GEOLOGICAL SURVEY

and

SOIL GEOCHEMICAL SURVEY

BANNAGAN PROPERTY

Hutton Township, Ontario

Sudbury Mining District

CLAIM #s: 985559 - 985585

for

IMPERIAL METALS CORPORATION

by

R. MICHAEL JONES & DENNIS GORC

JUNE 1, 1988

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SUMMARY

A geological and soil sampling program was completed on part of the Bannagan property located 40km north of Sudbury, Ontario. The program was designed to follow-up anomalous gold values in reconnaissance soil samples taken south of Bannagan Lake.

The property covers Huronian aged Mississagi formation rocks unconformably overlying Archean basement volcanics. Quartz pebble conglomerate and polymictic conglomerate beds were found to be numerous in certain sections within the Mississagi formation.

The soil geochemical survey returned 22 samples with greater than 100ppb gold. The majority of the anomalous samples occur within a 300m by 300m area adjacent to the Vermillion River immediately south of Bannagan Lake.

Rock chip sampling of conglomerate returned a high of 73ppb gold.

1.0 INTRODUCTION

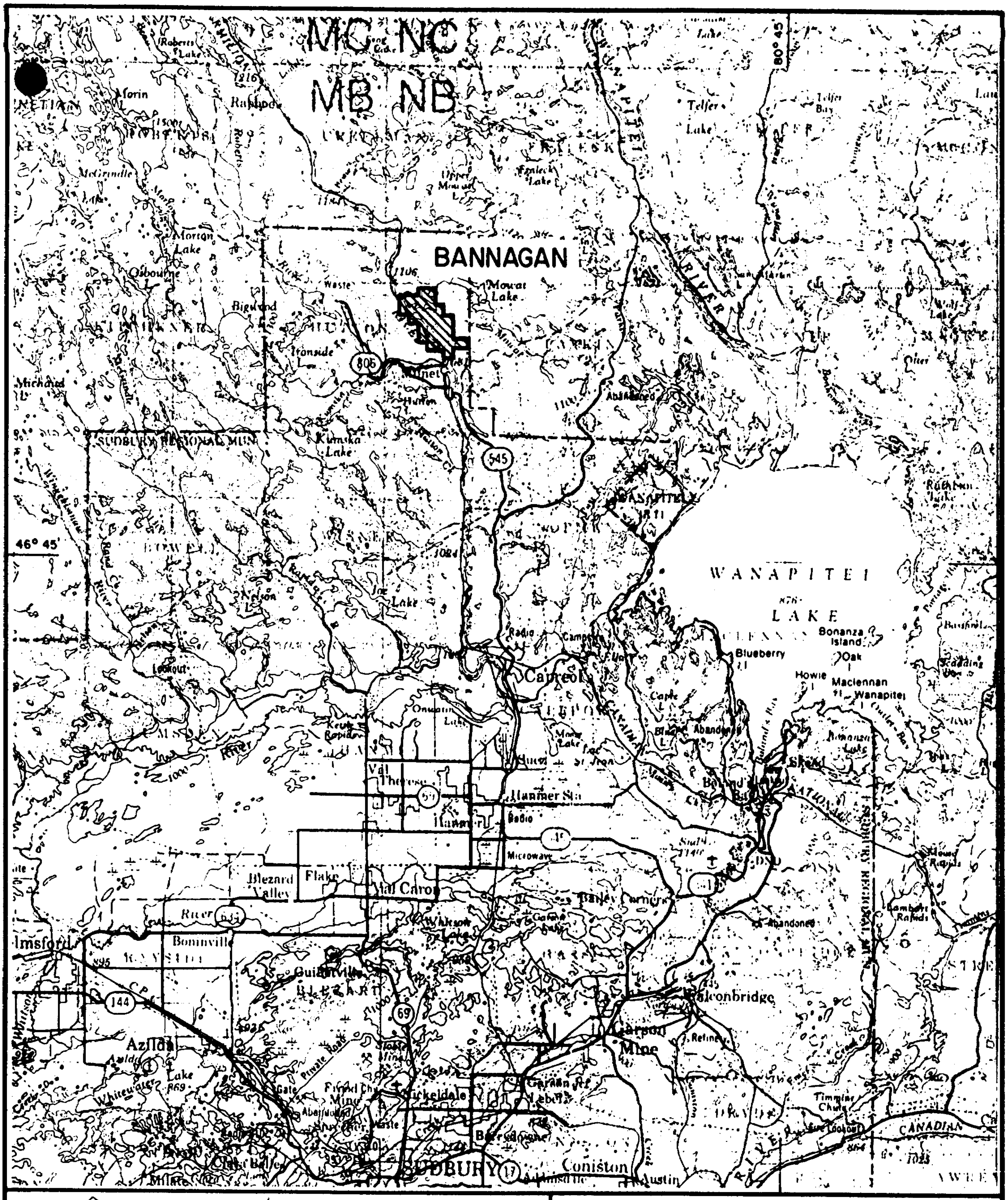
The Huronian sedimentary basin which extends from Sault St. Marie to New Liskeard, Ontario is analogous to the sedimentary basin which hosts the Witwatersand gold deposits of South Africa. Similar gold deposits may occur within the Huronian sediments near Sudbury and in May 1987 the Milnet Reconnaissance Program was undertaken to search for such deposits. The Bannagan property was one of the properties staked during this Program.

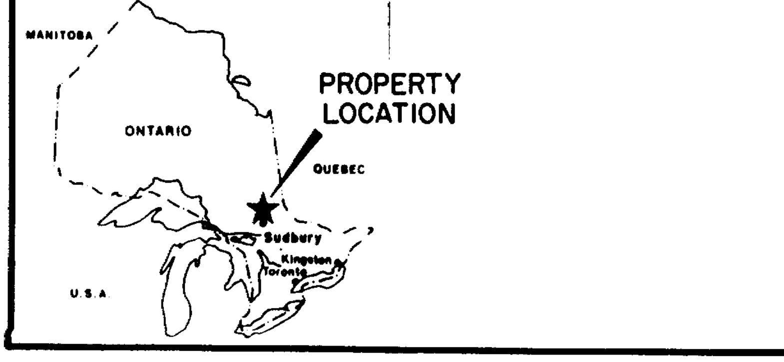
2.0 LOCATION AND ACCESS

The Bannagan property is located 40km north of Sudbury and 15km north of the town of Capreol. A very rough bush road extends 5km from the paved Moose Mountain Iron Mine road to the property. Travel time by truck from Sudbury to the property is approximately one hour each way.

3.0 CLAIM DATA

The Bannagan property consists of 27 mineral claims in Hutton Township, Sudbury Mining Division. The claims were staked in July 1987 for Imperial Metals Corporation in response to anamolous soil samples taken during the Milnet Reconnaissance Program. The claim numbers are S985559 through S985585 inclusive. The claims were recorded on July 24, 1987.





IMPERIAL METALS CORPORATION

BANNAGAN

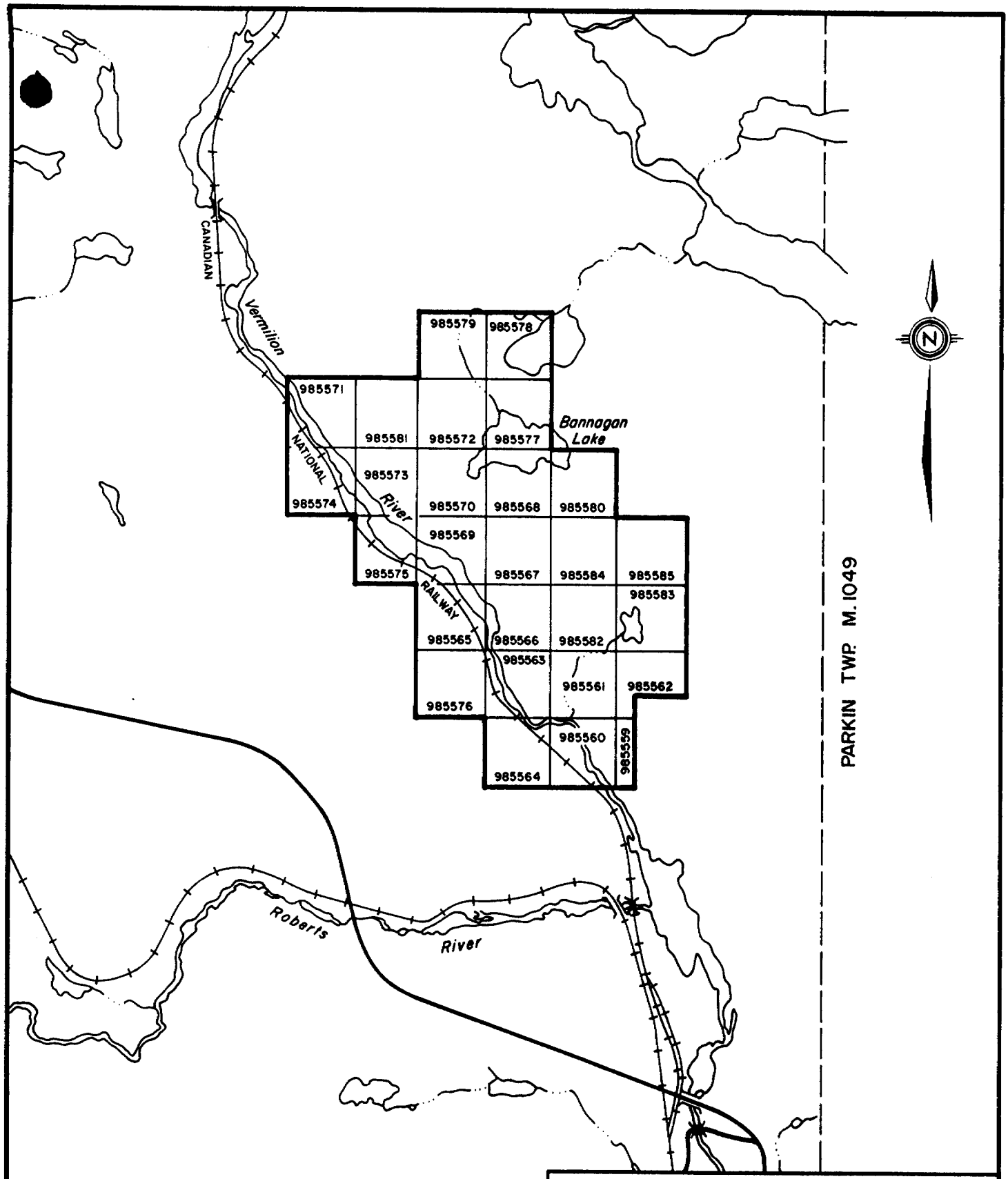
FIGURE I — N.T.S. 42-I-15

LOCATION MAP

HUTTON TWP., ONTARIO

km 0 — 5 — 10 — 15 km

SCALE	1 : 250,000	GEOLOGIST:	R. M. JONES
DATE:	JULY, 1988	DRAWN BY:	J. CORKUM



IMPERIAL METALS CORPORATION

BANNAGAN

FIGURE 2 N.T.S. 41-1-15

CLAIM MAP

HUTTON TWP., ONTARIO

mile 0 1/2 1 mile

SCALE: 1 in. = 1/2 mi. or 1:31680	GEOLOGIST: R. M. JONES
DATE: JULY, 1988	DRAWN BY: J. CORKUM

4.0 EXPLORATION HISTORY

The most recent published geological maps for the area are included in Geological Report 80, Ontario Department of Mines, 1970 by H.D. Meyn.

Exploration work for uranium on the Bannagan property was carried out by Hudson Bay Exploration in 1966, and included geological mapping trenching and diamond drilling. Several blasted trenches were opened in the conglomerate beds. A total of 16 holes for 3000 feet were completed on the northern band of conglomerate and three holes were drilled on the conglomerate near the Vermillion River. In 1976, Amax conducted a geological survey over the Bannagan property as well as helicopter radiometric and magnetometer surveys. Amax analyzed some of the conglomerate beds for gold and obtained only trace values.

Prospecting for placer gold in the Vermillion River gravels to the south of the Bannagan property has been sporadic since the late 1800's. In 1980, Kerr Addison Mines Ltd. drilled a series of reverse circulation holes in the Vermillion River gravels and found anomalous amounts of gold. H.A. Lee recommended further work to find the source of the gold to the north.

In 1987, a program of reconnaissance soil sampling by Imperial Metals found anomalous gold value in the area south of Bannagan Lake. The detailed soil survey reported on here was designed to follow-up the 1987 results.

In May, 1988 Imperial Metals Corporation completed a soil sampling and geological mapping program. A 1.2km cut and chained baseline was established south of Bannagan Lake in the area where reconnaissance soil sampling had shown anomalous values in gold. (Claims 985565 to 985570 and 985573, 75, 82, 84 were covered by the survey.) A total of 12km of north-south grid lines were chained and flagged at 100m intervals. Stations were established every 25m along the lines. A program of detailed B-horizon soil sampling totalling 550 samples of which 469 were analyzed, and geological mapping was carried out.

5.0 GENERAL GEOLOGY

The Bannagan property area is underlain by Huronian aged Bruce and Mississagi formations unconformably rested on Archean mafic volcanics. A strong northwest trending fault cuts across the property along the line of the Vermillion River.

6.0 PROPERTY GEOLOGY

Mapping was carried out along 100m spaced lines over most of the area south of Bannagan Lake and on 50m lines in the detailed grid area. The rocks were placed into two categories: 1) Archean basement mafic volcanics, and 2) Mississagi Formation. The geological survey was limited to the north and did not extend to the Bruce Formation. The Mississauga Formation was divided into: fine grained dirty quartzite, arkosic quartzite, conglomerate, and argillite.

In mapping by Amax the thin beds of conglomerate were correlated over long distances from outcrop to outcrop. Monomictic quartz pebble conglomerate west of L 0+00 was interpreted as being the same bed as the polymictic conglomerate at 4+50E 3+00N. Given the numerous thin conglomerate beds found in the mapping it is more likely that there are several beds of conglomerate within a band in te stratigraphy favourable for conglomerate.

Two bands in the stratigraphy are interpreted to contain numerous, probably discontinuous conglomerate beds as shown on the geology map. Quartz pebble conglomerate found on the property was generally clast supported with a dark grey to black, pyritic, (1-2% disseminated) quartzite matrix. Quartz pebbles average 2 - 8cm in diameter and are well rounded. The polymictic conglomerate near Bannagan Lake contains up to 25% greywacke and argillite pebbles with the remainder being quartz pebbles. Amax reported that the conglomerates are only weakly radioactive. A total of 30 samples of conglomerate were assayed for gold as part of the 1988 program and results were disappointing with the highest gold value returned being 73ppb Au (see Table 1). Sections of the stratigraphy with several conglomerate beds are the most favourable for paleoplacer gold mineralization. No evidence was found for strong cross cutting faults or hydrothermal mineralization. The rocks show little penetrative fabric or evidence of brittle deformation. However the sharp changes in strike of the beds and the contorted bedding near Bannagan Lake indicate some fold or fault activity.

Table 1 - Rock Geochemistry - Conglomerate

Sample Number	Au (ppb)	Cu (ppm)	Pb (ppm)	U (ppm)
BR-88- 1	1	43	14	5
- 2	33	43	232	27
- 3	73	378	90	5
- 4	1	13	62	5
- 5	11	35	80	5
- 6	8	21	140	5
- 7	15	116	67	45
- 8	50	144	117	201
- 9	4	32	81	43
-10	25	60	16	5
-11	8	37	22	5
-12	3	47	34	5
-13	12	235	79	127
-14	1	62	27	13
-15	12	119	53	57
-16	1	33	116	18
-17	1	38	13	5
-18	1	50	32	5
-19	13	29	39	5
-20	10	16	46	5
-21	7	8	25	5
-22	23	70	59	12
-23	1	57	18	5
-24	1	76	22	6
-25	3	52	146	52
-26	4	24	102	5
-27	5	15	73	5
-28	48	26	133	5
-29	2	23	43	5
-30	38	66	117	5

7.0 SOIL GEOCHEMISTRY

A total of 550 B-horizon soil samples were taken along the grid lines and 469 samples were sent for analysis. Samples were collected every 25m over most of the grid and every 10m from L1+50E to L3+50E. Every other sample was sent for analysis from the 10m spaced samples.

The podzol soil profile was well developed and the B-horizon was usually found 10-20cm from the surface. Most of the soil has probably been glacially transported a short distance. A flat area from L0E to L4E from the Vermillion River to approximately 1+00N is covered with cobbles and sand. This material may be outwash associated with the Glaciofluival deposits in the Vermillion valley. Soil samples from this area may represent material transported over long distances.

