

FOX GEOLOGICAL SERVICES INC.

**RECEIVED**

JAN 03 1996

Gold Commissioner's Office  
VANCOUVER, B.C.

**GEOLOGICAL REPORT**

GEOLOGICAL SURVEY BRANCH  
ASSESSMENT REPORTS

DATE RECEIVED

JAN 05 1996

on the

**LAI D 1 CLAIM  
OMINECA MINING DIVISION  
NTS 093F/03  
53°10' North Latitude  
125°16' West Longitude**

by

**Peter E. Fox, Ph.D., P.Eng.  
Fox Geological Services Inc.  
#1409 - 409 Granville Street  
Vancouver, B.C. V6C 1T8**

**FILMED**

for

**Phelps Dodge Corporation of Canada, Limited  
Suite 912 - 120 Adelaide Street West  
Toronto, Ontario M5H 1T8**

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

January 3, 1996

**24,204**

## TABLE OF CONTENTS

	Page
SUMMARY .....	1
INTRODUCTION .....	2
LOCATION, ACCESS and PHYSIOGRAPHY .....	2
PROPERTY STATUS .....	2
HISTORY .....	5
REGIONAL GEOLOGY .....	5
PROPERTY GEOLOGY .....	5
ALTERATION and MINERALIZATION .....	7
1995 WORK PROGRAM .....	7
RESULTS .....	7
CONCLUSIONS .....	8
DISBURSEMENTS .....	9
BIBLIOGRAPHY .....	10
CERTIFICATE .....	11

### List of Tables

TABLE 1: Property Status .....	2
TABLE 2: Analytical Results Summary .....	8
TABLE 3: Rock Sample Descriptions .....	13

### List of Figures

FIGURE 1: Property Location Map .....	3
FIGURE 2: Claim Map .....	4
FIGURE 3: Regional Geology .....	6
FIGURE 4: Property Geology and Rock Geochemical Results .....	in pocket

### Appendices

APPENDIX 1: Rock Sample Descriptions .....	12
APPENDIX 2: Analytical Procedures .....	15
APPENDIX 3: Geochemical Analyses .....	16

## **SUMMARY**

The Laid 1 claim is located 162 road-kilometres southwest of Vanderhoof in central British Columbia. Road access is available from Vanderhoof along the Kluskus-Ootsa Forest Service Road and subsidiary spur roads.

The Laid claim is situated within the Intermontaine Belt, and is underlain by middle Jurassic Hazelton Group sedimentary and volcanic rocks in contact with the late Cretaceous Laidman Lake Batholith. The batholith is monzonitic in composition and is surrounded by a biotite-garnet metamorphic halo with intense pervasive silicification that extends up to one kilometre into the host Hazelton Group volcanics and sediments. Three to four percent disseminated pyrrhotite and lesser amounts of pyrite are typically associated with quartz veins in this zone. Propylitization predominates outside the biotite-garnet halo, also with pyrrhotite and pyrite in addition to locally disseminated arsenopyrite.

The Laid claim was staked to cover the up-ice source of till samples that returned anomalous concentrations of gold as reported in a government geochemical survey in June 1994. Phelps Dodge Canada collected soil samples from a widely spaced grid during 1994, defining strong north-northwesterly trending arsenic-antimony anomalies with sporadic elevated gold concentrations on the periphery. The 1995 work program consisted of geological mapping, prospecting and rock sampling accomplished between July 13 and 16, 1995.

Bedrock samples collected during the 1995 program contained no anomalous levels of gold. Two samples of silicified sedimentary rock returned notable amounts of silver, lead, arsenic and antimony. A single float sample containing 496 ppb gold does not appear to have a local source. Other float samples contained elevated to anomalous concentrations of silver, lead, arsenic and antimony that warrant further work.

## INTRODUCTION

The Laid 1 claim was staked to cover a source area of anomalous tills reported by a government survey in June 1994. This report describes a program of geological mapping and rock sampling that was conducted on the property between July 13 and 16, 1995. The results of this work are also discussed herein.

## LOCATION, ACCESS and PHYSIOGRAPHY

The Laid 1 claim is located 162 road-kilometres southwest of Vanderhoof, British Columbia. The property is situated in the Fawnie Range, 3 kilometres north of Fawnie Creek (see Figure 1). Laidman Lake, for which the claim was named, lies 4 kilometres southeast of the Laid 1 legal claim post.

Access from Vanderhoof is via the Kluskus-Ootsa Forest Service Road, southwesterly for approximately 160 kilometres, then northwesterly along a short spur road which leads directly onto the property, weaving along the northern claim boundary. A southerly branch of the spur road provides access to the southwestern claim area.

The Laid claim is situated within the Nechako Plateau region, on the upper southwest-facing slopes of Entiako Spur in the Fawnie Range. Topography is gentle to moderate with elevations ranging from over 1475 metres on a peak in the north-central claim area to below 1160 meters in the southwest. A southeasterly flowing creek that drains into Laidman Lake cuts through the northeasterly quarter of the claim and another tributary to the same creek terminates in marshy ground in the southwestern corner.

Forest cover consists primarily of open-spaced spruce and pine which are typical of the area. Two cut blocks occupy approximately one-third of the claim area.

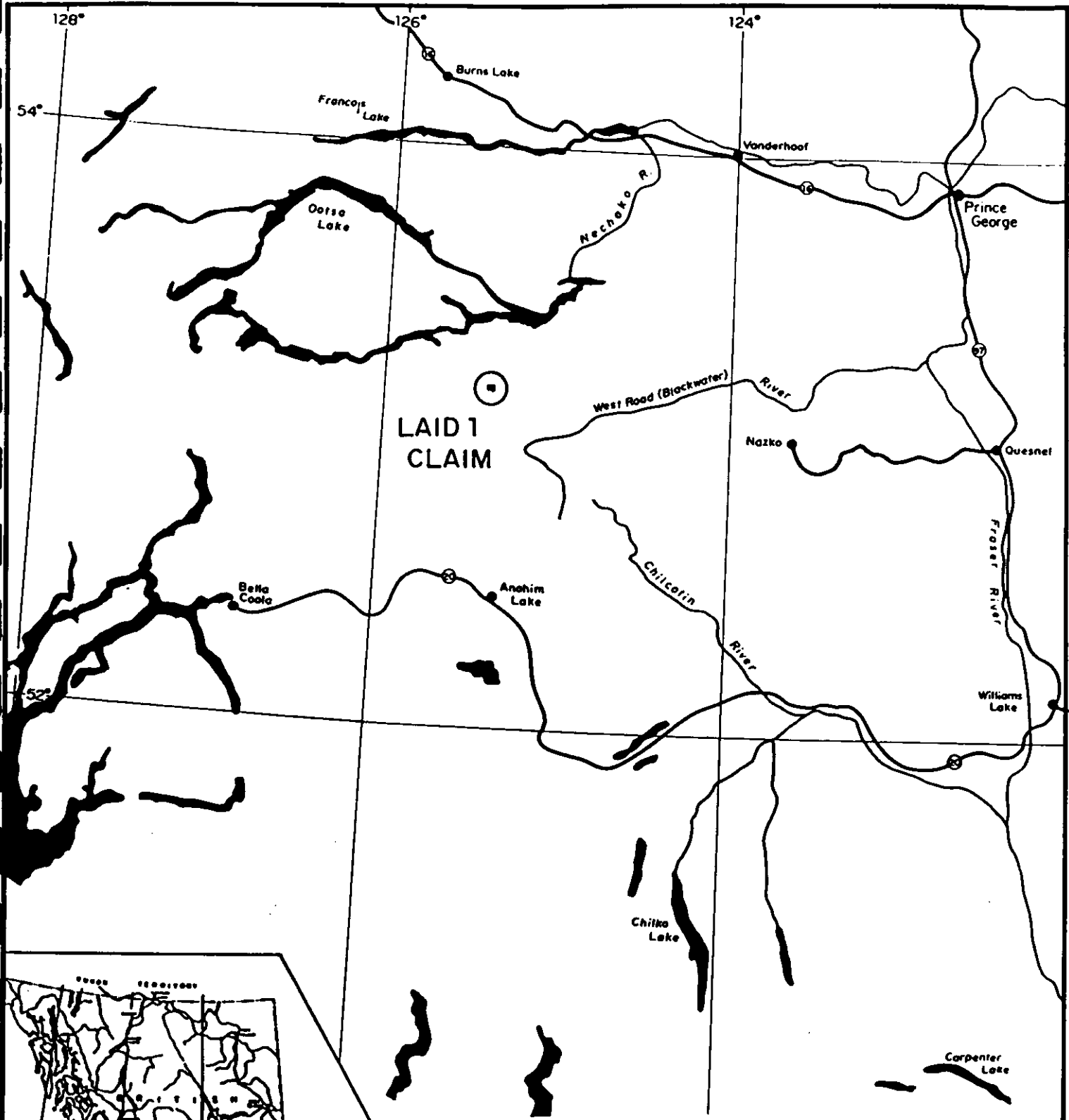
## PROPERTY STATUS

The Laid 1 is a four-post mineral claim, staked on June 3, 1994 for Phelps Dodge Corporation of Canada, Limited. The claim lies within NTS map sheet 093F/03 in the Omineca Mining Division of British Columbia (see Figure 2). Claim information outlined below assumes that current work is accepted for assessment purposes.

Table 1

CLAIM NAME	TENURE NO.	EXPIRY DATE	UNITS
Laid 1	326059	June 3, 1998	20

The Laid 1 claim partially overstates the CR 31, 33, 35 and 37 claims, reducing the effective claim area to approximately 19 units.



PHELPS DODGE CORP. OF CANADA LTD.			
PROJECT Nº 247		OMINECA M.D.	
LAID 1 CLAIM			
PROPERTY LOCATION			
<i>Fox Geological Consultants Ltd.</i>			
SCALE	DATE	NTS	FIG Nº
1:200,000	Jan 1995	93F/3	1

PHELPS DODGE CORP. OF CANADA LTD.

