010

GEOLOGICAL SURVEY
SOIL GEOCHEMISTRY
MAGNETOMETER SURVEY

STRAIGHT LAKE PROPERTY

Moncrieff, Ulster Townships,

Ontario

Sudbury Mining District

NTS: 42I 16

for

IMPERIAL METALS CORPORATION

by

R. MICHAEL JONES & DENNIS GORC

JUNE 1, 1988

SUMMARY

Linecutting, geological mapping, detailed soil sampling and magnetometer surveys were completed in May 1988 on the Straight Lake property in Moncrieff and Ulster Townships, Ontario. The Straight Lake property is on strike with the Stralak massive sulphide deposit located 1.5km to the west.

The Straight Lake property covers an east west strongly foliated sequence of mafic volcanics, clastic and siliceous metasediments. The main sulphide showing on the property consists of massive pyrite and pyrrhotite at the contact between mafic volcanics and mineralized siliceous metasediments. A second metasediment-volcanic contact occurs in the southern part of the property.

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1.0 INTRODUCTION

The Straight Lake property consists of six claims centered on the Moncrieff-Ulster Township boundary approximately 75km northwest of Sudbury, Ontario within the Benny Lake Greenstone Belt.

The property is on strike with the Stralak massive sulphide deposit located 1.5km to the west.

In May 1988 a program of linecutting, geological mapping and sampling, soil geochemistry and a detailed magnetometer survey was carried out by Imperial Metals Corporation on the Straight Lake property.

2.0 LOCATION AND ACCESS

The Straight property is located 3km northwest of the hamlet of Benny on the main C.P. railway line. The C.P. railway cuts across the property. A rough, four-wheel drive bush road leads to the property from Benny. Preferred access is by four-wheel all-terrain vehicle since the road is so rough, travel by truck is slow. From Benny to the property by A.T.V. takes approximately 20 minutes.

3.0 CLAIM DATA

The property is comprised of six mineral claims located in Ulster and Moncrieff Townships, Sudbury Mining Division.

Claim Number	Record Date	Township
S681917	March 19, 1984	Moncrieff Twp
S734531	March 23, 1984	Moncrieff Twp
S734532	March 23, 1984	Moncrieff Twp
S734528	March 19, 1984	Ulster Twp
S734529	March 23, 1984	Ulster Twp
S734530	March 23, 1984	Ulster Twp

On September 8, 1987 two wedges (S985120 and S993594) were staked north of claims S734528 and S734529 to cover apparent gaps between these claims and claims S833682 and S833681 located to the north of the Straight Lake property. The above wedges are awaiting inspection by a claims inspector before being accepted.

4.0 EXPLORATION HISTORY

The sulphide occurrence on the Straight Lake property has been described as early as 1929, by Osborne. He reports pyrite with minor chalcopyrite sphalerite and galena occur as stratabound disseminations and lenses in a zone 1.5 meters wide and 120 meters long. Assays are reported as high as 3.5% zinc and 0.44% copper.

West of the Straight Lake property a zinc-rich sulphide deposit of 363,680 tons grading 3.18% Zn, 0.32% Cu, and 0.68 oz. per ton Ag was outlined by Preston East Dome and reported by Mining Corporation of Canada in 1965. The calculation was done using an average width of 8.6 feet to a depth of 157 feet with a length of 1500 feet. Recent work by Stralak Resources has reportedly increased the tonnage and a new zone to the south of the main horizon was found. Details are unclear, however, the southern zone is thought to be better grade than the main horizon. The above program included geological mapping on the area covered by the Straight Lake property.

Work directly on the Straight Lake property has been carried out by several companies. An Input EM survey was flown by Questor for Tex-Sol Exploration Ltd. in 1972.

In 1975 Chevron Standard optioned the Tex-Sol claims and investigated several of the airborne anomalies defined in the 1972 survey. On the airborne anomaly located on the Straight Lake property Chevron completed reconnaissance magnetometer and soil surveys.

In 1980 Rio Tinto flew an Aerodat survey but no follow-up work was recorded.

In 1985 Teck Exploration optioned the Straight Lake property and conducted a program of geological mapping, shootback EM surveys and magnetometer readings. Baselines were cut but the crosslines were flagged. A strong EM conductor was located coincident with the main sulphide showing. The magnetic survey by Teck outlined several highs including a high over the main sulphide showing. Rock sampling by Teck was not extensive and only a few samples were taken which gave low value in zinc, copper and silver. Teck did not recommend further work on the Straight Lake property.

In 1987 Imperial Metals Corporation optioned the property from J. Brady of Sudbury. In February 1988, Imperial Metals contracted Terraquest Ltd. of Toronto to complete an airborne VLF electromagnetic-magnetometer survey over the property. Several anomalies were defined.

5.0 GENERAL GEOLOGY

The property is located near the northern boundary of the Benny Lake Greenstone belt. The Benny Lake belt consists of a number of cyclic repetitions of mafic intermediate and felsic metavolcanics and most of these cycles contain intercalations of sediment and sulphide bearing sulphide bearing tuff. Metamorphic conditions across the belt are from upper greenschist to amphibolite facies and strong east-west deformation has occurred. Most of the rocks have a strong penetrative fabric.

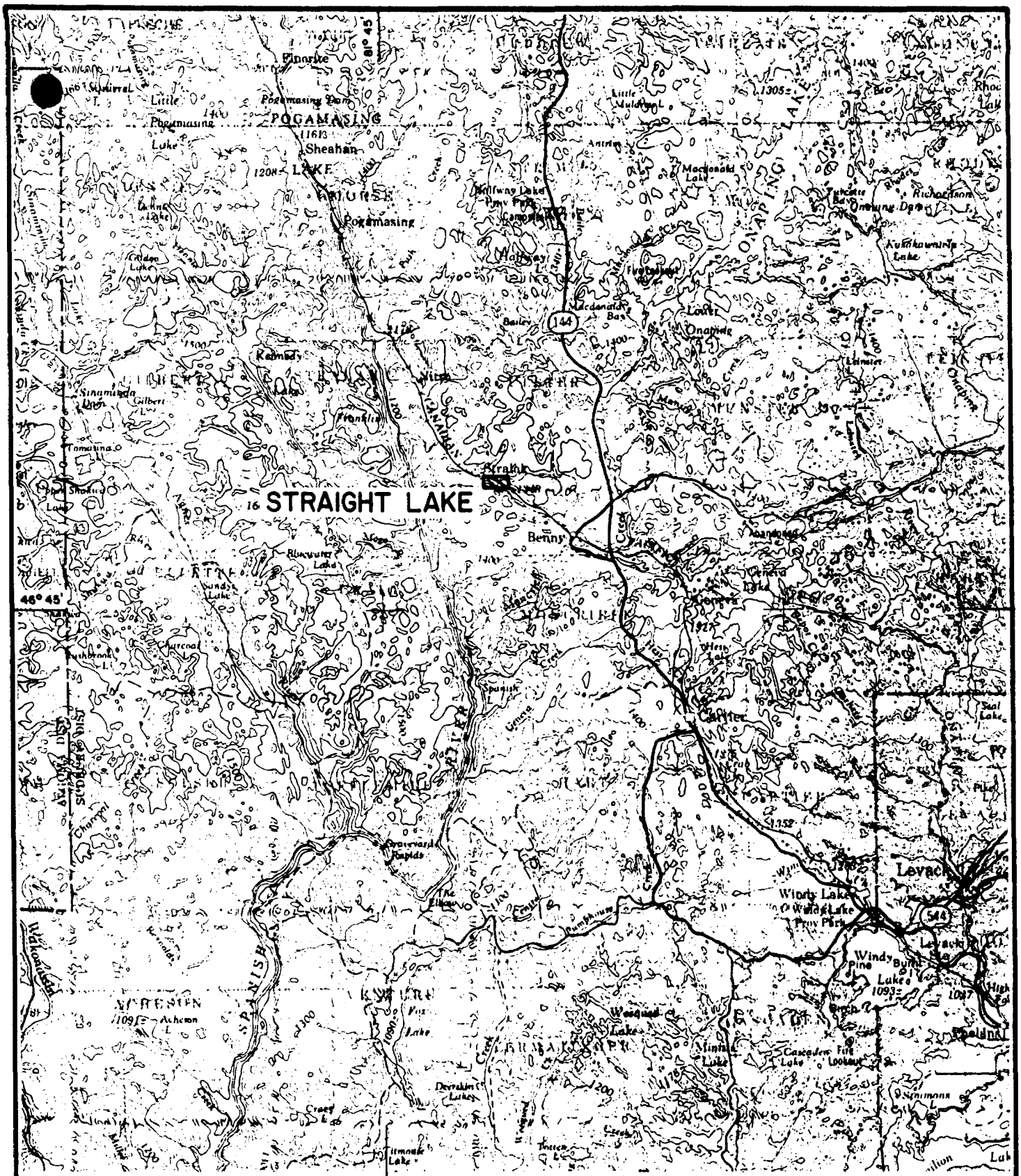
6.0 PROPERTY GEOLOGY

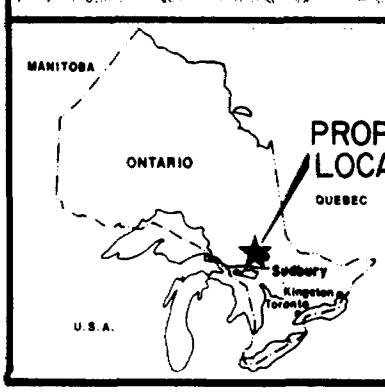
The Straight Lake property is underlain by a sequence of mafic metavolcanics, clastic and siliceous tuffaceous metasediments and hornblende ± quartz ± biotite gneiss. Intrusives of gabbro are common. A Nipissing Diabase dyke also crosses the property. Metavolcanic rocks were subdivided into hornblende schist (Unit 1a), moderately foliated mafic volcanic (Unit 1b) and mafic tuff (Unit 1c).

The hornblende schist is very strongly foliated and may have been previously mapped as mafic tuff. However, it was thought that the strong foliation was due to strong east-west deformation and not a primary fabric.

TABLE 1 - ROCK GEOCHEMISTRY: SILICEOUS SEDIMENTARY UNIT

Sample No.	Grid Location	Description	Zn	Pb	Cu	Ag	Fe	Fe_2O_3	SiO_2	Al_2O_3
STR-88-01	1+50E/0+30S	Main sulphide showing	417	6	364	0.9	38.10	50.84	20.11	3.84
STR-88-02	1+00E/0+25S	Pit	455	204	423	1.2	12.64	18.45	51.63	12.52
STR-88-03	1+00E/0+25S	Pit	228	66	102	0.4	6.11	8.58	61.47	14.18
STR-88-04	1+00E/0+35S	Pit	204	62	98	0.3	5.26	7.02	63.03	14.52
STR-88-05	1+50E/0+25S	1m chip main showing	151	17	35	0.1	3.31	4.06	68.86	14.49
STR-88-06	1+50E/0+25S	1m chip main showing	153	9	287	0.6	28.30	41.26	33.11	7.87
STR-88-07	1+50E/0+25S	1m chip main showing	257	17	144	0.5	15.76	22.99	46.79	12.44
STR-88-08	1+50E/0+25S	1.5m chip main showing	106	108	163	0.6	14.06	20.54	45.78	11.31
STR-88-09	1+75E/0+30S	1m sulphides	184	434	82	0.6	7.90	10.45	60.63	14.53
STR-88-10	2+00E/0+40S	Pit	92	16	34	0.1	4.40	5.41	72.20	12.15
STR-88-11	2+75E/0+50S	Trench	42	16	127	0.4	12.65	17.20	50.42	15.11
STR-88-12	2+75E/0+50S	Trench	82	20	32	0.2	3.40	4.32	69.02	14.37
STR-88-13	3+50E/0+50E	Pit	182	17	374	0.9	26.63	40.60	32.47	8.62
STR-88-14	3+50E/0+50S	2m pit	77	4	77	0.1	6.36	10.10	56.55	14.27
STR-88-15	3+50E/3+15S	2m pit	38	4	56	0.1	4.75	6.32	64.18	13.39
STR-88-16	4+50E/0+50N	Quartz vein	123	110	29	0.6	1.57	1.95	79.07	10.78
STR-88-17	9+00E/BL	1-2% pyrite	47	7	32	0.1	3.54	4.73	71.68	12.29
STR-88-18	7+00E/BL		86	11	34	0.1	4.11	5.16	69.74	13.19





