Royal Commission on the Pike River Coal Mine Tragedy

Te Komihana a te Karauna mōte Parekura Ana Waro o te Awa o Pike

UNDER **THE COMMISSIONS OF INQUIRY ACT 1908**

IN THE MATTER OF **THE ROYAL COMMISSION ON THE PIKE RIVER COAL MINE TRAGEDY**

Before: The Honourable Justice G K Panckhurst
Judge of the High Court of New Zealand

Commissioner D R Henry

Commissioner S L Bell
Commissioner for Mine Safety and Health, Queensland

Appearances: K Beaton, S Mount and J Wilding as Counsel Assisting

S Moore SC, K Anderson and K Lummis for the New Zealand Police

N Davidson QC, R Raymond and J Mills for the Families of the Deceased

S Shortall, D MacKenzie, R Schmidt-McCleave and P Radich for certain managers, directors and officers of Pike River Coal Limited (in receivership)

C Stevens and A Holloway for Solid Energy New Zealand

K McDonald QC, C Mander, A Williams and A Boadita-Cormican for the Department of Labour, Department of Conservation, Ministry of Economic Development and Ministry for the Environment

G Nicholson and S Stead for McConnell Dowell Constructors

G Gallaway, J Forsey and E Whiteside for NZ Mines Rescue Service

N Hampton QC and R Anderson for Amalgamated Engineering, Printing and Manufacturing Union Inc

J Haigh QC and B Smith for Douglas White

J Rapley for Neville Rockhouse

T Stephens and N Blomfield for New Zealand Oil and Gas

P Mabey QC for Pieter van Rooyen

TRANSCRIPT OF PHASE THREE HEARING
HELD ON 16 FEBRUARY 2012 AT GREYMOUTH

COMMISSION RESUMES ON THURSDAY 16 FEBRUARY 2012 AT 09.00 AM

DOUGLAS HUTTON KIRKWOOD WHITE (RE-AFFIRMED)

CROSS-EXAMINATION CONTINUES: MR DAVIDSON

Q. Good morning Mr White, I just want to first – three topics I want to discuss with you. The first is the question of the financial constraints, if any, on issues relating to health and safety and I want to start by, Ms Basher if you'd bring up a passage from Mr Murphy's evidence at FAM00057/14. This may seem a small matter, but introduce it before it comes up.

WITNESS REFERRED TO DOCUMENT FAM00057/14

Q. Look at paragraph 74, he's referring to an occasion, he's describing in evidence, he went in about 5.00 am, "but I'm not sure of this." He'd asked PRC a couple of times about getting an underground watch, and they just said, "No, if we're going to get a watch, it'd be deducted from your wages." Now we've heard, of course, from Mr Reczek about the dangers a watch may pose as an ignition source –

A. Oh, electric watches, yep.

Q. Was there a policy about provision of underground watches for men?

A. I think it's fair to say it wasn't common to buy watches for the deputies, as it is, say, in Australia. It's a common practise in Oz to buy a non – a mechanical watch, not a battery watch.

Q. Do you agree it seems unsatisfactory to –

A. I'm sorry Mr Davidson?

Q. Do you agree it seems unsatisfactory for a man to be in this position?

A. What I'd actually done was I'd actually talked to the local jeweller and seen if we could come to some arrangement over the price of watches. I was in the process of doing that only weeks before we had the event.

Q. Well you understand the implication of this?

A. Yep.

Q. Here we're looking for a time of an incident, we don't have it. The man didn't have a watch?

A. Yep.

Q. The second point is that with regard to tube-bundling and I ask Ms Basher you bring up INV.03.17891 at 17900.

WITNESS REFERRED TO DOCUMENT INV.03.17891

0903

Q. Now, this is a summary of the transcript of your interview and in the first bullet point under tube-bundling system you refer to making it quite clear you wanted a tube-bundling system and analysing machine. And at the bottom of that paragraph, "The budget for tube-bundle was moved from August 2010 to April 2011 without discussion with him." Now, that's a matter which on your evidence caused you some irritation you thought there was a change in the tube-bundling intent, correct?

A. That is correct.

Q. What explanation did you get for that?

A. The first I knew about the change was when I was contacted by SIMTARS to say that, I think that email was presented last time, that they were told that the tube-bundle, and these are not the exact words, wouldn't be needed, wouldn't be required and I did approach Mr Whittall about that and I said, "Look I'd like to talk about this," and he said, "yes, we will talk about that," and we never got round to talking about it again. So I didn't actually get an explanation for why it had been moved because the whole point of trying to time it for when I wanted to purchase it was to have it in and operable by the time that we'd finished the hydro-panel so we could monitor the goafs.

Q. So for you it was, in that sense, it was a mine management health and safety issue?

A. It is certainly a health and safety issue yes.

Q. Now if we look at, Ms Basher can we bring up, INV.03.22438 at page 53?

WITNESS REFERRED TO DOCUMENT INV.03.22438/53

Q. Now if you look at the piece in the fourth bullet point where Mr Whittall and it's a reference to his full transcript of interview, states that, "If he was my manager," could be mine manager, "And he was told that from a health and safety perspective the tube-bundling was going to be put out a couple of months he would've done more than have a minor recollection of the conversation. He'd have written a stern email or a stern conversation with the company asking for them to justify why it had been put off. There was an immediate health and safety interview." That's his response to the suggestion that it was put off and it was, I'll come to it, for technical reasons.

A. I completely disagree with that response. I'd have to ask what constitutes a conversation. I mean being told that we'll talk about that to me is not a conversation.

Q. Are you saying that you pressed for the tube-bundling?

0906

A. I'm saying that I asked why it was getting delayed and I wouldn't say I pressed it vigorously but I did ask why it was being delayed and got no, I wouldn't say I got an adequate response on that.

Q. Did this annoy you because it was a health and safety issue or just because you got no adequate response?

A. Oh, it annoyed me more because I saw it as being an important functional part of the mine going forward.

Q. Ms Basher, would you bring up the report at page 144. You look at paragraph 3.30.9, could that be blown up? Now it records, of course, you were trying to arrange the purchase or lease and a gas chromatograph and Mr Whittall advised there were no constraints on Mr White to purchase the system and any delay was for technical reasons. What do you say to that?

A. That's correct. I mean I had, as I said yesterday when asked about my delegated authority, my delegated authority was $250,000 not a million, so there definitely was constraints on that. It's not as if I could just walk out and spend $1 million.

Q. Just read the next line. "He [Mr Whittall] could not recall what those technical reasons were."

A. That's because there were none, Mr Davidson, in my opinion.

Q. So to this day you don't have a satisfactory explanation for why that was put off?

A. Absolutely not.

Q. Were you aware, as the same page records, in fact it's on the screen now at 3.30.10, the going back to June 2006, the Minarco report recommended the tube-bundle system?

A. I can't recall being aware of that Mr Davidson. It's just I'm since aware of it having read a number of reports now but I came to Pike with the intention irrespective of what was written in that report to ensure the place had an adequate gas monitoring system.

Q. Given what you now know, and Mr Mount has taken you through this, about the gas readings and the sensors that were inoperative up to the period before 19 November. Do you recall the questions yesterday, day before?

A. Yes.

Q. Am I right in thinking that a tube-bundling system would have been of consequence to get that real-time monitoring?

A. It would have been a backup to the real-time monitoring. The only difficulty with a tube-bundle system is whatever reading you see on a screen is normally up to 35 minutes old, but it is certainly a system that would give you an indication above the levels of the telemetric system.

Q. Now, what I'm referring to in my question is the fact, and it's come out in the evidence is already. You were not aware that after the new ventilation fan was installed, there were spikes recorded in the vent at the top of the shaft?

A. Correct.

Q. Well in excess of the 1.5% figure?

A. Correct.

Q. What I'm putting to you is that a tube-bundling system should have been able to capture that even with the 35 minute delay?

A. A tube-bundling system would have captured it. All I'm saying, Mr Davidson, is the actual result would be half an hour old.

Q. Now just before I leave this short topic. Mr Bell, and I won't bring the page up necessarily, I'll give the reference, in FAM00043.1 at page 4, refers to his being engaged to train the men in health and safety generally and be given a free hand," and he did it only once with a full C crew in October 2010, and the next occasion only three men came and the reason given for that was that all hands were needed for production. That's what his evidence is and then it didn't happen because 19 November came. This, I'm putting to you, reflects the fact that at this stage, October and November 2010, the production need was so great that even something as important as health and safety training had to be shelved?

0910

A. It certainly looks that way Mr Davidson.

Q. Thank you. Ms Basher could you go to INV.03.17891 at page 96?

WITNESS REFERRED TO DOCUMENT INV.03.17891/96

Q. Now, if we look at the bottom, this is from your summary of your interviews again. It captures quite a lot. The first point with regard to roof fall management, your fundamental views expressed in that first paragraph, first bullet point, that there was enough air as you calculated to cope with any plugs of methane, you see that?

A. Sorry, which one am I looking at?

Q. It's the first bullet point under the heading roof fall management.

OBJECTION: MR HAIGH (09:12:01)

THE COMMISSION ADDRESSES MR HAIGH – DISCUSSION RE DOCUMENTS

CROSS-EXAMINATION CONTINUES: MR DAVIDSON

Q. Yes I did say yesterday, Mr White, that if there's any element of this that you disagree with as a summary you're to say so.

A. I will say so, yes.

Q. So under roof fall management, first point, this seems to capture your fundamental view that there was enough ventilation to cope with any plug of gas disturbed by a roof fall, and you refer to 128 cubic metres of air and 106 was more than enough to cope with plugs of methane?

A. Correct.

Q. That's your calculation is it not?

A. That was a measurement that was taken in the, I think at interview I may have got the 128 wrong, I think it was closer to 124 or something like that, but in either case, there was more than enough air entering the mine and being distributed to cope with any plug of methane.

Q. My question is that that's your calculation of there being more than enough air to cope?

A. That was my measurement, yes.

Q. And then at the bottom of that bullet point, three lines from the bottom, "There were occasions before the installation of the new fan that levels in the return went over that 1%." Now at that stage you became aware some time about the time of the interview, I'm putting to you that the sensors hadn't been working for a period of time before the explosion?

A. That is correct.

Q. So that when you say that there had been some occasions when the return levels were over 1% you do not appear to realise that after the fan was commissioned there were those exceedances as well?

A. That's correct.

Q. And that was the case as of 19 November?

A. That is also correct.

Q. Now, before we come back to that point, dilution doors, second bullet point, were not commissioned. Does that accurately set out your position? You wouldn't allow a commissioning until you got a better idea of the impact?

0915

A. Yes, yes.

Q. So we don't have dilution doors, because you're waiting for that, to see what the impact would be of this installation, this new installation?

A. It was not so much to see what the impact would be, it was because we didn't know the effect on the inbye panels –

Q. Yes.

A. And I think that was confirmed by the report by Mr Reece.

Q. Yes. So it seems fairly clear from the evidence you've given now that when you realised that after the fan was commissioned there were 12 incidences or methane spikes at a level which could indicate up to 5% explosive mix in the mine itself, that came as a complete surprise to you?

A. I was unaware of all the spikes, yes.

Q. And if we look at the reasons for your unawareness of that, it would seem that from the investigation report – I just ask you, have you had a chance to read the investigation portfolio –

A. Yes, I have Mr Davidson.

Q. If we go to page 125, Ms Basher, and would you blow up 3.16.9? And this is just addressing more fully a point that's been raised with you. The writers of the report have concluded that "a reason you may not have been fully aware of these spikes after the new fan, was there was no systematic method to identify and investigate events, where potentially explosive accumulations of methane occurred in the mine." Do you accept that statement?

OBJECTION: MR HAIGH (09:17:11) **– NOT TO ANSWER**

CROSS-EXAMINATION CONTINUES: MR DAVIDSON

Q. Now, if we go to the bottom of 3.16.9, half way down the page, you'll see in italics a section at the bottom, but at just above that, "Greg Borichevsky had been monitoring gas levels in the return as part of the oversight of the free venting programme." Do you see that?

A. Yep.

Q. "And until the change in production meeting format following the appointment of Steven Ellis, he would regularly feedback on spikes in the return to the daily production meetings." Is that correct?

A. That's correct.

Q. And he would get it as he describes there in italics, he'd get a printout of the methane from the period of time to the last production meeting and if there were events taking place of this nature, he'd make a note and report it. Do you remember that's how it went?

A. That's exactly how it went. I think I've said that either yesterday or the day before, that we would talk about that.

Q. Yes. I just want to clarify this, because it's very important certainly for the families, at 3.16.10, Ms Basher, could we just role the page up? Can we blow up that piece at the bottom and bring up the next page, 126? "So Mr Ellis, after his appointment, no longer any feedback on methane spikes at the meeting and the focus changed principally to production." Is that how you recall it?

A. I wasn't present at these meetings, so I mean I'm taking that as correct.

Q. And you weren't present because Mr Ellis had taken your particular role in that regard?

A. That's, as I said yesterday, yes.

Q. I just want to finish this with another point. Another source of information about these gas spikes or gas alarms, was the – were the controllers?

A. Correct.

Q. And the report at 3.16.11, it's the next page, it comments about that, that the controllers, in the fourth line at 3.16.11, "Completed a daily production summary report template, emailed to senior management and that had information planned and actual metres cut but required no details of gas spikes or gas alarms. Controllers sometimes recorded alarm events in the daily control room office's event book, but clearly the information was not reaching Doug White." So I take it there was no formal process to get that sort of information to you?

0920

A. The only formal process that I engaged with the control room operators was the monitoring of carbon monoxide in the goaf.

Q. Just one very short question on Spring Creek. They had and have a bleeder road installed for the methane, do they not?

A. Oh, I believe they do. I mean I'm not that familiar with Spring Creek.

Q. Have you been to see it?

A. I've been to Spring Creek or been at – sorry I should say I have been to Spring Creek once in the time I was here.

Q. Do you accept what the report says, "I'll come to it if I need to," that you made a decision that no bleeder road would be installed for this panel?

A. I did.

Q. And I'm not suggesting that it was a wrong reason because the report indicates that there's a balance to be struck between a bleeder road and no bleeder road, and your decision was to ventilate the fringe as the appropriate way to go?

A. Yes.

Q. And to leave the dilution doors for later determination of whether they should be commissioned?

A. Correct.

Q. A couple of miscellaneous points. You've said in evidence, and the transcript reference is page 4898 line 8, that you weren't aware of the flatlining at 2.8% in reading at the top of the vent shaft?

A. The –

Q. You weren't aware that the machine began to flatline?

A. Oh no sorry, that's correct yeah.

Q. Just ask if you could be shown, Ms Basher, DAO.001.05378?

WITNESS REFERRED TO DOCUMENT DAO.001.05378

Q. And you can see from the top right reference, I think we can read it. You can read that there as "Vent survey 7 October 2010?"

A. Correct.

Q. New results in red. I just want to see whether you've actually checked that you've seen this document, Mr White. At the bottom of the page the signatures appear –

A. That's my signature.

Q. That's your signature?

A. I would have seen this document, yeah.

Q. If you look at the next section, top right, handwritten in red, can you read that?

A. It's not too easy to read.

Q. There's a hard copy here. Could I ask that this be shown to you, or blow it up, that's easier to read isn't it?

A. Yes I can read that.

Q. Now you can see the last couple of lines there. "Had a spike of 2.8% at the vent shaft. Monitor stuck on this reading." So it looks as though you were aware at least of that incident?

A. Yes, I can't deny that I've signed that ventilation report.

Q. Now seeing it now, do you remember that this gave cause for concern?

A. I can't remember. I mean I didn't investigate why it was stuck as to the reason. Certainly didn't know its limit was 2.8. I know it's, I honestly can't remember. I do remember that event though, my signature's on that, but I can't remember the actions that were taken about that.

Q. Do you recall if any action was taken regarding that particular reading and that notation?

A. I couldn't answer that honestly, Mr Davidson, no.

Q. Just one last matter. I'm sorry I've gone over my assessed 15 minutes or thereabouts. It's just to do with the second egress and I'd ask Ms Basher, could you bring up DOL3000070172/1

0925

WITNESS REFERRED TO DOCUMENT DOL3000070172/1

Q. And this is addressed to you from Greg Borichevsky 29 October, proposed second egress. I just want to clarify the second page of this. This contemplates a second egress as a priority in the first paragraph there. If we go to the next page please Ms Basher? Now it contemplates the process and in where this second egress may be established and at paragraph 4, a first confirmation of proposed plan for the second egress and if it were to proceed, at the bottom we have a timeline estimate, the paragraph beginning, "Based on preliminary design and assuming the plan and approvals are achievable. The

critical path can be estimated as." And we add those up we get 50 weeks if things proceeded. You see that?

A. Yes.

Q. So it might be established by June to September 2011, subject to faulting et cetera.

A. Correct.

Q. So this was still quite some way off if it was to proceed to a full second egress?

A. It's not a case of if it was to proceed, it was definitely going to proceed. And the other thing that has to be mentioned is those estimates were based on the geological information that we had and also the fairly conservative advance rates. In fact, as we saw in the last few days prior to the event that we were actually getting far greater advance rates than there were conservative estimates. It is likely that they may well have been brought in before that.

Q. But even just looking at that timeline that's set out there, at the bottom of the page which begins with, "Engineering investigation and final planning," and even allowing for some betterment or some better results in timing, we're still looking at something up to a year away before this would be in place?

A. I wouldn't say up to a year away, nine months at the outset.

Q. Nine months?

A. Yes. It's still a considerable time yes.

Q. Did you have a notebook Mr White which you kept, a handwritten notebook?

A. I had a couple of notebooks.

Q. And were these used to record events from the 19th of November onwards?

A. I kept some events in some notebooks yes.

Q. Have they been given to the Commission or to the police?

A. I've given the extracts from those notebooks to the Commission.

Q. When you say, "extracts," who's chosen the extracts?

A. The extracts were anything to do after the 19th.

Q. Right, but have you given the notebooks to…

A. I haven't actually physically given the notebooks no.

Q. Who did you give them to?

A. They were given at inter – the notebooks? I still have the notebooks somewhere.

Q. So has anyone had, in the Department of Labour, or the police or the Commission, had access to those notebooks?

A. They've have access to them if they'd asked for them yes.

Q. Have they taken access to them?

A. Well, they've taken, they haven't taken access to them no.

Q. And do those notebooks deal with issues which relate to events before the 19th of November in part?

A. I can't recall that, I'm not sure, one of them may do, I can't remember.

Q. Well, would you keep in a notebook before 19 November events of consequence at Pike River?

A. I very rarely wrote entries into any sort of notebook. If I, there was a, I may well keep things on, as I do now, keep it electronically.

Q. And after 19 November?

A. Anything that's significantly happened was kept in the, I did write it down, but there's a period of time, Mr Davidson, in the first three or four days where I wasn't taking notes at all. I was running around busy and it was only after that that if something significant, like, there was a delay from some of the things that we were doing then I would keep note of the delay.

Q. I take it you'd have no qualms about those notebooks being made available for this Commission purposes and the investigation?

A. Absolutely not, absolutely not.

0930

Q. At the beginning of my questions of you, I asked you about a paragraph in your brief, where you referred to the fact that you had, there was no reason to think there was non-compliance with health and safety issues.

A. Correct.

Q. You've heard a lot more Mr White, is that still your view?

OBJECTION: MR HAIGH (09:30:14) **– NOT TO ANSWER**

MR DAVIDSON ADDRESSES THE COMMISSION – MAKES SUBMISSION

THE COMMISSION ADDRESSES WITNESS – TAKE COUNSEL'S ADVICE

CROSS-EXAMINATION: MR MANDER

Q. Mr White, thinking back to Tuesday morning when you were being questioned by your counsel, do you recall being referred to a deputy's report of 18 November 2010?

