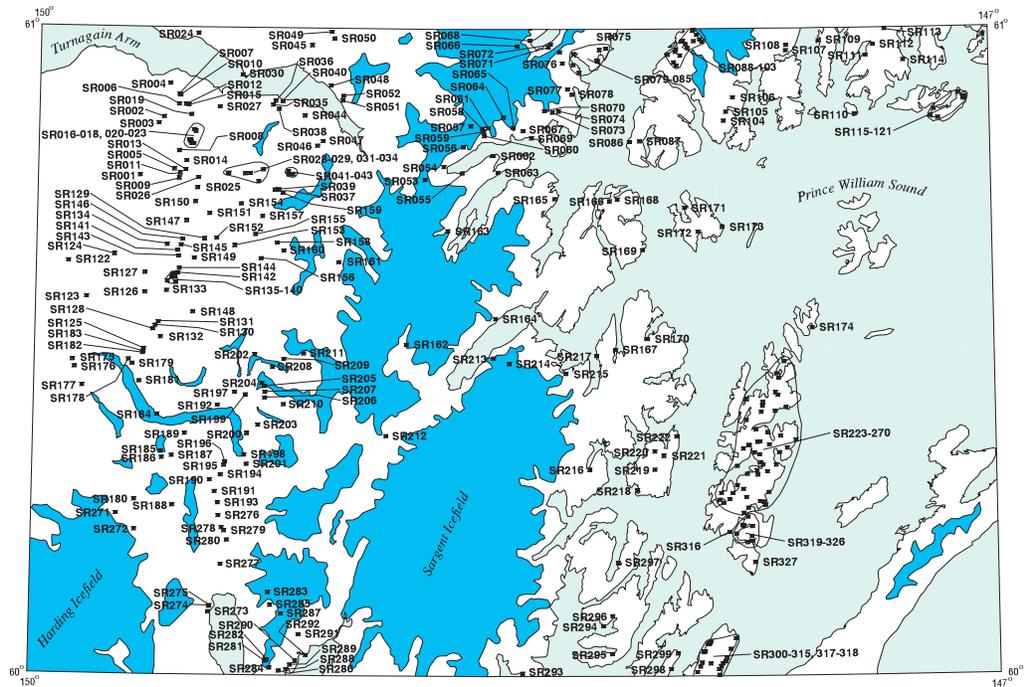


Seward quadrangle

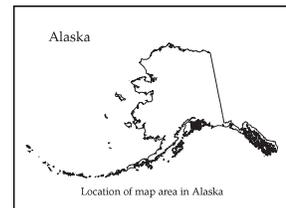
Descriptions of the mineral occurrences shown on the accompanying figure follow. See U.S. Geological Survey (1996) for a description of the information content of each field in the records. The data presented here are maintained as part of a statewide database on mines, prospects and mineral occurrences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



*Distribution of mineral occurrences in the Seward
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:

Jeff A. Huber and Carol S. Huber
Anchorage, Alaska



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 2005-1045

Site name(s): Babe**Site type:** Occurrence**ARDF no.:** SR001**Latitude:** 60.7712**Quadrangle:** SR D-8**Longitude:** 149.6792**Location description and accuracy:**

This occurrence is located in section 20, T. 8 N., R. 2 W., of the Seward Meridian. The map site is at an elevation of about 1,250 feet on the south side of Pass Creek, near its confluence with Resurrection Creek. This is location 27 of Tysdal (1978 [MF-880-A]) and location S-287 of Jansons and others (1984). The location is accurate to within one mile.

Commodities:**Main:** U**Other:****Ore minerals:** Radioactive minerals**Gangue minerals:****Geologic description:**

This site apparently was staked for radioactive minerals (Hoekzema and Sherman, 1983). No geologic description is available. The country rock in the area is mapped at the Valdez Group of Late Cretaceous age (Nelson and others, 1985).

Alteration:**Age of mineralization:**

Cretaceous or younger; the host rock is rocks of the Valdez Group of Late Cretaceous age.

Deposit model:**Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production Status:** None**Site Status:** Inactive**Workings/exploration:**

No workings or improvements are reported. The U.S. Bureau of Mines did not visit the occurrence (Jansons and other, 1984).

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

Tysdal, 1978 (MF-880-A); Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 2/6/00

Site name(s): Resurrection Creek and Palmer Creek**Site type:** Mine**ARDF no.:** SR002**Latitude:** 60.8623**Quadrangle:** SR D-7, D-8**Longitude:** 149.6060**Location description and accuracy:**

Resurrection and Palmer Creeks are located in T. 8 and 9 N., R. 2 W., of the Seward Meridian. The map site representing this placer mine is in the NE1/4 section 22, T. 9 N., R. 2 W. Resurrection Creek flows north into Turnagain at the town of Hope. Palmer Creek is a tributary of Resurrection Creek and flows west. The productive portion of Resurrection Creek is from its junction with Palmer Creek to Turnagain Arm (Seward D-8 quadrangle). Palmer Creek was most productive near its junction with Resurrection Creek (Seward D-7 quadrangle). This is location 138 of Cobb and Richter (1972), locations 163, 182, and 183 of MacKevett and Holloway (1977), location 11 and 12 of Cobb and Tysdal (1980), and location P-90 of Jansons and others (1984).

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:****Geologic description:**

Resurrection Creek flows north through a broad valley 21 miles long, floored with a thick deposit of gravels. Throughout the greater part of its length, the stream has incised a deep canyon-like channel. Near the lower end of the valley, the stream flood plain widens, and a short distance below the mouth of Palmer Creek, it is 1,000 feet wide. High bench gravels flank both sides of flood plain.

Bedrock in this drainage is sedimentary rock of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). Gravels consist of sandstone, slate, minor conglomerate, granite, and a little clayey matrix (Cobb and Tysdal, 1980). Boulders as much as 3 feet wide are common, and locally some are much larger. Graywacke boulders predominate, while granite and conglomerate boulders are much less abundant. The average thickness of the productive gold-bearing gravels, which rest on a bluish-yellow clay so-called bedrock, is 7 feet (Johnson, 1912). Production grades of 0.01 ounce of gold per cubic yard of gravel have been reported, along with locally higher grades. The gravel below the clay is barren (Tuck, 1933). In a few places the gravel is slightly consolidated and boulders as large as 4 feet in diameter are common.

Upper Palmer Creek flows 6 miles through a fairly broad valley filled with avalanche and glacial debris, including large boulders. Lower Palmer Creek occupies a narrow canyon cut partly in bedrock and partly in gravel terraces associated with Resurrection Creek (Moffit, 1906). Bedrock in the Palmer Creek drainage is graywacke and slate of the Valdez Group (Nelson and others, 1985). The gravels are derived from the country rock, although there are a few granitic boulders that may not be of local origin. The gravels are largely angular and coarse, containing 5 percent or more of boulders that are more than 18 inches in diameter (Moffit, 1906). Below the surface, the gravels are roughly stratified, but at the surface they are irregularly distributed. Some 30 to 40 percent of the gold that has been recovered lay on bedrock surface (Moffit, 1906). The gold is coarse, typically flattened, and smooth. Most of the gold is bright yellow, but some is whitish. Native silver nuggets weighing as much as a pennyweight have been reported, in addition to a little black sand.

Alteration:**Age of mineralization:**

Quaternary.

Deposit model:

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

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

39a

Production Status: Yes**Site Status:** Active**Workings/exploration:**

Operations on Resurrection and lower Palmer Creeks begin in 1888. Extensive hydraulic and hand placer mining began in 1895 and continued intermittently into the 1950's (Jansons and others, 1984). There was an unsuccessful attempt to use a hydraulic elevator on Resurrection Creek, which failed due to lack of water and to an abundance of large boulders (Moffit, 1906). A five-foot Risdon open-connected dredge was installed in 1905 but was unsuccessful due to the shallowness of the ground and the presence of large boulders (Johnson, 1912). Mechanized mining replaced hydraulic mining in the 1960's. Mechanized mining on Hope Mining Company claims occurs intermittently up to the present (2000) (C. S. Huber, oral communication, 2000).

Considerable recreational mining currently (2000) occurs on Resurrection Creek below Palmer Creek in an area known at the old St. Louis mining claims. This mining consists of panning, sluicing, and small-scale suction dredging. Within the St. Louis claim block is the Paystreke, a patented claim. The Paystreke currently serves as a tourist attraction and offers gold panning (C. S. Huber, oral communication, 2000).

The U.S. Bureau of Mines has sampled Palmer Creek. Their pan samples contained traces of gold (Jansons and others, 1984).

Mining on Palmer Creek, has been confined primarily to channel gravels, chiefly in the lower 1.5 miles (lower canyon area) (Moffit, 1906). Two hydraulic plants were at work in 1904, employing about 10 men (Moffit, 1906). The efficiency of these plants was hampered by the large number of boulders that required removal by hand. Probably less than 100 yards a day was moved by either of these plants (Moffit, 1906).

Palmer Creek gold is coarse and typically much flattened and smooth. Native silver is present in some deposits (Moffit, 1906). Some small-scale suction dredging is taking place on lower Palmer Creek (C. S. Huber, oral communication, 2000).

Production notes:

The U.S. Bureau of Mines has estimated total gold production since 1895 to be 30,000 to 40,000 ounces, of which approximately 2,000 to 3,000 ounces have been produced since 1980 (Jansons and others, 1984). Production grades of 0.01 ounce of gold per cubic yard have been reported, but higher grades occur locally (Jansons and others, 1984).

Stream gravels mined in the early 1900's on lower Palmer Creek, reportedly yielded about \$1 per yard (gold at \$20.67 per troy ounce), but 30 to 40 percent of the gold lay on the bedrock surface (Tysdal, 1978 [MF-880-B]).

Reserves:

The U.S. Bureau of Mines has estimated the inferred placer gold reserve base for Resurrection-Palmer Creeks at greater than 2,000,000 cubic yards (Jansons and others, 1984).

Additional comments:**References:**

Becker, 1898; Moffit, 1905; Moffit, 1906; Paige and Knopf, 1907; Brooks, 1910; Brooks, 1911 (B 480-B);

Johnson, 1912; Brooks, 1914; Brooks, 1915; Martin and others, 1915; Brooks, 1916 (B 642-A); Smith, 1917 (BMB 142); Brooks, 1918; Johnson, 1919 (B 692-C, p. 176); Martin, 1919; Brooks, 1922; Brooks and Capps, 1924; Capps, 1924; Brooks, 1925; Smith, 1926; Smith, 1929; Smith, 1930 (B 810-A); Smith, 1930 (B 813-A); Smith, 1932; Smith, 1933 (B 836-A); Smith, 1933 (B 844-A); Smith, 1934 (B 857-A); Smith, 1934 (B 864-A); Smith, 1936; Smith, 1937; Smith, 1938; Smith, 1939 (B 917-A, p. 40); Smith, 1941 (B 926-A); Koschmann and Bergendahl, 1968; Cobb and Richter, 1972; Cobb, 1973 (B 1374); MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-B); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Moffit, 1905

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 04/30/00

Site name(s): Robinson and Bowman; Lost Frontier**Site type:** Prospect**ARDF no.:** SR003**Latitude:** 60.8525**Quadrangle:** SR D-7**Longitude:** 149.6225**Location description and accuracy:**

This prospect is located in the SW1/4 section 22, T. 9 N., R. 2 W., of the Seward Meridian. It is at an elevation of 650 feet on the south side of Palmer Creek, 75 feet above the creek level. This is location 15 of Cobb and Richter (1972), location 16 of MacKevett and Holloway (1977), location 14 of Cobb and Tysdal (1980), and location S-297 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Ag, Au**Other:** Pb**Ore minerals:** Arsenopyrite, galena, gold**Gangue minerals:** Ankerite, calcite, quartz**Geologic description:**

This deposit consists of a small quartz-carbonate vein that ranges in width from a gouge seam to six inches. The vein material is somewhat disintegrated white quartz accompanied by small amounts of calcite and ankerite, and a little disseminated arsenopyrite and galena (Tuck, 1933). The host rock is interbedded slate and graywacke (Tuck, 1933) of the Valdez Group of Late Cretaceous age (Tysdal, 1978 [MF-880-A]). The vein strikes northeast and dips 60SE, at a slight angle to the bedding of the country rock.

Alteration:**Age of mineralization:**

Cretaceous or younger; the vein cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

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

The workings on this prospect consist of a single adit that is 220 feet long. In 1931, only 150 feet was accessible (Tuck, 1933). Improvements include a cabin 1,000 feet east of the portal. There are no reported production or assay results.

The U.S. Bureau of Mines visited the site in 1980 but did not sample it (Jansons and others, 1984).

Production notes:

Reserves:

Additional comments:

References:

Brooks, 1925; Tuck, 1933; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Tuck, 1933

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 02/21/00

Site name(s): Bear Creek**Site type:** Mine**ARDF no.:** SR004**Latitude:** 60.9135**Quadrangle:** SR D-7**Longitude:** 149.5878**Location description and accuracy:**

Bear Creek is mainly in T. 10 N., R. 2 W., of the Seward Meridian. From its headwaters, it flows about 5 miles north into Turnagain Arm near the town of Hope. The map site of this placer mine is in the SW 1/4 section 35, T. 10 N., R. 2 W., of the Seward Meridian. This is location 139 and 140 of Cobb and Richter (1972), location 5 and 164 of MacKevett and Holloway (1977), location 10 of Cobb and Tysdal (1980), and location P-91 of Jansons and others (1984).

Commodities:**Main:** Au**Other:** Ag, Cu**Ore minerals:** Copper, gold, silver**Gangue minerals:****Geologic description:**

Bear Creek drains an area underlain by graywacke and slate of the Valdez Group of Late Cretaceous age (Nelson, 1985). The beds strike N20E or nearly at right angles to the general course of the creek, whereas the cleavage strikes more nearly north (Martin and others, 1915). At the head of the creek there are numerous felsic dikes that trend in all directions, unlike those in other parts of the district, which generally trend north (Tuck, 1933).

The stream and bench gravels are very irregular in distribution. They consist almost entirely of the local bedrock, but also include granitic boulders. In two places, 25 to 30 feet of unstratified alluvium contains a large quantity of large, angular blocks mixed with sand and clay. Boulders 3 to 4 feet in diameter are common. In some places the surface wash is underlain by stratified sand and clay, which were probably deposited in small local basins where they in places abut against perpendicular rock faces or overlap sloping surfaces. The hard gray (so-called) glacial clay locally underlies the surface wash and rests on loose sand composed largely of slate particles. The clay contains a large amount of water (Martin and others, 1915). The lower portion of the creek flows over an alluvial fan consisting of fairly well sorted and washed gravels.

Some of the gold occurs on false bedrock. Both the creek and bench gravels are auriferous (Cobb and Tysdal, 1980). Gold is fairly coarse, yielding nuggets as heavy as 10 ounces (Jansons and others, 1984). Besides gold, native silver nuggets have been found, as well as a small amount of native copper (Moffit, 1906).

Alteration:**Age of mineralization:**

Quaternary.

Deposit model:

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

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

39a

Production Status: Yes**Site Status:** Active**Workings/exploration:**

Mining began on Bear Creek in 1894. Early mining was by pick and shovel. Hydraulic mining was done in 1904 (Moffit, 1906), but was difficult because of the presence of large boulders. These boulders were removed from the pit by derrick or cableway and were dumped along one side of the channel. This process was costly and time-consuming (Moffit, 1906).

The U.S. Bureau of Mines collected a surface sample of channel gravel in upper Bear Creek; it contained 0.0021 ounce of gold per cubic yard (Jansons and others, 1984). In 1994 or 1995, a 28-ounce nugget was recovered from the Tabatha mining claim (C. S. Huber, oral communication, 1999). Hand mining and suction dredging was still taking place in 2000.

Production notes:

The U.S. Bureau of Mines estimated production since 1894 at 4,000 to 6,000 ounces of gold, of which less than 1,000 to 1,500 ounces have been produced since 1975 (Jansons and others, 1984).

Reserves:

The U.S. Bureau of Mines estimated that there is greater than 3,000,000 yards of auriferous gravels in the Bear Creek drainage (Jansons and others, 1984).

Additional comments:**References:**

Becker, 1898; Mendenhall, 1900; Moffit, 1905; Moffit, 1906; Brooks, 1910; Brooks, 1911 (B 480-B); Johnson, 1912; Brooks, 1914; Brooks, 1915; Martin and others, 1915; Brooks, 1916 (B 642-A); Brooks, 1916 (B 649); Brooks, 1918; Brooks and Capps, 1924; Smith, 1926; Smith, 1929; Smith, 1933 (B 836-A); Smith, 1933 (B 844-A); Tuck, 1933; Smith, 1934 (B 857-A); Smith, 1934 (B 864-A); Smith, 1939 (B 910-A, p. 43); Smith, 1941 (B 926-A); Wedow and others, 1952; Koschmann and Bergendahl, 1968; Cobb and Richter, 1972; Cobb, 1973 (B 1374); MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Martin and others, 1915**Reporter(s):** Jeff A. Huber (Anchorage)**Last report date:** 04/17/00

Site name(s): Palmer Creek No. 2**Site type:** Occurrence**ARDF no.:** SR005**Latitude:** 60.7815**Quadrangle:** SR D-7**Longitude:** 149.5715**Location description and accuracy:**

This occurrence is located in the SE1/4 section 14, T. 8 N., R. 2 W., of the Seward Meridian. It is at an elevation of 2,900 feet, on the west fork of Palmer Creek. This is location 25 of Tysdal (1978 [MF-880-A]) and location S-291 of Jansons and others (1984). The location is accurate to within a quarter of a mile.

Commodities:**Main:** Ag**Other:** Be, Cu**Ore minerals:****Gangue minerals:** Quartz**Geologic description:**

The deposit consists of abundant thin quartz veins cutting graywacke of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). The veins generally strike N62W to N85W and dip steeply to the north (Hoekzema and Sherman, 1983). They are intermittently exposed from this site southward for about 2 kilometers. A single grab sample collected by the U.S. Geological Survey contained 3 ppm silver, 10 ppm beryllium, and 370 ppm copper (Tysdal, 1978 [MF-880-A]). Samples collected by the U.S. Bureau of Mines assayed 0.09 ounce of silver per ton and 4 percent copper (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

The occurrence was first reported and sampled by Tysdal (1978 [MF-880-A]), who collected a grab sample that contained 3 ppm silver, 10 ppm beryllium, and 370 ppm copper. Samples collected by the U.S. Bureau of Mines contained 0.09 ounce of silver per ton, and 0.04 percent copper (Jansons and others, 1984). Trenches are reported nearby, but here there are no workings or improvements present.

Production notes:

Reserves:

Additional comments:

References:

Tysdal, 1978 (MF-880-A); Mitchell, 1979; Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Tysdal, 1978 (MF-880-A)

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 02/12/00

Site name(s): Lucky Lode; Busted Flat**Site type:** Prospect**ARDF no.:** SR006**Latitude:** 60.8816**Quadrangle:** SR D-7**Longitude:** 149.5591**Location description and accuracy:**

The prospect is located in the SW1/4 section 12, T. 9 N., R. 2 W., of the Seward Meridian. It is at an elevation of 3,400 feet on the divide between Bear and Palmer Creeks. This is location S-304 of Jansons and others (1984). The location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Ag**Ore minerals:** Gold**Gangue minerals:** Quartz**Geologic description:**

The deposit at this prospect consists of a quartz vein containing trace amounts of gold and silver (Mitchell, 1979). The host rock is sedimentary rock of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). No other information is available.

Alteration:**Age of mineralization:**

Cretaceous or younger; the vein cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

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

Several small prospect pits are present (Mitchell, 1979).

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

Mitchell, 1979; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Mitchell, 1979

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 03/05/00

Site name(s): Taylor**Site type:** Prospect**ARDF no.:** SR007**Latitude:** 60.8972**Quadrangle:** SR D-7**Longitude:** 149.5578**Location description and accuracy:**

The prospect is located in the SW1/4 section 1, T. 9 N., R. 2 W., of the Seward Meridian. The map site is on Bear Creek at an elevation of 1,400 feet. This is location 4 of Cobb and Richter (1972), location 4 of MacKevett and Holloway (1977), location 8 of Cobb and Tysdal (1980), and location S-303 of Jansons and others (1984). The location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Ag, Pb, Zn**Ore minerals:** Arsenopyrite, galena, gold, sphalerite**Gangue minerals:** Quartz**Geologic description:**

The deposit at the Taylor prospect consists of a 10-inch-wide quartz vein that strikes north and dips 30W. The vein is banded in appearance and contains arsenopyrite, sphalerite, galena, and gold. The arsenopyrite is abundant and occurs both as masses and as well-developed crystals. The vein is exposed only in the creek bed (Tuck, 1933). The host rock is slate (Tuck, 1933) of the Valdez Group of Late Cretaceous age (Nelson and others, 1985).

Alteration:**Age of mineralization:**

Cretaceous or younger; the vein cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

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

The workings on this prospect consist of a single, 130-foot-long adit. Because the vein is exposed in the bed of the creek, it could not be developed by drifting. Therefore, the adit was driven through slide material in hopes of reaching the vein, but bedrock was never encountered (Tuck, 1933). There are no reported production or assay results. The U.S. Bureau of Mines visited the prospect in 1981, but the adit was inaccessible and no samples were collected (Jansons and others, 1984).

Production notes:

Reserves:

Additional comments:

References:

Tuck, 1933; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Tuck, 1933

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 03/05/00

Site name(s): Sunshine**Site type:** Prospect**ARDF no.:** SR008**Latitude:** 60.8099**Quadrangle:** SR D-7**Longitude:** 149.5567**Location description and accuracy:**

The prospect is located in the SW1/4 section 1, T. 8 N., R. 2 W., of the Seward Meridian. It is situated 500 to 1,500 feet west of the Palmer Creek road, at an elevation of 2,050 to 3,050 feet. It is mislocated on the Seward D-7 topographic map. This is location 10 of Cobb and Richter (1972), location 9 of MacKevett and Holloway (1977), location 21 of Cobb and Tysdal (1980), and location S-293 of Jansons and others (1984). The location is accurate to within 300 feet.

Commodities:**Main:** Ag, Au**Other:** Cu**Ore minerals:** Chalcopyrite, gold, pyrite**Gangue minerals:** Quartz**Geologic description:**

The deposit at the prospect consists of two principal quartz veins and some small seams of quartz. The veins are in massive graywacke of the Valdez Group of Late Cretaceous age that is cut by several thrust faults (Tuck, 1933; Nelson and others, 1985). The thrust faults are located about 40 feet from the portal at the 2,700-foot level, trend N20E, and dip 15-30W. The faults contain from 2 to 8 inches of gouge in which there are small seams of quartz that carry visible gold. The vein that has received the most attention is at an elevation of 2,700 feet. It ranges from 6 to 12 inches wide, strikes generally east-west, and dips almost vertically. The other vein is 2 to 12 inches wide, horizontal, and intersects the first vein at the 2,700-adit level. Both veins have very tight walls and appear to be localized by originally small fractures along which quartz-bearing solutions replaced the country rock. The replacement is irregular; in places the veins lose their planar form, and the quartz occurs in irregular masses (Tuck, 1933). Both veins carry small amounts of chalcopyrite, pyrite, and gold.

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status: None**Site Status:** Inactive

Workings/exploration:

Tuck (1933) reported one 130-foot adit at an elevation of 2,700 feet. The U.S. Bureau of Mines reported three adits, at elevations of 2,050, 2,700, and 3,050 feet (Jansons and others, 1984). The lower level is caved at the portal, the middle level is reported to be 300 feet long and is caved 75 feet from the portal, and the upper level is accessible and 130 feet long. There are several prospect pits nearby.

The U.S. Bureau of Mines examined the prospect in 1980 and collected two grab samples and four chip samples. The grab samples assayed trace amounts of gold and a trace to 0.01 ounce of silver per ton. Four chip samples from the 130-foot-long adit assayed from nil to 0.73 ounce of gold per ton and nil to 0.3 ounce of silver per ton (Jansons and other, 1984).

Production notes:

An unpublished report of the U.S. Bureau of Mines, date unknown, referenced in Hoekzema and Sherman (1983) reported 347 ounces of gold, but Jansons and others (1984) indicated no production. It is likely that the published report is the accurate one.

Reserves:

The U.S. Bureau of Mines estimated 350 tons at 0.1 ounce of gold per ton (Jansons and others, 1984).

Additional comments:**References:**

Tuck, 1933; Roehm, 1937 (PE 95-9); Berg and Cobb, 1967; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Mitchell, 1979; Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Tuck, 1933

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 02/19/00

Site name(s): Palmer Creek No. 1**Site type:** Occurrence**ARDF no.:** SR009**Latitude:** 60.7675**Quadrangle:** SR D-7**Longitude:** 149.5564**Location description and accuracy:**

This occurrence is located in the SW1/4 section 24, T. 8 N., R. 2 W., of the Seward Meridian. It is situated at the head of Palmer Creek, at an elevation of 3,500 feet. This is location 26 of Tysdal (1978) and location S-288 of Jansons and others (1984). The location is accurate to within a quarter of a mile.

Commodities:**Main:** Mn**Other:** B, Zn**Ore minerals:****Gangue minerals:** Quartz**Geologic description:**

The deposit consists of several quartz veins and pods hosted in siltstone of the Valdez Group of Late Cretaceous age (Tysdal, 1978 [MF-880-A]; Nelson and others, 1985). A U.S. Geological Survey sample contained 0.13 percent manganese, 0.2 percent boron, and 70 ppm zinc (Tysdal, 1978 [MF-880A]).

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins and pods are hosted in rocks of the Valdez Group of Late Cretaceous age.

Deposit model:**Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production Status:** None**Site Status:** Inactive**Workings/exploration:**

No workings or improvements are present (Jansons and others, 1984). A sample collected by the U.S. Geological Survey assayed 0.13 percent manganese, 0.2 percent boron, and 70 ppm zinc (Tysdal, 1978 [MF-880-A]). The occurrence was discovered by the U.S. Geological Survey.

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

References:

Tysdal, 1978 (MF-880-A); Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Tysdal, 1978 (MF-880-A)

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 2/6/00

Site name(s): Coon and Plowman**Site type:** Prospect**ARDF no.:** SR010**Latitude:** 60.8957**Quadrangle:** SR D-7**Longitude:** 149.5547**Location description and accuracy:**

The prospect is in the SW1/4 section 1, T. 9 N., R. 2 W., of the Seward Meridian. It is at 1,600 feet elevation, on the north side of Bear Creek along a small north-flowing tributary about 2 miles from the head of Bear Creek. This is location 9 of Cobb and Tysdal (1980), location 4 of Cobb and Richter (1972), and location S-302 of Jansons and others (1984). Cobb and Tysdal (1980) summarized the relevant references under the name Coon (and Plowman).

Commodities:**Main:** Ag**Other:** Pb**Ore minerals:** Arsenopyrite, galena, pyrite**Gangue minerals:** Calcite, quartz**Geologic description:**

This deposit consists of sulfide-bearing, quartz-calcite veins that are 2 inches to 1 foot thick in a shear zone at least 7 feet wide that cuts slate and graywacke host rock of the Valdez Group of Late Cretaceous age (Martin and others, 1915). The veins contain silver, galena, arsenopyrite, pyrite, and argentiferous galena. The veins and shear zone strike N30E and dip vertically, nearly parallel to bedding of the host rock.

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

In 1915, development work consisted of an open cut 7 feet wide with a 15-foot vertical face. The cut was in a small gulch that follows the shear zone (Martin and others, 1915). A 40-foot adit was present in 1933 (Tuck, 1933) but has caved (Tysdal, 1978 [MF-880-A]).

Production notes:

Reserves:

Additional comments:

References:

Martin and others, 1915; Tuck, 1933; Wedow and others, 1952; White, 1952; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Mitchell, 1979; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Martin and others, 1915

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/11/00

Site name(s): Hirshey-Lucky Strike; Lucky Strike; Swetmann**Site type:** Mine**ARDF no.:** SR011**Latitude:** 60.7753**Quadrangle:** SR D-7**Longitude:** 149.5529**Location description and accuracy:**

The mine is located in the NW1/4 section 24, T. 8 N., R. 2 W., of the Seward Meridian. The mill site is located on the east side of Palmer Ceek near the head of Palmer Creek valley, at an elevation of 2,200 feet. The mine workings are located about three-fourths of a mile south of the mill site at between 3,200 and 3,400 feet elevation. This is location 12 of Cobb and Richter (1972), location 11 of MacKevett and Holloway (1977), location 24 of Cobb and Tysdal (1980), and location S-289 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Au**Other:** Ag, Cu, Pb**Ore minerals:** Arsenopyrite, chalcopyrite, galena, gold, sphalerite**Gangue minerals:** Ankerite, calcite, quartz**Geologic description:**

The country rock in this area is slate of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). The slate strikes N35E and dips 60-80E. Near the surface the slate dips as low as 40E due to surface creep. Bedding in the slate is not visible underground (Hoekzema and Sherman, 1983).

The underground workings consist of three levels at vertical intervals of 100 feet. The upper adit is about 30 feet below the discovery outcrop and is collapsed. This adit was about 350 feet in length. The middle adit was about 500 feet long; it is unsafe to enter because the ground above and below the adit has been stoped out. The lower adit was about 600 feet long and is collapsed about 100 feet from the portal (Hoekzema and Sherman, 1983).

The deposit consists chiefly of an auriferous, sulfide-bearing, quartz-carbonate vein. Parts of the vein are oxidized and sheared. The vein occurs in a curving and branching fracture that cuts perpendicularly across the cleavage of the slate, so that the strike of the vein ranges from N45W to west. The dip of the vein ranges from 20N on the west end of the middle level to 75NE on the east end of the middle level. The average dip is about 40N. The width of the vein ranges from a few inches to 5 feet and averages about 18 inches. On the lower level the vein is about 300 feet long, but only locally contains ore minerals. On the middle level, the vein is 350 feet long; the vein is shorter on the upper level due to the slope of the hill (Tuck, 1933). The vein contains considerable fault gouge and, in part, consists of breccia that has been healed by quartz. Considerable post-mineral movement has taken place; most of the movement is parallel to the vein margins. The margins of the vein are clearly defined, and the quartz breaks cleanly from the sheared slate (Tuck, 1933).

The mineralogy of the vein consists of quartz along with small amounts of calcite and ankerite. The metallic minerals, in order of abundance, are arsenopyrite, pyrite, galena, sphalerite, chalcopyrite, and free gold. Arsenopyrite is by far the most abundant sulfide. The porportion of sulfide to quartz varies greatly from place to place, ranging from less than 1 percent to more than 20 percent (Tuck, 1933). There does not appear to be a direct relation between sulfide content and gold grade. In fact, the richest gold ore appears to have the lowest sulfide content (Tuck, 1933). The gold is almost entirely in the principal vein. In some of the richer parts of the mine, other veins in the wallrock may carry some gold, but not enough to warrant

mining. Assays were as high as several hundred dollars in gold per ton (gold at \$20.67 per ton). The upper portion of the mine was rich enough to make a profit using a one-stamp mill. In general, the oxidized and sheared quartz, which can easily be identified by eye, carries the highest values (Tuck, 1933).

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Yes; small

Site Status: Inactive

Workings/exploration:

The deposit that became the mine was discovered in 1911 by John Hirshey. A one-stamp mill was built on the site, and the mine operated from 1911 to 1921, when it was sold to the Anchorage Mining Company. In 1921, a road was built from Hope to the mine site, and a new plant consisting of a jaw crusher, a five-stamp mill with amalgator plate, and a Wilfley table was built. The mine was productive until 1927, when it reverted back to John Hirshey, who sporadically mined until 1940. In 1931 a cyanide plant was used to rework tailings but was unsuccessful (Tuck, 1933). There has been no further production since 1940.

The underground workings consist of three levels at vertical intervals of 100 feet. The upper adit is about 30 feet below the discovery outcrop and is collapsed. This adit was about 350 feet in length. The middle adit was about 500 feet long; it is unsafe to enter as the ground above and below the adit has been stoped out. The lower adit was about 600 feet long and is collapsed about 100 feet from the portal (Hoekzema and Sherman, 1983).

Production notes:

Total production from this mine is 6,094 ounces of gold and 4,699 ounces of silver from about 8,706 tons of ore (Hoekzema and Sherman, 1983).

Reserves:

The U.S. Bureau of Mines estimated a resource of 2,000 tons with an estimated grade of 1 to 1.25 ounces of gold per ton and 0.65 ounce of silver per ton (Hoekzema and Sherman, 1983).

Additional comments:

Tuck (1933) stated that the vein continued below the lower level, but the deposit has never been drilled below the lower working. In addition, the 0.3 ounce of gold per ton cut-off grade in the old workings suggests that a potential gold resource may remain.

References:

Moffit, 1906; Brooks, 1922; Brooks, 1923; Johnson, 1915; Smith, 1917 (BMB 142); Smith, 1926; Smith, 1930 (B 810-A); Smith, 1933 (B 836-A); Smith, 1933 (B 844-A); Tuck, 1933; Smith, 1934 (B 857-A); Smith, 1934 (B 864-A); Roehm, 1937 (PE 95-11); Smith, 1937; Smith, 1938; Smith, 1939 (B 910-A, p. 29); Smith, 1941 (B 926-A); Smith, 1942 (B 933-A); Berg and Cobb, 1967; Koschmann and Bergendahl, 1968; Cobb and Richter, 1972; Garrett, 1972; Tysdal, 1978 (MF-880-A); Mitchell, 1979; Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Tuck, 1933; Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 04/29/00

Site name(s): Mighty**Site type:** Prospect**ARDF no.:** SR012**Latitude:** 60.8815**Quadrangle:** SR D-7**Longitude:** 149.5378**Location description and accuracy:**

The prospect is located in the SE1/4 section 12, T. 9 N., R. 2 W., of the Seward Meridian. It is at an elevation of 2,600 feet, and 1,000 feet N70W from the turn at the head of Bear Creek. This is location 11 of Tysdal (1978 [MF-880-A]) and location S-300 of Jansons and others (1984). The location is accurate to within a quarter of a mile.

Commodities:**Main:** Ag, Au**Other:****Ore minerals:** Arsenopyrite, gold, pyrite**Gangue minerals:** Quartz**Geologic description:**

The deposit consists of auriferous, sulfide-bearing, quartz veins that heal fractures in an Eocene(?) felsic dike. The veins are highly irregular, range to as much as 1 foot wide, and contain pyrite and arsenopyrite (Jansons and others, 1984). The dike generally strikes N15W and dips 55W (Hoekzema and Sherman, 1983) and also contains pyrite and arsenopyrite. The country rock is siltstone (Tysdal, 1978 [MF-880-A]) of the Valdez Group of Late Cretaceous age (Nelson and others, 1985).

Alteration:**Age of mineralization:**

Eocene or younger, the probable age of the dike host rock.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

The workings on this prospect consist of a single adit that is 90 feet long. The adit was mapped and sampled in 1982 by the U.S. Bureau of Mines (Hoekzema and Sherman, 1983). Three chip samples assayed only trace amount of gold and less than 0.05 ounce of silver per ton. A grab sample of dump material assayed 0.05 ounce of gold per ton and 0.03 ounce of silver per ton. There is no reported production.

Production notes:

Reserves:

Additional comments:

References:

Cobb and Richter, 1972; Tysdal, 1978 (MF-880-A); Mitchell, 1979; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 02/21/00

Site name(s): Teddy Bear**Site type:** Prospect**ARDF no.:** SR013**Latitude:** 60.7807**Quadrangle:** SR D-7**Longitude:** 149.5359**Location description and accuracy:**

The prospect is located in the SE1/4 section 13, T. 8 N., R. 2 W., of the Seward Meridian. It is at an elevation of 3,200 feet, just north of a small lake and about a mile northeast of the Hirshey-Lucky Strike mine (SR011). This is location 11 of Cobb and Richter, (1972), location 10 of MacKevett and Holloway (1977), location 23 of Cobb and Tysdal (1980), and location S-290 of Jansons and others (1984). The location is accurate to within a quarter of a mile.

Commodities:**Main:** Ag, Au**Other:** Cu, Pb, Zn**Ore minerals:** Arsenopyrite, chalcopyrite, galena, gold, sphalerite**Gangue minerals:** Calcite, quartz**Geologic description:**

The deposit is in a fractured Eocene(?) felsic dike that strikes N15E and dips 65SE. Fractures in the dike are filled with quartz-calcite veins containing arsenopyrite, chalcopyrite, galena, sphalerite, and minor gold. In some parts of the dike, quartz may be absent; in other parts it may constitute as much as 30 percent of the dike. The width of the dike varies from 1 to 8 feet. It averages 2.5 feet wide and is traceable for as much as 4 miles along strike (Tuck, 1933). The dike is commonly offset by right-lateral transverse faults having typical displacements of less than 20 feet. The dike is hosted by slate and graywacke of the Upper Cretaceous Valdez Group (Tysdal, 1978 [MF-880-A]).

Alteration:**Age of mineralization:**

Eocene or younger; the dike is probably Eocene in age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

The workings on this prospect consist of a single adit that is 65 feet long and surface trenching. There are no buildings or equipment of any kind on the property (Tuck, 1933). Tuck (1933) collected five channel samples across the dike in what appeared to be the most promising parts. These samples assayed only

traces of gold and silver. Nevertheless, Tuck (1933) reported that small flakes of free gold could commonly be seen in the vein material in the dike.

The U.S. Bureau of Mines collected a chip sample and a grab sample of the dike in 1982. The chip sample assayed a trace of gold and silver. The grab sample assayed 0.117 ounce of gold per ton and 0.2 ounce of silver per ton (Jansons and others, 1984). The Bureau suggested that large reserves are possible but that the grade appears to be less than 0.05 ounce of gold per ton.

Production notes:

Reserves:

The U.S. Bureau of Mines speculated that large reserves are possible but that the grade appears to be less than 0.05 ounce of gold per ton (Hoekzema and Sherman, 1983).

Additional comments:

References:

Tuck, 1933; Berg and Cobb, 1967; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Tuck, 1933

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 04/29/00

Site name(s): Hirshey and Carlson; Swetmann-New Hope; Miller Mining Co.**Site type:** Mine**ARDF no.:** SR014**Latitude:** 60.7947**Quadrangle:** SR D-7**Longitude:** 149.5328**Location description and accuracy:**

This mine is located in the SW1/4 section 7, T. 8 N., R. 1 W., of the Seward Meridian. It is between 2,800 and 3,150 feet elevation, on the east side of Palmer Creek, 1.2 miles north of the Hirshey mine site shown on the Seward D-7 topographic map. This is location 8 of MacKevett and Holloway (1977), location 22 of Cobb and Tysdal (1980), and location S-292 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Ag, Au**Other:** Cu, Pb, Zn**Ore minerals:** Arsenopyrite, chalcopyrite, galena, gold, pyrite, sphalerite**Gangue minerals:** Calcite, quartz**Geologic description:**

The principal deposit at this mine consists of two sulfide-bearing, quartz-carbonate veins in sheared slate and graywacke of the Valdez Group of Late Cretaceous age (Tysdal, 1978 [MF-880-A]). The host rock is primarily slate whose foliation strikes north and dips 55E.

One vein is 2 to 10 inches wide, strikes N28E, dips 67W, and can be traced for 120 feet along strike in the upper level drift. This vein pinches and swells along a 1- to -3-foot -wide shear zone and is bounded by considerable fault gouge along both walls. Metallic minerals include arsenopyrite, galena, sphalerite, and gold (Hoekzema and Sherman, 1983).

The other vein is 3 to 24 inches wide, strikes N35W, dips 35NE, and is exposed at the upper portal and in a trench extending northwesterly from the portal. Metallic mineral include arsenopyrite, pyrite, galena, sphalerite, and gold. Several other northwest-trending veins occur in the area, but they appear to be less mineralized (Hoekzema and Sherman, 1983). The deposit has been isotopically dated at 53.2 +/- 1.6 million years (Eocene) (Mitchell and others, 1981).

Alteration:**Age of mineralization:**

Eocene or younger. Dated by potassium-argon methods at 53.2 +/- 1.6 million years (Mitchell and others, 1981).

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Yes; small

Site Status: Inactive

Workings/exploration:

Workings consist of two adits and five open cuts. The upper-level adit, at 3,000 feet elevation, is a 290-foot drift, and the lower-level adit at 2,920 feet elevation, is 350 feet long. There are 120 feet of trenching and a 30-foot horizontal cut (Jansons and others, 1984). A test shipment was reported to assay 2.3 ounces of gold per ton (Roehm, 1937 [PE 95-11]). Improvements consisting of a bunkhouse, blacksmith shop and equipment were destroyed by an avalanche in 1941 (see Roehm references).

Both adits were accessible in 1982, when the U.S. Bureau of Mines examined and sampled the property (Hoekzema and Sherman, 1983). Four chip samples collected by the Bureau assayed from 0.07 to 28.08 ounces of gold per ton and less than 0.2 to 9.3 ounces of silver per ton. Reserves are estimated at 500 tons of ore at a grade of 0.5 ounce of gold per ton and 0.3 ounce of silver per ton (Jansons and others, 1984).

Production notes:

Recorded production is 408 ounces of gold and 24 ounces of silver (Jansons and others, 1984). Hoekzema and others (1983) reported the recorded production is 94 ounces of gold.

Reserves:

Reserves are estimated at 500 tons of ore at a grade of 0.5 ounce of gold per ton and 0.3 ounce of silver per ton (Jansons and others, 1984).

Additional comments:

Martin and others (1915) described this deposit differently from later sources. They described it as an acidic dike 1 to 6 feet wide that has been shattered and cemented by quartz-calcite stringers carrying arsenopyrite, galena, sphalerite, pyrite, chalcopyrite, and free gold.

References:

Martin and others, 1915; Roehm, 1937 (PE 95-11); Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Mitchell, 1979; Mitchell and others, 1981; Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 02/12/00

Site name(s): Gold Stamp Mining Co.**Site type:** Mine**ARDF no.:** SR015**Latitude:** 60.8810**Quadrangle:** SR D-7**Longitude:** 149.5287**Location description and accuracy:**

This mine is located in the SW1/4 section 7, T. 9 N., R. 1 W., of the Seward Meridian. It is situated on Bear Creek at an elevation of 2,200 feet. This is location 5 of Cobb and Richter (1972), location 5 of MacKevett and Holloway (1977), location 10 of Cobb and Tysdal (1980), and location S-301 of Jansons and others (1984). The location is accurate to within 300 feet.

Commodities:**Main:** Au**Other:** Cu, Pb, Zn**Ore minerals:** Arsenopyrite, galena, gold, pyrite, sphalerite, unknown copper mineral**Gangue minerals:** Calcite, quartz**Geologic description:**

The deposit at this mine consists of an auriferous, sulfide-bearing, quartz-calcite vein as much as about 16 inches thick. The vein is hosted in sandstone of the Valdez Group of Late Cretaceous age and Eocene(?) felsic dikes (Cobb and Tysdal, 1980). The vein contains arsenopyrite, pyrite, galena, sphalerite, an unknown copper mineral, and gold.

Workings consist of a 30-foot-deep flooded shaft and a 6-foot adit about 625 feet west of the shaft (Hoekzema and Sherman, 1983).

Alteration:

Both the dikes and sandstone show sericitic alteration (Cobb and Tysdal, 1980).

Age of mineralization:

Eocene(?) or younger; the vein cuts Eocene(?) felsic dikes.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Yes; small**Site Status:** Inactive**Workings/exploration:**

The workings consist of a 30-foot shaft with a small drift that filled with water during mining and a 6-foot adit about 625 feet west of the shaft. A five-stamp mill was erected between 1912 and 1914, but not enough ore was found and the mill was removed (Tuck, 1933).

The U.S. Bureau of Mines sampled the dump of the mine in 1981 (Hoekzema and Sherman, 1983); the

two grab samples they collected contained 6.2 ppm and 0.86 ppm gold and 24.7 and 1.7 ppm silver.

Production notes:

No recorded production (Jansons and others, 1984).

Reserves:**Additional comments:****References:**

Moffit, 1905; Moffit, 1906; Brooks, 1911 (B 480-B); Brooks, 1914; Brooks, 1915; Martin and others, 1915; Tuck, 1933; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Cobb and Tysdal, 1980

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 03/09/00

Site name(s): Unnamed (near Bonanza Creek)**Site type:** Prospect**ARDF no.:** SR016**Latitude:** 60.8268**Quadrangle:** SR D-7**Longitude:** 149.5253**Location description and accuracy:**

This prospect is located in the SW1/4 section 31, T. 9 N., R. 1 W., of the Seward Meridian. It is at an elevation of 2,000 feet, on the southwest side of Bonanza Creek. This is location 18 of Cobb and Tysdal (1980). The location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:****Ore minerals:** Arsenopyrite, gold**Gangue minerals:** Calcite, quartz**Geologic description:**

The principal deposit at this prospect consists of auriferous, sulfide-bearing quartz-calcite veins that heal fractures in a 3-foot-wide Eocene(?) felsic dike (Kenai Star dike; see SR022) (Tuck, 1933). The veins make up about 2 percent of the dike, which strikes N30E and dips 45 to 60 E. and intrudes slate and sandstone of the Valdez Group of Late Cretaceous age (Tuck, 1933; Tysdal, 1978 [MF-880-A]). Thin quartz-calcite-cemented fractures in the slate and sandstone have 2.5- to 5-inch-wide sericitic alteration envelopes (Tysdal, 1978 [MF-880-A]). There is little alteration near the larger quartz veins. The deposit was explored by a 69-foot adit. A sample of mineralized dike yielded a small amount of arsenopyrite and a trace of gold.

Alteration:

Quartz-calcite-filled hairline fractures in the slate and sandstone are bordered by sericitic alteration envelopes 2.5 to 5 inches wide.

Age of mineralization:

Eocene(?) or younger; the veins heal fractures in an Eocene(?) dike.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

Underground workings consist of one 69-foot adit (Tysdal, 1978 [MF-880-A]).

Production notes:

Reserves:**Additional comments:**

The felsic dike at this prospect probably is an extension of the Kenai Star dike (SR022). Mitchell (1979) examined the area in 1977. The results of his work are not included in this record.

References:

Tuck, 1933; Mitchell, 1979; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Nelson and others, 1985.

Primary reference: Tuck, 1933

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 08/06/00

Site name(s): Francisco; Downing**Site type:** Mine**ARDF no.:** SR017**Latitude:** 60.8263**Quadrangle:** SR D-7**Longitude:** 149.5208**Location description and accuracy:**

The property is located in the SW1/4 section 31, T. 9 N., R. 1 W., of the Seward Meridian. It is situated on the north bank of Bonanza Creek at an elevation of 2,000 feet and is adjacent to the Palmer Creek road. This is location 9 of Cobb and Richter (1972), location 8 of MacKevett and Holloway (1977), locations 17, 19, and 20 of Cobb and Tysdal (1980), location 17 of Tysdal (1978 [MF-880-A]), and location S-294 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Ag, Au**Other:** Pb, Zn**Ore minerals:** Arsenopyrite, galena, gold**Gangue minerals:** Quartz**Geologic description:**

The deposit consists of an irregular quartz mass that has a general trend of N70W and a younger quartz vein that heals fractures in the quartz mass. This younger vein strikes approximately north and dips vertically. In places, the vein and quartz mass contain massive arsenopyrite, some galena, and free gold. The vein is rich, but too narrow to be considered minable. The host rock is a massive graywacke of the Valdez Group of Late Cretaceous age (Nelson and others, 1985).

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Undetermined.**Site Status:** Inactive**Workings/exploration:**

Workings consist of one 30-foot adit. Improvements include a 0.75-mile-long trail from the Palmer Creek road (Tuck, 1933).

In 1982, U.S. Bureau of Mines examined the Downing mine property, which includes the Francisco (this record), Whistler (SR020), and Bonanza (SR018) properties, and collected two select grab samples and a chip sample (Jansons and others, 1984). These samples assayed nil to 0.39 ounce of gold per ton and nil to

0.3 ounce of silver per ton. The samples were collected on the Whistler prospect (not the Francisco) from the rock dump at the mouth of a 50-foot-long adit.

Production notes:

The U.S. Bureau of Mines reported production of 150 ounces of gold (Jansons and others, 1984). (This might include production from the Whistler (SR020), and Bonanza (SR018) properties as well as the Francisco).

Reserves:**Additional comments:**

In his description of this deposit, Tuck (1933) also included references to the Whistler (SR020), Bonanza (SR018), and another (unnamed) prospect on Bonanza Creek. The Francisco, Whistler, and Bonanza are also known as the Downing mine (Jansons and others, 1984). Tysdal (1978 [MF-880-A]) considered these to be separate prospects.

References:

Tuck, 1933; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Mitchell, 1979; Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Tuck, 1933

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 02/19/00

Site name(s): Bonanza; Downing**Site type:** Prospect**ARDF no.:** SR018**Latitude:** 60.8243**Quadrangle:** SR D-7**Longitude:** 149.5205**Location description and accuracy:**

The Bonanza prospect in the Downing mine area (see additional comments). The prospect is at an elevation of about 2,100 feet on the north bank of Bonanza Creek. It is in the S1/2 section 31, T. 9 N., R. 1 W., of the Seward Meridian. The Bonanza prospect is located about half way between the Francisco (SR017) and Whistler (SR020) properties. This is location 9 of Cobb and Richter (1972), location 8 of MacKevett and Holloway (1977), locations 17, 19, and 20 of Cobb and Tysdal (1980), location 19 of Tysdal (1978 [MF-880-A]), and location S-294 of Jansons and others (1984). The location is accurate to within half a mile.

Commodities:**Main:** Au**Other:** Ag**Ore minerals:** Arsenopyrite, gold, pyrite**Gangue minerals:** Quartz**Geologic description:**

This deposit consists of a 6 foot width of 2- to 3-inch-wide quartz stringers parallel to schistose slate of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). The stringers contain a little arsenopyrite and pyrite. In addition to the stringers, there is abundant vuggy quartz float (Tysdal, 1978 [MF-880-A]). Tuck (1933) sampled the stringer lode, but the assays showed only traces of gold and silver.

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Undetermined.**Site Status:** Inactive**Workings/exploration:**

The veins are exposed by prospect pits, and there may be a caved adit (Tysdal, 1978 [MF-880-A]). Tuck (1933) sampled across the vein stringers, but the assays indicated only traces of gold and silver.

Production notes:

The U.S. Bureau of Mines reported a recorded production of 150 ounces of gold (Jansons and others, 1984). This might include production from the Whistler (SR020) and Francisco (SR017) prospects, as well as the Bonanza.

Reserves:

Additional comments:

In his description of this deposit, Tuck (1933) also included references to the Whistler (SR020), Francisco (SR017), and to another (unnamed) prospect on Bonanza Creek. The Bonanza property is about halfway between the Francisco and Whistler properties. The Francisco, Whistler, and Bonanza are also known as the Downing mine (Jansons and others, 1984). Tysdal (1978 [MF-880-A]) considered these to be separate prospects.

References:

Tuck, 1933; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Mitchell, 1979; Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Tuck, 1933

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 02/20/00

Site name(s): Nearhouse (and Smith)**Site type:** Mine**ARDF no.:** SR019**Latitude:** 60.8658**Quadrangle:** SR D-7**Longitude:** 149.5198**Location description and accuracy:**

The mine is located in the SE1/4 section 18, T. 9 N., R. 1 W., of the Seward Meridian. It is at elevations between 2,800 and 3,100 feet, on the divide between Bear and Palmer Creeks. This is location 7 of Cobb and Richter (1972), location 6 of MacKevett and Holloway (1977), location 12 of Cobb and Tysdal (1980), and location S-299 of Jansons and others (1984). The location is accurate to within a quarter of a mile.

Commodities:**Main:** Ag, Au**Other:** Pb, Zn**Ore minerals:** Arsenopyrite, galena, gold, pyrite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

The deposit at the Nearhouse mine consists of a banded and brecciated quartz vein averaging 20 inches wide. The banding is dark gray and is believed to be attributed to organic material. The vein strikes N50-80W and dips 60-90N. Metallic minerals include small amounts of arsenopyrite, galena, sphalerite, pyrite, and gold, which collectively make up less than one-half percent of the vein material. The vein is cut off at both ends by left-lateral transverse faults. However, the vein has good continuity at the surface and to a depth of more than 80 feet in the winze (Hoekzema and Sherman, 1983).

The host rock is well-bedded, slightly metamorphosed siltstone and sandstone (Hoekzema and Sherman, 1983) of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). The beds strike N15E and dip 60W at the 3,100-foot adit level. Abundant sedimentary features at the portal suggest that the bedding is overturned (Mitchell, 1979). Felsic dikes crop out nearby, and one was intersected in the east drift of the 3,100-foot level adit.

Alteration:**Age of mineralization:**

Cretaceous or younger; the vein cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Yes; small**Site Status:** Inactive**Workings/exploration:**

The workings at this mine consist of two adits: the upper adit, at 3,100 feet elevation, has 450 feet of workings plus an 80-foot winze; the lower adit, at an elevation of 3,050 feet, is 35 feet long (Jansons and others, 1984). In 1981, some old equipment at the site included a Worthington compressor. An old mine road leads to the workings from the Palmer Creek road.

Tuck (1933) visited the mine in 1931 and collected eight samples that assayed from 0.03 to 1.3 ounces of gold per ton and 0.3 to 3.5 ounces of silver per ton. The gold assays of the eight samples averaged 0.7 ounce per ton.

In 1980 and 1981, the U.S. Geological Survey and U.S. Bureau of Mines mapped and sampled the deposit (Hoekzema and Sherman, 1983). The Bureau collected six chip samples that assayed from a trace to 0.45 ounce of gold per ton and from 0.02 to 0.13 ounce of silver per ton. Reserves are estimated at 7,000 tons of ore containing 0.2 ounce of gold per ton and 0.3 ounce of silver per ton (Jansons and others, 1984).

Production notes:

Recorded production is 102 ounces of gold and 3 ounces of silver (Jansons and others, 1984).

Reserves:

Reserves are 7,000 tons of ore containing 0.2 ounce of gold per ton and 0.3 ounce of silver per ton (Jansons and others, 1984).

Additional comments:

Hoekzema and Sherman (1983) reported dynamite and caps in the west drift of the 3,100 foot level. The explosives were destroyed by the Army Explosive Ordinance Disposal Unit in 1995 (C. S. Huber, oral communication, 2000).

References:

Tuck, 1933; Roehm, 1940; Roehm, 1941; Smith, 1937; Smith, 1938; Smith, 1939 (B 910-A, p. 29); Smith, 1941 (B 926-A); Berg and Cobb, 1967; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Mitchell, 1979; Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 02/21/00

Site name(s): Whistler; Downing**Site type:** Prospect**ARDF no.:** SR020**Latitude:** 60.8215**Quadrangle:** SR D-7**Longitude:** 149.5181**Location description and accuracy:**

The Whistler prospect is in the Downing mine area (see additional comments). The map site is in the SE1/4 section 31, T. 9 N., R. 1 W., of the Seward Meridian. It is on the south valley wall of Bonanza Creek, at an elevation of 2,500 feet (Jansons and others, 1984). The Whistler prospect is half a mile southwest of the Francisco prospect (SR017). This is location 9 of Cobb and Richter (1972), location 8 of MacKevett and Holloway (1977), location 20 of Tysdal (1978 [MF-880-A]), locations 17, 19, and 20 of Cobb and Tysdal (1980), and location S-294 of Jansons and others (1984). The location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Pb**Ore minerals:** Arsenopyrite, gold, galena**Gangue minerals:** Quartz**Geologic description:**

The Whistler deposit consists of an auriferous, sulfide-bearing, quartz vein in slate of the Valdez Group of Late Cretaceous age (Tuck, 1933; Nelson and others, 1985). The vein is 2 to 6 inches thick and nearly parallel to the cleavage of the slate, which strikes N25E and dips 72E. An adit was driven on this vein for a distance of 50 feet, but the vein is cut off by a fault that strikes N70E and dips 80N. Tuck (1933) speculated that the fault displacement was small and that the continuation could be found, but the vein proved too small to be mineable.

Alteration:**Age of mineralization:**

Cretaceous or younger; the vein cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Undetermined.**Site Status:** Inactive**Workings/exploration:**

Workings consist of one 50-foot adit driven along a 2- to 6-inch-wide quartz vein (Tuck, 1933). The U.S. Bureau of Mines examined this property in 1982 and collected two select grab samples and a chip sample

(Hoekzema and Sherman, 1983). These samples assayed nil to 0.39 ounce of gold per ton, and nil to 0.3 ounce of silver per ton (Jansons and others, 1984). The samples were collected from the rock dump of the 50-foot adit.

Production notes:

The U.S. Bureau of Mines reported a recorded production of 150 ounces of gold (Jansons and others, 1984). This might include production from the Francisco (SR017) and Bonanza (SR018) prospects, as well as from the Whistler.

Reserves:**Additional comments:**

In his description of this deposit, Tuck (1933) also included references to the Francisco (SR017), Bonanza (SR018), and another (unnamed) prospect (SR306) on Bonanza Creek. The Francisco, Whistler, and Bonanza are also known as the Downing mine (Jansons and others, 1984). Tysdal (1978 [MF-880-A]) considered these to be separate prospects.

References:

Tuck, 1933; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Mitchell, 1979; Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Tuck, 1933

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 02/20/00

Site name(s): Unnamed (near Bonanza Creek); Downing**Site type:** Prospect**ARDF no.:** SR021**Latitude:** 60.8208**Quadrangle:** SR D-7**Longitude:** 149.5115**Location description and accuracy:**

This record describes an unnamed prospect in the Downing mine area (see additional comments). The map site is at an elevation of 2,700 feet, on the north valley wall of upper Bonanza Creek. It is in the SE1/4 section 31, T. 9 N., R. 1 W., of the Seward Meridian. The unnamed prospect is located east of the Francisco (SR017), Bonanza (SR018), and Whistler (SR020) prospects (also called Downing mine). This is location 18 of Cobb and Tysdal (1980). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:****Ore minerals:** Arsenopyrite, gold**Gangue minerals:** Calcite, quartz**Geologic description:**

The deposit at this prospect consists of auriferous, arsenopyrite-bearing quartz-calcite veins that heal fractures in a 5-foot-wide, Eocene(?) felsic dike locally called the Kenai Star dike. The dike strikes N30E and dips 45-60E (Tuck, 1933) and intrudes slate and sandstone of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). Sericitic alteration envelopes, 0.4 to 0.8 inch wide, surround tiny fractures cutting the slate and sandstone country rock, but there is little alteration near the larger quartz veins in the dike (Mitchell, 1979).

Hoekzema and Sherman (1983) refer to this prospect briefly under the name Downing mine (SR017), as a fractured dike occurs nearby.

Alteration:

Sericitic alteration envelopes 0.4 to 0.8 inch wide surround tiny fractures cutting slate and sandstone country rock, but little alteration is present near the larger quartz veins in the dike (Mitchell, 1979).

Age of mineralization:

Eocene(?) or younger; the veins heal fractures in the dike.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Undetermined.**Site Status:** Inactive**Workings/exploration:**

Tuck (1933) reported a 20-foot adit that exposed a 3-foot width of dike containing about 2 percent quartz veinlets carrying a small amount of arsenopyrite. A sample across the face contained only a trace of gold (Tuck, 1933). Mitchell (1979) visited the property in 1977 and reported 69 feet of workings. The U.S. Bureau of Mines visited the nearby Downing mine in 1982, but did not sample the prospect described in this record (Hoekzema and Sherman, 1983). Tuck (1933) wrote that nowhere on the Kenai Star dike was there observed anything that might be considered ore.

Production notes:

The U.S. Bureau of Mines reported production of 150 ounces of gold from the Downing mine, which presumably included any production from the Francisco, Bonanza, and Whistler properties (Jansons and others, 1984). None of the production is believed to have come from the prospect described in this record.

Reserves:**Additional comments:**

In his description of this deposit, Tuck (1933) included references to the Francisco (SR017), Whistler (SR020), and Bonanza (SR018) properties on Bonanza Creek. This unnamed prospect is east of those properties that are collectively known as the Downing mine (Jansons and others, 1984).

References:

Tuck, 1933; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Mitchell, 1979; Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Mitchell, 1979

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 02/20/00

Site name(s): Kenai Star; French**Site type:** Mine**ARDF no.:** SR022**Latitude:** 60.8424**Quadrangle:** SR D-7**Longitude:** 149.5111**Location description and accuracy:**

This mine is located in the E1/2 section 30, T. 9 N., R. 1 W., of the Seward Meridian, at elevations between 2,200 and 2,400 feet. It is situated on the south valley wall of Coeur d'Alene Creek, about a mile from its mouth. It is accessible by Palmer Creek road at a point 7 miles from Hope. This is location 8 of Cobb and Richter (1972), location 7 of MacKevett and Holloway (1977), location 15 of Cobb and Tysdal (1980), and location S-296 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Ag, Au**Other:** Cu, Pb, Zn**Ore minerals:** Arsenopyrite, chalcopyrite, galena, gold, pyrite, sphalerite**Gangue minerals:** Calcite, quartz**Geologic description:**

This deposit consists of auriferous, sulfide-bearing, quartz-carbonate veins that heal fractures in an Eocene felsic dike. The dike is as much as 6 feet wide, strikes N10E to N30E, and dips vertically. The quartz veins mostly strike N15W to N55W and dip steeply east. Metallic minerals in the veins are sparse and include arsenopyrite, pyrite, chalcopyrite, galena, and sphalerite (Jansons and others, 1984). The host rock is slate of the Valdez Group of Late Cretaceous age (Nelson and others, 1985), which strikes N30E and dips vertically (Tuck, 1933).

The dike, locally called the Kenai Star dike, has been isotopically dated at 53.2 +/- 1.6 million years (Silberman and others, 1981). It is very similar to other mineralized felsic dikes of the region (for example, see SR136).

It strikes generally north, dips vertically, and ranges in width from 1 to 6 feet (Martin and others, 1915). Regionally, the dike cuts across the cleavage of the slate, but locally, owing to later movements, it may be parallel to the cleavage. The dike is erratically fractured and cut by quartz veins and stringers that at many places form as much as 30 percent of the dike rock. The sulfide minerals form only a small portion of the vein material and are very erratically distributed (Tuck, 1933).

North from this deposit, the Kenai Star dike has been traced for about a mile to the divide between Bear and Cub Creeks. To the south it runs along the divide between Alder and Palmer Creeks for about 4 miles (Tuck, 1933).

Alteration:**Age of mineralization:**

Eocene; the dike has been isotopically dated at 53.2 +/- 1.6 million years (Silberman and others, 1981).

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Yes; small**Site Status:** Inactive**Workings/exploration:**

Underground workings on this mine consist of two drifts. One at 2,250 feet elevation is 60 feet long, and the other at 2,200 feet elevation is a 120 feet long (Jansons and others, 1984). Trenches are also present. Improvements include a road. At one time, a 5-stamp mill was installed, and in 1922 several tons of rock from the more heavily mineralized portions of the dike was mined. The operation did not prove profitable, and the mill was dismantled and moved to the Hirshey property (Hirshey-Lucky Strike mine, SR011) (Tuck, 1933).

The prospect was sampled and mapped by Mitchell (1979) in 1977. Mitchell reported values between 0.3 and 0.4 ounce of gold per ton. The U.S. Bureau of Mines examined the prospect in 1979. They collected two chip samples that assayed a trace and 0.15 ounce of gold per ton and a trace and 0.06 ounce of silver per ton.

Production notes:

Reported production is 24 ounces of gold (Hoekzema and Sherman, 1983). Jansons and others (1984), however, do not report any production, probably because there is no formal record of any.

Reserves:**Additional comments:****References:**

Brooks, 1913; Brooks, 1914; Martin and others, 1915; Brooks and Capps, 1924; Brooks, 1925; Tuck, 1933; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Mitchell, 1979; Cobb and Tysdal, 1980; Hoekzema and Sherman, 1981; Silberman and others, 1979; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Tuck, 1933**Reporter(s):** Jeff A. Huber (Anchorage)**Last report date:** 02/21/00

Site name(s): Robin Red Breast**Site type:** Prospect**ARDF no.:** SR023**Latitude:** 60.8401**Quadrangle:** SR D-7**Longitude:** 149.5053**Location description and accuracy:**

The prospect is located in the SW1/4 section 29, T. 9 N., R. 1 W., of the Seward Meridian, at an elevation of 2,400 feet. It is situated 800 feet east of the Kenai Star mine (SR022) on Coeur d'Alene Creek. This is location 8 of Cobb and Richter (1972), location 7 of MacKevett and Holloway (1977), location 16 of Cobb and Tysdal (1980), and location S-295 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Ag, Au**Other:****Ore minerals:** Gold, pyrite**Gangue minerals:** Quartz**Geologic description:**

This deposit consists of a 10-foot zone of 1- to 6-inch-thick quartz stringers in schistose slate of the Valdez Group of Late Cretaceous age (Tuck, 1933; Nelson and others, 1985). The quartz stringers form about 30 percent of the 10-foot zone, which is parallel to the cleavage of the slate (Tuck, 1933). The quartz stringer zone is exposed in an open cut. About 70 feet west of the open cut is a small exposure showing a one-foot-thick quartz vein that parallels the cleavage of the country rock. A small amount of pyrite is visible.

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

The workings on this prospect consist of a several open cuts. From 1920 to 1923, some underground work was done, but those workings were not accessible when Tuck (1933) visited the prospect. Tuck collected two channel samples across the quartz stringers, but the samples assayed only a trace of gold and silver. He also sampled the 1-foot-wide vein, but it also only assayed a trace of gold and silver. Tuck con-

cluded that the small width, low tenor, and lack of persistence along strike indicated that the vein had little value.

The U.S. Bureau of Mines visited the prospect in the early 1980's, but they collected no samples (Hoekzema and Sherman, 1983).

Production notes:

Reserves:

Additional comments:

References:

Brooks, 1925; Tuck, 1933; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Mitchell, 1979; Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Tuck, 1933

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 02/20/00

Site name(s): Strong; Indian**Site type:** Prospect**ARDF no.:** SR024**Latitude:** 60.9917**Quadrangle:** SR D-7**Longitude:** 149.5008**Location description and accuracy:**

This prospect is located in the NW1/4 section 5, T. 10 N., R. 1 W., of the Seward Meridian. It is at an elevation of 150 feet on the east side of Indian Creek. This is location 1 of Cobb and Richter (1972), location 1 of MacKevett and Holloway (1977), location 1 of Cobb and Tysdal (1980), and location S-315 of Jansons and others (1984). Cobb and Tysdal (1980) summarized the relevant references under the name Strong. The location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold, pyrite**Gangue minerals:** Calcite, quartz**Geologic description:**

The deposit at this prospect consists of quartz-calcite stringers and lenses in a shattered felsic dike (Capps, 1916). The dike intrudes slate and sandstone of the Valdez Group of Late Cretaceous age (Cobb and Tysdal, 1980). The dike is undated, but similar dikes in the district are Eocene in age (Mitchell, 1979). The veins contain pyrite and gold, and the dike, adjacent to the veins, contains disseminated pyrite, iron oxide, and a little gold. A few thin, quartz-calcite veins also occur in the surrounding slate and sandstone (Jansons and others, 1984). No assay results are reported. A little gold ore was shipped about 1920 (Berg and Cobb, 1967).

Alteration:

Iron oxide is reported.

Age of mineralization:

Eocene(?) or younger; the veins cut an Eocene(?) felsic dike.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Yes**Site Status:** Inactive**Workings/exploration:**

The U.S. Bureau of Mines did not visit this prospect (Jansons and others, 1984). There is no sampling data and no information describing the workings available in the literature.

Production notes:

Berg and Cobb (1967) report some minor gold production about 1920.

Reserves:**Additional comments:****References:**

Johnson, 1916; Brooks, 1922; Brooks, 1923; Berg and Cobb, 1967; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Mitchell, 1979; Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Cobb and Tysdal, 1980

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 04/08/00

Site name(s): Hillside Quartz; Hillside; Frenchy Creek mine**Site type:** Prospect**ARDF no.:** SR025**Latitude:** 60.7529**Quadrangle:** SR D-7**Longitude:** 149.4977**Location description and accuracy:**

The prospect is located in the SW1/4 section 29, T. 8 N., R. 1 W., of the Seward Meridian, at an elevation of 3,100 feet. It is situated about 4,000 feet north of Frenchy Creek. This is location 29 of Tysdal (1978 [MF-880-A]) and location S-276 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Ag, Zn**Ore minerals:** Arsenopyrite, gold, pyrite**Gangue minerals:** Quartz**Geologic description:**

Nelson and others (1985) have mapped the bedrock in this area as undifferentiated sedimentary rocks of the Valdez Group of Late Cretaceous age. The deposit consists of several quartz veins of undetermined thickness; these strike N70W and dip steeply south. The vein contains arsenopyrite, pyrite, sphalerite, and gold (Tysdal, 1978 [MF-880-A]).

The U.S. Bureau of Mines sampled this prospect in 1979; they collected one grab sample that assayed a trace of gold and 0.02 ounce of silver per ton (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

Workings consist of several prospect pits, and improvements consist of a trail. The U.S. Bureau of Mines sampled the prospect in 1979. They collected a grab sample that assayed a trace of gold and 0.02 ounce of silver per ton (Jansons and others, 1984).

Production notes:

Reserves:

Additional comments:

References:

Johnson, 1918 (B 662-C, p. 183-192); Tysdal, 1978 (MF-880-A); Jansons, 1981; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 02/3/00

Site name(s): Unnamed (on Donaldson Creek)**Site type:** Occurrence**ARDF no.:** SR026**Latitude:** 60.7687**Quadrangle:** SR D-7**Longitude:** 149.4948**Location description and accuracy:**

This occurrence on Donaldson Creek is at an elevation of 1,800 feet. It is in the SW1/4 section 20, T. 8 N., R. 1 W., of the Seward Meridian. The location is accurate to within a quarter of a mile. This is location 13 of Cobb and Richter (1972), location 12 of MacKevett and Holloway (1977), location 28 of Cobb and Tysdal (1980), and location S-277 of Jansons and others (1984).

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:****Geologic description:**

This occurrence consists of a slightly mineralized felsic dike that cuts slate and graywacke of the Valdez Group of Late Cretaceous age (Tuck, 1933; Nelson and others, 1985). The dike strikes N30E, dips vertically, and ranges in width from 8 to 10.5 feet. It is similar to, and could be a continuation of, the Gilpatrick dike (Martin and others, 1915). The highest gold assay value reported is \$1.08 per ton (gold at \$20.67 per ounce)(Johnson, 1915).

Alteration:**Age of mineralization:**

Cretaceous or younger; the felsic dikes cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

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

Martin and others (1915) reported open cuts showing sparse mineralization. The highest gold assay value reported is \$1.08 per ton (gold at \$20.67 per ounce).

Production notes:**Reserves:**

Additional comments:

References:

Martin and others, 1915; Tuck, 1933; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Martin and others, 1915

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 02/04/00

Site name(s): Sixmile Creek**Site type:** Mine**ARDF no.:** SR027**Latitude:** 60.8786**Quadrangle:** SR D-7**Longitude:** 149.4297**Location description and accuracy:**

Sixmile Creek is located in T. 8 and 9 N., R. 1 W., of the Seward Meridian. It flows north from East Fork Sixmile Creek to Turnagain Arm, entering tidewater at the town of Sunrise. The map site representing this placer mine is in the SE1/4 section 10, T. 9 N., R. 1 W., of the Seward Meridian. This is location 141 of Cobb and Richter (1972), location 165, 166 and 215 of MacKevett and Holloway (1977), location 13 of Cobb and Tysdal (1980), and location P-72 of Jansons and others (1984). This location is accurate to 300 feet.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:****Geologic description:**

Sixmile Creek flows in a broad, flat-bottomed valley in its upper half, cuts into Valdez Group bedrock of Late Cretaceous age for about 3 miles, and then broadens into a wider valley for about its final 3 miles (Tysdal, 1978 [MF-880-B]). Several bedrock canyons along its channel are separated by alluvial terraces and partially covered with avalanche debris (Jansons and others, 1984).

Jansons and others (1984) indicated that small, auriferous alluvial fan deposits are associated with several western tributaries to the lower reaches of Sixmile Creek. These include Alder Creek, Cub Creek, and Old Woman Creek. The flood-plain deposits near the junction of Sixmile Creek with Canyon Creek appear to be fairly thick, with depths to bedrock in excess of 70 feet (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Quaternary.

Deposit model:

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

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

39a

Production Status: Yes; small**Site Status:** Active**Workings/exploration:**

Sixmile Creek has produced only modest amounts of gold (Jansons and others, 1984). At the junction of

this creek and Canyon Creek, an attempt was made to reach bedrock by means of a hydraulic elevator, but at the time Paige and Knopf (1907) visited in 1906, the work had ceased. Martin and others (1915) reported that placer mining on Sixmile Creek was confined to a very few small hydraulic plants, worked by individuals, operating on high bench gravels bordering the stream and yielding only a small production. Tuck (1933) reported that prospecting on the benches in the lower reaches had picked up several old pay channels. Tysdal (1978 [MF-880-B]) indicated that the stream gravels in the lowermost part of Sixmile Creek contain muds from Turnagain Arm and have yielded little gold. However, in the lower 3 miles of the creek, some gold has been recovered from high bench gravels containing several old channels.

According to Jansons and others (1984), the gravels just below Canyon Creek were tested by a backhoe and 12-inch suction dredge, but the results are unknown.

Overall, the gold is fairly fine, and nuggets larger than one-quarter inch are rarely recovered (Jansons and others, 1984).

In the early 1980's, the U.S. Bureau of Mines collected a 0.1-cubic-yard sample that contained 0.0017 ounce of gold per cubic yard. One suction dredge sample from the active stream channel of Cub Creek contained 0.0073 ounce gold per cubic yard. Two section dredge samples collected from channel deposits of Sixmile Creek yielded 0.002 and 0.0182 ounce of gold per hour, and one bedrock pan sample contained 0.0214 ounce of gold per cubic yard (Jansons and others, 1984).

Production notes:

The total estimated production is 1,500 to 2,000 ounces of gold, of which less than 250 ounces has been produced since 1975 (Jansons and others, 1984).

Reserves:

The volume of bench and channel deposits is estimated to exceed 5 million cubic yards. There are no estimates of grade or total gold content (Jansons and others, 1984).

Additional comments:**References:**

Becker, 1898; Mendenhall, 1900; Moffit, 1905; Purington, 1905; Moffit, 1906; Paige and Knopf, 1907; Brooks, 1909; Brooks, 1911 (P 70); Johnson, 1912; Brooks, 1915; Martin and others, 1915; Brooks, 1916 (B 642-A); Smith, 1917 (BMB 142); Smith, 1917 (BMB 153); Brooks, 1922; Capps, 1924; Smith, 1926; Smith, 1930 (B 813-A); Smith, 1932; Smith, 1933 (B 836-A); Smith, 1933 (B 844-A); Tuck, 1933; Smith, 1936; Smith, 1937; Smith, 1938; Smith, 1939 (B 910-A, p. 43); Smith, 1941 (B 926-A); Koschmann and Bergendahl, 1968; Cobb and Richter, 1972; Cobb, 1973 (B 1374); MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-B); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 05/14/00

Site name(s): Gold Leaf**Site type:** Occurrence**ARDF no.:** SR028**Latitude:** 60.7755**Quadrangle:** SR D-7**Longitude:** 149.4016**Location description and accuracy:**

This occurrence is located in the N1/2 section 23, T. 8 N., R. 1 W., of the Seward Meridian, at the confluence of East Fork Sixmile and Gulch Creeks. This is location S-279 of Jansons and others (1984). The location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:****Ore minerals:** Arsenopyrite, gold, pyrite**Gangue minerals:** Quartz**Geologic description:**

This occurrence consists of auriferous, sulfide-bearing quartz veins in slate and graywack of the Valdez Group of Late Cretaceous age (Jansons and others, 1984; Nelson and others, 1985). A chip sample was collected that assayed a trace of gold and silver (Jansons and others, 1984). No workings are reported.

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Late Cretaceous Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

No workings or other improvements are present. A mining claim was staked on the occurrence in 1953 (Hoekzema and Sherman, 1983). The U.S. Bureau of Mines briefly examined several quartz veins in 1981, but none of the veins contained any visually significant ore minerals. A chip sample was collected that assayed at a trace of gold and silver (Jansons and others, 1984).

Production notes:**Reserves:**

Additional comments:

References:

Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 2/4/00

Site name(s): Gulch Creek and East Fork Sixmile Creek**Site type:** Mine**ARDF no.:** SR029**Latitude:** 60.7763**Quadrangle:** SR D-7**Longitude:** 149.3999**Location description and accuracy:**

This site represents a gold placer mine at and near the confluence of Gulch and lower East Fork Sixmile Creeks. The creeks are located in T. 8 N., R. 1 W., of the Seward Meridian. The map site is just northeast of the Seward Highway, about 1.25 miles southeast of the Hope road turnoff. This is location 142 of Cobb and Richter (1972), location 166 of MacKevett and Holloway (1977), location 14-15 of Cobb and Tysdal (1980), and location P-73 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:****Geologic description:**

Gulch Creek and lower East Fork Sixmile Creek occupy narrow bedrock canyons along most of their length and contain thin, discontinuous gravel deposits. The bedrock in these drainages is slate and sandstone of the Valdez Group of Late Cretaceous age (Nelson and others, 1985).

Gravels in a low bench, mined at the mouth of Gulch Creek, are composed of pebbles and boulders of slate, sandstone, and granite and have a clay matrix (Tysdal, 1978 [MF-880B]). Mining about 1.5 miles upstream worked old channel gravels consisting of horizontally stratified gravel having a locally compact clay and sand matrix (Tysdal, 1978 MF-880-BJ).

Gravels in the active stream bed range from loose and sandy on the surface, to clay cemented, with bouldery gravel near bedrock. Some of the boulders are 5 feet or more feet in diameter. Fine gold is disseminated throughout the gravels, but the pay streak is on bedrock and in fractures and is accompanied by sticky, tan clay (Jansons and others, 1984). The gold is flat, smooth, and medium coarse to coarse (Johnson, 1912). Nuggets as heavy as 5 ounces have been recovered from Gulch Creek (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Quaternary.

Deposit model:

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

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

39a

Production Status: Yes; small**Site Status:** Active

Workings/exploration:

Prior to 1906, the placer was worked mainly by pick and shovel. Hydraulic mining predominated from 1906 through 1917. Most of the gold was taken from the mouth of Gulch Creek and from East Fork Six-mile Creek just below its confluence with Gulch Creek. East Fork Sixmile Creek has been worked mainly between Gulch Creek and Sixmile Creek (Moffit, 1906).

In 1911, two hydraulic plants were in operation. The lower, smaller plant operated at the junction of Gulch and East Fork all season using an 8-inch pipe with a 2.5-inch nozzle. A 4,000-foot-long, 2-foot-wide ditch provided water. The gravel was piped into two lead boxes and then into a string of nine, 12-foot-long, 1-foot-wide sluice boxes set with pole riffles (Johnson, 1912). The upper plant, situated a short distance above the mouth of Gulch Creek, was not in operation when Johnson visited in 1912. There, the gold-saving apparatus consisted of a string of 11 sluice boxes with a 3-foot- square cross section laid on bedrock (Martin and others, 1915). In 1917, two men were hydraulic mining at the mouth of Gulch Creek (Johnson, 1919 [B 692-C, p. 175-176]).

In the early 1980's, the U.S. Bureau of Mines collected suction dredge samples at the head of Gulch Creek. They yielded 0.0006 to 0.0034 ounce of gold per hour. Two other samples from upper Gulch Creek contained 0.0008 to 0.0296 ounce of gold per cubic yard. Nine placer samples consisting of surface alluvium collected from the canyon of lower East Fork Sixmile Creek, contained 0.0019 to 0.015 ounce of gold per cubic yard (Jansons and others, 1984).

Since the early 1980's small-scale suction dredging has become a popular mining method and occurs intermittently up to the present time (C. S. Huber, oral communication, 2000).

Production notes:

The total estimated production is 1,000 to 2,500 ounces of gold, of which as much as 250 ounces has been produced since 1975 (Jansons and others, 1984).

Reserves:

The quantity of the gravel both on the benches and in the active stream channel is limited. No estimate of reserves is available.

Additional comments:**References:**

Moffit, 1906; Paige and Knopf, 1907; Brooks, 1909; Johnson, 1912; Brooks, 1915; Martin and others, 1915; Brooks, 1916 (B 642-A); Johnson, 1919 (B 692-C, p. 175-176); Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-B); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Johnson, 1912

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 05/13/00

Site name(s): Bird Point; Conway; Centennial**Site type:** Mine**ARDF no.:** SR030**Latitude:** 60.9284**Quadrangle:** SR D-7**Longitude:** 149.3596**Location description and accuracy:**

The mine is located in the SE1/4 section 25, T. 10 N., R. 1 W., of the Seward Meridian. It is at Bird Point, but the site is at or below current sea level as a result of the 1964 earthquake. This is location 2 of Cobb and Richter (1972), location 2 of MacKevett and Holloway (1977), location 2 of Cobb and Tysdal (1980), and location S-316 of Jansons and others (1984). The location is accurate to within a quarter of a mile. Cobb and Tysdal (1980) summarized the relevant references under the name Bird Point.

Commodities:**Main:** Au**Other:** Cu, Pb, Zn**Ore minerals:** Chalcopyrite, galena, gold, pyrite, sphalerite**Gangue minerals:** Calcite, quartz**Geologic description:**

This deposit consists of an auriferous, sulfide-bearing quartz-calcite vein in graywacke and slate of the Valdez Group of Late Cretaceous age (Johnson, 1916; Nelson and others, 1985). The vein is 2 to 16 inches wide; it strikes N28E and dips near vertically, parallel to the bedding of the graywacke and slate. Metallic minerals in the vein consist of chalcopyrite, galena, pyrite, sphalerite, and gold. Workings on the prospect consisted of a 22-foot shaft that is now below sea level.

A test shipment of 4,200 pounds of ore was shipped to the Tacoma smelter in 1912. This shipment contained 2.6 ounces of gold (Johnson, 1916). The U.S. Bureau of Mines visited this site in 1981 and collected a grab sample from the dump that contained 0.28 ounce of gold per ton and 0.06 ounce of silver per ton (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Cretaceous or younger; the vein cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Yes; small**Site Status:** Inactive**Workings/exploration:**

A 22-foot shaft was sunk in 1912, and a test shipment of 4,200 pounds of ore was shipped. This shipment

yielded 2.6 ounces of gold (Johnson, 1916). The U.S. Bureau of Mines visited this site in 1981 and collected a grab sample from the dump that contained 0.28 ounce of gold per ton and 0.06 ounce of silver per ton (Jansons and others, 1984).

Production notes:

A mill test in 1912 of 4,200 pounds of ore yielded 2.6 ounces of gold.

Reserves:**Additional comments:****References:**

Brooks, 1913; Johnson, 1916; Berg and Cobb, 1967; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Johnson, 1916

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 04/8/00

Site name(s): Robin No. 1**Site type:** Occurrence**ARDF no.:** SR031**Latitude:** 60.7752**Quadrangle:** SR D-7**Longitude:** 149.3484**Location description and accuracy:**

This occurrence is located in the NW1/4 section 19, T. 8 N., R. 1 E., of the Seward Meridian. It is on a north-flowing tributary to Gulch Creek and at an elevation of about 2,500 feet. This is location S-282 of Jansons and others (1984). The location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Ag?**Ore minerals:** Gold**Gangue minerals:****Geologic description:**

Nelson and others (1985) mapped this area as Valdez Group bedrock of Late Cretaceous age. Gold claims were located at this site in 1982 (Hoekzema and Sherman, 1993). No other geologic information is available.

Alteration:**Age of mineralization:**

Cretaceous or younger; the country rock is mapped as rocks of the Valdez Group of Late Cretaceous age.

Deposit model:**Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production Status:** None**Site Status:** Inactive**Workings/exploration:**

There are no reported workings or assay results. Gold claims were located on the site in 1982. The approximate area of the property was examined by the U.S. Bureau of Mines in 1981 (Hoekzema and Sherman, 1983).

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

Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 2/4/00

Site name(s): Gulch Creek No. 2**Site type:** Occurrence**ARDF no.:** SR032**Latitude:** 60.7762**Quadrangle:** SR D-7**Longitude:** 149.3321**Location description and accuracy:**

This occurrence is located in the NE1/4 section 19, T. 8 N., R. 1 E., of the Seward Meridian. It is situated at the head of a small cirque valley on the south side of Gulch Creek, at elevations between 3,200 and 3,350 feet. This is location S-283 of Jansons and others (1984). The location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:****Ore minerals:** Arsenopyrite, gold, pyrite**Gangue minerals:** Calcite, quartz**Geologic description:**

The Gulch Creek No. 2 occurrence consists of at least two subparallel quartz-carbonate veins that strike N55-60E and dip 45-50SE. The veins average 1.5 feet thick and are locally as much as 4 feet wide. They can be traced for 100 to 200 feet along strike. The quartz has a well-developed ribbon structure, is highly fractured, and contains arsenopyrite and minor pyrite along the contact with the wallrock. Slickensides along the hanging wall of one vein are horizontal and indicate a right-lateral movement (Hoekzema and Sherman, 1983). The Valdez Group (Late Cretaceous age) host rock (Nelson and others, 1985) is mostly highly fractured slate and metasiltstone having foliation that strikes N30-35E and dips 55-60SE (Hoekzema and Sherman, 1983). Five samples were collected by the U.S. Bureau of Mines in 1982.; they assayed trace amounts of gold and as much as 0.01 ounce of silver per ton (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

No workings or improvements are present. The occurrence was discovered by the U.S. Bureau of Mines in 1982; at that time they examined and sampled two veins (Hoekzema and Sherman, 1983). The five sam-

ples they collected assayed trace amounts of gold and as much as 0.01 ounce of silver per ton (Jansons and others, 1984).

Production notes:

Reserves:

Additional comments:

References:

Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 2/6/00

Site name(s): Gulch Creek No. 1**Site type:** Occurrence**ARDF no.:** SR033**Latitude:** 60.7633**Quadrangle:** SR D-7**Longitude:** 149.3056**Location description and accuracy:**

This occurrence is located in the SE1/4 section 20, T. 8 N., R. 1 E., of the Seward Meridian. It is at an elevation of 3,700 to 4,200 feet, on a ridge above the head of a small, northwest-flowing tributary to Gulch Creek. This is location S-281 of Jansons and others (1984). The location is accurate to within a quarter of a mile.

Commodities:**Main:** Ag, Au**Other:** Cu, Pb, Sb, Zn**Ore minerals:** Arsenopyrite, chalcopyrite, galena, gold, sphalerite, stibnite**Gangue minerals:** Quartz**Geologic description:**

This occurrence consists of two narrow quartz veins, averaging 3 inches wide, that strike N35-50W and dip 40-55NE. The veins contain arsenopyrite, chalcopyrite, galena, sphalerite, stibnite, and gold. One vein can be traced along strike for 200 feet (Jansons and others, 1984). The veins are hosted in complexly folded and faulted, interbedded, locally iron-stained, slightly metamorphosed, silty to sandy graywacke, pebble conglomerate, and minor slate of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). Several barren-appearing stockwork-type quartz veins also occur in the area.

