JUNEAU GOLD BELT AREA
1986 UPDATE

By: Earl Redman, Ken Maas, Al Clough, Joseph Kurtak

ALASKA FIELD OPERATIONS CENTER, JUNEAU, ALASKA

William Byington at the Alaska Juneau Mine operating a Gardner-Denver 17L drifter drill in 1941
(courtesy of Alaska Electric Light and Power Co.)

UNITED STATES DEPARTMENT OF THE INTERIOR
Donald P. Hodel, Secretary

BUREAU OF MINES
David S. Brown, Acting Director

OFR 49-87

CONTENTS

APPENDIXES

ILLUSTRATIONS

TABLES

UNIT OF MEASURE ABBREVIATIONS USED IN THIS REPORT

elev	elevation	oz/st	ounce per short ton
ft	foot	ppb	parts per billion
in	inch	ppm	parts per million
MM	million	%	percent
oz	troy ounce	yd^3	cubic yard
lb	pound	st	short ton

JUNEAU GOLD BELT AREA
1986 UPDATE

by Earl Redman[1], Ken Maas[2],
Al Clough[1], and Joseph Kurtak[3]

ABSTRACT

The Juneau Gold Belt portion of the Juneau Mining District has historically had the greatest mining and exploration activity within the district. Between 1880 and 1983, the mines within the Juneau Gold Belt produced 6.7 MM oz gold, 3.1 MM oz silver, and 45 MM lbs lead, which had a total value of about $157,000,000 at the time of production.

This report summarizes Bureau of Mines work completed in 1986, the second year of the Juneau Mining District study. Fifty mines, prospects, and occurrences were examined and 638 samples were collected for analysis during 1986. Metallurgical samples were collected from seven deposits and preliminary tests of cyanide amenability have been completed for five of these.

The simultaneous discovery by private industry and the Bureau of gold-bearing quartz veins cutting diorite gneiss recently exposed by the retreat of the Herbert Glacier is the most notable result of work during 1986. This location yielded gold values up to 7 oz/st.

INTRODUCTION

Location and Land Status

The Juneau Gold Belt includes a long, narrow section along the mainland coast. It is centered on Juneau and is approximately 120 miles long by 10 miles wide (fig. 1).

Roberts (5)[4] compiled the most recent land status of the Juneau Gold Belt. Most of the Gold Belt is included in the Tongass National Forest (76%) but privately-held and City and Borough of Juneau lands form a significant portion of the region (17%). State of Alaska lands cover only a minor portion of the Gold Belt (7%). Only an insignificant amount of the Juneau Gold Belt is closed to mineral entry and mining (2%) but most of the area (65%), although open for mineral entry and mining, is subject to restrictions (private land, Native land, City and Borough of Juneau land).

---

[1]Physical Scientist, AFOC, Bureau of Mines, Juneau, AK
[2]Geologist, AFOC, Bureau of Mines, Juneau, AK
[3]Physical Scientist, AFOC, Bureau of Mines, Anchorage, AK
[4]Numbers indicate references

Figure 1

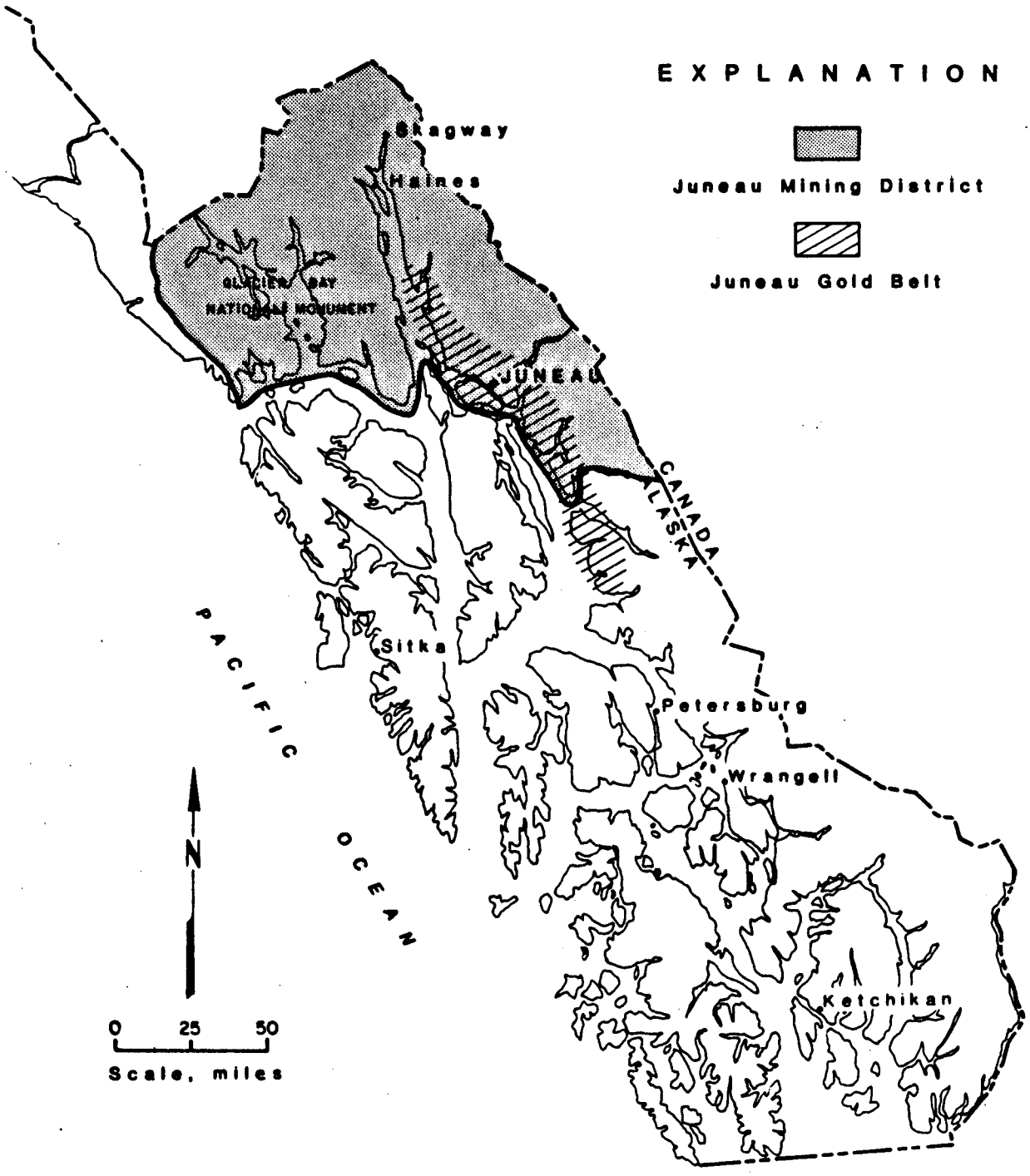

Figure 1. Juneau Mining District Study Area showing the Juneau Gold Belt

Purpose and Scope

In 1985, the Bureau of Mines began the Juneau Mining District Study to evaluate the mineral resources of the northern portion of southeast Alaska (fig. 1). The program was designed to determine the mineral development potential of mines, prospects, and favorable mineralized zones within the study area. Program objectives are to determine reserves, study the application of modern beneficiation technologies to known occurrences, evaluate economic feasibility, and examine the economic and legislative effects on mineral development. The district study is scheduled for completion in 1989.

In 1986, the Bureau continued to examine, sample, and evaluate prospects in the Juneau Gold Belt. Fifty additional prospects were examined and 638 samples were collected and analyzed for gold, silver, copper, lead, and zinc. Selected samples were also analyzed for arsenic, molybdenum, and tungsten. A total of 135 prospects were examined during the first two years of the study. This report, which gives the results of 1986 work, supplements the Bureau's OFR 85-86 (4) which summarized the results from the 1985 work.

The map and appendixes in this report summarize the location, general geology, work done by the Bureau in 1986, and analytical results from Bureau sampling of the mines, prospects, and mineral occurrences in the Juneau Gold Belt (fig. 1). Limited geological interpretation of relationships at specific deposits are described in the prospect descriptions in appendix A, but no other attempt has been made to make interpretations or conclusions based on the data. Resource calculations and overall conclusions will be presented in a future report following completion of field and laboratory studies.

ACKNOWLEDGMENTS

Numerous local prospectors, claim owners, and geologists generously allowed the Bureau to map and sample their respective prospects. Special thanks are due to George Morlein, District Geologist for Echo Bay Mines, Don Madson, Joan Candy, and Don Legrand, claim holders, who shared their local knowledge about area prospect locations and geology. We also appreciate the efforts of Rick Frederickson, Senior Geologist with WGM and Project Manager in charge of evaluating the possibility of reopening the Alaska Juneau and Treadwell mines, for providing the Bureau with information that aided in surface mapping of the Perseverance and Alaska Juneau mine areas.

The authors were assisted by Messrs. Lance Miller, Terry Hayden, Ed Fogels, Dennis Southworth, and Anthony Dunn (deceased), seasonal employees, who aided in locating, mapping, and sampling the mines and prospects.

MINING HISTORY

The first recorded gold discoveries in the Juneau Gold Belt occurred at Powers Creek and Windham Bay in 1869. Since that time, mines in the Gold Belt have produced approximately 6.7 MM oz gold, 3.1 MM oz silver, and 45 MM lbs of lead (table 1). The vast bulk of this production came from the Treadwell and Alaska Juneau mines, both of which were the largest and lowest grade gold mines in the world while they were active.

Table 1.-Summary table of mine production

Mine	Years Active	Production		
		Au (oz)	Ag (oz)	Pb (lb)
Juneau area				
Alaska Juneau	1880-1944	2.9 MM	1.9 MM	40.0 MM
Perseverance.(AK Gastineau)	1886-1921	500,900	311,000	4.8 MM
Ebner	1888-1906	29,000	--	--
Nowell placer	1889-1906	19,350	--	--
Little Basin placer	pre-1900	2,400	--	--
Ground Hog	1893	150	--	--
Glacier/Silver Queen	1888-1906	$500,000	combined Ag, Au[1]	
Gould & Curry	1895	1,250	--	--
Alaska Juneau tailings	1948-1954,1981-83	6,831	1,663	2,500
Alaska Gastineau tailings	1937-1948	890	--	--
Douglas Island				
Treadwell	1881-1921	3.1 MM	151,000	--
Berners Bay area				
Ivanhoe	1897-1903	340	--	--
Horrible	1897-1901	74	--	--
Kensington	1897-1900	2,600	--	--
Northern Belle	1896-1897	940	--	--
Bear	1891-1897	800	--	--
Comet	1893-1901	22,250	--	--
Jualin	1896-1923,1928	36,000	--	--
Eagle River area				
E Pluribus Unum	1904-1909,1935-40	292	69	100
Aurora Borealis-Bessie	pre-1903	300	--	--
Rex	1904	145	--	--
Eagle River	1902-1915	20,000	8,853	--
Smith & Heid	1897-1904,1933-34	min 50	--	--
Peterson	1903-1922	209	8	--
Winn	1924	290	102	115
Limestone Inlet				
Enterprise	1906-1916	100	--	--
Port Snettisham				
Crystal	1899-1909,1919-21	3,500	--	--
Windham Bay area				
Sumdum Chief	1890-1903	24,000	24,000	--
Redwing	1897,1901-1902	3,000	--	--
Marty	1925-1927	55	--	--

-- No data

[1] Production reported as $500,000 combined Ag and Au (dominantly Ag)

Initial gold production from the Gold Belt came from placer deposits at Windham Bay and the Sumdum area and, later, around Gold Creek and on Douglas Island. In the early 1880's, however, lode deposits became of increasing importance. The first stamp mills were erected at the Treadwell Mine and in Silver Bow Basin in 1881 and lode production increased rapidly. The years between 1890 and 1915 were the heyday of the smaller mines in the region such as the Sumdum Chief, Comet, Jualin, Silver Queen, and Eagle River mines. This was also the time of greatest production from the Treadwell complex (the Treadwell, 700 Foot, Mexican, and Ready Bullion mines). During this period, the Treadwell complex was producing a world-record 5,000 tons of ore each day.

By 1917, most of the smaller mines had shut down and the Treadwell complex, except for the Ready Bullion, was forced to close because of a cave-in which completely filled the mine with sea water. The Treadwell group of mines produced a total of about 3.1 MM oz gold from ore that averaged 0.13 oz/st gold. The Alaska Gastineau Co. (the old Perseverance Mine) and the Alaska Juneau mines, however, began their large-scale operations at this time. The Alaska Gastineau operation was highly innovative and, at first, very successful, using ball mills patterned after those being used at porphyry copper deposits in the American southwest. Mine and mill problems, however, forced the operation to stop work in 1921.

The Alaska Juneau Mine followed the milling example of the Alaska Gastineau Co. and used a ball mill for ore grinding. After initial difficulties, the mine and mill became very successful, handling over 12,000 tons of ore each day and making a profit from ore that averaged 0.04 oz/st gold. During the 1930's and early 1940's, the Alaska Juneau Mine was the largest and lowest-grade gold mine in the world and one of the largest lead producers. The fixed price of gold and war-time inflation made the operation unprofitable and the mine closed in 1944 after it had produced 2.9 MM oz gold, 1.9 MM oz silver, and 40 MM lbs lead.

1986 BUREAU ACCOMPLISHMENTS

Field Studies

In 1986, the Bureau continued mapping and sampling both underground and surface areas. Figure 2 displays the locations of mines, prospects, and occurrences examined, and of samples taken by the Bureau during 1986. Appendix A contains summaries of Bureau work and analytical results are listed in appendix B.

Metallurgical Testing

During 1986, 200 to 600 pound samples were collected from the Alaska Juneau, Mexican (part of the Treadwell complex), Jualin, Alaska Treasure, Ascension (Ibex), E Pluribus Unum, and Peterson orebodies for metallurgical testing by the Bureau of Mines Salt Lake City Utah Research Center under the direction of Richard Sandberg, Research Supervisor. The tests were conducted by Richard McDonald, metallurgist. Preliminary results for cyanide amenability have been received for five of the samples (table 2.). In addition to the cyanide amenability tests, the Research Center will also do floatation and, if necessary, carbon-in-pulp tests on the samples and the results reported in subsequent publications.

Table 2.-Preliminary results of cyanide amenability tests

Mine Sampled	Grind % -325 Mesh	Assay (oz/st) Head Au	Head Ag	Residue Au	Residue Ag	Extraction (%) Au	Extraction (%) Ag
Mexican.....	84.4	0.307	0.05	0.005	-0.05	98.4	51.6
Jualin.....	80.3	0.118	0.04	0.035	-0.-5	71.1	65.5
Alaska Treasure...	88.8	0.112	--	0.026	--	77.6	--
Ascension....	64.9	0.182	11.1	0.30	11.3	63.7	1.1
E Pluribus Unum.....	82.0	0.124	0.12	0.01	-0.05	92.1	83.4

-- No data

For the cyanide amenability tests, 1,000 grams of minus-10 mesh sample was split out from the submitted metallurgical sample. The split was ball-mill-ground for 45 minutes at 50% solids then gravity concentrated by panning to remove coarse gold. The pan tails were adjusted to 50% solids and lime was added to raise the pH above 10.5. The resultant products were then treated with a ratio of 20 lbs of NaCN/st and were agitated in a rolling bottle for 72 hours. Following agitation, the sample was filtered and the leach residue was thoroughly washed and dried. Precious metal products were then determined by fire assay. Coarse gold values (gravity concentrate) values were then factored back into the overall gold assay.

REFERENCES

1. Knopf, A. The Eagle River Region, Southeastern Alaska. U.S. Geol. Surv. Bull. 502, 1911, 61 pp.

2. Metzger, L. H. Letter to F. W. Bradley, Alaska Treadwell Gold Mining Co., 1919, 12 pp; Unpublished report available from Alaska Field Operations Center, BuMines, Juneau, AK.

3. Redman, E. An index to mines and prospects in the Juneau Goldbelt from Juneau-area newspapers, 1885-1912. Alaska Div. of State Libraries, 1987, 66 pp.

4. Redman, E., W. Roberts, A. Clough, and J. Kurtak. Preliminary Mine, Prospect, and Sample Location Maps and Descriptions, Juneau Gold Belt Area. BuMines OFR 85-86, 1986, 68 pp.

5. Roberts, W. S. Availability of Land for Mineral Exploration and Development in Southeastern Alaska, 1984. BuMines Spec. Pub., 1985, 34 pp.

6. Roehm, J. C. Preliminary Report of California-Gold Standard (Winter Pond) Claim Group, Echo Cove, Berners Bay, Juneau Gold Belt, Alaska. Alaska Terr. Dep. of Mines. PE 112-10, 1937, 6 pp.

APPENDIX A. - 1986 BUREAU WORK, JUNEAU GOLD BELT

The prospects in this appendix are generally listed from north to south and are shown with the same number as on figure 2. Many of the prospects were described in more detail in OFR 85-86 (4), which included historical and geological data, and the information given in this report represents only work done by the Bureau in 1986. A few prospects listed below, which were not covered in OFR 85-86 or for which new location or other pertinent information has been acquired, are described more fully in this report. Sample numbers given in this appendix are the field numbers listed in appendix B.

1. Jualin

The Bureau took three samples from the Jualin mine, collected a 200 lb metallurgical sample, and made a careful examination of the quartz veins in the collapsed stopes. A sample of a massive pyrite pod (3685) contained 6.5 oz/st Au and 4.8 oz/st Ag while another selected quartz vein sample (3687) contained 2.337 oz/st Au. Visible Au was found in the open stope.

The metallurgical sample was collected from material on the dump which represents the altered and mineralized rock between the large quartz veins mined before 1920. This material assayed 0.12 oz/st Au and 0.04 oz/st Ag. The results of preliminary cyanide amenability tests gave 71.1% Au recovery and 65.5% Ag recovery.

2. Valentine

One sample was collected from the Valentine prospect. The sample (3686) contained abundant chalcopyrite in a stratiform layer in greenschist and yielded 4.12% Cu, 1.02 oz/st Au, and 1.30 oz/st Ag.

