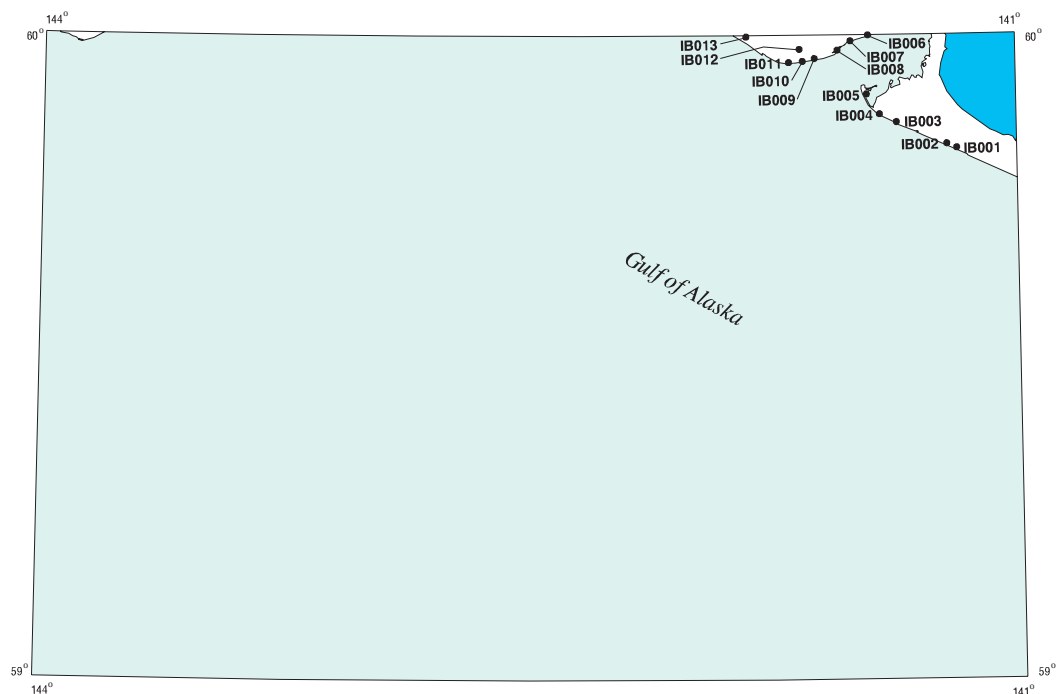


Icy Bay quadrangle

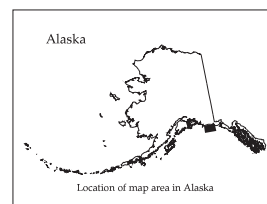
Descriptions of the mineral occurrences shown on the accompanying figure follow. See U.S. Geological Survey (1996) for a description of the information content of each field in the records. The data presented here are maintained as part of a statewide database on mines, prospects and mineral occurrences throughout Alaska.



*Distribution of mineral occurrences in the Icy Bay
1:250,000-scale quadrangle, Alaska*

This and related reports are accessible through the USGS World Wide Web site <http://ardf.wr.usgs.gov>. Comments or information regarding corrections or missing data, or requests for digital retrievals should be directed to: Frederic Wilson, USGS, 4200 University Dr., Anchorage, AK 99508-4667, e-mail fwilson@usgs.gov, telephone (907) 786-7448. This compilation is authored by:

Travis L. Hudson
Sequim, WA



This report is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards or with the North American Stratigraphic code. Any use of trade, product, or firm names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

OPEN-FILE REPORT 02-116

Site name(s): Unnamed (beach between Yahtse River and Yana Stream)

Site type: Occurrence

ARDF no.: IB001

Latitude: 59.8236

Quadrangle: IB D-1

Longitude: 141.1849

Location description and accuracy:

This occurrence is on the present Gulf of Alaska shoreline between the mouth of the Yana Stream and Yahtse River. It is 1.5 miles southeast of USGS benchmark Grit and eight-tenths of a mile northwest of USGS benchmark Yahtse. The occurrence, in the SE1/4 section 19, T. 24 S., R. 25 E., of the Copper River Meridian, is locality 8 of Cobb (1972 [MF 411]; 1979 [OF 79-1246]).

