



October 2, 1995

Royal Oak Mines Inc.
N.W.T. Division
P.O. Bag 3000
Yellowknife, N.W.T.
X1A 2M2

ATTENTION: Phil McIntyre

Re: Source Emission Survey - Gold Roaster Stack
Entech File Number 7640/9501

The attached report presents the results of the source emission survey conducted by Entech Environmental Services Ltd., on September 12-13, 1995.

At this time, testing was performed on the Gold Roaster Stack to determine the concentrations and emission rates of arsenic and sulphur dioxide.

A total of three tests were completed with the results indicating the following :

	Average	Maximum	Minimum
Arsenic			
- mg/m3 dry at Ref.	3.15	4.07	1.46
- kg/h	0.134	0.179	0.058
Sulphur Dioxide			
- g/m3 dry at Ref.	30.81	33.55	29.31
- kg/h	1287.5	1390.7	1181.1

* ref - 25 C and 760 mm Hg.

Should you have any questions concerning the results or if we may be of further assistance, please contact us at your earliest convenience.

Yours Truly
Entech Environmental Services

Table 1

Summary of Emission Test Results
 Royal Oak Mines, Yellowknife, N.W.T.
 Gold Roaster Stack
 September 12-13, 1995

		Test One	Test Two	Test Three	Averages
Test Date		95/09/12	95/09/13	95/09/13	
Start Time		12:33	09:21	12:55	
End Time		15:26	12:11	15:49	
Average Gas Temperature	- DegC	77.7	78.9	76.9	77.8
Average Gas Velocity	- m/s	2.48	2.68	2.53	2.56
Total Effluent Flow Rate	- Rm3/s	12.01	13.13	12.43	12.52
Dry Effluent Flow Rate	- Rm3/s	11.10	12.24	11.51	11.62
Water Concentration	mole - %	7.6	6.8	7.3	7.3

Arsenic					
Concentration - dry basis	- mg/Rm3	1.46	4.07	3.94	3.15
Emission Rate	- kg/h	0.058	0.179	0.163	0.134

Sulphur Dioxide					
Concentration - dry basis	- g/Rm3	29.57	29.31	33.55	30.81
Emission Rate	- kg/h	1181.1	1290.8	1390.7	1287.5

Isokinetics	- %	102.9	102.3	102.8	
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Reference Conditions of 25 degC and 760 mm Hg.

Entech Environmental Services Ltd., Calgary, Alberta