

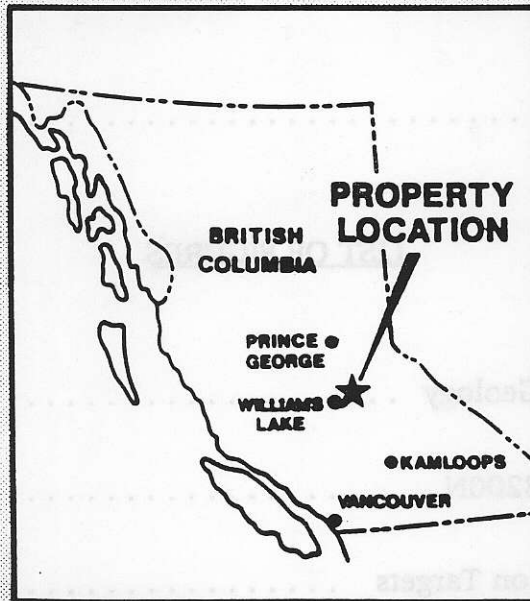
oxide reserves.
by bench.

860521

54

IMPERIAL METALS CORPORATION

MOUNT POLLEY *



VANCOUVER, B.C.
January 28, 1992

Zarko T. Nikic
Rad Pesalj
Dennis Gorc

* MOUNT POLLEY IS OWNED BY IMPERIAL METALS CORPORATION AND
FOUR OF ITS AFFILIATED LIMITED PARTNERSHIPS.

TABLE OF CONTENTS

	<u>Page</u>
GEOLOGY	1
ORE RESERVES AND ECONOMICS	3
EXPLORATION POTENTIAL	8
DRILLING SUMMARY	11
REFERENCES	11

LIST OF FIGURES

- Surface Geology	2
- Section 3200N	4
- Exploration Targets	9

"FOR A MINER MUST HAVE THE GREATEST SKILL IN HIS WORK, THAT HE MAY KNOW FIRST OF ALL WHAT MOUNTAIN OR HILL, WHAT VALLEY OR PLAIN CAN BE PROSPECTED MOST PROFITABLY, OR WHAT HE SHOULD LEAVE ALONE".

AGRICOLA (1556)

GEOLOGY

The Mount Polley alkalic porphyry copper-gold deposit, located 56 km northeast of Williams Lake in Central British Columbia, was discovered in 1964 by ground examination of a strong aeromagnetic anomaly and outcropping copper mineralization.

