

BEDROCK GEOLOGIC MAP OF THE DELTA MINERAL BELT, TOK MINING DISTRICT, ALASKA

by
Samuel S. Dashevsky, Carl F. Schaefer, and Edward N. Hunter

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**DIVISION OF GEOLOGICAL &
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Rodney A. Combellick, Acting Director
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BEDROCK GEOLOGIC MAP OF THE DELTA MINERAL BELT, TOK MINING DISTRICT, ALASKA

by

Samuel S. Dashevsky,¹ Carl F. Schaefer,¹ and Edward N. Hunter¹

INTRODUCTION

The Bedrock Geologic Map of the Delta Mineral Belt focuses on a segment of a paleo-volcanic arc/basin system in east-central Alaska where base- and precious-metal-rich massive-sulfide deposits formed and are preserved. This volcanic arc, or series of arcs, was active off the western margin of ancestral North America, during the Middle Devonian to Early Mississippian. This major tectonic feature is represented today by the remnants of geologic belts distributed from southern British Columbia to central Alaska.

Substantial geologic debate and uncertainty have surrounded the Delta mineral belt pertaining to the style of mineralization; the location, correlation, and number of mineralized horizons; the juxtaposition of mineralized felsic volcanic rocks with mafic igneous bodies; the age and geologic setting of deposits relative to those in other mineralized districts; and the ultimate potential to host economically mineable mineral deposits. In addressing these questions, approximately \$20 million have been expended by private industry (1976–2001) exploring for and evaluating base-metal and gold deposits in the Delta mineral belt.

Exploration work has included detailed- and reconnaissance-scale geologic mapping; chemical analysis of approximately 30,000 rock, soil, drill core, stream sediment, and pan concentrate samples; ground and airborne geophysical surveys; and about 35 miles of core drilling in more than 186 holes. That work resulted in the discovery of more than 40 massive-sulfide occurrences and more than a dozen gold prospects, and created a library of proprietary geologic data and information. A synopsis of those data is assembled in this report for presentation at the scale 1:63,360 (1 inch = 1 mile). The following sections summarize the regional, local, and economic geology; discuss lithochemistry and protolith interpretations; present results from recent ⁴⁰Ar/³⁹Ar and U–Pb dating; and provide major oxide and trace element chemical analyses for 827 rock samples collected from across the map area.

This report and the accompanying map present an end-of-the-20th-century progress report on the understanding of the geology related to the formation and distribution of volcanic-related massive-sulfide deposits in the eastern

Alaska Range. This paper divides the complex geology of the area into seven mappable metamorphic units that identify and follow the time–stratigraphic horizons along which massive sulfides were deposited on (and below) the Mississippian–Devonian seafloor.

Exploration mapping and drilling by early operators in the region created a framework and foundation from which the current interpretation and understanding of the geology has evolved. Principal among these prior operators was Resource Associates of Alaska Incorporated (RAA), a Fairbanks-based group of consulting geologists who were responsible for the discovery, early delineation, and naming of massive-sulfide deposits and stratigraphic units in the Delta mineral belt.

This publication draws on the results of new geologic mapping, lithochemistry, airborne geophysics, and core drilling carried out by and under the direction of the authors on behalf of American Copper & Nickel Company Incorporated (ACNC) and Grayd Resource Corporation (Grayd) of Vancouver, British Columbia, during the years 1994–1999. Assembly of this map and report forced a re-examination and synthesis of our prior work, and the interpretations and conclusions contained herein are not necessarily endorsed by ACNC and Grayd.

At the time of this writing, all data and geologic materials produced by ACNC, RAA, and Grayd in their exploration of the Delta mineral belt are the sole property of Grayd. Publication of this map is the result of a collaborative effort between Grayd, Northern Associates Incorporated (NAI), and Alaska Division of Geological & Geophysical Surveys (DGGS) under State of Alaska contract #10-00-082.

The map area spans approximately 400 square miles, covering portions of the Mount Hayes A-1, A-2, B-1 and B-2, and Tanacross A-6 and B-6 quadrangles in east-central Alaska (fig. 1). Geologic data upon which the map is built are concentrated within a corridor roughly 20 miles long and 10 miles wide that follows a northwest–southeast axis through the central map area. Information beyond this corridor is of a reconnaissance nature, and is provided as context only to aid display of the more detailed information developed during industry-sponsored mineral exploration. An inset map on the margins of sheet 1

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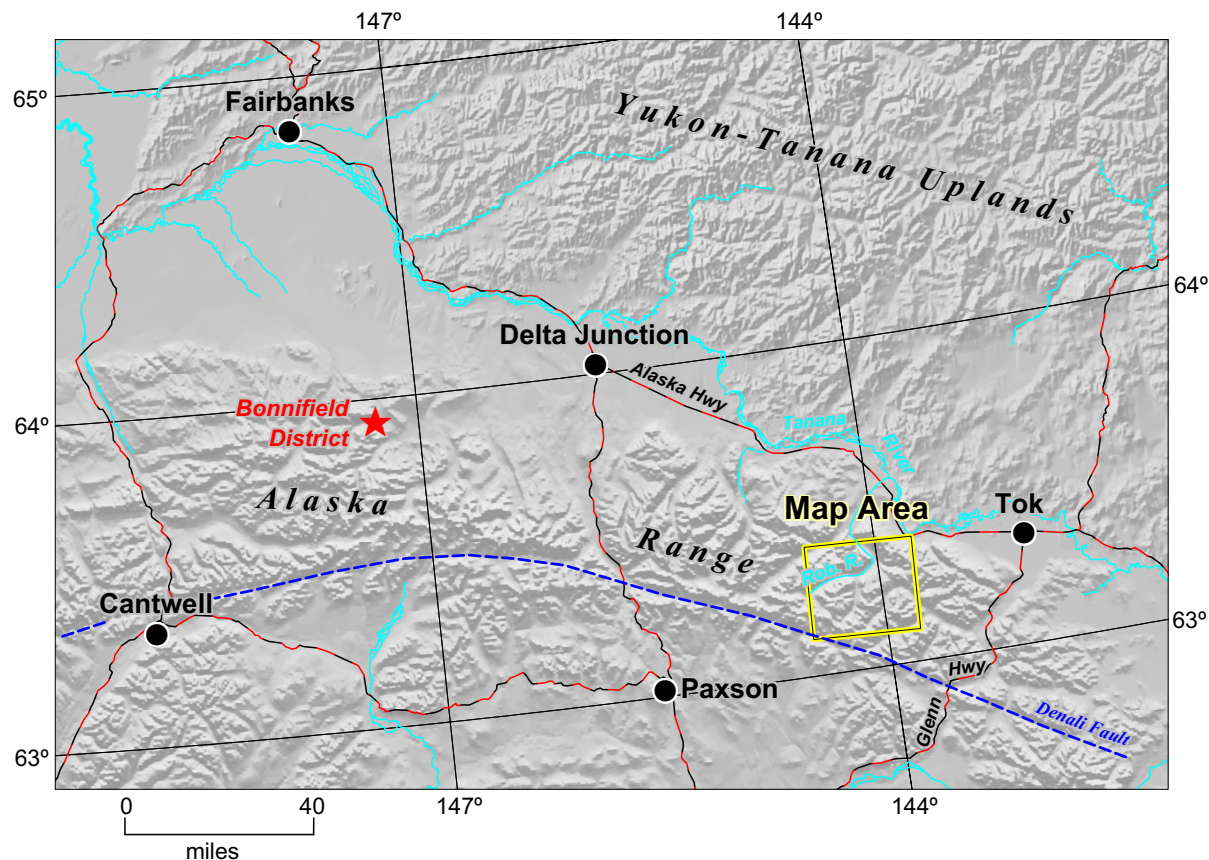


Figure 1. Location of Delta mineral belt map area in the eastern Alaska Range.

displays the primary contributors and sources of geologic data utilized for specific regions covered by the map.

PREVIOUS STUDIES

This is the first published map that displays the metamorphic rock units and mineralization in the Delta mineral belt at a scale suitable for use in the field. As a basis for our initial fieldwork, we relied upon numerous unpublished works by geologists working on behalf of RAA, Anaconda Copper Company, and ACNC. Principal among these are the 1:30,000-scale reconnaissance traverse maps made by RAA geological teams in 1976–1978 (Blakestad *et al.*, 1976; Muntzert *et al.*, 1977; Blakestad *et al.*, 1978). These initial traverse maps and a few other field maps (at a variety of scales) provide field descriptions of the metamorphic rock types, and form a valuable record. Many subsequent geologic maps present field calls of protolith only, without surviving notation of field lithology. Duke and Nauman (1982) produced the first regional geologic map of the area, which was an attempt to map protolith of individual formations and construct regional

correlations based on these field interpretations. Without benefit of sufficient petrography or whole rock chemical analyses to accurately guide those interpretations, the resulting map was inadequate as a guide to exploration. A subsequent regional synthesis by Duke (in Newkirk *et al.*, 1985) delineated metamorphic and tectonic units, and formed the basis for the most recently published map of the Delta mineral belt deposits, which appears as a 1:800,000-scale figure in Lange *et al.* (1993). Duke's 1985 map was the foundation for the current map, but the work described in this report resulted in substantial changes in stratigraphic order, ages, and contacts of the major units; and structural and stratigraphic relations of some sulfide deposits.

Studies of the Delta massive sulfides, including ore and gangue mineralogy, mineral textures, and lead- and sulfur-isotope analyses are presented in Frank (1979), Culp (1982), and Lange *et al.* (1993) and are not repeated in this report. Studies of the geology, mineral resource assessment, and mineral occurrences and deposits of the Mount Hayes Quadrangle were published by Nokleberg and others (Nokleberg and Aleinikoff, 1985; Nokleberg

et al., 1986, 1990, 1991, 1992a, 1992b). Similar studies of the Tanacross Quadrangle were published by Cobb (1972), Cobb and Eberlein (1980), and Singer *et al.* (1976). Other published studies pertaining to the Delta mineral belt include Nauman *et al.* (1980), Duke *et al.* (1984), Lange *et al.* (1987, 1990), Nauman (1984), Nokleberg and Aleinikoff (1985), Nokleberg and Lange (1985), and Newkirk and Eastoe (1986). Masters theses completed in the Delta mineral belt include Anderson (1982), Culp (1982), Foley (1984), and Frank (1979). The geochemical and sample location information included in tables 2 through 5 in Appendix III was released previously through DGGs as Raw Data File 2001-2.

EXPLORATION HISTORY

There is no historical record of successful prospecting for alluvial gold deposits in the map area. Minor production of antimony from a quartz–stibnite vein system on Stibnite Creek principally occurred prior to World War II (Ebbley and Wright, 1948), but continued intermittently until 1973.

The massive-sulfide deposits of the Delta mineral belt were discovered in 1976 by geologists and prospectors working for RAA under contract to Cook Inlet Region Incorporated (CIRI), an Alaska Native corporation. Extensive prospecting, geologic mapping, ground geophysics, and core drilling of deposits in the Delta mineral belt were carried out by RAA from 1976 through 1987 on behalf of CIRI and their joint venture partners. Phelps Dodge conducted a short program of drilling and ground geophysics in 1990, but this work did not significantly advance exploration of the district. In 1994, ACNC commenced exploration in the belt and implemented a comprehensive program of geological and geochemical surveys, airborne and ground geophysical surveys, and diamond-core drilling. ACNC's work expanded the tonnage of the known deposits, resulted in the discovery of several high-grade base metal occurrences, and considerably improved the understanding of the geologic context for the massive-sulfide deposits.

From 1976 through 2001, a total of approximately \$20 million was spent exploring for base metal and gold deposits in the Delta mineral belt. As a result of this work, 49 massive-sulfide occurrences and 14 gold prospects are documented in the Delta mineral belt. Locations of mineral deposits, prospects, and occurrences are shown as numbered locations on sheet 1, and are summarized in table 1 of Appendix III. A chronological summary of modern exploration within the map area is provided in Appendix I. The proprietary reports and data from this period currently are held by Grayd and NAI in Vancouver and Fairbanks.

REGIONAL GEOLOGY

The Delta mineral belt is located within the eastern Alaska Range along the southern margin of the pre-Pennsylvanian age Yukon–Tanana terrane (YTT; Jones *et al.*, 1987). The YTT underlies a large portion of east-central Alaska and much of central and western Yukon. This assemblage of polydeformed metamorphic rocks lies between the autochthonous North American continental margin to the northeast and allochthonous terranes to the southwest (Jones *et al.*, 1987). The YTT in east-central Alaska is separated from Wrangellia terrane to the southwest by the major dextral Denali fault (Nokleberg *et al.*, 1992b).

The portion of the Yukon–Tanana terrane covered by this map is divided into three metamorphic belts, herein named the Macomb, Jarvis, and Hayes Glacier belts, which strike northwest–southeast and dip to the southwest (fig. 2). The Macomb belt in the northeastern part of the map contains metagranitic plutons in a ductilely deformed gneiss–schist assemblage. The Jarvis belt crosses through the central study area and contains interlayered, submarine, schistose, felsic-dominated metavolcanic rocks and metasedimentary rocks. The Hayes Glacier belt in the southwestern part of the map is dominated by phyllitic schists and mylonite derived from sedimentary protoliths, and felsic and mafic volcanic protoliths (Duke, 1985). These belts are considered to be of Mississippian–Devonian age (Nokleberg *et al.*, 1992a; J. Aleinikoff, written commun., 2002) based on U–Pb ages for metarhyolite interlayers. The belt boundaries are nearly equivalent to the boundaries of the Macomb, Jarvis Creek Glacier, and Hayes Glacier subterrane of Nokleberg *et al.* (1992b) differing primarily at the Jarvis–Hayes Glacier contact and along internal member contacts.

The three belts are part of a metamorphosed assemblage of clastic and igneous rocks interpreted by Lange *et al.* (1993) and Nokleberg *et al.* (1992b) to represent progressively higher structural portions of a volcanic arc. The interpreted subvolcanic portion of the arc is represented by the Macomb belt, which is structurally juxtaposed against the Jarvis belt. However, field relations mapped by RAA indicate that the Jarvis–Hayes Glacier boundary is a transitional facies change between two equivalent time–stratigraphic units (Nauman *et al.*, 1982) on the flanks of the volcanic arc, not a structural contact as described by Nokleberg *et al.* (1992b).

An abrupt decrease in thermal metamorphic grade is apparent moving westward from the epidote–amphibolite facies Macomb belt rocks across the Elting Creek fault to the mid–lower greenschist-facies Jarvis and Hayes belts. Within the Jarvis belt, metamorphic grade decreases to the southwest. This metamorphic

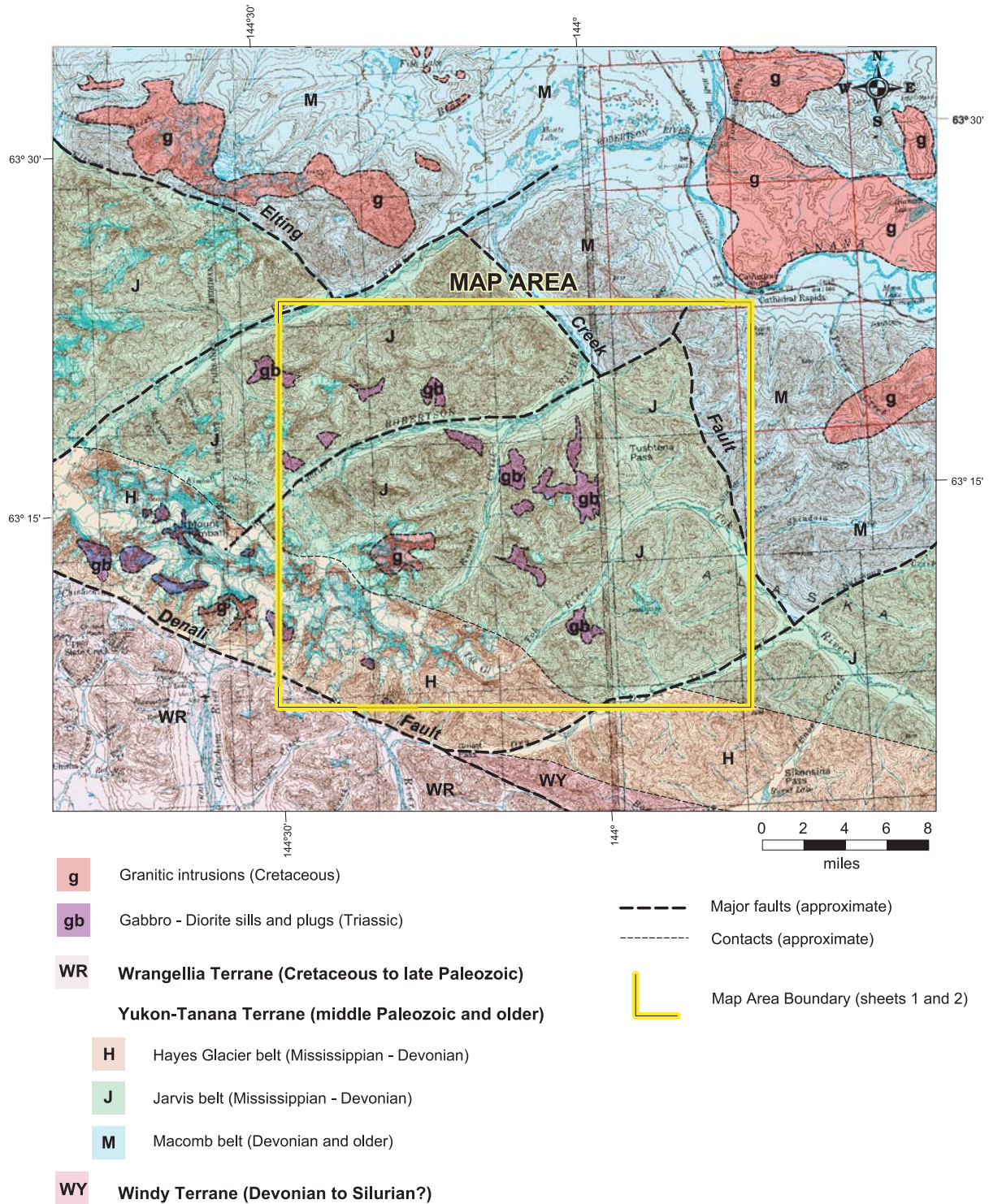


Figure 2. Regional bedrock geology of the eastern Alaska Range showing the principal terranes, major schist belts, and intrusions of the Yukon-Tanana terrane (modified after Nokleberg et al., 1992).

gradient was described by Nokleberg *et al.* (1986) as a retrogressive metamorphism.

The results of $^{40}\text{Ar}/^{39}\text{Ar}$ analyses indicate two Cretaceous thermal events in metavolcanic rocks associated with massive-sulfide deposits in the Jarvis belt. An Early Cretaceous (117 Ma) thermal event is indicated by complete re-setting of the argon content of the rocks, with a subsequent episode of argon loss in Late Cretaceous (80–65 Ma; P. Layer, written commun., 2001). The earlier event corresponds to the timing of crustal extension described by Hansen and Dusel-Bacon (1998) farther north in the Yukon–Tanana terrane, while the later event is coincident with igneous intrusive activity in the region (Foley, 1984).

The member lithologies within all three belts are highly deformed, but within the central (Jarvis) belt, where we have the most detailed information, these appear to remain generally upright and internally coherent on the large scale. A partial repetition of stratigraphy by thrusting is inferred within the Jarvis belt, but no large-scale overturned units or nappe structures are documented within the map area.

Massive-sulfide occurrences associated with volcanic units are present in both the Jarvis and Hayes Glacier belts. In terms of size and grade, the most significant sulfide occurrences are hosted by a suite of interbedded greenschist-facies Devonian metavolcanic and metasedimentary rocks in the Jarvis belt. The central, and most mineralized, part of the Jarvis belt is dominated by metavolcanic rocks flanked by thick metasedimentary sequences. The larger massive-sulfide deposits are associated with the felsic to intermediate

suite of metavolcanics. The Jarvis belt has been traced beyond the extent of this map area from the Glenn Highway northwest to the West Fork of the Robertson River (fig. 2), where it is displaced by left-lateral faulting (Nauman *et al.*, 1982). The offset northern extension of the central Jarvis belt occupies the highlands of the Alaska Range, and is largely covered by alpine glaciers. The southeastern projection is obscured by vegetated hills and valley alluvium.

STRUCTURAL GEOLOGY

Three main styles of regional deformation are observed in the map area. One or several compressive episode(s) imparted cleavage (S_1) sub-parallel to bedding, and caused thickening of the stratigraphy by regional thrusting. Foster *et al.* (1994) suggest that this occurred in the Mesozoic (Jurassic?) coincident with arc-continent collision. A major thrust fault in the south-central part of the map area (fig. 3, sheet 1) places Devonian over Mississippian rocks.

The second major type of deformation resulted from extension, which imposed a flatter, axial planar cleavage (S_2) and was accompanied by large-scale, north–northwest-trending normal faulting. This deformation thinned the stratigraphy locally, and also developed local-scale folding of the S_1 cleavage into a series of mostly southwest-verging, tight to isoclinal fold sets (F_2) dubbed “cascades” by previous workers. The more ductile lithologies are tectonically thickened in the hinge zones of F_2 recumbent folds, and possibly by stacking along basal glide planes (photo 1). These effects resulted from one or more episodes, possibly during the Early



Photo 1. *Folded limestone from the Delta mineral belt showing plastic deformation and axial planar cleavage. Unidentified geologist; photo from RAA 1977 Annual Report.*

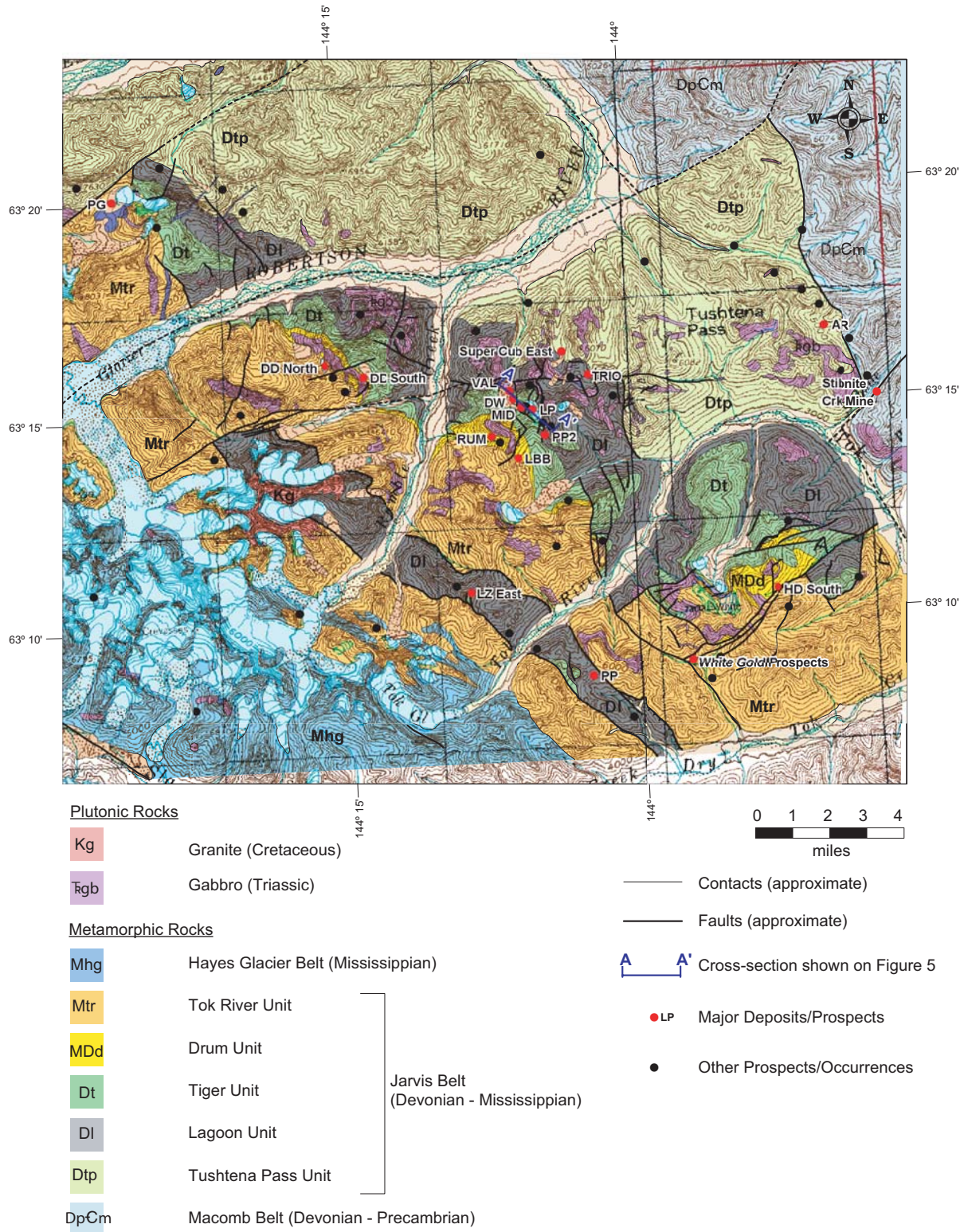


Figure 3. Simplified bedrock geology of the Delta mineral belt showing schist unit subdivisions of the Jarvis belt and locations of mineral resources (inset area on fig. 2 and simplified from map sheet 1).

Cretaceous(?), and may have developed on the western flank of a metamorphic core complex (Duke *et al.*, 1988; J. Morin, written commun., 1997).

The third distinguishable deformation style reflects Late Cretaceous to recent high-angle faulting, possibly responding to stresses developed adjacent to the Denali fault and related splays. These late high-angle faults cut all units in the area, and produced both vertical and lateral offsets of the stratigraphy (and the sulfide deposits). Displacements range from inches to miles. The major high-angle fault sets trend west–northwest and north–northeast, but many orientations are represented. The northeast to east–northeast-striking faults are preferentially occupied by the Late Cretaceous dikes common throughout the area. High-angle faulting continues to the present as indicated by the region’s modern seismicity (Page *et al.*, 1995).

LOCAL GEOLOGY

Rocks in the map area are a structural/stratigraphic assemblage of Mississippian to Devonian and older units (Nokleberg *et al.*, 1992b; J. Aleinikoff, written commun., 2002), including greenschist-facies meta-volcanic and metasedimentary phyllite and schist, epidote–amphibolite-grade gneiss and schist, and younger intrusive rocks (fig. 3, sheet 1). Preservation of

remnant primary texture is rare in outcrops and drill core due to multiple episodes of ductile deformation, brittle deformation, and metamorphic recrystallization.

Metamorphic rocks in the Delta mineral belt include phyllite, schist, gneiss, quartzite, marble, hornfels, cataclasite, mylonite, and a variety of transitional lithologies that combine these textural and compositional characteristics. All of the schists, phyllites, and gneisses of the Delta mineral belt have been intruded by a suite of gabbroic sills of probable Triassic age (J. Mortensen, written commun., 2002), and the full assemblage has been subjected to at least two ductile deformational events involving early compression and later extensional tectonics. A third, more recent event is indicated by widespread brittle faulting and fault-controlled intrusion of several suites of mafic, intermediate, and felsic dikes and small stocks of Cretaceous–Tertiary age (Foley, 1984).

The felsic metaigneous rocks from the map area plot largely within the volcanic arc field (fig. 4) on the tectonic classification diagram of Pearce *et al.* (1984). Lithochemical analyses of metavolcanic rocks from the Jarvis belt identify a main group with a felsic calc-alkaline volcanic protolith (D.R. Burrows, written commun., March 1995). Rocks with intermediate to mafic volcanic protoliths constitute a subordinate suite

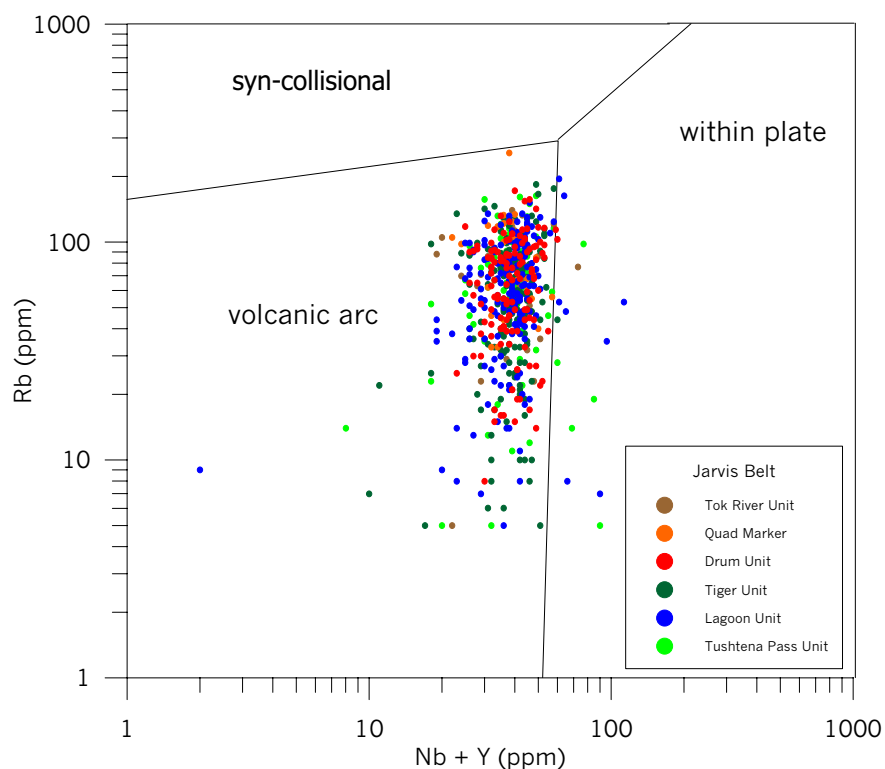


Figure 4. Tectonic classification (after Pearce *et al.*, 1984) of metaplutonic and metavolcanic rocks from the Jarvis schist belt.

within each of the Jarvis belt sub-units, and they are a major component in the Hayes Glacier belt.

The stratigraphic units of the Jarvis belt have been the subject of focused geologic mapping and exploration, principally for volcanogenic massive-sulfide deposits. Our exploration in the central part of the map area was guided by the recognition of five metamorphic sub-units within the Jarvis belt (fig. 3, sheet 1). In order of structurally deepest and oldest to highest, these are the Tushtena Pass, Lagoon, Tiger, Drum, and Tok River units (Dashevsky and Bull, 1996), modified after the nine units described by previous workers (Nauman et al., 1982; Duke, 1985). Internally each unit is a complex and contorted mix of metasedimentary and meta-volcanic members that can be difficult to correlate even locally, but the unit designation permits correlation between work areas and provides a framework for a comprehensible interpretation of the gross structure. In the absence of local fault juxtaposition, contacts between the five Jarvis belt sub-units are generally transitional, and occur through tens to hundreds of feet.

Generally, the sub-units of the Jarvis belt appear to be intact and upright with no large-scale recumbent folds. Considerable lateral transposition of member units is apparent, with variations in ductility leading to differing degrees and responses to strain. The configuration of massive-sulfide deposits in both the Lagoon unit and Drum unit are consistent with an upright position, as mineralization generally is sandwiched between a chloritic, magnesium-enriched and sodium-depleted footwall alteration assemblage and a sericitic (\pm barite-bearing) hanging wall alteration unit (photo 2). This pattern of hydrothermal alteration is characteristic of intact and upright kuroko-style VMS deposits (Ishikawa et al., 1976; Date et al., 1983; Urabe et al., 1983).

Massive sulfides in the Jarvis belt are associated most commonly with the metarhyolite to metadacite rocks of the upper Lagoon unit and the Drum unit. These two mineralized units are separated by the barren Tiger unit. Less well studied, but potentially significant volcanic-associated sulfides occur in the sediment-dominated sections of the middle and lower Lagoon units (*PP2*, *Trio*, *Super Cub East*, *Laminated Zone* [9, 10, 11, 17, 18]).

Photo 2. *DW East massive-sulfide outcrop exhibiting an extensive footwall chloritic alteration assemblage with chalcopyrite stringer-type mineralization. Carl Schaefer (hanging wall), Ed Hunter (footwall). Photo by S. Dashevsky.*

The interlayered sediments and volcanics of the Jarvis belt record a history of deposition on the flanks of a volcanic arc. Incipient seafloor hydrothermal systems became active in the basal part of the section during periods of volcanic activity recorded by the Tushtena Pass unit. Remnant exposures of these systems are typically thin, iron-sulfide dominated occurrences with minor zinc and weak copper enrichments as found at the *DG* and *TPN* occurrences. Little follow-up work has been warranted by early results of prospecting in this unit.

Moving up-section, a marked period of quiescent volcanic activity is indicated by the thick accumulation of clastic and carbonaceous sediments in the lower Lagoon unit. In this unit we find the earliest evidence of the formation of high value, precious- and base-metal enriched sulfide systems at the *SCE*, *Trio*, and *LZ* prospects. Significantly elevated mercury, arsenic, and antimony trace-element chemistry in surface and drill samples is suggestive of possible hybrid epithermal-VMS mineralized systems forming in this basinal sedimentary environment adjacent to the volcanic arc.

As volcanic deposition increases upward in the Lagoon stratigraphy an attendant volumetric increase in sulfide deposition on the sea floor is also found. These formed the thick and extensive (as yet undelineated) sheetlike deposits under exploration on the *PP2* horizon in mid-Lagoon and the *DW-LP* sulfide horizon in the upper Lagoon unit.

The overlying Tiger metavolcanic unit records a nearly continuous effusive volcanic period that snuffed



the mineralizing seafloor hydrothermal systems. Mineralization in Jarvis belt resumed during the intermittent cycles of volcanism recorded by Drum unit stratigraphy in which sulfides pooled in trough-like basins(?) on the flanks of local felsic volcanic piles. The mineralized horizon tested by drilling near the base of the Drum unit (DDS deposit) and the horizon tested at the top of the Drum (DDN deposit) are speculated to possibly represent a single time–stratigraphic horizon at which sulfides precipitated on a seafloor surface that spanned the facies change from a central volcanic pile to the outer sediment–volcanic interface.

Waning volcanism and increased clastic sedimentation recorded in the Tok River unit brought to a close the period of productive metallic sulfide deposition in Jarvis belt.

LITHOLOGIC UNIT DESCRIPTIONS

Lithologic descriptions, contact relations, and ages of rocks within the map area follow, with particular attention given to sub-units within the more highly mineralized Jarvis belt. The structural–stratigraphic succession is discussed from northeast to southwest (fig. 3, sheet 1), beginning with the structurally lowermost (oldest) units and progressing up to the highest (youngest?) rocks, and followed by the intrusive rocks. Summary characteristics of each of the stratigraphic units and a correlation chart are presented in table 1. Protolith discrimination diagrams referred to in the following text are located in subsequent sections on lithochemistry and in Appendix II. Numbers given in square brackets [] following a mineral occurrence name refer to localities identified by map numbers on sheet 1 and listed in Appendix III, table 1.

MACOMB BELT (DpCm)

Macomb belt consists of pelitic schist, quartz–mica–garnet schist, calcareous schist, rare amphibolite; felsic- to intermediate-composition intrusive orthogneiss; and mylonitic rocks of upper greenschist to epidote–amphibolite metamorphic grade. This belt is equivalent to the Macomb subterrane in the Mount Hayes Quadrangle (Nokleberg *et al.*, 1992b), Birch Creek Schist in the Tanacross Quadrangle (Foster, 1970); and Birch Creek Schist terrane of RAA (Nauman *et al.*, 1982). The belt is ascribed a Devonian (and older) age based on U–Pb isotopic age of 372 ± 8 Ma for a composite sample of several metagranite bodies (Nokleberg *et al.*, 1992a) that intrude the metasedimentary units a few miles north of the map area. The constituent units of the Macomb belt are undifferentiated. The Macomb belt is truncated on the west by the Elting Creek fault, which dips 40 to 60 degrees to the west.

Within the map area, mineral occurrences hosted by Macomb unit rocks are limited to mineralized shear zones and quartz veins (gold–silver, \pm stibnite) found at the *Stibnite Creek Mine* and at the *Mobility* and *Lower Com* prospects [57, 60, 58] in and adjacent to the Elting Creek fault.

JARVIS BELT (Dtp, Dl, Dt, MDd, Mtr)

Jarvis belt is an assemblage of metavolcanic and metasedimentary schists, phyllites, and cataclastic rocks of greenschist-facies metamorphic grade. Metavolcanic rocks are predominantly felsic in composition, with a minor intermediate to mafic component consistently present throughout the section. Metasediments range from fine-grained immature wacke and mudstone, to coarser grained quartzarenite and calc-arenite with local carbonate interbeds.

The Jarvis belt was an important locus of hydrothermal activity and massive-sulfide mineralization along the Devonian–Mississippian volcanic arc. The belt encompasses Jarvis Creek Glacier subterrane in the Mount Hayes Quadrangle (Nokleberg *et al.*, 1992b) and an unnamed Paleozoic schist–phyllite unit (Pza) in the Tanacross Quadrangle (Foster, 1970), and conforms to the Delta Schist belt of RAA (Nauman *et al.*, 1982; Lange *et al.*, 1993). The Jarvis belt is ascribed a Devonian–Mississippian age based on U–Pb isotopic ages of 360–375 Ma for metarhyolite interlayers from the Lagoon and Drum sub-units (J. Aleinikoff, written commun., 2002).

The Jarvis belt is divided into five mappable sub-units (fig. 3, sheet 1) as follows, beginning with the structurally lowermost (oldest) unit and progressing to the highest (youngest).

Tushtena Pass unit (Dtp)

Tushtena Pass unit contains medium- to coarse-grained, calcareous, quartz–sericite–chlorite–schist with local carbonate interbeds. Tushtena Pass rocks typically are green to gray, foliated, schistose to blocky, laminated to medium-bedded, quartz-eye bearing, quartz-rich lithologies with subordinate muscovite/sericite and chlorite. Higher strain zones frequently are the loci of pervasive iron–carbonate alteration that weathers with a distinct reddish hue. Discontinuous bands of siliceous limestone and dolomite marble, and black, weakly pyritic metasilstones are common. A poorly exposed graphitic member in the upper sequence serves as a stratigraphic marker (shown as stippled [g] on sheet 1) traced between exposures by electromagnetic surveys. Quartz–carbonate veins and bands are characteristic of much of the Tushtena Pass unit.

The Tushtena Pass unit is dominated by metasedimentary rocks (2:1 vs. volcanic) that have calc-

Table 1. *Lithologic units and correlation in the Delta mineral belt*

Map unit (this report)	USGS equivalent (Nokleberg <i>et al.</i> , 1992)	RAA equivalent (Newkirk <i>et al.</i> , 1985)	Characteristic metavolcanics ^a	Characteristic metasediments	Ratio volc:sed	Age in Ma
Hayes Glacier Belt (Mhg)	Hayes Glacier subterrane (HGv and HGs)	Kimball Belt Gillet Pass metasediments and Kimball metavolcanics	Andesite–basalt (50:50) with felsics	Siltstone	1.5 : 1.0	<360
Jarvis Belt Tok River unit (Mtr)	Hayes Glacier subterrane and Jarvis Creek Glacier subterrane (JCv)	Delta Schist Belt Wedge series, Quad series, and Tok River series	Rhyodacite–dacite (minor rhyolite)	Siltstone, sandstone (limestone)	1.0 : 2.0	<360
Jarvis Belt subterrane (JCv) Drum unit (MDD)	Jarvis Creek Glacier Drum series	Delta Schist Belt (minor rhyolite)	Rhyodacite–dacite	Siltstone, sandstone	2.0 : 1.0	≈360 (359±6) (364±7)
Jarvis Belt Tiger unit (Dt)	Jarvis Creek Glacier subterrane (JCv)	Delta Schist Belt Tiger series	Rhyodacite–dacite (minor andesite)	Siltstone	5.5 : 1.0	>360, <372
Jarvis Belt Lagoon unit (DI)	Jarvis Creek Glacier subterrane (JCv)	Delta Schist Belt Lagoon series and Rumble Creek cataclasite	Rhyodacite–dacite (minor andesite–basalt)	Sandstone, siltstone lower member graphitic	1.0 : 1.0	≈372 (372±6)
Jarvis Belt Tushtena Pass unit (Dtp)	Jarvis Creek Glacier subterrane (JCs)	Delta Schist Belt Robertson River series and Tushtena Pass series	Trachyandesite–andesite to rhyodacite (minor basalt)	Calc-arenite, limestone, siltstone	1.0 : 2.0	>372
Macomb Belt (DpCm)	Macomb subterrane (Mg and Ms)	Birch Creek Schist terrane	Undetermined	Marine	Undetermined	375 and older

^aDetermined by lithochemistry

arenite, limestone, and siltstone protoliths. Interbedded metavolcanics have trachyandesite–andesite to rhyodacite protoliths with a minor population extending to basaltic composition. Local chloritic and magnetite-bearing bands may represent deformed mafic volcanic horizons or fine-grained mafic sills. The sequence is intruded and thickened by gabbroic sills and dikes, with local hornfels commonly developed in adjacent rocks.

The Tushtena Pass unit forms the basal member of the Jarvis belt and is truncated along the basal contact by the Elting Creek fault. The upper contact with the overlying Lagoon unit is transitional and has been defined for this map as the last occurrence of the characteristic green, quartz–carbonate veined/banded, quartz–chlorite schist lithology that typifies much of the unit. This horizon underlies a diverse transitional zone, up to several hundred feet thick, placed within the Lagoon unit. No radiometric ages are available from this unit, but it is inferred to be older than the 372 Ma age ascribed to the overlying Lagoon unit. Total thickness of the Tushtena Pass unit is undetermined.

The Tushtena Pass unit metavolcanic rocks host the *DG*, *PG–Southeast*, *Old AR*, and *North Tushtena Creek* low-grade massive-sulfide occurrences [50, 43, 64, 51]. Skarn mineralization occurs locally, forming pyrrhotite–magnetite pods in metasedimentary rocks adjacent to gabbroic sills. Mineralized shear zones and quartz veins (gold–silver±stibnite) formed within and in the hanging wall to the Elting Creek fault are found at the *AR* and related gold prospects in the eastern portion of the map sheet [59–63, 65, 66].

Lagoon unit (DI)

Lagoon unit is a thick metavolcanic–meta-sedimentary unit that hosts a number of important massive-sulfide deposits and prospects. It consists of a basal section of banded, medium- to coarse-grained, quartz–sericite (±chlorite) schists and carbonaceous schists contrasting with finer grained schists and phyllites in the upper section. Protoliths in the basal section are immature sediments or wackes, mudstone, quartzarenite, and lesser calc-arenite and carbonate units. Thin gray interbedded metavolcanic members of the lower Lagoon are gray to white and pale green in color. These metavolcanics typically have felsic compositions that cluster in the rhyodacite–dacite field (after Winchester and Floyd, 1977), but a significant proportion have more intermediate-mafic compositions (refer to further discussions of protolith determination in the section on lithochemistry). A prominent graphitic member in the lower sequence is traceable in float and by electromagnetic surveys as an extensive low-resistivity zone. This graphitic unit serves as a stratigraphic

marker near the lower contact (stippled on sheet 1, and labeled [g]). A less prominent, but distinctive chloritoid–kyanite assemblage within the graphitic member (K. Bull and N. Callan, written commun., 1996) forms a discontinuous but identifiable horizon over a 3-mile strike length, spatially related to several VMS occurrences in the lower Lagoon. The unusual mineral assemblage is tentatively considered to delineate a metamorphosed, advanced argillic alteration zone, as has been associated with high sulfidation volcanogenic massive-sulfide deposit environments elsewhere (Sillitoe *et al.*, 1996).

In the upper Lagoon section, the metavolcanic component becomes much more volumetrically significant. The sequence transitions through a succession of dark gray, rusty, phyllitic metamudstones with interbedded light gray to white to pale green, siliceous, quartz sericite (±chlorite) schists, locally with coarse blue quartz eyes, and rare fragmental volcanic textures preserved as chloritized lithic fragments. The uppermost part of the sequence is dominated by white to pale green, massive to laminated, quartz-eye bearing, quartz–sericite–(chlorite)–pyrite schists and finely laminated quartz–sericite paper schists with lesser black phyllitic metamudstones and thin intercalations of quartzite and fine metagrit. Similar to the lower Lagoon section, volcanic protoliths in the upper Lagoon center in the rhyodacite–dacite field, with a minority of samples having andesite to basalt compositions.

The basal Lagoon contact with the underlying Tushtena Pass unit is transitional and is delineated above the last occurrence of the green, quartz–carbonate veined/banded, quartz–chlorite schist lithology typical of Tushtena Pass rocks. This horizon underlies a lithologically diverse transitional zone, up to several hundred feet thick, placed within the Lagoon unit. The transitional zone mostly comprises quartz-rich metasediments, including well bedded and laminated, pale green to gray quartzites, coarse quartz–eye grits, siliceous limestone and dolomitic marble bands, thin black metamudstone horizons, and phyllitic quartz–muscovite (–chlorite) schists. Above the transitional zone lies the laterally extensive carbonaceous schist unit that characterizes much of the lower Lagoon section. The upper Lagoon contact with Tiger unit also is transitional, but occurs over a much narrower thickness (generally less than 100 feet) primarily recognized by a change to the more chloritic, pale to dark green, quartz–chlorite–sericite schists of the Tiger unit.

Gabbroic sills and lenses are common throughout the Lagoon unit, and significantly inflate the sequence. These mafic bodies crosscut massive sulfides of the mineralized upper horizon west of the *MID* deposit [5], and in the *Nunatak* block [6].

A structurally repeated section of the Lagoon unit is mapped southwest of the main Lagoon exposure (fig. 3, and sheet 1). The section is interpreted as a thrust-faulted slice originating a considerable distance down-dip from the type location for Lagoon. The repeated section is (carbonaceous) metasediment-dominated, with lesser intercalated felsic metavolcanic and carbonate members, similar to lower Lagoon stratigraphy in the north. The section hosts the high-unit-value massive-sulfide occurrences *LZ* and *LZ-East* [17, 18], which are similar in tenor to mineral showings in the lower Lagoon section to the north (*Trio* and *Super Cub East* [10, 11]).

The thickness of the Lagoon unit exclusive of gabbroic sills is uncertain, but is estimated at a minimum of 1,000 feet locally and may exceed 2,000 feet. The structurally repeated section of the Lagoon unit has been dated at 372 Ma (± 6 Ma) based on super high-resolution ion microprobe (SHRIMP) U–Pb zircon analyses from a felsic volcanic interbed at the *LZ East* [18] massive-sulfide prospect (J. Aleinikoff, written commun., 2002).

The lower Lagoon unit hosts the high-grade *Trio* [11], *Super Cub East* [10], and *Laminated Zone* [17, 18] massive-sulfide occurrences in the metasediment-dominated basal portion of the section. The middle Lagoon unit hosts the *PP2* [9] massive-sulfide deposit within a felsic metavolcanic sub-unit in the pelitic metasediment-dominated section. The upper Lagoon unit hosts the *LP* [7], *LPH* [8], *Nunatak* [6], *MID* [5], *DW* [4], and *VAL* [3] massive-sulfide deposits in the metavolcanic-dominated portion of the section.

Tiger unit (Dt)

Tiger unit is a distinctive metavolcanic unit, which is barren of massive-sulfide mineralization. It is composed of banded pale to dark green, to gray chlorite schists with variable amounts of quartz, sericite, and a dark micaceous-looking mineral identified as stilpnomelane (Nauman and Gaard, 1981; R.J. Newberry, written commun., 2002), and rare black biotite (E.F. Pattison, written commun., 1994). The unit generally is unaltered, but strained zones locally exhibit a pervasive iron–carbonate assemblage that weathers to a rusty, pinkish hue with compositional banding still evident. Thin but laterally extensive carbonaceous phyllite horizons mark the occasional pause in volcanic activity in the otherwise monotonous stratigraphy. Gabbroic rocks are uncommon. Rare local buildups of clastic metasediments mark isolated basins or other structures. A horizon containing magnetite porphyroblasts commonly is found in the basal section of Tiger unit. The Tiger unit is a useful marker to aid regional-scale geologic mapping.

Volcanic protolith compositions in the Tiger unit

center within the rhyodacite–dacite field with a minor population of samples extending into the andesite and basalt fields. In the local area overlying the *DW* and *MID* deposits [4, 5], felsic metavolcanics of the Tiger unit (with clastic interbeds) develop an unusually substantial thickness, reaching an aggregate 400 feet or more.

The basal Tiger contact with the underlying Lagoon unit is transitional, occurring over a thickness of less than 100 feet. Magnetite porphyroblasts have formed along one or more persistent horizon(s) in the basal 120 feet or so of the Tiger unit. The upper Tiger contact with the Drum unit also is transitional, and is recognized by the decreasing chlorite content of the metavolcanic schists, and locally by a carbonaceous phyllite member at the base of the Drum. The Tiger unit is 1,200 to 2,600 feet thick. No occurrences of economic minerals have been found in Tiger unit rocks.

Drum unit (MDd)

Drum unit is a relatively thin felsic schist unit that hosts several massive-sulfide deposits and prospects. Drum is composed of white to pale gray-green, rusty weathering, fine quartz-eye bearing quartz–sericite (\pm chlorite, \pm pyrite) schists with minor gray to black carbonaceous phyllite and rare chloritic phyllite interbeds. Protolith compositions of the felsic schists are dominantly volcanic (2:1 vs. sediments). Volcanic compositions form clustered populations in the rhyodacite and in the dacite fields. Quartz-eye content typically is 1–5 percent, though some members contain a higher percentage. A fine, dark gray phyllite parting often is present within Drum sericite schists. The basal contact is transitional with the underlying Tiger metavolcanics and is recognized by the increasing chlorite content and diminished sedimentary component of the Tiger unit. The upper contact of the Drum unit is recognized in this study as lying above the last major quartz–sericite schist member, overlain by the conformable phyllites of the Tok River metasediment-dominated unit.

Gabbroic intrusions are common in the Drum unit, and form thick sill-like bodies that locally crosscut stratigraphy. The Drum unit has been dated at the Devonian–Mississippian boundary based on results of two SHRIMP U–Pb zircon ages determined at the *DD South* deposit (359 ± 6 Ma) and the *HD South* mineralized horizon (364 ± 7 Ma; J. Aleinikoff, written commun., 2002). Twelve miles of strike with only intermittent exposure of Drum unit stratigraphy separate the locations of the two dated samples. The results support the time–stratigraphic continuity of the Drum unit across the map area. The Drum unit averages 200 to 500 feet thick exclusive of these gabbroic sills.

Two sulfide-bearing horizons are recognized in the Drum unit. The upper horizon hosts the *DD North* deposit [1], and the *LBB* [16] and *Rum* [14, 15] occurrences at and adjacent to the upper contact with Tok River unit. The lower horizon contains the *DD South* deposit [2], *HD South* prospect [26], and the *Camp Creek* [54] barite horizon, which occur in the basal 150 feet above the Tiger unit.

Tok River unit (Mtr)

Tok River unit is a thick metasediment-dominated assemblage of chloritic phyllites, quartz-sericite (\pm chlorite) schists, variably phyllitic quartz-eye metagrits, carbonaceous (rarely graphitic) phyllite, and minor marble. Some of the metagrits contain feldspathic detritus and are locally calcareous. Compositional data for Tok River schists indicate that protoliths are predominantly sedimentary (3:1 vs. volcanic) with only thin and volumetrically minor interbeds of felsic volcanics that mimic the rhyodacite-dacite compositions of Drum unit. Tok River unit is a large and extensive unit that had been locally subdivided into multiple subunits by previous workers (Nauman *et al.*, 1982). This unit is largely a post-mineral cover sequence that has been deemed not germane to the genesis or discovery of economic deposits. Consequently, the incomplete work of subdividing Tok River unit has been abandoned.

A quartz-sericite (\pm pyrite) schist member, informally known as the Quad marker horizon, forms a prominent ferruginous color anomaly within the Tok River unit. This member is indicated with a darker hue and labeled (**p**) on sheet 1. The feature is traceable, with minor discontinuity, from the Robertson River to the Tok River. A recessive-weathering graphitic schist member that closely underlies the Quad marker presents a second marker horizon. Although this marker forms only sporadic outcrops, it can be traced as a low-resistivity zone on electromagnetic surveys. This horizon is stippled gray on sheet 1 and labeled (**g**). In hand specimen, the Quad marker has been variously interpreted as pyritic rhyolite flows, tuffs, and silica-pyrite exhalite. Compositional data for 50 percent of the samples collected from the Quad marker plot in the volcanic model fields as rhyodacites and rhyolites. The other half of the population plots too high in SiO₂ and/or too low in alkali content for the protoliths to be determined (Appendix II). These high-silica schists were either a highly siliceous sediment or exhalative protolith, or have been highly altered (silicified) from their original igneous or sedimentary protolith. The Quad marker may represent an alteration zone developed in the hanging wall above a hypothesized shear zone (Quad thrust) that follows (or formed) the

graphitic marker horizon. The thickness of the Quad marker varies from 125 to 500 feet. No occurrences of economic minerals or significant geochemical anomalies are associated with the pyritic unit. The *BG* [56] pyritic showing is included on the map because its extensive, rusty (dip slope) exposure garners exaggerated attention.

The Tok River unit forms the uppermost unit in the Jarvis belt, and is bordered on the south by metavolcanic and pelitic rocks of the Hayes Glacier belt. This upper contact appears to be a major facies break, indicated by considerable interfingering of Tok River unit metasediments with Hayes Glacier mafic metavolcanic units (Nauman *et al.*, 1982). The basal contact of Tok River is delineated at the bottom of the metasediment-dominated stratigraphic interval and on top of the last major metarhyodacite member in the Drum unit.

The age of the Tok River unit is considered Early Mississippian based on its conformable relationship to the underlying Drum unit volcanics, which have been dated straddling the Devonian-Mississippian boundary (see above). Thickness of the unit is undetermined, but estimated to exceed 2,000 feet. The Tok River unit hosts hydrothermal gold-silver vein deposits and mineralized shear zones at the *White Gold* prospects [20-25] in the southeast part of the map sheet; and thin (distal) massive-sulfide occurrences: *DDX*, *DDY*, and others [36, 46, 47, 56] in the western part of the area.

HAYES GLACIER BELT (Mhg)

Hayes Glacier belt is made up of fine-grained phyllitic schists and mylonite derived from sedimentary and volcanic protoliths. Due to their proximity to Denali fault the rocks display locally intense structural deformation, but the lower greenschist-facies metamorphic grade reportedly is less advanced (Nauman *et al.*, 1982; Nokleberg *et al.*, 1992b) than in the Jarvis belt to the northeast. The basal part of the unit consists of mafic to intermediate composition metavolcanics overlain by interbedded felsic metavolcanic units and extensive pelitic and graphitic metasediments. This unit conforms to the Hayes Glacier subterranean (Nokleberg *et al.*, 1992b) and the Kimball belt of RAA (Nauman *et al.*, 1982). ACNC did not perform significant work in this belt, and therefore there is little whole rock major-oxide chemistry to draw upon. The mapping of Hayes Glacier belt is summarized entirely from RAA's work (Blakestad *et al.*, 1978; Nauman *et al.*, 1982). The belt is undivided because internal contacts and member units mapped by RAA are in considerable disagreement with those on published maps (*e.g.* Nokleberg, *et al.*, 1992b), and neither is compatible with Landsat imagery obtained by ACNC (Shalosky and Dashevsky, 1995).

Hayes Glacier belt is separated from Tok River unit of the Jarvis belt by a major facies break, indicated by interfingering of Tok River unit metasediments with Hayes Glacier mafic metavolcanic units (Nauman *et al.*, 1982). The belt is bounded on the south by the Denali fault. No definitive age has been determined in the map area, but it is considered to be Mississippian or younger by correlation with the interfingered Tok River unit. An approximate U–Pb age of “≈375? Ma” (Devonian) is published (Nokleberg *et al.*, 1992a), however, it was considered imprecise when first released, and due to its low precision it is judged inappropriate for comparison with recent U–Pb SHRIMP dates from the district (J. Aleinikoff, personal commun., 2002).

The Hayes Glacier belt hosts a number of massive and semi-massive pyrite occurrences. Some have minor pyrrhotite and chalcopyrite±sphalerite concentrations, as at the *ED* [32] and *SM* [34] showings. Extensive float of calc-silicate alteration litters the moraine and surface of *Epidote Glacier* [35], and a manganese mineral occurrence is reported at the *Rhodochrosite* location [33](Blakestad *et al.*, 1978).

INTRUSIVE ROCKS

Intrusive rocks within the map area include several varieties of metagabbro, metadiorite, and greenstone, and unmetamorphosed granodiorite, granite and alkalic dikes.

Gabbroic Intrusives (T_{rgb})

Gabbroic Intrusives (T_{rgb}) include medium- to coarse-grained gabbro–ferrogabbro to diorite. The gabbroic bodies primarily consist of plagioclase and amphibole pseudomorphs after clinopyroxene, commonly with several percent leucoxene or other iron–titanium minerals, and exhibit sub-ophitic texture. These bodies have undergone greenschist-facies meta-morphism. Field evidence indicates that most are semi-conformable sills that inflate stratigraphy, locally crosscut bedding and truncate massive-sulfide occurrences in Drum and Lagoon unit deposits. Distributed throughout the map area, these gabbroic units are much less common in rocks of the Tiger and Tok River units. Sill sizes range from narrow sub-mappable units to irregular bodies in excess of 800 feet thick with surface extents exceeding 4 miles. Some bodies appear to be composite. Hybrid rocks developed by contact metamorphism or alteration associated with sill emplacement include chlorite schist, dense chloritic meta-marl, greenstone breccia, leucoxene-bearing “quartzite,” and magnetite–pyrrhotite skarn. The gabbros are tentatively assigned a Middle Triassic age based on U–Pb zircon studies of two gabbroic samples

(J. Mortensen, written commun., 2002) from the central Delta mineral belt. ⁴⁰Ar/³⁹Ar ratios determined for DGGs on a hornblende(?) separate of a sample from the center of a thick gabbroic body beneath the *MID* massive sulfide deposit (Lagoon unit) yields a complex age spectrum (P. Layer, written commun., 2001) attributable to thermal effects of metamorphism. However, the weighted average for nine fractions is 277±50 Ma, which overlaps the U–Pb zircon age.

Granite (Kg)

One pluton of biotite–hornblende granite and granodiorite is present in the map area west of Rumble Creek. This body has a fine- to medium-grained subhedral granular texture, and is locally porphyritic with plagioclase and potassic feldspar phenocrysts. The pluton is considered to be Late Cretaceous based on a K–Ar hornblende date of 89 Ma (Nokleberg *et al.*, 1992b).

Alkalic Mafic Dikes and associated plutonic rocks (Kmd)

Alkalic Mafic Dikes and associated plutonic rocks (Kmd) include lamprophyre and lesser pyroxenite, gabbro, diorite, syenite, and monzonite, which occur in numerous small dikes, sills, and stocks that cut all bedrock units in the map area. Two suites of alkalic intrusives have been studied in detail (Foley, 1984). These suites include a Cretaceous (76–118 Ma) amphibole-bearing suite that is predominant southeast of Rumble Creek, and a younger (63–69 Ma) suite principally found northwest of Rumble Creek. Most bodies are too small to display at the map scale. A trilobate breccia pipe greater than 4,000 feet in diameter is partially exposed beneath glacial moraine in the northwestern corner of the map. Its full extent and shape is inferred from its magnetic signature (Butler, 1995).

ECONOMIC GEOLOGY

Locations of mineral occurrences within the map area are shown as numbered symbols on sheet 1, and are summarized in Appendix III - table 1. Where mentioned in the text, map location numbers are enclosed in square brackets “[]”. In this report, “prospect” refers to those mineral occurrences for which exploration has advanced beyond initial discovery and surface work to a more detailed stage (*i.e.*, drilling, trenching or focused geophysics). The term “deposit” is reserved for those advanced prospects where identified mineralization is sufficient to be included as part of a measured resource. Use of the term “mine” is limited to mineral occurrences that have produced ore.

The most common style of mineralization found in the map area is massive and semi-massive sulfides.

These are associated with metavolcanic members in the Lagoon and Drum units of the Jarvis belt. Layered and laminated pyrite and/or pyrrhotite are the prevalent sulfide minerals, with lesser sphalerite, galena, chalcopyrite, and arsenopyrite. All of the Jarvis belt massive-sulfide deposits are polymetallic with zinc > lead >> copper. Gold is distributed erratically, and only is significant locally, while silver concentrations are more common. Gangue mineralogy is mostly quartz, chlorite, sericite, and carbonate. Associated hydrothermal alteration is represented by chlorite, quartz, and pyrite ± chalcopyrite beneath the sulfides, with quartz, sericite, pyrite, ± carbonate above the mineralized horizon. Barite largely is absent from the deposits except in narrow intervals above Drum unit sulfide deposits. Metal zoning on a district scale is not well defined, but the metal ratios and abundances are characteristic of volcanogenic mineralization in rifted arc settings as at *Kuroko* (Franklin *et al.*, 1981; Cathles *et al.*, 1983) and *Myra Falls* (Robinson, 1994) deposits.

Massive-sulfide mineralization developed along the Drum stratigraphic unit typically has higher copper and gold values (by a factor of 2) than those developed in the metavolcanics of the upper and middle Lagoon stratigraphic unit. Sulfide occurrences and prospects in the more sediment-dominated (lower) portion of Lagoon unit rocks, however, have the highest base- and precious-metal concentrations in the district.

