes	6/79	Site 200 ft. above Delta River about 2 mi. N of Black Rapids on the Richardson Highway, closed white spruce forest; medium-dark-brown silt damp with frost, having much scattered mottling, B horizon sampled.
AC082	Mt. Hayes	6/79	Site 20 mi. E of Delta Junction on Alaska Highway, closed black spruce muskeg forest, trees no more than 10 ft. high; medium-brown fine-sandy soil, B horizon mineral soil on permafrost sampled.
AC083	Mt. Hayes	6/79	Site 1.5 mi. E of Dot Lake on Alaska Highway, open aspen forest with scattered low white spruce but not muskeg; light brown silt, no coarse rock fragments.
AC084	Tanacross	6/79	Site 33 mi. N of Tetlin Junction on Taylor Highway near Mt. Fairplay, open high tundra with paper birch, alder, and a few white spruce; medium-brown very coarse sandy silt, shallow soil over bedrock, B horizon was sampled.
AC085	Eagle	6/79	About 1 mi. N of Jack Wade along Jack Wade Creek, open tundra with scattered alder and dwarf birch with ground cover of cryptogams and blueberry; light-orange-to-brown sandy silt with few coarse rock fragments, permafrost at 8 in.-depth, B horizon was sampled.
AC086	Eagle	6/79	Off Taylor Highway about 1 mi. S of Eagle, open white spruce-hardwood forest, very little understory of blueberry; red sandy soil on old river bench, no permafrost where B horizon was sampled.
AC087	Gulkana	6/79	About 3 mi. W of Nebesna Junction on Glenn Highway, closed mixed paper birch and aspen forest with alder understory; no B-horizon soil present, although the A horizon was thick, C horizon of gray sandy-silt with less than 15% coarse rock fragments.
AC088	Gulkana	6/79	About 40 mi. N of junction of Richardson and Glenn Highways, open black spruce muskeg, flat area elevated above immediately-surrounding area; sandy brown to gray soil with more than 25% gravel, wet.
AC089	Gulkana	6/77	About 1 mi. W of the junction of Richardson and Glenn Highways, closed white spruce-aspen forest with sparse understory of rose and blueberry; shallow A and B horizons, C horizon of gray sand with some iron concretions but no coarse rock fragments, apparently an old dune.
AC090	Gulkana	6/79	Site 0.5 mi. W of Glenn Highway on road to Lake Louise, in open white spruce and aspen forest with blueberry and willow understory; 4-in.-deep A horizon, no B horizon found, the brown sandy C horizon sampled had less than 15% gravel.
AC091	Anchorage	6/79	Open young aspen forest with scattered white spruce and an understory of willow and bearberry; soil well developed with 3 in. of A horizon, the brown silty B-2 horizon with no coarse rock fragments was sampled.
AC092	Seward	6/79	Closed Sitka spruce-western hemlock forest with menziesia understory and abundant cryptogam ground cover; soil medium-brown organic matter and silt, with few rock fragments.
AC093	Seward	6/79	Closed Sitka spruce-western hemlock forest with old mature trees and dense understory of menziesia and blueberry; gray silt of the C horizon with less than 20% gravel was sampled, the reduced wet forest soil having 6 in. of A horizon, but no B horizon.
AC094	Kenai	6/79	Closed white spruce-aspen forest, park-like, no tall understory; soil well developed and drained, light-brown fine sand of B and C horizon at 8-in.-depth was sampled.

Table 2.--Location, date of collection, and description for samples of surficial materials--continued

Sample No.	Name of 1:250,000-scale topographic map	Date Colln.	Site and Soil Descriptions
AC095	Kenai	6/79	Site just S of Krasilof River bridge at campground, closed white spruce forest with Labrador tea understory, no aspen or paper birch; soil well developed with a 3 in. A horizon and a 4 in. B horizon that was mottled with iron which indicated nonuniform drainage, fine sand of B and C horizons was sampled.
AC096	Seldovia	6/79	About 1 mi. N of Homer on the Sterling Highway, closed Sitka spruce forest with menziesia and horse-tail ground cover; soil of about 4 in. of peat, then grading to silt with some gravel, sample was of medium-brown sandy silt with orange mottling, ground frozen at 10-in.-depth.
AC097	Anchorage	6/79	Site NW of beginning of coastal highway, 5 mi. S of Anchorage on old Seward Highway; steep slope with well-drained soil, red-brown silty material of the B horizon with less than 10% coarse rock fragments was sampled.
AC098	Cordova	6/79	U.S. Geological Survey gauging station on Power Creek 3 mi. NW of Cordova, open white spruce-hardwood forest; soil sampled at about 8-in.-depth, reddish-brown sandy silt and gravel below a very light gray layer which may be the White River volcanic ash layer, but no small pumice shards were seen.
AC099	Nushagak Bay	7/79	Site 0.25 mile NE of Manokotak; medium brown silt with some sand.
AC100	Ugashik	7/79	SW of Becherof Lake; soil developed on glacial till, and should reflect till, not windblown, material and organic matter composition of the 6-in. A horizon, sample of medium brown sandy soil, with 50% pebbles, from a depth of 8-12 in.
AC101	Mt. Michelson	7/79	Gray silty material with iron-stained layers interspersed, low in organic matter, no coarse fragments.
AC102	Mt. Michelson	7/79	Sandy dark organic soil, with no coarse rock fragments.
AC103	Demarcation Point	7/79	High arctic tundra; light brown sandy clay, with no coarse rock fragments.
AC104	Barter Island	7/79	Dark sandy soil with much organic material, no coarse rock fragments.
AC105	Seguam	7/79	NW shore of Seguam Island; light-brown sandy material high in organics, no coarse rock fragments.
AC106	Seguam	7/79	Hungry Bay and NW side of Amlia Island, at about 800-ft. elevation, in oceanic tundra; dark brown coarse-sandy silt, many small pebbles, high in organic material.
AC107	Seguam	7/79	SE side of Amlia Island within Sviechnikof Harbor; ashy soil overlying bedrock, dark brown highly organic with very coarse sand.
AC108	Medfra	6/79	Soil developed from basalt, total thickness 10 in., with fragments of bedrock comprising about 60% of the sample.
AC109	Teller	7/79	Lower solifluction slope of Cape Mountain behind village of Wales; black organic soil underlain by sand and large boulders.
AC110	McCarthy	7/79	Undifferentiated surficial deposit from stream terrace of Hanogita River, area surrounded by meta-morphic and plutonic rock bodies; gray silt with fine sand and a few pebbles.
AC111	Taylor Mountain	8/79	About 8 in. above level of Chanekuktali Lake, 300 yds. from N shore, in white spruce-paper birch-alder-willow forest, probably an old beach of reworked glacial deposit; sandy organic loam overlying sand deposit.
AC112	Dillingham	8/79	Hill 60-80 ft. above level of Tikchik Lake of interbedded chert, siliceous siltstone, and cherty tuffs covered by a dense mat of tundra vegetation; very dark highly organic silt heavy with sandy gravel, sample collected a few inches above bedrock.
AC113	Circle	8/79	Near Bear Creek SE of Lime Peak; yellowish-brown, silty, with a few coarse rock fragments.
AC114	Circle	10/79	Collected 100 yds. above stream channel; very light in weight, consisting largely of organic material and mica.
AC115	Noatak	8/79	Rolling barren tundra hills, with grass tussocks and frost boils; sample from 6 in. below tundra surface on Mississippian carbonaceous shale and limestone, light gray-brown moderately sandy silt, with about 10% slate-gray pebbles and stones.

Table 2.--Location, date of collection, and description for samples of surficial materials--continued

Sample No.	Name of 1:250,000-scale topographic map	Date Colln.	Site and Soil Descriptions
AC116	DeLong Mountains	8/79	Soil formed above Fortress Mountain formation of mid-Cretaceous age; sample of mixed angular rock fragments and organic material 4 in. below tundra surface over permafrost.
AC117	DeLong Mountains	8/79	Soil sample taken 5-8 in. below tundra surface, over Noatak Sandstone formation of Lower Mississippian-Upper Devonian age; dark brown moderately sandy silt, with some organic material.
AC118	Unimak	9/79	Volcanic ash over bedrock; medium brown very sandy silt, moderately organic.
AC119	Petersburg	9/79	Recessional moraine 3-6 yds. high and 10-30 yds. wide of Shakes Glacier; light brown very sandy silt, may contain parts of an A-2 (acid leached) horizon.
AC120	Petersburg	9/76	Sitka spruce-western hemlock-blueberry forest on 75% slope with SW aspect, organic mat 4-6 in. over soil which is 10 in. thick on limestone and graywacke bedrock; sample is 40% yellowish-brown coarse silty sand with 60% rock fragments.
AC121	Cold Bay	10/79	Site 4 mi. NW of Thornbrough Air Force Base on Bering Sea side of island; soil sample of volcanic origin, medium-brown organic silt, with some fine sand.
AC122	Craig	7/79	Site N of waterfall on Prince of Wales Island on glacial till; light gray silt loam, A-2 horizon, Spodosol of the Wadleigh Series, 8 in. below ground surface.
AC123	Craig	10/79	On glacial till; very gravely sandy loam from B-2 horizon, Spodosol of the Karta Series, collected about 8 in. below surface of mineral soil (not including surficial organic material).
AC124	Adak	11/79	SE side of Mt. Moffett 2 mi. N of Adak; dark-brown fibric peat over volcanic breccia and conglomerate.
AC125	Hagemeister Island	Summer/79	Light-brown sandy loam with large particles resembling volcanic material, apparently high in iron.
AC126	Nebesna	Summer/79	Sandy loam soil.
AC127	Candle	Summer/79	Dry tussock tundra on bluff N of Buckland River, elevation 140 ft., lichen cover more than 20%; brown to gray silt, wet, over permafrost, dries hard.
AC128	Selawik	Summer/79	NW exposure on high ridge, 760-ft elevation, dry upland low shrub-tussock tundra, prime caribou winter range with abundant lichens; dark-brown medium-textured peat.
AC129	Norton Bay	Summer/79	On stream bank of Ungalik River above the spring high-water level, site wooded with shrub understory; dark-brown highly organic silt.
AC130	Norton Bay	Summer/79	On stream bank of Ungalik River above the spring high-water level, site wooded with shrub understory; dark-brown very fine organic silt.
AC131	Harrison Bay	12/79	Sample taken 8 in. below the surface on top of a river bluff; not peat, but probably organic (70%) soil with some sand, no coarse rock fragments.
AC132	Teshekpuk	12/79	Sample taken 8 in. below surface of the central part of a low-center, ice-wedge polygon; very sandy brown soil low in organics, with no coarse fragments.
AC133	Teshekpuk	12/79	Sample taken 8 in. below surface of the central part of a low-center, ice-wedge polygon; dark-brown sandy silt with very fine sand.
AC134	Killik River	12/79	Top of terrace, elevation 1,800 ft., east bank of Iteriak Creek, terrace cut on bedrock of Lisborne limestone of Mississippian age; dark brown silty material high in organic material.
AC135	Killik River	12/79	High tundra E of Killik River, elevation 2,700 ft., glacial gravel and sand overlying Lisborne limestone on NW slope of Kaikshak Hill; light-brown clay with some sandy material, no coarse rock fragments.
AC136	Kantishna River	6/79	Altitude about 800 ft., deposit of silt and very fine-grained sand, probably eolian, sample from below a vegetation mat and humus layer1-2 ft. thick, probably at least 20-30 ft. above bedrock; clay loam with some sand and mica.
AC137	Bradfield Canal	7/79	Sample site near mouth of Unuk River; gley silt, reduced (gray), probably poorly drained with much undecomposed detritus, no large rock fragments.
AC138	Shishmaref	7/79	Arctic muskeg tundra, 2 mi. S of Shishmaref Inlet on Chuckchi Sea; brown sandy silt, frozen.

Table 2.--Location, date of collection, and description for samples of surficial materials--continued

Sample No.	Name of 1:250,000-scale topographic map	Date Colln.	Site and Soil Description
AC139	Shishmaref	7/79	Arctic tundra muskeg 0.5 mi. S of Arctic Lagoon on the shore of Chukchi Sea; mottled light-brown and gray silt loam, low in organic matter, 5 in. to permafrost.
AC140	Candle	8/79	On W slope of Weather Ridge 5 mi. E of Kiwalik River; mottled light-brown gravely silt loam, 8 in. to permafrost.
AC141	Candle	8/79	On NE slope of unnamed peak (1,308 ft. altitude) along tributary of Salmon Creek, 10 mi. S of Koyukuk River; mottled light-brown silt loam with some fine sand, 17 in. to permafrost.
AC142	Meade River	7/80	Site with 0-6 in. surface organic layer; sample taken at 10 in. depth; dark brown silt over permafrost, high in organic matter.
AC143	Harrison Bay	6/80	Fish Creek Test Well No. 1, at top of ancient sand dune ridge; soil from 2-6-in. depth, excludes 0-1.25 in. organic surficial layer, very sandy no coarse fragments.
AC144	Ugashik	7/80	Near beach of E. Bristol Bay; very sandy, high in organic material, with no coarse rock fragments.
AC145	Ugashik	7/80	W side of Wide Bay, SE of Lower Ugashik Lake; light brown silt high in organic material, with about 10% coarse rock fragments.
AC146	Meade River	6/80	By Inaru River; mostly gray silt and fine sand with a thin layer of dark organic material, no coarse rock fragments.
AC147	Anchorage	8/80	Site 200 yds. N of small lake, 3 mi. NW of Glenn Highway, 0.5 mi. SE of Eska near old coal diggings at Jonesville; shallow podzol soil, mixture of A-2, B, and C horizons, light-brown silt predominates.
AC148	Nabesna	8/80	Site 200 yds. N of Trail Creek in white spruce-willow low nearly level area, ground cover dominated by lichens and mosses with some blueberry and Labrador tea, old river channel; fine to coarse dark sand with 20-30% outwash gravel.
AC149	Valdez	8/80	High bluff above Klatina River about 5 mi. W of Copper Center, broadleaf mixed forest dominated by cottonwood and willow with viburnum, buffalo berry, and willow understory; sample a mixture of thin A and B horizons and thick light-gray C horizon, fine sand, no coarse rock fragments.
AC150	McCarthy	8/80	Site 1 mi. W of Kennicott River near town of McCarthy, on broad alluvial plain cut by ancient river, broadleaf forest of cottonwood and willow with viburnum, blueberry, and bearberry understory; azonal soil, dark gray clay with much gravel.
AC151	Valdez	8/80	On W side of Richardson Highway 0.5 mi. N of Tiekel Lodge on 5% slope, mature white spruce forest with understory of scattered blueberry and a few aspen; soil a zonal gray silt with numerous small gravel and coarse gravel to about 10%, with 2 in. of undecomposed surface organic matter.
AC152	Valdez	8/80	West-facing 10% slope 50 yds. from Valdez inlet on E side about 2 mi. from Alyeska Terminus, white spruce forest with dense devils club and fern understory; gray to black silt, probably marine sediment, over metamorphosed shale, azonal, with thin organic surface layer and some coarse rock fragments.
AC153	Charley River	7/80	Soil a gray silt with zones of orange and with thin layers of dark humus and light-brown soil on top, no coarse rock fragments.
AC154	Circle	7/80	Soil mostly light brown silt with a thin layer of dark humus and undecomposed plant litter on top.
AC155	Circle	7/80	Soil mostly light-brown silt and sand with very small mica particles under a thin layer of undecomposed plant litter.
AC156	Circle	7/80	Soil dark brown and coarse textured, very high in organic matter with much plant litter on top.
AC157	Seward	7/80	Area II, Chugach Wilderness, having about 300-in. annual precipitation; coarse brown peat, with 20% rocks which were removed from the sample.
AC158	Karluk	7/80	Light-brown sandy soil with about 10% plant roots, no large rock fragments.
AC159	Afognak	7/80	Sand and gravel deposit with a thick grass mat; light-brown silt and fine sand, no coarse rock fragments.
AC160	Mt. Katmai	7/80	Medium brown silty sand, with coarse rock fragments.

Table 2.--Location, date of collection, and description for samples of surficial materials--continued

Sample No.	Name of 1:250,000-scale topographic map	Date Colln.	Site and Soil description
AC161	Mt. Michelson	7/80	William A. Douglas Arctic Wildlife Range, Hulahula River headwaters; light gray sandy silt with 20% rocks and pebbles, large rock fragments removed from sample.
AC162	Bethel	8/80	Clarence Rhodes National Wildlife Refuge; coarse brown peat with about 10% fine-textured gray silty sand with a few coarse rock fragments.
AC163	Hooper Bay	8/80	Clarence Rhodes National Wildlife Refuge; fine-textured brown peat with about 10% gray silt, no coarse rock fragments.
AC164	Cape Mendenhall	8/80	Duchikthlak Bay, Nunivak Island National Wildlife Refuge; light-brown silt with a small amount of sand, no coarse rock fragments.
AC165	Candle	8/80	Silt loam mantled with 7 in. organic mat, sampled at 8-in. depth; mottled light-brown and gray silt with small amount of fine sand, no coarse rock fragments.
AC166	Misheguk Mtn.	8/80	Peat from above stream bank and silt from stream area; sample consists of 50% dark-brown coarse peat and 50% dark-brown sandy silt.
AC167	Sagavanirktok	6/80	Organic plastic muck over permafrost; medium-brown sandy silt with coarse rock fragments derived from material of Lower Cretaceous age.
AC168	Sagavanirktok	6/80	Peat over permafrost; dark-brown fine-textured peat with some sand, no coarse rock fragments, overlying material of Quaternary age.
AC169	Demarcation Point	7/80	Bathtub Ridge, soil derived from shale of the Congakut Formation of Lower Cretaceous age; light-brown very sandy silt, with coarse rock fragments.
AC170	Mt. Michelson	7/80	River terrace, immature soil overlying granitic terrain; dark-brown organic soil with coarse rock fragments.
AC171	Mt. Michelson	8/80	Immature soil overlying shale of Lower Cretaceous age; dark-brown very sandy silt, with coarse rock fragments.
AC172	Meade River	8/80	Site 2.5-3 mi. S. of Atkasook village on river bluff; medium brown fine-textured sand, no coarse rock fragments.
AC173	Gulkana	8/80	Sandy to clayey loam over glacial till in closed low shrub land; light-brown sandy silt with coarse rock fragments.
AC174	Gulkana	8/80	Lake Louise low shrub land, with saturated clay soils probably over glacial till; gray clay with some fine sand and coarse rock grgaments.
AC175	Talkeetna Mts.	8/80	Tall understory of dwarf birch and ericaceous shrubs, with mineral and organic soils between boulders and rock outcroppings; sample composed of equal amounts of brown silt, fine sand, and humus, with some coarse rock fragments.
AC176	Mt. Hayes	9/80	Open shrub land on sand and gravel bar in the river; sample of fine black and white sand with no coarse rock fragments.
AC177	Healy	8/80	Shallow alpine soil of sandy loam over metamorphic bedrock; sample is medium-brown sandy silt with some coarse rock fragments.
AC178	Healy	8/80	Moderately well-drained loam of alpine herbaceous tundra that may be a windblown deposit from a nearby glacier, and was well vegetated and appeared to be relatively deep; sample is of gray sandy silt, with some coarse rock fragments.
AC179	Solomon	9/80	East of Cape Nome, Mile 13.9 on Council Highway; medium-brown coarse peat 75%, medium-brown fine silt 25%, no coarse rock fragments.
AC180	Solomon	9/80	Mile 67 on Council Road; medium-brown sandy silt with 50% pebbles and rock fragments.
AC181	Craig	9/80	Fine sandy loam over glacial till, sample 8 in. below soil surface, top 6 in. was organic muck; medium-brown very sandy silt, with coarse rock fragments.
AC182	Christian	10/80	Site 5 mi. S of Big Fish Lake; medium-brown coarse silt, no coarse rock fragments.
AC183	Nome	10/80	Mile 46 on Teller Road at Eldorado Creek; sample consists of 75% medium-textured peat and 25% fine silt, no coarse rock fragments.

Table 2.--Location, date of collection, and description for samples of surficial materials--continued

Sample No.	Name of 1:250,000-scale topographic map	Date Colln.	Site and Soil Description
AC184	Nome	10/80	On Council Highway 6 mi. E of Nome; very sandy medium brown silt with about 10% pebbles and rock fragments.
AC185	Kenai	10/80	Kenai National Moose Refuge, white spruce-paper birch forest; soil sample collected at 20-in. depth, consisting of light-brown silty clay and a small amount of sand, no coarse rock fragments.
AC186	Tanana	8/81	Rocky soil on basalt with some chert, argillite, and gabbro near sampling site, altitude 2,200+ ft.; sample from 6-8-in. depth in frost boil, consisting of medium-brown silty clay with a small amount of sand.
AC187	Wiseman	7/81	B-horizon red to brown clay, slightly sandy, with small mica-like particles and about 5% organic material, no coarse rock fragments.
AC188	Wiseman	7/81	Marshy terrain; gray clay-silt with a small amount of sand, about 10% roots and organic material, and 10% pebbles.
AC189	Blying Sound	6/81	Medium-brown sandy soil with about 20% coarse rock fragments.
AC190	Anchorage	7/81	Medium-brown sandy soil with some clay and about 10% coarse rock fragments.
AC191	Ikpikpuk River	7/81	Vicinity of Oumalik Test Well No. 1, gleyed silt above permafrost from residual surface unaffected by thaw cycle, under tussock tundra surface; mottled light-gray and orange silt, no coarse rock fragments.
AC192	Barrow	7/81	At Cape Simpson, gleyed mineral soil above permafrost at rim of low-centered polygon; sample consists of 60% dark-gray clay and 40%dark coarse peat.
AC193	Attu	5/81	Oceanic tundra; fibrous peat 5 in. thick over slippery clay-like peat, with many roots.
AC194	Circle	8/81	Sourdough Camp area due N of Bench Mark 1424; light-brown very sandy soil, with about 10% pebbles and about 5% organic debris.
AC195	Mt. McKinley	8/81	Lake Minchumina, wooded slope about 200 ft. beyond upper part of Bureau of Land Management fire control camp; silty, crumbly, light-yellow and medium-gray soil overlying bedrock of chert, silty shale, and tuffaceous siltstone, with about 5% organic debris.
AC196	Stepovak Bay	Pre-1960	At Perryville, 19 mi. E of Stepovak Bay; coarse black sand with a few pebbles.
AC197	Afognak	Pre-1960	At Afognak, Kodiak Island; volcanic ash and very fine white sand, top 4 in. of profile.
AC198	Kodiak	Pre-1960	At Old Harbor, Kodiak Island; medium-brown clay and fine sand, no coarse rock fragments.
AC199	Kodiak	Pre-1960	At Larson Bay, Kodiak Island; strata consisted of 18-in. overlay of heavy dark loam, the lower 12-in. part on gravely hardpan was sampled; light-brown loam, no coarse rock fragments.
AC200	Karluk	Pre-1960	At Karluk village, Kodiak Island, 14-in.-thick silt high in organic matter; sample consists of medium-brown silt and fine sand, no coarse rock fragments.
AC201	Nunivak Island	Pre-1960	At Tununak, Nelson Island; medium-brown clay with some sand, no coarse rock fragments.
AC202	Hooper Bay	1968	Scammon Bay, W coast, 150 yds. toward inlet from church; coarse sand and about 20% medium-brown soil.
AC203	Hooper Bay	Pre-1960	At Hooper Bay; medium-brown sandy loam, no coarse rock fragments.
AC204	Kwiguk	Pre-1960	At Mountain Village on N bank of Yukon River one-third of the distance from earthhouse to cemetery; light-brown silt with a small amount of fine sand.
AC205	Kenai	7/81	Site 5 mi. S of Drift River and 13 mi. W of Redoubt Bay on Cook Inlet, tundra on granitic rocks; medium-brown sandy loam with 5% organic matter and 5% coarse rock fragments.
AC206	Lake Clark	7/81	About 2 mi. S of Otter Lake, which is about 6 mi. N of NE part of Lake Clark, tundra over granitic rocks; soil reddish-brown, highly organic, no coarse rock fragments.
AC207	Iliamna	7/81	At E end of Knudson Bay, which is on the N side of the E end of Lake Iliamna, alluvium from granitic rocks, good soil development; light yellow-brown very sandy soil with 5% organic matter and 5% coarse rock fragments.

Table 2.--Location, date of collection, and description for samples of surficial materials--continued

Sample No.	Name of 1:250,000-scale topographic map	Date Colln.	Site and Soil Description
AC208	Solomon	8.81	South of Tubutulik Mountain on W side of Vulcan Creek, elevation about 200 ft., silt loam over granitic floodplain alluvium; medium-brown fine sandy silt, no coarse rock fragments.
AC209	Juneau	5/79	Near Mendenhall Lake, young very wet sandy glacial material; black and white sand with pebbles, very little silt and organic material.
AC210	Skagway	6/79	About 2 mi. SE of Canadian border, several hundred yds. W of Haines Highway, in western hemlock forest with very little understory vegetation; Orange sandy silt, 50% pebbles and rock fragments.
AC211	Sleetmute	8/81	About 15 mi. S of Sleetmute on the Holitna River.
AC212	Goodnews	8/81	One mi. E of Quinhagak village and 130 yds. N of Kenetok U.S. Fish and Wildlife Service building.
AC213	Eagle	6/82	At Eagle, 100 yds. E of Joseph airstrip in white spruce-willow forest with moss and pyrola ground cover, nearly level and on a stream terrace; dark reddish-brown fine sandy loam, probably an old sandbar.
AC214	Charley River	6/82	Site 100 yds. N of Coal Creek airstrip on alluvial flat (old cobble terrace), ground frozen at about 8 in. in depth,white spruce-willow community bordering muskeg, trees are on large peat hummocks that have pushed up; sample composed mostly of peat, with some silt.
AC215	Circle	6/82	About 150 yds. E of Circle Hot Springs airstrip, muskeg with islands of white spruce and willow, frozen ground not found; soil a gleyed clay loam, very wet, with thin peat layers.
AC216	Circle	6/82	One mi. S of Circle City airstrip, floodplain of the Yukon River, samples from ground higher than most surrounding terrain, in white spruce-dwarf birch-willow community with moss ground cover; sample mostly peat, with some intermixed silt, very wet.
AC217	Black River	6/82	At 50 yds. E of Chalkyitsik airstrip and about 0.5 mi. from Chalkyitsik village, flood plain of the Yukon River, white spruce-aspen-willow community with willow and buffalo berry understory; soil reddish-brown silt below an organic layer 5 in. thick.
AC218	Black River	6/82	At Bureau of Land Management airstrip, about 20 mi. S of Old Rampart, on crest of a very broad hill in glaciated terrain, open tundra with scattered black spruce, a borderline muskeg with sedge-heath ground cover; soil a gleyed grayish silt under 3 in. of peat, permafrost at depth of 10 in.
AC219	Charley River	6/82	Black River Bureau of Land Management airstrip, broad nearly level muskeg plain with Labrador tea-sedge-moss ground cover, scattered black spruce trees; shallow brown silt over permafrost.
AC220	Fort Yukon	6/82	Site 1 mi. W of Birch Creek village, on high ground S of airstrip, nearly level ground on Yukon River floodplain, white spruce-willow-aspen community; red-brown silt loam under 5-6-in. peat layer.
AC221	Beaver	6/82	Site 50 yds. S of Beaver airstrip, 1 mi. NW of town, in white spruce-cottonwood-willow community; soil is well-drained red-brown silt.
AC222	Bettles	6/82	Site 300 yds. S of Bettles airstrip behind Bureau of Land Management building, nearly level with stand of short white spruce, aspen, and willow; soil is fine sand with little organic matter except top 4-8-in. layer.
AC223	Bettles	6/82	Site on old terrace of the Koyukuk River, 100 yds. S of Allokaket airstrip, near-muskeg vegetation of stunted white spruce (no black spruce) and much willow; soil a very wet gray silt, greatly reduced.
AC224	Hughes	6/82	Site 50 yds. S of Hughes airstrip and 0.25 mi. W of village on old terrace of the Koyukuk River, riparian vegetation of cottonwood and willow predominating, with some white spruce; soil fine gray sand below 3-5 in. of peat, no permafrost found.
AC225	Hughes	6/82	Site 30 yds. W of Hogatza River airstrip on nearly level ground, very wet, almost muskeg, permafrost at about 10 in.; soil gray to reddish-brown silt and gravel.
AC 226	Kateel River	6/82	About 100 yds. S of airstrip at Huslia, nearly level, open stand of paper birch, aspen, and white spruce, well drained, with little or no understory vegetation; soil red-brown sand (true B horizon), underlain with a true gray podsol horizon, sample a composite of B and C horizons.

