

Assessment Report on Geology and Geochemistry

PMR, RCG Mystery, RCG Blue Peter and RCG Magnet Claims
St. Mary River Area

Fort Steele Mining Division
British Columbia

NTS Map 82 F/9
Latitude 49°37'
Longitude 116°15'

Owner:

Abitibi Mining Corp
1000-675 W. Hastings Street
Vancouver, B.C., V6B 1N2

Operator:

Abitibi Mining Corp
Cranbrook Field Office
3380 Wilks Road
P.O. Box 215, Main Station
Cranbrook, B.C., V1C 4H7

October 20, 1997

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

WP7 File: alki.wpd

Cranbrook Field Office
25,194

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1.00 INTRODUCTION

1.10 Location and Access

The PMR, Mystery, Blue Peter and Magnet mineral claims collectively referred to as the Alki claim block are located approximately 20 km west of the town of Kimberley, B.C. See the index map (figure 1) for the location of the claim block. Access is by the paved St. Mary road to St. Mary Lake and an improved dirt road to the mouth of Alki Creek. One logging road provides limited access on the west side of Alki Creek but access to most of the area is by foot up steep trails and hillsides.

1.20 History

Parts of the Alki claim block have been held and prospected by Cominco Ltd for Sullivan-type deposits in the past as the Clair claim block. Related Minfile and assessment reports are:

<u>Claim Group</u>	<u>Minfile/Assessment Report</u>
Mystery (L.4058)	082FNE067
Blue Peter (L.4059)	082FNE068
Magnet (L.7213)	
Cominco Clair Claims	#7676, #7681, #7902, #10311, #10389, #11209, #11696, #12126

1.30 Physiography

The property is situated west of the Rocky Mountain Trench within the St. Mary Range of the Purcell Mountains. Topography is moderate to steep with glacially rounded ridges. Within the property elevations range from 1000 to 2000 metres.

Vegetation cover varies from immature to mature forests of larch, pine, spruce and fir. Considerable clear-cut logging has occurred on the claim group in the recent past and the logged areas are in various stages of regeneration. Traverses are difficult necessitating cut lines and GPS survey control for location.

1.40 Property

The Alki claim block consisting of 78 claim units and 12 claims (figure 2) is a contiguous block of claims owned by Abitibi Mining Corp, 1000-675 W. Hastings Street, Vancouver, B.C. with the following subdivision:

<u>Claim Name</u>	<u>Tenure No.</u>	<u>No. Units</u>	<u>Current Expiry Date</u>
PMR 8	338368	9	24-Jul-98

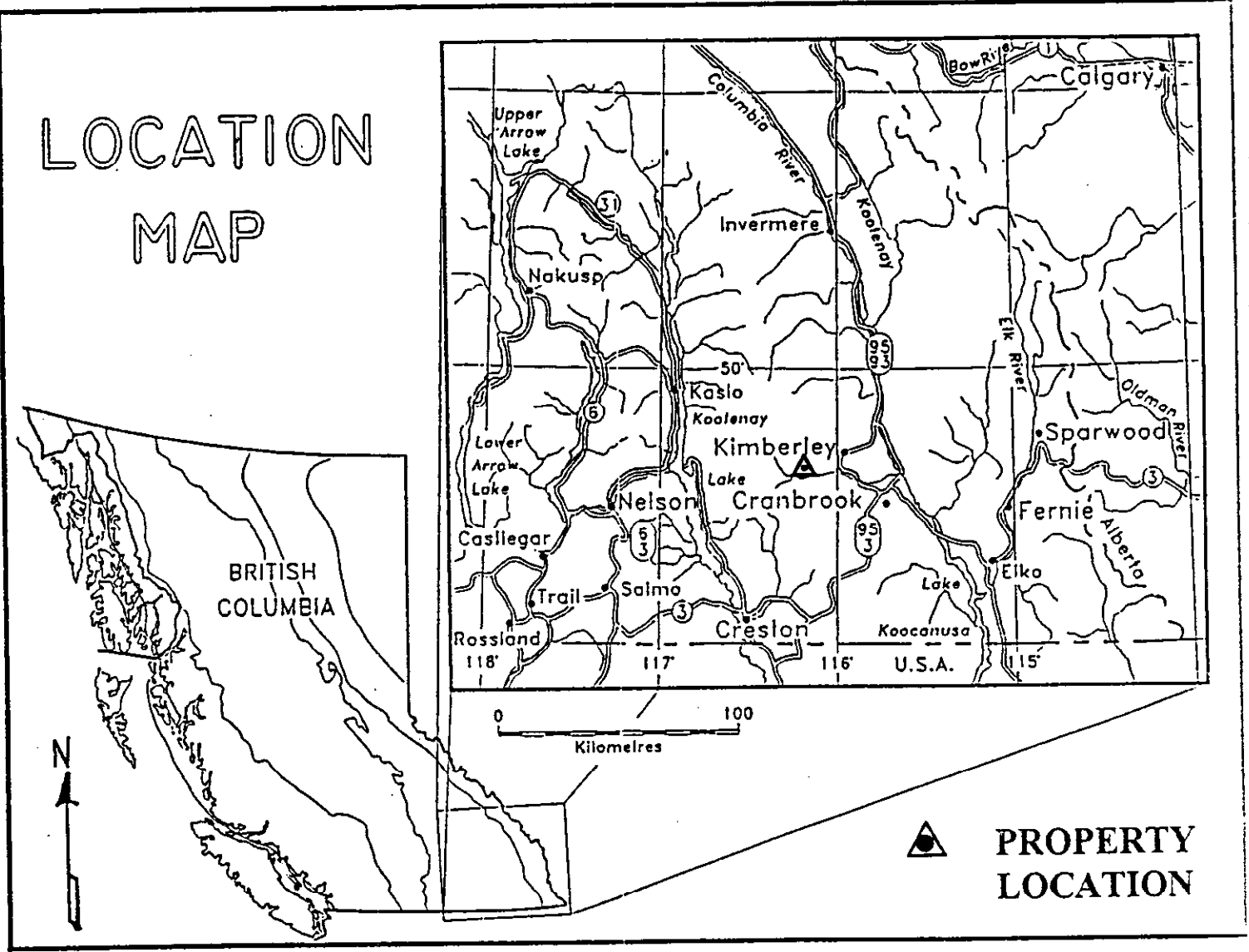


Figure 1.--Location Map.