3. Yankee Boy

The Yankee Boy prospect was found north of the old Jualin power plant on lower Johnson Creek at an elev of 575 ft . A caved adit and two trenches were examined and three samples taken (3862-3864). One sample of bluish quartz (3862) contained 0.12 oz/st Au and 23.0 ppm Ag. The Yankee Boy vein is 2 to 5 ft thick and cuts Jualin diorite.

4. Tacoma

The Bureau located a caved adit and two prospect pits on the Tacoma prospect at an elev of 1,060 ft on the slope south of Sawmill Creek. At the prospect, outcropping concordant quartz veins in black phyllite contained no visible sulfides. Two samples of the quartz veins (3755, 7302) and one of a calcite vein (7290) contained low metal values. Quartz/calcite float found on the dump of the adit, however, contained pyrite, galena, and sphalerite and a sample (7301) contained 0.03 oz/st Au, 4.95 oz/st Ag, and 2.78% Pb.

5. Echo Cove

Two samples (3750-3751) were taken of pyritic greenschist near the entrance to Echo Cove. Both samples yielded low metal values.

6,7. California/Gold Standard

The Bureau mapped and sampled three adits on the California and two adits on the Gold Standard as well as numerous trenches and open cuts. A total of 570 ft of underground workings were examined. The prospect area is underlain by black phyllite and massive to schistose greenstone. Concordant, boudined quartz veins are concentrated along the contact zone of the two rock units.

Roehm (6) indicated that Au in the veins tended to be concentrated with arsenopyrite but Bureau sampling did not support the relationship.

On the Gold Standard portion of the property, 12 samples were taken (6001-6006, 6022-6026, 7304). The quartz vein in the face of the Contact Tunnel contained values of 0.20 and 0.19 oz/st Au (6003, 6004) and a sample taken in the west drift of the same tunnel (6002) carried 0.11 oz/st Au.

A total of 21 samples were collected from the California area (3780-3781, 6007-6009, 6027-6031, 6100-6106, 6416, 7305-7307). The highest values came from quartz exposed in a trench above the Cabin Tunnel where one sample (3780) contained 0.07oz/st Au. A float sample (7307) yielded 0.31 oz/st Au.

8. Cowee Creek

The single lode claim located near Cowee Creek was not visited by the Bureau but a 0.1 yd^3 placer sample (3329) was collected from Cowee Creek. No visible Au was found.

9. Bridget Cove

A pan concentrate sample (7492) was taken from a small stream that empties into the south end of Bridget Cove but metal values were low.

10. Blue Jay

The Blue Jay prospect, also known as the Yankee Boy, was visited briefly by the Bureau and one caved adit was located. In the creek that cuts across the prospect, masses of concordant quartz with a ribbon texture occur in dark gray phyllite. Four samples were taken of the quartz (6319, 7364-7366) and two select samples contained 0.14 and 0.11 oz/st Au (6319, 7366).

11. Joyce-Jensen

The Bureau located four open adits with a total of 452 ft of workings, and numerous trenches at the Joyce-Jensen prospect. The prospect straddles a ridge and two of the adits were driven into each side. Most of the trenching was done on the south side of the divide. The workings expose a highly contorted black phyllite with predominantly concordant quartz veins, pods, and stringer zones. Stringer zones are up to 10 ft wide whereas the quartz veins are 4- to 6-ft thick. The contorted phyllites are part of a large shear zone which extends NW into the Blue Jay prospect and SE through the E Pluribus Unum mine.

Nineteen samples were taken on the property (7343-7352, 7355-7363). The highest values came from a quartz vein exposed in a trench approximately 400 ft SE of the most southern adit. A continuous chip sample and a float sample contained 0.205 (7351) and 0.343 (7352) oz/st Au. The float sample also contained 1.14 oz/st Ag.

12. E Pluribus Unum

The Bureau surveyed, mapped, and sampled two open adits and an open stope/trench at the E Pluribus Unum mine. A 300 pound metallurgical sample was collected from the upper adit area. The lower adit is 212-ft long with 88 ft of drifts and is connected with the upper adit by a 59-ft ore chute. Numerous 2- to 6-ft wide concordant quartz stringer zones occur in highly contorted, sheared black phyllite. The upper adit is 49 ft long and exposes a synclinally folded quartz vein up to three ft thick. A portion of the vein has been stoped to the surface. The quartz in both adits contains pyrite, arsenopyrite, galena, and minor chalcopyrite.

Ten samples were taken in the lower adit (7309-7318). Only one sample from the adit (7317) had significant value (0.87 oz/st Au) but may have come from the upper workings since it came from the bottom of the ore chute.

Ten samples were collected from the upper adit and associated trenches (7319-7328). Values ranged from 0.004 to 1.747 oz/st Au (7321) and 3.573 (7320) oz/st Ag with an average of 0.62 oz/st Au. A massive arsenopyrite pod in the quartz vein (7326) contained 0.123 oz/st Au, 0.93 oz/st Ag, and 0.86% Pb.

The 300 lb metallurgical sample was composited from material collected in the upper adit and trench, and from an ore stockpile on the dump of the upper adit. The sample assayed 0.12 oz/st Au and 0.12 oz/st Ag. Gold recovery by cyanide amenability was 92.1% while 83.4% of the Ag was recovered.

13. Black Chief

The Bureau mapped and sampled one open adit, with 320 ft of workings, and two sloughed prospect pits at the Black Chief prospect. Mineralization occurs in concordant quartz stringer zones up to ten ft wide in sheared black phyllite. The zones contain minor pyrite which is commonly well oxidized. Reconnaissance along a gulch draining the Black Chief revealed more mineralized shear zones.

Thirteen samples were taken at the Black Chief property (7329-7333, 7335-7342). The highest values came from two float samples collected in the gulch (7330, 7342) which assayed 0.30 and 0.49 oz/st Au, 1.37 and 1.22 oz/st Ag, and 1.38 and 1.70% Pb, respectively.

14. Bessie

An adit with 280 ft of workings located in 1985 on the NE side of Bessie Mountain was mapped and sampled in 1986. The adit was driven along a 0.4- to 2.0-ft wide quartz vein that occupies a cross-shear that trends 075 degrees in agglomerate. The vein and shear are probably continuous with the vein and shear mapped in the other adit in Bessie Gulch in 1985.

Nine chip samples were taken across the vein (7291-7298, 7300) in the adit, one chip sample was taken of the vein selvage (7303), and one sample was collected from the agglomerate (7299). A placer sample (6067) containing visible Au was taken from Bessie Creek near the highway and a pan concentrate sample (7495) was collected a mile to the south. Two quartz vein samples (7293, 7296) contained 0.10 and 0.10 oz/st Au, respectively, and the selvage sample gave 0.04 oz/st Au. Samples averaged 0.03 oz/st Au over an average vein width of 1.2 ft.

15. Julia

The Bureau located four trenches and an 8-ft long adit at the Julia prospect. Mineralized black slate with concordant quartz stringer zones is exposed in the adit and mineralized quartz float, containing arsenopyrite, pyrite, galena, and minor sphalerite was found in all the trenches.

Two samples were collected from the adit area (6332, 6337) and four more were taken in or near the trenches (6333-6336). The adit samples contained 0.10 and 0.59 oz/st Au while the trench samples all carried less than 0.02 oz/st Au.

16. Eagle Glacier Area

Five samples (3358-3359, 7437-7439) were collected from iron-stained, biotite schist and diorite gneiss cut by discordant quartz/calcite veins in cross shears. Trace amounts of pyrrhotite, chalcopyrite, and arsenopyrite were observed in these rocks. The highest sample value (3358) was 0.08 oz/st Au.

17. Puzzler

The Bureau located a number of trenches, prospect pits, and piles of quartz cobbles on the Puzzler claim. The prospect is underlain by black phyllite containing quartz.

Six samples were collected from the prospect (6073, 6080, 6341-6344). Two samples (6080, 6344) yielded 0.18 and 0.11 oz/st Au, respectively.

18. Noonday

An 18-ft-long adit was mapped and sampled by Bureau personnel at the Noonday prospect. The adit exposes quartz veining in zones up to 3-ft thick in siliceous sericite schist and black phyllite. Sulfides are uncommon, however, one prospect pit contained quartz float with up to 20% combined arsenopyrite, pyrite, and galena.

Of twelve samples taken from the Noonday prospect (6074-6079, 7373-7377, 7388) three select samples contained Au values of 0.54 oz/st, 0.30 oz/st, and 1.45 oz/st, respectively (7373, 7374, 7375).

19. Dividend

The Standard Crosscut on the Dividend prospect was mapped and sampled in 1985. During 1986, a 6-ft-deep, water-filled shaft, and a hydraulic giant were found near the creek above the crosscut. The creek exposes mineralized phyllite and greenstone and an eight-ft-wide quartz stringer zone next to the shaft.

Seven samples were taken in the the creek (6083-6085, 7308, 7378-7381). The highest value (7379) came from the stringer zone adjacent to the shaft where a value of 0.19 oz/st Au was obtained. Values in the other samples ranged from less than detection limit to 0.07 oz/st Au.

20. Cascade

The Bureau located a caved inclined shaft and a prospect pit located southeast of this shaft at the Cascade prospect in Yankee Basin. Black phyllite outcrops at the portal of the shaft but quartz and sulfide mineralization were uncommon. An early report on the Yankee Basin area (2) indicated that the vein on the Cascade prospect was continuous with the Julia No. 1 vein. Structural data collected by the Bureau, however, does not support the connection.

Four samples were taken at the Cascade prospect (6081-6082, 6345, 7380). The only significant value came from a float sample collected downhill from the shaft which assayed 0.12 oz/st Au(7380).

21. Rex

The Bureau located and sampled several trenches, prospect pits, and float on the Rex prospect. A greenstone unit that contained a discontinuous quartz-calcite vein with documented production (1) was not found due to snow cover. The rocks seen at the prospect consist of black, graphitic schist and quartz sericite schist. Concordant quartz veins in the schists were exposed in the trenches and prospect pits as well as quartz float in various locations. No sulfides were visible in the quartz.

Twelve samples were collected from the Rex prospect but all contained low metal values (6086-6095, 7386-7387).

22. Eagle River

The Bureau located seven caved adits at the old Eagle River Mine as well as numerous prospect pits and trenches. The remains of the old town of Amalga and the mill are below the mine near Eagle River at an elev of 200 ft. Two

adits were located at elev of 500 to 600 ft. The main workings were located at 1,000 ft elev and consisted of three adits with a large dump, a tramline, cookhouse, bunkhouses, and associated debris. At 1,250 ft elev, a series of prospect pits, two adits, and the beginning of the tramline were found. Two additional adits were located at 1,500 ft elev. The Flume Tunnel was not found. Rocks underlying the mine area consist of black phyllite.

Only the dumps were sampled because the portals were caved. One select dump sample (6070) from the workings at 1,500 ft elev yielded values of 1.47 oz/st Au, 1.24 oz/st Ag, and 1.27% Pb. Five other dump samples (6071, 6072, 7370, 7372, 7389) contained 0.04 to 0.37 oz/st Au, respectively.

23. Mother Lode

A ten-ft decline and a trench were examined by the Bureau. The workings exposed discordant quartz veins up to 3-ft-thick hosted by silicified greenstone conglomerate. Minor pyrite and arsenopyrite occurred in the quartz.

Of five samples (3861, 7382-7385) taken at the Mother Lode prospect, two select samples (7385, 7382) contained 0.26 and 0.04 oz/st Au, respectively. A pan concentrate sample (7494) was taken from the stream that drains the prospect area but it did not contain visible Au or significant metal values.

24. Oleson

None of the old Oleson workings were found by Bureau personnel because of heavy vegetation and limited bedrock exposure. Both slate and greenstone outcrops were seen in the area, but the contact area where the workings were located was not found. Samples taken in the area (3331, 7536-7538) contained low metal values.

25. Boulder Creek

One placer sample (6417) was taken from Boulder Creek that contained 0.0009 oz/yd^3 Au and 405 ppm W.

26. Summit/St. Louis

An old cabin was located at the Summit/St. Louis prospect but no workings were found. Rocks at the prospect consist of locally silicified greenschist with mineralized quartz vein swarms. Individual veins are up to 5-ft-thick with vein swarms up to 20 ft wide and extending 100 ft along strike. Minor calcite partings and blebs occur within the quartz veins. Mineralization in the veins consists of pyrrhotite, pyrite, arsenopyrite, and minor chalcopyrite.

Twelve samples (6032-6042, 6054) were taken at the Summit/St. Louis prospect but none contained significant metal values.

27. Herbert Glacier

Retreat of the Herbert Glacier near Goat Creek has recently exposed two sets of gold-bearing quartz fissure veins that fill shears in biotite-quartz diorite gneiss. The veins, which crosscut foliation, trend 070-075 degrees and dip steeply NW. The northern-most vein set is up to 5-ft wide and extends for over 440 ft along strike before it disappears into the creekbed of Goat Creek. In the northern vein set, the diorite gneiss has undergone extensive potassic alteration along the footwall which also contains conspicuous sulfide mineralization (pyrite, arsenopyrite, and galena are present in concentrations up to 8%). The hanging wall, however, has not undergone extensive alteration nor does it contain appreciable sulfide mineralization. Alteration and mineralization of the footwall along the south vein set is similar but not as strong. The southern vein set attains widths of up to 12 ft with quartz vein completely enclosing horses of diorite gneiss.

Five samples (6048-6051, 7436) were taken across the northern vein set and values ranged from 0.10 to 7.02 oz/st Au. The highest sample (6050) came from a 1.8 ft vein and ran 7.02 oz/st Au, 3.70 oz/st Ag, 0.48% Pb, and 0.16% Zn. Other samples assayed 3.42 (7436), 0.49 (6049), 0.49 (6053),and 0.27 (6048) oz/st Au.

28. Herbert River

A pan concentrate sample was collected from the Herbert River (7496). It contained only low metal values.

29. Windfall Creek

The Bureau completed the evaluation of Windfall Creek, started in 1985, by taking five additional 0.1 yd^3 placer concentrate samples (6043-6047) from various locations along the creek. Assays ranged from 0.0003 to 0.0012 oz/yd^3 Au.

30. Smith & Heid

The Bureau located the open No. 1 and No. 2 adits as well as a caved Falls Tunnel at the Smith & Heid prospect. The two open adits were 293 and 183 ft long, respectively. An extensive maze of trenches above the open adits and numerous mineralized quartz showings along the creek were also found on the property. Quartz stringer zones and mineralized veins are located near the contact of black phyllite and chlorite schist and in a tan sericite schist unit exposed in the No. 1 adit.

The Bureau collected 27 samples from the Smith & Heid prospect (3343-3354, 6010-6014, 7406-7412, 7414-7416). Eleven samples were taken from Adit No. 1 (3345-3349, 7407-7412). Three of these samples contained greater than 0.04 oz/st Au and two (3346,3347) contained 0.53 and 3.14 oz/st Au, respectively. Six samples were collected from Adit No. 2 (3343-3344, 6010-6012, 7406), two of which (6010, 6011) yielded 0.09 and 0.94 oz/st Au, respectively. A 0.1 yd^3 placer concentrate (3354) was taken from Windfall Creek above the Falls Tunnel location and contained 0.0002 oz/yd^3 Au.

31. Patton

Two adits and numerous quartz showings were located by the Bureau at the Patton prospect. The two adits are at an elev of about 2,800 ft and were dug out by Bureau personnel, mapped and sampled. Both adits were driven to intersect discordant quartz fissure veins in biotite schist. The south adit contains a 60-ft-long crosscut and a 100-ft-long drift along a 6-in to 1.1-ft-wide quartz vein. This vein has been stoped 15 to 20 ft above the adit level. The north adit, or Mt. View adit, located at 2,840 ft elev, consists of a 58 ft crosscut with two separate drifts (total length of 50 ft) along subparallel quartz fissure veins. Sulfides were not visible within the quartz or adjacent wallrock in either adit. Concordant quartz veins and stringers were exposed in biotite schist along the 2,900 to 3,000 ft level of the basin. A third adit reported to be at an elev of 2,475 ft was not found.

Twenty-one samples were taken at the Patton property (6096-6098, 7413, 7417-7433). Twelve samples were taken from the south adit (7413, 7417-7427) and the average Au content was 0.62 oz/st over a 0.9 ft width. The highest values were 1.87 and 2.22 oz/st Au (7422,7418). In the north adit, four samples were collected (7428-7431) that averaged 0.16 oz/st Au. The highest value in this adit was 0.532 oz/st Au over four ft (7428). Three samples were taken of the quartz veins about 3,000 ft elev (6096-6098) but none contained significant metal values.

32. Montana Basin

The Bureau mapped and sampled a 21-ft-long adit at 2470 ft elev, unsuccessfully searched for four other adits, and extensively sampled the old placer ground. The adit exposes concordant quartz veins along the contact between black phyllite and biotite schist.

Six rock samples (3327-3328, 3341-3342,6099, 7403) were collected from the adit and surrounding area but all contained low values. Eight 0.1 yd^3 placer concentrate samples (7393-7398, 7400, 7404) were obtained from the basin and Au was common with particles up to 5mm wide recovered. The placer samples contained values ranging from 0.001 to 0.035 oz/yd^3 Au.

33. Montana Creek

The Bureau took six separate 0.1 yd^3 placer concentrates from various locations along the middle portion of Montana Creek and visible Au was observed in each sample (6055, 6056, 6065, 6066, 7353, 7354). Gold values ranged from 0.0004 to 0.0013 oz/yd^3 and 15 to 340 ppm W.

34. Mansfield Gold Mining Co.

The Bureau was unable to locate the placer or lode workings of the Mansfield Gold Mining Co. on McGinnis Creek but took five quartz float or outcrop samples (3355-3357,7434-7435) along the stream and its tributaries, and three 0.1 yd^3 placer concentrate samples (6057-6059). None of the rock samples contained significant metal values and the best placer sample (6057) contained 0.0008 oz/yd^3 Au.

35. Peterson

The Bureau located two caved adits and a trench at the Peterson mine, in addition to workings found in 1985, adjacent to the trail a mile north of the main mine area, and collected a 350 lb metallurgical sample. An inclined shaft located near the Peterson millsite was opened by Bureau personnel, but it was filled with water 20 ft below the surface. Another caved adit was located south of the main workings at an elev of 890 ft.

