

**SUB-RECORDER  
RECEIVED**  
AUG 27 1991  
M.R. #.....\$.....  
VANCOUVER, B.C.

LOG NO: SEP 09 1991 RD.  
ACTION:  
FILE NO:

Beekeeper Property  
Soil Survey Orientation and Petrographic Study  
NTS: 93A/6W  
Cariboo Mining Division  
Claims: Beekeeper 4 #8503

Latitude: 52 degrees 24 minutes North  
Longitude: 121 degrees 20 minutes West

Owner/Operator: Eastfield Resources Ltd.  
110 - 325 Howe Street  
Vancouver, BC  
V6C 1Z7

Author: J.W. Morton, P.Geo.  
August, 1991

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**21,620**

Table of Contents

Page No.

Summary.....1  
Location, Access and Physiography.....1  
Claim Status.....1  
Geology.....2  
Technical Discussion and Conclusions.....2

List of Figures

- Figure 1 - Claim Location Map with Petrographic Sample Locations
- Figure 2 - Soil Sample Location Map
- Figure 3 - Soil Geochemistry

Appendices

1. Geochemical Certificates
2. Petrographic Descriptions

Summary

A soil sampling orientation program was completed in preparation for a large (plus 1500 sample) survey which was to follow. This orientation entailed digging three soil pits and sampling each in duplicate at three depths. Samples were then sieved to several size fractions and analyses completed on the -150 and the -80+150 fractions. Based on the results of this orientation, it was observed that consistency and gold response were enhanced in the -150 mesh fraction. It was decided to use the -150 mesh fraction in the larger survey which was to follow. Three rock samples were sampled and petrographically examined in preparation for a larger field mapping program which was to follow.

Location, Access and Physiography

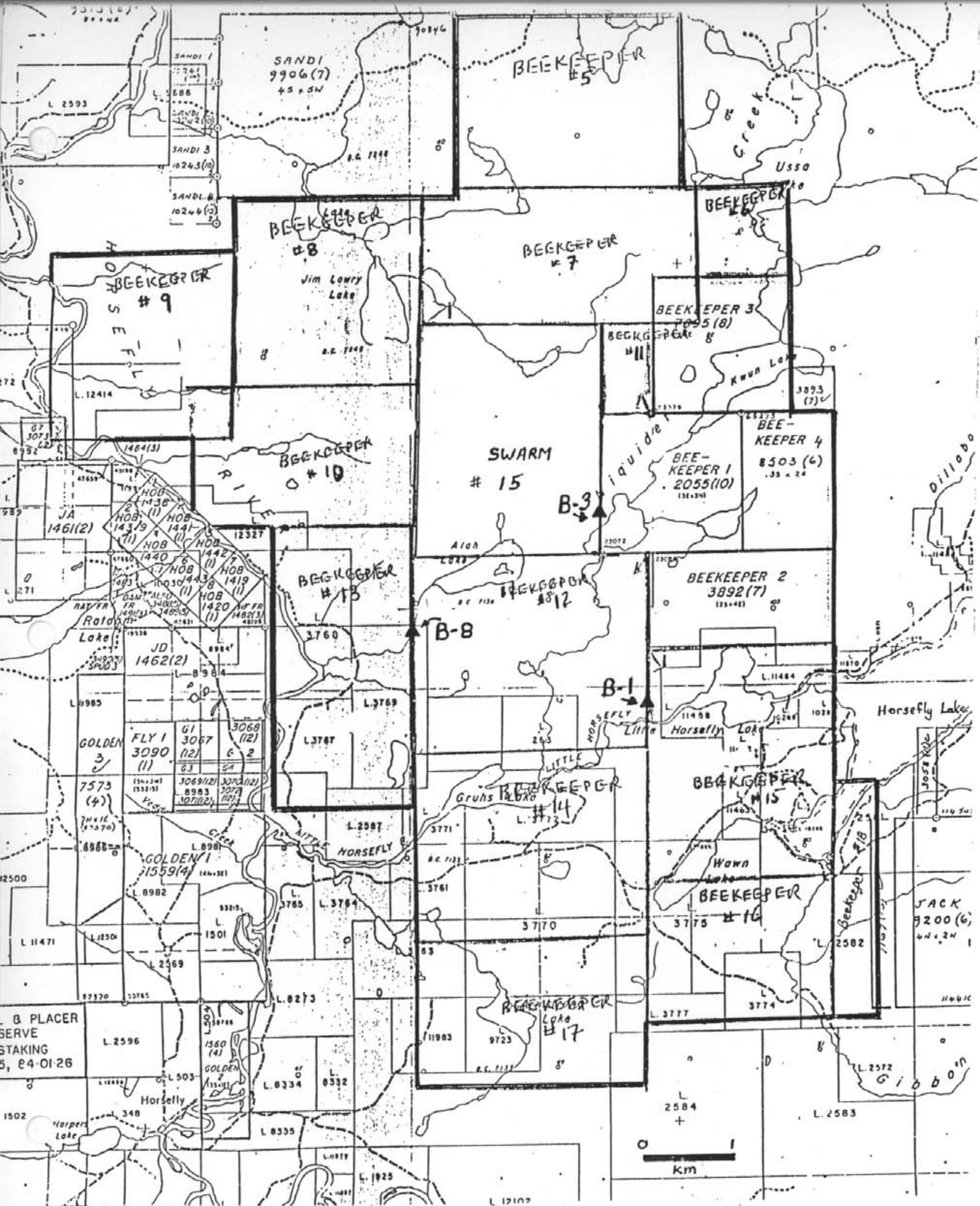
The Beekeeper property is located 60 kilometers northeast of Williams Lake (Figure 1) and 10 kilometers northeast of Horsefly in central British Columbia (NTS: 93A/6).

Road access is via 70 kilometers of paved road between 150 Mile House and Horsefly and then via 4 kilometers of gravel road toward Horsefly Lake and 8 kilometers of gravel and ranching roads into the property.

The area is characterized by low drumlin-like hills approximately 50 meters high. Elevations on the property vary between 840 meters and 920 meters above sea level. Vegetation consists mainly of open fir-pine-aspen-birch forest although small sections of the claim block have been cleared to promote cattle and some areas have been selectively logged.

