

LOG NO: FEB 17 1995 U

ACTION:

FILE NO:

FOX GEOLOGICAL CONSULTANTS LTD.

PROSPECTING ASSESSMENT REPORT

ON THE

TROIT CLAIMS

Omineca Mining Division

NTS 93E11

127°05'W Longitude 53°33'N Latitude

Annual Work Approval # SMI-94-0200356-22

by

SUB-RECORDER  
RECEIVED

FEB 3 1995

M.R. # ..... \$ .....

VANCOUVER, B.C.

Geoffrey N. Goodall, B.Sc., P. Geo.  
Fox Geological Consultants Ltd.  
1409 - 409 Granville Street  
Vancouver, B.C. V6C 1T8

for

FILMED

Phelps Dodge Corporation of Canada, Limited  
Suite 912 - 120 Adelaide Street West  
Toronto, Ontario M5H 1T1

December 22, 1994

**GEOLOGICAL BRANCH**  
Project No. 182  
**ASSESSMENT REPORT**

23,759

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## SUMMARY

One day, July 28, 1994, was spent prospecting on the Troit claim. A total of five silt samples and two rock samples were collected by the two-person prospecting team. Silt geochemistry returned weak to moderately anomalous concentrations of copper, arsenic and mercury from three locations and a highly anomalous silver concentration from one sample. Prospecting outlined areas of moderate to intense argillic and sericitic alteration of felsic volcanics. Rock sampling returned moderately anomalous concentrations of gold and arsenic from one such location.

A more detailed program of prospecting and soil/rock geochemistry should be undertaken to further evaluate the anomalous stream sediment samples.

## INTRODUCTION

This report summarizes the results of a one day prospecting program on the Troitsa property. Five silt samples and two rock samples were collected from the claim area. The Troit 1 to 4 claims were staked early in February, 1994 to cover an area of hydrothermal alteration noted by regional mapping.

## LOCATION AND ACCESS

The Troit 1 to 4 claims are centred at 53°33'N latitude and 127°05'W longitude on NTS mapsheet 93E11 in the Omineca Mining Division (Figure 1). Access to the property was via helicopter from a nearby base camp set up on Sweeney Lake. The claims cover steep topography at 4,650 feet elevation in sub-alpine vegetation on the western margin of the Interior Plateau.

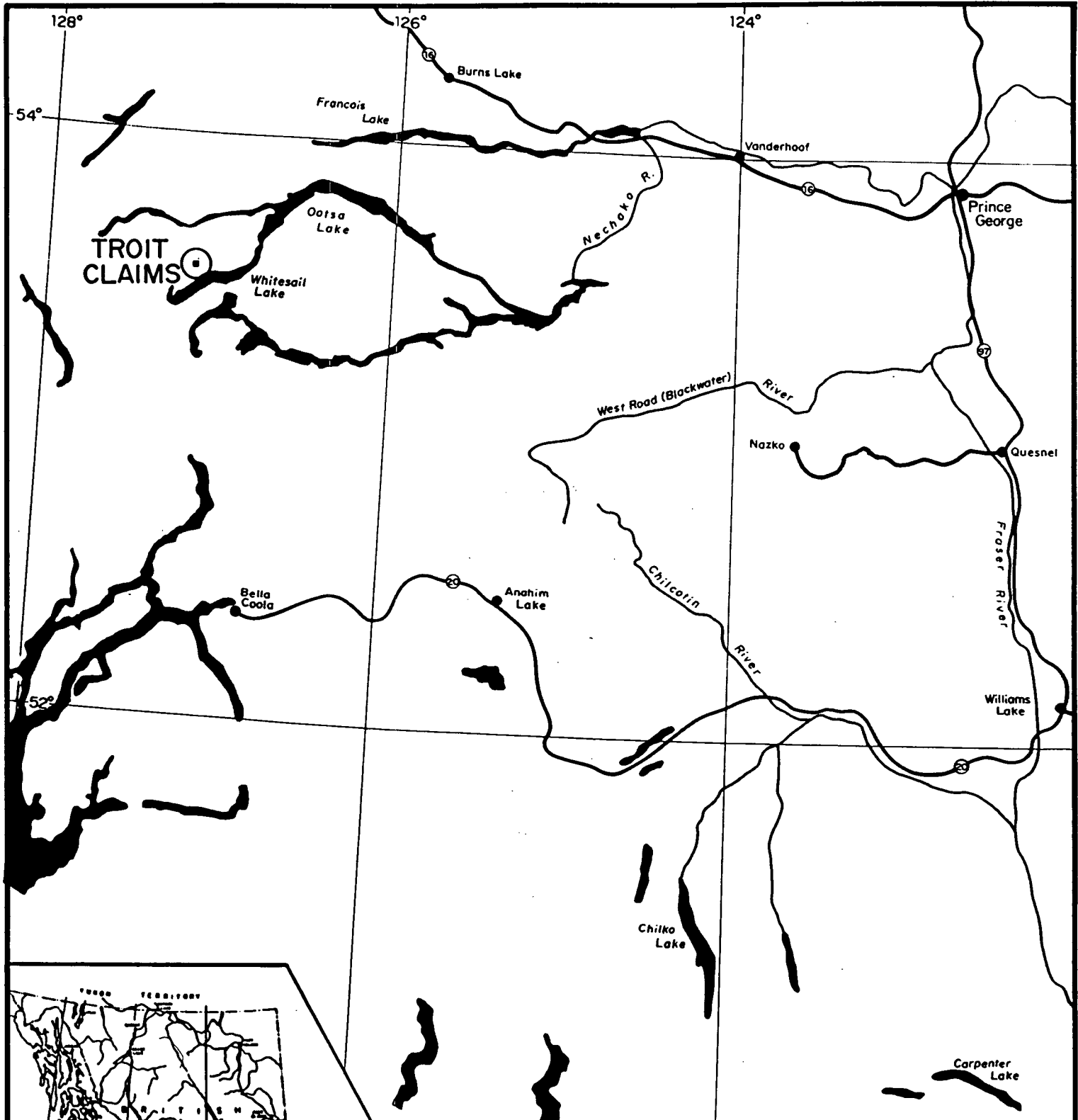
## CLAIM INFORMATION

The Troit 1 to 4 two-post mineral claims, shown in Figure 2, were staked February 3, 1994. Claim data are tabulated below. Expiry dates assumes acceptance of the work contained herein for assessment purposes.