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STRAIGHT LAKE

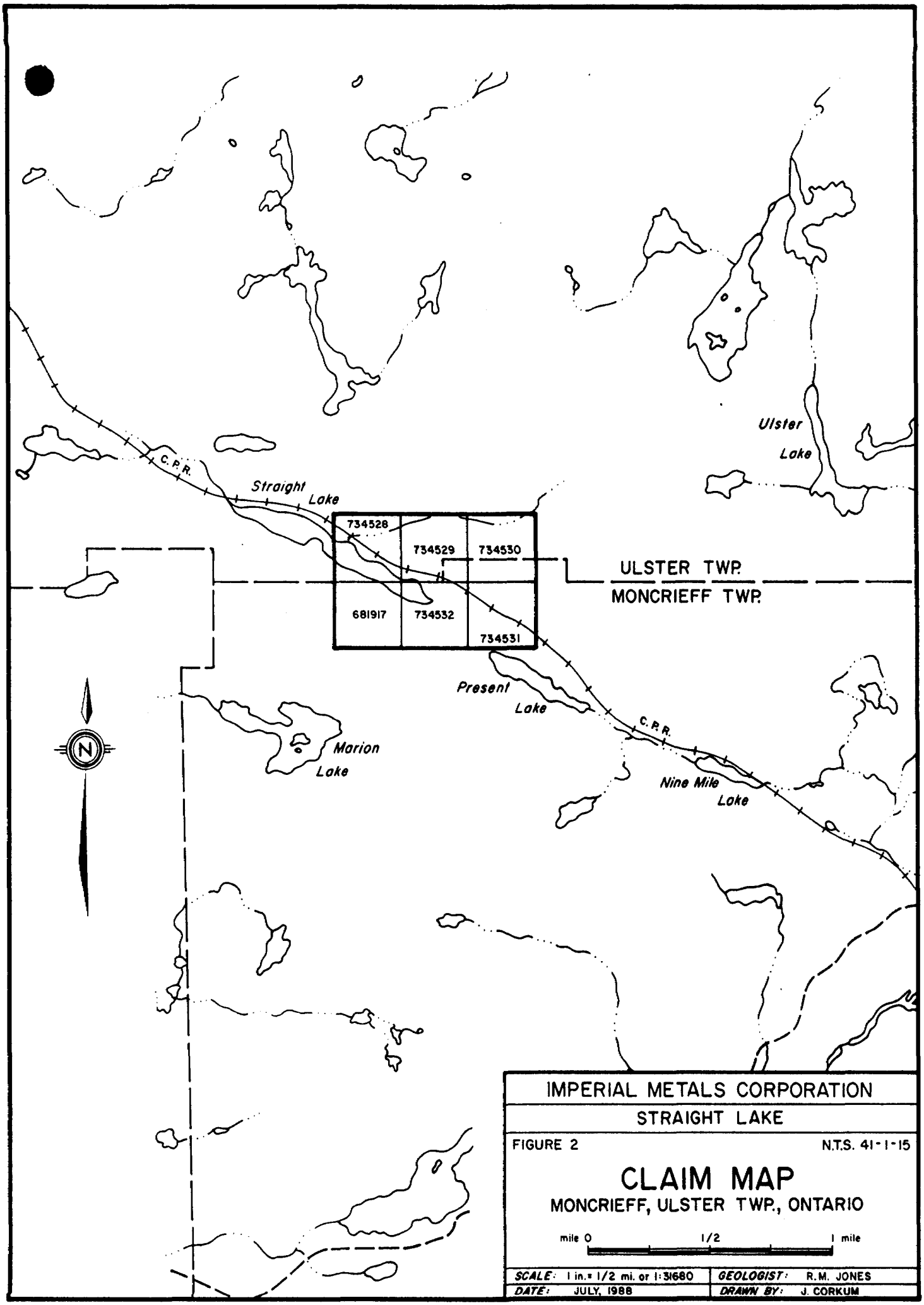
FIGURE 1 N.T.S. 41-1-15

LOCATION MAP

MONCRIEFF, ULSTER TWP., ONTARIO

km 0 5 10 15 km

SCALE: 1:250000	GEOLOGIST: R.M. JONES
DATE: JULY, 1988	DRAWN BY: J. CORKUM


C.P.R.
Straight Lake
Ulster Lake
734528
734529
734530
681917
734532
734531
ULSTER TWP.
MONCRIEFF TWP.
Present Lake
C.P.R.
Marion Lake
Nine Mile Lake
N
IMPERIAL METALS CORPORATION
STRAIGHT LAKE
FIGURE 2
N.T.S. 41-1-15
CLAIM MAP
MONCRIEFF, ULSTER 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

The moderately foliated mafic volcanic is also the result of strong east-west deformation. At one outcrop at 3+75E, BLO faint stretched pillow salvages were visible. No true primary mafic tuff was found on the property.

Metasediments were subdivided into wacke (Unit 2a), siliceous sediments (Unit 2b), cherty sediments (Unit 2c) and siliceous sediments mineralized (Unit 2d). A band of east-west trending metasediments crosses the north part of the property and a second band may cross the southern part of the property.

The wacke and quartzite are commonly finely banded and contain fine biotite. Siliceous sediments are closely associated with sulphide mineralization and a band of siliceous sediments extends east and west along strike from the main sulphide showing. (See Table 1 for rock geochemistry of the siliceous sedimentary unit).

Hornblende ± quartz ± biotite gneiss (Unit 3) may be the strongly metamorphosed equivalent of the mafic volcanic unit. The rock consists of quartz, feldspar (?) white bands and black hornblende bands on a mm to cm scale.

Intrusive rocks include coarse grained massive gabbro dykes and plugs which cut the stratigraphy and foliation. The gabbro is completely unfoliated and must have intruded later than the regional deformation. Regionally these dykes strike north-westerly or north-easterly.

A Nipissing Diabase dyke was mapped along the railway, in the south eastern part of the property. This dyke has a similar composition and texture to the gabbro but has a higher white feldspar content. Both the gabbro and the diabase contains 1-3mm hornblende grains. Airborne magnetic surveys indicate this dyke to extend under Straight Lake along an east-northeast trend. The dyke would roughly follow the trace of the Straight Lake Fault.

7.0 STRUCTURE

Card and Innes (1981) describe three separate sets of faults which affect the Benny Lake Greenstone Belt:

(a) N-NW (N15° to N30° W)
These faults are characteristically vertical with apparent right hand horizontal displacement of 300 to 2000m.

(b) NW (N50° W to N70° W)
These faults show right hand apparent horizontal displacement of 300 to 600m.

(c) NE (N55° E to N70°E)
These faults indicate right hand and left hand horizontal displacements of 150 to 300m.

The fault which extends along Straight Lake would be one of the NW (N50° W to N70° W) set of faults.

As mentioned previously most of the rocks underlying the Straight Lake property are strongly foliated. This foliation generally strikes roughly east-west and dips 50°-60° south. The foliation is likely parallel to the bedding.

8.0 ECONOMIC GEOLOGY

8.1 Volcanogenic Massive Sulphide Mineralization in the Benny Lake Greenstone Belt

The following description is taken from Card and Innes (1981):

"Exploration has been carried out in the map-area for zinc, lead, copper, nickel, iron, silver, gold and uranium. Stratabound and vein-type deposits containing base-metal sulphides occur at a number of locations in the Benny metavolcanic-metasedimentary sequence. The major known deposit, the Geneva Lake Mine[1], Hess Township, was discovered by John Collin in 1924, and from 1941 to 1944 produced some 4,717,000 kg (10,400,000 lbs) of zinc, and 1,632,900 kg (3,600,000 lbs) of lead, and silver valued at $28,416. The present property owners, Geneva Metals Incorporated, have continued to explore the property in recent years. Other sulphide occurrences in the metavolcanic-metasedimentary

sequence, notably the following properties once known collectively as the "Stralak deposit", H. Barry (Stralak Deposit East)(2) and Confederation Mining Corporation Limited (Stralak Deposit West)(4)[2] in Craig Township, have been tested periodically by trenching, diamond drilling, and geological and geophysical surveys.

There are numerous stratabound sulphide occurrences consisting mainly of pyrite and pyrrhotite with variable amounts of sphalerite, galena, and chalcopyrite within the metavolcanic-metasedimentary sequence. Most of these sulphide occurrences are in schistose siliceous and graphitic rocks at the contacts between mafic and intermediate to felsic metavolcanics, both flows and pyroclastic rocks. There are a number of such sulphide-bearing units in the eastern and central parts of the belt extending from Hess Township to Ouellette Township. Individual zones with disseminated to massive sulphide mineralization are up to 30m thick and several can be traced along strike for several kilometers. Within these zones there are lenses of massive sulphides up to 3m thick. Mineral zoning is evident in one of these stratabound units, the Stralak deposit[1] in Craig Township. The footwall mafic metavolcanics are commonly rich in chlorite, epidote, and vein quartz and locally contain disseminated chalcopyrite. Above this is a zone of schistose graphitic metasediments with heavily disseminated to massive sulphides, mainly pyrite and pyrrhotite, but also at several localities, sphalerite and galena. The sphalerite-rich lenses commonly display a "buckshot" texture consisting of large (up to 1cm), rounded grains of pyrite in a matrix of black sphalerite. Overlying the sulphide-rich zone, there are commonly quartz and muscovite-rich schists with disseminated and massive sulphide lenses, mainly pyrite and pyrrhotite. The hanging-wall rocks consist of felsic pyroclastics containing minor disseminated pyrite and pyrrhotite. The sulphides would appear to be of volcanogenic origin, deposited by volcanic exhalative processes penecontemporaneously with their host rocks.

The most important occurrences of this type are the Geneva Metals Incorporated (Geneva Lake Mine)(5) and the Stralak deposits [H. Barry (Stralak Deposit East)(2), Confederation

Mining Corporation Limited (Stralak Deposit West)(4)], both of which contain appreciable amounts of sphalerite and galena. Similar occurrences, although apparently containing no or only minor basemetals, are located in northern Hess, southwestern Munster, northern and western Moncrieff, northern Craig and south eastern
Gilbert Townships."

8.2 Stralak Deposit

The following description is from Card and Innes (1981):

"The eastern mineralized zone is approximately 500m long and up to 18m thick and dips southward at angles of 45° to 55°. The main mineralized part of this zone is about 255m long and up to 3m thick with a number of massive sulphide lenses up to 2m thick.

There are some ten pits along this zone, exposing disseminated and massive sulphides. In the eastern most pit, sulphides, mainly pyrite and pyrrhotite, are present in thinly laminated siliceous metasediments rich in sericite over a width of 3.6m. The sulphides form stratabound disseminations and lenses.

In the next large pit to the west there is a lens of massive, sphalerite-rich sulphide mineralization in 3m thick. This pit displays a stratagraphic sequence typical of the better mineralized parts of both the east and west zones. This sequence is as follows:

1. Footwall rocks; mafic metavolcanics rich in chlorite, epidote and quartz and commonly containing disseminated sulphides, including chalcopyrite, pyrite, and pyrrhotite.

2. Approximately 1.5m of green and grey siliceous tuff and metasediment with disseminated pyrite and chalcopyrite.

3. Main mineralized zone; up to 3.6m of massive and disseminated sulphides commonly display stratiform layering and are intercalated with light grey siliceous metasediment (chert).

4. About 9 to 12m of laminated siliceous and micaceous metasediments and grey chloritic tuff with stratiform lenses and disseminations of sulphides, mainly pyrite.

5. Hanging wall rocks; light grey to pink, bedded felsic tuff with minor disseminated stratiform sulphides.

The western zone, exposed over a strike-length of about 200m is up to 15m thick, and dips southward at angles of 50° to 65°. The main mineralized part of the zone is about 120m long and approximately 1.8m thick.

The massive sulphide lenses consist of pyrite, sphalerite, chalcopyrite, and galena in about that order of abundance (Photo 7). The sphalerite is an iron rich, dark brown to black variety. The pyrite is typically coarse grained and has a distinctive "buckshot" texture with large (5mm to 1cm), deformed rounded grains of pyrite in a fine-grained sphalerite-rich matrix. Where effects are visible, the pyrite grains have been fractured and elongated to form a rodding lineation."

8.3 Straight Lake Sulphide Occurrence

The main sulphide showing on the property consists of massive pyrite and pyrrhotite with traces of chalcopyrite and sphalerite. The showing occurs at the contact between mafic volcanic to the north and siliceous mineralized sediments to the south. The siliceous sediment unit which hosts the sulphide mineralization was traced for a total strike length of 900m. The mineralized horizon has several trenches and pits along it including a 2.5 x 3m pit which tested the showing at L1+50E. This mineralized horizon is likely the same horizon as that which hosts the Stralak deposit. (See Table 1 for sampling results.)

The metasediment unit-metavolcanic contact in the south part of the property may represent second favourable horizon for zinc-copper mineralization.

9.0 SOIL GEOCHEMISTRY

A total of approximately 220 B-horizon soil samples were collected at 25m intervals along the north-south lines spaced 50m apart in the detailed area and 100m apart in the remainder. All six claims were covered by the survey. The podzoil soil profile was well developed and the B-horizon was located 10-20cm from the surface. The soil on the property is probably residual or glacially transported a short distance.

Results from the soil sampling were, for the most part, low although weakly anomalous zinc and lead values were returned from samples taken over the siliceous sedimentary unit which hosts the sulphide mineralization.

Additional weakly anomalous zinc and lead values occur north of the baseline on L8B and 9B near magnetic anomalies. The soil and magnetic anomalies suggest that there is a possible second mineralized horizon in this area.

A few weakly anomalous lead and zinc values were returned from samples taken near the diabase dyke which crosses the southern portion of the property.

10.0 MAGNETOMETER SURVEY

A proton procession, Geometrics 816 magnetometer was used to take total magnetic field strength measurements. Readings were taken at 12.5m intervals on 50m spaced lines in the detailed grid and on 100m spaced lines on the remainder of the grid. Corrections were made using closed-loops along a corrected baseline. Corrections less than 20 gammas were ignored. Instrument sensitivity is thought to be ± 2 gammas. A base level correction of 58,000 was used to render most of the readings positive. The magnetic survey shows several highs. One high in the area of the main sulphide showing is probably due to magnetic and pyrrhotite at the showing. The second high in the south east part of the property may be due to the extension of the diorite dyke mapped near the railway however, given the location in the stratigraphy this high may represent a sulphide zone at volcanic sediment contact. This anomaly warrants further magnetometer work and mapping to determine if the high is caused by the dyke.

Anomalous magnetic highs and lows also occur north of the baseline on L8B and 9B. These anomalies are worthy of follow-up and may reflect sulphide mineralization.

11.0 CONCLUSIONS AND RECOMMENDATIONS

1. The main Straight Lake showing consists of massive pyrite and pyrrhotite at the contact between mafic volcanic to the north and siliceous mineralized metasediments. The mineralized horizon was traced for 900m in strike. This horizon is likely the same horizon which hosts the Stralak deposit.

2. A second metasediment - volcanic contact in the southern part of the property may offer potential for sulphide mineralization. Additional magnetometer work and mapping is needed in this area to determine if a magnetic high is caused by an extension of a dyke or by sulphides at the sediment-volcanic contact.

3. Results from the soil sampling returned weakly anomalous lead and zinc values for samples taken over or near the siliceous sedimentary unit which hots the sulphide mineralization.

4. Results from rock chip sampling of the sulphide mineralization and/or the siliceous sedimentary unit returned up to 455ppm Zn, 434ppm Pb, 423ppm Cu, and 1.2ppm Ag.

5. The sulphide showing is reflected by a marked magnetic response. Two other magnetic anomalies are judged worthy of follow-up and may reflect sulphide mineralization.

12.0 AUTHOR'S QUALIFICATIONS

Qual. 27182

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 #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 this 16 day of August, 1988 in the City of Vancouver, Province of British Columbia.

