Division of Geological & Geophysical Surveys

RAW-DATA FILE 2007-4

MAJOR-OXIDE, MINOR-OXIDE, TRACE-ELEMENT, GEOCHEMICAL, AND NON-CARBONATE CARBON DATA FROM ROCKS COLLECTED IN THE SOLOMON AND NOME QUADRANGLES, SEWARD PENINSULA, ALASKA IN 2006

by

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$5.00

September 2007

Released by

STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES
Division of Geological & Geophysical Surveys
3354 College Road
Fairbanks, Alaska 99709-3707

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Note: This report (including all analytical data and tables) is available in digital format from the DGGS web site (http://wwwdggs.dnr.state.ak.us) at no charge. The digital data are available as PDF files and Excel spreadsheets.

MAJOR-OXIDE, MINOR-OXIDE, TRACE-ELEMENT, GEOCHEMICAL, AND NON-CARBONATE CARBON DATA FROM ROCKS COLLECTED IN THE SOLOMON AND NOME QUADRANGLES, SEWARD PENINSULA, ALASKA IN 2006

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MELANIE B. WERDON, RAINER J. NEWBERRY, DAVID J. SZUMIGALA, LARRY K. FREEMAN, and JENNIFER E. ATHEY

INTRODUCTION

Mineral-resource personnel from the Alaska Division of Geological & Geophysical Surveys carried out a geological field survey, including mapping and sampling in the Solomon Quadrangle, Seward Peninsula, Alaska from June 15 to July 26, 2006, and a reconnaissance visit to the Nome Quadrangle. The fieldwork provides basic information critical to building an understanding of Alaska's geology and is part of an integrated program of airborne geophysical surveys followed by geological mapping. During 2006, 211 rock samples were collected for geochemical trace-element analysis, 24 rock samples were collected for whole rock (major- and minor-oxides, and petrogenetically important trace-elements) analysis, and 3 samples were collected for non-carbonate carbon analysis. Location coordinates were collected using a hand-held GPS unit (no differential correction was applied), and coordinates are presented in latitude and longitude (based on the NAD 27 Alaska datum) and in UTM coordinates (based on the Clark 1866 spheroid, NAD 27 datum, UTM zone 3 projection). Additional details about the sampling program can be found in the metadata file associated with the digital version of this report. Sample numbers, location data, descriptions, and analytical results for each sample are tabulated in Tables 1, 2, 3, 4, and 7.

ANALYTICAL METHODS

All trace-element geochemical analyses (table 2) collected in 2006 were performed by ALS Chemex. Rock samples were crushed with a Terminator jaw crusher with chrome steel alloy plates so that at least 70 percent of the material passed through a –10 (2 mm) mesh screen. Representative aliquots of 250 grams and 30 grams each were taken using a stainless steel riffle splitter. These samples were then pulverized in a chrome steel ring mill so that 85 percent of the sample passed through a –200 (75 micron) mesh screen. Most trace-element analyses were performed on the 250 gram split while gold analyses were performed on the 30 gram representative split.

Initially, all samples were assayed for gold by atomic absorption spectroscopy following a fire assay fusion (FA-AAS). Samples containing greater than 10,000 ppb gold were also assayed by gravimetric finish following a fire assay fusion (FA-GRAV). All samples were assayed for mercury by inductively coupled plasma–atomic emission spectroscopy (ICP-AES) after aqua regia digestion, and by atomic absorption spectroscopy (AAS) after aqua regia digestion/cold vapor. High-grade copper samples were assayed by AAS. All other trace-element geochemical analyses were performed by inductively coupled plasma–atomic emission spectroscopy (ICP-AES) methods following aqua regia digestion. This method of digestion is possibly incomplete for some elements and may result in lower analytical results for certain elements. The elements that may be affected by incomplete digestion as well as analytical methods, and lower and upper detection limits are tabulated in Table 5.

All whole rock analyses (table 4) were performed by ALS Chemex. Major- and minor-element oxides were determined by X-ray fluorescence spectrometry following a lithium metaborate fusion (LBF-XRF). Trace elements (Nb, Rb, Sr, Y, and Zr) were determined using wavelength-dispersive X-ray fluorescence spectrometry on pressed pellets (PP-XRF). Analytical methods and detection limits are tabulated in Table 6.

In order to check assay values reported by laboratories, DGGS inserts well-characterized rock standards throughout our sample order. Inspection of the analyses of DGGS's whole rock standards indicated that pressed-pellet XRF values for yttrium (Y) reported by ALS Chemex were too low. Upon our request, ALS Chemex examined their internal standards and stated that the Y values were within their accepted range of standard deviation. To examine this issue further, DGGS submitted the leftover pulps from basalt and gabbro samples to the University of Alaska Fairbanks (UAF) Advanced Instrumentation Laboratory for comparative XRF analyses. XRF analyses at UAF were conducted on pressed pellets using standard Norrish and Hutton (1969) procedures as described in Potts (1987) and as used by Cameron (2000). Well-calibrated international standards were used as a check of the analyses. The routine was customized for inter-elemental X-ray interferences in rocks of basaltic composition. The UAF-derived XRF analyses for Y are significantly (5-25%) higher than those reported by ALS Chemex (both analyses are reported in table 4). The UAF Y values are more comparable to the independently derived Y XRF analyses of Amato and others (2003) [run at New Mexico State University] for basalts and gabbros of the same age in the Nome Quadrangle immediately to the west of the Council project area. We conclude that all of the UAF-derived trace-element analyses (Nb, Rb, Sr, Y, and Zr) more closely reflect the true concentration values, and hence recommend the use of the UAF values over those reported by ALS Chemex.

All non-carbonate carbon analyses (table 7) were performed by ALS Chemex. Non-carbonate carbon concentrations were determined by Leco induction furnace pyrolysis following a dilute acid digestion. Analytical methods and detection limits are tabulated in Table 7.

ACKNOWLEDGMENTS

We would like to thank Laurel E. Burns for reviewing the text and tables in this report. This project is part of the Alaska Airborne Geophysical/Geological Mineral Inventory Program funded by the Alaska State Legislature and managed by State of Alaska, Department of Natural Resources, Division of Geological & Geophysical Surveys. Partial funding for the geologic mapping and geochemical analyses was also provided through the U.S. Geological Survey STATEMAP Program under award number 06HQAG0024.

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Table 1. Location and description of rocks collected for trace-element geochemical analyses in the Solomon Quadrangle, Seward Peninsula, Alaska.

Sample Number	Latitude	Longitude	UTM E	UTM N	Description
06LF30A	64.6138	-163.6992	562224	7165856	White and gray, banded/laminated quartzite.
06LF32C	64.6133	-163.7031	562041	7165801	Rusty, limonitic rock chips with boxworks; on broken surface rock is orange, fine-grained, porous, with trace quartz grains.
06LF35C	64.6119	-163.7138	561532	7165632	Brown, red, and orange, oxidized, fine-grained marble cut by calcite veins with trace to 2 percent limonite.
06LF38A	64.6119	-163.7221	561133	7165626	Old prospecting pit. Brown-orange oxidized marble with clear vuggy calcite veins; trace limonite pseudomorphs of pyrite.
06LF43B	64.6164	-163.7519	559698	7166099	Old prospecting pit. Gossanous veins up to 3 cm wide. Limonite ± boxworks in foliation-parallel veins. Average vein width is 1 mm to 1 cm, and veins are locally distributed within the prospecting pit.
06LF44A	64.6160	-163.7643	559106	7166038	Calcite + chlorite + white mica + quartz schist with foliation-parallel quartz veins. Rusty pits, possibly after pyrite(?).
06LF53B	64.6115	-163.7217	561156	7165575	Small prospecting pit. Breccia with 1- to 5-cm-diameter, angular clasts of calcite marble with a brownish-orange dolomite matrix. Locally gossanous and pitted, with minor dog-tooth calcite-filled vugs. Breccia may either be a karst infill deposit or of hydrothermal origin.
06LF56B	64.6066	-163.7298	560777	7165025	Breccia with 1- to 5-cm-diameter, angular clasts of marble with a brown, granular, dolomite matrix. Occurs in two parallel 2-foot-wide zones.
06LF64B	64.7642	-163.7745	558299	7182548	Carbonate + chlorite + white mica + quartz schist with 5-10 percent rusty pits after carbonate.
06LF91B	64.7791	-163.7949	557296	7184184	Graphite + white mica + quartz schist with 2-10 percent pyrrhotite, which occurs as grains parallel to foliation.
06LF120B	64.8517	-164.4816	524583	7191830	White mica + calcite + chlorite + feldspar + quartz schist with 1-2-cm-thick quartz vein along a northeast-trending joint set with a strike of 247 degrees (azimuth) and a dip of 65 degrees. Quartz is comb-textured with paragenetically late calcite.
06LF134A	64.8296	-164.4315	526981	7189394	Chlorite + white mica + feldspar + quartz schist with abundant foliation-parallel quartz veins. Fractures and joints contain iron oxide and pyrite.
06LF135B	64.8289	-164.4328	526918	7189308	Chlorite + white mica + feldspar + quartz schist with 5-10 percent iron oxide pits, possibly after sulfide.
06LF149A	64.5807	-163.7348	560597	7162131	Old prospecting pit. White, coarsely crystalline marble with pockets and irregular fractures filled with graphite.
06LF150A	64.5755	-163.7401	560353	7161547	Old prospecting pit. Weakly to moderately iron oxide-stained, white mica + quartz schist with white, comb-textured quartz vein.

Table 1. (continued).

Sample Number	Latitude	Longitude	UTM E	UTM N	Description
06LF151C	64.5712	-163.7493	559923	7161068	Fault zone. Strongly sheared black marble. Red iron oxide(?) stain coating fractures, fault gouge, and shear planes. Veined by calcite.
06LF152B	64.8397	-163.8461	554742	7190895	Black, white mica + graphite + quartz schist with 0-5 percent disseminated iron oxide after sulfide(?).
06LF156B	64.8406	-163.8447	554803	7190998	Gossanous quartz + carbonate veins in a fault that strikes 142 degrees (azimuth) and dips 87 degrees; fault cuts black, calcite + white mica + graphite + quartz schist.
06LF169A	64.8500	-163.8357	555214	7192057	Garnet + amphibole granofels that is locally foliated.
06LF178A	64.8531	-163.8237	555776	7192403	Garnet +epidote + amphibole granofels with 1-3 percent pyrrhotite.
06LF180A	64.8544	-163.8199	555954	7192557	Pyrite(?) (5%) + garnet + epidote + amphibole granofels.
06LF189C	64.8572	-163.8008	556850	7192890	Chlorite + feldspar schist with 1-2 percent disseminated pyrrhotite and chalcopyrite; schist also contains 1-5 percent foliation-parallel quartz veins.
06LF193A	64.8357	-164.4058	528192	7190083	Carbonate + white mica + chlorite + quartz schist. Schist is cut by a 5-mm-wide vein of quartz + calcite + white mica(?)/chlorite(?) (coarse euhedral crystals), which is hosted within a kink-band fold. Vein is perpendicular to foliation and crenulation.
06LF199A	64.8254	-164.3889	529006	7188937	Calcite + white mica + quartz schist with 5-30 percent calcite (in lenses and foliation-parallel streaks). Contains 1- to 10-mm-wide quartz veinlets spaced 2-6 cm apart, with abundant orange iron oxide.
06LF226B	64.7953	-164.0187	546630	7185812	Calcite + tremolite(?) schist with 15 percent quartz + calcite veins, which are strongly folded, lineated, and transposed parallel to cleavage within a 1- to 2-foot wide zone.
06LF288D	64.8309	-164.0122	546874	7189785	One-foot-wide zone of iron oxide-stained marble breccia. Matrix is brown, granular calcite, with crystalline calcite-lined vugs.
06LF289B	64.8301	-164.0092	547019	7189693	Marble cut by quartz + calcite + limonite (less than 1 percent; pseudomorphs after pyrite) veins, with most veins oriented parallel to foliation. Local breccia and stockwork veining. Orange iron oxide-staining occurs in a 2-m-wide zone in marble around the veins.
06LF309B	64.8174	-163.9539	549667	7188323	Black, graphite + white mica + quartz schist with red and orange iron oxide coating foliation, and on 1- to 2-mm-wide fractures cutting foliation.
06LF323A	64.8421	-164.1424	540681	7190935	Garnet + epidote + chlorite schist with foliation-parallel quartz veins, and 2 percent pyrite and chalcopyrite located peripheral to the veins.
06LF355A	64.7594	-164.4993	523826	7181538	Graphite + white mica + quartz schist with 0.1- to 2-mm-wide quartz veins filling fractures associated with kink folds(?). Veins strike 85 degrees (azimuth) and dip 68 degrees.

Table 1. (continued).

Sample Number	Latitude	Longitude	UTM E	UTM N	Description
06LF357A	64.7720	-164.4630	525533	7183539	Red weathering, brecciated marble with brown-yellow matrix.
06LF357B	64.7772	-164.4630	525533	7183539	2-foot-wide zone of orange and red, iron oxide-filled breccia veins up to 5 mm in width. Vein or fault has a strike of 108 degrees (azimuth) and a dip of 78 degrees.
06LF361B	64.7839	-164.3981	528614	7184318	1-mm- to 10-cm-wide, plagioclase(?) veins spaced 2 to 10 cm apart. Sample includes wall rock schist. Trace iron oxide staining. Veins strike 78 degrees (azimuth) and dip 85 degrees.
06LF362A	64.7835	-164.3952	528754	7184270	1-mm- to 2-cm-wide, white mica + chlorite + quartz + albite veins spaced 2-10 cm apart. Locally veins have a chlorite selvage, and contain paragenetically late white mica as an open-space filling. Veins have a strike of 78 degrees (azimuth) and a dip of 84 degrees.
06LF372B	64.8090	-164.3404	531328	7187140	Rusty, calcite + chlorite + white mica + quartz schist with 0.75-inch-wide, quartz + albite + calcite veins spaced 6 inches to 3 feet apart. Iron oxide stain in veins. Carbonate in veins may be iron-bearing.
06LF373B	64.8105	-164.3418	531261	7187303	2-foot- by 5-foot-wide quartz + iron carbonate veins parallel to foliation, with strong iron stain and pale green micas on margins.
06LF382A	64.8554	-164.3191	532284	7192324	Brown-orange weathering, gray, calcite + white mica + quartz schist cut by 0.1- to 1-inch-wide quartz + iron carbonate + trace pyrite veins filling joints. Joints strike 102 degrees (azimuth) and dip 81 degrees.
06LF393A	64.8479	-164.5062	523420	7191398	Black graphitic quartzite.
06LF400A	64.8211	-164.4956	523947	7188422	Green, fine-grained granofels cut by 1 percent quartz + calcite veins. Granofels contains 1-16 percent pyrite ± chalcopyrite; 1 percent of sulfides are disseminated, and 15 percent occur in clots and streaks up to 1- to 2-cm-wide.
06LF407A	64.7725	-164.2331	536471	7183126	Strongly to chaotically fractured zone in graphite + white mica quartzite. Fractures, up to 1mm wide, are filled with quartz and gossan. Main fracture has a strike of 313 degrees (azimuth) and a dip of 64 degrees.
06LF408B	64.7711	-164.2355	536359	7182971	Light gray, very-fine-grained, granular, pyrite + white mica + quartz schist with layers of graphitic schist.
06LF409B	64.7704	-164.2358	536349	7182895	1-foot-thick gossan zone with iron oxide boxwork, angular chips of schist, and white quartz parallel to foliation.
06LF413B	64.7651	-164.2421	536054	7182295	White quartz vein with iron oxide-coated fractures and 2 percent angular pockets of red, yellow, and orange gossan.

Table 1. (continued).

Sample Number	Latitude	Longitude	UTM E	UTM N	Description
06LF423B	64.7780	-164.2191	537131	7183750	Layer of black to dark gray, white mica + quartz + graphite (5 to 10 percent) hosted within a hard, very fine-grained, siliceous rock (silicified marble(?)). Layer and siliceous rock surrounded by marble.
06LF442B	64.8849	-164.2139	537230	7195660	Black, very sooty, graphite + quartz schist with fine-grained, alternating layers of quartz and graphite.
06LF449A	64.8971	-164.1950	538107	7197034	Orange-tan weathering, greenish-gray, impure dolomitic marble with trace to 1 percent pyrite, and foliation defined by greenish-yellow mica crystals. Cut by 10 percent, one-quarter-inch-wide calcite veinlets.
06LF450A	64.9022	-164.1847	538589	7197607	Black and white, color-banded quartzite(?) or silicified marble(?). Layers are tightly folded, with black bands containing sooty graphite, and white bands composed of granular quartz.
06LF457A	64.8416	-164.0861	543351	7190925	Tan weathering, white mica + calcite schist with iron oxide along fractures and in lenses up to 1 mm thick.
06LF489A	64.7923	-164.0568	544824	7185447	Green, chlorite-spotted, chlorite + calcite + epidote + feldspar schist cut by calcite-filled, red iron oxide(?)-coated fractures.
06LF492A	64.7947	-164.0627	544539	7185706	Orange, tan, and gray, fine-grained, foliated marble cut by abundant white calcite veinlets. Marble contains iron-stained, sooty graphite-filled fractures, voids, and matrix.
06LF492B	64.7947	-164.0627	544539	7185706	Orange weathering, tan, fine-grained, marble with iron oxide clots and bands and abundant calcite veinlets.
06LF495A	64.7958	-164.0627	544539	7185833	Green, weakly foliated, garnet + chlorite + amphibole granofels with less than 1 percent pyrite and trace chalcopyrite. Both sulfides occur on joint surfaces, which are spaced 2 to 20 inches apart, have a strike of 301 degrees (azimuth) and a dip of 64 degrees.
06LF499B	64.7583	-164.4693	525255	7181426	Tan weathering, impure schistose marble, which occurs in discontinuous layers or in the cores of isoclinal folds(?). Pyrite and chalcopyrite occur in 0.05-inch-thick siliceous bands, and as fracture coatings in brecciated impure marble over a 15-foot by 15-foot area. The mineralized zone is about 2 to 4 inches thick.
06LF501B	64.7581	-164.4714	525154	7181408	White, granular, fine-grained, silicified marble(?) with relict banding/foliation.
06LF501C	64.7581	-164.4714	525154	7181408	Brown weathering, oxidized rock. Light brown, fine-grained rock with orange, limonite-filled pockets between 0.1 and 0.3 inches in diameter.

Table 1. (continued).