Twelve samples collected in 1981 by the U.S. Bureau of Mines assayed from a trace to 0.18 ounce of gold per ton and from a trace to 22.5 ounces of silver per ton. Other metal values, including arsenic, copper, lead, zinc, and antimony, ranged from none detected to 4,600 ppm (Hoekzema and Sherman, 1983).

Alteration:

Local iron staining.

Age of mineralization:

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

The U.S. Bureau of Mines discovered the occurrence in 1981. They collected 12 samples that assayed

from a trace to 0.18 ounce of gold per ton and from a trace to 22.5 ounces of silver per ton (Jansons and others, 1984). Other metals values tested for included arsenic, copper, lead, zinc, and antimony. Antimony values ranged from a trace to 0.23 percent (Jansons and others, 1984).

Production notes:

Reserves:

The U.S. Bureau of Mines estimated reserves of 200 tons of ore containing 0.1 ounce of gold per ton and 20 ounces of silver per ton (Jansons and others, 1984).

Additional comments:

The U.S. Bureau of Mines reported that other quartz veins occur in the area, but because of time limitations and precipitous terrain, they did not sample them (Hoekzema and Sherman, 1983). The Bureau recommended additional exploration.

References:

Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 2/4/00

Site name(s): Gulch Creek No. 3**Site type:** Occurrence**ARDF no.:** SR034**Latitude:** 60.7821**Quadrangle:** SR D-7**Longitude:** 149.2906**Location description and accuracy:**

This occurrence is located in the SW1/4 section 16, T. 8 N., R. 1 E., of the Seward Meridian, at elevations between 3,900 and 4,000 feet. It is situated on the divide between the south and middle headwater tributaries to Gulch Creek. This is location S-284 of Jansons and others (1984). The location is accurate to within a quarter of a mile.

Commodities:**Main:** Ag?, Au**Other:****Ore minerals:** Arsenopyrite, gold?**Gangue minerals:** Quartz**Geologic description:**

The Gulch Creek No. 3 occurrence consists of two quartz veins as much as 2 feet thick that occur along a well-developed shear zone that averages 4 feet wide. The shear zone strikes roughly northeast and dips vertically and is only one of numerous faults in the area. The larger vein, exposed along strike for about 100 feet, strikes N65W and dips vertically. The vein is offset in at least three places by northeast-trending faults that dip 65SE. The apparent motion of these faults is right lateral, and the displacement is about 5 feet (Hoekzema and Sherman, 1983). The shear zone and quartz veins are hosted by slate and metasiltstone of the Upper Cretaceous Valdez Group (Hoekzema and Sherman, 1983). The quartz is iron-stained and vuggy and contains arsenopyrite.

Four chip samples collected in 1981 by the U.S. Bureau of Mines contained less than 0.03 ppm gold and less than 1 ppm silver (Hoekzema and Sherman, 1983).

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut Late Cretaceous Valdez Group rocks.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

No workings or improvements are present. The occurrence was discovered, mapped and sampled by the

U.S. Bureau of Mines in 1981 (Hoekzema and Sherman, 1983). Five samples assayed traces of gold and a trace to 0.01 ounce of silver per ton (Jansons and others, 1984). The Bureau considered that the occurrence has a low potential for mineral development.

Production notes:

Reserves:

Additional comments:

More than 8,000 ounces of placer gold have been recovered from Gulch Creek downstream from this occurrence.

References:

Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 2/6/00

Site name(s): Kenai Lu; Kirsten 1 and 2**Site type:** Mine**ARDF no.:** SR035**Latitude:** 60.8823**Quadrangle:** SR D-7**Longitude:** 149.2618**Location description and accuracy:**

This mine is located in the SW1/4 section 10, T. 9 N., R. 1 E., of the Seward Meridian. It is at an elevation of 900 feet, on Sawmill Creek. This is location 16 of Cobb and Richter (1972), location 14 of MacKevett and Holloway (1977), location 6 of Cobb and Tysdal (1980), and location S-312 of Jansons and others (1984). The location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Cu, Pb, Zn**Ore minerals:** Arsenopyrite, chalcopyrite, galena, gold, pyrite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

This deposit consists primarily of an auriferous, sulfide-bearing quartz vein, as much as 4 feet wide, in a fault that cuts Valdez Group rocks of Late Cretaceous age (Martin and others, 1915; Cobb and Tysdal, 1980). The fault strikes NE and dips 70SE. The fault walls are commonly striated and marked by a thin gouge. The vein is truncated at both ends by other faults. A second quartz vein, about 3 feet thick, is less faulted, but it carries only low gold values.

The primary vein contains arsenopyrite, pyrite, chalcopyrite, sphalerite, galena, and free gold. Crystals of arsenopyrite are also very abundant in the country rock.

This deposit may be an extension of the veins on the Slate Creek No. 1 (SR038) and Slate Creek No. 2 (SR040) prospects. All three veins are fault-controlled and are nearly on strike (Martin and others, 1915).

A little placer gold was mined from the stream gravels of Sawmill Creek.

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Yes; small**Site Status:** Inactive**Workings/exploration:**

The underground workings at this mine are on the primary vein and consist of a single adit that is 60 to 70

feet long. Improvements include an arrastre mill, erected in 1906, that was driven by water power and capable of handling two 700-ton charges per day (Moffit, 1906). Nineteen tons of picked ore was processed and yielded approximately 25 ounces of gold (Hoekzema and Sherman, 1983).

The U.S. Bureau of Mines visited the prospect in 1982 and collected four samples from the vein where it is exposed in and adjacent to Sawmill Creek. The adit was inaccessible at the time. The samples assayed from a trace to 0.04 ounce of gold per ton and a trace to 0.04 ounce of silver per ton (Jansons and others, 1984).

Production notes:

In 1906, approximately 25 ounces of gold were recovered from 19 tons of ore (Hoekzema and Sherman, 1983). Additional production might have occurred.

Reserves:

Additional comments:

References:

Mendenhall, 1900; Moffit, 1905; Moffit, 1906; Brooks, 1911 (B 480-C); Martin and others, 1915; Berg and Cobb, 1967; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Martin and others, 1915

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 04/02/00

Site name(s): Sawmill Creek**Site type:** Mine**ARDF no.:** SR036**Latitude:** 60.8885**Quadrangle:** SR D-7**Longitude:** 149.2550**Location description and accuracy:**

Sawmill Creek is mainly in section 10, T. 9 N., R. 1 E., of the Seward Meridian. Gold-bearing gravels are restricted to the mouth of the creek in the Seward D-6 quadrangle. The map site is at an elevation of about 400 feet along Sawmill Creek. This is location 9 of MacKevett and Holloway (1977), location 8 of Cobb and Tysdal (1980), and location P-71 of Jansons and others (1984). The location is accurate to within 300 feet.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:****Geologic description:**

Sawmill Creek occupies a short, steep, narrow, avalanche-debris-filled valley. Very little gravel has accumulated along the channel. Gold occurs in poorly sorted gravels near the mouth of the creek (Jansons and others, 1984). Mendenhall (1900) reported gold placer production from this creek but gave no details. Bedrock in this area is slate and graywacke of the Valdez Group of Late Cretaceous age (Nelson and others, 1985).

Alteration:**Age of mineralization:**

Quaternary.

Deposit model:

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

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

39a

Production Status: Yes; small**Site Status:** Inactive**Workings/exploration:****Production notes:****Reserves:**

Additional comments:

References:

Mendenhall, 1900; Tysdal, 1978 (MF-880-B); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 03/07/00

Site name(s): Granite Creek**Site type:** Occurrence**ARDF no.:** SR037**Latitude:** 60.7509**Quadrangle:** SR D-7**Longitude:** 149.2544**Location description and accuracy:**

Granite Creek is located in T. 8 N., R. 1 E., of the Seward Meridian. Granite Creek flows south within Turnagain Pass into East Fork Sixmile Creek. The map site of this placer occurrence is on Granite Creek at an elevation of about 800 feet. It is in the S1/2 section 27, T. 8 N., R. 1 E. The auriferous portion of Granite Creek is below Bertha Creek. This is location 149 of Cobb and Richter (1972), location 171 of MacKevett and Holloway (1977), location 21 of Tysdal (1978 [MF-880-B]), location 149 of Cobb and Tysdal (1980), and location P-74 of Jansons and others (1984). The location is accurate to within 300 feet.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:****Geologic description:**

Granite Creek occupies a fairly wide valley over most of its length; bedrock is exposed in only a few locations. Below Bertha Creek (SR039) the valley is from about a quarter to a third of a mile wide and in many places is wet and marshy (Moffit, 1906). Gravel terraces are present, and the whole region appears to have been occupied by a lake or series of lakes at one time. Granite Creek is one of the largest tributaries of East Fork Sixmile Creek.

Near the mouth of Bertha Creek, Granite Creek contains about 8 to 10 feet of coarse gravel. These gravels were hydraulically mined in 1903 and 1904. Some of the mining may have been of Bertha Creek, but most of the gold probably came from Granite Creek. About 4 to 5 feet of finer alluvium, overlying the coarse gravel is also auriferous (Moffit, 1906). The gold is fine, bright yellow, and fairly smooth.

Significant gravel deposits occur along much of Granite Creek.

Alteration:**Age of mineralization:**

Quaternary.

Deposit model:

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

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

39a

Production Status: Yes; small**Site Status:** Inactive

Workings/exploration:

Gravel on Granite Creek near its confluence with Bertha Creek (SR039) was hydraulically mined in 1903 and 1904. Some of the mining may have been on Bertha Creek, but most of the gold probably came from Granite Creek. The value of the gold averaged about 15 cents per cubic yard (gold at \$20.67 per ounce) (Moffit, 1906).

The early workings included a rock carrier driven by water power for handling the boulders and a small, homemade sawmill. The sawmill was an ordinary whipsaw set in a square upright frame and driven by a water wheel with suitable gear; it sawed three times as much in a day as two men can saw by hand (Moffit, 1906).

The U.S. Bureau of Mines sampled Granite Creek in 1982 or 1983. Two suction dredge samples yielded 0.0007 and 0.0011 ounce of gold per hour. The gold was very fine grained, requiring amalgamation to recover.

Production notes:

A small amount of production from the mouth Bertha Creek (SR039) (Moffit, 1906) is believed to have actually come mostly from Granite Creek (Cobb and Tysdal, 1980).

Reserves:

Jansons and others (1984) reported that significant gravel reserves occur but did not estimate an amount.

Additional comments:**References:**

Moffit, 1906; Martin and others, 1915; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Cobb and Tysdal, 1980; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Moffit, 1906

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 06/25/00

Site name(s): Slate Creek No. 1**Site type:** Occurrence**ARDF no.:** SR038**Latitude:** 60.8756**Quadrangle:** SR D-6**Longitude:** 149.2440**Location description and accuracy:**

This occurrence is located in the NE1/4 section 15, T. 9 N., R. 1 E., of the Seward Meridian. It is at an elevation of 1,500 feet on Slate Creek. This is location 18 of Cobb and Richter (1972), location 13 of MacKevett and Holloway (1977), location 5 of Cobb and Tysdal (1980), and location S-313 of Jansons and others (1984). The location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Cu, Pb, Zn**Ore minerals:** Arsenopyrite, chalcopyrite, galena, gold, pyrite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

The occurrence consists of two small fault-controlled quartz veins in sandstone of the Valdez Group of Late Cretaceous age (Tysdal, 1978 [MF-880-A]). One fault strikes N70E and dips 70SE; the other fault strikes N50E and dips 10-15E (Moffit, 1905). The veins carry arsenopyrite, chalcopyrite, galena, pyrite, sphalerite, and free gold (Jansons and others, 1984).

This deposit may be an extension of the veins at the Slate Creek No. 2 (SR040) and the Kenai Lu mine (SR035). All three veins are fault controlled and are nearly on strike (Martin and others, 1915).

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

The U.S. Bureau of Mines visited the occurrence in 1981 but did not collect any samples (Jansons and others, 1983).

Production notes:

Reserves:**Additional comments:**

This deposit may be an extension of the veins at the Slate Creek No. 2 (SR040) and the Kenai Lu mine (SR035). All three veins are fault controlled and are nearly on strike (Martin and others, 1915).

References:

Moffit, 1905; Moffit, 1906; Martin and others, 1915; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Martin and others, 1915

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 04/02/00

Site name(s): Bertha Creek**Site type:** Mine**ARDF no.:** SR039**Latitude:** 60.7514**Quadrangle:** SR D-6**Longitude:** 149.2420**Location description and accuracy:**

The map site of this gold placer mining area is at an elevation of 1,100 feet on Bertha Creek. It is in the SW1/4 section 26, T. 8 N., R. 1 W., of the Seward Meridian. The principal gold-producing ground is at or near the confluence of Bertha and Granite (SR037) Creeks. This is location 149 of Cobb and Richter (1972), location 171 of MacKevett and Holloway (1977), location 21 of Tysdal (1978 [MF-880-B]), location 149 of Cobb and Tysdal (1980), and location P-64 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Au**Other:** Hg**Ore minerals:** Cinnabar, gold**Gangue minerals:****Geologic description:**

Bedrock in the area is slate and graywacke of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). Bertha Creek occupies a U-shaped valley in its upper portion and a steep, narrow canyon cut mostly in glacial debris and bedrock in its middle section. An alluvial fan below the canyon has been the source of the most of the gold recovered to date (2000). The gravels are poorly sorted and contain abundant clay and boulders. The gold occurs mostly on bedrock (Jansons and others, 1984). Moffit (1906) reported that at the mouth of Bertha Creek, 2.5 to 3 meters of coarse gravel and boulders are overlain by about 1.5 meters of finer material. Bedrock is not exposed. The gold is in the coarse material, which averages about 15 cents per cubic yard (gold at \$20.67 per troy ounce). The gold is fine, bright yellow, and smooth (Moffit, 1906).

Hand-placer and hydraulic mining occurred between 1902 and 1904, and the area is currently (2000) used for recreational mining. Total gold production since 1902 is estimated to be 300 to 600 ounces, of which less than 35 ounces has been recovered since 1975 (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Quaternary.

Deposit model:

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

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

39a

Production Status: Yes; small

Site Status: Inactive

Workings/exploration:

Hand-placer and hydraulic mining occurred between 1902 and 1904. In 1983, the U.S. Bureau of Mines collected samples from lower Bertha Creek (Jansons and others, 1984). A dredge sample yielded 0.0142 ounce of gold per hour. Two bench samples contained 0.0006 and 0.0129 ounce of gold per cubic yard. Traces of gold were recovered from surface gravels on upper Bertha Creek. A concentrate sample contained cinnabar (Jasper, 1967). Recreational suction dredging is currently popular along Bertha Creek within one-eighth mile of the Seward Highway (C. S. Huber, oral communication, 2000).

Production notes:

Total gold production since 1902 is estimated to be 300 to 600 ounces, of which less than 35 ounces has been recovered since 1975 (Jansons and others, 1984).

Reserves:

Additional comments:

References:

Moffit, 1906; Jasper, 1967; Cobb and Richter, 1972; Cobb, 1973 (B 1374); Tysdal, 1978 (MF-880-B); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 06/24/00

Site name(s): Slate Creek No. 2**Site type:** Occurrence**ARDF no.:** SR040**Latitude:** 60.8878**Quadrangle:** SR D-6**Longitude:** 149.2321**Location description and accuracy:**

This occurrence is located in the NW1/4 section 11, T. 9 N., R. 1 E., of the Seward Meridian. It is near sea level about a half-mile east of Slate Creek. This is location 17 of Cobb and Richter (1972), location 13 of MacKevett and Holloway (1977), location 4 of Cobb and Tysdal (1980), and location S-314 of Jansons and others (1984). The location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Cu, Pb, Zn**Ore minerals:** Arsenopyrite, chalcopyrite, galena, gold, pyrite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

This occurrence consists of fault-controlled quartz stringers in slate of the Valdez Group of Late Cretaceous age (Tysdal, 1978 [MF-880-A]; Hoekzema and Sherman, 1983). The quartz stringers are 1 to 2 inches wide. The fault zone is 4 feet wide, strikes N30E, and dips 60SE (Hoekzema and Sherman, 1983). Martin and others (1915) indicated that the vein strikes N70E and dips 70E. The quartz stringers carry arsenopyrite, chalcopyrite, galena, pyrite, sphalerite, and free gold (Moffit, 1905). The U.S. Bureau of Mines identified only minor pyrite and arsenopyrite (Hoekzema and Sherman, 1983).

This deposit may be an extension of the veins at the Slate Creek No. 1 prospect (SR038) and Kenai Lu mine (SR035). All three veins are fault controlled and are nearly on strike (Martin and others, 1915).

Alteration:**Age of mineralization:**

Cretaceous or younger; the quartz stringers cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

There are no workings or improvements at this occurrence and no record of any production. The U.S. Bureau of Mines collected one chip sample in 1981; the sample assayed trace amounts of gold and silver (Jansons and others, 1984).

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

This deposit may be an extension of the veins at the Slate Creek No. 1 prospect (SR038) and Kenai Lu mine (SR035). All three veins are fault controlled and are nearly on strike (Martin and others, 1915).

References:

Moffit, 1905; Moffit, 1906; Martin and others, 1915; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Martin and others, 1915

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 04/02/00

Site name(s): Tincan Creek**Site type:** Mine**ARDF no.:** SR041**Latitude:** 60.7800**Quadrangle:** SR D-6**Longitude:** 149.2118**Location description and accuracy:**

Tincan Creek is located in T. 8 N., R. 1 and 2 E., of the Seward Meridian. The map site of this placer mine is in the SW1/4 section 13, T. 8 N., R. 1 E. It is situated on the east side of the Seward Highway about 2 miles south of the rest area in Turnagain Pass. This location is accurate to within 300 feet. This is location GC14 of Jasper (1967), location 151 of Cobb and Richter (1972), location 151 of Cobb and Tysdal (1980), and location P-67 of Jansons and others (1984).

Commodities:**Main:** Au**Other:** Cu, W**Ore minerals:** Chalcopyrite, gold, scheelite**Gangue minerals:****Geologic description:**

Tincan Creek drains small glaciers on the northwest side of Kickstep Mountain and Tincan peak. Bedrock in the area is slate and graywacke of the Upper Cretaceous Valdez Group (Nelson and others, 1985).

Gravels in the lower section of the creek were hand placered in the 1930's (Jansons and others, 1984). Little gold occurs throughout the gravels, which are poorly sorted and have a high clay content. Accessory minerals identified in concentrates are scheelite and chalcopyrite (Jasper, 1967).

Estimated total production is between 50 and 100 ounces of gold (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Quaternary.

Deposit model:

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

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

39a

Production Status: Yes; small**Site Status:** Inactive**Workings/exploration:**

There was minor hand-mining in the 1930's, and there has been some minor recreational suction dredging in the past 10 years (C. S. Huber, oral communication, 2000).

Production notes:

Total production is estimated between 50 and 100 ounces of gold (Jansons and others, 1984).

Reserves:

Additional comments:

References:

Jasper, 1967; Cobb and Richter, 1972; Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 05/30/00

Site name(s): Lyon Creek**Site type:** Prospect**ARDF no.:** SR042**Latitude:** 60.7752**Quadrangle:** SR D-6**Longitude:** 149.2103**Location description and accuracy:**

Lyon Creek is located in T. 8 N., R. 1 E., of the Seward Meridian. It flows northwest into Tincan Creek, a tributary of Granite Creek. Evidence of prospecting can be seen near the mouth of the canyon. This is location P-66 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:****Geologic description:**

Bedrock in the area is slate and graywacke of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). Lyon Creek occupies a narrow, steep, bedrock gorge and flows onto an alluvial fan that coalesces with that formed by Tincan Creek. Alluvial gravels thinly mantle bedrock in the lowermost part of the canyon. Fairly coarse gold, as much as three-sixteenths of an inch in diameter, was recovered on bedrock (Jansons and others, 1984). Channel gravels are very limited in quantity.

Alteration:**Age of mineralization:**

Quaternary.

Deposit model:

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

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

39a

Production Status: None**Site Status:** Probably inactive**Workings/exploration:**

Jansons and others (1984) reported evidence of prospecting near the mouth of Lyons Creek canyon, but they did not describe the nature of the prospecting. The U.S. Bureau of Mines sampled Lyon Creek in 1982 or 1983 with a small suction dredge. The sample yielded 0.0132 ounce of gold per hour. Fairly coarse gold, as much as three-sixteenths of an inch, was recovered on bedrock.

Production notes:

Reserves:

Additional comments:

References:

Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 06/25/00

Site name(s): Lyon Den No. 1**Site type:** Occurrence**ARDF no.:** SR043**Latitude:** 60.7748**Quadrangle:** SR D-6**Longitude:** 149.1977**Location description and accuracy:**

This lode and placer occurrence is located in the NE1/4 section 24, T. 8 N., R. 1 E., of the Seward Meridian. The map site is at an elevation of 1,100 feet on Lyon Creek, about a half-mile east of the Seward Highway. This is location S-286 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:****Geologic description:**

No geologic description is available. The country rock in the area is mapped the Valdez Group of Late Cretaceous age (Nelson and others, 1985). This occurrence apparently was staked as a gold lode claim (Hoekzema and Sherman, 1983). The U.S. Bureau of Mines could not locate the occurrence (Jansons and others, 1984). They did, however, suction-dredge a placer sample near the reported site that yielded 0.013 ounce of gold per hour of dredging.

Alteration:**Age of mineralization:**

Cretaceous or younger; the country rock in the area is the Valdez Group of Late Cretaceous age.

Deposit model:

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

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

39a

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

No workings or improvements are reported. The U.S. Bureau of Mines could not locate the occurrence (Jansons and others, 1984). They did, however, collect a placer sample using a 3-inch suction dredge near the reported site. Coarse gold was recovered. The sampling yielded 0.013 ounce of gold per hour of dredging.

Production notes:

Reserves:

Additional comments:

References:

Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 2/6/00

Site name(s): Seattle Creek**Site type:** Mine**ARDF no.:** SR044**Latitude:** 60.8659**Quadrangle:** SR D-6**Longitude:** 149.1620**Location description and accuracy:**

Seattle Creek is located in T. 9 N., R. 1 and 2 E., of the Seward Meridian. The map site is in the S1/2 section 18, T. 9 N., R. 2 E. The location is accurate to 300 feet. The placer workings are about one mile upstream from the mouth the creek. This is location 8 of MacKevett and Holloway (1977), location 8 of Cobb and Tysdal (1980), and location P-70 of Jansons and others (1984).

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:****Geologic description:**

The bedrock in this area has been mapped as sedimentary rock of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). Seattle Creek occupies a long, fairly narrow U-shaped valley and has a narrow bedrock canyon.

Gold occurs throughout the channel gravels, but it is mostly concentrated on bedrock. Some small areas of bench gravels exist in the lower part of the creek; these contain disseminated gold that occurs in sandy, boulder-rich gravel resting on a 6- to 12-inch-thick clay layer (Jansons and others, 1984). The gold in both the bench and channel deposits is fairly fine, although particles as long as three-sixteenths of an inch have been recovered.

The U.S. Bureau of Mines collected six suction-dredge samples of bench and channel gravels in 1979. These samples contained 0.0136 to 0.0316 ounce of gold per yard (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Quaternary.

Deposit model:

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

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

39a

Production Status: Yes; small**Site Status:** Undetermined**Workings/exploration:**

A hydraulic pit is on the west side of the Seattle Creek about one mile south of Turnagain Arm along with

a few hand workings and suction dredge pits scattered along the creek. The U.S. Bureau of Mines collected six suction dredge samples of bench and channel gravels in 1979. These samples contained 0.0136 to 0.0316 ounce of gold per yard (Jansons and others, 1984).

Production notes:

Reserves:

There are more than 250,000 cubic yards of gravel in the lower part of Seattle Creek that have moderate mineral potential (Jansons and others, 1984).

Additional comments:

References:

Moffit, 1906; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-B); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 03/07/00

Site name(s): California Creek**Site type:** Occurrence**ARDF no.:** SR045**Latitude:** 60.9747**Quadrangle:** SR D-6**Longitude:** 149.1405**Location description and accuracy:**

California Creek is located in T. 10 and 11 N., R. 1 and 2 E., of the Seward Meridian. It joins Glacier Creek two miles from Turnagain Arm near the town of Girdwood (misspelled on the 1994 D-6 map). The map site of this placer mine is on California Creek at an elevation of about 400 feet in the N1/2 section 8, T. 10 N., R. 2 E. This is location 131 and 132 of Cobb and Richter (1972), location 159 of MacKevett and Holloway (1977), location 2 of Tysdal (1978 [MF-880-B]), location 131 and 132 of Cobb and Tysdal (1980), and location P-92 of Jansons and others (1984). The location is accurate to within 300 feet.

Commodities:**Main:** Au, W**Other:****Ore minerals:** Gold, scheelite**Gangue minerals:****Geologic description:**

California Creek drains an area underlain chiefly by slate and graywacke of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). The creek flows in a narrow, steep-walled canyon, and the gravels consist of slate, graywacke, and some granite (Tysdal, 1978 [MF-880-B]). There is little accumulation of gravels. An alluvial fan deposited at the lower end of the creek contains disseminated fine-grained gold. Gravels exposed along the creek contain considerable clay and in large part are probably glacial till (Jansons and others, 1984). Grades are reported to be extremely variable.

Alteration:**Age of mineralization:**

Quaternary.

Deposit model:

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

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

39a

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

The creek received a good deal of attention from prospectors between 1898 and 1902 and yielded some gold (Capps, 1916). A concentrate sample near the mouth contained sheelite (Jasper, 1967).

The U.S. Bureau of Mines collected two bench samples at the canyon mouth that contained 0.0006 and

0.0007 ounce of gold per cubic yard (Jansons and others, 1984).

Production notes:

The U.S. Bureau of Mines estimated production at 400 ounces of gold since 1898 (Jansons and others, 1984).

Reserves:

Additional comments:

California Creek is situated in both the Anchorage and the Seward quadranges.

References:

Moffit, 1906; Martin and others, 1915; Capps, 1916; Smith, 1932; Park, 1933; Smith, 1933 (B 836-A); Smith, 1933 (B 844-A); Smith, 1934 (B 857-A); Smith, 1934 (B 864-A); Smith, 1936; Smith, 1937; Smith, 1938; Jasper, 1967; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-B); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Capps, 1916

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 04/07/00

Site name(s): Wolverine Creek**Site type:** Prospect**ARDF no.:** SR046**Latitude:** 60.8196**Quadrangle:** SR D-6**Longitude:** 149.1206**Location description and accuracy:**

The placer prospect is located in sections 4, 9, 15, and 22 of T. 8 N., R. 2 E., of the Seward Meridian. It is situated on the east side of the Seward Highway near mile 58. The most productive ground mined to date is near the mouth, where it drains into Ingram Creek. The map location is at this position. This is location P-68 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:****Geologic description:**

Wolverine Creek drains a small glacier on the west side of hill 3783. Gold occurs in the active stream channel in small pockets of well-washed gravel and trapped under large boulders (Jansons and others, 1984). Bedrock in this area is slate and graywacke of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). There is evidence of hand mining about one-half mile above the junction with Ingram Creek. There is no known production. The U.S. Bureau of Mines collected suction dredge samples in 1978 and estimated a recovery rate of 0.0036 ounce of gold per hour (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Quaternary.

Deposit model:

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

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

39a

Production Status: Undetermined.**Site Status:** Inactive**Workings/exploration:**

There are some minor hand workings on Wolverine Creek about one-half mile above the junction with Ingram Creek (Jansons and others, 1984). The creek is sporadically mined by recreational miners (C. S. Huber, oral communication, 2000).

Production notes:

Reserves:

Additional comments:

References:

Jansons and others, 1984.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 05/30/00

Site name(s): Ingram Creek**Site type:** Mine**ARDF no.:** SR047**Latitude:** 60.8267**Quadrangle:** SR D-6**Longitude:** 149.1039**Location description and accuracy:**

Ingram Creek is located in T. 8 and 9 N., R. 2 E., of the Seward Meridian. Ingram Creek flows northeast from Turnagain Pass into Turnagain Arm, a distance of about six miles. Evidence of previous placer workings are concentrated in the lower two-thirds of the creek. This is location P-69 of Jansons and others (1984) and locations 153 to 156 of Tysdal (1978 [MF-800B]). This location is accurate to within 300 feet.

Commodities:**Main:** Au**Other:** Cu, W**Ore minerals:** Chalcopyrite, gold, scheelite**Gangue minerals:****Geologic description:**

Bedrock in the area is slate and graywacke of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). Ingram Creek flows in a narrow steep-walled canyon that is within a wide U-shaped glacial valley. The creek has a high gradient and many waterfalls and rapids. There is some evidence of early prospecting in the lower part of the creek, but no signs of large-scale operations. Gold occurs throughout the stream bed, without enrichment on bedrock (Jansons and others, 1984). Concentrate samples contained chalcopyrite and scheelite (Jasper, 1967). No assay results are reported.

Alteration:**Age of mineralization:**

Quaternary.

Deposit model:

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

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

39a

Production Status: Yes; small**Site Status:** Inactive**Workings/exploration:**

There is some evidence of early prospecting in the lower part of the creek, but no signs of large-scale operations. Currently, some sections of the creek are used for recreational suction dredging (C. S. Huber, oral communication, 2000). Concentrate samples contain chalcopyrite and scheelite (Jasper, 1967). No assay results are reported.

Production notes:

Total production is estimated to be less than 25 ounces of gold (Jansons and others, 1984).

Reserves:**Additional comments:****References:**

Moffit, 1906; Cobb and Richter, 1972; Jasper, 1967; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-B); Mitchell, 1979; Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 03/07/00

Site name(s): Kern Creek**Site type:** Prospect**ARDF no.:** SR048**Latitude:** 60.9124**Quadrangle:** SR D-6**Longitude:** 149.0795**Location description and accuracy:**

The placer prospect is in the S1/2 section 34, T. 10 N., R. 2 E., of the Seward Meridian. Kern Creek flows southwest into Turnagain Arm about 6 miles south of Girdwood (which is misspelled on the 1994 edition of the D-6 map). This is locations 135 and 136 of Cobb and Richter (1972), location 162 of MacKevett and Holloway (1977), locations 135 and 136 of Cobb and Tysdal (1980), and location P-95 of Jansons and others (1984). The location is accurate to within 300 feet.

Commodities:**Main:** Au, Cu**Other:****Ore minerals:** Chalcopyrite, gold**Gangue minerals:****Geologic description:**

Kern Creek drains an area underlain by sedimentary rocks of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). A trace amount of gold occurs in the stream gravels (Capps, 1916), and a pan concentrate contained chalcopyrite (Jasper, 1967). Kern Creek occupies a steep, narrow, avalanche- and debris-filled valley with numerous falls and cascades. There is little accumulation of alluvial gravel until its junction with Turnagain Arm (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Quaternary.

Deposit model:

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

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

39a

Production Status: Undetermined.**Site Status:** Inactive**Workings/exploration:**

Capps (1916) reported that Kern Creek was prospected in 1898 and 1903. Some gold was recovered but not enough to warrant mining. A pan concentrate sample contained chalcopyrite (Jasper, 1967).

The U.S. Bureau of Mines collected samples that contained only trace amounts of gold. Kern Creek is believed to have low commercial potential for mechanized operations and suction dredging (Jansons and others, 1984).

Production notes:

It is unknown if there was any production.

Reserves:**Additional comments:****References:**

Capps, 1916; Jasper, 1967; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Capps, 1916

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 04/09/00

Site name(s): Crow Creek; Erickson mine; Crow Creek mine**Site type:** Mine**ARDF no.:** SR049**Latitude:** 60.9959**Quadrangle:** SR D-6**Longitude:** 149.0781**Location description and accuracy:**

The placer mine is located in T. 11 N., R. 2 E., of the Seward Meridian. Mining has occurred on two places on Crow Creek: (1) the lower part of the creek, and (2) the upper part of the creek, which is in the Anchorage A-6 quadrangle (C. S. Huber, oral communication, 2000). This is location 133 of Cobb and Richter (1972), location 160 of MacKevett and Holloway (1977), location 3 of Tysdal (1978 [MF-880-B]), location 133 of Cobb and Tysdal (1980), and location P-93 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:****Geologic description:**

Crow Creek drains an area underlain by rocks of the Valdez Group of Late Cretaceous age intruded by felsic dikes (Nelson and others, 1985). Placer gold occurs in four types of gravels on Crow Creek: high bench gravels, recent stream deposits, glacial gravels, and avalanche debris. The bench and recent stream deposits are the highest in grade and have historically produced most of the gold. The glacial and avalanche debris deposits are of low grade but may locally contain a significant concentration of gold. The highest grades appear to be associated with old channels in high benches, which likely consist of gravels deposited prior to the most recent glacial advance (Jansons and others, 1984).

Numerous large boulders and cemented gravels have caused mining difficulties (Jansons and others, 1984). The gold is fairly coarse; nuggets weighing from 0.05 to 1.0 ounce having been found by recreational miners (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Quaternary.

Deposit model:

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

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

39a

Production Status: Yes**Site Status:** Active

Workings/exploration:

Historically, mining on Crow Creek has been concentrated in two areas: (1) the lower part of the creek, extending from its junction with Glacier Creek to a point about 2 miles upstream, and (2) the upper basin (Anchorage quadrangle), which is covered by a group of patented claims known as the Girdwood property (U.S. Mineral Survey No. 753). Most of the production came from the lower part of the creek, primarily from a feature known as the (so-called) big cut that was created by hydraulic mining. The big cut is 1,800 feet long, 600 feet wide, and has a maximum depth of 230 feet (Johnson, 1912).

Prior to 1903, most of the mining on Crow Creek was done by pick and shovel on the most easily accessed gold-bearing gravels, but hydraulicking subsequently became the dominant mining method. In 1915, four hydraulic giants were working the Crow Creek mine (Capps, 1916). Mining was more or less continuous until 1938, when hydraulic mining ceased because the amount of gold recovered no longer supported the mining activity.

A mineral patent examination (U.S. Mineral Survey No. 748) was done by R. Shirley, U.S. Forest Service, in 1965. Shirley's conclusion was that the property was essentially mined out and contained insufficient reserves to support any successful mining operation.

The Bureau of Mines collected 11 bench and alluvium samples from upper Crow Creek. The samples contained from 0.0013 to 1.7 ounces of gold per cubic yard (Jansons and others, 1984). Five other samples were collected from the active channel of lower Crow Creek. These five samples contained from 0.0021 to 0.144 ounce of gold per cubic yard (Hoekzema and Fechner, 1986).

Production notes:

Crow Creek, the only important gold-producing stream on the north side of Turnagain Arm, has produced an estimated 45,000 ounces of gold (Jansons and others, 1984). Two operations accounted for virtually all of the production: the Crow Creek mine (Erickson mine) and the Girdwood mine (Anchorage quadrangle) (U.S. Mineral Survey No. 253). The Girdwood mine was patented. The Crow Creek mine was by far the larger operation.

Reserves:

A mineral patent examination (U.S. Mineral Survey No. 748) for the Crow Creek mine (or Erickson mine) was done by R. Shirley, U.S. Forest Service, in 1965. Shirley's conclusion was that the property was essentially mined out and contained insufficient reserves to support any successful mining operation.

Additional comments:

Crow Creek is located in both the Anchorage and Seward quadrangles. Only the deposit (Crow Creek mine, Erickson mine) in the Seward quadrangle is described in this record. The old Crow Creek mine, now on private land, is currently a tourist attraction where gold panning and small-scale mining occurs (C. S. Huber, oral communication, 2000).

References:

Mendenhall, 1900; Moffit, 1905; Moffit, 1906; Paige and Knopf, 1907; Brooks, 1911 (B 480-B); Johnson, 1912; Brooks, 1913; Brooks, 1914; Brooks, 1915; Martin and others, 1915; Capps, 1916; Brooks, 1918; Johnson, 1919 (B 692-C, p. 176); Martin, 1919; Brooks, 1923; Brooks and Capps, 1924; Capps, 1924; Brooks, 1925; Smith, 1926; Moffit, 1927; Smith, 1929; Smith, 1930 (B 810-A); Smith, 1930 (B 813-A); Smith, 1932; Park, 1933; Smith, 1933 (B 836-A); Smith, 1933 (B 844-A); Smith, 1934 (B 857-A); Smith, 1934 (B 864-A); Smith, 1936; Smith, 1937; Smith, 1939 (B 910-A); Smith, 1939 (B 917-A); Smith, 1941 (B 926-A); Koschmann and Bergendahl, 1968; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-B); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985; Hoekzema and Fechner, 1986.

Primary reference: Johnson, 1912

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 04/16/00

Site name(s): Winner Creek**Site type:** Mine**ARDF no.:** SR050**Latitude:** 60.9852**Quadrangle:** SR D-6**Longitude:** 149.0696**Location description and accuracy:**

This placer mine is located in section 3, T. 10 N., R. 2 E., of the Seward Meridian. The creek occupies a fairly wide and gentle U-shaped valley along most of its length but flows through a short, steep bedrock canyon near its junction with Glacier Creek. This is location 134 of Cobb and Richter (1972), location 181 of MacKevett and Holloway (1977), location 4 of Tysdal (1978 [MF-880-B]), location 134 of Cobb and Tysdal (1980), and location P-94 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:****Geologic description:**

Bedrock in the Winner Creek drainage is sedimentary rock of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). The deposits in the stream channel consist of well-stratified and washed alluvium; local bench deposits consist of clay-rich, cemented glacial or fluvial-glacial gravels. The gravels contain some quartz diorite cobbles (Park, 1933). The clay-rich gravels contained fairly coarse (three-sixteenths of an inch) gold at one sample site (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Quaternary.

Deposit model:

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

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

39a

Production Status: Yes; small**Site Status:** Probably inactive**Workings/exploration:**

A hand placer and hydraulic operation recovered gold from stream and bench gravels between 1898 and 1917 (Tysdal, 1978 [MF-880-B]). Since then hand placer methods and suction dredges have been used sporadically (Jansons and others, 1984).

The U.S. Bureau of Mines collected samples on lower Winner Creek (Jansons and others, 1984). Alluvium from the active stream channel contained 0.002 ounce of gold per cubic yard; the bench gravels con-

tained 0.0283 ounce of gold per cubic yard. Samples collected from the upper and middle portions of Winner Creek contained trace amounts of gold.

Production notes:

The total estimated production, from the lower quarter-mile of the creek, is 400 ounces, of which less than 25 ounces has been produced since 1975 (Jansons and others, 1984).

Reserves:**Additional comments:****References:**

Moffit, 1906; Johnson, 1912; Brooks, 1915; Martin and others, 1915; Brooks, 1916 (B 642-A); Capps, 1916; Johnson, 1919 (B 692-C, p. 176); Park, 1933; Cobb and Richter, 1972; Cobb, 1973 (B 1374); MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-B); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Moffit, 1906

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 04/16/00

Site name(s): Peterson Creek**Site type:** Mine**ARDF no.:** SR051**Latitude:** 60.8898**Quadrangle:** SR D-6**Longitude:** 149.0417**Location description and accuracy:**

This placer mine is in the N1/2 section 11, T. 9 N., R. 2 E., of the Seward Meridian. Peterson Creek flows southwest into Turnagain Arm between Girdwood and Portage. The mine extends from tidewater to about three-fourths of a mile upstream. This is location 3 of Cobb and Richter (1972), location 3 of MacKevett and Holloway (1977), location 3 of Cobb and Tysdal (1980), and location P-96 of Jansons and others (1984). The location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Cu, W**Ore minerals:** Chalcopyrite, copper, gold, sheelite**Gangue minerals:****Geologic description:**

Peterson Creek occupies a steep narrow avalanche-debris-filled valley with numerous small waterfalls and cascades. There is little accumulation of alluvial gravels until it approaches tidewater. Bedrock in this area is the Valdez Group of Late Cretaceous age (Nelson and others, 1985) and consists of massive greenstone and greenstone tuff, along with small amount of interbedded shale. The greenstone is typically a dense, fine-grained, green rock enclosing abundant small, angular fragments of slate (Capps, 1916).

There has been hand mining and small-scale suction dredging from the mouth of Peterson Creek upstream for about 4,000 feet. Concentrate samples from near the mouth of the Creek contained scheelite, chalcopyrite, native copper, and gold. Total production is less than 800 ounces (Cobb and Tysdal, 1980).

Alteration:**Age of mineralization:**

Quaternary.

Deposit model:

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

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

39a

Production Status: Yes; small**Site Status:** Inactive**Workings/exploration:**

A hand-sorted rock pile and suction dredge pit remain at the site. Placer mining has yielded less than 800 ounces of gold (Cobb and Tysdal, 1980). A concentrate sample from near the mouth of the creek contained

scheelite, chalcopyrite, native copper, and gold. Significant quantities of gold reportedly occur on bedrock and in bedrock fractures, but samples collected by the U.S. Bureau of Mines contained only trace amounts of gold (Jansons and others, 1984).

There are also underground workings that were driven by prospectors seeking lode gold (SR052). Two cabins associated with these workings are in the valley above the creek (Capps, 1916).

Production notes:

Production is estimated at less than 800 ounces of gold (Jasper, 1967). The U.S. Bureau of Mines reported only minor production (Jansons and others, 1984).

Reserves:

Additional comments:

References:

Capps, 1916; Berg and Cobb, 1967; Jasper, 1967; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-B); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Cobb and Tysdal, 1980

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 04/08/00

Site name(s): Unnamed (near Peterson Creek)**Site type:** Prospect**ARDF no.:** SR052**Latitude:** 60.8966**Quadrangle:** SR D-6**Longitude:** 149.0402**Location description and accuracy:**

This prospect is reported to be on the northeast side of Peterson Creek at an elevation of 1,100 feet about one-half mile from the Seward Highway. The map site is in the SE1/4 section 2, T. 9 N., R. 2 E., of the Seward Meridian. This is location 3 of Cobb and Richter (1972), location 3 of MacKevett and Holloway (1977), location 3 of Cobb and Tysdal (1980), and location S-318 of Jansons and others (1984). The location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Cu, Pb**Ore minerals:** Chalcopyrite, galena, gold, pyrite**Gangue minerals:** Calcite, quartz**Geologic description:**

Capps (1916) described the country rock near the prospect as a massive series of greenstones and greenstone tuffs, with small amounts of interbedded shales. The greenstones are generally a fine-grained dense green rock enclosing abundant angular slate fragments. Nelson and others (1985) mapped the bedrock in this area as undivided sedimentary strata of the Valdez Group of Late Cretaceous age.

The deposit consists of a 2-inch-wide quartz-calcite vein that strikes N60W and dips 75SW. The vein contains pyrite, galena, and chalcopyrite along with \$12.60 in gold (at \$20.67 per ounce) per ton. It is exposed on the northeast side of Peterson Creek at an elevation of 1,100 feet, where a 37-foot-long drift is driven on it. There are numerous other adits and drifts on the prospect, but there are few details on the geology and mineralization. Assay results from these adits ranged to as much as \$38.00 in gold (\$20.67 per ounce) per ton (Capps, 1916).

Alteration:**Age of mineralization:**

Cretaceous or younger; the vein cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Undetermined.**Site Status:** Inactive**Workings/exploration:**

A 37-foot-long drift at an elevation of 1,100 feet follows a 2-inch-wide quartz-calcite vein. Other adits and drifts are reported near 3,600 feet elevation. Assay values from \$12.60 to \$38.00 per ton of gold (at \$20.67 per ounce) are reported (Capps, 1916).

The U.S. Bureau of Mines visited the area in 1980 but did not locate any workings or collect any samples (Hoekzema and Sherman, 1983).

Production notes:

Reserves:

Additional comments:

Claims were staked in 1980 on the prospect. The U.S. Bureau of Mines described the deposit as a 3-foot-wide quartz vein (Jansons and others, 1984). They did not locate significant mineralization. Their description of the deposit differs considerably from that of Capps (1916).

References:

Capps, 1916; Berg and Cobb, 1967; Jasper, 1967; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Capps, 1916

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 04/08/00

Site name(s): Portage Pass**Site type:** Occurrence**ARDF no.:** SR053**Latitude:** 60.7678**Quadrangle:** SR D-5**Longitude:** 148.7812**Location description and accuracy:**

This occurrence is on the north side of Portage Pass in the E1/2 section 20, T. 8 N., R. 4 E., of the Seward Meridian. This is location 145 of Cobb and Tysdal (1980) and location S-181 of Jansons and others (1984). This location is accurate to within half a mile.

Commodities:**Main:** Cu**Other:****Ore minerals:****Gangue minerals:****Geologic description:**

This occurrence is known only as a copper lode discovered in 1912 (Johnson, 1916). No development is known to have been done on it. Mapping by Nelson and others (1985) indicates that the area is underlain by Valdez Group rocks of Late Cretaceous age. No further data is available.

Alteration:**Age of mineralization:**

Cretaceous or younger, on the basis of the age of the country rock.

Deposit model:**Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production Status:** None**Site Status:** Inactive**Workings/exploration:****Production notes:****Reserves:****Additional comments:****References:**

Johnson, 1916; Barnes, 1943; MacKevett and Holloway, 1977; Cobb and Tysdal, 1980; Jansons and others, 1984.

Primary reference: Johnson, 1916

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 12/9/99

Site name(s): King; Ernest King**Site type:** Occurrence**ARDF no.:** SR054**Latitude:** 60.7876**Quadrangle:** SR D-5**Longitude:** 148.7219**Location description and accuracy:**

This occurrence is located at an elevation of 700 feet, just east of the foot of Learnard Glacier. It is in the NE1/4 section 15, T. 8 N., R. 4 E., of the Seward Meridian. This is location 134 of Condon and Cass (1958), location 92 of MacKevett and Holloway (1977), location 143 of Cobb and Tysdal (1980), and location SR-176 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Cu, Pb, Sb**Ore minerals:** Arsenopyrite, chalcopyrite, galena, gold, pyrite**Gangue minerals:** Quartz**Geologic description:**

This occurrence is one of numerous quartz veins in the general area that are hosted in slate and sandstone of the Upper Cretaceous Valdez Group (Cobb and Tysdal, 1980). The vein is exposed for about 100 feet along strike and ranges in width from 3 to 12 inches. It is approximately parallel to the north to N20E strike of the host rock and has a vertical dip (Jansons and others, 1984). According to Johnson (1914[B 592-G, p. 234]), the vein contains arsenopyrite, pyrite, chalcopyrite, galena, and gold. Samples of float assayed by the U.S. Bureau of Mines contained trace amounts of antimony, gold, and silver (Hoekzema and Sherman, 1983).

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status:**Site Status:** Inactive**Workings/exploration:**

Samples of float assayed by the U.S. Bureau of Mines contained trace amounts of antimony, gold, and silver (Jansons and others, 1984).

Production notes:

Reserves:

Additional comments:

References:

Johnson, 1914 (B 592-G, p. 234); Barnes, 1943; Condon and Cass, 1958; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Johnson, 1914 (B 592-G, p. 234); Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 12/6/99

Site name(s): Unnamed (Cove Creek)**Site type:** Occurrence**ARDF no.:** SR055**Latitude:** 60.7778**Quadrangle:** SR D-5**Longitude:** 148.6640**Location description and accuracy:**

This occurrence is located just east of the town of Whitter along the road that leads to Cove Creek. It is in the SE1/4 section 13, T. 8 N., R. 4 E., of the Seward Meridian. This is location S-179 of Jansons and others (1984) and is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Cu**Ore minerals:** Chalcopyrite, gold, pyrite, pyrrhotite**Gangue minerals:** Quartz**Geologic description:**

This occurrence consists of two veins hosted in slate and quartzite of the Valdez Group of Late Cretaceous age (Jansons and others, 1984). One vein located in a road cut, is 2 to 3 inches wide and contains pyrite. The second vein crops out in the road bed; it is 4 to 16 inches wide and contains chalcopyrite, gold, pyrite, and pyrrhotite.

Six grab samples from the road cut assayed by the U.S. Bureau of Mines contained less than 1 ppm gold. One grab sample from the vein in the road bed contained 2.9 ppm gold (Hoekzema and Sherman, 1983).

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status:**Site Status:** Inactive**Workings/exploration:**

The U.S. Bureau of Mines sampled this occurrence in 1981 and collected seven grab samples. The samples contained from nil to 2.9 ppm gold and less than 1 ppm silver (Jansons and others, 1984).

Production notes:**Reserves:**

Additional comments:

This occurrence is within the road cut and is probably within the right-of-way of the road and hence is closed to mineral entry.

References:

Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: This report

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 03/07/00

Site name(s): Hillside; Banta; Sullivan**Site type:** Occurrence**ARDF no.:** SR056**Latitude:** 60.8182**Quadrangle:** SR D-5**Longitude:** 148.6611**Location description and accuracy:**

The occurrence at an elevation of 1,000 feet, in the NE1/4 section 1, T. 8 N., R. 4 E., of the Seward Meridian. It is situated near the head of the western tributary of Billings Creek. This is location 141 of Cobb and Tysdal (1980) and location S-174 of Jansons and others (1984). Cobb and Tysdal (1980) summarized the relevant references under the name Banta and Sullivan. This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Ag, Cu, Pb, Zn**Ore minerals:** Chalcopyrite, galena, gold, pyrrhotite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

This occurrence in graywacke of the Valdez Group of Late Cretaceous age. The deposit consists of a quartz vein that is exposed for 30 feet along strike (Jansons and others, 1984). The vein is as much as 3 feet wide at its widest and contains pyrrhotite, chalcopyrite, galena, sphalerite, and gold (Johnson, 1914 [B 592-G, p. 234]). No assay results are reported, and no workings are known.

Alteration:**Age of mineralization:**

Cretaceous or younger; the vein cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and singer, 1986; model 36a)

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

36a

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

The Hillside vein was located in 1913 (Johnson, 1914 [B 592-G, p. 234]). There is no record of any development work or assays. The U.S. Bureau of Mines reconnoitered the area from the air in 1982 and examined float from the stream draining this valley. They reported that numerous hematite-stained quartz veins occur along the valley walls, especially at the head of the valley near the glacier (Hoekzema and Sherman, 1983). Float rock in the area contains minor chalcopyrite and pyrrhotite (Jansons and others, 1984).

Production notes:

Reserves:

Additional comments:

References:

Johnson, 1914 (B 592-G, p. 234); Condon and Cass, 1958; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Johnson, 1914 (B 592-G, p. 234)

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 11/26/99

Site name(s): Unnamed (head of Upper Carmen River)**Site type:** Occurrence**ARDF no.:** SR057**Latitude:** 60.8507**Quadrangle:** SR D-5**Longitude:** 148.6376**Location description and accuracy:**

This occurrence is at an elevation of about 3,000 feet at the head of Upper Carmen River. It is in the SW1/4 section 19, T. 9 N., R 5 E., of the Seward Meridian. This is location S-173 of Jansons and others (1984) and is accurate to within a quarter of a mile.

Commodities:**Main:** Ag, Au**Other:****Ore minerals:** Arsenopyrite, chalcopyrite, gold, pyrite**Gangue minerals:** Quartz**Geologic description:**

The country rock at this occurrence is the highly folded, well-bedded Valdez Group slate and graywacke of Late Cretaceous age (Jansons and others, 1984). The deposit is a 3-foot-wide hematite-stained quartz vein that strikes N10E to N20E and dips vertically. The vein is exposed for about 20 feet and contains arsenopyrite, pyrite, chalcopyrite, and traces of gold and silver. A sample analyzed by the U.S. Bureau of Mines contained 92 ppb of gold and 52 ppb of silver (Hoekzema and Sherman, 1983). The deposit was discovered by the U.S. Bureau of Mines in 1982.

Alteration:**Age of mineralization:**

Cretaceous or younger; the vein cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

Production Status:**Site Status:** Probably inactive**Workings/exploration:**

This occurrence was discovered by the U.S. Bureau of Mines in 1982 (Hoekzema and Sherman, 1983). A grab sample analyzed by the U.S. Bureau of Mines contained trace amounts of gold and silver. No other workings or assay results are reported.

Production notes:

Reserves:

Additional comments:

References:

Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 11/17/99

Site name(s): Unnamed (Billings Glacier)**Site type:** Occurrence**ARDF no.:** SR058**Latitude:** 60.8467**Quadrangle:** SR D-5**Longitude:** 148.6016**Location description and accuracy:**

This occurrence is at an elevation of 400 feet on the west side of the terminus of the Billings Glacier. It is located in NE1/4 section 29, T. 9 N., R. 5 E., of the Seward Meridian. This is location S-170 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Quartz crystals**Other:****Ore minerals:** Quartz**Gangue minerals:** Cleavelandite, muscovite, unknown clay minerals**Geologic description:**

This occurrence consists of a 12-foot-wide pegmatite body in Eocene biotite-quartz monzonite (Hoekzema and Sherman, 1981). The pegmatite contains clay-filled vugs lined with euhedral, doubly terminated quartz crystals as much as 18 inches long. The quartz crystals are translucent and commonly coated with muscovite. The clay surrounding the quartz crystals was sampled and analyzed. It contained 1,000 ppm titanium, 10,000 ppm sodium, 20 ppm gallium, and 100 ppm vanadium (Hoekzema and Sherman, 1983).

Alteration:**Age of mineralization:**

Eocene or younger; the pegmatite cuts Eocene intrusive rock.

Deposit model:

Pegmatite

Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):**Production Status:** Undetermined.**Site Status:** Inactive**Workings/exploration:**

A small, hand-dug prospect pit has been excavated for the purpose of removing quartz crystals. The clay surrounding the quartz crystals was analyzed and contained 1,000 ppm titanium, 10,000 ppm sodium, 20 ppm gallium, and 100 ppm vanadium (Hoekzema and Sherman, 1983).

Production notes:

Some 300 pounds of specimen-grade quartz has been collected (Hoekzema and Sherman, 1983).

Reserves:

Additional comments:

The U.S. Bureau of Mines determined that this occurrence has a high mineral potential for specimen-grade quartz crystals.

References:

Hoekzema and Sherman, 1981; Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 10/15/00

Site name(s): Golden Giant; Collins, Fish and Barry**Site type:** Prospect**ARDF no.:** SR059**Latitude:** 60.8424**Quadrangle:** SR D-5**Longitude:** 148.5962**Location description and accuracy:**

This prospect is on the east bank of Billings Creek at the terminus of Billings Glacier in the E1/2 section 29, T. 9 N., R. 5 E., of the Seward Meridian. This is location 134 of Condon and Cass (1958), location 57 of Cobb and Richter (1972), location 89 of MacKevett and Holloway (1977), location 139 of Cobb and Tysdal (1980), and location S-171 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Pb, Zn**Ore minerals:** Arsenopyrite, galena, gold, sphalerite**Gangue minerals:** Ankerite?, calcite, quartz**Geologic description:**

This deposit consists of quartz veins in or near the sheared contacts between Tertiary dikes and Valdez Group slate of Late Cretaceous age (Cobb and Tysdal, 1980). The dikes have been traced for several thousand feet along strike and are from 1.5 to 5 feet wide (Hoekzema and Sherman, 1983). Some portions of the dikes are highly altered, but the alteration is not described. Fractures in the dikes are recemented by quartz-carbonate veins containing arsenopyrite and small amounts of sphalerite, galena, and gold. The veins vary greatly in thickness, the widest measuring 8 inches (Johnson, 1914 [B 592-G, p. 234]). One quartz vein contained high tungsten values.

Alteration:

Portions of the dikes are highly altered, but the alteration is not described.

Age of mineralization:

Tertiary or younger; the veins cut Tertiary dikes.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

The prospect was discovered in 1912, and minor surface exploration was done at that time (Johnson, 1914 [B592-G, p. 234]). The U.S. Bureau of Mines examined and sampled the area in 1979, 1980, and 1981

(Hoekzema and Sherman, 1983). One grab sample of quartz contained 700 ppm tungsten. Anomalous gold values were found in Billings Creek.

Production notes:

Reserves:

Additional comments:

The U.S. Bureau of Mines rated this prospect as having low mineral development potential (Jansons and others, 1984).

References:

Johnson, 1914 (B 592-G, p. 234); Johnson, 1918 (B 662-C, p. 183-192); Condon and Cass, 1958; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Johnson, 1914 (B 592-G, p. 234); Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 11/15/99

Site name(s): Bullion; Bullion Ledge**Site type:** Occurrence**ARDF no.:** SR060**Latitude:** 60.8358**Quadrangle:** SR D-5**Longitude:** 148.5954**Location description and accuracy:**

This occurrence is on the east side of Billings Creek about three-quarters of a mile from tidewater. This location is in the SE1/4 section 29, T. 9 N., R. 5 E., of the Seward Meridian and is accurate to within a quarter of a mile. This is location 135 of Condon and Cass (1958), location 56 of Cobb and Richter (1972), location 89 of MacKevett and Holloway (1977), location 140 of Cobb and Tysdal (1980), and location S-172 of Jansons and others (1984).

Commodities:**Main:** Au**Other:** Cu, Pb, Zn**Ore minerals:** Arsenopyrite, chalcopyrite, galena, gold, sphalerite**Gangue minerals:** Quartz**Geologic description:**

The occurrence is a 3,000- by 1,000-foot-zone of quartz veins in Valdez Group slate of Late Cretaceous age (Cobb and Tysdal, 1980). The veins contain arsenopyrite, chalcopyrite, galena, sphalerite, and gold. No assay results are reported, but Johnson (1914 [B 592-G, p. 233]) reported that the zone is of low grade, although fine free gold is visible in some of the veins.

Alteration:**Age of mineralization:**

Cretaceous or younger; quartz veins intrude rocks Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

No workings are reported. The U.S. Bureau of Mines searched for this occurrence but did not locate it (Hoekzema and Sherman, 1983). Instead, they examined a similar deposit about 0.5 to 0.75 mile north of the reported location of this occurrence.

Production notes:

Reserves:

Additional comments:

References:

Johnson, 1914 (B 592-G, p. 233); Condon and Cass, 1958; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984.

Primary reference: Johnson, 1914 (B 592-G, p. 233)

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 11/16/99

Site name(s): Unnamed (Billings Glacier)**Site type:** Occurrence**ARDF no.:** SR061**Latitude:** 60.8480**Quadrangle:** SR D-5**Longitude:** 148.5817**Location description and accuracy:**

This occurrence consists of two sites near the terminus of Billings Glacier, about a mile and a half north of Passage Canal. They are in the N1/2 sections 28 and 29, T. 9 N., R. 5 E., of the Seward Meridian. One is on the east side of Billings Glacier between 400 and 1,150 feet elevation; the other is along the west side of the glacier between 600 and 750 feet elevation. Due to the steep terrain and glacial ice, the sites are fairly inaccessible. This is location S-169 of Jansons and others (1984). This location is accurate to within half a mile.

Commodities:**Main:** Mo**Other:** Cu, W**Ore minerals:** Chalcopyrite, molybdenite, pyrite**Gangue minerals:** Quartz**Geologic description:**

The country rock in the area of this occurrence is Valdez Group sedimentary strata of Late Cretaceous age that has been thermally silicified at and near the contact with a biotite quartz monzonite stock of probable mid-Tertiary age (Hoekzema and Sherman, 1983; Nelson and others, 1985). The stock is locally exposed over an area measuring roughly 2,000 by 2,500 feet but much of the area is covered by ice. Its age has not been determined, but it probably correlates with the nearby Passage Canal pluton, which has been dated at 36.6 +/- 1 million years (Hoekzema and Sherman, 1983). Some of the metamorphosed strata are stretched, boudinaged, and brecciated.

Alteration in the stocks associated with the mineralization consists of an increased quartz content, sericitization of potassic feldspar, destruction of biotite, and a lighter color and coarser texture (Hoekzema and Sherman, 1983). Sulfide minerals found to date are restricted to the southern side of the stock within 300 feet of the contact and between 400 and 1,500 feet elevation.

Pyrite, molybdenite, and chalcopyrite are the most abundant sulfides. Molybdenite occurs as disseminated masses as much as 1 inch across in stockwork veins, as disseminated grains within the stock, and as a fracture coating on joints near the contact. Pyrite and chalcopyrite mostly form veinlets and disseminated grains in the quartz monzonite (Hoekzema and Sherman, 1983).

The U.S. Bureau of Mines discovered this occurrence in 1981; they collected 28 chip and grab samples (Hoekzema and Sherman, 1983). Molybdenite values ranged from less than 2 ppm to 2,000 ppm; the highest values were in visibly altered granite (2,000 ppm) and in otherwise undescribed granite (1,450 ppm). Copper values ranged from 0 to 150 ppm; the highest values were in quartz veins in granite. Other anomalous metal values included 8,600 ppm arsenic in a pegmatite dike and 1,416 ppm tungsten in granite (Hoekzema and Sherman, 1983).

Alteration:

Alteration of the host rock results in a lighter hue, due to increased quartz content, sericitization of potassic feldspar, destruction of biotite, and generally coarser texture (Hoekzema and Sherman, 1983).

Age of mineralization:

Probably mid-Tertiary, based on presumed correlation with a nearby isotopically dated (36.6+/- million years) pluton.

Deposit model:

Porphyry Mo (Cox and Singer, 1986; model 21b)

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

21b

Production Status: None

Site Status: Probably inactive

Workings/exploration:

No workings are present. The U.S. Bureau of Mines discovered this deposit in 1981 and collected 28 samples (Hoekzema and Sherman, 1983). Molybdenite values ranged from less than 2 ppm to 2,000 ppm; the highest values were in visibly altered granite (2,000 ppm) and otherwise undescribed granite (1,450 ppm). Copper values ranged from 0 to 150 ppm; the highest values were in quartz veins in granite. Other anomalous metal values included 8,600 ppm arsenic in a pegmatite dike and 1,416 ppm tungsten in granite.

Production notes:**Reserves:**

The U.S. Bureau of Mines estimated a resource of 37,500,000 tons of ore containing less than 0.1 percent molybdenum (Hoekzema and Sherman, 1983).

Additional comments:**References:**

Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/12/00

Site name(s): Unnamed (near Emerald Bay)**Site type:** Occurrence**ARDF no.:** SR062**Latitude:** 60.8048**Quadrangle:** SR D-5**Longitude:** 148.5669**Location description and accuracy:**

This occurrence is located in the NW1/4 section 10, T. 8 N., R. 5 E., of the Seward Meridian. It is on the south side of Passage Canal about one-third of a mile east of the mouth of Emerald Bay. This is location S-177 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold, pyrite, pyrrhotite**Gangue minerals:** Quartz**Geologic description:**

This occurrence is in rocks of the Valdez Group of Late Cretaceous age. It consists of a 2- to 6-inch-wide quartz vein that contains pyrite, pyrrhotite, and traces of gold. The vein was discovered and sampled by the U.S. Bureau of Mines in 1981 (Jansons and others, 1984). Two samples contained traces of gold and base metals.

Alteration:**Age of mineralization:**

Cretaceous or younger; the vein intrudes rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

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

This occurrence was discovered by the U.S. Bureau of Mines in 1981 (Jansons and others, 1984). Two grab samples were collected that contained traces of gold and base metals.

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

References:

Jansons and others, 1984.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 9/16/99

Site name(s): Singletary-O'Neil; Singleton-O'Neil**Site type:** Prospect**ARDF no.:** SR063**Latitude:** 60.7791**Quadrangle:** SR D-5**Longitude:** 148.5512**Location description and accuracy:**

This prospect is located at an elevation of about 500 feet, on the southeast side of the ridge separating Shotgun Cove from Blackstone Bay. It is in the SE 1/4 section 15, T. 8 N., R 5 E., of the Seward Meridian. This is location 126 of Cobb and Tysdal (1980) and location S-178 of Jansons and others (1984). Cobb and Tysdal (1980) summarized the relevant references under the name Singletary-O'Neil. This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:** Quartz**Geologic description:**

This occurrence consists of several thin, auriferous quartz veins in sheared siltstone and sandstone of the Valdez Group of Late Cretaceous age (Cobb and Tysdal, 1980). The shear zone is probably part of the Port Wells fault system, which generally strikes northeast and dips steeply northwest (Hoekzema and Sherman, 1983). No assays are reported.

Alteration:**Age of mineralization:**

Oligocene or younger; the veins are probably associated with the Port Wells fault system, which cuts Oligocene intrusive rocks northeast of this occurrence.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

Some work reported in 1912 (Brooks, 1913). No assay results are reported.

Production notes:**Reserves:**

Additional comments:

References:

Brooks, 1913; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Cobb and Tysdal, 1980

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 12/7/99

Site name(s): Portage Bay mine; Portage Gold mines; Portage; Viette**Site type:** Mine**ARDF no.:** SR064**Latitude:** 60.8641**Quadrangle:** SR D-5**Longitude:** 148.5348**Location description and accuracy:**

The mine workings are located at an elevation of 1,500 feet at the head of the valley opening into Poe Bay, in the SE1/4 section 15, T. 9 N., R. 5 E., of the Seward Meridian. The location shown on the Seward D-5 1:63,000-scale map is where the mill site and camp were located. This is location 131 of Condon and Cass (1958), location 58 of Cobb and Richter (1972), location 88 of MacKevett and Holloway (1977), location 138 of Cobb and Tysdal (1980), and location S-168 of Jansons and others (1984). Cobb and Tysdal (1980) summarized the relevant references under the name of Portage Bay Mine Co. This location is accurate to within 300 feet.

Commodities:**Main:** Au**Other:** Ag, Cu, Pb, Zn**Ore minerals:** Chalcopyrite, galena, gold, pyrite, pyrrhotite, sphalerite**Gangue minerals:** Graphite, quartz**Geologic description:**

The country rocks at the Portage Bay mine (labeled Portage Mine on the map) are slate of the Valdez Group of Late Cretaceous age and Oligocene granite dikes (Cobb and Tysdal, 1980). The deposit consists of sulfide-bearing, banded quartz veins in a shear zone at the contact between the slate and the granite. In addition to gold, the veins contain as much as about 1 percent sulfides, including pyrite, pyrrhotite, chalcopyrite, galena, and sphalerite. Graphite inclusions impart a banding to the veins. Spotty gold values occur both in the quartz and along graphitic bands (Roehm, 1936 [PE 95-5]). The principal vein is exposed for 150 feet, averages about 12 inches wide, strikes N60E, and dips 60NW. It is reported to average 1.5 ounces of gold per ton (Roehm, 1936 [PE 95-5]).

The workings consist of 278 feet of crosscut and 345 feet of drift with 220 feet of stopes and 240 feet of raises. One raise, 160 feet in length, reaches the surface at about 1,700 feet above sea level.

Alteration:

According to Roehm (1936 [PE 95-5]), the dikes intruding the slate are altered to a greenish color, but he did not identify the type of alteration.

Age of mineralization:

Oligocene or younger; the veins cut Oligocene intrusive rock.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Yes; small

Site Status: Probably inactive

Workings/exploration:

The workings consist of 278 feet of crosscut and 345 feet of drift with 220 feet of stopes and 240 feet of raises. One raise, 160 feet in length, reaches the surface at about 1,700 feet elevation. The equipment used in mining consisted of a type 40 Ingersoll-Rand compressor that delivered 150 cubic feet of air per second and Gardner-Denver drills with detachable bits (Roehm, 1936 [PE 95-5]).

In 1980, the U.S. Bureau of Mines collected 13 chip, channel, and grab samples. Their assays ranged from a trace to 0.6 ounce of gold per ton and from a trace to 0.16 ounce of silver per ton (Jansons and others, 1984). According to company records, there are reserves of 10,000 tons of ore with a grade of 0.6 ounce of gold per ton (Hoekzema and Sherman, 1983).

Production notes:

Total recorded production is 490 ounces of gold and 60 ounces of silver (Jansons and others, 1984).

Reserves:

Total resources indicated by company records are 10,000 tons of ore containing 0.6 ounce per ton gold (Steiner, 1965).

Additional comments:

This mine location shown on the Seward D-5 USGS topographic map is the site of the mill and support buildings.

References:

Roehm, 1936 (PE 95-5); Smith, 1937; Smith, 1938; Smith, 1939 (B 910-A, p. 27); Smith, 1941 (B 926-A); Smith, 1942 (B 933-A); Barnes, 1943; Condon and Cass, 1958; Steiner, 1965; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Roehm, 1936 (PE 95-5)

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 05/12/00

Site name(s): Unnamed (near Poe Bay)**Site type:** Occurrence**ARDF no.:** SR065**Latitude:** 60.8480**Quadrangle:** SR D-5**Longitude:** 148.5028**Location description and accuracy:**

This occurrence is in the NE1/4 section 26, T. 9 N., R. 5 E., of the Seward Meridian. It is at an elevation of 800 feet on the east side of Seth Glacier valley about a mile north of the head of Poe Bay. This is location on S-167 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Ag, Pb**Ore minerals:** Galena, gold, pyrite**Gangue minerals:** Quartz**Geologic description:**

This occurrence is in sedimentary rocks of the Valdez Group of Late Cretaceous age (Jansons and others, 1984). It consists of a 3-inch-wide quartz vein containing considerable galena and pyrite. No other information or assay results are reported.

Alteration:**Age of mineralization:**

Cretaceous or younger; the vein cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

Production Status: None**Site Status:** Probably inactive**Workings/exploration:**

This occurrence was discovered by Kurt Stuwe and reported to the U.S. Bureau of Mines in 1982 (Hoekzma and Sherman, 1983). No assay results have been reported.

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

References:

Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 7/30/00

Site name(s): Unnamed (near Harriman Glacier)**Site type:** Occurrence**ARDF no.:** SR066**Latitude:** 60.9746**Quadrangle:** SR D-4**Longitude:** 148.4906**Location description and accuracy:**

The occurrence is located on the north side of Harriman Glacier at an elevation of about 1,500 feet. It is in the N1/2 section 12, T. 10 N., R. 5 E., of the Seward Meridian. This is location S-142 of Jansons and others (1984). This location is accurate to within half a mile.

Commodities:**Main:** Au**Other:** Pb**Ore minerals:** Galena, gold, pyrite**Gangue minerals:** Quartz**Geologic description:**

The occurrence is hosted in carbonaceous, pyritiferous slate and hematite-stained conglomerate (Hoekzema and Sherman, 1983) of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). The deposit is in a shear zone and consists of pyrite- and galena-bearing quartz veins and stockwork veinlets. The largest vein examined strikes N55W and dips steeply southwest. The conglomerate locally contains clasts as much as 12 inches in diameter that are extremely fractured and healed with quartz veins. A single grab sample contained 0.03 ppm gold (Hoekzema and Sherman, 1983).

Alteration:**Age of mineralization:**

Cretaceous or younger; the vein is in a shear zone that cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

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

The occurrence was discovered by the U.S. Bureau of Mines in 1981 (Hoekzema and Sherman, 1983). A single grab sample contained 0.03 ppm gold.

Production notes:

Reserves:

Additional comments:

References:

Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/21/00

Site name(s): Lone Star; Hamilton; Pedersen**Site type:** Prospect**ARDF no.:** SR067**Latitude:** 60.8437**Quadrangle:** SR D-4**Longitude:** 148.4728**Location description and accuracy:**

This prospect is at an elevation of about 1,000 feet, in the head of a small cirque about 2 miles northwest of Logging Camp Bay. It is in the NE1/4 section 25, T. 9 N., R. 5 E., of the Seward Meridian. This is location 87 of MacKevett and Holloway (1977), location 137 of Cobb and Tysdal (1980), and location S-166 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:** Quartz**Geologic description:**

The country rocks in this area are undivided sedimentary strata of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). The deposit consists of an auriferous quartz vein. The strike, dip, tenor, and thickness of the vein are not reported. A 100-foot adit was driven into the host rock, and a 50-foot crosscut followed the vein (Johnson, 1916).

Alteration:**Age of mineralization:**

Cretaceous or younger; the vein cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

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

Workings consist of a single 100-foot crosscut with a 50-foot drift. No assay results have been reported. The U.S. Bureau of Mines searched for but did not locate the project (Jansons and others, 1984).

Production notes:**Reserves:**

Additional comments:

References:

Johnson, 1916; Johnson, 1918 (B 662-C, p. 183-192); MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Nelson and others, 1985.

Primary reference: Johnson, 1916

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 9/16/00

Site name(s): Skypilot; Skypilot Ledge**Site type:** Occurrence**ARDF no.:** SR068**Latitude:** 60.9831**Quadrangle:** SR D-4**Longitude:** 148.4501**Location description and accuracy:**

The occurrence is at an elevation of about 600 feet on the northwest side of Harriman Fiord, near the toe of Harriman Glacier. It is in the SE1/4 section 6, T. 10 N., R. 6 E., of the Seward Meridian. This is location 122 of Condon and Cass (1958), location 65 of Cobb and Richter (1972), location 79 of MacKevett and Holloway (1977), location 124 of Cobb and Tysdal (1980), and location S-154 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:** Quartz**Geologic description:**

The occurrence consists of a 2- to 5-foot-wide quartz vein containing fault gouge. It is hosted in Valdez Group conglomerate and slate of Late Cretaceous age (Cobb and Tysdal, 1980). The vein strikes northwest and dips vertically and is traceable for 450 to 500 feet along strike. When crushed, the vein is said to pan gold (Johnson, 1914 [B 592-G, p. 229]). No other information is available.

Alteration:**Age of mineralization:**

Cretaceous or younger; the vein cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

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

There are no workings or assay results reported for this occurrence. Johnson (1914 [B 592-G, p. 229]) reports that the crushed ore pans free gold.

The U.S. Bureau of Mines searched for this occurrence in 1981 but did not locate it (Hoekzema and Sherman, 1983). They examined similar veins about 1.5 miles to the southwest. No samples were collected.

Production notes:

Reserves:

Additional comments:

References:

Johnson, 1914 (B 592-G, p. 229); Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Mitchell, 1979; Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Johnson, 1914 (B 592-G, p. 195-236)

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 03/09/00

Site name(s): Unnamed (Passage Canal)**Site type:** Occurrence**ARDF no.:** SR069**Latitude:** 60.8325**Quadrangle:** SR D-4**Longitude:** 148.4457**Location description and accuracy:**

This occurrence is located near high tide level on the north side of Passage Canal, approximately a half-mile west of Logging Camp Bay. It is located in the NE1/4 section 31, T. 9 N., R. 6 E., of the Seward Meridian. This is location S-165 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au, Mo**Other:****Ore minerals:** Gold, molybdenite**Gangue minerals:** Feldspar, mica, quartz**Geologic description:**

This deposit consists of a gold- and molybdenite-bearing pegmatite vein hosted in the Passage Canal pluton. Lanphere (1966) has dated the Passage Canal pluton at 36.6 million years (Oligocene). The occurrence was discovered by the U.S. Bureau of Mines in 1981 (Hoekzema and Sherman, 1983). One grab sample of the felsic pluton contained 2.5 ppm gold, 150 ppm molybdenum, and 1,000 ppm bismuth.

Alteration:**Age of mineralization:**

Oligocene or younger, the age of the host rock.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

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

The occurrence was discovered in 1981 by the U.S. Bureau of Mines. Of three samples collected, one sample of felsic pluton contained 2.5 ppm gold, 150 ppm molybdenum, and 1,000 ppm bismuth.

Production notes:**Reserves:**

Additional comments:

References:

Lanphere, 1966; Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 9/16/00

Site name(s): Dunklee and Reilly; Black Bear; Yellow Horse**Site type:** Prospect**ARDF no.:** SR070**Latitude:** 60.8744**Quadrangle:** SR D-4**Longitude:** 148.4052**Location description and accuracy:**

The prospect is located on the north side of the Pigot Glacier valley at an elevation of 700 feet elevation. It is in the NW1/4 section 16, T. 9 N., R. 6 E., of the Seward Meridian. This is location 129 of Condon and Cass (1958), location 60 of Cobb and Richter (1972), location 86 of MacKevett and Holloway (1977), location 136 of Cobb and Tysdal (1980), and location S-164 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Cu, Pb, Zn**Ore minerals:** Arsenopyrite, chalcopyrite, galena, gold, pyrrhotite, sphalerite**Gangue minerals:** Calcite, quartz**Geologic description:**

The country rock at this prospect is an argillite of the Valdez Group of Late Cretaceous age that is cut by felsic dikes of probable Eocene age (Nelson and others, 1985). The prospect consists of a 5-foot adit along a single quartz vein in a small well-defined fault that strikes S63W dip 60N. The vein is traceable for about 250 feet along strike and is from 1 to 24 inches wide with an average width of 6 inches (Johnson, 1914 [B 592-G, p. 233]). The vein consists of quartz and calcite, along with chalcopyrite, arsenopyrite, galena, sphalerite, and gold. The vein is banded parallel to its walls, and some gouge is present.

Alteration:**Age of mineralization:**

Eocene or younger; the fault and the vein cut Eocene dikes.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

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

The prospect was discovered in 1913. Development that summer included surface stripping and a 5-foot adit (Johnson, 1914 [B 592-g, p. 233]). No assay results are reported.

The U.S. Bureau of Mines searched for the prospect in 1981 but did not locate it (Hoekzema and Sherman, 1983).

Production notes:

Reserves:

Additional comments:

References:

Johnson, 1914 (B 592-G, p. 233); Johnson, 1918 (B 662-C); Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Johnson, 1914 (B 592-G, p. 233)

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 8/20/00

Site name(s): Singletary-O'Neill**Site type:** Prospect**ARDF no.:** SR071**Latitude:** 60.9725**Quadrangle:** SR D-4**Longitude:** 148.3928**Location description and accuracy:**

The prospect is at an elevation of 900 to 1,000 feet on the south side of Harriman Fiord, about 1.5 miles northeast from the toe of Harriman Glacier. It is located in the NE1/4 section 9, T. 10 N., R. 6 E., of the Seward Meridian. The vein is exposed at 930 feet elevation. This is location 80 of MacKevett and Holloway (1977), location 126 of Cobb and Tysdal (1980), and location S-153 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Ag, Au**Other:** Pb, Zn**Ore minerals:** Arsenopyrite, galena, gold, pyrite, sphalerite**Gangue minerals:** Calcite, quartz**Geologic description:**

The prospect is hosted in sheared sandstone and slate of the Upper Cretaceous Valdez Group (Cobb and Tysdal, 1980). Felsic dikes occur in the area (Hoekzema and Sherman, 1983). The mineralization consists of a series of subparallel, locally banded quartz-calcite veins as much as 5 feet wide that generally strike northwest and dip southwest (Hoekzema and Sherman, 1983). The veins contain arsenopyrite, galena, pyrite, sphalerite, and gold. Sulfides occur as podiform masses and disseminated grains in the veins and in the shear gouge.

The workings on the prospect consist of an open cut about 550 feet long and minor stripping (Hoekzema and Sherman, 1983). The U.S. Bureau of Mines sampled this prospect in 1981 and collected four chip samples that ranged in width from 38 to 60 inches and one grab sample. The samples contained 0.03 to 4.9 ppm gold. The best gold values (4.9 ppm gold) occurred in the 38-inch-wide chip sample, which was described as a quartz vein containing no visible sulfides (Hoekzema and Sherman, 1983).

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cuts rocks of the Valdez Group of Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status: None**Site Status:** Inactive

Workings/exploration:

The workings on the prospect consist of an open cut about 550 feet long and minor surface stripping (Hoekzema and Sherman, 1983).

The U.S. Bureau of Mines sampled this prospect in 1981 and collected 4 chip samples that ranged in width from 38 to 60 inches and one grab sample. The samples contained 0.03 ppm to 4.9 ppm gold. The best gold values (4.9 ppm gold) occurred in the 38-inch-wide chip sample, which was described as quartz vein containing no visible sulfides (Hoekzema and Sherman, 1983).

Production notes:**Reserves:**

The U.S. Bureau of Mines estimated a geologic resource of 1,250 tons of ore having a grade of 0.1 ounce of gold per ton and 0.1 ounce of silver per ton (Hoekzema and Sherman, 1983).

Additional comments:**References:**

Brooks, 1913; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Brooks, 1913

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 03/09/00

Site name(s): Sweepstake; Sweepstake Mining Co.**Site type:** Mine**ARDF no.:** SR072**Latitude:** 60.9771**Quadrangle:** SR D-4**Longitude:** 148.3860**Location description and accuracy:**

The Sweepstake mine portal is at an elevation of 550 feet above the southeast shore of Harriman Fiord. The mine is located in the NE1/4 section 9, T. 10 N., R. 6 E., of the Seward Meridian. This is location 125 of Tysdal (1978 [MF-880-A]) and location S-152 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Cu, Pb, Sb, Zn**Ore minerals:** Arsenopyrite, chalcopyrite, galena, gold, pyrite, sphalerite, stibnite**Gangue minerals:** Calcite, quartz**Geologic description:**

The host rock at the Sweepstake mine is graywacke and slate of the Valdez Group of Late Cretaceous age (Nelson and others, 1985), which is cut by numerous Eocene felsic dikes from 6 to 48 inches thick (Johnson 1914 [B 592-G, p. 229]).

The mineralization consists of a quartz-carbonate vein carrying arsenopyrite, chalcopyrite, galena, pyrite, sphalerite, stibnite, and gold. The vein is well exposed for about 150 feet and varies in width from 1 to 5 feet. It strikes east and dips 85N at its upper end and strikes N84W and has a vertical dip at the lower exposure. Near the portal, the vein thins to stringers of quartz-carbonate that cement shattered dike rock (Johnson, 1914 [B 592-G, p. 229]).

The workings consist of a 170-foot adit, and surface trenches. A 1,800-foot tramway connects the mine to a two-stamp mill near tidewater (Hoekzema and Sherman, 1983).

The U.S. Bureau of Mines collected six chip and grab samples from the mine and dump that contained from trace to 0.08 ounce of gold per ton and from 0.01 to 0.09 ounce of silver per ton. The best sample was a 14-inch chip sample from about 75 feet away from the mouth of the portal. This sample consisted of a quartz-carbonate vein stained by malachite (Hoekzema and Sherman, 1983).

Alteration:**Age of mineralization:**

Eocene or younger; the vein cuts Eocene felsic dikes.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Yes; small

Site Status: Inactive

Workings/exploration:

The workings consist of a 170 foot adit, and surface trenches. Improvements include a 1,800-foot tramway and a two-stamp mill. Neither the mill nor tramway was ever used (Johnson, 1914 [B 592-G, p. 229]). In 1937, V. Hackett and E. Fultz erected a Straub Mill on the property and milled 25 tons of ore with an estimated grade of 0.33 to 0.43 ounce of gold per ton. The mine was abandoned due to the the low tenor of the ore (Roehm, 1936 [IR195-13]).

Production notes:

Total estimated production is 25 tons of ore having an estimated grade of 0.33 to 0.43 ounce of gold per ton gold (Roehm, 1936 [IR195-13]). There was no record of any other production (Jansons and others, 1984).

Reserves:

The U.S. Bureau of Mines estimates a resource of 2,325 tons grading 0.01 ounce of gold per ton (Hoekzema and Sherman, 1983).

Additional comments:

References:

Johnson, 1914 (B 592-G, p. 228-229); Smith, 1917 (BMB 142); Smith, 1917 (BMB 153); Johnson, 1919 (B 692-C, p. 150); Smith, 1942 (B 933-A); Roehm, 1936 (IR 195-13); Tysdal, 1978 (MF-880-A); Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 03/09/00

Site name(s): Lansing; Hidden Treasure; Homestake 1-4; Blue Fox group**Site type:** Mine**ARDF no.:** SR073**Latitude:** 60.8721**Quadrangle:** SR D-4**Longitude:** 148.3796**Location description and accuracy:**

The mine is located 2,000 feet inland from the head of Pigot Bay between 400 and 700 feet elevation. It is located in the NW 1/4 section 15, T. 9 N., R. 6 E., of the Seward Meridian. The Lansing mine symbol is mislocated on the USGS topographic map. This is location 128 of Condon and Cass (1958), location 61 of Cobb and Richter (1972), location 85 of MacKevett and Holloway (1977), location 135 of Cobb and Tysdal (1980), and S-164 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Ag, Pb, Zn**Ore minerals:** Arsenopyrite, galena, gold, pyrite, sphalerite**Gangue minerals:** Calcite, chlorite, graphite, quartz, sericite**Geologic description:**

The bedrock in the mine area is phyllite and slate of the Valdez Group of Late Cretaceous age. The rocks have been deformed by the Port Wells fault, which is a northeast-trending regional shear zone (Nelson and others, 1985). Several boulders of felsic igneous rocks occur near the mine, but there is no evidence that they are related to the deposit.

The deposit consists of several quartz veins that locally contain varying amounts of arsenopyrite, pyrite, galena, sphalerite, and gold. Other gangue minerals locally include calcite, chlorite, and graphite. The principal veins are numbered 1-3. Mining has occurred on the No. 1 vein, which crops out at about 550 feet elevation, and on the No. 2 vein, which is only exposed in the workings. The No. 3 vein, exposed at an elevation of 1,600 feet, is on strike with the No. 1 vein; it may be an extension of the No. 1 vein (Roehm, 1938 [PE 95-12]). In the main drift, the No. 1 vein forms discontinuous lenses and pods. One lens in the main drift was 50 feet in length and ranged in width from a few inches to 18 inches. The quartz is banded, folded, and curled and contains graphite bands that carry the greatest gold values (Roehm, 1938). Roehm reported that this lens assayed \$43 in gold per ton in the drift and \$100.00 in gold per ton on the surface (gold at \$20.67 per ounce). Roehm (1938) examined thin sections of this vein and identified two distinct generations of quartz. The early quartz is milky white and forms large crystals having distinct faces. The later quartz is bluish and finer grained and shows indistinct crystal faces; it also contains abundant wallrock inclusions that have a curled appearance. Associated with the younger quartz are calcite and chlorite and extremely fine grained sulfides including arsenopyrite, galena, and sphalerite, along with a little gold (Roehm, 1938).

The No. 2 vein was discovered when the main adit was being driven and consists of 6 to 8 inches of quartz. This vein is not exposed on the surface. A 25-foot drift was driven on this vein, which strikes N50E and dips 60NW. The U.S. Bureau of Mines sampled this vein in 1979 and reported no detectable gold or silver (Hoekzema and Sherman, 1983).

The No. 3 vein is exposed at 1,600 feet above sea level and is intermittently exposed for about 700 feet. The general strike of the vein is northeast, and it dips 50 to 60NW. The vein is 6 to 10 inches wide; auriferous sulfides occur as pods and kidneys. Average values of \$100 of gold per ton were reported (gold at \$20.67 per ounce). A 140-foot-long crosscut was driven below the vein, but whether it intersected the vein is not reported (Roehm, 1938).

The recorded production from all the workings is 81 ounces of gold and 24 ounces of silver (Jansons and others, 1984).

Alteration:

Roehm (1938 [PE 95-12]) reported that the country rock is considerably altered but did not describe whether the alteration is mechanical due to tectonics or hydrothermal due to veining.

Age of mineralization:

Tertiary or younger; the veins are associated with the Port Wells fault, which northeast of the mine cuts Tertiary granitic rocks.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Yes; small

Site Status: Inactive

Workings/exploration:

The working on the various veins are as follows: A 90-foot crosscut intersects the No.1 vein, which was followed by drifting along strike for 110 feet. This drift was stoped upward for 5 to 10 feet. The No. 2 vein was followed by drifting for 30 feet. A crosscut was started to intersect the No. 3 vein, but not driven far enough to intersect it. There are also numerous open cuts and shallow shafts on the No. 1 and No. 3 veins (Hoekzema and Sherman, 1983).

