

**GEOCHEMICAL REPORT**

on the

**FLUME GROUP OF MINERAL CLAIMS**

Flume 1-12 (YC07383 - YC07394)

Flume 15-22 (YC07397 - YC07404)

Flume 28 (YC07410)

Flume 33-35 (YC07415 - YC07417)

Flume 56 & 58 (YC07438 & YC07440)

**Dawson Mining Division  
Yukon Territory**

**094 049**

**NTS 115N08,09 & 115O05,12**

**63° 29' North Latitude**

**140° 03' West Longitude**

**Registered Owner**

**Phelps Dodge Corporation of Canada, Limited.**

**Work Performed on June 5, 1999**

by

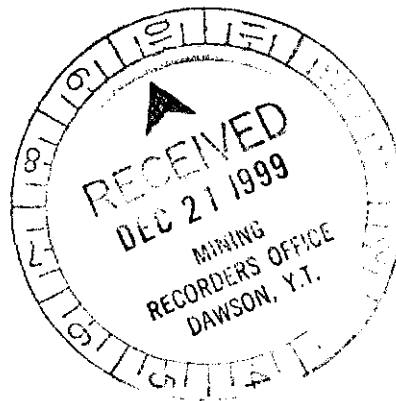
**Stephen W. Wetherup, BSc.  
Robert C. Cameron, BSc., P.Geo**

**Phelps Dodge Corporation of Canada, Limited.**

**#1409 - 409 Granville Street**

**Vancouver, BC V6C 1T8**

**12/14/99**



Reviewed by \_\_\_\_\_

Date \_\_\_\_\_

This report has been examined by  
the Geological Evaluation Unit  
under Section 53 (4) Yukon Quartz  
Mining Act and is allowed as  
representation work in the amount  
of \$ 2600.00.

*M. B. ...*  
for Regional Manager, Exploration and  
Geological Services for Commissioner  
of Yukon Territory.



Dawson Mining District  
Box 249  
Dawson City, Yukon  
Y0B 1G0

Ph: (867) 993-5343  
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7720-7-9 Q

21 July 1999

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

**Attention: Gregory K. Kulla**

Dear Sir:

**Re: Flume 1-12,15-22,28,33-35,56 & 58**

Reference is made to your application to group and renew the above Quartz Mining Claims received in this office June 29<sup>th</sup>, 1999.

Please be advised that the supporting soil sampling, assessment report are to be submitted to this office, within a reasonable period of time, for consideration under Subsection 54(1) and 59(2) of the **Yukon Quartz Mining Act**.

This report must be received in our office not later than **January 2<sup>nd</sup>, 2000** (which is 6 months after the anniversary date).

Yours truly,

*KP*  
Kathryn Perry  
Mining Recorder

dw

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## **SUMMARY**

The Flume property, situated 75 kilometres south of Dawson City, was staked after a compilation of RGS geochemical data and local geology, and was followed by a reconnaissance geochemical sampling program, in 1998. The 1999 work program consisted of sixty-three soil samples taken along four contour lines, in an attempt to further the geochemical sampling coverage throughout the property. Analysis of soils returned sixteen samples with gold concentrations greater than 20 ppb and thirty-nine samples with arsenic greater than 100 ppm. Arsenic soil anomalies ranging in concentration from 91.1 ppm to 1580.6 and 44.8 ppm to 995.9 ppm can be traced for 1300 m and 1200 m respectively along contour lines. Gold soil anomalies are not as continuous and lie within the arsenic soil anomalies. Grid soil sampling and detailed prospecting within the soil anomaly and reconnaissance soil sampling elsewhere on the property is recommended.

## INTRODUCTION

This report describes a geochemical sampling program conducted on the Flume property on June 5<sup>th</sup>, 1999. Phelps Dodge Corporation of Canada, Limited in 1998, staked the Flume property, situated 75 kilometres south of Dawson City, and conducted a work program in 1999 consisting of four contour soil lines, to follow-up RGS regional geochemical data. A four-man crew staged the work program out of Dawson City.

## LOCATION, ACCESS and PHYSIOGRAPHY

The Flume property is situated at the headwaters of Ten-Mile Creek, a tributary to Sixty-Mile River, 75 kilometres south of Dawson City (Figure 1). The claims lie within the Klondike Plateau, an area characterized by deep narrow valleys and smooth ridges with uniform elevations. Elevation range from 400 metres in valley floors to 1200 metres at ridge tops. Vegetation varies from mature forests of conifers and deciduous trees in the valleys to sub-alpine vegetation on ridge tops. Access to the property is via helicopter from Dawson City. An abandoned airstrip is situated at the mouth of Ten-Mile Creek and a road in unknown condition terminates on the east side of the Yukon river some twelve kilometres northeast of the claims.