PROJECT N° 247

OMINECA M.D.

# LAID 1 CLAIM CLAIM MAP

SCALE	DATE	NTS	FIG N°
1:50,000	Jan 1995	93F/3	2

Entiako Spur

FAWN 5

FAWN 1

FAWN 2

FAWN 6

FAWN 3

FAWN 4

FAWN 7

L A I D 1

LD 4

LD 5

53°10'N

CR 31 CR 33 CR 35 CR 37

CR 32 CR 34 CR 36 CR 38

LD 1

LD 2

PAW 1

PAW 3

PAW 10 PAW 11

LD 8

LD 9

PAW 12 PAW 13

PAW 2

PAW 4



182 km to Vanderhoof

Fawnie

Creek

L A I D M A N

L A K E

125°15'W

## HISTORY

The Laid claim was staked during 1994 to cover the up-ice trend of till samples which returned anomalous concentrations of gold, arsenic and antimony in a government geochemical survey (Levson, et al., 1994). Later in the year, Phelps Dodge Canada collected soil samples from a widely spaced grid. The survey defined strong northerly to north-northwesterly trending arsenic-antimony anomalies over the central portion of the grid with sporadic elevated gold concentrations on the periphery. There is no record of previous exploration work on the claim.

## REGIONAL GEOLOGY

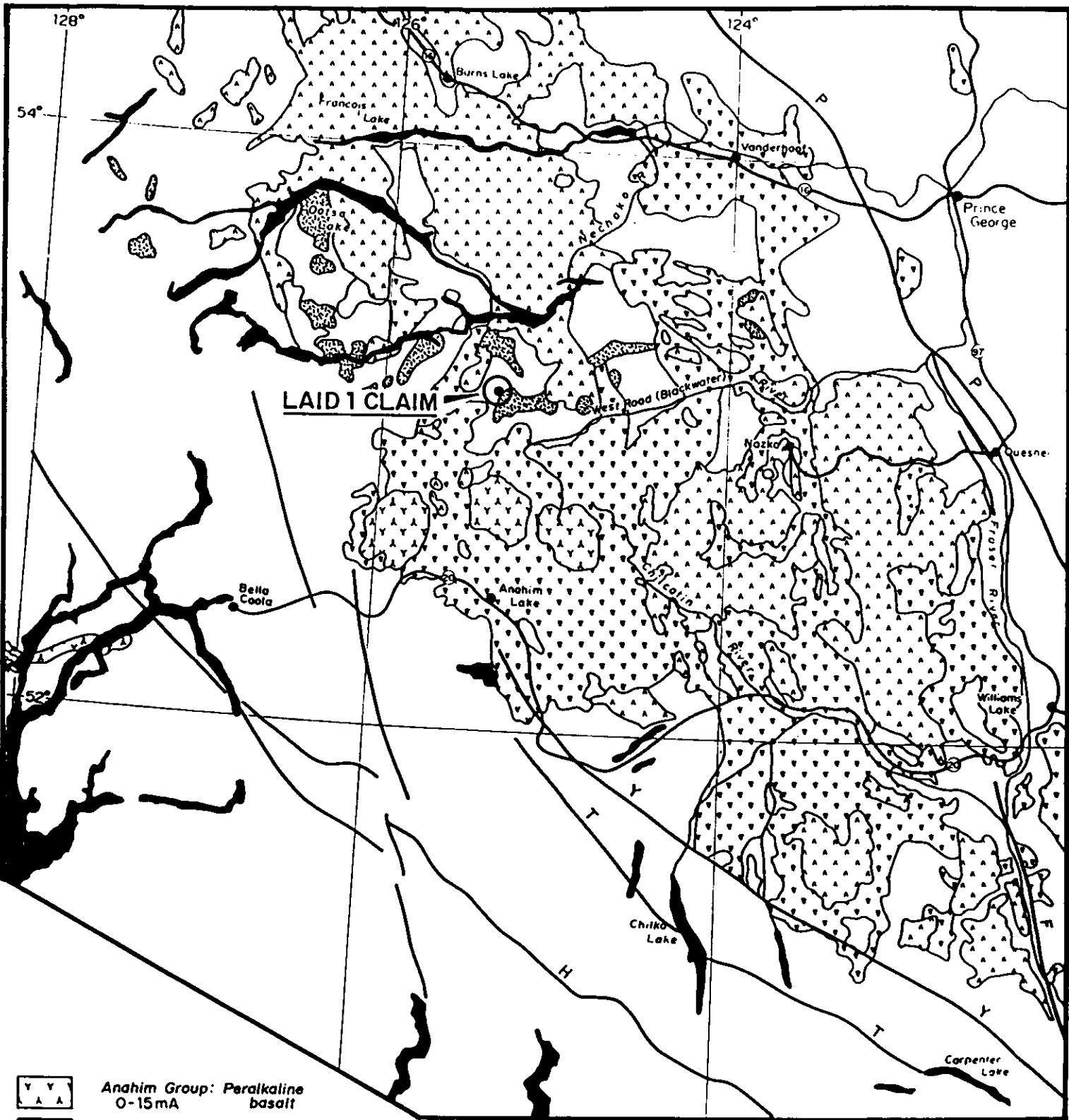
The Laid claim is centrally located in the Interior Plateau of British Columbia, within the Intermontaine Belt, which consists of late Palaeozoic to late Tertiary sedimentary and volcanic rocks belonging to the Stikinia, Cache Creek and Quesnellia Terranes. The Yalakom and Fraser Fault systems bound the plateau to the northeast and southwest. A third fault has been inferred from oil exploration data to bisect the plateau. The Anahim Volcanic Belt, which crosses the plateau in an east-west direction to the south of Laid 1, is composed of a series of alkaline and peralkaline volcanoes of Miocene to Quaternary age which become younger from west to east. Regional Geology is represented in Figure 3.






Mapping in the Fawnie Creek area by B.C. Geological Survey geologists Diakow and Webster in 1993 indicates that the immediate vicinity of the property is underlain by middle Jurassic Hazelton Group Naglico Formation rocks which are intruded by the late Cretaceous Capoose Batholith, locally the Laidman Lake Batholith. Skarn and epithermal prospects in the Fawnie Creek area occur in hydrothermally altered Hazelton rocks near the batholith.

## PROPERTY GEOLOGY

The west and central claim areas are underlain by northwest striking, middle Jurassic Hazelton Group sedimentary and volcanic rocks. Sedimentary rocks consist of grey to green quartzite, siltstone, limestone and gritty limestone with minor argillite and chert. Maroon to green tuff and lapilli tuff, andesite and porphyritic basalt flows alternate with sediments. Dips observed are to the southwest.

The late Cretaceous Laidman Lake Batholith intrudes Hazelton rocks in the easterly and southeastly portions of the property. Intrusive rocks consist of pink to cream coloured biotite-quartz monzonite, granodiorite and local granite. Medium to coarse grained, equigranular textures predominate.



-  Anahim Group: Peralkaline basalt  
0-15mA
-  Chilcotin Group: Backarc alkaline, tholeiite basalt  
2-10mA
-  Nanika, Quanchus Intrusives: Quartz monzonite, granite  
60mA
-  Ootsa Group: Calc-alkaline felsic volcanics  
35-70mA
-  Pre-Tertiary rocks and Coast Intrusions

- H - Harrison
- T - Tchaikazan
- Y - Yalakom
- F - Fraser
- P - Pinchi

PHELPS DODGE CORP. OF CANADA LTD.			
PROJECT Nº 247		OMINECA M.D.	
LAID 1 CLAIM			
<b>REGIONAL GEOLOGY</b>			
Fox Geological Consultants Ltd.			
SCALE	DATE	NTS	FIG Nº
1:200,000	Jan 1995	93F/3	3



## **ALTERATION and MINERALIZATION**

A contact metamorphic halo of silicified biotite-garnet rocks surrounds the monzonite stock. Biotite-garnet rocks, locally with intense silicification, extend up to one kilometre into Hazelton Group volcanics and sediments. Three to four percent disseminated pyrrhotite and lesser amounts of pyrite are typically associated with quartz veins. Pyrrhotite occurs in local concentrations ranging up to 15%.

Outside the zone of biotite-garnet rocks, chlorite-silica-epidote alteration predominates, where disseminations and irregular blebs of pyrrhotite, disseminated and stringer pyrite, and locally disseminated arsenopyrite are common. Elsewhere, calc-silicate rocks have been found as angular float boulders containing up to 5% disseminated pyrite in quartz veins. No in-situ skarn has been located to date.

## **1995 WORK PROGRAM**

The property was geologically mapped, prospected and sampled by a four man crew between July 13 and 16, 1995. Seven man-days was spent on the property. Geology is compiled at a scale of 1:5,000 and is presented in Figure 4.

A total of 56 rock samples was collected during the course of mapping and prospecting. Rock sample locations are shown in Figure 4 and rock sample descriptions comprise Appendix 1. All samples were submitted to Acme Analytical Laboratories in Vancouver, B.C. for analysis. Rocks were crushed, split and pulverized to -100 mesh. All samples were analyzed for 34 elements by ICP techniques and for gold by geochemical AA methods. Analytical procedures are more fully outlined in Appendix 2.

## **RESULTS**

Mapping and prospecting determined that most outcrops of volcanic and sedimentary rocks in the vicinity of the claim are mineralized with trace to five percent pyrrhotite and pyrite. These rocks are commonly silicified with local areas of hornfelsing and minor carbonate alteration.

Bedrock and subcrop rock samples contained no anomalous levels of gold (12 ppb maximum). Silver and lead are anomalous (3676 ppb and 553.3 ppm, respectively) in a sample of silicified, mineralized siltstone located approximately 300 metres north of the claim boundary. Elevated silver (1084 ppb) occurs with anomalous arsenic (475.8 ppm) and antimony (12.3 ppm) in a sample of limonitic, fractured quartzite subcrop collected near the intrusive contact in the southwestern quadrant of the claim. The remainder of bedrock samples contained only background concentrations of other elements of interest.