Table 2.--Location, date of collection, and description for samples of surficial materials--continued

Sample No.	Name of 1:250,000-scale topographic map	Date Colln.	Site and Soil Description
AC227	Nulato	6/82	Site 500 yds. from Yukon River 0.5 mi. E of New Galena and 3 mi. E of Old Galena, on flood plain, white spruce stand, understory of alder, ground cover of sphagnum; soil sample of gray silt, poorly drained, above frozen ground at 16 in. depth.
AC228	Nulato	6/82	Site on N-facing side of ridge 1.5 mi. N of Nulato village, white spruce stand with alder understory; brown silty material under an 8-inch peat cover, frozen ground at 10-in. depth.
AC229	Selawik	6/82	Site 500 yds. S of airstrip 0.25 mi. SE of Selawik village, arctic tundra dominated by Labrador tea, bearberry, spiraea, and moss; ground flat and wet, frozen ground at 5-inch depth, sample from area of slight ground cover on higher ground, gray silt.
AC230	Selawik	6/82	Site 500 yds. W (downslope) of Kiana village airstrip, open small white spruce stand with scattered willow and alder, typical arctic tundra ground cover; soil is gray silty material with intermixed very fine sand, sampled along path where thawed to about 12 in., ground frozen in undisturbed area to 5 in. from surface.
AC231	Noatak	6/82	Site SW of airstrip on nearly level tundra mat with scattered white spruce; sample is of well-weathered peat, no mineral soil found, ground frozen at 4-in. depth, sample from bulldozed area that had thawed.
AC232	Noatak	6/82	Site on E side of airstrip at Kivalina on spit of the Arctic Ocean, area level, with prostrate willows, dwarf birch, bearberry, and Labrador tea; soil a coarse beach sand, brown to black, well drained, no frozen ground.
AC233	Noatak	6/82	Site near airstrip above Cape Krusenstern, about 4 mi. from the coast (area abandoned), on flank of limestone dune characteristic of the area, with fellfield vegetation having many cushion species; area windblown with no soil horizon development, sample was of brown silt with limestone fragments.
AC234	Bendeleben	6/82	Site at Utica Creek placer gold works in shallow moderately-broad valley having low willows and dwarf birch in Arctic tundra with tussock sedges; soil samples from W of airstrip in old peat mounds probably made by bulldozers, gray silty material with fine sand.
AC235	Bendeleben	6/82	Site N of airstrip at Kougarok, a mining area near Dahl Creek, in a low very broad tussock tundra where new plant growth was just beginning, walking was difficult; soil sample of gray wet silty material without surface peat was collected between tussocks.
AC236	Solomon	6/82	Site a level old tidal flat at Moses Point village on Norton Sound, southern Seward Peninsula, with gravel and sand ridges; soil a brownish coarse sand with some gray silt.
AC237	Unalakleet	6/82	Site 200 yds. E of Unalakleet airstrip on a broad flat delta plain with crowberry, dwarf birch, and willow and small hummocks; soil red-brown coarse sand, no silt, but with fragments of weathered volcanic material, below a peat layer 3 in. thick.
AC238	Nulato	6/82	Site a very flat area at N end of Kaltag airstrip 1 mi. W of the village, vegetation of white spruce with dense understory of willow and paper birch; soil mottled gray and light brown silty material below about 12 in. of peat.
AC239	St. Michael	6/82	Site at E end of airstrip at St. Michaels; soil sample was a dark volcanic material used in the runway.
AC240	St. Michael	6/82	Site at S end of airstrip at Stebbins in undisturbed crowberry and dwarf birch arctic tundra over large lava flow, frozen ground at 3-in. depth; soil sample was of volcanic gravel and sand, no silt, collected where bulldozer had scarred the land surface.
AC241	St. Michael	6/82	Site at NE end of airstrip at Kotlik, Yukon River delta flats, vegetation largely composed of sedges, grasses, and willow clumps; soil wet gray silt under a 10-in.-thick peat layer, frozen ground at 10-in. depth.
AC242	Kwiguk	6/82	Site at Alakanuk near mouth of Yukon River, delta on the main channel, level with sinuous channels and marsh vegetation of sedges, grasses, and willows; soil gray mottled wet silt under a 10-in.-thick peat layer, frozen ground at about 12-in.-depth.

Table 2.--Location, date of collection, and description for samples of surficial materials--continued

Sample No.	Name of 1:250,000-scale topographic map	Date Colln.	Site and Soil Description
AC243	Marshall	6/82	Ridge crest E of Pilot Station village, high above the Yukon River, vegetation of large paper birch and white spruce intermixed with open bluejoint understory, over slate bedrock; soil a red fine sandy loam with distinct horizons below a thick peat layer.
AC244	Marshall	6/82	Site at airstrip about 1 mi. E of Marshall village, at a hillside cut made by bulldozer, vegetation dominated by paper birch and alder with bluejoint ground cover; soil mottled brownish coarse silty material, very wet from thawing permafrost.
AC245	Holy Cross	6/82	Site at airstrip 1 mi. N of Shageluk, area flooded by Yukon River overflow and disturbed by construction; soil a yellow-brown fine sand with runway gravel intermixed--gravel removed from sample.
AC246	Iditarod	6/82	Site on haul road at Moore Creek locality, hilly country surrounded by mountains, with white spruce, paper birch, and aspen forests; soil is fine sand with some silt and alluvial gravel.
AC247	Ophir	6/82	Site at abandoned airstrip at Ophir in broad glaciated (?) valley, swampy terrain with low relief, vegetation composed of cottonwood, willow, and tamarac with scattered black spruce; soil gray clayey material with some fine sand.
AC248	McGrath	6/82	Site N of E-W runway of airstrip at McGrath on old river terrace with riparian vegetation, some scattered white spruce on higher hummocks; soil is gray silty material without gravel, frozen ground not found, site may have been disturbed as indicated by dense horsetail ground cover.
AC249	McGrath	6/82	Site on SE side of airstrip at Farewell in undisturbed shrub tundra of crowberry, willow, dwarf birch, and scattered white spruce with moss and lichen understory; soil a coarse reddish silty material with thin layers of coarse rocks just below root zone below a peat layer 6 in. thick.
AC250	Sleetmute	6/82	Site N of Stony River airstrip on high terrace above the Kuskokwim River, in an area apparently undisturbed for many years, vegetation mixed white spruce, aspen, and willow with horsetail and moss understory; soil a red-gray silt with no sand or gravel, under a peat layer 8 in. thick.
AC251	Sleetmute	6/82	Site S of airstrip at Crooked Creek in black spruce muskeg, with ground layer of mosses and fruticose lichens over permafrost; soil mottled coarse gray silt under peat layer 10 in. thick.
AC252	Russian Mission	6/82	Site at S end of Aniak airstrip about 25 yds. across public road on nearly level ground, with alder, paper birch, and scattered large white spruce; soil gray silty wet material under a peat layer 10 in. thick and above frozen ground at 16-in. depth.
AC253	Taylor Mts.	6/82	Site at edge of airstrip at Taylor Creek where bulldozer had cut small knoll, very wet shrub tundra at 2,000 ft. elevation with some dwarf birch and isolated white spruce; soil a brown silty material with coarse sand and gravel.
AC254	Lime Hills	6/82	Site S of Lime Creek airstrip at junction of hill and alluvial flats with riparian vegetation with aspen and willow; soil a fine gray sand, no silt.
AC255	Dillingham	6/82	Site S of Koliganek airstrip, level bog terrain with very deep peat, vegetation composed of tussock sedges, mosses, and scattered willows; soil a dark-brown silt with much intermixed weathered peat.
AC256	Dillingham	6/82	Site about 25 yds. E of Ewok airstrip on level ground, vegetation composed of open white spruce stand with alder and dwarf birch; soil a mottled silt with red-brown to gray fine sand under a peat layer 6 in. thick, frozen ground not found.
AC257	Dillingham	6/82	Site coastal wave-cut banks near beach S of Dillingham; soil sampled was gray fine sand that had resulted from downslope flow of thawed material.
AC258	Dillingham	6/82	Site N of Levelock airstrip on Naknek River in piedmont area of Bristol Bay, shrub tundra with isolated paper birch, alder, and white spruce; a true zonal soil with A and B horizons, brown fine sand, moist.
AC259	Iliamna	6/82	Site at Igiugig at end of Lake Iliamna, shrub tundra with scattered alder, paper birch, and white spruce; soil with well-developed A and B horizons below a very thin organic layer, sample of red-brown medium-textured sand.

Table 2.--Location, date of collection, and description for samples of surficial materials--continued

Sample No.	Name of 1:250,000-scale topographic map	Date Colln.	Site and Soil Description
AC260	Iliamna	6/82	Site W of Kakhonak airstrip on S side of Lake Iliamna, on gravel bar; soil samples mostly root material and peat with very little inorganic matter.
AC261	Iliamna	6/82	Site S of and adjacent to Iliamna airstrip, with shrub tundra vegetation and ground cover of crowberry; soil was brown sandy loam under a very thin organic mat, with some intermixed coarse gravel.
AC262	Tyonek	6/82	Site Yehle and Schroll drill site, open rolling terrain with scattered white spruce and alder clumps on ridge crest; soil a volcanic ash, reddish-brown very fine sand.
AC263	Tyonek	6/82	Site a riparian plain at Skwentna village, with cottonwood and scattered white spruce and paper birch with bluejoint and horsetail ground cover; soil brown and gray mottled wet silt, organic only in root zone.
AC264	Juneau	6/82	Site on Bishop Point trail south of Juneau in western hemlock-Sitka spruce forest on N-facing slope with moss and fern ground cover; soil a brown loam with fragments of schist from bedrock, A horizon about 0.75 in. thick, B horizon was sampled.
AC265	Sitka	6/82	Site N and downslope from old Russian cemetery near N side of Sitka, cemetery overgrown with mature Sitka spruce and moderately-dense understory of ferns and devils club; soil from N-facing embankment, reddish coarse volcanic ash with some fine particles, apparently quite deep and uniform throughout.
AC266	Bendeleben	6/82	Soil samples collected under a 10-in.-thick moss layer to a depth of about 8 in., soil clayey.

Table 3.--Identification, location, and chemical composition of samples of surficial materials, Alaska.
[Latitude is always north; longitude is west except where noted]

Sample	Latitude	Longitude	LAB. NO.	Ash %	pH	Al %	As ppm-S	Ba ppm-S	Be ppm-S	Ca %	Ce ppm-
AC001A1	69 9 0	158 10 0	248,159	94.8	4.7	6.9	10	390	1	.17	37
AC002A1	68 52 0	158 20 0	248,377	90.9	5.4	7.3	10	550	1	.30	47
AC003A1	68 8 0	156 5 0	248,376	77.6	4.6	5.2	<10	790	1	.36	37
AC004A1	68 45 10	156 20 0	248,220	37.8	5.5	--	10	550	1	--	22
AC005A1	69 4 0	155 12 0	248,152	84.4	4.3	7.3	<10	730	2	.13	53
AC006A1	69 6 0	153 45 0	248,301	69.5	5.1	5.8	10	790	1	.45	34
AC007A1	68 15 0	152 40 0	248,253	89.3	4.5	6.9	<10	440	2	.05	46
AC008A1	68 52 0	152 7 0	248,000	68.3	4.0	4.7	<10	470	<1	.13	30
AC009A1	69 13 0	152 15 0	248,416	94.2	7.4	5.1	10	570	1	4.17	37
AC010A1	69 42 0	151 57 0	248,355	96.6	5.1	2.0	<10	280	<1	.15	18
AC011A1	68 20 0	151 0 0	248,413	95.4	7.7	2.2	<10	220	<1	6.23	25
AC012A1	68 24 0	149 55 0	248,096	84.5	5.5	2.8	<10	200	<1	.45	31
AC013A1	69 25 0	150 45 0	248,254	87.3	6.9	4.1	10	510	1	3.45	32
AC014A1	69 54 0	151 15 0	248,449	94.9	7.2	4.6	<10	570	1	.81	39
AC015A1	70 15 0	150 54 0	248,031	85.1	6.6	3.5	<10	710	<1	.83	29
AC016A1	65 20 0	154 58 1	248,148	84.8	6.0	6.5	<10	500	<1	2.53	26
AC016D1	65 20 0	154 58 1	248,021	75.6	4.6	5.8	<10	590	1	1.01	41
AC017A1	64 3 4	156 58 6	248,063	94.9	5.1	7.5	<10	490	<1	4.52	17
AC017D1	64 3 4	156 58 6	248,306	96.7	6.3	6.8	<10	1,500	<1	4.15	22
AC018A1	51 26 30	E179 11 0	248,468	94.0	5.3	6.6	10	480	<1	1.49	17
AC019A1	63 4 0	141 40 0	248,028	78.2	4.0	6.7	<10	660	<1	1.79	32
AC020A1	63 17 0	143 14 0	248,287	80.2	5.3	6.6	10	610	1	1.92	160
AC020D1	63 17 0	143 14 0	248,363	74.5	5.3	6.0	<10	710	1	1.67	180
AC021A1	67 35 0	149 33 0	248,335	93.4	7.5	4.3	10	270	<1	13.72	25
AC021D1	67 35 0	149 33 0	248,394	96.7	8.0	4.0	10	240	<1	15.79	28
AC022A1	67 7 0	147 5 0	248,446	97.0	5.9	6.7	<10	960	2	.79	34
AC023A1	57 41 0	133 30 0	248,073	94.7	5.2	6.9	<10	1,800	2	1.81	57
AC024A1	58 0 0	133 42 0	248,278	83.8	5.1	7.2	20	860	1	3.17	33
AC025A1	63 23 0	155 26 0	248,245	88.7	4.5	6.5	10	700	1	.26	26
AC025D1	63 23 0	155 26 0	248,269	92.2	5.0	--	20	750	1	--	33
AC026A1	63 36 0	154 13 0	248,409	92.8	4.7	6.0	90	870	1	.53	37
AC027A1	66 52 37	162 38 9	248,227	96.5	8.4	2.9	<10	690	<1	8.72	11
AC027D1	66 52 37	162 38 9	248,359	96.5	8.0	2.7	<10	760	<1	7.79	10
AC028A1	66 33 49	145 15 38	248,432	84.1	7.1	5.7	10	740	1	2.79	39
AC028D1	66 33 49	145 15 38	248,337	91.7	7.2	5.5	<10	890	1	3.94	31
AC029A1	60 8 1	149 25 2	248,374	96.5	5.8	8.1	10	860	1	.77	37
AC029D1	60 8 1	149 25 2	248,429	95.1	5.8	7.9	10	870	1	.75	32
AC030A1	61 31 3	144 26 9	248,354	88.8	7.0	6.7	<10	490	<1	4.04	38
AC030D1	61 31 3	144 26 9	248,006	65.6	5.3	4.7	<10	390	<1	3.82	28
AC031A1	63 1 6	141 47 48	248,209	95.4	5.7	8.2	20	850	2	2.14	32
AC031D1	63 1 6	141 47 48	248,027	94.8	5.9	7.9	<10	820	1	2.53	30
AC032A1	66 53 4	157 1 9	248,193	96.4	5.0	7.7	20	660	2	.81	60
AC032D1	66 53 4	157 1 9	248,247	96.4	4.7	7.0	30	570	2	.86	53
AC033A1	62 20 0	149 38 0	248,032	81.3	4.6	7.4	<10	560	<1	1.97	28
AC033D1	62 20 0	149 38 0	248,319	81.7	4.4	7.1	<10	550	<1	2.01	23

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.

Sample	Co ppm-S	Cr ppm-S	Cu ppm-S	Dy ppm-S	Fe %	Ga ppm-S	K %	La ppm-S	Li ppm-S	Mg %
AC001A1	14	71	23	<4	3.8	16	1.50	26	61	.89
AC002A1	20	91	23	<4	4.4	20	1.59	29	68	1.29
AC003A1	15	65	26	<4	3.1	17	.94	24	46	.55
AC004A1	22	46	42	<4	--	22	--	16	30	--
AC005A1	12	72	24	5	4.2	18	1.45	29	54	.80
AC006A1	18	75	18	<4	5.0	15	1.29	22	44	.87
AC007A1	15	72	33	<4	4.0	15	1.53	27	48	.49
AC008A1	9	49	26	5	2.6	10	.89	19	29	.37
AC009A1	13	59	22	<4	3.2	13	1.42	26	36	1.43
AC010A1	5	30	7	<4	1.2	6	.47	12	16	.20
AC011A1	7	35	13	<4	1.8	8	.51	15	19	.78
AC012A1	9	30	13	<4	2.3	7	.53	18	22	.28
AC013A1	11	51	30	<4	2.6	10	1.06	18	48	1.19
AC014A1	13	64	20	<4	3.0	10	.95	25	36	.58
AC015A1	12	35	18	<4	2.4	9	.86	18	25	.61
AC016A1	22	170	47	5	5.5	17	1.10	18	29	2.35
AC016D1	17	70	35	6	3.1	13	1.03	25	30	.97
AC017A1	49	170	170	13	9.5	20	.36	11	17	3.13
AC017D1	49	180	110	<4	6.7	25	.60	17	15	2.87
AC018A1	13	41	19	<4	3.2	18	.83	12	24	.85
AC019A1	18	54	39	8	4.3	15	1.06	20	19	1.10
AC020A1	22	51	37	12	3.6	16	1.49	92	24	.87
AC020D1	9	25	24	13	2.2	18	2.43	85	19	.57
AC021A1	12	41	16	<4	2.8	13	.81	15	19	2.03
AC021D1	12	41	11	<4	2.7	11	.77	13	20	1.72
AC022A1	10	37	12	<4	2.2	15	2.42	22	29	.59
AC023A1	15	63	35	8	5.0	17	1.65	36	40	1.90
AC024A1	26	93	39	<4	4.9	21	1.02	25	21	1.60
AC025A1	15	89	23	<4	4.5	15	1.38	18	56	1.18
AC025D1	24	87	29	<4	--	21	--	18	50	--
AC026A1	15	79	22	<4	3.7	16	1.42	22	31	.91
AC027A1	14	120	16	<4	2.7	10	.27	7	15	2.84
AC027D1	13	80	22	<4	2.6	9	.26	6	16	2.26
AC028A1	15	73	28	<4	3.4	16	1.24	24	27	1.65
AC028D1	14	70	25	<4	3.1	13	1.30	22	20	1.34
AC029A1	18	95	49	<4	4.6	20	1.82	25	53	1.53
AC029D1	15	95	35	<4	4.5	20	1.80	24	49	1.51
AC030A1	18	70	33	<4	4.1	16	.82	25	18	1.56
AC030D1	13	42	41	<4	3.0	9	.73	16	11	1.27
AC031A1	11	39	33	<4	3.3	18	2.10	23	20	.89
AC031D1	10	17	25	8	2.8	20	1.93	20	20	.81
AC032A1	18	63	25	<4	4.6	21	2.27	33	38	1.27
AC032D1	15	56	25	<4	4.2	17	2.06	33	35	1.15
AC033A1	7	14	15	4	2.8	15	1.08	15	16	.78
AC033D1	8	22	13	<4	2.8	14	1.06	14	16	.74

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.

Sample	Mn %	Mo ppm-S	Na %	Nb ppm-S	Nd ppm-S	Ni ppm-S	P %	Pb ppm-S	Sc ppm-S	Si %
AC001A1	.02	<2	1.38	10	32	42	.07	10	13	32
AC002A1	.09	<2	1.24	15	31	54	.09	15	15	28
AC003A1	.10	<2	.69	10	29	38	.24	17	12	26
AC004A1	--	3	--	5	18	56	--	9	10	--
AC005A1	.02	<2	.91	8	18	33	.07	17	16	26
AC006A1	.13	2	.74	8	22	53	.12	10	13	20
AC007A1	.02	<2	.27	9	30	46	.06	15	14	30
AC008A1	<.02	4	.42	5	16	21	.08	10	11	23
AC009A1	.04	<2	.73	10	39	37	.09	13	10	29
AC010A1	<.02	<2	.50	<4	11	14	.03	11	4	41
AC011A1	.03	<2	.21	5	37	22	.06	8	5	32
AC012A1	<.02	<2	.17	<4	7	17	.08	10	6	34
AC013A1	.03	<2	.71	9	26	32	.08	14	8	28
AC014A1	.06	<2	.70	9	26	36	.07	12	10	35
AC015A1	.05	<2	.56	<4	14	27	.07	12	8	32
AC016A1	.07	<2	1.52	9	18	71	.09	6	27	23
AC016D1	.05	<2	.95	8	16	32	.09	14	18	24
AC017A1	.16	<2	2.05	11	29	81	.07	5	39	22
AC017D1	.27	<2	1.55	12	40	87	.03	9	32	26
AC018A1	.13	<2	1.73	9	25	33	.19	11	11	31
AC019A1	.08	<2	1.37	6	20	24	.08	14	16	22
AC020A1	.12	<2	1.35	10	110	28	.13	19	17	23
AC020D1	.03	<2	1.03	10	120	18	.07	21	9	22
AC021A1	.07	<2	.85	5	69	28	.06	9	10	18
AC021D1	.08	<2	.79	5	82	28	.07	14	10	18
AC022A1	.02	<2	1.25	10	26	18	.05	30	8	34
AC023A1	.05	4	1.60	15	32	21	.20	18	22	28
AC024A1	.13	3	1.99	18	40	53	.16	13	19	22
AC025A1	.03	<2	.93	8	17	41	.07	15	12	29
AC025D1	--	<2	--	11	21	60	--	20	14	--
AC026A1	.05	<2	.70	11	19	44	.05	31	12	31
AC027A1	.05	<2	.69	6	45	54	.05	6	13	28
AC027D1	.05	<2	.68	4	33	40	.04	5	12	29
AC028A1	.06	<2	1.28	11	37	38	.09	13	13	24
AC028D1	.06	<2	1.48	11	42	40	.10	10	12	28
AC029A1	.07	<2	1.91	12	30	46	.11	7	18	30
AC029D1	.07	<2	1.78	14	24	41	.11	16	17	29
AC030A1	.07	<2	1.94	10	47	34	.07	9	18	25
AC030D1	.06	<2	1.31	5	20	23	.07	7	13	18
AC031A1	.05	<2	2.37	9	31	18	.05	17	10	29
AC031D1	.05	<2	2.53	6	23	8	.06	10	6	30
AC032A1	.08	<2	1.40	11	39	31	.08	19	17	30
AC032D1	.06	<2	1.41	10	42	28	.08	16	15	31
AC033A1	.05	<2	1.91	5	14	5	.10	10	9	24
AC033D1	.05	<2	2.11	7	29	6	.12	6	10	24

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.

Sample	Sn ppm-S	Sr ppm-S	Th ppm	Ti %	U ppm	V ppm-S	Y ppm-S	Yb ppm-S	Zn ppm-S
AC001A1	<4	80	9.8	.59	2.73	140	14	1	100
AC002A1	4	81	9.7	.67	3.02	170	16	2	110
AC003A1	4	70	6.2	.48	2.41	130	16	2	70
AC004A1	<4	64	7.8	--	1.17	87	16	1	140
AC005A1	<4	73	8.4	.57	2.77	140	13	1	80
AC006A1	<4	68	5.2	.44	2.26	130	13	2	80
AC007A1	<4	67	11.2	.59	3.29	140	14	1	80
AC008A1	4	50	7.3	.47	2.58	92	8	<1	50
AC009A1	<4	120	9.8	.47	3.00	100	17	2	80
AC010A1	<4	50	3.8	.25	1.27	50	5	<1	30
AC011A1	<4	83	3.5	.20	2.03	58	11	1	70
AC012A1	<4	35	7.1	.26	1.81	60	9	<1	30
AC013A1	5	110	7.8	.41	2.76	87	13	1	80
AC014A1	<4	75	8.1	.45	2.70	110	16	2	70
AC015A1	<4	69	5.7	.35	2.11	67	11	1	70
AC016A1	<4	180	4.5	.71	1.76	210	15	2	60
AC016D1	<4	130	8.5	.55	2.93	120	15	2	60
AC017A1	<4	130	2.4	1.39	.65	320	21	2	120
AC017D1	5	110	2.8	.98	.92	280	21	2	80
AC018A1	<4	180	3.7	.42	1.21	99	13	1	70
AC019A1	<4	250	5.1	.50	2.78	130	14	2	70
AC020A1	<4	220	30.0	.39	11.10	100	64	5	50
AC020D1	6	190	22.4	.26	4.69	51	63	6	40
AC021A1	<4	160	4.8	.29	1.61	76	12	1	60
AC021D1	4	180	4.9	.27	1.46	70	12	1	60
AC022A1	<4	250	11.0	.30	3.27	75	9	<1	60
AC023A1	<4	210	11.3	.65	5.60	180	20	2	120
AC024A1	4	270	13.3	.73	12.80	180	22	2	100
AC025A1	<4	61	11.3	.57	2.63	160	9	1	70
AC025D1	5	110	6.7	--	2.84	150	11	1	70
AC026A1	8	86	3.9	.51	1.61	140	13	1	100
AC027A1	5	210	<1.5	.24	.94	94	9	<1	40
AC027D1	<4	190	2.5	.27	.76	100	9	1	40
AC028A1	4	250	7.2	.49	5.12	130	17	2	110
AC028D1	4	280	5.4	.45	2.34	110	16	2	90
AC029A1	<4	250	6.6	.57	2.75	170	18	1	100
AC029D1	7	240	7.3	.54	2.60	170	17	2	90
AC030A1	<4	370	4.9	.57	2.93	140	22	2	60
AC030D1	<4	280	5.0	.43	1.91	94	14	2	60
AC031A1	<4	370	14.6	.41	3.09	88	12	1	50
AC031D1	<4	540	5.8	.41	2.13	64	10	1	60
AC032A1	5	91	13.5	.62	3.45	120	26	3	100
AC032D1	<4	91	11.6	.64	3.18	110	26	3	80
AC033A1	<4	350	4.6	.35	1.63	68	10	1	40
AC033D1	<4	330	5.2	.35	1.67	83	12	1	50

