

ABERFORD RESOURCES LTD.

RECONNAISSANCE GEOLOGICAL MAPPING

AND ROCK GEOCHEMISTRY

ON THE

IRON MASK PROPERTY

IM 23, 24, 25, 27, 40, 41, 58, 59
62, 63, 64, 65, 66, 67
Mineral Claims

KAMLOOPS, M.D., SOUTH-CENTRAL, B.C.

NTS 92I/9W

Location: Longitude 120° 20' W
Latitude 50° 36' N

Work Period: August 1 to 29, 1983

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

11,838

Report No. 14-83

G. F. McArthur, P. Geol.
Senior Geologist

TABLE OF CONTENTS

	Page
SUMMARY	1
INTRODUCTION	1
LOCATION & ACCESS	1
TOPOGRAPHY & VEGETATION	4
HISTORY & PREVIOUS WORK	4
GEOLOGY	4
GEOCHEMISTRY	8
CONCLUSION & RECOMMENDATIONS	9
REFERENCES	

LIST OF ILLISTRATIONS

FIGURE 1	LOCATION MAP	2
FIGURE 2	CLAIM MAP	Back Pocket
PLATE 1	SAMPLE LOCATION MAP, SAMPLE VALUE MAP	Back Pocket

APPENDICES

APPENDIX 1	List of Analytical Values and Sample Descriptions
APPENDIX 2	Assessment Expenditures
APPENDIX 3	Authors Qualifications

SUMMARY

The Iron Mask Property comprises fifty-nine mineral claims and one Mineral Lease (Hawthorne). This contiguous claim group is situated approximately thirteen kilometres south of the centre of the City of Kamloops in south-central British Columbia. Aberford Resources conducted an exploration program on the Iron Mask Group comprising IM 23, 24, 25, 27, 40, 41, 58, 59, 62-67 mineral claims located at Knutsford Ski Hill in August, 1983.

The 1983 exploration program included geological mapping and rock geochemistry on the Iron Mask Group. Ninety-six rock samples were collected and analysed for gold, silver and copper.

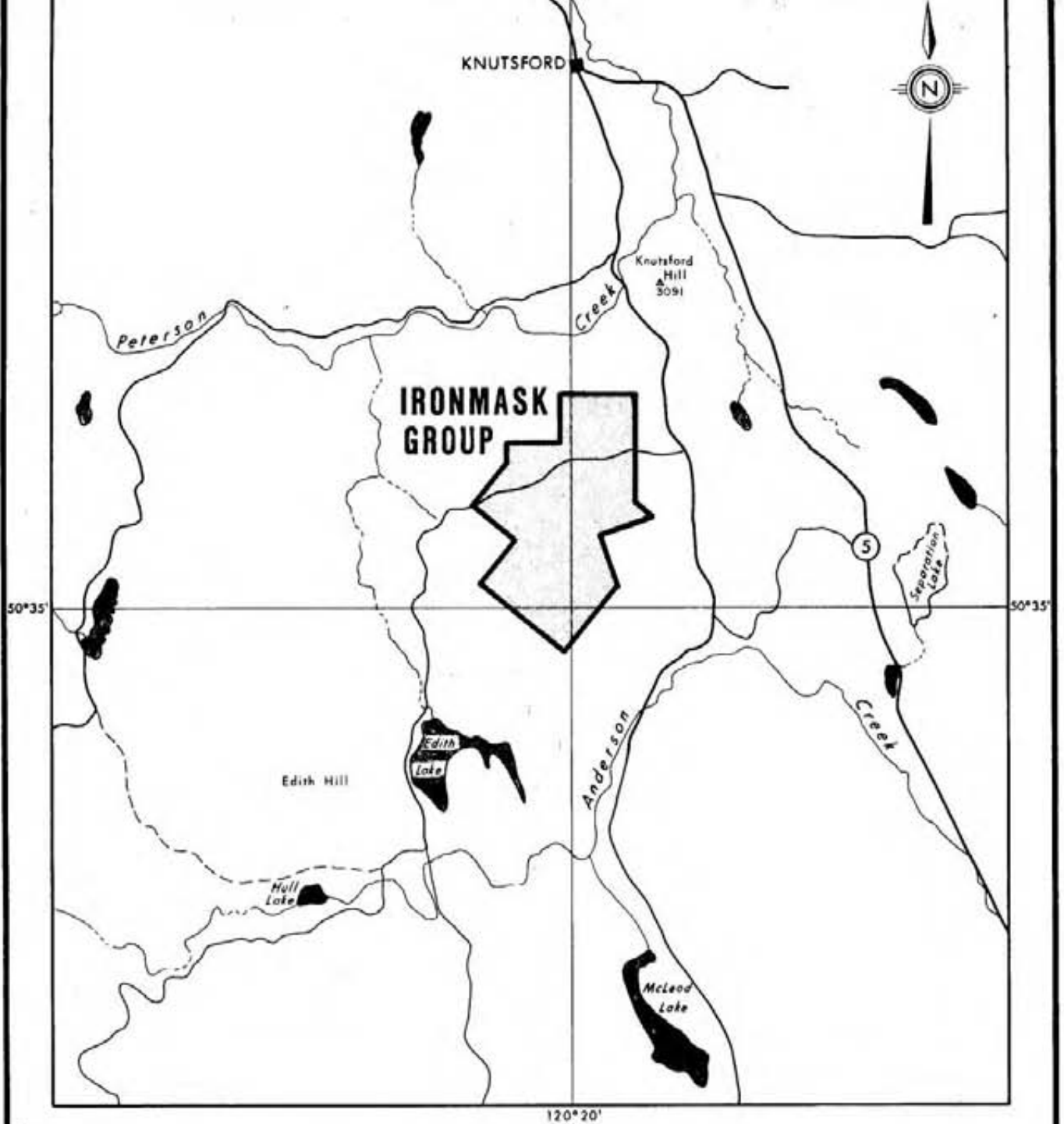
INTRODUCTION

During August 1983, Aberford Resources Ltd. conducted geological mapping and rock geochemistry on the Iron Mask Group claims to evaluate the precious metal potential of these claims.


This report is submitted for assessment purposes as a summary of data collected during the 1983 exploration program.

LOCATION AND ACCESS

The Iron Mask Property is located approximately 13 kilometres south of the City of Kamloops in the Kamloops Mining Division in south-central British Columbia (Figure 1). Access to the property from Kamloops is via the No. 5 Highway (Kamloop-Merritt) to the Knutsford Post Office, then southerly for 5 kilometres along the Long Lake road to the Edith Lake road turn-off and to the Knutsford Ski Hill. Gravel Ranch roads provide access to most of the claim area. All parts of the claim group are accessible with a two-wheel drive vehicle during the summer.