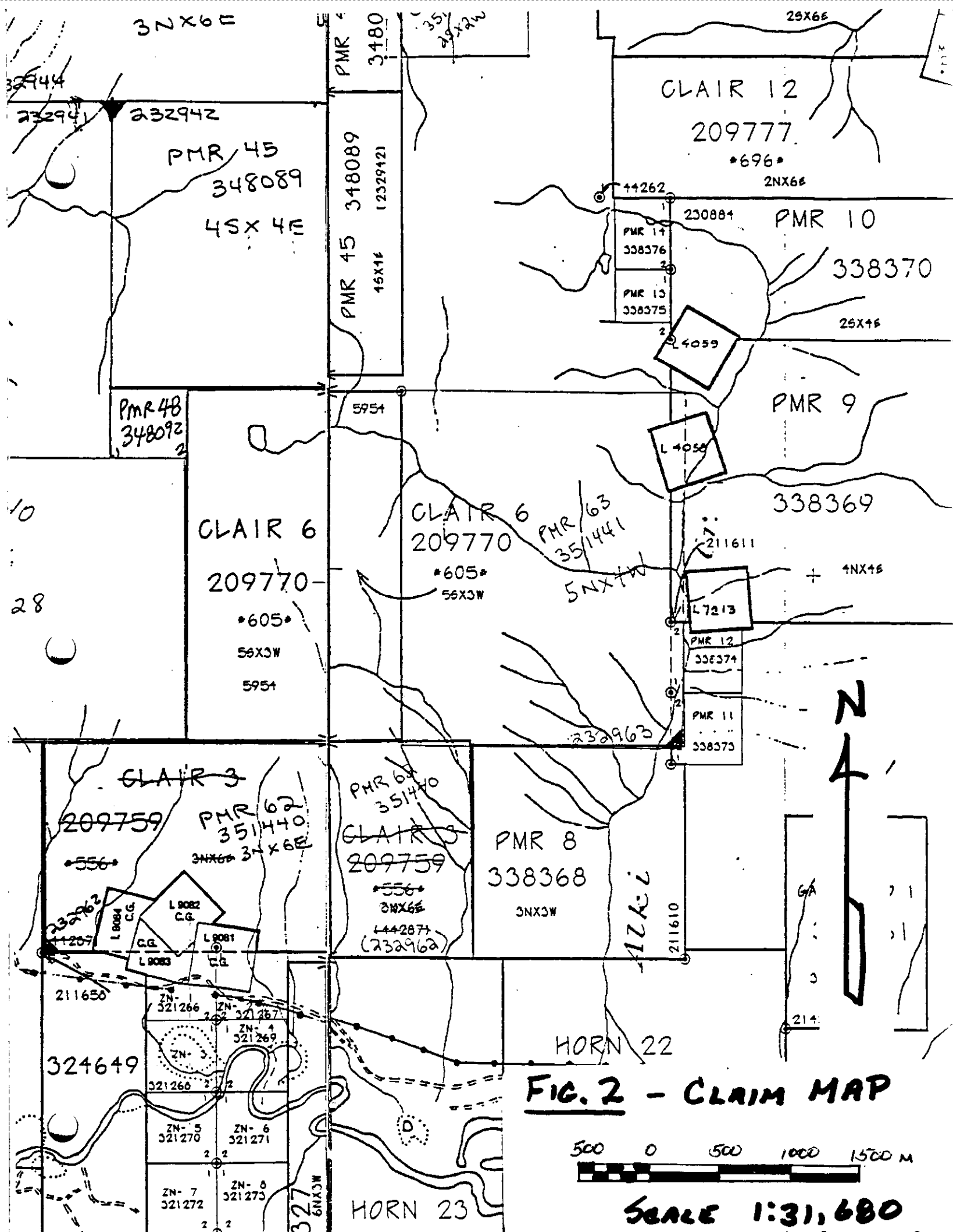
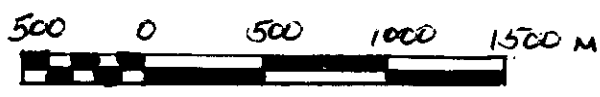


FIG. 2 - CLAIM MAP



SCALE 1:31,680

<u>Claim Name</u>	<u>Tenure No.</u>	<u>No. Units</u>	<u>Current Expiry Date</u>
PMR 11	338373	1	24-Jul-98
PMR 12	338374	1	24-Jul-98
PMR 13	338375	1	25-Jul-98
PMR 14	338376	1	25-Jul-98
PMR 9	338369	16	26-Jul-98
PMR 10	338370	8	26-Jul-98
PMR 62	351440	18	6-Oct-98
PMR 63	351441	20	5-Oct-98
RCG Mystery	351011	1	30-Sep-98
RCG Blue Peter	351012	1	30-Sep-98
RCG Magnet	351013	1	30-Sep-98

1.50 Scope of Present Program

The 1997 program consists of:

1. Mapping parts of the claim block at a scale of 1:10,000 utilizing GPS control.
2. Rock chip sampling of stratigraphic units.
3. Compilation of a 1:10,000 scale geology map showing the projected surface trace of the LMC (Lower-Middle-Contact) or Sullivan Horizon.