Claim Status

<u>Claim Name</u>	<u>No. of Units</u>	<u>Record No.</u>	<u>Expiry Date</u>
Beekeeper 1	9	2055	10/01/92
Beekeeper 2	8	3892	07/27/92
Beekeeper 3	9	7895	08/21/92
Beekeeper 4	6	8503	06/18/92
Beekeeper 5	20	11126	05/24/92
Beekeeper 6	4	11133	05/23/92
Beekeeper 7	18	11127	05/25/92
Beekeeper 8	16	11128	05/27/92
Beekeeper 9	16	11135	05/25/92
Beekeeper 10	15	11134	05/26/92
Beekeeper 11	2	11132	05/23/92
Beekeeper 12	20	11136	05/23/92
Beekeeper 13	18	11129	05/27/92
Beekeeper 14	20	11130	05/27/92
Beekeeper 15	20	11138	05/21/92
Beekeeper 16	12	11131	05/24/92
Beekeeper 17	15	11137	05/26/92



Claim Location Map with Petrographic Sample Locations

<u>Claim Name</u>	<u>No. of Units</u>	<u>Record No.</u>	<u>Expiry Date</u>
Beekeeper 18	5	302136	06/13/92
Swarm 1	1	10924	10/25/91
Swarm 2	1	10925	10/25/91
Swarm 3	1	10926	10/25/91
Swarm 4	1	10927	10/25/91
Swarm 5	1	10828	10/25/91
Swarm 6	1	10929	10/25/91
Swarm 7	1	10930	10/25/91
Swarm 8	1	10931	10/25/91
Swarm 9	1	10932	10/25/91
Swarm 10	1	10933	10/25/91
Swarm 11	1	10934	10/25/91
Swarm 12	1	10935	10/25/91
Swarm 13	1	10936	10/25/91
Swarm 14	1	10937	10/25/91
Swarm 15	<u>20</u>	10965	10/30/91
Total 32	267		

### Geology

The Beekeeper property lies near the centre of the 30 kilometer wide Quesnel Trough - a regionally fault-bounded belt of Triassic-Jurassic volcano - sedimentary rocks.

Near Horsefly, the oldest rocks form a basal unit of greywacke, siltstone and minor limestone (Panteleyev, 1987) which are overlain by approximately 5,000 meters of Upper Triassic subaqueous calc-alkalic basalt flows, flow breccia, lahar and local epiclastic rocks. Overlying this basalt pile and generally in fault contact with it are Lower Jurassic polyolithic felsic volcanoclastic rocks. Associated with the volcanic pile are cogenetic stocks of diorite to monzonite compositions. Those rocks that commonly host ore are usually spatially associated with these stocks.

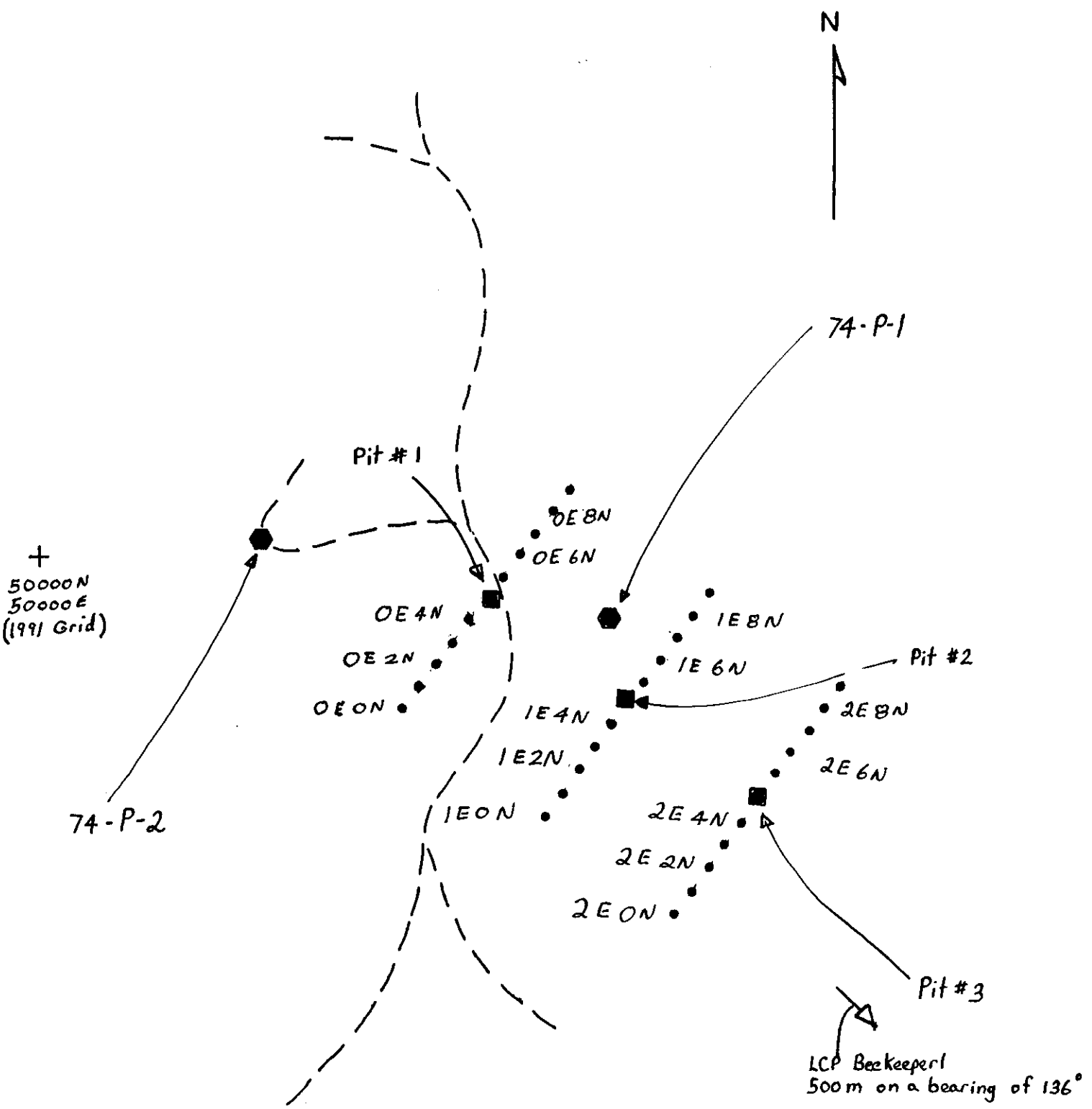
### Technical Discussion and Conclusions

Three soil pits were dug to a depth of approximately 75 cm. These pits were then sampled at three intervals in duplicate. The top 25 cm of the pits (sample A) contain an indistinct B horizon while the central interval (sample B) contains a more weakly developed soil interval and the bottom 25 cm (sample C) is essentially parent material. Parent material in all pits is a compact rich boulder till. Percussion drill holes 74-P-1 and 74-P-2 drilled in the vicinity of the test pits in 1974, encountered 3 meters and 20 meters of overburden respectively. A 30 sample soil grid was subsequently established over the soil pit area.