Dennis M. Gorc

Qual. 2.10667

13.0 REFERENCES

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APPENDIX I

LIST OF REFERENCE ROCK SPECIMENS

APPENDIX I

LIST OF REFERENCE ROCK SPECIMENS

Str. Ref.	Locations	Description
1	L1+50E, 0+25S	Main sulphide showing
2	L1+00E, 0+50S approx.	Massive mafic volcanic
3	L1+00E, 0+75S approx.	Gabbro
4	-	-
5	L1+00E, 1+25S approx.	Hornblende gneiss
6	2+75E, 0+50S	Siliceous mineralized trench
7	L1+50S, 0+25S	Main showing area
8	L1+50S, 0+25S	Siliceous rock S. wall pit
9	L1+50S, 0+25S	Siliceous rock N. wall pit
10	L0+50E, 0+50S	Siliceous sediments
11	L0+50E, 1+00S	Hornblende gneiss
12	L1+00E, 1+00S	Small pit sulphides
13	L1+50E, 0+25S	Gabbro
14	L7E, 0+50S	Greywacke sediment
15	L2E, 4+00S	Fine banded greywacke
16	L9E BL0	Siliceous tuff(?)
17	L8E 0+25S	Wacke(?)
18	L7E BL0	Siliceous sediment
19	L0+50E, BL0	Wacke
20	L1+50, 0+30S	Main pit sulphides
21	L1+50, 0+30S	Main pit rubble

APPENDIX II

ROCK GEOCHEMICAL DATA

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: ROCK AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE.

Straight

DATE RECEIVED: JUN 01 1988 DATE REPORT MAILED: June 8/88 ASSAYER C. Leong ..D.TOYE OR C.LEONG, CERTIFIED B.C. ASSAYERS

IMPERIAL METALS PROJECT-7155 File # 88-1696

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
STR-88-01	1	364	6	417	.9	126	65	168	38.10	13	5	ND	3	4	1	2	5	10	.10	.013	5	5	.15	6	.03	2	.44	.01	.03	1	1
STR-88-02	1	423	204	455	1.2	54	45	344	12.64	6	6	ND	2	11	3	2	2	34	.48	.070	15	29	.68	7	.18	4	.83	.02	.06	1	2
STR-88-03	1	102	66	228	.4	41	17	516	6.11	4	5	ND	4	15	1	2	2	40	.64	.080	22	46	1.00	7	.21	6	1.12	.04	.06	1	1
STR-88-04	1	98	62	204	.3	43	16	1149	5.26	2	5	ND	5	14	1	2	2	44	.67	.088	24	61	1.12	7	.23	8	1.20	.02	.07	1	1
STR-88-05	2	35	17	151	.1	22	10	226	3.31	4	5	ND	2	14	1	2	2	28	.30	.051	13	19	.72	21	.07	13	1.03	.05	.13	1	1
STR-88-06	1	287	9	153	.6	88	42	248	28.20	2	5	ND	3	6	1	2	2	29	.26	.049	7	24	.36	9	.12	2	.66	.02	.08	1	1
STR-88-07	1	144	17	257	.5	55	27	493	15.76	2	5	ND	2	8	1	2	2	30	.36	.058	11	28	.56	8	.14	6	.79	.04	.09	1	5
STR-88-08	1	163	108	106	.6	65	31	248	14.86	21	5	ND	7	10	1	2	2	36	.49	.097	18	29	.51	11	.17	11	.74	.02	.08	1	1
STR-88-09	1	82	434	184	.6	31	15	426	7.90	2	5	ND	3	8	1	2	2	30	.27	.047	10	23	1.15	12	.10	2	1.20	.02	.11	1	1
STR-88-10	1	34	16	92	.1	19	12	676	4.40	4	5	ND	7	13	1	2	2	53	.45	.051	18	33	.92	114	.27	33	1.70	.07	.47	1	2
STR-88-11	3	127	16	42	.8	54	35	527	12.65	2	6	ND	4	7	1	2	2	61	.32	.068	20	27	.92	17	.11	6	1.33	.02	.10	2	1
STR-88-12	4	32	20	82	.2	26	13	340	3.40	2	5	ND	4	20	1	2	2	27	.55	.047	13	21	.65	20	.11	9	1.12	.04	.16	2	1
STR-88-13	1	374	17	182	.9	102	70	307	26.63	2	5	ND	3	9	1	2	2	35	.35	.060	16	35	.68	7	.11	27	1.02	.02	.09	1	1
STR-88-14	1	77	4	77	.1	51	21	227	6.36	2	5	ND	1	9	1	2	2	39	.63	.109	15	48	.49	5	.24	2	.62	.04	.05	1	1
STR-88-15	1	56	4	38	.1	27	14	224	4.75	2	5	ND	1	15	1	2	2	31	.49	.069	12	33	.65	7	.17	3	.90	.04	.08	2	1
STR-88-16	111	29	110	123	.6	11	7	249	1.57	5	5	ND	6	7	1	2	3	16	.23	.016	12	16	.59	12	.07	8	.75	.03	.13	2	2
STR-88-17	1	32	7	47	.1	18	10	614	3.54	2	5	ND	6	27	1	2	2	43	.59	.045	15	39	.95	13	.23	2	1.62	.02	.09	2	1
STR-88-18	1	34	11	86	.1	20	12	708	4.11	2	5	ND	7	15	1	2	2	50	.47	.043	18	47	1.16	12	.25	2	1.75	.01	.09	1	1
STD C/AU-R	21	63	41	133	7.6	69	32	1149	4.14	44	19	8	41	53	19	16	19	59	.50	.096	40	61	.90	188	.08	37	1.78	.06	.15	14	520

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

WHOLE ROCK ICP ANALYSIS

A .1000 GRAM SAMPLE IS FUSED WITH .60 GRAM OF LIBO2 AND IS DISSOLVED IN 50 MLS 5% HNO3.
- SAMPLE TYPE: ROCK

DATE RECEIVED: JUN 01 1988 DATE REPORT MAILED: June 8/88 ASSAYER..C. Leong..D.TOYE OR C.LEONG, CERTIFIED B.C. ASSAYERS

IMPERIAL METALS PROJECT-7155 File # 88-1696

SAMPLE#	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba PPM	LOI %	SUM %
STR-88-01	20.11	3.84	50.84	.46	.71	.68	.61	.13	.06	.03	.01	118	22.4	99.90
STR-88-02	51.63	12.52	18.45	2.09	3.14	3.38	1.84	.66	.17	.07	.01	422	5.8	99.83
STR-88-03	61.47	14.18	8.58	2.26	3.88	3.42	1.97	.74	.18	.08	.01	494	3.1	99.95
STR-88-04	63.03	14.52	7.02	2.30	4.04	3.34	2.04	.82	.20	.08	.01	527	2.4	99.89
STR-88-05	68.86	14.49	4.06	1.40	1.92	2.62	2.97	.40	.11	.03	.01	748	3.0	100.00
STR-88-06	33.11	7.87	41.26	1.27	1.67	1.77	1.22	.43	.13	.04	.01	258	11.2	100.02
STR-88-07	46.79	12.44	22.99	2.04	2.76	2.72	2.15	.58	.15	.08	.01	2296	6.7	99.80
STR-88-08	45.78	11.31	20.54	3.42	3.28	2.55	2.78	.63	.23	.08	.01	606	9.2	99.91
STR-88-09	60.63	14.53	10.45	2.16	2.12	2.91	2.34	.45	.11	.05	.01	420	4.1	99.93
STR-88-10	72.20	12.15	5.41	1.42	2.64	2.28	1.52	.53	.12	.08	.01	411	1.6	100.03
STR-88-11	50.42	15.11	17.20	1.95	1.76	3.34	2.93	.52	.16	.06	.01	894	6.3	99.91
STR-88-12	69.02	14.37	4.32	1.28	3.05	2.65	2.15	.40	.10	.04	.01	448	2.6	100.07
STR-88-13	32.47	8.62	40.60	1.74	2.35	1.13	1.85	.54	.16	.05	.01	267	10.4	99.97
STR-88-14	56.55	14.27	10.01	3.77	5.46	4.06	1.92	.96	.26	.11	.02	355	2.4	99.85
STR-88-15	64.18	13.39	6.32	2.43	3.93	2.70	2.26	.58	.16	.05	.01	414	3.9	99.98
STR-88-16	79.07	10.78	1.95	.95	.77	3.05	2.50	.18	.03	.02	.01	269	.6	99.96
STR-88-17	71.68	12.29	4.73	1.47	3.06	1.58	2.19	.51	.10	.07	.01	464	2.3	100.07
STR-88-18	69.74	13.19	5.16	1.73	2.58	2.10	2.70	.54	.10	.07	.01	515	1.9	99.91
STD So-4	67.50	10.05	3.41	1.03	1.49	1.41	2.19	.51	.22	.08	.01	734	11.5	99.52

APPENDIX III

SOIL GEOCHEMICAL DATA

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: SOIL AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE.

DATE RECEIVED: JUN 01 1988 DATE REPORT MAILED: June 9/88 ASSAYER. C. Leong .D.TOYE OR C.LEONG, CERTIFIED B.C. ASSAYERS

IMPERIAL METALS PROJECT-7115 File # 88-1695 Page 1

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
SL0+50E 0+25N	4	45	39	71	.1	26	6	112	2.39	3	5	ND	3	10	1	2	2	45	.14	.058	56	54	.31	30	.08	2	3.19	.01	.05	1	1
SL0+50E 0+00S	1	13	31	93	.1	14	5	343	2.39	2	5	ND	3	14	1	2	3	40	.15	.029	7	29	.19	50	.11	2	1.14	.01	.05	1	1
SL0+50E 0+25S	1	21	61	91	.4	17	5	120	2.83	2	5	ND	1	10	1	2	5	30	.14	.042	11	31	.25	21	.09	4	1.38	.01	.05	1	2
SL0+50E 1+00S	2	16	8	53	.1	15	4	107	2.45	2	5	ND	3	8	1	2	2	40	.11	.035	8	31	.16	28	.11	2	1.81	.01	.04	1	1
SL0+50E 1+25S	1	20	13	62	.1	28	9	197	2.16	2	5	ND	7	16	1	3	3	44	.21	.017	33	46	.61	20	.20	6	2.73	.02	.04	1	1
SL1+00E 0+25N	1	4	6	19	.1	4	1	46	.48	2	5	ND	3	10	1	4	2	15	.09	.004	10	9	.05	13	.07	2	.35	.01	.03	1	1
SL1+00E 0+00S	1	6	53	81	.1	22	4	119	2.69	2	5	ND	4	11	1	2	4	40	.14	.037	12	78	.23	36	.15	12	1.52	.01	.04	1	1
SL1+00E 0+25S	2	22	38	48	.1	14	4	71	2.66	4	5	ND	3	10	1	2	2	40	.11	.021	9	27	.15	32	.12	3	1.01	.01	.05	1	1
SL1+00E 0+50S	2	21	25	48	.1	9	4	73	2.12	3	5	ND	2	10	1	2	3	44	.10	.015	13	20	.15	28	.14	2	.95	.01	.04	1	2
SL1+00E 0+75S	1	15	23	51	.1	13	3	73	1.53	2	5	ND	1	12	1	2	2	35	.14	.013	7	17	.13	23	.12	4	.80	.01	.03	1	1
SL1+00E 1+00S	1	26	9	54	.1	18	7	192	1.89	2	5	ND	1	15	1	2	2	30	.19	.030	8	22	.23	26	.10	2	1.18	.01	.03	1	1
SL1+00E 1+25S	2	22	17	35	.1	20	5	53	2.20	2	5	ND	3	9	1	2	2	38	.09	.024	8	20	.11	14	.10	2	2.34	.01	.05	2	1
SL1+00E 1+39S	5	44	40	108	.1	33	11	215	4.20	6	5	ND	2	9	1	2	2	59	.10	.051	77	40	.20	33	.06	3	2.08	.01	.06	1	2
SL1+00E 3+00S	1	45	16	48	.1	42	12	180	2.56	2	5	ND	7	16	1	2	2	42	.23	.025	15	50	.61	28	.16	17	1.87	.01	.06	1	1
SL1+00E 3+25S	1	7	15	40	.1	15	4	82	2.03	2	5	ND	4	10	1	4	2	38	.12	.023	8	31	.16	24	.13	9	1.58	.01	.03	1	1
SL1+00E 3+50S	1	8	9	33	.1	11	5	140	2.89	2	5	ND	3	12	1	2	2	50	.14	.027	7	29	.19	40	.17	2	1.00	.01	.03	1	1
SL1+00E 3+75S	1	11	14	29	.2	13	5	80	2.42	2	5	ND	4	10	1	3	3	44	.12	.016	11	26	.18	29	.16	5	1.28	.01	.05	1	1
SL1+00E 4+00S	1	5	13	35	.1	10	2	191	1.73	2	5	ND	2	10	1	2	2	27	.10	.019	9	19	.10	28	.09	6	1.14	.01	.04	1	1
SL1+00E 4+25S	1	19	18	48	.1	24	5	175	3.50	2	6	ND	4	11	1	3	2	46	.17	.055	11	39	.31	33	.14	3	2.01	.01	.04	1	1
SL1+00E 4+50S	1	7	10	41	.1	16	8	329	2.51	6	5	ND	3	9	1	2	3	34	.11	.031	10	30	.18	37	.11	9	1.99	.01	.04	2	2
SL1+50E 0+43N	1	17	13	60	.1	37	10	278	4.36	6	5	ND	2	19	1	2	6	82	.25	.034	6	206	1.42	22	.20	2	1.82	.01	.04	1	1
SL1+50E 0+25N	1	8	22	65	.1	12	3	265	1.39	3	5	ND	3	13	1	2	2	28	.14	.014	9	23	.15	23	.09	7	.81	.01	.04	1	2
SL1+50E 0+00S	1	16	35	64	.1	17	5	165	3.07	3	5	ND	4	14	1	2	2	45	.20	.038	9	43	.35	20	.15	2	1.91	.01	.05	1	1
SL1+50E 0+25S	1	8	16	95	.1	13	4	78	2.42	2	5	ND	2	9	1	2	2	34	.10	.034	8	28	.13	27	.10	10	1.98	.01	.05	1	1
SL1+50E 0+50S	1	9	28	43	.1	19	4	84	2.21	7	5	ND	4	9	1	4	4	34	.12	.024	7	30	.19	22	.12	2	1.78	.01	.04	1	2
SL1+50E 0+75S	2	9	24	72	.2	15	6	104	2.47	2	5	ND	2	13	1	3	4	50	.16	.021	14	28	.20	39	.15	2	1.54	.01	.03	1	1
SL1+50E 1+00S	2	30	28	66	.1	34	10	175	3.11	6	5	ND	3	15	1	2	3	49	.19	.031	9	42	.37	36	.16	4	2.14	.01	.05	1	1
SL1+50E 1+25S	2	13	15	40	.1	11	3	97	2.21	3	5	ND	2	16	1	3	3	54	.14	.032	7	22	.14	28	.17	2	.73	.01	.06	1	1
SL2+00E 0+25N	1	8	12	46	.1	22	5	121	2.77	2	5	ND	4	10	1	6	2	39	.12	.036	8	35	.19	32	.11	2	2.34	.01	.05	1	1
SL2+00E 0+00S	1	10	21	32	.1	9	3	75	2.90	4	5	ND	2	9	1	2	2	79	.10	.038	8	25	.09	32	.19	3	.65	.01	.04	1	1
SL2+00E 0+25S	1	7	14	56	.1	19	7	392	3.07	2	5	ND	2	12	1	3	2	44	.14	.044	8	32	.19	52	.13	2	2.18	.01	.04	1	2
SL2+00E 0+50S	1	14	8	39	.1	17	4	91	2.51	2	5	ND	3	9	1	2	6	33	.11	.034	11	32	.14	33	.09	2	2.62	.01	.03	1	1
SL2+00E 0+75S	1	14	20	38	.1	19	5	97	2.05	3	5	ND	2	10	1	3	4	34	.13	.027	12	30	.25	27	.11	2	1.65	.01	.03	1	1
SL2+00E 1+00S	6	13	14	38	.1	20	5	86	2.28	5	5	ND	2	12	1	2	7	40	.13	.021	9	31	.22	25	.13	2	1.65	.01	.03	1	1
SL2+00E 1+25S	3	29	14	60	.1	32	14	179	2.82	2	5	ND	4	11	1	4	2	42	.15	.032	16	36	.33	42	.14	6	2.26	.01	.04	1	7
SL2+00E 1+50S	2	13	3	53	.1	18	5	96	2.58	2	5	ND	3	15	1	4	2	37	.17	.039	9	29	.14	28	.10	4	2.27	.01	.06	1	1
STD C/AU-S	21	62	43	135	7.8	73	31	1103	4.16	42	20	8	40	50	20	18	21	60	.48	.092	40	61	.90	186	.08	35	1.93	.08	.16	15	49