2.00 GEOLOGY

2.10 Regional Geology

The area of the Alki claim block is underlain by Precambrian Purcell Supergroup rocks of the Aldridge Formation (figure 3). These are fine-grained clastics that include impure quartzites, siltstones and argillites. The rocks have been metamorphosed to lower greenschist facies and have been intruded by a series of mafic sills and dykes.

2.20 GPS Survey Control

To aid in the geologic mapping, a Trimble Pro XL System consisting of a compact dome antenna, Pro LX receiver and TDC1 data collector was used for accurate field locations. A technician (GPS operator) accompanied the geologist in the field and entered station locations for outcrops and sample sites. The technician also collected sample/grid location, topographic and other information in a field book which describes information on the stations. At a later date, the technician down-loaded the data to a computer using a Trimble software program. The data was then corrected using a base station provided by Terra.Pro GPS Surveys Ltd., Prince George, B.C. (E-mail: terrapro@terrapro.bc.ca). Using this method, sample locations, grids, sample lines, DDH locations, roads, cultural features and other points of interest can be digitally incorporated into a map at any appropriate scale.

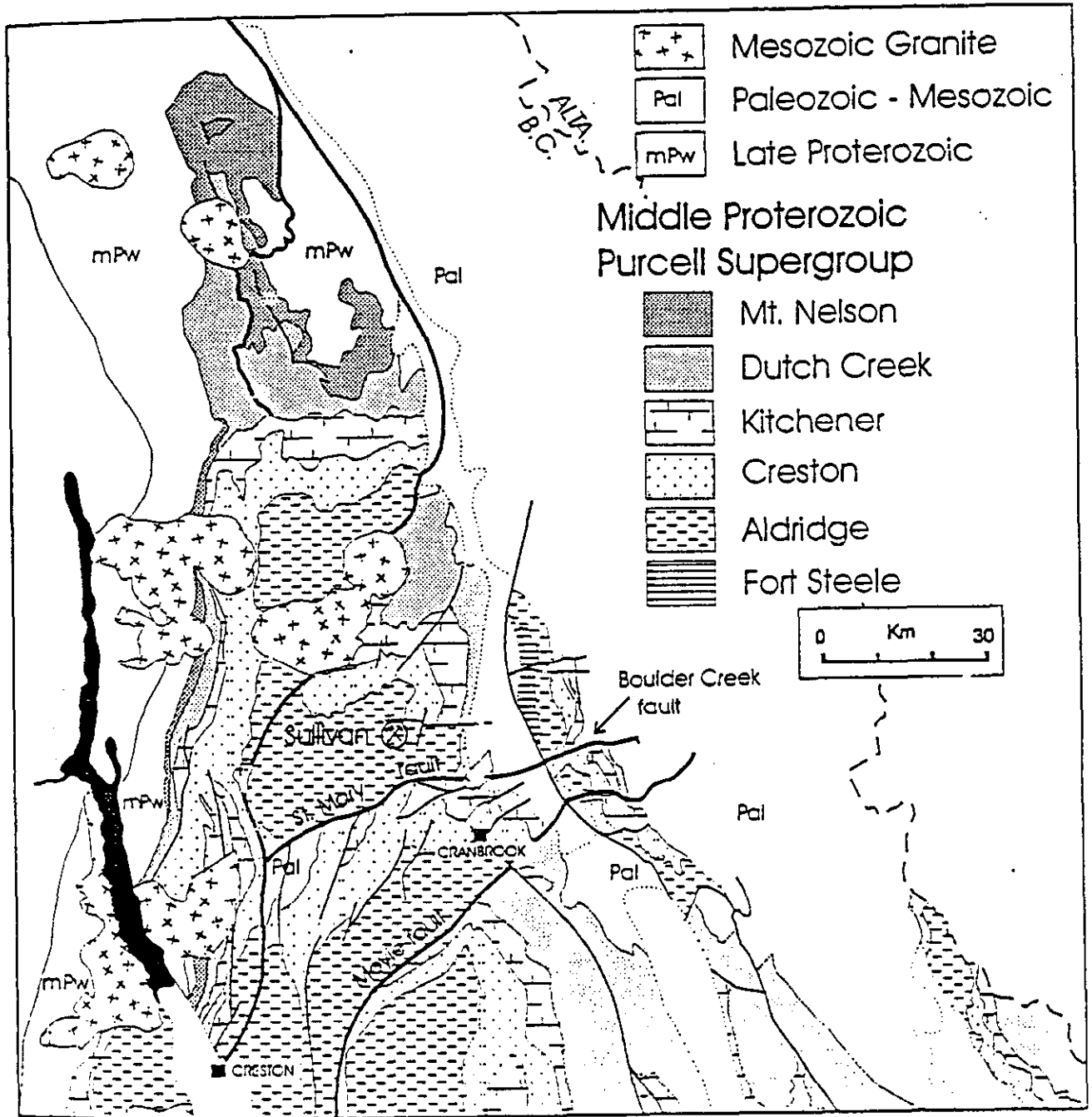


Figure 3.--Regional geology map of the Purcell Supergroup, Southeastern British Columbia.

2.30 Geological Units Mapped

A geological table of the units mapped in the Middle Proterozoic Purcell Supergroup is:

UPPER SEDIMENTS

- 8 Creston
a) Green Siltstone: --Grey-green, thin-bedded cherty siltstone.
- 7 Upper Aldridge
a) Laminated Siltstone: --Dark-grey, thinly-laminated to wispy bedded siltstone.

METAMORPHIC ROCKS

- 6 Felsic Granophyres
a) Granophyre --Crystalline quartzo-feldspathic migmatitic? unit.
- 5 Dykes and Sills
a) Gabbro M: --Dark-green, coarse-grained gabbro. Hornblende rich.
b) Gabbro D: --Grey-green, fine-grained "gabbro". Feldspathic, dioritic.

