

### DIAMOND DRILLING REPORT ON THE WOODJAM PROPERTY

Cariboo Mining Division British Columbia

NTS - 93 A/3, A/6 W 52° 16' North Latitude 125° 00' West Longitude

by

Stephen Wetherup, B.Sc.

Phelps Dodge Corporation of Canada, Limited Suite 1409 - 409 Granville Street Vancouver, B.C. V6C 1T8

Work Paid for by Phelps Dodge Corporation of Canada, Limited

May 19, 2000

GEOLOGICAL SURVEY BRANCH ASSESSMENT REPORT

# Table of Contents

SUMMARY	i
INTRODUCTION	1
LOCATION AND ACCESS	1
CLAIMS	1
HISTORY	2
REGIONAL GEOLOGY	2
PROPERTY GEOLOGY	5
MINERALIZATION	6
1999 WORK PROGRAM	
RESULTS	
Drill Hole Summaries	7
CONCLUSIONS AND RECOMMENDATIONS	
DISBURSEMENTS	

# List of Figures

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Figure 1 - Location & Access Map	
Figure 2 - Property & Claim Map	4
Figure 3 - Property Geology	pocket
Figure 4 - Drill Section Plan	pocket
Figure 5 - Hole 99-20 Cross Section	
Figures 6 a, b, c - Holes 99-21/22 & 23 Cross Sections	

# List of Tables

Table I - Claim Status	1
Table II - Drill Hole Locations	7

# **Appendices**

Appendix I - Core Sample Assay Certificates	13
Appendix II - Drill Logs	14
Appendix III - Authors' Certificates	

#### SUMMARY

The Woodjam property, which includes the Megabuck zone, covers a gold-rich porphyry target that lies about seven kilometres south of the village of Horsefly and approximately 50 kilometres northeast of Williams Lake in the Cariboo Mining Division of British Columbia. Access is by paved highway to Horsefly, then by secondary logging roads and unimproved mining access trails to the principle areas of interest.

The claims are underlain by a complex succession of possible Triassic-Jurassic Takla Group volcanic and related sedimentary rocks, which have been intruded by the Jurassic, calc-alkaline Takomkane Batholith to the south and east. The property area includes the northern contact of the batholith and several monzonite to syenite plugs. The Megabuck zone is hosted by one of these monzonite intrusions.

The Megabuck showing was previously tested by 19 diamond drill holes (17 reached bedrock) for a combined length of 1670 metres. Mineralization at the Megabuck zone comprises disseminated chalcopyrite on fractures and in veinlets with quartz or magnetite within monzonite intrusions of possible sill-like character. A high gold zone (>~0.5 gpt gold) with dimensions of 200 metres by 150 metres is defined by six drill holes and two trenches. These trenches, excavated across the zone in 1986, obtained gold grades on the order of 1.1 g Au/T over lengths of up to 65.0 metres. Copper grades in the zone are low, rarely exceeding 0.20% over a single sample interval.

Work completed in 1999 consisted of the drilling of four diamond drill holes, totalling 766.9 metres between August 3 and August 19, 1999. The first hole, DDH 99-20, tested the vertical extent of the Megabuck zone and encountered a quartz-chalcopyrite stockwork and disseminated chalcopyrite in altered magnetite bearing igneous breccias over the entire length. This hole assayed from top to bottom 197.9 meters grading 0.10% Cu and 0.58 g Au/T including 79.6 meters from 2.4 meters to 82.0 meters grading 0.13% Cu and 0.85 g Au/T. Holes 99-21 and 99-22 situated 200 meters and 400 meters south of 99-20, tested magnetic anomalies similar to the Megabuck zone. Both holes intersected magnetite-bearing feldspar-rich intrusive and intrusive breccia and returned low values in gold and copper. Hole 99-23 was collared 900 meters southeast of 99-20 and was drilled to test a coincident magnetic and geochemical target also similar to the Megabuck zone. This hole intersected magnetite bearing maroon and green tuffaceous siltstone and returned low copper and gold values.

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#### INTRODUCTION

This report presents the results of a diamond drilling program completed on the Woodjam property, Cariboo Mining Division, British Columbia. Work was completed by Phelps Dodge Corporation of Canada, Limited between August 3 and August 19, 1999. The work program comprised four diamond drill holes, totaling 766.9 metres and tested magnetic high anomalies centered on the Megabuck showing and surrounding area.

### LOCATION AND ACCESS

The Woodjam property is a gold-rich porphyry copper target that lies some 50 kilometres northeast of Williams Lake and seven kilometres south of the village of Horsefly in the Cariboo region of British Columbia. Access is by paved highway to Horsefly, then by seven kilometres of secondary logging roads and tertiary logging trails to the principle areas of interest (Figure 1). The area is flat with extensive overburden and is partially vegetated by first and second growth mature pine forests that have been selectively thinned. Portions of the property have been clear-cut logged.

# CLAIMS

Eight claim blocks totalling 142 units (3550 hectares) comprise the Woodjam property and are currently held by Phelps Dodge Corporation of Canada, Limited under option from Wildrose Resources Ltd. Subsequent to the 1999 work program these claims will have work recorded to either February 19, 2003 or 2004. A summary of the claim status for the Woodjam property is listed in Table I and depicted in Figure 2. Expiry dates assume that work described in this report is accepted for assessment purposes.

Claim Name	Tenure #	Units	Date Recorded	Expiry Date
Woodjam 5	367190	20	11/23/1998	09/19/2003
Woodjam 6	367883	20	02/17/1999	09/19/2003
Woodjam 7	364884	20	02/17/1999	09/19/2003
Woodjam 8	367885	18	02/17/1999	09/19/2003
Woodjam 9	367886	20	02/18/1999	09/19/2003
Woodjam 10	367887	20	02/18/1999	09/19/2004
Woodjam 11	367888	20	02/19/1999	09/19/2003
Woodjam 12	367889	4	02/18/1999	09/19/2003

#### Table I - Claim Status

#### HISTORY

The Woodjam property covers two mineral showings, the Megabuck prospect, which is the main focus of this work program and the Takom zone. Exploration began in the area of the present Woodjam property in 1966. The claims have been explored by Helicon Exploration and Magnum Consolidated Mining (1966-67), Exploram Minerals (1973-77), Placer Development (1983-4) and Archer Cathro and Associates for Rockridge Mining (1984). Noranda held the property briefly in 1992 and flew an airborne survey over the main showings. Prior to this program 19 diamond drill holes (17 reached bedrock) totalling 1670 metres have tested the Megabuck mineralized zone. The zone is open at depth, to the northeast and to the northwest from the current drill pattern. Shallow (~ 60 metres) bounding holes to the south and east are characterized by intense pervasive phyllic alteration.

Work completed is tabulated below:

1966 to 1967	Unknown.
1973 to 1974	Diamond drilling - two holes at the Megabuck showing, three holes at
	the Takom showing, IP, magnetometer, soil geochemistry.
1983 to1984	drilling, VLF, soil geochemistry, seismic, magnetometer surveys.
1992	Airborne magnetometer, EM, radiometrics.

#### **REGIONAL GEOLOGY**

The claims are underlain by a succession of possible Triassic-Jurassic Takla Group volcanic and related sedimentary rocks, which have been intruded by the Jurassic, calcalkaline Takomkane Batholith to the south. The target area includes the northern contact of the batholith, several monzonite to syenite plugs of unknown affinity and two granodiorite plugs possibly related to the Takomkane Batholith.

The Takomkane Batholith consists of multiple phases of early Jurassic granodiorite. It comprises one of a series of at least six large coeval bodies extending from the vicinity of Williams Lake just northwest of the Woodjam property and south to the international border. This suite includes the Guichon Batholith, that hosts the large Highland Valley deposits, and the Granite Mountain Batholith that hosts the Gibraltar deposit.



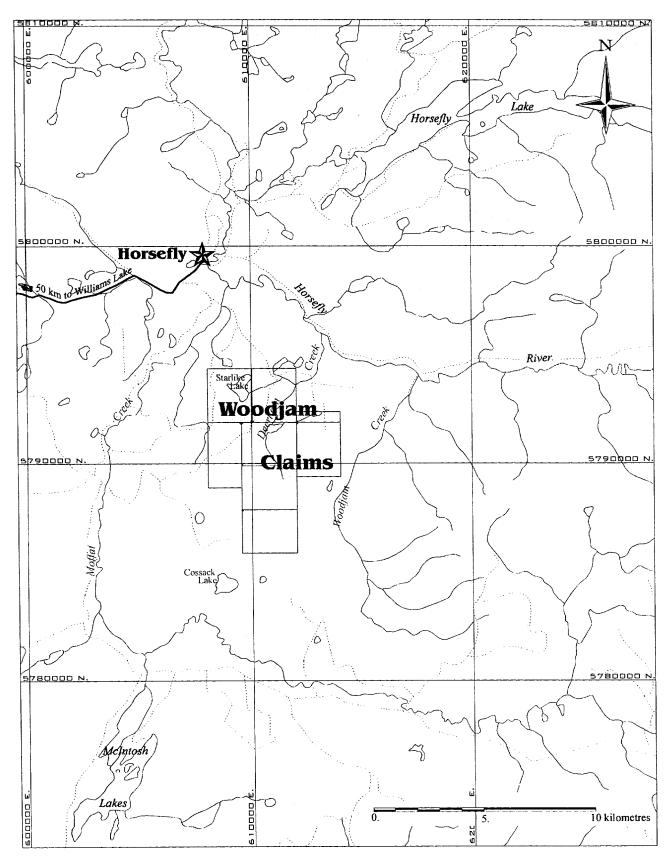


Figure 1: Location and access

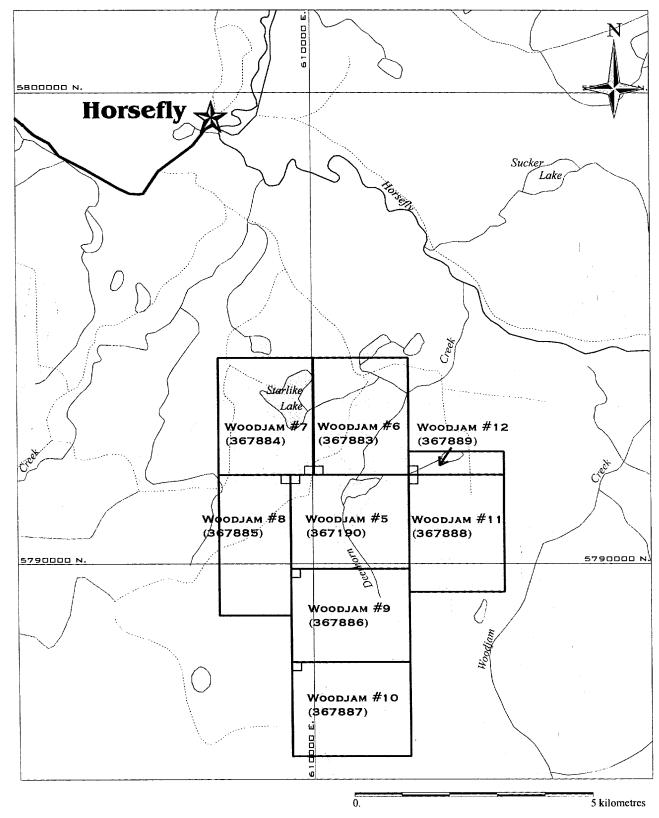


Figure 2: Woodjam Property, claim map

#### PROPERTY GEOLOGY

The east side of the Woodjam Property is underlain by quartz monzonite to granite of the Takomkane Batholith. The remainder of the property contains exposures of andesitic tuff, tuffite, flows, greywacke, and minor conglomerate, which are intruded by small syenite, quartz monzonite, or monzodiorite bodies. Overlying all of these rocks are tertiary basalts that appear on the western and northern portions of the property (Figure 3).

The Takomkane Batholith on the property is homogenous in both texture and composition. It is generally a medium to coarse grained, equigranular, white, quartz monzonite to granite, with 5 to 15% hornblende, and rare biotite. A number of border phases occur adjacent to the batholith. These include several diorite and monzodiorite plugs and dykes as well as a distinctive bladed feldspar granodiorite porphyry. The diorite and monzodiorite phases over a few hundred metres. Diorite and monzodiorite rocks are medium grained, and contain 10-20% hornblende as the dominant mafic mineral. However, euhedral pyroxene phenocrysts are observed locally, in the absence of hornblende, and comprise 5-20% of the rock. Two bladed feldspar granodiorite bodies occur at the south end of the property, and are characterized by 10-25%, 5-10 mm long feldspar laths in a light grey fine grained matrix. Epidote alteration of the feldspars is common and specular hematite is also locally found within the feldspar grains.

Volcanic units on the property are comprised mostly of monotonous fine grained, green, andesitic tuffite/tuff/ greywacke. Mauve andesite flows and tuffite beds, as well as siliceous conglomerate layers occur but are rare. In the Megabuck area, the volcanic units are more variable and coarser grained often containing broken 3-4 mm feldspar crystals. Bedding measurements throughout the property trend west to west-southwest dipping moderately to the north. The crystal tuff/tuffite units appear to continue to the northeast of the Megabuck Zone and are overlain by a pyritic, siliceous conglomerate. Andesitic volcanic breccias are also seen in the drill core from the Megabuck Zone.

Hornfels and epidote alteration is prevalent within the volcanic units and increases in intensity with proximity to the Takomkane Batholith and its satellite phases. Weak epidote alteration takes the form of epidote rich pods (1-3%) which occur predominantly along bedding planes. Moderate alteration is typified by numerous epidote pods (5% to 15% of the rock) and pervasive epidotization of the remainder of the rocks mass (5-15%). Finally, intensely altered volcanic rocks are highly magnetic and contain abundant epidote throughout (15-20%). Locally, magnetite-epidote alteration can grade into magnetite-biotite (potassic) alteration. East of the Takom Zone, podiform epidote alteration occurs along east-west oriented fractures within diorite and is associated with tourmaline veining and rare chalcopyrite. Tourmaline veining also occurs within hornfelsed volcanic rocks in the Spellbound Zone.

