

Division of Geological & Geophysical Surveys

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**ANALYTICAL RESULTS FROM THE SOUTHERN CLEVELAND PENINSULA
AREA, CRAIG C-1 AND KETCHIKAN C-6 QUADRANGLES, SOUTHEAST
ALASKA**

by

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INTRODUCTION

This preliminary report lists the results from geochemical analyses of 30 rock and 1 stream sediment. Samples were collected during the 1992 field season as part of a geologic mapping project in the Helm Bay region on the southern Cleveland Peninsula, Craig C-1 and Ketchikan C-6 1:63,360 quadrangles. Milt Wiltse, Wyatt Gilbert, Melanie Werdon, Tom Homza, and Karen Clautice participated in the project.

This study was conducted as part of a cooperative agreement between the U.S. Bureau of Mines and the Alaska Division of Geological and Geophysical Surveys to investigate the geology and mineralization of the Ketchikan Mining District.

SAMPLE NUMBER	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	Mo ppm	Ni ppm	Co ppm	Cd ppm	Bi ppm	As ppm	Sb ppm	Fe pct	Mn pct
1201	123	<0.2	379	8	48	14	14	29	<1	<5	<5	<5	5.36	0.06
1202	8	<0.2	23	9	62	9	5	5	<1	5	7	<5	3.68	0.05
1203	11	<0.2	114	12	69	1	1	9	<1	<5	<5	<5	2.52	0.16
1204	<5	<0.2	50	<2	18	<1	22	26	<1	<5	<5	<5	3.31	0.07
1205	NA	<0.2	24	9	37	1	21	13	<1	<5	44	<5	3.58	0.07
1206	<5	<0.2	83	9	43	<1	14	15	<1	5	20	<5	3.25	0.06
1207	26	<0.2	70	3	17	<1	16	19	<1	6	545	<5	2.44	0.05
1208	<5	<0.2	7	<2	<1	2	12	2	<1	<5	<5	<5	1.09	0.01
1209	<5	<0.2	4	<2	<1	6	10	1	<1	<5	<5	<5	0.44	<0.01
1210	<5	<0.2	66	3	20	<1	68	26	<1	6	<5	<5	3.77	0.06
1211	32	<0.2	37	39	20	5	4	5	<1	<5	<5	<5	2.58	0.02
1212	<5	<0.2	93	8	29	1	7	6	<1	6	<5	<5	3.65	0.11
1213	<5	<0.2	13	7	24	3	6	5	<1	<5	<5	<5	2.87	0.18
1214	<5	<0.2	4	<2	<1	1	11	<1	<1	<5	<5	<5	0.45	<0.01
1215	<5	<0.2	4	<2	<1	5	9	1	<1	<5	61	<5	0.46	0.02
1301	<5	<0.2	52	17	31	5	12	20	<1	<5	27	<5	5.12	0.06
1303	<5	<0.2	56	7	61	2	31	13	<1	<5	<5	<5	4.66	0.05
1304	<5	<0.2	54	9	78	2	30	13	<1	<5	<5	<5	4.79	0.04
1305	<5	<0.2	21	<2	10	4	14	3	<1	<5	<5	<5	1.75	0.01
1307	<5	<0.2	47	6	73	1	23	11	<1	<5	<5	<5	4.75	0.05
1308	<5	<0.2	82	10	47	1	18	15	<1	6	11	<5	3.87	0.11
1309	82	<0.2	56	4	10	<1	4	6	<1	<5	<5	<5	1.98	0.06
1405	<5	<0.2	57	8	21	2	16	7	<1	<5	<5	<5	3.56	0.03
1406	<5	<0.2	38	11	40	1	15	5	<1	<5	<5	<5	3.42	0.05
1514	6	<0.2	71	10	217	5	3	9	<1	<5	<5	<5	3.34	0.04
1602	24	<0.2	230	5	49	2	5	7	<1	<5	<5	<5	2.56	0.10
1605	<5	<0.2	32	11	51	2	31	11	<1	<5	9	<5	3.51	0.05
1606	373	<0.2	9	2	<1	1	11	3	<1	<5	<5	<5	0.61	0.01
1607	44	<0.2	181	6	283	1	2	8	<1	6	<5	<5	3.03	0.35
1608	<5	<0.2	69	29	60	2	40	26	<1	5	16	<5	4.85	0.05
1612	<5	0.6	3	3	<1	4	<1	1	<1	<5	<5	<5	0.31	0.12

