QUEENSLAND COAL MINING BOARD OF INQUIRY

Coal Mining Safety and Health Act 1999

Establishment of a Board of Inquiry Notice (No 01) 2020

Before:

Mr Terry Martin SC,
Chairperson and Board Member

Mr Andrew Clough,
Board Member

At Court 17, Brisbane Magistrates Court
363 George Street, Brisbane QLD

On Thursday, 6 August 2020 at 10am
(Day 3)

<KELVIN SCHIEFELBEIN, on former oath:

MR RICE: I just have a few more questions, if I may.

<EXAMINATION BY MR RICE CONTINUING:

MR RICE: Q. I just want to ask you a little bit about the layout of the initial incident report, being the green form that you referred to yesterday, and see what you can tell me about it. Mr Operator, can we bring up an example of that form, being ACM.004.001.0060. The reproduction quality may not be the best, but hopefully there's sufficient definition for you to follow.
A. Okay, yes.

Q. This is a form expected to be completed, I gather, after an incident such as a methane exceedance?
A. Yes.

Q. The ones that we have seem in each case to be filled out by the ERZ controller. Is that the normal process?
A. That's the normal process, yes.

Q. In addition to setting out details of what happened and expressions of conclusion and so forth, there are various classifications, it seems, that the author of the document is required to complete.
A. That's right, yes.

Q. Just looking at the top half of that page, the first classification appears about a quarter of the way down the page. You'll see a number of boxes, commencing with "Safety"?
A. That's right.

Q. Underneath that is "Environment"?
A. I see that, yes.

Q. The person completing it is expected, by the looks of it, to choose which of those options apply?
A. That's right, yes.

Q. And likewise underneath that, there's a list of departments, and the author, I assume, is expected to have sufficient knowledge to select the correct one?
A. That's right, yes.

Q. Tell me, as a general proposition, do the workers get some training in the completion of this document, in particular as to the areas of classification?
A. Yes, they do, yes.

Q. What form does that take?
A. I know it from my experience with appointing deputies. They're required, when they sit in front of me prior to appointment, to have completed an incident report form, and they've usually done that with other deputies or with the training department.

Q. You mentioned a training department. Does it conduct training in the completion of these forms?
A. In a mentor-type way, not in a formal training programmed way, yes.

Q. In your experience, would some deputies come to the job with experience of completing this kind of form?
A. Yes.

Q. Including classifications?
A. Yes, yes.

Q. These classifications, can I take it, are for the purposes of Anglo's business and not for, say, the inspectorate?
A. That's right, they're for Anglo, yes, and for Grasstree, yes.

Q. The form would be styled, wouldn't it, to suit Anglo's business?
A. That's right, yes.

Q. And its own internal reporting requirements?
A. That's right, yes.

Q. At the bottom of the page, there's another area of classification - in fact, there's three rows. Do you see the bottom three rows of that page on the right? "Consequence Type", then underneath that, "Actual Consequence" and then "Potential Consequence".
A. Mmm-hmm.

Q. To the left of the page, we also see a version of the AAMC risk matrix?
A. That's right, yes, I see that, yes.

Q. The instruction to the author, apparently, is to have regard to that in completing the form?
A. Classification, yes.

Q. Apart from being given the descriptions from the risk matrix on the adjacent page, do workers get any teaching or instruction as to how to complete that section of the form?
A. With regards using a risk matrix like that, that's standard training in supervisor training across the industry in the S1, S2, S3 training. They routinely conduct that training about using risk matrixes and identifying a risk ranking for an event or for a situation.

Q. Deputies will all have the S1, S2, S3 rating, will they?
A. That's correct, it's mandatory, yes.

Q. So you can take it that a deputy will have sufficient background to informatively and correctly, according to his assessment, complete this form?
A. That's right, yes.

Q. It would be correct, wouldn't it, that this type of classification is used, then, to enable a form of classification to be assigned to this incident in Anglo's internal reporting mechanisms?
A. That's right, yes.

Q. This form, I think you told us yesterday, will go to the relevant department?
A. Yes, that's right, yes.

Q. And the relevant department in this instance is identified as "Longwall", so does that go to - well, I was going to say tech services, but that's obviously a different department.
A. Mmm-hmm, yes.

Q. What happens to it when it goes to the department? And I'm speaking here really about the classification of the incident.
A. Righto. For the classification of the incident, that bottom portion you were inquiring about, the people that mostly use that are in the safety department, to determine if the incident needs escalation within Anglo's reporting structure and follow-up.

Q. So the safety department at some point will, what, review this?
A. That's right. Review and determine if it requires escalation. For example, the conduct of an LFI is one of the triggers that classification enables.

Q. Do you have any input into incident classification?
A. Yes.

Q. As mine manager?
A. When there's a question mark, would come to me back from the safety department, I've had occasions where they've come and asked me about the classification, do I think it's correct or should I determine that it needs to be handled a bit differently because someone may have classified it too high or too low.

Q. The worker completes this with his own assessment --
A. That's right.

Q. -- of the situation, but it's reviewed by the safety department and may or may not be changed; is that right?
A. That's right, yes.

Q. It might be changed up or it might be changed down?
A. That's right. When it's reviewed, it might be either way, correct.

Q. And is a classification of the incident then entered into, say, Enablon?
A. That's right, yes.

Q. That's the principal reporting --
A. Yes, there's a database called Enablon that records all of the safety incidents and, just like its brand name, enables the safety management system to go into action.

Q. Is the rating like a simple number or a letter or is it more complex?
A. It's basically a number that comes up in that matrix, yes.

Q. Well, the matrix shows 1 to 5, so will it be assigned one of those numbers?
A. No, it's ranked as it, as it says, "Insignificant", "Minor", "Moderate", "High" or "Major", and the

colour-coding in the matrix, although this doesn't show the colours there - L is for low, M is for middle, S is for severe, and the darker area that I can't really see is for high, so it classifies across those bands.

Q. So is the result of that to get a figure for a risk rating?
A. Yes. The risk ranking then, using the matrix, you identify across the grid where you believe it fits. For example, you might arrive at an 8M, because it's identified as being possible, and I can't quite see the top to use the term, but I believe "Insignificant", then "Significant", then "Major", but the screen, the way you've cut it, I just can't see the top there. Yes, so it's listed, looking there, as "Insignificant", "Minor", "Moderate", "High" or "Major", based by the loss type.

Q. In terms of having the final say on the risk ranking that goes into the system, is that at safety department level or does the SSE have the final say?
A. The SSE can be drawn into the final say. Generally that's not the case. Generally it's signed off by the final signatory level on the other side of there, on the other side of that document.

Q. Being, what, the head of the safety department?
A. Correct, yes - no, not the head of the safety department on this form, but, yes, ultimately he gets to see what's been classified and run through, yes. As a signatory, sort of answer that a couple of ways - so the final signatory on the form is a different person to the safety manager.

Q. The final signatory on this form?
A. Yes, that's right, yes.

Q. Perhaps we'll go to the next page, which is 0061. Can you tell from looking at that who would be the final signatory for this form?
A. Damian Cavanagh is listed there as the superintendent/manager.

Q. What's his role in signing off on this form?
A. He's the superintendent of the longwall.

Q. Yes, I appreciate that, but by signing off on it, what is he doing - indicating that he's seen it or something

more meaningful than that?
A. That he's received the report and has seen the incident description, the causes and the proposed actions.

Q. In this instance, that process, it seems, happens fairly promptly because he appears to have signed off the day after the form was completed?
A. Yes, we try to have the green form completed as soon as possible, because incidents need to be followed up straightaway.

Q. It so happens, if we look down towards the - yes, we have that on display now. Sorry, just go back to where we were. This form indicates, by completing the tick box "yes", that there is a form 5A required?
A. That's right, yes.

Q. Adjacent to that, the tick boxes are empty from the question, "Is a learning from incident investigation required?" I assume that's an oversight?
A. Yes, it should have been ticked "yes" as well.

Q. Because in every such instance, an LFI process commences; is that right?
A. That's correct, yes.

Q. We'll just go back to the top of the first page, on the right-hand side. In this instance, we see, as we do on a number of these forms, someone has handwritten the inscription "DNRM HPI".
A. That's right, I see that.

Q. Who writes that on?
A. Who would have done that?

Q. Yes.
A. I would suspect it's been done by the administration in the safety department, just so they can bundle them correctly.

MR RICE: Thanks, Mr Schiefelbein. That's all I have, Mr Martin.

THE CHAIRPERSON: Yes, thank you. Mr Crawshaw?

<EXAMINATION BY MR CRAWSHAW:

MR CRAWSHAW: Q. Yesterday you gave evidence about real-time monitoring, and do you remember saying in response to counsel assisting:

> *But volume is actually what we want, and monitoring it won't make the strata cave in any earlier or won't make the hole come on any earlier than it would have.*

A. Yes, I do remember that, yes.

Q. I just want to know what you meant when you talked about volume there?
A. The volume of the goaf drainage going up that borehole is the volume I referred to, yes.

Q. Could I just ask you one further question about real-time monitoring. Can you point to any downside in having real-time monitoring?
A. No, there's no downside to it. I might also add in there, when asked yesterday about the real-time monitoring, the question came at me in a way I didn't quite give you the full picture. There is real-time monitoring on the wellheads. I was answering it on the context of a person in the field going out to operate the valves and change the flows. There is real-time monitoring of the flow on the wellheads.

Q. Thank you. The other part of your evidence yesterday that I wanted to ask about was the change in configuration that came about earlier this year. I'm referring to yesterday's transcript, TRA.500.002.0101. Do you remember giving that evidence?
A. I'll just have to read it, sorry.

Q. You have it up, do you?
A. Yes, I do, yes. There's quite a page there. Is it the whole page you want to look at, or --

Q. I'm not asking you to read it, but - you can read it if you want. I just want to ask you some questions about the response.

MR HOLT: That's not his evidence that's up. It's Mr Newman's evidence.

THE CHAIRPERSON: Right. Thank you. I think we have an incorrect page there, Mr Crawshaw.

MR CRAWSHAW: I'll give the reference again. TRA.500.002.0101. Page 205, going on to page 206 of yesterday's transcript.

Q. I'm not sure whether it has come up. It's not up on my screen.
A. Yes, I can see it, and it appears to be a reflection of the discussion, yes.

Q. This was a matter taken up by the inspectorate with your company?
A. Yes. There were some directives and discussion about the location of the 243A sensor.

Q. Did you interact with the inspectorate yourself?
A. In this particular instance, not directly, no.

Q. Who in the company interacted with the inspectorate?
A. The SSE.

Q. Sorry, what's the SSE's name?
A. Damien Wynn.

Q. And you talked about, as it were, two groups within Anglo dealing with this matter.
A. No, I think there was only one group.

Q. Well, I thought you said you got together with some people on site to seek a solution, and then there was a higher-up group that also dealt --
A. Yes, that's correct. I understand your question now. Yes, there was a site-based group, which I called, and there was a group within Anglo meeting at a higher level with the regulator about it.

Q. So the inspectorate dealt with the higher group, as it were?
A. Yes, I believe so, yes.

Q. You didn't deal with the inspectorate?
A. No. No, I did not deal with the inspectorate, no.

Q. What about the SSE, was he in either of those --

A. No, the SSE was, I believe, in discussion with the people at the Anglo level. The SSE - I don't know if there was direct discussion at that time, and the way you'd pitched the question earlier, I thought you were talking about the directives placed later. At this particular time when the sensor was being placed, I don't know of any direct discussion on site with the inspectorate.

Q. Do you know who was in the higher-level group that you talk about?
A. There were a number of people, but two names I do know were Glen Britton and Les Marlborough.

Q. Who is Glen Britton?
A. He is the chief operating officer in Anglo.

Q. And what's his role at your mine?
A. He oversees the mine operations.

Q. Including safety?
A. Yes, full range, yes. There are other departments at corporate level, but of course being an operations executive he oversees safety.

Q. And Mr Marlborough, what's his position?
A. At that time in the company, he's the mine manager at the Aquila mine.

Q. Ultimately they made the decision in relation to this matter, did they?
A. I believe so, yes.

Q. They don't hold any statutory position at your mine, do they?
A. No, they don't.

MR CRAWSHAW: Yes, thank you.

THE CHAIRPERSON: Ms Holliday?

<EXAMINATION BY MS HOLLIDAY:

MS HOLLIDAY: Q. Just following on from that line of questioning, my name is Deborah Holliday and I'm appearing for the Resources Safety and Health Queensland.
A. Mmm-hmm.

Q. At the time the directives were issued in relation to the 243A sensor, you were actually on leave, weren't you - 14 April 2020?
A. Yes, that's right, yes.

Q. And Mr McNally was temporarily in your position?
A. Temporarily was the mine manager, yes.

Q. In relation to inspections at Grasstree, they have been, whilst you've been underground mine manager, both announced and unannounced by the inspectorate?
A. I'm not sure what you mean by "announced and unannounced".

Q. Sometimes you knew they were coming and sometimes you didn't know they were coming?
A. Okay, I get you, yes.

Q. "Unannounced" means you didn't know they were coming, and "announced" means you did?
A. That's correct, yes.

Q. In relation to those inspections, they generally comprise of three stages; do you agree with that?
A. I'll hear what your three stages are, but --

Q. All right. So there would be the introductory stage where you would meet with the inspector?
A. Yes.

Q. Then you would have the inspection phase where they would inspect the mine?
A. Yes.

Q. And then there would be the closeout stage where you would have the final meeting?
A. That's right, that's the usual routine.

Q. When I said "three stages", it is because every mine record entry is set up in relation to those three stages; were you aware of that?
A. Yes, it reflects the day as it went. I'm not sure that they - I wouldn't know that they deliberately write it out that way, but that's the way it's usually done and the way it's usually written, from my perspective, yes.

Q. I'll take you to an example of an unannounced

inspection that you were present for. Mr Operator, if the witness can see RSH.002.320.0001. Do you see in the top right-hand corner, it has "Activity Type", "Inspection - Unannounced"?
A. I see that, yes.

Q. The date is 5 February 2019?
A. That's correct, yes.

Q. If we scroll down the page a little bit, we can actually see there:

We were met by Mr Damien Wynn (SSE) ...

and yourself?
A. Yes:

Q. --

and we discussed the format for the day.

A. Yes.

Q. It says the site safety and health representative was consulted, Mr Watts. Do you have any independent recollection now of that inspection on 5 February 2019?
A. Not directly, no.

Q. So you can't say whether or not Mr Watts actually took part in the inspection or whether he was just consulted and he wasn't present?
A. No, I can't really recall that day very well, sorry.

Q. Sometimes the SSHRs are present for the inspection; is that your recollection?
A. Yes, generally, as soon as we're aware of an inspection we try to get the SSHRs to be along with the inspection.

Q. And what about if it's an announced inspection - would you let them know, the SSHR, that the announced inspection was going to happen? So "announced" means you knew it was going to happen?
A. That's right. Yes. So was the question in an unannounced visit, do we make them known?

Q. You've already answered that; you said that you'd let

them know.
A. Yes.

Q. With an announced one you know the inspectorate is coming, so you would have let the SSHR know in advance of the inspection?
A. That's right, yes.

Q. If they were available, they would accompany the inspectorate and someone such as yourself on the inspection?
A. That's right, yes.

Q. On this particular unannounced inspection on 5 February 2019, you had an introductory meeting as per usual, the first stage?
A. Yes.

Q. In relation to that introductory meeting, there seems to have been a focus on longwall 909 and longwall 910. Can you scroll down the page, Mr Operator. Presumably that's because those were the longwalls that were in operation at the relevant time?
A. Yes, that's correct. They were currently in operation, yes.

Q. In relation to longwall 909, it makes the comment there that the mine has substantially increased its methane drainage capability in the last two to three years and the number of HPIs related to methane exceedances had decreased significantly.
A. That's right, yes.

Q. That was in that period from 2017 - very late 2016 to 2017; you're aware of that?
A. Yes.

Q. That there was a lot of interaction with the inspectorate at that point in time with Grasstree and its gas management?
A. Yes, I understand there was, yes.

Q. As a result of that, action was taken by the mine?
A. That's right, yes.

Q. And that as a result of that increase in methane drainage that occurred at the end of 2016, beginning of

2017, you then didn't have as many exceedances in the years that were following; is that correct?
A. That's correct, yes.

Q. In relation to longwall 909, it records there that:

We asked --

that being the inspectorate asked --

about control of methane while installing supports transported through TG909 ...

and that you informed them that at some times, transport had to halt because of the methane levels.
A. That's right, yes.

Q. It's common, isn't it, that in inspections, be they announced or unannounced, there is a focus of the inspectorate on management of methane at the mine?
A. Yes, absolutely. They - it's part of the whole management of mines, particularly coal mines, to be very direct and inquisitive into methane exceedances and to ensure that they're adequately dealt with.

Q. In relation to longwall 910 there, the comment is made that:

This was driven to midpoint but is now on stand because in situ methane was not drained below compliance level.

A. Yes.

Q. It means there, doesn't it, that in fact what occurred was you had to come about the mining from another way, from the maingate side?
A. Ultimately it was mined in the normal way, but at that point it looked as though it may need to be done that way only, yes.

Q. I see. So that was what looked like was going to have to happen - that was in the development phase at that stage?
A. Yes.

Q. So if we can go now to the next page, 0002, this is

still in the introduction meeting. You discussed the longwall 908 sealing.
A. Mmm-hmm, yes.

Q. And, in particular, that you had been requested by the inspectorate to supply five previous ICAMs, investigation reports, in relation to exceedances during the longwall 908 seal-up and the commencement of production in 909?
A. Yes.

Q. The comment that's made there from the email that had been sent by the inspectorate is:

> *There will be lessons to be learned for the next similar situation.*

That's your understanding, isn't it: one of the functions of HPI reporting is to ensure that there are learnings, both by industry and the inspectorate, to move on into the future to try to prevent those from occurring again?
A. Yes, that's right, we need to identify hazards, causes and what can be done and then learn from it and take actions.

Q. You discussed the ongoing difficulties associated with stabilising the sealed goaf and to not over-drain, because of course that also causes problems in relation to ongoing issues with drainage and methane levels moving forward?
A. Yes, that's correct, yes.

Q. Further down on that page, it says, "1.2 Grasstree High Potential Incidents". Invariably in the initial discussion with the inspectorate, in any inspection, be it announced or unannounced, there is a review of HPIs that had occurred in the period following the last inspection and in between both inspections?
A. That's right. Almost always there's a review of incidents that have happened since last visits or most recently, and also of any industry-type safety alerts or such matters, to see --

Q. We'll get to that, because that's on the next page in relation to updating you about industry and alerts.
A. Yes.

Q. But in relation to the discussion or the review of high potential incidents - let's just focus on methane ones

presently, given the focus of the Board of Inquiry.
A. Okay.

Q. At those inspections, you will be asked questions in relation to what you have done in terms of controls as a result of the exceedances; that's correct?
A. That's right, yes.

Q. And again to ensure that not only risk is reduced to an acceptable level but also to prevent it from occurring again in the future; that's correct?
A. That's correct, yes.

Q. So in relation to, for example, this matter that was on 21 December 2018, it was explained that a brattice had been put in place, and it goes on from there in terms of matters that you'd discussed to ensure that, or try and ensure that, there wasn't a similar HPI of the same cause?
A. Correct, yes.

Q. Mr Operator, could we go to 0003. You mentioned a short time ago that another purpose of the introduction is to make the mine and persons such as yourselves, coal mine workers, aware of industry HPIs and safety alert bulletins, things of that nature?
A. That's correct.

Q. You will see there at 1.3 that there is a record of what was discussed in that meeting with you in this unannounced inspection, and that's invariably the case as well, isn't it, that there will be discussion of matters relevant to the mine to ensure that the mine is aware of what has occurred at other mines?
A. Yes.

Q. And learnings from industry?
A. Yes.

Q. In particular - and, Mr Operator, if we can go down to the bottom of that same page - there was an explanation of the background of something that occurred at a neighbouring mine.
A. Mmm-hmm.

Q. To ensure that there were learnings as a result of that incident at another mine.
A. Mmm-hmm, yes.

Q. No doubt as underground mine manager, you may have been aware of some of these matters already when they're brought to your attention by the inspectorate?
A. Yes.

Q. But if you're not, you would ensure that you share those with other persons at the mine?
A. That's right, yes.

Q. And that the mine puts action in place, if necessary, to also make learnings, moving forward, as a result of incidents at other mines?
A. That's right, yes.

Q. If I can take you now - so, Mr Operator, we're at 0004. We were talking about the process of inspection and that it was in three stages. The second stage is to go underground, because of course it's a coal mine, one needs to do that to inspect the workings of the mine?
A. That's right, yes.

Q. In this particular instance, the inspectors actually attended the pre-start meeting?
A. That's right.

Q. That occurs, too, doesn't it, on inspections, to ensure that not only the actions underground but also the things are occurring as they should in terms of bringing to the attention of the coal mine workers on shift things such as the TARPs and matters that need to be brought to the coal mine workers' attention?
A. That's right, yes.

Q. You then went underground, and it actually says that you were the person who accompanied the inspectors underground on this occasion.
A. That's right, yes.

Q. And there were a number of matters that were inspected. Earlier, I asked whether you had any independent recollection of this inspection on 5 February 2019. As we're reading through, it may --
A. That's right, some may come back to me, yes.

Q. Exactly, because in relation to this particular inspection, unannounced, there was actually a directive

issued in relation to longwall 909 - and can we go further down the page, Mr Operator - because the inspectorate wasn't satisfied with the roadway condition.
A. Mmm-hmm.

Q. So you recollect that now as having occurred?
A. That's right, yes.

Q. You then would have had to have taken action to ensure that risk was reduced to - or that risk became at an acceptable level in relation to the floor conditions in the longwall 909 travel road?
A. That's right, yes.

Q. We can go now, Mr Operator, to page 0005. It records there that the inspectorate actually spoke to two drillers who were working at the time, and they were able to satisfy the inspectorate in terms of their drilling plan.
A. Mmm-hmm.

Q. So that's also common, isn't it, that whilst underground, the inspectors will interact with the coal mine workers?
A. That's right.

Q. And ask questions of them also?
A. They often stop and talk to coal mine workers to verify their knowledge of site procedures and that things are happening as they should be.

Q. The inspectorate was also concerned in relation to an aspect of the state underground, again in longwall 909, of the dry dust that was down there.
A. Mmm-hmm.

Q. And then there was another directive issued in relation to the safety and health management system; you're aware of that as well?
A. It's coming back to me, but, yes, I would need to read it to fully get it again.

Q. On page 0007, under the heading "Directive", if you keep going down that page, Mr Operator, it sets out there the two directives that were given. One was in relation to the safety and health management system and we've also spoken about the one in relation to the floor conditions.
A. Yes, mmm-hmm.

