FOX GEOLOGICAL SERVICES INC.

GEOLOGICAL REPORT

on the

TONKA 1 MINERAL CLAIM

OMINECA MINING DIVISION
BRITISH COLUMBIA

NTS 93F/12
53° 34' North Latitude
125° 41' 30" West Longitude

by

P. E. Fox, Ph.D., P. Eng.

FOX GEOLOGICAL SERVICES INC.
1409 - 409 Granville Street
Vancouver, BC V6C 1T8

Work Paid for by
PHELPS DODGE CORPORATION OF CANADA, LIMITED

December 11, 1995

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SUMMARY

A program of geological mapping, prospecting and rock sampling was conducted on the Tonka Property in central B.C. between July 24 and 30, 1995. The property is located 70 kilometres south of Burns Lake in central British Columbia. Road access is available via Highway 35 and the Marilla Forestry Road to Ootsa Lake, then by ferry and a network of subsidiary roads that lead south onto the property.

The Tonka property was originally staked by Mingold Resources Inc. (1988) who discovered the Tonka Showing, a quartz stockwork zone containing up to 1.0 g/t gold in rock samples. Mingold's soil sampling results included a small gold anomaly along strike of the showing, approximately 300 metres to the northwest. Cogema later delineated two other areas with elevated soil geochemistry east of the Tonka Showing and 1500 metres north, in the vicinity of an interpreted fault.

The Tonka Property is located within the central portion of the Stikine Terrane and is underlain by upper Cretaceous Kasalka Group andesite flows and minor tuff. A small stock of monzonite intrudes the andesite on the eastern edge of the Tonka Showing. The showing is a dense quartz stockwork zone in altered, sheared and faulted andesite exposed along the northeastern shore of Tonka Lake. Mineralization consists of up to 5% disseminated pyrite and minor arsenopyrite. Random chip sampling of the silicified zone in 1989 yielded up to 1 g/t gold.

The 1995 field program, conducted between July 24 and 30, focused on exploring the Tonka Showing and previously defined geochemical anomalous zones. Work included geological mapping, prospecting and rock sampling. Rock samples contained some elevated and a few anomalous concentrations of gold, silver, arsenic, antimony, mercury and molybdenum, however, no economic concentrations of any minerals were detected. Float samples collected from the southwestern corner of the property contained a few anomalous concentrations of gold, silver and arsenic, however, no other zones of in-situ mineralization were discovered.

INTRODUCTION

This report details an exploration program conducted on the Tonka Property between July 24 and 30, 1995. Work included geological mapping, prospecting and rock sampling, performed by a 5 person crew camped on the northwestern shore of Tonka Lake.

LOCATION, ACCESS and PHYSIOGRAPHY

The Tonka Property is located in central British Columbia, approximately 70 kilometres south of Burns Lake and 130 kilometres southwest of Vanderhoof (see Figure 1). The property lies between Intata Reach and White Eye Lake, and encompasses Tonka Lake in the southwest portion of the claim.

The property is accessed by travelling south along Highway 35 from Burns Lake to the Marilla Forestry Road which leads to the north shore of Ootsa Lake. A ferry provides transportation across the lake and a network of subsidiary roads leads southerly onto the property. Alternate access to the ferry is also available from Vanderhoof along the Kenney Dam and Holy Cross Forest Service Roads.

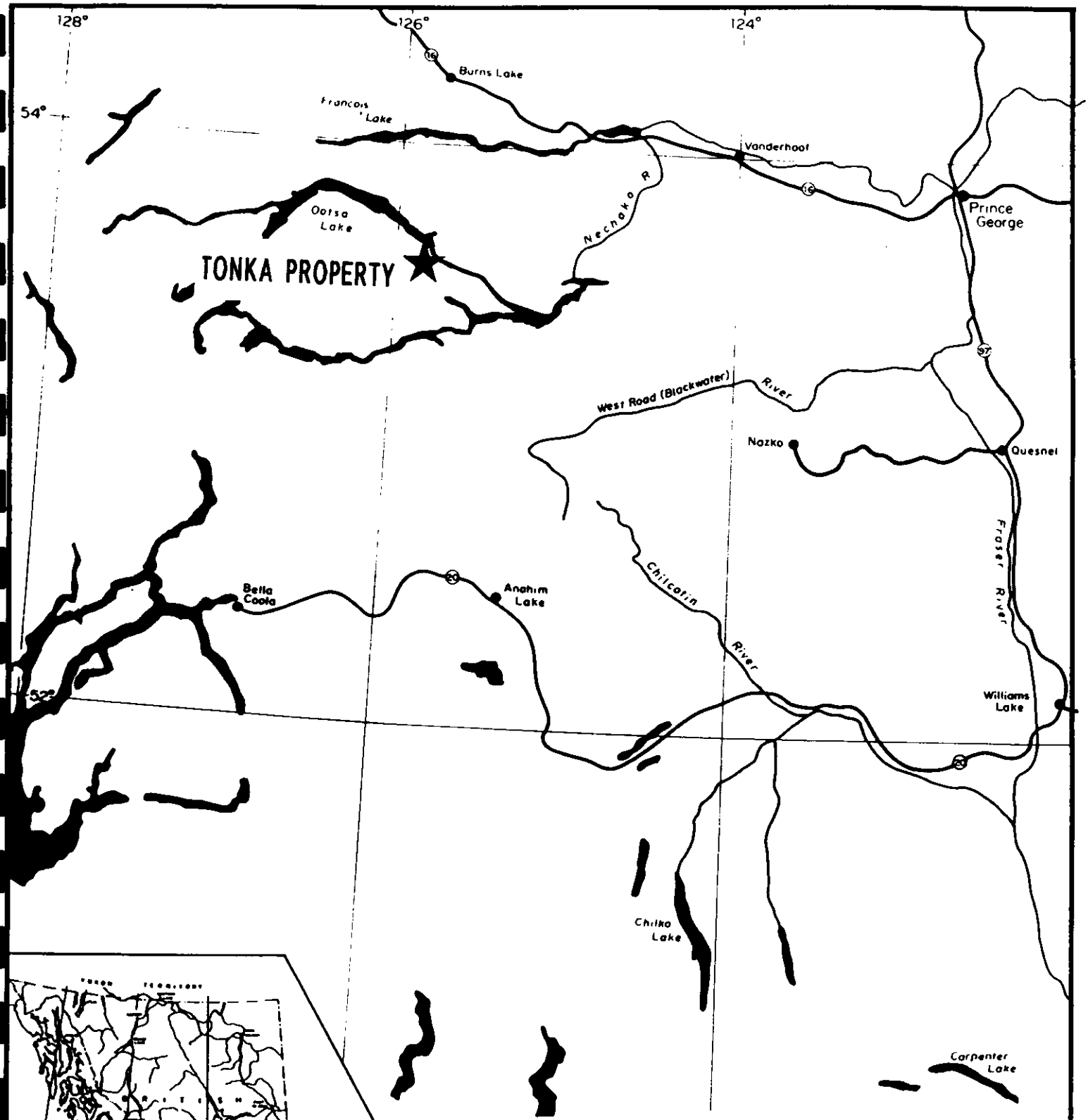
The Tonka claim encompasses the north- and south- facing slopes of two low hills, flanked on the west by a northerly trending valley occupied by Tonka Lake. Elevations range from less than 854 metres in the northwest to 975 metres along the southern claim line. Outcrop is rare, most of the property is covered by overburden.