SEDIMENTARY ASSEMBLAGE

- 4 Fragmental
a) Sandy Fragmental: --Matrix-supported. Sparse rounded chips and pebbles of sandstone, siltstone and/or mudstone in silty and/or sandy matrix. Weak sorting.
4aq: Quartzitic, alteration rims.
4aT: Tourmaline replacement.
- b) Wacke Fragmental: --Matrix-supported. Sparse rounded chips and pebbles of sandstone, siltstone and/or greywacke in coarse-grained wacke. Unsorted.
- c) Blocky Fragmental: --Matrix- to clast-supported. With rounded to angular pebbles, blocks, rip-ups or slump-fragmentals of siltstone-sandstone. Jumbled.
4cT: Tourmaline replacement.
- d) Chaotic Fragmental: --Clast-supported. Unsorted, chaotic mass of rounded to angular, pebbly to blocky, quartzite. Usually altered (tourmaline, silica, sericite, etc.).
4dT: Tourmaline replacement.

- 3** Laminites
- a) Marker Horizon: --Laminated silt/argillite. Laminae are <0.5 cm thick. Parallel laminae characteristic.
3ap: Pyritic, disseminated and banded.
- b) Mudstone: --Black, thinly laminated to thinly banded, may be massive. Quartzitic and argillaceous (graphitic?).
3bp: Pyritic, disseminated and banded.
3bT: Laminated aphanitic tourmaline.
- 2** Middle Aldridge
- a) Silty Sandstone: --Grey, micaceous, little pyrrhotite. Well-bedded (ave: 5cm to 80cm), interlayered sandstone-wacke-siltstone. Cross-bedding, load casts and rip-ups frequent. Sandstone ranges from quartzite to greywacke.
2aq: Dominantly quartzitic.
2aT: Bedded aphanitic tourmaline.
- b) Slumped: --Siltstone as per **2a**, but with distinct slumping and rip-up features. Contorted beds.
2bp: Pyritic.
2bT: Tourmalinized.
- 1** Lower Aldridge
- a) Rusty Siltstone: --Rusty, pyrrhotitic, thin (10cm) beds of sandstone/wacke/siltstone.
- b) Sandy Siltstone: --Pyrrhotitic, thin- to thick-beds of sandstone/quartzite/siltstone. Transitional between Lower and Middle Aldridge.
- c) Footwall Quartzite: --Light-grey, thick-bedded, clean quartzite.

2.40 Property Geology

On the Alki claim block, Precambrian-age Aldridge Formation rocks are generally flat-lying with local dips up to 20°. Outcrops comprise less than 50 percent of the area and are generally restricted to cliff faces and ridge crests. Considerable glacial material covers the slopes and valleys. Some outcrop exists in the stream beds. The area mapped can be subdivided into four sub-areas as shown on the geologic map (figure 4, in pocket):

1. Sub-Area #1 (PMR 8 and PMR 62) On the south facing slopes west of Alki Creek Middle and Lower Aldridge rocks are cut by a series of north-trending faults. The position of the LMC is mapped at the top of a fragmental unit (4b) referred to as the Clair Conglomerate. A gabbro sill (5b) also occupies the LMC and shows cross-cutting (dyke-like) features on claim PMR 8. Later lamprophyre dykes trend northerly and cut all previous units.

2. Sub-Area #2 (PMR 63) Mapping suggests that the LMC trends northerly but is cut by a northwesterly fault zone near Murphy Creek. A large sill (5a) probably occupies the LMC in the area.
3. Sub-Area #3 (PMR 9) Mapping west of Bootleg Mountain on claim PMR 9 shows mainly Lower Aldridge sediments (1a) west of Alki Creek. One day was spent mapping on the west side of Bootleg Mountain outside the claim boundary (but was not charged as an expenditure toward this project) to determine the attitudes of the sills in the Lower Aldridge sediments because of the limited outcrops on the east side of Alki Creek.
4. Sub-Area #4 (PMR 13 and 14) Mapping in this area shows that the northerly trending faults are terminated by a very strong WNW-trending fault zone termed the Patra Fault. (The Patra Fault and the geology mapped to the northwest outside the current claim block was done at a later date and not charged as an expenditure toward this project, but only included to better explain the geology on the current claim block.) The LMC appears to be positioned below a prominent gabbro sill (5a) and terminated against the Patra fault zone.

3.00 Geochemistry

3.10 Rock Samples

Nineteen (19) rock samples were collected:

<u>Sample #</u>	<u>Rock Type</u>
136433	Sheared M. Aldridge
136434	Sericitic wacke frag
136435	Sericitic wacke
136436	Sericitic wacke frag
136437	Sericitic wacke
136438	Sericitic wacke frag
136439	Sericitic wacke frag
136440	Cherty quartzite
136441	Fuschite-carbonate veinlet
136442	Cherty quartzite
136443	Sericitic wacke frag
136444	Cherty quartzite
136611	Sericitic quartzite frag
136612	Sericitic quartzite frag
136613	Sericitic quartzite frag
136614	Sheared Mid. Aldridge, albitic
136615	Footwall quartzite
136618	Quartzite frag
136619	Sheared Mid. Aldridge and tourmaline vein

3.20 Results

Gold--All results were less than 5 ppm except sample 136433 which ran 18 ppb.

Silver--All results were less than 0.2 ppm.

Copper--A high value of 42 ppm was not considered anomalous.

Lead--A high value of 93 ppm was not considered anomalous.

Zinc--A high value of 312 ppm was considered slightly anomalous and not worthy of follow-up.

A copy of the geochemical lab report is given in the Appendix.