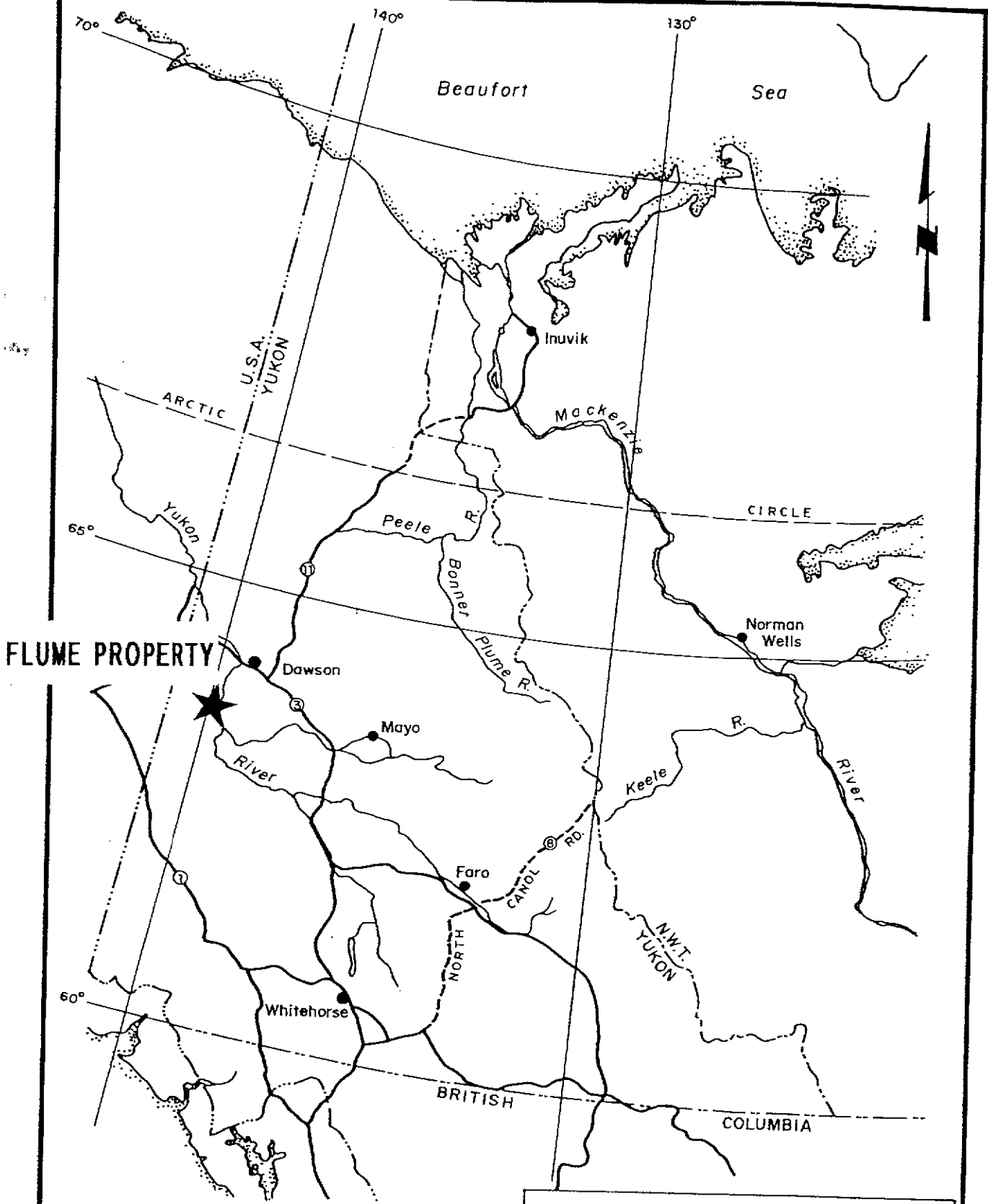
## CLAIM INFORMATION

The Flume property consists of 153 contiguous quartz claims in the Dawson Mining District and is located on NTS maps 115N08, 09 and 115O05, 12. Pertinent claim data is tabulated below in Table 1 and the claims are shown in Figure 2. Expiry dates shown in Table 1 are contingent upon the work described herein being accepted for assessment.

**TABLE 1 CLAIM DATA**

Name	Record Number	Expiry Date	Name	Record Number	Expiry Date
FLUME 1	YC-7383	July 2, 2000	FLUME 77	YC-7459	July 2, 2000
FLUME 2	YC-7384	July 2, 2000	FLUME 78	YC-7460	July 2, 2000
FLUME 3	YC-7385	July 2, 2000	FLUME 79	YC-7461	July 2, 2000
FLUME 4	YC-7386	July 2, 2000	FLUME 80	YC-7462	July 2, 2000
FLUME 5	YC-7387	July 2, 2000	FLUME 81	YC-7463	July 2, 2000
FLUME 6	YC-7388	July 2, 2000	FLUME 82	YC-7464	July 2, 2000
FLUME 7	YC-7389	July 2, 2000	FLUME 83	YC-7465	July 2, 2000
FLUME 8	YC-7390	July 2, 2000	FLUME 84	YC-7466	July 2, 2000
FLUME 9	YC-7391	July 2, 2000	FLUME 85	YC-7467	July 2, 2000
FLUME 10	YC-7392	July 2, 2000	FLUME 86	YC-7468	July 2, 2000
FLUME 11	YC-7393	July 2, 2000	FLUME 87	YC-7469	July 2, 2000
FLUME 12	YC-7394	July 2, 2000	FLUME 88	YC-7470	July 2, 2000
FLUME 13	YC-7395	July 2, 2000	FLUME 89	YC-7471	July 2, 2000
FLUME 14	YC-7396	July 2, 2000	FLUME 90	YC-7472	July 2, 2000

FLUME 15	YC-7397	July 2, 2001	FLUME 91	YC-7473	July 2, 2000
FLUME 16	YC-7398	July 2, 2001	FLUME 92	YC-12438	September 11, 2000
FLUME 17	YC-7399	July 2, 2001	FLUME 93	YC-12439	September 11, 2000
FLUME 18	YC-7400	July 2, 2001	FLUME 94	YC-12440	September 11, 2000
FLUME 19	YC-7401	July 2, 2001	FLUME 95	YC-12441	September 11, 2000
FLUME 20	YC-7402	July 2, 2001	FLUME 96	YC-12442	September 11, 2000
FLUME 21	YC-7403	July 2, 2001	FLUME 97	YC-12443	September 11, 2000
FLUME 22	YC-7404	July 2, 2001	FLUME 98	YC-12444	September 11, 2000
FLUME 23	YC-7405	July 2, 2000	FLUME 99	YC-12445	September 11, 2000
FLUME 24	YC-7406	July 2, 2000	FLUME 100	YC-12446	September 11, 2000
FLUME 25	YC-7407	July 2, 2000	FLUME 101	YC-12447	September 11, 2000
FLUME 26	YC-7408	July 2, 2000	FLUME 102	YC-12448	September 11, 2000
FLUME 27	YC-7409	July 2, 2000	FLUME 103	YC-12449	September 11, 2000
FLUME 28	YC-7410	July 2, 2001	FLUME 104	YC-12450	September 11, 2000
FLUME 29	YC-7411	July 2, 2000	FLUME 105	YC-12451	September 11, 2000
FLUME 30	YC-7412	July 2, 2000	FLUME 106	YC-12452	September 11, 2000
FLUME 31	YC-7413	July 2, 2000	FLUME 107	YC-12453	September 11, 2000
FLUME 32	YC-7414	July 2, 2000	FLUME 108	YC-12454	September 11, 2000
FLUME 33	YC-7415	July 2, 2001	FLUME 109	YC-12455	September 11, 2000
FLUME 34	YC-7416	July 2, 2001	FLUME 110	YC-12456	September 11, 2000
FLUME 35	YC-7417	July 2, 2001	FLUME 111	YC-12457	September 11, 2000
FLUME 36	YC-7418	July 2, 2000	FLUME 112	YC-12458	September 11, 2000
FLUME 37	YC-7419	July 2, 2000	FLUME 113	YC-12459	September 11, 2000
FLUME 38	YC-7420	July 2, 2000	FLUME 114	YC-12460	September 11, 2000
FLUME 39	YC-7421	July 2, 2000	FLUME 115	YC-12461	September 11, 2000
FLUME 40	YC-7422	July 2, 2000	FLUME 116	YC-12462	September 11, 2000
FLUME 41	YC-7423	July 2, 2000	FLUME 117	YC-12463	September 11, 2000
FLUME 42	YC-7424	July 2, 2000	FLUME 118	YC-12464	September 11, 2000
FLUME 43	YC-7425	July 2, 2000	FLUME 119	YC-12465	September 11, 2000
FLUME 44	YC-7426	July 2, 2000	FLUME 120	YC-12466	September 11, 2000
FLUME 45	YC-7427	July 2, 2000	FLUME 121	YC-12467	September 11, 2000
FLUME 46	YC-7428	July 2, 2000	FLUME 122	YC-12468	September 11, 2000
FLUME 47	YC-7429	July 2, 2000	FLUME 123	YC-12469	September 11, 2000
FLUME 48	YC-7430	July 2, 2000	FLUME 124	YC-12470	September 11, 2000
FLUME 49	YC-7431	July 2, 2000	FLUME 125	YC-12471	September 11, 2000
FLUME 50	YC-7432	July 2, 2000	FLUME 126	YC-12472	September 11, 2000
FLUME 51	YC-7433	July 2, 2000	FLUME 127	YC-12473	September 11, 2000
FLUME 52	YC-7434	July 2, 2000	FLUME 128	YC-12474	September 11, 2000
FLUME 53	YC-7435	July 2, 2000	FLUME 129	YC-12475	September 11, 2000
FLUME 54	YC-7436	July 2, 2000	FLUME 130	YC-12476	September 11, 2000
FLUME 55	YC-7437	July 2, 2000	FLUME 131	YC-12477	September 11, 2000
FLUME 56	YC-7438	July 2, 2001	FLUME 132	YC-12478	September 11, 2000
FLUME 57	YC-7439	July 2, 2000	FLUME 133	YC-12479	September 11, 2000
FLUME 58	YC-7440	July 2, 2001	FLUME 134	YC-12480	September 11, 2000
FLUME 59	YC-7441	July 2, 2000	FLUME 135	YC-12481	September 11, 2000
FLUME 60	YC-7442	July 2, 2000	FLUME 136	YC-12482	September 11, 2000
FLUME 61	YC-7443	July 2, 2000	FLUME 137	YC-12483	September 11, 2000
FLUME 62	YC-7444	July 2, 2000	FLUME 138	YC-12484	September 11, 2000
FLUME 63	YC-7445	July 2, 2000	FLUME 139	YC-12485	September 11, 2000
FLUME 64	YC-7446	July 2, 2000	FLUME 140	YC-12486	September 11, 2000
FLUME 65	YC-7447	July 2, 2000	FLUME 141	YC-12487	September 11, 2000
FLUME 66	YC-7448	July 2, 2000	FLUME 142	YC-12488	September 11, 2000
FLUME 67	YC-7449	July 2, 2000	FLUME 143	YC-12489	September 11, 2000
FLUME 68	YC-7450	July 2, 2000	FLUME 144	YC-12490	September 11, 2000
FLUME 69	YC-7451	July 2, 2000	FLUME 145	YC-12491	September 11, 2000
FLUME 70	YC-7452	July 2, 2000	FLUME 146	YC-12492	September 11, 2000
FLUME 71	YC-7453	July 2, 2000	FLUME 147	YC-12493	September 11, 2000
FLUME 72	YC-7454	July 2, 2000	FLUME 148	YC-12494	September 11, 2000
FLUME 73	YC-7455	July 2, 2000	FLUME 149	YC-12495	September 11, 2000
FLUME 74	YC-7456	July 2, 2000	FLUME 150	YC-12496	September 11, 2000
FLUME 75	YC-7457	July 2, 2000	FLUME 151	YC-12497	September 11, 2000
FLUME 76	YC-7458	July 2, 2000	FLUME 152	YC-12498	September 11, 2000
			FLUME 153	YC-12499	September 11, 2000