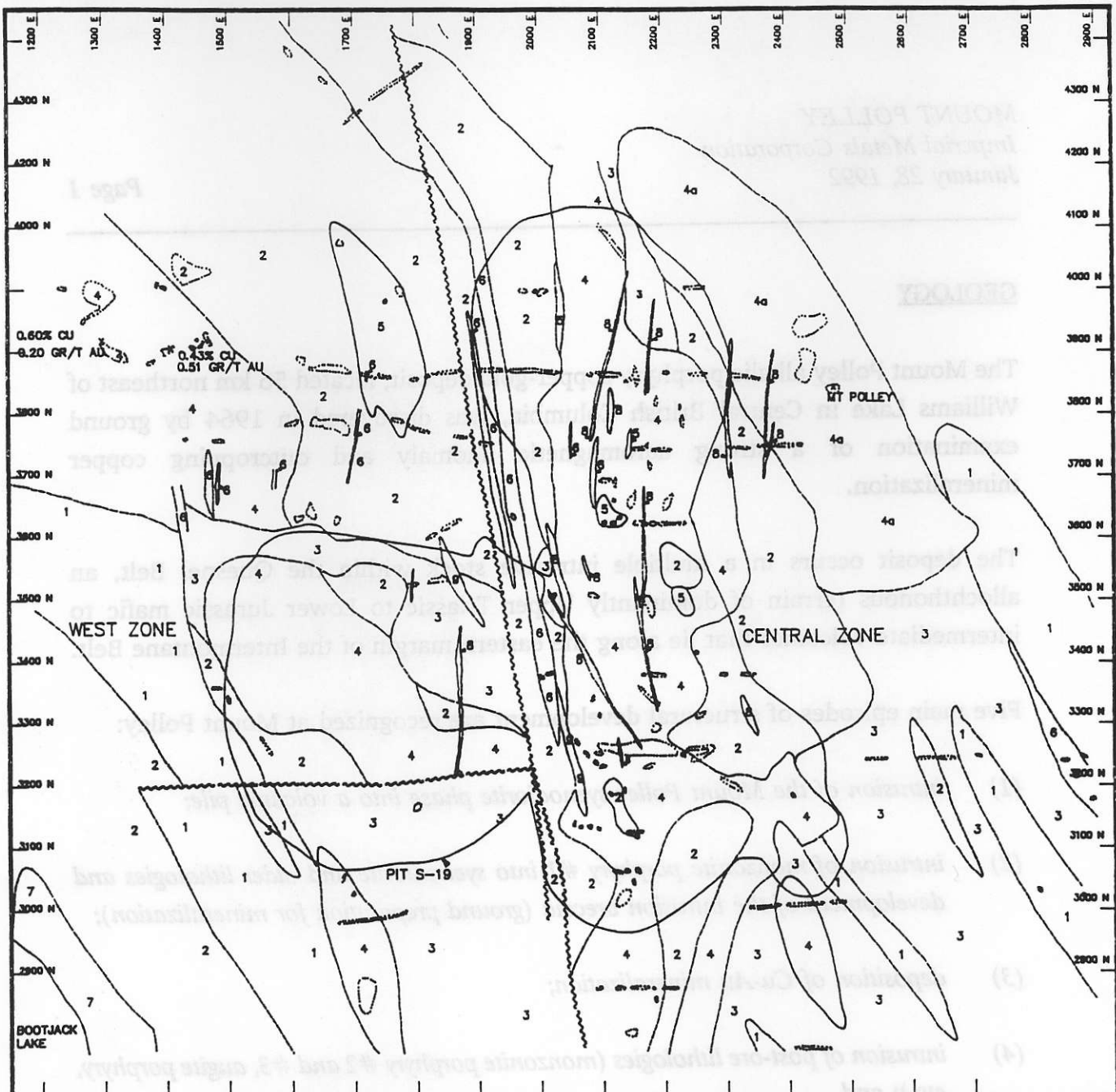
The deposit occurs in a multiple intrusive stock within the Quesnel Belt, an allochthonous terrain of dominantly Upper Triassic to Lower Jurassic mafic to intermediate volcanics that lie along the eastern margin of the Intermontane Belt.

Five main episodes of structural development are recognized at Mount Polley:

- (1) *intrusion of the Mount Polley syenodiorite phase into a volcanic pile;*
- (2) *intrusion of monzonite porphyry #1 into syenodiorite and older lithologies and development of the intrusion breccia (ground preparation for mineralization);*
- (3) *deposition of Cu-Au mineralization;*
- (4) *intrusion of post-ore lithologies (monzonite porphyry #2 and #3, augite porphyry, etc.); and*
- (5) *uplift and erosion during the Tertiary and Quaternary periods.*

Two principal zones of copper-gold mineralization, the Central Zone and West Zone, have been outlined by closed spaced drilling. The Central Zone is a tabular sill-like body of mineralized intrusion breccia with northerly strike and moderate easterly dip. The zone measures 1,100m along strike and is 200 to 450m wide. The West Zone forms the central portion of a westerly plunging pipe of mineralized intrusion breccia measuring 450m in diameter and extending to at least the drilled depth of 275m.

- 250 Tests bench scale Wrights. (core)
- 5 trenches for pilot plant. (150 tonne sample)



- 9 - ANDESITIC FELDSPAR PORPHYRY DYKE
- 8 - AUGITE PORPHYRY DYKE
- 7 - PYROXENITE, GABBRO
- 6 - MONZONITE PORPHYRY-3
- 5 - MONZONITE PORPHYRY-2
- 4/4a - INTRUSION BRECCIA
- 3 - MONZONITE PORPHYRY-1
- 2 - SYENODIORITE
- 1 - GREEN LAPILLI TUFF AND CRYSTAL TUFF