A breakdown of the results of the sampling is as follows:

<u>Sample No.</u>	<u>-80+150 Mesh Fraction</u>	<u>-150 Mesh Fraction</u>
<u>Part 1</u>		
1A	9	180
1A duplicate	73	91
1B	69	49
1B duplicate	11	95
1C	11	9
1C duplicate	14	12
<u>Part 2</u>		
2A	8	23
2A duplicate	19	61
2B	12	32
2B duplicate	13	63
2C	10	34
2C duplicate	9	23
<u>Part 3</u>		
3A	1	1
3A duplicate	1	1
3B	1	21
3B duplicate	10	9
3C	3	72
3C duplicate	4	6
Mean	15.4 ppb	42.8 ppb

Following a review of these results, it was decided to use the -150 mesh fraction in the larger survey which was to follow. Petrographic descriptions appear in the appendix of this report and are located on the location map.



SOIL sample Location Map	
●	soil sample site
■	soil test pit
⬡	percussion drill hole

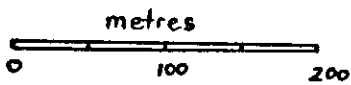
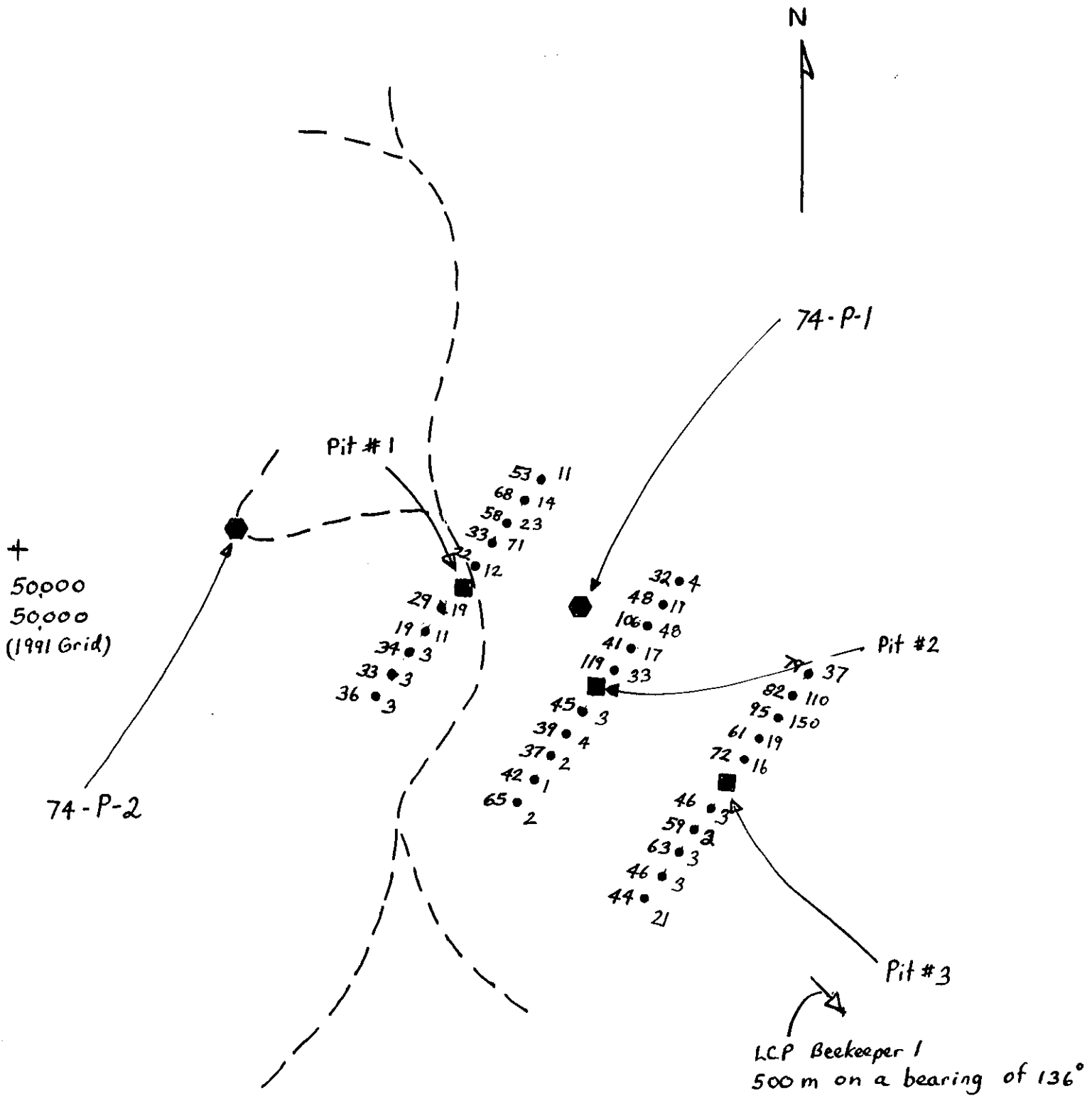


Figure 2



Soil Geochemistry	
Cu (ppm)	• soil sample site
Au (ppb)	• soil sample site
	■ soil test pit
	● Percussion drill hole

ice direction



Figure 3



Cost Statement

Professional Fees:

J.W. Morton 1.5 days @ \$350/day \$ 525.00

Field Personnel Fees:

E. MacKenzie 0.5 day @ \$200/day 100.00

A. Fahlman 0.5 day @ \$200/day 100.00

D. Dunlop 0.5 day @ \$200/day 100.00

Analyses:

Soil 18 pit samples 253.00

Petrographic 3 samples 234.00

Report Preparation:

300.00

TOTAL

\$1,612.00

Statement of Qualifications

I, James William Morton of 771 Morgan Road, North Vancouver, BC, do hereby certify the following:

1. I am a registered Professional Geoscientist of the Province of British Columbia (registration No. 18303).
2. I am employed by Mincord Exploration Consultants Ltd. of suite 110 - 325 Howe Street, Vancouver, BC.
3. I graduated from Carleton University, Ottawa, ON in 1971 with a Bachelor of Science in Geology.
4. I graduated from the University of British Columbia, Vancouver, BC in 1976 with a Master of Science in Soil Science.
5. I am a fellow of the Geological Association of Canada.
6. I supervised the work described in this report.