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.--continued

Sample	Latitude	Longitude	LAB. NO.	Ash %	pH	Al %	As ppm-S	Ba ppm-S	Be ppm-S	Ca %	Ce ppm-S
AC035A1	64 1 0	153 25 35	248,069	95.6	4.8	7.9	10	790	1	1.49	38
AC035D1	64 1 0	153 25 35	248,263	96.6	5.3	2.5	<10	400	<1	.29	8
AC036A1	64 33 0	155 34 0	248,280	95.4	5.3	7.4	20	820	1	1.03	53
AC037A1	64 27 32	144 55 20	248,371	71.8	5.7	6.2	190	600	1	1.92	41
AC037D1	64 27 32	144 55 20	248,131	42.4	3.8	--	<10	440	<1	--	21
AC038A1	64 38 30	145 45 15	248,322	57.5	4.2	--	<10	560	1	--	34
AC038D1	64 38 30	145 45 15	248,036	37.1	3.7	--	<10	360	<1	--	30
AC039A1	60 55 50	149 33 58	248,111	79.1	5.6	6.2	<10	600	<1	1.41	30
AC040A1	60 10 3	149 24 10	248,364	69.9	4.8	6.1	40	670	1	1.07	31
AC041A1	60 30 0	149 24 4	248,003	96.8	5.8	7.1	20	640	<1	.54	28
AC042A1	55 59 53	131 26 41	248,138	74.9	4.3	5.3	<10	710	<1	1.42	14
AC042D1	55 59 53	131 26 41	248,114	25.7	4.1	--	<10	190	<1	--	8
AC043A1	62 30 0	150 49 0	248,267	82.1	4.6	7.0	<10	600	<1	2.00	14
AC044A1	70 13 0	148 30 0	248,150	78.1	6.0	3.8	<10	430	1	1.33	29
AC045A1	69 33 0	148 36 0	248,309	69.9	5.7	3.0	<10	360	<1	.99	26
AC046A1	69 2 0	148 49 0	248,475	20.7	4.5	--	<10	200	<1	--	19
AC047A1	68 30 0	149 30 0	248,018	95.7	4.9	5.9	<10	410	1	.10	56
AC048A1	67 56 0	149 48 0	248,444	92.5	6.5	6.9	<10	400	2	.49	48
AC049A1	67 16 0	150 12 0	248,284	97.7	5.6	4.3	10	400	<1	.18	78
AC050A1	66 41 0	150 37 0	248,320	96.4	4.9	8.4	<10	1,300	3	2.14	110
AC051A1	66 5 0	150 9 0	248,417	95.1	6.9	5.9	10	880	1	1.26	43
AC052A1	68 49 0	148 21 0	248,341	93.9	6.3	9.6	<10	2,200	3	.36	49
AC052D1	68 49 0	148 21 0	248,342	91.4	5.2	9.5	<10	2,100	3	.08	45
AC052D2	68 49 0	148 21 0	248,398	93.1	5.3	9.7	<10	2,200	3	.15	48
AC053A1	68 24 0	148 3 0	248,326	91.2	5.5	8.7	10	630	2	.20	58
AC054A1	58 38 2	137 38 56	248,275	94.8	6.2	7.8	<10	260	<1	5.13	<4
AC054A2	58 38 2	137 38 56	248,291	95.4	6.0	7.9	<10	270	<1	5.12	6
AC054D1	58 38 2	137 38 56	248,170	97.9	6.7	8.3	<10	340	<1	4.67	9
AC055A1	68 45 25	148 54 30	248,260	70.5	6.0	4.2	<10	400	1	1.32	31
AC055D1	68 45 25	148 54 30	248,415	96.0	6.8	4.5	10	550	1	.39	37
AC056A1	55 26 57	131 27 26	248,345	94.0	4.5	8.6	<10	1,600	3	.50	89
AC057A1	56 21 22	157 51 50	248,273	88.7	5.2	9.1	50	440	1	2.14	25
AC057D1	56 21 22	157 51 50	248,162	84.6	5.2	8.0	10	450	<1	2.70	17
AC058A1	59 30 45	139 40 20	248,103	85.7	4.7	6.5	30	630	<1	2.79	25
AC058D1	59 30 45	139 40 20	248,165	93.1	5.0	6.9	<10	400	<1	2.79	20
AC059A1	58 55 34	136 46 43	248,089	98.7	7.6	8.1	<10	510	1	4.09	36
AC059A2	58 55 34	136 46 43	248,223	98.7	7.7	8.0	<10	450	1	4.20	30
AC060A1	68 26 0	149 27 45	248,053	96.2	6.5	4.9	<10	330	1	.24	46
AC061A1	59 16 0	160 50 0	248,274	88.1	4.9	7.5	<10	470	1	1.01	20
AC061D1	59 16 0	160 50 0	248,084	71.3	4.9	6.8	<10	470	<1	.97	31
AC062A1	56 32 9	159 40 18	248,099	83.8	5.8	8.2	<10	640	1	3.38	27
AC063A1	61 17 30	151 43 0	248,178	61.0	4.6	3.6	<10	490	<1	.89	10
AC063D1	61 17 30	151 43 0	248,418	68.8	4.8	3.7	<10	460	<1	1.16	13
AC064A1	58 32 15	134 49 30	248,188	79.4	4.4	7.5	<10	110	<1	3.20	7
AC065A1	59 9 22	135 21 44	248,214	95.0	4.7	8.1	<10	740	1	2.66	27

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.--continued

Sample	Co ppm-S	Cr ppm-S	Cu ppm-S	Dy ppm-S	Fe %	Ga ppm-S	K %	La ppm-S	Li ppm-S	Mg %
AC035A1	22	88	30	7	4.7	18	1.37	23	26	1.41
AC035D1	6	30	18	<4	1.3	<4	.50	7	16	.37
AC036A1	19	120	26	<4	4.7	19	1.27	32	28	1.03
AC037A1	18	70	27	<4	3.6	18	1.28	28	25	1.13
AC037D1	5	31	21	<4	--	14	--	13	9	--
AC038A1	17	58	20	<4	--	13	--	24	25	--
AC038D1	7	31	20	5	--	9	--	15	8	--
AC039A1	13	55	22	5	3.7	15	1.10	19	44	.96
AC040A1	29	72	58	<4	4.0	15	1.27	22	44	1.12
AC041A1	14	68	36	7	4.3	15	1.30	19	44	1.37
AC042A1	7	54	23	<4	2.8	17	1.13	13	11	.83
AC042D1	2	9	14	<4	--	6	--	5	12	--
AC043A1	8	17	7	<4	2.6	20	1.20	14	21	.81
AC044A1	7	47	19	<4	2.3	9	.86	18	32	.45
AC045A1	7	44	16	<4	1.7	8	.71	17	25	.32
AC046A1	6	13	21	<4	--	<4	--	9	4	--
AC047A1	14	59	34	<4	3.6	17	1.31	34	41	.58
AC048A1	12	60	12	<4	3.4	18	1.93	28	36	1.40
AC049A1	47	47	46	<4	3.9	14	.86	35	31	.60
AC050A1	10	19	8	<4	3.3	21	3.37	49	24	.59
AC051A1	16	73	28	<4	3.6	15	1.33	30	34	.91
AC052A1	23	95	46	<4	6.2	32	2.81	34	110	1.12
AC052D1	22	98	48	<4	5.9	27	2.88	30	110	1.11
AC052D2	23	100	47	<4	5.9	26	2.90	28	120	1.15
AC053A1	24	110	42	<4	4.6	23	1.83	41	110	.52
AC054A1	33	150	53	<4	6.4	17	.53	8	28	3.33
AC054A2	28	120	56	7	6.2	18	.55	7	18	3.24
AC054D1	28	120	61	<4	5.8	18	.70	9	18	2.89
AC055A1	11	51	23	<4	2.7	14	.88	21	32	.42
AC055D1	16	57	29	<4	3.6	13	1.00	24	37	.57
AC056A1	29	250	19	<4	7.8	19	3.74	59	37	1.08
AC057A1	20	44	40	<4	6.1	23	1.30	16	32	1.16
AC057D1	16	35	33	<4	5.2	26	1.03	14	25	1.36
AC058A1	15	58	32	<4	4.7	16	.80	17	19	1.37
AC058D1	12	62	26	<4	3.5	15	.84	15	25	1.39
AC059A1	13	38	23	9	3.5	19	1.03	21	12	1.42
AC059A2	13	44	20	<4	3.6	18	1.00	20	14	1.39
AC060A1	15	49	28	4	3.3	14	1.06	29	38	.40
AC061A1	8	19	18	<4	3.9	18	1.33	16	26	.62
AC061D1	9	25	17	5	2.8	17	.77	16	23	.62
AC062A1	14	7	24	10	5.5	20	.90	16	13	1.16
AC063A1	4	23	14	<4	.9	10	.86	10	11	.31
AC063D1	5	25	17	<4	1.3	9	.81	10	10	.48
AC064A1	27	170	93	<4	9.2	20	.22	8	52	2.60
AC065A1	21	91	25	<4	5.5	23	1.26	19	27	1.83

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.--continued

Sample	Mn %	Mo ppm-S	Na %	Nb ppm-S	Nd ppm-S	Ni ppm-S	P %	Pb ppm-S	Sc ppm-S	Si %
AC035A1	.07	<2	1.44	8	18	46	.04	15	19	29
AC035D1	<.02	11	.40	<4	8	15	<.02	8	5	40
AC036A1	.05	3	1.11	16	33	44	.03	23	19	30
AC037A1	.08	<2	.94	11	42	30	.08	17	16	20
AC037D1	--	<2	--	4	11	8	--	14	8	--
AC038A1	--	<2	--	7	28	30	--	12	12	--
AC038D1	--	<2	--	<4	12	14	--	11	9	--
AC039A1	.07	<2	1.26	5	19	21	.09	12	14	24
AC040A1	.12	<2	1.22	9	25	53	.14	22	15	19
AC041A1	.08	3	1.66	<4	14	31	.10	13	15	32
AC042A1	.03	<2	1.73	7	10	19	.10	90	12	23
AC042D1	--	2	--	<4	<4	5	--	8	4	--
AC043A1	.07	<2	1.91	9	20	5	.15	17	8	25
AC044A1	.04	<2	.50	<4	21	28	.10	10	9	28
AC045A1	<.02	<2	.33	6	20	27	.09	12	6	26
AC046A1	--	5	--	<4	14	21	--	6	4	--
AC047A1	.03	<2	.38	9	27	33	.06	20	14	34
AC048A1	.03	<2	1.19	12	34	25	.05	17	13	30
AC049A1	.13	<2	.77	5	35	100	.07	18	11	37
AC050A1	.05	<2	2.20	17	56	8	.16	35	9	29
AC051A1	.07	<2	1.09	13	32	42	.09	15	13	32
AC052A1	.29	<2	.58	35	32	130	.17	15	19	26
AC052D1	.09	<2	.53	34	33	95	.09	9	19	26
AC052D2	.09	<2	.53	35	18	100	.11	15	19	26
AC053A1	.07	<2	.24	17	44	65	.07	21	19	29
AC054A1	.12	<2	1.89	9	27	70	.05	8	27	24
AC054A2	.12	<2	1.96	6	27	52	.05	4	30	25
AC054D1	.12	<2	2.11	8	30	54	.07	<4	25	27
AC055A1	.05	<2	.44	6	27	27	.10	14	9	24
AC055D1	.05	<2	.47	11	22	41	.08	16	11	35
AC056A1	.05	6	.69	34	50	48	.27	10	27	24
AC057A1	.17	2	1.92	7	28	12	.16	35	19	23
AC057D1	.11	3	2.28	11	34	25	.14	22	19	22
AC058A1	.15	4	1.82	4	26	26	.07	<4	18	25
AC058D1	.07	<2	2.11	7	23	25	.06	5	16	29
AC059A1	.07	<2	2.67	6	22	16	.09	<4	14	29
AC059A2	.07	<2	2.82	8	37	18	.09	5	14	30
AC060A1	<.02	<2	.21	6	21	32	.05	19	11	36
AC061A1	.09	<2	1.84	10	31	8	.10	7	13	20
AC061D1	.05	<2	1.22	6	18	10	.19	9	16	20
AC062A1	.12	<2	2.14	7	26	3	.17	8	23	21
AC063A1	<.02	<2	.76	<4	6	8	.07	7	6	21
AC063D1	.02	<2	.77	4	14	10	.09	6	6	24
AC064A1	.14	<2	2.06	6	28	29	.08	4	30	16
AC065A1	.12	3	2.13	12	33	36	.04	12	18	27

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.--continued

Sample	Sn ppm-S	Sr ppm-S	Th ppm	Ti %	U ppm	V ppm-S	Y ppm-S	Yb ppm-S	Zn ppm-S
AC035A1	<4	180	8.9	.60	2.72	150	12	2	100
AC035D1	<4	50	3.6	.18	2.90	250	4	<1	<20
AC036A1	7	150	11.9	.71	3.07	170	19	2	70
AC037A1	4	180	3.3	.47	1.38	110	17	2	90
AC037D1	<4	94	6.0	--	2.10	56	5	<1	40
AC038A1	<4	130	9.7	--	4.52	84	12	<1	60
AC038D1	<4	80	6.3	--	2.11	46	7	<1	60
AC039A1	<4	230	5.3	.44	2.18	110	11	1	60
AC040A1	<4	170	6.6	.46	2.77	130	20	2	130
AC041A1	<4	170	5.2	.47	2.12	120	9	<1	70
AC042A1	7	290	3.0	.35	2.02	82	7	<1	120
AC042D1	<4	120	<6.7	--	16.00	22	4	<1	<20
AC043A1	4	430	4.9	.41	2.24	73	9	<1	50
AC044A1	13	75	7.2	.36	3.31	85	13	<1	110
AC045A1	12	56	<3.7	.26	3.35	74	12	<1	90
AC046A1	41	27	4.0	--	.93	30	11	<1	20
AC047A1	<4	59	11.5	.62	3.20	110	15	2	80
AC048A1	7	48	13.3	.53	2.94	110	9	<1	60
AC049A1	<4	49	7.5	.35	3.59	99	16	1	150
AC050A1	7	660	26.5	.43	6.77	99	27	3	50
AC051A1	10	170	9.7	.49	4.20	120	17	2	90
AC052A1	4	120	15.7	.63	3.42	190	13	1	260
AC052D1	6	93	15.7	.63	3.17	180	10	<1	190
AC052D2	5	100	12.8	.64	3.51	180	12	1	200
AC053A1	5	80	15.3	.69	4.05	180	17	2	150
AC054A1	<4	240	2.5	.71	.77	270	18	2	80
AC054A2	<4	240	2.7	.67	.72	230	17	2	70
AC054D1	<4	280	3.0	.63	.94	240	18	2	80
AC055A1	<4	66	9.1	.41	2.62	88	13	1	70
AC055D1	6	55	8.1	.42	2.53	110	15	2	90
AC056A1	5	100	9.3	1.53	2.19	180	16	1	60
AC057A1	<4	240	5.7	.65	2.11	170	19	2	110
AC057D1	5	290	4.7	.70	1.83	170	24	2	130
AC058A1	<4	280	4.9	.47	3.43	120	17	2	40
AC058D1	<4	310	3.7	.46	1.54	120	16	2	50
AC059A1	<4	500	5.0	.52	2.18	110	20	2	40
AC059A2	<4	460	5.4	.55	2.32	120	21	2	50
AC060A1	<4	53	9.1	.43	2.56	91	12	1	90
AC061A1	<4	150	4.2	.53	2.12	100	23	3	70
AC061D1	<4	150	4.6	.55	1.69	93	18	2	50
AC062A1	<4	310	4.0	.78	1.29	140	26	3	90
AC063A1	<4	150	3.4	.18	.77	47	6	<1	20
AC063D1	<4	180	<2.7	.19	.86	62	7	<1	30
AC064A1	<4	220	2.8	.67	.54	360	9	<1	70
AC065A1	6	310	5.1	.67	1.98	170	15	2	90

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.--continued

Sample	Latitude	Longitude	LAB. NO.	Ash %	pH	Al %	As ppm-S	Ba ppm-S	Be ppm-S	Ca %	Ce ppm-S
AC066A1	61 34 52	149 42 0	248,303	92.8	5.9	7.4	10	640	<1	2.41	24
AC067A1	62 8 37	150 2 14	248,205	91.1	5.0	8.9	<10	590	<1	2.72	27
AC067D1	62 8 37	150 2 14	248,168	93.0	5.4	9.5	<10	630	1	2.75	30
AC068A1	62 52 0	149 50 10	248,395	61.7	4.6	6.7	10	390	<1	1.04	22
AC069A1	63 4 7	149 32 14	248,466	94.3	4.6	5.1	10	770	<1	.70	27
AC069D1	63 4 7	149 32 14	248,047	91.8	4.7	5.7	<10	760	<1	.68	21
AC070A1	63 19 30	148 15 0	248,093	92.4	5.1	6.9	<10	1,000	1	2.57	56
AC070A2	63 19 30	148 15 0	248,066	92.0	4.7	7.0	<10	960	1	2.59	32
AC071A1	63 42 0	148 50 14	248,463	93.6	5.1	6.5	20	950	1	1.49	37
AC071D1	63 42 0	148 50 14	248,174	93.7	4.9	6.4	20	980	1	1.42	18
AC072A1	63 33 0	149 39 0	248,277	82.6	4.9	7.1	<10	870	1	1.16	36
AC072D1	63 33 0	149 39 0	248,175	93.8	6.1	6.6	<10	790	1	1.61	34
AC073A1	63 30 45	150 53 14	248,479	94.6	5.5	8.4	<10	370	<1	.34	22
AC073A2	63 30 45	150 53 14	248,161	94.0	5.4	8.5	<10	930	2	.33	38
AC074A1	64 12 45	149 15 0	248,403	97.0	5.2	7.0	20	1,000	2	.65	49
AC075A1	64 43 7	148 33 44	248,124	95.9	5.5	7.0	<10	770	1	1.64	33
AC075D1	64 43 7	148 33 44	248,457	95.1	5.3	6.9	10	750	1	1.60	40
AC076A1	65 12 45	148 7 30	247,998	96.0	4.8	5.8	<10	750	1	.40	36
AC077A1	65 18 22	149 6 0	248,109	95.5	4.6	6.0	10	810	1	.55	33
AC077D1	65 18 22	149 6 0	248,439	95.6	4.5	5.8	20	750	<1	.61	32
AC078A1	65 10 30	149 58 30	248,192	95.6	4.8	6.6	20	790	1	.85	31
AC078A2	65 10 30	149 58 30	248,119	95.9	4.3	6.6	<10	820	1	.93	36
AC078D1	65 10 30	149 58 30	248,200	93.6	4.2	6.2	10	760	1	.80	26
AC079A1	65 4 52	150 38 14	248,133	96.7	5.8	6.4	<10	950	1	1.63	44
AC079A2	65 4 52	150 38 14	248,333	96.3	5.9	6.4	10	950	1	1.61	51
AC080A1	64 30 45	146 56 14	248,025	91.6	4.8	7.2	10	760	1	1.52	40
AC080D1	64 30 45	146 56 14	248,381	92.7	4.9	7.2	10	790	1	1.46	44
AC081A1	63 34 0	145 53 14	248,166	87.5	4.9	7.4	20	650	1	1.67	36
AC081D1	63 34 0	145 53 14	248,211	88.8	4.6	7.5	30	650	1	1.71	35
AC082A1	63 53 15	145 12 0	248,336	92.8	5.1	7.5	10	650	1	1.34	45
AC083A1	63 42 0	144 2 14	248,244	94.3	5.7	8.3	20	750	1	1.80	32
AC084A1	63 41 15	142 14 14	248,334	96.4	5.0	7.6	<10	1,100	2	1.56	47
AC084D1	63 41 15	142 14 14	248,123	97.3	5.0	7.8	<10	1,200	3	1.72	61
AC084D2	63 41 15	142 14 14	248,385	97.4	5.3	7.7	10	1,100	3	1.73	68
AC085A1	64 9 22	141 25 30	248,286	92.5	4.4	8.5	10	880	2	.95	43
AC086A1	64 46 7	141 13 30	248,289	96.0	5.5	6.3	<10	910	1	1.37	34
AC086D1	64 46 7	141 13 30	248,350	95.7	4.9	6.1	<10	790	1	1.17	21
AC087A1	62 43 7	144 6 44	248,203	97.5	7.0	7.6	20	640	<1	3.52	20
AC087A2	62 43 7	144 6 44	248,076	97.3	7.0	7.6	<10	670	<1	3.40	25
AC088A1	62 46 52	145 27 0	248,238	94.3	6.0	7.3	<10	570	<1	2.89	8
AC088D1	62 46 52	145 27 0	248,295	96.0	6.6	7.4	<10	610	<1	3.04	20
AC089A1	62 16 30	145 24 0	248,405	98.4	7.0	8.3	<10	580	<1	3.62	27
AC089D1	62 16 30	145 24 0	248,233	98.5	6.9	8.3	<10	550	<1	3.68	15
AC090A1	62 5 37	146 20 14	248,181	97.2	6.9	7.5	10	400	<1	3.80	7
AC091A1	61 48 22	147 45 0	248,101	94.5	5.8	8.3	10	700	<1	1.61	33

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.--continued

Sample	Co ppm-S	Cr ppm-S	Cu ppm-S	Dy ppm-S	Fe %	Ga ppm-S	K %	La ppm-S	Li ppm-S	Mg %
AC066A1	14	36	19	<4	4.0	19	.99	16	28	.95
AC067A1	7	9	9	<4	3.3	21	1.25	17	21	.95
AC067D1	11	8	11	<4	3.4	25	1.31	19	22	1.00
AC068A1	5	22	16	<4	2.5	16	.75	15	15	.49
AC069A1	11	78	15	<4	3.7	19	1.48	18	32	1.04
AC069D1	11	62	22	7	3.4	16	1.34	17	33	.95
AC070A1	14	71	18	7	3.4	17	1.09	34	25	1.47
AC070A2	14	67	21	6	3.4	18	1.12	20	23	1.47
AC071A1	20	92	21	<4	4.0	17	1.13	24	34	1.21
AC071D1	18	82	24	<4	4.1	13	1.05	16	36	1.08
AC072A1	26	100	50	<4	5.1	19	1.09	23	32	1.00
AC072D1	25	83	52	<4	5.6	21	1.41	23	31	1.19
AC073A1	6	27	9	<4	4.5	5	2.46	13	12	1.48
AC073A2	22	89	25	<4	4.5	24	2.46	25	24	1.45
AC074A1	19	86	35	<4	3.9	20	1.83	32	34	.90
AC075A1	16	67	22	5	3.9	17	1.38	21	24	1.18
AC075D1	17	83	20	<4	3.8	21	1.30	26	23	1.15
AC076A1	11	52	31	<4	3.1	15	1.69	22	26	.65
AC077A1	14	69	23	<4	4.0	13	1.25	23	32	.78
AC077D1	13	78	17	<4	3.9	10	1.23	22	28	.79
AC078A1	14	91	27	<4	3.9	15	1.41	20	29	1.07
AC078A2	13	69	25	7	3.5	17	1.42	22	26	1.00
AC078D1	11	87	21	<4	3.4	17	1.39	19	26	.92
AC079A1	14	63	27	6	3.6	16	1.40	26	25	1.03
AC079A2	17	81	28	<4	3.7	18	1.39	31	27	1.01
AC080A1	12	66	24	5	3.9	17	1.61	23	22	1.14
AC080D1	12	83	21	<4	3.4	19	1.62	29	25	1.09
AC081A1	16	77	27	<4	3.9	19	1.86	25	24	1.17
AC081D1	17	78	28	<4	4.1	22	1.74	23	24	1.20
AC082A1	15	69	19	<4	3.9	16	1.68	28	22	1.07
AC083A1	20	81	37	<4	5.1	22	1.73	22	38	1.35
AC084A1	11	61	36	<4	2.8	20	3.20	33	23	.99
AC084D1	14	52	60	7	3.2	20	3.08	39	21	1.03
AC084D2	16	68	64	<4	3.2	19	2.99	45	24	1.01
AC085A1	15	84	22	<4	4.2	22	2.27	27	26	1.21
AC086A1	12	55	17	<4	2.8	15	1.31	21	18	.67
AC086D1	9	58	15	<4	2.8	15	1.25	17	19	.60
AC087A1	23	88	43	<4	5.1	17	1.06	15	24	2.07
AC087A2	21	77	45	7	5.1	20	1.13	17	22	2.05
AC088A1	17	81	20	<4	4.0	15	1.13	10	21	1.63
AC088D1	20	97	35	<4	4.3	16	1.03	15	23	1.68
AC089A1	19	77	25	<4	3.8	17	1.18	15	16	1.76
AC089D1	16	71	26	<4	3.4	16	1.17	13	18	1.72
AC090A1	19	70	24	<4	4.5	19	.64	8	24	1.66
AC091A1	24	60	24	<4	4.6	21	1.20	21	41	1.24

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.--continued

Sample	Mn %	Mo ppm-S	Na %	Nb ppm-S	Nd ppm-S	Ni ppm-S	P %	Pb ppm-S	Sc ppm-S	Si %
AC066A1	.07	<2	2.09	10	25	15	.09	10	14	28
AC067A1	.06	<2	2.32	7	35	3	.11	12	7	26
AC067D1	.09	<2	2.42	8	29	4	.10	20	8	26
AC068A1	.02	<2	1.18	6	14	4	.10	19	7	17
AC069A1	.06	<2	1.05	10	19	36	.05	12	11	33
AC069D1	.05	<2	1.23	5	13	33	.08	14	12	31
AC070A1	.07	<2	1.44	6	33	27	.11	13	15	29
AC070A2	.07	<2	1.56	5	17	27	.11	14	15	28
AC071A1	.05	<2	1.31	13	27	53	.04	17	15	30
AC071D1	.05	<2	1.41	7	31	43	.06	12	13	31
AC072A1	.12	3	.99	14	32	51	.14	13	19	24
AC072D1	.10	<2	1.41	18	31	49	.11	11	17	29
AC073A1	.07	<2	1.11	<4	8	15	.07	10	4	29
AC073A2	.07	<2	1.31	9	36	41	.07	41	14	28
AC074A1	.07	<2	1.05	10	31	42	.05	14	15	32
AC075A1	.09	<2	1.51	8	10	32	.06	11	16	31
AC075D1	.07	<2	1.39	15	26	38	.05	20	15	30
AC076A1	.02	7	.66	6	17	19	.03	20	10	34
AC077A1	.05	2	.69	6	9	32	.06	15	13	33
AC077D1	.04	<2	.81	9	25	32	.05	14	11	33
AC078A1	.04	<2	1.28	11	20	43	.06	16	13	32
AC078A2	.03	<2	1.28	9	15	31	.06	15	14	32
AC078D1	.03	<2	1.14	9	20	34	.07	14	12	32
AC079A1	.05	<2	1.45	9	16	29	.09	14	15	32
AC079A2	.06	2	1.33	13	39	40	.09	15	15	32
AC080A1	.05	<2	1.28	9	15	25	.07	17	15	29
AC080D1	.03	<2	1.37	13	31	29	.07	19	16	29
AC081A1	.05	<2	1.33	11	28	37	.08	14	15	26
AC081D1	.09	<2	1.39	10	24	36	.11	13	15	26
AC082A1	.04	<2	1.32	13	37	25	.05	16	13	29
AC083A1	.10	2	1.55	11	34	33	.07	41	17	27
AC084A1	.04	<2	1.98	16	43	22	.06	25	10	30
AC084D1	.06	<2	2.19	13	22	19	.07	30	12	30
AC084D2	.06	<2	2.07	17	44	25	.07	31	12	30
AC085A1	.04	<2	1.11	12	32	21	.07	44	15	28
AC086A1	.04	<2	1.72	10	22	22	.05	13	9	33
AC086D1	.02	<2	1.57	9	21	18	.04	11	8	33
AC087A1	.10	2	1.91	11	31	46	.09	9	22	28
AC087A2	.09	<2	1.94	7	22	40	.09	9	22	28
AC088A1	.07	<2	2.15	7	32	44	.07	6	16	29
AC088D1	.09	<2	2.21	10	29	52	.08	10	19	29
AC089A1	.06	<2	2.40	8	31	47	.06	7	15	29
AC089D1	.05	<2	2.40	12	22	42	.06	6	16	29
AC090A1	.11	<2	1.96	5	29	31	.06	6	20	29
AC091A1	.09	<2	1.85	8	13	31	.07	16	18	28