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
SL2+00E 3+25S	1	7	10	32	.1	9	6	105	1.81	2	5	ND	3	12	1	2	2	62	.16	.010	8	25	.21	19	.15	2	1.03	.01	.01	1	5
SL2+00E 3+50S	1	18	9	38	.1	16	8	283	1.84	2	5	ND	3	11	1	2	2	37	.14	.018	11	30	.28	40	.11	4	1.18	.01	.01	1	6
SL2+00E 3+75S	2	20	12	31	1.2	12	5	104	2.67	2	5	ND	4	14	1	2	2	47	.18	.055	13	39	.23	22	.11	4	2.51	.01	.01	1	3
SL2+00E 4+00S	1	12	11	22	.1	5	4	60	1.86	2	5	ND	2	11	1	2	2	41	.10	.017	11	21	.11	22	.11	8	.87	.01	.01	1	10
SL2+00E 4+25S	1	20	9	32	.1	25	7	89	2.45	2	5	ND	4	11	1	2	2	38	.13	.019	14	36	.24	36	.11	13	2.24	.01	.02	1	2
SL2+00E 4+35S	1	11	9	17	.1	8	4	62	1.69	3	5	ND	3	8	1	2	2	26	.08	.019	11	22	.08	16	.07	10	1.94	.01	.02	1	1
SL2+50E 0+50N	1	3	8	32	.1	18	6	113	2.42	3	5	ND	4	12	1	2	3	46	.13	.024	11	29	.18	41	.12	9	1.49	.01	.02	1	14
SL2+50E 0+25N	1	6	13	41	.1	15	7	198	2.11	4	5	ND	3	13	1	2	2	33	.14	.026	9	31	.18	46	.10	8	1.74	.01	.03	1	1
SL2+50E 0+00S	1	6	15	58	.1	17	8	269	2.49	2	5	ND	3	12	1	2	2	38	.13	.035	13	34	.21	52	.11	10	2.24	.01	.03	1	5
SL2+50E 0+25S	1	14	11	47	.1	19	9	489	2.62	8	5	ND	5	16	1	2	2	44	.22	.047	12	34	.36	36	.13	12	1.54	.01	.04	2	4
SL2+50E 0+50S	1	8	10	38	.1	21	9	112	2.35	7	5	ND	4	11	1	2	2	36	.12	.031	11	33	.23	31	.10	7	2.23	.01	.04	1	3
SL2+50E 0+75S	1	12	13	39	.1	20	7	105	3.04	3	5	ND	4	10	1	2	2	51	.12	.020	11	36	.29	35	.14	14	1.93	.01	.02	1	8
SL2+50E 1+00S	2	31	44	47	.1	31	9	117	2.42	8	5	ND	5	14	1	4	2	47	.15	.026	30	35	.33	35	.14	4	2.18	.01	.03	1	11
SL2+50E 1+25S	1	11	9	82	.1	22	11	424	3.01	2	5	ND	2	7	1	2	2	55	.17	.027	8	47	.67	39	.24	15	1.76	.01	.04	1	2
SL2+50E 1+50S	1	5	9	34	.1	10	5	102	1.57	5	5	ND	3	9	1	2	2	26	.12	.040	9	22	.16	17	.07	6	1.23	.01	.01	1	1
SL2+50E 1+75S	1	23	14	40	.1	22	9	111	2.24	5	5	ND	4	10	1	2	3	36	.12	.029	11	38	.25	15	.11	5	2.21	.01	.01	2	1
SL2+50E 2+00S	1	9	12	21	.1	15	5	76	.99	2	5	ND	2	10	1	2	2	24	.10	.009	12	26	.25	8	.10	3	2.13	.01	.01	1	1
SL3+00E 0+50N	2	4	16	37	.1	8	6	91	2.61	2	5	ND	4	13	1	2	2	55	.13	.040	9	24	.15	30	.13	2	1.11	.01	.04	1	1
SL3+00E 0+25N	1	3	9	63	.1	10	4	206	1.44	3	5	ND	1	12	1	2	2	22	.12	.035	8	21	.12	36	.06	3	1.16	.01	.02	1	1
SL3+00E 0+00S	1	4	7	41	.3	7	3	171	1.76	2	5	ND	3	10	1	4	2	35	.10	.023	10	20	.11	30	.10	3	.88	.01	.02	2	1
SL3+00E 0+25S	1	6	11	58	.2	15	7	244	2.18	4	5	ND	3	11	1	2	2	32	.12	.039	8	31	.19	30	.10	10	2.19	.01	.03	1	2
SL3+00E 0+50S	1	9	10	43	.1	15	5	103	2.32	7	5	ND	2	10	1	2	2	33	.12	.036	9	30	.18	27	.09	3	1.78	.01	.02	1	3
SL3+00E 0+75S	1	17	24	60	.1	20	6	108	1.98	4	5	ND	4	12	1	4	2	31	.13	.026	9	33	.18	37	.09	2	2.03	.01	.03	1	1
SL3+00E 1+00S	2	8	13	36	.1	14	5	78	2.49	9	5	ND	3	13	1	2	2	47	.11	.021	8	28	.11	39	.11	4	1.74	.01	.03	1	1
SL3+00E 1+25S	1	20	13	109	.2	38	16	475	4.31	6	5	ND	3	9	1	2	2	80	.15	.043	10	68	1.10	54	.30	2	2.45	.01	.06	1	2
SL3+00E 1+50S	1	11	15	75	.1	14	7	196	3.41	4	5	ND	2	9	1	2	2	56	.12	.077	7	35	.26	35	.15	3	2.23	.01	.02	1	2
SL3+00E 2+00S	1	4	10	25	.1	7	3	57	.83	2	5	ND	2	9	1	2	2	22	.10	.013	9	32	.16	20	.09	3	2.15	.01	.01	1	1
SL3+00E 2+25S	1	20	17	50	.2	29	6	156	1.78	2	5	ND	6	11	1	2	2	60	.16	.018	24	37	.45	23	.14	2	2.41	.01	.02	1	1
SL3+00E 4+00S	1	2	4	20	.1	8	3	58	1.46	2	5	ND	2	9	1	2	2	43	.10	.010	8	20	.13	19	.13	2	.71	.01	.01	1	1
SL3+00E 4+25S	1	7	15	40	.1	16	6	103	2.49	3	5	ND	4	11	1	2	2	61	.14	.038	11	34	.23	23	.10	7	1.82	.01	.02	2	2
SL3+50E 0+50N	3	1	17	20	.1	3	1	50	.81	2	5	ND	2	10	1	2	2	31	.09	.012	7	11	.05	14	.11	5	.39	.01	.03	1	1
SL3+50E 0+25N	2	8	10	52	.2	12	4	501	1.64	5	5	ND	2	14	1	2	2	29	.21	.065	14	21	.22	28	.11	11	.76	.01	.02	1	1
SL3+50E 0+00S	2	4	12	47	.1	7	2	159	1.95	8	5	ND	2	11	1	2	2	35	.12	.067	9	16	.10	30	.08	8	1.13	.01	.03	1	1
SL3+50E 0+25S	3	5	13	61	.1	8	3	205	1.76	4	5	ND	2	12	1	2	2	29	.13	.083	9	21	.13	35	.09	5	.83	.01	.02	1	1
SL3+50E 0+50S	1	11	14	107	.1	19	6	509	1.75	5	5	ND	1	18	1	2	5	25	.21	.088	11	30	.24	69	.08	3	1.02	.01	.05	1	1
SL3+50E 0+75S	6	6	19	38	.2	11	4	77	2.68	4	5	ND	2	12	1	2	2	48	.12	.028	8	27	.14	26	.13	3	1.48	.01	.03	2	1
STD C/AU-S	20	65	42	130	7.4	74	30	1100	4.14	43	16	8	40	53	20	17	23	63	.48	.094	40	63	.89	181	.08	35	2.04	.07	.15	13	49

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
SL3+50E 1+00S	2	20	22	62	.1	19	9	287	3.74	6	5	ND	3	16	1	2	2	62	.21	.095	9	41	.33	27	.17	8	1.62	.01	.05	2	3
SL3+50E 1+50S	1	14	19	44	.2	11	4	169	1.70	2	5	ND	1	13	1	2	2	29	.13	.031	10	21	.14	33	.07	6	1.07	.01	.04	2	1
SL3+50E 2+00S	3	18	20	67	.1	17	13	250	3.90	2	5	ND	5	7	1	2	5	32	.08	.023	58	27	.10	36	.04	7	1.33	.01	.02	1	1
SL3+50E 2+22S	4	34	23	73	.1	26	14	64	2.17	2	5	ND	9	6	1	2	5	48	.09	.018	80	40	.11	52	.04	4	2.35	.01	.02	2	1
SL4+00E 0+50N	3	3	22	40	.2	5	3	49	2.26	2	5	ND	4	10	1	2	6	53	.10	.011	10	23	.10	20	.15	2	.96	.01	.02	2	1
SL4+00E 0+25N	3	13	10	55	.1	12	7	136	2.85	2	5	ND	2	9	1	2	3	37	.09	.051	10	35	.13	37	.08	2	3.08	.01	.03	1	1
SL4+00E 0+00S	1	11	12	70	.1	9	3	105	2.97	4	5	ND	2	12	1	2	2	56	.16	.103	7	40	.12	37	.13	5	2.11	.01	.04	2	1
SL4+00E 0+25S	1	12	42	49	.1	16	5	104	1.58	2	5	ND	4	12	1	2	2	35	.14	.020	12	29	.28	20	.14	11	1.17	.01	.03	1	2
SL4+00E 0+50S	2	4	16	22	.1	4	2	63	1.79	2	5	ND	1	10	1	2	4	61	.08	.016	6	13	.06	15	.15	3	.62	.01	.01	2	1
SL4+00E 0+75S	1	29	12	50	.1	16	6	135	2.32	5	5	ND	4	11	1	2	5	60	.14	.041	12	34	.29	18	.12	3	2.19	.01	.03	1	1
SL4+00E 1+00S	1	4	15	30	.1	8	3	67	1.95	2	5	ND	2	11	1	2	2	42	.10	.017	9	19	.09	21	.13	13	.71	.01	.03	1	1
SL4+00E 1+25S	1	10	15	28	.1	12	5	74	1.85	2	5	ND	3	11	1	3	2	37	.11	.014	14	24	.10	24	.11	3	1.14	.01	.03	2	1
SL4+00E 1+50S	2	15	5	46	.1	19	6	144	2.94	2	5	ND	5	15	1	2	2	37	.17	.044	9	42	.24	29	.11	8	2.91	.01	.04	1	1
SL4+00E 1+75S	1	38	15	50	.1	72	6	118	1.46	2	5	ND	3	13	1	2	3	28	.20	.037	46	33	.34	24	.08	3	1.32	.01	.02	1	1
SL4+00E 2+00S	4	19	27	61	.1	15	7	117	3.00	5	5	ND	5	6	1	4	3	35	.08	.027	45	24	.08	19	.03	6	1.27	.01	.03	1	1
SL4+00E 2+25S	5	26	40	102	.1	21	23	386	4.83	16	5	ND	8	7	1	2	2	52	.15	.027	34	38	.10	37	.03	14	2.05	.01	.04	1	1
SL4+00E 2+50S	5	36	42	109	.1	35	28	462	6.92	10	5	ND	6	7	1	2	8	54	.09	.040	64	37	.08	48	.03	6	2.01	.01	.04	1	1
SL4+00E 4+00S	1	10	16	55	.1	13	9	145	2.27	4	5	ND	4	11	1	2	4	26	.19	.035	21	22	.17	23	.05	9	.93	.01	.01	1	1
SL4+50E 1+00N	1	5	6	45	.1	9	4	53	.87	2	5	ND	3	10	1	2	3	23	.11	.017	10	25	.14	20	.08	2	1.62	.01	.01	2	1
SL4+50E 0+75N	1	9	13	75	.1	11	6	107	2.15	2	5	ND	3	10	1	2	2	34	.12	.034	10	31	.19	30	.09	4	1.99	.01	.04	1	1
SL4+50E 0+50N	1	5	17	60	.1	7	5	134	2.74	3	5	ND	3	10	1	2	3	62	.10	.026	9	25	.10	26	.14	4	1.48	.01	.03	1	1
SL4+50E 0+25N	3	21	26	83	.2	17	5	191	4.53	3	5	ND	3	11	1	2	5	64	.12	.066	9	53	.36	34	.13	3	2.07	.01	.05	1	1
SL4+50E 0+00S	2	28	16	56	.4	18	8	99	4.30	4	5	ND	3	9	1	2	5	69	.14	.036	9	38	.30	24	.21	4	3.38	.01	.05	2	1
SL4+50E 0+25S	2	14	24	40	.1	6	2	66	3.24	2	5	ND	3	15	1	2	5	62	.09	.020	9	27	.09	18	.16	8	1.12	.01	.03	2	1
SL4+50E 0+50S	1	24	27	60	.1	16	7	150	3.41	3	5	ND	4	11	1	2	6	43	.14	.041	13	43	.28	20	.12	2	3.07	.01	.04	1	1
SL4+50E 0+75S	1	12	18	73	.2	11	6	543	2.18	5	5	ND	3	15	1	2	3	40	.17	.037	10	28	.32	34	.12	2	1.59	.01	.05	1	220
SL4+50E 1+00S	1	12	13	41	.1	12	4	100	2.39	2	5	ND	3	11	1	2	3	36	.12	.037	10	28	.17	28	.10	2	1.73	.01	.03	1	1
SL4+50E 1+25S	2	14	18	53	.1	16	4	196	2.90	7	5	ND	2	13	1	2	4	46	.12	.041	12	31	.18	42	.12	10	1.77	.01	.05	1	1
SL4+50E 1+50S	1	7	8	42	.1	11	3	70	2.06	2	5	ND	2	12	1	2	2	26	.13	.026	13	28	.20	23	.08	6	1.68	.01	.03	2	1
SL5+00E 1+00N	1	6	13	49	.1	16	7	121	3.10	10	5	ND	5	11	1	2	4	44	.13	.025	9	40	.19	26	.13	5	1.89	.01	.03	1	1
SL5+00E 0+75N	2	4	13	43	.1	5	3	92	2.31	2	5	ND	3	10	1	2	2	42	.09	.017	9	25	.10	21	.11	2	.89	.01	.05	2	1
SL5+00E 0+50N	2	15	26	62	.3	20	6	67	4.36	3	5	ND	5	9	1	2	9	45	.10	.030	13	52	.16	24	.11	2	3.01	.01	.03	1	1
SL5+00E 0+25N	2	13	20	35	.1	16	6	95	3.01	6	5	ND	3	11	1	2	2	61	.11	.015	11	35	.26	18	.17	6	1.15	.01	.03	1	2
SL5+00E 0+00S	1	7	18	35	.2	9	2	46	1.79	6	5	ND	3	9	1	2	4	31	.09	.024	9	21	.06	23	.07	16	1.79	.01	.02	2	1
SL5+00E 0+25S	2	10	72	124	.4	18	5	158	3.60	2	5	ND	3	10	1	3	2	43	.13	.064	11	43	.28	18	.11	5	1.91	.01	.03	1	1
SL5+00E 0+75S	1	8	10	51	.1	8	3	69	1.43	7	5	ND	2	10	1	2	2	25	.12	.075	9	16	.08	19	.07	6	.67	.01	.04	1	1
STD C/AU-S	20	63	37	132	7.5	73	31	1112	4.24	43	17	8	39	53	20	16	23	64	.49	.096	40	61	.90	182	.08	35	2.07	.07	.16	14	51