#### **MINERALIZATION**

Mineralization at the Megabuck zone consists of chalcopyrite, disseminated along fractures and in thin quartz veinlets, often with magnetite. Pyrite content is variable, being low in the core of the Megabuck zone and increasing outwards into the surrounding phyllic altered volcanic sediments. Descriptions from prior drill logs describe pervasive alteration with potassic alteration accompanied by quartz and quartz carbonate veinlets and intense phyllic style alteration described as "bleaching, pyrite, clay and sericite".

The Takom zone is located 2.5 kilometres south of the Megabuck zone and was not tested by the current work program. It comprises a combined copper and gold soil anomaly that had been previously tested by trenching and four diamond drill holes. One intersection measuring 10.7 metres grading 1.3 gpt gold and 0.13% copper was encountered. Drill hole descriptions are unavailable.

The Spellbound Zone consists of tourmaline breccias and veining within hornfelsed volcanic rocks. These veins contain rare chalcopyrite.

# **1999 WORK PROGRAM**

The 1999 work program on the Woodjam property includes the drilling of four NQWL diamond drill holes totaling 766.9 metres. Previous ground geophysical surveys over the Megabuck showing revealed a coincident magnetic high associated with it. There were also several other similar magnetic highs in the area south and east of the Megabuck showing. Drilling by Leclerc Drilling of Beaverdell B.C. commenced on August 3 and ran to August 17. All core was logged and sampled on site and is stored 50 metres south of the collar location of hole 99-20. Cores from previous operators in various states of deterioration are also stored at the same locality.

All core was split and sampled in two metre intervals and analysis was completed on either single one sample intervals or on pulps that were combined into two sample composites (i.e. 4 metre interval). Sampled intervals are indicated on the attached drill logs. Samples were analyzed by Acme Analytical Labs Ltd., 852 East Hastings Street, Vancouver, BC for 36 elements by ICP-MS from a 30 gram aliquot. Analytical procedures are described on the attached assay certificates.

# RESULTS

Four diamond drill holes (Table II) totaling 766.9 metres were completed to test the four magnetic highs identified by the ground magnetic survey. Drill holes locations are presented on figure 3 and 4 and plotted as sections in figures 5 and 6.

#### Table II - Drill Locations

Drill Hole	Easting ('99 Grid)	Northing ('99 Grid)	Azimuth	Dip	Length (m)
99-20	100+15	100+05	0	-90	200.3
99-21	100+60	97+95	123	-72	160.6
99-22	101+45	96+00	305	-72	227.4
99-23	108+50	95+35	35	-54	178.6

The four holes, 99-20, 99-21, 99-22, and 99-23 are briefly summarized below, with full drill logs located in Appendix II and the complete lab certificates in Appendix I.

# **Drill Hole Summaries**

2.4m

# DDH 99-20

This hole intersected a complex pile of magnetite bearing sericitic and potassic altered volcanic and sub-volcanic breccias and epiclastics possibly in or near a volcanic edifice. This hole assayed from top to bottom 197.9 meters grading 0.10% Cu and 0.58 g Au/T including 79.6 meters from 2.4 meters to 82.0 meters grading 0.13% Cu and 0.85 g Au/T.

0m

# Casing

2.4m

# 31.5m Volcanic/intrusive breccia

Mottled pale green and pink-brown. Feldspar porphyry clasts in a fine grained feldspar phyric groundmass. Quartz and calcite vienlets throughout. Chalcopyrite trace to 1% as irregular stringers with quartz and finely disseminated. 1 to 3% magnetite disseminated as 1mm blebs throughout.

# 31.5m 44.8m **Tuffaceous sandstone** Grey, fine grained, massive, locally bedded. Quartz and calcite vienlets throughout. Chalcopyrite trace to 1% as irregular stringers with quartz and finely disseminated. 1 to 3% magnetite disseminated as 1mm blebs throughout.

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- 44.8m 51.9m Polymictic volcanic breccia Grey and brown fine grained feldspar-phyric clasts in a fine grained feldsparphyric groundmass. Quartz and calcite vienlets throughout. Trace disseminated and veinlet chalcopyrite. 1% magnetite disseminated as 1mm blebs throughout.
   51.9m 92.0m Sericitic volcanic breccia/volcanic grit
  - Pale green-gray and bleached. Textures variably destroyed due to sericitic alteration. Bedded to fragmental. Abundant sericite on fracture surfaces. Chalcopyrite to 0.5% in quartz veinlets. Disseminated hematite after magnetite 1 to 3%

# 92.0m 106.2m Intense sericitic volcanic Textures completely destroyed. Massive waxy green.

- 106.2m 122.0m Sericitic volcanic breccia/volcanic grit Pale green-gray and bleached. Textures variably destroyed due to sericitic alteration. Bedded to fragmental. Sericite on fracture surfaces. Chalcopyrite to 0.5% in quartz veinlets. Disseminated magnetite with hematitic rims 1 to 3%. Local disseminated pyrite.
- 122.0m 133.0m Volcanic/intrusive breccia Mottled pale green and pink-brown. Feldspar porphyry clasts with glassy groundmass in a feldspar phyric, grey fine grained groundmass. Quartz and calcite vienlets throughout. Trace of chalcopyrite as irregular stringers and finely disseminated throughout. 1 to 3% magnetite with hematitic rims disseminated as 1mm blebs throughout.
- 133.0m 160.0m Altered Monzonite Green-grey medium grained. Chalky feldspar and ragged hornblende. Weak to moderate sericitic overprint. Massive with local feldspar rich clasts and local grit like textures. Fine grained pyrite and magnetite disseminated throughout.
- 160.0m 200.3m **Monzonite** Green-grey medium grained. Feldspar and ragged hornblende. Massive with local feldspar rich clasts and local grit like textures. Fine grained pyrite and magnetite +/- hematite disseminated throughout.

# DDH 99-21

This hole intersected a cohesive package of hornblende and magnetite bearing Phelps Dodge Corporation of Canada, Limited Suite 1409 – 409 Granville Street, Vancouver, BC V6C 1T8 Telephone (604) 669-2954 Fax (604) 681-3920

volcanic or sub-volcanic intrusive breccia and monzonite. The magnetite content adequately explains the magnetic anomaly tested. The hole was terminated due to squeezing at 97.2 metres depth. No significant results were returned.

- 0m 25.9m Casing
- 25.9m 97.2m Intrusive/intrusive breccia Grey-green, medium grained. Feldspar>hornblende>quartz. Massive, local monomictic breccia zones with minor feldspar porphyry clasts. Weak sericitic overprint. 1 to 3% disseminated magnetite blebs throughout. Rare very fine grained pyrite and chalcopyrite.
- 97.2m 160.6m **Monzonite** Grey-green, fine to medium grained. Feldspar> hornblende> quartz. Massive, common monomictic breccia zones with feldspar porphyry clasts. Moderate sericitic +/- chlorite over print. 1 to 3% disseminated magnetite blebs throughout. Rare very fine grained pyrite and chalcopyrite.

#### DDH 99-22

31.1m

This hole intersected magnetite bearing volcanic and sub-volcanic igneous and epiclastic rocks overprinted by a wispy or pervasive red-brown sericitic or potassic alteration. This alteration increased in intensity after 142 meters to the end of the hole but analysis indicates no significant results. Magnetite content was significant enough to account for the magnetic anomaly tested.

Casing

- 0m 31.1m
  - 69.0m **Tuffaceous sandstone** Grey-green, medium grained. Angular feldspar, amphibole, quartz crystal fragments. Massive to bedded(?). Minor feldspar physic clasts. Weak pervasive hematitic/sericitic or biotite alteration.
- 69.0m 97.0m Volcanic/intrusive breccia Grey-green medium grained. Feldspar and hornblende bearing. Common light and dark, fine and medium grained igneous clasts. Trace to 1% magnetite blebs. Pervasive wispy brown hematite/sericite or biotite alteration.
- 97.0m 109.0m **Tuffaceous sandstone** Grey-green, fine to medium grained. Angular feldspar, amphibole, quartz crystal fragments. Massive to bedded(?). Minor feldspar phyric clasts. Weak pervasive hematite/sericite or biotite alteration. Weakly magnetic.

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- 109.0m 123.5m **Volcanic/intrusive breccia** Grey-brown. With feldspar porphyry clasts in a fine-grained, feldspar and amphibole bearing matrix. Weakly magnetic. Wispy to pervasive red-brown hematite/sericite or biotite alteration.
- 123.5m 142.0m Sericitic volcanic/intrusive breccia Red-brown matrix with pale green clasts. Matrix harder than clasts. Local texture destroying sericitic alteration in clasts. Minor disseminated pyrite in some clasts.
- 142.0m 227.4m Volcanic/intrusive breccia Grey-green, medium grained matix. Fine grained to porphyritic clasts. Local tuffaceous zones. Trace to 1% disseminated magnetite and pyrite. Rare chalcopyrite. Wispy to pervasive red-brown hematite/sericite or biotite alteration.

### DDH 99-23

This hole intersected a monotonous pile of tuffaceous siltstone with disseminated magnetite, hematite and epidote. Magnetite content was sufficient to explain the magnetic anomaly tested. No significant results were returned.

- 0m 19.5m Casing
- 19.5m 160.0m **Green tuffaceous siltstone** Fine grained, massive. Trace to 2% disseminated magnetite, local spotty epidote.
- 160.0m 178.6m **Maroon tuffaceous siltstone** Fine grained, massive. Trace to 1% disseminated hematite, local spotty epidote.

# **CONCLUSIONS and RECOMMENDATIONS**

The Woodjam property, which includes the Megabuck zone, covers a gold-rich porphyry target hosted by possible Triassic-Jurassic Takla Group volcanic and related sedimentary rocks, which have been intruded by the Jurassic, calc-alkaline Takomkane Batholith.

Work completed in 1999 consisted of the drilling of four diamond drill holes, totaling 766.9 metres that tested magnetic high anomalies over and near the Megabuck showing. The

first hole, DDH 99-20, tested the vertical extent of the Megabuck zone and encountered a quartz-chalcopyrite stockwork and disseminated chalcopyrite in altered magnetite bearing igneous breccias which assayed 0.10% Cu and 0.58 g Au/T over 197.9 meters. Holes 99-21 and 99-22 situated 200 meters and 400 meters south of 99-20, tested magnetic anomalies similar to the Megabuck zone. Both holes intersected magnetitebearing feldspar-rich intrusive and intrusive breccia and returned low values in gold and copper. Hole 99-23, collared 900 meters southeast of 99-20 intersected magnetite bearing maroon and green tuffaceous siltstone and returned low copper and gold values.

Work to date was successful in extending the depth extent of the Megabuck Zone, however holes drilled south and southeast of the zone were barren. The zone is partially open to further drill extensions to the northeast and northwest. This would be aided by additional magnetic, induced polarization and soil geochemical surveying.

#### DISBURSEMENTS

Expenditures covered by this assessment report are tabulated below. Of this sum \$48,600 was applied for assessment credit against the claims.

Company/Person	Time/No. and Rate	Total Amount
Acme Analytical Labs	221 @ \$26.71/sample	\$ 5903.03
LeClerc Drilling	N/A	\$ 40,881.91
Durfeld Geological	17 days @ \$249.04/day	\$ 4233.70
Phelps Dodge	23 days @ \$300.00/day	\$ 6900.00
Greg Kulla	23 days @ \$49.57/day	\$ 1140.00
/ L F	Acme Analytical Labs LeClerc Drilling Durfeld Geological Phelps Dodge	Acme Analytical Labs221 @ \$26.71/sampleLeClerc DrillingN/ADurfeld Geological17 days @ \$249.04/dayPhelps Dodge23 days @ \$300.00/day

Total \$ 59, 058.64

Prepared by:

# PHELPS DODGE CORPORATION OF CANADA, LIMITED

Per:

Stephen Wetherup. B.Sc. May 19, 2000

# **APPENDIX I**

# **Core Sample Assay Certificates**

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E 517010 RE 517010 17011 17012 17013	22.98 22.99 22.35	8 1711. 8 1705. 9 1349. 5 1642. 1 1197.	5.87 3 9.51 2 2.11 1	32.69 25.38 15.23	318.0 269.1 178.0	.6 118 .7 107 .0 174	181 4 071 6 742 4	4.7 ] 6.0 ] 4.5 ]	13.9 13.8 14.1	955 1059 982	5.15 5.10 5.10	5.2 4.7 4.6	.3 .3 .3	1188. 1024. 1862.	81. 21. 01.	1 54.9		. 15 . 11 . 13	0. 0.	04 137 04 141 04 136	1.19 1.42 1.34	.082 .080 .077	3.3 3.2 3.1	13.5 10.2 12.6 10.1 11.1	.82 .80 .88	96.2 180.9 93.8	.113 .109 .104	5 5 5 5	. 83 . 81 . 84 . 88	.086 .091 .082 .094	.06 3. .07 3. .06 3. .07 3.	7 <.0 8 <.0 6 <.0 5 .0	)2 ! )2 <br )2 </td <td>5.9 7.7 5.7 5.6</td> <td>.03 .02 .03 .03</td> <td>3 5.0 3 5.4 2 5.4 3 5.6 3 5.1</td> <td>.12 .10 .12 .06</td>	5.9 7.7 5.7 5.6	.03 .02 .03 .03	3 5.0 3 5.4 2 5.4 3 5.6 3 5.1	.12 .10 .12 .06
17014 17015 17016 17017 17018	26.88 21.88 20.55	2 1314. 8 1738. 8 1760. 5 1506. 2 1024.	8.18 1.61 5.66	8.37 8.39 7.18	155.4 220.4 182.1	.4 110 .4 100 .7 81	108 6 008 3 818 4	6.4 1 3.5 1 4.8 1	14.7 14.2 14.5	1223 1813 1886	5.34 5.27 5.23	5.2 8.7 7.5	.3 .3 .2	1212. 1031. 922.	51. 0. 61.	9 61.5 0 55.5 9 59.6 0 48.7 3 53.7	.68 .82 .47	. 12 . 12 . 15	0. 0. 0.	06 125 02 118 02 105	1.58 2.29 2.42	.077 .074 .076	3.4 3.4 3.6	12.1 13.8 8.3 11.3 8.8	.77 .81 .91	96.8 69.0 83.1	.096 .072 .055	6 6 4 1 5	.88 .89 .08 .90	.103 .097 .084 .073	.07 4 .05 2 .07 2 .06 1	.4 <.0 9 <.0 5 <.0 6 .0	)2 <br )2 <br )2 ! )2 </td <td>7.8 5.7 5.7 5.6</td> <td>. 04 . 04 . 02 . 03</td> <td>3 5.1 4 5.4 4 4.9 2 5.2 3 5.2</td> <td>.12 .13 .11 .08</td>	7.8 5.7 5.7 5.6	. 04 . 04 . 02 . 03	3 5.1 4 5.4 4 4.9 2 5.2 3 5.2	.12 .13 .11 .08
17019 17020 17021 17022 E 517022	15.47 19.85 17 00	8 1194. 7 1186. 5 1312. 8 1516. 9 1578.	5.83 1 2.65 1 60 1	16.10 16.33 1/ 80	184.1 187.9 100 (	.1 60 .5 90 0 0]	609 2 968 2 018 1	2.7 1 2.8 1 ] [] ]	12.8 12.9 12.3	1964 2050 1541	4.70 4.89 4.94	10.7 15.4 10.б	.2 .2 .2	679. 1406. 781.	61. 81. 51.	4 54.0 6 59.9 7 58.3 0 71.0 9 72.0	.44 .46 .59	. 23 . 40 . 22	0. 0. 0.	03 102 02 114 05 95	1.32 1.52 2.36	. 088 . 097 . 081	4.9 6.6 7.1 3.6 3.7	3.8 5.1 4.2	.68 .55 .76 .80	65.4 51.6 34.5 76.2 81.3	.013 .011 .056 .056	5 5 6 1 6 1	.94 .91 .11 .17	.065 .066 .078 .083	.06 .07 .07 2 .07 2	.6 .0 .3 .0 5 .0 6 .0	12 1 12 1 12 1 12 1 12 1	0.3 8.4 9. <sup>7</sup> 8. <sup>7</sup>	. 02 . 07 . 12 . 11	5 4.5 2 4.9 7 4.8 2 5.2 1 5.3	.04 .05 .11 .12
RE 517022 17023 17024 17025 17026	19.55 14.89 17.71	5 1471. 9 924. 1 1339. 6 1572. 6 1603.	.96 1 .27 3 .64 6	16.01 36.42 60.35	194.2 283.1 381.8	2 99 1 94 8 111 7 89	957 3 948 1 118 3 895 1	3.11 1.31 3.31 121	12.4 12.0 13.4 12.9	1558 1187 1188 1377	4.99 4.78 5.10 5.08	10.6 7.2 5.9 10.1	.2 .2 .1	562. 726. 835.	3. 2. 31.	9 69.2 9 63.0 0 59.9	.60 1.67 2.08 1.04 2.16	. 29 . 13 . 24	<.0 <.0 <.0	02 113 02 115 02 115	1.99 2.27 2.15	.091 .086 .090	3.6 3.0 3.0 3.3 7.3	4.3 7.1	.84 .87 .76	68.3 80.5 68.5 47.5 21.7	.103 .111 .084	6 6 6 6	.92 .94 .90 .54	.063 .091 .074 .039	.07 2. .06 3. .06 3. .07 2. .10 1.	1 <.0 0 <.0 0 .0 1 .0	12 12 12 13 13	5.5 8.7 5.8 9.7	.20 .13 .09 .02	2 5.3 ) J.7 3 5.3 9 4.9 2 2.1	.05 .09 .16 .14
17027 17028 17029 17030 TANDARD DS2	15.17	3 1355. 7 1296. 1 1254. 5 1805. 6 127.	.68 2	27.90	295.2	.2 81 .5 102	818 3 021 2	3.8 1 2.8 1 2.0 1	16.5 18.1	3695 3854 3061	5.90 6.15	129.2	.3 .2 2	762. 806. 929	81. 21. 91	0 60.0	1.66	5.48 4.08 5.04	<.u .0	JZ 98 JZ 95 J4 92	1.26	.071 .083 .086	5.2 4.7 4.5	6.8 5.3	.72	28.5 45.0	.003	5 6 6	.51 .50 .57	.035 .037 .045	.10 1. .12 1. .13	2 .0 5 .0 8 .0	3 1 4 1 4 1	3 .4 1 .4 0 .7	. 02 . 02 . 02	2 2.2	.05 .05 .14
	-	O GRAM HIS LE SAMPL	LE TY	YPE:	CORE	Ξ	San	mple	es be	eginn	ning	<u>'KE' a</u>	are Ke	eruns	and		' are	<u>kejec</u>	<u>L KE</u>	21 UNS	<u>.</u>	0	Jun P	fidu			-			v							sire
DAT	E RE	CEIV	JED	: /	AUG 5	y 19'	99.	DA	.TE	REF	ORT	MAI	LED	· H	ŋ	- 18	199	S	IGN	1ED	вт.(		h	<del></del> ].	D. T(	DYE, (	C.LEO	NG, J	I. WA	NG;	CERTI	FIED	B.C	. ASS	AYER	S	
All re	5am esuits	ICC s are d	CON CONS	NM( sider	CNO red t	lei he c	i ( conf	for iden	91 ntial	21d . prc	, pert	• / 00i y of t	<i>OPF</i> :he cl	ient	. Ac	me as	sumes	the l	iabi	litie	es fo	r act	tual d	cost o	f th	e ana	lysis	only	<i>.</i>				Data	a <u>.</u>	FA _		

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1PLE#	Мо ррт		Cu pm	Pb ppm	Zn ppm			li Co om ppr	-			U ppm		Th ppm	Sr ppm		Sb ppm	-	si V Mippor		P š	La ppm	Cr ppm	Mg X	Ba ppm	Ti 4	B DØM	41 بر	Na ż				~		Te ( DDM p		S ;
'031 '032 '033 '034 '035	15.34 12.01 13.92 12.38 10.40	1161. 1314. 1335.	84 2 52 2 75 2	8.19 6.91 8.89	277.8 215.1 205.2	970 965 1109	3. 3. 3.	2 14. 5 12. 2 12.9	1 3019 1 2404 9 2190	5.53 4.85 5.14	68.5 162.1 251.0	.3 .3 .4	586.1 741.6 654.9	1.3 1.3 1.3	56.5 64.8	1.63 1.27 1.13 1.09 .90	5.62 9.63	. 0) . 0) . 0)	5 119 5 100 3 136	1.62 2.23 3.25 3.49 3.20	. 080 . 086 . 084	5.7 6.2 5.6		.61 .41 .48	28.0 22.4 20.5 110.4 77.3	.005 .004 .006	7 8 6	. 59 . 65 . 66	. 035 . 036 . 036 . 037 . 066	. 10 . 08 . 08	000	.03 .04	25 43 24	.3 .5 .4	.05 2 .03 2 .03 2 .02 2 .02 2	.3 .0 .4 .0 .4 .0	)6 )4 )4
7036 7037 7038 7039 7040	10.58 11.15 15.04 17.39 10.63	1150. 1063. 783.	22 1 89 1 72 1	1.28 7.25 1.65	163.9 181.0 170.6	814 653 455	5. 3. 5.	0 14.4 6 14.0 1 16.7	4 1378 ) 1644 7 1781	4.36 4.52 4.81	13.3	.4 .3 .4	721.1 603.0 520.9	1.2 1.0 1.3	81.0 63.5 61.6 61.0 59.9	.54 1.01 .40		. 0:	2 140 2 128 7 119	3.36 2.05 2.91 2.56 1.70	.077 .078 .083	3.4 4.1	7.8 10.5 9.3 10.7 4.7	.80 .61 .59	180.4 194.9 157.8 246.1 59.6	.078 .059 .025	61 6 8	.04 .83 .84	. 105 . 097 . 082 . 071 . 047	.09 2 .09 2 .13 1	2.4 2.2 6	.03 .03 .04	10 11	.6 .6 .3	.02 3 .02 4 .02 4 .02 4 .02 3 .02 2	.7 .1 .0 .1 .8 .1	5 i 4 : 8 :
7041 7042 517042 E 517042 7043	9.03 15.29 15.61 15.99 13.93	774. 807. 806.	46 1 44 1 20 1	3.88 4.95 4.66	151.6 157.8 160.3	696 740 699	2. 2. 3.	8 12.3 9 13.0 9 13.3	3 1247 ) 1296 3 1318	3.90 4.10 4.13	46.5 42.4	.6 .6	400.8 436.6 420.0	1.4 1.5 1.4	79.4 77.2 82.6 76.4 82.1	1.77 1.84 1.83	1.17 .45 .48 .44 .50	. 0 . 0 . 0	7 113 7 121 6 118	1.28 1.09 1.14 1.15 1.51	. 093 . 095 . 096		8.9 5.6 4.9 7.6 6.6	. 44 . 44 . 46	58.7 88.6 90.5 83.2 132.2	.007 .007 .007	5 5 5	.90 .94 .94	. 064 . 073 . 074 . 073 . 089	. 07 . 08 . 07	.4 .3 .3	.03 .03	13 15 13	.4 .5 .4	.08 2 .03 3 .03 3 .03 3 .03 4	.1 .3 .4 .3 .3 .3	32 36 39
7044 7045 7046 7047 7048	19.34 13.28 10.66 10.08 13.86	1044.9 933.3 685.3	52 1 31 1 33 1	1.76 8.24 2.50	181.8 207.7 142.6	808 739 556	3. 4. 2.	1 11.7 6 12.3 6 7.9	7 1652 3 1879 9 1005	4.52 4.28 3.41	51.7 23.9 12.0	.4 .4 .2	553.8 602.2 427.8	1.5 1.4 1.6	92.5 77.6 105.4 92.2 106.7	1.46 1.46 .90 .60 .82	.51 1.07 .49 .36 .40	<.02 .13 .03	2 109 3 109 3 114	1.88 1.31 1.74 1.00 2.46	. 094 . 082 . 096	4.9 5.7 5.4.	11.1 7.6 8.9 5.7 9.3	. 49 . 68 . 38	86.4 48.5 154.8 56.6 16.3	.011 .007 .008	5 51 51	.85 .00	. 100 . 090 . 076 . 094 . 122	07 06 06	.4 .3 .2	.02 .05 .02	15 5 8	.3 .3 .2	.03 3 .02 3 .03 3 .03 4 .03 4	.4 .0 .5 .0 .0 .0	16 12 12
049 050 051 052 053		1362.0 1390.0	06 10 02 11 09 11	B.64 7.97 1.60	240.6 229.4 223.8	1088 1052 722	5. 4. 2.	8 25.7 9 25.1 7 21.8	1925 1785 1381	6.18 5.94	76.8 63.4	.4 .5 .2	525.7 543.1 345.7	1.5 1.0 1.0	103.5 88.3 80.6 127.2 115.5		. 47 . 70 . 50 . 35 . 29	.02 .02 .02	2 97 2 118 2 144	2.79 2.10 2.91 1.43 2.55	.085 .066 .128	5.5 4.4 5.4	5.2 <.5	.47 .51 2 1.16	54.2 87.3 248.5 43.0 40.8	.007 .010 .030	6 5 8 1	.90 .88 .89	.114 . .090 . .072 . .095 . .119 .	08 12 21 <	.3 . .5 . .2 .	04 04	7	.7 .6 .5	.04 3. .06 3. .07 3. .04 6. .05 5.	.1 .1 .4 .10 .4 .12	7 6 2
054 517054 517054 055 056	9.17 9.29 10.34	1329.4 1125.9	81 11 15 12 12 13	1.36 2.26 3.82	165.0 174.6 272.2	1005 1094 759	4.) 3.) 5.8	2 19.3 5 20.8 8 21.3	1279 1354 2630	4.54	22.2 42.1	2. 2. 1.3	623.0 644.6 831.5	1.2 1.3 1.2	91.0 91.0 95.5 102.1 96.6	1.24 1.33 1.39	. 16 . 22	<.02 .02 .02	2 147 2 154 2 104		. 116 . 122 . 083	4.6 4.9 6.1		.44 .46 .62	50.3 49.0 50.6 32.0 41.3	011 011 007	51 51 5	.06 . .11 . .96 .	105 .	08 < 09 < 07 <	.2 . .2 . .2 .	.02 .02 .02	8	.4 .3 .4	.05 4. .05 4. .04 5. .09 3. .09 4.	.5 .09 .0 .08 .3 .06	5 8 6
057 058 059 060 061	10.53 11.90 12.73	916.6 819.2 600.1	34 9 23 10 .5 7	5.53 ).30 7.43	151.6 173.5 154.3	641 705 658	4. 6.9 5.1	7 13.1 9 16.3 5 15.1	1524 2159 1651		15.5 35.1 22.5	.3 .8 .2	476.0 495.3 301.4	1.3 1.1 1.2	95.2 96.6 78.4 77.4 74.7		.59 3.07 1.51	<.02 .07 .08	2 123 7 106 8 127		.077 .088	4.3 4.3 4.9	7.6 10.0	.63 .85 1 .57	40.2 68.3 08.4 57.2 37.5	.026 .009 .014	51 5 5	. 0 . .86 .	097 . 127 . 075 . 092 . 088 .	06 10 11	.5 . .3 . .4 .	.02 .03 .03	18 12 10	.2 <. .4 . .3 .	.04 4. .02 4. .03 3. .03 3. .03 3.	5 .08 0 .54 7 .27	8 4 7
NDARD DS2	14.19	134.0	8 32	2.10	168.3	224	37.9	9 12.9	841	3.25	64.5.2	21.4	212.3	3.8	35.0	12.12	10.78	11.16	5 84	. 57	. 083	13.5	179.5	.62 1	48.2	119	21	. 83 .	034 .	17_7	.8 1.	79 2/	48 2	.8 1.	.96 6.	1<.0]	1