Claim Name	No. of Units	Record Numbers	Expiry Date
Troit 1	1	323450	February 3, 1997
Troit 2	1	323451	February 3, 1997
Troit 3	1	323452	February 3, 1997
Troit 4	1	323543	February 3, 1997

## REGIONAL GEOLOGY

The Troitsa property is located on the western margin of the Intermontane Belt near the boundary with the Coast Plutonic Complex. The oldest rocks in the vicinity are Lower to Middle Jurassic age Hazelton Group volcanics, volcaniclastic and sedimentary rocks. The Hazelton Group is unconformably overlain by Eocene age Ootsa Lake Group basic to felsic volcanic flows, breccia and tuff. Granitic plugs and dykes of Late Cretaceous to Early Tertiary age intrude the Hazelton Group and are the probable feeders to Ootsa Lake Group volcanics. Zones of pervasive hydrothermal alteration and quartz veins are spatially associated with intrusions and locally contain anomalous concentrations of gold, mercury and arsenic.



<p><b>PHELPS DODGE CORP. OF CANADA LTD.</b></p>			
<p>PROJECT NO 192</p>		<p>OMINECA M.D.</p>	
<p><b>TROIT CLAIMS</b></p>			
<p><b>PROPERTY LOCATION</b></p>			
<p><b>&amp; ACCESS</b></p>			
<p><i>Fox Geological Consultants Ltd.</i></p>			
<p>SCALE</p>	<p>DATE</p>	<p>NTS</p>	<p>FIG NO</p>
<p>1:2,000,000</p>	<p>Dec.1994</p>	<p>93E/11</p>	<p>1</p>

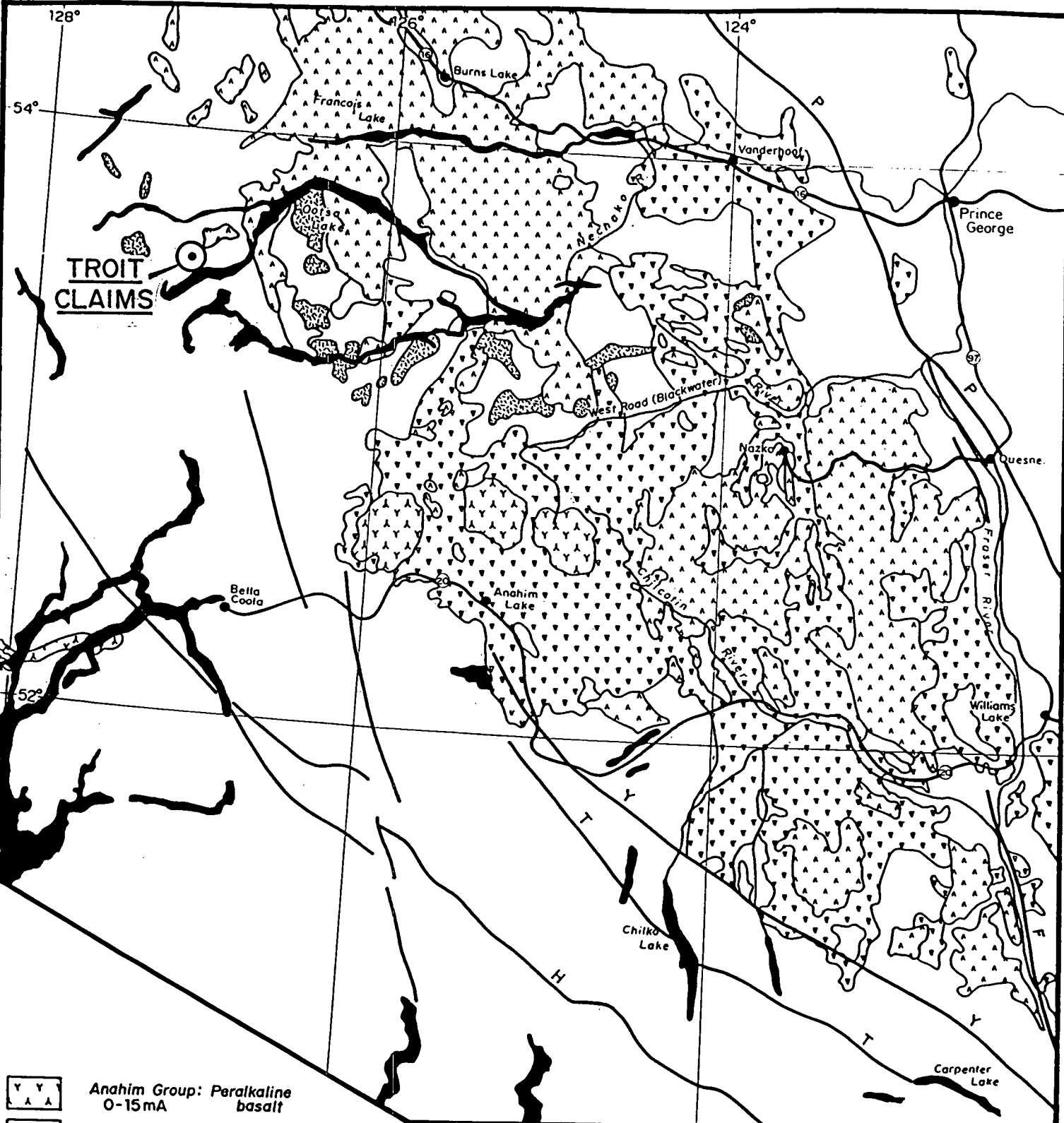
TROIT 1 TO 4 CLAIMS













WHITE SAIL LAKE  
NECHAKO RESERVOIR

PHELPS DODGE CANADA LIMITED  
 PROJECT NO. 192      WHITESAIL REGION  
 CHILCOTIN RECONNAISSANCE PROJECT  
**CLAIM MAP**  
 For Geological Consultants Ltd.