A. Yes.

Q. And perhaps if we could have that document up Ms Basher, it's DAO.001.02936

WITNESS REFERRED TO DOCUMENT DAO.001.02936

0933

Q. You were asked in particular about the ventilation measurement taken on that day?

A. Yes.

Q. A ventilation measurement which was recorded as 78.6 cubic metres. We've got the document up there now. Would it be just enlarged, the box ventilation measurement please? Now you were asked a number of questions about where that reading had been taken from. Do you recall that?

A. I do recall that, yes.

Q. And in the transcript it's recorded, the question was asked at page 4859, "Where do you get the assessment from? Where do you get that evidence from that you've given as to where Mr Bisphan took his reading from?" And you said, "Well, you have to take your reading to measure the air that's coming into your district. Mr Bisphan's district was in the roadheader. The roadheader was being ventilated by the auxiliary fan." Question, "Hang on, that's auxiliary fan 5?" Answer, "That one there, yeah." Question, "Yeah." Your answer, "And he, to identify how much air was going into his district the only place that he

could have taken it was there because otherwise if he'd taken it here, he would have been getting all the air that was going into the hydro-panel as well. So he would have taken his reading right there." And then you identified that point or that location as being between two and three cut-through one west in the B Heading. Do you recall that?

A. Correct, yep.

Q. So I take it from your answer that you're surmising that that is where Mr Bisphan must have taken the reading from, that being the air coming into his district?

A. That would be the logical place to take the reading, yeah.

Q. Now on the form itself we can see in the handwriting point number 4 to the left as I look at it?

A. Yes.

Q. He's recorded where he has actually taken the measurement hasn't he?

A. He has, it would seem that way, yeah.

Q. And that's at point number 4. Now you would be aware that there would be fixed points around the mine where these ventilation readings were taken on a regular basis?

A. There are fixed ventilation stations around the mine for the purpose of monthly survey but the actual points that the deputies take readings in can change as a mine grows bigger.

Q. Mr Bisphan certainly would know where he would be taking readings from at point number 4 wouldn't he?

A. Oh, I would assume so yes, yeah.

Q. Now Mr Bisphan was interviewed by the Department of Labour and by the police in relation to this matter, and I wonder if we could also have up now please, it's number INV.03099/11 please?

WITNESS REFERRED TO DOCUMENT INV.03099/11

Q. Now the transcript of Mr Bisphan's interview has been lodged with the Commission and for the record it's document INV.03098/04.

WITNESS REFERRED TO DOCUMENT INV.03098/04

0938

Q. And I wonder if we could just enlarge that map please just around the centre of the map. Now what we're looking at here is a map that was used as an aid during the course of the interview with Mr Bisphan and I can take you through his interview, Mr White, but fundamentally he was asked to describe his routine of inspection whereby he would go around the mine, taking the readings as part of his duties as a deputy at various points in the mine. Firstly, he said that his district actually started at, effectively, at pit bottom, you're aware of that?

A. If that's what he's saying, yes.

Q. And he was asked to identify the measuring points where he would take measurements of ventilation. He has described in his interview the position of point number 4, ventilation measuring point. Can I just read you this part of the transcript, it's at page 29 of his interview. And he says, "Our next one is our ventilation measuring so, um, point 4 ventilation measuring, point 4 is where we're just inbye of the deputies board, which is just here in the main intake for the working place. Its ventilation measuring point number 4." And then the interviewer says, "So can we just write 4 on?" "Oh sorry sir, that's, that's you know, like…" "So your ventilation measuring points are marked, 1 to probably whatever?" "Yeah, yeah, everything's, everything's marked and they've got set points." "Oh I see." "Yeah." "So you're just taking your measuring at the set points? Tell you what, we'll just, if we just mark 1 to whatever, as far as the ventilation thing must go." And we can see a ventilation reading point just down towards the bottom right, down towards pit bottom, point 1 reading, do you see that? Down to the bottom right of the…

A. Yes.

Q. And that's the first one that Mr Bisphan has indicated was a point that he took a reading from and then in his interview he talks about points 2 and 3 which weren't in his districts, or district and then he goes to point 4 and he says, "But point 4 is our main intake so that's the amount of air we've got coming in, 17.1 square metres of the roadway, the air velocity and a hand-held anemometer, yeah, doing good coverage is one, is 4.6

metres a second, yeah." And then he goes on to do the calculation 78 cubic metres. And if we have a look at the map, do you see the numbers 4 at cross-cut six next to the term, "Inspection," which is a reference to an inspection board?

A. Yes, I think so, I think that's what I'm looking at.

Q. Perhaps if you could just with the laser pointer just indicate?

A. That'll be here, is that what was there, is that a 4?

Q. That's right. So we can see that that is point 4 and if we went back to his deputies report, where he's recorded point 4, that's where he's taken the reading from isn't it?

A. That's what he's saying yes.

Q. And in actual fact in the course of this interview he was shown a deputies report and probably worthwhile putting that up. It's document DAO.001.02944.

WITNESS REFERRED TO DOCUMENT DAO.001.02944

Q. And again, if we can just enlarge that ventilation measurement box please? And there we get the same notation, point number 4?

A. Correct.

Q. So during the course of the interview he's referred to this particular report for the 19th, the dayshift of the 19th and in reference to the same notation, point number 4 as for the 18th, he's identified that point in the map used during the course of the interview. Now, I think in your evidence on Tuesday morning, you were suggesting that the modelling undertaken by the experts didn't compare with the actual readings that were being recorded in ventilation reports such as this?

0943

A. From my understanding of where I thought the air reading was taken, yes.

Q. I wonder if we could just have up now one of the screenshots of the modelling, or two of them, firstly DOL30001500/31. Perhaps again if we can just enlarge the centre area of the map and we can see, can't we, the cross-cut six up towards the top left-hand corner of the modelling

screenshot where point four was, the ventilation measurement was taken, it's denoted by the green line, do you see that?

A. This or this one?

Q. Yes, I think it's the one to the right.

A. This one?

Q. Yes, thank you, now can we just go to the enlarged map of the modelling, it's DOL30001500/32 and again, perhaps if we can just enlarge the bottom right-hand corner if we could please. So we can just see towards the bottom of the shot the green cross-cut three?

A. Correct.

Q. Where the number four, or in the vicinity of number four and the B heading, the intake heading was taken from and we can see the measurements going further inbye up towards the deviation of the ventilation to the hydro-monitor panel, we can see the numbers, 84.7 is one, I think further, if we further go on is 82.3, as the modelled?

A. As modelled, yeah.

Q. So it's apparent, isn't it, that Mr Bisphan's reading at point number four which was about 78 cubic metres is actually in line with the model?

A. It would appear to be, yep.

Q. Now if we can just perhaps go to the original image, it's where we get beyond the deviation, if that's the right word, to the monitor panel of the ventilation, looking at the modelling as we get beyond the cross-cut, sorry, the return which is the cross-cut for the record, cross-cut three, just slightly beyond that in the modelling begins to show us 48.3?

A. Correct.

Q. And in the DOL report that's what the reference was, wasn't it?

A. That's correct.

Q. To about 49 cubic metres being left to ventilate the headings beyond the hydro-panel?

A. Correct.

0948

CROSS-EXAMINATION: MR HOLLOWAY

Q. Mr White, now please tell me if the microphone is not on?

A. I can hear you quite well.

Q. On Tuesday you gave evidence that on the 19th of November you had been in contact with Mr Robbie McIlwraith to discuss the possibility of applying for a position at Solid Energy. Do you recall that?

A. I think it's fair to say that Mr McIlwraith had been in contact with me, yeah.

Q. And yesterday you were shown by Mr Davidson a summary of a police interview and Department of Labour interview that took place on the 5th and 6th of May, and in that summary it recorded that you had been offered a senior management position with Solid Energy. Do you recall that summary?

A. I recall that summary, yeah.

Q. Now as Mr Haigh's already raised, there is, of course, a probability that whoever summarised the interview didn't capture what was said accurately so I just want to clarify the position with you. Mr McIlwraith is a recruitment consultant is he not?

A. Yes correct for Stellar Recruitment in Brisbane.

Q. And I think yesterday you said that he was also a friend of yours?

A. Oh, he's an acquaintance, yeah.

Q. If necessary, Solid Energy will give evidence that rather than it engaging Mr McIlwraith to try and fill a position, it was approached by Mr McIlwraith on your behalf seeking the possibility of employment. Would you accept that that's correct?

A. All I know from that time was that Mr McIlwraith contacted me about a position at Solid Energy. Where or when he was approached is, I've got no idea at all.

Q. Did you ever have an interview with anyone at Solid Energy on or before the 19th of November?

A. No, no.

Q. Did you speak with anyone at Solid Energy about a position?

A. No.

Q. So you're only contact was with Mr McIlwraith?

A. Correct.

Q. And you won't be aware of this email, but so that you have the opportunity to respond to it and it is something that I discussed with you earlier in the day. Solid Energy received an email from Mr McIlwraith on the 19th of November stating that, I'll read it out verbatim so that you get a feeling. "Please find attached the resume report for Doug White who may be of interest to you at Solid Energy. As discussed, Doug is seeking alternative employment and would like to remain based in New Zealand. This is strictly confidential. Please let me know your thoughts on Doug and if he is of any interest to you." Now that email doesn't suggest, does it Mr White, that Solid Energy had engaged Mr McIlwraith to headhunt you, does it?

A. As I said this morning, until you spoke about that email I didn't even know that email existed. So when a recruiting agent calls you or you're in touch with a recruitment agent, what he does or how he gets in touch with people's of no interest to the person that he's talking and how Robbie does his business is really no concern of mine.

THE COMMISSION ADDRESSES MS MCDONALD AND MR MABEY

0953

MR HAMPTON ADDRESSES THE COMMISSION – EXHIBIT NUMBERS DISCUSSED

CROSS-EXAMINATION: MS SHORTALL

Q. Mr White you've been asked some questions about the fixed gas sensors in Pike's mine, right?

A. Correct.

Q. And I don't want to revisit that evidence again, rather I want to ask you about other gas monitoring systems that were in use underground at Pike on the 19th of November 2010, and you've given some evidence in your written brief, haven't you, about machine-mounted sensors?

A. Correct.

Q. And I'd like to focus first on those sensors, so Ms Basher, if I could ask you please to bring up page 141 of the Department of Labour's report, and in particular to have figure 45 from that report just blown up?

WITNESS REFERRED TO DOCUMENT DEPARTMENT OF LABOUR REPORT PAGE 141

Q. And do you see there Mr White, a table that purports to summarise the machine-mounted methane monitors used at Pike as of the 19th of November 2010?

A. Yes I do.

Q. And can you confirm the accuracy of the listed machines identified in that table to the best of your current recollection?

A. Yes.

Q. Now, you'll see in the table there's an asset number, do you see that?

A. Yes.

Q. And each of the machines has a unique identifier doesn't it?

A. Correct.

Q. And just before we move on, there's a reference there to CMP, do you see that's down towards the end of the list of machines?

A. Yes I do.

Q. And do you recognise that as the shorthand for, "Crawler mounted platform," it's the monitor platform in front of the guzzler, is that right?

A. It may well be, I, yes.

Q. Do you have any reason to believe that's not the case?

A. No, none at all.

Q. Now, with that table in mind, I'd like to ask Ms Basher to pull up a version of a map that's been used before the Commission on which I've highlighted, I'm going to work you through this, each of the machines identified in figure 45 of the Department of Labour's report, with the exception, just before the map comes up so you're orientated, with the exception of the Valley Longwall drill rig and you'll see just on the table that we have here, that's the last row and the reason I've not done that is because the department takes the position that the sensor on that machine was faulty, so I just want to clarify that with you.

A. Yes.

Q. And I've also, just for clarification, not highlighted the CMP because it's right in front of the guzzler which you'd agree with me is also listed in this table at figure 45 isn't it?

A. Correct.

Q. So with that in mind, Ms Basher, could I please have brought up the map with those highlights, thank you?

WITNESS REFERRED TO HIGHLIGHTED MAP

Q. Now, do you see there, Mr White, how I've used the unique asset numbers from the Department of Labour's figure 45, to identify and highlight on this map the location of machine-mounted methane sensors in the mine on the 19th of November?

A. Yes I do.

Q. And can you confirm, to the best of your current recollection, that the location shown on the map are consistent with where you generally understand machines were around the time of the explosion?

A. That would be correct yes.

Q. Now in addition to the highlighted machines on the map itself, we also have another six machines, don't we, that are highlighted in the box, and Ms Basher, maybe if we could just pull up the box on the right-hand side of this map, thank you, and this box Mr White it identifies machines that we know were underground on the 19th of November but as to which we don't know where they were located, right? Is that your understanding?

0958

A. Correct, yes.

Q. Now, so they were operating, these six machines were operating somewhere underground on the 19th of November, right?

A. Correct.

Q. Now, if we could just go back out to the broader map thank you Ms Basher, while all of the machine mounted sensors that were seen on the map that's displayed at the moment Mr White were real time sensors, they weren't recording to the surface, were they?

A. No, their function is to discontinue power if general body exceeds 1.25%.

Q. Do they cut out the power in those circumstances?

A. They would cut the power in that area back to the distribution control box.

Q. Now, in addition to these machine mounted gas monitoring systems, hand-held gas detectors were used underground at Pike, weren't they?

A. That's correct, yep.

Q. There's been some evidence about that. I just want to clarify that for a moment too. Those detectors would alarm if certain methane levels were reached, wouldn't they?

A. In general it was 1%.

Q. And there would be a flashing light, wouldn't there?

A. An audio visual alarm would go off, yep.

Q. And at least some of the hand-helds would also vibrate, is that right?

A. They may well have done, yes.

Q. And mine deputies and underviewers would typically carry hand-held detectors, wouldn't they?

A. That's also correct.

Q. And do you recall that there was a deputy underground for the C crew, or the ABM crew on the 19th of November, around the time of the explosion?

A. There would've been, yeah.

Q. So can you show on the map, to the best of your understanding as the mine manager that day, the district or section of the mine that you would expect that deputy was supervising on the 19th of November?

A. I think the deputy would've been supervising the top half of the mine.

Q. So actually just for the record Mr White, as you show us with the laser pointer, could you also describe it?

A. Yeah, that would be the roadheader panel, this area here and the ABM 20 panel.

Q. So that would be around the area that the C crew was working. Is that right?

A. Yes it would've been, in both of these, my recollection is there were two machines that were going to be operating on that shift, were the ABM 20 and the roadheader, excuse me, it's also – I should point out that the leading hands carried – were trained to carry gas detectors as well.

Q. And as part of his deputy duties you expect the deputy would have walked around his district with his handheld detector checking for methane, right?

A. That is part of his duties, correct.

Q. And just because, I don't think that this evidence has really been put before the Commission yet, at least not in public hearings, what do deputies typically do? Can you describe what they typically do when they walk around with those hand-helds as part of their statutory checks?

A. The primary functions are to ensure that ventilation is adequate and that the amount of gas is kept to acceptable limits. Other than that they're checking condition of roof and sides, they're also, when I say helping with the crew they may help bring supplies up. There's – I would say an endless list of jobs that deputies do, they might help in the crew, it's common in places where the deputy relieves a miner driver whilst the miner driver goes for some lunch so the deputies effectively, as far as practicable, are part of the crew once his statutory functions are fulfilled, which he's on the go, depending on the size of his district, it might take him a couple of hours to do his statutory functions, it might take him half an hour.

Q. And as part of that statutory function with his handheld detector, and again just because I don't think at this stage this evidence has come into the public hearings at least, what would he do? Would he reach up around with his handheld detector? How would he use it to detect the gas levels?

A. He would be as far as practical trying to find general body readings. If there were any cavities or anything in the roof he'd make every effort to try and find out what the percentage in that cavity was.

Q. So how would he do that? He would reach up with it or what would he do?

A. He would reach up as far as he could with that.

Q. Holding the hand-held detector in his hand?

A. Yeah.

Q. And you would expect the deputies to do a thorough job as they were doing these checks with the handheld detectors, is that right?

A. Absolutely.

Q. And you don't have any reason to believe that the deputy working in Pike's mine on the 19th of November 2010 wasn't doing a thorough and proper job when he was using his handheld detector to check the gas, do you?

1003

A. Absolutely no reason at all.

Q. Now, the Department of Labour report finds that the deputy on the morning shift prior to the C crew, or the AMB crew on the 19th of November, had alerted the incoming deputy to the potential for methane layering when they changed over shifts, and I don't need to show you that, but just for the Commission's purposes, that's at paragraph 2.26.10 at page 50 of the Department of Labour's report and so my question to you, Mr White, is whether you would agree with me that the AMB crew deputy may well have been even more diligent, more thorough than usual when conducting his statutory checks on the 19th of November in light of that comment during the shift changeover?

A. Not necessarily more diligent or thorough, just actually doing his job, yes.

Q. And you would expect that to be thorough and diligent wouldn't you?

A. Absolutely.

Q. Now, do you also recall that there was a hydro-monitor panel deputy underground on the 19th of November?

A. That is correct.

Q. And again, just for the Commission's purposes, I don't need this pulled up, the Department of Labour report at paragraph 2.30.1 at page 54

describes that, and sorry Ms Basher, if we can just pull that map back up, I just have a few more questions on it. And just like you did for the AMB deputy, can you show on the map the mine district that you understand would have been covered by the hydro deputy during his statutory checks on the 19th of November?

A. My understanding is it would've been the hydro-panel which is this area here and down to pit bottom in the mains.

Q. When you say, "The hydro-panel down to pit bottom," does that mean that…

A. That's the main intake airway down to here and into pit bottom area.

Q. So not only would the hydro-panel deputy be checking around where the hydro crew was working but also in the outbye district, is that right?

A. He would've been having some outbye checks as well, yes.

Q. Now, and just for the sake of completeness, there was also an acting underviewer underground on the 19th of November 2010, at the time of the explosion wasn't there?

A. Correct.

Q. And you anticipate, don't you, that he would be carrying a hand-held detector even if the Department of Labour has been unable, according to its report, to locate paperwork to that effect during its investigation?

A. That's absolutely correct, yes.

Q. In fact you'd be very surprised if he didn't have one with him?

A. I'd be surprised if any statutory official went underground without a gas detector yes.

Q. And you would also expect that at least some of the contractors may have had hand-held detectors underground with them on the 19th of November, is that right?

A. Especially ones that would've working, or may have been working in the return areas.

Q. So just putting aside for the moment any issues with the fixed gas sensors underground in Pike's mine on the 19th of November 2010, other gas monitoring systems were operational weren't they?

A. Yes they were.

Q. All of the machine-mounted sensors we've just gone through on the map that's displayed?

A. As far as I'm led to believe, yes.

Q. And coupled with the detection provided by the hand-held gas detectors and the statutory checks that the deputies would've been doing, right?

A. Correct.

Q. And if any of these machine-mounted sensors had detected high methane and shut down or a hand-held had detected high gas, would you expect that there would be a record of the control room being notified of that?

A. It wouldn't necessarily be in the control room, it would be in the deputy's statutory report.

Q. If I could have this map, that's all the questions I have on it, thank you Mr White, entered as an exhibit, exhibit 55 please.

EXHIBIT 55 PRODUCED – HIGHLIGHTED MAP OR PIKE RIVER COAL MINE

Q. Just one question that I've been asked to put to you, Mr White. Did you go into the mine on the 19th of November at all?

A. No I did not. I was in the mine on the 18th.

Q. Now, you're familiar with the evidence, I'm changing topics, Mr White, you're familiar with the evidence given by Mr Reece about the possibility that diesel vehicles may have provided an ignition source for the 19 November explosion aren't you?