Anomalous gold (496 ppb) is contained in a float sample of quartz-sericite schist, an exotic lithology to the area. Elevated gold (37 ppb) and tellurium (8.7 ppm) concentrations occur with anomalous silver (6853 ppb) and lead (1029.8 ppm) in a silicified, brecciated sample of sedimentary float with 5 to 10% pyrrhotite, collected a few metres north of the claim boundary. The only other element present in elevated to anomalous concentrations in float samples (52495, 52808, 53124 and 53131) is arsenic (79.6 to 301.9 ppm). Sample 52808 also contains elevated antimony (10.6 ppm). These samples are of varied lithologies, most of which were collected from the south-central to southeastern portions of the property. Rock sample results are summarized in Table 2 below and are shown on Figure 4.

Table 2

ELEMENT	RANGE	MEDIAN	ELEVATED	ANOMALOUS
Gold	1 - 496 ppb	2 ppb	30 ppb	100 ppb
Silver	30 - 6853 ppb	99.5 ppb	1000 ppb	2500 ppb
Lead	1.1 - 1029.8 ppm	5.4 ppm	150.0 ppm	500.0 ppm
Arsenic	0.5 - 475.8 ppm	7.6 ppm	75.0 ppm	200.0 ppm
Antimony	0.2 - 12.3 ppm	0.3 ppm	10.0 ppm	
Tellurium	0.1 - 8.7 ppm	0.3 ppm	5.0 ppm	

## CONCLUSIONS

Alteration and mineralization on the Laid 1 claim are present in a wide metamorphic halo surrounding the Laidman Lake Batholith, which outcrops in the east and southeastern portions of the claim. No significant concentrations of gold are, however, associated with the alteration halo.

**DISBURSEMENTS**

Expenditures to December 5, 1995 on the Laid 1 claim are \$5,150.00, as tabulated below:

Accommodation and Board		650.00
Communication		80.00
Copies, drafting		120.00
Laboratory		
56 rock samples	@ \$19.50/sample	\$ 1,092.00
Labour		
C. Payne, Geologist	2.0 days @ \$295/day	590.00
K. Karchmer, Geologist	1.0 day @ \$295/day	295.00
T. Archibald, Prospector	2.0 days @ \$225/day	450.00
J. Goodall, Sampler	2.0 days @ \$225/day	450.00
Report		800.00
Supplies and Equipment		128.00
Truck and Gas		<u>495.00</u>
<b>Project Total</b>		<b>\$5,150.00</b>

Prepared by:

**FOX GEOLOGICAL SERVICES INC.**



**Peter E. Fox, Ph.D., P.Eng.**  
**January 3, 1996**

**REPORT DISTRIBUTION:**

Phelps Dodge, Toronto Land File	1
Phelps Dodge, Vancouver	2
B.C. Mining Recorder	2

**BIBLIOGRAPHY**

Diakow, L.J. and Webster, Ian C.L. (1994)  
"Geology of the Fawnie Creek Map Area"; in Geological Fieldwork 1993, Paper 1994-1, British Columbia Geological Survey Branch, 1993.

Diakow, L.J., Webster, I., Levson, V., Giles, T. (1994)  
"Bedrock and Surficial Geology of the Fawnie Creek Map Area"; Geological Survey Branch Open File 1994-2

Fox, P.E. (1995)  
"Geochemical Assessment Report on the Laid 1 Claim"; by Fox Geological Consultants Ltd. for Phelps Dodge Corporation of Canada, Limited; January 20, 1995.

Levson, V.M., Giles, T.R., Cook, S.J. and Jackaman, W. (1994)  
"Till Geochemistry of the Fawnie Creek Area (93F/03)"; B.C. Ministry of Energy, Mines and Petroleum Resources, Open File 1994-18.

## CERTIFICATE

I, Peter Edward Fox, certify to the following:

1. I am a consulting geologist residing at #902 - 2077 Nelson Street, Vancouver, B.C.
2. I am a Professional Engineer registered in the Association of Professional Engineers and Geoscientists of British Columbia.
3. My academic qualifications are:  
  
B.Sc. and M.Sc., Queens University, Kingston, Ontario  
Ph.D., Carleton University, Ottawa, Ontario
4. I have been engaged in geological work since graduation in 1966.



---

Peter E. Fox, Ph.D., P. Eng.  
Vancouver, B.C.  
January 3, 1996

**APPENDIX 1**  
**ROCK SAMPLE DESCRIPTIONS**

LAI D PROPERTY  
PROJECT 247

ROCK SAMPLE DESCRIPTIONS AND GEOCHEMISTRY

SAMPLE	TYPE	NOTES	Au pb	Ag ppb	Pb ppm	As ppm	Sb ppm	Te ppm	Hg ppb
52476	GRAB	Dark grey, silicified, lithic tuff, aphanitic, mottled grey-green, approx. 10% disc pyrrhotite and as veinlets.	6	213	2.9	32.6	0.3	0.7	38
52477	GRAB	Angular, light grey, aphanitic sediment, silicified, slightly brecciated 5-10% pyrrhotite as disseminated and small blebs.	37	6853	1029.8	14.2	0.3	8.7	6
52478	GRAB	Dark grey siltstone, silicified, wavy blebs chlorite, approx. 5% pyrrhotite as blebs and disc.	2	76	7.6	1.8	0.2	0.3	9
52479	GRAB	Dark grey siltstone, silicified, 5-10% pyrrhotite, trace pyrite, abundant limonite stain and earthy encrustations, apatite(?) (euhedral).	2	3876	553.3	1.5	0.2	2.4	9
52480	GRAB	Light grey, aphanitic, silicified, angular sediment, 20% disc pyrite, also as small blebs.	5	441	6.4	22.9	0.5	1.4	19
52481	GRAB	Angular float, light grey, aphanitic, silicified, 10% pyrite disc. and blebs.	1	112	17.6	4.5	0.9	0.1	5
52482	GRAB	Dark grey, aphanitic, silicified, siltstone (?) 5% disc. pyrite.	2	181	11.7	2	0.2	0.5	5
52490	GRAB	Cream, angular float of volcanic(?), aphanitic, disc. & euhedral pyrite, fine-med grained.	1	254	33	21.2	12	0.5	5
52491	GRAB	Angular, tan float, prob talus, aphanitic, hornfels with minor chlorite alteration, 5% fine disc pyrite.	3	85	8	16.5	0.2	0.3	5
52492	GRAB	Dark grey, subcrop (bedrock (?)), prob. andesitic ash tuff, hornfels and chloritic sil'n (weak), trace disc pyrite.	1	42	1.6	3.9	0.2	0.1	6
52493	GRAB	Silicified, light grey hornfels, chloritic sil'n, 10-15% disc pyrite.	1	94	4	14	0.6	0.2	5
52494	GRAB	Light grey-green silicified lapilli (?) tuff, trace disc. sulfides.	2	30	6.3	15.3	0.3	0.1	10
52495	GRAB	Light grey hornfels, 10% dissem and blebs pyrrhotite.	1	188	9.9	202.5	1.3	1.1	6
52496	GRAB	Red-pink, clay altered phenos, monzonite, scattered green (<1mm) euhedral phenos, mottled light green in places.	1	57	2.2	49.1	0.2	0.4	6
52497	GRAB	Brown-orange-grey, med grained, spotted orange hornfels, silicified.	1	81	1.9	52.7	0.4	0.4	5
52801	GRAB	Angular, fine to med grained quartz rich rock with abundant chlorite; rock looks acid eaten due to sulphides being leached out, 2-3% pyrite in pods, 1-2% po pods; irregular stringers.	5	370	18.6	8.4	0.5	3.3	16
52802	GRAB	Subcrop(?) Same rock in o/c L 118N 8315E. Grey to light grey, silica flooded volcanic(?), 2-3% disc. coarse po, minor chlorite along fractures with iron staining; also 1% pyrite film and irregular pods along fractures.	5	278	6.1	12	0.6	0.8	5
52803	GRAB	Grey maroon silica flooded tuff(?), 2-3% disc po, fine grained.	4	71	3.6	3.2	0.3	0.5	5
52804	GRAB	Subangular, greenish grey volcanic bx, monomict bx, trace to 1/2% disc. pyrite in matrix.	4	40	11.1	22.8	0.6	4.6	5
52807	GRAB	Abundant, angular float of silica flooded crystal tuff volcanic (?), 4-5% disc po, trace to 1% disc pyrite.	4	186	3.7	13.4	0.2	0.5	7
52808	GRAB	Subangular float, mottled reddish brown fine grained intrusive (?), altered with hematite (?), trace malachite.	2	211	19.4	301.9	10.6	1.1	5
52809	GRAB	Rounded, layered maroon, grey, white, layers up to 3mm thick tuff. Rock is silica flooded, local lime green layers, minor qtz/chalcedony veining, trace disc pyrite.	1	31	2.4	15.9	1.2	0.4	5
52810	GRAB	Angular, greenish-grey, silica flooded fine grained volcanic rock with 5-6% po as stringers, and as disseminations, <1% disc pyrite.	3	160	4.1	1.9	0.3	0.6	5
52811	GRAB	Subangular float, vuggy qtz vein material in grey, fine grained silica flooded host, 7-8% po, asp(?), pyrite pods and stringers.	3	279	3.9	6.9	0.3	0.3	7
52812	GRAB	Subcrop. Green-grey, fine grained, silica flooded volcanoclastic(?), 1-2% disc po.	2	77	3.9	1	0.2	0.3	5
52813	GRAB	Angular float; green-grey, silica flooded fine grained volcanic (?) tuff (?), 3-4% disc fine grained po, trace to 1% disc pyrite.	4	157	8.1	11.7	0.2	0.3	5
52814	GRAB	Angular silica flooded, very fine grained volcanic, minor qtz veinlets throughout, 2-3% po disc, very fine grained.	1	447	59.1	6.7	0.2	0.8	5
52815	GRAB	Angular float, grey-maroon, very fine grained silica flooded volcanic, 5-6% po disseminations.	1	232	14.7	3.1	0.3	0.5	5
52816	GRAB	Angular grey-green laminated silica flooded tuff (?), green layers are chlorite rich with trace disc pyrite and 2-3% disc po. grey layers are quartz aphanitic.	1	61	7.7	10.6	0.6	2.8	5
52817	GRAB	Angular, light grey, silica flooded volcanic (?), 8-10 % po., trace pyrite.	1	505	24.3	5.5	0.5	0.7	5
52818	GRAB	Subcrop. Grey-green silica flooded chlorite altered volcanic (?), 5-6% po clasts, beside o/c or part of it.	9	82	5.4	5.6	0.3	0.1	13
52819	GRAB	Angular subcrop; maroon-grey chert (?), trace chlorite along veinlets of silica; 1-2% disc. fine grained pyrite and as stringers.	7	44	4	1.4	0.2	0.1	6
52820	GRAB	Abundant, angular float, silica flooded volcanic pyroclastic (?), grey, quartz vein with chlorite and disc. pyrite.	2	97	7.9	3.5	0.2	0.2	6
52821	GRAB	Subcrop; fine to med grained, silicified limestone bx; 1/2%-1% disc pyrite; looks like calc-silicate breccia.	8	73	4.4	18	0.3	0.1	5
52822	GRAB	Subcrop. Grey silica flooded limestone bx with trace disc pyrite.	2	30	4.4	7.9	0.2	0.1	6
53047	GRAB	Massive granodiorite, sheared, rusty, no visible mineralization.	1	74	11.1	5.9	0.8	0.1	10
53048	GRAB	Intrusive with grey, sugary quartz, disc pyrite & some arsenopyrite.	5	102	2	1.8	0.2	0.1	6
53049	GRAB	Altered andesite (?) or silicified fine grained sediment (?), with blebs and finely disc. pyrrhotite.	9	252	5.7	7.3	0.2	0.5	7

