**June - July 2000**

REPORT
ON THE

# SPANISH MOUNTAIN PROPERTY,

BRITISH COLUMBIA

## Drilling, Sampling and Metallurgical Testing

CPW, Don 1 - 4



Cariboo Mining District

52° 35' N, 121° 25' W
NTS 93-A/11

Owner: Imperial Metals Corporation
Operator: Imperial Metals Corporation,
Suite 420 - 355 Burrard Street
Vancouver, B.C. V6C 2G8

Submitted February 1st, 2001

Stephen B. Robertson, P.Geo.

# EXECUTIVE SUMMARY

The Spanish Mountain Property is centered approximately six km east of the village of Likely in the Cariboo Region of central British Columbia. The property has numerous gold showings, some with exceptional grades, but they are generally small and erratic in nature. Recent exploration efforts have turned the focus from these small high-grade (and frustrating) targets, to the potential for low to medium grade bulk tonnage targets.

The work described in this report, has identified at least one zone (LE) that carries strong gold mineralization, with grades in excess of 1 g/t gold and averaging over 2 g/t, in a zone at least 30 m X 40 m but with unknown total dimension. The LE Zone was drilled with a series of three-inch blast holes, spaced two metres apart and to a maximum depth of seven metres. The area was uniformly mineralized with a band of barren rock lying diagonally across the zone. The mineralization appears to extend beyond the drilling in all horizontal directions and to depth.

Petrographic study of chips from the most strongly mineralized samples indicates that gold is associated with both pyrite and quartz events. Both styles of mineralization are present at the LE zone, but the pyritic sedimentary rocks carry the bulk of the gold mineralization and small quartz veins, veinlets and stringers providing high-grade spikes within the area.

The sector of the LE Zone that returned favorable results was blasted, mined and screened on site with a portable two deck screening plant. Previous metallurgical testing had shown that the gold mineralization would very effectively concentrate into the finest size fraction produced. The total production of -$^3/_8$" material was hauled to the Mount Polley Mine site for blending with the Mount Polley ore. The total product delivered from Spanish Mountain weighed in at 1938 dry tonnes grading 3.02 g/t gold, with a total of 5,762 contained grams gold.

The 2000 work program demonstrated that the pyritic sedimentary rock host significant gold mineralization which, if proved to be found over a large enough area, could be considered for open pit mining. Additional work is now required to explore the gold mineralization of the LE zone, which remains open in all directions and to depth.

# Table of Contents

EXECUTIVE SUMMARY.....i
TABLE OF CONTENTS.....ii
LIST OF APPENDICIES.....iii
LIST OF TABLES.....iii
LIST OF FIGURES AND MAPS.....iii

1.0 INTRODUCTION.....1
1.1 LOCATION AND ACCESS.....1
1.2 PHYSIOGRAPHY.....2
1.3 LAND TENURE.....2
1.4 STATUS OF PROJECT.....2
1.5 PROPERTY HISTORY.....4
1.6 ACKNOWLEDGEMENTS.....5
2.0 GEOLOGY.....7
2.1 REGIONAL GEOLOGY.....7
2.2 PROPERTY GEOLOGY.....10
3.0 2000 WORK Program.....12
3.1 SELECTION OF TEST SITES.....12
3.2 SITE PREPARATION.....12
3.3 DRILLING.....14
3.4 SAMPLING.....14
3.5 ANALYSIS.....14
3.6 BLASTING AND MINING.....15
3.7 SCREENING.....15
3.8 SHIPPING AND SAMPLING.....15
3.9 ANALYTICAL METHOD – *BONDAR CLEGG*.....16
4.0 DISCUSSION OF RESULTS.....17
4.1 BACKGROUND AND OBJECTIVES.....17
4.2 DRILLING.....17
*MADRE ZONE*.....17
*LE ZONE*.....19
*M5 ZONE*.....19
*103 ZONE*.....22
*DODGE ZONE*.....22
4.3 BLASTING AND MINING.....25
SITE SELECTION AND LOADING.....25
BLASTING.....25
MINING.....25
SHIPPING AND SAMPLING.....25
PROCESSING AT MOUNT POLLEY.....26
5.0 RECOMMENDATIONS.....28
*Phase 1*.....28
*Phase 2*.....28
*Budget*.....28
SELECTED BIBLIOGRAPHY.....29

List of Personnel
Statement of Expenditures
Statements of Qualifications
Statement of Work

# LIST OF APPENDICIES


APPENDIX A Assay Results – Drill Cuttings

APPENDIX B Assay Results – Truck Samples

APPENDIX C Summary of Blast Hole results

APPENDIX C Analytical Techniques – Mount Polley Mining Corporation
Bondar Clegg Canada Limited

APPENDIX E Petrographic Reports


# LIST OF TABLES


Table 1.1 List of claims....4

Table 4.1 Shipment Summary....27


# LIST OF FIGURES AND MAPS


Fig. 1.1 Property location map....1

Fig 1.2 Claim Map....3

Fig. 2.1 Main tectonic elements of central British Columbia....8

Fig. 2.2 Regional geology of the Spanish Mountain area....9

Fig. 3.1 Compilation Map....13

Fig. 4.1 Madres Zone....18

Fig. 4.2 LE Zone....20

Fig. 4.3 M5 Zone....21

Fig. 4.4 103 Zone....23

Fig. 4.5 Dodge Zone....24

# 1.0 INTRODUCTION

## 1.1 LOCATION AND ACCESS

The Spanish Mountain Property is located approximately 6 km east of the village of Likely in east central British Columbia (See Figure 1.1). The area of work was centred at 56° 35' N, 121° 25' W on NTS map sheet 93A/11.

Access to the CPW claim is via a switchback road leading southwards up Spanish Mountain from km point 1307 on the 1300 logging road (also known as Spanish Lake Road). Access to the property can also be gained from the south via a network of smaller 2 wheel drive roads leading down from the top of Spanish Mountain. That road network joins up to the Spanish Lake road just west of McKeown Mines. An airstrip is located at km point 1302.5 on the Spanish Lake Road.

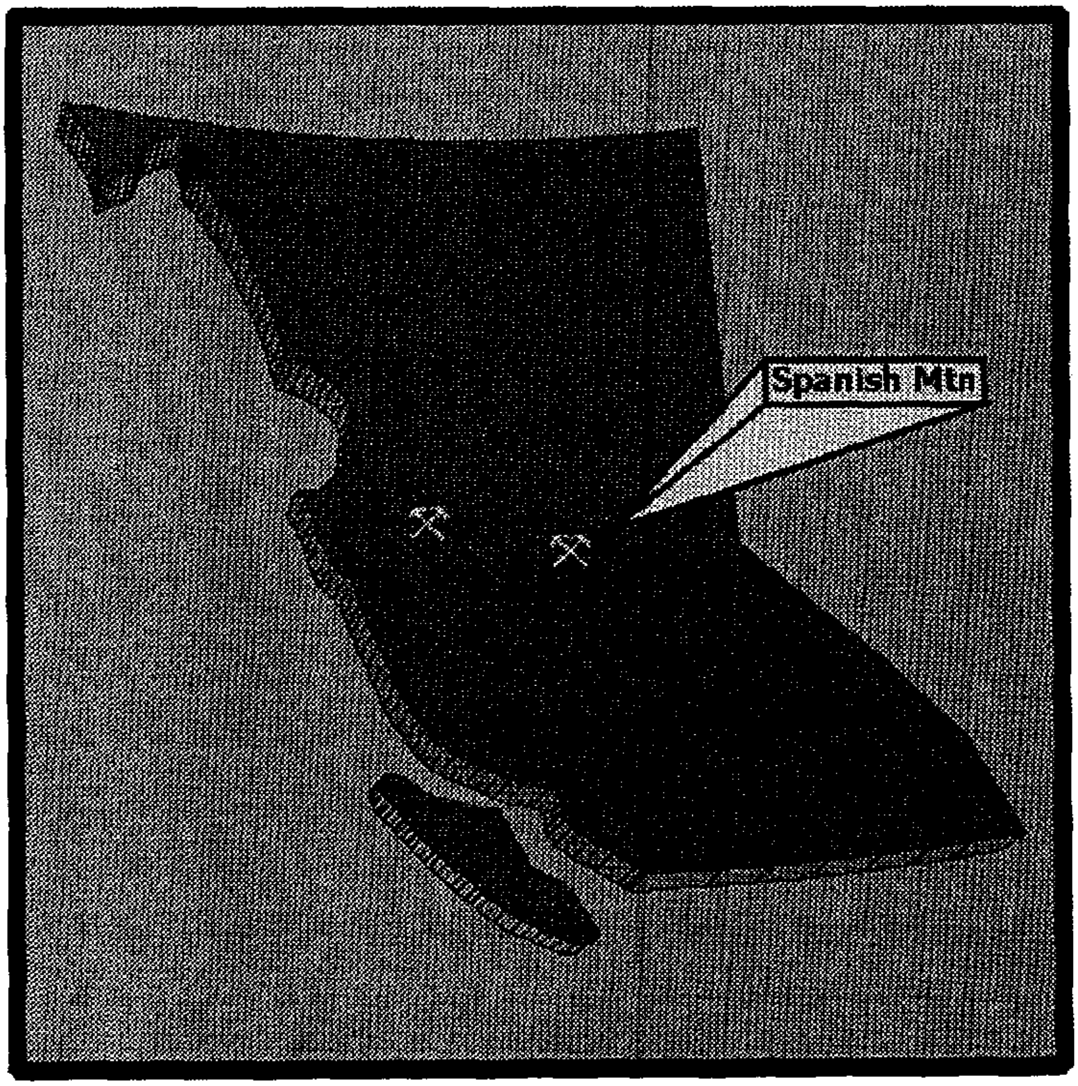



Figure 1.1 Property Location Map

## 1.2 PHYSIOGRAPHY

The property lies on the northern slope of Spanish Mountain, within the eastern part of the Central Quesnel Trough. Spanish Mountain is located on the western flank of the Quesnel Highland of the Interior Plateau. The terrain is moderately mountainous, with rounded peaks and ridges separated by U-shaped valleys. The highest point on Spanish Mountain is about 1585 metres and the valley bottom is at about 915 metres above mean sea level.

## 1.3 LAND TENURE

The property comprises 13 contiguous mineral claims (74 units for 4,400 acres) and two overlying and contiguous placer claims (2 units for 340 acres) (Figure 1.2; Table 1.1). All of the claims listed are under the influence of an agreement between Imperial Metals Corporation and Wildrose Resources Ltd. Under this agreement Imperial can earn an undivided 75% interest from Wildrose through expenditures of $500,000 ($CDN) prior to December 31, 2004. Royalties are payable to Wildrose and to prospector Bob Mickle through an underlying agreement. The underlying Mickle agreement affects all claims in the property except the CPW claim.

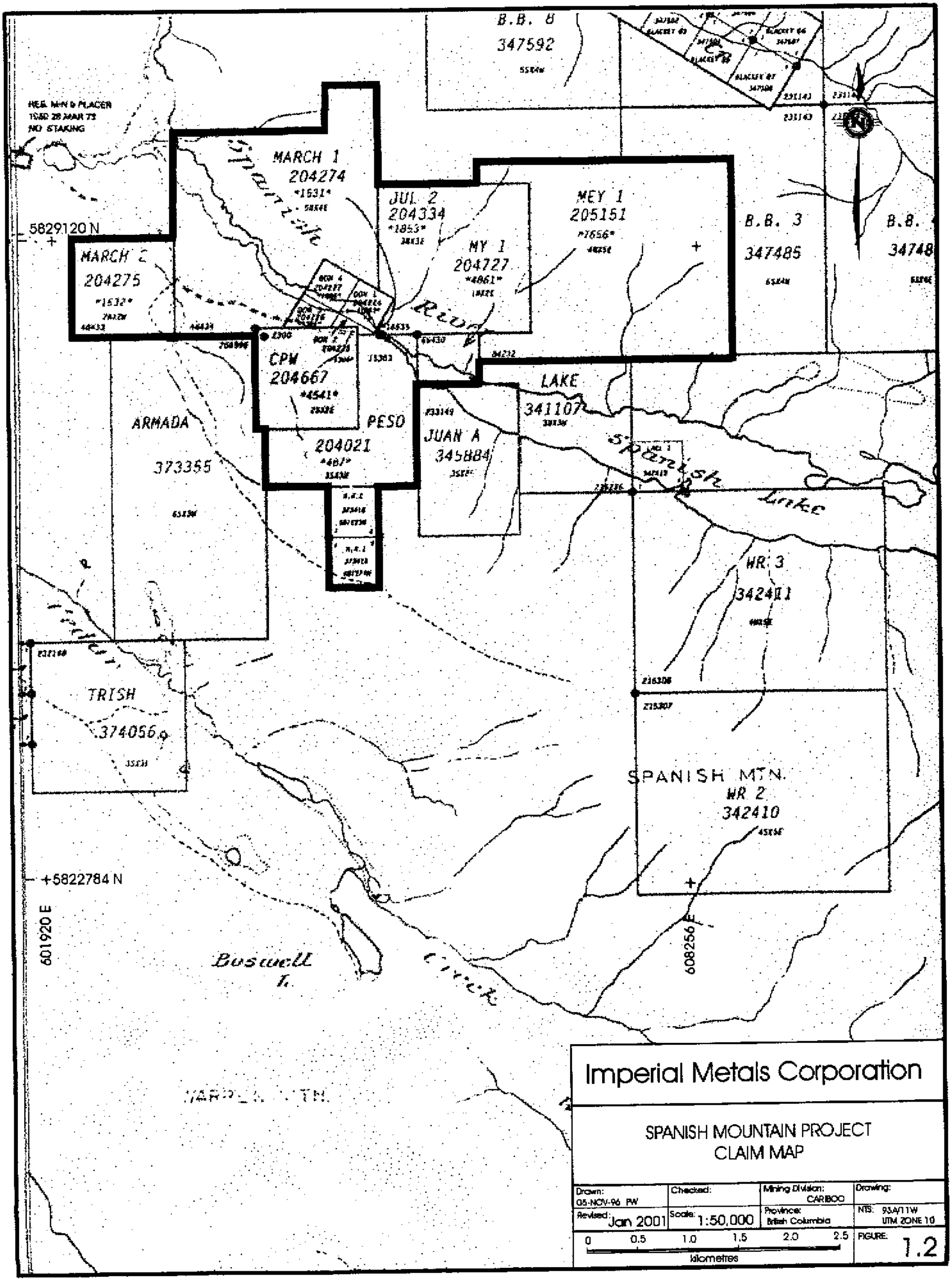
The CPW claim is also subject to an underlying agreement, giving the original vendors (individuals Wallster and McMillan) the right to repurchase the claim after April 24, 2004 if certain conditions have not been met. A sliding scale royalty and payments must be paid to the CPW vendors under certain conditions.

## 1.4 STATUS OF PROJECT

The Spanish Mountain property hosts a number of gold showings with minor associated base metals in some cases, often occurring in quartz veins and quartz stockwork. The preferred trend to most of the vein hosting structures is generally north northeasterly.

Although the property has traditionally been viewed as a high-grade model, more recent workers such as Mt. Calvery (1985), Cogema (1993), Pundata (1995) and Cypress (1996) examined the project for bulk tonnage potential. It was the bulk tonnage target concept that has attracted Imperial Metals to the project, as the company is operating the 20,000 tonne/day Mount Polley Mine only 15 km to the west. A low to medium grade, large tonnage deposit in the area could provide a source of mill feed for Mount Polley, especially if it proves to be possible to upgrade, or pre-treat the Spanish Mountain mineralization before shipment. Future work at Spanish Mountain will continue to focus on definition of bulk tonnage zones of gold mineralization.

In this report, the geology and mineralization of the Spanish Mountain property is summarized in Chapter 2, as background and a framework for the interpretation of the exploration results, given in Chapter 4. The assay results are in Appendices A, B and C.


B.B. 8
347592
REG. MIN & PLACER
NO STAKING
MARCH 1
204274
*1631*
JUL 2
204334
*1853*
MEY 1
205151
*7656*
B.B. 3
347485
MY 1
204727
*4861*
5829120 N
MARCH 2
204275
*1632*
River
CPW
204667
*4541*
LAKE
341107
ARMADA
373355
PESO
204021
JUAN A
345884
Spanish
Lake
WR 3
342411
TRISH
374056
SPANISH MTN.
WR 2
342410
+5822784 N
601920 E
608256 E
Boswell L.
Creek
Imperial Metals Corporation
SPANISH MOUNTAIN PROJECT
CLAIM MAP
Drawn: 05-NOV-96 PW
Checked:
Mining Division: CARIBOO
Drawing:
Revised: Jan 2001
Scale: 1:50,000
Province: British Columbia
NTS: 93A/11W
UTM ZONE 10
0 0.5 1.0 1.5 2.0 2.5
kilometres
FIGURE 1.2

| Spanish Mountain – List of Claims | | | | | | |
|---|---|---|---|---|---|---|
| TITLE NAME | TITLE # | UNITS | TAG # | RECORD DATE | EXPIRY DATE | REQ'D EXP |
| PESO* | 204021 | 9 | 15303 | Sept 21, 1979 | Nov 1, 2000 | 1,800.00 |
| NR 1* | 373415 | 1 | 687222M | Nov 15, 1999 | Nov 1, 2001 | 100.00 |
| MARCH 2* | 204275 | 4 | 48433 | Mar 17, 1980 | Nov 1, 2001 | 800.00 |
| MARCH 1* | 204274 | 20 | 48434 | Mar 17, 1980 | Nov 1, 2001 | 4,000.00 |
| NR 2* | 373416 | 1 | 687223M | Nov 15, 1999 | Nov 1, 2001 | 100.00 |
| DON 1* | 204224 | 1 | 485273M | Dec 24, 1979 | Nov 1, 2002 | 200.00 |
| DON 2* | 204225 | 1 | 485274M | Dec 24, 1979 | Nov 1, 2002 | 200.00 |
| DON 4* | 204227 | 1 | 485276M | Dec 24, 1979 | Nov 1, 2002 | 200.00 |
| JUL 2* | 204334 | 9 | 16535 | Aug 8, 1980 | Nov 1, 2002 | 1,800.00 |
| MY 1* | 204727 | 2 | 65430 | May 30, 1983 | Nov 1, 2002 | 400.00 |
| MEY 1* | 205151 | 20 | 84232 | May 8, 1986 | Nov 1, 2002 | 4,000.00 |
| DON 3* | 204226 | 1 | 485275M | Dec 24, 1979 | Nov 1, 2002 | 200.00 |
| CPW | 204667 | 4 | 2300 | Nov 1, 1982 | Nov 1, 2006 | 800.00 |
| LAKEVIEW 1 (PLACER) | 373356 | 1 | P89301 | Nov 16, 1999 | Nov 16, 2000 | 500.00 |
| LAKEVIEW 2 (PLACER) | 373357 | 1 | P89302 | Nov 16, 1999 | Nov 16, 2000 | 500.00 |

Table 1.1 List of Claims

## 1.5 PROPERTY HISTORY

Prospecting and mining in the general area (Quesnel Trough) have been continually active since the first discovery of placer gold in the late 1859 at Horsefly and Quesnel Forks. The great Cariboo gold rush began in 1860, spreading north to Barkerville, establishing one of the most productive placer districts found anywhere, with an estimated total production of between 2.5 and 3 million ounces of gold to date and production still continuing (Levson and Giles, 1993). The tremendous success experienced by placer miners resulted in intense exploration for the hard rock gold source, largely with little success. Perhaps one of the best know hard rock gold showings is the Mariner, later to become known as the CPW, which lies a the heart of the property described in this report.

The discovery of auriferous veins at Spanish Mountain is credited to F. Dickson and A. Bayley in 1933, and five years later two adits were driven on the property. In 1947, El Toro BC Mines Ltd conducted a combination exploration and mining program, resulting in the completion of 8 diamond drilling holes and the shipment of 3.6 tonnes of ore containing 249 grams gold, 1,306 grams silver, 46 kg copper and 66 kg lead.

Mt. Calvery Resources conducted the first systematic exploration program in the Spanish Mountain area during 1984-85 (Schmidt et al., 1984; McClintock, 1985a; 1985b). Mt. Calvery completed a regional geological mapping and soil geochemical survey, followed up by 3645 m of trenching and 4887 m of reverse circulation and diamond drilling on the main CPW claim. A further 848 m of trenching and 4510 m of drilling was completed by Pundata Gold Corporation in 1987-88 (Honsinger and Campbell, 1988). In addition, Pundata conducted VLF, magnetic and IP surveys on parts of the property, and performed some metallurgical testing.

In 1992, Renoble Holdings Incorporated mined 635 tonnes from a small open pit on the M1 vein at the Madre Zone. A total of 450 tonnes was shipped to Premier and Greenwood mills for recovery of approximately 75 troy oz gold.

Cogema Resources Inc. optioned the property in 1993 and over the course of two seasons completed geologic mapping and a further 1600 m of trenching (Melling, 1993; Schimann and Robb, 1994). Utilizing previous data, Cogema concentrated their trenching to intersect areas delineated by broad scale disseminated mineralization in shaley siltstone and to test for NNE trending high-grade quartz veins.

Consolidated Logan Mines Ltd. consolidated the surrounding claims with the CPW to form a larger Spanish Mountain property land holding in 1995 and optioned the entire package to Cyprus in February 1996.

The 1996 exploration by Cypress tested for near surface, bulk mineable gold in the sedimentary rocks, hoped to host widespread disseminated gold mineralization. Cypress completed 2,590 m of semi-continuous trenching and 76 m of test pit trenching in 200 m spaced cuts oriented perpendicular to the slope of Spanish Mountain. The results did not justify further expenditures by the company.

Imperial Metals optioned the Spanish Mountain property in late 1999 to test for a target slightly different than that Cypress was looking for. With the Mount Polley concentrator only 15 km away, a smaller but slightly better grade gold zone would possibly justify haulage to Mount Polley for treatment in batches or as a blend with the Mount Polley mill feed. Subsequent work showed that the mineralization at Spanish Mountain was susceptible to significant upgrade by way of size fractional pretreatment. A simple crushing and screening plant at Spanish Mountain may provide the economic advantage needed to make the project feasible.

The 2000 work program described in this report included detailed drill testing of several zones followed by a bulk metallurgical sample. The sample was pretreated at Spanish Mountain by screening and was sold to Mount Polley for treatment. The material was blended with Mount Polley mill feed, and added to the concentrate shipment to Japan for smelting.

## 1.6 ACKNOWLEDGEMENTS

Mr. Bill Morton, president of Wildrose Resources Limited, is thanked for the knowledge and enthusiasm he has brought to this project and for the role he played in the orientation of Imperial staff and the initial project conceptualization.

Brian Kynoch (Senior Vice President, IMC), Pat McAndless (Vice President, Exploration, IMC) and Clay Craig (geological engineer, IMC) contributed support and interpretive insights. Ken Hicks (geologist, IMC) produced a quality set of final diagrams in the report, even with a very tight deadline.

The support and assistance of many Mount Polley staff including Eric LeNeve, Don Parsons, Don Jaimeson, Corney Klauson, Murray Lawson, Tim Fisch and Tom Odo is acknowledged.

The Paramount drilling crew of John Murray and Colin Fagan worked very hard to complete the job in a timely and safe manner.

The hardworking, efficient and organized crew from Lake Excavating, led by Rick and Trevor Siebert and Debb Lozier did an excellent job of performing the task of screening and hauling the product quickly and efficiently.

As they have done for many mining exploration crews over the years, Donna and Al Purdy provided very clean and comfortable accommodation at Nielsen's Resort in Likely.

# 2.0 GEOLOGY

The Geology of the Spanish mountain area has been described by many geologists with the most recent discussions of Regional Geology presented by Panteleyev et al, 1996, and the most recent property specific analysis by Tracy Hurley and Mark Ben, also in 1996. The work of Rees (1987) and Bloodgood (1990) are also very current. These sources have all been drawn upon for the discussion presented here.

## 2.1 REGIONAL GEOLOGY

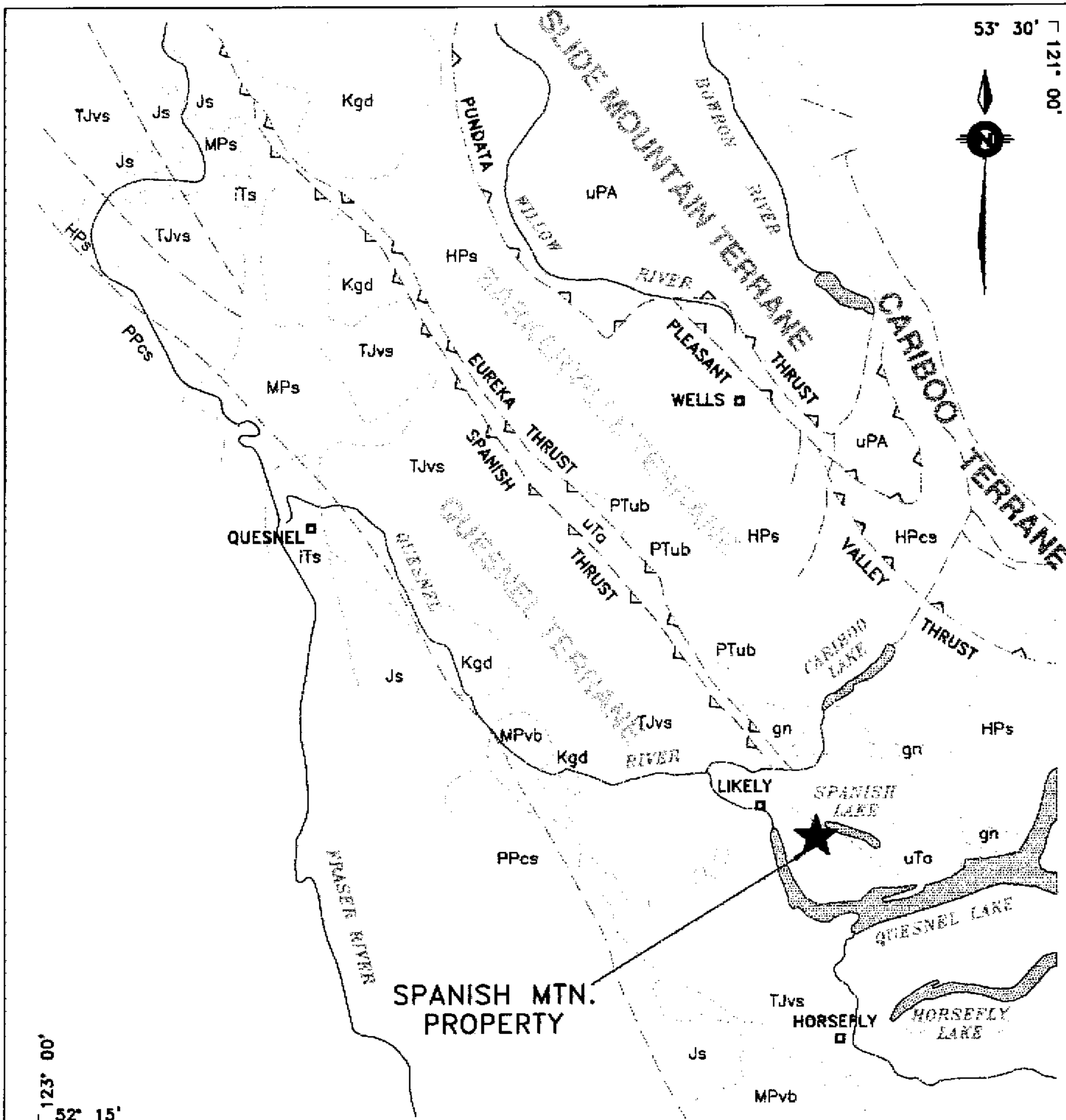
The Canadian Cordillera is comprised of 5 major morphogeological belts, of which the Spanish Mountain project is located in the Intermontane Belt. The easternmost Terrane within the Intermontane is Quesnellia (alternatively called Quesnel Terrane, or more informally, Quesnel Trough). Quesnellia has two major groups of rocks: the lower, generally fine grained clastic sedimentary package of mid to late Triassic age and the overlying volcanic rock of late Triassic to early Jurassic age which occupy the core of the Quesnel Terrane (See fig X).

The sedimentary package is dominantly dark phyllitic rocks that were formed by the filling of the Quesnel Basin, in a low energy, stagnant environment. The evidence of the basinal morphology remains with the rocks on the eastern edge of the terrane dipping gently to the southwest and those on the western edge generally dipping to the northeast. The estimated thickness of sedimentary rocks is believed to be a minimum of 2500 metres (Rees, 1987) up to 4000 metres (Bloodgood, 1990).

The volcanic rocks along the core of the Quesnel Terrane were deposited as the quiet deep stagnant Quesnel Basin transformed into a much more active shallow water island arc environment. The volcanics, mostly subaqueously deposited alkalic basalts, formed as flows, pillows, breccias and tuffs. Locally derived sedimentary rocks are found throughout the volcanic rock package and are more abundant near the top of the sequence. An estimate of thickness of the volcanic package is approximately 6500 metres (Rees, 1987).

The Quesnel Terrane is considered allochthonous, thrust into contact with the Barkerville Terrane of the Omineca Belt along the Eureka Thrust during the Jurassic. The Jurassic was a time of tectonic convergence along the western margin of the North American continent. To the west, the Quesnellia is in contact with the Cache Creek Terrane along a high-angle strike slip fault, which is probably a southern extension of the Pinchi Fault.

As a result of the Jurassic accretionary tectonism, the older (and therefore lower) units generally exhibit amphibolite facies metamorphism with tight isoclinal folds and well-developed cleavage. The Younger or upper rocks exhibit more open folds and brittle deformation in areas of greenschist metamorphism.




**TERTIARY**

- MPvb — Olivine basalt flows, breccia, tuff
- MPs — Sandstone, shale, conglomerate, diatomite lignite
- iTs — Paleogene conglomerate, sandstone, mudstone, lignite

**CRETACEOUS**

- Kgd — Granodiorite, quartz monzonite quartz diorite

**TRIASSIC–JURASSIC**

- Js — Shale, greywacke, conglomerate
- TJvs — Andesite, basalt, tuff, breccia, conglomerate, ...

**PERMIAN &/or TRIASSIC**

- PTub — Peridotite, dunite, pyroxenite, serpentinite

**PENNSYLVANIAN AND PERMIAN**

- PPCs — CACHE CREEK GROUP Ribbon chert, argillite, limestone, greenstone

**MISSISSIPPIAN TO PERMIAN**

- uPA — SLIDE MOUNTAIN GROUP Basalt, breccia, tuff, chert, argillite, sandstone, ...

**HADRYNIAN TO PALEOZOIC**

- HPcs — CARIBOO, BLACK STUART & NAZA GROUPS Limestone, dolomite, argillite, phyllite, quartzite, ...
- HPs — SNOWSHOE GROUP Mainly micaceous quartzite and phyllite; sandstone, ...

**UNKNOWN AGE**

- gn — Augen granite, granodiorite gneiss

GEOLOGICAL CONTACT

FAULT (KNOWN OR INFERRED)

THRUST FAULT

MODIFIED FROM:
B.C. E.M.P.R. BULLETIN 89, by Levson and Giles (1993)
CYPRUS CANADA (1996)

# Imperial Metals Corp

## SPANISH MOUNTAIN PROJECT REGIONAL TECTONIC SETTING

| Drawn: 05-NOV-96 PW | Checked: | Mining Division: CARIBOO | Drawing: SP-REGNL.dwg |
|---|---|---|---|
| Revised: Jan 2001 | Scale: NA | Province: British Columbia | NTS: 93A/11 |
| 0 5 10 15 20 25 KILOMETRES | | | FIGURE: 2.1 |

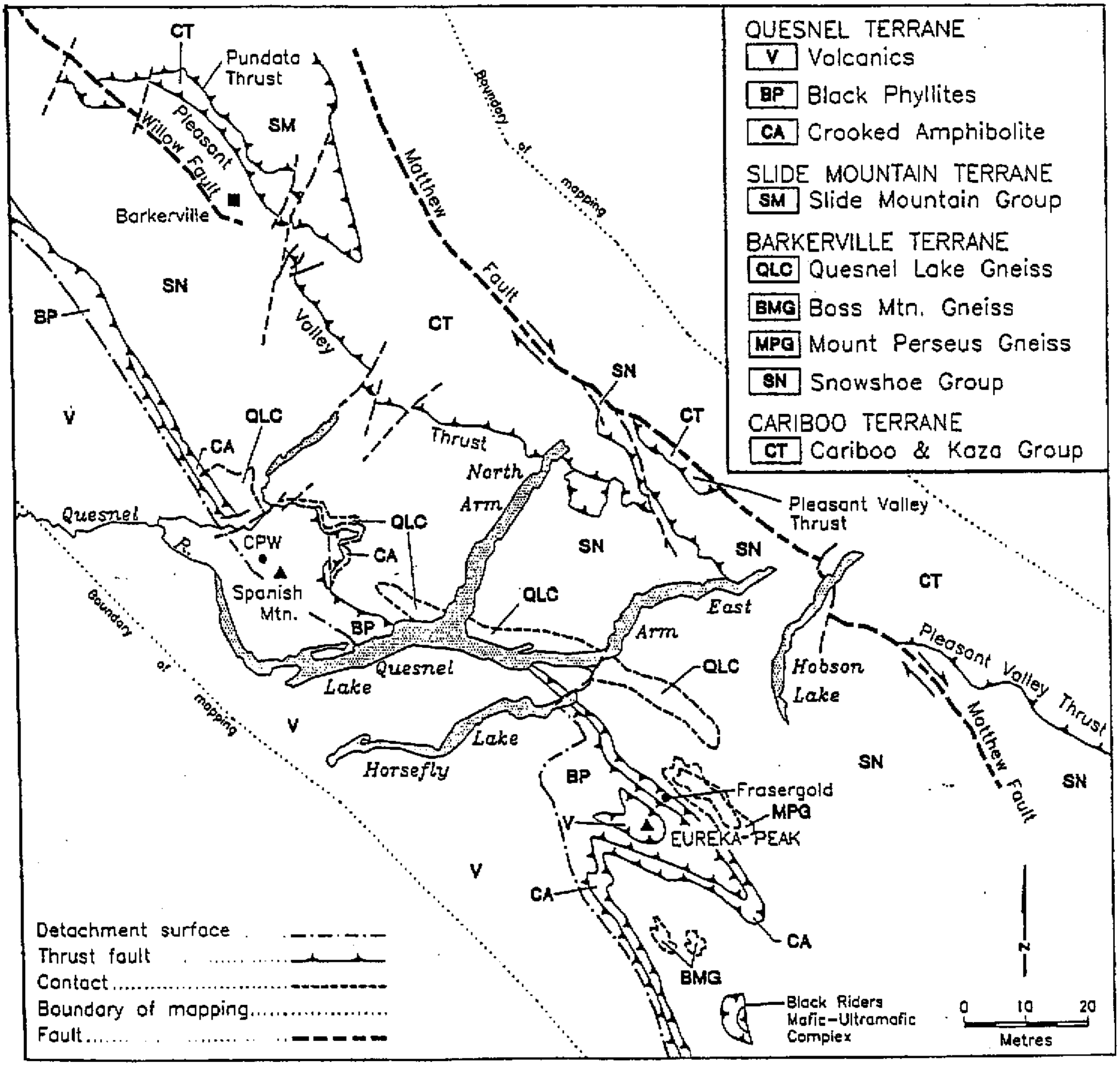



FIGURE 2.2 REGIONAL GEOLOGY OF THE SPANISH MOUNTAIN AREA

## 2.2 PROPERTY GEOLOGY

The Spanish Mountain property is underlain interbedded black phyllites, siltstones, shales and tuffs of mid to late Triassic age This metasedimentary and volcanic package of rock, correlatable with the Nicola Group of Southern British Columbia (Bloodgood, 1990), has been regionally metamorphism to greenschist facies.