**FLUME PROPERTY**

**LOCATION MAP**

SCALE			DWG No
1:5,840,000			1

## **HISTORY**

Historic placer mining is common throughout the region and recent placer mining is visible in Ten-Mile Creek. No recorded work is known in the claim area and local Minfile occurrences refer to placer mining or previously staked claims with no additional information. Ninety-one units were staked by Phelps Dodge Corporation of Canada, Limited in June, 1998 to cover the headwaters of Ten-Mile Creek following an evaluation of Regional Stream Sediment data. Phelps Dodge staked sixty-two additional units in September 1998 to cover the headwaters of a tributary to Sestak Creek immediately southeast of Ten-Mile Creek. This contiguous block of 153 claims covers some 3200 hectares and is surrounded to the north and west by other recently staked claims. Phelps Dodge also conducted a reconnaissance silt and soil sampling program at the head of Ten-Mile Creek and Sestak Creek, in 1998 as a follow-up to the original RGS sampling.

## **REGIONAL GEOLOGY**

Mortensen, Tempelman-Kluit, Wheeler and others have described the regional geology. The area is underlain by the Yukon-Tanana Terrane, which is comprised of the Nisling Assemblage, a metamorphosed Proterozoic-Lower Paleozoic continental margin sequence, the Nasina-Nisutlin Assemblages, mid-Paleozoic carbonaceous, siliciclastic and volcanic continental arc rocks and an upper package of late-Paleozoic felsic meta-volcanic and meta-plutonic rocks. Jurassic to Cretaceous quartz monzonite and granodiorite plugs intrude Yukon-Tanana rocks and Cretaceous bi-modal alkaline Carmacks volcanics overlie both. The Flume property overlies part of an elongate Cretaceous intrusion some 12 kilometres long and 3 kilometres wide within metamorphosed Nisling sediments.

## **1999 WORK PROGRAM**

The 1999 work program consisted of 63 soils samples taken along four contour lines, on the northeast corner of the property. A crew of four staged out of Dawson City undertook this work, on June 5, 1999. All samples were tagged with a unique number and shipped to Acme Analytical Labs in Vancouver where the samples were analyzed for 35 elements by ICP-MS methods. Summary field notes and select geochemical results are given in Appendix I and complete analytical results are give in Appendix II. Sample locations are shown in Figure 3.

## RESULTS

Analysis of soil samples returned gold concentrations from 1.9 ppb up to 110 ppb with sixteen samples containing gold concentrations greater than 20 ppb. Arsenic concentration ranges from 2 to 1580.6 ppm with thirty-nine samples containing greater than 100 ppm arsenic. Arsenic soil anomalies ranging in concentration from 91.1 ppm to 1580.6 and 44.8 ppm to 995.9 ppm can be traced for 1300 m and 1200 m respectively along contour lines. Anomalous gold concentrations in soil occur sporadically but tend to be within the arsenic anomalies. Gold and arsenic results for soils are summarized in Figures 4 and 5.

## CONCLUSIONS and RECOMMENDATIONS

Soil sampling on the Flume property in 1999 delineated an area of high arsenic and gold concentrations in soil, in addition to the previously identified soil anomalies at the head of Sestak and Ten-Mile Creeks. Follow-up work should include grid soil sampling and detailed prospecting within each of the soil anomalies and reconnaissance soil sampling south on the property.

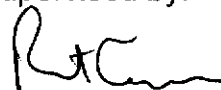
## DISBURSEMENTS

Expenditures for the 1999 work program on the Flume property totalled \$ 22,679 (Tabulated below):

Assays	63 soil samples @ \$16.47/sample	1037.31
Helicopter	2.2 hours @ \$887.95/hour	1953.50
Labour		
Coureur des Bois (contract)	4 man-days @ \$294.25/day	1177.00
Supplies and Services		<u>343.55</u>
<b>Total</b>		<b><u>\$ 4511.36</u></b>

Prepared by:

Supervised by:



\_\_\_\_\_  
Stephen W. Wetherup (BSc.)

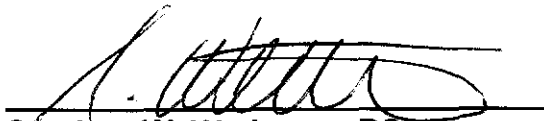
\_\_\_\_\_  
Robert C. Cameron (BSc., P.Geo.)

December 14, 1999

## CERTIFICATE

I, Stephen William Wetherup, certify to the following:

1. I am a consulting geologist currently residing at #404 - 3285 West 4<sup>th</sup> Avenue, Vancouver, B.C.
2. I am a Geoscientist in Training (G.I.T.) in the Association of Professional Engineers and Geoscientists of British Columbia.
3. My academic qualifications are:  
  
B.Sc., University of Manitoba, Winnipeg, Manitoba.
4. I have been engaged in geological work since graduation in 1995.

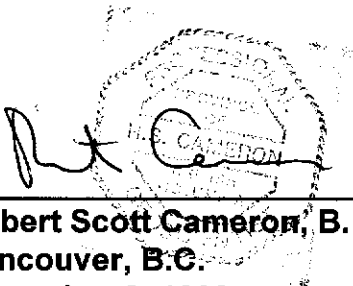


**Stephen W. Wetherup, BSc.**  
**Vancouver, B.C.**  
**December 2, 1999**

## CERTIFICATE

I, Robert Scott Cameron certify to the following:

1. I am a geologist employed by Phelps Dodge Corporation of Canada Limited, 1409-409 Granville Street, Vancouver, BC.
2. I am a Professional Geoscientist registered with the Association of Professional Engineers and Geoscientists of British Columbia.
3. My academic qualifications are:  
  
B.Sc. Hons., 1981, Carleton University, Ottawa, Ontario
4. I have been engaged in geological work since graduation in 1981.