SAMPLE	TYPE	NOTES	Au pb	Ag ppb	Pb ppm	As ppm	Sb ppm	Te ppm	Hg ppb
53056	GRAB	Angular, black, siliceous, slightly calcareous altered volcanic with trace disc pyrite. Hornfels.	1	30	4.5	7	0.3	0.1	6
53057	GRAB	Angular, grey, siliceous, slightly calcareous altered volcanic with minor disc pyrrhotite. Hornfels.	5	69	2.7	18.5	1.2	0.1	5
53058	GRAB	Lapilli tuff with hornfels and minor pyrrhotite, and chloritic alteration.	3	43	4	6.4	0.8	0.2	5
53059	GRAB	Tuff, siliceous but still clearly banded. Unmineralized.	5	30	1.1	2.1	0.2	0.1	5
53060	GRAB	Grey, siliceous, slightly calcareous altered volcanics, weakly chloritic, couple of rusty spots but no visible signs of mineralization.	1	64	10.3	7.7	1.1	0.2	5
53061	GRAB	Grey, siliceous, slightly calcareous altered volcanics, 3-4% finely disc pyrrhotite, very rusty weathering.	2	90	4.5	7.4	0.2	0.1	25
53062	GRAB	Trace quartz veins and veinlets near contact(?). Quartz has a few rusty blebs of weathered out pyrite.	2	43	6.5	5.4	0.8	0.1	5
53113	GRAB	Coarse grained, rusty granodiorite with chalcedony veins (2cm), 1% esp, some pyrite.	4	155	3.5	1.6	0.2	0.1	5
53114	GRAB	Green, purple, grey, very fine grained, hard, siliceous argillite (?), pyrite & pyrrhotite(?).	2	157	11.9	14.3	0.2	0.3	8
53120	GRAB	Light brown-grey, fine grained quartzite, very weakly magnetic, full of pyrite-po, rusty, large quartz crystals on weathered surface.	2	187	4.5	29.2	0.2	0.4	9
53121	GRAB	Angular float, silicified limestone, chalcedonic veinlets and possible very fine grained sulfides, weakly magnetic, fractured.	1	30	2.7	7.3	0.2	0.1	5
53122	GRAB	Silicified limestone float with limonite, minor pyrite.	2	30	4	8.2	1	0.1	13
53123	GRAB	Quartzite subcrop, yellow-brown limonite stain, fractured, nonmagnetic; s/c area 10x10m on side of gulley; minor pyrite; lots of Qzite float around.	7	1084	49.6	475.8	12.3	1.7	65
53124	GRAB	Rusty quartzite in gulley; pyrite and chalcopy; iridescent staining.	3	404	6.3	79.6	1.6	0.7	14
53125	GRAB	Outcrop, quartzite, rusty & pyritic.	10	334	5.4	16.7	0.6	0.4	9
53126	GRAB	Fine grained, blue-green volcanic, rich with pyrite and po, rusty.	12	147	3.4	6.1	0.3	0.2	8
53127	GRAB	Silicified limestone with abundant major calcite crystals, and pyrite.	15	786	1.9	32.8	1.1	0.3	7
53128	GRAB	Calc-silicate float, med grey w. green (chlorite?), po, argillite seams (brownish).	1	30	1.6	2.5	0.2	0.2	5
53129	GRAB	Subcrop. Calc-silicate, light grey with darker pods, pyrrhotite.	1	30	3	0.5	0.2	0.3	5
53130	GRAB	Quartzite, very magnetic, abundant pyrite & pyrrhotite.	8	114	5.8	0.5	0.2	0.4	5
53131	GRAB	Very fine grained grey-blue silicified tuff (?), po, magnetite.	1	181	7.1	185.7	1.6	0.1	5
53132	GRAB	Silicified limestone.	2	97	5.5	6.3	0.4	0.1	5
53402	GRAB	Rusty quartz-sericite schist, sub-rounded float cobble.	496	605	61.5	39.5	2	0.3	16
53403	GRAB	Pink-white, salt & pepper texture, fine grained quartz monzonite.	6	31	4	2.6	0.2	0.1	5
53404	GRAB	White, angular float of monzonite, fractured, abundant quartz phenos (anhedral), abundant limonite stain, coarse grained, equigranular, quartz-feldspar.	4	337	1	6.2	0.6	0.1	5
53405	GRAB	White-orange quartz monzonite, hydrothermal alteration, sericite, pyrite.	6	643	1.5	4.1	0.8	0.2	5



**APPENDIX 2****ANALYTICAL PROCEDURES**

ICP: A 30 gram sample is digested with 180 millilitres 3-1-2 HCl-HNO<sub>3</sub>-H<sub>2</sub>O at 95° Centigrade for one hour and is diluted to 100 millilitres with water. This leach is partial for Mn, Fe, Sr, Ca, P, La, Cr, Mg, Ba, Ti, B, W and limited for Na, K, Ga and Al. Solution is analysed directly by ICP. Mo, Cu, Pb, Zn, Ag, As, Au, Cd, Sb, Bi, Tl, Hg, Se, Te and Ga are extracted with MIBK-aliquat 336 and analysed by ICP.

Au\*: Gold is extracted by aqua-regia/MIBK extract, GF/AA finished.