- — — — — GEOLOGICAL CONTACT
- ~~~~~ FAULT
- OUTCROP
- — — — — PIT S19 OUTLINE

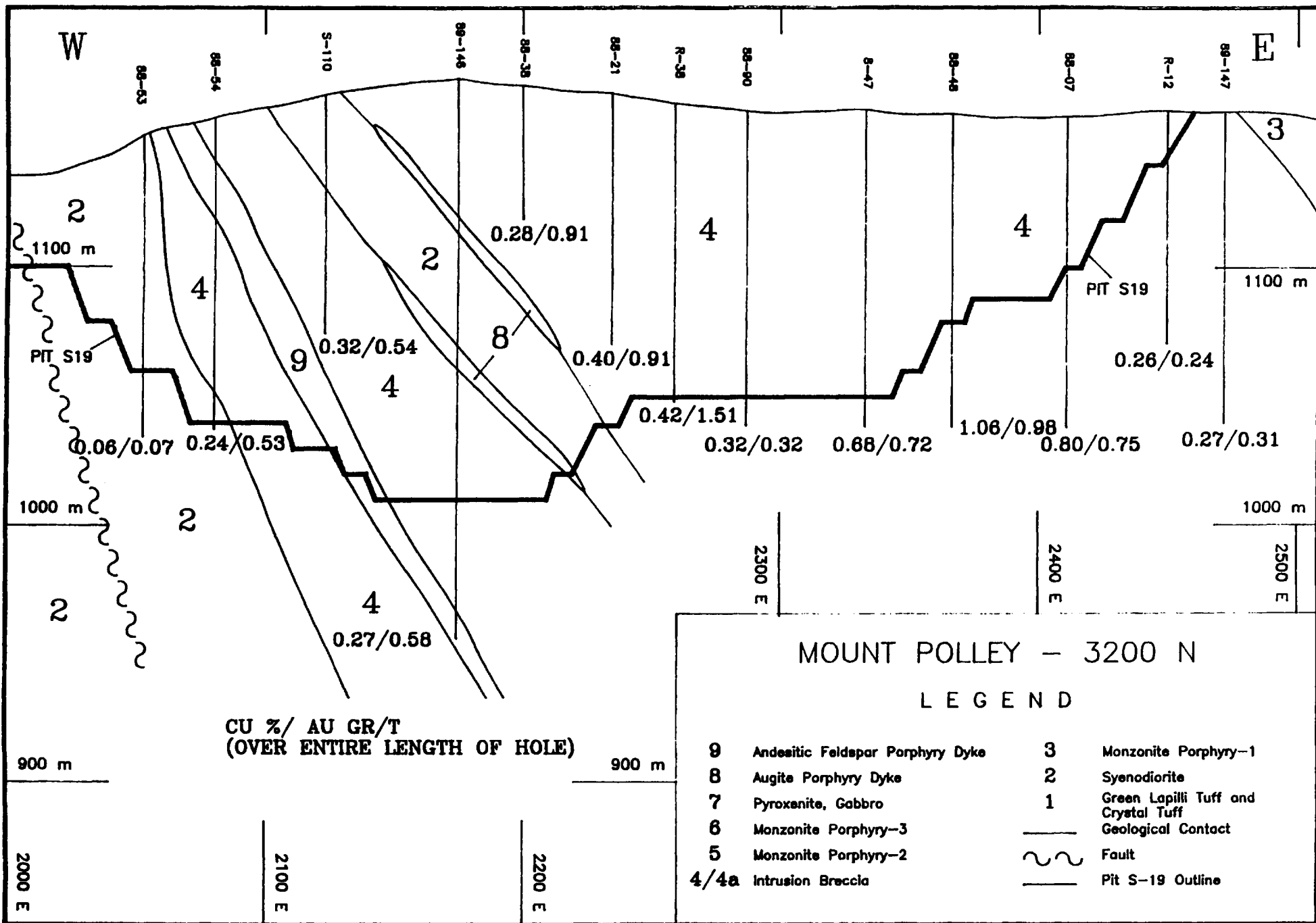
IMPERIAL METALS CORPORATION	
MOUNT POLLEY	
NTS 93 A/12	
SURFACE GEOLOGY	
METRES 0 100 200 300 400 500 METRES	
SCALE 1:10000	GEOLOGIST R. PESALJ
DATE JANUARY 1992	DRAWN BY D. GORG

Principal primary minerals, magnetite and auriferous chalcopyrite, occur as disseminations and veinlets in the breccia. The contact between breccia and breccia hosting lithologies is gradational.

Although several parts of the deposit are strongly oxidized, as a result of weathering, the very limited amount of supergene copper mineralization formed reflects the low pyrite content of the deposit. Pervasive potash K-spar-biotite-diopside alteration, coincident with the breccia, is surrounded successively by garnet-epidote and epidote alteration zones in the volcanic and intrusive wall rocks. A pyrite halo measuring 4,500m by 1,000m occurs well outside and structurally above the two main mineralized breccia bodies. Calcite veinlets occurring throughout the ore body and wall rocks and the absence of pyrite make the ore and waste rock acid-consuming.

ORE RESERVES AND ECONOMICS

1. The Mount Polley property consists of 21 contiguous claims comprising an area of 8,500 hectares. It is easily accessible from Williams Lake by 83 km of paved road and by 14 km of logging road. Location and logistics are excellent and experienced miners are readily available in the area.
2. Mount Polley presents an ideal opportunity for a low cost open pit copper-gold operation that will utilize standard and reliable mining and processing techniques proven in a number of similar open pit mines in British Columbia.
3. Mount Polley is environmentally benign. Extensive test work to date confirms that neither mine tailings nor waste rock are acid generating.
4. Stage I governmental approval is virtually complete. The project is expected to receive fast track status and allowed to proceed directly to Stage III permitting.



-
5. Mount Polley's start-up date would coincide with the depletion of ore reserves and planned shut down of three open pit copper mines in British Columbia ensuring a larger pool of qualified labour and reduced concentrate supplies.
 6. Presently known geological reserves at Mount Polley contain 2.8 million ounces of gold and 1.5 billion pounds of copper for a combined total gold equivalent of more than 6 million ounces.