Sample Number	Latitude	Longitude	UTM E	UTM N	Description
06LF508A	64.7581	-164.4994	523823	7181392	Dark gray, graphite(?) + white mica + quartz schist with 1 percent quartz + limonite veins up to 0.1 inches thick. Veins follow joints with a strike of 71 degrees (azimuth) and a dip of 89 degrees.
06LF534B	64.5799	-163.7079	561884	7162072	Small hand-dug pit. Orange weathering, tan, very fine-grained marble with surface iron stain, and cut by 2-inch-wide zone of calcite + iron oxide veinlets spaced 0.5 to 6 inches apart.
06LF535B	64.5803	-163.7100	561785	7162110	Prospecting pits with 6- to 12-inch-diameter blocks of brecciated marble with stockwork veinlets of calcite with orange, iron(?)-stained marble fragments. Most fractures coated with orange and yellow iron oxide. One vein strikes approximately 30(?) degrees (azimuth).
06LF539A	64.5769	-163.7164	561485	7161735	Tan, granular, fine-grained, white mica-bearing (less than 1 percent) quartzite(?) or possible silicified marble(?), with parallel vuggy streaks, iron oxide on fractures, and 1 percent pyrite.
06LF543B	64.5729	-163.7209	561279	7161279	Hand-dug trenches. Yellow to red, brecciated, very fine-grained marble with a siliceous matrix. Weathered-out marble fragments in some rocks has produced a cellular-textured siliceous rock with bright red iron oxide. Breccia zone trends 85(?) degrees (azimuth).
06LF550B	64.5915	-163.7790	558456	7163298	10-foot by 15-foot area of marble breccia with a silicified matrix, with cellular gossan after marble clasts. Green and brown iron oxide stain on fractures and broken surfaces.
06LF562A	64.8630	-163.7511	559196	7193579	Gray, white mica (dark gray colored) + quartz + calcite(?) schist with 30 percent iron oxide gossan as bands parallel to foliation, especially in chevron fold hinges.
06LF585B	64.8022	-163.7389	559906	7186811	Garnet + epidote + amphibole granofels with 1-2 percent pyrite.
06Z28B	64.5923	-163.7790	558456	7163382	Quartz + arsenopyrite vein sample from near airstrip; it may not be in place. 3 cobbles and 2 pebbles of limonite-stained, scorodite-stained, quartz + arsenopyrite vein material. Largest vein piece is 8 cm by 9 cm by 4 cm. Mostly white massive quartz with irregular vugs partially filled with iron oxide, scorodite, and subhedral quartz crystals. Arsenopyrite occurs as disseminated grains and blebs throughout the rocks and as lenses or layers along assumed vein margins.
06Z36A	64.5926	-163.8134	556809	7163387	Medium gray-weathering marble with 1- to 3-mm-wide white quartz veinlets. Select sample of quartz-veined marble.

Table 1. (continued).

Sample Number	Latitude	Longitude	UTM E	UTM N	Description
06Z47B	64.7270	-163.8449	555027	7178333	Quartz + carbonate vein. Select sample of white and orange, foliation-parallel veins and lenses. Veins up to 4-cm-thick, which can be traced for several meters. Vein margins (selvages) appear to be preferentially chlorite rich.
06Z100B	64.7889	-163.9346	550638	7185160	Quartz + calcite + chlorite + pyrite vein. White and orange colored quartz veins cross-cutting foliation in calcareous schist. Vein is 90 percent quartz, 10 percent dolomite(?), and trace pyrite(?) (cubic iron oxide spots up to 2 mm across) disseminated within the vein. Locally veins have a fine- to medium-grained chlorite selvage. Sample includes some wall rock.
06Z108A	64.7942	-163.9153	551543	7185761	Gray, white mica-bearing calcareous quartzite with 7-10 percent disseminated pyrrhotite.
06Z125A	64.8762	-164.3539	530612	7194621	Possible prospecting pit(?). Gray weathering, laminated marble with 1 percent white quartz + calcite veins. Veins are perpendicular to foliation, and consist of white massive quartz and coarse-grained sparry calcite, with trace to 1 percent iron oxide spots/dark brown goethite cubes (after pyrite(?)). Veins locally contain subangular marble breccia clasts (0.5-2 cm across in longest dimension). Rare green specks might be copper mineral(?). Sample is a select sample of vein material, with some wall rock.
06Z143B	64.8037	-164.4518	526041	7186501	Impure marble with bright green mica (mariposite(?)/fuchsite(?)). Impure marble is cut by quartz + calcite + iron oxide veins. Veins both cut foliation, and are folded with foliation. Some orange zones within the veins are patchy and irregular. One vein has fine-grained dark brown cubic shapes. Select sample of vein material in host rock.
06Z151A	64.5796	-163.7332	560677	7162010	Prospecting trench. Soil sample. Bright red to brown soil with angular to subrounded chips of quartz + white mica schist and iron oxide-stained quartz vein. Soil likely rich in hematite. Soil may just be the top of bedrock reached in placer workings. About 6 inches below the surface of the spoil pile, the red stain disappears and the material below looks like river-worn gravel.
06Z151B	64.5796	-163.7332	560677	7162010	Prospecting trench. Select sample of quartz vein material from spoil pile. Most pieces of quartz are angular, with strong iron oxide staining on fractures. Some slightly green stain; possibly scorodite(?).

Table 1. (continued).

Sample Number	Latitude	Longitude	UTM E	UTM N	Description
06Z153A	64.5714	-163.7474	560011	7161082	Possibly the Seagull lode prospect. White quartz vein with orange-red iron oxide on fractures and in vugs. Quartz vein cuts across foliation in quartz + white mica schist. Rock is in a fault zone with fault gouge that has a strike of 253 degrees (azimuth) and a dip of 80 degrees. Quartz veins vary from 1- to 3-cm wide.
06Z156A	64.5677	-163.6965	562461	7160727	Swede lode. Observed 1 shaft and 3 prospecting pits within 50-foot-diameter area. Collected sample from ore pile approximately 25 feet from cliff. Calcite + cinnabar breccia. Pink, light brown, and white breccia consisting of brown angular clasts of marble, from 1 mm to 4 cm in diameter, cemented by a white calcite matrix. Red cinnabar crusts and irregular grains make up approximately 5 percent of the rock. Weathered surfaces coated with black, mm-diameter, semi-equant grains (oxidized sulfides(?)); limonite is also present in moderate amounts.
06Z161A	64.8338	-163.9668	549025	7190137	Dark gray, tightly crenulated, quartz + white mica schist with 2-3 percent, fine-grained (up to 1 mm diameter) disseminated grains and blebs of brass-colored sulfide (likely pyrrhotite). Outcrop has 1-2 percent, foliation-parallel quartz veins. Sample taken of pyrrhotite-bearing schist collected over an 8-foot section along creek.
06Z174A	64.8467	-163.9289	550800	7191601	Gray weathering, gray- to light gray-colored, fine-grained, white mica-bearing marble with 2-3 percent fine-grained disseminated pyrite + iron oxide (where pyrite is oxidized).
06Z179A	64.8393	-164.3944	528730	7190492	Light brown quartzite with minor white mica, chlorite, and calcite, along with 3-4 percent disseminated pyrite up to 1 mm in diameter. Weak iron oxide stain on weathered surfaces, and moderate iron oxide on fractures. Some pods of light brown/orange iron oxide in open spaces. Grab sample over 15-foot-diameter area.
06Z196B	64.7685	-164.1353	541130	7182745	Quartz + epidote + chlorite + feldspar(?) veins. White cobbles and boulders up to 20 cm in diameter. Many veins of white bull quartz, but some of the massive quartz veins also have granular texture like pegmatite veins. Several veins have malachite spots. Sample collected over 30-foot-diameter area. Most vein/pegmatites have coarse-grained chlorite and iron oxide. At least one vein had epidote crystals up to 5 cm long by 1 cm wide, along with chlorite + biotite(?) and feldspar(?). Trace amounts of non-magnetic, black unknown mineral, and trace, bright-red hematite(?) stain.

Table 1. (continued).

Sample Number	Latitude	Longitude	UTM E	UTM N	Description
06Z215A	64.8997	-164.0304	545893	7197436	Narrow, 18-inch-wide zone of orange-red clay in saddle. Possible fault that trends at an azimuth of 120 degrees. Select soil sample of red clay with pelitic schist pebbles. Red clay is on the surface, and deeper, wet clay is yellow-brown colored. Change in color may be due to normal soil profile, or a mineralized vein(?).
06Z217A	64.9019	-164.0331	545763	7197677	White quartz vein that is mostly massive, and at least 4 foot wide. Select sample of occasional 2- to 5-mm-wide fractures/secondary veins in quartz that are filled with elongate quartz crystals ± trace orange iron oxide.
06Z231B	64.8850	-164.0247	546189	7195802	Marble breccia. Gray, subrounded, white mica-bearing marble clasts up to 4 cm in diameter. Breccia matrix is a gnarly textured, brownish-gray accumulation of interlocking white quartz crystals with many vugs. Trace, fine-grained, black, equant grains may be oxidized pyrite(?). Breccia potentially could be a fault plane(?) at base of outcrop. Grab sample of breccia material.
06Z244A	64.8491	-164.1761	539073	7191694	Epidote + amphibole + chlorite + plagioclase schist with 1-2 percent disseminated pyrrhotite and chalcopyrite; moderate to strong iron oxide- and malachite-stain on fracture surfaces. Collected sample over a 10 foot by 50 foot area.
06Z282A	64.8098	-163.9844	548231	7187448	Black, moderately sooty graphitic quartzite with about 5 percent white quartz veins, which are vuggy, iron oxide-stained, locally sheared, and generally less than 1 cm thick. Select sample of vein material collected over a distance of 75 feet contouring slope.
06Z285B	64.8109	-163.9774	548562	7187577	White and orange, quartz + carbonate vein cutting schist. Veins are vuggy, with white, massive to subhedral quartz. One quartz vein has a trend of 345 degrees (azimuth). 40-60 percent of vein is orange carbonate. Grab sample of vein from outcrop.
06Z307A	64.7923	-163.9770	548614	7185508	Black, platy cobbles of graphitic quartzite with aphanitic to granular texture. Occasionally cut by white and orange quartz + calcite veins. Quartz is commonly euhedral, with interlocking crystals, and space between crystals is partially filled with iron oxide. Collected sample of veined material over a 30-foot diameter area.

Table 1. (continued).

Sample Number	Latitude	Longitude	UTM E	UTM N	Description
06Z336A	64.7776	-164.4539	525966	7183585	Fault(?) zone, possibly 1-m-wide, with a strike of 150 degrees (azimuth) and a dip 90 degrees. Breccia(?) clasts and wall rock material composed of gray, medium-grained marble, and locally black, sooty marble. Large crystals of sparry calcite occur as cement. Trace amounts of a salmon-colored mineral occurs as grains with sooty graphite or calcite.
06Z342A	64.7815	-164.4032	528376	7184044	Black pelitic schist with 5 percent, foliation-parallel quartz veins. Weak iron oxide staining on foliation surfaces. Sample is of quartz + iron oxide joint fillings. 3 veinlets observed, and vary in width from 3 mm to 3 cm. Joints mostly filled with iron oxide-stained quartz, but one vein has 5 percent pyrite as very thin veinlets within the quartz vein. Most of the quartz veins are massive, but in one area consist of interlocking subhedral to euhedral quartz crystals. Host rock is iron oxide-stained in a 5-cm-wide halo around the veins. Quartz-filled joint has a strike of 75 degrees (azimuth) and a dip of 72 degrees.
06Z345C	64.7891	-164.3705	529920	7184905	Quartz + iron oxide + calcite + pyrite veins that are commonly iron oxide-stained on surfaces. Dark gray white mica that appears to be within the veins, may just be inclusions of wall rock incorporated during folding.
06Z355B	64.8349	-164.3192	532304	7190030	Light tan to gray weathering marble breccia. Breccia clasts are gray, subrounded to subangular marble from 0.5- to 5-cm in longest dimension. Breccia matrix is white sparry calcite. Possibly fault(?) or intraformational(?) breccia. Some vuggy calcite veins are also present.
06Z375A	64.8665	-164.4664	525291	7193488	Dark gray, quartz + white mica schist with joints and fractures filled with orange iron oxide and subhedral quartz crystals. Veins cut across foliation.
06Z387A	64.7668	-164.2410	536106	7182491	Black graphitic quartzite with 2-3 percent iron oxide-coated vugs, cut by white to brownish, vuggy quartz veins. Vugs are partially filled with graphite and orange to chocolate-brown iron oxide. Quartz veins generally less than 1 cm wide, and both cross-cut and are parallel to foliation. Grab sample of vein material collected from a 50 foot by 10 foot area.
06Z388C	64.7687	-164.2421	536050	7182697	Altered graphitic quartzite(?). Dark brown, black, and orange blocky cobbles. Rock is porous, with 5-20 percent vugs. Abundant iron oxide, gossanous. Commonly contains narrow, 1- to 2-mm-wide, white, quartz veinlets.

Table 1. (continued).

Sample Number	Latitude	Longitude	UTM E	UTM N	Description
06Z394C	64.7666	-164.2546	535459	7182455	One cobble of moderately iron oxide-stained, quartz- and pyrite-veined graphitic quartzite. Vein is 3 cm wide, white, and vuggy. Vugs have euhedral quartz crystals. Pyrite occurs as 1-mm-diameter cubes within the quartz vein, and is about 3 percent of the vein.
06Z404A	64.7799	-164.2730	534564	7183927	Dark gray, granular, fine-grained, white mica-bearing marble with 3-4 percent disseminated pyrite up to 1 mm across, but generally less than 0.5 mm.
06Z412B	64.7614	-164.2408	536123	7181891	Dark brown to orange gossan. Abundant iron oxide. Some pieces are brecciated, with graphitic quartzite clasts surrounded by brown iron oxide. Grab sample taken over 15-square-foot area.
06Z420A	64.9263	-164.1390	540715	7200324	Dark gray, calcite + white mica + quartz schist with 5 percent white quartz veinlets. Veins are both parallel to and cross foliation. 1 percent fine-grained, disseminated pyrite cubes and irregular clots. Schist also cut by quartz + calcite veinlets, which cross foliation.
06Z430A	64.9129	-164.1822	538690	7198808	Dark gray and white, calcite + white mica + quartz schist with 1 percent, fine-grained, disseminated pyrite, and 7 percent, white, foliation-parallel quartz + calcite + iron oxide veins. Veins are 1- to 2-cm-thick, and locally folded and structurally thickened.
06Z444A	64.8840	-164.1587	539847	7195596	Gray, calcite + quartz + white mica schist with 3-4 percent, foliation-parallel quartz + calcite + pyrite veins. Schist contains 1-2 percent, fine-grained, disseminated pyrite and discontinuous pyrite veinlets. Joints and fractures perpendicular to foliation are filled with 1- to 3-mm-wide, quartz + calcite + pyrite + iron oxide veinlets, with 2-3 percent disseminated pyrite.
06Z489B	64.8581	-164.4227	527369	7192568	White, pale brown, and gray marble breccia. Matrix composed of white quartz with trace disseminated pyrite and minor iron oxide stain. Marble breccia clasts are dark gray to bleached(?) light orange, subrounded, and up to 8 cm in length. Breccia also contains schist clasts, or schist pieces are part of wall rock.
06Z490A	64.8573	-164.4175	527615	7192487	Light to dark gray, silicified marble with patches of orange and red iron oxide.

Table 1. (continued).

Sample Number	Latitude	Longitude	UTM E	UTM N	Description
06Z492A	64.5710	-163.7467	560045	7161048	Idaho lode prospect. Quartz + calcite + white mica + arsenopyrite vein, which varies from 10 cm to 95 cm in thickness. In places the vein is entirely massive sulfide, and in other areas it consists of about 10 percent sulfide (arsenopyrite and pyrite cubes) and a mixture of white quartz, white to orange carbonate, and coarse-grained white mica. Vein is folded, and cuts foliation in marble; on cliff above, quartz + arsenopyrite vein cuts through schist. Vein is located near the contact between schist and marble. Sample from arsenopyrite-rich portion of vein.
06Z492D	64.5710	-163.7467	560045	7161048	Idaho lode prospect. Quartz + calcite + white mica + arsenopyrite vein, which varies from 10 cm to 95 cm in thickness. In places the vein is entirely massive sulfide, and in other areas it consists of about 10 percent sulfide (arsenopyrite and pyrite cubes) and a mixture of white quartz, white to orange carbonate, and coarse-grained white mica. Vein is folded, and cuts foliation in marble; on cliff above, quartz + arsenopyrite vein cuts through schist. Vein is located near the contact between schist and marble. Sample from quartz- and calcite-rich portion of vein.
06Z523B	64.7510	-163.9710	548974	7180911	Black graphitic quartzite with abundant white quartz veinlets cutting across foliation. Some open spaces in veins filled with orange and red iron oxide stain.
06MBW48A	64.6815	-164.4893	524372	7172868	High grade sample from dump pile at West Creek prospect. Massive, white, heavily iron-stained, 3(?)-meter-wide quartz vein on hillside. Quartz vein cut by later fractures, with open space ± filled with euhedral quartz crystals. Adit below quartz vein has a dump pile just down stream. Took sample of dump material, which contains quartz + massive arsenopyrite + cubic pyrite + white kaolinite (confirmed by X-ray diffraction) + carbonate.
06MBW50A	64.7431	-164.0154	546878	7179997	Quartz + plagioclase vein in schist within a low-angle fault. Foliation in schist above the vein is highly folded and sheared, suggesting faulting occurred within this zone.
06MBW73A	64.6252	-163.8688	554089	7166976	Black, foliated, graphitic quartzite cut perpendicular to foliation by 3- to 6-mm-wide quartz + limonite veins. Quartz is crystalline and growing perpendicular to vein walls. Most limonite likely was calcite. Locally limonite is clear and glassy (bottle-glass limonite), suggesting sulfides may have been present. Couple of pieces of quartzite are brecciated, with limonite cement.

Table 1. (continued).

Sample Number	Latitude	Longitude	UTM E	UTM N	Description
06MBW81A	64.6156	-163.6946	562442	7166061	Chlorite + white mica + biotite(?) + quartz schist with foliation-parallel, folded quartz + limonite veins. Sampled 2-inch-wide folded quartz vein with about 5 percent patches of limonite (after carbonate(?)).
06MBW82C	64.6124	-163.6949	562436	7165707	Contact between schist to the east and marble to the west. Contact zone contains gray and white striped, granular, silicified marble with relict foliation visible.
06MBW83C	64.6126	-163.6955	562406	7165726	Gray, partially to completely silicified, ± brecciated, color-banded marble that contains disseminated pyrite and possibly chalcopyrite. Local thin coatings of malachite and azurite on surfaces of rocks. Locally veined by limonite + calcite + cubic limonite pseudomorphs after pyrite.
06MBW86A	64.6098	-163.6980	562292	7165410	Prospecting pit. Gray, partially to completely silicified calcite marble cut by quartz veins within foliation planes and quartz veins that cross foliation. Silicified and quartz-veined areas contain disseminated chalcopyrite, variably weathered to limonite, azurite, and malachite. Some pyrite is also present. Quartz veins are white, massive, and granular. Trend of surface vein float has an azimuth of about 0 degrees; the veined zone varies from 0 to 20 feet wide, and extends for about 150 feet in a north-south direction. Some veins are folded, and measured fold axes have a strike of about 175 degrees (azimuth) and a dip of 65 degrees.
06MBW90B	64.6055	-163.6982	562293	7164939	Silicified marble with limonite (after sulfides(?)) in patches and stringers throughout the rock.
06MBW90C	64.6055	-163.6982	562293	7164939	Dark gray, graphitic breccia composed of 2-mm-diameter, angular marble host-rock clasts and cemented by a graphite-rich matrix. Probable fault zone material.
06MBW92A	64.6048	-163.7023	562096	7164853	20-foot-wide zone of silicified marble that has an azimuth of 20 degrees. Silicified marble is composed of white, granular quartz with streaks of gray (graphite(?)).
06MBW107A	64.6215	-163.6985	562239	7166714	White weathering, granular, silicified marble with white and light gray color-banding along relict foliation planes. Silicified marble contains 1-3 percent disseminated grains of chalcopyrite and pyrite. Sulfides weathering to limonite and malachite and lesser azurite.
06MBW161A	64.7835	-164.0100	547064	7184498	Quartz veins with sparse iron oxide pseudomorphs after iron-bearing sulfide, with minor quartz + white mica schist wall rock included in sample.