During the 1930's, Superior Mines, Inc. constructed a small mill complex below the workings. It consisted of a crusher, 3 x 4 ball mill, hydraulic classifier, flotation cells, and a Gibson amalgamator. The ore was transported to the mill by a jig-back aerial tram. Power was supplied to the mill by a 20-horsepower Fairbanks-Morse diesel motor. The mine was powered by a R40 Ingersoll-Rand 3-stage compressor run by a 40-horsepower Fairbanks-Morse diesel motor (Roehm, 1938 [PE 95-12]).

During 1979, the U.S. Bureau of Mines visited the mine and collected eight grab samples from the workings. These samples assayed from 0 to 3.9 ppm gold, the best values coming from the stope on the No. 1 vein.

Production notes:

Recorded production from this property is 81 ounces of gold and 24 ounces of silver (Jansons and others, 1984).

Reserves:

The U.S. Bureau of Mines estimated a geologic resource of 500 tons of ore with a grade of 0.1 ounce of gold per ton and 0.02 ounce of silver per ton (Hoekzema and Sherman, 1983).

Additional comments:

The recorded production from this mine shows a gold-to-silver ratio of 3.4:1, whereas assay results are closer to 10:1. Most of the mines in this district also show gold-to-silver ratio of about 10:1.

References:

Johnson, 1918 (B 662-C, p. 183-192); Roehm, 1938 (PE 95-12); Condon and Cass, 1958; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Roehm, 1938 (PE 95-12)

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 02/22/00

Site name(s): Tomboy Ledge**Site type:** Mine**ARDF no.:** SR074**Latitude:** 60.8736**Quadrangle:** SR D-4**Longitude:** 148.3606**Location description and accuracy:**

The mine is near the top of the divide that separates Pigot Bay and Pirate Cove. The adits are on the Pigot Bay side of the ridge, in the NE1/4 section 15, T. 9 N., R. 6 E., of the Seward Meridian. This is location 127 of Condon and Cass (1958), location 62 of Cobb and Richter (1972), location 85 of MacKevett and Holloway (1977), location 134 of Cobb and Tysdal (1980), and location S-162 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Ag, Cu, Pb**Ore minerals:** Arsenopyrite, chalcopyrite, galena, gold, pyrite**Gangue minerals:** Carbonate, quartz**Geologic description:**

The deposit at the Tomboy Ledge mine consists of a single 1- to 28-inch-wide quartz-carbonate vein in a shear zone that strikes N35E and dips 65W. The host rock is slate and siltstone of the Valdez Group of Late Cretaceous age, which here strikes N20E and dips 65NW (Nelson and others, 1985). Although not directly associated with the mineralization, numerous felsic dikes occur in the area (Hoekzema and Sherman, 1983). The vein contains arsenopyrite, pyrite, chalcopyrite, galena, and gold.

Johnson (1916) reported workings consisting of a 40-foot adit with a 20-foot winze, and a 35-foot adit. The U.S. Bureau of Mines found a 105-foot adit (crosscut) with 40 feet of drift (Jansons and others, 1984).

The U.S. Bureau of Mines collected seven chip samples that contained a trace to 1.05 ounces of gold per ton and a trace to 0.02 ounce of silver per ton. They estimated reserves of 300 tons of ore containing 0.3 ounce of gold per ton and 0.06 ounce of silver per ton.

Recorded production is 219 ounces of gold and 9 ounces of silver (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Cretaceous or younger; the vein cuts slate and siltstone of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Yes; small**Site Status:** Inactive

Workings/exploration:

The deposit at this mine was discovered in 1912 by I. Westburg and J. Domenzet. In 1914 they drove a 40-foot adit with a 25-foot winze and a 35-foot adit (Johnson, 1914 [B 592-G, p. 233]). In 1982, an adit at 2,000 feet elevation was open (Jansons and others, 1984).

The U.S. Bureau of Mines visited the mine in 1981 (Hoekzema and Sherman, 1983). They mapped and sampled the adit located at 2,000 feet elevation. They collected a total of seven chip samples, three from the adit, and four from elsewhere on the property. The samples contained a trace to 1.05 ounces of gold per ton and a trace to 0.02 ounce of silver per ton.

Production notes:

Total recorded production is 219 ounces of gold and 9 ounces of silver (Jansons and others, 1984).

Reserves:

The U.S. Bureau of Mines estimated a resource of 300 tons of ore having a grade of 0.3 ounce of gold per ton and 0.06 ounce of silver per ton (Jansons and others, 1984).

Additional comments:**References:**

Johnson, 1914 (B 592-G, p. 233); Johnson, 1915; Johnson, 1919 (B 692-C, p. 150); Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Johnson, 1914 (B 592-G, p. 233)

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 03/09/00

Site name(s): Unnamed (near Wedge Glacier)**Site type:** Occurrence**ARDF no.:** SR075**Latitude:** 60.9655**Quadrangle:** SR D-4**Longitude:** 148.3571**Location description and accuracy:**

This occurrence is located at an elevation of 2,100 feet, in the SE1/4 section 10, T. 10 N., R. 6 E., of the Seward Meridian. It is on the south side of hill 2350 about a half-mile east of Wedge Glacier. This is location 124e of Condon and Cass (1958), location 67 of Cobb and Richter (1972), and location 127 Cobb and Tysdal (1980). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Pb**Other:****Ore minerals:** Galena**Gangue minerals:****Geologic description:**

The occurrence is a galena-bearing quartz(?) vein in sedimentary rock of the Upper Cretaceous Valdez Group (Cobb and Tysdal, 1980). No other information is available.

Alteration:**Age of mineralization:**

Cretaceous or younger; the vein cuts rocks of the Valdez Group of Cretaceous age.

Deposit model:

Polymetallic vein (Cox and Singer, 1986; model 22c)

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

22c

Production Status: None**Site Status:** Inactive**Workings/exploration:****Production notes:****Reserves:****Additional comments:****References:**

Johnson, 1919 (B 692-C, p. 175-176); Condon and Cass, 1958; Cobb and Richter, 1972; Tysdal, 1978 (MF-

880-A); Cobb and Tysdal, 1980.

Primary reference: Johnson, 1919 (B-692-C, p. 175-176); Cobb and Tysdal, 1980

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 03/09/00

Site name(s): Mineral King; Herman and Eaton; Bettles Bay; Herman-Everman; Merrill**Site type:** Mine**ARDF no.:** SR076**Latitude:** 60.9478**Quadrangle:** SR D-4**Longitude:** 148.3482**Location description and accuracy:**

The mine is located in the NW1/4 section 23, T. 10 N., R. 6 E. of the Seward Meridian, about 0.6 mile west-southwest of the head of Bettles Bay. Workings are located at 450 feet elevation and the mill is near sea level. This is location 124 of Condon and Cass (1958), location 68 of Cobb and Richter (1972), location 81 of MacKevett and Holloway (1977), 129 of Cobb and Tysdal (1980), and location S-156 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Ag, Au**Other:** Cu, Pb, Zn**Ore minerals:** Arsenopyrite, chalcopyrite, galena, gold, pyrrhotite, sphalerite**Gangue minerals:** Calcite, quartz**Geologic description:**

The Mineral King mine is along the sheared contact between fine-grained dark-gray graywacke and argillite of the Valdez Group of Late Cretaceous age and a large Tertiary granitic dike (Nelson and others, 1985). The sedimentary strata strike N56E and dip NE. The dike strikes northeast, and the dip is nearly vertical (Hoekzema and Sherman, 1983). The deposit consists of quartz-cemented shattered country rock in a shear zone that strikes N26W and dips 45E. The deposit is traceable along strike for about 200 feet. The mineralized breccia, which fills the shear zone, is 2 to 6 feet wide and averages about 3 feet wide. The quartz contains arsenopyrite, sphalerite, chalcopyrite, galena, pyrite and gold (Johnson, 1914 [B 592-G, p. 231-232]).

There are 1,488 feet of underground workings, consisting of a tunnel and a 780-foot-long adit with stopes and winzes. The workings are 450 feet above sea level; a mill is near sea level. The adit provided haulage from the vein to the tramway that fed the mill.

A 16-inch-wide quartz vein is about 360 feet from the portal. The vein contains considerable shattered country rock along with calcite. The vein was stoped from the 450-foot level to the surface at 650 feet elevation. The length of the stope varies from 230 feet to less than 100 feet near the surface (Hoekzema and Sherman, 1983).

Alteration:**Age of mineralization:**

Tertiary or younger; the deposit is in a shear zone that cuts Cretaceous and Tertiary rocks.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Yes; small

Site Status: Inactive

Workings/exploration:

There are 1,488 feet of underground workings, consisting of a tunnel and a 780-foot-long adit with stopes and winzes. The adit provided haulage from the vein to the 2,000-foot-long jig-back tram to the mill.

The vein was stoped from the 450 level to the surface at 650 feet elevation. The length of the stopes varies from 230 feet to less than 100 feet near the surface (Hoekzema and Sherman, 1983).

The mill consisted of a jaw crusher, two 1,350-pound stamps, a Wilfley concentrating table, and an 9 by 8 Ingersoll Rand air compressor. The compressor was driven by water taken from Eaton Creek (not named on the topographic map) under a head of 200 feet. A 7 by 6 compressor powered by a gas engine was situated at the portal for use when water was not available for the pelton-driven compressor (Pilgrim, 1933).

The U.S. Bureau of Mines collected nine grab and chip samples, which contained from a trace to 0.15 ounce of gold per ton and from 0.01 to 0.13 ounce of silver per ton (Hoekzema and Sherman, 1983). Hoekzema and Sherman (1983) speculated that the high-grade portions of the vein may have been mined out.

Production notes:

The U.S. Bureau of Mines estimates that total production was 2,783 ounces of gold and 629 ounces of silver from 3,500 tons of ore (Hoekzema and Sherman, 1983).

Reserves:

The U.S. Bureau of Mines estimates a resource of 500 tons of material with a grade of 0.012 ounce of gold per ton and as much as 5,000 tons of untested tailings (Hoekzema and Sherman, 1983).

Additional comments:

The mine is adjacent to a state marine park.

References:

Brooks, 1913; Johnson, 1914 (B 592-G, p. 231-232); Johnson, 1915; Smith, 1917 (BMB 142); Smith, 1917 (BMB 153); Johnson, 1918 (B 662-C, p. 183-192); Johnson, 1919 (B 692-C, p. 150); Moffit, 1927; Smith, 1929; Smith, 1932; Park, 1933; Smith, 1937; Smith, 1938; Smith, 1939 (B 910-A, p. 26); Smith, 1941 (B 926-A, p. 1-106); Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 09/07/00

Site name(s): Hummer; Everson, Harris and Parker**Site type:** Prospect**ARDF no.:** SR077**Latitude:** 60.9077**Quadrangle:** SR D-4**Longitude:** 148.3312**Location description and accuracy:**

This prospect is located at an elevation of about 300 feet on the east flank of hill 3652 overlooking Hummer Bay. It is in the SE1/4 section 35, T. 10 N., R. 6 E., of the Seward Meridian. This is location 1126 of Condon and Cass (1958), location 63 of Cobb and Richter (1972), location 84 of MacKevett and Holloway (1977), location 132 of Cobb and Tysdal (1980) and location 159 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Cu, Pb**Ore minerals:** Chalcopyrite, galena, gold, pyrite**Gangue minerals:** Ankerite?, calcite?, quartz**Geologic description:**

This prospect is hosted by slate and graywacke of the Valdez Group of Late Cretaceous age (Jansons and others, 1984). The deposit consists of numerous irregular quartz stringers in a folded and faulted shear zone. The shear zone strikes between S10W to S40W and dips 60NW (Johnson, 1914 [B 592-G, p. 232]).

The quartz stringers are generally parallel to each other and to the strike of the shear zone. The longest stringer is traceable for about 60 feet; its width varies between 3 and 12 inches. A winze is sunk on this stringer.

The ore consists of quartz, cream-colored carbonate (ankerite or calcite), chalcopyrite, galena, and pyrite, but the ore minerals are not abundant (Johnson 1914 [B 592-G, p. 232]).

Workings on the prospect consist of a 40-foot-long adit and a winze of unknown depth. No assay results are reported.

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rock of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

Workings on the prospect consist of a 40-foot-long adit, a winze of unknown depth, and stripping (Johnson, 1914 [B 592-G, p. 232]). No assay results are reported.

The U.S. Bureau of Mines searched for the prospect in 1979 but did not locate the workings. They collected two stream sediment samples from Hummer Creek (Hoekzema and Sherman, 1983). Gold and silver levels were below detection limits.

Production notes:

Reserves:

Additional comments:

References:

Johnson, 1914 (B 592-G, p. 232); Johnson, 1915; Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Johnson, 1915

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 03/07/00

Site name(s): Bennett; Bailey and Heinz**Site type:** Occurrence**ARDF no.:** SR078**Latitude:** 60.8997**Quadrangle:** SR D-4**Longitude:** 148.3182**Location description and accuracy:**

This occurrence is located on the steep tree-covered west shore of Hummer Bay. It is in the W1/2 section 1, T. 9 N., R. 6 E., of the Seward Meridian. This is location 84 of MacKevett and Holloway (1977), location 133 of Cobb and Tysdal (1980), and location S-160 of Jansons and others (1984). This location is accurate to within half a mile.

Commodities:**Main:** Au?**Other:** Cu**Ore minerals:** Gold?**Gangue minerals:** Carbonate, quartz**Geologic description:**

This occurrence consists of several quartz veins as much as 3 inches wide in phyllitic, graphitic slate (Jansons and others, 1984) of the Valdez Group of Late Cretaceous age (Cobb and Tysdal, 1980). The bed-rock strikes generally north-northeast, and the veins cross-cut the foliation. The quartz veins contain weathered carbonate minerals.

The U.S. Bureau of Mines sampled barren-appearing quartz-carbonate veins in 1979. One sample contained 200 ppm copper; none contained any precious metal values (Hoekzema and Sherman, 1983).

Alteration:**Age of mineralization:**

Cretaceous or younger; veins cut rocks of the Valdez Group of Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

Surface stripping and opencuts were reported in 1915 (Johnson, 1916). The U.S. Bureau of Mines visited the site in 1979 but found no workings. They sampled the veins; sample 7026 contained 200 ppm copper (Hoekzema and Sherman, 1983).

Production notes:

Reserves:

Additional comments:

References:

Johnson, 1916; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Johnson, 1916; Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 7/23/00

Site name(s): George and McFarland**Site type:** Prospect**ARDF no.:** SR079**Latitude:** 60.9453**Quadrangle:** SR D-4**Longitude:** 148.3145**Location description and accuracy:**

This prospect is located near sea level on the south shore of Bettles Bay, a northwest-trending bay in Port Wells. It is located in the NW1/4 section 24, T. 10 N., R. 6 E., of the Seward Meridian. This is location 125 of Condon and Cass (1958), location 64 of Cobb and Richter (1972), location 83 of MacKevett and Holloway (1977), location 130 of Cobb and Tysdal (1980), and location S-157 of Jansons and others (1984). The location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Pb, Zn**Ore minerals:** Arsenopyrite, galena, gold, pyrite, sphalerite**Gangue minerals:** Carbonate, quartz**Geologic description:**

The prospect is hosted in slate and sandstone of the Valdez Group of Late Cretaceous age that is intruded by Oligocene felsic dikes (Tysdal, 1978 [MF-880-A]). The sedimentary rocks strike N48E and dip 66N. The felsic dike is 18 inches wide, strikes N43E, and dips vertically. The deposit consists of two intersecting quartz-carbonate veins that, at the portal, respectively strike N15W and N20W and dip 72W and 86W. The veins merge underground and continue along a 4-foot-wide, N20W shear zone. The veins are banded with quartz and carbonate that carries arsenopyrite, galena, sphalerite, and gold (Johnson 1914 [B 592-G, p. 232]). The U.S. Bureau of Mines assayed five samples from the workings; they contained a trace to 0.77 ounce of gold per ton and a trace to 0.41 ounce of silver per ton (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Oligocene or younger; quartz veins cut an Oligocene dike.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

Workings consists of a single 45-foot adit with a 40-foot-deep winze and some stripping (Johnson, 1914 [B 592-G, p. 232]). A rotten log structure is located immediately above the portal (Hoekzema and

Sherman, 1983).

Jansons and others (1984) assayed five samples; these contained a trace to 0.77 ounce of gold per ton and a trace to 0.41 ounce of silver per ton. They described the workings as very hazardous and did not attempt to map them.

Production notes:

Reserves:

The U.S. Bureau of Mines estimates a resource of 500 tons of ore grading 0.3 ounce of gold per ton and 0.24 ounce of silver per ton (Hoekzema and Sherman, 1983).

Additional comments:

U.S. Bureau of Mines reports a 47-foot adit with a 20- to 30-foot winze (Jansons and others, 1984). This differs from Johnson's (1914 [B 592-G, p. 232]) description of the workings.

References:

Johnson, 1914 (B 592-G, p. 232); Brooks, 1918; Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Johnson, 1914 (B 592-G, p. 232); Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 03/07/00

Site name(s): Yakima; Yakima Ledge**Site type:** Prospect**ARDF no.:** SR080**Latitude:** 60.9627**Quadrangle:** SR D-4**Longitude:** 148.3122**Location description and accuracy:**

The prospect is at or near sea level near the head of Bettles Bay. It is in the N1/2 section 13, T. 10 N., R. 6 E., of the Seward Meridian. This is location 121 of Condon and Cass (1958), location 69 of Cobb and Richter (1972), location 82 of MacKevett and Holloway (1977), location 128 of Cobb and Tysdal (1980), and location S-151 of Jansons and others (1984). This location is accurate to within half a mile.

Commodities:**Main:** Au**Other:** Cu, Pb, Zn**Ore minerals:** Arsenopyrite, chalcopyrite, galena, gold, pyrite, pyrrhotite, sphalerite**Gangue minerals:** Calcite, quartz**Geologic description:**

The Yakima Ledge prospect consists of a 10- to 31-inch-wide banded quartz-calcite vein that strikes N12E and dips 80W. The vein occurs in a shear zone and contains quartz, calcite, arsenopyrite, chalcopyrite, galena, pyrite, pyrrhotite, sphalerite, and gold (Johnson, 1914 [B 592-G, p. 231]). The host rock is graywacke and slate of the Upper Cretaceous Valdez Group (Cobb and Tysdal, 1980).

Workings on the prospect consist of a 65-foot adit (Johnson, 1914 [B 592-G, p. 231]). No assay results are reported.

Alteration:**Age of mineralization:**

Cretaceous or younger; the vein is in a shear zone that cuts rock of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

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

Workings on the prospect consist of a 65-foot adit (Johnson, 1914 [B 592-G, p. 231]). No assay results are reported. The U.S. Bureau of Mines searched for the prospect in 1980 but did not locate it.

Production notes:

Reserves:

Additional comments:

References:

Johnson, 1914 (B 592-G, p. 231); Johnson, 1916; Johnson, 1918 (B 662-C, p. 183-192); Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Johnson, 1914 (B 592-G, p. 231)

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/21/00

Site name(s): Banner; Christopher**Site type:** Prospect**ARDF no.:** SR081**Latitude:** 60.9333**Quadrangle:** SR D-4**Longitude:** 148.2952**Location description and accuracy:**

This prospect is at an elevation of about 150 feet on the west side Bettles Bay. It consists of a single 400-foot adit located in the NE1/4 section 25, T. 10 N., R. 6 E., of the Seward Meridian. This is location 125a of Condon and Cass (1958), location 64 of Cobb and Richter (1972), location 83 of MacKevett and Holloway (1977), location 131 of Cobb and Tysdal (1980) and location 158 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Ag, Au**Other:** Pb, Zn**Ore minerals:** Arsenopyrite, galena, gold, sphalerite**Gangue minerals:** Quartz**Geologic description:**

The host rock at this prospect is slate and graywacke of the Valdez Group of Late Cretaceous age intruded by an Oligocene felsic dike (Tysdal, 1978 [MF-880-A]). The dike, which ranges from 1 to 8 feet wide and averages 3 feet wide, is cemented with numerous quartz stringers that contain arsenopyrite, sphalerite, galena, and gold. The dike is traceable across the ridge from Bettles Bay to Hummer Bay, where it crops out about 2,000 feet above the head of the bay.

A 400-foot-long adit was driven between 1914 and 1919 along the mineralized dike, but, except for a test shipment, there is no reported production (Johnson, 1919 [B 692-C, p. 143-151]). Jansons and others (1984) visited the site around 1979 but did not find the adit. Samples collected near this location assayed traces of gold and silver (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Oligocene or younger; veins cut an Oligocene dike.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Undetermined.**Site Status:** Inactive**Workings/exploration:**

A single adit was driven from 1914 to 1919 (Johnson, 1919 [B 692-C, p. 143-151]). A test shipment of

selected ore was shipped in 1916, but no results are known (Johnson, 1918 [B 662-C, p. 183-192]).

Production notes:

Test shipment of ore was made in 1916. No further information is reported.

Reserves:**Additional comments:****References:**

Johnson, 1918 (B 662-C, p. 183-192); Johnson, 1919 (B 692-C, p. 150); Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Johnson, 1918 (B 662-C, p. 183-192)

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 08/31/00

Site name(s): Reed, Gauthier, and Cooper**Site type:** Prospect**ARDF no.:** SR082**Latitude:** 60.9526**Quadrangle:** SR D-4**Longitude:** 148.2380**Location description and accuracy:**

The prospect is at an elevation of less than 50 feet on the southwest shore of Hobo Bay. It is in the SE1/4 section 17, T. 10 N., R. 7 E., of the Seward Meridian. This is location 119 of Condon and Cass (1958), location 70 of Cobb and Richter (1972), location 78 of MacKevett and Holloway (1977), location 122 of Cobb and Tysdal (1980), and location S-149 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Cu, Zn**Ore minerals:** Arsenopyrite, chalcopyrite, gold, pyrite, pyrrhotite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

This prospect consists of a sulfide-bearing quartz vein in a shear zone in slate of the Upper Cretaceous Valdez Group (Cobb and Tysdal, 1980). The shear zone is about 3 feet wide, striking N30E to N60E and dipping 70NW. It has been traced along the surface for about 1,500 feet (Johnson, 1915). The vein pinches and swells from 3 to 14 inches wide and contains pyrrhotite, pyrite, chalcopyrite, sphalerite, and gold. Workings on the prospect consist of a 172-foot-long crosscut and a 25-foot-long adit with a 30-foot winze (Johnson, 1915).

Alteration:**Age of mineralization:**

Cretaceous or younger; the vein is in a shear zone that cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

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

Workings on the prospect consist of a 172-foot-long crosscut and a 25-foot-long adit with a 30-foot winze (Johnson, 1915).

Production notes:

Reserves:

Additional comments:

References:

Johnson, 1914 (B 592-G, p. 230-231); Johnson, 1915; Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Johnson, 1914 (B 592-G, p. 230-231)

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 03/07/00

Site name(s): Everson**Site type:** Occurrence**ARDF no.:** SR083**Latitude:** 60.9512**Quadrangle:** SR D-4**Longitude:** 148.2376**Location description and accuracy:**

The occurrence is located on the southwest shore of Hobo Bay in the SE1/4 section 17, T. 10 N., R. 7 E., of the Seward Meridian. This is location 123 of Tysdal (1978 [MF-880-A]) and location S-150 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:** Quartz**Geologic description:**

This occurrence consists of a northeast-striking auriferous quartz vein (Jansons and others, 1984) in sedimentary strata of the Valdez Group of Late Cretaceous age (Nelson and others, 1985).

Alteration:**Age of mineralization:**

Cretaceous or younger; the vein cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

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

No workings or assay results are reported.

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

Tysdal, 1978 (MF-880-A); Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others,

1985.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 02/05/00

Site name(s): Snowball; Mountain View; Hamilton and Irving**Site type:** Prospect**ARDF no.:** SR084**Latitude:** 60.9685**Quadrangle:** SR D-4**Longitude:** 148.2316**Location description and accuracy:**

The prospect is located at an elevation of about 800 feet, in the SW1/4 section 9, T. 10 N., R. 7 E., of the Seward Meridian. It is about three-quarters of a mile west of the Granite mine (SR085). This is location 121 of Tysdal (1978 [MF-880-A]) and location S-148 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Ag, Au**Other:****Ore minerals:** Gold, pyrite**Gangue minerals:** Quartz**Geologic description:**

The prospect consists of a 3- to 12-inch-wide quartz vein that strikes N50W and dips 85NE. The vein is traceable for about 100 feet on the surface. The hanging wall consists of Eocene granite, and the foot wall consists of sandstone of the Valdez Group of Late Cretaceous age (Hoekzema and Sherman, 1983). The vein contains angular fragments of bedrock and small amounts of pyrite and gold. Two samples collected in 1931 respectively contained 0.02 and 0.1 ounce of gold per ton and 2.54 and 0.8 ounces of silver per ton (Stewart, 1933).

Workings on the prospect consist of a 220-foot adit at 720 feet above sea level and a shaft of unknown depth at 860 feet above sea level.

Alteration:**Age of mineralization:**

Eocene or younger; the vein cuts Eocene granite.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

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

Two samples collected in 1931 respectively contained 0.02 and 0.1 ounce of gold per ton and 2.54 and 0.8 ounces of silver per ton (Stewart, 1933). Workings consist of a 220-foot-long adit at 720 feet above sea level and a shaft of unknown depth at 860 feet above sea level (Johnson, 1914 [B 592-G, p. 195-236]).

Production notes:

Reserves:

Additional comments:

References:

Stewart, 1933; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Stewart, 1933

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/09/00

Site name(s): Granite**Site type:** Mine**ARDF no.:** SR085**Latitude:** 60.9704**Quadrangle:** SR D-4**Longitude:** 148.2111**Location description and accuracy:**

The mine is located in the SE1/4 section 9, T. 10 N., R. 7 E., of the Seward Meridian. The mine and mill complex extend from sea level to 700 feet elevation, just inland from the shore of Port Wells between Harrison Lagoon and Hobo Bay. This is location 117 of Condon and Cass (1958), location 71 of Cobb and Richter (1972), location 77 of MacKevett and Holloway (1977), location 120 of Cobb and Tysdal (1980), location 77 of MacKevett and Holloway (1977), and location S-147 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Ag, Au**Other:** Cu, Pb, Zn**Ore minerals:** Arsenopyrite, chalcopyrite, galena, gold, pyrite, sphalerite, stibnite**Gangue minerals:** Calcite, chlorite, graphite, quartz**Geologic description:**

The Granite mine is hosted in slate and graywacke of the Valdez Group of Late Cretaceous age that has been cut by a large mass of Tertiary biotite granite. The granite is altered near the main vein to a light-gray to greenish-gray rock (Hoekzema and Sherman, 1983).

Most of the production has come from the main vein, which has a general strike of N50W to N70W and a dip of 43 to 55 N, although there is considerable variation in strike and dip in the workings (Johnson, 1915). The main vein is cut in numerous places by small normal faults. The main vein ranges from 3.5 inches to more than 14 feet in width and averages about 3.5 feet wide. The character of the vein varies with the country rock. In the sedimentary rocks, it consists of shattered slate, graywacke, and argillite cemented by veins and networks of sulfide-bearing, porous white crystalline quartz, accompanied by minor graphite, calcite, and chlorite. In the granite, the vein is a single structure, although at its widest part it consists of numerous shattered masses of altered granite cemented by quartz veinlets (Johnson, 1915).

The ore minerals consist of arsenopyrite, chalcopyrite, galena, pyrite, sphalerite, stibnite, and gold. Gold occurs as flakes and nuggets associated with graphite bands in the quartz veins (Roehm, 1936 [PE 95-6]). Generally the veins appear to have been higher in grade and more extensively stoped where hosted by metasedimentary rocks than by granite (Hoekzema and Sherman, 1983).

Total production from this mine was 31,919 tons of ore that contained 24,440 ounces of gold and 2,492 ounces of silver (Jansons and others, 1984).

Alteration:

Granite is altered to a light-gray to greenish-gray rock (Johnson, 1915).

Age of mineralization:

Tertiary or younger; the veins cut Tertiary granite.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Yes; medium**Site Status:** Inactive**Workings/exploration:**

The Granite mine consists of about 8,200 feet of workings that produced 31,919 tons of ore that contained 24,440 ounces of gold and 2,492 ounces of silver (Jansons and others, 1984). Most of the production occurred between 1914 and 1922. The ore was crushed in a 17-stamp mill to minus 40 mesh and passed over an amalgamator plate and concentrated on Wilfley and Deister tables. Power to the mine was provided originally by an oil-fired steam boiler that furnished steam for a 180-horsepower electric generator (Smith, 1917 [BMB 142, BMB 153]).

In 1982, the 350-foot-level adit was accessible, but the 200-foot-level adit was caved at the portal. The U. S. Bureau of Mines collected 25 samples from the mine and two samples of tailings (Hoekzema and Sherman, 1983). The mine samples contained from nil to 6.1 ppm gold. The tailing samples contained 0.18 and 0.19 ounce of gold per ton. The tailing samples were tested both by fire assay and cyanide bottle rolls. Bottle rolls and simulated heap leach tests indicated that 80 percent of the gold could be recovered by cyanidation.

Production notes:

The U.S. Bureau of Mines visited the Granite mine on several occasions during the RARE II study in the early 1980's (Hoekzema and Sherman, 1983). On the basis of past mining history and on low but persistent gold values present in samples collected by the Bureau, additional work appears to be warranted. The existing workings, however, appear to have nearly exhausted the deposit. Additional work thus should include drilling to identify possible vein extensions. Generally, the veins appear to have been higher in grade and more extensively stoped where hosted by metasedimentary rocks rather than by granite. However, high values were identified in samples of a granite-hosted portion of the vein located at the face of the 350-foot level (sample 5740A).

A 200-pound sample of the tailings was collected in 1982. This sample was sent to the Bureau of Mines laboratory in Juneau and to Helner Lindstrom Associates Inc. in Nevada. Both labs analysed the tails and obtained assays of about 0.18 to 0.19 ounce of gold per ton. The Bureau lab attempted to recover gold by amalgamation, but only 29 percent was recovered. Heiner Lindstrom Associates Inc. performed bottle roll and simulated heap leach tests of the tailings. Both tests indicated that about 85 percent gold recovery could be obtained by cyanidation. The simulated heap leach test recovered 80 percent of the gold after 7 days. Apparently, amalgamation alone would not be sufficient to recover gold from the tailings, possibly because much of the gold is stained due to oxidation of sulfides.

The Bureau concluded that there is moderate mineral development potential for small to medium-size lode operation and high potential for a cyanide leaching operation (Hoekzema and Sherman, 1983).

Reserves:

The U.S. Bureau of Mines estimated a resource of 1,860 tons of ore containing a grade of 0.78 ounce of gold per ton and 30,000 tons of tailings containing 0.18 to 0.19 ounce of gold per ton (Hoekzema and Sherman, 1983).

Additional comments:**References:**

Johnson, 1914 (B 592-G, p. 230); Brooks, 1915; Johnson, 1915; Brooks, 1916 (B 649); Smith, 1917 (BMB 142); Smith, 1917 (BMB 153); Johnson, 1918 (B 662-C, p. 183-192); Johnson, 1919 (B 692-C, p. 149); Martin, 1920; Brooks, 1922; Smith, 1936; Smith, 1937; Smith, 1938; Smith, 1939 (B 910-A, p. 26); Smith, 1941 (B 926-A); Moffit, 1954; Condon and Cass, 1958; Berg and Cobb, 1967; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Mackevett and others, 1978; Tysdal, 1978 (MF-880-A); Cobb and Tysdal,

1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/09/00

Site name(s): Kavanaugh and Boon; Esther Group**Site type:** Prospect**ARDF no.:** SR086**Latitude:** 60.8262**Quadrangle:** SR D-4**Longitude:** 148.1361**Location description and accuracy:**

This prospect is at an elevation of 500 feet on the west side Esther Island, about 1,500 feet from the beach. It is in the W1/2 section 36, T. 9 N., R 7 E., of the Seward Meridian. This is location 167 of Tysdal (1978 [MF-880-A] and location S-126 of Jansons and others (1984). This location is accurate to within half a mile. Cobb and Tysdal (1980) summarized the relevant references under the name Kavanaugh and Boon.

Commodities:**Main:** Au**Other:** Cu, Pb**Ore minerals:** Chalcopyrite, galena, gold, pyrite, pyrrhotite**Gangue minerals:** Chlorite, quartz**Geologic description:**

The prospect is in sheared sandstone beds of the Valdez Group of Late Cretaceous age near the contact with the Esther granite of Tertiary age (Cobb and Tysdal, 1980). The deposit consists of stringers and masses of sugary quartz along a 5- to 6-foot-wide shear zone that strikes N40E and dips 85NW.

Workings on the prospect consist of an 8-foot-long adit. A poorly defined zone of bluish quartz along the west wall of the adit contained considerable free gold, along with chlorite, chalcopyrite, pyrite, galena, and pyrrhotite (Roehm, 1938 [PE 95-14]). Three channel samples collected in 1937 contained 0.11, 0.08, and 0.75 ounce of gold per ton, along with traces of silver (Roehm, 1938 [PE 95-14]).

Alteration:**Age of mineralization:**

Tertiary or younger; the veins are within a shear zone that cuts Tertiary granite.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

Workings on the prospect consist of an 8-foot-long adit with a small dump. A little ore was reported to have been shipped between 1911 and 1913 (Johnson, 1914 [B 592-G, p. 234]). Three channel samples collected in 1937 contained 0.11, 0.08, and 0.75 ounce of gold per ton, along with traces of silver (Roehm,

1938 [PE 95-14].

Production notes:

A little ore was reported to have been shipped between 1911 and 1913 (Johnson, 1914 [B 592-G, p. 234]).

Reserves:

Additional comments:

References:

Johnson, 1914 (B 592-G, p. 234); Roehm, 1938 (PE 95-14); Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Johnson, 1914 (B 592-G, p. 195-236); Roehm, 1938 (PE 95-14)

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 1/3/2000

Site name(s): Fish; Collins and Stewart**Site type:** Prospect**ARDF no.:** SR087**Latitude:** 60.8274**Quadrangle:** SR D-3**Longitude:** 148.1055**Location description and accuracy:**

The prospect is located at an elevation of 800 feet, above the west shore of Esther Lake in the southwest portion of Esther Island. (It is reported to be one mile from shore.) The prospect is in the W1/2 section 31, T. 9 N., R. 8 E., of the Seward Meridian. This is location 89 of Condon and Cass (1958), location 85 of Cobb and Richter (1972), location 105 of MacKevett and Holloway (1977), location 168 of Cobb and Tysdal (1980), and location S-125 of Jansons and others (1984). This location is accurate to within half a mile.

Commodities:**Main:** Au**Other:** Cu**Ore minerals:** Chalcopyrite, gold, pyrrhotite**Gangue minerals:** Quartz**Geologic description:**

The prospect consists of a 40-foot adit in contact-metamorphosed slate and sandstone of the Valdez Group of Late Cretaceous age near the margin of the Esther pluton of Tertiary age (Cobb and Tysdal, 1980). The adit was driven on a 4- to 5-foot-wide shear that strikes N14E and dips 85W. The margin of the shear zone is well defined with abundant clay gouge. Quartz veins in the shear zone range in size from less than 4 inches to more than 2 feet in width and consists of bluish-white quartz containing chalcopyrite, pyrrhotite, and gold (Johnson, 1914 [B 592-G, p. 234-235]).

Fieldwork by the U.S. Bureau of Mines in 1979 failed to locate the adit. Their sample of a vertical, N25E, 40-inch-wide, pyrite-bearing quartz vein in the vicinity did not contain any significant metals values (Hoekzema and Sherman, 1983).

Alteration:

Contact metamorphism.

Age of mineralization:

Tertiary or younger; the deposit in is a shear zone that cuts Tertiary granite.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

A 40-foot adit was driven in 1912 (Johnson, 1914 [B 592-G, p. 234-235]). The U.S. Bureau of Mines searched for the prospect in 1979, but did not locate any workings. In the vicinity, they found and sampled a 40-inch-wide pyrite-bearing quartz vein striking N25E and dipping vertically. The vein assayed at 0.04 ppm gold, 0.2 ppm silver, 75 ppm copper, 5 ppm lead, 50 ppm zinc, and 30 ppm arsenic (Hoekzema and Sherman, 1983).

Production notes:

Reserves:

Additional comments:

References:

Johnson, 1914 (B 592-G, p. 234-235); Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Johnson, 1914 (B 592-G, p. 234-235)

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 02/04/00

Site name(s): Keynote; Arrowhead**Site type:** Prospect**ARDF no.:** SR088**Latitude:** 60.9607**Quadrangle:** SR D-3**Longitude:** 148.0156**Location description and accuracy:**

This prospect is about 1.1 miles southwest of Golden in the NW1/4 section 15, T. 10 N., R. 8 E., of the Seward Meridian. It is on the north bank of a small stream at an elevation of about 100 feet. This is location 74 of Cobb and Richter (1972), location 99 of MacKevett and Holloway (1977), location 159 of Cobb and Tysdal (1980), and location S-130 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:****Ore minerals:** Arsenopyrite, gold, pyrite**Gangue minerals:** Quartz**Geologic description:**

The prospect consists of a single, shattered-appearing quartz vein that ranges from 3 to 6 feet-wide, hosted in sedimentary rocks of the Valdez Group of Late Cretaceous age (Jansons and others, 1984). The vein is exposed for 40 feet along strike and contains quartz, arsenopyrite, and pyrite. Free gold was panned from the vein (Johnson, 1914 [B 592-G, p. 223-224]); Johnson reported no assay results. However, the U.S. Bureau of Mines collected a stream-sediment sample in the area that contained 0.06 ppm gold and 10 ppm silver (Hoekzema and Sherman, 1983).

Alteration:**Age of mineralization:**

Late Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

The vein was exposed by surface stripping in 1913 (Johnson, 1914 [B 592-G, p. 223-224]). No assay results are reported. However, the U.S. Bureau of Mines collected a stream sediment sample from this area; it contained 0.06 ppm gold and 10 ppm silver (Hoekzema and Sherman, 1983).

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

The U.S. Bureau of Mines searched unsuccessfully for the prospect in 1979 (Hoekzema and Sherman, 1983). The prospect was located in 1991 by Forest Service and U.S. Bureau of Mines personnel. There was abandoned dynamite in a short adit. The adit and dynamite were destroyed in 1994 by the U.S. Army explosives disposal personnel (C. S. Huber, oral communication, 2000).

References:

Johnson, 1914 (B 592-G, p. 223-224); Johnson, 1916; Johnson, 1918 (B 662-C, p. 183-192); Johnson, 1919 (B 692-C, p. 150); Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Johnson, 1914 (B 592-G, p. 223-224)

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 03/31/00

Site name(s): Carter; OK 1; New York**Site type:** Prospect**ARDF no.:** SR089**Latitude:** 60.9492**Quadrangle:** SR D-3**Longitude:** 147.9959**Location description and accuracy:**

The prospect is located at an elevation of 1,700 feet about a mile southwest of Davis Lake. It is in the NW1/4 section 23, T. 10 N., R. 8 E., of the Seward Meridian. This is location 110 of Condon and Cass (1958), location 75 of Cobb and Richter (1972), location 100 of MacKevett and Holloway (1977), location 161 of Cobb and Tysdal (1980), and location S-128 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold, pyrite**Gangue minerals:** Calcite, quartz**Geologic description:**

The prospect consists of stringers and lenses of pyrite-bearing quartz and calcite as much as 1 foot wide in a 2- to 5-foot-wide shear zone. The host rock is slate and sandstone of the Valdez Group of Late Cretaceous age (Cobb and Tysdal, 1980). The shear strikes northeast and dips vertically. Workings on the prospect consist of a small open cut (Johnson 1914 [B 592-G, p. 224-225]). The deposit reportedly contained considerable fine gold, but no assays have been published.

Alteration:**Age of mineralization:**

Late Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

The workings consist of a single open cut. The deposit reportedly contained considerable fine gold and yielded good assays (Johnson, 1914 [B 592-G, p. 224-225]), but no values have been published. The U.S. Bureau of Mines searched for this prospect in 1979 and 1980 but did not locate it (Hoekzema and Sherman, 1983).

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

Johnson, 1914 (B 592-G, p. 224-225); Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Johnson, 1914 (B 592-G, p. 224-225)

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/03/00

Site name(s): Golden Wonder #1; Lucky Swede; Mountain**Site type:** Prospect**ARDF no.:** SR090**Latitude:** 60.9652**Quadrangle:** SR D-3**Longitude:** 147.9906**Location description and accuracy:**

This prospect is at an elevation of 300 feet near a small ridge about 0.3 mile south of the abandoned mining camp of Golden. It is in the SW1/4 section 11, T. 10 N., R. 8 E., of the Seward Meridian. This is location 105 of Condon and Cass (1958), location 79 of Cobb and Richter (1972), location 97 of MacKevett and Holloway (1977), location 156 of Cobb and Tysdal (1980), and location S-132 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Pb**Ore minerals:** Arsenopyrite, galena, gold**Gangue minerals:** Calcite, quartz**Geologic description:**

The country rocks at this prospect are sheared graywacke and slate of the Valdez Group of Late Cretaceous age. The deposit consists of lenses and stringers of quartz carrying arsenopyrite, galena, and gold (Cobb and Tysdal, 1980). The workings on the prospect consist of a 10-foot adit and surface stripping.

The mineralization is in a shear zone that can be traced for more than 1,000 feet. The zone strikes N60E and dips 70N and varies in width from 2 to 4 feet. It contains shattered and sheared graywacke and slate and quartz veins that parallel the walls (Johnson, 1914 [B 592-G, p. 222]).

The quartz veins in the adit range in width from 1 to 6 inches and are bluish in color. An early assay of the quartz veins showed as much as \$96.00 of gold per ton (gold at \$20.67 per ounce); the sheared host rock contained \$4 to \$5 of gold per ton (Johnson, 1914 [B 592-G, p. 222]). Estimated production is less than 769 fine ounces of gold (Tysdal, 1978 [MF-880-A]), but there is no formal record of any production (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins are in a shear zone that cuts rock of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Yes; small**Site Status:** Inactive

Workings/exploration:

The workings consist of a 10-foot adit and surface stripping at both 350 and 450 foot elevations. An early assay of the quartz veins reported as much as \$96.00 of gold per ton (gold at \$20.76 per ounce), and the sheared host rock contained \$4 to \$5 of gold per ton (Johnson, 1914 [B 592-G, p. 222]).

The U.S. Bureau of Mines searched for the prospect in 1979 but did not find it. They collected a sediment sample from what appeared to be tailings. The sample contained 162 ppm arsenic (Hoekzema and Sherman, 1983).

Production notes:

One ton of ore was shipped in 1912 through 1913 (Johnson, 1914 [B 592-G, p. 215]). Other than this shipment, there is no formal record of any production.

Reserves:**Additional comments:****References:**

Johnson, 1914 (B 592-G, p. 215-223); Johnson, 1915; Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Johnson, 1914 (B 592-G, p. 215-223)

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/07/00

Site name(s): Griset; Keynote**Site type:** Prospect**ARDF no.:** SR091**Latitude:** 60.9689**Quadrangle:** SR D-3**Longitude:** 147.9885**Location description and accuracy:**

The prospect is located near the old post office site in Golden. It is in the SW1/4 section 11, T. 10 N., R. 8 E., of the Seward Meridian. This is location 103 of Condon and Cass (1958), location 77 of Cobb and Richter (1972), location 98 of MacKevett and Holloway (1977), location 158 of Cobb and Tysdal (1980), and location S-131 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:****Ore minerals:** Arsenopyrite, gold, pyrite**Gangue minerals:** Quartz**Geologic description:**

The Griset prospect is hosted in sheared graywacke and slate of the Valdez Group of Late Cretaceous age (Cobb and Tysdal, 1980). The deposit consist of lenses and stringers of quartz that carry arsenopyrite, pyrite, and, presumably, gold (Cobb and Tysdal, 1980).

The workings on the prospect consist of a 10-foot adit near the old post office site and a 6-foot-deep shaft near the beach (Hoekzema and Sherman, 1983). The adit explored a 33-inch-wide shear zone striking N65E and dipping 55N. The zone can be traced for 300 feet; it contains quartz veins and stringers that pinch and swell along strike (Johnson, 1914 [B 592-G, p. 227]). Although the workings suggest that some gold was recovered, Johnson reported no assay results.

Alteration:**Age of mineralization:**

Late Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

The workings on the prospect consist of a 10-foot adit near the old post office site and a 6-foot-deep shaft near the shore (Hoekzema and Sherman, 1983).

The U.S. Bureau of Mines examined the prospect in 1979 but collected no samples (Hoekzema and

Sherman, 1983). Johnson (1914 [B 592-G, p. 227]) examined the prospect in the early 1900's but reported no assay results.

Production notes:

Reserves:

Additional comments:

References:

Johnson, 1914 (B 592-G, p. 227); Johnson, 1916; Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Johnson, 1914 (B 592-G, p. 227); Cobb and Tysdal, 1980

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/08/99

Site name(s): Tolson and Stanton**Site type:** Prospect**ARDF no.:** SR092**Latitude:** 60.9436**Quadrangle:** SR D-3**Longitude:** 147.9877**Location description and accuracy:**

The prospect is located on the west slope of a mountain about 2 miles south of Golden at an elevation of 1,500 feet. It is in the W1/2 section 23, T. 10 N., R. 8 E., of the Seward Meridian. This is location 112 of Condon and Cass (1958), location 76 of Cobb and Richter (1972), location 162 of Cobb and Tysdal (1980), and location S-127 of Jansons and others (1984). This location is accurate to within half a mile.

Commodities:**Main:** Au, Zn**Other:** Pb**Ore minerals:** Arsenopyrite, galena, gold, pyrite, sphalerite**Gangue minerals:** Calcite, chlorite, quartz**Geologic description:**

The prospect is hosted in sheared graywacke and slate of the Valdez Group of Late Cretaceous age. The deposit is in a 2- to 5-foot-wide shear zone and consists of lenses and stringer veins of quartz as much as 2 feet wide (Tysdal, 1978 [MF-880-A]). The shear zone dips vertically and is traceable for 300 feet along a northeast strike. The veins contain arsenopyrite, galena, pyrite, sphalerite, and gold (Johnson, 1914 [B 592-G, p. 225]).

The workings on the prospect consist of a 155-foot adit; improvements in the early 1900's included an arrastre mill and cabin (Johnson, 1914 [B 592-G, p. 225]).

Alteration:**Age of mineralization:**

Cretaceous or younger; the deposit cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

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

The workings on the prospect consist of a 155-foot adit; improvements in the early 1900's include an arrastre mill and cabin (Johnson, 1914 [B 592-G, p. 225]). No assay results are reported. The U.S. Bureau of Mines searched for the prospect in 1979 and 1980 but did not locate it (Hoekzema and Sherman, 1983).

Production notes:

Reserves:

Additional comments:

References:

Johnson, 1914 (B 592-G, p. 225); Johnson, 1916; Tysdal, 1978 (MF-880-A); Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Johnson, 1914 (B 592-G, p. 225)

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 02/04/00

Site name(s): Golden Eagle**Site type:** Mine**ARDF no.:** SR093**Latitude:** 60.9596**Quadrangle:** SR D-3**Longitude:** 147.9757**Location description and accuracy:**

The mine is located in the NE1/4 section 14, T. 10 N., R. 8 E., of the Seward Meridian. This is southwest of Davis Lake about half a mile southeast of the abandoned mining camp at Golden. The mill is just above the lake, and the workings are between 500 and 600 feet elevation. This is location 109 of Condon and Cass (1958), location 74 of Cobb and Richter (1972), location 100 of MacKevett and Holloway (1977), location 160 of Cobb and Tysdal (1980), and location S-129 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Ag**Ore minerals:** Gold, pyrrhotite**Gangue minerals:** Calcite, chlorite, quartz**Geologic description:**

The deposit at the Golden Eagle mine consists of stringers and lenses of sulfide-bearing quartz as much as 10 feet wide in a shear zone that is traceable for 400 to 500 feet (Johnson, 1914 [B 592-G, p. 224]). The principal sulfide is pyrrhotite, and the quartz is accompanied by calcite and chlorite. The host rock is slate and sandstone of the Valdez Group of Late Cretaceous age (Cobb and Tysdal, 1980). The shear strikes S20W and dips vertically.

Workings consist of a 155-foot drift at 500 feet elevation, two 50- to 60-foot stopes, and a 60-foot cross-cut. There is also a 45-foot drift at 600 feet elevation (Hoekzema and Sherman, 1983). Improvements include a five-stamp Vulcan Iron Works mill (Hoekzema and Sherman, 1983).

Assay results range from nil to \$175 in gold per ton; a chip sample from the mouth of the tunnel assayed \$9.20 of gold per ton (gold at \$20.67 per ounce) (Johnson, 1914 [B 592-G, p. 224]). The U.S. Bureau of Mines sampled this deposit in 1979, and five chip samples from the workings contained 0 to 2.1 ppm gold (Hoekzema and Sherman, 1983).

Alteration:**Age of mineralization:**

Late Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Yes; small

Site Status: Inactive

Workings/exploration:

The deposit was discovered in the early 1900's, when a one-ton, gold-bearing quartz boulder was found downslope from the lode. This boulder was broken up and shipped to Valdez; it contained \$42.00 worth of gold (gold at \$20.67 per ounce) (Johnson, 1914 [B 592-G, p. 224]).

The mine workings consist of a 155-foot drift at 500 feet elevation, two 50- to 60-foot stopes, and a 60-foot crosscut. There is also a 45-foot adit at 600 feet elevation (Hoekzema and Sherman, 1983). Improvements include a five-stamp Vulcan Iron Works mill (Hoekzema and Sherman, 1983).

Assay results range from nil to \$175 per ton; a chip sample from the mouth of the tunnel contained \$9.20 of gold per ton (Johnson, 1914 [B 592-G, p. 224]). The U.S. Bureau of Mines sampled this prospect in 1979, and five chip samples from the workings contained 0 to 2.1 ppm gold (Hoekzema and Sherman, 1983).

Production notes:

Recorded production is 28 ounces of gold and 1 ounce of silver. The U.S. Bureau of Mines estimated a resource of 21,000 tons of ore at a grade of 0.1 ounce of gold per ton (Hoekzema and Sherman, 1983).

Reserves:

The U.S. Bureau of Mines estimated a resource of 21,000 tons of ore at a grade of 0.1 ounce of gold per ton (Hoekzema and Sherman, 1983).

Additional comments:

References:

Johnson, 1914 (B 592-G, p. 224); Johnson, 1915; Brooks, 1915; Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/03/00

Site name(s): Frodenburg and Bloom**Site type:** Prospect**ARDF no.:** SR094**Latitude:** 60.9812**Quadrangle:** SR D-3**Longitude:** 147.9715**Location description and accuracy:**

This prospect is about one mile northeast of Golden at an elevation of 1,150 feet. It is within the SE1/4 section 2, T. 10 N., R. 8 E., of the Seward Meridian. This is location 98 of Condon and Cass (1958), location 80 of Cobb and Richter (1972), location 96 of MacKevett and Holloway (1977), location 153 of Cobb and Tysdal (1980), and location S-134 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:** Quartz**Geologic description:**

The prospect is hosted in sheared graywacke and slate of the Valdez Group of Late Cretaceous age (Cobb and Tysdal, 1980). The shear strikes N80E and dips 60N. At one place a quartz lens, 10 to 18 inches wide and traceable for 45 feet, fills the entire shear. About 50 feet farther uphill, a 25-foot open cut exposes a 10-inch shear containing 8 inches of quartz. Johnson (1914 [B 592-G, p. 221-222]) reported a few fine colors were obtainable from this quartz by panning, but no assay results are reported. The workings on the prospect consist of minor surface stripping.

Alteration:**Age of mineralization:**

Cretaceous or younger; the deposit is in a shear zone that cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

Johnson (1914 [B 592-G, p. 221-222]) reported minor surface stripping and that a few fine colors were obtainable from panning the veins. No assay values were reported. The U.S. Bureau of Mines searched for the prospect in 1979 but did not find it (Hoekzema and Sherman, 1983).

Production notes:

Reserves:

Additional comments:

References:

Johnson, 1914 (B 592-G, p. 221-222); Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Johnson, 1914 (B 592-G, p. 221-222)

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 05/09/00

Site name(s): Mayflower**Site type:** Prospect**ARDF no.:** SR095**Latitude:** 60.9825**Quadrangle:** SR D-3**Longitude:** 147.9668**Location description and accuracy:**

The prospect is at an elevation of 1,300 feet, on the crest of the ridge about 1.2 miles northeast of Golden. It is located in the SW1/4 section 1, T. 10 N., R. 8 E., of the Seward Meridian. This is location 96 of Condon and Cass (1958), location 80 of Cobb and Richter (1972), location 96 of MacKevett and Holloway (1977), location 152 of Cobb and Tysdal (1980), and location S-135 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:****Ore minerals:** Arsenopyrite, gold**Gangue minerals:** Quartz**Geologic description:**

The prospect is hosted in sheared graywacke and slate of the Valdez Group of Late Cretaceous age. The deposit consists of a single quartz vein carrying arsenopyrite and gold (Cobb and Tysdal, 1980). The vein is in an 8-foot-wide shear zone that strikes northeast and dips 70NW. The vein ranges from 2 to 8 inches wide. The workings on the prospect consist of a 6- by 9-foot open cut.

The U.S. Bureau of Mines sampled this prospect in 1979. Two grab samples contained 0.75 ppm and a trace amounts of gold (Hoekzema and Sherman, 1983).

Alteration:**Age of mineralization:**

Cretaceous or younger; the vein is in a shear zone cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

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

The workings on the prospect consist of a 6- by 9-foot open cut. In 1979, the U.S. Bureau of Mines collected two grab samples that contained 0.75 ppm and a trace amounts of gold (Hoekzema and Sherman 1983).

Production notes:

Reserves:

Additional comments:

References:

Johnson, 1914 (B 592-G, p. 221); Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Cobb and Tysdal, 1980

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/10/00

Site name(s): Nugget**Site type:** Prospect**ARDF no.:** SR096**Latitude:** 60.9771**Quadrangle:** SR D-3**Longitude:** 147.9581**Location description and accuracy:**

The prospect is at an elevation of 1,700 feet near the crest of the ridge about 1.2 miles northeast of Golden. It is in the NW1/4 section 12, T. 10 N., R. 8 E., of the Seward Meridian. This is location 99 of Condon and Cass (1958), location 81 of Cobb and Richter (1972), location 97 of MacKevett and Holloway (1977), location 155 of Cobb and Tysdal (1980), and location S-136 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Cu, Pb**Ore minerals:** Chalcopyrite, galena, gold, pyrite, pyrrhotite**Gangue minerals:** Calcite, chlorite, quartz**Geologic description:**

The prospect is hosted in sheared sandstone and slate of the Upper Cretaceous Valdez Group. The deposit consists of one or more sulfide-bearing quartz veins in a shear zone that strikes N40E and dips 80 NW (Cobb and Tysdal, 1980). The workings on the prospect consist of a 160-foot adit at an elevation of 1,740 feet above sea level, a shallow shaft at an elevation of 1,800 feet, and surface trenches. The main vein, where exposed in the 1,740-level adit, ranges from 4 to 20 inches wide; it strikes N80E and dips 75N. Here, the shear zone is 4 to 30 inches wide. The vein contains some calcite and chlorite and is locally banded. Metallic minerals include chalcopyrite, galena, pyrite, and pyrrhotite (Johnson, 1914 [B 592-G, p. 220-221]).

The U.S. Bureau of Mines examined this property in 1979 and 1980 and collected 15 samples. The best assays were from the face of the 1,740-level adit and from a surface exposure at 1,800 feet elevation. The sample from the face contained 1.38 ounces of gold per ton, and the surface sample contained 29 ppm gold. The remainder of the samples contained less than 1 ppm gold. (Hoekzema and Sherman, 1983).

Alteration:**Age of mineralization:**

Cretaceous or younger; the deposit is in a shear zone that cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Yes

Site Status: Inactive

Workings/exploration:

Workings consist of a 160-foot adit at an elevation of 1,740 feet, a shallow shaft at an elevation of 1,800 feet, and trenches. The U.S. Bureau of Mines examined this property in 1979 and 1980, and collected 15 samples. The best assays were from the face of the 1,740-level adit and from a surface exposure at the 1,800 feet elevation. The sample from the face contained 1.38 ounces of gold per ton and the surface sample contained 29 ppm gold. The remainder of the samples contained less than one ppm gold (Hoekzema and Sherman, 1983).

A test shipment of ore was made in 1912 or 1913, but no results are reported (Johnson, 1914 [B 592-G, p. 220-221]).

Production notes:

A test shipment of ore was made in 1912 or 1913, but no results are reported (Johnson, 1914 [B 592-G, p. 220-221]).

Reserves:

The U.S. Bureau of Mines estimated a geologic resource of 900 tons with a grade of 0.3 ounce of gold per ton (Hoekzema and Sherman, 1983).

Additional comments:

References:

Brooks, 1913; Johnson, 1914 (B 592-G, p. 220-221); Johnson, 1915; Johnson, 1916; Johnson, 1918 (B 662-C, p. 183-192); Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Johnson 1914 (B 592-G, p. 220-221); Cobb and Tysdal, 1980

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/10/00

Site name(s): Golden Wonder #9; Mountain**Site type:** Prospect**ARDF no.:** SR097**Latitude:** 60.9710**Quadrangle:** SR D-3**Longitude:** 147.9527**Location description and accuracy:**

The prospect is located on the ridge line northeast of Golden between elevations of 1,440 to 1,740 feet. This is near the center of section 12, T. 10 N., R. 8 E., of the Seward Meridian. This is location 98 of Condon and Cass (1958), location 79 of Cobb and Richter (1972), location 97 of MacKevett and Holloway (1977), location 154 of Cobb and Tysdal (1980), and location S-133 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Cu, Zn**Ore minerals:** Arsenopyrite, chalcopyrite, gold, pyrite, pyrrhotite, sphalerite**Gangue minerals:** Calcite, chlorite, quartz**Geologic description:**

The country rocks at this prospect are sheared graywacke and slate of the Valdez Group of Late Cretaceous age. The deposit is in a shear zone that contains lens and stringers of quartz carrying arsenopyrite, pyrite, chalcopyrite, sphalerite, calcite, chlorite, and gold (Cobb and Tysdal, 1980). The shear zone strikes southwest and dips 70N; it is from 8 to 44 inches wide. The quartz veining is parallel to the shear and consists of white quartz with traces of calcite and chlorite and free gold. Assay values ranged from 1.5 to 4.8 ounces of gold per ton (Johnson, 1914 [B 592-G, p. 221]).

The workings on the prospect consist of two adits and an open cut. The lower adit is at 1,430 feet elevation and is caved (Hoekzema and Sherman, 1983). The upper adit is at 1,640 feet elevation and is 121 feet long. The open cut is located at 1,740 feet elevation and is 30 feet long.

The U.S. Bureau of Mines mapped and sampled this prospect in 1979 and 1980. Their assay of the veins ranged from less than 1 to 26 ppm gold and from a trace to 12.5 ppm silver. They estimated a geologic resource of 500 tons of ore grading 0.7 ounce of gold per ton (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins are in a shear zone that cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Undetermined.

Site Status: Inactive

Workings/exploration:

The lower adit is at 1,430 feet elevation and is caved. The upper adit is at 1,640 feet elevation and is 121 feet long. The open cut is at 1,740 feet elevation and is 30 feet long. Assay values ranged from 1.5 to 4.8 ounces of gold per ton (gold at \$20.67 per ounce) (Johnson, 1914 [B 592-G, p. 221]).

The U.S. Bureau of Mines sampled this prospect in 1979 and 1980. Their sample values ranged from less than 1 ppm to 26 ppm gold and from a trace to 12.5 ppm silver. They estimated a geologic resource of 500 tons of ore grading 0.7 ounce of gold per ton (Jansons and others, 1984).

Production notes:

Reserves:

The U.S. Bureau of Mines estimated a geologic resource of 500 tons of ore grading 0.7 ounce of gold per ton (Jansons and others, 1984).

Additional comments:

References:

Brooks, 1913; Johnson, 1914 (B 592-G, p. 221); Johnson, 1915; Johnson, 1916; Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Johnson, 1914 (B 592-G, p. 195-236)

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/07/00

Site name(s): North Star; Mohawk**Site type:** Prospect**ARDF no.:** SR098**Latitude:** 60.9977**Quadrangle:** SR D-3**Longitude:** 147.9350**Location description and accuracy:**

This prospect is located on the north valley wall of Avery River about one mile from Port Wells. A cabin is located at an elevation of 500 feet, and the workings are at 1,350 and 1,550 feet elevation. The workings are in the SW1/4 section 31, T. 11 N. , R. 8 E., of the Seward Meridian. This is location 95 of Condon and Cass (1958), location 82 of Cobb and Richter (1972), location 94 of MacKevett and Holloway (1977), location 147 of Cobb and Tysdal (1980), and location S-141 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Pb, Zn**Ore minerals:** Arsenopyrite, galena, gold, pyrite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

The host rock at this prospect is sedimentary strata of the Valdez Group of Late Cretaceous age. Bedding or foliation in this area generally strikes N35E and dips 85NW. Several quartz veins are exposed at this prospect. The principal vein is in a well-developed shear zone in slate and sandstone. This vein is 1 to 3 inches thick, strikes N75E, and dips steeply north. The shear zone strikes N65E and dips 70NW (Hoekzema and Sherman 1983). In addition to quartz, the vein contains disseminated grains of galena, sphalerite, arsenopyrite, pyrite, and gold.

The main working located is at 1,390 feet elevation and consists of a 270-foot drift driven on a quartz vein.

Four samples were collected by the U.S. Bureau of Mines in 1980. Three chip samples contained from a trace to 0.06 ounce of gold per ton and from 0.01 to 0.10 ounce of silver per ton. A select grab sample contained 0.24 ounce of gold per ton and 0.27 ounce of silver per ton (Jansons and others, 1984). Jansons and others (1984) reported that small amounts of gold were probably removed from this deposit, but there is no record of any production.

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins are in a shear zone that cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Undetermined.

Site Status: Inactive

Workings/exploration:

The prospect was discovered in 1911. By 1912 or 1913, a 53-foot inclined shaft was driven. At the bottom of the shaft, two short drifts, 10 and 15 feet in length, were driven along the vein (Johnson, 1914 [B 592-G, p. 220]). Some time after 1913, a 270-foot adit was driven along the vein.

Four samples were collected by the U.S. Bureau of Mines in 1980. Three chip samples contained from a trace to 0.06 ounce of gold per ton and from 0.01 to 0.10 ounce of silver per ton. A select grab sample contained 0.24 ounces of gold per ton and 0.27 ounces of silver per ton (Jansons and others, 1984).

Production notes:

According to Jansons and others (1984), small amounts of gold were probably removed from this deposit, but there is no record of any production.

Reserves:

Additional comments:

References:

Johnson, 1914 (B 592-G, p. 220); Johnson, 1916; Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Johnson, 1914 (B 592-G, p. 220); Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/23/99

Site name(s): Morning Star; Consolidated**Site type:** Prospect**ARDF no.:** SR099**Latitude:** 60.9994**Quadrangle:** SR D-3**Longitude:** 147.9333**Location description and accuracy:**

The prospect is located on the divide above Avery River. It is in the SW1/4 section 31, T. 11 N., R. 9 E., of the Seward Meridian. This is location 92 of Condon and Cass (1958), location 83 of Cobb and Richter (1972), location 95 of MacKevett and Holloway (1977), location 149 of Cobb and Tysdal (1980), and location S-142 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Ag, Pb, Zn**Ore minerals:** Arsenopyrite, galena, gold, pyrite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

The prospect is hosted in graywacke of the Valdez Group of Late Cretaceous age (Cobb and Tysdal, 1980). The workings consist of two 10-foot shafts. One shaft (Morning Star) is driven on a quartz vein as much as 4 feet wide, and the other (Consolidated) is on a quartz vein as much as 2 feet wide. The Morning Star vein can be traced along strike for as many as three claim lengths and contains arsenopyrite, galena, gold, pyrite, and sphalerite (Johnson, 1914 [B 592-G, p. 220]).

In 1980 the U.S. Bureau of Mines collected a select grab sample that contained 0.36 ounce of gold per ton and 0.69 ounce of silver per ton (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status:**Site Status:** Inactive**Workings/exploration:**

The workings on the prospect consist of two 10-foot shafts. One shaft (Morning star) is driven on a quartz vein as much as 4 feet wide, and the other (Consolidated) is on a quartz vein as much as 2 feet wide. The Morning Star vein can be traced along strike for as many as three claim lengths and contains arsenopyrite, galena, gold, pyrite, and sphalerite (Johnson, 1914 [B 592-G, p. 220]).

In 1980 the U.S. Bureau of Mines collected a select grab sample that contained 0.36 ounce of gold per ton and 0.69 ounce of silver per ton (Jansons and others, 1984).

Production notes:

Reserves:

Additional comments:

References:

Johnson, 1914 (B 592-G, p. 220); Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Johnson, 1914 (B 592-G, p. 220)

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 1/23/00

Site name(s): Gold Queen**Site type:** Prospect**ARDF no.:** SR100**Latitude:** 60.9816**Quadrangle:** SR D-3**Longitude:** 147.9321**Location description and accuracy:**

The prospect is located on the south side of the Avery River about 2 miles east of Port Wells. It is in the SW1/4 section 6, T. 10 N., R. 9 E., of the Seward Meridian. This is location 101 of MacKevett and Holloway (1977), location 163 of Cobb and Tysdal (1980), and location S-137 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:** Quartz**Geologic description:**

The Gold Queen prospect probably is a gold-bearing quartz vein hosted in slate and graywacke of the Valdez Group of Late Cretaceous age (Cobb and Tysdal, 1980). A 90-foot adit was driven in 1914 (Johnson, 1915). No other information about this prospect has been made public.

Alteration:**Age of mineralization:**

Cretaceous or younger; host rock is Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

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

One 90-foot adit was reported in 1914 (Johnson, 1915). No assay results are reported. The U.S. Bureau of Mines searched for this prospect in 1979 but did not find it (Hoekzema and Sherman, 1983).

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

References:

Johnson, 1915; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Johnson, 1915; Cobb and Tysdal, 1980

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/10/00

Site name(s): Sweepstake (Mining Co.)**Site type:** Prospect**ARDF no.:** SR101**Latitude:** 60.9915**Quadrangle:** SR D-3**Longitude:** 147.9230**Location description and accuracy:**

This prospect is located between 1,600 and 1,800 feet elevation on the northeast valley wall of Avery River, about 2 miles east of Port Wells. It is in the N1/2 section 6, T. 10 N. , R. 9 E., of the Seward Meridian. This is location 94 of Condon and Cass (1958), location 82 of Cobb and Richter (1972), location 94 of MacKevett and Holloway (1977), location 148 of Cobb and Tysdal (1980), and location S-140 of Jansons and others (1984). This location is accurate to within half a mile.

Commodities:**Main:** Au, Cu**Other:** Ag**Ore minerals:** Arsenopyrite, chalcopyrite, gold, pyrite, pyrrhotite**Gangue minerals:** Calcite, chlorite, feldspar, quartz**Geologic description:**

The host rock at this prospect is sedimentary strata of the Valdez Group of Late Cretaceous age (Cobb and Tysdal, 1980). The deposit consists of quartz veins containing arsenopyrite, pyrite, pyrrhotite, chalcopyrite, and gold. Minor gangue minerals include brown-weathering carbonate, feldspar, and chlorite.

The workings consist of a 110-foot adit at 1,600 feet elevation, a shaft at 1,630 feet elevation, a 22-foot adit at 1,700 feet elevation, and a shaft at 1,800 feet elevation. Improvements included a two-stamp mill.

The upper shaft was sunk on a 5-foot-wide shear zone with a 16- to 18-inch-wide quartz vein. The shear strikes N65W and dips 45W. About 20 feet northwest of the shaft, the vein pinches out to four inches wide and occurs along the hanging wall of the shear (Johnson, 1914 [B 592-G, p. 219-220]). The veining in the lower working is described as thin, discontinuous, quartz veins generally parallel to the shear margins. Some ore was shipped from the lower shaft in 1912 (Johnson, 1914 [B 592-G, p. 219-220]). No assay results are reported.

Alteration:

Sulfides locally altered to limonite.

Age of mineralization:

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Yes; small

Site Status: Inactive

Workings/exploration:

The workings consist of a 110-foot adit at 1,600 feet elevation, a shaft at 1,630 feet elevation, a 22-foot adit at 1,700 feet elevation, and a shaft at 1,800 feet elevation.

A Hammond two-stamp mill crushed ore, which then passed across three face plates and then on to a concentrate table (Hoekzema and Sherman, 1983). The U.S. Bureau of Mines collected seven chip samples in 1979 and 1980. The samples contained from nil to 35 ppm gold. The 35-ppm chip sample was taken from a surface outcrop near the shaft (Hoekzema and Sherman, 1983).

The U.S. Bureau of Mines sampled the exposed vein and short adit in 1979 and 1980. Five grab samples contained as much as a trace of gold and silver. A select grab sample contained 1.02 ounces of gold per ton and 1.05 ounces of silver per ton. A 24-inch chip sample contained 0.25 ounce of gold per ton and 0.24 ounce of silver per ton (Jansons and others, 1984).

Production notes:

Several tons of ore of the best ore were shipped about March of 1912 (Johnson, 1914 [B 592-G, p. 219]), but the returns were not made public. Tysdal (1978 (MF-880A)) estimated a total recovery from this deposit of less than 769 ounces of gold.

Reserves:

The U.S. Bureau of Mines estimated a resource of 500 tons of ore with a grade of 0.3 ounce each of gold and silver per ton (Hoekzema and Sherman, 1983).

Additional comments:

References:

Johnson, 1914 (B 592-G, p. 219-220); Johnson, 1915; Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Mitchell, 1979; Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Johnson, 1914 (B 592-G, p. 219-220); Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 03/09/00

Site name(s): Beauty Bird; Mohawk**Site type:** Prospect**ARDF no.:** SR102**Latitude:** 60.9847**Quadrangle:** SR D-3**Longitude:** 147.9128**Location description and accuracy:**

The prospect is at an elevation of 545 feet on the northeast valley wall of Avery River, about 2 miles from Port Wells. It is in the SE1/4 section 6, T. 10 N., R. 9 E., of the Seward Meridian. This is location S-139 of Jansons and others (1984). This prospect is mentioned in Cobb and Tysdal (1980, p. 33), but no location number is given. This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:** Quartz**Geologic description:**

The bedrock in the area of the prospect is undivided sedimentary strata of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). The host rock is a black slate that shows considerable fracturing and strike-slip faulting. The mineralization consists of a group of lenticular quartz veins that strike N54E and dip 83NW.

The workings consist of a 108-foot adit, a 50-foot shaft and three surface cuts near the portal (Stewart, 1931). The shaft was sunk on a 3-foot-wide quartz vein that assayed as much as \$50.00 per ton gold (gold at \$20.67 per ounce) (Stewart, 1931). No other data or assay results are reported.

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

The workings consist of a 108-foot adit at 530 feet elevation, a 50-foot shaft, and three surface cuts located 170 feet southwest of the portal (Stewart, 1931). The shaft was sunk on a 3-foot-wide quartz vein that assayed as much as \$50.00 per ton gold (gold at \$20.67 per ounce) (Stewart, 1931). No other data or assay results are reported.

The U.S. Bureau of Mines searched for the prospect in 1980 but did not locate it. They collected no samples from the area (Hoekzema and Sherman, 1983).

Production notes:

Reserves:

Additional comments:

References:

Stewart, 1931; Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Stewart, 1931; Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/20/00

Site name(s): Conley and McChesney; Whistler; Bluebell; Perseverence**Site type:** Prospects**ARDF no.:** SR103**Latitude:** 60.9810**Quadrangle:** SR D-3**Longitude:** 147.9068**Location description and accuracy:**

These prospects are located on the north side of the Avery River, between 2 and 3 miles from its mouth. They are in the S1/2 section 5, T. 10 N., R. 9 E., of the Seward Meridian. This is location 93 of Condon and Cass (1958), location 83 of Cobb and Richter (1972), location 95 of MacKevett and Holloway (1977), location 151 of Cobb and Tysdal (1980), and location S-138 of Jansons and others (1984). Cobb and Tysdal (1980) summarized the relevant references under the name Conley and McChesney. This location is accurate to within half a mile.

Commodities:**Main:** Au**Other:** Cu, Pb**Ore minerals:** Chalcopyrite, galena, gold, pyrite**Gangue minerals:** Quartz**Geologic description:**

These prospects consist of three distinct quartz veins in an area underlain by Valdez Group slate and sandstone of Late Cretaceous age (Cobb and Tysdal, 1980). The vein on the Bluebell claim is 18 inches to 8 feet wide; the vein on the Whistler is 3 feet wide; and the vein on the Perseverence is several feet wide (Johnson, 1914 [B 592-G, p. 219]). Samples examined from the Whistler vein consisted of bluish quartz containing galena, pyrite, and chalcopyrite (Johnson, 1914 [B 592-G, p. 219]). No other data or assay results are reported.

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

The workings consist of a 40-foot adit on the Bluebell claim and a 10-foot shaft on the Whistler claim (Johnson, 1914 [B 592-G, p. 219]). No assay results are reported.

The U.S. Bureau of Mines searched for the workings in 1979 and 1980 but could not find them. They

collected samples from quartz veins exposed in the area. These samples contained trace amounts of gold (Hoekzema and Sherman, 1983).

Production notes:

Reserves:

Additional comments:

References:

Johnson, 1914 (B 592-G, p. 219); Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984.

Primary reference: Johnson, 1914 (B 592-G, p. 219)

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 12/15/99

Site name(s): Gray Brothers**Site type:** Prospect**ARDF no.:** SR104**Latitude:** 60.8584**Quadrangle:** SR D-3**Longitude:** 147.8397**Location description and accuracy:**

This prospect is at an elevation of about 1,500 feet, on the south side of the divide between Derickson Bay and Squaw Bay. It is in the NW1/4 section 22, T. 9 N., R. 9 E., of the Seward Meridian. This is location 165 of Tysdal (1978 [MF-880-A]) and location S-122 of Jansons and others (1984) and is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:****Ore minerals:** Arsenopyrite, gold, pyrite, pyrrhotite**Gangue minerals:** Quartz**Geologic description:**

The Gray Brothers prospect is near the Contact Fault, which separates sedimentary rocks of the Valdez Group of Late Cretaceous age from sedimentary rocks of the Orca Group of early Tertiary age (Cobb and Tysdal, 1980). The deposit is a sulfide-bearing quartz vein in a shear zone in green-gray slate and phyllite of the Valdez Group. The shear zone is 10 to 20 feet wide; it strikes N30E and dips vertically. The vein is exposed for about 1,000 feet along strike and pinches and swells from 2 inches to 10 feet in width. Pyrite, arsenopyrite, and pyrrhotite have been identified in the vein, but overall, it contains very sparse sulfides. Seven samples collected by the U.S. Bureau of Mines in 1979 contained as much as 1,100 ppm arsenic and less than 1 ppm gold (Hoekzema and Sherman, 1983). Workings consist of a 40-foot adit at 1,550 feet elevation, a 15-foot trench at 1,750 feet, and various prospect pits.

Alteration:**Age of mineralization:**

Oligocene or younger; the Contact Fault cuts Oligocene granitic rocks northeast of the prospect.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

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

The prospect was discovered in 1913 by the Gray Brothers, who developed a 40-foot adit at 1,550 feet elevation, a 15-foot trench at 1,750 foot elevation and various prospect pits (Johnson 1914 [B 592-G, map p.

196 only mention]). Seven samples collected by the U.S. Bureau of Mines in 1979 contained as much as 1,100 ppm arsenic and less than 1 ppm gold (Hoekzema and Sherman, 1983).

Production notes:

Reserves:

Additional comments:

The U.S. Bureau of mines reported three cases of dynamite in the adit in 1979 (Hoekzema and Sherman, 1983).

References:

Johnson, 1914 (B 592-G, p. 196); Condon and Cass, 1958; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Johnson, 1914 (B 592-G, map p. 196)

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 12/31/99

Site name(s): Eldorado**Site type:** Prospect**ARDF no.:** SR105**Latitude:** 60.8720**Quadrangle:** SR D-3**Longitude:** 147.8320**Location description and accuracy:**

The prospect is southwest of the head of Derickson Bay at an elevation of about 600 feet. It is in the N1/2 section 15, T. 9 N., R. 9 E., of the Seward Meridian. This is location 184 of Tysdal (1978 [MF-880-A]) and location S-123 of Jansons and others (1984). This location is accurate to within half a mile.

Commodities:**Main:** Au**Other:** Cu**Ore minerals:** Arsenopyrite, chalcopyrite, gold, pyrite, pyrrhotite**Gangue minerals:** Calcite, quartz**Geologic description:**

The Eldorado prospect consists of a 12- to 48-inch-wide quartz vein in a shear zone. The vein is semi-concordant to the shear. It strikes N40E, dips 75NW, and is traceable for 400 feet along strike (Johnson, 1914 [B 592-G, p. 235]). The country rock is slate and quartzite of the Valdez Group of Late Cretaceous age (Cobb and Tysdal, 1980). The shear zone hosting the vein is related to the Contact Fault, a major regional structure that separates the Valdez Group from the younger Orca Group.

Overall, the vein is composed of bluish-gray quartz that contains calcite, arsenopyrite, chalcopyrite, pyrite, pyrrhotite, and gold. Grab samples assayed as much as \$5 in gold (gold at 20.67 per ounce) (Johnson, 1914 [B 592-G, p. 235]). Johnson (1914) reported that 375 feet of workings had been completed in 1913. No other information about this prospect has been made public. In 1978 and 1979, the U.S. Bureau of Mines searched for this prospect, but no workings were found (Hoekzema and Sherman, 1983).

Alteration:**Age of mineralization:**

Oligocene or younger; the Contact Fault cuts Oligocene intrusive rocks northeast of this prospect.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

Johnson (1914 [B 592-G, p. 235]) reported that 375 feet of workings had been completed in 1913. Johnson also reported that samples of blue-gray quartz from the shear zone were reported to contain \$100 in

gold per ton (gold at \$20.67/ounce), and samples of the sheared material contained \$4.00 to \$5.00 in gold per ton.

Production notes:

Reserves:

Additional comments:

References:

Johnson, 1914 (B 592-G, p. 235); Johnson, 1915; Condon and Cass, 1958; Cobb and Richter, 1972 ; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984.

Primary reference: Johnson, 1914 (B 592-G, p. 235)

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/01/2000

Site name(s): Unnamed (between Cascade and Derickson Bays)**Site type:** Occurrences**ARDF no.:** SR106**Latitude:** 60.8943**Quadrangle:** SR D-3**Longitude:** 147.8103**Location description and accuracy:**

Several occurrences are located on the west and northeast flanks of hill 2477, about midway between Cascade Bay and Derickson Bay. The map site is in the SW1/4 section 2, T. 9 N., R. 9 E., of the Seward Meridian. This is location S-124 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Cu**Ore minerals:** Arsenopyrite, chalcopyrite, gold, pyrite**Gangue minerals:** Quartz**Geologic description:**

The occurrences consist of several quartz-sulfide veins in the Contact Fault zone, a major regional structure that separates the Valdez Group of Cretaceous age from the Orca Group of Tertiary age (Jansons and others, 1984). The veins generally are folded and boudinaged and form an en echelon array within the Contact Fault. The general strike and dip of the veins are N35E and 70 to 80 NW. Hoekzema and Sherman (1983) did not specify whether the host rock is Valdez Group or Orca Group strata.

The veins contain pyrite, arsenopyrite, and chalcopyrite that occur as disseminated grains and as massive lenses and pods in the core and along the margins of the veins. Samples collected by the U.S. Bureau of Mines in 1981 contained as much as 0.13 ppm gold and 1.3 ppm silver, along with as much as 2,600 ppm arsenic (Hoekzema and Sherman, 1983).

Alteration:**Age of mineralization:**

Oligocene or younger; the Contact Fault cuts Oligocene intrusive rocks northeast of this occurrence.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

The occurrences were discovered and sampled by the U.S. Bureau of Mines in 1981. Their samples contained as much as 0.13 ppm gold and 1.3 ppm silver, along with as much 2,600 ppm arsenic (Hoekzema and

Sherman, 1983).

Production notes:

Reserves:

Additional comments:

References:

Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Hoekzema and Sherman, 1983; this record

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 1/1/2000

Site name(s): Siwash Bay**Site type:** Prospect**ARDF no.:** SR107**Latitude:** 60.9661**Quadrangle:** SR D-2**Longitude:** 147.6404**Location description and accuracy:**

The prospect is at an elevation of 1,000 feet on the north side of Siwash Bay. It is in the SW1/4 section 11, T. 10 N., R. 11 E., of the Seward Meridian. This is location 87 of Cobb and Richter (1972), location 112 of MacKevett and Holloway (1977), location 181 of Cobb and Tysdal (1980), and location S-119 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:****Ore minerals:****Gangue minerals:****Geologic description:**

The only information about this occurrence is that it is a copper prospect, possibly a massive sulfide occurrence, in sedimentary rock of the lower Orca Group of Tertiary age (Cobb and Tysdal, 1980).

Alteration:**Age of mineralization:**

Tertiary or younger; the occurrence is in Tertiary Orca Group rocks.

Deposit model:

Besshi massive sulfide(?) (Cox and Singer, 1986; model 24b)

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

24b(?)

Production Status: None**Site Status:** Inactive**Workings/exploration:****Production notes:****Reserves:****Additional comments:****References:**

Johnson, 1918 (B 662-C, p. 183-192); Moffit and Fellows, 1950; Condon and Cass, 1958; Berg and Cobb,

1967; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Cobb and Tysdal, 1980

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 03/09/00

Site name(s): Wilson**Site type:** Prospect**ARDF no.:** SR108**Latitude:** 60.9745**Quadrangle:** SR D-2**Longitude:** 147.6398**Location description and accuracy:**

The prospect is at elevation of about 2,300 feet, on the east flank of hill 2152. It is in the NW1/4 section 11, T. 10 N., R. 10 E., of the Seward Meridian. This is location 180 of Tysdal (1978 [MF-880-A]) and location S-120 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:****Ore minerals:****Gangue minerals:****Geologic description:**

The prospect is in sandstone of the Orca Group of early Tertiary age (Tysdal, 1978 [MF-880-A]). It consists of a 12-foot-wide shear zone containing a 4-centimeter-wide cupriferous vein. An adit of unknown length was driven on the vein. No other information about this prospect has been made public.

Alteration:**Age of mineralization:**

Tertiary or younger; the vein is in sandstone of the Tertiary Orca Group.

Deposit model:**Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production Status:** None**Site Status:** Inactive**Workings/exploration:**

One adit of unknown length (Tysdal, 1978 [MF-880-A]).

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

Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984.

Primary reference: Tysdal, 1978 (MF-880-A)

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 02/04/00

Site name(s): Beachcomber; Anderson**Site type:** Prospect**ARDF no.:** SR109**Latitude:** 60.9809**Quadrangle:** SR D-2**Longitude:** 147.5354**Location description and accuracy:**

The prospect is at or near sea level on the east side of Unakwik Inlet opposite Siwash Bay. It is in the SE1/4 section 5, T. 10 N., R. 11 E., of the Seward Meridian. This is location 181 of Tysdal (1978 [MF-880-A]) and location S-118 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:****Other:****Ore minerals:****Gangue minerals:** Quartz**Geologic description:**

The prospect consists of a 65-foot drift that follows a quartz vein in limestone of the lower Tertiary Orca Group (Cobb and Tysdal, 1980). No other information or assay results are reported.

Alteration:**Age of mineralization:**

Tertiary or younger; the vein is within limestone of the Tertiary Orca Group.

Deposit model:**Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production Status:** None**Site Status:** Inactive**Workings/exploration:**

One 65-foot-long adit is reported (Jansons and others, 1984).

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

Johnson, 1918 (B 662-C, p. 183-192); Moffit and Fellows, 1950; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984.

Primary reference: Tysdal, 1978 (MF-880-A)

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 02/04/00

Site name(s): Byers**Site type:** Occurrence**ARDF no.:** SR110**Latitude:** 60.8670**Quadrangle:** SR D-2**Longitude:** 147.4248**Location description and accuracy:**

The occurrence is located on southeastern Fairmount Island in the S1/2 section 13, T. 9 N., R. 11 E., of the Seward Meridian. This is location 194 of Tysdal (1978) and location S-113 of Jansons and others (1984). This location is accurate to within half a mile.

Commodities:**Main:** Cu**Other:** Au, Cu, Zn**Ore minerals:** Chalcopyrite, pyrite, pyrrhotite, sphalerite**Gangue minerals:** Clay shear gouge**Geologic description:**

The country rock in the area of this occurrence is sedimentary strata of the Tertiary Orca Group (Cobb and Tysdal, 1980). The occurrence is in graywacke and consists of a 2-foot-wide clay-rich shear zone containing a lens of massive chalcopyrite, pyrite, pyrrhotite, and sphalerite (Jansons and others, 1984). The U. S. Bureau of Mines sampled this occurrence and collected a chip sample that contained 1.7percent zinc, 0.1percent copper, and 1.59 ppm gold (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Tertiary or younger; the deposit is in graywacke of the Tertiary Orca Group.

Deposit model:

Besshi massive sulfide (Cox and Singer, 1986; model 24b)

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

24b

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

The U.S. Bureau of Mines sampled this occurrence; a chip sample contained 1.7 percent zinc, 0.1percent copper, and 1.59 ppm gold (Jansons and others, 1984).

Production notes:**Reserves:**

Additional comments:

References:

Grant and Higgins, 1909; Condon and Cass, 1958; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/31/00

Site name(s): Wells Bay Gold and Copper Mining; Blackjack; Cedar Bay**Site type:** Prospect**ARDF no.:** SR111**Latitude:** 60.9578**Quadrangle:** SR D-2**Longitude:** 147.3880**Location description and accuracy:**

The prospect is located on the east side of Cedar Bay in section 18, T. 10 N., R. 12 E., of the Seward Meridian. This is location 183 of Tysdal (1978 [MF-880-A]) and location S-115 of Jansons and others (1984). This location is accurate to within one mile.

Commodities:**Main:** Cu, Pb, Zn**Other:** Ag**Ore minerals:** Chalcopyrite, pyrite, pyrrhotite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

The prospect is described as a 12-foot-wide shear zone in graywacke and Eocene muscovite-bearing granite. The zone contains chalcopyrite, pyrite, pyrrhotite, and sphalerite (Jansons and others, 1984). The workings on the prospect consist of two adits, one 42 feet long and the other 280 feet long. Thirteen grab samples collected by the U.S. Bureau of Mines contained as much as 9 percent zinc, 0.57 percent copper, 0.29 percent lead, and 30 ppm silver (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Eocene or younger; the shear zone cuts Eocene granite.