Copper Equiv. cut-off %	0.20	0.25	0.30	0.35	0.40
Million tonnes	293	231	174	131	100
Copper %	0.230	0.256	0.286	0.317	0.346
Gold g/t	0.300	0.338	0.383	0.431	0.481

CONTAINED METALS

Copper, bill. lbs	1.49	1.30	1.10	0.92	0.76
Gold, mill. ozs	2.83	2.51	2.14	1.82	1.55
Gold Eq, mill. ozs	6.15	5.43	4.60	3.86	3.25

7. There is a significant expansion potential. In addition to the currently defined ore reserves and their extension potential (numerous drill holes terminated in ore, the reserves and the pit design coincide with the drilling depth), preliminary exploration drilling has identified four areas outside of and within 2 km from the proposed open pit which have the potential for further extending the reserves and mine life.
8. Favourable mineralization geometry and topography will facilitate a very high extraction rate of the geological reserves. The ultimate pit will extract 2.5 million ounces of gold and 1.3 billion pounds of copper for a combined total gold equivalent of 5.4 million ounces at a strip ratio of 0.7.

Economic parameters in the Bankable Feasibility Study completed by Wright Engineers Limited support the financing and development of Mount Polley based on the mining of open pit Pit S-19 which has probable mineable ore

reserves of 48.8 million tonnes grading 0.383% copper and 0.556 grams of gold per tonne using a copper equivalent cut-off grade of 0.39%. Pit S-19 would be mined over 10 years at an annual mill throughput of 5 million tonnes.

	ULTIMATE		PIT		Pit S-19
Copper Equiv. cut-off %	0.20	0.25	0.30	0.35	0.39
Million tonnes	243	196	155	119	49
Copper %	0.242	0.265	0.293	0.323	0.383
Gold g/t	0.317	0.352	0.394	0.440	0.556
Strip Ratio	0.7	1.1	1.7	2.5	1.8
CONTAINED METALS					
Copper, bill. lbs	1.30	1.15	1.00	0.85	0.41
Gold, mill. ozs	2.48	2.22	1.96	1.68	0.88
Gold eq, mill. ozs	5.38	4.78	4.20	3.58	1.80

Note: - Gold equivalent ounces at Feasibility Study prices.
 - Pit S-19 Feasibility Study.

9. Metallurgical testwork indicates average recoveries of 76.1% for copper and 80.2% for gold over the mine life. Annual production is projected to be approximately 29 million pounds of copper and 100,000 ounces of gold for the first 3 years. Over the projected 10-year mine life, production from Pit S-19 will average 30 million pounds of copper and 68,000 ounces of gold annually. The very clean copper concentrate produced will contain 25% copper and 1 to 2 ounces of gold per tonne. *possibly higher.*