TO ACCOMPANY REPORT NO. 14-83 BY G.F.M.

 ABERFORD RESOURCES LTD.			
Figure 1 PROPERTY LOCATION			
IRONMASK PROJECT			
DATE DEC, 1983	SCALE 1: 50 000	NTS 92 I/9	DRAWING NO. A-2000

CLAIMS

The Iron Mask Property consists of fifty-nine mineral claims and one Mineral Lease (Figure 2) which are owned by Aberford Resources Ltd. of Calgary.

Exploration work was conducted on the Iron Mask group (Figure 2) which comprises fourteen claims.

Iron Mask Group:

<u>Claims No.</u>	<u>Record No.</u>	<u>Record Date</u>	<u>Due Date</u>
IM 23	67939	January 30/1968	January 30/1984
24	67940	"	"
25	67941	"	"
27	67943	"	"
40	67956	"	"
41	67957	January 30/1968	January 30/1984
58	75527	December 31/1968	December 31/1983
59	75528	"	"
62	75529	"	"
63	75530	"	"
64	75531	"	December 31/1983
65	75532	"	December 31/1984
66	75533	"	December 31/1983
<u>67</u>	75534	December 31/1968	December 31/1984
14 claims			

The listed IM Claims are grouped to form the Iron Mask Group. Two years assessment is applied to this group totalling \$5,600.00.

TOPOGRAPHY AND VEGETATION

The Iron Mask Property is located at an elevation of approximately 914 metres (A.M.S.L.). Relief is in the order of 150 metres. The property is typical of the semi-arid Kamloops area, mainly open grass and sagebrush covered hills with local stands of poplar, pine, spruce and balsam. Rock outcrop is in the order of 1-5% of the total area, commonly cropping out along breaks-in-slope and within ravines.

HISTORY AND PREVIOUS WORK

Exploration activity in the Iron Mask batholith has been generally high since the late 1800's with the resulting discovery of a number of significant prospects. Besides the underground Iron Mask Mine and the Galaxy zone one of the better prospects is the Ajax situated north of Jacko Lake. However, until Afton was discovered in 1971, none of the prospects were economically viable in modern times. The discovery of Afton in 1972, rejuvenated exploration activity in the area and resulted in the discovery of numerous copper occurrences.

There is no recorded production from any of the mineral claims currently held by Aberford Resources Ltd. Several old adits and trenches, in addition to numerous recent drill holes and some trenching are located on the property. Great Plains Development Ltd. carried out a geological, geochemical, geophysical surveys and a drilling program on the property in 1969-70. Additional drilling was later carried out by Craigmont Mines Ltd. in 1973.

GEOLOGY

General Geology

The region of the Iron Mask batholith has been geologically mapped by various members of both the Geological Survey of Canada and the B.C.

Department of Mines. The most recent regional mapping in the area was done by Dr. K. E. Northcote of the BCDM in 1974, 1976 and 1977.

The Iron Mask Property is situated in the centre of the southeast portion of the Iron Mask batholith. This Upper Triassic-Jurassic age intrusive complex is elongate in a northwest-southeast direction with an exposure length of 20 kilometres and a width of approximately 4 kilometres. It was emplaced in a high level volcanic to subvolcanic environment and is comagmatic and coeval with Nicola volcanic and minor sedimentary rocks which it cannibalizes and intrudes. The Nicola rocks and Iron Mask batholith are unconformably overlain by Tertiary volcanic and sedimentary rocks of the Kamloops Group. Major systems of northwesterly, northerly and northeasterly trending recurring fractures or faults controlled emplacement of the various intrusive units of the Iron Mask batholith. Post-batholithic movement of faults around the margin of the batholith resulted in graben structures with off-batholith rocks on the down thrown side (Northcote 1974, 1976, 1977). Numerous copper prospects, including the Afton deposit, are located throughout the batholith. Depositional controls for copper mineralization are major structural systems.

Local Geology

Lithologies exposed on the property all belong to intrusive units of the Iron Mask batholith except an extensive capping of basalt located south and west of Ski-Tow and several dykes of andesite which are believed to be part of the Tertiary Kamloops Group.

Intrusive phases of the Iron Mask batholith exposed on the property include; Cherry Creek monzonite the dominant lithology on the property and lesser Sugarloaf porphyritic hornblende/augite andesite, Iron Mask Hybrid diorite and gabbro, and minor intrusive breccia (Northcote, 1977).

The distinctive intrusive breccia is intermittantly exposed from tower five of the T-bar as far west as the old trenches beyond the top of the T-bar. The breccia contains subrounded to rounded fragments of Cherry Creek rocks and hornblendite in a matrix of porphyritic hornblende-augite andesite of the Sugarloaf Unit. Breccia exposed in the old trenches comprises white to tan weathering cataclastic breccia consisting of subangular to rounded potassium feldspar altered Cherry Creek rocks healed by silica.

Cherry Creek rocks exposed on the property comprise highly fractured; microdiorite a medium to dark grey, fine grained, equigranular rock which exhibits a salt and pepper appearance and locally it grades in to a porphyritic diorite and micromonzonite distinguishable by its pinkish colour imparted by pink potash feldspar. These rocks are virtually indistinguishable due to alteration.

Basic intrusive rocks include medium to coarse grained hornblende diorite, hornblendite, gabbro and pyroxenite which may be part of the Iron Mask Hybrid phase. All of these rocks appear to be transitional into one another and most are magnetic, with intensities directly proportional to their magnetite content.

Structure

Fracturing and faulting on the property are highly variable and varies from weak to intense with the most intense fracturing localized on the north side of Knutsford Ski Hill associated with the intrusive breccia.

Fracturing appears to occur in five sets, listed below in decreasing frequency of occurrence.

- 1) Trending 100° ranging 90° to 115° and spaced from 1 to 15cm.

- 2) Trending 325° ranging 315° to 335° and spaced from 3 to 15cm.
- 3) Trending 060° ranging 040° to 065° with spacing up to 30cm.
- 4) Trending consistantly 020° - fracture density is variable on this set, but the most highly fractured rocks contain this set spaced to 0.5cm.
- 5) Trending 005° ranging 350° to 010° - occurs infrequently.

Fracture intensity apparently controls or localizes mineralization and intensity of alteration.

Alteration and Mineralization

Most of the intrusive rocks show some degree of saussuritization which locally may be intense. Some K-feldspathization is evident locally in most rock units but is most abundant in Cherry Creek rocks where the relatively high K-feldspar content is the result of magmatic differentiation. Alteration on the property consists of both of the above types and is highly variable in intensity. Chlorite, epidote, albite, pink K-feldspar, quartz and carbonate are the most commonly observed alteration minerals. K-feldspathization of Cherry Creek rocks is most intense on Knutsford Ski Hill in association with the intrusive breccia. Alteration on the property is generally moderate to intense in the immediate vicinity of mineralization.