Ten samples (6060-6063, 6320-6324, 7367) were taken from outside the caved workings. A selected sample of quartz float (6061) from one of the northern adit dumps assayed 0.28 oz/st Au.

The 350 lb metallurgical sample composed of quartz taken from the large dump of the main shaft on the property. No results have yet been received for the sample.

36. Mendenhall

The Bureau located the workings of the Mendenhall prospect after a lengthy search. Two adits, 100 and 24-ft-long, and an open cut were mapped and sampled. The adits exposed concordant quartz veins and stringer lodes in grey phyllite. The quartz forms up to 30% of the zone in local areas and contained arsenopyrite and pyrite.

Eight continuous chip samples (4016-4023) were taken from the two adits and the trench while two other samples (6064, 7402) were taken from mineralized quartz showings near the Mendenhall Glacier. Gold values for all samples were less than 0.002 oz/st.

37. Nugget Creek

One pan concentrate (3872) and two 0.1 yd^3 placer samples (3366-3367) were taken from Nugget Creek by the Bureau. The placer sample from Middle Basin (3367) contained 0.002 oz/yd^3 Au and 585 ppm W whereas the sample from the Lower Basin (3366) contained 0.0008 oz/yd^3 Au and 270 ppm W. The pan concentrate contained some very fine visible Au.

38. Dull and Stephens

A 106-ft-long adit along Lake Creek at the Dull & Stephens prospect by the Bureau in 1986. The adit has 51 ft of drifts and follows a 1- to 4-ft thick quartz vein located along the contact between black phyllite and greenstone while the drifts expose the vein in contact with a crosscutting felsic dike. Trenching has exposed the quartz vein above the adit.

Nine samples were taken from these workings and all Au values were less than 0.008 oz/st (6068, 6327-6331, 6338-6340).

39. Auke Bay

Pan concentrate samples were collected from four streams on the north side of Auke Bay. The samples were taken in Waydelich Creek (9001), Auke Nu Creek (7500), Bay Creek (7498), and Lena Creek (7497). None of the samples contained Au values above the detection limit.

40. Winn

The Bureau located a caved adit and two trenches at the Winn property. The trenching exposed an altered albite diorite and a greenstone unit. Four samples were taken and only low Au values were obtained (6325, 6326, 7368, 7399).

41. Glacier Placer

One 0.1 yd^3 placer sample (3369) was taken by the Bureau near the gaging station at the head of Lemon Creek. The sample contained 0.0002 oz/yd^3 Au.

42. Lemon Creek Placer

A 0.1 yd^3 placer sample (3368) was taken from Lemon Creek a short distance above Sawmill Creek near some old placer cuts. The sample contained 0.016 oz/yd^3 Au.

43. Doran

One caved adit was found by the Bureau at the Doran prospect. A second reported adit was searched for but was not found. A single sample of quartz taken from the dump of the adit (3768) did not contain detectable Au.

44. Wagner

A pan concentrate sample (7499) was taken from Salmon Creek below the Wagner prospect but no Au was detected.

45. Goldstein

Two 25-ft-long trenches and a 7-ft adit were found on a quartz vein at the Goldstein prospect. The prospect, at an elev of 2,600 ft on the north side of Mt. Juneau, consists of a 2- to 3-ft thick quartz vein in chlorite schist. Four samples (3581-3584) were taken but only low metal values were found.

46. Republican

The Republican prospect lies east of Gold Creek and includes lower Granite Creek. None of the reported adits at the Republican prospect were found by the Bureau but one sample of highly iron-stained metagabbro (3375), containing 0.01 oz/st Au, was taken along the Granite Creek trail.

47. Hallum

Two open adits were mapped and examined by the Bureau at the Hallum prospect. A 27-ft-long adit near the Mt. Juneau trail at an elev of 1,820 ft was found to cut black phyllite and quartz-sericite schist. The phyllite is cut by a shear zone healed with quartz stringers and the schist contained minor disseminated pyrite. Two samples were taken (7616-7617) but neither contained detectable Au.

A second adit was found and mapped above Last Chance Basin at an elev of 700 ft. This adit is a large 8 ft by 8 ft crosscut 523 ft long that was driven through massive greenstone. The adit was intended to be the development tunnel for the Hallum prospect but was never completed (3). The barren greenstone contained a few thin, sparsely mineralized calcite and quartz veins and no samples were taken.

48. Humboldt

Three open adits, one caved adit, and one trench were found and mapped by the Bureau between 800 and 1,200 ft elev on the Humboldt prospect. The adits have 38, 50, and 84 ft of workings. All the workings are in black phyllite that contains concordant, boudined quartz veins up to 2 feet thick. Thirteen samples were taken from the adits and trench (3575-3580, 3587-3588, 6300-6304) but only two contained values greater than 0.10 oz/st Au (3579 and 3588 contained 0.16 and 0.13 oz/st Au, respectively).

49. Alaska Juneau

A small amount of surface and underground geologic mapping was done by the Bureau at the Alaska Juneau mine this year. The only sample taken was a 300 lb metallurgical sample collected in the Glory Hole.

Bureau mapping this year identified a large overturned syncline delineated by an arcuate band of metagabbro in the area of the North Orebody. This syncline is part of a structure that was traced from the Perseverance Mine area. Historically, all hydrothermally altered mafic igneous rocks in the mine area have been called "brown metagabbro" because of their color and supposed origin. Underground mapping on the 3 Level of the Alaska Juneau Mine revealed that some of rock heretofore described as "brown metagabbro" is probably not the metagabbro intrusive rock commonly found in the North Orebody, but altered parts of a greenschist that lies at the footwall of the Perseverance orebody and hosts the Ground Hog deposit.

The metallurgical sample collected in the Glory Hole was composed of approximately 45% altered metamafic rock, 45% black phyllite, and 10% quartz, roughly equivalent to the relative percentages of the rocks in the mine. No results have been received at this time.

50. Bridle

The Bridle claim lies on the north flank of Gastineau Peak above the Alaska Juneau North Orebody. At least three quartz vein swarms crosscut massive greenstone and are exposed on the steep slope. The Bureau located one caved adit or trench and took three samples (3586, 3889-3890) of altered greenstone and quartz but none contained detectable Au.

51. Solo/Bess

Five short adits, a prospect pit, and a trench were located, mapped, and sampled along Lurvey Creek between 1,800 and 2,100 ft elev on the Solo claims and one adit was found on the Bess claim. The Solo adits were 6 ft to 20 ft long and the Bess adit had a 32-ft crosscut and a 34-ft drift. One of the two samples (3373-3374) from the Bess adit contained 0.02 oz/st Au.

The Solo adits were all driven along the contact between black phyllite and sericite phyllite. Poorly mineralized concordant quartz veins occur near the contact. None of the six samples taken (3585, 3891-3895) contained detectable Au.

52. Lurvey Placer

The 300-ft-long drainage tunnel for the Lurvey placer was located and a 0.1 yd^3 placer sample taken (3365) of the gravel that had been washed from the basin through the tunnel. No visible Au was seen and Au values were not detected.

53. Rubicon

The Rubicon prospect lies between 2,400 and 2,600 ft elev at the head of Gold Creek. During 1985 and 1986, five open adits, ranging from 6 to 35 ft-long, one caved adit, and five trenches measuring 16, 40, 42, 60, and 400 ft-long were located, mapped and sampled. The prospect is underlain by biotite, quartz, feldspar gneiss on the SW, with black phyllite, siliceous phyllite, and biotite schist units lying concordantly to the NE. All of the open adits and two of the shorter trenches cut concordant, boudined quartz veins which occur in all the rock units. All samples taken from concordant quartz veins contained low metal values (3878-3880, 3886-3888).

Three trenches, however, follow a series of en echelon, crosscutting, quartz-filled shears that trend about 075 degrees. The longest shear can be traced for 400 ft and displays a left-lateral offset of approximately 40 ft. The shears are filled with quartz and siderite that have altered the adjacent wallrock to a bright orange color for 1- to 5-feet from the vein. Brecciation is common in both the wallrock and, locally, the quartz. Quartz in the shear is up to one ft thick and dips steeply NW. Local portions of the quartz contain abundant galena with some sphalerite, pyrrhotite, and arsenopyrite. A sample of quartz from the western 40-ft-long trench (3877) contained 0.16 oz/st Au and 2.14 oz/st Ag while a sample from the middle trench (3881) gave 0.04 oz/st Au, 6.78 oz/st Ag, and 2.47% Pb. Four samples were taken in the long eastern trench (3882-3885). The two highest samples (3883, 3884), taken in the middle portion of the trench, yielded 0.16 and 0.03 oz.st Au, 23.24 and 9.92 oz/st Ag, 2.46 and 0.58% Pb, and 3.65 and 3.02% Zn, respectively.

54. Perseverance

Bureau work at the Perseverance mine was confined to surface mapping of the area between the Alaska Juneau glory hole and the Mt. Roberts/Sheep Mtn. ridgecrest. This mapping showed that a large horseshoe-shaped mass previously called an "albite schist" intrusive body actually delineates a large, moderately SE-plunging, overturned syncline with a wave-length of about 1,000 ft. The "albite schist" is a conformable sequence composed primarily of siliceous volcanic rocks with minor chlorite schist and metasedimentary rocks. Contacts with the overlying black phyllites are strongly infolded.

Two sets of quartz veins occur in the Perseverance area: 1) concordant, folded veins with minor sulfide mineralization and 2) steeply NE- and SW-dipping discordant veins containing pyrrhotite and galena with lesser sphalerite. The discordant veins are the most common in the ore zones of both the Perseverance and Alaska Juneau mines whereas the concordant veins become the predominant style to the SE.

Seven samples were taken from the Perseverance mine. Three samples taken from a short adit (4010-4011) and a trench (4012) on the Jumbo claim contained 0.53, 0.30, and 0.07 oz/st Au, respectively, and 1.10, nil, and 0.50 oz/st Ag. A 0.1 yd^3 placer sample from Lurvey Creek, a short distance below the Jumbo workings, contained 0.022 oz/yd^3 Au.

55. McKinley

One additional adit (a 150-ft-long adit was found in 1985) and two trenches were located and examined at the McKinley prospect. In all the workings, concordant, boudined quartz veins cut black phyllite. The five samples taken (3370-3372, 3598) from the workings all contained low metal values.

56. Ground Hog

In 1985, the Bureau mapped and sampled two adits at the Ground Hog prospect. In 1986, a series of seven trenches cut along quartz veins on the slope above the adits were examined and sampled. These veins were mostly discordant and cut highly altered quartzose greenschist. The veins have similar strikes to the foliation but dip much steeper to both the NE and SW. Galena, sphalerite and pyrrhotite were locally common but generally made up only 1% to 5% of the veins. Three samples were taken in the upper-most trenches (3361-3363) and one (3362) contained 1.64 oz/st Au, 7.87 oz/st Ag, and 3.80% Pb. Two samples (4013-4014) of well-mineralized veins in the middle trenches contained 1.47 and 1.46 oz/st Au, 5.29 and 3.86 oz/st Ag, and 2.95 and 1.75% Pb, respectively. Of two samples taken in the lowest trench (3592-3593), one select sample (3593) yielded 0.73 oz/st Au and 1.46 oz/st Ag.

57. Snowslide Ck

An open adit at an elev of 260 ft near Snowslide Creek consists of a 148 ft-long crosscut with 50 ft of drifts. The workings are in massive greenstone and chlorite schist cut locally by thin quartz and calcite veins. Most of the veins are barren but disseminated pyrite is locally present in the mafic rocks. One sample was taken of the most-highly mineralized rock (3771) but no Au was detected.

58. Ascension

The Ascension mine has previously been called the Ibex but further research has shown that the mine is actually on the Ascension claim while the Ibex claim is to the NE. The mine is was worked on a small scale during the early 1890's but production is not known (3). A 300 lb metallurgical sample was taken from a small ore stockpile near the upper Ascension adit. Sulfides in the vein consist of pyrrhotite, sphalerite, galena, tetrahedrite, and rare gold. One representative sample (3876) taken as a check of the expected metals content of the metallurgical sample contained 11.15 oz/st Ag and 0.01 oz/st Au compared with 11.10 oz/st and Ag 0.18 oz/st Au in the metallurgical sample. The difference in Au values reflects the spotty nature of Au in the vein. Cyanide amenability tests gave a Au recovery of 63.7% and Ag recovery of 1.1%

59. Silver Queen

The Silver Queen Mine was mapped and sampled in 1985 and this year the Bureau took only one sample (9-1-1) of a high-grade quartz vein to check for maximum metal values. This sample contained pyrrhotite, tetrahedrite, sphalerite, and chalcopyrite and assayed 0.03 oz/st Au, 39.50 oz/st Ag, 0.90% Zn, 0.16% Cu, 0.06% Pb, and 0.51% W.60. Hartford

The Hartford prospect is adjacent to the Silver Queen Mine in Sheep Creek. A 14-ft-long adit was located at an elev of 1,550 ft exposes a vein that is concordant with foliation and well boudined. Two samples were collected (3523-3524). A selected dump sample (3524) contained greater than the detection limit Ag (greater than 30 ppm) and 0.02 oz/st Au. The assay for Ag has not been received.

61. Alaska Consolidated

In 1985, the Bureau located and sampled two adits at the Alaska Consolidated prospect on the divide between Sheep Creek and Carlson Creek. This year, a trench that followed a 3- to 4-ft wide discordant quartz vein in altered diorite was located. The one sample taken (3875) contained 0.01 oz/st Au.

62. Denny

One sample was taken of a quartz vein in quartz-sericite schist (3525) the from Denny prospect in Sheep Creek but metal values were low.

63. Gould & Curry

In 1985, the Bureau located the Gould & Curry mine near Powerline Ridge in Sheep Creek but was unable to do more than sample mineralized quartz on the dump due to snow cover. With much less snow cover in 1986, the Bureau was able to map three large quartz veins on the surface of the mine area and to map and sample about 50 ft of underground workings on one of the veins. The main portals of the mine and two of the stopes are caved but one stope is accessible through the middle trench.

The Gould & Curry mine consists of discordant quartz veins in a metamafic unit surrounded by black phyllite. Strike of the veins is similar to the foliation of the enclosing metamafic rock but the veins dip 75 to 90 degrees NE while foliation dips 70 to 75 degrees NE. The veins vary from 0.2- to 3-ft thick and can be traced for up to 150 ft along strike and 40 ft vertically. Locally, the veins contain concentrations of pyrrhotite and sphalerite with minor visible free Au.

Fourteen samples (3596-3597, 3896-3898,4001-4009) were collected at the Gould & Curry mine. Two samples (4007, 4009) taken from the quartz veins in the stope contained 0.73 and 0.25 oz/st Au, respectively, and 4007 also contained 2.94% Zn. Two of five samples taken from the middle trench (3596-3597, 3896-3898) contained 1.23 and 0.40 oz/st Au (3896-3897)

64. McCartney

Two adits were located at an elev of 840 ft and a third adit was found at 1,600-ft elev on the McCartney prospect this year. Quartz veins in all adits were in biotite quartz schist and were concordant, strongly boudined, and contained pyrite, pyrrhotite, and galena. A total of 9 samples were taken on the prospect (3526, 6305-6312). The eastern-most adit at 840-ft elev consists of a 14-ft-long crosscut with an 8-ft by 20-ft drift. Three samples taken of the vein (6305-6307) contained no detectable Au. The second adit at the same elev consists of a 40-ft-long drift with a 15-ft crosscut. Four samples were collected from the vein (6308-6311) in this adit and two contained values of 0.04 and 0.18 oz/st Au plus greater than detection limit (30ppm) and 0.58 oz/st Ag, respectively. One sample taken from the 66-ft-long upper adit contained below values detection limit.

65. Cross Bay

The Cross Bay prospect, mistakenly called the Texas & Florida prospect last year (Texas and Florida were claims staked along trend of the original Cross Bay claims) is located along the Thane road north of Sheep Creek. The Cross Bay adit is located in a small roadcut along the Thane highway and consists of a 194-ft-long crosscut in massive greenstone and chlorite schist with minor black phyllite. Small quartz veins and pods cut the rocks locally but no sulfides were visible. Local concentrations of disseminated pyrite occur in the mafic rocks but two samples from these zones (3769-3770) did not contain any significant values.

66. Reagan

The owners of the Reagan prospect, which is located in Sheep Creek, pumped out the adit and 18 ft of the 40-ft-deep winze. The Bureau collected three samples of the quartz vein (3527-3528, 3531) and one sample of the wallrock (3530) in the shaft. Sulfide mineralization in the veins consisted of sphalerite, galena, tetrahedrite, and chalcopyrite. Samples contained 0.13, 0.33, and 0.17 oz/st Au and 11.91, 11.15, and 17.56 oz/st Ag, respectively. The wallrock samples contained 0.41 oz/st Ag but only traces of Au.

67. Dolan

The Bureau located and mapped three interconnected adits at 800-ft elev and an 11-ft-long adit at 820-ft elev on the Dolan prospect, above lower Sheep Creek. The country rock is chlorite schist that is cut by a few small, discontinuous quartz-calcite veins. The veins contain felted chlorite, epidote, magnetite, and rare pyrite. Three samples (3857-3859) taken of the veins contained no detectable precious metals.

68. Gold Belt

The caved portal of the Gold Belt adit was examined and two samples taken from the dump (3865, 3866). A sample of quartz (3865) from the top of the dump near the portal contained 0.70 oz/st Ag and a sample of silicified black phyllite (3866) collected from the toe of the dump yielded 0.22 oz/st Ag.

69. Middle Peak

The Bureau examined both the Sheep Creek and Grindstone Creek slopes of Middle Peak during 1986. One open adit, one caved adit, and a prospect pit were located at the head of Sheep Creek below Middle Peak and three prospect pits were found over the divide on Grindstone Creek. The area is underlain by greenschist, which contains minor muscovite schist, and black phyllite. Five samples were taken at the head of Sheep Creek (3537-3540, 3867) on the north side of Middle Peak where trace amounts of pyrite were noted. One sample of quartz stringers in altered greenschist (3867)contained 0.38 oz/st Ag.