Results returned from the soil sampling returned 22 gold values greater than 100ppb Au including 8 values greater than 400ppb Au. The highest value returned was 920ppb Au. The majority of the anomalous gold values occur within a 300m x 300m area adjacent to the Vermillion River in the vicinity of L0 to L3E. This is the same area in which the anomalous 1987 reconnaissance soil samples were taken. One should note that the soil sample results are either highly anomalous (greater than 100ppb Au) or background (1-5ppb Au) with very few intermediate gold values.

There are three likely sources of the anomalous gold returned in the soil sampling:

1. Paleoplacer gold occurring within uraniferous pyritic quartz-pebble conglomerates. The area of anomalous gold is on strike with several conglomerate horizons.

2. Outwash from the well documented Vermillion river placer gold deposits.

3. Late stage lode gold deposits along fault structures.

Additional anomalous gold values occurring near the southernmost portions of L5E through L12E are likely due to the Vermillion River gold placers.

Two anomalous values (168ppb, 270ppb Au) occur in the northern half of the grid. The source of the anomalous gold is unexplained and must be investigated.

8.0 CONCLUSIONS

1. The Bannagan Lake property in the area south of Bannagan Lake is underlain by Mississagi Formation with several beds of monomictic quartz pebble conglomerate and polymictic conglomerate. Individual conglomerate beds may be discontinuous, however, certain sections of the Mississagi Formation contain numerous beds of conglomerate.

2. No evidence was found for strong fault structures or hydrothermal mineralization.

3. Soil survey results returned 22 values of greater than 100ppb gold the majority of which were located in a 300m by 300m area adjacent to the Vermillion River south of Bannagan lake.

4. Rock chip sampling of conglomerate returned a high of 73ppb gold.

9.0 AUTHOR'S QUALIFICATIONS

R. MICHAEL JONES

Education:	B.A.Sc. University of Toronto Geological Engineering, 1985
Memberships:	Prospectors and Developers Association Northern Prospectors Association
Experience:	Three years in mineral exploration and summer experience.

DENNIS M. GORC

I, DENNIS M. GORC, geologist, residing at Apartment 202, 270 West 1st Street, North Vancouver, in the Province of British Columbia, hereby certify that:

1. I received a B.Sc. (Engineering) degree from Queen's University, Kingston, Ontario in May of 1976.

2. Since 1976, I have supervised mineral exploration programs in British Columbia, Ontario, Manitoba and the Northwest Territories.

3. I am presently a staff geologist with Imperial Metals Corporation of Suite 800, 601 West Hastings Street, in the City of Vancouver, Province of British Columbia.

DATED the 15 day of August, 1988 in the City of Vancouver, Province of British Columbia.

Dennis M. Gorc
Geologist

APPENDIX I

GEOCHEMICAL RESULTS

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: P1-P14 SOIL P15 ROCK Au* ANALYSIS BY AA FROM 10 GRAM SAMPLE

DATE RECEIVED: MAY 18 1988 DATE REPORT MAILED: May 25/88 ASSAYER. C. Leong ..D.TOYE OR C.LEONG, CERTIFIED B.C. ASSAYERS

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SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB
B-J-001	1	3	10	16	.1	4	2	37	.38	10	5	ND	1	3	1	3	2	12	.02	.009	6	6	.05	15	.04	2	.22	.01	.03	1	1
B-J-002	1	11	15	27	.1	7	4	34	1.57	6	5	ND	1	4	1	2	4	29	.03	.022	7	16	.12	19	.07	5	.60	.01	.02	1	6
B-J-003	1	12	18	40	.1	7	2	30	1.73	3	5	ND	1	4	1	2	2	27	.03	.022	6	20	.04	16	.04	9	1.32	.01	.01	1	2
B-J-004	1	17	50	103	.2	19	5	67	2.95	16	5	ND	3	6	1	2	2	40	.06	.031	7	32	.14	17	.08	6	1.58	.01	.04	1	1
B-J-005	1	20	22	45	.1	12	3	48	1.85	5	5	ND	1	4	1	2	5	33	.04	.023	7	20	.06	19	.06	3	1.25	.01	.02	1	1
B-J-006	1	17	17	61	.1	15	4	53	2.29	2	5	ND	1	5	1	2	2	32	.05	.045	7	32	.11	22	.06	9	1.88	.01	.01	1	1
B-J-007	1	10	18	81	.1	15	5	45	2.85	2	5	ND	1	5	1	2	2	31	.05	.030	6	29	.11	21	.06	3	1.87	.01	.01	1	1
B-J-008	1	30	17	51	.1	20	4	42	2.13	12	5	ND	1	5	1	2	2	31	.04	.026	8	32	.16	24	.07	2	1.99	.01	.02	1	9
B-J-009	1	16	9	26	.1	14	4	37	1.50	7	5	ND	1	4	1	2	5	42	.03	.009	5	18	.10	18	.07	2	.46	.01	.03	1	2
B-J-010	1	41	27	61	.1	18	4	41	2.10	22	5	ND	1	7	1	3	2	28	.07	.017	6	27	.07	20	.06	4	1.41	.01	.02	1	1
B-J-011	1	16	15	27	.1	15	3	38	2.60	7	5	ND	1	4	1	2	2	52	.03	.012	4	25	.12	18	.08	3	.81	.01	.03	1	1
B-J-012	2	32	16	37	.1	18	6	139	3.22	7	5	ND	1	7	1	2	2	42	.06	.020	7	31	.13	17	.09	5	1.07	.01	.03	1	1
B-J-013	1	13	16	70	.1	14	4	68	2.52	4	5	ND	1	7	1	2	2	37	.07	.018	6	29	.13	24	.09	7	1.27	.01	.04	1	2
B-J-014	1	19	26	66	.1	18	7	87	3.04	10	5	ND	1	7	1	2	5	33	.07	.023	8	35	.17	29	.07	2	1.65	.01	.02	1	1
B-J-015	1	20	27	87	.1	17	5	86	2.66	9	5	ND	1	7	1	2	2	32	.07	.028	7	28	.16	36	.08	3	1.08	.01	.03	1	3
B-J-016	1	18	14	81	.1	23	6	132	2.87	2	5	ND	1	7	1	2	2	33	.07	.044	6	36	.21	31	.07	2	2.03	.01	.04	1	2
B-J-017	1	27	18	122	.1	31	9	271	2.17	6	5	ND	1	10	1	2	2	31	.10	.040	7	32	.33	42	.08	4	1.38	.01	.04	1	1
B-J-018	1	18	15	79	.1	12	6	163	2.06	4	5	ND	1	6	1	2	2	29	.06	.024	5	23	.20	30	.07	8	.82	.01	.04	1	1
B-J-019	1	11	15	57	.1	11	4	82	2.10	2	5	ND	1	5	1	2	2	35	.04	.041	6	23	.09	29	.06	2	1.17	.01	.03	1	1
B-J-020	2	23	21	54	.1	13	6	105	3.28	8	5	ND	2	6	1	2	2	59	.05	.031	6	30	.19	31	.12	7	.73	.01	.05	1	1
B-J-021	1	13	12	63	.1	12	3	49	2.85	3	5	ND	2	5	1	2	2	44	.04	.025	6	26	.09	19	.08	6	1.46	.01	.04	1	1
B-J-022	1	19	19	97	.1	16	6	74	2.65	7	5	ND	1	6	1	2	3	44	.05	.025	6	28	.18	17	.10	8	.92	.01	.05	1	1
B-J-023	1	37	25	100	.1	28	6	120	2.81	12	5	ND	1	6	1	2	2	41	.06	.041	6	47	.22	30	.09	5	2.07	.01	.02	1	1
B-J-024	1	12	39	93	.3	12	3	49	2.05	2	5	ND	1	5	1	2	3	30	.05	.031	7	22	.08	19	.06	2	1.21	.01	.03	1	1
B-J-025	1	8	4	44	.1	41	9	91	3.07	5	5	ND	3	3	1	2	4	44	.05	.017	5	92	1.78	68	.24	2	2.06	.01	.64	1	1
B-J-026	1	13	25	79	.2	9	3	40	2.65	2	5	ND	1	6	1	2	2	41	.05	.021	8	26	.11	17	.08	2	1.15	.01	.04	1	1
B-J-027	1	26	25	97	.3	24	7	122	3.79	4	5	ND	4	8	1	2	2	60	.07	.064	7	39	.35	26	.13	2	1.20	.01	.08	1	1
B-J-028	1	11	15	53	.1	10	2	52	1.81	4	5	ND	1	6	1	2	5	26	.05	.016	8	20	.08	17	.06	4	.70	.01	.02	1	1
B-J-029	1	25	21	97	.3	26	8	293	2.88	7	5	ND	2	8	1	2	2	28	.10	.032	8	32	.29	29	.07	3	1.43	.01	.04	1	1
B-J-030	1	17	9	59	.1	26	7	151	2.17	2	5	ND	1	10	1	2	2	37	.12	.024	8	60	.39	39	.09	2	1.05	.01	.05	1	1
B-J-031	1	19	8	66	.1	49	8	184	3.05	3	5	ND	1	14	1	2	3	52	.14	.092	9	146	.60	62	.12	6	1.43	.01	.04	1	1
B-J-032	1	70	11	54	.1	51	12	238	2.90	2	5	ND	1	18	1	2	2	58	.18	.040	13	118	1.37	27	.18	2	2.18	.01	.02	2	1
B-J-033	1	29	7	61	.1	66	11	189	3.67	2	5	ND	2	16	1	2	2	70	.13	.041	8	185	1.16	31	.19	5	2.04	.01	.02	1	1
B-J-034	1	16	15	36	.1	42	7	119	2.81	2	5	ND	1	15	1	2	2	55	.10	.043	7	127	.68	23	.12	3	1.33	.01	.05	2	1
B-J-035	1	22	15	41	.1	33	6	101	2.19	7	5	ND	3	8	1	2	2	41	.09	.023	6	70	.35	22	.09	3	.97	.01	.03	2	1
B-J-036	1	23	12	73	.1	39	8	226	1.90	2	5	ND	1	13	1	2	2	34	.14	.020	11	86	.54	56	.11	7	1.14	.01	.04	1	1
[illegible]	[illegible]																														
													40	48	17	17	19	61	.46	.003	41	62	.88	190	.07	33	1.72	.07	.13	14	68

IMPERIAL METALS PROJECT-7112 FILE # 88-1493

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB
B-J-037	1	9	8	65	.2	10	5	60	1.05	2	5	ND	3	7	1	2	3	28	.08	.020	8	20	.16	25	.08	2	1.01	.01	.04	1	1
B-J-038	1	19	11	81	.3	24	6	96	3.00	5	5	ND	4	10	1	2	2	40	.11	.033	7	36	.24	25	.11	2	1.37	.01	.06	1	2
B-J-040	1	15	17	99	.1	25	8	100	2.66	2	7	ND	5	8	1	2	3	34	.09	.037	8	33	.26	40	.10	2	2.04	.01	.04	1	1
B-J-041	1	20	19	66	.1	20	7	129	2.09	9	5	ND	5	10	1	2	2	33	.08	.024	7	26	.25	36	.11	3	1.18	.01	.05	1	1
B-J-042	1	17	18	91	.2	32	7	126	2.58	3	7	ND	3	10	1	2	2	37	.10	.039	9	32	.20	46	.10	8	2.35	.01	.05	1	1
B-J-043	1	13	13	44	.1	19	4	115	2.33	7	5	ND	4	10	1	2	2	47	.08	.027	7	24	.15	28	.12	2	1.10	.01	.04	3	2
B-J-044	1	11	17	79	.1	25	8	89	2.12	2	5	ND	3	9	1	2	2	33	.09	.031	8	32	.22	40	.10	2	2.47	.01	.02	1	1
B-J-045	1	8	12	99	.1	19	5	99	2.00	5	5	ND	2	9	1	2	2	27	.08	.032	7	20	.12	39	.07	2	1.76	.01	.04	1	1
B-J-046	1	6	7	99	.1	19	5	97	1.73	5	5	ND	2	10	1	2	3	27	.09	.034	8	23	.12	48	.08	2	1.79	.01	.03	1	1
B-J-047	1	10	15	64	.2	15	3	48	1.04	2	6	ND	4	8	1	2	2	29	.07	.023	7	23	.10	28	.08	2	1.68	.01	.05	1	2
B-J-048	1	7	16	62	.2	17	4	75	2.05	2	5	ND	4	11	1	2	2	44	.10	.026	8	29	.13	37	.12	4	1.96	.01	.04	1	1
B-J-049	1	9	9	98	.1	21	5	93	1.85	3	5	ND	4	11	1	3	3	28	.11	.033	8	29	.24	59	.09	2	1.90	.01	.03	1	1
B-J-050	1	20	16	125	.1	30	7	226	2.76	6	5	ND	4	10	1	2	2	39	.11	.060	7	33	.32	48	.11	2	1.75	.01	.07	1	1
B-J-051	1	12	12	91	.2	20	7	156	2.56	4	5	ND	4	9	1	3	5	41	.08	.056	8	28	.19	38	.10	9	1.50	.01	.05	1	1
B-J-052	1	12	13	86	.1	17	5	175	1.67	2	5	ND	3	10	1	2	2	27	.09	.054	8	20	.12	40	.08	3	1.29	.01	.04	1	1
B-J-053	1	7	10	124	.1	17	7	207	1.93	2	5	ND	2	10	1	2	2	29	.09	.055	7	25	.18	42	.08	2	1.48	.01	.03	1	1
B-J-054	1	9	17	177	.1	23	9	217	1.88	2	5	ND	3	11	1	2	3	29	.10	.036	8	29	.24	39	.09	2	1.67	.01	.03	3	1
B-J-055	1	7	10	122	.1	24	7	114	2.03	2	7	ND	4	9	1	2	3	30	.10	.030	9	30	.21	37	.09	2	2.13	.01	.05	1	1
B-J-056	1	9	11	106	.1	26	9	117	1.53	5	5	ND	3	10	1	2	2	24	.11	.025	9	28	.18	34	.08	2	1.74	.01	.04	1	1
B-J-057	1	8	16	110	.1	17	6	318	1.59	2	5	ND	3	9	1	2	7	25	.09	.018	9	22	.17	35	.08	2	1.32	.01	.05	1	1
B-J-058	1	10	15	107	.1	27	7	127	2.43	3	5	ND	3	11	1	2	5	35	.11	.030	8	33	.31	40	.10	2	1.90	.01	.05	1	1
B-J-059	1	14	15	161	.1	29	7	125	2.18	2	6	ND	4	11	1	2	4	32	.10	.017	7	28	.26	33	.10	2	1.31	.01	.07	2	1
B-J-060	1	12	18	98	.1	24	5	108	2.23	6	5	ND	2	11	1	2	3	38	.11	.022	8	35	.24	41	.11	2	1.44	.01	.06	1	2
B-J-061	1	10	10	94	.1	22	5	96	2.17	5	5	ND	2	10	1	2	2	30	.08	.014	7	24	.20	27	.10	6	.96	.01	.04	1	1
B-J-062	1	12	32	145	.1	21	7	146	3.06	2	5	ND	3	16	1	2	2	53	.21	.027	8	26	.33	45	.15	5	1.65	.01	.07	1	2
B-J-063	1	7	11	103	.1	18	5	58	2.32	2	5	ND	2	8	1	2	4	41	.08	.019	8	24	.13	30	.11	4	1.57	.01	.04	1	1
B-J-064	1	6	15	45	.1	15	2	52	.72	3	5	ND	2	9	1	2	2	17	.07	.018	7	13	.08	17	.06	2	.55	.01	.04	2	1
B-J-065	1	6	11	59	.1	15	4	45	1.11	4	5	ND	2	7	1	2	2	21	.06	.010	7	14	.08	20	.07	2	.79	.01	.03	1	1
B-J-066	1	18	17	78	.1	23	4	70	2.61	3	5	ND	8	7	1	2	2	46	.06	.010	14	30	.17	19	.13	4	.84	.01	.08	1	340
B-J-067	1	6	7	35	.1	11	3	101	1.12	2	5	ND	2	6	1	2	2	22	.08	.021	6	15	.10	12	.06	2	.67	.01	.01	2	1
B-J-068	1	7	6	71	.1	14	3	199	1.17	2	5	ND	2	7	1	2	2	19	.07	.024	7	15	.07	20	.05	2	.88	.01	.02	1	1
B-J-069	1	5	10	43	.1	9	2	70	1.58	2	5	ND	3	6	1	2	2	25	.05	.015	7	17	.07	16	.06	2	.85	.01	.01	2	1
B-J-070	1	15	36	168	.2	24	8	107	3.12	7	5	ND	6	8	1	2	3	39	.09	.062	13	40	.26	23	.11	2	2.24	.01	.04	3	620
B-J-071	1	21	50	305	.2	35	26	137	1.04	2	6	ND	3	11	1	2	2	18	.11	.012	15	22	.21	23	.08	2	.93	.01	.04	1	1
B-J-072	2	25	20	47	.1	56	13	638	3.33	3	5	ND	6	14	1	2	2	44	.28	.023	11	55	.79	90	.14	4	2.80	.01	.08	2	2
B-J-073	1	18	11	63	.2	39	9	131	2.42	6	5	ND	3	10	1	2	3	32	.12	.048	8	40	.28	42	.09	2	2.36	.01	.06	2	1
STD C/AU-S	22	62	44	132	7.7	76	31	1053	4.12	43	21	8	41	52	20	17	24	62	.47	.098	37	60	.89	184	.08	38	1.96	.08	.15	15	48