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.--continued

Sample	Sn ppm-S	Sr ppm-S	Th ppm	Ti %	U ppm	V ppm-S	Y ppm-S	Yb ppm-S	Zn ppm-S
AC066A1	<4	330	4.5	.50	1.81	140	17	2	70
AC067A1	<4	570	5.1	.32	1.80	80	11	1	60
AC067D1	<4	610	6.6	.33	2.15	80	11	1	70
AC068A1	<4	220	5.3	.31	1.91	77	7	<1	30
AC069A1	4	110	5.1	.44	2.51	130	11	1	70
AC069D1	<4	120	7.0	.43	2.26	100	9	<1	70
AC070A1	<4	300	7.5	.49	2.27	120	15	1	50
AC070A2	<4	290	6.0	.47	2.46	120	14	1	80
AC071A1	6	180	7.2	.57	3.21	140	14	2	90
AC071D1	<4	150	6.7	.57	2.62	150	11	1	80
AC072A1	<4	120	7.6	.72	2.81	170	21	2	130
AC072D1	7	130	7.0	.90	3.37	170	21	2	140
AC073A1	<4	40	12.0	.56	2.99	48	9	<1	<20
AC073A2	<4	110	13.7	.55	3.02	100	10	1	160
AC074A1	<4	130	11.1	.51	3.78	130	17	2	90
AC075A1	<4	210	8.7	.59	2.59	120	10	<1	70
AC075D1	5	200	7.5	.59	2.77	140	13	1	70
AC076A1	<4	71	12.5	.44	3.03	80	7	<1	50
AC077A1	<4	120	9.2	.49	2.48	130	9	1	70
AC077D1	<4	120	8.1	.50	2.74	150	10	<1	70
AC078A1	<4	140	9.6	.55	2.62	130	14	1	70
AC078A2	<4	150	10.0	.56	2.78	120	12	1	70
AC078D1	<4	130	9.4	.56	2.79	130	11	1	60
AC079A1	<4	200	8.6	.57	2.95	120	15	2	70
AC079A2	<4	210	10.3	.57	2.99	140	18	2	80
AC080A1	<4	180	8.0	.59	2.86	110	11	1	70
AC080D1	<4	190	10.5	.61	3.15	130	13	<1	70
AC081A1	5	190	13.1	.59	3.93	110	11	<1	70
AC081D1	<4	180	12.9	.60	4.05	110	13	1	80
AC082A1	5	170	12.5	.63	2.92	110	12	<1	60
AC083A1	<4	210	10.9	.64	4.61	150	15	1	160
AC084A1	<4	320	19.2	.43	3.85	93	14	1	70
AC084D1	<4	340	27.4	.44	8.79	89	16	2	60
AC084D2	5	350	27.3	.43	8.52	100	18	2	70
AC085A1	<4	130	12.2	.55	2.66	140	13	1	120
AC086A1	<4	280	5.5	.40	2.04	110	10	1	60
AC086D1	4	230	5.9	.44	2.04	120	10	<1	60
AC087A1	6	310	5.0	.62	1.51	180	18	2	80
AC087A2	<4	320	5.4	.63	1.60	170	17	2	70
AC088A1	<4	300	3.4	.49	1.28	140	13	1	50
AC088D1	<4	300	4.6	.57	1.77	160	17	2	70
AC089A1	<4	480	4.5	.57	1.31	160	15	1	60
AC089D1	5	440	3.4	.60	1.50	130	15	2	60
AC090A1	<4	220	2.5	.52	.95	170	14	1	60
AC091A1	<4	250	6.0	.60	2.50	150	14	1	110

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.--continued

Sample	Latitude	Longitude	LAB. NO.	Ash %	pH	Al %	As ppm-S	Ba ppm-S	Be ppm-S	Ca %	Ce ppm-S
AC091D1	61 48 22	147 45 0	248,067	94.2	5.8	8.2	<10	660	<1	1.98	38
AC092A1	60 47 37	148 54 44	248,389	77.0	4.3	5.8	<10	620	<1	1.11	29
AC093A1	60 8 15	149 23 14	248,143	92.7	5.7	6.9	10	720	<1	.92	24
AC093D1	60 8 15	149 23 14	248,219	88.2	4.2	6.3	<10	540	<1	1.61	14
AC094A1	60 28 52	150 8 14	248,105	95.9	5.5	7.1	<10	660	<1	1.05	39
AC095A1	60 18 45	151 15 0	248,410	89.9	5.3	8.4	<10	620	<1	2.50	23
AC095D1	60 18 45	151 15 0	248,419	91.0	5.5	8.6	<10	540	<1	2.59	19
AC096A1	59 39 0	151 35 14	248,187	81.5	4.7	5.6	30	400	<1	1.49	11
AC096D1	59 39 0	151 35 14	248,428	82.1	4.4	6.1	<10	490	<1	1.83	19
AC097A1	61 4 52	149 48 0	248,329	90.1	4.8	6.4	10	570	<1	1.22	16
AC097D1	61 4 52	149 48 0	248,122	97.0	5.0	6.2	<10	570	<1	1.16	24
AC097D2	61 4 52	149 48 0	248,327	97.0	5.0	6.1	10	550	<1	1.16	27
AC098A1	60 35 30	145 37 0	248,106	94.9	5.5	9.1	<10	700	<1	1.22	42
AC098D1	60 35 30	145 37 0	248,360	95.2	6.0	9.2	<10	700	<1	1.16	30
AC099A1	58 59 0	159 3 0	248,391	65.5	5.1	6.2	<10	380	1	1.14	18
AC099D1	58 59 0	159 3 0	248,132	94.4	5.3	8.6	<10	700	1	1.60	38
AC100A1	57 56 0	156 50 0	248,120	94.0	5.6	6.6	<10	520	<1	1.86	20
AC100A2	57 56 0	156 50 0	248,252	93.9	5.8	6.5	10	490	<1	1.86	13
AC100D1	57 56 0	156 50 0	248,441	93.2	5.9	6.8	<10	560	<1	1.81	23
AC101A1	69 56 0	144 40 0	248,090	88.1	6.5	6.5	<10	580	2	.66	57
AC101D1	69 56 0	144 40 0	248,157	92.3	7.1	7.2	20	640	2	.76	37
AC102A1	69 35 0	146 48 0	248,243	70.9	5.2	2.9	<10	350	<1	.68	21
AC102D1	69 35 0	146 48 0	248,128	92.2	4.8	5.7	<10	580	1	.26	40
AC103A1	69 39 0	143 32 0	248,229	94.6	5.4	5.6	10	1,000	1	.26	36
AC103D1	69 39 0	143 32 0	248,024	96.0	5.8	3.6	<10	800	<1	.27	28
AC104A1	70 7 0	143 40 0	248,268	80.8	6.3	2.4	<10	230	<1	.66	20
AC104D1	70 7 0	143 40 0	247,996	96.3	7.9	2.6	<10	250	1	.49	34
AC105A1	52 22 0	172 30 0	248,279	93.9	5.9	8.6	<10	280	<1	5.74	7
AC105D1	52 22 0	172 30 0	248,173	98.1	7.7	7.8	<10	370	<1	4.44	8
AC106A1	52 7 0	173 43 0	248,087	88.3	5.8	9.3	<10	160	<1	5.44	<4
AC107A1	52 4 0	173 26 0	248,156	52.0	4.8	--	<10	290	<1	--	7
AC108A1	63 55 59	155 25 15	248,043	91.9	5.2	7.4	20	860	1	.46	45
AC108D1	63 55 59	155 25 15	248,442	86.0	4.3	6.2	10	880	<1	.70	31
AC109A1	65 36 0	168 6 0	248,235	82.1	4.5	5.1	<10	240	5	.28	80
AC109A2	65 36 0	168 6 0	248,239	81.3	4.5	5.0	<10	250	5	.28	75
AC109D1	65 36 0	168 6 0	248,357	94.5	5.3	6.4	<10	350	6	.31	61
AC110A1	61 14 30	143 48 36	248,160	95.0	5.1	7.6	20	870	1	1.24	30
AC110D1	61 14 30	143 48 36	248,029	96.9	6.9	8.1	<10	950	1	1.27	36
AC110D2	61 14 30	143 48 36	248,438	97.0	6.5	8.1	10	950	1	1.21	29
AC111A1	60 3 0	158 58 0	248,246	83.5	4.4	5.1	<10	250	<1	.59	12
AC112A1	59 58 0	158 27 0	248,052	82.5	4.1	6.3	<10	490	<1	.91	20
AC113A1	65 34 0	146 42 0	248,437	97.2	5.3	6.7	10	810	2	.57	62
AC113D1	65 34 0	146 42 0	248,151	95.2	5.1	6.7	<10	670	2	.45	37
AC114A1	65 15 0	145 20 0	248,145	80.7	6.1	6.7	<10	700	2	3.11	78
AC115A1	67 15 0	163 16 0	248,125	96.4	5.2	4.4	<10	670	1	.19	36

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.--continued

Sample	Co ppm-S	Cr ppm-S	Cu ppm-S	Dy ppm-S	Fe %	Ga ppm-S	K %	La ppm-S	Li ppm-S	Mg %
AC091D1	25	54	27	9	4.4	23	1.11	23	37	1.19
AC092A1	8	66	14	4	2.9	19	1.12	21	21	.86
AC093A1	9	63	16	6	3.6	18	1.19	20	42	1.10
AC093D1	8	32	10	<4	2.7	21	1.21	14	18	.73
AC094A1	9	49	15	5	3.3	20	1.01	22	28	.85
AC095A1	12	19	17	<4	3.5	24	1.02	15	22	.88
AC095D1	14	30	18	<4	4.2	21	.87	14	25	1.00
AC096A1	16	25	11	<4	10.4	18	.71	10	20	.64
AC096D1	7	22	17	<4	2.2	17	.97	12	14	.73
AC097A1	10	58	16	<4	3.6	16	.96	15	30	.99
AC097D1	10	47	18	9	3.0	16	.98	19	31	.98
AC097D2	11	57	15	<4	3.0	15	.97	18	31	.95
AC098A1	14	68	20	8	6.2	25	1.94	24	49	1.98
AC098D1	16	78	30	<4	5.8	26	1.93	21	53	1.95
AC099A1	7	19	14	8	3.3	17	.83	24	17	.43
AC099D1	15	31	34	10	4.8	18	1.21	20	27	.96
AC100A1	13	28	20	<4	3.9	15	.79	11	22	1.02
AC100A2	14	36	20	<4	3.9	18	.76	10	26	1.07
AC100D1	15	29	18	<4	3.8	19	.84	13	22	.95
AC101A1	13	69	26	<4	3.8	17	1.76	31	60	.80
AC101D1	16	96	34	<4	4.2	14	1.93	26	75	.91
AC102A1	10	37	12	<4	1.7	9	.62	12	21	.39
AC102D1	14	56	23	6	3.0	8	1.20	23	40	.66
AC103A1	18	77	36	<4	3.7	16	1.34	24	57	.66
AC103D1	11	45	26	7	2.2	10	.83	18	32	.43
AC104A1	4	18	11	<4	1.0	7	1.13	15	15	.36
AC104D1	5	21	26	5	1.1	9	1.17	17	12	.28
AC105A1	25	41	71	<4	5.8	19	.67	6	20	2.41
AC105D1	29	23	54	<4	6.3	22	.86	7	22	3.15
AC106A1	27	29	97	8	5.9	21	.47	<2	7	2.94
AC107A1	6	22	44	<4	--	14	--	7	10	--
AC108A1	16	41	57	8	4.2	19	1.15	22	26	.64
AC108D1	13	61	27	<4	4.1	19	1.37	21	23	.75
AC109A1	3	8	10	<4	2.3	15	3.06	50	89	.13
AC109A2	4	9	9	6	2.4	18	3.02	45	93	.14
AC109D1	9	11	3	<4	1.4	24	4.08	31	130	.22
AC110A1	16	93	28	<4	4.5	18	1.47	22	67	1.48
AC110D1	15	89	32	7	4.7	21	1.74	22	54	1.75
AC110D2	16	100	29	<4	4.7	19	1.78	21	58	1.76
AC111A1	8	48	21	<4	3.4	15	1.00	11	23	.80
AC112A1	13	49	26	5	4.2	15	1.24	14	28	.95
AC113A1	15	68	27	<4	3.5	18	2.01	37	34	.83
AC113D1	15	55	22	5	4.0	21	2.02	23	41	.81
AC114A1	25	140	33	7	5.1	17	1.44	50	77	2.26
AC115A1	9	75	30	6	2.4	14	1.46	25	29	.56

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.--continued

Sample	Mn %	Mo ppm-S	Na %	Nb ppm-S	Nd ppm-S	Ni ppm-S	P %	Pb ppm-S	Sc ppm-S	Si %
AC091D1	.12	<2	2.15	9	8	29	.10	18	18	28
AC092A1	.03	<2	1.50	10	23	15	.12	14	13	24
AC093A1	.05	<2	1.97	6	11	18	.05	15	16	30
AC093D1	.05	<2	1.92	9	23	5	.09	11	15	29
AC094A1	.05	<2	1.89	7	20	15	.08	13	15	32
AC095A1	.08	<2	2.15	8	26	8	.07	7	10	26
AC095D1	.08	<2	1.95	9	16	13	.11	10	13	26
AC096A1	.18	2	1.56	5	11	8	.09	5	9	21
AC096D1	.05	<2	1.93	8	27	5	.07	7	11	26
AC097A1	.04	<2	1.90	9	24	22	.07	8	12	29
AC097D1	.04	<2	2.11	6	15	22	.07	9	12	33
AC097D2	.04	<2	2.00	10	21	27	.07	8	11	33
AC098A1	.12	<2	1.45	8	22	31	.10	8	23	26
AC098D1	.12	<2	1.94	12	30	36	.10	13	21	27
AC099A1	.05	2	1.32	9	29	6	.17	11	13	18
AC099D1	.10	<2	2.05	7	25	15	.10	7	21	28
AC100A1	.07	<2	1.77	<4	5	15	.07	6	14	30
AC100A2	.07	<2	1.73	6	15	20	.07	6	14	31
AC100D1	.08	<2	1.60	7	20	16	.07	8	15	30
AC101A1	.02	<2	.55	8	20	34	.10	16	15	29
AC101D1	.02	2	.63	10	29	50	.10	15	16	30
AC102A1	.02	<2	.50	<4	11	20	.09	5	6	26
AC102D1	.02	<2	.61	6	16	31	.05	13	14	33
AC103A1	.06	<2	.70	11	23	50	.10	13	12	33
AC103D1	.02	<2	.53	4	11	29	.10	10	7	38
AC104A1	<.02	<2	.59	<4	11	9	.10	9	3	32
AC104D1	<.02	15	.62	<4	17	10	.10	9	3	40
AC105A1	.12	<2	2.20	5	30	13	.08	<4	33	24
AC105D1	.13	<2	2.55	6	31	31	.07	5	32	27
AC106A1	.09	<2	1.36	<4	17	21	.05	<4	28	19
AC107A1	--	<2	--	<4	16	5	--	9	14	--
AC108A1	.34	3	2.00	6	16	34	.07	14	19	29
AC108D1	.09	3	1.12	14	22	19	.05	16	13	27
AC109A1	.02	3	1.37	11	56	3	.10	31	4	28
AC109A2	.02	2	1.34	8	59	2	.10	32	4	28
AC109D1	.11	<2	1.59	16	27	4	.05	41	4	33
AC110A1	.05	<2	1.71	10	30	42	.09	13	17	29
AC110D1	.06	<2	1.71	7	13	38	.09	11	18	30
AC110D2	.06	<2	1.71	11	26	46	.09	6	17	29
AC111A1	.05	<2	1.14	4	24	23	.08	7	12	28
AC112A1	.07	<2	1.75	6	13	19	.20	9	14	25
AC113A1	.05	<2	.85	12	32	33	.06	20	13	33
AC113D1	.05	<2	.75	7	12	25	.07	20	13	32
AC114A1	.09	<2	1.17	23	49	71	.11	16	17	20
AC115A1	.02	4	.60	5	16	41	.04	7	10	37

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.--continued

Sample	Sn ppm-S	Sr ppm-S	Th ppm	Ti %	U ppm	V ppm-S	Y ppm-S	Yb ppm-S	Zn ppm-S
AC091D1	<4	300	6.3	.57	2.67	140	16	2	100
AC092A1	<4	200	8.0	.51	3.13	130	14	1	40
AC093A1	<4	240	5.2	.53	2.50	140	11	1	60
AC093D1	4	200	4.8	.65	2.17	130	17	2	50
AC094A1	<4	260	5.8	.50	2.33	110	14	1	50
AC095A1	<4	420	7.8	.37	2.46	98	13	2	50
AC095D1	<4	350	3.5	.43	1.57	130	13	1	60
AC096A1	<4	190	3.1	.38	1.30	110	10	<1	30
AC096D1	<4	230	<3.0	.45	1.55	87	14	2	40
AC097A1	<4	250	4.3	.47	1.63	130	12	1	40
AC097D1	<4	240	5.7	.45	1.97	98	11	1	40
AC097D2	<4	250	5.0	.44	1.92	100	13	1	50
AC098A1	<4	220	8.5	.59	2.15	190	18	2	100
AC098D1	4	240	7.6	.58	2.16	200	20	2	60
AC099A1	5	140	5.5	.53	1.76	89	33	3	40
AC099D1	<4	250	4.0	.58	2.09	140	22	2	60
AC100A1	<4	250	2.8	.41	1.21	100	14	2	50
AC100A2	<4	250	4.4	.43	1.05	110	15	2	50
AC100D1	<4	250	3.4	.43	1.19	110	18	2	60
AC101A1	<4	100	8.7	.53	3.39	140	15	2	90
AC101D1	<4	110	8.4	.55	3.45	180	16	1	280
AC102A1	<4	45	5.5	.31	1.81	60	8	<1	50
AC102D1	<4	58	7.9	.50	2.88	110	13	1	70
AC103A1	<4	71	8.9	.45	3.09	140	17	1	110
AC103D1	<4	64	4.6	.32	2.45	86	12	1	70
AC104A1	<4	80	6.0	.12	1.28	32	5	<1	40
AC104D1	<4	67	5.6	.16	1.81	65	7	<1	40
AC105A1	<4	280	1.8	.55	1.14	260	20	2	80
AC105D1	4	240	2.8	.63	1.23	230	23	3	90
AC106A1	<4	260	<1.2	.51	.37	240	11	2	60
AC107A1	<4	130	4.6	--	1.89	130	14	2	90
AC108A1	<4	100	8.0	.49	2.40	110	16	2	90
AC108D1	6	140	7.8	.57	2.30	150	12	1	60
AC109A1	14	50	46.4	.13	44.60	18	28	3	30
AC109A2	16	48	<10.0	.15	45.60	19	28	3	20
AC109D1	18	61	26.4	.17	9.93	20	18	2	50
AC110A1	<4	240	6.1	.55	2.57	170	16	2	110
AC110D1	<4	240	7.2	.54	2.60	150	14	1	80
AC110D2	<4	230	7.2	.53	2.65	160	17	2	90
AC111A1	<4	71	5.1	.39	1.81	99	12	1	40
AC112A1	<4	230	3.8	.50	1.96	130	11	1	60
AC113A1	<4	120	12.7	.47	3.34	110	17	2	70
AC113D1	<4	91	12.0	.46	3.18	97	9	1	70
AC114A1	<4	280	14.3	.88	3.64	130	19	2	90
AC115A1	<4	48	7.6	.39	5.07	120	16	2	110

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.--continued

Sample	Latitude	Longitude	LAB. NO.	Ash %	pH	Al %	As ppm-S	Ba ppm-S	Be ppm-S	Ca %	Ce ppm-S
AC115A2	67 15 0	163 16 0	248,290	96.6	5.3	3.9	<10	710	1	.16	34
AC115D1	67 15 0	163 16 0	248,164	96.4	5.4	2.8	<10	1,700	<1	.16	23
AC116A1	68 15 0	163 46 0	248,117	94.3	5.2	7.1	10	400	1	.25	50
AC116D1	68 15 0	163 46 0	248,318	87.6	4.8	7.3	20	440	1	.26	42
AC117A1	68 8 0	162 29 0	248,452	83.0	4.8	4.7	<10	1,300	<1	.38	42
AC118A1	54 29 6	164 52 34	248,059	93.2	5.7	8.6	<10	380	<1	5.18	19
AC118D1	54 29 6	164 52 34	248,197	94.5	5.7	8.7	10	380	<1	5.42	8
AC118D2	54 29 6	164 52 34	248,344	94.9	6.3	8.7	10	380	<1	5.49	10
AC119A1	56 44 0	132 6 0	248,362	92.9	4.5	7.5	<10	1,500	1	2.72	30
AC119D1	56 44 0	132 6 0	248,321	95.2	4.5	7.6	<10	1,700	1	2.74	39
AC120A1	56 27 0	133 57 0	248,137	77.9	4.2	7.6	<10	200	<1	1.08	11
AC120D1	56 27 0	133 57 0	248,062	86.1	4.1	--	<10	300	<1	--	12
AC121A1	55 15 0	162 47 0	248,210	80.7	5.7	8.4	<10	350	<1	3.26	7
AC121D1	55 15 0	162 47 0	248,097	72.3	5.6	7.6	<10	350	<1	2.93	15
AC121D2	55 15 0	162 47 0	248,144	73.1	5.5	7.6	<10	350	<1	2.92	17
AC122A1	55 17 0	133 14 0	248,266	88.4	4.2	6.1	<10	1,100	<1	.11	<4
AC122D1	55 17 0	133 14 0	248,346	92.5	4.2	6.2	<10	320	<1	.59	<4
AC123A1	55 55 0	132 59 0	248,421	91.3	5.0	7.2	<10	480	<1	1.42	14
AC124A1	51 56 0	176 39 0	248,330	74.9	4.9	7.1	<10	450	<1	2.90	9
AC124D1	51 56 0	176 39 0	248,293	78.5	5.0	7.5	<10	450	<1	3.49	17
AC125A1	58 58 17	160 16 46	248,116	88.2	4.8	8.5	<10	480	1	1.37	29
AC126A1	62 49 12	141 20 56	248,126	97.6	6.5	8.3	<10	630	1	2.77	26
AC126A2	62 49 12	141 20 56	248,459	97.7	7.0	8.2	<10	640	<1	2.67	22
AC127A1	65 50 0	160 37 0	248,380	92.8	5.1	7.1	10	720	1	.63	49
AC127D1	65 50 0	160 37 0	248,001	95.6	4.9	7.2	<10	790	2	.70	45
AC127D2	65 50 0	160 37 0	248,061	95.5	4.8	7.3	<10	720	2	.69	58
AC128A1	66 1 0	160 10 0	248,241	6.6	3.7	--	<10	160	<1	--	8
AC128D1	66 1 0	160 10 0	248,136	22.8	3.8	--	<10	230	<1	--	24
AC129A1	64 52 0	160 25 0	248,130	52.9	6.2	--	20	610	2	--	47
AC129D1	64 52 0	160 25 0	248,139	55.3	7.0	--	20	610	2	--	46
AC130A1	64 33 0	160 45 0	248,014	61.0	5.8	5.1	750	570	1	2.91	44
AC131A1	70 16 0	152 1 0	248,107	74.0	6.9	2.6	<10	370	<1	1.49	29
AC131D1	70 16 0	152 1 0	248,455	80.7	6.3	2.2	<10	350	<1	1.21	18
AC131D2	70 16 0	152 1 0	248,050	80.4	6.2	2.3	<10	360	<1	1.24	39
AC132A1	70 15 0	153 47 0	248,476	97.0	7.3	1.9	<10	340	<1	.79	19
AC132D1	70 15 0	153 47 0	248,092	78.7	4.8	1.8	<10	370	<1	.29	25
AC132D2	70 15 0	153 47 0	248,480	79.7	4.7	1.8	<10	590	<1	.29	13
AC133A1	70 13 0	153 6 45	248,207	67.4	4.9	2.1	<10	300	<1	.55	20
AC134A1	68 28 40	155 48 0	248,110	81.4	7.2	4.5	20	550	1	6.88	54
AC134A2	68 28 40	155 48 0	248,048	82.3	7.0	4.4	20	530	1	6.45	52
AC134D1	68 28 40	155 48 0	248,425	73.6	4.3	--	<10	1,900	<1	--	30
AC135A1	68 21 50	153 57 30	248,065	96.0	5.6	4.8	<10	270	1	.16	47
AC135A2	68 21 50	153 57 30	248,186	96.3	5.5	4.7	<10	240	<1	.15	28
AC136A1	64 34 30	151 30 30	248,240	94.7	5.1	5.8	<10	700	<1	1.76	24
AC137A1	56 5 0	131 6 0	248,201	94.7	5.3	8.4	<10	1,300	1	2.41	28

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.--continued

Sample	Co ppm-S	Cr ppm-S	Cu ppm-S	Dy ppm-S	Fe %	Ga ppm-S	K %	La ppm-S	Li ppm-S	Mg %
AC115A2	11	85	31	<4	2.4	12	1.38	23	27	.50
AC115D1	8	64	28	<4	1.7	7	.95	14	28	.34
AC116A1	17	65	26	5	4.3	17	1.69	30	62	.95
AC116D1	17	78	21	<4	3.8	22	1.88	28	51	.96
AC117A1	9	63	15	<4	2.3	12	1.00	26	51	.34
AC118A1	26	10	59	12	7.7	22	.78	11	11	1.89
AC118D1	35	19	120	7	8.0	30	.72	12	15	2.02
AC118D2	32	15	100	<4	8.0	25	.73	11	14	2.10
AC119A1	8	26	6	<4	2.5	19	1.55	21	7	.75
AC119D1	10	31	7	<4	2.9	17	1.78	28	9	.89
AC120A1	19	26	53	5	6.8	23	.55	9	16	1.57
AC120D1	10	22	16	8	--	28	--	15	15	--
AC121A1	18	10	41	<4	6.1	22	.64	10	15	1.06
AC121D1	14	9	31	9	5.6	21	.59	10	12	.96
AC121D2	13	9	31	10	5.6	21	.59	10	13	.96
AC122A1	4	22	4	<4	.6	14	1.78	4	8	.13
AC122D1	8	59	9	<4	3.2	20	1.08	7	10	.77
AC123A1	17	83	29	<4	6.2	20	1.42	11	16	1.92
AC124A1	11	12	43	<4	3.7	21	1.00	8	10	1.15
AC124D1	17	17	68	<4	5.8	16	.97	10	10	1.12
AC125A1	19	43	33	9	6.4	19	.90	17	21	.98
AC126A1	18	64	33	<4	4.5	18	1.25	16	21	1.69
AC126A2	18	72	33	<4	4.4	21	1.25	15	23	1.66
AC127A1	15	80	20	<4	4.3	19	1.54	31	44	1.01
AC127D1	17	69	41	8	4.4	17	1.58	30	39	1.08
AC127D2	15	67	27	7	4.4	19	1.53	32	38	1.09
AC128A1	5	8	9	<4	--	<4	--	6	3	--
AC128D1	7	15	13	5	--	6	--	8	9	--
AC129A1	10	43	32	6	--	10	--	30	39	--
AC129D1	12	44	28	<4	--	14	--	27	37	--
AC130A1	13	38	35	5	3.3	12	.85	25	20	.90
AC131A1	9	29	16	<4	1.7	9	.56	17	21	.40
AC131D1	7	29	9	<4	1.5	7	.51	12	18	.34
AC131D2	6	26	13	9	1.5	11	.52	17	18	.34
AC132A1	6	27	7	<4	1.3	4	.45	12	15	.31
AC132D1	6	21	10	<4	1.3	4	.36	14	12	.14
AC132D2	18	34	34	<4	1.4	22	.36	10	30	.16
AC133A1	4	25	6	<4	1.4	5	.40	11	14	.15
AC134A1	7	350	57	14	2.2	12	1.02	120	37	3.90
AC134A2	8	350	57	19	2.2	18	1.03	120	34	3.56
AC134D1	9	60	29	<4	--	10	--	23	26	--
AC135A1	15	50	21	<4	4.0	12	.97	29	32	.62
AC135A2	14	54	18	<4	3.8	10	.94	16	35	.63
AC136A1	15	62	16	<4	3.3	19	1.13	17	20	.97
AC137A1	13	64	69	<4	3.8	19	2.16	20	50	2.02