Table 1. (continued).

Sample Number	Latitude	Longitude	UTM E	UTM N	Description
06MBW163A	64.7842	-164.0103	547048	7184574	Quartz + calcite vein in marble. Quartz vein is massive, white, brittle-fractured, and strikes approximately 150 degrees (azimuth).
06MBW168A	64.7880	-164.0061	547242	7185006	Fissile calcite marble with white quartz vein sub-parallel to foliation. The marble adjacent to the quartz vein has crystals of pale green tremolite(?) (up to 1 cm in diameter and up to 3 cm in length), and coarsely crystalline white mica up to 3 mm in diameter. Sampled the calcite + tremolite(?) + white mica + quartz-altered wall rock and vein material. Reaction zone is 2-3 inches wide. Quartz vein has a strike of 140 degrees (azimuth).
06MBW179A	64.8294	-163.8025	556832	7189784	Quartz + chlorite vein in schist.
06MBW189A	64.7842	-163.7751	558226	7184778	Calcium-carbonate travertine deposited out of the water coming out of a spring on hillside above tiny creek. Surface weathering or oxidation colors of travertine include black, tan, orange, light brown, and dark rusty orange-brown. Freshly broken surfaces are usually pale brown. Travertine deposits are usually layered, with horizons of vugs; deposits sink up to 2.5 feet when stepped upon. Calcium carbonate also forms botryoidal-textured deposits, and "pond and terrace" deposits; empty ponds commonly contain round, pea-sized pisoliths. Inclusions of leaf and twig debris are common, and the deposits have formed a natural kill zone in the vegetation around the spring. The calcium carbonate has been deposited over an area about 200 feet in diameter.
06MBW232A	64.8366	-164.4195	527544	7190172	Lumpy, fractured quartz + carbonate + chlorite + white mica(?) vein in tundra with schist host rock.
06MBW262A	64.8145	-164.2319	536475	7187811	Black, sooty, very fine-grained, foliated, isoclinally folded, graphitic schist and quartzite. Locally lightly iron oxide-coated on fracture surfaces. Rocks contain varying proportions of graphite (1-8 percent), iron sulfide (1-2 percent pyrite(?) weathering to limonite), white mica (trace to 20 percent in schist), and primarily quartz. Locally cut by quartz ± iron sulfide veins. Veins cut foliation, and in most cases appear to be tension-related since quartz crystals grow off of vein margins into the vein center. Sampled select pieces with 3-5 percent veins.

Table 1. (continued).

Sample Number	Latitude	Longitude	UTM E	UTM N	Description
06MBW263B	64.8153	-164.2337	536386	7187902	Black, graphitic quartzite/schist cut by quartz veins and breccias. Some foliation-parallel quartz veins contain carbonate, and other quartz veins have breccias within them. Breccia-textured veins have angular clasts of quartz cemented by limonite (possibly after iron sulfide(?)). One piece of breccia has angular graphitic quartzite clasts cemented by quartz and minor limonite.
06MBW264B	64.8148	-164.2384	536165	7187835	Massive, white quartz boulders up to 1.5 feet in diameter. Quartz intergrown with limonite (likely after carbonate). Float of vein material appears to strike 0 degrees (azimuth).
06MBW266B	64.8148	-164.2440	535896	7187840	White, massive quartz veins up to 8 inches wide cutting foliation in black graphitic quartzite. Rare areas in center of vein have open-space with partially crystalline faces on the quartz crystals. Vein margin contains local carbonate. One quartz vein has a strike of 319 degrees (azimuth) and a dip of 66 degrees.
06MBW273A	64.5791	-163.7341	560635	7161953	Rusty, bright orangish-brown, iron oxide-stained, variably gossanous ore material collected from an 8-foot-high by 30-foot-long by 15-foot-wide pile of crushed ore material located next to an old collapsed shaft, and about 100 feet northwest of the old mill site on Daniels Creek. Ore material is composed of white quartz irregularly intergrown with massive arsenopyrite. Arsenopyrite heavily weathered to scorodite, and about 20-50 percent of the vein material.
06MBW277A	64.5713	-163.7474	560014	7161077	Gray calcareous schist cut by light orange, coarse-grained calcite veins, which are cut by late, white crystalline calcite veins. Veining in some areas is intense enough to form breccia textures. Possible fault zone.
06MBW287A	64.7926	-163.7747	558226	7185711	20-foot-wide zone of bright orange-weathering, fissile, foliated, quartz-veined, faulted, moderately iron oxide-coated schist.
06MBW289A	64.7923	-163.7754	558194	7185678	Float of white quartz vein material with unknown, blocky, black mineral up to 1 cm in longest dimension. Veins have wall-rock inclusions parallel to vein margins, suggesting they may have been foliation parallel. One vein cuts through garnet + chlorite schist.
06MBW309A	64.7654	-163.8094	556637	7182650	Quartz vein with limonite (after carbonate(?)) on fracture surfaces.

Table 1. (continued).

Sample Number	Latitude	Longitude	UTM E	UTM N	Description
06MBW330A	64.8269	-164.3062	532928	7189151	Fault zone that is at least 40 feet wide and has an approximate strike of 305 degrees (azimuth) and an estimated dip of 65 degrees. Brownish-orange weathering, bright brownish-orange colored, blocky, brecciated, calcite marble. Breccia clasts composed of marble and large, gray, secondary crystals of calcite up to 1 cm in length. All clasts are cemented and cut by late veins of calcite.
06MBW336A	64.7815	-164.1695	539485	7184168	Large boulders of vein material up to 3.5 feet in diameter. Primarily white, massive, fractured, quartz (85 percent), intergrown with lesser (10 percent), tan, euhedral feldspar crystals (up to 2.5 cm long; averaging less than 1 cm in length), and dark green chlorite (5 percent). Quartz boulder float trends roughly 270(?) degrees (azimuth).
06MBW403A	64.8159	-164.2108	537471	7187976	Black, very fine-grained, planar-foliated, graphitic quartzite. Lightly coated with iron oxide on some fractures. Other joint surfaces contain quartz + limonite (after iron sulfides(?)) veins up to 1 cm wide. Veins are probably extensional since the quartz crystals grow off the walls of the veins towards the center. Veins form en echelon tensional joint sets. One quartz + limonite vein has a strike of 323 degrees (azimuth) and a dip of 40 degrees.
06MBW438A	64.8308	-164.1886	538504	7189653	10-foot-wide brecciated fault zone in marble, which has a strike of about 320 degrees (azimuth) and may dip to the northeast. Gray calcite marble is brecciated, with angular clasts of marble cemented by bright orange-weathering crystalline carbonate. Some brecciation didn't involve clast rotation - it is just a crackle breccia.
06MBW454A	64.8385	-164.1992	537991	7190498	Black graphitic quartzite cut by irregular quartz + limonite veins and breccias. Breccia clasts of quartzite average 1-2 inches in diameter, and are cemented by iron oxide.
06MBW465A	64.7903	-164.1816	538895	7185144	Gray weathering calcite marble with white and gray color banding sub-parallel to foliation. Locally silicified marble layers are interlayered with pure marble. Weathers orange and tan where silicified.
06MBW472A	64.7928	-164.1815	538896	7185419	Tan weathering, planar-foliated marble with approximately 20-25 volume percent quartz veins parallel to foliation. Either early veins, or later replacements of marble (less likely). Sampled more siliceous layer.

Table 1. (continued).

Sample Number	Latitude	Longitude	UTM E	UTM N	Description
06MBW484A	64.8020	-164.1741	539237	7186450	Black graphitic quartzite cut across foliation by tensional quartz + limonite + pyrite veins up to 4 cm wide. Quartz crystals grow towards center of vein, both perpendicular to, and at an angle to vein walls. Outcrop lightly iron oxide stained. Quartz + limonite + pyrite vein has a strike of 302 degrees (azimuth) and a dip of 70 degrees.
06MBW565A	64.8167	-164.1669	539554	7188094	Medium and dark gray, finely color-banded, medium-grained, calcite marble, with possible minor graphite. Marble contains foliation sub-parallel, and foliation-cutting quartz + calcite veins up to 6 cm wide. Quartz and calcite are intergrown. Main vein occurs where the foliation is folded, and may occur within a fault with minor displacement. Vein/fault has a strike of 123 degrees (azimuth) and a dip of 41 degrees.
06MBW568A	64.8163	-164.1659	539604	7188052	Heavily iron oxide-coated outcrop of black graphitic quartzite with disseminated pyrrhotite ± pyrite(?). Preferentially sampled rock with highest magnetic susceptibility and highest visible iron sulfide content (3-5 percent).
06MBW572A	64.8197	-164.1667	539563	7188422	Black graphitic schist and quartzite cut by tensional veins up to 3 cm wide. Quartz crystals grow off vein wall into center, and late open space is filled with limonite. Some veins are parallel to axial planes, and axial-planar cleavage, of small crenulation folds; these veins strike 332 degrees (azimuth) and dip 64 degrees. Sample taken from this vein. Other veins occur along joints; one vein has a strike of 134 degrees (azimuth) and a dip of 85 degrees; another vein has a strike of 286 degrees (azimuth) and a dip of 90 degrees.
06MBW573A	64.8194	-164.1670	539549	7188399	Outcrop of black graphitic quartzite cut by a low-angle fault. Quartzite above the fault is planar foliated and relatively undisturbed. Below the fault plane, the quartzite is highly folded, and contains hundreds of white, massive, randomly oriented, quartz-filled fractures. Sampled intensely quartz-veined quartzite below the fault.
06MBW589A	64.7674	-164.4651	525445	7182442	Gray and white, color-banded marble cut by veins of calcite ± iron oxide ± red earthy hematite. Veins anastomose throughout rock in a slightly planar orientation. Veins pinch and swell, and range from 0-10 cm wide. One calcite ± iron oxide vein strikes 51 degrees (azimuth) and dips 71 degrees. Another calcite + hematite vein strikes 140 degrees (azimuth) and dips 83 degrees.

Table 1. (continued).

Sample Number	Latitude	Longitude	UTM E	UTM N	Description
06MBW594A	64.7736	-164.4602	525670	7183139	Gray and white, color-banded calcite marble cut by 8-cm-wide zone of calcite veins and breccia. Calcite vein has a strike of 65 degrees (azimuth) and a dip of 60 degrees.
06MBW615A	64.7843	-164.3737	529775	7184365	Orange weathering, massive, coarse-grained, poorly foliated impure marble with approximately 1 percent disseminated pyrrhotite and 10 percent white mica.
06MBW619B	64.7865	-164.3704	529927	7184612	Micaceous impure marble cut by quartz + carbonate + white mica(?)/chlorite(?) vein.
06MBW628A	64.8284	-164.3118	532661	7189311	10-foot-wide, fault breccia in marble with a strike of 48 degrees (azimuth). Orange-weathering breccia with angular clasts of coarse-grained calcite and marble, with a continuous range of sizes from mm-scale up to 8 cm in diameter. Breccia cemented by brown, porous, granular carbonate.
06MBW631A	64.8285	-164.3127	532621	7189327	2-foot-deep by 4-foot-wide by 6-foot-long prospecting trench, with the long direction of the trench oriented at an azimuth of 155 degrees. Pale gray-weathering, white calcite marble is cut by veins of coarsely crystalline calcite up to 3 inches wide. Sparse scattered chips of white quartz vein material and dark gossanous material near edge of trench.
06MBW646A	64.8545	-164.3241	532046	7192216	Quartz + white mica + glaucophane(?)/chloritoid(?) schist with some isoclinally folded, foliation sub-parallel, quartz + carbonate veins. Took sample of mottled orange and white, massive, carbonate vein with rare (<1%) iron sulfide. Sampled vein crosses foliation and follows joints with a strike of 280 degrees (azimuth) and a dip of 90 degrees.
06MBW647A	64.8548	-164.3239	532056	7192249	Gray, medium-grained, foliated, quartz + white mica + glaucophane(?)/chloritoid(?) + carbonate schist. Locally contains foliation-parallel quartz + carbonate + iron sulfide (2-3 percent pyrrhotite(?)) veins, and carbonate-filled joints. Schist is anomalously magnetic and so it may contain disseminated pyrrhotite. Sampled both foliation-parallel veins and veins along joints. Foliation-parallel veins strike 188 degrees (azimuth) and dip 22 degrees. Veins along joints strike 100 degrees (azimuth) and dip 82 degrees.
06MBW702B	64.7934	-164.4521	526039	7185354	Orange-weathering breccia zone in marble composed of veins of quartz + calcite + iron sulfide.

Table 1. (continued).

Sample Number	Latitude	Longitude	UTM E	UTM N	Description
06MBW703A	64.7914	-164.4488	526196	7185127	White silicified marble. Relict foliation is locally preserved, including silica-replaced isoclinal folds. Quartz contains irregularly shaped vugs filled with iron oxide (after carbonate) up to 1 cm in diameter, and cubic pits (± filled with iron oxide), which were likely former pyrite crystals. Silicified zone strikes approximately 350 degrees and is about 50 foot wide.
06MBW711A	64.7878	-164.4496	526161	7184722	Silicified zone in marble. Silicified zones replace and preserve relict foliation surfaces. Contains 2 percent iron oxide (after iron sulfide, or perhaps chalcopyrite(?)). Zone is approximately 1 foot thick in outcrop, but scattered throughout the surrounding area, so separate silicified zones are likely present.
06MBW711B	64.7878	-164.4496	526161	7184722	Silicified marble cut across foliation by quartz vein with a strike of 77 degrees (azimuth) and a dip of 50 degrees. Vein is 3-inches-wide, and it contains white, massive, fractured, quartz, intergrown with about 3 percent carbonate and chlorite.
06MBW729B	64.7623	-163.8182	556225	7182291	Float of iron oxide-stained, quartz + chlorite + limonite + plagioclase(?) veins.
06MBW736A	64.7582	-163.8333	555516	7181820	White to tan, fine-grained, foliated quartzite with foliation-parallel layers of vuggy, gossanous limonite, and possibly thin, Mn-oxide coatings on fractures.
06MBW760A	64.7274	-163.9655	549282	7178287	2-foot-wide by 4-foot-long zone of rubble on hillside. Probably foliation-parallel quartz + hydrothermal(?), coarse-grained, white mica crystals (up to 3 mm in diameter) + iron oxide (after carbonate) veins up to 4 cm thick. White mica could be recrystallized from schist(?).
06MBW776A	64.7239	-163.9694	549102	7177888	Fault gouge. Marble host rock with breccias composed of orange-weathering, blocky pieces of massive to crystalline calcite + pale green, acicular tremolite crystals up to 4 cm long + black graphite or Mn oxide(?). Orange-weathering breccia material follows base of hill here, but not observed to cut up through outcrop. Breccia zone is approximately 10-foot high by 40-foot long above ditch along side of road.

Table 1. (continued).

Sample Number	Latitude	Longitude	UTM E	UTM N	Description
06MBW777B	64.7237	-163.9706	549045	7177870	Foliation-parallel gossan zone within gray calcite marble. Gossan zone pinches out along strike and swells to approximately 10 inches thick over a distance of 12 feet. Foliation strikes 115 degrees (azimuth) and dips 12 degrees. Dark orangish-brown and reddish-brown weathering, porous gossan with relict layering; some layers have randomly oriented white mica, and other layers have bottle-glass limonite bands. The bottle glass limonite suggests the gossan zone may once have contained base-metal sulfides. Gossan is located along the south side of the road, about 4 foot above ditch level.
06MBW780A	64.7213	-163.9731	548928	7177594	Gray, graphitic, micaceous quartzite with foliation-parallel quartz veins, quartz-vein breccias, and host-rock breccias cemented by quartz + limonite. Breccia clasts are angular and up to 4 inches in length.
06JEA36B	64.5962	-163.6940	562516	7163902	Banded, interlayered silicified marble and marble.
06JEA44B	64.5958	-163.6596	564160	7163889	White to translucent pale gray, color-laminated, fractured, massive to crystalline quartz intergrown with tiny, disseminated, brown and green inclusions of unknown minerals.
06JEA55B	64.5853	-163.6547	564420	7162725	Gray, quartz + white mica + iron oxide (approximately 3-5 percent) schist with white, granular, silicified and quartz-veined areas.
06JEA92B	64.7689	-163.9381	550509	7182932	Pale gray, brecciated marble cut by tan and gray, coarsely crystalline calcite + gray white mica(?) (approximately 3 percent) + trace disseminated chalcopyrite and malachite.
06JEA151A	64.8329	-163.8529	554432	7190134	Graphitic schist with weathered-out pyrite(?), and yellow iron oxides.
06JEA158B	64.8771	-164.4493	526088	7194682	Gray, white, red, and maroon, fine-grained, ± granular, ± silicified, ± brecciated marble, with approximately 1 percent brick-red, aphanitic coatings on fractures. Possible trace sulfides(?).
06JEA161B	64.8724	-164.4442	526334	7194156	White quartz vein with calcite-filled fractures in marble. Trace sulfide(?) layers in marble. Vein is discontinuous, and up to 2 feet thick. One fracture coated with bright red earthy hematite(?) or cinnabar(?).
06JEA164A	64.8678	-164.4387	526602	7193643	Prospecting pit. Marble with white, coarse-grained, recrystallized veins. One piece with 3-mm-diameter, euhedral cubes of limonite (after pyrite), and irregular, discontinuous, less than 1-mm-wide veinlets of red oxide stain (kermesite(?)).

Table 1. (continued).