#### Sample type: CORE. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only.

Data /\_\_\_FA



### Phelps Dodge Corp.

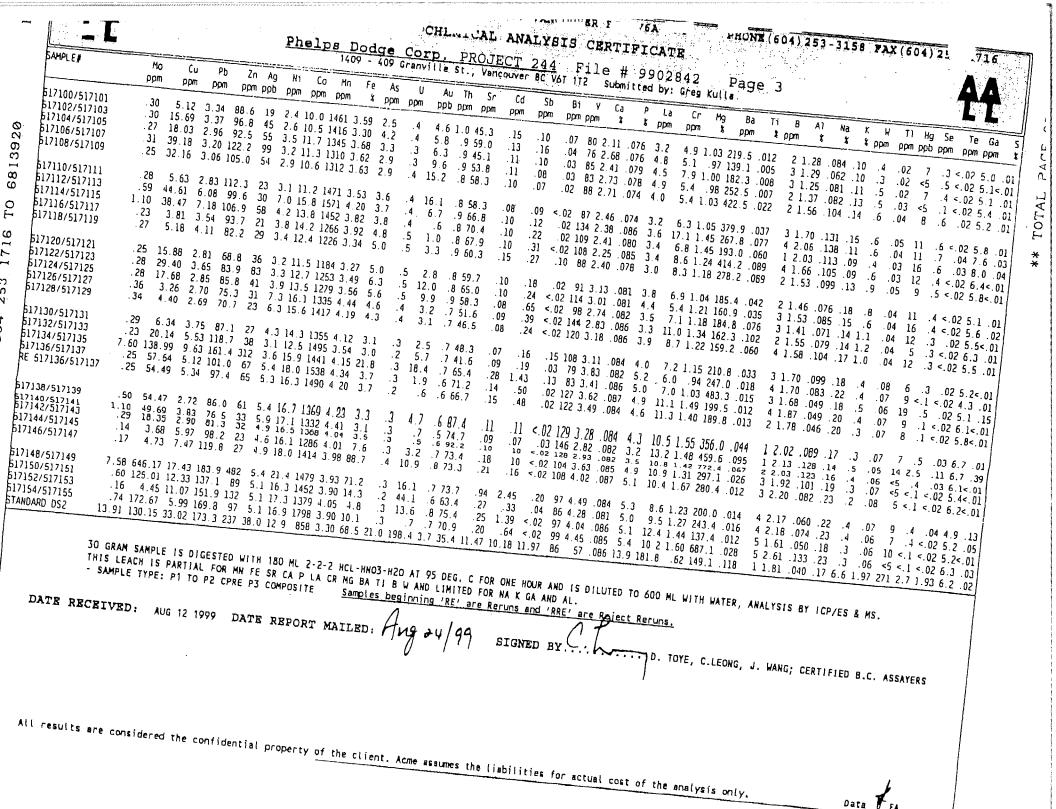
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Page 3

alite attaints t	1546																											~~~~~~				-	.~t -:	<u>` :</u>	
AMPLE#	No ppm	•••	-	Zn ppm	Ag ppb	Ni ppm		Mn ppm	Fe ۶	As ppm	U ppm	Au ppb p		Sr ppm	Cd ppm	Sb ppm	-	i V mippmi	Ca ۲	р %	La ppm	Cr ppm	Hg %	Ba ppm	Ti ž p	-	41 5	Na ia	к . Крр		ן אם קר ד		Te ppm p		S
17062	18 41	876.54	6 28	161.3	557	57	14 6	1504 4	1 63	11 9	3 4	61.8 1	2	68.3	. 50	. 34	1	1 123	2.36	085	3.5	15.3	75	101 4	090	 ۲	04	003	.06 2.4	< 0	2 0		.02 5	5.0	ns i
17063		810.28										59.9 1			.68	. 20						15.2		82.8					.06 1.4				.02 4		
17064		811.01										46.1 1			.91	.14						12.8		161.9					.06 2.8				<.02 4		•
17065		1014.50										51.7 1			2.14	16						15.6		245.4					.05 2.1				.03 4		
17066		1255.52							. –		.5 7	37.1 1	. 1	98.1	1.45	.21						13.6	-	166.5					.05 2.1					·• ·	~ ~
17067	15.81	1052.07	13.39	345.6	846	6.6	15.1	1140 4	1.41	7.7	.47	08.6 1	.1	77.8	2.39	. 18	. 09	9 117	1.94	. 083	3.4	14.0	.72	96.0	. 068	11.	11	. 131	.0~ 2.1	. 01	3 16	. 5	.03 L	.3 .	11
17068	14.64	1007.09	11.59	349.0	734	6.2	18.5	1918 6	5.64	7.4	.45	64.71	.3	94.6	1.67	.14	<.02	2 130	2.10	. 080	4.4	8.8	. 83	53.3	. 033	5.	98 .	. 129	.04 .6	<.02	2 7	. 3	. 02 3	.8.0	15 .
17069	17.49	1484.72	9.51	185.7	1062	6.5	15.6	1574 4	1.24	7.8	.57	79.1 1	. 0	87.1	1.18	. 11	<.02	2 102	2.86	. 081	3.6	12.0	. 60	162.2	.072	31.	05	. 114	.05 1.5	<.02	2 10		.03 4	.4 .	.4 j
17070	17.20	1088.33	9.12	214.2	847	5.6	16.1	1543 4	. 56	8.1	.26	92.5 1	. 0	82,4	1.16	. 09	<.02	2 117	2.36	. 087	3.1	12.1	. 90	128.4	. 09J	41.	06.	.093	.06 2.2	<.02	2 10	.5	.02 5	.0.1	19
17071	18.74	1184.29	8.61	214.6	892	6.3	18.1	1501 4	1.29	9.0	.37	80.5 1	. 0	76.0	1.45	.11	. 12	2 103	2.48	. 080	3.4	12.6	.77	100.2	. 055	3.	80	. 080	.05 1.3	. 0-	4 <5	.ê <	:.02 4	.4 .(	18
17072	26.70	1241.61	8.88	198.4	941	5.1	17.8	1577 3	8.95	28.0	.57	70.5 1	.2	78.4	1.15	. 16	<. 02	2 92	2.71	. 087	3.4	8.8	. 65	74.0	. 027	4.	80.	. 083	.06 1.1	. 02	2 14	.7	.03 3	.9 .:	0
E 517072	26.34	1194.51	8.17	192.9	933	4.7	17.3	1525 3	8.86	27.3	.58	65.4 1	. 3	78.8	1.17	.15	<.02	2 91 1	2.63	. 083	3.5	9.1	. 65	73.3	. 027	4.	81.	. 084	.06 1.1	. 02	2 12	. 6	.02 3	.9.0	18
RE 517072		1175.34				- · ·						87.0 1						2 93				10.7		74.2					.06 .9		2 16		.02 3	.9.(	19
17073		812.11				•••					-	52.0 1						2 106 3				6.7		102.6		-			.05.8				.02 4		
17074	16.75	831.54	18.72	305.2	719	6.4	20.2	2249 5	5.03	18.1	.33	45.6 1	.4	97.8	1.62	. 14	<.02	2 110	3.02	. 078	5.2	8.5	. 98	35.8	.010	4.	95.	.076 .	.04 <.2	<.02	2 15	.2	.02 4	.6.(	15
17075	19.75	702.57	20.72	266.9	662	5.2	17.8	2321 4	. 63	26.8	.53	60.21	.0 1	02.0	1.26	. 22	<.02	? 91 :	3.86	.072	4.6	8.4 1	. 38	.38.6	.025	5.	87.	. 072 .	.05 .7	. 03	3 26	. 2	.02 4	.0.0	15
17076	22.88	688.64	12.39	266.8	785	8.2	21.6	1342 4	.15	8.5	.33	37.5 1	.0	95.1	1.15	. 13	<.02	2 119 2	2.34	. 086	3.6	14.6 ]	.04	86.0	064	51.	35 .	. 090	04 1.3	<.02	2 12	. 4	.02 6	.1.0	17
17077	22.54	816.54	17.72	292.2	874	6.6	22.9	1935 5	. 22	13.7	.34	14.1 1	.5 1	13.2	. 88	. 17	<.02	2 143 2	2.78	. 089	6.3	9.71	1.13	394.4	015	41.	52.	. 084 .	.04 .2	<.02	2 17	.3	.02 7	.4 .(	4
17078	22.77	617.01	12.10	231.1	793	7.0	19.4	1529 4	.44	13.4	.43	80.8 1	.6	99.7	. 24	. 18	<.02	2 134 2	2.82	. 097	5.6	11.8 1	. 15	59.5	018	51.	61.	. 085 .	06 <.2	<.02			.02 7	.4.(	2
17079	21.63	708.01	5.45	191.2	822	6.0	18.6	1661 4	.83	13.3	.33	25.9 1	.5 8	84.5	. 26	. 12	<.02	2 147 3	3.96	. 089	6.3	9.1.1	. 09	72.5	011	41.	38.	108 .	09 . 2	. 02	2 15	. 3	.02 5	.9.(	6
17080	36.43	783.08	12.87	206.1	779	6.6	22.5	1786 4	. 40	16.3	.63	46.8 1	.1	73.2	.72	. 21	<.02	2 102 3	3.60	. 080	4.7	10.6 1	. 18 2	232.9	049	51.	14.	078 .	10 1.2	. 02	2 31	.6	.03 5	.0.3	.4
TANDARD DS2	14.78	134.63	32.56	169.2	227 3	37.9	13.3	843 3	.31	63.5 2	22.0 2	14.64	.1 ;	34.4	11.61	11.02	11.51	82	. 58	. 085	14.5	179.5	.62	50.0	122	21.	87.	034 .	17 7.3	1.75	5 251	2.6 1	.98 6	.4.0	1

Sample type: CORE. Samples beginning RE' are Reruns and RRE' are Reject Reruns.

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MPLE#	Mo pom		Lu An	Pb opm	Zi	n n n p	Ag Ipb	Ni ppn	Co ppm			<u>2</u> A		U	Au	Th		C	d S	ib	Bi opm p	γ	Ca ¥	P X	La ppm	Cr ppm				i B tippn	רא ו ג ו				T] ppm			Te ppm		
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All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only.