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
SL5+00E 1+00S	1	22	15	98	.1	24	8	275	2.89	2	5	ND	2	13	1	2	2	56	.21	.040	6	26	.47	35	.18	7	1.34	.01	.07	1	1
SL5+00E 1+25S	1	13	164	53	.1	20	4	81	2.42	2	5	ND	1	8	1	2	2	30	.10	.045	8	39	.21	19	.08	6	2.87	.01	.03	1	1
SL5+00E 1+50S	1	11	2	44	.1	12	2	54	2.67	2	5	ND	1	7	1	2	2	34	.08	.129	7	33	.12	24	.06	4	2.76	.01	.03	1	4
SL5+00E 1+75S	3	38	25	132	.1	35	17	271	6.79	2	5	ND	4	27	1	2	2	111	.60	.238	17	33	.87	64	.25	4	2.18	.01	.11	1	1
SL5+00E 2+50S	1	10	26	37	.1	20	4	97	1.43	3	5	ND	3	15	1	3	2	30	.17	.011	8	20	.28	20	.18	7	.89	.01	.05	2	1
SL5+00E 2+75S	1	10	15	21	.1	12	4	52	2.55	2	5	ND	2	10	1	3	2	54	.09	.016	7	21	.10	22	.14	4	1.38	.01	.03	1	1
SL5+00E 3+00S	1	9	9	28	.1	15	4	70	4.01	2	5	ND	3	10	1	2	3	75	.10	.023	7	34	.17	37	.20	2	2.24	.01	.03	1	3
SL5+00E 3+25S	1	13	16	40	.1	20	5	92	1.22	2	6	ND	1	9	1	2	2	25	.11	.017	41	24	.25	26	.07	2	1.12	.01	.04	2	2
SL5+00E 3+50S	6	26	29	111	.1	22	19	568	6.24	4	5	ND	3	4	1	5	2	40	.07	.042	52	27	.06	26	.02	2	1.63	.01	.06	1	1
SL5+00E 4+00S	5	29	24	151	.1	25	36	769	6.43	2	5	ND	6	11	1	2	2	50	.12	.037	74	36	.10	65	.03	2	2.12	.01	.02	1	1
SL5+00E 4+75S	1	4	22	147	.1	16	4	91	2.10	2	5	ND	3	11	1	4	2	25	.14	.021	9	30	.20	23	.09	5	1.70	.01	.05	1	1
SL5+00E 4+90S	1	10	21	135	.1	28	5	124	2.46	2	5	ND	4	11	1	2	4	34	.18	.048	9	49	.31	27	.09	2	1.81	.01	.05	1	4
SL6+00E 1+00N	1	28	8	63	.1	17	5	213	2.35	2	5	ND	3	10	1	2	2	36	.09	.049	7	34	.12	39	.07	4	2.26	.01	.03	1	1
SL6+00E 0+50N	5	20	14	42	.2	13	6	109	5.06	2	5	ND	3	11	1	3	14	97	.10	.030	6	46	.23	20	.29	2	1.75	.01	.05	1	2
SL6+00E 0+25N	1	11	17	43	.1	10	4	90	2.97	2	5	ND	3	8	1	2	2	46	.08	.034	7	28	.13	31	.12	15	2.72	.01	.04	2	5
SL6+00E 0+00S	1	14	20	42	.1	11	4	85	3.27	7	5	ND	4	7	1	2	2	54	.08	.040	7	41	.17	25	.15	9	3.15	.01	.04	1	1
SL6+00E 0+25S	1	8	7	55	.1	12	3	250	1.74	2	5	ND	1	10	1	2	3	28	.10	.033	7	23	.14	29	.08	7	1.58	.01	.03	1	4
SL6+00E 0+50S	1	8	15	47	.1	13	4	92	3.30	2	5	ND	2	8	1	2	2	49	.09	.045	6	30	.15	34	.11	3	3.15	.01	.02	1	1
SL6+00E 0+75S	2	26	17	57	.1	22	6	112	2.21	2	5	ND	2	10	1	2	3	31	.14	.060	10	35	.25	27	.09	7	2.59	.01	.05	1	1
SL6+00E 1+25S	1	8	8	79	.2	20	6	159	2.18	2	5	ND	3	11	1	2	2	35	.13	.036	7	24	.21	33	.10	10	1.73	.01	.05	1	3
SL6+00E 1+50S	2	14	39	120	.1	15	5	75	4.08	2	5	ND	1	7	1	2	2	60	.08	.099	8	36	.16	37	.13	3	3.14	.01	.03	1	3
SL6+00E 1+75S	1	9	13	91	.1	22	5	126	1.81	2	5	ND	2	10	1	2	2	29	.13	.032	9	27	.22	27	.09	3	1.78	.01	.04	1	1
SL6+00E 2+75S	1	13	11	71	.1	24	7	214	2.57	4	5	ND	2	12	1	2	2	37	.16	.033	8	31	.32	39	.13	2	1.74	.01	.04	1	8
SL6+00E 3+00S	1	4	6	15	.1	3	2	41	.76	2	5	ND	1	8	1	2	2	35	.08	.015	6	9	.06	20	.15	3	.44	.01	.02	1	4
SL6+00E 3+25S	1	5	11	21	.1	8	2	63	1.07	2	5	ND	1	10	1	4	5	33	.12	.014	6	17	.12	13	.14	2	.53	.01	.04	1	1
SL6+00E 3+50S	1	27	18	49	.1	25	8	142	2.68	2	5	ND	3	13	1	2	2	42	.17	.043	9	31	.30	29	.13	6	2.09	.01	.05	1	2
SL6+00E 4+00S	7	52	24	85	.1	48	23	198	4.83	2	5	ND	4	24	1	2	2	72	.50	.146	39	34	.81	43	.28	7	2.45	.01	.04	1	2
SL6+00E 4+25S	3	16	23	36	.1	12	4	71	2.09	3	5	ND	2	11	1	4	2	50	.13	.018	7	25	.18	22	.18	4	1.02	.01	.03	2	2
SL6+00E 4+50S	1	17	21	58	.1	11	5	125	1.94	2	5	ND	1	11	1	2	2	40	.16	.036	7	21	.25	28	.13	6	.91	.01	.03	1	11
SL7+00E 1+00N	1	7	20	24	.1	5	3	33	1.90	2	5	ND	1	7	1	2	2	45	.06	.014	7	17	.05	16	.11	3	.98	.01	.02	1	1
SL7+00E 0+75N	1	6	12	49	.1	9	3	90	2.39	2	5	ND	1	8	1	2	2	43	.08	.029	7	24	.12	19	.11	2	1.18	.01	.02	1	1
SL7+00E 0+50N	5	19	43	61	.1	14	5	86	2.52	2	5	ND	2	9	1	2	7	38	.13	.042	13	30	.22	20	.10	2	2.08	.01	.04	1	2
SL7+00E 0+25N	1	15	16	46	.1	15	5	89	2.54	4	5	ND	2	10	1	2	2	35	.12	.079	8	29	.17	23	.09	9	2.31	.01	.03	1	3
SL7+00E 0+00S	1	15	7	50	.1	15	6	91	2.94	2	5	ND	4	8	1	2	2	33	.10	.058	7	38	.22	21	.10	7	3.39	.01	.03	1	1
SL7+00E 0+25S	1	9	14	39	.1	8	3	52	2.83	2	5	ND	4	8	1	2	2	48	.07	.029	9	16	.08	26	.11	2	1.12	.01	.04	1	1
SL7+00E 0+50S	1	14	37	49	.1	16	4	78	2.63	4	5	ND	2	11	1	2	2	45	.12	.025	8	22	.17	29	.14	5	1.00	.01	.04	1	1
STD C/AU-S	20	60	38	132	7.4	73	31	1074	4.14	42	15	8	42	53	20	17	24	58	.48	.095	40	60	.96	183	.08	40	1.98	.08	.14	14	52