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.--continued

Sample	Mn %	Mo ppm-S	Na %	Nb ppm-S	Nd ppm-S	Ni ppm-S	P %	Pb ppm-S	Sc ppm-S	Si %
AC115A2	.02	5	.45	7	18	52	.04	13	9	37
AC115D1	<.02	3	.27	5	13	48	.05	11	6	39
AC116A1	.04	<2	1.37	8	22	34	.07	16	14	31
AC116D1	.05	<2	1.09	12	35	39	.09	13	15	27
AC117A1	.02	<2	.40	8	29	23	.09	15	10	30
AC118A1	.17	2	2.36	6	27	4	.15	<4	33	22
AC118D1	.16	3	2.28	10	45	10	.13	12	35	22
AC118D2	.16	<2	2.17	9	35	9	.13	9	35	23
AC119A1	.04	<2	2.34	8	22	9	.03	11	9	29
AC119D1	.05	2	2.37	12	37	12	.05	20	9	30
AC120A1	.07	2	2.70	5	4	15	.07	9	14	19
AC120D1	--	<2	--	17	8	6	--	10	9	--
AC121A1	.15	2	1.93	7	31	3	.16	11	20	19
AC121D1	.10	3	1.62	5	18	3	.16	10	20	17
AC121D2	.10	<2	1.77	5	18	3	.16	6	20	17
AC122A1	<.02	<2	2.74	6	4	<2	.03	16	4	31
AC122D1	.02	<2	2.20	14	10	10	.04	11	17	31
AC123A1	.06	<2	1.80	8	14	28	.07	12	18	26
AC124A1	.08	<2	1.70	<4	23	5	.11	5	15	20
AC124D1	.09	2	1.80	7	28	8	.14	12	17	19
AC125A1	.08	<2	1.89	7	24	17	.14	11	23	23
AC126A1	.08	<2	2.43	6	15	32	.08	6	20	29
AC126A2	.08	<2	2.31	11	29	39	.07	10	17	29
AC127A1	.02	<2	1.10	13	38	37	.05	21	16	30
AC127D1	.05	6	1.10	7	21	34	.06	19	17	31
AC127D2	.04	<2	1.15	7	24	32	.07	16	18	31
AC128A1	--	<2	--	<4	12	10	--	<4	<2	--
AC128D1	--	<2	--	<4	4	12	--	14	4	--
AC129A1	--	<2	--	7	32	26	--	21	13	--
AC129D1	--	<2	--	7	23	24	--	22	12	--
AC130A1	.08	3	.72	5	25	26	.10	45	14	16
AC131A1	<.02	<2	.49	<4	21	27	.08	10	6	28
AC131D1	.02	<2	.45	4	17	20	.07	7	5	31
AC131D2	.03	<2	.56	<4	20	16	.07	9	5	31
AC132A1	.02	<2	.43	<4	14	17	.05	8	3	41
AC132D1	<.02	<2	.35	<4	9	13	.06	7	4	33
AC132D2	<.02	<2	.36	10	24	19	.06	9	18	33
AC133A1	<.02	<2	.43	<4	11	9	.06	5	4	26
AC134A1	.03	8	<.11	10	110	160	.24	19	19	18
AC134A2	.03	8	.42	10	110	150	.24	22	18	19
AC134D1	--	3	--	6	19	33	--	9	10	--
AC135A1	.07	<2	.59	5	16	31	.07	12	12	35
AC135A2	.06	<2	.68	5	22	35	.07	11	9	36
AC136A1	.18	<2	1.57	6	26	28	.07	8	12	32
AC137A1	.07	3	2.23	8	41	27	.17	17	19	27

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.--continued

Sample	Sn ppm-S	Sr ppm-S	Th ppm	Ti %	U ppm	V ppm-S	Y ppm-S	Yb ppm-S	Zn ppm-S
AC115A2	<4	44	6.4	.33	4.85	130	16	2	120
AC115D1	<4	39	<2.6	.19	4.28	84	13	1	110
AC116A1	<4	82	8.8	.55	2.51	130	11	1	340
AC116D1	4	77	7.2	.53	2.59	160	13	2	80
AC117A1	<4	65	7.9	.45	3.04	120	11	1	40
AC118A1	<4	340	2.7	.99	1.27	280	29	4	110
AC118D1	8	350	3.2	.97	1.10	390	31	4	130
AC118D2	6	340	2.6	.97	1.09	350	30	4	100
AC119A1	<4	610	5.2	.28	1.28	79	10	1	40
AC119D1	<4	620	7.2	.31	1.57	87	12	1	40
AC120A1	<4	440	3.7	.69	1.67	220	10	1	60
AC120D1	<4	310	6.8	--	2.95	270	15	2	50
AC121A1	5	290	4.7	.77	1.16	180	24	3	90
AC121D1	<4	280	3.3	.75	1.20	170	19	2	120
AC121D2	<4	280	3.3	.73	1.21	160	19	2	100
AC122A1	<4	130	3.7	.54	1.64	65	5	<1	<20
AC122D1	6	150	5.3	.93	1.92	210	11	1	40
AC123A1	<4	330	<2.7	.49	2.39	240	12	2	70
AC124A1	<4	270	5.3	.44	1.77	160	14	1	40
AC124D1	<4	300	3.8	.45	1.68	180	16	2	50
AC125A1	<4	220	4.2	.72	1.76	160	21	2	160
AC126A1	<4	360	3.4	.58	1.60	160	15	2	60
AC126A2	4	360	4.5	.55	1.49	170	17	2	80
AC127A1	5	130	12.2	.62	3.47	150	16	2	90
AC127D1	4	130	11.7	.65	3.64	140	15	1	90
AC127D2	<4	120	12.8	.65	3.34	130	16	2	100
AC128A1	<4	23	<2.3	--	<.23	15	6	<1	<20
AC128D1	<4	39	<2.9	--	.82	30	6	<1	50
AC129A1	<4	130	18.6	--	5.12	86	17	2	70
AC129D1	<4	160	15.2	--	4.50	88	14	1	60
AC130A1	<4	150	10.4	.35	3.08	78	21	2	90
AC131A1	<4	70	5.9	.29	1.99	54	10	<1	40
AC131D1	<4	58	4.5	.23	1.41	50	8	<1	60
AC131D2	<4	57	4.7	.23	1.43	47	8	<1	70
AC132A1	<4	47	3.1	.21	1.27	39	7	<1	30
AC132D1	<4	40	3.3	.21	1.32	44	8	<1	<20
AC132D2	<4	370	3.3	.21	1.28	180	17	2	80
AC133A1	<4	43	4.3	.22	1.39	43	7	<1	<20
AC134A1	<4	77	<6.3	.28	21.20	490	100	5	580
AC134A2	<4	73	<6.4	.27	21.00	480	100	5	580
AC134D1	<4	66	7.0	--	3.75	110	15	2	70
AC135A1	<4	50	8.1	.45	2.35	85	10	<1	80
AC135A2	<4	44	7.0	.44	2.31	85	10	<1	70
AC136A1	<4	200	6.6	.51	2.57	97	13	1	50
AC137A1	<4	420	6.0	.62	4.19	170	18	2	110

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.--continued

Sample	Latitude	Longitude	LAB. NO.	Ash %	pH	Al %	As ppm-S	Ba ppm-S	Be ppm-S	Ca %	Ce ppm-S
AC137D1	56 5 0	131 6 0	248,255	94.4	5.9	8.2	20	1,300	1	2.45	25
AC138A1	66 24 0	165 7 0	248,356	85.2	4.3	5.9	10	540	1	.47	43
AC138D1	66 24 0	165 7 0	248,179	95.5	6.3	6.2	10	620	1	1.28	40
AC139A1	66 5 0	166 36 0	248,070	92.9	4.5	6.2	<10	570	1	.56	41
AC140A1	65 34 0	161 36 0	248,365	90.3	4.8	8.0	20	650	<1	2.53	25
AC140D1	65 34 0	161 36 0	248,221	90.0	4.9	8.1	10	630	1	2.34	23
AC141A1	65 3 0	161 45 0	248,258	93.0	4.9	7.8	20	600	2	.20	44
AC142A1	70 2 14	157 28 43	248,051	84.7	5.3	3.9	<10	450	<1	.45	36
AC142D1	70 2 14	157 28 43	248,461	77.0	4.5	4.1	<10	430	<1	.30	30
AC143A1	70 17 57	151 51 49	248,305	94.3	6.0	2.6	<10	420	<1	.34	26
AC143D1	70 17 57	151 51 49	248,215	97.3	7.6	2.4	<10	360	<1	2.14	21
AC143D2	70 17 57	151 51 49	248,353	97.8	8.0	1.9	<10	380	<1	1.38	20
AC144A1	57 28 0	157 55 0	248,104	88.1	5.1	7.4	<10	510	<1	3.12	24
AC144D1	57 28 0	157 55 0	248,154	97.8	6.1	7.9	<10	570	<1	3.32	24
AC144D2	57 28 0	157 55 0	248,402	97.7	6.5	7.8	<10	580	<1	3.25	23
AC145A1	57 22 0	156 30 0	248,237	91.3	5.5	7.9	<10	480	<1	2.70	11
AC145D1	57 22 0	156 30 0	248,046	92.6	4.8	8.2	<10	950	<1	2.31	16
AC146A1	70 47 0	157 14 0	248,091	81.1	4.9	3.0	<10	380	<1	.26	22
AC146D1	70 47 0	157 14 0	248,005	79.6	4.7	2.3	<10	450	<1	.24	24
AC147A1	61 43 30	149 54 0	248,232	90.5	5.6	7.7	10	510	<1	1.67	25
AC147D1	61 43 30	149 54 0	248,077	94.8	5.5	8.1	10	510	<1	1.68	22
AC148A1	62 31 30	143 15 0	248,426	95.7	7.8	7.0	<10	630	<1	5.80	20
AC148A2	62 31 30	143 15 0	248,369	95.5	7.7	7.2	<10	570	<1	5.23	19
AC148D1	62 31 30	143 15 0	248,473	95.8	7.6	7.7	<10	840	<1	4.27	19
AC149A1	61 55 30	145 28 0	248,296	94.5	7.2	7.6	<10	500	<1	3.91	19
AC149D1	61 55 30	145 28 0	248,477	95.9	6.3	8.0	<10	520	<1	3.41	24
AC150A1	61 26 15	142 57 0	248,180	95.4	7.5	8.3	10	680	1	1.27	17
AC150D1	61 26 15	142 57 0	248,407	96.0	7.3	8.5	20	700	1	.88	23
AC151A1	61 20 15	145 21 0	248,325	93.2	5.0	7.6	20	790	1	1.30	38
AC151D1	61 20 15	145 21 0	248,213	71.2	5.9	5.9	10	560	<1	3.19	22
AC152A1	61 5 37	146 20 37	248,071	86.5	4.2	6.0	10	640	<1	1.23	30
AC152D1	61 5 37	146 20 37	248,448	86.4	3.9	5.1	10	570	<1	.93	20
AC153A1	65 48 0	143 32 0	248,113	90.3	5.2	5.7	10	910	1	1.58	40
AC153D1	65 48 0	143 32 0	248,450	91.7	5.0	5.8	<10	920	1	1.60	43
AC154A1	65 47 0	144 20 0	248,045	92.4	4.7	6.1	<10	930	1	1.42	45
AC155A1	65 53 0	146 22 0	248,191	94.6	5.9	6.5	50	540	1	.53	31
AC155D1	65 53 0	146 22 0	248,458	91.1	5.7	6.2	60	580	1	.76	57
AC156A1	65 34 30	144 54 0	248,427	21.7	5.3	--	<10	310	<1	--	14
AC156D1	65 34 30	144 54 0	248,317	69.6	4.9	4.2	<10	710	1	1.07	29
AC157A1	60 12 35	147 45 22	248,348	68.9	4.8	6.0	<10	560	<1	1.72	22
AC157D1	60 12 35	147 45 22	248,340	93.0	5.6	8.0	<10	460	<1	2.27	25
AC158A1	57 47 47	155 19 42	248,478	93.1	5.6	8.8	<10	940	2	2.24	53
AC158D1	57 47 47	155 19 42	248,283	93.3	5.3	8.8	<10	970	<1	2.28	18
AC159A1	58 29 0	153 58 0	248,013	96.8	7.4	8.3	10	620	<1	1.84	17
AC159A2	58 29 0	153 58 0	248,372	97.1	7.6	7.8	20	580	<1	1.82	11

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.--continued

Sample	Co ppm-S	Cr ppm-S	Cu ppm-S	Dy ppm-S	Fe %	Ga ppm-S	K %	La ppm-S	Li ppm-S	Mg %
AC137D1	14	63	76	<4	4.1	19	2.11	22	41	1.94
AC138A1	9	77	14	<4	2.6	16	1.22	25	29	.71
AC138D1	21	83	28	<4	4.3	15	1.37	25	35	1.25
AC139A1	10	58	15	<4	3.5	14	1.34	25	33	.85
AC140A1	19	110	29	<4	4.5	19	1.13	19	31	1.48
AC140D1	17	95	27	<4	4.0	18	1.21	18	33	1.42
AC141A1	11	87	20	<4	4.6	17	1.64	31	60	.91
AC142A1	9	40	20	5	2.6	10	.76	19	26	.41
AC142D1	7	53	15	<4	2.5	14	.80	19	29	.41
AC143A1	8	38	11	<4	1.6	6	.54	15	22	.32
AC143D1	9	32	11	<4	2.0	9	.56	13	24	.47
AC143D2	7	30	9	<4	1.5	5	.48	12	19	.36
AC144A1	13	24	17	10	4.4	18	1.05	15	16	1.26
AC144D1	13	26	17	6	4.1	17	1.15	17	18	1.29
AC144D2	15	30	16	4	3.9	17	1.15	15	16	1.27
AC145A1	18	51	44	<4	5.2	19	1.14	10	41	1.62
AC145D1	16	48	40	<4	5.3	18	1.21	10	35	1.64
AC146A1	11	31	9	<4	1.5	10	.64	15	21	.27
AC146D1	7	23	18	<4	1.3	7	.45	12	15	.19
AC147A1	13	49	18	<4	3.7	21	.76	19	30	.70
AC147D1	16	49	25	6	4.6	16	.81	16	31	1.01
AC148A1	23	85	61	<4	4.9	19	1.32	16	32	3.70
AC148A2	24	87	57	<4	5.1	18	1.30	16	32	3.39
AC148D1	25	95	63	<4	5.4	20	1.38	17	30	2.78
AC149A1	16	68	31	<4	3.8	15	1.15	15	15	1.63
AC149D1	20	79	31	<4	4.2	18	1.06	16	22	1.68
AC150A1	21	71	41	<4	5.0	20	1.84	15	79	1.40
AC150D1	22	74	42	<4	5.1	19	1.88	18	77	1.41
AC151A1	24	86	42	<4	4.2	19	1.33	25	49	1.26
AC151D1	15	61	40	<4	3.1	15	1.05	17	47	.97
AC152A1	13	120	39	5	5.6	17	1.21	19	13	1.83
AC152D1	6	74	13	<4	2.1	17	1.03	15	12	.71
AC153A1	14	55	21	<4	3.2	18	1.20	26	22	.83
AC153D1	13	68	21	<4	3.2	14	1.24	26	21	.87
AC154A1	13	58	22	5	3.2	16	1.25	27	24	.87
AC155A1	16	61	26	<4	3.7	18	1.92	19	37	.95
AC155D1	17	69	41	<4	3.8	16	1.76	33	32	1.00
AC156A1	4	19	30	<4	--	4	--	7	10	--
AC156D1	12	66	36	<4	2.3	13	1.05	22	38	.41
AC157A1	16	99	42	<4	4.0	13	.98	16	13	1.59
AC157D1	30	170	810	<4	7.6	21	.55	19	15	2.70
AC158A1	23	93	24	<4	5.4	22	1.05	34	25	1.60
AC158D1	22	27	39	<4	4.8	19	1.11	11	41	1.27
AC159A1	16	53	46	5	5.1	18	1.33	13	45	1.74
AC159A2	18	56	35	<4	5.0	16	1.25	13	46	1.63

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.--continued

Sample	Mn %	Mo ppm-S	Na %	Nb ppm-S	Nd ppm-S	Ni ppm-S	P %	Pb ppm-S	Sc ppm-S	Si %
AC137D1	.07	7	2.33	10	34	27	.17	22	19	27
AC138A1	<.02	<2	.99	12	21	26	.04	19	13	29
AC138D1	.06	<2	1.13	10	33	65	.08	14	15	31
AC139A1	.02	<2	1.16	7	18	23	.05	15	14	32
AC140A1	.04	<2	1.42	13	33	46	.03	19	25	26
AC140D1	.04	<2	1.53	10	23	40	.03	15	21	26
AC141A1	.02	<2	.85	10	37	41	.07	15	17	30
AC142A1	<.02	<2	.74	5	<4	24	.06	14	8	31
AC142D1	<.02	<2	.70	9	13	25	.06	15	8	27
AC143A1	<.02	<2	.57	5	12	21	.05	8	6	39
AC143D1	.03	<2	.52	4	18	26	.06	7	5	38
AC143D2	.02	<2	.37	<4	21	21	.05	6	4	40
AC144A1	.11	<2	2.03	6	22	8	.10	<4	18	26
AC144D1	.09	<2	2.28	5	22	10	.08	5	17	30
AC144D2	.09	<2	2.26	7	34	12	.07	6	16	30
AC145A1	.11	<2	1.87	7	24	25	.12	5	19	25
AC145D1	.08	<2	1.93	5	6	20	.09	6	21	26
AC146A1	.36	<2	.55	<4	8	13	.07	13	6	32
AC146D1	.03	2	.47	<4	6	11	.05	6	4	33
AC147A1	.07	<2	2.03	8	30	15	.07	14	15	28
AC147D1	.07	<2	1.96	6	20	24	.06	8	17	29
AC148A1	.09	2	1.80	12	40	50	.09	9	20	23
AC148A2	.09	<2	1.83	11	33	50	.09	12	21	24
AC148D1	.10	4	1.91	12	37	54	.10	13	23	25
AC149A1	.08	<2	2.26	11	30	40	.07	11	14	28
AC149D1	.06	<2	2.12	10	30	44	.04	8	17	28
AC150A1	.11	<2	1.61	8	21	46	.10	9	18	28
AC150D1	.11	<2	1.54	13	20	49	.09	16	18	29
AC151A1	.09	<2	1.77	12	33	51	.09	18	16	29
AC151D1	.07	<2	1.42	7	28	41	.10	11	12	18
AC152A1	.07	<2	.94	9	15	31	.06	17	21	26
AC152D1	.03	<2	1.12	11	10	13	.07	17	15	30
AC153A1	.06	<2	1.31	7	25	23	.08	12	13	30
AC153D1	.05	<2	1.38	10	30	30	.07	11	12	31
AC154A1	.04	<2	1.42	10	24	23	.08	15	13	31
AC155A1	.05	<2	.91	9	19	30	.05	20	13	32
AC155D1	.05	<2	.85	12	39	36	.05	19	14	30
AC156A1	--	<2	--	<4	15	29	--	<4	3	--
AC156D1	.04	<2	.39	7	21	36	.11	13	10	23
AC157A1	.05	<2	1.12	6	27	48	.10	6	17	19
AC157D1	.11	3	1.31	13	31	76	.09	8	25	25
AC158A1	.09	2	1.85	16	38	44	.06	43	15	26
AC158D1	.09	<2	1.85	8	28	22	.07	8	17	26
AC159A1	.08	<2	2.11	5	13	26	.07	9	23	28
AC159A2	.08	<2	2.19	8	22	28	.07	<4	20	29

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.--continued

Sample	Sn ppm-S	Sr ppm-S	Th ppm	Ti %	U ppm	V ppm-S	Y ppm-S	Yb ppm-S	Zn ppm-S
AC137D1	<4	430	5.6	.62	4.44	180	19	2	100
AC138A1	4	83	8.4	.60	2.51	110	14	2	50
AC138D1	<4	120	10.1	.67	2.48	130	20	2	90
AC139A1	<4	88	13.4	.59	3.37	100	14	1	70
AC140A1	5	230	8.4	.71	2.16	210	18	2	70
AC140D1	<4	210	9.5	.68	2.21	170	16	2	70
AC141A1	<4	78	10.5	.64	3.26	140	17	2	70
AC142A1	<4	63	6.7	.38	2.32	76	12	<1	60
AC142D1	<4	64	7.1	.38	2.18	87	11	1	40
AC143A1	<4	52	4.4	.27	1.65	64	10	<1	40
AC143D1	<4	71	3.6	.25	1.51	56	9	<1	50
AC143D2	<4	58	3.5	.19	1.34	48	7	<1	40
AC144A1	<4	320	3.8	.61	1.28	130	19	2	80
AC144D1	<4	360	3.4	.55	1.27	120	17	2	60
AC144D2	<4	360	3.1	.49	1.24	130	19	2	70
AC145A1	<4	260	3.8	.60	1.68	170	20	2	80
AC145D1	<4	290	3.2	.60	1.18	170	14	1	90
AC146A1	<4	54	4.6	.30	1.74	56	6	<1	30
AC146D1	<4	47	4.1	.24	1.55	41	6	<1	30
AC147A1	<4	280	4.6	.61	2.36	140	17	2	70
AC147D1	<4	250	5.0	.51	1.76	130	12	2	80
AC148A1	<4	320	3.3	.48	1.92	210	16	2	90
AC148A2	5	330	4.3	.50	2.15	210	17	2	90
AC148D1	5	360	2.8	.52	2.09	230	19	2	100
AC149A1	6	410	4.6	.53	1.45	130	15	2	50
AC149D1	<4	420	5.2	.60	1.63	160	17	2	60
AC150A1	<4	200	6.4	.50	1.93	190	12	<1	110
AC150D1	<4	190	6.1	.51	1.95	200	13	<1	110
AC151A1	5	240	8.2	.51	3.22	140	20	2	80
AC151D1	<4	270	5.8	.41	3.12	100	16	1	60
AC152A1	<4	94	6.6	.61	2.64	170	11	1	2,700
AC152D1	4	130	5.6	.56	2.39	160	11	<1	40
AC153A1	<4	230	9.7	.51	2.53	110	13	2	70
AC153D1	<4	230	9.4	.50	2.90	110	16	2	60
AC154A1	<4	210	10.3	.51	2.84	110	15	1	70
AC155A1	<4	100	12.9	.55	3.02	94	10	<1	80
AC155D1	<4	120	13.0	.60	3.34	110	14	1	90
AC156A1	<4	130	<4.4	--	1.14	43	9	<1	40
AC156D1	<4	150	8.7	.35	3.40	140	15	1	60
AC157A1	<4	150	8.2	.43	7.37	140	16	2	70
AC157D1	7	240	5.6	.56	3.27	210	22	2	130
AC158A1	4	110	3.1	.61	1.01	100	12	1	160
AC158D1	<4	330	2.8	.51	1.25	158	19	2	100
AC159A1	<4	260	4.0	.55	1.53	170	17	2	90
AC159A2	<4	260	12.2	.52	5.39	180	18	2	100

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.--continued

Sample	Latitude	Longitude	LAB. NO.	Ash %	pH	Al %	As ppm-S	Ba ppm-S	Be ppm-S	Ca %	Ce ppm-S
AC159D1	58 29 0	153 58 0	248,009	94.4	6.1	7.5	20	540	<1	1.87	26
AC160A1	58 59 0	155 6 0	248,158	94.6	5.2	7.3	<10	520	<1	2.34	10
AC161A1	69 5 0	144 34 0	248,323	96.2	8.2	3.9	<10	360	<1	5.96	29
AC161D1	69 5 0	144 34 0	248,224	95.9	8.5	4.6	<10	300	<1	5.30	24
AC162A1	60 40 0	161 40 0	248,265	67.7	5.1	4.1	<10	560	<1	1.09	19
AC162D1	60 40 0	161 40 0	248,055	78.5	5.5	5.0	<10	660	1	1.26	43
AC163A1	61 20 0	165 20 0	248,042	70.8	4.3	5.4	<10	590	1	.93	30
AC163D1	61 20 0	165 20 0	248,406	61.7	3.9	5.0	10	560	<1	.68	35
AC164A1	59 51 0	166 12 0	248,400	88.3	4.6	6.7	<10	740	1	.86	34
AC164D1	59 51 0	166 12 0	248,177	88.6	4.7	6.9	10	710	1	.81	28
AC165A1	65 52 28	160 41 24	248,185	90.4	4.5	7.0	20	630	1	.46	34
AC165D1	65 52 28	160 41 24	248,272	73.7	4.5	5.8	<10	580	1	.40	28
AC166A1	68 39 14	161 58 47	248,134	85.2	6.6	6.9	10	610	1	1.76	39
AC167A1	69 18 41	147 40 13	248,261	91.1	7.5	4.7	<10	460	1	1.07	28
AC168A1	69 54 46	147 36 30	248,141	70.5	5.6	3.7	<10	400	1	1.02	23
AC168D1	69 54 46	147 36 30	248,172	83.5	4.5	5.4	<10	500	1	.49	32
AC169A1	69 6 46	142 18 10	248,044	94.8	6.0	7.5	20	890	2	.22	90
AC169A2	69 6 46	142 18 10	248,435	95.0	5.9	7.3	20	910	2	.22	78
AC170A1	69 12 45	144 0 43	248,082	64.6	5.5	5.6	20	610	2	1.20	100
AC171A1	69 30 5	144 30 59	248,294	94.5	4.7	8.5	10	780	2	.04	54
AC172A1	70 27 0	157 22 0	248,367	97.9	5.5	1.2	<10	350	<1	.09	18
AC172D1	70 27 0	157 22 0	248,057	51.4	4.1	--	<10	230	<1	--	15
AC173A1	62 58 35	146 15 29	248,058	96.4	4.9	7.7	<10	480	<1	3.43	25
AC173D1	62 58 35	146 15 29	248,262	98.3	6.7	7.1	<10	410	<1	4.25	9
AC174A1	62 32 7	146 56 30	248,098	96.7	6.2	7.8	<10	620	<1	2.86	25
AC174D1	62 32 7	146 56 30	248,064	95.4	5.7	7.8	<10	520	<1	3.13	19
AC175A1	62 43 12	147 23 57	248,039	85.4	4.9	6.8	<10	410	<1	3.26	18
AC175D1	62 43 12	147 23 57	248,083	77.5	5.1	6.8	<10	520	<1	2.29	32
AC176A1	63 44 44	145 56 13	248,149	98.6	8.3	6.0	<10	540	1	2.67	28
AC176D1	63 44 44	145 56 13	248,080	99.0	8.2	6.2	<10	540	1	2.73	28
AC177A1	63 2 42	148 30 57	248,218	94.5	5.1	7.3	<10	1,600	1	2.14	21
AC177D1	63 2 42	148 30 57	248,349	97.4	6.4	7.7	<10	1,700	1	1.06	25
AC178A1	63 29 15	147 33 1	248,408	91.9	5.1	5.1	30	1,200	<1	1.06	31
AC178D1	63 29 15	147 33 1	248,430	93.2	6.2	5.2	20	1,500	1	1.21	36
AC179A1	64 27 45	164 58 0	248,308	64.9	4.7	6.5	<10	470	2	.68	130
AC179D1	64 27 45	164 58 0	248,234	74.4	4.7	7.3	<10	480	3	.58	99
AC179D2	64 27 45	164 58 0	248,338	73.1	4.8	7.2	<10	500	3	.56	110
AC180A1	64 47 0	163 45 0	248,304	94.4	5.8	6.5	<10	930	2	.74	43
AC180A2	64 47 0	163 45 0	248,034	94.2	5.5	6.7	<10	880	2	.81	53
AC181A1	55 56 0	133 8 0	248,257	72.1	4.5	8.2	20	260	1	.80	32
AC181D1	55 56 0	133 8 0	248,189	94.5	4.9	7.0	20	490	<1	1.11	25
AC182A1	67 50 0	144 10 0	248,199	90.8	4.3	6.4	10	1,400	1	.49	37
AC182D1	67 50 0	144 10 0	248,249	90.3	7.0	6.9	<10	480	<1	5.55	5
AC183A1	64 56 0	166 13 0	248,382	63.0	6.2	5.8	<10	440	1	2.10	25
AC183A2	64 56 0	166 13 0	248,379	62.6	6.1	5.7	<10	430	1	2.15	33