Commodities:

Main: Au, Ti

Other:

Ore minerals: Ilmenite, gold, magnetite, pyrite, rutile

Gangue minerals: Garnet, sphene, zircon

Geologic description:

Thomas and Berryhill (1962) collected an auger sample of beach sand at this location that contained 0.1 pound of titanium oxide per cubic yard in the magnetic fraction (which also contained 0.6 pound of iron per cubic yard) and 1.2 pounds of titanium oxide per cubic yard in the non-magnetic fraction. It also contained a trace of gold. Beach sands along this segment of the Gulf of Alaska shoreline contain trace amounts of ilmenite, magnetite, rutile, pyrite, garnet, sphene, and zircon (Thomas and Berryhill, 1962).

Alteration:

Age of mineralization:

Holocene.

Deposit model:

Placer Au (Cox and Singer, 1986; model 39a - beach)

Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):

39a

Production Status: None

Site Status: Inactive

Workings/exploration:

Reconnaissance characterization of beach samples has been completed in this area (Thomas and Berryhill, 1962).

Production notes:

Reserves:

Additional comments:

References:

Thomas and Berryhill, 1962; Cobb, 1972 (MF 411); Cobb, 1979 (OF 79-1246).

Primary reference: Thomas and Berryhill, 1962

Reporter(s): Travis L. Hudson

Last report date: 12/12/01

Site name(s): Unnamed (beach between Yahtse River and Yana Stream)

Site type: Occurrence

ARDF no.: IB002

Latitude: 59.8301

Quadrangle: IB D-1

Longitude: 141.2154

Location description and accuracy:

This occurrence is on the present Gulf of Alaska shoreline between the mouths of the Yana Stream and Yahtse River. It is one-half mile southeast of USGS benchmark Grit and 1.75 miles northwest of USGS benchmark Yahtse. The occurrence, in the northeast corner of section 24, T. 24 S., R. 24 E., of the Copper River Meridian, is locality 7 of Cobb (1972 [MF 411]; 1979 [OF 79-1246]).

Commodities:

Main: Au, Ti

Other:

Ore minerals: Ilmenite, gold, magnetite, pyrite, rutile

Gangue minerals: Garnet, sphene, zircon

Geologic description:

Thomas and Berryhill (1962) collected an auger sample of beach gravel at this location that contained 0.7 pound of titanium oxide per cubic yard in the magnetic fraction and 0.6 pound of iron and 4.7 pounds of titanium oxide per cubic yard in the non-magnetic fraction. It also contained a trace of gold. Beach sands along this segment of the Gulf of Alaska shoreline contain trace amounts of ilmenite, magnetite, rutile, pyrite, garnet, sphene, and zircon (Thomas and Berryhill, 1962).

Alteration:

Age of mineralization:

Holocene.

Deposit model:

Placer Au (Cox and Singer, 1986; model 39a - beach)

Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):

39a

Production Status: None

Site Status: Inactive

Workings/exploration:

Reconnaissance characterization of beach samples has been completed in this area (Thomas and Berryhill, 1962).

Production notes:

Reserves:

Additional comments:

References:

Thomas and Berryhill, 1962; Cobb, 1972 (MF 411); Cobb, 1979 (OF 79-1246).

Primary reference: Thomas and Berryhill, 1962

Reporter(s): Travis L. Hudson

Last report date: 12/12/01

Site name(s): Unnamed (beach near Yahtse River)

Site type: Occurrence

ARDF no.: IB003

Latitude: 59.8644

Quadrangle: IB D-1

Longitude: 141.3696

Location description and accuracy:

This occurrence is on the present Gulf of Alaska shoreline near the mouth of the Yahtse River. It is 2.3 miles northwest of USGS benchmark Jarl. The occurrence, in section 6, T. 24 S., R. 24 E., of the Copper River Meridian, is sample location 155 of Foley and others (1995).