Q. If we can go back up to page 6, there was further inspection of tailgate 808 during that inspection as well.
A. Okay, mmm-hmm.

Q. As invariably happens, there were questions that were asked of you in relation to matters that the inspectorate wanted to have further knowledge about. For example, on this occasion, it was in relation to the entrance, the district noticeboard, the place of safety, how one ensures that there is that place of safety for coal mine workers to go to, if necessary?
A. That's right, yes, mmm-hmm.

Q. There was an ability to be able to explain that satisfactorily, and then the next issue that was then discussed was in relation to equipment that was required about another aspect of the 808 longwall?
A. Mmm-hmm, yes.

Q. So in a close-out meeting, and this is at 0007, that invariably will involve a recap of what has occurred over the day of the inspection?
A. That's right, yes.

Q. And that is what it takes, isn't it, most of the day, for one of these inspections?
A. That's right, yes, most of the day.

Q. This close-out meeting happened with yourself, the SSE and also the SSHR?
A. Yes.

Q. And you discussed the contents of what had occurred?
A. Yes.

Q. And what needed to occur because of the two directives that had been issued to the mine?
A. Yes.

Q. And matters reinforced to you in those close-out meetings is what is documented here?
A. That's right, yes.

Q. We've used that as an example, but that is a typical example of an unannounced inspection, of the systems that are checked by the inspectorate?

A. Yes, that's a typical example, yes.

Q. I'll only take you to one other, because this is during the period of the terms of reference. It's RSH.002.362.0001. This is another unannounced inspection - you'll see that at the top right-hand corner - on 27 February this year. If we can go down that page a little bit, under the heading of "Opening Meeting", you will see that you were there, again, for the opening meeting?
A. Yes, that's right, yes.

Q. With two other persons from the mine. Similarly, it follows the same structure, that there was a discussion of the high potential incidents that had been reported to the inspectorate in the period between the last inspection and this inspection?
A. That's right, yes.

Q. And you can see there in the third paragraph that there was one in relation to a gas exceedance on 28 January.
A. Mmm-hmm.

Q. Invariably what occurs is that there will be discussion; it won't just be, "Here are the high potential incidents." You'll engage in discussion, won't you --
A. That's right, yes.

Q. -- in relation to each of those HPIs and what the mine has done to ensure that risk is at an acceptable level?
A. Yes.

Q. And to try to prevent one happening again in the future?
A. Correct, yes.

Q. Could we go to 0003. The second part of this unannounced inspection would be again, and it did occur, travelling underground, and there was actually review of the previous night shift 909 ERZ controller's statutory report.
A. Yes.

Q. What the inspectors would be looking for there is to ensure that not only it's recorded correctly, but also the gas levels that have been recorded; that's correct, isn't

it?
A. That's right, yes.

Q. Mr Operator, could we go to 0004. Similarly in relation to this inspection, there was a focus on methane management underground?
A. Mmm-hmm.

Q. And there's a note there of a brattice that had been hung from the roof at B1 intersection?
A. Mmm-hmm.

Q. Mr Operator, can we go down a little bit more. There was a request to inspect the in-seam gas drainage?
A. Yes.

Q. And it was raised with the mine about poor hole identification?
A. Yes.

Q. And how that could be remedied was suggested by the inspectorate?
A. Yes.

Q. There was then a close-out meeting again. You didn't attend that on this occasion; it was the operations manager that would have attended in your place, by the look of the persons that were there.
A. Yes.

Q. Again, there was a discussion in relation to what had occurred over the period of the inspection.
A. Mmm-hmm.

Q. You were asked some questions in relation to a number of the exceedances because you had reported almost all of the exceedances for Grasstree?
A. That's right, yes.

Q. One of them was what we call the third HPI on 20 March 2020.
A. Yes.

Q. And as a result of you reporting that exceedance to Inspector Brown, he then followed up with you, didn't he?
A. That's right, yes.

Q. You reported it to Inspector Brown on Friday, 20 March; that's correct?
A. That's right, yes.

Q. And then on Saturday, 21 March you received an email from Inspector Brown?
A. That's right, yes.

Q. Do you have an independent recollection of having received that email?
A. Not succinctly, but I do know I got an email, yes.

Q. And do you know that it detailed that you had to provide significant further detail in relation to the exceedance?
A. Further information, yes, that's right.

Q. You in fact provided that to Inspector Brown on Sunday, 22 March?
A. That's right, yes.

Q. But in further follow-up on Monday, 23 March, matters were requested of the mine to ensure that, in the future, there could not be a repeat of such an incident, or to try to reduce the risk of there being a repeat of a further incident of that nature?
A. I'm not familiar with what you're talking about exactly.

Q. Hopefully you were made aware of it. Mr Operator, could we bring up RSH.002.060.0001. It wasn't sent to you, it was sent to Mr Wynn, but it refers to a conversation that you had had with Inspector Brown that same morning, on the Monday, 23 March.
A. That's right, yes, I had travelled in to Mackay to meet with the inspectors about other matters but met Mr Brown in the hallway, yes.

Q. Were you made aware that Inspector Brown had contacted the SSE in relation to that exceedance?
A. No.

Q. The purpose, though, of your communications with the inspectorate was twofold: firstly, to find out more information; you'd accept that?
A. That's right, yes.

Q. And, secondly, to put steps in place to try to reduce another exceedance of that nature occurring?
A. That's right, yes.

Q. And you'd accept that it may well have been of particular concern for the inspectorate because of the fact there had been three reported in such a short period of time?
A. Yes, they were in discussion with Paul and with the inspector that I met with later, Mr Brennan, that - that was also part of discussions, yes.

Q. In relation to the email that's on the screen in front of you, it speaks of the fact - this is at the last dot point:

> *I suggest a more disciplined approach must be applied. Kelvin did explain how the dynamics of pressure and ventilation behave as you approach these ... that is all the more reason to control any changes to VCDs through an approved ventilation change form.*

Are you aware of whether or not the mine did take action as recommended by Inspector Brown in that email?
A. No, not particularly do I have a recollection of that. I believe what that was referring to was the opposite cut-through to where the longwall was at the time. There were some brattices that needed to be adjusted, apart from the brattices that we've been talking about on the tailgate drive. There were other brattices adjusted.

Q. So alternative action was taken; is that what you're suggesting?
A. Yes.

Q. But it had the same effect as that which the inspectorate was recommending?
A. I'm not sure exactly with this letter what it was referring to. I believe I've tried to state what I think it was about, but you've asked that question as though it's a categorically "no" type thing. I believe that it was about adjusting the brattices and that action was taken appropriately about the adjustment of VCDs for the form.

Q. Let's put the email to one side. Think of the

conversation that you had with Inspector Brown on that Monday morning.
A. That's right, yes.

Q. You and he had discussion in relation to the exceedance?
A. Yes.

Q. And steps that the mine should put in place to try to prevent a further exceedance?
A. Not as deliberate as that. Initially I met with him, as I said, in the hall. We were passing each other, and I was due to meet with Mr Brennan. I asked him did he get the information that I provided for him as a lead-up conversation. There was a little bit of discussion, and then I asked him, "So will you be looking after the matters that come out of this, or will another inspector, eg, Mr Brennan, continue on with it or are you now the controlling inspector for this particular situation?" He said to me, no, he wasn't, that he was about to be sent off to other mines to look after other matters and that I should go and see Mr Brennan about it. That's what I recall of the --

Q. So perhaps it's a matter to take up with Mr Wynn, given the fact that this email was sent to him, but as far as you're aware, the action that the mine took was what the inspectorate expected you to take in relation to those exceedances?
A. That's right, yes.

MS HOLLIDAY: Thank you.

THE CHAIRPERSON: Q. Mr Schiefelbein, how much notice does the mine get if there is to be an inspection, an announced inspection?
A. An announced one? It typically goes to the SSE a day prior.

Q. Just a day prior?
A. Yes.

Q. I think I've read some material somewhere suggesting that the mine takes the opportunity to clean up around the place, knowing that the inspection is coming. Is that your understanding?
A. Generally, when you have an announced inspection, you

polish up what you can, make it look right, when you're about to be inspected.

Q. It would be unsurprising if you did not?
A. Yes. It would not look good, from an inspection point of view, if you didn't even bother, yes.

Q. In relation to the unannounced inspections, and if it's you accompanying the inspector on that inspection, who covers your usual duties whilst that's being done?
A. Yes, it's the same as when I'm absent from the mine, the MSO, or the under-manager, looks after the statutory operations of the mine.

<EXAMINATION BY MR HOLT:

MR HOLT: Q. Mr Schiefelbein, I want to talk to you about what we've been describing in shorthand as the LFI process, so the internal Anglo processes for reviewing incidents of any kind. Just a couple of things at the outset about that. You were asked some questions by Mr Rice about what I think we are all now referring to as the "green form". You're aware of that?
A. Yes.

Q. Do you understand that the green form is designed very much to be the initial assessment, in accordance with the Anglo standards that I'll come to in a moment, of the classification of whatever incident it is that has occurred?
A. That's right, yes.

Q. Again, as you explained to Mr Rice, because it's an initial assessment of that risk classification or of that incident classification, it's subject to change by others who might review it and review the processes, review the situation, as things move forward?
A. Yes, that's right, yes.

Q. In particular - and we might not go to the detail of it now, but the Board has the material - we see in a number of HPIs in a number of different mines those classifications being crossed out and changed at various stages.
A. Mmm-hmm.

Q. In your experience, would that be reflective of that

kind of review process that goes on?
A. That's right, yes.

Q. You recall that you would sometimes be involved in that process?
A. Yes, sometimes they would come and ask me about it, yes, the safety --

Q. And equally the SSE?
A. That's right, yes.

Q. And also, though, the learning from incidents, the LFI report and the investigation and report process, that's something which would be positively looked at during that phase, as you would understand it?
A. That's right, yes.

Q. While we're talking about that question of classification, you're familiar, I'm sure, with - and we've referred to it already in this hearing, I won't bring it up - what's called the Anglo incident reporting standard which results in those classifications of 1 through 5?
A. That's right, yes.

Q. I want to be clear about a couple of things. It's correct, isn't it, that regardless of what number is given under that process, so long as something is an incident at all, as all of these HPIs are --
A. Yes.

Q. -- they will be investigated through Anglo's learning and investigation report process?
A. That's right, gas exceedances that are a regulatory matter instantly head along that path, yes.

Q. Again, we'll go through it with others later, but in terms of the process that then must be followed for that incident investigation, you would understand that that is enabled by, governed by, an Anglo standard called the Anglo Learning From Incidents Standard?
A. That's right, yes.

Q. So we can see how the things work together, we might pull that up, if we may. Mr Operator, it's AAMC.001.004.1472. We can see that's the "Learning From Incidents" standard. Do you see that?
A. Yes.

Q. We might make it a bit bigger, for my sake, and if we can come down, please, we can see the second paragraph under "Purpose and Objectives":

> *The LFI process has five steps which ensure incidents are reported, investigated, learnings shared, and corrective and preventative actions communicated and closed out in a consistent manner.*

A. That's right.

Q. So we're clear, regardless of the language of HPI or anything else that is used, everything that is called an incident at all, which includes every regulatory HPI, if we can call it that, gets assessed as captured by this learning from incidents process?
A. Correct.

Q. So we're all talking about consistent language, or not as the case may be, the LFI process is one which Anglo has introduced which was more commonly known as, and which used some different tools, the ICAM process previously?
A. Correct, yes.

Q. If we can scroll down a little further, Mr Operator, we can see there in the second paragraph under "Scope":

> *The Standard is not intended to take precedence over, or alleviate one from any local jurisdictional requirements, rather this Standard outlines a standardised investigation management approach intended to supplement and work in tandem with any local legislative requirements.*

A. Yes, that's correct, yes.

Q. You would understand that was necessary because Anglo operates across a range of different jurisdictions?
A. That's right, yes.

Q. Without going into the detail of every column there, we can see there those five stages that I took you through before: first response, which is about securing of the scene, preserving evidence, identifying witnesses and

taking statements?
A. That's right.

Q. Then classification and notification. That's that kind of process with the green form, using the other standard we were talking about before?
A. Mmm-hmm.

Q. And then the analysis phase - planning, visiting the scene, determining what, how and why?
A. Yes.

Q. Then a report - making conclusions, determining corrective and preventative actions, completing the report template, and so on?
A. Yes.

Q. Then, finally, the sharing and learning, which is making sure that lessons learnt in this process are shared on site and across the business?
A. That's right, yes.

Q. The Board will see - I'm not going to go through more than one, I don't think - those LFI reports, what used to be called ICAM reports, which have been produced in relation to every single one of these HPIs which we're dealing with in this case?
A. That's right, yes.

Q. Can we go over, please, to the second page of that document, Mr Operator. Again, just as a matter of a process, I want to be able to see 4.3:

Enablon is the mandated platform to record the LFI process.

A. Mmm-hmm.

Q. And Enablon, as you alluded to earlier, is a piece of software which is specifically designed to enable these kinds of processes?
A. Yes.

Q. It has some different functions, but for present purposes, critically what it has is a task management function?
A. Mmm-hmm, yes.

Q. Which ensures that any tasks that are allocated from the learning from incidents process are documented and followed up on to ensure that they are met on time and to an appropriate standard?
A. That's correct, yes.

Q. As I understand it, no-one but the SSE can extend the time for an Enablon task to be closed out?
A. Correct, yes.

Q. And, again, as I understand it, it's a big deal to fail to comply with an Enablon time line; in other words, it's not one of those task management pieces of software that just has 500 unmanaged tasks on it?
A. That's correct, yes, there's an accountability level, and at daily meetings any people that are getting close to their time line, they're listed on the board and made aware that they have to complete their tasks on time, and the SSE makes, yes, quite a deal of people who need extensions.

Q. It's not just the SSE, as we understand it. Also the safety folk in Brisbane at Anglo corporate also keep a close eye on those Enablon tasks?
A. That's right, yes.

Q. Could we have a look, just as an example of Enablon, at ACM.004.001.0003. Could we make that a little bigger, for my benefit. Just as an example, this is an example of a task out of Enablon and the way in which it's recorded and the way in which it's closed out?
A. Yes.

Q. We can see there - I've chosen it specifically - it relates to one of the actions that flow from what I'll call the compressor HPI?
A. Yes.

Q. We can see there one was, "Review and implement compressor and goaf drainage critical spare list and stock store", a critical task arising out of that incident?
A. Yes.

Q. Can we scroll down, please. We can see there the due date, revised due date, real due date, completed 100 per cent, and it had been allocated to Mr McNally, who we will hear from later today.

A. That's right, yes.

Q. That's just an example of the way the Enablon system follows you up?
A. Yes.

Q. Mr Operator, can we bring up an example of an LFI report, please. That would be AAMC.001.001.0703. We can see here, "Learning From Incidents Investigation Report". This one relates to 22 February 2020, which - though we're all getting familiar with the dates now - was the first of the HPIs which related to an exceedance in what we call the canopy sensor or the zero metre sensor?
A. Yes.

Q. Again, I know you're not in the investigation team; you have more of a helicopter view of these things?
A. That's right, yes.

Q. But can we just scroll through, please, to understand a couple of things, to 0706 of that, which is page 4 of 22 of the document. Could we zoom in on the little table there, "Methodology and Tools Used". There are a number of tools, aren't there, which Anglo provides to assist in the analysis and the work that's done in particularly stages 3 and 4 of the processes we saw before?
A. That's right, yes.

Q. We've got there: "Time Series Events Chart", which is mandatory, as it is noted, "Control Analysis"; "Behaviour Analysis"; "Change Analysis"; and "Why Analysis"?
A. Yes.

Q. Those who are facilitating or running this investigation process have access to those tools?
A. That's right, yes.

Q. And particularly - I said this was about Enablon, and it is - within Enablon, in actual fact those tools exist and you can operate them from within that piece of software?
A. That's correct, yes.

Q. And it gives you the outputs that you need, so long as you know how to operate it?
A. That's right.

Q. Thanks very much. We'll come back to that one with Mr Braedon Smith in a little while, but you were asked about distribution of LFI reports by our learned friend Mr Rice. Do you recall that?
A. Yes.

Q. A couple of things about that. Firstly, you explained that even more so now, but even then, these kinds of incidents were incorporated into, firstly, start of tour briefings for new crews who were coming on for a new tour?
A. That's right, yes.

Q. I think I've read somewhere that safety is the first slide in the presentation that's given to the coal mine workers who are coming on board for a new tour?
A. That's right, yes.

Q. Does that incorporate a review, in terms of those slides, of the incidents that occurred and issues that might arise as a result of them?
A. That's right, yes.

Q. In that sense, the coal mine workers, to ensure they've taken that on board, have to sign off that they've received that?
A. Yes.

Q. Again, on a more regular basis, the crews who are impacted by incidents, an exceedance or something that has occurred - that is, the crews who are working in that particular area - those particular incidents or exceedances are explained to them, reported to them, on a beginning of shift basis as well?
A. Yes.

Q. On the toolbox talks, I think they're called?
A. That's right, yes.

Q. In addition, you were asked about communication - sorry, I should say this. You referred to some changes that have gone on to ensure more effective distribution of LFI reports and the learnings from these kinds of incidents on site?
A. That's right, yes.

Q. To be clear, is that a learning and a new implementation of process or an improvement of process that

has arisen from this very process that we're involved in here and the thinking that has been done on site and by Anglo about those kinds of things?
A. That's right, yes.

Q. You're aware, obviously, of the obligation on a coal mine operator to keep a mine record?
A. Yes.

Q. And you would be aware, I'm sure, that under section 68 of the Act, the mine record has to include a record and reports about all serious accidents and high potential incidents that have happened at the mine site?
A. That's right, yes.

Q. Equally there's the obligation on the coal mine operator to ensure that the mine record is available for coal mine workers?
A. Correct.

Q. That's one of the key things about enabling coal mine workers to have access to this kind of material?
A. Yes.

Q. And again your expectation, borne out by materials before the Board, is that those learning from incidents reports we see are in fact included as part of the mine record and able to be accessed?
A. That's right, they're available, made available to all coal mine workers, yes.

Q. Could we then go to 0713 of that. It includes, in all cases, the green form being put in as well, so there's essentially a complete record for people to look at, and they can see the development of the thinking from the deputy who has first made the assessment right through the LFI thinking process?
A. That's right. We want to have it presented very transparently so people can understand the process.

Q. I understand, thank you. A couple of additional topics, rolling all the way back to when Mr Rice was asking you questions. Firstly, you were asked some questions about what I'll call for shorthand purposes the compressor HPI, so that's the HPI that occurred by virtue of goaf fall but where it was also known that there was a compressor failure which was a significant causal link in all of that

process. Do you recall that?
A. Yes.

Q. You were asked some questions by Mr Rice about what was done or what could be done in light of the fact that it was identified by you in the form 5A that there was an absence of additional goaf drainage capacity at that point in time. Do you recall that?
A. That's right, yes.

Q. And you explained in response to his questions that the goaf holes had been pre-drilled, obviously, at 50 metres?
A. Mmm-hmm.

Q. And, as you explained, goaf drainage in the immediate vicinity of the longwall was an issue at that time?
A. That's right.

Q. In terms of being able to ensure that you could clear that well enough to have a low level of general body gas?
A. That's right, yes.

Q. Is it right in fact that given that that event occurs on 28 July 2019, over that very period of time, and indeed in the period immediately following also, the mine and Anglo centrally also were giving very serious consideration to strategies to assist in draining the goaf near the longwall?
A. That's right, yes.

Q. And, in particular, by 30 August 2019, so about a month after that incident occurred, there was approval given for the purchase of what are called blowers, four blowers, to go on top of the goaf wells?
A. That's right, yes.

Q. That's not a cheap piece of equipment; right? We're talking millions of dollars?
A. Millions of dollars, yes.

Q. They had to be manufactured and brought in from Germany, as I understand?
A. That's right, yes.

Q. What they do is they effectively speed up that drainage process out of the goaf wells?

A. Yes.

Q. And they allow you some flexibility because they can be moved as you go along?
A. That's right, yes.

Q. Is it correct that as between longwalls 909 and 910, that, together with other gas management initiatives that were being put into place by the mine, managed to increase goaf drainage by about 34 per cent?
A. That's right, yes.

Q. So again, I guess in terms of the questions you were being asked by our learned friend Mr Rice, understandably, given the terms of reference, we're focusing on each HPI, but is it the case in fact that these issues of gas management and ensuring that steps are being constantly taken and resources constantly being put into that process, was something that was front of mind for you all the time?
A. That's right, yes. We're always increasing it to meet demand, yes.

Q. Indeed, since these times, over the last year or so, there are other initiatives that have been put into place, site-driven at Grasstree, to try to be right at the forefront of gas management and gas extrusion reduction on the longwall?
A. That's right, yes. An example - the compressor failure that we spoke of, where we had one compressor driving a Venturi, we viewed that putting two compressors in the same location, so that in the event of one compressor failing in the future, the other one would still operate and there still would be redundancy, that was taken almost immediately, and we apply that to any of our goaf wells that have a Venturi and a compressor and are running in a critical state sense.

Q. That's a great micro example of the LFI process coming up with real solutions to issues?
A. That's right, yes.

Q. In addition, you would be aware, I'm sure, of on site some of the other bigger-picture initiatives, such as the use of nitrogen on the active goaf to try to reduce methane extrusion from the active goaf?
A. That's right. We apply nitrogen into our adjacent goaf areas. That puts a blanket of nitrogen between the

methane and the fresh air of the roadway so that any leakage that occurs subsequently is mostly nitrogen, which is harmless, there's no flammable gas, and makes it safer and more manageable.

Q. Is all of this recognising that Grasstree is, I think as everyone accepts, a gassy mine, if we can put it that way?
A. We're a very gassy mine, but I also say we're a benchmark mine and our management systems are the best.

Q. Is that nitrogen example a good example, from your perspective, of innovation that seems to be working?
A. That's correct, yes.

Q. I should just say, just to tie a ribbon around the blower issue, I don't think it was suggested, but if one was listening one might have got the impression of a suggestion, maybe, that budgeting, in terms of these goaf drainage issues, might have been a concern. But from your perspective, the moneys that were required to purchase the blowers, which had to be manufactured and brought in from Germany, that was approved and approved quickly?
A. Approved quickly, yes. Anglo is absolutely committed to the management of methane in the mine, and it's quickly agreed that we'll do what we need to to get these matters dealt with as quickly as we can.

Q. Just one minor topic that came up in the conversation you were having with our learned friend Ms Holliday about the email from Inspector Brown, do you recall that, about ventilation changes and issues that might occur?
A. Yes.

Q. You said you couldn't recall - I know it's a long time ago. You said you couldn't recall what occurred in relation to that. Do you understand or would you at least expect that Mr Braedon Smith, the ventilation officer, would have been the person dealing with that on a day-to-day basis?
A. That's right, yes.