IMPERIAL METALS PROJECT-7112 FILE # 88-1493

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB
B-J-074	1	15	10	45	.2	24	6	100	2.34	2	0	ND	4	9	1	2	2	45	.10	.044	10	53	.32	49	.10	2	1.99	.01	.07	1	1
B-J-075	1	21	14	49	.3	29	0	136	2.40	2	7	ND	6	12	1	2	2	62	.15	.060	10	46	.28	30	.09	5	1.62	.01	.07	1	320
B-J-076	1	10	24	66	.3	24	6	109	2.00	6	7	ND	4	8	1	2	2	36	.10	.041	10	32	.21	26	.09	4	1.26	.01	.06	1	1
B-J-077	1	17	12	31	.2	10	2	79	1.19	6	7	ND	1	7	1	2	2	22	.06	.012	6	16	.12	21	.07	4	.42	.01	.08	1	1
B-J-078	1	12	13	40	.2	20	6	75	2.17	2	5	ND	2	7	1	2	6	36	.07	.010	7	27	.19	29	.10	4	1.11	.01	.08	2	1
B-J-079	1	13	17	50	.1	26	8	113	2.07	3	5	ND	2	8	1	2	2	37	.08	.015	7	33	.32	31	.11	7	1.11	.01	.09	1	1
B-J-080	1	6	7	17	.2	13	4	68	1.51	4	5	ND	2	6	1	2	2	32	.04	.011	5	19	.14	22	.09	11	.50	.01	.07	1	1
B-J-081	1	11	17	52	.1	26	9	155	2.05	2	5	ND	1	12	1	2	2	32	.12	.021	8	34	.34	49	.10	3	1.39	.01	.06	1	1
B-J-082	1	39	21	35	.2	36	10	119	2.25	6	5	ND	3	9	1	2	2	33	.11	.012	14	38	.53	33	.12	2	1.52	.01	.07	2	21
B-J-083	1	21	22	32	.1	23	5	83	3.40	6	5	ND	3	7	1	2	4	62	.06	.020	8	38	.29	28	.16	12	1.40	.01	.06	1	5
B-J-084	1	19	27	74	.1	25	19	491	2.54	8	5	ND	2	10	1	2	5	49	.10	.034	10	44	.30	38	.10	6	1.37	.01	.08	1	2
B-J-085	1	15	14	38	.1	18	6	100	2.44	5	5	ND	3	9	1	2	2	46	.08	.020	11	33	.21	31	.12	6	1.45	.01	.04	1	1
B-J-086	1	11	19	32	.1	19	6	100	2.07	3	5	ND	3	8	1	2	2	36	.07	.019	9	34	.33	26	.10	2	1.71	.01	.04	1	1
B-J-087	1	11	9	26	.1	19	8	100	2.20	2	5	ND	2	9	1	3	2	41	.09	.017	10	35	.29	36	.11	2	1.65	.01	.04	1	17
B-J-088	1	19	15	56	.1	24	7	254	2.32	2	5	ND	1	10	1	2	2	35	.11	.064	7	36	.32	44	.09	4	1.36	.01	.05	1	1
B-J-089	1	18	16	61	.1	25	9	179	2.01	3	5	ND	1	10	1	2	4	30	.11	.086	9	37	.41	30	.08	2	1.73	.01	.03	1	1
B-J-090	1	16	20	49	.1	24	7	89	2.01	6	5	ND	4	9	1	2	2	45	.08	.033	9	42	.29	37	.11	2	2.03	.01	.05	1	1
B-J-091	1	27	17	43	.1	31	6	82	1.81	7	5	ND	3	8	1	2	2	33	.07	.013	8	30	.25	22	.09	7	.98	.01	.05	1	7
B-J-092	1	15	11	29	.1	26	5	116	1.21	6	5	ND	4	11	1	2	2	22	.12	.029	11	34	.22	34	.07	8	1.15	.01	.05	2	1
B-J-093	1	16	15	49	.1	24	5	157	2.00	3	5	ND	3	10	1	2	2	35	.11	.046	10	37	.21	35	.09	8	1.43	.01	.05	1	1
B-J-094	1	17	17	42	.2	20	4	91	2.50	7	5	ND	3	8	1	2	2	46	.09	.045	9	47	.22	29	.09	7	2.13	.01	.06	1	1
B-J-095	1	22	16	52	.1	31	8	177	1.91	3	5	ND	4	10	1	2	2	34	.12	.040	13	48	.41	42	.10	7	1.75	.01	.05	1	3
B-J-096	1	14	16	36	.1	30	4	94	2.52	4	5	ND	1	9	1	4	2	54	.08	.027	9	46	.33	46	.13	4	1.28	.01	.09	2	1
B-J-097	1	16	17	63	.1	35	10	109	3.11	4	5	ND	2	9	1	2	2	52	.11	.029	9	56	.52	57	.12	3	2.70	.01	.07	1	1
B-J-098	1	20	20	64	.1	42	10	220	2.75	5	5	ND	2	10	1	2	2	40	.12	.061	11	54	.35	45	.09	2	2.78	.01	.04	1	1
B-J-099	1	16	15	61	.1	24	5	130	2.45	3	5	ND	1	10	1	3	2	41	.10	.047	10	38	.18	39	.09	2	1.58	.01	.05	2	240
B-J-100	1	15	14	57	.1	39	8	189	2.41	3	5	ND	4	11	1	2	2	43	.14	.057	14	53	.34	42	.10	2	1.94	.01	.06	1	4
B-J-101	1	4	10	19	.1	30	7	87	1.50	2	5	ND	3	9	1	2	2	28	.10	.026	11	35	.17	30	.07	2	1.62	.01	.02	2	1
B-J-102	1	18	23	167	.1	28	8	416	2.16	4	5	ND	3	11	1	3	2	30	.13	.090	10	42	.53	48	.11	5	1.27	.01	.18	1	1
B-J-103	1	17	24	101	.1	21	6	102	3.11	10	5	ND	4	7	1	3	2	51	.07	.070	8	37	.42	38	.14	2	1.48	.01	.06	1	1
B-J-104	1	12	21	72	.1	32	7	84	2.33	3	5	ND	3	11	1	2	2	34	.09	.038	11	34	.23	52	.09	3	1.71	.01	.05	1	1
B-J-105	1	18	20	69	.1	32	8	179	2.36	5	5	ND	1	11	1	3	5	35	.11	.030	9	36	.32	41	.10	2	1.46	.01	.02	1	1
B-J-106	1	14	18	53	.1	22	6	119	1.57	3	5	ND	1	10	1	2	2	30	.10	.023	8	33	.26	28	.08	4	1.18	.01	.04	1	270
B-J-107	1	17	17	52	.1	23	6	119	1.98	4	5	ND	2	9	1	2	2	37	.09	.024	9	33	.23	29	.09	4	1.30	.01	.03	1	2
B-J-108	1	18	19	40	.1	22	8	123	2.06	3	5	ND	1	10	1	2	2	33	.10	.022	10	36	.38	26	.10	2	1.63	.01	.04	1	1
B-J-109	1	19	22	69	.1	35	11	190	2.56	4	5	ND	4	9	1	2	2	37	.10	.028	11	52	.54	33	.12	2	2.26	.01	.03	1	1
STD C/AU-S	20	64	43	128	6.8	73	32	1055	3.73	42	21	8	40	53	18	17	25	64	.46	.089	40	63	.89	184	.08	33	1.75	.07	.17	13	48

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB
B-J-110	1	18	15	36	.1	17	7	74	2.30	3	5	ND	3	5	1	2	2	36	.05	.020	9	30	.19	28	.08	5	1.77	.01	.01	2	1
B-J-111	1	15	16	35	.1	12	4	70	2.70	2	5	ND	3	7	1	2	7	56	.07	.041	11	28	.12	24	.12	5	1.21	.01	.03	1	1
B-J-113	1	31	16	43	.2	20	5	955	1.85	9	5	ND	2	9	1	2	6	36	.09	.031	12	28	.15	52	.08	6	.62	.01	.05	3	450
B-J-115	1	14	4	39	.1	13	8	280	2.10	6	5	ND	3	9	1	2	2	37	.11	.047	8	37	.21	20	.08	2	.81	.01	.04	1	563
B-J-117	1	4	6	14	.1	4	1	40	1.22	2	5	ND	5	6	1	2	2	25	.06	.022	13	15	.05	22	.06	2	.80	.01	.02	1	1
B-J-119	1	9	4	23	.1	18	7	95	1.84	4	5	ND	3	7	1	2	2	26	.10	.043	10	31	.15	18	.07	4	1.05	.01	.03	1	1
B-J-121	1	23	9	119	.1	29	10	177	2.73	2	5	ND	4	10	1	2	2	37	.13	.131	12	48	.39	35	.10	2	1.08	.01	.05	1	1
B-J-123	1	22	23	113	.3	36	24	317	2.35	10	5	ND	3	9	1	2	6	34	.10	.042	14	39	.28	38	.09	2	1.79	.01	.06	1	5
B-J-124	1	42	43	138	.1	37	25	588	2.24	35	5	ND	2	19	1	2	2	35	.19	.043	22	30	.27	53	.08	2	1.71	.01	.04	1	1
B-J-125	1	23	11	43	.1	12	2	59	1.60	12	5	ND	2	6	1	2	2	26	.05	.017	6	15	.11	22	.07	4	.47	.01	.04	2	1
B-J-127	1	7	7	23	.1	6	3	35	.83	5	5	ND	1	5	1	2	2	16	.04	.012	5	10	.06	16	.04	2	.31	.01	.01	2	1
B-J-129	1	19	15	79	.3	27	9	634	1.70	12	5	ND	3	9	1	2	2	27	.09	.025	7	25	.24	53	.08	2	.95	.01	.06	1	1
B-J-131	1	14	15	72	.1	12	5	268	2.07	4	5	ND	2	7	1	2	2	34	.05	.027	7	19	.14	36	.10	6	.74	.01	.06	1	1
B-J-133	3	22	23	64	.1	20	19	397	2.73	16	5	ND	2	11	1	2	2	48	.11	.030	10	35	.33	34	.12	2	1.35	.01	.05	1	2
B-J-134	1	23	21	57	.1	23	9	258	2.39	20	5	ND	2	11	1	2	5	52	.16	.030	7	32	.27	29	.12	4	1.33	.01	.04	1	1
B-J-135	1	17	15	31	.2	16	6	91	2.34	12	5	ND	3	5	1	2	2	52	.04	.012	5	31	.44	32	.19	4	1.06	.01	.14	1	1
B-J-137	1	27	11	71	.1	28	9	142	2.55	5	5	ND	7	8	1	2	2	38	.09	.023	8	39	.34	26	.10	3	2.02	.01	.03	1	1
B-K-001	1	26	24	74	.1	24	7	89	2.50	5	5	ND	7	7	1	2	2	41	.07	.025	11	32	.19	19	.10	3	1.34	.01	.03	1	1
B-K-002	1	13	17	115	.1	20	7	236	2.06	4	5	ND	1	9	1	3	3	35	.09	.027	7	25	.20	42	.09	6	.92	.01	.03	1	1
B-K-003	1	13	22	60	.2	12	5	75	1.80	4	7	ND	2	7	1	2	4	31	.06	.026	8	21	.14	21	.06	2	1.11	.01	.03	1	1
B-K-004	1	23	28	54	.1	16	3	65	1.91	12	5	ND	2	7	1	3	5	41	.05	.025	7	20	.10	26	.08	3	.64	.01	.03	1	91
B-K-005	1	14	16	26	.1	12	3	45	2.01	5	5	ND	3	6	1	2	4	37	.05	.015	9	25	.10	23	.07	5	1.30	.01	.03	2	2
B-K-006	2	11	17	52	.2	13	5	61	3.20	7	5	ND	3	6	1	2	2	54	.06	.026	7	32	.20	29	.13	8	1.48	.01	.03	1	2
B-K-007	1	17	12	85	.1	23	11	230	2.68	7	5	ND	3	9	1	2	7	33	.09	.044	11	33	.27	34	.09	2	1.89	.01	.04	1	1
B-K-008	1	14	14	90	.1	20	8	364	2.04	3	5	ND	1	8	1	2	2	30	.08	.039	7	31	.25	35	.08	2	1.65	.01	.03	1	2
B-K-009	1	11	13	113	.1	21	7	356	1.99	2	5	ND	2	9	1	2	2	29	.09	.040	7	30	.25	38	.08	3	1.85	.01	.03	1	1
B-K-010	1	16	20	59	.1	12	6	134	1.84	3	5	ND	3	7	1	2	2	26	.06	.040	9	22	.13	25	.07	2	1.34	.01	.03	1	1
B-K-011	1	15	26	47	.1	20	6	103	1.97	9	5	ND	1	8	1	2	2	30	.09	.032	8	33	.28	18	.09	2	1.57	.01	.02	1	2
B-K-012	1	11	15	49	.1	18	5	98	2.41	2	5	ND	4	8	1	2	2	31	.08	.048	8	32	.22	19	.09	2	2.24	.01	.03	2	23
B-K-013	1	16	28	39	.1	14	6	75	3.18	10	5	ND	5	6	1	2	2	41	.06	.066	7	42	.16	21	.09	4	2.52	.01	.03	3	1
B-K-014	1	7	13	26	.1	8	4	57	2.02	3	5	ND	1	7	1	2	2	39	.07	.010	5	20	.09	18	.10	2	.69	.01	.01	1	1
B-K-015	1	15	11	62	.1	16	5	156	2.46	6	5	ND	1	9	1	2	2	43	.08	.010	6	26	.18	33	.12	3	1.02	.01	.03	1	1
B-K-016	2	25	20	26	.1	14	5	68	3.01	9	5	ND	3	7	1	2	4	59	.06	.011	5	30	.19	18	.15	7	1.13	.01	.01	1	2
B-K-017	1	7	8	76	.1	58	7	155	4.23	8	5	ND	2	8	1	2	2	39	.10	.010	3	55	2.34	82	.20	2	2.84	.01	.60	1	1
B-K-018	2	10	9	40	.1	15	4	104	2.25	9	5	ND	3	7	1	2	5	33	.07	.018	6	23	.27	41	.10	2	.80	.01	.12	1	1
B-K-019	1	19	11	38	.1	18	7	131	2.20	7	5	ND	3	8	1	2	2	32	.08	.020	7	32	.25	19	.09	2	1.60	.01	.02	2	1
STD C/AU-S	21	62	43	132	7.6	71	31	1052	4.11	43	24	8	40	52	19	17	24	62	.46	.095	42	61	.88	193	.08	34	1.92	.08	.15	13	48