Commodities:

Main: Au, Ti

Other:

Ore minerals: Ilmenite, gold, magnetite, pyrite, rutile

Gangue minerals: Garnet, sphene, zircon

Geologic description:

Foley and others (1995) collected one beach sample at this location. Spiral concentrate from this sample contained less than 0.028 gram of gold per ton, 0.53 percent titanium, and 119 ppm zirconium. Thomas and Berryhill (1962) collected reconnaissance beach samples (IB001, IB002, and IB004) from this segment of the Gulf of Alaska shoreline that contained trace to small amounts of pyrite, magnetite, ilmenite, zircon, rutile, garnet, sphene, and gold. Their samples from the Icy Bay area a few miles to the west also contained magnetite, chromite, rutile, xenotime, and zircon. Along this segment of the beach, the magnetic fraction of the Thomas and Berryhill (1962) samples contained 5 pounds or less of iron per cubic yard and 0.7 pound of titanium oxide per cubic yard. The non-magnetic fraction contained as much as 4.7 pounds, but mostly less than 1.3 pounds, of titanium oxide per cubic yard.

Alteration:

Age of mineralization:

Holocene.

Deposit model:

Placer Au (Cox and Singer, 1986; model 39a - beach)

Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):
39a

Production Status: None

Site Status: Inactive

Workings/exploration:
Reconnaissance characterization of beach samples has been completed in this area.

Production notes:

Reserves:

Additional comments:

References:
Thomas and Berryhill, 1962; Foley and others, 1995.

Primary reference: Foley and others, 1995

Reporter(s): Travis L. Hudson

Last report date: 12/12/01

Site name(s): Point Riou (near Icy Bay)

Site type: Occurrence

ARDF no.: IB004

Latitude: 59.8769

Quadrangle: IB D-2

Longitude: 141.4217

Location description and accuracy:

This occurrence is on the present Gulf of Alaska shoreline, 1.2 miles southeast of Point Riou and the mouth of Icy Bay. The occurrence, in section 2, T. 24 S., R. 23 E., of the Copper River Meridian, is locality 6 of Cobb (1972 [MF 411]; 1979 [OF 79-1246]).

Commodities:

Main: Au, Ti

Other: Cr

Ore minerals: Chromite, ilmenite, gold, magnetite, rutile

Gangue minerals: Garnet, sphene, xenotime, zircon

Geologic description:

Thomas and Berryhill (1962) collected reconnaissance beach samples (IB004, IB006-010) from the Icy Bay area that contained trace to small amounts of magnetite, ilmenite, chromite, zircon, rutile, garnet, sphene, xenotime, and gold. The magnetic fraction of their samples contained as much as 6.2 pounds of iron and 1 pound of titanium oxide per cubic yard. The non-magnetic fraction contained as much as 6.4 pounds, but mostly less than 2 pounds, of titanium oxide per cubic yard. An auger sample of beach material collected by Thomas and Berryhill (1962) at this location contained 0.2 pound of titanium oxide per cubic yard in the magnetic fraction (which also contained 1.4 pounds of iron per cubic yard) and 1.5 pounds of titanium oxide per cubic yard in the non-magnetic fraction.

Alteration:

Age of mineralization:

Holocene.

Deposit model:

Placer Au (Cox and Singer, 1986; model 39a - beach)

Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):

39a

Production Status: None**Site Status:** Inactive**Workings/exploration:**

Reconnaissance characterization of beach samples has been completed in this area.

Production notes:**Reserves:****Additional comments:****References:**

Thomas and Berryhill, 1962; Cobb, 1972 (MF 411); Cobb, 1979 (OF 79-1246).