The Tushtena Pass and Tok River units of the Jarvis belt contain a number of stratiform pyrite (± pyrrhotite) mineral occurrences, but thus far these have proven barren of economic mineralization, or otherwise do not warrant additional exploration. In the Hayes Glacier belt, extensive pyrite–silica alteration is common, but typically is barren of economic mineralization.

Hydrothermal gold–silver vein deposits and mineralized shear zones occur at the *White Gold* prospects [20–25] in the southeast part of the map sheet in the Tok River unit. Antimony was mined on a small scale at the *Stibnite Creek* mine [57], and gold–silver–arsenic (± lead) mineralization in shear zones and quartz veins is found at the *AR* prospect [61] and other locations in Macomb belt and Tushtena Pass unit in the eastern part of the map area. Podular and banded skarn (pyrrhotite, magnetite ± sphalerite) is present locally adjacent to gabbroic bodies in Tushtena Pass unit rocks in the north-central part of the map area.

The bulk of exploration and core drilling within the Delta mineral belt has focused on testing the extensive, thick, sheet-like (20–40 feet thick) massive-sulfide deposits in the *DW-LP* system (Lagoon unit) east of Rumble Creek [3–9]. The more restricted lens-shaped sulfide deposits in the *DD* system (Drum unit) west of Rumble Creek [1, 2] have been a secondary locus of

drilling. Early stage exploration drilling has been undertaken at several gold prospects in the *AR* area [58, 60, 62, 63, 65], and a first round of drilling was completed in 2001 at four of the *White Gold* prospects [20–22, 25, 26].

An inferred resource (CIM, 1994) was modeled conservatively by Schaefer and Oliver (1999) based on drilling of the deposits *DW-LP*, *PP2*, and *DD*. This inferred resource totals 19 million tons of massive sulfide at an overall average grade of 0.6 percent copper, 2.0 percent lead, 4.6 percent zinc, 73 ppm silver, and 1.9 ppm gold (Grayd, 1999). The resource calculation includes only those contiguous bodies with true thickness greater than 8 feet and gross metals value greater than \$80.00 per ton at 1998 prices. Table 2 in Appendix III shows the distribution of the inferred resource in the various deposits.

Extending the inferred resource model beyond the economic grade and thickness cutoffs described above to the physical edges of the sulfide sheets as delineated by drilling and mapping, encompasses 33 million tons of massive sulfide identified in the three systems (C.F. Schaefer, written commun., 1997). A schematic cross-section and three-dimensional rendering of a portion of this pre-resource mineralization is shown in figures 5 and 6, illustrating the currently known extent of massive-sulfide sheets on the *DW-LP* and *PP2* horizons.

LAGOON UNIT MASSIVE SULFIDE

The *DW-LP* deposits in upper-Lagoon unit stratigraphy once were part of a single contiguous sulfide sheet over 2 miles along strike and up to 40 feet thick. This sheet now is offset by high-angle faulting into the six named deposits [3–8]. The *DW-LP* deposits are blind targets that, for the most part, occur beneath glacial ice and moraine and outcrop only at the *LP* deposit [7] and *DW East* prospect [13] (photo 3). The *PP2* deposit [9] developed a similar thickness of mineralization in middle-Lagoon unit stratigraphy at a stratigraphic level 800 feet beneath the *DW-LP* horizon. A third mineralized horizon in the basal part of Lagoon unit has demonstrated high grades with a significant precious metals component at the *LZ* [17, 18], *Super Cub East* [10], and *Trio* [11] prospects.

The bulk of the inferred resource for the Delta deposits is based on drilling of the *DW-LP* and *PP2* systems. These deposits remain open and untested down-dip and along strike.

Prior interpretations of folded or truncated mineral horizons, which were used to explain blank holes drilled on these deposits, have been shown to be inappropriate and unnecessary. ACNC's re-logging of all prior drill core, and application of the simplified stratigraphic model presented in this report showed that every drill

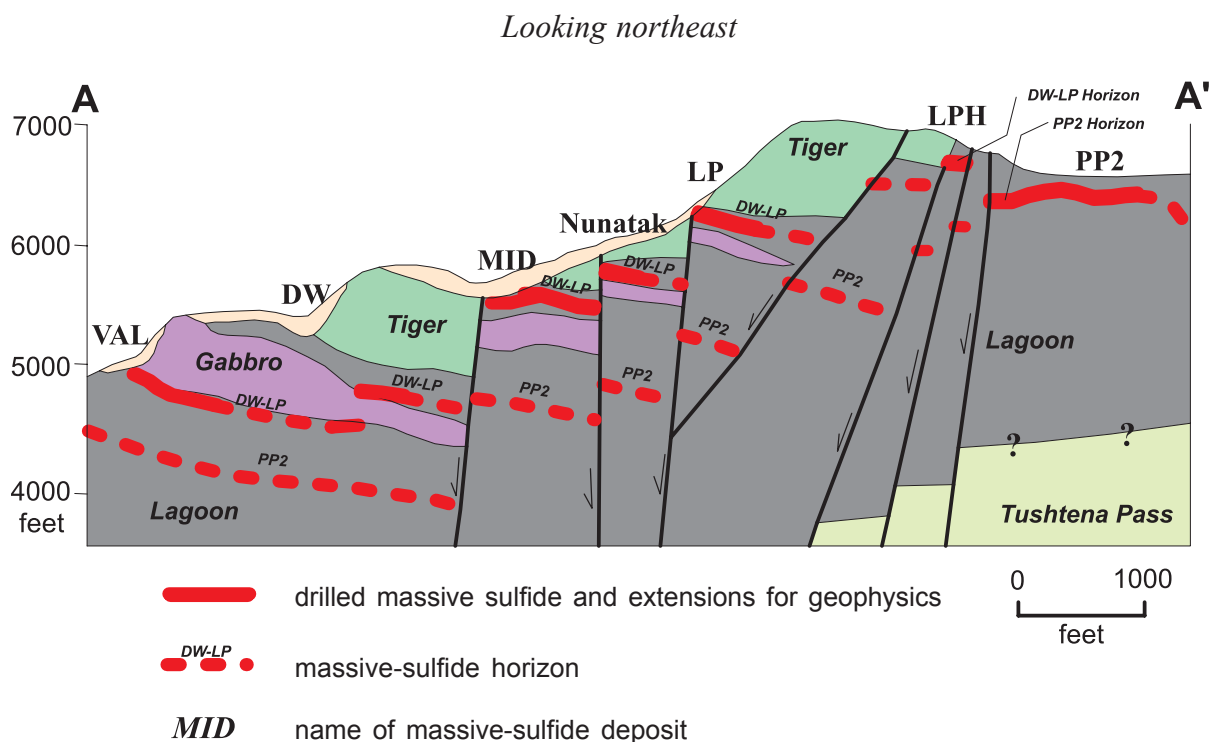


Figure 5. Longitudinal schematic section, looking northeast, showing the DW-LP and PP2 massive-sulfide horizons. Although both mineralized horizons occur in fault-bounded blocks locally cross-cut by gabbroic intrusions, they were once a laterally contiguous stacked sulfide system. Location of cross-section A–A' is shown in figure 3.

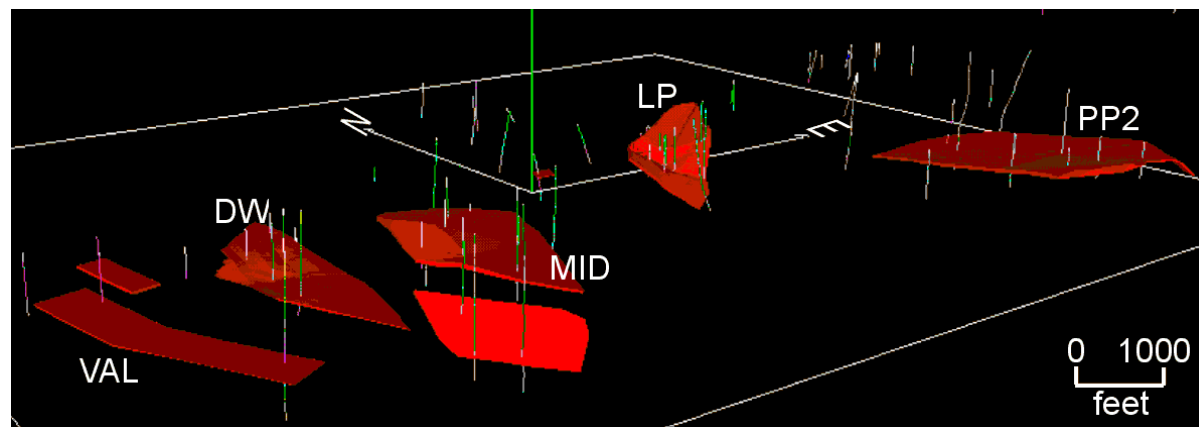


Figure 6. Three-dimensional rendering of modeled DW-LP and PP2 massive sulfide sheets intersected by drilling. Oblique view is looking down and to the northeast. All drill holes displayed. Massive sulfide is modeled to fault boundaries (not shown), gabbroic intrusions (not shown), or extended up to 500 feet beyond last drill intersection in the absence of any geologic imposed limits. The sulfide, as modeled here, constitutes a pre-resources inventory of 25 million tons not constrained by economic criteria. The PP2 horizon is modeled only where drilled near surface and is not extended beneath the DW-LP horizon as projected in figure 5.

hole on these targets that had not intersected massive sulfide failed to test the target horizon (E.N. Hunter, written commun., March 1996). In some instances, the drilling was insufficiently deep to reach the target horizon. Other holes missed the horizon by drilling into a fault zone with sufficient displacement that the hole exited the fault zone below the target horizon. ACNC reoccupied and extended drilling on several of these sites, and re-tested others from a different orientation. Under the current more simplified stratigraphic model, it is recognized that every drill hole that reached the *DW-LP* target horizon has intersected massive-sulfide mineralization, and the limits of the deposits are not known.

Previous interpretation that the perimeters of the EM anomalies that define these buried deposits are fadeouts as the massive-sulfide bodies extend under the adjacent mountains, rather than cutoffs, was supported by ACNC drilling in 1996 and 1997. Recognition of two separate mineralized horizons in the Lagoon unit (*DW-LP* and *PP2*) in 1997 (Dashevsky *et al.*, 1998) opened up the possibility for stacked deposits, and significantly increased the exploration potential of the area. In most of the drill holes, only the upper horizon (*DW-LP*) has

been tested. Although the overall tenor and grade of the deposits were deemed sub-economic under conditions prevailing at the time of drilling, zones of higher grade are evident within the larger sheets as well as at several of the outlying early-stage prospects.

The lowermost Lagoon unit is dominated by sediment with a strong graphitic component and thin interbedded felsic volcanic units. Samples of massive-sulfide mineralization from this horizon have base- and precious-metal concentrations twice to four times those of deposits drilled in the upper Lagoon unit. Thick sericite–pyrite–silica alteration drilled at the *Trio* and *Super Cub East* prospects [10, 11] suggests a large, hydrothermal system was active in the central map area before the full onset of effusive volcanics. The high-grade *LZ* sulfide prospects [17, 18] provide additional evidence that the lower Lagoon time–stratigraphic horizon was the site for deposition of base- and precious-metal rich sulfide deposits over a broad reach of the Devonian seafloor, before the onset of major volcanism. These sulfide deposits may represent a hybrid of volcanogenic and sedimentary–exhalative types.

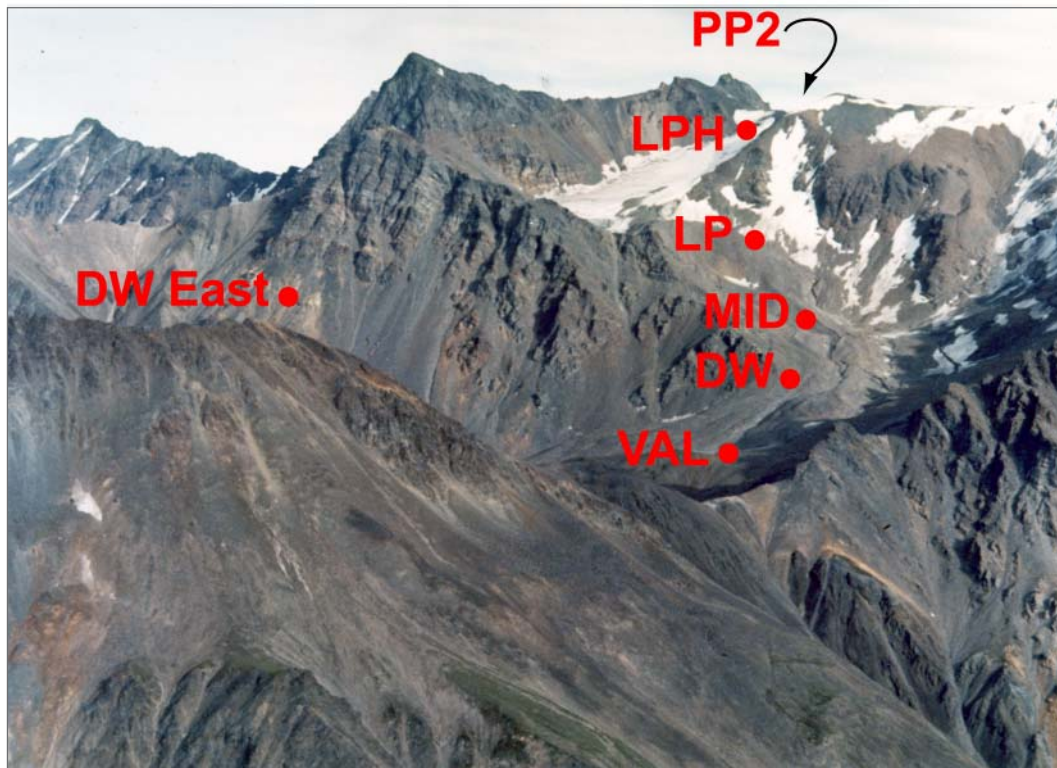


Photo 3. Oblique aerial view (to the southeast) of the mostly blind and till-covered *DW-LP*, and *PP2* massive sulfide systems. Photo from the RAA 1977 Annual Report.

DW-LP Deposit

The *DW-LP* mineralization is hosted by the upper Lagoon unit metarhyodacites beneath the barren Tiger unit metadacites. The *DW-LP-LPH-Nunatak-MID-VAL* massive-sulfide deposits have typical VMS-style metal ratios, averaging 0.4 percent copper, 1.7 percent lead, 4.5 percent zinc, 63 ppm silver, and 1.7 ppm gold accompanied by high arsenic and antimony concentrations. Drilling has identified an inferred resource of 9.6 million tons of massive sulfide (Schaefer and Oliver, 1999) in what is interpreted to be part of a once-continuous (2-plus-mile-long) sheet-like sulfide deposit with a local thickness that exceeds 33 feet. This deposit has been offset by high-angle faults into the individual deposits/blocks illustrated in figure 5.

PP2 Deposit

The *PP2* mineralization (photo 4) represents a stacked mineralized horizon in the middle Lagoon unit 800 to 1,000 feet beneath the *DW-LP* massive-sulfide horizon. Although the stratigraphy at this level is dominantly metasediment, the mineralization is associated with a felsic volcanic sequence within the sediments. Average grade and tenor of this deposit are similar to those of the *DW-LP* deposits, but a clustering of drill holes with higher-grade intercepts suggest the potential for a high-grade deposit. The inferred resource calculated for this deposit is 5.9 million tons (Schaefer and Oliver, 1999).

Figures 5 and 6 display a longitudinal section, and a 3-dimensional rendering of the modeled sulfide bodies that have been identified by drilling on the *DW-LP* and *PP2* horizons. Every hole drilled is depicted on the model in figure 6, which illustrates that the boundaries of the modeled sulfide sheets have not yet been delineated by drilling.

Projecting the favorable stratigraphy that hosts the *DW-LP* and *PP2* deposits beyond the extent of drilling illustrates the untested exploration potential of these horizons. It remains to be determined whether sufficient tonnage in a mineable configuration exists, but within the constraints of the mapped geology, the unclosed deposits have the room and favorable stratigraphy to reasonably harbor a 20–30-million-ton deposit at grades that would warrant development.

DRUM UNIT MASSIVE SULFIDES

Of the drill-inferred resource delineated in the district, 3.5 million tons are identified by drilling on the *DD* system (Schaefer and Oliver, 1999) in Drum unit metavolcanic rocks (Appendix III, table 2). These deposits have metal values roughly 50 percent higher than the mid- and upper-Lagoon unit deposits largely due to a higher copper and gold content. The strike extent of the *DDS* and *DDN* deposits [1, 2] are constrained by drilling, although the *DDN* deposit remains open down-dip. Although the Drum unit is relatively thin and poorly exposed, mineralization developed across the district in this time–stratigraphic interval is consistently higher in grade. Drum unit hosts a number of massive-sulfide prospects and significant occurrences, including *DD*, *Rum*, *LBB*, *CC*, *HDS*, and others [1, 2, 14, 15, 16, 38, 54, 55].

DD Deposits

The *DD South* and *DD North* deposits are interpreted to lie on two separate horizons within the Drum metavolcanics that overlie the barren Tiger unit. The *DD North* deposit [1] lies along the upper contact of the Drum unit, and the *DD South* deposit [2] is intersected in the basal 120 feet of the Drum. Alternatively, the two deposits may occupy the same



Photo 4. Surface expression and iron seeps of the *PP2* massive sulfide system. View is to the east. Photo from the 1977 RAA Annual Report.

time–stratigraphic interval, which cuts laterally across volcanic facies on the flanks of a rhyolitic dome.

The *DD* deposits have higher copper and gold grades than the *DW-LP* mineralization. The *DD* inferred resource totals 3.5 million tons at an average of 1.2 percent copper, 2.6 percent lead, 5.4 percent zinc, 2.6 ppm gold, and 102 ppm silver. These deposits are elongated and lens shaped in cross-section. The central axis is 20 to 50 feet thick and tapers to a thickness of 10 feet across a 400- to 500-foot width. Beyond this, the margins taper to less than 1 foot over 150 feet. The metal values decline toward the edges as thickness decreases. The inferred resource for the *DD South* deposit stands at 2.3 million tons, while the inferred resource for *DD North* is 1.2 million tons (Appendix III, table 2; Schaefer and Oliver, 1999).

Grades within the *DD* massive-sulfide zones are fairly consistent over distances of up to several thousand feet, but local variations can be large, which indicates that there is potential to develop significant high-grade material. At *DD South*, one 5-foot zone within a 34-foot massive-sulfide interval has a gross metal content valued at over \$400/ton, five times the average grade of the deposit. Similar high-grade intersections were seen at *DD North*, where several 1.5- to 3-foot-thick bands show two- and three-fold enhancement of gross metal values within the 48-foot-thick mineralized intercept.

LITHOCHEMISTRY AND PROTOLITH DETERMINATION

Tables 3 to 6 in Appendix III contain major oxide and trace element geochemical data and sample locations for 827 samples (sheet 2) collected by ACNC from 1994 through 1998. These samples were collected principally for protolith determination, discrimination of hydrothermal alteration, and delineation of target stratigraphic horizons that host volcanogenic massive-sulfide deposits.

METHODOLOGY

Rocks for protolith determination were collected in the field as narrow, selective samples from outcrop. This method was an attempt to measure a single time–stratigraphic bed and minimize dilution with adjacent fractionated or interbedded units. The sample population is heavily weighted toward quartz–sericite–chlorite schists, as they were potentially representative of metavolcanic lithologies in the mineralized horizons. Rocks that were deemed too altered or too mineralized to yield meaningful whole rock major oxide data generally were excluded from lithochemical analysis. Similarly, rocks with an obvious sedimentary protolith or post-mineralization intrusive protolith generally were not analyzed for the full lithochemical suite of elements

unless a specific lithochemical question was being addressed. ACNC analyzed 1,440 whole rock surface samples in the course of exploration and mapping in the Delta mineral belt. The 827 samples presented in this report were selected to show the range and distribution of compositional data across the map area while still allowing individual locations to be discernable at the scale of 1:63,360.

Whole rock major oxide compositions were analyzed by X-ray fluorescence (XRF) at Chemex Labs in North Vancouver, British Columbia (method A413 using a lithium metaborate fusion). XRF analyses of trace elements barium, niobium, strontium, yttrium, and zirconium were performed on raw (non-fused) sample pulps under stringent standards at Inco Limited's laboratory in Copper Cliff, Ontario. Broader spectrum multi-element analyses were done at Chemex Labs using a standard aqua-regia (partial digestion) leach and inductively coupled plasma (method ICP G32) technique. Gold determinations were done at Chemex Labs using a 30-gram fire assay with an atomic absorption finish. Control samples consisting of prepared laboratory standards of mafic or felsic composition or a local field standard, were included in each 20-sample batch to monitor laboratory quality control.

INTERPRETATION

Lithochemical major oxide and trace element data were used for the following three purposes:

1. to assist in distinguishing igneous from sedimentary protoliths in the greenschist-facies rocks
2. to attempt to identify marker horizons in mineralized areas
3. to characterize hydrothermal alteration assemblages typical of volcanogenic massive-sulfide systems.

An initial step in sample selection was to eliminate those that were too altered to be indicative of their primary protolith composition. Therefore, samples with losses on ignition (LOI) that exceeded ± 2 percent, or samples with greater than 34 percent Fe_2O_3 were excluded from further treatment. In calculations or ratios, the concentration of any element that was less than the detection limit was assigned a value of one-half the detection limit.

PROTOLITH CLASSIFICATION

Identification of primary protolith in penetratively deformed and metamorphosed rocks, such as those commonly encountered in the Delta mineral belt, is problematic and any method chosen will be imperfect.

Remnant primary textures are rarely preserved in hand specimen or at petrographic scales in Delta schists. Some of the better preserved metavolcanic textures were found in the Drum metarhyolites west of the massive-sulfide float train in talus below the *DD South* deposit, and locally in Lagoon unit on the slopes near the *DW East* showing.

Sample Screening Methodology

We utilized whole-rock major oxide analyses to help segregate igneous rocks from rocks with compositions that were non-igneous (likely sedimentary), were highly altered, or whose compositions fell too far from normal igneous rock compositional ranges to yield meaningful protolith interpretations. The method used is simple and direct, if somewhat imprecise. After this initial screening, the volcanic compositions of samples interpreted to have igneous protoliths were classified using criteria established by Winchester and Floyd (1977).

To devise a method for the initial screening, a model population of 37,401 igneous rock samples with major element analyses was obtained from the PETROS data bank (Mutschler *et al.*, 1981). From this population we eliminated samples with total oxide values that fell outside of the 98–101 percent range, samples with H₂O content greater than 3 percent to eliminate highly altered or misrepresented rocks, and samples with less than 25 percent SiO₂ to remove carbonatites and other unusual igneous rocks. This reduced the PETROS data bank igneous model population to the 22,293 samples displayed in figure 7 on the normative quartz (wt. percent) vs. aluminum (atomic proportion) saturation index diagram ([SiO₂] vs. [Al/(2Ca+Na+K)]).

The reduced igneous model population of 22,293 samples occupies a very compact field of compositions with less than 80 percent SiO₂ (normalized) and an aluminum saturation index less than 2.0 (fig. 7). Only one-half of one percent (122) of the igneous samples from the PETROS database fall outside the limits of <80 percent SiO₂ and aluminum saturation <2.

Major element analyses from the Delta mineral belt were screened by the same process as described above for the PETROS data bank model igneous population. These somewhat loose empirical brackets, when applied to the Delta sample population to discriminate which samples have compositions compatible with igneous protoliths, allow for acceptance of some degree of alteration due to metasomatic and metamorphic processes in the greenschist-facies metamorphic rocks of the area. Before screening, samples whose field descriptions precluded them from being candidates for the metavolcanic suite were eliminated (*e.g.* limestone, marble, graphitic schist, gabbro, dike, quartz vein, fault gouge). The Delta samples that met the quartz vs.

aluminum saturation compositional criteria (<80 percent SiO₂; <2.0 Al. Sat.) were then plotted on [Nb/Y] vs. [Zr/TiO₂] diagrams (figs. 8–14), which were used to classify the greenschist-facies metavolcanic rocks (Winchester and Floyd, 1977).

The treatment described above, using the niobium/yttrium vs. zirconium/titanium diagrams in figures 8 through 14 and the normative quartz vs. aluminum saturation diagrams in Appendix II, all formed the basis for the petrologic interpretations in this report. These interpretations include the compositional ranges and relative proportions of felsic and mafic protoliths, and the relative proportions of metavolcanic and meta-sedimentary constituents in the geologic units presented in the map legend (sheet 1) and in text sections above.

ACNC's extensive sampling of Jarvis belt metavolcanic rocks created a lithochemical dataset that identifies a volcanic protolith with a predominantly felsic, calc-alkaline composition (D.R. Burrows, written commun., March 1995). A subordinate suite of more intermediate mafic volcanic protoliths occurs within each sub-unit of the Jarvis belt. Intermediate and mafic metavolcanics are reported to be more common to the southwest in the Hayes Glacier belt (Blakestad *et al.*, 1978; Newkirk *et al.*, 1985).

The extensive application of whole-rock lithochemistry by ACNC was driven by the goal of identifying unique chemical signatures for the mineralized stratigraphic horizon(s), which could be applied to exploration distal from previously identified mineralization. Although this exercise did not identify distinct fingerprints for individual target horizons, the sampling and analysis did help to discriminate volcanic protolith and was invaluable in recognizing VMS-style alteration signatures amongst the myriad greenschist-facies quartz-sericite (\pm chlorite) schists of the region.

REGIONAL CORRELATION

Late Devonian to Early Mississippian volcanic-hosted massive-sulfide deposits of the Delta mineral belt developed along five time-stratigraphic horizons within the Drum and Lagoon units of the Jarvis metamorphic belt.

The age of mineralization in the Drum unit (\approx 362 Ma) is estimated from the results of two SHRIMP U–Pb zircon ages determined on drill core samples from metavolcanic rock in the footwall 10 feet below the *DD South* deposit (359 \pm 6 Ma), and 5 feet below the *HD South* mineralized horizon (364 \pm 7 Ma; J. Aleinikoff, written commun., 2002). These two sampled locations are separated by 12 miles of strike with only intermittent exposure of Drum unit stratigraphy. The similarity in their age determinations support the time-stratigraphic

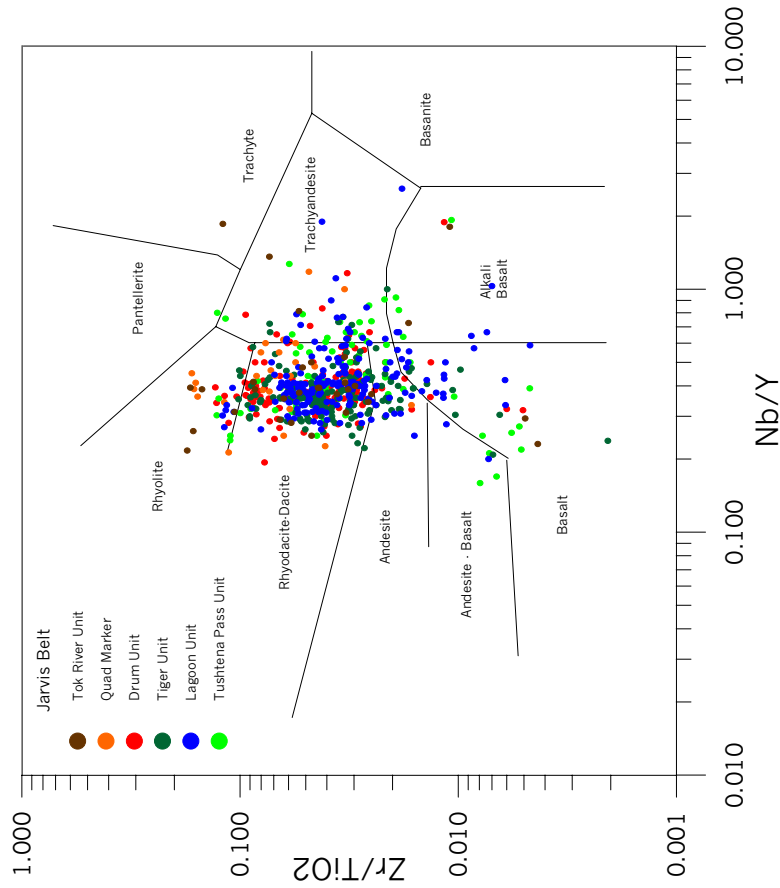


Figure 8. Classification of greenschist-facies metavolcanic rocks (after Winchester and Floyd, 1977) from the Jarvis schist belt.

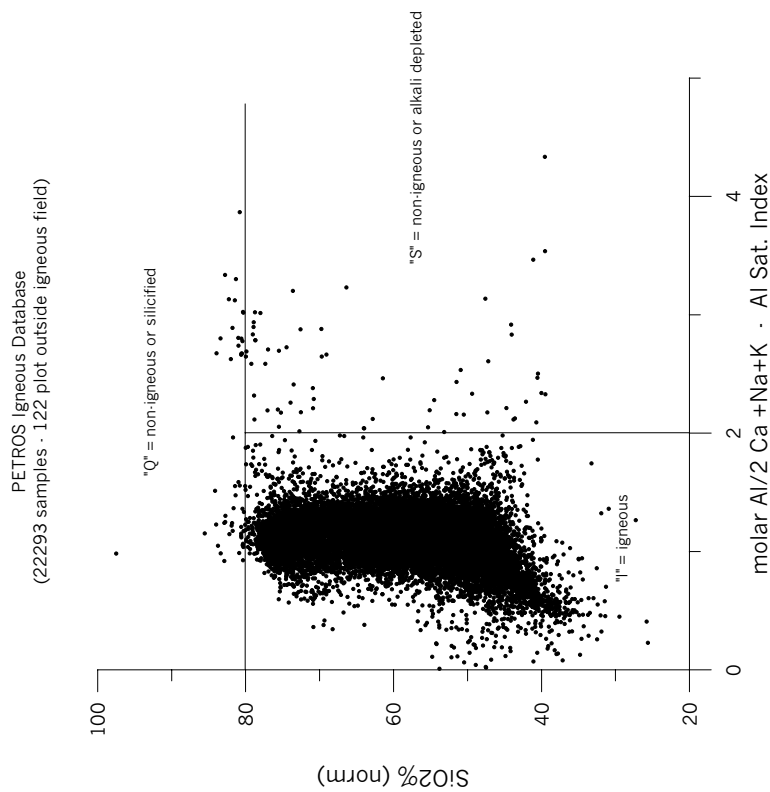


Figure 7. Protolith classification model used to segregate igneous samples from sedimentary or highly altered samples of the Delta mineral belt. Samples shown above are from the PETROS database (Mutschler et al., 1981) of igneous rocks from around the world. These analyses were used to establish the three major groups: I, S, and Q. Only 122 of the 22,293 (0.5 percent) igneous rock samples plot outside the igneous field.

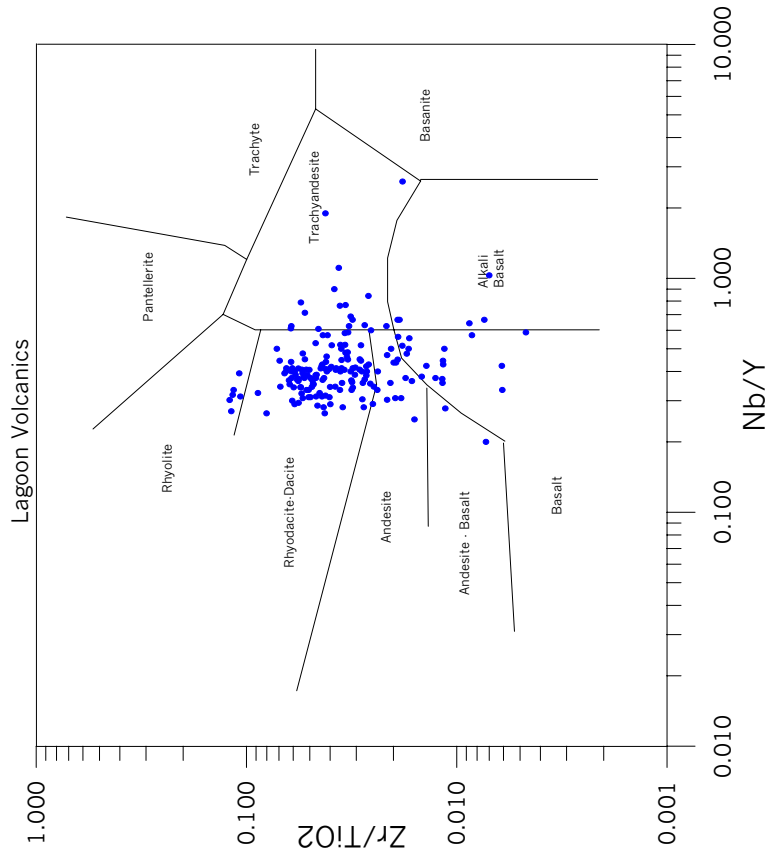


Figure 9. Classification of greenschist-facies metavolcanic rocks (after Winchester and Floyd, 1977) from the Tuzhtena Pass unit (Jarvis schist belt).

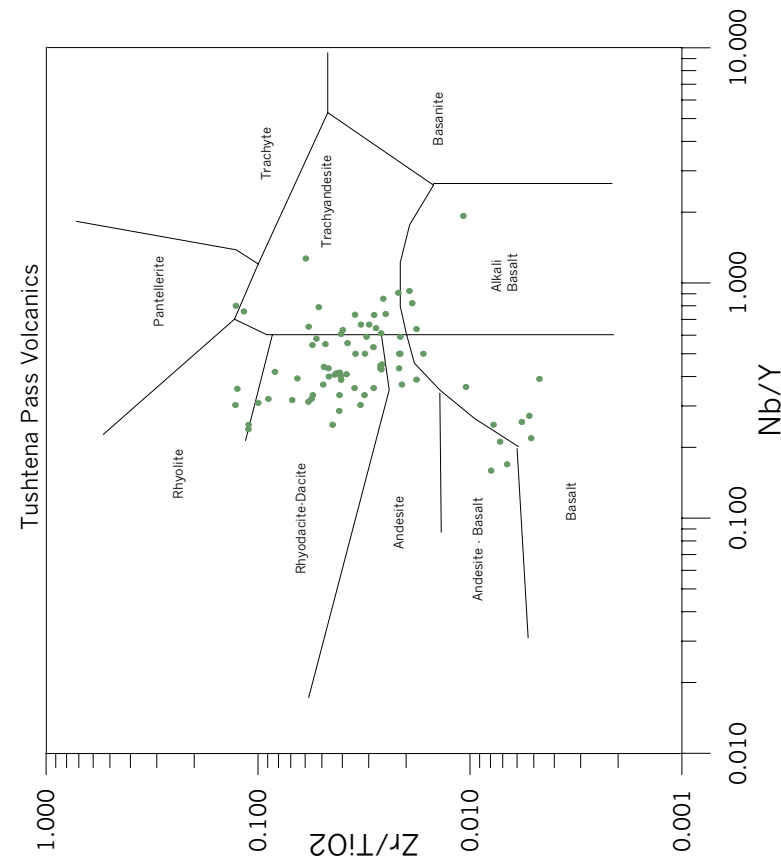


Figure 10. Classification of greenschist-facies metavolcanic rocks (after Winchester and Floyd, 1977) from the Lagoon unit (Jarvis schist belt).

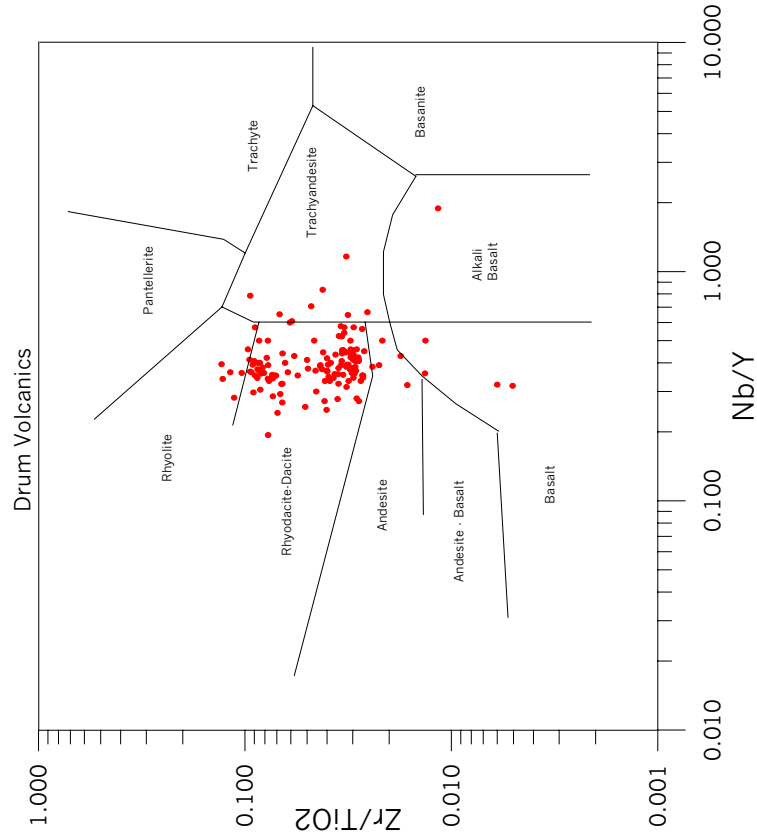


Figure 11. Classification of greenschist-facies metavolcanic rocks (after Winchester and Floyd, 1977) from the Tiger unit (Jarvis schist belt).

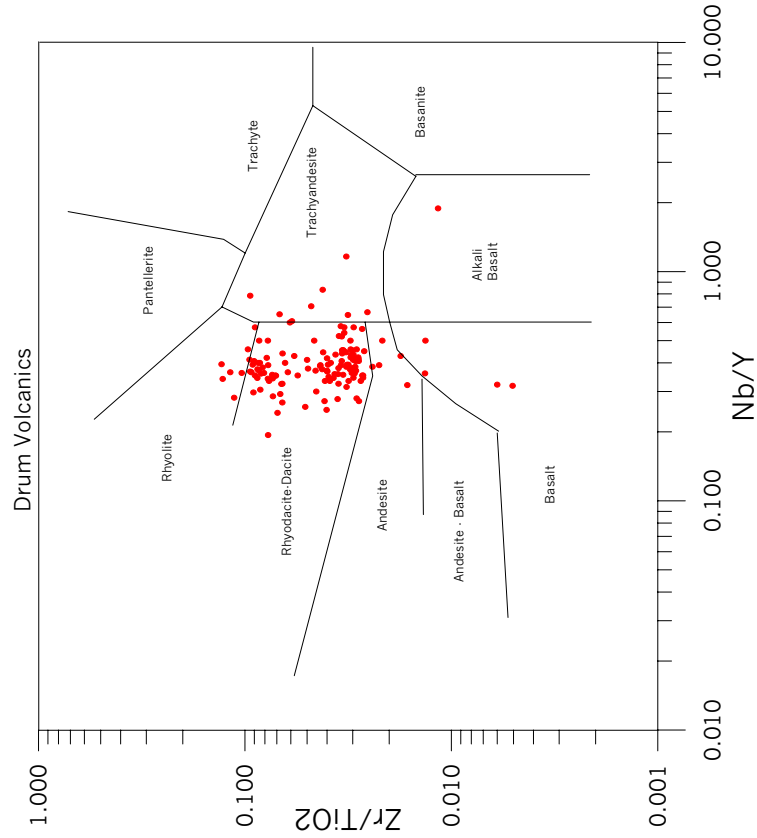


Figure 12. Classification of greenschist-facies metavolcanic rocks (after Winchester and Floyd, 1977) from the Drum unit (Jarvis schist belt).

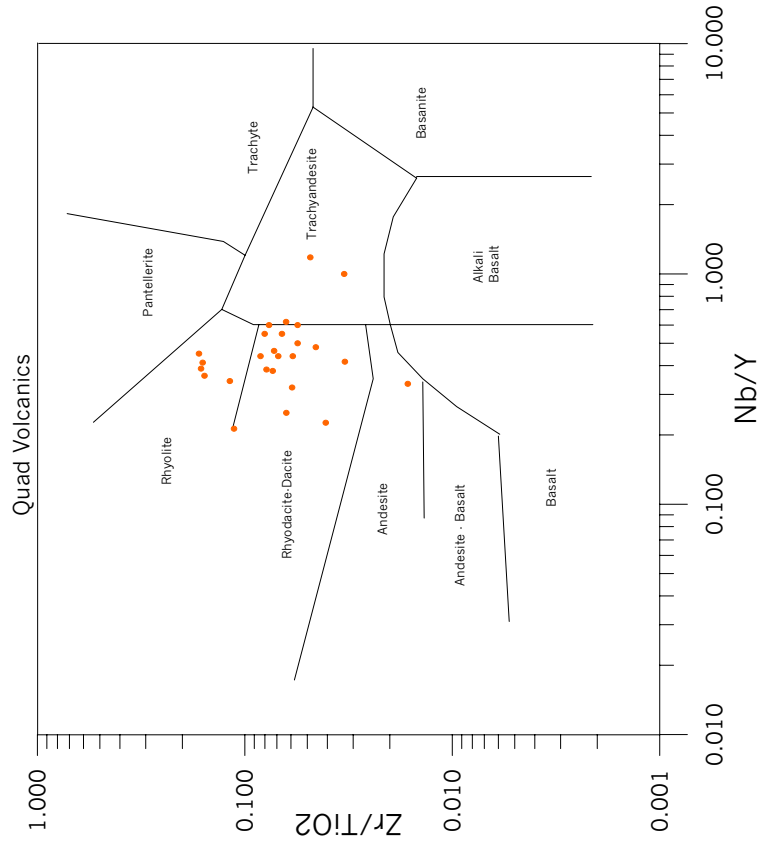


Figure 14. Classification of greenschist-facies metavolcanic rocks (after Winchester and Floyd, 1977) from the Quad marker (Jarvis schist belt).

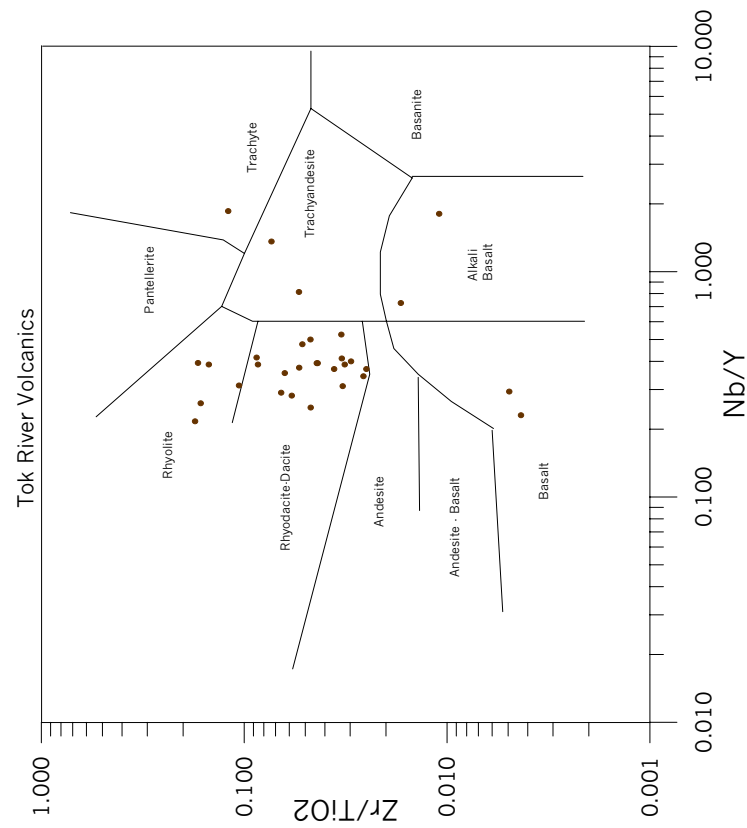


Figure 13. Classification of greenschist-facies metavolcanic rocks (after Winchester and Floyd, 1977) from the Tok River unit (Jarvis schist belt).

continuity and integrity of the Drum unit as interpreted across the map area.

Age of mineralization in the Lagoon unit (≈ 372 Ma) is estimated from the results of a single SHRIMP U–Pb zircon age determination from the *LZ East* deposit (372 ± 6 Ma; J. Aleinikoff, written commun., 2002). The dated drill core sample was from a metavolcanic layer internal to multiple bands of sulfide mineralization in a structurally repeated section of lower Lagoon unit. Other samples submitted for dating metavolcanic hosts of the *DW-LP* and *PP2* deposits in Lagoon unit from the central map area failed to yield adequate zircons for analysis.

The Drum and Lagoon units occupy the Jarvis metamorphic belt, which was mapped as Jarvis Creek Glacier subterrane by Nokleberg *et al.* (1992b) and traced to the western boundary of the Mount Hayes 1:250,000-scale Quadrangle. Information available in the literature alone is insufficient to allow direct correlation of Jarvis belt with units mapped farther to the west in the Healy Quadrangle by Wahrhaftig (1968) and Csejtey *et al.* (1992). In the Healy Quadrangle, the Totatlanika Schist is the most readily correlated unit with the Jarvis belt and it is host to the Bonnifield district volcanogenic massive-sulfide prospects. Significant mapping discontinuities remain unresolved at the map boundary between the Totatlanika and Jarvis schists.

The Bonnifield massive sulfides are approximately 100 miles to the northwest of the Delta sulfide deposits, along the relict Devonian–Mississippian volcanic arc system. Recent SHRIMP U–Pb age determinations for the Bonnifield units can be compared with new dates derived by the same methods for Delta deposits.

The dates from Bonnifield's Totatlanika Schist range from 353 Ma to 376 Ma (Dusel-Bacon *et al.*, 2001; revised in C. Dusel-Bacon, written commun., 2002) covering the same span of time that the Delta massive-sulfide deposits began forming in the lower Lagoon unit ($\approx 372 \pm 6$ Ma) to their last expression in the upper Drum unit ($\approx 359 \pm 6$ Ma) (J. Aleinikoff, written commun., 2002).

Elemental compositions of the metavolcanic member that underlies Bonnifield's Red Mountain (Dry Creek) massive-sulfide deposits is reported to have a "within-plate" affinity (Dusel-Bacon *et al.*, 2001), whereas the overlying volcanics and the structurally lower units have a "volcanic arc" affinity (Dusel-Bacon *et al.*, 2001) more similar to the Delta deposits (fig. 4). This "within-plate" signature of the immediate host to the VMS deposits of Bonnifield district has led to the interpretation that those deposits formed in hydrothermal systems developed during a brief extensional tectonic event that occurred within a broader regime of continental-margin volcanic arc magmatism (Dusel-Bacon *et al.*, 2001).

Roughly 100 miles east of the Bonnifield district and north of the Delta deposits, stratiform zinc–lead mineral occurrences are described in the Chena Slate belt (informal) in east-central Alaska by Dusel-Bacon *et al.* (1998). These have been dated by SHRIMP U–Pb zircon techniques at 372 ± 5 Ma (C. Dusel-Bacon, written commun., 2002). The Chena Slate belt lithologies are descriptively equivalent to the Delta belt lower-Lagoon unit stratigraphy (although at a different metamorphic grade), and the U–Pb zircon age is equivalent to the ≈ 372 Ma age (± 6 Ma) that has been determined for the *LZ East* deposit in Delta's Lagoon unit. Together, the sulfide deposits in the Chena Slate belt, and Delta mineral belt, and in the Bonnifield district demonstrate the widespread mineralizing processes that were active on this part of the Late-Devonian arc–basin system.

During the period spanning 366–378 Ma, metallic sulfides began forming in a quiescent setting dominated by carbonaceous sedimentation with thin distal volcanic–volcaniclastics in the Chena Slate belt just as similar processes were occurring in the lower Lagoon unit of the Delta belt. At this same time, felsic volcanism was fully active in what is now Bonnifield and was building the lower units of Totatlanika Schist.

On the heels of this activity, volcanic-hosted sulfide deposits began to form (≈ 353 – 365 Ma) in the upper part of the Totatlanika Schist at Bonnifield (Red Mountain/DC deposits) while the upper Lagoon and Drum deposits were forming at Delta, and probably at other unpreserved or unrecognized locations in between.

The timing of formation of the volcanogenic massive-sulfide deposits in the Delta and Bonnifield segments of the arc system indicates that this portion of the arc was belching sulfides prior to, and possibly overlapping, the ≈ 360 -Ma onset (Peter *et al.*, 2001) of VMS formation in the Finlayson Lake district of southern Yukon Territory.

The Finlayson Lake district deposits occur in Nasina assemblage rocks and the sulfides display a mineralogy and tenor quite similar to their age-equivalent Drum unit deposits of the Delta mineral belt. Recent and ongoing geologic studies that span the Alaska–Yukon border lend support to the correlation of the Alaska portion of the Yukon–Tanana terrane with the Nasina assemblage (Dusel-Bacon, *et al.*, 1998).

Restoration of early Tertiary right-lateral displacement along the Tintina fault (250–300 miles) juxtaposes the Canadian Finlayson deposits with rocks of similar age and lithology in the Yukon–Tanana terrane of east-central Alaska. This restoration associates the Finlayson deposits of Yukon with the Drum unit deposits of Delta, in space as well as in time, with Delta lying farther to the west on this Early-Mississippian/Late-Devonian volcanic arc system.

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APPENDIX I

CHRONOLOGY OF EXPLORATION (1976–2001) DELTA MINERAL BELT, TOK MINING DISTRICT, ALASKA

The massive-sulfide deposits of the Delta mineral belt were discovered in 1976 by geologists and prospectors working for Resource Associates of Alaska (RAA) under contract to Cook Inlet Region Incorporated (CIRI), an Alaska Native corporation. Extensive exploration, mapping, and drilling of deposits in the Delta mineral belt were done by RAA on behalf of CIRI and their joint-venture partners during the 11 years from 1976 through 1987. In 1994, ACNC commenced exploration in the belt and implemented a comprehensive program of geological, geochemical, and geophysical surveys, as well as diamond-core drilling. ACNC's work expanded the tonnage of the previously discovered deposits and resulted in the discovery of several high-grade base metal occurrences.

From 1976 through 2001, a total of approximately \$20 million has been spent exploring for base metal and gold deposits in the Delta mineral belt. Geologic mapping at scales from 1:1,200 to 1:30,000 was completed. Approximately 30,000 soil, rock, drill core, stream sediment, and pan concentrate samples were collected and analyzed. Geophysical surveys consisting of Chrone-electromagnetic, pulse-electromagnetic, ground magnetics, max–min (horizontal loop electromagnetics), induced polarization, UTEM, airborne EM and magnetics, gravity, down-hole pulse-electromagnetic, and seismic techniques have been completed in the district. Core drilling totals about 95,000 feet in 186 holes.

As a result of this work, 49 massive-sulfide occurrences and 14 gold prospects are documented in the Delta district. Locations of mineral deposits, prospects, and occurrences are shown as numbered symbols on sheet 1, and are summarized in table 1 of Appendix III.

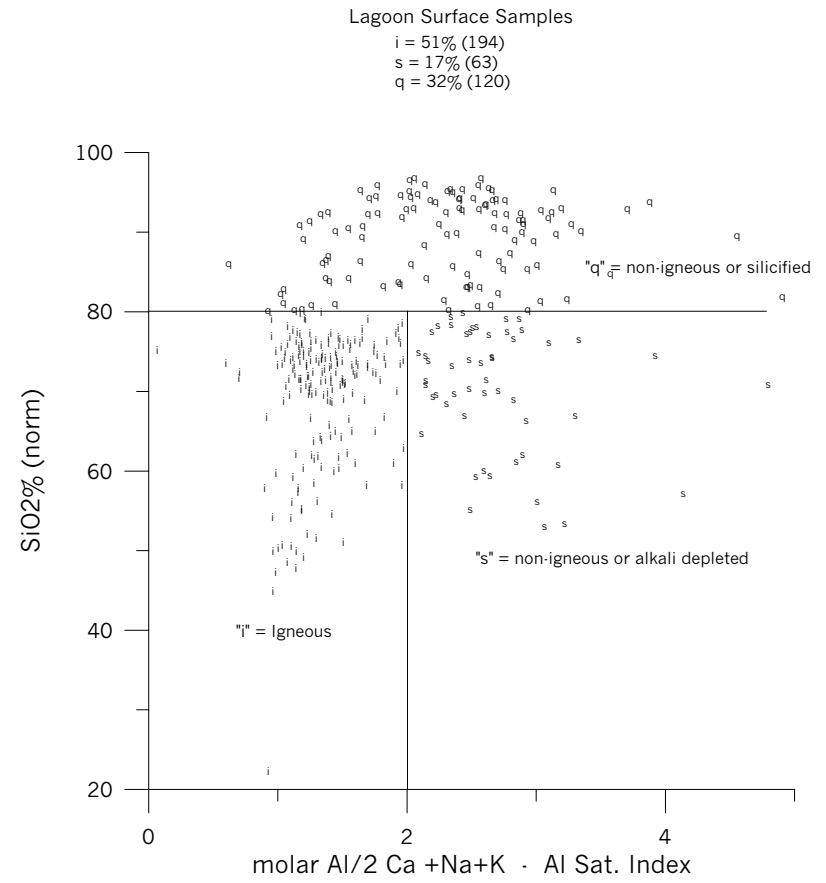
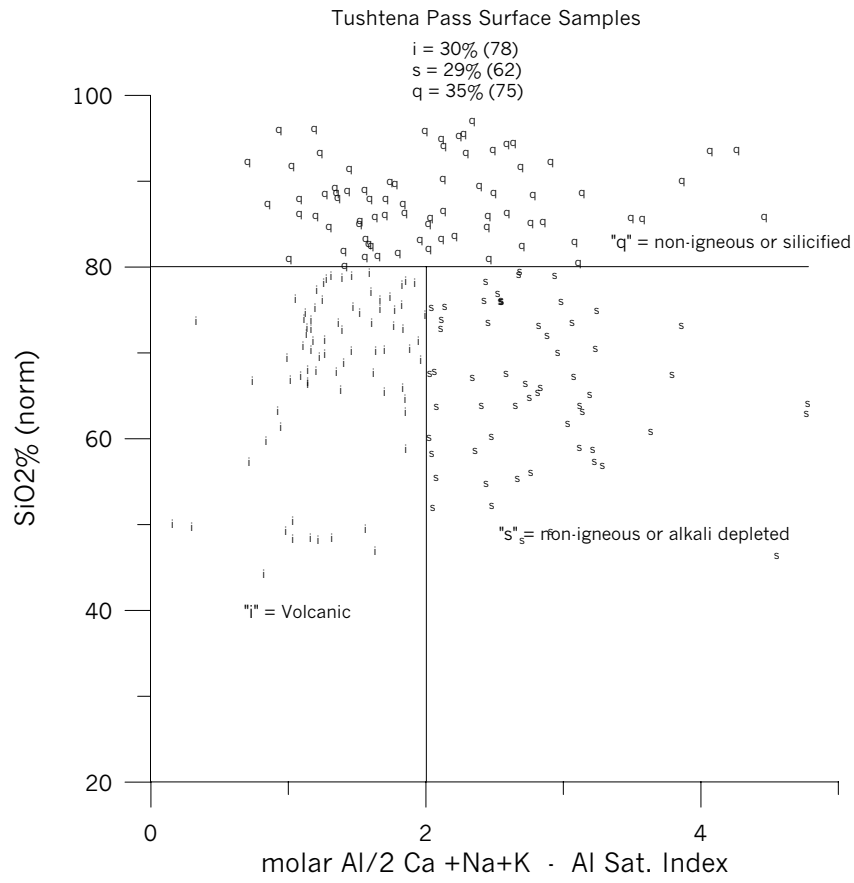
The following is a chronology of modern exploration in the map area from the date of discovery of massive-sulfide deposits in 1976 to the present.