Deposit model:

Polymetallic veins (Cox and Singer, 1986; model 22c)

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

22c

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

The workings on the prospect consist of two adits, one 42 feet long and one 280 feet long. Thirteen grab samples collected by the U.S. Bureau of Mines contained from 22 ppm to 9 percent zinc, 6 ppm to 0.57 percent copper, 10 ppm to 0.29 percent lead, and 0.3 ppm to 30 ppm silver (Jansons and others, 1984).

Production notes:**Reserves:**

Additional comments:

References:

Johnson, 1918 (B 692-C, p. 183-192); Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 03/09/00

Site name(s): Glendenning**Site type:** Prospect**ARDF no.:** SR112**Latitude:** 60.9745**Quadrangle:** SR D-1**Longitude:** 147.3649**Location description and accuracy:**

The prospect is located near the head of Cedar Bay in the N1/2 section 8, T. 10 N., R. 12 E., of the Seward Meridian. This is location 184 of Tysdal (1978 [MF-880-A]) and location S-116 of Jansons and others (1984). This location is accurate to within half a mile.

Commodities:**Main:** Cu**Other:** Zn**Ore minerals:** Chalcopyrite, covellite, pyrite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

The prospect is a 6- to 70-foot- wide shear zone in silicified graywacke and Eocene muscovite-bearing granite. The zone contains quartz veins carrying chalcopyrite, covellite, pyrite, and sphalerite (Jansons and others, 1984). The largest vein is 20 centimeters thick and 1 to 1.5 meters long. It contains mostly pyrite along with traces of chalcopyrite and covellite (Tysdal, 1978 [MF-880-A]).

The single working on the prospect is a 700-foot adit. Three grab samples collected by the U.S. Bureau of Mines contained from 30 to 825 ppm copper (Jansons and others, 1984).

Alteration:

Silicification.

Age of mineralization:

Eocene or younger; the shear zone cuts Eocene granite.

Deposit model:

Polymetallic veins (Cox and Singer, 1986; model 22c)

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

22c

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

The single working on the prospect is a 700-foot-long adit. Three grab samples collected by the U.S. Bureau of Mines contained from 30 to 825 ppm copper (Jansons and others, 1984).

Production notes:

Reserves:

Additional comments:

References:

Moffit and Fellows, 1950; Tysdal, 1978 (MF-880-A); Jansons and others, 1984.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/30/00

Site name(s): Long Bay**Site type:** Occurrence**ARDF no.:** SR113**Latitude:** 60.9982**Quadrangle:** SR D-1**Longitude:** 147.3268**Location description and accuracy:**

The occurrence is about 0.5 mile northwest of the summit of hill 2301 in the SE1/4 section 33, T. 11 N., R. 12 E., of the Seward Meridian. This is location S-117 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Ag, Cu**Other:****Ore minerals:** Chalcopyrite, pyrite**Gangue minerals:** Quartz**Geologic description:**

The occurrence is in graywacke and consists of a 10-foot-wide shear zone containing quartz veins carrying chalcopyrite and pyrite (Jansons and others, 1984). Nelson and others (1985) mapped the bedrock in this area as Valdez Group of Late Cretaceous age.

This occurrence was discovered by the U.S. Bureau of Mines. They collected a grab sample that contained 0.6 percent copper and 26 ppm silver (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Cretaceous or younger; the deposit is in a shear zone that cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Besshi massive sulfide (Cox and Singer, 1986; model 24b)

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

24b

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

This occurrence was discovered by the U.S. Bureau of Mines. They collected a grab sample that contained 0.6 percent copper and 26 ppm silver (Jansons and others, 1984).

Production notes:**Reserves:**

Additional comments:

References:

Jansons and others, 1984.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/30/00

Site name(s): Gilnow**Site type:** Occurrence**ARDF no.:** SR114**Latitude:** 60.9501**Quadrangle:** SR D-1**Longitude:** 147.2696**Location description and accuracy:**

The occurrence is at or near sea level on the west side of Long Bay in the S1/2 section 14, T. 10 N., R. 12 E., of the Seward Meridian. This is location S-114 of Jansons and others (1984). The location is accurate to within half a mile.

Commodities:**Main:** Cu**Other:****Ore minerals:** Pyrrhotite**Gangue minerals:****Geologic description:**

The occurrence is in slate and consists of a 100-foot-wide shear zone containing disseminated pyrrhotite (Jansons and others, 1984). Nelson and others (1985) describe the bedrock geology in this area as sedimentary rocks of the Orca Group of Tertiary age. The U.S. Bureau of Mines sampled this occurrence; the two grab samples they collected contained 33 and 45 ppm copper (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Tertiary or younger; the occurrence is in slate of the Orca Group of Tertiary age.

Deposit model:

Besshi massive sulfide (Cox and Singer, 1986; model 24b)

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

24b

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

The U.S. Bureau of Mines sampled this occurrence; two grab samples contained 33 and 45 ppm copper (Jansons and others, 1984).

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

References:

Jansons and others, 1984.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/31/00

Site name(s): Unnamed (Cave Point)**Site type:** Occurrence**ARDF no.:** SR115**Latitude:** 60.8631**Quadrangle:** SR D-1**Longitude:** 147.1863**Location description and accuracy:**

The occurrence is located near Cave Point in the NW1/4 section 4, T. 12 S., R. 11 W., of the Copper River Meridian. This is location 192 of Tysdal (1978 [MF-880-A]) and location S-111 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:****Ore minerals:** Chalcopyrite**Gangue minerals:** Quartz**Geologic description:**

The occurrence is hosted in sheared pillow basalt and greenstone of the lower Tertiary Orca Group. The mineralization consists of quartz stringers containing chalcopyrite (Cobb and Tysdal, 1980) No assay results are reported.

Alteration:

Basalt altered to greenstone.

Age of mineralization:

Tertiary or younger; the veins are in pillow basalt of the Orca Group of Tertiary age.

Deposit model:

Besshi massive sulfide (Cox and Singer, 1986; model 24b)

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

24b

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

No workings or assay results are reported.

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

References:

Condon and Cass, 1958; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984.

Primary reference: Cobb and Tysdal, 1980

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/30/00

Site name(s): Unnamed (near Chamberlain Bay)**Site type:** Prospect**ARDF no.:** SR116**Latitude:** 60.8735**Quadrangle:** SR D-1**Longitude:** 147.1743**Location description and accuracy:**

The prospect is located on the north side of hill 1280 overlooking the valley that separates Growler Bay from Chamberlain Bay. The site is in the NE1/4 section 33, T. 11 S., R. 11 W., of the Copper River Meridian. This is location 191 of Tysdal (1978 [MF-880-A]) and location S-112 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:** Co**Ore minerals:** Chalcopyrite, pyrite, pyrrhotite**Gangue minerals:****Geologic description:**

The prospect is hosted in sheared, mafic sheeted dikes of the lower Orca Group of Tertiary age. The mineralization consists of solid streaks of sulfides, mostly pyrrhotite with traces of chalcopyrite and pyrite (Cobb and Tysdal, 1980).

Four chip samples contained from 650 ppm to 1.25 percent copper and from 70 ppm to 0.2 percent cobalt (Jansons and others, 1984). A bulk sample (size unknown) collected by the U.S. Bureau of Mines contained 0.85 percent copper and 0.11 percent cobalt. Workings consist of seven surface trenches totaling 150 feet in length.

Alteration:**Age of mineralization:**

Tertiary or younger; the occurrence is in mafic sheeted dikes of the Orca Group of Tertiary age.

Deposit model:

Besshi massive sulfide (Cox and Singer, 1986; model 24b)

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

24b

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

Four chip samples contained from 650 ppm to 1.25 percent copper, and from 70 ppm to 0.2 percent cobalt (Jansons and others, 1984). A bulk sample (size unknown) contained 0.85 percent copper and 0.11 percent cobalt. Workings consist of seven surface trenches totaling 150 feet in length.

Production notes:

Reserves:

Additional comments:

References:

Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984.

Primary reference: Cobb and Tysdal, 1980; Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/30/00

Site name(s): Unnamed (near Bull Head)**Site type:** Occurrence**ARDF no.:** SR117**Latitude:** 60.8598**Quadrangle:** SR D-1**Longitude:** 147.1617**Location description and accuracy:**

The occurrence is located in the NW1/4 section 3, T. 12 S., R. 11 W., of the Copper River Meridian. The occurrence is in the shallow cove between Bull Head and Cave Point on the southern end of Glacier Island. This is location 193 of Cobb and Tysdal (1980) and location S-110 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:****Ore minerals:** Chalcopyrite, pyrite**Gangue minerals:** Quartz**Geologic description:**

The occurrence consists of pyrite- and chalcopyrite-bearing quartz veinlets as much as 4 inches wide in sheared, mafic sheeted dikes of the lower Tertiary Orca Group. Five grab samples from this occurrence contained from 10 ppm to 0.5 percent copper (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Tertiary or younger; the veins are in mafic sheeted dikes of the Orca Group of Tertiary age.

Deposit model:

Besshi massive sulfide (Cox and Singer, 1986; model 24b)

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

24b

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

The U.S. Bureau of Mines collected five grab samples that contained between 10 ppm and 0.05 percent copper (Jansons and others, 1984). No workings are known.

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

References:

Jansons and others, 1984.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/30/00

Site name(s): Unnamed (Finski Bay)**Site type:** Prospect**ARDF no.:** SR118**Latitude:** 60.8976**Quadrangle:** SR D-1**Longitude:** 147.0976**Location description and accuracy:**

The prospect is located on the west side of Finski Bay in the W1/2 section 24, T. 11 S., R. 11 W., of the Copper River Meridian. This is location 186 of Tysdal (1978 [MF-880-A]) and location S-105 of Jansons and others (1984). This location is accurate to within half a mile.

Commodities:**Main:** Cu**Other:****Ore minerals:** Chalcopyrite, pyrite**Gangue minerals:** Quartz**Geologic description:**

The prospect is hosted in sheared pillow basalt and greenstone of the Orca Group of Tertiary age. It consists of three 0.5- to 1-foot-wide quartz veins. The veins contain pyrite and chalcopyrite (Cobb and Tysdal, 1980). The single working on the prospect is a 70-foot drift. The U.S. Bureau of Mines sampled this prospect in 1981; they collected two samples of vein material that contained 11 and 70 ppm copper (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Tertiary or younger; the veins are in pillow basalt of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

The working on the prospect consists of a 70-foot drift. The U.S. Bureau of Mines sampled this occurrence in 1981; two samples of vein material contained 11 and 70 ppm copper (Jansons and others, 1984).

Production notes:**Reserves:**

Additional comments:

References:

Grant and Higgins, 1909; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/24/00

Site name(s): Jensen; Wallace; Kilbourne**Site type:** Prospect**ARDF no.:** SR119**Latitude:** 60.8904**Quadrangle:** SR D-1**Longitude:** 147.0806**Location description and accuracy:**

The prospect is located in the NW1/4 of section 30, T. 11 S., R. 10 W., of the Copper River Meridian. It is situated on the east side of Growler Bay, about a half-mile south of Finski Point. This is location 187 of Cobb and Tysdal (1980) and location S-107 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:****Ore minerals:** Chalcopyrite, pyrite**Gangue minerals:** Calcite, quartz**Geologic description:**

The prospect consists of a collapsed adit and a 12-foot trench in brecciated greenstone and sheared pillow basalt of the Orca Group of Tertiary age. The breccia has been cemented by quartz and calcite containing pyrite and chalcopyrite (Cobb and Tysdal, 1980). The U.S. Bureau of Mines collected six grab samples from this prospect that contained from 2 ppm to 0.88 percent copper (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Tertiary or younger; the prospect is in pillow basalts of the Orca Group of Tertiary age.

Deposit model:

Besshi massive sulfide (Cox and Singer, 1986; model 24b)

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

24b

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

Workings consist of a collapsed adit and a 12-foot trench. The U.S. Bureau of Mines collected six grab samples that contained from 2 ppm to 0.88 percent copper (Jansons and others, 1984).

Production notes:**Reserves:**

Additional comments:

References:

Condon and Cass, 1958; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/29/00

Site name(s): Jensen; Glacier Island; Portsmouth; Scotia Bell**Site type:** Prospect**ARDF no.:** SR120**Latitude:** 60.8886**Quadrangle:** SR D-1**Longitude:** 147.0802**Location description and accuracy:**

The prospect is located on the east side of Glacier Island about a mile south of Finski Point. It is in the W1/2 section 30, T. 11 S., R. 10 W., of the Copper River Meridian. This is location 189 of Tysdal (1978 [MF-880-A]) and location S-108 of Jansons and others (1984). This location is accurate to within half a mile.

Commodities:**Main:** Ag, Au, Cu**Other:****Ore minerals:** Chalcopyrite, pyrite**Gangue minerals:** Epidote, quartz**Geologic description:**

The prospect consists of several showings of shattered Orca Group (of Tertiary age) greenstone cemented by quartz and epidote containing pyrite and chalcopyrite in what appears to be a single shear zone in a pronounced gully. The shear zone strikes N5W and dips 65W (Cobb and Tysdal, 1980). The shear zone averages 4 feet in width; most of the mineralized portion is from 5 to 12 inches wide. One body of solid cupiferous pyrite in the zone is 10 feet wide and of unknown length. Another mineralized zone consists of a streak of solid chalcopyrite along the hanging wall of the shear. This zone is 3 inches thick; its length is unknown (Tuck, 1933).

Alteration:

Basalt altered to greenstone.

Age of mineralization:

Tertiary or younger; the veins cut Orca Group rocks of Tertiary age.

Deposit model:

Besshi massive sulfide (Cox and Singer, 1986; model 24b)

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

24b

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

There are three adits on the prospect. Two are located at 250 feet and one at 500 feet elevation. One of the lower adits has 225 feet of workings, and the other has 30 feet of workings. The upper adit is 30 feet long. There is also some surface trenching. Assays show traces of gold and silver (Tuck, 1933).

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

There are considerable workings on this prospect, considering there has been no production.

References:

Johnson, 1918 (B 662-C, p. 137-145); Johnson, 1919 (B 692-C, p. 146); Moffit and Fellows, 1950; Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984.

Primary reference: Johnson, 1919 (B 692-C, p. 146)

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 03/09/00

Site name(s): Nelson; Rystrom; Collins**Site type:** Occurrence**ARDF no.:** SR121**Latitude:** 60.8925**Quadrangle:** SR D-1**Longitude:** 147.0786**Location description and accuracy:**

The occurrence is located in a narrow valley just south of Finski Point in the NW1/4 section 30, T. 11 S., R. 10 W., of the Copper River Meridian. This is location 188 of Tysdal (1978 (MF-880-A)) and location S-106 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:****Ore minerals:****Gangue minerals:****Geologic description:**

This is a copper occurrence in pillow basalt of the lower part of the Orca Group of Tertiary age (Cobb and Tysdal, 1980). No other information about this occurrence has been made public.

Alteration:**Age of mineralization:**

Tertiary or younger; the occurrence is in pillow basalt of the Orca Group of Tertiary age.

Deposit model:

Besshi massive sulfide (Cox and Singer, 1986; model 24b)

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

24b

Production Status: None**Site Status:** Inactive**Workings/exploration:****Production notes:****Reserves:****Additional comments:**

Very little information is available on this site.

References:

Condon and Cass, 1958; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal,

1980; Jansons and others, 1984.

Primary reference: Cobb and Tysdal, 1980

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/21/00

Site name(s): Chickaloon River**Site type:** Occurrence**ARDF no.:** SR122**Latitude:** 60.6377**Quadrangle:** SR C-8**Longitude:** 149.8992**Location description and accuracy:**

This occurrence is located in section 1, T. 6 N., R. 4 W., of the Seward Meridian. The map site is near the head of the Chickaloon River, about a half-mile from Swan Lake. This is location S-261 of Jansons and others (1984). The location is accurate within one mile.

Commodities:**Main:** Mo**Other:****Ore minerals:** Molybdenite**Gangue minerals:** Quartz**Geologic description:**

The deposit at this occurrence consists of small molybdenite flakes in quartz veins (ledges) (Martin, 1915). The host rock is sedimentary strata of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). No other data has been reported.

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status: None**Site Status:** Inactive**Workings/exploration:****Production notes:****Reserves:****Additional comments:**

The U.S. Bureau of Mines searched for this occurrence in 1980 but did not locate it (Jansons and others, 1984).

References:

Martin and others, 1915; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Martin and others, 1915

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/22/00

Site name(s): Unnamed (near Juneau Lake)**Site type:** Occurrence**ARDF no.:** SR123**Latitude:** 60.5827**Quadrangle:** SR C-8**Longitude:** 149.8406**Location description and accuracy:**

The occurrence is located in the N1/2 section 29, T. 6 N. R. 3 W., of the Seward Meridian, at an elevation of approximately 2,800 feet. It is situated a mile east of the north end of Juneau Lake. This is location 47 of Tysdal (1978 [MF-800A]) and location S-248 of Jansons and others (1984). This location is accurate to within half a mile.

Commodities:**Main:****Other:****Ore minerals:** Gold**Gangue minerals:** Quartz**Geologic description:**

This occurrence consists of iron-stained, vuggy quartz veins hosted in sandstone of the Valdez Group of Late Cretaceous age (Cobb and Tysdal, 1980). Significant mineralization has not been detected.

Alteration:**Age of mineralization:**

Cretaceous or younger; quartz veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

Prospect pits are reported to be present.

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

This occurrence was first reported by Tysdal (1978 [MF-880-A]).

References:

Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984.

Primary reference: Cobb and Tysdal, 1980

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/08/00

Site name(s): Johnson and Skeen; Billy-Jim 1**Site type:** Prospect**ARDF no.:** SR124**Latitude:** 60.6489**Quadrangle:** SR C-8**Longitude:** 149.7555**Location description and accuracy:**

The prospect is located in the SW1/4 section 35, T. 7 N., R. 3 W., of the Seward Meridian. The map site is at an elevation of about 2,700 feet. It is situated on the east bank of Afanasa Creek. This is location 19 of Cobb and Richter (1972), location 32 of MacKevett and Holloway (1977), location 46 of Cobb and Tysdal (1980), and location S-262 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Ag**Ore minerals:** Gold**Gangue minerals:** Quartz**Geologic description:**

The deposit at this prospect consists of two quartz veins varying from a few inches to several feet in width. The host rock is slate and sandstone of the Valdez Group of Late Cretaceous age (Tysdal, 1978 [MF-880-A]). The country rock strikes north, and the veins apparently strike northwest. The veins were reported to be rich, but erratic, and of no great length (Tuck, 1933).

Workings on the prospect consist of three adits that range from 50 to 90 feet in length (Tuck, 1933). Four ounces of gold was recovered using a rocker (Tuck, 1933).

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

Workings on the prospect consist of three adits that range from 50 to 90 feet in length (Tuck, 1933). Four ounces of gold was recovered using a rocker (Tuck, 1933). The rocker was present during the U.S. Bureau of Mines visit in 1980. Although the workings were not accessible and the veins were not exposed at the time of the Bureau's examination, assays from the dumps were encouraging. Two grab samples, respec-

tively, assayed 0.34 ounce of gold and 1.48 ounces of gold per ton, and 1.8 and 1.9 ounces of silver per ton (Jansons and others, 1984).

Production notes:

In 1914, four ounces of gold was recovered from a disintegrated quartz vein using a rocker (Tuck, 1933).

Reserves:**Additional comments:****References:**

Tuck, 1933; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Tuck, 1933

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/22/00

Site name(s): Hargood Creek**Site type:** Mine**ARDF no.:** SR125**Latitude:** 60.5036**Quadrangle:** SR C-8**Longitude:** 149.6596**Location description and accuracy:**

This placer mine is located in SE1/4 section 20, T. 5 N., R. 2 W., of the Seward Meridian. Hargood Creek (named by the mine owner and not shown on the 1976 revised C-8 quadrangle) is about one-quarter mile northwest of and parallel to Crescent Creek. It flows west into Quartz Creek, which flows into Kenai Lake near Cooper Landing. This is location P-82 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:****Geologic description:**

Hargood Creek occupies an abandoned channel in a narrow valley, possibly formerly occupied by a stream draining a lateral moraine or esker. Lower Hargood Creek has developed a braided stream channel fan that is truncated by Quartz Creek (Jansons and others, 1984). Gold has been concentrated by reworking of glacial-fluvial sediments; it is concentrated within certain horizons within each braided stream channel. The gold occurs both in active and abandoned channels and as flakes and small nuggets less than three-sixteenths of an inch (Jansons and others, 1984).

The local bedrock is Valdez Group of Late Cretaceous age (Nelson and others, 1985).

Alteration:**Age of mineralization:**

Quaternary.

Deposit model:

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

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

39a

Production Status: Yes; small**Site Status:** Probably inactive**Workings/exploration:**

An old hydraulic excavation is present on the alluvial fan just south of Crescent Creek trailhead. A small mechanized operation tested the alluvial fan gravels in 1981 and 1982 (Jansons and others, 1984). More recently, there has been some suction dredging (C. S. Huber, oral communication, 1999).

The U.S. Bureau of Mines collected three samples from the mouth of the creek that yielded 0.0004 to 0.0315 ounce of gold per cubic yard. The sample size is unknown (Jansons and others, 1984).

Production notes:

The U.S. Bureau of Mines estimated the production at less than 350 ounces of gold, of which as much as 150 ounces have been produced since 1980 (Jansons and others, 1984).

Reserves:

The volume of the alluvial fan gravels is estimated to exceed 350,000 cubic yards (Jansons and others, 1984). No estimates of grade are available.

Additional comments:**References:**

Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 04/30/00

Site name(s): Unnamed (north side of Henry Creek)**Site type:** Prospect**ARDF no.:** SR126**Latitude:** 60.5906**Quadrangle:** SR C-8**Longitude:** 149.6588**Location description and accuracy:**

The prospect is located in the SE1/4 section 20, T. 6 N., R. 2 W., of the Seward Meridian. It is situated on the north valley wall of Henry Creek at an elevation of 4,000 feet. This is location 24 of Cobb and Richter (1972), locations 33 and 211 of MacKevett and Holloway (1977), location 48 of Cobb and Tysdal (1980), and location S-250 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Ag**Ore minerals:** Arsenopyrite, gold**Gangue minerals:** Quartz**Geologic description:**

This deposit consist of arsenopyrite mineralization in a fractured felsic dike. The dike intrudes slate of the Valdez Group of Late Cretaceous age which contains arsenopyrite-bearing quartz stringers adjacent to the dike (Cobb and Tysdal, 1980). The dike strikes N30E and dips 30NW; it averages 2.5 feet thick and can be traced for 1,000 feet along strike.

Alteration:**Age of mineralization:**

Cretaceous or younger; mineralization is in a dike that cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

There are several prospect pits on the dike. The U.S. Bureau of Mines collected one chip sample that assayed 0.01 ounce of gold per ton, 0.08 ounce of silver per ton, and 200 ppm arsenic (Jansons and others, 1984).

Production notes:

Reserves:

Additional comments:

References:

Martin and others, 1915; Tuck, 1933; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Martin and others, 1915

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/07/00

Site name(s): North Star**Site type:** Prospect**ARDF no.:** SR127**Latitude:** 60.6209**Quadrangle:** SR C-8**Longitude:** 149.6584**Location description and accuracy:**

The prospect is located in the SE1/4 section 8, T. 6 N., R. 2 W., of the Seward Meridian, at elevations between 4,200 and 4,400 feet. The site is about 2.2 miles east-northeast of Devils Pass. This is location 95 of Condon and Cass (1958), location 82 of Cobb and Richter (1972), location 94 of MacKevett and Holloway (1977), location 147 of Cobb and Tysdal (1980), and location S-258 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Ag, Au**Other:****Ore minerals:** Gold**Gangue minerals:** Calcite, quartz**Geologic description:**

The deposit at the North Star prospect consists of a vuggy, milky-white quartz vein (Hoekzema and Sherman, 1983). The vein, as exposed 200 feet above the portal of an adit, strikes N5E and dips 60NW, roughly parallel to the foliation of the Valdez Group (Late Cretaceous age) slate host rock (Nelson and others, 1985). The rock at the portal is blocky graywacke that breaks into brick- and flagstone-like fragments (Hoekzema and Sherman, 1983).

Alteration:**Age of mineralization:**

Cretaceous or younger; the vein cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

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

A trail leads to a caved adit (Jansons and others, 1984). The U.S. Bureau of Mines collected surface samples in 1979. A grab sample contained trace amounts of gold and silver. A 6-inch-long chip sample assayed 0.08 ounce of gold per ton and a trace of silver (Jansons, 1981).

Production notes:

Reserves:

Additional comments:

References:

Tysdal, 1978 (MF-880-A); Jansons, 1981; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/22/00

Site name(s): Yellow Jacket**Site type:** Prospect**ARDF no.:** SR128**Latitude:** 60.5336**Quadrangle:** SR C-8**Longitude:** 149.6310**Location description and accuracy:**

The prospect is located in the SE1/4 section 9, T. 5 N., R. 2 W., of the Seward Meridian. It is situated on Quartz Creek one mile below its junction with Devils Creek. This is location 60 of Tysdal (1978 [MF-880-A]) and location S-243 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:** Quartz**Geologic description:**

This deposit consists of a 44-inch-wide quartz vein that strikes N60E and dips nearly vertically. On the surface the vein is 1 foot wide and is visible for about 200 feet. It is reported to be traceable for 1,500 feet (Martin and others, 1915). The host rock is sedimentary rock of the Valdez Group of Late Cretaceous age (Nelson and others, 1985).

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

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

Martin and others (1915) reported that a 35-foot adit that intersected a 44-inch-thick quartz vein. The highest assay value reported by the claimant to Martin was \$9.00 in gold per ton of ore (gold at \$20.67 per ounce). The U.S. Bureau of Mines searched for the prospect in 1980 but did not locate it (Hoekzema and Sherman, 1983).

Production notes:**Reserves:**

Additional comments:

References:

Martin and others, 1915; Tuck, 1933; Tysdal, 1978 (MF-880-A); Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Martin and others, 1915

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 03/04/00

Site name(s): Canyon Creek (including Mills Creek below Juneau Creek)**Site type:** Mine**ARDF no.:** SR129**Latitude:** 60.6743**Quadrangle:** SR C-7, D-7**Longitude:** 149.4727**Location description and accuracy:**

This record is a summary description of several gold placer mines along Canyon Creek and the section of Mills Creek below Juneau Creek. All of Canyon Creek and the lower section of Mills Creek (below Juneau Creek) are located in T. 7 and 8 N., R. 1 W., of the Seward Meridian. Canyon Creek flows north into Six-mile Creek; Mills Creek joins Canyon Creek 8 miles south of its confluence with Sixmile Creek. The map site representing this record is in the NE1/4 section 28, T. 8 N., R. 1 W., of the Seward Meridian. This is locations 142, 143, and 145 of Cobb and Richter (1972), location 156, 167, 168, 189, and 206 of MacKevett and Holloway (1977), locations 16 and 18 of Cobb and Tysdal (1980), and location P-76 of Jansons and others (1984). This location of the creeks is accurate to 300 feet.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:****Geologic description:**

Bedrock in this area is Upper Cretaceous Valdez Group slate and graywacke (Nelson and others, 1985). Along Canyon Creek the bedrock cleavage generally strikes parallel to the course of the stream.

For most of its length Canyon Creek occupies a narrow canyon in a U-shaped valley. The canyon ranges in depth from 100 to 200 feet for more than 8 miles, extending from just below Mills Creek to its confluence with Sixmile Creek. Above Mills Creek the valley is open, and the creek has not yet cut deeply into the gravels.

The gravels in Canyon Creek are rounded and composed primarily of the local bedrock, although a few granitic boulders are present near its confluence with Sixmile Creek. Placer gold occurs in alluvial gravels in the current channel of Canyon Creek and in bench gravels at elevations as high as at least 100 feet above the present stream level. The bench gravels are locally compacted, cemented by iron oxide, and contain considerable clay (Moffit, 1905). Channel gravels are generally low in volume, but by far the greatest production has come from them (Moffit, 1906). Rich pockets of gold have been found behind some rock points and large boulders. Some of the gold is distributed throughout the gravel, but it mostly is on or near bedrock. Gold in the channel gravels generally is coarser in size than the gold in the bench gravels. Nuggets and flakes greater than three-sixteenths of an inch are common in the channel gravels, whereas the gold in the bench gravels is commonly smaller and flaky (Jansons and others, 1984).

Mills Creek is nearly 5 miles long, but the important gold-bearing gravels are in a narrow canyon three-quarters of a mile above its confluence with Canyon Creek (Moffit, 1906). The bedrock and gravels are similar to those in Canyon Creek; high gravel benches are also present. In contrast to Canyon Creek, gravels in Mills Creek contain a minor amount of limestone pebbles (Moffit, 1905).

A gold-bearing, gravel-filled channel near the mouth of Juneau Creek was discovered in 1904 (Moffit, 1906). The gold is partly scattered through the brownish, cemented gravel, but the best pay lies on top of a blue clay. The gold generally is fairly coarse and flattened, but that from the cemented gravel is finer, averaging perhaps one-eighth inch in diameter.

Alteration:**Age of mineralization:**

Quaternary.

Deposit model:

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

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

39a

Production Status: Yes**Site Status:** Active**Workings/exploration:**

Early discoveries were made in 1895 on Canyon and Mills Creeks (Tuck, 1933). On Canyon Creek, mining has been carried on with great difficulty because of the narrow channel and swift current. The more extensive operations have involved the construction of wing dams to confine the water to one side of the channel while the other side is being worked. Beginning in 1904, a hydraulic plant operated with some success on the bench gravels near the mouth. Paige and Knopf (1907) visited in 1906, a season in which 50,000 cubic yards of gravel was moved by hydraulic methods. In 1911, as in previous years, hydraulic operations continued, nearly working out a rock-cut channel about 650 feet long, 100 feet wide, and 30 feet deep (Moffit, 1906; Martin and others, 1915). Several other, much smaller hydraulic plants have been worked at intervals on the bench gravels of Canyon Creek. A significant amount of work has been done on the high bench gravels near the mouth of Pass Creek (Martin and others, 1915). Tuck (1933) reported that all of the bench gravels contain gold, but the tenor was low and recovery was costly, owing to the thickness of overburden.

Moffit (1906) reported that work on Mills Creek at the mouth of Juneau Creek showed an old channel filled with gravels. The channel was mined in 1904, 1905, and 1906. An open cut 650 feet long, 150 feet wide, and 100 feet deep was made by a small hydraulic plant (Martin and others, 1915). The plant consisted of 1,400 feet of 12-inch hydraulic pipe and a No. 1 giant piping into a flume 2 feet wide and 650 feet long. The cut, reported to have nearly paid for itself, had uncovered only a part of the old channel when operations stopped (Martin and others, 1915).

Several small mechanized and hydraulic operations mined intermittently from 1955 to 1961 and from 1977 to 1982 (Jansons and others, 1984).

The active stream channels on both Canyon and Mills Creek are now being worked by small suction dredges (C. S. Huber, oral communication, 2000). One operation on Canyon Creek has applied for patent, but a patent moratorium prevents its processing (C. S. Huber, oral communication, 2000).

The U.S. Bureau of Mines collected three samples from bench deposits in the old hydraulic pit below the junction of Mills and Canyon Creeks. The samples contained from 0.0001 to 0.14 ounce of gold per cubic yard.

Production notes:

Canyon and Mills Creeks contained the most productive placer deposits in the entire district. The U.S. Bureau of Mines has estimated total production at 35,000 to 40,000 ounces of gold since 1895 (Jansons and others, 1984).

Reserves:

Channel gravels are generally low in volume. Bench gravels are estimated to exceed 2 million cubic yards (Jansons and others, 1984).

Additional comments:

References:

Becker, 1898; Mendenhall, 1900; Moffit, 1905; Moffit, 1906; Paige and Knopf, 1907; Brooks, 1909; Brooks, 1910; Johnson, 1912; Brooks, 1915; Martin and others, 1915; Brooks, 1916 (B 642-A); Smith, 1917 (BMB 142); SMith, 1917 (BMB 153); Brooks, 1918; Johnson, 1919 (B 692-C, p. 175-176); Martin, 1919; Brooks, 1922; Brooks and Capps, 1924; Capps, 1924; Brooks, 1925; Smith, 1926; Smith, 1930 (B 813-A); Smith, 1932; Smith, 1933 (B 836-A); Smith, 1933 (B 844-A); Tuck, 1933; Smith, 1934 (B 857-A); Smith, 1934 (B 864-A); Smith, 1936; Smith, 1937; Smith, 1938; Smith, 1939 (B 910-A, p. 43); Smith, 1939 (B 917-A, p. 40); Smith, 1941 (B 926-A); Koschmann and Bergendahl, 1968; Cobb and Richter, 1972; Cobb, 1973 (B 1374); MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-B); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Moffit, 1906

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 06/27/00

Site name(s): Kaffir Ledge and Buster; Quartz Creek; Fairman-Madison; Tina Maria; Charlie Horse**Site type:** Prospect**ARDF no.:** SR130**Latitude:** 60.5394**Quadrangle:** SR C-7**Longitude:** 149.6238**Location description and accuracy:**

This record describes two prospects in the NE1/4 section 9, T. 5 N., R. 2 W., of the Seward Meridian. The Kaffir Ledge prospect is about 100 yards above the mouth of Devils Creek, on the east bank of Quartz Creek, and about 40 feet above the stream. The Buster prospect is on the left bank of Quartz Creek about one-eighth of a mile below Devils Creek. This is location 31 of Cobb and Richter (1972), locations 59a and 59b of Tysdal (1978 [MF-880-A]), and location S-244 of Jansons and others (1984). Cobb and Tysdal (1980) summarized the relevant references under the name Quartz Creek. This location is accurate to within a quarter of a mile.

Commodities:**Main:** Ag, Au**Other:** Cu, Pb, Zn**Ore minerals:** Arsenopyrite, chalcopyrite, galena, gold, pyrite, pyrrhotite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

The two lode deposits described in this record are auriferous quartz veins, lenses, or stringers that contain varied, small amounts of arsenopyrite, chalcopyrite, galena, pyrite, pyrrhotite, and sphalerite. The host rock is sedimentary rock of the Valdez Group of Late Cretaceous age (Cobb and Tysdal, 1980).

The Buster prospect is on the left bank of Quartz Creek about one-eighth of a mile below Devils Creek. The country rock consists of sheared slate and graywacke that generally strike northeast and dip northwest. Little or no fault gouge occurs on either the footwall or hanging wall of the vein. The vein consists of vuggy quartz and massive or crystalline arsenopyrite. Some small stringers of quartz are in the footwall slate. These stringers, when crushed and panned, contained free gold (Martin and others, 1915). No assay results are reported for the main vein.

The Kaffir Ledge prospect on the east bank of Quartz Creek is about 100 yards above the mouth of Devils Creek about 40 feet above the stream level. The vein was discovered in 1911 and explored by numerous surface cuts and a 20-foot-long crosscut. The deposit consists of quartz lenses as much as 1 foot thick in slate and sandstone of the Valdez Group (Nelson and others, 1985).

In addition to the two deposits described in this record, numerous other, similar deposits have been identified on Quartz Creek during placer mining, but none have contained appreciable gold values (Tuck, 1933).

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

The workings consist of a 20-foot-long crosscut on the Kaffir Ledge prospect and open cuts at both (Kaffir Ledge and Buster) prospects. When Martin visited the Kaffir Ledge site, the only exposure of the vein was in an open cut (Martin and others, 1915). The Buster vein was exposed in an open cut 10 feet above the stream level.

The U.S. Bureau of Mines visited the site and collected three grab samples that assayed 0.01 to 0.11 ounce of gold per ton and 0.02 to 0.06 ounce of silver per ton (Jansons and others, 1984).

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

Grant and Higgins, 1909; Johnson, 1912; Brooks, 1915; Martin and others, 1915; Brooks, 1916 (B 642-A); Tuck, 1933; Cobb and Richter, 1972; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Martin and others, 1915**Reporter(s):** Jeff A. Huber (Anchorage)**Last report date:** 03/04/00

Site name(s): Quartz Creek**Site type:** Mine**ARDF no.:** SR131**Latitude:** 60.5450**Quadrangle:** SR C-7**Longitude:** 149.6141**Location description and accuracy:**

Quartz Creek is located in T. 5 and 6 N., R. 2 W., of the Seward Meridian. The map site representing this gold placer mine is in the NW1/4 section 10, T. 5 N., R. 2 W. of the Seward Meridian. This is location 31 of Cobb and Richter (1972), location 172 of MacKevett and Holloway (1977), location 23 of Cobb and Tysdal (1980), and location P-81 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:****Geologic description:**

Quartz Creek drains an area underlain by slate and graywacke of the Valdez Group of Late Cretaceous age (Nelson and others, 1985).

Quartz Creek is about 16 miles long and drains into Kenai Lake. Upper Quartz Creek (east of the Seward Highway) occupies a steep, narrow, avalanche-debris-filled valley partially cut into bedrock. An alluvial fan has developed between the mouth of the canyon and about mile 42 of the Seward Highway. The alluvial fan deposits are poorly washed and stratified; fine gold is distributed throughout the deposits but is concentrated on bedrock. Gold as much as one-eighth inch in diameter has been recovered (Jansons and others, 1984).

The remainder of Quartz Creek occupies a broader, more gentle valley, with a bedrock canyon along a half-mile stretch above Devils Creek. Bedrock crops out in many places in this canyon where interbedded slate and graywacke strike N17W and dip 60W (Johnson, 1912). The character of the unconsolidated material covering the bedrock is shown in a ditch that extends along the east side of the valley. It consists of compact clay-matrix gravel that contains a few, waterworn, rounded and striated boulders. Small, gravel-covered benches are at different elevations on the canyon sides and along the stream course. High-grade channel and bench deposits have been successfully mined in this part of the canyon.

The bench gravels are locally stratified and typically compacted. They have a high clay content and commonly contain boulders as large as 3 feet in diameter (Jansons and others, 1984). Bench gravels, containing rounded slate and sandstone boulders and varying in thickness from 12 to 22 feet due to the undulating bedrock surface, were mined in 1911. The bench gravels yielded \$0.26 to \$0.32 per cubic yard, when gold was worth \$20.67 per troy ounce (Johnson 1912). The gold is mostly flakes, and nuggets coarser than one-quarter inch in diameter are rare.

The creek gravels are reported to carry coarse gold and to have paid well (Johnson, 1912).

Alteration:**Age of mineralization:**

Quaternary.

Deposit model:

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

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

39a

Production Status: Yes; small

Site Status: Active

Workings/exploration:

In 1911, a hydraulic plant operated on Quartz Creek a short distance above the mouth of Devils Creek (Johnson, 1912). In this portion of its course, Quartz Creek winds southward in a narrow, steep-sided canyon cut in the bedrock floor of a broad glaciated valley. The plant obtained water from Quartz Creek a short distance below the mouth of Johns Creek by a 1.5-mile-long ditch with a grade of one-fourth of an inch to the rod (Johnson, 1912). The intake was situated on the west bank of the creek, and the ditch follows the west side of the valley to a point about one-half mile below the intake, where the water was carried across Quartz Creek on a 160-foot flume. The pipeline from the penstock to the giants decreased gradually from 14 inches to 10 inches at the giant. Two No. 2 Kendall giants with No. 3 nozzles operated under heads of 95 to 120 feet. The gold-saving apparatus consisted of 10 sluice boxes. Most of the gold was captured in the first two boxes. Ten men were at work in early 1911; later this force was much reduced (Johnson, 1912).

On upper Quartz Creek, pits and trenches were dug in the early 1900's and in the 1950's and 1960's (Jansons and others, 1984).

In the early 1980's the U.S. Bureau of Mines collected two samples from upper Quartz Creek that assayed 0.0024 and 0.0384 ounce of gold per cubic yard (Jansons and others, 1984). They also collected several samples of untested bench gravels, which contained a trace to 0.0024 ounces of gold per cubic yard. One sample of mine-run gravels contained 0.0384 ounce of gold per cubic yard as averaged through 4 feet of gravel resting on bedrock.

From 1971 to the present (2000), small-scale sluicing and dredging have occurred in and above the canyon of Quartz Creek (C. S. Huber, oral communication, 2000).

Production notes:

The U.S. Bureau of Mines estimated production at 1,000 ounces of gold, of which as much as 400 ounces have been produced since 1975 (Jansons and others, 1984). The U.S. Bureau of Mines estimated less than 25 ounces of gold have been produced from upper Quartz Creek.

Reserves:

Jansons and others (1984) estimate that there are more than 750,000 cubic yards of bench and channel gravels between Devils Creek and Johns Creek.

Additional comments:**References:**

Grant and Higgins, 1910 (B 443); Johnson, 1912; Brooks, 1915; Martin and others, 1915; Brooks, 1916 (B 642-A); Tuck, 1933; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-B); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Johnson, 1912

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 07/05/00

Site name(s): Nakoa Lode**Site type:** Prospect**ARDF no.:** SR132**Latitude:** 60.5218**Quadrangle:** SR C-7**Longitude:** 149.6067**Location description and accuracy:**

The prospect is at an elevation of 650 feet, in the SE1/4 section 15, T. 5 N., R. 2 W., of the Seward Meridian. It is situated on the south side of Daves Creek, approximately 1.5 miles west of the junction of the Seward and Sterling Highways. This is location S-242 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Ag, Au**Other:** Pb**Ore minerals:** Galena, gold, pyrite**Gangue minerals:** Quartz**Geologic description:**

This deposit consists of a quartz-sulfide vein as much as 4 feet wide and traceable along strike for 300 feet (Jansons and others, 1984). No strike direction is given for the vein. The host is slate of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). The foliation of the slate strikes N12E and dips vertically. The quartz contains slate fragments along with pyrite and minor galena (Jansons and others, 1984).

The U.S. Bureau of Mines collected three samples of the vein in 1979 but detected no gold or silver. Chip samples, provided by the claim owners, assayed only traces of gold and silver (Jansons, 1981). The claim owners (in 1979) reported assays 56 ounces of silver per ton (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

The workings on this prospect consist of stripping and prospect pits. Improvements include an old cabin. The U.S. Bureau of Mines collected three samples of the vein in 1979 but detected no gold or silver. Chip samples, provided by the claim owners, assayed only traces of gold and silver (Jansons, 1981). The claim

owners (in 1979) reported assays of 56 ounces of silver per ton (Jansons and others, 1984).

Production notes:

Reserves:

Additional comments:

No reference to this prospect was found in the literature. However, local residents report that prospecting on the claims occurred prior to construction of the new Seward Highway (before 1955) (Hoekzema and Sherman, 1983).

References:

Jansons, 1981; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 03/05/00

Site name(s): McMillan; Columbia; Ophir**Site type:** Mine**ARDF no.:** SR133**Latitude:** 60.5936**Quadrangle:** SR C-7**Longitude:** 149.5908**Location description and accuracy:**

The mine is located in the SW1/4 section 23, T. 6 N., R. 2 W., of the Seward Meridian, at elevations of between 3,200 feet and 3,400 feet. It is situated on the south side of the divide south of Slate Creek, approximately 1.25 miles west of the Seward Highway. This is location 57 of Cobb and Tysdal (1980), location 37 of MacKevett and Holloway (1977), and location S-249 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Ag, Pb**Ore minerals:** Arsenopyrite, galena, gold, pyrite**Gangue minerals:** Quartz**Geologic description:**

The deposit at the McMillan mine consists of auriferous, sulfide-bearing quartz veins in sheared graywacke and slate of the Valdez Group of Late Cretaceous age (Tysdal, 1978 [MF-880-A]). These quartz veins are 3 inches to 2 feet wide and are exposed in at least four locations in a half-mile-wide belt near the top and along the southeast flank of the divide south of Slate Creek.

The adit is at 3,300 feet elevation. A caved trench is located a quarter of a mile southwest of the adit at an elevation of 3,400 feet. A second trench is located 500 feet west of the adit at an elevation of 3,200 feet.

Three veins are exposed in the McMillan adit. The best exposed ore is at the intersection of two veins approximately 75 feet from the portal. One vein, which strikes north and dips 75E, contains considerable galena, sphalerite, and visible gold throughout a thickness ranging from 1 to 2 feet over a 6-foot strike length. This vein assayed 0.739 ounce of gold per ton and 0.55 ounce of silver per ton. The second vein, which strikes N20W and dips 55E, averages 3 inches thick and contains arsenopyrite, galena, and considerable free gold. This vein assayed as much as 5.04 ounces of gold per ton and 1.2 ounces of silver per ton. Both veins are terminated at their southern ends by a fault that strikes N40E and dips 80SE (Hoekzema and Sherman, 1983). Gold production is estimated at 769 ounces (Cobb and Tysdal, 1980).

These veins are similar to those in a 1.0- to 1.5-mile-wide belt that parallels the Gilpatrick dike and extends from south of Slate Creek to Frenchy Creek.

Alteration:**Age of mineralization:**

Cretaceous, or younger; veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status:

Site Status: Inactive

Workings/exploration:

Underground workings consist of a 170-foot-long adit at 3,300 feet elevation. It strikes N55W and terminates in a 60-foot-long crosscut that strikes N55E. A caved trench is 0.25 mile southwest of the adit at 3,400 feet elevation, and a second trench is 500 feet west of the adit at an elevation of 3,200 feet. There are also several prospect pits (Jansons and others, 1984). A small prospect mill was installed sometime between 1910 and 1917, and several tons of ore were milled at it (Tuck, 1933).

The U.S. Bureau of Mines collected 18 samples between 1979 and 1980 and mapped the workings (Jansons, 1981). A grab sample from the N20W vein in the adit assayed 5.04 ounces per ton. The best chip sample, also from the N20W vein in the adit, assayed 1.485 ounces of gold per ton. Of the 18 samples, three had no detectable gold, and the remaining samples contained 0.05 ppm to 14 ppm gold (Hoekzema and Sherman, 1983).

Production notes:

A small mill was installed sometime between 1910 and 1917, and several tons of ore were milled by it (Tuck, 1933). The total gold production is estimated at 769 ounces (Cobb and Tysdal, 1980).

Reserves:

The U.S. Bureau of Mines inferred reserves of 250 tons of ore having an estimated grade of 0.2558 ounce of gold per ton (Hoekzema and Sherman, 1983).

Additional comments:**References:**

Tuck, 1933; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons, 1981; Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Jansons, 1981

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/08/00

Site name(s): Iron Mask; Mascot**Site type:** Occurrences**ARDF no.:** SR134**Latitude:** 60.6649**Quadrangle:** SR C-7**Longitude:** 149.5904**Location description and accuracy:**

This map site is located in the SW1/4 section 26, T. 7 N., R. 2 W., of the Seward Meridian. It is situated at about 3,300 feet of elevation on the divide between Colorado and Fresno Creeks. This site represents two occurrences, the Iron Mask and the Mascot, which are mislocated on the 1951 Seward C-7 topographic map. This location is accurate to within a quarter of a mile. This is location 21 of Cobb and Richter (1972), locations 41 and 42 of Tysdal (1978 (MF-880-A)), location 29 of MacKevett and Holloway (1977), and location S-263 of Jansons and others (1984).

Commodities:**Main:** Au**Other:** Cu?, Pb, Zn**Ore minerals:** Arsenopyrite, chalcopyrite?, galena, gold, sphalerite**Gangue minerals:** Calcite, quartz**Geologic description:**

This occurrence consists of two dikes, the Mascot and Iron Mask (Martin and others, 1915). The deposits in both dikes are auriferous, sulfide-bearing, quartz-calcite veins similar to those at the Gilpatrick Dike mine (SR136). The Mascot dike crops out at the head of the creek on a ridge between Colorado and Fox Creeks. This dike strikes north, dips vertically, and is traceable for several hundred feet. At the discovery monument, the dike is 40 inches wide; 3 feet to the east is a smaller dike that ranges from 3 inches to 1 foot wide (Martin and others, 1915). On the spur to the north, the main dike has split into six distinct stringers.

The Iron Mask dike crops out on the Colorado Creek slope between the Mascot dike and the Gilpatrick dike. It is 4 feet wide at the discovery monument. The mineralization of both dikes is similar to that in the Gilpatrick dike.

The quartz-calcite veins heal fractures in the felsic dikes and contain gold, arsenopyrite, galena, sphalerite and possibly chalcopyrite. The dikes are probably Eocene; the country rock is sedimentary strata of the Valdez Group of Late Cretaceous age (Tysdal, 1978 [MF-880-A]).

Alteration:**Age of mineralization:**

Eocene or younger; the dikes are probably Eocene in age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status: None

Site Status: Inactive

Workings/exploration:

There are mining claim discovery monuments on both dikes (Martin and others, 1915), but no workings are reported. The U.S. Bureau of Mines searched for the occurrences in 1980 but did not locate them (Hoekzema and Sherman, 1983).

Production notes:

Reserves:

Additional comments:

References:

Martin and others, 1915; Tuck, 1933; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Martin and others, 1915

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/23/00

Site name(s): Swetmann**Site type:** Prospect**ARDF no.:** SR135**Latitude:** 60.6082**Quadrangle:** SR C-7**Longitude:** 149.5878**Location description and accuracy:**

The prospect is located in the SW1/4 section 14, T. 6 N., R. 2 W., of the Seward Meridian. It is at an elevation of 3,200 to 3,850 feet, on the north side of Slate Creek about 1.5 miles west of the Seward Highway. This is location 25 of Cobb and Richter (1972), location 36 of MacKevett and Holloway (1977), location 53 of Cobb and Tysdal (1980), and location S-251 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Ag, Au**Other:** Cu, Pb**Ore minerals:** Arsenopyrite, azurite, chalcopyrite, chalcocite?, galena, gold, malachite, pyrite**Gangue minerals:** Quartz**Geologic description:**

This deposit consists of a locally oxidized, auriferous, sulfide-bearing quartz vein in interbedded metasiltstone and sandstone of the Valdez Group of Late Cretaceous age (Tuck, 1933). The quartz vein ranges in width from 10 to 16 inches; it strikes N5W and dips 60N, parallel to the cleavage of the country rock. The footwall of the vein is massive graywacke, and the hanging wall is somewhat slaty. The vein apparently occupies a shear zone. The vein material is predominantly quartz that carries small amounts of arsenopyrite, pyrite, chalcopyrite, and galena. Secondary copper minerals including malachite, azurite, and possibly chalcocite occur locally.

Alteration:

Local oxidation of copper minerals.

Age of mineralization:

Cretaceous or younger; vein cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

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

Workings consist of a partly caved, 120-foot adit at 3,700 feet elevation, a caved 260-foot adit at 3,200 feet elevation, and prospect pits (Jansons and others, 1984). There is a discovery pit above the adits. The

260-foot adit is 500 feet below the discovery and was intended to intercept the vein but never did. The 120-foot adit intersects the vein 60 feet below the outcrop (Tuck, 1933).

A channel sample 16 inches long across the vein at the discovery pit assayed 0.16 ounce of gold per ton, and another channel sample 12 inches long assayed 0.03 ounce of gold per ton and silver at 0.2 ounce per ton (Tuck, 1933). The U.S. Bureau of Mines collected two samples in 1982 that assayed 0.005 ounce of gold per ton and trace amounts of silver (Hoekzema and Sherman, 1983).

Production notes:

Reserves:

Additional comments:

References:

Smith, 1932; Tuck, 1933; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Tuck, 1933

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/08/00

Site name(s): Gilpatrick Dike; Sprague and Byers**Site type:** Mine**ARDF no.:** SR136**Latitude:** 60.6138**Quadrangle:** SR C-7**Longitude:** 149.5750**Location description and accuracy:**

The mine is located in the NE1/4 section 14, T. 6 N., R. 2 W., of the Seward Meridian, on the south side of the divide between Summit and Slate Creeks. There are three adits on the Slate Creek side of the divide at elevations of 2,850, 3,300, and 3,400 feet, along with numerous prospect pits and open cuts. On the Summit Creek side of the divide, there are trenches and prospect pits above 2,400 feet elevation. This is location 29 of Cobb and Richter (1972), location 36 of MacKevett and Holloway (1977), location 54 of Cobb and Tysdal (1980), and location S-253 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Ag, Au**Other:** Cu, Pb, Zn**Ore minerals:** Arsenopyrite, chalcopyrite, galena, gold, molybdenite, pyrite, pyrrhotite, sphalerite**Gangue minerals:** Calcite, chlorite, quartz, sercite**Geologic description:**

The deposit at the Gilpatrick Dike mine consists of a mineralized Eocene felsic dike (the so-called Gilpatrick dike) and of quartz veins in graywacke and slate of the Valdez Group of Late Cretaceous age adjacent to the dike (Mitchell and others, 1981). The dike contains quartz-filled fractures that carry native metals and sulfides, including gold, arsenopyrite, galena, and sphalerite and some chalcopyrite, molybdenite, and pyrrhotite. These veins and veinlets range in width from a fraction of an inch to 8 or 10 inches (Tuck, 1933).

The slate and graywacke 2 to 10 feet from the dike contain quartz veins that are parallel to the dike. The veins are 2 to 12 inches wide and contain the same ore minerals as those in the dike (Tuck, 1933).

The dike and adjacent veins are offset by several dextral faults. The presence of gouge on one wall of the dike indicates post-mineralization movement along another fault parallel to the dike. The dike continues for several miles (see Fresno Creek, SR145), but development at this site is restricted to a few thousand feet of its length.

The wall rocks near the veins locally display extensive chlorite-sercite alteration. The highest grade of ore coincides with the zones of greatest alteration.

Alteration:

The dike and the country rocks near the veins display locally intense chlorite-sercite alteration.

Age of mineralization:

Eocene or younger; the mineralization is in and adjacent to Eocene dike rock.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Yes; medium

Site Status: Inactive

Workings/exploration:

There are three levels of adits, at 2,850, 3,300, and 3,400 feet elevation. The lowest adit is 265 feet long, the middle adit has caved in, and the upper adit is 50 feet long. There are also numerous trenches and prospect pits.

Production notes:

Most production occurred from about 1937 to 1948. Recorded production was 3,545 ounces of gold and 1,099 ounces of silver from an estimated 3,664 tons of ore (Hoekzema and Sherman, 1983).

Reserves:

Reserves are 2,000 tons of ore at 0.89 ounce of gold per ton and 0.65 ounces of silver per ton (Hoekzema and Sherman, 1983).

Additional comments:

The location labeled Oracle Mine on the Seward C-7 quadrangle map is the a mill site and is not the location of the working.

References:

Grant and Higgins, 1910 (B 443); Brooks, 1911 (B 480-B); Brooks, 1914; Brooks, 1915; Martin and others, 1915; Brooks, 1916 (B 642-A); Smith, 1917 (BMB 142); Smith, 1917 (BMB 153); Brooks, 1918; Johnson, 1919 (B 692-C, p. 175-176); Tuck, 1933; Smith, 1937; Smith, 1941 (B 926-A); Berg and Cobb, 1967; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Tuck, 1933

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 03/07/00

Site name(s): Ronan and James; Champion; Gladiator; Valerie Marie**Site type:** Mine**ARDF no.:** SR137**Latitude:** 60.6173**Quadrangle:** SR C-7**Longitude:** 149.5719**Location description and accuracy:**

The mine is at an elevation of 3,600 feet, in the NE1/4 section 11 and the NE1/4 section 14, T. 6 N., R. 2 W., of the Seward Meridian. It is situated on the south side of Summit Creek, 1.5 miles west of the Seward Highway. This is location 29 of Cobb and Richter (1972), location 36 of MacKevett and Holloway (1977), location 52 of Cobb and Tysdal (1980), and location S-256 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Ag, Au**Other:** As, Cu, Pb, Zn**Ore minerals:** Arsenopyrite, chalcopyrite, galena, gold, pyrite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

The deposit at this mine consists of auriferous, sulfide-bearing quartz veins in slate and sandstone of the Upper Cretaceous Valdez Group (Tuck, 1933; Tysdal, 1978 [MF-880-A]) The main vein is 12 inches wide, strikes N60E, and dips 60SE (Tuck, 1933). Metallic minerals include arsenopyrite, pyrite, galena, sphalerite, chalcopyrite, and gold. A second vein exposed above the upper adit averages 9 inches wide and strikes N40W, and the dip is nearly vertical. This vein is only slightly iron stained and contains few sulfides. The country rock strikes N5E to N20E and dips 45W to nearly vertical.

Alteration:**Age of mineralization:**

Cretaceous or younger; veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Yes; small**Site Status:** Inactive**Workings/exploration:**

Workings consist of a 137-foot crosscut, a 210-foot drift, an 80-foot winze and a 30-foot shaft. The vein has been largely stoped out (Tuck, 1933). Workings were caved when the U.S. Bureau of Mines visited the site in 1979 and 1980 (Hoekzema and Sherman, 1983). They collected one chip sample and six grab samples from the dump and portal area. A 10-inch-wide chip sample from the adit portal contained 0.224 ounce

of gold per ton and 0.6 ounce of silver per ton (Hoekzema and Sherman, 1983). Five grab samples assayed from 0.08 to 1.17 ounces of gold per ton and 0.05 to 0.64 ounce of silver per ton. A selected grab sample assayed 2.97 ounces of gold per ton and 2.73 ounces of silver per ton (Jansons and others, 1984).

Production notes:

Ore was milled on site by a small arrastre mill installed in 1916 (Tuck, 1933). Reported production, between 1916 and 1981, was 557 ounces of gold and 137 ounces of silver (Jansons and others, 1984). Ore has been mined out.

Reserves:**Additional comments:****References:**

Smith, 1917 (BMB 142); Smith, 1917 (BMB 153); Brooks, 1918; Johnson, 1919 (B 692-C, p. 175); Martin, 1919; Tuck, 1933; Berg and Cobb, 1967; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Tuck, 1933

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/10/00

Site name(s): Apex; Nightingale**Site type:** Prospect**ARDF no.:** SR138**Latitude:** 60.6196**Quadrangle:** SR C-7**Longitude:** 149.5698**Location description and accuracy:**

The prospect is located in the SE1/4 section 11, T. 6 N., R. 2 W., of the Seward Meridian, at an elevation of 3,000 feet. It is located on the south side of Summit Creek, above and west of the westernmost portal of the Oracle mine (SR142). This is location 56 of Tysdal (1978 [MF-880-A]) and location S-257 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Pb**Ore minerals:** Arsenopyrite, galena, gold, pyrite**Gangue minerals:** Calcite, quartz**Geologic description:**

The deposit at this prospect consists of northwest-striking, steeply dipping quartz veins near an 8-foot-wide, north-striking, felsic dike (Gilpatrick dike). Fractures in the dike are healed by vuggy quartz-carbonate veins. The veins contain sparse arsenopyrite, pyrite, galena, and very minor gold (Jansons and others, 1984). The host rock is the Valdez Group of Late Cretaceous age (Nelson and others, 1985). The Gilpatrick dike is Eocene.

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut sedimentary rocks of the Valdez Group of Late Cretaceous age and an Eocene dike.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

In 1982, the U.S. Bureau of Mines found two caved adits or trenches at elevations of 2,900 and 3,000 feet (Jansons and others, 1984). Both appeared to be driven approximately N70W into the hillside. The Bureau collected two grab samples of dump material; these assayed a trace to 0.73 ounce of gold per ton and 0.009 and 0.038 ounce of silver per ton.

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

Roehm (1941) refers to work, including milling, being performed on veins exposed above the Oracle mine (SR142). The veins may be on the Apex and Nightingale properties.

References:

Roehm, 1940; Roehm, 1941; Tysdal, 1978 (MF-880-A); Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/12/00

Site name(s): Summit Vein**Site type:** Prospect**ARDF no.:** SR139**Latitude:** 60.6146**Quadrangle:** SR C-7**Longitude:** 149.5647**Location description and accuracy:**

The prospect is located in the NE1/4 section 14, T. 6 N., R. 2 W., of the Seward Meridian, at an elevation of 3,400 feet. It is situated along the north side and near the crest of the divide between Slate and Summit Creeks about 1.25 miles west of the Seward Highway. This is location S-254 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Ag, Pb**Ore minerals:** Arsenopyrite, galena, gold, pyrite, sphalerite**Gangue minerals:** Calcite, quartz**Geologic description:**

The deposit at the Summit Vein prospect consists of a quartz-carbonate vein averaging about 13 inches wide over a 235-foot strike length (Tuck, 1933). The vein strikes N30W and dips steeply to the northeast. The quartz is locally vuggy and contains galena, arsenopyrite, sphalerite, pyrite, and gold. Visible gold is present, and the crushed quartz pans considerable free gold (Jansons and others, 1984). The host rock is folded slate and graywacke (Hoekzema and Sherman, 1983) of the Valdez Group of Late Cretaceous age (Nelson and others, 1985).

The U.S. Bureau of Mines collected 10 samples from the prospect in 1980 and 1981. Grades appear to be highest on the northwest end of the vein and to diminish to the southeast. The average grade of the vein is 2.4 ounces of gold per ton and 1.6 ounces of silver per ton (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Cretaceous or younger; vein cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide, Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

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

Workings consist of trenching along the vein. There is no recorded production, but a small amount of unreported production is possible.

Production notes:**Reserves:**

The U.S. Bureau of Mines estimated reserves at 3,400 tons of ore (Jansons and others, 1984).

Additional comments:

This prospect was referred to by Tuck (1933) as the Summit Vein. Apparently this vein was prospected along with several other veins in the area during the development of the Gilpatrick Dike mine (SR136).

References:

Tuck, 1933; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Tuck, 1933

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/09/00

Site name(s): Slate Creek; Hatcher; Meat-in-the-Pot; Dorothy; Eurika; Discovery**Site type:** Prospects**ARDF no.:** SR140**Latitude:** 60.6064**Quadrangle:** SR C-7**Longitude:** 149.5624**Location description and accuracy:**

This record summarizes the description of several prospects in the SW1/4 section 13, T. 6 N., R. 2 W., of the Seward Meridian, including the Slate Creek and Hatcher properties (called mines on the C-7 topographic map). The deposit at the Slate Creek prospect typifies those at the other properties and is described in this record. The map site is at an elevation of 2,300 feet on Slate Creek, three-fourths of a mile west of the Seward Highway. The workings are on both sides of the creek and southwest of a collapsed mill building. This is location 28 of Cobb and Richter (1972), location 38 of MacKevett and Holloway (1977), location 55 of Tysdal (1978 [MF-880-A]), and location S-252 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Ag, Au**Other:** Pb, Zn**Ore minerals:** Arsenopyrite, galena, gold, pyrite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

The deposit at the Slate Creek prospect consists of several auriferous, sulfide-bearing quartz veins of varied thickness and attitude hosted by metamorphosed sandstone and slate of the Valdez Group of Late Cretaceous age (Jansons and others, 1984). The sulfide minerals are arsenopyrite, galena, pyrite, and sphalerite. The veins are spatially associated with the southern extension of the Gilpatrick dike (Hoekzema and Sherman, 1983). The schistosity of the country rock strikes N15E and dips 60W. One vein, reported to be 4 to 12 inches wide, assayed 0.04 ounce of gold per ton and 0.2 ounce of silver per ton (Tuck, 1933).

In 1980, the U.S. Bureau of Mines collected two grab samples from trenches at 3,100 and 3,400 feet elevation. One sample was lost, but the other assayed 0.08 ounce of gold per ton and 0.31 ounce of silver per ton (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Cretaceous or younger; veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status: None

Site Status: Inactive

Workings/exploration:

Workings on the south side of Slate Creek southwest of the mill include a 75-foot trench at 3,100 feet elevation and a 25-foot trench oriented N45E at 3,400 feet elevation (Jansons and other, 1984).

One vein, reported to be 4 to 12 inches wide, assayed 0.04 ounce of gold per ton and 0.2 ounce of silver per ton (Tuck, 1933). A U.S. Bureau of Mines sample from one of the trenches assayed 0.08 ounce of gold per ton and 0.31 ounce of silver per ton (Jansons and others, 1984).

A mill was installed in 1940 by United Mining and Development Company. The equipment consisted of a jaw crusher, 25-ton Denver Ball mill, a Denver jig, assay equipment, and a new portable compressor. Twelve men were reported to be working on the property in 1940 (Roehm, 1941?). Production records confirm that the mill was also used to treat ore obtained from the Gilpatrick property (SR136) (Tysdal, 1978 [MF-800A]).

Production notes:

None reported, although minor production is possible.

Reserves:

Additional comments:

References:

Tuck, 1933; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Tysdal, 1978 (MF-800A)

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/09/00

Site name(s): Independence; Peel and Iverson**Site type:** Prospect**ARDF no.:** SR141**Latitude:** 60.6559**Quadrangle:** SR C-7**Longitude:** 149.5575**Location description and accuracy:**

The prospect is located in the NW1/4 section 36, T. 7 N., R. 2 W., of the Seward Meridian, at elevations between 2,700 and 3,250 feet. The adit is located at 3,250 feet elevation. The prospect is situated on the north side of Colorado Creek, 2 miles west of the Seward Highway. The Independence prospect is mislocated on the 1951 Seward C-7 topographic map. The location of the map site is accurate to within a quarter of a mile. This is location 22 of Cobb and Richter (1972), location 30 of MacKevett and Holloway (1977), location 44 of Cobb and Tysdal (1980), and location S-264 of Jansons and others (1984).

Commodities:**Main:** Au**Other:** Ag**Ore minerals:** Gold**Gangue minerals:** Quartz**Geologic description:**

The deposit at this prospect consists of quartz stringers that heal fractures in an Eocene(?) felsic dike as much as 4 feet wide. The quartz makes up about 10 percent of the dike and contains only small amounts of unspecified ore minerals (Martin and others, 1915). The felsic dike is hosted by Valdez Group country rock of Late Cretaceous age (Nelson and others, 1985).

Alteration:**Age of mineralization:**

Eocene or younger; the host rock is probably Eocene.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

Workings consist of one 12-foot adit at an elevation of 3,250 feet (Tuck, 1933) and several small prospect pits (Jansons and others, 1984). In 1979, the U.S. Bureau of Mines collected a grab sample, which assayed a trace of gold and 0.01 ounce of silver per ton (Jansons and others, 1984). They did not sample the adit because it was caved.

Production notes:

Reserves:

Additional comments:

References:

Martin and others, 1915; Tuck, 1933; Berg and Cobb, 1967; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons, 1981; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Tuck, 1933

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/22/00

Site name(s): Heaston-Oracle; Alaska Oracle Mining Co.; Oracle No. 2; Oracle Extension**Site type:** Mine**ARDF no.:** SR142**Latitude:** 60.6208**Quadrangle:** SR C-7**Longitude:** 149.5554**Location description and accuracy:**

The mine is located in the SW1/4 section 12, T. 6 N., R. 2 W., of the Seward Meridian, at elevations between 1,800 and 2,500 feet. It is situated about a mile west of the Seward Highway along Summit Creek. This location is accurate to within 300 feet. This is location 27 of Cobb and Richter (1972), location 35 of MacKevett and Holloway (1977), location 51 of Cobb and Tysdal (1980), and location S-255 of Jansons and others (1984). The location labeled Oracle Mine on the Seward C-7 topographic map is the mill site and the location of one of the workings.

Commodities:**Main:** Au**Other:** Cu, Mo, Pb, Zn**Ore minerals:** Arsenopyrite, chalcopyrite, galena, gold, molybdenite, pyrite, pyrrhotite, sphalerite**Gangue minerals:** Calcite, quartz**Geologic description:**

The deposit at this mine consists of an auriferous, sulfide-bearing, quartz-carbonate vein in locally sheared graywacke and slate of the Upper Cretaceous Valdez Group of Late Cretaceous age (Tuck, 1933; Tysdal, 1978 [MF-880-A]). Tuck (1933) described the vein as striking N15E with an average dip of 60W. Where exposed in the lower workings, its width ranges from a few inches to 3 feet, averaging about 13 inches over a length of 175 feet. The ore pinches out at the north end of those workings.

The vein occupies a fault along which some movement took place before ore deposition and some of it after, as is shown by slickensides and sheared quartz (Tuck, 1933). The fault in general parallels the bedding of the graywacke and slate. Graywacke forms the footwall, and slate forms the hanging wall.

The sulfide minerals are mainly arsenopyrite, pyrite, galena, and sphalerite and total about 5 percent of the ore (Tuck, 1933). The gangue minerals are quartz and minor carbonate. Chalcopyrite, pyrrhotite, and molybdenite have also been reported. Gold occurs both free and with the sulfides.

The main workings consist of 900 feet of crosscut, 550 feet of drift, 215 feet of raise, 25 feet of winze, and considerable stoping (Hoekzema and Sherman, 1983). There are two caved portals. One is on the north side of the creek at an elevation of 1,800 feet, 200 feet west of the mill. The other is on the south side of the creek at an elevation of 1,900 feet, 1,000 feet west of the mill.

Alteration:

The vein is weathered to a depth of 50 to 75 feet. The quartz is friable and iron stained in this zone.

Age of mineralization:

Cretaceous or younger; vein cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Yes; small**Site Status:** Inactive**Workings/exploration:**

The main workings consist of two levels totaling 900 feet of crosscut, 550 feet of drift, 215 feet of raise, 25 feet of winze, and considerable stoping (Hoekzema and Sherman, 1983). One portal is on the north side of the creek at an elevation of 1,800 feet, 200 feet west of the mill. The other portal is on the south side of the creek at an elevation of 1,900 feet, 1,000 feet west of the mill (Hoekzema and Sherman, 1983). Both portals were caved when the U.S. Bureau of Mines visited in 1980 (Hoekzema and Sherman, 1983).

The U.S. Bureau of Mines collected five samples. One channel sample on a vein exposed above the caved 1,900-foot-level portal assayed 1.64 ounces of gold per ton and 0.71 ounce of silver per ton. Two chip samples of wallrock assayed trace to 0.05 ounce of gold per ton and 0.01 to 0.09 ounce of silver per ton. Two grab samples from nearby dumps assayed 0.02 and 0.04 ounce of gold per ton and 0.02 and 0.04 ounce of silver per ton (Jansons and others, 1984).

Production notes:

Total recorded production is 1,274 ounces of gold and 256 ounces of silver (Jansons and others, 1984).

Reserves:**Additional comments:**

This mine is not in the location labeled the 'Oracle mine' on the Seward C-7 topographic map.

References:

Smith, 1933 (B 836-A); Tuck, 1933; Smith, 1934 (B 864-A); Smith, 1936; Roehm, 1937 (PE 95-9); Smith, 1937; Smith, 1939 (B 910-A, p. 29); Smith, 1941 (B 926-A); Smith, 1942 (B 933-A); Berg and Cobb, 1967; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Tuck, 1933**Reporter(s):** Jeff A. Huber (Anchorage)**Last report date:** 05/1/00

Site name(s): Colorado; Upper Colorado 1-3**Site type:** Prospect**ARDF no.:** SR143**Latitude:** 60.6472**Quadrangle:** SR C-7**Longitude:** 149.5538**Location description and accuracy:**

The record describes a prospect at an elevation of 2,400 and 2,800 feet in the SW1/4 section 36 of T. 7 N., R. 2 W., and the NW1/4 section 1, T. 6 N., R. 2 W., of the Seward Meridian. It is situated on the south side of Colorado Creek about 2 miles west of the Seward Highway. This is location 23 of Cobb and Richter (1977), location 31 of MacKevett and Holloway (1977), location 45 of Cobb and Tysdal (1980), and location S-259 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Ag, Au**Other:** Pb, Zn**Ore minerals:** Arsenopyrite, galena, gold, sphalerite**Gangue minerals:** Calcite, quartz**Geologic description:**

The deposit consists of auriferous, sulfide-bearing, quartz-calcite veins that heal fractures in the Gilpatrick dike of Eocene age. The veins are as much as 8 inches wide and carry arsenopyrite, pyrite, galena, sphalerite, and gold. Considerable free gold is visible in some of the veins (Martin and others, 1915). The dike ranges from 4 feet to nearly 15 feet wide, strikes N10E, and dips nearly vertically. Its average width is about 5.5 feet (Tuck, 1933). The wall rock is slate (Tuck, 1933) of the Valdez Group of Late Cretaceous age Nelson and others, 1985). The cleavage of the slate is parallel to the strike of the dike.

Alteration:**Age of mineralization:**

Eocene or younger; the veins reheat a fractured Eocene dike.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

Tuck (1933) reported a 20-foot adit at an elevation of 2,200 feet and open cuts at 2,240 and 2,350 feet. Exposures in the adit and open cuts indicate that the quartz-calcite veins and stringers make up about 20 percent of the dike. The workings were accessed from the Seward Highway by a 2-mile trail on the south side of Colorado Creek.

At the 20-foot adit, two 5-foot-long channel samples yielded respectively, 0.05 ounce of gold and 0.2 ounce of silver per ton, and 0.01 ounce of gold, 0.2 ounce of silver per ton (Tuck, 1933). The U.S. Bureau of Mines visited the prospect in 1979 and found three adits, two of which were caved, and numerous pits and trenches (Jansons and others, 1984). They collected three grab samples and a chip sample. One grab sample assayed a trace of gold and 0.15 ounces of silver per ton. Two other grab samples and the chip sample assayed a trace of gold and 0.01 ounces of silver per ton (Jansons, 1981).

Production notes:

Reserves:

Additional comments:

References:

Martin and others, 1915; Tuck, 1933; Berg and Cobb, 1967; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Jansons, 1981; Jansons and others, 1984.

Primary reference: Tuck, 1933

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/13/00

Site name(s): Johnson**Site type:** Prospect**ARDF no.:** SR144**Latitude:** 60.6279**Quadrangle:** SR C-7**Longitude:** 149.5515**Location description and accuracy:**

The prospect is located in the NW1/4 section 12, T. 6 N., R. 2 W., of the Seward Meridian, at elevations between 2,600 and 4,300 feet. The prospect is situated on the north side of Summit Creek, one mile west of the Seward Highway. The prospect is about 0.75 mile west of its indicated position (Johnson Mine) on the 1994 U.S. Geological Survey Seward C-7 topographic map. This location is accurate to within 300 feet. This is location 30 of Cobb and Richter (1972), location 35 of MacKevett and Holloway (1977), location 50 of Cobb and Tysdal (1980), and location S-258 of Jansons and others (1984).

Commodities:**Main:** Ag, Au**Other:** As**Ore minerals:** Arsenopyrite, gold, pyrite**Gangue minerals:** Calcite, quartz**Geologic description:**

The deposit at the Johnson prospect consists of quartz-calcite stringers that heal fractures in a 4- to 8-foot-wide felsic dike. The stringers are 4 to 6 inches wide and contain sparse arsenopyrite and pyrite and a little gold. The dike is apparently an extension of the Gilpatrick dike of Eocene age, which at this site strikes N12E and dips vertically. The dike intrudes Valdez Group rocks of Late Cretaceous age (Cobb and Tysdal, 1980).

Alteration:**Age of mineralization:**

Eocene or younger; the veins are in an Eocene dike.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

Workings consist of a 40-foot adit at an elevation of 2,800 feet and open cuts at 3,500 feet and 4,300 feet (Tuck, 1933). In the 1930's, a half-mile-long trail led to the workings from the Oracle mine (SR142).

A sample collected in the 40-foot adit across a 4.5-foot width assayed at 0.03 ounce of gold and 0.1 ounce of silver per ton (Tuck, 1933).

Production notes:

Reserves:

Additional comments:

References:

Martin and others, 1915; Tuck, 1933; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Tuck, 1933

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/12/00

Site name(s): Fresno; Fresno Creek; June**Site type:** Mine**ARDF no.:** SR145**Latitude:** 60.6642**Quadrangle:** SR C-7**Longitude:** 149.5468**Location description and accuracy:**

The map site representing this mine is at an elevation of 4,250 feet, in the SE1/4 section 25, T. 7 N., R. 2 W., of the Seward Meridian. It is on peak 4539, on the crest of the ridge between Colorado and Fresno Creeks. This location is accurate to within a quarter of a mile. This is location 14 of Cobb and Richter (1972), location 27 of MacKevett and Holloway (1977), location 39 of Cobb and Tysdal (1980), and location S-265 of Jansons and others (1984).

Commodities:**Main:** Au**Other:** Pb**Ore minerals:** Arsenopyrite, galena, gold**Gangue minerals:** Quartz**Geologic description:**

The deposit consists of auriferous, sulfide-bearing, quartz veins that heal fractures in an extension of the Eocene(?) Gilpatrick dike (SR136). The veins are iron stained, as much as 8 inches thick, and contain arsenopyrite, galena, and minor gold. The dike at the mine is 5 to 6 feet wide, strikes N10E, and dips 80W. The felsic dike is hosted by sedimentary strata of the Valdez Group of Late Cretaceous age (Tysdal, 1978).

Alteration:**Age of mineralization:**

Eocene or younger; the dike is probably Eocene.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Undetermined.**Site Status:** Inactive**Workings/exploration:**

Workings include numerous prospect pits and trenches. There is no recorded production (Jansons and others, 1984), although some ore reportedly was milled in 1912 with an arrastre mill at Fresno Creek on the Independence property (SR141) (Martin and others, 1915).

Tuck (1933) reported collecting grab samples that assayed only traces of gold and silver. Poor exposures prevented sampling the dike in place. The U.S. Bureau of Mines visited the prospect in 1980 but took no samples (Jansons and others, 1984).

Production notes:

There is no recorded production (Jansons and others, 1984), although some ore reportedly was milled in 1912 with an arrastre mill at Fresno Creek on the Independence property (SR141) (Martin and others, 1915).

Reserves:**Additional comments:****References:**

Martin and others, 1915; Tuck, 1933; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Tuck, 1933

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/23/00

Site name(s): Shell**Site type:** Prospect**ARDF no.:** SR146**Latitude:** 60.6732**Quadrangle:** SR C-7**Longitude:** 149.5414**Location description and accuracy:**

The prospect is at an elevation of 3,800 to 4,250 feet in the NE1/4 section 25, T. 7 N., R. 2 W., of the Seward Meridian. It is on the divide between two south tributaries of Fresno Creek and is designated the Shell Mine on the 1994 U.S. Geological Survey Seward C-7 topographic map. This location is accurate to within a quarter of a mile. This is location 30 of MacKevett and Holloway (1977), location 43 of Cobb and Tysdal (1980), and location S-266 of Jansons and others (1984).

Commodities:**Main:** Ag, Au**Other:** As, Pb**Ore minerals:** Arsenopyrite, galena, gold, pyrite**Gangue minerals:** Quartz**Geologic description:**

The Shell prospect consists of several quartz veins and at least two mineralized(?) felsic dikes. One of the dikes is a continuation of the Gilpatrick dike of Eocene age. The main vein strikes N10 to 15E, dips steeply, and carries arsenopyrite, galena, pyrite, and gold. The quartz veins and felsic dikes cut slate and graywacke of the Valdez Group of Late Cretaceous age (Tysdal, 1978).

Workings consist of an adit at an elevation of 4,100 feet that is caved 70 feet from the portal, a shaft at 4,150 feet, and numerous dozer trenches and prospect pits (Hoekzema and Sherman, 1983).

Alteration:**Age of mineralization:**

Eocene or younger; the dike is probably Eocene.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

Prospect pits in the area were reported as early as 1931 (Tuck, 1933). In the 1950's, there was caterpillar prospecting and possible construction of a cabin. The U.S. Bureau of mines examined and sampled the prospect in 1979 and 1981. They found an adit at an elevation of 4,100 feet that is caved 70 feet from the portal, a shaft at 4,150 feet, and numerous dozer trenches and prospect pits (Hoekzema and Sherman,

1983). Improvements included two standing buildings and a cat trail.

The adit was driven to intersect the shaft and is caved at that intersection (Jansons and others, 1984). The Bureau could not sample the main vein underground due to caving or on the surface because of snow cover. Pits along the trend of the vein indicate a strike length of at least 100 feet. Other quartz veins were examined briefly, but none contained significant ore minerals. Visible gold occurs in quartz piled on the surface near the shaft. The deposit appears to be of low grade.

Production notes:

Reserves:

Reserves were estimated by the U.S. Bureau of Mines at 440 tons at 0.4 ounce of gold per ton and 0.3 ounce of silver per ton (Hoekzema and Sherman, 1983).

Additional comments:

References:

Martin and others, 1915; Tuck, 1933; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Jansons, 1981; Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/23/00

Site name(s): Unnamed (on Tributary Creek)**Site type:** Occurrence**ARDF no.:** SR147**Latitude:** 60.7019**Quadrangle:** SR C-7**Longitude:** 149.5299**Location description and accuracy:**

This occurrence is at an elevation of about 2,900 feet on upper Tributary Creek. It is in the NW1/4 section 18, T. 7 N., R. 1 W., of the Seward Meridian. This is location 26 of MacKevett and Holloway (1977), location 38 of Cobb and Tysdal (1980), and location S-274 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:** Quartz**Geologic description:**

The occurrence consists of quartz veins that heal fractures in a felsic dike that cuts slate and sandstone of the Valdez Group of Late Cretaceous age (Tysdal, 1978 [MF-880-A]). The quartz contains little gold or other ore minerals.

Alteration:**Age of mineralization:**

Cretaceous or younger; the felsic dike cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

No workings are reported. There are no data on possible gold content. The U.S. Bureau of Mines searched for the occurrence in 1979 but did not find it (Hoekzema and Sherman, 1983).

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

References:

Martin and others, 1915; Tuck, 1933; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Tuck, 1933

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/29/00

Site name(s): J and J**Site type:** Occurrence**ARDF no.:** SR148**Latitude:** 60.5612**Quadrangle:** SR C-7**Longitude:** 149.5075**Location description and accuracy:**

This occurrence is located in the SE1/4 section 31 and the SW1/4 section 32, T. 6 N., R. 1 W., of the Seward Meridian. It is situated on a ridge above Johns Creek about 2.5 miles east of the Seward Highway at an elevation of about 4,100 feet. This is location S-247 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Ag, Au**Other:****Ore minerals:** Gold**Gangue minerals:** Calcite, quartz**Geologic description:**

This occurrence consists of quartz-calcite veins hosted in the slate and sandstone of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). The veins strike N40W and dip 57SW. (Jansons and others, 1984). No sulfides were identified in the veins. Two grab samples collected by the U.S. Bureau of Mines in 1981 did not contain any precious metals values (Hoekzema and Sherman, 1983).

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

The U.S. Bureau of Mines visited this occurrence in 1979. They collected two grab samples that did not contain any precious metals. Placer gold has been mined from Johns Creek below this occurrence (Hoekzema and Sherman, 1983).

Production notes:**Reserves:**

Additional comments:**References:**

Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 03/03/00

Site name(s): Colorado Creek**Site type:** Mine**ARDF no.:** SR149**Latitude:** 60.6441**Quadrangle:** SR C-7**Longitude:** 149.5048**Location description and accuracy:**

The portion of Colorado Creek that has been the most productively placer mined is in the N1/2 sections 5 and 6, T. 6 N., R. 1 W., and the NE1/4 section 1, T. 6 N., R. 2 W., of the Seward Meridian. The map site is on Colorado Creek at an elevation of about 1,400 feet. This is location P-80 of Jansons and others (1984). The location is accurate to within 300 feet.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:****Geologic description:**

Colorado Creek drains an area underlain chiefly by slate and graywacke of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). The creek occupies a steep, narrow, avalanche-debris-filled valley floored with poorly stratified gravels containing considerable clay. Gold is disseminated throughout the gravels; there are minor concentrations on bedrock. The gold generally is fine, although nuggets as large as three-eighths of an inch in diameter are reported (Jansons and others, 1984). A small mechanized operation mined sporadically on Colorado Creek from 1977 to 1982 with little success. Total production is less than 50 ounces (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Quaternary.

Deposit model:

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

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

39a

Production Status: Yes; small**Site Status:** Inactive**Workings/exploration:**

There are signs of some hand mining and the remains of a small mechanical mining operation in the lower part of the creek west of the Seward Highway.

Production notes:

Production is estimated at less than 50 ounces (Jansons and others, 1984).

Reserves:

Additional comments:

References:

Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 05/21/00

Site name(s): Gilpatrick; Frenchy Creek**Site type:** Prospect**ARDF no.:** SR150**Latitude:** 60.7315**Quadrangle:** SR C-7**Longitude:** 149.5031**Location description and accuracy:**

This prospect is located in the NW1/4 section 5, T. 7N., R. 1 W., of the Seward Meridian. It is situated on the east end of the divide between Frenchy and Pass Creeks, at an elevation of 3,000 feet. The location is accurate to within a quarter of a mile. This is location 19 of MacKevett and Holloway (1977), location 31 of Cobb and Tysdal (1980), and location S-275 of Jansons and others (1984).

Commodities:**Main:** Ag, Au**Other:** Cu, Pb, Zn**Ore minerals:** Arsenopyrite, chalcopyrite, galena, gold, malachite, sphalerite**Gangue minerals:** Calcite, quartz**Geologic description:**

The deposit consists of auriferous, sulfide-bearing, quartz-carbonate veins and pods that heal fractures in an Eocene(?) felsic dike (Hoekzema and Sherman, 1983). The dike, which intrudes slate and graywacke of the Valdez Group of Late Cretaceous age (Nelson and others, 1985), averages 16 feet wide at the discovery. The quartz bodies are as much as 10 feet wide and contain arsenopyrite, chalcopyrite, galena, and sphalerite. Arsenopyrite also occurs in the dike rock. Malachite staining occurs locally. The sedimentary country rock strikes N15E and dips steeply west; the dike strikes N10E and dips 30 to 50W, the dip increasing with depth (Hoekzema and Sherman, 1983). The dike extends from a point on the north side of Frenchy Creek southward to the Pass Creek drainage basin (Tuck, 1933).

Alteration:**Age of mineralization:**

Eocene(?) or younger; the age of felsic dike host rock is Eocene?

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

The workings on this prospect consist of a 50-foot inclined (30 degrees) shaft with a caved winze at the bottom, prospect pits, and trenching (Hoekzema and Sherman, 1983).

The U.S. Bureau of Mines collected surface and subsurface samples in 1979 (Hoekzema and Sherman,

1983). A selected dump sample assayed 0.42 ounce of gold per ton and 24.21 ounces of silver per ton. Three chip samples from the incline assayed a trace of gold and 0.02 to 0.22 ounce of silver per ton (Jansons and others, 1984).

Production notes:

Reserves:

Additional comments:

Tuck (1933) suggests that the dike is probably a continuation of the dike that occurs to the south; see, for example, the Gilpatrick Dike mine, SR136.

References:

Tuck, 1933; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 03/05/00

Site name(s): Keno and Hiway**Site type:** Occurrence**ARDF no.:** SR151**Latitude:** 60.7134**Quadrangle:** SR C-7**Longitude:** 149.4579**Location description and accuracy:**

This occurrence is located in the NE1/4 section 9, T. 7 N., R. 1 W., of the Seward Meridian. It is situated at the confluence of Weber and Canyon Creeks. This is location 32 of Tysdal (1978 [MF-880-A]) and location S-273 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:****Geologic description:**

Bedrock in this area has been mapped as the Valdez Group of Late Cretaceous age (Nelson and others, 1985). No other geologic data are available (Tysdal, 1978 [MF-880-A]).