Primary reference: Thomas and Berryhill, 1962**Reporter(s):** Travis L. Hudson**Last report date:** 12/12/01

Site name(s): Riou Bay**Site type:** Occurrence**ARDF no.:** IB005**Latitude:** 59.9079**Quadrangle:** IB D-2**Longitude:** 141.4613**Location description and accuracy:**

This occurrence is on the east shoreline of Point Riou Spit, on the west side of Riou Bay. It is in the SW1/4 section 22, T. 23 S., R. 23 E., of the Copper River Meridan. This is sample location 154 of Foley and others (1995).

Commodities:**Main:** Au, Ti**Other:** Cr**Ore minerals:** Chromite, ilmenite, gold, magnetite, rutile**Gangue minerals:** Garnet, sphene, xenotime, zircon**Geologic description:**

Foley and others (1995) collected a beach sample at this location. Spiral concentrate from this sample contained 0.056 gram of gold per ton, 1.07 percent titanium, and 331 ppm zirconium. The heavy-mineral concentrate (12.28 weight percent of the original sample) contained 0.004 percent magnetite, 1.053 percent ilmenite, 0.092 percent garnet, 0.008 percent zircon, 0.007 percent rutile, and 11.12 percent other minerals. Thomas and Berryhill (1962) collected reconnaissance beach samples (IB004, IB006-010) from the Icy Bay area that contained trace to small amounts of magnetite, ilmenite, chromite, zircon, rutile, garnet, sphene, xenotime, and gold. The magnetic fraction of their samples contained as much as 6.2 pounds of iron and 1 pound of titanium oxide per cubic yard. The non-magnetic fraction contained as much as 6.4 pounds, but mostly less than 2 pounds, of titanium oxide per cubic yard.

Alteration:**Age of mineralization:**

Holocene.

Deposit model:

Placer Au (Cox and Singer, 1986; model 39a - beach)

Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):

39a

Production Status: None**Site Status:** Inactive**Workings/exploration:**

Reconnaissance characterization of beach samples has been completed in this area.

Production notes:**Reserves:****Additional comments:****References:**

Thomas and Berryhill, 1962; Foley and others, 1995.

Primary reference: Foley and others, 1995**Reporter(s):** Travis L. Hudson**Last report date:** 12/12/01

Site name(s): Icy Bay**Site type:** Occurrence**ARDF no.:** IB006**Latitude:** 59.9995**Quadrangle:** IB D-2**Longitude:** 141.4553**Location description and accuracy:**

This occurrence is on the north shoreline of Icy Bay, 1.8 miles northeast of the mouth of Carson Creek. It is in section 22, T. 22 S., R. 23 E., of the Copper River Meridian. It is locality 5 of Cobb (1972 [MF 411]; 1979 [OF 79-1246]).

Commodities:**Main:** Au, Ti**Other:** Cr**Ore minerals:** Chromite, ilmenite, gold, magnetite, rutile**Gangue minerals:** Garnet, sphene, xenotime, zircon**Geologic description:**

Thomas and Berryhill (1962) collected reconnaissance beach samples (IB004, IB006-010) from the Icy Bay area that contained trace to small amounts of magnetite, ilmenite, chromite, zircon, rutile, garnet, sphene, xenotime, and gold. The magnetic fraction of their samples contained as much as 6.2 pounds of iron and 1 pound of titanium oxide per cubic yard. The non-magnetic fraction contained as much as 6.4 pounds, but mostly less than 2 pounds, of titanium oxide per cubic yard. An auger sample of beach material collected by Thomas and Berryhill (1962) at this location contained 0.4 pound of titanium oxide per cubic yard in the magnetic fraction (which also contained 1.8 pounds of iron per cubic yard) and 1.8 pounds of titanium oxide per cubic yard in the non-magnetic fraction. It also contained a trace of gold.

Alteration:**Age of mineralization:**

Holocene.

Deposit model:

Placer Au (Cox and Singer, 1986; model 39a - beach)

Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):

39a

Production Status: None**Site Status:** Inactive**Workings/exploration:**

Reconnaissance characterization of beach samples has been completed in this area (Thomas and Berryhill, 1962).