Mineralization on the property comprises disseminations and veins in highly fractured and altered Cherry Creek rocks and intrusive breccia. Pyrite is the predominant sulphide mineral and occurs as fine fracture fillings and as disseminations. Chalcopyrite occurs mainly as disseminations and fine fracture coating. Malachite and lesser azurite are fairly wide spread and occur in practically every old cut,

trench and adit on the property.

Pyrite and chalcopyrite vein-type mineralization associated with potassium feldspar altered and magnetite veined Cherry Creek rocks in a zone of minor faulting was observed in trenches on mineral claims IM 24 and 25.

Disseminated magnetite is very abundant in all basic rocks on the property and small pods of massive magnetite were noted in outcrop northeast of the old Ebbels Farm and in dump material near an old adit south of the chain lift tower 5 (IM-073).

Mineralization on the property is generally localized in zones of intense fracturing and alteration with the best host rocks being the intrusive breccia and surrounding Cherry Creek rocks.

GEOCHEMISTRY

Ninty-six samples of mineralized and unmineralized rocks types were collected for rock geochemistry or assay. Eighty-three samples were submitted for rock geochemistry and thirteen samples were submitted for assay. All samples were analysed for gold, silver and copper. Samples were shipped to Bondar-Clegg Laboratory in Vancouver for analysis. Samples submitted for rock geochemistry were pulverized to -100 mesh size. A 0.5 gram sample was then digested in hot aqua regia and copper and silver were determined by atomic absorption. Gold was analysed using a 20 gram sample which was subjected to a combination fire assay - atomic absorption method. Analytical detection limits are 1 ppm copper, 0.2 ppm silver and 5 ppb gold. Analytical results are listed in Appendix A and on Plate 1.

Cherry Creek monzonite and diorite and Sugarloaf porphyritic hornblende augite andesite where unmineralized to poorly mineralized

and contain background values of 100 ppm copper, less than 0.2 ppm silver and 5 ppb gold. Mineralized varieties containing 0.1% copper or greater contain minor values in gold and silver in the order of 20 to 200 ppb gold and 0.3 to 1 ppm silver.

Vein mineralization is highly variable in mineral content with values from several hundred ppm to several percent copper, trace to one ounce per ton silver and trace to 0.02 ounces per ton gold. The best precious metal results were obtained from areas of quartz or quartz-carbonate veining usually associated with localized shears or cataclastic zones.

CONCLUSION AND RECOMMENDATIONS

The Iron Mask Group contains numerous scattered areas of copper mineralization mostly occurring as narrow shears or veins. One area of good potential exists, located on the north slope of Knutsford Ski Hill where fracture mineralization is associated with and peripheral to a mineralized intrusive breccia. The area has not been fully explored and considerable potential exists for locating additional mineralization.

The Iron Mask property should be kept in good standing and a work program to further evaluate the property should be undertaken. Any further work should include an evaluation of the extensive till covered area west and north of the intrusive breccia. Such a program should include basal till sampling, backhoe trenching, percussion drilling and diamond drilling.

REFERENCES

- 1) Cann, R.M., Godwin, C.I., 1983
Genesis of Magmatic Magnetite-Apatite Lodes, Iron Mask Batholith, South-central British Columbia.
BCDM Geol. Fieldwork 1982, Paper 1983-1. p. 266-284
- 2) Carr, J.M., 1956
Deposits Associated with the Eastern Part of the Iron Mask Batholith near Kamloops.
B.C. Minister of Mines Annual Report 1956, p. 47-69.
- 3) Carr, J.M., Reed, A.J., 1976
Afton: A Supergene Copper Deposit
CIM Special Vol. 15, pp. 376-387.
- 4) Cockfield, W.E., 1948
Geology and Mineral Deposits of Nicola Map Area B.C.
Geological Survey of Canada Memoir 249, p. 164.
- 5) Northcote, K.E., 1974
Geology of the Northwestern Half of Iron Mask Batholith
BCDM Geol. Fieldwork 1974, p. 22-26.
- 6) Northcote, K.E., 1976
Geology of the Southeastern Half of Iron Mask Batholith (92I/9)
BCDM Geol. Fieldwork 1976, p. 40-46.
- 7) Northcote, K.E., 1977
Iron Mask Batholith (92I/9,10)
BCDM Geol. Fieldwork 1977, p. 37-38.
- 8) Northcote, K.E., 1977
Iron Mask Batholith (92I/10E,9W)
BCDM Preliminary Map #26 with Accompanying Notes.
- 9) Preto, V.A.G., 1967
Geology of the Eastern Part of Iron Mask Batholith
BCDM Annual Report, 1967, p. 137-147.
- 10) Preto V.A.G., 1972
Afton, Pothook
BCDM, GEM, 1972, p. 209-220.

APPENDIX 1

List of Analytical Values and
Sample Descriptions

APPENDIX 1
Iron Mask Group
List of Analytical Values

Sample #	Cu ppm	Ag ppm	Au ppb
IM-001	108	<0.2	<5
IM-002	177	<0.2	<5
IM-003	455	<0.2	25
IM-004	299	<0.2	10
IM-005	176	<0.2	5
IM-009	460	<0.2	15
IM-010	950	1.8	105
IM-011	880	<0.2	45
IM-012	660	<0.2	20
IM-013	4050	0.3	65
IM-014	1840	<0.2	25
IM-015	224	<0.2	5
IM-016	405	<0.2	25
IM-017	2940	0.2	85
IM-018	590	<0.2	20
IM-019	550	<0.2	20
IM-020	3870	2.3	300
IM-021	465	<0.2	20
IM-022	6290	0.9	155
IM-023	1060	<0.2	45
IM-024	2830	0.4	130
IM-025	1540	<0.2	20
IM-026	470	<0.2	20
IM-027	490	<0.2	5
IM-028	570	<0.2	20
IM-029	179	<0.2	5
IM-030	244	<0.2	5
IM-031	179	<0.2	<5
IM-032	440	<0.2	10
IM-033	275	<0.2	10
IM-034	935	<0.2	20
IM-035	14820	0.6	50
IM-036	410	0.2	20
IM-037	740	<0.2	25
IM-038	590	<0.2	10
IM-041	211	<0.2	5
IM-042	630	0.7	15
IM-044	4520	1.3	95
IM-045	405	<0.2	10