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		:						<u>.</u>	110	<u></u>	140	9 -	409 0	iraný	ille	St.	., Vai	ncou	/er	BC V6	172	51	NOM	ted	by:	Greg							<del></del>	<u></u>					
AMPLE#	<u></u>	Ho ppm		Cu ppm	Pb ppm		n / n p;	-	Ni pm	Co ppm		Fe	As opm	U ppm			în S xmi pp		Cd pm	Sb ppm	Bi ppm p		Ca ¥	P T	La ppm	Cr ppm		-		i ₿ ≭ppm							Se ppm		
17264/5 17266/5 17268/5 17270/5 17272/5	17267 17269 17271	.75 .83 .79	3 4 5	.92 .89 .55	2.87 2.30 2.29 2.26 2.05	51. 59. 58.	7 4 8 1 6 4	19 15 50 16 17 13	.0 .1 .4	25.7 29.0 26.5	824 878 860	3,39 3,74 3,31	9.5 7.6 10.4	.6 .5 .4	3. 5. 4.	5 2 9	.7 60. .7 76. .7 65. .6 68. .6 65.	8. 4. 0.	04 06 04	4.58 3.85 3.78 3.94 3.32	.05 1 .05 1	00 1 05 1 02 1	.63 .12 .04	. 089 . 090 . 088	2.1 1.9 1.7	16.2 15.7	2.48	50. 74. 54	1 .12 1 .14 1 .15	26 06 56	5 2.17 5 2.23 5 2.16	. 037 . 048 . 057 . 064 . 058	.02 .02 .02	.9 .9 1.2	<.02 <.02 <.02	<5 <5 <5	.2 .2 .2	.03 .02 .02	7.6 7.5 7.3
17274/5 17276/5 17278/5 17280/5 17282/5	17275 17277 17279 17281		48 4 5 3	.53 .69 .46 .76	11.01 2.14 2.18 2.05 2.12	49. 52. 65. 60.	1 ( 3 ) 2 ) 6 )	30 11 25 12 28 14 24 13	.5 .8 .1	19.3 22.9 29.7 26.4	842 819 941 859	4 38 3 18 3.75 3.55	9.4 8.5 8.7 7.6	.4 .4 .4	4. 3. 4.	4	.7 81. .7 77. .7 70. .7 69. .7 84.	0. 3. 6.	03 05 03	2.89 2.62 2.23 2.50 2.02	.04 .03 1 .02 1	87 1 04 1 05	. 10 . 08 . 98	.084 .085 .080	1.7 1.8 1.8	12.4 13.4 12.1	2.06 2.52 2.80 2.62 2.47	54. 62. 89.	0 .16 B .17 1 .14	56 26 75	5 2.30 5 2.32 5 2.19	.030 .076 .061 .059 .055	.02 .02 .03	.9 1.0 9.	<.02 <.02 <.02	<5 <5 <5	.1 .1 .1	.03 .02 .03	7.5 8.0 7.7
17284/5 17286/5 17288/5 17290/5 17292/5	17285 17287 17289 17291	.71 .67 .77	] ] ] ]	. 48 . 35 . 53 . 11	2.87 2.95 3.89 2.59 1.82	62. 54. 61. 70.	5 4 8 4	13 13 16 12 40 12 13 12	1.6 2.7 2.9	26.9 23.5 23.0 29.8	984 935 850 1029	4.33 4.29 3.67 4.14	11.7 12.8 10.3 7.4	.6 .5 .4	3. 5. 3. 3.	B 01. 3	.9 54. 0 62. 8 75. 8 63. 7 69.	8. 7. 8.	04	2.12 2.25 1.98 1.58 1.69	.05 1 .04 1 .03 1	44 2 20 1 26 1	.12 .65 .69	.079 .079 .079	2.3 2.0 2.2	14.2 9.5 12.4	2.20 2.01 2.50 2.50 2.73	124. 124. 128.	2.19 7.18 4.16	57 18 37	1.71 1.88 2.15	.065 .047 .051 .054 .054	.06 .05 .04	1.7 1.6 1.0	.02 20	<5 5<	.2 .1 .2	.03 .03	8.2 7.5 9.(
17294/5 17296/5 17298/5 17300/5 17302/5	17295 17297 17299 17299	. 55 . 84 . 68 . 92	8 3 4 5	. 43 . 85 . 99 . 32	2.37 2.74 2.75 2.90 2.73	71. 71. 76. 69.	4 7 0 4	25 12 19 13 13 12 9 11	.8 .8 .0 .3	28.6 26.0 26.2 24.0	1079 1068 1065 1032	4.03 3.78 4.15 4.19	6.8 7.9 7.6 8.3	.4 .4 .5	4. 3. 3.	5. 1.	.8 63. .8 78. .8 69. .9 71. .8 68.	6. 5.	02 03 04	1.37 1.66 1.19 1.17 1.37	.17 1 .05 1 .04 1	61 1 75 1 44 1	.61 .67 .80	.083 .078 .078	2:1 2.2 2.4	13.5 10.0 13.0	2.72 2.38 2.33 2.23 2.23	135.4 163.4 171.4	4 .20 5 .20 9 .20	58 57 87	2.24 2.07 2.06	.083 .097 .103 .114 .113	.04 .04 .04	1.4 1.1 1.2 ·	.04 02. 02.>	<5 <5 <5	.2 .4 .3		8.3 8.0 8.1
17304/51 17306/51	17305 17307 5/517307 17309	.87 .87 .89	266 258 206	. 28 . 15 . 31	11.05 2.55 2.48 2.86 2.47	67. .63. 71.	1 19 8 19 2 19	95 11 93 11 92 12	.6 .0 .7	24.2 24.2 25.8	846 819 831	3.32 3.22 3.37	7.0 7.1 6.0	.6 .6 .6	J. 3. J.	1 . 7 . 3 .	.8 81. .8 87. .8 87. .8 67. .8 72.	6. 5.	04 05	1.12 1.22 1.19 .87 .81	.02 1 .02 1 .03 1	08 1 04 1 04 1	.27 . .21 .	.080 .077 .080	1.8 1.7 1.7	11.1 12.2 14.7	2.21 2.25 2.25 2.51 2.16	144. 143. 202.	1.25 5.25 2.28	68 48 27	2.15	.093 .092 .092 .115 .093	.02 .03 .03	1.3 1.3 1.3	<.02 <.02 <.02	<5 5 <5	.2 .2 .1	. 03 . 04	5.8 5.7 7.0
17312/51 17314/51 17316/51 17318/51 17320/51	17315 17317 17319	.95 .85 .80	3]4 312 167	.23 .87 .96	2.54 2.05 1.91 1.76 2.38	63. 57. 59.	6 24 6 25 1 14	14 12 59 11 13 12	.6	25.9 23.8 25.0	788 733 763	3.33 3.07 3.29	4.4 4.5 5.0	.6 .6 .6	8. 6.	8. 6.	.8 74. 7 59. 7 60. 8 62. 9 74.	7. 3. 3.	05 04 03 02 03	.94 .74 .97 .73 .96	.03 1 .02 .02 1	01 91 00	.96 .99 . .94 .	.077 .077 .078	1.7 1.7 1.8	13.7 11.8 12.1	2.33 2.50 2.32 2.52 2.21	167 . 180 156 .	3.26 7.26 2.27	25 65 25	2.11 2.05 2.09	.080 .076 .088 .057 .062	.03 .03 .03	1.0 1.2 1.2	<.02 <.02 <.02	6 <5 <5	.3 .2 .3	.05 .04 .03	5.7 5.5 5.7
17322/5 17324/5 17326/5 17328/5 17328/5	17325 17327 17329	. 57 . 81 . 73	9 10 23	.86 .77 40	3 06	53. 59. 64	8 8 1	18 12 13 13 23 12	.3	25.3	725 791 894	3.03 3.43 3.68	5.0 5.0 5.7	.5 .5 6	1. 1. 1.	6. 7. 7.	767. 768.	2 6. 3	03 03 08	.82 1.07 .68 .80 10.29 1	.02 1	94 1 07 1 04 1	.11 . .09 . .16 .	.080 .078 .080	1.7 1.7 1.8	9.0 13.3 12.5	2.52 2.58 2.58	142.4 177.2 164.2	4 . 25 2 . 25 2 . 20	85 26 97	2.08	.062	.03 .03 .02	1.2 .8 .6	<.02 <.02 <.02	<5 <5 <5	.3 .8	.04 .03 .07	5.6 5.6 7.0
		30 GRA THIS L - SAMF	EAC	H 15	PAR	TAL	FOF	L MN	FE	SR C	A P	LA C	R MG	BA T	18	W AI	ND LI	HITE	D FO	DR ONE DR NA E' are	K GA A	ND /	AL.		•					R, A	MALYS	51S B'	Y [C]	P/ES	L M	S.			
נס '	ATE R	ECEIV	BD	<b>I</b> .	AUG 2	13 19	99	נס	ATE	R	FOF	T	AIL	ED:	5	ഗ	Ł	,/	991	SI	JNBD	BY	$\mathcal{C}$	: h	<b>~</b>	<del></del> )	b. ro	DYE,	C.LEC	DWG,	J. W	NNG;	CERT	IFIE	D 8.	C. A	ISSAY	ERS	
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<b>££</b>						PÌ	nelı	ខ្ខន	Dor	dg	e (	lor	p.	PRO	OJEC	2T	24	4	FI	LE	#	990	301	8				. P	age							
ADIE ANALYTICAL	Но ррт	Cu ppm	РЪ ррт	Zn ppin	 Ад ррб	Ni ppm	Co M ppm pp	Mn ypni	Fe 1		U ppmi			Th Sr pm ppm			Sb ppm		ppm	۲		La ppri	Cr ppm	Mg T	Ва ррт		pm		x x	ppm	ppm	рръ	ррт	Te ppm p	pm	X
17330/517331 17332/517333 17334/517335 17336/517337 17338/517339	.77 .60 .67 .61	11.42 6.53 2.85	3.01 2.77 4.54 4.02	62.7 62.8 55.5 67.9	71 1 62 1 24 1 25 1	12.9 2 11.0 2 11.2 2	26.6 89 25.0 8 21.7 6 27.0 70	393 3 318 2 545 4 767 4	2.93   4.38    4.81	8.4 18.6 19.2	.9 i 1.7 ! 1.9	) 5. 2. 1.	.7 . .0 }. .5 ].	.8 77.9 .9 94.9 .1 66.5 .2 68.9 .0 59.6	9.09 5.03 9.03		1.85 1.40	.04 .05 04	134 113 155	1.42	.077 .075 .085	2.3 2.6 2.7	11 4	2.41 1.86 2.50	66.6 <sup>.</sup> 126.8 143.7	. 148 , 262 . 334	9 1.8 10 1.8 9 1.3 9 1.7 8 1.8	34 .03 36 .03 71 .04 54 .04	8 .03 7 .06 9 .05 7 .05	.3 .5 .7 1.2	<.02 <.02 <.02 .02	<5 <5 <5	.2 .2 .1	.04 .02 .04	5.6<.0 7.6<.0 7.3<.0	01 01 01
17340/517341 17342	. 59 . 61	2.85 3.78	4.15 4.37	66.8 69.2	17 1 19 1	11.8 11.9	26.7 8 25.0 8	819 4 818 4	4.47 1 4.58 2	18.3 21.5	8.8 5.8	} } <	.21.	.0 59.8 .1 62.5 .0 60.7 .3 30.9	5.03	A.	. 80 88	.17	181	1.35	.081	2.3	13.0 9.9 11.3 180.0	2.30	104.3	.415	71.	50 .05 52 .05 52 .05 52 .05 76 .03	6.05 3.05	1.5	.03 <.02	<5 <5	.2	.03	7.2<.( 7.2<.(	01 01
Sample	type:	COMPOSI	TE. 5	<u>Sample</u>	s beg	innin	ig 'RE'	<u>ar</u> f	<u>a Reri</u>	<u>uns</u>	and '	RRE'	are	<u>Rejec'</u>	<u>t Rerur</u>	ns.																				
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# **APPENDIX II**

# **Drill Hole Logs**

# Phelps Dodge Corporation of Canada Ltd.

Woodjam Property - Drill Hole Record

Drill Hole Number: <u>99-20</u>	Length (m): <u>200.3</u>	Elevation: GPS 787 m
Location: <u>100+05N, 100+15E</u>	Core Size: <u>NQ</u>	Logged: <u>Aug. 4-7, 99</u>
Azimuth: 0	Dip Test: <u>Yes</u>	
Dip: <u>-90</u>	Started: August 4, 2000	
Purpose: To test the depth extent of mineralization documented in holes 74-01 and 74-02.	Completed: August 7, 2000	Logged by: <u>Kulla</u>

from	to	Rock Description	from	to	Sample	qtz	cal	ept n	igt h	mt c	сру	ру /	Au (ppb)	Cu (ppm)
0	2.4	Casing												
2.4	31.5	Volcanic breccia	2.4	4.0		1	1	1	2	0	1	0	1072	1490
		10 to 15%, 2-5cm rounded feldspar porphyry clasts in a feldspar phyric	4.0	6.0		1	1	1	2	0	1	0	783	1039
		groundmass. Irregular quartz and calcite vienlets throughout. Chalcopyrite	6.0	8.0	517003	1	1	1	2	0	1	0	882	1348
		content is from trace to 1% and occurs as irregular stringers and finely	8.0	10.0	517004	1	1	1	2	0	1	0	764	1047
		disseminated wihin veins. 1 to 3% magnetite disseminated as 1mm blebs	10.0	12.0	[	1	1	1	2	0	1	0	912	1239
		throughout. Mottled pale green and pink-brown.	12.0	14.0	517006	1	1	1	2	0	1	0	985	1306
			14.0	16.0	517007	1	1	1	2	0	1	0	1059	1451
			16.0	18.0	517008	1	1	1	2	0	1	0	646	917
			18.0	20.0	517009	1	1	1	2	0	1	0	750	1089
			20.0	22.0	517010	1	1	1	2	0	1	0	1650	1722
			22.0	24.0	517011	1	1	1	2	0	1	0	1024	1350
			24.0	26.0	517012	1	1	1	2	0	1	0	1862	1642
			26.0	28.0	517013	1	1	1	2	0	1	0	808	1198
			28.0	30.0	517014	1	1	1	2	0	1	0	870	1315
			30.0	32.0	517015	1	1	0	2	0	1	0	1213	1738
31.5	44.8	Volcaniclastic	32.0	34.0	517016	1	2	0	2	0	1	0	1031	1761
		Gray, fine grained, massive, locally bedded. Irregular quartz and calcite	34.0	36.0	517017	1	2	0	2	0	1	0	923	1507
		veinlets throughout. Quartz veins have narrow pink alteration envelopes.	36.0	38.0	517018	1	2	0	2	0	1	0	643	1024
		Trace chalcopyrite to 1% occurring as irregular stringers and finely	38.0	40.0	517019	1	2	0	2	0	1	0	716	1195
		disseminated throughout veins. Chalcopyrite is medial in quartz veins 1 to	40.0	42.0	517020	1	2	0	2	0	1	0	680	1187
		3% magnetite disseminated as 1mm blebs throughout.	42.0	44.0	517021	1	2	0	2	0	1	0	1407	1313
44.8	51.9	Polymictic volcanic breccia	44.0	46.0	517022	1	1	2	2	0	1	0	782	1517
		10 to 15%, 2-5cm sub angular fine grained feldspar phyric clasts in a	46.0	48.0	517023	1	1	1	2	0	1	0	562	924
		feldspar phyric groundmass. Irregular quartz and calcite vienlets throughout.	48.0	50.0	517024	1	1	1	2	0	1	0	726	1340
		Trace disseminated chalcopyrite and locally medial in quartz veins. 1%	50.0	52.0	517025	1	1	1	2	0	1	0	835	1573
		magnetite disseminated as 1mm blebs throughout.	52.0	54.0	517026	1	2	1	0	2	1	0	906	1604
51.9	92	Sericitic volcanic breccia/volcanic grit	54.0	56.0	517027	1	2	0	0	2	1	0	842	1355

Drill Hole: 99-2	Drill	Hole:	99-20
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from	to	Rock Description	from	to	Sample	qtz	cal	ept	mgt l	hmt	сру	py	Au (ppb)	Cu (ppm)
		Pale green-grey and bleached. Textures variably destroyed due to sericitic	56.0				2	0	0	2	1	0	763	
		alteration. Bedded to fragmental. Abundant sericite on fracture surfaces.	58.0	60.0	517029	1	2	0	0	2	1	0	806	1254
		Chalcopyrite content is trace to 0.5% and medial within quartz veinlets.	60.0	62.0	517030	2	2	0	0	2	1	0	930	1805
1		Disseminated hematite after magnetite 1 to 3%	62.0	64.0	517031	2	2	0	0	2	1	0	644	1032
			64.0	66.0	517032	1	2	0	0	2	1	0	586	1162
			66.0	68.0	517033	1	2	0	0	2	1	0	742	1315
			68.0	70.0	517034	2	1	0	0	2	1	0	655	1336
			70.0	72.0	517035	2	1	0	0	2	1	0	578	1136
			72.0	74.0	517036	1	1	0	0	1	1	0	587	1017
			74.0	76.0	517037	1	1	0	0	1	1	0	721	1150
			76.0	78.0	517038	1	1	0	0	1	1	0	603	1064
			78.0	80.0	517039	1	1	0	0	2	1	0	521	784
			80.0	82.0	517040	1	1	0	0	2	1	0	446	1032
			82.0	84.0	517041	1	1	0	0	2	1	0	675	1217
			84.0	86.0	517042	1	1	0	0	2	1	0	401	774
			86.0	88.0	517043	1	1	0	0	2	1	0	517	953
			88.0	90.0	517044	1	1	1	0	2	0	0	549	953
			90.0	92.0	517045	1	1	0	0	2	1	0	554	1045
92	106.2	Intense sericitic volcanic	92.0	94.0	517046	1	1	0	0	2	1	0	602	933
		textures completely destroyed. Massive waxy green.	94.0	96.0	517047	1	1	0	0	2	1	0	428	685
			96.0	98.0	517048	0	1	0	0	1	0	0	440	744
				100.0	517049	0	1	0	0	2	0	0	330	784
				102.0	517050	0	1	0	0	2	0	0	526	1362
			1	104.0	517051	0	1	0	0	2	0	0	543	1390
	100		104.0		517052	0	1	0	0	2	0	0	346	911
106.2	122	Sericitic volcanic breccia/volcanic grit	106.0		517053	0	1	0	1	2	1	0	929	1496
		Pale green-grey, bleached, bedded, and fragmental. Textures variably	108.0			0	1	0	1	1	0	0	567	1251
		destroyed due to sericitic alteration. Sericite on fracture surfaces.	110.0		517055	0	1	0	0	2	0	0	832	1126
		Chalcopyrite is trace to 0.5% and medial in quartz veinlets. Disseminated	112.0		517056	1		0	0	2	0	0	522	795
<b>  </b>		magnetite with hematitic rims 1 to 3%. Red hematitic selvage on some	114.0		517057	1	1	0	1	1	1	0	430	887
		quartz veins. Local disseminated pyrite.	116.0	I	517058	1	1	0	1	0	1		476	917
			118.0		517059	1	1	0	1	1	1		495	819
	400		120.0		517060	1	1	0	2	1	1		301	600
122	133	Volcanic breccia	122.0			1	1	0	2	1		0	483	904
		10 to 15%, 2-5cm rounded feldspar porphyry clasts in a feldspar phyric,	124.0		517062	1	1	0	2	1		0	462	877
		gray glassy groundmass. Irregular quartz and calcite vienlets throughout.	126.0		517063	1	1	0	2	1		0	460	810
		Trace chalcopyrite as irregular stringers and finely disseminated throughout.	128.0	130.0	517064	1	0	0	2	1 !	1	0	446	811