Production notes:**Reserves:****Additional comments:****References:**

Thomas and Berryhill, 1962; Cobb, 1972 (MF 411); Cobb, 1979 (OF 79-1246).

Primary reference: Thomas and Berryhill, 1962**Reporter(s):** Travis L. Hudson**Last report date:** 12/12/01

Site name(s): Icy Bay (east of Carson Creek)

Site type: Occurrence

ARDF no.: IB007

Latitude: 59.9907

Quadrangle: IB D-2

Longitude: 141.5098

Location description and accuracy:

This occurrence is on the north shoreline of Icy Bay, about one-third mile northeast of the mouth of Carson Creek. It is in section 20, T. 22 S., R. 23 E., of the Copper River Meridian. It is locality 4 of Cobb (1972 [MF 411]; 1979 [OF 79-1246]).

Commodities:

Main: Au, Ti

Other: Cr

Ore minerals: Chromite, ilmenite, gold, magnetite, rutile

Gangue minerals: Garnet, sphene, xenotime, zircon

Geologic description:

Thomas and Berryhill (1962) collected reconnaissance beach samples (IB004, IB006-010) from the Icy Bay area that contained trace to small amounts of magnetite, ilmenite, chromite, zircon, rutile, garnet, sphene, xenotime, and gold. The magnetic fraction of their samples contained as much as 6.2 pounds of iron and 1 pound of titanium oxide per cubic yard. The non-magnetic fraction contained as much as 6.4 pounds, but mostly less than 2 pounds, of titanium oxide per cubic yard. An auger sample of beach material collected by Thomas and Berryhill (1962) at this location contained a trace of titanium oxide per cubic yard in the magnetic fraction (which also contained 0.2 pound of iron per cubic yard) and 0.4 pound of titanium oxide per cubic yard in the non-magnetic fraction. It also contained a trace of gold.

Alteration:

Age of mineralization:

Holocene.

Deposit model:

Placer Au (Cox and Singer, 1986: model 39a - beach)

Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):

39a

Production Status: None**Site Status:** Inactive**Workings/exploration:**

Reconnaissance characterization of beach samples has been completed in this area.

Production notes:**Reserves:****Additional comments:****References:**

Thomas and Berryhill, 1962; Cobb, 1972 (MF 411); Cobb, 1979 (OF 79-1246).

Primary reference: Thomas and Berryhill, 1962**Reporter(s):** Travis L. Hudson**Last report date:** 12/12/01

Site name(s): Icy Bay (northeast of Clay Bluff Point)

Site type: Occurrence

ARDF no.: IB008

Latitude: 59.9751

Quadrangle: IB D-2

Longitude: 141.5456

Location description and accuracy:

This occurrence is on the north shoreline of Icy Bay, 1.6 miles southwest of the mouth of Carson Creek. It is in section 30, T. 22 S., R. 23 E., of the Copper River Meridian. It is locality 3 of Cobb (1972 [MF 411]; 1979 [OF 79-1246]).

Commodities:

Main: Au, Ti

Other: Cr

Ore minerals: Chromite, ilmenite, gold, magnetite, rutile

Gangue minerals: Garnet, sphene, xenotime, zircon

Geologic description:

Thomas and Berryhill (1962) collected reconnaissance beach samples (IB004, IB006, IB007, IB009, IB010) from the Icy Bay area that contained trace to small amounts of magnetite, ilmenite, chromite, zircon, rutile, garnet, sphene, xenotime, and gold. The magnetic fraction of their samples contained as much as 6.2 pounds of iron and 1 pound of titanium oxide per cubic yard. The non-magnetic fraction in these samples contained as much as 6.4 pounds, but mostly less than 2 pounds, of titanium oxide per cubic yard. An auger sample of beach material collected by Thomas and Berryhill (1962) at this location contained 0.1 pound of titanium oxide per cubic yard in the magnetic fraction (which also contained 0.4 pound of iron per cubic yard) and 0.5 pound of titanium oxide per cubic yard in the non-magnetic fraction. It also contained a trace of gold.

Alteration:

Age of mineralization:

Holocene.

