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Bondar-Clegg & Company Ltd.
5420 Canotek Road
Ottawa, Ontario
K1J 8X5
(613) 749-2220 Telex 053-3233

GEOLOGICAL SURVEY OF CANADA
MR. JOHN LYNCH
601 BOOTH ST.
OTTAWA, ONTARIO.
K1A 0E8

Invoice : 0139064, Page 1

Date : 30-JUN-88

Report No: 088-50709.0

Project : 23233-6-1332

Reference: DOLLY VARDEN

REQ# 8-0481

22 Analyses of "Au + 33" Option II	at \$15.02	\$ 330.44	\$ 330.44
Silver	Arsenic		
Gold	Barium		
Bromine	Cadmium		
Cerium	Cobalt		
Chromium	Cesium		
Europium	Iron		
Hafnium	Iridium		
Lanthanum	Lutetium		
Molybdenum	Sodium		
Nickel	Rubidium		
Antimony	Scandium		
Selenium	Samarium		
Tin	Tantalum		
Terbium	Tellurium		
Thorium	Uranium		
Tungsten	Zinc		
Ytterbium			
Zirconium			

Sample Preparation			
22 Samples of As Received, No SP	\$ 0.00	\$ 0.00	
Subtotal		\$ 0.00	\$ 0.00

Invoice Total: \$ 330.44 Cdn

Rec'd: John Lynch
Payable from 790003

GEOLOGICAL SURVEY OF CANADA
MINERAL RESOURCES DIVISION
ANALYTICAL CHEMISTRY SECTION

REPORT OF ANALYSIS

Requisition No.:

66-88

Submitted by:

Ballantyne S.

Project No.:

790003

Number of Samples:

22

Requisition Rec'd:

06/28/88

Report Completed:

88 / 01 / 03

This Report includes results from the



ANALYTICAL CHEMISTRY LABORATORY



to come

GEOCHEMISTRY LABORATORY



ICP-EMISSION SPECTROMETRY LAB.



X-RAY FLUORESCENCE LABORATORY



to come

COMMERCIAL LABORATORY

Comments: This report may include whole rock analyses (majors)
----- by ICP and/or XRF methods. Results have so been
identified and appropriate estimate of validity
of results have been attached for both methods.

hls

GEOLOGICAL SURVEY OF CANADA
 MINERAL RESOURCES DIVISION
 ANALYTICAL CHEMISTRY SECTION
 ICP - EMISSION SPECTROMETRY LABORATORY

 * REPORT OF ANALYSIS *

DATE: 3 NOV. 88
 REPORT NO. 66-88
 SUBMITTED BY: BALLANTYNE B.
 PROJECT NO. XXX7903
 METHOD: ICP-MJ1 , ICP-TR1 , Ag & Pb by AA.
 FeO , H2O(t) , CO2 , C , S(t) and LOI by chemical methods.

ESTIMATE OF VALIDITY OF RESULTS

ELEMENT	+/-	(ABSOLUTE	+	RELATIVE)
SiO2	+/-	(0.4 %	+	2% OF CONC.)
TiO2		0.02	+	"
Al2O3		0.2	+	"
Fe2O3(t)		0.1	+	"
MnO		0.01	+	"
MgO		0.1	+	"
CaO		0.1	+	"
Na2O		0.1	+	"
K2O		0.1	+	"
FeO		0.2	+	5% OF CONC.
H2O(t)		0.1	+	5% OF CONC.
CO2		0.1	+	3% OF CONC.
C				
P2O5		0.02	+	1% OF CONC.
S(t)		0.04	+	5% OF CONC.
LOI				
Ba	+/-	(20 PPM	+	5% OF CONC.)
Be	+/-	(0.5 PPM	+	5% OF CONC.)
Co	+/-	(5 PPM	+	5% OF CONC.)
Cr	+/-	(10 PPM	+	5% OF CONC.)
Cu	+/-	(10 PPM	+	5% OF CONC.)
La	+/-	(10 PPM	+	5% OF CONC.)
Ni	+/-	(10 PPM	+	5% OF CONC.)
Pb	+/-	(20 PPM	+	10% OF CONC.)
Sr	+/-	(2 PPM	+	5% OF CONC.)
V	+/-	(5 PPM	+	5% OF CONC.)
Y	+/-	(5 PPM	+	5% OF CONC.)
Yb	+/-	(0.5 PPM	+	5% OF CONC.)
Zn	+/-	(5 PPM	+	5% OF CONC.)
Zr	+/-	(10 PPM	+	5% OF CONC.)

ANALYST(S).....

VERIFIED.....
lch

REPORT OF ANALYSIS

NAME: BALLANTYNE B.