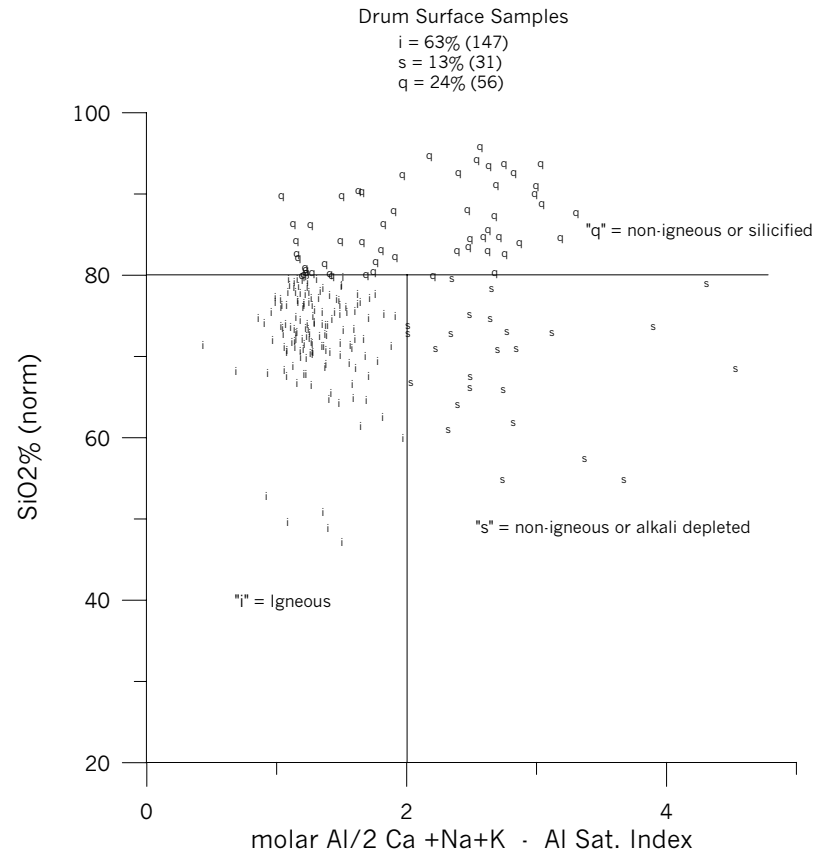
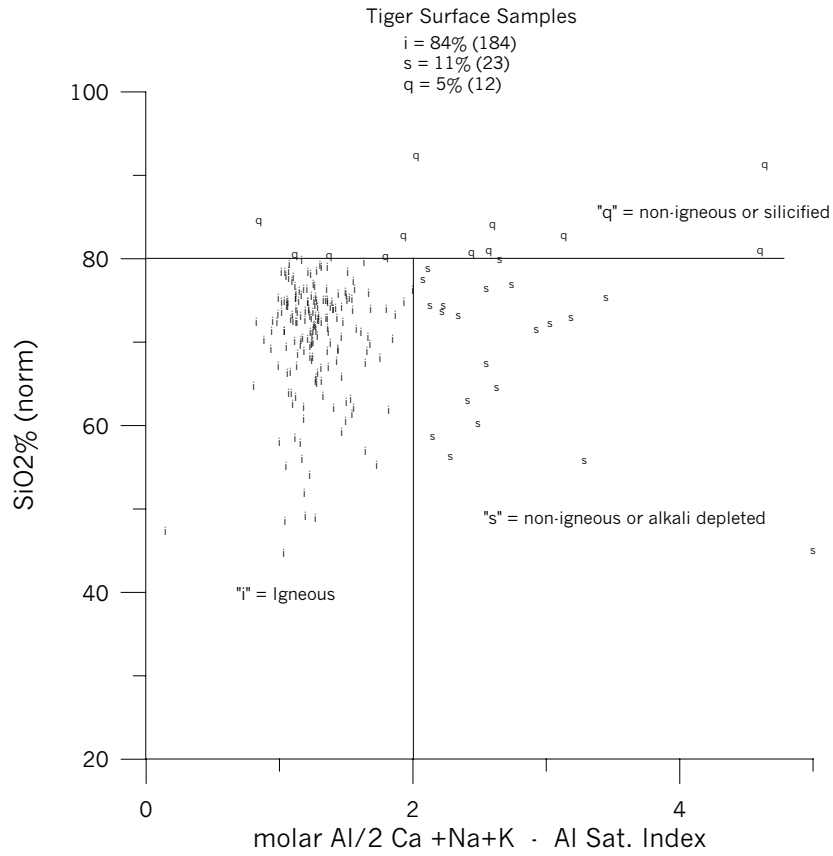
- 1976: The massive-sulfide deposits of the Delta District were discovered by geologists and prospectors working for RAA under contract to CIRI during CIRI's search for candidate "out of region" lands to select as part of their entitlement under the Alaska Native Claims Settlement Act (ANCSA). Cobbles and boulders of massive-sulfide mineralization were found during the course of conducting a regional stream-sediment mineral reconnaissance program. RAA's senior geologists Ed Chipp, Barry Hoffman, and Bob Fankhauser are credited with recognition of the mineral potential of the region. Original discovery in the field was made by Jim Pray at what became known as the *PP* (Pray's Pile) prospect in the southern part of the map area. Continued and heightened reconnaissance work led to discovery of a number of other deposits (*PP2*, *DD*, *SB*, *Trio*, *LP-DW*, *SM*, *PG*, *DG*, *VABM*, *RC*) that were shedding massive-sulfide float to moraine and talus. CIRI chose to claim these discoveries as private mining claims and thus shield potential future profits from distribution of 70 percent to other Alaska Native corporations under clause (7i) of ANCSA. RAA staked the claims in CIRI's name and then leased the property from CIRI in late 1976. RAA acted as the operator under a number of agreements with various companies during the following years as they carried forward the exploration and evaluation of the new mineral district.
- 1977–78: A joint venture consisting of Placer Amex and Gulf Mineral Resources Company optioned the original claims from RAA and conducted extensive geologic and ground-geophysical surveys, and core drilling. Ground electromagnetic surveys were instrumental in identifying drill targets over a number of the blind massive-sulfide deposits (*DW*, *MID*, *LP*, *PP2*, *DDS*, *DDN*, *PG*) buried beneath extensive glacial ice, moraine, and talus. The Placer Amex and Gulf Mineral Joint Venture greatly increased the number of discoveries and land area under claims, but terminated the agreement after the 1978 field season.
- 1979–81: Anaconda Minerals Company participated in a joint venture on the claims and, in concert with RAA, carried out extensive programs of geologic mapping, ground geophysics, and core drilling. An airborne EM survey was aborted due to weather and equipment problems in 1980. During this period, RAA was acquired by Nercó Minerals Company (Nercó).
- 1982–85: Nercó continued a limited exploration program to satisfy obligations on the claims and develop gold targets, fieldwork focused on the *Trio* massive-sulfide occurrence and the *AR* prospects. During 1984, Utah International took a serious look at developing a mine and milling facility and generated a valuable

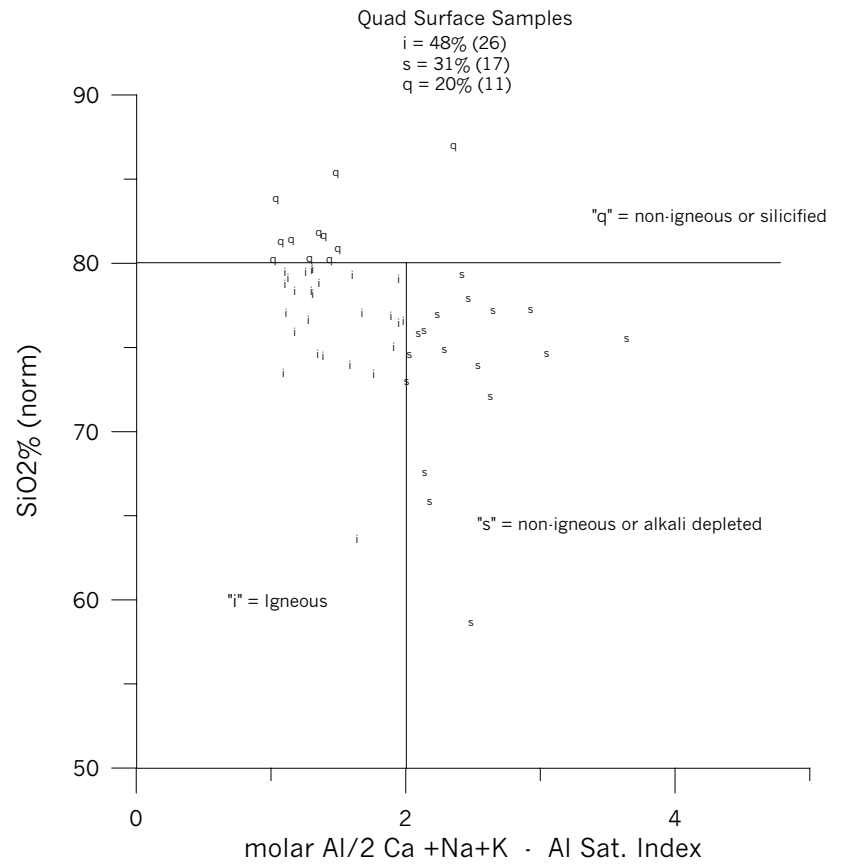
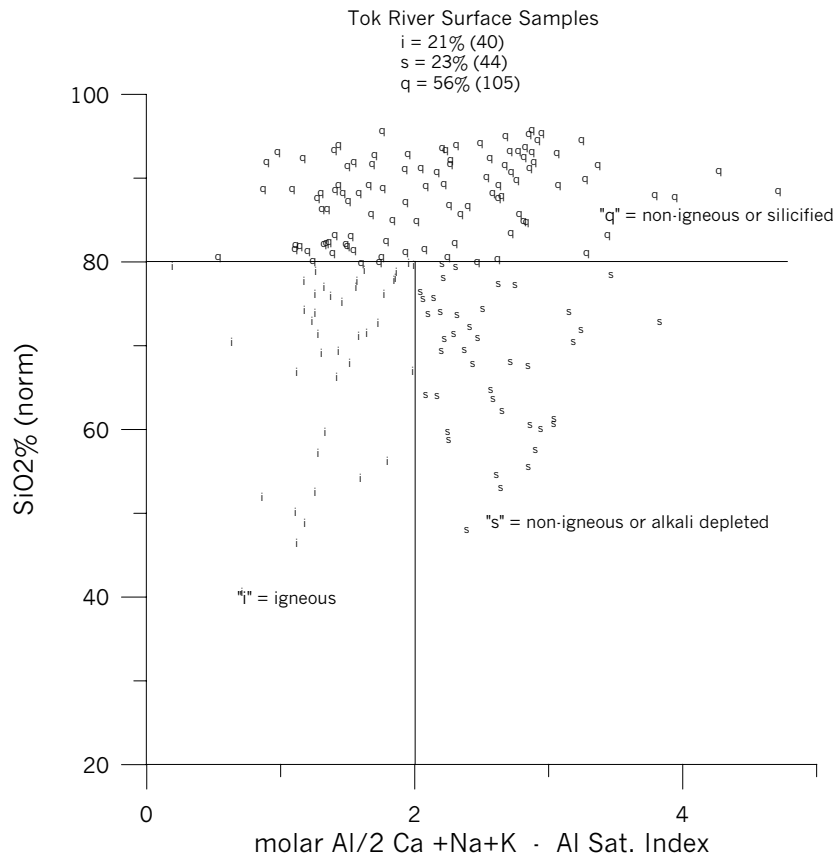
- summary document and analysis of the prior RAA–Nerco work (Taylor, 1984). Synthesis of regional and detailed geologic mapping embarked on by RAA resulting in first 1:63,360-scale interpretive maps for the Delta mineral belt (Duke and Nauman, 1982; Duke, 1985).
- 1986: Nerco and Meridian Minerals Company entered into a joint venture to explore gold targets developed during 1984 and 1985, principally at the *AR* prospects.
- 1987: Nerco and Western Mining conducted a one-year gold program in the eastern part of the district known as the *AR* Project.
- 1990: Phelps Dodge entered into a joint venture on nearly all of Nerco’s Alaska properties, including the Delta mineral belt. They conducted ground geophysical surveys and limited core drilling on previously identified targets. The Phelps Dodge joint venture was terminated in late 1990.
- 1993: Nerco divested itself of metal mining assets and Pacific Northwest Resources (PNR) acquired Nerco’s interest in the Delta mineral belt.
- 1993–94: ACNC entered into a joint venture agreement with PNR in late 1993, and began a review of prior exploration mapping and drilling. Fieldwork focused on field checking prior operator mapping while carrying out broad lithochemical sampling to define favorable stratigraphy away from the drilled deposits. Field mapping and identification of favorably altered areas were aided by extensive use of Landsat imagery.
- 1995: ACNC flew an airborne magnetic-electromagnetic survey totaling 1,855 line miles (2,992 km). Regional geologic mapping was carried out concurrently with follow-up of the airborne anomalies. Ground geophysical surveys utilized HLEM, Genie, and magnetic methods and were conducted in areas of observed alteration or mineralization, or where overburden covered airborne conductors in favorable geologic settings. Extraordinarily high-grade, gold–silver-rich massive-sulfide occurrences were found at *Super Cub East* vegetative kill zone.
- 1996: ACNC thoroughly re-examined core from prior drilling, and reinterpreted the stratigraphy prior to drilling and ground geophysical testing of targets in the *DD*, *MID*, *Ward’s Saddle*, *Super Cub East*, and *Tushtena Pass* areas. Borehole UTEM surveys and ground geophysical surveys using large-loop UTEM, HLEM, and magnetic methods guided exploration, and were conducted concurrently with reconnaissance-scale geologic mapping and prospecting, and detailed geologic mapping in support of drilling. Extraordinarily high-grade, base-metal massive-sulfide occurrence was found at the *HD Southeast* showing.
- 1997: Continued ACNC exploration drilling and geophysics focused on the *PP2*, *LP*, and *DW* deposits, and the *Rum North* prospect. Geologic mapping and prospecting focused on target development in the lower-Lagoon *Super Cub–Trio* horizon and structural studies in the *PP2–DW* area. Three-dimensional modeling of the drilled sulfide deposits and enclosing geology was initiated.
- 1998: Grayd Resources purchased PNR’s interest in the joint venture and funded ACNC’s continued exploration drilling of the *PP2*, *DW*, *DDS*, and *DDN* deposits and the *Super Cub–Trio* occurrences. A rigorous inferred resource calculation for eight deposits was completed.
- 1999: Surface mapping and sampling by Grayd, with a shift toward advancement of gold targets on the *White Gold* prospects.
- 2000: Detailed surface sampling and trenching on *Goldberg*, *Low*, *Hunter*, and *Shalosky* prospects on the *White Gold* system.
- 2001: Grayd operated a joint venture with Placer Dome U.S. Incorporated funding a combined program of drilling, mapping, and geophysics utilizing magnetic and electromagnetic methods on the *White Gold* system.

APPENDIX II

IGNEOUS PROTOLITH DISCRIMINATION PLOTS FOR SUB-UNITS OF THE JARVIS SCHIST DELTA MINERAL BELT, TOK MINING DISTRICT ALASKA







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APPENDIX III

TABLES OF MINERAL DEPOSITS, PROSPECTS, AND OCCURRENCES; AND TABLES OF
GEOCHEMICAL DATA WITH SAMPLE DESCRIPTIONS FOR 827 SAMPLES FROM THE DELTA
MINERAL BELT, TOK MINING DISTRICT, ALASKA

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Table 1. Mineral deposits, prospects, and occurrences from the Delta mineral belt, Tok mining district, Alaska

Map no. ^a	Name	Resource type	Geologic unit	Exposure ^b	Description	Representative Geochemistry					
						Cu %	Pb %	Zn %	Ag ppm	Au ppm	Size mt
1	DD North	VMS deposit	Upper Drum	b, f, d	Massive-sulfide deposit hosted within meta-rhyolite; inferred resource	1.6	2.4	3.2	102	3.1	1.2
2	DD South	VMS deposit	Lower Drum	b, f, d	Massive-sulfide deposit hosted in meta-rhyolites at upper contact with Tok River; inferred resource	1.1	2.6	6.5	102	2.4	2.3
3	VAL	VMS deposit	Upper Lagoon	b, d	Low-grade massive-sulfide deposit hosted within upper Lagoon meta-volcanics	0.3	0.6	4.4	27	1.2	1.3
4	DW	VMS deposit	Upper Lagoon	b, d	Massive-sulfide deposit hosted within felsic meta-volcanics; inferred resource	0.4	1.7	4.8	58	1.4	0.4
5	MID	VMS deposit	Upper Lagoon	b, d	Massive-sulfide deposit hosted within felsic meta-volcanics; inferred resource	0.4	1.6	4.5	62	1.6	7.2
6	Nunatak	VMS deposit	Upper Lagoon	b, d	Massive-sulfide deposit hosted within felsic meta-volcanics; inferred resource	0.3	1.2	2.8	58	2.5	0.3
7	LP	VMS deposit	Upper Lagoon	o, d	Massive-sulfide deposit hosted within felsic meta-volcanics; inferred resource	0.4	2.1	4.9	66	2.2	0.7
8	LPH	VMS deposit	Upper Lagoon	o, d	Massive-sulfide deposit hosted within felsic meta-volcanics; inferred resource	0.4	2.5	5.1	73	1.4	1.1
9	PP2	VMS deposit	Middle Lagoon	b, f, d	Massive-sulfide hosted within carbonaceous sediments and meta-volcanics of middle Lagoon; inferred resource	0.4	2.1	4.6	71	1.7	5.9
10	Super Cub East	VMS prospect	Lower Lagoon	f, d	Very-high-grade massive-sulfide float and soil kill zone in kame terrace moraine	0.9	11.4	11.7	192	11.7	
11	TRIO	VMS prospect	Lower Lagoon	f, d	Dislocated massive sulfide in landslide block	1.3	7.3	5.6	113	0.7	
12	TRIO West	VMS prospect	Lower Lagoon	o	Massive sulfide, remobilized?, pyrite-sphalerite rich, at contact with gabbro	0.1	0.2	14.7	9	nil	
13	DW East	VMS prospect	Upper Lagoon	o	Thin massive-sulfide outcrop with chloritic footwall alteration at distal fringe of DW-LP system	0.3	2.5	1.6	90	2.2	

^aMap numbers refer to locations on map sheet 1.

^bBlind/buried (b), drilled (d), float (f), outcrop (o).

Table 1. Mineral deposits, prospects, and occurrences from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Name	Resource type	Geologic unit	Exposure ^b	Description	Representative Geochemistry				
						Cu %	Pb %	Zn %	Ag ppm	Au ppm
14	RUM North	VMS prospect	Upper Drum	o	Thin massive sulfide hosted within meta-rhyolite	2.8	2.7	5.3	22	0.2
15	RUM South	VMS prospect	Upper Drum	b, f, d	Massive sulfide hosted within meta-rhyolite, folded	0.7	12.3	14.4	180	1.8
16	LBB	VMS prospect	Upper Drum	o	Thin very-high-grade massive sulfide hosted within meta-rhyolite	0.1	8.0	20.6	139	0.4
17	Laminated Zone	VMS prospect	Lower Lagoon	o, d	Multiple bands to 4 feet thick of high-grade massive sulfide hosted within graphitic meta-sediments	1.0	7.0	10.0	206	1.2
18	LZ East	VMS prospect	Lower Lagoon	o, d	Multiple bands to 5.6 feet thick of high-grade massive sulfide intersected in drilling by ACNC in 1996	0.7	8.9	11.1	199	0.7
19	PP (Prays Pile)	VMS prospect	Lower Lagoon	o, d	Original massive-sulfide discovery in district subcrops and drilled with poor recovery to 13 feet by RAA in 1976	0.9	6.6	8.1	103	1.0
20	Shalosky	Gold prospect	Tok River	o, d	Shear-hosted gold–quartz veining and silicification and sulfide alteration	nil	nil	nil	nil	5.3
21	Hunter	Gold prospect	Tok River	o, d	Gold–quartz veining and silicification in carbonaceous schist	nil	nil	nil	nil	9.6
22	Kokanee	Gold prospect	Tok River	f, d	Shear-hosted gold–quartz veining and silicification and sulfide alteration	nil	nil	nil	nil	5.2
23	Low	Gold prospect	Tok River	o	Gold–quartz veining and silicification in carbonaceous schist	nil	nil	nil	nil	8.6
24	Flicka	Gold prospect	Tok River	o	Shear-hosted gold–quartz veining and silicification and sulfide alteration	nil	nil	nil	nil	2.2
25	Goldberg	Gold prospect	Tok River	f, d	Shear-hosted gold–quartz veining and silicification and sulfide alteration	nil	nil	nil	nil	9.6
26	HD South	VMS prospect	Drum	f, d	Very-high-grade massive sulfide float	1.4	13.5	13.8	69	0.3
27	HD North	VMS occurrence	Upper Lagoon	b, f	Poddy massive sulfides up to 8.5 feet thick, interpreted equivalent horizon as DW–LP	0.7	1.0	3.0	24	0.4

^aMap numbers refer to locations on map sheet 1.

^bBlind/buried (b), drilled (d), float (f), outcrop (o).

Table 1. Mineral deposits, prospects, and occurrences from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Name	Resource type	Geologic unit	Exposure ^b	Description	Representative Geochemistry				
						Cu %	Pb %	Zn %	Ag ppm	Au ppm
28	Lower PP	VMS occurrence	Lower Lagoon	f	Barren semi-massive pyrite and oxidized boxworks	nil	nil	nil	nil	nil
29	Upper PP	VMS occurrence	Lower Lagoon	o	Semi-massive- to massive-sulfide bands and lenses hosted in graphitic meta-sediments and marble	0.3	0.1	0.1	4	nil
30	Cascade	VMS occurrence	Lower Lagoon	o	Multiple 1-ft massive-sulfide horizons hosted in graphitic meta-sediments and marble	0.6	0.4	1.8	20	nil
31	Big Mac	VMS occurrence	Hayes Glacier	o	Barren semi-massive to massive pyrite lenses up to 10 ft thick within meta-rhyolite	nil	nil	nil	nil	nil
32	ED	VMS occurrence	Hayes Glacier	o	Semi-massive to massive pyrite, pyrrhotite, and chalcopyrite pods along meta-rhyolite and marble contact	0.4	0.0	0.0	2	0.0
33	Rhodocrosite	Mineral occurrence	Hayes Glacier	f	Rhodocrosite occurrence			no data		
34	SM	VMS occurrence	Hayes Glacier	o	4.5 ft of massive sulfide exposed in Nunatak	0.3	0.3	3.0	20	1.7
35	Epidote Glacier	Mineral occurrence	Hayes Glacier	f	Extensive epidote alteration of schist littering moraine	nil	nil	nil	nil	nil
36	HO	VMS occurrence	Tok River	f	Barren sericite–pyrite–chlorite alteration possibly associated with E–W structural zone	nil	nil	nil	nil	nil
37	Peak 7057	VMS occurrence	Upper Lagoon	o	Semi-massive pyritic sulfides in meta-volcanics up to 1 ft thick	0.1	0.5	1.0	15	0.3
38	PGX	VMS occurrence	Drum	o, d	Poorly exposed semi-massive sulfides within highly altered felsic meta-volcanics	0.6	0.3	0.6	23	0.8
39	PG (Pregnant Glacier)	VMS occurrence	moraine	f	Massive-sulfide float boulder train traced 5,000 ft up-ice to edge of glacier	0.1	6.7	8.5	51	1.8
40	PG West	VMS occurrence	Tushtena Pass	f, d	Pyritic massive sulfides to 1 ft intersected in 1977 by RAA drilling	0.1	0.8	1.5	28	0.1

^aMap numbers refer to locations on map sheet 1.^bBlind/buried (b), drilled (d), float (f), outcrop (o).

Table 1. Mineral deposits, prospects, and occurrences from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Name	Resource type	Geologic unit	Exposure ^b	Description	Representative Geochemistry				
						Cu %	Pb %	Zn %	Ag ppm	Au ppm
41	PG Northeast	VMS occurrence	Lagoon	o	1-ft-thick massive-sulfide horizon	0.3	0.3	5.5	14	nil
42	PG East	VMS occurrence	Tushtena Pass	o	Barren pyrite–pyrrhotite massive sulfides to 2 ft and semi-massive sulfides to 25 ft	nil	nil	nil	nil	nil
43	PG Southeast	VMS occurrence	Tushtena Pass	f	Float train of barren pyrite–pyrrhotite massive sulfides	nil	nil	nil	nil	nil
44	Tiger Paw	VMS occurrence	Lagoon	f, o	Laterally discontinuous massive-sulfide and pyritic horizon	4.9	3.9	2.9	225	1.0
45	TA	VMS occurrence?	Lagoon	o	Primary or replacement sulfides in coarse metasediments	0.2	nil	2.2	20	nil
46	DDY	VMS occurrence	Tok River	o	Thin pyrite–chlorite VMS alteration hosted in meta-sediments	0.6	nil	0.4	21	0.4
47	DDX	VMS occurrence	Tok River	o	Semi-massive- to massive-sulfide bands hosted within meta-sediments	0.5	3.3	5.5	54	0.1
48	MB	VMS occurrence	Lower Lagoon	f, o	Poddy massive sulfide in poorly exposed meta-arenites	0.3	2.8	2.8	88	0.1
49	SB	VMS occurrence	moraine	f	Float of large massive-sulfide boulders in reworked glacial sediments	0.4	1.7	4.5	63	1.7
50	DG	VMS occurrence	Tushtena Pass	o, d	Massive sulfides intersected over 7.8 ft in 1977 RAA drilling	0.1	0.0	4.0	nil	nil
51	North Tushtena Creek	VMS occurrence	Tushtena Pass	o	Barren bands and pods of pyrite, pyrrhotite, and chalcopyrite	0.1	nil	nil	nil	nil
52	TRIO East	VMS occurrence	Lower Lagoon	o	Intermittently exposed siliceous pyritic schist and semi-massive sulfides hosted within carbonaceous meta-sediments	nil	0.2	0.2	nil	nil
53	LPH South	VMS occurrence	Upper Lagoon	o	Thin massive-sulfide occurrence above PP2, equivalent of DW–LP horizon	0.3	6.1	7.6	92	0.9
54	Camp Creek Barite	VMS occurrence	Drum	o	Massive barite occurrence with associated elevated base metals	0.2	0.7	nil	nil	0.1
55	Camp Creek	VMS occurrence	Drum	o	100-ft-thick section of altered and pyritic felsic meta-volcanics traced intermittently over 2,000 ft along strike	0.1	0.7	3.7	4	0.1

^aMap numbers refer to locations on map sheet 1.^bBlind/buried (b), drilled (d), float (f), outcrop (o).

Table 1. Mineral deposits, prospects, and occurrences from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Name	Resource type	Geologic unit	Exposure ^b	Description	Representative Geochemistry				
						Cu %	Pb %	Zn %	Ag ppm	Au ppm
56	BG	VMS occurrence	Tok River (Quad)	o	Large gossanous semi-massive barren pyritic dip-slope	nil	nil	nil	nil	nil
57	Stibnite Creek Mine	Historic antimony mine	Macomb	tailings	Small-scale underground antimony mine, last production in 1973. Gold in quartz veins peripheral to stibnite breccia zones	nil	nil	nil	nil	4.0
58	Lower Com Creek	Gold prospect	Macomb	o, d	Breccia zones up to 90 ft thick with quartz stockworks and thin high-grade gold-bearing quartz veins	nil	nil	nil	2	6.4
59	Riches Zone	Gold prospect	Tushtena Pass	f, o	Gold-bearing quartz breccia with disseminated pyrite–arsenopyrite hosted in wide shear zone	nil	nil	nil	82	5.8
60	Mobility	Gold prospect	Macomb	o, d	Zones of arsenopyrite-bearing quartz stockworks, veins, and breccias within silicified gneisses	nil	nil	nil	nil	1.1
61	AR	Gold prospect	Tushtena Pass	f, o	Thin arsenopyrite–pyrite-bearing quartz veins	nil	0.3	nil	12	19.5
62	AR Discovery	Gold prospect	Tushtena Pass	o, d	Erratic high-grade visible gold hosted within thin quartz veins. Lower grades in larger vein swarms.	nil	nil	nil	48	37.0
63	RS	Gold prospect	Tushtena Pass	o, d	Erratic high-grade gold hosted within thin quartz veins. Lower grades in vein swarms.	nil	nil	nil	6	22.0
64	Old AR	VMS occurrence	Tushtena Pass	f, o	Thin zones of disseminated and semi-massive sulfides in siliceous meta-rhyolites	nil	0.5	2.0	nil	6.9
65	Retro Creek	Gold prospect	Tushtena Pass	o, d	Pyrite–pyrrhotite-bearing massive chlorite–carbonate–pyroxene skarn in immediate hanging wall of Elting Creek fault.	nil	nil	nil	nil	2.8
66	Q Prospect	Gold prospect	Tushtena Pass	f, o	Gold-bearing quartz veins and silicified breccias with local chalcedonic quartz–pyrite veining	nil	nil	nil	nil	1.3

^aMap numbers refer to locations on map sheet 1.^bBlind/buried (b), drilled (d), float (f), outcrop (o).

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Table 2. *Inferred resource of massive-sulfide deposits from the Delta mineral belt, Tok mining district, Alaska*

DEPOSIT	M tons	Cu %	Pb %	Zn %	Ag ppm	Au ppm
DD North	1.2	1.6	2.4	3.2	102	3.1
DD South	2.3	1.1	2.6	6.5	102	2.4
DD subtotal	3.5	1.2	2.6	5.4	102	2.6
DW	0.4	0.4	1.7	4.8	58	1.4
MID	7.2	0.4	1.6	4.5	62	1.6
Nunatak	0.3	0.3	1.2	2.8	58	2.5
LP	0.7	0.4	2.1	4.9	66	2.2
LPH	1.1	0.4	2.5	5.1	73	1.4
DW-LP subtotal	9.6	0.4	1.7	4.5	63	1.7
PP2 subtotal	5.9	0.4	2.1	4.6	71	1.7
Total / averages	19	0.6	2	4.6	73	1.9

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Table 3. Sample rock types and location coordinates for Delta mineral belt, Tok mining district, Alaska

Map no. ^a	Hand specimen rock description	Map unit	UTM East zone 6	UTM North zone 6	Latitude NAD 27	Longitude NAD 27	UTM East zone 7	UTM North zone 7
1	quartz sericite chlorite calcareous schist	Tushtena Pass unit	631061	7029566	63.3724	-144.3787	—	—
2	quartz calcareous (sericite) schist	Tushtena Pass unit	630475	7029427	63.3714	-144.3905	—	—
3	quartz sericite calcareous schist	Tushtena Pass unit	630536	7029314	63.3703	-144.3894	—	—
4	quartz chlorite (sericite) calcareous schist	Tushtena Pass unit	630226	7029005	63.3677	-144.3958	—	—
5	quartz calcareous (chlorite graphite) schist	Tushtena Pass unit	630126	7028924	63.3670	-144.3979	—	—
6	quartz (sericite) calcareous schist	Tushtena Pass unit	630108	7028484	63.3631	-144.3986	—	—
7	quartz chlorite sericite calcareous schist	Tushtena Pass unit	630099	7027966	63.3584	-144.3992	—	—
8	quartz chlorite sericite+pyrrhotite schist	Tushtena Pass unit	628370	7027604	63.3558	-144.4340	—	—
9	quartz sericite schist	Tushtena Pass unit	628091	7026771	63.3484	-144.4402	—	—
10	quartz chlorite (sericite) schist	Tushtena Pass unit	627624	7026034	63.3420	-144.4501	—	—
11	quartz sericite (hematite) pyrite schist	Tushtena Pass unit	626527	7026165	63.3436	-144.4719	—	—
12	ankerite quartz sericite schist	Tushtena Pass unit	626725	7025560	63.3381	-144.4684	—	—
13	quartz (sericite) schist	Tushtena Pass unit	624895	7025943	63.3421	-144.5047	—	—
14	quartz sericite chlorite calcareous schist	Lagoon unit	630068	7026966	63.3495	-144.4006	—	—
15	quartz sericite calcareous schist	Lagoon unit	629978	7026701	63.3471	-144.4026	—	—
16	quartz sericite (pyrite) schist	Lagoon unit	630310	7026746	63.3474	-144.3960	—	—
17	quartz sericite calcareous schist	Lagoon unit	630691	7026531	63.3453	-144.3885	—	—
18	quartz sericite chlorite schist	Lagoon unit	631002	7026307	63.3432	-144.3825	—	—
19	quartz chlorite sericite calcareous schist	Tushtena Pass unit	631340	7026216	63.3423	-144.3758	—	—
20	quartz sericite pyrite schist	Lagoon unit	630472	7025903	63.3398	-144.3934	—	—
21	quartz chlorite sericite schist	Lagoon unit	630263	7026295	63.3434	-144.3973	—	—
22	quartz chlorite sericite schist	Lagoon unit	629556	7026498	63.3455	-144.4112	—	—
23	quartz chlorite sericite schist	Tiger unit	629224	7026372	63.3444	-144.4179	—	—
24	quartz sericite (pyrite) schist	Tok River unit	629125	7025955	63.3407	-144.4202	—	—
25	quartz stilpnomelane schist	Tiger unit	629447	7025902	63.3402	-144.4139	—	—
26	quartz sericite chlorite (pyrite) schist	Tiger unit	629744	7025696	63.3382	-144.4081	—	—
27	quartz sericite chlorite schist	Tiger unit	629867	7025705	63.3382	-144.4056	—	—
28	quartz chlorite (sericite) quartz-eye schist	Drum unit	629180	7025412	63.3359	-144.4196	—	—
29	carbonaceous quartz chlorite sericite schist	Drum unit	630048	7025184	63.3335	-144.4025	—	—
30	quartz chlorite calcareous schist	Tiger unit	630394	7025204	63.3335	-144.3955	—	—
31	quartz chlorite sericite schist	Tiger unit	630457	7025383	63.3351	-144.3941	—	—
32	quartz sericite (pyrite) schist	Lagoon unit	630955	7025448	63.3355	-144.3841	—	—
33	quartz sericite chlorite quartz-eye schist	Lagoon unit	630874	7025190	63.3332	-144.3860	—	—
34	quartz sericite (grit) schist	Tiger unit	630567	7024796	63.3298	-144.3924	—	—

^aMap numbers refer to sample locations on map sheet 2.

—Not applicable.

Table 3. Sample rock types and location coordinates for Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Hand specimen rock description	Map unit	UTM East zone 6	UTM North zone 6	Latitude NAD 27	Longitude NAD 27	UTM East zone 7	UTM North zone 7
35	quartz chlorite (sericite) schist	Drum unit	629921	7024786	63.3300	-144.4053	—	—
360	quartz sericite pyrite schist	Tiger unit	630002	7024560	63.3279	-144.4039	—	—
37	quartz sericite±chlorite schist	Tok River unit	629957	7024266	63.3253	-144.4050	—	—
38	quartz chlorite schist	Tok River unit	629541	7024605	63.3285	-144.4130	—	—
39	quartz chlorite stilpnomelane schist	Tok River unit	629455	7024441	63.3270	-144.4149	—	—
40	quartz sericite stilpnomelane schist	Tok River unit	629389	7024256	63.3254	-144.4163	—	—
41	quartz chlorite stilpnomelane schist	Tok River unit	628991	7024164	63.3247	-144.4244	—	—
42	quartz (chlorite sericite) schist	Tok River unit	628383	7022626	63.3112	-144.4377	—	—
43	quartz sericite (pyrrhotite) schist	Tok River unit	628992	7022345	63.3084	-144.4258	—	—
44	quartz sericite chlorite schist	Tok River unit	629599	7021590	63.3014	-144.4143	—	—
45	quartz sericite quartz-eye schist	Tok River unit	630695	7022063	63.3053	-144.3921	—	—
46	quartz sericite (chlorite) quartz-eye schist	Lagoon unit	631152	7021923	63.3039	-144.3831	—	—
47	quartz sericite quartz-eye schist	Lagoon unit	631237	7021620	63.3011	-144.3816	—	—
48	quartz sericite (chlorite, carbonaceous) schist	Lagoon unit	631701	7022069	63.3050	-144.3720	—	—
49	quartz sericite (chlorite) schist	Lagoon unit	632596	7021927	63.3034	-144.3543	—	—
50	quartz (sericite) schist	Lagoon unit	632889	7022012	63.3040	-144.3484	—	—
51	quartz sericite schist	Lagoon unit	633379	7022122	63.3048	-144.3385	—	—
52	quartz sericite (chlorite, pyrite) schist	Lagoon unit	633978	7022274	63.3060	-144.3265	—	—
53	quartz sericite schist	Lagoon unit	633816	7022713	63.3100	-144.3293	—	—
54	quartz sericite quartz-eye schist	Lagoon unit	633384	7022642	63.3095	-144.3380	—	—
55	quartz sericite (pyritic, pyrrhotite) schist	Lagoon unit	633247	7022495	63.3082	-144.3409	—	—
56	quartz (sericite) schist	Lagoon unit	633114	7022274	63.3063	-144.3437	—	—
57	quartz chlorite sericite schist	Lagoon unit	632689	7022497	63.3084	-144.3520	—	—
58	quartz sericite calcareous schist	Lagoon unit	632479	7022391	63.3076	-144.3563	—	—
59	quartz chlorite (sericite) calcareous schist	Lagoon unit	632383	7022286	63.3067	-144.3583	—	—
60	quartz sericite chlorite schist	Lagoon unit	632317	7022493	63.3085	-144.3594	—	—
61	quartz sericite chlorite calcareous schist	Lagoon unit	632199	7022627	63.3098	-144.3616	—	—
62	quartz (sericite) pyrite schist	Lagoon unit	631887	7022484	63.3086	-144.3680	—	—
63	quartz sericite schist	Tiger unit	631472	7022440	63.3084	-144.3763	—	—
64	quartz pyrite schist	Tiger unit	631618	7022750	63.3111	-144.3731	—	—
65	chlorite schist	Tiger unit	631434	7022936	63.3128	-144.3766	—	—
66	quartz sericite pyrite schist	Tiger unit	631393	7023320	63.3163	-144.3771	—	—
67	quartz sericite chlorite pyrite schist	Tiger unit	631433	7023485	63.3178	-144.3762	—	—
68	quartz chlorite sericite ankerite schist	Tiger unit	631392	7023637	63.3191	-144.3769	—	—

^aMap numbers refer to sample locations on map sheet 2.

—Not applicable.

Table 3. Sample rock types and location coordinates for Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Hand specimen rock description	Map unit	UTM East zone 6	UTM North zone 6	Latitude NAD 27	Longitude NAD 27	UTM East zone 7	UTM North zone 7
69	quartz sericite pyrite schist	Tiger unit	631262	7023662	63.3194	-144.3795	—	—
70	quartz sericite pyrite schist	Tiger unit	631091	7024288	63.3251	-144.3824	—	—
71	quartz sericite (pyrite) schist	Lagoon unit	632219	7024041	63.3225	-144.3601	—	—
72	quartz sericite (chlorite+pyrrhotite) schist	Lagoon unit	632555	7023433	63.3169	-144.3539	—	—
73	quartz chlorite sericite schist	Tiger unit	633120	7023050	63.3132	-144.3429	—	—
74	quartz sericite (pyrite) schist	Lagoon unit	633307	7022770	63.3107	-144.3394	—	—
75	quartz sericite pyrite schist	Lagoon unit	634544	7023228	63.3143	-144.3144	—	—
76	quartz sericite chlorite schist	Lagoon unit	635984	7023131	63.3129	-144.2858	—	—
77	quartz sericite (chlorite) schist	Tushtena Pass unit	637056	7025773	63.3362	-144.2622	—	—
78	quartz sericite ankerite schist	Tushtena Pass unit	636603	7026555	63.3433	-144.2705	—	—
79	quartz (sericite, siderite) schist	Tushtena Pass unit	635874	7026722	63.3451	-144.2849	—	—
80	chlorite sericite (quartz) schist	Tushtena Pass unit	635316	7026290	63.3415	-144.2964	—	—
81	quartz sericite pyrite schist	Tushtena Pass unit	635102	7026242	63.3411	-144.3007	—	—
82	quartz chlorite (sericite) calcareous schist	Tushtena Pass unit	633977	7024777	63.3284	-144.3244	—	—
83	quartz chlorite sericite schist	Tushtena Pass unit	633800	7025033	63.3308	-144.3277	—	—
84	quartz chlorite pyrite schist	Tushtena Pass unit	633758	7025000	63.3305	-144.3286	—	—
85	quartz sericite (chlorite) schist	Tushtena Pass unit	633905	7025422	63.3342	-144.3253	—	—
86	quartz chlorite sericite calcareous schist	Tushtena Pass unit	633508	7025189	63.3323	-144.3334	—	—
87	quartz (sericite) schist	Tushtena Pass unit	633337	7025322	63.3335	-144.3367	—	—
88	quartz chlorite sericite calcareous schist	Lagoon unit	633183	7024824	63.3291	-144.3402	—	—
89	quartz chlorite sericite schist	Lagoon unit	633023	7024752	63.3285	-144.3435	—	—
90	quartz chlorite sericite calcareous schist	Tushtena Pass unit	632880	7024936	63.3302	-144.3462	—	—
91	quartz calcareous (chlorite sericite) schist	Tushtena Pass unit	632711	7025108	63.3318	-144.3494	—	—
92	quartz chlorite calcareous schist	Tushtena Pass unit	632603	7025000	63.3309	-144.3516	—	—
93	quartz chlorite pyrite schist	Lagoon unit	632221	7024929	63.3304	-144.3593	—	—
94	quartz (chlorite sericite) pyrite schist	Tushtena Pass unit	631963	7025222	63.3331	-144.3642	—	—
95	quartz chlorite sericite calcareous schist	Tushtena Pass unit	631943	7027288	63.3517	-144.3629	—	—
96	quartz (sericite chlorite) calcareous schist	Tushtena Pass unit	632052	7027057	63.3496	-144.3609	—	—
97	quartz sericite chlorite calcareous schist	Tushtena Pass unit	632543	7026326	63.3428	-144.3517	—	—
98	quartz chlorite pyrite calcareous schist	Tushtena Pass unit	632629	7026231	63.3419	-144.3501	—	—
99	quartz sericite (chlorite) schist	Tushtena Pass unit	632893	7026011	63.3399	-144.3450	—	—
100	quartz sericite schist	Tushtena Pass unit	633339	7025780	63.3376	-144.3363	—	—
101	quartz sericite chlorite ankerite pyrite schist	Tushtena Pass unit	635871	7032085	63.3932	-144.2805	—	—
102	quartz sericite chlorite pyrite schist	Tushtena Pass unit	637447	7032066	63.3924	-144.2490	—	—

^aMap numbers refer to sample locations on map sheet 2.

—Not applicable.

Table 3. Sample rock types and location coordinates for Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Hand specimen rock description	Map unit	UTM East zone 6	UTM North zone 6	Latitude NAD 27	Longitude NAD 27	UTM East zone 7	UTM North zone 7
103	quartz sericite pyrite schist	Tushtena Pass unit	637191	7030201	63.3758	-144.2557	—	—
104	quartz sericite schist	Tushtena Pass unit	639145	7030534	63.3780	-144.2164	—	—
105	quartz sericite schist	Tushtena Pass unit	639329	7030770	63.3801	-144.2125	—	—
106	chert-like schist	Tushtena Pass unit	639493	7030949	63.3816	-144.2090	—	—
107	quartz sericite chlorite ankerite schist	Tushtena Pass unit	640823	7030386	63.3760	-144.1830	—	—
108	quartz sericite pyrite schist	Tushtena Pass unit	640970	7030336	63.3755	-144.1801	—	—
109	quartz sericite ankerite schist	Tushtena Pass unit	642777	7028602	63.3593	-144.1455	—	—
110	quartz sericite+pyrrhotite schist	Tushtena Pass unit	644197	7029261	63.3646	-144.1166	—	—
111	quartz chlorite sericite pyrite schist	Tushtena Pass unit	644493	7030272	63.3736	-144.1098	—	—
112	quartz sericite pyrite schist	Tushtena Pass unit	644547	7030180	63.3727	-144.1088	—	—
113	quartz sericite pyrite schist	Tushtena Pass unit	645074	7029614	63.3674	-144.0988	—	—
114	quartz sericite pyrite schist	Tushtena Pass unit	645259	7029649	63.3677	-144.0950	—	—
115	quartz calcareous sericite (chlorite) schist	Tushtena Pass unit	646602	7028381	63.3558	-144.0694	—	—
116	quartz (sericite chlorite) schist	Tushtena Pass unit	646860	7027778	63.3502	-144.0648	—	—
117	quartz chlorite sericite schist	Tushtena Pass unit	647223	7027547	63.3480	-144.0577	—	—
118	quartz chlorite sericite calcareous schist	Tushtena Pass unit	646809	7027385	63.3467	-144.0662	—	—
119	quartz (sericite) schist	Tushtena Pass unit	646720	7027592	63.3486	-144.0677	—	—
120	quartz sericite chlorite pyrite schist	Tushtena Pass unit	646612	7027555	63.3483	-144.0699	—	—
121	quartz chlorite sericite schist	Tushtena Pass unit	646442	7027560	63.3485	-144.0733	—	—
122	quartz sericite (chlorite) schist	Tushtena Pass unit	646407	7027493	63.3479	-144.0741	—	—
123	quartz (sericite) schist	Tushtena Pass unit	646252	7027142	63.3448	-144.0775	—	—
124	quartz sericite chlorite (graphite) schist	Tushtena Pass unit	646123	7026944	63.3431	-144.0802	—	—
125	carbonaceous (sericite) schist	Tushtena Pass unit	646164	7026720	63.3410	-144.0796	—	—
126	quartz sericite (chlorite) calcareous schist	Tushtena Pass unit	645970	7026556	63.3397	-144.0837	—	—
127	carbonaceous quartz sericite (chlorite) calcareous schist	Tushtena Pass unit	645600	7026519	63.3395	-144.0911	—	—
128	quartz chlorite pyrite schist	Tushtena Pass unit	646038	7028036	63.3529	-144.0809	—	—
129	quartz chlorite pyrite schist	Tushtena Pass unit	645522	7027980	63.3526	-144.0913	—	—
130	quartz chlorite (sericite) pyrite schist	Tushtena Pass unit	645245	7028264	63.3553	-144.0966	—	—
131	quartz chlorite sericite schist	Tushtena Pass unit	645119	7027706	63.3503	-144.0996	—	—
132	quartz sericite pyrite schist	Tushtena Pass unit	645047	7027044	63.3444	-144.1016	—	—
133	quartz chlorite sericite schist	Tushtena Pass unit	644924	7027246	63.3463	-144.1039	—	—
134	quartz sericite (chlorite) schist	Tushtena Pass unit	644654	7027115	63.3452	-144.1094	—	—

^aMap numbers refer to sample locations on map sheet 2.

—Not applicable.

Table 3. Sample rock types and location coordinates for Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Hand specimen rock description	Map unit	UTM East zone 6	UTM North zone 6	Latitude NAD 27	Longitude NAD 27	UTM East zone 7	UTM North zone 7
135	quartz sericite chlorite (pyrrhotite, chalcopyrite) schist	Tushtena Pass unit	644257	7027456	63.3484	-144.1170	—	—
136	quartz sericite chlorite schist	Tushtena Pass unit	644208	7027399	63.3479	-144.1180	—	—
137	quartz chlorite sericite schist	Tushtena Pass unit	643338	7027643	63.3505	-144.1352	—	—
138	quartz chlorite sericite schist	Tushtena Pass unit	643395	7027041	63.3450	-144.1346	—	—
139	quartz sericite schist	Tushtena Pass unit	642506	7026836	63.3436	-144.1525	—	—
140	quartz chlorite sericite schist	Tushtena Pass unit	642423	7026181	63.3377	-144.1547	—	—
141	quartz (sericite)+pyrrhotite schist	Tushtena Pass unit	641674	7026184	63.3380	-144.1697	—	—
142	chlorite calcareous schist	Tushtena Pass unit	641602	7026180	63.3380	-144.1711	—	—
143	quartz (sericite) calcareous schist	Tushtena Pass unit	641372	7026065	63.3371	-144.1758	—	—
144	quartzite schist	Tushtena Pass unit	640872	7026129	63.3379	-144.1857	—	—
145	quartz sericite (chlorite) calcareous schist	Tushtena Pass unit	639368	7025638	63.3341	-144.2162	—	—
146	quartz sericite ankerite schist	Tushtena Pass unit	639294	7025928	63.3367	-144.2174	—	—
147	quartz (chlorite) schist	Tushtena Pass unit	639148	7026013	63.3375	-144.2202	—	—
148	quartz sericite (chlorite) schist	Tushtena Pass unit	639245	7026129	63.3385	-144.2182	—	—
149	quartz sericite calcareous (pyrite) schist	Tushtena Pass unit	638441	7026742	63.3443	-144.2337	—	—
150	quartz (sericite chlorite siderite) schist	Tushtena Pass unit	643918	7026078	63.3362	-144.1250	—	—
151	chlorite sericite quartz calcareous schist	Tushtena Pass unit	644630	7025232	63.3283	-144.1116	—	—
152	carbonaceous chlorite (graphite) schist	Tushtena Pass unit	643082	7025594	63.3322	-144.1421	—	—
153	quartz chlorite sericite schist	Tushtena Pass unit	643106	7025398	63.3304	-144.1418	—	—
154	quartz chlorite sericite schist	Tushtena Pass unit	642645	7025352	63.3302	-144.1510	—	—
155	quartz chlorite sericite schist	Tushtena Pass unit	641752	7024970	63.3271	-144.1692	—	—
156	quartz chlorite sericite schist	Tushtena Pass unit	642504	7024636	63.3238	-144.1545	—	—
157	quartz chlorite sericite schist	Tushtena Pass unit	642479	7024585	63.3234	-144.1550	—	—
158	quartz chlorite sericite schist	Tushtena Pass unit	643703	7024202	63.3195	-144.1310	—	—
159	quartz (sericite, chlorite) schist	Tushtena Pass unit	651151	7022899	63.3047	-143.9837	350478	7022823
160	quartz chlorite pyrite schist	Tushtena Pass unit	651166	7022888	63.3046	-143.9835	350492	7022810
161	quartz sericite schist	Tushtena Pass unit	656513	7022211	63.2963	-143.8776	355752	7021637
162	quartz sericite schist	Tushtena Pass unit	657397	7022410	63.2977	-143.8598	356650	7021752
163	quartz sericite schist	Tushtena Pass unit	657305	7022101	63.2949	-143.8619	356530	7021453
164	quartz sericite schist	Tushtena Pass unit	658167	7020850	63.2833	-143.8460	357271	7020127
165	chlorite (quartz) sericite pyrite+pyrrhotite schist	Tushtena Pass unit	658414	7020436	63.2795	-143.8415	357479	7019692
166	quartz sericite (chlorite) schist	Tushtena Pass unit	658399	7019945	63.2751	-143.8423	357418	7019205
167	quartz sericite (chlorite) pyrite schist	Tushtena Pass unit	657769	7019914	63.2751	-143.8548	356788	7019233

^aMap numbers refer to sample locations on map sheet 2.

—Not applicable.

Table 3. Sample rock types and location coordinates for Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Hand specimen rock description	Map unit	UTM East zone 6	UTM North zone 6	Latitude NAD 27	Longitude NAD 27	UTM East zone 7	UTM North zone 7
168	quartz (sericite chlorite) schist	Tushtena Pass unit	657670	7020699	63.2822	-143.8560	356762	7020023
169	quartz sericite chlorite pyrite schist	Tushtena Pass unit	656482	7020366	63.2797	-143.8800	355549	7019803
170	quartz chlorite sericite pyrite schist	Tushtena Pass unit	656258	7020443	63.2805	-143.8844	355333	7019900
171	quartz sericite pyrite schist	Tushtena Pass unit	655908	7020656	63.2826	-143.8911	355004	7020145
172	quartz chlorite sericite pyrite schist	Tushtena Pass unit	655770	7020750	63.2835	-143.8938	354876	7020252
173	quartz chlorite calcareous schist	Tushtena Pass unit	653013	7021266	63.2893	-143.9482	352179	7021023
174	quartz (sericite) pyrite schist	Tushtena Pass unit	652774	7020319	63.2809	-143.9539	351852	7020102
175	quartz sericite chlorite schist	Tushtena Pass unit	652686	7020041	63.2785	-143.9559	351739	7019834
176	quartz sericite schist	Tushtena Pass unit	653783	7019932	63.2770	-143.9341	352821	7019623
177	quartz sericite ankerite pyrite schist	Tushtena Pass unit	654788	7018568	63.2644	-143.9154	353694	7018171
178	quartz chlorite pyrite schist	Tushtena Pass unit	654726	7018358	63.2625	-143.9169	353613	7017968
179	quartz sericite chlorite calcareous schist	Tushtena Pass unit	656726	7017990	63.2583	-143.8775	355570	7017415
180	chlorite quartz (sericite chlorite) sericite schist	Lagoon unit	658922	7015098	63.2315	-143.8366	357486	7014330
181	quartz sericite pyrite schist	Tushtena Pass unit	655965	7016436	63.2447	-143.8941	354667	7015938
182	quartz sericite pyrite schist	Tushtena Pass unit	654710	7017167	63.2518	-143.9183	353486	7016783
183	quartz chlorite pyrite calcareous schist	Tushtena Pass unit	654324	7017749	63.2572	-143.9255	353156	7017399
184	quartz chlorite sericite schist	Tushtena Pass unit	654404	7017927	63.2588	-143.9237	353252	7017569
185	quartz sericite schist	Tushtena Pass unit	654202	7017923	63.2588	-143.9277	353050	7017584
186	quartz sericite (chlorite) pyrite+pyrrhotite schist	Tushtena Pass unit	653947	7017838	63.2582	-143.9329	352789	7017523
187	quartz sericite (hematite) ankerite schist	Tushtena Pass unit	654109	7018305	63.2623	-143.9292	352993	7017973
188	chlorite quartz calcareous schist	Tushtena Pass unit	652531	7018465	63.2644	-143.9604	351437	7018279
189	quartz sericite calcareous pyrite schist	Tushtena Pass unit	651870	7018320	63.2634	-143.9737	350766	7018197
190	quartz (sericite) ankerite schist	Tushtena Pass unit	651257	7018614	63.2663	-143.9856	350183	7018547
191	quartz chlorite schist	Tushtena Pass unit	651184	7018867	63.2686	-143.9869	350134	7018805
192	quartz chlorite schist	Tushtena Pass unit	651093	7019154	63.2712	-143.9884	350070	7019100
193	quartz sericite chlorite ankerite schist	Tushtena Pass unit	652058	7019355	63.2726	-143.9690	351050	7019210
194	quartz chlorite calcareous schist	Tushtena Pass unit	649955	7020897	63.2873	-144.0094	—	—
195	carbonaceous quartz chlorite sericite schist	Tushtena Pass unit	647178	7021304	63.2921	-144.0644	—	—
196	quartz sericite chlorite schist	Tushtena Pass unit	647277	7021149	63.2907	-144.0625	—	—
197	quartz (sericite) schist	Tushtena Pass unit	647445	7020999	63.2892	-144.0593	—	—
198	quartz (sericite, chlorite) schist	Tushtena Pass unit	646151	7021202	63.2916	-144.0849	—	—
199	quartz chlorite (sericite) schist	Tushtena Pass unit	646071	7021241	63.2920	-144.0865	—	—
200	quartz chlorite sericite schist	Tushtena Pass unit	645280	7021089	63.2909	-144.1023	—	—
201	quartz (sericite chlorite) schist	Lagoon unit	645504	7020161	63.2825	-144.0987	—	—

^aMap numbers refer to sample locations on map sheet 2.

—Not applicable.

Table 3. Sample rock types and location coordinates for Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Hand specimen rock description	Map unit	UTM East zone 6	UTM North zone 6	Latitude NAD 27	Longitude NAD 27	UTM East zone 7	UTM North zone 7
202	quartz quartz-eye schist	Lagoon unit	645236	7019753	63.2790	-144.1044	—	—
203	quartz sericite schist	Lagoon unit	645037	7019557	63.2773	-144.1086	—	—
204	quartz (graphite) pyrite schist	Lagoon unit	643917	7019686	63.2789	-144.1307	—	—
205	quartz sericite schist	Lagoon unit	643710	7019788	63.2799	-144.1348	—	—
206	quartz sericite schist	Lagoon unit	644080	7018715	63.2701	-144.1284	—	—
207	quartz sericite pyrite schist	Lagoon unit	643838	7018104	63.2648	-144.1337	—	—
208	quartz sericite chlorite pyrite+pyrrhotite schist	Lagoon unit	643923	7018019	63.2640	-144.1321	—	—
209	quartz sericite schist	Lagoon unit	644020	7017965	63.2634	-144.1302	—	—
210	quartz sericite schist	Lagoon unit	643802	7017770	63.2618	-144.1347	—	—
211	quartz sericite schist	Lagoon unit	643294	7017700	63.2614	-144.1449	—	—
212	quartz sericite chlorite schist	Lagoon unit	643409	7017562	63.2601	-144.1427	—	—
213	quartz sericite chlorite calcareous schist	Lagoon unit	643036	7017651	63.2610	-144.1501	—	—
214	quartz sericite (chlorite) calcareous pyrite schist	Lagoon unit	643022	7017582	63.2604	-144.1504	—	—
215	quartz (sericite) schist	Lagoon unit	643943	7017562	63.2599	-144.1321	—	—
216	quartz sericite pyrite schist	Lagoon unit	643950	7017370	63.2581	-144.1321	—	—
217	quartz chlorite sericite pyrite schist	Lagoon unit	644279	7017395	63.2582	-144.1256	—	—
218	quartz sericite pyrite schist	Lagoon unit	644546	7017440	63.2585	-144.1202	—	—
219	quartz sericite chlorite schist	Tiger unit	644744	7017238	63.2566	-144.1165	—	—
220	quartz sericite pyrite schist	Lagoon unit	644679	7019142	63.2737	-144.1161	—	—
221	quartz chlorite sericite schist	Lagoon unit	644860	7018979	63.2722	-144.1126	—	—
222	quartz sericite schist	Lagoon unit	645108	7018793	63.2704	-144.1078	—	—
223	quartz chlorite sericite schist	Lagoon unit	645261	7018969	63.2719	-144.1046	—	—
224	quartz sericite pyrite+pyrrhotite schist	Tushtena Pass unit	645604	7018456	63.2672	-144.0983	—	—
225	quartz chlorite sericite schist	Tushtena Pass unit	645728	7018491	63.2675	-144.0958	—	—
226	quartz (sericite) pyrite schist	Lagoon unit	646163	7018546	63.2678	-144.0871	—	—
227	carbonaceous? schist (foliated gabbro?)	gabbro	646076	7018717	63.2693	-144.0886	—	—
228	quartz sericite (chlorite) calcareous schist	Lagoon unit	646571	7018738	63.2693	-144.0788	—	—
229	carbonaceous quartz (graphite) pyrite schist	Lagoon unit	646436	7018796	63.2699	-144.0814	—	—
230	quartz chlorite sericite schist	Lagoon unit	646429	7019045	63.2721	-144.0813	—	—
231	carbonaceous quartz sericite graphite schist	Lagoon unit	646585	7019306	63.2744	-144.0780	—	—
232	gabbro	gabbro	646783	7019800	63.2788	-144.0736	—	—
233	quartz sericite calcareous schist	Tushtena Pass unit	647187	7019108	63.2724	-144.0662	—	—
234	quartz chlorite schist	Lagoon unit	647205	7019043	63.2718	-144.0659	—	—
235	quartz chlorite sericite schist	Lagoon unit	647096	7018850	63.2701	-144.0682	—	—

^aMap numbers refer to sample locations on map sheet 2.

—Not applicable.

Table 3. Sample rock types and location coordinates for Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Hand specimen rock description	Map unit	UTM East zone 6	UTM North zone 6	Latitude NAD 27	Longitude NAD 27	UTM East zone 7	UTM North zone 7
236	quartz (sericite pyrite) schist	Lagoon unit	647018	7018669	63.2685	-144.0699	—	—
237	chlorite quartz sericite calcareous schist	Tushtena Pass unit	648211	7019347	63.2741	-144.0456	—	—
238	quartz chlorite muscovite (sericite) schist	Tushtena Pass unit	648091	7018964	63.2707	-144.0483	—	—
239	quartz sericite pyrite schist	Tushtena Pass unit	648942	7019626	63.2763	-144.0308	—	—
240	quartz chlorite sericite calcareous schist	Tushtena Pass unit	649015	7019487	63.2750	-144.0294	—	—
241	quartz sericite chlorite calcareous schist	Tushtena Pass unit	649075	7019401	63.2742	-144.0283	—	—
242	quartz (sericite) pyrite schist	Lagoon unit	648572	7018510	63.2665	-144.0392	—	—
243	quartz muscovite ankerite schist	Lagoon unit	648502	7018321	63.2648	-144.0407	—	—
244	quartz sericite schist	Lagoon unit	648753	7018176	63.2634	-144.0359	—	—
245	quartz sericite chlorite schist	Lagoon unit	648541	7017987	63.2618	-144.0403	—	—
246	gabbro	gabbro	647937	7017901	63.2613	-144.0524	—	—
247	quartz sericite pyrite schist	Lagoon unit	648302	7017868	63.2608	-144.0451	—	—
248	quartz sericite schist	Lagoon unit	648210	7017465	63.2572	-144.0473	—	—
249	quartz (sericite) quartz-eye schist	Lagoon unit	648924	7017880	63.2607	-144.0327	—	—
250	quartz chlorite pyritic+pyrrhotite schist	Lagoon unit	649345	7017804	63.2598	-144.0244	—	—
251	quartz (chlorite) pyrite schist	Lagoon unit	649366	7017833	63.2601	-144.0240	—	—
252	quartz (sericite) pyrite schist	Lagoon unit	649645	7017447	63.2565	-144.0188	—	—
253	quartz sericite quartz-eye schist	Lagoon unit	649951	7017417	63.2561	-144.0127	—	—
254	quartz (sericite) pyrite schist	Lagoon unit	649368	7017143	63.2539	-144.0246	—	—
255	quartz sericite pyrite schist	Lagoon unit	649463	7017126	63.2537	-144.0227	—	—
256	quartz sericite calcareous schist	Lagoon unit	649651	7016925	63.2518	-144.0192	—	—
257	quartz (sericite) pyrite schist	Lagoon unit	649812	7016931	63.2518	-144.0160	—	—
258	quartz chlorite sericite schist	Lagoon unit	650470	7016855	63.2508	-144.0029	—	—
259	quartz (sericite) pyrite schist	Lagoon unit	650495	7016713	63.2496	-144.0026	—	—
260	quartz chlorite sericite pyrite schist	Lagoon unit	650799	7016384	63.2465	-143.9968	349519	7016369
261	quartz chlorite sericite calcareous pyrite schist	Tushtena Pass unit	652169	7016402	63.2461	-143.9696	350884	7016259
262	quartz chlorite sericite ankerite schist	Tushtena Pass unit	651553	7015467	63.2379	-143.9827	350184	7015386
263	chlorite (sericite, ankerite) pyrite schist	Tushtena Pass unit	651742	7015280	63.2362	-143.9791	350354	7015182
264	quartz (sericite) quartz-eye schist	Tushtena Pass unit	651375	7014419	63.2286	-143.9872	349909	7014359
265	quartz feldspar chlorite carbonaceous (sericite) schist	Tushtena Pass unit	651051	7014646	63.2308	-143.9934	349607	7014615
266	quartz chlorite (sericite) schist	Tushtena Pass unit	650323	7015396	63.2378	-144.0072	—	—
267	quartz (sericite chlorite) calcareous schist	Lagoon unit	649415	7014819	63.2330	-144.0258	—	—
268	quartz chlorite calcareous schist	Lagoon unit	649338	7014511	63.2303	-144.0276	—	—

^aMap numbers refer to sample locations on map sheet 2.

—Not applicable.

Table 3. Sample rock types and location coordinates for Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Hand specimen rock description	Map unit	UTM East zone 6	UTM North zone 6	Latitude NAD 27	Longitude NAD 27	UTM East zone 7	UTM North zone 7
269	quartz sericite (feldspar) quartz-eye schist	Lagoon unit	649115	7014448	63.2298	-144.0321	—	—
270	quartz chlorite sericite calcareous pyrite schist	Lagoon unit	648396	7014428	63.2300	-144.0464	—	—
271	quartz ankerite (sericite) schist	Lagoon unit	648146	7014219	63.2282	-144.0516	—	—
272	sericite quartz calcareous schist	Lagoon unit	648116	7013925	63.2256	-144.0524	—	—
273	quartz ankerite (sericite) schist	Lagoon unit	647974	7014362	63.2295	-144.0549	—	—
274	quartz (sericite) schist	Lagoon unit	647824	7014691	63.2325	-144.0575	—	—
275	quartz sericite (chlorite, graphite) pyrite schist	Lagoon unit	647983	7015351	63.2384	-144.0538	—	—
276	quartz sericite (chlorite) schist	Lagoon unit	647820	7015380	63.2387	-144.0570	—	—
277	quartz sericite (chlorite, carbonaceous) schist	Lagoon unit	647426	7015101	63.2364	-144.0651	—	—
278	quartz chlorite sericite ankerite schist	Tiger unit	647326	7015373	63.2389	-144.0668	—	—
279	sericite quartz calcareous schist	Lagoon unit	647533	7015616	63.2410	-144.0625	—	—
280	quartz sericite pyrite schist	Lagoon unit	647172	7015547	63.2405	-144.0697	—	—
281	quartz sericite chlorite pyrite schist	Lagoon unit	647014	7015733	63.2422	-144.0727	—	—
282	quartz sericite muscovite chlorite hematite schist	Lagoon unit	646922	7015968	63.2444	-144.0743	—	—
283	quartz chlorite sericite (hematite) ankerite schist	Lagoon unit	646946	7015986	63.2445	-144.0738	—	—
284	biotite chlorite phyllite	Lagoon unit	647000	7016290	63.2472	-144.0725	—	—
285	quartz (muscovite) ankerite hematite schist	Lagoon unit	646882	7016390	63.2482	-144.0747	—	—
286	quartz sericite schist	Lagoon unit	646718	7016660	63.2506	-144.0777	—	—
287	quartz muscovite chlorite (hematite, ankerite) schist	Lagoon unit	646636	7016626	63.2504	-144.0794	—	—
288	quartz (sericite) schist	Lagoon unit	646967	7017059	63.2541	-144.0724	—	—
289	quartz chlorite sericite schist	Lagoon unit	646820	7017088	63.2544	-144.0753	—	—
290	quartz chlorite schist	Lagoon unit	647592	7017345	63.2564	-144.0597	—	—
291	quartz chlorite sericite (hematite, muscovite) schist	Lagoon unit	646614	7017692	63.2599	-144.0789	—	—
292	quartz sericite schist	Lagoon unit	646177	7017527	63.2586	-144.0877	—	—
293	quartz chlorite schist	Lagoon unit	645952	7017508	63.2586	-144.0922	—	—
294	quartz chlorite schist	Lagoon unit	646385	7017383	63.2573	-144.0837	—	—
295	quartz chlorite schist	Tiger unit	646414	7017080	63.2545	-144.0834	—	—
296	chlorite (quartz) schist	Lagoon unit	646322	7016519	63.2495	-144.0857	—	—
297	quartz chlorite (sericite) schist	Tiger unit	646380	7016154	63.2463	-144.0849	—	—
298	chlorite quartz sericite schist	Tiger unit	646354	7015972	63.2446	-144.0856	—	—
299	chlorite quartz sericite schist	Tiger unit	646473	7015955	63.2444	-144.0832	—	—
300	quartz sericite (chlorite) schist	Tiger unit	645910	7015603	63.2415	-144.0948	—	—

^aMap numbers refer to sample locations on map sheet 2.