Sample Number	Latitude	Longitude	UTM E	UTM N	Description
06JEA165B	64.8653	-164.4343	526810	7193374	Red, oxidized, silicified breccia in marble with weathered sulfides(?). Breccia clasts are angular to subangular, very fine-grained, silicified, and up to 1 inch in diameter (average less than 1 cm in diameter). Matrix is red to brown to orange iron oxide + unknown yellow oxide. Abundant iron oxide-coated surfaces.
06JEA191A	64.8074	-164.4812	524644	7186902	Silicified marble with white and gray bands.
06JEA196B	64.8008	-164.4815	524632	7186164	Sheared marble with brown breccia zones with iron oxide matrix.
06JEA334A	64.9044	-164.1066	542282	7197909	Brecciated and quartz-veined marble with iron oxide(?).
06JEA390A	64.8739	-164.0360	545675	7194554	Select sample of red-colored schist with pyrite(?)/sulfides.
06JEA419A	64.8475	-164.2116	537389	7191499	Black graphitic quartzite with iron oxide/Mn oxide coating. Locally brecciated, quartz-veined, and (or) gossanous.
06JEA437A	64.9105	-164.2155	537121	7198521	Brown, vuggy, brecciated, quartz-veined marble.
06JEA450B	64.7641	-164.4846	524521	7182073	Orange soil and quartz vein.
06JEA464A	64.7815	-164.4297	527116	7184027	Gray and red schist with quartz vein with iron oxide.
06JEA476A	64.7843	-164.3790	529523	7184363	Quartz + chlorite + calcite breccia.
06JEA481A	64.7959	-164.3473	531013	7185672	Brown-weathering, bluish-gray marble with sparse disseminated sulfide.
06JEA487A	64.8130	-164.3424	531227	7187588	Calcite + quartz breccia zone approximately 3 feet across. Zone strikes 330 degrees (azimuth) and dips 90 degrees.
06JEA512A	64.7956	-164.4769	524856	7185582	Quartz-veined marble, with veins approximately parallel to foliation.
06JEA513A	64.7951	-164.4765	524876	7185524	Quartz-veined marble, with veins approximately parallel to foliation. Soil is brownish red.
06JEA513B	64.7951	-164.4765	524876	7185524	Lightly iron oxide-coated, tan, medium-grained, quartz + white mica ± carbonate(?) schist, with approximately 20-30 percent, disseminated patches and cubes(?) up to 8 mm in diameter of iron oxide (after sulfides; possibly pyrite and chalcopyrite(?)).
06JEA518A	64.7922	-164.4796	524731	7185201	Prospecting trench. Gray impure marble with foliation-parallel quartz veins. Locally, impure marble is entirely replaced by quartz, as evidenced by relict foliation.
06JEA522A	64.7880	-164.4748	524965	7184736	Prospecting trenches. Select pieces of partially silicified marble with malachite.
06JEA522B	64.7880	-164.4748	524965	7184736	Prospecting trenches. Silicified marble with fractures coated with malachite, and local disseminated malachite.
06JEA523A	64.7858	-164.4717	525114	7184489	Prospecting trench. Silicified marble.
06JEA524A	64.7854	-164.4708	525158	7184448	Marble. Brecciated, with red oxide (iron oxide(?) or other oxide(?)).

Table 1. (continued).

Sample Number	Latitude	Longitude	UTM E	UTM N	Description
06JEA575A	64.7434	-163.8857	553049	7180134	Schist with 2 to 5 percent, foliation-parallel quartz + calcite + white mica veins up to 2 cm wide. Schist might be silicified, and contains sparse disseminated pyrite(?).
06JEA663B	64.8410	-164.2988	533262	7190720	Marble breccia with iron oxides, possibly along a fault(?). Weathering surface highlights clasts.
06JEA691A	64.5776	-163.6958	562469	7161826	Marble breccia with possible cinnabar.
06JEA691D	64.5776	-163.6958	562469	7161826	Sparse float of oxidized sulfide. In order to make this sample weigh enough to assay, an equal weight of clean quartz sand was added to the sample.
06JEA705A	64.5694	-163.6662	563909	7160945	Dark gray, gossanous, calcareous schist with disseminated sulfides.
06JEA706A	64.5695	-163.6656	563937	7160954	Koyana Adit. Calcareous schist cut by anastomosing to brecciated quartz + calcite + white mica ± pyrite ± arsenopyrite veins. Veins cut foliation. Yellow and white scorodite staining on veins. Breccia zone strikes approximately 315 degrees (azimuth) and dips 90 degrees.
06RN90B	64.7884	-163.7812	557929	7185240	Black quartzite cut by quartz + pyrite(?) veinlets up to 0.5 cm thick. Veins strike 130 degrees (azimuth) and dip 70 degrees.
06RN202C	64.8011	-164.4606	525625	7186207	White, silicified marble with white mica laminations, residual calcite, greater than 95 percent quartz, and 0-5 percent orange spots after pyrite. Silicified marble is restricted to the contact between schist and marble, and forms irregular zones from 0.3 to 0.5 meters thick.
06RN207C	64.8003	-164.4506	526101	7186121	Silicified marble at the contact between schist and marble. Zone is 0.5 to 1 meter thick. Massive crystalline quartz with minor white mica, up to 5 percent orange spots after pyrite.
06RN244A	64.5803	-163.7329	560685	7162095	Bluff drill hole number 32. Sample taken between 290 feet and 310 feet. Chips of silicified(?) marble(?). Chips contain muscovite + quartz + arsenopyrite(?). Low-angle fault here(?).
06RN245A	64.5804	-163.7322	560720	7162100	Bluff drill hole number 34. Sample taken between 263 feet and 274.5 feet. Sampled finely ground pieces of schist. Interval contains 5 feet of void (or missing material(?)). Possible low-angle fault(?).
06RN245C	64.5804	-163.7322	560720	7162100	Bluff drill hole number 34. Sample taken between 290 feet and 292 feet. Sampled powdered material composed of white mica and very fine-grained quartz near lower contact; possible low-angle fault(?).

Table 1. (continued).

Sample Number	Latitude	Longitude	UTM E	UTM N	Description
06RN246A	64.5750	-163.6819	563140	7161550	Bluff drill hole number 18. Sample taken between 325 feet and 352 feet. Very dark greenish-gray, mafic dike(?) at upper contact of shear zone. Rock contains approximately 20 percent, 0.3- to 0.8-cm-diameter green spots (altered mafic(?) mineral) in a finer-grained matrix of altered mafic mineral(s) and plagioclase(?). Cut by occasional calcite veinlets.
06RN248B	64.5728	-163.6768	563390	7161310	Bluff drill hole number 6. Dike sample taken between 416 feet and 446 feet. Dike has sheared contacts with marble host rock, inclusions of marble in the dike along the contact, and the upper contact is approximately parallel with the core axis. Calcite veins are also parallel with core axis. Sampled dike with 0-15 percent, light greenish-brown clinopyroxene(?) phenocrysts, occasional plagioclase(?) phenocrysts, and a very fine-grained matrix.
06RN249A	64.5758	-163.7159	561510	7161610	Bluff drill hole number 20. Dike sample taken between 55 feet and 60 feet. Medium green, altered mafic dike with contact approximately parallel with the core axis(?). Highly vesicular (approximately 20 percent), with vesicles filled with calcite, quartz, and chlorite.
06RN283A	64.7886	-164.1343	541145	7184981	Albite(?) + quartz + chlorite vein up to 0.3 meters wide. Albite(?) is coarsely crystalline, with crystals up to 0.5 cm in diameter.
06RN284A	64.7902	-164.1340	541157	7185157	Approximately 2-m-thick layer of silicified marble. Chip sample taken approximately perpendicular to layering. Silicified marble near lower contact with schist is especially laminated and vuggy (weathered-out calcite(?)). Layering in silicified marble is parallel to foliation, which has a strike of 180 degrees (azimuth) and a dip of 30 degrees.
06RN327B	64.8799	-164.0893	543140	7195183	Massive white quartz; possibly silicified marble(?). Occurs in a 30-m-wide zone that forms a narrow ridge.
06RN328A	64.8782	-164.0899	543114	7194992	Silicified marble(?) and possibly schist. Silicified rock composed of massive to laminated quartz with some yellowish, fine-grained white mica. Continuous silicified rock from this station back to station 06RN327. Zone follows along approximate contact with schist, trends approximately 10 degrees (azimuth), is about 200 m long and averages 20 m wide.
06RN337C	64.8792	-164.0954	542850	7195102	Silicified and brecciated fault breccia. Breccia clasts, averaging approximately 0.5 cm in diameter, are either cemented by quartz or iron oxides. Possibly at the intersection of two faults within schist and marble.

Table 1. (continued).

Sample Number	Latitude	Longitude	UTM E	UTM N	Description
06RN343C	64.8878	-164.1088	542203	7196051	Silicified marble at contact between schist and marble. Zone is approximately 10 m wide. Silicified marble composed of greater than 99 percent white, massive to slightly laminated quartz with less than 1 percent vugs (former carbonate or sulfide). Sampled perpendicular to contact.
06RN522A	64.5727	-163.6773	563370	7161295	Bluff drill hole number 4. Dike sample taken between 199 feet and 199.5 feet. Altered mafic dike.
06RN556B	64.7657	-164.3422	531293	7182307	Quartz ± calcite ± white mica (0-10 percent) ± plagioclase(?) veins along joint set that has a strike of 330 degrees (azimuth) and a dip of 80 degrees. Veins are 2-4 cm wide.
06RN574B	64.8066	-164.1576	540011	7186973	Black graphitic quartzite with quartz ± iron oxide (after sulfide) veins from 1-5 mm wide and greater than 0.3 m long. Veins are perpendicular to foliation. Sample is approximately 10 percent veins and 90 percent graphitic quartzite.

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Table 2. Trace-element geochemical analyses for rocks collected in the Solomon Quadrangle, Seward Peninsula, Alaska.
Note: - = sample not analyzed for Au(+), Cu (+), or Hg(+); ppm = parts per million; % = percent; See table 5 for analytical methods.

Sample Number	Au	Au(+)	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Cu(+)	Fe	Ga	Hg	Hg(+)
	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm
06LF30A	<0.005	-	0.3	0.08	56	<10	10	<0.5	<2	0.01	<0.5	4	18	41	-	0.63	<10	3	3.04
06LF32C	0.007	-	<0.2	0.15	77	<10	20	<0.5	<2	>25.0	<0.5	6	6	32	-	2.91	<10	4	3.30
06LF35C	0.016	-	<0.2	0.12	85	<10	70	<0.5	<2	>25.0	1.7	6	4	13	-	2.19	<10	<1	0.92
06LF38A	0.005	-	<0.2	0.06	66	<10	90	<0.5	<2	>25.0	0.5	5	3	7	-	1.55	<10	2	0.69
06LF43B	<0.005	-	0.4	0.18	301	<10	10	<0.5	<2	>25.0	<0.5	6	4	103	-	11.40	<10	1	0.82
06LF44A	<0.005	-	<0.2	2.39	18	<10	60	<0.5	2	0.59	<0.5	19	34	26	-	4.61	10	<1	0.02
06LF53B	<0.005	-	<0.2	0.13	39	<10	20	<0.5	<2	>25.0	<0.5	4	4	8	-	0.78	<10	1	0.26
06LF56B	<0.005	-	<0.2	0.22	47	<10	10	0.9	<2	>25.0	<0.5	6	3	9	-	2.18	<10	1	0.06
06LF64B	<0.005	-	<0.2	0.71	3	<10	40	<0.5	<2	8.50	<0.5	9	18	18	-	2.60	<10	<1	0.04
06LF91B	<0.005	-	<0.2	2.17	18	<10	110	0.5	3	0.87	<0.5	17	25	38	-	4.21	10	<1	0.01
06LF120B	0.007	-	<0.2	2.05	8	<10	70	<0.5	<2	1.23	<0.5	14	38	100	-	3.33	10	<1	0.01
06LF134A	<0.005	-	<0.2	1.91	4	<10	50	<0.5	<2	3.00	<0.5	9	30	6	-	3.16	<10	<1	0.01
06LF135B	<0.005	-	<0.2	0.35	3	<10	20	<0.5	3	10.80	<0.5	6	14	8	-	2.23	<10	<1	0.02
06LF149A	<0.005	-	<0.2	0.04	7	<10	10	<0.5	<2	>25.0	<0.5	1	1	2	-	0.11	<10	<1	0.05
06LF150A	0.535	-	1.5	1.79	2660	<10	70	1.0	2	0.25	2.5	13	49	19	-	3.94	<10	<1	0.15
06LF151C	0.006	-	<0.2	0.37	95	<10	20	<0.5	<2	>25.0	0.6	3	5	34	-	0.71	<10	<1	0.22
06LF152B	0.005	-	0.7	0.38	31	<10	500	<0.5	<2	0.21	0.6	2	14	13	-	1.41	<10	1	0.17
06LF156B	0.011	-	0.3	0.41	44	10	560	0.5	2	0.08	1.9	7	14	84	-	4.34	<10	<1	0.11
06LF169A	<0.005	-	<0.2	2.25	8	<10	10	<0.5	<2	2.48	<0.5	33	116	104	-	3.21	<10	<1	0.01
06LF178A	<0.005	-	<0.2	1.94	6	<10	10	<0.5	<2	1.71	<0.5	25	34	285	-	4.00	10	<1	0.01
06LF180A	<0.005	-	<0.2	2.14	21	<10	10	<0.5	<2	3.44	<0.5	47	26	60	-	5.69	10	<1	0.02
06LF189C	<0.005	-	<0.2	2.88	8	<10	70	<0.5	<2	3.77	<0.5	31	39	49	-	6.29	10	1	0.02
06LF193A	<0.005	-	<0.2	2.60	21	<10	70	0.5	<2	0.20	<0.5	15	48	25	-	4.19	10	<1	0.01
06LF199A	0.007	-	<0.2	0.83	135	<10	50	<0.5	2	6.59	0.6	10	18	8	-	2.83	<10	<1	0.11
06LF226B	<0.005	-	<0.2	1.50	12	<10	10	<0.5	<2	10.35	<0.5	5	18	2	-	1.37	<10	<1	0.01
06LF288D	<0.005	-	0.2	0.21	16	<10	100	<0.5	<2	>25.0	<0.5	3	4	10	-	1.22	<10	<1	0.01
06LF289B	<0.005	-	<0.2	0.04	109	<10	20	<0.5	<2	13.25	<0.5	2	3	4	-	2.27	<10	<1	0.01
06LF309B	<0.005	-	<0.2	0.40	8	10	1950	<0.5	2	0.11	<0.5	1	18	4	-	0.82	<10	<1	0.16
06LF323A	0.089	-	<0.2	2.78	18	<10	60	<0.5	2	2.89	<0.5	36	30	497	-	5.77	10	<1	0.02
06LF355A	0.043	-	0.2	1.43	11	<10	270	<0.5	2	1.27	0.5	15	26	270	-	2.92	<10	<1	0.04
06LF357A	<0.005	-	<0.2	0.80	27	<10	30	<0.5	<2	>25.0	<0.5	9	10	25	-	1.74	<10	<1	0.07
06LF357B	<0.005	-	<0.2	0.35	28	<10	30	<0.5	2	>25.0	<0.5	4	2	16	-	2.80	<10	1	<0.1
06LF361B	<0.005	-	<0.2	2.56	15	<10	70	0.6	2	0.30	<0.5	18	41	17	-	4.15	10	<1	<0.1

Table 2. (continued)

Sample Number	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr	Ti	Tl	U	V	W	Zn
	%	ppm	%	ppm	ppm	%	ppm	%	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
06LF30A	0.02	<10	0.01	43	1	<0.01	3	30	10	<0.01	12	<1	2	<0.01	<10	<10	2	<10	18
06LF32C	0.01	<10	3.46	564	<1	0.01	11	150	9	<0.01	1120	4	43	<0.01	<10	10	43	10	26
06LF35C	0.03	<10	0.29	605	<1	0.01	17	130	7	<0.01	236	1	26	<0.01	<10	10	11	<10	26
06LF38A	0.01	10	0.22	1055	1	<0.01	6	60	2	<0.01	123	1	42	<0.01	<10	10	13	<10	42
06LF43B	0.02	<10	0.10	84	4	0.01	65	160	39	<0.01	354	1	112	<0.01	<10	10	27	<10	32
06LF44A	0.22	20	1.15	641	<1	0.05	64	620	11	<0.01	3	6	19	0.02	<10	<10	43	<10	122
06LF53B	0.02	<10	0.08	386	<1	<0.01	6	50	4	<0.01	71	2	16	<0.01	<10	10	12	<10	17
06LF56B	0.03	<10	0.11	288	2	<0.01	14	140	23	<0.01	168	1	144	<0.01	<10	10	26	<10	70
06LF64B	0.22	20	0.21	681	<1	0.02	29	570	3	0.02	4	6	188	<0.01	<10	<10	16	<10	45
06LF91B	0.32	30	1.54	394	3	0.02	46	520	8	0.47	3	5	37	0.01	<10	<10	30	<10	95
06LF120B	0.36	20	1.38	767	<1	0.03	36	670	2	<0.01	5	5	34	0.04	<10	<10	44	<10	62
06LF134A	0.33	20	0.62	446	<1	0.02	42	870	2	<0.01	3	4	71	0.01	<10	<10	21	<10	65
06LF135B	0.08	<10	0.16	504	<1	0.02	22	310	21	<0.01	3	3	545	<0.01	<10	<10	10	<10	79
06LF149A	0.01	<10	0.27	106	<1	0.01	<1	20	2	<0.01	3	<1	780	<0.01	<10	10	3	<10	3
06LF150A	0.21	40	0.61	457	1	0.01	40	470	31	<0.01	37	6	7	0.01	<10	<10	62	650	118
06LF151C	0.07	10	0.20	122	8	0.06	47	300	10	<0.01	13	2	1665	<0.01	<10	10	57	<10	69
06LF152B	0.10	10	0.03	117	18	<0.01	25	310	5	<0.01	20	1	11	<0.01	<10	<10	52	<10	72
06LF156B	0.13	<10	0.04	102	17	0.01	85	540	8	0.07	245	2	17	<0.01	<10	10	24	<10	258
06LF169A	0.01	<10	2.26	727	<1	0.04	59	340	5	0.11	3	7	148	0.26	<10	<10	68	<10	48
06LF178A	<0.01	<10	1.38	449	<1	0.07	24	990	<2	0.06	2	7	34	0.40	<10	<10	87	<10	57
06LF180A	<0.01	<10	2.02	561	1	0.07	31	4200	<2	0.54	2	8	185	0.18	<10	<10	149	<10	82
06LF189C	0.12	<10	1.88	777	1	0.05	41	1690	2	0.14	<2	5	319	0.66	<10	<10	158	<10	106
06LF193A	0.30	30	1.34	596	<1	0.02	60	750	4	<0.01	2	5	9	0.02	<10	<10	47	<10	66
06LF199A	0.28	20	0.12	744	<1	0.02	32	540	7	<0.01	76	4	138	<0.01	<10	<10	17	<10	92
06LF226B	0.01	<10	5.06	159	<1	0.01	14	170	5	<0.01	<2	3	229	0.06	<10	<10	23	<10	13
06LF288D	0.06	<10	0.33	214	1	0.01	36	230	3	<0.01	41	2	604	<0.01	<10	10	13	<10	98
06LF289B	0.01	<10	2.60	554	<1	<0.01	7	40	<2	<0.01	4	1	284	<0.01	<10	<10	3	<10	11
06LF309B	0.08	<10	0.04	56	11	0.03	3	70	21	0.02	5	1	5	<0.01	<10	<10	50	<10	6
06LF323A	0.03	<10	2.44	422	1	0.05	49	3590	<2	0.14	<2	8	131	0.33	<10	<10	164	<10	97
06LF355A	0.22	10	0.86	210	2	0.03	38	2390	3	0.07	2	4	80	0.19	<10	<10	95	<10	100
06LF357A	0.09	<10	0.25	243	<1	0.01	21	760	3	<0.01	45	5	355	<0.01	<10	10	28	<10	21
06LF357B	0.03	<10	0.16	343	<1	0.01	6	660	6	<0.01	31	4	599	<0.01	<10	10	16	<10	27
06LF361B	0.39	30	0.92	438	1	0.03	49	650	3	0.01	3	4	12	0.01	<10	<10	44	<10	48

Table 2. (continued).

