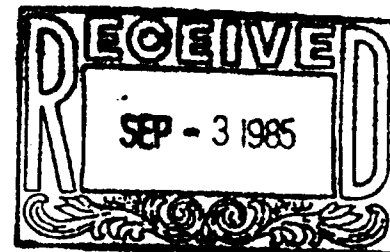


August 27, 1985

521210



MEMO TO: Don Cross
FROM: Elizabeth Clemson
SUBJECT: Analytical Results - Gem Samples

Enclosed are the analytical results of the three Gem samples you sent me. These samples have been named as follows:

- GM-1 - containing minor disseminated sulfides,
GM-2 - 50% disseminated sulfides, and
GM-3 - massive sulphides.

The samples were analyzed by X-Ray Assay Laboratories by several methods due to their unusual composition. I have included a brief explanation of the various analytical reports.

- Report 1 (GM-1,2) - semi-quantitative. + 30% error. gives a rough approximation of the REE content.
Report 2 (GM-1,2) - REE's determined by neutron activation. This method is only suitable for samples containing < 10,000 ppm REE. gold is analyzed on a 1 g sample, which may result in a nugget effect because of the small sample size. arsenic is present in amounts exceeding the analytical range of neutron activation.
Report 3 (GM-1,2) - assay results. gold analyzed by fire assay confirms the initial neutron activation results. correct REE values (they differ slightly from the semi-quantitative results).
Report 4 (GM-3) - gold done by NA, probably minimal nugget effect. REE's are found in trace amounts. whole rock chemistry included.

SUMMARY OF ANALYTICAL RESULTS - GEM SAMPLES

Table with 4 columns: Sample, GM-1, GM-2, GM-3. Rows include Au (oz/t), La (ppm), Ce (ppm), Nd (ppm), Sm (ppm), As (wt%), and Co (ppm).

EF/hmc
c.c. David Carson

SAMPLE	AU PPB	LI PPM	BE PPM	S PPM	SC PPM	V PPM
GM-3	54000	30	<10	100	<2.0	70

11A

2.0 to 4.0

$$54 \text{ ppm} = 54 \text{ g/t}$$

$$1 \text{ g/t} = 0.029 \text{ oz/t}$$

$$\therefore 54 \text{ ppm} = 1.566 \text{ oz/t}$$

SAMPLE	MN PPM	CO PPM	NI PPM	CU PPM	ZN PPM	GE PPM
GM-3	82	>60000	8800	3.5	13.0	<10

> - CONCENTRATION TOO HIGH FOR TREATMENT BY GECHEMICAL METHOD

SAMPLE	AS PPM	AS %	SE PPM	BR PPM	MO PPM	AG PPM
GM-3	>300000	40.6	<90	<150	<180	<0.5

> - CONCENTRATION TOO HIGH FOR TREATMENT BY GEOCHEMICAL METHOD

SAMPLE	CD PPM	SB PPM	CS PPM	LA PPM	LA PPM
GM-3	<0.2	180.	<10.0	<10.0	20

↑

NA

↑

*semi quantitative
XRF*

SAMPLE	CE PPM	CE PPM	ND PPM	ND PPM	SM PPM	SM PPM
GM-3	<16	<30	<91	<50	<1.6	<20
	↑	↑	↑	↑	↑	↑
	NA	Semi-quant	NA	Semi-quant	NA	Semi-quant.

SAMPLE	EU PPM	YB PPM	LU PPM	HF PPM	TA PPM
GM-3	<7.0	<10.0	<2.00	<20	<35

SAMPLE	W PPM	P8 PPM	BI PPM	TH PPM	U PPM
GM-3	<290	12	320.	<30.0	<36.0

AUG - 9 1985

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X-RAY ASSAY LABORATORIES LIMITED

1885 LESLIE STREET, DON MILLS, ONTARIO M3B 3J4

PHONE 416-445-5755

TELEX 06-986947

CERTIFICATE OF ANALYSIS

TO: NORANDA EXPLORATION COMPANY LIMITED
ATTN: J. ELIZABETH CLEMSON
55 YONGE STREET, SUITE 400
TORONTO, ONTARIO
M5E 1J4

CUSTOMER NO. 444

DATE SUBMITTED
15-JUL-85

REPORT 24969

REF. FILE 20508-U1

1 ROCK

WAS ANALYSED AS FOLLOWS:

	METHOD	DETECTION LIMIT
✓AU PPM	NA	10.000
LI PPM	AA	10.000
BE PPM	DCP	10.000
B PPM	DCP	10.000
WRMAJ %	WR	0.010
✓SC PPM	NA	0.100
V PPM	DCP	10.000
✓MA PPM	DCP	2.000
✓CO PPM	NA	1.000
✓NI PPM	DCP	1.000
✓CU PPM	DCP	0.500
✓ZN PPM	DCP	0.500
GE PPM	DCP	10.000
✓AS PPM	NA	2.000
✓AS %	XRF	0.010
✓SE PPM	NA	3.000
✓BR PPM	NA	1.000
WRMIN PPM	WR	10.000
✓MG PPM	NA	5.000
✓AG PPM	DCP	0.500
✓CD PPM	UCP	0.200
✓SB PPM	NA	0.200
✓CS PPM	NA	0.500
✓LA PPM	NA	0.500
✓LA PPM	XRF-G	20.000
✓CE PPM	NA	3.000
✓CE PPM	XRF-G	30.000
✓ND PPM	NA	5.000
✓NC PPM	XRF-G	50.000
✓SM PPM	NA	0.100

Report
4

AUG 17 1985

3

X-RAY ASSAY LABORATORIES LIMITED
1885 LESLIE STREET, DON MILLS, ONTARIO M3B 3J4
PHONE 416-445-5755 TELEX 06-986947

CERTIFICATE OF ANALYSIS

TO: NORANDA EXPLORATION COMPANY LIMITED
ATTN: J. ELIZABETH CLEMSON
55 YONGE STREET, SUITE 400
TORONTO, ONTARIO
M5E 1J4

CUSTOMER NO. 444
DATE SUBMITTED
24-JUL-85

REPORT 24925

REF. FILE 20654-PH

2 PULPS ON HAND W.O.#20308
WERE ANALYSED AS FOLLOWS:

AU OZ/TON	METHOD	DETECTION LIMIT
	FA	0.001
LA %	XRF	0.010
AS %	XRF	0.010
CE %	DCP	0.010
ND %	XRF	0.010
SM %	XRF	0.010

Report 3

DATE 02-AUG-85

X-RAY ASSAY LABORATORIES LIMITED
CERTIFIED BY

SAMPLE	AU OZ/TON	LA %	AS %	CE %	ND %	SM %
GM-1	0.048	1.97	2.25	1.54	0.60	0.08
GM-2	0.450	4.96	32.4	3.34	1.72	0.12

GM-1 = 4.19 % REE (total)

GM-2 = 10.14 % REE (total)