---

**Robert Scott Cameron, B. Sc., P. Geo.**  
**Vancouver, B.C.**  
**December 2, 1999**

APPENDIX I  
**Field Notes and Selected Analytical Results**

# Phelps Dodge Corporation of Canada Ltd.

## Flume Property Selected Geochemical Results

Sample #	Easting (NAD 83)	Northing (NAD 83)	Cu (ppm)	Pb (ppm)	Ag (ppb)	As (ppm)	Au (ppb)	Sb (ppm)	Bi (ppm)	Hg (ppb)	Se (ppm)	Te (ppm)
75000	546660	7043302	22	16	137	101	19	0.72	0.16	38	0.5	0.06
75001	546735	7043251	44	16	208	312	19	1.14	0.18	20	0.4	0.05
75002	546783	7043188	28	16	119	326	14	1.35	0.26	23	0.7	0.07
75003	546907	7043142	27	20	76	280	15	1.12	0.23	25	0.6	0.07
75004	546943	7043073	39	20	175	314	16	1.16	0.3	31	0.6	0.06
75005	547027	7042998	23	19	81	91	7	0.79	0.21	22	0.5	0.05
75006	547125	7042958	40	19	527	459	69	1.28	0.25	36	0.4	0.15
75007	547293	7042890	33	16	422	343	23	1.25	0.18	72	0.9	0.09
75008	547396	7042828	34	28	636	1581	38	3.22	0.39	9	1.2	0.2
75009	547549	7042838	21	11	109	146	6	0.89	0.15	19	0.6	0.05
75010	547631	7042849	51	13	196	692	9	2.79	0.24	15	1	0.09
75011	547631	7042817	28	15	709	1263	30	2.8	0.37	20	1.3	0.21
75012	547739	7042913	27	12	135	363	6	1.08	0.22	21	0.6	0.05
75013	547792	7042960	32	12	52	42	6	0.88	0.2	43	0.2	0.04
75014	547878	7043029	18	11	30	64	2	0.7	0.17	15	0.5	0.03
75076	546388	7042981	22	18	285	34	7	0.63	0.2	25	0.4	0.04
75077	546400	7042896	21	13	99	55	6	0.58	0.19	23	0.4	0.03
75078	546382	7042805	18	14	89	39	5	0.55	0.23	25	0.4	0.03
75079	546333	7042713	16	9	79	62	10	0.65	0.18	16	0.2	0.03
75080	546260	7042634	21	9	50	38	15	0.76	0.18	20	0.5	0.03
75081	546151	7042574	32	10	183	996	59	1.28	0.25	29	1.1	0.09
75082	546047	7042549	25	11	56	61	19	0.86	0.19	46	0.6	0.03
75083	545944	7042543	20	23	95	118	5	1.44	0.19	33	0.3	0.03
75084	545847	7042574	18	9	247	477	29	0.62	0.22	36	0.3	0.07
75085	545749	7042634	22	11	216	859	21	0.99	0.27	29	0.5	0.11
75086	545658	7042604	17	10	132	137	5	0.64	0.21	18	0.3	0.04
75087	545640	7042507	40	13	197	795	58	1.75	0.22	30	1	0.07
75088	545597	7042415	39	14	693	134	56	0.97	0.2	117	0.8	0.05
75089	545622	7042324	44	11	421	461	25	2.33	0.24	70	1.8	0.1
75090	545676	7042270	30	8	607	72	11	0.73	0.22	145	1.6	0.05
75091	545731	7042172	34	3	446	45	11	0.8	0.07	178	1.4	0.02
75092	545714	7042066	44	11	920	405	40	1.74	0.24	165	1.9	0.08
75151	547022	7042565	30	19	287	736	30	0.98	0.24	31	0.7	0.07
75152	547119	7042559	12	1	27	16	2	0.31	0.11	83	0.8	0.07
75153	547217	7042554	20	12	168	197	13	0.83	0.13	72	0.7	0.06
75154	547314	7042536	33	21	336	474	28	1.2	0.24	41	0.9	0.1
75155	547412	7042491	23	4	99	96	10	0.65	0.05	53	0.7	0.06
75156	547521	7042451	14	13	89	239	7	0.58	0.16	19	0.4	0.05
75157	547630	7042445	54	60	270	173	7	0.79	0.5	42	1.1	0.07
75158	547733	7042410	23	9	78	102	5	0.33	0.19	7	0.1	0.02
75159	547853	7042405	21	7	213	28	3	0.43	0.07	69	1	0.03
75160	547945	7042462	11	21	59	85	3	0.43	0.25 < 5		0.2	0.02
75161	547997	7042536	11	20	49	77	3	0.41	0.19 < 5		0.6	0.02
75162	548037	7042605	9	18	43	70	2	0.34	0.19 < 5		0.2 < .02	

# Phelps Dodge Corporation of Canada Ltd.

## Flume Property Selected Geochemical Results

Sample #	Easting (NAD 83)	Northing (NAD 83)	Cu (ppm)	Pb (ppm)	Ag (ppb)	As (ppm)	Au (ppb)	Sb (ppm)	Bi (ppm)	Hg (ppb)	Se (ppm)	Te (ppm)
75163	548100	7042685	14	20	76	95	42	0.5	0.19	6	0.2	0.02
75164	548180	7042748	34	35	157	381	9	1.2	0.27	14	0.9	0.06
75165	548255	7042817	16	24	80	121	30	0.58	0.2 < 5		0.4	0.02
75166	548312	7042903	15	22	70	137	5	0.55	0.21 < 5		0.4 < .02	
75167	548329	7042989	11	24	52	251	4	0.43	0.18 < 5		0.2 < .02	
75168	548306	7043075	126	36	244	411	5	0.47	0.3 < 5		1	0.05
75169	548392	7043086	64	77	179	252	6	0.34	0.4	15	0.8	0.05
75170	548447	7043175	66	100	239	266	6	0.43	0.48	13	0.9	0.06
75225	546984	7042318	18	13	101	95	6	0.65	0.2	72	0.7	0.05
75226	547088	7042306	16	17	140	245	8	0.52	0.24	61	0.8	0.04
75227	547185	7042263	20	25	257	458	10	0.82	0.27	62	0.8	0.05
75228	547282	7042184	39	44	244	211	10	0.65	0.35	71	1.2	0.06
75229	547355	7042105	20	23	175	485	24	0.7	0.33	76	0.5	0.09
75230	547392	7042008	13	12	137	115	6	0.39	0.18	34	0.4	0.04
75231	547404	7041917	12	9	122	34	6	0.26	0.16	56	0.3	0.03
75232	547392	7041826	12	17	85	99	110	0.44	0.23	30	0.5	0.04
75233	547367	7041734	25	2	167	2	3	0.18	0.02	135	1.2	0.03
75234	547331	7041631	14	11	29	18	9	0.45	0.2	30	0.3	0.04
75235	547288	7041540	21	27	466	13	2	0.3	0.25	47	0.9	0.03

APPENDIX II  
**Geochemical Analysis Certificates**

P.02/03  
B04 253 1716 TO 6813920  
LABS  
FR ACME  
JUN 22 '99 14:58



GEOCHEMICAL ANALYSIS CERTIFICATE

Phelps Dodge Corp. PROJECT 242 File # 9901744 Page 1  
1409 - 409 Granville St., Vancouver BC V6T 1T2 Submitted by: ROB CAMERON