PROJECT: XXX7903

REQN. NO: 66-88

LAB. NO.	1	2	3	4	5	6	7	8
SAMPLE NO:	LGC-001	LGC-002	LGC-003	LGC-004	LGC-005	LGC-006	LGC-007	LGC-008
SI02 % :	69.7	60.7	65.9	62.8	64.2	62.2	78.4	88.0
TI02 % :	0.47	0.48	0.47	0.26	0.46	0.50	0.34	0.16
AL203 % :	14.9	16.6	15.8	8.32	13.9	15.9	14.0	5.70
FE203T % :	3.90	7.65	6.10	4.16	7.63	7.74	0.30	2.10
FE203 % :	2.8		6.1				0.1	2.1
FEO % :	1.0		0.0				0.2	0.0
MNO % :	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00
MGO % :	0.47	0.78	1.03	0.70	0.84	0.64	0.56	0.33
CAO % :	0.03	0.11	0.01	0.05	0.06	0.08	0.17	0.0
NA2O % :	1.80	1.22	0.10	0.14	0.13	1.67	0.20	0.00
K2O % :	4.00	4.70	4.53	2.64	4.14	5.44	3.71	1.61
H2OT % :	2.9						1.9	
CO2T % :	0.2	0.1	0.2	0.1	0.4	0.1	0.1	0.1
P2O5 % :	0.17	0.10	0.17	0.10	0.13	0.08	0.24	0.04
S % :	0.89	5.97	4.54	5.81	5.91	5.98	0.01	1.68
BA ppm :	1900	1800	1800	78000	6600	2500	1000	2700
AG ppm :	0	0	0	0	0	0	0	1
BE ppm :	0.7	0.8	1.2	0.7	1.0	0.9	0.8	0.5
CO ppm :	5	23	16	11	16	19	4	4
CR ppm :	13	15	18	7	20	14	7	7
CU ppm :	65	38	23	47	28	37	13	27
LA ppm :	21	25	19	2	18	18	16	7
NB ppm :	10		20				16	18
NI ppm :	0	0	0	0	0	0	0	0
PB ppm :	28	20	12	6	4	5	11	20
RB ppm :	100		130				100	53
SR ppm :	180	41	28	380	43	68	76	35
V ppm :	140	140	150	90	150	150	58	41
Y ppm :	45	9	50	2	10	16	15	12
YB ppm :	1.3	1.1	1.2	0.3	1.3	1.9	0.7	0.4
ZN ppm :	20	83	22	990	40	23	1	16
ZR ppm :	100	99	89	25	92	110	86	50
TOTALS	99.6	98.6	99.1	92.8	98.5	100.6	100.1	100.0

COMMENTS:

* ALL ANALYSIS BY ICP, EXCEPT FEO, H2OT, CO2T, CO2, C, S AND LOI BY CHEMICAL METHODS.

* FE203 IS CALCULATED USING $FE203 = FE203T(ICP) - 1.11134 * FEO(VOLUMETRIC)$.* ICP-MJ1 DATA ARE OBTAINED ON 0.5 G OF SAMPLE FUSED WITH LITHIUM METABORATE,
DISSOLVED IN 5% HNO3 AND DILUTED TO 250 ML.* ICP-TR1 DATA ARE OBTAINED ON 1.0 G OF SAMPLE (ACID + FUSION OF RESIDUE)
DISSOLVED IN 10% HCL AND DILUTED TO 100 ML.

ANALYTICAL CHEMISTRY SECTION
ICP-ES LABORATORY

DATE: 3 NOV. 88

LAB. NO.	9	10	11	12	13	14	15	16
SAMPLE NO:	LGC-009	LGC-010	LGC-011	LGC-012	LGC-013	LGC-014	LGC-015	LGC-016
SIO2 % :	60.5	66.4	64.4	81.3	79.5	48.9	61.5	56.2
TIO2 % :	0.49	0.50	0.59	0.35	0.29	0.56	0.47	0.50
AL2O3 % :	17.6	17.4	16.0	10.2	9.80	17.6	16.1	16.8
FE2O3T % :	4.90	2.00	4.20	2.30	2.50	9.10	8.30	11.1
FE2O3 % :	4.9	2.0	3.5	2.3	2.5	1.0	1.2	11.1
FED % :	0.0	0.0	0.6	0.0	0.0	7.3	6.4	0.0
MNO % :	0.04	0.00	0.00	0.00	0.00	0.21	0.21	0.08
MGO % :	2.51	0.36	0.66	0.66	0.61	6.67	4.34	3.13
CAO % :	0.51	0.19	0.01	0.0	0.10	3.99	0.60	0.34
NA2O % :	2.20	4.60	2.50	0.00	0.10	2.50	4.20	2.00
K2O % :	4.91	5.02	6.02	3.05	3.06	2.39	0.90	3.63
H2OT % :			2.8			5.1	3.6	
CO2T % :	0.1	0.2	1.8	0.2	0.3	2.8	0.5	0.1
P2O5 % :	0.29	0.21	0.17	0.06	0.18	0.38	0.22	0.28
S % :	3.16	1.11	0.59	1.09	1.43	0.03	0.03	1.94
BA ppm :	2400	3000	3900	1400	12000	590	540	3600
AG ppm :	6	0	0	0	0	0	0	0
BE ppm :	1.6	0.6	0.8	0.8	0.8	1.2	0.5	0.9
CD ppm :	18	12	5	6	8	36	18	17
CR ppm :	14	8	14	8	9	90	21	15
CU ppm :	42	26	26	12	20	87	6	36
LA ppm :	24	25	24	6	18	4	19	23
NB ppm :	14	18	29	11	13	15	26	23
NI ppm :	0	0	0	0	0	35	10	0
PB ppm :	9	40	43	12	5	0	0	0
RB ppm :	130	120	150	99	96	74	34	100
SR ppm :	240	230	140	22	120	190	200	81
V ppm :	130	120	170	120	90	260	130	160
Y ppm :	45	38	40	9	18	17	27	56
YB ppm :	1.6	1.2	1.6	0.6	0.8	0.9	1.0	2.1
ZN ppm :	53	30	5	52	9	96	69	120
ZR ppm :	120	120	100	60	66	68	110	120
TOTALS	97.5	98.4	100.1	99.4	99.1	99.6	100.4	96.5