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
SL7+00E 1+00S	2	10	17	42	.1	3	2	55	1.76	2	5	ND	1	9	1	2	2	34	.10	.065	7	16	.08	33	.07	4	.96	.01	.04	1	1
SL7+00E 1+25S	1	5	13	40	.1	4	1	103	1.07	2	5	ND	1	10	1	4	2	21	.10	.016	6	9	.07	33	.06	2	.45	.01	.03	1	2
SL7+00E 1+50S	1	29	15	76	.3	17	5	83	2.78	4	5	ND	4	9	1	2	2	35	.12	.031	11	39	.26	24	.09	2	2.43	.01	.03	1	1
SL7+00E 2+00S	1	7	16	84	.3	8	4	125	1.75	5	5	ND	3	9	1	2	2	24	.13	.074	11	23	.17	25	.06	5	1.09	.01	.04	1	1
SL7+00E 2+25S	1	6	9	41	.1	4	1	42	.90	2	5	ND	1	8	1	2	2	15	.09	.015	9	15	.07	18	.04	8	.94	.01	.02	1	6
SL7+00E 2+75S	1	8	14	47	.2	12	4	68	2.77	2	5	ND	2	11	1	4	2	40	.19	.025	7	27	.19	34	.10	5	1.38	.01	.03	1	2
SL7+00E 3+00S	2	10	23	56	.2	7	3	127	4.02	2	5	ND	2	10	1	2	3	54	.10	.042	7	22	.11	30	.11	2	1.22	.01	.04	1	1
SL7+00E 3+50S	1	25	16	36	.1	19	4	61	2.14	3	5	ND	2	10	1	2	2	41	.12	.023	8	23	.14	22	.08	6	1.21	.01	.03	1	2
SL7+00E 3+75S	2	12	11	29	.1	11	3	68	2.92	2	5	ND	2	11	1	2	2	66	.15	.017	6	29	.16	16	.14	8	1.00	.01	.02	1	1
SL7+00E 4+00S	2	27	11	118	.1	40	22	268	6.93	2	5	ND	2	21	1	2	2	146	.43	.129	12	31	.96	50	.56	6	2.95	.02	.04	1	1
SL7+00E 4+50S	1	44	19	93	.2	28	12	256	3.26	2	5	ND	6	13	1	2	2	53	.28	.073	16	43	.62	31	.13	6	2.58	.01	.06	1	1
SL7+00E 4+75S	1	18	17	68	.1	14	6	165	2.81	2	5	ND	1	8	1	2	2	42	.13	.083	9	33	.29	30	.08	2	2.20	.01	.02	1	1
SL7+00E 5+00S	1	12	3	53	.2	14	5	85	2.35	2	5	ND	2	9	1	2	2	29	.11	.036	9	29	.23	27	.07	7	2.07	.01	.04	1	1
SL7+00E 5+13S	1	12	17	47	.1	16	5	107	3.14	2	5	ND	2	9	1	2	2	58	.12	.040	7	40	.30	21	.15	8	1.41	.01	.01	1	1
SL8+00E 1+25N	1	4	6	30	.1	4	1	36	1.63	2	5	ND	2	8	1	2	2	46	.07	.010	7	14	.05	14	.10	6	.57	.01	.01	1	1
SL8+00E 1+00N	1	4	5	56	.5	6	2	96	1.95	2	5	ND	3	9	1	4	2	24	.10	.024	7	21	.13	15	.07	3	1.13	.01	.04	1	2
SL8+00E 0+75N	1	9	27	109	.3	13	5	135	2.29	2	5	ND	3	10	1	2	2	31	.13	.060	9	32	.19	29	.07	4	2.40	.01	.03	1	1
SL8+00E 0+50N	1	11	26	140	.1	17	6	261	2.21	2	5	ND	3	12	1	2	2	28	.17	.033	9	35	.31	38	.09	10	2.22	.01	.01	1	1
SL8+00E 0+00S	1	14	11	122	.1	22	8	333	2.23	2	5	ND	2	12	1	2	2	31	.16	.062	8	34	.29	70	.08	8	2.19	.01	.01	1	1
SL8+00E 0+25S	1	14	13	56	.3	14	4	111	1.91	2	5	ND	4	9	1	2	2	29	.11	.049	8	31	.25	24	.07	5	1.83	.01	.03	1	3
SL8+00E 0+50S	1	11	19	154	.3	14	7	280	2.80	2	5	ND	2	11	1	2	2	34	.13	.037	9	27	.18	49	.09	12	1.89	.01	.03	1	1
SL8+00E 0+75S	1	5	10	40	.1	8	2	51	.74	2	5	ND	2	11	1	3	2	18	.10	.006	10	12	.11	19	.06	7	.60	.01	.03	1	1
SL8+00E 1+00S	1	9	18	52	.1	9	2	143	2.52	4	5	ND	1	9	1	2	2	39	.10	.046	8	25	.15	27	.07	2	1.36	.01	.02	1	68
SL8+00E 1+50S	1	8	12	64	.1	11	4	74	2.98	3	5	ND	3	8	1	2	2	47	.10	.035	7	34	.14	18	.10	5	2.12	.01	.04	1	1
SL8+00E 1+75S	1	7	15	47	.3	12	3	93	1.71	4	6	ND	3	11	1	2	3	32	.13	.070	8	22	.11	27	.07	5	.98	.01	.04	1	1
SL8+00E 2+25S	1	2	4	61	.2	6	3	102	1.49	2	5	ND	1	8	1	2	2	25	.09	.036	7	20	.12	20	.05	6	1.52	.01	.02	1	2
SL8+00E 2+50S	1	3	10	55	.1	4	2	75	1.54	2	5	ND	1	11	1	2	2	29	.13	.023	8	17	.10	27	.08	4	.77	.01	.02	1	1
SL8+00E 3+00S	1	11	8	49	.2	5	3	83	3.39	2	5	ND	1	9	1	2	2	59	.10	.106	7	29	.15	31	.09	9	1.37	.01	.03	1	3
SL8+00E 3+25S	1	3	9	33	.1	3	3	63	1.63	2	5	ND	1	8	1	2	2	31	.10	.034	7	16	.10	24	.08	3	.97	.01	.02	1	1
SL8+00E 3+50S	1	3	11	56	.1	4	1	58	1.74	2	5	ND	1	8	1	3	2	30	.09	.020	7	18	.09	20	.07	4	1.34	.01	.03	1	1
SL8+00E 3+75S	2	19	26	108	.5	20	7	122	3.12	4	5	ND	2	9	1	2	2	45	.10	.023	12	30	.18	31	.12	8	1.58	.01	.05	1	1
SL8+00E 4+00S	2	36	21	117	.1	28	9	258	2.76	3	5	ND	2	17	1	2	2	43	.22	.038	9	34	.33	33	.10	4	1.50	.01	.05	1	1
SL8+00E 4+50S	1	9	7	60	.1	8	4	92	3.77	3	5	ND	1	11	1	2	3	38	.14	.121	8	21	.14	48	.08	6	1.79	.01	.03	1	8
SL8+00E 4+75S	2	41	5	170	.1	35	22	648	6.05	3	5	ND	4	25	1	2	2	45	.78	.352	24	21	.72	65	.20	8	3.71	.02	.08	1	1
SL8+00E 5+00S	1	35	13	78	.2	24	9	280	2.72	3	5	ND	6	14	1	2	2	47	.30	.056	13	38	.52	34	.13	6	1.85	.01	.06	1	1
SL9+00E 0+85N	1	11	11	82	.2	13	3	89	2.42	3	5	ND	3	7	1	2	2	33	.10	.073	7	36	.13	39	.08	3	2.05	.01	.03	1	1
STD C/AU-S	18	59	42	130	6.9	70	30	1066	4.11	42	18	8	38	49	18	16	22	59	.48	.087	37	59	.95	178	.06	35	1.96	.08	.14	13	53

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
SL9+00E 0+50N	1	28	13	45	.1	26	5	98	2.78	2	5	ND	1	9	1	2	2	37	.11	.030	11	49	.35	39	.10	5	3.22	.01	.02	1	65
SL9+00E 0+25N	1	9	21	60	.2	10	4	64	2.17	3	5	ND	3	7	1	2	2	34	.10	.022	8	33	.17	19	.09	3	2.21	.01	.01	1	2
SL9+00E 0+00S	1	8	12	63	.1	8	4	238	1.86	3	5	ND	1	9	1	5	3	27	.10	.057	8	23	.16	31	.07	2	1.86	.01	.02	1	2
SL9+00E 0+25S	1	13	17	55	.2	5	3	248	2.97	2	5	ND	2	8	1	4	3	52	.09	.041	8	26	.15	40	.11	3	1.66	.01	.03	1	1
SL9+00E 0+50S	1	4	12	73	.1	11	3	61	1.26	2	5	ND	1	9	1	2	4	27	.10	.006	7	24	.18	27	.08	4	1.10	.01	.01	1	2
SL9+00E 0+75S	2	8	15	96	.2	12	3	66	3.08	4	5	ND	2	8	1	3	2	57	.08	.027	7	28	.12	38	.13	2	2.43	.01	.02	2	1
SL9+00E 1+00S	1	19	14	168	.1	12	2	241	1.42	3	5	ND	1	10	1	2	2	20	.11	.020	9	18	.13	35	.07	2	1.39	.01	.02	1	1
SL9+00E 1+25S	1	3	12	33	.1	3	2	56	1.38	2	5	ND	1	9	1	2	4	39	.09	.013	7	15	.08	19	.11	2	.67	.01	.02	1	1
SL9+00E 1+50S	1	7	15	96	.1	15	4	60	2.50	2	5	ND	1	10	1	2	3	41	.11	.021	8	26	.13	46	.10	2	2.07	.01	.02	1	1
SL9+00E 1+75S	1	15	8	70	.1	21	7	128	2.79	2	5	ND	2	10	1	2	2	38	.14	.023	10	35	.30	38	.13	3	1.93	.01	.03	1	2
SL9+00E 2+25S	1	15	10	44	.1	14	4	76	3.05	6	5	ND	2	8	1	2	2	53	.10	.029	7	39	.23	18	.13	2	2.03	.01	.01	1	1
SL9+00E 2+50S	1	12	7	68	.1	9	3	77	2.42	2	5	ND	2	9	1	2	2	46	.12	.030	8	20	.16	25	.13	2	1.28	.01	.03	1	1
SL9+00E 3+00S	1	9	10	106	.3	18	5	84	2.52	2	5	ND	4	9	1	2	3	32	.11	.031	9	39	.19	38	.10	4	2.71	.01	.03	1	1
SL9+00E 3+25S	1	10	10	98	.1	9	3	140	2.06	3	5	ND	1	9	1	2	2	33	.13	.035	9	23	.21	35	.10	3	1.14	.01	.03	1	1
SL9+00E 3+50S	2	23	14	67	.2	17	6	131	5.33	4	5	ND	4	10	1	4	4	95	.16	.043	9	46	.31	23	.20	4	1.64	.01	.04	1	2
SL9+00E 3+75S	1	13	7	59	.1	13	5	88	2.00	2	5	ND	1	8	1	2	2	30	.11	.042	7	29	.24	26	.08	7	2.28	.01	.03	1	2
SL9+00E 4+00S	1	28	10	38	.1	18	6	92	1.83	2	5	ND	1	8	1	2	2	31	.12	.035	14	39	.34	20	.09	6	1.79	.01	.03	2	1
SL9+00E 4+25S	1	12	14	62	.2	22	6	89	2.03	2	5	ND	1	9	1	2	2	29	.11	.020	8	37	.21	22	.08	5	2.18	.01	.03	1	1
SL9+00E 4+75S	1	19	19	70	.2	20	5	170	2.40	3	5	ND	2	12	1	3	4	37	.21	.056	10	29	.30	28	.11	18	1.43	.01	.04	1	1
SL9+00E 5+00S	1	24	21	73	.3	19	6	241	2.27	2	5	ND	4	13	1	2	4	37	.17	.033	10	30	.26	51	.10	2	1.81	.01	.05	2	1
STD C/AU-S	18	61	38	132	6.7	67	29	1053	4.08	42	20	8	37	47	18	17	21	57	.47	.083	40	59	.84	179	.07	37	1.93	.07	.13	14	53

W8807.00221

Ontario

Ministry of Northern Development and Mines

Report of Work

(Geophysical, Geological, Geochemical and Expenditures)

Mining Act

DOCUME
W8807

41113SE0031 2.11661 ULSTER

900

see File 2.11661

– Do not use shaded areas below.

Type of Survey(s)	Township or Area
Geochemical Expenditure	Moncrieff, Ulster Twp.

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
Imperial Metals/Acme Labs	14 05 88 (Day Mo. Yr.) 22 05 88 (Day Mo. Yr.)	

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

Credits Requested per Each Claim in Columns at right

		Days per Claim
Special Provisions For first survey: Enter 40 days. (This includes line cutting) For each additional survey: using the same grid: Enter 20 days (for each)	Geophysical	
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Man Days Complete reverse side and enter total(s) here	Geophysical	Days per Claim
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.		Days per Claim
	Electromagnetic	
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
	S 734528	27.8
	S 734529	27.8
	S 734530	27.8
	S 681917	27.8
	S 734531	27.8
	S 734532	27.8

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.

SUDBURY MINING DIV. RECEIVED NOV 21 1988 A.M. P.M.

RECEIVED NOV 25 1988 MINING LANDS SECTION

Expenditures (excludes power stripping)

Type of Work Performed: Geochemical Analysis

Performed on Claim(s): S 734528, S734529, S 734530

S 681917, S 734532, S 734531

Calculation of Expenditure Days Credits

Total Expenditures				Total Days Credits
$ 2,508.50	÷	15	=	167.2

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.

Total number of mining claims covered by this report of work: 6

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
166.8	Nov. 21/88	ACTING.
	Date Approved as Recorded	Branch Director
	12 Dec 88	

Date	Recorded Holder or Agent (Signature)
November 17 /88	

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	Certified by (Signature)
November 17/88	

1362 (85/12)

Sept 22

Ministry of Northern Development and Mines
Ontario

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

DOCUMENT No. W8807.153

Instructions: – Please type or print.
– If number of mining claims traversed exceeds space on this form, attach a list.
Note: – Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
– Do not use shaded areas below.

Type of Survey(s)	Township or Area
Geological and Geochemical	Ulster and Moncrief Township

2.11691

Claim Holder(s)	Prospector's Licence No.
Imperial Metals Corporation	T4978

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

Survey Company	Date of Survey (from & to)	Total Miles of line Cut
	12 05 '88 (Day Mo. Yr.) 23 05 '88 (Day Mo. Yr.)	7.2 km

Name and Address of Author (of Geo-Technical report): R. Michael Jones & Dennis M. Gorc 800 - 601 West Hastings Street, Vancouver, B.C. V6B 5A6

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	
	Geophysical - Magnetometer	
For each additional survey: using the same grid: Enter 20 days (for each)	Geophysical - Radiometric	
	Geophysical - Other	
	Geological	40
	Geochemical	20

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

RECEIVED
AUG 8 1988
MINING LANDS SECTION

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	681917	60
	734528	60
	734529	60
	734530	60
	734531	60
	734532	60

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.

SUDBURY MINING DIV. RECEIVED
AUG 2 - 1988
A.M. 7 8 9 10 11 12 1 2 3 4 5 6 P.M.
11:20am mf

Expenditures (excludes power stripping)

Type of Work Performed:

Performed on Claim(s):

Calculation of Expenditure Days Credits
Total Expenditures $ ÷ 15 = Total Days Credits

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.

Total number of mining claims covered by this report of work: 6

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
360	Aug. 3/88	J.C. Miller
	Date Approved as Recorded	Branch Director
	See Revised Statement	

Date	Recorded Holder or Agent (Signature)
July 20, 1988	Diane Randall

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):

Ontario

Ministry of Northern Development and Mines

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/Geophysical
Township or Area Moncrieff/Ulster
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 12/5/88 to 6/6/88 (linecutting to office)
Total Miles of Line Cut 7.2 km

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	40
Geochemical	20

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

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

DATE: June 6, 1988 SIGNATURE: _____
Author of Report or Agent

Res. Geol. _____ Qualifications 2.11182 / 2.10667

Previous Surveys

File No.	Type	Date	Claim Holder

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
S	681917
S	681917
S	734528
S	734529
S	734530
S	734531
S	734532

If space insufficient, attach list

TOTAL CLAIMS six (6)

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 250 Number of Readings 500

Station interval 12.5 m Line spacing 50 m / 100 m

Profile scale

Contour interval

MAGNETIC

Instrument Geometrics 816 Proton Precession

Accuracy – Scale constant ± 2 gammas

Diurnal correction method closed baseline loops

Base Station check-in interval (hours) 1/2 hour

Base Station location and value several base stations, base level correction 58,000

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 681917, 734532, 734531, 734530, 734529, 734528

Total Number of Samples 18 rock; 200 soil

Type of Sample B-Horizon
(Nature of Material)

Average Sample Weight 300 grams

Method of Collection grub hoe

Soil Horizon Sampled B-Horizon

Horizon Development Podzol, well dev.