The 1996 Cypress program exposed the Spanish Mountain geology in long semi-continuous trenches down the north-facing slope and has provided the best exposure of the property geology. The most recent property geology map produced for the Spanish Mountain area accompanies the 1996 Cypress report. Black graphitic shales, shaley siltstone and massive siltstone predominate over most of the north slope with minor interbedded intermediate to felsic pyroclastics noted within the CPW claim (Hurley, 1996). Volcanics predominate to the south, on the top and southern flank of the Mountain. The Cypress report also notes variably altered feldspar porphyry, as narrow dykes, sills and occasionally plugs up to 130 m wide are also common within the southern part of the CPW claim. Petrographic analysis (See appendix E) of dyke rock exposed in the LE pit showed it to be a medium grained diorite, likely from the same suite of rocks described by Cypress as feldspar porphyry.

### 2.2.1 Alteration

Ankeritic porphyroblasts are present in most rocks and late fracture filling calcite is also common. The intrusive rock can be unaltered to strongly sericitized, becoming mushy and mud-like in the most extreme cases.

Limonite alteration is ubiquitous as is the pyrite from which it is generally derived. Siderite veins and hematite alteration are both occasionally observed. Graphite is abundant around quartz veins and intrusive bodies hosted in the finer grained sedimentary rock, but is also observed in rocks where the carbon has been transported with the veins/intrusive into the new host.

### 2.2.2 Structure

According to Bloodgood (1990) the CPW claim lies on the northeast limb of a northwest-trending anticline. The dominant bedding attitude is slope parallel trending 280-320° with moderate dips to the north. Local thrust faulting generally parallels bedding with a range in strike of 280-305°, dipping 50-70° N. Two prominent fold nose attitudes were noted, trending south-southeast and northwest respectively. Plunges generally vary from 20-35°.

Locally crenulated bedding/foliation is accompanied by broadly spaced crenulation cleavage. Cleavage typically trends 210-225°/ -25° NW.

Three prominent quartz vein sets trend south, southwest and west-southwest. All are shallow to moderately dipping; typically in the range of 30-60° W. Quartz veining predates the crenulation event.

Strongly fractured and weakly to strongly sheared zones in siltstone produce a prominent shaley texture. A secondary nature to the developed fissility is clearly apparent in abrupt lateral changes from siltstone to shaley siltstone and to shale. It is unclear in many cases whether the degree of fissility is primary or secondary. For mapping purposes, lithological units are defined according to their texture. Siliceous angular siltstone clasts in graphitic shale units are believed to be synonymous with remnant protolith rock in a cataclastic-type shear. These units are most common in the southernmost sections of the trenches nearing the contact with predominantly volcanic stratigraphy.

### 2.2.3 Mineralization

Shales and siltstone rocks host traces to >10% pyrite. The ubiquitous nature of the pyrite would lead to the conclusion that at least part of it is diagenetic in nature. This is certainly not the case for all pyrite mineralization. A minimum of three phases have been identified and at least two are associated with gold mineralization. Large euhedral cubes can be up to 2 cm across and are quite susceptible to weathering. When these tarnished, but well-preserved crystals are broken open, they appear tarnished and highly fractured throughout. In many limonitic quartz veins, pyrite has been completely oxidized leaving behind a cubic indentation in the quartz, often lined with limonitic powder and in some cases, fine visible gold (locally referred to as aerobar). It is widespread auriferous pyrite that will be key to the delineation of any bulk mineable zones at Spanish Mountain.

Another style of pyrite mineralization is characterized by brassy and fresh appearance on broken surfaces. It often occurs as small stringers and blebs, or can form small euhedral crystals. This phase is often associated with veins or areas that have been strongly fractured, allowing for the passage of hydrothermal fluids. Pyrite is also observed as stringers and smears of pyrite along fractures or parting planes in the more fissile sedimentary rocks.

Petrographic work from 2000 (Appendix D) reports gold/electrum grains within pyrite crystals, sometimes associated with chalcopyrite.

Quartz veins can carry strong gold mineralization. Cypress noted in the 1996 trenching program that gold mineralization is strongly correlated with the presence of quartz veining. Local prospector Bob Mickle (one of the underlying property vendors) has spent a number of years sampling and exploring the area and believes that quartz veins containing galena, even in small amounts, generally have gold mineralization although the best gold in quartz mineralization comes from the previously described "aerobar" (personal communication, 2000).

# 3.0 2000 WORK PROGRAM

Imperial Metals first investigated the Spanish Mountain project in late fall of 1999. Samples from the Madre and LE Zones were subjected to a variety of metallurgical tests (See Kynoch, 2000). Conclusions from that report include two facts that helped determine the form and scope of the work reported on here:

- When the mineralized sedimentary rock is crushed and screened, gold is strongly concentrated in the finest size fractions.
- The Spanish Mountain mineralization can be effectively treated in the Mount Polley milling circuit without any detrimental effect to the treatment of the Mount Polley ore.

Five of the most prospective areas on the property (based of the sampling of previous workers) were closely examined to determine if one or more areas stands out as having consistent, elevated gold values (above 1 g/t Au). Having widespread, consistent mineralization would be important to any consideration of bulk tonnage mining. To attain consistency, sediment hosted mineralization is necessary to avoid the erratic values associated with the quartz vein hosted gold.

The area that returned the best results was mined and pretreated on site by screening, before shipment to the Mount Polley concentrator. At Mount Polley, the Spanish Mountain pre-concentrate was slowly fed into the regular milling circuit at a rate of 50 - 100 tonnes per hour. At that rate it comprised a maximum of 10% of the feed.

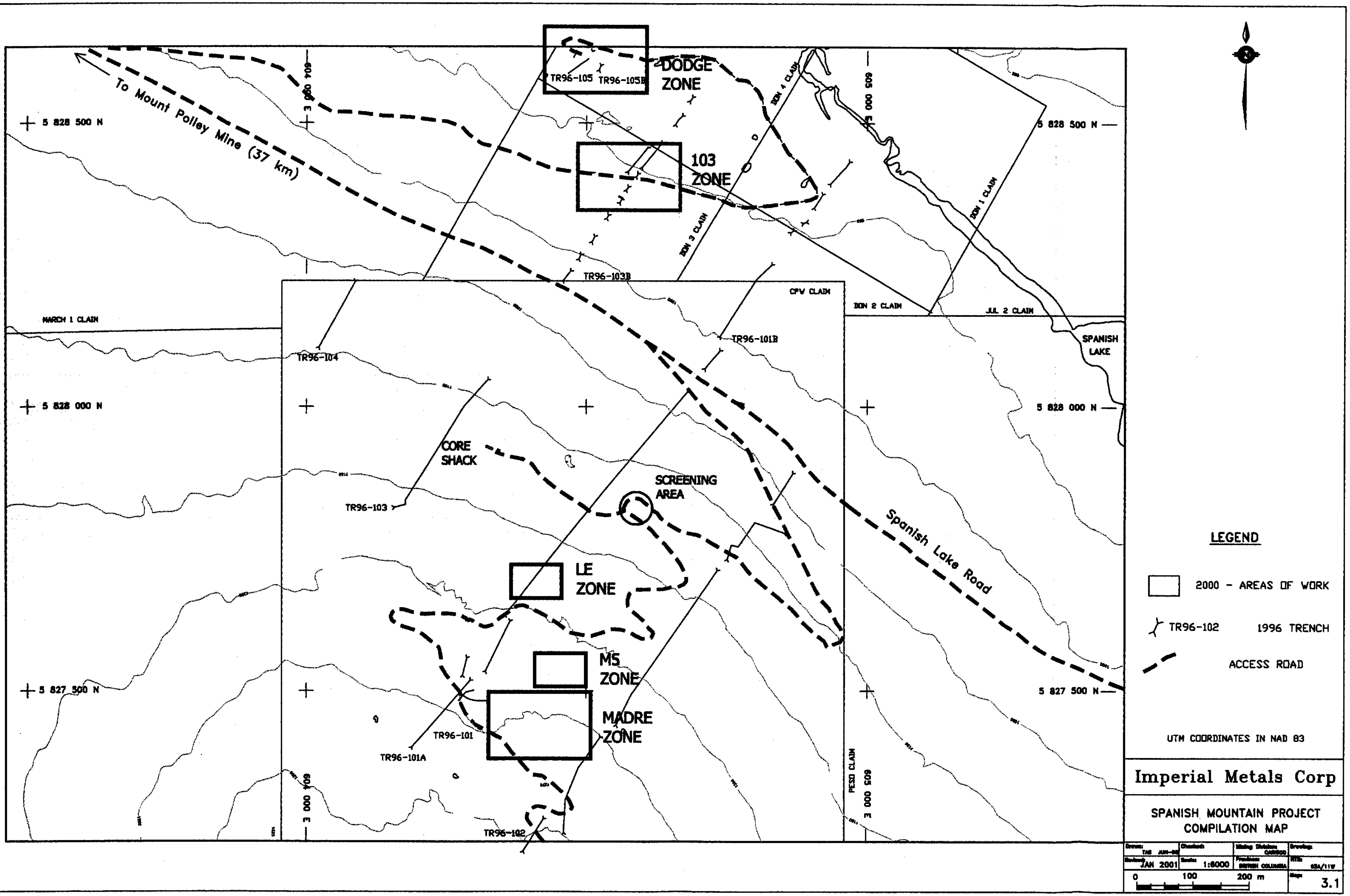
## 3.1 SELECTION OF TEST SITES

Historical work at the Spanish Mountain property has provided considerable drilling, rock sampling and trenching data to consider. A review of the drilling and trench data indicated that the best potential to find well mineralized rock (> 1 g/t Au) over appreciable widths were in the following zones (See figure 3.1)

- Madre
- LE
- M5
- 103
- Dodge

## 3.2 SITE PREPARATION

The five zones selected for testing were cleared of all soil using an EX270LC Hitachi excavator and a D-7 Cat (where topography allowed). Once cleared, the drillers marked out a drilling pattern that would (if needed) provide an effective blasting pattern in the given location. Topographic profile, pattern size, hole diametre, hole depth and rock competence were considered when determining how to drill the pattern off.



DODGE ZONE
TR96-105
TR96-105B
103 ZONE
To Mount Polley Mine (37 km)
5 828 500 N
5 828 000 N
5 827 500 N
604 000 E
605 000 E
DON 4 CLAIM
DON 3 CLAIM
DON 1 CLAIM
DON 2 CLAIM
JUL 2 CLAIM
CPV CLAIM
MARCH 1 CLAIM
PESO CLAIM
SPANISH LAKE
TR96-103B
TR96-101B
TR96-104
TR96-103
CORE SHACK
SCREENING AREA
Spanish Lake Road
LE ZONE
M5 ZONE
MADRE ZONE
TR96-101
TR96-101A
TR96-102
LEGEND
2000 - AREAS OF WORK
TR96-102 1996 TRENCH
ACCESS ROAD
UTM COORDINATES IN NAD 83
Imperial Metals Corp
SPANISH MOUNTAIN PROJECT
COMPILATION MAP
JAN 2001
1:6000
0 100 200 m
3.1

## 3.3 DRILLING

All drilling was completed using a Furakawa HCR15-ED track mounted percussion drill. The drill was operated from a dust-proof cab by the driller, while a helper remained outside to sample the cuttings as they were produced from the hole. An automatic feeder attached and threaded additional rods when the desired depth was greater than that of an individual length of steel (14 feet). The bit used was a 3" button bit. The dust suppression system was not used in order that the samples be as representative as possible.

## 3.4 SAMPLING

A steel tray was placed at the base of the drill boom, with the drill steel fitted into a slot in the tray, such that most (almost all except some blow-away dust) of the cuttings would fall into the tray. The tray was emptied into buckets at the end of every sample interval. Holes that were longer than 6 metres were split into multiple samples.

A portable Jones Splitter (riffle splitter) was used to split the sample down to the point that it could be placed into a single bag (approximately 3 - 5 kg). The bags were given a unique sample number using a standard sample tag system. The unique identifying information including zone, hole number, sample interval and length and date, was recorded in the sample tag book. One half of the tag, showing only the sample number, was placed into the sample bag.

Samples were collected one at a time to avoid confusion, contamination or misnumbering. Samples were double-bagged to minimize the possibility of contamination should the bags break during transport. The sample number was written in felt pen on both of the bags, and the sample tag was placed between the two bags to reduce degradation. A scupola was used to collect a small portion of chips (approx 2 tablespoons) that was placed into a labeled chip storage tray for future reference. Sample bags were then sealed with zap strap fasteners as soon as possible in order to minimize the chances of contamination.

The samples were taken by pickup daily from the Spanish Mountain property to the laboratory at the Mount Polley minesite for analysis.

## 3.5 ANALYSIS

Drill cuttings were sent to the Mount Polley laboratory for determination of gold content. The only sample preparation required was drying and pulverization. A 250-gram split of each sample was prepared using a ring pulverizer. A full description of the analytical technique can be found in Appendix D.

## 3.6 BLASTING AND MINING

Once drilling and analysis were completed it was determined that the LE Zone had returned the most desirable results and was chosen for the large-scale sample. A small portion of the M5 zone was also chosen for blasting.

A crew from Mount Polley was contracted to blast the zone, with instructions to produce the finest muck possible, but with minimal loss of material as fly rock. The LE zone blasted well, producing a fine muck pile as desired. The small area of the M5 zone that was blasted broke much more brittley, producing large angular blocks and significant flyrock.

## 3.7 SCREENING

The original plan for the program included bringing a crusher/screening plant on site to pre-treat the product, however after blasting, a few randomly collected samples from the LE pit indicated that 20% to 25% of the muck was $-^{1}/_{4}$" and crushing would be unnecessary.

A two deck screening plant was used by contractor Lake Excavating, to produce 4 products:

| | |
|---|---|
| Oversize: | > 5" |
| Coarse: | 1" – 5" |
| Midrange: | $^{3}/_{8}$" – 1" |
| Fines: | $-^{3}/_{8}$" |

Different screens were tested in order to produce the finest product possible. Unfortunately, the ¼" square screen plugged up frequently, which severely limited the productivity of the plant. It was replaced with a $^{3}/_{8}$" harp screen that produced a much coarser product (due to the shape of the screen as well as the larger horizontal opening). Approximately $^{1}/_{3}$ of the feed ended up in the fines fraction.

Regular sampling of the conveyor product for the coarse, midrange and fines was stored in 45-gallon drums that have been sealed and are stored at Mount Polley for future reference. The midrange and coarse products are still stockpiled on site at the screening plant area and can be considered for further processing, if future metallurgical work deems it to be appropriate.

## 3.8 SHIPPING AND SAMPLING

The $-^{3}/_{8}$" product was trucked to the Mount Polley site using three tandem axel trucks (two with ponies and one with a quad axel assembly). A total of 64 loads were hauled with an average net weight of 33.59 tonnes for a total of 2150 (wet) tonnes of muck.

Upon arrival at Mount Polley, the trucks were weighed and sampled at the truck scales. Weights and samples from that process were used for all final calculations regarding payment for delivery of the gold under an agreement with Mount Polley Mining Corporation.

A pipe sampler was used to get a minimum of 7 kg of sample from each truckload. The samples were sealed in a small bucket and taken to the Mount Polley assay lab where a moisture test was performed. The sample was split, with a fraction shipped to Bondar Clegg for analysis, and the remainder was kept at Mount Polley for reference.

## 3.9 ANALYTICAL METHOD – BONDAR CLEGG

All truck samples were analyzed at Bondar Clegg Canada Limited Laboratory in North Vancouver. A description of the analytical method used by Bondar Clegg, can be found in Appendix D. Results are provided in Table 4.2 and the certificates are provided in Appendix B.

# 4.0 DISCUSSION OF RESULTS

## 4.1 BACKGROUND AND OBJECTIVES

The numerous high-grade gold showings distracted the earliest workers at Spanish Mountain to look for a significant shear hosted auriferous vein or veins with enough continuity and total tonnage to support a small high-grade operation. It was only in the 1980's that the bulk tonnage target was first envisioned. Imperial is following the bulk tonnage, open pit model to search for a deposit that could provide a supplemental mill feed for Mount Polley, or alternatively, if large enough, a stand-alone open pittable deposit.

The work program described in Chapter 3 of this report, can be summarized in the following four steps:

1. Pick the best zones indicating widespread mineralization and test them by drilling a blast pattern over a significant area. By doing so, the drilling would not be biased by geologic preference, thus providing an excellent estimate of the gold grade of a sizeable block.
2. Examine areas that are suspected of having significant gold mineralization throughout the rock rather than being exclusively (or mainly) concentrated in the quartz veins.
3. Attempt to concentrate the gold by means of simple crushing (or blasting) and screening (pre-concentration).
4. Treat the mineralization in the Mount Polley floatation circuit.

The program budget called for the drilling of between 3000 and 3500 metres. The actual drilling totaled 2,542 metres, over 464 holes.

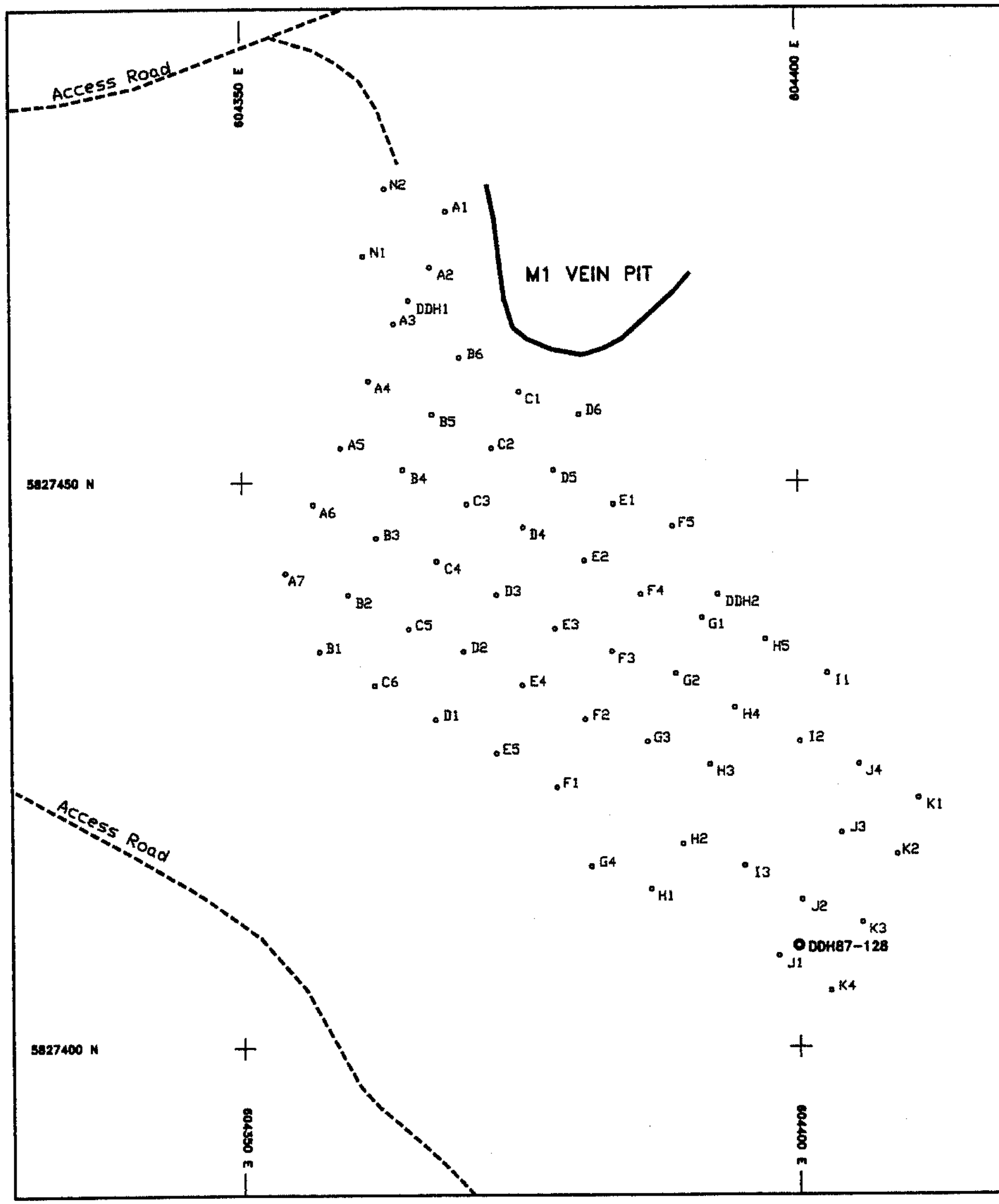
A complete set of the drilling assay results is given in Appendix A and a complete drilling summary is presented in Appendix C.

## 4.2 DRILLING

### MADRE ZONE

The Madre Zone hosts the M1 Vein that was mined by Renoble Holdings in 1992. Mount Calvery had earlier described the zone as having "ultimate potential reserve...of 1 million tons grading 0.1 oz/ton gold" (McClintock, J.A., 1985b). This characterization made Madre the most obvious candidate for testing in the 2000 drilling campaign.

Sampling of the black phyllitic metasediments surrounding the larger quartz veins by Imperial Metals in 1999, confirmed that the gold mineralization is not restricted to the vein, but is also present in the phyllites (Kynoch, 2000). That grab sample of phyllite taken near the M1 vein for metallurgical purposes, assayed 2.58 g/t gold.




# BLAST HOLE ASSAYS

| Hole # | Interval (m) From | To | Length | Gold (g/t) |
|---|---|---|---|---|
| A1 | 0 | 3 | 3 | 0.16 |
| A2 | 0 | 3 | 3 | 0.64 |
| A3 | 0 | 3 | 3 | 7.72 |
| A4 | 0 | 3 | 3 | 0.64 |
| A5 | 0 | 3 | 3 | 0.14 |
| A6 | 0 | 3 | 3 | 0.22 |
| A7 | 0 | 3 | 3 | 0.08 |
| B1 | 0 | 3 | 3 | 0.08 |
| B1 | 3 | 7 | 4 | 0.08 |
| B2 | 0 | 4 | 4 | 0.06 |
| B3 | 0 | 4 | 4 | 0.10 |
| B4 | 0 | 3 | 3 | 0.20 |
| B5 | 0 | 3 | 3 | 0.10 |
| B6 | 0 | 3 | 3 | 0.70 |
| C1 | 0 | 3 | 3 | 0.22 |
| C2 | 0 | 3 | 3 | 0.02 |
| C3 | 0 | 4 | 4 | 0.06 |
| C4 | 0 | 4 | 4 | 0.04 |
| C5 | 0 | 3 | 3 | 0.10 |
| C5 | 3 | 6 | 3 | 0.14 |
| C6 | 0 | 3 | 3 | 0.10 |
| C6 | 3 | 6 | 3 | 0.10 |
| D1 | 0 | 3 | 3 | 0.08 |
| D1 | 3 | 7 | 4 | 0.12 |
| D2 | 0 | 3 | 3 | 0.12 |
| D2 | 3 | 7 | 4 | 0.04 |
| D3 | 0 | 3 | 3 | 0.12 |
| D3 | 3 | 7 | 4 | 0.04 |
| D4 | 0 | 3 | 3 | 0.08 |
| D4 | 3 | 6 | 3 | 0.06 |
| D5 | 0 | 3 | 3 | 0.08 |
| D5 | 3 | 6 | 3 | 0.04 |
| D6 | 0 | 4 | 4 | 0.04 |
| E1 | 0 | 3 | 3 | 0.02 |
| E1 | 3 | 6 | 3 | 0.04 |
| E2 | 0 | 3 | 3 | 0.06 |
| E2 | 3 | 7 | 4 | 0.04 |
| E3 | 0 | 3 | 3 | 0.12 |
| E3 | 3 | 7 | 4 | 0.12 |
| E4 | 0 | 3 | 3 | 0.12 |
| E4 | 3 | 6 | 3 | 0.46 |
| E4 | 6 | 8 | 2 | 0.30 |
| E5 | 0 | 3 | 3 | 1.64 |
| E5 | 3 | 6 | 3 | 0.58 |
| E5 | 6 | 9 | 3 | 0.32 |
| F1 | 0 | 3 | 3 | 0.14 |
| F1 | 3 | 6 | 3 | 0.22 |
| F1 | 6 | 9 | 3 | 0.10 |
| F2 | 0 | 3 | 3 | 0.08 |
| F2 | 3 | 6 | 3 | 0.12 |
| F2 | 6 | 9 | 3 | 0.12 |
| F3 | 0 | 3 | 3 | 0.12 |
| F3 | 3 | 6 | 3 | 0.46 |
| F3 | 6 | 9 | 3 | 0.34 |
| F4 | 0 | 3 | 3 | 0.04 |
| F4 | 3 | 6 | 3 | 0.74 |
| F4 | 6 | 9 | 3 | 1.04 |
| F5 | 0 | 3 | 3 | 0.16 |
| F5 | 3 | 6 | 3 | 3.78 |
| F5 | 6 | 8 | 2 | 0.80 |
| G1 | 6 | 9 | 3 | 0.06 |
| G1 | 0 | 3 | 3 | 0.12 |
| G1 | 3 | 6 | 3 | 0.02 |
| G2 | 0 | 3 | 3 | 0.18 |
| G2 | 3 | 6 | 3 | 0.10 |
| G2 | 6 | 10 | 4 | 0.10 |
| G3 | 0 | 3 | 3 | 0.10 |
| G3 | 3 | 6 | 3 | 0.10 |
| G3 | 6 | 10 | 4 | 0.10 |
| G4 | 0 | 3 | 3 | 0.06 |
| G4 | 3 | 6 | 3 | 0.08 |
| G4 | 6 | 10 | 4 | 0.08 |
| H1 | 0 | 3 | 3 | 0.16 |
| H1 | 3 | 6 | 3 | 0.10 |
| H1 | 6 | 10 | 4 | 0.12 |
| H2 | 0 | 3 | 3 | 0.12 |
| H2 | 3 | 6 | 3 | 0.04 |
| H2 | 6 | 10 | 4 | 0.02 |
| H3 | 0 | 3 | 3 | 0.22 |
| H3 | 3 | 6 | 3 | 0.14 |
| H3 | 6 | 9 | 3 | 0.14 |
| H3 | 9 | 11 | 2 | 0.16 |
| H4 | 0 | 3 | 3 | 0.18 |
| H4 | 3 | 6 | 3 | 0.66 |
| H4 | 6 | 10 | 4 | 0.14 |
| H5 | 0 | 3 | 3 | 0.18 |
| H5 | 0 | 3 | 3 | 0.18 |
| H5 | 3 | 6 | 3 | 0.30 |
| H5 | 3 | 6 | 3 | 0.24 |
| H6 | 6 | 9 | 3 | 0.24 |
| I1 | 0 | 3 | 3 | 0.22 |
| I1 | 3 | 6 | 3 | 0.38 |
| I1 | 6 | 9 | 3 | 0.14 |
| I1 | 9 | 12 | 3 | 0.12 |
| I2 | 0 | 3 | 3 | 0.18 |
| I2 | 3 | 6 | 3 | 0.06 |
| I2 | 6 | 9 | 3 | 0.34 |
| I2 | 9 | 11 | 2 | 0.10 |
| I3 | 0 | 3 | 3 | 0.08 |
| I3 | 3 | 6 | 3 | 0.10 |
| I3 | 6 | 10 | 4 | 0.10 |
| J1 | 0 | 3 | 3 | 0.22 |
| J1 | 3 | 6 | 3 | 0.20 |
| J1 | 6 | 10 | 4 | 0.14 |
| J2 | 0 | 3 | 3 | 0.02 |
| J2 | 3 | 6 | 3 | 0.12 |
| J2 | 6 | 9 | 3 | 0.12 |
| J2 | 9 | 12 | 3 | 0.06 |
| J3 | 0 | 3 | 3 | 0.18 |
| J3 | 3 | 6 | 3 | 0.18 |
| J3 | 6 | 9 | 3 | 0.12 |
| J3 | 9 | 12 | 3 | 0.04 |
| J4 | 0 | 3 | 3 | 0.06 |
| J4 | 3 | 6 | 3 | 0.14 |
| J4 | 6 | 9 | 3 | 0.04 |
| J4 | 9 | 12 | 3 | 0.18 |
| K1 | 0 | 3 | 3 | 0.08 |
| K1 | 3 | 6 | 3 | 0.12 |
| K1 | 6 | 9 | 3 | 0.06 |
| K1 | 9 | 12 | 3 | 0.10 |
| K2 | 0 | 3 | 3 | 0.32 |
| K2 | 3 | 6 | 3 | 0.16 |
| K2 | 6 | 9 | 3 | 0.12 |
| K2 | 9 | 13 | 4 | 0.12 |
| K3 | 0 | 3 | 3 | 0.12 |
| K3 | 3 | 6 | 3 | 0.08 |
| K3 | 6 | 9 | 3 | 0.02 |
| K3 | 9 | 12 | 3 | 0.24 |
| K4 | 0 | 3 | 3 | 0.04 |
| K4 | 3 | 6 | 3 | 0.24 |
| K4 | 6 | 9 | 3 | 0.18 |
| K4 | 9 | 12 | 3 | 0.12 |
| N1 | 0 | 3 | 3 | 2.24 |
| N2 | 0 | 3 | 3 | 1.00 |

LEGEND

∘ P4 BLAST HOLE COLLAR

ACCESS ROAD

IMPERIAL METALS CORP

SPANISH MOUNTAIN PROJECT
MADRE ZONE

JAN 2001 | Scale 1:500 | BRITISH COLUMBIA | 4-1

0 — 10 metres

Drilling of the Madre zone was completed on a 6 m grid where access allowed, testing a large area (See figure 4.1). Holes were drilled to a maximum of 13 metres depth in the highest part of the grid. This was done in order that if subsequent blasting were required, it would produce a flat bench to work on.

A total of 134 samples were taken from 57 holes. Surprisingly, only six samples returned gold grades higher than 1 g/t gold, to a maximum of 7.72 g/t. It is concluded that gold mineralization is not equally disseminated throughout the phyllitic sedimentary rocks as hoped and the mineralization present is related to small quartz veins cutting through the area. The exception, where gold may be hosted within the phyllites, is spatially related to the M1 vein, and therefore limited in size potential.

No further work was performed on this zone and it was fully reclaimed and seeded.

## LE ZONE

The LE Zone was chosen for drilling, mainly based on the results of results of Cypress Trench 96-101 in the interval of 312 m – 344 m that returned an average grade of 2.91 g/t gold (over 32 m). This was later confirmed by a random grab sample taken by Imperial for metallurgical testing that averaged 1.60 g/t gold (Kynoch, 2000).

A total of 201 samples were taken from 182 holes in the pattern drilled in this area (See figure 4.2). The drillers changed their drill spacing from the 6 m X 6 m grid used at Madre to a 2 m X 2 m grid. It was felt that using only a 3" hole, the tighter spacing would be needed to effectively blast the rock, especially given the desire to produce a large fines fraction to avoid the need for crushing.

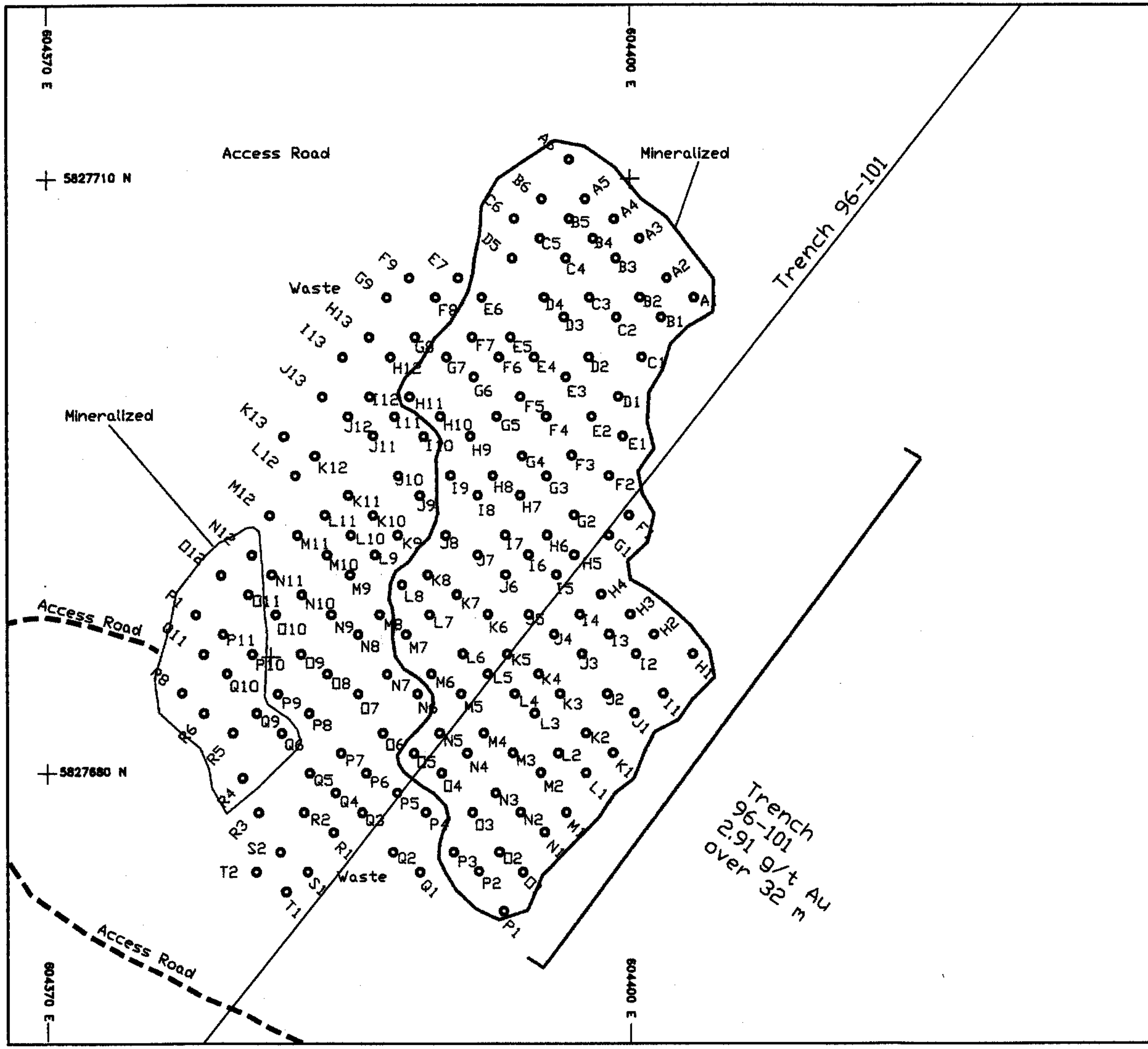
A total of 107 of the 201 samples collected, graded better than 1 g/t gold and 153 samples graded 0.50 g/t gold or better. At the conclusion of the drilling program, this proved to be the most strongly mineralized of all the zones tested. The material that was produced in the blast was very strongly oxidized, however the bottom of the pit did expose some unoxidized black argillite that commonly contained 7% – 8% pyrite (See petrographic report in appendix E) and often 10% - 15% locally. It is the author's opinion that most of the gold present in the drilling area of this zone was originally was hosted in pyrite that was later oxidized, freeing the gold. It is for this reason that the gold concentrates very easily in the fines fraction when the rock is mechanically or physically broken. The gold in pyrite source will undoubtedly have metallurgical implications for the unoxidized vs. oxidized rock.