Q. And you understand he's coming in after you?
A. That's right, yes.

Q. Let's turn in a group sense to the HPIs which occurred as a result of exceedances in what we're calling the canopy

sensor or the zero metre sensor. There's a couple of topics I need to cover off with you reasonably quickly on these. Firstly, do you understand - indeed, we've had evidence already of it, but can you confirm - that for every single one of those exceedances, it was only the canopy sensor which demonstrated an exceedance?
A. That's right, yes.

Q. That is, the other methane monitors that were (a) required by the regulation or (b) implemented by the mine in accordance with its own risk assessments - none of those were measuring exceedances on those days?
A. That's right. They were all well below, yes.

Q. I don't say that for a moment to suggest you just go "Oh, well, it doesn't matter", but it's a significant feature in terms of identifying what the hazard is and why that particular exceedance is occurring?
A. That's right, yes.

Q. Just in terms of the positioning of that canopy sensor initially, you've explained that that was done in order to comply with, or it was thought then to comply with the new regulation 243A.
A. Yes.

Q. And you were aware, I'm sure, that the new regulation 243A came about in consequence of a report that was issued by the Chief Inspector of Mines, or by the inspector, I think, in June 2019?
A. That's right, yes.

Q. And its location - that is, the requirement for that new sensor - was driven by a recognition of a risk which had manifested internationally of issues with high concentrations of methane at the point at which the shearer enters the tailgate?
A. Yes.

Q. And because of the kind of equipment that's around there, the sprocket in particular, as it's called, that was an area where one had to be really careful about the concentrations of methane on that international experience?
A. That's right, yes.

Q. Am I right that you may recall that one of the concerns that was expressed in that report was that the

existing mandated methane sensor which was on the tailgate of the AFC might not in fact be properly measuring that little bit of methane that had the risk of being in that sprocket area?
A. That's right. A substantial part of that report gives different models to show where richer gas concentrations could be not far away from the longwall when the shearer enters into the tailgate, and that the AFC sensors might not detect it.

Q. And so the new requirement was for a sensor to be within 400 metres, because the modelling had demonstrated that if you know what's happening at 400 metres, you might have a good sense of what's happening up in that sprocket area, if I can use a horrible, non-technical description?
A. Yes, that's right.

Q. And, again, just in terms of the choice to locate that sensor in the canopy that was made at Anglo, did you understand that that was driven by, effectively, two things - firstly, that it was seen to be the place where you could get closest to the body of methane or the body of atmosphere that you were attempting to measure for methane near that sprocket area?
A. That's correct, in the first place, as you said, yes.

Q. And you also had already, as we know, a sensor that was 400 metres outbye?
A. That's right. It was our view that we already had that one outbye because we were leading industry, our belief, in that area, and that the legislation change - we could go to the next step and put a sensor directly where the problem was being spoken about.

Q. Also one of issues - upon which, of course, reasonable minds can differ - was if you just went, "Oh, well we've already got it 400 metres outbye, so we'll just use that one in any event", the risk is that by the time you get an exceedance 400 metres outbye, because it will take quite some time for a body of methane to travel that far outbye, you might already have a much bigger exceedance down in the area where the sprocket is?
A. Yes, there is a time delay. The ventilation travels at about 3 metres a second, so a sensor 400 metres away, you've already had the gas there for a period of time before you've caused a reaction to it. Putting the sensor directly where the risk is gives you an instant result.

Q. I guess what I'm looking to understand is this: whilst ultimately there was a difference of view about where that sensor should be located, you understood that the point was to try to understand the particular risk or the particular hazard which had been identified in that 2019 report with a good engineering solution, effectively?
A. Correct, yes.

Q. Thank you. Now, if we talk, then, about those actual exceedances that occurred - again, it might be clear, but just so we can ensure that everyone is clear about it - we have eight exceedances only in the canopy monitor; right?
A. Mmm-hmm.

Q. As we've noted, no exceedances anywhere else on that basis?
A. That's right, yes.

Q. And it wasn't as if that canopy sensor was pinging all the time; so it wasn't like there was necessarily layering there every second of every day, no matter what was going on?
A. Yes, that's right. It's read in real time in milliseconds, actually, and there's quite long periods of time where there's no readings there that would indicate a problem.

Q. To be clear, whenever that sensor went to I think 2 per cent, but tell me if it's 1.9 - I can't recall, I apologise - it cut power at that point to the longwall?
A. Yes. The regulatory limit is 2 per cent. As soon as it reaches 2 per cent, it already takes the power out to the entire area.

Q. And the other methane sensors were working appropriately. Thus, if the general body gas in those other areas being measured by those other sensors had hit that 2 per cent, they would also have cut power to the longwall?
A. That's right, yes.

Q. That's just an example of a layer of critical control; right?
A. Yes, and that's a step up on the regulation, as well. The regulation only required it to stop the cutters on the shearer and to stop the AFC. We've adopted an approach

where we take the power out in the entire area.

Q. Is that an example of you responding in accordance with your statutory obligations at the local mine site level to respond to the local site conditions?
A. Correct, yes.

Q. So, nonetheless, you got some exceedances, the first in February and then the series that we know about in March and following?
A. Mmm-hmm.

Q. Is it fair to say it was a challenge, a genuine intellectual challenge, to try to work out why that was happening and what the effects were?
A. Yes, it was. It was illogical to people that gas could go from the tailgate shields over to the maingate side, across an air stream of 45 cubic metres of air. It was unfathomable. There were people saying, "There's just got to be something wrong with the sensor or there's just some technical error going on here. It's unfathomable." Yes.

Q. But the response, if one looks at the LFI reports - and we'll look at them with Mr Smith because he was more sleeves rolled up, I guess would be the way to put it, on that?
A. That's right, yes.

Q. One of the early questions after that first incident in February was to look at whether or not that sensor was in fact measuring the general body methane or whether it was measuring stratification or layering in some particular context?
A. That's right. It was the view that it must have just been measuring a very thin layer and that it wasn't detectable by the deputies, it wasn't detectable by the other sensors in the area, wasn't apparent on the other sensors in the airways.

Q. Again, what you came to understand was that there seemed to be a correlation between the staggered movement of the shields and the exceedances; that was a link that was drawn at some point?
A. That's right. So when I'm on the phone with people, I'm saying to them, "Well, we've got to find where the gas is coming from. If you go to the scene and have a look at

it after the trip and you're finding no gas, okay, look again. We've got to find out where the gas is coming from. We've got to find that source", and that's where we found the shield staggering was the source in that area.

Q. But it wasn't, as these things aren't sometimes, quite as simple as that, and in fact what needed to be done, and was done through the LFI process, was an analysis of what multiple causes or multiple circumstances were existing to create that exceedance in that canopy sensor?
A. That's right, because there's periods of time where this gas doesn't appear, where the trip doesn't occur, and then there's different symptoms observed by different people when they go to investigate. You needed, in the end, to create a table. We went through a routine-type period where on the Friday where we've had three incidents in a row, we're looking at the same things that usually cause our exceedances and saying, "Well, we've got that under control now", and go again. "We'll apply this extra control, we've got that under control." But by the Monday and that week, we're going, "Hang on a minute, you're getting into an adaptive mindset to say, well, things aren't exactly the way we've always thought them to be. There's a new hazard there, and let's start to make tables of things, let's look at different factors that were present in each of the incidents and identify common root analysis and change analysis."

Q. Mr Operator, could we look at AAMC.001.006.0080, please. This is a learning from incidents investigation report and you'll see, unlike most, it has a number of incident dates in it - 20, 24 and 26 March, and 6 April and 11 April 2020?
A. Correct, yes.

Q. Is it in this process that what you did was to effectively say, "We've got a series of things that have happened here and we need to understand the patterns. We need to see how these things have actually all worked together"?
A. Yes.

Q. Again, I will not go into the detail of it, because, because of your role, you were having a helicopter view over it?
A. Yes.

Q. But you talked about the idea of using a table to identify patterns, and could I ask you, Mr Operator, to go to page 0093 of that document. Could we try to make the table as big as we can. Thank you. Perfect. That's the table you're talking about?
A. That's right, yes.

Q. What this did was to take potential contributing factors - we can just take some examples down the left that we know have an impact on the level and nature of extrusion from the longwall face - from the goaf, I'm sorry - and the other issues that you've identified all listed down the left-hand side there?
A. Yes, that's right, yes.

Q. Even things like the presence or absence of controls that you had tried or not tried?
A. That's right, yes.

Q. Can we have an example there, for example, the absence of a Sherwood curtain?
A. Yes.

Q. Because a Sherwood curtain was one of the things that had been used to try to change, as I understand it - I'm sure I'll get this wrong - the differential pressure such as to move, in effect, the goaf stream away from that sensor or that area?
A. That's correct, that's what the Sherwood curtain does, it moves the gas mix point away from the back of the shields.

Q. Then you have the incidents across the top and then you table whether they were - in fact, could we go back to the main page of the document, I think it's on the next page, the "Key" there - "Y", "P", or "N", considered a contributing factor, potentially one or not considered. Then could we go back, Mr Operator. What that then allowed you to do was, rather than just going, "Oh, we will try one thing: Does it work? No". "Try another thing: Does it work? No." This is a sophisticated root cause analysis, in effect?
A. That's right, yes.

Q. To try to say what are the combination of factors that we have to manage?
A. Yes, and it, down the bottom, ranks ones that have the

most common factors, yes.

Q. There's a suggestion made in the literature, and indeed it has already been referred to in the course of this inquiry, the idea of the danger of the normalisation of exceedances, when they happen in the same way over time?
A. Yes.

Q. Is this an example of the way in which this pattern of exceedances was not seen as being normal and was in fact investigated, and investigated in a sophisticated way, by those on your mine site?
A. It absolutely is, yes.

Q. As a consequence of this was the ultimate choice made - there are two choices I want to talk about, but the ultimate choice in terms of the best control from these processes was the use of the Sherwood curtain?
A. That's right, ultimately, yes.

Q. The Sherwood curtain, as I understand it, is a bit impractical from a mining perspective - it gets in the way, it has to be moved, it requires more effort and more resources; is that right?
A. That's right.

Q. But, nonetheless, that's the control that has been chosen to deal with that particular hazard?
A. Yes, it ultimately dealt with it, yes.

Q. And there have been none since then, as I understand it?
A. That's right.

Q. I guess the other point is this: you've left the canopy sensor in place, even though you know it's not required under the regulations?
A. Yes.

Q. Why have you done that?
A. We need to be sure that we've still got it safe, and some of these following incidents you can see where people's work practices, their understanding and that, had allowed the system to fail sporadically, occasionally, and we need to keep controls, and then controls on controls, and controls on controls.

Q. Is a great example of that in this context, and it might be what you're alluding to, the issue of the staggering of the chocks and how that was being done by the crews on the ground?
A. That's right.

Q. Because a decision was made that because the staggering of the chocks seems to be one of the potentially causative factors, that you would automate that process so as to prevent decisions being made that created that set of circumstances?
A. Yes.

Q. But what you found was there were times when new guys would come on the tour, I think, that actually that process was still being done manually?
A. That's right.

Q. So again there was an education process and also a continued automation process to try to fix that?
A. Correct.

Q. And you just keep building on those processes?
A. Yes.

Q. Just one final topic. You're aware, of course, that at Grasstree there's a combination, in terms of coal mine workers, of Anglo employees --
A. Yes.

Q. -- some labour hire staff as well --
A. Yes.

Q. -- and also contractors?
A. Correct, yes.

Q. I just want to ask you some questions about that in the context of risk assessment and how risk assessment is done on site. It's right, isn't it, that the labour hire folk in particular are not put to one side and designated as labour hire folk; they are part of the teams that are operating on the mine?
A. That's correct, yes.

Q. In that sense, they are required to conform with and apply the same procedures and processes as the Anglo employees who they stand side by side with?

A. Correct, yes.

Q. In particular, are they then, on literally a daily basis, if not a weekly or monthly basis, probably a daily basis, engaged in and involved in risk assessment processes?
A. Yes, they are.

Q. Have you seen any unwillingness from those people to be involved in those risk assessment processes --
A. No.

Q. -- in a diligent, thorough and committed way to the workforce and to the mine?
A. No, they're fully integrated. They wear the same clothes as our permanent employees. In fact, I'd be hard pressed to actually determine which ones are which.

MR HOLT: Thank you, Mr Martin.

THE CHAIRPERSON: Thank you. Mr Rice?

MR RICE: Nothing.

MR CLOUGH: Q. Mr Schiefelbein, I do have a couple of questions. I noticed in the MRE January 2020, which was put up earlier today, that compliance hadn't been reached in the course for longwall 909 development. Have I read that correctly?
A. Yes, that's right.

Q. So I'm just curious. Had there been any previous events that had maybe deferred the gas drainage or resulted in a diminished gas drainage lead time for that to happen?
A. No. The development of that particular panel, we're doing the final drilling for the install road, which gets driven not back to the previous longwall in our case, it's developed ahead and into the new ground ready for the next development. So the UIS drilling that's done for it is done from only just behind the miner and just in time on that basis for the install road to be driven.

Q. The full seam is extracted by the longwall; that's correct?
A. That's right, yes.

Q. So, in theory, there's no coal caving back into the

goaf?
A. That's correct, yes.

Q. So where is the source of the methane that accumulates in the goaf?
A. Yes, there's a number of seams above the seam that we mine that contribute to that gas.

Q. Are those seams pre-drained?
A. No, they're not pre-drained - oh, we have been experimenting with pre-draining them, but we haven't been wholesale successful in that area.

Q. So it would be fair enough to say that the methane that accumulates in the goaf, the only two ways it can make its way out of the goaf are up the goaf drainage wells or down the tailgate; is that correct?
A. That's one of the sources. In a longwall with an adjacent goaf, there's also leakage from the adjacent goaf, both in front of the longwall, in the seals outbye in the tailgate, and also through crushed seals back into the active goaf.

Q. Yes, sorry, I think you misunderstood the question. The question was the only way for the methane to get out of the active goaf --
A. Oh, okay.

Q. -- is up the goaf wells or down the tailgate; is that correct?
A. That's right, yes.

Q. I also noted that some stronger blowers were actually ordered and installed to increase goaf drainage capacity; that's correct?
A. That's right, yes.

Q. But if a goaf well hasn't come online, will a stronger blower make any difference to that well?
A. No. If it hasn't caved yet, it doesn't make any difference.

Q. And I also noticed in the table in the document AAMC.001.006.0093 that on the factors contributing to each HPI event, the proximity to the face of the goaf well was actually a fairly - potentially a fairly significant contributing factor?

A. That's right, yes. When we were studying that, we were finding that the distance back to the last active hole before you come on to the next one was a common factor.

Q. So if well holes had been spaced closer together, would that potentially have ameliorated that effect?
A. It could potentially do that. We've had attempts at trying closer hole spacing in some previous blocks to see if that works entirely, and it doesn't work entirely, because the holes can only draw the gas at a certain rate, anyway, and they merely scavenge the gas off each other and make themselves run out of gas and go to air rich more often and therefore end up being shut down rather than capture more gas or totally get rid of the problem.

Q. So I'm hearing there's an opportunity to maybe improve or refine the whole spacing maybe as a potential solution?
A. That's right, so that's one of the potential solutions in that area. When we trialled the more narrow hole spacing, we ultimately concluded that a better casing design to prevent the holes from deteriorating and therefore operate at maximum flow longer was a better solution at that time.

MR CLOUGH: Thanks very much. I have no more questions.

THE CHAIRPERSON: Mr Schiefelbein, thank you for your evidence. You are excused.

<THE WITNESS WITHDREW

MR RICE: I propose a break, Mr Martin.

THE CHAIRPERSON: All right. A quarter to 12, thank you.

SHORT ADJOURNMENT

THE CHAIRPERSON: Yes, Mr Rice?

MR RICE: Mr Martin, there is a list of documents that has been circulated to the parties referencing documents which were either directly referred to in the course of evidence yesterday or are related to it. There is no objection, as I understand, to the tender of the documents referred to in the list, and I do so.

THE CHAIRPERSON: All right, thank you. Those documents

on the list will be admitted into evidence.

MR RICE: I call Braedon Smith.

<BRAEDON SMITH, sworn:

<EXAMINATION BY MR RICE:

MR RICE: Q. Is your name Braedon Smith?
A. Yes.

Q. Mr Smith, you're employed, are you not, as a ventilation officer at the Grasstree mine?
A. That's correct.

Q. In terms of your qualifications, is it correct that you completed a statutory ventilation officer course offered by the University of New South Wales back in December 2013?
A. Yes.

Q. Did that qualification enable you to be recognised as a ventilation officer in Queensland?
A. Yes.

Q. And you were appointed, I think - correct me if I'm wrong - as ventilation officer at Grasstree by Mr Schiefelbein on 7 November 2019?
A. That seems appropriate, yes.

Q. For how long have you worked at Grasstree overall?
A. Since 15 October 2019.

Q. What was your experience between 2013 and 2019, could you tell us?
A. I practised as a ventilation officer at a mine in New South Wales called Springvale, and a number of other roles at that operation as well, subsequently, before coming to Grasstree.

Q. You participated in a number of what we know as LFI processes for some exceedances that occurred at Grasstree, did you not?
A. Yes.

Q. We've already heard some evidence, so we can perhaps be a bit briefer than we might otherwise have been, but

could I take you firstly to one in which you were not involved because it seems you were only very recently engaged at Grasstree. It concerns an incident on 25 October 2019, and hopefully you've had a chance to have a look at the LFI.

Mr Operator, could I put up AAMC.001.001.0810, and if Mr Smith could have a hard copy, that would be convenient, I think. Have you had a chance to have a look at that, Mr Smith?
A. I'm familiar with the document, yes.

Q. We've heard some evidence that there was a methane exceedance on that date associated with a goaf fall that may have been in fact the first caving. What I want to ask you about is the configuration of the ventilation arrangement and how the incident was dealt with having regard to that ventilation arrangement.

Could I ask you first just to have a look at page 4, which is 0813 last four digits, and the bottom half of the page. You'll see in those first three paragraphs under the heading that it seems as though the longwall tailgate ventilation set-up was designed in a certain way; correct?
A. Yes.

Q. And that the design had been - I see this in the third paragraph - effectively used in previous three-heading gateroads?
A. Yes.

Q. We take it from that that Grasstree had some history of use of three-heading gateroads?
A. Yes.

Q. That's as you understand it?
A. That's correct, as I understand it.

Q. Why was that method of ventilation not utilised, do you know, for the last two longwall blocks, as this report reads?
A. I'm not aware.

Q. Do you see the last sentence in that third paragraph:

It has been reintroduced for LW808 due to the two-heading tailgate layout without an

adjacent block.

Are you able to elaborate on what that sentence means?
A. Yes, so typically when you're developing your first longwall block you require two sets of roadways, a maingate and a tailgate roadway. If you have adjoining gateroads, you typically run, in most operations, with a single-heading tailgate roadway, because the subsequent other roadway has formed part of the adjacent goaf. So because longwall 808 was the first block in a new area of the mine, it required both, a two-heading gateroad development, both of which were open to the extraction of 808.

Q. I think we will go to a diagram of that shortly and I will ask you to explain it.
A. Yes, sure.

Q. If you would go to page 6, which is 0815, we see in the first paragraph under "Findings" that the start-up of longwall 808 didn't have the tailgate ventilation set up adequately. Apparently it wasn't set up as it was designed. Is that as you understand?
A. No. I believe what it's referring to there is that it wasn't set - it wasn't set up in a way that was adequate to provide that amount of ventilation through the C heading roadway. All of the modelling that was conducted for the commencement of the block and for the initial retreat up until the subsequent routine retreat of the tailgate roadway was for the arrangements depicted in this LFI.

Q. Perhaps we could go to page 9. There is a diagram. That's at page 0818. Is that a diagram of the ventilation arrangement in place at the tailgate?
A. Not at the time of the incident. That's of a typical arrangement thereafter. So the previous page has the --

Q. Could you speak up a little, Mr Smith?
A. Sorry. The previous page has the layout at the time of the incident.

Q. We'll go to the previous page, page 8. Could you give us an explanation of the functioning of the two gateroads?
A. Yes, certainly. The right-hand side of the page is the maingate roadway, which is typically the intaking ventilation paths, which then goes across the longwall face and out the tailgate, being the left-hand side roadways.

Q. That's where we see, for example, 21CT and 22CT?
A. That's correct.

Q. And the sensor was located where?
A. I believe it was outbye of 19 or in the vicinity of 19. I'll just check the documentation. It was in the C heading road, 19 cut-through.

Q. We see the letters A and C on the bottom of that diagram, in the bottom left-hand corner. A heading is - that depicts A heading and C heading?
A. Yes, that's correct.

Q. Could you identify the flow of ventilation by reference to those two headings?
A. Yes. The way that it was designed and modelled for the longwall commencement was that after the air is reported to the tailgate corner of the longwall face, a portion of that would then report via A heading, between 21 to 22 cut-through, through those what you can see is the squiggly lines, I guess. They represent some stoppings.

Q. I might need you to take it a little bit slower, Mr Smith.
A. Sure, no problem.

Q. Take us from the bottom right-hand corner where we see the letter A to indicate A heading.
A. Yes.

Q. What's the flow of ventilation to and from that area?
A. So we have four hammer holes.

Q. I beg your pardon?
A. We have four hammer holes, four downcasting shafts, if you will, small diameter shafts, between 22 and 21 cut-through on the bottom right-hand side of the page. Is that what you're referring to?

Q. Yes.
A. So they downcast a portion of air, and the remaining portion of the air is being intaked from the mains up A heading from the top right-hand corner of the page.

Q. You refer to the top right-hand corner of the page. There's a blue arrow.

A. Yes.

Q. What's the significance of it?
A. In this drawing, this is obviously a snap of the mine map at some stage after the incident, if that makes sense, where you can see the goaf area there being extracted. So the stopping arrangement that's relevant to the incident is in the bottom left-hand corner.

Q. How did the stopping arrangement impact on the exceedance that occurred on that day?
A. The design was such that when modelled at the commencement of this longwall block we would have between 7 and 9 cubic metres of air reporting basically through the goaf in a back-bleed arrangement to the C heading roadway and back out, and that was the design with the stoppings at 20 cut-through and 21 cut-through in place for the initial commencement of this longwall.

At the time of the incident, it appears as though that hadn't functioned as effectively as had been designed --

Q. The cut-through arrangement?
A. The back-bleed arrangement, yes, hadn't functioned as effectively as had been modelled or designed, contributing to the incident.