COMMENTS:

* ALL ANALYSIS BY ICP, EXCEPT FED, H2OT, CO2T, CO2, C, S AND LOI BY CHEMICAL METHODS.

* FE2O3 IS CALCULATED USING $FE2O3 = FE2O3T(ICP) - 1.11134 * FED(VOLUMETRIC)$.

* ICP-MJ1 DATA ARE OBTAINED ON 0.5 G OF SAMPLE FUSED WITH LITHIUM METABORATE, DISSOLVED IN 5% HNO3 AND DILUTED TO 250 ML.

* ICP-TR1 DATA ARE OBTAINED ON 1.0 G OF SAMPLE (ACID + FUSION OF RESIDUE) DISSOLVED IN 10% HCL AND DILUTED TO 100 ML.

ANALYTICAL CHEMISTRY SECTION
ICP-ES LABORATORY

DATE: 3 NOV. 88

LAB. NO. 17 18 19 20 21 22 23
SAMPLE NO: LGC-017 LGC-018 LGC-019 LGC-020 LGC-021 LGC-022 66-88-23

#17

	17	18	19	20	21	22	23
SiO2 % :	72.9	67.7	58.8	58.9	60.6	61.4	73.4
TiO2 % :	0.37	0.31	0.27	0.53	0.50	0.46	0.35
Al2O3 % :	11.5	11.3	8.93	17.0	18.1	15.5	11.6
Fe2O3T % :	4.00	7.93	18.5	8.04	5.90	7.48	4.00
Fe2O3 % :	4.0				5.9		4.0
FeO % :	0.0				0.0		0.0
MnO % :	0.02	0.02	0.21	0.05	0.05	0.01	0.02
MgO % :	1.12	0.78	3.86	2.13	2.59	0.40	1.13
CaO % :	0.11	0.15	0.19	0.49	0.35	0.10	0.11
Na2O % :	1.70	0.38	0.15	4.05	3.50	3.44	1.70
K2O % :	3.10	3.93	0.97	4.27	4.38	5.30	3.12

H2OT % :							
CO2T % :	0.3	0.1	0.1	0.1	0.1	0.3	0.3
P2O5 % :	0.16	0.19	0.32	0.39	0.30	0.08	0.16
S % :	1.26	5.70	6.74	5.13	1.12	5.86	1.23

BA ppm :	8000	1700	330	2400	2600	3100	8000
AG ppm :	8	1	2	0	1	0	6
BE ppm :	0.7	0.9	0.5	0.8	0.8	0.6	0.7
CO ppm :	10	13	18	19	17	52	11
CR ppm :	11	13	15	17	14	31	12
CU ppm :	54	22	2900	95	55	29	51
LA ppm :	14	14	26	9	20	14	16
NB ppm :	16				22		10
NI ppm :	0	0	10	0	0	0	0
PB ppm :	10	15	33	4	6	17	12
RB ppm :	97				120		94
SR ppm :	160	32	14	160	190	97	150
V ppm :	100	95	86	170	140	120	110
Y ppm :	27	11	9	7	55	30	32
YB ppm :	0.8	1.3	1.1	0.9	1.5	2.9	0.8
ZN ppm :	33	34	150	92	81	63	33
ZR ppm :	82	76	70	94	120	100	82
TOTALS	97.4	98.7	99.4	101.4	97.8	100.7	98.0

COMMENTS:

- * ALL ANALYSIS BY ICP, EXCEPT FeO, H2OT, CO2T, CO2, C, S AND LOI BY CHEMICAL METHODS.
- * FE2O3 IS CALCULATED USING $FE2O3 = FE2O3T(ICP) - 1.11134 * FE0(VOLUMETRIC)$.
- * ICP-MJ1 DATA ARE OBTAINED ON 0.5 G OF SAMPLE FUSED WITH LITHIUM METABORATE, DISSOLVED IN 5% HNO3 AND DILUTED TO 250 ML.
- * ICP-TR1 DATA ARE OBTAINED ON 1.0 G OF SAMPLE (ACID + FUSION OF RESIDUE) DISSOLVED IN 10% HCL AND DILUTED TO 100 ML.