Seven samples (3532-3534, 3860, 7164-7166) were taken from similar rocks on the south side of Middle Peak at the head of Grindstone Creek. One sample from a prospect pit at the summit of Middle Peak (7166) contained 0.20 oz/st Ag.

70. Penn Alaska

The Bureau located, mapped, and sampled the Seawall, Washington, and Pittsburg adits and a prospect pit at the Penn Alaska prospect. The prospect area is underlain primarily by black phyllite and brown siliceous gneiss. Concordant quartz veins occur locally and most veins contain little more than rare pyrite. Two zones, however, have mineralized quartz veins and abundant yellow iron staining. The veins contain pyrite with rare sphalerite, galena, chalcopyrite, and stibnite. One of these mineralized zones can be traced from outcrops on the beach below the Seawall adit, to just inside the entrance of the Seawall adit, and to the drift in the Washington adit. The second zone extends from the beach into the Pittsburg adit.

Ten samples were taken in or near the 123-ft Seawall adit (3541, 3787, 3868-3871, 6107-6108, 7140-7141) but none contained Au and there were only traces of Ag.

The Washington adit consists of a 699-ft-long crosscut and a 200-ft-long drift located at an elev of 125 ft 940 ft north of the Seawall adit. Eighteen samples were taken in the adit (3518-3522, 3752-3754, 3788-3793, 7142-7145).

One sample contained 0.17% Zn (7143) but only traces of Ag and no Au were found in the other samples.

The Pittsburg adit is located 830 ft north of the Washington adit at an elev of 125 ft. Four samples were collected in the 125-ft-long adit (7150, 7161-7163) but none contained significant values.

71. Pt. Bishop

The Bureau examined a sequence of interlayered black phyllite, felsic schist, and metabasaltic rocks at Pt. Bishop, near the Penn Alaska prospect. The rocks locally contain thin, stratiform massive pyrite bands up to two in thick. Nine samples were collected (3777-3778, 3511-3517) and one (3516) contained 0.27% Cu.

72. North Douglas Island

Pan concentrate samples (6423-6425) were taken from three streams on the north end of Douglas Island. One sample (6425). taken from Elevenmile Creek, contained 0.17% Pb.

73. Fish Creek

Four pan concentrate (6426, 7489-7491) and two 0.1 yd^3 placer samples (6418-6819) were collected from Fish Creek on the north end of Douglas Island. One pan concentrate sample (6426) contained a trace of Au.

74. Mayflower Island

A 14-ft-long adit at the north end of Juneau Island (known locally as Mayflower Island) was examined by the Bureau in 1986. The adit was driven across the sheared contact between black phyllite and altered diorite. A thin quartz vein that contains disseminated pyrrhotite is cut by the sheared contact. Two samples were taken in the adit, one of the quartz vein (3381) and one of the altered diorite (7618) but neither contained precious metals.

75. Jumbo

The 124-ft-long Jumbo adit was located at an elev of 750 ft above the town of Douglas. The adit begins in black slate but most of its length is in greenschist. A fault exposed in the adit exhibits 4 ft of left-lateral offset. Seven samples (6015-6021) were taken of greenschist containing minor disseminated pyrite but all contained less than 0.01 oz/st Au.

76. Treadwell

Twelve samples were collected from the altered diorite sill that forms the Treadwell orebody in the main Treadwell Glory Hole just south of Douglas. A total of 11 chip samples (3544-3547, 3549-3555) were taken across three sections of the sill and ranged from 0.002 to 0.29 oz/st Au with an average of 0.08 oz/st Au. A selected sample of altered diorite (3540) yielded 0.33 oz/st Au. Molybdenum values in the samples ranged from 3 to 99 ppm.

77. Mexican

At the Mexican mine, the southern portion of the Treadwell deposit, eight samples and a 275 lb metallurgical sample were taken from the altered diorite orebody in Pit No. 1 (3542-3543, 3556-3559, 3873-3874), and three additional samples were taken in Pit No. 3 (3560-3562). Assays from the samples collected in Pit No. 1 ranged from 0.004 to 0.65 oz/st Au and averaged 0.28 oz/st Au. Molybdenum values ranged from 4 to 107 ppm. Three samples taken in Pit No. 3 ranged from 0.04 to 2.84 oz/st Au and averaged 1.24 oz/st Au.

The 275 lb metallurgical sample taken from Pit No. 1 assayed 0.31 oz/st Au and 0.05 oz/st Ag. Cyanide amenability testing recovered 98.4% of the Au and 51.6% of the Ag.

78. Mexico & Belvedere

An adit on the Mexico & Belvedere prospect was located by the Bureau at an elev of 420 ft, behind the Mexican mine. The adit consists of a 301-ft-long crosscut that was driven through black slate and hornblende diorite porphyry. The diorite porphyry exhibits a strong trachytic texture and contains 2% to 3% disseminated pyrite along its margins. Seven samples were taken (3854-3856, 7146-7149) from the pyritic margins of the diorite but all contained low metal values.

79. Ready Bullion

At the Ready Bullion Mine, a mile and a half SE of Douglas, a 0.1 yd^3 placer sample was taken from the mill tailings to test for Au content. The sample yielded 0.0004 oz/yd^3 Au.

80. Atlin Alaska

The Atlin Alaska prospect, shown in the Nevada Creek area in the 1985 report (OFR 85-86), was relocated south of Ready Bullion Creek this year because further research (3) has ascertained that the prospect was actually staked as the continuation of the Ready Bullion claims. No samples were taken.

81. Alaska Treasure

During 1986, the Bureau work at the Alaska Treasure prospect in Nevada Creek consisted of collecting additional samples from the best mineralized zone in the Main Working Tunnel, locating, mapping, and sampling the Mill adit, and collecting a 275 lb sample from the Hudson adit for metallurgical testing. In the Main Working Tunnel, eight samples were taken from a drift 2,550 ft from the portal. Seven chip samples (3563-3564, 3566-3570) taken in the drift had values ranging from 0.004 to 0.06 oz/st Au. Zinc and lead values were as high as 0.51% (3570) and 0.59% (3564). A selected sample of a quartz vein (3565) with 20% combined galena, sphalerite, and pyrite yielded 0.15 oz/st Au, 1.81 oz/st Ag, 8.36% Pb, 4.00% Zn, and 0.29% Cu.

The Mill adit is located a short distance downstream from the lowest level of the Hudson mill. The adit is 61 ft long with 26 ft of drifts and a water-filled shaft. Rocks in the adit are the same felsic schists found in the other workings on the prospect. Nine samples were taken in the adit (3571-3574, 7168-7170, 7501-7502) and the highest value was 0.02 oz/st Au.

A sample was taken from a well-mineralized zone that outcrops in Nevada Creek and is also exposed in the Hudson Tunnel. This sample (3536) contained 0.07 oz/st Au, 0.66% Zn, and 0.107% Cu.

Several bags of concentrate material, containing mostly pyrite, were found near the concentrating tables in the Hudson mill. A sample of this concentrate (4034) contained 0.76 oz/st Au, 0.55 oz/st Ag, 37% Cu, and greater than detection limit Pb (10,000 ppm) and Zn (20,000).

Rock for the metallurgical sample was taken from the ore chutes and higher grade portions of the orebody in the Hudson Tunnel. The sample assayed 0.11 oz/st Au and Au recovery through cyanide amenability tests was 77.6%.

82. Red Diamond

The Red Diamond prospect, at the head of Nevada Creek, was reexamined this year after new information indicated that unlocated workings existed in the area. A search revealed a caved shaft, a caved adit, and a trench. A

selected sample of quartz and ankerite (3535) from the trench contained 0.08 oz/st Au. One stream sediment (3502) and two grab (3503-3504) samples taken on the beach below the Red Diamond contained only low metal values.

83. South Douglas Island

A traverse along the southern end of Douglas Island and Marmion Island was done in an attempt to locate the southern extension of the felsic volcanic rocks that host the Alaska Treasure prospect. The traverse did not find any large masses of felsic volcanic rocks and twelve stream sediment and rock samples did not contain detectable gold (3501, 3505-3510, 3772-3776).

84. Bum Cat Placer

The Bum Cat placer is located in the creek that drains into the northern end of Taku Harbor. A 0.1 yd^3 placer sample (7121) taken near the mouth of the creek in June of 1986 contained 2.35 oz/st Au and 12 ppm Ag (the sample was underweight and the Au determination is not totally reliable). Bedrock is not present near the sample site but float in the creek is composed of granite/diorite, gabbro and chlorite schist. This creek is small and probably doesn't have significant yardage.

85. Great Bear

The Great Bear prospect lies near the SE end of Taku Harbor. A corner post for the claim was found, however no mineralization was noted. Two samples taken from a siliceous tuff and black phyllite, both with conspicuous pyrite and pyrrhotite (7119,7120), contained no detectable precious metal values.

86. Taku Harbor

A chloritic-sericite schist, which is highly foliated and locally pyritic, crops out near the mouth of Taku Harbor on the eastern shore. This unit is likely a metatuff. Two samples (7118, 7122) were taken from this unit but both contained low metal values.

87. South Taku Harbor

An iron-stained siliceous argillite with abundant stratiform pyrrhotite crops out on the beach about a mile south of Taku Harbor. A sample (7123) taken from this unit contained only very low metal values.

88. South of Limestone Inlet

Along the north shore of a small bight south of Limestone Inlet, several discontinuous quartz veins occur in mafic schist (metabasalt?). A sample (7136) taken from these quartz veins returned no significant metal values.

89. Whigg Placer

The Whigg Placer is located along the shoreline on the north side of the entrance to Port Snettisham, approximately 1.5 miles southwest of Sharp Point, approximately 1/2 mile SW of the position shown on the map. The ruins of a cabin at the high tide level is present at the site. A stream sediment sample (7135) collected from the creek near the cabin contained no Au.

90. Lower Gilbert Bay tributary

The Bureau examined a creek, approximately 1.5 miles south of Sentinel Point, that flows from the Snettisham Penninsula to the west shore of Gilbert Bay. Bedrock along the lower portion of this creek is composed of interlayered mafic schist and black argillite with minor concordant quartz

veins In the upper part of the drainage, mafic schist predominates and quartz vein float is common but no outcropping veins of any significance were noted. Much of the area, however, was snow-covered at the time the Bureau examined the drainage. Four samples were taken from the drainage (7128-7131) and one from the shore near the mouth (7124). One argillite sample contained 0.02 oz/st Au (7131) and a quartz vein sample (7130) contained greater than 1000 ppm As.

91. Middle Gilbert Bay tributary

About a mile south of the creek described above, another creek drains the eastern slope of the Snettisham Penninsula and is underlain by well foliated graphitic argillite with conspicuous boudinaged quartz veins. Pyrrhotite and pyrite are locally present and iron staining is common in both quartz and argillite. The upper reaches of this drainage are composed of barren mafic schists. Three samples were taken of argillite in the creek (7132-7134) and one from near the stream mouth (7125) but all contained less than 0.002 oz/st Au.

92. Upper Gilbert Bay

An old open cut was found along the shoreline on the southwest side of Gilbert Bay near its head. This cut was made in a black slate that locally contains concordant quartz-calcite veins. Pyrrhotite and pyrite are common in the slate and there is minor alteration. Two samples were taken in the cut (7126, 7127) and only traces of Ag were detected.

93. Southern end of the Snettisham Peninsula

Near the southern end of the Snettisham Penninsula, the Bureau examined some quartz veins in cutting predominantly carbonate rocks. The area is underlain by NW-trending marbles that exhibit a well developed karst topography and grade eastward to argillites and mafic volcanics. Milky quartz outcrops north and south of a muskeg area and very-fine Au can be panned from some of the small creeks in the area. Seven samples were taken in the area (7137-7139, 7151-7154) but only traces of Au were found.

APPENDIX B. - ANALYTICAL RESULTS

Sampling And Analytical Procedures

Stream sediment, panned-concentrate, placer, and rock samples were collected for analysis. The procedure for collecting placer samples consisted of processing 0.1 yd^3 of gravels through a 4-foot-long sluice box. The resultant concentrates were visually examined to ascertain free gold content and also submitted for analysis. Rock samples were of several types, including grab, select, random-chip, representative-chip, spaced-chip, continuous-chip and chip-channel. Grab samples are randomly collected outcrop or float materials and select samples are grab samples of specific material. Random-chip samples consist of small rock fragments broken randomly from outcrop while representative-chip samples are used to characterize an outcrop. Spaced-chip samples are composed of a series of rock fragments taken at a designated interval and continuous-chip samples consist of a continuous series of rock fragments taken across the outcrop. Chip-channel samples are taken over a relatively uniform width and depth across the outcrop.

Detection limits for the analytical techniques are listed in table 3. When sample determinations exceeded the maximum detection limits of the atomic absorption spectrophotometer technique, a wet assay procedure was used to determine metal concentration.

Table B-1.- Detection limits by analytical technique

Element	Minimum, ppm	Maximum, ppm
Atomic absorption spectrophotometry		
Ag.....	0.2	30
Cu.....	1	20,000
Pb.....	2	7,500
Zn.....	1	20,000
As.....	2	1,000
Mo.....	1	20,000
Fire assay-atomic absorption spectrophotometry		
Au.....	0.002	none

Note: Maximum and minimum detection limits as reported by Bondar-Clegg, Inc.,

Analytical Results

Sample data and analytical results are tabulated in appendix B. In addition to the sample results, the following information is listed in the table: map prospect number (fig. 2), sample number, prospect name, sample type, sample lithology, and sample width. Abbreviations used in the table are defined on the following page.

Key to listing of sample results, Juneau Gold Belt, 1986

Prospect no.: Refers to numbers listed in appendix A and plotted on figures 2.

Prospect name: Samples collected from the indicated location number are identified by prospect or location name.

Sample no.: Field sample number.

Sample type: See key to abbreviations, following page.

Sample lith. & remarks: Brief description of rock type, minerals present, or other pertinent information.

Atomic absorption: Analyses of Cu, Pb, Zn, and Ag by atomic absorption spectrophotometer technique (see text).

FA/AA: Analyses of Au by fire assay-atomic absorption spectrophotometer technique (see text).

Specific: Quantitative assays for Pb and Zn by specific wet chemical technique (see text).

Abbreviations

Heading	Abbreviation	Term
Sample type	CC	continuous-chip
	CH	channel
	CR	representative-chip
	G	grab
	PC	panned-concentrate
	PL	placer sample
	RC	random-chip
	RG	random-grab
	S	select
	SC	spaced-chip
	SS	stream-sediment
Sample lithology and related terms	arseno	arsenopyrite
	gn	galena
	horn	hornblende
	po	pyrrhotite
	py	pyrite
	qtz	quartz
	chlor	chlorite
	ser	sericite
	aggl	agglomerate
	amph	amphibolite
	congl	conglomerate
	dior	diorite
	gnst	greenstone
	gn	gneiss
	metacongl	metaconglomerate
	metagab	metagabbro
	phyl	phyllite
	sch	schist
	alt	altered
	bk	black
	bn	brown
	f	fine (placer gold)
	gy	gray
	silc	silicified
	vf	very fine (placer gold)
	volc	volcanic
Sample results	-	not analyzed

APPENDIX B. - JUNEAU GOLD BELT RESULTS: 1986

Prosp. No.	Prospect Name	Sample No.	Sample Type	Sample Lith. & Remarks	Sample Size	Atomic Absorption Cu ppm	Pb ppm	Zn ppm	As ppm	Mo/W ppm	Ag ppm	Fire Assay Ag Oz/st	F.A./ A.A. Au Oz/st *Oz/yd3	Specific Cu %	Pb %	Zn %
1	Jualin	3685	S	Massive pyrite		5300	23	94	-	/82	>30.0	4.83	6.530	-	-	-
		3687	S	Qtz		540	1245	26	-	/70	>30.0	1.29	2.337	-	-	-
		3688	S	MoS2-bearing dike		960	13	56	-	/12	1.6	-	0.018	-	-	-
2	Valentine	3686	S	Qtz		>20000	10	344	-	/4	>30.0	1.30	1.022	4.12	-	-
3	Yankee Boy	3862	S	Blue qtz		13	14	23	-	-	23.0	-	0.123	-	-	-
		3863	S	White qtz		5	10	15	-	-	2.3	-	0.018	-	-	-
		3864	CC	Qtz	2.0'	7	4	8	-	-	2.4	-	0.061	-	-	-
4a	Tacoma	3755	S	Qtz	2.0'	6	<2	6	2	-	<0.2		<0.002	-	-	-
		7301	S	Qtz, float		159	>7500	1960	66	-	>30.0	4.95	0.031	-	2.78	-
		7302	CC	Qtz	2.0'	107	209	229	18	-	1.6	-	<0.002	-	-	-
4b		7290	RG	Qtz, calcite		50	12	152	15	-	2.1	-	<0.002	-	-	-
5	Echo Cove	3750	S	Pyritic sch		254	6	34	30	-	0.2	-	0.002	-	-	-
		3751	S	Pyritic gnst		135	4	12	23	-	0.3	-	0.002	-	-	-
6a	Gold Standard	6001	CR	Gnst, qtz	5.0'	16	3	37	15	-	<0.2	-	<0.002	-	-	-
6b		6005	CR	Qtz, phyl	2.0'	4	82	39	68	-	0.6	-	<0.002	-	-	-
		6006	S	Qtz		3	35	1	-	-	0.5	-	0.055	-	-	-
		7304	CR	Qtz	10'	4	8	4	280	-	<0.2	-	0.022	-	-	-
6c		6022	S	Qtz, gnst		31	31	27	800	-	<0.2	-	0.002	-	-	-
		6023	CC	Pyritic gnst	2.0'	148	12	92	40	-	<0.2	-	<0.002	-	-	-
6d		6002	CC	Qtz, bk phyl	2.0'	109	224	39	-	-	1.0	-	0.115	-	-	-
		6003	CC	Qtz, bk sch	3.0'	66	48	26	-	-	0.8	-	0.204	-	-	-
		6004	CC	Qtz	2.0'	136	158	36	-	-	3.4	-	0.195	-	-	-
6e		6024	S	Qtz, gnst	7.5'	16	4	19	85	-	<0.2	-	<0.002	-	-	-
		6025	CR	Gnst	7.5'	97	22	54	700	-	<0.2	-	0.002	-	-	-
		6026	S	Qtz, float		33	241	11	>1000	-	0.9	-	0.099	-	-	-
7a	California	3780	CC	Qtz	1.1'	11	17	9	800	-	<0.2	-	0.066	-	-	-
		3781	CH	Qtz	1.1'	3	<2	1	300	-	<0.2	-	0.006	-	-	-
		6027	CR	Qtz		32	22	19	>1000	-	0.2	-	0.007	-	-	-
		6028	S	Qtz		5	5	1	260	-	<0.2	-	<0.002	-	-	-
		6029	CR	Qtz, gnst	3.0'	59	50	35	>1000	-	<0.2	-	0.022	-	-	-
		7305	CC	Qtz	2.0'	63	32	64	400	-	0.3	-	0.005	-	-	-
		7306	CC	Qtz	2.0'	128	9	49	-	-	1.4	-	0.044	-	-	-
7b		6100	CC	Sch, qtz	2.9'	131	77	64	900	-	0.4	-	0.005	-	-	-
		6101	CC	Phyl, qtz	3.3'	55	99	115	800	-	0.4	-	<0.002	-	-	-
		6102	CC	Gy phyl, qtz	0.9'	110	125	76	-	-	0.8	-	0.036	-	-	-
7c		6007	CR	Qtz	0.1'	21	19	33	-	-	0.2	-	0.031	-	-	-
		6008	CC	Bk phyl, gnst	2.0'	90	9	85	-	-	<0.2	-	<0.002	-	-	-
		6009	CR	Qtz, bk phyl	6.0'	14	7	19	35	-	<0.2	-	0.004	-	-	-
7d		6103	CC	Gy phyl	2.8'	104	23	79	-	-	0.3	-	0.008	-	-	-
		6104	CC	Ser sch	2.0'	181	10	80	450	-	0.4	-	0.003	-	-	-
		6105	CC	Chlor sch	3.9'	61	10	123	600	-	0.3	-	<0.002	-	-	-
7e		6030	CC	Qtz, calcite	3.7'	3	21	6	>1000	-	0.2	-	0.061	-	-	-
		6031	S	Qtz, float	10'	14	45	31	24	-	<0.2	-	<0.002	-	-	-
		6106	S	Qtz		99	5	9	-	-	<0.2	-	0.012	-	-	-
		6416	PC		2 pans	47	2	88	-	-	<0.2	-	<0.002	-	-	-