IMPERIAL METALS PROJECT-7112 FILE # 88-1493

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB
B-E-020	1	16	14	142	.1	21	4	233	1.87	4	5	ND	1	11	1	2	3	27	.11	.031	8	27	.25	46	.08	2	1.16	.01	.05	1	1
B-E-021	1	11	24	41	.1	12	4	45	1.84	3	5	ND	1	9	1	2	2	32	.07	.015	8	18	.07	22	.08	2	.76	.01	.03	1	1
B-E-022	1	17	16	103	.1	24	6	110	2.27	8	5	ND	3	8	1	2	2	30	.09	.039	8	34	.15	29	.07	3	2.13	.01	.03	1	1
B-E-023	1	11	11	23	.1	12	2	43	1.75	2	5	ND	2	8	1	2	3	46	.06	.011	6	24	.08	17	.10	4	.94	.01	.02	2	1
B-E-024	1	11	11	33	.1	7	3	38	2.01	10	5	ND	2	8	1	2	2	44	.06	.011	8	20	.09	15	.10	5	.63	.01	.05	1	1
B-E-025	1	16	10	47	.1	21	5	144	1.82	5	5	ND	1	11	1	3	2	36	.10	.014	6	20	.23	30	.09	2	.67	.01	.07	1	1
B-E-026	2	13	10	39	.2	15	7	325	1.70	6	5	ND	2	10	1	3	6	37	.09	.010	6	24	.19	28	.10	2	.72	.01	.06	1	1
B-E-027	1	17	11	113	.1	25	7	296	2.66	3	5	ND	3	12	1	2	8	39	.12	.049	9	34	.25	42	.10	2	1.35	.01	.05	1	2
B-E-028	1	20	15	81	.1	24	8	626	2.50	9	5	ND	1	12	1	2	2	38	.12	.049	7	32	.26	53	.09	2	1.07	.01	.06	1	1
B-E-029	1	23	19	135	.1	29	11	269	2.95	4	5	ND	3	13	1	2	2	42	.11	.051	7	45	.41	52	.11	6	1.77	.01	.05	1	1
B-E-030	1	34	10	115	.1	31	9	656	2.31	4	5	ND	3	13	1	2	2	35	.12	.049	7	35	.34	60	.09	2	1.13	.01	.04	1	1
B-E-031	1	11	13	41	.1	7	2	94	1.64	3	5	ND	1	9	1	3	5	30	.07	.066	9	19	.10	31	.06	5	.63	.01	.07	1	2
B-E-032	1	11	10	48	.1	11	7	576	1.45	3	5	ND	1	8	1	2	2	27	.07	.035	7	17	.09	36	.07	2	.49	.01	.02	1	1
B-E-033	1	12	16	58	.1	13	4	122	2.47	5	5	ND	1	9	1	3	2	38	.07	.034	7	29	.17	27	.09	5	1.00	.01	.02	1	1
B-E-034	1	10	19	50	.1	11	4	53	2.44	5	5	ND	3	9	1	3	2	42	.07	.027	7	23	.09	24	.11	2	.97	.01	.04	1	2
B-E-035	1	16	25	93	.1	17	6	129	2.36	4	5	ND	1	11	1	2	5	41	.08	.040	8	31	.19	38	.10	2	.90	.01	.06	1	1
B-E-036	1	15	19	67	.1	9	5	58	2.10	5	5	ND	1	8	1	2	2	41	.06	.020	6	22	.10	24	.08	3	.74	.01	.03	1	1
B-E-037	1	24	16	52	.2	19	5	112	2.47	8	5	ND	2	9	1	2	2	42	.07	.021	8	29	.16	30	.10	6	.73	.01	.03	1	2
B-E-038	1	10	11	42	.1	8	4	61	1.15	3	5	ND	2	9	1	2	2	40	.07	.010	8	16	.10	22	.12	3	.54	.01	.04	1	1
B-E-039	1	16	15	76	.2	16	5	171	2.10	7	5	ND	2	9	1	2	2	30	.08	.020	7	26	.13	36	.07	4	1.23	.01	.05	1	1
B-E-040	1	31	14	75	.1	29	8	158	2.07	6	5	ND	3	11	1	2	4	33	.12	.023	9	39	.41	31	.09	4	1.50	.01	.06	1	1
B-E-041	1	32	19	106	.2	36	11	246	2.76	7	5	ND	3	12	1	2	2	41	.12	.023	9	41	.40	35	.11	5	1.39	.01	.07	1	1
B-E-042	1	13	8	37	.2	11	5	37	2.27	5	5	ND	3	7	1	4	6	51	.05	.013	8	19	.08	18	.10	2	.73	.01	.04	1	2
B-E-043	1	20	19	101	.1	17	6	107	2.64	7	5	ND	3	10	1	2	2	41	.08	.025	7	30	.24	28	.10	2	.98	.01	.05	1	1
B-E-044	1	10	7	70	.1	16	5	89	1.57	2	5	ND	2	9	1	2	2	28	.13	.041	9	29	.14	14	.07	2	1.16	.01	.01	1	1
B-E-045	1	17	13	79	.1	23	7	153	2.70	5	5	ND	7	10	1	2	2	56	.11	.032	13	41	.27	24	.13	2	1.15	.01	.05	1	1
B-E-046	1	15	15	76	.1	21	14	323	1.98	2	5	ND	3	9	1	2	2	34	.10	.013	24	36	.33	30	.10	3	1.05	.01	.02	1	1
B-E-047	1	8	7	40	.1	10	3	92	1.19	3	5	ND	5	10	1	4	2	33	.08	.013	12	20	.13	28	.10	2	.47	.01	.05	2	1
B-E-048	1	18	17	61	.2	24	8	112	2.00	3	5	ND	2	11	1	2	2	39	.12	.019	8	85	.42	23	.12	2	.99	.01	.04	1	1
B-E-049	1	26	16	119	.1	24	7	186	3.17	6	5	ND	3	13	1	2	2	53	.16	.066	12	50	.31	57	.13	4	1.09	.01	.06	1	47
B-E-050	1	22	7	58	.1	40	8	155	2.46	3	5	ND	3	26	1	2	5	47	.21	.021	9	109	.78	32	.18	2	1.30	.01	.06	1	2
B-E-051	1	32	13	30	.1	25	6	102	1.82	3	5	ND	4	11	1	3	2	36	.14	.021	12	60	.61	26	.10	7	1.02	.01	.02	1	1
B-E-052	1	16	10	34	.1	28	7	143	1.88	4	5	ND	1	33	1	2	4	52	.21	.016	8	79	.71	41	.20	2	1.04	.01	.04	1	1
B-E-053	1	12	12	17	.9	12	4	63	1.06	6	5	ND	3	13	1	2	2	27	.10	.012	12	30	.17	21	.09	2	.40	.01	.02	1	5
B-E-054	2	26	11	58	.1	37	11	182	4.36	4	5	ND	4	18	1	2	3	78	.11	.020	9	94	.77	63	.20	16	2.02	.01	.12	1	3
B-E-055	1	7	16	21	.1	9	4	46	2.60	3	5	ND	2	9	1	3	4	57	.06	.010	10	26	.11	19	.11	2	.77	.01	.05	1	335
STD C/AU-S	20	63	44	128	7.1	69	28	1043	4.05	45	24	8	39	53	18	16	23	63	.46	.091	40	60	.88	184	.08	32	1.72	.07	.16	13	47

IMPERIAL METALS PROJECT-7112 FILE # 88-1493

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPB	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB
B-E-056	1	16	15	69	.1	13	7	124	3.08	5	5	ND	5	8	1	2	2	53	.07	.030	13	31	.16	37	.12	3	.88	.01	.05	1	310
B-E-057	1	17	19	28	.1	12	5	55	1.89	2	5	ND	2	8	1	2	3	39	.08	.013	9	23	.12	19	.11	4	.56	.01	.01	1	1
B-E-058	1	24	17	35	.1	22	8	89	1.86	3	5	ND	6	8	1	2	2	30	.08	.013	10	37	.29	18	.09	2	1.10	.01	.04	1	1
B-E-059	1	20	18	53	.2	14	6	50	3.13	5	5	ND	3	6	1	2	2	51	.05	.033	7	33	.13	25	.10	2	1.38	.01	.05	1	1
B-E-060	1	12	10	36	.1	6	4	57	1.71	5	5	ND	1	6	1	2	2	34	.04	.025	6	16	.08	20	.07	3	.53	.01	.05	1	2
B-E-061	1	16	18	46	.1	5	4	53	1.64	5	5	ND	1	6	1	2	4	30	.04	.016	14	17	.11	23	.08	2	.66	.01	.03	1	1
B-E-062	1	15	19	63	.1	15	6	61	2.10	4	5	ND	5	7	1	3	3	32	.06	.022	8	29	.17	23	.07	4	1.21	.01	.03	1	1
B-E-063	1	25	32	58	.2	17	7	54	3.29	8	5	ND	15	6	1	2	2	34	.06	.029	8	45	.18	22	.08	4	2.04	.01	.03	1	1
B-E-064	1	18	15	59	.1	19	6	145	2.04	4	5	ND	3	9	1	2	2	39	.09	.024	8	35	.24	28	.10	3	.94	.01	.05	1	32
B-E-065	1	10	15	111	.1	15	6	99	2.70	5	5	ND	3	8	1	2	2	42	.08	.023	8	35	.17	29	.10	5	1.42	.01	.03	1	1
B-E-066	1	29	12	64	.1	16	7	116	3.00	8	5	ND	1	8	1	2	2	51	.08	.014	6	31	.18	25	.13	9	.81	.01	.05	1	1
B-E-067	1	33	15	62	.1	25	8	68	2.15	4	5	ND	2	10	1	2	2	30	.10	.014	8	31	.23	34	.08	7	1.52	.01	.04	1	1
B-E-068	1	12	9	63	.1	12	5	62	2.03	3	5	ND	2	8	1	2	2	35	.09	.010	7	30	.19	22	.10	4	1.00	.01	.05	1	1
B-E-069	1	16	10	53	.1	10	5	61	1.10	3	5	ND	1	9	1	2	2	24	.08	.005	7	16	.14	17	.07	6	.42	.01	.02	1	2
B-E-070	1	9	6	30	.1	7	3	79	1.10	2	5	ND	1	8	1	2	2	29	.07	.008	7	15	.11	20	.07	2	.42	.01	.04	1	1
B-E-071	1	15	13	38	.1	7	4	73	2.57	2	5	ND	1	8	1	2	2	45	.07	.019	8	23	.10	26	.10	6	.86	.01	.02	1	1
B-E-072	1	15	21	79	.1	16	6	142	2.30	5	5	ND	2	8	1	2	2	40	.08	.015	7	32	.22	25	.10	2	1.11	.01	.05	1	1
B-E-073	1	50	21	40	.1	22	7	131	2.36	4	5	ND	4	9	1	3	2	40	.12	.020	10	39	.36	17	.10	13	1.11	.01	.02	1	1
B-E-074	1	15	13	47	.2	15	5	61	2.60	5	5	ND	2	6	1	2	2	41	.06	.021	6	42	.18	27	.09	7	1.56	.01	.03	1	1
B-E-075	1	19	34	58	.2	19	6	65	2.54	6	5	ND	3	6	1	2	2	33	.06	.025	8	38	.22	21	.07	4	1.98	.01	.04	1	1
B-E-076	1	11	9	63	.1	16	7	90	2.21	2	5	ND	2	7	1	3	2	30	.07	.028	7	36	.20	31	.07	5	1.88	.01	.01	1	4
B-E-077	1	10	9	28	.1	2	3	32	2.29	6	5	ND	1	5	1	2	4	38	.03	.019	6	19	.05	15	.07	5	.59	.01	.02	1	1
B-E-078	1	18	17	50	.1	10	6	62	3.06	7	5	ND	2	7	1	2	2	35	.07	.027	7	38	.17	20	.09	4	1.53	.01	.02	1	1
B-E-079	1	16	11	35	.1	15	7	74	2.77	9	5	ND	2	6	1	2	3	50	.06	.010	7	34	.18	18	.10	6	.86	.01	.02	2	1
B-E-080	1	6	7	12	.1	3	4	37	1.17	2	5	ND	2	4	1	2	2	28	.03	.007	5	14	.04	16	.06	3	.32	.01	.01	1	1
B-E-081	1	9	7	24	.1	12	7	60	1.90	7	5	ND	1	4	1	2	2	46	.04	.011	5	23	.35	32	.15	5	.77	.01	.16	1	1
B-E-082	1	23	20	28	.1	18	4	62	2.05	5	5	ND	1	9	1	2	2	35	.05	.010	8	23	.48	43	.16	7	.85	.01	.17	1	1
B-E-083	2	33	32	71	.1	23	7	132	3.93	4	5	ND	7	6	1	2	2	40	.06	.031	8	48	.36	31	.15	6	2.28	.01	.10	1	1
B-E-084	1	21	20	66	.5	20	4	93	2.53	9	5	ND	1	7	1	2	2	29	.07	.029	8	32	.12	27	.08	5	1.44	.01	.04	1	2
B-E-085	1	24	21	65	.1	19	5	88	2.69	5	5	ND	2	6	1	2	2	36	.06	.026	7	32	.24	24	.09	5	1.07	.01	.04	1	1
B-E-086	2	20	14	57	.2	10	6	72	3.07	8	5	ND	2	6	1	2	2	50	.05	.034	5	34	.26	25	.14	4	.94	.01	.06	1	1
B-E-087	1	15	10	28	.4	6	3	48	1.57	2	5	ND	1	6	1	2	3	25	.04	.020	7	15	.13	24	.08	7	.65	.01	.07	2	1
B-E-088	1	26	18	70	.2	19	6	162	2.46	5	5	ND	1	9	1	2	2	39	.09	.049	7	29	.26	35	.10	4	.79	.01	.05	2	1
B-E-089	1	7	7	18	.1	4	2	47	.96	4	5	ND	1	6	1	2	2	16	.06	.010	7	11	.04	15	.04	4	.50	.01	.01	2	1
B-E-090	1	18	25	69	.4	11	5	109	1.57	5	5	ND	3	10	1	2	2	30	.09	.014	11	21	.17	33	.10	7	.58	.01	.05	1	1
B-E-091	1	14	18	63	.2	13	8	161	1.18	3	5	ND	2	10	1	2	3	21	.10	.009	13	20	.15	22	.08	5	.64	.01	.02	2	1
STD C/AU-S	19	64	40	130	7.5	65	28	1033	4.01	39	17	7	38	50	17	17	19	60	.45	.084	41	63	.87	189	.07	33	1.76	.07	.13	14	49

IMPERIAL METALS PROJECT-7112 FILE # 88-1493

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB
B-E-092	1	20	41	40	.1	14	34	489	.85	3	5	ND	1	9	1	2	2	16	.05	.013	19	11	.08	31	.04	2	.67	.01	.03	1	1
B-E-093	1	9	18	34	.1	11	3	63	1.09	2	5	ND	3	6	1	2	5	35	.04	.017	6	21	.09	19	.06	2	1.02	.01	.01	1	1
B-E-094	1	21	26	54	.1	16	4	36	2.42	5	5	ND	4	5	1	2	3	39	.04	.027	7	27	.09	21	.07	2	1.56	.01	.03	1	1
B-E-095	1	13	37	70	.1	22	6	52	2.22	2	5	ND	4	6	1	2	2	33	.05	.029	9	32	.16	23	.07	2	2.07	.01	.03	1	2
B-E-096	1	40	35	82	.2	35	11	89	2.36	8	5	ND	6	8	1	3	2	33	.07	.017	12	33	.30	24	.09	2	1.28	.01	.06	1	1
B-E-097	1	22	27	57	.1	20	4	46	2.11	8	5	ND	7	8	1	3	6	33	.07	.013	9	22	.13	24	.08	4	1.03	.01	.04	1	1
B-E-098	1	24	31	63	.1	23	4	56	2.01	8	5	ND	6	9	1	3	4	31	.08	.012	10	20	.11	22	.09	2	.78	.01	.03	1	3
B-E-099	1	19	16	110	.2	34	7	175	2.25	2	5	ND	4	10	1	2	2	33	.12	.062	11	43	.36	38	.09	6	2.10	.01	.04	1	1
B-E-100	1	11	13	83	.1	16	6	230	2.29	2	5	ND	1	9	1	2	2	36	.10	.045	10	34	.19	32	.08	2	1.51	.01	.04	1	1
B-E-101	1	17	17	97	.1	29	7	123	2.43	4	5	ND	3	10	1	2	2	39	.09	.027	13	37	.25	26	.10	3	1.12	.01	.05	1	173
B-E-102	1	20	18	91	.1	21	8	99	2.91	4	5	ND	3	8	1	2	2	45	.08	.026	8	35	.25	25	.11	2	1.36	.01	.03	1	22
B-E-103	1	10	13	26	.1	11	2	34	1.02	8	5	ND	3	6	1	3	3	36	.05	.014	6	19	.06	17	.07	2	.78	.01	.03	2	1
B-E-104	1	10	22	85	.1	13	4	70	1.07	5	5	ND	2	8	1	2	2	37	.07	.013	6	23	.13	21	.07	2	.82	.01	.03	1	1
B-E-105	1	12	24	49	.1	16	3	59	2.33	5	5	ND	2	8	1	2	2	33	.07	.020	7	28	.15	26	.08	2	1.39	.01	.04	1	1
B-E-106	1	10	12	32	.3	14	4	124	1.22	5	5	ND	3	15	1	2	2	25	.12	.015	9	15	.14	27	.08	2	.81	.01	.03	1	1
B-E-107	1	14	10	49	.1	14	9	221	2.07	7	5	ND	3	9	1	2	6	32	.07	.022	7	26	.13	42	.08	2	.97	.01	.04	1	2
B-E-108	1	9	15	38	.1	12	2	48	1.29	3	5	ND	1	7	1	2	2	23	.06	.017	8	16	.06	25	.05	2	1.07	.01	.02	1	1
B-E-109	1	21	15	59	.1	17	6	235	2.72	6	5	ND	1	9	1	2	2	43	.07	.023	5	29	.17	34	.09	2	1.03	.01	.03	1	1
B-E-110	1	14	12	53	.1	14	5	215	2.43	7	5	ND	1	10	1	2	4	42	.07	.029	7	25	.11	36	.10	3	.91	.01	.04	1	1
B-E-111	1	14	7	34	.1	14	3	82	1.69	4	5	ND	2	7	1	2	2	33	.06	.015	6	16	.09	23	.07	2	.61	.01	.03	1	1
B-E-112	1	13	14	50	.1	20	6	131	2.32	3	5	ND	1	8	1	2	2	33	.07	.031	6	28	.13	33	.08	3	1.65	.01	.06	1	1
B-E-113	1	16	11	41	.1	18	6	81	2.49	7	5	ND	1	8	1	2	4	38	.07	.021	7	26	.13	34	.09	3	1.13	.01	.04	1	1
B-E-114	1	20	11	41	.1	19	6	112	3.03	3	5	ND	3	10	1	2	4	48	.08	.019	6	38	.27	37	.12	2	1.12	.01	.04	1	3
B-E-115	1	13	10	50	.1	20	6	260	1.92	6	5	ND	2	10	1	3	2	31	.09	.018	7	25	.17	32	.07	2	1.17	.01	.06	1	2
B-E-116	1	12	10	31	.1	14	3	91	1.84	2	5	ND	2	7	1	2	2	37	.06	.019	6	21	.10	23	.07	2	.95	.01	.01	2	2
B-E-117	1	9	10	44	.2	20	5	99	2.00	2	5	ND	2	8	1	3	3	28	.07	.023	8	33	.12	32	.07	2	1.39	.01	.04	1	4
B-E-118	1	19	14	66	.1	23	7	109	2.29	7	5	ND	3	9	1	4	2	36	.09	.033	7	36	.26	26	.09	2	1.55	.01	.04	1	1
B-E-119	1	9	10	35	.1	9	2	49	1.53	2	5	ND	2	7	1	2	2	27	.06	.013	7	16	.06	23	.07	2	.75	.01	.02	2	2
B-E-120	2	21	16	22	.1	17	4	41	3.59	11	5	ND	2	7	1	2	6	50	.06	.015	6	29	.07	20	.09	2	1.11	.01	.04	1	1
B-E-121	2	17	9	28	.1	21	5	61	2.52	3	5	ND	2	8	1	2	2	40	.08	.011	5	32	.18	22	.09	5	1.00	.01	.03	1	1
B-E-122	2	23	12	29	.1	25	5	146	2.09	8	5	ND	3	9	1	2	2	42	.09	.013	6	24	.19	34	.09	2	.66	.01	.04	1	1
B-E-123	1	24	15	87	.1	19	9	242	2.68	15	5	ND	2	8	1	2	5	41	.09	.022	7	32	.28	27	.11	4	1.13	.01	.06	1	2
B-E-124	1	9	12	50	.1	15	4	79	1.69	4	5	ND	1	8	1	2	3	27	.08	.015	8	21	.12	18	.07	2	.99	.01	.04	1	1
B-E-125	1	10	12	49	.1	13	2	65	2.26	3	5	ND	4	8	1	3	2	34	.08	.021	7	22	.08	21	.08	2	.83	.01	.03	1	1
B-E-126	1	25	12	47	.3	30	7	83	2.59	10	5	ND	4	10	1	2	2	33	.10	.025	10	38	.21	28	.08	2	1.58	.01	.04	1	1
B-E-127	1	17	12	77	.1	16	7	202	2.60	4	5	ND	3	9	1	2	2	43	.08	.022	7	34	.20	22	.09	2	.93	.01	.05	1	1
STD C/AU-S	19	61	42	131	7.4	71	31	1043	4.04	42	16	8	41	51	18	17	18	61	.46	.096	41	62	.87	192	.07	32	1.79	.07	.15	12	50