CLAIM INFORMATION

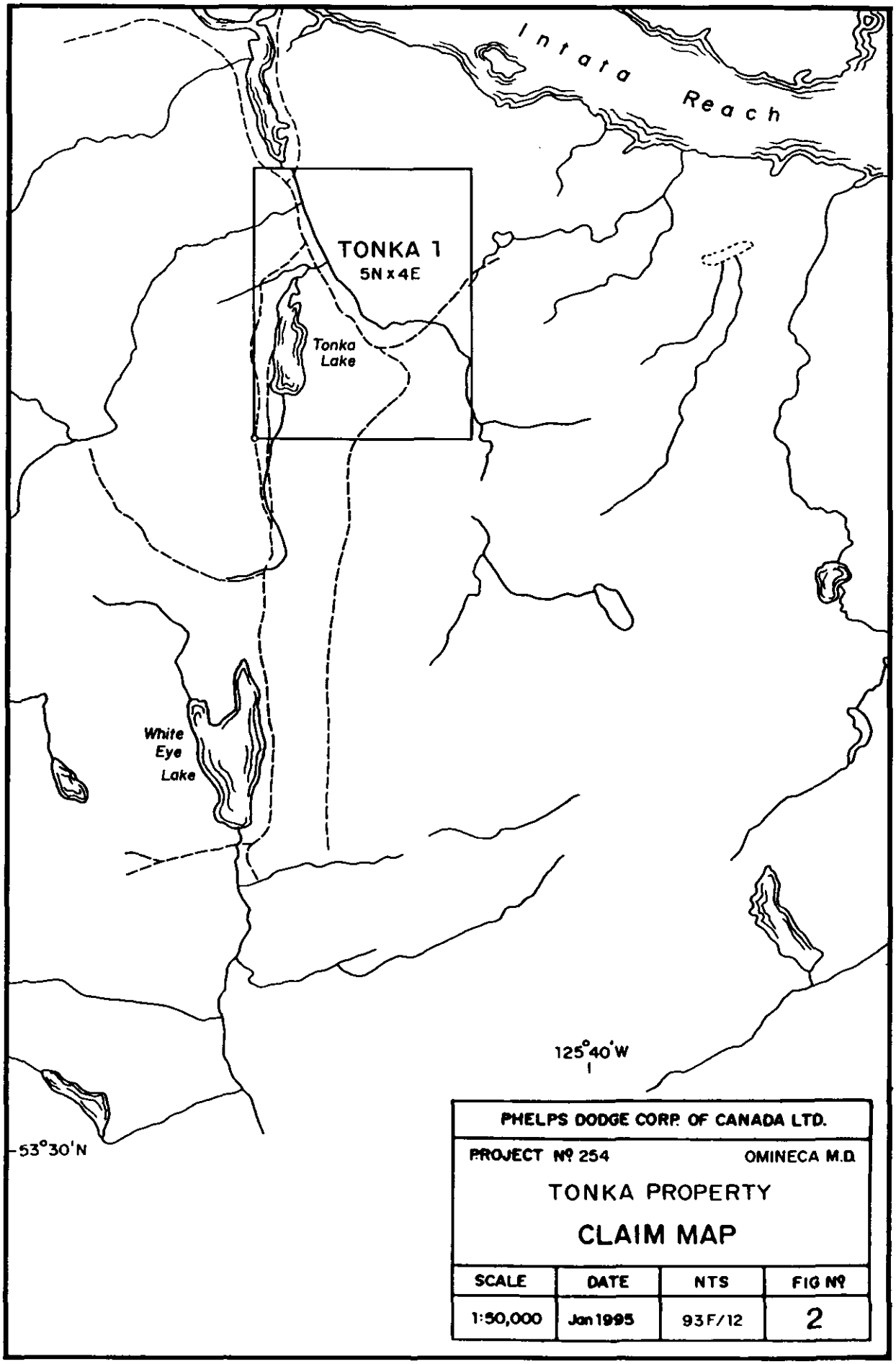
The Tonka Property consists of a single 4-post claim, recorded in the Omineca Mining Division and shown on NTS map sheet 93F/12 (see Figure 2). Claim details are set out below. Expiry dates tabulated below assume that current work is accepted for assessment purposes.

Table 1

CLAIM NAME	RECORD NO.	NO. OF UNITS	EXPIRY DATE
Tonka 1	325753	20	May 27, 2000



PHELPS DODGE CORP. OF CANADA LTD.			
PROJECT Nº 254		OMINECA M.D.	
PROPERTY LOCATION			
Fox Geological Consultants Ltd			
SCALE	DATE	NTS	FIG Nº
1:2,000,000	Dec 1995	093F/12	1



PHELPS DODGE CORP. OF CANADA LTD.			
PROJECT Nº 254		OMINECA M.D.	
TONKA PROPERTY			
CLAIM MAP			
SCALE	DATE	NTS	FIG Nº
1:50,000	Jan 1995	93F/12	2