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from	to	Rock Description	from	to	Sample	atz	cal	ent	matik	mt	cny			Cu (ppm)
		1 to 3% magnetite with hematitic rims disseminated as 1mm blebs		132.0						1	<u>сру</u> 1		652	
		throughout. Mottled pale green and pink-brown.		134.0			•	0	2	0	1	0	737	1256
133		Monzonite	1	134.0		1				0	1	0	709	1250
100	200.0	Green-gray, medium grained, feldspar and hornblende bearing. Generally		138.0		1 I			2	0	1	0	565	1052
		massive with local feldspar rich clasts and local grit like textures. Fine		140.0		1	· · ·		2	0	1	0	779	1485
		grained pyrite, magnetite(hematitic rims) disseminated throughout. Patches	i.	142.0		1		•	2	1	1	0	693	1483
		of wispy, fine grained pale green epidote? and pink-brown potassic feldspar	L	144.0	1	1	1			0	1	0	781	1184
				146.0		1		1	0	1	1	0	771	1242
			<u></u>	148.0		i	-	1	0	1	1		452	812
				150.0		0	1	1	0	1	0	0	346	832
			150.0	152.0	517075	0	1	1	0	1	0	0	360	703
			152.0	154.0	517076	0	1	1	0	1	0	0	338	689
			154.0	156.0	517077	0	1	1	0	1	0	0	414	817
			156.0	158.0	517078	0	1	1	1	1	0	0	381	617
			158.0	160.0	517079	0	1	0	1	1	0	0	326	708
			160.0	162.0	517080	0	1	0	1	1	0	0	347	783
				164.0		0	1	0	1	0	0	0	378	734
				166.0		0	1	0	2	0	0	0	366	684
			AND THE COURSE MADE INTO A	168.0		0	1	1	1	0	0	0	357	758
				170.0		0	1	0	0	0	0	0	225	447
				172.0		0	2	0	1	1	0	0	1123	1389
					517086	0	1	0	1	0	0	0	120	203
				176.0		0	1	0	1	1	0	0	69	110
				178.0		0	1	0	1	1	0	0	98	158
				180.0	517089	0	1	0	1	1	0	0	65	83
				182.0	517090	0	1	0	1	0	0	0	35	69
			{	184.0	517091	0	1	0	1	0	0	0	16	66
				186.0	517092	0	1	0	1	0	0	0	17	57
				188.0	517093	0	1	0	1	0	0	0	26	60
				190.0	517094	0	1	0	1	0	0	0	18	43
				192.0	517095	0	1	0	1	0	0	0	27	44
				194.0	517096	0	1	0	1	0	0	0	56	58
			194.0		517097	0	1	0	1	0	0	0	58	98
			196.0		517098	0	1	0	1	0	0	0	115	94
			198.0	200.3	517099	0	1	0	1	0	0	0	40	40

# Phelps Dodge Corporation of Canada Ltd.

Woodjam Property - Drill Hole Record

Drill Hole Number: <u>99-21</u>	Length (m): <u>160.6</u>	Elevation:
Location: <u>97+95N, 100+60E</u>	Core Size: <u>NQ</u>	Logged: <u>Aug. 8-10, 99</u>
Azimuth: 123	Dip Test: <u>Yes</u>	
Dip: <u>-72</u>	Started: <u>August 8, 1999</u>	
Purpose: To test magnetic high delineated by ground mag survey.	Completed: <u>August 10, 1999</u>	Logged by: <u>Kulla</u>

(even numbered samples combined with lower odd numbered sample for geochemical analysis)

from	to	Rock Description	from	to	Sample	qtz	cal	ept r	ngt	hmt	сру	ру	Au (ppb)	Cu (ppm)
0	25.9	Casing												
25.9	97.2	Monzonite	25.9	28.0	517100	0	1	0	2	0	0	0	5	5
			28.0	30.0	517101	0	1	0	2	0	0	0		
		Gray-green, medium to fine grained, with 20-40% feldspars, 5-15% green	30.0	32.0	517102	0	1	0	2	1	0	0	6	16
		amphibole, euhedral to anhedral; 1-3% disseminated magnetite blebs, 1 mm	32.0	34.0	517103	0	1	0	2	1	0	0		
		in diameter; green glassy groundmass; massive with minor, angular, feldspar	34.0	36.0	517104	0	1	0	2	1	0	0	6	18
		porphyry clasts 1-3 cm in size; Fragments have gray-pink glassy matrices;	36.0	38.0	517105	0	1	0	2	0	0	1		1
		joints are rough, planar to irregular, with calcareous, clay rich infillings; minor	38.0	40.0	517106	0	1	0	2	0	0	1	10	39
		pyrite on some joint surfaces. Unit becomes less homogenous after 52 m	40.0	42.0	517107	0	1	0	2	0	0	0		
		with an increasing clast component from 5-10%; clasts are generally 0.5-5cm	42.0	44.0	517108	0	1	0	2	0	0	0	15	32
		in size at this point and the matrix is equigranular, fine grained and either	44.0	46.0	517109	0	1	0	2	0	0	0		
		contains feldspar crystals or is aphyric.	46.0	48.0	517110	0	1	0	2	0	0	0	16	6
			48.0	50.0	517111	0	1	0	2	0	0	0		
			50.0	52.0	517112	0	1	0	2	0	0	0	7	45
			52.0	54.0	517113	0	1	0	2	0	0	0		
			54.0	56.0	517114	0	1	0	2	0	0	0	1	38
			56.0	58.0	517115	0	1	0	2	0	0	0		
			58.0	60.0	517116	0	1	0	2	0	0	0	1	4
			60.0	62.0	517117	0	1	0	2	0	0	0		
			62.0	64.0	517118	0	1	0	2	0	0	0	3	5
			64.0	66.0	517119	0	1	0	2	0	0	0		
			66.0	68.0	517120	0	1	0	2	0	0	0	3	16
			68.0	70.0	517121	0	1	0	2	0	0	0		
			70.0	72.0	517122	0	1	0	2	0	0	0	12	29
			72.0	74.0	517123	0	1	0	2	0	0	0		
			74.0	76.0	517124	0	1	0	2	0	0	0	10	18
			76.0	78.0	517125	0	1	0	2	0		0		
			78.0	80.0	517126	0	1	0	2	0		0	3	3

rom	to	Rock Description	from	to	Sample	atz ic		ant	mat	amt	cnv			99-21 Cu (ppm)
			80.0		517127	0	1	0	2	0	0	0	a (hhn)	Cu (ppm)
			82.0	+			1	0	2	0	0	0	3	
			84.0				1	0	2	0	0	0		
			86.0		·		1	0	1	0	0	0	3	6
			88.0	90.0			2	0	1	0	0	0		
			90.0	92.0	517132	0	2	0	1	0	0	0	6	20
			92.0	94.0	517133	0	2	0	2	0	0	0		
			94.0	97.2	517134	0	1	0	2	0	0	0	18	139
97.2	160.6	Monzonite	97.2	99.0	517135	0	1	0	2	0	0	0		
		Weakly sericitized?, moderately broken.	99.0	102.0	517136	0	1	0	2	0	0	0	2	58
		similar to previous unit but moderately to intensely broken with abundant	102.0	104.0	517137	0	1	0	2	0	0	1		
		calcareous/clay-rich gouge zones containing "milled" and angular fragments;	104.0	106.0	517138	0	1	0	2	0	0	0	5	54
		These gouge zones vary from thin surfaces to 3-10 cm wide and locally >1 m.	106.0	108.0	517139	0	1	0	2	0	0	0		
		This interval is gray-green and varies from medium grained, equigranular to	108.0	110.0	517140	0	1	0	2	0	0	1	1	50
		feldspar porphyritic to fine grained and grit like. 1-10 cm clasts with variable	110.0	112.0	517141	0	1	0	2	0	0	1		
		igneous textures can compose up to 10% of the rock and are present in all	112.0	114.0	517142	0	1	0	1	0	0	0	1	18
		phases. Magnetite varies from finely disseminated grains to 1 mm blebs and	114.0	116.0	517143	0	1	0	1	0	0	0		
		comprise up to 2 % of the rock. Fine grained pyrite is rare. Magnetite is	116.0	118.0	517144	0	1	0	1	1	0	0	3	4
		moderately hematized between 120-127 m. Minor amorphous gray-brown		120.0	517145	0	1	0	1	1	0	0		
		sericite zones occur below 116 m and are coincident with the presence of	120.0	122.0	517146	0	1	0	1	1	0	0	11	5
		hematite. A weak sericitic or possibly chloritic alteration is pervasive	122.0	124.0	517147	0	1	0	1	1	0	0		
		throughout and is more intense locally, enough to destroy primary textures.		126.0	517148	0	1	0	1	1	0	0	16	646
		154-160.6 is intrusion breccia with hematite on fractures with pink/orange			517149	0	1	0	1	0	0	0		
		feldspar porphyritic clasts and matirx. Drilling terminated due to tightening of	128.0	130.0	517150	0	1	0	1	0	0	0	44	125
		nole.	130.0	132.0	517151	0	1	0	1	0	0	0	1	
			132.0	134.0	517152	0	1	0	1	0	0	0	14	4
			134.0	136.0	517153	0	1	0	1	0	0	0		
			136.0	138.0	517154	0	1	0	1	1	0	0	1	173
			138.0	140.0	517155	0	1	0	1	0	0	0	1	
			140.0	142.0	517156	0	1	0	1	0	0	0	5	3
			142.0	144.0	517157	0	1	0	1	0	0	0		
			144.0	146.0	517158	0	1	0	1	0	0	0	3	4
			146.0	148.0	517159	0	1	0	1	0	0	0		
			148.0	150.0	517160	0	1	0	1	0	0	0	3	4
			150.0	152.0	517161	0	1	0	1	0	0	0		
			152.0	154.0	517162	0	1	0	1	0	0	0	10	33
			154.0	156.0	517163	0	1	0	1	0	0	0	······	

(ever	numbe	red samples combined with lower odd numbered	sample for geochemical analysis)										Drill Hole:	99-21
from	to	Rock Description	from to	C	Sample	qtz	cal	ept	mgt h	imt	сру	ру	Au (ppb)	Cu (ppm)
	T		156.0 1	58.0	517164	0	1	0	1	1	0	0	10	8
			158.0 1	60.6	517165	0	1	0	1	1	0	0		

# Phelps Dodge Corporation of Canada Ltd.

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Woodjam Property - Drill Hole Record

Drill Hole Number: <u>99-22</u>	Length (m): <u>227.4</u>	Elevation:
Location:	Core Size: NQ	Logged: <u>Aug. 12-14, 99</u>
Azimuth: 305	Dip Test: <u>Yes</u>	
Dip: <u>-72</u>	Started: August 11, 1999	
Purpose: To test magnetic high delineated by ground mag survey.	Completed: August 14, 1999	Logged by: <u>Kulla</u>

(even numbered samples combined with lower odd numbered sample for geochemical analysis)

