

FILE NAME: Colonial Sugar Refinery (CSR)

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with Company Inspection Results



AUSTRALIAN BLUE ASBESTOS LIMITED

TELEGRAPHIC ADDRESS
"BLUEASBESTOS" WITTENOOM

WITTENOOM GORGE
WESTERN AUSTRALIA

Mr. J. M. Faichney,
District Inspector of Mines,
Mines Dept.,
Kalgoorlie, W.A.

14th February, 1958.

Dear Sir,

In answer to your letter dated the 23rd December, 1957, which was forwarded by surface mail, please find below the information requested.

COLONIAL SECTION:

1. No change was made to the major airflows.

2.

Intake.

No.1 Adit	5,000 c.f.m.
No.1 Level	17,000 c.f.m.
No.2 Level	15,000 c.f.m.
No.3 Level	30,000 c.f.m.
TOTAL	67,000 c.f.m.

Exhaust.

Main Fan 70,000 c.f.m.

3. The development changes which directly affected the ventilations:-

- (a) No.3 Drive broke through to Cliff Face
- (b) 9020 West Slope Drive connected to 1320 Chute and Hamway Rise giving a through ventilation to No.4 Level.

4. Secondary Ventilation Appliances.

2D Fans	...	13 in use and 3 spare
2½SD Fan	...	1 in use
3SD Fan	...	1 in use
3½SD Fan	...	1 in use
4SD Fan	...	1 spare
Venturi Blower	...	1 spare

5. (a) The dust hazard at the discharge of the Ore Conveyor was eliminated by boxing around the discharge pulley and installing an exhaust fan discharging to atmosphere.

2. Australian Blue Asbestos Ltd. About the middle of the year mining at the Wittenoom mine was stopped and operations concentrated at the Colonial mine. At this mine a 60" axial flow fan has been installed at an opening to the workings on the eastern cliff face. This fan exhausts 68,500 c.f.m..
- Hard Rock Quarries - Metropolitan Area. The collection of the dust liberated by crushing operations in the plants associated with these quarries had apparently not been given much consideration by the owners. One company, Australian Blue Ketel Ltd., during the past year installed a dust collector in the secondary crushing section and pressurised the primary crusher. A great improvement was noticed. The installation of dust collection units at the other quarry sites was recommended when visited during May. Nothing was attempted and so early in this new year the companies have been requested to adhere to Regulation 150 of the M.R. Act which deals with the prevention of dust.

Sampling and Analysis of Fume:

On the 11th and 12th July two samples of fume created by the detonation of explosives in a development and were taken. The explosives, A.N. Gelignite '60' and Semigel, were in a new wrapper chocolate brown in colour, with whitish stripes on each end and the name in white printed in the centre section. The explosive material was white, the red magenta coloring being absent. This testing was carried out as a follow up to the similar tests made during January, February - March, and November of 1956 and reported in the Annual Report for that year. It was believed that this new coloured explosive and new wrapping had been produced as a result of the work done in November when portion of the wrapping (about 50%) and 70-80% of the outer coating of wax was removed. It was later ascertained that the explosive in the new wrapper etc. was not produced following this result but is the standard wrapping used in the Eastern States. The result of the analysis of the two samples resulted:

Explosive	CO	CO ₂	Ratio CO:CO ₂	O ₂
50% A.N. Gelignite	0.32%	2.01%	1:6.3	19.65
Semigel	0.11%	0.55%	1:5.0	20.35

The percentage of carbon monoxide compared favourable with the percentages obtained when portion of the wrapping and wax was removed and tested in November 1956. (The percentage of CO on this occasion was 0.27% and 2.27% for CO₂ giving a CO:CO₂ ratio of 1:8.4 for 60% A.N. Gelignite) However the ratio of CO:CO₂ is still high and does not compare favourably with results obtained by Mr. T.N. Kirton when making previous investigations in 1938. Ratios of 1:10 and 1:12 or lower were commonly encountered in the more highly oxygenated explosives during his work.

Australian Blue Asbestos Ltd. Treatment Plant - Dust Collection - Board of Reference.

For some years past efforts have been made to remove dust liberated by crushing and extraction operations at the Australian Blue Asbestos Ltd. treatment plant at Wittenoom. Various installations have been made including dust collectors with ducting, and the enclosure of various sections with roof exhaust fans. A proposal for the ore treatment by a wet process was made but this did not eventuate. However during this year three Rotoclone dust collectors were installed. One collector exhausts from the section consisting of Rolls, Kubit breaker and screens which have been totally enclosed. Another collector traps the roof discharge from the fibre collector cyclones. The third collector is connected by ducting to the other machines, such as crushers etc. installed in the main building. The installations were completed on the 2nd October. On the 3rd October a Board of Reference on the dust in the treatment plant was held.

19 MAR 1958

The Board consisted of: President - Dr. Joyce, Secretary - Mr. F. Collard (A.W.U. secretary), Mr. J. Broadhurst (Company Representative). I accompanied the Board on their inspection of the plant and took dust samples at positions in the plant as requested by Dr. Joyce. presented to the Board the results of these samples, and those samples taken on the 2nd October at the same points in the plant where samples were taken on my previous visit on the 17th August. I was asked by the President for my opinion of the alterations which I considered showed some improvement as evidenced by the dust counts. I was questioned by the other members of the Board and by the advocates of the employer and the unions.

The installation of this dust collection system should make a great improvement, eventually, if the equipment is maintained and operated efficiently.

Aluminium Therapy:

Aluminium powder has been distributed regularly at all the changerooms licensed. There have been no shafts where mining operations have been suspended and consequently no changerooms closed.

Ministerial approval was given late in 1956 for the provision of aluminium prophylaxis at the Frazer mine (Great Western Cons. N.L.) and the Croesus mine (North Kelgurlli (1912) Ltd.) and the mine managements notified. The aluminium therapy treatment was made available at the Frazer mine on the 28th December 1956. However as mining operations at the Croesus mine were mainly investigatory an application to defer the enforcement of the request was made by the management. This request was granted. The preparation of the changeroom for the aluminium therapy has proceeded and it is anticipated this treatment will be available early in 1958.

Fuming Accident:

There were eleven minor fuming accidents caused by fumes in those goldfields where the mines report their accidents to the Kelgoorlie Office. Nine of these were in the East Coolgardie goldfield and one each in the Dundas and Yilgarn goldfields. Most of these were investigated either by an Assistant Inspector or myself or a detailed report requested from the mine.

Equipment:

Another Davis - Simpson Flame anemometer was added to our air measuring equipment. It was impossible to purchase this instrument so one was made locally. This was done at the School of Mines with the co-operation of the Director. Two instruments were made using our original instrument as a pattern, one being retained by the Mining Department of the School.

The yearly tabulation of dust counts with the comparative figures for the previous year shown in brackets is attached. These figures will include dust counts from samples taken in crushing plants of the hard rock quarries, cement industry, beach sands and other crushing plants for minerals, such as talc, copper, and red and yellow oxide.

Individual reports on their observations throughout mines visited by Assistant Inspectors Simmons and Shenton are also attached to this Annual Report.

from 10.68

Am 17/13/58

20 MAR 1958

J. M. Fairley

DISTRICT INSPECTOR OF MINES.

14/1/58