SCALE	DATE	FILE	NTS	FIG NO
1:50,000	Dec. 1993	192	83E/11	2
		Dr. dip GD		



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

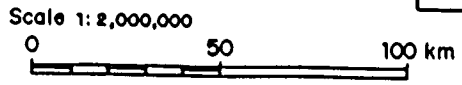
PHELPS DODGE CORP OF CANADA LTD.

PROJECT Nº OMINECA M.D.

## TROIT CLAIMS REGIONAL GEOLOGY

Fox Geological Consultants Ltd.

SCALE	DATE	NTS	FIG Nº
1:2,000,000	Dec. 1994	93E/11	<b>3</b>





## 1994 WORK PROGRAM

The 1994 work program on the Troit 1 to 4 mineral claims consisted of a two-man team conducting prospecting, rock and silt sampling over much of the claim area. Approximately one square kilometre was prospected and five silt samples and two rock samples collected. Samples were submitted to Acme Analytical Laboratories Limited, 852 East Hastings Street, Vancouver, B.C. for analysis.

Each sample was analyzed for 30 elements by ICP techniques and for gold by geochemical fire assay methods. Locations for the samples are plotted on Figure 4 and geochemical data provided in Appendix I.

## RESULTS

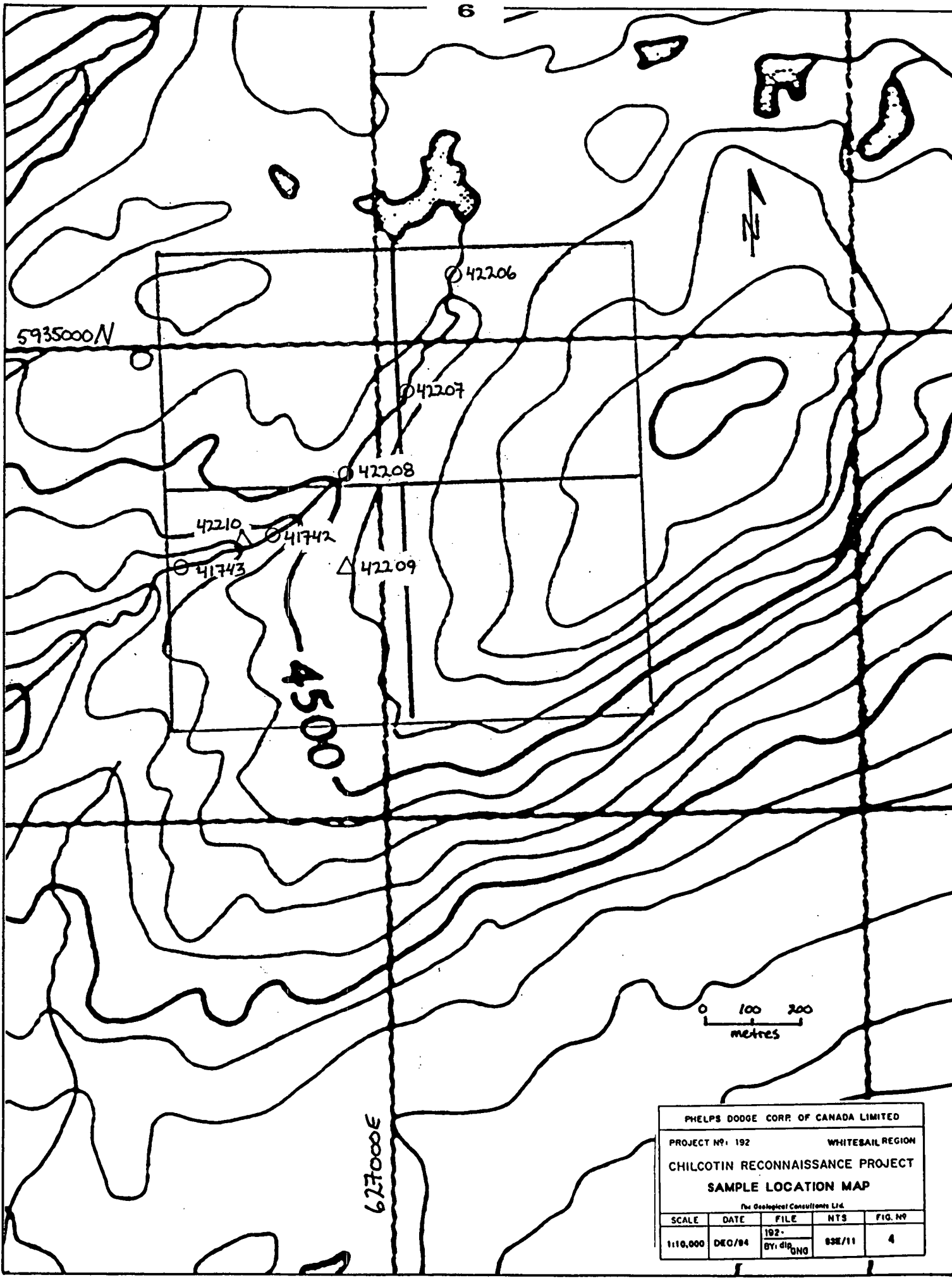
Each of the silt samples returned weak to moderate anomalous concentrations of at least one indicator mineral. Sample 42206, located just below a small lake near the north boundary of the property, returned concentrations of 45 ppm mercury, 22 ppm arsenic and 2.3 ppm silver. Copper was weakly anomalous in three consecutive stream samples (42208, 41742, 41743). None of the silt samples contained anomalous gold concentrations. One rock sample, taken from a limonitic stained rhyolite outcrop, returned 150 ppb gold and 263 ppm arsenic. Figures 5 to 9 indicate results of the sampling program. Figure 10 details results of the prospecting.

## CONCLUSIONS

Prospecting outlined two areas of weak to moderate argillic alteration of probable Ootsa Lake Group felsic volcanics. One location returned weak gold mineralization. Weak to moderately anomalous concentrations of epithermal style indicator minerals were outlined in stream sediment samples. The potential to locate zones of epithermal-style gold mineralization is considered good.

## RECOMMENDATIONS

It is recommended to conduct a program of detailed soil geochemistry and mapping over the Troit 1 to 4 claims to explore and determine the extent of any epithermal mineralization.



