

*** Reference number- 3971
:NO 540224.001
:TL Copy letter District Inspector of Mines to State Mining
Engineer * Ventilation inspection Wittenoom Mine and
Mill; Attached dust counts showing improvement since July
1953.
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:AD THERE ARE NOTES ATTACHED
THERE ARE ATTACHMENTS
:TT
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State Mining Engineer, KALGOORLIE 24th February, 1954.
Mines Department,
PERTH.

Ventilation - Australian Blue Asbestos Ltd. - Wittenoom.

The asbestos mine at Wittenoom operated by Australian Blue Asbestos Ltd. was visited during the period February 9th - 13th. The primary object of this visit was to determine the effect of summer temperatures on the ventilation in this mine.

Outside the mine temperatures were recorded as:

-9.00 a.m.	92 Deg dry	65 Deg wet
12 noon	97 Deg dry	69 Deg wet
2.30 p.m.	98 Deg dry	76 Deg wet

whilst temperatures in the mine at working places and in airways during this period ranged from 83 Deg dry 77.5. Deg wet to 76 Deg dry 71 Deg wet. At 500 feet in from the New Portal entrance temperatures of 87 Deg dry 65-1/2 Deg wet were recorded at 10.30 a.m. This is in one of the main intake airways. Thus it can be seen that although the temperature of the air flowing into the mine is high the air is cooled moderately quickly. The dry bulb temperature at some working places is high but the humidity is relatively low. Working conditions are quite satisfactory with regard to temperatures.

Another contributing factor to these satisfactory conditions is the increase in the volume of air flowing through the workings off the New Portal entrance. 29,100 c.f.m. compared with 11,000 c.f.m. when measured in July 1953. This increase has been brought about by erecting doors at the other entrances through the Upper and Lower seams. The same exhaust fan is still in use but it is intended to increase the speed of this fan and thus increase the airflow through the mine. Should this not be satisfactory the company propose installing another 60" axial flow fan in the area of the new workings to induce air through the New Portal. This fan is to operate in series with the present exhaust fan.

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The present airflows are:

Intake	New Portal	29,100 c.f.m.
	Leakage through Upper seam do	3,600 c.f.m.
	Leakage through Lower seam door	1,000 c.f.m.
	Total:	33,700 c.f.m.
Exhaust	(Measured past fan)	40,600 c.f.m.

The following are points of interest regarding this mine.

Underground.

(1) A compressed air - water spray is being used where scraping operations create dust. However, the type of spray in use is not very satisfactory, requiring much adjustment, and hence is not used extensively. An atomiser spray of suitable design which does not use much water and so ruin the product, could be used satisfactorily.

(2) Experiments are being made with a filtering arrangement to trap the dust liberated when trucks are loaded from side chutes. It is intended to have a fan exhausting from the side chute and delivering to a drum containing a liquid. It is hope to clean the air in this way and release it into the airflow. Experiment is continuing.

(3) The driving of adits in the new mine in Western Gorge has commenced. One short adit has been completed and connected to No. 1 Adit some 20 to 25 feet above by an ore pass. This pass is to be used as a transfer ore pass. No. 1 Adit is being continued.

Treatment Plant.

(1) Most of the ducts from cyclones etc. projecting through the roof of the Plant building have been connected up and conducted to three Field dust collectors. Considerable dust is ejected from the exhausts to these dust collectors and this dust tends to drop down and re-enter the buildings. I have requested that more duct be added to these exhausts.

(2) Similarly, to take the dust away from the vicinity of the buildings the 48" diameter fans installed in the roof require casing and ducting. This has been requested. These roof fans, of which there are four, are intended to draw the dust out of the plant generally and from the vicinity of certain dust producing machines particularly. In this regard a large intake duct made of hessian has been erected up to each roof fan.

(3) The metallurgist will install in his plant a suitable water spray if one can be recommended. In this regard it is intended to forward a drawing of the compress air-water blast as used by Gold Mines of Kalgoorlie Ltd. If this is suitable and no accumulation of water occurs on conveyor belts much of the dust in this plant may be eliminated.

Attached please find a copy of dust counts recorded

at underground working places and in the treatment plant. For purposes of comparison dust counts recorded in the plant at my last visit in July 1953 are shown in red. These counts show a decided improvement. However, there appears little change in the visual appearance of conditions in the plant.

***Handwriting

DISTRICT INSPECTOR OF MINES

ADDENDA

NOTES:

1. Page 2 bottom right - initialled by J.M. Faichney.

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