Q. And how was that rectified?
A. So at that point in time obviously those areas have become goaf, so they're no longer accessible, so the remedial action that was taken at that point in time was to establish a brattice wing coming from the intaking side of the roadway from A heading, from 19 inbye, to force air up into - between that area and the face where the longwall return was.

Q. What, then, is the significance to this report of the diagram that's on page 9?
A. The diagram that's on page 9 is representative of the arrangement that occurred thereafter, which was the design arrangement for subsequent extraction.

Q. In that longwall?
A. Yes, that's correct.

Q. Could you explain the ventilation flow by reference to that diagram?

A. Yes, absolutely. So across the face you've got 50 cubes of intaking air. That's I guess that denoted area with the blue line. It subsequently splits at the intersection of the tailgate roadway in A heading, where a portion of it indicated by the dotted red lines goes back behind the goaf through the brattice, designated as brattice 2, and then also reporting down through to brattice 1, between 3 and 5 cubes at that stage, and then we've also got an intaking portion of air in the tailgate roadway in A heading, about 40 cubes, as denoted by the diagram, and then the methane sensor outbye in C heading.

Q. How does this type of two-heading tailgate ventilation system differ from that which was used on previous longwalls, do you know?
A. With respect to 909 as an example?

Q. Yes.
A. 909 only had a single returning roadway in the tailgate.

Q. So instead of the two roadways with airflow in or gas flow in both directions, we would see only one heading?
A. Yes, that's correct.

Q. Being, what, the equivalent of A heading?
A. Yes.

Q. Is that the more typical instance of a ventilation arrangement?
A. Yes.

Q. In that kind of instance, we would see, would we, airflow across the face as currently drawn in this diagram by reference to the blue arrow?
A. Yes.

Q. And then taking a right-hand turn, so to speak, down the tailgate return roadway?
A. Yes, that's correct.

Q. And that's it?
A. Yes.

Q. Are there advantages to successful ventilation from using this kind of system as depicted there?
A. Yes, there are some advantages. One is the ability to

put positive pressure around that tailgate area through the back-bleed arrangement.

Q. What does that do?
A. You see that portion of the dotted red line returning inbye towards the goaf and then back across, that's driven by ventilation pressure, so it's drawing back in that regard.

Q. Tell me, does that serve to diffuse, to some extent, the gas concentration in the goaf stream?
A. "Diffuse" is probably not --

Q. Dilute?
A. No, no, it's not about dilution. It's purely about the pressure that's holding it back, if that makes sense, so that you have a wider scouring angle.

Q. I may have interrupted you. I was interested to know the advantages of this kind of ventilation arrangement compared to the single tailgate return?
A. That's one of the advantages. To be honest, that's the primary advantage of doing this, is that it provides you that capability to put back pressure on. However, it is a more complicated arrangement to maintain.

Q. What's the advantage of having that back pressure?
A. To keep that goaf stream away from operating area of the longwall face.

Q. That's really what I was getting at.
A. Yes.

Q. Where would you otherwise see the goaf stream tend to feature?
A. It would vary in, I guess, its typical area, if that makes sense, in a regard. So it is always on that - in this case, the pillar side rib as it comes out and the goaf gas pushes to --

Q. Can you identify where a rib is by reference to this diagram?
A. Yes, sure. So I guess where the blue arrow, across the longwall face, points towards the tail of the first red arrow, the immediate black line to its left would be what you would call the chain pillar rib.

Q. Is that where goaf stream tends to accumulate?
A. Yes. It tends to be manifest in that area and it's scoured by the ventilation air stream as it comes past.

Q. That's directly at the intersection; correct?
A. Yes.

Q. Of the face and the tailgate return?
A. In the vicinity, yes.

Q. Under the normal arrangement, you would find the airflow going only in one direction, from across the face and then down the tailgate return roadway - do I understand that correctly?
A. Yes.

Q. In this instance, that airstream can be split?
A. Yes.

Q. As depicted by the red arrow in one direction and the dotted line in the other direction?
A. Yes.

Q. I may be asking you a repeat question, but in terms of management of the goaf stream, how does this kind of arrangement improve or otherwise that management of the goaf stream?
A. It gives you the ability to have an impact on it through the application of that positive pressure. It also introduces some complexity into the ventilation arrangement --

THE CHAIRPERSON: Q. Mr Smith, I'm sorry, could you just sit a bit closer to that other microphone, might be the go. Thank you.
A. Is that better?

THE CHAIRPERSON: Yes. Thank you.

THE WITNESS: Sorry. It also introduces some complexity into that arrangement in the tailgate, which also has with it some inherent variability.

MR RICE: Q. You say "inherent variability". Is that a good thing or a bad thing?
A. It can be problematic if it's not controlled

correctly. So we have a roller door, that brattice 1 there is a variable control that allows us to control the amount in the back bleed through that area into the goaf.

Q. That ventilation arrangement was pursued for the balance of the production of that longwall, as you said?
A. Yes, that's correct.

Q. But not used on subsequent longwalls?
A. No.

Q. I want to go to one of the subsequent LFIs that you were involved in and just ask you to explain some technical terminology.
A. Sure.

Q. Could we go, Mr Operator, to AAMC.001.001.0691. It concerns the event on 11 January 2020. You were part of the LFI team, according to the team list; correct?
A. Yes, that's correct.

Q. If you go to page 5, could you give us a little explanation on the significance of, as the first line reads, "production approaching the drillers stub in 14 cut-through".
A. Yes.

Q. What's the significance of mining towards a driller stub for production of methane?
A. We have driller stubs in various locations to help us conduct our underground inseam drainage, so they're pulled off the regular tailgate roadway and into the block. So when we approach those, they're obviously an open part of the roadway that we intersect with the longwall during retreat.

Q. Is that a feature which is a leftover, so to speak - that might not be the correct term, but the product of the inseam pre-drainage?
A. Yes.

Q. And is it known where they're located?
A. Yes.

Q. Is that a feature, for example, on a mine plan?
A. Yes.

Q. I suppose, in light of that, you would be looking to know when you're approaching such a stub?
A. Yes, that's correct.

Q. Is that part of the planning that goes on?
A. Yes.

Q. What can happen when mining at or into a driller stub? Can you explain the significance of it?
A. In so far to the operation?

Q. We're talking about production of methane.
A. Those holes - sorry, those stubs and the holes that are associated with them remain on drainage for a period of time before we intersect them to try to maximise the ability for us to drain the coal. At a point in time when we go to intersect them, we disconnect all of that apparatus, because it has served its functional life at that point in time. Then when we come into the intersection of the stub itself, we have a process and a procedure and a standardised layout for how we treat those stubs, so that they remain ventilated during that process of holing into them, to prevent the accumulation of methane in the stub.

Q. So there is a particular plan?
A. Yes.

Q. By way of treatment of the scenario where you're drilling towards what's known to be a driller stub?
A. Mining towards, yes.

Q. Mining towards a driller stub, okay. Given that those things, the location of it and the fact of approaching it, are known and there is some plan in place for dealing with that, what went wrong on this occasion?
A. So this event was attributed to the fall of some goaf behind the longwall. So the context surrounding this event is that we had had some, I guess, poorer than expected geotechnical conditions in that tailgate. On approach to this stub, when it was holed, we did a regular cut into the tailgate which consists of two shears, and then the subsequent advance of the chocks. The ERZ controller at the time noted that he did another push at the face and another advance because he wanted to catch the lip of the stub for geotechnical stability in this instance, and that succession of a number of pushes and advances appears to

have opened up a sufficient amount of goaf area that subsequently came in in a single event at that point, flushing some of the methane from the goaf back over into the tailgate drive.

Q. I'm sure it's very basic to you, but can you explain what you're talking about when you mention a number of pushes to the face?
A. Sorry, a number of advances is probably the best way to understand it.

Q. Advances of the shearer?
A. Advances of the shearer. So the shearer had advanced, cut into the tailgate and taken two webs, so that's two metres of advance, of retreat. Subsequently, the chocks advance and move forward another metre with that motion so that the roof is supported in the working area of the mine, and in a normal sequence, that would just be two advances in a tailgate shuffle, which is the cutting sequence in that process where the two webs have been opened up.

Q. That's what normally is done?
A. That's correct, yes.

Q. And number three was apparently undertaken, and the expression appears, "to catch the lip of the drill stub"?
A. Yes.

Q. You might need to interpret that for us, if you wouldn't mind?
A. Sure. So when we cut into the driller stub and intersect, there's a portion of the driller stub from where it was that is obviously already supported from when it was used as a gas drainage stub for that activity. When we cut into that, there's a portion, being what we call the tip to face, between the tip of the chock canopy and the cut face position of the longwall, and that area is not typically supported until the shield advances over it. So when the ERZ controller has tried to catch the lip, he has tried to pull the tip of the chock into under where the supported roof of that stub is.

Q. What learning comes out of that?
A. So through the process of this investigation, the outcome was that we needed to communicate the balancing of the need to maintain the geotechnical conditions on the

face and also the potential risk that has of opening up an additional span in the goaf for a fall to occur. It's the role of the ERZ controller in the panel to balance the risks that he's faced with in the dynamic mining environment. So at that point, we didn't want to issue a direction to them that prevented them from making the assessment under their competency as to what risks they needed to address, whether it be the risk of a strata failure or the risk of gas migration.

Q. Was there some form of misjudgment in the first instance in this incident?
A. No, I don't believe so. I believe the ERZ controller acted in a reasonable way to fulfil his statutory obligations.

Q. Notwithstanding that there is a process which is in place, and it's in place with a view to successfully drilling - mining towards a drill stub without creating an exceedance?
A. Yes, that's correct.

Q. Is it, then, the feature of conducting a third push towards this drill stub so as to catch the lip - is that the essence of it?
A. That precipitated this event?

Q. I beg your pardon?
A. Sorry, that precipitated this event?

Q. Yes.
A. Yes.

Q. You say that was a legitimate choice that the ERZ controller could have made in that particular scenario?
A. Yes.

Q. So in terms of how to deal with the situation in future, if you say that what occurred was a reasonable choice, faced with the same scenario would we not have the same thing reoccur?
A. I don't believe so.

Q. Why?
A. We've gone through a process where we iterated to the ERZ controllers for them to be mindful of the decisions they're making with regards to the risks that they are

trying to manage on their shift, in particular with the drill stubs. Subsequently, we've also reviewed our standard work procedure for the intersection of gas drainage stubs in the longwall to make the standardised arrangement a bit more robust to handle some greater level of variability in the mining process.

Q. Can we go forward to the group of eight instances involved with the zero metre tailgate sensor. You've looked into this in a fair bit of detail, have you not?
A. Yes.

Q. You were on the LFI team for the first incident on 22 February 2020?
A. Yes.

Q. Then there was a number of repeat instances and I think you may have led the preparation of the report for the remaining seven instances?
A. Yes, that's correct.

Q. Let's just go to the first of them, because it seems to set out a number of features, and I'll ask you if they were recurring features. Mr Operator, could we go to AAMC.001.001.0703. Just while that opening page is there - if it helps, you now have a hard copy - I notice that the incident date was 22 February, and on this document the report date is also the same date?
A. Yes, that's correct, that's what's written.

Q. That couldn't be right, could it?
A. No. That was an oversight of mine in the preparation of the report.

Q. Do you know when this report was actually completed?
A. Not off the top of my head, no.

Q. In the sequence of events that subsequently occurred - and you were involved in the LFI for them - were both reports completed at the same time or was this one completed first?
A. No, this one was completed first. Typically an LFI report is given a due date of 14 days from the initial incident report.

Q. And you may not recall exactly, but do you expect you complied with that?

A. Somewhere in that vicinity, yes.

Q. In that case, we can take it that this report was completed before the next sequence?
A. Yes, preceding the subsequent incidents, yes.

Q. But you nonetheless did investigate the other seven and could tell us, perhaps, whether what you discovered on the first incident was also a feature of what emerged from subsequent incidents?
A. So we identified a number of factors in the process of conducting the first LFI, and some of those factors were replicated in the other incidents, but not all.

Q. Could you look at page 3 of that report. There's a number of things. At about dot point 5, you make reference to the position of the sensor, and is it correct it's not only the position of the sensor on the particular canopy but where that particular shield itself was located?
A. Yes.

Q. Can you explain the significance, then, of the position of the canopy - position of the sensor on the canopy on chock number 197, as I think it was?
A. Yes. The sensor was installed on the roof of canopy chock 197, which is the last chock in the sequence of chocks on the longwall face, being the point imminently on the tailgate intersection of the roadway, yes.

Q. Did you, as part of this, go and observe its location?
A. Not at the time of the incident, but I did subsequently during another underground inspection.

Q. It didn't change its position, did it?
A. No.

Q. Throughout this time frame of these eight exceedances it remained in the same location?
A. Yes, at no point during the subsequent incidents we had reported on this sensor was the location of that sensor changed.

Q. One or more of the reports about it has the 197 chock, I think an expression might be used, "fully in the roadway". What did you observe about its location?
A. During my inspection I previously alluded to?

Q. Yes.
A. At the time that I inspected I believe that chock was about halfway into the tailgate roadway, with the remaining half of that chock square with the cut face of the block side of the rib.

Q. Does that location of protruding, so to speak, into the roadway have an effect on what kind of - or what level of gas is going to be read by that sensor?
A. Yes, it does.

Q. Why?
A. I believe in the subsequent LFI, the seven-in-one, there's some diagrams at the back of it that are pretty easy to speak to, if that's all right.

Q. Okay, we might do that, but the position of it was one feature?
A. Yes, correct.

Q. Partly, as it were, in the tailgate roadway?
A. Yes.

Q. What about alignment with its neighbours, or with its neighbour, 196?
A. Yes, that was another factor.

Q. Did you make any observation about that?
A. I inspected, and I'm not recalling exactly which inspection it was, but I've inspected that sensor a number of times where we've had both alignment consistent with its neighbouring chock and alignment inconsistent with the neighbouring chock.

Q. I'm sorry, I didn't hear your last --
A. Sorry. I've inspected that sensor both being in alignment with its neighbouring chock and also out of alignment with the neighbouring chock.

Q. What is the significance of the lack of alignment with its neighbour?
A. So when the chock 197 is misaligned, or unaligned is probably the better term, with its neighbouring chock, 196, which occurs when that chock is predominantly out into the roadway in its entirety because it attempts to set to the height of the roadway that's cut and not to the height of the face, you have a mismatch in the chock heights, which

permits an amount of gas to accumulate in that higher space where that sensor is and be detected there.

Q. And being, as it was, at the very end of the tailgate - indeed, partly at least into the tailgate return roadway - in what proximity is that to what you would describe as the goaf stream?
A. It would depend on the alignment of the face. It could be potentially in the goaf stream or not at all, and it could be exposed to some of the gas coming out between the misalignment of the chocks.

Q. You note in this report, in the second-last dot point, that elevation relative to its neighbour was an issue?
A. Yes.

Q. Is that something that you would expect would have been considered in the assessment to place the sensor in that location or did it just turn out to be a particular feature that it was installed in a position which was somewhat higher than its neighbour?
A. Look, it was something that we observed following the installation of it. It was not something that we anticipated seeing.

Q. The face was not level, I take it? It was on some kind of a slope which affected the relative positions of the two chocks, 196 and 197?
A. Depending on the mining condition, it can be the gradient of the block or it can be the alignment of the roadways. It can be a number of factors that impact it.

Q. One of the things arising from this report, we see it at page 7, 0709, under the tasks, is that you were tasked to undertake a review of that sensor and determine if it was recording readings that were representative of general body?
A. Yes.

Q. Do I understand that you didn't actually get to carry out that particular review?
A. No, I conducted that review.

Q. Did you?
A. Yes.

Q. Okay. I may be wrong. I thought I had seen somewhere

that Mr Moreby may have done so?
A. Oh, he may have closed the action out, but the review itself was completed by me.

Q. What did you conclude?
A. At that time when the review was conducted, we basically determined that we didn't have sufficient evidence to determine whether it was or was not representative of the general body, which drove a subsequent action that we've since implemented of installing a secondary sensor on that tailgate drive, which we now refer to as the sprocket sensor, which is located more or less directly below the chock canopy sensor so that we can get an understanding as to whether - if they're both registering a methane concentration relative to one another or divergent from one another.

Q. Do I understand you correctly that arising from the reviews and the learnings from incident that there was an additional sensor?
A. That's the sensor I'm referring to, the tailgate sensor.

Q. At or near the sprocket?
A. Subsequent to the LFIs.

Q. Yes, I understand.
A. Not at the time of this.

Q. But that was the result?
A. Yes, that's correct.

Q. Did the canopy sensor remain in its position?
A. Yes.

Q. Let's just go to the next report, which is the joint one. It's number AAMC.001.006.0080. If you wouldn't mind going to page 13, Mr Operator, which is 0092. You were looking into seven events, and each event is given a particular identifying number; correct?
A. Yes.

Q. We won't go to it at the moment, but on the following page there's a depiction of which event relates to which incident number.
A. Yes.

Q. Could you summarise for us what you found in terms of miscommunicated operating practices that you refer to under that heading?
A. Yes. On a number of occasions, we found, through the process of investigating these incidents, that the sequence of shield advance in relation to the shearer position was identified as a contributing factor, I believe in seven of the eight instances specifically. And on the basis of determining that, we identified that we needed to modify the sequence of operation.

Because we seek to implement the controls as quickly as possible, we initially gave those instructions to the crews, to operate in a sequence that varied from the normal automation state.

Q. Verbally, I think?
A. Verbally in the first instance, yes, which inherently resulted in some people or some crews misunderstanding the intent of that instruction, which was subsequently verified and validated through a formal memo process with the sign on.

Q. Was the sequence that was initially communicated verbally a sequence that was verified or assessed in some way as being appropriate to deal with the issue that had been identified with respect to chock advance?
A. The set of circumstances that we were identifying was one that we hadn't seen before because we weren't measuring in this location, so we believed that the sequence of chock advance relative to the shearer position was a contributing factor, and the way to alleviate that was to separate the shearer position from the shields at that particular stage in the automation sequence, and we wished to assess whether that was an effective control or not.

Q. Could you explain what the preferred identified method of advance was?
A. Yes. We identified that during the automation state of cutting back out of the tailgate after the first cut in, that the shield started to advance with the shearer still in motion to what we call the buttock, or its turn-around position. When we identified that, we saw a consistency in the locations of where the trip events were occurring. It was nominally at around 185 chock.

During that state, the shields had started to advance,

during the shearer retreat. Our instruction quite simply was that we were to take the longwall out of its automated state doing that, bring the shearer back to its turn-around point at about 174 chock, then advance the shields from tailgate to main.

Q. In a block or --
A. Not in a bank advance, no, sequentially from tailgate to main.

Q. A staggered advance.
A. Yes.

Q. Is that the correct terminology?
A. It would be from a tailgate to maingate single advance sequence.

Q. An expression we've heard is a like a fan advance. Does that mean anything to you?
A. That would be a similar description, yes.

Q. Then, because there was some confusion, I think was your word, the instruction was reduced to a formal memo?
A. That's correct, yes.

Q. We don't need to go to it, but it's included in your report, the memo that was issued to crews?
A. Yes.

Q. What's the method of communication?
A. So it's a documented memo. I believe it was communicated by the longwall superintendent during the start of tour meetings, which was subsequently then verified by crew sign-off.

Q. As you've assessed it, what was some initial misunderstanding or confusion about the identified preferred sequence of chock advance - was that the reason why there were several exceedances that continued, to which chock advance was related?
A. I believe it was a contributing factor in two of the instances, from memory, but it was also a contributing factor in many of them - when I say two of them, it's two of the instances where it was miscommunicated, because we hadn't communicated an instruction in a number of instances when these events had occurred because we had yet to identify that as a potential cause.

Q. Well, it was a gradual process, was it, of identification?
A. Yes, we were trying to characterise the problem.

Q. And then implementation, initially verbally, followed by a written instruction?
A. Yes.

Q. Having done that, was success achieved in managing methane in this area?
A. Not entirely, no. We found that that was one factor. The table that's on the subsequent page, I think we identified 13 potential factors which we determined during the course of us characterising the problem that we had identified when we were having these incidents on this sensor. So the automation was only one potential factor involved in these.

Q. If we could have a look at that, it's on the next page, Mr Operator. We saw this before you came in, or perhaps you were in watching, but we have seen this before. In terms of chock advance sequence, we see halfway down the left-hand column that you have attributed that to all except one - attributed in a positive way to all except one of the exceedances?
A. Yes.

Q. Moving from that page to the next, you refer in the first paragraph of that page to something called - it's a risk assessment called "Ignition of a flammable atmosphere at the tailgate drive"?
A. Yes.

Q. Is that a report of some kind?
A. That was a recommendation from the LFI to conduct a risk assessment in that area. I believe the title of that risk assessment subsequently changed, just out of administration, to, I think it was "Longwall tailgate gas management" or something like that.

Q. Are you, in effect, recommending that there be a risk assessment with that title?
A. A risk assessment in that vein, yes.

Q. Beg your pardon?
A. A risk assessment around what we were detecting there,

yes.

Q. You say that that should be done because that was the hazard the sensor was intended to detect?
A. Yes.

Q. Flammable gas at the tailgate drive?
A. Yes.

Q. With particular reference to the sprocket?
A. Yes.

Q. In fact, in the next paragraph, you recommended moving this sensor to that different location for that purpose?
A. Yes.

Q. Do I understand correctly that, instead of that, an additional sensor was put in the location that you recommended?
A. Yes, that's correct.

Q. And the canopy sensor stayed where it was?
A. Yes, so we had both sensors.

Q. Can I show you a document - I don't know if you've seen it, you may have done in the course of your LFI. Mr Operator, could we have AACM.004.004.0004. Sorry, it's ACM.004.004.0004. That is an email circulation that occurred on 12 April, by the looks, being the day after the very last of these eight events on the 11th. Have you seen this email before?
A. Yes.

Q. Is this something that you would have taken into account in the course of your LFI for the joint sequence?
A. Yes.

Q. We see that in this instance Mr Moreby has expressed some opinions about the event of the preceding day?
A. Yes.

Q. From what you've seen of what he's set out and what you uncovered, was what he described in this email a correct assessment?
A. Yes, I believe so.

Q. We see a graphical depiction, on the second half of

the page, of where this sensor was and how its position is relevant to its neighbour; correct?
A. Yes.

Q. Then there's another diagram over the page. Could you explain what's depicted in that diagram?
A. This is a top-down or a plan view of the same arrangement on the previous page, where 197 was the chock with its attitude facing up, and 196 is the chock with its attitude at the regular horizon, and what that disparity between them allows is a gap through which some of the goaf gas was found to be emanating over 196 into the vicinity of the sensor on 197.

Q. Is this an instance where the order of advance of chocks was relevant, or is it more this kind of scenario?
A. It could have been exacerbated by the order of advance of chocks.