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0         31.1         Casing         31.1         33.0         517166         0         0         0         2         0         0         2.1           31.7         69         Valcaniclastic Grit         31.1         33.0         517166         0         1         0         0         2         0         0         2.1           Gray-green, massive to weakly bedded (~50° to core axis), medium grained, "grit-like" texture with 0.1-1 mm angular crystal fragments of feldspars-amphibole-quartz. Bedding is outlined by disseminated red-brown hematite along bedding planes. Hematite is also locally pervasive and can occur as envelopes adjacent to joints and as spotty replacement of clasts. Volcanic clasts occur locally within this unit as do feldspar prophyry 43.0         45.0         517171         0         1         0         0         2         0         2.0         0         2.0         0         2.0         0         2.0         0         2.0         0         2.0         0         2.1         0         0         0         0         0         0         0         0         0         0         0         0         0         0         1         0         0         1         0         0         1         0         0         1         0         0         1         0         0	from	to	Rock Description	from	to	Sample	qtz	cal	eptin	ngt	hmt	сру	ру	Au (ppb)	Cu (ppm)
Gray-green, massive to weakly bedded (~50° to core axis), medium grained, "grit-like" texture with 0.1-1 rm angular crystal fragments of feldspars>amphibole>quartz. Bedding is outlined by disseminated red- brown hematite along bedding planes. Hematite is also locally pervasive and can occur as envelopes adjacent to joints and as spotty replacement of clasts. Volcanic clasts occur locally within this unit as do feldspar prophyry description occurring throughout. The unit is weakly to moderately magnetic. Magnetite bebs are visible and occur within feldspar porphyry zones which increase in abundance with proximity to 69 m.         33.0         35.0         517167         0         1         0         0         2         0         0         2.0         0         2.5           display         adundance with proximity to 69 m.         clasts.         below and cocur within feldspar porphyry zones which increase in abundance with proximity to 69 m.         30.0         517.0         517.0         51.0         53.0         517.177         0         1         0         0         2         0         0         2.0         0         2.0         0         2.0         0         2.0         0         2.0         0         2.0         0         2.0         0         2.0         0         2.0         0         2.0         0         2.0         0         2.0         0         2.0         0         2.0         0         2.0         0         2.0	0	31.1	Casing												
"grit-like" texture with 0.1-1 mm angular crystal fragments of       35.0       37.0       517168       0       1       0       0       2       0       0       2.5         feldspars>amphibole-quartz. Bedding is outlined by disseminated red- brown hematite along bedding planes. Hematite is also locally pervasive and can occur as envelopes adjacent to joints and as spotty replacement clasts. Volcanic clasts occur locally within this unit as do feldspar prophyry       35.0       37.0       517168       0       1       0       0       2       0       0       1.9         dows which are intercalated with the grit. Calcite vens are widely spaced, occurring throughout. The unit is weakly to moderately magnetic. Magnetite blebs are visible and occur within feldspar porphyry zones which increase in abundance with proximity to 69 m.       1       0       0       1       0       0       2.0       0       2.1         45.0       57.0       517173       0       1       0       0       1       0       0       2.0       0       2.0       0       2.0       0       2.1         45.0       57.0       517173       0       1       0       0       1       0       0       2.0       0       2.1         45.0       57.0       57.0       517174       0       1       0       0       1	31.1	69	Volcaniclastic Grit	31.1	33.0		0	1		0		0	0	2.1	39.23
feldspars>amphibole>quartz. Bedding is outlined by disseminated red- brown hematite along bedding planes. Hematite is also locally pervasive and can occur as envelopes adjacent to joints and as spotty replacement of clasts. Volcanic clasts occur locally within this unit as do feldspar prophyry flows which are intercalated with the grit. Calcite veins are widely spaced, occurring throughout. The unit is weakly to moderately magnetic. Magnetite blebs are visible and occur within feldspar porphyry zones which increase in abundance with proximity to 69 m.       37.0       39.0       517169       0       1       0       0       2       0       0       1.9         disbest are visible and occur within feldspar porphyry zones which increase in abundance with proximity to 69 m.       47.0       49.0       51.0       53.0       517176       0       1       0       0       2       0       0       2.0       0       2.0         diabundance with proximity to 69 m.       51.0       53.0       517177       0       1       0       0       1       0       0       2.3         diabundance with proximity to 69 m.       53.0       57.0       517178       0       1       0       0       1       0       0       2.3         diabundance with proximity to 69 m.       53.0       57.0       517178       0       1       0       0       1       0       0       1.8			Gray-green, massive to weakly bedded (~50° to core axis), medium grained,				0	1	-	0					
brown hematite along bedding planes. Hematite is also locally pervasive and can occur as envelopes adjacent to joints and as spotty replacement of clasts. Volcanic clasts occur locally within this unit as do feldspar prophyry         39.0         41.0         517170         0         1         0         0         2         0         1.9           flows which are intercalated with the grit. Calcite veins are widely spaced, occurring throughout. The unit is weakly to moderately magnetic. abundance with proximity to 69 m.         41.0         43.0         517174         0         1         0         0         2         0         0         2.0         0         0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td>1</td> <td></td> <td>0</td> <td></td> <td></td> <td>0</td> <td>2.5</td> <td>100.22</td>							-	1		0			0	2.5	100.22
and can occur as envelopes adjacent to joints and as spotty replacement of clasts. Volcanic clasts occur locally within this unit as do feldspar prophyry       41.0       43.0       617171       0       1       0       0       2       0       0       2.1         flows which are intercalated with the grit. Calcite veins are widely spaced, occurring throughout. The unit is weakly to moderately magnetic. Magnetite       45.0       47.0       517173       0       1       0       0       1       0       0       2.0       0       2.1         blebs are visible and occur within fieldspar porphyry zones which increase in abundance with proximity to 69 m.       47.0       49.0       51.0       517177       0       1       0       0       1       0       0       2.1         abundance with proximity to 69 m.       53.0       55.0       517177       0       1       0       0       1       0       0       2.1         61.0       53.0       55.0       517177       0       1       0       0       1       0       0       2.3         65.0       57.0       59.0       517178       0       1       0       0       1       0       0       1.8         61.0       63.0       65.0       57.17180       0								1	-				0		
clasts.         Volcanic clasts occur locally within this unit as do feldspar prophyry         43.0         45.0         517172         0         1         0         0         2         0         2.1           flows which are intercalated with the grit.         Calcite veins are widely spaced, occurring throughout. The unit is weakly to moderately magnetic.         Magnetite         47.0         49.0         517172         0         1         0         0         2.0         0         2.1           blebs are visible and occur within feldspar porphyry zones which increase in abundance with proximity to 69 m.         49.0         51.0         517175         0         1         0         0         1         0         0         2.1           abundance with proximity to 69 m.         51.0         55.0         57.0         517177         0         1         0         0         1         0         0         2.1           51.0         55.0         57.0         517177         0         1         0         0         1         0         0         1         0         0         1         0         0         1         0         0         1         0         0         1         0         0         1         0         0         1					1			1						1.9	37.47
flows which are intercalated with the grit. Calcite veins are widely spaced, occurring throughout. The unit is weakly to moderately magnetic. Magnetite blebs are visible and occur within feldspar porphyry zones which increase in abundance with proximity to 69 m.       45.0       47.0       49.0       517173       0       1       0       0       1       0       0       2.0         abundance with proximity to 69 m.       51.0       517177       0       1       0       0       1       0       0       2.0         51.0       53.0       55.0       57.0       517176       0       1       0       0       2.1         52.0       57.0       5171778       0       1       0       0       1       0       0       2.3         57.0       59.0       61.0       517178       0       1       0       0       1       0       0       1.8         61.0       63.0       65.0       517181       0       1       0       0       1.6       0       1.6       0       1.6       0       1.6       0       1.6       0       1.6       0       1.6       0       1.6       0       1.6       0       1.6       0       1.6       0       1.6       0       1					·	1		_1				-			
occurring throughout. The unit is weakly to moderately magnetic. Magnetite         47.0         49.0         517174         0         1         0         0         1.0         0         2.0           blebs are visible and occur within feldspar porphyry zones which increase in abundance with proximity to 69 m.         49.0         51.0         517175         0         1         0         0         1         0         0         2.0           abundance with proximity to 69 m.         51.0         53.0         57.0         517176         0         1         0         0         1         0         0         2.1           0         55.0         57.0         517177         0         1         0         0         1         0         0         2.3           0         59.0         61.0         517178         0         1         0         0         1         0         0         1         0         0         1         0         0         1         0         0         1         0         0         1         0         0         1         0         0         1         0         0         1         0         0         1         0         0         1         0						1		1	-		2		- 1	2.1	50.08
blebs are visible and occur within feldspar porphyry zones which increase in abundance with proximity to 69 m.         49.0         51.0         51.7175         0         1         0         0<					-		0	1	-		1		- [		
abundance with proximity to 69 m.       51.0       53.0       517176       0       1       0       0       2.1         53.0       55.0       57.0       517177       0       1       0       0       1       0       0       2.3         55.0       57.0       517178       0       1       0       0       1       0       0       2.3         57.0       59.0       517179       0       1       0       0       1       0       0       1.8         57.0       59.0       61.0       517181       0       1       0       0       1.8         61.0       63.0       65.0       517182       0       1       0       0       4.5         65.0       67.0       517183       0       1       0       0       4.5         66.0       67.0       517183       0       1       0       0       1.6         69       97       Volcanic Breccia       61.0       61.0       517187       0       1       0       0       1.7         73.0       Gray-green, medium grained, equigranular monzonite to diorite matrix hosting rounded, 1-20 cm volcanic feldspar porphyry clasts with 5% dark gree				l				1			1	-	0	2.0	58.07
53.0       55.0       517177       0       1       0       0       1       0       0       2.3         55.0       57.0       517178       0       1       0       0       1       0       0       2.3         57.0       59.0       517179       0       1       0       0       1       0       0       2.3         57.0       59.0       517179       0       1       0       0       1       0       0       1.8         61.0       63.0       517180       0       1       0       0       1.8       0       1       0       0       1.8         61.0       63.0       517181       0       1       0       0       1.8       0       1       0       0       4.5         63.0       65.0       517182       0       1       0       0       4.5       0       0       1       0       0       4.5         66.0       67.0       517183       0       1       0       1       1       0       0       1.7         67.0       69.0       517184       0       1       0       1       1			blebs are visible and occur within feldspar porphyry zones which increase in					1			1				
55.0       57.0       57.0       57.17178       0       1       0       0       2.3         57.0       59.0       517179       0       1       0       0       1       0       0       1       0       0       1.8         59.0       61.0       57.0       59.0       517178       0       1       0       0       1       0       0       1.8         61.0       63.0       55.0       517181       0       1       0       0       1       0       0       1.8         61.0       63.0       65.0       517182       0       1       0       0       4.5         65.0       67.0       517183       0       1       0       0       4.5         65.0       67.0       517183       0       1       0       0       1.6         69       97       Volcanic Breccia       69.0       71.0       517185       0       1       0       1       0       1.7         Gray-green, medium grained, equigranular monzonite to diorite matrix hosting rounded, 1-20 cm volcanic feldspar porphyny clasts with 5% dark       75.0       517187       0       1       0       1       0			abundance with proximity to 69 m.					-			1	0	0	2.1	69.29
Image: style styl							0	1		0	1	0	0		
59.0       61.0       517180       0       1       0       0       1       0       0       1.8         61.0       63.0       517181       0       1       0       0       1       0       0       1.8         61.0       63.0       517181       0       1       0       0       1       0       0       4.5         63.0       65.0       517182       0       1       0       0       4.5         65.0       67.0       517183       0       1       0       0       4.5         69       97       Volcanic Breccia       69.0       517184       0       1       0       0       1.6         69       97       Volcanic Breccia       69.0       71.0       517185       0       1       0       0       1.7         Gray-green, medium grained, equigranular monzonite to diorite matrix       73.0       517186       0       1       0       0       1.7         Gray-green, medium grained, equigranular monzonite to diorite matrix       73.0       517187       0       1       0       1       0       0       1.7         Mosting rounded, 1-20 cm volcanic feldspar phenocrysts. Moderately magne				55.0	57.0		0	1		0	1	0	0	2.3	68.17
61.0       63.0       517181       0       1       0       0       1       0       0         63.0       65.0       517182       0       1       0       0       1       0       0       4.5         63.0       65.0       517183       0       1       0       0       1       0       0       4.5         69       97       Volcanic Breccia       67.0       69.0       517184       0       1       0       0       1.6         69       97       Volcanic Breccia       69.0       71.0       517185       0       1       0       0       1.6         69       97       Volcanic Breccia       69.0       71.0       517186       0       1       0       0       1.7         Gray-green, medium grained, equigranular monzonite to diorite matrix hosting rounded, 1-20 cm volcanic feldspar porphyry clasts with 5% dark green amphibole and 20-40% feldspar phenocrysts. Moderately magnetic with trace to 1%, 1 mm magnetite blebs. Minor calcite on fractures and weakly calcareous both matrix and clasts; probably an alteration product of       81.0       83.0       517191       0       1       0       0       2.9				57.0	59.0		0	1	0	0	1	0	0		
Image: style styl				59.0	61.0		0	1		0	1	0	0	1.8	101.94
Image: style styl				61.0			0	1	0	0	1	0	0		
69       97       Volcanic Breccia       67.0       69.0       517184       0       1       0       0       1.6         69       97       Volcanic Breccia       69.0       71.0       517185       0       1       0       1       0       0       1.6         69       97       Volcanic Breccia       69.0       71.0       517185       0       1       0       1       1       0       0       1.7         69       97       Volcanic Breccia       73.0       517186       0       1       0       1       1       0       0       1.7         67.0       67.0       517187       0       1       0       1       1       0       0       1.7         67.0       75.0       517187       0       1       0       1       1       0       0       1.7         67.0       77.0       517188       0       1       0       1       1       0				63.0	65.0	517182	0	1	0	0	1	0	0	4.5	206.14
69       97       Volcanic Breccia       69.0       71.0       517185       0       1       0       1       0       0       1.7         Gray-green, medium grained, equigranular monzonite to diorite matrix       73.0       517186       0       1       0       1       0       0       1.7         Mosting rounded, 1-20 cm volcanic feldspar porphyry clasts with 5% dark       75.0       517187       0       1       0       1       0				65.0	67.0	517183	0	1	0	1	1	0	0		
Gray-green, medium grained, equigranular monzonite to diorite matrix       71.0       73.0       517186       0       1       1       0       0       1.7         Gray-green, medium grained, equigranular monzonite to diorite matrix       73.0       75.0       517187       0       1       0       0       1.7         hosting rounded, 1-20 cm volcanic feldspar porphyry clasts with 5% dark       75.0       77.0       517188       0       1       0<				67.0	69.0	517184	0	1	0	1	1	0	0	1.6	56.99
Gray-green, medium grained, equigranular monzonite to diorite matrix73.075.05171870100100hosting rounded, 1-20 cm volcanic feldspar porphyry clasts with 5% dark75.077.051718801011000<	69	97	Volcanic Breccia	69.0	71.0	517185	0	1	0	1	1	0	0		
hosting rounded, 1-20 cm volcanic feldspar porphyry clasts with 5% dark       75.0       77.0       517188       0       1       0       0       0.6         green amphibole and 20-40% feldspar phenocrysts.       Moderately magnetic       77.0       517188       0       1       0 <td></td> <td></td> <td></td> <td>71.0</td> <td>73.0</td> <td>517186</td> <td>0</td> <td>1</td> <td>0</td> <td>1</td> <td>1</td> <td>0</td> <td>0</td> <td>1.7</td> <td>43.59</td>				71.0	73.0	517186	0	1	0	1	1	0	0	1.7	43.59
hosting rounded, 1-20 cm volcanic feldspar porphyry clasts with 5% dark       75.0       77.0       517188       0       1       0			Gray-green, medium grained, equigranular monzonite to diorite matrix	73.0	75.0	517187	0	1	0	1	1	0	0		
with trace to 1%, 1 mm magnetite blebs. Minor calcite on fractures and79.081.05171900101002.9weakly calcareous both matrix and clasts; probably an alteration product of81.083.05171910101002.9				75.0	77.0	517188	0	1	0	1	1	0	0	0.6	41.35
with trace to 1%, 1 mm magnetite blebs. Minor calcite on fractures and79.081.05171900101002.9weakly calcareous both matrix and clasts; probably an alteration product of81.083.05171910111002.9			<b>U</b>	77.0	79.0	517189	0	1	0	1	1	0	0		
weakly calcareous both matrix and clasts; probably an alteration product of 81.0 83.0 517191 0 1 0 1 0 0					81.0	517190	0	1	0	1	1	0	0	2.9	47.42
				81.0	83.0	517191	0	1	0	1	1	0	0		
the feldspars. Very fine grained brown alteration described as hematite in 83.0 85.0 517192 0 1 0 1 1 0 0 3.7							0	1	0	1	1	0	0	3.7	135.59