Sample Depth 10-20 cm

Terrain hilly, dry

Drainage Development good

Estimated Range of Overburden Thickness
0 - 3 m

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

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

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

Commercial Laboratory (_____ tests)
Name of Laboratory Acme Labs
Extraction Method North Vancouver, B.C.
Analytical Method
Reagents Used

General

Ontario

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

JAN. 89

Mining Lands Section
3rd floor, 880 Bay Street
Toronto, Ontario
M5S 1Z8

Telephone: (416) 965-4888

December 29, 1988

Your file: W8807-153
Our file: 2.11661

Mining Recorder
Ministry of Northern Development and Mines
Bag 3000
200 Brady Street, 6th floor
Sudbury, Ontario
P3A 5W2

Dear Sir:

Re: Revised Notice of Intent dated December 12, 1988
Geological Survey and Geochemical Survey
submitted on Mining Claims S 681917 et al in Ulster & Moncrief Townships

The assessment work credits, as listed with the above-mentioned Notice of Intent, have been approved as of the above date.

Please inform the recorded holder of these mining claims and so indicate on your records.

Yours sincerely,

W.R. Cowan
Provincial Manager, Mining Lands
Mines & Minerals Division
RM
AB:pl
Enclosure

cc: Mr. G.H. Ferguson
Mining and Lands Commissioner
Toronto, Ontario

Resident Geologist
Sudbury, Ontario

Imperial Metals Corporation
Suite 800
601 West Hastings Street
Vancouver, B.C.
V6B 5A6

Mr. R. Michael Jones
254 Seaton Street
Toronto, Ontario
M5A 2T4

Ontario Ministry of Northern Development and Mines

Technical Assessment Work Credits

File 2.11661

Date December 12,1988

Mining Recorder's Report of Work No. W8807-153

"REVISED"

Recorded Holder: Imperial Metals Corporation

Township or Area: Ulster and Moncrief Townships

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	
Electromagnetic _____ days	S 681917
Magnetometer _____ days	734528 to 532 inclusive
Radiometric _____ days	
Induced polarization _____ days	
Other _____ days	
Section 77 (19) See "Mining Claims Assessed" column	
Geological _____ days	
Geochemical 19.4 days	
Man days ☐ Airborne ☐	
Special provision ☒ Ground ☒	
☒ Credits have been reduced because of partial coverage of claims.	
☐ Credits have been reduced because of corrections to work dates and figures of applicant.	

Special credits under section 77 (16) for the following mining claims

No credits have been allowed for the following mining claims

☐ not sufficiently covered by the survey ☐ insufficient technical data filed

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim doe *exceed* the maximum allowed as follows: Geophysical - 80; Geologocal - 40; Geochemical - 40; Section 77(19) - 60.

Ministry of Northern Development Mines
Ontario

Technical Assessment Work Credits

File: 2.11661

Date: December 12, 1988

Mining Recorder's Report of Work No.: W8807-153

"REVISED"

Recorded Holder: Imperial Metals Corporaiton

Township or Area: Ulster and Moncrief Townships

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	S 681917 734528 to 532 incousive
Electromagnetic _____ days	
Magnetometer _____ days	
Radiometric _____ days	
Induced polarization _____ days	
Other _____ days	
Section 77 (19) See "Mining Claims Assessed" column	
Geological 30.8 days	
Geochemical _____ days	
Man days ☐ Airborne ☐	
Special provision ☒ Ground ☒	
☐ Credits have been reduced because of partial coverage of claims.	
☐ Credits have been reduced because of corrections to work dates and figures of applicant.	

Special credits under section 77 (16) for the following mining claims

No credits have been allowed for the following mining claims

☐ not sufficiently covered by the survey ☐ insufficient technical data filed

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical - 80; Geologocal - 40; Geochemical - 40; Section 77(19) - 60.

September 22, 1988

Ministry of Northern Development
& Mines
99 Wellesley Street W.
Whitney Block, Room 6610
Queen's Park
Toronto, Ontario
M7A 1W3

Attention: Mr. Trevor Soobrian

Dear Mr. Soobrian:

Re: Straight Lake Property, Moncrieff & Ulster Twps.

Enclosed find, in duplicate, the report for the Straight Lake Property, covering the following claims:

Claim #	Twp
S. 681917	Moncrieff
S. 734528	Ulster
S. 734529	Ulster
S. 734530	Ulster
S. 734531	Moncrieff
S. 734532	Moncrieff

The Report of Work for these claims was filed in Sudbury and recorded on August 3, 1988. The Geology Map (Fig.3) will be following shortly.

Hoping all is in order, I remain,

Yours truly,

IMPERIAL METALS CORPORATION

Marie Randall

Marie R. Randall
Minerals Land Manager

Enclosures

MRR:mes
(eb)

RECEIVED
2[illegible] 1988
[illegible] LANDS SECTION

Suite 800 - 601 West Hastings Street, P.O. Box 84, Vancouver, B.C. V6B 5A6 Telephone: (604) 669-8959 Telecopier: (604) 687-4030 Telex: 04-55590

Ministry of Natural Resources
Ontario

Ministry of Northern Development and Mines

INDEX TO LAND DISPOSITION

PLAN
G-4117

TOWNSHIP
ULSTER

M.N.R. ADMINISTRATIVE DISTRICT
SUDBURY

MINING DIVISION
SUDBURY

LAND TITLES/REGISTRY DIVISION
SUDBURY

Scale 1:20 000

1000 Metres 0 1000 2000 Metres

1000 Feet 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10 000 Feet

Contour Interval 10 Metres

SYMBOLS

- Boundary
- Township, Meridian, Baseline
- Road allowance; surveyed
  - shoreline
- Lot/Concession; surveyed
  - unsurveyed
- Parcel; surveyed
  - unsurveyed
- Right-of-way; road
  - railway
  - utility
- Reservation
- Cliff, Pit, Pile
- Contour
  - Interpolated
  - Approximate
  - Depression
- Control point (horizontal)
- Flooded land
- Mine head frame
- Pipeline (above ground)
- Railway; single track
  - double track
  - abandoned
- Road; highway, county, township
  - access
  - trail, bush
- Shoreline (original)
- Transmission line
- Wooded area

DISPOSITION OF CROWN LANDS

Patent
- Surface & Mining Rights
- Surface Rights Only
- Mining Rights Only

Lease
- Surface & Mining Rights
- Surface Rights Only
- Mining Rights Only

- Licence of Occupation
- Order-in-Council OC
- Cancelled
- Reservation
- Sand & Gravel

AREAS WITHDRAWN FROM DISPOSITION

MRO - Mining Rights Only
SRO - Surface Rights Only
M + S - Mining and Surface Rights

Description	Order No.	Date	Disposition	File
	W 63/ 75	5/11/75	SRO	127351
M.N.R.	RESERVE	4/10/63	S.R.O.	163005
M.N.R	RESERVE		S.R.O	77094 Vol. 1
CROWN	RESERVE		S.R.O.	160706

NOTES

Flooding on Onaping Lake to contour elevation 111' - L.O. 9113

DATE OF ISSUE
AUG 19 1988
SUDBURY MINING RECORDER'S OFFICE

Map base and land disposition drafting by Surveys and Mapping Branch, Ministry of Natural Resources.

The disposition of land, location of lot fabric and parcel boundaries on this index was compiled for administrative purposes only.

41113SE8831 2.11681 ULSTER

200

88-02

Ministry of Natural Resources
Ontario

Ministry of Northern Development and Mines

JUNE 17, 1988 M.C.

INDEX TO LAND DISPOSITION

PLAN
G-4086

TOWNSHIP
MONCRIEFF

M.N.R. ADMINISTRATIVE DISTRICT
SUDBURY
MINING DIVISION
SUDBURY
LAND TITLES/REGISTRY DIVISION
SUDBURY

Scale 1:20 000

1000 Metres 0 1000 2000 Metres

1000 Feet 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000 Feet

Contour Interval 10 Metres

SYMBOLS

- Boundary
  - Township, Meridian, Baseline
  - Road allowance; surveyed
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  - Lot/Concession; surveyed
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- Control point (horizontal)
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- Pipeline (above ground)
- Railway; single track
  - double track
  - abandoned
- Road; highway, county, township
  - access
  - trail, bush
- Shoreline (original)
- Transmission line
- Wooded area
- FILED ONLY F.O.

DISPOSITION OF CROWN LANDS

- Patent
  - Surface & Mining Rights
  - Surface Rights Only
  - Mining Rights Only
- Lease
  - Surface & Mining Rights
  - Surface Rights Only
  - Mining Rights Only
- Licence of Occupation
- Order-in-Council OC
- Cancelled
- Reservation
- Sand & Gravel

AREAS WITHDRAWN FROM DISPOSITION

MRO - Mining Rights Only
SRO - Surface Rights Only
M + S - Mining and Surface Rights

	Description	Order No.	Date	Disposition	File
CL51	SEC 36/80	W 4/	14/6/82	S.R.O.	137685
CL55	SEC 36/80	W 59/86		S.R.O.	

SAND AND GRAVEL

- 61 DHO GRAVEL RESERVE, FILE No. 74145 & 74146.
- 62 MTC GRAVEL PIT No. 4E13
- 63 MTC GRAVEL PIT No. 4E40

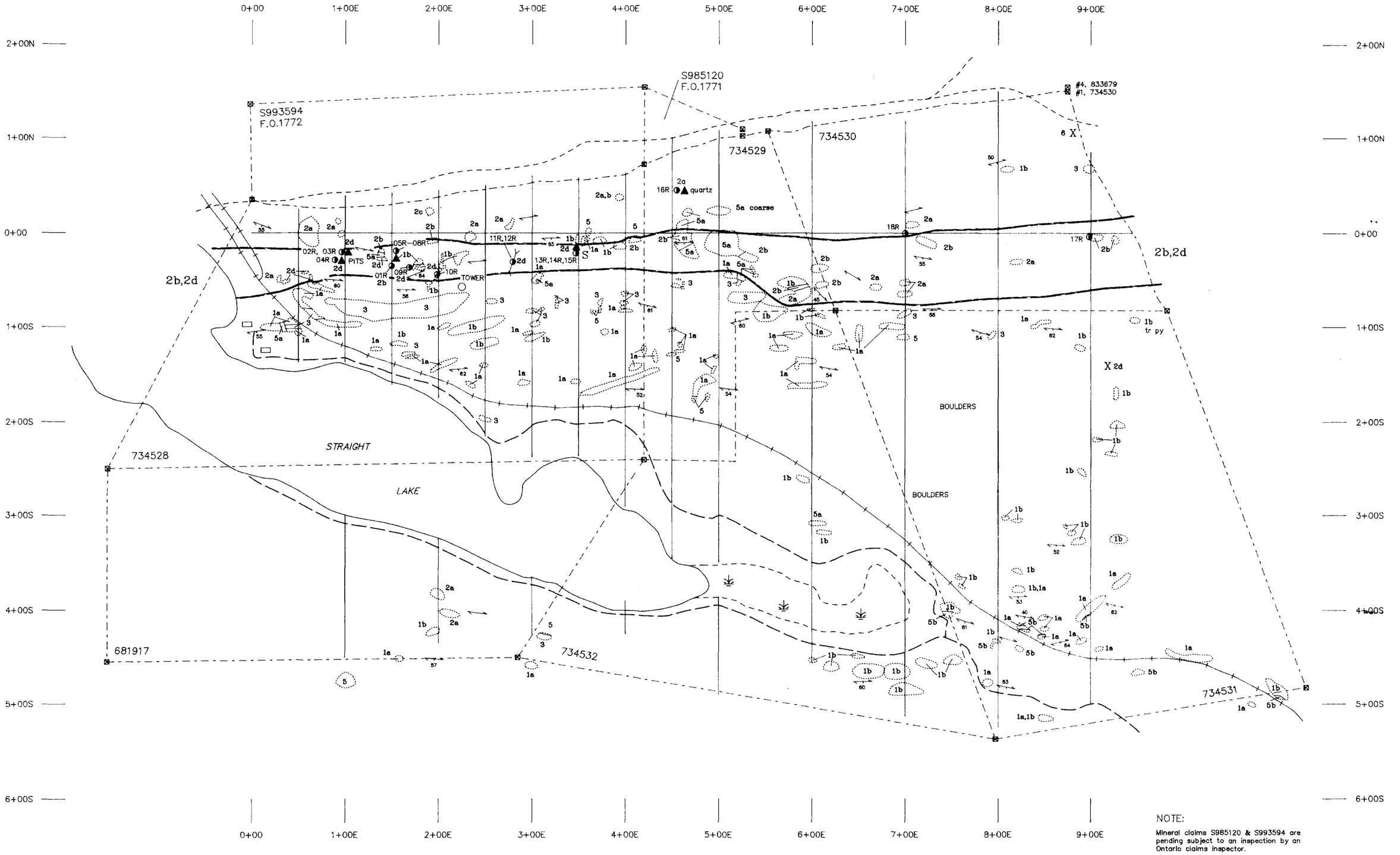
DATE OF ISSUE
OCT 12 1988
SUDBURY
MINING RECORDER'S OFFICE

NOTES

1) SUBDIVISION OF THIS TOWNSHIP INTO LOTS AND CONCESSIONS WAS ANNULLED 30TH JUNE 1953.
2) 400 FOOT SURFACE RIGHTS RESERVATION AROUND ALL LAKES AND RIVERS.
3) DOWES LAKE DEVELOPMENT PLAN DATED 11TH JUNE 1970, FILE 163095.

Map base and land disposition drafting by Surveys and Mapping Branch, Ministry of Natural Resources.

The disposition of land, location of lot fabric and parcel boundaries on this index was compiled for administrative purposes only.



NOTE:
Mineral claims S985120 & S993594 are pending subject to an inspection by an Ontario claims inspector.