---

J. W. Morton, P. Geo.

Dated at Vancouver, British Columbia this 16th day of August, 1991.

APPENDIX 1  
GEOCHEMICAL CERTIFICATES

## GEOCHEMICAL ANALYSIS CERTIFICATE

Mincord Exploration Consultants Ltd. PROJECT BEEKEEPER FILE # 91-1574 Page 1

110 - 325 Howe St., Vancouver BC V6C 1Z7 Attn: J.W. MORTON

SAMPLE#	TOTAL SAMPLE wt. gm wt. gm
BKP1A-1 (+40)	420 254.52
BKP1A-2 (+40)	510 333.56
BKP1B-1 (+40)	500 298.68
BKP1B-2 (+40)	460 270.45
BKP1C-1 (+40)	410 311.61
BKP1C-2 (+40)	390 296.53
BKP2A-1 (+40)	400 298.49
BKP2A-2 (+40)	570 478.56
BKP2B-1 (+40)	510 438.37
BKP2B-2 (+40)	450 361.40
BKP2C-1 (+40)	480 319.99
BKP2C-2 (+40)	470 336.62
BKP3A-1 (+40)	440 213.14
BKP3A-2 (+40)	340 174.38
BKP3B-1 (+40)	410 278.78
BKP3B-2 (+40)	430 302.93
BKP3C-1 (+40)	490 373.71
BKP3C-2 (+40)	540 430.10

- SAMPLE TYPE: P1 TO P4 SOIL P5 ROCK

DATE RECEIVED: JUN 3 1991

DATE REPORT MAILED: June 13/91

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

SAMPLE#	SAMPLE wt. gm
BKP1A-1 (-40+80)	60.55
BKP1A-2 (-40+80)	68.33
BKP1B-1 (-40+80)	76.86
BKP1B-2 (-40+80)	68.61
BKP1C-1 (-40+80)	38.09
BKP1C-2 (-40+80)	34.70
BKP2A-1 (-40+80)	31.65
BKP2A-2 (-40+80)	27.09
BKP2B-1 (-40+80)	24.66
BKP2B-2 (-40+80)	25.17
BKP2C-1 (-40+80)	66.53
BKP2C-2 (-40+80)	59.26
BKP3A-1 (-40+80)	61.40
BKP3A-2 (-40+80)	44.16
BKP3B-1 (-40+80)	41.32
BKP3B-2 (-40+80)	44.96
BKP3C-1 (-40+80)	49.47
BKP3C-2 (-40+80)	49.23

SAMPLE#	SAMPLE wt. gm
BKP1A-1 (-80+150)	50.39
BKP1A-2 (-80+150)	47.19
BKP1B-1 (-80+150)	51.10
BKP1B-2 (-80+150)	73.57
BKP1C-1 (-80+150)	29.63
BKP1C-2 (-80+150)	17.78
BKP2A-1 (-80+150)	18.19
BKP2A-2 (-80+150)	10.93
BKP2B-1 (-80+150)	11.04
BKP2B-2 (-80+150)	15.72
BKP2C-1 (-80+150)	35.42
BKP2C-2 (-80+150)	30.72
BKP3A-1 (-80+150)	47.91
BKP3A-2 (-80+150)	41.52
BKP3B-1 (-80+150)	17.82
BKP3B-2 (-80+150)	25.76
BKP3C-1 (-80+150)	27.18
BKP3C-2 (-80+150)	23.81