3.30 Sampling Procedure and Analytical Methods

Rock samples were collected by the geologists working in the field during mapping. The samples are grab samples representative of the stratigraphic units present. Samples were shipped to ITS--Bondar Clegg, 130 Pemberton Avenue, North Vancouver, B.C., V7P 2R5 for geochemical analysis by conventional ICP (Induc. Coup. Plasma) methods. ITS dried, disaggregated and sieved the samples to -80 Mesh. The samples then underwent an Aqua Regina digestion (HCl-HNO₃) and were analyzed using standard ICP (Induc. Coup. Plasma) methods for 34 elements including: Ag, Bi, Cr, K, Mn, Ni, Sn, Ti, Zn, Al, Ca, Cu, La, Mo, Pb, Sr, V, Zr, As, Cd, Fe, Li, Na, Sb, Ta, W, Ba, Co, Ga, Mg, Nb, Sc, Te and Y plus gold. A copy of the geochemical laboratory report showing the elements, lower detection limits, extraction analysis method and number of analyses is given in the Appendix.

4.00 CONCLUSIONS AND RECOMMENDATIONS

Based on mapping and 19 rock chip samples, the Sullivan Horizon is present in the area but not geochemically anomalous in lead, copper, or zinc. Recommendations are made to cover the area with a gridded soil sampling program.

5.00 STATEMENT OF COSTS

Geology

Phil Van Angeren	(5d x \$280/d)	\$1400	
Brent Nassichuk	(5d x \$150/d)	750	
Glen Rodgers	(1d x \$250/d)	250	
Mike Kennedy	(5d x \$200/d)	1000	
Tom Kennedy	(5d x \$200/d)	1000	
Food/Lodging	(10d x \$100/d)	1000	
4x4 Vehicle	(10d x \$50/d)	500	

			\$5900

GPS Survey

Mark Johnson	(5d x \$125/d)	625	
Aaron McDonnald	(5d x \$100/d)	500	
Food/Lodging	(10d x \$25/d)	250	

			\$1375

Geochemical

19 Samples (Bondar Clegg)	543.83	
	-----	\$543.83

Management and Report Writing

Robert Woodfill	(3d x \$400/d)	1200	
Drafting, copying, supplies		487.34	

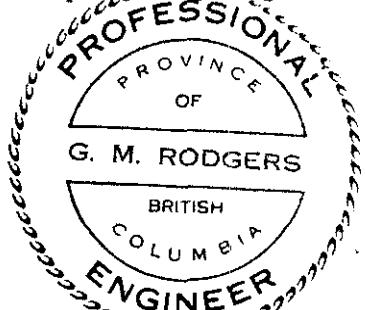
			\$1687.34

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Total Expenditure	\$9506.17

6.00 STATEMENT OF QUALIFICATIONS

I, Glen Rodgers certify that:

1. I am a graduate of the University of Manitoba School of Geological Engineering (1977) and registered with the British Columbia Association of Professional Engineers and Geoscientists as a P. Eng.
2. I have based this report on work done by myself during 1997 on the claims including supervision of the project.
3. I do not expect to receive any share consideration as a result of writing this report.
4. I have practiced my profession continuously over the last 20 years as an exploration geologist working in Canada, Alaska and Central America.

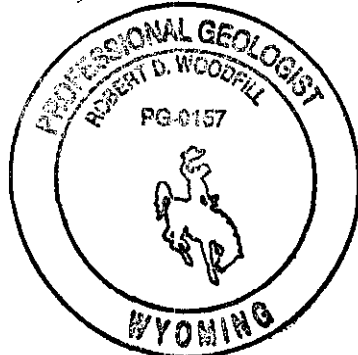


Signed: [Signature]
Glen M. Rodgers, P. Eng.

Date: OCT. 17 / 97

I, Robert Woodfill, certify that:

1. I am a Ph.D. graduate of Purdue University in structural geology and an M.S. graduate of the University of Wyoming in geophysics. I am a registered Professional Geologist in the State of Wyoming.
2. I have based this report on work done by myself during 1997 on the claim block.
3. I do not expect to receive any share consideration as a result of writing this report.
4. I have practiced my profession continuously over the last 25 years as an exploration geologist/geophysicist working in the United States, Alaska, Canada, Mexico, Australia and Africa.



Signed: [Signature]
Robert Woodfill, Ph.D.

Date: Oct 20, 1997

7.00 Appendix



Intertek Testing Services

Bondar Clegg

Geochemical Lab Report

REPORT: V97-02041.0 (COMPLETE)

REFERENCE: P.O. #97-006

CLIENT: KENNECOTT CANADA INC.

SUBMITTED BY: P. VAN ANGEREN

PROJECT: PYRAMID-ALKI

DATE RECEIVED: 15-AUG-97 DATE PRINTED: 2-SEP-97

DATE APPROVED	ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION	EXTRACTION	METHOD
970901	1 Au30	19	5 PPB	Fire Assay of 30g	30g Fire Assay - AA
970901	2 Ag	19	0.2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
970901	3 Cu	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
970901	4 Pb	19	2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
970901	5 Zn	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
970901	6 Mo	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
970901	7 Ni	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
970901	8 Co	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
970901	9 Cd	19	0.2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
970901	10 Bi	19	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
970901	11 As	19	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
970901	12 Sb	19	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
970901	13 Hg	19	0.010 PPM	HCL:HNO3 (3:1)	COLD VAPOR AA
970901	14 Fe	19	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
970901	15 Mn	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
970901	16 Te	19	10 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
970901	17 Ba	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
970901	18 Cr	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
970901	19 V	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
970901	20 Sn	19	20 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
970901	21 W	19	20 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
970901	22 La	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
970901	23 Al	19	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
970901	24 Mg	19	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
970901	25 Ca	19	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
970901	26 Na	19	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
970901	27 K	19	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
970901	28 Sr	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
970901	29 Y	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
970901	30 Ga	19	2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
970901	31 Li	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
970901	32 Nb	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
970901	33 Sc	19	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
970901	34 Ta	19	10 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
970901	35 Ti	19	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
970901	36 Zr	19	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
R ROCK	19	2 -150	19	CRJSH/SPLIT & PULV.	19