A. Yes I am.

Q. And you understand that one of the diesel vehicles underground on the 19th of November was drift runner with the MT003 asset number, and that actually actually was just on the map that we've looked at. Do you understand that?

1008

A. Correct.

Q. Now the Department of Labour report refers to a toolbox safety advisory issued by Pike management just a month before the explosion, on the 15th of October 2010, after it was discovered that someone had crimped

off the main radiator hose on the drift runner to prevent the machine from shutting down due to an overheat, and just so we're all on the same page with this, perhaps Ms Basher if we could have page 172 of the Department of Labour's report pulled up. And I'm just going to touch on this quickly Mr White. Perhaps if you could just read paragraph 3.41.12 to yourself, which is description of this issue. And I just want to then ask you a couple of questions.

WITNESS REFERRED TO PARAGRAPH 3.41.12

Q. Have you had an opportunity to read that section Mr White?

A. Yes, thank you.

Q. And do you recall this incident?

A. I think I do, yes.

Q. Now I'm a little confused by the advisory wording so I wondered if you could help. Crimping of the radiator hose wouldn't have prevented the driftrunner from shutting down due to overheating unless the separate overheat safety device had also been bypassed, right?

A. That is correct, yeah.

Q. So assuming that's not what happened here, there's actually no potential ignition source risk, is there?

A. Only if the other – if the engine overheat function which shuts down the vehicle had failed, then in that case it may well be. So it's not fair to say that there's no other ignition source. There are a number of safety features on all vehicles to prevent overheating of hydraulic oil, overheating of water to maintain the surfaces below that of which would ignite coal dust.

Q. And the Department of Labour, just for the record, in the next paragraph, here at paragraph 3.41.13 of the report at page 172, criticises Pike. It refers to the language of the safety advisory which without going into it in detail essentially comments on the fact that the consequences of this crimping of the hose could have resulted in a significant financial burden or cost being imposed on Pike and the Department of Labour criticises the advisory for, and I'm just reading from the document, "Failing to inform employees and contractors that

the crimping of the radiator hose could create an ignition source for the hazard of an underground explosion and that therefore endangered their safety and that of every other person underground. It may be that the submission is indicative of a lack of mindfulness about the hazard of catastrophic underground explosion by PRCL." And I just want to put to you, Mr White, that this observation by the Department of Labour is over the top. Would you agree?

A. I think it's excessive.

Q. You would reject any suggestion wouldn't you, that Pike had a lack of mindfulness about the hazard of catastrophic underground explosion?

A. I would reject that, yes.

Q. But even putting aside the Department of Labour's observation, what we have here is an intentional bypass in October 2010 by a worker of a safety feature on a diesel vehicle, right?

A. That would appear so, yes.

Q. And that was a diesel vehicle that was underground on the 19th of November?

A. Yes.

Q. Just changing topics, Mr White. You said yesterday that you started at Pike on the 18th of January 2010, right?

A. I recall it as being the 18th, yeah. Certainly, a Monday in January.

Q. And you'd accepted the position of operations manager at Pike two months earlier on the 6th of November 2009, right?

A. That would be correct, yeah.

Q. And am I right that one of the reasons you didn't start until January is that you were in India speaking about emergency response management in December 2009?

A. I was in India presenting training for Indian mine managers, yes.

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Q. And was part of that training about emergency response management?

A. My part in that training was spontaneous combustion management and emergency response, yep.

Q. And by the time you joined Pike you had at least 32 years experience in underground coalmining, right?

A. Maybe 31, 32 now.

Q. At least over 30 Mr White?

A. Yeah.

Q. And that included emergency response management, didn't it?

A. Correct.

Q. Now, there's a couple of other points that I need to clarify with you. First, is that when Mr Davidson put to you yesterday that you had initiated Dave Stewart coming on board at Pike as a consultant. You agreed that you'd initiated that and it's at page 507 of the transcript, do you recall that?

A. Yeah, I think I said though that Mr Whittall had talked about Dave Stewart coming and I'd actually initiated him coming onto site.

Q. Well, I think that actually not all of that came clearly into the transcript yesterday, so that's just a clarification I want to make with you Mr White because you'd be aware that both Mr Stewart and John Dow have given evidence before this Commission?

A. Yes.

Q. And it's their consistent evidence that it was John Dow, Pike's chairman, who initiated Dave Stewart's involvement and who contacted Gordon Ward and Peter Whittall in this respect and that Mr Whittall then followed up and that, just for the record is at the transcript 3925 through 3928, and you're not disputing that evidence, are you?

A. Oh, no what seems to have happened is he came down the chain of command and I actually got Mr Stewart onsite.

Q. And that was as a result of the conversation that Mr Whittall had with you, right?

A. Correct.

Q. Now, another point of clarification, Mr Davidson also asked yesterday if you remembered saying in a police interview that you were given the impression that Pike was a West Coast mine subject to number eight fencing standards. Do you recall that?

A. The general attitude was things were held together by number eight fencing wire, yep.

Q. And that's at – when you talked about that yesterday it's at, just for the record, page 5068 of the transcript and you said in response at that page, 5068, that you were told that by Mr Whittall and others and I'm instructed by Mr Whittall that he adamantly denies ever saying to anyone that Pike accepted a number eight fencing wire standard. That's not what he actually said to you, is it?

A. He didn't, as I say, accepted it, no, he said that was the – he talked about the general West Coast standard being number eight fencing wire type standard and that discussion was held with him and I going up to the mine I think on my first or second day in the car.

Q. But he certainly never said to you that he accepted that standard, did he?

A. He did not say that he accepted it, no.

Q. Now, just again on a clarification point you've been asked some questions about tube-bundling and I just want to put into the record, you'll recall that I questioned you back when you gave evidence in phase two, it was on the 5th of September 2011, about your recollection of the timing in which you sought to have the tube-bundle system introduced at the mine, you recall that?

A. Yes I do.

Q. And I showed you some budget documents and you recall that too?

A. Yes I do.

Q. And just for the record so the Commission has it, that evidence is at pages 1292 through 1294 of the transcript and exhibit 20, and my question is simple to you Mr White, you gave honest evidence to me that day in response to my questions, didn't you?

A. I give honest evidence every time I sit in this chair.

Q. Now, I'd like to change topics Mr White. You were referred to a document yesterday, and this has actually come up again today, by Mr Davidson that was described to you as a summary of the interview process you'd been through. Do you recall that?

A. Yes.

Q. We've had several of these and in particular just again for the record so the Commission can find it subsequently, the reference yesterday was at pages 5055 to 5057 of the transcript, and what I don't think was made entirely clear yesterday was that the summary was not prepared by you, was it?

A. Not that I can recall, no.

Q. No, rather it's a document written by a police detective recording what he's chosen to summarise from your interview. Does that make sense to you?

A. It would do, yeah.

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Q. Now, and I don't need this pulled up, but I'm just talking about the document shown to you yesterday and for the record the interview summary is at INV.03.17891 and just to be clear you'd not seen any of these summaries before yesterday had you?

A. Not before yesterday no.

Q. The police didn't show you a copy of the summary they note and ask you whether you considered it to be fair or accurate or fulsome did they?

A. Not that I can recall, no.

Q. Now, in the summary that the police detective wrote and Mr Davidson read aloud to you yesterday, there's the following sentence, and just for the record this is at 5056 of the transcript, quote, "There was not a great deal of love lost between the team of managers and Peter Whittall who called him a megalomaniac and dictatorial," you recall that? You were asked about those statements?

A. Yes.

Q. And it's certainly been picked up and there's been considerable interest, Mr White. It was put to you yesterday that those were your words and you just accepted that at the time, but you'll recall that your interview with the police was recorded?

A. Yes.

Q. And I've looked overnight of the actual transcript, so your actual words and there's a very notable statement you made that the police detective chose to omit and because his summary, as opposed to your actual words was used before the Commission yesterday, it's missing from this sensationalised media attention that my client's have experienced overnight and I don't want this, I don't need it brought up but for the record I just want to read to you from the proofed police transcript of the live recording of your interview conducted on the 6th of May 2011, and just for the record this is at INV.03.18302 pages 87 through 88 and just to give you context, Mr White, you just told the police that you felt Mr Whittall could be quite overbearing and that you'd witnessed the meeting with Mr Rockhouse that Mr Rapley questioned you about yesterday and then this is what you actually then said. , "So I definitely did have issues in that respect, and I don't think it's appropriate to discuss the detail of those issues, but I do know that there are a number of people who do not think much of Peter's management style because of his effectively dictatorial, ah, megalomaniac type, ah, ah, personality." And here's the very next sentence, wasn't put to you yesterday. "But to talk to the bloke on a one to one basis he's the nicest bloke you'll meet in the world, you know." Your words?

A. Yes.

Q. At your interview?

A. Yes.

Q. Not put to you yesterday?

A. Yes.

Q. They were your actual words weren't they?

A. I'm not arguing with that.

Q. Let me change topic slightly, Mr White, you said in your evidence yesterday that Mr Whittall signed-off on almost every batch of expense documents or invoices and this evidence was used in connection with some questions from Mr Rapley that Mr Whittall was a micro-manager, do you recall that?

A. Yes.

Q. And again, just to orientate the Commission, subsequently this is at page 5052 of the transcript. Mr White do you understand that Mr Whittall's boss Gordon Ward required him to individually sign-off on every invoice for anything purchased at Pike?

A. He may well have done, yes.

Q. You didn't know that Mr Whittall had been required to do that by his boss?

A. All I knew that Mr Whittall did that but whether that it was a requirement or not is a…

Q. And do you understand that was in this process that Mr Whittall caught issues including with Neville Rockhouse, buying himself and his son clothing?

A. If that is the case I can't argue with that.

Q. Now, when Mr Whittall became CEO do you recall that he actually got rid of this requirement that Mr Ward had imposed on him such that you also didn't need to sign-off on every single invoice at Pike?

A. No I didn't have to sign-off any invoices, that's correct.

Q. Now, you were also shown yesterday a personal email that you'd sent on the 16th of November 2010, in which you used very colourful language, let's say, to describe Mr Whittall and you recall yesterday, and this is at page 5022 of the transcript, that you were, and these were your words, "Fairly angry," when you wrote that email, do you recall that?

A. Yes I do.

Q. And would it be fair, in fairness to you Mr White, would it be fair to say that you never imagined that your personal email exchange would be laid bare in this Royal Commission and live streamed around the world and made headline news, fair to say?

1023

A. I think if I had known that I would have been a bit more selective with what I'd written.

Q. Well that's my question to you. Do you regret at least some of the language that you used in that email Mr White?

A. I don't regret it. It was an email between myself and a personal friend. There's no way I would have expected that to be aired in public, but I don't regret having written that email, no.

Q. Well in your email you refer to Mr Whittall and these words have now been streamed everywhere around the press as a dodgy git, someone who's made or overseen stuff ups, blames others, lies. You remember those words you used?

A. Yes.

Q. You never said any of those things to Mr Whittall's face did you?

A. I did not, no.

Q. Now I've spoken with him overnight and he's absolutely devastated to learn for the very first time in these hearings that you felt that way because you saw him frequently when you were at Pike didn't you?

A. I saw him on a frequent basis yeah.

Q. And you understand that Mr Whittall had total confidence in you given your wealth of experience to manage Pike's mine didn't you?

A. If he says that, yes, yeah.

Q. Now in your personal email remarks you say, and I'm quoting these words, or you say that Mr Whittall, or you refer to him as the previous GM, "did a number on the previous CEO". Do you recall that?

A. Yes.

Q. Do you understand that John Dow, Pike's chairman has given evidence about the circumstances in which Mr Ward left Pike?

A. Yes he has as far as I'm aware, yeah.

Q. And you understand that I also act for Mr Dow?

A. Yes I do.

Q. And you were privy to the board's process that resulted in Mr Ward's departure from Pike were you?

A. No I wasn't.

Q. Now I've spoken with Mr Dow about your email accusation and I'm instructed that to the extent not made clear in his earlier evidence to the Commission that he flatly rejects any suggestion that Mr Whittall "did a number" on Mr Ward, and I just want to put to you that you don't have

any real basis to accuse Mr Whittall of doing a number on Mr Ward do you?

A. I just found it a bit unusual a few days prior to Mr Ward's resignation that Mr Dow was in my office telling me what a bad person Mr Ward was. I found that unusual that a director of the company was sharing that information where I couldn't see the sense in it. So to me it looked like someone had done a number on someone, so I stick by that allegation yeah.

Q. But you don't have any basis to direct that sort of accusation at Mr Whittall do you, other than what you're gleaning out of that conversation that you allegedly had with Mr Dow?

A. It appeared convenient. There was a lot of speculation around the workforce around about that time. The company was, let's say, struggling, and there was speculation and Peter had said himself he wasn't sure if he was going to keep his job. He said that on a number of occasions. There was speculation as to who was actually going to go and I think it's fair to say there's a number of managers were surprised in the turn of events.

Q. Did Mr Whittall ever talk to you, Mr White, about his unhappiness working under Mr Ward?

A. He did say that Gordon was sometimes difficult to get on with.

Q. Did he ever talk to you about the pressures that he felt Mr Ward placed on him?

A. I can't recall any conversation of pressure, no.

Q. Now just while I'm on Mr Dow and perhaps this is consistent with what you've just said. You'll recall that he's described in his evidence to the Commission how he was on site at Pike in a consulting role of sorts for a period of time. You familiar with that?

A. Occasionally would be on site, yes, yeah.

Q. Now and you never said the things contained in your 16 November email to Mr Dow did you?

A. Pardon?

Q. You never said the things that you've levelled at Mr Whittall in your 16 November email about him being a liar and other things. Never said those things to Mr Dow did you?

A. Not until after the event, no.

Q. And it was the just day before you sent this personal email on the 16th of November that you'd met with Pike's board of directors, right?

A. Correct.

Q. And do you recall that actually Mr Whittall wasn't in the room?

A. Correct.

Q. But you never said any of the things contained in your 16 November personal email to any of Pike's directors just a day before on the 15th of November did you?

A. No I did not.

Q. And I suspect it goes without saying, Mr White, but you wouldn't be surprised that Mr Whittall vehemently denies all of your email comments about him being dodgy or lying or the other accusations you've made?

1028

A. He may well do but he did lie.

Q. And that the evidence that you'd given and the reference, I just want to touch on this for a moment Mr White, the evidence you've given about this and I'm putting inverted comas this 'lie' does that relate to the stock price drop?

A. Yes it does.

Q. Nothing else?

A. That's correct.

Q. Now, you said yesterday that you can't even recall what you were referring to as dodgy, and that's at page 5022 of the transcript, and I just want to be very clear on one point, especially Mr White when a man's reputation and career is now subject to water cooler discussion throughout this country, you didn't intend to suggest in your personal email that Mr Whittall was dodgy as to safety at Pike's mine, did you?

A. I would never have suggested that at all, no.

Q. And you weren't suggesting that he'd told lies about mine safety, were you?

A. Not about mine safety, no.

Q. Whatever your personal views as to Mr Whittall they didn't impact safety at Pike's mine, did they?

A. No they did not.

Q. And would you agree with me that your personal email, which I appreciate in fairness to you was first raised by the Commission's counsel and not you, that is not lost on me, but it was part of a longer exchange that really reflects a poor taste banter between friends. Would you accept that?

A. Poor taste banter?

LEGAL DISCUSSION (19:29:48)

OBJECTION: MR HAIGH (10:30:51)

COMMISSION ADJOURNS: 10.34 AM

COMMISSION RESUMES: 10.51 AM

LEGAL DISCUSSION

CROSS-EXAMINATION CONTINUES: MS SHORTALL

Q. Mr White, you now have in front of you the full email exchange as to which you were shown the first page yesterday and am I right that in the earlier email exchange, this is between you and a friend of yours in Australia, in which you describe someone with whom you both used to work and I'm just quoting this, “As a useless f**ker,” don’t you?

A. Correct.

Q. And the friend with whom you are emailing then talks about, I'm just quoting, “Backstabbing and jockying for jobs.” Is that fair?

A. Correct, yes.

Q. That’s the response back and it’s in direct response to that email from your friend about jockying and backstabbing that I put to you Mr White that you go, tit for tat and send the email shown yesterday in which you allege Mr Whittall did a number on the previous CEO and is dodgy, right?

A. Correct.

Q. And I think I've made it clear Mr Whittall’s reaction to this, but my last question to you is to confirm that you never intended that a Royal Commission would place any weight on the personal banter emails that we’re discussing here, did you?

A. Absolutely not.

QUESTIONS FROM COMMISSIONER HENRY:

Q. Good morning Mr White, I'm going to restrict my questions to management issues and the topic of management information systems. Now, this has been touched on in a sense by people asking you whether you received this report or that report. When you became operations manager you faced a very stiff challenge from what I can see?

A. Correct.

Q. What management information tools did you have available to you to enable you to meet that challenge?

A. There were systems in place at Pike River as far as health and safety management systems, there were maintenance systems, recording systems, production recording systems, there were a number of systems in place.

Q. Did you have access to an integrated management information system – I'll explain what I mean by that, a system whereby the key indicators that you needed to know to have information on across the range of your responsibilities, an integrated system that allowed you to see that information on screen?

A. Not that I can recall, the system that you're describing, other than what I said, there was no restriction of access of me into any of the systems that I talked about, but there was no kind of automated integrated system that I was aware of. I think they were trying to develop something along the lines of MIMS and there's a whole lot of management systems out there available, it was an issue, it was something that was trying to be developed but it was something that never got, never got round to.

Q. I guess to run a complex organisation you have to have both soft and hard information I would think?

A. Absolutely.

Q. You mentioned that you were – you've described yourself as a hands-on manager going around and talking to people?

A. Correct.

1059

Q. And gathering what I would call soft data, but in regard to what the information being produced by the organisation as a whole, it doesn't sound as if that was rolled up in any way which would enable you to get some overviews?

A. That's a fair comment. If I could I wouldn't describe it as being robust as a system that I now have access to.

Q. Yes. And in order for such a system to work you have to identify what the key bits of information that you in your particular role, the critical pieces of information that you need to know daily, hourly or weekly, whatever, is that right?

A. That's correct.

Q. Now it doesn't sound as if you have that?

A. We had weekly, we had a form of I think it would be fair to say and that was through the weekly management meetings for each department head to come around the table and describe what was happening. As I said, mainly it was looking backwards instead of looking forwards, but there was sort of a system there.

Q. That's not the kind of system I'm describing?

A. That's not the system that you're describing, no.

Q. You know that weekly meeting or morning meeting, call it what you like, is laudable, but what I'm talking about is when you go into that meeting you've already had access to the hard data?

A. Mmm.

Q. And do you say that Pike was looking at bringing in some kind of –

A. There had been talk for some time about trying to develop a system like what you, that you're describing and it was I think from memory I think that Gribble was, who was at the time the engineering manager, looking at the purchase of some kind of system that would do just what you said.

Q. Yes. So I think from what you said, you didn't then have any kind of executive information system which allowed you to see that some things were green, if you like, some things were orange, ie potentially in trouble, and some things that were red were actually behind?

A. That's a fair comment.

Q. So really you were trying to manage as operations manager and then later as general manager without the modern tools that one would expect in an organisation, would not be right?

A. That's also a fair comment.

Q. Did you have any kind of executive assistant to help you to compile key information under the various, bring together the various system information?

A. I had access to Katrina who was Peter's PA. I had access to her if I needed, and with no disrespect to Katrina, with the amount of work that she had on it was, I normally ended up doing it myself.

1102

Q. Yes, so that would mean, would it, that if you wanted to find a particular piece of information you would have to go and get it?