5935000N

42206

42207

42208

42210

41742

41743

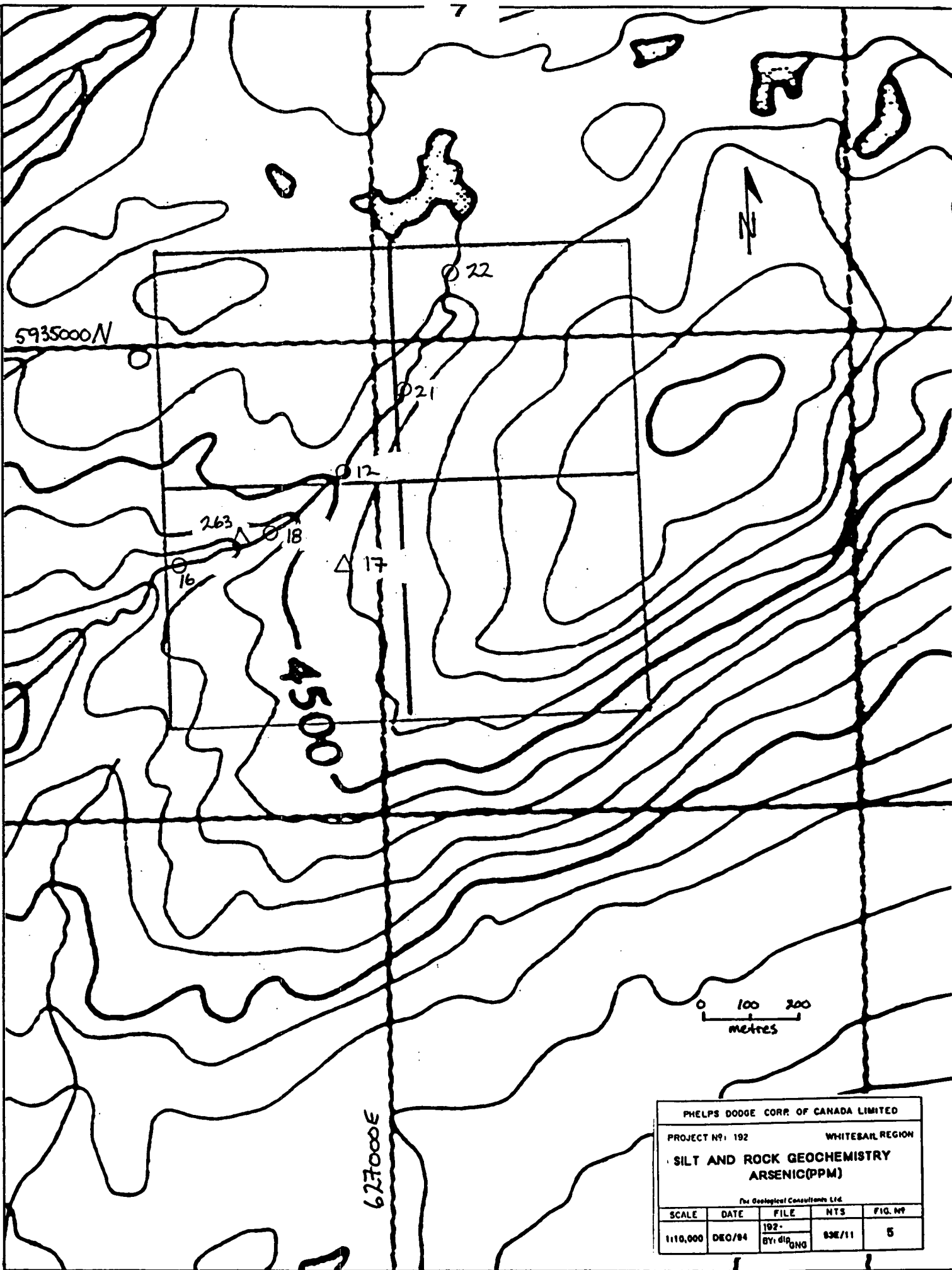
42209

4500

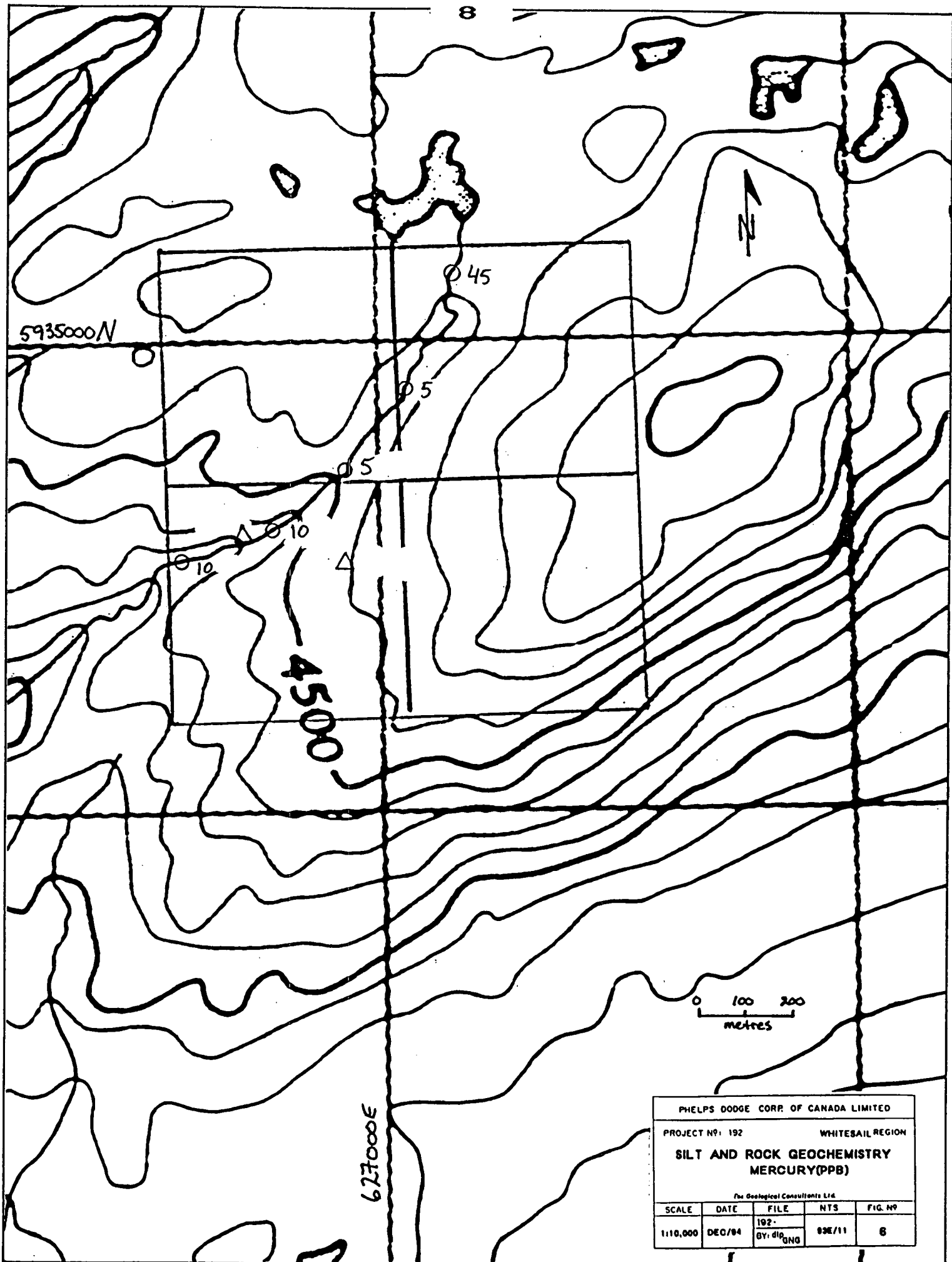


627006

PHELPS DODGE CORP. OF CANADA LIMITED				
PROJECT NO. 192		WHITESAIL REGION		
CHILCOTIN RECONNAISSANCE PROJECT				
SAMPLE LOCATION MAP				
Per Geological Consultants Ltd.				
SCALE	DATE	FILE	NTS	FIG. NO.
1:110,000	DEC/84	192- BY: djg/DNO	83E/11	4



PHELPS DODGE CORR. OF CANADA LIMITED				
PROJECT Nº: 192			WHITESAIL REGION	
<b>SILT AND ROCK GEOCHEMISTRY ARSENIC (PPM)</b>				
<small>The Geological Consultants Ltd.</small>				
SCALE	DATE	FILE	NTS	FIG. Nº
1:110,000	DEC/84	192- BY: dls ONG	83E/11	5