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:**Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production Status:** None**Site Status:** Inactive**Workings/exploration:**

There are no reported workings. The U.S. Bureau of Mines did not find this occurrence during the RARE II study fieldwork (Jansons and others, 1984).

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

Tysdal, 1978 (MF-880-A); Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/29/00

Site name(s): Juneau Creek**Site type:** Mine**ARDF no.:** SR152**Latitude:** 60.6757**Quadrangle:** SR C-7**Longitude:** 149.4350**Location description and accuracy:**

This placer mine is located close to the boundary of sections 22 and 27, T. 7 N., R. 1 W., of the Seward Meridian. The mined area is a bench on the north side of the creek about half a mile east of its junction with Mills Creek. This is location P-77 of Jansons and others (1984). This location is accurate to 300 feet.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:****Geologic description:**

Juneau Creek occupies a narrow avalanche-debris-filled glacial valley. A thick bench deposit consisting of glacial till and poorly washed glacial-fluvial gravel occurs just above the junction with Mills Creek. The pay streak was reported to occur near the top of the old hydraulic cut in the bench (Jansons and others, 1984). The gravels in the cut are tightly cemented with clay, and the gold is very fine (Jansons and others, 1984). Bedrock in this area is Valdez Group slate and graywacke of Late Cretaceous age (Nelson and others, 1985). No assay results are reported.

Alteration:**Age of mineralization:**

Quaternary.

Deposit model:

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

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

39a

Production Status: Yes**Site Status:** Inactive**Workings/exploration:**

A single hydraulic cut that was made in the 1950's and some more recent exploration pits exist in this area (Jansons and others, 1984). No assay results have been reported.

Production notes:**Reserves:**

Additional comments:

References:

Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 05/30/00

Site name(s): Teresa; Juneau Bowl Mining Co.**Site type:** Prospect**ARDF no.:** SR153**Latitude:** 60.6644**Quadrangle:** SR C-7**Longitude:** 149.3778**Location description and accuracy:**

This prospect is located in the SW1/4 section 25, T. 7 N., R. 1 W., of the Seward Meridian, at an elevation of 3,000 to 4,000 feet. It is in a cirque, south of upper Juneau Creek. This is location S-267 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au?**Other:** Pb**Ore minerals:** Galena, gold?, pyrite**Gangue minerals:** Quartz**Geologic description:**

The deposit at this prospect consists of several 1- to 3-inch-thick quartz veins parallel to bedding (Jansons and others, 1984) in slate and sandstone of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). The strata generally strike N45E and dip 80NW, but considerable faulting causes local variation in this attitude. The veins pinch and swell along strike; they are locally hematite stained and contain minor pyrite. One piece of quartz float contained minor disseminated galena.

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

Claims were located in 1976. One 90-foot shaft was sunk in an unnamed glacier in 1982 (Jansons and others, 1984). The U.S. Bureau of Mines visited the site in 1982 and collected two grab samples that contained a trace of gold (Hoekzema and Sherman, 1983). They sampled in a gully, south of the prospect on the south side of the divide.

In 1988, several structures, explosives, equipment, hazardous materials, and fuel drums were abandoned. The U.S. Army Explosive Ordinance Disposal unit destroyed the explosives. From 1995 to 1997 the U.S. Forest Service contracted removal of abandoned hazardous materials and burned the structure debris (C. S.

Huber, oral communication, 2000).

Production notes:

Reserves:

Additional comments:

References:

Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/25/00

Site name(s): Silvertip Creek**Site type:** Mine**ARDF no.:** SR154**Latitude:** 60.7291**Quadrangle:** SR C-7**Longitude:** 149.3594**Location description and accuracy:**

The placer mine is located near the east boundary of section 6 in T. 7 N., R. 1 E., of the Seward Meridian. The mine is about a mile upstream from the junction of Silvertip Creek with East Fork Sixmile Creek. This is location 146 of Cobb and Richter (1972), location 169 of MacKevett and Holloway (1977), location 19 of Tysdal (1978 [MF-880-B]), location 146 of Cobb and Tysdal (1980), and location P-75 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Au**Other:** W**Ore minerals:** Gold, scheelite**Gangue minerals:****Geologic description:**

The upper portion of Silvertip Creek occupies a steep, narrow, bedrock canyon partially filled with avalanche debris. The lower sections occupy a slightly wider channel, where bedrock near the surface is covered by poorly washed and stratified clay-rich gravels containing gold. The lowermost section flows over an alluvial fan consisting of moderately well stratified and washed gravels. Bedrock of the area is the Valdez Group of Late Cretaceous age (Nelson and others, 1985).

Silvertip gold has been reported to be similar to Gulch Creek gold (see SR029), but the nuggets were not so large. Most of the larger nuggets had quartz attached (Johnson, 1912). Scheelite has been found in the concentrate (Jasper, 1967).

Alteration:**Age of mineralization:**

Quaternary.

Deposit model:

Place Au (alluvial) (Cox and Singer, 1986; model 39a)

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

39a

Production Status: Yes; small**Site Status:** Active**Workings/exploration:**

Pick and shovel operations occurred between 1897 and 1904. In 1911, a small hydraulic operation was attempted about a mile above the point where Silvertip Creek joins East Fork Sixmile Creek (Moffit,

1906). This operation worked the shallow creek gravels, 3 to 4 feet deep, for about six weeks before the work was abandoned (Johnson, 1912). The gold was reported to be similar to that at Gulch Creek (see SR029), but the nuggets were not so large. Most of the larger nuggets had quartz attached (Johnson, 1912).

Small mechanized operations have mined sporadically since 1950 and suction dredges since 1975 (Jansons and others, 1984).

The U.S. Bureau of Mines collected one sample, which yielded .0019 ounce of gold per cubic yard (Jansons and others, 1984).

Production notes:

The U.S. Bureau of Mines estimated the production at 750 to 1,000 ounces, of which 50 to 100 ounces are estimated to have been recovered since 1975 (Jansons and others, 1984).

Reserves:

The inferred placer gold reserve base is estimated at greater than 1,000,000 cubic yards (Jansons and others, 1984).

Additional comments:

References:

Moffit, 1906; Johnson, 1912; Martin and others, 1915; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-B); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Johnson, 1912

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 04/30/00

Site name(s): Ready Bullion (Copper Co.)**Site type:** Prospect**ARDF no.:** SR155**Latitude:** 60.6819**Quadrangle:** SR C-7**Longitude:** 149.3135**Location description and accuracy:**

The prospect is located near the center of section 20, T. 7 N., R. 1 E., of the Seward Meridian. The map site is at an elevation of 1,700 feet, on the west valley wall of upper Lynx Creek. This location is accurate to within a quarter of a mile. The is location 33 of Cobb and Richter (1972), location 22 of MacKevett and Holloway (1977), location 34 of Cobb and Tysdal (1980), and location S-272 of Jansons and others (1984).

Commodities:**Main:** Cu**Other:** Ag, Au, Zn**Ore minerals:** Arsenopyrite, gold, chalcopyrite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

The country rock at this prospect is slate and sandstone of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). The deposit consists of auriferous, sulfide-bearing, quartz veins, 6 inches to 2 feet thick. The veins are in a 3- to 10-foot-wide shear zone that strikes north to N10W, nearly parallel to the slaty cleavage of the country rocks (Paige and Knopf, 1907; Tysdal, 1978 [MF-880-A]). The veins contain podiform masses of chalcopyrite accompanied by pyrrhotite and pyrite. Pyrite also occurs in the altered wall rock (Paige and Knopf, 1907). The deposit has an exposed strike length of about 110 feet.

Alteration:

Altered wall rock contains pyrite.

Age of mineralization:

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

Workings include two adits and a prospect pit. The prospect pit is situated above the upper adit. The upper adit, at an elevation of about 2,900 feet, consists of 335 feet of crosscut, 110 feet of drifts, a winze, and some minor stope development. The lower adit, at an elevation of about 1,800 feet, is 800 feet long but caved (Paige and Knopf, 1907).

Access is provided by a 4-wheel-drive road that begins at the Bench Lake trailhead, crosses Center and Bench Creeks, and leads to an old roadhouse building. From there, an unmaintained trail continues up the east side of Lynx Creek to the collapsed mine buildings (Hoekzema and Sherman, 1983).

In 1981, the U.S. Bureau of Mines located the massive sulfide outcrop and reopened, mapped, and sampled the upper adit (Hoekzema and Sherman, 1983). Average grades of samples are 2.5 percent copper, 0.1 percent zinc, 0.01 ounce of gold per ton, and 0.3 ounce of silver per ton. Samples assayed 0.002 to 4.4 percent copper, trace to 0.41 percent zinc, a trace to 0.116 ounce of gold per ton, and a trace to 0.75 ounce of silver per ton (Jansons and others, 1984).

Production notes:

Reserves:

Reserves are estimated at 6,000 tons of ore containing 300,000 pounds of copper, 12,000 pounds of zinc, 1,800 ounces of silver, and 60 ounces of gold (Hoekzema and Sherman, 1983).

Additional comments:

Although this copper deposit was one of the earliest lode discoveries in the Moose Pass-Hope District, the Ready Bullion remains the only copper prospect in the district (Tuck, 1933).

References:

Moffit, 1905; Moffit, 1906; Paige and Knopf, 1907; Brooks, 1911 (P 70); Martin and others, 1915; Tuck, 1933; Berg and Cobb, 1967; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Paige and Knopf, 1907

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/29/00

Site name(s): Seward Gold; Telluride**Site type:** Prospect**ARDF no.:** SR156**Latitude:** 60.6447**Quadrangle:** SR C-7**Longitude:** 149.2952**Location description and accuracy:**

This prospect is at an elevation of 4,250 feet on the divide between the two forks of Groundhog Creek. It is located in the NW1/4 section 4, T. 6 N., R. 1 E., of the Seward Meridian. This location is accurate to within a quarter of a mile. This is location 35 of Cobb and Richter (1972), location 24 of MacKevett and Holloway (1977), location 36 of Cobb and Tysdal (1980), and location S-268 of Jansons and others (1984).

Commodities:**Main:** Ag, Au**Other:** As, Pb, Zn**Ore minerals:** Arsenopyrite, galena, gold, pyrite, sphalerite**Gangue minerals:** Calcite, quartz**Geologic description:**

The deposit consists of auriferous, sulfide-bearing, quartz-calcite veins that fill fractures in a shear zone in slate of the Valdez Group of Late Cretaceous age. The zone is 5 to 6 feet wide and extends S80E between two pale-greenish porphyritic dikes (Johnson, 1912). Much of the quartz is coarsely crystalline and is accompanied by a small amount of calcite, along with arsenopyrite, galena, sphalerite, and gold. The vein material is weathered and decomposed and has been traced about a hundred feet. The vein dips steeply south, nearly vertically. A narrow streak of fault gouge lies along the hanging wall at the shear zone. The gold is free-milling or in the arsenopyrite and galena. Specimens from the outcrop contain visible free gold (Johnson, 1912).

The workings on this prospect consist of trenches and a 90-foot adit with 23 feet of winzes, a 12-foot crosscut, and a 15-foot shaft (Johnson, 1912). The adit collapsed in 1911 (Martin and others, 1915).

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

The workings on this prospect consist of trenches and a 90-foot adit with 23 feet of winzes, a 12-foot

crosscut, and a 15-foot shaft (Johnson, 1912). The adit collapsed in 1911 (Martin and others, 1915).

The U.S. Bureau of Mines examined the prospect and collected samples in 1981. Two chip samples assayed a trace and 0.02 ounces of gold per ton, and a trace and 0.23 ounces of silver per ton. Two selected grab samples assayed 0.79 and 0.99 ounce of gold per ton, and 0.08 and 0.46 ounce of silver per ton. A grab sample of dump material contained a trace of gold and 0.02 ounce of silver per ton (Jansons and others, 1984).

Production notes:

Reserves:

Additional comments:

References:

Johnson, 1912; Martin and others, 1915; Tuck, 1933; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Johnson, 1912

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/25/00

Site name(s): Lynx Creek**Site type:** Mine**ARDF no.:** SR157**Latitude:** 60.7098**Quadrangle:** SR C-7**Longitude:** 149.2917**Location description and accuracy:**

Lynx Creek, a north-flowing tributary of East Fork Sixmile Creek, is located in sections 9, 16, 17, and 20, T. 7 N., R. 1 E., of the Seward Meridian. The placered ground extends from the mouth of Lynx Creek upstream for about 1.5 miles. This is location 147 of Cobb and Richter (1972), location 170 of MacKevett and Holloway (1977), location 20 of Cobb and Tysdal (1980), and location P-61 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Au**Other:** Cu**Ore minerals:** Copper, gold**Gangue minerals:****Geologic description:**

Lynx Creek drains an area underlain by sedimentary rocks of the Valdez Group of Late Cretaceous age and by mafic dikes that intrude the strata (Nelson and others, 1985). For most of its length, Lynx Creek flows in a steep, narrow canyon filled with glacial till, glacial-fluvial gravels, and avalanche debris. Placer gold occurs in both the main channel and in benches. The deposits consist of poorly stratified and sorted, partly cemented gravels. Most of the production has come from the lower 15 feet of gravel that rests on bedrock, although gold also occurs near the mouth of the creek (Janson and others, 1984). Along with gold, native copper nuggets have been found in this creek. Production has totaled 7,692 ounces of gold (Cobb and Tysdal, 1980).

Alteration:**Age of mineralization:**

Quaternary.

Deposit model:

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

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

39a

Production Status: Yes; medium**Site Status:** Active?**Workings/exploration:**

Mining methods have included pick and shovel along with both hydraulic and mechanical operations. In 1905-06, a 600-foot-long underground timbered tunnel was driven from East Fork Sixmile Creek to the up-

per part of Lynx Creek. From there, the gravel was dumped into a 25-foot shaft, run through sluice boxes in the tunnel, and the tails deposited into East Fork Sixmile Creek (Paige and Knopf, 1907). Hydraulic mining began in 1915 and continued sporadically until 1980 (Jansons and others, 1984). Small-scale suction dredgers are currently (2000) working this creek (C. S. Huber, oral communication, 2000).

Production notes:

Total gold production through 1980 is estimated at 7,692 ounces of gold (Cobb and Tysdal, 1980). Production from 1975 to 2000 is estimated at less than 200 ounces (C. S. Huber, oral communication, 2000).

Reserves:

The U.S. Bureau of Mines estimated 5,000 cubic yards of gold-bearing gravels having a grade of 0.015 to 0.02 ounce of gold per yard (Jansons and others, 1984).

Additional comments:**References:**

Moffit, 1906; Paige and Knopf, 1907; Brooks, 1909; Johnson, 1912; Martin and others, 1915; Brooks, 1916 (B 642-A); Smith, 1917 (BMB 142); Brooks, 1918; Brooks and Capps, 1924; Brooks, 1925; Smith, 1926; Smith, 1929; Smith, 1930 (B 810-A); Smith, 1930 (B 813-A); Smith, 1932; Smith, 1933 (B 836-A); Smith, 1933 (B 844-A); Smith, 1934 (B 857-A); Smith, 1934 (B 864-A); Smith, 1936; Smith, 1937; Smith, 1939 (B 910-A); Smith, 1939 (B 917-A); Smith, 1941 (B 926-A); Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-B); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Cobb and Tysdal, 1980

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 04/10/00

Site name(s): Brewster; Brewster Quartz**Site type:** Mine**ARDF no.:** SR158**Latitude:** 60.6694**Quadrangle:** SR C-6**Longitude:** 149.2452**Location description and accuracy:**

The mine is at an elevation of 1,750 feet, on Groundhog Creek, about a half-mile from the confluence of Bench Creek. It is in the E1/2 or NE1/4 section 27, T. 7 N., R. 1 W., of the Seward Meridian. A one-mile trail reportedly exists from the confluence to the workings. This location is accurate to within 300 feet. This is location 34 of Cobb and Richter (1972), location 23 of MacKevett and Holloway (1977), location 35 of Cobb and Tysdal (1980), and location S-271 of Jansons and others (1984).

Commodities:**Main:** Au**Other:** Cu, Pb, Zn**Ore minerals:** Chalcopyrite, galena, gold, pyrite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

The host rock at the Brewster mine is slate and graywacke of the Valdez Group of Late Cretaceous age (Cobb and Tysdal, 1980). Bedding of the sedimentary country rock strikes S20W.

This deposit consists of discontinuous sulfide-bearing pods and stringers of quartz that are localized along a fault that strikes N15 to 20E and dips vertically. The hanging wall of the fault is slate and the footwall is graywacke. The quartz in the wider pods is coarsely crystalline and includes small cavities lined with interlocking quartz crystals. The sulfide minerals are sparse and include chalcopyrite, galena, sphalerite, and pyrite. Some specimens contain visible gold, and select ore yields some free gold on panning (Wimmeler, 1926).

Workings consist of a 65-foot adit and a 10-foot drift. A small prospector mill was erected on the site in 1926.

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Yes; small**Site Status:** Inactive**Workings/exploration:**

Workings consist of a 65-foot adit and a 10-foot drift. The adit bears N20W and the drift bears N70W (Wimmler, 1926). A small prospector mill was erected on the site in 1926. The mill consisted of a laboratory-size jaw crusher, an Ellis Independence ball mill, and an amalgamator. A two-horsepower gasoline engine provided the power to run the mill.

No assay results are reported, although in 1926 ten tons of ore was estimated to contain \$150 of gold (Wimmler, 1926) or about 5 to 10 ounces of gold (Jansons and others, 1984).

The U.S. Bureau of Mines searched for the prospect in 1980 and 1982 but did not find it (Hoekzema and Sherman, 1983).

Production notes:

Reported production is 5 to 10 ounces of gold (Jansons and others, 1984).

Reserves:

Additional comments:

The deposit offers no encouragement for further development (Wimmler, 1926).

References:

Wimmler, 1926; Tuck, 1933; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Wimmler, 1926

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 03/09/00

Site name(s): SS Lode; Double Lode SS Discovery**Site type:** Occurrence**ARDF no.:** SR159**Latitude:** 60.7460**Quadrangle:** SR C-6**Longitude:** 149.2293**Location description and accuracy:**

This occurrence is located in the NW1/4 section 35, T. 8 N., R. 1 E., of the Seward Meridian. It is an elevation of 1,700 feet on Bertha Creek. This is location 33 of Tysdal (1978 [MF-880-A]) and location S-285 of Jansons and others (1984). The location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:****Geologic description:**

This occurrence apparently was staked as a gold claim (Hoekzema and Sherman, 1983). No geologic description is available. The country rock in the area is mapped as the Valdez Group of Late Cretaceous age (Nelson and others, 1985).

Alteration:**Age of mineralization:**

Cretaceous or younger; the country rock is rocks of the Valdez Group of Late Cretaceous age.

Deposit model:**Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production Status:** None**Site Status:** Inactive**Workings/exploration:**

No workings or improvements are reported.

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

Tysdal, 1978 (MF-880-A); Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 2/6/00

Site name(s): Unnamed (on Bench Creek)**Site type:** Occurrence**ARDF no.:** SR160**Latitude:** 60.6571**Quadrangle:** SR C-6**Longitude:** 149.2233**Location description and accuracy:**

This occurrence is at an elevation of 1,150 feet, in the NE1/4 section 35, T. 7 N., R. 1 E., of the Seward Meridian. It is situated in a canyon on Bench Creek about one mile above its confluence with Groundhog Creek. This is location S-270 of Jansons and others (1984). The location is accurate to within a quarter of a mile.

Commodities:**Main:** Ag, Au**Other:****Ore minerals:** Arsenopyrite, gold**Gangue minerals:** Quartz**Geologic description:**

The occurrence consists of a 2-foot-wide quartz vein that strikes N80W and dips 80N. The host rock is metasandstone of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). The vein contains minor arsenopyrite and numerous metasandstone fragments.

Alteration:**Age of mineralization:**

Cretaceous or younger; the vein cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

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

There are no reported workings. The occurrence was discovered and sampled by the U.S. Bureau of Mines in 1982. A 24-inch-long chip sample assayed 0.14 ounce of gold per ton and 0.02 ounce of silver per ton (Jansons and others, 1984).

Production notes:**Reserves:**

Additional comments:

References:

Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/29/00

Site name(s): Sunrise Uranium; Uraluck Exploration**Site type:** Occurrence**ARDF no.:** SR161**Latitude:** 60.6396**Quadrangle:** SR C-6**Longitude:** 149.0510**Location description and accuracy:**

This occurrence is located in section 2, T. 6 N., R. 2 E., of the Seward Meridian. It is situated along the Placer River near its confluence with Bartlett Glacier. This location is accurate to within one mile. This is location 37 of Tysdal (1978 [MF-880-A]) and location S-269 of Jansons and others (1984).

Commodities:**Main:** U**Other:****Ore minerals:****Gangue minerals:****Geologic description:**

Bedrock in the area is mapped as sedimentary strata of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). According to the U.S. Bureau of Mines claim records, this site was staked in 1954 for uranium. No other information about it has been made public.

Alteration:**Age of mineralization:**

Cretaceous or younger; the bedrock in the area is the Valdez Group of Late Cretaceous age.

Deposit model:**Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production Status:** None**Site Status:** Inactive**Workings/exploration:**

Claims for uranium were staked in 1954 (Hoekzema and Sherman, 1983). No workings are reported.

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

Claims were staked on the occurrence in 1954 by Uraluck Exploration (Hoekzema and Sherman, 1983). The U.S. Bureau of Mines did not visit this occurrence.

References:

Tysdal, 1978 (MF-880-A); Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 01/29/00

Site name(s): Unnamed (west headwaters of Kings River)**Site type:** Occurrence**ARDF no.:** SR162**Latitude:** 60.5131**Quadrangle:** SR C-5**Longitude:** 148.8376**Location description and accuracy:**

This occurrence is located in the NW1/4 section 24, T. 5 N., R. 3 E., of the Seward Meridian. It is at an elevation of 2,400 feet, near the toe of an unnamed glacier that is above the west headwaters fork of the Kings River. This is location S-183 of Jansons and others (1984). It is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Ag, Cu**Ore minerals:** Arsenopyrite, chalcopyrite, gold, pyrite, pyrrhotite**Gangue minerals:** Calcite, quartz**Geologic description:**

This occurrence consists of numerous sulfide-bearing quartz-calcite veins in fractured Oligocene felsic dikes that intruded Valdez Group carbonaceous slate and quartzite of Late Cretaceous age (Jansons and others, 1984). The dikes range from 1 to 5 feet thick and generally strike N35E and dip 55 to 80 NW. The dikes contain as much as 15 percent quartz-calcite veins that carry arsenopyrite, chalcopyrite, pyrite, pyrrhotite, and gold. This occurrence was discovered by the U.S. Bureau of Mines in 1980 (Hoekzema and Sherman, 1983). A single grab sample contained 0.75 ppm gold and 3.5 ppm silver along with minor amounts of base metals. Coarse gold occurs in stream sediments downstream from this occurrence.

Alteration:**Age of mineralization:**

Oligocene or younger; the veins are in dikes that are Oligocene in age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

This occurrence was discovered by the U.S. Bureau of Mines in 1980. A single grab sample contained 0.75 ppm gold and 3.5 ppm silver, along with minor amounts of base metals. Coarse gold occurs in stream sediments downstream from this occurrence.

Production notes:

Reserves:

Additional comments:

References:

Jansons and others, 1984.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 12/31/99

Site name(s): Unnamed (near Northland Glacier)**Site type:** Occurrence**ARDF no.:** SR163**Latitude:** 60.6884**Quadrangle:** SR C-5**Longitude:** 148.7090**Location description and accuracy:**

This occurrence is on the northwest side of a small ridge that separates the terminus of Concordia Glacier from that of Northland Glacier. This occurrence is in the NW1/4 section 23, T. 7 N., R. 4 E., of the Seward Meridian. This is location S-182 of Jansons and others (1984). It is accurate to within half a mile.

Commodities:**Main:** Au**Other:** Ag, Cu**Ore minerals:** Chalcopyrite, gold, pyrite, pyrrhotite**Gangue minerals:** Quartz**Geologic description:**

This occurrence consists of a series of en echelon quartz veins and vein stockworks hosted in Upper Cretaceous Valdez Group slate and sandstone (Nelson and others, 1985). These veins are spatially associated with the Port Wells fault and are similar to those at the Lansing mine (SR073) (Jansons and others, 1984). The veins consist of vuggy quartz containing as much as 15 percent sulfides, chiefly pyrite, chalcopyrite, and pyrrhotite. The veins strike N15 to 40W and dip nearly vertically.

This occurrence was discovered in 1981 by the U.S. Bureau of Mines (Jansons and others, 1984). Grab samples contained traces of gold and silver, along with minor amounts of base metals.

Alteration:**Age of mineralization:**

Oligocene or younger; the veins are associated with the Port Wells fault system, which in nearby areas cut Oligocene granitic rocks.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

The occurrence was discovered in 1981 by the U.S. Bureau of Mines (Jansons and others, 1984). Their grab samples contained traces of gold and silver, along with minor amounts of base metals.

Production notes:

Reserves:

Additional comments:

References:

Jansons and others, 1984.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 12/15/99

Site name(s): Unnamed (terminus of Taylor Glacier)**Site type:** Occurrence**ARDF no.:** SR164**Latitude:** 60.5528**Quadrangle:** SR C-5**Longitude:** 148.5588**Location description and accuracy:**

This placer occurrence is in the W1/2 section 3, T. 5 N., R. 5 E., of the Seward Meridian. The placer extends from sea level up a short, broad valley to the toe of Taylor Glacier. This is location P-44 of Jansons and others (1984). The location is accurate to within a half mile.

Commodities:**Main:** Au, W**Other:****Ore minerals:** Gold, scheelite**Gangue minerals:****Geologic description:**

This placer occurrence consists of clay- and boulder-rich outwash gravel in the braided stream channels below the terminus of Taylor Glacier. The gravels occupy a short, broad valley that extends from sea level to the toe of the glacier. Gold particles as much as one-eighth-inch in diameter and some scheelite were recovered from a sample collected by the U.S. Bureau of Mines (Jansons and others, 1984). Bedrock in this area is slate and graywacke of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). No other information is available.

Alteration:**Age of mineralization:**

Quaternary.

Deposit model:

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

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

39a

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

No workings are reported. The U.S. Bureau of Mines sampled the deposit using a suction dredge and recovered 0.0004 ounce of gold per yard (Hoekzema and Sherman, 1983).

Production notes:**Reserves:**

Additional comments:

References:

Jasper, 1967; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 03/07/00

Site name(s): Unnamed (Surprise Cove)**Site type:** Prospect**ARDF no.:** SR165**Latitude:** 60.7382**Quadrangle:** SR C-4**Longitude:** 148.3733**Location description and accuracy:**

The prospect is situated on the northwest side of Cochrane Bay about a mile south of Surprise Cove. It is in the SE1/4 section 34, T. 8 N., R. 6 E., of the Seward Meridian. This is location S-104 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Ag**Other:** Au, Cu, Pb, Zn**Ore minerals:** Chalcopyrite, galena, pyrite, pyrrhotite, sphalerite**Gangue minerals:** Calcite, chlorite, quartz**Geologic description:**

The prospect consists of a 3- to 15-foot-wide shear zone that is exposed along strike for as much as 1,000 feet. The shear zone contains several quartz and quartz-calcite-chlorite veins (Jansons and others, 1984). The bedrock in this area is mapped as shale and graywacke of the Upper Cretaceous Valdez Group (Tysdal and Case, 1979). The veins and sheared sedimentary rocks contain both disseminations and podiform masses of chalcopyrite, galena, pyrite, pyrrhotite, and sphalerite. Overall, the shear zone contains 1 percent sulfides (Jansons and others, 1984).

Samples collected by the U.S. Bureau of Mines include an 8-inch chip sample containing 130 ppm silver and float rock samples containing 4.25 percent copper, 3.5 percent arsenic, and 0.3 percent zinc (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Cretaceous or younger; the deposit is in a shear zone that cuts rocks Valdez Group rocks of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

Samples collected by the U.S. Bureau of Mines include an 8-inch chip sample containing 130 ppm silver, and float rock samples containing 4.25 percent copper, 3.5 percent arsenic, and 0.3 percent zinc (Jansons

and others, 1984).

Production notes:

Reserves:

Additional comments:

References:

Jansons and others, 1984.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 02/11/00

Site name(s): John Sells; Sells**Site type:** Mine**ARDF no.:** SR166**Latitude:** 60.7347**Quadrangle:** SR C-4**Longitude:** 148.2005**Location description and accuracy:**

The prospect is located in the SE1/4 section 34, T. 8 N., R. 7 E., of the Seward Meridian. It is at an elevation of 725 feet on the east side of Culross Passage about one mile southwest of the head of Culross Bay.

This is location 107 of MacKevett and Holloway (1977), location 170 of Cobb and Tysdal (1980), and location S-103 of Jansons and others (1984). Cobb and Tysdal (1980) summarized the relevant references under the name Sells. This location is accurate to within 300 feet.

Commodities:**Main:** Au**Other:** Ag, Cu, Pb, Zn**Ore minerals:** Arsenopyrite, chalcopyrite, galena, gold, pyrrhotite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

The mine is in the Contact Fault zone; this major thrust fault juxtaposes the Valdez Group of Late Cretaceous age with the Orca Group of Tertiary age. The Contact Fault zone formed 65 million to 35 million years ago and ranges from 1 to 6 miles wide. Within this zone are numerous discrete shears. The general trend of the Contact Fault is northeast, but the strike of individual shears may vary widely (Nockleberg and others, 1994).

The country rock at the prospect consists of Valdez Group schistose sandy slate that strikes S30W and dips 80W (Cobb and Tysdal, 1980). The deposit consists of closely grouped quartz lenses and stringers that parallel the schistosity of the country rock in strike and dip. The width of the quartz lenses ranges from 4 to 59 inches, and the maximum exposed length of any lens or stringer is about 15 feet. The area of quartz veins is about 200 feet in length and has an apparent width of at least 15 feet (Johnson, 1914 [B 592-G, p. 236]).

The workings on this prospect consist of a single 100-foot adit, a 15-foot-long open cut, and several prospect pits. The U.S. Bureau of Mines collected 11 samples that contained less than 0.005 ounce of gold per ton. Other results included a 9-foot-wide chip sample containing 0.086 ounce of gold per ton and a 2-foot-wide chip sample of a quartz vein containing 0.374 ounce of gold per ton (Jansons and others, 1984). There is no reported production, although a test shipment of ore was made (Johnson, 1918 [B 662-C, p. 183-192]).

Alteration:**Age of mineralization:**

Eocene or younger; the Contact Fault zone cuts Eocene granite north of this prospect.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Yes; small

Site Status: Inactive

Workings/exploration:

The workings on this mine consist of a single 100-foot adit, a 15-foot-long open cut, and several prospect pits. The U.S. Bureau of Mines collected 11 samples that contained less than 0.005 ounce of gold per ton, including a 9-foot-wide chip sample containing 0.086 ounce of gold per ton and a 2-foot-wide chip sample of a quartz vein containing 0.374 ounce of gold per ton (Jansons and others, 1984). There was no reported production, although a test shipment of ore was made (Johnson, 1918 [B 662-C, p. 183-192]).

Production notes:

Reserves:

The U.S. Bureau of Mines estimated a geologic resource of 180 tons at 0.05 ounce of gold per ton (Jansons and others, 1984).

Additional comments:

References:

Johnson, 1914 (B 592-G, p. 236); Johnson, 1918 (B 662-C, p. 183-192); Condon and Cass, 1958; Cobb and Richter, 1972; Mackevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984; Nockleberg and others, 1994.

Primary reference: Johnson, 1914 (B 592-G, p. 236); Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 02/11/00

Site name(s): Unnamed (McClure Bay)**Site type:** Occurrence**ARDF no.:** SR167**Latitude:** 60.5053**Quadrangle:** SR C-4**Longitude:** 148.1837**Location description and accuracy:**

The occurrence is located in the SW1/4 section 23, T. 5 N., R. 7 E., of the Seward Meridian. It is situated on or near the west shore of McClure Bay, just east of hill 1692. This is location 112 of Tysdal (1978 [MF-880-A]) and location S-96 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu, Zn**Other:****Ore minerals:** Chalcopyrite, pyrite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

There is much confusion in the literature about this occurrence. Tysdal (1978 [MF-880-A]) described it as a small iron-stained breccia zone in sandstone containing 100 ppm zinc. Jansons and others (1984) describe this occurrence as thin vuggy quartz veins about 1 inch wide containing pyrite and chalcopyrite in interbedded shale and graywacke of the Tertiary Orca Group. No workings exist.

Alteration:

Iron staining.

Age of mineralization:

Tertiary or younger; the occurrence is in Orca Group rocks of Tertiary age.

Deposit model:**Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production Status:** None**Site Status:** Inactive**Workings/exploration:**

Tysdal (1978 [MF-880-A]) reported 100 ppm zinc in iron-stained breccia.

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

Tysdal (1978 [MF-880-A]) and Jansons and others (1984) located this occurrence in the same spot, but

their descriptions do not match.

References:

Tysdal, 1978 (MF-880-A); Tysdal, 1978 (MF-880-B); Jansons and others, 1984.

Primary reference: Tysdal, 1978 (MF-880-A); Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 02/10/00

Site name(s): Thomas-Culross Mining Co.; Bugaboo; Chelan; Culross; Culross Island Mining**Site type:** Mine**ARDF no.:** SR168**Latitude:** 60.7372**Quadrangle:** SR C-4**Longitude:** 148.1760**Location description and accuracy:**

This mine is located in the SW1/4 section 35, T. 8 N., R. 7 E., of the Seward Meridian. It is at an elevation of 300 feet above sea level, on the east side of Culross Bay about 1,500 feet from shore. This is location 106 of MacKevett and Holloway (1977), location 169 of Cobb and Tysdal (1980), and location S-102 of Jansons and others (1984). Cobb and Tysdal (1980) summarized the relevant references under the name Thomas-Culross. This location is accurate to within 300 feet.

Commodities:**Main:** Au**Other:** Ag, Cu, Pb, Zn**Ore minerals:** Arsenopyrite, chalcopyrite, galena, gold, pyrrhotite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

The Thomas-Culross mine is within the Contact Fault zone, a major thrust fault that juxtaposes the Valdez Group of Late Cretaceous age with the Orca Group of Tertiary age. The Contact Fault zone formed 65 million to 35 million years ago and ranges from 1 to 6 miles wide. Within this zone are numerous discrete shears. The general trend of the Contact Fault zone is northeast, but the strike of individual shears may vary widely.

The country rocks at the mine consist of sheared Orca Group greenstone, which is rehealed by quartz veins that contain arsenopyrite, chalcopyrite, galena, pyrrhotite, sphalerite, and gold. Slate and graywacke outcrop about 50 feet north of the portal. The shear zone is traceable for about 900 feet and strikes N10E with a vertical dip (Johnson, 1914 [B 592-G, p. 235-236]). The quartz veins within the zone range from 1 to 14 inches wide and show banding; some arsenopyrite is disseminated in the surrounding wall rock (Johnson, 1914 [B 592-G, p. 235-236]). The extensive workings on the property were developed over a period of about 30 years. There are a total of 720 feet of adits and drifts, along with a 180-foot raise. A 1,350-foot-long aerial tramway connected the mine to a 10-foot Chilean mill (Jansons and others, 1984). Estimated production from this mine is 62 ounces of gold and 52 ounces of silver (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Eocene or younger; the mineralized shear cuts Eocene greenstone of the Orca Group of Tertiary age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Yes; small

Site Status: Inactive

Workings/exploration:

The extensive workings on the property were developed over a period of about 30 years. There are a total of 720 feet of adits and drifts, along with a 180 foot raise. A 1,350-foot aerial tramway connected the mine to a 10 foot Chilean Mill near the beach (Jansons and others, 1984). Estimated production from this mine is 62 ounces of gold and 52 ounces of silver (Jansons and others, 1984).

The U.S. Bureau of Mines collected multiple samples from this property that assayed from trace to 14.8 ppm gold and trace to 6.5 ppm silver. (Jansons and others, 1984).

Production notes:

Estimated production from this mine is 62 ounces of gold and 52 ounces of silver (Jansons and others, 1984).

Reserves:

The U.S. Bureau of Mines estimated an indicated reserve of 8,600 tons at 5.5 ppm gold and 3.4 ppm silver (Jansons and others, 1984).

Additional comments:

References:

Johnson, 1914 (B 592-G, p. 235-236); Johnson, 1915; Johnson, 1916; Smith, 1917 (BMB 142); Smith, 1917 (BMB 153); Brooks and Capps, 1924; Moffit, 1927; Smith, 1929; Smith, 1941 (B 926-A); Moffit, 1954; Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984.

Primary reference: Johnson, 1914 (B 592-G, p. 235-236); Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 02/11/00

Site name(s): Unnamed (southern Culross Island)**Site type:** Occurrence**ARDF no.:** SR169**Latitude:** 60.6593**Quadrangle:** SR C-3**Longitude:** 148.0967**Location description and accuracy:**

The occurrence is located in the NW1/4 section 32, T. 7 N., R. 8 E., of the Seward Meridian. It is situated on the southeast shore of Culross Island just south of VABM Still. This is location S-101 of Jansons and others (1984). This location is accurate to within half a mile.

Commodities:**Main:** Cu**Other:****Ore minerals:** Chalcopyrite, pyrite, pyrrhotite**Gangue minerals:** Quartz**Geologic description:**

The occurrence consists of a 20- by 30-foot exposure of quartz diorite containing as much as 10 percent combined pyrite, pyrrhotite, and chalcopyrite that form clots and disseminations (Jansons and others, 1984). Tysdal and Case (1979) mapped this area as Eocene granite and granodiorite. The U.S. Bureau of Mines collected samples from this occurrence that contained as much as 0.13 percent copper (Jansons and others, 1984). No other information is has been made public.

Alteration:**Age of mineralization:**

Eocene; The occurrence is in Eocene granitic rock.

Deposit model:**Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production Status:** None**Site Status:** Inactive**Workings/exploration:**

Samples collected by the U.S. Bureau of Mines contained up to 0.13 percent copper (Jansons and others, 1984).

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

References:

Jansons and others, 1984.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 02/10/00

Site name(s): Unnamed (near Main Bay)**Site type:** Occurrence**ARDF no.:** SR170**Latitude:** 60.5219**Quadrangle:** SR C-3**Longitude:** 148.0833**Location description and accuracy:**

The occurrence is located in the SE1/4 section 17, T. 5 N., R. 8 E., of the Seward Meridian. It is situated on or near the southeast shore of Main Bay, about one-half mile from the head of the bay. This is location S-97 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Ag**Ore minerals:** Arsenopyrite, pyrite**Gangue minerals:** Quartz**Geologic description:**

This occurrence consists of stringers and lenses of quartz, from 3 inches to 1.3 feet wide, hosted in Orca Group sedimentary rocks of Tertiary age. The veins are exposed along strike for 70 feet. The veins consist of quartz containing arsenopyrite and pyrite. A grab sample collected by the U.S. Bureau of Mines contained 0.54 ppm gold, 0.40 ppm silver, and 7.9 percent arsenic (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Tertiary or younger; the veins cut Orca Group rocks of Tertiary age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status: None**Site Status:** Inactive**Workings/exploration:****Production notes:****Reserves:****Additional comments:****References:**

Jansons and others, 1984.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 02/10/00

Site name(s): Unnamed (near West Twin Bay on Perry Island)**Site type:** Occurrence**ARDF no.:** SR171**Latitude:** 60.7244**Quadrangle:** SR C-3**Longitude:** 147.9643**Location description and accuracy:**

The occurrence is located in the SE1/4 section 1, T. 7 N., R. 8 E., of the Seward Meridian. It is situated on the east shore of West Twin Bay on the peninsula that separates West Twin Bay from East Twin Bay. This is location S-100 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** W**Other:****Ore minerals:****Gangue minerals:** Quartz**Geologic description:**

The occurrence consists of a 40-foot-wide quartz stockwork zone in granite containing aplite dikes (Jansons and others, 1984). Tysdal and Case (1979) mapped the rocks in this area as Eocene granite and granodiorite.

Some of the veins have been brecciated, and the surrounding granite is silicified. The U.S. Bureau of Mines collected samples from this prospect that contained as much as 99 ppm tungsten (Jansons and others, 1984).

Alteration:

Silicification.

Age of mineralization:

Eocene; the occurrence is in Eocene granitic rock.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

Samples collected by the U.S. Bureau of Mines contained as much as 99 ppm tungsten (Jansons and others, 1984).

Production notes:

Reserves:

Additional comments:

References:

Jansons and others, 1984.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 02/10/00

Site name(s): Unnamed (near South Bay on Perry Island)**Site type:** Prospect**ARDF no.:** SR172**Latitude:** 60.6869**Quadrangle:** SR C-3**Longitude:** 147.9227**Location description and accuracy:**

The prospect is located in the NW1/4 section 20, T. 7 N., R. 9 E., of the Seward Meridian. It is situated on or near the northwest shore of South Bay on the south side of Perry Island. This is location S-99 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:****Ore minerals:****Gangue minerals:** Epidote**Geologic description:**

The prospect consists of a 4- by 8-foot open cut on 2- to 3-inch-wide epidote veins in granite (Jansons and others, 1984). Tysdal and Case (1979) mapped the rocks in this area as Eocene granite and granodiorite. Iron-stained veins have silicified the surrounding wall rock. The U.S. Bureau of Mines collected samples from this prospect that contained as much as 1 ppm copper (Jansons and others, 1984).

Alteration:

Silicification.

Age of mineralization:

Eocene; the prospect is in Eocene granitic rock.

Deposit model:**Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production Status:** None**Site Status:** Inactive**Workings/exploration:**

Workings consist of a 4-foot-wide by 8-foot-long open cut. The date of this work is unknown. Samples collected by the U.S. Bureau of Mines contained as much as 1 ppm copper (Jansons and others, 1984).

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

Possible crystal collecting site?

References:

Jansons and others, 1984.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 02/10/00

Site name(s): Unnamed (Perry Island)**Site type:** Occurrence**ARDF no.:** SR173**Latitude:** 60.6943**Quadrangle:** SR C-3**Longitude:** 147.8467**Location description and accuracy:**

The occurrence is located in the SE1/4 section 15, T. 7 N., R. 9 E., of the Seward Meridian. It is situated on the southeast side of Perry Island near Billings Point. This is location S-98 of Jansons and others (1984). This location is accurate to within half a mile.

Commodities:**Main:** W**Other:****Ore minerals:** Pyrite, scheelite**Gangue minerals:** Epidote, mica, quartz**Geologic description:**

This occurrence consists of several scheelite-bearing granitic and aplite dikes near the contact between hornfeldsed Orca Group sedimentary rocks of Tertiary age and Eocene granite (Kurtak and Jeske, 1986). The dikes are stained with limonite and locally contain epidote, pyrite, and scheelite. A 2-foot wide chip sample collected by the U.S. Bureau of Mines contained 0.43 ppm tungsten. Other chip samples contained as much as 5 ppm tungsten (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Eocene; the occurrence is in Eocene granitic rock.

Deposit model:**Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production Status:** None**Site Status:** Inactive**Workings/exploration:****Production notes:****Reserves:****Additional comments:****References:**

Jansons and others, 1984; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 02/10/00

Site name(s): Unnamed (on Eleanor Island)**Site type:** Occurrence**ARDF no.:** SR174**Latitude:** 60.5377**Quadrangle:** SR C-2**Longitude:** 147.5678**Location description and accuracy:**

The occurrence is located in the SW1/4 section 8, T. 5 N., R. 11 E., of the Seward Meridian. It is situated at sea level on the south shore of Eleanor Island. This is location 119 of MacKevett and Holloway (1977), location 195 of Cobb and Tysdal (1980), and location S-85 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:** Zn**Ore minerals:** Chalcopyrite, pyrrhotite, sphalerite**Gangue minerals:****Geologic description:**

The occurrence consists of a shear zone containing a series of thin layers and lenses of massive pyrrhotite, along with chalcopyrite and sphalerite. The host rock is Tertiary Orca Group slate and pillow basalt (Cobb and Tysdal, 1980). Workings on the prospect consist of two adits that connect underground and total 80 feet in length.

Tysdal (1978 [MF-880-A]) reported assay results of 5 ppm silver, 2,000 ppm copper, 500 ppm lead, and 1,700 ppm zinc. The U.S. Bureau of Mines collected a single 5-foot chip sample that contained 515 ppm copper and 460 ppm zinc (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Tertiary or younger; the occurrence is in slate near pillow basalt in the Orca Group of Tertiary age.

Deposit model:

Besshi massive sulfide (Cox and Singer, 1986; model 24b)

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

24b

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

The workings on this prospect consist of two adits that connect underground and total 80 feet in length (Jansons and others, 1984). Tysdal (1978 [MF-880-A]) reported assay results of 5 ppm silver, 2,000 ppm copper, 500 ppm lead, and 1,700 ppm zinc. The U.S. Bureau of Mines collected a single 5-foot chip sample that contained 515 ppm copper and 460 ppm zinc (Jansons and others, 1984).

Production notes:

Reserves:

Additional comments:

References:

MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber (Anchorage)

Last report date: 02/10/00

Site name(s): Kenai River**Site type:** Mine**ARDF no.:** SR175**Latitude:** 60.4853**Quadrangle:** SR B-8**Longitude:** 149.8806**Location description and accuracy:**

The Kenai River in the Seward quadrangle is located in T. 5 N., R. 3, 4 W., of the Seward Meridian. The placer section of the river is between Cooper Creek and Schooner Bend. The map site location is in the Kenai River at its juncture with Cooper Creek, in the NW1/4 section 31, T. 5 N., R. 3 W. of the Seward Meridian where most of the production has occurred from. This is location 26 of Cobb and Tysdal (1980) and location P-87 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:****Geologic description:**

Sediments of the upper Kenai River contain minor amounts of gold in a section of the river that runs from Cooper Creek to Schooner Bend. The metasedimentary bedrock in the area is mapped as Valdez Group of Late Cretaceous age (Cobb and Tysdal, 1980). Tysdal (1978 [MF-880-B]) reported that production has come, mainly, from just below Cooper Creek where the river has incised about 190 feet into a glaciolacustrine delta. At this site, most of the gold is fine flakes found in point bars and in bedrock fractures. Coarser gold, flat but not flaky, has been introduced into the river gravels from Cooper Creek. Tysdal (1978 [MF-880-B]) estimated production at less than 769 fine ounces. The U.S. Bureau of Mines estimated production at less than 200 ounces (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Quaternary; the gold is in glaciolacustrine sediments.

Deposit model:

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

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

39a

Production Status: Yes; small**Site Status:** Inactive**Workings/exploration:**

The Russian explorer Doroshin prospected the area in 1848 and 1850; placer gold was discovered in tributaries to the Kenai River in 1848 (Johnson, 1912). In 1910, Cunningham discovered placer gold in the

Kenai River about a mile below Cooper Creek. A small bucket line dredge operated during 1911 and 1912. Production grade from this operation was 0.004 ounce of gold per cubic yard. The dredge operation was not economic. Prospecting using dozers and drilling occurred between 1935 and 1956. Only recreation panning has occurred recently.

The U.S. Bureau of Mines collected three point bar gravel samples just above Schooner Bend that assayed from 0.0135 to 0.0449 ounce of gold per cubic yard (Jansons and others, 1984). Jansons and others (1984) estimated total production at less than 200 ounces of gold.

Production notes:

Tysdal (1978 [MF-880-B]) estimated production at less than 769 fine ounces. The U.S. Bureau of Mines estimated total production at less than 200 ounces of gold (Jansons and others, 1984).

Reserves:

Additional comments:

The first gold discovered on the Kenai Peninsula was by the Russian explorer Doroshin on tributaries of the Kenai River in 1848.

References:

Mendenhall, 1900; Moffit, 1906; Johnson, 1912; Brooks, 1913; Brooks, 1914; Brooks, 1915; Brooks, 1916 (B 642-A); Martin and others, 1915; Smith, 1941 (B 926-A); Koschmann and Bergendahl, 1968; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-B); Cobb and Tysdal, 1980; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Cobb and Tysdal, 1980

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 01/28/02

Site name(s): Cooper Creek**Site type:** Mine**ARDF no.:** SR176**Latitude:** 60.4740**Quadrangle:** SR B-8**Longitude:** 149.8745**Location description and accuracy:**

Cooper Creek flows north into the Kenai River at 3 miles below Kenai Lake. The mine is located in the SW1/4 section 31, T. 5 N., R. 3 W., Seward Meridian at about 700 feet elevation. The creek has been worked from Stetson Creek to its mouth. The map location is in the center of the placer deposit. This is location 160 of Cobb and Richter (1972), location 173 of MacKevett and Holloway (1977), location 25 of Cobb and Tysdal (1980), and location P-86 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Au**Other:** As**Ore minerals:** Arsenopyrite, gold, magnetite**Gangue minerals:****Geologic description:**

Cooper Creek is 10 miles long and occupies a narrow bedrock canyon nearly to its junction with the Kenai River. Bedrock in the area is slate and graywacke of the Valdez Group of Late Cretaceous age (Nelson and others, 1985).

Near its mouth, Cooper Creek has cut through stratified gravels of a glacial delta deposit of the Kenai River valley. A bench gravel deposited by Cooper Creek on the east side of the stream is between 100 and 200 feet above the current creek level (Moffit, 1906). The gold content of the glacial delta gravels was low, but the Cooper Creek bench gravels averaged about \$0.40 per cubic yard (with gold at \$20.67 per ounce) (Cobb and Tysdal, 1980). Cooper Creek bench gravels are 8 to 10 feet thick and are composed of lenses of pebbly gravel resting on a sand and clay false bedrock.

Even richer bench gravels in the canyon lay on bedrock and contained both coarse and fine gold. The largest reported nugget produced from the canyon bench gravels was worth \$3.80 (gold at \$20.67) (Johnson, 1912).

Gravels of the active stream channel are loose and easily handled and composed of pebbles of black slate and graywacke interspersed with some boulders of fine-grained felsic dike rocks (Hoekzema and Sherman, 1983). Boulders larger than 3 feet are rare; most boulders are between 1.5 to 3 feet. The stream gravels of the both the canyon and the delta have been worked and produced gold. The stream gravels vary considerably in thickness and, in general, are richer in the canyon than near the mouth (Johnson, 1912).

The gold is derived from three sources: from the delta deposits that flank the stream flat, from the auriferous glacial and fluvioglacial deposits in the glaciated valley of Cooper Creek, and to a slight extent, probably by post-glacial erosion of gold-bearing lodes in the bedrock of the valley (Johnson, 1912). The gold is small, flat, heavy, and not flaky (Johnson, 1912). Gold fineness is 85 percent. Gravel concentrates also contain pyrite, arsenopyrite, and magnetite (Johnson, 1912).

Alteration:**Age of mineralization:**

Quaternary.

Deposit model:

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

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

39a

Production Status: Yes; small

Site Status: Active

Workings/exploration:

Between 1899 and 1917, creek gravels were worked by hand placer methods and hydraulic mining, both in the canyon and on the flat at the lower end of the creek (Johnson, 1912). Only minor production has occurred since.

Hydraulic operations were in progress in 1911 on the stream flat at the mouth of the creek. On account of the low stream gradient, a Ruble elevator with a 48-foot body, 10 feet wide, and a 12-foot expansion at the lower end was installed. The gold-saving attachments consisted of four sluice boxes, 12 feet long by 4 feet wide, set on a grade of 8 inches to the box length. The three lower boxes were set with steel-capped wooden cross riffles, 4 inches by 2 inches by 4 feet in size, 2 inches apart with 1-inch spaces between the steel straps (Johnson, 1912). Water for hydraulicking was obtained from Stetson, and two other nearby creeks by an upper ditch 4 miles long, a lower ditch 1.75 miles long, and 1,300 feet of flume. Two No. 2 Hendy giants with 4-inch nozzles were available, but only one giant with a 5-inch nozzle operating under a 200-foot head was in use in June 1911 (Johnson, 1912). The usual operation was to strip the soil down to the gravel layer and then to wash all the gravel down to the false bedrock over the elevator. Most of the gold was caught in the upper boxes.

The U.S. Bureau of Mines collected four 0.1-cubic-yard samples from the bench and bar deposits near the mouth of Cooper Creek. These contained 0.0018 to 0.019 ounce of gold per cubic yard (Jansons and others, 1984).

Current mining, consisting of small-scale suction dredging in the active stream channel, occurs intermittently at and just below Cooper Creeks juncture with Stetson Creek.

Production notes:

Moffit (1906) reported that most of the pay from Cooper Creek was taken from a single claim in a single year and a profit of 14 pounds of gold was made that year.

The U.S. Bureau of Mines estimated total production to have exceeded 1,000 ounces, of which less than 50 ounces has been produced since 1975 (Jansons and others, 1984).

Reserves:

The U.S. Bureau of Mines indicated that only limited quantities of unmined gravel remain (Jansons and others, 1984).

Additional comments:**References:**

Mendenhall, 1900; Moffit, 1905; Moffit, 1906; Paige and Knopf, 1907; Johnson, 1912; Brooks, 1915; Martin and others, 1915; Brooks, 1916 (B 642-A); Johnson, 1919 (B 692-C, p. 175-176); Tuck, 1933; Koschmann and Bergendahl, 1968; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-B); Cobb and Tysdal, 1980; Jansons and others, 1984.

Primary reference: Johnson, 1912

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 06/29/00

Site name(s): Stetson Creek**Site type:** Mine**ARDF no.:** SR177**Latitude:** 60.4458**Quadrangle:** SR B-8**Longitude:** 149.8491**Location description and accuracy:**

Stetson Creek is a north-flowing tributary of Cooper Creek that is located about 2 miles from the confluence of Cooper Creek and Kenai River. The placer section of the stream is about 1.5 miles long and is located in sections 8, 17, 18, and 19, of T. 4 N., R. 3 W., of the Seward Meridian, but most of the gold has been recovered at the map location in the SW1/4 section 8. This is location 24 of Cobb and Tysdal (1980) and location P-85 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:****Geologic description:**

Stetson Creek occupies a steep, narrow valley with a bedrock gorge developed along its lower section. Bedrock is mapped as Valdez Group of Late Cretaceous age (Nelson and others, 1985). The placer section extends from the confluence of Stetson and Cooper Creeks upstream for about 1.5 miles (Tysdal, 1978 [MF-880-B]). Gravel deposited below a series of falls is reported to contain coarse gold (Jansons and others, 1984). Bench gravels along the lower creek just above its confluence with Cooper Creek are as much as 50 feet thick and moderately stratified and have a high clay content. In the 1950's high bench deposits near the confluence with Cooper Creek were hydraulically mined. Suction dredging has occurred sporadically since that time.

Total production is estimated to be less than 300 ounces of gold (Jansons and others, 1984). Two samples from the stream channel contained a trace to 0.0043 ounce of gold per cubic yard (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Quaternary; the gold is in the stream channel and in bench gravel.

Deposit model:

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

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

39a

Production Status: Yes; small**Site Status:** Active

Workings/exploration:

Historically, work on this creek has consisted of small hydraulic operations and hand mining. In more recent time, small-scale suction dredges have worked the active stream channel. Gold recovered in the creek consists of both coarse nuggets as heavy as about 2 ounces and fine gold (Cobb and Tysdal, 1980). Total production is estimated to be less than 300 ounces of gold (Jansons and others, 1984). Two samples from the stream channel of Stetson Creek contained a trace to 0.0043 ounce of gold per cubic yard (Jansons and others, 1984).

Production notes:

Cobb and Tysdal (1980) estimated total production from this creek as less than 769 fine ounces. Jansons and others (1985) estimated total production to be less than 300 ounces.

Reserves:**Additional comments:****References:**

Mendenhall, 1900; Moffit, 1905; Moffit, 1906; Martin and others, 1915; Johnson, 1919 (B 692-C, p. 176); Tysdal, 1978 (MF-880-B); Cobb and Tysdal, 1980; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Tysdal, 1978 (MF-880-B)

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 03/07/01

Site name(s): Snowshoe**Site type:** Occurrence**ARDF no.:** SR178**Latitude:** 60.4866**Quadrangle:** SR B-8**Longitude:** 149.7057**Location description and accuracy:**

The prospect is located near the confluence of Dry Creek and Quartz Creek, which flows into Kenai Lake. It is situated in the NW1/4 section 31, T. 5 N., R. 2 W., of the Seward Meridian. This is location 62 of Tysdal (1978 [MF-880-A]) and location S-239 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:****Geologic description:**

Bedrock in this area is undivided sedimentary rock of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). The occurrence was located by Don Brown in 1970. The occurrence is not described in the literature.

Alteration:**Age of mineralization:**

Cretaceous or younger; the bedrock is part of the Valdez Group of Late Cretaceous age.

Deposit model:**Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production Status:** None**Site Status:** Inactive**Workings/exploration:**

The U.S. Bureau of Mines searched for the occurrence in 1980, but did not find it (Hoekzema and Sherman, 1983). They collected placer samples from Dry Creek but did not report the sample results.

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

Tysdal, 1978 (MF-880-A); Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/10/01

Site name(s): Lyengholm, Hargood and Larson; Black Devil**Site type:** Occurrence**ARDF no.:** SR179**Latitude:** 60.4802**Quadrangle:** SR B-8**Longitude:** 149.6941**Location description and accuracy:**

The occurrence is located in the SE1/4 section 31, T. 5 N., R. 2 W. of the Seward Meridian. It is situated at an approximate elevation of 800 feet on the divide between Dry Creek and Kenai Lake. This is location 32 of Cobb and Richter (1972), location 42 of MacKevett and Holloway (1977), location 63 of Cobb and Tysdal (1980), and location S-238 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Sb**Other:****Ore minerals:** Stibnite**Gangue minerals:** Quartz**Geologic description:**

The occurrence consists of a highly fractured and altered dike, 6 to 8 feet wide, that cuts slate country rock (Grant and Higgins, 1909). Slate in this area is mapped as Valdez Group of Late Cretaceous age (Tysdal, 1978 [MF-880-A]). The dike is a fine-grained, sheared, gray, acidic rock. Fractures in the dike have been healed by quartz that contains stringers and disseminated acicular crystals of stibnite. The age of the dike is unknown. Tysdal (1978 [MF-880-A]) reported that local quartz veins contain stibnite, but he provided no assay results.

Alteration:

Although the dike is reported to be altered, no information regarding the type of alteration is available in the literature.

Age of mineralization:

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Polymetallic veins (Cox and Singer, 1986; model 22c)

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

22c

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

No workings or improvements are reported. Assays of the antimony ore are reported to show neither gold nor silver (Grant and Higgins, 1909). No assay information is available regarding the antimony content of

the ore.

Production notes:

Reserves:

Additional comments:

The U.S. Bureau of Mines indicated that the dike is probably a continuation of the mineralized dike at the K and T prospect (SR181) (Jansons and others, 1984).

References:

Grant and Higgins, 1909; Martin and others, 1915; Brooks, 1916 (B 642-A); Brooks, 1916 (B 649); Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Grant and Higgins, 1909

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 03/05/00

Site name(s): Resurrection River**Site type:** Prospect**ARDF no.:** SR180**Latitude:** 60.2705**Quadrangle:** SR B-8**Longitude:** 149.6809**Location description and accuracy:**

The placer section of Resurrection River is located in the NE1/4 section 18, T. 2 N., R. 2 W., of the Seward Meridian. The placer also includes the mouth of Placer Creek. This is location 27 of Cobb and Tysdal (1980) and is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:****Geologic description:**

Resurrection River occupies a fairly wide valley over most of its length. Bedrock is exposed in only a few locations. The placer is in Resurrection River at the confluence of Placer Creek and includes a short section of Placer Creek. These gravels were mined in 1924, and a small amount of gold was recovered (Tysdal, 1978 [MF-880-B]). Bedrock in this area is part of the Valdez Group of Late Cretaceous age (Cobb and Tysdal, 1980).

Alteration:**Age of mineralization:**

Quaternary; Resurrection River is a glacial outwash stream with an active glacier at its head.

Deposit model:

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

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

39a

Production Status: Yes; small**Site Status:** Inactive**Workings/exploration:**

Tysdal (1978 [MF-880-B]) reported gold mining in 1924, and his map location shows the placer at the confluence of Placer Creek and Resurrection River. No other information is published in the literature.

Production notes:

The amount of gold produced is unknown.

Reserves:

Additional comments:

References:

Smith, 1926; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-B); Cobb and Tysdal, 1980; Nelson and others, 1985.

Primary reference: Tysdal, 1978 (MF-880-B)

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 03/07/01

Site name(s): K and T; Victory; Victor**Site type:** Prospect**ARDF no.:** SR181**Latitude:** 60.4531**Quadrangle:** SR B-8**Longitude:** 149.6717**Location description and accuracy:**

This prospect is located on the northeast side of Kenai Lake, 2.5 miles southeast of Quartz Creek at an elevation of about 1,450 feet. It is in the NW1/4 section 8, T. 4 N., R. 2 W., of the Seward Meridian. This is location 64 of Tysdal (1978 [MF-880-A]) and location S-236 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Sb**Other:** Au**Ore minerals:** Pyrite, pyrrhotite, stibnite**Gangue minerals:** Quartz**Geologic description:**

The K and T prospect consists of a fractured and altered felsic dike averaging 2 feet wide and traceable for at least 500 feet along strike. The dike strikes N5W and dips 70E. Williams (1952) described the dike as being siliceous and containing large amounts of pyroxene. It is cemented by quartz-sulfide veins. Sulfides occur as disseminated grains of stibnite and pyrite and as massive stringers of stibnite (Hoekzema and Sherman, 1983). The dike intrudes slate and sandstone of the Upper Cretaceous Valdez Group of Late Cretaceous age (Nelson and others, 1985). The country rock strikes N30E and dips 60NE (Williams, 1952). The age of the dike is unknown, but similar dikes 15 to 25 miles east of this location have been dated as Tertiary (Nelson and others, 1985).

Workings on the prospect consist of surface trenching and sampling. Two samples collected in 1952 contained from 1.7 percent to 4.38 percent antimony and no precious metals (Williams, 1952). Samples collected by the U.S. Bureau of Mines in 1980 contained from 38 ppm to 4.38 percent antimony (Hoekzema and Sherman, 1983).

Alteration:

The felsic dike is reported to be altered, but the alteration is not described (Hoekzema and Sherman, 1983).

Age of mineralization:

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status: None

Site Status: Inactive

Workings/exploration:

Workings on the prospect consist of surface trenching and sampling. Two samples collected in 1952 contained from 1.7 percent to 4.38 percent antimony and no precious metals (Williams, 1952). Samples collected by the U.S. Bureau of Mines in 1980 contained from 38 ppm to 4.38 percent antimony (Hoekzema and Sherman, 1983).

Production notes:

Reserves:

Additional comments:

References:

Brooks, 1916 (B 649); Martin and others, 1915; Johnson, 1916; Williams, 1952; Tysdal, 1978 (MF-880-A); Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Williams, 1952

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 04/30/01

Site name(s): Good News; Wheelbarrow Lode**Site type:** Prospect**ARDF no.:** SR182**Latitude:** 60.4966**Quadrangle:** SR B-8**Longitude:** 149.6614**Location description and accuracy:**

The prospect is located at an elevation of 800 feet on a small north-flowing tributary to Crescent Creek about 1 mile northeast of Dry Creek. It is situated in the NE1/4 section 29, T. 5 N., R. 2 W., of the Seward Meridian. This is location S-240 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Au**Other:** Cu**Ore minerals:** Arsenopyrite, chalcopyrite, pyrite**Gangue minerals:** Quartz?**Geologic description:**

The prospect was staked in 1912 by Lars Larson, relocated in 1938 and 1977 by Loren Schimd and Edward Ellis, respectively (Hoekzema and Sherman, 1983). Prior to 1977, an adit of unknown length was driven (Hoekzema and Sherman, 1983). A specimen of ore brought in by Ellis contained arsenopyrite, pyrite, and chalcopyrite (Hoekzema and Sherman, 1983). He reported that similar samples contained 0.29 ounce of gold per ton and 0.04 ounce of silver per ton (Hoekzema and Sherman, 1983). Nelson and others (1985) mapped bedrock in this area as undivided sedimentary rock of the Valdez Group of Late Cretaceous age. No other information is published.

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status: None**Site Status:** Probably inactive**Workings/exploration:**

A specimen of ore brought in by the claimant, Edward Ellis, contained arsenopyrite, pyrite, and chalcopyrite; he reported that similar samples contained 0.29 ounce of gold per ton and 0.04 ounce of silver per ton (Hoekzema and Sherman, 1983). A caved adit of unknown length is present. No other information is published.

Production notes:

Reserves:

Additional comments:

References:

Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 07/05/01

Site name(s): Crescent Creek**Site type:** Mine**ARDF no.:** SR183**Latitude:** 60.4991**Quadrangle:** SR B-8**Longitude:** 149.6610**Location description and accuracy:**

Crescent Creek placer mine is located in T. 5 N., R. 2 W., of the Seward Meridian. The creek flows generally north from Crescent Lake into Quartz Creek, which flows into Kenai Lake. The placer extends for about half a mile from the mouth of the creek to about 1.5 miles below Crescent Lake. The map location in the NE1/4 section 29 marks the center of the area where most of the mining has occurred. This is location P-83 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:****Geologic description:**

Crescent Creek occupies a fairly steep-walled, narrow, avalanche-debris-filled valley. The creek descends in a series of steps; auriferous gravels were deposited below each drop. The gravels are clay-rich and contain numerous boulders as much as 3 feet in diameter. Bedrock in the Crescent Creek drainage is metasedimentary rock of the Valdez Group of Late Cretaceous age (Nelson and others, 1985).

Gold is disseminated throughout the gravels but is concentrated on bedrock. Bench gravels contain anomalous (higher) gold values. Gold occurs as flakes and is fine in the lower part of the creek, but both coarse gold and nuggets have been found in the upper section (Jansons and others, 1984). Production has been estimated at less than 500 ounces of gold, of which as much as 200 ounces have been produced since 1975 (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Quaternary.

Deposit model:

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

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

39a

Production Status: Yes; small**Site Status:** Probably inactive**Workings/exploration:**

Evidence of early hand mining exists. A small mechanized operation has worked the lower end of the

creek since 1978 (Jansons and others, 1984). Numerous prospect pits have been dug on the alluvial fan below the lower canyon. Suction dredging has been tried with some success on the upper portion of the creek. Small-scale suction dredging has occurred intermittently up through 2001. Gold panning is popular near the Crescent Creek campground. No permit is required for panning there.

Production is estimated at less than 500 ounces of gold, of which as much as 200 ounces have been produced since 1975 (Jansons and others, 1984). Jansons and others (1984) estimated production grades of 0.015 ounces of gold per ton.

The U.S. Bureau of Mines collected three samples from the lower portion of the creek; they yielded from 0.01 to 0.03 ounce of gold per cubic yard (Jansons and others, 1984). The section sampled has since been mined.

Production notes:

Production is estimated at less than 500 ounces of gold, of which as much as 200 ounces have been produced since 1975 (Jansons and others, 1984). Jansons and others (1984) estimated a production grade of 0.015 ounce of gold per cubic yard.

Reserves:

Additional comments:

A Forest Service brochure, *Recreational Gold Panning*, by Carol Huber and Joe Kurkak, recommends an area at the Crescent Creek campground for recreational gold panning.

References:

Tysdal, 1978 (MF-880-B); Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/5/00

Site name(s): Unnamed (Kenai Lake)**Site type:** Occurrence**ARDF no.:** SR184**Latitude:** 60.4023**Quadrangle:** SR B-7**Longitude:** 149.6144**Location description and accuracy:**

The occurrence is located in an unnamed tributary to Kenai Lake one-half mile east of Porcupine Island. It is situated in the SW1/4 section 27, T. 4 N., R. 2 W., of the Seward Meridian. This is location S-234 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Au, Sb**Other:****Ore minerals:** Antimony, gold**Gangue minerals:****Geologic description:**

This occurrence consists of Quaternary auriferous, antimony-bearing stream gravel. Sediment samples and pan concentrates contained 15.37 ppm gold and 215 ppm antimony (Jansons and others, 1984). Bedrock in this area is undivided sedimentary rock of the Valdez Group of Late Cretaceous age (Nelson and others, 1985).

Alteration:**Age of mineralization:**

Quaternary; the deposit consists of Holocene stream gravel.

Deposit model:**Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production Status:** None**Site Status:** Inactive**Workings/exploration:**

This occurrence consists of stream gravel containing gold and antimony. Sediment samples and pan concentrates contained 15.37 ppm gold and 215 ppm antimony (Jansons and others, 1984).

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

Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/10/01

Site name(s): Peak 5309 No. 3**Site type:** Occurrence**ARDF no.:** SR185**Latitude:** 60.3448**Quadrangle:** SR B-7**Longitude:** 149.6004**Location description and accuracy:**

This occurrence is located on the west-northwest flank of peak 5309 north of the lower ice field at an elevation of approximately 4,100 feet. It is in the SE1/4 section 15, T. 3 N., R. 2 W., of the Seward Meridian. This is location S-218 of Jansons and others (1984). This location is accurate to within 1,000 feet.

Commodities:**Main:** Ag**Other:** Cu, Pb, Zn**Ore minerals:****Gangue minerals:** Calcite, hematite, quartz**Geologic description:**

The occurrence consists of several parallel, vuggy, hematite-stained quartz-calcite veins containing small euhedral quartz crystals and numerous rock fragments. The veins are generally parallel to well-bedded siltstone that strikes N55E and dip 55SE. Nelson and others (1985) have mapped this area as undivided sedimentary rock of the Valdez Group of Late Cretaceous age. A single sample of three veins contained no detectable gold, 0.1 ppm silver, 27 ppm copper, 11 ppm lead, and 44 ppm zinc (Hoekzema and Sherman, 1983).

Alteration:

Veins are hematite-stained.

Age of mineralization:

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

No workings or improvements are reported in the literature. A single sample of three veins contained no detectable gold, 0.1 ppm silver, 27 ppm copper, 11 ppm lead, and 44 ppm zinc (Hoekzema and Sherman, 1983).

Production notes:

Reserves:**Additional comments:**

This occurrence was discovered by the U.S. Bureau of Mines.

References:

Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/10/01

Site name(s): Peak 5309 No. 2**Site type:** Occurrence**ARDF no.:** SR186**Latitude:** 60.3353**Quadrangle:** SR B-7**Longitude:** 149.5977**Location description and accuracy:**

This occurrence is located on the southwest side of peak 5309 between elevations of 3,000 and 3,600 feet. It is located in the SE1/4 section 22, T. 3 N., R. 2 W., of the Seward Meridian. This is S-217 of Jansons and others (1984). This location is accurate to within 1,500 feet.

Commodities:**Main:** Au**Other:** Cu**Ore minerals:** Arsenopyrite, malachite, pyrite**Gangue minerals:** Quartz**Geologic description:**

The occurrence consists of a 6-inch- to 6-foot-wide quartz vein averaging 2 feet wide over an exposed length of about 300 feet (Hoekzema and Sherman, 1983). The vein strikes N20E and dips 60-70E. Poorly developed ribbon structures occur in some portions of the vein, and the quartz is very vuggy near the top of the exposure. The vein contains arsenopyrite, pyrite, and malachite (Hoekzema and Sherman, 1983). The host rock is interbedded siltstone and slate of the Valdez Group of Late Cretaceous age (Nelson and others, 1985; Jansons and others, 1984). Four samples assayed only trace amounts of gold, and a trace to 0.02 ounce of silver per ton (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Cretaceous or younger; the vein cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

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

No workings or improvements are reported in the literature. Four samples contained only trace amounts of gold and a trace to 0.02 ounce of silver per ton (Jansons and others, 1984).

Production notes:

Reserves:

Additional comments:

This occurrence was discovered by the U.S. Bureau of Mines.

References:

Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/10/01

Site name(s): Peak 5309 No. 1**Site type:** Occurrence**ARDF no.:** SR187**Latitude:** 60.3390**Quadrangle:** SR B-7**Longitude:** 149.5670**Location description and accuracy:**

This occurrence is located in a small gulch on the east-southeast side of peak 5309 between the elevations of 3,000 and 3,500 feet. It is located in the NE1/4 section 23, T. 3 N., R. 2 W., of the Seward Meridian.

This is location S-216 of Jansons and others (1984). This location is accurate to within 500 feet.

Commodities:**Main:** Au**Other:** Cu, Pb**Ore minerals:** Galena, pyrite, pyrrhotite**Gangue minerals:** Calcite, quartz**Geologic description:**

The occurrence is hosted in sheared and strongly deformed sandstone and slate of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). The bedrock strikes N10-20W, and dips are nearly vertical. The mineralization consists of a series of subparallel, quartz-calcite veins as much as 4 feet wide that generally strike N20-60E (Hoekzema and Sherman, 1983). The veins are intermittently banded. They contain euhedral quartz as much as three-quarters of an inch long and calcite crystals. Metallic minerals include galena, pyrite, pyrrhotite, and possible sulfosalt minerals (Hoekzema and Sherman, 1983). In 1982 the U.S. Bureau of Mines collected seven samples that contained less than 0.03 ppm gold and 10 to 250 ppm lead (Hoekzema and Sherman, 1983).

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

In 1982 the U.S. Bureau of Mines sampled collected seven samples that contained less than 0.03 ppm gold and 10 to 250 ppm lead (Hoekzema and Sherman, 1983).

Production notes:

Reserves:

Additional comments:

This occurrence was discovered by the U.S. Bureau of Mines.

References:

Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985

Primary reference: Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 0512/01

Site name(s): Martin Creek**Site type:** Occurrence**ARDF no.:** SR188**Latitude:** 60.2621**Quadrangle:** SR B-7**Longitude:** 149.5629**Location description and accuracy:**

Martin Creek is a tributary of the Resurrection River; it is located in T. 2 N., R. 2 W., of the Seward Meridian. The placer occurrence is in sections 13, 14, and 23. The map location (in the SE1/4 section 14) represents the center of the occurrence, which is about 2.5 miles long. This is location P-53 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:****Geologic description:**

Bedrock in the area is slate and graywacke of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). Martin Creek flows in a narrow steep-walled canyon. The creek has a high gradient with many waterfalls and rapids. Evidence of early prospecting is seen in the lower part of the creek but there are no signs of large-scale operations. The lower section has low mineral development potential; the middle section has moderate potential (Jansons and others, 1984). The lower section is not considered to be an occurrence.

Five suction dredge samples contained 0.0008 and 0.0278 ounce of gold per hour (Hoekzema and Sherman, 1983). Three 0.1-cubic-yard sluice samples contained from a trace to 0.0106 ounce of gold per cubic yard. Pan samples of bedrock gravels yielded 0.1537 ounce of gold per cubic yard. Coarse gold was recovered in gravels resting on bedrock fractures located just below the Mount Ascension tributary.

Alteration:**Age of mineralization:**

Quaternary.

Deposit model:

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

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

39a

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

Although evidence of prospecting was reported, details were not provided (Jansons and others, 1984). The U.S. Bureau of Mines sampled the lower and middle sections of the creek. Five suction dredge samples con-

tained 0.0008 and 0.0278 ounce of gold per hour (Hoekzema and Sherman, 1983). Three 0.1-cubic-yard sluice samples contained from a trace to 0.0106 ounce of gold per cubic yard. Pan samples of bedrock gravels yielded 0.1537 ounce of gold per cubic yard. Coarse gold was recovered in gravels resting on bedrock fractures located just below the Mount Ascension tributary.

Production notes:

Reserves:

Additional comments:

References:

Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 01/11/01

Site name(s): Ship Creek**Site type:** Occurrence**ARDF no.:** SR189**Latitude:** 60.3730**Quadrangle:** SR B-7**Longitude:** 149.5271**Location description and accuracy:**

Much of Ship Creek occupies a steep, narrow, bedrock valley. The creek crosses a short, narrow, flood plain and drains into the lower end of Kenai Lake. The gold-bearing section of the creek is about a mile long; it is in sections 6 and 7, T. 3 N., R. 1 W. of the Seward Meridian. The map location is in the center of the placer section. This is location P-54 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:****Geologic description:**

Bedrock in the Ship Creek drainage is sedimentary rock of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). The placer gold occurs in poorly stratified and washed alluvium in the stream channel and in local bench deposits that consist of clay-rich, cemented glacial or fluvial-glacial gravel. The gravel contains abundant slate cobbles (Jansons and others, 1984). The clay-rich gravels contained relatively coarse (0.187-inch) gold at one sample site. Four suction dredge samples yielded from a trace to 0.0081 ounce of gold per hour (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Quaternary; the gold is in the current stream channel and in bench gravel.

Deposit model:

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

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

39a

Production Status: Undetermined.**Site Status:** Active?**Workings/exploration:**

There are some abandoned hand workings near the mouth of the creek. The clay-rich gravels contained relatively coarse (0.187-inch) gold at one sample site. Four suction dredge samples yielded from a trace to 0.0081 ounce of gold per hour (Jansons and others, 1984). Recreational suction dredging occasionally occurs on this creek.

Production notes:

Reserves:

Additional comments:

References:

Tysdal, 1978 (MF-880-B); Cobb and Tysdal, 1980; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/21/01

Site name(s): Porcupine Creek**Site type:** Occurrence**ARDF no.:** SR190**Latitude:** 60.3021**Quadrangle:** SR B-7**Longitude:** 149.4470**Location description and accuracy:**

The occurrence is located a mile west of Porcupine Creek and three-quarters of a mile southeast of peak 3722. It is in the SE1/4 section 33, T. 3 N., R. 1 W., of the Seward Meridian, at an elevation of 3,000 feet. This is location S-212 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Ag?, Au**Other:****Ore minerals:** Arsenopyrite, galena, gold**Gangue minerals:** Calcite, quartz**Geologic description:**

Mineralization consists of several quartz veins containing minor amounts of sulfide minerals. One vein in a small gulch is 1 to 3 feet wide; it contains calcite and minor arsenopyrite (Hoekzema and Sherman, 1983). The host rock is iron-stained slate on the footwall; foliation strikes N10E and dips 85E. The hanging wall is metasandstone. Several 1- to 3-inch-thick veins are located 200 to 300 feet south and 200 feet above the large vein. These smaller veins are hosted in graywacke and strike N75W and dip 85N. They contain considerable arsenopyrite and minor galena. The host rock is slate and graywacke of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). Three samples assayed trace amounts of gold and as much as 0.2 ounce of silver per ton (Jansons and others, 1984).

Alteration:

The slate in the footwall is iron-stained.

Age of mineralization:

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

There are no workings or improvements described in the literature. Three samples assayed trace amounts of gold and as much as 0.2 ounce of silver per ton (Jansons and others, 1984).

Production notes:

Reserves:

Additional comments:

References:

Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 06/21/01

Site name(s): Schoonover; Porcupine Quartz No. 1**Site type:** Prospect**ARDF no.:** SR191**Latitude:** 60.2841**Quadrangle:** SR B-7**Longitude:** 149.4309**Location description and accuracy:**

The prospect is located near where Porcupine Creek turns from southeast to northeast flowing at an elevation of about 2,000 feet. It is situated in the center of the N1/2 section 10, T. 2 N., R. 1 W., of the Seward Meridian. This is location 82a of Cobb and Tysdal (1980) and location S-211 of Jansons and others (1984). This location is accurate to within 1,000 feet.

Commodities:**Main:** Au**Other:** Cu, Pb, Zn**Ore minerals:** Chalcopyrite, galena, gold, pyrite, sphalerite**Gangue minerals:** Calcite, quartz**Geologic description:**

This occurrence consists of 1- to 15-inch-wide quartz-calcite veins that average 3 inches wide, strike N70W, and dip 80NE. The veins contain chalcopyrite, galena, pyrite, sphalerite, and gold. One vein can be traced along strike for 125 feet (Jansons and others, 1984). The veins are hosted by north-south striking slate of the Valdez Group of Late Cretaceous age that dip to steeply to the east (Nelson and others, 1985).

Assays as much as \$100 (gold value of \$20.65 per ounce) have been obtained on samples from some of the larger veins (Johnson, 1912). Three samples collected in 1981 by the U.S. Bureau of Mines assayed from a trace to 0.25 ppm gold; other metal values, including copper, lead, and zinc, ranged from none detected to 89 ppm (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status: None**Site Status:** Probably inactive**Workings/exploration:**

Johnson (1912) reported an adit when he described the vein, but he gave no details about the adit. He also reported that assays as much as \$100 of gold per ton of ore have been obtained (gold value of \$20.65 per ounce). Three samples collected in 1981 by the U.S. Bureau of Mines assayed from a trace to 0.25 ppm

gold; other metal values, including copper, lead, and zinc, ranged from none detected to 89 ppm (Jansons and others, 1984).

Production notes:

Reserves:

Additional comments:

Jansons and others (1984) described the site as being on Porcupine Creek at an elevation of 2,000 feet in the NW1/4 of section 10, T. 2 N., R. 1 W. Tysdal (1978 [MF-880-A]) also located the site in section 10, T. 2 N., R. 1 W., of the Seward Meridian. Both authors maps located the site on Porcupine Creek. Martin and others (1915) identified this creek as Porcupine Creek. The 1994 USGS B7 topographic map has labelled this creek Primrose Creek, but the USGS B7-SE topographic calls it Porcupine Creek.

References:

Johnson, 1912; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 03/09/94

Site name(s): Ballaine and Nelson**Site type:** Occurrence**ARDF no.:** SR192**Latitude:** 60.4174**Quadrangle:** SR B-7**Longitude:** 149.4255**Location description and accuracy:**

The occurrence is located on the north side of Kenai Lake about 1.7 miles northwest of the mouth of Trail River. It is situated in the SE1/4 section 22, T. 4 N., R. 1 W., of the Seward Meridian at an elevation of 1,000 feet. This is location 76 of Tysdal (1978 [MF-880-A]) and location S-233 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:** Quartz**Geologic description:**

The occurrence was located in 1915 by Ballaine and Nelson (Martin and others, 1915). Bedrock in this area is undivided sedimentary rock of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). No other information is published in the literature.

Alteration:**Age of mineralization:**

Cretaceous or younger; the bedrock is part of the Valdez Group of Late Cretaceous age.

Deposit model:**Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production Status:** None**Site Status:** Inactive**Workings/exploration:**

There are no workings or improvements reported in the literature. There are no published assay results.

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

Tysdal, 1978 (MF-880-A); Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others,

1985.

Primary reference: Tysdal, 1978 (MF-880-A)

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/10/01

Site name(s): Mizpah Ledge; Kennedy, Pullen, Davis**Site type:** Prospect**ARDF no.:** SR193**Latitude:** 60.2666**Quadrangle:** SR B-7**Longitude:** 149.4208**Location description and accuracy:**

The prospect is situated in the NE1/4 section 15, T. 2 N., R. 1 W., of the Seward Meridian. It is located on a small point of land on the east side of Lost Lake. The portal is at an elevation of about 1,900 feet about 35 feet from the shore of the lake. This is location 84 of Cobb and Tysdal (1980) and location S-209 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Au**Other:** Ag**Ore minerals:** Arsenopyrite, chalcopyrite, galena, gold, pyrite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

The prospect consists of quartz stringers and pods as much as 6 inches wide in a 2- to 4-foot-wide shear zone. The zone strikes N10E and dips 70E (Hoekzema and Sherman, 1983). The host rock is slate and sandstone of the Valdez Group of Late Cretaceous age (Cobb and Tysdal, 1980). The host rock strikes N18E and dips vertically (Martin and others, 1915). Mineralization consists of abundant arsenopyrite and lesser amounts of chalcopyrite, galena, pyrite, sphalerite, and gold. Gold occurs free in the quartz and in the sulfide minerals (Martin and others, 1915). The sulfide mineralization appears to pinch out completely in the adit (Hoekzema and Sherman, 1983).

Workings on the prospect consist of a 5- by 30-foot open cut and a 28-foot-long adit at its north end (Hoekzema and Sherman, 1983). Two samples assayed 3.5 ounces of gold per ton and 10.3 ppm gold along with 3,500 and 6,500 ppm arsenic, respectively (Hoekzema and Sherman, 1983). The first sample was a 4-inch-wide chip sample of a quartz vein exposed in the open cut. The second sample was a grab sample from the dump.

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status: None**Site Status:** Inactive

Workings/exploration:

Workings on the prospect consist of a 5- by 30-foot open cut and a 28-foot-long adit at its north end (Hoekzema and Sherman, 1983). The open cut and adit both strike N2E.

Two samples assayed 3.5 ounces of gold per ton and 10.3 ppm gold along with 3,500 and 6,500 ppm arsenic, respectively (Hoekzema and Sherman, 1983). The first sample was a 4-inch-wide chip sample of a quartz vein exposed in the open cut. The second sample was a grab sample from the dump.

Production notes:**Reserves:**

The U.S. Bureau of Mines estimated a resource of 10 tons of ore containing 1 ounce of gold per ton and 0.5 ounce of silver per ton (Hoekzema and Sherman, 1983).

Additional comments:**References:**

Johnson, 1912; Martin and others, 1915; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Martin and others, 1915

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/10/01

Site name(s): Primrose**Site type:** Mine**ARDF no.:** SR194**Latitude:** 60.3096**Quadrangle:** SR B-7**Longitude:** 149.4131**Location description and accuracy:**

The mine is located on Porcupine Creek at an elevation of 1,000 feet and about 3 miles from trailhead at the Primrose Creek campground (Primrose Landing). It is in the NW1/4 section 35, T. 3 N., R. 1 W., of the Seward Meridian. This is location 81 of Cobb and Tysdal (1980) and location S-214 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Ag**Ore minerals:** Arsenopyrite, chalcopyrite, galena, gold, pyrite, pyrrhotite, sphalerite, sphalerite, stibnite**Gangue minerals:** Calcite, quartz**Geologic description:**

The bedrock at the mine is the slate and graywacke of the Valdez Group of Late Cretaceous age (Cobb and Tysdal, 1980). The bedrock strikes N17W and dips vertically (Martin and others, 1915). The mineralization consists of quartz-sulfide stringers and veins in a shear zone that strikes N30E and dips nearly vertically (Martin and others, 1915). The veins range from less than 1 inch to 3.2 feet wide and consist of quartz, calcite, arsenopyrite, chalcopyrite, galena, gold, pyrite, stibnite, and sphalerite (Cobb and Tysdal, 1980). Workings at the site reportedly consist of three levels totaling 450 feet (Byram, 1932). Only the adit at the creek level is open.

Grab samples from the portal of the upper adit contained 1.572 and 1.166 ounces of gold per ton and 0.6 ounce of silver per ton (Hoekzema and Sherman, 1983). The adit was collapsed when the portal was sampled. Production from the mine consisted of numerous test shipments of 12 to 15 tons that contained a total of 659 ounces of gold and 138 ounces of silver (Hoekzema and Sherman, 1983).

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Yes; small**Site Status:** Active**Workings/exploration:**

In 1911, development consisted of surface trenching and a 22-foot-long adit (Martin and others, 1915). In 1912, the Primrose Mining company was formed; it developed two adits and a 75-foot inclined shaft. The mine was sporadically operated from 1913 to 1932. Three levels of workings were developed totaling 450 feet (Byram, 1932).