## GEOCHEMICAL ANALYSIS CERTIFICATE

**AA** Mincord Exploration Consultants Ltd. PROJECT BEEKEEPER File # 91-1574 Page 4 **AA**

110 - 325 Howe St., Vancouver BC V6C 1Z7 Submitted by: J.W. MORTON

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au*	SAMPLE
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm	ppb	wt. gm
BKP1A-1 (-150)	1	37	6	89	.3	32	16	396	3.58	10	5	ND	3	79	.2	2	2	71	.64	.135	8	53	.71	67	.18	5	2.51	.02	.10	1	180	38.08
BKP1A-2 (-150)	1	57	3	75	.2	31	15	366	3.76	12	5	ND	3	91	.2	2	2	76	.69	.144	8	51	.77	69	.19	4	2.52	.02	.11	1	91	41.78
BKP1B-1 (-150)	1	71	4	44	.1	34	15	461	3.65	15	5	ND	3	86	.2	2	2	92	.69	.044	10	69	.85	60	.23	4	2.10	.03	.10	1	49	29.87
BKP1B-2 (-150)	1	76	4	46	.1	32	16	452	3.76	14	5	ND	3	95	.2	2	2	94	.74	.051	9	67	.86	58	.24	3	2.33	.03	.09	1	95	24.29
BKP1C-1 (-150)	1	101	3	55	.1	42	14	519	3.78	7	5	ND	4	76	.2	2	2	85	.78	.056	13	80	.93	81	.23	4	2.61	.04	.11	1	9	13.59
BKP1C-2 (-150)	1	98	4	52	.1	43	13	521	3.70	9	5	ND	5	71	.2	2	2	84	.77	.055	12	77	.92	78	.23	3	2.57	.04	.11	1	12	17.98
BKP2A-1 (-150)	1	93	5	181	.3	35	26	657	5.02	18	5	ND	2	64	.5	2	2	87	.59	.232	7	54	.81	97	.19	4	2.91	.02	.10	1	23	35.71
BKP2A-2 (-150)	1	223	2	92	.2	55	32	510	5.79	31	5	ND	3	75	.2	2	2	105	.62	.140	6	55	1.28	55	.19	2	3.19	.02	.10	1	61	20.52
BKP2B-1 (-150)	1	176	2	102	.1	49	30	498	5.61	27	5	ND	3	75	.4	3	2	101	.61	.144	6	55	1.19	53	.19	2	3.09	.02	.09	1	32	19.15
BKP2B-2 (-150)	1	98	2	144	.2	41	26	535	4.72	16	5	ND	3	70	.2	2	2	86	.61	.159	5	50	.87	70	.19	4	2.78	.02	.10	1	63	28.30
BKP2C-1 (-150)	1	147	2	64	.1	45	16	598	3.89	10	6	ND	3	67	.2	2	2	85	.72	.073	10	73	.97	67	.21	3	2.66	.02	.12	1	34	36.59
BKP2C-2 (-150)	1	137	3	60	.1	42	15	561	3.76	9	5	ND	3	62	.2	4	2	82	.68	.062	9	68	.92	64	.21	3	2.56	.02	.10	1	23	33.66
BKP3A-1 (-150)	1	43	2	133	.2	51	13	342	3.37	8	5	ND	3	40	.2	2	7	65	.42	.200	7	60	.78	97	.17	4	2.78	.02	.10	1	1	104.34
BKP3A-2 (-150)	1	39	2	124	.4	51	13	316	3.30	6	8	ND	4	41	.2	2	6	64	.42	.194	8	59	.77	85	.16	3	2.84	.02	.10	1	1	70.75
BKP3B-1 (-150)	1	57	2	115	.3	53	15	370	3.50	8	5	ND	4	42	.3	2	2	72	.43	.133	9	66	.89	93	.18	2	3.02	.02	.10	1	21	52.59
BKP3B-2 (-150)	1	64	2	102	.2	54	14	393	3.48	8	5	ND	4	46	.2	2	2	74	.44	.116	9	69	.90	99	.18	3	3.00	.02	.09	1	9	40.37
BKP3C-1 (-150)	1	144	2	65	.1	78	18	957	4.20	14	5	ND	3	98	.2	2	2	105	.75	.058	10	121	1.32	147	.20	4	3.19	.02	.09	1	72	18.09
BKP3C-2 (-150)	1	133	2	61	.1	76	17	856	4.03	11	5	ND	4	94	.2	2	5	102	.74	.054	10	114	1.29	144	.20	4	3.11	.02	.09	1	6	18.07
STANDARD C/AU-S	18	64	37	132	7.0	70	32	1045	3.90	38	23	6	39	51	19.0	15	20	56	.47	.090	37	58	.85	175	.09	34	1.91	.06	.15	12	46	-

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 MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
- SAMPLE TYPE: P1 TO P4 SOIL P5 ROCK AU\* ANALYSIS BY ACID LEACH/AA FROM 50 GM SAMPLE.

DATE RECEIVED: JUN 3 1991 DATE REPORT MAILED: *June 13/91* SIGNED BY: *Chung* D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS



GEOCHEMICAL ANALYSIS CERTIFICATE



Mincord Exploration Consultants Ltd. PROJECT BEEKEEPER

File # 91-1574R

110 - 325 Howe St., Vancouver BC V6C 1Z7

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au*	SAMPLE
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	%	ppm	ppb
BKP1A-1 (-80+150)	1	32	6	74	3	25	14	357	3.01	13	5	ND	1	55	.2	2	2	64	.50	110	5	42	.67	56	15	6	1.73	.01	.07	1	9	49.94
BKP1A-2 (-80+150)	1	37	2	63	2	29	15	311	3.14	12	5	ND	1	63	.2	2	3	68	.52	117	5	42	.72	55	16	8	1.73	.01	.07	1	73	46.26
BKP1B-1 (-80+150)	1	61	2	38	1	31	14	418	3.17	10	5	ND	1	60	.2	2	2	87	.56	137	7	63	.79	46	19	7	1.59	.02	.06	1	69	50.69
BKP1B-2 (-80+150)	1	57	2	38	1	28	14	388	3.12	11	5	ND	1	66	.2	2	2	86	.57	140	7	59	.77	47	20	4	1.60	.01	.06	1	11	73.25
BKP1C-1 (-80+150)	1	84	6	50	1	37	13	515	3.30	7	5	ND	2	59	.2	2	2	82	.68	150	10	68	.89	63	20	11	1.97	.02	.08	1	11	29.20
BKP1C-2 (-80+150)	1	86	2	47	1	36	14	525	3.21	5	5	ND	2	58	.6	2	2	81	.66	150	10	67	.87	56	20	3	1.95	.02	.08	1	14	17.29
BKP2A-1 (-80+150)	1	66	6	146	4	30	24	576	4.39	18	5	ND	1	60	.2	2	2	87	.52	171	5	54	.78	73	16	8	2.05	.01	.07	1	8	17.68
BKP2A-2 (-80+150)	1	187	5	80	1	53	32	492	5.37	23	8	ND	1	74	.6	2	2	109	.58	183	5	57	1.46	44	18	8	2.46	.01	.09	1	19	10.41
BKP2B-1 (-80+150)	1	143	7	88	3	48	30	467	5.10	26	5	ND	1	74	.6	2	2	104	.57	101	5	55	1.32	44	18	6	2.33	.01	.08	1	12	10.50
BKP2B-2 (-80+150)	1	78	3	113	1	31	23	472	4.26	15	5	ND	1	67	.2	2	2	89	.55	112	4	49	.85	57	17	6	2.02	.02	.06	1	13	15.17
BKP2C-1 (-80+150)	1	106	2	53	1	39	15	544	3.15	11	5	ND	1	52	.2	2	2	77	.62	159	8	54	.91	50	19	4	1.93	.02	.08	1	10	34.96
BKP2C-2 (-80+150)	1	111	2	53	1	39	15	524	3.17	6	8	ND	1	52	.2	2	2	78	.60	154	8	57	.89	50	19	3	1.96	.02	.08	1	9	30.25
BKP3A-1 (-80+150)	1	31	2	114	1	47	12	322	3.02	5	5	ND	1	33	.2	2	2	67	.38	158	5	63	.77	77	15	5	2.03	.01	.07	1	1	47.44
BKP3A-2 (-80+150)	1	36	6	115	4	50	14	325	3.14	7	5	ND	2	37	.2	2	2	70	.40	163	7	60	.82	78	15	3	2.26	.01	.08	1	1	41.06
BKP3B-1 (-80+150)	1	45	8	94	4	50	14	356	3.23	4	5	ND	3	38	.2	2	2	77	.40	197	6	70	.89	71	16	4	2.16	.01	.07	1	1	17.28
BKP3B-2 (-80+150)	1	47	2	87	2	49	14	367	3.16	6	5	ND	2	39	.3	2	2	75	.40	193	7	72	.87	76	16	2	2.24	.01	.07	1	10	25.29
BKP3C-1 (-80+150)	1	109	2	57	1	66	18	921	3.80	11	5	ND	1	86	.2	2	2	103	.67	152	9	121	1.17	116	17	7	2.30	.02	.07	1	3	26.69
BKP3C-2 (-80+150)	1	108	6	56	1	68	17	889	3.80	8	5	ND	2	88	.2	2	2	104	.68	153	9	117	1.20	122	17	7	2.35	.02	.07	1	4	23.29
STANDARD C/AU-S	19	58	42	132	7.4	69	31	1049	3.96	38	20	7	40	52	18.6	15	19	56	.48	1089	39	60	.88	178	109	34	1.90	.06	.15	11	50	-