HISTORY

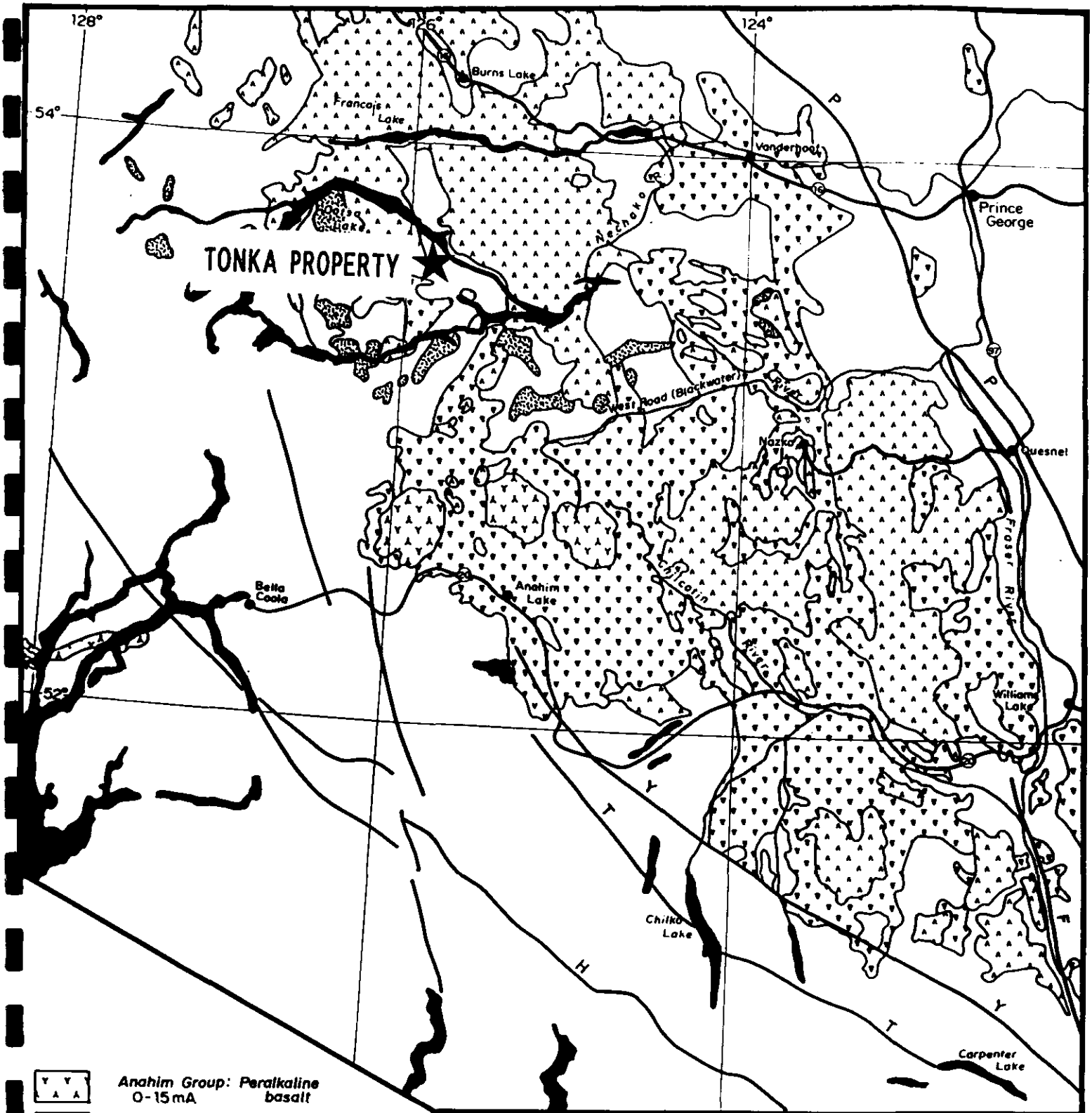
The original Tonka 1 and 2 claims were staked by Mingold Resources Inc. in 1988 as a result of reconnaissance exploration in the Ootsa Lake area. Subsequent mapping and soil sampling on the property (1989) resulted in discovery of the Tonka Showing, a quartz stockwork zone with up to 1.0 g/t gold contained in rock samples. Soil geochemical results included spotty anomalous gold concentrations, the most significant of which lay along strike of the showing, approximately 300 metres to the northwest. No further work was recorded by Mingold who allowed the claims to lapse.

The Tonka 1 claim was staked by Cogema Resources Inc. in 1994 to cover the Tonka Showing area and the accompanying soil anomaly. Cogema conducted geological mapping and prospecting with soil, rock and till sampling during that same year. Arsenic and copper were found to be elevated to the east of the Tonka Showing, while gold, silver, copper, lead, arsenic and mercury are elevated approximately 1500 metres north of the showing in the vicinity of an interpreted fault.

REGIONAL GEOLOGY

The Tonka Property is 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, is composed of a series of alkaline and peralkaline volcanoes of Miocene to Quaternary age which become younger from west to east.

The claim lies within the central portion of the Stikine Terrane, near the southwestern border of the Cheslatta Caldera Complex. Stikine Terrane locally consists of three volcanic-stratigraphic groups ranging in age from upper Cretaceous to Miocene. An Eocene extensional tectonic event, which resulted in basin and range type topography, is associated with epithermal, volcanic-hosted gold mineralization. Regional geology is presented in Figure 3.



Anahim Group: Peralkaline basalt
0-15 mA

Chilcotin Group: Backarc alkaline/tholeiite basalt
2-10 mA

Nanika, Quanchus Intrusives: Quartz monzonite, granite
60 mA

Ootsa Group: Calc-alkaline felsic volcanics
35-70 mA

Pre-Tertiary rocks and Coast Intrusions

Fault — H - Harrison, T - Tchaikazan, Y - Yalakom; F - Fraser, P - Pinchi

Scale 1: 2,000,000
0 50 100 km

PHELPS DODGE CORP. OF CANADA LTD.

PROJECT Nº 254 OMINECA M.D.

REGIONAL GEOLOGY

Fox Geological Consultants Ltd.

SCALE	DATE	NTS	FIG Nº
1:2,000,000	Dec 1985	093F/12	3

PROPERTY GEOLOGY

The Tonka Property is underlain by upper Cretaceous Kasalka Group. Fine to medium grained, light to dark green and grey-green andesite flows predominate. Flows are sparse to crowded porphyries, with feldspar and local hornblende phenocrysts. Ash, crystal and fine lapilli tuff were also observed outcropping on the east side of the Tonka alteration zone.

A small stock of upper Cretaceous or Eocene coarse grained monzonite intrudes Kasalka andesite on the eastern edge of the Tonka silicified zone, adjacent to a northwesterly trending fault. Monzonite exposed in subcrop shows local weak clay alteration of feldspars.

A major northwesterly trending fault is interpreted to occupy a linear drainage basin through the northwest and central portions of the claim. Several fault blocks, delineated by northwesterly and northeasterly trending faults, lie between the north end of Tonka Lake and the larger fault, in the vicinity of the Tonka Showing. Alteration of the andesite occurs in limited zones along faults, where alteration types includes silica flooding and the development of clay and carbonate minerals.

MINERALIZATION

The Tonka Showing is a zone of dense quartz stockwork in silicified, clay altered, brecciated and sheared, pyritic andesite exposed along the northeastern shore of Tonka Lake. Random chip sampling of the silicified zone in 1989 yielded up to 1 g/t gold. The zone trends 30° and is exposed for approximately 300 metres in length with widths ranging from 10 to 20 metres. The stockwork consists of white, clear and drusy quartz veins and veinlets. The largest of which, a 1 metre wide quartz vein at the northeast end of Tonka Lake, is truncated by a fault. Adjacent to the stockwork is a zone of sheared, pyritic, carbonate-altered andesite. Disseminated euhedral pyrite is present in amounts up to 5%, minor amounts of arsenopyrite have also been observed.

1995 WORK PROGRAM

The 1995 field program, conducted between July 24 and 30, focused on exploring the Tonka showing and areas with gold soil anomalies delineated by Mingold and Cogema in the northwestern, central and southeastern portions of the property. Eleven man days was spent on the property.