IMPERIAL METALS PROJECT-7112 FILE # 88-1493

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB
B-E-128	1	12	11	38	.1	16	5	96	1.53	5	5	ND	2	9	1	2	5	33	.08	.011	8	22	.14	22	.09	2	.58	.01	.05	1	1
B-E-129	1	6	10	13	.1	6	3	45	1.56	5	5	ND	2	7	1	2	2	56	.05	.011	8	16	.07	15	.11	2	.50	.01	.05	2	1
B-E-130	1	19	15	18	.2	19	6	72	2.49	3	5	ND	4	9	1	2	2	60	.06	.010	7	36	.21	17	.09	2	1.58	.01	.05	1	1
B-E-131	2	31	23	31	.2	29	10	71	2.59	2	5	ND	3	9	1	4	2	49	.09	.013	19	39	.22	25	.11	4	2.40	.01	.06	1	1
B-E-132	1	10	16	60	.5	17	6	75	2.30	2	5	ND	3	9	1	2	2	44	.08	.016	8	24	.13	30	.10	3	1.16	.01	.06	1	1
B-E-133	1	17	24	92	.2	18	7	130	3.13	2	5	ND	2	9	1	2	2	43	.09	.047	8	37	.24	33	.10	2	2.32	.01	.06	1	1
B-E-134	1	17	21	72	.1	17	7	161	2.84	3	5	ND	4	9	1	2	2	50	.08	.041	6	30	.18	26	.10	7	1.07	.01	.05	1	2
B-E-135	1	18	22	91	.1	18	5	140	2.50	6	5	ND	3	8	1	2	4	41	.08	.039	8	27	.12	27	.09	4	1.52	.01	.05	1	2
B-E-136	1	17	18	56	.1	18	4	311	1.39	2	5	ND	1	7	1	2	2	25	.06	.025	7	21	.13	31	.05	8	1.09	.01	.06	1	1
B-E-137	1	21	23	114	.1	22	9	176	2.82	4	5	ND	4	9	1	2	2	42	.09	.042	8	36	.22	34	.10	2	1.98	.01	.07	1	1
B-E-138	1	16	11	79	.2	16	6	320	1.92	3	5	ND	2	10	1	2	2	31	.09	.031	10	22	.14	33	.08	9	1.02	.01	.07	2	1
B-E-139	1	8	11	77	.2	22	7	138	1.90	2	5	ND	3	9	1	2	2	32	.09	.028	8	29	.19	33	.08	2	1.01	.01	.06	1	2
B-E-140	1	9	7	39	.1	6	5	50	1.45	2	5	ND	2	7	1	2	2	30	.05	.013	8	16	.08	19	.06	2	.93	.01	.04	2	1
B-E-141	1	36	20	56	.1	33	9	132	3.22	10	5	ND	5	11	1	2	2	58	.11	.016	8	46	.40	31	.14	5	1.39	.01	.08	1	2
B-E-142	1	13	21	154	.3	30	10	91	2.25	2	6	ND	3	9	1	2	2	36	.09	.024	9	33	.24	35	.10	3	1.96	.01	.06	1	1
B-E-143	1	16	18	53	.2	14	5	52	2.45	3	5	ND	3	7	1	2	2	39	.07	.022	8	26	.08	24	.09	3	1.91	.01	.05	1	1
B-E-144	1	15	7	66	.1	30	9	255	2.02	2	5	ND	2	11	1	2	2	53	.12	.025	10	56	.60	31	.15	2	1.26	.01	.07	1	1
B-E-146	1	12	12	59	.1	18	5	183	1.91	2	5	ND	1	10	1	2	2	35	.10	.030	10	25	.16	33	.08	5	1.03	.01	.04	1	1
B-E-148	1	56	22	103	.1	50	17	516	3.94	6	5	ND	9	13	1	2	2	73	.16	.077	11	84	.98	53	.17	2	1.86	.01	.09	1	2
B-E-150	1	18	12	81	.1	18	8	205	2.29	2	5	ND	2	11	1	2	2	41	.11	.039	9	33	.26	45	.10	10	1.29	.01	.05	1	1
B-E-152	1	11	8	61	.1	26	4	150	1.53	3	5	ND	1	10	1	2	2	23	.11	.036	10	27	.15	32	.07	6	1.59	.01	.07	1	2
B-E-154	1	12	16	69	.1	20	5	77	2.19	2	5	ND	2	11	1	3	2	32	.09	.024	11	24	.12	21	.10	3	.88	.01	.08	1	3
B-E-156	1	22	30	135	.3	33	8	153	3.16	4	5	ND	4	11	1	2	2	36	.12	.051	12	50	.36	29	.10	2	2.28	.01	.07	1	1
B-E-157	1	25	25	65	.2	18	6	76	2.44	2	5	ND	3	8	1	2	2	38	.07	.033	11	29	.16	18	.10	4	1.42	.01	.05	1	2
B-E-159	1	13	25	33	.1	9	4	34	.98	2	6	ND	2	8	1	2	2	30	.05	.013	12	12	.04	13	.09	2	.41	.01	.04	2	1
B-E-161	2	22	26	51	.1	17	4	67	2.16	10	5	ND	6	7	1	2	3	37	.06	.024	12	19	.21	33	.11	7	.63	.01	.11	1	1
B-E-163	1	8	10	23	.1	10	4	58	1.36	2	5	ND	3	5	1	2	2	37	.03	.015	7	32	.26	40	.09	2	.73	.01	.14	3	1
B-E-165	1	13	29	44	.1	9	4	64	2.50	2	5	ND	3	6	1	2	2	41	.05	.049	8	28	.17	21	.10	2	1.17	.01	.06	1	2
B-E-167	1	26	30	116	.3	29	11	239	2.63	2	5	ND	3	10	1	2	3	35	.09	.052	10	37	.33	28	.10	8	1.77	.01	.06	1	1
B-E-168	1	12	17	62	.1	12	3	93	1.84	6	5	ND	1	9	1	2	2	20	.07	.049	9	16	.12	23	.08	7	.56	.01	.05	2	1
B-E-170	1	16	27	59	.1	10	5	78	1.35	4	6	ND	1	8	1	2	2	21	.07	.052	9	23	.16	24	.08	6	.62	.01	.05	1	1
B-E-172	1	16	29	71	.1	13	4	88	1.12	4	5	ND	1	9	1	2	2	22	.08	.014	9	16	.12	20	.08	2	.59	.01	.03	1	1
B-E-174	1	30	30	95	.2	26	9	109	2.74	8	5	ND	3	8	1	2	2	63	.07	.060	11	33	.31	21	.12	5	.96	.01	.06	1	1
B-E-175	1	37	36	98	.1	24	6	78	2.14	6	5	ND	1	6	1	2	2	29	.06	.030	11	29	.18	27	.08	5	1.62	.01	.05	1	1
B-E-177	1	15	39	125	.2	20	8	101	2.67	3	5	ND	2	8	1	3	2	38	.08	.029	10	30	.17	35	.10	2	1.47	.01	.03	1	1
B-E-179	1	13	25	107	.1	18	7	80	2.10	3	5	ND	3	8	1	2	2	31	.07	.030	11	33	.25	20	.09	2	1.57	.01	.03	1	1
STD C/AU-S	20	63	40	130	7.1	72	30	1022	4.01	42	21	7	42	52	20	16	19	64	.45	.092	40	59	.87	184	.08	34	1.90	.07	.14	11	47

IMPERIAL METALS PROJECT-7112 FILE # 88-1493

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB
B-K-181	1	16	22	129	.1	18	7	75	3.50	9	5	ND	3	5	1	3	5	69	.05	.034	6	40	.31	18	.15	7	1.29	.01	.03	1	1
B-K-183	1	15	30	113	.1	18	5	71	3.24	2	5	ND	2	8	1	2	2	38	.08	.021	7	34	.18	24	.13	2	1.40	.01	.02	1	4
B-K-184	1	12	14	48	.1	20	4	167	2.71	2	5	ND	1	9	1	2	2	48	.09	.083	8	37	.14	33	.09	6	1.61	.01	.01	1	2
B-K-186	1	17	8	95	.1	22	6	398	2.69	2	5	ND	1	8	1	2	2	41	.09	.130	9	38	.16	59	.06	2	2.18	.01	.01	1	1
B-K-188	1	14	5	57	.3	18	4	122	2.25	2	5	ND	4	8	1	2	2	35	.09	.051	11	35	.14	31	.07	5	1.74	.01	.01	1	1
B-K-190	1	21	16	48	.1	26	4	144	2.12	3	5	ND	5	10	1	4	4	37	.11	.062	17	40	.25	34	.08	8	1.50	.01	.03	1	755
B-K-192	1	12	9	19	.1	15	4	62	2.07	6	5	ND	3	7	1	2	2	46	.10	.026	10	34	.13	11	.09	8	.67	.01	.01	1	16
B-K-194	1	26	12	60	.1	34	8	184	2.90	6	5	ND	3	9	1	2	2	46	.11	.050	13	59	.34	33	.11	2	2.21	.01	.02	1	161
B-K-196	1	42	16	64	.1	34	9	210	4.21	7	5	ND	3	9	1	2	2	67	.11	.075	11	71	.46	40	.14	6	1.80	.01	.02	1	9
B-K-198	1	12	6	63	.1	21	4	127	2.48	2	5	ND	2	9	1	2	2	35	.10	.050	12	38	.23	35	.10	2	1.86	.01	.02	1	6
B-K-200	1	16	13	48	.2	18	5	71	2.87	2	5	ND	3	7	1	2	3	45	.08	.103	9	39	.15	34	.08	6	1.89	.01	.02	1	2
B-K-202	1	33	11	29	.2	26	3	76	2.07	9	5	ND	2	9	1	2	2	48	.11	.022	7	31	.20	19	.12	4	.89	.01	.03	2	1
B-K-203	1	9	4	20	.1	15	4	195	1.57	2	5	ND	1	7	1	2	2	29	.08	.042	7	22	.11	25	.07	8	.79	.01	.01	2	1
B-K-205	1	7	5	18	.1	21	3	57	1.15	2	5	ND	2	6	1	3	5	19	.08	.020	7	24	.13	17	.06	6	1.14	.01	.02	1	4
B-K-207	1	14	13	29	.2	19	4	100	1.81	2	5	ND	4	7	1	2	2	35	.08	.038	11	38	.30	28	.09	6	.86	.01	.03	1	46
B-K-209	1	21	7	69	.1	27	9	609	2.58	2	5	ND	2	10	1	2	2	48	.10	.055	8	45	.35	57	.11	4	1.40	.01	.04	1	6
B-K-211	1	56	14	82	.1	37	10	245	4.16	5	5	ND	3	10	1	2	2	72	.11	.166	9	70	.67	39	.17	3	1.84	.01	.05	1	2
B-K-213	1	8	10	35	.1	9	2	64	2.15	5	5	ND	1	5	1	2	2	33	.04	.035	8	17	.08	20	.08	7	.60	.01	.02	1	22
B-K-215	1	10	11	32	.1	16	4	78	1.90	6	5	ND	2	4	1	2	4	31	.02	.013	5	35	.07	40	.15	7	.97	.01	.17	1	2
B-K-216	1	25	24	59	.1	22	6	77	2.49	6	5	ND	3	7	1	2	2	40	.06	.010	7	33	.30	24	.12	2	.99	.01	.04	1	13
B-K-218	1	20	27	71	.2	15	5	50	2.61	8	5	ND	4	6	1	2	2	34	.03	.035	6	25	.15	22	.10	2	1.04	.01	.05	1	2
B-K-219	1	13	16	38	.2	11	3	48	2.32	9	5	ND	3	5	1	3	6	36	.03	.020	6	18	.11	14	.09	2	.64	.01	.04	1	8
B-K-221	1	19	24	72	.3	19	6	83	3.28	7	5	ND	5	5	1	2	2	44	.04	.078	7	35	.30	28	.13	4	1.35	.01	.06	1	4
B-K-222	1	17	21	67	.3	20	7	78	2.96	11	5	ND	4	6	1	2	3	43	.06	.046	9	25	.17	26	.12	3	.94	.01	.02	1	8
B-K-224	1	15	14	53	.1	15	4	80	2.60	15	5	ND	3	5	1	2	4	37	.05	.062	7	27	.17	21	.10	2	1.10	.01	.04	1	6
B-K-226	1	24	19	60	.1	21	7	116	3.44	7	5	ND	2	6	1	2	2	40	.07	.060	8	43	.42	24	.11	3	1.95	.01	.07	1	7
B-K-228	1	11	13	58	.1	16	6	119	2.67	7	6	ND	1	6	1	2	2	33	.06	.072	7	30	.24	25	.08	2	1.73	.01	.01	1	5
B-K-230	1	13	15	61	.1	20	5	117	2.51	3	5	ND	2	7	1	2	5	31	.07	.055	9	33	.24	21	.08	5	2.33	.01	.03	1	9
B-K-232	1	7	7	34	.1	9	4	642	1.40	2	5	ND	1	5	1	2	3	22	.03	.018	5	14	.06	38	.05	2	.60	.01	.01	1	4
B-K-234	1	14	12	66	.2	21	6	185	1.99	3	5	ND	1	7	1	2	3	38	.07	.020	8	28	.19	33	.08	3	1.59	.01	.03	1	2
B-N-001	3	17	20	69	.1	28	7	80	3.78	5	5	ND	3	9	1	2	2	52	.08	.025	7	43	.28	72	.12	5	2.24	.01	.04	1	11
B-N-002	2	8	18	56	.1	19	5	69	2.86	2	5	ND	1	7	1	2	2	41	.06	.021	6	38	.23	39	.10	2	1.93	.01	.02	1	2
B-N-003	1	14	17	33	.1	16	3	88	2.45	7	5	ND	1	9	1	2	5	51	.06	.012	5	24	.15	22	.13	2	.65	.01	.02	1	1
B-N-004	1	17	20	51	.3	15	5	83	3.48	6	9	ND	3	7	1	2	2	57	.06	.021	6	27	.14	29	.14	2	1.08	.01	.05	1	2
B-N-005	1	19	15	27	.3	17	3	45	2.74	3	10	ND	3	6	1	2	2	36	.05	.017	7	37	.16	26	.07	2	2.31	.01	.02	2	4
B-N-007	1	22	24	36	.2	21	7	89	3.61	7	5	ND	3	8	1	2	2	47	.08	.012	7	46	.30	25	.10	7	1.81	.01	.01	2	1
STD C/AU-S	21	63	42	132	7.5	70	29	1040	4.10	42	26	7	40	50	19	17	20	61	.46	.095	41	62	.88	190	.08	33	1.92	.08	.14	13	50