Mapping of the walls and pit floor show several small, steeply dipping, northerly striking vein-filled structures in the area. These structures may have provided the conduits for hydrothermal fluids that were responsible for both the auriferous quartz veins and pyrite mineralization.

More discussion of the material mined from this zone and the results of the subsequent treatment can be found later in this chapter.

## M5 ZONE

The M5 Zone has a higher concentration of quartz veins than was observed at LE. This may be due to the much more competent and brittle host, producing stronger quartz veins and not allowing the fluids to flow as freely into the host rock. Whatever the reason, several quartz veins are observed cutting the host rock at all angles. The Cogema




## BLAST HOLE ASSAYS

| Hole # | Interval (m) From | To | Length | Gold (g/t) | Hole # | Interval (m) From | To | Length | Gold (g/t) |
|---|---|---|---|---|---|---|---|---|---|
| A1 | 0 | 3 | 3 | 1.64 | J8 | 0 | 5 | 5 | 1.14 |
| A2 | 0 | 3 | 3 | 1.58 | J9 | 0 | 6 | 6 | 0.46 |
| A3 | 0 | 3 | 3 | 2.28 | K1 | 0 | 6 | 6 | 3.76 |
| A4 | 0 | 3 | 3 | 3.34 | K10 | 0 | 6 | 6 | 0.24 |
| A5 | 0 | 3 | 3 | 0.70 | K11 | 0 | 6 | 6 | 0.30 |
| A6 | 0 | 3 | 3 | 1.30 | K12 | 0 | 6 | 6 | 0.48 |
| B1 | 0 | 3 | 3 | 0.68 | K13 | 0 | 6 | 6 | 0.08 |
| B2 | 0 | 3 | 3 | 2.28 | K2 | 0 | 6 | 6 | 2.64 |
| B3 | 0 | 3 | 3 | 2.60 | K3 | 0 | 6 | 6 | 3.08 |
| B4 | 0 | 3 | 3 | 0.34 | K4 | 0 | 6 | 6 | 1.36 |
| B5 | 0 | 3 | 3 | 0.78 | K5 | 0 | 6 | 6 | 1.72 |
| B6 | 0 | 3 | 3 | 1.04 | K6 | 0 | 6 | 6 | 2.06 |
| C1 | 0 | 3 | 3 | 1.64 | K7 | 0 | 6 | 6 | 1.80 |
| C2 | 0 | 3 | 3 | 1.62 | K8 | 0 | 5 | 5 | 1.48 |
| C3 | 0 | 3 | 3 | 0.46 | K9 | 0 | 6 | 6 | 0.44 |
| C4 | 0 | 3 | 3 | 0.10 | L1 | 0 | 7 | 7 | 3.20 |
| C5 | 0 | 3 | 3 | 0.36 | L10 | 0 | 7 | 7 | 0.22 |
| C6 | 0 | 3 | 3 | 0.80 | L11 | 0 | 7 | 7 | 0.12 |
| D1 | 0 | 3 | 3 | 1.46 | L12 | 0 | 7 | 7 | 0.40 |
| D2 | 0 | 3 | 3 | 1.42 | L2 | 0 | 7 | 7 | 2.08 |
| D3 | 0 | 3.5 | 3.5 | 0.94 | L3 | 0 | 7 | 7 | 1.38 |
| D4 | 0 | 3 | 3 | 0.60 | L4 | 0 | 6 | 6 | 3.27 |
| D4 | 0 | 3 | 3 | 0.46 | L5 | 0 | 6 | 6 | 2.10 |
| D6 | 0 | 3 | 3 | 1.16 | L6 | 0 | 7 | 7 | 2.02 |
| E1 | 0 | 3 | 3 | 6.74 | L7 | 0 | 7 | 7 | 3.80 |
| E2 | 0 | 3 | 3 | 4.88 | L8 | 0 | 6 | 6 | 2.12 |
| E3 | 0 | 3 | 3 | 4.48 | L9 | 0 | 7 | 7 | 0.66 |
| E4 | 0 | 3 | 3 | 4.06 | M1 | 0 | 6 | 6 | 2.80 |
| E5 | 0 | 3.5 | 3.5 | 0.38 | M1 | 6 | 8 | 2 | 1.98 |
| E6 | 0 | 3.5 | 3.5 | 1.38 | M10 | 0 | 7 | 7 | 0.34 |
| E7 | 0 | 3 | 3 | 0.42 | M11 | 0 | 7 | 7 | 0.20 |
| F1 | 0 | 3 | 3 | 2.12 | M12 | 0 | 7 | 7 | 0.04 |
| F2 | 0 | 3 | 3 | 4.14 | M2 | 0 | 6 | 6 | 2.08 |
| F3 | 0 | 3 | 3 | 3.16 | M2 | 6 | 8 | 2 | 0.64 |
| F3 | 3 | 5 | 2 | 2.32 | M3 | 0 | 7 | 7 | 1.86 |
| F4 | 0 | 4 | 4 | 3.16 | M4 | 0 | 7 | 7 | 2.27 |
| F5 | 0 | 4 | 4 | 1.36 | M5 | 0 | 7 | 7 | 3.04 |
| F6 | 0 | 4 | 4 | 1.82 | M6 | 0 | 6 | 6 | 1.32 |
| F7 | 0 | 4 | 4 | 1.06 | M6 | 6 | 8 | 2 | 3.14 |
| F8 | 0 | 4 | 4 | 0.62 | M7 | 0 | 6 | 6 | 0.58 |
| F9 | 0 | 3 | 3 | 0.64 | M7 | 6 | 8 | 2 | 7.45 |
| G1 | 0 | 4 | 4 | 2.08 | M8 | 0 | 7 | 7 | 0.46 |
| G2 | 0 | 3 | 3 | 3.38 | M9 | 0 | 7 | 7 | 0.20 |
| G2 | 3 | 5 | 2 | 3.94 | N1 | 0 | 4 | 4 | 2.26 |
| G3 | 0 | 3 | 3 | 14.40 | N10 | 0 | 4 | 4 | 0.22 |
| G3 | 3 | 5 | 2 | 0.86 | N11 | 0 | 4 | 4 | 0.86 |
| G4 | 0 | 3 | 3 | 2.46 | N12 | 0 | 4 | 4 | 1.78 |
| G4 | 3 | 5 | 2 | 0.86 | N2 | 0 | 4 | 4 | 2.38 |
| G5 | 0 | 3 | 3 | 1.76 | N3 | 0 | 4 | 4 | 1.42 |
| G5 | 3 | 5 | 2 | 1.82 | N4 | 0 | 4 | 4 | 2.10 |
| G6 | 0 | 3 | 3 | 0.72 | N5 | 0 | 4 | 4 | 0.42 |
| G6 | 3 | 5 | 2 | 0.76 | N6 | 0 | 4 | 4 | 0.90 |
| G7 | 0 | 3 | 3 | 1.16 | N7 | 0 | 4 | 4 | 0.34 |
| G7 | 3 | 5 | 2 | 0.86 | N8 | 0 | 4 | 4 | 0.34 |
| G8 | 0 | 4 | 4 | 0.80 | N9 | 0 | 4 | 4 | 0.08 |
| G9 | 0 | 3 | 3 | 0.84 | O1 | 0 | 5 | 5 | 1.52 |
| H1 | 0 | 5 | 5 | 1.20 | O10 | 0 | 5 | 5 | 0.36 |
| H10 | 0 | 3 | 3 | 2.62 | O11 | 0 | 4 | 4 | 0.88 |
| H10 | 3 | 5 | 2 | 0.72 | O12 | 0 | 4 | 4 | 1.24 |
| H11 | 0 | 3 | 3 | 2.28 | O2 | 0 | 5 | 5 | 1.82 |
| H11 | 3 | 5 | 2 | 1.77 | O3 | 0 | 4 | 4 | 0.90 |
| H12 | 0 | 3 | 3 | 0.18 | O4 | 0 | 4 | 4 | 1.10 |
| H12 | 3 | 5 | 2 | 0.24 | O5 | 0 | 4 | 4 | 1.60 |
| H13 | 0 | 3 | 3 | 0.84 | O6 | 0 | 5 | 5 | 0.74 |
| H13 | 3 | 5 | 2 | 0.20 | O7 | 0 | 4 | 4 | 0.60 |
| H2 | 0 | 5 | 5 | 1.34 | O8 | 0 | 4 | 4 | 0.66 |
| H3 | 0 | 6 | 6 | 3.48 | O9 | 0 | 5 | 5 | 1.32 |
| H4 | 0 | 5 | 5 | 1.50 | P1 | 0 | 5 | 5 | 1.10 |
| H5 | 0 | 4 | 4 | 2.22 | P10 | 0 | 5 | 5 | 0.66 |
| H6 | 0 | 3 | 3 | 2.70 | P11 | 0 | 5 | 5 | 2.00 |
| H6 | 3 | 5 | 2 | 1.08 | P12 | 0 | 5 | 5 | 2.04 |
| H7 | 0 | 3 | 3 | 2.78 | P2 | 0 | 5 | 5 | 0.86 |
| H7 | 3 | 5 | 2 | 0.88 | P3 | 0 | 5 | 5 | 0.96 |
| H8 | 0 | 3 | 3 | 1.42 | P4 | 0 | 5 | 5 | 0.96 |
| H8 | 3 | 5 | 2 | 0.80 | P5 | 0 | 5 | 5 | 0.36 |
| H9 | 0 | 3 | 3 | 2.30 | P6 | 0 | 5 | 5 | 0.42 |
| H9 | 3 | 5 | 2 | 0.84 | P7 | 0 | 4 | 4 | 0.70 |
| I1 | 0 | 5 | 5 | 1.54 | P8 | 0 | 4 | 4 | 0.92 |
| I10 | 0 | 5 | 5 | 0.12 | P9 | 0 | 5 | 5 | 0.72 |
| I11 | 0 | 5 | 5 | 0.82 | Q1 | 0 | 5 | 5 | 0.94 |
| I12 | 0 | 6 | 6 | | Q10 | 0 | 5 | 5 | 1.28 |
| I13 | 0 | 6 | 6 | 0.36 | Q11 | 0 | 5 | 5 | 2.04 |
| I2 | 0 | 5 | 5 | 1.62 | Q2 | 0 | 5 | 5 | 3.56 |
| I3 | 0 | 6 | 6 | 1.92 | Q3 | 0 | 5 | 5 | 0.50 |
| I4 | 0 | 5 | 5 | 1.34 | Q4 | 0 | 6 | 6 | 0.24 |
| I5 | 0 | 5 | 5 | 0.54 | Q5 | 0 | 5 | 5 | 0.22 |
| I6 | 0 | 5 | 5 | 1.98 | Q6 | 0 | 6 | 6 | 0.78 |
| I7 | 0 | 5 | 5 | 2.48 | Q9 | 0 | 5.5 | 5.5 | 0.70 |
| I8 | 0 | 5 | 5 | 0.68 | R1 | 0 | 6 | 6 | 0.40 |
| I9 | 0 | 6 | 6 | 1.88 | R2 | 0 | 6 | 6 | 0.24 |
| J1 | 0 | 5 | 5 | 1.20 | R3 | 0 | 6 | 6 | 0.40 |
| J10 | 0 | 6 | 6 | 0.12 | R4 | 0 | 6 | 6 | 0.24 |
| J11 | 0 | 6 | 6 | 0.14 | R5 | 0 | 6 | 6 | 11.56 |
| J12 | 0 | 6 | 6 | 0.46 | R6 | 0 | 6 | 6 | 1.62 |
| J13 | 0 | 6 | 6 | 0.10 | R8 | 0 | 6 | 6 | 1.92 |
| J2 | 0 | 6 | 6 | 17.20 | S1 | 0 | 6 | 6 | 0.74 |
| J3 | 0 | 6 | 6 | 1.52 | S2 | 0 | 6 | 6 | 0.14 |
| J4 | 0 | 5 | 5 | 1.60 | S3 | 0 | 6 | 6 | 0.34 |
| J5 | 0 | 5 | 5 | 2.34 | T1 | 0 | 7 | 7 | 0.22 |
| J6 | 0 | 6 | 6 | 0.88 | T2 | 0 | 7 | 7 | 0.20 |
| J7 | 0 | 5 | 5 | 1.72 | | | | | |

## LEGEND

TR96-101 1996 TRENCH

P4 BLAST HOLE COLLAR

SELECTED 1996 TRENCH ASSAY RESULTS

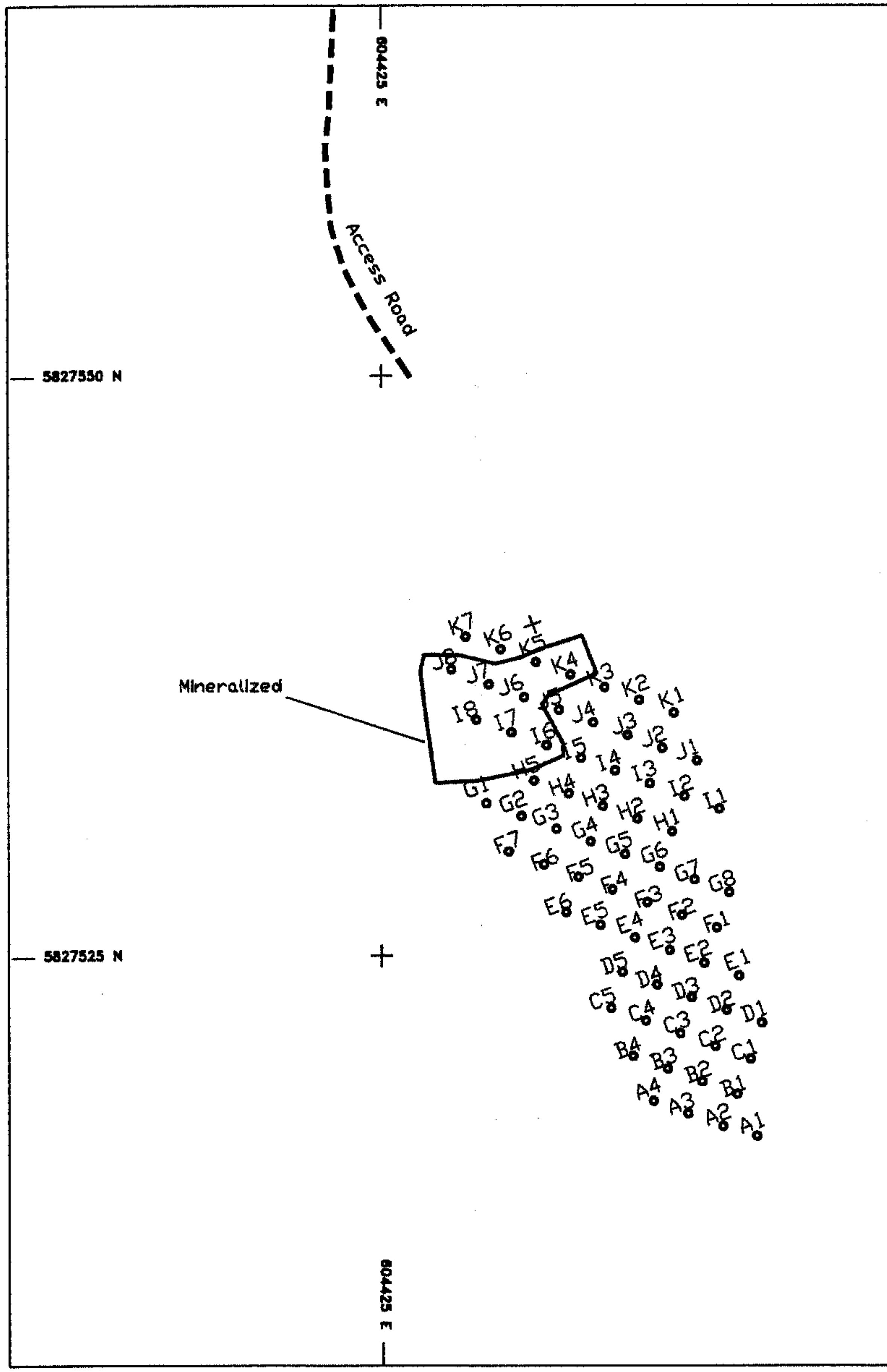
1.383/6m gm/t Au/downslope distance

ACCESS ROAD

**Imperial Metals Corp**

SPANISH MOUNTAIN PROJECT
LE ZONE

| Drawn: JAN 2001 | Checked | Mining Division: CARIBOO | Drawing |
|---|---|---|---|
| Revised | Scale: 1:250 | Province: BRITISH COLUMBIA | NTS: 93A/11W |
| 0 — 5 metres | | | Map: 4-2 |




## BLAST HOLE ASSAYS

| Hole # | Interval (m) From | Interval (m) To | Interval (m) Length | Gold (g/t) |
|---|---|---|---|---|
| F2 | 0 | 6 | 6 | 0.05 |
| F3 | 0 | 6 | 6 | 0.14 |
| F4 | 0 | 6 | 6 | 8.05 |
| F5 | 0 | 6 | 6 | 0.72 |
| F6 | 0 | 6 | 6 | 0.36 |
| F7 | 0 | 6 | 6 | 0.10 |
| G1 | 0 | 6 | 6 | 0.10 |
| G2 | 0 | 6 | 6 | 0.16 |
| G3 | 0 | 6 | 6 | 0.30 |
| G4 | 0 | 6 | 6 | 0.68 |
| G5 | 0 | 6 | 6 | 0.26 |
| G6 | 0 | 6 | 6 | 0.18 |
| G7 | 0 | 6 | 6 | 0.20 |
| G8 | 0 | 6 | 6 | 0.02 |
| H1 | 0 | 5 | 5 | 0.10 |
| H2 | 0 | 5 | 5 | 0.36 |
| H3 | 0 | 5 | 5 | 0.40 |
| H4 | 0 | 5 | 5 | 0.56 |
| H5 | 0 | 5 | 5 | 0.02 |
| I1 | 0 | 5 | 5 | 0.44 |
| I2 | 0 | 5 | 5 | 0.16 |
| I3 | 0 | 5 | 5 | 0.16 |
| I4 | 0 | 5 | 5 | 0.06 |
| I5 | 0 | 5 | 5 | 0.01 |
| I6 | 0 | 6 | 6 | 4.40 |
| I7 | 0 | 5 | 5 | 4.88 |
| I8 | 0 | 4 | 4 | 0.16 |
| J1 | 0 | 4 | 4 | 0.12 |
| J2 | 0 | 4 | 4 | 0.10 |
| J4 | 0 | 4 | 4 | 0.28 |
| J5 | 0 | 4 | 4 | 0.24 |
| J6 | 0 | 4 | 4 | 0.24 |
| J7 | 0 | 4 | 4 | 0.16 |
| J8 | 0 | 4 | 4 | 6.66 |
| K1 | 0 | 4 | 4 | 0.06 |
| K2 | 0 | 3 | 3 | 0.28 |
| K3 | 0 | 4 | 4 | 0.58 |
| K4 | 0 | 4 | 4 | 5.74 |
| K5 | 0 | 4 | 4 | 4.00 |
| K6 | 0 | 3 | 3 | 0.28 |
| K7 | 0 | 3 | 3 | 0.36 |

| Hole # | Interval (m) From | Interval (m) To | Interval (m) Length | Gold (g/t) |
|---|---|---|---|---|
| A1 | 0 | 7 | 7 | 0.01 |
| A2 | 0 | 7 | 7 | 0.10 |
| A3 | 0 | 7 | 7 | 0.26 |
| A4 | 0 | 7 | 7 | 0.16 |
| B1 | 0 | 6 | 6 | 0.14 |
| B1 | 6 | 9 | 3 | 0.16 |
| B2 | 0 | 6 | 6 | 0.04 |
| B2 | 6 | 9 | 3 | 0.01 |
| B3 | 0 | 6 | 6 | 0.08 |
| B3 | 6 | 9 | 3 | 0.02 |
| B4 | 0 | 6 | 6 | 0.20 |
| B4 | 6 | 9 | 3 | 0.14 |
| B5 | 0 | 6 | 6 | 0.38 |
| B5 | 6 | 9 | 3 | 0.22 |
| C1 | 0 | 6 | 6 | 0.12 |
| C1 | 6 | 9 | 3 | 0.22 |
| C2 | 0 | 6 | 6 | 0.04 |
| C2 | 6 | 9 | 3 | 0.42 |
| C3 | 0 | 6 | 6 | 0.01 |
| C3 | 6 | 9 | 3 | 0.01 |
| C4 | 0 | 6 | 6 | 0.06 |
| C4 | 6 | 8 | 2 | 0.01 |
| C5 | 0 | 6 | 6 | 0.17 |
| C5 | 6 | 9 | 3 | 0.08 |
| D1 | 0 | 6 | 6 | 0.13 |
| D1 | 6 | 8 | 2 | 0.10 |
| D2 | 0 | 6 | 6 | 0.04 |
| D2 | 6 | 8 | 2 | 0.08 |
| D3 | 0 | 6 | 6 | 0.34 |
| D3 | 6 | 8 | 2 | 0.16 |
| D4 | 0 | 6 | 6 | 0.27 |
| D4 | 6 | 8 | 2 | 0.04 |
| D5 | 0 | 6 | 6 | 0.39 |
| D5 | 6 | 8 | 2 | 0.34 |
| E1 | 0 | 7 | 7 | 0.18 |
| E2 | 0 | 7 | 7 | 0.04 |
| E3 | 0 | 7 | 7 | 0.25 |
| E4 | 0 | 7 | 7 | 2.09 |
| E5 | 0 | 6 | 6 | 0.16 |
| E5 | 6 | 8 | 2 | 0.06 |
| E6 | 0 | 7 | 7 | 0.88 |
| F1 | 0 | 6 | 6 | 0.07 |

LEGEND

TR96-102 1996 TRENCH

H4 BLAST HOLE COLLAR

ACCESS ROAD

**Imperial Metals Corp**

SPANISH MOUNTAIN PROJECT
M5 ZONE

JAN 2001
CARIBOO
1:250
BRITISH COLUMBIA
0 5 metres
4-3

sampling in 1993 showed those veins to carry excellent gold grades. This zone was tested to determine if the mineralized veins were so strongly mineralized that they could carry the whole zone as a bulk mineable target.

A total of 83 samples were taken from 67 holes in this zone and only 7 of those returned grades better than 1 g/t gold to a maximum of 8.05 g/t (See figure 4.3). Most of the anomalous mineralization was located in the Northwest corner of the grid and blasting exposed a number of small 'aerobar' style quartz veins there.

The quartz blasted from the zone was hand cobbled into a 45-gallon drum, sealed and stored at the Mount Polley minesite for further testing at a future date. Based on the drilling completed at the M5 Zone, bulk mining potential there is considered to be quite low.

## 103 ZONE

The 103 zone is located at the toe of Spanish Mountain, not far from the Spanish River at the valley bottom. The area of drilling was selected based on the results of Cypress sampling in Trench 103 B that returned values averaging 2.74 g/t gold over 6 metres.

After being cleared of soil, the bedrock at the 103 Zone appeared similar to the Dodge Zone with fine-grained dark metasedimentary rocks cut by occasional high angle, small quartz veins. Drilling however, over most of the zone returned chips with a distinctly different appearance, similar to the small dykes which were observed at the Madre Zone. It is suspected that a barren sill passes under most of this zone at a very shallow depth.

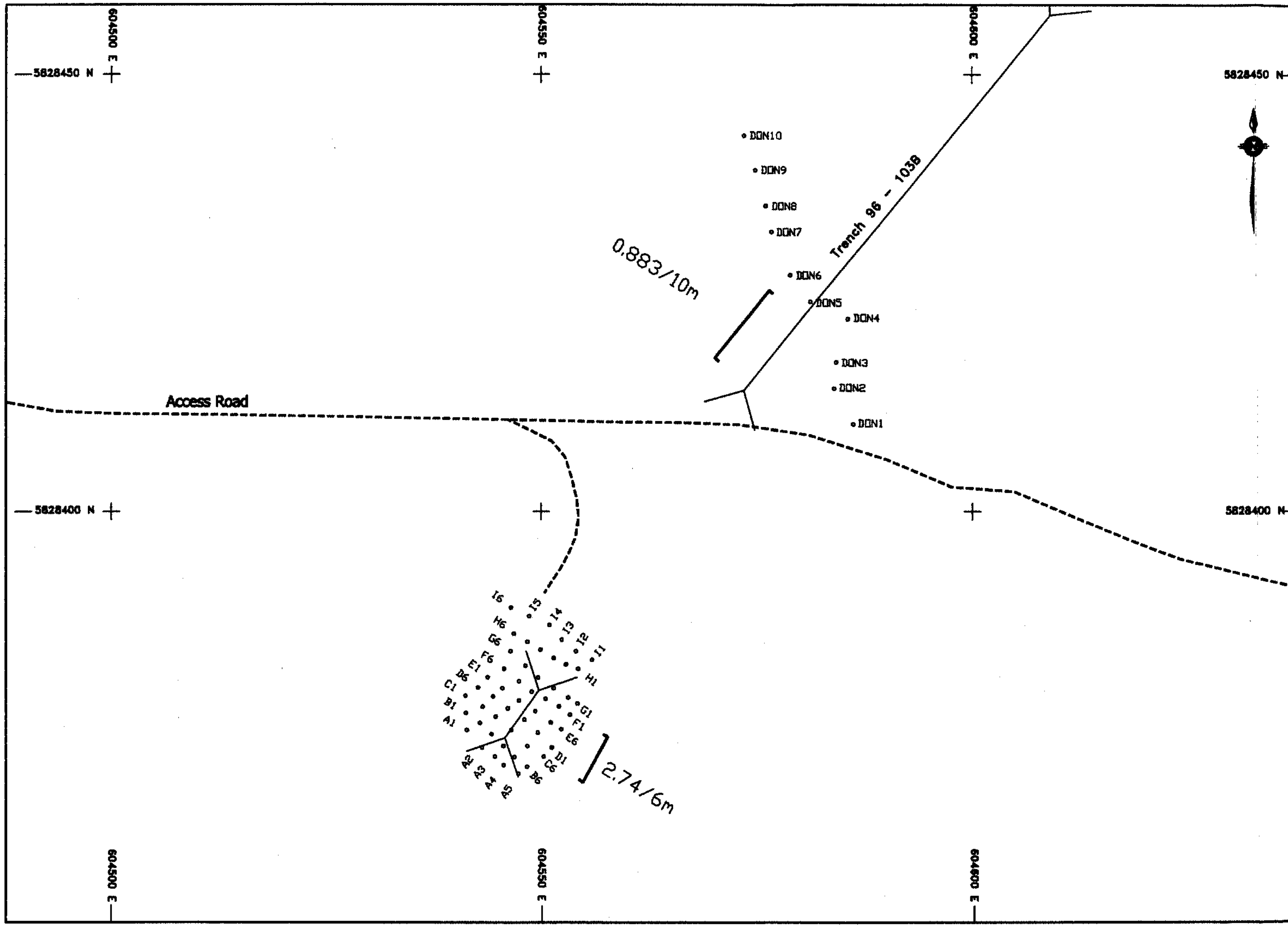
A total of 53 samples were taken from 53 holes and only one returned a grade better than 0.15 g/t gold (See figure 4.4). No further work is recommended at this site and the area of drilling was reclaimed and seeded.

A series of test holes were drilled just to the north of the zone to test for a possible continuation of the (expected) mineralization in that direction. Results from the test holes show that the four most northerly holes returned grades over 0.50-g/t gold. Further examination of this area is recommended after the data compilation is complete.

## DODGE ZONE

The Dodge zone is located just south of an old pit that is reported to have been artisanally mined over the years, but never on a large scale (Bob Mickle, personal communication 2000). Drilling was centred on an area of anomalous gold mineralization identified in Cypress trench 96-105 (See figure 4-5). The interval returned 0.72 g/t gold over 32 metres.

Only 4 of the 82 samples that were gathered from the 82 holes graded better than 0.50 g/t gold with a maximum of 0.64 g/t gold. The results for the Dodge Zone are intriguing in that much of the zone showed elevated background levels of gold with 41 of the samples grading better than 0.15 g/t gold. The test holes drilled in two randomly placed lines to the north show similar results of the weak but widespread mineralization. This area may warrant further examination for a bulk mineable target.