(even numbered samples combined with lower odd numbered sample for geochemical analysis)

		ed samples combined with lower odd humbered sample for geochemical ana		to	Comple	~~ I	0.01	anti	mat	la met	lamil	-	Drill Hole.	
from	το	Rock Description	from	1			······	<del></del>	ingt	Inmt			Au (ppb)	Cu (ppm)
		overlying unit may be biotite (i.e. potassic alteration) occurs throughout.	85.0			0	1	0	1	1	0	0	~ ~	
			87.0		1	0	1		1	1		0	2.5	58.52
			89.0			0	1	0	1			0		ļ 
			91.0	, 	1	0	1	0	1	1		0	1.9	54.35
			93.0			0	1	0	1	1		0		
			95.0			0	1	0	1			0	2.2	53.22
97	109	Volcaniclastic Grit	97.0			0	1	0	1		-	0		
		Similar unit to 31.1 to 69 m. Dominantly fine to medium grained grit with	99.0	1	• • • • • • • • • • • • • • • • • • •	0	1	0	1	1	0	0	4.0	96.81
		banding (bedding) at 50° to core axis and very fine grained red-brown	Luna and an and a second	103.0		0	1	0	1	1	0	0		
		alteration parallel to bedding, diffusing out from joints. Alteration may be	103.0	105.0	517202	0	1	0	1	1	0	0	1.9	39.71
		due to hematite or biotite. Unit is intercalated with feldspar porphyry flows	105.0	107.0	517203	0	1	0	1	1	0	0		
		and fragmental units. Non- to weakly magnetic with calcareous	107.0	109.0	517204	0	1	0	1	1	0	0	1.2	67.44
109	124	Volcanic Fragmental		111.0	517205	0	1	0	1	1	0	0		3
			111.0	113.0	517206	0	1	0	1	1	0	0	3.4	68.37
		1-15 cm, rounded feldspar porphyry clasts occur within a feldspar rich,	113.0	115.0	517207	0	1	0	1	1	0	0		
		amphibole bearing volcanic matrix. Matrix has a pervasive red-brown colour	115.0	117.0	517208	0	1	0	1	1	0	0	2.8	60.01
		possibly due to biotite alteration or hematite. Weak to moderate magnetism	117.0	119.0	517209	0	1	0	1	1	0	0		
		with trace magnetite blebs with feldspar porphyry clasts. Weakly calcareous	119.0	121.0	517210	0	1	0	1	1	0	0	2.2	47.21
		groundmass and fracture surfaces. 118-123 m dominantly grit.	121.0	123.0	517211	0	1	0	1	1	0	0		
124		Sericitic Volcanic Breccia	123.0	125.0	517212	0	0	0	0	1	0	0	54.5	124.47
		Intensely bleached/sericitic matrix with pale green 1-20 cm clasts and minor	125.0	127.0	517213	0	0	0	0	1	0	0		
		intermixed grit units. Apparent bedding is 50° to core axis. Clasts are	127.0	129.0	517214	0	0	0	0	1	0	0	6.0	307.52
		rounded to angular and intensely sericitized. Matrix is more competent and	129.0	131.0	517215	0	0	0	0	1	0	0		
		red-brown in colour. No magnetite and generally non calcareous, except	131.0	133.0	517216	0	0	0	0	1	0	0	5.0	127.90
		along fractures. Fractures are perpedicular to the core axis and have pale		135.0		0	0	0	0	1	0	1		
		brownish orange alteration envelopes (limonitic). Hematite comprising 1%		137.0		0	0	0	0	1	0	1	0.5	23.84
		of the rock is disseminated throughout and up to 1% fine grained pyrite		139.0		0	0	0	0	1	0	1		
		occurs within feldspar porphyry clasts.	L	141.0		0	0	0	0	1		1	0.2	80.10
				143.0		0	0	0	1	1		1		
142	227	Volcanic Breccia		145.0	517222	0	1	0	1	1	0	1	1.3	46.17
142	221			147.0	517223	0	1	0	1	1	0	1		
		Gray-green, medium grained equigranular to feldspar porphyritic volcanic		149.0	517224	0	1	0	1	1	0	1	0.8	53.19
		breccia. Feldspar porphyry clasts are 1-15cm, rounded and comprise	L	149.0	517224	0	1	0	1	1	0	1	0.0	55.15
		between 20 to 50% of the rock. Local grit layers with bedding at $50^\circ$ to core	1	153.0	517226	0	1	0	1	1	1	1	0.5	57.79
				155.0	517220	0	1	0	1	1	1	1	0.5	51.15
		axis. Rock is weakly to moderately magnetic and weakly calcareous with	1				- 1		1	1		1	0.8	63.00
	1	minor calcite along fractures. Trace to 1% magnetite occur in porphyritic		157.0	517228	0		0					0.8	63.88
ł		clasts. Trace to 1% fine grained pyrite is disseminated throughout with rare	157.0	159.0	517229	0	1	0	1	1	1	1		

(even numbered samples combined with lower odd numbered sample for geochemical analysis)

	namee	red samples complined with lower odd humbered sample for geochernical ana						·····						
from	to	Rock Description	from						ngt	hmt	сру	ру	Au (ppb)	
		traces of chalcopyrite. An amorphous red-brown alteration is pervasive to	L	161.0				0	1	1	1	1	0.5	65.91
		patchy, rimming and locally replacing clasts. In bedded zones this biotite?		163.0	1	0	1	0	1	1	1		1	
		alteration occurs primarily along bedding planes. Local sericitic zones	1	165.0		0	1	0	1	1		1	1	116.93
		occur. @ 179.5 1 cm wide specular hematite vein with pyrite. Below 169 m,	165.0	167.0	517233	0	1	0	1	0	1	1		
	1	moderate to strong sericitic alteration with pervasive green chalky feldspars	167.0	169.0	517234	0	1	0	1	0	0	1	1.1	59.64
	1	and clay rich gouge zones. This appears to overprint the biotite alteration.	169.0	171.0	517235	0	1	0	1	0	1	1		
	1	More variety of volcanic textures occurs within the clasts from 219-227.4 in	171.0	173.0	517236	0	1	0	1	0	1	1	0.9	66.23
		a gray, green, and brown glassy/hypidiomorphic groundmass.	173.0	175.0		0	1	0	1	0	0	1		
	1		1	177.0		0	1	0	1	0	0	1	4.3	60.93
			1	179.0		0	1	0	0	1	0	1		
			1	181.0		0	1	0	0	1	0	1	3.5	53.20
			•	183.0		0	1	0	0	1	0	1	 	
				185.0	1	0	1	0	0	0	1	1	2.1	11.15
				187.0		0	1	0	0	0	1	1		
				189.0		0	1	0	0	0	1	1	4.0	8.50
				191.0		0	1	0	0	0	1	1		
				193.0		0	1	0	0	0	1	1	1.2	13.77
			!	195.0		0	1	0	0	0	1	1		
			1	197.0		0	1	0	0	0	1	1	1.7	85.81
				199.0		0	1	0	0	0	1	1		
				201.0	(	0	1	0	0	0	1	1	0.5	35.12
				203.0		0	1	0	1	0	1	1		
			{	205.0		0	1	0	1	0	1	1	0.9	58.82
			(	207.0		0	1	0	1	0	1	1		
			!	209.0		0	1	0	1	0	1	1	0.7	54.01
				211.0		0	1	0	1	0	1			
			1	213.0		0	1	0	1	0	1	1	4.0	49.99
			213.0	215.0	517257	0	1	0	1	0	1	1		
			215.0	217.0	517258	0	1	0	1	0	1	1	1.9	64.25
			217.0	219.0	517259	0	1	0	1	0	1	1		
			219.0	221.0	517260	0	1	0	0	0	1	1	2.3	73.34
	+		221.0	223.0	517261	0	1	0	0	0	1	1		
			223.0	225.0	517262	0	1	0	0	0	1	1	3.1	54.51
. =			225.0	227.0	517263	0	1	0	0	0	1	1		

# Phelps Dodge Corporation of Canada Ltd.

Woodjam Property - Drill Hole Record

Drill Hole Number: <u>99-23</u>	Length (m): <u>178.6</u>	Elevation:
Location: <u>95+35N, 108+50E</u>	Core Size: <u>NQ</u>	Logged: Aug. 16, 99
Azimuth: <u>35</u>	Dip Test: <u>Yes</u>	
Dip: <u>-54</u>	Started: <u>August 15, 1999</u>	
Purpose: <u>To test magnetic high delineated by ground mag survey.</u>	Completed: August 16, 1999	Logged by: <u>Kulla</u>

(even numbered samples combined with lower odd numbered sample for geochemical analysis)

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from	to	Rock Description	from	to	Sample	qtz	cal e	pt m	gt hm	t cpy	ру	Au (ppb)	Cu (ppm)
0	19.5	Casing											
19.5	160	Green Siltstone/tuff	19.5	22.0								8.4	3.32
		Medium grained, massive, competent, and poorly sorted. Trace to 2%	22.0	24.0									
		magnetite, 0.1 mm in diameter. Trace to 5% 0.1 mm epidote (possibly	24.0									3.5	3.92
		replacing a mafic component). Trace to 5% red-brown specks. Otherwise,	26.0	28.0									
		the rock is probably composed of quartz and feldspar. Fractures vary from	28.0	30.0								5.2	4.89
		15 to 40° to core axis. Fracture surfaces are infilled with calcite and a soft,	30.0	32.0		-							
		white, somewhat translucent material. Epidote occurs as patches and in	32.0	34.0								4.9	5.55
		veinlets of calcite and locally local granular pods consisting of 90% epidote	34.0	36.0	517271								
		and a red granular mineral (garnet).	36.0	38.0								6.1	4.49
			38.0	40.0									
			40.0	42.0								4.7	48.53
			42.0	44.0						_			
			44.0	46.0								4.4	4.69
			46.0	48.0									
			48.0	50.0		++						3.2	5.46
			50.0	52.0	517279								
			52.0	54.0	517280							4.1	3.76
			54.0	56.0	517281								
			56.0	58.0	517282							3.5	4.81
			58.0	60.0	517283								
			60.0	62.0	517284							3.8	3.48
			62.0	64.0	517285								
			64.0	66.0	517286							5.0	3.35
			66.0	68.0	517287								
			68.0	70.0	517288							3.3	3.53
			70.0	72.0	517289								
			72.0	74.0	517290				1			3.4	3.11

74.0 76.0	517291		
76.0 78.0	517292	5.1	2.78
78.0 80.0			
80.0 82.0	517294	2.2	8.43
 82.0 84.0	517295		
84.0 86.0	517296	4.5	3.8
86.0 88.0			
88.0 90.0		3.1	4.9
90.0 92.0	517299		
92.0 94.0	517300	3.6	5.3
94.0 96.0			
96.0 98.0	517302	2.4	6.6
98.0 100.0			
100.0 102.0		4.8	166.2
102.0 104.0	517305		
104.0 106.0		3.1	266.2
106.0 108.0	517307		
108.0 110.0	517308	3.3	206.3
 110.0 112.0	517309		
112.0 114.0		0.8	61.0
114.0 116.0	517311		
 116.0 118.0	517312	2.1	124.2
118.0 120.0	517313		
120.0 122.0		8.8	314.2
122.0 124.0	517315		
124.0 126.0	517316	6.6	312.8
126.0 128.0	517317		
128.0 130.0	517318	3.5	167.9
130.0 132.0			
132.0 134.0		1.7	22.1
134.0 136.0			
136.0 138.0		2.5	9.9
138.0 140.0	· · · · · · · · · · · · · · · · · · ·		
140.0 142.0		1.6	9.8
142.0 144.0			
144.0 146.0		1.7	10.7
146.0 148.0			
 148.0 150.0		3.7	23.4
148.0 150.0 152.0		0.7	20.7
150.0 152.0	011020		

e et al Remand Recent Rec

			152.0	154.0	517330	4.9	11.42
			154.0	156.0	517331	1	
			156.0	158.0	517332	5.7	6.53
·····			158.0	160.0	517333		
160	178.6	Maroon Siltstone/tuff	160.0	162.0	517334	2.0	2.86
		Medium grained, massive, poorly sorted, maroon (red-brown). Trace to 1%	162.0	164.0	517335		
		0.1-1 mm black hematite. 1-5% euhedral feldspar crystals and crystal	164.0	166.0	517336	1.5	3.39
		fragments (0.1-1 mm laths). Trace to 3% epidote as individual crystals or	166.0	168.0	517337		
		crystal fragments occur locally as granular nodules 1-2 cm in diameter. The	168.0	170.0	517338	0.7	2.97
		rock is non-magnetic and contains minor amounts of calcite veinlets. This	170.0	172.0	517339		
		unit may be a crystal tuff instead of a siltstone, oweing to the amount of	172.0	174.0	517340	0.7	2.85
		crystal fragment seen thorughout.	174.0	176.0	517341		
			176.0	178.6	517342	0.2	3.78

# **APPENDIX III**

# **Authors' Certificates**

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Andreas and Andreas

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# CERTIFICATE

I, Gregory Kenneth Kulla, certify to the following:

- 1. I am a geologist residing at 9756 Crown Crescent, Surrey, B.C. Canada
- 2. I am a Professional Geoscientist registered in the Association of Professional Engineers and Geoscientists of British Columbia.
- 3. My academic qualifications are:

B.Sc., 1988, University of British Columbia, Vancouver, B.C.

- 4. I have been engaged in geological work since graduation in 1988.
- 5. I logged and sampled the core drilled in August 1999 and described in this report

Gree Vancð May 15<sup>th</sup> 2000

### CERTIFICATE

- I, Stephen William Wetherup, certify to the following:
- 1. I am a consulting geologist currently residing at #307–1106 Pacific Street, Vancouver, B.C.
- 2. I am a Geoscientist in Training (G.I.T.) in the Association of Professional Engineers and Geoscientists of British Columbia.
- 3. My academic qualifications are:

B.Sc.(Geology Honours.), University of Manitoba, Winnipeg, Manitoba.

4. I have been engaged in geological work since graduation in 1995.

Stephen W. Wetherup, BSc. Vancouver, B.C. May 15, 2000