IMPERIAL METALS PROJECT-7112 FILE # 88-1493

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB
B-M-008	1	9	11	24	.1	11	2	39	2.11	4	9	ND	2	6	1	2	2	40	.04	.012	5	27	.10	16	.06	2	1.20	.01	.02	1	1
B-M-009	1	17	10	35	.3	24	6	95	2.02	2	8	ND	4	10	1	2	2	34	.10	.007	8	33	.37	33	.10	2	1.12	.01	.04	2	1
B-M-010	2	25	10	59	.1	26	8	107	2.87	3	5	ND	4	10	1	2	2	63	.09	.013	7	44	.61	29	.10	2	1.56	.01	.04	1	1
B-M-011	1	16	14	33	.3	22	6	91	2.10	2	10	ND	4	9	1	2	5	34	.08	.019	7	37	.28	24	.09	4	1.91	.01	.03	2	3
B-M-012	1	11	11	54	.3	15	4	96	3.19	2	9	ND	4	8	1	2	2	48	.06	.023	6	32	.18	25	.10	2	1.66	.01	.03	1	1
B-M-014	1	17	10	37	.1	23	8	77	2.56	2	10	ND	3	9	1	2	3	32	.09	.025	9	39	.28	35	.08	3	2.28	.01	.03	2	1
B-M-015	1	11	13	60	.2	13	4	57	3.19	2	5	ND	3	8	1	2	5	54	.06	.020	7	25	.15	33	.11	2	1.22	.01	.04	1	1
B-M-016	1	15	17	26	.1	14	4	65	1.37	2	5	ND	2	9	1	2	2	23	.08	.015	8	20	.24	23	.07	2	1.43	.01	.05	2	1
B-M-017	1	6	14	57	.1	16	4	74	2.07	2	8	ND	2	9	1	2	2	28	.07	.031	8	27	.17	29	.07	2	1.67	.01	.06	1	1
B-M-018	1	16	10	74	.2	23	3	123	2.64	3	5	ND	2	8	1	2	2	34	.08	.027	7	30	.17	30	.06	4	1.80	.01	.03	2	1
B-M-019	2	20	17	57	.1	21	7	83	2.15	4	5	ND	3	12	1	2	4	33	.12	.011	10	24	.25	43	.08	3	1.28	.01	.03	2	1
B-M-020	1	26	15	62	.2	18	5	111	3.66	5	5	ND	2	7	1	2	7	66	.06	.025	7	30	.13	25	.14	3	1.32	.01	.03	2	1
B-M-021	1	8	11	70	.2	16	6	63	1.93	2	5	ND	3	9	1	2	5	32	.08	.017	8	22	.15	24	.08	6	1.29	.01	.04	1	1
B-M-022	1	5	21	146	.1	20	6	123	2.50	2	5	ND	2	10	1	2	2	31	.11	.055	9	38	.20	38	.08	5	1.93	.01	.03	1	1
B-M-023	1	12	20	117	.1	20	7	160	2.29	2	5	ND	3	10	1	2	2	30	.10	.030	8	32	.28	28	.09	2	1.52	.01	.03	1	2
B-M-025	1	16	17	71	.1	17	5	88	2.21	3	5	ND	4	9	1	2	2	31	.08	.009	7	29	.30	15	.10	4	.95	.01	.04	1	1
B-M-026	1	2	12	21	.1	6	1	32	.90	2	5	ND	3	8	1	2	2	22	.05	.005	9	9	.06	10	.06	2	.44	.01	.03	1	4
B-M-027	1	9	9	69	.1	13	4	87	2.18	4	5	ND	3	7	1	2	2	34	.06	.017	7	21	.18	29	.08	3	1.88	.01	.03	1	1
B-M-028	1	17	18	100	.1	24	7	98	3.20	2	8	ND	5	9	1	2	4	46	.08	.026	9	37	.30	37	.11	3	1.48	.01	.05	1	1
B-M-030	1	15	18	53	.1	13	5	86	2.61	2	5	ND	4	7	1	2	2	39	.06	.021	7	33	.25	22	.09	5	.97	.01	.03	1	1
B-M-031	1	21	10	65	.1	41	10	155	3.41	4	5	ND	1	6	1	2	3	87	.07	.034	6	105	.79	93	.17	4	1.51	.01	.17	1	163
B-M-032	1	12	20	69	.1	16	3	66	2.59	2	5	ND	4	7	1	2	3	37	.07	.043	11	38	.15	27	.07	4	1.79	.01	.02	1	37
B-M-032 A	2	31	22	50	.1	19	5	55	2.41	10	5	ND	5	8	1	2	2	36	.08	.016	11	25	.24	29	.09	3	1.21	.01	.04	1	1
B-M-033	1	12	12	40	.1	25	11	138	2.93	5	5	ND	3	5	1	2	5	41	.07	.025	20	54	.88	44	.17	3	1.52	.01	.45	2	1
B-M-034	1	35	21	40	.1	16	7	72	2.74	6	5	ND	12	7	1	3	2	39	.06	.013	31	26	.24	19	.12	2	.87	.01	.03	1	6
B-M-035	4	17	8	15	.1	5	3	16	1.81	15	5	ND	7	2	1	2	2	18	.01	.015	8	9	.05	10	.07	5	.24	.01	.03	1	22
B-M-036	1	19	19	45	.2	18	5	53	2.15	7	5	ND	5	7	1	2	2	39	.06	.017	8	25	.11	19	.09	2	.80	.01	.02	1	7
B-M-037	1	18	12	51	.1	21	5	62	2.90	9	5	ND	4	7	1	2	2	35	.07	.022	7	35	.16	25	.09	6	1.87	.01	.04	1	2
B-M-038	2	18	12	52	.1	16	7	70	3.04	3	5	ND	2	8	1	2	2	56	.07	.013	9	33	.18	30	.13	2	1.17	.01	.01	1	1
B-M-039	1	29	47	77	.1	16	6	62	3.57	8	5	ND	5	6	1	2	2	47	.06	.025	9	38	.15	21	.10	2	1.67	.01	.01	1	1
B-M-040	1	16	26	73	.1	24	8	80	2.19	2	5	ND	7	8	1	2	2	33	.08	.017	11	36	.21	23	.09	2	1.89	.01	.03	1	1
B-M-041	1	16	64	215	.3	19	7	150	1.65	2	5	ND	3	9	1	2	2	22	.08	.023	13	23	.10	30	.07	2	1.42	.01	.01	1	1
B-M-042	1	21	22	161	.1	24	7	188	2.92	2	5	ND	2	8	1	2	2	35	.08	.045	8	37	.15	27	.09	3	2.36	.01	.02	1	1
B-M-043	2	24	22	162	.2	24	10	184	3.83	5	5	ND	3	8	1	2	2	52	.08	.038	7	45	.40	29	.14	2	1.74	.01	.06	1	5
B-M-044	2	9	9	78	.1	19	7	95	3.81	3	5	ND	3	8	1	2	2	78	.07	.020	7	35	.25	21	.18	2	1.15	.01	.05	1	1
B-M-045	2	15	10	66	.1	15	5	75	3.17	8	5	ND	3	7	1	3	5	41	.06	.022	6	32	.32	35	.13	3	1.05	.01	.12	1	1
STD C/AU-S	19	61	42	131	7.3	70	27	1046	4.05	42	18	8	40	51	17	17	20	61	.45	.092	41	60	.87	189	.07	35	1.76	.07	.14	14	50

IMPERIAL METALS PROJECT-7112 FILE # 88-1493

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB
B-M-046	1	18	15	65	.1	18	6	95	2.72	3	5	ND	3	8	1	2	2	56	.07	.020	5	34	.37	35	.14	2	1.20	.01	.06	1	2
B-M-047	2	14	12	70	.4	19	6	85	2.42	11	5	ND	3	6	1	2	3	39	.06	.037	6	34	.17	21	.08	2	1.94	.01	.01	1	2
B-M-048	2	16	24	53	.1	19	6	69	2.52	7	5	ND	4	6	1	2	2	41	.05	.016	7	31	.20	19	.10	2	1.81	.01	.03	1	1
B-M-049	1	26	28	76	.1	25	9	98	2.13	3	5	ND	8	7	1	2	2	33	.07	.020	8	41	.37	23	.09	2	1.92	.01	.02	1	1
B-M-050	1	19	20	58	.1	20	6	74	2.08	5	5	ND	4	7	1	2	2	29	.06	.024	9	35	.25	22	.07	2	1.89	.01	.01	1	1
B-M-051	2	30	27	61	.1	22	10	90	3.75	13	5	ND	7	6	1	2	2	52	.05	.024	8	50	.41	27	.14	2	1.70	.01	.07	1	1
B-M-052	1	6	12	31	.1	8	5	45	2.33	5	5	ND	3	5	1	2	2	52	.03	.014	5	28	.17	19	.11	2	.68	.01	.03	1	168
B-M-053	2	25	14	30	.2	9	3	44	2.67	11	5	ND	2	3	1	2	2	42	.02	.017	5	27	.09	20	.08	2	.78	.01	.02	1	5
B-M-054	1	30	25	71	.5	23	7	61	2.28	4	5	ND	4	6	1	2	2	30	.06	.025	8	45	.20	26	.08	2	2.14	.01	.02	1	2
B-M-055	1	26	28	58	.4	21	7	106	2.36	2	5	ND	6	8	1	2	2	35	.08	.020	13	39	.44	17	.10	2	1.84	.01	.04	1	1
B-M-056	1	11	19	36	.3	10	3	35	1.62	2	5	ND	4	4	1	2	2	27	.03	.008	7	23	.10	15	.04	2	1.46	.01	.02	1	9
B-M-057	2	16	13	79	.1	25	8	105	3.08	4	5	ND	3	9	1	2	2	46	.09	.048	9	57	.40	35	.10	2	2.06	.01	.02	1	27
B-M-058	1	8	11	63	.1	15	7	131	2.76	2	7	ND	4	8	1	2	2	52	.08	.030	10	38	.21	30	.12	3	1.09	.01	.03	1	6
B-M-059	2	20	16	64	.3	33	5	127	3.94	8	5	ND	3	10	1	2	2	59	.11	.030	9	55	.33	42	.15	2	1.40	.01	.04	2	4
B-M-059 A	2	20	17	104	.2	39	7	162	2.77	3	5	ND	6	14	1	2	3	65	.17	.037	20	88	.66	62	.13	2	1.38	.01	.04	1	3
B-M-060	1	9	14	109	.1	15	5	106	1.56	2	5	ND	3	10	1	2	2	27	.12	.017	13	31	.25	24	.09	2	1.05	.01	.02	1	1
B-M-061	1	16	23	125	.2	25	8	140	2.11	2	5	ND	2	12	1	2	2	35	.13	.024	18	34	.25	36	.10	2	1.11	.01	.04	1	1
B-M-062	2	19	24	89	.1	19	7	60	2.73	6	5	ND	4	6	1	2	2	47	.06	.016	8	28	.16	16	.10	2	1.11	.01	.02	1	1
B-M-062 A	1	30	41	132	.1	38	11	126	2.81	8	5	ND	6	10	1	2	2	47	.10	.027	15	45	.29	26	.12	2	1.92	.01	.05	1	290
B-M-063	1	11	26	125	.1	17	7	50	2.83	5	5	ND	4	7	1	2	5	46	.07	.019	7	36	.13	22	.11	2	1.45	.01	.04	1	1
B-M-064	1	8	20	79	.1	15	4	61	2.02	5	5	ND	2	6	1	3	2	39	.06	.018	7	26	.10	23	.07	2	1.34	.01	.03	1	5
B-M-065	1	8	6	43	.2	8	3	57	.88	6	5	ND	3	5	1	2	2	16	.04	.004	7	15	.08	17	.04	2	.50	.01	.03	1	1
B-M-066	1	27	15	127	.1	14	8	98	1.91	7	5	ND	3	8	1	2	2	48	.08	.018	10	23	.15	19	.10	2	.61	.01	.03	1	1
B-M-067	1	17	15	122	.1	13	6	94	1.95	3	5	ND	2	11	1	3	2	36	.09	.016	15	24	.19	30	.10	2	.99	.01	.02	1	1
B-M-068	1	11	22	72	.1	8	5	83	2.01	2	5	ND	1	8	1	2	2	36	.07	.020	9	23	.12	24	.08	2	.92	.01	.02	1	1
B-M-069	1	12	18	106	.1	17	5	237	1.25	4	5	ND	1	8	1	2	2	24	.08	.018	7	20	.13	28	.06	3	.88	.01	.01	1	1
B-M-070	1	15	20	85	.1	15	7	179	2.78	3	5	ND	3	7	1	2	2	44	.07	.048	7	31	.16	36	.09	2	1.37	.01	.03	1	1
B-M-071	1	14	14	81	.1	18	5	362	2.26	3	5	ND	2	11	1	2	3	36	.09	.032	8	29	.22	44	.11	2	1.11	.01	.05	1	1
B-M-072	1	12	9	53	.1	15	4	100	1.98	2	5	ND	1	8	1	2	2	31	.08	.032	7	22	.09	20	.07	2	1.36	.01	.03	1	3
B-M-073	1	13	4	33	.1	13	6	1080	1.72	4	5	ND	1	9	1	2	2	31	.07	.032	7	23	.16	33	.08	3	.79	.01	.04	2	1
B-M-074	1	13	12	44	.3	13	5	121	2.51	2	5	ND	2	8	1	3	2	44	.07	.021	8	23	.10	25	.10	5	1.27	.01	.03	1	1
B-M-075	1	9	10	29	.1	7	4	66	1.96	2	5	ND	2	6	1	2	2	41	.06	.019	7	19	.07	19	.09	2	1.02	.01	.02	1	1
B-M-076	1	14	11	53	.1	12	5	168	2.53	2	5	ND	2	7	1	2	2	48	.07	.032	8	33	.13	33	.10	2	1.74	.01	.02	1	1
B-M-077	1	10	14	52	.2	21	7	136	2.21	2	5	ND	2	8	1	2	2	34	.08	.036	7	31	.16	38	.08	2	1.82	.01	.02	1	1
B-M-078	1	27	15	41	.2	24	9	276	2.49	10	5	ND	2	10	1	2	2	41	.09	.038	8	40	.22	39	.11	3	1.40	.01	.03	1	1
B-M-079	1	9	7	26	.1	12	5	93	1.90	7	6	ND	2	7	1	3	2	37	.05	.022	6	21	.10	20	.08	2	.78	.01	.04	2	1
STD C/AU-S	19	62	38	128	6.9	72	27	1056	3.69	38	26	8	40	52	18	17	22	62	.46	.086	42	62	.89	193	.07	33	1.79	.07	.13	13	53