## BLAST HOLE ASSAYS

| Hole # | Interval (m) From | To | Length | Gold (g/t) |
|---|---|---|---|---|
| A1 | 0 | 6 | 6 | 0.12 |
| A2 | 0 | 6 | 6 | 0.10 |
| A3 | 0 | 6 | 6 | 0.10 |
| A4 | 0 | 6 | 6 | 0.05 |
| A5 | 0 | 6 | 6 | 0.05 |
| B1 | 0 | 5.5 | 5.5 | 0.06 |
| B2 | 0 | 5.5 | 5.5 | 0.02 |
| B3 | 0 | 5.5 | 5.5 | 0.03 |
| B4 | 0 | 5.5 | 5.5 | 0.02 |
| B5 | 0 | 5.5 | 5.5 | 0.01 |
| B6 | 0 | 5.5 | 5.5 | 0.03 |
| C1 | 0 | 5 | 5 | 0.02 |
| C2 | 0 | 5 | 5 | 0.09 |
| C3 | 0 | 5 | 5 | 0.02 |
| C4 | 0 | 5 | 5 | 1.74 |
| C5 | 0 | 5 | 5 | 0.04 |
| C6 | 0 | 5 | 5 | 0.04 |
| D1 | 0 | 4.5 | 4.5 | 0.04 |
| D2 | 0 | 4.5 | 4.5 | 0.15 |
| D3 | 0 | 4.5 | 4.5 | 0.08 |
| D4 | 0 | 4.5 | 4.5 | 0.04 |
| D5 | 0 | 4.5 | 4.5 | 0.03 |
| D6 | 0 | 4.5 | 4.5 | 0.10 |
| E1 | 0 | 4 | 4 | 0.05 |
| E2 | 0 | 4 | 4 | 0.01 |
| E3 | 0 | 4 | 4 | 0.03 |
| E4 | 0 | 4 | 4 | 0.05 |
| E5 | 0 | 4 | 4 | 0.03 |
| E6 | 0 | 4 | 4 | 0.01 |
| F1 | 0 | 4 | 4 | 0.03 |
| F2 | 0 | 4 | 4 | 0.06 |
| F3 | 0 | 4 | 4 | 0.01 |
| F4 | 0 | 4 | 4 | 0.04 |
| F5 | 0 | 4 | 4 | 0.02 |
| F6 | 0 | 4 | 4 | 0.04 |
| G1 | 0 | 3.5 | 3.5 | 0.06 |
| G2 | 0 | 3.5 | 3.5 | 0.06 |
| G3 | 0 | 3.5 | 3.5 | 0.03 |
| G4 | 0 | 3.5 | 3.5 | 0.02 |
| G5 | 0 | 3.5 | 3.5 | 0.08 |
| G6 | 0 | 3.5 | 3.5 | 0.04 |
| H1 | 0 | 3 | 3 | 0.02 |
| H2 | 0 | 3.5 | 3.5 | 0.06 |
| H3 | 0 | 3 | 3 | 0.05 |
| H4 | 0 | 3 | 3 | 0.04 |
| H5 | 0 | 3 | 3 | 0.04 |
| H6 | 0 | 3 | 3 | 0.04 |
| I1 | 0 | 3 | 3 | 0.03 |
| I2 | 0 | 3 | 3 | 0.02 |
| I3 | 0 | 3 | 3 | 0.02 |
| I4 | 0 | 3 | 3 | 0.02 |
| I5 | 0 | 3 | 3 | 0.04 |
| I6 | 0 | 3 | 3 | 0.02 |
| Don 1 | 2.5 | 9.5 | 7 | 0.02 |
| Don 2 | 2.5 | 7.5 | 5 | 0.02 |
| Don 3 | 2.5 | 9.5 | 7 | 0.04 |
| Don 4 | 2.5 | 9.5 | 7 | 0.02 |
| Don 5 | 2 | 9 | 7 | 0.08 |
| Don 6 | 2 | 9 | 7 | 0.04 |
| Don 7 | 2.5 | 9.5 | 7 | 0.68 |
| Don 8 | 2.5 | 9.5 | 7 | 0.72 |
| Don 9 | 3 | 10 | 7 | 0.62 |
| Don 10 | 2.5 | 9.5 | 7 | 0.70 |

## LEGEND

TR96-102 1996 TRENCH

• C1 BLAST HOLE COLLAR

SELECTED 1996 TRENCH ASSAY RESULTS

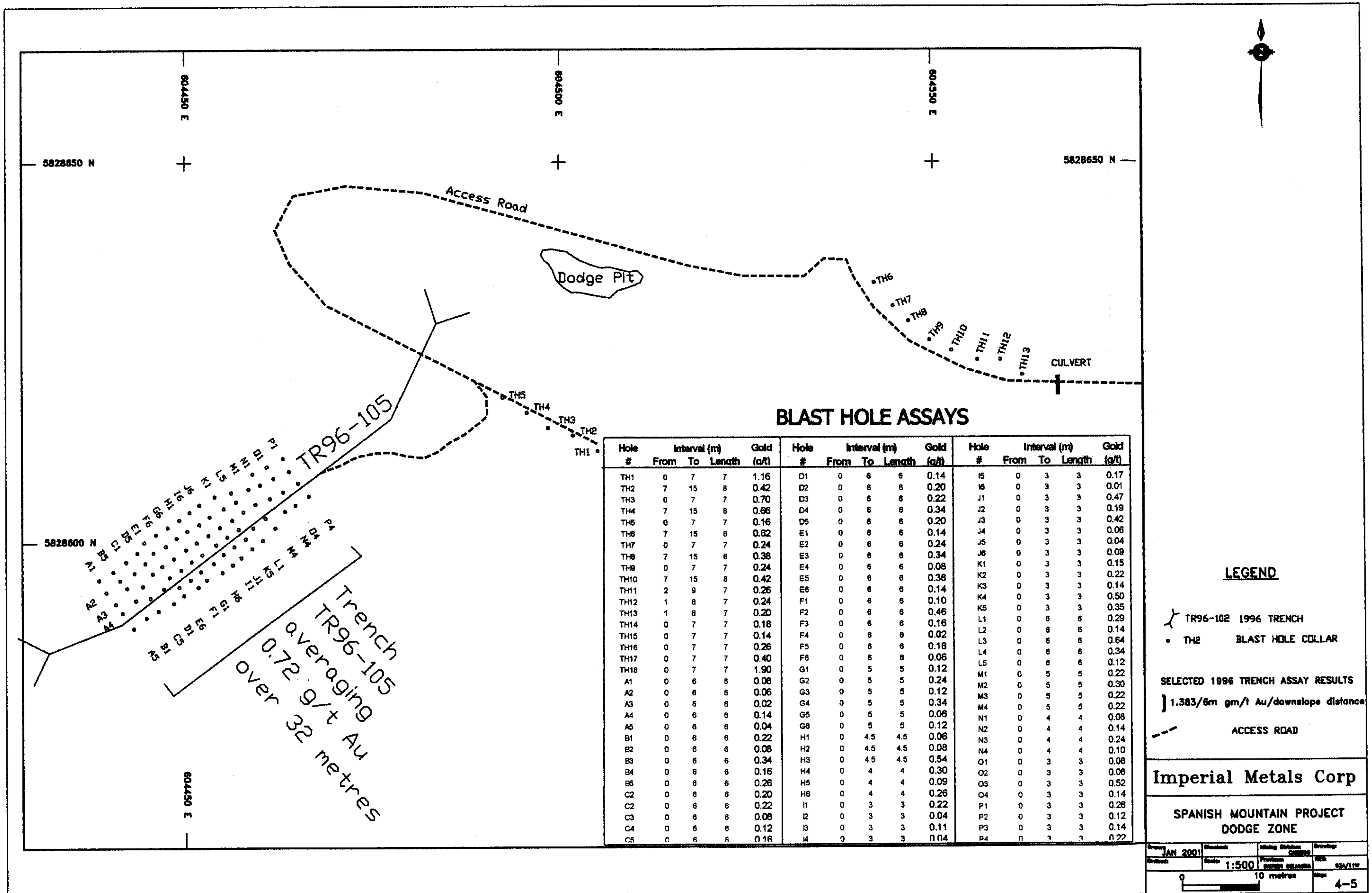
] 1.383/6m gm/t Au/downslope distance

ACCESS ROAD

**Imperial Metals Corp**

SPANISH MOUNTAIN PROJECT
103 ZONE

Drawn: JAN 2001 | Scale: 1:500 | 0 — 10 metres | Map: 4-4




## BLAST HOLE ASSAYS

| Hole # | Interval (m) From | To | Length | Gold (g/t) |
|---|---|---|---|---|
| TH1 | 0 | 7 | 7 | 1.16 |
| TH2 | 7 | 15 | 8 | 0.42 |
| TH3 | 0 | 7 | 7 | 0.70 |
| TH4 | 7 | 15 | 8 | 0.66 |
| TH5 | 0 | 7 | 7 | 0.16 |
| TH6 | 7 | 15 | 8 | 0.62 |
| TH7 | 0 | 7 | 7 | 0.24 |
| TH8 | 7 | 15 | 8 | 0.38 |
| TH9 | 0 | 7 | 7 | 0.24 |
| TH10 | 7 | 15 | 8 | 0.42 |
| TH11 | 2 | 9 | 7 | 0.26 |
| TH12 | 1 | 8 | 7 | 0.24 |
| TH13 | 1 | 8 | 7 | 0.20 |
| TH14 | 0 | 7 | 7 | 0.18 |
| TH15 | 0 | 7 | 7 | 0.14 |
| TH16 | 0 | 7 | 7 | 0.26 |
| TH17 | 0 | 7 | 7 | 0.40 |
| TH18 | 0 | 7 | 7 | 1.90 |
| A1 | 0 | 6 | 6 | 0.08 |
| A2 | 0 | 6 | 6 | 0.06 |
| A3 | 0 | 6 | 6 | 0.02 |
| A4 | 0 | 6 | 6 | 0.14 |
| A5 | 0 | 6 | 6 | 0.04 |
| B1 | 0 | 6 | 6 | 0.22 |
| B2 | 0 | 6 | 6 | 0.08 |
| B3 | 0 | 6 | 6 | 0.34 |
| B4 | 0 | 6 | 6 | 0.16 |
| B6 | 0 | 6 | 6 | 0.26 |
| C2 | 0 | 6 | 6 | 0.20 |
| C2 | 0 | 6 | 6 | 0.22 |
| C3 | 0 | 6 | 6 | 0.08 |
| C4 | 0 | 6 | 6 | 0.12 |
| C5 | 0 | 6 | 6 | 0.16 |

| Hole # | Interval (m) From | To | Length | Gold (g/t) |
|---|---|---|---|---|
| D1 | 0 | 6 | 6 | 0.14 |
| D2 | 0 | 6 | 6 | 0.20 |
| D3 | 0 | 6 | 6 | 0.22 |
| D4 | 0 | 6 | 6 | 0.34 |
| D5 | 0 | 6 | 6 | 0.20 |
| E1 | 0 | 6 | 6 | 0.14 |
| E2 | 0 | 6 | 6 | 0.24 |
| E3 | 0 | 6 | 6 | 0.34 |
| E4 | 0 | 6 | 6 | 0.08 |
| E5 | 0 | 6 | 6 | 0.38 |
| E6 | 0 | 6 | 6 | 0.14 |
| F1 | 0 | 6 | 6 | 0.10 |
| F2 | 0 | 6 | 6 | 0.46 |
| F3 | 0 | 6 | 6 | 0.16 |
| F4 | 0 | 6 | 6 | 0.02 |
| F5 | 0 | 6 | 6 | 0.18 |
| F6 | 0 | 6 | 6 | 0.06 |
| G1 | 0 | 5 | 5 | 0.12 |
| G2 | 0 | 5 | 5 | 0.24 |
| G3 | 0 | 5 | 5 | 0.12 |
| G4 | 0 | 5 | 5 | 0.34 |
| G5 | 0 | 5 | 5 | 0.06 |
| G6 | 0 | 5 | 5 | 0.12 |
| H1 | 0 | 4.5 | 4.5 | 0.06 |
| H2 | 0 | 4.5 | 4.5 | 0.08 |
| H3 | 0 | 4.5 | 4.5 | 0.54 |
| H4 | 0 | 4 | 4 | 0.30 |
| H5 | 0 | 4 | 4 | 0.09 |
| H6 | 0 | 4 | 4 | 0.26 |
| I1 | 0 | 3 | 3 | 0.22 |
| I2 | 0 | 3 | 3 | 0.04 |
| I3 | 0 | 3 | 3 | 0.11 |
| I4 | 0 | 3 | 3 | 0.04 |

| Hole # | Interval (m) From | To | Length | Gold (g/t) |
|---|---|---|---|---|
| I5 | 0 | 3 | 3 | 0.17 |
| I6 | 0 | 3 | 3 | 0.01 |
| J1 | 0 | 3 | 3 | 0.47 |
| J2 | 0 | 3 | 3 | 0.19 |
| J3 | 0 | 3 | 3 | 0.42 |
| J4 | 0 | 3 | 3 | 0.06 |
| J5 | 0 | 3 | 3 | 0.04 |
| J6 | 0 | 3 | 3 | 0.09 |
| K1 | 0 | 3 | 3 | 0.15 |
| K2 | 0 | 3 | 3 | 0.22 |
| K3 | 0 | 3 | 3 | 0.14 |
| K4 | 0 | 3 | 3 | 0.50 |
| K5 | 0 | 3 | 3 | 0.35 |
| L1 | 0 | 6 | 6 | 0.29 |
| L2 | 0 | 6 | 6 | 0.14 |
| L3 | 0 | 6 | 6 | 0.64 |
| L4 | 0 | 6 | 6 | 0.34 |
| L5 | 0 | 6 | 6 | 0.12 |
| M1 | 0 | 5 | 5 | 0.22 |
| M2 | 0 | 5 | 5 | 0.30 |
| M3 | 0 | 5 | 5 | 0.22 |
| M4 | 0 | 5 | 5 | 0.22 |
| N1 | 0 | 4 | 4 | 0.08 |
| N2 | 0 | 4 | 4 | 0.14 |
| N3 | 0 | 4 | 4 | 0.24 |
| N4 | 0 | 4 | 4 | 0.10 |
| O1 | 0 | 3 | 3 | 0.08 |
| O2 | 0 | 3 | 3 | 0.06 |
| O3 | 0 | 3 | 3 | 0.52 |
| O4 | 0 | 3 | 3 | 0.14 |
| P1 | 0 | 3 | 3 | 0.26 |
| P2 | 0 | 3 | 3 | 0.12 |
| P3 | 0 | 3 | 3 | 0.14 |
| P4 | 0 | 3 | 3 | 0.22 |

# 4.3 BLASTING AND MINING

## SITE SELECTION AND LOADING

All holes in the LE zone located within the boundaries shown on diagram 4-2 were chosen for blasting. Conveniently, all holes within that area were either close to or over 1 g/t gold. The zone of waste marked out was quite uniformly barren. Holes located within the well-mineralized area averaged 2.2 g/t gold.

The M5 zone contained 6 adjacent holes that returned grades of greater than 1 g/t gold at the north end of the zone. These six holes were chosen for blasting as well.

The holes were marked for blasting with fluorescent orange marking paint and were loaded by a crew contracted from Mount Polley Mining Corporation. Loading took the three-man crew approximately 8 hours, making it possible to conduct blasting operations during the same day.

## BLASTING

A non-electric initiation system was used for set off the blasts at the M5 zone and LE zone simultaneously. The operation went very smoothly and achieved most of the goals attempted.

The main part of the LE zone blasted very well with the resultant muck being very fine and yet very little material left the pit area as fly rock. The south west corner of that pit did not break well, as much of the energy propagated along a horizontally oriented shear. Plenty of muck was produced with the blast from the main area, and therefore no attempt was made to reblast the southwest corner.

The M5 blast broke the rock, but did not have the same desirable effect that was achieved at LE. The rock at M5 is very hard an brittle, causing the blast to produce large angular blocks, some of which were later found over 100 metres away from the M5 zone.

## MINING

The Hitachi hoe contracted from Mount Polley Mining Corporation was used to load 25 tonne Moxi trucks contracted from Lake Excavating in Williams Lake. The trucks hauled the muck down to the screening area at a rate of approximately 100 tonnes per hour (200 t/hr for 2 trucks). Over the course of a two-day weekend, the contractors hauled all of the estimated 6000 tonnes (30 hours of hauling with 2 trucks) of muck to the screening area.

## SHIPPING AND SAMPLING

The screened material was hauled to Mount Polley where is was weighed and sampled, before stockpiling near the conveyor leading to the secondary crushing circuit. Delivery to Mount Polley totaled 1,908 dry metric tonnes (DMT) of pretreated material grading 3.02 g/t gold for a total of approximately 5,762 contained grams of gold. A table of the individual truck results is presented in table 4-1.

## PROCESSING AT MOUNT POLLEY

The Spanish Mountain mineralization was fed onto the belt at a rate of approximately 50 to 100 tonnes per hour over a period of two days.

Minesite personnel report good recovery of gold in the milling circuit, however the concentrate grade was not as good as was hoped as too much material was pulled off the floatation circuit in order to maximize gold recovery.

## Spanish Mountain Truck Summary

| Load Number | Loading Date | Gross Weight (kg) | Tare Weight (kg) | Net Weight (kg) | Moisture Content | Dry Net Weigh (kg) | Bondar Clegg Au Grade (g/t) | Au Units (troy ozs.) |
|---|---|---|---|---|---|---|---|---|
| 1 | 24-Jul-00 | 58430 | 21050 | 37380 | 9.36% | 33881 | 2.833 | 3.0860 |
| 2 | 24-Jul-00 | 64880 | 20960 | 43920 | 9.11% | 39919 | 2.25 | 2.8877 |
| 3 | 24-Jul-00 | 60940 | 20910 | 40030 | 9.46% | 36245 | 4 | 4.6611 |
| 4 | 24-Jul-00 | 64800 | 20860 | 43940 | 9.78% | 39643 | 2.671 | 3.4042 |
| 5 | 25-Jul-00 | 44950 | 16800 | 28150 | 9.94% | 25352 | 2.943 | 2.3987 |
| 6 | 25-Jul-00 | 63370 | 20870 | 42500 | 9.52% | 38453 | 2.676 | 3.3082 |
| 7 | 25-Jul-00 | 44200 | 16770 | 27430 | 10.63% | 24514 | 3.508 | 2.7647 |
| 8 | 25-Jul-00 | 61760 | 20820 | 40940 | 9.50% | 37050 | 3.418 | 4.0714 |
| 9 | 25-Jul-00 | 46580 | 16700 | 29880 | 9.72% | 26975 | 2.997 | 2.5991 |
| 10 | 25-Jul-00 | 62790 | 20770 | 42020 | 9.82% | 37894 | 3.515 | 4.2823 |
| 11 | 25-Jul-00 | 44730 | 16670 | 28060 | 9.77% | 25320 | 3.017 | 2.4559 |
| 12 | 25-Jul-00 | 63870 | 20720 | 43150 | 9.72% | 38955 | 2.656 | 3.3264 |
| 13 | 25-Jul-00 | 45070 | 16630 | 28440 | 9.10% | 25851 | 3.842 | 3.1931 |
| 14 | 26-Jul-00 | 47520 | 16970 | 30550 | 10.18% | 27439 | 3.691 | 3.2560 |
| 15 | 26-Jul-00 | 29620 | 12650 | 16970 | 10.24% | 15233 | 3.353 | 1.6421 |
| 16 | 26-Jul-00 | 47470 | 16960 | 30510 | 10.36% | 27349 | 2.998 | 2.6360 |
| 17 | 26-Jul-00 | 31980 | 12530 | 19450 | 10.46% | 17416 | 3.076 | 1.7223 |
| 18 | 26-Jul-00 | 46750 | 16840 | 29910 | 10.59% | 26742 | 2.67 | 2.2955 |
| 19 | 26-Jul-00 | 57380 | 21090 | 36290 | 10.67% | 32418 | 2.878 | 2.9995 |
| 20 | 26-Jul-00 | 48830 | 16780 | 32050 | 10.01% | 28843 | 2.844 | 2.6373 |
| 21 | 26-Jul-00 | 60500 | 21030 | 39470 | 10.38% | 35372 | 2.87 | 3.2638 |
| 22 | 26-Jul-00 | 48830 | 16700 | 32130 | 9.95% | 28935 | 2.668 | 2.4819 |
| 23 | 26-Jul-00 | 64520 | 20960 | 43560 | 9.82% | 39283 | 4.058 | 5.1251 |
| 24 | 26-Jul-00 | 46960 | 16740 | 30220 | 9.97% | 27207 | 2.821 | 2.4675 |
| 25 | 26-Jul-00 | 65630 | 20920 | 44710 | 9.38% | 40518 | 2.702 | 3.5198 |
| 26 | 26-Jul-00 | 43720 | 16890 | 26830 | 10.01% | 24145 | 3.251 | 2.5236 |
| 27 | 26-Jul-00 | 43640 | 16860 | 26780 | 9.98% | 24106 | 2.93 | 2.2708 |
| 28 | 26-Jul-00 | 67210 | 20870 | 46340 | 9.91% | 41750 | 2.864 | 3.8442 |
| 29 | 26-Jul-00 | 44650 | 17500 | 27150 | 9.89% | 24465 | 3.409 | 2.6813 |
| 30 | 26-Jul-00 | 63280 | 20840 | 42440 | 10.03% | 38182 | 2.791 | 3.4261 |
| 31 | 27-Jul-00 | 45570 | 16770 | 28800 | 10.00% | 25919 | 2.68 | 2.2332 |
| 32 | 27-Jul-00 | 64160 | 20790 | 43370 | 10.26% | 38922 | 2.59 | 3.2410 |
| 33 | 27-Jul-00 | 50680 | 17110 | 33570 | 10.16% | 30158 | 2.557 | 2.4792 |
| 34 | 27-Jul-00 | 47830 | 16850 | 30980 | 9.60% | 28007 | 2.66 | 2.3951 |
| 35 | 27-Jul-00 | 44350 | 16870 | 27480 | 9.87% | 24768 | 3.423 | 2.7257 |
| 36 | 27-Jul-00 | 45020 | 16820 | 28200 | 9.38% | 25555 | 3.033 | 2.4919 |
| 37 | 27-Jul-00 | 49990 | 16960 | 33030 | 9.53% | 29881 | 3.548 | 3.4085 |
| 38 | 27-Jul-00 | 47260 | 16800 | 30460 | 9.97% | 27424 | 2.686 | 2.3682 |
| 39 | 27-Jul-00 | 44240 | 16890 | 27350 | 9.67% | 24704 | 2.515 | 1.9975 |
| 40 | 28-Jul-00 | 43840 | 17580 | 26260 | 9.85% | 23675 | 3.751 | 2.8550 |
| 41 | 28-Jul-00 | 48100 | 17110 | 30990 | 9.82% | 27947 | 3.215 | 2.8887 |
| 42 | 28-Jul-00 | 49910 | 16960 | 32950 | 9.92% | 29683 | 3.354 | 3.2007 |
| 43 | 28-Jul-00 | 48490 | 16870 | 31620 | 9.98% | 28463 | 3.999 | 3.6594 |
| 44 | 28-Jul-00 | 64890 | 21090 | 43800 | 9.58% | 39605 | 2.628 | 3.3462 |
| 45 | 28-Jul-00 | 50740 | 17930 | 32810 | 10.13% | 29487 | 3.666 | 3.4753 |
| 46 | 28-Jul-00 | 49880 | 16800 | 33080 | 9.41% | 29966 | 3.365 | 3.2418 |
| 47 | 28-Jul-00 | 64850 | 21020 | 43830 | 9.25% | 39774 | 3.246 | 4.1508 |
| 48 | 28-Jul-00 | 47440 | 16980 | 30460 | 9.45% | 27580 | 3.126 | 2.7718 |
| 49 | 28-Jul-00 | 47920 | 16750 | 31170 | 8.88% | 28402 | 3.157 | 2.8827 |
| 50 | 28-Jul-00 | 66050 | 20960 | 45090 | 9.92% | 40617 | 2.667 | 3.4826 |
| 51 | 28-Jul-00 | 49100 | 16890 | 32210 | 10.06% | 28969 | 3.23 | 3.0083 |
| 52 | 28-Jul-00 | 49510 | 16710 | 32800 | 9.54% | 29670 | 2.848 | 2.7167 |
| 53 | 28-Jul-00 | 48340 | 17080 | 31260 | 10.02% | 28128 | 2.985 | 2.6993 |
| 54 | 28-Jul-00 | 44410 | 18570 | 25840 | 10.07% | 23238 | 2.764 | 2.0650 |
| 55 | 28-Jul-00 | 46690 | 19870 | 26820 | 9.48% | 24278 | 2.504 | 1.9544 |
| 56 | 28-Jul-00 | 50510 | 17090 | 33420 | 9.80% | 30144 | 2.755 | 2.6700 |
| 57 | 28-Jul-00 | 46860 | 17360 | 29500 | 9.90% | 26580 | 2.795 | 2.3884 |
| 58 | 29-Jul-00 | 46100 | 18140 | 27960 | 10.17% | 25118 | 3.039 | 2.4541 |
| 59 | 29-Jul-00 | 50080 | 16860 | 33220 | 10.06% | 29879 | 2.531 | 2.4313 |
| 60 | 29-Jul-00 | 50740 | 17840 | 32900 | 10.91% | 29312 | 2.496 | 2.3522 |
| 61 | 29-Jul-00 | 52170 | 16960 | 35210 | 10.53% | 31501 | 3.08 | 3.1193 |
| 62 | 29-Jul-00 | 53550 | 17060 | 36490 | 10.14% | 32789 | 3.02 | 3.1836 |
| 63 | 29-Jul-00 | 51360 | 16910 | 34450 | 10.11% | 30966 | 2.303 | 2.2927 |
| 64 | 29-Jul-00 | 58210 | 17030 | 41180 | 10.24% | 36964 | 3.11 | 3.6959 |
| Total | | | | 2149760 | | 1937521 | | 187.5584 |
| Average | | | | | 9.87% | | 3.02 | |

Table 4-1 Shipment Summary

# 5.0 RECOMMENDATIONS

In order to maximize the effectiveness of any work on the Spanish Mountain project, it is recommended that a full data compilation be completed. That would include the digitization of all sampling and geology data that is only found on paper copy at this time. It would also entail the transfer of all electronic data that is not currently in the NAD 83 co-ordinate system into NAD 83.

Subsequent to the data reorganization, the gold mineralization for at the LE zone should be further explored by means of trenching and drilling. The data compilation may also allow identification of other zones in need of further work that have not been identified to date.

The Dodge Zone, although not as strongly mineralized as LE, appears to host disseminated gold mineralization. Additional testing should be done to determine the size potential and grade continuity (and distribution) of the zone.

## Phase 1

It is suspected that gold mineralization may be linked to hydrothermal fluid migration along structures, causing the concentration of gold adjacent to some faults. A two-week field program of structural mapping is recommended.

A considerable amount of anecdotal history was gathered from prospector Bob Mickle who has been working in the area for quite some time. Several days in the field confirming the presence of reported adits and trenches that have not been formally recorded would be worthwhile.

## Phase 2

Upon completion of the mapping and data compilation, an organized program of trenching and shallow drilling around the LE zone should be conducted. The purpose of this program would be to delineate an open pittable (near surface) area of gold mineralization.

## Budget

It is estimated that Phase 1 would cost approximately $35,000, and while the size and scope of Phase 2 would be somewhat contingent on the results of the first phase, a cost of approximately $250,000 to $350,000 is expected.

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# PROJECT STATEMENTS

# 2000

# List of personnel

| | | | |
|---|---|---|---|
| Steve Robertson | IMC | Project Manager | May 25 – July 29 |
| Eric Brown-John | IMC | Labourer | June 27 – July 1 |
| Rudi Durfeld | DG | GPS Surveyor | July 3 – 4 |
| John Murray | PD | Driller | June 20 – July 1 |
| Colin Fagan | PD | Drillers Helper | June 20 – July 1 |
| Trevor Siebert | LE | Planner | July 20 |
| Rick Siebert | LE | Plant Manager | July 21 – July 22 |
| Travis Buller | LE | Moxi Operator | July 22 – July 24 |
| Bruce LeBlanc | LE | Moxi Operator | July 22 – July 24 |
| John Plumb | LE | Moxi Operator | July 22 – July 24 |
| Debb Lozier | LE | Plant Operator | July 23 – July 31 |
| Don Brown | LE | Truck Driver | July 24 – July 31 |
| Rob Gertzen | LE | Truck Driver | July 24 – July 31 |
| Wes Cole | LE | Truck Driver | July 24 – July 31 |
| Al Prokosh | LE | Truck Driver | July 24 – July 31 |
| Dave Best | LE | Labourer | July 25 – July 31 |
| Don Jaimeson | MP | Hoe Operator | June 21 – July 23 |
| Corney Klausen | MP | Cat Skinner | June 21 – June 26 |
| Murray Lawson | MP | Blaster | July 15 |
| Ron Gales | MP | Blaster | July 15 |
| Richard Dunlop | MP | Blaster | July 15 |

Note:

| | |
|---|---|
| IMC | Imperial Metals Corporation |
| LE | Lake Excavating |
| PD | Paramount Drilling |
| MP | Mount Polley Corporation |
| DG | Durfeld Geological |

## Spanish Mountain Project - 2000
## Statement of Expenditures

| | | | | |
|---|---|---|---|---|
| Salaries | | | | |
| | S Robertson - Project Manager | 55 days @ | $375 | $20,625 |
| | C Craig - Map preparation, and computer work | 18 days @ | $250 | $4,500 |
| | E Brown-John - Labourer | 5 days @ | $160 | $800 |
| Food and Lodging | | 50 days @ | $100 | $5,000 |
| Communications and Courier | | | | $450 |
| General Support and Supplies | | | | |
| | Deakins Equipment - Field Supplies | | | $680 |
| | Logan Signs Safety Signs | | | $70 |
| | Williams Lake Feed - Grass Seed | | | $350 |
| | Mount Polley - Field Supplies | | | $750 |
| GPS Surveying and Mapping | | | | |
| | Durfeld Geological | | | $1,300 |
| Transportation | | | | |
| | Truck Rental | 60 days @ | $65 | $3,900 |
| | Fuel | | | $800 |
| | Flight Return Vancouver - Williams Lake | | | $650 |
| Drilling | | | | |
| | Paramount Drilling Ltd | | | $22,463 |
| Blasting | | | | |
| | Orica | | | $5,500 |
| | Mount Polley - Contract Blasting Crew | | | $1,500 |
| Screening and Hauling | | | | |
| | Lake Excavating | | | $39,358 |
| Equipmetn Rental | | | | $3,600 |
| | Cariboo Road Service - Grader | | | $750 |
| | Mount Polley - Low Bedding | | | $2,847 |
| | Mount Polley - Excavator | | | $6,174 |
| | Mount Polley - D7 Cat | | | $6,089 |
| Assays | | | | $3,837 |
| | Bondar Clegg | 75 samples @ | $20 | $1,500 |
| | Mount Polley | 580 samples @ | $7 | $4,060 |
| Petrographics | | | | |
| | Vancouver Petrographics | | | $1,300 |
| Report Writing and Drafting | | | | $5,000 |
| | Trim Maps | | | $600 |
| Subtotal | | | | $144,453 |
| Filing Fees | | | | $3,260 |
| Total | | | | $147,713 |

# Statement of Qualifications

**Stephen B. Robertson, P.Geo.**

I, Stephen Robertson, of 1969 - B Lower Road, Roberts Creek, British Columbia, hereby certify that:

- I am a geologist, employed by Imperial Metals Corporation.
- I am a 1989 graduate of the University of Alberta in Edmonton, with a Bachelor of Science degree in geology.
- I have been employed in mining since 1988 and have continuously practiced my profession since 1989.
- I am a Professional Geoscientist, registered with the Association of Professional Engineers and Geoscientists of the Province of British Columbia.
- I supervised and planned the program as described in this report.
- This report is based on the information gained during the 2000 field season and a review of public reports.
- This report may be used for development of the property or raising of funds, provided that no portion of it is used out of context, or in such a manner as to convey a meaning different from that set out in the whole.

Signed at Vancouver, British Columbia, this 30th day of January, 2001.

Stephen Robertson, P.Geo.

PROFESSIONAL
PROVINCE OF
S.B. Robertson
BRITISH COLUMBIA
GEOSCIENTIST

# APPENDIX A

## Drill Cutting Assays
## Mount Polley Mining Corporation

*Mount Polley Mining Corporation - Mount Polley Mine* *Assay Lab Report* *27-Jun-2000* *File Name:* **000625b**

| Tag # | Au (g/t) | Cu-tot (%) | Cu-ns (%) | Fe-tot (%) | Ag (g/t) | |
|---|---|---|---|---|---|---|
| 69501 | 0.08 | | | | | spanish mountain |
| 69502 | 0.04 | | | | | spanish mountain |
| 69503 | 0.08 | | | | | spanish mountain |
| 69504 | 0.06 | | | | | spanish mountain |
| 69505 | 0.12 | | | | | spanish mountain |
| 69506 | 0.04 | | | | | spanish mountain |
| 69507 | 0.12 | | | | | spanish mountain |
| 69508 | 0.04 | | | | | spanish mountain |
| 69509 | 0.08 | | | | | spanish mountain |
| 69510 | 0.12 | | | | | spanish mountain |
| 69511 | 0.10 | | | | | spanish mountain |
| 69512 | 0.14 | | | | | spanish mountain |
| 69513 | 0.10 | | | | | spanish mountain |
| 69514 | 0.10 | | | | | spanish mountain |
| 69515 | 0.08 | | | | | spanish mountain |
| 69516 | 0.08 | | | | | spanish mountain |
| 69517 | 0.08 | | | | | spanish mountain |
| 69518 | 0.22 | | | | | spanish mountain |
| 69519 | 0.06 | | | | | spanish mountain |
| 69520 | 0.10 | | | | | spanish mountain |
| 69521 | 0.20 | | | | | spanish mountain |
| 69522 | 0.04 | | | | | spanish mountain |

Mount Polley Mining Corporation - Mount Polley Mine    Assay Lab Report    26-Jun-2000    File Name: **000623a**

SPANISH MOUNTAIN

| Tag # | Au (g/t) | Cu-tot (%) | Cu-ns (%) | Fe-tot (%) | Ag (g/t) |
|---|---|---|---|---|---|
| 69676 | 0.06 | | | | |
| 69702 | 0.22 | | | | |
| 69703 | 0.38 | | | | |
| 69704 | 0.14 | | | | |
| 69705 | 0.12 | | | | |
| 69706 | 0.18 | | | | |
| 69707 | 0.18 | | | | |
| 69708 | 0.30 | | | | |
| 69709 | 0.24 | | | | |
| 69710 | 0.24 | | | | |
| 69711 | 0.18 | | | | |
| 69712 | 0.68 | | | | |
| 69713 | 0.14 | | | | |
| 69714 | 0.22 | | | | |
| 69715 | 0.14 | | | | |
| 69716 | 0.14 | | | | |
| 69717 | 0.16 | | | | |
| 69718 | 0.10 | | | | |
| 69719 | 0.10 | | | | |
| 69720 | 0.10 | | | | |
| 69721 | 0.18 | | | | |
| 69722 | 0.10 | | | | |

*Mount Polley Mining Corporation - Mount Polley Mine* *Assay Lab Report* *28-Jun-2000* *File Name:* **000626a**

all samples spanish mountain

| Tag # | Au (g/t) | Cu-tot (%) | Cu-ns (%) | Fe-tot (%) | Ag (g/t) |
|---|---|---|---|---|---|
| 69632 | 0.18 | | | | |
| 69633 | 0.12 | | | | |
| 69634 | 0.22 | | | | |
| 69635 | 0.20 | | | | |
| 69636 | 0.14 | | | | |
| 69637 | 0.02 | | | | |
| 69638 | 0.12 | | | | |
| 69639 | 0.12 | | | | |
| 69640 | 0.06 | | | | |
| 69641 | 0.08 | | | | |
| 69642 | 0.10 | | | | |
| 69643 | 0.10 | | | | |
| 69644 | 0.18 | | | | |
| 69645 | 0.18 | | | | |
| 69646 | 0.12 | | | | |
| 69647 | 0.04 | | | | |
| 69648 | 0.12 | | | | |
| 69649 | 0.04 | | | | |
| 69650 | 0.02 | | | | |
| 69651 | 0.12 | | | | |
| 69652 | 0.46 | | | | |
| 69653 | 0.30 | | | | |

**Mount Polley Mining Corporation - Mount Polley Mine** *Assay Lab Report* *28-Jun-2000* *File Name:* **000626Bb**

| Tag # | Au (g/t) | Cu-tot (%) | Cu-ns (%) | Fe-tot (%) | Ag (g/t) |
|---|---|---|---|---|---|
| 69542 | 1.56 | | | | |
| 69543 | 1.30 | | | | |
| 69544 | 4.54 | | | | |
| 69545 | 0.82 | | | | |
| 69546 | 1.70 | | | | |
| 69547 | 1.36 | | | | |
| 69548 | 4.68 | | | | |
| 69549 | 5.92 | | | | |
| 69550 | 3.96 | | | | |
| 69551 | 0.84 | | | | |
| 69552 | 0.40 | | | | |
| 69553 | 2.06 | | | | |
| 69554 | 0.40 | | | | |
| 69555 | 0.64 | | | | |
| 69556 | 0.12 | | | | |
| 69557 | 0.28 | | | | |
| 69626 | 0.12 | | | | |
| 69627 | 0.06 | | | | |
| 69628 | 0.04 | | | | |
| 69629 | 0.16 | | | | |
| 69630 | 0.04 | | | | |
| 69631 | 0.22 | | | | |

**Mount Polley Mining Corporation - Mount Polley Mine** **Assay Lab Report 29-Jun-2000** **File Name: 000626c**

| Tag # | Au (g/t) | Cu-tot (%) | Cu-ns (%) | Fe-tot (%) | Ag (g/t) |
|---|---|---|---|---|---|
| 69723 | 0.10 | | | | |
| 69724 | 0.12 | | | | |
| 69725 | 0.02 | | | | |
| 69523 | 0.06 | | | | |
| 69524 | 0.02 | | | | |
| 69525 | 0.22 | | | | |
| 69526 | 0.04 | | | | |
| 69527 | 0.70 | | | | |
| 69528 | 0.10 | | | | |
| 69529 | 0.14 | | | | |
| 69530 | 0.64 | | | | |
| 69531 | 7.72 | | | | |
| 69532 | 2.24 | | | | |
| 69533 | 0.64 | | | | |
| 69534 | 0.16 | | | | |
| 69535 | 1.00 | | | | |
| 69536 | 1.94 | | | | |
| 69537 | 1.58 | | | | |
| 69538 | 2.28 | | | | |
| 69539 | 3.34 | | | | |
| 69540 | 0.70 | | | | |
| 69541 | 2.28 | | | | |

all samples spanish mountain

Mount Polley Mining Corporation - Mount Polley Mine    Assay Lab Report    29-Jun-2000    File Name: **000627a**

Spanish Mtn.