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 MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM. - SAMPLE TYPE: PULP AU\* ANALYSIS BY ACID LEACH/AA FROM 50 GM SAMPLE. (or less for smaller size samples)

DATE RECEIVED: JUN 13 1991

DATE REPORT MAILED: June 17/91

SIGNED BY: D. Toye, C. Leong, J. Wang; CERTIFIED B.C. ASSAYERS



## GEOCHEMICAL ANALYSIS CERTIFICATE

Mincord Exploration Consultants Ltd. PROJECT BEEKEEPER FILE # 91-1850 Page 1

110 - 325 Howe St., Vancouver BC V6C 1Z7 Attn: J.W. MORTON

SAMPLE#	TOTAL SAMPLE	
	wt. gm	wt. gm
91 OE 9N (+40)	650	450
91 OE 8N (+40)	615	365
91 OE 7N (+40)	600	385
91 OE 6N (+40)	600	340
91 OE 5N (+40)	600	400
91 OE 4N (+40)	900	580
91 OE 3N (+40)	800	500
91 OE 2N (+40)	750	370
91 OE 1N (+40)	800	500
91 OE 0N (+40)	700	400
91 1E 9N (+40)	900	550
91 1E 8N (+40)	975	550
91 1E 7N (+40)	1050	650
91 1E 6N (+40)	900	650
91 1E 5N (+40)	1000	750
91 1E 4N (+40)	1050	780
91 1E 3N (+40)	850	600
91 1E 2N (+40)	800	570
91 1E 1N (+40)	1050	580
91 1E 0N (+40)	850	550
91 2E 9N (+40)	925	600
91 2E 8N (+40)	750	500
91 2E 7N (+40)	775	550
91 2E 6N (+40)	800	650
91 2E 5N (+40)	700	480
91 2E 4N (+40)	650	450
91 2E 3N (+40)	775	480
91 2E 2N (+40)	800	405
91 2E 1N (+40)	700	400
91 2E 0N (+40)	1400	540

- SAMPLE TYPE: P1 TO P4 SOIL P5 ROCK

DATE RECEIVED: JUN 17 1991

DATE REPORT MAILED: June 27/91

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

SAMPLE#	SAMPLE wt. gm
91 0E 9N (-40+80)	100
91 0E 8N (-40+80)	110
91 0E 7N (-40+80)	95
91 0E 6N (-40+80)	190
91 0E 5N (-40+80)	70
91 0E 4N (-40+80)	105
91 0E 3N (-40+80)	180
91 0E 2N (-40+80)	210
91 0E 1N (-40+80)	150
91 0E 0N (-40+80)	150
91 1E 9N (-40+80)	100
91 1E 8N (-40+80)	125
91 1E 7N (-40+80)	90
91 1E 6N (-40+80)	90
91 1E 5N (-40+80)	60
91 1E 4N (-40+80)	100
91 1E 3N (-40+80)	100
91 1E 2N (-40+80)	90
91 1E 1N (-40+80)	130
91 1E 0N (-40+80)	115
91 2E 9N (-40+80)	110
91 2E 8N (-40+80)	80
91 2E 7N (-40+80)	80
91 2E 6N (-40+80)	60
91 2E 5N (-40+80)	90
91 2E 4N (-40+80)	55
91 2E 3N (-40+80)	95
91 2E 2N (-40+80)	105
91 2E 1N (-40+80)	100
91 2E 0N (-40+80)	140

SAMPLE#	SAMPLE wt. gm
91 OE 9N (-80+150)	45
91 OE 8N (-80+150)	75
91 OE 7N (-80+150)	55
91 OE 6N (-80+150)	65
91 OE 5N (-80+150)	45
91 OE 4N (-80+150)	90
91 OE 3N (-80+150)	95
91 OE 2N (-80+150)	75
91 OE 1N (-80+150)	80
91 OE 0N (-80+150)	80
91 1E 9N (-80+150)	80
91 1E 8N (-80+150)	85
91 1E 7N (-80+150)	55
91 1E 6N (-80+150)	55
91 1E 5N (-80+150)	50
91 1E 4N (-80+150)	55
91 1E 3N (-80+150)	60
91 1E 2N (-80+150)	70
91 1E 1N (-80+150)	60
91 1E 0N (-80+150)	60
91 2E 9N (-80+150)	65
91 2E 8N (-80+150)	55
91 2E 7N (-80+150)	60
91 2E 6N (-80+150)	25
91 2E 5N (-80+150)	50
91 2E 4N (-80+150)	40
91 2E 3N (-80+150)	65
91 2E 2N (-80+150)	50
91 2E 1N (-80+150)	80
91 2E 0N (-80+150)	60