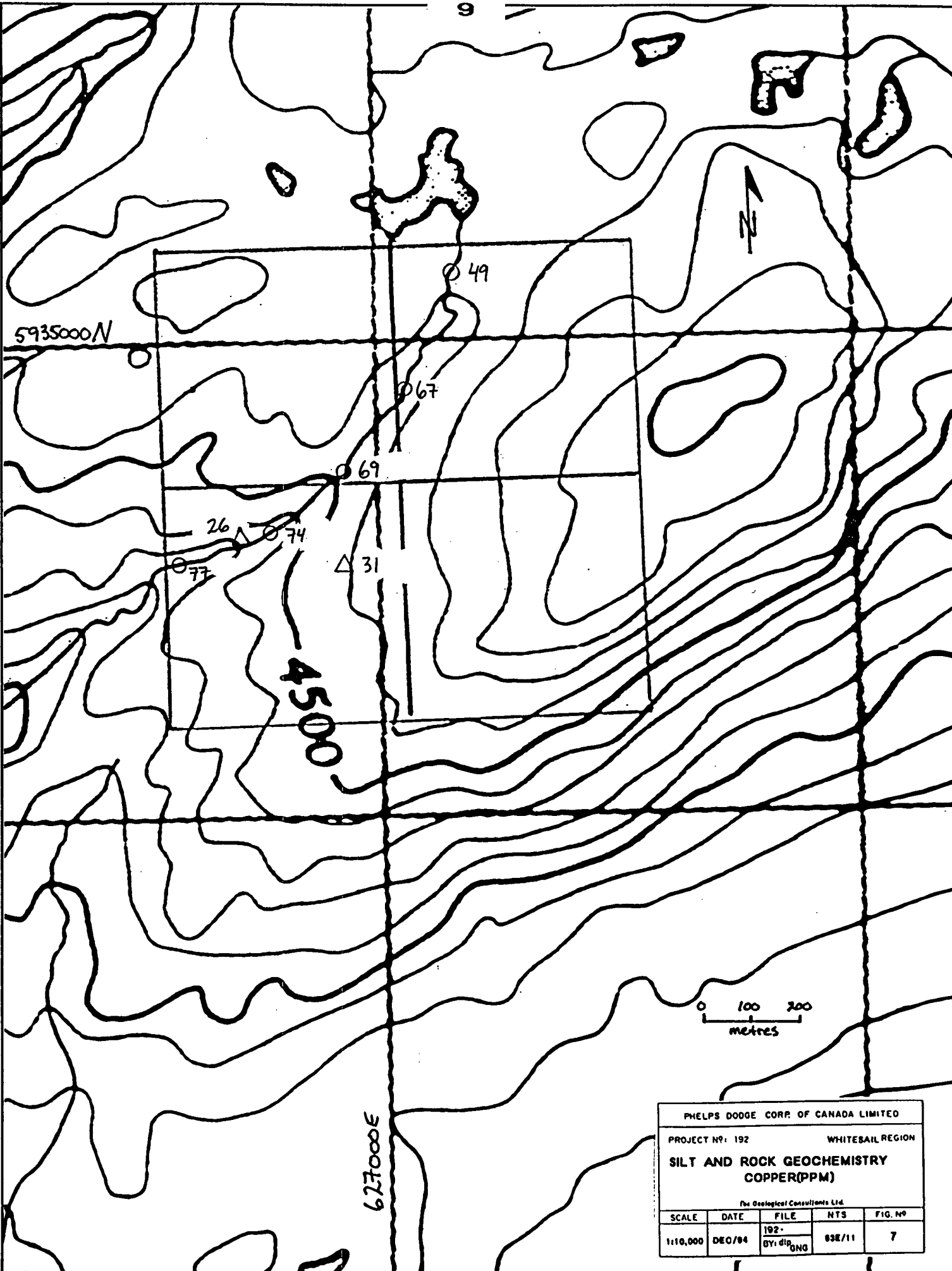
PHELPS DODGE CORP. OF CANADA LIMITED

PROJECT Nº: 192      WHITESAIL REGION

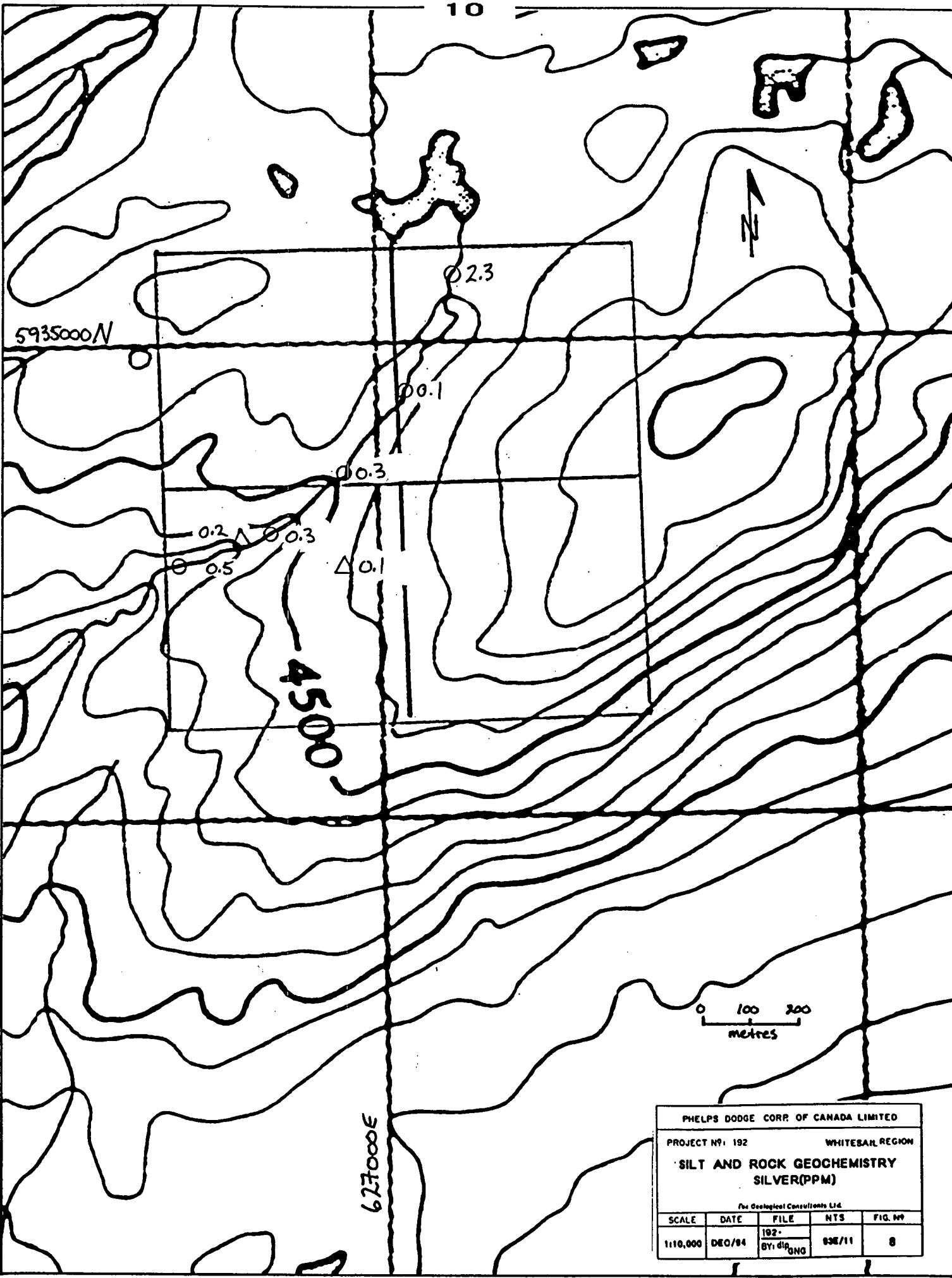
**SILT AND ROCK GEOCHEMISTRY**  
**MERCURY (PPB)**

*The Geological Consultants Ltd.*

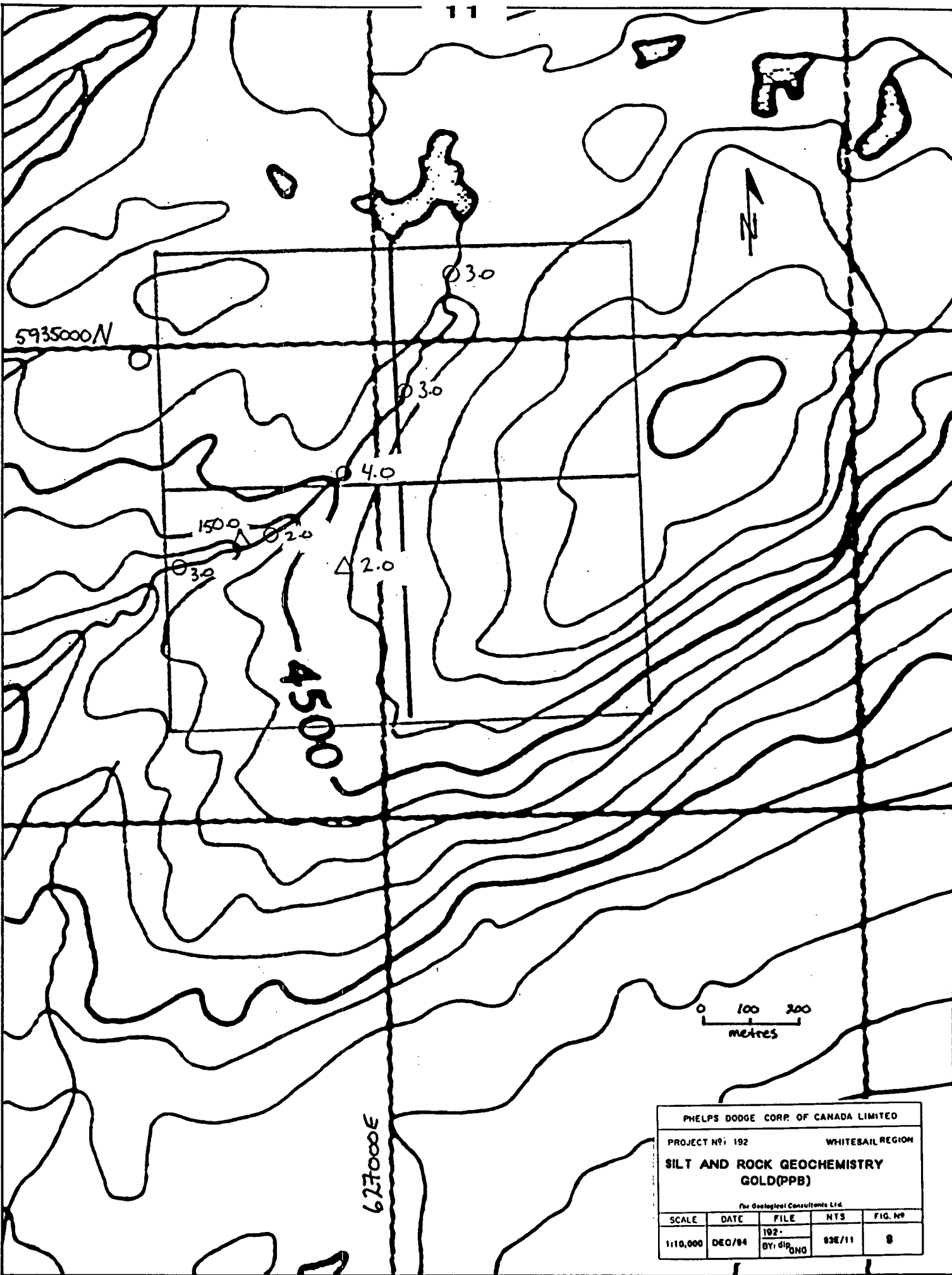
SCALE	DATE	FILE	NTS	FIG. Nº
1:110,000	DEC/84	192- GY: dlo, ONQ	83E/11	8



PHELPS DODGE CORP. OF CANADA LIMITED				
PROJECT N <sup>o</sup> : 192		WHITESAIL REGION		
SILT AND ROCK GEOCHEMISTRY COPPER (PPM)				
The Geological Consultants Ltd.				
SCALE	DATE	FILE	NTS	FIG. N <sup>o</sup>
1:10,000	DEC/84	192- BY: dlr, GNG	83E/11	7



PHELPS DODGE CORR OF CANADA LIMITED				
PROJECT N <sup>o</sup> : 192		WHITESHELL REGION		
SILT AND ROCK GEOCHEMISTRY				
SILVER (PPM)				
For Geological Consultants Ltd.				
SCALE	DATE	FILE	NTS	FIG. N <sup>o</sup>
1:110,000	DEC/84	192- BY: dlp DONG	03E/11	8

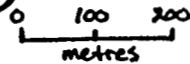
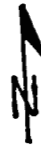


PHELPS DODGE CORR. OF CANADA LIMITED				
PROJECT Nº: 192			WHITESAIL REGION	
SILT AND ROCK GEOCHEMISTRY GOLD (PPB)				
The Geological Consultants Ltd.				
SCALE	DATE	FILE	NTS	FIG. Nº
1:10,000	DEC/84	192- BY: dlb, GNG	83E/11	8

5935000N