Sample Number	Au ppm	Au(+) ppm	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Cu(+) %	Fe %	Ga ppm	Hg ppm	Hg(+) ppm
06LF362A	0.423	-	0.3	2.37	254	<10	60	0.5	2	0.85	<0.5	16	60	8	-	3.93	10	<1	<0.1
06LF372B	<0.005	-	<0.2	1.49	13	<10	50	0.6	2	7.22	<0.5	12	33	29	-	3.75	<10	<1	0.08
06LF373B	<0.005	-	<0.2	0.66	2	<10	60	<0.5	2	10.85	0.5	5	9	5	-	3.94	<10	<1	0.02
06LF382A	<0.005	-	<0.2	0.84	39	<10	50	<0.5	<2	8.19	<0.5	10	18	24	-	3.10	<10	1	0.08
06LF393A	<0.005	-	0.8	0.41	27	<10	90	<0.5	2	0.05	0.7	5	19	55	-	2.30	<10	<1	0.06
06LF400A	0.008	-	<0.2	2.35	17	<10	10	<0.5	3	2.31	<0.5	44	12	215	-	6.90	10	<1	0.02
06LF407A	<0.005	-	0.3	0.17	36	<10	120	<0.5	2	0.01	<0.5	1	56	56	-	4.88	<10	<1	0.08
06LF408B	0.005	-	0.2	0.17	14	<10	160	<0.5	<2	<0.01	0.6	4	35	26	-	1.07	<10	<1	0.09
06LF409B	<0.005	-	0.4	0.58	25	<10	40	<0.5	6	0.01	0.9	1	21	427	-	32.80	<10	<1	0.10
06LF413B	<0.005	-	0.3	0.10	19	<10	10	<0.5	2	0.01	2.0	33	51	169	-	11.00	<10	1	0.10
06LF423B	<0.005	-	0.5	0.27	22	<10	170	<0.5	<2	0.02	2.3	4	39	58	-	1.66	<10	<1	0.09
06LF442B	<0.005	-	0.2	0.10	5	<10	160	<0.5	<2	0.01	<0.5	<1	62	3	-	0.17	<10	1	0.06
06LF449A	<0.005	-	<0.2	1.44	107	<10	30	<0.5	2	21.50	<0.5	27	176	80	-	4.13	<10	<1	<0.1
06LF450A	0.006	-	<0.2	0.05	43	<10	20	<0.5	<2	0.57	<0.5	9	58	10	-	1.30	<10	<1	0.02
06LF457A	<0.005	-	0.4	0.55	<2	<10	40	<0.5	<2	3.18	0.5	10	27	34	-	2.27	<10	<1	0.04
06LF489A	<0.005	-	<0.2	1.64	2	<10	70	0.5	<2	1.83	0.6	14	75	62	-	2.41	<10	1	0.08
06LF492A	<0.005	-	<0.2	0.23	5	<10	120	<0.5	<2	7.71	1.0	4	24	17	-	1.40	<10	1	0.22
06LF492B	<0.005	-	<0.2	0.15	7	<10	200	<0.5	<2	24.40	<0.5	3	12	10	-	1.21	<10	<1	0.04
06LF495A	<0.005	-	0.2	1.67	18	<10	40	<0.5	2	1.50	<0.5	29	30	59	-	4.28	10	1	0.32
06LF499B	<0.005	-	<0.2	0.20	23	<10	40	<0.5	<2	>25.0	<0.5	3	7	2370	-	1.61	<10	<1	0.05
06LF501B	<0.005	-	<0.2	0.03	2	<10	<10	<0.5	2	0.56	<0.5	<1	33	48	-	0.15	<10	<1	0.01
06LF501C	<0.005	-	<0.2	1.28	4	<10	40	0.9	4	1.50	0.5	51	39	101	-	8.25	<10	<1	0.14
06LF508A	<0.005	-	0.3	0.78	17	<10	130	<0.5	<2	0.40	1.7	12	35	71	-	3.32	<10	1	0.26
06LF534B	<0.005	-	0.3	0.12	29	<10	10	<0.5	<2	>25.0	0.9	7	6	10	-	0.49	<10	<1	0.10
06LF535B	<0.005	-	<0.2	0.07	16	<10	10	<0.5	<2	>25.0	<0.5	2	1	4	-	0.28	<10	<1	0.21
06LF539A	0.024	-	2.3	0.07	103	<10	10	<0.5	<2	0.66	0.5	2	46	16	-	0.30	<10	<1	0.48
06LF543B	<0.005	-	0.3	0.12	141	<10	10	<0.5	<2	>25.0	0.8	2	3	4	-	0.76	<10	<1	0.68
06LF550B	0.016	-	<0.2	0.11	169	<10	20	<0.5	2	>25.0	<0.5	5	3	6	-	1.98	<10	1	0.77
06LF562A	0.006	-	<0.2	0.62	73	<10	30	1.2	7	0.85	1.4	12	8	154	-	31.40	<10	<1	0.10
06LF585B	<0.005	-	<0.2	1.86	19	<10	10	<0.5	<2	1.61	<0.5	35	17	54	-	5.97	10	<1	0.04
06Z28B	6.080	-	0.9	0.06	>10000	<10	<10	<0.5	8	0.08	<0.5	1	42	4	-	6.01	<10	1	0.10
06Z36A	0.047	-	0.2	0.02	762	<10	<10	<0.5	<2	>25.0	<0.5	2	3	2	-	0.15	<10	<1	0.05
06Z47B	<0.005	-	<0.2	1.34	34	<10	10	<0.5	2	2.23	<0.5	5	49	8	-	2.72	<10	<1	0.23
06Z100B	<0.005	-	<0.2	1.53	21	<10	40	<0.5	3	16.10	0.6	12	34	13	-	3.51	<10	<1	0.38

Table 2. (continued)

Sample Number	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr	Ti	Tl	U	V	W	Zn
	%	ppm	%	ppm	ppm	%	ppm	%	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
06LF362A	0.29	30	1.02	470	<1	0.04	46	630	8	0.01	6	6	13	0.01	<10	<10	59	<10	98
06LF372B	0.23	20	1.19	1015	<1	0.01	47	650	10	0.15	4	8	153	<0.01	<10	<10	32	<10	56
06LF373B	0.15	40	3.50	3280	1	0.08	21	1050	7	0.07	3	5	162	<0.01	<10	<10	15	<10	33
06LF382A	0.25	10	1.13	582	<1	0.01	27	560	8	0.37	20	5	251	<0.01	<10	<10	18	<10	52
06LF393A	0.18	10	0.04	93	56	<0.01	39	350	28	0.05	2	2	15	<0.01	<10	10	72	<10	73
06LF400A	0.02	<10	1.75	739	<1	0.10	28	1170	<2	0.80	3	8	74	0.54	<10	<10	130	<10	67
06LF407A	0.05	20	0.01	8	29	<0.01	9	810	32	0.03	5	1	20	<0.01	<10	<10	68	<10	15
06LF408B	0.07	<10	0.01	16	9	<0.01	16	200	10	<0.01	6	<1	5	<0.01	<10	<10	16	<10	31
06LF409B	0.02	<10	0.01	296	38	<0.01	118	2060	<2	0.36	7	2	15	<0.01	<10	<10	227	<10	657
06LF413B	<0.01	<10	0.01	90	11	<0.01	221	490	3	0.01	54	1	3	<0.01	<10	10	8	<10	316
06LF423B	0.11	10	0.02	17	34	<0.01	92	370	5	0.03	4	2	25	<0.01	<10	10	44	<10	263
06LF442B	0.04	10	0.01	9	4	<0.01	4	10	3	<0.01	<2	<1	3	<0.01	<10	<10	8	<10	3
06LF449A	0.08	10	1.60	937	<1	<0.01	169	1310	<2	<0.01	109	11	340	<0.01	<10	<10	53	<10	37
06LF450A	0.01	<10	0.12	1080	1	<0.01	36	30	2	0.11	4	1	5	<0.01	<10	<10	2	<10	8
06LF457A	0.14	20	0.50	165	1	<0.01	27	530	6	0.45	<2	2	103	<0.01	<10	<10	5	<10	38
06LF489A	0.14	10	1.56	1025	<1	0.02	51	670	30	<0.01	3	5	70	0.03	<10	<10	39	<10	71
06LF492A	0.06	<10	0.14	182	<1	<0.01	26	260	2	<0.01	3	4	211	<0.01	<10	<10	32	<10	51
06LF492B	0.06	<10	0.41	243	<1	0.01	14	200	5	<0.01	3	3	944	<0.01	<10	10	7	<10	21
06LF495A	0.01	<10	1.41	310	<1	0.03	32	3800	8	0.05	<2	4	89	0.19	<10	<10	89	<10	63
06LF499B	0.03	<10	0.76	955	<1	0.01	4	360	2	<0.01	6	2	619	0.01	10	10	5	<10	5
06LF501B	0.01	<10	0.01	19	<1	<0.01	3	20	<2	<0.01	<2	<1	14	<0.01	<10	<10	1	<10	<2
06LF501C	0.02	10	0.27	959	1	<0.01	91	1440	<2	0.02	13	28	39	0.01	<10	<10	198	<10	113
06LF508A	0.07	10	0.38	408	4	<0.01	82	760	7	0.13	7	3	22	<0.01	<10	<10	32	<10	213
06LF534B	0.01	<10	8.19	352	2	0.01	11	90	97	<0.01	127	2	213	<0.01	<10	10	7	<10	89
06LF535B	0.01	<10	0.80	190	<1	<0.01	4	30	3	<0.01	32	<1	100	<0.01	<10	10	5	<10	16
06LF539A	0.03	<10	0.01	23	<1	<0.01	4	30	78	<0.01	101	<1	1	<0.01	<10	<10	2	<10	39
06LF543B	0.03	<10	0.24	175	<1	0.01	7	100	7	<0.01	32	2	10	<0.01	<10	10	7	<10	121
06LF550B	0.01	<10	0.36	985	2	0.01	7	60	5	<0.01	107	1	512	<0.01	<10	10	10	<10	14
06LF562A	0.09	20	0.10	183	44	0.01	151	2810	23	0.01	4	5	14	<0.01	<10	10	15	<10	408
06LF585B	0.02	10	1.79	530	1	0.02	29	3720	3	0.26	3	5	165	0.09	<10	<10	105	<10	98
06Z28B	0.03	<10	0.02	14	5	<0.01	3	60	15	0.56	215	1	21	<0.01	<10	<10	2	10	9
06Z36A	<0.01	<10	1.63	259	<1	0.01	<1	30	<2	<0.01	47	<1	234	<0.01	<10	10	4	<10	4
06Z47B	0.05	10	1.67	222	1	0.01	24	860	3	0.01	2	3	59	<0.01	<10	<10	27	<10	26
06Z100B	0.02	10	1.13	619	1	0.01	39	480	12	0.31	3	5	583	<0.01	<10	<10	45	<10	74

Table 2. (continued).

Sample Number	Au ppm	Au(+) ppm	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Cu(+) %	Fe %	Ga ppm	Hg ppm	Hg(+) ppm
06Z108A	<0.005	-	<0.2	0.80	19	<10	20	<0.5	<2	3.38	<0.5	12	40	9	-	2.08	<10	<1	0.37
06Z125A	<0.005	-	0.2	0.04	17	<10	10	<0.5	<2	>25.0	<0.5	1	8	4	-	0.37	<10	<1	0.52
06Z143B	0.005	-	<0.2	0.10	28	<10	10	<0.5	<2	7.65	<0.5	5	31	30	-	1.19	<10	<1	0.18
06Z151A	8.38	-	39.4	0.11	>10000	<10	340	<0.5	45	2.07	7.9	8	65	1040	-	19.10	<10	14	15.70
06Z151B	0.292	-	2.0	0.13	>10000	<10	220	<0.5	3	4.06	1.5	4	34	107	-	4.19	<10	4	6.40
06Z153A	0.032	-	0.4	0.71	1045	<10	30	<0.5	<2	0.90	<0.5	12	37	91	-	2.86	<10	1	2.59
06Z156A	0.112	-	5.7	0.07	180	<10	30	<0.5	<2	>25.0	<0.5	1	3	11	-	0.65	<10	>10000	>100
06Z161A	<0.005	-	<0.2	0.82	23	<10	30	<0.5	<2	1.74	<0.5	18	23	38	-	2.82	<10	399	>100
06Z174A	<0.005	-	0.2	0.05	13	<10	10	<0.5	<2	>25.0	<0.5	2	2	4	-	0.31	<10	43	23.40
06Z179A	<0.005	-	<0.2	0.20	19	<10	10	<0.5	<2	1.42	<0.5	7	36	10	-	1.20	<10	19	6.00
06Z196B	<0.005	-	0.3	1.48	4	<10	10	<0.5	<2	0.29	<0.5	13	78	195	-	2.91	<10	9	2.30
06Z215A	0.012	-	6.5	0.94	203	<10	200	<0.5	<2	0.01	<0.5	5	20	162	-	9.04	10	6	1.60
06Z217A	<0.005	-	<0.2	0.11	4	<10	20	<0.5	<2	0.02	<0.5	1	17	6	-	0.68	<10	4	0.10
06Z231B	0.013	-	<0.2	0.19	19	<10	20	<0.5	<2	16.30	<0.5	2	5	3	-	1.61	<10	5	0.10
06Z244A	0.021	-	0.6	2.40	<2	<10	40	<0.5	<2	0.79	<0.5	21	84	725	-	4.37	10	3	0.10
06Z282A	<0.005	-	0.4	0.39	28	<10	160	<0.5	<2	0.31	<0.5	7	10	50	-	3.52	<10	3	0.10
06Z285B	<0.005	-	<0.2	0.34	3	<10	30	<0.5	<2	5.70	<0.5	3	9	8	-	3.10	<10	2	0.03
06Z307A	<0.005	-	0.2	0.32	10	<10	70	<0.5	<2	0.03	<0.5	4	12	41	-	1.77	<10	2	0.29
06Z336A	<0.005	-	<0.2	0.07	<2	<10	20	<0.5	<2	>25.0	<0.5	<1	2	1	-	0.13	<10	2	0.03
06Z342A	0.008	-	0.2	1.29	10	<10	50	<0.5	<2	0.42	<0.5	13	36	71	-	3.49	<10	2	1.19
06Z345C	<0.005	-	<0.2	1.42	2	<10	20	<0.5	<2	5.36	<0.5	8	24	21	-	3.24	<10	1	0.08
06Z355B	<0.005	-	<0.2	0.03	<2	<10	10	<0.5	<2	>25.0	<0.5	1	1	1	-	0.66	<10	<1	0.09
06Z375A	<0.005	-	<0.2	0.69	3	<10	20	<0.5	<2	3.42	<0.5	5	14	5	-	4.49	<10	1	0.04
06Z387A	<0.005	-	0.3	0.40	26	<10	170	<0.5	<2	0.08	<0.5	2	14	33	-	2.46	<10	1	0.07
06Z388C	<0.005	-	0.7	1.80	54	<10	130	1.1	4	0.40	12.4	49	19	460	-	34.50	10	1	0.16
06Z394C	<0.005	-	<0.2	0.23	26	<10	40	<0.5	<2	0.02	<0.5	2	12	26	-	2.50	<10	<1	0.03
06Z404A	<0.005	-	<0.2	0.25	5	<10	160	<0.5	<2	>25.0	<0.5	5	3	19	-	1.37	<10	<1	0.05
06Z412B	0.008	-	0.3	1.48	22	<10	110	<0.5	<2	0.07	4.3	15	14	469	-	12.00	<10	<1	0.08
06Z420A	<0.005	-	<0.2	1.13	430	<10	70	<0.5	<2	12.25	<0.5	37	334	14	-	4.52	<10	<1	0.02
06Z430A	<0.005	-	0.2	0.79	8	<10	40	<0.5	<2	6.02	<0.5	7	14	105	-	3.08	<10	<1	0.18
06Z444A	<0.005	-	<0.2	1.27	15	<10	50	<0.5	<2	3.26	<0.5	11	30	18	-	3.24	<10	<1	0.03
06Z489B	<0.005	-	<0.2	0.26	5	<10	20	<0.5	<2	20.60	<0.5	2	4	19	-	0.86	<10	<1	0.07
06Z490A	0.006	-	0.2	0.17	417	<10	20	<0.5	<2	0.18	0.6	1	12	4	-	3.46	<10	9	8.90
06Z492A	7.82	-	2.0	0.23	>10000	<10	10	<0.5	17	1.81	<0.5	33	3	5	-	29.00	<10	<1	0.03

Table 2. (continued)

Sample Number	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr	Ti	Tl	U	V	W	Zn
	%	ppm	%	ppm	ppm	%	ppm	%	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
06Z108A	0.06	20	1.04	210	1	0.02	40	400	5	0.60	2	3	87	<0.01	<10	<10	19	<10	23
06Z125A	<0.01	<10	0.40	122	3	<0.01	21	250	4	<0.01	6	1	1245	<0.01	<10	10	43	<10	38
06Z143B	0.06	10	0.18	412	<1	<0.01	22	220	2	0.01	<2	1	137	<0.01	<10	<10	2	<10	4
06Z151A	0.05	10	0.02	249	18	0.01	68	800	1450	0.06	629	5	89	<0.01	<10	20	48	50	260
06Z151B	0.04	10	0.03	157	4	<0.01	22	260	166	0.02	132	2	141	<0.01	<10	<10	22	<10	56
06Z153A	0.12	20	0.29	99	2	0.02	33	560	74	<0.01	75	2	7	<0.01	<10	<10	15	<10	97
06Z156A	0.01	<10	0.24	359	<1	<0.01	7	50	12	1.00	91	1	12	<0.01	<10	10	6	10	37
06Z161A	0.17	10	0.91	269	1	<0.01	43	450	11	1.17	2	2	58	<0.01	<10	<10	12	<10	46
06Z174A	0.02	<10	0.64	132	<1	0.01	4	110	4	<0.01	3	1	1205	<0.01	<10	10	2	<10	6
06Z179A	0.07	<10	0.13	447	5	<0.01	12	260	3	0.41	<2	1	27	<0.01	<10	<10	5	<10	3
06Z196B	0.02	10	1.29	520	<1	0.04	47	540	6	0.01	<2	4	12	0.05	<10	<10	43	<10	56
06Z215A	0.40	10	0.09	79	1	0.06	16	520	2000	0.87	117	4	15	<0.01	<10	<10	35	<10	572
06Z217A	0.03	<10	0.01	50	<1	0.01	3	40	14	0.01	<2	<1	1	<0.01	<10	<10	2	<10	5
06Z231B	0.08	<10	0.12	333	<1	0.02	9	210	4	0.03	4	2	195	<0.01	<10	<10	4	<10	23
06Z244A	0.06	10	2.53	831	2	0.12	45	570	5	0.09	<2	7	53	0.10	<10	<10	88	<10	57
06Z282A	0.07	<10	0.03	110	19	0.01	79	390	21	0.02	7	2	11	<0.01	<10	<10	32	<10	131
06Z285B	0.06	<10	0.86	800	2	0.02	12	210	8	0.01	<2	2	113	<0.01	<10	<10	9	<10	23
06Z307A	0.06	<10	0.02	53	13	0.01	40	180	14	0.02	6	2	9	<0.01	<10	<10	65	<10	141
06Z336A	0.01	<10	0.45	105	<1	0.02	<1	60	2	<0.01	<2	<1	1360	<0.01	<10	<10	<1	<10	2
06Z342A	0.17	10	0.59	275	1	0.07	38	590	21	0.67	6	4	13	<0.01	<10	<10	39	<10	42
06Z345C	0.25	30	1.16	1380	<1	0.04	26	720	20	0.12	2	4	293	<0.01	<10	<10	19	<10	39
06Z355B	0.01	<10	8.97	651	<1	0.02	<1	30	2	<0.01	2	<1	200	<0.01	<10	<10	3	<10	3
06Z375A	0.19	10	0.63	1650	1	0.03	19	300	10	0.02	<2	2	63	<0.01	<10	<10	7	<10	15
06Z387A	0.09	<10	0.03	94	22	0.02	25	310	18	0.02	3	1	19	<0.01	<10	<10	47	<10	76
06Z388C	0.12	10	0.13	460	52	0.01	578	2700	19	0.12	6	3	8	<0.01	<10	40	114	<10	2560
06Z394C	0.02	<10	0.01	70	7	0.01	30	240	16	0.01	<2	1	5	<0.01	<10	<10	10	<10	46
06Z404A	0.07	<10	1.24	262	2	0.02	19	210	9	<0.01	2	2	703	<0.01	<10	<10	5	<10	79
06Z412B	0.10	<10	0.02	182	38	0.01	220	700	8	0.09	15	2	10	<0.01	<10	20	65	<10	754
06Z420A	0.13	<10	5.40	1580	<1	0.02	274	640	16	0.09	4	7	278	<0.01	<10	<10	25	<10	77
06Z430A	0.24	10	0.53	620	4	0.04	38	410	8	0.14	<2	2	186	<0.01	<10	<10	15	<10	88
06Z444A	0.25	20	0.66	530	<1	0.06	37	470	7	0.09	2	4	66	<0.01	<10	<10	18	<10	61
06Z489B	0.07	<10	0.50	227	1	0.02	9	80	16	<0.01	<2	1	413	<0.01	<10	<10	9	<10	40
06Z490A	0.06	<10	0.04	56	10	0.01	3	30	5	0.02	501	<1	9	<0.01	<10	<10	8	<10	86
06Z492A	0.06	<10	0.04	49	23	0.03	17	90	94	>10.0	902	2	36	<0.01	<10	<10	6	30	15

Table 2. (continued).