Iron Mask Group
List of Analytical Values

Page 2

Sample #	Cu ppm	Ag ppm	Au ppb
IM-046	8690	0.4	115
IM-047	1535	1.9	190
IM-048	745	<0.2	15
IM-049	2860	0.8	160
IM-050	430	<0.2	15
IM-051	845	<0.2	45
IM-052	307	<0.2	15
IM-053	2270	0.6	115
IM-054	2430	<0.2	35
IM-055	351	<0.2	25
IM-056	2510	2.1	125
IM-057	930	<0.2	15
IM-058	1000	<0.2	20
IM-059	800	<0.2	45
IM-060	329	<0.2	20
IM-061	21	<0.2	<5
IM-062	252	<0.2	10
IM-063	765	<0.2	10
IM-064	420	<0.2	10
IM-065	200	<0.2	5
IM-066	510	<0.2	10
IM-067	605	<0.2	15
IM-068	965	<0.2	25
IM-069	2410	0.3	75
IM-070	147	<0.2	5
IM-071	2610	0.2	95
IM-072	338	<0.2	15
IM-074	6200	1.9	1690
IM-075	445	<0.2	30
IM-076	3920	0.9	65
IM-077	190	<0.2	5
IM-080	2920	1.8	90
IM-081	102	<0.2	5
IM-082	121	<0.2	5
IM-082	91	<0.2	<5
IM-084	227	<0.2	5
IM-085	118	<0.2	<5
IM-086	119	<0.2	<5
IM-089	>20000	10.0	175
IM-090	370	0.3	45
IM-093	855	0.5	25
IM-094	155	<0.2	15
IM-095	41	<0.2	35
IM-096	1865	1.4	35

Iron Mask Group
Assay Samples

Sample #	Au oz/t	Ag oz/t	Cu%
IM-006	0.005	0.05	0.64
IM-007	0.004	0.04	0.60
IM-008	0.002	0.05	1.03
IM-039	0.007	0.36	1.06
IM-040	0.004	0.08	7.80
IM-043	0.002	0.08	0.88
IM-073	0.012	0.40	4.55
IM-078	<0.002	0.05	0.66
IM-079	0.003	0.11	1.07
IM-087	<0.002	<0.02	0.01
IM-088	0.002	0.06	0.15
IM-091	0.026	0.55	3.04
IM-092	0.037	1.04	4.40

APPENDIX 1
Rock Sample Descriptions

<u>Sample No.</u>	<u>Rock Type</u>	<u>Field Description</u>
IM-001	Sugarloaf	Porphyritic hornblende/augite andesite, intense fracturing.
IM-002	Sugarloaf	Hornblende diorite, intense fracturing, epidote-quartz veining, disseminated pyrite, chalcopyrite.
IM-003	Sugarloaf	Fine to medium grained hornblende diorite with mafic fragments, moderate to intense fracturing, pyrite coated fractures, minor chalcopyrite.
IM-004	Sugarloaf Intrusive Breccia	Fine to medium grained hornblende diorite with fragments of hornblende, Cherry Creek monzonite and diorite, moderate fracturing, minor quartz veins, pyrite and chalcopyrite on fractures.
IM-005	Sugarloaf Intrusive Breccia	Fine to medium grained hornblende diorite with Cherry Creek fragments, moderate fracturing, pyrite and minor chalcopyrite fracture coatings.
IM-006	Intrusive Breccia	Biotite-hornblende diorite fragments silica cemented, intensely altered, intensely fractured, malachite, pyrite, chalcopyrite from old trench.
IM-007	Intrusive Breccia	Intensely altered, fractured and weathered breccia silica cemented with pyrite, malachite from old trench.
IM-008	Intrusive Breccia	Intensely altered, fractured and weathered breccia with pyrite, malachite from old trench.
IM-009	Sugarloaf	Fine to medium grained diorite, moderate to intense fracturing, pyrite fracture coating.
IM-010	Intrusive Breccia	Intensely altered fractured and weathered breccia.
IM-011	Sugarloaf Intrusive Breccia	Intensely altered, fractured and weathered diorite with Cherry Creek fragments, minor pyrite and chalcopyrite fracture coatings.

<u>Sample No.</u>	<u>Rock Type</u>	<u>Field Description</u>
IM-012	Sugarloaf	Fine to medium grained hornblende diorite with Cherry Creek fragments, moderate to intense alteration and fracturing minor pyrite and chalcopyrite or fractures.
IM-013	Cherry Creek	Fine grained monzonite, moderate fracturing and alteration, minor quartz veining, pyrite and chlorite fractures, malachite.
IM-014	Cherry Creek	Fine grained monzonite, moderate fracturing and alteration fractures with pyrite and minor quartz veins with pyrite.
IM-015	Cherry Creek	Fine grained monzonite, moderate to intense fracturing and alteration, epidote-quartz-carbonate with pyrite and chalcopyrite as fracture coating and veinlets.
IM-016	Cherry Creek	Fine grained monzonite, moderate to intense fracturing and alteration pyrite and chalcopyrite on fractures.
IM-017	Cherry Creek	Fine grained monzonite, moderate to intense fracturing and alteration, epidote veining, pyrite.
IM-018	Cherry Creek	Fine grained monzonite, moderate fracturing and alteration, epidote veining and pyrite.
IM-019	Cherry Creek	Fine grained monzonite, moderate fracturing and alteration, epidote veining and pyrite.
IM-020	Cherry Creek	Fine grained monzonite, moderate to intense fracturing and alteration, epidote veining and pyrite, malachite, minor quartz.
IM-021	Cherry Creek	Fine grained monzonite, moderate to intense fracturing and alteration, quartz veining with pyrite, pyrite fractures and veins.
IM-022	Sugarloaf	Fine to medium grained diorite with Cherry Creek fragments, moderate to intense fracturing and lateration, fractures coated pyrite and malachite, pyrite 2-5% disseminated.

<u>Sample No.</u>	<u>Rock Type</u>	<u>Field Description</u>
IM-023	Sugarloaf	Porphyritic hornblende-augite andesite, moderate to intense fracturing, pyritic fractures.
IM-024	Sugarloaf	Porphyritic hornblende-augite andesite, moderate to intense fracturing, pyritic fractures.
IM-025	Cherry Creek	Fine grained monzonite, moderate to intense fracturing pyritic fractures.
IM-026	Cherry Creek	Fine grained monzonite, moderate to intense fracturing, pyritic fractures and disseminated.
IM-027	Cherry Creek	Fine grained monzonite, moderate fracturing, pyritic fractures.
IM-028	Cherry Creek	Fine grained monzonite, moderate fracturing variable, pyritic fractures.
IM-029	Cherry Creek	Fine grained diorite, moderate fracturing variable.
IM-030	Cherry Creek	Fine grained diorite, moderate fracturing, pyritic fractures and disseminations.
IM-031	Cherry Creek	Fine grained monzonite, moderate fracturing, epidote veining, pyritic fractures.
IM-032	Cherry Creek	Fine grained monzonite, moderate to intense fracturing, pyrite and chalcopyrite or fractures, minor quartz veining.
IM-033	Cherry Creek	Fine grained monzonite, moderate fracturing, pyritic veins and fractures.
IM-034	Cherry Creek	Fine grained monzonite, moderate to intense fracturing, pyritic fractures.
IM-035	Cherry Creek	Fine grained monzonite, intense fracturing, malachite and pyritic fractures, old trench.
IM-036	Cherry Creek	Fine grained monzonite, intense fracturing, malachite and pyritic fractures.