Approximately 3.0 square kilometres was prospected and geologically mapped at a scale of 1:5,000. Property geology is shown in Figure 4. A total of 39 rock samples was collected and sent to Acme Analytical Laboratories Ltd. for multi-element analysis. Analytical method is set out in Appendix 2. Rock sample locations are shown in Figure 5, sample descriptions comprise Appendix 1.

RESULTS

Geological mapping of the Tonka Showing area detected a number of previously unmapped northeasterly and northwesterly trending faults and a small monzonite plug, which was observed in subcrop adjacent to one of the faults. Faults and intrusive rocks are likely associated with alteration and mineralization in the showing area. Mapping also revealed that the alteration zone is somewhat narrower, 10 to 20 metres wide, than previously thought.

Prospectors located numerous boulders near the southern claim boundary of silicified and brecciated rhyolite and argillite containing quartz-chalcedony veins, variable amounts of pyrite and arsenopyrite and up to 220 ppb gold. Prospecting, however, failed to located any in-situ mineralization.

Rock samples contained some elevated and a few anomalous concentrations of gold, silver, arsenic, antimony, mercury and molybdenum, however, no economic concentrations of any minerals were obtained. Sample results are summarized in Table 2 below.

Table 2

ELEMENT	RANGE	ELEVATED	ANOMALOUS
Gold	<1 - 220 ppb	50 ppb	100 ppb
Silver	<30 - 18,069 ppb	750 ppb	4000 ppb
Arsenic	1.5 - 10,375.9 ppm	100 ppm	500 ppm
Antimony	<0.2 - 11.9 ppm	5 ppm	
Mercury	<5 - 226 ppb	90 ppb	
Molybdenum	0.5 - 101.4 ppm	50 ppm	

Six of the ten bedrock grab samples collected from within the Tonka Showing area contained elevated gold (up to 75 ppb), silver (880 and 1174 ppb), arsenic (up to156 ppm) or molybdenum (101.4 ppm). One sample (54064) of sparsely mineralized white quartz, collected from the vicinity of the monzonite plug, contained 101.4 ppm molybdenum and 880 ppb silver. Bedrock samples collected outside of the alteration zone contained only background concentrations of all elements.

Float samples collected from the southwestern corner of the property contained a few anomalous concentrations of gold, silver and arsenic. The best sample (54289), a brecciated, chalcedony-bearing, silica flooded rock, contained 220 ppb gold, 18,069 ppb silver, 260.9 ppm arsenic, 11.9 ppm antimony, 226 ppb mercury and 94.5 ppm molybdenum.

CONCLUSIONS

Alteration and mineralization within the Tonka Showing appear to be localized along fault boundaries. Rock samples collected from the showing area during the 1995 exploration program produced only a few slightly elevated gold concentrations. A field of altered and mineralized float boulders in the southeast corner of the property produced some what higher, but still sub-economic gold levels. No further mineralized zones were located.

DISBURSEMENTS

Expenditures to October 11, 1995 on the Tonka Property are $5,650.00, as tabulated below:

Labour		
C. Payne, Geologist	2 days @ $295/day	$ 590.00
K. Karchimer, Geologist	3 days @ $295/day	885.00
T. Archibald, Prospector	2 days @ $225/day	450.00
W. Zantvoort, Sampler	2 days @ $225/day	450.00
J. Goodall, Sampler	2.4 days @ $225/day	540.00
Accommodation & Board		900.00
Geochemical Analyses		
53 rock samples	@ $19.55/sample	1036.50
Truck and Gas		198.50
Report Writing and Drafting		600.00
TOTAL		**$5,650.00**

FOX GEOLOGICAL SERVICES INC.

P.E. Fox, Ph.D., P.Eng.
December 11, 1995

REPORT DISTRIBUTION:

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

REFERENCES

Schimann, K. (1995)
"Geology and Geochemistry, Tonka Property (Nechako Project), 1994"; a report for Cogema Resources Inc., January 1995.

Yarrow, E.W. (1989)
"Report on Grid Preparation, Geochemical and Geological Surveys on the Tonka 1 and 2 Claims"; for Mingold Resources Inc., September 1989. Assessment Report Number 19,141.

CERTIFICATE

I, Peter Edward Fox, certify to the following:

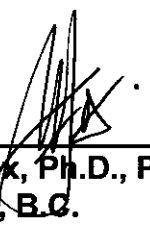
1. I am a consulting geologist residing at #902 - 2077 Nelson Street, Vancouver, B.C.