Sample Number	Au ppm	Au(+) ppm	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Cu(+) %	Fe %	Ga ppm	Hg ppm	Hg(+) ppm
06Z492D	2.64	-	0.3	0.38	>10000	<10	10	<0.5	<2	6.63	<0.5	3	11	5	-	3.09	<10	<1	0.58
06Z523B	0.099	-	0.5	0.25	3710	<10	110	<0.5	<2	0.06	<0.5	2	14	11	-	1.41	<10	<1	0.07
06MBW48A	1.51	-	0.3	0.45	>10000	<10	20	<0.5	<2	0.26	<0.5	33	8	5	-	5.80	<10	<1	0.10
06MBW50A	0.015	-	<0.2	0.53	428	<10	10	<0.5	<2	0.45	<0.5	4	23	25	-	1.28	<10	<1	0.02
06MBW73A	0.132	-	0.4	0.26	1760	<10	100	<0.5	<2	0.39	<0.5	5	12	26	-	3.52	<10	<1	0.06
06MBW81A	0.022	-	<0.2	1.53	723	<10	50	<0.5	<2	0.22	<0.5	10	24	13	-	2.90	<10	<1	0.04
06MBW82C	0.017	-	<0.2	0.09	277	<10	10	<0.5	<2	0.68	<0.5	3	11	2	-	0.90	<10	<1	0.02
06MBW83C	0.191	-	0.8	0.06	1030	<10	10	<0.5	<2	19.30	0.8	1	2	45	-	0.78	<10	<1	0.34
06MBW86A	0.040	-	13.9	0.09	152	<10	<10	<0.5	<2	0.17	<0.5	5	16	3300	-	1.09	<10	7	7.91
06MBW90B	<0.005	-	0.7	0.11	59	<10	10	<0.5	<2	2.15	<0.5	8	14	210	-	1.25	<10	<1	0.51
06MBW90C	<0.005	-	<0.2	0.17	80	<10	10	<0.5	<2	>25.0	<0.5	4	4	12	-	1.03	<10	<1	0.16
06MBW92A	<0.005	-	<0.2	0.06	8	<10	<10	<0.5	<2	0.89	<0.5	1	10	20	-	0.76	<10	<1	0.08
06MBW107A	0.005	-	0.3	0.10	24	<10	10	<0.5	<2	1.52	<0.5	2	9	654	-	0.83	<10	<1	0.03
06MBW161A	<0.005	-	<0.2	1.01	6	<10	40	<0.5	<2	9.84	<0.5	19	37	44	-	2.76	<10	1	0.04
06MBW163A	<0.005	-	<0.2	0.02	3	<10	<10	<0.5	<2	1.14	<0.5	<1	15	2	-	0.53	<10	<1	0.03
06MBW168A	<0.005	-	<0.2	0.77	<2	<10	10	<0.5	<2	9.34	<0.5	2	13	6	-	0.58	<10	<1	0.02
06MBW179A	<0.005	-	<0.2	1.10	<2	<10	10	<0.5	<2	0.34	<0.5	9	74	11	-	2.07	<10	<1	0.03
06MBW189A	<0.005	-	<0.2	0.03	4	<10	90	<0.5	<2	>25.0	0.7	1	1	1	-	1.14	<10	<1	0.02
06MBW232A	<0.005	-	<0.2	1.72	3	<10	30	<0.5	<2	1.12	<0.5	5	15	4	-	0.93	<10	<1	0.01
06MBW262A	0.005	-	0.2	0.78	6	<10	480	<0.5	<2	0.21	<0.5	2	15	27	-	1.36	<10	<1	0.04
06MBW263B	<0.005	-	0.6	1.10	5	<10	90	<0.5	<2	0.05	0.5	6	16	76	-	2.79	<10	<1	0.23
06MBW264B	<0.005	-	<0.2	0.02	<2	<10	10	<0.5	<2	0.02	<0.5	<1	14	8	-	0.65	<10	<1	0.02
06MBW266B	<0.005	-	<0.2	0.76	41	<10	10	<0.5	<2	0.32	<0.5	2	24	7	-	0.93	<10	<1	0.03
06MBW273A	>10.0	22	12.4	0.12	>10000	<10	100	<0.5	35	0.45	1.7	7	1	271	-	21.10	<10	5	2.60
06MBW277A	0.133	-	0.4	0.20	711	<10	10	<0.5	<2	>25.0	0.8	3	3	19	-	0.51	<10	<1	0.20
06MBW287A	0.017	-	0.3	1.11	286	<10	50	1.2	<2	0.25	0.5	17	42	28	-	11.45	<10	<1	0.07
06MBW289A	<0.005	-	<0.2	0.43	124	10	10	<0.5	<2	0.34	<0.5	2	12	8	-	1.00	<10	<1	0.02
06MBW309A	0.005	-	<0.2	0.16	47	<10	10	<0.5	<2	0.04	<0.5	2	16	2	-	0.86	<10	<1	0.08
06MBW330A	0.011	-	<0.2	0.05	51	<10	20	<0.5	<2	>25.0	<0.5	1	3	6	-	1.99	<10	14	13.60
06MBW336A	<0.005	-	<0.2	1.92	6	<10	20	<0.5	<2	0.67	<0.5	13	69	23	-	2.98	10	<1	0.07
06MBW403A	<0.005	-	0.5	0.67	17	<10	250	<0.5	<2	0.07	4.5	7	13	33	-	1.95	<10	<1	0.04
06MBW438A	<0.005	-	<0.2	0.11	12	<10	40	<0.5	<2	>25.0	<0.5	2	2	<1	-	0.67	<10	<1	0.04
06MBW454A	<0.005	-	0.4	0.96	34	<10	280	<0.5	<2	0.13	1.9	6	17	93	-	6.51	<10	<1	0.08
06MBW465A	<0.005	-	<0.2	0.05	5	<10	10	<0.5	<2	9.54	<0.5	<1	4	2	-	0.39	<10	<1	0.02

Table 2. (continued)

Sample Number	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
06Z492D	0.08	<10	0.06	309	5	0.06	10	70	21	0.45	94	3	105	<0.01	<10	<10	9	1310	29
06Z523B	0.06	<10	0.02	49	6	0.01	10	110	12	0.16	20	1	4	<0.01	<10	<10	23	<10	33
06MBW48A	0.05	10	0.11	128	1	0.02	41	20	7	4.33	136	1	15	<0.01	<10	<10	2	<10	11
06MBW50A	0.02	<10	0.38	174	<1	0.03	9	180	5	0.04	<2	2	13	0.02	<10	<10	15	<10	17
06MBW79A	0.04	<10	0.06	44	8	0.01	15	2090	14	0.35	19	1	69	<0.01	<10	<10	17	<10	98
06MBW81A	0.19	10	0.72	457	1	0.03	35	410	7	0.04	<2	4	11	0.01	<10	<10	21	<10	69
06MBW82C	0.02	<10	0.01	61	4	0.01	5	10	3	0.06	4	<1	5	<0.01	<10	<10	2	<10	2
06MBW83C	0.02	<10	0.09	265	<1	0.01	2	10	8	<0.01	1585	<1	192	<0.01	<10	<10	<1	<10	101
06MBW86A	0.01	<10	0.01	52	1	0.01	9	10	<2	0.02	322	<1	2	<0.01	<10	<10	1	<10	29
06MBW90B	0.02	<10	0.13	89	1	0.01	9	30	5	0.01	20	<1	6	<0.01	<10	<10	5	<10	25
06MBW90C	0.03	<10	7.54	572	1	0.02	8	80	11	<0.01	13	2	88	<0.01	<10	<10	16	<10	58
06MBW92A	0.02	<10	0.04	76	1	0.01	2	10	<2	0.01	3	<1	2	<0.01	<10	<10	2	<10	4
06MBW107A	0.02	<10	0.30	87	1	0.01	2	10	3	0.02	11	<1	5	<0.01	<10	<10	2	<10	7
06MBW161A	0.06	<10	0.90	642	<1	0.03	48	160	3	0.02	<2	4	439	0.04	<10	<10	30	<10	45
06MBW163A	<0.01	<10	0.02	48	1	0.01	1	10	4	0.01	<2	<1	43	<0.01	<10	<10	<1	<10	4
06MBW168A	0.05	<10	0.40	51	<1	0.02	5	60	3	0.01	2	2	410	<0.01	<10	<10	13	<10	10
06MBW179A	0.02	10	0.87	573	1	0.15	32	700	5	0.01	<2	5	12	0.01	<10	<10	29	<10	33
06MBW189A	<0.01	<10	0.11	151	<1	0.02	2	10	2	<0.01	<2	1	367	<0.01	<10	<10	<1	<10	32
06MBW232A	0.16	10	0.21	528	<1	0.11	9	740	7	0.01	<2	2	70	0.03	<10	<10	25	<10	8
06MBW262A	0.24	10	0.14	36	4	0.02	22	1200	6	0.01	<2	1	40	<0.01	<10	<10	44	<10	68
06MBW263B	0.09	10	0.64	50	11	0.02	70	180	11	0.02	<2	2	15	<0.01	<10	<10	61	<10	171
06MBW264B	<0.01	<10	<0.01	40	1	0.01	4	30	2	0.01	<2	<1	2	<0.01	<10	<10	1	<10	8
06MBW266B	0.01	<10	0.80	58	1	0.03	15	1370	<2	0.01	<2	2	19	<0.01	<10	<10	34	<10	17
06MBW273A	0.05	<10	<0.01	12	10	0.02	18	90	2600	3.42	1650	<1	180	<0.01	<10	<10	3	80	27
06MBW277A	0.03	10	0.15	200	<1	0.02	20	130	24	<0.01	24	2	527	<0.01	<10	<10	12	<10	45
06MBW287A	0.20	10	0.21	613	2	0.02	81	1030	14	0.01	3	9	22	0.02	<10	<10	48	<10	68
06MBW289A	0.03	<10	0.12	112	1	0.03	3	390	3	0.01	2	1	19	0.20	<10	<10	25	<10	9
06MBW309A	0.01	<10	0.06	74	2	0.03	8	20	2	0.01	<2	1	3	<0.01	<10	<10	4	<10	4
06MBW330A	0.01	<10	0.09	832	4	0.02	3	70	4	<0.01	80	2	155	<0.01	<10	<10	13	<10	3
06MBW336A	0.11	20	1.49	967	<1	0.14	43	1230	4	<0.01	<2	8	11	0.02	<10	<10	48	<10	58
06MBW403A	0.15	10	0.16	230	7	0.03	58	220	9	0.01	<2	2	10	<0.01	<10	<10	27	<10	132
06MBW438A	0.05	<10	0.56	400	<1	0.02	2	100	3	<0.01	4	1	1215	<0.01	<10	<10	1	<10	8
06MBW454A	0.12	<10	0.10	60	32	0.01	69	600	16	0.04	4	2	15	<0.01	<10	<10	108	<10	247
06MBW465A	<0.01	<10	3.74	186	1	0.01	<1	40	11	<0.01	2	<1	190	<0.01	<10	<10	2	<10	13

Table 2. (continued).

Sample Number	Au ppm	Au(+) ppm	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Cu(+) %	Fe %	Ga ppm	Hg ppm	Hg(+) ppm
06MBW472A	0.017	-	<0.2	0.12	71	<10	10	<0.5	<2	6.03	<0.5	22	9	5	-	1.51	<10	<1	0.05
06MBW484A	<0.005	-	0.5	0.44	13	<10	1740	<0.5	<2	0.09	<0.5	2	20	113	-	1.31	<10	<1	0.05
06MBW565A	<0.005	-	<0.2	0.06	6	<10	30	<0.5	<2	8.16	<0.5	1	12	7	-	0.49	<10	<1	0.03
06MBW568A	<0.005	-	0.6	0.41	28	<10	200	<0.5	<2	0.04	<0.5	4	16	26	-	2.67	<10	<1	0.08
06MBW572A	<0.005	-	0.2	1.48	13	<10	340	<0.5	<2	0.06	<0.5	10	20	28	-	1.66	<10	<1	0.03
06MBW573A	<0.005	-	0.3	0.34	14	<10	280	<0.5	<2	0.03	<0.5	1	15	2	-	0.46	<10	<1	0.86
06MBW589A	<0.005	-	<0.2	0.03	5	<10	10	<0.5	<2	>25.0	<0.5	<1	2	1	-	0.13	<10	<1	0.72
06MBW594A	<0.005	-	<0.2	0.03	9	<10	10	<0.5	<2	>25.0	<0.5	<1	1	1	-	0.23	<10	<1	0.69
06MBW615A	<0.005	-	<0.2	0.55	5	<10	30	<0.5	<2	21.50	<0.5	7	11	14	-	2.05	<10	<1	0.53
06MBW619B	<0.005	-	<0.2	1.09	8	<10	10	<0.5	<2	1.89	<0.5	2	33	2	-	2.08	<10	1	0.54
06MBW628A	<0.005	-	<0.2	0.26	68	<10	20	<0.5	<2	>25.0	<0.5	5	5	19	-	1.71	<10	2	2.42
06MBW631A	<0.005	-	<0.2	0.13	13	<10	10	<0.5	<2	>25.0	<0.5	2	3	9	-	1.17	<10	<1	0.86
06MBW646A	<0.005	-	0.2	0.93	29	<10	20	0.5	<2	19.50	<0.5	7	22	1	-	5.44	<10	<1	0.35
06MBW647A	<0.005	-	<0.2	0.23	2	<10	10	<0.5	<2	14.00	<0.5	2	8	4	-	2.57	<10	<1	0.26
06MBW702B	<0.005	-	<0.2	0.11	15	<10	10	<0.5	<2	4.87	<0.5	2	7	1	-	1.45	<10	<1	0.18
06MBW703A	0.020	-	<0.2	0.07	10	<10	10	<0.5	<2	0.28	<0.5	2	12	2	-	1.07	<10	<1	0.54
06MBW711A	<0.005	-	<0.2	0.13	39	<10	10	<0.5	<2	0.93	<0.5	6	12	2	-	1.42	<10	<1	0.18
06MBW711B	<0.005	-	<0.2	0.49	<2	<10	<10	<0.5	<2	0.47	<0.5	2	18	1	-	0.88	<10	<1	0.18
06MBW729B	<0.005	-	<0.2	0.74	7	<10	20	<0.5	<2	0.07	<0.5	11	23	13	-	1.89	<10	<1	0.20
06MBW736A	<0.005	-	<0.2	0.08	6	<10	20	<0.5	<2	0.08	<0.5	4	43	8	-	1.26	<10	4	4.88
06MBW760A	<0.005	-	0.2	0.88	4	<10	30	<0.5	<2	0.15	0.5	7	32	8	-	1.06	<10	2	2.40
06MBW776A	<0.005	-	<0.2	0.32	2	<10	60	<0.5	<2	22.00	<0.5	2	4	1	-	1.74	<10	1	2.03
06MBW777B	0.010	-	0.8	0.36	570	<10	150	<0.5	4	0.52	<0.5	23	6	59	-	38.00	10	1	0.40
06MBW780A	<0.005	-	<0.2	0.16	7	<10	10	<0.5	<2	0.05	<0.5	2	35	4	-	2.08	<10	<1	0.57
06JEA36B	<0.005	-	<0.2	0.02	6	<10	<10	<0.5	<2	11.15	<0.5	2	22	2	-	0.18	<10	<1	0.52
06JEA44B	<0.005	-	<0.2	0.01	<2	<10	<10	<0.5	<2	0.20	<0.5	1	65	<1	-	0.13	<10	<1	0.24
06JEA55B	<0.005	-	<0.2	0.54	2	<10	20	<0.5	<2	0.06	<0.5	4	49	3	-	1.08	<10	<1	0.21
06JEA92B	<0.005	-	<0.2	0.04	<2	<10	20	<0.5	<2	24.20	<0.5	<1	9	16	-	0.42	<10	<1	0.51
06JEA151A	<0.005	-	0.2	1.82	5	<10	30	<0.5	<2	0.22	<0.5	5	48	10	-	5.17	10	<1	0.18
06JEA158B	<0.005	-	<0.2	0.07	20	<10	30	<0.5	<2	21.20	<0.5	2	9	4	-	0.63	<10	<1	0.45
06JEA161B	<0.005	-	<0.2	0.01	<2	<10	<10	<0.5	<2	10.05	<0.5	<1	31	<1	-	0.10	<10	<1	0.25
06JEA164A	<0.005	-	<0.2	0.01	3	<10	10	<0.5	<2	>25.0	<0.5	<1	2	<1	-	0.05	<10	<1	0.13
06JEA165B	0.022	-	0.4	0.44	1140	<10	20	<0.5	<2	0.28	1.2	1	46	258	-	6.72	<10	1	2.26
06JEA191A	<0.005	-	<0.2	0.03	19	<10	<10	<0.5	<2	0.53	<0.5	3	48	33	-	0.38	<10	<1	0.10

Table 2. (continued)