| Tag # | Au (g/t) | Cu-tot (%) | Cu-ns (%) | Fe-tot (%) | Ag (g/t) |
|---|---|---|---|---|---|
| 9654 | 0.12 | | | | |
| 9655 | 0.12 | | | | |
| 9656 | 0.06 | | | | |
| 9657 | 0.04 | | | | |
| 9658 | 0.02 | | | | |
| 9659 | 0.04 | | | | |
| 9660 | 0.18 | | | | |
| 9661 | 0.06 | | | | |
| 9662 | 0.34 | | | | |
| 9663 | 0.10 | | | | |
| 9664 | 0.06 | | | | |
| 9665 | 0.14 | | | | |
| 9666 | 0.04 | | | | |
| 9667 | 0.18 | | | | |
| 9668 | 0.08 | | | | |
| 59669 | 0.12 | | | | |
| 59670 | 0.06 | | | | |
| 59671 | 0.10 | | | | |
| 59672 | 0.32 | | | | |
| 59673 | 0.16 | | | | |
| 59674 | 0.12 | | | | |
| 59675 | 0.12 | | | | |

**Mount Polley Mining Corporation - Mount Polley Mine** *Assay Lab Report* 29-Jun-2000 *File Name:* **000627d**

spanish mountain

| Tag # | Au (g/t) | Cu-tot (%) | Cu-ns (%) | Fe-tot (%) | Ag (g/t) |
|---|---|---|---|---|---|
| 69677 | 0.04 | | | | |
| 69678 | 0.74 | | | | |
| 69679 | 1.04 | | | | |
| 69680 | 0.16 | | | | |
| 69681 | 3.78 | | | | |
| 69682 | 0.80 | | | | |
| 69683 | 0.12 | | | | |
| 69684 | 0.46 | | | | |
| 69685 | 0.34 | | | | |
| 69686 | 0.08 | | | | |
| 69687 | 0.12 | | | | |
| 69688 | 0.12 | | | | |
| 69689 | 0.14 | | | | |
| 69690 | 0.22 | | | | |
| 69691 | 0.10 | | | | |
| 69692 | 0.06 | | | | |
| 69693 | 0.08 | | | | |
| 69694 | 0.08 | | | | |
| 69695 | 0.16 | | | | |
| 69696 | 0.10 | | | | |
| 69697 | 0.12 | | | | |
| 69698 | 1.64 | | | | |

*Mount Polley Mining Corporation - Mount Polley Mine*  *Assay Lab Report*  *30-Jun-2000*  *File Name:* **000627e**

| Tag # | Au (g/t) | Cu-tot (%) | Cu-ns (%) | Fe-tot (%) | Ag (g/t) | |
|---|---|---|---|---|---|---|
| 69699 | 0.58 | | | | | |
| 69700 | 0.32 | | | | | spanish mountain |
| 69564 | 1.04 | | | | | |
| 69565 | 1.30 | | | | | |
| 69566 | 3.16 | | | | | |
| 69567 | 2.32 | | | | | |
| 69568 | 4.14 | | | | | |
| 69569 | 14.40 | | | | | |
| 69570 | 0.86 | | | | | |
| 69571 | 3.38 | | | | | |
| 69572 | 3.94 | | | | | |
| 69573 | 2.12 | | | | | |
| 69574 | 2.08 | | | | | |
| 69575 | 2.22 | | | | | |
| 69576 | 0.42 | | | | | |
| 69577 | 0.18 | | | | | |
| 69578 | 0.24 | | | | | |
| 69579 | 0.84 | | | | | |
| 69580 | 0.20 | | | | | |
| 69581 | 0.64 | | | | | |
| 69582 | 0.64 | | | | | |
| 69583 | 0.50 | | | | | |

*Mount Polley Mining Corporation - Mount Polley Mine* *Assay Lab Report* *1-Jul-2000* *File Name:* **000627Ee**

| Tag # | Au (g/t) | Cu-tot (%) | Cu-ns (%) | Fe-tot (%) | Ag (g/t) |
|---|---|---|---|---|---|
| 69569 | 13.65 | | | | |

Gravity finish

*Mount Polley Mining Corporation - Mount Polley Mine* *Assay Lab Report* *30-Jun-2000* *File Name:* **000628e**

| Tag # | Au (g/t) | Cu-tot (%) | Cu-ns (%) | Fe-tot (%) | Ag (g/t) |
|---|---|---|---|---|---|
| 69558 | 1.36 | | | | |
| 69559 | 0.46 | | | | |
| 69560 | 0.36 | | | | |
| 69561 | 0.78 | | | | |
| 69562 | 1.16 | | | | |
| 69563 | 0.50 | | | | |
| 69599 | 0.12 | | | | |
| 69600 | 0.22 | | | | |
| 69601 | 2.70 | | | | |
| 69602 | 1.06 | | | | |
| 69603 | 2.76 | | | | |
| 69604 | 0.98 | | | | |
| 69605 | 2.30 | | | | |
| 69606 | 0.84 | | | | |
| 69607 | 1.42 | | | | |
| 69608 | 0.80 | | | | |
| 69609 | 2.46 | | | | |
| 69610 | 0.88 | | | | |
| 69611 | 3.16 | | | | |
| 69612 | 1.36 | | | | |
| 69613 | 1.76 | | | | |
| 69614 | 1.52 | | | | |

*Mount Polley Mining Corporation - Mount Polley Mine* *Assay Lab Report* *1-Jul-2000* *File Name:* **000628f**

| Tag # | Au (g/t) | Cu-tot (%) | Cu-ns (%) | Fe-tot (%) | Ag (g/t) |
|---|---|---|---|---|---|
| 69615 | 1.92 | | | | |
| 69616 | 0.72 | | | | |
| 69617 | 0.76 | | | | |
| 69618 | 2.62 | | | | |
| 69619 | 0.72 | | | | |
| 69620 | 2.28 | | | | |
| 69621 | 1.22 | | | | |
| 69622 | 1.18 | | | | |
| 69623 | 0.98 | | | | |
| 69624 | 1.06 | | | | |
| 69625 | 0.62 | | | | |
| 69626 | 0.34 | | | | |
| 69627 | 0.88 | | | | |
| 69628 | 0.20 | | | | |
| 69629 | 0.44 | | | | |
| 69630 | 0.46 | | | | |
| 69631 | 1.86 | | | | |
| 69632 | 0.66 | | | | |
| 69633 | 1.14 | | | | |
| 69634 | 1.48 | | | | |
| 69635 | 2.12 | | | | |
| 69636 | 0.46 | | | | |

*Mount Polley Mining Corporation - Mount Polley Mine* *Assay Lab Report* *1-Jul-2000* *File Name:* **000629a**

| Tag # | Au (g/t) | Cu-tot (%) | Cu-ns (%) | Fe-tot (%) | Ag (g/t) |
|---|---|---|---|---|---|
| 69737 | 0.58 | | | | |
| 69738 | 7.45 | | | | |
| 69739 | 3.80 | | | | |
| 69740 | 1.80 | | | | |
| 69741 | 1.72 | | | | |
| 69742 | 2.48 | | | | |
| 69743 | 1.32 | | | | |
| 69744 | 3.14 | | | | |
| 69745 | 2.02 | | | | |
| 69746 | 2.06 | | | | |
| 69747 | 0.88 | | | | |
| 69748 | 1.98 | | | | |
| 69749 | 0.54 | | | | |
| 69750 | 1.50 | | | | |
| 69751 | 1.36 | | | | |
| 69752 | 2.10 | | | | |
| 69753 | 0.98 | | | | |
| 69754 | 0.86 | | | | |
| 69755 | 1.10 | | | | |
| 69756 | 1.82 | | | | |
| 69757 | 1.52 | | | | |
| 69758 | 2.26 | | | | |

*Mount Polley Mining Corporation - Mount Polley Mine* *Assay Lab Report* *2-Jul-2000* *File Name:* **000629f**

| Tag # | Au (g/t) | Cu-tot (%) | Cu-ns (%) | Fe-tot (%) | Ag (g/t) |
|---|---|---|---|---|---|
| 69584 | 0.82 | | | | |
| 69586 | 0.36 | | | | |
| 69587 | 0.46 | | | | |
| 69588 | 0.10 | | | | |
| 69589 | 0.06 | | | | |
| 69590 | 0.46 | | | | |
| 69591 | 0.30 | | | | |
| 69592 | 0.14 | | | | |
| 69593 | 0.40 | | | | |
| 69594 | 0.04 | | | | |
| 69595 | 0.12 | | | | |
| 69596 | 0.20 | | | | |
| 69597 | 0.24 | | | | |
| 69598 | 0.12 | | | | |
| 69759 | 2.38 | | | | |
| 69760 | 1.42 | | | | |
| 69761 | 0.90 | | | | |
| 69762 | 0.96 | | | | |
| 69763 | 1.10 | | | | |
| 69764 | 2.10 | | | | |
| 69765 | 0.36 | | | | |
| 69766 | 1.60 | | | | |

*Mount Polley Mining Corporation - Mount Polley Mine* *Assay Lab Report* *3-Jul-2000* *File Name:* **000701e**

| Tag # | Au (g/t) | Cu-tot (%) | Cu-ns (%) | Fe-tot (%) | Ag (g/t) | |
|---|---|---|---|---|---|---|
| 69767 | 0.42 | | | | | SPANISH MOUNTAIN |
| 69768 | 0.90 | | | | | |
| 69769 | 3.04 | | | | | |
| 69770 | 1.72 | | | | | |
| 69771 | 0.94 | | | | | |
| 69774 | 0.40 | | | | | |
| 69775 | 0.24 | | | | | |
| 69776 | 0.14 | | | | | |
| 69777 | 0.20 | | | | | |
| 69778 | 0.22 | | | | | |
| 69779 | 0.74 | | | | | |
| 69780 | 0.40 | | | | | |
| 69781 | 0.34 | | | | | |
| 69782 | 0.34 | | | | | |
| 69783 | 0.08 | | | | | |
| 69784 | 0.22 | | | | | |
| 69785 | 0.86 | | | | | |
| 69786 | 1.76 | | | | | |
| 69787 | 0.36 | | | | | |
| 69788 | 0.86 | | | | | |
| 69789 | 2.00 | | | | | |
| 69790 | 2.04 | | | | | |

Mount Polley Mining Corporation - Mount Polley Mine Assay Lab Report 8-Jul-2000 File Name: **000702e**

| Tag # | Au (g/t) | Cu-tot (%) | Cu-ns (%) | Fe-tot (%) | Ag (g/t) | |
|---|---|---|---|---|---|---|
| 69791 | 1.24 | | | | | Spanish Mtn. |
| 69792 | 0.86 | | | | | |
| 69793 | 1.28 | | | | | |
| 69794 | 2.04 | | | | | |
| 69795 | 1.92 | | | | | |
| 69796 | 0.72 | | | | | |
| 69797 | 1.32 | | | | | |
| 69798 | 0.70 | | | | | |
| 69799 | 0.74 | | | | | |
| 69800 | 0.42 | | | | | |
| 69801 | 0.24 | | | | | |
| 69802 | 0.22 | | | | | |
| 69803 | 0.86 | | | | | |
| 69804 | 0.80 | | | | | |
| 69805 | 0.92 | | | | | |
| 69806 | 0.70 | | | | | |
| 69807 | 0.78 | | | | | |
| 69808 | 0.24 | | | | | |
| 69809 | 11.58 | | | | | |
| 69810 | 0.34 | | | | | |
| 69811 | 1.62 | | | | | |
| 69926 | 1.34 | | | | | |

*Mount Polley Mining Corporation - Mount Polley Mine* *Assay Lab Report* *8-Jul-2000* *File Name:* **000702f**

| Tag # | Au (g/t) | Cu-tot (%) | Cu-ns (%) | Fe-tot (%) | Ag (g/t) |
|---|---|---|---|---|---|
| 69927 | 3.48 | | | | |
| 69928 | 1.52 | | | | |
| 69929 | 1.92 | | | | |
| 69930 | 1.60 | | | | |
| 69931 | 2.34 | | | | |
| 69932 | 17.20 | | | | |
| 69933 | 1.62 | | | | |
| 69934 | 1.34 | | | | |
| 69935 | 1.20 | | | | |
| 69936 | 1.54 | | | | |
| 69937 | 1.28 | | | | |
| 69938 | 2.90 | | | | |
| 69939 | 1.98 | | | | |
| 69940 | 2.08 | | | | |
| 69941 | 0.64 | | | | |
| 69942 | 3.20 | | | | |
| 69943 | 2.08 | | | | |
| 69944 | 3.76 | | | | |
| 69945 | 2.64 | | | | |
| 69946 | 1.98 | | | | |
| 69947 | 1.38 | | | | |
| 69948 | 3.06 | | | | |

Spanish Mtn.

*Mount Polley Mining Corporation - Mount Polley Mine* *Assay Lab Report* *8-Jul-2000* **File Name:** **000704a**

| Tag # | Au (g/t) | Cu-tot (%) | Cu-ns (%) | Fe-tot (%) | Ag (g/t) | |
|---|---|---|---|---|---|---|
| 69876 | 0.40 | | | | | spanish mountain |
| 69877 | 0.16 | | | | | |
| 69878 | 0.10 | | | | | |
| 69879 | 0.36 | | | | | |
| 69880 | 0.44 | | | | | |
| 69881 | 0.16 | | | | | |
| 69882 | 0.12 | | | | | |
| 69883 | 0.10 | | | | | |
| 69884 | 0.06 | | | | | |
| 69885 | 0.28 | | | | | |
| 69886 | 0.58 | | | | | |
| 69887 | 5.74 | | | | | |
| 69888 | 4.00 | | | | | |
| 69889 | 0.16 | | | | | |
| 69890 | 4.88 | | | | | |
| 69891 | 0.16 | | | | | |
| 69892 | 0.28 | | | | | |
| 69893 | 0.36 | | | | | |
| 69894 | 6.66 | | | | | |
| 69895 | 0.12 | | | | | |
| 69896 | 0.10 | | | | | |
| 69897 | 0.10 | | | | | |

*Mount Polley Mining Corporation - Mount Polley Mine* *Assay Lab Report* *8-Jul-2000* *File Name:* **000704b**

| Tag # | Au (g/t) | Cu-tot (%) | Cu-ns (%) | Fe-tot (%) | Ag (g/t) | |
|---|---|---|---|---|---|---|
| 69854 | 0.14 | | | | | spanish mountain |
| 69855 | 8.05 | | | | | |
| 69856 | 0.72 | | | | | |
| 69857 | 0.88 | | | | | |
| 69858 | 0.36 | | | | | |
| 69859 | 0.10 | | | | | |
| 69860 | 0.10 | | | | | |
| 69861 | 0.16 | | | | | |
| 69862 | 0.30 | | | | | |
| 69863 | 0.18 | | | | | |
| 69864 | 0.20 | | | | | |
| 69865 | 0.02 | | | | | |
| 69866 | 0.26 | | | | | |
| 69867 | 0.68 | | | | | |
| 69868 | 0.56 | | | | | |
| 69869 | 0.02 | | | | | |
| 69870 | 0.06 | | | | | |
| 69871 | 0.01 | | | | | |
| 69872 | 4.40 | | | | | |
| 69873 | 0.24 | | | | | |
| 69874 | 0.24 | | | | | |
| 69875 | 0.28 | | | | | |

Mount Polley Mining Corporation - Mount Polley Mine    Assay Lab Report    9-Jul-2000    File Name: **000704c**

| Tag # | Au (g/t) | Cu-tot (%) | Cu-ns (%) | Fe-tot (%) | Ag (g/t) |
|---|---|---|---|---|---|
| 69772 | 3.58 | | | | |
| 69773 | 0.50 | | | | |
| 69812 | 0.01 | | | | |
| 69813 | 0.10 | | | | |
| 69814 | 0.14 | | | | |
| 69815 | 0.16 | | | | |
| 69816 | 0.04 | | | | |
| 69817 | 0.01 | | | | |
| 69818 | 0.08 | | | | |
| 69819 | 0.02 | | | | |
| 69820 | 0.20 | | | | |
| 69821 | 0.14 | | | | |
| 69822 | 0.26 | | | | |
| 69823 | 0.16 | | | | |
| 69824 | 0.38 | | | | |
| 69825 | 0.22 | | | | |
| 69826 | 0.12 | | | | |
| 69827 | 0.22 | | | | |
| 69828 | 0.04 | | | | |
| 69829 | 0.42 | | | | |
| 69830 | 0.01 | | | | |
| 69831 | 0.01 | | | | |

spanish mountain

*Mount Polley Mining Corporation - Mount Polley Mine* *Assay Lab Report* *10-Jul-2000* *File Name:* **000704d**

| Tag # | Au (g/t) | Cu-tot (%) | Cu-ns (%) | Fe-tot (%) | Ag (g/t) | |
|---|---|---|---|---|---|---|
| 69832 | 0.06 | | | | | spanish mountain |
| 69833 | 0.01 | | | | | |
| 69834 | 0.13 | | | | | |
| 69835 | 0.10 | | | | | |
| 69836 | 0.04 | | | | | |
| 69837 | 0.08 | | | | | |
| 69838 | 0.34 | | | | | |
| 69839 | 0.16 | | | | | |
| 69840 | 0.27 | | | | | |
| 69841 | 0.04 | | | | | |
| 69842 | 0.17 | | | | | |
| 69843 | 0.08 | | | | | |
| 69844 | 0.39 | | | | | |
| 69845 | 0.34 | | | | | |
| 69846 | 0.18 | | | | | |
| 69847 | 0.04 | | | | | |
| 69848 | 0.25 | | | | | |
| 69849 | 2.09 | | | | | |
| 69850 | 0.16 | | | | | |
| 69851 | 0.06 | | | | | |
| 69852 | 0.07 | | | | | |
| 69853 | 0.05 | | | | | |

*Mount Polley Mining Corporation - Mount Polley Mine*  *Assay Lab Report*  *10-Jul-2000*  *File Name:* **000704h**

| Tag # | Au (g/t) | Cu-tot (%) | Cu-ns (%) | Fe-tot (%) | Ag (g/t) |
|---|---|---|---|---|---|
| 69898 | 0.05 | | | | |
| 69899 | 0.05 | | | | |
| 69900 | 0.08 | | | | |
| 69901 | 0.02 | | | | |
| 69902 | 0.03 | | | | |
| 69903 | 0.02 | | | | |
| 69904 | 0.01 | | | | |
| 69905 | 0.03 | | | | |
| 69906 | 0.02 | | | | |
| 69907 | 0.09 | | | | |
| 69908 | 0.02 | | | | |
| 69909 | 1.74 | | | | |
| 69910 | 0.04 | | | | |
| 69911 | 0.04 | | | | |
| 69912 | 0.04 | | | | |
| 69913 | 0.15 | | | | |
| 69914 | 0.08 | | | | |
| 69915 | 0.04 | | | | |
| 69916 | 0.03 | | | | |
| 69917 | 0.10 | | | | |
| 69918 | 0.05 | | | | |
| 69919 | 0.01 | | | | |

*Mount Polley Mining Corporation - Mount Polley Mine*     *Assay Lab Report*     *11-Jul-2000*     *File Name:* **000704i**

| Tag # | Au (g/t) | Cu-tot (%) | Cu-ns (%) | Fe-tot (%) | Ag (g/t) | |
|---|---|---|---|---|---|---|
| 69949 | 2.27 | | | | | |
| 69950 | 3.27 | | | | | |
| 70301 | 0.01 | | | | | |
| 70302 | 0.75 | | | | | |
| 70303 | 0.48 | | | | | |
| 70304 | 0.11 | | | | | |
| 70305 | 0.08 | | | | | |
| 70306 | 0.03 | | | | | |
| 69920 | 0.03 | | | | | spanish mountain |
| 69921 | 0.05 | | | | | |
| 69922 | 0.03 | | | | | |
| 69923 | 0.01 | | | | | |
| 69924 | 0.03 | | | | | |
| 69925 | 0.06 | | | | | |
| 70326 | 0.01 | | | | | |
| 70327 | 0.06 | | | | | |
| 70328 | 0.02 | | | | | |
| 70329 | 0.08 | | | | | |
| 70330 | 0.03 | | | | | |
| 70331 | 0.06 | | | | | |
| 70332 | 0.05 | | | | | |
| 70333 | 0.03 | | | | | |

| *Tag #* | *Au (g/t)* | *Cu-tot (%)* | *Cu-ns (%)* | *Fe-tot (%)* | *Ag (g/t)* |
|---|---|---|---|---|---|
| 70334 | 0.02 | | | | |
| 70335 | 0.02 | | | | |
| 70336 | 0.02 | | | | |
| 70337 | 0.04 | | | | |
| 70338 | 0.04 | | | | |
| 70339 | 0.04 | | | | |
| 70340 | 0.08 | | | | |
| 70341 | 0.02 | | | | |
| 70342 | 0.04 | | | | |
| 70343 | 0.04 | | | | |
| 70344 | 0.04 | | | | |
| 70345 | 0.02 | | | | |
| 70346 | 0.04 | | | | |
| 70347 | 0.02 | | | | |
| 70348 | 0.02 | | | | |
| 70349 | 0.02 | | | | |
| 70350 | 0.04 | | | | |
| 70351 | 0.02 | | | | |
| 70352 | 0.08 | | | | |
| 70353 | 0.04 | | | | |
| 70354 | 0.68 | | | | |
| 70355 | 0.72 | | | | |

*Mount Polley Mining Corporation - Mount Polley Mine* *Assay Lab Report* *11-Jul-2000* *File Name:* **000710B**

| Tag # | Au (g/t) | Cu-tot (%) | Cu-ns (%) | Fe-tot (%) | Ag (g/t) | |
|---|---|---|---|---|---|---|
| 70356 | 0.62 | | | | | Spanish Mtn. |
| 70357 | 0.70 | | | | | |
| 70358 | 0.06 | | | | | |
| 70359 | 0.08 | | | | | |
| 70360 | 0.02 | | | | | |
| 70361 | 0.14 | | | | | |
| 70362 | 0.04 | | | | | |
| 70363 | 0.22 | | | | | |
| 70364 | 0.08 | | | | | |
| 70365 | 0.34 | | | | | |
| 70366 | 0.16 | | | | | |
| 70367 | 0.26 | | | | | |
| 70368 | 0.20 | | | | | |
| 70369 | 0.22 | | | | | |
| 70370 | 0.08 | | | | | |
| 70371 | 0.12 | | | | | |
| 70372 | 0.16 | | | | | |
| 70373 | 0.14 | | | | | |
| 70374 | 0.20 | | | | | |
| 70375 | 0.22 | | | | | |
| 70376 | 0.34 | | | | | |
| 70377 | 0.20 | | | | | |

*Mount Polley Mining Corporation - Mount Polley Mine* *Assay Lab Report* *11-Jul-2000* *File Name:* **000710e**

| Tag # | Au (g/t) | Cu-tot (%) | Cu-ns (%) | Fe-tot (%) | Ag (g/t) |
|---|---|---|---|---|---|
| 70378 | 0.14 | | | | |
| 70379 | 0.24 | | | | |
| 70380 | 0.34 | | | | |
| 70381 | 0.08 | | | | |
| 70382 | 0.38 | | | | |
| 70383 | 0.14 | | | | |
| 70384 | 0.10 | | | | |
| 70385 | 0.46 | | | | |
| 70386 | 0.16 | | | | |
| 70387 | 0.02 | | | | |
| 70388 | 0.18 | | | | |
| 70389 | 0.06 | | | | |
| 70390 | 0.12 | | | | |
| 70391 | 0.24 | | | | |
| 70392 | 0.12 | | | | |
| 70393 | 0.34 | | | | |
| 70394 | 0.06 | | | | |
| 70395 | 0.12 | | | | |
| 70396 | 0.06 | | | | |
| 70397 | 0.08 | | | | |
| 70398 | 0.54 | | | | |
| 70399 | 0.30 | | | | |

*Mount Polley Mining Corporation - Mount Polley Mine* *Assay Lab Report* *14-Jul-2000* *File Name:* **000710f**

| Tag # | Au (g/t) | Cu-tot (%) | Cu-ns (%) | Fe-tot (%) | Ag (g/t) |
|---|---|---|---|---|---|
| 70400 | 0.09 | | | | |
| 70901 | 0.26 | | | | |
| 70902 | 0.22 | | | | |
| 70903 | 0.47 | | | | |
| 70904 | 0.04 | | | | |
| 70905 | 0.11 | | | | |
| 70906 | 0.04 | | | | |
| 70907 | 0.17 | | | | |
| 70908 | 0.01 | | | | |
| 70909 | 0.09 | | | | |
| 70910 | 0.04 | | | | |
| 70911 | 0.06 | | | | |
| 70912 | 0.42 | | | | |
| 70913 | 0.19 | | | | |
| 70914 | 0.15 | | | | |
| 70915 | 0.22 | | | | |
| 70916 | 0.14 | | | | |
| 70917 | 0.50 | | | | |
| 70918 | 0.35 | | | | |
| 70919 | 0.29 | | | | |
| 70920 | 0.26 | | | | |
| 70921 | 0.08 | | | | |

*Mount Polley Mining Corporation - Mount Polley Mine*     *Assay Lab Report*   *11-Jul-2000*     *File Name:* **000710g**

| *Tag #* | *Au (g/t)* | *Cu-tot (%)* | *Cu-ns (%)* | *Fe-tot (%)* | *Ag (g/t)* |
|---|---|---|---|---|---|
| 70922 | 0.08 | | | | |
| 70923 | 0.22 | | | | |
| 70924 | 0.34 | | | | |
| 70925 | 0.12 | | | | |
| 70926 | 0.64 | | | | |
| 70927 | 0.30 | | | | |
| 70928 | 0.14 | | | | |
| 70929 | 0.06 | | | | |
| 70930 | 0.12 | | | | |
| 70931 | 0.14 | | | | |
| 70932 | 0.52 | | | | |
| 70933 | 0.24 | | | | |
| 70934 | 0.22 | | | | |
| 70935 | 0.14 | | | | |
| 70936 | 0.22 | | | | |
| 70937 | 0.14 | | | | |
| 70938 | 0.10 | | | | |
| 70939 | 0.22 | | | | |
| 70940 | 1.16 | | | | |
| 70941 | 0.42 | | | | |
| 70942 | 0.70 | | | | |
| 70943 | 0.66 | | | | |

*Mount Polley Mining Corporation - Mount Polley Mine*    *Assay Lab Report*    *11-Jul-2000*    *File Name:* **000710h**

| Tag # | Au (g/t) | Cu-tot (%) | Cu-ns (%) | Fe-tot (%) | Ag (g/t) |
|---|---|---|---|---|---|
| 70944 | 0.16 | | | | |
| 70945 | 0.62 | | | | |
| 70946 | 0.24 | | | | |
| 70947 | 0.38 | | | | |
| 70948 | 0.24 | | | | |
| 70949 | 0.42 | | | | |
| 70950 | 0.26 | | | | |
| 70951 | 0.24 | | | | |
| 70952 | 0.20 | | | | |
| 70953 | 0.18 | | | | |
| 70954 | 0.14 | | | | |
| 70955 | 0.26 | | | | |
| 70956 | 0.40 | | | | |
| 70957 | 1.90 | | | | |

APPENDIX B

Assay Results – Truck Loads
Bondar Clegg Canada Limited

BONDAR CLEGG

# Geochemical Lab Report

IMPERIAL METALS CORP.
MR. STEVE ROBERTSON
#420 - 355 BURRARD ST.
VANCOUVER BC V6B 5G9

Bondar Clegg Canada Limited
130 Pemberton Avenue, North Vancouver, BC, V7P 2R5, Canada
Tel: (604) 985-0681, Fax: (604) 985-1071

REPORT: V00-01482.0 ( COMPLETE )  REFERENCE:

CLIENT: IMPERIAL METALS CORP.  SUBMITTED BY: S. ROBERTSON

PROJECT: SPANISH MTN  DATE RECEIVED: 04-AUG-00  DATE PRINTED: 7-AUG-00

| DATE APPROVED | ORDER | | ELEMENT | NUMBER OF ANALYSES | LOWER DETECTION LIMIT | EXTRACTION | METHOD |
|---|---|---|---|---|---|---|---|
| 000805 | 1 | Au30 | Gold | 60 | 5 PPB | Fire Assay of 30g | 30g Fire Assay - AA |

| SAMPLE TYPES | NUMBER | SIZE FRACTIONS | NUMBER | SAMPLE PREPARATIONS | NUMBER |
|---|---|---|---|---|---|
| Q OTHER DRILL TYPES | 60 | 2 -150 | 60 | TRANS FROM POLY BAG | 60 |
| | | | | CRUSH, SPLIT | 60 |
| | | | | PULVERIZE 1000 G | 60 |

REPORT COPIES TO: MR. STEVE ROBERTSON  INVOICE TO: MR. STEVE ROBERTSON

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Bondar Clegg Canada Limited
130 Pemberton Avenue, North Vancouver, BC, V7P 2R5, Canada
Tel: (604) 985-0681, Fax: (604) 985-1071

BONDAR CLEGG

# Geochemical Lab Report

CLIENT: IMPERIAL METALS CORP. PROJECT: SPANISH MTN
REPORT: V00-01482.0 ( COMPLETE ) DATE RECEIVED: 04-AUG-00 DATE PRINTED: 7-AUG-00 

| SAMPLE NUMBER | ELEMENT UNITS | Au30 PPB |
|---|---|---|
| Q2 LOAD 1 | | 2833 |
| Q2 LOAD 2 | | 2250 |
| Q2 LOAD 3 | | 4000 |
| Q2 LOAD 4 | | 2671 |
| Q2 LOAD 5 | | 2943 |
| Q2 LOAD 6 | | 2676 |
| Q2 LOAD 7 | | 3508 |
| Q2 LOAD 8 | | 3418 |
| Q2 LOAD 9 | | 2997 |
| Q2 LOAD 10 | | 3515 |
| Q2 LOAD 11 | | 3017 |
| Q2 LOAD 12 | | 2656 |
| Q2 LOAD 13 | | 3842 |
| Q2 LOAD 14 | | 3691 |
| Q2 LOAD 15 | | 3353 |
| Q2 LOAD 16 | | 2998 |
| Q2 LOAD 17 | | 3076 |
| Q2 LOAD 18 | | 2670 |
| Q2 LOAD 19 | | 2878 |
| Q2 LOAD 20 | | 2844 |
| Q2 LOAD 21 | | 2870 |
| Q2 LOAD 22 | | 2668 |
| Q2 LOAD 23 | | 4058 |
| Q2 LOAD 24 | | 2821 |
| Q2 LOAD 25 | | 2702 |
| Q2 LOAD 26 | | 3251 |
| Q2 LOAD 27 | | 2930 |
| Q2 LOAD 28 | | 2864 |
| Q2 LOAD 29 | | 3409 |
| Q2 LOAD 30 | | 2791 |
| Q2 LOAD 31 | | 2680 |
| Q2 LOAD 32 | | 2590 |
| Q2 LOAD 33 | | 2557 |
| Q2 LOAD 34 | | 2660 |
| Q2 LOAD 35 | | 3423 |
| Q2 LOAD 36 | | 3033 |
| Q2 LOAD 37 | | 3548 |
| Q2 LOAD 38 | | 2686 |
| Q2 LOAD 39 | | 2515 |
| Q2 LOAD 40 | | 3751 |

| SAMPLE NUMBER | ELEMENT UNITS | Au30 PPB |
|---|---|---|
| Q2 LOAD 41 | | 3215 |
| Q2 LOAD 42 | | 3354 |
| Q2 LOAD 43 | | 3999 |
| Q2 LOAD 44 | | 2628 |
| Q2 LOAD 45 | | 3666 |
| Q2 LOAD 46 | | 3365 |
| Q2 LOAD 47 | | 3246 |
| Q2 LOAD 48 | | 3126 |
| Q2 LOAD 49 | | 3157 |
| Q2 LOAD 50 | | 2667 |
| Q2 LOAD 51 | | 3230 |
| Q2 LOAD 52 | | 2848 |
| Q2 LOAD 53 | | 2985 |
| Q2 LOAD 54 | | 2764 |
| Q2 LOAD 55 | | 2504 |
| Q2 LOAD 56 | | 2755 |
| Q2 LOAD 57 | | 2795 |
| Q2 LOAD 58 | | 3039 |
| Q2 LOAD 59 | | 2531 |
| Q2 LOAD 60 | | 2496 |

Bondar Clegg Canada Limited
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Tel: (604) 985-0681, Fax: (604) 985-1071

# BONDAR CLEGG

Geochemical Lab Report

| CLIENT: IMPERIAL METALS CORP. | | PROJECT: SPANISH MTN | |
|---|---|---|---|
| REPORT: V00-01482.0 ( COMPLETE ) | DATE RECEIVED: 04-AUG-00 | DATE PRINTED: 7-AUG-00 | PAGE 2 OF 3 |

| STANDARD NAME | ELEMENT UNITS | Au30 PPB |
|---|---|---|
| ANALYTICAL BLANK | | <5 |
| ANALYTICAL BLANK | | <5 |
| ANALYTICAL BLANK | | <5 |
| Number of Analyses | | 3 |
| Mean Value | | 2.5 |
| Standard Deviation | | 0.00 |
| Accepted Value | | 5 |
| OX9 Oxide | | 455 |
| Number of Analyses | | 1 |
| Mean Value | | 454.7 |
| Standard Deviation | | - |
| Accepted Value | | 465 |
| OX11 Oxide | | 2885 |
| Number of Analyses | | 1 |
| Mean Value | | 2885.1 |
| Standard Deviation | | - |
| Accepted Value | | 2940 |
| OX12 Oxide | | 6516 |
| Number of Analyses | | 1 |
| Mean Value | | 6515.8 |
| Standard Deviation | | - |
| Accepted Value | | 6600 |

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# Geochemical Lab Report

CLIENT: IMPERIAL METALS CORP. PROJECT: SPANISH MTN

REPORT: V00-01482.0 ( COMPLETE ) DATE RECEIVED: 04-AUG-00 DATE PRINTED: 7-AUG-00 

| SAMPLE NUMBER | ELEMENT UNITS | Au30 PPB |
|---|---|---|
| LOAD 3 | | 4000 |
| Duplicate | | 3681 |
| LOAD 26 | | 3251 |
| Duplicate | | 3336 |
| LOAD 49 | | 3157 |
| Duplicate | | 2968 |

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ISO 9002 KPMG VANCOUVER BRANCH

# Geochemical Lab Report

IMPERIAL METALS CORP.
MR. STEVE ROBERTSON
#420 - 355 BURRARD ST.
VANCOUVER BC V6B 5G9

RECEIVED
AUG 28 2000

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# Geochemical Lab Report

REPORT: V00-01574.0 ( COMPLETE )    REFERENCE:

CLIENT: IMPERIAL METALS CORP.    SUBMITTED BY: S. ROBERTSON
PROJECT: SPANISH MTN    DATE RECEIVED: 15-AUG-00    DATE PRINTED: 18-AUG-00

| DATE APPROVED | ORDER | ELEMENT | | NUMBER OF ANALYSES | LOWER DETECTION LIMIT | EXTRACTION | METHOD |
|---|---|---|---|---|---|---|---|
| 000817 | 1 | Au30 | Gold | 8 | 5 PPB | Fire Assay of 30g | 30g Fire Assay - AA |

| SAMPLE TYPES | NUMBER | SIZE FRACTIONS | NUMBER | SAMPLE PREPARATIONS | NUMBER |
|---|---|---|---|---|---|
| R ROCK | 8 | 2 -150 | 8 | CRUSH/SPLIT & PULV. | 8 |
| | | | | OVERWEIGHT/KG | 19 |