<u>Sample No.</u>	<u>Rock Type</u>	<u>Field Description</u>
IM-037	Cherry Creek	Fine grained monzonite, moderate fracturing, disseminated and fracture coating pyrite.
IM-038	Cherry Creek	Fine grained monzonite, moderate fracturing, disseminated and fracture coating pyritic.
IM-039	Cherry Creek	Fine grained monzonite, moderate to intense fracturing malachite, minor quartz veining.
IM-040	Cherry Creek	Fine grained monzonite, intense fracturing, cataclastic breccia malachite, minor hematitic fractures.
IM-041	Cherry Creek	Fine grained monzonite, moderate to intense fracturing, malachite.
IM-042	Cherry Creek	Fine grained diorite, moderate to intense fracturing, pyritic fractures and veinlets.
IM-043	Cherry Creek	Fine grained monzonite, moderate fracturing, pyritic fractures and veinlets, malachite, chalcopryite quartz vein breccia.
IM-044	Cherry Creek	Fine grained monzonite, moderate fracturing, minor malachite and pyrite.
IM-045	Cherry Creek	Fine grained monzonite, moderate fracturing, pyritic fractures.
IM-046	Cherry Creek	Fine grained monzonite, intense fracturing, quartz veining malachite, pyritic fractures.
IM-047	Cherry Creek	Fine grained monzonite, weak to moderate fracturing, minor pyrite and malachite.
IM-048	Cherry Creek	Fine grained monzonite, moderate fracturing, pyritic fractures.
IM-049	Cherry Creek	Fine grained monzonite, moderate fracturing, pyritic fractures, minor chalcopryite.
IM-050	Cherry Creek	Fine grained monzonite, moderate fracturing, pyritic fractures, minor malchite.
IM-051	Cherry Creek	Fine grained monzonite, moderate fracturing, pyritic fractures, minor quartz veinlets.

<u>Sample No.</u>	<u>Rock Type</u>	<u>Field Description</u>
IM-052	Cherry Creek	Fine grained monzonite, moderate fracturing, pyritic fractures, minor quartz veinlets.
IM-053	Cherry Creek	Fine grained monzonite, moderate fracturing, disseminated and fracture pyrite, minor malachite.
IM-054	Cherry Creek	Fine grained monzonite, moderate to intense fracturing, pyritic fractures, malachite.
IM-055	Cherry Creek	Fine to medium grained diorite, moderate to intense fracturing, quartz-carbonate veining with chalcopyrite.
IM-056	Cherry Creek	Medium grained diorite, moderate fracturing, pyritic fractures, minor malachite, chalcopyrite.
IM-057	Cherry Creek	Fine to medium grained diorite, moderate fracturing, minor pyrite, chalcopyrite.
IM-058	Cherry Creek	Fine grained monzonite, moderate to intense fracturing, minor malachite.
IM-059	Sugarloaf	Porphyritic hornblende-augite andesite, moderate to intense fracturing, minor quartz veining, pyritic fractures.
IM-060	Sugarloaf	Porphyritic hornblende-augite andesite, moderate fracturing, minor pyrite.
IM-061	Kamloops Group	Porphyritic andesite, unaltered, moderate fracturing, 20% feldspar phenocrysts unaltered.
IM-062	Cherry Creek	Fine grained monzonite, moderate fracturing, disseminated and fracture coated pyrite.
IM-063	Cherry Creek	Fine grained monzonite, moderate fracturing, disseminated and fracture coated pyrite.
IM-064	Cherry Creek	Fine grained monzonite, moderate to intense fracturing, abundant pyrite, minor shearing.
IM-065	Cherry Creek	Fine grained monzonite, moderate to intense fracturing, abundant pyrite, minor shearing.

<u>Sample No.</u>	<u>Rock Type</u>	<u>Field Description</u>
IM-066	Cherry Creek	Fine grained monzonite, moderate to intense fracturing, abundant pyrite.
IM-067	Cherry Creek	Fine grained monzonite, moderate fracturing, disseminated and fracture pyrite.
IM-068	Cherry Creek	Fine grained monzonite, intense fracturing, minor shearing, minor malachite.
IM-069	Cherry Creek	Fine grained monzonite, intense fracturing, gouge zone, minor malachite.
IM-070	Cherry Creek	Fine grained monzonite, moderate fracturing, quartz-carbonate veins, pyritic fractures.
IM-071	Cherry Creek	Fine grained monzonite, moderate to intense fracturing, minor malachite, pyritic fractures.
IM-072	Cherry Creek	Fine grained monzonite, moderate fracturing, pyritic fractures.
IM-073	Cherry Creek	Fine grained monzonite, intense fracturing - shear zone alteration forming magnetite-chalcopyrite skarn - old adit.
IM-074	Cherry Creek	Fine grained monzonite, intense fracturing - shear zone, quartz-carbonate veining, malachite - old adit.
IM-075	Cherry Creek	Fine grained monzonite, moderate fracturing, minor malachite.
IM-076	Cherry Creek	Fine grained monzonite, moderate fracturing, malachite.
IM-077	Cherry Creek	Fine grained monzonite, moderate fracturing, minor pyrite.
IM-078	Cherry Creek	Fine grained monzonite, intense fracturing and shearing, malachite.
IM-079	Cherry Creek	Fine grained monzonite, intense fracturing and shearing, malachite.

<u>Sample No.</u>	<u>Rock Type</u>	<u>Field Description</u>
IM-080	Cherry Creek	Fine grained monzonite, moderate fracturing, minor pyrite, malachite.
IM-081	Cherry Creek	Fine grained diorite, moderate fracturing, minor pyrite.
IM-082	Cherry Creek	Fine grained diorite, moderate fracturing, minor pyrite.
IM-083	Iron Mask Hybrid?	Medium to coarse grained hornblende diorite, moderate fracturing, minor pyritic fractures.
IM-084	Sugarloaf	Porphyritic hornblende-augite andesite, contains subrounded to angular fragments of hornblende diorite, Cherry Creek monzonite, and hornblendite, moderate fracturing, minor pyritic fractures.
IM-085	Cherry Creek	Fine grained monzonite, moderate fracturing, minor pyrite.
IM-086	Cherry Creek	Fine grained monzonite, moderate fracturing, minor pyrite.
IM-087	Cherry Creek	Fine grained monzonite, moderate fracturing, minor pyrite.
IM-088	Cherry Creek	Fine grained monzonite, moderate fracturing, highly pyritic, quartz veining, minor malachite, epidote veining.
IM-089	Cherry Creek	Fine grained monzonite, moderate to intense fracturing, highly pyritic, malachite, chalcopryrite.
IM-090	Cherry Creek	Fine grained monzonite, moderate fracturing, minor pyrite.
IM-091	Cherry Creek	Fine grained monzonite, moderate to intense fracturing, pyritic shear zone, magnetite coated fractures, quartz veining, malachite, chalcopryrite - old trench.
IM-092	Cherry Creek	Fine grained monzonite with siliceous pyritic shear, moderate to intense fracturing pyrite, malachite, chalcopryrite - old trench.