Sample Number	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
06MBW472A	0.04	<10	0.74	118	<1	0.01	14	70	5	0.01	<2	<1	98	<0.01	<10	<10	3	<10	4
06MBW484A	0.12	<10	0.13	44	13	0.02	24	170	24	0.06	3	1	19	0.01	<10	<10	60	<10	53
06MBW565A	0.01	<10	0.23	353	<1	0.01	2	20	3	0.02	2	1	176	<0.01	<10	<10	1	<10	5
06MBW568A	0.16	<10	0.03	28	32	0.05	20	120	27	0.98	<2	1	10	<0.01	<10	<10	25	<10	19
06MBW572A	0.16	10	1.16	215	2	0.02	35	180	10	0.08	<2	2	13	<0.01	<10	<10	21	<10	79
06MBW573A	0.10	<10	0.04	31	3	0.01	2	20	4	0.08	<2	1	3	<0.01	<10	<10	45	<10	7
06MBW589A	0.01	<10	0.14	54	<1	0.02	<1	100	3	<0.01	3	<1	1280	<0.01	<10	<10	<1	<10	3
06MBW594A	0.01	<10	0.13	171	<1	0.02	<1	80	4	<0.01	3	1	1230	<0.01	<10	<10	1	<10	2
06MBW615A	0.17	10	0.97	536	<1	0.02	26	370	10	<0.01	3	5	1470	<0.01	<10	<10	8	<10	23
06MBW619B	0.03	<10	0.58	322	<1	0.09	8	40	7	0.01	4	2	51	<0.01	<10	<10	19	<10	28
06MBW628A	0.05	<10	0.14	521	1	0.02	39	170	8	<0.01	98	2	98	<0.01	<10	<10	11	<10	80
06MBW631A	0.04	<10	0.14	430	1	0.02	11	80	3	<0.01	57	1	108	<0.01	<10	<10	10	<10	24
06MBW646A	0.05	10	2.21	2990	<1	0.03	23	540	4	<0.01	9	9	501	<0.01	<10	<10	18	<10	66
06MBW647A	0.04	<10	2.57	1910	<1	0.02	4	230	11	0.22	<2	2	564	<0.01	<10	<10	5	<10	19
06MBW702B	0.04	<10	0.72	244	2	0.01	2	50	3	0.12	<2	1	140	<0.01	<10	<10	1	<10	5
06MBW703A	0.03	<10	0.06	152	<1	0.01	4	80	2	0.01	<2	<1	5	<0.01	<10	<10	1	<10	7
06MBW711A	0.06	<10	0.03	53	2	0.01	7	110	<2	0.01	2	<1	22	<0.01	<10	<10	2	<10	<2
06MBW711B	<0.01	<10	0.55	57	<1	0.01	4	10	<2	<0.01	<2	<1	10	<0.01	<10	<10	7	<10	10
06MBW729B	0.01	10	0.24	121	1	0.14	35	170	7	0.01	<2	3	11	<0.01	<10	<10	15	<10	30
06MBW736A	0.03	10	0.02	660	<1	0.01	27	70	8	0.01	<2	1	3	<0.01	<10	<10	2	<10	7
06MBW760A	0.03	10	0.46	71	1	0.03	60	150	5	<0.01	<2	3	14	0.07	<10	10	17	<10	66
06MBW776A	0.01	10	8.60	1590	<1	0.02	5	70	4	<0.01	<2	1	178	<0.01	<10	<10	5	<10	14
06MBW777B	0.04	<10	0.25	127	8	0.04	14	850	34	0.17	<2	2	35	<0.01	<10	10	29	<10	4
06MBW780A	0.01	<10	0.06	32	6	0.01	29	90	3	0.01	<2	2	3	<0.01	<10	<10	19	<10	24
06JEA36B	<0.01	<10	0.05	69	<1	0.01	<1	50	2	0.01	<2	<1	77	<0.01	<10	<10	<1	<10	3
06JEA44B	<0.01	<10	<0.01	8	<1	0.01	2	10	<2	<0.01	<2	<1	2	<0.01	<10	<10	<1	<10	<2
06JEA55B	0.07	10	0.22	89	<1	0.02	13	220	2	<0.01	<2	1	4	0.01	<10	<10	10	<10	17
06JEA92B	0.02	<10	9.81	387	<1	0.02	<1	220	9	<0.01	<2	3	351	<0.01	<10	<10	5	<10	11
06JEA151A	0.10	10	1.86	163	6	0.02	22	410	9	0.63	2	4	6	<0.01	<10	<10	48	<10	72
06JEA158B	0.02	<10	0.13	546	3	0.01	6	80	6	<0.01	11	1	52	<0.01	<10	<10	3	<10	15
06JEA161B	<0.01	<10	0.03	33	<1	0.01	<1	<10	3	0.01	<2	<1	97	<0.01	<10	<10	<1	<10	4
06JEA164A	<0.01	<10	0.02	61	<1	0.01	<1	<10	3	<0.01	<2	<1	264	<0.01	<10	<10	<1	<10	3
06JEA165B	0.06	10	0.02	26	1	0.01	12	800	79	0.06	165	4	17	<0.01	<10	20	48	<10	295
06JEA191A	0.01	<10	<0.01	37	<1	<0.01	6	40	4	0.01	<2	<1	5	<0.01	<10	<10	1	<10	5

Table 2. (continued).

Sample Number	Au ppm	Au(+) ppm	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Cu(+) %	Fe %	Ga ppm	Hg ppm	Hg(+) ppm
06JEA196B	0.005	-	<0.2	0.05	36	<10	10	<0.5	<2	>25.0	<0.5	1	5	<1	-	1.18	<10	2	0.40
06JEA334A	0.006	-	<0.2	0.05	20	<10	<10	<0.5	<2	14.75	<0.5	2	23	20	-	0.55	<10	2	0.29
06JEA390A	0.008	-	<0.2	0.96	5	<10	20	<0.5	<2	0.47	<0.5	12	46	18	-	3.23	<10	1	0.05
06JEA419A	0.007	-	0.2	0.43	136	<10	90	<0.5	3	0.05	0.9	3	35	310	-	9.16	<10	1	0.10
06JEA437A	<0.005	-	<0.2	0.03	8	<10	10	<0.5	<2	>25.0	<0.5	3	4	8	-	0.39	<10	3	1.51
06JEA450B	<0.005	-	<0.2	0.04	<2	<10	60	<0.5	<2	0.16	<0.5	2	75	4	-	0.22	<10	<1	0.24
06JEA464A	<0.005	-	<0.2	0.28	39	<10	40	<0.5	<2	0.47	<0.5	15	47	70	-	4.53	<10	1	0.79
06JEA476A	<0.005	-	<0.2	0.16	16	<10	<10	<0.5	<2	8.18	0.7	2	35	3	-	1.73	<10	<1	0.04
06JEA481A	<0.005	-	<0.2	0.17	23	<10	10	<0.5	<2	>25.0	<0.5	4	9	3	-	0.95	<10	3	0.24
06JEA487A	<0.005	-	<0.2	0.25	<2	<10	10	<0.5	<2	6.24	<0.5	1	34	<1	-	0.60	<10	<1	0.14
06JEA512A	<0.005	-	<0.2	0.03	<2	<10	<10	<0.5	<2	2.51	<0.5	2	48	9	-	0.15	<10	<1	0.13
06JEA513A	<0.005	-	<0.2	0.02	<2	<10	<10	<0.5	<2	1.36	<0.5	1	55	<1	-	0.26	<10	<1	0.03
06JEA513B	0.038	-	0.3	0.42	1100	<10	10	<0.5	10	1.00	0.5	93	14	35	-	25.70	<10	1	0.11
06JEA518A	<0.005	-	<0.2	0.04	11	<10	<10	<0.5	<2	0.60	<0.5	2	53	9	-	0.50	<10	1	0.04
06JEA522A	0.028	-	0.4	0.10	9	<10	<10	<0.5	<2	0.68	<0.5	7	41	>10000	6.98	1.14	<10	<1	0.30
06JEA522B	0.027	-	0.2	0.09	2	<10	<10	<0.5	<2	0.08	<0.5	5	46	>10000	2.54	1.59	<10	<1	<0.1
06JEA523A	<0.005	-	<0.2	0.02	<2	<10	<10	<0.5	<2	0.11	<0.5	1	62	271	-	0.13	<10	<1	0.05
06JEA524A	<0.005	-	<0.2	0.03	2	<10	10	<0.5	<2	>25.0	<0.5	1	3	36	-	0.25	<10	2	0.06
06JEA575A	<0.005	-	<0.2	0.64	<2	<10	30	<0.5	<2	0.51	<0.5	6	46	21	-	1.16	<10	<1	0.08
06JEA663B	0.005	-	<0.2	0.59	160	<10	20	<0.5	5	3.44	1.0	21	63	199	-	12.55	10	34	34.40
06JEA691A	<0.005	-	<0.2	0.05	9	<10	10	<0.5	<2	>25.0	<0.5	1	3	6	-	0.26	<10	2	0.46
06JEA691D	<0.005	-	0.3	0.16	267	110	100	1.5	2	11.95	<0.5	3	30	17	-	9.36	<10	15	16.50
06JEA705A	<0.005	-	<0.2	1.20	670	<10	40	<0.5	<2	0.94	0.6	15	38	31	-	3.12	<10	<1	0.08
06JEA706A	6.150	-	1.2	1.70	>10000	<10	20	0.5	2	0.62	<0.5	24	62	4	-	9.77	10	2	0.10
06RN90B	<0.005	-	0.2	0.25	40	<10	190	<0.5	<2	0.03	<0.5	7	22	31	-	1.38	<10	11	12.50
06RN202C	<0.005	-	<0.2	0.09	9	<10	10	<0.5	<2	0.65	<0.5	3	46	4	-	0.81	<10	4	5.13
06RN207C	<0.005	-	<0.2	0.05	11	<10	10	<0.5	<2	3.01	<0.5	2	50	<1	-	0.41	<10	1	0.83
06RN244A	0.024	-	1.2	0.27	80	<10	20	<0.5	<2	0.04	<0.5	5	9	21	-	0.92	<10	4	5.19
06RN245A	0.167	-	1.9	0.53	1675	<10	40	<0.5	<2	0.08	8.2	8	13	166	-	1.78	<10	11	11.2
06RN245C	0.020	-	1.4	0.40	193	<10	30	<0.5	<2	0.06	1.2	3	12	41	-	1.21	<10	2	2.70
06RN246A	0.025	-	0.2	2.63	26	<10	90	1.0	2	2.43	<0.5	24	28	25	-	4.69	<10	<1	0.05
06RN248B	0.012	-	<0.2	2.31	10	<10	260	1.3	<2	2.80	<0.5	27	64	26	-	4.93	10	<1	0.04
06RN249A	0.010	-	<0.2	4.22	5	<10	80	0.8	<2	3.19	<0.5	40	69	22	-	5.32	10	1	0.48
06RN283A	<0.005	-	0.2	0.96	<2	<10	10	<0.5	<2	0.21	<0.5	8	74	9	-	1.66	<10	1	0.32

Table 2. (continued)

Sample Number	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
06JEA196B	0.01	<10	0.11	204	<1	0.01	2	40	8	<0.01	19	<1	422	<0.01	<10	<10	3	<10	11
06JEA334A	0.01	<10	0.10	111	1	0.01	15	110	4	<0.01	13	<1	93	<0.01	<10	<10	6	<10	7
06JEA390A	0.07	10	0.56	260	1	0.03	35	570	13	0.08	2	5	9	<0.01	<10	<10	32	<10	24
06JEA419A	0.08	<10	0.01	20	40	0.01	54	590	14	0.04	14	2	5	<0.01	<10	<10	63	<10	194
06JEA437A	0.01	<10	0.13	439	<1	0.01	19	150	4	<0.01	3	1	109	<0.01	<10	<10	5	<10	19
06JEA450B	<0.01	<10	<0.01	11	<1	<0.01	6	20	2	<0.01	<2	<1	2	<0.01	10	<10	2	<10	5
06JEA464A	0.06	20	0.51	344	<1	0.02	50	530	8	0.75	3	7	18	<0.01	<10	<10	42	<10	69
06JEA476A	0.01	<10	1.52	832	<1	0.02	9	70	6	0.01	8	2	181	<0.01	<10	<10	3	<10	70
06JEA481A	0.04	<10	0.46	826	<1	0.01	12	190	10	<0.01	<2	3	2030	<0.01	<10	<10	4	<10	8
06JEA487A	0.02	<10	0.22	477	<1	0.03	7	90	9	0.01	5	2	156	<0.01	<10	<10	4	<10	7
06JEA512A	0.01	<10	0.01	91	<1	<0.01	3	10	3	0.01	<2	<1	36	<0.01	<10	<10	<1	<10	<2
06JEA513A	0.01	<10	0.01	103	<1	<0.01	3	10	3	<0.01	<2	<1	10	<0.01	<10	<10	<1	<10	<2
06JEA513B	0.09	10	0.10	43	2	0.01	222	3520	64	0.02	10	1	23	0.05	<10	<10	6	<10	2
06JEA518A	0.01	<10	<0.01	59	<1	<0.01	7	70	2	<0.01	2	<1	16	<0.01	<10	<10	1	<10	<2
06JEA522A	0.01	<10	0.01	240	1	<0.01	7	160	<2	0.01	7	1	16	<0.01	<10	<10	1	10	22
06JEA522B	0.03	10	<0.01	121	<1	<0.01	11	420	2	0.01	6	<1	7	<0.01	<10	<10	2	<10	59
06JEA523A	0.01	<10	<0.01	13	<1	<0.01	3	<10	<2	<0.01	2	<1	2	<0.01	<10	<10	<1	<10	<2
06JEA524A	<0.01	<10	0.10	193	<1	0.01	3	100	7	<0.01	5	<1	669	<0.01	<10	<10	1	<10	<2
06JEA575A	0.16	10	0.20	98	<1	0.01	14	230	<2	0.07	<2	1	11	<0.01	<10	<10	9	<10	9
06JEA663B	0.06	<10	0.08	188	9	0.01	77	1140	18	0.02	187	2	17	<0.01	10	10	10	<10	129
06JEA691A	0.01	<10	4.42	100	<1	0.01	4	40	5	<0.01	12	<1	103	<0.01	<10	<10	3	<10	4
06JEA691D	0.02	<10	0.78	826	1	0.01	8	1930	18	0.01	210	<1	38	<0.01	<10	<10	30	<10	128
06JEA705A	0.22	20	0.68	417	1	0.16	61	680	14	0.02	9	3	27	0.01	<10	<10	17	<10	58
06JEA706A	0.19	10	0.95	366	3	0.03	48	420	13	3.43	116	5	27	0.01	<10	<10	56	<10	40
06RN90B	0.12	10	0.02	28	11	0.01	12	260	13	<0.01	17	1	8	<0.01	<10	<10	11	<10	16
06RN202C	0.04	<10	0.02	159	<1	<0.01	5	60	3	0.01	2	<1	13	<0.01	<10	<10	1	<10	5
06RN207C	0.02	<10	0.04	169	<1	0.01	3	70	8	0.01	<2	<1	93	<0.01	<10	<10	1	<10	3
06RN244A	0.08	<10	0.03	80	1	0.01	8	50	110	0.01	7	<1	4	<0.01	<10	<10	4	<10	238
06RN245A	0.19	10	0.04	99	2	0.01	22	170	797	0.04	106	2	16	<0.01	<10	<10	12	<10	1080
06RN245C	0.12	<10	0.03	80	1	0.01	9	60	165	0.02	23	<1	7	0.01	<10	<10	7	<10	505
06RN246A	0.23	40	2.31	620	1	0.42	36	2970	9	0.12	4	7	223	0.14	<10	<10	32	<10	100
06RN248B	0.42	50	2.26	669	1	0.43	69	3190	8	0.18	6	9	191	0.3	<10	<10	47	<10	176
06RN249A	0.16	20	3.02	746	1	0.51	73	1680	7	0.16	44	11	235	0.16	<10	<10	74	<10	300
06RN283A	0.02	<10	0.79	363	<1	0.12	32	400	4	<0.01	2	2	7	0.03	<10	<10	20	<10	29

Table 2. (continued).

Sample Number	Au ppm	Au(+) ppm	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Cu(+) %	Fe %	Ga ppm	Hg ppm	Hg(+) ppm
06RN284A	<0.005	-	<0.2	0.43	4	<10	30	<0.5	<2	2.28	<0.5	3	42	75	-	0.68	<10	1	0.33
06RN327B	<0.005	-	<0.2	0.03	12	<10	10	<0.5	<2	0.13	<0.5	1	64	1	-	0.33	<10	<1	1.65
06RN328A	0.005	-	<0.2	0.05	18	<10	10	<0.5	<2	0.01	<0.5	1	61	<1	-	0.45	<10	1	1.77
06RN337C	0.009	-	0.2	0.03	35	<10	30	<0.5	2	0.13	<0.5	1	54	6	-	6.99	<10	46	45.10
06RN343C	<0.005	-	<0.2	0.25	5	<10	20	<0.5	<2	0.52	<0.5	2	59	5	-	0.48	<10	<1	0.61
06RN522A	0.008	-	<0.2	3.47	52	<10	730	1.3	2	4.23	<0.5	25	128	29	-	5.75	10	1	0.55
06RN556B	<0.005	-	<0.2	0.24	7	<10	20	<0.5	<2	0.52	<0.5	3	51	5	-	0.48	<10	1	0.58
06RN574B	<0.005	-	0.3	0.31	31	<10	190	<0.5	<2	0.01	<0.5	3	44	25	-	1.63	<10	<1	0.23

Table 2. (continued)

Sample Number	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
06RN284A	0.04	<10	0.30	847	<1	0.01	7	690	6	<0.01	<2	1	140	0.02	<10	<10	9	<10	11
06RN327B	0.01	<10	<0.01	19	1	<0.01	4	20	5	0.01	8	<1	3	<0.01	<10	<10	2	<10	2
06RN328A	0.05	<10	<0.01	9	1	<0.01	3	60	15	0.08	8	<1	13	<0.01	<10	<10	2	<10	5
06RN337C	0.56	<10	0.02	13	4	0.02	3	280	18	1.16	193	<1	9	<0.01	20	<10	8	<10	4
06RN343C	0.07	<10	0.06	235	1	0.03	7	60	28	0.02	8	<1	13	<0.01	<10	<10	3	<10	36
06RN522A	0.31	70	2.09	823	2	0.29	59	2910	18	0.22	15	16	164	0.32	<10	<10	95	<10	133
06RN556B	0.07	<10	0.06	236	1	0.03	8	60	31	0.01	11	<1	12	<0.01	<10	<10	3	<10	36
06RN574B	0.13	10	0.02	12	19	0.01	22	280	41	0.02	11	1	24	<0.01	<10	<10	38	<10	53

Table 3. Location and description of rocks collected for major-oxide, minor-oxide, and trace-element analyses in the Solomon and Nome Quadrangles, Seward Peninsula, Alaska.