—Not applicable.

Table 3. Sample rock types and location coordinates for Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Hand specimen rock description	Map unit	UTM East zone 6	UTM North zone 6	Latitude NAD 27	Longitude NAD 27	UTM East zone 7	UTM North zone 7
301	quartz (sericite, chlorite) schist	Drum unit	645833	7015299	63.2388	-144.0966	—	—
302	quartz (sericite) pyrite schist	Tiger unit	646693	7015370	63.2391	-144.0794	—	—
303	chlorite quartz sericite schist	Tiger unit	646170	7015034	63.2363	-144.0901	—	—
304	quartz chlorite sericite quartz-eye schist	Tiger unit	646443	7015053	63.2364	-144.0847	—	—
305	quartz chlorite sericite (muscovite?) ankerite schist	Tiger unit	646459	7014972	63.2356	-144.0844	—	—
306	quartz sericite chlorite (pyrite) schist	Lagoon unit	647068	7014938	63.2351	-144.0723	—	—
307	quartz chlorite sericite ankerite schist	Tiger unit	647206	7014639	63.2323	-144.0699	—	—
308	quartz chlorite (sericite) schist	Tiger unit	647288	7014056	63.2271	-144.0688	—	—
309	quartz chlorite sericite schist	Tiger unit	646915	7013783	63.2248	-144.0764	—	—
310	quartz chlorite sericite schist	Tiger unit	646873	7013298	63.2205	-144.0777	—	—
311	quartz sericite hematite schist	Tiger unit	646634	7013499	63.2223	-144.0823	—	—
312	quartz sericite chlorite schist	Tiger unit	646643	7013535	63.2227	-144.0821	—	—
313	quartz chlorite sericite schist	Tiger unit	646502	7013867	63.2257	-144.0846	—	—
314	quartz (chlorite) calcareous+pyrrhotite schist	Tiger unit	646471	7014266	63.2293	-144.0848	—	—
315	quartz chlorite (sericite) schist	Tiger unit	646417	7014354	63.2301	-144.0858	—	—
316	chlorite quartz (sericite) ankerite schist	Tiger unit	646562	7014708	63.2332	-144.0826	—	—
317	quartz chlorite sericite (muscovite?) schist	Tiger unit	646385	7014773	63.2339	-144.0861	—	—
318	quartz sericite pyrite schist	Drum unit	646078	7014644	63.2328	-144.0923	—	—
319	chlorite pyrite schist	Drum unit	645888	7014327	63.2301	-144.0963	—	—
320	quartz (sericite) schist	Tok River unit	645954	7014069	63.2277	-144.0953	—	—
321	quartz chlorite sericite schist	Drum unit	645739	7014410	63.2309	-144.0992	—	—
322	quartz sericite /muscovite (chlorite) quartz-eye schist	Drum unit	645682	7014361	63.2305	-144.1004	—	—
323	quartz pyrite schist	Tok River unit	645434	7014504	63.2318	-144.1052	—	—
324	quartz sericite pyrite schist	Tok River unit	644799	7014237	63.2297	-144.1181	—	—
325	quartz (sericite) schist	Drum unit	644880	7014820	63.2349	-144.1159	—	—
326	quartz sericite (chlorite) schist	Drum unit	644888	7015006	63.2366	-144.1156	—	—
327	quartz (sericite) pyrite schist	Drum unit	644976	7015134	63.2377	-144.1137	—	—
328	quartz sericite schist	Drum unit	645014	7015866	63.2442	-144.1123	—	—
329	quartz sericite schist	Drum unit	645193	7016076	63.2460	-144.1086	—	—
330	quartz chlorite (sericite) schist	Drum unit	645057	7016126	63.2465	-144.1112	—	—
331	quartz sericite (pyrite) schist	Tiger unit	645167	7016302	63.2481	-144.1089	—	—
332	quartz (chlorite sericite) schist	Drum unit	644844	7016095	63.2463	-144.1155	—	—

^aMap numbers refer to sample locations on map sheet 2.

—Not applicable.

Table 3. Sample rock types and location coordinates for Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Hand specimen rock description	Map unit	UTM East zone 6	UTM North zone 6	Latitude NAD 27	Longitude NAD 27	UTM East zone 7	UTM North zone 7
333	quartz sericite+pyrrhotite schist	Drum unit	644749	7016319	63.2484	-144.1172	—	—
334	quartz sericite chlorite schist	Tiger unit	644512	7016594	63.2510	-144.1217	—	—
335	quartz (sericite) schist	Drum unit	644154	7016247	63.2480	-144.1291	—	—
336	quartz chlorite sericite schist	Tiger unit	643745	7016184	63.2476	-144.1373	—	—
337	quartz chlorite (sericite) schist	Drum unit	643608	7015850	63.2446	-144.1403	—	—
338	quartz chlorite (sericite) schist	Drum unit	643519	7015805	63.2443	-144.1421	—	—
339	quartz sericite chlorite pyrite schist	Drum unit	643854	7015743	63.2436	-144.1355	—	—
340	quartz (chlorite) quartz-eye schist	Drum unit	644037	7015749	63.2436	-144.1319	—	—
341	quartz (chlorite) quartz-eye schist	Drum unit	644408	7015576	63.2419	-144.1246	—	—
342	chlorite (sericite?) schist	Drum unit	644426	7015337	63.2397	-144.1245	—	—
343	chlorite schist	Drum unit	644538	7015253	63.2389	-144.1223	—	—
344	quartz feldspar sericite chlorite schist	Tok River unit	644494	7014743	63.2344	-144.1237	—	—
345	quartz sericite chlorite pyrite schist	Drum unit	644044	7015410	63.2405	-144.1320	—	—
346	quartz sericite schist	Drum unit	643884	7015231	63.2390	-144.1354	—	—
347	quartz sericite (chlorite) schist	Drum unit	643655	7015524	63.2417	-144.1397	—	—
348	quartz sericite schist	Drum unit	643528	7015124	63.2382	-144.1425	—	—
349	quartz sericite chlorite pyrite schist	Drum unit	643372	7015117	63.2382	-144.1456	—	—
350	quartz sericite schist	Drum unit	643290	7015606	63.2426	-144.1468	—	—
351	quartz sericite (chlorite) schist	Drum unit	642908	7015522	63.2420	-144.1545	—	—
352	chlorite quartz (sericite) schist	Drum unit	642937	7015379	63.2407	-144.1541	—	—
353	gabbro	gabbro	642521	7015686	63.2436	-144.1621	—	—
354	quartz sericite (chlorite) schist	Drum unit	642694	7015222	63.2394	-144.1590	—	—
355	chert-like schist	Tok River unit	642853	7014988	63.2372	-144.1561	—	—
356	quartz (sericite chlorite) schist	Drum unit	642371	7014913	63.2367	-144.1657	—	—
357	quartz sericite (chlorite) schist	Tok River unit	642813	7014620	63.2339	-144.1572	—	—
358	quartzite schist	Tok River unit	643212	7014063	63.2288	-144.1498	—	—
359	quartz sericite chlorite schist	Tok River unit	642311	7013347	63.2227	-144.1683	—	—
360	quartz (sericite) schist	Tok River unit	642278	7013155	63.2210	-144.1691	—	—
361	quartz sericite chlorite schist	Tok River (Quad Marker)	642328	7012838	63.2182	-144.1684	—	—
362	gabbro	gabbro	642803	7013064	63.2200	-144.1588	—	—
363	quartz sericite (chlorite) schist	Tok River (Quad Marker)	644064	7013138	63.2202	-144.1336	—	—
364	quartz sericite schist	Tok River unit	644121	7013181	63.2205	-144.1325	—	—
365	quartz (sericite) quartz-eye schist	Tok River unit	645731	7013688	63.2244	-144.1000	—	—
366	quartz sericite quartz-eye schist	Tok River unit	645680	7012892	63.2173	-144.1018	—	—

^aMap numbers refer to sample locations on map sheet 2.

—Not applicable.

Table 3. Sample rock types and location coordinates for Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Hand specimen rock description	Map unit	UTM East zone 6	UTM North zone 6	Latitude NAD 27	Longitude NAD 27	UTM East zone 7	UTM North zone 7
367	chlorite quartz schist	Tok River unit	645057	7012793	63.2167	-144.1142	—	—
368	quartz (sericite) schist	Tok River unit	645473	7012631	63.2150	-144.1061	—	—
369	quartz sericite pyrite schist	Tok River unit	645170	7012510	63.2141	-144.1122	—	—
370	quartz chlorite schist	Tok River unit	645613	7012400	63.2129	-144.1035	—	—
371	quartz chlorite (sericite) schist	Tiger unit	647889	7012908	63.2165	-144.0579	—	—
372	quartz chlorite (sericite) schist	Tiger unit	647763	7012561	63.2135	-144.0607	—	—
373	chlorite pyrite schist	Drum unit	647593	7012322	63.2114	-144.0643	—	—
374	quartz (chlorite sericite) ankerite schist	Tiger unit	648040	7012610	63.2138	-144.0551	—	—
375	quartz chlorite sericite schist	Tiger unit	648369	7012612	63.2137	-144.0486	—	—
376	quartz chlorite sericite schist	Tiger unit	648454	7012601	63.2136	-144.0469	—	—
377	quartz sericite ankerite schist	Tok River unit	648413	7012145	63.2095	-144.0482	—	—
378	quartz sericite (chlorite) schist	Tok River unit	648110	7012084	63.2091	-144.0542	—	—
379	sericite (quartz) schist	Tok River unit	647966	7011985	63.2082	-144.0572	—	—
380	quartz sericite quartz-eye schist	Tok River unit	648426	7011819	63.2066	-144.0482	—	—
381	quartz sericite schist	Tok River unit	648605	7011489	63.2035	-144.0449	—	—
382	quartz sericite (chlorite) schist	Tok River unit	648679	7011484	63.2034	-144.0435	—	—
383	quartz sericite pyrite schist	Tok River unit	648754	7011471	63.2033	-144.0420	—	—
384	quartz (sericite) pyrite schist	Tok River unit	648819	7010749	63.1968	-144.0414	—	—
385	quartz sericite chlorite schist	Tok River unit	649021	7009581	63.1863	-144.0384	—	—
386	quartz chlorite sericite calcareous schist	Tok River unit	649367	7010197	63.1916	-144.0310	—	—
387	quartz sericite (chlorite) schist	Tiger unit	649478	7010198	63.1916	-144.0288	—	—
388	quartz sericite calcareous schist	Drum unit	649190	7010772	63.1969	-144.0340	—	—
389	chlorite sericite quartz pyrite schist	Drum unit	649411	7010795	63.1970	-144.0296	—	—
390	quartz sericite pyrite schist	Tiger unit	649503	7010929	63.1981	-144.0276	—	—
391	quartz sericite (chlorite) schist	Lagoon unit	649440	7011266	63.2012	-144.0286	—	—
392	quartz (sericite) schist	Lagoon unit	649861	7011139	63.1999	-144.0203	—	—
393	quartz (sericite) schist	Lagoon unit	650124	7011218	63.2005	-144.0150	—	—
394	quartz (sericite) schist	Lagoon unit	649990	7011299	63.2012	-144.0176	—	—
395	quartz sericite quartz-eye copper oxide schist	Lagoon unit	650249	7011570	63.2036	-144.0122	—	—
396	quartz chlorite sericite pyrite schist	Tiger unit	649788	7011617	63.2042	-144.0213	—	—
397	quartz carbonaceous schist	Tiger unit	649804	7011997	63.2076	-144.0207	—	—
398	quartz sericite ankerite calcareous schist	Tiger unit	649640	7012159	63.2091	-144.0238	—	—
399	chlorite quartz schist	Tiger unit	649368	7012349	63.2109	-144.0290	—	—
400	quartz sericite (chlorite) schist	Drum unit	649103	7012196	63.2097	-144.0344	—	—

^aMap numbers refer to sample locations on map sheet 2.

—Not applicable.

Table 3. Sample rock types and location coordinates for Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Hand specimen rock description	Map unit	UTM East zone 6	UTM North zone 6	Latitude NAD 27	Longitude NAD 27	UTM East zone 7	UTM North zone 7
401	quartz sericite schist	Tok River unit	648858	7012185	63.2097	-144.0393	—	—
402	quartz sericite schist	Drum unit	649134	7012430	63.2117	-144.0336	—	—
403	quartz chlorite sericite schist	Tiger unit	649308	7012581	63.2130	-144.0300	—	—
404	quartz sericite schist	Tiger unit	649419	7012855	63.2154	-144.0275	—	—
405	quartz (sericite) schist	Lagoon unit	649228	7013219	63.2188	-144.0310	—	—
406	quartz sericite schist	Lagoon unit	649420	7013474	63.2210	-144.0269	—	—
407	quartz sericite schist	Lagoon unit	649348	7013729	63.2233	-144.0281	—	—
408	quartz sericite pyrite schist	Lagoon unit	649700	7013756	63.2234	-144.0211	—	—
409	quartz carbonaceous (sericite) schist	Tiger unit	649758	7013543	63.2215	-144.0202	—	—
410	quartz (sericite) pyrite schist	Lagoon unit	650025	7013819	63.2238	-144.0146	—	—
411	quartz sericite (chlorite) schist	Lagoon unit	650489	7013929	63.2246	-144.0053	—	—
412	quartz sericite pyrite schist	Lagoon unit	650089	7013654	63.2223	-144.0135	—	—
413	quartz sericite schist	Lagoon unit	650293	7013627	63.2220	-144.0095	—	—
414	quartz chlorite (sericite) schist	Tiger unit	650553	7013541	63.2211	-144.0044	—	—
415	quartz chlorite sericite schist	Tiger unit	650182	7013377	63.2198	-144.0119	—	—
416	quartz (sericite) ankerite schist	Tiger unit	650105	7013192	63.2182	-144.0136	—	—
417	quartz carbonaceous schist	Tiger unit	650301	7013054	63.2168	-144.0098	—	—
418	quartz sericite (chlorite) schist	Tiger unit	649846	7012816	63.2149	-144.0191	—	—
419	quartz sericite schist	Tiger unit	650110	7012657	63.2134	-144.0140	—	—
420	quartz sericite pyrite schist	Lagoon unit	650388	7012682	63.2135	-144.0084	—	—
421	quartz feldspar chlorite sericite carbonaceous schist	Lagoon unit	650748	7012712	63.2136	-144.0013	—	—
422	quartz chlorite sericite schist	Lagoon unit	651050	7012711	63.2135	-143.9953	349426	7012689
423	quartz sericite (chlorite) schist	Lagoon unit	651265	7012551	63.2119	-143.9911	349625	7012509
424	quartz sericite chlorite calcareous schist	Lagoon unit	650586	7012458	63.2114	-144.0047	—	—
425	quartz sericite chlorite schist	Tiger unit	650087	7012381	63.2109	-144.0147	—	—
426	gabbro w/malachite	gabbro	650232	7012306	63.2102	-144.0119	—	—
427	quartz sericite pyrite schist	Lagoon unit	650480	7012085	63.2081	-144.0072	—	—
428	quartz sericite (chlorite) schist	Lagoon unit	650588	7011990	63.2072	-144.0051	—	—
429	quartz sericite (chlorite) schist	Lagoon unit	650937	7011950	63.2067	-143.9982	349242	7011942
430	quartz (sericite) schist	Lagoon unit	650936	7011721	63.2046	-143.9985	349220	7011714
431	quartz sericite (chlorite) schist	Lagoon unit	656306	7014305	63.2255	-143.8894	354807	7013785
432	quartz (sericite pyrite graphite) schist	Lagoon unit	656547	7014241	63.2248	-143.8846	355041	7013699
433	quartz (sericite graphite) schist	Lagoon unit	657279	7013826	63.2208	-143.8705	355731	7013217

^aMap numbers refer to sample locations on map sheet 2.

—Not applicable.

Table 3. Sample rock types and location coordinates for Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Hand specimen rock description	Map unit	UTM East zone 6	UTM North zone 6	Latitude NAD 27	Longitude NAD 27	UTM East zone 7	UTM North zone 7
434	quartz (sericite) pyrite schist	Lagoon unit	657028	7013814	63.2208	-143.8755	355480	7013229
435	quartz (sericite) pyrite schist	Lagoon unit	657061	7013713	63.2199	-143.8749	355504	7013125
436	quartz sericite (calcareous, hematite) schist	Lagoon unit	658158	7013074	63.2137	-143.8538	356536	7012387
437	quartz (sericite chlorite) schist	Lagoon unit	658896	7013044	63.2131	-143.8391	357268	7012288
438	quartz feldspar pyroxene (chlorite calcareous) schist	Lagoon unit	658627	7012692	63.2100	-143.8448	356967	7011962
439	quartz sericite ankerite (graphite) schist	Lagoon unit	658438	7012570	63.2090	-143.8487	356768	7011859
440	quartz sericite ankerite (chlorite) schist	Lagoon unit	657860	7012688	63.2103	-143.8601	356203	7012030
441	chlorite aquartz sericite (chlorite) sericite schist	Lagoon unit	658057	7012108	63.2050	-143.8567	356345	7011434
442	quartz sericite pyrite schist	Lagoon unit	658400	7011547	63.1999	-143.8505	356635	7010844
443	quartz chlorite quartz-eye schist	Tiger unit	658699	7011437	63.1987	-143.8446	356922	7010706
444	quartz sericite calcareous schist	Tiger unit	659062	7011317	63.1975	-143.8375	357272	7010553
445	quartz sericite calcareous schist	Lagoon unit	660131	7010635	63.1909	-143.8170	358273	7009774
446	quartz sericite chlorite pyrite schist	Tok River unit	660859	7009980	63.1847	-143.8032	358936	7009054
447	quartz sericite schist	Tok River unit	660433	7009259	63.1785	-143.8124	358445	7008376
448	quartz (sericite) schist	Tiger unit	660055	7008707	63.1737	-143.8204	358017	7007862
449	quartz sericite ankerite schist	Tiger unit	659928	7009530	63.1811	-143.8221	357968	7008693
450	quartz sericite schist	Tiger unit	659667	7009355	63.1797	-143.8275	357691	7008543
451	quartz sericite calcareous schist	Lagoon unit	659509	7009891	63.1845	-143.8301	357584	7009092
452	quartz sericite (chlorite, pyrite) schist	Lagoon unit	659238	7010351	63.1888	-143.8350	357357	7009575
453	quartz sericite chlorite schist	Lagoon unit	659066	7010212	63.1876	-143.8385	357173	7009452
454	quartz sericite (rhyolite flow) schist	Lagoon unit	658891	7009288	63.1794	-143.8429	356913	7008549
455	quartz sericite ankerite pyrite schist	Tiger unit	658943	7008751	63.1746	-143.8424	356914	7008009
456	quartz sericite calcareous schist	Tiger unit	658581	7010329	63.1889	-143.8480	356701	7009614
457	quartz calcareous schist	Drum unit	658034	7010125	63.1873	-143.8591	356137	7009462
458	quartz sericite chlorite calcareous schist	Drum unit	657646	7010475	63.1906	-143.8665	355784	7009847
459	carbonaceous quartz sericite schist	Drum unit	657943	7010882	63.1941	-143.8602	356117	7010224
460	quartz sericite (chlorite) calcareous schist	Tiger unit	657591	7011068	63.1959	-143.8670	355784	7010442
461	quartz sericite pyrite schist	Drum unit	657669	7011207	63.1971	-143.8653	355875	7010573
462	quartz chlorite (sericite) schist	Lagoon unit	657402	7011697	63.2016	-143.8701	355655	7011086
463	quartz sericite graphite schist	Lagoon unit	657216	7011318	63.1983	-143.8742	355434	7010726
464	quartz sericite schist	Drum unit	657098	7011211	63.1974	-143.8766	355307	7010631
465	quartz sericite quartz-eye schist	Drum unit	656648	7010881	63.1947	-143.8859	354828	7010344
466	quartz (sericite) schist	Drum unit	656468	7010539	63.1917	-143.8898	354617	7010021

^aMap numbers refer to sample locations on map sheet 2.

—Not applicable.

Table 3. Sample rock types and location coordinates for Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Hand specimen rock description	Map unit	UTM East zone 6	UTM North zone 6	Latitude NAD 27	Longitude NAD 27	UTM East zone 7	UTM North zone 7
467	quartz sericite ankerite schist	Tiger unit	656403	7010288	63.1895	-143.8913	354529	7009777
468	quartz carbonaceous schist	Lagoon unit	656394	7010987	63.1957	-143.8908	354585	7010473
469	chlorite quartz sericite schist	Tiger unit	656040	7011469	63.2002	-143.8974	354278	7010986
470	quartz chlorite sericite schist	Lagoon unit	655919	7012182	63.2066	-143.8991	354224	7011708
471	quartz (sericite) pyrite schist	Lagoon unit	656192	7012457	63.2090	-143.8934	354521	7011956
472	quartz sericite (chlorite) pyrite schist	Lagoon unit	656209	7012929	63.2132	-143.8926	354582	7012424
473	quartz sericite chlorite schist	Tiger unit	654789	7013653	63.2203	-143.9201	353236	7013278
474	quartz sericite pyrite schist	Tiger unit	653290	7014191	63.2258	-143.9494	351794	7013953
475	quartz sericite pyrite schist	Lagoon unit	652930	7013586	63.2205	-143.9571	351379	7013384
476	quartz sericite pyrite schist	Tiger unit	653817	7013165	63.2164	-143.9399	352223	7012882
477	quartz sericite schist	Tiger unit	654385	7012667	63.2116	-143.9291	352742	7012334
478	quartz sericite ankerite schist	Tiger unit	654668	7012116	63.2066	-143.9240	352972	7011759
479	quartz sericite (chlorite) schist	Tiger unit	653913	7012031	63.2062	-143.9391	352212	7011744
480	quartz chlorite sericite schist	Lagoon unit	653070	7012377	63.2096	-143.9555	351405	7012168
481	quartz sericite pyrite schist	Lagoon unit	652701	7012455	63.2105	-143.9627	351045	7012280
482	quartz (sericite) pyrite schist	Lagoon unit	653138	7011873	63.2051	-143.9546	351426	7011659
483	quartz sericite pyrite schist	Lagoon unit	652545	7011405	63.2011	-143.9668	350792	7011249
484	quartz sericite ankerite schist	Lagoon unit	652601	7011113	63.1985	-143.9660	350821	7010953
485	chlorite calcareous schist	Lagoon unit	652830	7011047	63.1978	-143.9615	351042	7010866
486	quartz sericite pyrite schist	Lagoon unit	653068	7011177	63.1989	-143.9566	351291	7010973
487	quartz chlorite (sericite) schist	Lagoon unit	653403	7011180	63.1987	-143.9500	351625	7010945
488	quartz sericite pyrite schist	Lagoon unit	653050	7010877	63.1962	-143.9573	351246	7010676
489	sericite quartz ankerite schist	Lagoon unit	653110	7010762	63.1951	-143.9562	351295	7010556
490	quartz (sericite chlorite magnetite) schist	Tiger unit	653455	7010548	63.1931	-143.9496	351618	7010311
491	quartz sericite pyrite schist	Tiger unit	652940	7010071	63.1890	-143.9602	351061	7009884
492	quartz sericite (chlorite) pyrite schist	Lagoon unit	652761	7010234	63.1905	-143.9636	350898	7010063
493	quartz chlorite sericite schist	Lagoon unit	652254	7010572	63.1938	-143.9734	350425	7010447
494	quartz sericite (pyrite) quartz-eye schist	Lagoon unit	651527	7010458	63.1931	-143.9879	349690	7010401
495	quartz chlorite sericite schist	Lagoon unit	651747	7010073	63.1895	-143.9839	349873	7009997
496	quartz chlorite sericite schist	Lagoon unit	652256	7009841	63.1872	-143.9740	350358	7009719
497	chlorite schist (gabbro?)	gabbro	651515	7009787	63.1871	-143.9888	349616	7009734
498	chlorite quartz carbonaceous schist	Tiger unit	651605	7009345	63.1831	-143.9874	349664	7009286
499	chlorite schist	Lagoon unit	651461	7009161	63.1815	-143.9904	349503	7009116
500	quartz sericite schist	Lagoon unit	651265	7008950	63.1797	-143.9945	349288	7008924

^aMap numbers refer to sample locations on map sheet 2.

—Not applicable.

Table 3. Sample rock types and location coordinates for Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Hand specimen rock description	Map unit	UTM East zone 6	UTM North zone 6	Latitude NAD 27	Longitude NAD 27	UTM East zone 7	UTM North zone 7
501	quartz sericite pyrite schist	Tiger unit	652103	7009085	63.1805	-143.9778	350135	7008980
502	quartz (sericite) quartz-eye schist	Tiger unit	651716	7008663	63.1769	-143.9858	349711	7008596
503	quartz (sericite) quartz-eye schist	Tiger unit	651868	7008269	63.1733	-143.9832	349825	7008190
504	quartz sericite (pyrite) schist	Drum unit	651994	7008209	63.1727	-143.9807	349945	7008118
505	quartz sericite (pyrite) schist	Tok River unit	653399	7008112	63.1712	-143.9530	351335	7007891
506	quartz (sericite) pyrite quartz-eye schist	Drum unit	653804	7008729	63.1766	-143.9443	351796	7008467
507	gabbro	gabbro	653927	7009079	63.1797	-143.9416	351951	7008804
508	quartz sericite (chlorite) schist	Tiger unit	653634	7009719	63.1855	-143.9468	351719	7009469
509	sericite quartz schist	Tiger unit	654792	7009793	63.1857	-143.9237	352879	7009434
510	carbonaceous (graphite) schist	Tiger unit	655146	7009829	63.1859	-143.9167	353235	7009437
511	chlorite pyrite hematite schist	Drum unit	655428	7009680	63.1844	-143.9112	353501	7009262
512	quartz sericite (chlorite) schist	Drum unit	655870	7009660	63.1841	-143.9025	353940	7009201
513	quartz (sericite) schist	Drum unit	656166	7009515	63.1826	-143.8967	354221	7009029
514	quartz feldspar chlorite muscovite quartz-eye schist	Drum unit	656651	7009564	63.1829	-143.8871	354708	7009033
515	quartz sericite chlorite calcareous schist	Tiger unit	657018	7009982	63.1864	-143.8794	355113	7009415
516	quartz chlorite sericite schist	Drum unit	655853	7009383	63.1816	-143.9031	353897	7008927
517	quartz chlorite sericite schist	Drum unit	655270	7009421	63.1822	-143.9146	353320	7009019
518	quartz sericite schist	Drum unit	655103	7009385	63.1819	-143.9180	353150	7008999
519	quartz sericite calcareous schist	Drum unit	655088	7009307	63.1812	-143.9183	353128	7008923
520	quartz sericite chlorite calcareous schist	Drum unit	654895	7009382	63.1820	-143.9221	352943	7009015
521	quartz sericite pyrite schist	Drum unit	654772	7009162	63.1801	-143.9247	352800	7008808
522	quartz sericite quartz-eye schist	Drum unit	655096	7008865	63.1773	-143.9186	353095	7008482
523	quartz chlorite schist	Drum unit	655333	7008827	63.1768	-143.9139	353327	7008422
524	quartz sericite calcareous schist	Drum unit	655666	7009040	63.1786	-143.9071	353679	7008603
525	quartz sericite (pyrite) schist	Drum unit	656793	7008787	63.1758	-143.8850	354777	7008246
526	quartz sericite chlorite schist	Tok River unit	657223	7008810	63.1759	-143.8765	355207	7008229
527	quartz sericite chlorite schist	Tok River unit	656883	7008617	63.1743	-143.8834	354851	7008068
528	quartz sericite schist	Tok River unit	658046	7008248	63.1705	-143.8607	355974	7007592
529	quartz chlorite chlorite a schist	Tok River unit	656753	7008264	63.1712	-143.8863	354688	7007729
530	quartz sericite schist	Tok River unit	656780	7007727	63.1663	-143.8863	354665	7007192
531	quartz sericite quartz-eye schist	Drum unit	655863	7008004	63.1692	-143.9042	353778	7007553
532	quartz sericite schist	Tok River unit	655211	7006612	63.1570	-143.9185	352999	7006228
533	quartz sericite (pyrite) quartz-eye schist	Drum unit	654696	7006639	63.1575	-143.9286	352489	7006303

^aMap numbers refer to sample locations on map sheet 2.

—Not applicable.

Table 3. Sample rock types and location coordinates for Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Hand specimen rock description	Map unit	UTM East zone 6	UTM North zone 6	Latitude NAD 27	Longitude NAD 27	UTM East zone 7	UTM North zone 7
534	quartz chlorite sericite schist	Tok River unit	654083	7007195	63.1627	-143.9403	351930	7006914
535	quartz sericite (chlorite) schist	Tok River unit	653852	7007701	63.1674	-143.9444	351748	7007439
536	quartz sericite pyrite schist	Tok River unit	653541	7007432	63.1651	-143.9508	351413	7007200
537	quartz chlorite sericite pyrite schist	Tok River unit	652680	7007286	63.1642	-143.9680	350542	7007135
538	quartz sericite schist	Tok River unit	653081	7006096	63.1533	-143.9612	350830	7005913
539	quartz sericite schist	Tok River unit	651539	7007182	63.1637	-143.9907	349396	7007138
540	quartz sericite schist	Tok River unit	650495	7007782	63.1695	-144.0109	—	—
541	quartz (sericite chlorite) schist	Tok River unit	649907	7007499	63.1672	-144.0228	—	—
542	quartz sericite chlorite schist	Tok River unit	650326	7005464	63.1488	-144.0163	—	—
543	quartz sericite (pyrite) chlorite schist	Tok River unit	654051	7004720	63.1406	-143.9432	351668	7004453
544	quartz chlorite schist	Tok River unit	654421	7003732	63.1316	-143.9368	351944	7003434
545	quartz sericite pyrite schist	Lagoon unit	651036	7002856	63.1251	-144.0047	—	—
546	quartz sericite calcareous (pyrite, chalcopyrite) schist	Lagoon unit	650838	7003034	63.1268	-144.0084	—	—
547	quartz pyrite schist	Lagoon unit	650645	7003178	63.1282	-144.0121	—	—
548	quartz sericite (chlorite) schist	Lagoon unit	650339	7003389	63.1302	-144.0180	—	—
549	quartz sericite schist	Lagoon unit	649642	7004125	63.1371	-144.0311	—	—
550	quartz (sericite) schist	Lagoon unit	649276	7004490	63.1405	-144.0380	—	—
551	quartz graphite chlorite (semi-massive sulfide) schist	Lagoon unit	649009	7004945	63.1447	-144.0429	—	—
552	quartz (chlorite sericite) schist	Lagoon unit	648472	7005105	63.1464	-144.0534	—	—
553	chlorite quartz schist	Tiger unit	648135	7005019	63.1457	-144.0602	—	—
554	quartz sericite chlorite schist	Tiger unit	648005	7005227	63.1476	-144.0626	—	—
555	quartz chlorite sericite graphite schist	Lagoon unit	647928	7005039	63.1460	-144.0642	—	—
556	carbonate altered schist	Tiger unit	647765	7004930	63.1451	-144.0676	—	—
557	quartz sericite schist	Tiger unit	647850	7004585	63.1420	-144.0662	—	—
558	quartz sericite pyrite schist	Tok River unit	647820	7004368	63.1400	-144.0670	—	—
559	quartz sericite chlorite schist	Lagoon unit	648282	7004161	63.1380	-144.0580	—	—
560	quartz (sericite chlorite) schist	Lagoon unit	649088	7003873	63.1351	-144.0423	—	—
561	carbonate altered+pyrrhotite schist	Tok River unit	648300	7002501	63.1231	-144.0592	—	—
562	quartz sericite calcareous schist	Hayes Glacier belt	645601	7002998	63.1286	-144.1122	—	—
563	quartz (sericite chlorite) schist	Hayes Glacier belt	644521	7003757	63.1359	-144.1329	—	—
564	quartz chlorite schist	Tiger unit	647314	7005588	63.1512	-144.0759	—	—
565	quartz ankerite schist	Lagoon unit	647637	7006188	63.1564	-144.0690	—	—

^aMap numbers refer to sample locations on map sheet 2.

—Not applicable.

Table 3. Sample rock types and location coordinates for Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Hand specimen rock description	Map unit	UTM East zone 6	UTM North zone 6	Latitude NAD 27	Longitude NAD 27	UTM East zone 7	UTM North zone 7
566	quartz (sericite) schist	Lagoon unit	647713	7006373	63.1580	-144.0673	—	—
567	quartz (chlorite sericite) schist	Lagoon unit	646748	7005971	63.1548	-144.0868	—	—
568	quartz (chlorite sericite) schist	Lagoon unit	646512	7006107	63.1561	-144.0913	—	—
569	quartz sericite schist	Lagoon unit	645438	7006708	63.1620	-144.1121	—	—
570	quartz (sericite) schist	Lagoon unit	645316	7006823	63.1630	-144.1144	—	—
571	quartz chlorite sericite schist	Lagoon unit	645278	7006874	63.1635	-144.1151	—	—
572	quartz sericite chlorite+pyrrhotite schist	Lagoon unit	645909	7007741	63.1710	-144.1018	—	—
573	quartz (chlorite sericite) schist	Lagoon unit	645977	7008230	63.1754	-144.1000	—	—
574	quartz chlorite sericite (pyrite) schist	Tok River unit	646460	7008590	63.1784	-144.0901	—	—
575	quartz sericite (pyrite) schist	Tok River unit	646866	7008353	63.1761	-144.0823	—	—
576	quartz sericite pyrite schist	Tok River unit	647163	7008281	63.1754	-144.0765	—	—
577	quartz (sericite) schist	Tok River unit	646352	7009160	63.1836	-144.0918	—	—
578	quartz sericite chlorite quartz-eye schist	Tok River (Quad Marker)	647361	7009689	63.1879	-144.0713	—	—
579	quartz sericite quartz-eye schist	Tok River (Quad Marker)	647516	7009936	63.1901	-144.0680	—	—
580	quartz sericite quartz-eye schist	Tok River (Quad Marker)	646933	7009802	63.1891	-144.0797	—	—
581	quartz sericite quartz-eye schist	Tok River (Quad Marker)	646929	7009973	63.1906	-144.0796	—	—
582	quartz (sericite chlorite) schist	Tok River (Quad Marker)	647035	7010337	63.1938	-144.0772	—	—
583	quartz sericite (chlorite) schist	Tok River (Quad Marker)	647286	7010435	63.1946	-144.0721	—	—
584	quartz (sericite) pyrite schist	Tok River (Quad Marker)	647644	7010531	63.1953	-144.0649	—	—
585	quartz sericite (chlorite) schist	Tok River (Quad Marker)	647091	7010617	63.1963	-144.0758	—	—
586	quartz sericite pyrite schist	Tok River unit	647411	7011077	63.2003	-144.0690	—	—
587	quartz sericite chlorite quartz-eye schist	Tok River (Quad Marker)	646945	7011041	63.2002	-144.0783	—	—
588	quartz sericite pyrite schist	Tok River (Quad Marker)	646965	7011190	63.2015	-144.0778	—	—
589	quartz chlorite (sericite) schist	Tok River (Quad Marker)	646727	7011248	63.2021	-144.0824	—	—
590	sericite (graphite) pyrite schist	Tok River (Quad Marker)	646577	7011060	63.2005	-144.0856	—	—
591	quartz sericite (chlorite) schist	Tok River (Quad Marker)	646498	7011150	63.2014	-144.0871	—	—
592	quartz sericite quartz-eye schist	Tok River unit	646254	7011038	63.2004	-144.0920	—	—
593	quartz sericite ankerite quartz-eye schist	Tok River unit	645805	7011118	63.2013	-144.1009	—	—
594	quartz sericite (lapilli) schist	Tok River (Quad Marker)	645498	7011263	63.2028	-144.1068	—	—
595	quartz sericite quartz-eye schist	Tok River (Quad Marker)	645052	7011437	63.2045	-144.1155	—	—
596	quartz sericite quartz-eye schist	Tok River unit	644844	7011017	63.2008	-144.1200	—	—
597	quartz chlorite sericite quartz-eye schist	Tok River unit	645421	7010422	63.1953	-144.1091	—	—
598	quartz sericite schist	Tok River unit	645387	7010364	63.1948	-144.1098	—	—
599	quartz sericite quartz-eye schist	Tok River unit	645623	7009985	63.1913	-144.1055	—	—

^aMap numbers refer to sample locations on map sheet 2.

—Not applicable.

Table 3. Sample rock types and location coordinates for Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Hand specimen rock description	Map unit	UTM East zone 6	UTM North zone 6	Latitude NAD 27	Longitude NAD 27	UTM East zone 7	UTM North zone 7
600	quartz sericite pyrite quartz-eye schist	Tok River unit	645650	7009805	63.1896	-144.1051	—	—
601	quartz sericite (hematite) pyrite schist	Tok River (Quad Marker)	646323	7009847	63.1897	-144.0917	—	—
602	quartz sericite pyrite quartz-eye schist	Tok River unit	646015	7009553	63.1872	-144.0981	—	—
603	quartz (sericite) schist	Tok River unit	645443	7009239	63.1846	-144.1097	—	—
604	quartz sericite (chlorite) quartz-eye schist	Tok River unit	644501	7010417	63.1956	-144.1274	—	—
605	quartz sericite (chlorite) quartz-eye schist	Tok River unit	644576	7010055	63.1923	-144.1262	—	—
606	quartz sericite chlorite quartz-eye pyrite schist	Tok River unit	644569	7009753	63.1896	-144.1266	—	—
607	quartz sericite (chlorite) schist	Lagoon unit	644510	7009476	63.1871	-144.1280	—	—
608	quartz (sericite chlorite) schist	Lagoon unit	645087	7007782	63.1717	-144.1181	—	—
609	quartz (chlorite sericite) schist	Lagoon unit	644666	7007662	63.1708	-144.1266	—	—
610	quartz sericite schist	Lagoon unit	644350	7007421	63.1688	-144.1330	—	—
611	quartz chlorite (sericite) quartz-eye schist	Lagoon unit	644269	7007451	63.1691	-144.1346	—	—
612	quartz sericite quartz-eye schist	Tok River unit	643958	7007508	63.1697	-144.1407	—	—
613	quartz sericite chlorite schist	Tok River unit	643738	7007227	63.1673	-144.1453	—	—
614	quartz (sericite) schist	Lagoon unit	643629	7008183	63.1759	-144.1467	—	—
615	quartz ankerite (sericite) schist	Tiger unit	643573	7008247	63.1765	-144.1477	—	—
616	quartz sericite schist	Lagoon unit	643681	7008661	63.1802	-144.1452	—	—
617	quartz sericite schist	Lagoon unit	643529	7008758	63.1811	-144.1481	—	—
618	quartz (sericite) pyrite schist	Lagoon unit	643742	7009327	63.1861	-144.1434	—	—
619	quartz sericite chlorite ankerite pyrite schist	Lagoon unit	642728	7009104	63.1845	-144.1637	—	—
620	quartz sericite ankerite pyrite schist	Lagoon unit	643012	7008823	63.1819	-144.1583	—	—
621	carbonaceous schist	Lagoon unit	643038	7008778	63.1815	-144.1579	—	—
622	quartz sericite chlorite calcareous schist	Lagoon unit	642767	7008395	63.1782	-144.1636	—	—
623	schist	Tok River unit	642830	7007611	63.1711	-144.1630	—	—
624	chlorite dolomite schist	Tok River unit	642165	7007412	63.1696	-144.1764	—	—
625	quartz sericite (chlorite) pyrite schist	Tok River unit	642338	7008128	63.1759	-144.1723	—	—
626	quartz sericite chlorite calcareous schist	Lagoon unit	642115	7008356	63.1781	-144.1765	—	—
627	sericite chlorite quartz schist	Lagoon unit	641398	7008832	63.1826	-144.1904	—	—
628	quartz chlorite sericite pyrite schist	Lagoon unit	641081	7008856	63.1830	-144.1966	—	—
629	quartz chlorite sericite schist	Lagoon unit	641544	7009788	63.1911	-144.1866	—	—
630	quartz sericite chlorite schist	Lagoon unit	641562	7009971	63.1928	-144.1861	—	—
631	quartz sericite schist	Lagoon unit	641415	7009930	63.1924	-144.1891	—	—
632	quartz sericite schist	Lagoon unit	641289	7010467	63.1973	-144.1911	—	—
633	quartz chlorite sericite schist	Lagoon unit	640981	7010230	63.1953	-144.1974	—	—

^aMap numbers refer to sample locations on map sheet 2.

—Not applicable.

Table 3. Sample rock types and location coordinates for Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Hand specimen rock description	Map unit	UTM East zone 6	UTM North zone 6	Latitude NAD 27	Longitude NAD 27	UTM East zone 7	UTM North zone 7
634	quartz sericite (chlorite) schist	Lagoon unit	640973	7010200	63.1950	-144.1976	—	—
635	quartz sericite chlorite schist	Lagoon unit	640742	7009854	63.1920	-144.2025	—	—
636	quartz sericite chlorite calcareous schist	Lagoon unit	640482	7009783	63.1915	-144.2077	—	—
637	quartz sericite schist	Lagoon unit	639047	7010754	63.2008	-144.2354	—	—
638	quartz (sericite) schist	Lagoon unit	639057	7012258	63.2142	-144.2339	—	—
639	quartz (sericite) schist	Lagoon unit	639395	7012144	63.2131	-144.2273	—	—
640	chlorite quartz (sericite) pyrite schist	Lagoon unit	639561	7012375	63.2151	-144.2238	—	—
641	quartz feldspar chlorite sericite calcareous schist	Lagoon unit	639765	7012276	63.2141	-144.2198	—	—
642	quartz chlorite sericite schist	Tok River unit	639966	7012635	63.2173	-144.2155	—	—
643	quartz sericite chlorite schist	Tok River unit	640156	7012793	63.2186	-144.2116	—	—
644	quartz sericite chlorite schist	Tok River unit	639953	7012981	63.2204	-144.2155	—	—
645	hornfels	Tok River unit	640393	7013075	63.2210	-144.2066	—	—
646	quartz (chlorite) schist	Tok River unit	639497	7013551	63.2257	-144.2240	—	—
647	quartzite schist	Lagoon unit	639272	7013378	63.2242	-144.2286	—	—
648	quartz chlorite sericite schist	Lagoon unit	638660	7013388	63.2245	-144.2408	—	—
649	chlorite sericite quartz pyrite schist	Tok River unit	640516	7014061	63.2298	-144.2033	—	—
650	quartz chlorite pyrite schist	Tok River (Quad Marker)	640468	7014239	63.2314	-144.2041	—	—
651	quartz sericite pyrite schist	Tok River (Quad Marker)	640004	7014741	63.2361	-144.2129	—	—
652	quartz chlorite quartz-eye schist	Tok River (Quad Marker)	640003	7014806	63.2367	-144.2129	—	—
653	quartz sericite schist	Tok River unit	640217	7015080	63.2391	-144.2084	—	—
654	quartz sericite pyrite schist	Tok River (Quad Marker)	639834	7015309	63.2413	-144.2158	—	—
655	quartz chlorite sericite schist	Tok River unit	640054	7015432	63.2423	-144.2113	—	—
656	quartz sericite schist	Tok River unit	639937	7015453	63.2425	-144.2136	—	—
657	quartz sericite pyrite schist	Tok River (Quad Marker)	639662	7015583	63.2438	-144.2190	—	—
658	quartz sericite pyrite quartz-eye schist	Tok River (Quad Marker)	639584	7015689	63.2448	-144.2205	—	—
659	quartz sericite schist	Drum unit	641040	7015928	63.2464	-144.1913	—	—
660	quartz (sericite) schist	Drum unit	641098	7016029	63.2472	-144.1901	—	—
661	quartz chlorite (sericite) schist	Tiger unit	640861	7016212	63.2490	-144.1946	—	—
662	quartz chlorite sericite schist	Drum unit	640688	7016344	63.2502	-144.1979	—	—
663	quartz chlorite sericite schist	Drum unit	640272	7016415	63.2510	-144.2061	—	—
664	quartz (sericite) schist	Drum unit	640202	7016392	63.2508	-144.2076	—	—
665	quartz sericite pyrite schist	Tok River unit	640059	7016182	63.2490	-144.2106	—	—
666	quartz (sericite) schist	Drum unit	639817	7016377	63.2509	-144.2152	—	—
667	quartz chlorite sericite pyrite schist	Tiger unit	640142	7016773	63.2543	-144.2084	—	—

^aMap numbers refer to sample locations on map sheet 2.

—Not applicable.

Table 3. Sample rock types and location coordinates for Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Hand specimen rock description	Map unit	UTM East zone 6	UTM North zone 6	Latitude NAD 27	Longitude NAD 27	UTM East zone 7	UTM North zone 7
668	quartz sericite (chlorite) schist	Tiger unit	640468	7016864	63.2550	-144.2019	—	—
669	gabbro	gabbro	640919	7017017	63.2562	-144.1928	—	—
670	gabbro	gabbro	641184	7016945	63.2554	-144.1875	—	—
671	quartz (sericite) pyrite schist	Lagoon unit	640987	7017739	63.2626	-144.1908	—	—
672	gabbro	gabbro	640783	7017791	63.2632	-144.1948	—	—
673	quartz (sericite chlorite) schist	Lagoon unit	640687	7017869	63.2639	-144.1966	—	—
674	quartz chlorite (sericite) schist	Lagoon unit	640928	7018074	63.2656	-144.1917	—	—
675	quartz (sericite chlorite) schist	Lagoon unit	640877	7018394	63.2685	-144.1924	—	—
676	quartz sericite schist	Lagoon unit	641555	7018752	63.2715	-144.1786	—	—
677	quartz sericite pyrite schist	Lagoon unit	640324	7018874	63.2730	-144.2030	—	—
678	quartz sericite schist	Lagoon unit	640652	7019452	63.2781	-144.1959	—	—
679	quartz (sericite) schist	Lagoon unit	640153	7019675	63.2803	-144.2057	—	—
680	chlorite feldspar hematite carbonaceous schist	Lagoon unit	640464	7019759	63.2809	-144.1994	—	—
681	quartz chlorite (feldspar) schist	Lagoon unit	640674	7019978	63.2828	-144.1950	—	—
682	quartz (chlorite ankerite) quartz-eye schist	Lagoon unit	640766	7019970	63.2827	-144.1932	—	—
683	quartz (sericite) schist	Lagoon unit	640343	7020090	63.2839	-144.2015	—	—
684	quartz sericite chlorite schist	Lagoon unit	640546	7020327	63.2860	-144.1973	—	—
685	quartz (sericite chlorite) schist	Lagoon unit	641062	7020743	63.2895	-144.1867	—	—
686	quartz sericite schist	Lagoon unit	637918	7021132	63.2942	-144.2489	—	—
687	quartz sericite (chlorite) calcareous schist	Lagoon unit	637871	7021110	63.2940	-144.2499	—	—
688	quartz chlorite sericite calcareous schist	Lagoon unit	637302	7021080	63.2940	-144.2613	—	—
689	quartz sericite pyrite schist	Lagoon unit	637462	7020967	63.2929	-144.2582	—	—
690	quartz sericite schist	Lagoon unit	637825	7020952	63.2926	-144.2509	—	—
691	quartz calcareous (sericite, pyrite) schist	Lagoon unit	637732	7020602	63.2895	-144.2531	—	—
692	quartz (chlorite sericite) schist	Tiger unit	637604	7020457	63.2883	-144.2558	—	—
693	gabbro	gabbro	637942	7020233	63.2862	-144.2492	—	—
694	quartz pyrite schist	Lagoon unit	638844	7020373	63.2871	-144.2311	—	—
695	quartz sericite schist	Lagoon unit	638969	7020329	63.2866	-144.2287	—	—
696	hornfels	Lagoon unit	638482	7019731	63.2814	-144.2389	—	—
697	quartzite schist	Lagoon unit	638239	7019543	63.2799	-144.2439	—	—
698	chlorite quartz sericite schist	Tiger unit	637443	7019732	63.2819	-144.2596	—	—
699	quartz (sericite chlorite) schist	Drum unit	637211	7019622	63.2810	-144.2643	—	—
700	quartz chlorite (sericite) schist	Drum unit	637020	7019673	63.2815	-144.2681	—	—
701	quartz sericite pyrite schist	Tiger unit	636454	7020051	63.2851	-144.2790	—	—

^aMap numbers refer to sample locations on map sheet 2.

—Not applicable.

Table 3. Sample rock types and location coordinates for Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Hand specimen rock description	Map unit	UTM East zone 6	UTM North zone 6	Latitude NAD 27	Longitude NAD 27	UTM East zone 7	UTM North zone 7
702	quartz chlorite (calcareous) schist	Drum unit	637285	7019282	63.2779	-144.2631	—	—
703	quartz sericite (chlorite) schist	Drum unit	637398	7019313	63.2781	-144.2608	—	—
704	quartz pyrite (chlorite sericite) schist	Drum unit	637499	7019119	63.2763	-144.2590	—	—
705	chlorite (quartz) (magnetite) schist	Tiger unit	638262	7018953	63.2746	-144.2440	—	—
706	quartz sericite chlorite schist	Tiger unit	638867	7018816	63.2731	-144.2320	—	—
707	chlorite quartz (sericite) schist	Tiger unit	638961	7018802	63.2729	-144.2302	—	—
708	quartz chlorite schist	Tiger unit	638384	7018690	63.2722	-144.2417	—	—
709	quartz chlorite schist	Tiger unit	638247	7018753	63.2728	-144.2444	—	—
710	quartz chlorite sericite schist	Drum unit	638123	7018605	63.2715	-144.2470	—	—
711	quartz (chlorite) schist	Drum unit	637932	7018742	63.2728	-144.2507	—	—
712	quartz (sericite) schist	Drum unit	636996	7018886	63.2744	-144.2692	—	—
713	carbonaceous chlorite sericite schist	Tok River unit	636956	7018392	63.2700	-144.2704	—	—
714	quartz (sericite) schist	Drum unit	637466	7018437	63.2702	-144.2602	—	—
715	quartz sericite pyrite schist	Tok River unit	637536	7018099	63.2672	-144.2591	—	—
716	quartz sericite schist	Tok River unit	637372	7018060	63.2669	-144.2624	—	—
717	quartz chlorite schist	Tiger unit	638797	7018177	63.2674	-144.2340	—	—
718	quartz sericite schist	Drum unit	638903	7018003	63.2658	-144.2320	—	—
719	quartz chlorite (sericite) schist	Tiger unit	638971	7018017	63.2659	-144.2306	—	—
720	quartz (sericite) schist	Drum unit	639193	7017686	63.2628	-144.2265	—	—
721	quartz chlorite sericite schist	Tiger unit	639521	7017477	63.2608	-144.2202	—	—
722	quartz chlorite sericite schist	Tiger unit	639532	7017376	63.2599	-144.2200	—	—
723	quartz (sericite chlorite) schist	Tiger unit	640219	7017587	63.2616	-144.2062	—	—
724	quartz chlorite sericite schist	Tok River unit	638293	7016834	63.2556	-144.2451	—	—
725	quartz chlorite (sericite) schist	Tok River unit	638156	7016742	63.2548	-144.2480	—	—
726	quartz (sericite chlorite) schist	Tok River unit	637796	7016787	63.2553	-144.2551	—	—
727	quartz sericite schist	Tok River unit	638715	7016018	63.2481	-144.2375	—	—
728	quartz sericite pyrite schist	Tok River (Quad Marker)	639067	7015917	63.2470	-144.2305	—	—
729	quartz sericite (chlorite) quartz-eye schist	Tok River unit	638987	7015530	63.2436	-144.2325	—	—
730	quartz chlorite sericite quartz-eye schist	Tok River unit	639019	7014732	63.2364	-144.2325	—	—
731	quartz sericite (chlorite) quartz-eye schist	Tok River unit	638555	7015457	63.2431	-144.2411	—	—
732	quartz sericite ankerite quartz-eye schist	Tok River unit	638174	7015407	63.2428	-144.2487	—	—
733	quartz sericite (chlorite) quartz-eye schist	Tok River unit	638283	7014852	63.2378	-144.2470	—	—
734	quartz chlorite sericite quartz-eye schist	Tok River unit	637735	7015056	63.2398	-144.2578	—	—
735	quartz (sericite) schist	Tok River unit	637446	7014419	63.2342	-144.2640	—	—

^aMap numbers refer to sample locations on map sheet 2.

—Not applicable.

Table 3. Sample rock types and location coordinates for Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Hand specimen rock description	Map unit	UTM East zone 6	UTM North zone 6	Latitude NAD 27	Longitude NAD 27	UTM East zone 7	UTM North zone 7
736	quartz sericite schist	Tok River unit	637483	7014319	63.2333	-144.2634	—	—
737	quartz chlorite sericite schist	Tok River unit	635530	7015672	63.2462	-144.3011	—	—
738	quartz (sericite) schist	Lagoon unit	634920	7015302	63.2431	-144.3135	—	—
739	quartz (sericite) schist	Lagoon unit	633855	7014975	63.2406	-144.3350	—	—
740	quartz (sericite chlorite) pyrite schist	Lagoon unit	634066	7015566	63.2458	-144.3303	—	—
741	quartz (sericite) schist	Tok River unit	634869	7015721	63.2469	-144.3142	—	—
742	quartz (sericite) schist	Tok River unit	634694	7015943	63.2489	-144.3175	—	—
743	quartz sericite (chlorite) schist	Tok River unit	634049	7015986	63.2496	-144.3303	—	—
744	carbonaceous (graphite) schist	Tok River unit	635932	7016586	63.2542	-144.2923	—	—
745	quartz sericite schist	Tok River unit	636072	7016555	63.2539	-144.2896	—	—
746	quartz sericite pyrite schist	Tok River (Quad Marker)	635634	7016982	63.2579	-144.2979	—	—
747	quartz sericite (chlorite) schist	Tok River unit	635605	7017696	63.2643	-144.2979	—	—
748	quartz (sericite) schist	Tok River unit	635825	7018960	63.2756	-144.2925	—	—
749	quartz sericite pyrite schist	Tok River unit	635424	7019427	63.2799	-144.3001	—	—
750	quartz (chloritic, pyrite) schist	Tok River unit	635236	7019397	63.2797	-144.3038	—	—
751	quartz (chloritic, pyrite) schist	Tok River unit	635129	7019432	63.2800	-144.3059	—	—
752	quartz sericite calcareous pyrite schist	Drum unit	635626	7019632	63.2817	-144.2959	—	—
753	quartz chlorite (sericite) pyrite schist	Drum unit	635529	7019885	63.2840	-144.2976	—	—
754	quartz sericite (chlorite) pyrite schist	Drum unit	635510	7019887	63.2840	-144.2980	—	—
755	quartz (sericite) pyrite schist	Drum unit	635544	7020029	63.2852	-144.2972	—	—
756	quartz chlorite (sericite) schist	Tiger unit	635492	7020218	63.2870	-144.2980	—	—
757	quartz chlorite (sericite) quartz-eye schist	Tok River unit	635042	7019976	63.2850	-144.3072	—	—
758	chlorite calcareous quartz schist	Tiger unit	635199	7020395	63.2887	-144.3037	—	—
759	quartz sericite pyrite schist	Tiger unit	635129	7020692	63.2913	-144.3049	—	—
760	quartz chlorite sericite schist	Tiger unit	634952	7020438	63.2891	-144.3086	—	—
761	quartz sericite pyrite schist	Tiger unit	634816	7020684	63.2914	-144.3111	—	—
762	quartz sericite pyrite schist	Tiger unit	634688	7020435	63.2892	-144.3139	—	—
763	quartz sericite chlorite calcareous schist	Tiger unit	634291	7020349	63.2886	-144.3218	—	—
764	quartz chlorite sericite schist	Tiger unit	633547	7020249	63.2880	-144.3367	—	—
765	quartz sericite pyrite schist	Drum unit	633375	7020210	63.2877	-144.3402	—	—
766	quartz (chlorite sericite) schist	Tiger unit	633263	7020205	63.2877	-144.3424	—	—
767	quartz sericite pyrite schist	Tok River unit	633157	7018055	63.2684	-144.3463	—	—
768	quartz (sericite) pyrite schist	Tok River (Quad Marker)	632790	7018071	63.2687	-144.3536	—	—
769	quartz sericite schist	Tok River unit	632422	7018253	63.2705	-144.3608	—	—

^aMap numbers refer to sample locations on map sheet 2.

—Not applicable.

Table 3. Sample rock types and location coordinates for Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Hand specimen rock description	Map unit	UTM East zone 6	UTM North zone 6	Latitude NAD 27	Longitude NAD 27	UTM East zone 7	UTM North zone 7
770	quartz sericite schist	Tok River unit	631577	7018480	63.2728	-144.3774	—	—
771	sericite pyrite schist	Tok River unit	631325	7018275	63.2711	-144.3826	—	—
772	quartz sericite pyrite schist	Tok River (Quad Marker)	631264	7018411	63.2723	-144.3837	—	—
773	quartz sericite schist	Tok River (Quad Marker)	630884	7018548	63.2737	-144.3912	—	—
774	quartz sericite pyrite schist	Tok River (Quad Marker)	630183	7018312	63.2718	-144.4053	—	—
775	quartz sericite pyrite schist	Tok River (Quad Marker)	627752	7019367	63.2822	-144.4529	—	—
776	quartz (sericite) pyrite schist	Tok River unit	628007	7012684	63.2222	-144.4531	—	—
777	quartz calcareous (epidote) schist	Hayes Glacier belt	628066	7010342	63.2011	-144.4538	—	—
778	quartz chlorite sericite pyrite schist	Hayes Glacier belt	629939	7011388	63.2098	-144.4157	—	—
779	quartz pyrite schist	Tok River unit	632457	7009475	63.1918	-144.3673	—	—
780	quartz pyrite schist	Tok River unit	632923	7009591	63.1926	-144.3579	—	—
781	quartz sericite schist	Tok River unit	634240	7009700	63.1931	-144.3317	—	—
782	basalt	Tok River unit	635777	7009776	63.1932	-144.3011	—	—
783	quartz chlorite sericite+pyrrhotite schist	Tok River unit	637188	7010030	63.1950	-144.2729	—	—
784	quartz sericite pyrite schist	Tok River unit	635904	7009547	63.1911	-144.2988	—	—
785	carbonaceous chlorite sericite quartz schist	Tok River unit	636020	7009386	63.1897	-144.2966	—	—
786	quartz sericite pyrite schist	Tok River unit	635982	7009196	63.1880	-144.2975	—	—
787	chlorite sericite schist	Tok River unit	636447	7009136	63.1872	-144.2883	—	—
788	quartz sericite quartz-eye schist	Tok River unit	636162	7008714	63.1836	-144.2944	—	—
789	gabbro	gabbro	636243	7008246	63.1793	-144.2931	—	—
790	gabbro	gabbro	636368	7007786	63.1752	-144.2910	—	—
791	chert-like schist	Hayes Glacier belt	635264	7007995	63.1775	-144.3128	—	—
792	quartz sericite pyrite schist	Tok River unit	635649	7007726	63.1749	-144.3054	—	—
793	quartz sericite schist	Tok River unit	636325	7007263	63.1705	-144.2923	—	—
794	quartz sericite schist	Tok River unit	636232	7007056	63.1687	-144.2944	—	—
795	chert-like schist	Tok River unit	637511	7006518	63.1634	-144.2694	—	—
796	quartz (sericite pyrite) schist	Tok River unit	637812	7006466	63.1628	-144.2635	—	—
797	quartz (sericite) pyrite schist	Tok River unit	637451	7006221	63.1607	-144.2709	—	—
798	chert-like schist	Tok River unit	638912	7007198	63.1689	-144.2411	—	—
799	quartz sericite chlorite schist	Tok River unit	639320	7007175	63.1686	-144.2330	—	—
800	quartz chlorite graphite sericite ankerite schist	Tok River unit	639615	7007135	63.1681	-144.2272	—	—
801	quartz sericite pyrite schist	Tok River unit	639475	7007036	63.1673	-144.2301	—	—
802	quartz sericite (serpentinite) schist	Tok River unit	639953	7006261	63.1601	-144.2212	—	—
803	quartz pyrite (sericite) schist	Hayes Glacier belt	635575	7006074	63.1601	-144.3082	—	—

^aMap numbers refer to sample locations on map sheet 2.

—Not applicable.