Key to abbreviations on page 27

APPENDIX B. - JUNEAU GOLD BELT RESULTS: 1986

Prosp. No.	Prospect Name	Sample No.	Sample Type	Sample Lith. & Remarks	Sample Size	Atomic Absorption Cu ppm	Pb ppm	Zn ppm	As ppm	Mo/W ppm	Ag ppm	Fire Assay Ag Oz/st	F.A./ A.A. Au Oz/st *Oz/yd3	Specific Cu %	Pb %	Zn %
7e	Calif. (cont)	7307	S	Qtz, float		10	5	2	-	-	1.3	-	0.313	-	-	-
8a	Cowee Creek	7493	PC		3 pans	24	510	60	-	-	<0.2	-	0.002	-	-	-
8b		3329	PL		0.1yd3	12	2	36	5	/5	<0.2	-	*0.0004	-	-	-
9	Bridgit Cove	7492	PC		3 pans	26	<2	58	-	-	<0.2	-	<0.002	-	-	-
10	Blue Jay	6319	S	Qtz		415	60	28	>1000	-	6.5	-	0.145	-	-	-
		7365	S	Qtz, float		10	16	29	155	-	0.2	-	<0.002	-	-	-
		7366	S	Qtz, from pile		134	4230	460	>1000	-	15.0	-	0.108	-	-	-
		7364	RC	Qtz		5	4	10	140	-	<0.2	-	<0.002	-	-	-
11a	Joyce Jensen	7355	CC	Brecciated qtz	2.0'	33	165	212	>1000	-	2.5	-	0.093	-	-	-
		7356	CC	Brecciated qtz	5.0'	39	13	160	>1000	-	0.3	-	0.003	-	-	-
		7357	CC	Brecciated qtz	4.0'	30	70	58	>1000	-	0.5	-	0.008	-	-	-
		7358	CR	Qtz	2.1'	76	142	90	800	-	2.0	-	0.058	-	-	-
		7359	CR	Qtz		4	92	3	>1000	-	0.4	-	0.010	-	-	-
		7360	CC	Bk phyl, qtz	3.0'	51	77	105	>1000	-	1.2	-	0.018	-	-	-
		7361	CC	Bk phyl, qtz	5.0'	45	30	149	160	-	0.6	-	0.002	-	-	-
		7362	CC	Bk phyl	6.0'	26	12	128	180	-	0.2	-	<0.002	-	-	-
		7363	CC	Bk phyl	3.0'	52	247	86	>1000	-	3.4	-	0.128	-	-	-
11b	Joyce Jensen	7343	CC	Qtz	3.0'	44	67	80	190	-	0.7	-	0.004	-	-	-
		7344	CC	Qtz	2.5'	63	25	78	325	-	0.4	-	0.008	-	-	-
		7345	CC	Qtz	2.0'	62	27	130	400	-	0.5	-	0.005	-	-	-
		7346	CR	Qtz	3.0'	10	17	50	600	-	<0.2	-	0.004	-	-	-
		7347	CC	Qtz	1.5'	16	32	62	75	-	0.2	-	<0.002	-	-	-
		7348	CR	Qtz	7.0'	33	53	73	34	-	0.2	-	<0.002	-	-	-
		7349	CR	Qtz		90	84	10	>1000	-	1.4	-	0.021	-	-	-
		7350	RC	Qtz		10	93	19	>1000	-	0.6	-	0.010	-	-	-
11c		7351	CC	Qtz	1.5'	378	3600	22	>1000	-	27.0	-	0.205	-	-	-
		7352	S	Qtz		1655	5240	71	>1000	-	>30.0	1.14	0.343	-	-	-
12a	E Plurbus Unum No. 1 Adit	7309	CC	Qtz	2.0'	37	5	67	16	-	<0.2	-	<0.002	-	-	-
		7310	CC	Qtz	4.0'	41	6	58	24	-	<0.2	-	0.002	-	-	-
		7311	CC	Qtz	3.0'	21	7	39	35	-	0.2	-	0.025	-	-	-
		7312	CC	Qtz	2.0'	71	5	110	80	-	<0.2	-	<0.002	-	-	-
		7313	CC	Qtz	2.5'	57	3	92	750	-	<0.2	-	0.007	-	-	-
		7314	CC	Qtz, chlor sch	4.0'	147	10	117	26	-	0.2	-	<0.002	-	-	-
		7315	CR	Qtz, bk phyl	6.0'	37	41	89	250	-	0.2	-	0.012	-	-	-
		7316	CC	Qtz	4.5'	42	12	99	63	-	<0.2	-	0.004	-	-	-
		7317	S	Qtz		<1	188	9	>1000	-	1.5	-	0.869	-	-	-
		7318	S	Qtz		2	7	10	>1000	-	0.3	-	0.072	-	-	-
12b	E Plurbus Unum No. 2 Adit	7319	CC	Qtz	1.5'	1	16	13	>1000	-	0.4	-	0.168	-	-	-
		7320	CR	Qtz		3	460	22	>1000	-	14.0	-	3.573	-	-	-
		7321	CC	Qtz, bk phyl	2.8'	3	340	138	>1000	-	8.0	-	1.747	-	-	-
		7322	CC	Qtz	2.5'	<1	420	36	>1000	-	1.5	-	0.091	-	-	-
		7323	CC	Qtz, bk phyl	2.0'	7	1940	39	>1000	-	7.1	-	0.418	-	-	-
		7324	CC	Qtz, bk phyl	5.0'	65	23	81	280	-	<0.2	-	0.006	-	-	-
		7325	CR	Qtz, bk phyl		11	14	27	1000	-	<0.2	-	0.004	-	-	-

Key to abbreviations on page 27

Prosp. No.	Prospect Name	Sample No.	Sample Type	Sample Lith. & Remarks	Sample Size	Atomic Absorption Cu ppm	Pb ppm	Zn ppm	As ppm	Mo/W ppm	Ag ppm	Fire Assay Ag Oz/st	F.A./A.A. Au Oz/st $Oz/yd3	Specific Cu %	Pb %	Zn %
12b	E Pluribus Unum	7326	S	Arseno	0.4'	3	8600	23	>1000	-	>30.0	0.93	0.123	-	-	-
	(cont)	7327	CC	Qtz, slate	2.5'	18	98	40	>1000	-	0.2	-	0.025	-	-	-
		7328	CC	Qtz, phyl	1.0'	10	92	22	>1000	-	0.4	-	0.063	-	-	-
13a	Black Chief	7331	CC	Qtz, bk phyl	5.0'	19	16	46	100	-	<0.2	-	<0.002	-	-	-
		7332	CC	Qtz, bk phyl	3.5'	30	7	45	>1000	-	<0.2	-	0.003	-	-	-
		7333	CC	Qtz, bk phyl	2.0'	7	3	49	100	-	<0.2	-	<0.002	-	-	-
		7335	CC	Qtz	3.0'	43	14	81	120	-	<0.2	-	0.002	-	-	-
		7336	CC	Qtz	3.0'	40	3	80	150	-	<0.2	-	<0.002	-	-	-
		7337	CC	Qtz	3.0'	28	9	68	150	-	0.2	-	<0.002	-	-	-
		7338	CC	Qtz	2.5'	44	8	72	62	-	<0.2	-	<0.002	-	-	-
13b		7329	CR	Qtz, gy phyl		50	16	55	110	-	0.3	-	0.010	-	-	-
		7330	CC	Qtz	2.0'	530	>7500	155	1000	-	>30.0	1.22	0.486	-	1.38	-
		7339	S	Qtz		2	66	51	60	-	0.2	-	<0.002	-	-	-
		7340	S	Qtz	7.0'	27	25	43	150	-	0.3	-	0.049	-	-	-
		7341	S	Qtz		46	4	42	130	-	0.2	-	0.014	-	-	-
		7342	S	Qtz		1510	>7500	810	>1000	-	>30.0	1.37	0.297	-	1.70	-
14a	Bessie	6067	PL	15 vf Au	0.1yd3	32	102	58	27	-	0.9	-	$0.0008	-	-	-
14b		7291	CH	Qtz	0.9'	11	<2	10	>1000	/20	0.3	-	0.045	-	-	-
		7292	CH	Qtz	1.4'	12	<2	8	300	-	0.2	-	0.003	-	-	-
		7293	CH	Qtz	1.4'	47	17	25	>1000	-	0.3	-	0.102	-	-	-
		7294	CH	Qtz	1.6'	14	9	16	>1000	-	0.2	-	0.024	-	-	-
		7295	CH	Qtz	1.3'	3	14	6	>1000	-	0.3	-	0.015	-	-	-
		7296	CH	Qtz	0.9'	20	78	35	>1000	-	0.4	-	0.105	-	-	-
		7297	CH	Qtz	1.0'	23	4	39	900	-	<0.2	-	0.006	-	-	-
		7298	CH	Qtz	1.3'	8	2	11	220	-	<0.2	-	0.008	-	-	-
		7299	S	Agglomerate		132	6	100	600	-	<0.2	-	0.006	-	-	-
		7300	CH	Qtz	0.8'	64	2	38	>1000	-	<0.2	-	0.006	-	-	-
		7303	CC	Selvage	0.4'	98	35	98	>1000	-	0.6	-	0.042	-	-	-
14c		7494	PC	end of pavement	5 pans	44	9	108	-	-	<0.2	-	<0.002	-	-	-
15a	Julia	6336	S	Qtz		11	14	32	85	-	0.2	-	<0.002	-	-	-
15b		6333	S	Qtz, float		16	14	40	400	-	0.7	-	0.005	-	-	-
		6334	S	Qtz		14	8	13	120	-	0.2	-	<0.002	-	-	-
		6335	RG	Qtz		13	1125	22	300	-	5.2	-	0.016	-	-	-
15c		6332	SC	Qtz		16	102	46	>1000	-	1.0	-	0.104	-	-	-
		6337	S	Qtz		43	1050	370	700	-	12.0	-	0.590	-	-	-
16a	Eagle Glacier Area	3358	CR	Qtz	2.0'	51	32	27	600	-	2.4	-	0.080	-	-	-
16b		7438	S	Qtz	1.5'	88	29	12	11	-	0.8	-	<0.002	-	-	-
		7439	CR	Gneiss	1.5'	46	4	40	11	-	<0.2	-	0.004	-	-	-
16c		3359	CR	Qtz	0.4'	430	8	14	6	-	0.8	-	0.002	-	-	-
16d		7437	CR	Gneiss	7.0'	64	13	81	50	-	0.4	-	0.008	-	-	-
17a	Puzzler	6341	S	Qtz		16	9	72	25	-	0.2	-	<0.002	-	-	-
17b		6073	S	Qtz		25	14	40	19	-	0.3	-	0.004	-	-	-
		6342	CC	Bk slate, qtz	6.0'	18	5	95	25	-	<0.2	-	<0.002	-	-	-
17c		6080	RG	Qtz		5	835	8	>1000	-	4.7	-	0.182	-	-	-
		6343	S	Gy phyl, qtz		34	23	53	>1000	-	1.0	-	0.003	-	-	-
		6344	S	Qtz, float		20	540	28	>1000	-	4.0	-	0.112	-	-	-

Key to abbreviations on page 27

Prosp. No.	Prospect Name	Sample No.	Sample Type	Sample Lith. & Remarks	Sample Size	Atomic Absorption Cu ppm	Pb ppm	Zn ppm	As ppm	Mo/W ppm	Ag ppm	Fire Assay Ag Oz/st	F.A./A.A. Au Oz/st ±Oz/yd3	Specific Cu %	Pb %	Zn %
18a	Noonday	6074	CC	Qtz, bk phyl	3.0'	11	8	67	6	-	<0.2	-	0.003	-	-	-
18b		6075	CR	Qtz, bk phyl	25'	14	<2	19	3	-	<0.2	-	<0.002	-	-	-
18c		7373	S	Qtz, float		71	455	6	>1000	-	7.0	-	0.538	-	-	-
		7374	S	Qtz pod		5	47	18	>1000	-	1.6	-	0.303	-	-	-
		7375	S	Qtz pod		35	234	4	>1000	-	6.3	-	1.466	-	-	-
		7376	S	Qtz		4	<2	8	14	-	<0.2	-	0.002	-	-	-
		7377	CR	Qtz		3	25	18	>1000	-	0.2	-	0.029	-	-	-
18d		6076	CC	Qtz, slate	3.0'	33	19	25	30	-	4.5	-	0.012	-	-	-
		6077	CR	Qtz	3.0'	54	9	64	90	-	1.8	-	0.005	-	-	-
		6078	CR	Qtz	1.0'	18	5	27	120	-	0.4	-	<0.002	-	-	-
		6079	CC	Bk phyl	1.5'	52	12	126	150	-	0.4	-	<0.002	-	-	-
18e		7388	S	Qtz		44	4	43	62	-	3.8	-	0.015	-	-	-
19a	Dividend	6085	S	Phly, qtz	4.0'	85	18	56	>1000	-	0.4	-	0.039	-	-	-
		7308	CC	Gnst, qtz	4.0'	97	4	50	950	-	<0.2	-	0.007	-	-	-
		6083	CC	Qtz	8.0'	38	9	81	32	-	<0.2	-	0.002	-	-	-
		6084	CR	Sheared phyl, qtz		34	11	69	65	-	<0.2	-	0.027	-	-	-
19b		7381	S	Qtz		8	15	7	>1000	-	0.8	-	0.075	-	-	-
19c		7378	CR	Qtz		10	11	55	11	-	<0.2	-	<0.002	-	-	-
		7379	CR	Qtz	8.0'	46	11	96	70	-	0.4	-	0.188	-	-	-
20a	Cascade	6345	S	Qtz		12	2	30	20	-	<0.2	-	<0.002	-	-	-
20b		6081	RG	Qtz, slate		7	15	23	160	-	<0.2	-	0.002	-	-	-
		6082	RG	Qtz, float		39	18	65	160	-	0.2	-	0.002	-	-	-
		7380	S	Qtz, float		4	500	115	>1000	-	4.4	-	0.125	-	-	-
21a	Rex	6091	S	Phyl		135	18	119	30	-	0.3	-	0.003	-	-	-
		6092	S	Qtz, phly		19	<2	45	4	-	<0.2	-	0.004	-	-	-
		6093	S	Qtz		13	<2	6	6	-	0.3	-	<0.002	-	-	-
		6094	S	Bk phyl, qtz		28	<2	90	21	-	<0.2	-	<0.002	-	-	-
		6095	S	Qtz, float		8	<2	13	4	-	<0.2	-	<0.002	-	-	-
21b		6086	S	Qtz		5	<2	6	550	-	<0.2	-	<0.002	-	-	-
		6087	RG	Qtz, float		11	<2	52	4	-	<0.2	-	<0.002	-	-	-
		6088	RG	Qtz, float		46	<2	128	30	-	<0.2	-	<0.002	-	-	-
		6089	CC	Brecciated qtz	6.0'	42	13	31	70	-	1.6	-	0.006	-	-	-
		6090	CC	Qtz	3.0'	30	<2	34	22	-	1.7	-	0.003	-	-	-
21c		7386	RG	Qtz, ser sch		30	16	42	19	-	0.4	-	0.006	-	-	-
		7387	RG	Qtz, float		20	10	49	22	-	0.2	-	<0.002	-	-	-
22a	Eagle River	7391	S	Phyl		87	22	112	>1000	-	0.6	-	0.003	-	-	-
22b		6070	CR	Qtz, dump		580	>7500	6620	>1000	-	>30.0	1.24	1.466	-	1.27	-
22c		6072	S	Qtz		126	64	68	32	-	0.9	-	0.036	-	-	-
22d		7390	RC	Gnst		118	<2	80	5	-	<0.2	-	0.003	-	-	-
22e		7371	S	Qtz, float		8	15	26	24	-	<0.2	-	<0.002	-	-	-
		7372	S	Qtz, float		25	11	55	90	-	0.4	-	0.043	-	-	-
22f		7389	S	Qtz		8000	<2	36	6	-	7.3	-	0.092	-	-	-
22g		6071	S	Qtz, float		20	175	69	400	-	6.2	-	0.372	-	-	-
22h		7370	S	Qtz, float		42	540	515	>1000	-	1.5	-	0.096	-	-	-
22i		6069	S	Qtz, float		13	14	26	500	-	0.3	-	0.003	-	-	-