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.
December 11, 1995

APPENDIX I

ROCK SAMPLE DESCRIPTIONS

TABLE 3

SAMPLE	TYPE	MATERIAL	NOTES	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	As ppm	Sb ppm	Hg ppb	Au ppb
53466	GRAB	F	Subcrop (?), subrounded, diorite, hb, <1mm feldspar to 3mm, pink, euhedral 1-2% fine disem pyrite.	1.6	13.9	5.1	82.4	30	4.6	0.2	37	2
53467	GRAB	F	Medium-green, subrounded float boulder from clearcut, feldspar phyric, foliated, weak prop alt'n, chalcedony flooded 1/2 to 1cm quartz vein, trace pyrite.	1.1	18.6	1.4	46.8	30	3.5	0.2	19	1
53468	GRAB	F	Subcrop. Light grey/green, medium grained andesitic ash tuff, weakly calcareous, trace pyrite.	1	39.6	3.5	79.4	30	3	0.2	30	1
53469	GRAB	F	Subcrop (?) in gulley at mouth of bay, foliated medium green andesite, carbonate alt'n, 5% fine euhedral pyrite.	1	9.3	8	69.9	74	11.8	0.2	18	1
53470	GRAB	F	Medium green, foliated and brecciated andesite, carbonate veinlets 1-2mm, 5-10% fine euhedral pyrite.	1.4	20	6.2	46.7	135	5.9	0.2	18	1
53471	GRAB	F	Subcrop. 2x3m rounded, coarse grained, quartz, biotite, hb, feldspar, granodiorite.	3.2	7.6	20	73	141	5.6	0.9	6	1
53472	GRAB	B	Light green andesite tuff, slightly bleached, fractured, trace pyrite.	0.6	6.2	3.6	66.5	30	8.4	0.2	18	1
53473	GRAB	B	Cream/tan, andesite, clay alt'd, adjacent to qtz stockwork, foliated, limonite stain, euhedral pyrite casts.	1.3	7.6	8.7	42.8	30	25.7	0.2	14	3
53474	GRAB	B	Tan clay alt'd andesite, fractured, remnant fine euhedral 1-2% diss pyrite, limonite stained fractures.	1.7	5.7	7.8	51.3	144	158.3	0.5	25	23
54060	GRAB	B	White & blue-grey qtz, trace pyrite and asp (?), orange & red staining and weathering.	10.7	5.4	4.4	13.1	250	112.5	1.6	7	75
54061	GRAB	B	White qtz, yellowish clay (?), tarnished & weathered cubes of pyrite.	4.1	3.6	5.5	14.4	1174	59.6	0.3	8	50
54062	GRAB	B	Chloritic qtz-carb with minor pyrite.	1	22.5	4.1	76.8	265	106.1	0.4	20	89
54063	GRAB	B	Blue, 1mx1/2m boulder, lapilli tuff.	2	12.6	6.4	50.4	30	8	0.2	5	5
54064	GRAB	B	Buff quartz, trace diss pyrite and asp to <1%.	101.4	3.9	14.7	10.3	880	38.9	1.8	7	8
54065	GRAB	F	White quartz, iron stained.	5.2	4.9	3.8	6.8	300	23.9	0.2	12	11
54066	GRAB	F	Sheared, altered andesite, rusty weathering.	0.6	6	13.1	98.4	152	2.4	0.4	15	3
54267	GRAB	F	Argillic altered rhyolite flooded with chalcedony veinlets, rusty weathering, angular float.	2.3	4.1	3	14.2	30	2.2	0.2	92	5
54268	GRAB	F	Bleached, iron stained rhyolite, (1 1/2 - 2cm). Light-medium grey silica bands, rhyolite has rusted out diss pyrite remnants, silica has trace diss pyrite, weakly magnetic.	1.6	6.9	2.9	3.6	45	40	0.3	12	5
54269	GRAB	F	Silica flooded volcanic, pale purple, mottled texture, chlorite patches, trace sulphides, very weakly magnetic.	1.9	4.3	6.6	51.3	30	2.3	0.5	5	7
54270	GRAB	F	Subrounded silica flooded rhyolite breccia boulder, weathered white, purple & orange with black manganese stain, very weakly magnetic.	1.6	3.3	3.1	53.1	30	1.5	0.2	5	1
54271	GRAB	F	Abundant angular float, clay altered, brecciated rhyolite (?), silica veins and veinlets, red and rusty stain, no visible sulphides.	12.5	7.2	6.3	8.7	131	99.3	0.5	5	4
54272	GRAB	F	Subrounded, white bleached rhyolite breccia, dark grey silica matrix, trace sulphides, iron staining on fractures.	5.6	5.9	10.5	30.8	96	63.1	0.8	12	13
54273	GRAB	F	Silicified argillite, medium grey, fine grained, abundant fine grained pyrite and asp.	2.3	15.8	8.6	64.5	72	25.6	1	5	1
54274	GRAB	F	Medium-grained blue-green volcanic, weak chlorite alteration, rusty stain, abundant pyrite.	0.7	14.9	4.4	51.5	78	6.1	0.4	5	3
54285	GRAB	F	Silica and chalcedonic flooded rock. Silica is mottled white to grey, diss pyrite; abundant iron staining on fractures. Rock is vuggy, rock could be vein material.	5.1	10.8	6.5	8.6	30	16.6	0.2	12	1
54286	GRAB	F	Iron stained chalcedony (banded) boulder; trace disseminated pyrite.	2.6	10.8	2.2	7.8	112	19.3	0.4	5	1
54287	GRAB	F	Grey, fine grained silica flooded rock, 4-5% diss fine grained pyrite throughout.	1.7	16	81.3	90.9	784	24.8	5.6	14	4
54288	GRAB	F	Subangular, orangy red to dark grey mottled rock, mostly chalcedony with pods and diss asp, trace pyrite to 1%.	7.5	15	11.3	2.8	4921	147.5	2.9	29	60
54289	GRAB	F	Subangular, grey, silica flooded with chalcedony, 1-2% diss asp, rock is brecciated.	94.5	9.2	12.8	9.4	18069	260.9	11.9	226	220
54290	GRAB	F	Subrounded, argillite (?) block, 4-5% pyrite and asp disseminated throughout and along fractures.	2.3	55.6	20.7	176.9	54	10375.9	0.9	96	2
54291	GRAB	F	Angular, andesite breccia, infilled with vuggy quartz, <1% diss pyrite in quartz.	3.3	12.1	1.7	15	193	46.7	0.2	5	5
54329	GRAB	F	Subangular, breccia, angular fragments, <1mm-6cm, monolithic, dark grey feldspar phyric fragments, <1mm euhedral fragments have finely diss pyrite, weak ep & chl alteration, healed with light grey chalcedony with weak banding along frag boundaries.	1.4	26.6	2.3	49.5	148	6.7	0.4	7	4
54330	GRAB	F	Subangular, fine grained, beige/green andesite, fractured with rusty staining along fractures, <5% pyrite.	6.1	10.9	21.1	18.9	228	314.4	4	8	72
54331	GRAB	B	Fine grained, green volcanic, <5% pyrite.	1	39.6	4.1	68.5	87	7.3	0.3	6	3
54332	GRAB	B	Fractured andesite, fine grained, medium grey, rusty, <5% evenly disseminated pyrite.	8.1	34.3	6.5	48.6	68	26.9	0.5	5	1
54333	GRAB	B	Dark grey, very fine grained, volcanic, finely diss pyrite, pitted on weathered surface.	1.3	64.1	3.4	85.9	47	15.6	0.2	5	1
54334	GRAB	B	Fine grained, volcanic, greenish grey, <5% evenly disseminated pyrite.	0.5	41.7	2	75.8	91	21.8	0.3	5	1
54335	GRAB	F	Subcrop,white, heavily fractured, silica flooded, clay altered volcanic with trace pyrite.	4.8	5	5.3	29.2	81	65.4	0.2	5	58
54336	GRAB	B	Beige/green, fractured, possibly altered tuff.	3.1	25.6	5.4	68.7	214	189	0.6	13	95

Material F=Float, B=Bedrock, T=Talus

APPENDIX 2

Analytical Method

ICP: A 30 gram sample is digested with 180 millilitres 3-1-2 HCl-HNO_3-H_2O 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