Table 3. Sample rock types and location coordinates for Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Hand specimen rock description	Map unit	UTM East zone 6	UTM North zone 6	Latitude NAD 27	Longitude NAD 27	UTM East zone 7	UTM North zone 7
804	chert-like schist	Hayes Glacier belt	635457	7006234	63.1616	-144.3104	—	—
805	quartz sericite (chlorite) pyrite quartz-eye schist	Hayes Glacier belt	630772	7006138	63.1625	-144.4034	—	—
806	quartz (sericite) pyrite schist	Hayes Glacier belt	630673	7006132	63.1625	-144.4054	—	—
807	quartz pyrite schist	Hayes Glacier belt	635868	7005169	63.1519	-144.3031	—	—
808	quartz graphite pyrite schist	Hayes Glacier belt	635863	7004585	63.1467	-144.3037	—	—
809	quartz (sericite) schist	Hayes Glacier belt	636282	7002855	63.1310	-144.2969	—	—
810	quartz (sericite) schist	Hayes Glacier belt	636978	7003559	63.1370	-144.2825	—	—
811	quartz sericite schist	Hayes Glacier belt	637129	7003685	63.1381	-144.2794	—	—
812	quartz (sericite chlorite) schist	Hayes Glacier belt	637777	7003582	63.1370	-144.2666	—	—
813	quartz pyrite schist	Hayes Glacier belt	637886	7003894	63.1397	-144.2642	—	—
814	quartz pyrite schist	Hayes Glacier belt	638255	7004201	63.1423	-144.2567	—	—
815	quartz pyrite schist	Hayes Glacier belt	638173	7004413	63.1443	-144.2581	—	—
816	quartz (sericite) pyrite schist	Hayes Glacier belt	638369	7003583	63.1367	-144.2549	—	—
817	quartz sericite quartz-eye pyrite schist	Hayes Glacier belt	638643	7003533	63.1362	-144.2495	—	—
818	quartz sericite calcareous+pyrrhotite schist	Hayes Glacier belt	639266	7003981	63.1400	-144.2368	—	—
819	quartz chlorite+pyrrhotite schist	Hayes Glacier belt	639410	7003802	63.1383	-144.2341	—	—
820	quartz sericite ankerite schist	Hayes Glacier belt	641502	7004404	63.1429	-144.1921	—	—
821	quartz sericite quartz-eye pyrite schist	Hayes Glacier belt	639973	7002549	63.1268	-144.2240	—	—
822	quartz (sericite) quartz-eye schist	Hayes Glacier belt	639820	7002387	63.1255	-144.2272	—	—
823	quartz sericite quartz-eye schist	Hayes Glacier belt	639914	7002173	63.1235	-144.2255	—	—
824	quartz sericite schist	Hayes Glacier belt	640569	7002387	63.1252	-144.2124	—	—
825	quartz sericite pyrite quartz-eye schist	Hayes Glacier belt	640693	7002077	63.1223	-144.2102	—	—
826	quartz sericite pyrite schist	Hayes Glacier belt	640251	7001242	63.1150	-144.2196	—	—
827	quartz sericite pyrite schist	Hayes Glacier belt	639824	7001256	63.1153	-144.2281	—	—

^aMap numbers refer to sample locations on map sheet 2.

—Not applicable.

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Table 4. Fire assay gold and inductively coupled plasma (ICP) analyses for samples from the Delta mineral belt, Tok mining district, Alaska

Map no. ^a	Au ppb	Ag ppm	As ppm	Bi ppm	Cd ppm	Co ppm	Cr ppm	Cu ppm	Ni ppm	Pb ppm	Sb ppm	Sr ppm	Zn ppm
1	—	<0.2	4	<2	<0.5	10	145	12	17	2	<2	138	96
2	<5	<0.2	<2	<2	<1	2	177	3	4	4	<2	9	12
3	—	<0.2	2	<2	<0.5	3	125	22	1	2	<2	71	58
4	—	<0.2	6	<2	<0.5	4	137	7	9	18	<2	30	40
5	<5	<0.2	26	<2	<1	11	76	30	30	4	<2	4	82
6	—	<0.2	4	<2	<0.5	3	185	4	9	6	<2	52	8
7	—	<0.2	8	<2	<0.5	10	103	29	29	8	<2	143	66
8	—	0.2	<2	<2	<1	12	34	147	11	<2	2	89	186
9	—	<0.2	2	<2	<1	2	119	2	7	<2	<2	13	10
10	—	<0.2	4	<2	<1	1	67	58	9	14	<2	25	96
11	—	<0.2	2	4	<1	7	66	3	1	4	<2	61	34
12	—	<0.2	2	<2	<1	3	34	9	1	4	2	57	88
13	—	<0.2	<2	2	<1	2	66	3	4	8	<2	110	6
14	—	<0.2	<2	<2	<0.5	3	133	12	3	<2	<2	41	24
15	—	<0.2	<2	<2	<0.5	3	111	7	3	2	<2	41	24
16	<5	<0.2	2	<2	<0.5	4	98	6	2	2	<2	100	38
17	—	<0.2	2	<2	<0.5	2	155	6	2	6	<2	36	66
18	—	<0.2	<2	<2	<0.5	2	86	3	2	2	<2	27	68
19	—	<0.2	4	<2	<0.5	9	66	6	6	<2	<2	35	68
20	—	<0.2	4	<2	<0.5	2	68	4	1	4	<2	28	68
21	—	<0.2	<2	<2	<0.5	3	67	4	1	28	<2	52	68
22	—	<0.2	<2	<2	<0.5	4	92	8	1	<2	<2	11	60
23	—	<0.2	4	<2	<0.5	12	48	18	4	16	<2	40	76
24	<5	<0.2	2	<2	<0.5	5	87	12	3	6	<2	31	32
25	<5	<0.2	4	<2	<0.5	9	46	8	5	<2	<2	11	68
26	<5	<0.2	<2	<2	<0.5	1	71	11	1	6	<2	59	92
27	<5	<0.2	6	<2	<0.5	3	50	3	1	2	<2	33	76
28	<5	<0.2	20	<2	<0.5	16	70	<1	2	2	<2	6	72
29	<5	<0.2	6	<2	<0.5	8	44	1	1	<2	<2	44	82
30	<5	<0.2	20	<2	<0.5	16	40	<1	3	2	<2	80	76
31	<5	<0.2	<2	<2	<0.5	1	88	2	1	6	<2	32	56
32	3	0.2	26	<2	<0.5	3	132	7	2	24	<2	3	8
33	<5	<0.2	10	<2	<0.5	15	66	10	9	4	<2	72	160
34	1	<0.2	14	<2	<0.5	4	71	3	12	4	<2	84	82
35	<5	<0.2	6	<2	<0.5	4	101	<1	1	12	<2	11	52
36	5	<0.2	126	<2	<0.5	4	88	10	12	14	<2	47	66
37	<5	<0.2	2	<2	<0.5	1	81	3	1	10	<2	65	44
38	<5	<0.2	2	<2	<0.5	<1	70	6	<1	8	<2	19	10
39	<5	<0.2	2	<2	<0.5	6	49	10	1	16	<2	40	94
40	<5	<0.2	2	<2	<0.5	4	77	5	1	<2	<2	28	34
41	<5	<0.2	2	<2	<0.5	11	100	21	24	16	<2	17	64
42	—	<0.2	2	<2	<0.5	4	283	8	12	4	<2	32	30
43	<5	<0.2	<2	<2	<0.5	6	153	18	7	16	<2	13	66
44	<5	<0.2	2	<2	<0.5	15	89	4	38	2	<2	24	114
45	<5	<0.2	6	<2	<0.5	8	166	13	20	4	<2	44	114
46	<5	<0.2	16	<2	<0.5	13	50	34	43	8	<2	129	98
47	<5	<0.2	14	<2	<0.5	13	78	8	37	20	<2	9	94
48	—	<0.2	<2	<2	<0.5	3	142	8	1	2	<2	35	44
49	<5	<0.2	6	<2	<0.5	15	81	<1	47	6	<2	331	116
50	<5	<0.2	<2	<2	<0.5	4	83	3	2	10	<2	22	48

^aMap numbers refer to sample locations on map sheet 2.

—Not analyzed.

Table 4. Fire assay gold and inductively coupled plasma (ICP) analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Au ppb	Ag ppm	As ppm	Bi ppm	Cd ppm	Co ppm	Cr ppm	Cu ppm	Ni ppm	Pb ppm	Sb ppm	Sr ppm	Zn ppm
51	—	<0.2	<2	<2	<0.5	<1	310	5	6	4	<2	1	2
52	<5	<0.2	<2	2	<0.5	7	97	6	<1	110	<2	81	66
53	<5	<0.2	<2	<2	<0.5	3	162	4	5	18	<2	81	14
54	<5	<0.2	10	<2	<0.5	7	96	11	4	2	<2	7	98
55	<5	0.2	18	<2	0.5	3	207	45	8	38	<2	8	46
56	<5	<0.2	<2	<2	<0.5	3	122	<1	1	8	<2	34	40
57	—	<0.2	<2	<2	<0.5	4	109	10	6	2	<2	8	112
58	—	<0.2	82	<2	<0.5	3	193	6	3	22	<2	42	84
59	—	<0.2	14	4	<0.5	20	27	<1	1	2	2	102	68
60	—	<0.2	4	<2	<0.5	1	83	7	4	14	<2	13	44
61	—	<0.2	6	<2	<0.5	<1	78	4	1	12	<2	17	28
62	1	<0.2	40	<2	<0.5	3	162	1	3	22	<2	4	54
63	<5	<0.2	16	<2	<0.5	9	86	9	3	16	<2	187	40
64	<5	<0.2	14	2	<1	2	87	3	1	12	<2	4	52
65	<5	<0.2	<2	<2	<1	19	33	<1	2	4	<2	24	48
66	<5	<0.2	2	<2	<1	1	87	2	1	12	<2	4	26
67	<5	<0.2	20	2	<1	1	54	3	1	20	<2	8	48
68	<5	<0.2	10	2	<1	15	44	9	5	4	<2	25	130
69	<5	<0.2	2	<2	<1	1	71	5	<1	18	<2	11	60
70	—	<0.2	6	<2	<1	2	70	2	<1	6	<2	9	6
71	45	<0.2	<2	<2	<0.5	4	107	3	2	2	<2	31	60
72	<5	<0.2	<2	<2	<0.5	3	99	7	2	2	<2	101	62
73	—	<0.2	6	<2	<1	3	62	<1	1	8	<2	74	32
74	<5	<0.2	<2	<2	<0.5	5	99	6	8	8	<2	32	76
75	8	<0.2	112	<2	<1	1	42	14	1	4	<2	2	76
76	—	0.2	<2	<2	<0.5	4	88	61	21	16	<2	20	134
77	—	<0.2	102	<2	<1	12	136	30	22	20	<2	16	114
78	—	<0.2	4	<2	<1	3	110	15	14	2	<2	9	172
79	<5	<0.2	14	2	<1	28	95	27	36	4	6	14	44
80	<5	0.4	<2	<2	<1	1	67	30	14	6	<2	4	56
81	—	<0.2	10	<2	<1	2	58	3	2	10	<2	3	<2
82	—	<0.2	2	<2	<0.5	8	74	2	14	<2	<2	86	54
83	—	<0.2	6	<2	<0.5	17	73	2	34	<2	<2	6	60
84	—	1.2	28	18	15.5	127	39	181	8	70	2	76	2100
85	—	<0.2	<2	<2	<0.5	1	218	1	7	<2	<2	9	8
86	—	<0.2	10	<2	<0.5	16	45	17	30	<2	<2	13	42
87	—	<0.2	2	<2	<0.5	2	283	8	4	<2	<2	2	46
88	—	<0.2	14	<2	<0.5	12	58	9	26	<2	<2	34	28
89	—	<0.2	<2	<2	<0.5	3	64	47	16	26	<2	12	152
90	—	<0.2	4	<2	<0.5	1	93	<1	8	<2	<2	28	6
91	<5	<0.2	<2	2	<1	2	66	13	<1	26	<2	24	116
92	<5	<0.2	<2	<2	<1	7	117	<1	2	<2	<2	29	56
93	<5	0.2	14	4	<0.5	3	143	74	5	26	<2	3	236
94	<5	<0.2	<2	2	<1	8	67	5	18	4	<2	30	66
95	—	<0.2	4	<2	<0.5	17	65	1	36	<2	<2	7	56
96	—	<0.2	<2	<2	<0.5	2	159	7	8	<2	<2	5	20
97	—	1.6	2	6	15	21	38	<1	4	312	<2	7	1600
98	—	<0.2	20	6	<0.5	26	76	84	8	4	<2	7	94
99	—	<0.2	2	<2	<0.5	<1	218	1	4	2	<2	10	10
100	—	0.2	4	<2	<1	2	50	4	3	4	<2	10	2

^aMap numbers refer to sample locations on map sheet 2.

—Not analyzed.

Table 4. Fire assay gold and inductively coupled plasma (ICP) analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Au ppb	Ag ppm	As ppm	Bi ppm	Cd ppm	Co ppm	Cr ppm	Cu ppm	Ni ppm	Pb ppm	Sb ppm	Sr ppm	Zn ppm
101	—	<0.2	<2	<2	<1	3	177	6	10	14	<2	7	18
102	—	<0.2	<2	<2	<1	<1	82	2	1	2	<2	31	20
103	—	<0.2	<2	<2	<1	19	73	76	20	<2	<2	10	76
104	—	<0.2	<2	<2	<1	1	209	8	7	<2	<2	12	4
105	—	<0.2	<2	<2	<1	2	220	2	10	<2	<2	1	8
106	—	<0.2	2	<2	<1	8	213	37	13	<2	<2	12	6
107	—	<0.2	4	<2	<1	18	102	36	32	8	<2	9	106
108	—	<0.2	<2	2	<1	7	144	14	13	4	2	7	90
109	—	<0.2	<2	<2	<1	2	104	6	1	6	<2	51	2
110	—	<0.2	<2	<2	<1	3	35	14	1	<2	<2	62	8
111	—	<0.2	<2	2	<1	19	72	14	31	<2	<2	12	50
112	—	<0.2	2	<2	<1	1	104	1	1	<2	<2	8	<2
113	—	<0.2	2	<2	<1	<1	40	6	1	4	<2	29	8
114	—	<0.2	<2	<2	<1	3	46	21	1	2	<2	9	14
115	—	<0.2	<2	2	<1	4	79	36	1	2	<2	28	24
116	—	<0.2	<2	<2	<0.5	5	177	13	14	<2	2	41	26
117	—	<0.2	8	<2	<0.5	12	87	162	14	4	4	27	96
118	5	2.4	14	<2	1.5	95	193	1960	37	4	<2	7	220
119	—	<0.2	<2	<2	<0.5	2	215	49	4	<2	<2	4	174
120	—	<0.2	4	<2	0.5	3	268	78	3	2	<2	7	164
121	—	<0.2	4	<2	3.5	12	216	19	29	<2	<2	15	1010
122	—	<0.2	<2	<2	<0.5	<1	130	44	1	10	<2	3	86
123	—	<0.2	2	<2	<0.5	4	350	11	12	22	<2	15	24
124	—	<0.2	4	<2	<0.5	8	54	48	12	4	2	8	118
125	—	<0.2	4	<2	<0.5	10	197	28	20	2	<2	43	72
126	—	0.4	<2	2	<0.5	10	44	27	23	154	<2	26	34
127	—	<0.2	2	<2	<0.5	6	116	33	10	6	<2	14	60
128	—	<0.2	<2	<2	1	46	51	241	23	6	8	36	356
129	—	<0.2	<2	<2	0.5	30	69	96	2	2	6	20	112
130	—	0.4	<2	4	<1	18	145	103	46	<2	<2	76	18
131	—	<0.2	<2	<2	<0.5	14	118	59	13	4	4	9	64
132	—	<0.2	6	2	<1	4	128	12	10	<2	<2	3	26
133	—	<0.2	6	<2	<0.5	15	178	21	64	2	<2	6	110
134	—	<0.2	2	<2	<0.5	5	188	28	40	<2	<2	10	38
135	—	<0.2	<2	2	0.5	32	59	297	8	2	8	19	222
136	—	<0.2	<2	<2	1	35	86	343	25	4	8	39	518
137	—	<0.2	<2	<2	<1	1	359	8	22	<2	2	6	12
138	—	<0.2	<2	<2	<1	7	93	3	33	<2	2	75	24
139	—	<0.2	<2	<2	<0.5	<1	95	3	<1	48	<2	3	10
140	—	<0.2	<2	2	<0.5	5	140	11	15	20	<2	6	28
141	—	<0.2	<2	<2	<0.5	8	206	7	14	4	4	39	8
142	—	<0.2	4	4	<0.5	35	212	238	71	2	8	123	94
143	—	<0.2	<2	<2	<0.5	7	142	9	14	28	4	53	40
144	—	<0.2	<2	<2	<0.5	4	153	13	11	10	2	3	54
145	—	<0.2	114	<2	<0.5	7	70	12	6	34	<2	73	62
146	—	<0.2	48	<2	0.5	21	208	3	62	22	4	118	102
147	<5	<0.2	<2	2	<1	3	86	3	10	<2	<2	1	16
148	—	<0.2	2	2	<0.5	6	87	9	13	6	<2	91	34
149	<5	<0.2	6	<2	<0.5	12	89	3	6	8	2	51	38
150	<5	<0.2	<2	2	<1	2	192	2	6	<2	<2	10	2

^aMap numbers refer to sample locations on map sheet 2.

—Not analyzed.

Table 4. Fire assay gold and inductively coupled plasma (ICP) analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Au ppb	Ag ppm	As ppm	Bi ppm	Cd ppm	Co ppm	Cr ppm	Cu ppm	Ni ppm	Pb ppm	Sb ppm	Sr ppm	Zn ppm
151	<5	<0.2	<2	2	<1	12	52	46	34	12	<2	23	326
152	—	<0.2	<2	<2	<0.5	13	140	15	24	4	<2	107	30
153	—	<0.2	8	<2	<0.5	6	141	16	19	<2	<2	11	72
154	—	<0.2	<2	<2	<0.5	9	49	26	35	6	4	9	126
155	—	<0.2	14	<2	<0.5	3	163	4	9	20	<2	11	20
156	—	<0.2	46	<2	<0.5	23	75	21	45	54	4	7	72
157	—	<0.2	26	<2	<0.5	10	75	29	28	42	4	7	60
158	—	<0.2	2	2	<0.5	8	67	6	33	2	2	9	56
159	—	<0.2	<2	<2	<0.5	3	63	1	2	6	<2	29	32
160	—	<0.2	2	<2	<0.5	5	66	12	9	18	<2	17	122
161	<5	<0.2	2	<2	<1	<1	355	13	4	2	2	8	8
162	<5	<0.2	<2	<2	<1	<1	273	16	4	<2	<2	8	2
163	<5	<0.2	4	<2	<1	<1	64	3	1	2	<2	60	<2
164	—	<0.2	4	<2	<1	3	105	64	3	2	<2	22	12
165	—	<0.2	14	<2	<1	9	39	85	9	14	<2	117	48
166	—	<0.2	2	<2	<1	2	188	6	8	2	<2	48	12
167	—	<0.2	<2	<2	<1	6	79	7	3	16	<2	40	52
168	—	<0.2	8	<2	<1	7	99	18	3	4	<2	37	14
169	—	<0.2	<2	<2	<1	1	117	6	2	<2	2	68	48
170	—	<0.2	<2	<2	<1	6	91	14	4	44	<2	104	114
171	—	0.2	2	<2	<1	1	201	50	3	4	2	17	2
172	—	<0.2	<2	<2	<1	24	116	77	31	6	<2	21	88
173	—	<0.2	4	<2	<0.5	10	95	2	16	6	<2	64	48
174	<5	2	<2	<2	<0.5	1	154	35	5	300	<2	9	118
175	—	<0.2	<2	<2	<1	1	96	30	3	14	<2	4	16
176	—	<0.2	2	<2	<1	<1	123	1	2	<2	<2	1	10
177	—	<0.2	38	<2	<1	8	88	30	17	46	<2	4	118
178	—	<0.2	<2	<2	<1	8	88	150	4	10	4	4	114
179	—	<0.2	<2	<2	<0.5	1	126	<1	<1	4	<2	25	20
180	—	<0.2	20	<2	<1	11	65	8	1	36	6	84	48
181	—	<0.2	12	<2	<1	<1	111	5	3	26	<2	3	18
182	—	<0.2	8	<2	<1	7	80	15	9	18	2	5	<2
183	—	<0.2	2	<2	<1	6	87	30	10	6	<2	9	34
184	—	<0.2	<2	<2	<1	8	87	8	20	54	<2	16	46
185	—	<0.2	<2	<2	<1	<1	105	6	2	34	<2	1	14
186	—	0.4	<2	2	<1	3	67	47	2	96	<2	19	108
187	—	<0.2	<2	<2	<1	9	95	19	22	4	2	12	88
188	—	<0.2	<2	2	1	28	153	53	37	8	10	114	128
189	—	<0.2	4	<2	<0.5	3	182	4	9	6	<2	42	26
190	—	<0.2	4	<2	<1	1	163	12	4	2	<2	22	4
191	—	<0.2	<2	<2	<1	9	148	34	18	8	<2	6	46
192	—	<0.2	<2	<2	<1	4	160	1	13	4	<2	9	70
193	—	<0.2	2	<2	<1	3	114	5	3	34	<2	37	56
194	—	<0.2	2	8	0.5	40	33	32	16	<2	4	72	110
195	—	<0.2	<2	<2	<0.5	14	73	18	30	6	2	11	72
196	—	<0.2	<2	<2	<0.5	10	106	30	22	20	<2	10	112
197	—	<0.2	20	<2	<0.5	2	130	15	7	18	<2	6	20
198	—	<0.2	<2	<2	<0.5	3	362	2	12	<2	<2	20	12
199	—	<0.2	<2	<2	<0.5	14	101	33	30	4	<2	11	64
200	—	<0.2	2	<2	<0.5	8	131	10	16	<2	<2	38	34

^aMap numbers refer to sample locations on map sheet 2.

—Not analyzed.

Table 4. Fire assay gold and inductively coupled plasma (ICP) analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Au ppb	Ag ppm	As ppm	Bi ppm	Cd ppm	Co ppm	Cr ppm	Cu ppm	Ni ppm	Pb ppm	Sb ppm	Sr ppm	Zn ppm
201	—	<0.2	<2	<2	<1	<1	163	1	2	14	<2	4	<2
202	15	2.8	624	2	<0.5	2	127	25	23	76	4	10	18
203	—	<0.2	2	<2	<1	<1	152	15	2	22	<2	2	24
204	65	2.4	338	<2	<0.5	2	211	4	8	22	4	7	6
205	<5	<0.2	6	<2	<1	<1	144	2	2	2	<2	3	<2
206	<5	<0.2	26	<2	<0.5	4	60	167	10	6	<2	11	118
207	<5	0.2	6	<2	<0.5	1	69	1	1	8	<2	8	<2
208	—	<0.2	32	6	<0.5	12	119	9	12	50	8	25	20
209	—	<0.2	10	<2	<0.5	14	69	14	25	12	2	10	62
210	—	<0.2	<2	<2	<0.5	2	120	6	7	<2	<2	4	24
211	—	0.2	4	<2	0.5	3	202	16	9	120	2	34	254
212	—	<0.2	<2	<2	0.5	6	86	10	2	22	4	68	56
213	—	<0.2	<2	2	<0.5	14	196	17	13	12	2	76	44
214	—	<0.2	2	<2	<0.5	2	116	4	2	18	2	11	16
215	—	0.2	<2	2	<0.5	1	33	75	<1	6	2	15	14
216	—	<0.2	46	<2	<0.5	1	131	4	1	38	2	4	20
217	—	<0.2	<2	<2	0.5	6	30	53	<1	28	4	4	104
218	—	0.2	2	<2	<0.5	1	38	4	<1	32	2	8	58
219	—	<0.2	<2	<2	<0.5	<1	55	11	<1	82	<2	1	126
220	—	0.6	16	<2	<0.5	1	229	6	3	32	<2	1	<2
221	—	0.4	12	2	<0.5	<1	353	29	8	154	2	3	74
222	—	<0.2	<2	<2	<0.5	<1	139	1	2	2	<2	7	<2
223	—	<0.2	8	<2	<0.5	8	59	8	14	2	<2	15	38
224	—	<0.2	<2	<2	<0.5	<1	243	17	3	2	2	16	2
225	—	<0.2	2	<2	<0.5	4	102	59	2	16	<2	36	32
226	—	<0.2	4	<2	<0.5	12	153	9	7	4	<2	64	58
227	—	0.6	8	<2	<0.5	7	245	4	33	14	14	71	24
228	—	<0.2	4	<2	<0.5	9	119	20	22	8	<2	5	86
229	—	0.4	26	<2	<0.5	1	417	5	9	22	2	8	16
230	—	<0.2	<2	<2	<0.5	8	145	3	20	4	<2	17	54
231	—	0.4	4	<2	<0.5	<1	390	6	8	6	<2	17	28
232	<5	<0.2	2	<2	<1	13	118	<1	7	6	<2	29	18
233	—	<0.2	6	<2	<0.5	5	100	28	5	8	<2	167	140
234	—	<0.2	<2	<2	<0.5	13	116	26	35	<2	<2	245	34
235	5	0.8	18	<2	2	61	22	972	58	2	<2	12	118
236	<5	0.2	2	<2	<0.5	4	187	105	5	18	<2	5	248
237	—	0.2	8	<2	<0.5	31	96	54	27	2	<2	91	108
238	—	<0.2	2	<2	<0.5	6	132	3	15	6	<2	22	32
239	—	0.6	22	<2	<0.5	3	91	5	2	172	<2	3	8
240	—	<0.2	<2	<2	<0.5	6	34	7	1	10	<2	78	68
241	—	<0.2	4	<2	<0.5	7	47	7	1	<2	<2	51	72
242	95	4.6	132	8	1	3	76	94	4	802	2	11	260
243	—	<0.2	48	<2	1	6	116	6	13	12	<2	42	246
244	—	0.2	146	2	<1	7	46	73	13	170	<2	4	206
245	2	5.8	336	18	1	6	142	142	29	4094	8	13	576
246	1	1.6	6	<2	<0.5	4	50	22	5	802	<2	6	744
247	—	0.4	2	2	<1	1	50	2	<1	62	<2	10	28
248	—	0.2	4	<2	<1	2	124	20	2	4	<2	24	26
249	—	<0.2	32	<2	<1	1	65	2	2	22	<2	3	12
250	—	<0.2	2	2	<1	12	71	164	9	<2	<2	10	106

^aMap numbers refer to sample locations on map sheet 2.

—Not analyzed.

Table 4. Fire assay gold and inductively coupled plasma (ICP) analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Au ppb	Ag ppm	As ppm	Bi ppm	Cd ppm	Co ppm	Cr ppm	Cu ppm	Ni ppm	Pb ppm	Sb ppm	Sr ppm	Zn ppm
251	25	2.2	76	2	1	81	39	300	25	52	2	14	92
252	—	0.4	58	<2	<1	16	84	40	23	22	<2	8	34
253	—	<0.2	6	<2	<1	3	151	4	8	6	<2	19	8
254	<5	<0.2	10	<2	<1	1	94	2	2	42	<2	3	<2
255	—	<0.2	14	<2	<0.5	8	165	12	16	6	<2	41	80
256	<5	<0.2	<2	2	<1	9	126	4	3	8	2	32	32
257	—	0.6	46	<2	<0.5	7	146	10	11	278	4	4	22
258	—	0.4	14	<2	0.5	8	220	29	20	246	<2	8	298
259	<5	<0.2	10	<2	<1	2	176	1	5	4	<2	1	4
260	—	0.4	52	2	<1	2	107	16	3	466	<2	9	114
261	—	<0.2	4	28	<1	31	137	1385	18	88	<2	4	104
262	—	<0.2	<2	<2	<0.5	6	55	15	4	<2	4	45	54
263	—	<0.2	<2	4	<0.5	7	47	2	<1	6	<2	39	56
264	—	<0.2	<2	<2	<0.5	3	142	7	9	4	<2	3	34
265	—	<0.2	<2	<2	<0.5	3	57	1	1	2	<2	26	58
266	—	<0.2	2	<2	<0.5	10	102	10	12	2	<2	57	76
267	—	<0.2	2	<2	<0.5	3	53	2	1	22	<2	53	42
268	—	<0.2	4	<2	<0.5	9	52	<1	2	<2	<2	20	68
269	—	<0.2	20	<2	<0.5	5	225	14	7	18	<2	20	38
270	—	<0.2	10	6	<0.5	7	66	7	<1	6	<2	23	42
271	—	<0.2	6	<2	<0.5	3	75	11	1	8	<2	21	62
272	—	<0.2	<2	<2	<0.5	4	89	4	2	2	<2	10	62
273	—	<0.2	8	<2	<0.5	3	58	7	1	<2	<2	9	60
274	<5	<0.2	4	<2	<1	<1	105	<1	1	4	<2	35	<2
275	—	0.2	4	<2	0.5	2	103	28	2	<2	<2	8	146
276	—	<0.2	4	<2	<0.5	1	109	2	3	18	<2	67	24
277	—	<0.2	<2	<2	<0.5	2	42	5	<1	<2	<2	13	38
278	—	0.2	<2	<2	<0.5	3	64	3	1	16	4	105	54
279	—	<0.2	<2	<2	<0.5	2	56	3	1	2	<2	28	40
280	<5	<0.2	10	<2	<1	<1	104	12	1	4	<2	7	28
281	<5	1.6	8	<2	<0.5	4	94	4	4	1470	<2	10	238
282	—	<0.2	2	<2	<0.5	2	96	2	2	2	<2	46	40
283	—	<0.2	4	<2	<0.5	2	62	4	7	2	<2	8	114
284	—	<0.2	2	<2	<0.5	2	53	<1	<1	2	<2	39	32
285	—	<0.2	<2	<2	<0.5	2	72	2	2	26	<2	68	74
286	—	0.2	748	<2	<1	2	67	3	<1	14	<2	31	26
287	—	<0.2	46	<2	<0.5	10	84	21	5	82	2	165	112
288	—	<0.2	<2	<2	<1	<1	182	2	3	2	<2	6	<2
289	—	<0.2	14	<2	<1	1	98	2	1	12	<2	149	80
290	<5	<0.2	6	<2	<0.5	9	84	<1	11	2	<2	45	134
291	—	<0.2	2	<2	<0.5	6	69	9	4	<2	<2	31	54
292	<5	<0.2	<2	<2	<0.5	<1	137	4	3	2	<2	13	14
293	—	0.2	<2	<2	<1	4	35	4	2	26	<2	25	42
294	—	<0.2	4	<2	<1	3	82	4	1	22	<2	22	48
295	—	<0.2	4	<2	<1	2	84	1	2	4	<2	3	<2
296	36	100	5720	222	9.5	11	16	2040	1	10000	82	3	510
297	—	<0.2	2	<2	<0.5	4	47	9	1	24	<2	22	54
298	—	<0.2	<2	<2	<0.5	3	54	3	1	12	<2	41	36
299	—	<0.2	4	<2	<0.5	12	61	4	2	2	<2	36	62
300	—	<0.2	2	<2	<0.5	3	62	2	1	2	<2	44	46

^aMap numbers refer to sample locations on map sheet 2.

—Not analyzed.

Table 4. Fire assay gold and inductively coupled plasma (ICP) analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Au ppb	Ag ppm	As ppm	Bi ppm	Cd ppm	Co ppm	Cr ppm	Cu ppm	Ni ppm	Pb ppm	Sb ppm	Sr ppm	Zn ppm
301	—	<0.2	<2	<2	<0.5	<1	72	1	4	2	<2	43	12
302	—	0.2	44	2	<1	2	147	16	1	46	6	5	38
303	—	<0.2	<2	<2	<0.5	4	55	2	1	14	<2	22	46
304	—	<0.2	<2	<2	<0.5	4	53	4	1	<2	<2	64	82
305	—	<0.2	2	<2	<0.5	2	147	1	34	16	<2	31	68
306	<5	<0.2	<2	<2	<0.5	1	58	1	1	16	<2	51	42
307	—	0.2	<2	<2	<0.5	3	36	<1	<1	62	2	14	94
308	<5	<0.2	<2	6	<1	2	162	<1	3	<2	<2	19	34
309	—	<0.2	2	<2	<0.5	13	53	15	13	14	<2	37	80
310	—	<0.2	4	<2	<0.5	3	97	5	1	<2	<2	23	56
311	—	<0.2	16	<2	<0.5	8	127	15	14	4	<2	9	42
312	—	<0.2	<2	<2	<0.5	8	77	11	3	6	<2	55	44
313	—	<0.2	<2	<2	<0.5	3	93	53	7	<2	<2	4	46
314	—	<0.2	2	<2	<0.5	1	47	45	1	<2	<2	35	16
315	—	<0.2	<2	<2	<0.5	2	87	2	1	12	<2	46	24
316	—	<0.2	<2	<2	0.5	22	245	3	34	18	2	207	98
317	—	<0.2	2	<2	<0.5	3	89	10	1	<2	<2	7	40
318	—	<0.2	6	<2	<0.5	7	64	6	3	16	<2	47	34
319	—	<0.2	2	<2	<0.5	18	58	1	37	<2	<2	43	76
320	—	<0.2	<2	<2	<0.5	3	147	5	9	2	<2	8	50
321	—	<0.2	16	<2	<1	1	62	9	4	52	<2	3	50
322	<5	<0.2	6	<2	<0.5	1	97	4	1	28	2	56	62
323	—	0.2	6	<2	1	4	137	33	21	26	4	16	138
324	—	0.2	2	<2	<1	<1	119	9	6	16	<2	8	44
325	—	<0.2	4	<2	<0.5	1	152	11	13	8	<2	7	42
326	—	0.6	32	<2	1	2	103	10	2	90	<2	9	220
327	125	4.2	46	<2	<1	23	156	62	3	736	8	4	48
328	<5	<0.2	22	<2	<0.5	<1	54	8	<1	<2	<2	6	4
329	<5	<0.2	<2	<2	<0.5	3	78	<1	6	6	<2	7	50
330	—	0.2	6	<2	<1	2	38	50	1	<2	<2	14	12
331	<5	<0.2	4	<2	<0.5	<1	52	1	1	2	<2	1	2
332	—	<0.2	<2	<2	<0.5	1	59	3	1	14	<2	106	36
333	—	<0.2	<2	<2	1.5	2	67	6	13	22	<2	95	1910
334	<5	<0.2	<2	<2	<0.5	13	42	52	22	<2	<2	6	98
335	<5	<0.2	2	<2	<1	16	40	9	14	<2	<2	7	32
336	<5	<0.2	<2	<2	<1	6	71	1	2	28	<2	23	50
337	—	<0.2	4	<2	<1	<1	77	18	<1	<2	<2	9	10
338	—	<0.2	<2	2	<0.5	4	56	41	1	2	<2	11	84
339	—	<0.2	<2	<2	<1	6	97	11	5	24	2	9	42
340	—	<0.2	2	<2	<1	<1	57	1	<1	4	<2	18	<2
341	—	<0.2	2	<2	<1	<1	115	7	4	14	<2	9	6
342	<5	<0.2	12	<2	0.5	7	115	362	7	14	<2	85	164
343	<5	0.6	36	84	1	12	56	176	8	56	<2	5	1700
344	—	<0.2	<2	<2	<0.5	19	138	5	37	4	<2	11	96
345	<5	<0.2	<2	<2	<0.5	5	44	3	3	<2	<2	17	56
346	—	<0.2	6	<2	<1	<1	163	3	2	18	<2	2	16
347	—	<0.2	<2	<2	<0.5	<1	150	6	2	20	2	3	6
348	<5	<0.2	<2	<2	<1	<1	179	2	3	2	<2	6	6
349	<5	<0.2	6	<2	<1	6	204	8	8	4	<2	6	18
350	—	<0.2	6	<2	<1	<1	55	1	<1	6	<2	7	20

^aMap numbers refer to sample locations on map sheet 2.

—Not analyzed.

Table 4. Fire assay gold and inductively coupled plasma (ICP) analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Au ppb	Ag ppm	As ppm	Bi ppm	Cd ppm	Co ppm	Cr ppm	Cu ppm	Ni ppm	Pb ppm	Sb ppm	Sr ppm	Zn ppm
351	—	<0.2	8	<2	<0.5	1	231	5	8	4	<2	4	44
352	—	0.2	26	12	<0.5	35	70	371	9	20	<2	50	144
353	—	<0.2	6	<2	<0.5	22	46	166	50	2	<2	46	54
354	—	<0.2	4	<2	<0.5	3	128	3	13	<2	<2	2	14
355	<5	<0.2	<2	<2	<1	1	131	21	6	2	<2	2	18
356	—	<0.2	<2	<2	<0.5	5	281	26	8	2	<2	11	16
357	<5	<0.2	<2	<2	<1	2	86	7	8	20	<2	26	8
358	—	<0.2	4	<2	<1	2	116	6	9	<2	<2	13	8
359	—	<0.2	14	<2	0.5	4	154	24	22	12	2	14	60
360	<5	<0.2	22	<2	<1	1	47	6	2	26	<2	14	24
361	—	<0.2	4	<2	<0.5	4	45	6	11	6	<2	13	110
362	—	<0.2	1440	<2	<0.5	29	42	335	<1	14	14	26	40
363	—	<0.2	2	<2	<0.5	10	63	16	13	4	2	26	54
364	—	<0.2	12	<2	<0.5	<1	32	2	1	18	<2	12	20
365	—	<0.2	<2	<2	<1	2	120	7	6	12	<2	13	18
366	—	<0.2	2	<2	<1	1	125	2	4	14	<2	56	10
367	—	<0.2	8	<2	<0.5	25	33	127	41	10	<2	56	46
368	—	<0.2	<2	<2	<0.5	1	117	11	11	<2	<2	11	12
369	—	0.2	64	<2	<0.5	6	119	6	3	44	<2	12	16
370	—	0.2	<2	6	9	39	66	2080	42	46	2	17	2120
371	—	<0.2	<2	<2	<0.5	1	105	6	<1	2	<2	80	40
372	—	<0.2	6	2	<0.5	13	24	3	1	2	<2	35	78
373	—	<0.2	<2	2	<0.5	31	65	193	38	2	<2	3	126
374	—	<0.2	52	<2	<0.5	8	54	3	1	<2	<2	65	22
375	—	<0.2	4	<2	<0.5	7	86	<1	3	14	<2	90	76
376	—	0.2	4	2	<0.5	8	62	2	6	22	<2	83	54
377	—	<0.2	2	<2	<0.5	4	249	8	7	14	<2	21	32
378	—	<0.2	4	2	<0.5	8	152	10	11	38	<2	56	36
379	—	<0.2	2	<2	<0.5	18	51	13	38	<2	<2	9	90
380	5	<0.2	16	<2	<0.5	6	120	37	7	42	<2	10	26
381	—	<0.2	8	<2	<0.5	<1	153	5	3	14	<2	31	20
382	—	<0.2	<2	<2	<0.5	5	97	1	2	10	<2	6	54
383	5	<0.2	18	<2	<0.5	17	58	27	34	12	<2	11	130
384	—	<0.2	<2	<2	<0.5	4	272	5	12	26	<2	8	40
385	<5	<0.2	6	<2	<1	7	58	12	13	8	<2	25	38
386	<5	<0.2	6	<2	<0.5	28	55	53	43	8	<2	142	138
387	<5	<0.2	2	<2	<0.5	8	78	3	4	34	<2	19	32
388	—	<0.2	2	<2	<0.5	2	78	1	2	8	<2	42	24
389	<5	0.2	16	2	3	13	100	171	21	78	<2	15	662
390	<5	<0.2	2	2	<1	2	217	12	6	2	<2	8	38
391	—	<0.2	4	<2	<0.5	9	104	13	19	4	<2	8	68
392	—	<0.2	2	<2	<0.5	5	93	5	8	18	<2	91	40
393	—	<0.2	<2	<2	<0.5	2	150	4	7	2	<2	8	24
394	—	<0.2	12	<2	<0.5	6	100	14	13	6	<2	20	30
395	—	<0.2	62	<2	1	3	238	276	8	20	<2	4	158
396	<5	<0.2	8	4	5	18	147	29	10	18	<2	4	1674
397	—	<0.2	<2	<2	<1	4	49	2	<1	6	<2	10	54
398	—	<0.2	2	<2	<1	5	45	7	1	6	2	22	56
399	—	<0.2	<2	<2	<1	9	36	16	<1	<2	2	20	62
400	—	<0.2	2	<2	<0.5	6	64	10	2	6	<2	17	14

^aMap numbers refer to sample locations on map sheet 2.

—Not analyzed.

Table 4. Fire assay gold and inductively coupled plasma (ICP) analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Au ppb	Ag ppm	As ppm	Bi ppm	Cd ppm	Co ppm	Cr ppm	Cu ppm	Ni ppm	Pb ppm	Sb ppm	Sr ppm	Zn ppm
401	—	<0.2	2	<2	<0.5	6	340	9	12	34	<2	15	26
402	—	<0.2	4	<2	<0.5	1	203	14	3	34	<2	14	4
403	—	<0.2	6	<2	<0.5	7	57	8	2	2	<2	11	68
404	—	<0.2	<2	<2	<0.5	2	89	2	2	2	<2	67	46
405	—	<0.2	<2	<2	<0.5	1	110	3	6	22	<2	14	16
406	—	<0.2	<2	<2	<0.5	4	62	<1	3	10	<2	22	16
407	—	<0.2	2	<2	<0.5	<1	94	<1	1	12	<2	10	6
408	<5	<0.2	18	<2	<1	1	100	1	2	12	<2	6	2
409	—	<0.2	<2	<2	<0.5	2	49	8	1	6	<2	8	48
410	<5	<0.2	14	<2	<1	2	104	1	3	32	<2	11	8
411	—	<0.2	2	<2	<0.5	3	69	17	1	12	<2	20	34
412	—	<0.2	16	<2	<0.5	3	84	8	2	12	<2	9	14
413	—	<0.2	<2	<2	<0.5	1	75	1	1	4	<2	17	4
414	—	<0.2	2	2	<0.5	6	57	<1	1	16	<2	20	52
415	—	<0.2	2	2	<0.5	12	51	26	2	4	<2	76	54
416	<5	<0.2	<2	<2	<1	4	82	19	2	2	<2	10	30
417	—	<0.2	2	<2	<0.5	5	74	<1	<1	2	<2	31	52
418	—	<0.2	<2	<2	<0.5	7	103	17	6	2	<2	26	24
419	—	<0.2	10	<2	<0.5	8	85	7	2	8	<2	69	26
420	—	<0.2	4	<2	<0.5	3	96	4	3	10	<2	6	20
421	—	<0.2	2	2	<0.5	6	97	107	4	8	<2	28	58
422	—	<0.2	2	<2	<0.5	5	47	3	2	4	<2	16	84
423	—	<0.2	<2	2	<0.5	15	51	43	22	4	<2	5	144
424	—	<0.2	2	<2	<0.5	3	77	5	2	18	<2	41	34
425	—	<0.2	<2	6	<0.5	31	26	567	<1	<2	2	34	116
426	—	0.2	4	<2	<0.5	30	28	539	<1	2	<2	38	116
427	—	<0.2	<2	<2	<0.5	2	59	15	1	2	<2	3	12
428	—	<0.2	8	<2	<0.5	17	149	43	24	8	<2	8	68
429	—	<0.2	4	2	<0.5	5	146	3	6	38	<2	75	104
430	—	<0.2	<2	<2	<0.5	5	104	10	11	4	<2	8	30
431	—	<0.2	6	10	<0.5	19	233	85	67	2	<2	44	46
432	—	0.8	2	<2	<0.5	<1	246	3	4	8	<2	9	4
433	—	0.2	2	<2	<0.5	<1	228	1	3	4	<2	8	4
434	<5	0.2	2	<2	<1	1	66	16	8	2	<2	13	30
435	<5	<0.2	6	<2	<1	1	128	15	13	4	<2	13	40
436	—	0.2	<2	<2	<0.5	4	370	22	23	4	<2	15	64
437	—	0.2	26	<2	<1	1	109	33	9	2	<2	13	18
438	—	<0.2	<2	<2	<0.5	14	108	57	38	14	<2	107	36
439	—	<0.2	<2	<2	<0.5	3	103	4	1	22	<2	170	26
440	—	<0.2	<2	<2	<0.5	3	119	2	2	16	<2	80	34
441	—	<0.2	16	<2	<1	2	53	9	<1	4	<2	38	16
442	—	<0.2	<2	<2	<0.5	2	208	<1	3	<2	12	39	12
443	—	0.4	<2	<2	0.5	19	82	14	8	50	12	66	148
444	—	<0.2	8	<2	<0.5	2	132	1	1	8	4	33	44
445	—	<0.2	38	<2	<0.5	2	145	4	1	22	2	42	44
446	—	<0.2	<2	<2	<1	3	229	4	13	<2	<2	10	14
447	—	<0.2	12	<2	<1	<1	115	1	1	2	<2	14	20
448	—	<0.2	194	<2	0.5	<1	96	3	1	10	<2	11	2
449	—	<0.2	<2	<2	<1	3	101	7	2	22	2	69	34
450	—	0.2	12	<2	<1	7	66	3	5	14	<2	4	52

^aMap numbers refer to sample locations on map sheet 2.

—Not analyzed.

Table 4. Fire assay gold and inductively coupled plasma (ICP) analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Au ppb	Ag ppm	As ppm	Bi ppm	Cd ppm	Co ppm	Cr ppm	Cu ppm	Ni ppm	Pb ppm	Sb ppm	Sr ppm	Zn ppm
451	—	<0.2	<2	<2	<0.5	3	94	8	2	10	2	29	52
452	—	<0.2	<2	<2	<0.5	3	130	1	1	<2	<2	11	32
453	—	<0.2	2	<2	<0.5	3	81	<1	<1	22	<2	7	22
454	—	<0.2	6	<2	<1	1	308	12	8	<2	<2	3	12
455	—	<0.2	8	<2	<1	3	99	14	1	<2	<2	28	36
456	—	0.2	<2	<2	<0.5	4	27	3	<1	24	<2	87	42
457	—	0.2	<2	<2	<0.5	2	60	<1	<1	4	2	27	6
458	—	<0.2	<2	<2	<0.5	1	45	<1	<1	8	2	32	24
459	—	<0.2	<2	<2	<0.5	1	47	<1	1	4	<2	6	28
460	—	<0.2	4	<2	<0.5	2	128	21	2	24	<2	9	22
461	—	<0.2	4	<2	<1	<1	96	4	<1	8	<2	10	12
462	—	<0.2	26	<2	<1	16	120	37	39	4	<2	14	52
463	—	0.2	6	<2	1	8	187	25	27	26	10	68	178
464	—	0.2	<2	<2	0.5	1	132	4	1	14	4	52	60
465	<5	<0.2	6	<2	<1	<1	123	63	1	6	<2	11	34
466	<5	<0.2	<2	<2	<1	1	55	5	<1	26	<2	13	2
467	<5	<0.2	12	<2	<1	2	66	7	1	4	<2	19	50
468	<5	0.6	16	<2	1	10	53	88	47	52	2	42	246
469	5	1.2	12	<2	<1	7	83	26	12	324	<2	6	18
470	<5	<0.2	4	<2	<1	4	48	3	1	48	2	45	46
471	<5	<0.2	2	<2	<1	1	49	10	1	4	<2	35	48
472	<5	<0.2	6	<2	<1	9	79	40	8	4	<2	4	64
473	—	<0.2	12	<2	<0.5	13	78	13	6	4	<2	24	30
474	—	<0.2	16	<2	<0.5	4	150	1	2	14	2	6	2
475	—	0.2	12	<2	<1	<1	109	<1	1	68	<2	4	4
476	—	0.2	<2	<2	<1	3	156	2	6	48	<2	4	22
477	—	<0.2	4	<2	<1	4	87	10	2	12	<2	6	16
478	—	<0.2	6	<2	<1	6	92	4	2	4	<2	28	50
479	—	<0.2	6	2	<1	3	106	4	1	2	<2	19	44
480	<5	0.2	6	<2	<1	8	122	27	22	56	<2	25	94
481	<5	0.2	28	<2	<1	1	64	2	1	76	<2	7	6
482	—	<0.2	10	<2	<0.5	<1	93	<1	2	44	2	10	4
483	—	<0.2	50	<2	<0.5	7	74	48	4	16	<2	6	134
484	<5	<0.2	20	<2	<1	<1	220	10	4	152	<2	5	48
485	—	<0.2	14	2	<0.5	19	98	151	47	2	4	58	54
486	1	<0.2	2	<2	<1	<1	83	<1	<1	16	<2	7	<2
487	—	<0.2	4	<2	<1	3	96	9	11	16	<2	4	46
488	<5	<0.2	6	<2	<1	1	216	4	4	6	<2	4	4
489	—	<0.2	4	<2	<0.5	5	85	2	1	6	2	76	36
490	<5	<0.2	<2	<2	<1	3	82	3	<1	<2	<2	36	36
491	—	<0.2	6	<2	<1	3	79	8	1	4	<2	5	18
492	—	1	36	8	3	3	118	156	7	152	<2	5	820
493	—	<0.2	28	<2	<1	30	117	165	63	8	4	73	82
494	<5	<0.2	10	<2	<0.5	12	75	60	15	10	<2	5	90
495	<5	<0.2	6	<2	<0.5	21	76	60	29	20	<2	8	118
496	<5	<0.2	10	<2	<0.5	28	86	38	49	24	<2	4	200
497	—	<0.2	<2	<2	<0.5	33	19	363	18	<2	<2	61	124
498	—	0.2	<2	2	<0.5	11	30	<1	<1	4	<2	23	76
499	—	<0.2	18	<2	<0.5	17	77	23	29	26	12	14	106
500	—	<0.2	14	<2	<0.5	5	266	7	7	2	6	29	12

^aMap numbers refer to sample locations on map sheet 2.

—Not analyzed.

Table 4. Fire assay gold and inductively coupled plasma (ICP) analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Au ppb	Ag ppm	As ppm	Bi ppm	Cd ppm	Co ppm	Cr ppm	Cu ppm	Ni ppm	Pb ppm	Sb ppm	Sr ppm	Zn ppm
501	45	1.2	50	2	<1	1	193	3	3	106	<2	5	18
502	—	<0.2	<2	<2	0.5	2	79	9	1	30	<2	25	6
503	—	<0.2	<2	<2	<0.5	1	85	4	1	<2	2	22	8
504	—	0.2	10	<2	<0.5	4	171	5	6	16	<2	5	20
505	—	<0.2	54	<2	<0.5	3	132	8	5	2	12	15	14
506	<5	<0.2	264	<2	<0.5	9	90	36	9	8	<2	14	14
507	—	<0.2	2	<2	<0.5	18	49	177	23	2	2	26	36
508	—	<0.2	4	2	<0.5	9	65	7	1	<2	4	28	90
509	<5	0.4	<2	<2	<0.5	1	59	39	8	26	<2	9	62
510	<5	<0.2	<2	<2	0.5	11	46	53	59	4	<2	15	266
511	—	<0.2	<2	<2	1	23	13	4	7	4	<2	4	128
512	—	<0.2	<2	<2	<0.5	5	63	<1	<1	8	2	27	66
513	—	<0.2	<2	<2	<0.5	2	101	2	7	4	<2	7	18
514	<5	<0.2	4	<2	<0.5	5	68	4	4	10	<2	30	54
515	—	<0.2	<2	<2	<0.5	2	43	<1	<1	20	2	10	58
516	—	0.2	8	2	<0.5	4	86	15	19	14	2	5	90
517	—	<0.2	4	<2	1	10	78	13	47	<2	<2	9	116
518	—	0.2	<2	<2	<0.5	3	43	<1	5	22	<2	23	38
519	—	<0.2	8	<2	<0.5	2	94	<1	1	40	<2	58	64
520	—	<0.2	4	<2	<0.5	7	70	1	4	2	<2	4	36
521	—	0.6	12	<2	<0.5	<1	130	2	2	450	<2	4	16
522	—	0.2	2	<2	<0.5	4	122	<1	1	20	6	52	28
523	—	<0.2	<2	2	<0.5	25	127	13	16	<2	<2	18	56
524	—	<0.2	<2	4	<0.5	3	74	<1	1	32	<2	30	52
525	—	0.6	70	<2	<0.5	4	113	120	<1	28	6	1	16
526	—	<0.2	<2	4	<0.5	4	218	13	13	18	<2	10	32
527	—	<0.2	<2	<2	<0.5	14	153	26	27	6	<2	16	68
528	—	<0.2	42	<2	<1	6	199	7	14	<2	2	15	24
529	—	0.6	<2	<2	<0.5	7	101	9	13	12	<2	188	22
530	15	<0.2	2038	<2	<1	<1	270	2	4	<2	6	7	4
531	—	<0.2	<2	<2	<0.5	5	83	3	2	<2	<2	26	18
532	—	<0.2	6	<2	<0.5	<1	141	<1	1	8	<2	8	6
533	—	<0.2	38	<2	<0.5	<1	188	1	3	30	<2	4	16
534	—	<0.2	4	<2	<1	8	70	6	4	12	<2	33	70
535	—	<0.2	2	<2	<1	6	105	31	13	30	<2	7	64
536	—	0.8	8	2	4	3	151	64	8	662	<2	9	2072
537	—	<0.2	34	<2	<1	6	81	2	3	40	<2	7	66
538	—	<0.2	22	<2	<1	6	130	15	15	18	2	78	28
539	<5	<0.2	4	<2	<1	3	122	11	3	20	<2	22	10
540	<5	<0.2	<2	<2	<1	2	90	2	3	16	2	116	2
541	<5	<0.2	4	<2	<1	4	125	6	15	12	<2	7	24
542	—	<0.2	8	<2	<0.5	2	77	5	19	8	6	19	40
543	—	0.2	4590	<2	<0.5	4	247	12	7	8	74	3	12
544	—	<0.2	<2	<2	<0.5	29	56	7	22	2	2	1645	330
545	—	0.2	98	2	<1	1	82	35	2	18	<2	<1	16
546	—	<0.2	<2	<2	1	<1	101	7	2	2	<2	6	334
547	7	4.2	512	8	<1	1	76	129	2	28	36	<1	106
548	—	0.2	18	<2	<1	6	60	17	3	44	<2	18	90
549	—	<0.2	4	<2	<1	2	99	2	3	6	<2	50	4
550	245	69.4	108	6	<1	<1	118	78	1	8420	102	7	156

^aMap numbers refer to sample locations on map sheet 2.

—Not analyzed.

Table 4. Fire assay gold and inductively coupled plasma (ICP) analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Au ppb	Ag ppm	As ppm	Bi ppm	Cd ppm	Co ppm	Cr ppm	Cu ppm	Ni ppm	Pb ppm	Sb ppm	Sr ppm	Zn ppm
551	65	24.6	878	20	100	9	24	10800	21	56300	16	12	49200
552	<5	<0.2	<2	2	<1	6	85	<1	1	14	<2	27	68
553	<5	<0.2	<2	2	<1	4	35	7	<1	<2	<2	36	56
554	—	<0.2	<2	<2	<0.5	5	36	3	<1	16	2	30	66
555	<5	<0.2	6	<2	<1	<1	107	6	2	10	<2	64	20
556	—	<0.2	4	<2	<0.5	26	133	49	88	<2	4	52	48
557	—	<0.2	<2	<2	<0.5	1	183	1	9	4	<2	6	14
558	—	<0.2	26	<2	<0.5	<1	185	2	3	8	<2	4	2
559	—	<0.2	4	<2	<0.5	10	117	10	22	4	6	115	58
560	—	<0.2	2	<2	<0.5	4	171	5	9	4	<2	4	28
561	—	0.2	<2	2	0.5	23	15	193	21	2	8	47	86
562	—	<0.2	<2	<2	<1	2	82	2	2	8	<2	92	18
563	<5	<0.2	<2	<2	<1	<1	83	2	2	18	<2	53	12
564	—	<0.2	2	<2	1	3	44	6	<1	8	2	30	76
565	<5	0.6	34	<2	1	1	212	10000	16	268	<2	6	318
566	<5	<0.2	8	<2	<1	1	83	117	1	20	<2	79	6
567	—	<0.2	2	<2	<1	<1	165	2	2	4	<2	1	6
568	—	<0.2	<2	<2	<1	1	155	1	4	4	<2	10	6
569	—	<0.2	2	<2	<0.5	1	314	5	7	2	<2	1	52
570	—	<0.2	6	<2	<0.5	3	97	2	6	<2	<2	2	64
571	—	2.6	<2	4	10	12	93	249	34	1025	<2	35	1040
572	—	<0.2	<2	<2	<0.5	9	46	16	13	2	<2	68	30
573	—	<0.2	12	<2	<1	4	222	18	9	4	<2	9	22
574	—	2	96	42	4	61	185	1340	16	18	<2	8	1230
575	—	<0.2	8	<2	<0.5	1	167	5	1	14	<2	2	22
576	—	0.4	<2	4	0.5	2	98	48	1	52	2	10	180
577	—	<0.2	<2	<2	<0.5	1	81	<1	3	<2	<2	1	4
578	<5	<0.2	<2	<2	<1	<1	32	1	<1	10	<2	7	66
579	<5	<0.2	4	<2	<1	<1	78	<1	1	58	<2	3	2
580	<5	<0.2	2	<2	1	<1	83	3	1	2	<2	2	12
581	<5	<0.2	<2	<2	<1	<1	46	3	1	<2	<2	3	30
582	<5	<0.2	<2	<2	<1	<1	26	4	1	26	<2	13	96
583	<5	<0.2	4	<2	<1	<1	41	8	<1	16	<2	6	64
584	<5	<0.2	<2	<2	1	2	95	7	3	8	<2	19	34
585	<5	<0.2	2	<2	<1	<1	29	2	<1	14	<2	1	60
586	—	<0.2	14	<2	<0.5	1	180	1	2	14	<2	32	20
587	<5	<0.2	<2	2	<1	1	87	20	4	10	<2	6	128
588	—	0.6	100	<2	<0.5	2	68	7	2	16	<2	41	50
589	<5	<0.2	<2	2	<1	<1	74	1	<1	10	<2	20	54
590	—	<0.2	2	<2	<0.5	<1	33	<1	<1	2	<2	7	6
591	<5	<0.2	<2	<2	<1	<1	63	2	1	20	<2	25	52
592	—	<0.2	<2	<2	<1	<1	77	1	1	2	<2	30	16
593	—	<0.2	2	<2	<1	<1	82	1	3	6	<2	6	36
594	—	<0.2	<2	<2	<1	<1	111	4	1	2	<2	10	8
595	—	<0.2	<2	<2	<1	<1	110	2	2	<2	2	4	58
596	—	<0.2	<2	<2	<0.5	5	40	<1	<1	2	2	10	42
597	<5	<0.2	4	<2	<1	2	48	6	8	<2	<2	1	34
598	<5	<0.2	<2	<2	<1	1	48	6	4	4	<2	1	26
599	<5	0.2	2	2	1	1	49	55	4	26	<2	2	326
600	<5	1.8	6	4	<1	1	72	41	2	48	<2	2	142

^aMap numbers refer to sample locations on map sheet 2.

—Not analyzed.

Table 4. Fire assay gold and inductively coupled plasma (ICP) analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Au ppb	Ag ppm	As ppm	Bi ppm	Cd ppm	Co ppm	Cr ppm	Cu ppm	Ni ppm	Pb ppm	Sb ppm	Sr ppm	Zn ppm
601	—	0.2	<2	<2	<1	1	135	24	7	20	2	5	114
602	<5	0.2	4	2	1	9	86	303	7	126	<2	92	238
603	—	<0.2	14	<2	<0.5	4	200	5	9	14	2	36	22
604	—	<0.2	<2	<2	<1	2	183	8	6	8	2	20	20
605	—	<0.2	2	<2	<1	8	192	4	13	2	<2	9	36
606	—	<0.2	2	<2	<1	2	125	45	4	18	<2	3	44
607	—	<0.2	<2	<2	<1	7	143	16	17	4	<2	14	12
608	—	<0.2	12	<2	<1	<1	116	26	1	4	<2	23	2
609	—	<0.2	4	<2	<1	1	197	57	8	8	2	<1	138
610	—	<0.2	8	<2	<0.5	1	82	7	6	24	<2	7	6
611	—	0.2	4	<2	<0.5	7	72	101	45	4	<2	4	54
612	—	<0.2	<2	<2	<0.5	8	103	3	52	2	2	1	44
613	—	<0.2	2	4	<0.5	10	179	3	42	<2	2	6	48
614	—	<0.2	<2	<2	<0.5	7	40	1	<1	2	6	61	98
615	—	<0.2	<2	<2	<0.5	7	50	8	4	2	2	21	120
616	—	<0.2	<2	<2	1	1	163	15	5	150	<2	2	144
617	—	<0.2	<2	2	<0.5	6	165	26	12	20	2	3	30
618	—	<0.2	<2	<2	<0.5	1	105	12	1	158	2	75	58
619	—	<0.2	8	<2	<1	6	207	6	13	<2	2	13	30
620	—	<0.2	34	<2	<1	<1	108	9	<1	22	<2	14	116
621	—	<0.2	12	<2	<1	1	268	4	13	10	<2	6	56
622	—	0.4	4	<2	<0.5	12	64	14	13	<2	<2	46	142
623	5	0.2	50	<2	<0.5	40	72	3200	60	2	6	24	212
624	—	<0.2	<2	<2	0.5	38	237	61	176	<2	2	309	110
625	—	0.2	2	<2	<0.5	14	134	4	27	<2	2	6	68
626	—	<0.2	<2	<2	<0.5	9	156	17	21	<2	<2	5	70
627	—	0.2	8	<2	<0.5	14	136	29	21	14	<2	12	142
628	—	<0.2	2	<2	<1	2	194	7	8	16	<2	9	32
629	—	<0.2	<2	<2	<1	<1	131	2	3	<2	2	6	16
630	<5	<0.2	6	2	<1	6	178	17	14	2	<2	5	14
631	—	0.2	<2	<2	1	12	76	24	24	4	4	54	192
632	<5	<0.2	4	<2	<1	3	227	14	6	108	<2	119	140
633	—	<0.2	<2	<2	0.5	21	85	64	51	2	4	8	112
634	—	<0.2	<2	<2	<0.5	8	88	<1	21	6	<2	10	42
635	—	<0.2	2	<2	<1	3	209	3	12	8	2	13	18
636	—	<0.2	<2	<2	<0.5	6	84	15	17	6	2	55	26
637	—	0.2	<2	<2	<0.5	4	44	31	1	66	2	7	122
638	<5	<0.2	8	2	<1	1	164	9	3	4	<2	<1	20
639	<5	<0.2	<2	<2	<1	1	75	2	1	16	<2	6	4
640	—	<0.2	4	<2	<0.5	21	77	96	26	20	6	32	76
641	—	<0.2	<2	<2	0.5	13	35	25	18	2	2	245	140
642	—	<0.2	<2	<2	<0.5	2	132	28	3	18	<2	12	6
643	—	<0.2	2	<2	<0.5	1	86	39	1	4	<2	8	70
644	—	<0.2	40	<2	<0.5	24	29	70	41	6	2	9	110
645	—	<0.2	<2	6	<0.5	10	102	131	18	2	<2	74	34
646	—	<0.2	2	<2	<1	<1	147	9	4	2	<2	2	22
647	—	<0.2	<2	<2	<1	3	267	7	6	2	<2	15	24
648	—	<0.2	<2	<2	<1	3	96	1	9	<2	<2	4	16
649	<5	0.2	<2	<2	<1	14	67	1	7	16	<2	9	174
650	<5	<0.2	<2	2	<1	10	53	27	10	<2	<2	7	50

^aMap numbers refer to sample locations on map sheet 2.