4500

627000E



⊙ AREA OF HYDROTHERMAL ALTERATION

PHELPS DOGGE CORP OF CANADA LIMITED

PROJECT No: 192                      WHITESAIL REGION

**PROSPECTING MAP**

The Geological Consultants Ltd.

SCALE	DATE	FILE	NTS	FIG. No
1:10,000	DEC/84	192- BY: dia ONG	93E/11	10




**DISBURSEMENTS**

Laboratory		
5 silt samples X \$11.50		57.50
2 rock samples X \$11.25		22.50
Labour		
Geoff Goodall geologist	1 days X \$295.00	295.00
Rick Ryan, sampler	1 days X \$225.00	225.00
Air Charter Helicopter		
1.2 hours X \$750.00/hour		<u>900.00</u>
<b>Total Disbursements</b>		<b>\$1,500.00</b>

Prepared by:

FOX GEOLOGICAL CONSULTANTS LTD.



Geoffrey N. Goodall, B.Sc., P. Geo.  
December 22, 1994


## REPORT DISTRIBUTION:

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

**CERTIFICATE**

I, Geoffrey N. Goodall, of the District of North Vancouver, British Columbia, do hereby certify that:

1. I am a Professional Geoscientist registered in the Association of Professional Engineers and Geoscientists of the Province of British Columbia.
2. I graduated from the University of British Columbia in 1984 with a Bachelor of Science degree in geology.
3. I have been practising my profession as a geologist since graduation.