Q. Was there any recurrence of methane exceedance at that sensor subsequent to this event that you know of?
A. No.

MR RICE: Thank you.

THE CHAIRPERSON: Mr Crawshaw?

MR CRAWSHAW: No questions, Mr Martin.

THE CHAIRPERSON: Thank you. Ms Holliday?

MS HOLLIDAY: I have no questions.

THE CHAIRPERSON: Mr Holt?

<EXAMINATION BY MR HOLT:

MR HOLT: Q. Mr Smith, Mr Rice was asking you questions about your background and qualifications. A couple of things to add - the first is that you have a degree in in mining engineering?
A. Yes.

Q. You also now have recognised as the equivalent of a first class ticket in Queensland, or New South Wales equivalent, qualifications?
A. Yes, that's correct.

Q. Does that mean at Grasstree there are now four members of the senior leadership team who have that qualification?
A. Four members of staff, yes.

Q. If we could deal, then, with a topic that hasn't yet been covered but may be of importance. From your perspective, would you be able to assist the Board, please, with what the process is on the day when an incident of this kind occurs - that is, when there is an HPI which involves an exceedance? What actually happens? Who's doing what role and practically how are people moved from the face and so on?
A. Yes. So normally the first person who becomes aware of an incident is the ERZ controller for the district, and he typically will respond by taking the people that are in that area to a place of safety, as per his obligation, and then notifying the shift supervisor, being the MSO.

Q. Can I pause you there. If you're talking about coal mine workers on the longwall, where is the place of safety ordinarily in that context?
A. Ordinarily it's the crib room.

Q. How far back is that?
A. Depending on the configuration, it could be a couple of hundred metres away from the face, in this case the tailgate.

Q. Sorry, I interrupted you. That's that part of the process.
A. Yes. After notifying the MSO, he will then also subsequently attempt to notify the mine manager and the SSE, in the case of an HPI. Generally the ERZ controller goes about commencing investigations to make the area safe or disperse the methane as best possible within the scope of their duties.

Where that can't be achieved or isn't easily achieved by the ERZ controller and he requires assistance, the MSO, myself, the underground mine manager may become involved at that stage.

Q. You mentioned an investigation. Could I divide that up into two components. The first is that initial step of identifying where the methane exceedance is coming from and what's causing it, I suppose. How is that done in

practice? What does the person do?
A. The deputy would attend the area with his hand-held gas detector. He would go through the process of making a number of measurements, both the measurements on the gas detector and also the ventilation in the area, trying to ascertain the source of the methane in the area in which the exceedance has occurred, and then developing a means of controlling, diluting, dispersing, otherwise eliminating that accumulation greater than 2.5 per cent.

Q. What sorts of strategies are deployed, or does it wholly depend on what's been found in terms of where the methane has come from?
A. It can be situational dependent. Sometimes the deputy may attend the area and the methane may have been readily diluted by the mains ventilation system of its own accord, but in some instances they may erect brattice sails, things like that, to direct airflow such that we can dilute the gas to an acceptable concentration.

Q. The second part of that investigation - I indicated I wanted to talk to you about two parts - is the coal mine workers who have been removed to a place of safety, are statements then taken from those people?
A. Typically, yes.

Q. Who is responsible for that at that stage?
A. Their supervisor, being the ERZ controller.

Q. Obviously it is wholly HPI dependent, but what process is then gone through to make a decision as to whether the longwall can be started up again and it be safe for coal mine workers to return to the face?
A. Production is ceased immediately following the HPI and is not permitted to resume until we've reduced the gas accumulation to below the required level. Once that's been done, an escalation process is undertaken where the ERZ controller talks to the MSO, being the shift supervisor, to basically gain authorisation to resume production, and typically if the mine manager is on site and is not having the MSO act as his representative, then it's escalated through the mine manager and also the SSE as well.

Q. You mentioned that obviously the key thing is getting the methane back down below the levels that they need to be, but what do you do to ensure you have confidence that that's a sustained position rather than just a drop down

and a risk that it's going to go higher again?
A. So it's verified by the ERZ controller in the first instance that that's the case, before production resumes. Obviously in the dynamic environment of the longwall, and as we've seen, where we can have moving pieces that impact the gas concentrations in areas, we then obviously continue with our monitoring to validate, in the next sequence, that that has been controlled adequately.

Q. Can we deal, then, briefly with the HPIs that we're dealing with here but, in particular, the LFI process, because, to use a phrase I used earlier, you were the person I think who had your sleeves rolled up, actually getting into the LFI process and identifying the root causes and consistently with the standard that we've seen presented to the Board?
A. Yes, that's correct.

Q. There are 12 HPIs over this period that we've heard about, and we've got the LFI reports for those. You were involved I think in at least - almost all of them if not all of them?
A. There were a few before my time being appointed, but the majority of them, yes.

Q. It might sound like an odd way of putting it, Mr Smith, but you will have heard, I'm sure, in the course of this inquiry and, indeed, I imagine in the course of your training, the idea of exceedances becoming normalised - that is, if you're in a mine environment and there are multiple exceedances or multiple HPIs, the idea that it gets normalised and so those in your kind of position see it as being okay or just an ordinary part of doing business.

Could you tell us from your perspective what approach you took to each of these exceedances and how you treated them, in terms of their significance?
A. Yes, all HPI events, particularly in my area of responsibility with respect to ventilation, we treat as unacceptable, and in the course of doing that we really want to undertake a thorough investigation to understand the root causes and the potential controls that we can implement to make sure that they don't recur, which you can see through the LFI process. We undertake an LFI for every single HPI that occurs.

Q. I guess, just expanding on that, one of the criticisms that one sees in the literature and that is spoken about in terms of the analysis of HPIs or any kind of incidents of this kind that might be seen as indicators is the idea of the problem that can occur if you just look at each one in isolation, kind of tick it off, put a ribbon around it and put it away. Can you tell us what approach you take to HPIs, as you say, that fall within your area of responsibility over a period of time?
A. So I guess to use this as an example, we had the first instance of an exceedance on this sensor, which we treated as a stand-alone LFI process and a HPI, and we didn't fully understand or hadn't fully characterised the problem that we were experiencing with this sensor as being in a location that we hadn't previously monitored.

Then, subsequently, we obviously had a number of subsequent exceedances in similar circumstances but not entirely identical, which threw some concepts into our head about, we don't have a rounded understanding of this particular mechanism, and if we continued to look at them in an isolated sense, one HPI with one LFI, we may fail to see the broader picture and all the contributing factors that are associated with it.

Q. That idea of looking at all of them - and we'll go very briefly, because we've already seen it, to the table - that idea of looking at all of them and looking at a multi-causation kind of analysis, was that something that there was any resistance to by either the senior leadership team on the site, the SSE, or from Anglo generally to your conducting that kind of a process?
A. No, not at all. I think particularly in the instance of 20 March when we had three in the one day, and I think they were the first events immediately after our first HPI, the discussion was had around, "We need to get these together and what's happening", and it was pretty well accepted that that was a good approach. And then obviously unfortunately we had subsequent events that we really sought to understand through that process.

Q. If we can have a look at that larger LFI report, that's AAMC.001.006.0080, and if we could go to firstly page 14 of that, which is the table. Thank you, Mr Operator, you're way ahead of me. We can see there, and I think you've already explained the kind of nature of the analysis that you undertook. As a result of this, were you

able to determine what, in your assessment, was the best or the best series of controls to deal with this hazard that had been identified by virtue of the placement of the sensor somewhere where no-one had previously been monitoring?
A. Yes, the best series of controls, yes.

Q. Can you explain for the Board what they were, what you ultimately concluded?
A. We identified a number of, as you can see, contributing factors from the table, and addressing only one of them was not going to be sufficient to ensure that we had robust control over the situation. So a number of controls that we implemented was the installation of the Sherwood curtain in the longwall tailgate, and I guess we've already discussed at length the advance sequence of the shearer.

So to make that process more robust, we went through and modified the coding of the automation sequence of that shearer and the shields and their advance, directly linked to the methane concentrations as registered on the sensors.

Q. Could I pause you there.
A. Sorry.

Q. No, no, just because I'm interested. Could you just explain what that means? So what automatically now happens when the methane at that level gets to a certain trigger - I think it is 0.6 per cent, from memory, but could you explain?
A. We identified through the LFI - and there's another table in there - that certain methane concentrations were indicators that we were approaching having an event if we allowed the longwall sequence to continue in its normal automation state, and those trigger points were 0.6 per cent methane on the chock canopy sensor or 1.5 per cent on the tailgate roadway sensor.

So when those two methane monitors detect those gas concentrations, it triggers a change in the automation sequence of the longwall to prevent the shields from advancing over the shearer, such that we minimise the risk and the potential of having the methane being washed out of the goaf and over those sensors.

Q. It might be obvious from the word "automation", but

that now requires no human intervention at all; it simply happens as a matter of course?
A. That's correct.

Q. And Sherwood curtains - I know you were desperate to go to this diagram and you weren't taken to it. Could we go to page 0154, Mr Operator, and we can go backwards and forwards as Mr Smith needs to. You will understand that there are others in this room who understand this as well as you, but I'm not one of them. Can you assist us, please - perhaps if you could zoom in on the top diagram, Mr Operator. You have been talking about a goaf stream. Again, treat me like I'm stupid - it won't be hard - and explain what it is using that diagram, please?
A. The goaf stream is the portion of the mine atmosphere that is emanating from the goaf, which is obviously in a methane-rich state. So in this diagram, it's depicted as this orange area, just for the sake of simplicity.

Nominally behind the longwall you've got methane, it's part of the mining process, and at some stage it reports in a portion to the tailgate roadway. And what we refer to as the goaf stream is that sort of fringe that you see heading down the page along outside the roadway.

Q. Thank you. While we have that up, we can see the little red dot there is the zero metre methane sensor, or what we have been calling the canopy sensor?
A. Yes.

Q. We've heard also about stratification as a potential cause for why there have been exceedances on occasions there, or one of the causes. Again, can you explain, using this diagram, how that happens?
A. If you see in this diagram, the sensor's situated outside of the area of the goaf stream. I believe on the subsequent diagram on this page --

Q. Could you drop down to the lower diagram, Mr Operator. Thank you.
A. -- you can see - this one is trying to depict, I guess, a state where that goaf stream or goaf fringe has encroached on that sensor, and I think there's another diagram - there's another series of diagrams on the subsequent pages which relate to the alignment of the roadway.

Q. Perhaps if we could go to the next page, and we'll just keep the two up at the moment. So we can see in these diagrams what you're demonstrating or what you're looking to depict are different configurations, different interventions leading to a different path of the goaf stream?
A. Correct, yes.

Q. Ultimately what was the conclusion that was drawn from this analysis that you did?
A. So there's a number of controls that we determined to put in place. One was the automation, which I've already spoken about. You can see in this diagram here there's a number of green lines on some of those chocks, which are annotated with chock-mounted butchers flaps. They're basically a rigid, like a 10mm thick sort of plastic that we hang from the canopies of the chocks to try and direct additional airflow in to disperse and scour effectively over that sensor.

Q. By "scour", you mean effectively push the goaf stream away; is that right?
A. Yes, and dilute it at the same time.

Q. Thank you.
A. And then also the installation of a Sherwood curtain.

Q. Can you talk us through what a Sherwood curtain is, in very basic terms?
A. Yes. It's a device that sits in the roadway made of brattice, which is basically a tarpaulin sort of material, which we secure to the roof and to the floor and to the blockside rib outbye. Basically, its function is to try to put a positive pressure, positive ventilation pressure, up over the tailgate drive and, in a similar function to those butchers flaps but in a different way, push more air over through the goaf stream to improve the scouring and dilution of that area.

Q. And does it have an impact on the efficiency of the mining itself? Is it hard or easy to work with underground?
A. Insofar as efficiency of mining, I wouldn't say so. It's challenging to erect in some circumstances and it requires some maintenance, but it's normally a fairly reasonable thing to install during a maintenance shift.

Q. Since you've had that in place, obviously with the other controls - I'm sure you haven't removed any of those - have there been any further exceedances in that canopy sensor?
A. No.

Q. To be clear, that canopy sensor is still there?
A. Yes, and an additional sensor below it.

Q. The one you're calling the sprocket sensor?
A. The sprocket sensor.

Q. Again, to be absolutely clear, that's in addition to the section 243A sensor, consistent with the regulation that now exists?
A. Yes, so that's further outbye in the tailgate roadway.

Q. How far outbye on the tailgate roadway is that at the moment?
A. At the moment, it's 150 metres outbye.

Q. Because of the change in the regulations?
A. Because of the change in the regulations.

Q. Now, dealing still with the canopy issue, you were asked some questions by our learned friend Mr Rice about a risk assessment that was recommended in the - well, it was an action that arose out of that LFI process. Were you in fact involved in the doing of that risk assessment?
A. I was involved in the preparation of that risk assessment.

Q. So that was actually completed, and was that a useful process as far as the identification of these risks was concerned and the continued management of these issues?
A. Yes. You can see that in the LFI report, when we refer to making a determination with respect to the canopy sensor as being representative of the general body. At that stage, we hadn't referenced placing an additional sensor around the tailgate sprocket, whereas that was an outcome of the risk assessment process.

Q. Could we have a quick look at it, please. It's ACM.004.003.0019. Do you recognise that, Mr Smith, as being the ultimate risk assessment that you are referring to?
A. Yes.

Q. We just need to be clear about dates, because this is dated, obviously, 9 April 2020 --
A. Yes.

Q. -- whereas the LFI reporting is occurring after that. Can you assist us with the overlap in timing of this risk assessment and that LFI process as well?
A. Sure. During the LFI process, we're developing an understanding of what's occurring and we also understand and know where some of our actions are going to lead us, and this was one of the items that we identified we were going to have to do, so we didn't wait for the finalisation of the LFI process to commence addressing some of the actions that we knew were going to come out of it. We started to run them in parallel.

Q. Mr Rice was asking you about the timing of that risk assessment. Obviously enough, it was clear that that has occurred after the canopy sensor has been put in place, at the time intended to comply with the new regulation 243A?
A. Yes.

Q. We've heard already that the positioning of a sensor on the canopy or on the tip of the canopy to comply with that regulation was something which had been assessed Anglo-wide, or at least Met Coal-wide as far as Queensland was concerned?
A. There was a desire to have a standardised approach, yes.

Q. Please tell me if you are not, but are you aware that there was in fact a risk assessment done, unsurprisingly, in terms of the location of that sensor by Anglo, at a Met Coal level?
A. No, I wasn't aware.

Q. In any event, when it was clear that that was where the canopy sensor was going to be, do you just chuck it in there, or was there a site-specific change management process involved?
A. No, we have a process for any interaction with gas monitoring plant throughout the mine, which is also legislated as being required - the authorisation from the VO or the underground mine manager. So we have a process of implementation, a series of forms that manage the change of the integration of gas sensors, whether that be the

installation, the removal, the change of a set point, or the decommissioning of a sensor or the change of a location.

Q. In this context where you're putting in a new sensor to comply with a regulatory change, does it result in consideration of whether any other sensors need to stay or go or have their trip levels changed or anything like that?
A. Sorry, could you repeat the question?

Q. Sure. You obviously already had a range of other sensors. Does the change management process also include considering the set of methane sensors as a whole, if I can put it that way?
A. Not typically. It's at the discretion of the VO and the UMM to determine what other sensors may be required to be adjusted or changed with the implementation of another one.

Q. I'm not being clear. I'm interested in the fact that we know that there was already a sensor 400 metres outbye.
A. Yes.

Q. Were any changes made to that sensor at that time, or was there a decision made just to keep it regardless?
A. We determined to keep it regardless and have it as an additional sensor.

Q. Given where you've got to with that canopy sensor, can you explain the reasoning behind keeping it there, given that it's not required as a matter of regulation?
A. Yes. When we initially implemented it and we believed that we were operating in compliance with the regulation, we found a hazard. We identified that we were finding methane in a location that was within the operating area of the mine, and we elected that we needed to treat the hazard. It wasn't a reasonable location for us to have detected it previously, because it's behind the shearer, particularly in the circumstances where it's on a return run of the shearer back to the maingate. It's not a prohibited place for an ERZ controller to be taking measurements during operation, so we identified a hazard in a potential area of risk and we then therefore, obviously, had an obligation to control it, and removing the sensor was not in the interests of complying with that obligation.

Q. Now, final topic, I think. I said that before, but

final topic - no, it's not. It's two. There was a reference earlier in the hearing to some communications with the inspectors about changes to a ventilation system that resulted in an amended ventilation plan occurring. Do you recall that?
A. With respect to one of these incidents?

Q. Yes.
A. Yes.

Q. Could you explain what the change was and what involvement you had in making it?
A. I think this was in the event of 20 March. One of those brattices in the tailgate was adjusted, which is broadly in the scope of an ERZ controller's ability to control through what we call a minor panel ventilation change. But because it potentially had an impact on the outcome of one of these incidents, we elected to provide some further additional guidance, which was in the form of a ventilation advice issued by myself and the mine manager to the ERZ controllers, with a set of parameters which we were happy for them to operate within.

Q. You may or may not have been aware of it, but what we've seen is an email to the SSE from one of the inspectors which proposed exactly that --
A. Okay.

Q. -- which said, look, in light of the fact this is an issue which has resulted from an HPI, from an incident, we think it's better if it's more formalised in that way that you've discussed. Were you aware of those inspector communications, or from your perspective was it simply good practice, or a combination of both?
A. Not directly, no.

Q. In any event, it wouldn't surprise you if the inspector was engaging in that kind of a positive way?
A. No, absolutely not.

Q. And it's the nature of the relationship you've observed?
A. Yes.

Q. Finally, I want to get a little bit of the benefit of your expertise in relation to gas drainage at Grasstree generally. Again, it's described by a lot of people, and

I guess you would agree, as being a gassy mine, that is, gas is something which has to be managed?
A. Yes.

Q. In terms of drainage, that is, pre-drainage, what are the techniques that have been used at Grasstree in the time that you've been there?
A. We typically utilise UIS. At some stage before my time with the development of 808 block, I believe there was some SIS employed as well.

Q. What are SIS and UIS?
A. Underground inseam drainage, so that's drainage that's commenced from the workings, that being that we have a drill rig underground that's doing the drilling and the drainage and connecting into our drainage system. And SIS is surface inseam, so they're holes that are drilled from the surface to the seam.

Q. In terms, then, of the capacity to drain the goaf using goaf holes, using the goaf drainage holes, are you aware that there were blowers commissioned and purchased at one point to go on to the goaf drainage holes?
A. Yes.

Q. What positive effect did they have on the capacity to drain the goaf at that point?
A. They increased our overall capability and capacity to drain.

Q. Do you know by how much?
A. I believe it's around 35-ish per cent, something in that vein.

Q. The precursor for doing that, obviously enough, is that there was gas to be managed in that area?
A. Yes.

Q. Was there any resistance from your perspective - I don't mean from you but that you observed from anybody about investing in those blowers in order to be able to increase that drainage capacity?
A. No.

Q. Quite the opposite, I would imagine?
A. Yes.

Q. In terms, then, of ongoing management of gas at Grasstree, I think you've been involved, together with others, including the SSE, in really looking hard at how to be innovative in improving gas management, improving gas drainage, given that it is a particularly gassy mine?
A. Yes.

Q. What steps have been considered and taken?
A. We undertook a fairly wholesale review of our gas performance, particularly in the area of the longwall. We've recently commenced production on longwall 910, and in the review process we came up with a concept, basically a target zero HPI initiative, where we implemented a range of controls, some of them standard and some of them innovative, to try to reduce the risk of HPIs in and around the longwall area.

Some of those include the application of nitrogen injection to adjacent goaf; roads, because we historically at Grasstree had seen some impact of adjacent roadway emissions into the longwall tailgate; the drilling of additional downcast shafts into a longwall tailgate; and also obviously the automation sequence and gas-initiated automation control on that shearer and the longwall plant as a whole.

Q. Now, I take it that doesn't mean you weren't thinking about gas management before then?
A. No.

Q. So what caused you to have this kind of fresh overall look at potential innovative solutions?
A. We had a run of significant HPIs that warranted our attention and something that wasn't just incident-specific focus insofar as holistic methane management control in the longwall.

Q. One of the topics but within the same area, that is, we've heard mention of the fact obviously there's the coal seam that is being mined by the longwall, and then there's also a seam above and a seam below; is that right?
A. Several, yes.

Q. And above is the Corvus seam in particular?
A. Yes, Corvus 1 and 2.

Q. And then below - I'm not going to get the name right,

so you can tell me?
A. Lower German Creek.

Q. The Lower German Creek seam. What challenges have there been in terms of dealing with the drainage of those seams?
A. We've undertaken some drainage of those areas. We had, I believe it was in 909 but outside of the terms of reference, some floor blower incidents in the extraction of that panel from the LGC, being Lower German Creek. Part of our response to that is to do targeted drilling of the Lower German Creek and also of the Corvus from our underground inseam infrastructure. We typically do that at the start and the end of the blocks, where we have found, through a review process, that they are the locations that we obtain the best performance out of the pre and post drainage.

In addition to that, we drill horizontal goaf holes, which are holes that are drilled basically parallel but above our working section to also aid in the post drainage capture of goaf gases in the longwall block.

Q. Finally, in terms of LFIs, and in particular gas exceedance LFIs, reports that have arisen from HPIs associated with gas exceedance, what communication of those on site occurs to coal mine workers who are, say, coming on to shift or coming on to a new tour?
A. From an initial standpoint, all coal mine workers have a briefing at the start of their tour, being at the commencement of their rostered period, where all the significant incidents are communicated to those workers and the outcomes immediately that were implemented from those incidents.

Obviously in the case of LFIs, some of those have a lag time following the incident. So while the incident may have some initial controls, there may be some additional controls that come out of the LFI process, and they also get communicated. So, for instance, myself and the operations manager did a campaign at the commencement of longwall 910, where we did a review of our HPIs in longwall 808 and also longwall 909 and communicated the outcomes and the controls that we had put in place to try and mitigate those from happening again in the commencement of the extraction of longwall 910.

MR HOLT: I'm sorry, Mr Martin, I've noted that I have gone 10 minutes over the luncheon adjournment.

THE CHAIRPERSON: Have you finished, though?

MR HOLT: I have.

THE CHAIRPERSON: Mr Rice?

MR RICE: Nothing, thank you.

THE CHAIRPERSON: Mr Clough?

MR CLOUGH: Q. Mr Smith, I just have a question based on your previous experience or what you might have read. One of the contributing factors to the gas coming out of the goaf stream is the amount of air wash going back into the goaf. Are you in agreement with me on that?
A. Yes.