REPORT COPIES TO: MR. STEVE ROBERTSON    INVOICE TO: MR. STEVE ROBERTSON

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# Geochemical Lab Report

CLIENT: IMPERIAL METALS CORP. PROJECT: SPANISH MTN

REPORT: V00-01574.0 ( COMPLETE ) DATE RECEIVED: 15-AUG-00 DATE PRINTED: 18-AUG-00 

| SAMPLE NUMBER | ELEMENT UNITS | Au30 PPB |
|---|---|---|
| R2 SM LOAD 61 1 | | 3072 |
| R2 SM LOAD 61 2 | | 3089 |
| R2 SM LOAD 62 1 | | 3221 |
| R2 SM LOAD 62 2 | | 2775 |
| R2 SM LOAD 63 1 | | 2407 |
| R2 SM LOAD 63 2 | | 2209 |
| R2 SM LOAD 64 1 | | 2459 |
| R2 SM LOAD 64 2 | | 3716 |

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# Geochemical Lab Report



| STANDARD NAME | ELEMENT UNITS | Au30 PPB |
|---|---|---|
| ANALYTICAL BLANK | | <5 |
| Number of Analyses | | 1 |
| Mean Value | | 2.5 |
| Standard Deviation | | - |
| Accepted Value | | 5 |
| OX9 Oxide | | 455 |
| Number of Analyses | | 1 |
| Mean Value | | 454.8 |
| Standard Deviation | | - |
| Accepted Value | | 465 |

CLIENT: IMPERIAL METALS CORP. PROJECT: SPANISH MTN

REPORT: V00-01574.0 ( COMPLETE ) DATE RECEIVED: 15-AUG-00 DATE PRINTED: 18-AUG-00 

| SAMPLE NUMBER | ELEMENT UNITS | Au30 PPB |
|---|---|---|
| SM LOAD 63 1 | | 2407 |
| Duplicate | | 2365 |

# APPENDIX C

## Summary of Blast Holes and Assay Results

| Zone | UTM Grid | | Elev. | Hole | Interval (m) | | | Gold |
|---|---|---|---|---|---|---|---|---|
| | Northing | Easting | (m) | # | From | To | Length | (g/t) |
| Madre | 604368.4 | 5827474.0 | 1245 | A1 | 0 | 3 | 3 | 0.16 |
| Madre | 604367.0 | 5827468.4 | 1246 | A2 | 0 | 3 | 3 | 0.64 |
| Madre | 604363.7 | 5827463.7 | 1248 | A3 | 0 | 3 | 3 | 7.72 |
| Madre | 604361.4 | 5827458.4 | 1250 | A4 | 0 | 3 | 3 | 0.64 |
| Madre | 604358.9 | 5827453.0 | 1251 | A5 | 0 | 3 | 3 | 0.14 |
| Madre | 604356.4 | 5827447.6 | 1252 | A6 | 0 | 3 | 3 | 0.22 |
| Madre | | | | A7 | 0 | 3 | 3 | 0.08 |
| Madre | 604356.9 | 5827434.9 | 1254 | B1 | 0 | 3 | 3 | 0.08 |
| Madre | 604356.9 | 5827434.9 | 1254 | B1 | 3 | 7 | 4 | 0.08 |
| Madre | 604359.5 | 5827439.5 | 1253 | B2 | 0 | 4 | 4 | 0.06 |
| Madre | 604362.0 | 5827444.9 | 1251 | B3 | 0 | 4 | 4 | 0.10 |
| Madre | 604364.5 | 5827450.3 | 1251 | B4 | 0 | 3 | 3 | 0.20 |
| Madre | 604367.1 | 5827455.5 | 1250 | B5 | 0 | 3 | 3 | 0.10 |
| Madre | 604369.6 | 5827461.1 | 1249 | B6 | 0 | 3 | 3 | 0.70 |
| Madre | 604374.9 | 5827457.6 | 1251 | C1 | 0 | 3 | 3 | 0.22 |
| Madre | 604372.4 | 5827452.9 | 1251 | C2 | 0 | 3 | 3 | 0.02 |
| Madre | 604370.1 | 5827448.0 | 1252 | C3 | 0 | 4 | 4 | 0.06 |
| Madre | 604367.5 | 5827442.5 | 1253 | C4 | 0 | 4 | 4 | 0.04 |
| Madre | 604364.9 | 5827437.0 | 1254 | C5 | 0 | 3 | 3 | 0.10 |
| Madre | 604364.9 | 5827437.0 | 1254 | C5 | 3 | 6 | 3 | 0.14 |
| Madre | 604361.8 | 5827432.0 | 1256 | C6 | 0 | 3 | 3 | 0.10 |
| Madre | 604361.8 | 5827432.0 | 1256 | C6 | 3 | 6 | 3 | 0.10 |
| Madre | 604367.3 | 5827429.2 | 1256 | D1 | 0 | 3 | 3 | 0.08 |
| Madre | 604367.3 | 5827429.2 | 1256 | D1 | 3 | 7 | 4 | 0.12 |
| Madre | 604369.8 | 5827434.7 | 1255 | D2 | 0 | 3 | 3 | 0.12 |
| Madre | 604369.8 | 5827434.7 | 1255 | D2 | 3 | 7 | 4 | 0.04 |
| Madre | 604372.8 | 5827439.8 | 1255 | D3 | 0 | 3 | 3 | 0.12 |
| Madre | 604372.8 | 5827439.8 | 1255 | D3 | 3 | 7 | 4 | 0.04 |
| Madre | 604375.2 | 5827445.4 | 1254 | D4 | 0 | 3 | 3 | 0.08 |
| Madre | 604375.2 | 5827445.4 | 1254 | D4 | 3 | 6 | 3 | 0.06 |
| Madre | 604378.0 | 5827450.6 | 1252 | D5 | 0 | 3 | 3 | 0.08 |
| Madre | 604378.0 | 5827450.6 | 1252 | D5 | 3 | 6 | 3 | 0.04 |
| Madre | 604380.4 | 5827456.1 | 1251 | D6 | 0 | 4 | 4 | 0.04 |
| Madre | 604383.3 | 5827447.7 | 1254 | E1 | 0 | 3 | 3 | 0.02 |
| Madre | 604383.3 | 5827447.7 | 1254 | E1 | 3 | 6 | 3 | 0.04 |
| Madre | 604380.8 | 5827442.7 | 1255 | E2 | 0 | 3 | 3 | 0.06 |
| Madre | 604380.8 | 5827442.7 | 1255 | E2 | 3 | 7 | 4 | 0.04 |
| Madre | 604378.1 | 5827437.2 | 1255 | E3 | 0 | 3 | 3 | 0.12 |
| Madre | 604378.1 | 5827437.2 | 1255 | E3 | 3 | 7 | 4 | 0.12 |
| Madre | 604375.1 | 5827431.7 | 1256 | E4 | 0 | 3 | 3 | 0.12 |
| Madre | 604375.1 | 5827431.7 | 1256 | E4 | 3 | 6 | 3 | 0.46 |
| Madre | 604375.1 | 5827431.7 | 1256 | E4 | 6 | 8 | 2 | 0.30 |
| Madre | 604372.7 | 5827426.1 | 1256 | E5 | 0 | 3 | 3 | 1.64 |

| Zone | UTM Grid | | Elev. | Hole | Interval (m) | | | Gold |
|---|---|---|---|---|---|---|---|---|
| | Northing | Easting | (m) | # | From | To | Length | (g/t) |
| Madre | 604372.7 | 5827426.1 | 1256 | E5 | 3 | 6 | 3 | 0.58 |
| Madre | 604372.7 | 5827426.1 | 1256 | E5 | 6 | 9 | 3 | 0.32 |
| Madre | 604378.2 | 5827423.1 | 1257 | F1 | 0 | 3 | 3 | 0.14 |
| Madre | 604378.2 | 5827423.1 | 1257 | F1 | 3 | 6 | 3 | 0.22 |
| Madre | 604378.2 | 5827423.1 | 1257 | F1 | 6 | 9 | 3 | 0.10 |
| Madre | 604380.8 | 5827429.1 | 1257 | F2 | 0 | 3 | 3 | 0.08 |
| Madre | 604380.8 | 5827429.1 | 1257 | F2 | 3 | 6 | 3 | 0.12 |
| Madre | 604380.8 | 5827429.1 | 1257 | F2 | 6 | 9 | 3 | 0.12 |
| Madre | 604383.2 | 5827434.5 | 1257 | F3 | 0 | 3 | 3 | 0.12 |
| Madre | 604383.2 | 5827434.5 | 1257 | F3 | 3 | 6 | 3 | 0.46 |
| Madre | 604383.2 | 5827434.5 | 1257 | F3 | 6 | 9 | 3 | 0.34 |
| Madre | 604385.8 | 5827440.0 | 1256 | F4 | 0 | 3 | 3 | 0.04 |
| Madre | 604385.8 | 5827440.0 | 1256 | F4 | 3 | 6 | 3 | 0.74 |
| Madre | 604385.8 | 5827440.0 | 1256 | F4 | 6 | 9 | 3 | 1.04 |
| Madre | 604388.7 | 5827445.7 | 1256 | F5 | 0 | 3 | 3 | 0.16 |
| Madre | 604388.7 | 5827445.7 | 1256 | F5 | 3 | 6 | 3 | 3.78 |
| Madre | 604388.7 | 5827445.7 | 1256 | F5 | 6 | 8 | 2 | 0.80 |
| Madre | | | | G1 | 6 | 9 | 3 | 0.06 |
| Madre | 604391.4 | 5827437.5 | 1257 | G1 | 0 | 3 | 3 | 0.12 |
| Madre | 604391.4 | 5827437.5 | 1257 | G1 | 3 | 6 | 3 | 0.02 |
| Madre | 604389.0 | 5827432.4 | 1259 | G2 | 0 | 3 | 3 | 0.18 |
| Madre | 604389.0 | 5827432.4 | 1259 | G2 | 3 | 6 | 3 | 0.10 |
| Madre | 604389.0 | 5827432.4 | 1259 | G2 | 6 | 10 | 4 | 0.10 |
| Madre | 604386.4 | 5827427.0 | 1259 | G3 | 0 | 3 | 3 | 0.10 |
| Madre | 604386.4 | 5827427.0 | 1259 | G3 | 3 | 6 | 3 | 0.10 |
| Madre | 604386.4 | 5827427.0 | 1259 | G3 | 6 | 10 | 4 | 0.10 |
| Madre | 604381.3 | 5827416.1 | 1258 | G4 | 0 | 3 | 3 | 0.06 |
| Madre | 604381.3 | 5827416.1 | 1258 | G4 | 3 | 6 | 3 | 0.08 |
| Madre | 604381.3 | 5827416.1 | 1258 | G4 | 6 | 10 | 4 | 0.08 |
| Madre | 604386.7 | 5827413.6 | 1259 | H1 | 0 | 3 | 3 | 0.16 |
| Madre | 604386.7 | 5827413.6 | 1259 | H1 | 3 | 6 | 3 | 0.10 |
| Madre | 604386.7 | 5827413.6 | 1259 | H1 | 6 | 10 | 4 | 0.12 |
| Madre | 604389.6 | 5827418.2 | 1258 | H2 | 0 | 3 | 3 | 0.12 |
| Madre | 604389.6 | 5827418.2 | 1258 | H2 | 3 | 6 | 3 | 0.04 |
| Madre | 604389.6 | 5827418.2 | 1258 | H2 | 6 | 10 | 4 | 0.02 |
| Madre | 604392.0 | 5827424.3 | 1259 | H3 | 0 | 3 | 3 | 0.22 |
| Madre | 604392.0 | 5827424.3 | 1259 | H3 | 3 | 6 | 3 | 0.14 |
| Madre | 604392.0 | 5827424.3 | 1259 | H3 | 6 | 9 | 3 | 0.14 |
| Madre | 604392.0 | 5827424.3 | 1259 | H3 | 9 | 11 | 2 | 0.16 |
| Madre | 604394.3 | 5827429.6 | 1259 | H4 | 0 | 3 | 3 | 0.18 |
| Madre | 604394.3 | 5827429.6 | 1259 | H4 | 3 | 6 | 3 | 0.68 |
| Madre | 604394.3 | 5827429.6 | 1259 | H4 | 6 | 10 | 4 | 0.14 |
| Madre | 604397.0 | 5827435.3 | 1257 | H5 | 0 | 3 | 3 | 0.18 |

| Zone | UTM Grid |  | Elev. | Hole | Interval (m) |  |  | Gold |
|---|---|---|---|---|---|---|---|---|
|  | Northing | Easting | (m) | # | From | To | Length | (g/t) |
| Madre | 604397.0 | 5827435.3 | 1257 | H5 | 0 | 3 | 3 | 0.18 |
| Madre | 604397.0 | 5827435.3 | 1257 | H5 | 3 | 6 | 3 | 0.30 |
| Madre | 604397.0 | 5827435.3 | 1257 | H5 | 3 | 6 | 3 | 0.24 |
| Madre | 604397.0 | 5827435.3 | 1257 | H5 | 6 | 9 | 3 | 0.24 |
| Madre | 604402.5 | 5827432.5 | 1258 | I1 | 0 | 3 | 3 | 0.22 |
| Madre | 604402.5 | 5827432.5 | 1258 | I1 | 3 | 6 | 3 | 0.38 |
| Madre | 604402.5 | 5827432.5 | 1258 | I1 | 6 | 9 | 3 | 0.14 |
| Madre | 604402.5 | 5827432.5 | 1258 | I1 | 9 | 12 | 3 | 0.12 |
| Madre | 604400.1 | 5827426.8 | 1259 | I2 | 0 | 3 | 3 | 0.18 |
| Madre | 604400.1 | 5827426.8 | 1259 | I2 | 3 | 6 | 3 | 0.06 |
| Madre | 604400.1 | 5827426.8 | 1259 | I2 | 6 | 9 | 3 | 0.34 |
| Madre | 604400.1 | 5827426.8 | 1259 | I2 | 9 | 11 | 2 | 0.10 |
| Madre | 604395.1 | 5827415.5 | 1259 | I3 | 0 | 3 | 3 | 0.08 |
| Madre | 604395.1 | 5827415.5 | 1259 | I3 | 3 | 6 | 3 | 0.10 |
| Madre | 604395.1 | 5827415.5 | 1259 | I3 | 6 | 10 | 4 | 0.10 |
| Madre | 604398.1 | 5827407.6 | 1260 | J1 | 0 | 3 | 3 | 0.22 |
| Madre | 604398.1 | 5827407.6 | 1260 | J1 | 3 | 6 | 3 | 0.20 |
| Madre | 604398.1 | 5827407.6 | 1260 | J1 | 6 | 10 | 4 | 0.14 |
| Madre | 604400.3 | 5827412.5 | 1261 | J2 | 0 | 3 | 3 | 0.02 |
| Madre | 604400.3 | 5827412.5 | 1261 | J2 | 3 | 6 | 3 | 0.12 |
| Madre | 604400.3 | 5827412.5 | 1261 | J2 | 6 | 9 | 3 | 0.12 |
| Madre | 604400.3 | 5827412.5 | 1261 | J2 | 9 | 12 | 3 | 0.06 |
| Madre | 604403.8 | 5827418.9 | 1261 | J3 | 0 | 3 | 3 | 0.18 |
| Madre | 604403.8 | 5827418.9 | 1261 | J3 | 3 | 6 | 3 | 0.18 |
| Madre | 604403.8 | 5827418.9 | 1261 | J3 | 6 | 9 | 3 | 0.12 |
| Madre | 604403.8 | 5827418.9 | 1261 | J3 | 9 | 12 | 3 | 0.04 |
| Madre | 604405.4 | 5827424.6 | 1261 | J4 | 0 | 3 | 3 | 0.06 |
| Madre | 604405.4 | 5827424.6 | 1261 | J4 | 3 | 6 | 3 | 0.14 |
| Madre | 604405.4 | 5827424.6 | 1261 | J4 | 6 | 9 | 3 | 0.04 |
| Madre | 604405.4 | 5827424.6 | 1261 | J4 | 9 | 12 | 3 | 0.18 |
| Madre | 604410.8 | 5827421.6 | 1261 | K1 | 0 | 3 | 3 | 0.08 |
| Madre | 604410.8 | 5827421.6 | 1261 | K1 | 3 | 6 | 3 | 0.12 |
| Madre | 604410.8 | 5827421.6 | 1261 | K1 | 6 | 9 | 3 | 0.06 |
| Madre | 604410.8 | 5827421.6 | 1261 | K1 | 9 | 12 | 3 | 0.10 |
| Madre | 604408.7 | 5827417.1 | 1263 | K2 | 0 | 3 | 3 | 0.32 |
| Madre | 604408.7 | 5827417.1 | 1263 | K2 | 3 | 6 | 3 | 0.16 |
| Madre | 604408.7 | 5827417.1 | 1263 | K2 | 6 | 9 | 3 | 0.12 |
| Madre | 604408.7 | 5827417.1 | 1263 | K2 | 9 | 13 | 4 | 0.12 |
| Madre | 604405.7 | 5827410.4 | 1262 | K3 | 0 | 3 | 3 | 0.12 |
| Madre | 604405.7 | 5827410.4 | 1262 | K3 | 3 | 6 | 3 | 0.08 |
| Madre | 604405.7 | 5827410.4 | 1262 | K3 | 6 | 9 | 3 | 0.02 |
| Madre | 604405.7 | 5827410.4 | 1262 | K3 | 9 | 12 | 3 | 0.24 |
| Madre | 604402.8 | 5827405.0 | 1262 | K4 | 0 | 3 | 3 | 0.04 |

| Zone | UTM Grid | | Elev. | Hole | Interval (m) | | | Gold |
|---|---|---|---|---|---|---|---|---|
| | Northing | Easting | (m) | # | From | To | Length | (g/t) |
| Madre | 604402.8 | 5827405.0 | 1262 | K4 | 3 | 6 | 3 | 0.24 |
| Madre | 604402.8 | 5827405.0 | 1262 | K4 | 6 | 9 | 3 | 0.18 |
| Madre | 604402.8 | 5827405.0 | 1262 | K4 | 9 | 12 | 3 | 0.12 |
| Madre | 604361.0 | 5827469.7 | 1245 | N1 | 0 | 3 | 3 | 2.24 |
| Madre | 604362.9 | 5827476.2 | 1244 | N2 | 0 | 3 | 3 | 1.00 |
| M5 | 604439.9 | 5827517.6 | 1226 | A1 | 0 | 7 | 7 | 0.01 |
| M5 | 604438.5 | 5827517.6 | 1227 | A2 | 0 | 7 | 7 | 0.10 |
| M5 | 604435.7 | 5827518.3 | 1225 | A3 | 0 | 7 | 7 | 0.26 |
| M5 | 604434.0 | 5827519.8 | 1226 | A4 | 0 | 7 | 7 | 0.16 |
| M5 | 604439.2 | 5827518.8 | 1226 | B1 | 0 | 6 | 6 | 0.14 |
| M5 | 604439.2 | 5827518.8 | 1226 | B1 | 6 | 9 | 3 | 0.16 |
| M5 | 604441.3 | 5827518.6 | 1225 | B2 | 0 | 6 | 6 | 0.04 |
| M5 | 604441.3 | 5827518.6 | 1225 | B2 | 6 | 9 | 3 | 0.01 |
| M5 | 604437.6 | 5827519.4 | 1225 | B3 | 0 | 6 | 6 | 0.08 |
| M5 | 604437.6 | 5827519.4 | 1225 | B3 | 6 | 9 | 3 | 0.02 |
| M5 | 604435.9 | 5827520.4 | 1224 | B4 | 0 | 6 | 6 | 0.20 |
| M5 | 604435.9 | 5827520.4 | 1224 | B4 | 6 | 9 | 3 | 0.14 |
| M5 | 604434.5 | 5827521.1 | 1224 | B5 | 0 | 6 | 6 | 0.38 |
| M5 | 604434.5 | 5827521.1 | 1224 | B5 | 6 | 9 | 3 | 0.22 |
| M5 | 604442.0 | 5827520.6 | 1223 | C1 | 0 | 6 | 6 | 0.12 |
| M5 | 604442.0 | 5827520.6 | 1223 | C1 | 6 | 9 | 3 | 0.22 |
| M5 | 604440.1 | 5827520.6 | 1223 | C2 | 0 | 6 | 6 | 0.04 |
| M5 | 604440.1 | 5827520.6 | 1223 | C2 | 6 | 9 | 3 | 0.42 |
| M5 | 604438.3 | 5827521.5 | 1223 | C3 | 0 | 6 | 6 | 0.01 |
| M5 | 604438.3 | 5827521.5 | 1223 | C3 | 6 | 9 | 3 | 0.01 |
| M5 | 604436.6 | 5827522.4 | 1223 | C4 | 0 | 6 | 6 | 0.06 |
| M5 | 604436.6 | 5827522.4 | 1223 | C4 | 6 | 8 | 2 | 0.01 |
| M5 | 604435.8 | 5827522.9 | 1223 | C5 | 0 | 6 | 6 | 0.17 |
| M5 | 604435.8 | 5827522.9 | 1223 | C5 | 6 | 9 | 3 | 0.08 |
| M5 | 604442.8 | 5827522.6 | 1222 | D1 | 0 | 6 | 6 | 0.13 |
| M5 | 604442.8 | 5827522.6 | 1222 | D1 | 6 | 8 | 2 | 0.10 |
| M5 | 604440.7 | 5827522.4 | 1222 | D2 | 0 | 6 | 6 | 0.04 |
| M5 | 604440.7 | 5827522.4 | 1222 | D2 | 6 | 8 | 2 | 0.08 |
| M5 | 604438.8 | 5827523.2 | 1222 | D3 | 0 | 6 | 6 | 0.34 |
| M5 | 604438.8 | 5827523.2 | 1222 | D3 | 6 | 8 | 2 | 0.16 |
| M5 | 604437.0 | 5827523.9 | 1222 | D4 | 0 | 6 | 6 | 0.27 |
| M5 | 604437.0 | 5827523.9 | 1222 | D4 | 6 | 8 | 2 | 0.04 |
| M5 | 604435.3 | 5827524.8 | 1223 | D5 | 0 | 6 | 6 | 0.39 |
| M5 | 604435.3 | 5827524.8 | 1223 | D5 | 6 | 8 | 2 | 0.34 |
| M5 | 604443.5 | 5827524.4 | 1221 | E1 | 0 | 7 | 7 | 0.18 |
| M5 | 604441.7 | 5827523.9 | 1222 | E2 | 0 | 7 | 7 | 0.04 |
| M5 | 604439.9 | 5827524.5 | 1222 | E3 | 0 | 7 | 7 | 0.25 |
| M5 | 604438.0 | 5827525.3 | 1221 | E4 | 0 | 7 | 7 | 2.09 |

| Zone | UTM Grid | | Elev. | Hole | Interval (m) | | | Gold |
|---|---|---|---|---|---|---|---|---|
| | Northing | Easting | (m) | # | From | To | Length | (g/t) |
| M5 | 604436.2 | 5827525.2 | 1222 | E5 | 0 | 6 | 6 | 0.16 |
| M5 | 604436.2 | 5827525.2 | 1222 | E5 | 6 | 8 | 2 | 0.06 |
| M5 | 604434.7 | 5827526.1 | 1222 | E6 | 0 | 7 | 7 | 0.88 |
| M5 | 604444.4 | 5827525.4 | 1221 | F1 | 0 | 6 | 6 | 0.07 |
| M5 | 604442.5 | 5827525.7 | 1222 | F2 | 0 | 6 | 6 | 0.05 |
| M5 | 604440.7 | 5827526.1 | 1222 | F3 | 0 | 6 | 6 | 0.14 |
| M5 | 604439.0 | 5827527.1 | 1221 | F4 | 0 | 6 | 6 | 8.05 |
| M5 | 604436.9 | 5827527.4 | 1221 | F5 | 0 | 6 | 6 | 0.72 |
| M5 | 604435.2 | 5827528.0 | 1221 | F6 | 0 | 6 | 6 | 0.36 |
| M5 | 604433.5 | 5827529.3 | 1220 | F7 | 0 | 6 | 6 | 0.10 |
| M5 | 604432.9 | 5827531.1 | 1220 | G1 | 0 | 6 | 6 | 0.10 |
| M5 | 604434.8 | 5827530.9 | 1221 | G2 | 0 | 6 | 6 | 0.16 |
| M5 | 604433.2 | 5827532.9 | 1221 | G3 | 0 | 6 | 6 | 0.30 |
| M5 | 604436.3 | 5827529.9 | 1220 | G4 | 0 | 6 | 6 | 0.68 |
| M5 | 604437.9 | 5827529.0 | 1221 | G5 | 0 | 6 | 6 | 0.26 |
| M5 | 604440.1 | 5827528.9 | 1221 | G6 | 0 | 6 | 6 | 0.18 |
| M5 | 604441.8 | 5827528.1 | 1221 | G7 | 0 | 6 | 6 | 0.20 |
| M5 | 604443.3 | 5827527.5 | 1221 | G8 | 0 | 6 | 6 | 0.02 |
| M5 | 604442.6 | 5827529.9 | 1221 | H1 | 0 | 5 | 5 | 0.10 |
| M5 | 604440.9 | 5827530.7 | 1221 | H2 | 0 | 5 | 5 | 0.36 |
| M5 | 604439.1 | 5827531.1 | 1221 | H3 | 0 | 5 | 5 | 0.40 |
| M5 | 604437.1 | 5827531.9 | 1220 | H4 | 0 | 5 | 5 | 0.56 |
| M5 | 604435.3 | 5827532.4 | 1220 | H5 | 0 | 5 | 5 | 0.02 |
| M5 | 604443.2 | 5827531.7 | 1220 | I1 | 0 | 5 | 5 | 0.44 |
| M5 | 604441.6 | 5827532.4 | 1220 | I2 | 0 | 5 | 5 | 0.16 |
| M5 | 604439.8 | 5827533.0 | 1220 | I3 | 0 | 5 | 5 | 0.16 |
| M5 | 604437.9 | 5827533.5 | 1220 | I4 | 0 | 5 | 5 | 0.06 |
| M5 | 604436.0 | 5827534.1 | 1220 | I5 | 0 | 5 | 5 | 0.01 |
| M5 | 604434.1 | 5827534.9 | 1220 | I6 | 0 | 6 | 6 | 4.40 |
| M5 | 604432.4 | 5827535.3 | 1220 | I7 | 0 | 5 | 5 | 4.88 |
| M5 | 604431.5 | 5827537.0 | 1219 | I8 | 0 | 4 | 4 | 0.16 |
| M5 | 604443.2 | 5827532.7 | 1219 | J1 | 0 | 4 | 4 | 0.12 |
| M5 | 604441.5 | 5827533.5 | 1219 | J2 | 0 | 4 | 4 | 0.10 |
| M5 | 604438.2 | 5827535.0 | 1220 | J4 | 0 | 4 | 4 | 0.28 |
| M5 | 604436.4 | 5827535.7 | 1220 | J5 | 0 | 4 | 4 | 0.24 |
| M5 | 604434.8 | 5827536.6 | 1220 | J6 | 0 | 4 | 4 | 0.24 |
| M5 | 604433.0 | 5827537.3 | 1220 | J7 | 0 | 4 | 4 | 0.16 |
| M5 | | | | J8 | 0 | 4 | 4 | 6.66 |
| M5 | 604441.7 | 5827535.2 | 1218 | K1 | 0 | 4 | 4 | 0.06 |
| M5 | 604439.9 | 5827536.3 | 1219 | K2 | 0 | 3 | 3 | 0.28 |
| M5 | 604438.2 | 5827536.8 | 1219 | K3 | 0 | 4 | 4 | 0.58 |
| M5 | 604436.2 | 5827536.7 | 1219 | K4 | 0 | 4 | 4 | 5.74 |
| M5 | 604434.6 | 5827538.4 | 1220 | K5 | 0 | 4 | 4 | 4.00 |

| Zone | UTM Grid | | Elev. | Hole | Interval (m) | | | Gold |
|---|---|---|---|---|---|---|---|---|
| | Northing | Easting | (m) | # | From | To | Length | (g/t) |
| M5 | 604433.0 | 5827539.0 | 1220 | K6 | 0 | 3 | 3 | 0.28 |
| M5 | 604431.1 | 5827538.7 | 1219 | K7 | 0 | 3 | 3 | 0.36 |
| LE | 604403.3 | 5827703.5 | 1186 | A1 | 0 | 3 | 3 | 1.94 |
| LE | 604401.9 | 5827705.2 | 1186 | A2 | 0 | 3 | 3 | 1.58 |
| LE | 604400.5 | 5827706.6 | 1185 | A3 | 0 | 3 | 3 | 2.28 |
| LE | 604399.2 | 5827707.8 | 1185 | A4 | 0 | 3 | 3 | 3.34 |
| LE | 604397.7 | 5827709.2 | 1185 | A5 | 0 | 3 | 3 | 0.70 |
| LE | 604396.9 | 5827710.7 | 1185 | A6 | 0 | 3 | 3 | 1.30 |
| LE | 604401.6 | 5827702.5 | 1185 | B1 | 0 | 3 | 3 | 0.56 |
| LE | 604400.5 | 5827703.9 | 1185 | B2 | 0 | 3 | 3 | 2.28 |
| LE | 604399.3 | 5827705.4 | 1185 | B3 | 0 | 3 | 3 | 2.60 |
| LE | 604398.1 | 5827706.8 | 1185 | B4 | 0 | 3 | 3 | 0.34 |
| LE | 604396.9 | 5827708.1 | 1185 | B5 | 0 | 3 | 3 | 0.78 |
| LE | 604395.5 | 5827709.2 | 1185 | B6 | 0 | 3 | 3 | 1.04 |
| LE | 604400.6 | 5827701.0 | 1185 | C1 | 0 | 3 | 3 | 1.64 |
| LE | 604399.3 | 5827702.6 | 1186 | C2 | 0 | 3 | 3 | 1.52 |
| LE | 604397.9 | 5827703.9 | 1186 | C3 | 0 | 3 | 3 | 0.46 |
| LE | 604396.7 | 5827705.3 | 1186 | C4 | 0 | 3 | 3 | 0.10 |
| LE | 604395.4 | 5827706.7 | 1185 | C5 | 0 | 3 | 3 | 0.36 |
| LE | 604394.1 | 5827708.2 | 1185 | C6 | 0 | 3 | 3 | 0.50 |
| LE | 604399.4 | 5827699.2 | 1186 | D1 | 0 | 3 | 3 | 1.46 |
| LE | 604397.9 | 5827700.6 | 1186 | D2 | 0 | 3 | 3 | 1.42 |
| LE | 604396.6 | 5827702.4 | 1186 | D3 | 0 | 3.5 | 3.5 | 0.94 |
| LE | 604395.6 | 5827703.8 | 1186 | D4 | 0 | 3 | 3 | 0.60 |
| LE | 604395.6 | 5827703.8 | 1186 | D4 | 0 | 3 | 3 | 0.46 |
| LE | 604394.0 | 5827705.4 | 1186 | D6 | 0 | 3 | 3 | 1.16 |
| LE | 604399.6 | 5827696.6 | 1185 | E1 | 0 | 3 | 3 | 5.74 |
| LE | 604398.0 | 5827697.8 | 1187 | E2 | 0 | 3 | 3 | 4.86 |
| LE | 604396.7 | 5827699.3 | 1187 | E3 | 0 | 3 | 3 | 4.48 |
| LE | 604395.1 | 5827700.8 | 1187 | E4 | 0 | 3 | 3 | 4.06 |
| LE | 604393.9 | 5827702.1 | 1187 | E5 | 0 | 3.5 | 3.5 | 0.36 |
| LE | 604392.4 | 5827703.6 | 1187 | E6 | 0 | 3.5 | 3.5 | 1.36 |
| LE | 604391.2 | 5827705.0 | 1187 | E7 | 0 | 3 | 3 | 0.42 |
| LE | 604399.9 | 5827693.0 | 1188 | F1 | 0 | 3 | 3 | 2.12 |
| LE | 604398.9 | 5827695.0 | 1188 | F2 | 0 | 3 | 3 | 4.14 |
| LE | 604397.0 | 5827695.7 | 1188 | F3 | 0 | 3 | 3 | 3.16 |
| LE | 604397.0 | 5827695.7 | 1188 | F3 | 3 | 5 | 2 | 2.32 |
| LE | 604395.7 | 5827697.3 | 1188 | F4 | 0 | 4 | 4 | 3.16 |
| LE | 604394.4 | 5827699.0 | 1188 | F5 | 0 | 4 | 4 | 1.36 |
| LE | 604393.3 | 5827700.4 | 1188 | F6 | 0 | 4 | 4 | 1.92 |
| LE | 604391.9 | 5827701.9 | 1188 | F7 | 0 | 4 | 4 | 1.06 |
| LE | 604390.0 | 5827703.4 | 1187 | F8 | 0 | 4 | 4 | 0.62 |
| LE | 604388.7 | 5827704.8 | 1188 | F9 | 0 | 3 | 3 | 0.64 |