A. That's correct.

Q. Did you have some key information online to your computer?

A. I'm just trying to remember what we did have online. There was access to the company website.

Q. I was thinking actually, to be clear, I was thinking of things like gas readings and trends in gas analysis and so on?

A. As I said the other day, I think, I can't remember if my actual screen was set up for that, I could go up to the control room and get that information. I'm fairly certain it could've been put on my screen but the act of just getting up and just walking to the control room is one way of getting exercise when you're office bound.

Q. But it's at the cost of time which is precious I guess?

A. That's correct, it is yes.

Q. In your previous positions, did you have access to any of the modern management information system such as I've described?

A. Most of the places I've worked previously did have systems of some kind that were data dumps, for want of a better word, where you can go and access information. Generally it reports of a whole range of stuff, whether it be health and safety, production, engineering, there were available, if you knew what you were looking for you can generate the reports, yes.

Q. And in that kind of situation you'd also be able to discern trends I guess if you wanted to?

A. Yes. With respect to trends and stuff the previous mining position I had, I had available on the screen the Longwall, we didn't have development miners on the screen but the Longwall, the gas trends all that could've been available on screen.

Q. Allied to this, the question of lead and lag indicators that you mentioned earlier was put to you about lead and lag indicators, and I think you said that, in regard to lead indicators, that you had confidence in Mr Rockhouse, Mr Neville Rockhouse as the safety manager working in that area?

A. Yes I did, yes.

Q. Do I take that to mean that you thought that the determination of lead indicators was the responsibility of the safety manager?

A. We'd indicated, sorry, lead indicators with respect to health and safety, yes.

Q. Yes, I know that but in regard to determining what the lead indicators to be used?

A. No that wasn't his sole responsibility that was the responsibility of the management team.

Q. Yes. So, I think from memory Mr Rockhouse, although he knew about the importance of lead and lag, essentially the company was working on lag indicators, past incidents and so on, is that correct?

A. That is correct, yes.

Q. I have just one specific question on the hydro-panel. The panel I heard was working for about eight weeks before the explosion?

A. Correct, give or take a few days, yes.

Q. And it moved to 24 hour production at some stage?

A. Correct.

Q. I think perhaps after three or four weeks?

A. That is around about right yes.

Q. Why did it move to 24 hour production?

A. It was moved to try and increase the output.

Q. I heard you were having considerable difficulties with that output. That's why I'm puzzled why it moved to 24 hour production. I mean, weren't you having difficulties with the hardness of the coal, et cetera, et cetera.

A. Yes we were, it was to try and get more production time rather than just the, rest of the mine was working a standard nine hour shift and the requestor was gone in to try and increase the hydro production by increasing the time available to cut.

1107

QUESTIONS FROM COMMISSIONER BELL:

Q. Good morning Mr White. I've got a question for you on a range of things, the first one – could you go to COC0115/19, that's the deputy stat reports, page 19, so that you can have a copy of.

A. Sorry.

Q. The big books.

A. What's that number, sorry?

Q. It's on the screen now, I just want to question if you look down 11.10 to 2.10 Conrad Adams, "No Kestrels or air velocity, no phones in the face," then below, "No Kestrels available, limited gas detectors," but then before that they talk about, "the fan tripped, gassed out, heading started fans and de-gassed." How could they safely start the fans and de-gas without Kestrels and without gas monitors?

A. Well, they can't.

Q. But it appears they did?

A. Yeah, it appears from that they did, yep.

Q. Just moving on, in the emails that have been mentioned, so essentially I won't deal with them very long at all, you said that senior management had shown their true colours. What did you mean by that phrase, "their true colours?"

A. As you will appreciate that email was some time ago, I was referring to the inference that I personally had caused a share slide and that they would blame an individual for that, I just –

Q. That is my question really, that's the one thing, there was no other issues that you were concerned about in terms of true colours?

A. No, that was the – at that time Mr Bell, that was the one thing that, as I said before, was the last straw.

Q. Going back to your authority at the mine, did you feel you had the power to shut the mine down if need be for a safety reason?

A. I, yes.

Q. And did you ever – was the mine ever shut down?

A. I shut various sections of the mine down at times, I never shut the entire mine down, no.

Q. Talking about the fresh air base, I asked David Reece the same question, is a fresh air base or a changeover station or a refuge bay, it didn't seem to be any of those, do you have any comment on that, on the actual suitability of that area for whatever the task was?

A. The intention was to extend it out to a fresh air base and I think I've said on record that it's not something that I'm in total agreement with, it was more intended as a changeover station, that's why the self-rescuers were moved up to that point away from the 1500 metre mark in the drift.

Q. So you regarded it more as a changeover station than a fresh air base?

A. I did Mr Bell, I'm not a fan of fresh air bases at all.

Q. Just talking about stone dusting quickly, I accept the fact the stone dusting increased on the evidence we've seen after your arrival. How often was the stone dust actually tested and samples taken to a laboratory?

A. Until I put a regime in place I've no knowledge of it being tested at all.

Q. Just on the Commission's evidence there was some testing done and they all failed, all the samples failed?

A. Correct, the tests that I put in place was rather than dust the mine and then test I tested the mine to get a benchmark of the position it was in and then that would give me an indication of how good or bad it was and that's what I got and then that's when the whole mine was re-dusted after that and then the intention was to retest again to show that there had been an improvement.

Q. So you were going to put in place a stone dust testing?

A. I had put in – been in contact with, through Neville Rockhouse, I'd been in contact with SGS to negotiate terms of a stone dusting sampling regime.

Q. Just talking about methane drainage and I know I'm jumping around there, I apologise for that, these are the sort of things that came to me as you were giving your evidence. You're aware the reports from Mr Brown recommending increasing the size of the methane drainage range from four inch or six inch to 10 inch or 12 inch?

A. Correct.

Q. He made those recommendations three times and can you confirm that in fact they were never increased in size?

A. They were never actually increased in size, the money was allocated in the budget and it's a subject that I discussed on a number of occasions with Mr van Rooyen, Tech Services, about the size of the drainage line and from the knowledge I had from working in Oz it was my advice to Peter at the time that I think we should be looking at a 10 inch line and then that was backed up by what Mr Brown said in his report.

1112

Q. If you had gone to a 10 inch or a bigger line, would that have obviated the necessity for free venting methane into the returns?

A. It may not have. I mean it's hard to answer that question.

Q. But would it be fair to say that it would have improved the general efficiency of the –

A. Oh absolutely. In line with that just for explanation's sake, instead of venting back to pit bottom the next stub that was to be mined for a drainage stub would have entered directly to the surface.

Q. Was there any consideration to putting a vacuum pump on top of the methane drainage to improve the system again?

A. I didn't consider it. You would have to ask Mr van Rooyen that one.

Q. Just talking about the hydro-mining panel, I just have one question there. We've heard evidence from a range of people including the person referred to as Oki. Was there any way of mining that panel so

you would minimise methane emissions. I did ask the same question of David Reece and I'm trying to be sort of consistent here.

A. Yeah. It would have been hard without some kind of goaf drainage system. That's possibly the only way you could have done it, but then again there were challenges with that. The challenges with the goaf drainage system is the topographical constraints because of the area the mine was in. So at the time that was the best way that we could think of mining that panel.

Q. What do you mean, “goaf drainage” Mr White? Are you talking about bleeder roads or are you talking about direct drilling into the goaf?

A. I'm talking about direct drilling into the goaf as we did Central Colliery and they do it in North Goonyella and places like that.

Q. Just on the hydro-panel risk assessment. This is the one we were shown I think yesterday, it maybe the day before. Why was Oki not involved in that risk assessment? I didn't see his name on that list. Why didn't you utilise his vast experience, by the evidence we have, in hydro-mining for that risk assessment?

A. I can't answer that.

Q. I just want to continue on the same thing. A lot of work was placed on George Mason to complete. We've heard a lot of evidence that he had limited experience in hydro-mining anyway, but if you looked at that table most of the actions went to him. Do you think it’s reasonable to give him all that work when he had no experience in hydro-mining?

A. A lot of the work or the actions that were given to George were actions that I believe could have been completed by him or delegated from George to other people to complete.

Q. We heard Mr Reczek the other day talking about potential sources of ignition and among those he talked about harmonics and you may have read evidence that Mr Reczek –

A. I have -

Q. You might have been here?

A. I have read his evidence, no.

Q. I'm not being derogatory here. Were there any degree qualified electrical personnel working at Pike that may have had enough academic sort of background to understand because it's a fairly complicated area?

A. I'm not entirely sure of that one. I'm not sure if Mike Smith was degree – not Mike Smith. I can't remember his first name. I'm not sure if he was or Danny. I'm really not sure on that question Mr Bell.

Q. Do you think it would have been reasonable –

A. Can I just say they're not employed by Pike but we did have - fairly certain Andy Summers who we helped use commission all the hydro plant. I'm fairly certain he's a degree qualified electrical engineer. I could be wrong about that.

Q. And wouldn't an electrical inspector with underground mining experience have been useful to you as the mine manager in terms of inspecting the mine to give you advice on electrical matters?

A. I'm not sure what degree of usefulness it would have been. I mean it's always good to have inspectors available from various disciplines.

Q. Just moving on. Had the DAC system in the mine ever failed before, the communications system?

A. The communications system had failed, from memory, a couple of times before.

Q. Was it worked out why it failed? I mean...

A. I can't answer that. That was one for the engineers.

Q. You were saying that, just a point of clarification here. The CO sensor was located in the hydro-panel return. Did that sensor report to the surface or was it the same as the methane one?

A. My expectation was that was to report to the surface. I found out later that it didn't actually report to the surface.

1117

Q. So neither the methane sensor or the CO sensor in the return from the hydro-panel reported anywhere?

A. No.

Q. Well, my question sort of flows from that, how can you look at spontaneous combustion coming out of there, potential spon com if you like, when there was no recording of the data from those sensors, or was somebody going into the return to read them regularly?

A. The recording was done every shift by the deputies, recorded in the control room and graphed in the control room so I could get trends, in the absence of a system.

Q. Are you still, that's talking about stoppings, Mr Haigh produced this email the other day, talking about the availability of O'Hara Plasterers, now I've read this a few times. I can't actually see that it actually says that you were going to engage them. It just says they're available. Is that a fair comment?

A. Oh, the intention was to engage them absolutely.

Q. But it doesn't actually say that here though, it just says they're available –

A. That may not say that, but…

Q. How many permanent stoppings were actually built at Pike, a hard question I know, but it's not a big mine is it, (inaudible 11:18:03) –

A. Oh, no, you're right. Most of the outbye stoppings up to about six cut-through were either permanent stoppings or double doors and that's with the exception of the cut – the stopping in three cut-through which was deliberately kept, not three cut-through one west; three cut-through pit bottom was kept temporary because of shotfiring activities happening in that area and that was the intention, because shotfiring activities had ceased in that area, the intention was to get the contractors out and do all the final pit bottom stoppings, do the overcast that had just been built the Sunday before and get the stoppings up to date.

Q. To what strength were those stoppings built, the permanent stoppings that we've been talking about? Was that – were you building it to a standard, or?

A. I had a discussion sometime prior with O'Hara in my office. It is a bit disappointing that he can't recall that discussion and we talked about the stoppings, the rating of the stoppings he was using up at Huntly, and

he was describing them, like I said yesterday, in megapascals, which I thought was a bit over the top, but he did talk about how he would build up the stopping in the layer similar to how we do it, or how it's done in Australia, how you build the stoppings up in layers, so they were, they weren't unsubstantial, or one substantial construction.

Q. So would that have been 5 psi, do you think, or?

A. I would be reluctant to put a rating on them.

Q. And just finally on the stoppings one, you said the stopping at three cross-cut near the hydro-panel was more than a pogo, brattice stopping, it was a stopping made from board and brattice?

A. That's my recollection yeah.

Q. What sort of strength would you attribute to that?

A. Well, as far as ratings are concerned, it wouldn't have a rating.

Q. So it wouldn't be a 2 psi stopping?

1120

A. Well, it's hard to say, I mean, you can rate timber and brattice stoppings and maybe they rate above 2psi, I really don't know.

Q. And just finally, you talk about a major panel move and that was one of the reasons why the ventilation may have been moving around a bit, pretty close to when this event happened?

A. Correct.

Q. Was the ventilation modelled at all to give you an idea what the ventilation would do?

A. I personally didn't model it no.

Q. Would that have been a reasonable thing to do, do you think, to give you a bit more comfort in terms of how it was going to behave?

A. Yes it would've been.

Q. And just finally about New Zealand legislation, are you familiar with the Minex standards?

A. I would get reports from Minex on a frequent basis.

Q. They're mentioned, if you like, in the New Zealand legislation as being the standard, if you like, or guideline or whatever you want to call it, best practice?

A. (no audible answer 11:21:04)

Q. And just finally, do you think you took every practical step at this mine as is required by legislation?

OBJECTION: MR HAIGH (11:21:16)

QUESTIONS FROM THE COMMISSION:

Q. Just one matter Mr White, you've said that, I think, both in your written statement and in evidence that your view was that after the commission of the main fan underground there was more than enough available air for the state of development that the mine had reached?

A. Correct.

Q. Mr Mander has taken you through quite an exercise this morning. I just wanted to know, have you any comment to make on the content of that exercise and the inference, I guess, that he was asking us to draw from that demonstration that he did?

A. What it does demonstrate is that the evidence given in the report is more than likely correct. With the ventilating equipment that was actually being used at the time prior, the amount of air even that the report suggests with the way that the fans were set up was still adequate to comply with the legislation. What it does is it shows that my assumption of where the deputy was taking his reading was incorrect.

Q. But your take on it is that even on the modelling figures of 80 cubic metres per second along that main intake is confirmed by the sort of readings that Mr Bisphan was obtaining, you say that while that might be the case it was still more than enough air in your view?

A. It was enough air to run the phases that were being run at the time yes.

RE-EXAMINATION: MR HAIGH

Q. You were asked questions by Mr Holloway for Solid Energy?

A. Yes.

Q. I just want you to confirm what emerged from that, mainly that at no stage were you ever offered a full-time job or position with Solid Energy?

A. Not at all.

Q. And that the involvement with Solid Energy was instigated in terms of your future employment, it appears, by, as you now know, the recruitment agent and not by Solid Energy?

A. That is correct also.

WITNESS EXCUSED

1125

THE COMMISSION ADDRESSES MR MABEY - RE MR VAN ROOYEN

MR MABEY OPENS

Mr van Rooyen was summonsed in early December having been interviewed in March previously by DOL and the police, having received the summons and having regard to the time of the year, sir, he made himself available and over a lengthy period here with your investigator and myself, produced a 53 page brief which is dated and filed on the 27th of January. It's directed at the issues that apply to this week of the hearing and of course, in that brief he attempted to deal with those issues as best he could but as became evident then and certainly in my subsequent discussions with counsel assisting, there are areas where he simply will not be able to assist the Commission and I raise that because it might be in his evidence that he will be obliged to say, "There is somebody else you could speak to about this subject," and somebody else who's not here this week and perhaps may not have been spoken to previously. In fairness to him I point that out now because that is not, and I know that you'll accept this, is not in any way an attempt by him to be unco-operative. To the contrary he's been absolutely co-operative, but he's the person who'll be here to be questioned but there are others, Your Honour, from the management structure and the staff at Pike that could be of greater assistance to you but he will do what he can to answer the questions.

The discussions, useful discussions I've had with Ms Beaton in the last few days have thrown up other documents that were not available to us in January with Mr Stokes and there were many documents that were made available by him. It is possible that throughout the evidence documents will be referred to that were not referred to in Mr van Rooyen's brief. You will have noticed from his brief that there was an attempt to identify as many documents as possible. They're not going to be referred to but they're there because it adds to the bulk of information you have and gives it a context. It is likely, and I can think of one area that he may have to adjust what he's said in his brief simply because there's another document come up that he could not possibly have known of at the time and if that occurs and it'll probably be through my friend's

questioning and possibly mine, then I'll attempt to identify the fact that this is a document that wasn't referred to simply because it couldn't have been at the time.

5 It is likely to, Your Honour, that situations could arise where he is a manager, may be at the risk of incrimination and if that arises I'll give him the appropriate advice. I've explained to him that it's his privilege and I'll just deal with it in the appropriate way. But for now sir I call Mr van Rooyen.

MR MABEY CALLS

PETRUS HENDRIK VAN ROOYEN (SWORN)

1130

THE COMMISSION ADDRESSES MR MABEY – APPRECIATE INFORMATION

EXAMINATION: MR MABEY

Q. Mr van Rooyen are you Petrus Hendrik van Rooyen?

A. Yes, I am.

Q. Do you live here in Greymouth?

A. I do.

Q. And are you currently employed at the Oceana Mine in Reefton?

A. I am.

Q. For the purposes of this hearing did you complete in January of this year, a 53 page, 326 paragraph brief of evidence?

A. Yes, I did.

Q. Do you have that with you?

A. Yes, I do.

Q. You're undoubtedly still familiar with its contents. Do you confirm it's true and correct?

A. I do.

Q. Mr van Rooyen there may be times when I refer to the brief, you needn't have it open now, you needn't look at it; I'll tell you when we need to look at it. Were you summonsed to give evidence in this Commission by summons dated the 6th of December last year?

A. Yes, I was.

Q. And, as a result did you spend considerable time here in this courthouse with Mr Stokes and myself in the preparation of that brief?

A. Yes, I did.

Q. I want to ask you some questions generally on your background and your history of mining and the reasons you left Pike. Now, you are a trained geologist?

A. Yes, I am.

Q. With a degree from a university in South Africa?
A. Yes.
Q. You have a Masters Degree in Mineral Resource Management?
A. Yes.
Q. And you graduated with honours in 1995?
A. That's correct.
Q. Now since then and until now have you been involved in mining?
A. Yes.
Q. In South Africa?
A. Yes.
Q. Tanzania?
A. Yes.
Q. Namibia?
A. Yes.
Q. And did you join Pike on the 2nd of February 2009?
A. I did.
Q. That's a coal mine as we know. In your previous work had you worked in coal mines?
A. I had two years experience as a geologist early on in my career as well as summer work on a coal mine in South Africa while studying.
Q. And your function, if I can put it that way, in the coal mine was as, what, what did you do?
A. Well, I worked as a geologist on the mine, functions predominantly exploration as well as mine geology.
Q. Yes. In any of your previous work in any mine, have you been the equivalent of what is for our purposes a technical services manager?
A. Yes, the three years prior to joining Pike River Coal I worked in Namibia in Rosh Pinah Zinc Corporation as the mineral resource manager which is the equivalent of a technical services manager.
Q. When you came to Pike that was a result of an interview by Mr Whittall?
A. Correct.
Q. And before taking up your contract, did you visit the mine?
A. Yes, I did.

Q. You were aware of the duties of the technical services manager?

A. The duties were made aware to me during that time.

Q. Now, broadly, did that include mine geology?

A. Yes.

Q. Very much your field?

A. Yes.

Q. Mine design?

A. Correct.

Q. Scheduling?

A. Correct.

Q. Geotechnical and survey functions?

A. That's correct.

Q. Underground ventilation design?

A. Yes, that's correct.

Q. While we're talking about that, does that include the placement of stoppings?

A. It involves the placement of stoppings in terms of ventilation modelling, but not the exact location where it's placed underground, in the specific cut-through.

Q. Who would determine that?

A. That is determined by the operation or production team which actually bolt the stopping and find it a suitable location in the stopping or in the – sorry, in the cut-through.

Q. And does mine design include an assessment as to the quality of the stopping, the rating, what it's made of, or is that for others?