SAMPLE NUMBER	Te ppm	Ba ppm	Cr ppm	V ppm	Sn ppm	W ppm	Al pct	Mg pct	Ca pct	Na pct	K pct	Sr ppm	Y ppm	La ppm
1201	<10	21	61	55	<20	<20	2.40	2.08	1.17	0.06	0.10	173	5	<1
1202	<10	20	95	58	<20	<20	2.06	1.78	0.76	0.12	0.10	105	7	2
1203	<10	185	22	30	<20	<20	1.35	0.49	5.38	0.05	0.32	594	6	4
1204	<10	5	86	83	<20	<20	2.16	1.56	1.82	0.06	<0.01	303	6	5
1205	<10	48	33	67	<20	<20	2.04	0.97	0.51	0.01	0.06	57	6	5
1206	<10	12	53	93	<20	<20	2.26	1.63	1.39	0.06	0.04	114	5	2
1207	<10	18	71	113	<20	<20	1.30	0.95	0.81	0.21	0.08	32	8	2
1208	<10	6	530	11	<20	<20	0.22	0.10	0.10	0.01	0.02	16	1	<1
1209	<10	<2	501	3	<20	<20	0.04	0.02	0.03	<0.01	<0.01	4	<1	<1
1210	<10	<2	290	99	<20	<20	3.18	3.02	1.34	<0.01	<0.01	294	5	2
1211	<10	79	122	26	<20	<20	1.09	0.50	0.13	0.14	0.25	29	2	9
1212	<10	70	134	33	<20	<20	2.05	1.51	6.95	0.04	0.15	212	6	4
1213	<10	68	215	23	<20	<20	1.78	1.37	9.10	0.01	0.06	210	7	2
1214	<10	3	414	2	<20	<20	0.07	0.02	0.03	0.06	<0.01	4	<1	<1
1215	<10	8	439	2	<20	<20	0.02	<0.01	0.04	<0.01	<0.01	2	<1	<1
1301	<10	38	72	46	<20	<20	1.69	1.23	4.56	0.04	0.22	81	8	2
1303	<10	190	148	157	<20	<20	3.23	1.41	0.13	0.06	0.81	14	6	11
1304	<10	119	84	84	<20	<20	2.84	1.52	0.05	0.05	0.46	11	4	12
1305	<10	22	368	23	<20	<20	0.73	0.45	0.04	0.02	0.09	6	2	<1
1307	<10	67	117	44	<20	<20	2.57	1.47	0.68	0.05	0.17	40	7	3
1308	<10	87	66	89	<20	<20	2.86	1.55	1.74	0.03	0.22	64	5	2
1309	<10	180	77	17	<20	<20	0.94	0.33	4.69	0.06	0.40	216	2	<1
1405	<10	100	75	47	<20	<20	1.40	0.90	0.65	0.04	0.33	36	8	4
1406	<10	98	114	41	<20	<20	1.33	0.81	1.15	0.07	0.33	51	7	4
1514	<10	69	78	30	<20	<20	1.63	1.06	0.24	0.09	0.24	43	3	14
1602	<10	111	74	40	<20	<20	1.90	1.13	1.66	0.07	0.09	220	6	5
1605	<10	106	196	42	<20	<20	2.02	1.34	0.34	0.03	0.30	21	8	8
1606	<10	9	364	6	<20	<20	0.18	0.09	0.19	0.01	0.02	18	3	<1
1607	<10	167	56	18	<20	<20	0.71	1.23	7.81	0.05	0.41	250	3	8
1608	<10	102	153	52	<20	<20	2.37	1.45	1.55	0.05	0.27	90	10	9
1612	<10	6	2	14	<20	<20	0.03	0.15	>10.00	<0.01	<0.01	391	<1	<1

