



**Royal Oak
Mines Inc.**

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March 16, 1992

Mel Smith
Director of Pollution Control Division
Department of Renewable Resources
Government of the Northwest Territories
7th Floor, Scotia Center
P.O. Box 1320
Yellowknife, N.W.T.
X1A 2L9

Dear Mel:

Re: Western Research Stack Sampling August 28 - 29, 1991

Further to my letter to you on March 5, 1992, please note the following:
On the two days the tests were conducted our operating data shows a total maximum theoretical SO₂ output of 1,878 kg/hr.

The results from Western Research indicates an average output of 3,455 kg/hr, or 184% higher than the maximum expected level. Analysis of the operating sheets show consistent operating during the two days and an error of less than 5% would be expected.

The conclusion is again that the results from Western Research sampling program are in error. We would anticipate that the results from Entech would verify our statements made.

Yours Sincerely,

ROYAL OAK MINES INC.

G.B. Halverson
Mill Superintendent and
Environmental Officer

GBH/sj

c.c. M. Gross
L. Connell
P. O'Hara

ROYAL OAK MINES Inc.

Yellowknife Division
Giant Mine

MEMO TO: G. Halverson

FROM: P.M. O'Hara

DATE: March 10, 1992

SUBJECT: Roaster Production for August 28 & 29, 1991
(during stack sampling by Western Research)

August 28, 1991

Roaster Feed Tons = 156.95 tons
Roaster Feed S Grade = 18.20 %
Roaster Calcine S Grade = 3.13 %

$$156.95 * (18.20 - 3.13)/100 = 23.6 \text{ tons S}$$

$$23.6/(50.06/100) = \underline{47.1 \text{ tons SO}_2}$$

August 29, 1991

Roaster Feed Tons = 166.66 tons
Roaster Feed S Grade = 18.99 %
Roaster Calcine S Grade = 3.27 %

$$166.66 * (18.99 - 3.27)/100 = 26.2 \text{ tons S}$$

$$26.2/(50.06/100) = \underline{52.3 \text{ tons SO}_2}$$

SO₂

$$\begin{array}{rcl} \text{S} & = & 32.06 \\ \text{O} & = & 15.994 * 2 = 31.988 \\ & & \hline & & 64.048 \end{array}$$

$$\% \text{ S} = 32.06/64.048 * 100 = 50.06 \%$$