REPORT COPIES TO: DR. ROBERT WOODFILL

INVOICE TO: DR. ROBERT WOODFILL

 This report must not be produced except in full. The data presented in this report is specific to those samples identified under "Sample Number" and is applicable only to the samples as received expressed on a dry basis unless otherwise indicated



Intertek Testing Services

Bondar Clegg

Geochemical Lab Report

CLIENT: KENNECOTT CANADA INC.
REPORT: V97-02041.0 (COMPLETE)

DATE RECEIVED: 15-AUG-97 DATE PRINTED: 2-SEP-97 PAGE 1 OF 3

PROJECT: PYRAMID-ALKI

SAMPLE NUMBER	ELEMENT UNITS	Au	Ag	Cu	Pb	Zn	Mo	Ni	Co	Cd	Bi	As	Sb	Hg	Fe	Mn	Te	Ba	Cr	V	Sn	U	La	Al	Mg	Ca	Na	K	Sr	Y	Ga	Li	Nb	Sc	Ta	Ti	Zr
		30	PPB	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	FCT	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PCT	PCT	PCT	PCT	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PCT
136433		18	<.2	12	58	183	1	6	2	2.2	<5	<5	<5	0.010	1.62	197	<10	74	110	9	<20	<20	17	0.82	0.22	0.31	0.06	0.35	14	8	<2	8	2	<5	<10	0.09	2
136434		<5	<.2	14	13	24	1	6	<1	<.2	<5	<5	<5	<.010	1.89	167	<10	108	95	9	<20	<20	17	1.04	0.33	0.14	0.03	0.54	10	12	<2	17	1	<5	<10	0.09	2
136435		<5	<.2	42	28	312	1	35	19	0.3	<5	5	<5	<.010	2.58	316	<10	21	86	33	<20	<20	13	1.28	0.68	0.82	0.02	0.30	23	11	<2	20	2	<5	<10	0.14	2
136436		<5	<.2	14	23	32	2	8	<1	<.2	<5	11	<5	<.010	2.10	248	<10	110	86	10	<20	<20	21	1.07	0.49	0.14	0.03	0.76	16	9	<2	28	3	<5	<10	0.10	2
136437		<5	<.2	16	13	32	2	11	5	<.2	<5	<5	<5	<.010	1.70	186	<10	107	78	9	<20	<20	22	1.05	0.46	0.16	0.02	0.69	11	12	<2	26	2	<5	<10	0.08	2
136438		<5	<.2	17	10	43	2	14	5	<.2	<5	<5	<5	0.012	1.88	250	<10	114	112	11	<20	<20	28	1.18	0.52	0.18	0.03	0.76	9	14	<2	36	2	<5	<10	0.10	2
136439		<5	<.2	15	4	53	<1	5	2	<.2	<5	11	<5	<.010	3.22	322	<10	146	51	21	<20	<20	26	1.66	0.65	0.04	0.03	0.96	12	6	<2	35	3	<5	<10	0.12	2
136440		<5	<.2	31	3	42	2	17	7	<.2	<5	7	<5	<.010	2.27	254	<10	117	71	16	<20	<20	20	1.02	0.61	0.44	0.05	0.53	12	11	<2	23	1	<5	<10	0.06	2
136441		<5	<.2	10	23	114	1	242	34	0.2	<5	190	<5	0.014	5.13	1176	<10	333	192	30	<20	<20	37	0.92	4.51	5.05	<.01	0.55	274	10	<2	37	3	14	<10	0.02	5
136442		<5	<.2	20	12	71	2	17	5	0.2	<5	15	<5	0.013	2.40	356	<10	85	72	24	<20	<20	21	1.21	0.78	0.24	0.05	0.83	9	11	<2	31	1	<5	<10	0.09	2
136443		<5	<.2	16	14	51	1	14	4	<.2	<5	<5	<5	0.012	2.11	291	<10	83	101	29	<20	<20	20	1.30	0.92	0.38	0.06	0.92	11	14	<2	28	2	<5	<10	0.13	2
136444		<5	<.2	17	14	43	1	14	5	<.2	<5	<5	<5	<.010	1.94	242	<10	69	55	16	<20	<20	20	1.13	0.73	0.18	0.04	0.88	6	15	<2	24	2	<5	<10	0.13	2
136611		<5	<.2	21	27	80	2	17	7	<.2	<5	<5	<5	0.011	2.03	257	<10	85	83	10	<20	<20	18	1.19	0.59	0.21	0.02	0.68	8	9	<2	22	2	<5	<10	0.09	2
136612		<5	<.2	16	27	36	2	15	5	<.2	<5	10	<5	0.010	1.62	104	<10	104	89	5	<20	<20	25	0.80	0.22	0.10	0.02	0.55	5	11	<2	12	<1	<5	<10	0.05	2
136613		<5	<.2	21	8	263	1	48	40	0.3	<5	471	<5	0.020	4.56	1260	<10	59	83	74	<20	<20	4	2.86	2.14	0.97	0.02	0.80	19	4	<2	48	3	7	<10	0.15	<1
136614		<5	<.2	25	93	8	4	5	<1	<.2	<5	<5	<5	<.010	1.37	59	<10	33	122	7	<20	<20	32	0.50	0.05	0.02	0.05	0.14	9	5	<2	6	<1	<5	<10	0.02	2
136615		<5	<.2	7	2	38	1	8	3	<.2	<5	8	<5	<.010	2.28	353	<10	119	71	14	<20	<20	15	1.31	0.41	0.10	0.02	0.85	6	13	<2	22	1	<5	<10	0.13	1
136618		<5	<.2	22	11	49	5	8	2	<.2	<5	<5	<5	0.014	2.85	349	<10	266	101	24	<20	<20	21	1.70	0.87	0.08	0.05	1.18	8	9	<2	29	2	<5	<10	0.15	2
136619		<5	<.2	10	5	16	4	3	<1	<.2	<5	<5	<5	0.014	2.50	121	<10	71	50	6	<20	<20	17	0.90	0.30	0.09	0.03	0.51	5	12	<2	9	<1	<5	<10	0.07	2