Key to abbreviations on page 27

APPENDIX B. - JUNEAU GOLD BELT RESULTS: 1986

Prosp. No.	Prospect Name	Sample No.	Sample Type	Sample Lith. & Remarks	Sample Size	Atomic Absorption Cu ppm	Pb ppm	Zn ppm	As ppm	Mo/W ppm	Ag ppm	Fire Assay Ag Oz/st	F.A./ A.A. Au Oz/st ‡Oz/yd3	Specific Cu %	Pb %	Zn %
23a	Mother Lode	3861	CR	Alt andesite		100	15	76	6	-	<0.2	-	0.002	-	-	-
23b		7382	S	Qtz		4	2	4	110	-	0.3	-	0.044	-	-	-
		7383	S	Qtz, float		7	3	8	70	-	<0.2	-	0.003	-	-	-
		7384	CC	Qtz	3.0'	22	5	20	130	-	<0.2	-	0.005	-	-	-
		7385	S	Qtz, gnst		22	12	19	150	-	1.6	-	0.257	-	-	-
23c		7495	PC	north Eagle River	5 pans	38	16	96		/5	<0.2	-	0.002	-	-	-
24a	Oleson	7538	RC	Bk slate		70	9	108	28	-	<0.2	-	<0.002	-	-	-
		7539	RC	Qtz, slate float		18	25	32	6	-	<0.2	-	<0.002	-	-	-
24b		7537	RC	Bk slate		67	4	120	14	-	<0.2	-	<0.002	-	-	-
24c		3331	RG	Qtz, float		8	<2	11	3	-	<0.2	-	<0.002	-	-	-
		7536	RC	Bk slate		86	7	104	13	-	<0.2	-	<0.002	-	-	-
25	Boulder Creek	6417	PL	25 vf, 6 f Au	0.1yd3	34	291	68	180	/405	1.0	-	‡0.0009	-	-	-
26a	Summit/St. Louis	6036	S	Qtz		26	2	6	>1000	-	<0.2	-	<0.002	-	-	-
		6037	S	Qtz, gnst		270	4	14	>1000	-	<0.2	-	<0.002	-	-	-
		6038	CR	Qtz, gnst	15'	55	4	6	1000	-	<0.2	-	<0.002	-	-	-
26b		6032	SC	Gnst, qtz	3.0'	131	34	58	14	-	<0.2	-	0.002	-	-	-
		6039	S	Qtz	1.0'	23	8	19	>1000	-	<0.2	-	0.003	-	-	-
		6040	CR	Qtz, gnst	20'	137	3	43	>1000	-	<0.2	-	0.003	-	-	-
		6041	CR	Qtz		112	6	11	>1000	-	<0.2	-	0.002	-	-	-
		6042	S	Qtz		1	4	10	>1000	-	<0.2	-	0.004	-	-	-
26c		6033	CC	Qtz	5.0'	12	<2	3	22	-	<0.2	-	<0.002	-	-	-
		6034	S	Mineralized gnst		415	16	77	7	-	0.6	-	0.003	-	-	-
		6035	CC	Gnst	4.0'	199	76	377	7	-	<0.2	-	<0.002	-	-	-
26d		6054	CR	Qtz	5.0'	42	7	9	200	-	0.2	-	0.005	-	-	-
27	Herbert Glacier	6048	CC	Qtz		3	3150	22	>1000	-	5.2	-	0.266	-	-	-
		6049	RC	Qtz		1	4950	7	>1000	-	16.0	-	0.488	-	-	-
		6050	CC	Qtz		13	4800	1620	>1000	-	>30.0	3.70	7.021	-	-	-
		6051	CC	Qtz & dior		8	100	55	>1000	-	2.0	-	0.101	-	-	-
		6052	RC	Qtz		1	213	20	>1000	-	1.6	-	0.065	-	-	-
		6053	CC	Qtz & dior		10	1430	67	>1000	-	26.0	-	0.489	-	-	-
		7436	CC	Qtz with sulfides	2.5'	7	1420	620	>1000	-	38.0	-	3.417	-	-	-
28	Herbert River	7496	PC		5 pans	12	126	40	-	/63	<0.2	-	0.002	-	-	-
29a	Windfall Creek	6044	PL	10 vf, 1 f Au	0.1yd3	45	5	73	44	/33	1.8	-	‡0.0003	-	-	-
29b		6043	PL	50 vf Au	0.1yd3	44	8	59	400	/450	12.0	-	‡0.0006	-	-	-
29c		6045	PL	50 vf, 10 f Au	0.1yd3	56	8	52	>1000	/775	1.7	-	‡0.0007	-	-	-
29d		6046	PL	100 vf, 25 f Au	0.1yd3	54	18	56	>1000	/700	1.5	-	‡0.0008	-	-	-
29e		6047	PL	28 vf, 2 f Au	0.1yd3	59	16	55	>1000	/575	1.8	-	‡0.0012	-	-	-
30a	Smith & Heid	3350	CC	Ser sch, qtz	2.0'	23	61	33	24	-	0.4	-	<0.002	-	-	-
		7406	CC	Alt ser sch	1.0'	135	5	76	800	-	0.3	-	0.011	-	-	-
30b		3351	CR	Qtz, chlor sch	2.0'	122	9	62	>1000	-	0.4	-	0.004	-	-	-
		3352	CR	Qtz, bk phyl	8.0'	21	2	37	200	-	<0.2	-	<0.002	-	-	-
		3353	S	Qtz, bk phyl		44	22	35	>1000	-	0.4	-	0.028	-	-	-
		3354	PL	24 vf, 2 f Au	0.1yd3	44	15	90	>1000	/43	14.0	-	‡0.0002	-	-	-
		7415	S	Qtz		16	2	24	400	-	<0.2	-	0.002	-	-	-

Key to abbreviations on page 27

APPENDIX B. - JUNEAU GOLD BELT RESULTS: 1986

Prosp. No.	Prospect Name	Sample No.	Sample Type	Sample Lith. & Remarks	Sample Size	Atomic Absorption Cu ppm	Pb ppm	Zn ppm	As ppm	Mo/W ppm	Ag ppm	Fire Assay Ag Oz/st	F.A./A.A. Au Oz/st *Oz/yd3	Specific Cu %	Pb %	Zn %
30b	Smith & Heid	7416	CR	Ser sch	1.5'	127	8	91	4	-	0.2	-	<0.002	-	-	-
30c	(cont)	3345	CC	Qtz, bk phyl	4.0'	28	<2	53	>1000	-	<0.2	-	0.006	-	-	-
		3346	CC	Qtz	1.1'	47	9	38	>1000	-	3.4	-	0.529	-	-	-
		3347	CC	Qtz, bk phyl	2.0'	9	<2	18	>1000	-	8.6	-	3.143	-	-	-
		3348	CC	Bk phyl, qtz	5.0'	37	5	58	400	-	<0.2	-	0.028	-	-	-
		3349	CC	Qtz, bk phyl	5.0'	32	3	31	>1000	-	<0.2	-	0.015	-	-	-
		7407	SC	Sch, qtz	23'	201	38	120	120	-	1.1	-	0.002	-	-	-
		7408	SC	Sch, qtz	39'	226	5	88	18	-	<0.2	-	0.002	-	-	-
		7409	CH	Bk phyl, qtz	5.0'	47	3	70	>1000	-	<0.2	-	0.004	-	-	-
		7410	CC	Bk phyl, qtz	3.8'	38	6	78	>1000	-	0.3	-	0.025	-	-	-
		7411	CC	Bk phyl, qtz	1.2'	41	7	84	>1000	-	0.4	-	0.030	-	-	-
		7412	S	Qtz	0.3'	2	13	12	>1000	-	1.1	-	0.071	-	-	-
		7414	S	Qtz		47	280	52	7	-	3.4	-	0.007	-	-	-
30d		3343	CC	Silc chlor sch	3.0'	108	9	76	40	-	<0.2	-	<0.002	-	-	-
		3344	CC	Bk phyl, qtz	1.7'	39	7	74	>1000	-	0.2	-	0.003	-	-	-
		6010	CH	Bk sch, qtz	1.1'	55	14	80	-	-	1.3	-	0.086	-	-	-
		6011	CC	Brecciated qtz	1.1'	5	211	7	-	-	1.7	-	0.939	-	-	-
		6012	CC	Qtz	1.3'	46	10	97	600	-	0.2	-	0.005	-	-	-
		6013	RG	Qtz, float		7	24	22	-	-	0.2	-	0.048	-	-	-
		6014	S	Qtz, float		40	5	40	-	-	0.3	-	0.034	-	-	-
31a	Patton	7428	CC	Qtz, phyl	4.0'	34	166	73	>1000	-	2.6	-	0.532	-	-	-
		7429	CC	Brecciated qtz	2.0'	7	6	44	800	-	<0.2	-	0.003	-	-	-
		7430	CC	Qtz	2.0'	48	47	96	>1000	-	3.4	-	0.058	-	-	-
		7431	CC	Qtz	1.4'	33	69	104	>1000	-	4.4	-	0.129	-	-	-
		7432	CC	Qtz	5.0'	48	52	100	>1000	-	11.0	-	0.063	-	-	-
		7433	CC	Brecciated qtz	2.0'	23	21	24	>1000	-	2.3	-	0.029	-	-	-
31b		6096	CR	Qtz	4.0'	23	<2	30	45	-	<0.2	-	<0.002	-	-	-
31c		6097	CR	Qtz	15'	11	<2	19	60	-	<0.2	-	<0.002	-	-	-
31d		6098	CR	Qtz	1.0'	14	<2	28	18	-	<0.2	-	<0.002	-	-	-
31e		7413	CC	Brecciated qtz	0.1'	69	9	80	>1000	-	1.2	-	0.034	-	-	-
		7417	CH	Qtz	0.9'	36	37	61	>1000	-	3.5	-	0.396	-	-	-
		7418	CH	Qtz	1.4'	24	307	220	>1000	-	5.2	-	1.874	-	-	-
		7419	CH	Qtz	1.9'	48	59	236	>1000	-	1.4	-	0.243	-	-	-
		7420	CH	Qtz	0.3'	11	37	69	>1000	-	1.4	-	0.244	-	-	-
		7421	CH	Qtz	0.5'	15	174	104	>1000	-	3.3	-	0.860	-	-	-
		7422	CH	Qtz	0.7'	5	445	110	>1000	-	13.0	-	2.218	-	-	-
		7423	CH	Qtz, breccia	0.9'	4	137	60	>1000	-	5.0	-	0.836	-	-	-
		7424	CC	Qtz, gouge	1.1'	66	23	101	>1000	-	2.2	-	0.302	-	-	-
		7425	CH	Qtz	0.5'	14	38	45	>1000	-	2.4	-	0.111	-	-	-
		7426	CH	Qtz	1.3'	18	47	72	>1000	-	3.8	-	0.234	-	-	-
		7427	CC	Qtz	1.5'	32	12	56	>1000	-	2.0	-	0.057	-	-	-
32a	Montana Basin	6099	CR	Qtz	1.0'	2	<2	4	9	-	<0.2	-	<0.002	-	-	-
32b		3327	CC	Qtz	4.0'	48	7	96	40	-	<0.2	-	<0.002	-	-	-
32c		3341	CR	Qtz, bk phyl	10'	12	15	36	60	-	0.2	-	<0.002	-	-	-
		3328	S	Qtz, float		17	31	20	12	-	<0.2	-	<0.002	-	-	-
32d		7393	PL	Much visible Au	0.1yd3	38	28	78	>1000	/185	26.0	-	*0.035	-	-	-
		7394	PL	Much visible Au	0.1yd3	36	22	74	>1000	/87	>30.0	4.24	*0.025	-	-	-
		7395	PL	36 vf, 1 f Au	0.1yd3	50	53	102	>1000	/4	6.4	-	*0.003	-	-	-
		7396	PL	Much visible Au	0.1yd3	56	42	68	>1000	/63	>30.0	3.16	*0.017	-	-	-

Key to abbreviations on page 27

APPENDIX B. - JUNEAU GOLD BELT RESULTS: 1986

Prosp. No.	Prospect Name	Sample No.	Sample Type	Sample Lith. & Remarks	Sample Size	Atomic Absorption Cu ppm	Pb ppm	Zn ppm	As ppm	Mo/W ppm	Ag ppm	Fire Assay Ag Oz/st	F.A./A.A. Au Oz/st ±Oz/yd3	Specific Cu %	Pb %	Zn %
32d	Montana Basin (cont)	7397	PL	Much visible Au	0.1yd3	38	52	60	>1000	/73	>30.0	-	±0.011	-	-	-
		7398	PL	24 vf, 2 f Au	0.1yd3	37	35	55	>1000	/33	>30.0	-	±0.007	-	-	-
		7400	PL	Much visible Au	0.1yd3	47	37	90	>1000	/105	>30.0	1.91	±0.025	-	-	-
		7403	CR	Qtz	4.0'	40	32	43	22	-	0.3	-	<0.002	-	-	-
32e		3342	CR	Bk sch, qtz	2.0'	20	209	32	40	-	0.4	-	<0.002	-	-	-
		7404	PL	Much visible Au	0.1yd3	30	8	81	190	/55	1.4	-	±0.001	-	-	-
33a	Montana Creek	6055	PL	20 vf Au	0.1yd3	50	7	70	290	/58	2.0	-	±0.0008	-	-	-
33b		6056	PL	15 vf Au	0.1yd3	42	5	69	350	/40	1.0	-	±0.0004	-	-	-
33c		7353	PL	50 vf, 5 f Au	0.1yd3	46	130	85	105	/15	1.9	-	±0.0009	-	-	-
		7354	PL	75 vf, 8 f Au	0.1yd3	30	11	57	58	/40	15.0	-	±0.0005	-	-	-
33d		6065	PL	3 vf Au	0.1yd3	135	4600	52	100	/340	18.0	-	±0.0013	-	-	-
33e		6066	PL	24 vf, 3 f Au	0.1yd3	38	3000	66	160	/38	1.1	-	±0.0009	-	-	-
34a	Mansfield Gold	6059	PL	8 vf Au	0.1yd3	24	<2	34	8	/5	<0.2	-	±0.0001	-	-	-
34b	Mining Co.	7435	CC	Qtz	1.0'	41	9	80	40	-	0.2	-	<0.002	-	-	-
34c		7434	S	Qtz, float		19	2	12	110	-	1.4	-	<0.002	-	-	-
34d		3355	CR	Qtz, float		7	<2	20	22	-	<0.2	-	<0.002	-	-	-
		3356	CR	Qtz, float		8	<2	32	38	-	<0.2	-	<0.002	-	-	-
		3357	S	Pyritic phyl, float		30	4	216	18	-	0.3	-	0.005	-	-	-
34e		6057	PL	10 vf, 2 f Au	0.1yd3	33	2	82	110	/5	0.4	-	±0.0008	-	-	-
34f		6058	PL	4 vf Au	0.1yd3	30	3	80	58	/21	0.6	-	±0.0002	-	-	-
35a	Peterson	6061	S	Qtz		7	9	5	>1000	-	2.0	-	0.276	-	-	-
		6062	S	Qtz		<1	3	2	>1000	-	<0.2	-	0.014	-	-	-
35b		6060	CR	Brecciated qtz	4.0'	6	13	10	45	-	<0.2	-	0.002	-	-	-
35c		6321	BG	Qtz, float		4	<2	2	73	-	<0.2	-	<0.002	-	-	-
35d		6320	BG	Qtz		3	3	4	>1000	-	<0.2	-	0.013	-	-	-
35e		6063	CC	Qtz	2.0'	1	30	3	>1000	-	0.2	-	0.098	-	-	-
35f		6322	S	Qtz, float		2	11	2	>1000	-	0.2	-	0.034	-	-	-
		6323	CC	Qtz	1.7'	16	10	16	>1000	-	<0.2	-	0.004	-	-	-
		6324	S	Qtz		2	8	2	>1000	-	0.3	-	0.068	-	-	-
35g		7367	S	Qtz, float		15	26	4	450	-	<0.2	-	<0.002	-	-	-
36a	Mendenhall	6064	S	Qtz		33	12	130	600	-	0.2	-	0.008	-	-	-
36b		4016	CC	Gy phyl, qtz	2.3'	101	11	71	54	-	<0.2	-	<0.002	-	-	-
36c		4017	CC	Gy phyl, qtz	5.0'	22	65	63	>1000	-	0.3	-	<0.002	-	-	-
		4018	CC	Gy phyl, qtz	5.0'	39	9	60	>1000	-	0.2	-	<0.002	-	-	-
		4019	CC	Gy phyl, qtz	5.0'	37	22	54	300	-	0.2	-	<0.002	-	-	-
		4020	CC	Gy phyl, qtz	5.0'	47	30	60	<1000	-	0.3	-	<0.002	-	-	-
		4021	CC	Gy phyl, qtz	5.0'	29	102	61	1000	-	0.4	-	<0.002	-	-	-
		4022	CC	Gy phyl, qtz	6.0'	37	17	70	800	-	<0.2	-	<0.002	-	-	-
		4023	CC	Gy phyl, qtz	5.0'	53	16	40	110	-	<0.2	-	<0.002	-	-	-
36d		7402	CR	Qtz	5.0'	23	<2	16	19	-	<0.2	-	<0.002	-	-	-
37a	Nugget Creek	3367	PL	Middle Basin	0.1yd3	35	10	48	100	/585	4.0	-	±0.0020	-	-	-
37b		3366	PL	Lower Basin	0.1yd3	55	8	54	82	/270	1.9	-	±0.0008	-	-	-
		3872	PC	6 vf colors	3 pans	48	25	78	30	-	2.9	-	0.124	-	-	-
38	Dull & Stephens	6068	CC	Qtz	2.0'	26	35	24	800	-	0.3	-	0.008	-	-	-
		6327	CC	Qtz	2.5'	10	84	23	>1000	-	0.3	-	<0.002	-	-	-