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.--continued

Sample	Co ppm-S	Cr ppm-S	Cu ppm-S	Dy ppm-S	Fe %	Ga ppm-S	K %	La ppm-S	Li ppm-S	Mg %
AC159D1	10	28	30	6	3.5	14	1.38	13	33	.98
AC160A1	6	23	16	<4	2.2	15	1.05	9	11	.65
AC161A1	21	100	48	<4	3.9	11	.77	20	22	1.87
AC161D1	27	140	46	<4	4.8	15	.81	16	24	2.26
AC162A1	8	35	16	<4	2.0	9	1.18	16	22	.49
AC162D1	6	26	13	5	2.0	12	1.44	21	20	.52
AC163A1	7	49	21	<4	2.1	15	1.23	20	19	.68
AC163D1	7	62	41	<4	2.0	14	1.19	21	26	.73
AC164A1	8	66	17	<4	2.2	16	1.25	26	28	.63
AC164D1	8	67	22	<4	2.8	19	1.23	22	33	.66
AC165A1	11	74	17	<4	4.6	19	1.46	23	41	.89
AC165D1	8	61	17	<4	2.2	15	1.21	19	33	.62
AC166A1	15	69	37	<4	4.1	16	1.64	28	60	1.63
AC167A1	12	64	17	<4	2.9	11	1.00	19	42	.60
AC168A1	8	43	16	5	2.5	10	.82	16	31	.37
AC168D1	9	71	16	<4	2.3	15	1.09	20	49	.50
AC169A1	20	75	39	8	3.9	18	2.27	52	100	.74
AC169A2	24	91	40	<4	3.9	22	2.22	47	120	.75
AC170A1	16	49	36	10	3.1	14	2.05	78	32	.63
AC171A1	15	110	42	<4	4.8	20	2.11	32	73	.78
AC172A1	5	22	21	<4	.9	<4	.34	11	14	.14
AC172D1	4	15	9	<4	--	8	--	7	8	--
AC173A1	18	85	48	8	4.6	20	.76	16	18	1.69
AC173D1	21	100	44	<4	5.0	16	.62	13	17	1.91
AC174A1	18	65	32	7	4.3	16	1.05	17	25	1.62
AC174D1	18	59	36	6	4.7	17	.86	14	24	1.71
AC175A1	18	54	37	6	4.9	14	.67	13	14	1.62
AC175D1	15	41	34	7	3.9	15	.72	16	17	1.16
AC176A1	12	47	26	<4	3.1	15	1.07	16	21	1.18
AC176D1	14	51	27	7	3.3	14	1.14	19	18	1.25
AC177A1	23	76	63	<4	5.2	19	1.08	17	35	1.79
AC177D1	14	57	35	<4	2.9	20	1.69	16	32	.81
AC178A1	18	70	34	<4	3.6	15	1.00	19	25	1.10
AC178D1	23	79	75	<4	3.9	17	1.28	25	28	1.45
AC179A1	7	29	10	6	2.5	16	1.34	85	22	.87
AC179D1	7	34	8	<4	3.1	21	1.83	72	25	1.03
AC179D2	8	35	7	<4	3.1	22	1.82	77	23	1.07
AC180A1	20	69	32	<4	5.1	16	1.63	29	41	1.48
AC180A2	18	58	32	8	5.2	20	1.55	33	38	1.51
AC181A1	22	130	51	6	8.2	25	.69	35	32	.96
AC181D1	18	69	49	<4	4.6	15	1.35	16	21	1.43
AC182A1	20	81	33	<4	3.8	17	1.41	23	55	.69
AC182D1	40	120	99	<4	6.6	22	.36	12	39	2.74
AC183A1	9	9	15	<4	2.3	20	1.08	19	17	.44
AC183A2	9	8	16	7	2.3	16	1.06	19	19	.45

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.--continued

Sample	Mn %	Mo ppm-S	Na %	Nb ppm-S	Nd ppm-S	Ni ppm-S	P %	Pb ppm-S	Sc ppm-S	Si %
AC159D1	.05	3	2.31	<4	24	12	.07	5	15	30
AC160A1	.03	<2	2.37	5	15	8	.07	11	8	31
AC161A1	.09	<2	.59	12	53	70	.10	6	12	29
AC161D1	.10	<2	.85	14	41	91	.10	5	16	28
AC162A1	.03	<2	1.21	6	18	18	.10	310	7	22
AC162D1	.04	<2	1.58	5	13	12	.08	14	8	26
AC163A1	<.02	<2	1.10	7	17	15	.07	12	12	23
AC163D1	<.02	3	.83	9	27	27	.07	15	12	19
AC164A1	<.02	<2	1.34	13	33	20	.03	13	13	29
AC164D1	.02	<2	1.37	11	27	19	.03	11	14	29
AC165A1	.02	<2	1.08	10	32	31	.03	16	15	29
AC165D1	<.02	<2	.94	7	20	20	.05	14	12	24
AC166A1	.08	<2	1.08	9	24	43	.11	17	16	24
AC167A1	.05	<2	.80	6	29	35	.10	12	9	33
AC168A1	.02	<2	.44	<4	10	28	.09	13	8	24
AC168D1	<.02	<2	.53	8	23	31	.08	17	10	30
AC169A1	.14	<2	.58	18	38	53	.09	20	15	31
AC169A2	.15	<2	.45	25	43	72	.10	27	15	31
AC170A1	.12	3	.40	7	59	24	.18	45	12	18
AC171A1	.02	<2	.75	12	32	48	.08	19	19	29
AC172A1	<.02	<2	.39	<4	9	10	.03	7	3	43
AC172D1	--	<2	--	<4	<4	8	--	5	3	--
AC173A1	.09	<2	2.03	7	27	37	.09	10	22	28
AC173D1	.10	<2	1.99	8	41	46	.08	<4	24	29
AC174A1	.09	<2	1.98	6	28	31	.08	6	20	29
AC174D1	.09	<2	2.02	5	19	27	.08	5	22	28
AC175A1	.11	<2	1.57	6	14	26	.08	6	25	24
AC175D1	.05	<2	1.37	5	22	21	.10	8	17	22
AC176A1	.06	<2	1.71	7	23	23	.07	9	12	33
AC176D1	.07	<2	1.60	8	27	25	.08	12	13	33
AC177A1	.11	2	1.60	13	29	51	.11	10	19	28
AC177D1	.09	<2	2.37	7	14	36	.08	14	11	32
AC178A1	.09	5	.99	10	26	29	.16	18	13	31
AC178D1	.15	5	.96	6	31	64	.25	21	15	31
AC179A1	.03	<2	1.27	9	72	11	.10	18	12	18
AC179D1	.02	<2	1.31	12	63	10	.10	17	11	21
AC179D2	.02	<2	1.24	15	60	10	.10	25	41	20
AC180A1	.06	6	1.05	19	34	46	.07	12	15	30
AC180A2	.06	8	1.04	18	22	37	.07	16	17	29
AC181A1	.12	<2	.95	24	47	46	.17	16	24	15
AC181D1	.07	<2	1.80	7	19	34	.08	15	17	30
AC182A1	.09	<2	.61	8	29	47	.07	16	14	30
AC182D1	.12	<2	1.63	10	37	87	.05	5	26	22
AC183A1	.12	<2	1.81	9	41	14	.13	9	12	17
AC183A2	.11	<2	1.76	9	33	14	.13	5	12	17

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.--continued

Sample	Sn ppm-S	Sr ppm-S	Th ppm	Ti %	U ppm	V ppm-S	Y ppm-S	Yb ppm-S	Zn ppm-S
AC159D1	<4	190	3.0	.39	2.22	110	22	3	60
AC160A1	<4	350	2.7	.23	.94	77	9	<1	70
AC161A1	<4	150	6.0	.63	1.72	110	11	<1	60
AC161D1	5	250	4.9	.79	1.40	130	13	1	70
AC162A1	<4	130	5.0	.25	1.82	61	10	1	150
AC162D1	<4	150	6.4	.32	1.93	58	12	1	60
AC163A1	<4	150	6.2	.45	2.63	84	10	1	50
AC163D1	<4	120	10.3	.39	2.52	130	15	1	50
AC164A1	4	160	9.2	.59	2.91	130	15	2	40
AC164D1	5	160	10.3	.60	2.73	130	15	1	50
AC165A1	4	96	10.4	.63	3.14	130	14	1	70
AC165D1	4	91	8.1	.55	2.66	99	11	1	50
AC166A1	<4	92	10.8	.53	2.71	150	16	2	100
AC167A1	<4	72	8.1	.44	2.97	110	14	1	80
AC168A1	<4	57	6.9	.32	2.84	80	11	<1	40
AC168D1	<4	67	9.2	.44	3.28	120	13	1	80
AC169A1	<4	97	13.8	.70	3.54	180	14	2	120
AC169A2	<4	100	11.5	.67	3.91	200	18	2	120
AC170A1	<4	160	26.3	.35	21.50	61	28	2	60
AC171A1	<4	92	11.2	.62	3.89	210	10	<1	120
AC172A1	<4	39	2.3	.13	.94	34	5	<1	40
AC172D1	<4	31	2.6	--	.77	27	4	<1	40
AC173A1	<4	310	3.6	.67	1.50	160	17	2	80
AC173D1	<4	310	3.9	.80	1.40	210	20	2	50
AC174A1	<4	330	4.6	.59	1.50	150	15	2	90
AC174D1	<4	280	4.0	.58	1.39	160	15	2	70
AC175A1	<4	230	3.6	.57	1.55	180	15	2	70
AC175D1	<4	270	5.1	.51	1.62	110	11	1	60
AC176A1	<4	260	6.7	.53	2.20	83	10	1	50
AC176D1	<4	260	7.8	.57	2.58	86	12	1	50
AC177A1	5	230	6.9	.84	3.24	230	22	2	160
AC177D1	<4	340	4.8	.35	2.62	110	12	1	120
AC178A1	5	110	4.7	.51	2.79	170	14	1	100
AC178D1	4	93	7.8	.49	2.98	180	24	2	170
AC179A1	<4	100	34.1	.41	10.40	79	33	3	50
AC179D1	7	95	34.4	.45	7.55	73	27	3	50
AC179D2	8	95	38.2	.45	7.92	75	27	3	50
AC180A1	<4	75	9.7	.83	5.39	190	24	2	120
AC180A2	<4	81	7.3	.89	6.26	170	23	2	100
AC181A1	7	110	8.7	1.23	6.69	250	45	4	190
AC181D1	<4	250	4.4	.42	2.91	240	17	2	160
AC182A1	<4	97	11.5	.59	3.42	160	14	1	120
AC182D1	7	210	3.6	.97	1.06	350	20	2	80
AC183A1	4	190	5.5	.39	3.96	36	30	3	80
AC183A2	<4	190	8.8	.39	4.24	35	29	3	70

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.--continued

Sample	Latitude	Longitude	LAB. NO.	Ash %	pH	Al %	As ppm-S	Ba ppm-S	Be ppm-S	Ca %	Ce ppm-S
AC183D1	64 56 0	166 13 0	247,997	61.3	5.2	4.7	<10	260	1	1.17	28
AC184A1	64 28 0	165 15 0	248,445	95.3	5.0	4.8	30	370	1	.43	30
AC185A1	60 36 0	150 51 0	248,155	92.2	5.1	7.5	<10	590	<1	1.59	22
AC185D1	60 36 0	150 51 0	248,392	91.8	5.3	7.4	20	580	<1	1.39	25
AC186A1	65 24 45	151 53 4	248,424	97.0	7.2	6.9	<10	820	1	2.83	28
AC186A2	65 24 45	151 53 4	248,176	97.2	7.3	7.0	<10	810	1	2.79	28
AC187A1	67 21 54	152 0 8	248,231	90.7	7.5	6.8	10	470	2	1.52	46
AC187D1	67 21 54	152 0 8	248,351	91.3	7.6	5.0	<10	370	1	3.80	41
AC188A1	67 40 48	151 2 10	248,401	96.2	7.9	5.3	20	700	<1	7.86	31
AC189A1	59 58 22	149 13 35	248,171	91.1	5.5	7.9	<10	230	<1	6.03	<4
AC189D1	59 58 22	149 13 35	248,259	95.2	6.6	7.3	<10	89	<1	6.00	<4
AC190A1	61 5 22	147 28 14	248,470	85.8	5.7	7.7	10	310	<1	3.17	13
AC190D1	61 5 22	147 28 14	248,422	76.1	5.0	7.0	<10	350	<1	2.29	17
AC191A1	69 51 30	155 58 40	248,167	96.6	4.4	4.7	<10	490	1	.29	30
AC191D1	69 51 30	155 58 40	248,399	93.9	5.3	4.8	10	540	1	.38	36
AC192A1	71 3 0	154 45 0	248,373	81.4	5.6	5.2	10	480	1	.66	37
AC192D1	71 3 0	154 45 0	248,282	84.3	4.7	7.1	<10	600	2	.29	46
AC193A1	52 48 30	E173 9 0	248,100	7.3	3.9	--	<10	40	<1	--	<4
AC193D1	52 48 30	E173 9 0	248,443	7.8	3.8	--	<10	39	<1	--	<4
AC194A1	65 17 30	146 29 0	248,378	94.2	4.7	6.3	10	650	1	.85	44
AC194A2	65 17 30	146 29 0	248,011	94.5	4.3	6.4	<10	650	1	.86	42
AC194D1	65 17 30	146 29 0	248,008	90.5	3.8	6.3	10	630	1	.75	36
AC195A1	63 53 6	152 18 48	248,281	90.5	4.6	8.2	10	1,600	2	.96	51
AC195A2	63 53 6	152 18 48	248,002	90.0	4.1	8.3	10	1,700	2	.91	53
AC196A1	55 55 0	159 8 0	248,010	99.7	7.8	7.9	<10	420	<1	5.19	19
AC197A1	58 0 0	152 47 0	248,386	98.1	6.2	6.9	<10	780	<1	1.67	29
AC198A1	57 12 0	153 19 30	248,225	83.5	5.1	9.2	20	610	1	.64	44
AC199A1	57 32 0	154 0 0	248,390	89.9	5.5	8.5	<10	600	1	.74	35
AC200A1	57 34 30	154 27 34	248,414	87.9	5.4	8.4	10	420	<1	1.56	18
AC201A1	60 35 15	165 15 0	248,017	93.5	4.8	9.7	<10	640	1	.25	48
AC202A1	61 50 37	165 37 0	248,236	95.8	5.8	7.3	<10	550	1	1.59	20
AC203A1	61 31 52	166 6 0	248,307	98.3	7.5	5.1	<10	790	<1	1.55	32
AC204A1	62 5 15	163 43 30	248,038	95.4	4.9	7.3	<10	770	1	1.03	44
AC205A1	60 32 15	152 37 30	248,060	96.1	5.9	9.7	<10	540	<1	4.42	21
AC205D1	60 32 15	152 37 30	248,217	94.0	5.5	8.8	<10	570	<1	3.81	17
AC206A1	60 28 52	153 51 44	248,431	86.2	4.9	7.1	<10	470	<1	3.26	22
AC206D1	60 28 52	153 51 44	248,451	76.1	4.8	6.0	<10	380	<1	2.53	21
AC207A1	59 48 45	154 9 44	248,022	97.4	5.6	8.6	<10	840	1	1.82	<4
AC207D1	59 48 45	154 9 44	248,023	97.5	5.9	8.4	<10	660	1	1.93	6
AC208A1	64 56 0	162 10 42	248,112	92.3	4.5	8.3	<10	390	7	.88	130
AC208D1	64 56 0	162 10 42	248,226	97.5	5.1	7.7	<10	340	7	.79	72
AC209A1	58 25 52	134 35 14	248,456	98.8	7.8	8.3	<10	930	1	3.75	33
AC209D1	58 25 52	134 35 14	248,094	99.0	7.8	8.3	10	1,000	2	3.49	32
AC210A1	59 26 37	136 17 14	248,216	94.8	5.1	7.2	<10	340	<1	2.92	18
AC210D1	59 26 37	136 17 14	248,368	95.1	5.1	7.3	<10	500	<1	3.33	24

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.--continued

Sample	Co ppm-S	Cr ppm-S	Cu ppm-S	Dy ppm-S	Fe %	Ga ppm-S	K %	La ppm-S	Li ppm-S	Mg %
AC183D1	12	59	33	<4	2.3	9	1.00	15	28	.76
AC184A1	9	53	14	<4	3.2	12	.91	20	24	.83
AC185A1	17	43	17	<4	4.0	17	.93	15	29	.93
AC185D1	19	63	22	<4	4.1	20	.91	19	33	1.04
AC186A1	27	130	72	<4	5.3	18	1.12	24	27	1.71
AC186A2	26	130	69	<4	5.3	18	1.15	22	29	1.68
AC187A1	18	65	34	<4	4.9	19	1.91	26	44	1.51
AC187D1	16	47	28	<4	3.7	17	1.45	25	31	1.56
AC188A1	14	33	44	<4	3.3	10	1.29	19	33	1.42
AC189A1	40	240	44	6	6.9	26	.33	6	10	3.38
AC189D1	48	130	43	5	8.7	25	.09	6	7	3.41
AC190A1	27	240	35	<4	5.3	18	.62	11	30	3.67
AC190D1	14	89	24	<4	3.3	14	.71	14	25	1.95
AC191A1	11	52	18	<4	2.2	12	1.01	21	35	.51
AC191D1	12	61	18	<4	2.8	14	.99	24	36	.53
AC192A1	13	66	27	<4	2.9	16	1.28	23	41	.79
AC192D1	13	89	36	<4	3.1	20	1.67	28	50	.83
AC193A1	2	5	5	<4	--	<4	--	<2	2	--
AC193D1	<1	6	7	<4	--	<4	--	2	<2	--
AC194A1	15	73	23	<4	3.7	18	1.64	26	33	.96
AC194A2	12	60	30	<4	3.7	18	1.64	22	28	.97
AC194D1	13	60	34	4	3.8	17	1.56	20	26	.90
AC195A1	10	120	35	<4	3.2	22	2.39	34	27	1.07
AC195A2	9	100	42	5	3.1	18	2.45	33	25	1.08
AC196A1	31	40	41	11	8.3	24	.97	15	14	3.29
AC197A1	7	9	29	6	2.2	17	2.13	17	30	.52
AC198A1	38	84	90	4	6.3	27	1.64	26	71	1.15
AC199A1	11	64	49	<4	3.6	19	1.22	24	65	.79
AC200A1	17	64	70	<4	4.8	18	.75	14	37	1.53
AC201A1	26	49	43	6	6.0	21	.88	26	27	.80
AC202A1	6	36	19	<4	1.5	14	2.71	15	24	.57
AC203A1	11	57	16	<4	2.4	11	1.23	23	18	.77
AC204A1	17	61	38	7	4.0	19	1.40	27	27	1.00
AC205A1	14	5	44	6	4.4	21	1.03	11	14	1.48
AC205D1	12	6	31	<4	4.0	18	1.21	11	18	1.25
AC206A1	17	78	27	<4	4.5	18	1.05	16	13	1.76
AC206D1	18	110	28	<4	4.1	17	.82	13	11	1.94
AC207A1	3	7	7	<4	.8	21	1.98	2	15	.25
AC207D1	4	7	9	<4	.8	23	1.65	5	25	.36
AC208A1	7	19	12	8	2.7	23	2.30	76	61	.46
AC208D1	4	8	12	<4	1.6	19	3.35	30	76	.21
AC209A1	21	82	19	<4	5.3	18	1.15	21	20	1.97
AC209D1	18	53	24	7	4.6	21	.90	23	16	1.64
AC210A1	29	110	30	<4	9.3	19	.56	18	11	2.32
AC210D1	26	110	23	<4	7.1	22	.95	22	12	2.13

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.--continued

Sample	Mn %	Mo ppm-S	Na %	Nb ppm-S	Nd ppm-S	Ni ppm-S	P %	Pb ppm-S	Sc ppm-S	Si %
AC183D1	.09	8	.79	<4	12	39	.11	10	11	18
AC184A1	.02	<2	.97	10	25	23	.06	15	10	35
AC185A1	.12	<2	1.81	5	13	18	.14	9	14	28
AC185D1	.09	<2	1.71	10	21	30	.09	10	15	28
AC186A1	.06	2	1.37	15	44	62	.05	14	24	29
AC186A2	.07	<2	1.57	13	33	60	.06	12	24	29
AC187A1	.08	<2	.78	9	32	32	.07	19	17	27
AC187D1	.06	<2	.73	6	49	26	.06	16	14	25
AC188A1	.05	8	1.27	5	45	35	.07	11	11	26
AC189A1	.14	<2	1.93	7	35	64	.08	8	35	21
AC189D1	.15	<2	2.18	9	40	51	.07	<4	36	22
AC190A1	.09	<2	1.26	8	31	53	.07	<4	27	21
AC190D1	.06	<2	1.43	8	22	25	.07	20	19	21
AC191A1	<.02	<2	1.00	8	16	32	.06	11	9	36
AC191D1	.05	<2	.88	10	28	31	.06	16	10	34
AC192A1	.02	<2	.60	9	31	44	.06	19	12	27
AC192D1	<.02	<2	.65	12	34	50	.06	17	16	27
AC193A1	--	<2	--	<4	<4	<2	--	5	<2	--
AC193D1	--	<2	--	<4	<4	<2	--	<4	3	--
AC194A1	.05	<2	.93	13	20	30	.05	17	14	32
AC194A2	.05	2	.88	9	20	24	.06	15	14	32
AC194D1	.04	<2	.80	6	12	25	.06	14	15	30
AC195A1	.02	5	.91	11	40	26	.09	18	16	28
AC195A2	.02	7	.76	6	25	21	.09	17	17	28
AC196A1	.17	<2	2.28	6	34	24	.13	<4	34	25
AC197A1	.05	3	2.86	7	27	4	.04	35	12	33
AC198A1	.20	3	1.07	11	39	39	.27	27	25	21
AC199A1	.02	<2	1.50	11	33	35	.25	18	21	27
AC200A1	.06	<2	1.44	9	27	30	.34	19	22	24
AC201A1	.26	3	2.03	8	22	31	.08	43	24	26
AC202A1	.02	<2	2.37	6	21	45	.10	15	4	32
AC203A1	.04	<2	1.49	9	24	28	.08	13	10	36
AC204A1	.06	<2	1.48	8	15	36	.07	16	17	31
AC205A1	.10	<2	2.62	<4	22	4	.10	8	13	26
AC205D1	.10	<2	2.57	7	33	3	.10	5	11	27
AC206A1	.09	<2	2.14	10	28	25	.10	11	16	24
AC206D1	.08	<2	1.69	8	30	35	.09	10	20	21
AC207A1	.03	<2	3.58	<4	<4	<2	<.02	8	<2	32
AC207D1	.05	<2	3.46	5	7	3	<.02	8	<2	32
AC208A1	.05	2	2.50	44	32	10	.07	33	8	29
AC208D1	.04	<2	2.80	39	23	4	.03	33	<2	32
AC209A1	.09	<2	2.42	17	41	40	.17	6	16	27
AC209D1	.08	<2	2.66	17	24	27	.14	7	17	29
AC210A1	.13	4	2.08	11	37	43	.14	14	28	24
AC210D1	.11	4	1.96	13	33	43	.16	10	25	26

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.--continued

Sample	Sn ppm-S	Sr ppm-S	Th ppm	Ti %	U ppm	V ppm-S	Y ppm-S	Yb ppm-S	Zn ppm-S
AC183D1	<4	100	<4.2	.36	6.83	63	14	1	70
AC184A1	<4	69	7.8	.47	1.72	92	14	1	50
AC185A1	<4	220	5.3	.51	2.05	120	11	2	60
AC185D1	<4	220	6.9	.51	2.24	140	14	2	80
AC186A1	6	190	6.4	.70	2.45	210	21	2	90
AC186A2	5	180	9.2	.71	2.16	200	20	2	80
AC187A1	<4	74	10.0	.67	2.21	120	18	2	100
AC187D1	4	120	8.0	.54	1.55	95	17	2	90
AC188A1	4	710	6.7	.29	3.67	160	13	1	110
AC189A1	5	170	2.5	.79	.47	300	26	3	140
AC189D1	7	120	1.6	1.22	.36	380	35	4	50
AC190A1	<4	120	2.8	.53	1.43	230	15	2	60
AC190D1	<4	180	5.6	.43	1.26	160	14	1	50
AC191A1	<4	73	8.8	.49	2.71	96	15	1	60
AC191D1	<4	74	10.3	.48	2.67	100	15	1	70
AC192A1	6	75	8.9	.40	2.54	120	16	2	80
AC192D1	<4	82	11.0	.49	3.02	160	19	2	110
AC193A1	<4	33	<1.7	--	.22	11	<2	<1	<20
AC193D1	<4	21	<1.9	--	.36	19	<2	<1	<20
AC194A1	5	130	10.7	.59	2.44	120	14	1	70
AC194A2	<4	120	8.3	.59	2.63	110	12	1	110
AC194D1	<4	120	7.7	.55	2.53	110	11	1	60
AC195A1	<4	140	13.1	.51	6.81	350	18	1	50
AC195A2	<4	130	12.8	.51	7.49	320	15	2	40
AC196A1	<4	340	2.6	1.00	1.29	270	28	3	110
AC197A1	<4	140	6.5	.26	2.32	57	36	4	70
AC198A1	5	100	7.1	.78	3.50	210	23	2	160
AC199A1	4	140	4.8	.61	2.66	130	25	3	110
AC200A1	11	190	5.2	.53	1.88	150	20	2	170
AC201A1	<4	110	5.6	.75	1.63	180	25	2	100
AC202A1	<4	380	7.6	.20	2.24	38	7	<1	30
AC203A1	<4	220	7.6	.41	1.71	99	14	1	60
AC204A1	<4	170	9.6	.59	2.90	130	18	2	100
AC205A1	<4	450	2.0	.38	.73	110	16	2	80
AC205D1	<4	420	2.4	.35	.77	110	15	2	70
AC206A1	4	350	4.9	.46	1.77	150	16	2	60
AC206D1	<4	270	3.4	.37	1.45	150	16	2	50
AC207A1	<4	700	<1.2	.09	.57	18	4	<1	20
AC207D1	<4	660	1.7	.11	.59	19	5	<1	40
AC208A1	5	170	75.5	.40	33.60	53	21	3	50
AC208D1	5	180	39.8	.18	14.00	25	12	2	30
AC209A1	<4	470	4.9	.93	1.78	160	18	2	80
AC209D1	<4	530	3.3	.91	1.57	150	17	1	70
AC210A1	4	290	4.0	.83	2.33	310	23	2	150
AC210D1	6	330	4.0	.68	1.77	270	22	2	100