Deposit model:

Placer Au (Cox and Singer, 1986; model 39a - beach)

Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):

39a

Production Status: None**Site Status:** Inactive**Workings/exploration:**

Reconnaissance characterization of beach samples has been completed in this area.

Production notes:**Reserves:****Additional comments:****References:**

Thomas and Berryhill, 1962; Cobb, 1972 (MF 411); Cobb, 1979 (OF 79-1246).

Primary reference: Thomas and Berryhill, 1962**Reporter(s):** Travis L. Hudson**Last report date:** 12/12/01

Site name(s): Icy Bay (west of Claybluff Point)**Site type:** Occurrence**ARDF no.:** IB009**Latitude:** 59.9638**Quadrangle:** IB D-2**Longitude:** 141.6214**Location description and accuracy:**

This occurrence is on the north shoreline of Icy Bay, 2.6 miles northeast of Icy Cape. It is in section 34, T. 22 S., R. 22 E., of the Copper River Meridian. It is locality 2 of Cobb (1972 [MF 411]; 1979 [OF 79-1246]).

Commodities:**Main:** Au, Ti**Other:** Cr**Ore minerals:** Chromite, ilmenite, gold, magnetite, rutile**Gangue minerals:** Garnet, sphene, xenotime, zircon**Geologic description:**

Thomas and Berryhill (1962) collected reconnaissance beach samples (IB004, IB006, IB007, IB008, IB010) from the Icy Bay area that contained trace to small amounts of magnetite, ilmenite, chromite, zircon, rutile, garnet, sphene, xenotime, and gold. The magnetic fraction of their samples contained as much as 6.2 pounds of iron and 1 pound of titanium oxide per cubic yard. The non-magnetic fraction in these samples contained as much as 6.4 pounds, but mostly less than 2 pounds, of titanium oxide per cubic yard. An auger sample of beach material collected by Thomas and Berryhill (1962) at this location contained 0.3 pound of titanium oxide per cubic yard in the magnetic fraction (which also contained 2.1 pounds of iron per cubic yard) and 0.9 pound of titanium oxide per cubic yard in the non-magnetic fraction. It also contained a trace of gold.

Alteration:**Age of mineralization:**

Holocene.

Deposit model:

Placer Au (Cox and Singer, 1986; model 39a - beach)

Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):

39a

Production Status: None**Site Status:** Inactive**Workings/exploration:**

Reconnaissance characterization of beach samples has been completed in this area.

Production notes:**Reserves:****Additional comments:****References:**

Thomas and Berryhill, 1962; Cobb, 1972 (MF 411); Cobb, 1979 (OF 79-1246).

Primary reference: Thomas and Berryhill, 1962**Reporter(s):** Travis L. Hudson**Last report date:** 12/12/01

Site name(s): Guyot Beach (Icy Bay)**Site type:** Occurrence**ARDF no.:** IB010**Latitude:** 59.9571**Quadrangle:** IB D-2**Longitude:** 141.6582**Location description and accuracy:**

This occurrence is on the north shoreline of Icy Bay, 1.2 miles northeast of Icy Cape. It is in section 4, T. 23 S., R. 22 E., of the Copper River Meridian. It is locality 1 of Cobb (1972 [MF 411]; 1979 [OF 79-1246]).

Commodities:**Main:** Au, Ti**Other:** Cr**Ore minerals:** Chromite, ilmenite, gold, magnetite, rutile**Gangue minerals:** Garnet, sphene, xenotime, zircon**Geologic description:**

Thomas and Berryhill (1962) collected reconnaissance beach samples (IB004, IB006-009) from the Icy Bay area that contained trace to small amounts of magnetite, ilmenite, chromite, zircon, rutile, garnet, sphene, xenotime, and gold. The magnetic fraction of their samples contained as much as 6.2 pounds of iron and 1 pound of titanium oxide per cubic yard. The non-magnetic fraction in these samples contained as much as 6.4 pounds, but mostly less than 2 pounds, of titanium oxide per cubic yard. An auger sample of beach material collected by Thomas and Berryhill (1962) at this location contained 0.4 pound of titanium oxide per cubic yard in the magnetic fraction (which also contained 1.5 pounds of iron per cubic yard) and 0.4 pound of titanium oxide per cubic yard in the non-magnetic fraction. It also contained a trace of gold.