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Hg	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Tl	Hg	Se	Te	Ga	S	
	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	%	ppm	ppm	ppb	ppm	ppm	ppm	%
75000	.5	21.8	16.1	65.4	137	20.3	13.0	819	2.40	101.3	2.9	18.6	2.9	150.1	.30	.72	.16	43	.95	.053	13.8	20.0	.44	329.5	.041	2	1.32	.02	.04	<.2	.08	38	.5	.06	4.1	.06	
75001	.6	44.0	15.6	89.8	208	39.9	15.2	398	3.71	311.5	2.0	19.2	5.4	50.1	.21	1.14	.18	73	.77	.047	16.9	47.9	1.10	420.9	.085	1	2.11	.02	.17	<.2	.18	20	.4	.05	6.5	<.01	
75002	1.2	28.4	16.4	67.5	119	28.6	13.5	472	3.07	326.4	1.5	14.4	5.1	47.3	.25	1.35	.26	56	.54	.032	14.7	33.2	.53	356.0	.064	1	1.76	.02	.07	.2	.10	23	.7	.07	5.5	<.01	
75003	1.3	26.9	19.7	80.0	76	32.4	14.9	431	3.11	279.5	.8	15.0	5.4	48.2	.42	1.12	.23	53	.47	.045	15.0	35.6	.63	277.8	.069	1	1.71	.02	.09	.4	.08	25	.6	.07	5.3	<.01	
75004	1.1	39.4	19.5	96.6	175	51.5	14.0	492	3.21	313.6	1.2	15.5	6.4	64.8	.59	1.16	.30	53	.66	.061	17.9	84.7	1.21	333.1	.068	1	2.17	.02	.08	.2	.19	31	.6	.06	6.9	<.01	
75005	1.0	22.7	18.9	67.9	81	26.5	11.9	484	2.72	91.1	.6	6.6	4.2	48.4	.24	.79	.21	53	.52	.037	13.3	32.7	.55	355.0	.072	1	1.72	.02	.07	.2	.08	22	.5	.05	5.1	<.01	
75006	.9	40.1	19.3	82.5	527	31.0	14.2	345	3.30	459.1	1.6	69.3	5.6	55.1	.33	1.28	.25	56	.51	.035	14.7	34.2	.58	581.5	.071	1	1.95	.02	.09	.2	.09	36	.4	.15	6.0	<.01	
75007	1.1	32.0	15.4	64.0	422	21.9	9.4	443	2.17	343.2	1.6	23.3	1.5	204.1	.58	1.25	.18	30	2.39	.083	8.7	22.7	.44	457.3	.027	3	1.19	.03	.08	<.2	.08	72	.9	.09	3.5	.09	
75008	2.6	33.8	28.3	65.5	636	30.0	10.2	212	3.20	1580.6	1.1	38.4	5.6	116.0	.36	3.22	.39	38	.15	.037	16.6	20.5	.27	446.1	.028	1	1.16	<.01	.13	.2	.07	9	1.2	.20	3.4	.12	
75009	.6	20.5	10.6	50.2	109	20.5	11.2	448	2.56	145.5	.8	5.7	5.0	77.7	.25	.89	.15	43	.89	.035	15.4	21.3	.44	298.0	.043	1	1.34	.03	.08	<.2	.06	19	.6	.05	4.4	.02	
75010	2.2	51.0	12.5	102.5	196	50.9	18.6	654	4.01	692.1	.9	8.6	5.4	61.3	.32	2.79	.24	71	.45	.041	20.1	60.3	1.18	746.2	.037	1	2.30	.02	.08	<.2	.11	15	.9	.09	7.0	<.01	
75011	2.5	27.5	14.6	35.1	709	25.3	6.0	159	2.90	1262.9	.7	30.2	2.9	121.4	.29	2.80	.37	32	.48	.050	12.9	12.0	.14	622.5	.018	2	.75	<.01	.17	.3	.08	20	1.3	.21	3.0	.13	
75012	.8	27.4	11.5	53.8	135	25.0	12.8	912	2.79	363.2	1.6	6.4	4.1	63.9	.22	1.08	.22	49	.61	.031	14.8	29.3	.46	724.4	.061	1	1.77	.02	.08	<.2	.06	21	.6	.05	5.4	<.01	
75013	.6	31.6	11.8	59.2	52	26.6	11.8	375	3.02	41.9	1.2	5.8	6.6	36.8	.09	.88	.20	56	.50	.036	20.8	35.2	.53	417.2	.082	1	1.89	.02	.05	<.2	.07	43	.2	.04	5.5	<.01	
75014	.7	18.2	11.1	51.5	30	20.6	9.5	225	2.76	64.2	.6	2.0	4.5	27.2	.19	.70	.17	50	.36	.029	14.8	28.5	.42	226.9	.057	1	1.60	.02	.06	<.2	.07	15	.5	.03	5.0	<.01	
75151	1.3	30.4	18.7	75.7	287	31.2	11.1	520	2.64	736.3	1.8	29.6	5.6	97.9	.30	.98	.24	43	1.04	.052	19.5	38.7	.66	232.6	.051	2	1.60	.02	.10	.5	.12	31	.7	.07	5.0	.02	
75152	8.0	11.6	1.0	25.2	27	5.5	.9	124	.15	16.3	1.7	1.5	.3	200.5	.64	.31	.11	3	3.13	.077	1.4	1.7	.21	164.5	.004	10	.11	.02	.04	<.2	.06	83	.8	.07	2	.13	
75153	1.0	20.2	12.4	38.0	160	11.0	4.1	121	1.21	196.9	1.3	13.1	5.9	80.2	.36	.83	.13	17	.93	.059	16.8	10.2	.19	195.2	.022	2	.57	.01	.06	<.2	.04	72	.7	.06	1.7	.06	
75154	.9	33.3	20.8	69.1	336	25.6	9.5	375	2.43	474.4	2.3	27.5	3.5	154.2	.35	1.20	.24	37	1.73	.051	15.1	30.2	.59	419.5	.044	2	1.48	.02	.09	<.2	.11	41	.9	1.0	4.7	.08	
75155	1.4	23.2	3.9	55.4	99	14.6	3.7	397	.61	96.3	1.7	10.0	.3	301.2	.41	.65	.05	11	4.37	.077	3.8	5.0	.25	409.4	.008	10	.30	.02	.04	<.2	.05	53	.6	.06	.8	.11	
75156	.9	13.5	12.8	41.7	89	10.7	4.4	238	1.35	239.0	.9	6.9	4.6	67.6	.29	.58	.16	14	.94	.037	13.2	13.7	.47	156.3	.022	1	.81	.01	.08	.2	.10	19	.4	.05	2.7	.03	
RE 75156	.9	12.5	12.3	40.8	87	10.7	4.2	230	1.31	228.7	.9	9.5	4.5	65.7	.29	.56	.16	14	.92	.036	12.4	12.3	.45	150.0	.020	1	.76	.01	.07	<.2	.08	21	.4	.04	2.5	.02	
75157	1.6	53.8	60.0	213.5	270	85.5	14.6	681	2.58	173.0	3.0	6.9	2.3	160.2	1.32	.79	.50	48	1.95	.071	13.1	130.4	1.53	757.7	.059	2	1.69	.02	.13	<.2	.22	42	1.1	.07	5.3	.04	
75158	.7	22.6	8.7	72.4	78	10.1	7.9	506	2.97	101.6	1.0	4.9	5.8	32.6	.10	.33	.19	38	.45	.035	17.1	19.8	1.33	330.4	.061	1	1.89	<.01	.19	<.2	.17	7	.1	.02	6.5	<.01	
75159	1.9	21.2	7.0	51.0	213	12.3	3.2	257	.62	27.7	1.3	2.9	.5	172.7	1.73	.43	.07	11	3.03	.083	8.6	9.7	.25	496.8	.015	5	.45	.01	.05	<.2	.06	69	1.0	.03	1.1	.17	
75160	.8	10.8	20.6	66.1	59	9.5	5.9	394	2.03	84.8	1.6	3.0	13.3	39.8	.17	.43	.25	26	.37	.079	31.0	9.7	.69	163.5	.049	<1	.92	.01	.18	.3	.17	<5	.2	.02	3.6	<.01	
75161	.8	11.2	20.1	52.0	49	11.1	5.3	352	1.61	77.4	1.4	2.9	8.8	30.8	.19	.41	.19	22	.33	.078	20.2	14.0	.47	165.2	.042	<1	.71	.01	.11	.3	.12	<5	.6	.02	2.5	<.01	
75162	.7	8.7	17.8	61.0	43	8.0	5.3	383	1.85	69.6	1.5	1.5	12.0	38.0	.15	.34	.19	24	.35	.078	27.0	8.4	.64	146.6	.051	<1	.86	.01	.15	.2	.15	<5	.2	<.02	3.2	<.01	
75163	1.0	13.7	20.1	66.6	76	11.6	6.6	400	2.05	95.3	1.7	41.6	9.6	47.8	.22	.50	.19	37	.41	.091	24.0	14.7	.50	171.9	.060	<1	.77	.01	.10	.3	.11	6	.2	.02	3.0	<.01	
75164	2.4	33.7	35.3	105.0	157	31.2	17.1	1067	3.98	381.1	3.3	8.7	6.6	69.2	.75	1.20	.27	59	.74	.093	20.6	38.3	.75	305.1	.060	2	1.36	.02	.14	.3	.13	14	.9	.06	4.7	.03	
75165	1.2	15.5	24.4	86.6	80	13.4	8.0	422	2.55	120.8	1.5	30.3	9.2	36.5	.26	.58	.20	56	.40	.110	23.8	20.3	.47	189.4	.073	<1	.71	<.01	.08	.6	.10	<5	.3	.02	3.4	<.01	
75166	1.1	14.7	22.2	68.8	70	13.3	7.2	417	2.15	136.9	1.6	5.2	9.5	39.9	.26	.55	.21	38	.39	.092	23.0	16.8	.48	171.1	.057	<1	.77	<.01	.08	.3	.10	<5	.4	<.02	3.0	<.01	
75167	.8	10.6	24.2	52.4	52	10.1	5.7	385	1.83	251.3	1.6	4.0	18.3	30.6	.16	.43	.18	15	.28	.058	28.9	11.5	.60	161.9	.028	<1	.85	<.01	.15	.4	.16	<5	.2	<.02	2.8	<.01	
75168	1.3	125.8	35.9	155.6	244	91.2	23.8	822	4.30	411.4	4.0	5.2	8.5	140.7	.46	.47	.30	63	2.08	.084	18.3	162.8	2.59	132.0	.060	1	2.31	.01	.35	.3	.34	<5	1.0	.05	7.6	.29	
75169	1.1	64.2	76.6	240.8	179	37.0	20.1	691	3.79	251.7	1.4	5.9	6.0	36.7	.62	.34	.40	52	.60	.099	12.9	68.9	2.05	130.1	.075	1	1.97	<.01	.36	1.5	.34	15	.8	.05	6.1	.19	
STANDARD DS2	13.6	124.6	31.7	157.0	268	34.4	12.9	790	3.17	59.9	20.3	192.7	3.4	26.6	11.32	8.81	11.77	70	.55	.082	15.9	151.7	.55	132.6	.093	2	1.69	.04	.14	7.5	2.37	225	2.3	1.74	5.9	<.01	