<u>Sample No.</u>	<u>Rock Type</u>	<u>Field Description</u>
IM-093	Cherry Creek	Fine grained monzonite, moderate fracturing, pyritic, minor malachite.
IM-094	Cherry Creek	Fine grained monzonite, moderate fracturing, pyritic, minor malachite, quartz veining - old trench.
IM-095	Cherry Creek	Fine grained monzonite, moderate fracturing, pyritic.
IM-096	Cherry Creek	Fine grained monzonite, moderate to intense fracturing, minor disseminated chalcopyrite, malachite on fractures.

APPENDIX 2

Assessment Expenditures

EXHIBIT "A"

IRON MASK PROPERTY
KAMLOOPS, M.D. SOUTHCENTRAL, B.C.

Assessment : Iron Mask Group

2 years assessment applied to the Iron Mask Group (14 units)

2 years @ \$200/year for 14 units = \$5,600.00

1983 Expenditures	\$5,077.60
PAC Account	<u>522.40</u>
TOTAL	\$5,600.00

EXHIBIT "A"

IRON MASK PROPERTY
KAMLOOPS, M.D. SOUTHCENTRAL, B.C.

Iron Mask Group

<u>Claim No.</u>	<u>Record No.</u>	<u>Record Date</u>	<u>Present Due Date</u>	<u>New Due Date</u>
IM 23	67939	Jan. 30/1968	Jan. 30/1984	Jan. 30/1986
24	68940	"	"	"
25	67941	"	"	"
27	67943	"	"	"
40	67956	"	"	"
41	67957	Jan. 30/1968	Jan. 30/1984	Jan. 30/1986
58	75527	Dec. 31/1968	Dec. 31/1983	Dec. 31/1985
59	75528	"	"	"
62	75529	"	"	"
63	75530	"	"	"
64	75531	"	Dec. 31/1983	Dec. 31/1985
65	75532	"	Dec. 31/1984	Dec. 31/1986
66	75533	"	Dec. 31/1983	Dec. 31/1985
<u>67</u>	75534	Dec. 31/1968	Dec. 31/1984	Dec. 31/1986

14 units

EXHIBIT "A"

IRON MASK PROPERTY
KAMLOOPS, M.D. SOUTHCENTRAL, B.C.

Summary of Expenditures

Wages	\$2,600.00
Accommodation	145.59
Food	189.67
Freight	22.79
Gas	117.65
Truck Rental	165.00
Geochemistry	1,236.90
Drafting & Report Costs	<u>600.00</u>
TOTAL	\$5,077.60

Expenditures

Wages:

G. F. McArthur

Travel	August 1-2	2 days @ \$225/day =	\$ 450.00
Location	August 3	1/2 day @ \$225/day =	112.50
Field Work	August 4,5,6	3 days @ \$225/day =	675.00
Report	August 23,24,25	3 days @ \$225/day =	<u>675.00</u>
		Subtotal	\$1,912.50

J. E. Robinson

Travel	August 1-2	2 days @ \$125/day =	\$ 250.00
Location	August 3	1/2 day @ \$125/day =	62.50
Field Work	August 4,5,6	3 days @ \$125/day =	<u>375.00</u>
		Subtotal	\$ 687.50
		TOTAL WAGES	<u>\$2,600.00</u>

EXHIBIT "A"

IRON MASK PROPERTY
KAMLOOPS, M.D. SOUTHCENTRAL, B.C.

Accommodation: $\$346.64 \times .42 = \$ 145.59$
Food: $\$451.59 \times .42 = 189.67$
Gas: $\$280.12 \times .42 = 117.65$
Freight: $\$ 54.25 \times .42 = 22.79$
Truck Rental: 5.5 days @ $\$30/\text{day} = 165.00$

Geochemical Analysis:

83 samples rock Geochemistry @ $\$11.95/\text{sample} = \$ 991.85$
Sample
(Au, Ag, Cu + Prep. Retension)
(6.00 + 1.90 + 0.95 + 2.75 + 0.35 = $\$11.95$)
13 samples Assay @ $\$18.85/\text{sample} = 245.05$
Sample
(Au+Ag, Cu, Prep. Retension)
(10.50 + 5.25 + 2.75, 0.35 = $\$18.85/\text{sample}$)
TOTAL $\$1,236.90$

Report Costs: Typing, reproduction, drafting $\$ 600.00$

Statement of Expenditures
IM Claims

Field Expenditures IM and Rocket Claims
During the period August 1st to August 13th, 1983

IM Claims	5.5 Field Days	(.42)
Rocket Claims	7.5 Field Days	(.58)
	<u>13.0</u> Days	

Accommodations

\$300.00	August 1-13	IM	\$346.64 x .42 = \$145.59
46.64	August 11	Rocket	\$346.64 x .58 = \$201.05
<u>\$346.64</u>			

Food

\$ 24.70	August 1-2		
158.36	August 2		
53.52	August 5	IM	\$451.59 x .42 = \$189.67
75.41	August 8	Rocket	\$451.59 x .58 = \$261.92
34.56	August 11		
<u>105.02</u>	August 1-13		
<u>\$451.59</u>			

Gas

\$ 44.00	August 1		
15.00	August 3		
20.12	August 8		
30.00	August 8	IM	\$280.12 x .42 = \$117.65
49.00	August 11	Rocket	\$280.12 x .58 = \$162.47
45.00	August 12		
37.00	August 13		
40.00	August 17		
<u>\$280.12</u>			

Freight

\$ 54.25	August 8	IM	\$54.25 x .42 = \$22.79
		Rocket	\$54.25 x .58 = \$31.46

Geochemical Costs

Rock Geochemistry

Au,	Ag,	Cu	Prep.	Sample Retention	
6.00	+ 1.90	+ 0.95	+ 2.75	+ 0.35	= \$11.95/sample

Rock Assay

Au+Ag	+ Cu	+ Prep.	+ Sample Retention	
10.50	+ 5.00	+ 3.00	+ 0.35	= \$18.85/sample