One of three cabins is still standing. There was a mill on the creek below the cabin. A road was constructed from Kenai Lake to the mine; it is currently the Primrose Creek Trail and is still passable by all-terrain vehicles (ATVs). Grab samples from the upper portal assayed 1.572 and 1.166 ounces of gold per ton and 0.6 ounce of silver per ton (Hoekzema and Sherman, 1983).

Production from the mine consisted of numerous test shipments of 12 to 15 tons that contained a total of 659 ounces of gold and 138 ounces of silver (Hoekzema and Sherman, 1983). This is recorded production that can be substantiated.

Production notes:

Recorded production for the mine was 659 ounces of gold and 138 ounces of silver but reported production was 4,000 ounces of gold by 1931 (Jansons and others, 1984; Burnette, 1932).

Reserves:

The U.S. Bureau of Mines estimated a resource of 1,300 tons of ore containing 1.42 ounces of gold per ton and 0.6 ounce of silver per ton (Jansons and others, 1984).

Additional comments:

Burnette (1932) and Byram (1932) are unpublished company reports available at the Alaska State Office, BLM, from the minerals department.

Jansons and others (1984) described the site as being on Porcupine Creek at an elevation of 1,000 feet in the NW1/4 of section 35 T. 3 N., R. 1 W.. Tysdal (1978 [MF-880-A]) also located the site in section 35, T. 3 N., R. 1 W., of the Seward Meridian. Both authors maps located the site on Porcupine Creek. Martin and others (1915) identified this creek as Porcupine Creek. The 1994 USGS B7 topographic map has labelled this creek Primrose Creek, but the USGS B7-SE topographic calls it Porcupine Creek.

References:

Brooks, 1913; Brooks, 1914; Brooks, 1915; Martin and others, 1915; Brooks, 1916 (B 642-A); Smith, 1917 (BMB 142); Smith, 1917 (BMB 153); Brooks, 1918; Johnson, 1919 (B 692-C, p. 175); Burnette, 1931; Byram, 1932; Smith, 1937; Smith, 1938; Berg and Cobb, 1967; Jasper, 1967; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 01/29/02

Site name(s): Porcupine Creek**Site type:** Occurrence**ARDF no.:** SR195**Latitude:** 60.3250**Quadrangle:** SR B-7**Longitude:** 149.4037**Location description and accuracy:**

Porcupine Creek drains into the southwest side of Kenai Lake just southwest of Porcupine Island. The creek is in T. 3 N., R 1 W., of the Seward Meridian. The placer extends from near the mouth of the creek upstream for more than 4 miles, all of which has been worked by panning or suction dredging or both. The map location is in the center of the placer in N1/2 section 26. Porcupine Creek is misnamed Primrose Creek on the 1994 Seward B-7 map. This is location P-52 of Jansons and others (1984) and is accurate to within 300 feet.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:****Geologic description:**

Porcupine Creek occupies a deep, narrow, bedrock-walled canyon along most of its course; a small alluvial fan is developed along its lower portion. Gold is disseminated throughout the gravels and concentrated on bedrock. Bench gravels also contain anomalous gold values. Gold occurs as flakes and is fine in the lower part of the creek, but nuggets and coarse gold has been found in the upper section (Jansons and others, 1984). Bedrock in the Porcupine Creek drainage is metasedimentary rock of the Valdez Group of Late Cretaceous age (Nelson and others, 1985).

Production has been estimated at less than 25 ounces of gold (Jansons and others, 1984). Two samples yielded 0.0008 and 0.0022 ounce of gold per cubic yard (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Quaternary.

Deposit model:

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

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

39a

Production Status: Yes; small**Site Status:** Active?**Workings/exploration:**

Recreational suction dredging is occasionally done in this creek in sections previously worked. Two sam-

ples yielded 0.0008 and 0.0022 ounce of gold per cubic yard (Jansons and others, 1984).

Production notes:

Production has been estimated at less than 25 ounces of gold (Jansons and others, 1984).

Reserves:

Additional comments:

References:

Tysdal, 1978 (MF-880-B); Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 1/10/01

Site name(s): Porcupine; Porcupine Gold Mining Co.**Site type:** Occurrence**ARDF no.:** SR196**Latitude:** 60.3298**Quadrangle:** SR B-7**Longitude:** 149.4002**Location description and accuracy:**

The occurrence is located about 1.5 miles from the mouth of Porcupine Creek near its junction with Primrose Creek. It is in the SE1/4 section 23, T. 3 N., R. 1 W., of the Seward Meridian. This is location 80 of Tysdal (1978 [MF-880-A]) and location S-215 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Pb, Zn**Ore minerals:** Arsenopyrite, galena, gold, pyrite, pyrrhotite, sphalerite**Gangue minerals:** Calcite, quartz**Geologic description:**

The occurrence consists of quartz-calcite veins within and parallel to a shear zone in slate and sandstone of the Valdez Group of Late Cretaceous age (Cobb and Tysdal, 1980; Nelson and others, 1985). The veins strike N23E and dip 80E; they are from 6 to 9 inches wide (Martin and others, 1915). The minerals include arsenopyrite, galena, pyrite, pyrrhotite, and sphalerite; native gold is also present.

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

There are no workings or improvements and no assay results reported in the literature.

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

Jansons and others (1984) and Tysdal (1978 [MF-880-A]) described the site as being on Porcupine Creek. Martin and others (1915) identified this creek as Porcupine Creek. The 1994 USGS B7 topographic map has labelled this creek Primrose Creek, but the USGS B7-SE topographic calls it Porcupine Creek.

References:

Martin and others, 1915; Smith, 1917 (BMB 142); Smith, 1917 (BMB 153); Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Martin and others, 1915

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 1/10/01

Site name(s): REC 3-9**Site type:** Occurrence**ARDF no.:** SR197**Latitude:** 60.4377**Quadrangle:** SR B-7**Longitude:** 149.3732**Location description and accuracy:**

The occurrence is located in the road cut along the Seward Highway north of the bridge at the south end of Lower Trail Lake. It is in the center of section 13, T. 4 N., R. 1 W., of the Seward Meridian. This is location S-232 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Argillite**Other:****Ore minerals:** Clay**Gangue minerals:** Quartz**Geologic description:**

This occurrence consists of argillite that is exposed along a road cut near the bridge across Trail River. Both the bedding and cleavage in the deposit strike north to N15E and dip 55SE (Eckhart and Plafker, 1959). The deposit is exposed along strike for 1,750 feet and for a vertical distance of 100 feet. In thin section, the rock consists of 25 percent to 50 percent silt-size particles embedded in a dark-colored matrix of clay-sized particles. Clear angular fragments of quartz and plagioclase along with white mica and chlorite comprise the rest of the rock. Accessory minerals are abundant magnetite, and scant epidote, garnet, tourmaline, carbonate, and zircon (Eckhart and Plafker, 1959). Nelson and others (1985) mapped this area as undivided sedimentary rock of the Valdez Group of Late Cretaceous age.

Alteration:**Age of mineralization:**

Cretaceous or younger; the argillite is in rocks of the Valdez Group of Late Cretaceous age.

Deposit model:**Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production Status:** None**Site Status:** Inactive**Workings/exploration:**

There are no workings or improvements reported in the literature. The occurrence was sampled in 1953 and exhibits favorable bloating characteristics at 2,200 -2,300 degrees F (Eckhart and Plafker, 1959). It would be suitable for haydite.

Production notes:

Reserves:

The U.S. Bureau of Mines estimated a reserve of 50 million tons (Jansons and others, 1984).

Additional comments:**References:**

Eckhart and Plafker, 1959; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Eckhart and Plafker, 1959

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 7/13/00

Site name(s): Brown Bear**Site type:** Prospect**ARDF no.:** SR198**Latitude:** 60.3408**Quadrangle:** SR B-7**Longitude:** 149.3409**Location description and accuracy:**

The prospect is located near the head of Kenai Lake on the east side of the Seward Highway about 150 feet above the lake. It is in the NE1/4 section 19, T. 3 N., R. 1 E., of the Seward Meridian. This is location 78 of Cobb and Tysdal (1980) and location S-220 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Pb, Zn**Ore minerals:** Arsenopyrite, chalcopyrite, galena, gold, pyrite, pyrrhotite, sphalerite**Gangue minerals:** Calcite, quartz**Geologic description:**

The host rock of the Brown Bear prospect is slate and sandstone of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). The host rock strikes N12E and dips 45E. The prospect consists of a 1.5- to 5-inch-wide quartz-calcite vein that parallels the host rock strike and can be traced along the surface for 250 feet (Hoekzema and Sherman, 1983). Metallic minerals include arsenopyrite, chalcopyrite, galena, pyrrhotite, pyrite, and sphalerite; gold is also present (Cobb and Tysdal, 1980). Martin and others (1915) reported a short adit at the prospect but gave no details. No assay results are reported in the literature.

Alteration:**Age of mineralization:**

Cretaceous or younger; the vein cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

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

Workings on the prospect consist of (Martin and others, 1915). Martin and others (1915) reported that several feet of adit driven in 1912 at the prospect but gave no further details. There are no assay results reported in the literature.

Production notes:

Reserves:

Additional comments:

References:

Martin and others, 1915; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Martin and others, 1915

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 03/09/01

Site name(s): Falls Creek**Site type:** Mine**ARDF no.:** SR199**Latitude:** 60.4337**Quadrangle:** SR B-7**Longitude:** 149.3386**Location description and accuracy:**

This placer is located in T. 4 N., R. 1 E., sections 16, 17, and 18 and S1/2 section 13, T. 4 N., R. 1 W. of the Seward Meridian. From its headwaters this creek flows westwardly into Trail Creek. The lower 2 miles of the creek has produced placer gold; upstream, in another 2-mile section of the creek, the stream gravels contain small amounts of gold. The map location is in the center of the lower canyon, in SE1/4 section 18. This is location 163 of Cobb and Richter (1972), location 175 of MacKevett and Holloway (1977), location 22 of Tysdal (1978 [MF-880-B]), location 163 of Cobb and Tysdal (1980), and location P-55 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:****Geologic description:**

Bedrock in the drainage is slate and sandstone of the Upper Cretaceous Valdez Group (Nelson and others, 1985). Most of the Falls Creek valley is narrow and steep sided. From its headwaters, Falls Creek descends in a series of steps. The uppermost section descends rapidly along a bedrock canyon below which is a relatively gentle portion with a narrow flood plain. Another canyon area begins just below the Falls Creek mine (lode) and continues to within a mile of its junction with Trail Creek. Below the second canyon a broad alluvial fan has developed.

Small amounts of gold have been found in the silty gravels a half mile above the Falls Creek mine (SR206) and in the alluvial fan gravels below the lower canyon (Jansons and others, 1984). Coarse gold has been recovered by suction dredges in the lower canyon.

Alteration:**Age of mineralization:**

Quaternary.

Deposit model:

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

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

39a

Production Status: Yes; small**Site Status:** Active

Workings/exploration:

Martin and others (1915) reported that all gold recovered had been taken from low benches in the canyon in the lower part of the creek and at the mouth of the canyon; they reported that the amount of gold in the canyon small, not sufficient to pay wages on pick and shovel work. In 1911, the gravel in the flats along Falls Creek between Kenai and Lower Trail Lakes was prospected by drilling. Twenty holes were drilled; depth to bedrock ranged from 10 to 23 feet. No definite pay streak was located (Martin and others, 1915). Drilling and prospect pits were dug in the 1950's on the alluvial fan below the lower canyon (Jansons and others, 1984). A small, mechanised operation worked alluvial gravel near the mouth of the lower canyon in 1980 without significant success. Suction dredging has occurred in the lower canyon area during each year since at least 1977 (Jansons and others, 1984).

In 1995, a mining claimant unsuccessfully attempted to patent the BBK #2, a 9-acre placer mining claim in the lower canyon. This was a small suction dredge operation that recovered coarse nuggets.

The U.S. Bureau of Mines collected two 0.1-cubic-yard samples that yielded 0.0022 and 0.0077 ounce of gold per cubic yard. A dredge sample near the Falls Creek mine (SR206) yielded only traces of mercury-coated gold (Jansons and others, 1984). Two suction dredge samples collected by the mining claimant for the patent examination at the BBK #2 yielded .075 and .028 ounces of gold per hour.

An estimated 400,000 cubic yards or better of auriferous gravels are present in the alluvial deposits below the lower canyon (Jansons and others, 1984).

Production notes:

The U.S. Bureau of Mines has estimated total production to be between 200 and 300 ounces (Jansons and others, 1984).

Reserves:

An estimated 400,000 cubic yards or better of auriferous gravels are present in the alluvial deposits below the lower canyon (Jansons and others, 1984).

Additional comments:

Carl Persson and Carol S. Huber conducted a mineral patent examination in 1995 and concluded that no discovery within the meaning of the 1872 Mining Law had been made. The patent application was subsequently dropped. A patent report is available at the Chugach National Forest office in Anchorage, Alaska.

References:

Moffit, 1906; Johnson, 1912; Martin and others, 1915; Koschmann and Bergendahl, 1968; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-B); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Martin and others, 1915; Jansons and others, 1984

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 11/06/00

Site name(s): Seward Bonanza Gold Co.; Kenai Lode**Site type:** Mine**ARDF no.:** SR200**Latitude:** 60.3743**Quadrangle:** SR B-7**Longitude:** 149.3333**Location description and accuracy:**

The mine is located on the east side of Kenai Lake at an elevation of 1,700 feet. It is about 1.2 miles north of Victor Creek. It is situated in the SE1/4 section 6, T. 3 N., R. 1 E., of the Seward Meridian. This is location 77 of Tysdal (1978 [MF-880-A]), and location S-221 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Au**Other:** Cu, Pb, Zn**Ore minerals:** Arsenopyrite, chalcopyrite, galena, gold, pyrite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

The rock at the mine consists of a sheared quartz vein that ranges between 1.5 and 5 feet wide; it averages 2.5 feet wide (Martin and others, 1915). The vein strikes N60E and dips 80N. It is exposed for 300 feet above the main adit (a 200-foot-long adit at an elevation of 1,680 feet) and can be traced along strike for about a mile to the 5,000 foot elevation where there is another adit (65 feet long). At an elevation of 5,000 feet, the vein is 2.5 inches wide. The vein is cut twice by well-defined north-south vertical faults that are exposed in the main adit. The country rock consists of slate of the Valdez Group of Late Cretaceous age that strikes N30-40E and dips 80W (Nelson and others, 1985; Hoekzema and Sherman, 1983). Metallic minerals are concentrated along fractures in the vein and consist of arsenopyrite, chalcopyrite, galena, pyrite, and sphalerite; gold is also present (Martin and others, 1915). Nine grab samples collected from the lower adit assayed between a trace and 0.14 ounce of gold per ton and 0.02 to 0.73 ounce silver, along with as much as 10,000 ppm arsenic (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Cretaceous or younger; the vein cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Yes**Site Status:** Inactive**Workings/exploration:**

Mine workings consist of two adits: a 200-foot-long adit at an elevation of 1,680 feet and a 65-foot adit at an elevation of 5,000 feet. Nine grab samples collected from the lower adit assayed between a trace and 0.14 ounce of gold per ton and 0.02 to 0.73 ounce silver, along with up to 10,000 ppm arsenic (Jansons and others, 1984).

Production notes:

Recorded production is 65 ounces of gold (Hoekzema and Sherman, 1983).

Reserves:

Reserves are estimated at 7,400 tons of ore with a grade of .023 ounce of gold per ton and 0.225 ounce of silver per ton (Hoekzema and Sherman, 1983).

Additional comments:**References:**

Grant and Higgins, 1910 (B 442-D); Johnson, 1912; Brooks, 1913; Martin and others, 1915; Berg and Cobb, 1967; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Martin and others, 1915

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 06/01/01

Site name(s): Devil Club Ledge; Lakeside**Site type:** Prospects**ARDF no.:** SR201**Latitude:** 60.3268**Quadrangle:** SR B-7**Longitude:** 149.3333**Location description and accuracy:**

The two prospects are located east of the railroad tracks about 250 feet above the delta of Snow River at an elevation of about 700 feet. They are situated in the NE1/4 section 30, T. 3 N., R. 1 E., of the Seward Meridian. This is location 79 of Tysdal (1978 [MF-880-A]) and location S-219 of Jansons and others (1984). This location is accurate to within 1,000 feet.

Commodities:**Main:** Au?**Other:****Ore minerals:** Arsenopyrite, pyrite**Gangue minerals:** Quartz**Geologic description:**

Both prospects are hosted in slate of the Valdez Group of Late Cretaceous age (Nelson and others, 1985; Tysdal, 1978 [MF-880-A]). The Devils Club Ledge prospect consists of two parallel quartz veins (Martin and others, 1915). One nearly vertical vein is 15 inches wide and has been traced for 75 feet along its N80W strike. The other vein has a width of 4 to 8 inches. Both carry arsenopyrite and were prospected for gold. Workings include several open cuts and surface stripping (Hoekzema and Sherman, 1983). The Lakeside prospect consists of a 4- to 10-inch-wide quartz vein that strikes north and dips 50E (Martin and others, 1915). Minor arsenopyrite and pyrite occur in this vein. Workings on this prospect consist of surface stripping only (Hoekzema and Sherman, 1983). There are no assay results reported in the literature for either of the prospects.

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

There are no assay results reported in the literature for either of the prospects. Workings include several open cuts and surface stripping on the Devil Club Ledge prospect and surface stripping only on the Lake-

side prospect (Martin and others, 1915). The U.S. Bureau of Mines searched for the prospects in the early 1980's but did not locate them.

Production notes:

Reserves:

Additional comments:

References:

Martin and others, 1915; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Martin and others, 1915

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 03/09/01

Site name(s): Case; Grant Lake**Site type:** Mine**ARDF no.:** SR202**Latitude:** 60.4967**Quadrangle:** SR B-7**Longitude:** 149.3106**Location description and accuracy:**

The mine is located in the NE1/4 section 29, T. 5 N., R. 1 E., of the Seward Meridian, on the north side of Grant Lake; the workings extend into the south half of section 20, T. 5 N., R. 1 E., in the C-7 quadrangle. The workings are accessible from Moose Pass by the Grant Lake trail that begins either at the railroad bridge on the west shore of Upper Trail Lake or half a mile south of the railroad bridge on the west shore of Upper Trail Lake. (The public is not allowed to walk across to the trail (northern entrance) on the railroad bridge. The southern entrance to the trail is accessed by boat.) The mine camp is at an elevation of 700 feet. The mine workings are about half a mile north-northeast of the camp between elevations of 1,500 and 1,600 feet. This is location 36 of Cobb and Richter (1972), location 45 of MacKevett and Holloway (1977), location 66 of Cobb and Tysdal (1980), and location S-231 of Jansons and others (1984). Cobb and Tysdal (1980) summarized the relevant references under the name Case. This location is accurate to within 300 feet.

Commodities:**Main:** Ag, Au**Other:** Cu, Pb**Ore minerals:** Arsenopyrite, chalcopyrite, galena, gold, pyrite**Gangue minerals:** Quartz**Geologic description:**

The deposit at this mine consists of quartz veins in interbedded slate and graywacke of the Valdez Group of Late Cretaceous age (Cobb and Tysdal, 1980). The veins occur in three orientations. One set generally parallels the north-northwest strike of the country rock and dips about 70 west. This set of veins contains pods and lenses within a shear zone that follows bedding. The hanging wall of the veins is slate, and the foot wall is graywacke. The veins range from 12 to 36 inches wide and average about 16 inches. The strike length varies, but in the adit at 1,540 feet elevation, this vein was more than 100 feet long. Ore minerals include arsenopyrite, chalcopyrite, galena, and pyrite; gold is also present.

The second set of veins strikes roughly east-west and dips 80S. These veins range in width from less than a foot to more than 5 feet. A majority of the material mined came from these veins. They are hosted in graywacke and are truncated on both ends by left lateral faults (Hoekzema and Sherman, 1983). Samples collected by the U.S. Bureau of Mines in 1980 assayed as much as 1.11 ounces of gold per ton (Hoekzema and Sherman, 1983).

The third set of veins strikes northwest and dips 65 NE. These veins appear to be discontinuous and barren (Hoekzema and Sherman, 1983).

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Yes; small

Site Status: Active?

Workings/exploration:

The mine workings consist of three adits, at elevations of 1,500, 1,540, and 1,600 feet. The 1,500-level adit is 12 feet long and follows a quartz vein that pinches out at the face. The 1,540-level adit is the main working. It is 170 feet long and has two 30- to 40-foot-long crosscuts that follow the east-west-trending veins. The western crosscut is stoped to the surface (Hoekzema and Sherman, 1983). The 1,600-foot adit is about 40 feet long and follows the northwest-trending vein (Hoekzema and Sherman, 1983).

Samples collected by the U.S. Bureau of Mines in 1980, assayed as much as 1.11 ounces of gold per ton (Hoekzema and Sherman, 1983). Sampling by the U.S. Forest Service as part of a patent examination showed sporadic gold grade as much as 2.10 ounces per ton, interspersed with barren samples.

Production notes:

Production is estimated at 972 ounces of gold and 123 ounces of silver (Jansons and others, 1984).

Reserves:

The proven reserves at this mine are reported to be 270 tons of ore having a grade of 0.78 ounce of gold per ton and 0.2 ounce of silver per ton (Hoekzema and Sherman, 1983). The U.S. Bureau of Mines suggested that this deposit has a moderate potential for development as a small mine.

The mine was examined both by a private consulting geologist and by a government mineral examiner as part of the patent process. U.S. Government mineral examiners concluded in 1993 that mineralization exposed to that date would not support a small-scale mining operation. The private consulting geologist suggested that further work could define a down-dip extension of the known deposit.

Additional comments:

There are abundant references to this mine in the literature, but most of them refer only to ongoing work and give no details.

References:

Brooks, 1915; Smith, 1917 (BMB 142); Brooks, 1918; Johnson, 1919 (B 692-C, p. 176); Brooks and Capps, 1924; Tuck, 1933; Smith, 1937; Smith, 1938; Smith, 1939 (B 910-A); Berg and Cobb, 1967; Cobb and Richter, 1972; Garrett, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984.

Primary reference: Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 03/07/00

Site name(s): Unnamed (Andy Simons Mountain)**Site type:** Occurrence**ARDF no.:** SR203**Latitude:** 60.3875**Quadrangle:** SR B-7**Longitude:** 149.2994**Location description and accuracy:**

The occurrence is located just east of the north summit of Andy Simons Mountain at an elevation of 5,100 feet. It is situated in the SW1/4 section 33, T. 4 N., R. 1 E., of the Seward Meridian. This is location S-222 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Ag?, Au**Other:** Pb, Zn**Ore minerals:** Chalcopyrite, galena, gold, pyrite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

Country rock in this area is siltstone and slate of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). The occurrence consists of a 1- to 1.5-foot-wide quartz vein that strikes N65E and dips vertically (Hoekzema and Sherman, 1983). Metallic minerals consist of chalcopyrite, galena, pyrite, and sphalerite. Two grab samples assayed 0.06 and 0.08 ounce of gold per ton and 0.16 and 0.25 ounce of silver per ton (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Cretaceous or younger; the vein cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

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

There are no workings or improvements reported in the literature. Two grab samples assayed 0.06 and 0.08 ounce of gold per ton and 0.16 and 0.25 ounce of silver per ton (Jansons and others, 1984).

Production notes:**Reserves:**

The U.S. Bureau of Mines estimated a resource of 50 tons of ore containing 0.076 ounces of gold per ton,

and 0.2 ounces of silver per ton (Hoekzema and Sherman, 1983).

Additional comments:

References:

Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 06/15/01

Site name(s): Crown Point; Kenai-Alaska**Site type:** Mine**ARDF no.:** SR204**Latitude:** 60.4519**Quadrangle:** SR B-7**Longitude:** 149.2876**Location description and accuracy:**

The mine is located on the north side of Falls Creek and 2 miles east of Vagt Lake. The original mill site was located at an elevation of 1,700 feet on a small tributary to Falls Creek. The tributary is not shown on the 1994 USGS Seward B-7 topographic map; the mine site is shown correctly on the map. A 4-wheel drive road leads up to the mine workings, which are located at an elevation of 4,100 to 4,600 feet. This is location 70b of Cobb and Tysdal (1980) and location S-227 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Ag**Ore minerals:** Arsenopyrite, gold, galena, sphalerite**Gangue minerals:** Calcite, quartz**Geologic description:**

The host rock in the mine area is slate and sandstone of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). The mineral deposit consists of a quartz vein along a shear zone that strikes northeast and dips vertically. The zone formed during or after folding of the surrounding slate and graywacke (Hoekzema and Sherman, 1983). On the surface, the vein has been traced for more than 1,500 feet. The width of the zone is from 5 to 48 inches wide, the average width is 25 inches (Johnson, 1915). The zone is terminated on the east side of the workings by a northeast-trending fault (Hoekzema and Sherman, 1983). The zone consists of crushed and sheared country rock with numerous lenses and stringers of vuggy quartz that contains gold, arsenopyrite, galena, sphalerite, and calcite (Johnson, 1915).

The mine produced 1,273 ounces of gold and 206 ounces of silver from 1935 to 1941 (Hoekzema and Sherman, 1983). Grab and chip samples collected from the workings and surface exposures contained from trace to 65 ppm gold and from 1.6 to 19.5 ppm silver (Hoekzema and Sherman, 1983).

Alteration:**Age of mineralization:**

Cretaceous or younger; the vein cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Yes**Site Status:** Inactive

Workings/exploration:

The workings on the property are on four levels: 4,170, 4,320, 4,450, and 4,550 feet elevation. Extensive stoping has occurred on the upper three levels, and the lowest level was used mainly for haulage (Hoekzema and Sherman, 1983). The deposit was discovered in 190, and development started in 1910-11 with the installation a 5-stamp mill and a 630-foot aerial tram. The mine, owned by Kenai Alaska Gold Company since 1910, produced 1,852 ounces of gold and 428 ounces of silver from 1911 to 1916 (Hoekzema and Sherman, 1983). The mine was reopened in 1935 by the Crown Point Mining Company and produced 1,273 ounces of gold and 206 ounces of silver from 1935 to 1941 (Hoekzema and Sherman, 1983). Grab and chip samples collected from the workings and surface exposures contained from trace to 65 ppm gold and from 1.6 to 19.5 ppm silver (Hoekzema and Sherman, 1983).

Production notes:

The deposit was discovered in 1906, and development started in 1910-11 with the installation a 5-stamp mill and a 630-foot aerial tram. The mine, owned by Kenai Alaska Gold Company since 1910, produced 1,852 ounces of gold and 428 ounces of silver from 1911 to 1916 (Hoekzema and Sherman, 1983). The mine was reopened in 1935 by the Crown Point Mining Company and produced 1,273 ounces of gold and 206 ounces of silver from 1935 to 1941 (Hoekzema and Sherman, 1983). Production totalled 3,145 ounces of gold and 634 ounces of silver (Hoekzema and Sherman, 1983).

Reserves:

The U.S. Bureau of Mines estimated a resource of 30,000 tons containing 0.363 ounce of gold per ton and 0.1 ounce of silver per ton (Hoekzema and Sherman, 1983).

Additional comments:**References:**

Grant and Higgins, 1909; Grant and Higgins, 1910 (B 442-D); Brooks, 1911 (B 480-B); Johnson, 1912; Brooks, 1913; Brooks, 1914; Smith, 1917 (BMB 142); Smith, 1917 (BMB 153); Johnson, 1919 (B 692-C, p. 175); Smith, 1937; Smith, 1938; Smith, 1939 (B 910-A); Berg and Cobb, 1967; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 01/30/02

Site name(s): East Point**Site type:** Mine**ARDF no.:** SR205**Latitude:** 60.4474**Quadrangle:** SR B-7**Longitude:** 149.2794**Location description and accuracy:**

The mine is located approximately 3 miles east of the Seward Highway on the north side of Falls Creek at an elevation of 4,500 feet. It is about half a mile north of the Skeen-Lechner mine (SR207). It is situated in the SE1/4 section 9, T. 4 N., R. 1 E., of the Seward Meridian. This is location 74 of Tysdal (1978 [MF-880-A]) and location S-226 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Au**Other:****Ore minerals:** Arsenopyrite, gold, pyrite**Gangue minerals:** Calcite, quartz**Geologic description:**

The mine has produced from a single quartz-pyrite-arsenopyrite vein that strikes N55E and dips 45-60SE (O'Neill, 1960). Bedrock in the area consists of slate and graywacke of the Valdez Group of Late Cretaceous age (Cobb and Tysdal, 1980). Where the vein was worked, it was 6 feet thick, although it pinched out at both ends. The workings consist of 100 feet of drift and a 70-foot winze and stoping (Hoekzema and Sherman, 1983). Data from smelter returns and sampling compiled by O'Neill (1960) for the mined section of the vein indicated a head grade of 4.92 ounces of gold per ton and 1.37 ounces of silver per ton.

Alteration:**Age of mineralization:**

Cretaceous or younger; the vein cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Yes; small**Site Status:** Inactive**Workings/exploration:**

The workings consist of 100 feet of drift and a 70-foot winze and stoping (Hoekzema and Sherman, 1983). Data from smelter returns and sampling compiled by O'Neill (1960) of the mined section of the vein indicated a head grade of 4.92 ounces of gold per ton and 1.37 ounces of silver per ton. Total production was estimated to be 1,725 ounces of gold and 479 ounces of silver (Hoekzema and Sherman, 1983).

Production notes:

Total production was estimated to be 1,725 ounces of gold and 479 ounces of silver (Hoekzema and Sherman, 1983).

Reserves:

The mine has a reserve of 3,700 tons of ore containing 2.35 ounces of gold per ton and 0.5 ounce of silver per ton (O'Neill, 1960).

Additional comments:**References:**

O'Neill, 1960; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 01/04/02

Site name(s): California-Alaska; Falls Creek**Site type:** Mine**ARDF no.:** SR206**Latitude:** 60.4295**Quadrangle:** SR B-7**Longitude:** 149.2784**Location description and accuracy:**

The mine is located on Falls Creek at an elevation of 2,100 feet. It is situated near the north boundary of the NE1/4 section 21, T. 4 N., R. 1 E., of the Seward Meridian. This is location 72 of Cobb and Tysdal (1980) and location S-224 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Ag, Au**Other:** Pb, Zn**Ore minerals:** Arsenopyrite, chalcopyrite, galena, gold, pyrite, pyrrhotite, sphalerite**Gangue minerals:** Calcite, quartz**Geologic description:**

The mine worked a quartz-calcite vein in a shear zone that also contains gouge. The vein is between 8 inches and 4 feet wide within a 5-foot-wide shear zone that strikes N50E and dips northeast. The host rock consists of tightly folded slate and graywacke that strike north to northeast and dip 75 to 90E (Brooks, 1911 [B 480-B, p. 32]). Nelson and others (1985) mapped this area as shale and graywacke of the Valdez Group of Late Cretaceous age.

The vein is composed of massive white quartz with a minor amount of calcite. Arsenopyrite is the principal sulfide in the wall rock and in the vein. Other sulfides include chalcopyrite, galena, pyrrhotite, pyrite, and sphalerite. Brooks (1911 [B 480-B]) noted that gold appeared to be concentrated in a bluish quartz.

Recorded production totalled 65 ounces of gold and 13 ounces of silver (Hoekzema and Sherman, 1983).

Alteration:**Age of mineralization:**

Cretaceous or younger; the vein cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Yes; small**Site Status:** Inactive**Workings/exploration:**

Workings total about 860 feet of adit, drift, and winze. Hoekzema and Sherman (1983) reported that the workings were inaccessible; however, the portal below the falls was opened in the early 1990's by the current mining claimants. It is only a few feet above the creek level. Improvements consisted of two 2-stamp

mills, a Chilean mill, and a crusher powered by a Pelton water wheel operating under 80-foot head of water from Falls Creek (Brooks, 1911 [B 480-B, p. 32]). The remains of a ball mill can be seen several hundred feet upstream from the stamp mills. The 3.5-mile-long mine road was usable by all-terrain vehicles (ATVs) in 2000; the road begins at Crown Point, across the highway from the Trail River campground road.

The gold was reported to be free milling and averaged between \$30 and \$40 to the ton in gold (gold at \$20.67 per ounce) (Brooks, 1911 [B 480-B]). A 6-foot chip sample collected by the U.S. Bureau of Mines from the vein exposed on the surface assayed 0.09 ounce of gold per ton and 0.07 ounce of silver per ton (Jansons and others, 1984).

Production notes:

Total recorded production is 65 ounces of gold and 13 ounces of silver (Hoekzema and Sherman, 1983). Some of this may have come from the Skeen-Lechner mine, SR207, because both were operated by the same company.

Reserves:**Additional comments:****References:**

Grant and Higgins, 1909; Grant and Higgins, 1910 (B 442-D); Brooks, 1911 (B 480-B); Johnson, 1912; Martin and others, 1915; Berg and Cobb, 1967; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Brooks, 1911 (B 480-B)

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 07/23/01

Site name(s): Skeen-Lechner**Site type:** Mine**ARDF no.:** SR207**Latitude:** 60.4382**Quadrangle:** SR B-7**Longitude:** 149.2780**Location description and accuracy:**

The mine is located approximately 3 miles east of the Seward Highway on the north side of Falls Creek at an elevation of 3,200 feet. On the 1994 USGS Seward B-7 topographic map it is misnamed the Falls Creek mine. It is situated in the NE1/4 section 16, T. 4 N., R. 1 E., of the Seward Meridian. This is location 71 of Cobb and Tysdal (1980) and location S-225 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Au**Other:** Ag, Pb**Ore minerals:** Arsenopyrite, galena, gold, pyrite**Gangue minerals:** Calcite, quartz**Geologic description:**

The deposit at the mine consists of two quartz veins that have been developed by three levels of workings at elevations of 2,140, 3,210, and 3,260 feet. The upper vein occupies a fracture in massive graywacke mapped as part of the Valdez Group of Late Cretaceous age (Nelson and others, 1985); it strikes N15W and dips 45E. The upper vein is 20 to 45 inches wide and is surrounded by 1 to 4 inches of fault gouge (Martin and others, 1915). The lower vein lies about 90 feet southwest of the upper vein and strikes N45W and dips 65NE. It measures 46 inches in width at the upper tunnel and varies from 1 to 4 feet in the lower adit. Both veins are offset by a series of N55E-trending shear zones that dip vertically. The movement of the faults is right lateral, and the throw is about 30 feet (Hoekzema and Sherman, 1983).

Both veins are composed of shattered white quartz with faint indications of secondary banding. A small amount of calcite occurs with the quartz. Sulfide minerals are of arsenopyrite, pyrite, and galena. Sulfides are also found disseminated in the wall rock and tend to be concentrated on vein margins (Martin and others, 1915). Native gold is associated with arsenopyrite and galena.

Workings total about 2,000 feet (Jansons and others, 1984). Most of the production came from the lower vein. Total production was 1,786 ounces of gold and 502 ounces of silver (Hoekzema and Sherman, 1983). Samples collected from the workings and surface exposures contained from trace to 360 ppm gold, and trace to 30 ppm silver (Hoekzema and Sherman, 1983).

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Yes

Site Status: Inactive

Workings/exploration:

The property was discovered in 1907, and development started on the 3,210 level in 1910 (Jasper, 1958). By 1912, when the property was abandoned, about 1,000 feet of workings were completed. In 1938, the Falls Creek Mining Company (owner of the Falls Creek mine and mill) acquired the property, and intermittent development occurred through 1950 (Jasper, 1958). The workings total about 2,000 feet, including 1,259 feet of drifts and stopes on the lower vein and 741 feet of drifts and stopes on the upper vein (Hoekzema and Sherman, 1983). Samples collected from the workings and surface exposures contained from trace to 360 ppm gold and from trace to 30 ppm silver (Hoekzema and Sherman, 1983).

Production notes:

Production totalled 1,786 ounces of gold and 502 ounces of silver (Jansons and others, 1984). Some of this may have come from the Falls Creek mine, SR206.

Reserves:

The U.S. Bureau of Mines estimated a resource of 10,000 tons containing 0.82 ounce of gold per ton and 0.3 ounce of silver per ton (Hoekzema and Sherman, 1983).

Additional comments:

References:

Grant and Higgins, 1910 (B 442-D); Johnson, 1912; Brooks, 1913; Brooks, 1914; Brooks, 1915; Martin and others, 1915; Smith, 1917 (BMB 142); Smith, 1917 (BMB 153); Brooks, 1918; Jasper, 1958; Cobb and Richter, 1972; Berg and Cobb, 1967; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Jasper, 1958

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/13/01

Site name(s): Solars**Site type:** Occurrence**ARDF no.:** SR208**Latitude:** 60.4767**Quadrangle:** SR B-7**Longitude:** 149.2552**Location description and accuracy:**

The occurrence is located on the north-northeast flank of Solars Mountain above the south shore of Grant Lake at an elevation of 1,100 feet. It is in the S1/2 section 34, T. 5 N., R. 1 E., of the Seward Meridian. This is location 69 of Cobb and Tysdal (1980) and location S-228 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:** Quartz**Geologic description:**

The host rock at this site is slate of the Valdez Group of Late Cretaceous age (Tysdal, 1978 [MF-880-A]). The occurrence consists of gold-bearing quartz veins that parallel the cleavage of the slate, which has a general northwest strike and dips steeply (Hoekzema and Sherman, 1983). There are no published assay results.

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

No workings or improvements are reported in the literature. There are no published assay results.

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

The 1994 USGS B-7 topographic map labelled this occurrence as a mine, but there is no reported production or known workings.

References:

Tuck, 1933; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Tuck, 1933

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 03/09/01

Site name(s): Unnamed (north of Grant Lake)**Site type:** Occurrence**ARDF no.:** SR209**Latitude:** 60.4895**Quadrangle:** SR B-6**Longitude:** 149.2199**Location description and accuracy:**

The occurrence is located about three-quarters of a mile from the north side of Grant Lake at an elevation of about 3,000 feet. It is situated in the SE1/4 section 26, T. 5 N., R. 1 E., of the Seward Meridian. This is location 67 of Cobb and Tysdal (1980) and location S-229 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Ag, Cu**Other:** Co, Cr, Cu, Ni, V, Zn**Ore minerals:****Gangue minerals:** Quartz**Geologic description:**

The occurrence consists of abundant thin quartz veins in a reddish-brown schist that is mapped as the Valdez Group of Late Cretaceous age (Tysdal, 1978 [MF-880A]). The veins are within a shear zone that may be associated with the Placer River fault system. A single grab sample contained 3 ppm silver, 1,000 ppm copper, 700 ppm vanadium, 500 ppm chrome, 300 ppm cobalt, 200 ppm zinc, and 100 ppm nickel (Tysdal, 1978 [MF-880-A]).

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:**Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production Status:** None**Site Status:** Inactive**Workings/exploration:**

A single grab sample contained 3 ppm silver, 1,000 ppm copper, 500 ppm chrome, 700 ppm vanadium, 300 ppm cobalt, and 200 ppm zinc (Tysdal, 1978 [MF-880-A]).

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

References:

Tysdal, 1978 (MF-880-A); Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Tysdal, 1978 (MF-880-A)

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 01/30/02

Site name(s): Dunrovin**Site type:** Occurrence**ARDF no.:** SR210**Latitude:** 60.4195**Quadrangle:** SR B-6**Longitude:** 149.2196**Location description and accuracy:**

The occurrence is located on Falls Creek at an elevation of about 2,500 feet. It is situated in the SE1/4 section 23, T. 4 N., R. 1 E., of the Seward Meridian. This is location 73 of Tysdal (1978 [MF-880-A]) and location S-222 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:** Ag?**Ore minerals:** Pyrite, pyrrhotite**Gangue minerals:** Quartz**Geologic description:**

The occurrence consists of a 6- inch- to 4-foot-wide quartz vein that can be traced for 35 feet along strike over 30 feet of elevation. The vein strikes N10W and dips 70W (Hoekzema and Sherman, 1983). Metallic minerals observed in the vein are pyrite and pyrrhotite. Bedrock in this area is slate and graywacke of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). A single grab sample contained 0.07 ppm gold and 0.5 ppm silver (Hoekzema and Sherman, 1983).

Alteration:**Age of mineralization:**

Cretaceous or younger; the vein cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

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

A single grab sample contained 0.07 ppm gold and 0.5 ppm silver (Hoekzema and Sherman, 1983).

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

References:

Tysdal, 1978 (MF-880-A); Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 06/15/01

Site name(s): Unnamed (above Moose Creek)**Site type:** Occurrence**ARDF no.:** SR211**Latitude:** 60.4980**Quadrangle:** SR B-6**Longitude:** 149.1584**Location description and accuracy:**

The occurrence is located in the NE1/4 section 30, T. 5 N., R. 2 E., of the Seward Meridian at an elevation of about 5,000 feet. It is located about 2 miles northeast of the head of Grant Lake and less than a quarter-mile east of a small unnamed glacier. This location 68 of Tysdal (1978 [MF-880-A]) and location S-230 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Mn**Other:** Cr, Zn**Ore minerals:****Gangue minerals:****Geologic description:**

The mineralization consists of a reddish-brown iron-stained zone more than 30 feet wide. The host rock in this area is mapped as Valdez Group of Late Cretaceous age (Nelson and others, 1984). A single grab sample contained 3,000 ppm manganese, 70 ppm chromium, and 60 ppm zinc (Tysdal, 1978 [MF-880-A]).

Alteration:

Iron-staining is present.

Age of mineralization:

Cretaceous or younger; the mineralization is in rocks of the Valdez Group of Late Cretaceous age.

Deposit model:**Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production Status:** None**Site Status:** Inactive**Workings/exploration:**

There are no workings or improvements reported in the literature. A single grab sample collected by the USGS contained 3,000 ppm manganese, 70 ppm chromium, and 60 ppm zinc (Tysdal, 1978 [MF-880-A]).

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

References:

Tysdal, 1978 (MF-880-A); Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Tysdal, 1978

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 05/24/00

Site name(s): Wolverine Glacier**Site type:** Occurrence**ARDF no.:** SR212**Latitude:** 60.3716**Quadrangle:** SR B-6**Longitude:** 148.8989**Location description and accuracy:**

The occurrence is located on the northeast side of the terminus of the Wolverine Glacier at an elevation of about 1,400 feet. It is in the NE1/4 section 10, T. 3 N., R. 3 E., of the Seward Meridian. This is location S-185 of Jansons and others (1984). This location is accurate to 1,500 feet.

Commodities:**Main:** Ag**Other:** Au?, Cu, Pb, Zn**Ore minerals:** Chalcopyrite, pyrite, pyrrhotite**Gangue minerals:** Calcite, quartz**Geologic description:**

The occurrence consists of iron-stained quartz-calcite veins that recement fractured, tabular felsic dikes. The dikes strike N20-40E and dip vertically. The dikes are part of a north-northeast-trending belt of dikes that extends at least 25 miles to Blackstone Bay (Hoekzema and Sherman, 1983). The dikes intrude interbedded volcanic and sedimentary rocks of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). The age of the dikes is unknown. Sulfide mineralization consists of chalcopyrite, pyrrhotite, and pyrite. The size of the veins is not reported.

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

No workings or improvements are reported in the literature. The U.S. Bureau of Mines collected one grab sample that assayed a trace of gold and 0.07 ounce of silver per ton (Jansons and others, 1984).

Production notes:**Reserves:**

Additional comments:

The dikes described by Hoekzema and Sherman (1983) are not shown on any published geologic map of this area.

References:

Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 04/30/01

Site name(s): Unnamed (near Falling Glacier)**Site type:** Occurrence**ARDF no.:** SR213**Latitude:** 60.4923**Quadrangle:** SR B-5**Longitude:** 148.5650**Location description and accuracy:**

The occurrence is located in the SW1/4 section 27, T. 5 N., R. 5 E., of the Seward Meridian. It is along the north side of Falling Glacier on the east shore of Kings Bay and at an elevation of 660 feet. This is location 171 of Tysdal (1978 [MF-880-A]) and location S-92 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Cu**Other:** Cr, Ni, Sn, Zn**Ore minerals:** Chalcopyrite, pyrite**Gangue minerals:** Feldspar, quartz**Geologic description:**

The occurrence consists of an iron-stained, laminated, siliceous mudstone that is locally cut by quartz-feldspar veinlets near a granite contact. Traces of chalcopyrite and as much as 2 percent pyrite occur as disseminations and fracture fillings in the mudstone (Kurtak and Jeske, 1986). The mudstone is Orca Group of early Tertiary age (Nelson and others, 1985). The granite belongs to the informally named Nellie Juan granite, which has been dated as 35.5 +/-0.9 my old (Lanphere, 1966).

One random chip sample across siliceous mudstone and quartz-feldspar veinlets contained 96 ppm copper (Kurtak and Jeske, 1986). A sample collected by Tysdal (1978 [MF-880-A]) contained 300 ppm chromite, 85 ppm copper, 100 ppm nickel, 50 ppm tin, and 90 ppm zinc.

Alteration:

The mudstone is iron-stained.

Age of mineralization:

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

One random chip sample across siliceous mudstone and quartz-feldspar veinlets contained 96 ppm copper (Kurtak and Jeske, 1986). A sample collected by Tysdal (1978 [MF-880-A]) contained 300 ppm chromite,

85 ppm copper, 100 ppm nickel, 50 ppm tin, and 90 ppm zinc. No workings or improvements are reported.

Production notes:

Reserves:

Additional comments:

References:

Lanphere, 1966; Tysdal, 1978 (MF-880-A); Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Tysdal, 1978 (MF-880-A)

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/1/00

Site name(s): Unnamed (upper Falling Glacier)**Site type:** Occurrence**ARDF no.:** SR214**Latitude:** 60.4832**Quadrangle:** SR B-5**Longitude:** 148.5154**Location description and accuracy:**

The occurrence is located along a ledge above the north side of Falling Glacier at an elevation of 2,200 feet. It is in the NE1/4 section 35, T. 5 N., R. 5 E., of the Seward Meridian. This is location S-93 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Cu**Other:****Ore minerals:** Arsenopyrite, chalcopyrite, pyrite, pyrrhotite**Gangue minerals:** Quartz**Geologic description:**

This occurrence consists of iron-stained sheared granite that is locally bleached and contains as much as 2 percent disseminated sulfide minerals (Kurtak and Jeske, 1986). The granite in this area belongs to the informally named Nellie Juan granite, which has been dated as 35.5 +/-0.9 my old (Lanphere, 1966). Sulfide minerals include arsenopyrite, chalcopyrite, pyrrhotite, and pyrite. Locally, shear zones, as much as one-half inch wide with 2 percent sulfide minerals, and quartz veins that are a few inches wide, cut the granite (Kurtak and Jeske, 1986).

Two random chip samples of sheared, sulfide-bearing granite contained from 77 to 84 ppm copper and from 440 to 590 ppm arsenic, respectively. The two samples contained 0.03 and 0.5 ppm silver and less than 0.03 ppm gold (Kurtak, and Jeske, 1986).

Alteration:

Localized bleached zones are present in the sheared granite (Kurtak and Jeske, 1986).

Age of mineralization:

The intrusion has been dated at 35.5 +/- 0.9 my old (Lanphere, 1966); the mineralization is less than 35.5 +/- 0.9 my old.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

Two random chip samples of sheared, sulfide-bearing granite contained from 77 to 84 ppm copper and

from 440 to 590 ppm arsenic, respectively. The two samples contained 0.03 and 0.5 ppm silver and less than 0.03 ppm gold (Kurtak, and Jeske, 1986).

Production notes:

Reserves:

Additional comments:

References:

Lanphere, 1966; Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/01/00

Site name(s): Dog I (near Derickson Bay)**Site type:** Occurrence**ARDF no.:** SR215**Latitude:** 60.4683**Quadrangle:** SR B-4**Longitude:** 148.3378**Location description and accuracy:**

The occurrence is located in the NW1/4 section 1, T. 4 N., R. 6 E., of the Seward Meridian. It is near the head of Derickson Bay about 1.7 miles northeast of the terminus of Nellie Juan Glacier and at an elevation of 100 feet. This is location S-94 of Jansons and others (1984). This location is accurate to 300 feet.

Commodities:**Main:** Au?**Other:****Ore minerals:** Gold?**Gangue minerals:****Geologic description:**

Bedrock in this area is Oligocene light-gray, medium- to coarse-grained biotite granite (Nelson and others, 1985). The occurrence is localized iron-stained granite (Kurtak and Jeske, 1986). No other information is available from the literature.

Alteration:**Age of mineralization:**

Oligocene or younger; the granite is Oligocene in age.

Deposit model:**Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production Status:** None**Site Status:** Inactive**Workings/exploration:**

No sampling is reported in the literature. No workings or improvements are reported.

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

A mining claim was staked in 1979 on this occurrence. The U.S. Bureau of Mines visited the area in the early 1980's but found no mineralization or any signs of prospecting (Kurtak and Jeske, 1986).

References:

Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/17/01

Site name(s): Unnamed (west of Jackpot Peak)**Site type:** Prospect**ARDF no.:** SR216**Latitude:** 60.3199**Quadrangle:** SR B-4**Longitude:** 148.2640**Location description and accuracy:**

The prospect is located in the SE1/4 section 29, T. 3 N., R. 7 E., of the Seward Meridian. It is situated at an elevation of about 770 feet on the south side of Jackpot Bay about one-quarter mile from the beach. This is location 121 of Cobb and Richter (1972), location 110 of MacKevett and Holloway (1977), location 174 of Cobb and Tysdal (1980), and location S-91 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Ag, Au**Other:** Pb, Zn**Ore minerals:** Arsenopyrite, galena, gold, pyrite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

The prospect consists of a single, 20- to 28-inch-wide, mineralized quartz vein. The center of the vein is a 6- to 11-inch-wide zone of massive to semi-massive sulfide minerals consisting of arsenopyrite, galena, pyrite, sphalerite, and gold (Grant, 1909). The vein strikes N52W and dips 67W; it is exposed for about 15 feet (Grant, 1909). The bedrock in this area slate and graywacke of the Orca Group of early Tertiary age (Nelson and others, 1985).

An 8-foot-long open cut was driven on the vein in 1908. Six samples were collected from the open cut; three were taken across the outer part of the vein, and three were taken across the central sulfide zone. Assays of the outer quartz zone averaged 0.5 ounce of gold per ton, and the inner sulfide zone averaged 2.5 ounces of gold per ton (Grant, 1909).

Alteration:**Age of mineralization:**

Tertiary or younger; the occurrence is in rocks of the Orca Group of Tertiary age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Undetermined.**Site Status:** Inactive**Workings/exploration:**

An 8-foot-long open cut was driven on the vein in 1908. Six samples were collected from the open cut;

three were taken across the outer part of the vein, and three were taken across the central sulfide zone. Assys of the outer quartz zone averaged 0.5 ounce of gold per ton, and the inner sulfide zone averaged 2.5 ounces of gold per ton (Grant, 1909).

The U.S. Bureau of Mines visited the site in the early 1980's but failed to locate any workings. They collected a random chip sample, a grab sample of quartz float, and two stream silt samples. The highest gold value was 0.09 ppm from a stream sample (Kurtak and Jeske, 1986).

Production notes:

Reserves:

Additional comments:

References:

Grant, 1909; Grant and Higgins, 1910 (B 443) ; Johnson, 1914 (B 592-G, p. 237); Condon and Cass, 1958; Berg and Cobb, 1967; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Grant, 1909

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/07/00

Site name(s): Unnamed (north end of Blue Fiord)**Site type:** Prospect**ARDF no.:** SR217**Latitude:** 60.4960**Quadrangle:** SR B-4**Longitude:** 148.2422**Location description and accuracy:**

The prospect is located in the W1/2 section 28, T. 5 N., R. 7 E., of the Seward Meridian. The prospect is on tidewater at the head of a small cove on the east shore of Blue Fiord northeast of Division Point. This is location 173 of Tysdal (1978 [MF-880-A]) and location S-95 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:****Ore minerals:** Arsenopyrite, gold, pyrite, pyrrhotite**Gangue minerals:** Quartz**Geologic description:**

The prospect consists of two quartz veins; one is exposed in the adit, and one is exposed 6 feet east of the adit. A 15-foot adit was driven on a fault that terminates a 4-inch wide, vuggy quartz vein in the adit. In addition to the that vein, there are discontinuous, one-quarter-inch wide, barren quartz stringers. The fault dips 64NW and has a 5-inch-wide gouge zone (Kurtak and Jeske, 1986). The quartz vein exposed 6 feet to the east averages 1 foot wide and contains as much as 1 percent arsenopyrite, pyrite, and pyrrhotite along with shale partings. The host rock is slate of the Orca Group of early Tertiary age; the slate strikes N30W and dips 75-80NE (Kurtak and Jeske, 1986; Nelson and others, 1985). Chip samples from the two veins contained as much as 0.03 ppm gold per ton and 1.7 ppm silver (Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status: No**Site Status:** Inactive**Workings/exploration:**

Workings on the prospect consist of a 15-foot-long, northeast trending adit that has a flooded winze (Kurtak and Jeske, 1986). No improvements are reported in the literature. Chip samples from the two veins contained as much as 0.03 ppm gold per ton and 1.7 ppm silver (Kurtak and Jeske, 1986).

Production notes:

Reserves:

Additional comments:

References:

Johnson, 1914 (B 592-G, p. 237); Tysdal, 1978 (MF-880-A); Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Cobb and Tysdal, 1980

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 03/07/00

Site name(s): Unnamed (south Chenega Island)**Site type:** Occurrence**ARDF no.:** SR218**Latitude:** 60.2879**Quadrangle:** SR B-3**Longitude:** 148.1164**Location description and accuracy:**

The occurrence is located near tidewater on the southwest side of Chenega Island. It is in the SE1/4 section 6, T. 2 N., R. 8 E., of the Seward Meridian. This is location 175 of Cobb and Tysdal (1980) and location S-86 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:** Quartz**Geologic description:**

The occurrence consists of a narrow quartz vein containing 5 ppm gold (Tysdal, 1978, MF-880-A). Bedrock is sandstone of the Orca Group of early Tertiary age (Cobb and Tysdal, 1980). The U.S. Bureau of Mines located several quartz veinlets as much as 1 inch wide at this site (Kurtak and Jeske, 1986). They sampled a 1-inch-wide, hematite-bearing quartz vein that contained less than 0.03 ppm gold and 1.1 ppm silver (Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

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

Tysdal (1978 [MF-880-A]) reported a quartz vein in sandstone; a sample analysed by atomic absorption contained 5 ppm gold. The U.S. Bureau of Mines sampled a 1-inch-wide hematite-bearing quartz vein; it contained less than 0.03 ppm gold and 1.1 ppm silver (Kurtak and Jeske, 1986). No workings or improvements are present.

Production notes:

Reserves:

Additional comments:

References:

Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Tysdal, 1978 (MF-880-A)

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/08/01

Site name(s): Unnamed (central Chenega Island)**Site type:** Occurrence**ARDF no.:** SR219**Latitude:** 60.3198**Quadrangle:** SR B-3**Longitude:** 148.0619**Location description and accuracy:**

The occurrence is located on the northeast side of Chenega Peak at an elevation of about 1,660 feet. It is in the SE1/4 section 28, T. 3 N., R. 8 E., of the Seward Meridian. This is location 221 of Tysdal (1978 [MF-880-A]) and location S-87 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:** Cr, Mn, Ni**Ore minerals:** Pyrite**Gangue minerals:** Epidote, quartz**Geologic description:**

The occurrence consists of greenstone with remnant pillow structures that is interbedded with shale. The greenstone contains quartz stringers, epidote blebs, and traces of pyrite. The bedrock strikes N5E and dips steeply to the west (Kurtak and Jeske, 1986). Bedrock in the area is Orca Group of early Tertiary age (Nelson and others, 1985). Two random chip samples of quartz-epidote-pyrite blebs contained as much as 2.3 ppm silver, 520 ppm chrome, 115 ppm nickel, and 1,350 ppm manganese (Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

Two random chip samples were collected from greenstone with quartz-epidote blebs and stringers and a trace of pyrite, and from iron-stained greenstone with epidote. They contained as much as 2.3 ppm silver, 520 ppm chrome, 115 ppm nickel, and 1,350 ppm manganese (Kurtak and Jeske, 1986). Not workings or improvements are present.

Production notes:

Reserves:

Additional comments:

References:

Tysdal, 1978 (MF-880-A); Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/07/01

Site name(s): Unnamed (northern Chenega Island)**Site type:** Occurrence**ARDF no.:** SR220**Latitude:** 60.3479**Quadrangle:** SR B-3**Longitude:** 148.0617**Location description and accuracy:**

The occurrence is located near the top of hill 1981 at an elevation of 1,800 feet, about a mile west of the head of Masked Bay. It is in the SE1/4 section 16, T. 3 N., R. 8 E., of the Seward Meridian. This is location 219 of Tysdal (1978 [MF-880-A]) and location S-89 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:****Ore minerals:** Chalcopyrite, pyrite, pyrrhotite**Gangue minerals:** Epidote, quartz**Geologic description:**

The occurrence consists of a 50-foot-wide zone of slightly altered iron-stained, sheared greenstone that is exposed along the top of the hill. The greenstone contains a thin interbed of shale with disseminated pyrite and some thin quartz veins that are parallel to bedding (Kurtak and Jeske, 1986). The host rock is part of the Orca Group of early Tertiary age (Nelson and others, 1985). Four random chip samples from the occurrence contained from 17 to 100 ppm copper and from 780 to 1,450 ppm manganese (Kurtak and Jeske, 1986).

Alteration:

The greenstone is iron-stained.

Age of mineralization:

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

Four random chip samples from the occurrence contained from 17 to 100 ppm copper and from 780 to 1,450 ppm manganese (Kurtak and Jeske, 1986).

Production notes:

Reserves:

Additional comments:

References:

Tysdal, 1978 (MF-880-A); Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/08/01

Site name(s): Unnamed (northern Chenega Island)**Site type:** Occurrence**ARDF no.:** SR221**Latitude:** 60.3411**Quadrangle:** SR B-3**Longitude:** 148.0338**Location description and accuracy:**

The occurrence is located near the summit of hill 1640 at an elevation of about 1,600 feet. It is in the NE1/4 section 22, T. 3 N., R. 8 E., of the Seward Meridian. This is location 220 of Tysdal (1978 [MF-880-A]) and location S-88 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:** Fe, Mn**Ore minerals:** Pyrite**Gangue minerals:** Epidote, quartz**Geologic description:**

The occurrence is a 15-foot-wide shear zone containing quartz-epidote veins with traces of disseminated pyrite. The zone strikes N5E and dips vertically (Kurtak and Jeske, 1986). Several quartz veins and lenses occur within the zone; the largest of these measures 4 inches wide by 2 feet long. Relic pillow textures are common in the unsheared greenstone. The bedrock in this area is Orca Group of early Tertiary age (Nelson and others, 1985).

Two chip samples were collected: one 15-foot-long sample from sheared greenstone, and one of unknown length from greenstone with remnant pillow structures. They contained from 125 to 115 ppm copper and 1,400 to 1,600 ppm manganese, respectively (Kurtak and Jeske, 1986). Tysdal (1978 [MF-880-A]) reported 15 percent iron and 1,500 ppm manganese.

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:**Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production Status:** None**Site Status:** Inactive**Workings/exploration:**

Two chip samples were collected: one 15-foot-long sample from sheared greenstone, and one of unknown length from greenstone with remnant pillow structures. They contained from 125 to 115 ppm copper and 1,400 to 1,600 ppm manganese, respectively (Kurtak and Jeske, 1986). Tysdal (1978 [MF-880-A]) reported 15 percent iron and 1,500 ppm manganese.

Production notes:

Reserves:

Additional comments:

References:

Tysdal, 1978 (MF-880-A); Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Tysdal, 1978 (MF-880-A)

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/08/01

Site name(s): Unnamed (Chenega Island)**Site type:** Occurrence**ARDF no.:** SR222**Latitude:** 60.3708**Quadrangle:** SR B-3**Longitude:** 147.9937**Location description and accuracy:**

The occurrence is located at tidewater in a small bay on the northeast shore of Chenega Island. It is in the NW1/4 section 12, T. 3 N., R. 8 E., of the Seward Meridian. This is location S-90 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Mn**Other:****Ore minerals:** Magnetite, pyrite, pyroxmangite, pyrrhotite, rhodochrosite**Gangue minerals:** Chert**Geologic description:**

The occurrence consists of a resistant calcareous chert bed that is exposed between the beach gravel and muskeg vegetation. The exposure is 6 feet wide by 50 feet long; the bed strikes N10E and dips 80W (Kurtak and Jeske, 1986). The chert is interbedded with calcareous shale and phyllite. Manganese minerals in the chert include rhodochrosite and pyroxmangite. Other minerals include magnetite, pyrrhotite, and a trace of pyrite (Kurtak and Jeske, 1986). The bedrock in this area is Orca Group of early Tertiary age (Nelson and others, 1985). A 3.5-foot-wide chip sample contained 17 percent manganese; two grab samples contained 36 and 37 percent manganese (Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Volcanogenic Mn (Cox and Singer, 1986; model 24c)

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

24c

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

A 3.5-foot-wide chip sample contained 17 percent manganese; two grab samples contained 36 and 37 percent manganese (Kurtak and Jeske, 1986). No workings or improvements are present.

Production notes:

Reserves:

Inferred reserves are 700 tons of ore at an unknown grade (Kurtak, 1982).

Additional comments:**References:**

Kurtak, 1982; Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/08/01

Site name(s): Larson, Erickson, and Allen**Site type:** Prospect**ARDF no.:** SR223**Latitude:** 60.2729**Quadrangle:** SR B-3**Longitude:** 147.8609**Location description and accuracy:**

The prospect is located in the SE1/4 section 10, T. 2 N., R. 9 E., of the Seward Meridian, at or near sea level. It is on the northeast shore of Copper Bay, Knight Island. This is location 111 of Cobb and Richter (1972), location 139 of MacKevett and Holloway (1977), locations 234-235 of Cobb and Tysdal (1980), and location S-45 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu, Zn**Other:****Ore minerals:** Chalcopyrite, pyrite, pyrrhotite, sphalerite**Gangue minerals:** Calcite, epidote, quartz**Geologic description:**

The prospect consists of a shear zones in pillow basalt of the Orca Group of early Tertiary age (Nelson and others, 1985). The shear zones are healed by quartz and epidote. Sulfide minerals occur in numerous quartz veins in shear zones, and they slightly impregnate the adjacent country rock (Johnson, 1918 [B 662-C, p. 218]). Pyrrhotite is the dominant sulfide mineral, and traces of chalcopyrite and pyrite are also present. A random chip sample of pillow basalt with sulfide minerals, quartz, and epidote, contained 18 ppm copper and 99 ppm zinc (Kurtak and Jeske, 1986). No other information is available from the literature.

Alteration:

Basalt altered to epidote.

Age of mineralization:

Tertiary or younger; the occurrence is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

Johnson (1918 [B 662-C, p. 218]) reported a cabin and a shallow shaft near the high tide line, but he provided no details. Kurtak and Jeske (1986) could not find any signs of workings when they visited the prospect during the 1980-84 field seasons. A grab sample from this area contained 18 ppm copper and 99 ppm zinc (Kurtak and Jeske, 1986).

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

Martin and others, 1915; Johnson, 1918 (B 662-C, p. 218); Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 03/01/01

Site name(s): Unnamed (near Cathead Bay, Knight Island)**Site type:** Prospect**ARDF no.:** SR224**Latitude:** 60.2834**Quadrangle:** SR B-3**Longitude:** 147.8554**Location description and accuracy:**

The prospect is located in the NE1/4 section 10, T. 2 N., R. 9 E., of the Seward Meridian. It is 15 feet above the high tide line on the southwest shore of Cathead Bay, Knight Island. This is location 233 of Cobb and Tysdal (1980) and location S-46 of Jansons and others (1984). This location is accurate to within 500 feet.

Commodities:**Main:** Cu, Zn**Other:** Fe**Ore minerals:** Chalcopyrite, pyrite, sphalerite?**Gangue minerals:** Quartz**Geologic description:**

The prospect consists of disseminated pyrite and quartz-pyrite veins in greenstone of the Orca Group of early Tertiary age (Nelson and others, 1985). Workings on the prospect consist of a 41-foot-long adit that strikes S50E. The adit follows a limonite-stained fracture zone that contains numerous quartz-pyrite veinlets, some as much as half an inch thick. Sulfide minerals in this zone include chalcopyrite and pyrite. Four samples collected from the adit and other nearby exposures contained between 100 ppm and 0.16 percent zinc and 14 to 520 ppm copper (Kurtak and Jeske, 1986).

Alteration:

Basalt is altered to greenstone.

Age of mineralization:

Tertiary or younger; the occurrence is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

The workings on the prospect consist of a 41-foot-long adit driven along a limonite-stained fracture zone. Four samples collected from the adit and other nearby exposures contained between 100 ppm and 0.16 percent zinc and from 20 to 540 ppm copper (Kurtak and Jeske, 1986).

Production notes:

Reserves:

Additional comments:

References:

Moffit and Fellows, 1950; Condon and Cass, 1958; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/15/00

Site name(s): Larsen**Site type:** Occurrence**ARDF no.:** SR225**Latitude:** 60.2678**Quadrangle:** SR B-3**Longitude:** 147.8489**Location description and accuracy:**

The occurrence is located in the tidal zone on the east end of Copper Bay, Knight Island. It is in the NW1/4 section 14, T. 2 N., R. 9 E., of the Seward Meridian. This is location 235 of Tysdal (1978 [MF-880-A]) and location S-44 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:** Au, Zn**Ore minerals:** Chalcopyrite, pyrrhotite**Gangue minerals:****Geologic description:**

Nelson and others (1985) mapped the greenstone in this vicinity as Orca Group of early Tertiary age. Greenstone at the occurrence was visually estimated to contain 1 percent chalcopyrite and 1 to 5 percent pyrrhotite (Kurtak and Jeske, 1986). A single random chip sample of greenstone contained 94 ppm copper, 78 ppm zinc, and 0.25 ppm silver (Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

No workings are reported. In the early 1980's, the U.S. Bureau of Mines searched for signs of prospecting but found none. They collected a single random chip sample from mineralized greenstone; it contained 94 ppm copper, 78 ppm zinc, and 0.25 ppm silver (Kurtak and Jeske, 1986).

Production notes:**Reserves:**

Additional comments:

References:

Grant and Higgins, 1909; Tysdal, 1978 (MF-880-A); Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/15/01

Site name(s): Mallard Group**Site type:** Prospect**ARDF no.:** SR226**Latitude:** 60.2735**Quadrangle:** SR B-3**Longitude:** 147.8296**Location description and accuracy:**

The prospect is located about a mile south-southwest of the head of Mallard Bay, Knight Island, at 1,500 feet elevation. It is in the SE1/4 section 11, T. 2 N., R. 9 E., of the Seward Meridian. This is location 236 of Cobb and Tysdal (1980) and location S-43 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Au, Cu**Other:****Ore minerals:** Chalcopyrite, gold, native copper, pyrite, pyrrhotite**Gangue minerals:** Quartz**Geologic description:**

The deposit consists of auriferous, sulfide-bearing quartz veinlets hosted in sheared greenstone and sheeted basalt of the Orca Group of early Tertiary age (Cobb and Tysdal, 1980). The main shear zone is approximately 20 feet wide; it strikes N35-80E and dips 60-70NW. The shear zone is cut by a series of smaller shear zones that trend west to northwest and dip steeply. These smaller zones vary from 1 foot to more than 5 feet in width and contain quartz veinlets. They are intermittently exposed along the bluff for approximately 200 feet. The bluff is the footwall of the main shear zone. Sulfide minerals, primarily pyrrhotite and pyrite, occur as dissemination and stringers within the shear zone. Traces of gold, chalcopyrite, and native copper also occur in the zone. Four random chip samples and two chip samples collected from the prospect by the U.S. Bureau of Mines in the early 1980's contained between 21 ppm and 2.0 percent copper and as much as 3.32 ppm silver (Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the veins cut rocks of the Orca Group of Tertiary age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

The workings consisted of a shallow shaft and several prospect pits (Johnson, 1919 8 [B 662-C, p. 217]).

In the early 1980's, U.S. Bureau of Mines collected six samples from the prospect that contained between 21 ppm and 2.0 percent copper and as much as 3.32 ppm silver (Kurtak and Jeske, 1986). They did not locate the shaft that was reported by Johnson, but did find several small open cuts.

Production notes:

Reserves:

Additional comments:

References:

Johnson, 1918 (B 662-C, p. 217); Moffit and Fellows, 1950; Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Johnson, 1918 (B 662-C, p. 217); Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/14/01

Site name(s): Harry Moore**Site type:** Prospect**ARDF no.:** SR227**Latitude:** 60.2830**Quadrangle:** SR B-3**Longitude:** 147.8203**Location description and accuracy:**

The prospect is located on the southwest side of the head of Mallard Bay. It is in the NW1/4 section 12, T. 2 N., R. 9 E., of the Seward Meridian. This is location 232 of Cobb and Tysdal (1980) and location S-47 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:** Ni**Ore minerals:** Chalcopyrite, pyrrhotite**Gangue minerals:****Geologic description:**

The country rock in this area is greenstone of the Orca Group of early Tertiary age (Cobb and Tysdal, 1980). No workings are reported, although Johnson (1919 [B 692-C, p. 144, 146]) reported a test shipment of 20 tons of ore that contained 1,452 pounds of copper. The U.S. Bureau of Mines examined this area in 1981 and found chalcopyrite-pyrrhotite bearing greenstone float but no workings. Samples collected by the U.S. Geological Survey from an open cut contained as much as 0.5 percent copper and 0.3 percent nickel (Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in Tertiary Orca Group rocks.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

No workings are known, but Johnson (1919 [B 692-C, p. 144, 146]) reported a test shipment of 20 tons of ore that contained 1,452 pounds of copper. The U.S. Bureau of Mines examined this area in 1981 and found chalcopyrite-pyrrhotite bearing greenstone float but no workings. Samples collected by the U.S. Geological Survey from an open cut contained as much as 0.5 percent copper and 0.3 percent nickel (Kurtak and Jeske, 1986).

Production notes:

Johnson (1919 [B 692-C, p. 144, 146]) reported a small test shipment of 20 tons of ore containing 1,452 pounds of copper.

Reserves:**Additional comments:****References:**

Johnson, 1919 (B 692-C, p. 144, 146); Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/17/01

Site name(s): Unnamed (Mallard Bay, Knight Island)**Site type:** Occurrence**ARDF no.:** SR228**Latitude:** 60.2951**Quadrangle:** SR B-3**Longitude:** 147.8062**Location description and accuracy:**

The occurrence is located on the east side of Mallard Bay at an elevation of 250 feet. It is located in the NE1/4 section 1, T. 2 N., R. 9 E., of the Seward Meridian. This is location S-48 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:** Zn**Ore minerals:** Chalcopyrite, pyrite**Gangue minerals:** Epidote, quartz**Geologic description:**

From near the shoreline several iron-stained mineralized shear zones, 3.5 to 12 feet wide, can be traced to an elevation of about 250 feet. The bedrock is greenstone of the Orca Group of early Tertiary age (Nelson and others, 1985). Stringers of massive pyrite, chalcopyrite, and quartz-epidote veins are concentrated along the zones (Kurtak and Jeske, 1986). The nearby gabbro-greenstone contact contains no visible mineralization. There is a one-foot-wide unmineralized breccia in the greenstone as well as epidote fracture fillings. Three chip samples were collected across mineralized zones in the greenstone. They contained from 50 ppm to 3.3 percent copper and as much as 140 ppm zinc (Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

No workings are reported in the literature. The U.S. Bureau of Mines visited the occurrence in the early 1980's and did not find any signs of prospecting. Three chip samples were collected across the 3.5- to 12-foot-wide mineralized zones in the greenstone; they contained from 50 ppm to 3.3 percent copper and as much as 140 ppm zinc (Kurtak and Jeske, 1986).

Production notes:

Reserves:

Additional comments:

References:

Grant and Higgins, 1909; Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 11/25/01

Site name(s): Hemple**Site type:** Occurrence**ARDF no.:** SR229**Latitude:** 60.3250**Quadrangle:** SR B-3**Longitude:** 147.8058**Location description and accuracy:**

The occurrence is located near tidewater about a mile west of Chase island on the north shore of Drier Bay. It is in the NE1/4 section 25, T. 3 N., R. 9 E., of the Seward Meridian. This is location 224 of Cobb and Tysdal (1980) and location S-51 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu, Zn**Other:****Ore minerals:** Pyrrhotite**Gangue minerals:** Epidote, quartz**Geologic description:**

The occurrence consists of several 3-foot-wide intensely fractured and brecciated shear zones cutting greenstone of the Orca Group of early Tertiary age (Nelson and others, 1985). The deposit consists of quartz-epidote veins containing pyrrhotite. Samples collected from the site contained from 8 to 61 ppm copper and from 30 to 84 ppm zinc (Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

Samples collected from the site contained from 8 to 61 ppm copper and from 30 to 84 ppm zinc (Kurtak and Jeske, 1986). No workings or improvements are reported.

Production notes:**Reserves:**

Additional comments:

References:

Grant and Higgins, 1909; Tysdal, 1978 (MF-880-A); Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 11/01/01

Site name(s): Hubbard and Elliott**Site type:** Prospect**ARDF no.:** SR230**Latitude:** 60.2893**Quadrangle:** SR B-3**Longitude:** 147.7873**Location description and accuracy:**

The prospect is located in a stream gully below lake 925 at an elevation between 830 and 860 feet. This is in the SW1/4 section 6, T. 2 N., R. 10 E., of the Seward Meridian. This is location 231 of Tysdal (1978 [MF-880-A]) and location S-49 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Cu**Other:** Ni**Ore minerals:** Chalcopyrite, pyrrhotite**Gangue minerals:** Epidote, quartz**Geologic description:**

The prospect is hosted in a moderately sheared, medium-grained greenstone lens within fine-grained greenstone and finely laminated, tuffaceous sedimentary rock. Nelson and others (1985) identified the greenstone as Orca Group of early Tertiary age. Several shear zones, as much as 10 feet wide, cut the greenstone. They are part of a larger shear zone system that trends north-northeast and dips nearly vertically. This system is about half a mile wide and 5 miles long (Nelson and others, 1985). Chalcopyrite and pyrrhotite occur as blebs in a basalt dike and within quartz-epidote veins. The relationship between shearing and mineralization is unclear. Sulfide minerals are found in numerous quartz veins in shear zones and impregnating the country rock (Cobb and Tysdal, 1980). Pyrrhotite is the dominant sulfide; traces of chalcopyrite and pyrite are also present.

Two adits were driven along shear zones; the 10-foot-long south adit is at an elevation of 860 feet, and the 63-foot-long north adit is at an elevation of 830 feet. The U.S. Bureau of Mines collected a total of nine samples, seven from the adits and two from within 80 feet east of the south adit. They contained between 75 ppm and 0.24 percent copper and as much as 0.7 percent nickel Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the occurrence is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

Production Status: None**Site Status:** Inactive

Workings/exploration:

The workings on the prospect consist of two short adits. The lower (south) adit is at an elevation of 830 feet and follows a south-trending shear zone for a distance of 10 feet. The 63-foot-long upper (north) adit is at an elevation of 860 feet and strikes N23E. The U.S. Bureau of Mines collected seven samples from the adits and two from within 80 feet east of the south adit. They contained between 75 ppm and 0.24 percent copper and as much as 0.7 percent nickel (Kurtak and Jeske, 1986).

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

Grant and Higgins, 1909; Condon and Cass, 1958; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 11/09/01

Site name(s): Harvey; H. J. Harvey**Site type:** Prospect**ARDF no.:** SR231**Latitude:** 60.2523**Quadrangle:** SR B-3**Longitude:** 147.7867**Location description and accuracy:**

The prospect is located about a mile southwest of the head of Snug Harbor, at an elevation of 1,100 feet. It is in the NW1/4 section 19, T. 2 N., R. 10 E., of the Seward Meridian. This is location 243 of Tysdal (1978 [MF-880-A]) and location S-36 of Jansons and others (1984). This location is accurate to 300 feet.

Commodities:**Main:** Cu**Other:** Ni**Ore minerals:** Chalcopyrite, pyrite, pyrrhotite**Gangue minerals:****Geologic description:**

Bedrock at this prospect is greenstone of the Orca Group of early Tertiary age and contains disseminated chalcopyrite and pyrrhotite (Kurtak and Jeske, 1986). Workings on the prospect consist of a collapsed adit and an open cut above it. Samples from near the collapsed adit contained 0.24 percent and 1.0 percent copper and 0.36 percent and 0.48 percent nickel (Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the occurrence is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

Workings on the prospect consist of a collapsed adit of unknown length and an open cut. Grant and Higgins (1909) reported two 150-foot adits in the area, but the U.S. Bureau of Mines only found one adit when they visited in the early 1980's. Samples taken near the collapsed adit contained from 0.24 percent to 1.0 percent copper and from 0.36 percent to 0.48 percent nickel (Kurtak and Jeske, 1986).

Production notes:**Reserves:**

Additional comments:

References:

Grant and Higgins, 1909; Grant and Higgins, 1910 (B 443); Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/15/01

Site name(s): Unnamed (northeast of Johnson Bay)**Site type:** Occurrence**ARDF no.:** SR232**Latitude:** 60.3513**Quadrangle:** SR B-3**Longitude:** 147.7863**Location description and accuracy:**

The occurrence is located near a small lake in the saddle between hill 2125 and hill 1456 and is at an elevation of about 1,600 feet. It is in the NW1/4 section 18, T. 3 N., R. 10 W., of the Seward Meridian. This is location 218 of Tysdal (1978 [MF-880-A]) and location S-60 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:****Ore minerals:** Chalcopyrite, pyrite**Gangue minerals:** Epidote, quartz**Geologic description:**

The occurrence consists of schistose greenstone containing pyrite, quartz, epidote, and minor amounts of chalcopyrite (Richter, 1965). Bedrock in this area strikes N10E and is part of the Orca Group of early Tertiary age (Richter, 1965). No other published information is available.

Alteration:**Age of mineralization:**

Tertiary or younger; the occurrence is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

No workings or assay results are reported. The U.S. Bureau of Mines searched for this occurrence in the early 1980's but did not locate it (Kurtak and Jeske, 1986).

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

References:

Richter, 1965; Tysdal, 1978 (MF-880-A); Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Richter, 1965

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/12/01

Site name(s): Unnamed (Knight Island, northwest of the head of Snug Harbor)**Site type:** Occurrence**ARDF no.:** SR233**Latitude:** 60.2765**Quadrangle:** SR B-3**Longitude:** 147.7780**Location description and accuracy:**

The occurrence is located at an elevation of 1,500 feet and about a mile northwest of the head of Snug Harbor. It is located in the SE1/4 section 7, T. 2 N., R. 10 E., of the Seward Meridian, at an approximate elevation of 1,500 feet. This is location 141 of MacKevett and Holloway (1977), location 237 of Cobb and Tysdal (1980), and location S-42 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:** Zn**Ore minerals:** Chalcopyrite, pyrrhotite**Gangue minerals:****Geologic description:**

Nelson and others (1985) mapped bedrock in this area as Orca Group of early Tertiary age. The occurrence consists of a north-south-trending 30-foot-wide shear zone that cuts greenstone. The shear zone contains as much as 5 percent pyrrhotite and traces of chalcopyrite. A chip sample across the zone contained 14 ppm copper and 50 ppm zinc (Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

A single chip sample taken across a 30-foot-wide shear zone contained 14 ppm copper and 50 ppm zinc (Kurtak and Jeske, 1986).

Production notes:

Reserves:

Additional comments:

References:

Grant and Higgins, 1909; Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 11/26/01

Site name(s): Kaczanowski and Wilson**Site type:** Prospect**ARDF no.:** SR234**Latitude:** 60.3953**Quadrangle:** SR B-3**Longitude:** 147.7761**Location description and accuracy:**

The prospect is located near tidewater on the east side of the most northeasterly arm of Lower Herring Bay. It is in the NE1/4 section 31, T. 4 N., R. 10 E., of the Seward Meridian. This is location 207 Tysdal (1978 [MF-880-A]) and location S-72 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:** Ag**Ore minerals:** Chalcopyrite, pyrite, pyrrhotite**Gangue minerals:** Quartz**Geologic description:**

The prospect consists of a 3-inch-thick, light-green, siliceous layer in nearly flat-lying pillow basalts that has been penetrated by a 19-foot adit (Kurtak and Jeske, 1986). The siliceous layer is subparallel to the flow direction of the greenstone and contains pyrite, as much as 10 percent pyrrhotite and as much as 1 percent chalcopyrite (Johnson, 1918 [B 662-C, p. 193-220]; Kurtak and Jeske, 1986). The basalt is mapped as Orca Group of early Tertiary age (Nelson and others, 1985; Cobb and Tysdal, 1980). The adit is driven into a west-facing cliff and trends S65E. Two samples were collected, one from the cliff and one from the adit. The silicified greenstone sample contained 175 ppm copper and 2.3 ppm silver; the pillow basalt sample contained 78 ppm copper and 0.28 ppm silver (Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

Workings consist of a single 19-foot, S65E-trending adit driven into a west-facing cliff. Two samples were collected, one from the cliff face and one from the adit. The silicified greenstone sample from the adit contained 175 ppm copper and 2.3 ppm silver; the pillow basalt sample from the cliff face contained 78

ppm copper and 0.28 ppm silver (Kurtak and Jeske, 1986).

Production notes:

Reserves:

Additional comments:

References:

Johnson, 1918 (B 662-C, p. 193-220); Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/07/01

Site name(s): Boyle**Site type:** Occurrence**ARDF no.:** SR235**Latitude:** 60.4277**Quadrangle:** SR B-3**Longitude:** 147.7749**Location description and accuracy:**

The occurrence is located in the NE1/4 section 19, T. 4N., R. 10 E., of the Seward Meridian. It is near tidewater on the southwest side of Herring Bay about 0.4 mile northwest of peak 1562. This is location 201 of Tysdal (1978 [MF-880-A]) and location S-79 of Jansons and others (1984). This location is accurate to within 1,000 feet.

Commodities:**Main:** Cu?**Other:****Ore minerals:****Gangue minerals:****Geologic description:**

The country rock in the area consists of greenstone and pillow basalt of the Orca Group of early Tertiary age (Nelson, and others, 1985). No other geological data is available. The occurrence first appeared in the literature in 1909 as a copper occurrence on plate IV of Grant and Higgins (1909).

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:**Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production Status:** None**Site Status:** Inactive**Workings/exploration:**

No workings or improvements are reported in the literature. The U.S. Bureau of Mines searched for the occurrence in the early 1980s but did not find it (Kurtak and Jeske, 1986). They did not collect in samples in the area.

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

References:

Grant and Higgins, 1909; Tysdal, 1978 (MF-880-A); Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/15/00

Site name(s): Copper Coin**Site type:** Mine**ARDF no.:** SR236**Latitude:** 60.3123**Quadrangle:** SR B-3**Longitude:** 147.7749**Location description and accuracy:**

The mine is located on the southeast shore of Drier Bay about half a mile southwest of Barnes Cove at an elevation of about 500 feet. This is in the NE1/4 section 31, T. 3 N., R. 10 E., of the Seward Meridian.

This is location 230 of Cobb and Tysdal (1980) and location S-50 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:** Zn**Ore minerals:** Chalcopyrite, covellite, cubanite, pyrrhotite, sphalerite**Gangue minerals:** Epidote, quartz**Geologic description:**

According to Kurtak and Jeske (1986), the mine workings expose an iron-stained shear zone that trends N15W and dips 40 to 80 NW. It averages 4 feet in width. The host rock is sheared greenstone that exhibits various degrees of chloritization (Kurtak and Jeske, 1986). Nelson and others (1985) mapped this area as Orca Group of early Tertiary age. Massive sulfide lenses composed mainly of pyrrhotite and chalcopyrite as much as 6 inches thick occur throughout the greenstone. They can be traced for about 240 feet along strike (Kurtak and Jeske, 1986). Other minor sulfide minerals include cubanite, covellite, and sphalerite. A 60-foot-long adit at 518 feet elevation was driven S10E along the shear zone. Massive sulfide mineralization consisting mostly of pyrrhotite with some chalcopyrite occurs along both the hanging wall and footwall. Samples from this zone contained from 280 ppm to 13 percent copper along with trace amounts of silver and gold. Samples from the open cut at 453 feet elevation contained 0.15 percent to 1.6 percent copper (Kurtak and Jeske, 1986).

Alteration:

Kurtak and Jeske (1986) reported the greenstone shows various degrees of chloritization.

Age of mineralization:

Tertiary or younger; the occurrence is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

Production Status: Yes; small**Site Status:** Inactive

Workings/exploration:

Workings at the mine consist of two adits and an open cut. A 60-foot adit at 518 feet elevation strikes S10E. A 6-foot adit at 435 feet elevation strikes N60W. The open cut is at 560 feet elevation. The U.S. Bureau of Mines visited the prospect in the early 1980's and found both adits but only one open cut (Kurtak and Jeske, 1986). Improvements consisted of a small wharf, two cabins on the beach, a wire tram, and a trail leading to the workings. Eight samples from the adits contained from 280 ppm to 13 percent copper along with trace amounts of silver and gold (Kurtak and Jeske, 1986).

Production notes:

In July 1908, the Russell Ball Copper Company shipped a small amount of copper ore (Johnson, 1918 [B 662-C, p. 184, 216-217]).

Reserves:

Chugach Alaska Corporation estimated a reserve of 5,900 tons of ore containing 2.4 percent copper, 0.3 ounce of silver per ton, and 0.03 ounce of gold per ton (Hoyt and Rogers, 2000).

Additional comments:**References:**

Grant and Higgins, 1909; Grant and Higgins, 1910 (B 443); Johnson, 1918 (B 662-C, p. 184, 216-217); Johnson, 1919 (B 692-C, p. 146); Brooks, 1921; Moffit and Fellows, 1950; Moffit, 1954; Condon and Cass, 1958; Richter, 1965; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 11/09/01

Site name(s): Hendrix; Reavley and McMasters**Site type:** Occurrence**ARDF no.:** SR237**Latitude:** 60.2599**Quadrangle:** SR B-3**Longitude:** 147.7721**Location description and accuracy:**

The occurrence is located 0.1 mile west of the head of Snug Harbor near tidewater. It is in the SE1/4 section 18, T. 2 N., R. 10 E., of the Seward Meridian. This is location 242 of Tysdal (1978 [MF-880-A]) and location S-37 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:****Ore minerals:****Gangue minerals:****Geologic description:**

Grant and Higgins (1909) show a copper prospect at this location but give no other information. Nelson and others (1985) mapped the bedrock in this area as greenstone of the Orca Group of early Tertiary age.

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:**Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production Status:** None**Site Status:** Inactive**Workings/exploration:**

No workings or samples are mentioned in the literature.

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

The U.S. Bureau of Mines attempted to visit this copper occurrence in the early 1980s, but did not find it (Kurtak and Jeske, 1986).

References:

Grant and Higgins, 1909; Tysdal, 1978 (MF-880-A); Jansons and others, 1984; Nelson and others, 1985;

Kurtak and Jeske, 1986.