Key to abbreviations on page 27

Prosp. No.	Prospect Name	Sample No.	Sample Type	Sample Lith. & Remarks	Sample Size	Atomic Absorption Cu ppm	Pb ppm	Zn ppm	As ppm	Mo/W ppm	Ag ppm	Fire Assay Ag Oz/st	F.A./ A.A. Au Oz/st ±Oz/yd3	Specific Cu %	Pb %	Zn %
38	Dull & Stephens	6329	S	Qtz		2	4	8	148	-	<0.2	-	<0.002	-	-	-
	(cont)	6330	S	Qtz		9	10	21	175	-	<0.2	-	0.002	-	-	-
		6331	CC	Qtz, gnst	2.7'	43	14	53	>1000	-	<0.2	-	0.003	-	-	-
		6338	CR	Qtz	2.0'	22	42	17	130	-	0.4	-	0.005	-	-	-
		6339	S	Qtz		2	8	4	90	-	<0.2	-	0.002	-	-	-
		6340	S	Qtz		3	5	4	61	-	<0.2	-	<0.002	-	-	-
39a	Auke Bay area	7497	PC	Lena Ck	3 pans	62	7	74	-	-	<0.2	-	<0.002	-	-	-
39b		7500	PC	Auke Nu Ck	5 pans	30	6	98	-	-	<0.2	-	0.002	-	-	-
39c		9001	PC	Waydelich Ck	5 pans	36	9	122	-	-	<0.2	-	0.002	-	-	-
39d		7498	PC	Bay Ck	3 pans	21	3	70	-	-	<0.2	-	<0.002	-	-	-
40	Winn	6325	RG	Qtz		14	5	28	95	-	<0.2	-	0.002	-	-	-
		6326	RG	Gnst		174	7	92	85	-	<0.2	-	<0.002	-	-	-
		7368	S	Granite, qtz		15	25	28	160	-	0.2	-	0.002	-	-	-
		7399	S	Qtz		5	2	8	150	-	<0.2	-	<0.002	-	-	-
41	Glacier Placer	3369	PL	Gaging Station	0.1yd3	36	14	53	120	/63	1.6	-	±0.0002	-	-	-
42	Lemon Ck Placer	3368	PL	Near Sawmill Ck	0.1yd3	25	24	39	120	/290	5.6	-	±0.0160	-	-	-
43	Doran	3768	RG	Qtz, bk phyl		5	<2	47	<2	-	<0.2	-	<0.002	-	-	-
44	Wagner	7499	PC		3 pans	27	3	68	-	-	<0.2	-	<0.002	-	-	-
45a	Goldstein	3581	S	Qtz, float		1040	<2	10	-	-	3.2	-	0.003	-	-	-
		3582	RG	Qtz, float		41	<2	4	-	-	<0.2	-	<0.002	-	-	-
45b		3584	S	Qtz, float		12	<2	8	-	-	<0.2	-	<0.002	-	-	-
45c		3583	RG	Qtz, float		20	<2	7	-	-	<0.2	-	0.002	-	-	-
46	Republican	3375	CR	Alt metagab		185	2	40	-	-	0.3	-	0.007	-	-	-
47	Hallum	7616	CC	Silc bk phyl	5.0'	41	12	34	-	-	<0.2	-	<0.002	-	-	-
		7617	CC	Phyl, qtz	1.1'	44	16	93	-	-	0.4	-	<0.002	-	-	-
48a	Humboldt	3587	RG	Qtz		7	<2	3	-	-	<0.2	-	<0.002	-	-	-
		3588	RG	Qtz		33	<2	6	-	-	0.5	-	0.132	-	-	-
48b		3575	CC	Qtz	1.5'	37	<2	11	-	-	<0.2	-	0.002	-	-	-
		3576	CC	Qtz	5.0'	10	3	16	-	-	<0.2	-	0.002	-	-	-
		3577	CC	Qtz	5.0'	12	<2	12	-	-	<0.2	-	0.019	-	-	-
		3578	CC	Qtz	1.2'	24	<2	14	-	-	0.2	-	0.018	-	-	-
		3579	CC	Qtz	1.6'	12	28	23	-	-	1.6	-	0.164	-	-	-
		3580	CC	Qtz	0.8'	8	8	16	-	-	1.0	-	0.087	-	-	-
		6300	CC	Qtz	2.5'	73	27	105	220	-	1.6	-	0.035	-	-	-
		6301	CC	Qtz	1.5'	31	9	1450	10	-	0.3	-	0.006	-	-	-
		6302	CC	Qtz	0.9'	15	11	23	14	-	0.2	-	<0.002	-	-	-
		6303	CC	Gy phyl, qtz	2.5'	37	6	85	15	-	0.5	-	<0.002	-	-	-
		6304	S	Bk phyl, qtz		710	19	241	6	-	4.2	-	0.003	-	-	-
50a	Bridle	3586	S	Qtz		28	4	6	-	-	0.2	-	<0.002	-	-	-
50b		3889	CR	Alt gnst	4.0'	150	27	208	-	-	1.3	-	0.004	-	-	-

Key to abbreviations on page 27

APPENDIX B. - JUNEAU GOLD BELT RESULTS: 1986

Prosp. No.	Prospect Name	Sample No.	Sample Type	Sample Lith. & Remarks	Sample Size	Atomic Absorption Cu ppm	Pb ppm	Zn ppm	As ppm	Mo/W ppm	Ag ppm	Fire Assay Ag Oz/st	F.A./ A.A. Au Oz/st ‡Oz/yd3	Specific Cu %	Pb %	Zn %
50c	Bridle (cont)	3890	CR	Qtz	100'	290	4	26	-	-	1.4	-	‡0.002	-	-	-
51a	Solo/Bess	3373	CC	Qtz, silc phyl	3.5'	38	4	46	-	-	0.2	-	‡0.002	-	-	-
		3374	S	Qtz	1.0'	60	2	16	-	-	1.0	-	0.017	-	-	-
51b		3893	S	Qtz		52	‹2	38	-	-	0.3	-	‡0.002	-	-	-
51c		3894	S	Qtz		25	‹2	54	-	-	0.2	-	0.005	-	-	-
		3895	S	Qtz		32	‹2	168	-	-	0.8	-	0.002	-	-	-
51d		3892	S	Qtz		67	3	34	-	-	‹0.2	-	‡0.002	-	-	-
51e		3891	SC	Bn metamafic	6.0'	100	6	144	-	-	2.1	-	‡0.002	-	-	-
51f		3585	CC	Qtz	0.9'	47	2	60	-	-	0.6	-	0.004	-	-	-
52	Lurvey Placer	3365	PL	Below tunnel	0.1yd3	36	10	92	29	/7	1.9	-	‡0.0002	-	-	-
53a	Rubicon	3887	SC	Qtz	8.0'	17	15	139	-	-	1.0	-	‡0.002	-	-	-
		3888	SC	Qtz	7.0'	17	12	83	-	-	0.6	-	‡0.002	-	-	-
53b		3886	CR	Qtz		107	31	108	-	-	1.6	-	‡0.002	-	-	-
53c		3877	CR	Qtz		775	1560	520	600	-	›30.0	2.14	0.165	-	-	-
		3878	CR	Qtz		45	20	368	31	-	2.6	-	‡0.002	-	-	-
		3880	CR	Qtz		83	6	12	80	-	0.8	-	‡0.002	-	-	-
		3881	CR	Qtz, siderite	0.7'	96	›7500	545	-	-	›30.0	6.78	0.040	-	2.47	-
53d		3882	CR	Qtz, siderite	0.3'	115	1140	1940	-	-	21.0	-	0.041	-	-	-
		3883	CR	Qtz	0.4'	905	›7500	›20000	-	-	›30.0	23.24	0.157	-	2.46	3.65
		3884	CR	Qtz	0.5'	470	5800	›20000	-	-	›30.0	9.92	0.030	-	-	3.02
		3885	CR	Qtz, alt sch		6	175	296	-	-	6.0	-	0.024	-	-	-
53e		3879	CR	Qtz		33	10	28	11	-	0.8	-	‡0.002	-	-	-
54a	Perseverance	3589	CC	Qtz	2.0'	5	18	17	2.9	2/	0.6	-	0.002	-	-	-
		3590	CC	Alt metamafic	3.0'	30	43	150	2.9	2/	1.3	-	0.012	-	-	-
54b		3364	PL	Lurvey Lake	0.1yd3	60	109	68	39	/16	7.4	-	‡0.0220	-	-	-
54c		4010	CR	Qtz, Silc phyl	1.4'	64	6550	630	-	-	›30.0	1.10	0.527	-	-	-
		4011	CR	Qtz	2.0'	16	277	208	-	-	2.0	-	0.305	-	-	-
		4012	CC	Qtz	4.0'	45	2920	106	-	-	17.0	-	0.075	-	-	-
54d		3594	CR	Qtz	2.0'	12	16	710	3	-	1.3	-	‡0.002	-	-	-
54e		3599	CC	Qtz	1.5'	31	290	25	6	-	2.6	-	0.005	-	-	-
55a	McKinley	3372	S	Qtz		18	4	126	-	-	0.4	-	0.002	-	-	-
55b		3370	CC	Qtz in silc phyl	4.0'	50	35	54	-	-	0.2	-	‡0.002	-	-	-
		3371	S	Qtz	1.5'	42	14	34	-	-	‹0.2	-	‡0.002	-	-	-
55c		3598	CC	Qtz in bk phyl	4.0'	4	2	5	3	-	‹0.2	-	‡0.002	-	-	-
56a	Ground Hog	3592	SC	Alt metamafic	10'	71	16	17	246	‹1/	‹2	-	0.005	-	-	-
		3593	CC	Qtz	3.0'	75	5000	158	642	4/	›30.0	1.46	0.732	-	-	-
56b		3361	RC	Qtz	12'	18	232	14	-	-	1.4	-	0.008	-	-	-
		3362	RC	Qtz, silc sch	12'	170	›7500	10000	-	-	›30.0	7.87	1.643	-	3.80	-
		3363	RC	Qtz	10'	25	4170	170	-	-	›30.0	0.73	0.038	-	-	-
		4013	CC	Qtz	0.7'	136	›7500	1150	-	-	›30.0	5.29	1.472	-	2.95	-
		4014	CC	Qtz	4.5'	83	›7500	9800	-	-	›30.0	3.86	1.456	-	1.75	-
57	Snowslide Creek	3771	CC	Qtz, calcite	2.0'	17	3	82	‹2	-	‹0.2	-	‡0.002	-	-	-
58	Ascension (Ibex)	3876	CR	Qtz		292	1990	2900	78	-	›30.0	11.15	0.015	-	-	-

Key to abbreviations on page 27

APPENDIX B. - JUNEAU GOLD BELT RESULTS: 1986

Prosp. No.	Prospect Name	Sample No.	Sample Type	Sample Lith. & Remarks	Sample Size	Atomic Absorption Cu ppm	Pb ppm	Zn ppm	As ppm	Mo/W ppm	Ag ppm	Fire Assay Ag Oz/st	F.A./ A.A. Au Oz/st *Oz/yd3	Specific Cu %	Pb %	Zn %
59	Silver Queen	9-1-1	S	High-grade qtz		1570	640	9000	361	/509	>30.0	39.50	0.031	-	-	-
60	Hartford	3523	CC	Qtz	2.0'	32	227	465	-	-	8.3	-	0.006	-	-	-
		3524	S	Qtz		69	1125	680	-	-	>30.0	-	0.025	-	-	-
61	Alaska Consolid.	3875	CR	Alt dior & qtz	4.0'	44	3	25	54	-	0.6	-	0.005	-	-	-
62	Denny	3525	RC	Qtz, ser sch	2.0'	47	19	46	-	-	0.7	-	<0.002	-	-	-
63	Gould & Curry	3596	CC	Qtz	0.5'	710	16	10	5.5	3/	-	-	0.006	-	-	-
		3597	CC	Alt metamafic	4.0'	91	21	98	24	<1/	0.6	-	0.016	-	-	-
		3896	CC	Qtz	0.5'	145	<2	7350	-	-	2.6	-	1.235	-	-	-
		3897	CC	Qtz, metamafic	3.1'	30	<2	72	-	-	0.3	-	0.398	-	-	-
		3898	CC	Qtz, bk phyl	3.0'	116	<2	136	-	-	0.4	-	<0.002	-	-	-
		4001	SC	Qtz	3.1'	40	2	36	-	-	<0.2	-	0.007	-	-	-
		4002	SC	Alt metamafic	6.0'	56	10	102	-	-	<0.2	-	<0.002	-	-	-
		4003	CC	Qtz	1.0'	30	<2	26	-	-	<0.2	-	<0.002	-	-	-
		4004	S	Qtz		256	6	13400	-	-	1.4	-	0.179	-	-	-
		4005	CR	Qtz		67	4	108	-	-	0.2	-	0.003	-	-	-
		4006	CC	Qtz	1.0'	126	8	84	-	-	0.9	-	0.085	-	-	-
		4007	CC	Qtz	1.25'	950	2	>20000	-	-	1.5	-	0.731	-	-	2.94
		4008	CC	Qtz	1.0'	103	57	230	-	-	0.4	-	0.023	-	-	-
		4009	CC	Qtz	1.2'	160	14	940	-	-	0.4	-	0.249	-	-	-
64a	McCartney	3526	CC	Qtz	1.1'	16	7	11	-	-	0.3	-	<0.002	-	-	-
64b		6312	RG	Amph, float		164	7	69	-	-	0.4	-	0.002	-	-	-
64c		6308	CR	Qtz		23	18	31	-	-	4.9	-	0.003	-	-	-
		6309	SP	Qtz	10'	113	52	56	-	-	>30.0	-	0.043	-	-	-
		6310	CC	Qtz	0.5'	44	9	46	-	-	2.4	-	0.012	-	-	-
		6311	S	High-grade qtz		122	153	32	-	-	20.0	-	0.183	-	-	-
64d		6305	CR	Qtz		68	24	99	-	-	6.6	-	<0.002	-	-	-
		6306	RC	Qtz-mica sch		81	26	136	-	-	5.1	-	<0.002	-	-	-
		6307	CR	Qtz	1.3	32	44	20	-	-	6.8	-	<0.002	-	-	-
65	Cross Bay	3769	CC	Gnst	2.0'	23	2	53	<2	-	0.2	-	<0.002	-	-	-
		3770	CC	Pyritic gn phyl	3.0'	43	44	84	<2	-	0.2	-	<0.002	-	-	-
66	Reagan	3527	RC	Qtz, chlor sch	4.0'	660	5970	4970	-	-	>30.0	11.91	0.127	-	-	-
		3528	RC	Qtz, phyl	2.5'	540	635	520	-	-	>30.0	11.15	0.331	-	-	-
		3530	RC	Silc phyl	1.8'	124	75	211	-	-	14.0	-	0.003	-	-	-
		3531	RC	Qtz	1.5'	1455	3970	2320	-	-	>30.0	17.56	0.171	-	-	-
67	Dolan	3857	CR	Qtz	10.0'	12	4	18	-	-	<0.2	-	<0.002	-	-	-
		3858	CR	Qtz	6.0'	14	4	28	-	-	<0.2	-	<0.002	-	-	-
		3859	CR	Qtz	30.0'	29	3	10	-	-	<0.2	-	<0.002	-	-	-
68	Gold Belt	3865	S	Qtz		64	13	42	-	-	24.0	-	0.003	-	-	-
		3866	S	Silc phyl		28	4	23	-	-	7.4	-	<0.002	-	-	-
69a	Middle Peak	3537	S	Qtz		50	8	77	-	-	<0.2	-	<0.002	-	-	-