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.--continued

Sample	Latitude	Longitude	LAB. NO.	Ash %	pH	Al %	As ppm-S	Ba ppm-S	Be ppm-S	Ca %	Ce ppm-S
AC211A1	61 30 0	157 0 0	248,471	86.3	4.2	5.6	20	620	<1	.78	31
AC211D1	61 30 0	157 0 0	248,228	47.0	3.7	--	<10	350	<1	--	16
AC212A1	59 46 30	161 52 0	248,075	96.8	6.4	6.8	<10	2,600	<1	1.12	20
AC212D1	59 46 30	161 52 0	248,127	93.7	5.3	6.9	<10	1,000	1	1.21	34
AC213A1	64 22 30	143 6 0	248,033	94.6	5.6	7.1	10	950	2	1.72	45
AC213D1	64 22 30	143 6 0	248,440	95.5	6.0	7.1	20	930	1	1.69	53
AC214A1	65 19 0	143 8 0	248,434	71.5	5.3	5.1	20	1,200	1	1.37	37
AC214D1	65 19 0	143 8 0	248,085	18.3	5.7	--	<10	150	<1	--	<4
AC215A1	65 30 0	144 34 0	248,352	96.6	5.6	6.6	<10	700	4	.65	43
AC215A2	65 30 0	144 34 0	248,298	96.6	5.6	6.7	<10	730	4	.65	51
AC215D1	65 30 0	144 34 0	248,302	97.0	5.7	6.9	<10	760	4	.79	49
AC216A1	65 49 0	144 6 0	248,358	73.3	7.6	4.8	<10	720	<1	3.57	28
AC216D1	65 49 0	144 6 0	248,140	75.9	7.6	5.0	<10	870	1	4.00	35
AC217A1	66 38 15	143 44 0	248,068	96.2	7.2	6.0	10	1,100	1	1.37	53
AC217D1	66 38 15	143 44 0	248,108	96.3	7.8	6.0	<10	1,200	1	1.54	54
AC218A1	66 54 0	141 36 0	248,248	92.8	6.7	5.9	30	940	1	2.07	36
AC218D1	66 54 0	141 36 0	248,242	92.8	6.4	6.2	<10	940	1	1.49	30
AC218D2	66 54 0	141 36 0	248,074	92.7	6.3	6.3	<10	990	1	1.49	51
AC219A1	65 39 45	142 6 0	248,204	73.0	4.5	4.8	<10	690	<1	1.06	26
AC219D1	65 39 45	142 6 0	248,020	95.2	6.2	6.5	<10	1,100	1	1.55	46
AC220A1	66 15 30	145 50 0	248,328	91.5	7.8	5.0	<10	1,200	1	5.10	45
AC220D1	66 15 30	145 50 0	248,007	94.8	7.3	6.0	<10	1,100	1	2.47	54
AC221A1	66 21 45	147 22 0	248,012	89.0	7.3	7.1	10	960	2	2.33	49
AC221D1	66 21 45	147 22 0	248,332	86.5	7.5	7.0	20	960	2	2.21	44
AC222A1	66 54 45	151 34 0	248,135	97.1	5.8	4.8	<10	330	<1	.20	31
AC222A2	66 54 45	151 34 0	248,184	97.2	6.0	4.7	10	300	<1	.20	17
AC222D1	66 54 45	151 34 0	248,037	97.5	5.7	5.1	<10	390	<1	.22	36
AC223A1	66 36 0	152 39 0	248,208	89.8	6.8	7.5	10	640	2	.82	34
AC223D1	66 36 0	152 39 0	248,469	89.5	7.2	7.2	<10	630	2	.85	40
AC224A1	66 2 15	154 15 0	248,182	95.4	7.9	5.6	10	420	1	2.27	26
AC224D1	66 2 15	154 15 0	248,183	94.3	7.8	6.0	10	450	1	2.14	25
AC225A1	66 12 45	155 42 0	248,472	95.3	4.9	7.1	<10	710	2	.93	55
AC225D1	66 12 45	155 42 0	248,384	93.7	4.8	--	<10	1,200	2	--	63
AC226A1	65 41 37	156 22 15	247,999	97.4	4.9	4.1	<10	270	<1	.21	23
AC226D1	65 41 37	156 22 15	248,331	98.5	5.3	3.0	<10	220	<1	.22	14
AC227A1	64 45 0	156 52 0	248,147	81.4	6.5	5.7	10	750	1	2.37	34
AC227D1	64 45 0	156 52 0	248,004	89.2	6.6	6.6	10	830	1	2.19	44
AC228A1	64 43 30	158 6 0	248,095	89.6	4.5	6.1	<10	740	1	.89	31
AC228D1	64 43 30	158 6 0	248,086	93.6	4.1	6.1	<10	750	1	1.01	35
AC229A1	66 35 15	159 59 30	248,190	78.8	3.9	6.5	<10	580	1	.58	31
AC229D1	66 35 15	159 59 30	248,420	87.3	4.4	3.7	<10	620	2	.19	50
AC230A1	66 58 0	160 27 0	248,016	94.6	4.7	6.6	<10	540	2	.66	45
AC230D1	66 58 0	160 27 0	248,343	95.1	5.1	6.3	<10	550	2	.67	51
AC231A1	67 33 0	162 59 0	248,102	78.4	6.6	4.2	<10	850	<1	1.59	35
AC232A1	67 45 0	164 33 0	248,316	97.2	5.8	2.1	10	2,000	<1	.61	14

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.--continued

Sample	Co ppm-S	Cr ppm-S	Cu ppm-S	Dy ppm-S	Fe %	Ga ppm-S	K %	La ppm-S	Li ppm-S	Mg %
AC211A1	7	55	7	<4	3.9	21	1.20	22	23	.50
AC211D1	4	25	10	<4	--	8	--	11	10	--
AC212A1	15	32	32	9	3.7	19	1.43	18	33	1.09
AC212D1	14	33	31	<4	3.7	13	1.30	20	33	1.07
AC213A1	13	52	20	7	3.3	16	1.99	28	25	1.11
AC213D1	15	60	15	<4	3.3	20	2.03	31	27	1.13
AC214A1	12	70	25	<4	2.5	12	1.41	23	42	.40
AC214D1	9	6	6	<4	--	<4	--	<2	3	--
AC215A1	12	34	16	<4	2.5	20	2.87	29	42	.51
AC215A2	13	35	17	<4	2.6	21	2.89	29	41	.50
AC215D1	12	44	20	<4	2.9	18	2.71	34	47	.63
AC216A1	13	61	26	<4	2.8	13	.98	19	20	1.16
AC216D1	15	51	27	4	3.2	15	.98	19	19	1.30
AC217A1	13	61	26	7	3.4	15	1.35	30	24	.93
AC217D1	14	63	21	<4	3.4	15	1.38	31	26	.97
AC218A1	14	68	24	<4	3.1	15	1.24	24	29	1.22
AC218D1	13	68	23	<4	2.7	13	1.29	22	29	.93
AC218D2	13	60	25	11	2.7	13	1.29	29	27	.95
AC219A1	9	52	17	<4	2.7	10	.97	18	17	.56
AC219D1	13	60	33	8	3.5	14	1.34	28	24	.92
AC220A1	14	71	28	<4	2.9	11	1.21	29	22	1.15
AC220D1	13	63	32	6	3.3	18	1.31	27	24	1.11
AC221A1	17	73	38	5	4.3	20	1.56	31	41	1.19
AC221D1	18	88	36	<4	4.2	19	1.55	31	46	1.19
AC222A1	10	43	17	5	3.5	12	.90	14	34	.66
AC222A2	9	49	14	<4	3.5	13	.88	11	34	.65
AC222D1	14	53	30	6	3.7	10	1.01	18	33	.74
AC223A1	20	84	39	<4	4.9	17	1.92	20	55	1.20
AC223D1	19	85	39	<4	4.5	19	1.79	25	52	1.20
AC224A1	15	58	25	<4	3.8	15	1.29	16	40	1.06
AC224D1	16	63	30	<4	4.1	15	1.43	16	41	1.13
AC225A1	15	93	25	<4	3.5	18	1.37	34	38	1.22
AC225D1	16	90	42	<4	--	21	--	46	24	--
AC226A1	6	33	21	<4	2.9	11	.70	13	23	.45
AC226D1	6	28	5	<4	1.6	10	.65	13	22	.33
AC227A1	13	56	26	<4	3.2	14	1.31	22	23	1.16
AC227D1	14	63	37	<4	3.7	15	1.49	24	23	1.28
AC228A1	9	55	19	<4	3.5	13	1.24	24	27	.74
AC228D1	10	57	16	6	3.2	11	1.27	24	27	.82
AC229A1	14	66	12	<4	4.0	17	1.48	21	35	1.03
AC229D1	15	72	14	<4	1.9	16	1.05	31	35	.43
AC230A1	10	50	16	7	3.8	17	1.66	25	31	1.04
AC230D1	13	58	14	<4	3.7	16	1.59	32	33	.93
AC231A1	12	54	29	4	2.7	13	.84	18	28	.73
AC232A1	11	38	13	<4	2.1	8	.44	9	25	.48

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.--continued

Sample	Mn %	Mo ppm-S	Na %	Nb ppm-S	Nd ppm-S	Ni ppm-S	P %	Pb ppm-S	Sc ppm-S	Si %
AC211A1	.03	<2	1.32	13	30	11	.13	17	11	28
AC211D1	--	<2	--	<4	20	6	--	5	5	--
AC212A1	.12	<2	2.08	6	22	24	.08	9	15	32
AC212D1	.09	<2	2.21	6	11	22	.09	7	17	30
AC213A1	.07	<2	1.55	9	24	21	.07	18	15	30
AC213D1	.07	<2	1.68	15	32	26	.07	23	14	30
AC214A1	.04	<2	.47	10	29	30	.09	26	11	22
AC214D1	--	<2	--	<4	12	14	--	<4	<2	--
AC215A1	.06	<2	1.51	18	27	15	.03	26	8	33
AC215A2	.06	<2	1.55	20	30	16	.03	30	8	33
AC215D1	.05	<2	1.68	20	29	20	.04	22	10	32
AC216A1	.06	<2	1.19	8	34	33	.10	10	10	20
AC216D1	.40	3	1.28	7	25	31	.11	9	12	21
AC217A1	.06	<2	1.36	10	25	29	.07	16	13	33
AC217D1	.07	<2	1.30	8	26	30	.08	10	14	33
AC218A1	.02	<2	1.23	10	39	35	.07	17	13	30
AC218D1	.02	<2	1.34	8	28	31	.07	13	12	31
AC218D2	.02	<2	1.33	8	26	26	.07	14	14	31
AC219A1	.02	<2	1.11	7	23	19	.10	9	10	24
AC219D1	.04	<2	1.29	8	24	27	.09	16	14	32
AC220A1	.09	<2	1.20	10	50	46	.10	10	12	28
AC220D1	.06	<2	1.39	9	28	31	.05	14	14	31
AC221A1	.09	<2	.96	8	30	42	.08	17	17	26
AC221D1	.06	<2	.93	13	38	54	.08	19	16	25
AC222A1	.03	<2	.97	<4	9	20	.06	8	10	36
AC222A2	.03	<2	.93	5	7	24	.06	13	9	36
AC222D1	.09	<2	1.01	<4	11	29	.07	10	12	36
AC223A1	.05	<2	.93	7	26	51	.10	13	18	27
AC223D1	.04	<2	.88	11	27	54	.07	22	18	28
AC224A1	.07	<2	1.07	5	25	38	.09	14	12	32
AC224D1	.08	<2	.96	5	29	41	.10	12	13	31
AC225A1	.03	<2	1.16	15	28	40	.07	31	17	31
AC225D1	--	2	--	12	38	40	--	34	16	--
AC226A1	<.02	5	.79	<4	10	13	.05	8	8	38
AC226D1	<.02	<2	.74	5	10	15	.08	12	5	40
AC227A1	.06	<2	1.25	8	23	31	.08	12	13	25
AC227D1	.07	2	1.33	8	16	32	.09	13	15	28
AC228A1	.02	<2	1.11	8	17	20	.07	12	13	30
AC228D1	.02	<2	1.12	7	16	22	.08	7	13	32
AC229A1	.05	<2	1.05	8	13	31	.09	13	14	24
AC229D1	<.02	<2	.40	12	37	37	.08	13	16	26
AC230A1	.03	<2	1.10	8	25	21	.07	17	14	32
AC230D1	.03	<2	1.14	13	36	29	.07	16	14	32
AC231A1	.04	<2	.51	5	17	34	.06	12	13	27
AC232A1	.02	<2	.41	<4	11	28	.07	17	7	40

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.--continued

Sample	Sn ppm-S	Sr ppm-S	Th ppm	Ti %	U ppm	V ppm-S	Y ppm-S	Yb ppm-S	Zn ppm-S
AC211A1	<4	120	7.7	.71	3.01	150	14	2	40
AC211D1	<4	87	5.4	--	1.95	42	6	<1	30
AC212A1	<4	210	3.7	.41	1.69	110	17	2	90
AC212D1	<4	230	4.0	.44	2.00	110	18	2	70
AC213A1	<4	220	12.2	.48	4.09	93	17	2	70
AC213D1	5	220	11.4	.45	3.86	100	18	2	80
AC214A1	4	200	8.4	.35	2.86	150	16	2	80
AC214D1	<4	130	<2.2	--	.36	14	<2	<1	<20
AC215A1	10	120	14.9	.32	6.61	66	14	1	60
AC215A2	11	120	16.9	.32	6.48	70	15	1	60
AC215D1	9	140	17.6	.39	7.88	85	19	2	70
AC216A1	<4	250	7.6	.42	2.42	110	15	1	80
AC216D1	<4	250	5.9	.45	2.22	97	14	1	80
AC217A1	<4	200	7.6	.49	2.35	120	18	2	70
AC217D1	<4	220	9.8	.51	2.54	130	16	2	60
AC218A1	<4	190	9.4	.51	2.89	130	18	2	70
AC218D1	<4	190	9.1	.53	2.89	120	17	1	70
AC218D2	<4	200	10.6	.53	2.83	120	17	2	90
AC219A1	<4	160	7.2	.41	2.53	88	11	1	40
AC219D1	<4	220	11.5	.55	3.21	120	16	2	70
AC220A1	<4	300	7.7	.43	2.20	120	17	2	80
AC220D1	<4	220	11.0	.52	2.30	120	17	2	80
AC221A1	<4	190	8.8	.59	3.42	160	19	2	100
AC221D1	<4	190	9.5	.55	3.30	170	20	2	100
AC222A1	<4	47	6.8	.45	2.10	93	5	<1	60
AC222A2	4	44	6.7	.45	1.87	96	6	<1	60
AC222D1	<4	51	8.0	.49	2.48	97	11	<1	130
AC223A1	<4	90	12.9	.57	2.96	150	14	1	110
AC223D1	5	93	8.9	.57	2.93	160	14	2	120
AC224A1	<4	110	10.2	.51	2.50	110	12	1	90
AC224D1	<4	110	11.5	.51	2.46	110	12	1	90
AC225A1	<4	150	19.3	.59	10.50	140	17	1	90
AC225D1	<4	300	26.4	--	4.70	120	13	1	60
AC226A1	<4	54	5.1	.45	2.02	75	5	<1	40
AC226D1	<4	56	4.6	.29	1.04	58	6	<1	40
AC227A1	<4	210	7.4	.45	2.36	100	13	2	90
AC227D1	<4	220	6.0	.55	2.88	120	15	2	90
AC228A1	<4	150	8.4	.57	2.94	110	11	1	50
AC228D1	<4	160	9.3	.56	2.63	120	11	1	60
AC229A1	<4	100	9.6	.53	2.61	130	12	<1	90
AC229D1	5	110	11.4	.32	3.03	130	18	2	100
AC230A1	<4	79	11.1	.58	2.85	100	16	2	70
AC230D1	6	82	10.8	.59	2.80	110	21	2	70
AC231A1	<4	80	7.6	.36	2.18	92	11	1	60
AC232A1	<4	94	2.3	.19	1.68	78	8	<1	80

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.--continued

Sample	Latitude	Longitude	LAB. NO.	Ash %	pH	Al %	As ppm-S	Ba ppm-S	Be ppm-S	Ca %	Ce ppm-S
AC232D1	67 45 0	164 33 0	248,285	96.7	6.1	2.0	10	3,100	<1	.44	18
AC232D2	67 45 0	164 33 0	248,464	97.1	6.2	1.9	10	2,100	<1	.46	17
AC233A1	67 16 0	163 39 0	248,393	94.8	7.9	4.3	<10	1,100	1	9.01	39
AC233D1	67 16 0	163 39 0	248,314	93.6	8.1	2.5	<10	410	<1	15.58	23
AC234A1	65 54 45	163 0 0	248,088	86.1	4.4	8.0	<10	860	2	.92	56
AC234D1	65 54 45	163 0 0	248,299	96.8	7.9	4.8	30	710	1	.57	39
AC234D2	65 54 45	163 0 0	248,129	96.2	7.4	5.1	40	740	1	.60	38
AC235A1	65 24 45	164 40 30	248,030	92.7	4.8	6.5	<10	630	1	.46	39
AC235A2	65 24 45	164 40 30	248,339	92.6	5.1	6.6	<10	640	1	.46	38
AC235D1	65 24 45	164 40 30	248,411	90.8	4.6	7.0	<10	660	1	.41	38
AC236A1	64 42 0	162 4 30	248,404	98.4	9.0	3.5	<10	710	<1	11.15	10
AC236D1	64 42 0	162 4 30	248,313	94.8	8.2	6.5	10	650	1	1.08	41
AC237A1	63 53 15	160 47 0	248,474	97.6	6.7	6.2	<10	440	<1	.61	24
AC237A2	63 53 15	160 47 0	248,436	97.5	6.1	5.9	10	390	<1	.65	20
AC237D1	63 53 15	160 47 0	248,315	97.4	7.1	6.5	10	450	1	.57	21
AC238A1	64 19 30	158 45 30	248,447	92.7	5.0	6.2	<10	820	1	1.06	44
AC238D1	64 19 30	158 45 30	248,019	97.4	5.3	5.9	<10	780	1	1.26	33
AC239A1	63 29 0	162 2 0	248,383	95.6	3.8	6.8	<10	480	1	3.82	23
AC240A1	63 30 0	162 16 0	248,264	97.9	6.6	7.9	<10	390	1	5.46	19
AC240D1	63 30 0	162 16 0	248,196	98.9	6.8	7.8	<10	320	1	5.63	21
AC241A1	63 1 30	163 33 0	248,396	86.9	5.2	6.8	<10	780	1	1.55	39
AC241D1	63 1 30	163 33 0	248,397	89.4	5.6	6.9	<10	860	1	1.62	42
AC242A1	62 42 0	164 36 0	248,312	84.8	5.2	6.7	10	860	1	1.53	41
AC242D1	62 42 0	164 36 0	248,387	96.6	5.3	6.7	<10	810	1	1.64	39
AC243A1	61 56 15	162 54 0	248,078	87.1	5.2	8.2	<10	640	1	1.79	43
AC243D1	61 56 15	162 54 0	248,212	84.0	4.9	7.4	<10	570	1	1.61	27
AC244A1	61 52 30	162 3 0	248,310	95.5	5.4	6.4	<10	770	1	1.21	53
AC244D1	61 52 30	162 3 0	248,276	95.1	4.8	6.7	<10	660	1	1.37	36
AC245A1	62 41 37	159 34 30	248,015	97.1	7.5	6.2	<10	780	1	1.90	33
AC245A2	62 41 37	159 34 30	248,454	97.3	7.7	6.1	<10	770	1	1.82	30
AC245D1	62 41 37	159 34 30	248,250	96.6	7.6	6.4	<10	690	<1	2.02	19
AC246A1	62 36 0	157 10 30	248,169	97.7	7.0	6.6	40	1,400	2	3.09	27
AC246A2	62 36 0	157 10 30	248,288	97.5	6.8	6.7	40	1,600	2	2.82	33
AC246D1	62 36 0	157 10 30	248,423	97.0	6.6	6.9	30	1,400	2	2.53	40
AC247A1	63 9 0	156 34 30	248,146	91.2	6.2	6.7	<10	900	1	1.22	45
AC247D1	63 9 0	156 34 30	248,195	94.9	6.7	6.7	20	830	1	.86	33
AC248A1	62 57 45	155 37 30	248,462	95.0	7.7	6.6	20	1,000	2	3.31	56
AC248D1	62 57 45	155 37 30	248,366	94.8	7.6	6.8	30	1,000	2	3.67	52
AC248D2	62 57 45	155 37 30	248,311	95.2	7.8	6.9	20	1,100	2	3.66	54
AC249A1	62 30 0	153 55 30	248,040	88.6	6.1	7.8	20	720	1	1.30	30
AC249D1	62 30 0	153 55 30	248,118	90.6	5.4	7.6	10	740	1	1.36	30
AC249D2	62 30 0	153 55 30	248,467	91.0	5.6	7.3	20	680	<1	1.58	32
AC250A1	61 48 0	156 35 0	248,054	91.3	5.3	6.6	10	950	2	1.25	45
AC250D1	61 48 0	156 35 0	248,049	92.7	4.9	6.8	10	930	1	1.11	45
AC251A1	61 53 18	158 7 30	248,370	93.5	4.9	6.8	10	780	1	1.23	39

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.--continued

Sample	Co ppm-S	Cr ppm-S	Cu ppm-S	Dy ppm-S	Fe %	Ga ppm-S	K %	La ppm-S	Li ppm-S	Mg %
AC232D1	9	41	14	<4	1.7	7	.46	10	28	.40
AC232D2	8	41	12	<4	1.6	6	.44	10	26	.39
AC233A1	15	58	34	<4	2.8	13	1.16	22	27	5.39
AC233D1	8	32	13	<4	1.6	9	.73	10	15	7.42
AC234A1	18	80	27	8	4.1	18	1.56	36	44	1.07
AC234D1	16	58	18	<4	3.9	15	1.30	22	23	.89
AC234D2	15	51	20	5	4.1	14	1.38	23	25	.93
AC235A1	9	61	16	<4	2.5	21	1.25	24	35	.82
AC235A2	10	75	12	<4	2.5	17	1.26	27	40	.83
AC235D1	10	81	10	<4	2.9	16	1.41	24	43	.83
AC236A1	4	11	4	<4	.9	7	2.42	8	14	2.15
AC236D1	14	56	14	5	3.2	15	2.02	27	40	1.16
AC237A1	15	52	14	<4	4.3	13	1.12	16	35	1.00
AC237A2	12	47	11	<4	3.9	9	1.05	14	28	.92
AC237D1	17	62	16	<4	4.7	12	1.15	17	43	1.09
AC238A1	11	70	14	<4	2.6	15	1.42	27	26	.86
AC238D1	11	55	24	5	2.9	12	1.22	21	22	.89
AC239A1	55	230	56	5	6.8	20	1.15	21	24	5.28
AC240A1	48	190	55	<4	7.8	22	.97	24	15	4.81
AC240D1	43	190	47	<4	7.8	17	1.05	21	12	5.01
AC241A1	13	75	28	<4	3.2	13	1.55	25	29	1.21
AC241D1	16	81	29	<4	3.5	17	1.58	28	33	1.25
AC242A1	15	78	31	<4	3.8	17	1.56	27	33	1.11
AC242D1	15	75	32	<4	3.4	14	1.57	25	30	1.14
AC243A1	8	10	11	12	3.6	18	1.49	24	21	.65
AC243D1	9	20	11	<4	3.5	18	1.35	20	22	.65
AC244A1	13	72	20	<4	3.4	13	1.35	31	25	.92
AC244D1	10	51	18	<4	3.0	13	1.42	24	22	.86
AC245A1	14	47	37	8	3.7	16	1.44	18	26	1.17
AC245A2	15	54	30	<4	3.6	16	1.42	20	27	1.12
AC245D1	14	44	29	<4	4.0	14	1.43	15	28	1.19
AC246A1	25	370	22	<4	5.5	16	2.32	19	38	4.13
AC246A2	31	440	29	<4	5.5	18	2.36	22	40	3.83
AC246D1	28	390	29	<4	4.7	17	2.22	26	41	3.32
AC247A1	15	69	30	7	3.4	18	1.52	28	38	1.02
AC247D1	18	100	22	<4	4.0	16	1.64	21	52	1.00
AC248A1	15	72	37	<4	3.7	15	1.94	31	44	1.21
AC248D1	17	75	39	<4	4.0	17	2.03	31	53	1.28
AC248D2	17	77	40	<4	4.0	19	2.03	31	51	1.25
AC249A1	16	56	23	5	4.9	20	1.41	20	42	1.01
AC249D1	11	50	25	5	3.5	16	1.46	18	47	1.00
AC249D2	14	56	26	<4	3.7	21	1.31	18	46	1.03
AC250A1	13	61	27	7	3.5	19	1.81	28	41	.97
AC250D1	11	63	19	6	3.4	19	1.81	26	41	1.02
AC251A1	10	48	17	<4	3.0	17	1.56	25	30	.73

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.--continued

Sample	Mn %	Mo ppm-S	Na %	Nb ppm-S	Nd ppm-S	Ni ppm-S	P %	Pb ppm-S	Sc ppm-S	Si %
AC232D1	<.02	<2	.42	<4	8	28	.07	21	6	40
AC232D2	<.02	<2	.36	<4	14	28	.07	17	6	40
AC233A1	.04	<2	.56	11	60	42	.05	12	10	18
AC233D1	.03	<2	.32	6	84	24	.04	6	5	10
AC234A1	.05	<2	.83	10	28	41	.07	18	20	25
AC234D1	.04	3	.50	9	24	46	.07	23	10	35
AC234D2	.04	3	.63	4	11	36	.07	18	11	34
AC235A1	.02	<2	.88	7	19	24	<.02	15	14	32
AC235A2	.02	<2	.93	12	29	30	<.02	17	14	32
AC235D1	.02	<2	.93	12	25	31	<.02	15	14	30
AC236A1	<.02	<2	.87	5	50	7	.02	14	2	24
AC236D1	.05	<2	1.54	12	30	29	.08	16	12	31
AC237A1	.05	<2	1.95	8	16	38	.05	5	10	33
AC237A2	.04	<2	1.93	8	18	30	.05	10	8	34
AC237D1	.05	<2	1.86	10	17	46	.07	13	11	33
AC238A1	.02	<2	1.31	12	31	24	.10	13	12	31
AC238D1	.02	<2	1.30	8	13	25	.08	12	12	34
AC239A1	.09	4	1.67	23	38	320	.10	15	19	24
AC240A1	.12	<2	1.98	35	47	200	.17	8	20	23
AC240D1	.12	3	2.11	32	45	190	.17	7	19	23
AC241A1	.03	<2	1.36	11	31	32	.09	15	14	27
AC241D1	.04	<2	1.39	11	31	39	.10	12	15	27
AC242A1	.05	<2	1.24	12	34	40	.10	17	15	26
AC242D1	.04	<2	1.57	11	31	38	.08	11	14	32
AC243A1	.11	<2	2.28	10	29	3	.14	9	15	24
AC243D1	.09	2	2.08	12	41	7	.15	13	14	24
AC244A1	.04	<2	1.30	10	37	26	.10	7	14	32
AC244D1	.05	<2	1.68	10	40	20	.10	8	13	32
AC245A1	.08	<2	1.42	5	17	27	.08	10	16	32
AC245A2	.07	<2	1.40	10	30	33	.07	8	14	32
AC245D1	.09	<2	1.56	7	24	28	.08	9	13	31
AC246A1	.12	<2	1.39	8	38	110	.14	<4	19	27
AC246A2	.14	<2	1.39	10	40	130	.14	13	20	27
AC246D1	.09	<2	1.36	14	44	120	.11	16	20	28
AC247A1	.05	<2	1.31	9	27	32	.08	13	16	29
AC247D1	.07	<2	1.15	11	31	48	.09	12	14	31
AC248A1	.06	<2	1.48	12	54	47	.10	14	13	29
AC248D1	.07	<2	1.45	13	51	50	.10	19	15	28
AC248D2	.07	2	1.58	14	46	50	.10	19	15	28
AC249A1	.05	<2	1.20	7	16	26	.07	21	14	26
AC249D1	.03	<2	1.34	6	10	23	.07	18	12	28
AC249D2	.03	2	1.16	11	22	30	.06	18	11	29
AC250A1	.05	2	1.48	8	22	32	.10	16	14	29
AC250D1	.04	<2	1.60	8	25	25	.08	13	14	30
AC251A1	.05	<2	1.85	12	32	21	.07	11	13	31