Alteration:**Age of mineralization:**

Holocene.

Deposit model:

Placer Au (Cox and Singer, 1986; model 39a - beach)

Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):

39a

Production Status: None**Site Status:** Inactive**Workings/exploration:**

Reconnaissance characterization of beach samples has been completed in this area.

Production notes:**Reserves:****Additional comments:****References:**

Thomas and Berryhill, 1962; Cobb, 1972 (MF 411); Cobb, 1979 (OF 79-1246).

Primary reference: Thomas and Berryhill, 1962**Reporter(s):** Travis L. Hudson**Last report date:** 12/12/01

Site name(s): Icy Cape (Guyot Bay)

Site type: Occurrence

ARDF no.: IB011

Latitude: 59.9523

Quadrangle: IB D-2

Longitude: 141.6935

Location description and accuracy:

This occurrence is on the Gulf of Alaska shoreline at Icy Cape, the northwest entrance to Icy Bay. It is in section 5, T. 23 S., R. 22 E., of the Copper River Meridian. This is sample location 153 of Foley and others (1995).

Commodities:

Main: Au, Ti

Other: Cr

Ore minerals: Chromite, ilmenite, gold, magnetite, rutile

Gangue minerals: Garnet, sphene, xenotime, zircon

Geologic description:

Foley and others (1995) collected two beach samples at this location. Spiral concentrates from these samples contained 0.452 and 1.552 grams of gold per ton, 1.10 and 1.49 percent titanium, and 695 and 1,630 ppm zirconium. Thomas and Berryhill (1962) collected reconnaissance beach samples (IB004, IB006-010) from the Icy Bay area that contained trace to small amounts of magnetite, ilmenite, chromite, zircon, rutile, garnet, sphene, xenotime, and gold. The magnetic fraction of their samples contained as much as 6.2 pounds of iron and 1 pound titanium oxide per cubic yard in the magnetic fraction. The non-magnetic fraction contained as much as 6.4 pounds, but mostly less than 2 pounds, of titanium oxide per cubic yard.

Alteration:

Age of mineralization:

Holocene.

Deposit model:

Placer Au (Cox and Singer, 1986; model 39a - beach)

Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):

39a

Production Status: None**Site Status:** Inactive**Workings/exploration:**

Reconnaissance characterization of beach samples has been completed in this area.

Production notes:**Reserves:****Additional comments:****References:**

Thomas and Berryhill, 1962; Foley and others, 1995.

Primary reference:**Reporter(s):** Travis L. Hudson**Last report date:** 12/12/01

Site name(s): Crystal Creek**Site type:** Occurrence**ARDF no.:** IB012**Latitude:** 59.9783**Quadrangle:** IB D-2**Longitude:** 141.6676**Location description and accuracy:**

This occurrence is along the logging road west of Icy Bay. It is 1 mile northwest of the Icy Bay landing strip, near where the logging road parallels Crystal Creek and crosses the west boundary of section 28, T. 22 S., R. 22 E., of the Copper River Meridian. It is sample locality 152 of Foley and others (1995). The map location is probably accurate to within one-half mile.

Commodities:**Main:** Au, Ti**Other:** Cr**Ore minerals:** Chromite, ilmenite, gold, magnetite, rutile**Gangue minerals:** Garnet, sphene, xenotime, zircon**Geologic description:**

Foley and others (1995) collected one sample at this location. It is probably from a raised beach on a Holocene marine terrace. Spiral concentrate from this sample contained less than 0.028 gram of gold per ton, 0.52 percent titanium, and 230 ppm zirconium. Thomas and Berryhill (1962) collected reconnaissance beach samples (IB004, IB006-010) from the Icy Bay area that contained trace to small amounts of magnetite, ilmenite, chromite, zircon, rutile, garnet, sphene, xenotime, and gold. The magnetic fraction of their samples contained as much as 6.2 pounds of iron and 1 pound titanium oxide per cubic yard. The non-magnetic fraction contained as much as 6.4 pounds, but mostly less than 2 pounds, of titanium oxide per cubic yard.