Q. One of the areas where that needs to be managed is at the maingate?
A. Yes.

Q. What practices do you have in place at Grasstree to try to keep that air stream from getting into the goaf at the maingate?
A. Typically as part of routine practice, we operate with a standard maingate brattice wing, which I believe is pretty typical throughout the industry as a management tool. That's our primary control with regards to the goaf wash that may come through the maingate.

Where we also are building seals behind the longwall face and there's potential for ingress of oxygen into the goaf through that path, we immediately build a substantial - upon retreat, being a brattice stopping. We subsequently build a 5 psi flexi normally within 24 hours of retreating past that point and then subsequently the seal. We're also looking into some innovative options around the injection of a stabilised foam into the maingate corner area to further prevent the ingress of oxygen around that area, so it's easier to maintain and more effective than just a brattice.

Q. That was actually my second question. You've answered it. I was going to ask are you aware of any technologies

that are better than the standard brattice wing in the maingate. So you're currently experimenting with injectable foam; is that correct?
A. We haven't undertaken it yet, but there's a unit with Queensland Mine Rescue Service that they've developed for underground use that we're in discussions with bringing to our site for that sort of purpose.

MR CLOUGH: No more questions for me.

THE CHAIRPERSON: Thank you. Can Mr Smith be excused?

MR RICE: Yes.

THE CHAIRPERSON: Mr Smith, thank you. You are excused.

<THE WITNESS WITHDREW

THE CHAIRPERSON: We might adjourn until 2.30, I think.

LUNCHEON ADJOURNMENT

THE CHAIRPERSON: Yes, Mr Rice.

MR RICE: Mr Martin, I call Tim McNally.

<TIM McNALLY, sworn: [2.30pm]

<EXAMINATION BY MR RICE:

MR RICE: Q. Is your name Tim McNally?
A. Yes.

Q. I don't mean to be too familiar - is it Tim or Timothy?
A. Tim.

Q. You're employed at Grasstree mine; correct?
A. Yes.

Q. Can you tell me for how long you've been employed there?
A. Since December 2018.

Q. Can I just get the details of your qualifications, to begin with. You have some certificates of competency, I think?

A. Yes, I do.

Q. Can you explain what you hold?
A. I have a Mine Manager's Certificate of Competency in Queensland.

Q. Which class?
A. First class.

Q. Yes.
A. And a Mine Engineering Manager's Certificate of Competency in New South Wales. I have a Bachelor of Science at the University of Queensland, majoring in geology, and I have a Masters in Mining Geomechanics at the University of New South Wales. I also have an Advanced Diploma in Coal Mine Management, which was a requirement to get the first class certificate of competency.

Q. When did you acquire your first class certificate?
A. In 2016. Sorry, the Queensland certificate of competency in late 2019.

Q. Do you have some other experience of working in mines prior to December 2018?
A. Yes.

Q. Would you give us a brief overview?
A. Yes, of course. I started my career in the Bowen Basin working for BMO Coal in Central Queensland, working at a variety of different mines.

Q. How long ago did you start?
A. In - 15 years ago, let's say, 15 years ago. I worked at Crinum mine, I did 12 months at Crinum mine; did two years at Broadmeadow mine; a couple of years at an open-cut; I did four years at Moranbah North mine; up until December 2018 I did seven years in New South Wales at Ulan coal mine and Ulan West coal mine; and the last 18 months at Grasstree.

Q. I've seen your name associated with a couple of different descriptions, one of which is operations manager?
A. That's my current role.

Q. For how long have you held that?
A. Six months, just about six months.

Q. I've also seen you sign one or more documents as department manager?
A. Yes. I was the technical services manager at that point in time.

Q. Was that prior to taking on the operations manager role?
A. Yes, that's right.

Q. Technical services is responsible for what, can you tell us?
A. For the management and - the strategic long-term management of mine planning, of ventilation, of mining geomechanics, surveying and I guess technical assurance of the mine.

Q. Are you associated with the process of planning for and implementation of gas drainage?
A. Yes.

Q. Can you tell us this, if you can: with respect to the overall capacity of goaf gas drainage plants, ought there be a factor in reserve beyond the predicted or expected goaf gas emissions?
A. There should.

Q. Is there any rule of thumb associated with what that factor should be?
A. We relied on technical reports to make decisions around goaf drainage infrastructure.

Q. You take advice, in other words?
A. That's right.

Q. External advice?
A. External advice, yes. And for the case in question, the primary source of advice was a report written by Roy Moreby.

Q. What's the name of that, do you know?
A. I'll have to find it for you and get back to you. I don't believe it's been submitted --

Q. Do you mind, and perhaps your solicitor would let us know?
A. Yes.

Q. To come back to my question, is there a rule of thumb factor or does it depend on a panel-by-panel assessment?
A. It would depend on a panel-by-panel assessment.

Q. But is there a minimum that's prudent?
A. Oh, yes, there's a minimum of - so the report that I'm referencing talks in terms of medium-term demand or average demands and then peak demands, and it would be a minimum requirement to exceed the peak demand - or meet the peak demand.

Q. So meeting predicted peak demand?
A. That's right, yes.

Q. Is that the standard that Grasstree operates under?
A. We do. We certainly do.

Q. So the process is to do your best to assess and predict what peak demand will be?
A. That's right.

Q. And work from there to achieve what that peak demand is?
A. Yes.

Q. We've seen in this inquiry so far that sometimes factors which have a bearing on demand can occur concurrently, so that peak demand is at least stretched. So in that regard, peak demand is really the least that could be expected from goaf gas drainage plant; am I right?
A. It's the maximum expected quantity that we anticipate for all of the factors to coincide together. So, yes, I understand what your line of questioning is.

Q. I think we're on the same wavelength. You try to predict what factors will influence the demand?
A. Yes.

Q. And from what you say, do you then assume that those factors could coincide?
A. Yes, that's right.

Q. So as to arrive at a peak demand, having regard to all factors that are identified; is that the process?
A. Yes, that's right.

Q. We'll see that in this report, will we?

A. Yes, yes.

Q. I mainly wanted to ask you about your role in the aftermath of one of the incidents that we're looking at.
A. Yes.

Q. You may recall it. It's the incident that involves the burst radiator hose on longwall 909.
A. Yes, I'm familiar with the event.

Q. It turns out that by virtue of that burst radiator hose there was, on one count I've seen, probably five, six hours of production lost?
A. That's right.

Q. And, in addition, an HPI triggering the necessary processes that go with that?
A. That's right.

Q. That must have been an unsatisfactory day; would that be fair to say?
A. It was an absolutely unsatisfactory outcome.

Q. From both perspectives?
A. Primarily from a safety perspective.

Q. I beg your pardon?
A. Primarily from a safety perspective, but certainly from both perspectives.

Q. I want to go to the initial incident report and ask you about some of the entries in it that have your name against them.
A. Yes.

Q. Mr Operator, could you put up document AAMC.001.001.0675. This is the LFI. You're very familiar with that format of document?
A. Yes.

Q. I know you weren't part of the team for this investigation, but within this is a copy of the incident report, so we'll have a look at that. Could we go, please, to page 0685. The reproduction quality from this is not the greatest, but if you can't see, I can tell you that this appears to be a report by the ERZ controller for the day, Mr Stingle. You would know him?

A. Yes, I do.

Q. He has prepared an account to fill up parts of this form. The part I want to take you to is at page 3. I take it you would be familiar with the layout of these forms and what their purpose is, and so forth?
A. Yes, definitely.

Q. Could we perhaps go to the first half of the page. There look to be different people who have written on this form. As I look at it, there's different handwriting. Do you recognise the handwriting at that portion of the form?
A. My understanding is that that is Ben Millar's handwriting, who was the MSO on shift.

Q. The interest is that there are a number of tasks that have been identified?
A. That's right.

Q. And your name - correct me if I'm wrong, it's your name that has been associated with each of them?
A. That's correct.

Q. I was interested in how that came about?
A. I believe the process in this case was Ben has got hold of the incident form, he's understood - gone to seek to understand the contributing factors and how it's occurred, and he's put some actions down that he believes are appropriate to try to solve those, solve the causes of the event.

Q. We will come back to this, but I'll just show you the signature blocks at the bottom of the page. That might help. We see Mr Stingle's name is shown as the person reporting?
A. Yes.

Q. Consistent with what we saw before. Then the under-manager - whose signature is that?
A. Ben Millar.

Q. So he was the, well, mine senior official. Does that equate to like a shift supervisor?
A. Yes, that's correct.

Q. In the scheme of things, not as senior as you; would that be fair to say?

A. Yes, that would be fair to say. From a statutory point of view on this occasion, he was the mine manager's representation on shift. So from a statutory point of view, he's as significant as me in this case.

Q. Did it fall to him to make an assessment of this situation and assign corrective actions?
A. He's taken it upon himself on this occasion to do that, and I imagine it was in consultation with other members of the technical services team about what appropriate actions would be.

Q. Just while we're on the signature block, we see Mr Cavanagh's name. He's superintendent of what?
A. The longwall.

Q. Let's go back to the tasks on the top half of the page. In his position as representative of the mine manager on that shift, within the operation of the mine does he have the authority to identify and assign tasks that he thinks are necessary to be done?
A. He certainly has the authority to assign tasks and to correct actions. Some of these actions are rather large and have a fair amount of delegated authority, so there was certainly an opportunity for me to challenge them and decide on the veracity of those actions at a later date.

Q. They were assigned to you, so I assume that before too much time elapsed, this form or at least a list of the tasks that were assigned to you actually came to you for consideration?
A. Yes, that's right.

Q. I gather that you didn't veto any of them?
A. No.

Q. Or dismiss any of them?
A. No.

Q. Did you conduct some form of inquiry yourself to satisfy yourself that these were things that deserved to be done?
A. Yes, I did. I did.

Q. Independently of Mr Millar's recommendation?
A. Yes, I formed a view about what occurred and what happened, and I made some decisions about what was

appropriate to do and I supported the actions.

Q. What would you have had regard to - simply this form or other --
A. No, the LFI process as well.

Q. You weren't, I think, a team member of the LFI process?
A. No, no. I do participate in them, I provide advice in them and I ultimately sign off on the LFIs as a department manager at points in time.

Q. Just looking at the investigation team members, there was Mr Cavanagh, the superintendent of longwall?
A. Yes.

Q. Dennis Black, who was a ventilation officer at the time?
A. Yes, that's right.

Q. Mr Holt - what was his position?
A. He's gas drainage engineer or gas drainage superintendent, in charge of surface gas drainage infrastructure.

Q. Mr Brouwer, I think he was - well, you tell us?
A. A ventilation superintendent.

Q. And then finally the ERZ controller who's --
A. Mr Stingle.

Q. A mandatory participant, I think.
A. Yes, that's right.

Q. That's a fairly significant-looking team, if you don't mind me saying so?
A. That's right.

Q. Is it?
A. No, it is. It is.

Q. There are records produced by Enablon identifying these tasks and what was done. We can go to them if you feel you need to, but I'll ask you some questions and we'll see how we go.
A. Yes.

Q. The first task that's assigned to you, and which you accepted, was to review and implement access rights to remotely monitor goaf well performance for the number of people that are shown on the form?
A. That's right.

Q. Can I suggest to you that the Enablon close-out against your name records "Personnel all have access to remote monitoring data"?
A. That's right.

Q. Can you tell me, firstly, what was the purpose of that task, that first task?
A. So there's a different set of software that's used to remotely monitor the well performance and surface gas drainage infrastructure. There have been some steps changed to subsequently try to bring the two systems closer together, but at that point in time there wasn't. It's called Global Link. The statutory personnel on site at that point in time did not have access to that software and could therefore not visualise what was happening from a performance issue on the surface.

Q. We've heard from Mr Schiefelbein, for example, that in his office he has visual access to certain data.
A. That's right.

Q. Perhaps you do, too, do you?
A. Yes, certainly.

Q. The same as him?
A. Yes.

Q. But am I right, then, that prior to this event, the system wasn't set up, so that he and you and some others didn't have remote access to this goaf well performance data?
A. There are two systems that work in isolation or separation at the mine. There's the SCADA system or the Citect system. It monitors the underground environment per se. And then there's the Global Link system that monitors the surface gas drainage infrastructure. And at this point in time and up until recently, they don't communicate and talk and you need separate access to both programs. At the time, we didn't have access to Global Link.

Q. Would you mind just describing the benefit of the outcome whereby it appears that personnel all do have access to the remote monitoring data?
A. It gives people the ability to interrogate the software and interrogate what is happening on the surface at points in time. It was particularly prevalent or required on night shift where surface gas drainage personnel weren't around to monitor it wholesale, and the statutory officials at the mine then had a way to be able to check and validate that things were working as they were intended.

Q. And presumably not simply wait for reports from somewhere else necessarily?
A. No, no, that's right.

Q. Is that the idea?
A. They could, if they saw a change in the underground gas environment, go and interrogate why that was happening.

Q. The second task that's listed is "Review and implement compressor and goaf drainage critical spare list and stock store"?
A. Yes.

Q. You apparently did that in conjunction with the surface team?
A. That's right.

Q. And came up with some revised strategy; am I right?
A. That's right.

Q. What was that, can you tell us?
A. It wasn't as simple as getting another radiator hose and putting it on a shelf, because the compressors used on the surface - can I take a step back and provide a little bit more detail to this situation?

Q. By all means.
A. There's two primary methods that we extract gas from surface wells, vertical wells. There's the gas plant, which is a dual system that works on blowers and gas to a plant that generates power, and then we also have a remote or modular set of systems which is a Venturi attached to a compressor. Okay? And we can upscale and downscale our gas drainage capability by using compressors and Venturis and set them up quickly to extract goaf from

different locations at different holes.

Those compressors are all hired, on a hire arrangement, and the maintenance is done via a third-party provider. So we didn't really have an ability contractually to be able to change their maintenance arrangements, so what we did was we hired an additional compressor and our system now has a requirement for us to always have an additional compressor on hire on the surface, hooked up on a well that's not in service or parked in a location where it can be set up quickly.

Q. So the extra compressor is a form of plan B, if the first one suffers a similar problem or some problem?
A. That's right, that's right. Again, if I can provide another element of detail to this particular incident, the hole in question, the 17 cut-through hammer hole, was a trial hole that we set up - it's a different type of hole to our conventional goaf hole, where it's drilled all the way to the workings, and it was originally used to ventilate the tailgate roadway to provide gas dilution for access to vehicles and personnel for the previous longwall block.

So, as a trial, we set up a compressor and a Venturi there to try to alleviate some of our barometric effects associated with, well, with longwall extraction, basically, and it was particularly successful.

So what happened was it provided a much more immediate effect, particularly on barometric swings, to the effective gas that we're seeing in the general body at the tailgate roadway. And what's happened is that at the wrong time of the barometer, that compressor has failed and caught us off guard.

I guess the other point to make is that now when we use those types of holes, those critical holes - not necessarily limited to a hammer hole but any hole we deem as critical - we'll set up dual compressors on those holes so there's a redundancy in place.

Q. Is that something that's being taken forward?
A. Yes.

Q. Not only for longwall 909 but --
A. No, you'd see it set up today, and it's intended to

remain that way.

Q. So it would be deployed, for example, at the succeeding longwall, 808?
A. Yes.

Q. And it will be applied henceforth?
A. Yes. We didn't have holes of that type in 808, but critical holes, where we used Venturis, were set up like that.

Q. Today, does that Venturi and compressor arrangement give you the flexibility to apply it where it's most needed?
A. That's right. We can move things quickly and set it up without having pipeline infrastructure installed. I don't know if we're going to go there, but if I can jump forward a little bit, we did order four extra blowers to increase our capacity wholesale. In the interim, until they arrived, we did upscale I think an additional six compressors and Venturi units to be able to deal with the increased demand to always have that extra compressor available at all times in longwall 909.

Q. The third task that's on the incident form is: "Set up 17 cut-through hammer hole to extract". You may have already described the content of that, but would you mind saying what was done to complete that action?
A. We set up a Venturi and a compressor and used it in a very similar way.

Q. Task 4 sounds like perhaps the most significant of the tasks. It is to review and implement total goaf extraction capacity and increase total availability. You undertook that task?
A. Yes.

Q. And Enablon says that you completed strategy review for the remainder of 909 and 808 extraction.
A. That's right.

Q. Can you tell us what was involved in your review and in the outcome?
A. Yes. We did a number of different things, really. We started off with the base case, which I talked about earlier, the Roy Moreby report. We took that and we looked at what we actually received from SGE, and what we found

was that report was prone to underestimate our peak demands at points in time by a significant margin.

Q. How was that ascertained - just through experience?
A. We went and looked at our plots. We determined our extraction rates, so number of shears per day, and then we looked at the amount of goaf gas that we extracted from various wells and we were able to plot those up in a neat little plot that shows you, on a per tonne basis, what gas you're emitting from the goaf.

Q. So if I understand correctly, you performed an exercise to calculate your peak capacity?
A. Yes.

Q. And, as it turns out, it differed from what you had previously been advised?
A. That's right.

Q. Your review showing a higher figure, presumably?
A. Yes, that's right.

Q. So that raises a scenario where you have to do something about it, presumably?
A. Yes, and we did.

Q. What did you do?
A. Well, the compressor strategy was working and we were going to continue to on-hire compressors as required to ensure that we were effectively dealing with the gas generated from longwall production, but the longer-term approach was to buy an additional four blowers, and we did that, which gave us an extra 8,000 litres per second of capacity.

Q. As a matter of interest, since you described the process whereby you did your own calculation of peak demand according to the factors that were known to you, why then take the initial external advice in the first place?
A. I guess it was a journey that I went on as a tech services manager at Grasstree. I can only really talk to the strategy that was in place while I was there, and they were the things that I did in that management role and in that capacity.

Q. Let's speak about since then and for the future.
A. Yes.

Q. Is Grasstree going to do its pre-drainage calculations internally, perhaps with your guidance?
A. We've done a review for the rest of the mine life. There's only 18 months, two years of mine life left. And the infrastructure that we purchased is suitable for the mine life, on the basis of those forward calculations.

Q. Tell me if this you can: how old is that Roy Moreby report?
A. I couldn't give you an accurate answer.

Q. We'll find out.
A. Yes.

Q. The final task is to "Implement an alarming system to the control room with hole performance", and Enablon reports that you regarded the current system as adequate?
A. Yes. There was an extensive amount of consultation in making these determinations. I sat down and spoke to the ventilation officers and to Kelvin about this and we formed a view that we had a system that was capable of the personnel on site being able to monitor the system adequately.

Q. The alarming system that the task speaks about presumably is some form of colour or sound?
A. That's right.

Q. Both?
A. Yes.

Q. But you decided you had competent people who could watch --
A. That's right.

Q. -- effectively, and monitor?
A. Yes, yes. The point was really a conflict between the Global Link system and the Citect system.

Q. The Enablon outcome continues, "No real-time monitoring capability on goaf drainage wells".
A. Okay, that is not correct. So we have real-time capability on all of our vacuum plant which monitors flow.

Q. Continuously?
A. Yes, and pressure.

Q. 24/7?
A. That's right.

Q. Could we go in this document to page 0679. Do you see section 7 there, "Critical Control Failure". The entries there are either "nil" or "not applicable". Would you accept that goaf drainage is a critical control for methane management at Grasstree mine?
A. You need to take this particular box in context of the Anglo American system.

Q. Just answer my question first.
A. Can you ask the question again, please?

Q. I asked you whether you would accept that methane drainage is a form of critical control of the hazard of methane at Grasstree mine?
A. Yes, it is.

Q. And if for some reason - in this instance a burst radiator hose - the goaf drainage system fails or inadequately supports the ventilation system, can that be anything other than a failure of critical control?
A. It will be a failure of a critical control the way you're expressing the term "critical control".

Q. I think you want to provide some context, then, to this box?
A. I need to provide some context, because a critical control in Anglo American terminology is a control that's been determined via a cross-section that is an absolute barrier between an event occurring that puts life at risk or has a fatality event. Okay? So what's happened is --

Q. It sets the bar pretty high, does it not?
A. That's right.

Q. Well, ventilation is a critical control.
A. It is.

Q. And methane exceedances involve a loss of that control, do they not?
A. That's right, yes.

Q. Is that not also a critical control failure?
A. Yes.

Q. At least in the sense that I've used it?
A. Yes, absolutely, it is.

Q. Would you mind explaining again the approach that Anglo takes to what a critical control is? I'm not sure I quite follow it.
A. A critical control is a specific, an absolute specific thing that is in place, that is required to be in place to prevent an event occurring or a serious outcome occurring. It's not the most succinct definition, but that's the best I've got at hand.

Q. If it fails, it would lead directly to catastrophic outcome?
A. That's right.

Q. Whereas perhaps you would say that goaf drainage, as in this instance, has the potential to do so but won't necessarily do so?
A. That's right.

Q. Is that the difference?
A. Yes, that's right. And there is a process in place of identifying specific controls, and then there's an auditing system and control system in place to ensure that they're adequate and working effectively, and that's what the language around this particular part of the LFI process is trying to cover.

Q. It depends how you define "critical control", from what you're saying?
A. That's right, and it has a specific meaning in this context, is what I'm trying to say, and not the way you're talking about critical control - we're not discounting that.

Q. We're just on a different wavelength.
A. Well, yes, there's a lot of work and a whole system of assurance processes behind the Anglo American critical control system.

Q. There is a critical control register for the site, is there not?
A. There is.

Q. Is it true that it contains some hundreds of items?

A. Yes.

Q. How could that be?
A. Because there are hundreds of things that are absolutely required to keep people safe in the mine.

Q. A failure of any of them will, what, on Anglo's terms lead directly to --
A. Has the potential to lead to. It is a necessary barrier to ensure that people are safe, and if it's not there, then --

Q. Safe at what level, from lost time injury or something more?
A. No, it's a higher bar than that.

Q. Do you know what it is?
A. It's a fatality event.

Q. Fatality. Just to be clear, critical control is a thing that must occur, in the absence of which it leads to a fatality? Or is there a document - rather than test your memory, is there a document to which we could have regard that sets this out?
A. I think you would be better served reading the document that defines our critical control process.

Q. You wouldn't know offhand what that is?
A. No, but I can provide it to you.

Q. Thank you. We'll ask your solicitor later. Thank you. In this same document, if we could go to page 0680, we see there a list of preventative actions. Perhaps we could zoom the first half of the page. We see three tasks identified there. Take a moment to look at it. Do those tasks have any additional coverage to the five tasks that you undertook?
A. The second one.

Q. I thought you told us that there was real-time monitoring of goaf drainage borehole performance?
A. Yes, and I was correct in saying that. The part that we don't have capability of is the composition part of that action.

Q. For the uninitiated like me, you might need to explain what that is a reference to?

A. At the moment, all of our vacuum holes have real-time monitoring for flow, so total amount of gas liberated from the hole, and pressure. We don't have real-time monitoring for what concentrations of various gases are coming out of the hole, whether that be oxygen, methane, nitrogen or CO.