SAMPLE NUMBER	1992 STATION NUMBER	LONG.	LAT.	BRIEF FIELD DESCRIPTION
1201	KC06, WM02	131.953	55.591	Pyritic, quartz muscovite schist
1202	KC07	131.960	55.592	6m wide zone of pyritic, white mica quartz tuff
1203	KC09, WG202	131.976	55.598	Gray-green mafic metavolcanic with thin carbonate lenses
1204	KC13	131.962	55.605	Light gray-green porphyroblastic metavolcanic (schistose to massive)
1205sed	KC28	132.023	55.648	Orange stained sediment in creek between lakes
1206	KC31	132.034	55.625	Pyritic, quartz sericite schist
1207	KC33	132.038	55.625	15cm wide quartz-epidote vein in mafic metavolcanics, perpendicular to foliation
1208	KC38	132.063	55.635	15cm wide quartz vein in dark gray slate/phyllite, perpendicular to bedding
1209	KC39	132.067	55.633	Quartz vein, 15-20cm wide, various cross-cutting directions
1210	KC39	132.067	55.633	Medium grained, slightly foliated, chlorite- and clay-altered granodiorite
1211	KC40	131.977	55.598	2-3 m of iron-stained quartz muscovite schist
1212	KC41	131.977	55.598	Pyritic, quartz-carbonate layer (1-5 cm) within quartz muscovite schist
1213	KC41	131.977	55.598	Quartz-carbonate vein (15 cm) within pyritic quartz muscovite schist
1214	KC66	132.042	55.572	Quartz vein within dark gray phyllite
1215	KC78	132.126	55.681	Quartz veining near contact between black slate and mafic metavolcanics
1301	WG222	131.986	55.640	Pyritic, quartz muscovite schist
1303	WG238	132.091	55.606	Hornfels at contact with granodiorite
1304	WG239	132.086	55.603	Dark gray slate
1305	WG240	132.082	55.602	Quartz veins in metavolcanics
1307	WG257	132.058	55.698	Quartz vein in dark green-black slate
1308	WG258	132.125	55.681	Pyritic zone near sediment/metavolcanic contact
1309	WG265	131.971	55.628	Light green volcaniclastic
1405	MW13	132.015	55.668	Pyrite-altered metavolcanic lens in metasediment
1406	MW14	132.021	55.672	Pyritic, quartz white mica schist, metasediment(?)
1514	TXH85	131.977	55.599	
1602	WM8A	131.962	55.592	Pyritic volcaniclastic
1605	WM19	132.088	55.644	Black slate with silty layers and minor quartz veining
1606	WM27	132.020	55.665	Chlorite-, carbonate-bearing quartz vein at Portland prospect
1607	WM75	131.974	55.597	White mica quartz schist
1608	WM97, WG254	132.056	55.691	Pyrite-bearing, iron-stained phyllite
1612	WM83	131.991	55.600	Pyritic, banded limestone with hematite(?)

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

REPORT: V92-00476.0 (COMPLETE)

REFERENCE INFO:

CLIENT: U.S. BUREAU OF MINES
PROJECT: NONE GIVEN

SUBMITTED BY: K. MAAS
DATE PRINTED: 9-JUN-92

ORDER	ELEMENT		NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Au	Gold	30	5 PPB	FIRE ASSAY	FIRE ASSAY @ 30 G
2	Ag	Silver	31	0.2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
3	Cu	Copper	31	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
4	Pb	Lead	31	2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
5	Zn	Zinc	31	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
6	Mo	Molybdenum	31	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
7	Ni	Nickel	31	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
8	Co	Cobalt	31	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
9	Cd	Cadmium	31	1.0 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
10	Bi	Bismuth	31	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
11	As	Arsenic	31	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
12	Sb	Antimony	31	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
13	Fe	Iron	31	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
14	Mn	Manganese	31	<0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
15	Te	Tellurium	31	10 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
16	Ba	Barium	31	2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
17	Cr	Chromium	31	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
18	V	Vanadium	31	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
19	Sn	Tin	31	20 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
20	W	Tungsten	31	20 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
21	La	Lanthanum	31	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
22	Al	Aluminum	31	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
23	Mg	Magnesium	31	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
24	Ca	Calcium	31	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
25	Na	Sodium	31	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
26	K	Potassium	31	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
27	Sr	Strontium	31	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
28	Y	Yttrium	31	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA

SAMPLE LOCATIONS, CLEVELAND PENINSULA AREA
CRAIG (C-1), KETCHIKAN (C-6) QUADRANGLES