—Not analyzed.

Table 4. Fire assay gold and inductively coupled plasma (ICP) analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Au ppb	Ag ppm	As ppm	Bi ppm	Cd ppm	Co ppm	Cr ppm	Cu ppm	Ni ppm	Pb ppm	Sb ppm	Sr ppm	Zn ppm
651	<5	<0.2	4	<2	<1	1	61	1	1	4	2	4	<2
652	<5	<0.2	<2	<2	<1	2	88	8	2	<2	<2	19	76
653	—	<0.2	<2	2	<0.5	<1	78	5	1	12	<2	13	32
654	<5	<0.2	4	<2	<1	1	94	1	2	8	2	9	10
655	—	<0.2	8	<2	<0.5	2	99	7	15	8	<2	7	80
656	—	<0.2	8	<2	<0.5	<1	60	9	7	10	<2	7	122
657	<5	<0.2	<2	<2	<1	1	107	1	2	14	<2	3	<2
658	<5	<0.2	2	<2	<1	<1	110	<1	1	<2	<2	3	16
659	<5	5.2	<2	20	3	13	243	142	10	720	4	38	392
660	—	<0.2	<2	<2	<0.5	3	249	11	7	10	<2	4	44
661	—	0.2	<2	<2	<0.5	14	88	26	32	<2	<2	8	90
662	—	<0.2	<2	<2	<0.5	9	153	1	21	<2	<2	5	74
663	—	<0.2	<2	<2	<0.5	17	109	9	36	<2	2	6	86
664	—	<0.2	<2	<2	<0.5	2	291	4	10	10	<2	3	14
665	—	0.6	10	2	<0.5	3	163	24	13	78	<2	6	66
666	—	<0.2	<2	<2	<0.5	2	216	2	5	12	<2	31	12
667	—	0.4	30	<2	<0.5	20	104	7	47	8	2	7	80
668	—	0.2	<2	<2	<0.5	12	129	11	26	2	<2	4	64
669	—	0.2	6	<2	<0.5	21	33	118	20	<2	4	42	52
670	—	<0.2	4	<2	<0.5	23	13	176	9	<2	<2	53	82
671	—	0.2	2	<2	<1	<1	70	18	<1	20	<2	18	38
672	—	<0.2	4	<2	<0.5	22	18	141	25	2	<2	39	56
673	—	0.2	6	<2	<1	1	45	21	4	24	<2	8	50
674	—	<0.2	<2	<2	<1	3	38	15	3	<2	2	32	68
675	—	<0.2	<2	<2	<1	10	31	2	27	18	2	73	78
676	—	<0.2	2	<2	<1	2	57	4	1	4	2	12	38
677	<5	<0.2	8	<2	1	4	91	8	1	56	<2	10	698
678	2	9.8	<2	44	54	19	130	2282	17	812	<2	3	22900
679	—	<0.2	2	<2	<0.5	1	96	4	1	8	<2	19	8
680	<5	<0.2	<2	2	<1	17	28	94	28	2	<2	22	18
681	<5	<0.2	6	<2	<1	6	46	<1	6	6	<2	9	54
682	<5	<0.2	18	<2	<1	2	178	7	10	32	<2	15	12
683	—	<0.2	22	<2	<0.5	4	69	23	2	2	<2	21	48
684	—	<0.2	4	<2	<0.5	1	92	8	2	2	<2	5	20
685	—	<0.2	<2	<2	<0.5	2	138	1	10	4	<2	15	38
686	—	<0.2	<2	2	<0.5	<1	56	<1	<1	14	2	10	<2
687	—	<0.2	<2	<2	<0.5	1	42	<1	<1	2	2	21	22
688	—	<0.2	<2	<2	0.5	15	46	8	1	8	2	57	64
689	—	<0.2	<2	<2	<0.5	7	43	7	8	2	4	70	40
690	—	0.2	6	<2	<1	<1	105	4	1	16	<2	7	20
691	—	<0.2	<2	<2	<0.5	17	39	3	3	<2	6	104	56
692	—	<0.2	10	<2	<1	4	56	13	<1	16	<2	5	64
693	—	1	44	<2	2	59	86	3610	366	<2	4	28	80
694	—	<0.2	182	<2	<1	3	154	7	2	12	<2	5	42
695	—	<0.2	<2	<2	<1	<1	112	1	1	8	<2	1	2
696	—	0.2	6	<2	<0.5	7	142	17	2	14	<2	7	56
697	—	0.2	6	<2	<0.5	8	115	7	2	8	2	31	76
698	<5	<0.2	2	<2	<1	3	61	7	2	8	<2	8	34
699	<5	<0.2	6	<2	<1	4	42	3	<1	12	<2	65	6
700	—	<0.2	<2	<2	<1	3	25	17	1	<2	<2	8	82

^aMap numbers refer to sample locations on map sheet 2.

—Not analyzed.

Table 4. Fire assay gold and inductively coupled plasma (ICP) analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Au ppb	Ag ppm	As ppm	Bi ppm	Cd ppm	Co ppm	Cr ppm	Cu ppm	Ni ppm	Pb ppm	Sb ppm	Sr ppm	Zn ppm
701	—	<0.2	22	<2	<1	1	67	3	2	8	<2	3	2
702	<5	<0.2	2	<2	<1	3	50	7	2	2	<2	16	36
703	<5	<0.2	<2	<2	<1	4	52	9	2	22	2	66	8
704	<5	<0.2	2	<2	<1	8	87	183	2	2	<2	4	2
705	<5	<0.2	4	<2	<1	2	57	3	<1	38	<2	26	38
706	—	0.2	6	<2	<1	3	32	21	<1	16	<2	15	84
707	—	<0.2	12	<2	<1	20	12	6	1	2	<2	14	100
708	—	<0.2	2	<2	<1	2	30	2	<1	34	<2	86	30
709	—	<0.2	<2	<2	<1	2	55	14	1	18	2	104	40
710	—	<0.2	<2	<2	<1	3	37	9	6	4	2	5	132
711	<5	<0.2	<2	<2	<1	<1	70	3	<1	4	<2	7	42
712	—	<0.2	4	<2	<0.5	2	190	11	10	10	<2	3	4
713	—	<0.2	<2	2	<0.5	19	65	89	32	10	<2	9	146
714	—	<0.2	<2	<2	<0.5	3	74	327	4	38	<2	9	40
715	—	<0.2	14	2	<0.5	18	134	39	39	24	<2	7	110
716	—	<0.2	2	<2	<0.5	<1	236	1	3	6	<2	3	2
717	—	<0.2	2	<2	<1	6	24	13	2	14	2	147	68
718	5	<0.2	4	<2	<1	<1	76	15	<1	38	<2	3	16
719	—	<0.2	<2	<2	<0.5	2	50	8	1	<2	<2	11	8
720	<5	<0.2	16	<2	<1	<1	70	22	<1	<2	<2	36	2
721	—	<0.2	<2	<2	<0.5	2	66	<1	1	4	<2	9	30
722	—	<0.2	<2	<2	<0.5	3	110	1	2	<2	<2	8	46
723	—	<0.2	<2	<2	<1	3	28	2	1	22	<2	68	28
724	—	<0.2	<2	2	<0.5	20	32	<1	43	4	2	17	86
725	—	<0.2	2	<2	<0.5	19	56	23	38	<2	<2	13	96
726	—	<0.2	<2	<2	<0.5	1	50	4	2	20	<2	13	6
727	<5	<0.2	<2	<2	<1	1	239	4	4	46	<2	34	<2
728	<5	<0.2	2	<2	<1	4	119	1	2	8	<2	6	<2
729	<5	<0.2	4	<2	<1	2	195	1	6	<2	2	12	<2
730	<5	<0.2	<2	<2	<1	4	181	33	11	4	<2	8	38
731	<5	<0.2	2	<2	<1	1	209	2	5	6	<2	3	12
732	<5	<0.2	2	<2	<1	3	244	7	10	16	<2	14	18
733	—	<0.2	<2	<2	<0.5	4	138	15	7	4	<2	3	36
734	<5	<0.2	6	<2	<1	6	168	16	12	4	<2	2	26
735	—	<0.2	<2	<2	<0.5	1	265	4	5	2	<2	8	6
736	—	<0.2	46	2	<0.5	22	57	26	40	8	<2	18	66
737	—	<0.2	<2	<2	<0.5	8	112	13	17	8	<2	14	46
738	—	<0.2	<2	<2	<0.5	10	124	13	18	8	<2	4	40
739	—	<0.2	6	<2	<0.5	2	197	17	9	4	<2	2	20
740	1	4.8	54	2	4	35	114	3820	23	268	<2	6	1180
741	—	<0.2	2	<2	<0.5	2	190	6	6	6	<2	3	40
742	—	<0.2	<2	<2	<0.5	2	196	2	6	<2	<2	4	10
743	—	<0.2	<2	<2	<0.5	3	237	1	9	2	<2	9	14
744	—	<0.2	10	<2	<0.5	7	76	18	19	6	<2	19	50
745	—	<0.2	2	2	<0.5	<1	88	<1	1	18	<2	7	42
746	<5	<0.2	6	<2	<1	3	97	9	3	52	<2	4	6
747	—	<0.2	6	<2	<0.5	7	129	34	19	24	<2	5	74
748	<5	<0.2	8	<2	<0.5	1	148	6	3	4	<2	1	24
749	—	<0.2	34	<2	<0.5	<1	262	5	5	8	<2	2	6
750	<5	0.2	10	<2	0.5	13	99	37	23	20	<2	7	282

^aMap numbers refer to sample locations on map sheet 2.

—Not analyzed.

Table 4. Fire assay gold and inductively coupled plasma (ICP) analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Au ppb	Ag ppm	As ppm	Bi ppm	Cd ppm	Co ppm	Cr ppm	Cu ppm	Ni ppm	Pb ppm	Sb ppm	Sr ppm	Zn ppm
751	<5	<0.2	10	<2	<0.5	4	112	12	10	36	<2	4	90
752	—	<0.2	<2	<2	<1	1	203	8	5	4	<2	3	14
753	—	<0.2	<2	<2	<0.5	14	67	23	28	2	2	2	72
754	—	<0.2	6	<2	<0.5	9	150	23	18	6	8	15	16
755	—	<0.2	64	<2	<0.5	6	45	10	7	28	4	4	10
756	—	<0.2	<2	<2	<0.5	2	38	5	1	16	2	23	30
757	—	<0.2	<2	4	<0.5	15	118	20	30	34	2	22	118
758	—	<0.2	<2	2	<0.5	2	47	1	1	60	2	114	24
759	<5	<0.2	28	<2	<1	7	75	2	2	48	<2	3	8
760	—	<0.2	2	<2	<0.5	2	85	<1	1	2	<2	10	28
761	1	0.6	40	<2	<1	2	122	5	1	40	2	6	<2
762	—	1	22	<2	<0.5	2	110	10	2	352	<2	22	16
763	—	<0.2	2	<2	<0.5	20	50	13	1	<2	<2	73	50
764	—	<0.2	8	<2	<0.5	3	40	7	1	2	<2	20	42
765	—	<0.2	8	<2	<0.5	1	60	<1	1	20	<2	4	2
766	—	<0.2	<2	<2	<0.5	3	52	9	1	10	<2	4	36
767	<5	<0.2	8	<2	<1	<1	113	2	1	12	2	7	26
768	<5	<0.2	8	<2	<1	<1	107	1	1	16	<2	13	6
769	<5	<0.2	4	<2	<1	<1	64	1	<1	20	<2	17	10
770	<5	<0.2	4	<2	1	<1	52	7	14	6	<2	18	110
771	—	0.4	24	<2	<0.5	6	147	7	13	20	<2	6	30
772	—	0.2	14	<2	<0.5	2	262	7	7	30	<2	4	26
773	—	<0.2	<2	<2	<0.5	<1	112	<1	1	16	<2	10	8
774	<5	0.8	4	<2	1	3	215	204	4	312	<2	6	678
775	<5	0.6	42	<2	<1	<1	66	2	<1	70	<2	2	4
776	—	<0.2	<2	<2	<1	<1	46	18	<1	2	<2	1	<2
777	—	<0.2	<2	<2	<1	22	61	15	39	<2	6	130	100
778	—	<0.2	2	<2	<1	1	72	2	1	8	<2	3	2
779	—	<0.2	56	<2	<1	<1	52	4	1	20	<2	20	4
780	—	<0.2	4	<2	<1	<1	65	4	1	14	<2	6	2
781	—	<0.2	<2	<2	<1	<1	26	7	1	14	4	53	28
782	—	<0.2	8	<2	<0.5	15	212	6	55	6	6	23	32
783	—	<0.2	<2	<2	<1	11	155	60	22	2	4	13	30
784	—	<0.2	26	<2	<0.5	<1	91	10	3	6	<2	4	6
785	—	0.4	<2	<2	<0.5	16	78	5	29	2	<2	17	78
786	—	0.6	4	<2	<0.5	2	353	21	11	22	<2	31	70
787	—	<0.2	<2	<2	<0.5	24	52	10	51	<2	4	13	120
788	—	<0.2	2	<2	<0.5	1	218	3	4	2	<2	3	6
789	—	<0.2	4	<2	<0.5	19	150	268	36	<2	2	38	56
790	—	0.2	10	<2	<0.5	19	52	295	19	<2	2	31	56
791	<5	<0.2	<2	<2	<1	4	181	57	11	<2	<2	4	6
792	<5	<0.2	<2	<2	<1	<1	103	1	2	8	<2	5	<2
793	<5	<0.2	4	<2	<1	4	121	4	10	24	<2	4	18
794	<5	<0.2	12	<2	<1	1	55	10	1	40	2	236	18
795	<5	<0.2	18	<2	<1	2	125	15	3	14	<2	16	6
796	<5	0.2	12	<2	<1	<1	76	2	1	22	<2	4	2
797	<5	0.2	2	<2	<1	<1	94	2	1	28	<2	7	2
798	<5	<0.2	4	<2	<1	<1	137	1	2	24	<2	12	<2
799	<5	<0.2	<2	<2	<1	<1	122	<1	1	2	<2	3	<2
800	<5	<0.2	4	<2	<1	2	91	3	3	<2	<2	51	<2

^aMap numbers refer to sample locations on map sheet 2.

—Not analyzed.

Table 4. Fire assay gold and inductively coupled plasma (ICP) analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Au ppb	Ag ppm	As ppm	Bi ppm	Cd ppm	Co ppm	Cr ppm	Cu ppm	Ni ppm	Pb ppm	Sb ppm	Sr ppm	Zn ppm
801	<5	<0.2	4	<2	<1	<1	36	2	1	20	<2	18	<2
802	<5	<0.2	4	2	1	<1	29	1	1	16	<2	212	96
803	—	<0.2	10	<2	<1	1	65	3	1	4	<2	4	2
804	—	<0.2	6	<2	<1	1	111	6	2	20	<2	32	42
805	—	<0.2	4	<2	<1	2	48	5	3	12	<2	6	32
806	—	0.2	12	<2	<1	1	45	2	2	4	<2	2	2
807	—	<0.2	4	<2	<1	1	86	4	7	10	<2	11	96
808	—	<0.2	10	<2	<1	<1	64	1	2	12	<2	13	<2
809	—	<0.2	8	<2	<1	<1	112	<1	2	4	2	2	2
810	—	<0.2	6	<2	<1	<1	81	2	1	16	<2	53	10
811	—	<0.2	4	<2	<1	<1	75	1	1	18	<2	52	24
812	—	<0.2	<2	<2	<1	<1	46	1	<1	12	<2	39	6
813	—	<0.2	8	<2	<1	2	78	2	4	12	<2	5	12
814	—	<0.2	18	<2	<1	1	103	6	2	20	<2	40	20
815	—	<0.2	6	<2	<1	27	232	52	73	<2	<2	163	56
816	—	<0.2	14	<2	<1	1	28	8	1	24	<2	32	16
817	—	<0.2	8	<2	<1	2	96	5	2	16	2	39	10
818	—	<0.2	8	<2	<1	25	54	21	61	<2	<2	67	62
819	—	0.2	4	<2	4	33	135	64	110	<2	<2	16	136
820	—	<0.2	<2	<2	<1	1	93	5	1	16	4	11	26
821	—	<0.2	4	<2	<1	1	74	1	1	4	<2	19	2
822	—	<0.2	4	<2	<1	1	63	1	1	22	<2	10	8
823	—	<0.2	12	<2	<1	1	90	1	2	18	<2	7	12
824	—	<0.2	2	<2	<1	1	36	2	2	18	<2	45	8
825	—	<0.2	14	<2	<1	1	43	30	<1	12	<2	14	2
826	—	1.2	96	<2	<1	3	41	7	14	30	2	2	2
827	—	0.2	8	<2	<1	<1	97	3	3	4	<2	8	4

^aMap numbers refer to sample locations on map sheet 2.

—Not analyzed.

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Table 5. Whole-rock major oxide XRF analyses for samples from the Delta mineral belt, Tok mining district, Alaska

Map no. ^a	Al ₂ O ₃	CaO	Cr ₂ O ₃	Fe ₂ O ₃	K ₂ O	MgO	MnO	Na ₂ O	P ₂ O ₅	SiO ₂	TiO ₂	LOI	TOTAL
1	12.30	6.81	0.04	4.88	2.46	2.09	0.09	1.17	0.06	60.81	0.47	8.25	99.43
2	5.25	0.75	0.02	1.61	1.19	0.31	0.01	0.60	0.05	88.84	0.24	1.67	100.54
3	12.64	3.90	0.03	4.66	2.50	0.29	0.08	2.28	0.08	67.35	0.37	5.54	99.72
4	7.44	2.42	0.06	2.94	2.17	0.66	0.11	0.09	0.04	78.64	0.38	4.47	99.42
5	10.02	0.08	0.01	4.95	2.50	0.46	0.01	0.27	0.06	78.08	0.35	2.78	99.57
6	4.57	4.30	0.03	1.28	1.24	0.22	0.05	0.08	0.03	83.72	0.13	3.98	99.63
7	11.89	5.06	0.03	5.20	2.59	1.62	0.10	1.21	0.17	66.19	0.60	5.29	99.95
8	10.25	9.17	0.01	11.23	0.46	2.65	0.23	1.24	0.08	56.67	0.36	6.28	98.63
9	5.53	0.68	0.02	1.58	0.73	0.33	0.01	1.80	0.02	85.67	0.22	1.52	98.11
10	10.10	0.64	0.02	4.45	3.09	1.56	0.03	0.81	0.11	76.33	0.47	2.46	100.07
11	11.57	2.64	0.01	4.29	2.12	0.74	0.07	3.33	0.05	67.67	0.31	4.78	97.58
12	11.29	4.02	0.01	3.27	1.92	0.45	0.06	2.62	0.08	70.76	0.32	4.50	99.30
13	4.24	9.07	0.01	1.10	1.25	0.33	0.05	0.24	0.04	74.15	0.15	7.46	98.09
14	12.17	2.78	0.09	3.55	3.14	0.90	0.06	0.64	0.06	71.59	0.35	4.15	99.48
15	13.80	2.74	0.08	3.90	3.55	0.93	0.05	0.92	0.06	69.03	0.41	4.46	99.93
16	10.27	5.31	<0.01	4.23	3.01	2.53	0.13	0.21	0.11	63.58	0.47	9.08	98.93
17	13.07	2.13	0.03	3.62	4.15	1.32	0.09	0.17	0.06	69.21	0.36	5.46	99.67
18	11.54	1.40	0.02	4.27	1.48	1.26	0.03	2.74	0.06	73.18	0.32	3.57	99.87
19	13.26	1.09	0.10	5.90	3.42	1.39	0.08	1.29	0.09	68.11	0.62	3.59	98.94
20	10.06	2.87	0.02	3.54	1.60	1.48	0.06	1.52	0.08	71.69	0.31	6.14	99.37
21	12.78	1.42	0.01	4.83	2.35	1.99	0.05	3.17	0.07	69.08	0.40	2.97	99.12
22	14.97	0.16	0.02	4.90	1.99	1.04	0.03	5.94	0.07	67.76	0.42	1.86	99.16
23	15.38	1.99	0.01	7.34	0.43	2.86	0.08	6.53	0.17	59.47	1.36	3.46	99.08
24	12.82	1.55	<0.01	3.02	4.03	1.04	0.04	0.13	0.06	72.09	0.33	3.56	98.67
25	14.83	0.27	<0.01	5.42	2.74	1.81	0.06	5.31	0.08	65.68	0.57	1.50	98.27
26	11.55	4.22	<0.01	3.24	3.31	0.74	0.06	0.15	0.05	70.84	0.21	4.87	99.24
27	15.04	2.09	<0.01	4.74	3.66	1.40	0.06	1.96	0.06	65.40	0.34	3.70	98.45
28	13.23	0.24	<0.01	8.61	2.45	4.66	0.08	0.03	0.05	65.12	0.55	4.13	99.15
29	14.95	1.13	<0.01	7.31	1.23	3.84	0.10	5.20	0.10	62.11	0.89	2.49	99.35
30	13.75	2.42	0.01	8.42	0.25	6.35	0.14	4.08	0.07	55.59	0.67	6.88	98.63
31	13.45	1.65	<0.01	3.07	2.78	0.69	0.06	1.88	0.03	75.38	0.22	0.22	99.43
32	10.55	0.08	<0.01	4.43	2.81	0.34	0.01	0.29	0.03	76.79	0.30	3.61	99.24
33	15.88	4.46	<0.01	7.04	4.12	3.28	0.19	0.06	0.09	56.60	0.71	6.85	99.28
34	12.56	1.86	<0.01	3.40	3.10	0.66	0.07	2.41	0.07	72.88	0.30	1.95	99.26
35	11.93	0.21	<0.01	4.10	3.22	1.66	0.03	3.13	0.11	70.93	0.44	3.27	99.03
36	14.01	3.25	0.01	5.63	2.88	1.76	0.06	1.17	0.07	62.57	0.38	6.75	98.54
37	13.57	3.10	<0.01	3.78	4.36	1.37	0.05	0.20	0.06	71.63	0.31	0.46	98.89
38	13.31	0.59	<0.01	2.24	3.96	0.94	0.03	2.62	0.03	72.73	0.16	1.76	98.37
39	14.87	0.70	<0.01	5.69	2.05	1.92	0.10	6.35	0.09	65.36	0.58	1.11	98.82
40	12.42	0.77	<0.01	3.41	3.58	1.63	0.06	2.68	0.05	71.81	0.33	1.77	98.51
41	9.98	0.70	<0.01	4.14	2.31	1.08	0.05	0.55	0.04	77.61	0.42	2.45	99.33
42	5.25	0.63	0.03	2.46	0.85	0.62	0.06	1.11	0.01	86.12	0.28	1.63	99.05
43	14.96	0.09	0.01	5.46	3.45	1.48	0.05	1.36	0.07	68.13	0.74	3.03	98.83
44	18.49	0.26	0.01	10.22	3.84	2.04	0.13	1.03	0.11	57.37	0.94	3.69	98.13
45	7.76	1.95	<0.01	3.43	1.30	0.92	0.10	1.22	0.04	78.20	0.40	4.42	99.74
46	16.45	2.98	<0.01	7.22	3.96	4.04	0.15	1.02	0.16	57.28	0.67	5.14	99.07
47	16.79	0.45	<0.01	6.02	3.12	1.61	0.04	2.12	0.06	67.57	0.81	0.43	99.02
48	12.52	0.81	0.02	2.41	1.66	0.94	0.01	5.66	0.05	73.22	0.31	1.46	99.07
49	13.74	7.75	0.01	6.19	1.84	6.13	0.34	2.02	0.17	49.74	0.66	10.01	98.60
50	13.66	0.54	<0.01	3.64	1.15	1.78	0.05	5.04	0.07	70.59	0.38	1.64	98.54
51	3.63	0.01	0.04	0.90	1.29	0.21	<0.01	<0.01	0.01	92.05	0.17	0.77	99.08
52	12.61	2.58	<0.01	5.06	1.62	2.04	0.08	4.52	0.09	66.64	0.56	3.31	99.11

^aMap numbers refer to sample locations on map sheet 2.

Table 5. Whole-rock major oxide XRF analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Al ₂ O ₃	CaO	Cr ₂ O ₃	Fe ₂ O ₃	K ₂ O	MgO	MnO	Na ₂ O	P ₂ O ₅	SiO ₂	TiO ₂	LOI	TOTAL
53	11.19	2.75	<0.01	1.92	2.63	0.46	0.10	2.20	0.05	73.91	0.30	3.67	99.18
54	13.14	0.37	<0.01	3.64	3.13	0.85	0.07	1.56	0.06	69.60	0.39	5.39	98.20
55	12.58	0.10	<0.01	4.02	5.24	1.80	0.02	0.03	0.12	69.50	0.60	4.04	98.05
56	12.62	1.16	<0.01	3.30	2.99	0.89	0.03	3.10	0.06	72.34	0.33	2.27	99.09
57	13.18	0.16	0.02	6.11	1.86	1.78	0.06	4.01	0.07	68.87	0.32	2.82	99.26
58	11.29	3.57	0.04	3.49	3.83	1.53	0.02	0.20	0.04	67.65	0.32	7.07	99.05
59	14.80	3.70	0.01	7.44	1.41	7.33	0.14	4.82	0.04	53.95	0.47	5.04	99.15
60	10.50	0.17	0.01	2.11	2.63	1.07	0.01	2.95	0.03	78.20	0.17	1.22	99.07
61	10.76	0.51	<0.01	1.92	3.71	0.62	0.01	2.66	0.03	77.09	0.21	1.44	98.96
62	11.01	0.09	0.01	7.50	1.37	1.66	0.03	3.30	0.02	69.55	0.38	4.10	99.02
63	12.96	3.39	<0.01	4.58	5.09	3.14	0.09	0.54	0.06	61.35	0.37	7.66	99.23
64	12.65	0.28	0.01	4.99	0.42	2.71	0.02	5.69	0.08	69.72	0.27	2.28	99.12
65	14.69	5.79	0.01	10.06	1.54	10.07	0.16	3.32	0.04	49.76	0.38	3.51	99.33
66	10.05	0.05	0.01	1.20	5.58	0.28	<0.01	1.78	0.02	79.31	0.18	0.79	99.25
67	13.29	0.37	0.01	2.15	2.19	1.71	0.01	3.77	0.04	75.48	0.20	1.75	100.97
68	15.66	0.68	0.01	8.72	0.19	2.20	0.08	5.84	0.13	58.38	0.92	7.34	100.15
69	12.85	0.30	0.01	2.85	0.21	0.81	0.01	7.22	0.04	73.36	0.23	1.22	99.11
70	11.49	0.39	0.01	1.44	1.31	0.40	<0.01	5.46	0.19	77.86	0.58	0.89	100.02
71	10.75	2.46	<0.01	3.97	2.36	0.85	0.08	1.04	0.07	72.26	0.34	4.94	99.12
72	11.37	3.19	<0.01	3.66	1.70	0.90	0.11	3.41	0.07	70.30	0.30	3.92	98.93
73	11.59	1.96	0.01	3.47	2.39	1.76	0.04	3.25	0.07	69.90	0.38	3.12	97.94
74	12.90	1.39	<0.01	3.94	2.13	0.50	0.07	2.86	0.08	74.13	0.35	0.50	98.85
75	12.73	0.06	0.01	3.77	1.01	0.69	0.01	5.09	0.06	74.53	0.29	1.47	99.72
76	11.41	0.34	0.03	3.46	3.15	2.07	<0.01	0.14	0.27	75.09	0.58	2.92	99.46
77	10.79	0.90	0.03	6.18	2.16	1.87	0.08	0.28	0.05	72.81	0.49	5.40	101.04
78	7.67	0.16	0.02	2.68	1.59	1.03	0.02	0.20	0.04	83.90	0.34	3.02	100.67
79	15.17	0.53	0.02	8.13	3.88	1.51	0.07	0.54	0.10	61.24	0.89	6.73	98.81
80	11.83	0.18	0.02	17.05	1.73	3.12	0.06	0.27	0.12	59.77	0.67	4.84	99.66
81	9.68	0.12	0.01	1.60	2.99	0.44	0.01	0.75	0.02	80.23	0.30	1.88	98.03
82	12.44	6.79	0.02	7.59	0.52	1.77	0.23	4.09	0.09	58.80	0.60	6.46	99.40
83	15.30	0.14	0.02	6.44	1.89	2.31	0.03	4.42	0.09	65.60	0.73	2.28	99.25
84	6.32	7.98	0.03	31.65	0.07	1.78	0.38	0.22	0.04	38.80	0.27	10.99	98.53
85	5.39	0.32	0.05	1.28	1.06	0.47	0.01	1.01	0.02	88.88	0.26	1.13	99.88
86	15.94	0.90	0.03	8.08	3.91	2.38	0.09	0.35	0.10	63.34	0.82	3.90	99.84
87	2.14	0.43	0.03	2.88	0.14	0.46	0.02	<0.01	0.03	91.57	0.07	2.10	99.87
88	14.93	2.04	0.04	5.21	4.22	1.36	0.11	0.22	0.17	65.63	0.63	4.41	98.97
89	11.36	0.32	0.05	3.57	3.45	2.07	0.02	0.04	0.20	75.17	0.58	2.72	99.55
90	5.45	2.08	0.04	1.87	1.47	0.88	0.08	0.95	0.01	82.77	0.22	3.39	99.21
91	8.29	3.21	0.01	3.74	1.80	2.29	0.09	0.21	0.04	76.38	0.18	3.98	100.22
92	9.99	1.50	0.02	7.66	1.48	3.94	0.11	0.18	0.08	70.79	0.43	4.45	100.63
93	10.50	0.12	<0.01	18.64	1.25	2.68	0.08	0.07	0.08	59.43	0.83	5.47	99.15
94	12.19	1.51	0.02	5.05	2.66	1.97	0.11	0.92	0.06	71.09	0.46	3.79	99.83
95	18.75	0.19	0.03	7.75	5.04	2.25	0.07	0.21	0.12	60.89	0.92	3.53	99.75
96	7.62	0.27	0.03	2.66	2.23	0.92	<0.01	0.06	0.13	83.60	0.43	1.73	99.68
97	18.44	0.32	0.04	11.26	3.14	5.60	0.15	1.17	0.06	54.05	0.65	4.60	99.48
98	9.07	0.23	0.03	22.31	0.38	3.22	0.11	0.19	0.07	55.54	1.42	6.52	99.09
99	5.01	1.38	0.02	1.12	1.71	0.88	0.04	0.07	0.02	85.93	0.17	2.87	99.22
100	12.90	0.59	0.01	1.92	2.71	0.54	0.03	2.12	0.02	76.53	0.27	2.14	99.78
101	3.89	0.27	0.03	1.70	0.53	0.49	0.02	1.14	0.03	91.02	0.20	0.74	100.06
102	11.97	2.91	0.02	2.08	3.25	0.70	0.03	0.79	0.02	74.10	0.13	3.43	99.43
103	15.34	0.21	0.02	5.77	3.40	2.24	0.02	0.53	0.16	68.20	0.65	3.73	100.27
104	3.14	0.38	0.02	0.84	0.52	0.36	0.01	1.00	0.06	92.83	0.15	0.82	100.13

^aMap numbers refer to sample locations on map sheet 2.

Table 5. Whole-rock major oxide XRF analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Al ₂ O ₃	CaO	Cr ₂ O ₃	Fe ₂ O ₃	K ₂ O	MgO	MnO	Na ₂ O	P ₂ O ₅	SiO ₂	TiO ₂	LOI	TOTAL
105	1.20	0.02	0.02	1.59	0.22	0.55	<0.01	0.21	0.01	94.22	0.06	0.63	98.73
106	1.03	0.45	0.02	1.28	0.27	0.41	0.02	0.10	0.01	93.75	0.06	1.25	98.65
107	18.27	0.24	0.03	5.39	3.78	2.94	0.03	0.86	0.15	61.26	0.86	6.34	100.15
108	13.33	0.08	0.03	5.01	2.18	2.17	0.02	1.02	0.11	73.73	0.62	2.55	100.85
109	11.59	2.17	0.02	1.26	2.65	0.61	0.03	1.88	0.04	76.60	0.10	3.06	100.01
110	10.66	2.79	0.01	2.46	2.13	0.36	0.04	2.21	0.03	74.65	0.19	2.45	97.98
111	17.46	0.59	0.03	6.99	3.88	2.18	0.06	2.23	0.07	60.70	0.89	3.32	98.40
112	13.21	0.06	0.02	3.10	2.62	0.49	<0.01	3.06	0.04	73.53	0.38	2.67	99.18
113	14.06	1.14	0.01	3.53	1.60	0.84	0.02	4.47	0.04	69.87	0.46	2.06	98.10
114	12.60	0.19	0.01	3.86	3.37	1.17	<0.01	0.69	0.12	72.40	0.78	2.94	98.13
115	12.38	1.17	0.01	2.96	2.47	0.52	0.02	1.85	0.04	76.73	0.26	3.02	101.43
116	3.62	1.54	0.02	2.59	0.52	1.07	0.03	0.45	0.09	86.70	0.41	2.19	99.23
117	15.03	1.78	0.02	8.48	2.72	2.61	0.11	2.16	0.21	59.19	1.40	4.98	98.69
118	11.55	0.23	0.09	12.28	1.89	3.27	0.12	0.48	0.09	63.70	0.58	4.92	99.20
119	5.53	0.15	0.04	3.99	0.83	0.93	0.03	0.95	0.04	85.10	0.65	1.65	99.89
120	12.08	0.13	0.06	5.43	3.35	0.90	0.01	1.16	0.06	72.33	0.35	3.07	98.93
121	10.46	0.54	0.03	6.41	1.68	2.27	0.15	1.09	0.11	73.72	0.45	3.01	99.92
122	8.01	0.04	0.01	5.60	1.16	0.51	<0.01	2.34	0.04	78.54	0.32	2.40	98.97
123	5.56	0.44	0.04	2.15	1.77	0.68	0.02	0.57	0.03	85.59	0.25	1.57	98.67
124	21.26	0.17	0.02	7.06	4.70	2.87	0.04	2.29	0.10	56.30	1.02	4.10	99.93
125	13.06	1.26	0.06	4.67	3.10	1.82	0.07	0.50	0.08	70.33	0.62	3.82	99.39
126	11.18	2.82	0.01	4.10	3.34	1.03	0.07	0.32	0.10	71.02	0.55	4.95	99.49
127	9.72	0.40	0.02	3.53	2.04	1.26	0.01	0.84	0.09	78.60	0.44	2.72	99.67
128	12.32	2.76	0.02	20.07	0.66	4.67	0.23	1.06	0.24	48.07	1.70	8.06	99.86
129	11.77	1.11	0.02	16.11	1.39	3.96	0.20	0.44	0.25	57.80	1.73	5.29	100.07
130	8.26	7.05	0.03	8.79	0.15	0.96	0.17	0.44	0.30	70.60	0.98	3.65	101.38
131	11.67	0.23	0.03	14.26	0.68	3.32	0.09	2.10	0.21	59.90	1.20	5.23	98.92
132	7.08	0.10	0.02	2.07	1.19	0.85	0.01	1.69	0.06	83.34	0.26	1.16	97.83
133	10.48	0.35	0.04	9.35	1.05	4.93	0.13	0.03	0.23	68.49	0.53	4.24	99.85
134	3.46	0.35	0.02	1.57	0.79	0.85	0.01	0.01	0.27	91.20	0.18	0.92	99.63
135	14.74	0.82	0.02	15.50	0.59	4.17	0.15	3.48	0.18	52.05	1.84	5.65	99.19
136	13.39	1.60	0.02	14.35	1.13	3.70	0.27	2.36	0.21	54.25	1.72	5.66	98.66
137	2.47	0.13	0.04	1.46	0.59	0.49	0.02	0.12	0.11	94.66	0.12	0.66	100.87
138	19.00	3.06	0.02	6.68	2.73	3.63	0.11	2.74	0.16	55.97	1.05	4.76	99.91
139	10.11	0.02	0.01	1.42	2.66	0.44	<0.01	1.38	0.01	80.82	0.19	1.66	98.72
140	6.14	0.18	0.02	1.84	0.98	0.63	0.01	1.60	0.04	86.65	0.27	1.01	99.37
141	2.78	1.90	0.03	3.50	0.80	1.06	0.06	<0.01	0.02	84.21	1.29	3.34	98.99
142	12.19	9.27	0.06	13.95	0.06	5.83	0.21	2.01	0.17	43.06	2.20	9.64	98.65
143	7.41	2.82	0.03	3.84	2.15	1.56	0.12	0.22	0.03	75.62	0.35	5.15	99.30
144	7.46	0.06	0.04	2.70	1.62	0.29	0.02	1.13	0.04	83.38	0.31	1.93	98.98
145	11.49	6.55	0.02	4.16	2.67	1.91	0.12	0.32	0.09	63.83	0.60	7.09	98.85
146	8.14	8.94	0.12	6.01	1.15	7.32	0.14	0.21	0.05	48.17	0.32	18.47	99.04
147	2.44	0.18	0.01	1.99	0.39	0.71	<0.01	0.24	0.03	91.90	0.10	0.81	98.80
148	7.28	2.07	0.01	3.24	1.60	1.35	0.06	0.57	0.06	78.68	0.33	4.08	99.33
149	16.31	3.75	<0.01	5.26	4.03	2.15	0.06	0.64	0.08	60.23	0.58	4.99	98.08
150	4.89	0.49	0.03	1.61	1.41	0.48	<0.01	0.20	0.04	88.46	0.19	1.46	99.26
151	22.22	0.53	0.02	9.62	6.17	2.23	0.02	0.71	0.19	53.35	1.14	3.92	100.12
152	6.06	3.44	0.02	3.67	1.46	1.41	0.07	0.80	0.12	76.45	0.74	5.43	99.67
153	8.94	0.51	0.02	3.45	1.96	1.12	0.01	0.44	0.10	80.14	0.37	2.07	99.13
154	27.55	0.12	0.03	8.64	6.89	2.56	0.03	1.16	0.06	46.83	1.17	4.90	99.94
155	2.46	0.71	0.02	1.60	0.72	0.44	0.01	1.26	0.05	90.73	0.24	1.67	99.91
156	16.11	0.15	0.04	7.05	4.09	2.08	0.01	0.41	0.13	64.39	1.11	4.71	100.28

^aMap numbers refer to sample locations on map sheet 2.

Table 5. Whole-rock major oxide XRF analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Al ₂ O ₃	CaO	Cr ₂ O ₃	Fe ₂ O ₃	K ₂ O	MgO	MnO	Na ₂ O	P ₂ O ₅	SiO ₂	TiO ₂	LOI	TOTAL
157	12.99	0.33	0.03	6.91	3.31	1.77	0.02	0.38	0.09	68.53	0.68	4.35	99.39
158	17.69	0.13	0.04	8.12	5.76	1.62	0.01	0.61	0.08	62.13	0.87	3.05	100.11
159	13.34	3.60	0.01	4.17	0.16	1.55	0.08	6.10	0.06	66.94	0.44	2.87	99.32
160	14.64	1.20	0.03	5.44	0.23	2.04	0.07	6.60	0.11	65.43	0.58	2.76	99.13
161	2.52	0.04	0.04	0.92	0.81	0.24	<0.01	0.17	0.03	94.98	0.12	0.60	100.47
162	2.39	0.15	0.03	0.71	0.63	0.21	<0.01	0.15	0.18	94.95	0.12	0.77	100.29
163	1.62	0.01	0.01	0.28	0.51	0.13	<0.01	0.08	0.07	96.04	0.09	0.42	99.26
164	15.04	1.02	0.03	4.10	4.55	1.73	0.02	1.30	0.07	67.91	0.57	2.69	99.03
165	4.31	14.24	0.01	21.36	1.01	1.66	0.69	0.30	0.06	43.66	0.39	11.31	99.00
166	2.72	1.88	0.02	1.64	0.72	0.58	0.05	0.10	0.04	89.64	0.09	2.05	99.53
167	13.31	3.16	0.01	4.57	1.10	2.74	0.02	3.08	0.09	67.58	0.44	2.99	99.09
168	12.59	2.10	0.02	3.17	1.74	1.03	0.02	4.27	0.07	71.56	0.36	2.14	99.07
169	12.23	1.63	0.02	2.77	1.64	0.99	0.02	4.25	0.08	73.22	0.42	1.76	99.03
170	12.78	3.34	0.02	4.13	1.71	1.13	0.11	4.05	0.08	67.48	0.44	4.13	99.40
171	11.21	0.06	0.03	3.19	1.30	0.31	<0.01	4.45	0.02	76.68	0.20	1.84	99.29
172	16.12	0.29	0.03	8.44	4.26	1.95	0.05	0.52	0.13	62.49	1.08	4.29	99.65
173	13.84	3.24	0.02	5.63	1.75	1.69	0.07	3.06	0.07	66.52	0.64	2.67	99.20
174	16.57	1.70	0.03	3.24	5.78	2.29	0.11	0.14	0.10	64.99	0.75	3.32	99.02
175	8.80	0.02	0.02	3.05	2.39	0.94	<0.01	0.96	0.07	80.05	0.44	2.42	99.16
176	4.00	0.01	0.02	0.55	1.27	0.22	<0.01	0.22	0.02	91.96	0.08	0.76	99.11
177	11.42	0.21	0.02	3.60	2.96	0.89	0.05	0.30	0.03	75.43	0.48	3.69	99.08
178	13.38	0.02	0.02	15.75	3.33	1.89	0.02	0.48	0.08	57.98	0.80	5.57	99.32
179	10.64	2.57	0.02	2.72	1.85	0.60	0.06	2.01	0.02	76.87	0.23	1.33	98.92
180	12.12	8.93	0.01	8.13	0.27	4.32	0.06	3.08	0.15	52.35	1.09	8.57	99.08
181	7.40	0.02	0.02	0.90	2.20	0.30	<0.01	0.16	0.02	87.13	0.28	1.16	99.59
182	8.05	0.30	0.02	2.77	2.53	0.66	<0.01	0.17	0.04	82.57	0.29	2.41	99.81
183	8.22	0.94	0.02	3.12	1.36	1.28	0.03	2.15	0.03	79.74	0.31	1.83	99.03
184	8.73	0.84	0.02	2.95	1.87	1.53	0.03	0.93	0.06	80.35	0.34	2.14	99.79
185	6.73	0.01	0.02	1.08	2.15	0.51	<0.01	0.22	0.03	87.77	0.29	1.18	99.99
186	11.61	0.93	0.01	4.24	3.34	1.98	0.04	0.20	0.06	73.03	0.34	3.62	99.40
187	10.94	1.10	0.02	5.48	2.33	1.60	0.09	0.47	0.04	71.89	0.41	5.32	99.69
188	12.74	8.65	0.04	11.72	0.08	6.44	0.19	2.67	0.20	45.30	1.83	9.25	99.11
189	5.90	2.61	0.03	2.47	1.85	0.99	0.06	0.11	0.04	80.08	0.25	4.57	98.96
190	4.62	1.59	0.02	1.98	1.27	0.79	0.07	0.25	0.02	87.01	0.17	2.87	100.66
191	15.09	0.36	0.03	6.53	3.80	2.08	0.04	0.40	0.06	68.56	0.80	3.17	100.92
192	6.14	0.30	0.02	3.67	0.60	1.10	0.06	1.73	0.03	85.19	0.27	1.21	100.32
193	10.80	4.16	0.02	4.36	2.36	0.51	0.11	2.03	0.07	70.25	0.33	5.45	100.45
194	13.56	6.88	0.02	18.22	0.13	5.29	0.26	1.17	0.37	43.74	3.50	5.83	98.97
195	19.83	0.45	0.02	8.21	5.83	1.90	0.12	0.78	0.08	58.27	1.04	3.37	99.90
196	11.28	0.16	0.01	4.11	2.41	1.18	0.03	1.14	0.07	76.12	0.51	2.39	99.41
197	5.90	0.25	0.01	1.59	1.14	0.34	0.01	0.04	0.13	87.93	0.11	2.03	99.48
198	5.59	0.64	0.06	2.01	0.47	0.50	0.02	1.84	0.03	85.66	0.23	1.88	98.93
199	18.55	0.26	0.03	6.02	5.61	1.98	0.07	0.26	0.09	62.33	0.83	3.50	99.53
200	16.67	1.85	0.04	5.93	3.69	1.61	0.08	2.51	0.09	63.10	0.75	3.28	99.60
201	3.55	<0.01	0.02	0.36	1.16	0.13	<0.01	0.10	0.01	92.87	0.15	0.66	99.01
202	2.47	0.05	0.02	3.73	0.69	0.08	<0.01	0.06	0.16	89.93	0.15	2.34	99.68
203	7.91	0.01	0.02	2.02	2.35	0.51	<0.01	0.22	0.03	85.08	0.26	0.65	99.06
204	4.04	<0.01	0.02	1.23	1.13	0.12	<0.01	0.07	0.13	90.99	0.23	1.21	99.17
205	5.76	0.01	0.02	0.93	1.57	0.27	<0.01	0.27	0.01	90.28	0.29	1.00	100.41
206	19.44	0.17	<0.01	8.15	6.53	1.90	0.04	0.16	0.07	56.09	0.81	5.01	98.37
207	11.74	0.11	<0.01	2.20	2.10	0.28	<0.01	0.91	0.03	78.65	0.46	2.57	99.05
208	6.15	1.38	0.03	13.25	1.07	1.51	0.08	0.84	0.04	67.78	0.29	7.49	99.91

^aMap numbers refer to sample locations on map sheet 2.

Table 5. Whole-rock major oxide XRF analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Al ₂ O ₃	CaO	Cr ₂ O ₃	Fe ₂ O ₃	K ₂ O	MgO	MnO	Na ₂ O	P ₂ O ₅	SiO ₂	TiO ₂	LOI	TOTAL
209	14.37	0.35	0.06	5.64	3.66	1.03	0.07	1.47	0.07	67.22	0.77	4.13	98.84
210	5.58	0.08	0.01	1.37	1.88	0.43	<0.01	0.14	0.02	88.64	0.27	1.12	99.54
211	5.33	2.36	0.02	2.61	1.46	0.92	0.08	0.14	0.03	82.54	0.19	4.05	99.73
212	12.18	3.20	0.01	4.94	1.68	1.70	0.08	3.02	0.10	67.19	0.61	4.71	99.42
213	14.35	4.95	0.04	6.28	0.74	5.54	0.14	5.61	0.08	56.76	0.55	4.15	99.19
214	10.78	0.56	0.01	1.96	3.53	0.34	0.02	0.23	0.04	78.82	0.30	2.22	98.81
215	16.83	2.78	0.02	6.79	2.99	4.68	0.07	4.48	0.04	55.48	0.65	3.87	98.68
216	12.04	0.04	0.02	2.96	3.99	1.62	0.03	1.13	0.06	73.65	0.43	3.16	99.13
217	13.40	0.14	0.01	7.05	2.00	5.44	0.09	0.19	0.12	65.94	0.72	3.96	99.06
218	13.19	0.50	0.03	3.61	2.09	2.02	0.03	4.02	0.06	71.35	0.37	2.08	99.35
219	11.00	0.02	0.29	5.80	1.03	5.58	0.09	1.41	0.04	69.44	0.33	4.17	99.20
220	4.07	0.02	0.02	1.56	1.28	0.16	<0.01	0.07	<0.01	90.38	0.15	1.42	99.13
221	4.54	0.02	0.03	1.40	1.43	0.44	<0.01	0.01	0.02	89.06	0.18	1.39	98.52
222	7.29	0.05	0.02	0.51	2.12	0.23	<0.01	0.14	0.01	87.44	0.26	1.25	99.32
223	17.53	0.88	0.03	4.92	4.70	1.85	0.07	2.49	0.23	62.83	1.05	2.89	99.47
224	12.30	0.16	0.03	2.75	2.59	0.69	<0.01	4.20	0.06	74.03	0.37	2.08	99.26
225	12.19	0.48	0.02	4.90	3.63	1.15	<0.01	2.78	0.07	70.93	0.36	2.55	99.06
226	13.88	8.44	0.07	4.85	0.71	4.87	0.08	0.14	0.15	52.69	0.54	13.05	99.47
227	13.94	8.43	0.01	2.93	0.09	6.76	0.09	5.10	0.19	46.02	0.44	14.75	98.75
228	10.51	0.17	0.02	4.53	3.09	0.71	0.08	0.10	0.08	75.78	0.56	3.67	99.30
229	3.09	0.04	0.06	5.36	0.81	0.13	<0.01	0.04	<0.01	86.00	0.13	3.40	99.06
230	13.64	0.79	0.04	5.41	4.29	1.23	0.02	0.46	0.12	69.64	0.87	2.78	99.29
231	3.92	0.02	0.04	0.94	1.07	0.26	<0.01	0.03	0.03	88.93	0.21	3.65	99.10
232	13.71	1.46	0.02	5.80	1.60	2.67	0.09	4.55	0.07	65.94	0.56	2.62	99.09
233	10.98	9.54	0.03	2.99	2.52	0.92	0.14	2.11	0.07	59.62	0.40	9.85	99.17
234	17.41	7.44	0.04	6.86	0.47	5.56	0.11	5.19	0.63	52.63	0.80	2.72	99.86
235	11.90	9.00	<0.01	18.02	0.05	5.93	0.19	0.04	0.17	43.33	6.32	4.74	99.69
236	4.65	0.08	<0.01	6.98	0.86	0.27	0.03	0.59	0.03	83.34	0.18	2.51	99.52
237	14.07	6.85	0.04	15.38	0.11	5.74	0.18	1.62	0.29	46.30	2.80	6.64	100.02
238	7.04	0.91	0.01	2.78	1.85	1.01	0.02	0.40	0.03	82.67	0.34	2.06	99.12
239	11.89	0.03	0.02	3.04	3.72	0.33	<0.01	0.23	0.02	76.81	0.38	2.82	99.29
240	13.45	3.09	0.01	5.34	1.64	1.71	0.10	4.38	0.10	65.01	0.69	3.66	99.18
241	13.96	2.69	0.01	5.50	2.72	1.95	0.10	3.02	0.10	64.72	0.72	3.95	99.44
242	11.66	0.51	0.02	3.95	3.45	0.52	0.01	0.24	0.05	75.02	0.47	3.98	99.88
243	10.14	3.50	0.04	4.70	1.80	2.97	0.13	0.26	0.15	69.76	0.40	7.02	100.87
244	18.97	0.12	0.02	7.54	2.71	1.26	0.08	0.28	0.13	64.27	1.01	3.59	99.98
245	19.52	0.83	0.11	10.29	2.96	3.85	0.24	0.46	0.03	52.22	0.76	7.15	98.42
246	14.14	0.29	<0.01	3.54	3.29	1.99	0.08	2.62	0.08	69.87	0.56	2.28	98.74
247	12.80	0.06	0.01	2.27	3.11	1.30	0.01	1.47	0.04	74.91	0.64	2.51	99.13
248	16.86	3.03	0.05	5.88	0.91	4.45	0.08	5.72	0.06	60.19	0.56	3.15	100.94
249	4.01	0.14	0.01	0.70	1.27	0.27	<0.01	0.10	0.02	91.51	0.16	1.00	99.19
250	3.75	0.52	0.01	5.56	0.22	1.98	0.05	0.69	0.07	82.20	0.36	2.54	97.95
251	8.84	1.14	0.02	19.19	2.36	1.22	0.07	1.46	0.05	53.33	0.56	9.79	98.03
252	4.95	0.51	0.02	3.20	1.47	0.44	0.01	0.16	0.03	84.53	0.20	2.89	98.41
253	4.42	0.83	0.02	1.04	0.41	0.39	0.01	1.57	0.04	89.21	0.13	1.43	99.50
254	2.09	0.03	0.01	0.52	0.71	0.14	<0.01	0.11	0.01	94.23	0.14	0.61	98.60
255	8.02	1.68	0.04	5.64	2.36	2.13	0.15	0.04	0.06	72.67	0.35	6.61	99.75
256	14.06	6.24	0.02	5.52	0.44	4.14	0.04	0.31	0.06	57.76	0.60	10.12	99.31
257	9.80	0.06	<0.01	4.17	2.53	0.20	0.01	0.14	0.01	77.30	0.40	3.27	97.89
258	11.02	0.18	0.03	5.46	2.66	2.21	0.04	0.16	0.06	73.12	0.53	3.74	99.21
259	5.47	0.02	0.03	1.42	1.54	0.35	<0.01	0.18	0.02	89.10	0.25	1.27	99.65
260	19.34	0.47	0.03	4.06	4.59	1.70	0.01	0.74	0.15	63.22	0.99	4.35	99.65

^aMap numbers refer to sample locations on map sheet 2.

Table 5. Whole-rock major oxide XRF analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Al ₂ O ₃	CaO	Cr ₂ O ₃	Fe ₂ O ₃	K ₂ O	MgO	MnO	Na ₂ O	P ₂ O ₅	SiO ₂	TiO ₂	LOI	TOTAL
261	5.68	0.20	0.03	12.14	1.79	1.33	0.05	0.08	0.04	72.14	0.23	5.97	99.68
262	12.07	1.29	0.01	4.38	0.63	1.67	0.04	5.16	0.11	69.04	0.35	4.56	99.31
263	14.62	1.58	0.01	4.33	1.77	2.30	0.07	6.11	0.07	64.90	0.52	2.54	98.82
264	4.71	0.14	0.02	1.84	0.43	0.29	0.02	1.49	0.02	88.87	0.23	0.99	99.05
265	14.10	0.68	0.06	4.54	2.18	1.41	0.07	5.54	0.08	69.29	0.53	1.06	99.54
266	13.92	1.25	0.02	6.15	2.23	4.58	0.10	3.96	0.08	63.24	0.61	3.06	99.20
267	14.12	2.44	0.02	3.65	3.47	1.47	0.04	2.15	0.05	67.47	0.42	4.05	99.35
268	14.48	0.85	0.02	5.90	1.32	4.61	0.09	5.00	0.08	62.84	0.63	2.96	98.78
269	7.66	0.61	0.03	2.87	1.38	0.62	0.03	2.08	0.03	82.12	0.29	1.70	99.42
270	15.11	1.95	0.01	6.75	0.52	3.33	0.06	5.77	0.12	60.80	0.93	3.87	99.22
271	12.28	0.38	0.01	3.79	1.79	0.56	0.03	4.98	0.06	73.05	0.32	1.92	99.17
272	14.09	0.33	0.01	4.32	1.17	0.81	0.01	6.32	0.09	69.25	0.45	1.79	98.64
273	12.76	0.10	0.02	4.34	2.57	0.80	0.06	3.92	0.06	71.92	0.34	2.06	98.95
274	11.78	2.54	0.02	0.91	3.03	1.03	0.03	3.25	0.07	73.08	0.46	2.97	99.17
275	14.50	0.20	0.01	5.17	1.03	2.23	0.03	5.72	0.09	67.06	0.46	2.81	99.31
276	12.33	2.24	0.01	2.13	2.74	0.85	0.03	2.92	0.05	72.41	0.34	3.27	99.32
277	16.65	3.21	<0.01	6.12	0.99	4.49	0.09	6.64	0.09	56.65	0.78	2.22	97.93
278	11.00	4.78	0.02	4.67	2.41	1.09	0.15	3.34	0.07	65.86	0.38	5.54	99.31
279	12.31	1.10	<0.01	4.19	2.28	1.06	0.06	4.01	0.10	71.09	0.54	2.28	99.02
280	12.51	0.19	0.01	2.70	1.84	1.90	0.03	3.84	0.02	73.58	0.34	2.62	99.58
281	14.79	0.17	<0.01	7.51	0.16	4.39	0.17	5.51	0.07	62.29	0.67	3.39	99.12
282	12.74	2.03	0.06	4.35	3.26	0.87	0.07	1.30	0.06	69.40	0.32	4.83	99.29
283	12.15	0.35	0.01	5.43	3.01	1.40	0.01	0.21	0.07	73.58	0.29	2.77	99.28
284	13.45	0.91	0.01	4.17	2.12	1.20	0.06	5.13	0.08	69.67	0.50	1.96	99.26
285	9.05	4.95	0.02	3.65	2.25	1.21	0.07	0.16	0.05	69.98	0.23	7.41	99.03
286	10.44	2.46	0.01	2.79	2.53	0.75	0.04	0.71	0.05	75.87	0.26	3.74	99.65
287	12.08	5.49	0.02	9.15	3.97	2.63	0.24	0.18	0.08	55.99	0.43	8.66	98.92
288	1.65	0.13	0.02	0.46	0.51	0.16	<0.01	0.08	0.01	96.55	0.07	0.57	100.21
289	7.49	9.73	0.03	3.25	1.53	0.49	0.10	1.21	0.04	66.82	0.21	9.01	99.91
290	14.87	1.83	<0.01	6.62	1.15	4.31	0.11	4.29	0.11	60.93	0.67	3.67	98.56
291	13.56	2.05	0.04	4.60	1.64	1.21	0.08	4.41	0.09	67.53	0.57	3.02	98.80
292	13.23	0.60	<0.01	1.00	2.38	0.45	0.01	3.80	0.11	75.64	0.59	1.21	99.02
293	13.24	0.70	0.01	4.08	0.57	1.34	0.02	5.81	0.10	71.86	0.50	1.28	99.51
294	12.27	0.91	0.01	4.73	1.79	0.87	0.04	4.06	0.07	71.89	0.38	2.13	99.15
295	13.04	0.78	0.01	5.27	3.50	2.28	0.08	3.72	0.08	66.65	0.45	2.08	97.94
296	9.57	0.33	<0.01	10.61	0.08	5.71	0.09	1.66	0.07	56.29	0.27	4.57	89.25
297	12.88	0.78	0.02	4.38	2.28	1.42	0.06	4.15	0.07	70.38	0.43	2.08	98.93
298	12.58	0.84	0.01	3.07	2.84	1.67	0.01	3.78	0.07	71.16	0.55	2.41	98.99
299	15.11	2.04	0.02	6.78	1.86	4.62	0.08	3.64	0.07	59.71	0.57	4.72	99.22
300	12.06	1.06	0.01	3.60	2.07	1.10	0.04	4.58	0.06	71.29	0.40	2.25	98.52
301	13.30	0.56	0.02	1.70	3.24	0.76	0.01	4.60	0.05	72.90	0.30	1.19	98.63
302	11.70	0.06	0.03	2.27	3.25	0.88	<0.01	0.51	0.08	77.15	0.58	2.65	99.16
303	12.62	0.84	0.02	3.96	1.71	1.19	0.04	5.49	0.07	70.74	0.53	1.48	98.69
304	13.09	1.29	0.04	4.99	1.58	1.65	0.08	4.61	0.07	69.34	0.44	2.26	99.44
305	12.43	1.00	0.01	4.18	2.40	1.34	0.07	3.26	0.06	71.53	0.34	2.68	99.30
306	13.03	1.64	<0.01	3.19	3.03	1.62	0.06	2.38	0.05	71.19	0.25	2.84	99.28
307	12.79	0.23	0.01	4.33	2.76	1.82	0.06	3.49	0.06	69.97	0.34	3.20	99.06
308	16.86	3.54	0.06	6.30	1.48	6.00	0.08	4.06	0.06	56.87	0.76	3.90	99.97
309	13.52	1.99	0.01	5.63	1.86	3.89	0.15	3.94	0.06	63.91	0.45	3.96	99.37
310	11.91	0.32	0.02	5.02	4.02	3.66	0.03	0.27	0.08	70.41	0.42	3.06	99.22
311	9.20	0.44	0.01	3.72	2.01	0.38	0.04	0.22	0.06	79.81	0.40	2.85	99.14
312	13.77	1.26	<0.01	3.85	1.45	1.16	0.05	4.92	0.03	67.70	0.62	3.46	98.27

^aMap numbers refer to sample locations on map sheet 2.