**APPENDIX 3**  
**GEOCHEMICAL ANALYSES**



GEOCHEMICAL EXTRACTION-ANALYSIS CERTIFICATE



Phelps Dodge Corp. PROJECT 247 File # 95-2420 Page 1

1409 - 409 Granville St., Vancouver BC V6T 1T2 Submitted by: Geoff Goodall

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti ppm	B %	Al %	Na %	K %	W ppm	Tl ppm	Hg ppb	Se ppm	Te ppm	Ga ppm	Au+ ppb
52476	1.1	41.8	2.9	64.5	213	7	23	571	5.97	32.6	<5	2	14	.12	.3	.2	169	.70	.092	5	8	.73	59	.30	<2	1.24	.11	.38	<2	.1	36	<.3	.7	7.9	6
52477	2.5	65.3	1029.8	478.9	6853	6	7	1199	3.49	14.2	<5	1	23	7.07	.3	16.9	25	1.01	.009	1	7	.63	29	.08	<2	1.17	.07	.12	<2	.3	6	.9	8.7	4.9	37
52478	1.3	30.0	7.8	57.3	76	8	4	644	3.07	1.8	<5	1	59	.13	<2	.1	49	1.10	.017	2	9	.90	166	.17	<2	2.75	.36	.89	<2	.1	9	<.3	.3	8.8	2
52479	1.5	63.5	553.3	230.0	3676	5	8	1866	4.33	1.5	<5	1	36	2.71	<2	12.6	47	.92	.042	4	6	1.59	35	.16	<2	1.86	.10	.28	31	.2	9	<.3	2.4	7.4	2
52480	4.5	21.0	6.4	2.6	441	13	13	75	6.14	22.9	<5	1	9	.05	.5	6.6	3	.01	.005	<1	10	.01	29	<.01	<2	.01	.01	.21	3	.1	19	5.3	1.4	<.5	5
52481	2.4	15.8	17.6	39.6	112	2	2	286	1.36	4.5	<5	4	23	.56	.9	.3	2	.67	.025	12	2	.09	80	<.01	2	.33	.03	.22	<2	<.1	<.5	<.1	.5	<.1	<.5
52482	1.2	16.9	11.7	44.3	181	4	5	604	3.03	2.0	<5	1	10	.12	.2	.3	63	.24	.009	2	8	.69	29	.22	<2	1.14	.08	.65	<2	.2	<.5	<.3	.5	7.1	2
52490	4.3	15.3	33.0	50.4	254	6	1	343	.86	21.2	<5	5	11	.45	12.0	.2	1	.45	.012	15	5	.03	61	<.01	<2	.31	.04	.24	<2	<.1	<.5	.4	.5	.8	<.1
RE 52490	4.2	13.9	29.8	46.6	260	3	1	324	.80	26.9	<5	5	11	.43	12.8	.2	1	.42	.012	12	5	.02	56	<.01	<2	.27	.03	.21	<2	<.1	7	<.3	.5	1.1	<.1
RRE 52490	3.5	12.6	28.5	50.4	238	4	1	328	.78	24.5	<5	5	11	.39	11.5	.2	2	.44	.012	15	3	.03	61	<.01	<2	.32	.03	.24	<2	.1	<.5	<.3	.4	1.0	2
52491	1.0	15.7	8.0	56.2	85	3	5	716	2.15	16.5	<5	2	8	.27	<.2	.2	17	.14	.015	7	5	.56	37	.05	<2	.65	.05	.09	<2	<.1	<.5	<.3	.3	2.9	3
52492	1.0	11.6	1.6	30.3	42	4	2	306	1.64	3.9	<5	2	7	.08	.2	<.1	35	.33	.022	3	6	.35	59	.18	<2	.60	.07	.27	<2	.1	6	<.3	<.1	3.9	<.1
52493	4.8	35.5	4.0	25.3	94	7	6	581	1.35	14.0	<5	6	41	.09	.6	.1	22	1.05	.015	10	9	.33	48	.08	<2	1.38	.23	.15	<2	.2	<.5	<.3	.2	4.3	<.1
52494	1.6	27.0	6.3	49.4	<30	3	4	593	1.68	15.3	<5	8	8	.11	.3	<.1	21	.28	.018	10	6	.52	74	.09	<2	1.07	.05	.30	<2	<.1	10	<.3	<.1	3.5	2
52495	113.6	42.8	9.9	21.8	188	6	6	92	1.82	202.5	<5	9	5	.16	1.3	.3	9	.06	.016	11	5	.03	75	<.01	<2	.32	.05	.16	<2	1.5	6	<.3	1.1	1.4	<.1
52496	2.1	4.8	2.2	21.9	57	3	1	341	1.76	49.1	<5	3	12	.04	.2	.3	26	.19	.033	6	6	.30	37	.08	<2	.67	.06	.09	<2	.1	6	<.3	.4	3.5	<.1
52497	1.5	8.3	1.9	28.9	61	5	3	375	1.74	52.7	<5	4	13	.04	.4	.1	30	.19	.028	6	6	.41	95	.10	<2	.83	.07	.23	<2	<.1	<.5	<.3	.4	4.9	<.1
52801	2.8	152.6	18.6	76.3	370	5	20	2340	9.63	8.4	<5	2	15	.23	.5	6.6	50	.42	.031	5	3	2.48	25	.09	<2	2.25	.03	.04	<2	.1	16	1.1	3.3	11.1	5
52802	1.0	100.0	6.1	75.4	278	7	15	633	3.64	12.0	<5	1	15	.22	.6	.6	68	.31	.053	5	10	.98	57	.16	<2	1.23	.10	.43	<2	.2	<.5	.4	.8	8.9	5
52803	1.8	15.0	3.6	50.5	71	6	6	554	3.17	3.2	<5	<1	32	.14	.3	.3	44	.88	.009	3	9	.51	23	.20	<2	1.62	.20	.36	<2	.2	<.5	<.3	.5	6.2	4
52804	1.8	8.0	11.1	54.4	40	3	2	530	3.19	22.8	<5	2	47	.05	.6	.7	31	.28	.084	9	4	.56	137	.16	<2	1.01	.03	.35	<2	.1	<.5	.5	4.6	3.7	4
RE 52804	1.8	7.5	11.7	54.1	46	<1	2	529	3.15	22.1	<5	3	47	.05	.7	.7	31	.28	.084	10	4	.55	134	.16	<2	1.01	.04	.35	<2	.1	<.5	.6	4.5	3.6	2
RRE 52804	1.9	6.4	12.8	48.5	57	1	1	458	3.27	29.2	<5	2	44	.05	.9	.5	29	.25	.087	9	3	.48	134	.16	<2	.90	.03	.33	<2	<.1	<.5	.7	5.7	4.3	3
52807	2.2	70.5	3.7	49.0	186	8	23	847	6.10	13.4	<5	2	37	.13	<.2	.5	112	.98	.081	9	4	1.06	57	.19	<2	1.48	.08	.19	<2	.1	7	.8	.5	6.1	4
52808	5.7	19.4	19.4	39.8	211	3	4	248	2.99	301.9	<5	3	19	.11	10.6	.7	28	.21	.051	12	8	.28	87	.05	<2	.88	.03	.47	<2	.3	<.5	.3	1.1	3.1	2
52809	1.0	3.6	2.4	8.8	31	2	1	107	.60	15.9	<5	1	80	.03	1.2	.1	9	.39	.027	6	6	.03	39	.12	<2	.50	.06	.23	2	.1	<.5	<.3	.4	2.1	<.1
52810	1.6	123.8	4.1	44.5	160	9	21	485	3.56	1.9	<5	1	19	.12	.3	.7	116	.66	.066	6	10	.62	22	.18	<2	.90	.13	.05	<2	.1	<.5	1.5	.6	6.2	3
52811	3.1	191.3	3.9	72.4	279	5	10	1125	4.41	6.9	<5	<1	27	.63	.3	.9	33	1.15	.055	4	5	1.13	14	.07	<2	1.37	.04	.08	<2	<.1	7	2.0	.3	5.6	3
52812	.7	35.9	3.9	38.5	77	8	9	252	4.64	1.0	<5	<1	29	.13	<.2	.3	172	.47	.064	2	20	.67	95	.14	<2	.75	.09	.19	<2	<.1	<.5	<.3	.3	6.4	2
52813	1.1	56.2	8.1	80.0	157	6	10	928	3.34	11.7	<5	1	87	.18	.2	.5	74	3.23	.027	5	7	1.53	41	.05	<2	2.70	.18	.20	<2	.1	<.5	.3	.3	8.5	4
52814	1.4	39.8	59.1	98.7	447	6	7	781	2.66	6.7	<5	1	88	.99	.2	1.2	36	1.90	.125	4	8	.86	79	.16	<2	2.96	.26	.61	<2	.2	<.5	.7	.8	10.2	<.1
52815	1.4	43.0	14.7	148.0	232	2	5	1495	2.70	3.1	<5	1	122	1.98	.3	.7	17	2.19	.063	3	3	1.10	74	.09	<2	2.45	.26	.06	<2	.1	<.5	.5	.5	7.3	<.1
52816	1.9	36.9	7.7	225.3	61	4	6	586	2.08	10.6	<5	1	76	3.35	.6	4.8	23	2.12	.017	2	6	.76	79	.09	<2	3.26	.22	.14	<2	.1	<.5	.4	2.8	10.2	<.1
52817	1.1	133.0	24.3	194.0	505	6	14	2489	5.90	5.5	<5	1	60	2.58	.5	.9	21	3.13	.195	7	4	1.49	22	.08	<2	1.89	.09	.04	<2	.1	<.5	2.0	.7	5.7	1
STANDARD	22.8	125.0	89.5	261.0	1981	28	15	997	4.13	76.4	17	21	59	2.35	9.8	21.8	69	.67	.085	18	51	1.13	230	.14	27	2.13	.05	.70	21	2.4	481	.9	2.1	6.7	491

Standard is STANDARD D/AU-R.

ICP - 30 GRAM SAMPLE IS DIGESTED WITH 180 ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 100 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K GA AND AL. SOLUTION ANALYSED DIRECTLY BY ICP. MO CU PB ZN AG AS AU CD SB BI TL HG SE TE AND GA ARE EXTRACTED WITH MIBK-ALIQUAT 336 AND ANALYSED BY ICP.

- SAMPLE TYPE: ROCK AU+ - AQUA-REGIA/MIBK EXTRACT, GF/AA FINISHED. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JUL 20 1995

DATE REPORT MAILED:

*July 27/95*

SIGNED BY: *C. Toy* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS



ACME ANALYTICAL



ACME ANALYTICAL

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B %	Al %	Na %	K %	W ppm	Tl ppm	Hg ppb	Se ppm	Te ppm	Ga ppm	Au+ ppb
52818	1.5	39.5	5.4	436.8	82	5	7	517	1.94	5.6	<5	1	77	4.55	.3	.3	18	1.65	.021	2	9	.68	41	.09	<2	2.60	.37	.08	3	.1	13	1.0	.1	5.9	9
52819	2.1	48.6	4.0	40.9	44	6	4	509	1.99	1.4	<5	1	64	.28	<.2	.6	13	.82	.016	5	9	.74	359	.07	<2	1.92	.20	.43	3	.2	6	1.1	<.1	5.5	7
52820	1.7	50.5	7.9	598.0	97	2	5	654	3.35	3.5	<5	<1	88	8.85	<.2	.9	30	1.31	.040	3	7	1.13	76	.09	<2	2.70	.31	.34	2	.1	6	.9	.2	8.2	2
52821	1.1	37.5	4.4	72.0	73	6	8	780	3.34	18.0	<5	<1	36	.15	.3	.2	74	1.39	.015	3	14	1.27	36	.09	<2	1.94	.15	.25	4	.1	5	.5	<.1	5.9	8
52822	.7	23.3	4.4	40.8	<30	3	6	1524	2.13	7.9	<5	2	135	.12	<.2	.2	21	14.15	.052	4	3	1.56	16	.03	<2	1.15	.05	.04	2	.1	6	.3	<.1	2.2	2
53047	4.2	8.4	11.1	17.8	74	3	3	341	.83	5.9	<5	5	7	.14	.8	.2	5	.08	.013	15	8	.02	80	<.01	3	.42	.01	.14	2	.1	10	.8	.1	.6	1
53048	6.9	3.6	2.0	5.5	102	4	2	59	1.06	1.8	<5	5	7	.06	<.2	.1	2	.04	.010	15	5	.02	38	<.01	2	.43	.01	.16	2	<.1	6	.3	<.1	<.5	5
53049	1.1	17.1	5.7	54.5	252	2	6	636	3.20	7.3	<5	3	38	.23	<.2	<.1	23	1.15	.046	10	6	.66	45	.14	<2	1.82	.25	.21	3	.1	7	1.1	.5	6.3	9
53056	16.9	13.7	4.5	36.3	<30	5	5	559	2.25	7.0	<5	1	46	.10	.3	.1	19	1.31	.008	2	12	.54	75	.12	<2	2.13	.21	.31	4	.1	6	.3	.1	3.9	1
53057	2.5	27.1	2.7	46.7	69	6	5	452	1.93	18.5	<5	8	16	.14	1.2	.2	9	.68	.021	13	7	.13	44	.01	<2	.42	.04	.23	3	.1	<5	.6	<.1	1.2	5
RE 53057	2.3	28.0	2.7	45.0	80	5	4	439	1.88	24.5	<5	8	15	.15	1.4	.2	9	.67	.020	12	7	.13	45	.01	<2	.42	.04	.22	2	.1	<5	.7	.1	1.3	1
RRE 53057	2.6	30.4	3.0	43.7	83	4	4	449	1.82	28.5	<5	8	14	.16	1.2	<.1	8	.63	.020	11	7	.12	34	.01	<2	.37	.04	.21	2	<.1	<5	.3	<.1	1.0	3
53058	2.1	11.3	4.0	57.6	43	7	6	680	2.48	6.4	<5	<1	56	.18	.6	.1	60	1.57	.031	2	13	.66	54	.19	<2	2.46	.36	.40	2	.1	<5	.4	.2	7.5	3
53059	.5	3.0	1.1	34.2	<30	<1	4	379	1.72	2.1	<5	13	5	.05	.2	.1	22	.18	.026	14	5	.68	70	.15	<2	1.43	.04	1.02	<2	.2	<5	<.3	<.1	3.7	5
53060	1.5	15.7	10.3	43.2	64	4	3	775	.92	7.7	<5	4	68	.19	1.1	.1	12	3.44	.011	6	7	.28	146	.11	4	2.62	.13	.10	3	.1	<5	<.3	.2	6.1	1
53061	1.5	17.0	4.5	34.1	90	5	3	480	2.73	7.4	<5	3	11	.07	<.2	.3	49	.32	.050	5	9	.69	52	.19	<2	1.00	.08	.27	2	<.1	25	.8	<.1	2.9	2
53062	1.9	5.3	6.5	15.5	43	3	<1	204	.35	5.4	<5	8	6	.15	.8	<.1	<.1	.14	.004	16	5	.02	30	<.01	<2	.22	.05	.14	2	<.1	<5	.4	.1	.7	2
53120	4.2	23.4	4.5	70.5	187	<1	7	846	4.75	29.2	<5	6	26	.07	.2	.3	139	.71	.078	9	4	1.32	68	.15	<2	1.88	.06	.25	3	<.1	9	.8	.4	6.5	2
53121	.6	<.1	2.7	5.3	<30	1	<1	1912	.19	7.3	<5	<1	98	.05	<.2	.1	28	21.07	.006	<1	2	.20	16	<.01	13	.08	.01	.03	<2	<.1	5	<.3	<.1	<.5	<1
53122	2.3	2.7	4.0	67.3	<30	3	4	3965	2.45	8.2	<5	<1	9	.61	1.0	.3	14	2.90	.015	4	5	.14	248	.01	2	.80	<.01	.02	3	<.1	13	<.3	.1	3.9	2
53123	17.4	37.4	49.6	157.4	1084	4	4	196	4.02	475.8	<5	3	18	.45	12.3	1.7	26	.11	.082	8	2	.04	46	<.01	<2	.73	.01	.36	2	2.1	65	.6	1.7	1.4	7
53124	1.4	126.7	6.3	47.6	404	15	32	500	7.01	79.6	<5	2	61	.14	1.6	.5	167	.71	.085	7	21	.87	53	.20	<2	1.71	.12	.20	3	<.1	14	.9	.7	4.8	3
RE 53124	1.4	125.7	4.8	48.2	394	13	31	499	7.05	70.4	<5	1	63	.13	1.3	.7	170	.74	.085	8	20	.89	53	.21	<2	1.76	.13	.20	3	.1	10	.9	.7	5.2	4
RRE 53124	1.7	121.8	4.9	46.9	375	15	29	512	7.14	61.4	<5	1	58	.12	1.4	.6	159	.59	.082	7	19	.83	44	.18	<2	1.63	.11	.20	2	.1	9	.8	.8	5.4	4
53125	2.5	61.7	5.4	81.1	334	2	14	962	5.44	16.7	<5	1	41	.18	.6	.5	135	1.14	.082	8	6	1.81	137	.19	<2	2.49	.12	.58	3	.2	9	.7	.4	6.3	10
53126	1.8	118.8	3.4	43.9	147	9	23	393	4.16	6.1	<5	1	37	.11	.3	.4	108	.85	.075	8	8	.77	61	.18	<2	1.16	.17	.15	2	<.1	8	1.4	.2	6.0	12
53127	.3	5.4	1.9	23.5	786	<1	2	2265	2.29	32.8	<5	<1	341	.35	1.1	.1	16	27.15	.010	1	2	1.80	34	<.01	<2	.15	.02	.05	2	<.1	7	<.3	.3	<.5	15
53128	.8	10.5	1.6	23.7	<30	<1	4	2739	1.21	2.5	<5	1	121	.08	<.2	.2	12	15.04	.015	1	4	1.03	44	.07	<2	1.39	.16	.16	<2	<.1	<5	.5	.2	3.0	1
53129	9.8	29.1	3.0	17.4	<30	5	4	738	1.97	<.5	<5	2	194	.10	<.2	.4	21	11.56	.025	1	4	.57	34	.05	<2	2.14	.28	.07	2	<.1	<5	1.2	.3	4.6	1
53130	.9	92.1	5.8	151.9	114	4	8	1018	3.66	<.5	<5	1	77	1.03	<.2	.5	56	5.82	.057	2	4	2.29	12	.17	<2	1.54	.09	.05	3	<.1	<5	1.0	.4	5.8	8
STANDARD	22.8	116.7	88.9	263.9	1819	28	16	928	4.21	79.8	22	20	57	2.17	9.8	22.8	62	.67	.085	19	52	1.13	236	.14	26	2.17	.05	.69	18	2.1	476	1.3	2.3	6.3	537

Standard is STANDARD D/AU-R. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