Q. Again, we can go to the task close-out if we need to, but you probably can tell us. Against task 1, there's a close-out that says "Additional four blowers have been approved for purchase and orders have been placed"?
A. Yes, they're now on site and in use.

Q. At the risk of repetition, the blowers are what?
A. They're a vacuum plant that provides - that deals with the gas and I guess burns it, so that the gas is effectively dealt with in an environmentally responsible way.

Q. I will put up one document. I'm not sure if it is related to this event, but you can tell us. Mr Operator, it's document ACM.004.001.0019. Just take a moment to look at that. It's an email to Mr Holt?
A. Yes.

Q. Who is the designated officer for close-out of these tasks from the LFI?
A. That's right.

Q. It's in a time frame, being 16 September, which appears to accord with the performance of the tasks allocated to him?
A. Yes.

Q. You can see the email, and then perhaps if we go to the next page you'll see what appears to be a formal quotation.
A. I'm aware of the quote.

Q. Okay. You might assist us, then. Is that quotation in fact related to one of the close-out tasks from the LFI?
A. The second task that I spoke about.

Q. And what is it a quote for?
A. It is a quote to provide the additional monitoring capability of gas composition for each of the holes.

Q. Why 38 of each, can you explain?

A. That's how many wellheads we run consecutively at points in time.

Q. You can see how much I don't know.
A. I'm trying to explain things clearly.

Q. Yes, that's okay. The third task from the LFI I think you've already referred to, but the close-out is "Holes identified as critical to goaf drainage infrastructure have been set up to plant and compressors"?
A. That's right.

Q. So that's in accordance with what you told us was one of your tasks?
A. That's right, they're very similar. There's a bit of cross-pollination between the LFI process and what I had, and we worked together to get them done.

MR RICE: Thanks, Mr McNally.

THE CHAIRPERSON: Mr Crawshaw?

MR CRAWSHAW: No questions, thank you, Mr Chair.

THE CHAIRPERSON: Thank you.

MS HOLLIDAY: No questions.

THE CHAIRPERSON: Yes, Mr Holt.

<EXAMINATION BY MR HOLT:

MR HOLT: Q. Just briefly, Mr McNally. Dealing with, as Mr Rice has, the incident that occurred on 28 July 2019, the compressor incident, my friend has taken you through the tasks that were assigned as a result of that and completed, which were both in the incident report and in the LFI as well.
A. Yes.

Q. And you indicated there was some cross-over, and we can also see some difference between those tasks?
A. Yes.

Q. But it's right, isn't it, that ultimately in terms of the Anglo system, all of those tasks end up as separate items within Enablon?

A. That's right.

Q. And so then are able to be checked and monitored, both through the SSE and through the safety folk back in Brisbane as well?
A. Yes, that's right.

Q. As we've heard from other witnesses, failing to comply or failing to comply with the time line on an Enablon task is a big deal?
A. Yes, it is.

Q. How is it monitored and enforced in the Anglo structure?
A. So we have a mine operating system and a review is undertaken of tasks that are either due or coming up, and they're talked about at a whole of mine meeting and there's accountability conversations had when actions are becoming overdue and extensions are required.

Q. An extension, as I understand it, can only be granted by the SSE?
A. That's right.

Q. And not granted easily, as I understand it?
A. No. The bar is high.

Q. In that sense, just so we're clear, obviously we've described Enablon as task management software. It's more than that, but in terms of that task management function, it doesn't include everything, right? It is not, "Have you bought the tea for the week?" It's only those matters that relate to audit and safety and compliance issues.
A. That's right, there are two very distinct systems, one that deals with production-related issues and actions that are attributed to the day-to-day running of the mine, and then there's a second system that has the additional checks and balances that deals with safety matters.

Q. And they're the ones that get escalated and elevated and a light shone on them to ensure they're completed?
A. That's right.

Q. Dealing with the process of covering off those tasks and what that event actually meant for you, 28 July 2019, as we understand it, is pretty soon after that panel commences, and, indeed, the goaf was hanging at some stage,

which I understand can happen early on; is that right?
A. Yes. This event wasn't --

Q. No --
A. The one in October was a new goaf. The one in July was, we were mid-block. Yes, sorry.

Q. But at this point on the 28 July 2019 incident, by virtue of the LFI process you identified that there was insufficient goaf drainage capacity to deal with the high methane background levels at that point?
A. Yes.

Q. And what you've indicated is that you identified that, in fact, having been at that capacity, having insufficient capacity at that stage was inconsistent with the work that you had got from the Roy Moreby report?
A. That's right.

Q. Was the Roy Moreby report based on modelling and prediction rather than actual measurement?
A. Yes, that's right.

Q. Based, obviously, I would imagine, on data that had been obtained from the site on previous occasions?
A. That's right.

Q. But nonetheless a modelled prediction as opposed to an actual measurement?
A. Yes.

Q. My friend seemed to be suggesting that maybe you should trust your own measurements rather than Mr Moreby's measurements, but they were two different things, weren't they?
A. Yes, we were measuring as-built and the day-to-day measurements undertaken, and in Mr Moreby's report, he was using measurements taken from inseam, in reserves that hadn't been mined yet, and he was making assertions as to what future emissions we would see on the basis of certain production rates.

Q. And it's modelling and prediction?
A. That's right.

Q. You were then able to test those outputs against the actual outputs you had seen from the mine and see that

there was a distinction between them?
A. That's right. I think the model was correct; we just needed to calibrate it.

Q. I suppose it makes good the old phrase that all models are wrong, but some are useful?
A. That's right.

Q. When we then look at the tasks that followed from that, because, obviously enough, recognising that you had insufficient goaf drainage capacity, given your acknowledgment quite properly to Mr Rice that it's important that you do have excess capacity and that you're always able to meet your peak demand, from your perspective, how significant a task was it to make that right, if I can put it that way, to ensure that you had excess capacity going forward?
A. It was no small undertaking. From the point in time where that event occurred, our compressor or Venturi-driven capacity was increased by nearly 10,000 litres per second, which required the additional hire of 10 compressors, a number of Venturi units that we had to borrow from other mine sites. To ensure that we were able to always provide the right equipment for people to be able to make good decisions when operating goaf - extracting the right amount from the goaf, we needed to take some pretty significant steps until we could procure the blowers, which was a complex engineering task in buying them and took some time.

Q. Now, I want to contextualise 10,000 litres per second, if we can. What were you capable of drawing before you put the compressors online, so that we understand what an extra 10,000 litres per second actually means?
A. We were drawing 11,000 to 12,000 litres a second.

Q. Before then?
A. Yes.

Q. So by adding 10 - my maths is awful - you're not doubling, but not far off?
A. We weren't far off. The peak extraction on any given day was 22,000 litres a second out of the 909 goaf, and we had 23,000 available capacity at that point in time.

Q. I understand. And how quickly were you able to get those compressors online in order to increase that capacity

by 10,000 litres per second?
A. It happened over the next month.

Q. Then in terms of the blowers, which were the kind of long-term solution, I think you said, but please correct me if I'm wrong, they have now given you an additional 8,000 litres per second?
A. That's right.

Q. Where does that leave you overall in terms of covering your peak capacity?
A. 22,000 of vacuum capacity, and then we've got additional compressor capability as well.

Q. So you haven't lost that additional --
A. No, that's right.

Q. As a result of those steps, but I guess given the time frame we're talking about for the terms of reference and these HPIs, having the compressors online from that point onwards on 28 July 2019, did you again find yourself in the position of having the problem of insufficient goaf drainage capacity?
A. No, we didn't. We always had available wellheads to draw from and we always had ample infrastructure to be able to draw gas when it was required.

Q. So if we can summarise it, ideally the modelling would have given you a better sense of your peak capacity, but once you learnt about it, you were very quickly able to increase the capacity?
A. Yes, we took action to address it.

Q. Was there any difficulty or limitation from Anglo generally, in terms of being provided the resources in terms of these compressors and the blowers and being able to do that?
A. Absolutely not. We had absolute support to move mountains to make sure that these things happened.

MR HOLT: Thank you, that's the cross-examination.

THE CHAIRPERSON: Yes, Mr Rice.

<EXAMINATION BY MR RICE:

MR RICE: Q. You mentioned just a moment ago that you had support by way of resourcing to implement the various measures. We know something about their cost. Tell me, if you can, at what level is the expenditure actually authorised?
A. In what regard, can you --

Q. Well, are there, for example, such things as delegations, having certain limits for expenditure of company money?
A. Yes, that's right. Everyone has a delegated authority.

Q. Do you know to what level the expenditure of the kind of money that was involved in these various steps had to go?
A. It went to the SSE.

Q. Did he have sufficient authority to authorise the level of expenditure to implement, in effect, all of the steps that were to be put in place?
A. Yes.

Q. Do you know whether he needs to, before doing that, have recourse to someone like Glen Britton?
A. You would be best served asking him that question because I'm not in direct knowledge of the answer.

MR RICE: Thank you.

MR HOLT: I apologise, there's one brief topic I forgot to raise, which arises from something Mr Clough asked earlier. I apologise, Mr McNally.

<EXAMINATION BY MR HOLT:

MR HOLT: Q. We understand that the standard goaf well drainage distance is 50 metres?
A. Yes.

Q. We've heard some reference, but I think you may be able to assist us a little more, to a test that was done or a trial that was done of closer-spaced holes?
A. Yes.

Q. I think that might be of relevance to a question Mr Clough asked earlier. Would you mind just explaining what happened and what were the results?
A. Again, later in the 909 block post this incident, really trying to get good, consistent tailgate gas readings and be able to have a good, sensitive response to barometric flows and changing production rates, we did a pretty significant trial of 25 metre spaced holes over - I think we drilled an additional six holes.

What we found was there was no discernible change in the way that we were able to manage that tailgate goaf environment with those holes being spaced at that close a distance. They tended to interact and we found that they became oxygen rich much quicker, and, as a result, we were hamstrung by our TARPs and by spontaneous combustion controls, and we weren't able to fully utilise the holes as we do for the 50 metre spacing.

Q. Obviously enough what you're talking about there, is that the last thing you want is to have oxygen in contact with coal because of the risk of spontaneous combustion?
A. And explosibility, yes. There's a dual risk there.

MR HOLT: Thank you. I apologise for that.

THE CHAIRPERSON: Thank you. Mr Clough?

MR CLOUGH: Q. Just one question to explore a little bit further the last topic. So we've had hole spacings at 50 metres and at 25 metres, but we have no knowledge about how it might perform at some distance between those two extremes?
A. No, no, we haven't done any additional trials with spacing in different realms to that. One of the risks to necessitate such a trial is it has to be planned well in advance because you don't want to risk not having the next hole available.

MR CLOUGH: No more questions for me.

THE CHAIRPERSON: Thank you. Might Mr McNally be excused?

MR RICE: Yes, Mr Martin.

THE CHAIRPERSON: Mr McNally, thank you for your evidence. You are excused.

<THE WITNESS WITHDREW

MR RICE: I call Peter Noton.

<PETER NOTON, affirmed: [3.23pm]

<EXAMINATION BY MR RICE:

MR RICE: Q. Is your name Peter Noton?
A. Yes.

Q. Mr Noton, you're employed by Anglo Coal as an ERZ controller at Grasstree mine?
A. Yes.

Q. You first obtained your certification as an ERZ controller in 1992, I think?
A. That's correct.

Q. And you've been working in that capacity since then?
A. That's correct.

Q. At the same mine?
A. No, no.

Q. Just give us a brief rundown on the mines at which you've carried out that role?
A. I started off at Gordonstone, in fact, I was there till about '93, and then I was at North Goonyella until about 2000. Then at Newlands, southern and northern, Carborough Downs, and then I did a brief stint at Broadmeadow and Oaky North and then Grasstree.

Q. That's quite a few.
A. Yes.

Q. With the assistance of solicitors, you've prepared a statement, I think?
A. That's right, and I'm afraid there's an error in there.

Q. We might just put that in front of you and you can tell me what it is.
A. Definitely.

Q. It's document NOP.001.001.0001.

A. It is at point 18 and it should say "12.10pm" - yes, 12.10pm.

Q. Paragraph 18. You arrived at the face about 12.10pm; is that right?
A. Yes.

Q. Okay, thank you. It may be of some significance that that was so, because the event that you described, being the event on 20 March, was the subject of an incident report by you, was it not?
A. That's right.

Q. Related to an event that's timed as having occurred at 12 noon, not 12.10.
A. Yes, it's a mistake by me getting the - I didn't read it properly.

Q. No, that's okay, but I suppose the more important point is that the event comprising the methane exceedance had actually occurred by the time you got to the face?
A. That's correct.

Q. And your statement recites that you normally aimed to take over production at 11.30, but there was some delay?
A. That's right.

Q. And in fact you got a report that there had been an exceedance before you arrived at the face, so you went to assist; is that the correct scenario?
A. Yes, I was doing a handover with the day shift deputy in our crib room and then I got a phone call from the maingate after the HPI had occurred.

Q. You know Mr Stingle; he's a colleague of yours?
A. That's right.

Q. Was he the deputy on the shift prior to yours?
A. No, Dion Bolton. Mr Stingle and myself do afternoon shift, night shift, alternating, so Mr Stingle would have been on night shift then.

Q. But was he not the deputy on the night shift just prior to commencement of your day shift?
A. No, no, I'm on afternoon shift. There's a day shift in between.

Q. I see. Can I show you the relevant incident form first. It's document ACM.004.001.0044. Could we blow up the right-hand page. You would be familiar with the layout of this form, I take it?
A. Yes.

Q. The incident description involves cutting into the tailgate - perhaps you'd interpret in your own words to us what the description you've provided means?
A. Yes, that means we've cut it from the maingate, we've cut in to the tailgate, and the supports were already advanced, as in they were in.

Q. The supports being the shields?
A. The shields, yes. So that means they were already advanced.

Q. What's the significance of that to the event?
A. To the event? We were leaving them a web further back, we were leaving them back to leave a bigger air gap at the tailgate supports. So 197, 96 and 95, we were leaving a web further back.

Q. Why was that?
A. To make a bigger - a bigger air gap so we could get more ventilation to flow in that direction.

Q. Whose plan was that, whose idea was that?
A. I could not say.

Q. Was that some form of instruction that you were given, your crew, or was that the normal way to do things?
A. No, it's not, that's not the normal way to do things.

Q. I'm trying to source down the origin of doing it differently. Do you see what I mean?
A. Yes, I do.

Q. If you remember.
A. I couldn't give a - I could not give a definite answer to that question, no.

Q. You've given an incident description, but as you've pointed out, you arrived at the face at 12.10.
A. Yes.

Q. By which time the incident had actually occurred;

correct?
A. Yes.

Q. So this is really your description of what you found by way of inquiry rather than observation?
A. Yes.

Q. Or both, perhaps?
A. Well, from observation after I had arrived.

Q. If you go over the page to page 0044, can you tell us how much of that is your writing? Take the left-hand page. There's a time line there.
A. That's all my writing.

Q. I beg your pardon?
A. That's my writing.

Q. Yes, okay. There seem to be some different contributors to the page on the right-hand side. Perhaps we could zoom on that page.
A. Oh, sorry. Do you see where it says "High CH4 content in seam drainage?" That's me. "Maingate and tailgate cut-throughs in line" - that's my writing. And "Maingate flexi not up", and "Spacing of goaf drainage holes" - that's my writing.

Q. Are you looking at that page? I'm just not following.

THE CHAIRPERSON: Q. I think you start at the second line from the top, do you? Is that your writing there?
A. That's correct. You see where it says "Potential root causes"? That's not my writing. The others are.

MR RICE: Q. Mr Maguire and Mr Cavanagh have also signed off. Would one of those be the author of the root causes?
A. They could be. I wouldn't know.

Q. You don't know, all right. Was that blank when you signed it off, do you remember?
A. When I signed this off, the only writing on there was mine.

Q. If we could blow up page 0045, the right-hand side of the page. Do you see on that page "Potential root causes". I think you told us what appears underneath that is not your writing?

A. No. Where it says "Potential root causes", that is not my writing. The next three statements are my writing.

Q. I see, okay. Did you assign those to the people whose names appear in the column, Mr Holt and Mr Smith?
A. No.

Q. At any rate, from the looks of it, various people can contribute, make a contribution to the completion of this form?
A. That's right, yes.

Q. You did some bits and other people did other things?
A. That's correct.

Q. The actual task that you carried out, is that what is described in paragraph 18 of your statement, to put up the brattice?
A. That's what I'm describing, yes. Some of the brattice was already up, but, yes, that's what I --

Q. By the time you got there?
A. Yes.

Q. So you continued with that task?
A. I continued with that task and putting the butchers flaps in.

Q. What's the purpose of the brattice being erected at that particular location, 195 to 197?
A. That was to separate the air coming from the goaf from the air going across the face.

Q. Provide a barrier?
A. Yes.

Q. And the butchers flaps on 193 and 194, were they for the same purpose?
A. No, they were for the purpose of directing more air towards the goaf.

Q. Towards the goaf?
A. Or towards the brattice we'd erected.

Q. Towards the brattice?
A. Yes.

Q. With what objective?
A. To reduce the gas content.

Q. Dilute --
A. Dilute the gas.

Q. -- the concentration of methane, all right. You outline another step at paragraph 21, that you wanted to make an alteration to allow more air to return down the C heading. C heading is a return road; am I right?
A. That's right.

Q. What was the objective that you had in mind with this ventilation control alteration?
A. To - by putting more air - because we were very close to 6 cut-through at this time, the face was close to 6 cut-through, so I believe that altering that VCD and putting more air directly into the return would have pulled the goaf seam - goaf stream further that way.

Q. Forgive my ignorance, but what is the relevance of the proximity of 6 cut-through?
A. Just that it would have more effect. If it was further away, it wouldn't have served the same purpose.

Q. It seems as though the improvement was able to be rapidly achieved from when you arrived, because you described the gas levels dropped at approximately 12.20?
A. That's correct.

Q. So it was a fairly quick process to set up this brattice and get the gas level down to an acceptable level; correct?
A. That's right.

Q. Were you told by anyone that there had been two other exceedances earlier that day - that is, on the night shift, Mr Stingle's shift - involving this sensor on chock 197?
A. I can't remember.

Q. At any rate, at paragraph 25, you met with Mr Stingle later when he was coming on to his night shift?
A. That's right.

Q. Did you tell him what had happened and what had been done as part of your handover to him; is that right?
A. That is correct.

Q. Did he engage with you about the fact there had been two other exceedances on his shift the previous night?
A. He probably did.

Q. You were involved in another incident a few days later, on 25 March, and in this case you did a written statement, so can I show you that. Mr Operator, it's ACM.004.001.0062. That's your statement of 25 March?
A. That's right.

Q. If we go over the page, we get the description that you provided. At the second of those three block entries, you refer to 197, 196, 195 canopies. Can you talk us through the four lines that you've written there and explain the significance of what you found?
A. Yes. The significance of the canopy levels is it was a theory, I suppose, at the time - the canopies being the roof of the support - if they became uneven, this gave - like, if 197 was higher than 196.

Q. That was a theory that you explored?
A. Yes. The theory was that that could prove a pathway for the methane to accumulate at the sensor.

Q. In this instance, you've noted that the canopies were level?
A. That's correct.

Q. Rather than uneven; is that right?
A. That's right.

Q. You've noted the sequence was followed. What's that a reference to?
A. The sequence was we had been - throughout the previous little while, previous time, there had been various attempts to improve the sequence in the tailgate, but I believe on the - sorry, the 24th, we were given a procedure to follow.

Q. There was a memo, I think, to crews; is that what you're referring to?
A. That is what I'm referring to. On the 24th, before we went down the pit, my crew was - we went into an office, and the longwall superintendent gave us and talked us through the sequence and gave us the memo.

Q. Am I right that you need to sign off on the memo?
A. I cannot remember signing off on the memo.

Q. Is that normal, though, if you're given a form of instruction by way of memo or in some other way, do you normally sign off on it to acknowledge that you've at least seen it?
A. Not always.

Q. You can't remember whether you did so on this occasion?
A. No, I can't remember.

Q. At any rate, there was such an instruction and it concerned the sequence of advance of the chocks?
A. That's correct.

Q. And that was what you understood was to be applied for your shift; correct?
A. Correct.

Q. Are you noting there that the sequence that you'd been instructed had been followed?
A. Correct.

Q. Another feature apparently of this is what you note in the third block, that there was not enough CH4 drainage capacity?
A. Sorry, which line are you on there?

Q. Under the typed words, "What conditions influenced the incident"?
A. That's correct.

Q. Why did you report that there was not enough goaf drainage capacity?
A. Because of the - because of the gas levels in the tailgate roadway.

Q. Why does that indicate that the drainage capacity was an issue, can you tell us?
A. Most of the gas that comes into the tailgate is from the goaf.

Q. Yes, I understand.
A. So if you're getting high readings in the tailgate itself, it's got to be coming from the goaf. So if it's

coming from the goaf, you're not draining enough out of the goaf.

Q. Understood. You made then particular mention of the distance between goaf holes.
A. That's right.

Q. Was that an opinion of yours or based on some data or information or what?
A. That would be an opinion.

Q. Do we take it that the fact that you've noted it, you're indicating that there was too great a distance?
A. Yes.

Q. The words "off drivage at tailgate", what do they mean?
A. The roadway was closer to the maingate roadway than it was designed to be. So that meant that the 197 chock - all the roof supports are supposed to be within the bounds of the longwall block.

Q. Understood.
A. But because of this off drivage, it meant that 197 chock was actually stood in the tailgate roadway.

Q. And what's the significance of that from the point of view of the readings of that sensor so located?
A. Well, it put - it tends to put it closer to the goaf stream.

Q. One of the things that was done, apparently, was to manually slow the shearer. Do you see that in that list of four items that we looked at earlier, commencing with 197, 196, 195 - you see the fourth line there - throughout the shift you manually slowed the shearer?
A. That's correct.

Q. Do you need approval to do that or is that within your authority to take that --
A. Yes, I don't need approval.

Q. I beg your pardon?
A. My authority.

Q. I didn't hear you, I'm sorry.
A. I am sorry, yes, I did that. I had authority to do

that.

Q. With a view to reducing methane production from the action of the shearer?
A. Correct.

Q. Tell me this: if you decided in such a scenario that the best thing to do would be to slow the shearer for that reason, you say you have authority to make that decision. Can someone else, like the MSO, come and tell you you've got it wrong, or is it your absolute authority to do that?
A. They can come and tell me they think I'm wrong.

Q. Has that ever occurred, in your experience at Grasstree?
A. At Grasstree, not that I can recall, no.

Q. Can I show you the incident report for that day. It's document ACM.004.001.0060. Could we go to the bottom half of the right-hand page. I just want to ask you about the final entries, the final set of check boxes on the bottom of that page. Do you see that?
A. Yes, I do.

