PLAINTIFF'S EXHIBIT
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WV-04152

The State Mining Engineer, 19th September, 1960.

Mines Department,

PERTH.

Ventilation - Australian Blue Asbestos Limited - Wittenoom.

Following our Mr. Simmons' recent inspection and his subsequent report of 22nd July ultimo on the ventilation conditio I discussed with him the position in detail and as a result, decided that a check up of working conditions, especially in regard to ventilation was essential.

Assistant Inspector Simmons, Workmen's Inspector Hunt, and myself were in and about the mine and workings from August 30th to September 6th, and conditions were noted on all day shift and some afternoon shifts.

It was my intention to carry out a complete ventilation Survey, embodying a comparison between the Midget Impinger and Konimeter, and a comparison between our Velometer and the mine Laubrecht Flow meter.

Our inspections were arranged whereby Inspectors Simmon and Hunt would commence a ventilation survey of the mine, whilst I would firstly make a visual inspection of conditions, discuss several matters with the management, and then join the other Inspectors.

I carried out inspections of several working faces and as a result decided to discuss several matters with the Manager.

I also discussed with him, his disagreement with Inspector Simmons' figures and remarks. It was revealed that his complaints were groundless and Mr. Allen agreed in principle.

Regarding Mr. Allen's letter to me, dated 5th August 1960, I must advise as follows:-

Mr. Simmons has already explained his action with our Flow meter. I must add that Australian Blue Asbestos have their own Flow Meter, but I doubt very much if it has been used. It has not been checked since it was obtained. I could not locate any readings or figures resulting from the use of this meter.

The complaint against the mention of areas of 'Negligib Airflow' was frivolous to the extreme. Some areas where men were working when visited by me, had no airflow whatever. (Examples No 6 level - 5 S stope - west face and No 6 level 2 S stope.)

Other places in stopes which were provided with fans and ducting showed an air movement of 25 feet per minute and 30 feet per minute, but the air was not clean air, it was re-circula dust laden air. (Examples No 3 level 9010 stope - lower seam, an No 6 level 5 south stope - south face.)

The comparison of dust counts with those taken during previous inspections should be humiliating to the Management, whi has now had years of experience in asbestos mining. The dust

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content in this mine should be lower.

With respect to "Mill Dust Counts" - I wish to advise that I could find no area in the mill where men do not work or travel.

Continuing my inspections and investigations, I found that although the Underground Manager contended that Underground Ventilation is well looked after, this is not so. Entries in the Ventilation Record Book are merely superficial and contain no facts or figures. Conditions in stopes make me venture to write that stope ventilation receives 'but scant attention.'

Since Inspector Simmons' last inspection, some attempt has been made to prevent air entering old workings, and the 'sealing' work completed is excellent, but there are no recordings or entries to show why this was done or what has resulted.

My inspections showed that a very detailed ventilation survey is required and to carry out this correctly, would take at least a month. Both day shift and afternoon shift would have to be worked.

To correct the ventilation to a good standard will require much secondary ventilation and/or altered mining methods, and as this is primarily an internal mine policy matter, the mine officials will themselves have to determine their ventilation policy and necessary correcting; we will then check on conditions and make requests accordingly.

With this in mind, locations were selected underground where it was considered that local average conditions prevailed. Inspector Simmons' report which is attached, presents the resulting figures; which do not show a highly satisfactory position.

It will be noted that the results obtained do not show an average basis for comparison between the Konimeter and Impinger sampling. I can understand this when samples are taken in fluctuating currents, but it is hard to reconcile when the sampling was carried out in areas of negligible air flow.

As Mr. Simmons suggested, the results obtained with the Impinger must not be treated as conclusive. He had only three week's experience with the instrument. I must add however, that all sampling was carried out by the one uniform method.

The results do however, show that the underground ventilation is inadequately controlled, and this must be rectified.

The object of the Inspection was:-

(a) To enquire into complaints lodged by the Mine Manager.

(b) To allow Inspector Simmons to further check on the ventilation.

(c) To compare Midget Impinger results with those obtained by the Konimeter.

(d) To obtain information which may be of assistance to the Mines X-Ray officers.

(e) To inspect the mine workings.

(f) To confer the Mine Management with their ventilation

The matter of ventilation has been discussed with the Manager, whom I informed that I would be forwarding him further written requests re ventilation.

The ventilation position can be summed up as follows:-

Dust is being generated in the Mill in all sections. The company has spent very large sums of money in Mill Dust control and I must admit that I can see no immediate remedy against the dust being generated. The treatment of asbestos ore requires visible and accessible screens, etc., and a certain amount of dust must elude the dust extraction units.