Intertek Testing Services

Bondar Clegg

Geochemical Lab Report

CLIENT: KENNECOTT CANADA INC.
REPORT: V97-02041.0 (COMPLETE)

DATE RECEIVED: 15-AUG-97 DATE PRINTED: 2-SEP-97 PAGE 2 OF 3

PROJECT: PYRAMID-ALKI

STANDARD NAME	ELEMENT UNITS	Au30	Ag	Cu	Pb	Zn	Mo	Ni	Co	Cd	Bi	As	Sb	Hg	Fe	Mn	Ta	Ba	Cr	V	Sn	W	La	Al	Mg	Ca	Na	K	Sr	Y	Ga	Ti	Nb	Sc	Ta	Ti	Zr
		PPB	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PCT	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PCT	PCT	PCT	PCT	PCT	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PCT	PPM
ANALYTICAL BLANK		<5	<.2	<1	<2	<1	<1	<1	<1	<.2	<5	<5	<5	<.010	<.01	<1	<10	<1	<1	<1	<20	<20	<1	<.01	<.01	<.01	<.01	<.01	<1	<1	<2	<1	<1	<5	<10	<.01	<1
ANALYTICAL BLANK		<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses		2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mean Value		3	0.1	0.5	1	0.5	0.5	0.5	0.5	0.1	3	3	3	0.005	.005	0.5	5	0.5	0.5	0.5	10	10	0.5	.005	.005	.005	.005	.005	0.5	0.5	1	0.5	0.5	3	5	.005	0.5
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Accepted Value		5	0.2	1	2	1	1	1	1	0.1	2	5	5	0.005	0.05	1	.01	.01	1	1	.01	.01	.01	<.01	<.01	<.01	<.01	<.01	.01	.01	.01	.01	.01	.01	.01	<.01	.01
BCC GEOCHEM STD 6		-	0.4	128	13	127	3	129	29	0.4	<5	141	<5	0.035	6.62	1283	<10	5	166	42	<20	<20	3	1.73	2.50	3.83	0.01	0.04	72	3	<2	20	3	8	<10	<.01	7
Number of Analyses		-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mean Value		-	0.4	128	13	127	3	129	29	0.4	3	141	3	0.035	6.62	1283	5	5	166	42	10	10	3	1.73	2.50	3.83	0.01	0.04	72	3	1	20	3	8	5	.005	7
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		-	0.2	140	18	140	4	135	35	0.2	1	145	1	0.022	6.50	1450	-	6	170	50	5	12	-	1.80	2.70	4.00	0.01	0.04	70	3	-	24	2	6	1	.003	5
Garnet Standard		192	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses		1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean Value		192	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		192	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intertek Testing Services

Bondar Clegg

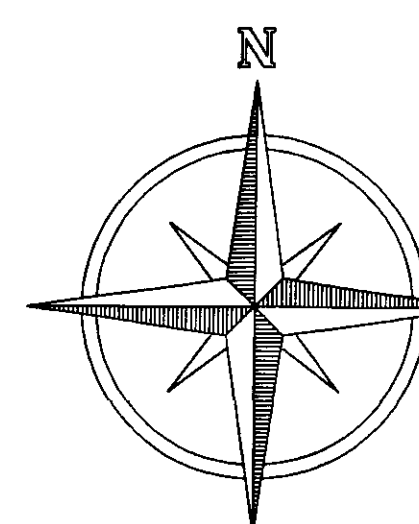
Geochemical Lab Report

CLIENT: KENNECOTT CANADA INC.
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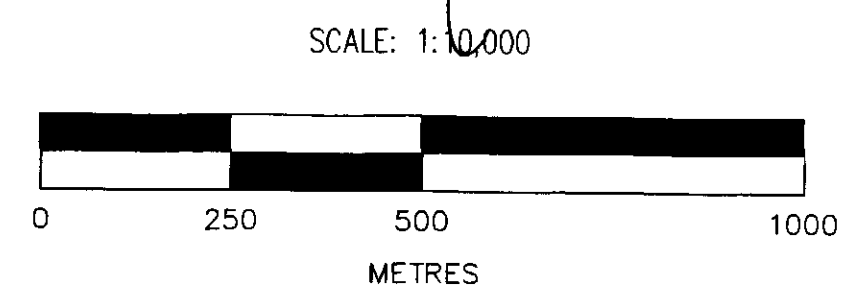
PROJECT: PYRAMID-ALKI