A. My role did not involve the design of ventilation stoppings, or the construction of them, no.

Q. Did the geological function involve in-seam drilling?

A. Yes, it did.

Q. There's been much said of gas drainage, was gas drainage within your purview?

1135

A. It was not part of my initial understanding of the role. When I visited the site we discussed inseam drilling as such. Previously at Tshikondeni I did inseam drilling where we did not do any gas drainage. So I didn't have an initial understanding that gas drainage would be part of it, but after I arrived it soon became evident that gas drainage was part of the role.

Q. Was this as a result of the fact that increased number of inseam boreholes produced gas which needed to be, to put frankly, disposed of?

A. Yeah, I think my understanding was that after the initial holes were drilled that there was a need to remove gas from the working areas and gas drainage as such involved.

Q. Now, gas monitoring. Again, there's been much said of that. Was gas monitoring part of the responsibilities of the technical services team?

A. No it was not.

Q. At any stage did it become a responsibility of you or your team?

A. The only part the team or technical services had with gas monitoring was when we started free venting and Mr Borichevsky started looking at the gas in the return as oversight of free venting as stated previously.

Q. Was your team responsible for petroleum exploration?

A. Yes we were.

Q. Did Pike have a licence?

A. Pike had the petroleum exploration licence over the Pike River mining licence as well.

Q. Now they are the duties of your team. You were the leader of that team. Who did you report to?

A. I reported to the general manager, Peter Whittall, up until two weeks or mid-October I estimate when Mr White became the general manager.

1137

Q. We'll talk more about what occurred during the time that you were at Pike within your role, but you left on the 3rd of November 2010?

A. That's correct.

Q. A short time before the explosion?

A. That's correct.

Q. It's a matter of importance, I'm sure to the Commission and to you for you to give evidence about why you left and the best way to describe that I think, Mr van Rooyen, is for you to read from an aspect of your brief and, Ms Basher, it's the brief of evidence if you could put up page 2 please? If we could go now to paragraph 12, I'm not too sure what your summation is. Now read from paragraph 12 in the document you have before you Mr van Rooyen?

A. "The reasons for my resignation was that the amount of time I spent working at Pike River was very demanding on me and my family. I was working between 70 and 90 hours each week. I left home each day Monday to Friday between 6.00 am and 7.00 am and generally returned home between 7.00 pm and 8.00 pm each evening. In the evenings I generally worked at home for two to four hours each night. When I worked on weekends it was usually for four to six hours on average. Some weeks I worked for more than 110 hours."

Q. I want you to read the next two paragraphs which are on the next page please? Paragraph 13.

A. "The long work hours were not as a result of my inefficiency. I believe I am a good time manager. My extended hours were caused by a range of factors including continual changes in the mine design and regular revising of the production schedules and profiles. In the last few months production underperformance at the mine required increased reporting to the bank, the board and head office in Wellington."

Q. Next paragraph.

A. "I had been working similar hours in Namibia and came to New Zealand for a better lifestyle but that wasn't happening. The opportunity for a similar position at Oceana Gold at Reefton arose. I took that opportunity with an improved lifestyle. I seldom work at night and if I am ever required to work over weekends that draws time in lieu."

Q. Thank you Mr van Rooyen. I want to ask you this, did you leave at all for safety reasons?

A. No definitely not.

1140

Q. You'll be aware that in a previous phase of this hearing a man called Mr Nishioka gave evidence?

A. Yes I do.

Q. Do you know him?

A. I've met Oki at the mine and had discussions with him yes.

Q. Did he have an office near yours?

A. Yes, two doors removed.

Q. And what was his job at the mine?

A. My understanding was he was part of the commissioning team and his role was the commissioning of the hydro-monitor, hydro production as such.

Q. And did you see him from time to time at the office?

A. Yes, saw him frequently and on occasion had discussions with him.

Q. I want to refer you to some evidence that he gave previously where he mentions you in discussions that he says he had with you and, Ms Basher, it's at page 3560 of the transcript please. I beg your pardon, I'm learning Your Honour, transcripts are not put up so I shall read from it. He had been speaking about his reasons for leaving the mine and discussions with others and his own concerns and generally said that he had fears about safety but was asked questions about you and I'm going to read to you from the transcript at page 3560 when he was asked, "Did you speak to Mr van Rooyen?" And his answer was, "Who?" "Mr van Rooyen, Pieter van Rooyen." Answer, "Mr van Rooyen what is he part of?" Question, "Did you say anything about your concerns to Pieter van Rooyen?" His answer was, "Oh, yeah, that guy, yeah okay. Yeah Pieter came from South Africa or, yes, you know. We were having a conversation frequently because his office was very close to my office and whenever I came out of the mine I told him the monitor face was getting tremendous amount of methane gas and it's quite dangerous and if there is any source of ignition it will go instantaneously. I told him more than five, six times whenever I came out of the mine because we were having conversation quite frequently,

because I thought, you know, when I expected he could convey my message to somebody, you know, high above and he said it was so scary and he wouldn't go underground. That's what he replied to me." He's then asked this question, "Could I ask you to repeat what you've just said, the last thing you just said, what did Mr van Rooyen say to you?" His answer was, "Well he said he wouldn't go underground." Question, "Why?" "It was so scary." You've read that?

A. Yes I have.

Q. When Mr Oki would speak to you from time to time in the offices was there talk of gas levels underground as he says?

A. He never spoke of specific gas percentages it was usually in afternoons, later in the evening when he comes out from underground walking past my office, I would usually ask him, "How's it going with production," or, "Is the monitor going," and there was occasions where he stated that the monitor was shut down due to gas.

Q. Yes. Were these discussions at all formal, was he reporting to you, or advising you, how did you see them?

A. It was, in my opinion, comments made in passing by, just general discussions.

Q. Well, he says that he said to you it was dangerous.

A. He's never done that.

Q. That given a source of ignition it, in reference to the mine, would go instantaneously.

A. He did not.

Q. Well, the nub of what he said and which was given some considerable publicity was this, that you said to him that you were scared to go underground at the mine". Now Mr van Rooyen did you say that to him?

1145

A. No, I did-, – definitely not.

Q. Were you scared to go underground at the mine?

A. Never.

Q. Did you go underground at the mine during the course of your employment?

A. Yes.

Q. And how often might you go down on say on a weekly basis?

A. It differed. I personally didn't go down that regularly. At stages during the mines development there was times when I went underground every week with Doug, Mr Doug White. During the last six weeks of my employment I actually did not go underground. I was working on petroleum exploration permits.

Q. Yes. Did you have men from your team underground?

A. Every day.

Q. Did you ever have any concerns for them underground?

A. No.

Q. So in short then, what do you say to Mr Oki's evidence that you had expressed to him that you would not go underground because it was simply, as he said, "too scary"?

A. That is untrue.

Q. We know that when you left the mine, you produced 26 pages of handover notes?

A. Yes, I did.

Q. We don't need to refer to them physically, but who were they intended for?

A. The main purpose of the document was to ensure continuity after I leave so for whoever takes up my position, at that stage Mr Borichevsky was, to my understanding, going to act in that position for a short period and there was also mention of the appointment of a technical services manager to replace me.

Q. And who did you give the notes to?

A. I gave the notes, the first copies I gave to Mr Whittall and to Mr White, giving them a brief on where we were at, at that stage with different areas, then gave a copy to Mr Borichevsky as well as to other members of my team and discussed them in detail with them.

Q. Since leaving, well, after you left on the 3rd, did you maintain any contact with people back at the mine?

A. Yes, I did and I still do.

Q. Were you in discussion with people back at the mine about matters that arose in your handover notes?

A. I was asked numerous, well, some questions, I can't recall how many, but I was asked questions. But I also kept in contact just as general interest on what was happening on the mine and how production was going and how the development of the mine continued, because it was part of my life for almost two years.

Q. Now, ventilation, part of your team's responsibility; did you, yourself, have any ventilation experience?

A. No, I did not.

Q. When you arrived at Pike and took up your duties as manager of the technical services team, was there a ventilation specialist as part of that team?

A. No, there were not.

Q. Did you consider that you needed someone in your team who had specialist ventilation knowledge?

A. Yes, definitely.

Q. Was that raised with management?

A. Yes, I had a discussion with Mr Whittall where I proposed that one of the – well, the mining engineer current, at, on site at that stage, would better – it would benefit him and the company if we would send him away to get trained up as a ventilation officer.

Q. Was this Mr Gregor Hamm?

A. That's correct.

Q. Was he in your team?

A. Yes, he was.

Q. Was your suggestion taken up, was he sent off?

A. No. No, it was not. I was given reasons why that was not applicable or approved at that stage. The first was, well, in no specific order, was given that it's not New Zealand legislation or requirement by legislation to have a ventilation officer; the size of the mine at that stage were mentioned as well, and what was also mentioned was that that specific portion of ventilation is not the technical services function.

1150

Q. If you had a ventilation officer on board, what duties would you have delegated to him or her?

A. Well initially the ventilation design. Being part of the team doing the ventilation design and long-term design would be beneficial, but as the mine evolved that could involve or could evolve into doing the ventilation engineer or ventilation officer's role as well as assistance with gas drainage and the management of the gas drainage system.

Q. In the absence of a ventilation officer how did you deal with ventilation problems?

A. Well we made use of consultants to assist with whatever problem we had on site. But we also had other people on site with long-term coalmining experience and that had ventilation experience.

Q. By the time you left was there some change in management attitude to the extent that someone had been nominated to do this course?

A. In discussions between Mr White and myself we discussed getting Mr Jamieson trained up, and Mr Jamieson at that stage has already started spending time underground with consultants when they were on site to gain some knowledge although he had a certificate of competency as an undermanager and from what I know, he was working on his mine manager's certificate as well.

Q. Who was the main ventilation external consultant that you used?

A. Well we used Mr Jim Rennie from J Rennie Ventilation in Australia as well as John Rowland from Dallas Mining.

Q. Another discrete area that you can comment on is the location of the hydro panel. It's come up in the past and it's something I want you to address. Going back to Mr Oki. In his brief of evidence previously filed, at paragraph 42, it said that he did not agree with the location of the hydro panel for two reasons. One, it was not good mine planning to have a resulting potential methane gas pocket close to the pit bottom, which would be used for life of mine. And, secondly, it was too close to the Hawera Fault. Were you involved in deciding the location of the panel 1?

A. Sorry, can you repeat that question?

Q. Were you involved in the decision that led to where panel 1 would be?

A. Yes.

Q. Was the proximity of the Hawera Fault something that you took into account?

A. Yes we did.

Q. Was there any advice received about that?

A. Yes, Mr – well the access agreement has certain limitations in it and there was also comment made on that by Dr John St George which stated the access agreement stated 100 metres barrier pillar between the Hawera Fault and the extraction panels.

Q. Yes.

A. And Dr St George actually made a comment that he was of the opinion that 50 metres would be enough. But the panels outside both of those limits was more than 100 metres.

Q. What about the issue of gas emanating or collecting in the panel approximate to pit bottom a life of mine location? Was that something that you considered when you made your decision or participated in the decision as to where panel 1 would be?

A. Yes we did consider that. The location was decided by some fact that it would be, well I acknowledge the fact that ideally you would mine towards the extremities and then extract back, but that hardly ever happens. Usually these panels develop on the way as you develop towards your extremities, but also the fact that when you develop the goaf and it fills up with methane there's ways you could seal off the panel and ensure that you could ensure breathing or leaking of gas into the mine can be controlled. Discussed those with some of the experts and they acknowledged that there's ways you could do that and furthermore placing the panel on the return side also had an effect that if there was some methane release from the panel that it would be in the return and would be acceptable.

1155

Q. In parts of your brief you made reference to the need to find coal and design considerations being influenced at times by the need to locate and produce coal and there's been reference to even to pressure to achieve coal production in your brief. When deciding upon, or helping decide upon the location of the panel, did you take into account certain criteria, mining considerations?

A. Yes there was a number of criteria considered.

Q. Well, I would like you to read, so it's in the record, paragraph 100 of your brief of evidence at 17 please on this issue?

WITNESS REFERRED TO DOCUMENT PVR001/17

A. "Notwithstanding the pressure on myself and my team," sorry, "Notwithstanding the pressure on myself and my team were me," beg your pardon.

THE COMMISSION:

Q. I think there's a "we" missing is there?

A. There is a "we" missing.

EXAMINATION CONTINUES: MR MABEY

Q. Yes I think you're right.

A. "Were determined to maintain professional standards and make correct decisions. That is why I work such long hours and use external specialist consultants wherever I required outside assistance. The decisions to locate the hydro-panel was only made when I was satisfied that we had enough geological information to make the correct decision. It took many months and a great number of design changes but despite the pressure, that was necessary. I would not have advised a hydro-panel location unless I was fully satisfied. It was justified on proper mining criteria."

Q. And one of those criteria on and no doubt an overriding consideration would've been safety?

A. Yes, that's true.

Q. Also a matter you can address, it's already been covered to a certain extent, or to a great extent by the experts but I want you to comment on

is also something that's referred to my Mr Oki in his brief of evidence at paragraph 40, when he said this. "Pike River was trying to avoid any collapse of the goaf in order to avoid surface subsidence. This means that the mined-out area would eventually become a huge methane gas pocket to then maintain for the life of the mine." Well, was part of the plan, the method to avoid any collapse in the goaf?

A. No it was not.

Q. We heard from Mr Reece that that would be an expected consequence of mining?

A. That would be.

Q. And Dr Bell in the DOL report said similarly that was to be a natural consequence?

A. He does.

Q. Do you agree with what they say?

A. Yes I do.

Q. That particular issue leads on to something I know of importance to you and that is within the mine design scope, or your mine design scope and that is the considerations and the investigations carried out by you and your team when it was decided to widen the panel, right?

1200

A. Yes.

Q. And you would've heard evidence earlier this week and last week about that. You've read the DOL report?

A. Yes, I did.

Q. Right. When you started at Pike, was the geological information that you had available to you through Minarco and other information, very comprehensive, was there much of it?

A. There was a number of drillholes drilled and based on that information there was reasonable information, but it was not as accurate as it, as you probably would've like it to be.

Q. But when you came ultimately to determine the extension of the panel width from upwards of 30 metres, was further information needed before that decision could be made?

A. That's correct.

Q. You've mentioned Mr St George, Dr St George, was he part of the expert group that you consulted on panel width?

A. Yes, we consulted Dr St George primarily for subsidence information.

Q. And you were talking to him about subsidence that may result or could result from the width extension?

A. That's correct.

Q. Could we have his report please, DAO.025.42050?

WITNESS REFERRED TO DOCUMENT DAO.025.42050

Q. And I wonder if we could, please Ms Basher, have under the second heading down, the first and second paragraphs, if we could have them enlarged under panel 1? And it's the next paragraph down, yes. You see there under the sub-heading "Panel 1", "Reference to the panel width could be increased by about 15 metres on the eastern flank, right rib side before the panel reaches the critical value for subsidence category C. Any widening of the panel will not influence the overall surface stability as this is an isolated panel with no barrier pillars nearby." Now, was that information sufficient to you to actually make a determination about the extension of the panel underground?

A. In terms of subsidence, yes, but not as a whole.

Q. Did you seek further information or expert advice before settling upon an extension of the panel width?

A. Yes, at that stage from memory we already had some information from Strata Engineering, and we also had additional work done by Dr Bill Lawrence.

Q. Well, let's look at what Strata told you and the report from Strata came in on the 29th of August 2010, and it's INV.03.17538.

WITNESS REFERRED TO DOCUMENT INV.03.17538

Q. And on page 1, does Strata summarise its brief in this way – it's under "Introduction" please Ms Basher – "This report summarises the cave-in ability issues relating to panel 1 at Pike River Coal. The aim has been to assess the potential for windblast" – now this is a windblast report, isn't it?

A. That's correct.

Q. "Or at least significant air movements due to irregular overburden cave-in. Panels are planned to be 31 metres wide in the first instance and may increase to 50 metres in the future." And in there, there's a reference to the extraction height in the range of 10 to 13 metres.

A. That's correct.

Q. Does that set out the brief that you gave Strata?

A. Yes, it does.

1205

Q. Now, on page 4 please, under the heading, "Implications for significant air movement" do you receive advice that the island sandstone is almost certainly thick and competent enough to bridge indefinitely across the planned 31 metre wide panel 1 in the absence of low to mid-angled structure at wider spans," now you can help with this. The reference to 50 metres is preceded with or by a character. What does that tell you?

A. Approximately.

Q. "Progressive failure is considered likely. As noted previously there is no known precedent for windblasts and sandstones due to the differences in failure modes between conglomerates and sandstones. Conglomerate failure tends to result in large plate-like falls whereas sandstones tend to fall progressively as smaller blocks. This has been the experience in the adjacent Spring Creek Mine which has reported 50,000 metre cubed goaf void at the start of a recent panel, but this fell in smaller key blocks over time and not in a single event. It is likely that goaf formation in wider panels at Pike River would involve similar mode of failure." And there are some concluding remarks which repeat in effect what was said. What did that information tell you in your enquiry as to whether or not you could appropriately extend the width of this panel?

A. This report indicates that the potential of windblast is low on a panel with a 31 and up to 50 metre wide span and that if the sandstone potentially would fail, the island sandstone as such, that it would do so as key blocks will progress to failure.

Q. Well, let's move back a bit. On the day you arrive, the main shaft collapsed?

A. That's correct.

Q. So you were on site as a geologist witnessing the behaviour of certain strata, rocks?

A. Yes, I didn't always have access to the void itself but saw images as well as the scans that was happening and got the reports from people on what was actually happening on site.

Q. Were you involved in the building of the Slimline shaft?

A. Yes I was.

Q. Were you able to make observations there?

A. Yes, that was a particularly difficult task initially because we drilled the hole and then reamed it, on several occasions reamed it out very similar to a miniature raise bore and while in that process especially at the bottom sections of the island sandstone there was blocky cavier or caving and blocks of the island sandstone actually dislodged and in stages landed on top and wedged into the rim. I actually had one of those blocks standing in my office for a very long time which was a block which was about 20 x 20 centimetres almost half a metre high and was formed by jointing and there was distinct weathering visible on the jointing which indicated that it wasn't a breakage due to the process, that it was blocky and jointed for some time and some time relatively in terms of geological time.

Q. After the event in his expert assessment, Dr Bell talked of ravelling failure 30 metres into the sandstone. Now, “ravelling” is that a geological term?

A. I won't say it’s a technical geological term but I understand exactly what he means. He’s talking about these similar to what Strata is talking about. How the blocky failure, the key blocks or a key block falling out and loosening up additional blocks that actually ravels out into the goaf or into a void as such.

1210

Q. When you were considering the extension, obviously it was intended to go in a particular direction relevant to by reference to the plan panel, and there's been reference also to the fault the Hawera Fault. In compass terms which direction would the extension go?

A. Well, generally speaking we would say east, but strictly speaking probably south-east, but in general terms we refer to it as east.

Q. So it becomes relevant in relation to certain comments made by Strata after the event. Just so there's no doubt, at least, in my mind, could we have DAO.000.02 please?

WITNESS REFERRED TO DOCUMENT DAO.000.02

Q. Do you have a laser there?

A. Yes I do.

Q. Just use your laser and please describe where you were intending to extent the panel?

A. The initial panel was from centre to centre or from roadway to roadway along there and the extension was towards the east, this direction towards…

Q. And where's the fault that Dr George and Mr Nishioka were talking about, St George?

A. The Hawera Fault intersects the main tunnel, approximately there which is in the main drift.

Q. Was there any faulting approximate to the panel?

A. There was a fault running in a north-north-east, south-south-west direction, 1520, well, variable distance from the panel.

