

AGENDA

Meeting Between Royal Oak and Renewable Resources Giant Yellowknife Mine Roaster Emissions March 10, 1994

- A. Current Status of Proposed Ambient Air Quality Guidelines
- B. Roaster Stack Emission Levels and Assessment of Environmental Damage
- C. Discussion of Emission Control Options
 - Replacement of Roaster
 - Wet Scrubbing
 - Sulphuric Acid Production and Recovery
 - Increased Dispersion Area (raising the stack height)
- D. Point Source Control Standards in other Canadian Jurisdictions
- E. Continuous Emissions Monitoring
- F. Plans for Future Point Source Controls

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Sulphur Dioxide Monitoring in Yellowknife, March 1993 to February 1994

GNWT Renewable Resources Environmental Protection Division Monitoring Results

Daily (24 hour) levels of significance were recorded on

3 January 1994 ($160 \mu\text{g}/\text{m}^3$)
18 February 1994 ($275 \mu\text{g}/\text{m}^3$)
19 February 1994 ($285 \mu\text{g}/\text{m}^3$)

The annual average over the period of measurement was $13 \mu\text{g}/\text{m}^3$.

The maximum hourly average during the one year period was $1205 \mu\text{g}/\text{m}^3$.

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1993 One Hour SO₂ Levels in $\mu\text{g}/\text{m}^3$ Summary of hours above 450 $\mu\text{g}/\text{m}^3$ measured at City Hall Monitoring Station

Month	Day	Hour	SO ₂ ($\mu\text{g}/\text{m}^3$)
March	11	02:00	471
	12	17:00	500
	14	08:00	807
April	04	03:00	940
May	-	-	-
June	06	04:00	791
July	07	06:00	513
	11	01:00	539
	11	03:00	563
	25	00:00	613
	26	03:00	657
	26	05:00	655
	26	06:00	469
	27	22:00	587
August	07	21:00	477
	07	22:00	594
	09	05:00	775
	17	03:00	547
	23	09:00	670
	24	03:00	469
	24	04:00	513
	27	01:00	461
September	-	-	-
October	10	03:00	574
November	06	06:00	791
	07	06:00	547
	16	06:00	767
	29	12:00	602
	29	13:00	718
December	03	22:00	594
	03	23:00	723
	22	06:00	539

DRAFT1994 One Hour SO₂ Levels in $\mu\text{g}/\text{m}^3$ Summary of levels above 450 $\mu\text{g}/\text{m}^3$ measured at City Hall Monitoring Station

Month	Day	Hour	SO ₂ ($\mu\text{g}/\text{m}^3$)
January	03	00:00	532
	03	04:00	545
	03	05:00	584
	03	07:00	443
	18	00:00	636
	21	10:00	877
	21	13:00	898
February	05	12:00	660
	08	11:00	626
	08	12:00	471
	10	12:00	652
	17	17:00	678
	17	18:00	469
	18	07:00	482
	18	08:00	584
	18	09:00	532
	18	10:00	1205
	18	11:00	757
	18	12:00	812
	18	16:00	647
	18	18:00	477
	19	06:00	796
	19	07:00	568
	19	09:00	542
	19	10:00	571
	19	11:00	906
	19	12:00	568
	19	22:00	490
	20	02:00	783
	20	03:00	854
	23	11:00	461