Some of the dust generated is blown to surrounding positions by the prevailing winds. The plant is well protected, but climatic conditions and the handling of the finished product will not yet allow for the economic and complete enclosure of the milling sections.

Although most dust is collected in the Rotoclone circuits, the exhaust from the Rotoclones contains dust. This is shown by the sampling carried out on the lawn outside the Mill office. I suggest that this exhaust carries much fibre of the fineness which is injurious to persons. This is not a concrete fact, but the Impinger sample taken on the lawn showed Asbestos content (10-40 microns) as 3 p.p.c.c. or 84,960 p.p. cub. ft.

The exhaust dust from the Rotoclones at times, and according to the prevailing winds, enters the mine workings via the Main Adit and through Nos 1, 2, 3 and 4 levels. This is not a consistent contamination. We attempted to measure the dust content in the mine intakes on several occasions, but on each occasion the wind 'shifted'. One would require to wait in an intake for a long period to take samples, but as Mine Officers admitted to me that they were aware that the dust did enter the mine workings, I could see nothing gained in wasting valuable time.

Dust from the tailings dump, also at times enters Nos. 3 and 4 levels.

One of the 'intake' flows is along the main adit. This adit contains the conveyor belt carrying the ore from the mine. The belt is fed by chain controlled chutes, and discharges into the Main Ore Pocket. The system contains two endless belts of approximate equal length. The lower belt feeds onto the other belt. Dust is generated on all feed and discharge points. Whilst each position does not generate great amounts of dust, collectively the points discharge a fair amount of dust into the intake air. Each point is provided with air-water atomiser spray. These are on the upper side of each dust point. Another similar spray fitted on the lower side of each point would diminish the dust greatly.

The total inflow of air, over 90,000 c.ft. per minute is adequate to ventilate all the present mine workings, but until the air is split correctly or taken by secondary appliances to the working stope faces the general stope ventilation will be negligible.

Mr. Simmons' remarks on stope ventilation in his report of 22nd July last are in agreement with my own ideas.

On 5th instant, I asked Mr. Allen to accompany me underground on afternoon shift.

Mr. Allen is not a 'Mining' man and I desired him to see the conditions. The Underground Manager accompanied us.

Stope conditions were such that I had to request Allen to remove men until conditions were improved. He wholeheartedly agreed that men should not be in the stopes under such bad 'smoky' conditions. The conditions were a surprise to Allen. Although firing had taken place at 3.15 p.m., far too much smoke and dust was still present at 5 p.m. The general condition were such that I had to instruct our Mr. Simmons, who is a very conscientious worker, to refrain from staying in the stopes to take 'dust samples'.

I had several discussions with Mr. Allen, and have offered all assistance we can give. Our relations were and are very cordial and he appreciates our assistance.

I do not intend however, to have our officers do all the work. The Company owns a Midget Impinger, Konimeter, and Flow meter and must carry out a ventilation survey themselves - our officers will 'check' and assist if necessary.

I have discussed the whole position with Mr. Allen and I informed him that I would write in accordance with the requirements of the Mines Regulation Act, requesting certain action.

The entry in the Mine Record Book is attached.

My investigations and observations make me believe that the Mine administrators have failed to realise that they are working a large mine. I have pointed out that this is a 'deep mine', at present over 1800 feet deep with the workings extending over 2,400 feet in length. Production of 20,000 tons each four weeks gained by stoping only 39 inches to 42 inches wide is quickly extending the excavated area and if the ventilati is not controlled immediately, the problem will become a major financial one.

The Management however, should be given a chance to correct their ventilation according to their mining policy, but if a satisfactory result is not obtained, then I will have to request altered mining methods.

We will continue to assist, and for the time I have written to the Mine Manager - a copy of my letter is attached.

I have watched carefully the inspections involving the use of the Midget Impinger. This is a very worthwhile instrument as it allows for a sample to be taken over 10 minutes. Mr. Simmons operated this instrument for two weeks in conjunction with Mr. Quartermaine of the School of Mines, before going to Wittenoom, and in laboratory tests the Impinger gave much higher asbestos results than the Konimeter. We are however too new to the instrument to pass an opinion as to it's usefulness.

Apparently the Impinger has given very good results elsewhere, but as far as 'Dust Counts' are concerned I am inclined now, to think that the Konimeter is more useful to us. The Impinger would be useful to the Mine Staff - samples could be taken, and the sample obtained studied by a mine officer. An Inspector of Mines could take only eight (8) samples per day, and besides, it is necessary to carry too much fragile equipment. The Impinger should be tested frequently - we have no facilities for testing, and the instrument would be upset in transporting it

If the asbestos content of the atmosphere is required, I think that samples, much larger than that taken with the Midget