4. I am a Fellow of the Geological Association of Canada.



---

Geoffrey N. Goodall, B.Sc., P. Geo.  
Vancouver, B.C.  
December 22, 1994

**A P P E N D I X I**

**Sample Data**

12/23/94

PROJECT 192  
WHITESAIL RECCE

Sample	Property	Type	Remarks	Grid	North	East	Mo	Cu	Pb	Zn	Ag	Fe	As	Sb	Au	Hg
42209	WHITESAIL RECCE	GRAB	GREEN-GRAY PYRITIC DACITE PORPHYRY		5934600	626900	2	31	6	68	0.1	4.15	17	2	2.0	
42210	WHITESAIL RECCE	GRAB	MAROON-GREEN FRACTURED RHYOLITE		5934520	626580	7	26	16	51	0.2	4.59	263	2	150.0	
2 GRAB SAMPLES																
41742	WHITESAIL RECCE	SILT	MAIN TRIBUTARY OF TROITSA CREEK		5935430	626290	1	74	16	96	0.3	5.79	18	2	2.0	10
41743	WHITESAIL RECCE	SILT	TAKEN 500M DOWNSTREAM FROM 41742		5935205	625910	1	77	16	97	0.5	6.25	16	2	3.0	10
42206	WHITESAIL RECCE	SILT	CREEK DRAINING SW INTO TROITSA CREEK		5934750	626910	3	49	18	91	2.3	5.00	22	2	3.0	45
42207	WHITESAIL RECCE	SILT	CREEK DRAINING SW INTO TROITSA CREEK		5934300	626300	1	67	10	76	0.1	5.73	21	2	3.0	5
42208	WHITESAIL RECCE	SILT	CREEK DRAINING SW INTO TROITSA CREEK		5933800	625490	1	69	13	78	0.3	5.35	12	2	4.0	5
5 SILT SAMPLES																
7 SAMPLES																
7 TOTAL SAMPLES																