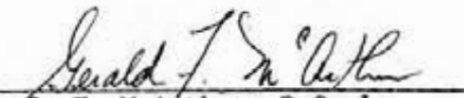
APPENDIX 3

Authors Qualifications

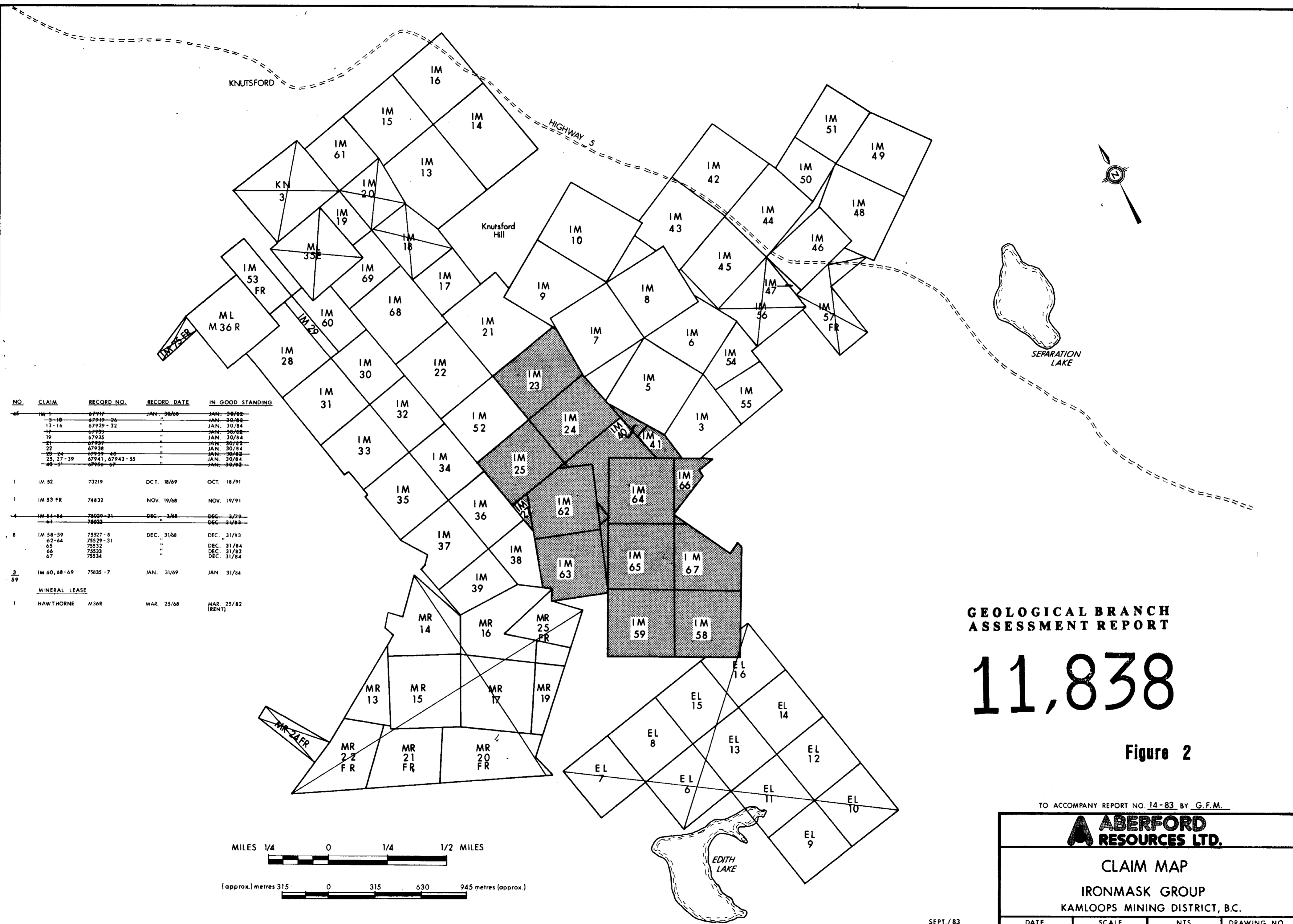
STATEMENT OF QUALIFICATIONS

I, Gerald F. McArthur of Calgary, Alberta, do hereby certify that:

1. I am a graduate of the University of British Columbia (1973) and hold a B.Sc. degree in Geology.
2. I have been a practicing geologist since 1973.
3. I am employed by Aberford Resources Ltd. of 300 - 5 Avenue S.W. Calgary, Alberta
4. I am a member of the Geological Association of Canada.
5. I am registered as a Professional Geologist in the Province of Alberta.
6. This report is based on information gathered by the author during the 1983 exploration program.


G. F. McArthur, P.Geol.
Senior Geologist
Aberford Resources Ltd.

Calgary, Alberta
December, 1983



NO.	CLAIM	RECORD NO.	RECORD DATE	IN GOOD STANDING
45	IM 1	67917	JAN. 30/68	JAN. 30/82
	3-18	67919-26	"	JAN. 30/82
	13-16	67929-32	"	JAN. 30/84
	17	67933	"	JAN. 30/82
	19	67935	"	JAN. 30/84
	21	67937	"	JAN. 30/82
	22	67938	"	JAN. 30/84
	23-24	67939-40	"	JAN. 30/82
	25, 27-39	67941, 67943-55	"	JAN. 30/84
	40-51	67956-67	"	JAN. 30/82
1	IM 52	73219	OCT. 18/69	OCT. 18/91
1	IM 53 FR	74832	NOV. 19/68	NOV. 19/91
4	IM 54-56	76030-31	DEC. 3/68	DEC. 3/70
	61	76033	"	DEC. 3/82
8	IM 58-59	75527-8	DEC. 31/68	DEC. 31/93
	62-64	75529-31	"	DEC. 31/84
	65	75532	"	DEC. 31/83
	66	75533	"	DEC. 31/84
	67	75534	"	DEC. 31/84
3	IM 60, 68-69	75835-7	JAN. 31/69	JAN. 31/84
59	MINERAL LEASE			
1	HAWTHORNE M36R	M36R	MAR. 25/68	MAR. 25/82 (RENT)

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

11,838

Figure 2

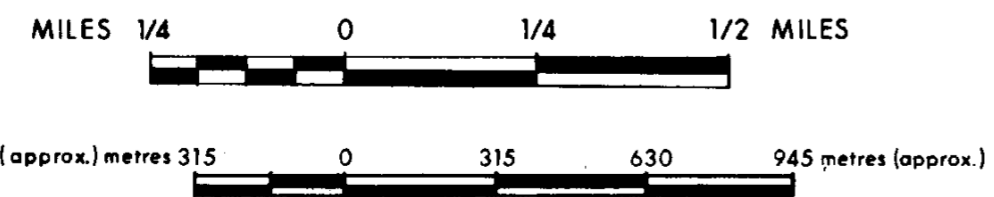
TO ACCOMPANY REPORT NO. 14-83 BY G.F.M.