Q. Was that a factor that came into consideration when you were looking at the panel redesign or the widening?

A. Yes we did consider that.

Q. Well, it's featured in the DOL report and also in a document from Strata that Strata Engineering would have given different advice had they known the extension the panel, was 15 metres closer to the edge of the fault. Now, at 3.19.7 on page 133 of the DOL report, and it needn't go up, it said this, "Although Strata Engineering were aware that there was a fault to the east of the panel," the fault that you showed us?

A. Yes the fault running…

Q. "It had subsequently clarified if it had known extraction was to be increased 15 metres closer to the fault it would have provided different advice to PRCL." And that is something that appears in an email from David Hill to Jane Birdsell copied to Rob Thomas in October last year. You're aware of that, you've seen that?

A. I have seen it since then.

Q. Did you deal with Strata personnel onsite?

A. Yes I did, although Huw Parker, the geotechnical engineer, had a lot to do with him, on occasions I spoke to them and when they were onsite I definitely met with him.

Q. As at the date of the Strata report that came in in August 2010, would Strata have known that it was intended to go east closer to the edge of the fault?

A. At that stage, no.

Q. But subsequently were they told that?

A. Yes.

Q. Who by?

A. Well, I know that Mr Parker had discussions with them as well as I did when Mr Thomas was onsite.

Q. This is Huw Parker of your team?

A. That's correct.

Q. And why would that have been discussed with Strata personnel?

A. Well, Strata was subsequent to the, or Strata Engineering Australia, was subsequent working with Pike on some other aspects as well, they were working on secondary support within the panel as well as evaluation of barrier pillars around domains and they were involved in September and October on numerous occasions.

Q. Would they need to know where the panel was going to go to give advice on that particular brief?

A. Yes and it was definitely discussed with them.

1215

Q. Did a – now Rob Thomas, he's from Strata?

A. That's correct.

Q. David Hill's from Strata?

A. That's correct.

Q. Did you receive a report from Rob Thomas on the 25th of October on the issue of barrier pillars either side of north panel?

A. That's correct.

Q. And that's DAO.025.39387.

WITNESS REFERRED TO DOCUMENT DAO.025.39387

Q. Is that the email you got from Rob Thomas?

A. That's an email I was copied into.

Q. Yes, Huw Parker and Pieter van Rooyen. Now, it's not directly related to panel width extension, is it? There are other ancillary issues?

A. Yes, it's related to things surrounding panel 1, but not the panel width extractor.

Q. And attached to it were there a number of plans?

A. That's correct.

Q. I wonder if we could go to the third page of that email please? Do you see that document there? Is that the Strata Engineering document dated 25th of October 2010?

A. Yes, it is.

Q. And does it show copy of mine plan showing, "1, location of one north panel and neighbouring barrier pillars and 2, pillar dimensions assume in the report"?

A. That's correct.

Q. Have a look at the pictorial depiction of panel 1, and it shows, it seems to me, the panel as has been shown in previous maps, the one we looked at before with the roadways in and out, but does it show the intended shape and size of the panel after the extension to the east?

A. It does, it shows the extraction at the top of the panel as well as the widening of the panel to the east.

Q. When would that information, or that's concerning the direction of the extension been given to Strata?

A. Well, that was definitely before the date on the drawing which is 25 October and from recollection there was discussions September and October regarding the panel width with Strata Engineering.

Q. Strata had reported to you on the 29th of August, in the way that we've seen. They say to the Department of Labour a few months ago, that their advice would've been different had they known that the 15 metre expansion works, this expansion was going closer to the edge of the fault, and they say that now. At any stage after you received this report with this diagram showing the proposed dimensions of the panel, did you ever receive anything from Strata altering its advice contained in the August report?

A. No, I did not.

Q. I understand that the procedure, and tell me if I'm wrong, in a scheduling sense is that production can only commence underground if officially authorised by a permit to mine?

A. It's not a requirement by legislation, but it's a system that was in place at Pike.

Q. Yes. And is that literally a permit within the company, someone in the company authorises someone else to do something?

A. Yes, it's a type of a permit system.

Q. Were you involved in the issuing of permits to mine?

A. Yes, the technical services department had the, all the relevant information and we drew up the permits –

1220

Q. Yes.

A. – and recommended them to be signed off and implemented.

Q. And ultimately who has the signing off authority?

A. Ultimately the mine manager has the final authority.

Q. Right.

A. But I also signed it as recommendation.

Q. On the 15th of October 2010, and it's DAO.001.03568, please?

WITNESS REFERRED TO DOCUMENT DAO.001.03568

Q. Did you issue a permit to mine?

A. Yes, the permit was issued on the 15th.

Q. More correctly, was a permit to mine issued by the mine manager but previously signed by you and contained your recommendation?

A. Yes, I –

Q. Is that correct?

A. I signed it.

Q. And does that show, top left in blue, the intended size and shape of the panel when fully extended?

A. That shows the ultimate panel size, correct.

Q. There's some words in the bottom right, "PTM only for CH189"?

A. Yes.

Q. What does that mean? Oh, well, firstly did you write those words?

A. I wrote that down there. It is also contained in some fine print up there.

Q. All right, well perhaps you could just tell us what you were saying to those that were going to do the mining when you said, "PTM only for CH189"?

A. This shows the ultimate design of the panel. CH189 is a specific location within the panel, the chainage is measured from the intersection on the, with the mains, and it's a distance in the panel direction. On the right, bottom right, you can see the cutting sequence or the extraction to take place. It indicates a 1 there with change 189 written next to it. That is the actual location of the hydro-monitor and what this infers, or what this says, not infers, it literally says it, is that this permit is only valid for that chainage and from this cutting sequence it's only valid to cut towards the west if we refer to this side as the east, to the front and to the west.

Q. Well, while we're on that, notwithstanding that on the left the blue patched area shows the intended or perhaps hoped for final shape and size of the panel. The more specific detail referring to chainage 189 on the right, shows mining to the left in an arc, but at 180 degrees forward of the monitor. Now, is that really saying there's to be no extension at that point to the right?

A. Yes, from this, it indicates that this is the area to be cut.

Q. Well, we know that by this stage there were inquiries of experts about panel extension, up to 15 metres beyond the original plans. You'd had a report from Strata which talked about windblast and talked about blocky failure over time.

A. Correct.

Q. This permit to mine does not actually authorise mining in the intended extension to the right, 15. Why not? Was the Strata information sufficient for you to act upon?

A. Well, it could've been but we were just ensuring these other checks and balances in place. We were looking at the secondary support in the panel. We were looking at the barrier pillars on various sides of it, as well as doing a final check on the subsidence and doing a final check on the extraction width of the panel.

Q. Where does Mr Lawrence – or Dr Lawrence, I think, fit into this at GeoWorks?

A. Dr Lawrence were asked to use a different method to evaluate the Strata stability. Up to this point Strata Engineering has used empirical calculations and data bases to do exactly that. Mr Lawrence uses or had the capability of using two-dimensional modelling which was a method, up to this date, not used and so he was asked to look at a number of issues.

1225

Q. Well, we know that GeoWork Engineering Pty Ltd from Australia reported and in the form of Dr Lawrence's report on 25 October and we'll come to that. But you were able to inform through the board, I expect, through the operation's report on the 20th of October 2010, that the extension was implemented subject to final review and I'd like you to look at a section of the report please, at DAO.019.00766/10.

WITNESS REFERRED TO DOCUMENT DAO.019.00766/10

Q. Now, we know that these were like, I can tell you, this is part of an operation's report of the 20th of October 2010, where, correct me if I'm wrong, the upper management were informed of what's been happening in the last month, is that right?

A. That's correct.

Q. And your team has a section in these reports?

A. That's correct.

Q. And in this case with mine design referred to? Do you see there, and this is 20 October 2010, "A design change to the extraction of panel 1 is currently underway where the extraction limit of panel 1 is extended 15 metres towards the east. At the first hydro setup position, this change has been implemented but final review of the subsidence, pillar stability and secondary support has been completed before the rest of the panel will be adjusted. This will increase the size of the panel with approximately 15,000 tonne saleable coal." That was the position as of that day?

A. It was.

Q. The document that you and I have become aware of and I think, in fairness, my learned friend Ms Beaton became aware of in the last couple of days is not available to you at the time you spoke to Mr Stokes and perhaps understandably but is a permit to mine which was issued on the 22nd of October 2010, and if we can see that please it's DAO.001.13932.

WITNESS REFERRED TO DOCUMENT DAO.001.13932

Q. Now you'll recall in the report to the board that we've just been looking at you mentioned that a design change was underway and it had been implemented but subject to final review. This is a permit issued, dated certainly in handwriting, 22nd October but dated at the top 21 October on the right. That's another one of these permits to mine?

A. That's correct.

Q. Showing again, on the left the standard diagram of the intended full panel extraction?

A. Correct.

Q. But on the right, the bottom right, what do we see there?

A. It shows extraction towards the east.

Q. From?

A. From this location.

Q. Which is chainage 183?

A. Which is chainage 183, which was not the initial, the initial plans were to retract in larger lifts. This was a one-off six-metre lift change just to pull back six metres.

Q. Right. But contrary to the previous plan if issued on the 15th for the permit, the monitor's no longer at 180 degrees forward it seems to me, what it in fact it is, 45 degrees to the right?

A. That's correct.

1230

Q. By this stage you hadn't received Dr St George's advice which ultimately supported Strata but I need, but I need to ask you because it's something that hasn't been addressed in your brief and it may well be of interest to the Commissioners. Why were you allowing at least indirectly, the miners to go in that easterly direction from chain inch 183 before you'd heard from Dr –

A. Lawrence.

Q. Dr Lawrence. Have I been saying St George, it's Lawrence.

A. At this point we've already had various pieces of information from Strata Engineering, indicating a 31 to approximately a 50 metre panel with a reduced risk in windblast.

Q. Yes.

A. We've had information on subsidence from Dr St George which are talking about spanning of panels and we've had initial indications in terms of barrier pillars or secondary support and so forth. Initially I also had the local knowledge of the geology and seeing what has happened in the slimline as well as in the vent shaft. But on top of that all, if there was anything in Dr Lawrence's report that suggested or indicated that we should not widen the panel. At that stage that could have been stopped and you could have withdrawn the panel normally or normally to the reduced size without any implications.

Q. You mentioned six metres and I think you used a word "lift" did you?

A. Yes we colloquially term it "lift".

Q. Is that a standard size for a lift?

A. No, they were larger lifts. That gives you an idea of the six metres versus the I think it's 15 or 25 metre lifts, can't recall the exact figure.

Q. Was there any particular reason to limit this lift to six metres at this stage of the mine development?

A. I can't recall the exact detail of why that would have been. I can make an assumption at this stage but I'd rather not.

Q. Well you did receive information from Dr Lawrence in the form of the GeoWork report on the 25th of October 2010?

A. Yes I did.

Q. And that's DAO.001.0.10780 please.

WITNESS REFERRED TO DOCUMENT DAO.001.0.10780

Q. And that's to Hugh Parker of your team. His report is upon production panels 1 and 2 layout considerations, a summary of numerical modelling outcomes?

A. That's correct.

Q. On page 4 please. Do you see near the bottom where he summarises his observations, that "in all models," this is number 2, sir, "roof caving occurs to the base of the island sandstone in all models?"

A. Correct.

Q. "Caving of the island sandstone can be expected for the 70 metre wide panel 2?"

A. Correct.

Q. Now was that intended to be the intended width of panel 2?

A. Well panel 2 was still being designed and this is part of the review of panel 2 to understand exactly what we'll experience in terms of goaf formation, panel width, subsidence, barrier pillars and so forth.

Q. Mr Reece talked about a process of trial and error. Is that reality of underground mining in a new mine?

A. It could be seen as trial and error, but it's also based on being in some instances conservative in terms of what you attempt. If you have a look at the ultimate designs of panels used at, well in the long-term design as Pike River as well as what I've seen of designs at Spring Creek, these extraction panels are much wider, up to 150 metres, and we started off

small for subsidence reasons, but also to understand what is happening in terms of the geology.

1235

Q. Dr Lawrence said at 4, “Minimal caving of the island sandstone is indicated for the 30 metre wide panel,” and then at 5, “Increased height of island sandstone caving is indicated for the 45 metre wide panel.”

A. Mmm.

Q. Reading that, or as you read that, and considered the advice you were being given, was that different from or inconsistent with what Strata had already told you?

A. If you have a look at point number 4, which indicates minimal caving of the island sandstone, that is in line with what Strata has suggested in terms of a windblast but also in terms of the characteristics they describe of the caving that will take place and the same is for point number 5 where they talked about increased or block-like key block failure in the sandstone of the 45 metre panel where they were talking to an approximate 50 metre wide panel.

Q. If you go over the page please to 5, Ms Basher. It’s the next page beyond. Up the top. Number 9. This has been referred to in the DOL report and questions were asked about it. I want to ask you. Dr Lawrence says in his final point of observation, “Extending panel 1 15 metres down dip has decreased strata’s stability against the flanking normal (inaudible 12:37:10). Now, is that a reference to the back you're going east towards the edge of the (inaudible 12:37:15)?

A. That is yes.

Q. Mr Reece said well that's a geological reality if you're heading towards a fault then you may decrease strata stability. You're a geologist, you saw this. What did you make of that? What influence did it have on your decision?

A. Well, with respect to Mr Lawrence, the fact that you increase the size of a cavity will have a natural tendency to decrease the stability.

Q. Yes.

A. And the fact that a geological structure is adjacent to it has an exact same effect. This does not quantify that and I didn't expect anything else.

THE COMMISSION ADDRESSES MR MABEY - TIMING

COMMISSION ADJOURNS: 12.38 PM

COMMISSION RESUMES: 1.42 PM

EXAMINATION CONTINUES: MR MABEY

Q. Mr van Rooyen, we were discussing the GeoWorks report from Dr Lawrence and you will have seen a coloured version of one of the computer modelling printouts that he had developed, and I wonder if we could go back please to /5 of that document, DAO.001.10780.

WITNESS REFERRED TO DOCUMENT DAO.001.10780/5

Q. Now, you will see the coloured depictions there. They undoubtedly make more sense to you than to me, but have you seen those in black and white before in this report?

A. Yes I have.

Q. And on the second page please Ms Basher, number 6. Similar reports?

A. That's correct.

Q. I want to ask you to refer to them where you consider necessary and perhaps even on the third page, when I ask you this question. In your brief of evidence at 120, you referred to the Bill Lawrence report and said this in the last sentence. "The report indicated that the increased width of the panel to 45 metres would increase the potential caving but that the island sandstone would still bridge." They were your words. When I took you through the summary of Dr Lawrence's observations before, there were no words that I saw where he was reporting that the island sandstone would still breach. There was certainly reference to increased height of island sandstone caving indicated for the 45 metre wide panel. Now, you received the full report back at the mine?

A. Yes I did.

Q. Complete with the, what do you call that that we're looking at there?

A. Well this would be the two dimensional finite model that Mr Lawrence has compiled based on the information given to him to model the stability of the specific area.

1345

Q. Yes. And he's reporting to you as a technical engineer. When you saw what we see on the screen now was that understandable to you, could you?

A. Yes, I understand what is represented by those figures.

Q. Is what is represented by those figures, and in particular on the right where panel 1 is referred to, did that or any of those depictions on any of the pages assist you to come to the conclusion that he was telling you that the island sandstone would still bridge? What I'm asking you is, where do you get that from this report, because it doesn't seem to be in the words?

A. To understand that, I would like to refer to two of those figures and from memory I think one is figure number 5 and the other one is figure number 8 in that report. I'll just have to double-check that when they are shown.

Q. All right, perhaps we can go back then to page 5, Ms Basher, it's the previous page. Yes, no there they are, both there, thank you. Are they the ones you're talking to?

A. Yes.

Q. Bottom left, 5, top right 8?

A. Yes, I just had to make sure that we're comparing apples with apples as such. What Mr Lawrence did is he did multiple scenarios on each of these situations that we've asked him to evaluate. He used a high strength and a low strength joint network to model what is the potential characteristics of the area. And in figure 5, it refers to the moderate strength island sandstone joint network as well as in figure 8. The one in figure 5, panel 1 on the right, indicates a 30 metre wide panel 1, whereas panel 1 in figure 8 indicates a wider 45 metre panel, so it's based on what he has mentioned in his remarks as well as these two figures and how you read these figures is there's a scale on the left of each of these, which is the combined rock mass and joint factor of safety. What it, it indicates the competency of the rock or if it would stand up if there's an excavation around it, so when you design pillars for instance in a mine, you would design it to a specific factor of safety

and, from memory, Mr Reece also referred to that in his evidence. Now, what I see in figure 5 – sorry, just this scale indicates that below a figure, a 1 factor of safety, you assume automatic – not automatic, but you assume collapse or failure of the rock mass, so you expect cave-in, breakage, crushing, so forth. With when you design longer term structures, you design them at a greater factor of safety because that implies for a longer time they will be stable. So a life of mine sort of structures, you would design it, let's say a factor of safety of 2 or more if you wished it. In both these figures, the 1 is, the 1 factor of safety indicates a dark orangey-red colour taking the scale into account, which shows cave-in to the base – maybe I should explain first what is on the figures. You would see the coal seam running and dipping towards the west as such, you would see the fault indicator directly to the east of the panel –

Q. Is that the line running from bottom to top?

A. That's that, what looks like a little blue line.

Q. In figure 5?

A. In figure 5.

Q. Yes.

A. On the right of the joint, and –

Q. And is the coal seam – put your pointer back on the coal seam. It's the bottom of the two parallel lines running from left to right?

A. It is the area between the two parallel lines. The area between the coal seam and then the hatched area, if I can call it so, is the interburden or the material between the coal seam and the island sandstone, and the island sandstone is represented by the hatched area, and the different joint networks that he modelled, indicated by this. Then, by looking at where you would have a lower factor of safety let's say below 1 or even 1.2 if you want to, where you could expect failure, and as indicated by that area and which is accurately described by him as to the base of the island sandstone.

1350

Q. And the colour you're pointing at is?

A. Is the red, orangey and magenta colours, but the darker side of the scale of the orange.

Q. Figure 8 you're now pointing to?

A. Figure 8 you would see that area has increased and has gone higher towards the fault, and that is expected as I said previously, but above it you would have an area where you would still expect the island sandstone to stand fast and not collapse, in other words breach. Where you see anomalies like this towards the surface, which is almost discontinued to the actual excavation itself, that can be an anomaly of the modelling itself and the fact that you've got a surface there. In panel 2 for instance it shows a direct failure and somewhere in the report from memory he refers to cracking to the surface on panel 2, the 70 metre wide panel, and that is what I would expect that to indicate.

Q. So you're pointing to panel 2 in figure 8 with the dark red area going to what do I assume is the surface, the top line?

A. Which is the surface. This line at the top represents the topography above these panels.

Q. So is the position that your interpretation of this report led you to not only determine caving potential within the goaf but that he was telling you that the island sandstone would breach at a goaf width of 45?

A. That's correct, as well, which that then implies that subsidence would be under control as well.

Q. Subsidence?

A. For this specific panel.

Q. Was that consistent with what Mr St George had told you on subsidence?

A. Yes it was.

Q. And with what Strata had told you in their report?

A. In terms of caving and the possibility of windblast yes.

Q. You left on the 3rd of November and on that day were you able to partake in signing with Mr Hamm, Mr Borichevsky and Doug White a further permit to mine an extension in the goaf?