Q. Did you complete that?
A. No.

Q. Why are you so confident you did not?
A. Because if there's anything on that form I don't understand, I don't fill it in.

Q. You don't understand what's required for completion of that section of the form?
A. Not fully, no.

Q. At any rate, you didn't fill it in?
A. No.

Q. The reason you gave is you didn't know how to?
A. I didn't - I wouldn't say I didn't know how to. I would say it would be - with the incident being an HPI, the possible consequences --

Q. You're shrugging your shoulders. Are you not the best one to judge; is that the idea?
A. That's what I'm saying, the possible consequences of the HPI, the gas exceedance, could be - you could blow the

mine up. But is that a reasonable - is that the reasonable estimation of it?

Q. It's entirely a matter of what you think and what you understood at the time, that's really all I'm looking to explore?
A. Well, that's why I left it.

Q. Okay, thank you. Had you been given any training or instruction in the completion of that section of the form that you can recall?
A. That I can recall, I've received no formal training on that form, but there is a guide that comes in the accident investigation pack.

Q. That may say something about it?
A. It may, yes.

Q. You don't know, can't remember?
A. I can't remember.

THE CHAIRPERSON: Q. Mr Noton, do you ever fill in that part of the form when you have to use one?
A. Yes.

Q. You do sometimes?
A. Yes.

THE CHAIRPERSON: Okay, thank you.

MR RICE: Q. Since there are two that you contributed to, just for completeness can we go to the first one, on 20 March. It's ACM.004.001.0044. Could we look similarly at the bottom part of the right-hand page. You see there that a number of boxes have been marked and some unmarked, so to speak?
A. Yes.

Q. Can you tell us whether you filled out any of the boxes on that part of the form?
A. I can't remember if I did or didn't fill out the boxes. No, I can't. I can't tell you if I did or I didn't. It looks like I may have done.

Q. If we could go back to the document as a whole, you'll see on the left-hand page, in the bottom half there's half a page of dense writing. It's called "Anglo American Plc

Risk Matrix". Have you ever read that?
A. Yes.

Q. In association with the completion of this form or in what circumstance?
A. Oh, that forms - this matrix is used when you do, like, a risk assessment or even a SLAM, you use this matrix, yes.

Q. So you're familiar with --
A. Yes.

Q. Familiar with it from other contexts?
A. Yes.

Q. Is there any reason why you would have made an entry on this form for 20 March and you were so confident you didn't make an entry for the one on the 25th?
A. Well, I can tell by the handwriting, it's not my ticking on the other form.

Q. And can you tell on this form?
A. Oh, not positively. But the - the "Possible Consequences" - in fact, I wouldn't be able - I couldn't say. I couldn't say.

Q. Would you have marked against "Actual Consequence" - would you have marked all three?
A. No.

Q. In the second --
A. I can tell you for sure that the "Actual Consequence" where it says "Insignificant", I do not make a mark of that ilk. My tick's just a straight tick, so you see the one being "Moderate" in the "Potential Consequences" - that may be mine.

Q. More than one person at least has had a go at that, from what you say?
A. Yes.

MR RICE: Thanks, Mr Noton.

MS HOLLIDAY: Does Mr Crawshaw have any questions first?

THE CHAIRPERSON: No, Mr Crawshaw is acting for this witness.

MS HOLLIDAY: I see.

<EXAMINATION BY MS HOLLIDAY:

MS HOLLIDAY: Q. The only question that I have for you, Mr Noton, is if you look at your statement at paragraph 39, you state there "after Mr Lowe refused my request for more drainage"?
A. Yes.

Q. And earlier, at paragraph 36, you sate:

Mr Lowe called me and advised words to the effect: "We're already at maximum capacity ...

A. That's correct.

Q. So how does one refuse a request if it's not possible to be carried out, or am I misunderstanding something there?
A. It's probably my poor English.

Q. So if something is at maximum capacity, it's a decline of request because of the fact that there is maximum capacity that's been reached; is that correct? In other words, he couldn't have acceded to your request because there was no more drainage to give you?
A. That's correct.

MS HOLLIDAY: That's the only question that I had, Mr Martin.

THE CHAIRPERSON: Thank you. Mr Holt?

<EXAMINATION BY MR HOLT:

MR HOLT: Q. My name is Saul Holt, I'm one of the lawyers for Anglo. Good afternoon. One question for you, really. In your statement, you describe on 25 March there was a point at which you were getting readings of 1 per cent at the shearer and it was starting to automatically slow down.
A. That's right.

Q. Again, that's just a function of the methane sensor

relationship with the shearer, which is a failsafe, in effect?
A. Oh, that's actually in the - it's not actually on the shearer. It's in the PLC, but yes.

Q. In any event, it has that effect?
A. That's correct.

Q. Up until that point, you had the authority and the capacity, and indeed did start to slow the shearer in order to manage the environment that you were in?
A. Yes, we slowed the shearer down to prevent the 1 per cent.

Q. But then when the 1 per cent happens, it starts automatically slowing down, anyway?
A. That's right, yes.

MR HOLT: Thank you.

THE CHAIRPERSON: Mr Crawshaw?

MR CRAWSHAW: No questions, Mr Chair.

THE CHAIRPERSON: Thank you. Mr Rice?

MR RICE: Nothing.

THE CHAIRPERSON: Mr Clough?

MR CLOUGH: Q. Yes, I have one question. I'm not sure if you have the answer, but that risk rating at the bottom of the incident report - does that have any effect on how far the report is escalated within Anglo?
A. I wouldn't know.

MR CLOUGH: Okay, thank you.

MR HOLT: We can answer that question, Mr Clough, for you at an appropriate point and will do.

MR CLOUGH: Thank you.

THE CHAIRPERSON: Mr Noton, thank you for your attendance. You are excused.

<THE WITNESS WITHDREW

MR RICE: Mr Chairman, I call Josh Smith.

<JOSHUA SMITH, sworn: [3.55pm]

<EXAMINATION BY MR RICE:

MR RICE: Q. Is your name Joshua Smith?
A. Yes.

Q. Mr Smith, are you employed at Grasstree mine as an ERZ controller?
A. Yes, I was.

Q. Can I just get a little bit of background about you. For how long have you held the necessary qualification?
A. I've had a deputy's certificate of competency for 10 years.

Q. For how long have you worked at Grasstree mine?
A. I started at Grasstree in 2015. I left in mid-2018, and the following two years I did six months, roughly, a year as contract work.

Q. Was that a choice to work six months per year, as I understood it?
A. Yes, it was.

Q. For personal reasons? I don't need to know what they are.
A. Yes, for personal reasons, yes.

Q. How long have you been engaged in the occupation of underground mining overall?
A. Fifteen years.

Q. You know, I think, that the inquiry is concerned to have a look at some of the HPIs, including a number that occurred at Grasstree, and you had an involvement in one of them?
A. That's correct.

Q. You prepared, I think, an incident report for an event that occurred on 6 April?
A. Yes.

Q. I'll show you that and we'll go through it. Okay?

A. No problem.

Q. It's document ACM.004.001.0070. That's the incident form that you prepared? I think you've just been given a hard copy of it, if it's easier to read. Actually, the better thing may be to go to a separate statement that you prepared, in which you set out some more fulsome details of what happened, and we'll have a look at that.
A. Okay.

Q. The statement, Mr Operator, is ACM.004.001.0066. That's your statement?
A. It's the first page of it, yes.

Q. You're just being given a hard copy now. We see a description of the occurrence on the second page of that statement. That's 0067. Could we blow up the first half of that page. Have you had a look at that recently, Mr Smith?
A. Yes, I have.

Q. I just want to work through some features of what you've described there. You've said that earlier in the shift, on inspection, gas readings were found to have increased from previous shifts. You mean earlier in your shift that was what you discovered?
A. No. What I was referring to there was there was a slight increase from previous shifts throughout the course of that week.

Q. Detected by you in the course of this particular shift?
A. Yes, and the fixed monitoring as well.

Q. And the what?
A. And the fixed monitoring as well.

Q. Apparently you were in the crib room writing a statutory report when you got some notification. Is that the sequence of events?
A. Yes, yes, I've completed my inspection, went back to the crib room to start the report, and I'd already started making phone calls in regards to that sentence to the control room and the maingate drive.

Q. Was that based on the fact that you've seen an increased reading in it from earlier in the shift?

A. Yes, I've seen an increased reading from previous shifts on this shift, yes.

Q. And that caused you, did it, to make some phone calls about it from the crib room?
A. Correct. I rang the control room.

Q. To say what?
A. To say, "Can we check the goaf drainage at that time, because ventilation hadn't changed", and I wanted to know, firstly, when the next goaf well was coming on and the current status of the goaf wells that were active at the time.

Q. It seems from what you've written down that while you were in the crib room, you got a notification from someone at the maingate?
A. That's correct.

Q. About an exceedance on the number 197 sensor?
A. That's correct.

Q. Which had tripped power?
A. Yes, it had.

Q. You then went to investigate?
A. That's correct.

Q. You say that you instructed the crew to re-establish the wing at 195, 196 shield and brattice at tailgate shields. Can you explain to those of us who aren't miners what that process involved?
A. Yes, absolutely. The first thing I did when I got up there was asked the crew to withdraw to the other side of the shearer while I went and inspected the area. When I went inbye on the shearer to inspect the area around the drive, there was gas found there at higher than 2.5 per cent, so I withdrew myself, and that continued for a little while.

There was a wing that is established in that area, 196, and I noticed it was down. Up until that point, that wing was meant to be in place, because it was assisting the ventilation in this area to remove the gas around that drive area.

Q. Can you explain how it was achieving that by virtue of

where it was, and so forth?
A. Yes, absolutely. It was hung from one of the top of the shields down and rested on to the drive itself, and the effect that that has is it - it does a couple of things. The first thing it does is it splits the ventilation in that area and forces more ventilation between the tailgate drive and the shields. Subsequently, when it does that, it assists in holding the goaf fringe back, because there's an extra velocity pressure in that area.

Q. Is that a regular kind of response to that sort of an issue?
A. Yes, and I have worked at other mines that conduct themselves in a very similar way in that circumstance.

Q. Looking further through your explanation, it seems that you instructed an electrician to replace the chock 197 sensor?
A. That's correct.

Q. Why did you ask for that?
A. Those sensors are known, once they've received a good dose of gas, to basically potentially be faulty after that. So to remove all doubt, I organised him to replace the sensor altogether and recalibrate it.

Q. How simple or complex a task is that?
A. It's not overly complex. It would probably take him about 25 minutes to do the whole job, and they usually have that equipment in the section underground to deal with that.

Q. Something else that apparently happened was to construct a Sherwood curtain?
A. That's correct.

Q. That goes in the roadway, tailgate return roadway; am I right?
A. That's correct.

Q. It seems as though you were advised from the control room about a couple of relevant things, one being that there was reduced goaf capacity overnight?
A. That's correct.

Q. Were you given a reason why that might have occurred?
A. Yes.

Q. What was it?
A. The most immediate surface well had choked itself off, and that does happen with the strata mechanics behind the longwall. You know, it's just one of those things that can happen sometimes.

Q. When you say "choked itself off"?
A. It's a vertical well, obviously, that just drills right in down behind the longwall. The strata is caving in behind the longwall, and sometimes in that caving mechanism it actually closes off the hole and they can't get a vacuum on it, they can't get suction and remove gas, and that's what happened on that occasion.

Q. So the goaf drainage was not as effective as it would otherwise have been?
A. Absolutely.

Q. Was that an influencing factor to this exceedance, in your judgment?
A. Absolutely. The other thing that occurred was, alongside that, we have horizontal goaf drainage holes as well. They had backed up full of water and weren't producing, either, so we lost two lots of goaf drainage in a very key area of the longwall gas management.

Q. You've mentioned another piece of information that you were given, that the goaf was previously hanging up by 8 metres?
A. That was, yes, found by --

Q. Was that part of this incident?
A. Yes, it was. It was found by me earlier in the shift.

Q. Would you mind explaining what's involved in the goaf hanging up by 8 metres and then falling flush with the shields?
A. Absolutely. Essentially that caving mechanism that happens behind the longwall happens in a variety of different forms. Every now and then, for whatever reason, it might be the support density in the roadway, it might be the strata itself, it won't immediately cave in that area, and it'll reach a breaking point as you're retreating away from it and it'll all let go at once, which is what happened in that case. By flush with the shields, I mean it was level with the legs on the supports at the tailgate

number 197.

Q. So what fell from the caving --
A. Correct.

Q. -- was hard up against the rear of the shields?
A. Yes, alongside the shields, yes.

Q. And was it that, in conjunction with the reduced goaf drainage, that was of influence to this exceedance?
A. Yes, absolutely.

Q. Was your erection of brattice and installation of Sherwood curtain intended as a temporary measure whilst the goaf drainage issue was rectified or not?
A. Yes, it was. So how that came about was once the initial wing at the tailgate drive that had failed was re-established, and gas levels were at an acceptable level around the drive, I proceeded into the tailgate roadway once that had stabilised.

In the tailgate at the time were a support crew. So I made another phone call to the control room, and they had some data for me by that point. I asked when the next well was coming on, and it was in 8 metres time. I was on speakerphone at the time, the ventilation officer was in the control room as well, and I floated the idea of putting a Sherwood curtain up for roughly 15 metres to assist us to maintain safe gas levels to get us to the next goaf drainage well.

Q. You gave me a figure a moment ago as to how far the next goaf drainage well was. Was it 5?
A. Eight metres.

Q. How long in practice does it take to mine through that 8 metres?
A. If we're having a good day, we'll do that in a shift, no problem.

Q. But that's how many hours - 12?
A. Yes, yes. Maybe less if everything's going well.

Q. During that time frame, the solution to the issue was your erection of brattice and Sherwood curtain; is that the situation?
A. Correct. Before we could get that next key point of

suction on the fringe of the goaf, the Sherwood curtain will create a pressure system, a localised pressure system, on the corner and it will assist us to keep the fringe back away from mining activities.

Q. If things go well and you get 8 metres along to the next well, and it works, does that put you in a position where you perhaps no longer need the Sherwood curtain and brattice?
A. Yes.

Q. Is that the expected order of events?
A. Yes, it would be - the wells are quite temperamental as to how well they perform when they first come on to suction, so there would be a bit of backwards/forwards working out whether to leave the curtain up or not to leave the curtain up, and that would just be down to the levels of gas that you had at the time on your inspections.

Q. Do you have authority over the length of time the Sherwood curtain stays in position?
A. That is something that I would push uphill, so to speak, and talk to the MSO about, and I would do that in such a way that - I would first find out if that goaf well is producing at the capacity that it could. I would then ring the MSO and inform him that the gas levels are acceptable now and the goaf drainage was running, so I'm no longer going to stick with the Sherwood curtain. And if he gave an approval to that, then I would take it down.

Q. If this scenario isn't resolved by the end of your shift, would it be fair to assume that it would form part of your handover to the next shift?
A. Yes.

Q. What had happened and what the current state of gas management was?
A. Definitely.

Q. If we go back to the form which you filled out, or at least part of it, that's ACM.004.001.0070, if I could just ask you about the tick boxes on the bottom of the right-hand page, so if we could enlarge that - do you see that part of the form?
A. Yes.

Q. Did you complete that?

A. More than likely I did, yes. I can't see why I wouldn't.

Q. Can you explain why you might have ticked or marked a number of boxes?
A. In all honesty, I was probably rushing, because on this particular occasion I - I've obviously filled this form out. I handed over to the afternoon shift, and myself and the people involved in the incident went straight to the surface to conduct this initial part of the investigation with the ventilation officer along with the superintendent and the MSO.

Q. Have you had any training or instruction at Grasstree as to how to complete that classification section of the form?
A. Yes, well, I was the MSO of Grasstree for three and a half years, so there is actually a guide to fill that form out, and I would always have one in my office, so if I --

Q. What's it called?
A. I couldn't give you the exact document name, off the top of my head.

Q. But it's a guide to what - completion of an initial incident report?
A. Completion of a green form. It gives you the key things on the form, such as agencies and mechanisms. It's still up to you to determine which one is right, and the safety team may work with you on that to adjust a few things. It's a bit of a collaboration in some cases. But there is a guide to filling it out, and that is a level of training that I got.

Q. The risk assessment that appears on the left-hand side of the page, is that a familiar form of matrix to you?
A. Yes, it is.

Q. Have you seen it in other contexts for completion of perhaps JSA or SLAM?
A. Absolutely. I believe it is actually on the first page of a JSA book, as well, for people to reference.

Q. The same one?
A. I believe so, yes.

Q. As best you can tell?
A. Yes, yes.

Q. Just to complete looking at this form, if we go to page 0070 - it's page 0071, please, and if we could enlarge the whole of the right-hand side of the document. We see there in the box the person reporting appears to be a B Smith?
A. Correct.

Q. The writing on the first page was yours, nonetheless, wasn't it?
A. Correct.

Q. How did you come not to sign off on this form, or did you perhaps on the right-hand side of the page as supervisor?
A. I honestly have no idea how --

Q. Who is B Smith, is he an operator?
A. That's Braedon Smith, the ventilation officer, yes.

Q. He was the VO?
A. Yes.

Q. Was he in attendance?
A. When we went to the surface to have the initial incident discussion, he was, yes. So that's quite possibly how that form got filled out that way.

Q. There's more writing above the signature blocks. Do you see the section that says "Conduct LFI into incident" and all that appears below - that doesn't look like your handwriting?
A. No, it isn't, no.

Q. Do you know whose it is?
A. It appears to be Braedon Smith's. His name is next to it.

Q. If so, is it likely that that was entered in the course of your discussion with him at the surface?
A. Yes, that's correct.

Q. What do you do with the form when you've completed it? It normally goes to the MSO, doesn't it?
A. That's right, yes.

Q. So you don't think you would have given it to Mr Smith?
A. No, I didn't give it to Mr Smith.

Q. But he may have written on it?
A. Sure, yes.

MR RICE: Thank you.

THE CHAIRPERSON: Q. Mr Smith, on 6 April, when you found those higher readings, were they only readings in the tailgate or were they elsewhere?
A. They were readings in the tailgate return roadway.

THE CHAIRPERSON: Thank you. Mr Crawshaw?

MR CRAWSHAW: No questions, Mr Chair.

THE CHAIRPERSON: Thank you. Yes, Ms Holliday?

MS HOLLIDAY: No questions.

THE CHAIRPERSON: Thank you. Mr Holt?

<EXAMINATION BY MR HOLT:

MR HOLT: Q. Good afternoon, Mr Smith. I'll try not to keep you too long. You were talking about the green form, that initial inquiry form, a moment ago and you described to Mr Rice a process where you went to the surface and then the form was completed collaboratively, as what I anticipate was the beginning of the learning from incident process, not formally, but kind of --
A. It was a collaboration of, yes, that and also just to get the right heads in the room initially to work out potentially what has failed, to begin with, and the sequence of events.

Q. That kind of collaboration and the handwriting we see on the form and so on - from your perspective, there's nothing weird about that? That was just good process to get everyone's heads together straightaway?
A. It does happen sometimes, yes.

Q. We know that there was, following this, a more extensive LFI, learning from incident, process and quite

a lengthy report where the LFI process in fact took in and considered a whole range of quite similar incidents that had occurred. Do you recall that?
A. I don't recall it, but I have had it as part of this process to look through.

Q. Because you were noted as part of the team for that, presumably because you were involved in the occasion on 6 April?
A. That's correct, yes, but I wasn't aware of the LFI details.

Q. Understood. But your input was added into that process, effectively, as far as you're aware?
A. Correct.

Q. Again briefly, when you went down to the longwall as the deputy on the shift when the power tripped on the shearer, you went down and conducted what you've described as an inspection?
A. That's right.

Q. There's a very clear process, isn't there, that as a deputy you go through, and did go through, in order to ensure that that inspection is really well conducted?
A. Yes, especially after an incident of this nature.

Q. That's exactly what I mean. After an incident of this nature, you're looking for stability of conditions, gas levels, checking the sensor levels are all correct?
A. Making the area safe.

Q. One of the key things, obviously, is also to ensure that the coal mine workers are away from that area?
A. Absolutely.

Q. And checking the data so that you're safe before you go in and start checking with your personal gas detector as well?
A. Yes, but we knew the gas was over. So when I went there, my first prerogative was to get the guys on the outbye side of the shearer, in the fresh air, and then I proceeded in with my gas detector, keeping a close eye on it to ensure that it didn't go over 2.5 per cent. On occasions it did, and I retreated from the area.

Q. Understood. Part of the reason why the gas event was

as you described it or you expected it to be over was because you anticipated and could tell from your experience that it appeared to be related to the goaf fall?
A. The goaf fall would definitely have been the initial push of gas forward, and then what would have happened after that alongside the position of the shearer would have changed the dynamics of ventilation in that area.

Q. I understand. One of the pieces of information that you had access to was the previous deputy's report from the previous shift?
A. Yes, I definitely would have done, yes.

Q. You can have access to that on an iPad so that it's immediately available to you, even if the deputy himself wasn't available?
A. It's available to me when I read it and sign it on the iPad.

Q. Now, just two more topics, in that case - one more topic. You've explained that at the time that you were at Grasstree at the time of this incident, you were a contractor?
A. Yes, that's correct.

Q. So you weren't an Anglo employee; you were operating through One Key?
A. That's correct.

Q. Nonetheless, you were effectively integrated into the workforce, that is, you were operating on teams in the same way as Anglo employees?
A. Yes. I would fit into whatever role and structure that I was engaged in at the time, yes.

Q. And you would certainly have been following - I'm not suggesting for a moment otherwise - indeed helping to implement the safety and health systems that Anglo had in place on that mine?
A. Absolutely.

Q. In that sense, as a result of that role, your seniority and your function on the site, you were conducting risk assessments on a very regular basis, I would imagine, of different kinds?
A. Yes, depending on the day and where I was in the mine, yes, and what role I was doing, yes.

Q. That was a function of your role as a deputy, not as your status as an employee or a contractor? You were just doing those risk assessments as part of your job, effectively?
A. Yes, definitely, yes.

MR HOLT: Thank you.

THE CHAIRPERSON: Mr Rice?

MR RICE: Nothing, thank you.

THE CHAIRPERSON: Mr Clough?

MR CLOUGH: No, I have no questions, thank you.

THE CHAIRPERSON: Thank you. We will adjourn until 10 o'clock tomorrow. Oh, I'm sorry, Mr Smith. Thank you for your evidence. You are excused. Thank you.

<THE WITNESS WITHDREW

AT 4.24PM THE BOARD OF INQUIRY WAS ADJOURNED TO FRIDAY, 7 AUGUST 2020 AT 10AM

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