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

GEOCHEMICAL EXTRACTION-ANALYSIS CERTIFICATE

Phelps Dodge Corp. PROJECT 254 File # 95-2696 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 %	B ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppb	Se ppm	Te ppm	Ga ppm	Au+ ppb
53466	1.6	13.9	5.1	82.4	<30	5	11	410	3.48	4.6	<5	3	58	.11	<.2	.2	73	.87	.168	18	4	1.00	45	.18	4	1.29	.08	.10	3	.2	37	<.3	<.1	5.9	2
53467	1.1	18.6	1.4	46.8	<30	6	6	672	2.50	3.5	<5	1	61	.05	<.2	.4	29	1.32	.037	9	7	.45	58	.01	2	1.09	.16	.05	<2	.2	19	.3	<.1	4.6	1
53468	1.0	39.6	3.5	79.4	<30	64	21	756	4.90	3.0	<5	3	46	.11	<.2	<.1	124	1.86	.153	15	98	2.42	45	.26	5	2.49	.11	.06	2	.3	30	<.3	<.1	12.8	1
53469	1.0	9.3	8.0	69.9	74	11	11	865	3.56	11.8	<5	1	71	.11	.2	.3	50	1.84	.146	55	11	1.09	65	.01	<2	1.70	.05	.19	2	.3	16	<.3	<.1	7.7	1
53470	1.4	20.0	6.2	46.7	135	34	18	646	4.07	5.9	<5	1	62	.07	<.2	.6	64	1.43	.043	9	23	1.09	125	<.01	<2	1.68	.03	.22	2	.2	18	.5	<.1	5.8	<1
53471	3.2	7.6	20.0	73.0	141	10	6	489	2.52	5.5	<5	14	19	.16	.9	.3	58	.40	.075	21	12	.52	134	.21	<2	.73	.11	.48	4	.7	6	<.3	.1	4.8	<1
53472	.6	6.2	3.6	66.5	<30	<1	8	882	3.63	8.4	<5	2	62	.09	<.2	.2	23	1.90	.097	19	1	1.27	57	.01	4	2.03	.04	.26	<2	.3	16	<.3	<.1	6.8	<1
53473	1.3	7.6	8.7	42.8	<30	5	3	453	2.47	25.7	<5	2	13	.09	<.2	.2	25	.16	.090	32	6	.46	55	.01	2	1.08	.05	.16	<2	.2	14	<.3	<.1	5.2	3
53474	1.7	5.7	7.8	51.3	144	11	10	528	3.67	156.3	<5	1	23	.07	.5	.3	47	.39	.186	28	14	1.01	50	<.01	2	1.46	.02	.22	2	.2	25	<.3	.1	5.9	23
54046	18.4	5.5	19.5	5.8	3022	3	1	72	.77	69.9	<5	3	23	.03	.6	.2	2	.05	.005	18	7	.04	360	<.01	2	.29	<.01	.18	2	.5	9	<.3	.9	2.0	61
54047	1.9	7.2	18.8	28.4	167	4	3	1143	.72	7.5	<5	2	39	.12	<.2	.5	3	.31	.014	20	4	.11	280	<.01	3	.51	.05	.21	<2	.5	18	<.3	<.1	2.0	2
54048	7.4	11.0	4.7	2.8	588	6	1	101	.69	52.5	<5	5	5	.01	1.4	.1	2	.03	.004	21	10	.02	23	<.01	2	.22	<.01	.16	<2	.2	13	.7	.2	1.1	43
RE 54048	7.0	10.7	4.0	3.2	596	4	1	98	.68	53.4	<5	5	5	<.01	1.4	.1	2	.03	.004	21	10	.02	23	<.01	2	.24	<.01	.16	2	.3	13	.4	.3	1.0	34
RRE 54048	6.9	11.8	4.4	2.8	648	3	1	89	.65	53.9	<5	5	6	<.01	1.7	<.1	1	.03	.003	22	8	.02	29	<.01	<2	.21	<.01	.16	2	.1	15	.3	.1	1.0	46
54049	2.0	4.4	9.6	18.7	117	3	1	704	.24	3.3	<5	2	24	.21	<.2	.1	1	.73	.007	22	4	.03	132	<.01	<2	.32	.03	.21	<2	<.1	17	<.3	<.1	1.5	3
54050	1.6	16.9	5.1	111.8	<30	8	11	1789	3.29	3.3	<5	3	86	.34	<.2	.2	52	1.96	.089	13	7	.62	240	.02	<2	1.57	.10	.19	2	.2	21	.3	<.1	5.4	2
54051	.9	7.8	8.6	34.4	140	1	2	1036	1.04	2.7	<5	2	70	.16	.7	.2	12	1.63	.035	19	2	.13	241	.01	<2	.56	.03	.25	<2	.5	11	.4	.4	2.7	2
54052	16.1	16.5	8.5	31.5	189	13	5	252	3.74	7.4	<5	3	36	.04	.2	.6	52	.08	.052	3	35	.34	78	.01	<2	.66	.04	.16	<2	.1	26	1.0	.7	5.2	3
54053	10.4	6.1	12.2	5.1	162	5	1	93	.82	139.5	<5	4	15	.01	.2	.3	3	.03	.004	23	9	.02	98	<.01	<2	.23	<.01	.16	2	<.1	18	.7	<.1	1.5	47
54054	3.1	19.6	2.2	56.8	55	20	13	1253	1.94	5.3	<5	2	36	.14	<.2	.2	47	.60	.046	10	22	.68	83	.01	<2	.99	.04	.13	3	.2	18	<.3	.3	4.9	6
54055	1.5	24.3	3.9	80.5	<30	23	15	560	2.92	1.4	<5	1	168	.30	<.2	.2	67	.58	.042	6	26	1.24	1575	.15	2	2.26	.11	.13	2	<.1	15	<.3	<.1	5.8	3
54056	1.4	21.8	1.8	43.7	<30	13	6	408	2.09	4.0	<5	1	22	.06	<.2	.1	35	.30	.049	5	13	.37	53	.13	3	1.30	.04	.16	2	<.1	14	<.3	<.1	3.4	3
54057	.6	61.1	.9	35.2	96	46	29	531	4.95	1.8	<5	1	160	.09	.2	<.1	108	2.48	.075	5	16	2.13	106	.17	<2	3.62	.45	.04	2	.2	19	<.3	.1	9.1	2
54058	15.5	7.2	11.0	4.4	1089	5	1	63	.63	40.4	<5	5	41	.02	2.4	.1	5	.05	.013	29	6	.04	156	.01	<2	.35	.01	.21	<2	.3	15	<.3	.3	<.5	32
RE 54058	16.1	6.9	12.5	3.7	1155	3	2	54	.59	38.0	<5	5	37	.02	3.2	.2	4	.03	.012	28	6	.03	151	<.01	<2	.33	.01	.21	<2	.3	20	.5	.8	2.1	41
RRE 54058	15.3	6.4	12.1	3.2	1044	4	1	58	.62	36.9	<5	5	35	.01	2.6	.2	4	.03	.013	29	7	.02	118	<.01	<2	.32	<.01	.23	2	.5	21	.6	.8	2.3	32
54059	4.4	5.2	6.7	8.2	<30	3	2	103	.65	4.9	<5	16	6	.03	<.2	.5	3	.05	.003	16	5	.05	17	.01	<2	.26	.08	.10	<2	<.1	12	1.0	.4	1.0	4
54060	10.7	5.4	4.4	13.1	250	7	3	234	1.03	112.5	<5	1	17	.04	1.6	.5	10	.31	.022	4	9	.08	33	<.01	<2	.27	<.01	.14	<2	.3	7	.6	.6	1.7	75
54061	4.1	3.6	5.5	14.4	1174	5	1	204	.95	59.6	<5	2	7	.04	.3	.2	1	.06	.025	12	6	.03	42	<.01	<2	.34	.01	.21	2	.1	8	.6	1.6	1.7	50
54062	1.0	22.5	4.1	76.6	265	9	17	1308	4.32	106.1	<5	2	177	.19	.4	.1	75	3.48	.092	10	6	1.19	81	.01	<2	2.33	.01	.36	3	.1	20	.3	1.1	9.2	69
54063	2.0	12.6	6.4	50.4	<30	5	9	691	1.66	8.0	<5	1	162	.14	<.2	.1	22	2.11	.070	9	6	.36	130	.04	2	3.99	.38	.21	<2	<.1	<5	<.3	<.1	8.6	5
54064	101.4	3.9	14.7	10.3	880	7	1	125	1.23	38.9	<5	1	13	.01	1.8	.3	9	.11	.052	10	9	.09	33	<.01	<2	.42	.01	.17	<2	.8	7	.5	1.2	2.4	8
54065	5.2	4.9	3.8	6.8	300	3	1	223	.47	23.9	<5	1	6	.01	.2	.2	2	.08	.006	4	8	.02	38	<.01	<2	.22	<.01	.14	<2	.2	12	.4	.2	1.6	11
54066	.6	6.0	13.1	98.4	152	3	2	614	2.04	2.4	<5	2	25	.16	.4	.3	33	.39	.097	43	3	.42	243	.15	<2	.86	.09	.24	2	.1	15	.3	.3	11.1	3
STANDARD	22.8	123.8	88.1	254.9	1850	27	15	1003	4.01	77.3	18	19	56	2.26	9.5	21.2	66	.64	.091	18	49	1.12	226	.13	23	2.11	.05	.68	18	1.9	454	1.0	2.1	6.9	533