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.--continued

Sample	Sn ppm-S	Sr ppm-S	Th ppm	Ti %	U ppm	V ppm-S	Y ppm-S	Yb ppm-S	Zn ppm-S
AC232D1	<4	94	2.0	.15	1.85	76	9	<1	80
AC232D2	<4	98	<2.2	.14	1.87	72	8	<1	80
AC233A1	<4	78	7.3	.35	1.93	96	14	2	80
AC233D1	<4	81	3.4	.19	1.18	56	7	1	50
AC234A1	<4	110	8.9	.69	3.31	140	17	2	110
AC234D1	<4	72	7.4	.49	2.05	110	13	1	120
AC234D2	<4	72	7.4	.52	2.22	110	12	1	110
AC235A1	<4	85	9.0	.64	2.68	110	11	1	50
AC235A2	5	89	8.8	.63	2.61	130	13	2	60
AC235D1	4	90	2.6	.63	1.16	140	12	1	70
AC236A1	<4	480	3.0	.14	.79	29	6	<1	30
AC236D1	4	210	8.8	.47	2.66	100	17	2	80
AC237A1	<4	150	4.4	.40	1.83	99	10	1	60
AC237A2	<4	140	6.3	.37	1.62	84	8	<1	50
AC237D1	<4	140	4.8	.45	2.29	110	11	1	70
AC238A1	<4	160	8.4	.55	3.07	130	14	1	70
AC238D1	<4	180	9.2	.56	2.61	100	12	1	60
AC239A1	7	290	4.5	.82	2.10	180	19	2	120
AC240A1	8	440	4.2	1.33	1.25	210	21	2	100
AC240D1	9	390	5.9	1.31	1.38	170	21	2	90
AC241A1	4	190	10.2	.55	3.08	130	16	2	90
AC241D1	<4	210	9.8	.55	3.08	140	18	2	100
AC242A1	<4	190	8.8	.52	3.06	140	17	2	100
AC242D1	<4	230	8.9	.53	2.46	130	18	2	90
AC243A1	<4	210	5.1	.55	2.48	67	30	4	70
AC243D1	<4	180	7.2	.55	2.36	77	28	3	70
AC244A1	<4	180	8.8	.55	3.20	130	18	2	80
AC244D1	<4	180	8.9	.56	2.91	100	20	2	70
AC245A1	<4	210	6.8	.51	2.25	120	16	2	80
AC245A2	<4	210	7.3	.45	2.04	130	18	2	80
AC245D1	<4	190	5.6	.48	2.00	110	15	2	70
AC246A1	5	260	7.5	.47	3.23	150	16	2	80
AC246A2	4	280	9.3	.48	3.44	170	20	2	90
AC246D1	6	270	6.9	.52	3.49	160	19	2	90
AC247A1	<4	160	9.2	.56	3.32	130	16	2	80
AC247D1	4	120	7.6	.57	3.43	160	14	1	90
AC248A1	<4	240	10.4	.47	4.55	130	21	2	120
AC248D1	6	250	9.9	.48	4.60	140	22	2	130
AC248D2	5	250	10.7	.49	4.45	140	22	2	130
AC249A1	<4	200	7.5	.56	3.21	140	11	1	90
AC249D1	<4	210	6.9	.51	2.86	130	9	1	130
AC249D2	5	190	8.1	.50	2.64	140	12	1	80
AC250A1	<4	150	10.7	.49	3.78	120	17	2	110
AC250D1	<4	150	9.3	.51	3.65	120	14	1	90
AC251A1	<4	180	8.9	.49	2.99	94	21	2	80

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.--continued

Sample	Latitude	Longitude	LAB. NO.	Ash %	pH	Al %	As ppm-S	Ba ppm-S	Be ppm-S	Ca %	Ce ppm-S
AC251D1	61 53 18	158 7 30	248,292	90.7	4.4	6.6	<10	830	1	.99	41
AC252A1	61 34 30	159 33 0	248,270	89.9	5.4	6.6	20	910	2	1.19	32
AC252D1	61 34 30	159 33 0	248,026	90.3	4.8	6.7	10	950	2	1.18	52
AC253A1	60 52 30	157 22 30	248,256	91.2	5.1	7.6	20	760	1	.40	29
AC253A2	60 52 30	157 22 30	248,163	90.4	4.9	7.7	20	760	1	.41	23
AC253D1	60 52 30	157 22 30	248,153	93.9	4.7	6.8	<10	780	1	.56	40
AC254A1	61 22 45	155 27 0	248,271	97.1	5.8	7.1	20	930	2	1.32	35
AC254D1	61 22 45	155 27 0	248,465	97.4	5.5	7.1	20	970	2	1.32	51
AC254D2	61 22 45	155 27 0	248,142	97.1	6.1	7.1	20	980	2	1.33	51
AC255A1	59 43 30	157 18 0	248,194	83.9	4.7	6.5	<10	620	<1	1.26	23
AC255A2	59 43 30	157 18 0	248,035	83.3	4.6	6.5	<10	650	<1	1.26	34
AC255D1	59 43 30	157 18 0	248,198	87.2	4.0	6.9	<10	660	<1	1.34	25
AC256A1	59 21 45	157 29 0	248,460	87.0	5.0	6.2	<10	610	<1	1.35	22
AC256D1	59 21 45	157 29 0	248,115	86.9	4.6	6.0	<10	610	<1	1.33	28
AC257A1	59 2 15	158 28 0	248,222	96.2	5.5	7.8	10	530	<1	2.18	20
AC257D1	59 2 15	158 28 0	248,079	97.4	5.3	8.0	<10	620	<1	1.97	30
AC257D2	59 2 15	158 28 0	248,056	97.4	4.0	7.9	<10	600	<1	1.98	26
AC258A1	59 6 45	156 52 30	248,072	94.2	5.7	8.3	<10	610	1	2.01	40
AC258D1	59 6 45	156 52 30	248,081	93.3	5.5	8.4	<10	620	1	1.98	33
AC259A1	59 19 30	155 54 0	248,230	96.9	6.0	8.2	<10	910	<1	2.30	13
AC259D1	59 19 30	155 54 0	248,251	95.1	5.8	7.9	<10	810	<1	2.59	9
AC260A1	59 26 45	154 46 30	248,041	81.5	5.3	8.0	<10	370	<1	1.94	10
AC260D1	59 26 45	154 46 30	248,361	68.4	4.7	5.0	<10	450	<1	1.57	17
AC261A1	59 45 0	154 55 30	248,433	91.8	5.5	8.2	<10	720	<1	1.86	18
AC261A2	59 45 0	154 55 30	248,375	93.1	5.6	6.9	<10	780	<1	1.21	21
AC261D1	59 45 0	154 55 30	248,388	87.5	5.4	7.4	<10	640	<1	2.17	13
AC262A1	61 12 45	151 33 0	248,412	83.6	5.3	8.2	<10	410	<1	2.56	15
AC262D1	61 12 45	151 33 0	248,347	86.1	5.4	8.5	<10	370	<1	3.44	14
AC263A1	61 57 45	151 13 30	248,453	94.1	5.1	7.9	20	650	2	1.37	45
AC263D1	61 57 45	151 13 30	248,324	94.9	5.1	7.9	30	660	2	1.34	49
AC264A1	57 30 0	134 34 0	248,121	94.2	5.9	8.2	<10	1,200	2	3.03	45
AC264D1	57 30 0	134 34 0	248,202	92.5	6.3	8.4	10	1,200	1	4.20	32
AC265A1	57 3 0	135 21 0	248,297	78.6	5.3	9.3	<10	220	<1	2.02	22
AC265D1	57 3 0	135 21 0	248,300	91.0	5.6	10.2	<10	260	1	2.84	23
AC265D2	57 3 0	135 21 0	248,206	92.5	5.0	10.3	<10	220	1	2.93	22
AC266A1	65 56 43	164 29 7	248,481	90.0	4.6	6.2	10	700	1	.24	46
AC266D1	65 56 43	164 29 7	248,482	94.5	4.9	6.1	40	1,600	2	.14	50

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.--continued

Sample	Co ppm-S	Cr ppm-S	Cu ppm-S	Dy ppm-S	Fe %	Ga ppm-S	K %	La ppm-S	Li ppm-S	Mg %
AC251D1	11	61	20	<4	2.7	15	1.45	24	32	.77
AC252A1	15	67	25	<4	4.0	18	1.79	21	51	.98
AC252D1	13	58	29	11	3.6	17	1.74	27	41	.98
AC253A1	12	110	34	<4	5.0	19	1.59	19	61	1.03
AC253A2	12	100	33	<4	4.9	20	1.60	18	55	1.03
AC253D1	11	69	28	<4	3.5	15	1.56	23	51	.89
AC254A1	7	33	14	<4	2.3	18	2.68	23	54	.57
AC254D1	8	34	14	<4	2.3	20	2.70	31	49	.58
AC254D2	9	28	16	6	2.3	16	2.68	31	50	.58
AC255A1	7	39	12	<4	1.8	16	1.20	17	21	.56
AC255A2	7	35	16	8	1.8	16	1.20	19	19	.57
AC255D1	7	43	14	<4	1.7	14	1.26	18	23	.63
AC256A1	6	26	7	<4	2.1	20	1.32	15	16	.48
AC256D1	6	23	11	4	2.1	18	1.28	16	14	.45
AC257A1	11	36	22	<4	2.7	13	1.22	16	24	.89
AC257D1	10	33	21	7	2.4	15	1.21	17	20	.89
AC257D2	9	33	22	<4	2.4	17	1.20	17	20	.87
AC258A1	15	29	18	11	5.5	18	1.14	19	14	.66
AC258D1	10	22	13	8	4.1	24	1.20	20	17	.63
AC259A1	9	19	10	<4	2.4	18	1.44	11	17	.59
AC259D1	9	21	9	<4	2.9	17	1.24	11	15	.70
AC260A1	13	24	15	<4	4.0	15	.61	8	15	1.16
AC260D1	7	15	13	<4	2.2	11	.92	9	12	.52
AC261A1	10	23	15	<4	3.6	19	1.40	13	20	.85
AC261A2	11	24	14	<4	3.0	19	1.57	13	21	.74
AC261D1	11	31	16	<4	3.5	21	1.30	12	19	1.05
AC262A1	10	27	39	<4	4.1	22	.83	13	17	1.22
AC262D1	16	32	38	<4	4.8	21	.74	12	19	1.80
AC263A1	13	55	36	<4	3.5	20	2.21	27	44	1.00
AC263D1	15	58	42	<4	3.7	23	2.24	31	48	1.01
AC264A1	30	84	40	14	6.6	21	1.16	34	25	2.80
AC264D1	32	100	28	<4	7.0	23	.95	29	27	2.48
AC265A1	13	21	19	<4	4.9	25	.57	14	17	.90
AC265D1	18	18	25	<4	5.1	25	.67	15	18	1.15
AC265D2	16	14	20	<4	5.2	22	.66	14	19	1.10
AC266A1	19	91	23	<4	4.2	19	1.39	27	36	1.07
AC266D1	11	110	50	<4	4.2	16	1.58	29	32	1.05

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.--continued

Sample	Mn %	Mo ppm-S	Na %	Nb ppm-S	Nd ppm-S	Ni ppm-S	P %	Pb ppm-S	Sc ppm-S	Si %
AC251D1	.03	<2	1.52	10	29	26	.06	11	12	30
AC252A1	.09	<2	1.44	7	30	36	.11	10	13	28
AC252D1	.05	2	1.34	8	23	29	.10	15	13	29
AC253A1	.04	<2	.89	11	24	46	.09	17	15	28
AC253A2	.04	<2	.92	8	32	47	.09	8	15	28
AC253D1	.04	<2	1.19	8	13	32	.06	12	14	31
AC254A1	.05	<2	2.25	8	32	16	.10	18	8	32
AC254D1	.05	<2	2.16	11	32	17	.09	16	8	32
AC254D2	.05	<2	2.15	6	26	14	.09	15	9	33
AC255A1	.03	<2	1.79	8	25	12	.04	10	11	28
AC255A2	.03	<2	1.67	6	16	10	.04	11	12	28
AC255D1	.03	<2	1.91	11	26	14	.05	16	12	29
AC256A1	.05	<2	2.02	8	22	7	.08	12	10	29
AC256D1	.04	<2	1.85	6	9	6	.10	10	11	29
AC257A1	.06	<2	2.45	9	28	16	.08	9	15	31
AC257D1	.05	<2	2.26	5	18	14	.07	7	16	32
AC257D2	.05	<2	2.43	7	18	13	.07	9	16	31
AC258A1	.12	<2	2.18	5	24	21	.07	10	15	27
AC258D1	.07	2	2.11	7	23	8	.08	11	16	28
AC259A1	.05	<2	2.74	8	16	9	.05	8	9	31
AC259D1	.05	<2	2.60	6	14	9	.05	<4	11	30
AC260A1	.05	<2	1.97	<4	7	10	.10	<4	14	22
AC260D1	.03	<2	1.68	5	15	6	.10	<4	9	21
AC261A1	.06	<2	2.09	8	29	9	.07	11	12	27
AC261A2	.05	<2	1.86	8	25	10	.07	6	12	31
AC261D1	.06	<2	2.03	9	27	15	.07	11	13	26
AC262A1	.06	<2	1.71	8	22	10	.14	10	13	22
AC262D1	.09	<2	2.09	8	26	17	.15	6	15	22
AC263A1	.06	2	2.07	17	33	33	.10	23	12	29
AC263D1	.06	<2	2.07	18	39	36	.10	24	13	29
AC264A1	.12	<2	2.48	25	37	54	.25	10	26	24
AC264D1	.14	<2	2.50	27	53	58	.23	<4	24	22
AC265A1	.06	<2	1.97	14	30	10	.13	15	15	19
AC265D1	.09	3	2.64	15	30	11	.22	12	17	23
AC265D2	.09	<2	2.66	12	28	7	.23	<4	15	23
AC266A1	.03	<2	.65	9	37	42	.06	16	14	30
AC266D1	<.02	7	.40	8	31	35	.08	20	14	32

Table 3.--Identification, location, and chemical compostion of samples of surficial materials, Alaska.--continued

Sample	Sn ppm-S	Sr ppm-S	Th ppm	Ti %	U ppm	V ppm-S	Y ppm-S	Yb ppm-S	Zn ppm-S
AC251D1	<4	160	7.1	.48	2.66	110	15	1	70
AC252A1	<4	150	11.5	.49	4.04	120	16	1	100
AC252D1	<4	150	10.8	.51	4.01	110	17	2	100
AC253A1	<4	71	8.1	.57	2.85	180	12	1	100
AC253A2	<4	73	8.1	.57	3.06	190	12	1	100
AC253D1	<4	100	8.6	.60	3.06	130	11	1	80
AC254A1	<4	200	12.1	.31	6.22	56	16	1	70
AC254D1	<4	200	13.8	.29	6.25	62	19	2	70
AC254D2	<4	210	12.2	.30	6.46	56	17	1	60
AC255A1	4	210	6.7	.49	2.15	90	15	2	40
AC255A2	<4	200	4.7	.51	2.30	83	14	1	30
AC255D1	6	220	6.3	.53	2.18	97	16	2	50
AC256A1	<4	230	5.5	.55	2.41	74	18	2	40
AC256D1	<4	230	5.6	.55	2.14	71	13	2	30
AC257A1	<4	290	2.9	.50	1.86	120	20	2	60
AC257D1	<4	300	4.8	.51	1.94	110	16	2	50
AC257D2	<4	290	4.5	.51	1.93	110	16	2	70
AC258A1	<4	290	4.1	.54	1.86	110	18	2	80
AC258D1	<4	290	5.1	.59	1.81	100	20	2	70
AC259A1	<4	320	3.1	.37	1.41	74	15	2	50
AC259D1	<4	310	3.2	.45	1.23	90	13	1	50
AC260A1	<4	240	3.2	.39	.96	110	11	1	60
AC260D1	<4	180	4.1	.29	1.09	73	14	2	40
AC261A1	<4	240	5.3	.43	1.80	100	17	2	60
AC261A2	<4	240	4.3	.49	1.79	97	16	2	60
AC261D1	<4	240	3.6	.38	1.60	100	16	2	60
AC262A1	<4	410	8.8	.40	2.41	130	12	1	60
AC262D1	<4	440	<2.0	.45	.71	150	14	1	80
AC263A1	4	250	10.0	.45	5.42	110	24	3	110
AC263D1	5	260	13.3	.45	5.43	120	26	3	120
AC264A1	<4	500	2.9	1.39	1.37	180	22	2	70
AC264D1	4	760	3.8	1.51	1.36	200	25	2	70
AC265A1	<4	170	4.6	.65	1.82	100	22	3	60
AC265D1	<4	230	4.1	.71	1.75	120	27	3	70
AC265D2	<4	220	7.6	.72	1.41	110	26	3	60
AC266A1	<4	55	11.0	.54	2.77	160	12	1	90
AC266D1	<4	78	<8.9	.51	33.10	350	14	2	100

Table 4.--Data for elements determined in 50 or fewer samples of the 487 samples of surficial materials analyzed

Sample No.	N. Latitude	W. Longitude[1]	Name of 1:250,000-scale topographic map	Percent ash	pH	Concentration of element, ppm
			Bismuth			
AC023A1	57 41 00	133 30 00	Sumdum	7.08	5.2	10
AC046A1	69 02 00	148 49 00	Sagavanirktok	20.7	5.2	10
AC084D1	63 14 15	142 14 14	Tanacross	97.3	5.0	10
AC093A1	60 08 15	149 23 14	Seward	92.7	5.7	10
AC099D1	58 59 00	159 03 00	Nushagak Bay	94.4	5.3	10
AC101A1	57 56 00	156 50 00	Mt. Michelson	88.1	6.5	10
AC114A1	65 15 00	145 20 00	Circle	80.7	6.1	10
AC116A1	65 15 00	163 46 00	DeLong Mts.	94.3	5.2	10
AC120A1	56 27 00	133 57 00	Petersburg	26.0	4.2	10
AC127D2	65 50 00	160 37 00	Candle	95.5	4.8	10
AC130A1	64 33 00	160 45 00	Norton Bay	61.0	5.8	10
AC131D2	70 16 00	152 01 00	Harrison Bay	80.4	6.2	10
AC152A1	62 05 37	146 20 37	Valdez	86.5	4.2	10
AC172D1	70 27 00	157 22 00	Meade River	51.4	4.1	10
AC174D1	62 32 07	146 56 30	Gulkana	95.4	5.7	10
AC193A1	52 48 30	E.173 09 00	Attu	7.3	3.9	10
AC204A1	62 05 15	163 43 30	Kwiguk	95.4	4.9	20
AC218D2	66 54 00	141 36 00	Black River	92.7	6.3	10
AC262D1	61 12 45	151 33 00	Tyonek	86.1	5.4	10
			Cadmium			
AC058A1	59 30 45	139 40 20	Yakutat	85.7	4.7	6
AC134A1	68 28 40	155 48 00	Killik River	81.4	7.2	3
AC134A2	68 28 40	155 48 00	Killik River	82.3	7.0	4
AC180A2	64 47 00	163 45 00	Solomon	94.2	5.5	9
AC197A1	58 00 00	152 47 00	Afognak	98.1	6.2	13
AC199A1	57 32 00	154 00 00	Kodiak	89.9	5.5	4
AC200A1	57 34 30	154 27 34	Karluk	87.9	5.4	2
AC201A1	60 35 15	165 15 00	Nunivak Island	93.5	4.8	3

Table 4.--Data for elements determined in 50 or fewer samples of the 487 samples of surficial materials analyzed (continued)

Sample No.	N. Latitude	W. Longitude	Name of 1:250,000-scale topographic map	Percent ash	pH	Concentration of element, ppm
			Erbium			
AC020A1	63 17 00	143 14 00	Tanacross	80.2	5.3	6
AC020D1	63 17 00	143 14 00	Tanacross	74.5	5.3	6
AC134A1	68 28 40	155 48 00	Killik River	81.4	7.2	3
			Europium			
AC020A1	63 17 00	143 14 00	Tanacross	80.2	5.3	3
AC020D1	63 17 00	143 14 00	Tanacross	74.5	5.3	3
AC134A1	68 28 40	155 48 00	Killik River	81.4	7.2	3
AC134A2	68 28 40	155 58 00	Killik River	82.3	7.0	3
AC181A1	55 56 00	133 08 00	Craig	72.1	4.5	3
AC264D1	57 30 00	134 34 00	Juneau	92.5	6.3	2
			Gadolinium			
AC020A1	63 17 00	143 14 00	Tanacross	80.2	5.3	10
AC020D1	63 17 00	143 14 00	Tanacross	74.5	5.3	10
AC134A1	68 28 40	155 48 00	Killik River	81.4	7.2	20
AC134A2	68 28 40	155 48 00	Killik River	82.3	7.0	20
AC170A1	69 12 45	144 00 43	Mt. Mickelson	64.6	5.5	10
			Praseodymium			
AC002A1	68 52 00	158 20 00	Howard Pass	90.9	5.4	20
AC020A1	63 17 00	143 14 00	Tanacross	80.2	5.3	30
AC020D1	63 17 00	143 14 00	Tanacross	74.5	5.3	30
AC032D1	66 53 04	157 01 09	Shugnak	96.4	4.7	10
AC050A1	66 41 00	150 37 00	Bettles	96.4	4.9	10

Table 4.--Data for elements determined in 50 or fewer samples of the 487 samples of surficial materials analyzed (continued)

Sample No.	N. Latitude	W. Longitude	Name of 1:250,000-scale topographic map	Percent ash	pH	Concentration of element, ppm
			Praseodymium (continued)			
AC052A1	68 49 00	148 21 00	Philip Smith Mts.	93.9	6.3	10
AC053A1	68 49 00	148 03 00	Philip Smith Mts.	91.2	5.5	10
AC056A1	55 26 57	131 27 26	Ketchikan	94.0	4.5	10
AC072D1	63 33 00	149 39 00	Healy	93.8	6.1	10
AC073A1	63 30 45	150 53 14	Mt. McKinley	94.6	5.5	20
AC073A2	63 30 45	150 53 14	Mt. McKinley	94.0	5.4	10
AC097D2	61 04 52	149 48 00	Anchorage	97.0	5.0	10
AC103A1	69 39 00	143 32 00	Demarcation Point	94.6	5.4	10
AC103D1	69 39 00	143 32 00	Demarcation Point	96.0	5.8	10
AC109A1	65 36 00	168 06 00	Teller	82.1	4.5	10
AC109A2	65 36 00	168 06 00	Teller	81.3	4.5	20
AC115A2	65 15 00	163 16 00	Noatak	96.6	5.3	10
AC127A1	65 50 00	160 37 00	Candle	92.8	5.1	10
AC127D1	65 50 00	160 37 00	Candle	95.6	4.9	10
AC135A2	68 21 50	153 57 30	Killik River	96.3	5.5	10
AC143A1	70 17 57	151 51 49	Harrison Bay	94.3	6.0	20
AC156D1	65 34 30	144 54 00	Circle	69.6	4.9	10
AC165A1	65 52 28	160 41 24	Candle	90.4	4.5	20
AC171A1	69 30 05	144 30 59	Mt. Michelson	94.5	4.7	10
AC179A1	64 27 45	164 58 00	Solomon	64.9	4.7	20
AC179D1	64 27 45	164 58 00	Solomon	74.4	4.7	10
AC179D2	64 27 45	164 58 00	Solomon	73.1	4.8	10
AC183A1	64 56 00	166 13 00	Nome	63.0	6.2	10
AC191A1	69 51 30	155 58 40	Ikpikpuk River	96.6	4.4	20
AC191D1	69 51 30	155 58 40	Ikpikpuk River	93.9	5.3	10

Table 4.--Data for elements determined in 50 or fewer samples of the 487 samples of surficial materials analyzed (continued)

Sample No.	N. Latitude	W. Longitude	Name of 1:250,000-scale topographic map	Percent ash	pH	Concentration of element, ppm
			Praseodymium (continued)			
AC192D1	71 03 00	154 45 00	Barrow	84.3	4.7	10
AC202A1	61 50 37	165 37 00	Hooper Bay	95.8	5.8	10
AC208A2	64 56 00	162 10 42	Solomon	92.3	4.5	10
AC208D1	64 56 00	160 10 42	Solomon	97.5	5.1	10
AC215A2	65 30 00	144 34 00	Circle	96.6	5.6	10
AC215D1	65 30 00	144 34 00	Circle	97.0	5.7	10
AC223D1	66 36 00	152 39 00	Bettles	89.5	7.2	10
AC225D1	66 12 45	155 42 00	Hughes	93.7	4.8	10
AC229D1	66 35 15	159 59 30	Selawik	87.3	4.4	20
AC234D1	65 54 45	163 00 00	Bendeleben	96.8	7.9	10
AC235A2	65 24 43	164 40 30	Bendeleben	92.6	5.1	10
AC238D1	64 19 30	158 45 30	Nulato	92.7	5.0	20
AC244A1	61 52 30	162 03 00	Marshall	95.5	5.4	10
AC245A2	62 41 37	159 34 30	Holy Cross	97.3	7.7	10
AC247D1	63 09 00	156 34 30	Ophir	94.9	6.7	10
AC251D1	61 53 18	158 07 30	Sleetmute	90.7	4.4	10
AC253A2	60 52 30	157 22 30	Taylor Mts.	90.4	4.9	10
AC254D1	61 22 45	155 27 00	Lime Hills	97.4	5.5	10
AC255A1	59 43 30	157 18 00	Dillingham	83.9	4.7	10
AC263A1	61 57 45	151 13 30	Tyonek	94.1	5.1	10
			Samarium			
AC020A1	63 17 00	143 14 00	Tanacross	80.2	5.3	20
AC020D1	63 17 00	143 14 00	Tanacross	74.5	5.3	20
AC109A1	65 36 00	168 06 00	Teller	82.1	4.5	10
AC109A2	65 36 00	168 06 00	Teller	81.3	4.5	10
AC179A1	64 27 45	164 58 00	Solomon	64.9	4.7	10

Table 4.--Data for elements determined in 50 or fewer samples of the 487 samples of surficial materials analyzed (continued)

Sample No.	N. Latitude	W. Longitude	Name of 1:250,000-scale topographic map	Percent ash		Concentration of element, ppm
			Silver			
AC156A1	65 34 30	144 54 00	Circle	21.7	5.3	2

[1]Longitude is West, except as indicated.

APPENDIX I

Additional directives provided to each sample collector.

(1) Labeling and notes--include name of collector, date of collection, and sampling location (2°-sheet name, latitude and longitude to seconds, or a map with sites marked and numbered).
(2) Each sample identified as being from primary site or replicate site.
(3) Select sampling locations to represent "normal" materials. Avoid locations of obvious pollution or mineral deposits. Sample no closer than 100m from roadways.
(4) Include notes on the geology, pedology, physiogeography, and vegetation of the site. Physical descriptions of the material (such as "sandy loam," "bluish plastic clay," "organic muck," or "beach sand") are important.
(5) Fill a soil sample envelope (provided) with the material and avoid rock fragments larger than 1.2cm; approximately 0.5kg of material is needed.
(6) Dry very wet samples, at temperatures less than 100°C, only enough to make them shippable.
(7) Ship samples at earliest convenience.

APPENDIX II

Common, scientific, and family names for plants listed in this report.

Alder, *Alnus crispa* (Ait.) Pursh and *A. incana* (L.) Moench. (Betulaceae).
Aspen, *Populus tremuloides* Michx. (Salicaceae).
Bearberry, *Arctostaphylos uva-ursi* (L.) Spreng. and *A. rubra* (L.) Spreng. (Ericaceae).
Black spruce, *Picea mariana* (Mill.) Britt., Sterns, and Pogg. (Pinaceae).
Blueberry, *Vaccinium* sp. (Ericaceae).
Bluejoint, *Calamagrostis canadensis* (Michx.) Beauv. (Gramineae).
Cottonwood, *Populus balsamifera* L. (Salicaceae).
Crowberry, *Empetrum nigrum* L. (Empetraceae).
Devil's club, *Echinopanax horridum* (Sm.) Decne. & Planch. (Araliaceae).
Dwarf birch, *Betula nana* L. and *B. glandulosa* Michx. (Betulaceae).
Horsetail, *Equisetum* sp. (Equisetaceae).
Labrador tea, *Ledum palustre* L. ssp. *decumbens* (Ait.) Hult. and ssp. *groenlandicum* (Oeder) Hult. (Ericaceae).
Menziesia, *Menziesia ferruginosa* Sm. (Ericaceae).
Paper birch, *Betula papyrifera* Marsh. and *B. kenaica* Evans (Betulaceae).
Pyrola, *Pyrola* sp. (Pyrolaceae).
Rose, *Rosa acicularis* Lindl. (Rosaceae).
Sitka spruce, *Picea sitchensis* (Bong.) Carr. (Pinaceae).
Spiraea, *Spiraea beauverdiana* Schneid. (Rosaceae).
Tamarac, *Larix laricina* (DuRoi) K. Koch (Pinaceae).
Viburnum, *Viburnum edule* (Michx.) Raf. (Caprifoliaceae).
Western hemlock, *Tsuga heterophylla* (Raf.) Sarg. (Pinaceae).
White spruce, *Picea glauca* (Moench.) Voss (Pinaceae).
Willow, *Salix* sp. (Salicaceae).