IMPERIAL METALS PROJECT-7112 FILE # 88-1493

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB
B-M-080	1	11	9	42	.3	15	6	279	2.22	2	5	ND	4	10	1	2	2	40	.06	.036	7	28	.15	60	.10	2	1.18	.01	.01	1	3
B-M-081	1	13	7	66	.1	35	10	112	2.14	2	5	ND	3	10	1	2	3	32	.10	.036	8	37	.27	39	.10	2	2.39	.01	.04	1	1
B-M-082	1	6	11	44	.1	13	6	76	1.63	2	5	ND	4	8	1	2	2	25	.08	.021	8	25	.14	36	.08	2	1.61	.01	.03	1	2
B-M-083	1	14	6	41	.1	25	7	115	2.29	5	5	ND	3	9	1	2	2	37	.09	.027	7	36	.26	30	.10	2	1.79	.01	.02	1	1
B-M-084	1	13	9	26	.1	15	5	74	1.58	2	5	ND	4	8	1	2	3	29	.07	.017	8	21	.13	23	.08	2	.99	.01	.03	1	1
B-M-085	1	15	12	36	.1	20	8	134	2.36	3	5	ND	3	12	1	3	3	42	.11	.016	7	35	.27	38	.11	2	1.35	.01	.05	2	1
B-M-085 A	1	12	10	43	.2	24	8	173	2.44	5	5	ND	5	10	1	2	2	43	.11	.022	7	34	.28	41	.12	4	1.30	.01	.06	1	1
B-M-086	2	17	14	47	.1	22	8	126	2.67	2	5	ND	4	10	1	2	3	47	.09	.025	8	37	.25	35	.13	2	1.41	.01	.05	1	2
B-M-087	1	6	7	27	.1	8	3	52	1.33	5	5	ND	4	8	1	2	2	22	.06	.011	9	14	.07	18	.07	2	.69	.01	.02	2	5
B-M-088	1	10	9	34	.1	11	5	52	2.00	2	5	ND	2	7	1	2	2	27	.08	.020	8	24	.12	17	.07	2	1.51	.01	.01	1	1
B-M-089	1	9	17	40	.1	24	8	90	2.58	3	5	ND	5	9	1	3	2	33	.10	.025	9	37	.21	27	.10	2	2.48	.01	.06	1	1
B-M-090	1	13	20	53	.1	25	6	88	2.07	5	5	ND	4	10	1	2	2	40	.11	.019	8	34	.21	28	.12	2	1.23	.01	.03	1	1
B-M-091	1	9	8	34	.1	16	4	52	2.15	2	5	ND	3	10	1	2	2	31	.10	.013	6	27	.13	16	.09	3	1.14	.01	.03	2	4
B-M-092	1	3	11	14	.1	9	3	51	1.48	2	5	ND	4	10	1	2	2	32	.08	.005	9	17	.12	17	.07	2	.69	.01	.01	1	2
B-M-093	1	22	27	28	.1	25	7	99	2.35	3	5	ND	5	8	1	2	2	31	.08	.044	9	34	.23	24	.08	2	1.52	.01	.04	1	1
B-M-094	1	13	19	35	.1	10	3	59	2.04	3	5	ND	3	6	1	2	2	35	.05	.027	7	25	.08	17	.07	2	1.18	.01	.03	1	1
B-M-095	1	21	28	61	.1	17	7	102	2.71	2	5	ND	8	6	1	2	2	35	.07	.040	10	40	.33	17	.11	4	2.20	.01	.03	1	1
B-M-096	1	8	21	33	.1	8	3	50	2.57	3	5	ND	5	5	1	2	3	41	.04	.026	9	24	.10	20	.08	2	1.46	.01	.04	1	1
B-M-097	1	24	22	73	.2	25	6	89	2.43	12	5	ND	2	9	1	2	3	36	.07	.029	6	27	.25	35	.11	2	1.10	.01	.08	1	1
B-M-098	1	11	19	61	.2	12	4	70	2.47	10	5	ND	4	6	1	2	4	35	.05	.060	7	24	.13	21	.09	2	.85	.01	.06	1	1
B-M-099	1	14	26	105	.2	13	6	127	2.60	4	5	ND	5	8	1	2	2	35	.07	.030	8	30	.26	26	.11	2	1.09	.01	.03	1	2
B-M-100	1	9	23	37	.1	18	3	72	2.09	7	5	ND	4	9	1	3	2	38	.07	.050	8	24	.17	34	.12	2	.66	.01	.05	1	1
B-M-101	1	6	11	21	.1	13	3	210	1.29	4	5	ND	2	8	1	2	2	22	.10	.026	8	22	.16	17	.07	2	.60	.01	.03	1	1
B-M-102	1	4	2	60	.1	11	4	134	1.83	2	5	ND	1	11	1	2	2	23	.11	.035	9	30	.20	32	.08	2	1.60	.01	.04	1	1
B-M-103	1	11	9	21	.1	11	1	63	.83	3	5	ND	2	10	1	2	2	19	.10	.012	7	25	.19	19	.12	2	.61	.01	.02	1	2
B-M-104	1	14	10	75	.1	18	7	128	2.25	4	5	ND	4	8	1	2	2	40	.09	.026	8	29	.26	33	.11	2	1.17	.01	.04	1	1
B-M-105	1	11	29	135	.1	15	6	124	1.68	4	5	ND	3	8	1	2	2	24	.10	.049	9	22	.19	29	.08	3	.84	.01	.03	1	1
B-M-106	1	11	20	64	.1	16	6	124	2.56	7	5	ND	5	9	1	2	5	55	.09	.068	9	36	.38	27	.16	2	1.06	.01	.06	1	1
B-M-107	2	63	43	128	.1	31	11	160	3.59	12	5	ND	6	7	1	2	2	51	.08	.038	12	48	.53	26	.13	2	1.57	.01	.06	1	2
B-M-108	1	23	34	114	.1	39	11	90	2.22	3	5	ND	8	7	1	2	2	32	.08	.022	10	41	.29	20	.10	2	1.95	.01	.05	1	67
B-M-109	1	21	35	123	.1	30	9	77	2.07	7	5	ND	8	8	1	2	2	30	.09	.015	10	36	.24	18	.10	2	1.58	.01	.05	1	2
B-M-110	1	7	22	62	.1	16	4	73	2.06	8	5	ND	3	6	1	2	2	40	.06	.041	7	35	.21	23	.09	5	1.65	.01	.04	1	1
B-M-111	1	10	20	39	.1	13	5	89	1.86	2	5	ND	2	7	1	2	2	29	.06	.015	7	29	.10	32	.08	4	1.29	.01	.07	2	1
B-M-112	1	12	51	89	.1	13	11	191	2.45	3	5	ND	2	8	1	2	5	34	.07	.028	10	31	.21	20	.10	2	1.16	.01	.06	1	1
B-M-114	1	14	29	44	.1	14	4	65	1.66	3	5	ND	2	9	1	2	2	24	.08	.012	15	22	.22	26	.08	2	1.10	.01	.04	3	2
B-M-116	1	15	25	83	.1	16	9	116	2.89	7	5	ND	3	7	1	2	2	41	.05	.025	7	31	.27	23	.12	2	1.21	.01	.04	1	1
STD C/AU-S	21	61	42	130	7.4	73	29	1036	4.06	42	16	8	40	51	19	16	24	61	.46	.092	41	62	.97	191	.08	35	1.93	.08	.14	14	48

IMPERIAL METALS PROJECT-7112 FILE # 88-1493

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB
B-M-118	1	15	14	43	.1	12	4	56	3.45	4	5	ND	3	6	1	2	2	56	.05	.039	8	33	.15	18	.12	2	1.42	.01	.02	1	1
B-M-120	1	19	29	80	.1	18	5	84	2.43	7	5	ND	4	6	1	2	2	25	.06	.035	12	25	.18	19	.07	5	1.24	.01	.01	1	1
B-M-122	1	6	22	54	.1	11	1	43	1.53	2	5	ND	1	4	1	3	2	20	.03	.022	7	20	.12	21	.04	2	1.00	.01	.03	1	4
B-M-123	1	16	11	68	.1	12	5	165	1.81	5	5	ND	2	6	1	2	5	28	.05	.031	7	20	.17	22	.07	3	.70	.01	.01	1	1
B-M-124	1	19	30	90	.1	16	5	96	2.66	9	5	ND	7	6	1	2	5	32	.04	.037	8	31	.25	32	.09	2	1.03	.01	.04	1	3
B-M-126	1	15	19	87	.1	16	7	96	2.22	9	5	ND	3	6	1	2	2	27	.06	.075	12	27	.20	20	.07	2	.77	.01	.03	1	1
B-M-127	2	19	16	79	.1	20	7	187	3.39	8	5	ND	1	6	1	2	2	47	.05	.061	10	36	.58	51	.13	2	1.41	.01	.15	1	1
B-M-129	1	15	14	82	.1	20	6	121	2.85	2	5	ND	2	6	1	2	2	44	.06	.053	7	38	.26	30	.09	2	1.38	.01	.02	1	1
B-M-131	1	8	9	79	.1	18	4	84	2.24	3	5	ND	1	6	1	2	2	33	.07	.031	8	28	.15	37	.07	2	1.50	.01	.01	1	1
B-M-133	1	7	9	77	.1	25	6	92	2.28	2	5	ND	1	7	1	2	2	31	.09	.041	8	39	.24	49	.07	2	2.13	.01	.01	1	1
B-M-135	1	12	5	70	.1	17	3	186	1.98	2	5	ND	1	8	1	3	2	31	.08	.033	7	31	.24	43	.08	2	1.33	.01	.03	1	1
B-M-138	1	10	8	35	.1	12	2	132	2.12	2	5	ND	4	7	1	2	2	38	.08	.058	13	32	.18	30	.07	2	.72	.01	.02	3	290
B-M-139	1	10	6	41	.1	15	6	492	1.55	2	5	ND	1	8	1	2	2	24	.11	.059	9	28	.19	33	.06	2	.76	.01	.01	2	1
B-M-141	1	12	11	60	.1	13	5	510	1.42	2	5	ND	1	11	1	2	2	25	.12	.022	13	22	.16	28	.06	2	.63	.01	.01	1	3
B-M-142	1	12	27	154	.1	26	9	183	2.59	2	5	ND	4	9	1	2	2	31	.10	.041	14	33	.19	44	.09	2	1.38	.01	.02	1	640
B-M-143	1	34	30	155	.1	33	11	236	3.72	9	5	ND	9	8	1	2	3	65	.10	.094	17	51	.42	29	.13	3	1.32	.01	.04	1	920
B-M-145	1	26	22	98	.1	21	7	362	2.32	14	5	ND	4	7	1	2	2	29	.07	.089	11	26	.28	34	.09	3	.75	.01	.04	1	3
B-M-147	1	16	26	72	.1	18	5	87	3.57	6	5	ND	6	6	1	4	2	60	.06	.050	12	33	.17	21	.14	2	1.15	.01	.04	1	153
B-M-149	1	7	8	26	.1	14	4	69	1.95	2	5	ND	4	10	1	2	2	52	.08	.013	9	25	.18	26	.12	2	.67	.01	.05	2	18
B-M-151	1	13	10	34	.1	12	3	99	2.00	2	5	ND	4	7	1	4	4	34	.07	.032	10	25	.13	27	.07	2	1.06	.01	.02	1	122
B-M-153	1	22	9	40	.1	17	4	92	2.66	4	5	ND	1	9	1	2	2	44	.09	.047	8	32	.12	39	.07	2	1.21	.01	.02	2	540
B-M-155	1	8	20	28	.1	10	2	58	2.90	4	5	ND	2	7	1	2	2	53	.06	.047	8	29	.11	30	.10	2	1.32	.01	.02	2	4
B-M-157	1	18	10	43	.1	27	6	103	2.66	4	5	ND	3	9	1	2	2	47	.09	.017	8	46	.36	27	.11	3	1.26	.01	.05	1	1
B-M-159	1	34	20	47	.1	24	6	78	1.83	3	5	ND	4	7	1	2	3	25	.07	.017	12	30	.26	20	.07	3	1.31	.01	.02	1	1
B-M-161	1	14	12	35	.1	16	6	77	3.16	6	5	ND	3	5	1	2	4	47	.04	.024	7	32	.20	22	.11	2	1.37	.01	.03	1	3
B-M-163	1	18	13	66	.1	15	5	94	2.05	6	5	ND	4	5	1	3	2	36	.06	.031	7	30	.17	23	.08	2	2.26	.01	.03	1	1
B-M-165	1	17	7	85	.2	19	5	256	2.20	2	5	ND	2	7	1	3	2	31	.07	.021	6	27	.22	35	.09	4	1.07	.01	.04	1	1
B-M-167	1	9	7	53	.1	14	6	123	1.89	4	5	ND	2	7	1	2	3	28	.07	.019	7	25	.19	24	.08	2	1.10	.01	.03	1	1
B-M-169	1	27	16	74	.1	24	8	90	2.35	2	5	ND	2	7	1	3	2	28	.08	.020	8	39	.32	30	.10	2	1.75	.01	.02	1	1
B-M-171	1	15	10	60	.1	25	7	138	2.33	3	5	ND	2	8	1	3	2	31	.08	.025	7	30	.24	32	.09	2	1.59	.01	.03	1	1
B-M-173	1	16	11	55	.1	18	4	62	1.93	4	5	ND	2	6	1	4	2	26	.05	.016	7	25	.18	29	.07	3	.95	.01	.03	1	1
B-M-175	1	26	34	110	.3	25	5	65	3.04	15	5	ND	4	5	1	2	2	37	.05	.096	7	31	.15	21	.08	2	1.28	.01	.04	1	1
B-M-176	1	12	22	114	.2	24	4	55	1.86	4	5	ND	2	6	1	3	2	24	.07	.044	9	24	.13	20	.05	2	1.20	.01	.04	1	1
B-M-190	1	19	2	52	.3	30	7	168	1.81	5	6	ND	4	7	1	3	2	28	.10	.048	12	39	.27	24	.06	2	1.60	.01	.02	1	620
B-M-191	1	16	7	55	.3	22	6	140	3.09	4	5	ND	1	6	1	3	2	45	.07	.001	6	42	.14	27	.07	2	2.37	.01	.03	1	1
B-M-193	1	9	9	22	.1	10	2	80	2.00	4	5	ND	2	6	1	4	2	39	.07	.065	9	26	.08	17	.07	2	.76	.01	.03	2	3
STD C/AU-S	19	62	42	131	6.9	69	28	1034	4.01	41	26	8	41	50	18	17	25	60	.45	.084	41	60	.87	190	.07	34	1.71	.07	.15	13	51

IMPERIAL METALS PROJECT-7112 FILE # 88-1493

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB
B-M-195	1	8	8	13	.1	6	2	50	.91	2	5	ND	2	5	1	2	2	16	.05	.021	9	13	.03	13	.04	6	.81	.01	.01	1	1
B-M-197	1	7	6	20	.1	8	1	144	1.18	2	5	ND	2	8	1	2	2	23	.09	.042	12	18	.08	14	.06	5	.58	.01	.03	1	37
B-M-199	1	9	9	75	.2	16	7	217	2.67	2	5	ND	2	9	1	2	2	46	.11	.056	9	34	.27	30	.10	7	1.22	.01	.05	1	3
B-M-200	1	12	10	99	.1	17	7	163	2.44	5	5	ND	1	10	1	2	2	42	.10	.049	8	36	.32	31	.12	9	1.05	.01	.05	1	6
STD C/AU-S	20	64	41	132	7.2	71	30	1030	4.06	40	20	8	39	53	20	16	21	60	.46	.086	39	60	.96	183	.08	32	1.92	.07	.14	15	52