Alteration:**Age of mineralization:**

Holocene.

Deposit model:

Placer Au (Cox and Singer, 1986; model 39a - beach)

Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):

39a

Production Status: None**Site Status:** Inactive**Workings/exploration:**

Reconnaissance characterization of beach samples has been completed in this area.

Production notes:**Reserves:****Additional comments:****References:**

Thomas and Berryhill, 1962; Foley and others, 1995.

Primary reference: Foley and others, 1995**Reporter(s):** Travis L. Hudson**Last report date:** 12/12/01

Site name(s): Unnamed (west of Icy Bay)**Site type:** Occurrence**ARDF no.:** IB013**Latitude:** 59.9981**Quadrangle:** IB D-3**Longitude:** 141.8323**Location description and accuracy:**

This occurrence is along the logging road west of Icy Bay. The map site is about four-tenths of a mile west of where the logging road crosses Little River, in the north-central part of section 21, T. 22 S., R. 21 E., of the Copper River Meridian. This is sample locality 151 of Foley and others (1995). The map location is probably accurate to within one-half mile.

Commodities:**Main:** Au, Ti**Other:** Cr**Ore minerals:** Chromite, ilmenite, gold, magnetite, rutile**Gangue minerals:** Garnet, sphene, xenotime, zircon**Geologic description:**

Foley and others (1995) collected one sample at this location. It is probably from a raised beach on a Holocene marine terrace. Spiral concentrate from this sample contained less than 0.028 gram of gold per ton, 0.95 percent titanium, and 663 ppm zirconium. Thomas and Berryhill (1962) collected reconnaissance beach samples (IB004, IB006-010) from the Icy Bay area that contained trace to small amounts of magnetite, ilmenite, chromite, zircon, rutile, garnet, sphene, xenotime, and gold. The magnetic fraction of their samples contained as much as 6.2 pounds of iron and 1 pound titanium oxide per cubic yard. The non-magnetic fraction contained as much as 6.4 pounds, but mostly less than 2 pounds, of titanium oxide per cubic yard.

Alteration:**Age of mineralization:**

Holocene.

Deposit model:

Placer Au (Cox and Singer, 1986; model 39a - beach)

Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):

39a

Production Status: None**Site Status:** Inactive**Workings/exploration:**

Reconnaissance characterization of beach samples has been completed in this area.

Production notes:**Reserves:****Additional comments:****References:**

Thomas and Berryhill, 1962; Foley and others, 1995.

Primary reference: Foley and others, 1995**Reporter(s):** Travis L. Hudson**Last report date:** 12/12/01

References

- Cobb, E.H., 1972, Metallic resources map of the Icy Bay quadrangle, Alaska: U.S. Geological Survey Miscellaneous Field Studies Map MF-411, scale 1:250,000.
- Cobb, E. H., 1979, Summary of references to mineral occurrences (other than mineral fuels and construction materials) in the Bering Glacier, Icy Bay, Middleton Island, and Yakutat quadrangles, Alaska: U.S. Geological Survey Open-File Report 79-1246, 41 p.
- Foley, J. Y., LaBarge, R. D., Grosz, A. E., Oliver, F. S., and Hirt, W. C., 1995, Onshore titanium and related heavy-mineral investigations in the eastern Gulf of Alaska region, southern Alaska: U.S. Bureau of Mines Open-File Report 10-95, 125 p.
- Thomas, B. I., and Berryhill, R. V., 1962, Reconnaissance studies of Alaskan beach sands, eastern Gulf of Alaska: U.S. Bureau of Mines Report of Investigations 5986, 40 p.