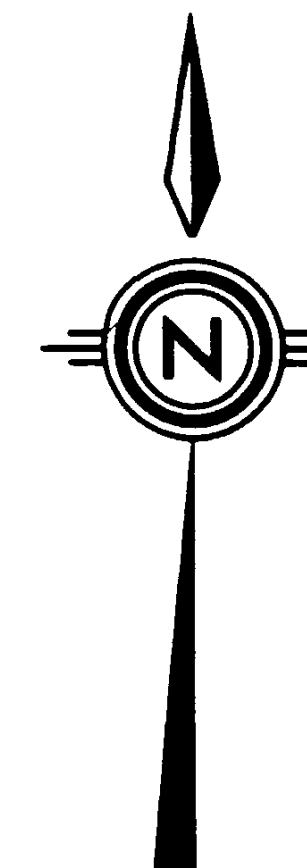
CLAIM MAP

**IRONMASK GROUP
KAMLOOPS MINING DISTRICT, B.C.**

DATE	SCALE	NTS	DRAWING NO.
OCT. 6 / 77	1" = 1/4 mile	92-1	C-0050



SEPT./83
JULY/81
REVISED AUG./80

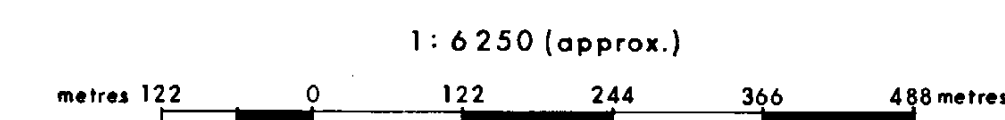


LEGEND

- TERTIARY KAMLOOPS GROUP**
- 5 Basalt
- TRIASSIC - JURASSIC IRON MASK BATHOLITH**
- 4 Intrusive Breccia
 - 3 CHERRY CREEK UNIT :
Micromonzonite, Microdiorite
 - 2 SUGARLOAF UNIT :
Porphyritic Hornblende / Augite Andesite
 - 1 IRON MASK HYBRID UNIT :
Diorite, Hornblendite, Gabbro

- - - Mineralization
- Area Of Outcrop
- Area Of Discontinuous Outcrop
- ← Adit
- ☞ Dump
- ≡ Trench
- Shaft
- Claim Post
- Road
- Rock Sample Location And Number

PLATE 1



TO ACCOMPANY REPORT NO. 14-83, BY G.F.M.



GEOLOGY AND ROCK GEOCHEMISTRY

IRONMASK PROJECT, 1983 - KAMLOOPS, M.D.

DATE AUGUST, 1983	SCALE 1" = 400'	NTS 92 1 / 9 W	DRAWING NO. D-2001
----------------------	--------------------	-------------------	-----------------------

**Iron Mask Group
List of Geochemical Values**

Sample #	Cu ppm	Ag ppm	Au ppb	Sample #	Cu ppm	Ag ppm	Au ppb
IM-001	108	<0.2	<5	IM-049	2860	0.8	160
IM-002	177	<0.2	<5	IM-050	430	<0.2	15
IM-003	455	<0.2	25	IM-051	845	<0.2	45
IM-004	299	<0.2	10	IM-052	307	<0.2	15
IM-005	176	<0.2	5	IM-053	2270	0.6	115
IM-009	460	<0.2	15	IM-054	2430	<0.2	35
IM-010	950	1.8	105	IM-055	351	<0.2	25
IM-011	880	<0.2	45	IM-056	2510	2.1	125
IM-012	660	<0.2	20	IM-057	930	<0.2	15
IM-013	4050	0.3	65	IM-058	1000	<0.2	20
IM-014	1840	<0.2	25	IM-059	800	<0.2	45
IM-015	224	<0.2	5	IM-060	329	<0.2	20
IM-016	405	<0.2	25	IM-061	21	<0.2	<5
IM-017	2940	0.2	85	IM-062	252	<0.2	10
IM-018	590	<0.2	20	IM-063	765	<0.2	10
IM-019	550	<0.2	20	IM-064	420	<0.2	10
IM-020	3870	2.3	300	IM-065	200	<0.2	5
IM-021	465	<0.2	20	IM-066	510	<0.2	10
IM-022	6290	0.9	155	IM-067	605	<0.2	15
IM-023	1060	<0.2	45	IM-068	965	<0.2	25
IM-024	2830	0.4	130	IM-069	2410	0.3	75
IM-025	1540	<0.2	20	IM-070	147	<0.2	5
IM-026	470	<0.2	20	IM-071	2610	0.2	95
IM-027	490	<0.2	5	IM-072	338	<0.2	15
IM-028	570	<0.2	20	IM-074	6200	1.9	1690
IM-029	179	<0.2	5	IM-075	445	<0.2	30
IM-030	244	<0.2	5	IM-076	3920	0.9	65
IM-031	179	<0.2	<5	IM-077	190	<0.2	5
IM-032	440	<0.2	10	IM-080	2920	1.8	90
IM-033	275	<0.2	10	IM-081	102	<0.2	5
IM-034	935	<0.2	20	IM-082	121	<0.2	5
IM-035	14820	0.6	50	IM-083	91	<0.2	<5
IM-036	410	0.2	20	IM-084	227	<0.2	5
IM-037	740	<0.2	25	IM-085	118	<0.2	<5
IM-038	590	<0.2	10	IM-086	119	<0.2	<5
IM-041	211	<0.2	5	IM-089	>20000	10.0	175
IM-042	630	0.7	15	IM-090	370	0.3	45
IM-044	4520	1.3	95	IM-093	855	0.5	25
IM-045	405	<0.2	10	IM-094	155	<0.2	15
IM-046	8690	0.4	115	IM-095	41	<0.2	35
IM-047	1535	1.9	190	IM-096	1865	1.4	35
IM-048	745	<0.2	15				

**Iron Mask Group
Assay Samples**

Sample #	Au oz/t	Ag oz/t	Cu%
IM-006	0.005	0.05	0.64
IM-007	0.004	0.04	0.60
IM-008	0.002	0.05	1.03
IM-039	0.007	0.36	1.06
IM-040	0.004	0.08	7.80
IM-043	0.002	0.08	0.88
IM-073	0.012	0.40	4.55
IM-078	<0.002	0.05	0.66
IM-079	0.003	0.11	1.07
IM-087	<0.002	<0.02	0.01
IM-088	0.002	0.06	0.15
IM-091	0.026	0.55	3.04
IM-092	0.037	1.04	4.40