A. Yes, I signed a extension of the goaf on that day for the –

Q. And is that DAO.001.03565, and is there another page Ms Basher to that document, page 2? Yes.

WITNESS REFERRED TO DOCUMENT DAO.001.03565

Q. And is that a permit to mine one west one right panel 1 extraction up to chainage 171?

A. That is correct.

Q. You can view that on your screen behind you?

A. Yes, all right.

Q. In other words, the chainage line is coming back closer to the beginning of the panel?

A. That's correct.

Q. Off one west mains?

A. That's correct.

Q. You've noted or someone has noted and perhaps it's Mr Borichevsky, "Avoid mining of immediate roof and floor sequence E the stub goes last." Am I reading that correctly?

A. Yes, that's Mr Borichevsky and referring to the cutting sequence within the panel.

Q. And I see in fact its Mr Mason. "Sequence D to be subject to conditions at time of mining."

A. Yes, that was Mr Mason's comment.

Q. Now if we can go to page 1 please Ms Basher, the coloured diagram. Chainage 171 is shown. Perhaps we could point to that. And the more particular mining programme is set out as in the other permits in a separate smaller scale diagram. Look at the one on the left?

A. Yes you have a section through indicating the intake road where the monitor was set up as well as a planned view of the cutting sequence.

1355

Q. Now, if you go to the left diagram is the monitor set up centrally there with the, well, there's just a black dot?

A. A black dot effectively yes.

Q. And does this permit allow mining in the goaf from chainage 171 either side on a 180 degree plane?

A. Yes it does.

Q. To the full width?

A. To the full width.

Q. Now, you've just told the Commissioners about the plan to extend the goaf, the research that was done, the reports that were obtained and your own knowledge of the behaviour of sand stone. When you partook in the process that led to the permits to mine, did you have sufficient geological knowledge to justify that extension?

A. I believe so, yes.

Q. The reason I ask you that question is this. At page 27 of the DOL report is a, what some people might think is a fairly hard-hitting conclusion, which affects this very issue and it was said that, "PRCL went ahead with the extension of the panel width extraction limits to maximise the extraction of coal in spite of a lack of specific geotechnical advice and geological data about caving behaviour." Do you agree with that?

A. No I don't.

Q. The conclusion goes on to say and it's drawn from the expert panel, "PRCL did not pause to gather the information it needed to fully assess the hazards associated with the decision." Do you agree with that?

A. No I don't.

Q. Apart from the interview you had back in March 2011, at the mine with someone from the department and a member of the police and then with Mr Stokes recently, did any of the experts who contributed to this report talk to you?

A. No they have not.

Q. Now, I want to conclude my questions to you, Mr van Rooyen, on just general matters that relate to the mine and your position in it and the conditions that you worked under. In paragraph 32 of your brief you are able to tell the Commissioners that mine plans were changed constantly, these changes were brought about by three factors, namely, the collapse of the ventilation shaft, emerging geological knowledge and the increasing need to produce coal, that's how it was?

A. Yes it was.

Q. At paragraph 320, you make this observation as to the, perhaps overall management approach there, one of the Commissioners has touched on with Mr White, but you talked about this, or you do talk about this in paragraph 320, from your own perspective, "It would have been beneficial to have had a documented overarching design plan that integrated mine design, ventilation, gas drainage, outburst management and gas monitoring to take advantage of potential synergies because all of these elements are complimentary." You're talking there about the areas within your team that needed to be controlled, worked upon by you and your staff?

A. I do.

Q. Was there such an overarching plan at the mine when you arrived there?

A. There was the NOCA feasibility and various other reports but to a certain extent there was limited detail to some of it, or to a lot of it actually.

1400

Q. Well, elsewhere in your brief on a more specific point but relevant to that was, or are your comments on the fresh air base, number 2?

A. Yes.

Q. After your arrival was there a decision or a plan to develop that fresh air base?

A. Yes, at the stage the drill stub, or the stub was there and – which we developed for the Slimline and it was developed into what is termed the FAB.

Q. And was it your view that was the wrong place to put it?

A. Yes.

Q. Did you say so?

A. Yes.

Q. Did you hear anymore back about your objection?

A. No, not specifically, although we did try and find alternative places for it and because of the state of the mine being developed, it was difficult

finding additional areas to put an FAB or changeover station, or whatever they want to call it.

Q. Well, was it in fact placed where you thought was inappropriate?

A. It was placed in my opinion inappropriately, next to the gas drainage line.

Q. Was that placement part of mine design?

A. I would think it would be.

Q. Within your team's purview?

A. It should be considered by my team in terms of the total infrastructure and design of the mine.

Q. Was it?

A. No.

Q. Well, perhaps that's a good example of what you're talking about in paragraph 320, and I'd like you to read please, paragraph 242 at page 39 – Ms Basher?

A. "This type of situation at the mine arose from problems related to a lack of co-ordinated design and development. The placement of the FAB was a mine design function, but I was not consulted. As new geological information was secured, the mine design changes were required. In many ways I felt mine design was being effected on the run with little in the way of co-ordinated overall planning."

Q. You left the mine on the 3rd of November '10. What do you say the state of mine design planning in general, co-ordination of these various complementary synergies that you refer to? What was the state of it when you left?

A. Well I would say at that stage it has improved, we were gaining more geological information from the in-seam drilling and we were working on various plans to improve the design to incorporate the various aspects into, let's call it, the over-arching plan, finding positions for, and more detailed positions I have to say, for the second egress or second intake and return for the gas drainage systems and for all those elements. Placement of the second fan is another example.

Q. Mr Reece talked about in an ideal situation a mine plan, development plan might go out even five to 10 years. You've made clear that wasn't in place when you arrived. When you left, was there any semblance of a forward plan that could be referred to by others and put into effect, even though you had gone?

A. We have worked on a number of these aspects to develop the, it's called a medium term, medium to long term plan, three to five year plan, in terms of gaining the geological information, putting everything together. This, it was not fully documented as let's say a document describing the exact details, but there were designs and aspects of this plan completed and addressed mainly, and the only written version of that is almost my handover notes.

Q. Their purpose was to assist others to go forward with the benefit of the knowledge that you had developed and created within your team while you were there?

A. Correct.

Q. Now I don't wish to ask you anymore questions Mr van Rooyen, but others may do. If the occasion might arise that someone wants you to stop and slow down if you're speaking too fast, or someone simply wants you to pause, then just please do so.

1405

THE COMMISSION ADDRESSES COUNSEL – APPLICATIONS FOR CROSS-EXAMINATION OF WITNESS – ALL GRANTED

CROSS-EXAMINATION: MS BEATON

Q. Mr van Rooyen, I'm going to start slightly out of sequence but I think it's probably best to deal with these issues of widening the panel while we've still got these images fresh in our minds and understanding. When was it, do you remember, that it was first considered by Pike that panel 1 could be widened?

A. I can't recall the exact date as such or the period. I would estimate it would have been somewhere after the August report as received from Strata Engineering.

Q. So that's the one of the 29th of August?

A. If that's the date yes, I can't recall the exact date. The windblast assessment by Strata Engineering?

Q. Right.

A. It might have been just before the receipt of that as well, based on what I recall there was a report from Dr St George indicating that the increased width of the panel of 50 metres would not negatively affect subsidence, which was one of the criteria that we evaluated, and I think that potentially triggered the initial thought of widening the panel.

Q. So is it possible, I take it, that this thought of widening the panel had occurred to you and your department prior to extraction even commencing, which I understand was about the 22nd of September?

A. Yes.

Q. The desire to widen it all, I take it, would have been an economic one in the sense that more coal would be able to be obtained?

A. Well it's not only that. That obviously plays a role and taken the situation where Pike was at that stage in terms of the requirement to produce coal being a coal mine. It also is prudent to make optimal use of your resource. If we have natural resources part of my job as a geologist as well as technical services is to make adequate use of the resource and wisely make use of it. So widening it would increase the overall extraction from that resource.

Q. And I take it that the fact that this was the very first panel, indeed a bridging panel which hadn't initially been envisaged in the mine design, that the ability to widen it would really have been one taken in the context of knowing that a shipment of coal had to leave the port, I think, in December of 2010?

1410

A. I'm not certain if that was the main driver, or the only driver to widen the panel. I think if you have a look, I go to a certain detail in my brief, regarding the followed to determine the locations of the panels and so forth as well as talking about the initial reasoning for the bridging panels was panels that had a low probability of any subsidence as being a

criteria and then the design start taking place and there was multiple versions of the designs and it grew in time as information became available and then like I said, Dr St George gave some, or gave us a report indicating that in this specific location widening it would not be detrimental to subsidence.

Q. On the surface?

A. On the surface although that was, it's got to be clear, that was what triggered it but not necessarily the only information we looked at.

Q. The actual widening of the panel by mining it from the 30 metre mark up to the 45 metre mark, you're not saying, I don't think are you, that that hadn't happened before you got the GeoWork report from Bill Lawrence on the 25th of October?

A. I think what I'm saying is we started and I think Mr Mabey referred to specific report where I actually stated as well that we started implementing widening it and then later on approved the widening of the total panel once we got the final information from Dr Lawrence, but once again, that was not the only information we looked at. We also looked at the secondary support within the roadways as well as, like was talked about subsidence, but also the barrier pillars and the investigation towards barrier pillars.

Q. I understand that but I think my point is that there had actually been extraction to the east prior to the 25th of October from Geotech?

A. Yes.

Q. The permit to mine of the 15th of October, if we could have up please, Ms Basher, which is DAO.001.03568.

WITNESS REFERRED TO DOCUMENT DAO.001.03568

Q. Now, just as an initial point, for this particular monitor panel at Pike, the system as I understand it was that there was an overall authority to mine but that that there was also a regular permit to mine issued every time there was a change, for example, a pull back of the monitor being an example of a change, is that right?

A. That's correct. This was the first panel and the first time we introduced the dual system.

Q. And under the authority to mine it actually stated that a new permit to mine was required for each monitor position?

A. Yes, or even each change in the sequence or the design or any change in that specific monitor position that was required.

Q. So, I know we've got 15 October in front of us, we'll keep that there, but in relation to the last one that you signed, that Mr Mabey showed you before on the 3rd of November, that wasn't going to be the last permit to mine signed for the rest of that panel was it?

A. No it was not.

Q. No. Can I ask you to explain the middle panel of this permit that we see there, to this particular part here, with your pointer please? And perhaps it might be easier to see from, in the screen in front of you in the first instance, but you see the 6 there, is that something that had been entered by hand do you know?

A. It seems to be like that it's not printed, it seems like it's entered by hand.

Q. Do you recall whether it was you that entered that, you signed this particular one?

A. No I did not enter that.

1415

Q. Are you able to say who it would've been then?

A. No, I'm not. I can't say who, or even when.

Q. This permit to mine though is given physically to the mining crews, or the deputy in charge of the mining crews, is that right?

A. Once it's signed off it was scanned and placed on the server so it was accessible to all the undermanagers and deputies, especially when they come onto shifts. There was also copies made available in their pigeon holes as well from recollection. The system did change over the period, so I can't remember exactly what was happening at that stage.

Q. So a miner looking at this would have been right to understand that the six there would've been the sixth cutting sequence? Assuming it was on there at the time the miner's looked at it?

A. Yes, that's just, if that was on the copy, I – but they also have the plan view of the cutting sequence that indicates through that area there.

Q. Yes. Except does that have a six on it?

A. I don't see the six. I see, on that's position one, two, three, four.

Q. Because so far as I understand it, that six represents the up to additional 15 metres out to the east from the monitor panel, would that be right?

A. I cannot actually comment on that 'cos from what I see, yes it does, but I can't comment on that.

Q. Okay. Can I take you to the Strata Engineering report please of 29 August 2010, DAO.001.11042?

WITNESS REFERRED TO DOCUMENT DAO.001.11042

Q. This is the windblast report that you referred to before?

A. Yes.

Q. And you'll see there, indeed in the first paragraph under the heading, "Introduction" that it refers to, obviously Strata's understanding that "panels are planned to be 31 metres wide in the first instance and may increase to 50 metres wide in the future."

A. Yes.

Q. Now they have, paraphrasing this in a layman's sense, as I understand it assessed the risk of a windblast event as properly defined in this particular area of panel 1 as being low both at 31 metres wide and if a panel was extended up to 50?

A. That's my understanding, yes.

Q. And am I right that they are able to make that analysis by assessment of geological data that had already been obtained by Pike from two particular surface drillholes?

A. I recall they, yeah, they, I think they mentioned four drillholes in the report, PRDH – second paragraph "PRDH37, PRDH8 and 6 and 11," there was some information available from those.

Q. Right, I'm sorry, you're absolutely right.

A. But they also had a longer term relationship with Pike where they had a number of – or fair bit of information available, a number of bore scopes that has been done previously and regular interaction with Pike.

Q. If we could turn to the second page please, you'll see there under the heading, "Geological data" that Strata are summarising what they call the litho logical logs in the general area of panel 1, and again, me paraphrasing, they seem to be saying that the depth of the interburden between the Brunner coal seam and the island sandstone is five to seven metres?

1420

A. Yes.

Q. They don't give a measurement for the thickness of the Rider seam, but they then go on to say that the island sandstone layer would be or is between 90 to 130 metres thick?

A. That's correct.

Q. Now I just need you to now please look at DAO.031.00004 just so we can understand the area they're talking about.

WITNESS REFERRED TO DOCUMENT DAO.031.00004

Q. We're going to have to expand please, expand a portion of that for you Mr van Rooyen so that you can help us appreciate the area between the boreholes that they looked at. So you see at the very top there I think of that expanded portion it refers to PRDH37?

A. 37 and 38, yes.

Q. Yes, and then we have that, and that's one of the boreholes which Strata say that they used the data from to input into their models. The other one is PRDH08, which I think is shown on A heading. You might have to help me there. Is it pit bottom south?

A. It's A heading pit bottom north.

Q. Sorry, pit bottom north. So the area that they are talking about with these particular depths of the layers of the rock are between those two boreholes, is that right?

A. That's correct.

Q. And that obviously encompasses at least part of panel 1?

A. Well that gives you some indication over that area and which panel 1 is situated.

Q. Is it trite to say that data from closer boreholes would have been more useful?

A. Potentially, it depends on the variability within the geology in that area. If you analyse, for instance, the rock mass strength of the island sandstone it can vary from place to place, but if you have take similar samples it should give you reasonably representative samples over the area. It depends on the geology to a certain extent. But if your question is would a closer borehole be more valuable, yes it would.

Q. Would be the same, I take it, for most of the coal field from your perspective as a geologist? Because you will have, I know you are aware of Dr Jane Newman's evidence in Phase One of these Commission hearings or her view that there was a lack of vertical drillhole core data available to Pike right up through 'til really the period of the explosion?

A. Yes, and I've heard her evidence or read some of her transcripts and yes there's, you preferably have more drillholes but in Pike's specific instance really hampered by topography. There's ways you could have had a few more drillholes but you would probably not have a 50x50 metre grid drilled over the whole area, no you wouldn't. It's just impossible with that topography.

Q. I take it, again just to be clear, because of the steepness of the hillsides?

A. That's correct.

Q. It is possible though to drill on a steep hillside? I imagine it's just, resourcing-wise it's more difficult both in terms of cost and people and equipment?

A. And it places an added level of risk in terms of health and safety into the area because you have to actually construct a platform to drill on. It's not impossible but sometimes it's just not practical.

Q. What was Pike's intention in terms of vertical drillholes for the next short to medium term?

A. We had a number of drillholes in the budget to be drilled. I can't recall the exact number. I think I refer to them in my handover notes at the Capital from recollection.

1425

Q. One more question that you can help me with please if we could go back to the page 2 of the Strata report, 29 August. DAO.001.11042/2

WITNESS REFERRED TO DOCUMENT DAO.001.11042/2

Q. You will see there in the second to last paragraph there's a refernce to RQD values. Can you explain to us what that means?

A. RQD is a measure, and I'll probably lie to you if I give you the exact words for the abbreviation right now, I can tell you exactly how to measure an RQD. RQD is a measurement of intact pieces of coal greater than a specific length or it's usually 10 centimetres is a specific coal run or in lithological units. It depends on who's measuring it and what's the purpose. So it gives you an, if I try and put it in normal English, it gives you an indication of the brokenness of the rock by geological features.

Q. So in this particular report Strata are looking at the RQD values from the two cores that we've already discussed?

A. That's correct.

Q. Those locations. Change of topic please Mr van Rooyen. Prior to coming to Pike, you've already told us both in your statement and again this morning that you made it very clear to management that ventilation wasn't an area of expertise for you?

A. Yes I did.

Q. And obviously as a geologist that was your particular area of expertise?

A. That's correct.

Q. What about in terms of planning mines in the sense of deciding where roadways, driveages and equipment are going to go. What kind of experience had you had prior to Pike in that kind of mine design?

A. In the time I worked at Tshikondeni Coal Mine which was the two and a half years I worked at a coal mine prior to Pike, the design was to a certain extent done by the, at that stage, the resident geologist as well,

that's before the company that I worked for introduced the mineral resource management concept. So he was a resident geologist then took care of all that and I had some exposure working with him, but limited, admittedly. Later on working underground in Rosh Pinah Zinc Corporation in Namibia, when I became senior geo, the scheduling and short-term planning started residing under me and that gave me some experience and later on the total resource and reserve process, I was responsible for that which involves the mine design as a whole. I had engineers working on it but I overseen the whole process as the mineral resource manager. So, all in all, probably about three to six years experience with that as well as the time that I spent on mines and getting to know mines.

Q. So why you were at Pike, you told us that technical services department would, on occasion, bring expert consultants in to help you with particular areas?

A. Yes.

Q. You know about that ventilation and gas management, was there any expert advice taken by Pike and by your department in relation to these type of mine design issues, where to put roads and things?

A. Yes we made use of Mr Steve Beikoff from Beikoff Consulting in Australia as well so he advised, not always to the last bit of detail but overall design and concept design.

Q. And did Mr Beikoff visit the site?

A. Yes he did. Maybe, I don't know how many times he's been on Pike overall, but I think once in the two years that I've been there.

Q. Was he involved with Pike prior to your arrival?

A. Yes.

Q. He was. And I take it that there would be written reports from Mr Beikoff?

A. There was some written reports as well as email reports and email correspondence. There was also a fair number of telephone conversations with Mr Beikoff.

Q. Between you or members of your team?

A. Members of my team, and, I can't recall the specific conversation I had with him but Gregor Hamm the mining engineer at that stage did.

1430

Q. So was Mr Beikoff a consultant at the time that, the very first day you arrived when major design, re-design issues arose with the collapse of the bottom of the vent shaft? Was he involved in the design decisions that had to be made after that?

A. Yes, he was. He was involved, he did not necessarily do the designs or make the designs, some of the designs we would draw the design up and then have somebody comment on them and from memory Mr Beikoff did have some level of participation, that I can't recall the exact detail on that.

Q. Just moving briefly to another topic before we carry on with design, I just want to be clear as to what as the technical services department manager your obligations were in terms of reporting issues. We know that there were daily production meetings?

A. That's correct.

Q. Of which you were a part of, up to a point when Mr Ellis arrived?

A. No, not necessarily when Mr Ellis arrived. Mr Borichevsky the technical services co-ordinator started mid 2010?

Q. Yes.

A. I attended that up to some point after his arrival and later on left that responsibility with him, because at that stage more than, well about 50% of my department were involved in that meeting and I didn't see that necessary. Mr Borichevsky and the geologist Jimmy Cory remained part of that meeting every day.

Q. So your reporting or meeting obligations from that point on when Mr Borichevsky joined was the weekly management meeting that we've heard about?

A. That's correct.

Q. You didn't attend board meetings or anything like that?

A. No.

Q. But you provided information on a weekly basis in the management meeting which was then included with an all encompassing report to the board on a monthly basis?