Key to abbreviations on page 27

Prosp. No.	Prospect Name	Sample No.	Sample Type	Sample Lith. & Remarks	Sample Size	Atomic Absorption Cu ppm	Pb ppm	Zn ppm	As ppm	Mo/W ppm	Ag ppm	Fire Assay Ag Oz/st	F.A./ A.A. Au Oz/st *Oz/yd3	Specific Cu %	Pb %	Zn %
69a	Middle Peak (cont)	3538	CC	Qtz	2.4'	25	2	38	-	-	<0.2	-	<0.002	-	-	-
		3539	CC	Qtz	2.3'	78	6	86	-	-	<0.2	-	<0.002	-	-	-
69b		3540	CC	Qtz	2.2'	9	3	6	-	-	0.5	-	<0.002	-	-	-
		3867	SC	Silc sch	3.5'	178	5	40	-	-	13.0	-	<0.002	-	-	-
69c		7166	CR	Qtz in sch	3.0'	74	33	56	-	-	6.8	-	<0.002	-	-	-
69d		3534	RC	Qtz	0.6'	12	2	24	-	-	0.3	-	<0.002	-	-	-
69e		3533	S	Silc gnst		89	6	48	-	-	0.7	-	0.002	-	-	-
69f		7165	CR	Qtz in phyl	2.5'	18	18	30	-	-	0.5	-	<0.002	-	-	-
69g		3860	CR	Qtz and calcite		38	5	43	-	-	0.2	-	<0.002	-	-	-
69h		7164	CC	Qtz in gnst	2.5'	66	<2	10	-	-	0.3	-	<0.002	-	-	-
69i		3532	S	Qtz		27	17	44	-	-	2.6	-	0.002	-	-	-
70a	Penn Alaska - Pittsburg Adit	7150	CC	Alt gneiss	10'	20	7	94	-	-	0.7	-	<0.002	-	-	-
		7161	CC	Alt gneiss	10'	22	43	94	-	-	0.6	-	<0.002	-	-	-
		7162	CC	Alt gneiss	10'	22	10	96	-	-	0.7	-	<0.002	-	-	-
		7163	CC	Alt gneiss	10'	63	12	148	-	-	0.2	-	<0.002	-	-	-
70b	Penn Alaska - Washington Adit	3518	CC	Pyritic bk phyl	10'	27	21	217	100	-	1.7	-	0.002	-	-	-
		3519	CC	Pyritic bk phyl	10'	26	22	288	-	-	3.0	-	<0.002	-	-	-
		3520	CC	Pyritic bk phyl	10'	35	18	505	-	-	2.3	-	<0.002	-	-	-
		3521	CC	Qtz	1.3'	2	3	12	-	-	0.2	-	<0.002	-	-	-
		3522	S	Qtz		21	162	20	-	-	1.9	-	0.002	-	-	-
		3752	CC	Silc bk phyl	9.0'	52	18	261	-	-	0.9	-	<0.002	-	-	-
		3753	CC	Pyritic bk phyl	6.0'	38	12	290	-	-	0.8	-	<0.002	-	-	-
		3754	CC	Pyritic bk phyl	6.0'	149	10	234	-	-	1.2	-	<0.002	-	-	-
		3788	S	Qtz		60	9	410	5	-	0.9	-	<0.002	-	-	-
		3789	SC	Silc phyl	15'	34	6	70	-	-	<0.2	-	<0.002	-	-	-
		3790	S	Silc phyl	1.5'	11	5	22	-	-	<0.2	-	<0.002	-	-	-
		3791	CC	Silc phyl	10'	70	8	425	-	-	0.8	-	<0.002	-	-	-
		3792	S	Pyrite		6	12	22	-	-	2.2	-	<0.002	-	-	-
		3793	CC	Sheared bk phyl	9.0'	119	7	140	-	-	1.2	-	<0.002	-	-	-
		7142	CC	Silc bk phyl	5.0'	44	25	355	-	-	1.4	-	<0.002	-	-	-
		7143	CC	Bk phyl	5.0'	40	11	1670	-	-	2.8	-	<0.002	-	-	-
		7144	SC	Bk phyl	25'	35	11	565	-	-	1.5	-	<0.002	-	-	-
		7145	S	Qtz		19	48	121	-	-	0.6	-	<0.002	-	-	-
70c	Penn Alaska - Seawall Adit	3541	SC	Silc bk phyl	3.0'	10	14	38	-	-	0.2	-	<0.002	-	-	-
		3787	CC	Silc bk phyl	8.0'	41	7	111	-	-	0.3	-	<0.002	-	-	-
		3868	SC	Silc bk phyl	5.0'	100	14	118	-	-	4.5	-	<0.002	-	-	-
		3869	SC	Silc bk phyl	5.0'	28	7	87	-	-	5.2	-	<0.002	-	-	-
		3870	SC	Silc bk phyl	5.0'	95	9	141	-	-	3.2	-	<0.002	-	-	-
		3871	SC	Silc bk phyl	5.0'	70	59	100	-	-	2.8	-	<0.002	-	-	-
		6107	CR	Silc bk phyl	12'	60	2	120	-	-	0.8	-	0.002	-	-	-
		6108	CR	Silc bk phyl	2.0'	8	<2	76	-	-	0.4	-	<0.002	-	-	-
		7140	CC	Silc bk phyl	5.0'	64	14	116	17	-	1.2	-	<0.002	-	-	-
		7141	CR	Gnst, bk phyl	10'	62	6	86	55	-	0.2	-	<0.002	-	-	-
71a	Pt. Bishop	3511	S	Qtz		32	47	31	80	-	0.5	-	<0.002	-	-	-
		3512	S	Pyritic bk phyl		75	33	226	5	-	0.9	-	<0.002	-	-	-
71b		3777	CR	Pyritic gnst	4.1'	138	<2	54	7	-	0.2	-	0.002	-	-	-
71c		3778	CC	Felsic sch	4.0'	65	2	102	<2	-	<0.2	-	<0.002	-	-	-

Key to abbreviations on page 27

APPENDIX B. - JUNEAU GOLD BELT RESULTS: 1986

Prosp. No.	Prospect Name	Sample No.	Sample Type	Sample Lith. & Remarks	Sample Size	Atomic Absorption Cu ppm	Pb ppm	Zn ppm	As ppm	Mo/W ppm	Ag ppm	Fire Assay Ag Oz/st	F.A./ A.A. Au Oz/st *Oz/yd3	Specific Cu %	Pb %	Zn %
71d	Pt. Bishop (cont)	3513	S	Silc vol		138	2	73	<2	-	2.2	-	<0.002	-	-	-
71e		3514	RG	Pyritic vol		57	6	24	125	-	0.8	-	<0.002	-	-	-
		3515	RG	Metatuff		33	10	48	250	-	0.3	-	<0.002	-	-	-
		3516	RG	Metabasalt		2740	2	58	<2	-	1.4	-	<0.002	-	-	-
		3517	RG	Bk phyl		375	42	590	7	-	3.1	-	<0.002	-	-	-
72a	North Douglas Is.	6424	PC	Cove Ck	2 pans	50	7	90	-	-	<0.2	-	0.002	-	-	-
72b		6425	PC	Elevenmile Ck	2 pans	60	1725	94	-	-	<0.2	-	0.005	-	-	-
72c		6423	PC	Outer Point	2 pans	42	212	100	-	-	<0.2	-	0.002	-	-	-
73a	Fish Creek	7490	PC	Fish Ck	5 pans	42	2	72	-	-	<0.2	-	<0.002	-	-	-
73b		6426	PC	Fish Ck, 1 f Au	2 pans	32	4	54	-	-	<0.2	-	0.059	-	-	-
		7491	PC	Fish Ck	5 pans	43	2	74	-	-	<0.2	-	<0.002	-	-	-
73c		6419	PL	Fish Ck, 2 f Au	0.1yd3	34	237	44	6	/13	0.5	-	*.00007	-	-	-
		7489	PC	Fish Ck trib	3 pans	50	2	64	-	-	<0.2	-	<0.002	-	-	-
73d		6418	PL	Trib to Fish Ck	0.1yd3	30	24	42	4	/6	0.3	-	*.00003	-	-	-
74	Mayflower Is.	3381	S	Qtz, alt dior	2.0'	8	10	24	-	-	<0.2	-	<0.002	-	-	-
		7618	CR	Alt dior		19	6	47	-	-	<0.2	-	<0.002	-	-	-
75	Jumbo	6015	SC	Porphyritic gnst	10'	86	13	42	-	-	<0.2	-	<0.002	-	-	-
		6016	SC	Porphyritic gnst	10'	45	3	16	-	-	<0.2	-	<0.002	-	-	-
		6017	SC	Porphyritic gnst	10'	41	4	39	-	-	<0.2	-	<0.002	-	-	-
		6018	SC	Porphyritic gnst	10'	40	4	32	-	-	<0.2	-	<0.002	-	-	-
		6019	SC	Porphyritic gnst	10'	48	3	10	-	-	<0.2	-	0.006	-	-	-
		6020	SC	Porphyritic gnst	10'	37	6	19	-	-	<0.2	-	<0.002	-	-	-
		6021	SC	Porphyritic gnst	10'	35	6	31	-	-	<0.2	-	<0.002	-	-	-
76a	Treadwell	3544	SC	Pyritic dior	20'	79	12	91	-	28/	0.5	-	0.068	-	-	-
		3545	SC	Pyritic dior	10'	103	9	91	-	11/	0.8	-	0.025	-	-	-
		3546	SC	Pyritic dior	10'	82	12	90	-	15/	0.4	-	0.042	-	-	-
		3547	SC	Alt dior	10'	100	8	80	-	10/	<0.2	-	0.002	-	-	-
		3548	S	Pyritic dior		43	12	23	-	3/	2.0	-	0.326	-	-	-
		3549	SC	Alt Dior	20'	66	13	19	-	23/	0.4	-	0.034	-	-	-
76b		3550	RC	Alt dior		100	16	21	-	21/	0.2	-	0.055	-	-	-
		3551	RC	Pyritic dior		137	37	20	-	8/	0.2	-	0.046	-	-	-
76c		3552	SC	Silc dior	5.0'	41	83	20	-	99/	0.8	-	0.249	-	-	-
		3553	SC	Pyritic dior	10'	68	39	10	-	30/	0.9	-	0.287	-	-	-
		3554	SC	Pyritic dior	10'	61	42	10	-	8/	<0.2	-	0.015	-	-	-
		3555	SC	Alt dior	10'	140	19	18	-	4/	0.2	-	0.038	-	-	-
77a	Mexican	3560	RG	Pyritic dior		180	21	18	-	4/	0.2	-	0.045	-	-	-
		3561	RG	Alt dior		440	19	18	-	33/	3.8	-	2.840	-	-	-
		3562	RG	Alt dior w/Mo		212	21	16	-	95/	1.7	-	0.822	-	-	-
77b		3542	RC	Pyritic dior	10'	585	30	39	-	51/	1.6	-	0.305	-	-	-
		3543	RC	Pyritic dior	10'	1380	42	119	-	31/	2.0	-	0.407	-	-	-
		3873	CR	Alt dior	10'	860	32	39	-	107/	1.0	-	0.655	-	-	-
		3874	CR	Alt dior	10'	345	32	74	-	74/	1.1	-	0.365	-	-	-
77c		3556	SC	Silc dior	10'	156	20	21	-	5/	<0.2	-	0.073	-	-	-
		3557	SC	Alt dior	10'	256	15	29	-	12/	0.3	-	0.049	-	-	-
		3558	SC	Alt dior	10'	333	21	20	-	4/	<0.2	-	0.004	-	-	-

Key to abbreviations on page 27

APPENDIX B. - JUNEAU GOLD BELT RESULTS: 1986

Prosp. No.	Prospect Name	Sample No.	Sample Type	Sample Lith. & Remarks	Sample Size	Atomic Absorption Cu ppm	Pb ppm	Zn ppm	As ppm	Mo/W ppm	Ag ppm	Fire Assay Ag Oz/st	P.A./ A.A. Au Oz/st *Oz/yd3	Specific Cu %	Pb %	Zn %
77c	Mexican (cont)	3559	S	Pyritic dior		160	16	20	-	15/	0.9	-	0.368	-	-	-
78	Mexico & Belvedere	3854	SC	Alt dior	5.0'	86	15	144	-	-	<0.2	-	<0.002	-	-	-
		3855	SC	Alt dior	4.5'	185	16	80	-	-	0.3	-	<0.002	-	-	-
		3856	SC	Alt dior	5.0'	58	14	41	-	-	<0.2	-	<0.016	-	-	-
		7146	SC	Pyritic dior	5.0'	54	8	58	-	-	<0.2	-	<0.002	-	-	-
		7147	SC	Pyritic dior	5.0'	59	8	25	-	-	<0.2	-	<0.002	-	-	-
		7148	SC	Pyritic dior	5.0'	90	9	33	-	-	<0.2	-	<0.002	-	-	-
		7149	SC	Pyritic dior	5.0'	112	9	63	-	-	<0.2	-	<0.002	-	-	-
79	Ready Bullion	3380	PL	Tailings beach	0.1yd3	66	14	104	22	/8	1.2	-	*0.0004	-	-	-
81a	Alaska Treasure - Main Working Tun.	3563	CC	Pyritic ser sch	10'	200	700	1495	-	-	2.5	-	0.058	-	-	-
		3564	CC	Shear, ser sch	4.0'	690	5930	4950	-	-	9.7	-	0.004	-	-	-
		3565	S	Qtz		2900	>7500	>20000	-	-	>30.0	1.81	0.154	-	8.36	4.00
		3566	CC	Shear, ser sch	2.0'	350	2770	2670	-	-	5.1	-	0.017	-	-	-
		3567	CC	Pyritic ser sch	10'	290	730	915	-	-	2.4	-	0.053	-	-	-
		3568	RC	Pyritic ser sch	5.0'	81	61	83	-	-	0.6	-	0.012	-	-	-
		3569	CC	Pyritic ser sch	20'	141	232	210	-	-	0.8	-	0.009	-	-	-
		3570	CC	Pyritic ser sch	20'	740	630	5070	-	-	2.6	-	0.014	-	-	-
81b	Alaska Treasure - Hudson Adit	3536	S	Silc ser sch		1070	121	6650	-	-	1.8	-	0.074	-	-	-
		4034	S	Mill concentrate		3750	>10000	>20000			19.0		0.760			
81c	Alaska Treasure - Mill Adit	3571	CC	Pyritic ser sch	10'	78	55	154	-	-	0.8	-	0.008	-	-	-
		3572	CC	Pyritic ser sch	10'	79	32	59	-	-	1.0	-	0.012	-	-	-
		3573	CC	Pyritic ser sch	8.0'	180	985	304	-	-	2.9	-	0.021	-	-	-
		3574	S	Qtz breccia		26	39	93	-	-	0.4	-	0.005	-	-	-
		7168	CC	Pyritic ser sch	10'	50	10	<20	-	-	<5	-	0.002	-	-	-
		7169	CC	Pyritic ser sch	10'	74	52	30	-	-	1.2	-	0.011	-	-	-
		7170	CC	Pyritic ser sch	10'	110	37	32	-	-	1.1	-	0.025	-	-	-
		7501	CC	Pyritic ser sch	10'	120	120	120	-	-	1.5	-	0.011	-	-	-
		7502	CC	Pyritic ser sch	10'	59	18	100	-	-	<5	-	0.005	-	-	-
82a	Red Diamond	3535	S	Qtz, ankerite		18	4	31	-	-	0.4	-	0.079	-	-	-
82b		3502	SS	Gnst		111	11	91	13	-	0.2	-	0.002	-	-	-
		3503	RC	Gnst, float		240	9	29	13	-	0.2	-	0.002	-	-	-
		3504	RC	Qtz, float		47	17	91	10	-	0.5	-	<0.002	-	-	-
83a	South Douglas Is.	3776	S	Silc sch	5.0'	107	4	97	40	-	<0.2	-	<0.002	-	-	-
83b		3774	CC	Alt gnst	3.0'	168	10	34	48	-	0.2	-	<0.002	-	-	-
		3775	S	Qtz, chlor sch		315	9	68	35	-	0.3	-	<0.002	-	-	-
83c		3501	SS	Gnst		104	8	73	10	-	<0.2	-	<0.002	-	-	-
83d		3773	CR	Pyritic chlor sch	7.0'	81	8	66	175	-	<0.2	-	<0.002	-	-	-
83e		3507	SS	Pyritic gnst		101	9	95	18	-	0.2	-	<0.002	-	-	-
83f		3509	S	Pyritic phyl		136	9	16	140	-	4.8	-	<0.002	-	-	-
83g		3505	S	Pyritic phyl		223	5	35	5	-	0.2	-	<0.002	-	-	-
		3506	S	Pyritic gnst		115	5	18	5	-	0.2	-	<0.002	-	-	-
83h		3508	S	Pyritic gnst		103	3	72	7	-	0.2	-	<0.002	-	-	-
		3510	SS	Gnst		57	5	84	19	-	0.2	-	<0.002	-	-	-

Key to abbreviations on page 27

APPENDIX B. - JUNEAU GOLD BELT RESULTS: 1986

Prosp. No.	Prospect Name	Sample No.	Sample Type	Sample Lith. & Remarks	Sample Size	Atomic Absorption Cu ppm	Pb ppm	Zn ppm	As ppm	Mo/W ppm	Ag ppm	Fire Assay Ag Oz/st	F.A./ A.A. Au Oz/st *Oz/yd3	Specific Cu %	Pb %	Zn %
84	Bum Cat Placer	7121	PL		0.1yd3	34	34	90	105	-	12.0	-	2.355	-	-	-
85	Great Bear	7119	RG	Mafic tuff		38	3	80	<2	-	<0.2	-	<0.002	-	-	-
		7120	RG	Silc phyl		32	2	99	<2	-	0.2	-	<0.002	-	-	-
86	Taku Harbor	7118	RG	Chlor ser sch		51	4	77	<2	-	0.3	-	<0.002	-	-	-
		7122	SC	Chlor sch	15'	42	3	54	<2	-	<0.2	-	0.002	-	-	-
87	South Taku Harbor	7123	RG	Silc argillite		65	4	68	<2	-	0.5	-	<0.002	-	-	-
88	S. Limestone Inlet	7136	RG	Qtz		7	2	22	<2	-	<0.2	-	<0.002	-	-	-
89	Whigg Placer	7135	SS			42	10	135	2	-	<0.2	-	0.002	-	-	-
90a	Lower Gilbert Bay	7124	RG	Chlor sch		400	<2	41	<2	-	0.2	-	<0.002	-	-	-
90b	tributary	7128	CR	Qtz	0.5'	40	86	45	180	-	0.7	-	<0.002	-	-	-
		7129	CR	Bk argillite		69	4	70	<2	-	0.2	-	<0.002	-	-	-
90c		7130	CC	Qtz	1.5'	5	<2	3	>1000	-	<0.2	-	0.003	-	-	-
		7131	CR	Bk argillite	3.0'	139	<2	102	20	-	0.3	-	0.018	-	-	-
91a	Middle Gilbert Bay	7125	RG	Qtz, calcite		5	14	12	4	-	<0.2	-	<0.002	-	-	-
91b	tributary	7132	CR	Bk argillite		45	6	96	<2	-	0.2	-	<0.002	-	-	-
		7133	CR	Qtz		15	63	63	<2	-	0.5	-	0.002	-	-	-
91c		7134	CR	Bk phyl w/py		9	5	37	20	-	1.4	-	<0.002	-	-	-
92	Upper Gilbert Bay	7126	CR	Qtz	0.9'	36	<2	13	<2	-	0.2	-	<0.002	-	-	-
		7127	CC	Bk slate	3.0'	18	18	31	<2	-	0.4	-	<0.002	-	-	-
93a	South Snettisham	7154	S	Qtz		<2	<2	4	2	-	<0.2	-	<0.002	-	-	-
93b	Peninsula	7153	S	Marble		4	15	22	<2	-	<0.2	-	0.004	-	-	-
93c		7137	PC	Visible Au		10	6	48	4	-	<0.2	-	0.002	-	-	-
		7151	CR	Qtz	2.0'	3	<2	1	<2	-	<0.2	-	<0.002	-	-	-
		7152	S	Marble		3	11	52	<2	-	<0.2	-	<0.002	-	-	-
93d		7138	CR	Qtz	2.0'	<2	<2	1	<2	-	<0.2	-	<0.002	-	-	-
		7139	CR	Qtz	3.0'	2	<2	1	<2	-	<0.2	-	0.003	-	-	-

Key to abbreviations on page 27