Sample Number	Latitude	Longitude	UTM E	UTM N	Description
06JEA65A	64.7629	-163.9439	550244	7182253	Reddish-brown weathering, aphanitic to fine-grained, vesicular basalt.
06JEA249A	64.8469	-163.9826	548252	7191584	Brown weathering, black, fresh, basalt(?) dike with 3-5 percent feldspar phenocrysts. Dike may trend 30(?) degrees (azimuth).
06JEA342A	64.9062	-164.1246	541425	7198095	Brown weathering basalt(?) dike. Possibly(?) has a strike of 40 degrees (azimuth) and a dip of 60 degrees.
06JEA726A	64.7352	-163.9929	547962	7179127	Basalt dike with 1- to 2-mm-diameter vesicles.
06JEA745A	64.7779	-163.8395	555180	7184012	Brown weathering, black, basalt(?) dike with 1- to 2-mm-diameter vesicles filled with calcite, and phenocrysts of feathery, less than 1-mm-long plagioclase. Also may contain biotite phenocrysts that are less than 1 mm in diameter.
06LF348B	64.793	-163.8898	552759	7185659	Porphyritic andesite dike with 10 percent plagioclase and 10 percent pyroxene phenocrysts in a very fine-grained matrix, which possibly contain biotite.
06LF529A	64.7956	-164.0936	543068	7185789	Coarse-grained granofels with green mica, 10-15 percent garnet, 2 percent green amphibole, approximately 30 percent relict glaucophane, and plagioclase porphyroblasts up to 0.5 inches in diameter.
06LF586A Nome Quadrangle	64.5924	-165.2179	489569	7162856	Pale green granofels with 10-20 percent garnet (average 1 mm in diameter), 30-40 percent pyroxene(?) (pale green, blocky), 15 percent subhedral white mica, and interstitial epidote and actinolite.
06MBW56A	64.6348	-163.9417	550588	7167982	Meta-calc-silicate rock within Casadepaga Schist that is less than 1 foot wide. Light-brown weathering, white- to pale green-colored rock with indistinct, slightly micaceous partings. Matrix is aphanitic to finely granular. Contains randomly-oriented, euhedral, amphibole crystals up to 3 mm long. Also contains crystals of plagioclase(?) and quartz. Rock is cut by sparse, brown, secondary biotite and quartz veinlets, which are generally less than 1 mm in width.

Table 3. (continued).

Sample Number	Latitude	Longitude	UTM E	UTM N	Description
06MBW218A	64.817	-163.8627	553999	7188348	Lightly iron oxide-stained outcrop of grayish-brown weathering, massive, jointed, equigranular gabbro dike. Dike contains approximately 40 percent dark brown to black biotite and hornblende(?), and 60 percent white plagioclase. Contains approximately 1 percent disseminated iron sulfide (likely pyrrhotite since rock is magnetic). Weathering rind is 1- to 2-cm-thick; submitted sample was taken from fresh pieces. Gabbro is fine-grained, with crystals up to 4 mm in diameter, and an average grain size of 1- to 2-mm in diameter. Contains approximately 3 percent scattered, round amygdules filled with calcite, which are up to 1 cm in diameter. Dike possibly trends 250(?) degrees (azimuth).
06MBW299A	64.7843	-163.7849	557761	7184775	Lightly iron oxide-stained, white, very soft, quartz + very white mica-rich schist. Potentially could have a felsic metaigneous protolith. Schist occurs as an isolated, less than 3-foot-thick layer, surrounded by black graphitic quartzite. Exposed in road cut along the south side of the Nome-Council road.
06MBW340A	64.7857	-164.1776	539092	7184629	Blocky, massive boulders of mafic granofels forming a 10-foot-high knob in the tundra. Brownish-gray weathering, green-, red-, and tan-colored, coarse-grained (crystals up to 0.5 cm in diameter), equigranular, very poorly foliated, garnet (red, approximately 1- to 2-mm-diameter, approximately 20 percent) + plagioclase (tan, approximately 25-30 percent) + amphibole (dark green, euhedral, equant crystals, approximately 55 percent) mafic granofels.
06MBW393A	64.7695	-164.1091	542376	7182867	Sparse float chips of brown weathering, rounded (spheroidally weathered), dark gray, fine-grained, plagioclase-porphyritic gabbro(?). Narrow dike.
06MBW462A	64.7886	-164.1815	538903	7184956	Metagraywacke(?). Blocky, gnarly weathering, massive, very indistinctly foliated (rock is deformed, with irregular shear planes coated with dark green chlorite(?)), anomalously very fine-grained, possibly composed of 60 percent plagioclase and 40 percent, equant pyroxene(?) or secondary amphibole (after pyroxene(?)). Trace iron oxide after sulfide. Unit forms a 10-foot-high knob outcrop in tundra.
06RN247B	64.5719	-163.6769	563390	7161210	Bluff drill hole number 5. Dike sample taken between 22 feet and 45 feet. Dike is weathered, dark colored, fine grained, porphyritic.

Table 3. (continued).

Sample Number	Latitude	Longitude	UTM E	UTM N	Description
06RN248A	64.5728	-163.6768	563390	7161310	Bluff drill hole number 6. Dike sample taken between 335 feet and 357 feet. Dike has occasional serpentine(?) and slickensides on sheared contacts. Dike is dark, fine-grained, porphyritic(?), and has occasional disseminated pyrite.
06RN248B	64.5728	-163.6768	563390	7161310	Bluff drill hole number 6. Sample taken between 416 feet and 446 feet. Dike has sheared contacts with marble host rock, inclusions of marble in the dike along the contact, and the upper contact is approximately parallel with the core axis. Calcite veins are also parallel with core axis. Sampled dike with 0-15 percent, light greenish-brown clinopyroxene(?) phenocrysts, occasional plagioclase(?) phenocrysts, and a very fine-grained matrix.
06RN294A	64.8024	-164.1462	540559	7186508	Altered feldspar porphyry intrusion. Possibly a gabbro(?). Intrusion contains randomly oriented, 0.5- to 1-cm-diameter feldspars in a green groundmass with minor remnant biotite(?). Not foliated, and found on top of knob.
06RN308A	64.878	-164.0555	544744	7195000	Mafic dike with biotite, olivine, and plagioclase phenocrysts that are less than or equal to 1 mm in diameter. Phenocrysts make up 30-60 percent of the rock, with the rest composed of dark, fine-grained groundmass. Dike is approximately 2-3 meters wide, has a strike of approximately 0 degrees (azimuth) and a dip of approximately 90 degrees.
06RN595A Nome Quadrangle	64.454	-165.0467	497754	7147408	Orthogneiss with strongly gneissic fabric. Contains feldspar up to 0.3 cm in diameter, approximately 10-15 percent chlorite (after biotite), and greater than 50 percent feldspar.
06Z114A	64.7989	-163.8921	552636	7186310	Mafic dike. Black, fine-grained, mafic rock consisting of hornblende, plagioclase, biotite, and 2-3 percent fine-grained, disseminated pyrrhotite. Contains 1 percent white calcite-filled amygdules that are approximately 1 cm in diameter. Mafic minerals (biotite and hornblende) are about 50 percent of the rock, and plagioclase is the other 50 percent. Possibly has a strike of 40 degrees (azimuth).
06Z167A	64.8421	-163.941	550233	7191079	Basalt(?). Dark brown-weathering, black, fine-grained mafic igneous rock. Plagioclase(?) crystals up to 1-mm-wide by 3-mm-long. Trace disseminated pyrite up to 1 mm in diameter. Aphanitic or very fine-grained matrix. Dike strikes 65 degrees (azimuth) and is approximately 5 feet wide.

Table 3. (continued).

Sample Number	Latitude	Longitude	UTM E	UTM N	Description
06Z308B	64.7917	-163.9757	548681	7185441	Metamorphosed dike(?). Black rock interlayered with, or possibly cross-cutting(?), pelitic schist. Aphanitic except for black amphibole(?).
06Z398B	64.7693	-164.2517	535593	7182760	Biotite + white mica + plagioclase(?) semischist. Black and white, mottled, fine-grained. One surface with 10 cm by 3 cm mass of black amphibole(?) porphyroblasts(?) + biotite + chlorite + plagioclase. Possible metadike(?).

Table 4. Major-oxide, minor-oxide, and trace-element analyses for rocks collected in the Solomon and Nome Quadrangles, Seward Peninsula, Alaska.

Sample Number	Al2O3 %	BaO %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	SrO %	TiO2 %	LOI %	Total %	Nb ppm	Rb ppm	Sr ppm	Y ppm	Zr ppm
06JEA65A	16.67	0.20	8.83	<0.01	8.29	2.41	4.08	0.15	2.64	0.53	45.56	0.09	1.45	7.99	98.89	13	71	912	28	292
06JEA249A	17.05	0.17	5.15	<0.01	9.07	2.73	3.47	0.13	3.20	0.64	50.14	0.07	2.00	4.47	98.28	29	94	712	36	424
06JEA342A	15.84	0.18	4.12	<0.01	9.04	3.02	2.37	0.1	3.14	0.97	52.42	0.04	2.31	4.86	98.42	37	77	389	53	545
06JEA726A	17.26	0.20	7.53	<0.01	7.70	2.56	3.47	0.14	2.87	0.56	47.32	0.11	1.56	7.04	98.32	13	79	1090	28	308
06JEA745A	16.76	0.21	5.28	0.02	8.77	2.71	4.09	0.14	2.94	0.59	48.80	0.07	1.60	6.11	98.09	19	104	723	32	347
06LF348B	15.94	0.17	7.22	0.01	8.39	1.60	4.53	0.16	2.82	0.55	46.59	0.09	1.47	8.97	98.51	13	38	938	29	302
06LF529A	17.51	0.01	11.79	0.06	9.10	0.13	7.67	0.14	1.76	0.06	45.85	0.03	0.82	3.86	98.79	3	4	299	14	58
06LF586A	16.30	0.01	11.15	<0.01	12.05	0.27	6.61	0.18	1.81	0.09	46.82	0.02	1.09	1.69	98.09	4	10	180	20	88
06MBW56A	13.65	0.06	9.09	0.01	6.10	1.30	3.73	0.13	3.63	0.16	58.93	0.02	0.67	1.54	99.02	9	22	210	27	132
06MBW218A	16.78	0.21	6.87	<0.01	9.17	2.08	4.50	0.15	3.29	0.59	47.64	0.08	1.45	5.96	98.77	13	65	764	28	307
06MBW299A	18.72	0.25	0.31	0.01	4.07	3.99	1.98	<0.01	1.06	0.17	63.28	0.02	0.68	4.23	98.77	14	178	129	19	251
06MBW340A	14.11	0.01	10.15	<0.01	14.13	0.06	5.64	0.24	2.02	0.12	48.86	0.03	1.50	2.23	99.10	6	<2	290	26	98
06MBW393A	16.28	0.10	6.27	0.03	8.98	1.72	5.54	0.26	2.60	0.62	47.81	0.05	2.29	5.66	98.21	23	50	515	44	413
06MBW462A	17.07	0.01	10.84	0.07	9.45	0.60	8.03	0.17	1.79	0.06	45.76	0.03	0.73	3.65	98.26	2	23	300	17	49
06RN247B	14.69	0.11	6.80	0.03	9.00	2.36	5.91	0.13	2.58	0.65	49.89	0.06	2.04	3.89	98.14	27	70	553	38	457
06RN248A	15.02	0.11	7.28	0.02	9.16	2.44	4.92	0.13	2.61	0.70	49.68	0.06	2.10	4.07	98.30	29	85	555	39	478
06RN248B	15.12	0.13	7.66	0.02	9.04	2.38	4.79	0.14	2.61	0.69	48.22	0.06	2.07	5.58	98.51	28	75	608	38	473
06RN294A	18.24	0.01	12.38	0.06	8.57	0.08	7.65	0.12	1.60	0.06	45.42	0.03	0.69	3.51	98.42	3	2	248	13	47
06RN308A	13.84	0.16	7.12	0.04	7.35	2.06	6.65	0.12	2.73	0.48	49.01	0.07	1.29	7.71	98.63	21	98	683	28	275
06RN595A	14.12	0.01	0.51	<0.01	3.09	0.41	1.31	0.01	6.14	0.10	70.82	0.01	0.46	1.22	98.21	21	19	108	39	292
06Z114A	16.83	0.20	6.51	<0.01	9.18	2.55	4.56	0.15	3.08	0.65	48.13	0.08	1.54	4.81	98.27	14	90	777	31	358
06Z167A	14.93	0.16	5.79	0.01	8.67	2.78	3.21	0.14	2.88	0.89	51.97	0.07	2.09	5.09	98.67	33	80	680	45	513
06Z308B	20.79	0.01	1.01	0.01	6.95	0.19	6.00	0.02	6.35	0.14	52.42	0.04	0.90	3.58	98.41	16	5	332	21	202
06Z398B	18.67	<0.01	0.73	0.01	6.87	0.03	9.65	0.01	5.05	0.19	51.16	0.01	1.02	5.63	99.05	19	<2	120	25	282

Table 4. (continued)

Sample Number	Nb* ppm	Rb* ppm	Sr* ppm	Y* ppm	Zr* ppm
06JEA65A	7	69	899	33.6	255
06JEA249A	28.2	93	704	43.1	395
06JEA342A	42.8	77	384	61.4	530
06JEA726A	-	-	-	-	-
06JEA745A	16.9	102	704	37.5	315
06LF348B	-	-	-	-	-
06LF529A	-	-	-	-	-
06LF586A	-	-	-	-	-
06MBW56A	-	-	-	-	-
06MBW218A	10.4	63	752	35.5	283
06MBW299A	-	-	-	-	-
06MBW340A	-	-	-	-	-
06MBW393A	24	49	497	50.3	383
06MBW462A	-	-	-	-	-
06RN247B	29.2	69	543	43.7	432
06RN248A	30.1	81	530	45.1	438
06RN248B	30	75	601	45.8	448
06RN294A	2.3	3	241	13.7	44
06RN308A	18.6	95	661	32.1	246
06RN595A	-	-	-	-	-
06Z114A	11.8	89	761	36.5	327
06Z167A	33.4	79	671	53.1	481
06Z308B	-	-	-	-	-
06Z398B	-	-	-	-	-

* = Pressed-pellet XRF analyses by UAF laboratory.
- = Not available

Table 5. Detection limits for geochemical analyses. Analytical methods include: FA-AAS = Fire Assay-Atomic Absorption Spectroscopy, FA-GRAV = Fire Assay-Gravimetric Finish, ICP-AES = Inductively Coupled Plasma-Atomic Emission Spectroscopy, AAS = Atomic Absorption Spectroscopy. NOTE: * = possibly incomplete digestion dependent on mineralogy.

Element	Units	Lower Detection Limit	Upper Detection Limit	Analytical Method
Au	ppm	0.005	10	FA-AAS
Au(+)	ppm	0.05	1,000	FA-GRAV
Ag	ppm	0.2	100	ICP-AES
Al*	percent	0.01	25	ICP-AES
As	ppm	2	10,000	ICP-AES
B*	ppm	10	10,000	ICP-AES
Ba*	ppm	10	10,000	ICP-AES
Be*	ppm	0.5	1,000	ICP-AES
Bi	ppm	2	10,000	ICP-AES
Ca*	percent	0.01	25	ICP-AES
Cd	ppm	0.5	1,000	ICP-AES
Co	ppm	1	10,000	ICP-AES
Cr*	ppm	1	10,000	ICP-AES
Cu	ppm	1	10,000	ICP-AES
Cu(+)	%	0.01	40	AAS
Fe	percent	0.01	50	ICP-AES
Ga*	ppm	10	10,000	ICP-AES
Hg	ppm	1	10,000	ICP-AES
Hg(+)	ppm	0.01	100	AAS
K*	percent	0.01	10	ICP-AES
La*	ppm	10	10,000	ICP-AES
Mg*	percent	0.01	25	ICP-AES
Mn	ppm	5	50,000	ICP-AES
Mo	ppm	1	10,000	ICP-AES
Na*	percent	0.01	10	ICP-AES
Ni	ppm	1	10,000	ICP-AES
P	ppm	10	10,000	ICP-AES
Pb	ppm	2	10,000	ICP-AES
S	percent	0.01	10	ICP-AES
Sb	ppm	2	10,000	ICP-AES
Sc*	ppm	1	10,000	ICP-AES
Sr*	ppm	1	10,000	ICP-AES
Ti*	percent	0.01	10	ICP-AES
Tl*	ppm	10	10,000	ICP-AES
U	ppm	10	10,000	ICP-AES
V	ppm	1	10,000	ICP-AES
W*	ppm	10	10,000	ICP-AES
Zn	ppm	2	10,000	ICP-AES

Table 6. Detection limits for major-oxide, minor-oxide, and trace-element analyses. Analytical methods include: LBF-XRF = Lithium borate fusion and X-ray fluorescence spectroscopy, and PP-XRF = wavelength dispersive X-ray fluorescence spectroscopy on a pressed pellet.
Note: Fe_2O_3 = total iron as Fe_2O_3; LOI = loss on ignition.

Element	Units	Lower Detection Limit	Upper Detection Limit	Analytical Method
Al_2O_3	percent	0.01	100.00	LBF-XRF
BaO	percent	0.01	100.00	LBF-XRF
CaO	percent	0.01	100.00	LBF-XRF
Cr_2O_3	percent	0.01	100.00	LBF-XRF
Fe_2O_3	percent	0.01	100.00	LBF-XRF
K_2O	percent	0.01	100.00	LBF-XRF
MgO	percent	0.01	100.00	LBF-XRF
MnO	percent	0.01	100.00	LBF-XRF
Na_2O	percent	0.01	100.00	LBF-XRF
P_2O_5	percent	0.01	100.00	LBF-XRF
SiO_2	percent	0.01	100.00	LBF-XRF
SrO	percent	0.01	100.00	LBF-XRF
TiO_2	percent	0.01	100.00	LBF-XRF
LOI	percent	0.01	100.00	LBF-XRF
Total	percent	0.01	105.00	Calculation
Nb	ppm	2	10,000	PP-XRF
Rb	ppm	2	10,000	PP-XRF
Sr	ppm	2	10,000	PP-XRF
Y	ppm	2	10,000	PP-XRF
Zr	ppm	2	10,000	PP-XRF
Nb*	ppm	1	100,000	PP-XRF
Rb*	ppm	0.5	100,000	PP-XRF
Sr*	ppm	0.5	100,000	PP-XRF
Y*	ppm	1	100,000	PP-XRF
Zr*	ppm	1	100,000	PP-XRF

* = Pressed-pellet XRF analyses by UAF laboratory.

Table 7. Location and description of rocks collected for non-carbonate carbon analyses in the Solomon Quadrangle, Seward Peninsula, Alaska. Carbon (non-carbonate) was analyzed by induction furnace pyrolysis following dilute acid digestion. The lower detection limit is 0.01 percent, and the upper detection limit is 50 percent carbon.

Sample Number	Latitude	Longitude	UTM E	UTM N	Description	Non-carbonate Carbon (%)
06MBW147A	64.7770	-164.0187	546663	7183772	Black, sooty, very fine-grained, finely foliated/laminated, graphitic quartzite with 2-3 percent disseminated iron oxide after iron sulfide (possibly pyrrhotite since the rock is relatively magnetic).	1.08
06LF442B	64.8849	-164.2139	537230	7195660	Black, very sooty, graphite + quartz schist with fine, alternating layers of quartz and graphite.	1.76
06Z357A	64.8352	-164.3148	532511	7190070	Silicified marble.	0.07