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: AUG 3 1995 **DATE REPORT MAILED:** Aug 11/95 **SIGNED BY.** C. Leong .D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

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 ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppb	Se ppm	Te ppm	Ga ppm	Au+ ppb
54267	2.3	4.1	3.0	14.2	<30	4	<1	69	.38	2.2	<5	14	6	.02	<.2	<.1	1	.02	.009	88	7	<.01	58	.01	<2	.18	.07	.10	<2	<.1	92	<.3	<.1	<.5	5
54268	1.6	6.9	2.9	3.6	45	6	1	237	.92	40.0	<5	7	5	.02	.3	<.1	3	.01	.005	29	7	.01	39	<.01	<2	.20	.03	.15	2	<.1	12	<.3	.2	<.5	5
54269	1.9	4.3	6.6	51.3	<30	2	<1	918	1.26	2.3	<5	12	7	.13	.5	<.1	1	.07	.017	42	3	.01	47	.01	<2	.30	.04	.16	<2	.1	<5	<.3	<.1	.9	7
54270	1.6	3.3	3.1	53.1	<30	4	2	789	1.64	1.5	<5	9	4	.07	<.2	<.1	2	.02	.013	29	7	.01	47	.02	<2	.18	.06	.11	<2	.2	<5	<.3	<.1	<.5	1
54271	12.5	7.2	6.3	8.7	131	2	1	210	.93	99.3	<5	8	6	.02	.5	.1	6	.02	.008	34	4	.01	54	.01	<2	.25	.02	.23	<2	.1	<5	<.3	.1	3.7	4
54272	5.6	5.9	10.5	30.8	96	6	1	334	1.29	63.1	<5	5	8	.03	.8	<.1	3	.04	.008	31	7	.01	52	<.01	2	.26	<.01	.23	<2	.3	12	<.3	<.1	.6	13
54273	2.3	15.8	8.6	64.5	72	13	6	283	2.43	25.6	<5	2	140	.12	1.0	<.1	36	2.12	.058	3	9	.51	153	.08	2	3.71	.45	.48	<2	.3	<5	<.3	<.1	6.8	1
54274	.7	14.9	4.4	51.5	76	5	7	689	2.47	6.1	<5	1	17	.06	.4	<.1	35	.23	.066	10	11	.63	45	.01	<2	1.13	.07	.17	<2	.2	<5	.3	<.1	6.0	3
RE 54274	.7	15.5	4.0	52.5	92	8	8	708	2.55	5.6	<5	1	18	.06	.5	<.1	36	.24	.067	10	12	.66	51	.01	<2	1.16	.07	.18	2	.2	5	<.3	.1	6.6	2
RRE 54274	1.2	14.6	3.8	50.1	108	9	8	676	2.43	5.3	<5	1	16	.07	.7	<.1	35	.23	.064	10	12	.62	43	.01	<2	1.10	.05	.17	<2	.1	<5	.4	.3	6.5	1
54285	5.1	10.8	6.5	8.6	<30	6	2	223	2.42	16.6	<5	3	111	.05	.2	.4	26	.07	.086	2	10	.03	430	<.01	<2	.37	.01	.04	2	.9	12	1.1	.2	8.9	<1
54286	2.6	10.8	2.2	7.8	112	8	<1	139	.98	19.3	<5	1	8	.02	.4	.1	1	.01	.003	5	15	.01	91	<.01	<2	.07	<.01	.05	4	.1	<5	<.3	<.1	<.5	1
54287	1.7	16.0	81.3	90.9	784	9	15	1006	4.11	24.8	<5	1	375	.53	5.6	2.9	45	3.09	.071	2	10	.86	35	.07	6	5.53	.45	.09	2	.1	14	1.1	.7	9.4	4
54288	7.5	15.0	11.3	2.8	4921	6	2	57	1.58	147.5	<5	1	9	.06	2.9	.1	8	.03	.004	<1	7	.01	26	<.01	<2	.56	<.01	.02	2	.1	29	.8	.3	2.1	60
54289	94.5	9.2	12.8	9.4	18069	5	<1	100	1.18	260.9	<5	4	24	.03	11.9	<.1	12	.03	.004	23	7	.01	175	<.01	<2	.27	<.01	.21	<2	1.4	226	.4	.6	1.0	220
54290	2.3	55.6	20.7	176.9	54	32	4	1227	14.53	10375.9	<5	3	54	.58	.9	<.1	102	1.91	.803	11	23	1.23	26	.01	5	4.32	.01	.04	<2	<.1	96	8.0	1.1	9.1	2
54291	3.3	12.1	1.7	15.0	193	14	3	186	1.14	46.7	<5	<1	3	.02	.2	<.1	17	.05	.016	2	17	.31	22	<.01	<2	.49	<.01	.04	2	<.1	<5	<.3	.1	1.1	5
54329	1.4	26.5	2.3	49.5	148	12	9	578	4.03	6.7	<5	3	290	.09	.4	<.1	75	2.71	.057	5	20	.56	445	.11	<2	5.28	.41	.41	<2	.5	7	<.3	.3	10.8	4
54330	6.1	10.9	21.1	18.9	228	4	2	227	1.54	314.4	<5	1	16	.06	4.0	<.1	10	.26	.060	8	5	.16	143	<.01	<2	.58	<.01	.18	<2	.2	8	.4	.3	2.5	72
54331	1.0	39.6	4.1	68.5	87	64	18	738	3.84	7.3	<5	3	110	.10	.3	<.1	76	2.53	.132	19	91	2.48	92	.05	<2	2.15	.04	.08	3	.2	6	<.3	.2	9.6	3
RE 54331	1.0	41.6	4.4	68.6	92	65	18	732	3.82	7.1	<5	3	111	.12	<.2	<.1	76	2.52	.130	19	90	2.47	92	.05	<2	2.12	.04	.08	2	.2	5	.3	.4	8.7	3
RRE 54331	.7	43.8	4.7	66.5	80	60	17	709	3.71	5.2	<5	3	115	.12	.3	<.1	75	2.45	.123	19	86	2.39	98	.06	<2	2.11	.05	.09	<2	<.1	6	.3	.4	8.4	1
54332	8.1	34.3	6.5	48.8	68	7	7	546	7.76	26.9	<5	2	25	.04	.5	<.1	195	.07	.100	4	46	1.21	104	.02	<2	1.86	.05	.24	<2	.1	<5	<.3	.3	6.6	1
54333	1.3	64.1	3.4	85.9	47	38	32	1188	7.32	15.6	<5	2	152	.09	.2	<.1	238	4.12	.093	5	57	2.52	98	.07	5	4.48	.21	.33	2	.3	<5	<.3	.2	13.3	1
54334	.5	41.7	2.0	75.8	91	33	29	1267	6.71	21.8	<5	2	103	.11	.3	<.1	193	4.64	.094	10	62	2.70	49	.01	<2	3.48	.02	.20	2	.1	<5	<.3	.3	10.1	1
54335	4.8	5.0	5.3	29.2	81	4	1	376	1.03	65.4	<5	2	14	.13	.2	<.1	4	.26	.028	10	6	.06	40	<.01	<2	.33	.01	.17	<2	.2	<5	.3	.5	1.0	58
54336	3.1	25.6	5.4	68.7	214	2	5	700	3.45	189.0	<5	2	21	.14	.6	<.1	17	.44	.122	16	4	.39	60	<.01	2	1.25	.01	.35	<2	.2	13	<.3	.5	3.8	95
STANDARD	22.8	122.4	87.7	256.7	1918	29	15	1000	4.02	83.4	19	20	56	2.28	9.0	21.4	66	.64	.089	17	50	1.12	223	.13	25	2.11	.05	.68	18	2.1	453	.8	2.0	6.7	526