SAMPLE NUMBER	ELEMENT UNITS	AL3O	Ag	Cu	Pb	Zn	Mo	Ni	Co	Cd	Bi	As	Sb	Hg	Fe	Mn	Te	Ba	Cr	V	Sn	W	La	Al	Mg	Ca	Na	K	Sr	Y	Ga	Li	Nb	Sc	Ta	Ti	Zr
		PPB	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PCT	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PCT	PCT	PCT	PCT	PCT	PPM	PPM	PPM	PPM	PPM	PPM	PCT	PPM	
136434		<5	<.2	14	13	24	1	6	<1	<.2	<5	<5	<5	<.010	1.89	167	<10	108	95	9	<20	<20	17	1.04	0.33	0.14	0.03	0.54	10	12	<2	17	<1	<5	<10	0.09	2
Duplicate		<5	<.2	15	18	23	1	6	<1	<.2	<5	<5	<5	<.010	1.93	169	<10	110	110	9	<20	<20	18	1.06	0.33	0.15	0.03	0.55	10	12	<2	17	<1	<5	<10	0.09	2
136435		<5	<.2	42	28	312	1	35	19	0.3	<5	5	<5	<.010	2.58	316	<10	21	86	33	<20	<20	13	1.28	0.68	0.82	0.02	0.30	23	11	<2	20	2	<5	<10	0.14	2
Prep Duplicate		<5	<.2	43	28	308	1	36	19	0.4	<5	6	<5	<.010	2.64	321	<10	22	91	33	<20	<20	14	1.34	0.69	0.88	0.02	0.31	24	12	<2	20	1	<5	<10	0.15	2
136444		<5	<.2	17	14	43	1	14	5	<.2	<5	<5	<5	<.010	1.94	242	<10	69	55	16	<20	<20	20	1.13	0.73	0.18	0.04	0.88	6	15	<2	24	2	<5	<10	0.13	2
Prep Duplicate		<5	<.2	17	13	43	1	13	4	<.2	<5	<5	<5	<.010	1.99	251	<10	71	56	17	<20	<20	22	1.18	0.76	0.19	0.04	0.89	6	16	<2	24	2	<5	<10	0.13	2
Prep Duplicate		<5	<.2	17	13	43	1	13	4	<.2	<5	<5	<5	<.010	1.99	251	<10	71	56	17	<20	<20	22	1.18	0.76	0.19	0.04	0.89	6	16	<2	24	2	<5	<10	0.13	2
Duplicate		<.2	18	18	41	1	12	5	<.2	<5	<5	<5	<5	<.010	2.03	255	<10	72	61	17	<20	<20	22	1.19	0.77	0.19	0.04	0.92	6	16	<2	25	<1	<5	<10	0.14	2
136619		<5	<.2	10	5	16	4	3	<1	<.2	<5	<5	<5	0.014	2.50	121	<10	71	50	6	<20	<20	17	0.90	0.30	0.09	0.03	0.51	5	12	<2	9	<1	<5	<10	0.07	2
Prep Duplicate		6	<.2	11	6	17	5	6	<1	<.2	<5	5	<5	<.010	2.83	121	<10	90		7	<20	<20	17	1.06	0.29	0.10	0.04	0.59	6	12	<2	10	2	<5	<10	0.07	2



GEOLOGICAL TABLE
(Purcell Supergroup)

- MIDDLE PROTEROZOIC**
- UPPER SEDIMENTS**
- 8 **Creston:**
a) Green Siltstone: -Grey-green, thin-bedded cherty siltstone.
- 7 **Upper Aldridge:**
a) Laminated Siltstone: -Dark grey, thinly-laminated to wavy bedded siltstone.
- VOLCANICS**
- 6 **Felsic Granophyres:**
a) Granophyre: -Crystalline quartz-feldspathic? migmatitic? unit.
- 5 **Dikes and Sills:**
a) Gabbro M: -Dark-green, coarse-grained gabbro. Hornblende rich.
b) Gabbro D: -Grey-green, fine-grained "gabbro". Feldspathic, dioritic.
- SEDIMENTARY ASSEMBLAGE**
- 4 **Fragmental:**
- a) **Sandy Frog:** -Matrix-supported. Sparse rounded chips and pebbles of sandstone, siltstone and/or mudstone in silty and/or sandy matrix. Weak sorting.
4a: Quartzitic, alteration rims.
4aT: Tourmaline replacement.
- b) **Wacky Frog:** -Matrix-supported. Sparse rounded chips and pebbles of sandstone, siltstone and/or greywacke in coarse-grained wacke. Unsorted.
- c) **Blocky Frog:** -Matrix- to clast-supported. With rounded to angular pebbles, blocks, rip-ups or slump-fragments of siltstone-sandstone.
4b: Laminated.
4bT: Tourmaline replacement.
- d) **Chaotic Frog:** -Clast-supported. Unsorted, chaotic mass of rounded to angular, pebbly to blocky, quartzite. Usually altered (tourmaline, silice, sericite etc).
4dT: Tourmaline replacement.
- 3 **Laminates:**
- a) **Marker Horizon:** -Laminated silt/argillite. Laminiae are <0.5 cm thick. Parallel laminae characteristic.
3a: Pyritic, disseminated & banded.
- b) **Mudstone:** -Block, thinly laminated to thinly banded, may be massive. Quartzitic and argillaceous (graphitic?).
3b: Pyritic, disseminated & banded.
3bT: Laminated ophanitic tourmaline.
- 2 **Middle Aldridge:**
- a) **Silty Sandstone:** -Grey, micaceous, little pyrrhotite. Well bedded (avg. 5 cm to 80 cm), interlayered sandstone-wacke-siltstone. Cross-bedding, load casts and rip-ups frequent. Sandstone ranges from quartzite to greywacke.
2a: Dominantly quartzitic.
2aT: Bedded ophanitic tourmaline.
- b) **Slumped:** -Siltstone as per 2a, but with distinct slumping and rip-up features. Contorted beds.
2b: Pyritic.
2bT: Tourmalinized.
- 1 **Lower Aldridge:**
- a) **Rusty Siltstone:** -Rusty, pyrrhotitic, thin (10cm) beds of sandstone/wacke/siltstone.
- b) **Sandy Siltstone:** -Pyrrhotitic, thin to thick beds of sandstone/quartzite/siltstone. Transitional between Lower and Middle Aldridge.
- c) **Footwall Quartzite:** -Light grey, thick bedded, clean quartzite.
- P-1 Laminite Location
× 130404 Sample Location
● LCP Claim Post Location
● DDH Drill Hole Location
⊕ Abite/Magnetite Outcrop
/ HIA Marker
□ Outcrop Location
□ Workings Location
●●● LMC



ABITIBI & SEDEX MINING CORP.
CRANBROOK FIELD OFFICE

ALKI PROJECT
GEOLOGY
(FIGURE 4)

SCALE: 1:10,000 C.I.: 20 metres FILE: Alkigmap10
AUTHOR: PWA/RN DATE: Oct 97 DRAWN: CLT
TRIM: 19/26 0/11 NTS: 82/4, F/1 FIGURE: 4