LEGEND

TRUE NORTH

N

⊠	Claim Post	▲	Pit
———	Claim Boundary	>—<	Trench
———	Stream	X	Boulder
———	Swamp	○	Outcrop
———	Road	⌇	Foliation
———	Railroad	S	Sulphides
▭	Building	———	Geological Contact, Defined
	Grid Line	———	Geological Contact, Approximate
		◑ 02R	Rock Sample Number: STR–88–__

ARCHEAN

METAVOLCANICS

1a	Hornblende schist, strongly foliated mafic volcanic
1b	Moderately foliated mafic volcanic
1c	Mafic tuffs

METASEDIMENTS

2a	Wacke, quartzite, finely banded
2b	Siliceous sediments or tuffs
2c	Cherty sediments
2d	Siliceous sediments mineralized with sulphides

STRONGLY METAMORPHOSED

3	Hornblende +/– quartz +/– biotite gneiss

INTRUSIVE ROCKS

4	Granite dyke
5a	Gabbro, unfoliated
5b	Diorite, unfoliated
6a	Plutonic granite

IMPERIAL METALS CORPORATION

STRAIGHT LAKE

FIGURE 3 — 211661 — N.T.S. 41 I /NW

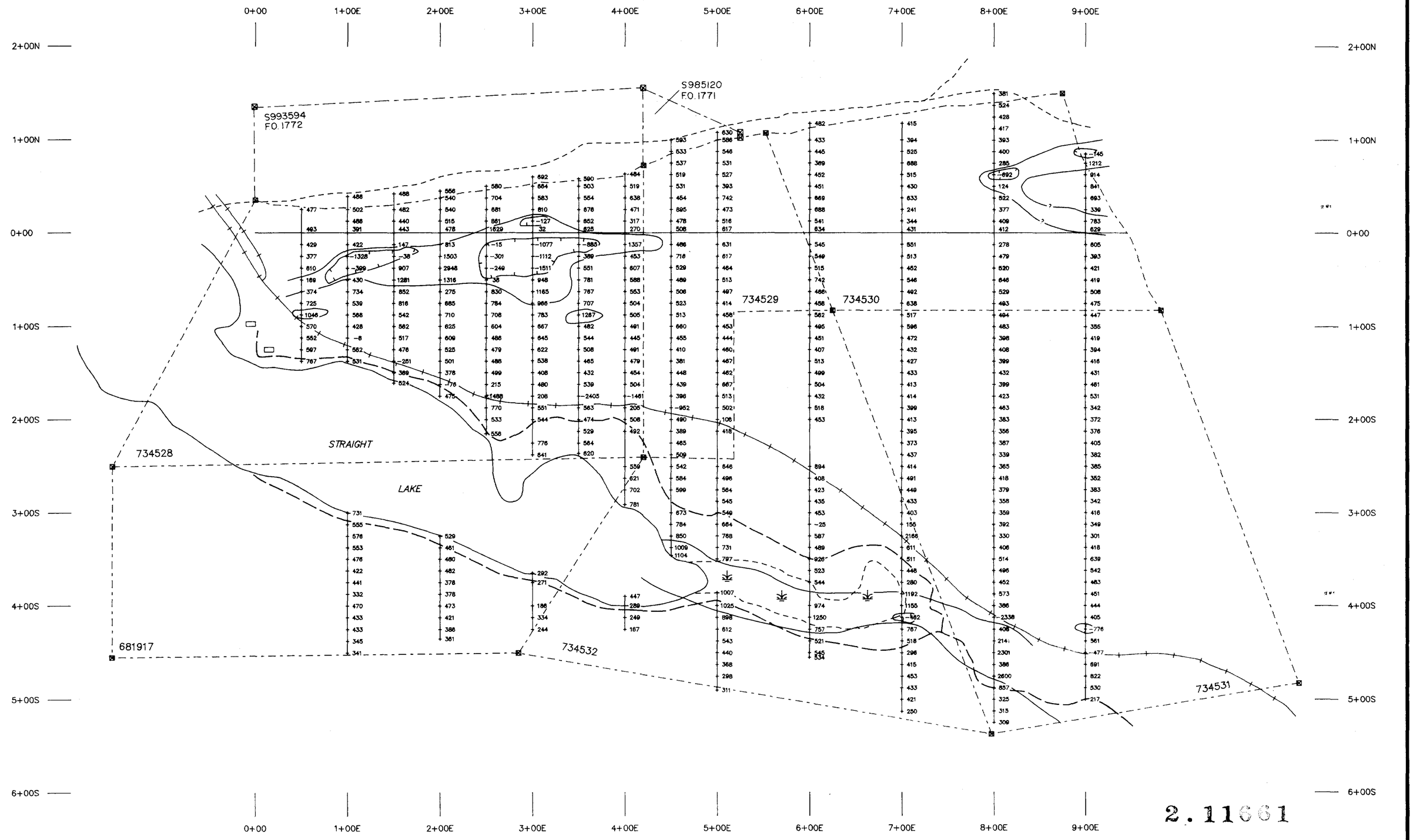
GEOLOGY

MONCRIEFF & ULSTER TWP.

Metres 50 0 50 100 150 200 Metres

SCALE: 1:2500 — GEOLOGIST: R.M. JONES, D. GORC

DATE: AUGUST 1988 — DRAWN BY: S. HAWORTH



LEGEND

- Claim Post
- Claim Boundary
- Stream
- Swamp
- Road
- Railroad
- Building
- 731 — Total Field (Gammas)

Base Level: 58,000 (deducted from readings)
Instrument: Geometrics 818
Readings taken with Sensor in Back Pack Mode

NOTE:
Mineral claims S985120 & S993594 are pending subject to an inspection by an Ontario claims inspector.

TRUE NORTH

N

IMPERIAL METALS CORPORATION

STRAIGHT LAKE

FIGURE 6 N.T.S. 41I/NW

MAGNETOMETER SURVEY

MONCRIEFF & ULSTER TWP.

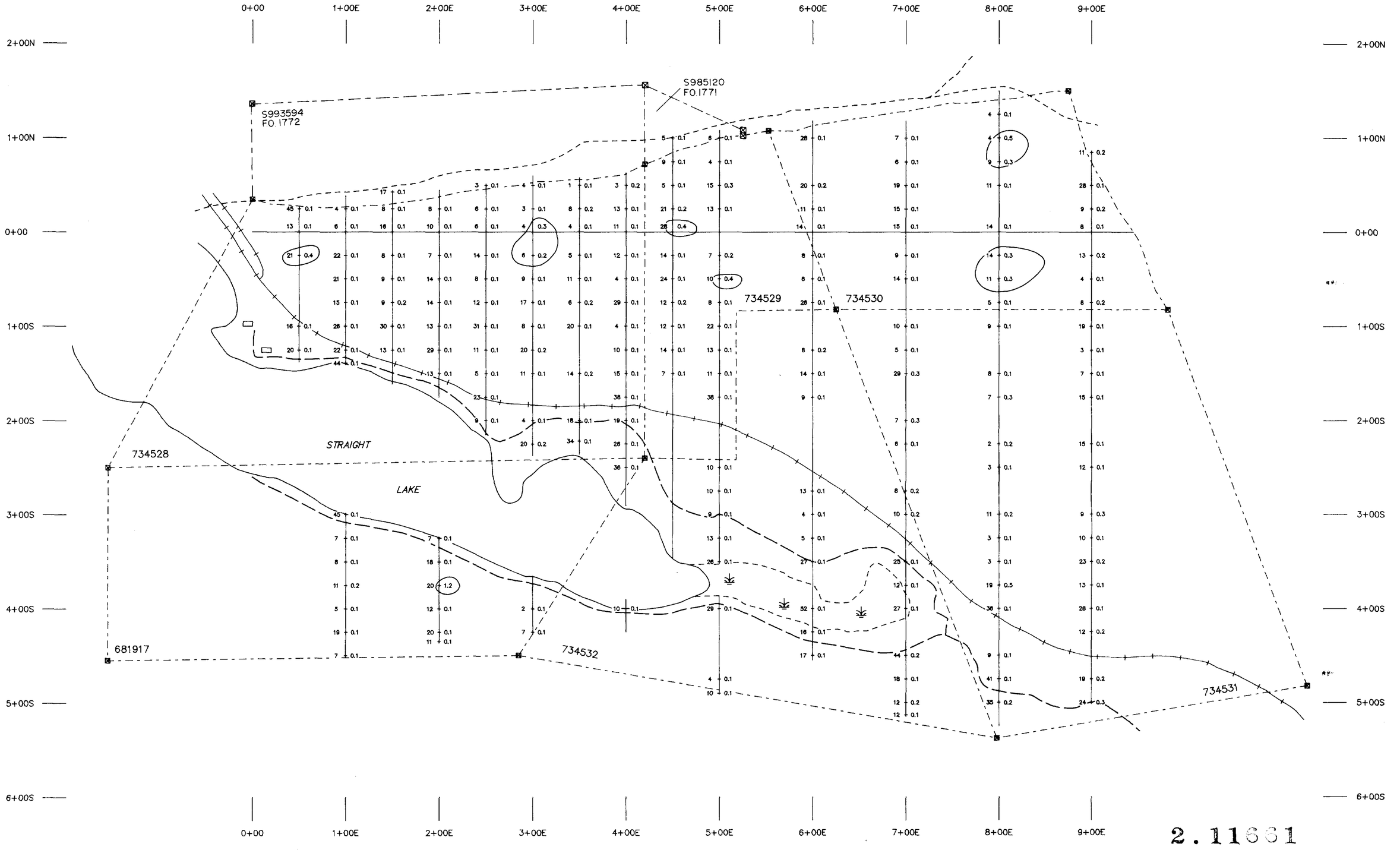
Metres 50 0 50 100 150 200 Metres

SCALE: 1:2500 | GEOLOGIST: R.M. JONES

DATE: JULY 1988 | DRAWN BY: S. HAWORTH

2.11661

41I13SE0031 2.11661 ULSTER



LEGEND

- Claim Post
- Claim Boundary
- Stream
- Swamp
- Road
- Railroad
- Building
- Geochemistry

Cu (ppm) + Ag (ppm)

TRUE NORTH

N

NOTE:

Mineral claims S985120 & S993594 are pending subject to an inspection by an Ontario claims inspector.

IMPERIAL METALS CORPORATION

STRAIGHT LAKE

FIGURE 5 N.T.S. 41I/NW

GEOCHEMISTRY: CU/AG

MONCRIEFF & ULSTER TWP.

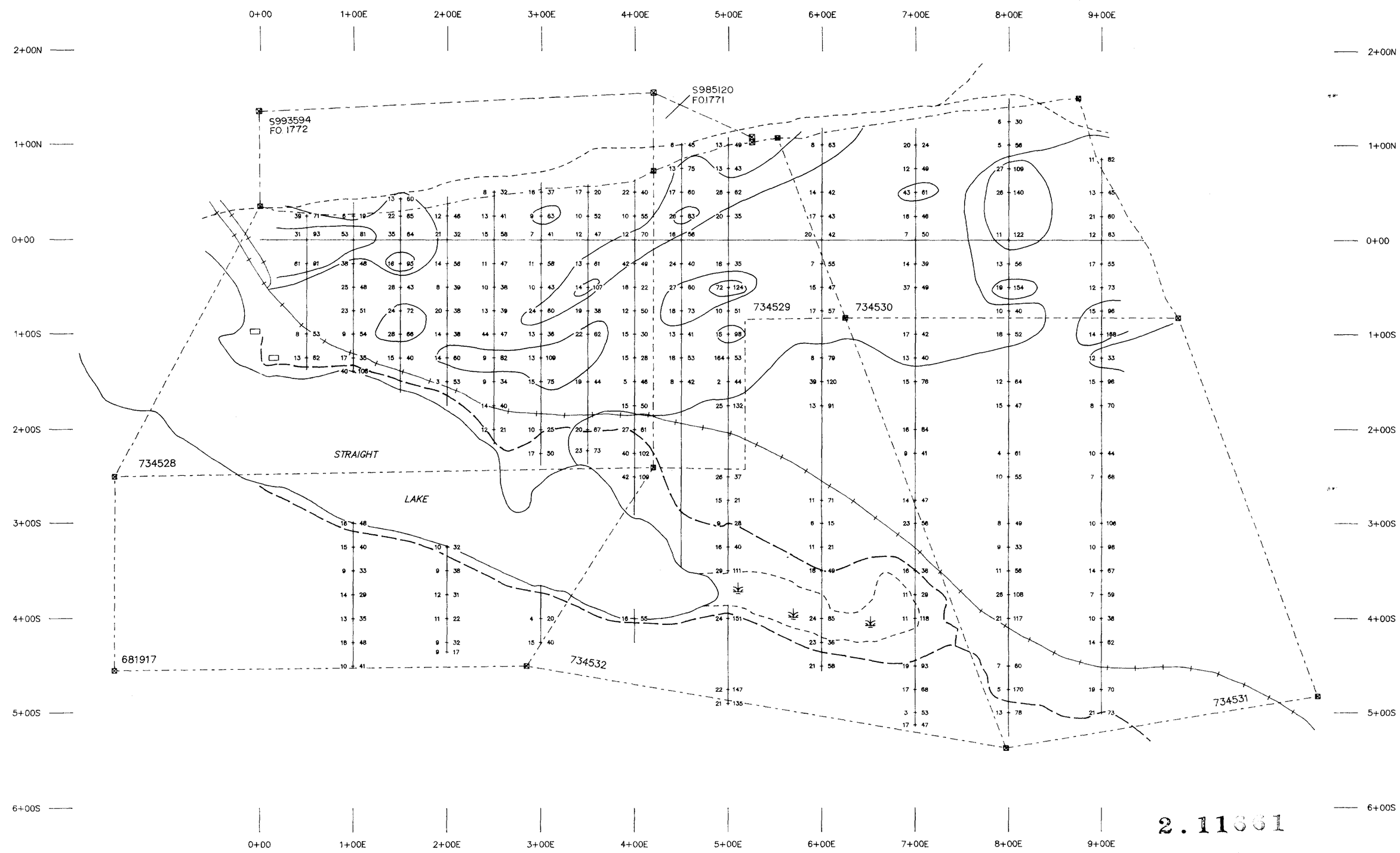
Metres 50 0 50 100 150 200 Metres

SCALE: 1:2500	GEOLOGIST: R.M. JO
DATE: JULY 1988	DRAWN BY: S.

2.11661

41I13SE0031 2.11661 ULSTER

240



LEGEND

- Claim Post
- Claim Boundary
- Stream
- Swamp
- Road
- Railroad
- Building
- Geochemistry — Pb (ppm) + Zn (ppm)

TRUE NORTH

N

NOTE:
Mineral claims S985120 & S993594 are *pending subject to an inspection by an* Ontario claims inspector.

2.11661

IMPERIAL METALS CORPORATION

STRAIGHT LAKE

FIGURE 4 — N.T.S. 411/NW

GEOCHEMISTRY: PB/ZN

MONCRIEFF & ULSTER TWP.

Metres 50 0 50 100 150 200 Metres

SCALE: 1:2500	*GEOLOGIST:* R.M. JONES
DATE: JULY 1988	*DRAWN BY:* S. HAWORTH