10. The Capital cost to bring Mount Polley to production was estimated at Cdn \$131.5 million in 1990. This estimate includes \$13 million for contingencies and \$5 million for working capital. Operating costs per tonne on the basis of a 5 million tonnes per year operation are estimated at \$6.52.

smelter contract - fall 1991

MOUNT POLLEY
Imperial Metals Corporation
January 28, 1992

Ag recovery ✓

Page 7

11. The Feasibility Study assumes metal prices of US \$0.95 copper and US \$425 gold, and an exchange rate of US \$0.80. The before tax internal rate of return is 17.9% and the payback 3.2 years. Pit S-19 would generate cumulative net cash flow of \$109.4 million over the ten-year mine life.
discounted?

? interest on capital

12. Aggregate production cash costs, which include direct operating costs, refining, treatment, marketing, freight, transport and insurance are US \$0.25 per pound of copper produced over the mine life, after deduction of the gold credit or US \$115 per ounce of gold produced over the mine life, after deduction of the copper credit.

Mining of Pit S-19 (10 years)

CASE:	(1)	(2)	(3)	(4)	(5)
a) <u>Copper Production Cash Cost</u>					
Gold, \$/oz	425	356	402	475	325
Exchange Rate	0.800	0.884	0.827	0.800	0.800
Cash Cost, \$/lb	0.25	0.50	0.33	0.13	0.47
b) <u>Gold Production Cash Cost</u>					
Copper, \$/lb	0.95	1.08	1.11	1.25	0.75
Exchange Rate	0.800	0.884	0.827	0.800	0.800
Cash Cost, \$/oz	115.40	108.66	66.35	-3.57*	201.31

- (1) Feasibility Study - metal prices and exchange rates.
- (2) November 15, 1991 metal prices and exchange rates.
- (3) Nominal 1987-1991 average prices and exchange rates.
- (4) At upside metal prices.
- (5) At downside metal prices.

* Copper alone at \$1.25 per pound will cover all cash costs and generate \$3.57 profit to every ounce of gold produced. Gold (at any price) comes "free".

? magnetite separation?
1988 leaching test - too expensive.
Bruce Harwood.

MINE

13. Japanese smelter groups have indicated a willingness to purchase all of Mount Polley's concentrates under long term contracts. Under the proposed mining plan as outlined in the Feasibility Study, Mount Polley will produce annually between 50,000 and 60,000 tonnes of very clean, penalty free, concentrate containing 25% copper and 1 to 2 ounces of gold per tonne.