Table 5. Whole-rock major oxide XRF analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Al ₂ O ₃	CaO	Cr ₂ O ₃	Fe ₂ O ₃	K ₂ O	MgO	MnO	Na ₂ O	P ₂ O ₅	SiO ₂	TiO ₂	LOI	TOTAL
313	15.64	0.21	0.02	7.24	5.26	1.61	0.03	0.15	0.10	64.22	0.62	3.84	98.94
314	15.63	0.64	0.02	3.05	0.16	1.41	0.01	8.58	0.07	67.79	0.32	1.43	99.11
315	12.04	0.98	0.02	3.00	2.38	0.86	0.01	4.76	0.06	72.69	0.38	1.52	98.70
316	13.43	5.06	0.03	7.43	1.01	7.49	0.18	3.60	0.07	53.41	0.44	7.19	99.34
317	13.10	0.12	0.01	4.53	4.71	2.87	0.04	1.89	0.08	70.14	0.49	1.64	99.62
318	14.14	3.04	0.12	4.31	2.52	1.73	0.04	3.76	0.05	63.56	0.41	5.61	99.29
319	18.25	1.02	0.02	8.16	5.75	1.77	0.21	0.43	0.08	57.75	1.02	4.71	99.17
320	5.45	0.27	0.03	1.87	1.49	0.21	<0.01	0.07	0.18	87.91	0.34	1.33	99.15
321	15.39	0.04	0.01	3.63	2.15	1.38	<0.01	4.53	0.05	69.00	0.48	2.34	99.00
322	8.18	2.77	<0.01	1.53	1.38	0.74	0.05	1.87	0.02	80.24	0.17	2.24	99.19
323	7.55	0.25	0.03	6.61	1.61	1.22	<0.01	0.20	0.10	77.50	0.29	4.46	99.82
324	10.25	0.03	0.02	2.44	1.59	1.59	0.01	2.83	0.06	77.34	0.44	2.40	99.00
325	7.83	0.27	0.02	2.13	1.31	0.94	0.01	2.18	0.11	81.91	0.42	1.39	98.52
326	11.65	0.64	0.01	2.26	2.08	0.54	0.02	3.95	0.03	75.86	0.25	1.65	98.94
327	9.68	0.01	0.03	5.00	2.95	0.68	<0.01	0.25	0.01	77.97	0.32	3.85	100.75
328	12.53	0.08	<0.01	2.30	3.82	0.83	0.01	1.77	0.02	74.95	0.20	1.73	98.24
329	8.16	0.51	<0.01	2.57	1.29	1.63	0.06	1.62	0.01	80.31	0.28	2.09	98.53
330	14.21	0.25	0.03	4.02	1.84	1.95	0.01	5.43	0.08	67.32	0.55	1.88	97.57
331	11.74	0.09	<0.01	0.96	4.20	1.00	0.01	0.11	0.01	78.48	0.46	1.87	98.93
332	13.42	1.89	0.01	2.02	1.79	0.88	0.03	5.15	0.06	71.26	0.28	2.42	99.21
333	12.20	2.34	0.01	2.28	0.52	0.32	0.12	6.56	0.04	70.55	0.25	3.77	98.96
334	18.75	0.82	<0.01	5.84	6.22	2.02	0.10	0.18	0.11	60.02	1.12	3.54	98.72
335	13.83	0.26	0.01	1.53	6.32	0.52	<0.01	3.69	0.05	71.14	0.43	1.25	99.03
336	14.81	0.75	0.02	4.83	1.06	1.44	0.03	6.49	0.07	66.68	0.50	2.68	99.36
337	11.53	0.08	0.01	2.11	0.60	0.40	<0.01	6.64	0.07	74.78	0.43	0.99	97.64
338	13.83	0.24	0.03	3.00	2.62	1.53	0.02	4.86	0.09	69.90	0.61	1.74	98.47
339	17.55	1.79	0.02	4.36	4.25	1.06	0.02	3.42	0.09	59.66	0.58	6.96	99.76
340	11.88	0.32	0.01	0.63	1.14	0.41	<0.01	5.68	0.06	79.20	0.26	0.70	100.29
341	9.86	0.48	0.02	1.01	1.48	0.39	0.01	3.90	0.04	80.76	0.21	0.91	99.07
342	5.99	5.84	<0.01	6.27	0.82	5.55	0.44	<0.01	0.03	64.75	0.21	9.48	99.38
343	15.80	0.24	<0.01	14.35	1.34	10.00	0.13	0.05	0.04	49.40	0.53	6.35	98.23
344	15.28	0.41	0.02	7.38	3.67	1.77	0.10	0.78	0.08	64.95	0.83	3.73	99.00
345	13.99	0.72	<0.01	6.33	2.62	2.19	0.06	2.66	0.08	66.13	0.47	3.05	98.30
346	3.91	0.05	0.02	0.66	1.01	0.42	<0.01	0.21	0.01	93.72	0.18	0.75	100.94
347	1.99	0.03	0.01	0.95	0.63	0.19	<0.01	0.04	0.02	94.51	0.18	0.61	99.16
348	3.05	0.09	0.02	0.33	0.93	0.33	<0.01	0.19	0.02	93.86	0.16	0.59	99.57
349	4.15	0.22	0.02	0.94	1.14	0.31	<0.01	0.18	0.04	91.67	0.20	0.97	99.84
350	13.52	0.04	0.01	1.34	3.19	1.17	<0.01	2.94	0.02	73.45	0.46	2.08	98.22
351	4.16	0.24	0.02	2.09	1.05	0.95	0.03	0.02	0.02	89.59	0.20	1.23	99.60
352	9.20	6.68	0.09	22.11	0.06	7.74	0.20	<0.01	0.04	41.57	0.44	10.95	99.08
353	14.27	11.55	0.03	12.32	0.18	7.64	0.19	1.24	0.08	48.20	1.17	2.76	99.63
354	8.33	0.06	0.03	2.39	2.63	0.80	0.01	0.27	0.03	82.51	0.41	1.48	98.95
355	3.41	0.08	0.02	1.47	0.47	0.56	0.01	0.71	0.06	92.60	0.13	0.55	100.07
356	3.26	0.59	0.04	1.68	1.05	0.55	0.06	<0.01	0.03	90.88	0.18	1.30	99.62
357	5.30	1.61	0.02	1.74	1.13	0.57	0.05	0.57	0.02	86.05	0.24	1.91	99.21
358	3.71	0.40	0.01	0.59	0.46	0.48	<0.01	1.41	0.09	91.34	0.16	0.38	99.03
359	5.43	0.06	0.02	1.99	1.30	0.57	0.01	0.12	0.03	88.69	0.30	1.68	100.20
360	9.91	0.65	0.01	1.25	0.72	1.24	0.01	4.19	0.04	79.90	0.15	1.47	99.54
361	20.59	0.12	0.02	7.65	5.39	3.08	0.12	1.42	0.12	55.94	0.84	4.11	99.40
362	10.99	2.02	0.01	15.88	1.38	0.95	0.15	2.99	0.49	54.99	2.28	7.36	99.49
363	13.98	0.67	0.04	6.18	1.76	4.94	0.08	2.44	0.10	64.08	0.54	3.51	98.32
364	15.42	0.07	0.02	3.06	1.20	3.93	<0.01	1.62	0.02	69.27	0.25	4.06	98.92

^aMap numbers refer to sample locations on map sheet 2.

Table 5. Whole-rock major oxide XRF analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Al ₂ O ₃	CaO	Cr ₂ O ₃	Fe ₂ O ₃	K ₂ O	MgO	MnO	Na ₂ O	P ₂ O ₅	SiO ₂	TiO ₂	LOI	TOTAL
365	3.47	0.24	0.02	1.36	0.56	0.43	<0.01	0.74	0.06	92.07	0.17	0.78	99.90
366	4.39	2.64	0.02	0.96	0.99	0.38	0.04	0.96	0.05	85.17	0.18	2.93	98.71
367	15.25	11.26	0.01	10.69	0.32	6.68	0.18	1.92	0.08	47.89	1.04	3.97	99.29
368	4.65	0.10	0.01	1.30	0.94	1.10	<0.01	0.63	0.02	89.09	0.21	1.16	99.21
369	15.92	0.37	0.05	9.04	0.29	8.76	0.06	5.18	0.10	53.70	0.62	5.81	99.90
370	15.64	1.51	0.02	19.00	0.10	7.20	0.20	3.08	0.06	43.93	0.41	7.75	98.90
371	11.13	2.22	0.04	3.67	4.31	1.78	0.07	1.20	0.06	71.53	0.32	2.72	99.05
372	14.90	1.24	0.03	7.32	2.53	5.05	0.09	5.32	0.07	57.77	0.69	4.21	99.22
373	18.08	0.12	0.03	8.35	5.21	2.87	0.14	0.40	0.08	59.20	1.02	3.66	99.16
374	14.08	1.27	0.03	4.96	1.29	1.33	0.03	5.98	0.07	64.77	0.57	4.79	99.17
375	11.26	2.40	0.02	5.13	2.55	3.47	0.09	3.14	0.07	67.47	0.54	3.25	99.39
376	11.46	1.92	0.03	5.05	1.06	3.68	0.07	3.85	0.07	67.30	0.42	4.13	99.04
377	6.43	0.33	0.03	2.21	1.72	0.41	0.06	0.71	0.04	84.68	0.33	1.80	98.75
378	7.38	2.34	0.02	2.74	2.12	1.19	0.26	0.33	0.07	78.35	0.39	4.24	99.43
379	15.24	0.08	0.01	7.48	3.74	2.60	0.08	0.75	0.06	64.78	0.76	3.40	98.98
380	6.79	0.20	<0.01	1.78	2.07	0.70	0.03	0.10	0.09	86.65	0.29	1.26	99.96
381	4.00	0.04	0.03	1.15	1.61	0.30	<0.01	<0.01	0.09	90.22	0.22	1.00	98.66
382	12.86	0.11	0.01	3.78	1.64	1.25	0.03	5.08	0.07	71.94	0.45	1.77	98.99
383	17.47	0.33	<0.01	7.52	2.82	2.30	0.08	2.86	0.05	61.35	0.87	4.37	100.02
384	3.80	0.26	0.04	1.56	1.09	0.28	0.01	0.04	0.03	90.27	0.17	1.20	98.75
385	9.18	0.33	0.03	3.59	2.10	0.52	0.10	0.86	0.04	80.60	0.41	2.46	100.22
386	13.89	4.16	0.01	9.46	0.18	5.39	0.25	4.19	0.41	53.13	1.78	5.82	98.67
387	15.67	0.66	<0.01	4.15	1.06	1.86	0.05	6.57	0.07	65.94	0.54	1.95	98.52
388	13.95	1.54	0.01	2.32	1.86	0.98	0.04	2.36	0.07	70.58	0.41	5.21	99.33
389	14.61	1.15	0.03	12.00	0.43	7.80	0.19	1.50	0.12	46.97	0.65	15.48	100.93
390	3.73	0.23	0.02	1.23	1.22	0.42	<0.01	0.19	0.05	89.99	0.19	1.54	98.81
391	12.18	0.17	0.02	3.93	2.31	1.41	0.03	2.62	0.12	73.15	0.49	2.08	98.51
392	8.26	4.09	0.02	2.59	1.64	0.59	0.17	1.94	0.05	74.50	0.39	4.54	98.78
393	3.76	0.29	0.02	1.32	0.69	0.39	0.01	0.73	0.02	90.34	0.20	0.95	98.72
394	9.59	0.49	0.02	2.37	2.40	0.78	0.03	2.19	0.03	78.75	0.38	2.11	99.14
395	3.26	0.03	0.04	1.53	1.10	0.20	0.01	0.02	0.01	91.48	0.17	0.92	98.77
396	13.17	0.29	0.02	6.47	3.00	2.04	0.23	0.51	0.10	68.53	0.43	4.68	99.47
397	12.95	0.24	0.01	3.43	2.11	1.21	0.02	5.65	0.06	71.61	0.38	1.15	98.82
398	13.56	0.65	0.01	3.86	1.28	0.66	0.05	6.14	0.07	70.28	0.39	2.53	99.48
399	14.09	1.68	0.01	6.73	3.19	4.66	0.08	4.61	0.08	62.10	0.59	1.92	99.74
400	13.53	0.75	0.02	4.75	0.76	1.29	0.02	5.54	0.07	69.26	0.54	2.71	99.24
401	5.81	0.19	0.03	1.70	1.46	0.33	0.01	0.63	0.07	87.12	0.27	1.25	98.87
402	7.14	0.23	0.03	0.83	1.88	0.33	<0.01	0.92	0.04	85.81	0.18	1.28	98.67
403	13.48	0.35	0.01	4.94	3.87	2.18	0.04	3.81	0.07	68.25	0.47	1.89	99.36
404	10.67	2.26	0.02	4.66	4.40	1.46	0.09	0.28	0.07	70.30	0.43	4.66	99.30
405	1.91	0.62	0.02	0.93	0.54	0.37	0.01	0.01	0.03	93.78	0.09	1.21	99.52
406	13.82	0.81	0.01	2.81	0.94	0.56	0.02	6.39	0.06	71.04	0.40	2.32	99.18
407	13.12	4.97	0.02	13.87	1.35	2.81	0.19	3.10	0.18	52.24	2.83	4.28	98.96
408	13.68	0.04	0.02	1.29	1.21	0.25	<0.01	7.61	0.02	73.99	0.37	0.98	99.46
409	14.85	0.20	0.01	2.61	1.51	0.76	0.03	7.62	0.06	69.79	0.35	0.87	98.66
410	11.87	0.25	0.02	2.85	5.17	1.93	0.02	0.37	0.05	73.56	0.30	2.91	99.30
411	12.59	0.45	0.01	3.18	2.67	1.23	0.04	4.37	0.04	72.36	0.27	1.67	98.88
412	14.55	0.12	0.01	2.09	2.22	0.50	0.01	6.39	0.02	70.55	0.45	1.62	98.53
413	13.37	0.06	0.01	1.94	2.68	0.76	<0.01	4.98	0.03	73.19	0.39	1.59	99.00
414	13.23	0.53	0.02	4.45	2.99	1.96	0.06	4.28	0.07	69.33	0.41	1.72	99.05
415	13.60	2.78	0.02	5.54	0.36	3.02	0.05	5.88	0.08	63.35	0.59	3.91	99.18
416	12.94	0.55	0.01	3.18	1.99	0.60	0.03	4.63	0.07	73.14	0.44	2.06	99.64

^aMap numbers refer to sample locations on map sheet 2.

Table 5. Whole-rock major oxide XRF analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Al ₂ O ₃	CaO	Cr ₂ O ₃	Fe ₂ O ₃	K ₂ O	MgO	MnO	Na ₂ O	P ₂ O ₅	SiO ₂	TiO ₂	LOI	TOTAL
417	13.85	0.53	0.05	4.34	2.92	1.82	0.06	4.74	0.07	68.76	0.54	1.62	99.30
418	8.22	2.76	0.03	3.25	2.27	2.35	0.09	1.65	0.06	72.96	0.21	5.32	99.17
419	11.62	1.15	0.03	4.22	3.91	1.95	0.04	1.35	0.06	70.34	0.50	3.79	98.96
420	12.84	0.06	0.04	2.40	4.22	0.36	0.01	4.59	0.02	71.94	0.41	1.69	98.58
421	13.65	1.35	0.01	4.87	2.24	2.41	0.06	3.76	0.07	67.26	0.48	2.99	99.15
422	13.41	0.36	<0.01	4.68	1.26	2.79	0.06	4.75	0.06	68.88	0.43	2.38	99.06
423	16.81	0.16	0.02	6.16	5.15	1.77	0.10	0.70	0.10	64.37	0.73	3.13	99.20
424	13.68	0.90	0.01	3.23	4.15	1.06	0.07	2.96	0.06	69.87	0.41	2.68	99.08
425	13.21	5.19	0.04	14.82	1.24	3.05	0.20	2.87	0.20	51.54	2.85	4.41	99.62
426	13.16	5.02	<0.01	13.87	1.35	2.85	0.19	3.09	0.19	52.46	2.83	4.31	99.32
427	11.82	0.08	0.07	1.31	3.78	0.93	<0.01	0.18	0.05	78.69	0.34	1.85	99.10
428	14.63	0.41	0.12	6.06	4.89	1.35	0.07	0.55	0.07	66.28	0.69	3.93	99.05
429	11.05	6.38	0.03	4.30	3.13	2.20	0.17	0.83	0.04	62.93	0.38	7.47	98.91
430	8.31	0.23	0.02	1.99	1.95	0.52	0.01	1.85	0.04	82.38	0.34	1.51	99.15
431	15.77	13.30	0.08	8.95	0.21	8.82	0.14	1.43	0.06	46.85	0.81	3.32	99.74
432	2.42	0.09	0.02	0.81	0.78	0.16	<0.01	<0.01	0.03	93.28	0.13	0.83	98.55
433	1.83	0.02	0.02	1.09	0.63	0.07	<0.01	0.01	0.02	91.85	0.10	3.37	99.01
434	2.63	0.06	0.01	0.82	0.68	0.12	<0.01	0.21	0.06	94.51	0.12	0.76	99.98
435	2.43	0.02	0.01	0.77	0.67	0.13	<0.01	0.18	0.03	94.46	0.11	0.66	99.47
436	2.70	0.31	0.03	1.60	0.66	0.13	<0.01	0.01	0.20	92.43	0.13	0.95	99.15
437	2.61	0.16	0.02	0.95	0.57	0.15	0.01	0.21	0.11	95.45	0.11	0.65	101.00
438	13.88	8.29	0.06	8.00	3.70	10.04	0.18	0.62	0.13	46.79	0.80	6.72	99.21
439	8.73	9.58	0.01	2.75	1.49	0.28	0.14	1.26	0.07	64.83	0.34	9.78	99.26
440	11.82	2.86	0.01	3.38	3.46	0.74	0.05	1.08	0.09	69.98	0.52	5.15	99.14
441	11.76	2.08	0.01	3.16	3.42	0.76	0.03	2.75	0.07	71.45	0.30	3.26	99.05
442	9.36	0.37	0.01	0.86	1.59	0.22	0.01	0.64	0.08	82.95	0.32	2.08	98.49
443	15.70	5.72	<0.01	6.98	0.55	2.70	0.19	6.04	0.10	53.42	0.70	6.07	98.17
444	11.00	1.71	0.02	3.05	2.54	0.51	0.05	2.20	0.06	73.80	0.32	3.45	98.71
445	11.58	3.66	0.03	3.99	2.96	0.38	0.04	1.28	0.04	69.62	0.29	5.45	99.32
446	7.91	0.33	0.03	2.03	1.62	0.96	0.01	1.37	0.06	83.90	0.28	1.78	100.28
447	13.99	0.08	0.02	1.11	2.25	0.18	<0.01	3.89	0.03	75.82	0.06	1.69	99.12
448	14.17	0.14	<0.01	0.95	2.71	0.10	0.01	0.01	0.03	77.65	0.06	3.44	99.27
449	14.30	3.12	0.02	3.49	3.32	1.89	0.04	0.79	0.08	65.52	0.48	7.00	100.05
450	11.31	0.03	0.01	0.53	7.68	0.30	<0.01	0.20	0.03	77.83	0.20	0.94	99.06
451	13.57	2.27	0.03	4.89	3.42	0.42	0.06	1.99	0.08	67.31	0.46	4.38	98.88
452	11.17	1.40	0.01	2.83	1.95	0.97	0.07	3.88	0.05	72.62	0.21	3.06	98.22
453	20.08	0.29	<0.01	4.08	7.24	1.36	0.04	1.26	0.07	59.28	0.61	3.45	97.76
454	1.62	0.10	0.04	0.64	0.33	0.15	<0.01	0.11	0.03	96.57	0.06	0.57	100.22
455	11.47	0.76	0.01	3.20	0.87	1.85	0.03	5.10	0.08	71.31	0.37	4.29	99.34
456	13.41	4.12	0.02	4.46	2.65	0.85	0.07	4.20	0.10	62.57	0.68	5.47	98.60
457	10.47	2.58	0.03	1.63	8.87	0.28	0.06	0.14	0.02	71.67	0.18	2.98	98.91
458	11.72	2.29	0.01	4.38	4.73	0.87	0.08	0.74	0.06	71.20	0.30	3.41	99.79
459	12.12	0.10	0.01	1.04	8.97	0.22	<0.01	0.13	0.08	74.91	0.25	1.26	99.09
460	10.82	0.45	0.03	1.86	5.00	0.97	0.01	0.49	0.04	77.67	0.22	1.85	99.41
461	10.01	0.16	0.01	0.85	6.04	0.32	<0.01	0.38	0.13	79.88	0.15	1.08	99.01
462	15.52	3.34	0.03	7.11	1.57	6.78	0.12	5.26	0.08	55.74	0.67	2.90	99.12
463	11.45	1.22	0.01	2.86	3.20	0.77	0.03	0.19	0.15	73.73	0.39	4.06	98.06
464	10.92	2.99	<0.01	3.09	3.23	0.50	0.09	0.09	0.03	71.49	0.20	5.12	97.75
465	11.09	0.29	0.02	2.09	7.99	0.38	0.01	0.39	0.02	75.31	0.18	1.28	99.05
466	13.28	0.26	0.01	1.34	1.92	0.64	<0.01	5.31	0.07	74.04	0.37	1.78	99.02
467	11.70	1.00	0.01	3.14	1.07	0.85	0.03	4.64	0.06	73.70	0.29	3.06	99.55
468	17.08	0.32	<0.01	4.26	5.10	1.22	0.02	0.14	0.16	64.81	0.85	5.02	98.98

^aMap numbers refer to sample locations on map sheet 2.

Table 5. Whole-rock major oxide XRF analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Al ₂ O ₃	CaO	Cr ₂ O ₃	Fe ₂ O ₃	K ₂ O	MgO	MnO	Na ₂ O	P ₂ O ₅	SiO ₂	TiO ₂	LOI	TOTAL
469	10.02	0.11	0.02	5.93	1.15	0.75	<0.01	4.34	0.06	73.57	0.38	3.18	99.51
470	13.92	1.94	0.01	3.97	3.16	1.75	0.07	3.64	0.07	67.81	0.46	2.58	99.38
471	12.48	1.58	0.01	3.55	2.42	0.62	0.04	4.87	0.06	71.62	0.31	2.04	99.60
472	14.85	0.12	0.01	5.69	0.83	3.66	0.05	6.58	0.08	64.59	0.47	2.34	99.27
473	15.37	4.56	<0.01	5.70	1.16	3.35	0.09	5.21	0.09	60.43	0.61	1.84	98.41
474	13.03	0.10	0.01	1.93	1.20	0.22	0.01	6.06	0.02	73.40	0.40	1.54	97.92
475	14.02	0.02	0.02	1.59	3.55	1.22	<0.01	3.54	0.02	72.89	0.39	1.78	99.04
476	9.23	0.07	0.02	2.28	2.89	0.35	<0.01	0.22	0.04	82.08	0.25	1.77	99.20
477	10.80	0.26	0.01	2.54	2.95	0.68	0.01	1.57	0.05	78.23	0.31	1.98	99.39
478	11.94	4.17	0.01	4.85	1.93	0.82	0.05	1.76	0.07	66.03	0.48	6.97	99.08
479	11.56	1.55	0.02	3.38	1.02	1.35	0.06	4.00	0.07	71.81	0.32	4.69	99.83
480	12.40	0.33	0.03	3.80	4.14	1.87	0.02	2.25	0.14	71.57	0.51	2.79	99.85
481	14.55	0.08	0.01	2.71	3.83	1.05	<0.01	4.57	0.02	70.08	0.52	2.35	99.77
482	13.55	0.07	0.03	1.23	1.87	0.47	<0.01	5.67	0.02	73.95	0.42	1.23	98.51
483	14.32	0.16	0.04	3.41	1.87	0.83	0.02	5.52	0.07	70.01	0.40	2.02	98.67
484	4.05	0.01	0.03	1.10	1.15	0.31	<0.01	0.20	0.03	93.03	0.15	0.85	100.91
485	16.51	10.61	0.05	10.83	0.17	5.18	0.16	2.97	0.16	47.98	1.78	2.70	99.10
486	17.05	0.16	0.01	0.76	5.12	0.81	<0.01	0.70	0.01	71.45	0.55	3.09	99.71
487	2.53	0.04	0.02	0.61	0.61	0.25	<0.01	0.16	0.03	94.84	0.09	0.79	99.97
488	4.47	0.11	0.03	1.46	1.47	0.49	0.01	0.18	0.05	89.19	0.37	1.30	99.13
489	12.10	0.88	0.03	3.50	1.30	1.73	0.06	4.53	0.07	69.78	0.34	4.63	98.95
490	11.41	0.78	0.01	3.59	1.86	1.32	0.03	4.30	0.06	73.83	0.32	2.44	99.95
491	13.09	0.12	0.01	1.62	1.70	0.43	<0.01	6.84	0.04	73.65	0.30	1.22	99.02
492	8.07	0.03	0.02	5.16	2.29	0.62	<0.01	0.29	0.02	79.11	0.30	3.25	99.16
493	16.51	9.99	0.03	10.49	0.12	4.92	0.15	3.17	0.19	47.17	1.80	6.11	100.65
494	20.60	0.12	<0.01	5.61	5.23	2.34	0.13	0.82	0.06	58.56	0.72	4.35	98.54
495	24.38	0.11	<0.01	8.95	6.17	2.49	0.10	0.48	0.06	50.26	1.06	5.04	99.10
496	19.83	0.15	<0.01	9.23	5.07	1.71	0.07	1.14	0.12	56.28	1.01	4.43	99.04
497	11.67	7.28	0.01	16.55	0.61	3.99	0.21	2.63	0.37	47.56	3.64	4.61	99.13
498	14.92	1.09	0.01	6.37	3.06	3.11	0.07	5.72	0.08	62.31	0.71	1.47	98.92
499	19.92	0.19	<0.01	7.28	4.42	2.06	0.07	1.24	0.11	57.17	0.78	3.69	96.93
500	4.47	1.46	<0.01	1.86	1.03	0.77	0.05	0.16	0.02	85.77	0.17	3.08	98.84
501	11.03	0.05	0.02	1.40	1.88	0.68	<0.01	3.62	0.04	78.61	0.32	1.72	99.37
502	15.01	0.58	<0.01	1.77	3.98	0.88	0.03	3.24	0.09	68.58	0.56	1.93	96.65
503	10.83	0.77	<0.01	1.29	0.48	0.76	0.01	4.90	0.06	76.74	0.25	2.28	98.37
504	8.99	0.20	<0.01	1.87	2.53	0.25	0.01	0.24	0.03	81.29	0.33	2.10	97.84
505	11.38	0.07	<0.01	1.05	1.19	0.31	0.01	4.76	0.04	78.08	0.33	0.97	98.19
506	12.79	0.36	<0.01	4.78	1.48	0.66	0.03	5.08	0.07	70.69	0.42	2.93	99.29
507	12.79	11.42	0.02	13.79	0.17	6.98	0.22	1.88	0.18	48.58	1.80	1.76	99.59
508	12.79	0.62	0.02	5.37	1.89	2.14	0.07	5.09	0.07	66.66	0.38	3.58	98.68
509	12.71	0.58	<0.01	4.01	3.10	2.04	0.03	1.27	0.19	71.51	0.62	3.04	99.10
510	12.25	0.49	<0.01	3.54	3.22	1.46	0.04	0.53	0.20	72.49	0.57	3.34	98.13
511	20.37	0.30	0.01	22.40	0.05	16.67	0.23	0.03	0.23	28.73	1.59	8.99	99.60
512	11.24	1.47	0.04	5.00	1.65	2.29	0.04	2.10	0.08	71.89	0.35	3.13	99.28
513	4.02	0.15	0.02	1.41	0.96	0.17	<0.01	0.15	0.02	90.24	0.22	1.68	99.04
514	15.38	0.92	<0.01	4.08	1.15	2.32	0.06	6.37	0.07	65.26	0.56	2.19	98.36
515	12.66	0.39	0.01	3.04	1.20	1.76	0.03	4.79	0.06	72.90	0.32	2.07	99.23
516	8.59	0.15	0.02	2.81	2.97	0.72	0.04	0.07	0.08	80.63	0.36	2.59	99.03
517	11.40	0.28	0.02	6.44	2.36	3.75	0.05	0.07	0.20	70.79	0.61	3.12	99.09
518	14.66	0.81	0.01	3.19	1.63	1.18	0.02	5.87	0.07	67.80	0.42	3.13	98.79
519	12.70	2.14	0.02	2.19	1.93	0.93	0.06	4.93	0.05	70.24	0.38	3.37	98.94
520	13.64	0.21	0.02	4.17	1.82	2.88	0.03	4.25	0.06	69.70	0.43	2.20	99.41

^aMap numbers refer to sample locations on map sheet 2.

Table 5. Whole-rock major oxide XRF analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Al ₂ O ₃	CaO	Cr ₂ O ₃	Fe ₂ O ₃	K ₂ O	MgO	MnO	Na ₂ O	P ₂ O ₅	SiO ₂	TiO ₂	LOI	TOTAL
521	9.34	0.02	0.01	1.38	2.08	0.27	<0.01	2.05	<0.01	82.19	0.18	1.58	99.10
522	10.97	3.44	<0.01	3.58	2.99	1.33	0.08	0.81	0.05	69.11	0.33	6.57	99.26
523	16.09	0.87	<0.01	6.68	1.42	4.87	0.07	3.97	0.06	57.99	0.57	4.20	96.79
524	11.88	0.81	0.01	2.97	1.46	0.97	0.02	4.26	0.06	73.39	0.29	3.11	99.23
525	9.24	0.05	<0.01	9.44	3.09	0.56	0.02	0.20	0.01	69.23	0.24	6.17	98.25
526	6.40	0.31	0.04	2.99	1.90	0.40	0.05	0.30	0.02	84.46	0.28	1.81	98.96
527	13.29	0.17	0.01	5.06	2.68	1.42	0.07	1.63	0.04	70.50	0.62	2.46	97.95
528	8.86	0.27	0.03	3.04	1.57	1.01	0.03	1.83	0.03	80.91	0.38	1.60	99.56
529	8.26	10.34	<0.01	3.03	1.94	1.07	0.13	0.93	0.06	62.23	0.31	10.09	98.39
530	5.04	0.01	0.04	0.85	1.36	0.20	<0.01	0.16	0.02	90.84	0.19	1.20	99.91
531	14.15	0.91	<0.01	2.32	2.54	1.43	0.03	4.92	0.07	67.68	0.52	3.28	97.85
532	11.06	0.06	0.01	0.76	2.12	0.72	0.01	2.93	0.02	79.10	0.16	1.42	98.37
533	10.71	0.07	0.01	5.06	1.79	0.47	0.01	2.79	0.04	73.87	0.17	2.47	97.46
534	14.49	0.89	0.01	4.63	2.28	2.16	0.04	4.76	0.07	66.82	0.50	2.38	99.03
535	12.18	0.32	0.02	3.49	3.29	1.10	0.05	0.48	0.07	74.30	0.50	3.72	99.52
536	4.85	0.88	0.02	1.99	1.52	0.58	0.02	0.29	0.03	86.33	0.18	2.31	99.00
537	14.25	0.08	0.01	6.81	2.41	2.56	0.04	4.09	0.05	65.18	0.46	3.58	99.52
538	9.66	4.18	0.02	2.78	1.97	0.59	0.08	1.39	0.07	73.60	0.34	4.71	99.39
539	6.35	0.83	0.02	0.99	1.16	0.58	0.05	1.81	0.03	86.62	0.23	1.69	100.36
540	5.66	8.07	0.01	1.06	1.08	0.28	0.07	1.28	0.03	74.47	0.19	7.31	99.51
541	4.36	0.12	0.02	1.23	0.99	0.17	0.05	1.05	0.05	89.54	0.22	0.87	98.67
542	12.42	0.37	<0.01	1.90	3.04	1.08	0.03	2.63	0.07	73.29	0.32	2.65	97.80
543	3.19	0.05	0.01	2.18	0.86	0.16	0.01	0.04	0.02	90.40	0.18	1.46	98.56
544	8.54	12.91	<0.01	17.17	0.04	5.73	0.38	0.14	4.89	35.78	2.51	10.05	98.14
545	2.10	0.01	0.01	2.09	0.37	1.18	0.02	0.08	0.01	93.31	0.11	1.24	100.53
546	2.84	0.09	0.01	0.79	1.02	0.37	0.01	0.13	0.02	93.55	0.09	0.65	99.57
547	0.56	0.01	0.02	14.38	0.09	0.09	0.01	0.11	0.02	77.96	0.03	5.87	99.15
548	11.99	0.52	0.01	2.85	3.72	1.83	0.07	0.17	0.05	76.42	0.28	2.66	100.57
549	2.94	1.26	0.01	1.11	0.80	0.93	0.10	0.12	0.02	91.55	0.18	2.09	101.11
550	2.87	0.01	0.01	1.06	0.91	0.30	0.01	0.12	0.02	91.58	0.10	1.69	98.68
551	3.42	<0.01	<0.01	35.70	0.02	3.44	0.05	0.02	0.07	23.60	0.07	20.16	86.55
552	9.88	0.61	0.01	6.31	0.55	2.19	0.06	3.06	0.11	75.49	0.44	2.11	100.82
553	11.45	0.86	0.01	6.12	1.51	1.56	0.04	4.68	0.21	71.31	0.63	1.78	100.16
554	13.36	0.99	0.02	5.88	0.34	2.03	0.07	5.79	0.16	67.76	0.69	1.92	99.01
555	8.83	2.93	0.02	1.89	0.84	0.67	0.04	3.64	0.03	77.38	0.13	3.12	99.52
556	16.49	9.12	0.06	8.81	0.88	7.82	0.14	2.78	0.12	45.94	1.24	5.52	98.92
557	4.12	0.03	0.04	1.59	0.78	1.56	0.01	0.01	0.02	89.44	0.21	1.22	99.03
558	4.23	0.02	0.02	1.09	1.34	0.17	<0.01	0.02	0.01	90.53	0.22	0.87	98.52
559	13.71	2.23	0.05	4.94	3.30	1.47	0.16	1.87	0.24	66.00	0.59	4.70	99.26
560	4.94	0.05	0.03	1.55	1.50	0.40	<0.01	0.02	0.02	89.44	0.23	1.04	99.22
561	15.20	3.50	0.04	12.49	0.12	4.31	0.09	5.34	1.07	49.59	2.65	5.41	99.81
562	9.69	1.39	0.01	1.77	1.33	0.89	0.01	2.91	0.09	79.57	0.23	2.76	100.65
563	10.39	0.82	0.01	0.73	1.17	0.24	<0.01	5.13	0.05	78.52	0.14	1.32	98.52
564	11.92	0.63	0.01	6.70	0.87	2.02	0.05	5.25	0.16	67.34	0.55	2.29	97.79
565	4.52	0.07	0.04	5.33	0.60	1.77	0.12	<0.01	0.09	82.57	0.36	4.00	99.47
566	12.05	1.05	0.02	1.02	3.22	1.05	<0.01	3.99	0.02	75.15	0.15	2.18	99.90
567	2.92	0.03	0.02	0.51	0.98	0.22	<0.01	0.19	0.02	93.99	0.15	0.60	99.63
568	2.72	0.52	0.03	1.50	0.68	1.06	0.02	0.07	0.02	91.64	0.11	1.60	99.97
569	3.05	0.03	0.03	1.53	0.75	1.26	0.02	<0.01	0.01	91.13	0.16	1.04	99.01
570	3.31	0.10	0.02	2.68	0.08	4.11	0.04	<0.01	0.01	86.99	0.13	1.88	99.35
571	17.93	3.59	0.04	11.74	0.04	21.29	0.68	0.06	0.07	29.32	1.10	14.19	100.05
572	14.47	0.97	0.01	4.18	1.80	1.23	0.07	4.88	0.03	69.23	0.24	1.90	99.01

^aMap numbers refer to sample locations on map sheet 2.

Table 5. Whole-rock major oxide XRF analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Al ₂ O ₃	CaO	Cr ₂ O ₃	Fe ₂ O ₃	K ₂ O	MgO	MnO	Na ₂ O	P ₂ O ₅	SiO ₂	TiO ₂	LOI	TOTAL
573	2.28	0.16	0.02	1.01	0.65	0.25	0.01	0.17	0.04	94.49	0.10	0.64	99.82
574	4.87	0.08	0.01	19.60	0.30	2.26	0.10	0.16	0.04	61.63	0.28	8.76	98.09
575	12.09	0.06	0.01	1.51	3.44	0.71	0.01	1.39	0.03	76.85	0.33	1.89	98.32
576	16.15	2.12	0.04	7.03	2.73	9.34	0.08	2.50	0.06	52.28	0.60	6.10	99.03
577	2.93	0.03	0.02	0.47	1.00	0.14	<0.01	<0.01	0.01	93.67	0.15	0.61	99.03
578	12.34	0.09	0.01	2.52	2.16	3.87	<0.01	1.09	0.02	75.86	0.16	2.71	100.83
579	10.47	0.01	0.02	0.63	5.44	0.54	<0.01	0.98	0.01	81.23	0.11	0.85	100.29
580	10.66	0.01	0.02	1.21	6.18	0.78	<0.01	0.44	0.01	79.23	0.13	1.30	99.97
581	10.75	<0.01	0.01	1.53	6.89	0.93	<0.01	0.29	0.02	76.50	0.13	1.52	98.57
582	11.93	0.08	<0.01	2.84	1.51	3.58	<0.01	1.70	0.02	74.06	0.16	2.68	98.56
583	13.32	0.08	0.01	2.59	2.72	2.65	0.02	2.03	0.02	74.27	0.17	2.40	100.28
584	10.60	0.10	0.02	1.20	0.48	0.19	<0.01	5.63	0.06	80.29	0.12	0.80	99.49
585	12.73	0.02	0.01	3.21	2.76	2.94	0.01	2.22	0.01	72.37	0.16	2.56	99.00
586	12.08	0.03	0.02	1.04	8.18	0.25	<0.01	0.15	0.06	74.49	0.35	2.04	98.69
587	12.99	0.03	0.01	3.04	1.85	2.77	0.01	2.46	0.07	74.19	0.16	2.97	100.55
588	11.40	1.11	0.01	3.32	8.52	0.59	0.04	0.12	0.07	70.77	0.34	2.89	99.18
589	14.71	0.26	0.01	2.56	3.54	2.77	0.01	1.98	0.02	70.54	0.17	2.85	99.42
590	12.28	0.21	<0.01	1.40	4.14	0.98	<0.01	0.99	0.06	77.22	0.32	1.92	99.52
591	10.86	0.55	0.01	0.89	2.37	1.11	<0.01	3.27	0.02	78.44	0.10	1.48	99.10
592	10.59	0.33	0.01	1.34	6.98	0.85	<0.01	0.33	0.02	77.23	0.15	1.42	99.25
593	11.20	0.01	0.01	2.00	5.32	1.11	0.01	0.68	0.02	77.34	0.13	1.72	99.55
594	12.12	0.46	0.01	2.04	3.24	2.18	0.01	2.01	0.01	74.79	0.15	2.16	99.18
595	9.54	0.05	0.02	2.00	0.21	1.69	0.01	5.54	0.01	78.14	0.15	1.18	98.54
596	13.22	0.40	0.01	4.28	3.00	3.45	0.06	2.70	0.06	69.29	0.43	2.47	99.37
597	11.13	0.01	0.01	2.66	2.08	2.98	0.01	2.29	0.03	75.16	0.12	2.16	98.64
598	9.52	<0.01	0.01	2.38	2.83	2.07	0.01	1.14	0.02	78.60	0.12	1.91	98.61
599	10.56	0.03	0.01	1.83	4.00	1.83	0.02	0.21	0.05	78.27	0.13	1.99	98.93
600	11.37	0.02	0.01	2.14	3.55	1.36	0.02	0.29	0.04	78.16	0.14	2.90	100.00
601	9.42	0.12	0.02	5.54	2.03	5.21	0.08	0.17	0.18	71.75	0.43	3.94	98.89
602	11.59	2.49	0.01	1.58	3.27	1.29	0.14	0.27	0.04	74.29	0.09	4.83	99.89
603	2.30	1.97	0.03	1.81	0.40	0.71	0.05	0.21	0.01	88.99	0.15	2.21	98.84
604	5.72	0.58	0.03	1.51	1.01	0.61	0.01	1.69	0.02	86.15	0.13	1.30	98.76
605	6.55	0.18	0.03	2.96	0.83	1.25	0.07	1.73	0.03	84.43	0.25	1.54	99.85
606	7.22	0.01	0.02	2.51	1.97	1.16	0.02	0.57	0.03	83.77	0.33	1.66	99.27
607	5.09	0.44	0.02	1.28	0.77	0.41	0.02	1.39	0.04	89.45	0.18	1.11	100.20
608	11.23	0.38	0.03	1.42	5.80	0.36	0.01	2.08	0.01	74.83	0.10	1.34	97.59
609	3.17	0.02	0.02	3.74	0.12	2.95	0.11	0.05	0.01	87.70	0.16	1.82	99.87
610	5.43	0.04	0.04	1.66	1.64	0.27	<0.01	0.04	0.04	87.90	0.51	1.35	98.92
611	7.77	0.06	0.02	3.98	1.88	0.53	<0.01	0.05	0.05	83.46	0.48	1.43	99.71
612	2.95	0.04	0.02	3.84	0.16	1.57	0.03	<0.01	0.04	89.26	0.12	1.25	99.28
613	5.81	0.10	0.03	3.34	1.17	0.84	0.02	0.07	0.08	86.79	0.41	1.17	99.83
614	11.31	2.03	0.02	7.03	1.11	2.59	0.06	2.66	0.27	68.65	0.81	3.28	99.82
615	13.88	0.42	0.02	4.27	2.80	1.68	0.01	1.73	0.06	71.11	0.42	2.97	99.37
616	3.05	0.19	0.02	1.29	0.53	1.67	0.04	0.14	0.02	90.18	0.14	1.33	98.60
617	6.32	0.09	0.04	2.94	0.84	0.85	0.06	1.74	0.02	84.76	0.29	1.07	99.02
618	13.06	1.17	0.05	1.61	4.89	0.44	0.04	1.83	0.01	73.86	0.14	2.20	99.30
619	1.56	0.46	0.03	1.93	0.23	0.61	0.05	0.08	0.11	93.73	0.15	0.92	99.86
620	13.68	0.03	0.02	2.91	2.33	4.52	0.01	0.57	0.04	71.79	0.33	3.58	99.81
621	4.77	0.04	0.03	2.08	1.10	1.20	<0.01	0.12	0.04	88.78	0.20	1.65	100.01
622	12.05	1.27	0.02	8.42	0.09	2.59	0.03	4.53	0.30	66.73	0.89	2.80	99.72
623	17.80	0.37	<0.01	7.53	3.94	4.67	0.21	0.76	0.08	57.61	0.88	4.74	98.59
624	13.10	4.24	0.06	12.05	0.06	7.45	0.12	2.61	0.34	50.56	2.54	6.94	100.07

^aMap numbers refer to sample locations on map sheet 2.

Table 5. Whole-rock major oxide XRF analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Al ₂ O ₃	CaO	Cr ₂ O ₃	Fe ₂ O ₃	K ₂ O	MgO	MnO	Na ₂ O	P ₂ O ₅	SiO ₂	TiO ₂	LOI	TOTAL
625	13.23	0.15	0.04	6.33	3.54	1.02	0.01	0.14	0.09	72.12	0.61	2.78	100.06
626	10.90	0.22	0.02	5.17	2.25	1.50	0.04	1.06	0.02	75.25	0.53	2.33	99.29
627	15.34	0.33	0.03	6.13	3.70	1.56	0.16	0.83	0.10	67.95	0.71	3.02	99.86
628	4.62	0.26	0.02	1.72	0.70	0.47	0.01	1.09	0.04	90.83	0.21	0.94	100.91
629	3.59	0.26	0.03	1.15	1.10	0.87	0.03	0.08	0.02	92.56	0.15	1.10	100.94
630	2.54	0.21	0.02	1.50	0.62	0.85	0.02	0.17	0.03	93.44	0.09	0.90	100.39
631	14.84	1.10	0.02	5.18	2.47	2.33	0.10	3.16	0.10	66.24	0.59	3.41	99.54
632	7.55	2.86	0.03	3.09	1.96	0.62	0.07	1.52	0.03	77.62	0.25	4.02	99.62
633	16.56	0.20	0.05	7.85	3.84	2.13	0.08	0.41	0.11	64.75	0.55	3.10	99.63
634	7.83	0.29	0.02	3.45	2.22	1.53	0.03	0.29	0.06	81.32	0.36	1.87	99.27
635	4.10	0.27	0.02	1.08	0.68	0.49	0.02	1.40	0.02	90.17	0.21	0.74	99.20
636	8.68	1.72	0.01	3.04	1.29	0.99	0.11	2.64	0.04	77.91	0.32	2.45	99.20
637	13.60	0.23	0.01	4.46	3.92	0.59	0.07	1.15	0.07	71.62	0.38	2.92	99.02
638	1.90	0.01	0.02	1.17	0.43	0.79	0.01	0.08	0.02	94.23	0.14	0.73	99.53
639	1.85	<0.01	0.01	0.38	0.61	0.11	<0.01	0.16	0.02	94.98	0.10	0.42	98.64
640	16.15	1.12	0.02	10.91	3.26	3.97	0.11	0.33	0.06	56.97	0.67	6.21	99.78
641	15.11	8.52	0.01	7.46	2.18	3.32	0.28	3.42	0.35	49.48	1.07	8.67	99.87
642	5.62	0.39	0.01	1.06	0.73	0.27	0.06	2.25	0.17	86.71	0.18	0.67	98.12
643	11.09	0.20	0.02	3.97	2.64	0.70	0.03	1.77	0.04	77.36	0.27	1.70	99.79
644	24.66	0.10	0.02	8.04	7.47	2.75	0.16	0.70	0.07	50.81	0.84	4.31	99.93
645	12.13	3.44	0.02	6.12	1.13	2.20	0.12	3.93	0.04	67.72	0.57	1.68	99.10
646	2.00	0.01	0.02	0.91	0.42	0.34	<0.01	0.41	0.04	95.44	0.11	0.59	100.29
647	1.88	0.51	0.03	1.55	0.39	0.63	0.02	0.11	0.08	94.55	0.14	1.00	100.89
648	7.86	0.20	0.02	2.14	0.93	1.02	0.03	2.76	0.06	83.07	0.40	0.90	99.39
649	14.03	0.11	0.02	8.51	1.27	3.65	0.08	3.40	0.10	64.39	0.58	3.27	99.41
650	17.14	0.07	0.02	6.05	4.36	2.40	0.06	1.87	0.08	63.34	0.71	3.50	99.60
651	12.15	0.35	0.01	2.99	2.09	0.53	<0.01	4.21	0.02	74.43	0.30	2.91	99.99
652	12.42	0.68	0.02	3.23	2.08	1.91	0.05	3.86	0.05	72.24	0.25	2.43	99.22
653	9.85	0.36	0.02	1.39	1.05	2.32	<0.01	0.85	0.02	79.96	0.16	3.01	98.99
654	13.45	0.01	0.02	2.31	3.50	1.29	<0.01	1.89	0.02	74.08	0.29	2.84	99.70
655	6.65	0.09	0.01	1.25	1.62	0.32	0.01	0.20	0.04	87.41	0.32	1.33	99.25
656	11.99	0.04	0.01	3.38	1.73	2.84	0.02	1.49	0.02	74.61	0.23	2.57	98.93
657	13.30	0.04	0.02	2.87	2.69	1.22	<0.01	4.04	0.07	72.00	0.40	2.42	99.07
658	13.39	0.04	0.02	2.59	3.34	2.25	0.01	2.91	0.04	71.37	0.54	2.57	99.07
659	6.91	1.31	0.03	7.55	0.95	1.77	0.17	0.44	0.04	76.59	0.34	3.35	99.45
660	7.11	0.04	0.03	2.12	1.93	0.55	0.08	1.08	0.04	84.60	0.29	1.23	99.10
661	18.28	0.10	0.03	11.42	3.12	2.34	0.07	3.06	0.08	56.20	0.89	3.34	98.93
662	14.15	0.10	0.03	4.79	3.60	1.46	0.03	1.25	0.09	70.76	0.76	2.48	99.50
663	16.71	0.12	0.02	6.88	4.66	2.11	0.08	0.95	0.09	63.88	0.82	3.20	99.52
664	4.91	0.14	0.07	1.60	0.89	0.37	0.01	1.17	0.01	88.79	0.17	0.69	98.82
665	14.09	0.03	0.04	6.79	3.76	2.01	0.07	1.12	0.07	66.30	0.87	3.91	99.06
666	4.87	1.07	0.03	1.10	0.53	0.27	0.03	1.92	0.01	87.87	0.10	1.23	99.03
667	17.90	0.14	0.05	10.09	4.20	2.93	0.15	1.04	0.09	57.88	0.98	4.27	99.72
668	12.10	0.08	0.03	6.16	2.87	1.78	0.03	0.35	0.07	72.87	0.57	2.52	99.43
669	14.47	10.05	0.01	13.79	0.46	5.73	0.21	2.42	0.11	48.80	1.43	2.29	99.77
670	11.79	8.82	0.06	19.66	0.44	4.90	0.27	2.12	0.16	45.96	2.98	2.30	99.46
671	15.18	3.80	0.01	5.63	4.32	1.79	0.07	0.26	0.17	62.83	1.02	3.66	98.74
672	12.27	9.81	0.04	20.76	0.28	5.49	0.23	2.15	0.10	44.02	2.71	1.87	99.73
673	12.25	0.22	0.02	2.78	3.32	2.08	0.01	0.52	0.15	74.43	0.62	2.78	99.18
674	12.69	1.91	0.01	4.02	3.37	1.46	0.07	2.05	0.07	68.35	0.33	3.22	97.55
675	6.55	5.33	0.01	4.98	1.06	2.23	0.28	0.54	0.03	71.15	0.24	5.78	98.18
676	8.16	0.97	0.01	2.70	1.51	0.56	0.03	0.48	0.06	82.13	0.23	2.29	99.13

^aMap numbers refer to sample locations on map sheet 2.

Table 5. Whole-rock major oxide XRF analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Al ₂ O ₃	CaO	Cr ₂ O ₃	Fe ₂ O ₃	K ₂ O	MgO	MnO	Na ₂ O	P ₂ O ₅	SiO ₂	TiO ₂	LOI	TOTAL
677	13.49	0.81	0.02	6.62	3.17	1.42	0.03	2.90	0.09	65.09	0.61	5.31	99.56
678	3.65	0.12	0.04	23.87	0.34	0.35	0.01	1.14	0.03	59.32	0.20	10.29	99.36
679	10.95	0.17	0.01	1.61	1.62	0.39	<0.01	4.50	0.06	77.71	0.33	0.96	98.31
680	14.04	11.80	0.01	11.44	0.32	7.63	0.17	2.12	0.08	48.53	1.01	2.41	99.56
681	13.50	0.37	0.01	5.09	2.39	2.77	0.09	2.80	0.10	69.24	0.52	2.78	99.66
682	5.89	0.65	0.02	2.42	1.07	0.65	0.03	1.51	0.02	85.32	0.26	1.88	99.72
683	12.98	0.50	0.01	4.86	1.49	0.74	0.07	5.70	0.07	69.50	0.37	2.66	98.95
684	13.15	0.10	0.01	3.82	3.62	1.40	0.02	2.08	0.07	72.04	0.37	2.34	99.02
685	5.89	0.79	0.02	2.31	0.67	1.20	0.04	1.73	0.03	84.11	0.26	1.57	98.62
686	9.59	0.01	0.01	0.70	3.17	0.29	<0.01	0.03	0.01	82.91	0.30	1.73	98.75
687	11.71	1.99	0.01	3.72	2.85	0.45	0.06	2.76	0.07	72.00	0.37	3.30	99.29
688	15.66	2.30	0.01	7.02	0.37	4.84	0.13	6.44	0.09	57.28	0.73	4.31	99.18
689	8.44	9.94	0.01	3.32	2.43	0.62	0.16	0.25	0.09	64.95	0.42	8.68	99.31
690	11.90	0.01	0.02	2.08	3.81	0.72	<0.01	0.46	0.06	77.33	0.36	2.28	99.03
691	13.79	3.07	0.04	6.82	0.53	5.16	0.12	4.22	0.06	52.61	0.56	12.27	99.25
692	13.74	0.09	0.01	3.97	0.24	0.98	0.05	7.37	0.10	71.28	0.35	1.25	99.43
693	14.15	10.56	0.07	11.90	0.65	6.60	0.16	2.04	0.09	48.76	1.07	2.98	99.03
694	11.31	0.14	0.02	3.20	0.27	0.09	0.01	6.14	0.10	77.65	0.32	1.49	100.74
695	10.45	<0.01	0.02	0.91	3.70	0.77	<0.01	0.15	0.03	81.14	0.31	1.85	99.33
696	10.94	0.25	0.02	4.84	0.50	0.96	0.03	5.14	0.06	74.11	0.37	2.14	99.36
697	12.83	1.32	0.02	5.96	0.20	1.67	0.08	5.76	0.10	67.97	0.73	2.46	99.10
698	11.18	0.31	0.01	2.45	0.38	1.05	0.02	6.05	0.05	77.17	0.27	1.03	99.97
699	13.18	2.69	0.01	1.17	2.80	0.66	0.02	4.18	0.08	71.91	0.51	2.74	99.95
700	17.72	0.16	0.01	7.26	1.12	4.34	0.08	5.72	0.11	59.43	0.69	3.16	99.80
701	14.01	0.03	0.01	1.47	3.81	0.80	<0.01	2.58	0.06	73.05	0.44	2.35	98.61
702	13.93	0.43	0.01	3.11	1.36	1.74	0.02	6.30	0.07	70.39	0.50	1.55	99.41
703	11.46	3.52	0.01	1.47	2.14	0.49	0.02	3.93	0.07	72.71	0.46	3.43	99.71
704	12.60	0.10	0.02	4.56	1.18	0.31	<0.01	6.00	0.07	72.48	0.45	2.15	99.92
705	11.80	0.80	0.01	3.13	2.13	1.06	0.02	3.84	0.04	76.24	0.21	1.56	100.84
706	13.47	0.22	0.01	4.21	1.54	1.51	0.02	4.70	0.07	74.27	0.35	1.08	101.45
707	17.32	0.73	0.01	12.26	0.71	6.26	0.15	5.22	0.11	54.32	1.20	3.20	101.49
708	11.43	3.65	0.01	2.91	1.53	1.07	0.05	5.39	0.08	69.22	0.27	3.07	98.68
709	12.97	1.53	0.01	2.84	1.07	0.94	0.04	6.75	0.10	70.54	0.41	1.89	99.09
710	17.25	0.14	0.01	4.93	4.56	2.93	0.06	2.08	0.07	65.53	0.37	2.80	100.73
711	13.54	0.22	0.03	0.97	1.91	0.59	<0.01	5.21	0.06	75.30	0.36	1.22	99.41
712	7.45	0.04	0.02	0.77	1.86	0.14	<0.01	2.77	0.02	85.20	0.27	0.41	98.95
713	16.91	0.12	0.02	7.84	4.16	2.27	0.16	1.20	0.08	61.98	0.87	3.44	99.05
714	15.28	0.28	0.02	2.91	0.84	0.75	0.01	7.90	0.10	69.04	0.45	1.47	99.05
715	19.92	0.09	0.04	10.21	5.11	2.45	0.06	0.76	0.08	54.38	1.04	5.43	99.57
716	3.74	0.01	0.03	0.65	1.23	0.14	<0.01	<0.01	0.01	91.79	0.24	0.79	98.63
717	15.86	1.92	0.01	5.61	0.35	2.53	0.06	7.72	0.13	61.70	0.59	2.73	99.21
718	14.14	0.04	0.01	1.58	3.51	0.73	<0.01	3.27	0.04	74.89	0.24	1.46	99.91
719	13.07	0.51	0.02	1.84	2.07	0.76	0.01	5.44	0.08	74.06	0.52	0.66	99.04
720	12.00	0.59	0.01	0.69	1.95	0.34	<0.01	4.48	0.03	78.07	0.19	1.01	99.36
721	12.58	0.23	0.01	3.71	4.98	2.34	0.02	0.84	0.06	71.81	0.38	2.35	99.31
722	12.34	0.28	0.03	4.12	3.23	1.51	0.03	3.15	0.07	72.49	0.37	1.72	99.34
723	13.08	1.65	0.01	3.27	2.55	1.27	0.04	3.83	0.07	70.46	0.38	2.54	99.15
724	18.15	0.18	0.03	10.39	5.35	1.94	0.06	1.29	0.10	57.37	1.05	3.08	98.99
725	15.94	0.12	0.04	9.88	3.78	1.72	0.03	2.10	0.08	62.13	0.88	2.32	99.02
726	14.17	0.06	0.04	3.40	5.82	0.72	<0.01	0.07	0.04	71.73	0.60	2.39	99.04
727	2.54	1.45	0.03	1.07	0.77	0.24	0.06	0.27	0.03	91.09	0.11	1.70	99.36
728	12.44	0.15	0.02	3.03	1.82	0.55	<0.01	5.14	0.06	74.00	0.26	2.40	99.87

^aMap numbers refer to sample locations on map sheet 2.

Table 5. Whole-rock major oxide XRF analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Al ₂ O ₃	CaO	Cr ₂ O ₃	Fe ₂ O ₃	K ₂ O	MgO	MnO	Na ₂ O	P ₂ O ₅	SiO ₂	TiO ₂	LOI	TOTAL
729	4.75	0.76	0.06	1.09	1.11	0.36	0.01	0.26	0.02	90.32	0.14	1.31	100.19
730	8.37	0.23	0.03	2.75	1.31	1.42	0.04	2.86	0.04	80.96	0.34	1.56	99.91
731	4.41	0.04	0.02	1.22	1.43	0.53	<0.01	0.22	0.03	90.31	0.15	0.92	99.28
732	4.49	0.46	0.04	1.80	0.87	0.20	0.05	0.59	0.04	90.31	0.17	1.41	100.43
733	7.80	0.02	0.02	4.32	1.54	1.11	0.04	0.72	0.02	81.21	0.39	1.81	99.00
734	5.40	0.02	0.03	1.42	1.63	0.48	<0.01	0.21	0.03	88.62	0.27	1.06	99.17
735	3.34	0.07	0.02	1.09	1.02	0.15	<0.01	0.21	0.06	92.10	0.23	0.72	99.01
736	21.36	0.64	0.06	9.95	6.28	2.57	0.09	0.49	0.09	51.64	1.12	5.84	100.13
737	11.22	0.30	0.02	3.95	3.28	1.06	0.03	1.34	0.04	75.20	0.47	2.47	99.38
738	9.80	0.05	0.02	4.45	2.50	0.98	0.07	1.03	0.04	77.31	0.50	2.44	99.19
739	2.53	0.03	0.01	1.11	0.71	0.61	0.01	<0.01	0.02	93.35	0.17	0.74	99.29
740	2.87	0.09	0.01	6.52	0.11	1.80	0.13	<0.01	0.08	85.00	0.09	2.25	98.95
741	2.34	0.01	0.02	1.04	0.74	0.10	0.01	<0.01	0.01	94.24	0.15	0.58	99.24
742	2.59	0.06	0.01	1.49	0.47	0.50	0.01	0.29	0.02	92.93	0.16	0.62	99.15
743	7.13	0.12	0.02	1.73	1.03	0.48	0.02	2.47	0.02	85.21	0.28	0.85	99.36
744	17.82	0.23	0.05	5.48	5.29	3.59	0.11	0.58	0.20	60.06	0.77	5.00	99.18
745	12.08	0.12	0.06	2.26	2.64	2.83	0.01	0.88	0.02	75.25	0.20	2.74	99.09
746	11.08	0.02	0.02	2.44	3.41	1.00	<0.01	1.94	0.01	77.33	0.23	2.31	99.79
747	14.50	0.05	0.03	6.55	3.39	2.11	0.08	1.75	0.08	66.99	0.83	3.44	99.80
748	5.05	0.06	<0.01	1.44	1.52	0.19	0.01	0.04	0.01	89.93	0.23	1.08	99.56
749	4.73	0.01	0.03	1.30	1.58	0.23	<0.01	0.03	0.01	90.13	0.23	1.09	99.37
750	16.02	0.19	<0.01	4.84	4.07	0.67	0.03	0.22	0.10	68.90	0.67	4.37	100.08
751	11.85	0.06	<0.01	4.00	2.88	1.31	0.04	0.15	0.04	76.25	0.44	2.81	99.83
752	3.42	0.06	0.03	1.30	0.84	0.17	<0.01	0.17	0.04	93.83	0.17	0.84	100.87
753	19.11	0.12	0.03	4.85	5.92	1.23	0.07	0.27	0.06	63.09	0.90	3.64	99.29
754	8.01	0.59	0.03	4.11	2.42	0.50	0.03	0.12	0.07	80.21	0.36	3.28	99.73
755	11.42	0.09	0.01	6.98	2.07	0.66	<0.01	4.13	0.05	69.22	0.36	3.99	98.98
756	11.93	1.11	<0.01	3.81	3.73	1.55	0.04	2.87	0.06	71.60	0.33	2.01	99.04
757	12.22	0.49	0.03	5.78	2.19	1.84	0.19	1.83	0.05	71.41	0.60	2.92	99.55
758	11.76	4.10	0.01	3.34	3.70	1.47	0.05	2.20	0.06	67.54	0.38	4.19	98.80
759	16.89	0.13	0.02	4.09	3.64	1.26	0.01	5.52	0.02	63.35	0.60	3.47	99.00
760	13.27	0.36	0.01	3.58	5.02	2.47	0.02	0.81	0.07	71.27	0.44	2.37	99.69
761	14.71	0.62	0.03	1.89	5.14	0.99	0.03	0.29	0.01	70.92	0.57	3.81	99.01
762	14.51	0.80	0.10	3.70	4.57	1.10	0.02	2.57	0.01	67.19	0.44	4.38	99.39
763	15.53	4.80	0.02	7.62	1.37	6.74	0.15	5.45	0.04	51.99	0.47	5.02	99.20
764	12.55	0.34	0.02	3.42	1.99	0.99	0.03	4.80	0.06	73.10	0.39	1.43	99.12
765	15.54	0.06	0.04	1.99	3.22	0.80	<0.01	5.30	0.01	69.98	0.47	1.90	99.31
766	12.66	0.14	0.01	2.70	0.67	0.82	0.02	6.32	0.06	74.76	0.36	0.76	99.28
767	10.36	0.06	0.01	1.05	1.08	0.52	<0.01	3.89	0.02	81.00	0.16	1.22	99.37
768	11.05	0.06	0.02	1.13	4.05	0.26	<0.01	3.38	0.02	78.29	0.18	0.90	99.34
769	13.45	0.01	0.01	1.67	4.79	0.69	0.01	2.79	0.04	74.62	0.21	2.10	100.39
770	13.55	0.27	0.01	0.73	1.19	1.69	<0.01	5.62	0.04	74.42	0.21	1.66	99.39
771	20.69	0.04	0.04	7.30	8.15	1.61	0.04	0.19	0.04	55.73	0.75	5.17	99.75
772	7.56	0.10	0.03	2.00	2.00	0.49	<0.01	1.73	0.03	83.44	0.30	1.42	99.10
773	11.63	0.01	0.02	0.92	6.02	0.30	<0.01	2.04	0.01	76.61	0.19	1.13	98.88
774	5.16	0.06	0.03	1.23	1.62	0.39	<0.01	0.27	0.07	90.26	0.23	1.27	100.59
775	12.24	0.02	0.01	2.41	1.38	0.46	<0.01	5.78	0.02	76.13	0.33	1.20	99.98
776	12.20	0.04	0.03	0.57	2.00	0.13	0.01	5.05	0.01	77.86	0.08	0.70	98.68
777	14.56	21.25	0.02	9.94	0.57	1.98	0.10	1.94	0.24	40.24	1.73	8.59	101.16
778	11.91	0.18	0.01	0.98	7.96	0.39	<0.01	1.27	0.03	75.27	0.15	0.65	98.80
779	12.06	0.02	0.01	1.33	4.66	0.24	<0.01	3.86	0.03	75.32	0.15	1.02	98.70
780	10.51	0.05	0.05	0.82	3.78	0.14	<0.01	3.45	0.02	79.66	0.08	0.55	99.11

^aMap numbers refer to sample locations on map sheet 2.