15 GRAM SAMPLE IS DIGESTED WITH 90 ML 2-2-Z HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 300 ML WITH WATER, ANALYSIS BY ICP/ES & MS. THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR NG BA TI B W AND LIMITED FOR NA K GA AND AL.

- SAMPLE TYPE: soil Samples beginning 'RE' are Returns and 'RRE' are Reject Returns.

DATE RECEIVED: JUN 15 1999 DATE REPORT MAILED: June 22/99 SIGNED BY: C. Leong, J. Wang; CERTIFIED B.C. ASSAYERS

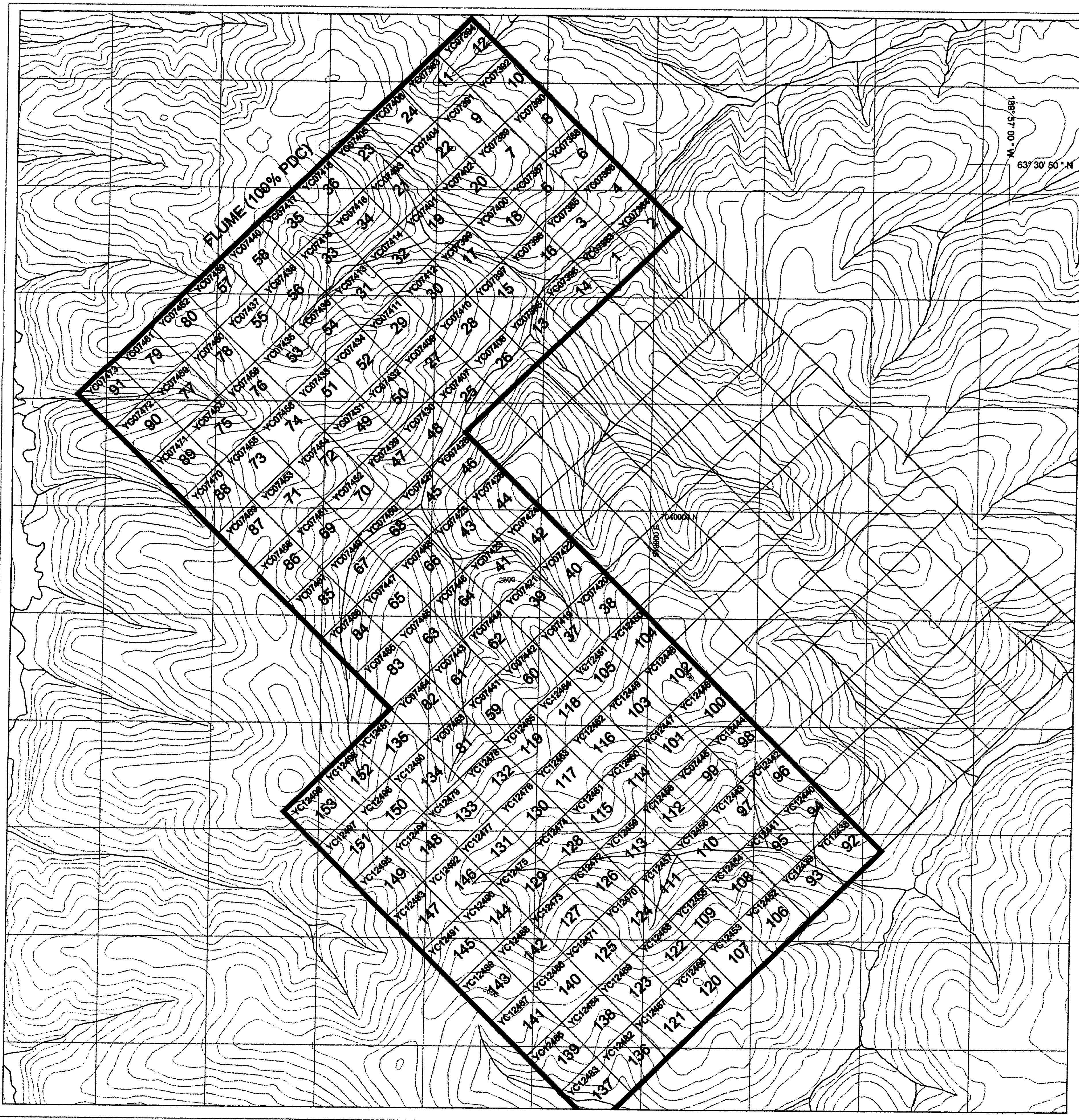
All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only. Data d FA



SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ml	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Tl	Hg	Se	Te	Ga	S
	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	X	X	ppm	ppm	%	ppm	%	%	%	%	%	ppm	ppm	ppb	ppm	ppm	ppm	%
75170	1.2	65.8	100.3	219.0	239	41.2	26.0	737	4.31	266.1	1.8	5.5	6.9	51.9	.50	.43	.48	57	.83	.095	14.6	73.6	2.43	137.1	.076	1	2.26	<.01	.42	.3	40	13	.9	.06	6.8	.20
75076	.8	22.3	18.3	45.0	285	20.4	11.7	581	2.65	33.5	.8	6.7	3.5	50.1	.21	.63	.20	66	.65	.020	12.2	30.4	.44	490.6	.065	2	2.02	.02	.05	<.2	.11	25	.4	.04	6.2	.05
75077	.7	20.5	12.8	44.6	99	18.0	10.8	782	2.49	55.1	.5	6.1	2.6	30.1	.20	.58	.19	50	.38	.031	10.2	27.8	.40	319.9	.064	1	1.69	.02	.07	<.2	.07	23	.4	.03	5.3	.02
75078	.9	17.7	13.9	31.5	89	16.1	11.3	808	2.24	38.9	.7	4.5	4.3	27.0	.16	.55	.23	38	.36	.047	15.0	21.6	.33	300.2	.040	2	1.52	.02	.07	<.2	.06	25	.4	.03	4.7	.04
75079	1.1	15.8	9.4	41.4	79	18.8	10.9	492	2.56	61.9	.5	10.1	3.9	19.7	.11	.65	.18	55	.24	.045	11.2	31.7	.43	327.5	.058	1	1.86	.02	.06	<.2	.07	16	.2	.03	5.4	.02
75080	.5	20.5	9.2	44.9	50	19.1	11.0	415	2.78	37.8	.7	14.7	4.1	36.5	.08	.76	.18	54	.63	.022	11.0	32.3	.52	305.4	.079	1	1.70	.03	.05	<.2	.04	20	.5	.03	4.9	.04
75081	1.5	32.3	9.5	57.9	183	29.7	8.8	218	3.30	995.9	1.0	58.5	4.6	49.5	.18	1.28	.25	59	.59	.055	13.2	34.8	.50	493.5	.061	1	1.84	.01	.11	<.2	.08	29	1.1	.09	5.4	.09
RE 75081	1.6	30.6	9.7	54.7	183	28.5	9.3	205	3.13	929.0	1.0	59.8	4.5	48.6	.17	1.31	.26	55	.56	.052	12.9	34.5	.50	492.1	.063	1	1.83	.01	.13	<.2	.08	35	1.1	.08	5.3	.08
75082	.7	25.1	11.3	48.0	56	23.6	12.5	419	2.79	60.8	.6	18.9	4.3	29.6	.11	.85	.19	56	.48	.018	14.5	33.5	.54	258.7	.072	1	1.85	.02	.06	<.2	.06	46	.6	.03	5.3	.02
75083	.8	20.4	23.3	42.4	95	16.4	6.9	211	2.61	117.6	.4	5.3	2.9	26.6	.16	1.44	.19	56	.35	.018	8.8	28.7	.37	289.6	.053	2	1.90	.02	.05	<.2	.09	33	.3	.03	5.9	.03
75084	1.2	18.3	8.9	41.5	247	20.7	5.8	156	2.12	477.2	.6	29.2	1.9	24.0	.09	.62	.22	46	.23	.030	9.6	21.3	.28	222.2	.038	1	1.39	.01	.05	<.2	.11	36	.3	.07	6.1	.01
75085	2.0	22.3	10.5	40.7	216	20.2	5.2	225	2.45	858.6	.7	20.7	1.4	14.7	.19	.99	.27	65	.12	.045	9.8	19.6	.22	166.8	.061	1	1.20	.01	.04	<.2	.12	29	.5	.11	6.9	.05
75086	1.2	16.7	9.9	44.4	132	17.6	6.9	173	2.81	137.3	.4	5.4	2.5	17.2	.24	.64	.21	70	.20	.045	8.6	29.9	.39	248.9	.069	1	1.85	.01	.04	<.2	.09	18	.3	.04	6.2	<.01
75087	2.0	39.5	12.8	78.1	197	34.3	13.9	417	3.08	795.2	2.7	58.2	5.2	51.2	.52	1.75	.22	48	.52	.058	15.4	27.3	.48	572.6	.044	1	1.48	.02	.07	<.2	.07	30	1.0	.07	4.4	.05
75088	1.2	39.2	13.9	46.4	693	25.5	7.7	155	2.30	134.1	3.0	55.9	2.2	97.7	.43	.97	.20	35	.81	.062	16.0	30.8	.46	927.7	.028	1	1.77	.02	.06	<.2	.13	117	.8	.05	5.0	.08
75089	3.1	43.9	10.6	98.2	421	35.3	10.0	234	2.92	461.4	1.9	25.1	2.0	24.4	.42	2.33	.24	41	.25	.095	14.5	25.6	.44	175.2	.040	1	1.24	.01	.09	<.2	.16	70	1.8	.10	4.7	.09
75090	.6	30.4	8.4	40.1	607	15.8	3.6	112	1.14	72.0	1.9	10.9	.2	16.6	.37	.73	.22	16	.14	.080	9.4	22.7	.26	136.0	.019	1	.89	.01	.04	<.2	.21	145	1.6	.05	4.0	.09
75091	.9	34.1	2.7	39.4	446	22.2	9.6	225	1.23	44.8	2.2	11.2	.7	26.0	.76	.80	.07	5	.34	.151	6.9	7.0	.07	405.7	.011	2	.54	.02	.04	<.2	.08	178	1.4	.02	.6	.07
75092	2.6	43.5	10.5	88.1	920	30.0	8.2	269	2.36	404.9	3.0	39.8	.5	20.6	.52	1.74	.24	38	.13	.107	12.4	27.7	.38	328.8	.016	1	1.46	.01	.05	<.2	.16	165	1.9	.08	4.8	.08
75225	1.1	17.5	12.5	69.9	101	18.9	10.3	427	2.36	95.0	.8	5.6	3.5	33.7	.31	.65	.20	52	.61	.066	12.6	30.2	.66	175.7	.077	2	1.34	.03	.08	.3	.11	72	.7	.05	4.6	.04
75226	1.9	16.2	16.7	65.3	140	16.4	9.2	371	2.15	244.7	1.2	7.6	4.9	36.5	.26	.52	.24	40	.57	.060	17.7	27.2	.64	174.0	.053	1	1.36	.02	.06	.4	.14	61	.8	.04	4.5	.06
75227	2.0	20.2	25.1	72.8	257	21.7	11.5	581	2.65	458.0	1.8	10.0	7.6	66.2	.34	.82	.27	41	1.06	.074	28.6	26.6	.64	232.3	.042	2	1.45	.02	.08	.4	.18	62	.8	.05	4.8	.11
75228	2.0	39.0	43.9	120.5	244	36.1	12.6	700	2.47	211.0	1.8	10.0	4.8	65.6	.55	.65	.35	40	1.65	.068	20.2	46.3	.98	243.6	.058	3	1.48	.02	.11	.3	.30	71	1.2	.06	4.4	.14
75229	1.0	19.5	22.8	77.1	175	18.3	9.0	500	2.19	485.0	2.4	23.9	6.1	58.0	.38	.70	.33	34	1.09	.064	28.2	25.1	.56	276.4	.046	3	1.30	.02	.07	.4	.20	76	.5	.09	4.2	.10
75230	1.4	12.4	11.6	45.5	137	11.6	4.7	126	1.71	115.3	1.0	6.0	3.1	22.2	.14	.39	.18	30	.30	.038	20.1	20.2	.40	131.3	.044	1	1.17	.01	.05	.3	.16	34	.4	.04	4.3	.03
75231	.7	12.4	9.2	25.2	122	7.8	2.6	60	1.25	33.7	.7	5.8	1.5	13.4	.09	.26	.16	25	.13	.037	11.1	17.2	.22	81.9	.032	1	.99	.01	.04	.2	.12	56	.3	.03	4.5	.03
75232	1.0	12.4	17.0	58.0	86	13.1	7.4	255	2.18	99.1	1.0	110.0	6.8	18.6	.20	.44	.23	40	.27	.058	18.8	22.7	.49	159.1	.053	1	1.53	.01	.05	.4	.11	30	.5	.04	4.5	<.01
75233	.9	25.2	1.8	11.3	167	7.2	1.3	353	.26	2.0	.3	3.2	.5	115.4	.68	.18	.02	5	3.76	.099	10.4	3.1	.11	241.2	.004	3	.21	.01	.04	<.2	.19	135	1.2	.03	.2	.25
75234	1.2	13.9	10.8	36.3	29	16.6	5.7	125	2.16	17.6	.7	8.5	1.6	10.5	.16	.45	.20	63	.12	.028	8.1	28.1	.42	71.5	.073	1	1.29	<.01	.03	<.2	.11	30	.3	.04	6.3	.02
75235	1.9	20.8	27.0	36.6	466	12.5	4.8	65	1.57	13.3	1.0	1.9	.1	15.4	1.11	.30	.25	28	.16	.069	8.8	18.0	.24	163.2	.008	1	1.05	.01	.04	<.2	.12	47	.9	.03	4.1	.04
STANDARD DS2	13.5	126.9	31.3	159.7	275	35.1	12.7	791	3.23	63.6	20.8	202.7	3.6	27.9	11.81	9.46	11.99	71	.59	.091	16.2	164.2	.61	139.9	.098	2	1.78	.04	.14	7.2	2.44	237	2.4	1.88	6.2	.02