14. In terms of completion of a feasibility study, logistics, infrastructure, location and permitting Mount Polley is the most advanced porphyry copper-gold project in Canada.

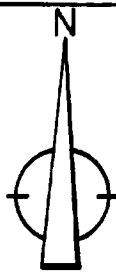
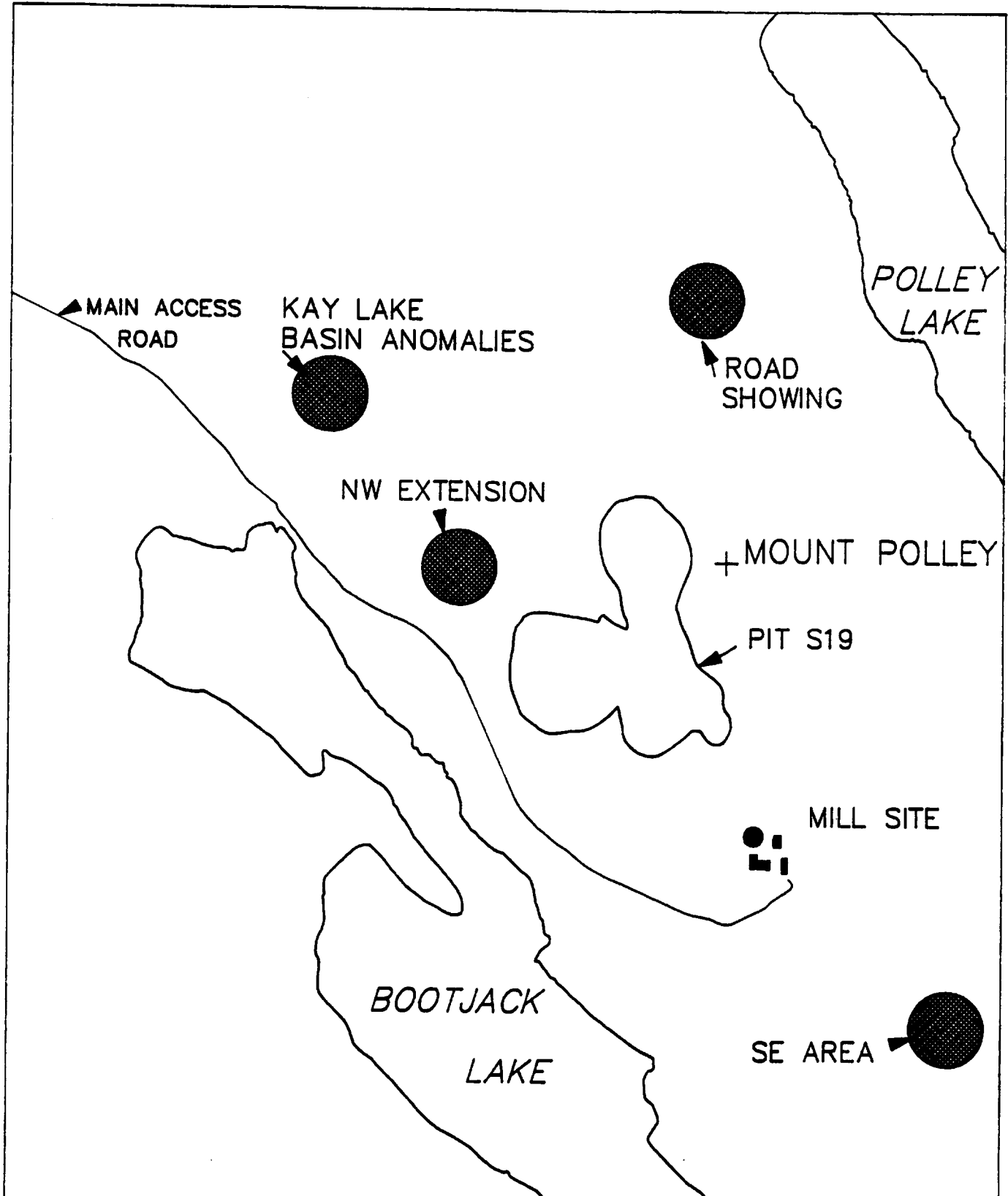
EXPLORATION POTENTIAL

In addition to the currently defined ore reserves and their extension potential, number of drill holes terminated in ore, (the reserves and the pit design coincide with the drilling depth), preliminary exploration drilling has identified four areas outside of the proposed open pit which have the potential for further extending the reserves.

Extensive exploration work in 1988 and 1989 included re-appraisal and collation of most of the exploration data acquired over the past 25 years. Four areas outside of the proposed open pit have been identified as having potential for additional reserves.

(i) Southeast Area

This area lies 1.8 km southeast of the S-19 pit, midway between Polley Lake and Bootjack Lake and has been tested by six holes. Four returned significant (ore grade) mineralization; the best intersected (from 15-190) 175 feet grading 0.42% Cu and 0.51 gr/t Au.



IMPERIAL METALS CORPORATION	
MOUNT POLLEY	
FIGURE	N.T.S. 93A/12
EXPLORATION TARGETS	
Metres 250 0 250 500 750 1000 Metres	
SCALE 1:25000	GEORGE S. PERAJ
DATED JANUARY 1992	ISSUED BY GORD/WR

These holes have defined a mineralized zone open in three directions, with a geophysically interpreted fault truncating the zone to the south. This area warrants detailed grid pattern drilling to further outline intrusion breccia hosted copper-gold mineralization.

(ii) Road Showing

About 1 km north of S-19 pit, along the west side of Polley Lake, numerous grab samples from an intrusion breccia average 1.4% Cu and 0.63 g Au/t. A total of four holes spaced at 300m were drilled. Near surface significant mineralization in two holes was intersected: 50 feet @ 0.24% copper and 0.31 g/t gold in one hole and 45 feet @ 0.30% copper and 0.25 g/t gold in the second hole.

(iii) Northwest Extension