## GEOCHEMICAL ANALYSIS CERTIFICATE

Mincord Exploration Consultants Ltd. PROJECT BEEKEEPER File # 91-1850 Page 4

110 - 325 Howe St., Vancouver BC V6C 1Z7 Submitted by: J.W. MORTON

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au*	SAMPLE
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm	ppb	gm
91 OE 9N (-150)	1	53	12	117	.4	28	23	1289	4.25	20	5	ND	1	109	.2	3	2	96	.94	.114	6	52	.85	83	.20	8	2.34	.02	.11	1	11	45
91 OE 8N (-150)	1	68	7	95	.5	24	24	933	4.99	19	5	ND	1	109	.3	2	2	111	.76	.096	7	44	.93	64	.21	8	2.45	.02	.13	1	14	50
91 OE 7N (-150)	1	58	4	87	.3	24	23	970	4.43	18	5	ND	2	107	.2	2	2	98	.80	.098	6	43	.82	61	.21	8	2.39	.02	.11	1	23	50
91 OE 6N (-150)	1	33	2	79	.3	28	14	398	3.08	11	5	ND	2	62	.2	2	2	75	.62	.093	9	55	.58	61	.19	3	1.84	.02	.10	1	71	50
91 OE 5N (-150)	1	22	5	85	.4	28	13	397	2.86	10	5	ND	2	63	.2	2	2	64	.58	.086	7	49	.63	57	.18	3	1.82	.02	.09	1	12	55
91 OE 4N (-150)	1	29	10	72	.3	28	13	461	3.06	13	5	ND	2	71	.2	3	2	70	.62	.111	8	50	.60	68	.18	4	1.89	.02	.10	1	19	20
91 OE 3N (-150)	1	19	6	99	.3	30	12	529	2.99	8	5	ND	2	47	.2	2	2	63	.53	.153	7	54	.56	79	.18	6	2.14	.02	.12	1	11	70
91 OE 2N (-150)	1	34	2	58	.3	38	12	399	3.07	9	5	ND	2	46	.2	2	2	83	.60	.091	8	76	.67	67	.19	4	1.84	.02	.07	1	3	70
91 OE 1N (-150)	1	33	10	84	.7	40	12	614	2.90	8	5	ND	1	45	.3	2	2	79	.55	.086	8	78	.64	84	.17	2	1.81	.02	.08	1	3	75
91 OE 0N (-150)	1	36	7	87	.2	41	13	875	2.82	6	5	ND	2	44	.2	2	2	72	.56	.105	8	75	.67	125	.18	3	1.97	.02	.11	1	3	65
91 1E 9N (-150)	1	32	4	64	.3	20	17	531	3.67	13	5	ND	1	117	.2	3	2	98	1.01	.067	7	42	.85	43	.27	6	1.91	.02	.09	1	4	50
91 1E 8N (-150)	1	48	8	61	.4	21	17	576	4.82	24	5	ND	1	149	.2	3	2	118	1.07	.053	6	42	1.15	35	.29	7	2.38	.02	.07	1	11	65
91 1E 7N (-150)	1	106	10	58	.4	31	29	559	5.43	52	5	ND	2	148	.2	2	2	120	.90	.072	7	48	1.12	61	.21	10	2.91	.02	.07	1	48	55
91 1E 6N (-150)	1	41	7	142	.4	32	21	820	4.04	16	5	ND	2	83	.2	2	2	77	.64	.185	7	49	.77	82	.18	6	2.40	.02	.12	1	17	50
91 1E 5N (-150)	2	119	5	111	.5	40	27	816	5.73	40	5	ND	1	88	.3	6	2	114	.65	.214	7	52	.88	73	.16	6	2.50	.02	.10	1	33	50
91 1E 4N (-150)	1	45	7	93	.1	49	13	441	3.28	13	5	ND	1	42	.2	2	2	91	.48	.136	6	91	.76	76	.19	2	2.09	.02	.13	1	3	50
91 1E 3N (-150)	1	39	10	90	.4	54	14	672	3.34	6	5	ND	2	51	.2	2	2	91	.57	.103	6	98	.81	99	.19	6	2.01	.02	.10	1	4	60
91 1E 2N (-150)	1	37	2	52	.3	59	14	322	3.57	11	5	ND	2	51	.2	2	2	97	.51	.040	7	90	.76	97	.20	2	2.72	.02	.06	1	2	60
91 1E 1N (-150)	1	42	8	101	.3	71	17	385	3.74	11	5	ND	2	51	.2	2	2	96	.66	.184	7	95	.88	121	.19	4	2.96	.02	.09	1	1	100
91 1E 0N (-150)	1	65	5	85	.5	71	16	414	3.50	11	5	ND	2	56	.2	3	2	95	.59	.196	9	93	1.02	110	.19	2	2.76	.02	.10	1	2	60
91 2E 9N (-150)	1	79	5	60	.4	35	13	432	3.49	13	5	ND	4	64	.2	2	2	88	.74	.051	11	60	.96	69	.21	3	2.24	.02	.10	1	37	60
91 2E 8N (-150)	1	82	6	100	.6	33	20	590	4.71	36	5	ND	2	113	.2	3	2	97	.77	.121	6	45	.89	89	.22	8	2.90	.02	.11	1	110	55
91 2E 7N (-150)	1	95	5	86	.6	23	15	1423	3.28	27	5	ND	1	203	.2	8	2	75	1.34	.119	7	35	.86	122	.20	6	2.22	.01	.08	1	150	50
91 2E 6N (-150)	1	61	4	64	.4	35	17	533	4.18	39	5	ND	1	167	.2	3	2	98	.97	.078	6	50	1.14	50	.23	12	2.16	.02	.08	1	19	30
91 2E 5N (-150)	1	72	5	54	.4	63	15	422	3.57	9	5	ND	3	60	.2	2	2	106	.63	.056	10	106	1.06	74	.22	4	2.08	.02	.10	1	16	50
91 2E 4N (-150)	1	46	12	137	.5	29	23	704	4.83	24	5	ND	1	80	.2	6	2	89	.83	.300	7	46	.80	87	.18	4	2.43	.02	.09	1	3	45
91 2E 3N (-150)	1	59	2	92	.4	52	14	1080	3.23	8	5	ND	2	62	.2	2	2	92	.62	.107	7	95	.83	149	.18	5	1.97	.02	.11	1	2	55
91 2E 2N (-150)	1	63	10	128	.3	88	19	696	3.74	12	5	ND	2	51	.2	3	2	97	.53	.163	7	104	1.15	142	.20	4	3.27	.02	.11	1	3	50
91 2E 1N (-150)	1	46	4	81	.3	58	14	470	3.42	9	5	ND	2	50	.2	2	2	94	.46	.137	7	94	.86	138	.20	4	2.15	.02	.09	1	3	50
91 2E 0N (-150)	1	44	11	156	.5	62	13	523	3.09	10	5	ND	2	47	.2	2	2	68	.48	.315	8	70	.86	184	.16	2	2.79	.01	.15	1	21	50
STANDARD C/AU-S	18	58	38	130	7.2	70	32	1048	3.90	37	16	8	39	52	18.9	15	19	55	.48	.088	39	58	.84	176	.09	33	1.85	.06	.15	13	48	-

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 MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: P1 TO P4 SOIL P5 ROCK AU\* ANALYSIS BY ACID LEACH/AA FROM 50 GM SAMPLE.