Primary reference: Grant and Higgins, 1909

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 11/30/01

Site name(s): Unnamed (northwest of Port Audrey)**Site type:** Prospect**ARDF no.:** SR238**Latitude:** 60.3570**Quadrangle:** SR B-3**Longitude:** 147.7704**Location description and accuracy:**

The prospect is located on the southeast side of hill 1456 at an elevation of 1,300 feet. It is about 0.1 mile northwest of SR239. It is in the NE1/4 section 18, T. 3 N., R. 10 E., of the Seward Meridian. This is location 216 of Tysdal (1978 [MF-880-A]) and location S-61 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:** Ag**Ore minerals:** Chalcopyrite, pyrite, pyrrhotite**Gangue minerals:** Quartz**Geologic description:**

Bedrock in this area is greenstone of the Orca Group of early Tertiary age (Nelson and others, 1985). The prospect consists of a 10-foot-deep shaft in a 5.5-foot-wide shear zone containing chloritic schist and a massive quartz lens (Kurtak and Jeske, 1986). A 5-inch-wide zone of sulfide-bearing schist occurs within the massive quartz lens. The quartz lens contains as much as 10 percent pyrite and traces of chalcopyrite (Kurtak and Jeske, 1986). Samples from the collar of the shaft contained from 20 to 480 ppm copper and 0.5 to 1.3 ppm silver (Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

Workings consist of a single 10-foot-deep shaft that explores a mineralized shear zone. Samples from the collar of the shaft contained from 20 to 480 ppm copper and 0.5 to 1.3 ppm silver (Kurtak and Jeske, 1986).

Production notes:

Reserves:

Additional comments:

References:

Richter, 1965; Tysdal, 1978 (MF-880-A); Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 01/02/02

Site name(s): Monarch**Site type:** Prospect**ARDF no.:** SR239**Latitude:** 60.3564**Quadrangle:** SR B-3**Longitude:** 147.7678**Location description and accuracy:**

The prospect is located on the southeast side of hill 1456 at an elevation of about 680 feet. It is about 0.1 mile southeast of SR238. It is in the NE1/4 section 18, T. 3 N., R. 10 E., of the Seward Meridian. This is location 16 of Condon and Cass (1958), location 95 of Cobb and Richter (1972), location 132 of MacKevett and Holloway (1977), location 217 of Cobb and Tysdal (1980), and location S-62 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:****Ore minerals:** Chalcopyrite, covellite, pyrite, pyrrhotite**Gangue minerals:** Quartz**Geologic description:**

The prospect consists of a shear zone that trends N10 to 15E. The zone contains epidote stringers and as much as 5 percent disseminated pyrite with minor amounts of covellite and chalcopyrite (Kurtak and Jeske, 1986). The host rock is greenstone of the Orca Group of early Tertiary age (Nelson and others, 1985). Grant and Higgins (1909) reported an adit (now caved) with 350 feet of workings; it appeared to follow the shear zone. Samples collected from the shear zone exposed above the caved adit contained 360 ppm copper and 195 ppm zinc (Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

Grant and Higgins (1909) reported one adit with 350 feet of workings; it appeared to follow the shear zone. Samples collected from the shear zone exposed above the caved adit contained 360 ppm copper and 195 ppm zinc (Kurtak and Jeske, 1986).

Production notes:

Reserves:

Additional comments:

References:

Moffit, 1908; Grant and Higgins, 1909; Johnson, 1918 (B 662-C, p. 215); Moffit and Fellows, 1950; Condon and Cass, 1958; Richter, 1965; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 01/02/02

Site name(s): Jonesy; Bald Eagle**Site type:** Mine**ARDF no.:** SR240**Latitude:** 60.3450**Quadrangle:** SR B-3**Longitude:** 147.7517**Location description and accuracy:**

The mine is located 0.7 mile southeast of the head of Port Audrey on the west side of a ridge north of the east end of Drier Bay and is at an elevation of 1,000 feet. It is in the S1/2 section 17, T. 3 N., R. 10 E., of the Seward Meridian. This is location 103 of Cobb and Richter (1972), location 133 of MacKevett and Holloway (1977), location 222 of Cobb and Tysdal (1980), and location S-59 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Cu**Other:****Ore minerals:** Chalcopyrite, pyrrhotite**Gangue minerals:** Actinolite, chlorite, quartz**Geologic description:**

The mine workings follow a 60-foot-wide shear zone in massive greenstone and chlorite schist. The zone strikes N-S and dips steeply east (Kurtak and Jeske, 1986). Nelson and others (1985) mapped the greenstone and schist as Orca Group of early Tertiary age. Post-mineralization basalt dikes are present; these are unmetamorphosed and appear unrelated to mineralization (Kurtak and Jeske, 1986). The age of the dikes is unknown.

The mineralization consists of massive, stringer, and disseminated pyrrhotite and chalcopyrite, mostly in the hanging wall of the shear zone (Kurtak and Jeske, 1986). This mineralized zone ranges from 1 to 10 feet in width (Kurtak and Jeske, 1986).

The workings consist of an adit with 245 feet of crosscuts and drifts, two stopes, each about 30 feet high, and a water-filled winze of unknown depth (Kurtak and Jeske, 1986). A rough estimate of the stope volume suggest that about 330 tons of material was removed (Kurtak and Jeske, 1986). A single 4-foot-wide chip sample collected from the adit contained 3.3 percent copper, 0.15 ppm gold, and 3.8 ppm silver (Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the occurrence is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

Production Status: Yes; small

Site Status: Inactive

Workings/exploration:

The workings consist of 245 feet of crosscuts and drifts, two stopes each about 30 feet high, and a water-filled winze of an unknown depth (Kurtak and Jeske, 1986). Grant and Higgins (1909) reported an aerial tramway, several buildings, a wharf, and a steam plant located near tidewater. A rough estimate of the stope volume suggests that about 330 tons of material was removed (Kurtak and Jeske, 1986). A single 4-foot-wide chip sample collected from the adit contained 3.3 percent copper, 0.15 ppm gold, and 3.8 ppm silver (Kurtak and Jeske, 1986).

Production notes:

Production is estimated at 330 tons of unknown grade (Kurtak and Jeske, 1986). This estimate was arrived at from the volume of the stope.

Reserves:

Inferred reserves are 1,300 tons of ore, containing 3.3 percent copper. A few tons of ore is stockpiled on the beach below the prospect (Kurtak and Jeske, 1986).

Additional comments:

References:

Moffit, 1908; Grant and Higgins, 1909; Johnson, 1918 (B 662-C, p. 215); Moffit and Fellows, 1950; Richter, 1965; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 03/07/01

Site name(s): Fergusson, Johnson and Harvey**Site type:** Occurrence**ARDF no.:** SR241**Latitude:** 60.3806**Quadrangle:** SR B-2**Longitude:** 147.7470**Location description and accuracy:**

The occurrence is located about 1,000 feet southeast of the head of West Arm of Bay of Isles. It is in the NE1/4 section 5, T. 3 N., R. 10 E., of the Seward Meridian. This is location 208 of Tysdal (1978 [MF-880-A]) and location S-71 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu?**Other:****Ore minerals:****Gangue minerals:****Geologic description:**

Grant and Higgins (1909) reported an occurrence at this location but provide no description. The country rock consists of greenstone with lesser pillow basalt of the Orca Group of early Tertiary age (Nelson and other, 1985; Kurtak and Jeske, 1986). Kurtak and Jeske (1986) report that a major northeast-trending shear zone projects through the area. No other information in the literature.

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:**Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production Status:** None**Site Status:** Inactive**Workings/exploration:**

The U.S. Bureau of Mines did an aerial and a ground search for the occurrence in the early 1980's but did not find any mineralized rock or any signs of prospecting (Kurtak and Jeske, 1986).

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

Grant and Higgins, 1909; Tysdal, 1978 (MF-880-A); Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Grant and Higgins, 1909

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/07/01

Site name(s): Twentieth Century Knight Island Copper Mining Co.**Site type:** Prospect**ARDF no.:** SR242**Latitude:** 60.3177**Quadrangle:** SR B-2**Longitude:** 147.7444**Location description and accuracy:**

The prospect is located 0.5 mile southwest of the head of Northeast Cove in Drier Bay at an elevation of about 750 feet. It is located in the SE1/4 section 29, T. 3 N., R. 10 E., of the Seward Meridian. This is location 24 of Condon and Cass (1958), location 108 of Cobb and Richter (1972), location 135 of MacKevett and Holloway (1977), location 226 of Cobb and Tysdal (1980), and location S-53 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:** Ag**Ore minerals:** Chalcopyrite, pyrrhotite**Gangue minerals:** Quartz**Geologic description:**

The prospect is in sheared pillow basalt of the Orca Group of early Tertiary age (Cobb and Tysdal, 1980). The shear zone trends north-south and dips nearly vertically. It contains numerous lenses of chalcopyrite and pyrrhotite that range in width from 2 to 6 inches (Kurtak and Jeske, 1986). A random chip sample was collected across a 2-inch-wide sulfide zone in the upper adit at 750 feet of elevation. It contained 2.6 percent copper and 3.2 ppm silver (Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the occurrence is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

Workings on the prospect consist of a 30-foot-long adit at the 250-foot elevation, a 390-foot-long adit with a 70-foot-high raise at the 350-foot elevation, and a 68-foot-long adit at 750 feet elevation. Grant and Higgins (1909) indicated that a bunk house and a small wharf were located on the shore. The U.S. Bureau of Mines collected a random chip sample across a 2-inch-wide sulfide zone in the upper adit. It contained 2.6 percent copper and 3.2 ppm silver (Kurtak and Jeske, 1986).

Production notes:**Reserves:**

The U.S. Bureau of Mines estimated an inferred reserve of 30 tons grading 2.6 percent copper (Kurtak and Jeske, 1986).

Additional comments:**References:**

Grant and Higgins, 1909; Moffit and Fellows, 1950; Condon and Cass, 1958; Richter, 1965; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 11/18/01

Site name(s): Drier Bay; Knights Island Alaska Copper**Site type:** Mine**ARDF no.:** SR243**Latitude:** 60.3109**Quadrangle:** SR B-2**Longitude:** 147.7428**Location description and accuracy:**

The mine is located between the elevations of 300 and 1,100 feet about three-quarters of a mile south of Northeast Cove at the head of Drier Bay. It is in the NE1/4 section 32, T. 3 N., R. 10 E., of the Seward Meridian. This is location 25 of Condon and Cass (1958), location 107 of Cobb and Richter (1972), location 135 of MacKevett and Holloway (1977), location 229 of Cobb and Tysdal (1980), and location S-52 of Jan-sons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:****Ore minerals:** Chalcopyrite, pyrite, pyrrhotite**Gangue minerals:** Calcite, quartz**Geologic description:**

Two major rock types occur at the mine site: a light-gray, aphanitic, intermediate volcanic rock, and a porphyritic, dark gray-green greenstone. Some thin layers of slate are interbedded with the volcanic rock (Kurtak and Jeske, 1986). The prospect is within the Nellie shear zone, which is a northeast-trending, nearly vertical zone exposed for about 5 miles (Kurtak and Jeske, 1986). The greenstone and slate are Orca Group of early Tertiary age (Nelson and others, 1985).

The mine workings consist of three adits and several open cuts. The mineralization consists of several massive sulfide lenses within several shear zones that are from 1 to 10 feet wide. One lens of massive sulfides is 30 feet wide by 40 feet high and consists of massive chalcopyrite and pyrrhotite. This lens is exposed above the upper adit (Grant, 1906). In the middle adit, the mineralization consists of a 1- to 5-foot-wide shear zone containing 1 to 5 percent disseminated chalcopyrite and pyrrhotite (Kurtak and Jeske, 1986).

Samples from the workings and surface exposures contained from 15 ppm to 1.6 percent copper and from less than 1 ppm to 5.1 ppm silver (Kurtak and Jeske, 1986). A one-ton bulk sample shipped in 1911 contained 240 pounds of copper, 2 ounces of gold, and 3 ounces of silver (Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Besshi massive sulfide (Cox and Singer, 1986; model 24b)

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

24b

Production Status: Yes

Site Status: Inactive

Workings/exploration:

The mine workings consist of three adits and several open cuts. A 78-foot adit is at 300 feet elevation; a 113-foot adit is at 900 feet elevation; and a 117-foot adit is at 1,100 feet elevation. Richter (1965) indicated that there were many ruined buildings, large piles of rusting pipe, mine rails, and other mining equipment on site.

Samples from the workings and surface exposures contained from 15 ppm to 1.6 percent copper and from less than 1 ppm to 5.1 ppm silver (Kurtak and Jeske, 1986). A one-ton bulk sample shipped in 1911 contained 240 pounds of copper, 2 ounces of gold, and 3 ounces of silver (Kurtak and Jeske, 1986).

Production notes:

One ton of ore was shipped in 1911 as a bulk test. The ore contained 240 pounds of copper, 2 ounces of gold, and 3 ounces of silver (Kurtak and Jeske, 1986).

Reserves:

Additional comments:

Mineral Survey 736 was done in 1906 (Kurtak and Jeske, 1986). Cobb and Tysdal (1980) called this mine Knights Island Alaska Copper Co.

References:

Grant, 1906; Grant and Higgins, 1909; Grant and Higgins, 1910 (B 443); Brooks, 1912; Brooks, 1913; Johnson, 1915; Johnson, 1916; Moffit and Fellows, 1950; Condon and Cass, 1958; Richter, 1965; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 02/07/02

Site name(s): Unnamed (north of Port Audrey, Knight Island)**Site type:** Occurrence**ARDF no.:** SR244**Latitude:** 60.3615**Quadrangle:** SR B-2**Longitude:** 147.7424**Location description and accuracy:**

The occurrence is located about 1.5 miles west of the south arm of Bay of Isles at an elevation of 1,750 feet. It is about 0.2 mile west of SR247. It is in the SE1/4 section 8, T. 3 N., R. 10 E., of the Seward Meridian. This is location 211 Tysdal (1978 [MF-880-A]) and location S-63 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:****Ore minerals:** Chalcopyrite, pyrite, pyrrhotite**Gangue minerals:** Epidote, quartz**Geologic description:**

The occurrence consists of lenses, as much as 2 inches thick, of massive pyrite-pyrrhotite and chalcopyrite and thin veinlets of quartz and epidote; both occur in sheared greenstone (Richter, 1965). The exposure is iron-stained. Bedrock in this area is Orca Group of early Tertiary age (Nelson and others, 1985). The U.S. Bureau of Mines did not find the lenses of massive sulfide minerals described by Richter, but instead sampled an exposure of sheared greenstone. Random chip samples from the occurrence contained 44 to 110 ppm copper and 62 to 105 ppm zinc (Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Besshi massive sulfide (Cox and Singer, 1986; model 24b)

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

24b

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

No workings or improvements are reported.

Production notes:**Reserves:**

Additional comments:

References:

Richter, 1965; Tysdal, 1978 (MF-880-A); Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 11/30/01

Site name(s): Nellie Group**Site type:** Prospect**ARDF no.:** SR245**Latitude:** 60.3422**Quadrangle:** SR B-2**Longitude:** 147.7363**Location description and accuracy:**

The prospect is located 1.5 miles north-northwest of the head of Northeast Cove of Drier Bay and is at an elevation of about 650 feet. It is in the valley of a steep southwest-flowing creek. It is in the NW1/4 section 21, T. 3 N., R. 10 E., of the Seward Meridian. This is location 104 of Cobb and Richter (1972), location 133 of MacKevett and Holloway (1977), location 223 of Cobb and Tysdal (1980), and location S-58 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:** Zn**Ore minerals:** Chalcopyrite, cubanite, pyrrhotite**Gangue minerals:** Quartz**Geologic description:**

The prospect consists of a N25E-trending shear zone that dips 75SE, cutting greenstone country rock (Johnson, 1918 [B 662-C, p. 217-218]). Nelson and others (1985) have mapped the country rock as Orca Group of early Tertiary age. The workings on the prospect consist of five open cuts, a 6-foot-deep shaft, and a 36-foot adit. At the adit face, the shear zone is 9 feet wide and has a 2-inch-wide band of pyrrhotite and chalcopyrite near the footwall (Johnson, 1918 [B 662-C, p. 217-218]). This zone can be traced along strike for about three-quarters of a mile. At an elevation of 1,200 feet, a 6-foot-deep shaft exposes a 10-foot-wide shear zone containing chalcopyrite (Johnson, 1918 [B 662-C, p. 217-218]). Tysdal (1978 [MF-880-A]) summarizes the prospect as a limonite-stained sheared greenstone containing chalcopyrite, pyrrhotite, cubanite, and quartz. Samples collected from the prospect contained from 9 to 150 ppm copper and 25 to 150 ppm zinc (Kurtak and Jeske, 1986).

Alteration:

The shear zone is limonite-stained.

Age of mineralization:

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Besshi massive sulfide (Cox and Singer, 1986; model 24b)

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

24b

Production Status: None**Site Status:** Inactive

Workings/exploration:

The workings on the prospect consisted of five open cuts, a 6-foot-deep shaft, and a 36-foot adit (Johnson, 1918 [B 662-C, p. 217-218]). The U.S. Bureau of Mines did not locate any of the reported workings when they visited the site in the early 1980's. They collected samples from what appeared to be the reported mineralized shear zone. Five random chip samples contained from 9 to 150 ppm copper and 25 to 150 ppm zinc (Kurtak and Jeske, 1986).

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

Kurtak and Jeske (1986) reported that the working were collapsed and filled in.

References:

Johnson, 1918 (B 662-C, p. 217-218); Moffit and Fellows, 1950; Richter, 1965; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Johnson, 1918 (B 662-C, p. 217-218)

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 11/30/01

Site name(s): Graham and Harrison**Site type:** Prospect**ARDF no.:** SR246**Latitude:** 60.2703**Quadrangle:** SR B-2**Longitude:** 147.7363**Location description and accuracy:**

The prospect is located at 1,300 feet elevation in a saddle southeast of peak 1995, in the divide that separates the head of Snug Harbor from Montague Strait. It is in the NW1/4 section 16, T. 2 N., R. 10 E., of the Seward Meridian. This is location 238 of Cobb and Tysdal (1980) and location S-40 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:****Ore minerals:** Chalcopyrite, pyrrhotite**Gangue minerals:** Quartz**Geologic description:**

The prospect consists of veins and layers of disseminated sulfides within several hundred feet of brecciated and schistose sheeted dikes of the Orca Group of early Tertiary age (Cobb and Tysdal, 1980). The sulfide minerals are exposed in two open cuts driven along a N45E-trending shear zone. The zone dips from vertical to 80 SE (Kurtak and Jeske, 1986). The exposed sulfides consist mainly of disseminated pyrrhotite and chalcopyrite blebs along cleavage planes (Kurtak and Jeske, 1986). Grant and Higgins (1909) examined hand samples from a reported 1- to 4-foot-wide quartz vein on the prospect that contained pyrrhotite and chalcopyrite.

A random chip sample from one of the open cuts contained 1.4 percent copper and 20 ppm silver (Kurtak and Jeske, 1986).

Alteration:

Basalt is altered to greenstone.

Age of mineralization:

Tertiary or younger; the occurrence is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

There are two open cuts on the prospect; their size is unknown. Grant and Higgins (1909) described a 60-

foot adit in the area, but the U.S. Bureau of Mines did not find it when they visited the prospect in the early 1980's. A chip sample was collected from the shear zone exposed in one of the open cuts. It contained 1.4 percent copper and 20 ppm silver (Kurtak and Jeske, 1986).

Production notes:

Reserves:

Additional comments:

References:

Grant and Higgins, 1909; Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 11/09/01

Site name(s): Unnamed (west of South Arm, Bay of Isles, Knight Island)**Site type:** Prospect**ARDF no.:** SR247**Latitude:** 60.3621**Quadrangle:** SR B-2**Longitude:** 147.7350**Location description and accuracy:**

The prospect is located in the saddle on the southeast flank of hill 1870 west of the head of South Arm, Bay of Isles, at an elevation of about 1,350 feet. It is in the SW1/4 section 9, T. 3 N., R. 10 E., of the Seward Meridian. This is location S-63 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu, Zn**Other:****Ore minerals:** Chalcopyrite, pyrite, pyrrhotite, sphalerite**Gangue minerals:** Epidote, quartz**Geologic description:**

The occurrence consists of an iron-stained shear zone in schistose greenstone that contains pyrite, pyrrhotite, chalcopyrite, and sphalerite (Kurtak and Jeske, 1986). The shear zone is nearly vertical, strikes N25E, and can be traced for about 6 miles. The zone cuts greenstone of the Orca Group of early Tertiary age (Nelson and others, 1985). Within the zone, a 2.5- by 25-foot outcrop of iron-stained greenstone contains pyrite, pyrrhotite, about 1 percent chalcopyrite, and 20 percent sphalerite. Quartz and epidote veinlets also occur within the zone (Kurtak and Jeske, 1986). Chip and grab samples from this occurrence contained from 20 ppm to 0.8 percent copper and from 30 ppm to 5 percent zinc (Kurtak and Jeske, 1986). The U.S. Bureau of Mines reported some minor digging and scrapings in the area (Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Besshi massive sulfide (Cox and Singer, 1986; model 24b)

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

24b

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

The U.S. Bureau of Mines reported some minor digging and scrapings in the area (Kurtak and Jeske, 1986). Chip and grab samples from this occurrence contained from 20 ppm to 0.8 percent copper and from 30 ppm to 5 percent zinc (Kurtak and Jeske, 1986).

Production notes:

Reserves:

Additional comments:

References:

Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/6/01

Site name(s): Unnamed (above Northeast Cove)**Site type:** Prospect**ARDF no.:** SR248**Latitude:** 60.3300**Quadrangle:** SR B-2**Longitude:** 147.7328**Location description and accuracy:**

The prospect is located 0.7 mile north of the head of Northeast Cove of Drier Bay and is at an elevation of about 1,000 feet. It is the SW1/4 section 21, T. 3 N., R. 10 E., of the Seward Meridian. This is location S-57 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:** Ag, Zn**Ore minerals:** Chalcopyrite, covellite, pyrrhotite**Gangue minerals:** Quartz**Geologic description:**

The prospect consists of a 4-foot- by 20-foot open cut exposing interbedded graywacke and slate that contains a silicified, sulfide-bearing zone (Kurtak and Jeske, 1986). The slate and graywacke unit is roughly 300 by 1,000 feet and is enclosed by greenstone; both units are mapped as Orca Group of early Tertiary age (Nelson and others, 1985). The siliceous sulfide-bearing zone varies from 6 inches to 3 feet wide and contains from 5 to 30 percent sulfide minerals. These minerals consist of pyrite, chalcopyrite, and some covellite (Kurtak and Jeske, 1986). Samples from the open cut contained from 25 ppm to 3.8 percent copper and from 0.2 to 28 ppm silver (Kurtak and Jeske, 1986).

Alteration:

The mineralization is in silicified slate, but no details about the alteration are given (Kurtak and Jeske, 1986).

Age of mineralization:

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Besshi massive sulfide (Cox and Singer, 1986; model 24b)

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

24b

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

Workings on the prospect are a 5- by 35-foot open cut (Kurtak and Jeske, 1986). Samples from the open cut yielded from 25 ppm to 3.8 percent copper and from 0.2 to 28 ppm silver (Kurtak and Jeske, 1986).

Production notes:

Reserves:

Additional comments:

References:

Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 11/15/01

Site name(s): Unnamed (south end of Herring Bay, Knight Island)**Site type:** Prospect**ARDF no.:** SR249**Latitude:** 60.4078**Quadrangle:** SR B-2**Longitude:** 147.7300**Location description and accuracy:**

The prospect is located a shallow, U-shaped valley in the easternmost arm at the south end of Herring Bay at an elevation of about 500 feet. It is in the W1/2 section 28, T. 4 N., R. 10 E., of the Seward Meridian. This is location S-73 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:** Zn**Ore minerals:** Pyrite**Gangue minerals:****Geologic description:**

The prospect consists of a heavily iron-stained shear zone cutting greenstone. The zone contains minor pyrite and is exposed for 80 feet in a stream bottom (Kurtak and Jeske, 1986). This shear zone trends N15E and dips 70 to 80E (Kurtak and Jeske, 1986). Nelson and others (1985) mapped the greenstone country rock as Orca Group of early Tertiary age. Two random chip samples from the shear zone contained from 80 to 95 ppm copper and 50 to 150 ppm zinc (Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

Production Status: Undetermined.**Site Status:** Inactive**Workings/exploration:**

Two adits are reported: one is 5 feet long at an elevation of 450 feet, and the other is 6 feet long at an elevation of 550 feet (Kurtak and Jeske, 1986).

Two random chip samples from the shear zone contained from 80 to 95 ppm copper and 50 to 150 ppm zinc (Kurtak and Jeske, 1986).

Production notes:

Reserves:

Additional comments:

References:

Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/07/01

Site name(s): Moore; Hillside Lode; Tremont**Site type:** Prospect**ARDF no.:** SR250**Latitude:** 60.3263**Quadrangle:** SR B-2**Longitude:** 147.7255**Location description and accuracy:**

The prospect is located about 0.3 mile north-northeast of the head of Northeast Cove of Drier Bay and between elevations of 950 and 1,200 feet. It is in the NW1/4 section 28, T. 3 N., R. 10 E., of the Seward Meridian. This is location 29 of Condon and Cass (1958), location 110 of Cobb and Richter (1972), location 138 of MacKevett and Holloway (1977), location 232 of Cobb and Tysdal (1980), and location S-56 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Cu**Other:** Ag, Zn**Ore minerals:** Chalcopyrite, chalmersite, malachite, native copper, pyrite, pyrrhotite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

Nelson and others (1985) mapped bedrock in this area as greenstone of the Orca Group of early Tertiary age. The prospect consists of a weakly developed shear zone that contains a fine network of quartz-sulfide stringers (Johnson, 1914 [B 592-G, p. 237-243]). The shear zone is between 20 to 55 feet wide, but the margins are poorly defined; it strikes N15E and dips vertically. The zone is only slightly mineralized as a whole, and in some places short lenses of solid or nearly solid sulfide minerals occur in the sheared greenstone (Johnson, 1914 [B 592-G, p. 237-243]). The sulfide minerals consist of chalcopyrite, chalmersite, sphalerite, and pyrrhotite (Johnson, 1914 [B 592-G, p. 237-243]). Kurtak and Jeske (1986) reported the presence of malachite staining and a trace of native copper.

Samples collected from the adit and the surface trenches contained between 50 ppm and 1.3 percent copper and 0.3 to 11 ppm silver (Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

Workings on the prospect consist of a 742-foot-long adit at 950 feet elevation, with 160 feet of crosscuts and a winze. There are also two surface trenches located at 1,200 feet elevation (Johnson, 1914 [B 592-G, p. 237-243]). There is a collapsed cabin below the adit (Kurtak and Jeske, 1986). Samples collected from the adit and surface trenches contained between 50 ppm and 1.3 percent copper and from 0.3 to 11 ppm silver (Kurtak and Jeske, 1986). In 1911, a test shipment of ore was sent to the smelter in Tacoma, Washington, but results are not known (Kurtak and Jeske, 1986). There are 200 tons of ore on the dump.

Production notes:

Reserves:

Kurtak and Jeske (1986) reported that 200 tons of ore was stockpiled on the dump in 1911.

Additional comments:

The mining claims were patented in 1916.

References:

Johnson, 1914 (B 592-G, p. 237-243); Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 11/30/01

Site name(s): Unnamed (south end of Herring Bay)**Site type:** Prospect**ARDF no.:** SR251**Latitude:** 60.4174**Quadrangle:** SR B-2**Longitude:** 147.7253**Location description and accuracy:**

The prospect is located in the S1/2 section 21, T. 4 N., R. 10 E., of the Seward Meridian on the southeast side of the south end of Herring Bay between sea level and 110 feet elevation. This is locations 203 and 204 of Cobb and Tysdal (1980) and location S-76 of Jansons and others (1984). This location is accurate to 300 feet.

Commodities:**Main:** Cu**Other:** Zn**Ore minerals:** Chalcopyrite, pyrite, pyrrhotite, sphalerite**Gangue minerals:** Epidote, quartz**Geologic description:**

The prospect consists of several short adits and a prospect pit that explored thin, discontinuous sulfide veins, stringers, and lenses hosted in sheared greenstone of the Orca Group of early Tertiary age. Sulfide minerals are chalcopyrite, pyrite, pyrrhotite, and sphalerite (Cobb and Tysdal, 1980). A 50-foot adit was driven into fractured greenstone healed with quartz, pyrite, sphalerite, and chalcopyrite (Grant and Higgins, 1909). The prospect pit exposed irregular mineralization consisting of chalcopyrite, sphalerite, and pyrite. Epidote stringers occur in the country rock, but there is no well-defined vein or shear zone associated with these stringers.

Alteration:

Greenstone is altered to epidote.

Age of mineralization:

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

Four workings are described in the literature. Grant and Higgins (1909) described a 25-foot adit that is a quarter of a mile south of the camp and a 50-foot adit. Johnson (1918 [B 662-C, p. 212]) described a 30-foot adit with a 10-foot drift to the north driven at an elevation of 110 feet. He also mentioned a 15-foot-

wide open cut, west of the 30-foot adit. When the U.S. Bureau of Mines searched for this prospect in the early 1980's, they found none of these workings, and they did not collect samples from the area. Improvements on the property were two bunk and mess houses on the beach and a floating dock (Grant and Higgins, 1909). No other information is available.

Production notes:

Reserves:

Additional comments:

References:

Grant and Higgins, 1909; Johnson, 1918 (B 662-C, p. 212); Moffit and Fellows, 1950; Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Grant and Higgins, 1909

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 03/09/02

Site name(s): Malack**Site type:** Prospect**ARDF no.:** SR252**Latitude:** 60.4236**Quadrangle:** SR B-2**Longitude:** 147.7251**Location description and accuracy:**

The prospect is located in the center of section 21, T. 4 N., R. 10 E., of the Seward Meridian. It is on the east shore of the southeast arm of Herring Bay near tidewater. This is location 202 of Cobb and Tysdal (1980), and location S-78 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:****Ore minerals:** Pyrite, pyrrhotite**Gangue minerals:** Epidote, quartz**Geologic description:**

The country rock is pillow basalt altered to greenstone and is part of the Orca Group of early Tertiary age (Cobb and Tysdal, 1980). The greenstone is cut by a 3-foot-wide shear zone that trends N75W and contains as much as 50 percent epidote and 1 percent disseminated pyrrhotite. A short adit is present, and a little pyrite is visible in the dump (Tysdal, 1978 [MF-880-A]). A single chip sample of the shear zone contained 260 ppm copper (Kurtak and Jeske, 1986).

Alteration:

There is epidote alteration of greenstone and pillow basalts (Kurtak and Jeske, 1986).

Age of mineralization:

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

Tysdal (1978 [MF-880-A]) reported a short adit is present, but he gave no further details. A single chip sample of the shear zone contained 260 ppm copper (Kurtak and Jeske, 1986).

Production notes:

Reserves:

Additional comments:

References:

Grant and Higgins, 1909; Condon and Cass, 1958; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/15/00

Site name(s): Sponberg; Sanberg; Simpson**Site type:** Occurrence**ARDF no.:** SR253**Latitude:** 60.2688**Quadrangle:** SR B-2**Longitude:** 147.7232**Location description and accuracy:**

The occurrence is located on the east side of peak 1995 on the north side of Snug Harbor at about 700 feet elevation. It is in the N1/2 section 16, T. 2 N., R. 10 E., of the Seward Meridian. This is location 240 of Tysdal (1978 [MF-880-A]) and location S-39 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:** Pb, Zn**Ore minerals:** Malachite, pyrite**Gangue minerals:****Geologic description:**

The country rock in this area is sedimentary rock of the Orca Group of early Tertiary age (Nelson and others, 1985). The occurrence was first reported by Grant and Higgins (1909) as a map location with no other information. The U.S. Bureau of Mines examined this area in 1981 and found a 4-foot-wide shear zone containing minor pyrite and malachite and a 2-foot wide shear zone containing only minor pyrite. Random chip samples collected contained as much as 110 ppm copper and 53 ppm zinc (Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:**Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production Status:** None**Site Status:** Inactive**Workings/exploration:**

Samples collected from two mineralized shear zones contained as much as 110 ppm copper and 54 ppm zinc (Kurtak and Jeske, 1986).

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

References:

Grant and Higgins, 1909; Tysdal, 1978 (MF-880-A); Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 11/29/01

Site name(s): Unnamed (Knight Island, Snug Harbor)**Site type:** Prospect**ARDF no.:** SR254**Latitude:** 60.2643**Quadrangle:** SR B-2**Longitude:** 147.7186**Location description and accuracy:**

The prospect is located near tidewater on the north side of Snug Harbor, 1.5 miles northwest of Discovery Point (see the 1:250,000 quadrangle for this feature). It is in the NE1/4 section 16, T. 2 N., R. 10 E., of the Seward Meridian. This is location 241 of Tysdal (1978 [MF-880-A]) and location S-38 of Jansons and others (1984). This location is accurate to 300 feet.

Commodities:**Main:** Cu, Zn**Other:****Ore minerals:** Chalcopyrite, pyrrhotite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

The prospect consists of a shear zone in slate and graywacke of the Orca Group of early Tertiary age; the shear zone contains lenses of massive sulfide along with quartz veins (Nelson and others, 1985; Kurtak and Jeske, 1986). The shear zone is 3 to 5 feet wide; it trends N20E and dips steeply northwest. The surface exposure is strongly iron-stained. Sulfides consist of pyrrhotite, chalcopyrite, and sphalerite that are, along with quartz, in fractures and brecciated zones (Kurtak and Jeske, 1986). Workings on the prospect consist of a 70-foot-long adit that appears to parallel the trend of the mineralized zone for 55 feet, then crosscuts it. A single sample from the adit contained 110 ppm copper and 53 ppm zinc. An 8-foot chip sample collected from the iron-stained shear zone at the mouth of the adit contained 0.37 percent copper and 0.82 percent zinc (Kurtak and Jeske, 1986).

Alteration:

There is considerable limonite staining in the surface exposure of the shear zone.

Age of mineralization:

Tertiary or younger; the occurrence is in rocks of the Orca Group of Tertiary age.

Deposit model:

Besshi massive sulfide (Cox and Singer, 1986; model 24b)

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

24b

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

Workings on the prospect consist of a 70-foot-long adit that appears to parallel the trend of the mineral-

ized zone for 55 feet, then crosscuts it. A single sample from the adit contained 110 ppm copper and 53 ppm zinc. An 8-foot chip sample from the iron-stained shear zone at the mouth of the adit, contained 0.37 percent copper and 0.82 percent zinc (Kurtak and Jeske, 1986).

Production notes:

Reserves:

Additional comments:

References:

Grant and Higgins, 1909; Johnson, 1918 (B 662-C, p. 218-219); Moffit and Fellows, 1950; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/18/01

Site name(s): Alhambra; U and I; Ura**Site type:** Prospect**ARDF no.:** SR255**Latitude:** 60.3158**Quadrangle:** SR B-2**Longitude:** 147.7123**Location description and accuracy:**

The prospect is located about a half-mile southeast of the head of Northeast Cove at an elevation of about 600 feet. It is in the SE1/4 section 28, T. 3 N., R. 10 E., of the Seward Meridian. This is location 227 of Cobb and Tysdal (1980) and location S-54 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:****Ore minerals:** Pyrite**Gangue minerals:** Quartz**Geologic description:**

The country rock is greenstone of the Orca Group of early Tertiary age that locally encloses shale and slate units (Nelson and others, 1985). Workings on the prospect consist of two adits, 60 and 100 feet in length, and four open cuts (Johnson, 1918 [B 662-C, p. 218]). When the U.S. Bureau of Mines visited the prospect in the early 1980's, they located only two open cuts. These open cuts contained limonite-stained shale and thin quartz veinlets with minor amounts of pyrite. Chip samples from the two open cuts contained 44 and 68 ppm copper (Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the occurrence is in rocks of the Orca Group of Tertiary age.

Deposit model:

Besshi massive sulfide (Cox and Singer, 1986; model 24b)

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

24b

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

Johnson (1918 [B 662-C, p. 218]) reported two adits, 60 and 100 feet in length, and four small open cuts. When the U.S. Bureau of Mines visited the prospect in the early 1908's, they located only two open cuts. Two chip samples from the open cuts contained 44 and 68 ppm copper (Kurtak and Jeske, 1986). No improvements were reported.

Production notes:

Reserves:

Additional comments:

References:

Johnson, 1918 (B 662-C, p. 218); Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 03/09/01

Site name(s): Unnamed (west shore of South Arm)**Site type:** Occurrence**ARDF no.:** SR256**Latitude:** 60.3763**Quadrangle:** SR B-2**Longitude:** 147.7108**Location description and accuracy:**

The occurrence is located near tidewater on the west shore of South Arm of Bay of Isles. It is in the SE1/4 section 4, T. 3 N., R. 10 E., of the Seward Meridian. This is location 209 of Tysdal (1978 [MF-880-A]) and location S-70 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:** Ba?**Ore minerals:** Chalcopyrite, pyrite, pyrrhotite**Gangue minerals:** Chert**Geologic description:**

The occurrence consists of a thin chert lens a few feet long surrounded by graywacke (Kurtak and Jeske, 1986). Nelson and others (1985) mapped this area as Orca Group of early Tertiary age. As much as 1 percent pyrite is concentrated at the chert and graywacke contact (Richter, 1965). Tysdal (1978 [MF-880-A]) indicated that chalcopyrite and pyrrhotite occurred in the shale (not graywacke) at its contact with the chert lens. A single sample from the mineralized graywacke contained 125 ppm copper and 481 ppm barium (Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the occurrence is in rocks of the Orca Group of Tertiary age.

Deposit model:

Besshi massive sulfide (Cox and Singer, 1986; model 24b)

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

24b

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

A single sample from the mineralized graywacke contained 125 ppm copper and 481 ppm barium (Kurtak and Jeske, 1986). No workings or improvements are reported in the literature.

Production notes:**Reserves:**

Additional comments:

This occurrence is not of economic significance, but it is a good example of structural control of ore deposits.

References:

Richter, 1965; Tysdal, 1978 (MF-880-A); Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/06/01

Site name(s): Unnamed (east side of Knight Island)**Site type:** Occurrence**ARDF no.:** SR257**Latitude:** 60.2839**Quadrangle:** SR B-2**Longitude:** 147.7080**Location description and accuracy:**

The occurrence is located near tidewater, about 3 miles southwest of the mouth of Marsha Bay. It is in the NW1/4 section 10, T. 2 N., R. 10 E., of the Seward Meridian. This is location 141 of MacKevett and Holloway (1977), location 239 of Cobb and Tysdal (1980), and location S-41 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu, Zn**Other:****Ore minerals:** Chalcopyrite, pyrrhotite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

The country rock is slate, graywacke, and greenstone of the Orca Group of early Tertiary age (Nelson and others, 1985). Greenstone encloses slate lenses less than 50 feet long and more than 20 feet wide. These lenses contain as much as 1 percent chalcopyrite. A 25-foot-wide tuffaceous zone in the greenstone contains as much as 5 percent chalcopyrite (Kurtak and Jeske, 1986). A greenstone-slate breccia zone with a quartz matrix contained a trace of chalcopyrite. Tysdal (1978 [MF-880-A]) reported one mineralized zone, 7.5 meters wide and 9 meters long, containing quartz, chalcopyrite, pyrrhotite, and sphalerite.

A 20-foot-wide random chip sample of a 20-foot-wide mineralized slate lens contained 480 ppm copper and 580 ppm zinc. A 25-foot-wide random chip sample of the tuffaceous zone contained 0.24 percent copper and 1.1 percent zinc (Kurtak and Jeske, 1986). The greenstone-slate breccia zone was not sampled.

Alteration:

Greenstone is altered basalt.

Age of mineralization:

Tertiary or younger; the occurrence is in rocks of the Orca Group of Tertiary age.

Deposit model:

Besshi massive sulfide (Cox and Singer, 1986; model 24b)

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

24b

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

A 20-foot-wide random chip sample of the mineralized slate unit contained 480 ppm copper and 580 ppm

zinc. A 25-foot-wide random chip sample of the tuffaceous zone contained 0.24 percent copper and 1.1 percent zinc (Kurtak and Jeske, 1986). The greenstone-slate breccia zone was not sampled. No workings or improvements are reported.

Production notes:

Reserves:

Additional comments:

References:

MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 09/09/01

Site name(s): Pandora**Site type:** Prospect**ARDF no.:** SR258**Latitude:** 60.3571**Quadrangle:** SR B-2**Longitude:** 147.7055**Location description and accuracy:**

The prospect is located at an elevation of 350 feet on the south side of the unnamed creek that drains into the South Arm of Bay of Isles. It is in the NW1/4 section 15, T. 3 N., R. 10 E., of the Seward Meridian. This is location 20 of Condon and Cass (1958), location 100 of Cobb and Richter (1972), location 128 of MacKevett and Holloway (1977), location 210 of Cobb and Tysdal (1980), and location S-65 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Cu, Zn**Other:****Ore minerals:** Chalcopyrite, cubanite, pyrite, pyrrhotite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

The prospect consists of parallel mineralized shear zones that strike N10E and dip 70 to 80W (Kurtak and Jeske, 1986). Individual zones as much as 15 feet wide enclose lenses of unsheared greenstone and form an aggregate width of 90 feet. The shear zones are traceable for about 6 miles along strike. The sheared rock is chloritized greenstone schist that is locally brecciated (Kurtak and Jeske, 1986). The greenstone is mapped as Orca Group of early Tertiary age (Nelson and others, 1985). Sulfide minerals in the zone are chalcopyrite, pyrite, pyrrhotite, cubanite, and sphalerite (Cobb and Tysdal, 1980). Workings on the prospect consist of a 96-foot-deep shaft, an adit with two drifts totalling more than 150 feet, and a 100-foot-long open cut near the collar of the shaft. Poy (1926) reported that the mineralization averaged 2.2 percent copper over a width of 18 feet in the underground drifts. Samples from the surface cut contained from 38 ppm to 4.0 percent copper and from trace to 6.0 ppm silver. Some ore was shipped from the property in 1908 (Kurtak and Jeske, 1986).

Alteration:

Greenstone has been chloritized.

Age of mineralization:

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

Production Status: Undetermined.**Site Status:** Inactive

Workings/exploration:

The property was developed by a 96-foot-deep shaft, an adit with two drifts totalling more than 150 feet, and a 100-foot-long open cut near the collar of the shaft (Johnson, 1916; Kurtak and Jeske, 1986). Poy (1926) reported that the mineralization averaged 2.2 percent copper over a width of 18 feet in the underground drifts. The shaft is currently flooded (Kurtak and Jeske, 1986). Samples from the surface cut contained from 38 ppm to 4.0 percent copper and from trace to 6.0 ppm silver (Kurtak and Jeske, 1986).

Production notes:

In 1908, a small but unknown amount of ore was shipped (Kurtak and Jeske, 1986).

Reserves:

Poy (1926) inferred a reserve of 85,000 tons of ore containing 1.31 percent copper and 5.4 percent iron. Rogers and Hoyt (1999) reported a reserve of 85,000 tons containing 2,040,000 pounds of copper, 425 ounces of gold and 8,500 ounces of silver.

Additional comments:

Patent was applied for in 1924.

References:

Grant and Higgins, 1909; Brooks, 1912; Johnson, 1916; Johnson, 1918 (B 662-C, p. 213); Johnson, 1919 (B 692-C, p. 146); Poy, 1926; Moffit and Fellows, 1950; Condon and Cass, 1958; Richter, 1965; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/07/01

Site name(s): Snowstone Group; Wallace, McPherson, Valentine**Site type:** Prospect**ARDF no.:** SR259**Latitude:** 60.4093**Quadrangle:** SR B-2**Longitude:** 147.6864**Location description and accuracy:**

The prospect is located about a quarter of a mile from tidewater on the north side of Bay of Isles at an elevation of 200 feet. It is in the NE1/4 section 27, T. 4 N., R. 10 E., of the Seward Meridian. This is location 206 of Cobb and Tysdal (1980) and location S-74 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:** Zn**Ore minerals:** Chalcopyrite, pyrite,pyrrhotite**Gangue minerals:** Quartz**Geologic description:**

The prospect is described as gabbro dikes cutting greenstone (Kurtak and Jeske, 1986). The dikes contain disseminated magnetite and a trace of pyrrhotite. Two adits are present; one is 55 feet and the other is 25 feet in length. Both adits were driven on the contact between the dikes and greenstone of the Orca Group of early Tertiary age (Grant and Higgins, 1909; Cobb and Tysdal, 1980; Nelson and others, 1985). Two random chip samples collected from the greenstone and a gabbro dike contained less than 100 ppm base metals (Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

Workings consist of two adits; one is 55 feet long and the other is 25 feet in length. Both adits were driven on the contact between the gabbro dikes and greenstone of the lower Tertiary Orca Group (Grant and Higgins, 1909; Cobb and Tysdal, 1980; Nelson and others, 1985). Two random chip samples collected from the greenstone and a gabbro dike contained less than 100 ppm base metals (Kurtak and Jeske, 1986).

Production notes:

Reserves:

Additional comments:

References:

Grant and Higgins, 1909; Condon and Cass, 1958; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/07/01

Site name(s): Louis Bay**Site type:** Prospect**ARDF no.:** SR260**Latitude:** 60.4381**Quadrangle:** SR B-2**Longitude:** 147.6852**Location description and accuracy:**

The prospect is located in the E1/2 section 15, T. 4 N., R. 10 E., of the Seward Meridian. The prospect consists of two adits; the lower adit is between elevations of 510 feet to 600 feet and the upper adit is between 830 to 900 feet elevation. This is location 199 of Cobb and Tysdal (1980) and location S-81 of Jansons and others (1984). This location is accurate to 1,000 feet.

Commodities:**Main:** Cu**Other:** Ag?, Pb, Zn**Ore minerals:** Chalcopyrite, pyrite, pyrrhotite, sphalerite**Gangue minerals:** Chlorite, epidote, quartz**Geologic description:**

The country rock in the area of the prospect is greenstone and pillow basalt of the Orca Group of early Tertiary age (Cobb and Tysdal, 1980). The greenstone strikes N20 to 45E and dips nearly vertical. The workings consist of two adits that follow a north-trending, 4-foot-wide shear zone that dips nearly vertical. The lower adit is at about 640 feet elevation, and the upper adit is at about 1,000 feet elevation. Pyrrhotite and chalcopyrite are the dominant sulfides in the zone; pyrite and sphalerite are subordinant. Gangue minerals identified include quartz, chlorite, and epidote (Kurtak and Jeske, 1986).

Nine samples collected from all four adits by the U.S. Bureau of Mines contained between 25 ppm and 3.25 percent copper and from 0.3 to 14 ppm silver. The highest grade copper sample was a 10-foot-wide chip sample of a massive sulfide lens that is exposed in the 1,000 foot elevation adit. It contained 3.25 percent copper and 12.4 ppm silver (Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

The workings consist of two adits that follow a north-trending, 4-foot-wide shear zone that dips nearly

vertical. The lower adit is at about 640 feet elevation and the upper adit is at about 1000 feet elevation. The lower adit is collapsed; it was 165 feet long (Grant and Higgins, 1909; Kurtak and Jeske, 1986). The upper adit is about 75 feet long and has a 15-foot crosscut and a flooded winze of unknown depth (Kurtak and Jeske, 1986). There also two short adits west of the main shear zone; they follow another north-trending vertical shear zone. A 28-foot adit is at 1040 feet elevation, and there is a 6-foot adit at the 680 foot elevation. Improvements include a small steam sawmill, an electric plant, and a main camp near the beach (Moffit and Fellows, 1950).

Nine samples collected from all four adits by the U.S. Bureau of Mines contained between 25 ppm and 3.25 percent copper and from 0.3 to 14 ppm silver. The highest grade copper sample was a 10 foot-wide chip sample of a massive sulfide lens that is exposed in the 1,000 foot elevation adit; it contained 3.25 percent copper and 12.4 ppm silver (Kurtak and Jeske, 1986).

Production notes:

Reserves:

Additional comments:

References:

Grant and Higgins, 1909; Grant and Higgins, 1910 (B 443); Johnson, 1918 (B 662-C, p. 211-212); Moffit and Fellows, 1950; Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/15/00

Site name(s): Unnamed (south shore of Marsha Bay)**Site type:** Prospect**ARDF no.:** SR261**Latitude:** 60.3263**Quadrangle:** SR B-2**Longitude:** 147.6848**Location description and accuracy:**

The prospect is located near tidewater on the south shore of Marsha Bay. It is in the NE1/4 section 27, T. 3 N., R. 10 E., of the Seward Meridian. This is location 106 of Cobb and Richter (1972), location 131 of MacKevett and Holloway (1977), location 215 of Tysdal (1978 [MF-880-A]), and location S-55 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:** Ag**Ore minerals:** Chalcopyrite, pyrite**Gangue minerals:** Quartz**Geologic description:**

The country rock in this area is greenstone of the Orca Group of early Tertiary age (Nelson and others, 1985). The prospect consists of a 12-inch-wide, silicified, sheared greenstone containing disseminated pyrite and pyrrhotite with chalcopyrite blebs in the wallrock. Workings on the prospect consisted of two open cuts (Richter, 1965). A random chip sample from chalcopyrite-bearing greenstone contained 1.42 percent copper and 4.9 ppm silver (Kurtak and Jeske, 1986).

Alteration:

Sheared greenstone at the prospect is silicified (Kurtak and Jeske, 1986).

Age of mineralization:

Tertiary or younger; the occurrence is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

Workings on the prospect consist of two open cuts (Richter, 1965). A random chip sample from chalcopyrite-bearing greenstone contained 1.42 percent copper and 4.9 ppm silver (Kurtak and Jeske, 1986).

Production notes:

Reserves:

Additional comments:

References:

Richter, 1965; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 03/09/01

Site name(s): Singletary**Site type:** Occurrence**ARDF no.:** SR262**Latitude:** 60.4671**Quadrangle:** SR B-2**Longitude:** 147.6813**Location description and accuracy:**

The occurrence is located in the NE1/4 section 3, T. 4 N., R. 10 E., of the Seward Meridian. It is near tidewater on the west side of Louis Bay.

This is location 197 of Tysdal (1978 [MF-880-A]) and location S-83 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:****Ore minerals:** Chalcopyrite, pyrite**Gangue minerals:** Quartz**Geologic description:**

The occurrence was first mentioned on plate IV of Grant and Higgins (1909) with no other information. The country rock is pillow basalt and greenstone of the Orca Group of early Tertiary age (Nelson and others, 1985). The U.S. Bureau of Mines examined this area and found a copper-stained shear zone. Two random chip samples from the shear zone and from pillow basalt contained 43 to 155 ppm copper and 180 to 230 ppm zinc, respectively (Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

There are no reported workings or any signs of prospecting (Kurtak and Jeske, 1986). Two random chip samples were collected; one from the shear zone and one from pillow basalt. The sheared greenstone sample contained 155 ppm copper and 180 ppm zinc; the basalt sample contained 43 ppm copper and 230 ppm zinc (Kurtak and Jeske, 1986).

Production notes:

Reserves:

Additional comments:

References:

Grant and Higgins, 1909; Tysdal, 1978 (MF-880-A); Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/12/00

Site name(s): Unnamed (northwest of Otter Lake)**Site type:** Prospect**ARDF no.:** SR263**Latitude:** 60.4342**Quadrangle:** SR B-2**Longitude:** 147.6771**Location description and accuracy:**

The prospect is located in the SW1/4 section 14, T. 4 N., R. 10 E., of the Seward Meridian. This is about 1.2 miles northwest of Otter Lake. A 5-foot adit was driven into a cliff face at 1,300 feet elevation. This is location 122 of MacKevett and Holloway (1977), location 200 of Cobb and Tysdal (1980), and location S-80 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:** Zn?**Ore minerals:** Chalcopyrite?, pyrite**Gangue minerals:****Geologic description:**

The country rock in the area consists of greenstone and pillow basalt of the Orca Group of early Tertiary age (Cobb and Tysdal, 1980). The greenstone strikes N10-25W and dips nearly vertical. A 5-foot adit cuts an iron-stained zone that contains less than 1 percent pyrite (Kurtak and Jeske, 1986). A single random chip sample of the iron-stained zone contained 145 ppm copper and 65 ppm zinc (Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

Workings consist of a single 5-foot adit driven into a cliff to investigate an iron-stained zone (Kurtak and Jeske, 1986). A single random chip sample of the iron-stained zone contained 145 ppm copper and 65 ppm zinc (Kurtak and Jeske, 1986).

Production notes:**Reserves:**

Additional comments:

References:

Grant and Higgins, 1909; Condon and Cass, 1958; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/15/00

Site name(s): Unnamed (east of Marsha Bay)**Site type:** Prospect**ARDF no.:** SR264**Latitude:** 60.3455**Quadrangle:** SR B-2**Longitude:** 147.6746**Location description and accuracy:**

The prospect is located near tidewater on the east shore of Marsha Bay. It is in the SW1/4 section 14, T. 3 N., R. 10 E., of the Seward Meridian. This is location 214 of Tysdal (1978 [MF-880-A]) and location S-66 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:****Ore minerals:** Chalcopyrite, pyrite, pyrrhotite**Gangue minerals:** Quartz**Geologic description:**

The prospect consists of a 3-foot-wide mineralized dike that crosscuts sheared greenstone and chert of the Orca Group (Richter, 1965). The age of the dike is unknown. The dike contains disseminated pyrrhotite, pyrite, and chalcopyrite. Three samples of sheared greenstone and two of a basalt dike contained from 65 to 150 ppm copper and from 63 to 130 ppm zinc (Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

Richter (1965) reported a small prospect pit, but it was not located by the U.S. Bureau of Mines when they investigated the prospect in the early 1980's. Three samples of sheared greenstone and two of a basalt dike contained from 65 to 150 ppm copper and from 63 to 130 ppm zinc (Kurtak and Jeske, 1986).

Production notes:**Reserves:**

Additional comments:

References:

Richter, 1965; Tysdal, 1978 (MF-880-A); Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Richter, 1965

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/06/01

Site name(s): Von Gruenther; Malack**Site type:** Prospect**ARDF no.:** SR265**Latitude:** 60.4603**Quadrangle:** SR B-2**Longitude:** 147.6738**Location description and accuracy:**

The prospect is located in the SW1/4 section 2, T. 4 N., R. 10 E., of the Seward Meridian. It is located on the south end of Louis Bay, 4 to 15 feet above sea level. This is location 198 of Tysdal (1978 [MF-880-A]) and location S-82 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:****Ore minerals:** Chalcopyrite, malachite, pyrite**Gangue minerals:** Epidote, quartz**Geologic description:**

The prospect consists of three shear zones that strike N50E and dip 65-75S. The shear zones cut greenstone and are cemented by quartz-epidote-sulfide veins (Kurtak and Jeske, 1986). The greenstone is part of the Orca Group of early Tertiary age (Nelson and others, 1985). Two 10-foot-long adits are driven on two of the shear zones, which are about 20 feet apart. An 14-foot-long open cut follows the third shear zone.

The southernmost adit follows a 2- to 8-inch-wide quartz vein for 15 feet. The vein contains epidote, pyrite, and a small amount of chalcopyrite. The north adit follows a 6- to 8-inch-wide breccia zone for 12 feet. It contains chalcopyrite, malachite, and pyrite. The open cut exposes a 6-inch-wide breccia zone that is cemented by quartz, pyrite, and chalcopyrite. The hanging wall of this zone is silicified for about 2 feet. Random chip samples collected from the adits and surface exposures contained from 200 ppm to 1.9 percent copper and from 0.3 to 6.3 ppm silver. The random chip sample containing 1.9 percent copper was from greenstone breccia with quartz epidote veins and visible chalcopyrite and a trace of malachite. (Kurtak and Jeske, 1986).

Alteration:

Silicification and epidotization are reported, but no details are provided (Kurtak and Jeske, 1986).

Age of mineralization:

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

Production Status: None**Site Status:** Inactive

Workings/exploration:

Workings on the prospect consist of two 10-foot adits and a 14-foot open cut. Samples collected from the adits and the open cut by the U.S. Bureau of Mines contained between 200 ppm and 1.9 percent copper. The random chip sample containing 1.9 percent copper was from greenstone breccia with quartz epidote veins and visible chalcopyrite with a trace of malachite (Kurtak and Jeske, 1986).

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

Johnson, 1918 (B 662-C, p. 211-212); Condon and Cass, 1958; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/15/00

Site name(s): H.A.**Site type:** Occurrence**ARDF no.:** SR266**Latitude:** 60.3710**Quadrangle:** SR B-2**Longitude:** 147.6698**Location description and accuracy:**

The occurrence is located south of the head of Short Arm of Bay of Isles. It is in the NW1/4 section 11, T. 3 N., R. 10 E., of the Seward Meridian. This is location S-69 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu?**Other:****Ore minerals:****Gangue minerals:****Geologic description:**

The country rock in this area is Orca Group of early Tertiary age and consists of basalt dikes and sills intruding slate and sandstone (Nelson and others, 1985; Kurtak and Jeske, 1986). No other published information is available.

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:**Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production Status:** None**Site Status:** Inactive**Workings/exploration:**

No workings or assay results have been reported. The U.S. Bureau of Mines searched for this occurrence in the early 1980's but did not find any signs of prospecting or any mineralized occurrence.

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

A mining claim was filed here in 1970 (Kurtak and Jeske, 1986).

References:

Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/19/01

Site name(s): Unnamed (Disk Island)**Site type:** Prospect**ARDF no.:** SR267**Latitude:** 60.4860**Quadrangle:** SR B-2**Longitude:** 147.6565**Location description and accuracy:**

The prospect is located in the NW1/4 section 35, T. 5 N., R. 10 E., of the Seward Meridian. It is situated at sea level on the southwest shore of Disk Island. This is location 92 of Cobb and Richter (1972), location 120 of MacKevett and Holloway (1977), location 196 of Cobb and Tysdal (1980), and location S-084 of Jansons and others (1984). This location is accurate to within a quarter of a mile. This description includes other copper-stained breccia zones near the prospect and exposed along the beach for about 2 miles.

Commodities:**Main:** Cu**Other:****Ore minerals:** Chalcopyrite, pyrite, pyrrhotite**Gangue minerals:** Epidote, quartz**Geologic description:**

The prospect consists of a 10-foot-long adit driven on a greenstone breccia zone that is as much as 4.5 feet wide, strikes N55W, and dips 75E (Johnson, 1918 [B 662, p. 211]). The zone is traceable for about 50 feet. It is healed by quartz and epidote and contains as much as 5 percent pyrite and traces of chalcopyrite (Kurtak and Jeske, 1986). Several other mineralized zones within greenstone and pillow basalt of the Orca Group (of early Tertiary age) occur on the south side of Disk Island (Cobb and Tysdal, 1980; Nelson and others, 1985). Sulfide minerals in these zones are pyrite, pyrrhotite, and a trace of chalcopyrite, which is irregularly distributed throughout the breccia, shear, and fracture zones. The largest of these zones is a 15-by-40-foot exposure of intensely fractured pillow flow containing an estimated trace of chalcopyrite and 5 percent pyrite; the pyrite occurs as blebs, fracture fillings, and fine disseminations. Copper-stained, fractured and brecciated zones are exposed along the beach in this general area for about 2 miles. Nine samples collected from the adit and from various zones along the beach contained from 58 ppm copper to 0.43 percent copper and from 50 ppm to 0.81 percent zinc (Kurtak and Jeske, 1986). The adit sample contained the highest copper value.

Alteration:

Silicification and epidotization are reported, but no details are provided (Johnson, 1918 [B 662, p. 211]).

Age of mineralization:

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

Production Status: None

Site Status: Inactive

Workings/exploration:

The workings consist of a single 10-foot-long adit driven on a greenstone breccia zone that is as much as 4.5 feet wide, strikes N55W and dips 75E (Johnson, 1918 [B 662-C, p. 211]). Nine samples collected from the adit and from various zones along the beach contained from 58 ppm copper to 0.43 percent copper and from 50 ppm to 0.81 percent zinc (Kurtak and Jeske, 1986). The adit sample contained the highest copper value.

Production notes:

Reserves:

Additional comments:

References:

Johnson, 1918 (B 662-C, p. 211); Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/09/00

Site name(s): Unnamed (north shore of Bay of Isles, Knight Island)**Site type:** Prospect**ARDF no.:** SR268**Latitude:** 60.4148**Quadrangle:** SR B-2**Longitude:** 147.6519**Location description and accuracy:**

The prospect is located near tidewater near an unnamed creek that drains Otter lake. It is in the NE1/4 section 26, T. 4 N., R. 10 E., of the Seward Meridian. This is location 95 of Cobb and Richter (1972), location 125 of MacKevett and Holloway (1977), location 205 of Tysdal (1978 [MF-880-A]), and location S-75 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:****Ore minerals:** Chalcopyrite, pyrite, pyrrhotite**Gangue minerals:** Epidote, quartz**Geologic description:**

The country rock in the area is composed of mafic rock that varies in composition and texture from fine-grained greenstone to diabase or gabbro. Some of the gabbro contains pyrrhotite, and a massive pyrite pod was found in a diabase dike. The pyrite pod is 0.2 by 2 feet in size. In another area gabbro enclosed a quartz pod about 10 feet in diameter that contains pyrrhotite and epidote stringers. Nelson and others (1985) mapped the bedrock as Orca Group of early Tertiary age.

Workings on the prospect consist of a 30-foot-long adit that trends N20W and is a few feet above sea level (Richter, 1965). The U.S. Bureau of Mines did not locate the reported adit, so they collected samples from the rock in the area. One sample was collected from gabbro and one from greenstone containing pyrrhotite blebs and quartz and epidote veinlets. Each contained less than 100 ppm base metals (Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

Workings on the prospect consist of a 30-foot-long adit a few feet above sea level that trends N20W

(Richter, 1965). The U.S. Bureau of Mines did not locate the reported adit, so they collected samples from the rock in the area (Kurtak and Jeske, 1986). One sample was collected from gabbro and one from greenstone containing pyrrhotite blebs and quartz and epidote veinlets. Each sample contained less than 100 ppm base metals (Kurtak and Jeske, 1986).

Production notes:

Reserves:

Additional comments:

References:

Richter, 1965; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Richter, 1965

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 03/09/02

Site name(s): Copper Bullion; Rua Cove; Iron Bullion Nos. 1-3; Bullion Nos. 1-16**Site type:** Prospect**ARDF no.:** SR269**Latitude:** 60.3524**Quadrangle:** SR B-2**Longitude:** 147.6498**Location description and accuracy:**

The prospect is located on the north side of an unnamed creek that drains into Rua Cove. There are workings present from an elevation of 170 feet to an elevation of 1,200 feet. The prospect is in the NW1/4 section 13, T. 3 N., R. 10 E., of the Seward Meridian. This is location 213 of Cobb and Tysdal (1980) and location S-67 of Jansons and others (1984). This location is accurate to within 300 feet. The mine symbol on the 1:63,360-scale B-2 topographic map is this prospect.

Commodities:**Main:** Ag, Au, Cu**Other:** Zn**Ore minerals:** Chalcopyrite, pyrrhotite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

Bedrock at this prospect is greenstone surrounded by shale and graywacke; all these rocks are part of the Orca Group of early Tertiary age (Cobb and Tysdal, 1980). The greenstones are cut by a N15E-trending shear zone that dips from 60W to 80E but in most places is vertical to 80W (Stefansson and Moxham, 1946). Massive sulfide bodies consisting of pyrrhotite and chalcopyrite occur within the zone and along the walls. Within the zone, greenstone contains disseminated sulfides with lenses of massive sulfides (Stefansson and Moxham, 1946). Most of the largest sulfide lens is 30 to 50 feet wide, and parts of it reach 100 feet wide. The strike length of the largest sulfide lens is about 400 feet. Its down-dip extension determined by drilling is more than 500 feet (Stefansson and Moxham, 1946). A magnetic survey indicated that there are two large unexplored anomalies, one to the north and one to the south (Richter, 1965). Both bodies are on strike with the deposit.

Bedrock exposed in the workings consists of three distinct types of greenstone. The results of a thin-section study by Stefansson and Moxham (1946) indicated that probably the most abundant type is fine-grained, greenish to black rock. That rock originally consisted of feldspar microlites, small grains of augite, and perhaps some ilmenite. These minerals have been altered to chlorite, prehnite, clinozoisite, and leucoxene. The second type is a blocky dark-gray porphyritic rock that locally shows pillow structures. In thin section this greenstone consists of large phenocrysts of labradorite in a groundmass of altered glass (palagonite). The rims of the pillows are glassy. The third type of greenstone is a medium-grained, gray-green rock with a composition of quartz diorite. Euhedral augite is distributed in a groundmass of labradorite or andesite and quartz.

Alteration:

Basalt is altered to greenstone.

Age of mineralization:

Tertiary or younger; the occurrence is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

Development on the prospect consists of two adits. The main adit at an elevation of 320 feet has a total of 2,420 feet of drifts and crosscuts. The second adit is 600 feet southeast of the main adit at an elevation of 170 feet; it is 590 feet long.

Several buildings were built on the site over the years, but only one is still standing (Kurtak and Jeske, 1986). Power was generated onsite by both a water-powered generator and by diesel generators (Kurtak and Jeske, 1986).

The property was explored by drilling in 1929-30, 1948-49, 1972-73, and 1976. Some drill core remains on the site (Kurtak and Jeske, 1986). Geophysical exploration in 1964 by the U.S. Bureau of Mines delineated two untested anomalies (Kurtak and Jeske, 1986). Geochemical surveys were done by Texasgulf in 1976-77. Sampling and drill results indicated a resource of 1,988,000 tons of ore with a grade of 0.57 percent copper, 42.4 percent iron, 0.005 ounce of gold per ton, and 0.1 ounce of silver per ton. (Kurtak and Jeske, 1986). Production consisted of 1,000 pounds of ore shipped for testing in 1909.

Production notes:

Grant and Higgins (1909) reported 1,000 pounds of ore shipped for testing. The test shipment contained 1.68 percent copper, 47.9 percent iron, 31.5 percent sulfur, and 15 percent SiO₂ (Grant and Higgins, 1909).

Reserves:

Stefansson and Moxham (1946) reported measured reserves are 25,000 tons of 1.25 percent copper and indicated and inferred resources of 1.3 million tons of ore at a grade of 1.25 percent copper. Rutledge (1953) calculated indicated and inferred resource of 592,000 tons at 1.24 percent copper or 1,988,000 tons of ore with a grade of 0.57 percent copper. Additional commodities include 42.4 percent iron, 0.005 ounce of gold per ton, and 0.1 ounce of silver per ton (Kurtak and Jeske, 1986). Rogers and Hoyt (1999) estimate a reserve for the prospect of 1,320,000 tons of ore containing 1.2 percent copper and 132,000 ounces of silver.

Additional comments:

This prospect is owned by Chugach Alaska Corporation.

References:

Grant and Higgins, 1909; Grant and Higgins, 1910 (B 443); Grant, 1910; Johnson, 1918 (B 662-C, p. 213-214); Johnson, 1919 (B 692-C, p. 145); Martin, 1919; Brooks, 1921; Brooks, 1922; Brooks, 1923; Brooks and Capps, 1924; Brooks, 1925; Smith, 1926; Smith, 1930 (B 813-A); Smith, 1932; Smith, 1933 (B 836-A); Stefansson and Moxham, 1946; Rutledge, 1953; Moffit, 1954; Condon and Cass, 1958; Richter, 1965; Berg and Cobb, 1967; Cobb and Richter, 1972; MacKevett and Holloway, 1977; MacKevett and others, 1978; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986; Crow and others, 1992; Rogers and Hoyt, 1999.

Primary reference: Stefansson and Moxham, 1946; Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 01/03/02

Site name(s): Unnamed (north of Rua Bay)**Site type:** Occurrence**ARDF no.:** SR270**Latitude:** 60.3646**Quadrangle:** SR B-2**Longitude:** 147.6224**Location description and accuracy:**

The occurrence is located at tidewater 1.3 miles northeast of Rua Cove. It is in the SE1/4 section 12, T. 3 N., R. 10 E., of the Seward Meridian. This is location 212 Tysdal (1978 [MF-880-A]) and location S-68 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:** Ag**Ore minerals:** Chalcopyrite, pyrite, pyrrhotite**Gangue minerals:****Geologic description:**

The occurrence is an iron-stained zone near the contact between sheared chloritic greenstone and diorite (Kurtak and Jeske, 1986). The diorite contains 1 to 2 percent disseminated chalcopyrite and pyrrhotite. One sulfide-rich zone averaged 9 inches thick and contained as much as 12 percent total sulfides (Kurtak and Jeske, 1986). Numerous shear zones as much as 18 feet thick cut the diorite and greenstone (Tysdal, 1978 [MF-880-A]). The zones trend northwest and dip nearly vertical (Kurtak and Jeske, 1986). Samples from the occurrence contained from 35 ppm to 0.45 percent copper and from 1.6 to 10 ppm silver (Kurtak and Jeske, 1986).

Alteration:

Sheared greenstone is chloritized.

Age of mineralization:

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

Samples from the occurrence contained from 35 ppm to 0.45 percent copper and from 1.6 to 10 ppm silver (Kurtak and Jeske, 1986).

Production notes:

Reserves:

Additional comments:

References:

Tysdal, 1978 (MF-880-A); Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/19/01

Site name(s): Unnamed (on Placer Creek)**Site type:** Occurrence**ARDF no.:** SR271**Latitude:** 60.2491**Quadrangle:** SR A-8**Longitude:** 149.7375**Location description and accuracy:**

The occurrence consists of several mineralized zones near the head of Placer Creek where it drains Lowell Glacier and at an elevation of 1,500 feet. This occurrence is in the E1/2 section 23, T. 2 N., R. 3W., of the Seward Meridian. This is location S-207 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Ag, Au, Cu, Pb, Zn**Other:****Ore minerals:** Chalcopyrite, galena, gold, sphalerite**Gangue minerals:** Quartz**Geologic description:**

The Placer Creek occurrence consists of quartz veins containing massive sulfide pods interbedded with siltstone and calcareous sandstones (Hoekzema and Sherman, 1983). Sulfide minerals include galena, sphalerite, and chalcopyrite. Nelson and others (1985) mapped the bedrock in this area as sedimentary rock of the Valdez Group of Late Cretaceous age.

A single grab sample assayed 0.56 ounce of gold per ton, 11.34 ounces of silver per ton, 1.25 percent copper, 1.75 percent zinc, and 2.6 percent lead (Jansons and others, 1984). No further information is published.

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

A single grab sample assayed 0.56 ounce of gold per ton, 11.34 ounces of silver per ton, 1.25 percent copper, 1.75 percent zinc, and 2.6 percent lead (Jansons and others, 1984). No further information is published.

Production notes:

Reserves:

Additional comments:

The occurrence is located in the Kenai National Moose Range and is closed to mineral entry.

References:

Martin and others, 1915; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 04/30/01

Site name(s): Redman Creek**Site type:** Occurrence**ARDF no.:** SR272**Latitude:** 60.2240**Quadrangle:** SR A-8**Longitude:** 149.6792**Location description and accuracy:**

The occurrence is located in the NE1/4 section 31, T. 2 N., R. 2 W., of the Seward Meridian. It is situated on Redman Creek about 1.4 miles west of Resurrection River at an elevation of 1,300 feet. This is location 88 of Tysdal (1978 [MF-880-A]) and location S-206 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold**Gangue minerals:** Quartz**Geologic description:**

The occurrence consists of three parallel quartz veins totalling 6 feet wide in a 40-foot-wide hematite-limonite-stained zone. Bedrock strikes north and dips 50W. The host rock is slate and sandstone of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). One 6-foot-wide channel sample across the veins contained 0.23 ppm gold (Hoekzema and Sherman, 1983).

Alteration:

Quartz veins occur in a hematite-limonite-stained zone.

Age of mineralization:

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

There are no workings or improvements reported in the literature. One 6-foot-wide channel sample across the veins contained 0.23 ppm gold (Hoekzema and Sherman, 1983).

Production notes:**Reserves:**

Additional comments:

This occurrence is in Kenai Fiords National Park, which is not open to mineral entry.

References:

Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 01/12/01

Site name(s): Resurrection Bay Mining Co.**Site type:** Prospects**ARDF no.:** SR273**Latitude:** 60.0983**Quadrangle:** SR A-7**Longitude:** 149.4463**Location description and accuracy:**

The prospect is located in the SE1/4 section 9, T. 1 S., R. 1 W., of the Seward Meridian. It is in the south end of the town of Seward, near the aqueduct outfall. This is location 90a Cobb and Tysdal (1980) and location S-197 and of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Au**Other:** Cu, Pb, Zn**Ore minerals:** Arsenopyrite, chalcopyrite, galena, gold, pyrite, sphalerite**Gangue minerals:** Calcite, quartz**Geologic description:**

The prospect consists of four adits driven on several quartz-calcite veins within a N50E-striking shear zone. The host rock is slate and sandstone of the Valdez Group of Late Cretaceous age (Tysdal, 1978 [MF-880-A]). Adits were driven at elevations of 10, 70, 120, and 220 feet. The 70-foot-level adit was 100 feet long, and the 120-foot-level adit was 15 feet long. The veins had a maximum width of 3 feet and generally followed jointing. Metallic minerals include arsenopyrite, chalcopyrite, galena, pyrite, and sphalerite; gold is also present (Martin and others, 1915).

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

Workings consist of four adits that occur at elevations of 10, 70, 120, and 220 feet. The 70-foot-level adit has a 10-foot-long winze. The lowest adit is 100 feet long, and the 120-foot-level adit is 15 feet long (Martin and others, 1915). No assay results reported are reported in the literature.

Production notes:

Reserves:

Additional comments:

The workings have been closed and reclaimed by the City of Seward.

References:

Grant and Higgins, 1909; Martin and others, 1915; Berg and Cobb, 1967; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Martin and others, 1915

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/10/01

Site name(s): Northern Light; Tozier-Lane**Site type:** Prospect**ARDF no.:** SR274**Latitude:** 60.1063**Quadrangle:** SR A-7**Longitude:** 149.4439**Location description and accuracy:**

The prospect is located in near the west edge of section 10, T. 1 S., R. 1 W., of the Seward Meridian. The workings are located within the city limits of Seward near the western side. This is location 90b of Cobb and Tysdal (1980) and location S-198 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Au**Other:****Ore minerals:** Arsenopyrite, chalcopyrite, galena, gold, pyrite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

The prospect consists of several quartz veins that follow jointing in massive sandstone. The host rock is slate and sandstone of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). The main working is a 265-foot adit with a winze, at an elevation of 100 feet. One 3- to 14-inch-wide vein strikes N55W and dips 81NE at the portal. A second vein is 10 inches wide; it is located 75 feet north of the portal, and it strikes N57W and dips 85N. A third vein, located south of the portal, strikes N75W and dips 85N; this vein is 8 to 14 inches wide and is traceable along the surface for 200 feet (Grant and Higgins, 1909). Metallic minerals in the veins include arsenopyrite, chalcopyrite, galena, pyrite, and sphalerite; gold is also present (Martin and others, 1915). In addition to the 265-foot adit, there is a 12-foot shaft nearby, as well as two other short adits (Martin and others, 1915). No assay results are reported in the literature.

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

The workings included three adits and a shaft. The upper 265-foot adit with a small winze was at 100 feet elevation. The 12-foot shaft was nearby, and two other short adits were below 100 feet elevation (Martin

and others, 1915). All of these workings have been filled in. No assay results are reported in the literature.

Production notes:

Reserves:

Additional comments:

The property was patented in 1912, and the workings have been filled in. Private homes have been built on the site.

References:

Moffit, 1906; Grant and Higgins, 1909; Martin and others, 1915; Berg and Cobb, 1967; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Martin and others, 1915

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 01/17/02

Site name(s): Last Chance**Site type:** Prospect**ARDF no.:** SR275**Latitude:** 60.1076**Quadrangle:** SR A-7**Longitude:** 149.4424**Location description and accuracy:**

The prospect is located in the NW1/4 section 10, T. 1 S., R. 1 W., of the Seward Meridian. The workings were reported to be within the city limits of Seward about 450 feet northwest of the original high school site (Jasper, 1957). Minor development work was done in 1958 and 1959 (Hoekzema and Sherman, 1983). This is location 89 of Cobb and Tysdal (1980) and location S-199 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Au**Other:****Ore minerals:** Arsenopyrite, gold, pyrite**Gangue minerals:** Quartz**Geologic description:**

The prospect consists of a 60- to 74-inch-wide quartz vein containing arsenopyrite, pyrite, and gold. The vein strikes N50E and dips 85SE (Hoekzema and Sherman, 1983). The bedrock is slate and graywacke of the Valdez Group of Late Cretaceous age (Cobb and Tysdal, 1980). Assays of fourteen samples collected by Jasper (1957) averaged 0.14 ounce of gold per ton. Workings on the prospect in 1941 consisted of a caved adit of unknown length, a collapsed 10- to 18-foot-deep shaft, and a 36-foot-deep shaft (Jasper, 1957).

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

An adit was driven sometime between 1910 and 1915 (Jasper, 1957). Workings on the prospect in 1941 consisted of a caved adit of unknown length, a collapsed 10-to 18-foot-deep shaft, and a 36-foot-deep shaft. Fourteen samples were collected by Jasper (1957); the average grade was 0.14 ounce of gold per ton. Minor development work was done in 1958 and 1959 (Hoekzema and Sherman, 1983).

Production notes:

Reserves:

Additional comments:

The workings have been filled in.

References:

Jasper, 1957; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Jasper, 1957

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/12/00

Site name(s): Grayson Lode**Site type:**

ARDF no.: SR276

Latitude: 60.2470

Quadrangle: SR A-7

Longitude: 149.4185

Location description and accuracy:

The prospect is located on Lost Creek about 700 feet east of the Lost Lake Trail at an elevation of 1,900 feet. It is situated in the SE1/4 section 22, T. 2 N., R. 1 W., of the Seward Meridian. This is location S-208 of Jansons and others (1984). This location is accurate to within 1,000 feet.

Commodities:**Main:** Au**Other:****Ore minerals:** Arsenopyrite**Gangue minerals:** Quartz**Geologic description:**

The prospect consists of a 12-inch-wide vuggy quartz vein with large arsenopyrite crystals (Hoekzema and Sherman, 1983). The vein occurs along a north-south shear zone that can be traced about 150 feet along strike. A small prospect pit and trench explored the vein. Nelson and others (1985) mapped bedrock in this area as slate of the Valdez Group of Late Cretaceous age. A sample collected in 1982 contained 1,850 ppm arsenic and no detectable gold (Hoekzema and Sherman, 1983).

Alteration:**Age of mineralization:**

Cretaceous or younger; the vein cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

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

Workings on the prospect consisted of a small pit and a trench. The U.S. Bureau of Mines collected a grab sample in 1982 that contained 1,850 ppm arsenic and no detectable gold (Jansons and others, 1984).

Production notes:**Reserves:**

Additional comments:

References:

Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 04/25/01

Site name(s): Mile 4; Mile Four Mining Co.**Site type:** Prospect**ARDF no.:** SR277**Latitude:** 60.1714**Quadrangle:** SR A-7**Longitude:** 149.4100**Location description and accuracy:**

The prospect is located in the SW1/4 section 14, T. 1 N., R. 1 W., of the Seward Meridian. It is situated west of mile four of the Alaska Railroad tracts. This is location 87 of Cobb and Tysdal (1980) and location S-201 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au**Other:****Ore minerals:** Arsenopyrite, chalcopyrite, galena, gold, pyrite, pyrrhotite, sphalerite**Gangue minerals:** Calcite, quartz**Geologic description:**

The prospect consists of stringers and lenses of quartz and calcite as much as 43 inches wide. They strike northeast and dip nearly vertically. The sulfide minerals include arsenopyrite, chalcopyrite, galena, pyrrhotite, pyrite, and sphalerite (Johnson, 1912). Gold occurs free in the quartz and is also associated with the sulfides. Gold assay values ranged from \$6.40 to \$1.20 per ton (gold value at \$20.72 per ounce); the higher values came from smaller lenses, which contained galena, sphalerite, and arsenopyrite (Martin and others, 1915). The host rock is slate and sandstone of the Valdez Group of Late Cretaceous age (Tysdal, 1978 [MF-880-A]). Workings on the prospect in 1911 consisted of a 155-foot adit, a 23-foot inclined shaft 3 feet above the adit, and about 75 feet of surface stripping (Martin and others, 1915).

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

Workings on the prospect in 1911 consisted of a 155-foot adit, a 23-foot inclined shaft 3 feet above the adit, and about 75 feet of surface stripping (Martin and others, 1915). Assay results range from \$6.40 to \$1.20 of gold per ton (gold value at \$20.72 per ounce); the higher assay values came from smaller lenses that contained galena, sphalerite, and arsenopyrite (Martin and others, 1915).

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

The literature describes this prospect as located at an elevation of 65 feet, but the lowest elevation in the southern half of section 14 is 200 feet.

References:

Johnson, 1912; Martin and others, 1915; Berg and Cobb, 1967; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Martin and others, 1915

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/15/01

Site name(s): Brewer Alaska; Brewster; Mile Seven; Sevenmile**Site type:** Prospect**ARDF no.:** SR278**Latitude:** 60.2285**Quadrangle:** SR A-7**Longitude:** 149.4080**Location description and accuracy:**

The prospect is located in the SW1/4 section 26, T. 2 N., R. 1 W., of the Seward Meridian. It is situated on the east side of Lost Creek at an elevation of about 1,400 feet. This is location 85 of Cobb and Tysdal (1980) and location S-205 of Jansons and others (1984). Cobb and Tysdal (1980) summarized this prospect under the name Mile Seven. This location is accurate to within a quarter of a mile.

Commodities:**Main:** Ag, Au**Other:** Pb, Zn**Ore minerals:** Arsenopyrite, galena, gold, sphalerite**Gangue minerals:** Calcite, quartz**Geologic description:**

The prospect consists of a 12- to 20-inch-wide quartz-calcite vein that is discontinuously traceable for at least 300 feet. The vein generally parallels the north-south strike of the bedrock and dips steeply to the east (Hoekzema and Sherman, 1983). It is vuggy and has a well-developed ribbon structure. Metallic minerals included arsenopyrite, galena, sphalerite, and gold. The host rock is a blue-black slate of the Valdez Group of Late Cretaceous age (Tysdal, 1978 [MF-880-A]). Workings on the prospect consist of three adits totaling 220 feet in length. The main adit is at an elevation of about 1,400 feet; it consists of a 60-foot crosscut and 110 feet of drift with some stoping. Two short adits with winzes are located about 250 and 750 feet south of the main adit. Improvements included a 2-stamp mill and several cabins (Johnson, 1914 [B 592-G, p. 237-243]).

There is no reported production. Eight assay samples contained between less than 0.1 ppm and 28.5 ppm gold (Hoekzema and Sherman, 1983).

Alteration:**Age of mineralization:**

Cretaceous or younger; the vein cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz vein (Cox and Singer, 1986; model 36a)

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

36a

Production Status: Undetermined.**Site Status:** Inactive**Workings/exploration:**

Workings consist of three adits totalling 220 feet in length. The main adit is at an elevation of about 1,400 feet; it consists of a 60-foot crosscut and 110 feet of drift with some stoping. Two short adits with winzes are located about 250 and 750 feet south of the main adit. Improvements included a 2-stamp mill and several cabins (Johnson, 1914 [B 592-G, p. 237-243]). Eight assay samples taken from the main adit and near the portals of the two short adits, contained between less than 0.1 ppm and 28.5 ppm gold (Hoekzema and Sherman, 1983).

Production notes:

Reserves:

The U.S. Bureau of Mines estimated 1,100 tons of ore containing 0.3 ounce of gold per ton and 0.3 ounce of silver per ton (Hoekzema and Sherman, 1983).

Additional comments:

The gold to silver ratio in the eight samples collected by the U.S. Bureau of Mines is 1:1 (Hoekzema and Sherman, 1983). An indicated resource with a 1:1 gold to silver ratio is suspect.

References:

Brooks, 1913; Brooks, 1914; Johnson, 1914 (B 592-G, p. 237-243); Martin and others, 1915; Berg and Cobb, 1967; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 01/12/01

Site name(s): Homestake Ledge**Site type:** Prospect**ARDF no.:** SR279**Latitude:** 60.2237**Quadrangle:** SR A-7**Longitude:** 149.4007**Location description and accuracy:**

The prospect is located in the N1/2 section 35, T. 2 N., R. 1 W., of the Seward Meridian. It is situated in a small tributary valley of Lost Creek at an elevation of 1,300 feet. This is location S-204 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold, pyrite**Gangue minerals:** Quartz**Geologic description:**

The prospect consists of stringers and lenses of quartz as much as 14 inches wide; they are 3 to 4 feet long in a 2- to 3-foot-wide shear zone that has been exposed by stripping for about 50 feet (Martin and others, 1915). The host rock is slate and sandstone of the Valdez Group of Late Cretaceous age (Tysdal, 1978 [MF-880-A]). The bedrock strikes north-south and dips 80E. Workings consisted of a 45-foot adit and surface stripping (Martin and others, 1915). Two grab samples, a dump sample and a quartz boulder, collected in 1980 and 1982 by the U.S. Bureau of Mines contained between 0.07 and 2.44 ppm gold, respectively (Hoekzema and Sherman, 1983).

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

Workings consist of a 45-foot adit and surface stripping (Martin and others, 1915). Grab samples from the dump and a quartz boulder collected in 1980 and 1982 by the U.S. Bureau of Mines contained between 0.07 and 2.44 ppm gold, respectively (Hoekzema and Sherman, 1983).

Production notes:

Reserves:

Additional comments:

References:

Brooks, 1913; Brooks, 1914; Brooks, 1915; Martin and others, 1915; Berg and Cobb, 1967; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Martin and others, 1915; Hoekzema and Sherman, 1983

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 01/12/01

Site name(s): Mile Seven; Mile 7 1/2**Site type:** Occurrence**ARDF no.:** SR280**Latitude:** 60.2092**Quadrangle:** SR A-7**Longitude:** 149.3918**Location description and accuracy:**

The prospect is located on Lost Creek at an elevation of 700 feet about 1.25 miles west of Bear Lake. It is in the NE1/4 section 2, T. 1 N., R. 1 W., of the Seward Meridian. This is location 85 of Cobb and Tysdal (1980) and location S-203 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Au**Other:** Cu, Pb, Zn**Ore minerals:** Arsenopyrite, chalcopyrite, galena, gold, pyrite, pyrrhotite, sphalerite**Gangue minerals:** Calcite, quartz**Geologic description:**

The prospect consists of iron-stained stringers and lenses of quartz-calcite-sulfide veins that carry arsenopyrite, galena, and sphalerite. The veins are hosted in sheared slate of the Valdez Group of Late Cretaceous age (Tysdal, 1978 [MF-880-A]). The shear zone strikes northeast and dips vertically. Workings consist of 450 feet of underground work and considerable surface stripping (Brooks, 1913). No assay results are reported in the literature.

Alteration:

Veins are iron-stained.

Age of mineralization:

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

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

There are 450 feet of underground workings and considerable surface stripping (Brooks, 1913). No assay results are reported in the literature.

Production notes:**Reserves:**

Additional comments:

This prospect could be an extension of the Brewer Alaska prospect, SR278.