AA ANALYTICAL



AA ANALYTICAL

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Hg	Ba	Ti	B	Al	Na	K	W	Tl	Hg	Se	Te	Ga	Au+
	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm
53068	10.7	12.7	8.7	54.1	104	7	9	773	3.14	11.2	<5	4	20	.05	1.6	<.1	67	.22	.005	9	13	.49	123	.07	6	1.65	.05	.46	2	.2	18	<.3	.2	4.8	5
53069	15.7	13.8	12.0	39.1	260	8	2	188	1.12	351.7	8	1	5	.26	6.8	<.1	18	.07	.025	<1	15	.01	49	<.01	<2	.15	<.01	.02	5	.2	137	<.3	.1	.8	1
53070	3.5	106.2	7.9	67.0	999	17	29	507	5.64	39.9	5	6	26	.62	1.0	.5	57	.65	.063	12	9	.48	21	.11	6	1.16	.09	.08	<2	<.1	15	.9	1.1	4.7	6
53071	3.1	31.8	3.3	28.2	98	3	9	448	3.63	5.6	<5	3	41	.10	<.2	.1	92	.99	.162	13	6	.83	63	.19	4	1.11	.09	.25	<2	.1	7	<.3	<.1	4.8	4
53072	2.4	87.9	4.4	31.0	107	19	12	257	3.02	5.3	<5	2	49	.11	.8	<.1	89	.85	.120	10	26	.65	42	.17	<2	1.03	.08	.17	<2	.2	10	<.3	<.1	4.6	3
53073	2.2	63.4	2.7	38.2	78	13	13	412	4.05	2.6	<5	3	29	.09	<.2	<.1	163	.90	.080	7	29	.85	100	.24	<2	1.08	.07	.32	<2	.1	<5	<.3	<.1	4.4	3
53074	1.8	7.5	3.7	34.4	62	3	5	317	2.35	4.0	<5	6	19	.08	<.2	<.1	65	.37	.076	15	11	.45	42	.15	<2	.61	.08	.34	<2	.1	<5	<.3	<.1	3.3	5
53075	2.0	4.3	2.2	56.1	37	7	4	566	3.67	5.3	7	1	6	.07	.2	<.1	66	.38	.046	7	15	.21	21	.16	<2	.33	.09	.04	2	<.1	<5	<.3	<.1	2.4	5
RE 53075	2.0	4.5	2.0	57.6	43	6	4	594	3.79	4.8	<5	2	6	.06	.3	<.1	69	.41	.047	8	15	.22	14	.17	<2	.34	.10	.04	2	<.1	<5	<.3	<.1	2.7	5
RRE 53075	2.0	4.2	2.1	49.5	<30	6	4	516	3.26	4.1	<5	1	5	.07	.2	<.1	59	.35	.040	6	13	.19	21	.15	<2	.29	.08	.04	2	<.1	<5	<.3	<.1	2.2	2
53117	2.7	4.7	3.4	29.5	54	7	3	265	2.14	4.5	<5	4	17	.08	<.2	<.1	42	.47	.070	15	9	.41	33	.12	<2	.67	.06	.13	<2	<.1	<5	<.3	<.1	3.2	4
53118	1.4	32.1	3.7	42.9	134	9	12	716	5.41	14.2	<5	2	34	.10	<.2	.4	163	.63	.076	6	12	1.13	52	.23	3	1.56	.10	.11	<2	<.1	<5	.7	.1	5.2	5
53119	5.1	10.1	61.7	99.1	856	2	1	98	1.54	111.7	<5	2	10	.45	5.2	<.1	8	.03	.024	19	5	.02	80	<.01	5	.32	<.01	.24	<2	.2	31	<.3	<.1	.7	22
53131	11.5	46.5	7.1	10.4	181	5	7	211	2.11	185.7	<5	1	71	.21	1.6	.1	14	2.29	.087	3	6	1.11	35	.10	4	1.81	.16	.12	<2	<.1	<5	<.3	.1	6.4	<1
53132	1.3	12.2	5.5	37.1	97	1	<1	1030	.26	6.3	7	<1	373	.68	.4	<.1	5	18.98	.009	1	2	.09	33	<.01	3	.12	<.01	.01	<2	<.1	<5	<.3	.1	.7	2
53401	3.6	11.6	2.6	28.1	52	6	5	310	2.57	3.9	<5	7	26	.11	<.2	<.1	68	.63	.088	15	14	.56	43	.18	2	.73	.07	.29	<2	<.1	6	<.3	<.1	3.5	4
53402	4.0	10.8	61.5	23.9	605	6	2	479	2.52	39.5	<5	2	5	.15	2.0	.1	5	.04	.022	11	8	.02	49	<.01	<2	.29	.01	.24	<2	.1	16	<.3	.3	<.5	496
53403	2.1	5.3	4.0	27.0	31	1	3	277	1.85	2.6	<5	5	21	.15	<.2	.1	36	.53	.057	14	6	.35	38	.12	<2	.58	.06	.17	<2	<.1	<5	<.3	<.1	2.7	6
53404	35.3	9.7	1.0	1.6	337	5	1	63	.68	6.2	<5	8	7	.08	.6	<.1	3	.02	.003	26	8	.02	540	<.01	<2	.31	.01	.19	2	.2	5	<.3	<.1	.9	4
53405	3.4	7.1	1.5	<1	643	3	<1	44	.55	4.1	<5	4	3	.03	.8	.2	1	.01	.002	14	5	.01	228	<.01	<2	.20	<.01	.13	<2	<.1	<5	<.3	.2	.7	6
RE 53405	2.7	6.3	1.4	<1	545	6	<1	41	.54	3.6	<5	4	3	.02	.5	.3	1	.01	.002	14	6	.01	227	<.01	<2	.20	<.01	.13	<2	<.1	<5	<.3	<.1	<.5	6
RRE 53405	3.0	6.8	1.5	<1	573	4	<1	42	.55	3.9	<5	4	3	.03	.5	.2	1	.01	<.002	14	6	.01	231	<.01	2	.20	<.01	.14	<2	<.1	<5	<.3	<.1	.5	6
53406	1.9	16.3	8.6	53.0	<30	12	16	851	3.60	34.4	<5	2	38	.41	3.6	<.1	93	2.38	.144	17	13	.94	114	<.01	4	.76	<.01	.10	<2	3.0	468	<.3	<.1	1.9	4
53407	2.2	34.9	3.6	116.7	<30	5	14	1427	5.20	34.5	<5	2	44	.34	2.4	<.1	129	3.50	.126	9	10	2.11	145	.03	<2	1.75	.06	.10	<2	.7	42	<.3	<.1	9.9	6
53408	2.7	5.1	2.2	12.9	<30	5	1	248	.98	2.7	5	6	3	.04	.4	<.1	4	.02	.009	12	7	.02	22	<.01	2	.38	.01	.10	<2	<.1	53	<.3	<.1	.9	1
53409	24.5	7.9	1.8	9.4	45	3	<1	47	1.26	2.8	<5	4	5	.03	.7	.2	4	.04	.009	16	6	.02	58	<.01	<2	.37	.01	.17	<2	.1	7	<.3	<.1	1.1	1
53410	3.9	15.5	3.5	116.5	63	52	14	1196	5.71	16.6	13	2	64	.49	<.2	<.1	177	2.72	.301	13	56	1.54	183	.20	3	2.62	.08	.11	<2	<.1	6	<.3	<.1	8.6	5
53411	1.5	39.9	5.4	78.6	407	72	25	2014	6.05	18.5	6	1	25	.46	7.8	.1	92	2.26	.092	8	37	1.06	24	<.01	3	.61	<.01	.16	<2	.7	157	<.3	<.1	1.6	6
53412	2.8	6.5	30.4	46.0	398	5	3	720	1.39	127.5	<5	5	2	.17	1.3	<.1	1	.03	.012	15	5	.02	23	<.01	2	.30	<.01	.17	<2	.1	<5	<.3	<.1	.7	35
53413	3.8	5.6	52.9	27.6	7910	4	<1	169	.73	1609.9	<5	6	6	.21	2.0	.1	5	.07	.011	25	5	.04	108	<.01	2	.41	<.01	.25	<2	.1	36	<.3	<.1	1.1	197
53414	3.4	3.8	13.7	13.7	85	6	1	176	.56	54.6	<5	7	2	.05	.5	.1	2	.04	.008	24	7	.02	44	<.01	2	.39	<.01	.25	<2	.1	10	<.3	<.1	1.1	5
53415	4.6	4.9	8.1	17.1	47	4	4	389	.55	19.2	<5	7	2	.10	.6	.1	2	.02	.008	22	8	.01	63	<.01	<2	.31	<.01	.20	<2	<.1	13	<.3	<.1	.6	4
STANDARD	22.8	125.8	92.5	265.0	1966	30	14	926	4.37	71.9	19	20	55	2.13	9.6	22.2	67	.68	.094	17	51	1.16	231	.14	28	2.24	.05	.70	19	2.1	460	.8	2.0	6.9	491

Standard is STANDARD D/AU-R. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.