DATE RECEIVED: JUN 17 1991

DATE REPORT MAILED: June 27/91

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

APPENDIX 2  
PETROGRAPHIC DESCRIPTIONS

## Estimated mode

Carbonate	70
Pyroxene	4
Plagioclase	4
Lithic clasts	21
Fe oxides	1

This is a fragmental rock of unusual type.

It consists of clasts of two apparently disparate origins, tightly cemented by an aggregate of microgranular calcite.

The most abundant type of clast is itself composed of calcite. These are 0.5 - 2.5mm in size, rounded to sub-angular in shape, and are characteristically monocrystalline. They sometimes occur as coalescent clumps, and sometimes individually.

A few of these carbonate grains include definite biogenic (radiate, cellular or micropore) structures. The monocrystalline texture suggests that they may, in fact, all be forms of fossil remains (shells, stem segments etc.).

The other types of clast are generally smaller (0.2 - 1.0mm) and are clearly of volcanic (presumably pyroclastic) origin. They consist of irregular lithic fragments of glassy and micro-porphyrific, partly potassic, intermediate-mafic volcanics (typically with sub-opaque or opaque dusted groundmasses), and crystal clasts of fresh pyroxene and partially altered plagioclase. A few of the lithic clasts contain small, compact or lattice-textured Fe oxide individuals.

The calcite cement is a mosaic aggregate, of grain size 0.02 - 0.1mm, locally grading to somewhat coarser pockets.

This rock appears to be a calcirudite with an intermixed tufaceous component. The latter is compositionally similar to the (extrusive) Sample B-1.

Estimated mode		
Phenocrysts		
Plagioclase		36
Augite		12
Altered pseudomorphs		12
Fe oxides		2
Groundmass		
Plagioclase)	24	
K-feldspar)		
Apatite		2
Fe oxides)	4	
Sub-opaques)		
Amygdules		
Calcite		8

This is a prominently porphyritic, quartz-free rock, of alkalic volcanic affinities.

Phenocrysts, 0.2 - 5.0mm in size, make up some 60% of the rock. They are of 3 principal types. The commonest are plagioclase, as elongate euhedra, locally showing a weak preferred orientation. These are fresh, but for a turbidity due to an even, pervasive dusting of minutely fine-grained carbonate and/or sericite-clays.

Twinning is seldom sharply developed, and the composition of the plagioclase is not readily determinable. It appears to be no more calcic than andesine.

The second phenocryst type is pale greenish clinopyroxene, as fresh, stumpy prismatic euhedra.

The third type is of uncertain origin, being totally altered and represented by pseudomorphs composed predominantly of turbid calcite, sometimes with peripheral and patchy intergrowths of low birefringent material (analcite or other zeolites?). They are typically delineated by thin, opaque/sub-opaque rims. These pseudomorphs, of generally stumpy, equant form, sometimes show partial 6-sided forms (similar to those of olivine), or are sub-rounded (like garnets). The complete alteration of this component is puzzling, in view of the general freshness of the other constituents.

Small, equant euhedra of partially hematized magnetite, 0.05 - 0.5mm in size, occur randomly disseminated, or are occasionally incorporated within phenocrysts of pyroxene or the carbonate pseudomorphs.

The groundmass consists predominantly of randomly oriented, microgranular to microlitic feldspar (partially K-spar: note weak to moderate cobaltinitrite stain on off-cut), of grain size 0.02 - 0.1mm. This is abundantly speckled with tiny granules of Fe oxides

Sample B-3 cont.

and sub-opaque material (probably rutile/leucoxene). An accessory component of minute, colourless, acicular crystals is probably apatite.

The rock contains scattered, rather large, irregular-shaped amygdules filled by monomineralic, feathery-textured calcite.

The presence of amygdules suggests that this rock is a porphyritic extrusive, rather than a hypabyssal porphyry. It is tentatively classified as a trachyandesite.



## NEPHELINE-PYROXENE LAPILLI TUFF

## Estimated mode

Glass)	64
Cryptocrystalline material)	
Pyroxene	10
Biotite	1
Nepheline(?)	20
Zeolite(?)	2
Carbonate	trace
Magnetite)	3
Hematite)	

This is a rock of streaky, heterogenous texture. It includes (see off-cut) some distinct, angular to rounded lithic fragments, up to 15mm or more in size.

The distribution of yellow cobaltinitrite stain on the off-cut indicates that the groundmass of many of the constituent clasts - and possibly the ashy matrix phase are of more or less potassic composition.

As is typically the case with rocks of this type, the fragmental texture appears less clear cut on the microscopic scale, and it is often difficult to distinguish between abundantly porphyritic clasts, and concentrations of crystal clasts in an ashy matrix .

The clasts are strongly porphyritic, and are apparently composed of varying proportions of nepheline, zeolites, pyroxene, biotite and Fe oxides in an essentially isotropic (glassy?) groundmass.

A proportion of these components are probably crystal clasts, forming clumps, streaks and sandy aggregates. Pyroxene grains are prominent. These are 0.1 - 0.5mm in size, of equant, euhedral form, and typically fresh. Brown biotite, of similar size and also fresh, is present in accessory proportions.

Another abundant constituent is a low relief, very low birefringent mineral, showing rectangular euhedral form. This is thought to be nepheline. It generally shows a size range of 0.2 - 1.0mm.

One or two clasts contain abundant pseudomorphs composed of what appears to be zeolite. No recognizable plagioclase was seen - though some of the zeolitized grains could have originated as feldspar. Alternatively, they may be altered nepheline.

Partially hematized magnetite occurs as disseminated, equant grains, 0.05 - 0.3mm in size. Micron-sized oxide dust also impregnates the groundmass and/or tuff matrix as local patches and wisps.

The rock appears strikingly fresh, and is devoid of pervasive alteration. It is a coarse, crystal-rich lapilli tuff of undersaturated, alkali-mafic composition.