About 300m northwest of the proposed pit boundary, copper-gold mineralization has been found in the host intrusion breccia, believed to be an extension of the West Zone. Surface grab samples along the same trend ranged up to 0.6% Cu and 0.5 g Au/t. Two holes drilled in this area returned 280 feet @ 0.29% Cu and 0.28 g/t Au and 220 feet @ 0.34% Cu and 0.39 g/t Au. Of the four target areas discussed in this section this one, due to its proximity to Pit S-19, offers the most immediate promise.

(iv) Kay Lake Basin Anomalies

About 1 km northwest from the Northwest Extension area is a large, prominent copper soil anomaly reaching about ten times the local background levels. Although this anomaly, which coincides with a glacial dispersal train from the West Zone, may be entirely transported, the strength and size of the anomaly warrants testing by IP surveys and drilling.

MOUNT POLLEY - DRILLING SUMMARY

YEAR	COMPANY	HOLES	FEET	REMARKS	AREA
1966/67	Cariboo Bell Copper	123 (S1-S123)	48,325	DD holes	Property Wide
1966/67	Cariboo Bell Copper	38 (P1-P38)	6,585	Percussion holes	Property Wide
1967-70	Cariboo Bell Copper	30 (S200-S229)	11,849	DD holes	Property Wide
1972	Cariboo Bell Copper	17 (P39-P51)	4,185	Percussion holes	Property Wide
1977	Highland Crow Res.	7 (P62-P68)	1,880	Percussion holes	NW End
1978	Highland Crow Res.	5 (P69-P73)	1,161	Percussion holes	NE End
1979	Teck Corporation	6 (CB1-CB6)	1,750	Percussion holes	Pit Area
1981	E & B	7 (S230-236)	5,727	DD holes	Pit Area
1981	E & B	7 (R1-R7)	4,250	Rotary holes	Pit Area
1982	E & B	17 (S237-S253)	11,762	DD holes	Pit Area
1982	E & B	11 (R8-R18)	5,040	Rotary holes	Pit Area
1986	E & B	22 (R19-R40)	8,170	Rotary holes	Property Wide
1988	Imperial Metals	99 (MP1-99)	29,126	DD holes	Pit Area
1989	Imperial Metals	<u>139</u> (MP100-238)	<u>61,313</u>	DD holes	Pit Area
		<u>528</u>	<u>201,123</u>		

REFERENCES

Hodgson, C.J., Bailes, R.J. and Verzosa, R.S., (1976): Cariboo Bell, CIM Special Volume No. 15.

Wright Engineers Limited, (1990): Mount Polley Project, Feasibility Study.

- F. Banfield did computer block model.
- 10' and 5' assays - no regard for dykes.
- diluted by dykes

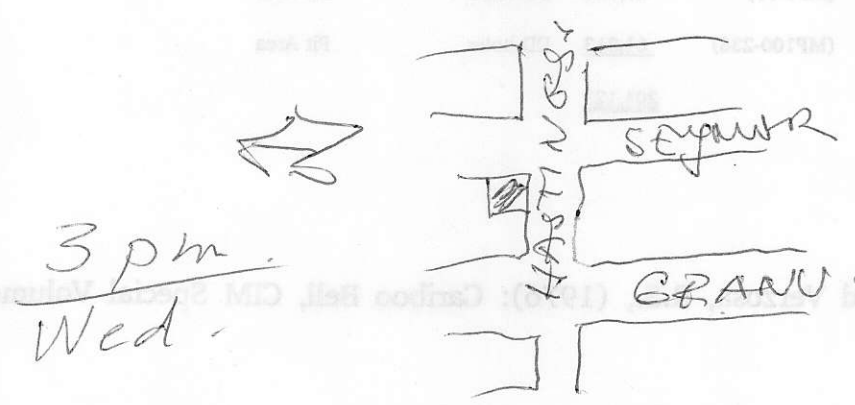
W.I = 18 Kwh/t

48.7 M @ .38 Au
.52 gpt Au.

.9/1 SR. } 4 year starter pit @ higher gold
(.9 gpt Au)

- 74 Km powerline to McCrease LK.
- rd. paved to Lickley.
- [Km 14] logging rd to site.
- 83 Km paved from William LK.
- road to B.C. rail in Williams LK.
- tailings [4-5 M]
- mine 16 M
- mill 46

65% - 200 M. grind.



MOUNT POLLEY
Imperial Metals Corporation
January 28, 1992

January 24, 1992
EIM/MIP/9172/rev002