IMPERIAL METALS PROJECT-7112 FILE # 88-1493

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB
BR-88-01	1	43	14	13	.1	20	10	22	1.01	10	5	ND	21	2	1	2	2	2	.02	.001	24	17	.26	27	.03	6	.48	.02	.30	1	1
BR-88-02	4	43	232	12	.1	15	25	73	3.58	55	27	ND	350	9	1	2	2	9	.02	.022	121	28	.59	56	.11	3	.83	.02	.63	1	33
BR-88-03	2	378	90	10	.4	11	12	55	2.03	28	5	ND	85	8	1	2	2	2	.04	.011	39	27	.32	64	.04	4	.44	.01	.33	1	73
BR-88-04	2	13	62	5	.1	1	5	25	1.71	12	5	ND	51	7	1	2	2	5	.01	.011	26	14	.20	74	.05	3	.61	.02	.46	1	1
BR-88-05	4	35	80	10	.1	9	17	21	2.37	36	5	ND	66	4	1	2	2	4	.01	.014	19	22	.27	42	.06	5	.49	.01	.42	1	11
BR-88-06	5	21	140	16	.1	5	7	39	1.69	23	5	ND	35	5	1	2	2	3	.01	.007	17	11	.17	61	.04	4	.36	.01	.28	2	8
BR-88-07	9	116	67	15	.1	36	45	75	3.27	27	45	ND	219	5	1	2	3	9	.04	.020	84	34	.58	57	.09	10	.98	.01	.59	1	15
BR-88-08	4	144	117	26	.1	31	48	56	3.48	37	201	ND	201	5	1	2	2	6	.02	.016	96	24	.31	57	.06	2	.74	.01	.44	1	50
BR-88-09	6	32	81	8	.2	9	11	51	1.88	23	43	ND	310	6	1	2	2	7	.01	.010	37	24	.39	67	.08	2	.82	.01	.56	1	4
BR-88-10	2	60	16	11	.1	8	8	94	2.06	5	5	ND	40	5	1	2	2	9	.02	.011	20	20	.67	68	.11	2	1.09	.02	.69	2	25
BR-88-11	2	37	22	9	.1	16	12	57	1.73	14	5	ND	47	4	1	3	2	5	.02	.007	28	21	.46	54	.08	5	.84	.01	.55	1	8
BR-88-12	4	67	34	9	.1	21	25	95	2.27	24	5	ND	59	6	1	3	4	5	.02	.010	32	21	.61	46	.06	2	.64	.01	.46	1	3
BR-88-13	5	235	79	21	.1	40	33	101	3.02	22	127	ND	273	12	1	2	2	13	.19	.020	137	32	1.14	63	.16	5	1.51	.02	.91	1	12
BR-88-14	2	62	27	14	.1	21	15	110	2.20	7	13	ND	38	4	1	2	2	6	.03	.007	38	17	.61	42	.07	12	.85	.02	.54	2	1
BR-88-15	9	119	53	14	.1	44	61	91	4.02	31	57	ND	166	4	1	2	3	8	.02	.011	128	33	.64	48	.09	7	.95	.01	.59	1	12
BR-88-16	4	33	116	67	1.5	14	9	115	2.57	28	10	ND	201	5	1	2	2	12	.06	.033	33	29	.70	72	.12	6	1.01	.02	.59	1	1
BR-88-17	7	38	13	17	.8	24	7	51	1.21	3	5	ND	29	4	1	4	2	7	.02	.012	29	28	.42	79	.07	7	.95	.01	.59	1	1
BR-88-18	3	50	32	16	.3	10	5	100	2.21	16	5	ND	43	4	1	2	2	7	.02	.009	20	15	.55	49	.09	14	.83	.02	.55	1	1
BR-88-19	4	29	39	8	.2	9	10	43	2.32	22	5	ND	80	4	1	2	2	6	.01	.012	38	16	.38	54	.06	15	.63	.01	.38	1	13
BR-88-20	5	16	46	7	.2	6	5	47	1.91	23	5	ND	75	7	1	2	4	5	.01	.012	39	15	.22	64	.05	9	.57	.01	.44	1	10
BR-88-21	13	8	25	8	.1	8	3	54	1.42	9	5	ND	42	4	1	2	2	7	.01	.011	28	16	.68	56	.07	3	.77	.01	.49	1	7
BR-88-22	5	70	59	14	.2	17	25	84	2.93	24	12	ND	190	5	1	2	3	11	.04	.023	68	25	.58	59	.10	6	.94	.01	.63	1	23
BR-88-23	2	57	18	14	.1	21	11	103	2.21	12	5	ND	26	5	1	2	2	12	.04	.021	29	27	.78	75	.12	16	1.23	.01	.74	1	1
BR-88-24	6	76	22	13	.1	15	10	59	2.15	23	6	ND	54	10	1	2	2	14	.06	.046	92	67	.58	104	.09	2	1.09	.01	.66	1	1
BR-88-25	4	52	146	78	.1	21	23	69	2.22	19	52	ND	230	4	1	3	2	8	.06	.022	47	35	.68	56	.08	9	.90	.01	.57	1	3
BR-88-26	3	24	102	12	.1	7	6	65	1.64	12	5	ND	23	6	1	2	2	4	.01	.011	30	13	.28	46	.04	6	.47	.01	.31	1	4
BR-88-27	2	15	73	14	.1	7	8	42	1.59	9	5	ND	50	4	1	2	2	5	.01	.012	33	17	.29	68	.06	9	.62	.01	.41	1	5
BR-88-28	12	26	133	10	.3	9	9	32	4.61	45	5	ND	80	6	1	3	3	7	.01	.015	54	21	.12	55	.07	4	.34	.01	.46	1	40
BR-88-29	3	23	43	30	.1	19	9	111	2.62	5	5	ND	33	5	1	2	2	15	.04	.022	35	24	.95	80	.15	3	1.45	.01	.89	1	2
BR-88-30	6	66	117	24	.2	12	15	67	2.70	29	5	ND	65	5	1	2	2	5	.01	.015	39	18	.20	43	.06	2	.43	.01	.40	1	30
STD C/AU-R	20	64	42	132	7.3	73	31	1061	4.14	41	17	8	40	53	20	17	19	59	.47	.089	40	60	.96	183	.08	35	1.94	.07	.13	13	515

Ministry of Northern Development and Mines
Ontario

Report of Work
(Geophysical, Geological, Geochemical and Expenditures)

DOCUMENT W8807

41115SW0138 2.11531 HUTTON

900

2.11531

Mining Act

– Do not use shaded areas below.

Type of Survey(s)	Township or Area
Geological, Geochemical 2.11531	Hutton Township

Claim Holder(s)	Prospector's Licence No.
Imperial Metals Corporation	T 4978

Address: 800-601 West Hastings Street, Vancouver, B.C. V6B 5A6

Survey Company	Date of Survey (from & to)	Total Miles of line Cut
	Day 30 Mo. 04 Yr. 88 — Day 09 Mo. 05 Yr. 88	

Name and Address of Author (of Geo-Technical report): R. Michael Jones / Dennis Gorc (c/o above address)

RECEIVED
AUG 3 1988
MINING LANDS SECTION

RECEIVED
SUDBURY MINING DIV.
JUL 22 1988
A.M. 7 8 9 10 11 12 1 2 3 4 5 6 P.M.

ONTARIO GEOLOGICAL SURVEY
ASSESSMENT FILES OFFICE
DEC 21 1988
RECEIVED

Credits Requested per Each Claim in Columns at right

Special Provisions		Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	Geophysical	
	- Electromagnetic	
For each additional survey: using the same grid: Enter 20 days (for each)	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	

Man Days		Days per Claim
Complete reverse side and enter total(s) here	Geophysical	
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	Geological	
	Geochemical	8.8

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
S.	985559	21
	985560	21
	985561	21
	985562	21
	985563	21
	985564	21
	985565	21
	985566	21
	985567	21
	985568	21
	985569	21
	985570	21
	985571	21
	985572	21
	985573	21
	985574	21
	985575	21
	985576	21
	985577	21
	985578	21
	985579	21
	985580	21
	985581	21

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
S.	985582	21
	985583	21
	985584	21
	985585	21

Total number of mining claims covered by this report of work: 27

Expenditures (excludes power stripping)

Type of Work Performed: Geochemical Analyses

Performed on Claim(s): S985565 - 10, S985572 - 82, S985584

Calculation of Expenditure Days Credits

Total Expenditures: $ 5298.93

Total Days Credits: 353

RECEIVED 15

Instructions: Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

12.2 claims as per discussion E. Cole / K. Gibson - JS

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
567	July 28/88	U.C. Miller
	Date Approved as Recorded	Signature for
	July 28/88	U.C. Miller

Date: July 18, 1988

Recorded Holder or Agent (Signature): [illegible]

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying: R. Michael Jones

254 Seaton Street, Toronto, Ontario M5A 2T4

Date Certified: June 6/88

Certified by (Signature): [illegible]

Assessment Work Breakdown

Man Days are based on eight (8) hour Technical or Line-cutting days. Technical days include work performed by consultants, draftsmen, etc..

Type of Survey

Technical Days				Technical Days Credits		Line-cutting Days		Total Credits		No. of Claims		Days per Claim
34	X	7	=	238	+		=	238	÷	27	=	8.8

Type of Survey

Technical Days				Technical Days Credits		Line-cutting Days		Total Credits		No. of Claims		Days per Claim
	X	7	=		+		=		÷		=	

Type of Survey

Technical Days				Technical Days Credits		Line-cutting Days		Total Credits		No. of Claims		Days per Claim
	X	7	=		+		=		÷		=	

Type of Survey

Technical Days				Technical Days Credits		Line-cutting Days		Total Credits		No. of Claims		Days per Claim
	X	7	=		+		=		÷		=	

10:04 am.

Ministry of Northern Development and Mines

Ontario

Geophysical-Geological-Geochemical Technical Data Statement

File _____

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) Geological/Geochemical

Township or Area Hutton

Claim Holder(s) Imperial Metals Corporation

Survey Company _____

Author of Report R. Michael Jones/Dennis Gorc

Address of Author 254 Seaton Street, Toronto, Ontario

Covering Dates of Survey April 4, 1988 June 6, 1988
(linecutting to office)

Total Miles of Line Cut _____

SPECIAL PROVISIONS CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

DAYS per claim

Geophysical
–Electromagnetic _____
–Magnetometer _____
–Radiometric _____
–Other _____
Geological _____
Geochemical _____

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: August 8, 1988 SIGNATURE: _____
Author of Report or Agent

Res. Geol. _____ Qualifications 2.10667.

Previous Surveys

File No.	Type	Date	Claim Holder

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
S	985565
	985566
	985567
	985568
	985569
	985570
	985573
	985575
	985582
	985584

If space insufficient, attach list

TOTAL CLAIMS 10

OFFICE USE ONLY

837 (85/12)

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS – If more than one survey, specify data for each type of survey

Number of Stations _____ Number of Readings _____

Station interval _____ Line spacing _____

Profile scale _____

Contour interval _____

MAGNETIC

Instrument _____

Accuracy – Scale constant _____

Diurnal correction method _____

Base Station check-in interval (hours) _____

Base Station location and value _____

_____

ELECTROMAGNETIC

Instrument _____

Coil configuration _____

Coil separation _____

Accuracy _____

Method: ☐ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line

Frequency _____
(specify V.L.F. station)

Parameters measured _____

GRAVITY

Instrument _____

Scale constant _____

Corrections made _____

_____

Base station value and location _____

_____

Elevation accuracy _____

INDUCED POLARIZATION RESISTIVITY

Instrument _____

Method ☐ Time Domain ☐ Frequency Domain

Parameters – On time _____ Frequency _____

– Off time _____ Range _____

– Delay time _____

– Integration time _____

Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

_____

Corrections made _____

_____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth – include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

_____

Additional information (for understanding results) _____

_____

_____

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____

(specify for each type of survey)

Accuracy _____

(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

_____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken S985565 - 70, 73, 75, 82, 84

Total Number of Samples 550 (30)

Type of Sample Soil (Rock)
(Nature of Material)

Average Sample Weight 300g

Method of Collection grub hoe

Soil Horizon Sampled B-horizon

Horizon Development Podzol well developed

Sample Depth 10-20cm

Terrain hilly outcrops common

Drainage Development good

Estimated Range of Overburden Thickness 0-5m

SAMPLE PREPARATION
(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis

General

ANALYTICAL METHODS

Values expressed in: per cent ☐
p. p. m. ☐
p. p. b. ☐

Cu, Pb, Zn, Ni, Co, Ag, Mo, As,-(circle)

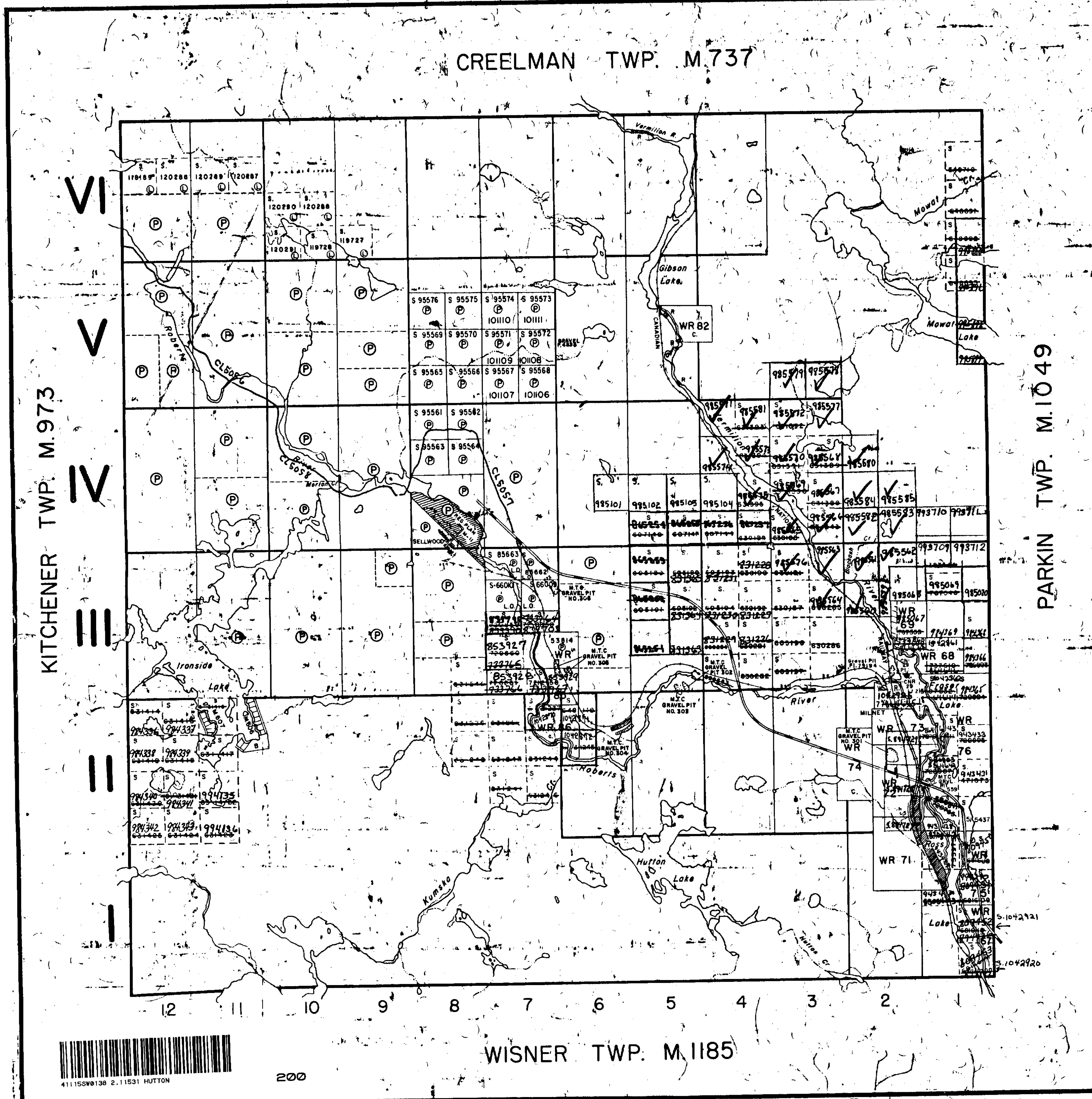
Others Au + 30 element ICP

Field Analysis (_____ tests)
Extraction Method
Analytical Method
Reagents Used

Field Laboratory Analysis
No. (_____ tests)
Extraction Method
Analytical Method
Reagents Used

Commercial Laboratory (_____ tests)
Name of Laboratory Acme Labs North Vanc. B.C.
Extraction Method
Analytical Method ICP scan
Reagents Used

General



THE TOWNSHIP
OF

HUTTON

DISTRICT OF
SUDBURY

SUDBURY
MINING DIVISION

SCALE:1-INCH=40 CHAINS

LEGEND

PATENTED LAND	● or Ⓟ
CROWN LAND SALE	C.S.
LEASES	Ⓛ
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
ROADS	
IMPROVED ROADS	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	
CANCELLED	

NOTES

400' Surface Rights Reservation along the shores of all lakes and rivers.

Lots 1 to 6, concessions 1 to 6 may be staked in the same manner as mining claims in unsurveyed territory. May 16, 1946 – File 83.5 – Mining Act Sec. 83 (52 A 1946).

Land required for railway purposes shown thus:
Files 4826 & 4841.

Parts of Con. 1, 2, 4, 5 & 6: Subdivision Annulled

SAND AND GRAVEL
Ⓖ QUARRY PERMIT

PLAN NO.- M-944

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

LEGEND

- GOLD VALUE (ppb)
- ROAD
- CREEK
- WATER

2.11531

IMPERIAL METALS CORPORATION	
BANNAGAN	
FIGURE 5	N.T.S. 41-1-15
SOIL GEOCHEMISTRY - Au	
HUTTON TWP., ONTARIO	
metres 0 50 100 150 200 250 metres	
SCALE: 1:2500	GEOLOGIST: R.M. JONES
DATE: JULY, 1988	DRAWN BY: J. CORKUM

LEGEND

- 2 — MISSISSAGI FORMATION
  - (a) FINE GRAINED DIRTY QUARTZITE
  - (b) ARKOSIC QUARTZITE
  - (c) PEBBLE CONGLOMERATE
  - (d) ARGILLITE
- 1 — ARCHEAN BASEMENT, MAFIC VOLCANICS
- OUTCROP, STEEP SLOPE
- ROAD
- CREEK
- WATER
- CLAIM LINE
- TRENCH
- GEOLOGICAL CONTACT - INFERRED
- GEOLOGICAL CONTACT - DEFINED
- GLACIAL STRIAE
- BR-88-01 — ROCK SAMPLE

NOTE - BASELINE CUT AND CHAINED, CROSS LINES CHAINED AND FLAGGED

2.11531

IMPERIAL METALS CORPORATION

BANNAGAN

FIGURE 3 — N.T.S. 41-1-15

GEOLOGY

HUTTON TWP, ONTARIO

metres 0 50 100 150 200 250 metres

SCALE: 1:2500	GEOLOGIST: R. M. JONES
DATE: JULY, 1988	DRAWN BY: J. CORKUM