Table 5. Whole-rock major oxide XRF analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Al ₂ O ₃	CaO	Cr ₂ O ₃	Fe ₂ O ₃	K ₂ O	MgO	MnO	Na ₂ O	P ₂ O ₅	SiO ₂	TiO ₂	LOI	TOTAL
781	12.99	0.95	<0.01	1.13	2.32	3.95	<0.01	1.19	0.01	72.19	0.08	2.78	97.59
782	12.87	9.32	0.07	11.32	0.57	8.52	0.16	2.82	0.29	50.25	2.10	1.28	99.57
783	10.73	0.87	0.03	9.06	0.42	5.15	0.03	1.29	0.04	67.43	0.43	4.17	99.65
784	3.07	0.04	0.02	1.43	0.86	0.22	<0.01	0.18	0.01	91.78	0.14	0.81	98.56
785	19.17	0.15	0.02	8.01	5.44	1.72	0.05	0.73	0.08	60.04	0.84	3.27	99.52
786	1.58	0.03	0.03	5.25	0.18	0.06	<0.01	<0.01	0.02	90.22	0.08	1.65	99.10
787	19.81	0.15	0.03	8.82	4.20	2.24	0.12	1.36	0.08	58.14	0.95	3.42	99.32
788	3.89	0.02	0.03	1.09	1.23	0.25	<0.01	0.31	0.02	90.94	0.20	0.88	98.86
789	13.60	10.17	0.03	14.01	0.42	6.00	0.21	2.36	0.23	47.50	2.50	2.11	99.14
790	14.01	9.81	0.01	15.56	0.50	4.59	0.21	2.68	0.21	45.88	3.75	1.73	98.94
791	3.11	0.20	0.02	0.86	0.77	0.30	<0.01	0.60	0.20	94.05	0.23	0.63	100.97
792	10.07	0.02	0.01	0.68	1.57	0.27	<0.01	2.64	0.04	84.47	0.06	1.13	100.96
793	5.48	0.04	0.02	1.51	1.47	0.64	0.02	0.12	0.07	89.76	0.35	1.01	100.49
794	10.06	3.51	0.01	1.14	3.58	0.51	0.15	0.19	0.03	75.28	0.06	4.11	98.63
795	10.28	0.30	0.02	2.31	3.04	0.19	<0.01	3.32	0.05	79.57	0.13	1.25	100.46
796	12.63	0.03	0.01	0.83	6.86	0.33	<0.01	0.29	0.04	77.26	0.17	1.33	99.78
797	11.42	0.02	0.01	0.85	4.78	0.43	<0.01	0.30	0.06	81.17	0.20	1.68	100.92
798	10.57	0.02	0.02	1.28	5.46	0.31	<0.01	0.77	0.02	79.64	0.06	1.61	99.76
799	11.52	0.01	0.02	0.43	3.13	0.43	<0.01	0.23	0.01	83.05	0.09	1.75	100.67
800	3.50	1.05	0.02	1.34	0.86	0.61	0.03	0.23	0.02	90.30	0.16	1.66	99.78
801	9.99	0.45	0.04	0.84	2.86	0.37	<0.01	1.85	0.06	82.39	0.04	1.27	100.17
802	17.42	2.64	0.01	1.79	5.29	2.76	0.01	0.55	0.02	63.97	0.09	5.55	100.10
803	10.32	0.18	0.01	2.77	0.75	0.22	<0.01	5.60	0.01	77.85	0.23	1.73	99.67
804	9.82	0.79	0.02	0.90	3.32	0.17	<0.01	3.25	0.02	79.36	0.10	0.50	98.25
805	10.96	0.06	0.01	1.65	1.88	0.65	<0.01	3.58	0.03	78.94	0.22	1.14	99.12
806	11.64	0.04	0.01	2.13	1.18	0.25	0.01	5.09	0.02	77.17	0.37	1.56	99.47
807	10.27	0.30	0.01	0.64	3.77	0.12	<0.01	3.83	0.03	77.84	0.14	0.58	97.53
808	12.75	0.10	0.08	1.62	6.21	0.17	<0.01	2.94	0.02	72.58	0.17	0.87	97.51
809	2.23	0.01	0.01	0.30	0.71	0.14	<0.01	0.11	0.01	95.46	0.11	0.55	99.64
810	9.99	0.90	0.01	0.74	1.58	0.32	<0.01	3.90	0.03	79.24	0.14	0.70	97.55
811	10.57	0.57	0.01	0.57	1.24	0.29	<0.01	4.31	0.02	80.18	0.13	0.99	98.88
812	11.07	2.55	0.01	1.39	4.32	0.46	0.01	1.63	0.02	73.21	0.16	3.02	97.85
813	11.27	0.05	0.01	1.63	1.97	0.26	<0.01	4.89	0.03	77.45	0.16	0.96	98.68
814	13.61	0.80	0.02	1.21	2.24	0.17	<0.01	4.81	0.03	77.57	0.17	0.83	101.46
815	17.21	10.81	0.04	6.26	0.22	5.35	0.10	4.68	0.24	47.25	1.30	6.89	100.35
816	16.31	0.54	0.01	2.52	4.89	2.28	0.01	3.01	0.03	64.64	0.22	3.33	97.79
817	13.41	4.06	0.02	2.57	1.76	0.54	0.01	3.38	0.05	69.64	0.31	2.31	98.06
818	15.92	9.34	0.03	5.62	1.36	4.58	0.12	4.14	0.21	50.19	1.19	5.03	97.73
819	16.11	12.60	0.03	7.07	0.64	7.41	0.13	2.55	0.09	47.07	1.17	5.09	99.96
820	12.48	0.06	0.01	2.40	1.46	0.70	0.02	5.49	0.02	75.35	0.10	1.27	99.36
821	12.84	0.50	0.01	1.98	2.46	0.58	<0.01	3.84	0.04	75.40	0.30	1.94	99.89
822	12.30	0.19	0.01	0.85	6.12	0.33	<0.01	1.49	0.03	76.32	0.19	1.09	98.92
823	11.57	0.15	0.01	1.30	6.09	0.35	0.01	2.79	0.03	75.00	0.15	0.64	98.09
824	12.18	0.79	0.01	1.05	2.11	0.46	<0.01	4.02	0.03	76.74	0.16	0.98	98.53
825	10.87	0.02	0.01	1.42	6.42	0.63	<0.01	1.89	0.03	75.12	0.19	1.20	97.80
826	2.68	0.05	0.01	2.51	0.82	0.30	<0.01	0.21	0.02	90.10	0.19	1.73	98.62
827	3.37	0.02	0.02	0.47	1.06	0.24	<0.01	0.07	0.03	91.87	0.17	0.91	98.23

^aMap numbers refer to sample locations on map sheet 2.

Table 6. Trace element X-ray fluorescence analyses for samples from the Delta mineral belt, Tok mining district, Alaska

Map no. ^a	Nb ppm	Zr ppm	Y ppm	Sr ppm	Rb ppm	Ba %	Qtz-Al Sat. Index Protolith
1	11	110	22	191	85	0.05	igneous
2	8	222	13	22	38	0.04	quartzarenite/silicified
3	12	182	30	116	78	0.06	igneous
4	8	230	16	51	67	0.06	quartzarenite/silicified
5	10	94	21	41	88	0.07	quartzarenite/silicified
6	6	89	10	69	42	0.03	quartzarenite/silicified
7	20	138	22	172	84	0.05	igneous
8	9	149	22	287	13	0.02	igneous
9	7	165	12	29	18	0.04	quartzarenite/silicified
10	11	168	15	42	96	0.38	igneous
11	10	184	30	73	52	0.11	igneous
12	11	165	25	59	60	0.10	igneous
13	5	140	13	122	34	0.03	quartzarenite/silicified
14	12	160	28	58	99	0.14	igneous
15	12	201	32	63	106	0.15	igneous
16	9	131	31	100	94	0.12	igneous
17	13	211	38	46	130	0.12	igneous
18	11	180	28	47	52	0.13	igneous
19	12	172	27	40	101	0.43	igneous
20	8	153	28	53	52	0.08	igneous
21	12	200	34	68	69	0.11	igneous
22	13	243	35	30	63	0.09	igneous
23	14	139	30	49	10	0.02	igneous
24	9	160	23	46	110	0.09	sedimentary/alkali-depleted
25	13	205	33	38	90	0.09	igneous
26	10	188	31	63	107	0.06	igneous
27	14	253	39	39	107	0.09	igneous
28	8	128	23	10	69	0.07	sedimentary/alkali-depleted
29	10	143	25	66	33	0.09	igneous
30	<5	53	5	87	7	0.02	igneous
31	12	218	34	56	72	0.09	igneous
32	11	187	24	27	119	0.21	quartzarenite/silicified
33	11	134	22	69	147	0.22	igneous
34	9	175	23	91	92	0.12	igneous
35	10	169	28	27	70	0.05	igneous
36	10	182	29	149	58	0.05	igneous
37	11	199	31	78	84	0.07	igneous
38	10	176	32	30	63	0.07	igneous
39	12	190	31	95	45	0.03	igneous
40	9	140	25	45	68	0.07	igneous
41	8	183	12	34	81	0.05	quartzarenite/silicified
42	6	196	13	37	24	0.03	quartzarenite/silicified
43	13	227	18	71	141	0.08	sedimentary/alkali-depleted
44	24	172	28	148	145	0.08	sedimentary/alkali-depleted
45	8	232	17	55	44	0.08	quartzarenite/silicified
46	14	139	32	134	152	0.06	igneous
47	16	259	17	51	112	0.08	sedimentary/alkali-depleted
48	11	169	29	77	42	0.05	igneous
49	16	160	34	297	70	0.06	igneous
50	10	183	32	76	38	0.04	igneous
51	6	123	7	6	36	0.05	quartzarenite/silicified
52	10	145	29	101	38	0.05	igneous

^aMap numbers refer to sample locations on map sheet 2.

Table 6. Trace element X-ray fluorescence analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Nb ppm	Zr ppm	Y ppm	Sr ppm	Rb ppm	Ba %	Qtz-Al Sat. Index Protolith
53	9	159	29	87	79	0.13	igneous
54	15	217	32	19	99	0.08	sedimentary/alkali-depleted
55	14	148	14	10	191	0.20	sedimentary/alkali-depleted
56	10	166	27	48	73	0.07	igneous
57	11	196	38	35	46	0.10	igneous
58	9	146	22	62	84	0.05	igneous
59	6	63	16	140	38	0.05	igneous
60	10	186	32	31	54	0.06	igneous
61	11	190	34	48	55	0.09	igneous
62	9	153	10	33	39	0.03	igneous
63	7	124	28	159	114	0.18	igneous
64	13	204	18	39	6	0.03	igneous
65	<5	45	16	163	22	0.03	igneous
66	11	185	25	36	77	0.07	quartzarenite/silicified
67	12	205	34	38	57	0.04	igneous
68	11	138	27	92	<5	0.02	igneous
69	13	237	28	80	<5	0.02	igneous
70	11	151	24	20	32	0.08	igneous
71	10	150	25	61	72	0.10	igneous
72	10	160	30	100	51	0.09	igneous
73	9	165	27	81	70	0.10	igneous
74	11	174	32	64	63	0.20	igneous
75	12	192	30	37	25	0.09	igneous
76	13	156	26	32	125	0.60	sedimentary/alkali-depleted
77	11	175	18	34	91	0.06	sedimentary/alkali-depleted
78	8	212	13	34	68	0.05	quartzarenite/silicified
79	19	136	29	46	137	0.08	sedimentary/alkali-depleted
80	13	175	20	8	66	0.07	sedimentary/alkali-depleted
81	8	90	21	27	103	0.11	quartzarenite/silicified
82	13	202	26	129	11	0.02	igneous
83	17	188	23	28	63	0.06	igneous
84	5	97	15	74	5	<0.01	igneous
85	7	193	12	15	33	0.13	quartzarenite/silicified
86	17	194	29	20	143	0.07	sedimentary/alkali-depleted
87	<5	73	6	<5	<5	0.02	quartzarenite/silicified
88	15	149	30	47	140	0.08	sedimentary/alkali-depleted
89	14	148	25	14	127	0.20	sedimentary/alkali-depleted
90	6	136	10	36	43	0.06	quartzarenite/silicified
91	7	129	22	25	76	0.05	igneous
92	9	134	21	31	52	0.08	sedimentary/alkali-depleted
93	22	236	20	<5	36	0.03	sedimentary/alkali-depleted
94	16	169	24	45	114	0.09	sedimentary/alkali-depleted
95	19	147	32	32	194	0.14	sedimentary/alkali-depleted
96	11	361	27	8	77	0.05	quartzarenite/silicified
97	7	74	15	19	124	0.07	sedimentary/alkali-depleted
98	41	271	27	7	13	0.01	sedimentary/alkali-depleted
99	21	188	14	11	62	0.04	quartzarenite/silicified
100	11	120	27	39	108	0.09	igneous
101	7	195	14	18	12	0.03	quartzarenite/silicified
102	25	158	33	114	116	0.08	igneous
103	14	118	22	61	133	0.18	sedimentary/alkali-depleted
104	7	193	16	24	7	0.04	quartzarenite/silicified

^aMap numbers refer to sample locations on map sheet 2.

Table 6. Trace element -ray fluorescence analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Nb ppm	Zr ppm	Y ppm	Sr ppm	Rb ppm	Ba %	Qtz-Al Sat. Index Protolith
105	6	23	6	<5	<5	0.03	quartzarenite/silicified
106	6	24	5	10	<5	0.03	quartzarenite/silicified
107	21	160	52	107	158	0.08	sedimentary/alkali-depleted
108	17	122	22	61	104	0.06	sedimentary/alkali-depleted
109	10	132	33	68	91	0.13	igneous
110	9	178	28	137	65	0.09	igneous
111	18	154	30	61	112	0.18	sedimentary/alkali-depleted
112	14	234	11	96	67	0.22	igneous
113	13	223	30	187	39	0.11	igneous
114	13	205	30	71	89	0.19	sedimentary/alkali-depleted
115	13	220	31	87	74	0.16	igneous
116	17	172	14	41	16	0.07	quartzarenite/silicified
117	13	156	36	48	106	0.07	igneous
118	12	132	21	21	62	0.12	sedimentary/alkali-depleted
119	28	466	17	16	23	0.06	quartzarenite/silicified
120	15	226	28	26	91	0.45	sedimentary/alkali-depleted
121	10	170	24	32	54	0.08	sedimentary/alkali-depleted
122	9	208	14	22	34	0.14	quartzarenite/silicified
123	8	196	12	19	52	0.06	quartzarenite/silicified
124	20	302	29	75	178	0.10	sedimentary/alkali-depleted
125	16	164	25	88	124	0.07	sedimentary/alkali-depleted
126	13	124	22	63	121	0.07	igneous
127	11	182	15	52	82	0.06	quartzarenite/silicified
128	6	101	21	38	31	0.05	sedimentary/alkali-depleted
129	9	99	22	30	55	0.06	sedimentary/alkali-depleted
130	23	188	28	431	<5	0.01	igneous
131	11	122	19	23	24	0.03	sedimentary/alkali-depleted
132	9	182	16	21	32	0.07	quartzarenite/silicified
133	10	214	28	10	35	0.10	sedimentary/alkali-depleted
134	6	51	14	14	26	0.10	quartzarenite/silicified
135	7	113	23	34	20	0.03	sedimentary/alkali-depleted
136	6	105	22	56	40	0.06	sedimentary/alkali-depleted
137	6	41	10	7	16	0.05	quartzarenite/silicified
138	37	213	40	123	98	0.20	igneous
139	12	222	30	30	94	0.26	quartzarenite/silicified
140	7	177	11	12	32	0.04	quartzarenite/silicified
141	15	180	11	36	28	0.03	quartzarenite/silicified
142	7	127	32	131	<5	<0.01	igneous
143	9	160	12	62	72	0.05	quartzarenite/silicified
144	8	196	12	20	55	0.04	quartzarenite/silicified
145	11	141	22	91	67	0.06	igneous
146	6	66	12	138	52	0.08	igneous
147	7	35	7	<5	10	0.07	quartzarenite/silicified
148	9	139	14	106	54	0.07	quartzarenite/silicified
149	9	163	21	85	157	0.15	igneous
150	6	157	9	18	62	0.33	quartzarenite/silicified
151	35	231	37	90	236	0.14	sedimentary/alkali-depleted
152	16	537	20	104	49	0.04	quartzarenite/silicified
153	11	90	18	36	73	0.06	quartzarenite/silicified
154	23	181	29	122	217	0.12	sedimentary/alkali-depleted
155	10	113	10	13	24	0.05	quartzarenite/silicified
156	30	219	28	41	157	0.08	sedimentary/alkali-depleted

^aMap numbers refer to sample locations on map sheet 2.

Table 6. Trace element X-ray fluorescence analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Nb ppm	Zr ppm	Y ppm	Sr ppm	Rb ppm	Ba %	Qtz-Al Sat. Index Protolith
157	17	158	27	31	128	0.07	sedimentary/alkali-depleted
158	19	148	29	55	224	0.13	sedimentary/alkali-depleted
159	10	189	35	116	<5	0.02	igneous
160	11	158	18	60	<5	0.02	igneous
161	7	67	11	14	22	0.15	quartzarenite/silicified
162	8	77	9	10	16	0.07	quartzarenite/silicified
163	5	51	7	184	15	0.05	quartzarenite/silicified
164	12	152	14	190	46	0.42	igneous
165	14	181	35	199	32	0.29	igneous
166	9	120	21	111	83	0.07	quartzarenite/silicified
167	7	82	11	52	23	0.04	igneous
168	18	197	31	121	163	0.13	igneous
169	12	184	29	220	52	0.09	igneous
170	12	187	31	147	62	0.06	igneous
171	12	261	15	38	42	0.09	igneous
172	22	178	36	52	189	0.10	sedimentary/alkali-depleted
173	14	230	28	215	63	0.07	igneous
174	17	179	31	45	227	0.28	sedimentary/alkali-depleted
175	14	129	18	14	103	0.05	quartzarenite/silicified
176	5	105	10	11	39	0.07	quartzarenite/silicified
177	12	185	22	24	119	0.08	sedimentary/alkali-depleted
178	15	184	22	36	106	0.04	sedimentary/alkali-depleted
179	11	262	46	86	59	0.08	igneous
180	9	105	14	407	8	4.20	igneous
181	8	196	11	13	77	0.11	quartzarenite/silicified
182	9	180	16	22	102	0.07	quartzarenite/silicified
183	9	203	16	16	44	0.08	quartzarenite/silicified
184	8	187	16	27	66	0.07	quartzarenite/silicified
185	7	241	10	9	76	0.06	quartzarenite/silicified
186	12	204	32	25	122	0.14	sedimentary/alkali-depleted
187	11	131	22	43	92	0.06	sedimentary/alkali-depleted
188	7	162	44	149	<5	<0.01	igneous
189	6	170	13	49	58	0.04	quartzarenite/silicified
190	6	118	11	26	43	0.04	quartzarenite/silicified
191	26	224	22	26	141	0.08	sedimentary/alkali-depleted
192	7	184	17	10	15	0.03	quartzarenite/silicified
193	10	171	27	41	74	0.07	igneous
194	18	291	72	353	5	<0.01	igneous
195	20	165	31	64	253	0.15	sedimentary/alkali-depleted
196	12	179	17	36	91	0.07	sedimentary/alkali-depleted
197	10	99	11	9	35	0.06	quartzarenite/silicified
198	7	271	11	33	13	0.03	quartzarenite/silicified
199	19	132	29	73	205	0.12	sedimentary/alkali-depleted
200	19	221	26	103	131	0.15	igneous
201	5	127	9	14	38	0.03	quartzarenite/silicified
202	6	56	10	22	26	0.04	quartzarenite/silicified
203	9	154	12	10	80	0.06	quartzarenite/silicified
204	8	91	13	26	42	0.05	quartzarenite/silicified
205	9	217	21	25	56	0.07	quartzarenite/silicified
206	18	167	19	23	240	0.22	sedimentary/alkali-depleted
207	9	115	17	112	68	0.15	quartzarenite/silicified
208	9	147	17	30	40	0.03	igneous

^aMap numbers refer to sample locations on map sheet 2.

Table 6. Trace element -ray fluorescence analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Nb ppm	Zr ppm	Y ppm	Sr ppm	Rb ppm	Ba %	Qtz-Al Sat. Index Protolith
209	19	250	26	30	124	0.15	sedimentary/alkali-depleted
210	7	248	12	6	69	0.07	quartzarenite/silicified
211	6	117	11	35	52	0.08	quartzarenite/silicified
212	12	169	28	79	58	0.07	igneous
213	10	100	21	107	18	0.04	igneous
214	11	199	32	21	103	0.09	quartzarenite/silicified
215	10	131	15	71	99	0.51	igneous
216	12	208	31	19	135	0.35	igneous
217	14	202	29	15	85	0.13	sedimentary/alkali-depleted
218	13	227	38	75	61	0.26	igneous
219	10	198	24	15	44	0.11	sedimentary/alkali-depleted
220	5	129	7	5	42	0.04	quartzarenite/silicified
221	<5	199	11	<5	46	0.04	quartzarenite/silicified
222	7	176	11	28	79	0.06	quartzarenite/silicified
223	24	278	40	32	163	0.19	igneous
224	12	211	22	56	55	0.14	igneous
225	10	216	32	68	86	0.18	igneous
226	10	134	33	89	20	0.18	igneous
227	20	58	13	188	<5	0.03	igneous
228	14	211	21	18	108	0.04	sedimentary/alkali-depleted
229	5	58	13	22	26	0.19	quartzarenite/silicified
230	18	198	30	37	190	0.11	sedimentary/alkali-depleted
231	8	44	14	25	38	0.22	quartzarenite/silicified
232	11	152	28	76	44	0.09	igneous
233	10	157	28	162	78	0.08	igneous
234	65	149	25	994	7	0.13	igneous
235	14	128	28	128	<5	<0.01	igneous
236	5	163	10	8	28	0.07	quartzarenite/silicified
237	11	216	52	377	<5	<0.01	igneous
238	6	180	12	25	55	0.05	quartzarenite/silicified
239	11	210	30	22	131	0.20	sedimentary/alkali-depleted
240	13	191	30	102	38	0.07	igneous
241	14	196	31	65	72	0.09	igneous
242	10	141	24	39	132	0.09	sedimentary/alkali-depleted
243	10	92	16	72	76	0.07	igneous
244	20	147	31	42	92	0.19	sedimentary/alkali-depleted
245	9	164	28	71	109	0.17	sedimentary/alkali-depleted
246	13	195	30	19	116	0.37	igneous
247	13	169	22	57	123	0.16	sedimentary/alkali-depleted
248	9	109	16	140	29	0.27	igneous
249	6	127	11	12	40	0.03	quartzarenite/silicified
250	15	126	11	11	<5	0.02	quartzarenite/silicified
251	16	167	19	25	97	0.07	igneous
252	7	91	13	15	49	0.05	quartzarenite/silicified
253	5	133	9	46	9	0.03	quartzarenite/silicified
254	13	189	15	7	23	0.06	quartzarenite/silicified
255	12	163	21	50	90	0.07	igneous
256	9	151	25	67	9	0.08	sedimentary/alkali-depleted
257	11	184	18	15	96	0.07	quartzarenite/silicified
258	13	191	18	19	89	0.21	sedimentary/alkali-depleted
259	9	180	11	8	59	0.09	quartzarenite/silicified
260	19	185	35	39	160	0.12	sedimentary/alkali-depleted

^aMap numbers refer to sample locations on map sheet 2.

Table 6. Trace element X-ray fluorescence analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Nb ppm	Zr ppm	Y ppm	Sr ppm	Rb ppm	Ba %	Qtz-Al Sat. Index Protolith
261	7	155	10	7	61	0.04	sedimentary/alkali-depleted
262	10	152	24	66	18	0.04	igneous
263	10	154	28	80	55	0.05	igneous
264	7	173	11	11	12	0.03	quartzarenite/silicified
265	10	177	33	94	64	0.06	igneous
266	10	133	27	68	65	0.04	igneous
267	11	198	34	59	123	0.09	igneous
268	10	156	24	43	36	0.03	igneous
269	8	186	17	30	44	0.04	quartzarenite/silicified
270	11	136	26	143	14	0.02	igneous
271	10	180	31	43	42	0.06	igneous
272	12	199	32	32	36	0.05	igneous
273	12	199	33	24	77	0.07	igneous
274	13	162	27	44	85	0.18	igneous
275	15	263	19	47	37	0.07	igneous
276	11	184	27	82	80	0.16	igneous
277	13	163	26	115	24	0.06	igneous
278	11	173	32	103	78	0.06	igneous
279	13	190	25	62	67	0.17	igneous
280	11	216	18	32	55	0.13	igneous
281	9	167	27	43	5	0.02	igneous
282	12	198	31	67	103	0.19	igneous
283	13	200	28	21	94	0.15	sedimentary/alkali-depleted
284	14	212	31	76	78	0.26	igneous
285	9	152	30	76	64	0.10	igneous
286	11	179	28	52	85	0.10	igneous
287	9	132	32	152	111	0.17	igneous
288	5	41	8	6	13	0.10	quartzarenite/silicified
289	8	125	26	162	53	0.05	igneous
290	8	130	26	79	46	0.20	igneous
291	14	170	27	48	54	0.04	igneous
292	11	175	27	51	58	0.53	igneous
293	15	200	29	70	18	0.15	igneous
294	12	208	32	33	86	0.08	igneous
295	11	165	31	43	104	0.07	igneous
296	<5	282	36	6	60	<0.01	sedimentary/alkali-depleted
297	10	182	36	33	58	0.08	igneous
298	11	169	27	51	64	0.08	igneous
299	8	134	23	37	64	0.04	igneous
300	8	173	31	53	57	0.05	igneous
301	12	197	30	87	68	1.03	igneous
302	7	94	12	46	8	0.07	sedimentary/alkali-depleted
303	10	161	28	59	44	0.05	igneous
304	11	193	33	71	46	0.14	igneous
305	11	186	31	33	58	0.05	igneous
306	10	179	29	66	113	0.12	igneous
307	10	186	35	33	69	0.06	igneous
308	11	133	24	282	40	0.07	igneous
309	8	127	36	55	47	0.04	igneous
310	12	179	30	20	86	0.08	sedimentary/alkali-depleted
311	10	149	18	21	76	0.05	quartzarenite/silicified
312	13	187	29	75	33	0.04	igneous

^aMap numbers refer to sample locations on map sheet 2.

Table 6. Trace element -ray fluorescence analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Nb ppm	Zr ppm	Y ppm	Sr ppm	Rb ppm	Ba %	Qtz-Al Sat. Index Protolith
313	16	127	18	13	197	0.14	sedimentary/alkali-depleted
314	14	244	33	134	<5	0.03	igneous
315	10	180	30	69	52	0.06	igneous
316	7	88	20	202	36	0.02	igneous
317	14	188	29	24	107	0.08	igneous
318	9	150	23	71	72	0.06	igneous
319	18	156	29	58	262	0.14	sedimentary/alkali-depleted
320	8	426	25	12	47	0.17	quartzarenite/silicified
321	12	164	21	29	81	0.50	igneous
322	7	142	28	64	44	0.09	quartzarenite/silicified
323	8	101	19	23	73	0.10	quartzarenite/silicified
324	11	86	8	39	73	0.11	quartzarenite/silicified
325	11	229	22	27	41	0.12	quartzarenite/silicified
326	10	188	35	35	59	0.13	igneous
327	8	94	24	8	94	0.07	quartzarenite/silicified
328	15	266	44	24	114	0.62	igneous
329	6	203	13	13	39	0.13	quartzarenite/silicified
330	11	177	24	55	40	0.15	igneous
331	10	298	18	16	160	0.11	quartzarenite/silicified
332	13	205	37	119	60	0.20	igneous
333	12	173	37	140	14	0.17	igneous
334	21	168	27	21	228	0.16	sedimentary/alkali-depleted
335	11	154	21	47	99	0.21	igneous
336	11	185	31	56	20	0.05	igneous
337	11	153	19	54	8	0.08	igneous
338	12	169	34	45	45	0.32	igneous
339	12	194	32	21	154	0.09	igneous
340	12	186	34	48	27	0.44	igneous
341	11	158	24	25	42	0.38	quartzarenite/silicified
342	6	63	17	69	25	0.04	igneous
343	9	139	29	6	38	0.06	sedimentary/alkali-depleted
344	16	138	27	36	141	0.08	sedimentary/alkali-depleted
345	0	0	0	0	0	0.00	igneous
346	7	151	9	6	35	0.08	quartzarenite/silicified
347	10	336	15	<5	20	0.08	quartzarenite/silicified
348	5	161	11	8	27	0.24	quartzarenite/silicified
349	8	276	16	12	34	0.07	quartzarenite/silicified
350	11	162	25	26	110	0.08	igneous
351	6	182	11	5	41	0.05	quartzarenite/silicified
352	10	210	12	48	<5	<0.01	igneous
353	<5	63	20	182	5	0.01	igneous
354	9	247	16	11	93	0.07	quartzarenite/silicified
355	6	184	13	6	13	0.04	quartzarenite/silicified
356	6	42	10	12	41	0.04	quartzarenite/silicified
357	8	178	14	36	36	0.03	quartzarenite/silicified
358	12	107	28	88	15	0.18	quartzarenite/silicified
359	8	70	10	17	51	0.59	quartzarenite/silicified
360	10	134	29	74	12	0.10	quartzarenite/silicified
361	17	148	31	44	176	0.19	sedimentary/alkali-depleted
362	19	293	72	99	31	0.09	igneous
363	11	131	24	53	72	0.59	sedimentary/alkali-depleted
364	15	202	8	153	42	0.25	sedimentary/alkali-depleted

^aMap numbers refer to sample locations on map sheet 2.

Table 6. Trace element X-ray fluorescence analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Nb ppm	Zr ppm	Y ppm	Sr ppm	Rb ppm	Ba %	Qtz-Al Sat. Index Protolith
365	8	259	14	25	15	0.03	quartzarenite/silicified
366	5	166	11	66	29	0.04	quartzarenite/silicified
367	5	65	19	273	9	0.17	igneous
368	6	60	8	26	28	0.40	quartzarenite/silicified
369	8	116	14	53	<5	0.02	igneous
370	6	148	45	108	<5	0.01	sedimentary/alkali-depleted
371	10	170	28	98	120	0.08	igneous
372	9	117	23	57	73	0.04	igneous
373	20	158	29	20	212	0.10	sedimentary/alkali-depleted
374	12	177	24	127	31	0.17	igneous
375	10	132	25	101	76	0.04	igneous
376	7	125	26	91	17	0.05	igneous
377	15	494	28	34	58	0.05	quartzarenite/silicified
378	12	263	26	66	69	0.05	quartzarenite/silicified
379	15	121	20	31	147	0.19	sedimentary/alkali-depleted
380	10	278	24	14	90	0.05	quartzarenite/silicified
381	9	371	21	37	52	0.04	quartzarenite/silicified
382	10	167	27	30	29	0.05	igneous
383	19	223	21	34	106	0.07	sedimentary/alkali-depleted
384	5	164	9	13	36	0.07	quartzarenite/silicified
385	10	211	16	91	72	0.06	quartzarenite/silicified
386	38	210	21	156	<5	0.03	igneous
387	10	162	25	78	19	0.15	igneous
388	12	169	36	79	44	0.17	igneous
389	10	134	38	37	15	0.04	sedimentary/alkali-depleted
390	5	161	8	15	36	0.21	quartzarenite/silicified
391	14	231	23	25	83	0.05	igneous
392	10	297	20	106	54	0.04	igneous
393	7	186	7	15	23	0.04	quartzarenite/silicified
394	10	210	12	34	70	0.07	quartzarenite/silicified
395	6	142	10	6	34	0.09	quartzarenite/silicified
396	9	131	33	18	94	0.06	sedimentary/alkali-depleted
397	10	175	29	47	47	0.05	igneous
398	11	188	33	47	38	0.05	igneous
399	9	99	19	40	99	0.05	igneous
400	11	170	29	52	15	0.10	igneous
401	9	252	18	28	50	0.06	quartzarenite/silicified
402	9	122	17	33	42	0.31	quartzarenite/silicified
403	9	197	28	26	104	0.06	igneous
404	11	220	38	59	124	0.07	igneous
405	5	72	7	26	15	0.14	quartzarenite/silicified
406	10	145	28	45	14	0.10	igneous
407	10	140	17	38	90	0.07	igneous
408	10	137	9	45	35	0.04	igneous
409	11	185	33	32	44	0.04	igneous
410	9	126	22	14	135	0.08	igneous
411	10	160	27	48	77	0.06	igneous
412	10	151	16	43	71	0.05	igneous
413	9	132	20	56	61	0.05	igneous
414	11	176	30	45	74	0.06	igneous
415	9	147	27	82	6	0.02	igneous
416	11	188	31	29	59	0.07	igneous

^aMap numbers refer to sample locations on map sheet 2.

Table 6. Trace element -ray fluorescence analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Nb ppm	Zr ppm	Y ppm	Sr ppm	Rb ppm	Ba %	Qtz-Al Sat. Index Protolith
417	11	173	29	61	82	0.06	igneous
418	6	95	20	60	64	0.07	igneous
419	10	148	25	68	112	0.09	igneous
420	10	143	13	39	77	0.07	igneous
421	10	141	25	74	65	0.12	igneous
422	10	142	25	52	30	0.14	igneous
423	21	161	32	34	182	0.09	sedimentary/alkali-depleted
424	13	160	32	57	130	0.17	igneous
425	14	193	46	178	44	0.06	igneous
426	16	183	45	174	45	0.06	igneous
427	12	206	27	39	130	0.06	quartzarenite/silicified
428	16	190	24	15	180	0.09	sedimentary/alkali-depleted
429	8	112	19	78	92	0.08	igneous
430	10	240	16	19	63	0.07	quartzarenite/silicified
431	5	51	15	164	9	0.03	igneous
432	5	55	9	15	20	0.14	quartzarenite/silicified
433	<5	52	9	16	16	0.08	quartzarenite/silicified
434	6	54	10	29	18	0.20	quartzarenite/silicified
435	7	47	7	27	14	0.22	quartzarenite/silicified
436	7	66	11	18	16	0.15	quartzarenite/silicified
437	6	48	11	25	16	0.10	quartzarenite/silicified
438	12	64	18	115	83	0.32	igneous
439	7	107	23	174	27	0.07	igneous
440	12	158	27	81	75	0.13	igneous
441	10	177	34	38	90	0.06	igneous
442	12	145	19	94	48	0.28	quartzarenite/silicified
443	9	122	23	126	13	0.05	igneous
444	10	183	32	45	84	0.13	igneous
445	12	189	32	60	87	0.10	igneous
446	7	165	14	30	66	0.05	quartzarenite/silicified
447	13	74	7	184	105	0.08	igneous
448	14	72	<5	89	130	0.07	quartzarenite/silicified
449	13	227	38	109	91	0.06	igneous
450	12	177	29	13	85	0.07	igneous
451	12	205	38	43	103	0.06	igneous
452	9	177	34	31	71	0.07	igneous
453	17	303	44	32	195	0.20	igneous
454	5	78	8	<5	7	0.03	quartzarenite/silicified
455	10	175	28	51	22	0.04	igneous
456	14	215	32	94	79	0.07	igneous
457	12	175	33	32	90	0.07	igneous
458	9	159	35	32	104	0.06	igneous
459	12	208	35	27	117	0.08	igneous
460	9	146	31	25	98	0.08	igneous
461	12	203	49	36	85	0.08	quartzarenite/silicified
462	9	122	24	60	48	0.14	igneous
463	9	88	17	116	125	0.30	sedimentary/alkali-depleted
464	11	244	39	59	117	0.13	igneous
465	13	191	36	28	83	0.08	igneous
466	12	159	27	68	39	0.19	igneous
467	10	183	35	65	35	0.06	igneous
468	19	172	27	96	214	0.39	sedimentary/alkali-depleted

^aMap numbers refer to sample locations on map sheet 2.

Table 6. Trace element X-ray fluorescence analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Nb ppm	Zr ppm	Y ppm	Sr ppm	Rb ppm	Ba %	Qtz-Al Sat. Index Protolith
469	12	94	21	17	33	0.04	igneous
470	13	188	31	60	95	0.07	igneous
471	12	198	34	49	63	0.06	igneous
472	11	155	16	23	13	0.04	igneous
473	10	142	25	165	30	0.08	igneous
474	11	135	20	62	34	0.05	igneous
475	12	165	21	27	94	0.07	igneous
476	10	119	23	25	68	0.23	quartzarenite/silicified
477	10	147	22	28	108	0.08	quartzarenite/silicified
478	12	217	35	22	65	0.06	igneous
479	10	152	28	27	28	0.03	igneous
480	12	175	26	44	126	0.20	igneous
481	13	191	25	47	101	0.11	igneous
482	10	142	17	46	49	0.05	igneous
483	11	166	32	39	47	0.09	igneous
484	5	139	9	13	39	0.08	quartzarenite/silicified
485	9	110	25	351	<5	0.01	igneous
486	12	140	18	61	150	0.13	sedimentary/alkali-depleted
487	6	92	9	5	16	0.10	quartzarenite/silicified
488	10	702	27	11	46	0.04	quartzarenite/silicified
489	9	155	32	163	24	0.05	igneous
490	10	162	33	49	45	0.06	igneous
491	12	188	26	46	25	0.17	igneous
492	8	165	12	23	88	0.31	quartzarenite/silicified
493	11	116	26	418	<5	0.02	igneous
494	16	118	31	64	221	0.08	sedimentary/alkali-depleted
495	28	210	26	79	234	0.10	sedimentary/alkali-depleted
496	20	155	29	40	187	0.07	sedimentary/alkali-depleted
497	21	241	46	278	34	0.03	igneous
498	10	151	28	94	92	0.05	igneous
499	19	163	30	94	172	0.07	sedimentary/alkali-depleted
500	<5	140	11	43	31	0.05	quartzarenite/silicified
501	10	109	16	25	58	0.05	quartzarenite/silicified
502	12	182	32	72	101	0.52	igneous
503	11	170	31	76	10	0.11	igneous
504	14	269	18	17	92	0.07	quartzarenite/silicified
505	9	119	15	77	37	0.11	quartzarenite/silicified
506	10	141	26	53	40	0.13	igneous
507	10	128	36	133	<5	<0.01	igneous
508	9	147	29	47	50	0.08	igneous
509	16	198	23	27	125	0.32	sedimentary/alkali-depleted
510	11	153	41	52	134	0.36	sedimentary/alkali-depleted
511	12	184	32	<5	<5	<0.01	sedimentary/alkali-depleted
512	9	157	23	35	63	0.06	igneous
513	6	227	11	17	31	0.03	quartzarenite/silicified
514	10	156	29	60	21	0.21	igneous
515	11	194	31	41	45	0.08	igneous
516	10	91	9	20	106	0.17	quartzarenite/silicified
517	12	152	26	22	80	0.14	sedimentary/alkali-depleted
518	13	176	31	95	44	0.29	igneous
519	10	141	28	69	46	0.06	igneous
520	10	133	24	22	43	0.12	igneous

^aMap numbers refer to sample locations on map sheet 2.

Table 6. Trace element -ray fluorescence analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Nb ppm	Zr ppm	Y ppm	Sr ppm	Rb ppm	Ba %	Qtz-Al Sat. Index Protolith
521	6	96	11	15	55	0.09	quartzarenite/silicified
522	7	112	21	57	96	0.05	igneous
523	9	138	23	27	42	0.06	igneous
524	12	187	33	78	49	0.06	igneous
525	8	147	24	17	102	0.09	sedimentary/alkali-depleted
526	6	177	14	46	63	0.05	quartzarenite/silicified
527	11	264	21	74	95	0.06	sedimentary/alkali-depleted
528	10	200	16	46	54	0.05	quartzarenite/silicified
529	7	116	17	199	70	0.06	igneous
530	6	150	14	30	56	0.04	quartzarenite/silicified
531	9	151	27	74	55	0.14	igneous
532	10	145	22	32	53	0.25	quartzarenite/silicified
533	9	137	27	44	41	0.20	igneous
534	13	244	26	30	118	0.06	igneous
535	11	147	15	50	73	0.16	sedimentary/alkali-depleted
536	7	157	12	13	48	0.04	quartzarenite/silicified
537	9	157	29	182	53	0.07	igneous
538	11	156	28	52	62	0.05	igneous
539	10	182	13	33	42	0.04	quartzarenite/silicified
540	5	177	14	134	35	0.06	quartzarenite/silicified
541	9	324	18	26	31	0.04	quartzarenite/silicified
542	11	196	39	76	86	0.39	igneous
543	6	179	12	14	31	0.03	quartzarenite/silicified
544	162	2090	119	1550	<5	<0.01	igneous
545	<5	101	7	<5	10	0.03	quartzarenite/silicified
546	5	97	8	8	27	0.04	quartzarenite/silicified
547	<5	20	6	<5	<5	<0.01	quartzarenite/silicified
548	9	148	27	22	138	0.08	sedimentary/alkali-depleted
549	6	238	15	43	30	0.03	quartzarenite/silicified
550	<5	129	9	14	32	0.04	quartzarenite/silicified
551	<5	129	16	<5	41	<0.01	sedimentary/alkali-depleted
552	9	180	29	41	21	0.07	igneous
553	11	243	29	54	33	0.07	igneous
554	14	246	37	69	5	0.02	igneous
555	8	102	25	76	24	0.03	quartzarenite/silicified
556	5	92	24	255	17	0.13	igneous
557	5	152	10	18	21	0.03	quartzarenite/silicified
558	8	206	10	8	37	0.04	quartzarenite/silicified
559	14	213	24	117	132	0.08	igneous
560	6	182	11	10	44	0.04	quartzarenite/silicified
561	41	335	42	197	<5	0.02	igneous
562	9	112	23	97	47	0.06	quartzarenite/silicified
563	18	229	53	71	17	0.13	quartzarenite/silicified
564	12	298	32	58	16	0.09	igneous
565	8	85	12	17	13	0.02	quartzarenite/silicified
566	11	177	33	90	64	0.08	igneous
567	5	152	7	5	26	0.03	quartzarenite/silicified
568	5	115	8	10	20	0.03	quartzarenite/silicified
569	6	159	8	<5	20	0.03	quartzarenite/silicified
570	6	102	7	<5	<5	0.02	quartzarenite/silicified
571	16	370	52	34	<5	0.01	sedimentary/alkali-depleted
572	13	292	48	291	53	0.07	igneous

^aMap numbers refer to sample locations on map sheet 2.

Table 6. Trace element X-ray fluorescence analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Nb ppm	Zr ppm	Y ppm	Sr ppm	Rb ppm	Ba %	Qtz-Al Sat. Index Protolith
573	5	34	9	9	20	0.03	quartzarenite/silicified
574	6	159	13	<5	7	0.01	sedimentary/alkali-depleted
575	10	177	21	16	86	0.18	igneous
576	8	109	11	60	88	0.40	igneous
577	5	166	9	<5	27	0.03	quartzarenite/silicified
578	13	258	40	35	44	0.09	sedimentary/alkali-depleted
579	8	132	21	40	50	0.11	quartzarenite/silicified
580	11	215	38	27	68	0.10	quartzarenite/silicified
581	13	210	36	25	85	0.08	igneous
582	13	252	49	125	28	0.12	sedimentary/alkali-depleted
583	13	282	36	39	76	0.19	sedimentary/alkali-depleted
584	9	162	26	72	41	0.08	quartzarenite/silicified
585	14	265	34	33	73	0.21	igneous
586	11	159	28	98	140	1.03	igneous
587	14	273	36	66	62	0.25	sedimentary/alkali-depleted
588	7	144	31	77	257	0.17	igneous
589	15	291	41	86	78	0.17	sedimentary/alkali-depleted
590	9	194	28	24	72	0.22	igneous
591	12	135	35	93	38	0.07	quartzarenite/silicified
592	12	229	31	76	68	0.19	igneous
593	13	232	60	37	77	0.40	igneous
594	14	257	31	30	68	0.67	igneous
595	15	230	28	59	<5	0.04	quartzarenite/silicified
596	8	132	20	26	63	0.14	igneous
597	13	210	33	24	51	0.23	igneous
598	13	165	33	13	69	0.16	quartzarenite/silicified
599	12	220	38	<5	104	0.31	quartzarenite/silicified
600	14	226	36	13	122	0.39	quartzarenite/silicified
601	12	235	23	7	65	0.10	sedimentary/alkali-depleted
602	12	155	46	103	121	0.24	igneous
603	<5	157	11	33	6	0.02	quartzarenite/silicified
604	6	106	14	36	30	0.05	quartzarenite/silicified
605	8	219	12	20	27	0.05	quartzarenite/silicified
606	8	167	14	12	64	0.04	quartzarenite/silicified
607	7	123	12	26	28	0.03	quartzarenite/silicified
608	13	125	43	61	110	0.14	igneous
609	5	102	10	<5	<5	0.02	quartzarenite/silicified
610	8	109	12	29	47	0.08	quartzarenite/silicified
611	7	186	16	21	53	0.05	quartzarenite/silicified
612	<5	90	5	<5	<5	0.02	quartzarenite/silicified
613	8	134	15	24	31	0.06	quartzarenite/silicified
614	10	226	26	62	27	0.04	igneous
615	12	184	38	41	98	0.11	sedimentary/alkali-depleted
616	6	144	8	<5	17	0.03	quartzarenite/silicified
617	6	229	14	23	25	0.03	quartzarenite/silicified
618	14	168	44	87	124	0.16	igneous
619	6	96	16	12	<5	0.02	quartzarenite/silicified
620	13	186	29	49	82	0.06	sedimentary/alkali-depleted
621	7	59	15	9	37	0.06	quartzarenite/silicified
622	11	237	31	56	<5	0.02	igneous
623	16	143	29	48	163	0.07	sedimentary/alkali-depleted
624	12	134	22	317	<5	<0.01	igneous

^aMap numbers refer to sample locations on map sheet 2.

Table 6. Trace element -ray fluorescence analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Nb ppm	Zr ppm	Y ppm	Sr ppm	Rb ppm	Ba %	Qtz-Al Sat. Index Protolith
625	13	100	18	24	140	0.09	sedimentary/alkali-depleted
626	11	245	18	19	80	0.05	sedimentary/alkali-depleted
627	18	190	31	51	136	0.06	sedimentary/alkali-depleted
628	6	317	17	15	25	0.03	quartzarenite/silicified
629	5	158	9	7	34	0.05	quartzarenite/silicified
630	5	30	10	5	18	0.03	quartzarenite/silicified
631	13	210	32	80	96	0.10	igneous
632	8	100	22	118	49	0.44	quartzarenite/silicified
633	12	125	22	55	156	0.08	sedimentary/alkali-depleted
634	9	88	18	21	92	0.05	quartzarenite/silicified
635	7	247	17	19	20	0.03	quartzarenite/silicified
636	8	140	14	71	37	0.04	quartzarenite/silicified
637	13	224	35	18	130	0.14	sedimentary/alkali-depleted
638	5	184	9	<5	11	0.03	quartzarenite/silicified
639	5	131	7	24	14	0.03	quartzarenite/silicified
640	15	161	21	55	148	0.07	sedimentary/alkali-depleted
641	74	495	39	255	53	0.05	igneous
642	6	201	15	23	23	0.04	quartzarenite/silicified
643	9	181	31	34	113	0.05	igneous
644	18	119	36	37	280	0.13	sedimentary/alkali-depleted
645	12	235	23	409	41	0.09	igneous
646	5	115	8	<5	9	0.03	quartzarenite/silicified
647	5	267	13	15	13	0.03	quartzarenite/silicified
648	8	529	23	22	33	0.04	quartzarenite/silicified
649	10	151	27	44	39	0.04	igneous
650	14	151	29	51	146	0.11	sedimentary/alkali-depleted
651	11	205	20	68	62	0.06	igneous
652	9	163	36	49	62	0.05	igneous
653	7	128	18	140	33	0.44	quartzarenite/silicified
654	11	220	29	61	134	0.07	igneous
655	8	204	13	39	57	0.06	quartzarenite/silicified
656	14	237	37	89	68	0.35	sedimentary/alkali-depleted
657	13	200	11	47	98	0.11	igneous
658	11	186	11	44	105	0.11	igneous
659	8	257	20	40	35	0.03	sedimentary/alkali-depleted
660	14	288	21	17	65	0.04	quartzarenite/silicified
661	18	154	31	38	122	0.05	sedimentary/alkali-depleted
662	21	289	27	28	151	0.07	sedimentary/alkali-depleted
663	18	156	33	24	181	0.07	sedimentary/alkali-depleted
664	5	118	9	10	25	0.03	quartzarenite/silicified
665	15	127	22	20	160	0.17	sedimentary/alkali-depleted
666	6	78	8	39	14	0.03	quartzarenite/silicified
667	17	160	27	39	173	0.09	sedimentary/alkali-depleted
668	13	108	24	17	111	0.05	sedimentary/alkali-depleted
669	7	80	25	172	9	0.02	igneous
670	9	125	38	134	12	0.04	igneous
671	13	181	26	86	143	0.11	igneous
672	6	82	25	151	7	<0.01	igneous
673	15	146	22	20	123	0.70	sedimentary/alkali-depleted
674	13	176	32	36	97	0.09	igneous
675	7	113	19	77	36	0.03	igneous
676	9	138	22	41	55	0.12	quartzarenite/silicified

^aMap numbers refer to sample locations on map sheet 2.

Table 6. Trace element X-ray fluorescence analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Nb ppm	Zr ppm	Y ppm	Sr ppm	Rb ppm	Ba %	Qtz-Al Sat. Index Protolith
677	12	202	29	67	109	0.11	igneous
678	10	180	15	<5	9	<0.01	igneous
679	11	213	30	80	40	0.23	igneous
680	5	62	20	147	10	0.04	igneous
681	14	192	35	27	75	0.13	igneous
682	7	189	13	25	29	0.12	quartzarenite/silicified
683	14	218	34	65	41	0.14	igneous
684	14	202	31	16	120	0.24	igneous
685	7	246	15	27	19	0.04	quartzarenite/silicified
686	10	175	24	11	59	0.43	quartzarenite/silicified
687	12	198	31	23	83	0.07	igneous
688	8	113	21	66	7	0.03	igneous
689	8	91	26	84	80	0.09	igneous
690	13	215	30	23	122	0.17	sedimentary/alkali-depleted
691	5	73	18	113	14	0.03	igneous
692	14	234	39	27	<5	0.02	igneous
693	6	82	24	294	17	0.09	igneous
694	10	197	25	18	<5	0.04	igneous
695	10	166	24	5	116	0.07	quartzarenite/silicified
696	13	199	32	50	12	0.02	igneous
697	14	236	41	41	<5	0.02	igneous
698	9	144	22	31	<5	0.03	igneous
699	10	159	27	103	88	0.10	igneous
700	13	214	31	89	49	0.13	igneous
701	10	144	23	25	146	0.10	igneous
702	13	169	29	53	19	0.16	igneous
703	11	153	28	98	67	0.11	igneous
704	12	155	23	37	17	0.13	igneous
705	11	211	25	40	55	0.06	igneous
706	13	210	34	33	48	0.04	igneous
707	7	126	23	21	36	0.03	igneous
708	9	157	29	120	34	0.04	igneous
709	10	161	32	127	22	0.07	igneous
710	15	247	42	24	181	0.33	sedimentary/alkali-depleted
711	14	217	23	47	44	0.19	igneous
712	6	182	11	35	32	0.23	quartzarenite/silicified
713	21	183	28	30	166	0.08	sedimentary/alkali-depleted
714	14	228	37	64	22	0.19	igneous
715	21	176	29	29	199	0.08	sedimentary/alkali-depleted
716	12	213	11	6	37	0.07	quartzarenite/silicified
717	11	191	35	183	8	0.11	igneous
718	12	212	32	38	103	0.63	igneous
719	10	168	31	63	44	0.22	igneous
720	10	167	25	118	45	0.89	igneous
721	10	184	28	15	119	0.07	igneous
722	11	177	32	19	99	0.07	igneous
723	11	177	29	74	76	0.09	igneous
724	19	157	36	80	220	0.11	sedimentary/alkali-depleted
725	15	129	23	45	157	0.08	sedimentary/alkali-depleted
726	15	280	19	15	173	0.53	sedimentary/alkali-depleted
727	7	154	10	37	21	0.03	quartzarenite/silicified
728	12	204	20	63	46	0.07	igneous

^aMap numbers refer to sample locations on map sheet 2.

Table 6. Trace element -ray fluorescence analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Nb ppm	Zr ppm	Y ppm	Sr ppm	Rb ppm	Ba %	Qtz-Al Sat. Index Protolith
729	7	156	9	18	39	0.06	quartzarenite/silicified
730	9	206	17	30	33	0.05	quartzarenite/silicified
731	5	142	10	8	43	0.04	quartzarenite/silicified
732	6	165	13	34	28	0.04	quartzarenite/silicified
733	8	257	19	16	52	0.04	quartzarenite/silicified
734	8	208	14	8	55	0.03	quartzarenite/silicified
735	7	379	11	17	30	0.03	quartzarenite/silicified
736	21	189	33	42	255	0.14	sedimentary/alkali-depleted
737	11	208	20	25	111	0.06	igneous
738	12	191	17	18	88	0.05	sedimentary/alkali-depleted
739	6	206	9	5	21	0.03	quartzarenite/silicified
740	6	38	8	5	5	0.01	quartzarenite/silicified
741	6	174	9	8	22	0.03	quartzarenite/silicified
742	6	156	7	7	10	0.03	quartzarenite/silicified
743	8	195	13	31	29	0.04	quartzarenite/silicified
744	18	213	30	47	165	0.16	sedimentary/alkali-depleted
745	11	154	17	27	90	0.84	sedimentary/alkali-depleted
746	11	163	25	31	100	0.09	igneous
747	16	126	21	18	144	0.05	sedimentary/alkali-depleted
748	6	190	11	<5	52	0.05	quartzarenite/silicified
749	5	226	12	13	49	0.06	quartzarenite/silicified
750	15	172	22	37	144	0.10	sedimentary/alkali-depleted
751	11	114	21	21	111	0.07	sedimentary/alkali-depleted
752	6	196	8	6	29	0.05	quartzarenite/silicified
753	18	259	29	19	189	0.12	sedimentary/alkali-depleted
754	10	193	18	26	82	0.06	quartzarenite/silicified
755	9	117	18	22	57	0.05	igneous
756	9	167	31	31	84	0.06	igneous
757	13	197	21	51	79	0.07	sedimentary/alkali-depleted
758	9	148	32	126	100	0.07	igneous
759	9	133	9	37	98	0.06	igneous
760	10	152	26	16	129	0.08	igneous
761	11	137	19	19	110	0.06	sedimentary/alkali-depleted
762	10	156	13	43	135	0.06	igneous
763	5	53	13	95	25	0.03	igneous
764	10	166	31	47	49	0.09	igneous
765	14	156	12	47	65	0.06	igneous
766	9	155	28	28	15	0.03	igneous
767	11	138	23	54	28	0.48	quartzarenite/silicified
768	11	147	20	67	119	0.49	igneous
769	12	183	31	51	133	0.49	igneous
770	15	187	36	88	36	0.82	igneous
771	20	118	33	24	294	0.13	sedimentary/alkali-depleted
772	9	215	13	21	60	0.07	quartzarenite/silicified
773	10	153	26	46	133	0.82	igneous
774	10	267	21	11	58	0.04	quartzarenite/silicified
775	12	186	20	50	33	0.07	igneous
776	12	99	29	45	40	0.09	igneous
777	14	130	17	561	15	0.09	igneous
778	9	127	32	50	144	0.10	igneous
779	9	120	28	52	57	0.08	igneous
780	12	93	23	52	60	0.10	quartzarenite/silicified

^aMap numbers refer to sample locations on map sheet 2.

Table 6. Trace element X-ray fluorescence analyses for samples from the Delta mineral belt, Tok mining district, Alaska—continued

Map no. ^a	Nb ppm	Zr ppm	Y ppm	Sr ppm	Rb ppm	Ba %	Qtz-Al Sat. Index Protolith
781	13	96	31	258	67	0.27	sedimentary/alkali-depleted
782	20	186	24	261	21	<0.01	igneous
783	12	85	13	70	11	0.03	sedimentary/alkali-depleted
784	5	112	8	16	25	0.03	quartzarenite/silicified
785	17	146	30	153	210	0.09	sedimentary/alkali-depleted
786	<5	29	<5	29	<5	0.14	quartzarenite/silicified
787	18	171	27	184	171	0.08	sedimentary/alkali-depleted
788	6	170	9	13	33	0.04	quartzarenite/silicified
789	14	161	36	181	12	<0.01	igneous
790	13	147	35	198	12	<0.01	igneous
791	12	51	12	7	26	0.06	quartzarenite/silicified
792	18	79	36	15	33	0.09	quartzarenite/silicified
793	7	250	14	12	49	0.03	quartzarenite/silicified
794	18	75	32	227	74	0.08	igneous
795	8	121	21	65	41	0.11	quartzarenite/silicified
796	10	141	19	51	189	0.17	igneous
797	9	149	22	28	123	0.12	quartzarenite/silicified
798	11	74	35	33	112	0.79	quartzarenite/silicified
799	10	103	40	21	74	0.07	quartzarenite/silicified
800	6	157	10	66	26	0.03	quartzarenite/silicified
801	12	68	30	44	64	0.61	quartzarenite/silicified
802	17	135	86	206	216	0.94	igneous
803	10	182	11	48	17	0.05	igneous
804	10	111	35	215	53	0.15	quartzarenite/silicified
805	11	156	35	64	49	0.13	quartzarenite/silicified
806	10	156	23	63	14	0.14	igneous
807	8	125	20	72	49	0.15	quartzarenite/silicified
808	10	138	42	125	138	0.94	igneous
809	6	61	10	7	19	0.04	quartzarenite/silicified
810	11	123	28	163	31	0.10	quartzarenite/silicified
811	9	115	38	143	24	0.06	quartzarenite/silicified
812	10	127	31	45	110	0.08	igneous
813	13	148	28	30	31	0.11	igneous
814	10	146	41	158	42	0.13	igneous
815	13	104	26	278	<5	0.04	igneous
816	11	189	28	82	152	0.13	igneous
817	19	161	21	148	27	0.08	igneous
818	13	95	21	345	22	1.39	igneous
819	<5	81	25	86	14	0.26	igneous
820	13	123	36	51	34	0.14	igneous
821	9	156	20	84	51	0.11	igneous
822	11	158	35	50	103	0.11	igneous
823	9	102	32	60	113	0.12	igneous
824	9	143	40	167	48	0.16	igneous
825	19	122	20	63	105	0.16	igneous
826	6	70	12	6	27	0.29	quartzarenite/silicified
827	8	65	10	17	31	0.17	quartzarenite/silicified

^aMap numbers refer to sample locations on map sheet 2.



Era Helicopters Pilot Walter Greaves landing an A-Star B2 at the DD South helipad. The regional quartz-sericite-pyrite quad marker subunit can be seen behind the helicopter's tail boom. View is to the south. (Photo by S.S. Dashevsky)

Front Cover: Northern Associates Inc. geologist Ed Hunter mapping in the Delta mineral belt. View to northwest above confluence of Rumble Creek and Robertson River. (Photo by S.S. Dashevsky, 1996)