Sample type: soil. Samples beginning "RE" are Reruns and "ARE" are Reject Reruns.

\*\* TOTAL PAGE.003 \*\*



### Symbols

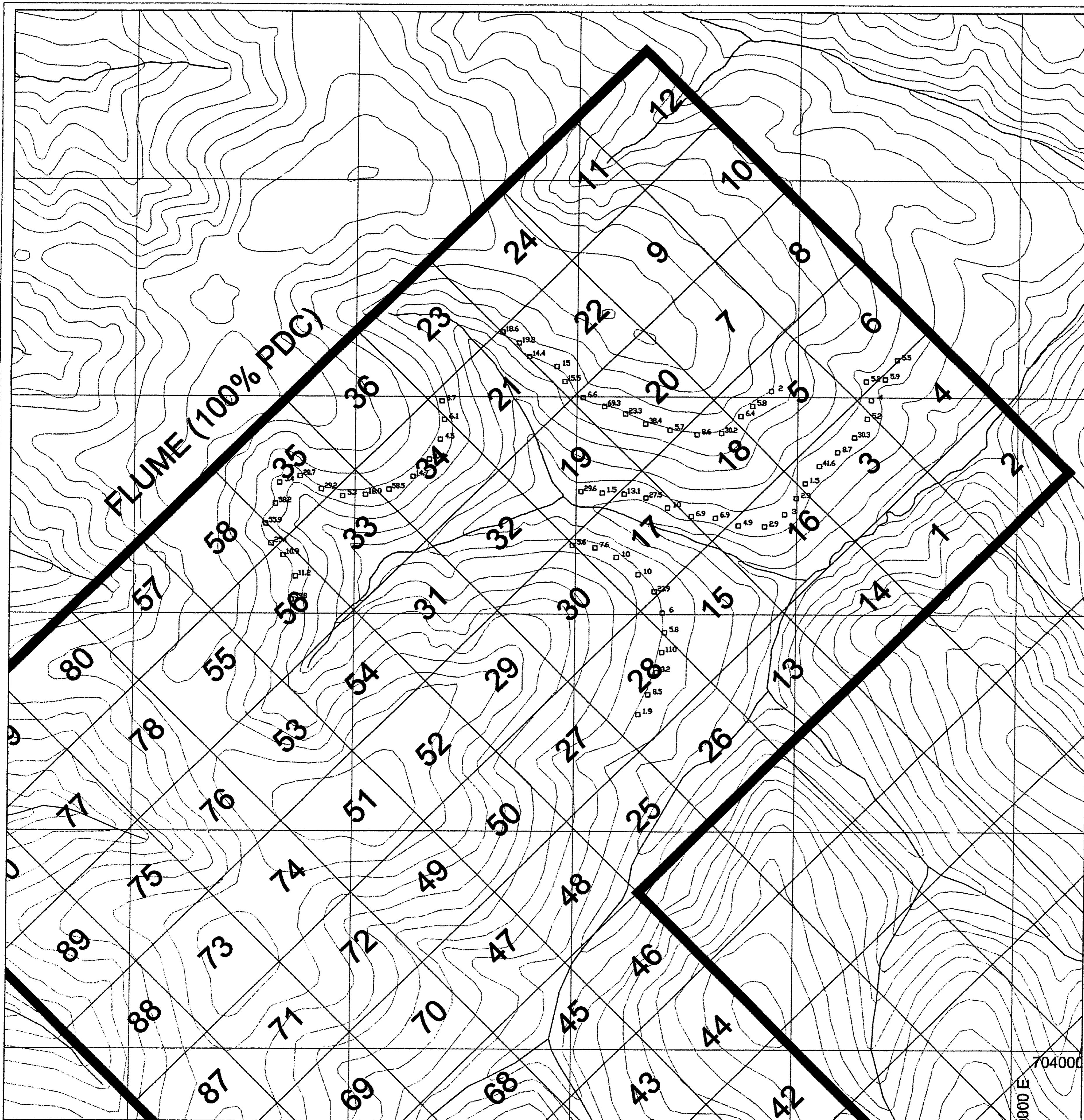
- Elevation contours (c.i. 100 ft)
- Streams
- UTM Grid (Zone 7)
- Claim unit boundaries with claim and tenure numbers
- Flume claim block boundary

094 ° 49



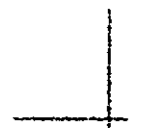


contour interval in feet


PHELPS DODGE CORPORATION OF CANADA, LIMITED	
PROJECT NO. 242	YUKON TERRITORY
<b>FLUME PROJECT</b>	
Claims	
DATE: Dec. 1989	SCALE: 1:25,000
DRAWN BY: SWJ. and GFC	FIGURE: 2





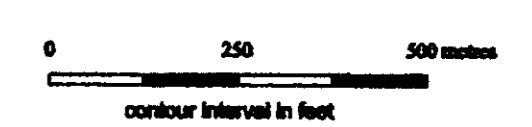
### Symbols

-  Elevation contours  
(c.i. 100 ft)
-  Streams
-  UTM Grid (Zone 7)
-  Claim unit boundaries  
with claim numbers
-  Flume claim block  
boundary

 <sup>15</sup> Soil sample location  
with Au in ppb



D94 049



PHELPS DODGE CORPORATION OF CANADA, LIMITED	
PROJECT NO. 242	YUKON TERRITORY
<b>FLUME PROJECT</b>	
Gold In Soil	
DATE: Dec. 1989	SCALE: 1:10,000
DRAWN BY: SW, and GK	FIGURE: 4

704000  
9000 E