References:

Brooks, 1913; Brooks, 1914; Martin and others, 1915; Berg and Cobb, 1967; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Brooks, 1913

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/07/01

Site name(s): Copper Chief**Site type:** Occurrence**ARDF no.:** SR281**Latitude:** 60.0229**Quadrangle:** SR A-7**Longitude:** 149.2674**Location description and accuracy:**

The occurrence is located in the NW1/4 section 10, T. 2 S., R. 1 E., of the Seward Meridian at an elevation of about 1,250 feet. It is about 0.75 mile northeast of the head Thumb Cove north of the terminus of Spoon Glacier. This is location 99 of Cobb and Tysdal (1980) and location S-190 of Jansons and others (1984). This location is accurate to within half a mile.

Commodities:**Main:** Cu**Other:****Ore minerals:** Chalcopyrite, hematite, pyrite**Gangue minerals:** Epidote, quartz**Geologic description:**

Nelson and others (1985) described the bedrock geology in this area as Valdez Group of Late Cretaceous age. The host rock is pale to leek-green aphyric to porphyritic pillow basalt with subordinate pillow breccia, tuff, and siltstone. The mineralization is confined to a 6-foot-wide shear-breccia zone that strikes N37W and dips 35S. Pyrite, chalcopyrite, hematite, and a little epidote occur in numerous quartz veinlets within the shear zone. Sulfide minerals are disseminated in greenstone near the shear (Grant and Higgins, 1909). No assay results are reported.

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

There are no reported workings, improvements, or assay results.

Production notes:**Reserves:**

Additional comments:

References:

Grant and Higgins, 1909; Martin and others, 1915; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Grant and Higgins, 1909

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 01/02/01

Site name(s): Real Thing**Site type:** Occurrence**ARDF no.:** SR282**Latitude:** 60.0249**Quadrangle:** SR A-7**Longitude:** 149.2624**Location description and accuracy:**

The occurrence located in the NW1/4 section 10, T. 2 S., R. 1 E., of the Seward Meridian. It is situated 1.2 miles northeast of the head of Thumb Cove between Prospect and Spoon Glaciers. It is in the same general vicinity as Copper Chief (SR281). This is location 98 of Cobb and Tysdal (1980) and location S-190 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu, Fe**Other:****Ore minerals:** Chalcopyrite, magnetite, pyrite**Gangue minerals:** Augite, plagioclase**Geologic description:**

The occurrence consists of a 10-foot-wide massive sulfide zone that is 450 to 650 feet long. It contains chalcopyrite with irregular patches of pyrite on one side of the zone and magnetite and chalcopyrite on the other side (Cobb and Tysdal, 1980). The zone is hosted in a sheeted basalt dike complex of the Valdez Group of Late Cretaceous age (Tysdal, 1978 [MF-880-A]). No assay results are reported in the literature.

Alteration:**Age of mineralization:**

Cretaceous or younger; the mineralization is in rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

No workings, improvements, or assay results are reported in the literature.

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

References:

Grant and Higgins, 1909; Martin and others, 1915; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Cobb and Tysdal, 1980

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 01/03/01

Site name(s): Shaw, Deubruel, and Bouchaert; No. 69**Site type:** Occurrence**ARDF no.:** SR283**Latitude:** 60.1291**Quadrangle:** SR A-7**Longitude:** 149.2616**Location description and accuracy:**

The occurrence is located in the SW1/4 section 34, T. 1 N., R. 1 E., of the Seward Meridian. It is situated at an elevation of about 2,400 feet on the southeast side of the southwest terminus of Godwin Glacier, southeast of peak 5265. This is location 92 of Cobb and Tysdal (1980) and location S-195 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Au, Cu**Other:****Ore minerals:** Chalcopyrite, gold, pyrrhotite**Gangue minerals:** Quartz**Geologic description:**

Nelson and others (1985) described the host rock for this occurrence as pale to leek-green aphyric to porphyritic pillow basalt with subordinate pillow breccia, tuff, and siltstone. Bedrock in the area is the Valdez Group of Late Cretaceous age. The occurrence consists of two veins. One is a massive sulfide vein that is composed of solid pyrrhotite with disseminated chalcopyrite (Grant and Higgins, 1909). The other is quartz vein, as much as 8 feet wide, contains copper and gold. No assay results are reported in the literature.

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

No workings, improvements, or assay results are reported.

Production notes:**Reserves:**

Additional comments:

References:

Grant and Higgins, 1909; Martin and others, 1915; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Tysdal and Case, 1979; Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Grant and Higgins, 1909

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 01/02/01

Site name(s): Iron Cap**Site type:** Occurrence**ARDF no.:** SR284**Latitude:** 60.0124**Quadrangle:** SR A-7**Longitude:** 149.2553**Location description and accuracy:**

The prospect is located in the SE1/4 section 10 T. 2 S., R. 1 E., of the Seward Meridian at an elevation of about 2,500 feet. This prospect occurs nearly a mile east of the head of Thumb Cove on the south side of Spoon Glacier. This is location 100 of Cobb and Tysdal (1980) and location S-190 of Jansons and others (1984). This location is accurate to within half a mile.

Commodities:**Main:** Cu, Fe**Other:****Ore minerals:** Chalcopyrite, magnetite, pyrite**Gangue minerals:** Quartz**Geologic description:**

The occurrence is hosted in pillow basalts of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). It consists of a zone of massive magnetite that grades up-dip into massive chalcopyrite (Tysdal, 1978 [MF-880-A]). The occurrence is reported to be traceable to for 4,500 feet along strike (Grant and Higgins, 1909). No other information available.

Alteration:**Age of mineralization:**

Cretaceous or younger; the mineralization is in rocks th Valdex Group of Late Cretaceous age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

No assay results or workings are reported.

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

References:

Grant and Higgins, 1909; Martin and others, 1915; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Grant and Higgins, 1909

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 01/02/01

Site name(s): Redman and Guyot**Site type:** Occurrence**ARDF no.:** SR285**Latitude:** 60.1095**Quadrangle:** SR A-7**Longitude:** 149.2551**Location description and accuracy:**

The occurrence is located on the ridge southeast of Godwin Glacier and at an elevation of 2,700 feet. It is in the NE1/4 section 10, T. 1 S., R. 1 E., of the Seward Meridian. This is location 93 of Cobb and Tysdal (1980) and location S-194 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:****Ore minerals:** Azurite, chalcopyrite, malachite**Gangue minerals:****Geologic description:**

Grant and Higgins (1909) examined hand samples from a massive sulfide vein, as much as 9 feet wide at this site. The vein contains malachite, azurite, and chalcopyrite in a heavily iron-stained gossan. Bedrock in this area is undivided sedimentary rock of the Valdez Group of Late Cretaceous age (Nelson and others, 1985).

Alteration:**Age of mineralization:**

Cretaceous or younger; the vein cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

No workings, improvements, or assay results are reported in the literature.

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

References:

Grant and Higgins, 1909; Martin and others, 1915; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Grant and Higgins, 1909

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/10/01

Site name(s): West Talus Bay**Site type:** Occurrence**ARDF no.:** SR286**Latitude:** 60.0076**Quadrangle:** SR A-6**Longitude:** 149.2257**Location description and accuracy:**

The occurrence is located in the NE1/4 section 14, T. 2 S., R. 1 E., of the Seward Meridian. It is located approximately 0.6 mile west of Talus Bay on the north shore of Day Harbor at an elevation of 1,500 feet. This is location 104 of Tysdal (1978 [MF-880-A]) and location S-186 of Jansons and others (1984). This location is accurate to a quarter of a mile.

Commodities:**Main:** Cr**Other:****Ore minerals:** Chromite, magnetite**Gangue minerals:****Geologic description:**

The occurrence is described as disseminated chromite near the contact of a gabbro and a sheeted dike complex. The complex belongs to the Resurrection Bay Ophiolite sequence, which is Late Cretaceous in age (Nelson and others, 1985). A single sample contained 1,000 ppm chromium (Tysdal, 1978 [MF-880A-]). No other information available in the literature.

Alteration:**Age of mineralization:**

Cretaceous or younger; gabbro is in rock of Late Cretaceous age.

Deposit model:

Podiform chromite (Cox and Singer, 1986; model 8a)

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

8a

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

No workings or improvements are reported in the literature. A single sample contained 1,000 ppm chromium (Tysdal, 1978 [MF-880-A]).

Production notes:**Reserves:**

Additional comments:

References:

Tysdal, 1978 (MF-880-A); Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Tysdal, 1978 (MF-880-A)

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 01/12/01

Site name(s): Unnamed (head of Fourth of July Creek)**Site type:** Occurrence**ARDF no.:** SR287**Latitude:** 60.0961**Quadrangle:** SR A-6**Longitude:** 149.2213**Location description and accuracy:**

The occurrence is located in the NE1/4 section 14, T. 1 S., R. 1 E., of the Seward Meridian. It is at an elevation of about 2,500 feet between two headwater tributaries of Fourth of July Creek (see the A-7 quadrangle). This is location 94 of Tysdal (1978 [MF-880-A]) and location S-193 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Cu**Other:****Ore minerals:** Chalcopyrite, pyrite**Gangue minerals:****Geologic description:**

The occurrence consists of disseminated pyrite in iron-stained pillow basalt. A sample contained 300 ppm copper and 500 ppm zinc (Tysdal, 1978 [MF-880-A]). Bedrock in this area belongs to the Resurrection Bay Ophiolite complex, which is part of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). No other information is reported in the literature.

Alteration:**Age of mineralization:**

Cretaceous or younger; the mineralization is in rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

A grab sample contained 300 ppm copper and 530 ppm zinc (Tysdal, 1978 [MF-880-A]). No additional information is available in the literature.

Production notes:**Reserves:**

Additional comments:

References:

Tysdal, 1978 (MF-880-A); Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Tysdal, 1978 (MF-880-A)

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 01/02/01

Site name(s): Talus Bay**Site type:** Occurrence**ARDF no.:** SR288**Latitude:** 60.0097**Quadrangle:** SR A-6**Longitude:** 149.2030**Location description and accuracy:**

The occurrence is located in the N1/2 section 13, T. 2 S., R. 1 E., of the Seward Meridian. It is located at the head of Talus Bay on the north shore of Day Harbor. This is location 102 of Tysdal (1978 [MF-880-A]) and location S-187 of Jansons and others (1984). This location is accurate to within half a mile.

Commodities:**Main:** Cr, Ni**Other:****Ore minerals:****Gangue minerals:****Geologic description:**

The occurrence is a shear zone several yards wide in gabbro; one sample contained 1,500 ppm chromium and 300 ppm nickel (Tysdal, 1978 [MF-880-A]). Nelson and others (1985) mapped the gabbro as part of the Resurrection Bay Ophiolite sequence of Late Cretaceous age. No other information is available in the literature.

Alteration:**Age of mineralization:**

Cretaceous or younger; the shear cuts rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Podiform chromite (Cox and Singer, 1986; model 8a)

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

8a

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

A single sample contained 1,500 ppm chromium and 300 ppm nickel (Tysdal, 1978 [MF-880-A]).

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

References:

Tysdal, 1978 (MF-880-A); Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Tysdal, 1978 (MF-880-A)

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 01/12/01

Site name(s): North Talus Bay**Site type:** Occurrence**ARDF no.:** SR289**Latitude:** 60.0172**Quadrangle:** SR A-6**Longitude:** 149.1917**Location description and accuracy:**

The occurrence is located approximately half a mile northeast of the head of Talus Bay at an elevation of 1,500 feet. It is in the E1/2 section 12, T. 3 S., R. 1 E., of the Seward Meridian. This is location 101 of Tysdal (1978 [MF-880-A]) and location S-188 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cr, Ni**Other:****Ore minerals:****Gangue minerals:** Olivine, pyroxene**Geologic description:**

The occurrence is described as a serpentized dunite possibly along a shear zone (Tysdal, 1978 [MF-880-A]). Nelson and others (1985) mapped the rock in this area as Valdez Group of Late Cretaceous age. A single grab sample contained 5,000 ppm chromium and 3,000 ppm nickel (Tysdal, 1978 [MF-880-A]).

Alteration:**Age of mineralization:**

Cretaceous or younger; host rock is rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Podiform chromite (Cox and Singer, 1986; model 8a)

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

8a

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

A single grab sample contained 5,000 ppm chromium and 3,000 ppm nickel (Tysdal, 1978 [MF-880-A]).

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

References:

Tysdal, 1978 (MF-880-A); Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Tysdal, 1978 (MF-880-A)

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 01/14/01

Site name(s): Day Harbor**Site type:** Occurrence**ARDF no.:** SR290**Latitude:** 60.0232**Quadrangle:** SR A-6**Longitude:** 149.1755**Location description and accuracy:**

The prospect is located in N1/2 section 7, T. 2 S., R. 2 E., of the Seward Meridian at an elevation of about 1,000 feet. It is located on the east side of the ridge on the east side of Talus Bay, north side of Day Harbor. This is location 97 of Tysdal (1978 [MF-880-A]) and location S-189 of Jansons and others (1984). This location is accurate to within half a mile.

Commodities:**Main:** Cr, Ni**Other:****Ore minerals:****Gangue minerals:** Olivine, pyroxene**Geologic description:**

The occurrence is a serpentinized dunite that contains 3,000 ppm chrome and 5,000 ppm nickel (Tysdal, 1978 [MF-880-A]). Nelson and others (1985) mapped the dunites in this area as the Resurrection Bay Ophiolite sequence of the Valdez Group of Late Cretaceous age.

Alteration:

The dunite is serpentinized.

Age of mineralization:

Cretaceous or younger; the dunite is Late Cretaceous in age.

Deposit model:

Podiform chromite (Cox and Singer, 1986; model 8a)

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

8a

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

A single sample contained 3,000 ppm chrome and 5,000 ppm nickel (Tysdal, 1978 [MF-880-A]). No workings or improvements are present.

Production notes:**Reserves:**

Additional comments:

References:

Tysdal, 1978 (MF-880-A); Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Tysdal, 1978 (MF-880-A)

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/15/01

Site name(s): Unnamed (south of Godwin Glacier)**Site type:** Occurrence**ARDF no.:** SR291**Latitude:** 60.0642**Quadrangle:** SR A-6**Longitude:** 149.1664**Location description and accuracy:**

The occurrence is located in the NE1/4 section 30, T. 1 S., R. 2 E., of the Seward Meridian. It is situated on the east side of an unnamed stream that flows south from an outlier of Godwin Glacier and is at an elevation of about 1,400 feet. This is location 95 of Tysdal (1978 [MF-880-A]) and location S-192 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu, V**Other:****Ore minerals:** Chalcopyrite, pyrite?, pyrrhotite**Gangue minerals:** Augite, feldspar**Geologic description:**

The occurrence is a thin iron-stained zone containing disseminated sulfide minerals in a medium-grained gabbro. The zone contained 100 ppm copper, and 2,000 ppm vanadium (Tysdal, 1978 [MF-880-A]). Bedrock in this area belongs to the Resurrection Bay Ophiolite complex, which is included in the Valdez Group of Late Cretaceous age (Nelson and others, 1985). No other information is reported in the literature.

Alteration:**Age of mineralization:**

Cretaceous or younger; the mineralization is in rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

A single sample contained 100 ppm copper and 2,000 ppm vanadium (Tysdal, 1978 [MF880-A]). No workings or improvements are reported in the literature.

Production notes:**Reserves:**

Additional comments:

References:

Tysdal, 1978 (MF-880-A); Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Tysdal, 1978 (MF-880-A)

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 01/02/01

Site name(s): Day Harbor**Site type:** Occurrence**ARDF no.:** SR292**Latitude:** 60.0322**Quadrangle:** SR A-6**Longitude:** 149.1431**Location description and accuracy:**

This occurrence is located at or just above tidewater about 3 miles southwest of the head of Day Harbor. It is near the center of section 5, T. 2 S., R. 2 E., of the Seward Meridian. This is location 96 of Cobb and Tysdal (1980) and location S-191 of Jansons and others (1984). This location is accurate to within half a mile.

Commodities:**Main:** Cu**Other:****Ore minerals:** Chalcopyrite?, pyrite, pyrrhotite**Gangue minerals:****Geologic description:**

The occurrence consists of a 4-foot-wide shear zone between a coarse-grained gabbro and a peridotite; the zone contains disseminated sulfide minerals consisting mostly of pyrrhotite and pyrite, with possibly a little chalcopyrite (Grant and Higgins, 1909). Bedrock in this area is part of the Resurrection Bay Ophiolite complex, which is part of the Valdez Group of Late Cretaceous age (Nelson and others, 1985). No other information reported in the literature.

Alteration:**Age of mineralization:**

Cretaceous or younger; the veins cut rocks of the Valdez Group of Late Cretaceous age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

There are no reported workings, improvements, or assay results.

Production notes:**Reserves:**

Additional comments:

References:

Grant and Higgins, 1909; Martin and others, 1915; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Grant and Higgins, 1909

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 01/02/01

Site name(s): Sheppard**Site type:** Occurrence**ARDF no.:** SR293**Latitude:** 60.0048**Quadrangle:** SR A-4**Longitude:** 148.4731**Location description and accuracy:**

This occurrence is located in an unnamed stream at the head of Goat Harbor. It is in the NE1/4 section 18, T. 2 S., R. 6 E., of the Seward Meridian. This is location P-49 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Au**Other:****Ore minerals:** Gold, pyrite**Gangue minerals:** Quartz**Geologic description:**

The occurrence is a placer deposit that consists of Quaternary alluvial sand and gravel with graywacke cobbles containing quartz-pyrite veins (Jansons and others, 1984). Bedrock in this area is sedimentary rock of the Orca Group of early Tertiary age (Nelson and others, 1985). The U.S. Bureau of Mines collected four 0.1-cubic-yard placer samples that contain from 0.04 ppm to 1.34 ppm gold (Jansons and others, 1984).

Alteration:**Age of mineralization:**

Quaternary or younger; the deposit is in the active stream channel.

Deposit model:

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

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

39a

Production Status: None**Site Status:** Probably inactive**Workings/exploration:**

The U.S. Bureau of Mines collected four 0.1-cubic-yard placer samples that contain from 0.04 ppm to 1.34 ppm gold (Jansons and others, 1984).

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

References:

Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Jansons and others, 1984

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/19/01

Site name(s): Hogg Bay**Site type:** Prospect**ARDF no.:** SR294**Latitude:** 60.0781**Quadrangle:** SR A-4**Longitude:** 148.2228**Location description and accuracy:**

The prospect is located near tidewater on the north shore of Hogg Bay just west of the mile-long inlet at the east end of the bay. It is in the NE1/4 section 22, T. 1 S., R. 7 E., of the Seward Meridian. This is location 274 of Cobb and Tysdal (1980) and location S-23 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:****Ore minerals:****Gangue minerals:****Geologic description:**

Nelson and others (1985) mapped bedrock in this area as undivided sedimentary rock of the Orca Group of early Tertiary age. Smith (1926) reported activity on a copper prospect at this location, but he did not visit the site. No other information is available from the literature.

Alteration:**Age of mineralization:**

Tertiary or younger; the occurrence is in rocks of the Orca Group of Tertiary age.

Deposit model:**Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production Status:** None**Site Status:** Inactive**Workings/exploration:**

Smith (1926) reported activity at this location but gave no details.

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

Smith, 1926; Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal,

1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Smith, 1926

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 10/09/01

Site name(s): Unnamed (on Swanson Bay, Bainbridge Island)**Site type:** Occurrence**ARDF no.:** SR295**Latitude:** 60.0348**Quadrangle:** SR A-4**Longitude:** 148.1964**Location description and accuracy:**

The occurrence is located on the south side of the head of Swanson Bay, which is in the southern part of Bainbridge Island. It is in the NE1/4 section 2, T. 2 S., R. 7 E., of the Seward Meridian. This is location 275 of Tysdal (1978 [MF-880-A]) and location S-22 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Cu, Zn**Other:****Ore minerals:** Pyrite, pyrrhotite**Gangue minerals:****Geologic description:**

The occurrence consists of as much as 1 percent disseminated pyrite and pyrrhotite in basaltic greenstone and siliceous shale and slate. Samples from the occurrence contained as much as 100 ppm copper and 200 ppm zinc (Kurtak and Jeske, 1986). Nelson and others (1985) mapped bedrock in this area as Orca Group of early Tertiary age.

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Besshi massive sulfide (Cox and Singer, 1986; model 24b)

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

24b

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

Samples from the occurrence contained as much as 100 ppm copper and 200 ppm zinc (Kurtak and Jeske, 1986).

Production notes:**Reserves:**

Additional comments:

References:

Tysdal, 1978 (MF-880-A); Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 11/29/01

Site name(s): Shoo Fly**Site type:** Prospect**ARDF no.:** SR296**Latitude:** 60.0939**Quadrangle:** SR A-4**Longitude:** 148.1946**Location description and accuracy:**

The prospect is located between 1,380 to 1,465 feet elevation in the NE1/4 section 14, T. 1 S., R. 7 E., of the Seward Meridian. It is on the northeast side of Hogg Bay on Bainbridge Island. This is location 273 of Cobb and Tysdal (1980) and location S-24 of Jansons and others (1984). This location is accurate to 1,000 feet.

Commodities:**Main:** Cu**Other:** Ag, Au**Ore minerals:** Chalcopyrite, gold, pyrite, pyrrhotite**Gangue minerals:** Quartz**Geologic description:**

The prospect consists of sulfide-bearing quartz stringers near the contact of a sheared greenstone and silicified mudstone of the Orca Group of early Tertiary age (Cobb and Tysdal, 1980). The greenstone and mudstone strike northeast to northwest and dip 27 to 65W. The mineralization consists chiefly of limonite gossan with traces of chalcopyrite, pyrite, and pyrrhotite.

Workings consist of two adits, one 220 feet long, the other 405 feet long, along with a 40- by 10-foot open cut (Smith, 1926). Samples collected from the 220-foot adit and the open cut contained between 23 ppm and 0.07 percent copper and a trace to 0.11 ppm gold (Kurtak and Jeske, 1986).

Alteration:

The mudstone is silicified, and the surface rock is leached and iron-stained (Kurtak and Jeske, 1986).

Age of mineralization:

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

Workings consist of two adits and a 40- by 10-foot open cut. One adit is 220 feet long and the other is 405 feet (Smith, 1926). Samples collected from the 220-foot adit and the open cut contained between 23 ppm and 0.07 percent copper and a trace to 0.11 ppm gold (Kurtak and Jeske, 1986).

Production notes:

Reserves:

Additional comments:

References:

Smith, 1926; Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Smith, 1926

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 11/21/00

Site name(s): Unnamed (east arm of Whale Bay)**Site type:** Prospect**ARDF no.:** SR297**Latitude:** 60.1758**Quadrangle:** SR A-4**Longitude:** 148.1776**Location description and accuracy:**

The prospect is on the east shore of Whale Bay at Bebe Point (triangulation station Bebe) about 10 feet above the high tide line in the SE1/4 section 14, T. 1 N., R. 7 E., of the Seward Meridian. The Seward A-4 quadrangle 1:63,360 topographic map (1988 revision) identifies this site as a mine, but there has been no production. This is location S-25 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Au**Other:** Ag, Cu, Pb, Zn**Ore minerals:** Chalcopyrite, galena, gold, pyrite, pyrrhotite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

The deposit consists of auriferous, sulfide-bearing, quartz stringers and lenses as much as 4 inches wide in a 2- to 6-foot-wide shear zone that is traceable for 35 feet along its N28E trend. The host rock is silicified mudstone that strikes N28E and dips 41NW (Kurtak and Jeske, 1986). Nelson and others (1985) mapped bedrock in this area as Orca Group of early Tertiary age.

Workings on the prospect consist of a 50-foot adit driven on a N28E-trending shear zone that dips 30NW. In the adit, the shear zone consists of (from the hanging wall to footwall) a 3- to 4-inch-wide sulfide-bearing quartz vein; 0.125 inch of fault gouge; 3 to 4 feet of silicified mudstone breccia that contains approximately 15 percent quartz veining; and as much as 2 feet of shear gouge. Minerals associated with the quartz veins include pyrrhotite, pyrite, chalcopyrite, galena, sphalerite, and gold (Kurtak and Jeske, 1986). Samples collected from the adit and float on the beach assayed as much as 0.727 ounce of gold per ton and 0.3 ounce of silver per ton (Kurtak and Jeske, 1986).

Alteration:

Kurtak and Jeske (1986) reported silicified mudstone but gave no details.

Age of mineralization:

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Low-sulfide Au-quartz veins (Cox and Singer, 1986; model 36a)

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

36a

Production Status: None**Site Status:** Inactive

Workings/exploration:

Workings on the prospect consist of a 50-foot adit driven on a N28E-trending shear zone that dips 30NW. Samples collected from the adit and float on the beach contained as much as 0.727 ounce of gold per ton and 0.3 ounce of silver per ton (Kurtak and Jeske, 1986).

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

Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 11/21/00

Site name(s): Lucky Girl; Murphy**Site type:** Prospect**ARDF no.:** SR298**Latitude:** 60.0117**Quadrangle:** SR A-3**Longitude:** 148.0152**Location description and accuracy:**

The prospect is located near tidewater on the southeast shore of Elrington Island. It is in the SE1/4 section 11, T. 2 S., R. 8 E., of the Seward Meridian. This is location 262 of Tysdal (1978 [MF-880-A]) and location S-21 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:** Asbestos**Ore minerals:** Chalcopyrite, pyrite, pyrrhotite**Gangue minerals:** Asbestos, calcite, quartz**Geologic description:**

Grant and Higgins (1909) described the prospect as a 370-foot-long adit that followed quart-calcite veins in greenstone and slate. The veins contained pyrite, pyrrhotite, chalcopyrite, quartz, and asbestos (Tysdal, 1978 [MF-880-A]; Grant and Higgins, 1909). Some of the veins were 3 inches thick, and asbestos was perpendicular to the wall of the veins. Bedrock in this area is Orca Group of early Tertiary age (Nelson and others, 1985).

In 1980 and 1981, the U.S. Bureau of Mines examined this area but did not find the adit reported by Grant and Higgins (1909) and Tysdal (1978 [MF-880-A]). They sampled barren quartz-calcite veins that contained no asbestos (Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Besshi massive sulfide (Cox and Singer, 1986; model 24b)

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

24b

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

The workings on this prospect consist of a 370-foot adit (Grant and Higgins, 1909). In 1980 and 1981, the U.S. Bureau of Mines examined this area but did not find the adit that was reported in the literature. They sampled barren quartz-calcite veins that contained no asbestos (Kurtak and Jeske, 1986).

Production notes:

Reserves:

Additional comments:

References:

Grant and Higgins, 1909; Grant and Higgins, 1910 (B 443); MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 10/30/01

Site name(s): Unnamed (Elrington Island)**Site type:** Occurrence**ARDF no.:** SR299**Latitude:** 60.0354**Quadrangle:** SR A-3**Longitude:** 147.9941**Location description and accuracy:**

The occurrence is located near tidewater on the northeast shore of Elrington Island. It is in the N1/2 section 1, T. 2 S., R. 8 E., of the Seward Meridian. This is location 261 of Tysdal (1978 [MF-880-A]) and location S-20 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:** Cr**Ore minerals:** Chalcopyrite, pyrite**Gangue minerals:****Geologic description:**

The occurrence consists of iron-stained mudstone and siliceous shale containing 1 percent pyrite and traces of chalcopyrite near a greenstone unit (Kurtak and Jeske, 1986). Bedrock in this area is mapped as Orca Group of early Tertiary age (Nelson and others, 1985). The iron-stained rocks are exposed for 400 feet along strike. The U.S. Bureau of Mines sampled the iron-stained rocks and found 200 ppm copper and 300 ppm chrome (Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Besshi massive sulfide (Cox and Singer, 1986; model 24b)

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

24b

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

Two samples from the iron-stained sedimentary rock contained 200 ppm copper and 300 ppm chrome (Kurtak and Jeske, 1986).

Production notes:**Reserves:**

Additional comments:

References:

Tysdal, 1978 (MF-880-A); Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 11/25/01

Site name(s): Reynolds-Alaska**Site type:** Occurrence**ARDF no.:** SR300**Latitude:** 60.0066**Quadrangle:** SR A-3**Longitude:** 147.9343**Location description and accuracy:**

The occurrence is located 1 mile east of Horseshoe Bay on Latouche Island, at an elevation of about 500 feet. It is in the NE1/4 section 17, T. 2 S., R. 9 E., of the Seward Meridian. This is location 260 of Tysdal (1978 [MF-880-A]) and location S-2 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:****Ore minerals:** Chalcopyrite, cubanite, pyrite, pyrrhotite, sphalerite**Gangue minerals:** Calcite, epidote, quartz**Geologic description:**

Bedrock in the area consists of northeast-striking, west-dipping interbedded shale and graywacke of the Orca Group of early Tertiary age (Kurtak and Jeske, 1986). The occurrence is along the northwest limb of a shallowly northeast-plunging antiform (Stejer, 1956). The sulfide occurrences in the vicinity of Horseshoe Bay consist of tabular lenses of massive and disseminated sulfides that conform to the stratification of the enclosing bedrock (Stejer, 1956). The ore mineralogy is fairly simple, consisting of pyrite, chalcopyrite, cubanite, sphalerite, and pyrrhotite; gangue minerals consist of quartz, calcite, and epidote (Stejer, 1956). Assay results indicate that small amounts of gold and silver are also present (Stejer, 1956).

Alteration:

There is strong asymmetric sericite-chlorite alteration associated with the massive sulfide mineralization (Rogers and Hoyt, 1999).

Age of mineralization:

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Besshi massive sulfide (Cox and Singer, 1986; model 24b)

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

24b

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

Grant and Higgins (1909) showed the occurrence as a map location, but no description was given. There are no reported assays or workings.

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

There are two prospects owned by Chugach Alaska Corporation with the same name as this occurrence; one is located near Landlocked Bay in the Valdez quadrangle, and the other is located near Humpy Cove in the Blying Sound quadrangle.

References:

Grant and Higgins, 1909; Tysdal, 1978 (MF-880-A); Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986; Rogers and Hoyt, 1999.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 9/21/01

Site name(s): Duke; Reynolds Alaska; Banta Shaft; Iron Mountain No. 6; Iron Mountain No. 4**Site type:** Mine**ARDF no.:** SR301**Latitude:** 60.0149**Quadrangle:** SR A-3**Longitude:** 147.9244**Location description and accuracy:**

This mine is located in the SW1/4 section 9, T. 2 S., R. 9 E., of the Seward Meridian. It is about 0.5 mile southeast of Horseshoe Bay at an elevation of 125 feet. This is location 259 of Cobb and Tysdal (1980) and location S-3 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Cu**Other:** Ag, Au**Ore minerals:** Chalcopyrite, gold, pyrite, pyrrhotite, silver**Gangue minerals:** Quartz?**Geologic description:**

The deposit at the Duke mine consists of massive sulfide lenses in northeast-striking, interbedded slate and graywacke of the Orca Group of early Tertiary age (Kurtak and Jeske, 1986). The lenses vary from 4 to 27 feet wide and have a strike length of as much as 151 feet. The deposit occurs on the northwest limb of a shallowly northeast-plunging antiform (Stejer, 1956). The sulfide minerals are mostly pyrite with minor amounts of chalcopyrite and pyrrhotite (Stejer, 1956). The typical mineralization consists of a disseminated halo of pyrite surrounding massive pyrite with some chalcopyrite (Stejer, 1956). The footwall of the massive sulfide lenses is in many places a slate bed, and the highest grade of copper mineralization is under the footwall (Kurtak and Jeske, 1986).

Within or near the massive sulfide lenses, the country rock shows varied degrees of silicification, sericitization, and kaolinization (Stejer, 1956). Some faulting occurs that is generally parallel to bedding. Surface outcrops located about 100 feet from the shaft indicate that the mineralized belt has a width of 200 to 250 feet. It appears to be on the same trend as the Duchess (SR302) mineralized zone, which lies 2,400 feet north of this deposit (Kurtak and Jeske, 1986).

Alteration:

There is strong asymmetric sericite-chlorite alteration associated with the massive sulfide mineralization (Rogers and Hoyt, 1999).

Age of mineralization:

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Besshi massive sulfide (Cox and Singer, 1986; model 24b)

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

24b

Production Status: Yes; small

Site Status: Inactive

Workings/exploration:

The initial claims were staked in 1898, and by 1907, a two-compartment shaft had been sunk on the property. In 1908, the shaft was deepened to 110 feet, but the site abandoned when the shaft flooded. In 1918, the shaft was pumped out, and a total of 311 feet of crosscuts and drifts was completed. The property was abandoned until 1970, when Northwest Exploration drilled several core holes (Kurtak and Jeske, 1986).

Production notes:

An unspecified amount, believed to be small, of production was reported in 1907 (Kurtak and Jeske, 1986).

Reserves:

There are measured reserves of 68,800 tons of ore containing 1.32 percent copper, 0.06 ounce of gold per ton, and 0.05 ounce of silver per ton (Kurtak and Jeske, 1986). Indicated reserves are 200,000 tons of ore containing 1.32percent copper, 0.06 ounce of gold per ton and 0.06 ounce of silver per ton (Rogers and Hoyt, 1999).

Additional comments:

This mine is known as the Reynolds-Alaska Development Co. in Cobb and Tysdal (1980 [MF-880-A]).

References:

Grant, 1906; Moffit, 1908; Grant and Higgins, 1909; Grant and Higgins, 1910 (B 443); Brooks, 1912; Smith, 1917 (BMB 153); Johnson, 1918 (B 662-C, p. 201-202, 206-208); Johnson, 1919 (B 692-C, p. 145); Brooks, 1921; Moffit and Fellows, 1950; Moffit, 1954; Stejer, 1956; Condon and Cass, 1958; Shacklette, 1965; Berg and Cobb, 1967; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986; Rogers and Hoyt, 1999.

Primary reference: Stejer, 1956

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 10/15/01

Site name(s): Duchess**Site type:** Mine**ARDF no.:** SR302**Latitude:** 60.0213**Quadrangle:** SR A-3**Longitude:** 147.9194**Location description and accuracy:**

The mine is located a half-mile east of Horseshoe Bay at an elevation of 380 to 470 feet. This is in the NW1/4 section 9, T. 2 S., R. 9 E., of the Seward Meridian. This is location 258 of Cobb and Tysdal (1980) and location S-4 of Jansons and others (1984). This location is accurate to within 300 feet; a mine is shown at the location on the 1:63,360-scale, A-3 topographic map.

Commodities:**Main:** Cu, Pb, Zn**Other:****Ore minerals:** Arsenopyrite, chalcopyrite, cubanite, galena, pyrite, pyrrhotite, sphalerite**Gangue minerals:** Calcite, quartz**Geologic description:**

The mineralized zone at the Duchess mine trends N30E and is parallel to the bedding of the slate-graywacke host rock that dips steeply northwest (Stejer, 1956). Nelson and others (1985) have mapped the bedrock in this area as Orca Group of early Tertiary age. The mine is on the northwest limb of a shallowly-dipping, northeast-plunging antiform (Stejer, 1956).

The mine workings consist of two major levels with portals at elevations of 380 feet and 470 feet and a 10-foot prospect adit at an elevation of 630 feet. The underground workings, which were developed from 1905 to 1918, aggregate about 3,000 feet of drifts and crosscuts and explore the mineralized zone for a distance of 500 feet along strike (Kurtak and Jeske, 1986). Lenses of massive sulfides occur throughout the workings. They range from a few inches to as much as 60 feet wide and from less than one foot to at least 490 feet long. The mineralization typically consists of a disseminated halo of pyrite surrounding massive pyrite, with some chalcopyrite (Stejer, 1956). Other minor sulfides present include cubanite, sphalerite, pyrrhotite, arsenopyrite, and galena (Kurtak and Jeske, 1986). The footwall of the massive sulfide lenses is in many places a slate bed; the highest grade of copper mineralization is near the footwall (Kurtak and Jeske 1986). Within or near the massive sulfide lenses, the country rock shows varied degrees of silicification, sericitization, and kaolinization (Stejer, 1956). Sixteen samples collected from the 400-foot level contained trace to 1.48 percent copper, 0.1 to 0.8 percent zinc, trace to 0.02 ounce of gold per ton, and 0.4 to 0.7 ounce of silver per ton (Stejer, 1956).

Alteration:

The wallrock alteration of the deposit at the Duchess mine consists of silicification, sericitization, and kaolinization. The alteration is zoned; silicification near the hanging wall grades into argillic and sericitic alteration toward the footwall (Stejer, 1956).

Age of mineralization:

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Besshi massive sulfide (Cox and Singer, 1986; model 24b)

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

24b

Production Status: Yes; small**Site Status:** Inactive**Workings/exploration:**

The mine workings consist of two major levels with portals at elevations of 380 and 470 feet and a 10-foot prospect adit at an elevation of 630 feet. The underground workings, which aggregate about 3,000 feet of drifts and crosscuts, explore the mineralized zone for a distance of 500 feet along strike (Stejer, 1956). The workings were initially developed in 1905 with all of the production occurring in 1906. From 1907 to 1916 about 2,850 feet of drift and crosscuts were driven in an attempt to delineate additional ore bodies. Sixteen samples collected from the 400-foot level contained trace to 1.48 percent copper, 0.1 to 0.8 percent zinc, trace to 0.02 ounce of gold per ton and 0.4 to 0.7 ounce of silver per ton (Stejer, 1956).

Production notes:

The deposit was initially staked in 1899, and by 1905 as much as 300 feet of exploration adits had been driven. All of the production from the Duchess mine occurred in 1906. Production totalled 215,000 pounds of copper from 2,850 tons of ore (Rogers and Hoyt, 1999).

Reserves:

Chugach Native Corporation, the current property owner, estimates a reserve of 2,700,000 tons with 3.8 percent copper (Rogers and Hoyt, 1999).

Additional comments:**References:**

Grant, 1906; Moffit, 1908; Grant and Higgins, 1909; Grant and Higgins, 1910 (B 443); Brooks, 1912; Smith, 1917 (BMB 153); Johnson, 1918 (B 662-C, p. 201-202, 206-208); Johnson, 1919 (B 692-C, p. 145); Brooks, 1921; Moffit and Fellows, 1950; Moffit, 1954; Stejer, 1956; Condon and Cass, 1958; Shacklette, 1965; Berg and Cobb, 1967; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Nelson and others, 1985; Kurtak and Jeske, 1986; Rogers and Hoyt, 1999.

Primary reference: Stejer, 1956**Reporter(s):** Jeff A. Huber and Carol S. Huber (Anchorage)**Last report date:** 10/15/01

Site name(s): Bazard Tunnel; West Hillside Lode; Hillside Lode**Site type:** Prospect**ARDF no.:** SR303**Latitude:** 60.0383**Quadrangle:** SR A-3**Longitude:** 147.9143**Location description and accuracy:**

The prospect is located in the N1/2 section 4, T. 2 S., R. 9 E., of the Seward Meridian, at an elevation of 50 feet. It is 350 feet from the head of Wilson Bay, Latouche Island. This is location 257 of Tysdal (1978 [MF-880-A]) and location S-15 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Cu**Other:****Ore minerals:****Gangue minerals:****Geologic description:**

A 1,400-foot adit was driven in slate of the Orca Group of early Tertiary age (Nelson and others, 1985). The adit occurs on the northwest limb of a shallowly northeast plunging antiform (Stejer, 1956). The adit penetrated no mineralized rock (Tysdal, 1978 [MF-880-A]).

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:**Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production Status:** None**Site Status:** Inactive**Workings/exploration:**

Grant and Higgins (1909) reported that the Chicago-Latouche Mining and Power Company installed a pipeline and an electric power plant. They were then also engaged in driving an east-southeast adit to intersect a continuation of the Bonanza orebody, which is about 0.6 mile to the north. In 1908, the adit was 1,400 feet long but had encountered no mineralization. The U.S. Bureau of Mines visited the prospect in 1984 and 1985; they found the adit but did not enter it because it was flooded and the water was too deep (Kurtak and Jeske, 1986).

Production notes:**Reserves:**

Additional comments:

References:

Grant and Higgins, 1909; Tysdal, 1978 (MF-880-A); Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Grant and Higgins, 1909

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/15/01

Site name(s): Unnamed (near Lake Hayden)**Site type:** Prospect**ARDF no.:** SR304**Latitude:** 60.0370**Quadrangle:** SR A-3**Longitude:** 147.9121**Location description and accuracy:**

The prospect is located in the N1/2 section 4, T. 2 S., R. 9 E., of the Seward Meridian, at an elevation of 180 feet. It is on Latouche Island, about 0.3 mile northwest of Lake Hayden. This is location S-14 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:****Ore minerals:****Gangue minerals:** Quartz**Geologic description:**

The prospect consists of small iron-stained quartz veins in a sheared zone. The host rock is slate and sandstone of the Orca Group of early Tertiary age (Nelson and others, 1985). The veins are exposed in an adit that trends N40W; it is caved at 150 feet from the portal (Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Besshi massive sulfide (Cox and Singer, 1986; model 24b)

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

24b

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

Workings consist of one N40W-trending adit that is caved at 150 feet. No other workings or improvements are present. The U.S. Bureau of Mines visited this prospect in either 1984 or 1985 but did not collect any samples. (Kurtak and Jeske, 1986).

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

References:

Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/01/01

Site name(s): Hillside Lode**Site type:** Prospect**ARDF no.:** SR305**Latitude:** 60.0387**Quadrangle:** SR A-3**Longitude:** 147.9104**Location description and accuracy:**

The prospect is located on the north side of an unnamed creek that drains Lake Hayden into Wilson Bay. It is in the N1/2 section 4, T. 2 S., R. 9 E., of the Seward Meridian and is at 180 feet elevation. This is location S-16 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Cu?**Other:****Ore minerals:****Gangue minerals:****Geologic description:**

This prospect may be a dewatering adit driven in an attempt to dewater the Bazard adit (SR303). No assay results were reported, and no sulfide minerals were identified in the dump. The adit is 126 feet long and strikes S65E; it follows a 3-inch-wide shear zone. Nelson and others (1985) mapped rock in this area as Orca Group of early Tertiary age.

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:**Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production Status:** None**Site Status:** Inactive**Workings/exploration:**

The workings consist of a 126-foot-long adit that strikes S65E. No assay results are reported.

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

Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/15/01

Site name(s): Beatson; Beatson-Bonanza; Latouche**Site type:** Mine**ARDF no.:** SR306**Latitude:** 60.0493**Quadrangle:** SR A-3**Longitude:** 147.8995**Location description and accuracy:**

The mine is located one-half mile southeast of Powder Point on the west side of Latouche Island. It is in the NE1/4 section 33, T. 1 S., R. 9 E., of the Seward Meridian. The Beatson mine is shown on the 1988 revision of the 1:63,360 U.S. Geological Survey topographic map. This is location 256 of Cobb and Tysdal (1980) and location S-17 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Cu, Pb, Zn**Other:** Ag, Au, Pb, Zn**Ore minerals:** Chalcopyrite, cubanite, galena, gold, pyrite, pyrrhotite, silver, sphalerite**Gangue minerals:** Ankerite, calcite, quartz, sercite**Geologic description:**

The country rock in the mine area consists of a north-trending, interbedded sequence of west-dipping slate and graywacke, with graywacke predominating (Kurtak and Jeske, 1986). Nelson and others (1985) mapped this rock as Orca Group of early Tertiary age. The major structural feature in the mine area is the Beatson fault, which cuts slightly across bedding, strikes about N12E and dips (on average) 60W. On the footwall of the fault, ore occurs as a massive and disseminated sulfide zone. The highest grade ore occurs adjacent to the fault (Kurtak and Jeske, 1986). The ore body is roughly 400 feet wide by 500 feet vertical and extends for 1,000 feet along strike. Sulfide minerals consist of pyrite, pyrrhotite, chalcopyrite, cubanite, galena, silver, and sphalerite; gold and silver are also present. Gangue minerals consist of quartz, sercite, and ankerite. The average ore grade was 1.7 percent copper and 0.27 ounce of silver per ton. Total production was 5,992,941 tons of ore grading 1.65 percent copper and 0.279 ounce of silver (Kurtak and Jeske, 1986).

Alteration:

There is strong silicification of the footwall rock. There is chloritic alteration of the hanging wall rock (Rogers and Hoyt, 1999).

Age of mineralization:

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Besshi massive sulfide (Cox and Singer, 1986; model 24b)

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

24b

Production Status: Yes; large**Site Status:** Inactive

Workings/exploration:

From 1908 to 1930, the deposit was mined by both open cut and underground shrinkage stope methods. There were 10 miles of underground workings when mining ended in 1930 (Kurtak and Jeske, 1986). Improvements on the property included the town of Latouche, a wharf, and a diesel power plant. Production totaled 182,600,000 pounds of copper and 1,466,649 ounces of silver from 5,992,941 tons of ore. The average copper grade was 1.65 percent, and the average silver grade was 0.279 ounce per ton (Kurtak and Jeske, 1986).

Production notes:

Production totaled 182,600,000 pounds of copper and 1,466,649 ounces of silver from 5,992,941 tons of ore. The average copper grade was 1.65 percent, and the average silver grade was 0.279 ounce per ton (Kurtak and Jeske, 1986).

Reserves:

Rogers and Hoyt (1999) report a reserve of 3,000,000 tons.

Additional comments:**References:**

Grant, 1906; Moffit, 1908; Grant and Higgins, 1909; Grant and Higgins, 1910 (B 443); Brooks, 1912; Smith, 1917 (BMB 142); Smith, 1917 (BMB 153); Johnson, 1918 (B 662-C, p. 184); Johnson, 1919 (B 692-C, p. 144-145); Martin, 1919; Brooks, 1921; Bateman, 1924; Moffit and Fellows, 1950; Moffit, 1954; Stejer, 1956; Condon and Cass, 1958; Shacklette, 1965; Berg and Cobb, 1967; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986; Crow and others, 1992; Rogers and Hoyt, 1999.

Primary reference: Bateman, 1924; Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/18/01

Site name(s): Chenega; Latouche**Site type:** Prospect**ARDF no.:** SR307**Latitude:** 60.0506**Quadrangle:** SR A-3**Longitude:** 147.8946**Location description and accuracy:**

The prospect is located 0.25 mile north of the Beatson mine (SR306) at an elevation of 257 feet. It is in the NW1/4 section 34, T. 1 S., R. 9 E., of the Seward Meridian. This is location 255 of Tysdal (1978 [MF-880-A]) and location S-18 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Cu**Other:****Ore minerals:** Chalcopyrite, malachite, pyrite**Gangue minerals:****Geologic description:**

The prospect consists of a 95-foot adit that strikes S80E and follows a highly fractured black shale and silicified mudstone that contains blebs and stingers of pyrite and chalcopyrite (Kurtak and Jeske, 1986). Nelson and others (1985) mapped this area as Orca Group of early Tertiary age. Within the adit, the first 65 feet contains as much as 1 percent malachite and chalcopyrite, whereas the last 30 feet contains less than 1 percent chalcopyrite (Kurtak and Jeske, 1986). Two grab samples from the adit contained 290 ppm and 1.2 percent copper and 0.4 and 6.4 ppm silver (Kurtak and Jeske, 1986). Moffit and Fellows (1951) reported that the Chenega working was connected to the Beatson mine (SR306) at one time.

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

Production Status: Undetermined.**Site Status:** Inactive**Workings/exploration:**

Workings on the Chenega prospect consist of a 95-foot-long adit. Within the adit the first 65 feet adit contains 1 percent malachite and chalcopyrite, whereas the last 30 feet contains less than 1 percent chalcopyrite (Kurtak and Jeske, 1986). Two grab samples from the adit contained 290 ppm and 1.2 percent copper and 0.4 and 6.4 ppm silver (Kurtak and Jeske, 1986). Moffit and Fellows (1950) report that the Chenega working was connected to the Beatson mine (SR306) at one time.

Production notes:

Reserves:

Additional comments:

References:

Moffit and Fellows, 1950; Tysdal, 1978 (MF-880-A); Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 11/26/01

Site name(s): Tiger and W and L**Site type:** Prospect**ARDF no.:** SR308**Latitude:** 60.0197**Quadrangle:** SR A-3**Longitude:** 147.8934**Location description and accuracy:**

The prospect is located in the NW1/4 section 10, T. 2 S., R. 9 E., of the Seward Meridian, at an elevation of about about 1,000 feet. It is in a glacial cirque, about 0.5 mile south of Snowy Lake. This is location S-5 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Cu**Other:** Ag, Au**Ore minerals:** Chalcopyrite, copper, pyrrhotite**Gangue minerals:** Calcite, quartz**Geologic description:**

Nelson and others (1985) mapped the bedrock in this area as Orca Group of early Tertiary age. The prospect is on the northwest limb of a shallowly dipping, northeast-plunging antiform (Stejer, 1956). The prospect consists of chalcopyrite-pyrrhotite quartz stringers with rare native copper hosted in graywacke. The workings on the prospect consist of a single open-cut (Kurtak and Jeske, 1986). The U.S. Bureau of Mines collected two grab samples from the workings; one sample contained 1.4 percent copper, 19.5 ppm silver, and 0.6 ppm gold; the other sample contained 100 ppm copper, 5.5 ppm silver, and 0.09 ppm gold (Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Besshi massive sulfide (Cox and Singer, 1986; model 24b)

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

24b

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

The workings on the prospect consist of a single, open cut (Kurtak and Jeske, 1986). The U.S. Bureau of Mines collected two grab samples from the workings; one sample contained 1.4percent copper, 19.5 ppm silver, and 0.6 ppm gold; the other sample contained 100 ppm copper, 5.5 ppm silver, and 0.09 ppm gold (Kurtak and Jeske, 1986).

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

Kennecott Copper Corporation company records from 1916 to 1971 mention this prospect. These records can be inspected upon request at the Bureau of Land Management office in Anchorage, Alaska.

References:

Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 9/21/01

Site name(s): Blackbird; Ladysmith; Barrack**Site type:** Mine**ARDF no.:** SR309**Latitude:** 60.0536**Quadrangle:** SR A-3**Longitude:** 147.8932**Location description and accuracy:**

The mine is located about a half-mile east of Powder Point at an elevation between 20 to 480 feet. It is in the NW1/4 section 34, T. 1 S., R. 9 E., of the Seward Meridian. This is location 254 of Tysdal (1978 [MF-880-A]) and location S-19 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Ag, Cu**Other:** Au**Ore minerals:** Chalcopyrite, gold, pyrite, pyrrhotite**Gangue minerals:** Epidote, quartz**Geologic description:**

The Blackbird mine follows a shear zone in graywacke and slate of the Orca Group of early Tertiary age (Nelson and others, 1995). Underground, the shear zone trends northeast and dips nearly vertically. The mineralization occurs in a zone as much as 35 feet wide within the shear zone. Sulfide minerals identified in both the massive and stringer ore are pyrrhotite, chalcopyrite, covellite, and galena (Hoekzema and Sherman, 1983). The mineralization is exposed along the trend for about 300 feet.

Samples from one open cut and glory hole contained from 27 ppm to 2.96 percent copper and from 105 ppm to 12.2 percent zinc (Hoekzema and Sherman, 1983).

Alteration:

There is some silicification of shale and mudstone (Hoekzema and Sherman, 1983).

Age of mineralization:

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Besshi massive sulfide (Cox and Singer, 1986; model 24b)

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

24b

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

There are 1,750 feet of underground workings and several open cuts. Surface improvements consisted of a wharf, ore bunker, a tramway, and a 150-ton-per-day mill (Hoekzema and Sherman, 1983). Samples collected from the open cut and glory hole contained from 27 ppm to 2.96 percent copper and from 105 ppm to 12.2 percent zinc (Hoekzema and Sherman, 1983).

Production notes:

Production from the Blackbird mine is 547,118 pounds of copper and 3,980 ounces of silver from 5,100 tons of ore (Hoekzema and Sherman, 1983).

Reserves:

The Blackbird mine has a reserve of 201,450 tons of ore containing 3.77 percent copper, 0.7 ounce of silver per ton, and 0.03 ounce of gold per ton. Lead and zinc occur with the reserves but are not quantified (Rogers and Hoyt, 1999).

Additional comments:**References:**

Bateman, 1928; Moffit and Fellows, 1950; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986; Rogers and Hoyt, 1999.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/15/01

Site name(s): Unnamed (east of Reynolds Peak)**Site type:** Prospect**ARDF no.:** SR310**Latitude:** 60.0109**Quadrangle:** SR A-3**Longitude:** 147.8677**Location description and accuracy:**

The prospect is located in the SW1/4 section 11, T. 2 S., R. 9 E., of the Seward Meridian. It is half a mile east of Reynolds Peak on Latouche Island. Mineralized showings have been prospected at elevations between sea level and 700 feet. The primary mineralized zone occurs at an elevation of 600 feet. This is location 266 of Cobb and Tysdal (1980) and location S-7 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:****Ore minerals:** Chalcopyrite**Gangue minerals:** Quartz**Geologic description:**

The main showing on the prospect consists of a 10-foot-wide mineralized shear zone that contains considerable chalcopyrite. The zone is exposed on a creek bank at an elevation of about 600 feet. Chalcopyrite occurs in stringers and small bunches (Tysdal, 1978 [MF-880-A]). A crosscut is located 50 feet below the exposure, at an elevation of about 550 feet. The host rock consists of graywacke interbedded with slate, argillite, and a small amount of chert, part of the Orca Group of early Tertiary age (Nelson and others, 1985). The rock generally strikes northeast and dips from 40 to 65 degrees west.

There are several hundred feet of workings from several adits at elevations from sea level to 700 feet. Johnson (1918 [B 662-C, p. 210-211]) reported a two-compartment shaft on one of the claims and nearby improvements that consisted of two log cabins and mess and bunk houses.

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Besshi massive sulfide (Cox and Singer, 1986; model 24b)

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

24b

Production Status: Undetermined.**Site Status:** Inactive**Workings/exploration:**

There are several hundred feet of workings from several adits at elevations from sea level to 700 feet.

Johnson (1918 [B 662-C, p. 210-211]) reported a two-compartment shaft on one of the claims and nearby improvements that consisted of two log cabins and mess and bunk houses. A crosscut is located 50 feet below a 10-foot-wide mineralized shear zone exposure, which is at an elevation of about 550 feet.

Production notes:

Some small shipments of ore were reported (Johnson, 1918 [B 662-C, p. 210-211]).

Reserves:**Additional comments:****References:**

Grant and Higgins, 1909; Johnson, 1918 (B 662-C, p. 210-211); Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Johnson, 1918 (B 662-C, p. 210-211)

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/15/00

Site name(s): Alameda**Site type:** Occurrence**ARDF no.:** SR311**Latitude:** 60.0019**Quadrangle:** SR A-3**Longitude:** 147.8661**Location description and accuracy:**

The occurrence is located in the SW1/4 section 14, T. 2 S., R. 9 E., of the Seward Meridian. It is near sea level along the shoreline, 0.7 mile southeast of Reynolds Peak, Latouche Island. This is location 267 of Tysdal (1978 [MF-880-A]) and location S-6 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu, Zn**Other:****Ore minerals:** Chalcopyrite, pyrrhotite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

The occurrence consists of two zones: a mineralized graywacke and a shear zone. The mineralized graywacke zone contains small bunches and stringers of chalcopyrite scattered through it. The zone varies from 4 to 40 feet wide and is traceable for some distance (Johnson, 1916 [B 662-C, p. 210-211]). North of the mineralized graywacke zone a 4-foot-wide shear zone is exposed for a short distance. This zone contains chalcopyrite, pyrrhotite, and sphalerite. Both zones are subparallel to the northeasterly strike and westerly dip of the host rock, which is graywacke of the Orca Group of early Tertiary age (Nelson and others, 1985).

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Besshi massive sulfide (Cox and Singer, 1986; model 24b)

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

24b

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

No workings or sampling are reported.

Production notes:**Reserves:**

Additional comments:

References:

Johnson, 1918 (B 662-C, p. 210-211); Tysdal, 1978 (MF-880-A); Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Johnson, 1916

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 9/21/01

Site name(s): Unnamed (Latouche island near Reynolds Peak)**Site type:** Occurrence**ARDF no.:** SR312**Latitude:** 60.0157**Quadrangle:** SR A-3**Longitude:** 147.8616**Location description and accuracy:**

The occurrence is located in the SW1/4 section 11, T. 2 S., R. 9 E., of the Seward Meridian. It is near the shoreline about 0.8 mile northeast of Reynolds Peak. This is location 265 of Tysdal (1978 [MF-880-A]) and location S-8 of Jansons and others (1984). The location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu, Zn**Other:****Ore minerals:** Chalcopyrite, pyrite**Gangue minerals:****Geologic description:**

The occurrence consists of a limonite-stained gossan that contains pyrite and chalcopyrite. The gossan zone is 4 feet wide and more than 45 feet long (Tysdal, 1978 [MF-880-A]). Tysdal (1978 [MF-880-A]) reported a semiquantitative spectrographic analysis of the gossan is 700 ppm copper, and 500 ppm zinc. The host rock is altered slate and sandstone of the Orca Group of early Tertiary age (Nelson and others, 1985).

Alteration:

The host rock is altered, but the type of alteration is not reported (Tysdal, 1978 [MF-880-A]).

Age of mineralization:

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Besshi massive sulfide (Cox and Singer, 1986; model 24b)

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

24b

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

No workings are reported.

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

References:

Tysdal, 1978 (MF-880-A); Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Tysdal, 1978 (MF-880-A)

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/16/00

Site name(s): Unnamed (1.2 miles southeast of Reynolds Peak)**Site type:** Prospect**ARDF no.:** SR313**Latitude:** 60.0204**Quadrangle:** SR A-3**Longitude:** 147.8558**Location description and accuracy:**

The prospect is located in the N1/2 section 11, T. 2 N., R. 9 E., of the Seward Meridian. It is 1.2 miles northeast of Reynolds Peak, Latouche Island. This is location 264 of Tysdal (1978 [MF-880-A]) and location S-9 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:****Ore minerals:** Chalcopyrite, pyrite, pyrrhotite**Gangue minerals:****Geologic description:**

The prospect consists of a few stringers of chalcopyrite, pyrrhotite, and pyrite (Tysdal, 1978 [MF-880-A]). The host rock is sandstone of the Orca Group of early Tertiary age (Nelson and others, 1985). Workings consist of a single adit of unknown length (Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Besshi massive sulfide (Cox and Singer, 1986; model 24b)

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

24b

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

Workings consist of a single adit of unknown length. The U.S. Bureau of Mines attempted to locate this prospect in the early 1980's but did not find it (Kurtak and Jeske, 1986).

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

This prospect has also been called Latouche Island Copper Mining Co. and Alameda. Occurrence SR311

and prospect SR314 have also been called by the same names. Occurrence SR315 has been called Alameda. All three are different sites.

References:

Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Tysdal, 1978 (MF-880-A)

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/15/00

Site name(s): Unnamed (east shore Latouche Island)**Site type:** Prospect**ARDF no.:** SR314**Latitude:** 60.0226**Quadrangle:** SR A-3**Longitude:** 147.8468**Location description and accuracy:**

The prospect is located in the NE1/4 section 11, T. 2 S., R. 9 E., of the Seward Meridian, at an elevation of 10 feet. It is on the southeast side of Latouche Island, about 1.5 miles northeast of Reynolds Peak. This is location S-10 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu, Zn**Other:****Ore minerals:** Chalcopyrite, pyrrhotite**Gangue minerals:** Quartz**Geologic description:**

The prospect consists of a mineralized shear zone with massive pyrrhotite on the hanging wall and as much as 15percent chalcopyrite within quartz veins in the shear zone (Kurtak and Jeske, 1986). The shear zone is 3.5 to 4.5 feet wide, trends N40E, and dips 34W. The host rock is silicified slate and sandstone of the Orca Group of early Tertiary age (Nelson and others, 1985).

Workings on the prospect consist of a single 64-foot adit just above the shoreline. The adit has been driven along the shear zone. A 5-foot-wide chip sample of the shear zone in the adit contained 0.74 percent copper and 0.19 percent zinc (Kurtak and Jeske, 1986).

Alteration:

Slate and graywacke wallrocks of the mineralized shear zone are silicified (Kurtak and Jeske, 1986).

Age of mineralization:

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Besshi massive sulfide (Cox and Singer, 1986; model 24b)

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

24b

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

Workings consist of a single 64-foot adit near the shoreline. A five-foot-wide chip sample of the shear zone in the adit contained 0.74 percent copper and 0.19 percent zinc (Kurtak and Jeske, 1986).

Production notes:

Reserves:

The U.S. Bureau of Mines has estimated inferred reserves of 100 tons of material containing 0.74 percent copper and 0.19 percent zinc (Kurtak and Jeske, 1986).

Additional comments:**References:**

Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/05/00

Site name(s): Unnamed (near Snowy Lake)**Site type:** Occurrence**ARDF no.:** SR315**Latitude:** 60.0285**Quadrangle:** SR A-3**Longitude:** 147.8434**Location description and accuracy:**

The occurrence is located on the east shore of Latouche Island, 1.6 miles east of Snowy Lake. It is in the SE1/4 section 2, T. 2 S., R. 9 E., of the Seward Meridian. This is location S-11 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu, Zn**Other:****Ore minerals:****Gangue minerals:****Geologic description:**

The host rock is Orca Group of early Tertiary age (Nelson and others, 1985). Claims were staked in 1916 (Kurtak and Jeske, 1986). No other information is available.

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:**Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):****Production Status:** None**Site Status:** Inactive**Workings/exploration:**

Claims were staked in 1916 (Kurtak and Jeske, 1986).

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

Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 01/15/01

Site name(s): Unnamed (Knight Island, north shore of Mummy Bay)**Site type:** Occurrence**ARDF no.:** SR316**Latitude:** 60.2228**Quadrangle:** SR A-3**Longitude:** 147.8306**Location description and accuracy:**

The occurrence is located on the northwest shore of Mummy Bay, 1.2 miles north-northwest of Oceanic seaplane base. It is in the NE1/4 section 35, T. 2 N., R. 9 E., of the Seward Meridian. This is location 248 of Tysdal (1978 [MF-880-A]) and location S-32 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:** Cr, Zn**Ore minerals:** Malachite**Gangue minerals:****Geologic description:**

The occurrence is hosted in sheared greenstone of the Orca Group of early Tertiary age (Nelson and others, 1985). Tysdal (1978 [MF-880-A]) reported iron- and malachite-stained sheared greenstone that contained 500 ppm copper, 300 ppm chrome, and 100 ppm zinc. No other information is published.

Alteration:

Basalt altered to greenstone.

Age of mineralization:

Tertiary or younger; the occurrence is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

Production Status: No**Site Status:** Inactive**Workings/exploration:**

Tysdal (1978 [MF-880-A]) reported iron- and malachite-stained sheared greenstone that contained 500 ppm copper, 300 ppm chrome, and 100 ppm zinc. No other information is published.

Production notes:**Reserves:**

Additional comments:

References:

Tysdal, 1978 (MF-880-A); Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Tysdal, 1978 (MF-880-A)

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 03/09/01

Site name(s): Carlson**Site type:** Prospect**ARDF no.:** SR317**Latitude:** 60.0420**Quadrangle:** SR A-3**Longitude:** 147.8306**Location description and accuracy:**

The prospect is located in the SW1/4 section 36, T. 1 S., R. 9 E., of the Seward Meridian, at an elevation of 60 feet. It is 1.6 miles southeast of Gibbon Peak on Latouche Island. This is location 263 of Tysdal (1978 [MF-880-A]) and location S-12 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Ag, Cu**Other:****Ore minerals:** Chalcopyrite, pyrite, pyrrhotite**Gangue minerals:** Quartz**Geologic description:**

The prospect consists of a shear zone that trends N29E and dips 75W; it is roughly parallel to the strike of the graywacke (Kurtak and Jeske, 1986) Nelson and others (1985) mapped this area as Orca Group of early Tertiary age. Within the shear zone, pyrrhotite, pyrite, and chalcopyrite occur in a massive zone as much as 1 foot wide and in stringer zones as much as 5 feet wide. The mineralization can be traced for 200 feet along the zone trend. Drag folds affect both the graywacke and massive sulfide stringers associated with the shear zone (Hoekzema and Sherman, 1983).

Workings on the prospect consist of a 100-foot adit that is mostly submerged at high tide. A shaft was sunk on a cliff at 60 feet above high tide; it later flooded (Bateman, 1928). The U.S. Bureau of Mines visited the prospect in 1985 but found no signs of workings (Kurtak and Jeske, 1986). They collected three chip samples from the shear zone and one from mineralized graywacke. The samples contained from 0.7 percent to 2.5 percent copper and from 0.92 ppm to 20 ppm silver (Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Besshi massive sulfide (Cox and Singer, 1986; model 24b)

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

24b

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

Workings on the prospect consist of a 100-foot adit that is mostly submerged at high tide. A shaft was sunk on a cliff 60 feet above high tide; it later flooded (Bateman, 1928). The U.S. Bureau of Mines visited the prospect in 1985 but found no signs of workings (Kurtak and Jeske, 1986). They collected three chip samples from the shear zone and one from mineralized graywacke. The samples contained from 0.7 percent to 2.5 percent copper and from 0.92 ppm to 20 ppm silver (Kurtak and Jeske, 1986).

Production notes:

Reserves:

Additional comments:

A. M. Bateman, a consultant for Kennecott Copper Company, investigated this property. His report (Bateman, 1928) is available on request from the Minerals Division, Bureau of Land Management, Anchorage, Alaska. This site has also been called Carlson Property Latouche Island Copper Mining Co.

References:

Bateman, 1928; Condon and Cass, 1958; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/23/00

Site name(s): Lin**Site type:** Occurrence**ARDF no.:** SR318**Latitude:** 60.0588**Quadrangle:** SR A-3**Longitude:** 147.8153**Location description and accuracy:**

The occurrence is located in the SE1/4 section 25, T. 1 S., R. 9 E., of the Seward Meridian. It is on La-touche Island about 1 mile southeast of Sleepy Bay. This is location S-13 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu, Zn**Other:****Ore minerals:** Chalcopyrite, pyrite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

The occurrence consists of several mineralized shear zones that cut across sedimentary rock near the shore (Kurtak and Jeske, 1986). Sphalerite, minor chalcopyrite, and pyrite are present in small shear zones. The host rock is west-dipping interbedded slate and sandstone of the Orca Group of early Tertiary age (Nelson and others, 1985). A small gabbro mass is exposed on the shoreline, about one mile southeast of Sleepy Bay. The U.S. Bureau of Mines collected three chip samples. One sample collected from a sulfide-rich lens contained 5.9 percent zinc, but the exposure was very small (Kurtak and Jeske, 1986). The other two samples contained insignificant amounts of metals.

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Besshi massive sulfide (Cox and Singer, 1986; model 24b)

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

24b

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

Kurtak and Jeske (1986) noted that the claims were staked over a geophysical anomaly. The U.S. Bureau of Mines collected three chip samples. One sample collected from a sulfide-rich lens, contained 5.9 percent zinc, but the exposure was very small (Kurtak and Jeske, 1986). The other two samples contained insignificant amounts of metals.

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

A. M. Bateman, a consultant for Kennecott Copper Company, may have investigated this property. His report is available on request from the Minerals Division, Bureau of Land Management, Anchorage, Alaska.

References:

Bateman, 1928; Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/29/00

Site name(s): Unnamed (Knight Island, east side of Mummy Bay)**Site type:** Occurrence**ARDF no.:** SR319**Latitude:** 60.2202**Quadrangle:** SR A-3**Longitude:** 147.8098**Location description and accuracy:**

The occurrence is located at or near tidewater about half way between Northeast Arm and Thumb Bay on the east side of Mummy Bay. It is near the center of section 36, T. 2 N., R. 9 E., of the Seward Meridian. This is location 249 of Tysdal (1978 [MF-880-A]) and S-31 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:****Ore minerals:** Chalcopyrite, pyrrhotite**Gangue minerals:** Quartz**Geologic description:**

The occurrence consists of two 10-foot-wide shear zones that contain as much as 5 percent disseminated pyrrhotite and traces of chalcopyrite (Kurtak and Jeske, 1986). The zones trend N10E and dip 80W. They are separated by 20 feet of unsheared greenstone. The zones have strong cataclastic textures, and some silicification is present near the shear margins (Kurtak and Jeske, 1986). Nelson and others (1985) mapped this area as Orca Group of early Tertiary age. A grab sample of the siliceous, sheared material contained 49 ppm copper and 14 ppm zinc (Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

No workings are reported. A single grab sample of the siliceous shear zone material carrying visible chalcopyrite and pyrrhotite contained 49 ppm copper, 4 ppm lead, and 14 ppm zinc (Kurtak and Jeske, 1986).

Production notes:

Reserves:

Additional comments:

References:

Tysdal, 1978 (MF-880-A); Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 11/29/01

Site name(s): Unnamed (Knight Island, head of Mummy Bay)**Site type:** Occurrence**ARDF no.:** SR320**Latitude:** 60.2333**Quadrangle:** SR A-3**Longitude:** 147.7905**Location description and accuracy:**

The occurrence is located near tidewater on the northeast shore of Mummy Bay northwest of Northeast Arm. It is in the W1/2 section 30, T. 2 N., R. 10 E., of the Seward Meridian. This is location 247 of Tysdal (1978 [MF-880-A]) and location S-34 of Jansons and others (1984). This location is accurate to within half a mile.

Commodities:**Main:** Cu**Other:** Ba, Cr**Ore minerals:****Gangue minerals:****Geologic description:**

The occurrence is an iron-stained shear zone that contains 5,000 ppm barium, 500 ppm copper, and 300 ppm chrome (Tysdal, 1978 [MF-880-A]). Nelson and others (1985) mapped this area as the southernmost extent of the Port Audry shear zone. The shear zone is as much as 2,000 feet wide, trends generally north, and has a near-vertical dip. The zone is in sedimentary rock and greenstone basalt of the Orca Group of early Tertiary age (Nelson and others, 1985).

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Besshi massive sulfide (Cox and Singer, 1986; model 24b)

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

24b

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

A single sample contained 5,000 ppm barium, 500 ppm copper, and 300 ppm chrome (Tysdal, 1978 [MF-880-A]).

Production notes:**Reserves:**

Additional comments:

References:

Tysdal, 1978 (MF-880-A); Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Tysdal, 1978 (MF-880-A)

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 03/01/01

Site name(s): Home Camp; Charles Schultz**Site type:** Prospect**ARDF no.:** SR321**Latitude:** 60.2321**Quadrangle:** SR A-3**Longitude:** 147.7875**Location description and accuracy:**

The prospect is located in the SW1/4 section 30, T. 2 N., R. 10 E., of the Seward Meridian. It is located on the northeast shore of Mummy Bay within 100 feet of the shoreline. This is location 115 of Cobb and Richter (1972), location 143 of MacKevett and Holloway (1977), location 246 of Cobb and Tysdal (1980), and location S-33 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu, Zn**Other:****Ore minerals:** Chalcopyrite, cubanite, pyrite**Gangue minerals:** Quartz**Geologic description:**

The deposit is hosted in a shear zone that is 3 meters wide and exposed along strike for 500 feet. The zone cuts greenstone and sedimentary rock of the Orca Group of early Tertiary age (Cobb and Tysdal, 1980). It is semi-concordant to bedding; it trends N20E and dips 75W (Cobb and Tysdal, 1980). The mineralization is confined to sheared sandstone lenses in greenstone that displays pillow textures and contains basaltic dikes. Lenses of massive sulfides are as much as 10 inches wide by 10 feet long and contain pyrite and chalcopyrite along with traces of cubanite.

The U.S. Bureau of Mines collected a 4-foot chip sample from across the prospect pit. It contained 17.6 percent copper (Kurtak and Jeske, 1986). No other assay results are reported.

Alteration:**Age of mineralization:**

Tertiary or younger; the occurrence is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

Production Status: Undetermined.**Site Status:** Inactive**Workings/exploration:**

Workings on the prospect consist of a 10-foot- by 30-foot prospect pit from which Grant and Higgins (1909) indicated a few tons of ore had been shipped. A short adit was driven to crosscut the shear zone (Johnson, 1918 [B 662-C, p. 219]).

The U.S. Bureau of Mines collected a 4-foot chip sample across the prospect pit. It contained 17.6 percent copper (Kurtak and Jeske, 1986). No other assay results reported.

Production notes:

A few tons of ore was reported shipped, but there is no record in the literature of the amount of copper and zinc it contained (Grant and Higgins, 1909).

Reserves:**Additional comments:****References:**

Grant and Higgins, 1909; Johnson, 1918 (B 662-C, p. 219); Moffit and Fellows, 1950; Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Hoekzema and Sherman, 1983; Jansons and others, 1984; Nelson and others, 1985.

Primary reference: Cobb and Tysdal, 1980

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 10/20/00

Site name(s): Hogan; Hemple and Egan; Hemple Bay**Site type:** Prospect**ARDF no.:** SR322**Latitude:** 60.2066**Quadrangle:** SR A-3**Longitude:** 147.7752**Location description and accuracy:**

The prospect is located at an elevation of about 900 feet near the top of a ridge that separates Thumb Bay from Hogan Bay. It is in the E1/2 section 6, T. 1 N., R. 10 E., of the Seward Meridian. This is location 118 of Cobb and Richter (1972), location 147 of MacKevett and Holloway (1977), location 252 of Cobb and Tysdal (1980), and location S-27 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:****Ore minerals:** Bornite, chalcopyrite, pyrite**Gangue minerals:** Quartz**Geologic description:**

The country rock at the prospect is graywacke of the Orca Group of early Tertiary age. It generally strikes northeast and dips 42 to 70W (Cobb and Tysdal, 1980). In the lower adit, diorite forms an irregular contact with the graywacke. There is no mineralization associated with the diorite (Kurtak and Jeske, 1986). Several shear zones, as much as 5 feet wide, trend northeast, but most dip more steeply than the graywacke. The shear zones, which are confined to the graywacke, contain 1- to 5-foot-wide sulfide-bearing zones consisting of as much as 5 percent chalcopyrite stringers, as much as 2 percent pyrite with minor amounts of bornite, and some quartz veinlets and lenses as much as 6 inches wide (Kurtak and Jeske, 1986). Four chip samples were collected by the U.S. Bureau of Mines (Kurtak and Jeske, 1986); three samples contained 0.78 percent, 0.89 percent, and 0.99 percent copper, respectively, and from 2 to 4 ppm silver. One sample contained 2.2 percent copper and 8.6 ppm silver.

Alteration:**Age of mineralization:**

Tertiary or younger; the occurrence is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

Workings on the prospect consist of three adits that are 45, 65, and 140 feet long, respectively. Four chip samples were collected by the U.S. Bureau of Mines (Kurtak and Jeske, 1986); three samples contained 0.78 percent, 0.89 percent, and 0.99 percent copper, respectively, and 2 to 4 ppm silver. One sample contained 2.2 percent copper and 8.6 ppm silver.

Production notes:

Reserves:

Additional comments:

References:

Grant and Higgins, 1909; Shepard, 1925; Condon and Cass, 1958; Cobb and Richter, 1972; Mackevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 03/09/01

Site name(s): Kilborne**Site type:** Prospect**ARDF no.:** SR323**Latitude:** 60.2464**Quadrangle:** SR A-3**Longitude:** 147.7741**Location description and accuracy:**

The prospect is located one mile north of the head of Northeast Arm of Mummy Bay at an elevation of 1,500 feet. This is in the SE1/4 section 19, T. 2 N., R. 10 E., of the Seward Meridian. This is location 244 of Tysdal (1978 [MF-880-A]) and location S-35 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:** Zn**Ore minerals:** Bornite, chalcopyrite, pyrite, pyrrhotite**Gangue minerals:** Calcite, quartz**Geologic description:**

The prospect consists of a zone of iron-stained, sheared greenstone of the Orca Group of early Tertiary age (Nelson and others, 1985). A 71-foot-long adit was driven to intersect the shear zone. The shear zone is 30 feet wide; it trends N2E and dips 80E. There is a shallow open cut above the adit. The mineralization consists of thin lenses of massive chalcopyrite, pyrrhotite, pyrite, and some bornite. Thin quartz-rich lenses within the shear zone also carry sulfide minerals (Kurtak and Jeske, 1986). Two chip samples, 2.5 and 1.5 feet wide, from the adit contained 1,650 ppm and 0.16 percent copper, and 1,250 and 1,550 ppm zinc. A grab sample from the dump contained 7.1 percent copper and 0.25 percent zinc (Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

Workings on the prospect consist of a 71-foot-long adit at 1,500 feet elevation and a 15-foot open cut above the adit. Two chip samples, 2.5 and 1.5 feet wide, were collected from the adit; they contained 1,650 ppm and 0.16 percent copper along with 1,250 and 1,550 ppm zinc. A grab sample from the dump contained 7.1 percent copper and 0.25 percent zinc (Kurtak and Jeske, 1986).

Production notes:

Reserves:

Additional comments:

References:

Barry, 1973; Tysdal, 1978 (MF-880-A); Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/18/01

Site name(s): Wilcox**Site type:** Prospect**ARDF no.:** SR324**Latitude:** 60.2089**Quadrangle:** SR A-3**Longitude:** 147.7624**Location description and accuracy:**

The prospect is located at the head of Hogan Bay about 1,500 feet from tidewater at an elevation of 300 feet. It is in the NW1/4 section 5, T. 1 N., R. 10 E., of the Seward Meridian. This is location 119 of Cobb and Richter (1972), location 147 of MacKevett and Holloway (1977), location 251 of Cobb and Tysdal (1980), and location S-28 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:****Ore minerals:** Chalcopyrite**Gangue minerals:** Quartz**Geologic description:**

The prospect is hosted in graywacke near the contact with greenstone. Both units are the Orca Group of early Tertiary age (Nelson and others, 1985). Three adits were driven to explore the prospect: a 680-foot-long adit at the 315-foot elevation, a 70-foot-long adit at the 1,000-foot elevation, and a short adit above the 1,000-foot elevation (Grant and Higgins, 1909). The first 200 feet of the lower adit cuts greenstone, then it crosses a sheared contact into slate.

The mineralization consists of quartz-chalcopyrite stringers and disseminated chalcopyrite lenses that occur mainly in shear zones. Mineralization in the 70-foot adit is thin stringers of pure chalcopyrite (Grant and Higgins, 1909). Random chip samples collected from the lower adit contained from 35 to 75 ppm copper and no precious metals values (Kurtak, and Jeske, 1986). The U.S. Bureau of Mines did not find the other two workings that are described in the literature.

Alteration:**Age of mineralization:**

Tertiary or younger; the occurrence is in rocks of the Orca Group of Tertiary age.

Deposit model:

Besshi massive sulfide (Cox and Singer, 1986; model 24b)

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

24b

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

In 1908, four substantial long buildings were built on the property by James Mullins Coal Company. Three adits were driven to explore the prospect: a 680-foot-long adit at 315-foot elevation, a 70-foot-long adit at the 1,000-foot elevation, and a short adit above 1,000-foot elevation (Grant and Higgins, 1909). Random chip samples collected from the 680-foot adit by the U.S. Bureau of Mines in 1981 contained from 35 to 75 ppm copper and no precious metals values (Kurtak, and Jeske, 1986).

Production notes:

Reserves:

Additional comments:

References:

Grant and Higgins, 1909; Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 09/09/01

Site name(s): Unnamed (Knight Island, half a mile north of the head of Hogan Bay)**Site type:** Prospect**ARDF no.:** SR325**Latitude:** 60.2159**Quadrangle:** SR A-3**Longitude:** 147.7622**Location description and accuracy:**

The prospect is located in the westernmost drainage north of the head of Hogan Bay at an elevation of 1,150 feet. It is in the SW1/4 section 32, T. 2 N., R. 10 E., of the Seward Meridian. This is location S-29 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:****Ore minerals:** Chalcopyrite, native copper, pyrrhotite**Gangue minerals:** Chert**Geologic description:**

The workings on the prospect consists of an 8-foot- by 20-foot-long open cut at an elevation of 1,150 feet and a 6-foot- by 10-foot-long open cut at 1,200 feet elevation. The larger cut exposes greenstone containing a mineralized zone that averages 2 feet thick. The zone is conformable with the flow layers of the greenstone. Sulfides consist of as much as 2 percent chalcopyrite and 4 percent pyrrhotite. Total sulfide content of the cut is about 1% (Kurtak and Jeske, 1986). The smaller cut exposes of chert interbedded with greenstone and contains as much as 1 percent total sulfide. Native copper occurs in the lower cut (Kurtak and Jeske, 1986). Bedrock in this area is Orca Group of early Tertiary age (Nelson and others, 1985).

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

Development on the prospect consists of an 8-foot- by 20-foot-long open cut at an elevation of 1,150 feet and a 6-foot- by 10-foot-long open cut at 1,200 feet elevation (Kurtak and Jeske, 1986). The smaller open cut is 900 feet southwest of the larger one. Three discontinuous chip samples from both open cuts contained between 120 ppm and 1.4 percent copper and from 0.0 to 8.2 ppm silver (Kurtak and Jeske, 1986).

Production notes:

Reserves:

Additional comments:

References:

Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 12/15/01

Site name(s): Minnie**Site type:** Prospect**ARDF no.:** SR326**Latitude:** 60.2313**Quadrangle:** SR A-3**Longitude:** 147.7602**Location description and accuracy:**

The prospect is located at about 700 feet elevation about one-half mile east of the head of Northeast Arm, Mummy Bay. It is in the SW1/4 section 29, T. 2 N., R. 10 E., of the Seward Meridian. This is location 250 of Tysdal (1978 [MF-880-A]) and location S-30 of Jansons and others (1984). This location is accurate to within a quarter of a mile.

Commodities:**Main:** Cu**Other:****Ore minerals:** Chalcopyrite, copper**Gangue minerals:** Quartz**Geologic description:**

The country rock is greenstone of the Orca Group of early Tertiary age (Kurtak and Jeske, 1986). The prospect consists of a 145-foot-long adit driven along a north-trending shear zone. The shear zone is 2 to 3 feet wide and dips 80E. The mineralization consists of massive chalcopyrite stringers with some quartz veins containing disseminated chalcopyrite (Kurtak and Jeske, 1986). As much as 1 percent native copper was identified in parts of the shear (Johnson, 1915). Two chip samples, each 3 feet wide, were collected from the adit. The samples contained 300 ppm and 0.25 percent copper, respectively (Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the mineralization is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

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

The workings on the prospect consist of a single south-trending adit that is 145 feet long. It is at an elevation of 700 feet. Two 3-foot-wide chip samples from the adit contained 300 ppm and 0.25 percent copper, respectively (Kurtak and Jeske, 1986).

Production notes:**Reserves:**

The U.S. Bureau of Mines estimated inferred reserves of 200 tons of ore at a grade of 0.25 percent copper (Kurtak and Jeske, 1986).

Additional comments:**References:**

Johnson, 1915; Tysdal, 1978 (MF-880-A); Jansons and others, 1984; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 11/6/01

Site name(s): Copper Queen**Site type:** Mine**ARDF no.:** SR327**Latitude:** 60.1759**Quadrangle:** SR A-2**Longitude:** 147.7521**Location description and accuracy:**

The mine is located on the south side of Hogan Bay, 2.5 miles north of Point Helen between elevations of 40 and 450 feet. It is in the N1/2 section 17, T. 1 N., R. 10 E., of the Seward Meridian. This is location 48 of Condon and Cass (1958), location 120 of Cobb and Richter (1972), location 253 of MacKevett and Hol- loway (1977), location 253 of Cobb and Tysdal (1980), and location S-26 of Jansons and others (1984). This location is accurate to within 300 feet.

Commodities:**Main:** Cu**Other:** Pb, Zn**Ore minerals:** Chalcopyrite, covellite, malachite, pyrite, pyrrhotite, sphalerite**Gangue minerals:** Quartz**Geologic description:**

The host rock at the Copper Queen mine is graywacke and greenstone of the Orca Group of early Tertiary age (Nelson and others, 1985). Bedrock strikes generally northwest and dips 42SW (Kurtak and Jeske, 1986). Two types of sulfide mineralization occur at the mine. The first is a 1- to 4-foot-wide quartz vein that contains chalcopyrite, pyrrhotite, pyrite, and sphalerite. The other is a brecciated massive sulfide in sheared graywacke and greenstone containing pyrrhotite, pyrite, and chalcopyrite (Grant and Higgins, 1909). The shear zone contained a fault gouge and breccia unit that is from 3 inches to 1 foot wide. Sul- fides within the zone consist of massive pyrite, 5 to 10 percent chalcopyrite, 1 to 2 percent covellite, and traces of malachite (Kurtak and Jeske, 1986). Samples collected from the upper adit by the U.S. Bureau of Mines contained as much as 7.5 percent copper and between 2.3 and 9.0 ppm silver (Kurtak and Jeske, 1986).

Alteration:**Age of mineralization:**

Tertiary or younger; the occurrence is in rocks of the Orca Group of Tertiary age.

Deposit model:

Cyprus massive sulfide (Cox and Singer, 1986; model 24a)

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

24a

Production Status: Yes; small**Site Status:** Inactive**Workings/exploration:**

The workings at the mine consisted of three adits. A lower adit at the 40-foot elevation was driven for 1,100 to 1,200 feet; it did not reach the vein type mineralization that outcrops uphill (Johnson, 1918 [B 662-C, p. 219-220]). The middle adit is at the 398-foot elevation and that is about 450 feet long including drifts and crosscuts (Grant and Higgins, 1909). The upper adit is at the 535-foot elevation and is 85 feet long. Only the adit at the 535-foot elevation is still accessible; it was driven along a shear zone that strikes S25E and dips 60W (Kurtak and Jeske, 1986).

Improvements associated with the mine consisted of steam plant, office, and living quarters (Kurtak and Jeske, 1986). Samples collected from the upper adit by the U.S. Bureau of Mines contained as much as 7.5 percent copper and between 2.3 and 9.0 ppm silver (Kurtak and Jeske, 1986). Production from the mine is 57 pounds of copper from 110 tons of ore that was shipped in 1917 (Kurtak and Jeske, 1986).

Production notes:

Patton Mining Company reported that the mill on the property ran from March 15 to September 1, 1917, and processed 110 tons of ore containing 57 pounds of copper (0.026 percent copper) (Kurtak and Jeske, 1986).

Reserves:**Additional comments:**

Internal reports by Kennecott Copper Corporation in 1924 stated that the Patton Mining Company, which ran the property in 1917, was more or less a promotion scheme (Kurtak and Jeske, 1986).

The mine is also known as the Happy Jack Copper Mining and Development Company.

References:

Grant and Higgins, 1909; Grant and Higgins, 1910 (B 443); Johnson, 1918 (B 662-C, p. 219-220); Johnson, 1919 (B 692-C, p. 162); Brooks, 1921; Moffit and Fellows, 1950; Moffit, 1954; Condon and Cass, 1958; Cobb and Richter, 1972; MacKevett and Holloway, 1977; Tysdal, 1978 (MF-880-A); Cobb and Tysdal, 1980; Nelson and others, 1985; Kurtak and Jeske, 1986.

Primary reference: Kurtak and Jeske, 1986

Reporter(s): Jeff A. Huber and Carol S. Huber (Anchorage)

Last report date: 03/07/01

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