GEOCHEMICAL EXTRACTION-ANALYSIS CERTIFICATE

Phelps Dodge Corp. PROJECT 246 File # 95-2419 Page 1

1409 - 409 Granville St., Vancouver BC V6T 1T2 Submitted by: Geoff Goodall

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti ppm	B ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppb	Se ppm	Te ppm	Ga ppm	Au+ ppb
45698	2.2	23.9	4.1	67.2	40	17	11	710	3.31	4.8	<5	2	62	.15	.4	.1	72	.75	.070	6	35	1.18	82	.16	4	1.73	.15	.26	2	.1	20	.6	<.1	7.7	6
45699	1.2	6.3	17.6	14.9	55	2	1	79	.29	4.0	<5	2	5	.02	.3	<.1	2	.04	.005	7	4	.02	23	<.01	3	.29	.05	.11	<.2	.1	10	<.3	<.1	.8	1
45700	2.1	4.9	15.5	57.7	<30	3	7	859	4.35	6.7	<5	2	14	.17	2.7	.1	54	1.09	.094	16	5	.06	118	.06	<2	.28	.05	.18	<.2	.1	29	<.3	<.1	1.0	1
51587	.8	16.2	6.4	68.3	<30	8	12	602	3.10	7.9	<5	4	137	.13	.4	.1	86	3.20	.110	18	5	1.30	518	.11	4	1.08	.04	.32	<.2	.1	8	<.3	<.1	3.0	<.1
51588	.7	3.7	4.9	97.9	<30	5	14	1404	2.99	3.8	<5	2	50	.74	.8	.1	80	2.61	.092	12	5	.72	1419	.01	3	.56	<.01	.04	<.2	<.1	7	<.3	<.1	1.5	<.1
51589	.6	3.6	10.0	129.6	<30	7	18	925	4.12	3.7	<5	2	36	.59	.2	.1	116	1.23	.108	7	9	.36	369	<.01	5	.82	<.01	.14	<.2	<.1	9	<.3	.1	2.0	<.1
51590	.2	28.9	6.1	216.4	<30	1	17	1924	6.59	1.4	<5	2	236	2.41	.2	<.1	36	11.81	.018	3	<.1	5.53	1938	<.01	3	.21	.01	.08	<.2	<.1	38	<.3	<.1	<.5	<.1
51591	1.2	5.2	6.0	73.3	<30	1	6	1078	3.87	3.3	<5	1	52	.24	1.4	<.1	20	2.36	.064	9	1	1.14	225	<.01	3	.35	.03	.19	<.2	.1	12	<.3	.1	1.2	1
51593	.8	11.0	3.4	96.5	<30	3	7	1217	3.78	2.4	<5	2	13	.20	.8	.1	33	.38	.098	14	4	.14	320	.01	4	.83	.04	.24	<.2	<.1	<.5	<.3	<.1	2.1	2
52483	2.4	5.7	1.7	3.4	<30	8	<.1	90	.42	1.0	<5	<.1	7	.04	.4	.2	1	.13	<.002	<.1	13	.04	274	<.01	<.2	.04	<.01	.01	3	<.1	109	<.3	<.1	<.5	3
RE 52483	2.5	6.0	1.5	2.3	<30	9	1	82	.41	.7	<5	<.1	7	.03	.4	.1	1	.13	<.002	<.1	12	.03	269	<.01	<.2	.04	<.01	.01	2	.1	103	<.3	<.1	<.5	3
RRE 52483	2.4	6.0	2.0	1.7	<30	5	<.1	128	.33	<.5	<5	<.1	2	.01	.2	.1	1	.03	.002	<.1	11	.01	14	<.01	<.2	.04	.01	.01	2	<.1	97	<.3	<.1	<.5	1
52484	.8	5.0	2.8	101.0	<30	44	20	1594	5.46	5.0	<5	2	8	.20	.3	.3	109	.29	.038	9	84	2.88	39	.10	<2	2.43	.03	.07	<.2	<.1	20	<.3	.2	9.6	1
52485	1.4	14.2	7.2	81.4	<30	4	8	581	2.86	2.2	<5	3	22	.23	.2	.3	84	1.02	.093	23	4	.76	67	.20	3	1.19	.06	.11	<.2	<.1	<.5	<.3	<.1	10.4	1
52486	2.2	15.9	43.3	19.6	123	5	2	342	.82	20.0	<5	3	5	.10	1.5	.1	2	.06	.022	15	5	.02	56	<.01	<.2	.27	<.01	.24	<.2	<.1	6	<.3	<.1	<.5	38
52487	1.2	6.4	3.3	29.2	<30	4	2	757	1.14	1.3	<5	4	5	.09	.3	<.1	6	.06	.025	16	8	.11	61	<.01	2	.37	.01	.23	<.2	.2	<.5	<.3	<.1	.9	2
52488	1.5	11.1	3.1	36.3	18873	4	3	1239	1.20	28.4	<5	3	15	.08	.9	<.1	5	2.84	.017	8	6	.05	103	<.01	<.2	.16	.01	.16	<.2	<.1	72	.5	<.1	<.5	936
52489	2.4	79.7	69.1	243.3	52654	7	1	2353	1.16	24.7	<5	<.1	21	1.91	3.6	<.1	9	1.43	.008	7	7	.14	100	<.01	<.2	.08	<.01	.07	<.2	.2	298	.6	<.1	.8	434
52804	2.2	8.0	6.9	31.3	1068	4	3	855	1.28	15.6	<5	<.1	30	.18	.5	<.1	4	1.85	.009	6	9	.09	538	<.01	<.2	.14	.01	.13	<.2	<.1	75	<.3	<.1	<.5	20
52805	1.9	7.3	5.4	31.9	87	6	3	755	1.20	11.9	<5	3	7	.15	.5	.1	10	.09	.031	11	8	.05	125	<.01	3	.33	.01	.23	<.2	<.1	23	<.3	<.1	<.5	6
52806	.7	22.6	3.0	76.6	143	8	12	502	3.29	<.5	<5	3	18	.08	<.2	.2	96	.69	.108	21	5	1.89	322	.10	<.2	1.62	.06	.29	<.2	<.1	22	<.3	<.1	8.7	4
52823	2.7	57.7	7.2	40.9	250	16	6	1118	3.80	7.0	<5	1	173	.15	.3	.8	56	6.82	.065	6	7	1.21	49	.02	<.2	2.54	.33	.17	<.2	<.1	16	1.0	<.1	8.2	3
RE 52823	2.8	60.4	7.6	39.2	246	15	5	1088	3.66	7.6	<5	1	167	.17	.2	.8	54	6.63	.061	6	6	1.15	43	.02	2	2.43	.31	.15	<.2	.1	13	1.0	<.1	7.9	3
RRE 52823	2.6	58.0	7.9	39.3	274	16	7	1051	3.60	7.4	<5	1	162	.16	.4	.9	54	6.26	.058	6	7	1.13	37	.02	<.2	2.41	.32	.16	<.2	.2	13	1.1	.1	8.0	3
52824	1.4	2.7	3.9	22.9	90	5	2	536	1.18	3.0	<5	3	8	.13	1.0	.2	15	.37	.014	15	6	.03	65	.01	2	.27	.01	.22	<.2	.1	<.5	<.3	<.1	.5	10
52825	1.7	4.9	3.2	45.3	41	4	4	942	1.79	3.7	<5	4	10	.18	.9	.2	20	.35	.020	13	8	.03	152	.01	2	.24	.01	.22	<.2	<.1	<.5	.3	<.1	.6	3
53050	1.8	12.3	12.5	38.9	461	4	2	262	1.16	10.4	8	4	9	.18	.8	.2	12	.21	.015	11	8	.02	137	<.01	<.2	.18	.01	.19	<.2	.1	8	<.3	<.1	.7	20
53051	2.0	2.6	3.2	30.3	45	3	2	682	1.46	2.8	<5	5	8	.18	.4	<.1	17	.25	.021	15	7	.03	143	.01	4	.27	.04	.19	<.2	<.1	7	<.3	<.1	1.4	4
53052	1.1	4.5	5.8	7.8	75	4	<.1	86	.42	4.4	<5	3	5	.04	.2	.1	2	.07	.019	19	5	.02	78	<.01	<.2	.32	.01	.24	<.2	<.1	5	<.3	<.1	<.5	3
53053	1.4	7.1	3.9	31.2	81	6	2	514	1.39	2.8	5	2	14	.16	.6	.3	19	1.00	.021	13	7	.07	112	<.01	3	.32	.02	.26	<.2	<.1	<.5	<.3	.1	1.7	5
53054	3.8	7.4	1.1	1.7	<30	10	1	83	.42	2.6	<5	<.1	11	.02	.9	.6	1	.01	<.002	<.1	15	<.01	541	<.01	<.2	.01	<.01	.01	3	<.1	<.5	<.3	<.1	<.5	3
53055	1.8	5.5	3.7	15.5	376	8	2	846	1.15	18.8	<5	3	12	.06	.3	.3	5	.84	.013	9	8	.01	94	<.01	2	.16	.01	.19	<.2	.1	<.5	<.3	<.1	<.5	29
53113	2.6	3.3	3.5	5.7	155	5	1	129	.61	1.6	<5	6	8	.04	<.2	.3	1	.04	.011	16	4	.01	290	<.01	<.2	.34	<.01	.12	<.2	<.1	<.5	<.3	.1	<.5	4
53114	1.8	17.8	11.9	61.9	157	4	5	569	2.28	14.3	<5	1	107	.24	.2	.6	34	1.15	.034	3	8	.65	169	.17	<.2	2.03	.20	.48	<.2	<.1	8	<.3	.3	6.4	2
STANDARD	22.8	124.6	81.5	266.0	1972	29	14	935	4.22	75.5	24	21	59	2.29	9.1	21.7	70	.68	.085	19	53	1.15	232	.14	30	2.18	.05	.72	19	2.1	483	1.2	2.1	7.3	546

Standard is STANDARD D/AU-R.

ICP - 30 GRAM SAMPLE IS DIGESTED WITH 180 ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 100 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K GA AND AL. SOLUTION ANALYSED DIRECTLY BY ICP. MO CU PB ZN AG AS AU CD SB BI TL HG SE TE AND GA ARE EXTRACTED WITH MIBK-ALIQAT 336 AND ANALYSED BY ICP.

- SAMPLE TYPE: P1 TO P2 ROCK P3 SOIL AU+ - AQUA-REGIA/MIBK EXTRACT, GF/AA FINISHED.

Samples beginning 'RE' are Returns and 'RRE' are Reject Returns.

DATE RECEIVED: JUL 20 1995 DATE REPORT MAILED: Aug 5/95 SIGNED BY: D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

## LEGEND

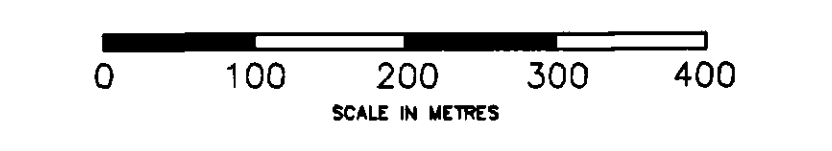
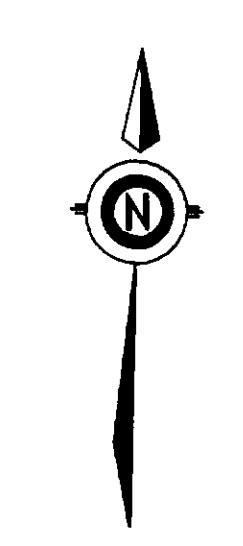
- INTRUSIVE ROCKS**  
LATE CRETACEOUS
- qm DIAPYRE BATHOLITH: QUARTZ MONZONITE, GRANODIORITE, FINE TO COARSE, MEDIUM TO COARSE GRAINED, LOCALLY FINE GRAINED, EQUIGRANULAR, LOCAL GRANITE
- MIDDLE JURASSIC**  
HAZELTON GROUP
- Ns QUARTZITE, SANDSTONE, SILTSTONE, GREY TO GREEN, MEDIUM TO THICK BEDDED, MASSIVE, ROCK IS SLICED
  - Nb BASALT/ANDESITE, DARK GREEN TO MAROON, LOCALLY MOTTLED, FINE GRAINED, PORPHYRIC, ROCK IS SLICED
  - Na ANDESITE LAPILLI TUFF, MINOR PYROCLASTIC BRECCIA, DARK GREY-GREEN
  - Ng MAROON TO GREEN LAPILLI TUFF AND TUFF, LOCALLY CRUSHELY LAYERED TO WELL LAYERED

## SYMBOLS

- GEOLOGICAL CONTACT
  - OUTCROP
  - BEDDING
  - FOLIATION
  - FAULT
  - SHEARING
- TELLURUM ppm  
 △ ANTIMONY ppm  
 □ ARSENIC ppm  
 ◇ SILVER ppm  
 ○ FLOAT  
 △ SUBCROP  
 ○ OUTCROP  
 ○ SAMPLE NUMBER

- 5892000m N+  
350000 E
- UTM COORDINATE
- 4500
- CONTOUR (CONTOUR INTERVAL 100ft)
- CREEK
- POND/LAKE
- == ROAD/TRAIL

- QTZ - QUARTZ  
FZ - FINE GRAINED  
MG - MEDIUM GRAINED  
CG - COARSE GRAINED  
S/C - SUBCROP  
S/TITE - QUARTZITE  
FLD - FLOATED  
SL - SILICA SILICEOUS  
FRAC - FRACTURE  
LIM - LIMONITE  
PYR - PYRITE  
PZ - PYROCLASTIC  
MT - MAGNETITE  
ASP - ARSENOPYRITE  
BX - BRECCIA  
B - BEDROCK



**PHELPS DODGE CORP. CANADA LIMITED**  
PROJECT NO.: 247 (LAID PROPERTY) QUINCEA MINING DIVISION

**PROPERTY GEOLOGY  
AND  
ROCK GEOCHEMICAL RESULTS**

SCALE	DATE	BY	NTS NO.	FIGURE
1:5000	DEC/95	CWP	93 F/3	4

FOX GEOLOGICAL SERVICES INC.