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

INTATA

REACH

322000 mE

5941000 mN

Fine grained, grey-green andesite

Ka

Chert pebble conglomerate

Grey-green, fine grained andesite

3000

Vesicular basalt

Fine grained andesite

Ka

Ka

Andesite tuff, weak clay alteration fractured, trace diss py

Qtz stockwork in carbonate altered andesite

Ka

Ka1

White, clay altered andesite Qtz stockwork, trace diss. py

White to blue-grey massive quartz

Fractured clay altered andesite with well developed qtz stockworks

White massive qtz with trace diss. py+asp

Ka

Kt

Ka1

Km

Weakly clay alt. diorite 1-2% diss. py

Dark grey andesite 1-2% diss. py

light to medium green andesite

light to medium green andesite fine grained, locally sheared carbonate alt.

Ash Tuff

Kt

Fine grained, green andesite

Ka

Ka

Fine grained, grey-green andesite

Ka

Lapilli tuff

Mottled beige-green andesite <3% diss. py

Silica flooded andesite breccia float trace diss. py

Foliated, mod. propyitic alt. andesite moderate chalcedony flooding

Silica flooded rhyolite breccia

Banded chalcedony float boulders trace diss. py

Banded chalcedony in altered rhyolite

Argillically alt. rhyolite with chalcedony veinlets

White silica flooded rhyolite breccia moderate qtz-veinlets

Black argillite, 1-2% diss asp. py

Silica-chalcedony breccia with <1% diss asp. py

Mottled orange/red chalcedony trace diss. py.

5938000 mN

320000 mE

Lcp

TONKA 1 CLAIM BOUNDARY

LEGEND

UPPER CRETACEOUS to EOCENE ?

INTRUSIVE

uKm — Monzonite, coarse grained, locally weak clay alteration of feldspar

UPPER CRETACEOUS

KASALKA GROUP

Kt — Ash tuff, lapilli tuff, minor crystal tuff

Ka1 — Carbonate altered, sheared, pyritic silicified andesite, local qtz stockworks/qtz veining

Ka — Andesite, fine to medium grained light grey-green, porphyritic (feldspar ± hornblende)

SYMBOLS

- Geological contact (approximate)
- Fault (approximate)
- Outcrop
- Shear (vertical)
- Float
- Quartz vein
- Lake/pond
- Creek
- Contour; (contour interval 100ft) — 3500
- 5937000 m N / 340000 m E — UTM coordinate
- Road — Secondary / Main

GEOLOGICAL BRANCH ASSESSMENT REPORT

24,179

N

0 100 200 300 400

SCALE IN METRES

PHELPS DODGE CORP. OF CANADA LIMITED

PROJECT NO. 254 (TONKA PROPERTY) OMINECA M.D.

PROPERTY GEOLOGY

SCALE	DATE	BY	NTS NO.	FIGURE
1:5000	NOV/95	CWP	93 F/12	4

FOX GEOLOGICAL SERVICES INC.

INTATA

REACH

+322000 mE

+5941000 mN

3000

Ka

Ka1

Kt

Km

Lcp

+320000 mE

5938000 mN

TONKA 1 CLAIM BOUNDARY

LEGEND

UPPER CRETACEOUS to EOCENE ?

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Ka — Andesite, fine to medium grained light grey–green, porphyritic (feldspar ± hornblende)

SYMBOLS

Geological contact (approximate)

Fault (approximate)

Mercury ppb
Arsenic ppm
Silver ppb
Gold ppb
Rock sample number
Outcrop
Float

Quartz vein

Lake/pond

Creek

3500 — Contour; (contour interval 100ft)

5937000 m N
343000 m E — UTM coordinate

Secondary
Main — Road

0 100 200 300 400
SCALE IN METRES

GEOLOGICAL BRANCH
ASSESSMENT REPORT

24,179

PHELPS DODGE CORP. OF CANADA LIMITED

PROJECT NO. 254 (TONKA PROPERTY) OMINECA M.D.

ROCK SAMPLE LOCATION MAP
ROCK GEOCHEMICAL RESULTS

(2)

SCALE	DATE	BY	NTS NO.	FIGURE
1:5000	NOV/95	CWP	93 F/12	5

FOX GEOLOGICAL SERVICES INC.