| Zone | UTM Grid | | Elev. | Hole | Interval (m) | | | Gold |
|---|---|---|---|---|---|---|---|---|
| | Northing | Easting | (m) | # | From | To | Length | (g/t) |
| LE | 604398.9 | 5827691.9 | 1188 | G1 | 0 | 4 | 4 | 2.08 |
| LE | 604397.1 | 5827693.0 | 1188 | G2 | 0 | 3 | 3 | 3.38 |
| LE | 604397.1 | 5827693.0 | 1188 | G2 | 3 | 5 | 2 | 3.94 |
| LE | 604395.7 | 5827694.5 | 1188 | G3 | 0 | 3 | 3 | 14.40 |
| LE | 604395.7 | 5827694.5 | 1188 | G3 | 3 | 5 | 2 | 0.86 |
| LE | 604394.5 | 5827696.2 | 1188 | G4 | 0 | 3 | 3 | 2.46 |
| LE | 604394.5 | 5827696.2 | 1188 | G4 | 3 | 5 | 2 | 0.88 |
| LE | 604393.2 | 5827697.8 | 1189 | G5 | 0 | 3 | 3 | 1.76 |
| LE | 604393.2 | 5827697.8 | 1189 | G5 | 3 | 5 | 2 | 1.52 |
| LE | 604392.0 | 5827699.7 | 1189 | G6 | 0 | 3 | 3 | 0.72 |
| LE | 604392.0 | 5827699.7 | 1189 | G6 | 3 | 5 | 2 | 0.76 |
| LE | 604390.6 | 5827700.7 | 1188 | G7 | 0 | 3 | 3 | 1.18 |
| LE | 604390.6 | 5827700.7 | 1188 | G7 | 3 | 5 | 2 | 0.98 |
| LE | 604389.0 | 5827702.0 | 1188 | G8 | 0 | 4 | 4 | 0.50 |
| LE | 604387.5 | 5827703.5 | 1188 | G9 | 0 | 3 | 3 | 0.64 |
| LE | 604403.2 | 5827685.8 | 1191 | H1 | 0 | 5 | 5 | 1.28 |
| LE | 604390.3 | 5827697.8 | 1188 | H10 | 0 | 3 | 3 | 2.62 |
| LE | 604390.3 | 5827697.8 | 1188 | H10 | 3 | 5 | 2 | 0.72 |
| LE | 604388.7 | 5827699.2 | 1188 | H11 | 0 | 3 | 3 | 2.28 |
| LE | 604388.7 | 5827699.2 | 1188 | H11 | 3 | 5 | 2 | 1.22 |
| LE | 604387.7 | 5827700.7 | 1188 | H12 | 0 | 3 | 3 | 0.18 |
| LE | 604387.7 | 5827700.7 | 1188 | H12 | 3 | 5 | 2 | 0.24 |
| LE | 604386.6 | 5827702.1 | 1189 | H13 | 0 | 3 | 3 | 0.84 |
| LE | 604386.6 | 5827702.1 | 1189 | H13 | 3 | 5 | 2 | 0.20 |
| LE | 604401.2 | 5827687.0 | 1190 | H2 | 0 | 5 | 5 | 1.34 |
| LE | 604400.0 | 5827688.0 | 1189 | H3 | 0 | 6 | 6 | 3.48 |
| LE | 604398.5 | 5827689.2 | 1188 | H4 | 0 | 5 | 5 | 1.50 |
| LE | 604397.1 | 5827690.4 | 1188 | H5 | 0 | 4 | 4 | 2.22 |
| LE | 604395.7 | 5827692.0 | 1188 | H6 | 0 | 3 | 3 | 2.70 |
| LE | 604395.7 | 5827692.0 | 1188 | H6 | 3 | 5 | 2 | 1.06 |
| LE | 604394.4 | 5827693.4 | 1187 | H7 | 0 | 3 | 3 | 2.76 |
| LE | 604394.4 | 5827693.4 | 1187 | H7 | 3 | 5 | 2 | 0.98 |
| LE | 604393.0 | 5827694.8 | 1188 | H8 | 0 | 3 | 3 | 1.42 |
| LE | 604393.0 | 5827694.8 | 1188 | H8 | 3 | 5 | 2 | 0.80 |
| LE | 604391.8 | 5827696.5 | 1188 | H9 | 0 | 3 | 3 | 2.30 |
| LE | 604391.8 | 5827696.5 | 1188 | H9 | 3 | 5 | 2 | 0.84 |
| LE | 604401.7 | 5827683.9 | 1191 | I1 | 0 | 5 | 5 | 1.54 |
| LE | 604389.4 | 5827696.5 | 1189 | I10 | 0 | 5 | 5 | 0.12 |
| LE | 604387.9 | 5827697.8 | 1189 | I11 | 0 | 5 | 5 | 0.82 |
| LE | 604386.6 | 5827699.0 | 1189 | I12 | 0 | 6 | 6 | |
| LE | 604385.2 | 5827700.4 | 1189 | I13 | 0 | 6 | 6 | 0.36 |
| LE | 604400.3 | 5827685.5 | 1190 | I2 | 0 | 5 | 5 | 1.62 |
| LE | 604398.9 | 5827686.7 | 1189 | I3 | 0 | 6 | 6 | 1.92 |

| Zone | UTM Grid | | Elev. | Hole | Interval (m) | | | Gold |
|---|---|---|---|---|---|---|---|---|
| | Northing | Easting | (m) | # | From | To | Length | (g/t) |
| LE | 604397.4 | 5827688.2 | 1189 | I4 | 0 | 5 | 5 | 1.34 |
| LE | 604396.2 | 5827689.3 | 1188 | I5 | 0 | 5 | 5 | 0.54 |
| LE | 604394.8 | 5827690.8 | 1188 | I6 | 0 | 5 | 5 | 1.98 |
| LE | 604393.6 | 5827692.0 | 1188 | I7 | 0 | 5 | 5 | 2.48 |
| LE | 604392.2 | 5827693.4 | 1189 | I8 | 0 | 5 | 5 | 0.66 |
| LE | 604390.8 | 5827695.1 | 1189 | I9 | 0 | 6 | 6 | 1.86 |
| LE | 604400.2 | 5827682.3 | 1191 | J1 | 0 | 5 | 5 | 1.20 |
| LE | 604388.1 | 5827695.2 | 1189 | J10 | 0 | 6 | 6 | 0.12 |
| LE | 604386.8 | 5827696.5 | 1189 | J11 | 0 | 6 | 6 | 0.14 |
| LE | 604385.5 | 5827697.4 | 1189 | J12 | 0 | 6 | 6 | 0.46 |
| LE | 604384.2 | 5827699.0 | 1190 | J13 | 0 | 6 | 6 | 0.10 |
| LE | 604398.8 | 5827683.9 | 1190 | J2 | 0 | 6 | 6 | 17.20 |
| LE | 604397.5 | 5827685.3 | 1190 | J3 | 0 | 6 | 6 | 1.52 |
| LE | 604396.1 | 5827686.9 | 1189 | J4 | 0 | 5 | 5 | 1.60 |
| LE | 604394.8 | 5827687.9 | 1189 | J5 | 0 | 5 | 5 | 2.34 |
| LE | 604393.6 | 5827689.3 | 1189 | J6 | 0 | 6 | 6 | 0.88 |
| LE | 604392.2 | 5827690.7 | 1189 | J7 | 0 | 5 | 5 | 1.72 |
| LE | 604390.5 | 5827691.9 | 1189 | J8 | 0 | 5 | 5 | 1.14 |
| LE | 604389.2 | 5827693.6 | 1189 | J9 | 0 | 6 | 6 | 0.46 |
| LE | 604399.1 | 5827680.7 | 1191 | K1 | 0 | 6 | 6 | 3.76 |
| LE | 604386.8 | 5827693.0 | 1190 | K10 | 0 | 6 | 6 | 0.24 |
| LE | 604385.5 | 5827694.1 | 1190 | K11 | 0 | 6 | 6 | 0.30 |
| LE | 604383.8 | 5827695.9 | 1190 | K12 | 0 | 6 | 6 | 0.46 |
| LE | 604382.2 | 5827697.2 | 1190 | K13 | 0 | 6 | 6 | 0.06 |
| LE | 604397.7 | 5827682.0 | 1191 | K2 | 0 | 6 | 6 | 2.64 |
| LE | 604396.4 | 5827683.5 | 1190 | K3 | 0 | 6 | 6 | 3.06 |
| LE | 604395.3 | 5827684.7 | 1190 | K4 | 0 | 6 | 6 | 1.36 |
| LE | 604393.7 | 5827686.1 | 1190 | K5 | 0 | 6 | 6 | 1.72 |
| LE | 604392.7 | 5827687.3 | 1190 | K6 | 0 | 6 | 6 | 2.06 |
| LE | 604391.1 | 5827689.0 | 1190 | K7 | 0 | 6 | 6 | 1.80 |
| LE | 604389.6 | 5827690.0 | 1190 | K8 | 0 | 5 | 5 | 1.48 |
| LE | 604388.1 | 5827691.7 | 1190 | K9 | 0 | 6 | 6 | 0.44 |
| LE | 604397.7 | 5827679.6 | 1191 | L1 | 0 | 7 | 7 | 3.20 |
| LE | 604385.6 | 5827691.9 | 1190 | L10 | 0 | 7 | 7 | 0.22 |
| LE | 604384.3 | 5827693.2 | 1190 | L11 | 0 | 7 | 7 | 0.12 |
| LE | 604382.8 | 5827694.6 | 1190 | L12 | 0 | 7 | 7 | 0.40 |
| LE | 604396.3 | 5827680.8 | 1191 | L2 | 0 | 7 | 7 | 2.08 |
| LE | 604395.1 | 5827682.3 | 1191 | L3 | 0 | 7 | 7 | 1.38 |
| LE | 604394.1 | 5827683.4 | 1190 | L4 | 0 | 6 | 6 | 3.27 |
| LE | 604392.7 | 5827684.6 | 1190 | L5 | 0 | 6 | 6 | 2.10 |
| LE | 604391.4 | 5827686.2 | 1191 | L6 | 0 | 7 | 7 | 2.02 |
| LE | 604389.7 | 5827687.8 | 1190 | L7 | 0 | 7 | 7 | 3.80 |
| LE | 604388.6 | 5827689.3 | 1190 | L8 | 0 | 6 | 6 | 2.12 |

| Zone | UTM Grid | | Elev. | Hole | Interval (m) | | | Gold |
|---|---|---|---|---|---|---|---|---|
| | Northing | Easting | (m) | # | From | To | Length | (g/t) |
| LE | 604386.9 | 5827690.4 | 1190 | L9 | 0 | 7 | 7 | 0.88 |
| LE | 604396.7 | 5827678.0 | 1193 | M1 | 0 | 6 | 6 | 2.90 |
| LE | 604396.7 | 5827678.0 | 1193 | M1 | 6 | 8 | 2 | 1.98 |
| LE | 604384.3 | 5827690.9 | 1191 | M10 | 0 | 7 | 7 | 0.34 |
| LE | 604382.9 | 5827691.9 | 1191 | M11 | 0 | 7 | 7 | 0.20 |
| LE | 604381.5 | 5827693.2 | 1191 | M12 | 0 | 7 | 7 | 0.04 |
| LE | 604395.4 | 5827679.3 | 1192 | M2 | 0 | 6 | 6 | 2.08 |
| LE | 604395.4 | 5827679.3 | 1192 | M2 | 6 | 8 | 2 | 0.64 |
| LE | 604394.0 | 5827680.7 | 1192 | M3 | 0 | 7 | 7 | 1.98 |
| LE | 604392.5 | 5827682.2 | 1191 | M4 | 0 | 7 | 7 | 2.27 |
| LE | 604391.3 | 5827683.7 | 1191 | M5 | 0 | 7 | 7 | 3.04 |
| LE | 604389.8 | 5827685.1 | 1192 | M6 | 0 | 6 | 6 | 1.32 |
| LE | 604389.8 | 5827685.1 | 1192 | M6 | 6 | 8 | 2 | 3.14 |
| LE | 604388.5 | 5827686.8 | 1192 | M7 | 0 | 6 | 6 | 0.58 |
| LE | 604388.5 | 5827686.8 | 1192 | M7 | 6 | 8 | 2 | 7.45 |
| LE | 604387.1 | 5827688.2 | 1192 | M8 | 0 | 7 | 7 | 0.46 |
| LE | 604385.6 | 5827689.5 | 1192 | M9 | 0 | 7 | 7 | 0.20 |
| LE | 604395.6 | 5827676.3 | 1193 | N1 | 0 | 4 | 4 | 2.26 |
| LE | 604383.1 | 5827688.9 | 1192 | N10 | 0 | 4 | 4 | 0.22 |
| LE | 604381.6 | 5827690.1 | 1192 | N11 | 0 | 4 | 4 | 0.86 |
| LE | 604380.6 | 5827691.1 | 1191 | N12 | 0 | 4 | 4 | 1.76 |
| LE | 604394.4 | 5827677.6 | 1192 | N2 | 0 | 4 | 4 | 2.38 |
| LE | 604393.1 | 5827679.1 | 1192 | N3 | 0 | 4 | 4 | 1.42 |
| LE | 604391.6 | 5827680.6 | 1191 | N4 | 0 | 4 | 4 | 2.10 |
| LE | 604390.2 | 5827682.1 | 1191 | N5 | 0 | 4 | 4 | 0.42 |
| LE | 604389.1 | 5827683.6 | 1192 | N6 | 0 | 4 | 4 | 0.90 |
| LE | 604387.5 | 5827684.9 | 1192 | N7 | 0 | 4 | 4 | 0.34 |
| LE | 604386.0 | 5827686.3 | 1193 | N8 | 0 | 4 | 4 | 0.34 |
| LE | 604384.6 | 5827687.5 | 1193 | N9 | 0 | 4 | 4 | 0.08 |
| LE | 604394.5 | 5827674.8 | 1193 | O1 | 0 | 5 | 5 | 1.52 |
| LE | 604381.8 | 5827687.3 | 1192 | O10 | 0 | 5 | 5 | 0.36 |
| LE | 604380.4 | 5827688.5 | 1192 | O11 | 0 | 4 | 4 | 0.86 |
| LE | 604379.0 | 5827689.6 | 1192 | O12 | 0 | 4 | 4 | 1.24 |
| LE | 604393.3 | 5827676.1 | 1193 | O2 | 0 | 5 | 5 | 1.82 |
| LE | 604391.9 | 5827677.6 | 1193 | O3 | 0 | 4 | 4 | 0.90 |
| LE | 604390.3 | 5827679.3 | 1192 | O4 | 0 | 4 | 4 | 1.10 |
| LE | 604388.9 | 5827680.8 | 1192 | O5 | 0 | 4 | 4 | 1.60 |
| LE | 604387.3 | 5827681.9 | 1193 | O6 | 0 | 5 | 5 | 0.74 |
| LE | 604386.0 | 5827683.3 | 1193 | O7 | 0 | 4 | 4 | 0.80 |
| LE | 604384.4 | 5827684.3 | 1193 | O8 | 0 | 4 | 4 | 0.86 |
| LE | 604383.1 | 5827685.7 | 1193 | O9 | 0 | 5 | 5 | 1.32 |
| LE | 604393.5 | 5827673.1 | 1194 | P1 | 0 | 5 | 5 | 1.10 |
| LE | 604380.6 | 5827685.7 | 1193 | P10 | 0 | 5 | 5 | 0.86 |

| Zone | UTM Grid | | Elev. | Hole | Interval (m) | | | Gold |
|---|---|---|---|---|---|---|---|---|
| | Northing | Easting | (m) | # | From | To | Length | (g/t) |
| LE | 604379.1 | 5827687.1 | 1193 | P11 | 0 | 5 | 5 | 2.00 |
| LE | 604377.8 | 5827689.5 | 1193 | P12 | 0 | 5 | 5 | 2.04 |
| LE | 604392.2 | 5827674.4 | 1194 | P2 | 0 | 5 | 5 | 0.86 |
| LE | 604390.9 | 5827675.8 | 1193 | P3 | 0 | 5 | 5 | 0.98 |
| LE | 604389.5 | 5827677.3 | 1193 | P4 | 0 | 5 | 5 | 0.96 |
| LE | 604388.0 | 5827678.7 | 1193 | P5 | 0 | 5 | 5 | 0.36 |
| LE | 604386.4 | 5827679.8 | 1193 | P6 | 0 | 5 | 5 | 0.42 |
| LE | 604385.1 | 5827681.1 | 1194 | P7 | 0 | 4 | 4 | 0.70 |
| LE | 604383.5 | 5827682.4 | 1194 | P8 | 0 | 4 | 4 | 0.92 |
| LE | 604381.9 | 5827684.0 | 1193 | P9 | 0 | 5 | 5 | 0.72 |
| LE | 604389.2 | 5827675.0 | 1194 | Q1 | 0 | 5 | 5 | 0.94 |
| LE | 604379.3 | 5827684.4 | 1195 | Q10 | 0 | 5 | 5 | 1.28 |
| LE | 604378.1 | 5827685.5 | 1195 | Q11 | 0 | 5 | 5 | 2.04 |
| LE | 604387.8 | 5827676.2 | 1194 | Q2 | 0 | 5 | 5 | 3.58 |
| LE | 604386.2 | 5827677.6 | 1194 | Q3 | 0 | 5 | 5 | 0.50 |
| LE | 604384.8 | 5827678.7 | 1194 | Q4 | 0 | 6 | 6 | 0.24 |
| LE | 604383.5 | 5827680.1 | 1194 | Q5 | 0 | 5 | 5 | 0.22 |
| LE | 604382.1 | 5827681.4 | 1195 | Q6 | 0 | 6 | 6 | 0.78 |
| LE | 604380.8 | 5827683.0 | 1195 | Q9 | 0 | 5.5 | 5.5 | 0.70 |
| LE | 604384.7 | 5827676.5 | 1195 | R1 | 0 | 6 | 6 | 0.40 |
| LE | 604383.2 | 5827677.4 | 1195 | R2 | 0 | 6 | 6 | 0.24 |
| LE | 604381.5 | 5827678.7 | 1195 | R3 | 0 | 6 | 6 | 0.40 |
| LE | 604380.9 | 5827677.5 | 1193 | R4 | 0 | 6 | 6 | 0.24 |
| LE | 604379.6 | 5827681.5 | 1194 | R5 | 0 | 6 | 6 | 11.58 |
| LE | 604378.1 | 5827683.0 | 1195 | R6 | 0 | 6 | 6 | 1.62 |
| LE | 604377.0 | 5827684.2 | 1196 | R8 | 0 | 6 | 6 | 1.92 |
| LE | 604383.4 | 5827675.0 | 1196 | S1 | 0 | 6 | 6 | 0.74 |
| LE | 604382.0 | 5827676.2 | 1196 | S2 | 0 | 6 | 6 | 0.14 |
| LE | | | | S3 | 0 | 6 | 6 | 0.34 |
| LE | 604382.3 | 5827673.6 | 1196 | T1 | 0 | 7 | 7 | 0.22 |
| LE | 604380.8 | 5827674.8 | 1196 | T2 | 0 | 7 | 7 | 0.20 |
| Don TH | 604586.9 | 5828409.0 | 958.7 | 1 | 2.5 | 9.5 | 7 | 0.02 |
| Don TH | 604584.1 | 5828413.3 | 954.0 | 2 | 2.5 | 7.5 | 5 | 0.02 |
| Don TH | 604584.3 | 5828417.0 | 954.6 | 3 | 2.5 | 9.5 | 7 | 0.04 |
| Don TH | 604585.7 | 5828421.6 | 962.7 | 4 | 2.5 | 9.5 | 7 | 0.02 |
| Don TH | 604581.4 | 5828423.7 | 953.5 | 5 | 2 | 9 | 7 | 0.08 |
| Don TH | 604579.0 | 5828427.1 | 952.9 | 6 | 2 | 9 | 7 | 0.04 |
| Don TH | 604576.8 | 5828431.5 | 952.5 | 7 | 2.5 | 9.5 | 7 | 0.68 |
| Don TH | 604576.1 | 5828435.0 | 952.6 | 8 | 2.5 | 9.5 | 7 | 0.72 |
| Don TH | 604574.9 | 5828438.6 | 951.0 | 9 | 3 | 10 | 7 | 0.62 |
| Don TH | | | | 10 | 2.5 | 9.5 | 7 | 0.70 |
| Dodge TH | 604504.8 | 5828612.0 | | 1 | 0 | 7 | 7 | 1.16 |
| Dodge TH | 604504.8 | 5828612.0 | | 1 | 7 | 15 | 8 | 0.42 |

| Zone | UTM Grid | | Elev. | Hole | Interval (m) | | | Gold |
|---|---|---|---|---|---|---|---|---|
| | Northing | Easting | (m) | # | From | To | Length | (g/t) |
| Dodge TH | 604501.6 | 5828613.5 | | 2 | 0 | 7 | 7 | 0.70 |
| Dodge TH | 604501.6 | 5828613.5 | | 2 | 7 | 15 | 8 | 0.66 |
| Dodge TH | 604498.4 | 5828615.2 | | 3 | 0 | 7 | 7 | 0.16 |
| Dodge TH | 604498.4 | 5828615.2 | | 3 | 7 | 15 | 8 | 0.62 |
| Dodge TH | 604495.5 | 5828617.2 | | 4 | 0 | 7 | 7 | 0.24 |
| Dodge TH | 604495.5 | 5828617.2 | | 4 | 7 | 15 | 8 | 0.38 |
| Dodge TH | 604492.5 | 5828619.0 | | 5 | 0 | 7 | 7 | 0.24 |
| Dodge TH | 604492.5 | 5828619.0 | | 5 | 7 | 15 | 8 | 0.42 |
| Dodge TH | 604542.0 | 5828633.6 | | 6 | 2 | 9 | 7 | 0.26 |
| Dodge TH | 604544.5 | 5828631.0 | | 7 | 1 | 8 | 7 | 0.24 |
| Dodge TH | 604546.6 | 5828629.1 | | 8 | 1 | 8 | 7 | 0.20 |
| Dodge TH | | | | 9 | 0 | 7 | 7 | 0.18 |
| Dodge TH | | | | 10 | 0 | 7 | 7 | 0.14 |
| Dodge TH | | | | 11 | 0 | 7 | 7 | 0.26 |
| Dodge TH | | | | 12 | 0 | 7 | 7 | 0.40 |
| Dodge TH | | | | 13 | 0 | 7 | 7 | 1.90 |
| Dodge | 604438.4 | 5828594.3 | | A1 | 0 | 6 | 6 | 0.08 |
| Dodge | 604439.7 | 5828593.2 | | A2 | 0 | 6 | 6 | 0.06 |
| Dodge | 604440.4 | 5828591.7 | | A3 | 0 | 6 | 6 | 0.02 |
| Dodge | 604442.1 | 5828589.9 | | A4 | 0 | 6 | 6 | 0.14 |
| Dodge | 604443.2 | 5828588.7 | | A5 | 0 | 6 | 6 | 0.04 |
| Dodge | 604445.1 | 5828588.9 | | B1 | 0 | 6 | 6 | 0.22 |
| Dodge | | | | B2 | 0 | 6 | 6 | 0.08 |
| Dodge | 604442.1 | 5828593.3 | | B3 | 0 | 6 | 6 | 0.34 |
| Dodge | 604442.1 | 5828594.6 | | B4 | 0 | 6 | 6 | 0.16 |
| Dodge | 604440.2 | 5828595.4 | | B5 | 0 | 6 | 6 | 0.26 |
| Dodge | 604443.6 | 5828595.8 | | C2 | 0 | 6 | 6 | 0.20 |
| Dodge | 604443.6 | 5828595.8 | | C2 | 0 | 6 | 6 | 0.22 |
| Dodge | | | | C3 | 0 | 6 | 6 | 0.08 |
| Dodge | | | | C4 | 0 | 6 | 6 | 0.12 |
| Dodge | 604446.3 | 5828591.2 | | C5 | 0 | 6 | 6 | 0.16 |
| Dodge | 604448.3 | 5828591.8 | | D1 | 0 | 6 | 6 | 0.14 |
| Dodge | | | | D2 | 0 | 6 | 6 | 0.20 |
| Dodge | | | | D3 | 0 | 6 | 6 | 0.22 |
| Dodge | 604444.6 | 5828596.2 | | D4 | 0 | 6 | 6 | 0.34 |
| Dodge | 604444.0 | 5828597.4 | | D5 | 0 | 6 | 6 | 0.20 |
| Dodge | 604444.4 | 5828599.6 | | E1 | 0 | 6 | 6 | 0.14 |
| Dodge | | | | E2 | 0 | 6 | 6 | 0.24 |
| Dodge | 604447.5 | 5828597.6 | | E3 | 0 | 6 | 6 | 0.34 |
| Dodge | | | | E4 | 0 | 6 | 6 | 0.08 |
| Dodge | | | | E5 | 0 | 6 | 6 | 0.38 |
| Dodge | 604449.8 | 5828592.3 | | E6 | 0 | 6 | 6 | 0.14 |
| Dodge | 604451.6 | 5828593.5 | | F1 | 0 | 6 | 6 | 0.10 |

| Zone | UTM Grid | | Elev. | Hole | Interval (m) | | | Gold |
|---|---|---|---|---|---|---|---|---|
| | Northing | Easting | (m) | # | From | To | Length | (g/t) |
| Dodge | | | | F2 | 0 | 6 | 6 | 0.46 |
| Dodge | | | | F3 | 0 | 6 | 6 | 0.16 |
| Dodge | 604448.4 | 5828597.8 | | F4 | 0 | 6 | 6 | 0.02 |
| Dodge | | | | F5 | 0 | 6 | 6 | 0.18 |
| Dodge | 604446.1 | 5828600.6 | | F6 | 0 | 6 | 6 | 0.06 |
| Dodge | 604452.8 | 5828594.3 | | G1 | 0 | 5 | 5 | 0.12 |
| Dodge | | | | G2 | 0 | 5 | 5 | 0.24 |
| Dodge | | | | G3 | 0 | 5 | 5 | 0.12 |
| Dodge | 604450.0 | 5828598.7 | | G4 | 0 | 5 | 5 | 0.34 |
| Dodge | | | | G5 | 0 | 5 | 5 | 0.06 |
| Dodge | 604447.5 | 5828601.7 | | G6 | 0 | 5 | 5 | 0.12 |
| Dodge | 604449.2 | 5828602.6 | | H1 | 0 | 4.5 | 4.5 | 0.06 |
| Dodge | | | | H2 | 0 | 4.5 | 4.5 | 0.08 |
| Dodge | 604451.5 | 5828599.8 | | H3 | 0 | 4.5 | 4.5 | 0.54 |
| Dodge | | | | H4 | 0 | 4 | 4 | 0.30 |
| Dodge | | | | H5 | 0 | 4 | 4 | 0.09 |
| Dodge | 604454.9 | 5828595.6 | | H6 | 0 | 4 | 4 | 0.26 |
| Dodge | 604456.6 | 5828595.8 | | I1 | 0 | 3 | 3 | 0.22 |
| Dodge | | | | I2 | 0 | 3 | 3 | 0.04 |
| Dodge | | | | I3 | 0 | 3 | 3 | 0.11 |
| Dodge | 604453.9 | 5828600.2 | | I4 | 0 | 3 | 3 | 0.04 |
| Dodge | | | | I5 | 0 | 3 | 3 | 0.17 |
| Dodge | 604450.6 | 5828603.7 | | I6 | 0 | 3 | 3 | 0.01 |
| Dodge | 604458.0 | 5828596.7 | | J1 | 0 | 3 | 3 | 0.47 |
| Dodge | | | | J2 | 0 | 3 | 3 | 0.19 |
| Dodge | | | | J3 | 0 | 3 | 3 | 0.42 |
| Dodge | 604454.6 | 5828601.9 | | J4 | 0 | 3 | 3 | 0.06 |
| Dodge | | | | J5 | 0 | 3 | 3 | 0.04 |
| Dodge | 604451.9 | 5828605.0 | | J6 | 0 | 3 | 3 | 0.09 |
| Dodge | 604454.0 | 5828605.7 | | K1 | 0 | 3 | 3 | 0.15 |
| Dodge | | | | K2 | 0 | 3 | 3 | 0.22 |
| Dodge | 604456.3 | 5828602.8 | | K3 | 0 | 3 | 3 | 0.14 |
| Dodge | | | | K4 | 0 | 3 | 3 | 0.50 |
| Dodge | 604458.0 | 5828598.6 | | K5 | 0 | 3 | 3 | 0.35 |
| Dodge | 604459.8 | 5828600.8 | | L1 | 0 | 6 | 6 | 0.29 |
| Dodge | | | | L2 | 0 | 6 | 6 | 0.14 |
| Dodge | 604457.8 | 5828603.4 | | L3 | 0 | 6 | 6 | 0.64 |
| Dodge | | | | L4 | 0 | 6 | 6 | 0.34 |
| Dodge | 604455.8 | 5828606.3 | | L5 | 0 | 6 | 6 | 0.12 |
| Dodge | 604458.5 | 5828606.5 | | M1 | 0 | 5 | 5 | 0.22 |
| Dodge | 604459.4 | 5828604.4 | | M2 | 0 | 5 | 5 | 0.30 |
| Dodge | | | | M3 | 0 | 5 | 5 | 0.22 |
| Dodge | 604461.7 | 5828602.4 | | M4 | 0 | 5 | 5 | 0.22 |

| Zone | UTM Grid | | Elev. | Hole | Interval (m) | | | Gold |
|---|---|---|---|---|---|---|---|---|
| | Northing | Easting | (m) | # | From | To | Length | (g/t) |
| Dodge | 604460.2 | 5828608.3 | | N1 | 0 | 4 | 4 | 0.08 |
| Dodge | 604461.0 | 5828605.7 | | N2 | 0 | 4 | 4 | 0.14 |
| Dodge | | | | N3 | 0 | 4 | 4 | 0.24 |
| Dodge | 604463.3 | 5828604.0 | | N4 | 0 | 4 | 4 | 0.10 |
| Dodge | 604461.4 | 5828609.2 | | O1 | 0 | 3 | 3 | 0.08 |
| Dodge | 604462.7 | 5828606.9 | | O2 | 0 | 3 | 3 | 0.06 |
| Dodge | | | | O3 | 0 | 3 | 3 | 0.52 |
| Dodge | 604465.2 | 5828604.0 | | O4 | 0 | 3 | 3 | 0.14 |
| Dodge | 604463.1 | 5828610.5 | | P1 | 0 | 3 | 3 | 0.26 |
| Dodge | 604464.2 | 5828609.0 | | P2 | 0 | 3 | 3 | 0.12 |
| Dodge | 604465.4 | 5828607.5 | | P3 | 0 | 3 | 3 | 0.14 |
| Dodge | 604466.3 | 5828605.6 | | P4 | 0 | 3 | 3 | 0.22 |
| 103 | 604541.3 | 5828375.1 | 966.7 | A1 | 0 | 6 | 6 | 0.12 |
| 103 | 604543.1 | 5828372.9 | 967.2 | A2 | 0 | 6 | 6 | 0.10 |
| 103 | 604544.6 | 5828372.1 | 967.0 | A3 | 0 | 6 | 6 | 0.10 |
| 103 | 604545.6 | 5828371.1 | 966.6 | A4 | 0 | 6 | 6 | 0.05 |
| 103 | 604547.3 | 5828369.9 | 967.1 | A5 | 0 | 6 | 6 | 0.05 |
| 103 | 604541.0 | 5828376.9 | 966.5 | B1 | 0 | 5.5 | 5.5 | 0.08 |
| 103 | | | | B2 | 0 | 5.5 | 5.5 | 0.02 |
| 103 | 604544.4 | 5828374.6 | 967.2 | B3 | 0 | 5.5 | 5.5 | 0.03 |
| 103 | | | | B4 | 0 | 5.5 | 5.5 | 0.02 |
| 103 | | | | B5 | 0 | 5.5 | 5.5 | 0.01 |
| 103 | 604548.9 | 5828371.2 | 966.7 | B6 | 0 | 5.5 | 5.5 | 0.03 |
| 103 | 604541.2 | 5828379.2 | 964.6 | C1 | 0 | 5 | 5 | 0.02 |
| 103 | | | | C2 | 0 | 5 | 5 | 0.09 |
| 103 | 604545.8 | 5828375.5 | 967.6 | C3 | 0 | 5 | 5 | 0.02 |
| 103 | | | | C4 | 0 | 5 | 5 | 1.74 |
| 103 | | | | C5 | 0 | 5 | 5 | 0.04 |
| 103 | 604550.3 | 5828371.7 | 967.5 | C6 | 0 | 5 | 5 | 0.04 |
| 103 | 604551.2 | 5828373.2 | 967.7 | D1 | 0 | 4.5 | 4.5 | 0.04 |
| 103 | | | | D2 | 0 | 4.5 | 4.5 | 0.15 |
| 103 | | | | D3 | 0 | 4.5 | 4.5 | 0.08 |
| 103 | 604546.3 | 5828377.7 | 965.8 | D4 | 0 | 4.5 | 4.5 | 0.04 |
| 103 | | | | D5 | 0 | 4.5 | 4.5 | 0.03 |
| 103 | 604544.5 | 5828379.0 | 966.9 | D6 | 0 | 4.5 | 4.5 | 0.10 |
| 103 | | | | E1 | 0 | 4 | 4 | 0.05 |
| 103 | | | | E2 | 0 | 4 | 4 | 0.01 |
| 103 | | | | E3 | 0 | 4 | 4 | 0.03 |
| 103 | | | | E4 | 0 | 4 | 4 | 0.05 |
| 103 | | | | E5 | 0 | 4 | 4 | 0.03 |
| 103 | | | | E6 | 0 | 4 | 4 | 0.01 |
| 103 | 604553.3 | 5828376.0 | 968.1 | F1 | 0 | 4 | 4 | 0.03 |
| 103 | | | | F2 | 0 | 4 | 4 | 0.06 |

| Zone | UTM Grid | | Elev. | Hole | Interval (m) | | | Gold |
|---|---|---|---|---|---|---|---|---|
| | Northing | Easting | (m) | # | From | To | Length | (g/t) |
| 103 | | | | F3 | 0 | 4 | 4 | 0.01 |
| 103 | 604548.1 | 5828379.7 | 966.8 | F4 | 0 | 4 | 4 | 0.04 |
| 103 | | | | F5 | 0 | 4 | 4 | 0.02 |
| 103 | 604545.6 | 5828381.7 | 967.4 | F6 | 0 | 4 | 4 | 0.04 |
| 103 | 604554.2 | 5828377.3 | 968.4 | G1 | 0 | 3.5 | 3.5 | 0.06 |
| 103 | | | | G2 | 0 | 3.5 | 3.5 | 0.08 |
| 103 | | | | G3 | 0 | 3.5 | 3.5 | 0.03 |
| 103 | 604548.3 | 5828382.9 | 963.9 | G4 | 0 | 3.5 | 3.5 | 0.02 |
| 103 | | | | G5 | 0 | 3.5 | 3.5 | 0.08 |
| 103 | 604546.4 | 5828383.6 | 966.2 | G6 | 0 | 3.5 | 3.5 | 0.04 |
| 103 | 604554.3 | 5828381.6 | 963.1 | H1 | 0 | 3 | 3 | 0.02 |
| 103 | | | | H2 | 0 | 3.5 | 3.5 | 0.06 |
| 103 | | | | H3 | 0 | 3 | 3 | 0.05 |
| 103 | 604550.5 | 5828383.3 | 965.1 | H4 | 0 | 3 | 3 | 0.04 |
| 103 | | | | H5 | 0 | 3 | 3 | 0.04 |
| 103 | 604546.8 | 5828386.0 | 964.6 | H6 | 0 | 3 | 3 | 0.04 |
| 103 | 604555.1 | 5828383.5 | 961.9 | I1 | 0 | 3 | 3 | 0.03 |
| 103 | 604554.1 | 5828384.0 | 962.4 | I2 | 0 | 3 | 3 | 0.02 |
| 103 | 604553.0 | 5828383.4 | 966.6 | I3 | 0 | 3 | 3 | 0.02 |
| 103 | 604551.0 | 5828386.4 | 964.1 | I4 | 0 | 3 | 3 | 0.02 |
| 103 | 604548.6 | 5828387.7 | 964.1 | I5 | 0 | 3 | 3 | 0.04 |
| 103 | 604546.5 | 5828388.9 | 964.6 | I6 | 0 | 3 | 3 | 0.02 |

# APPENDIX D

Analytical Techniques
Mount Polley Mining Corporation
and
Bondar Clegg Canada Limited

**SCOPE:** This procedure shall be used for normal mine and exploration samples and concentrates as received at the Mount Polley mine site only.