**APPENDIX II**  
**Analytical Results**

SAMPLED	Me	Cu	Pb	Zn	Ag	Ni	Co	Mn	Po	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Hg	Ba	Yt	B	Al	Mo	K	V	AuP	Hg	
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	%	ppm	ppb	ppb
41742	1	76	16	96	.3	18	19	1503	5.79	18	<5	<2	<2	71	.5	<2	5	100	.71	.117	14	16	.55	407	.02	<2	1.37	.01	.10	<1	2	10	
41743	1	77	16	97	.5	17	19	1503	6.23	16	<5	<2	<2	68	.6	<2	5	113	.69	.118	14	18	.61	385	.02	<2	1.68	.01	.09	<1	3	10	



SAMPLED	Me	Cu	Pb	Zn	Ag	Ni	Co	Mn	Po	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Hg	Ba	Yt	B	Al	Mo	K	V	AuP	Hg
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm	ppb	ppb
42204	2	38	22	97	.2	29	17	2073	4.31	21	<5	<2	<2	25	<2	<2	64	.32	.051	11	28	.81	123	.06	<2	2.12	.02	.08	<1	2	25	
42205	2	75	23	113	.3	35	19	3200	6.14	18	<5	<2	<2	73	.3	<2	3	59	.55	.058	11	35	.98	349	.05	2	2.46	.02	.03	1	2	30
42206	3	49	18	91	2.3	19	13	2055	5.00	22	<5	<2	<2	36	<2	<2	3	87	.59	.104	18	18	.70	158	.07	<2	1.84	.01	.08	4	3	65
42207	<1	67	10	76	.1	22	16	1234	5.73	21	<5	<2	<2	42	<2	<2	71	.73	.136	20	17	1.04	130	.01	<2	2.40	.01	.08	1	3	5	
42208	<1	69	13	78	.3	19	18	1319	5.33	12	<5	<2	2	39	<2	<2	83	.66	.102	13	16	.84	226	.01	<2	2.11	.01	.10	4	4	5	

PHILIPS DODGE CORP. LABORATORIES, INC. 652 E. BROADWAY ST. VANCOUVER, B.C. V6M 1P6 CANADA PHONE (604) 253-2258 FAX (604) 253-2259  
 GEOCHEMICAL ANALYSIS CERTIFICATE  
 Phelps Dodge Corp. PROJECT 192 FILE # 94-2356 Page 5

SAMPLED	Me	Cu	Pb	Zn	Ag	Ni	Co	Mn	Po	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Hg	Ba	Yt	B	Al	Mo	K	V	AuP	Hg
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm	ppb	ppb
42209	2	31	6	68	<1	26	14	1073	4.15	17	<5	<2	<2	39	<2	<2	2	49	.88	.090	12	19	.74	34	.12	2	1.91	.03	.16	<1	2	
42210	7	26	16	51	.2	26	10	324	4.59	263	<5	<2	<2	9	<2	<2	2	42	.37	.110	6	18	.76	64	.18	2	1.62	.01	.17	1	150	
42225	1	17	13	56	<1	22	13	463	3.88	9	<5	<2	<2	17	<2	<2	2	34	.30	.077	30	12	.84	39	<1	<2	1.37	.04	.19	<1	4	
42226	2	20	4	42	<1	12	10	319	3.37	12	<5	<2	<2	14	<2	3	<2	23	.16	.067	21	7	.66	50	<1	2	.89	.02	.23	<1	3	
42350	3	7	41	6	.6	5	1	21	3.56	68	<5	<2	<2	41	<2	17	<2	6	.03	.013	6	3	.04	28	<1	2	.36	.01	.60	1	3	
RE 42350	3	6	45	6	.6	4	1	21	3.67	71	<5	<2	<2	42	<2	18	<2	6	.03	.013	6	4	.04	30	<1	2	.36	.01	.60	<1	3	
42323	1	20	11	87	<1	20	17	759	4.26	24	<5	<2	<2	20	<2	<2	43	2.98	.042	10	11	.76	46	.01	2	.97	.03	.11	<1	3		
42324	<1	6	2	22	.1	7	5	1411	1.39	5	<5	<2	3	225	<2	<2	2	8	18.96	.016	10	3	.31	19	<1	<2	.16	.01	.03	5	1	
42325	10	35	6	52	.9	10	14	851	4.94	<2	5	<2	2	138	.3	<2	<2	80	4.27	.078	7	4	2.44	104	<1	<2	1.99	.02	.13	<1	3	
42326	12	7	14	40	.2	7	2	141	1.18	14	6	<2	13	8	<2	3	<2	2	.20	.014	27	7	.04	25	<1	<2	.21	.01	.13	<1	3	
42327	2	21	19	122	10.6	7	12	844	5.34	21	<5	<2	<2	29	.5	<2	2	34	2.33	.079	6	7	.24	7	<1	<2	.63	.05	.03	<1	7	
STANDARD C/AU-R	19	57	37	123	6.6	75	32	1049	3.96	42	14	6	36	51	19.0	14	21	60	.51	.090	60	57	.92	187	.08	33	1.88	.04	.15	10	460	

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR ME FE SR CA P LA CR HB BA TI B Y AND LIMITED FOR NA K AND AL. ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PO ZH AS > 1%, AG > 30 PPM & AU > 1000 PPM. - SAMPLE TYPE: ROCK AU ANALYSIS BY ACID LEACH/AA FROM 10 GR SAMPLE. Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: AUG 2 1996 DATE REPORT MAILED: Aug 8/96 SIGNED BY: [Signature] D. TOYE, C. LEONG, J. LANG; CERTIFIED D.C. ASSAYERS