## INTRODUCTION:

This procedure involves a fire assay fusion with lead as the collecting medium for the precious metals. The lead is separated from the slag and is then removed by cupellation leaving a silver prill containing the precious metals. The prill is then parted using conc. $HNO_3$ and conc. HCl and the resulting solution is determined for Au by AAS.

## SAFETY:

Due to the fire assay lab containing both high temperature furnaces and lead, special rules and safety precautions must be followed to avoid accidents and elevated blood lead levels or lead poisoning.

1. Safety shoes or boots must be worn at all times when in fire assay.
2. Smoking, eating and drinking are prohibited in and around the fire assay section at all times.
3. Gloves are to worn when mixing samples with flux or in any other processes which involve the handling of flux or litharge.
4. Safety glasses or masks must be worn when deslagging buttons and are recommended when using or looking into furnaces.
5. Fluxing must be performed in the flux hood at all times.
6. The extraction wet scrubber must be on at all times when cupellation, fusion or fluxing in the fluxing hood is being performed. This extraction should be started at the beginning of the shift and must be checked after power fluctuations and re-set if necessary. No cupellation or fluxing can be performed under any circumstances if the scrubber unit is down for maintenance or is not working.
7. Only staff fully trained in furnace maintenance may be involved in repairing the furnace or replacing the electrical elements.
8. Gloves must be worn at all times when placing pots or cupels into furnaces or when removing them.
9. Hands should be thoroughly cleaned, particularly under the finger nails, before eating, drinking or smoking after working in fire assay.
10. Any spillage of flux or chemicals must be cleaned up immediately.

## REAGENTS / CONSUMABLES

1. Flux (prepared commercially, see recipe below)
   Mine Flux: dense soda ash ( 350kg), lead oxide (600 kg), borax glass (80 kg), flour (35 kg), silver nitrate (110 g/t), kerosene
   Con Flux: dense soda ash ( 350kg), lead oxide (600 kg), borax glass (80 kg), kerosene
2. 30 gram Crucibles.
3. Cupels (6A).
4. Potassium Nitrate ($KNO_3$), technical.
5. Borax, anhydrous sodium tetra-borate, technical.
6. Soda Ash, anhydrous sodium carbonate, technical.
7. Litharge, lead monoxide, technical.
8. Silica ($SiO_2$).
9. Flour, plain.
10. Silver nitrate ($AgNO_3$), AR grade.
11. Kerosene, commercial grade.

## PROCEDURE

1. Flux up a rack of pots with 90 ± 10 g of the appropriate flux (measured with a calibrated scoop).
2. Record the weight to be weighed for the samples on the worksheet if they are all the same. If not write the weight in the appropriate column.
3. Weigh the samples usually at 20.00 ± 0.02 g for Mines and Heads and Tails or at 10.00 ± 0.02 g for Concentrates and transfer the sample in on top of the flux checking to ensure it is put in the correct pot. Check every sample number when weighing to ensure the sample order is correct and samples are put in the correct pots. Add a silver inquart to concentrate samples.
4. Weigh a standard into pot 23 and enter the name of the standard and the weight used (standards of higher gold concentrations may require differing weights).
5. Double check that all weights, etc. have been entered and paperwork completed and that the correct flux additions have all been made.
6. Mix the flux and sample thoroughly by stirring with a spatula. The mixture should contain no lumps of flux or sample and should be a uniform colour.
7. Load the samples into a pre-heated pot furnace and fuse at 1900 °F until fusion is complete. This usually takes 45 to 60 minutes. The melt should be still, i.e. the circulation of lead is no longer apparent.
8. When all of the samples have fused, pour the melt into cast iron moulds, ensuring no lead is lost.
9. Leave to cool. When cooled sufficiently, break the slag away from the lead, and hammer into a button (removing all the slag) taking care not to loose any lead.

**Note:** Re-assay samples with buttons less than 20g, adjusting the flux as required. Buttons over 60g can be split.

10. Transfer the lead buttons to the button dropper and then to the heated cupels in the cupellation furnace set at 1800 °F and close the door.
11. After a few minutes, open the door to see if all the buttons have "opened" and are "driving". If so, close the door and open the door vent and the main vent. If not, close the door and wait until they have started "driving". If the buttons become "frozen" (caused by solidification of lead over the surface) the temperature should be raised quickly by closing all vents. The temperature should be carefully controlled, as too high a temperature will cause losses, especially for silver, and results obtained by raising the temperature after "freezing" are usually low.
12. When cupellation is complete, remove the cupels from the furnace and allow to cool with fume extraction. Note any large or unusual prills on the worksheet and repeat the samples (with suitable reagents).
13. Transfer the gold/silver prill to a test tube with the first tube in the fire labelled as A, B, C, MR, etc..
14. Add 1.0 ml of 1:4 $HNO_3$ , cover with plastic wrap and place on the digestor block for 15 minutes or until the solution has gone colourless and the prills have fully parted. Remove from the block and cool to room temperature.
15. Carefully add 2.0 mls of con. HCl and place back on digestor block for 20 minutes.
16. Add 2.0 mls of distilled water and vortex mix.
17. Let the solution settle for 15 minutes and read on the AAS under the following conditions:

| | Au |
|---|---|
| Lamp Current (mA) | 10 |
| Slit Width (nm) | 0.7 |
| Wavelength (nm) | 242.8 |
| Background Correction | On |

**CALIBRATION STANDARD PREPARATION:**

Standards are made from commercially supplied 1000 ppm stock solutions.

| | |
|---|---|
| 0.50 ppm: | 5 mls of 100 ppm Au + 100 mls $HNO_3$ + 100 mls HCl → 1000 mls |
| 1.00 ppm: | 10 mls of 100 ppm Au + 100 mls $HNO_3$ + 100 mls HCl → 1000 mls |
| 2.00 ppm: | 20 mls of 100 ppm Au + 100 mls $HNO_3$ + 100 mls HCl → 1000 mls |
| 10 ppm: | 10 mls of 1000 ppm Au + 100 mls $HNO_3$ + 100 mls HCl → 1000 mls |
| 20 ppm: | 20 mls of 1000 ppm Au + 100 mls $HNO_3$ + 100 mls HCl → 1000 mls |

There are some common problems encountered in fire assay fusion and cupellation. A list of possible causes and remedies are as follows:

A. FUSION

| DEFECT | POSSIBLE CAUSE | REMEDY |
|---|---|---|
| excessive viscosity, thick slag | low finish temp., excess of acid fluxes | increase temp., less silica and borax, more litharge and soda |
| undecomposed or insoluble slag components | fusion time too short, insufficient acid fluxes, insufficient flux or specified material | fuse longer, add extra flux or silica or borax |
| unfused material in slag or on sides of the crucibles | poor mixing | ensure samples are properly mixed |
| Shotting | excessive slag viscosity | add 25g litharge |
| lead splattered in mould | unfused particles of $Fe_3O_4$ between slag and lead, very high sulphides | reduce sample size, fuse longer, add nitre |
| small button | slag too acidic, excessive nitre, insufficient flour | decrease silica and increase litharge, decrease nitre, add flour |
| large button | excessive litharge in flux, sample contains sulphides or organics (soils) | decrease litharge, add nitre |
| hard or brittle button | litharge in button, very high Au (>1%), base metals in button, button contains sulphides (dark grey in colour) | use higher fusion temp, decrease sample weight/increase litharge, increase litharge and soda ash. |
| speiss or matte | insufficient litharge or soda ash | decrease sample weight and increase litharge |
| crucibles leak after being eaten through (assaying carbon) | crucibles too worn, excess of basic fluxes, lack of acidic fluxes | discard worn crucibles, decrease litharge and soda, increase silica and borax, increase sample size or add silica |
| excessive frothing or overflowing during fusion | excessive flux or sample for the crucible, excessive nitre | decrease flux and sample charges, decrease nitre |

B. CUPELLATION

| DEFECT | POSSIBLE CAUSE | REMEDY |
|---|---|---|
| frozen buttons | temp too low, cupels started too cold, excessive airflow over cupels, door/vents opened too early, very high base metals | increase temp, preheat cupels to > 930°C, check for leaks around the door, vent settings allow too great an airflow, ensure samples are "driving" prior to opening vents/door, reassay using smaller sample charge |
| driving takes > 5 mins | cupellation temp. too low, cupels too cold, cupels allowed to cool too much during loading, excess base metals or sulphides in button | increase cupellation temp., preheat cupels to > 930°C, load cupels carefully but quickly, reassay using nitre or lower sample weight |
| sprouting of prills | large prills (high silver content samples) | cool slowly and starve $O_2$ by covering immediately after removing from cupellation. |

GENERAL NOTES

1. Thorough mixing of the sample is critical otherwise low recoveries in gold assays will result.
2. Visual observation should be maintained on unusual or non-routine samples to ensure that fusion proceeds satisfactorily.
3. If the prill has a whitish-gold appearance (this colour is readily observed) the ratio of gold to silver may be too high to ensure complete parting. If a prill has a greyish white pitted appearance it usually contains a high proportion of bismuth or lead.
4. The volumes of acids and water used in the prill digestion, and also the temperature, must be carefully controlled. Evaporation loss must be kept to a minimum, however, a sufficiently high temperature is required for complete dissolution of silver and gold and precipitation and coagulation of silver chloride.

## RANGE

When taking a 20g sample charge the lower detection limit is 0.01 ppm Au and the higher detection limit is 60 ppm Au. The assay of higher level Au samples requires additional silver for parting, or a smaller sample weight to be taken to ensure a Ag to Au ratio of at least 3.0 to 1.

**CALCULATIONS:**

ppm in sample = $\frac{\text{AA reading x sample vol. (mls)}}{\text{sample wt. (g)}}$

**REPORTING OF RESULTS:**

Au low range (0 to 10 ppm) :

Report all results to the second decimal i.e. 0.315 g/t = 0.32 g/t

Au high range ( > 10 ppm) :

Report all results to the first decimal i.e. 12.35 g/t = 12.4 g/t

# MDFA30/50/60 : SOIL, SILICATE AND ORE ANALYSIS OF GOLD BY FIRE ASSAY FUSION/AAS ANALYSIS

## SCOPE:

This method begins with fire assay fusion using lead as the collecting medium, followed by the delineation of the silver bead within the defined analytical ranges where the limitations of (ASFA, NSFA, and BLST) Au are acceptable. The final gold analysis is conducted by the AAS.

## PRINCIPLE:

This method consists of a reducing fusion followed by an oxidizing fusion. Fusing with a litharge-based flux reduces the samples. This will form a complex liquid borosilicate slag and a liquid lead phase. The molten lead collects the precious metals and the gangue elements are separated into the slag. The difference in relative density between the lead and the slag allow easy separation after solidification. The resultant lead button is then cupelled in the furnace (oxidizing fusion). The molten lead containing the gold or silver is oxidized to lead oxide and absorbed into a porous vessel called a cupel. This leaves the precious metal bead separated for analysis by dissolution and AAS.

## APPLICABLE ANALYTE RANGES FOR AU:

| Element Code | Unit | Method Detection Limit | Upper Limit |
|---|---|---|---|
| Au30 | ppb | 5 | 10000 |

## REAGENTS:

1.1 General Requirements - unless otherwise specified, all reagents shall be of analytical grade, and deionized or nanopure water shall be used.
1.2 Hydrochloric Acid 10 mol/L (S.G 1.16g/ml)
1.3 Nitric Acid 15.7mol/L (S.G 1.42g/mL)
1.4 1% Hydrochloric Acid and 300ppm of Magnesium Oxide Solution
1.5 Silica, silicon dioxide, technical
1.6 Flour, plain
1.7 Silver nitrate, AR crystals or Silver Wire, AR
1.8 Iron nails
1.9 Potassium nitrate, technical
1.10 Copper Wire.
1.11 Pre-Mixed Fire Assay Flux

## PRECISION:

The tolerance criteria for variation of analytical data results from all stages of the analysis and are subjected to the matrix and the specific technique used.

Expected tolerance criteria at various concentrations for this method are as follows:

| ASFA Au, NSFA Au, BLST Au | Standard Value | Tolerance |
|---|---|---|
| Au - Flame Atomic Absorption Spectroscopy Measurement (ppb) | Method Detection Limit (MDL) | +/- 100% |
| | 2xMDL to 4xMDL | +/- 50% |
| | 5xMDL to 10xMDL | +/-25% |
| | 11xMDL to 20xMDL | +/-20% |
| | >20xMDL | +/-15% |

APPENDIX E

Petrographics Report
Vancouver Petrographics

**Vancouver Petrographics Ltd.**

8080 GLOVER ROAD, LANGLEY, B.C. V1M 3S3
PHONE (604) 888-1323 • FAX (604) 888-3642
email: vanpetro@vancouver.net

RECEIVED
AUG 21 2000

Report for: Imperial Metals Corp,
420 - 355 Burrard St.,
VANCOUVER, B.C.
V6C 2G8

Job 000410

August 18, 2000

**SAMPLES:**

5 samples of crushed rock (rotary drill cuttings), numbered as below, were submitted by Steve Robertson, with a request for polished thin section preparation and petrographic examinations.

| Sample | No. of slides made |
|---|---|
| 69544 | 3 |
| 69790 | 1 |
| 69927 | 3 |
| 69932 | 3 |
| 69948 | 2 |

Where possible, several sections were made of each sample (see above) in order to maximize the chances of finding Au (which was the principal objective of the study).

The polished thin sections incorporate rock fragments and mineral grains ranging in size from a maximum of about 3 mm down to fines of 10 microns or so.

**SUMMARY:**

These 5 samples all appear to be mixtures of the same lithologies, but in significantly different proportions.

The principal rock types represented are a foliated metasediment of siltstone or phyllite aspect, and a rock composed esentially of fine-grained, compact, felted-textured sericite - sometimes showing cryptofragmental textures, and occasionally incorporating relict plagioclase. The latter lithotype possibly represents a modified felsic volcanic or tuff.

Fragments of quartz, carbonate, pyrite and limonite are accessory constituents.

Sample 69544 consists essentially of phyllite fragments; Samples 69932 and 69948 contain accessory proportions of the sericite rock in addition to phyllite; and Samples 69790 and 69927 are made up of phyllite and sericite rock in roughly equal proportions.

Samples 69932 and 69948 have the highest proportions of quartz (~15%), and 69790 and 69927 the lowest (~6%). Sample 69544 has an intermediate content of quartz (10%).

Samples 69790, 69932 and 69948 have significant contents of pyrite (5-8%). The other two samples contain only traces of sulfides.

Careful examination of all the 12 slides in reflected light at high magnification located a few examples of native Au (in one slide each of Samples 69544, 69932 and 69948). In the first two cases the Au is associated with limonite, and in the last it occurs as a tiny inclusion in pyrite.

Individual sample descriptions, and a set of photomicrographs illustrating the observed modes of occurrence of Au, are attached.

J.F. Harris Ph.D.

## PHOTOMICROGRAPHS

Photos are by reflected light, at a scale of 1 cm = 21 microns, except where otherwise stated.

**SAMPLE 69932**

**Neg. 490-0A:** Scale 1 cm = 42 microns. Hackly grain of Au (bright pale yellow) about 50 microns in size, mantled by limonite (brownish grey).

**Neg. 490-1A:** Possible Au (or could be chalcopyrite) as 30x10 micron inclusion in periphery of quartz grain (dark; upper right). Field also shows examples of liberated pyrite (cream colour), in one case veined by limonite (brownish grey, left).

**SAMPLE 69544**

**Neg. 490-2A:** Cluster of Au grains (bright golden yellow), 2 - 20 microns in size, in limonite-cemented breccia zone in quartz.

**SAMPLE 69948**

**Neg. 490-4A:** 12 micron bleb of Au (bright pale yellow; circled) as inclusion in pyrite.

**SAMPLE 69544**

Estimated mode

| | |
|---|---|
| Phyllite | 88 |
| Quartz | 10 |
| Rutile | 1 |
| Limonite | 1 |
| Pyrite) | trace |
| Pyrrhotite) | |

This sample is made up dominantly of fragments of a single meta-sedimentary lithotype - designated "phyllite" in this description. This material is a foliated intergrowth of fine-grained oriented sericite and silt-sized quartz, commonly more or less strongly dusted with micron-sized opaque material - most likely carbon (but possibly Fe or Fe/Ti oxides). In some cases the phyllite contains small augen of compact sericite and/or microgranular quartz, and is sparsely flecked with rutile. Also, it is occasionally diffusely stained and impregnated by apparent limonite.

Quartz occurs mainly as scattered, discrete fragments of poly-granular form. Similar material is occasionally seen as veinlets and concordant segregations in the phyllite.

Limonite occurs mainly as scattered, small fragments of compact/pellety form, and as impregnations in polygranular quartz.

Sulfides are confined to extremely rare, minute specks of pyrite and pyrrhotite, liberated or disseminated in quartz.

Two examples of native Au were located in one thin section of this sample (see photos). Those consist of a cluster of specks, 2 - 20 microns in size, in limonite cementing a zone of microbrecciation in quartz. The other consists of two specks (2.5 microns and 5 microns in size) in a similar association.

**SAMPLE 69790**

Estimated mode

| | |
|---|---|
| Phyllite | 36 |
| Quartz | 5 |
| Plagioclase | 1 |
| Sericite | 48 |
| Carbonate | 3 |
| Rutile | trace |
| Pyrite | 5 |
| Chalcopyrite | trace |
| Pyrrhotite | trace |
| Limonite | 2 |

This sample is of substantially different composition to the previous one.

Fragments of the phyllite lithotype (as described in 69544), though present, are subordinate to another rock type - consisting essentially of compact felted sericite. This lacks the finely foliated character of the phyllite, and frequently shows cryptofragmental texture. Some fragments of the sericite rock contain recognizable grains of relict plagioclase, and it appears to be of volcanic affinities - possibly a modified tuff or volcaniclastic.

Carbonate is another constituent not seen in 69544. This occurs mainly as liberated fragments of sparry/polygranular form, but is also seen as clumpy segregations within some fragments of the compact sericite rock.

Quartz is perceptibly less abundant in the present sample than in the previous one.

Another striking difference is the presence of relatively abundant pyrite. This occurs mainly as liberated fragments ranging in size from 10 microns up to 1 mm or more. It is also seen as clumps and disseminations within quartz and carbonate.

The coarser pyrite fragments sometimes contain tiny bleb-like inclusions of chalcopyrite and pyrrhotite.

Most of the pyrite appears fresh, but occasional examples are seen which show partial replacement by limonite (as rims and networks of veinlets).

A little limonite occurs as discrete fragments, as diffuse impregnations of silicate rock - including clumpy segregations, having the appearance of strongly oxidized carbonate, in some fragments of the sericite rock.

No Au could be found in any of the polished thin sections of this sample.

**SAMPLE 69927**

Estimated mode

| | |
|---|---|
| Phyllite | 55 |
| Quartz | 7 |
| Sericite | 33 |
| Carbonate | 2 |
| Rutile | 5 |
| Pyrite | 0.2 |
| Limonite | 2 |

This sample is of similar major component composition to 69790 - consisting essentially of a mixture of the phyllite and compact sericite lithotypes.

Polygranular quartz and carbonate are minor accessories - mainly as discrete fragments but, in one case, mutually intergrown as a large fragment of quartz/carbonate rock of cryptoclastic aspect.

Pyrite is much less abundant than in the previous sample, being confined to sparse, tiny fragments (typically liberated), not exceeding 0.4 mm in size.

Minor limonite occurs as occasional liberated fragments, and as clumpy segregations and diffuse impregnations in various silicate matrices. The limonite is not obviously pseudomorphic after sulfides, and may be mainly of redistributed origin.

**SAMPLE 69932**

Estimated mode

| | |
|---|---|
| Phyllite | 73 |
| Quartz | 16 |
| Sericite | 4 |
| Carbonate | 1 |
| Rutile | trace |
| Pyrite | 6 |
| Chalcopyrite | trace |
| Limonite | 1 |

This sample shows the same compositional elements as described for previous samples, but in different proportions.

The phyllite lithotype is dominant (as in 69544) and the compact sericite rock is rare. The phyllite is partly a dark variety rich in wisps and laminae of opaque (carbonaceous?) material.

Quartz is notably abundant. It occurs as discrete polygranular fragments, and as clumpy and irregular segregations in phyllite. A few fragments of polygranular quartz incoporating sub-parallel laminae and wisps of opaque (carbonaceous? ferruginous?) material are also seen; these could represent strongly silicified phyllite.

Carbonate is a very minor accessory.

Pyrite is relatively abundant, as in 68790. It occurs as discrete liberated grains, ranging from 10 microns or so in size up to 1 mm or so. In a few cases pyrite is also seen to occur within silicified phyllite. Small inclusions of rutile are sometimes seen in the pyrite.

Very rare traces of chalcopyrite are also present - usually independent of the pyrite, as tiny grains in quartz.

Limonite is a minor constituent. It occurs as occasional discrete fragments; as diffuse staining of silicates; as rare segregations (after carbonate?) in phyllite; and as rare rims or veinlets replacing pyrite grains. For the most part, however, the pyrite appears fresh.

A single example of native Au was found in one of the polished thin sections of this sample. It is an irregular-shaped grain rimmed and intergrown with limonite (see photos).

**SAMPLE 69948**

Estimated mode

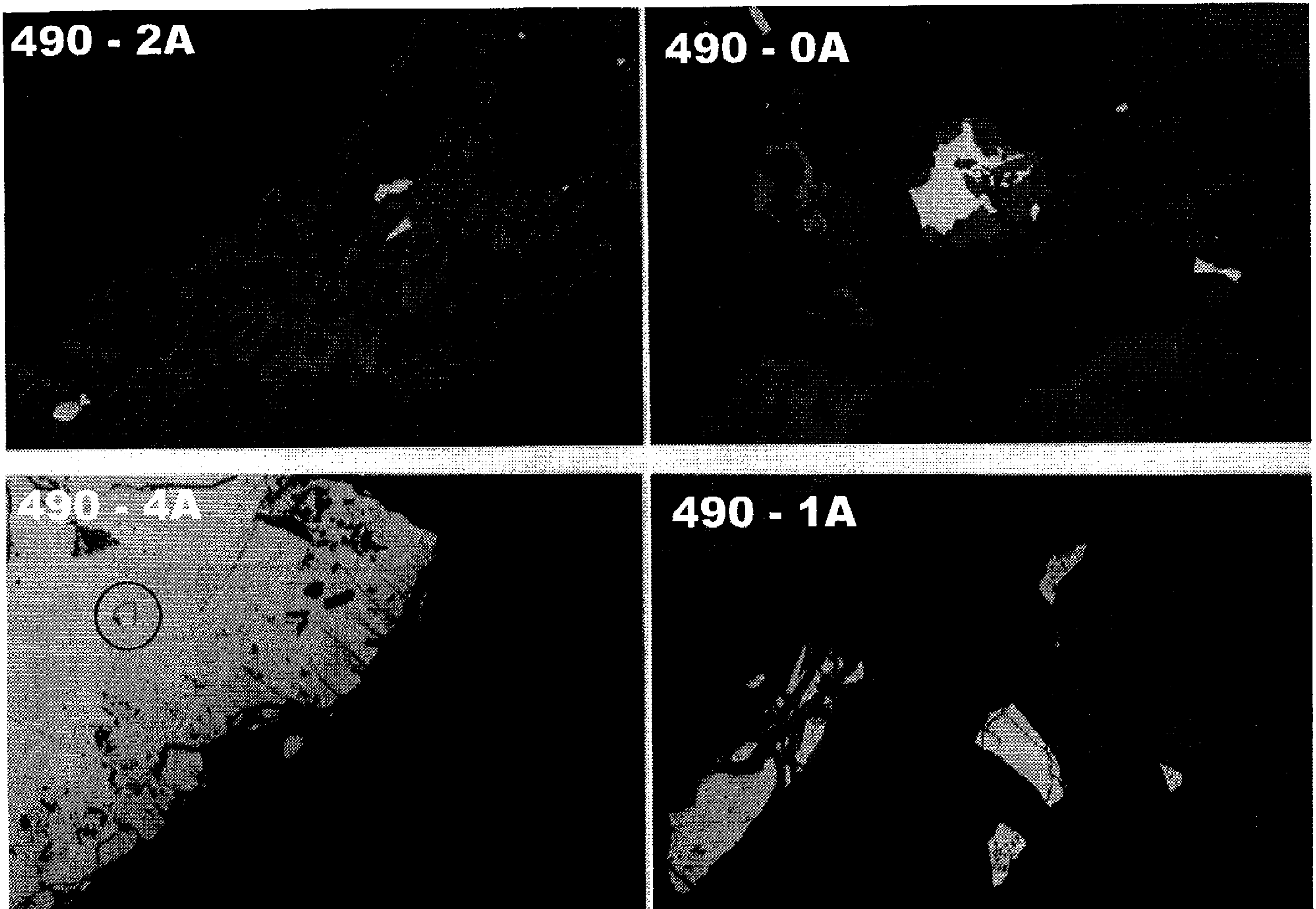
| | |
|---|---|
| Phyllite | 58 |
| Quartz | 15 |
| Sericite | 15 |
| Carbonate | 2 |
| Rutile | trace |
| Pyrite | 8 |
| Limonite | 2 |

This sample closely resembles 69932, though the proportion of the compact sericite (altered volcaniclastic?) lithotype is significantly higher.

It is similar to 68790 and 69932 in containing relatively abundant pyrite. This typically occurs as discrete, liberated fragments ranging up to 1 or 2 mm in size. These sometimes contain small inclusions of rutile. Chalcopyrite appears essentially absent in this sample.

Limonite occurs as diffuse impregnations and clumpy segregations in a few fragments of the compact sericite rock, and as one or two small liberated fragments. Note that the pyrite in this sample typically appears fresh.

One example of native Au was found - in the form of a tiny (12 micron) inclusion in pyrite.


490 - 2A
490 - 0A
490 - 4A
490 - 1A

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**Report 000626** for

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*November 2000*

**Samples: CED-1, CED-3**

**Summary:**

**Sample CED-1** is a diorite containing medium grained plagioclase and much less abundant fine grained quartz and hornblende(?). Plagioclase is altered strongly to sericite. Hornblende is replaced completely by quartz-pyrite with minor ankerite. Ankerite forms abundant porphyroblastic replacement patches. A veinlet of quartz-pyrite-ankerite is associated with the alteration of the rock.

**Sample CED-3** is a broadly banded black argillite dominated by sericite with lesser quartz, minor Ti-oxide and carbonaceous opaque. A few medium grey bands are dominated by quartz with lesser sericite. Mainly associated with quartz-rich bands are a few bands that are dominated by porphyroblastic pyrite with overgrowths of quartz and much less abundant ankerite. Ankerite also forms disseminated porphyroblasts. One pyrite grain contains a few inclusions of native gold/electrum, in part associated with chalcopyrite. A few contorted veinlets are of quartz.

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**Sample CED-1 Diorite: Ankerite-Quartz-Pyrite Alteration**

The sample contains medium grained plagioclase and much less abundant fine grained quartz and hornblende(?). Plagioclase is altered strongly to sericite. Hornblende is replaced completely by quartz-pyrite with minor ankerite. Ankerite forms abundant porphyroblastic replacement patches. A veinlet of quartz-pyrite-ankerite is associated with the alteration of the rock.

| mineral | percentage | main grain size range (mm) |
|---|---|---|
| plagioclase | 70-75% | 1-2.5 |
| ankerite | 15-17 | 0.5-1.5 |
| hornblende | 7- 8 | 0.3-1.5 |
| quartz | 2- 3 | 0.5-1 |
| pyrite | 1- 2 | 0.5-2 |
| Ti-oxide | 0.2 | 0.05-0.15 |
| chalcopyrite | minor | 0.02-0.07 |
| pyrrhotite | minor | 0.01-0.05 |
| zircon | trace | 0.03-0.05 |
| **veinlet** | | |
| quartz-pyrite-(ankerite) | 0.2 | 0.2-0.4 |

Plagioclase forms subhedral to anhedral, unoriented grains. Many are replaced strongly to unoriented flakes of sericite with minor patches of Ti-oxide. A few are relatively fresh.

Hornblende forms subhedral to euhedral, slightly elongate prismatic grains. Replacement is complete, mainly to aggregates of quartz with patches of pyrite in the cores of original hornblende grains. A few patches consist of ankerite with cores of pyrite. Many of the grains have a thin rim of rutile along their margins. A few patches contain minor flakes of muscovite along their margins. Some pyrite grains contain minor to moderately abundant, blebby inclusions of chalcopyrite and pyrrhotite. Hornblende grains smaller than 0.3 mm in size commonly were replaced completely by quartz with a thin rim of Ti-oxide. One pyrrhotite patch 0.15 mm long is surrounded by quartz.

Quartz forms scattered anhedral grains, probably interstitial to plagioclase.

Ankerite forms porphyroblastic replacement grains and patches, probably mainly secondary after plagioclase. A few coarser patches contain a fracture-filling veinlet up to 0.02 mm wide of quartz.

Pyrite forms a few euhedral porphyroblastic grains. The largest is elongate and has an overgrowth of comb-textured quartz and ankerite 0.3 mm long on the smaller ends of the grain.

Ti-oxide forms ragged patches up to 0.8 mm in size of aggregates of anhedral grains.

Zircon forms a few anhedral grains.

One fragment 2 mm across contains a "phenocryst" of quartz 0.5 mm in size and one of plagioclase 0.15 mm in size in a groundmass of equant plagioclase grains (0.03-0.05 mm). Plagioclase is replaced moderately by disseminated flakes of muscovite (0.05-0.08 mm) and irregular patch of ankerite up to 0.7 mm across. The quartz phenocryst contains a few inclusions of pyrite and of chalcopyrite; this texture suggests that it was originally a hornblende grain with alteration similar to that in the main rock.

A veinlet 0.3-0.4 mm wide at one end of the section is of quartz, pyrite, and lesser ankerite.

**Sample CED-3** **Argillite; Bands of Pyrite-Quartz, Porphyroblasts of Ankerite**

The sample is a broadly banded black argillite dominated by sericite with lesser quartz, minor Ti-oxide and carbonaceous opaque. A few medium grey bands are dominated by quartz with lesser sericite. Mainly associated with quartz-rich bands are a few bands that are dominated by porphyroblastic pyrite with overgrowths of quartz and much less abundant ankerite. Ankerite also forms disseminated porphyroblasts. One pyrite grain contains a few inclusions of native gold/electrum, in part associated with chalcopyrite. A few contorted veinlets are of quartz.

| mineral | percentage | main grain size range (mm) | |
|---|---|---|---|
| sericite | 65-70% | 0.01-0.02 | |
| quartz | 10-12 | 0.015-0.03 | |
| pyrite | 7- 8 | 0.5-2 | |
| ankerite | 5- 7 | 0.5-1.5 | |
| hornblende(?) | 1- 2 | 0.3-0.8 | |
| carbonaceous opaque | 0.3 | cryptocrystalline | |
| Ti-oxide | minor | 0.01-0.05 | |
| chalcopyrite | minor | 0.03-0.07 | (partly altered to chalcocite-covellite) |
| native gold/electrum | trace | 0.01-0.08 | |
| **veinlets** | | | |
| quartz | 0.5 | 0.02-0.03 | |

Sericite-rich bands are dominated by equant, unoriented flakes of sericite. Quartz forms scattered equant grains. Ti-oxide forms disseminated ragged patches.

Quartz-rich bands consist of equant grains of quartz with interstitial flakes of sericite.

Wispy, very discontinuous carbonaceous opaque seams are parallel to bedding; these give the rock its black to dark grey colour.

Subhedral patches from 0.3-0.8 mm in size of hornblende(?) are concentrated in one layer. These patches are replaced completely by aggregates of quartz (0.1-0.3 mm) with thin, ragged rims of Ti-oxide around margins of the original hornblende grains. By comparison with textures in Sample CED-1, these grains are interpreted as original hornblende. A few of these contain minor inclusions of chalcopyrite (0.015-0.05 mm). Another layer 1 mm thick contains moderately abundant patches 0.03-0.07 mm in size of single quartz grains rimmed by Ti-oxide and patches of Ti-oxide (0.02-0.05 mm). The texture is intermediate between the intergrowths interpreted as original hornblende grains and the much smaller patches of Ti-oxide that also are abundant in this layer.

Ankerite forms disseminated, subhedral to euhedral porphyroblasts. A few contain wispy seams of carbonaceous opaque as in the host rock, and many contain minor inclusions of Ti-oxide as in the host rock.

Ti-oxide forms disseminated patches that are concentrated moderately in some layers.

Pyrite-rich bands contain euhedral pyrite grains with interstitial quartz and lesser ankerite. Quartz commonly has a comb-texture adjacent to pyrite grains, which grades into a subgranular texture in larger interstitial patches. Locally, pyrite grains are intergrown with groundmass sericite-quartz; this and the texture of the pyrite grains suggest that they are porphyroblastic in origin. Many pyrite grains contain inclusions of silicates from extremely fine up to 0.2 mm in size; these commonly are concentrated in broad cores of grains, with outer parts of the pyrite grains generally much freer of inclusions. Near some pyrite-rich bands, the quartz-rich host rock contains disseminated, euhedral pyrite grains (0.1-0.7 mm) in size.

(continued)

A few pyrite grains contain minor chalcopyrite inclusions (0.01-0.07 mm) and one also contains a few inclusions of pyrrhotite. One pyrite grain contains three grains of light to medium yellow, native gold/electrum. One grain is 0.08 x 0.01 mm in size, and an adjacent grain is 0.01-0.005 mm in size. A nearby inclusion of chalcopyrite inclusion in pyrite contains a grain of native gold/electrum 0.04 x 0.02 mm in size.

Interstitial to pyrite are a few patches up to 0.3 mm in size of chalcopyrite that was altered moderately to chalcocite and covellite.

A few subrounded patches up to 0.8 mm in size in the sericite-rich part of the rock are of fragments(?) of very slightly interlocking quartz grains (0.02-0.03 mm) with minor disseminated sericite flakes and minor to moderately abundant, interstitial selvages of carbonaceous opaque.

A few contorted veinlets 0.05-0.1 mm across are of equant quartz grains and minor sericite; borders of the veinlets are somewhat diffuse against the host rock.