A. That's correct. Oh, sorry, just a comment on a previous question you've asked me.

Q. Yes.

A. "Did I attend board meetings?" And I answered, "No." I did not attend them but there was occasions where I was called into a board meeting to present information.

Q. And I think we're going to talk about one of those shortly. So the process in terms of dissemination of information was that you would attend once a week to a management meeting, which I think is also called an operations meeting, because we have a series of documents which are the minutes of those meetings?

A. Yes. Yes.

Q. Every manager from each department would report?

A. That's correct.

Q. And from that, each manager would then forward some written information I think to Mr Whittall's assistant, is that right?

A. That's correct.

Q. And, either she or Mr Whittall or both combined the information into an overall report that went to the board?

A. That's my understanding, yes.

Q. Sorry about that slight sideways issue, but if we could go now please to talk again about a design issue which is the placement of the main fan underground. Now, I know that the decision to do that was made some time, several years in fact, before your arrival at Pike in February of 2009?

A. Correct.

Q. And, clearly, you were not at the risk assessment for that particular proposal of putting the fan underground which occurred in February of 2007, but can you confirm that in discussions this week I've provided

you with a copy of the risk assessment document itself and you've had a chance to have a review of that?

A. Yes, I had a read of it.

Q. And that, for the record Ms Basher is DAO.003.05935, if we could have the first page of that up please, as well as page 5?

WITNESS REFERRED TO DOCUMENT DAO.003.05935

Q. See there, it's the risk assessment report for the underground ventilation fan installation and on page 5, it lists two facilitators who appear to be from a company called Platinum Safety Limited, and it lists what are called the expert team and some names there that will be familiar to you, but the only ones that you worked with I take it at Pike, would've been Neville Rockhouse, Rob Ridl and the consultant, Jim Rennie?

A. That's correct.

Q. Tony Goodwin, the engineering manager, was he at Pike when you were there?

A. No. From what I understand he was there when I came over for a site visit, but I never met him and by the time I took up employment he was, he's left already.

1435

Q. Now prior to this week and me providing you with a copy of this, had you ever seen this before?

A. I cannot recall seeing it before.

Q. Did you know it existed at all then?

A. There was indication that a risk assessment existed, yes.

Q. Now within this document it's described as being a risk assessment or a high level assessment of risk and it's divided into three phases. Phase 1 being assessment of risk for the design and preparation of the site, so that's the actual site of underground installation, phase 2 being the actual installation of the ventilation system, and phase 3 being the operation of the ventilation system. And if we turn perhaps to page 13 of the document please. Unfortunately it's in our system in black and white rather than colour so we can't actually see the risk ratings that are given to particular risks being assessed, but you'll see on that page 13

there that the consideration that they're looking at in the context of a phase 1 assessment is putting the main fan below ground versus externally and one of the risks or events that they are looking at is explosion and you'll see there in the column of “proposed controls” one being explosion protection should be built into the system?

A. That's correct.

Q. And a similar approach or sentiment perhaps to considerations and risk in the other two phases of the document which, as I said before, were installation and operation, are dealt with in a similar way, that explosion protection being built into the system is considered to be a control. Would you agree with that?

A. Yes.

Q. On page 20 and 21 of the document there's actually a specific consideration or a list of considerations at least of one or both proposed underground fans being destroyed by explosion. Thank you, we've got both at once there. You see that?

A. Yes.

Q. Consideration on the left-hand side is one main fan being destroyed by explosion and on the right-hand side both main fans being destroyed by explosion, and you can see the controls that are listed there. In a general sense they relate to controls over ventilation and monitoring, pressure and flow, evacuation of people, and so on, and of course in relation to a backup fan giving redundancy. Do you see that?

A. That's correct.

Q. And again on the right-hand side a proposed control is the design and layout of the installation with built-in explosion proofing?

A. Correct.

Q. Limiting sources of ignition and installation of glass panels to protect the surface fan?

A. That's correct.

Q. Now, you'll agree, having looked at this document, that actually it’s obviously not a final one?

A. Yes, I see “Draft” –

Q. A number of risks that haven't been fully assessed or graded, so to speak?

A. Yes, and the fact that there's "Draft" written over it.

Q. Yes, that's a good point, yes that's right. Do you know whether a finalised version of this exists within Pike records?

A. No I don't know.

Q. Are you able to give a view on the quality or effectiveness of this risk assessment being in mind that it is a draft, but as it appears to you when you read it?

A. First of all I've to state I'm not necessarily the expert but some of the actions seems like its broad brush and if that was the intention of the risk assessment that's fine, but if there's, there might be some detail lacking to give more detail on how that is planned.

Q. Well I suppose to be fair to the people that participated in this, it was described as a high level risk assessment. But having said that, given that placing an underground fan, a main underground fan in a coal mine is apparently unique to Pike in the world, would you expect as a person involved in the mining industry as you are, that there would have been a more fulsome risk assessment closer to the actual placement and operation of a fan underground?

1440

A. That's a fair comment.

Q. From the time you arrived in February 2009, and we know the first main underground fan was installed in October of 2010, there wasn't a further risk assessment for doing that was there?

A. There was not, well, not that I'm aware of.

Q. Sorry, right, of course, you're not aware of it?

A. No.

Q. You didn't participate in one?

A. No.

Q. Was it discussed do you know within the Pike management?

A. Not that I can recall.

Q. Now, you say in your statement that you filed with the Commission that you had a discussion, and I understand it would've been in 2010, with the ventilation consultant Jim Rennie, from Australia. No I'm sorry, I've got that wrong, sorry Mr van Rooyen. I think shortly after you arrived, in fact, at Pike, so February/March 2009 you had discussions with Mr Rennie at that point?

A. Yes, well, shortly after I arrived, I can't remember the exact date.

Q. Were you aware then that Mr Rennie had actually been a participant in this risk assessment in 2007?

A. I can't recall the specifics but has been made aware of that through this document later.

Q. I want to show you please a document of Jim Rennie's dated 21 June 2007, DAO.025.46649.

WITNESS REFERRED TO DOCUMENT DAO.025.46649

Q. Now this isn't something that until this week you'd seen before, is that right?

A. No I haven't seen it before.

Q. In this document Mr Rennie is writing to Peter Whittall acknowledging his participation in the February risk assessment about the placement of the fans underground. It says in paragraph 2, such positioning can be achieved, it goes on that, He's been considerate concentrating his thoughts on the pros and cons of this installation and goes on to suggest an alternative siteing for the fans may provide a better long-term outcome for the mine, namely to install and maintain the fans adjacent to your men and materials at it. As I understand it he's basically suggesting that the main fan could be installed, very close to the portal and a different entrance arrangement set up with, I think, doors or an area, he does describe it in here.

A. Yes, that's correct, probably adjacent to your portal or some close proximity with some arrangement to ensure that you don't have the air just blowing into the mine and out the portal.

Q. And the system itself would be a forcing or a blower situation?

A. Force ventilation yes.

Q. And he goes on on page 2, which we don't need to have up, to talk about the pros and cons of doing that?

A. Yes.

Q. But he seems to be suggesting that a fan above ground would be preferable to one below?

A. Yes he does.

Q. Now, there's been no indication yet found, Mr van Rooyen, by Commission staff as to whether there was any response from Mr Whittall or anyone else at Pike to that particular proposal, which in effect a third alternative. The other two earlier ones being considered being underground fans as opposed to a fan at the top of the vent shaft, appreciate that?

A. That's correct.

Q. There is, and just for the sake of completeness of the record, an email from Mr Whittall on the 3rd of October 2007, INV.04.01153. Some three and a half or three and a bit months later, if we can have that up on the screen please.

WITNESS REFERRED TO DOCUMENT INV.04.01153

Q. Start from the bottom and go up you'll see an email from Mr Rennie to Mr Whittall 21 June 2007, "Written the attached letter to you because if you do not agree with my theory I will not have disrupted any planning by your staff." And if you go up you'll then see Mr Whittall appears to have forwarded that on to three recipients, Udo Renk, Kobus Louw and Tony Goodwin on the third of October with the comment, "FYI and discussion." Was this third option something that was ever discussed to your knowledge within the management team from the time you arrived?

1445

A. No.

Q. When you spoke to Jim Rennie early on in your tenure at Pike, what were the concerns that Jim had?

A. Mr Rennie indicated to me that he was not in favour of an underground fan and basically explained to me why he was of that position.

Q. Are you able to recall what his reasons where now?

A. I can't recall the exact reasons. I remember he made mention that it would be preferable to have a fan on the surface or outside of the mine and not have one underground, and I mean, you can assume, or the reasons being all the logical ones of having a fan underground is not preferable in a coal mine.

Q. Did you have discussions with Mr Beikoff about the same issue?

A. I can't recall having a discussion with Mr Beikoff on the same issue.

Q. Now you said in your statement that you then, after speaking to Mr Rennie, you in turn spoke to Mr Whittall about the issue and you've told us in your statement his response, which is effectively that the fans were, one was already constructed, one was partially constructed and that a surface main fan at the top of the shaft wasn't ideal for a number of reasons including difficult access?

A. Correct.

Q. Given the concerns that you discussed with Mr Rennie, did you challenge that, or attempt to discuss that further with Mr Whittall or with anyone else?

OBJECTION: MR MABEY (14:47:04) **– NOT TO ANSWER**

CROSS-EXAMINATION CONTINUES: MS BEATON

Q. Moving on then to a different topic Mr van Rooyen and going back to a control which was listed in that 2007 risk assessment which was building an explosion protection to the system. Would you agree – or does that encompass such things as explosion barriers, explosion paths and I think blast panels to protect the surface fan. Those were, I think three of the factors –

A. Yes they – those can be seen as protection, yes.

Q. Now, the concept of explosion paths, was that something which you were familiar before you came to Pike?

A. No.

Q. I take it in Pike's case, the intention or the definition of an explosion path would be to divert force or pressure caused by an explosion away from the underground fan installation and out of the mine via the shaft?

A. It's a method to protect the underground fan. It will not prevent an explosion –

Q. No, no, stressing it will divert the force of an explosion –

A. It's there to protect the fan for re-ventilation after an explosion.

Q. Now I know that you're aware of a plan that actually has been reproduced in the Department of Labour's investigative report which was repaired by Mr Udo Renk, who I think was in your position at the time that this issue was being considered –

A. Yes, from –

Q. – and he was a participant in that risk assessment. And you've seen that diagram which we might bring up actually, it's DOL3000130010 at page 223?

WITNESS REFERRED TO DOCUMENT DOL3000130010

Q. Now that depicts as I understand it, what was the proposal at the time to have the two underground fans reasonably close together with that explosion path, with the circle in the middle being the shaft, is that right?

A. That's correct.

Q. And he has described and it's reproduced it the report and also in an email to Department of Labour investigator, Jane Birdsall, which we won't bring up but I'll give you the reference for the record, DOL3000150035/2, that he would've installed particular type of stoppings, metal Kennedy stoppings which would've been destroyed by the explosion because they were not designed to withstand a pressure concussion, with the purpose being the overpressure of the blast would've gone directly into the shaft and to the surface, would've offset the surface fan by 45 degrees," and he says in that email "But unfortunately after I left Pike River Coal Limited these best practices have been disregarded and not one main fan was offset any explosion path. Consequently main fan were destroyed by the first explosion." In terms of the difficulties that you had to deal with from your very first day at work when the vent shaft collapsed, from that point I take it this particular design that had been envisaged was not possible?

1450

A. No it was not.

Q. There was a need obviously and you've talked about there being a constant need for changes to mine design, but there was a particular need to redesign the ventilation system as a result?

A. Yes, in effect this whole area was then, has collapsed and filled up with the gravelling failure if you would like and plugged with a cement or a concrete top. So, this was – we created the Alimak rise probably in that area which made this very difficult, almost impossible to establish this connection the way it was then.

Q. So ventilation issues in the short term after the vent collapsed were dealt with by way of installing the Alimak and also the Slimline shaft, is that right?

A. The short term was the Slimline and the more medium to long term was the Alimak.

Q. Was there a risk assessment done in terms of how to plan ventilation design after the vent shaft collapsed?

A. There was no special risk assessment done but there was various discussions as well as designs that was done and presented in terms of reconnection to the, let's call it "failed ventilation shaft".

Q. Sorry, what was the last bit?

A. In a failed ventilation shaft. In other words, the remaining portion of the ventilation shaft.

Q. A number of, or three I think and then reduced to two scenarios were identified in terms of how you could connect to the vent shaft above the first Alimak, is that right?

A. That's correct.

Q. And part of the purpose of that mine design assessment was to ensure that there was indeed an explosion path for Pike?

A. Well at that stage I just joined the mine and was looking at trying to establish a similar connection to the ventilation shaft than what was proposed in this design. Trying to maintain an explosion path. At the same time I also had discussions with people like Mr Rennie and Mr Beikoff on the explosion paths.

Q. Could we have DOL3000150004, pages 1 and 2 up please?

WITNESS REFERRED TO DOCUMENT DOL3000150004

Q. And this is a document you've seen Mr van Rooyen this week, which is in fact prepared by you on the 18th of June 2009 for Mr Whittall and others, and it depicts there, as I understand it, the final two favoured versions of this design. Is that correct?

A. Yes, that's correct.

Q. On the right-hand page there, page 2, this is actually a document which records a meeting I think that had occurred that day. You've recorded in point 1, "An explosion path does not necessarily change the risk profile of the underground fans for Pike River Coal Limited and it seems (a), (b) and (c) are three reasons for that. "In the event of an explosion Pike has the surface fan as contingency; (b) The surface fan has diesel generators as additional contingency; and (c) Other methods, for example, explosion barriers will be used to reduce the potential damage of an explosion and in the longer term both options will provide the mine with an explosion path." Now, this then goes on to be referenced to deferring this work to a later time, was that a financial reason for the deferral?

1455

A. No, in my opinion that was from recollection, more practical in terms of development towards the area that we need to get to.

Q. Which would be where?

A. Towards the trial panels and commissioning panels at that stage.

Q. When you say that an explosion path doesn't necessarily change the risk profile what did you mean by that?

A. During this time, like I said, there was discussions with Mr Rennie and Mr Beikoff, some of them by me but also others like, for instance, Gregor Hamm had some discussions with him and the information I got out of that was that an explosion path would not necessarily work and like I said previously, the fact that we tried to maintain an explosion path was what was still part of the design at that stage, because it has been part of the design, but an explosion path does not necessarily guarantee

that your fan will not have damage that you can restart it directly after an explosion or shortly after an explosion.

Q. In relation to explosion barriers, what do you understand by that term?

A. Well, I know of two methods of explosion barriers that can be installed and I think Mr Reece referred to them as well in his evidence where it's something or a method that will either dampen the explosion force or the flame front in the event of an explosion.

Q. And to your knowledge were explosion barriers installed at Pike?

A. No.

Q. So the two options that we see on the screen there neither of them were actually implemented and I'm going to take you now to a PowerPoint presentation that you gave on the 25th of August 2010. So, a year or so later and that's DOL3000150005.

WITNESS REFERRED TO DOCUMENT DOL3000150005

Q. Heading, "Mine design considerations in production scheduling." Now, this, I understand was a presentation that you actually gave to the board at Pike River?

A. That's correct.

Q. If we can have pages perhaps 2 and 3 at this stage Ms Basher? Page 2 setting out the mine design considerations, reducing the impact on production and ensuring optimal ventilation design, establishing a second egress and reducing cost.

A. That's correct.

Q. And we see on the right-hand side there a picture showing the current ventilation set up as at the 25th of August last year, is that right?

A. That's correct.

Q. The blue arrows showing obviously the intake in the red the return?

A. Yes, that's simplified ventilation circuit.

Q. Yes. If we now have pages 4 and 5 up please on the screen. Page 4 depicts what, as of August last year, was still considered to be the intended ventilation design, so you would have additional driveage up to the, what must be the, north-east?

A. That would be correct.

Q. And it shows, obviously, the placement of where the second underground fan was intended to go?

A. At that stage that was the planned location, yes.

1500

Q. And in the wee picture in the bottom left of it again shows that same schematic that we've seen before, I think, or a similar version showing the second Alimak joining the vent shaft, so the explosion path within that –

A. Oh, that's actually a 1:6 drive that joins up, not the Alimak –

Q. Oh, I'm sorry, you're absolutely right. So that's one of the options though, the 1:6 drive?

A. Yes, that was the preferred option at that stage as well.

Q. On the right-hand side it shows the development that was going to have to be required to achieve that design?

A. That's correct.

Q. Including the meterage 710 metres of stone development and estimated cost of $7,000,000?

A. That's correct.

Q. If we could have please pages 6 and 7 up? What does the picture on page 6 illustrate?

A. So this is the –

Q. Sorry, if you could go to the one on the left first?

A. This one first?

Q. Do you need to?

A. No, no. This was infrastructure still being developed at that time. This was the second raw coal sump – no, sorry that was a third connection raw coals of one, two, a third connection between A and B heading. The cyclone, the dirty water sump, so that was stone development still underway at that time in pit bottom north.

Q. And it had to be achieved, I take it, before hydro could start?

A. No.

Q. No? Okay.

A. No, not all of it.

Q. But it was part of the phase 2 of the hydro development, whatever that represents –

A. Yes, that was the initial phase of hydro was to get hydro working with not necessary all the infrastructure in pit bottom north working, only a single raw coal sump and so forth –

Q. Yes.

A. – and before we reached full potential, bigger panels and higher production rates there was additional infrastructure required.

Q. Which is shown there?

A. Which is show – well, this shows the development that was required for that, where to place those.

Q. And the picture on the right-hand side, page 7?

A. This shows the longer term development strategy at that point in time. The, it shows the workings at that point in time. It shows the bridging and commissioning panels –

Q. Which are the orange rectangles?

A. Which is the orange rectangles, that was planned at that time, the blue arrows indicate directions of the then main access roads, show future mains that was required as well as the trial panels, and the area that I was intending to develop too for further production out of the escarpment, moving from the pit bottom to the extremities and starting extraction at that time.

Q. If we could turn please to pictures on page 8 and 9 of the document? I think 8 is a close-up effectively of how you would access the trial panels?

A. Well, both of them – sorry, that's why I constantly get it wrong. You're referring to that number, and I'm referring to these.

Q. Oh, yes, I am, I'm referring to the number that's been inserted, yes.

A. Yes, they were at that stage to put potential routes we could've followed based on the information available then, to eventually access the trial panels, the one being the reddish-brownish arrows and the other one being the blue arrows.

Q. And what does the pinky circle represent?

A. From memory that's a mining control zone. I, just if you give me two seconds. No, sorry, that area is referred to as the common area for both which we could use for establishing of a second intake and return, second egress, or second underground fan, or a second fan and gas drainage to surface risers.

Q. And on the right-hand side there, we might need to just perhaps expand that one by itself please Ms Basher? This has numbers 1 to 6 in red circles, which show, as I understand it, options for installing a second intake?

1505

A. Or installing second intakes and returns.

Q. And returns?

A. At that stage.

Q. Yes. Which would also act as a second egress?

A. Yes. It depends on which site you are referring to. For instance site 5 was a vertical shaft location.

Q. It says here on the document that 6 and 4 are the preferred outcomes and that Pike may indeed choose to use both. By the time you left, as I understand it, the area represented by circle 6 is where it was intended that the second intake and egress would be located?

A. In that vicinity yes, and we reserved the option 4 for a fallback position.

Q. When there's a suggestion that you would use both, would 4 be a return?

A. There's various options you could take. You could make one a return and one the intake or put both intake and return at either or at both or, yeah, as single point. So it depends on how you want to balance your ventilation circuit, but correct. As at the time that I left we had both the intake and return at position 6.

Q. The rest of the document which doesn't need to come up, deals with production scheduling and analysis of advance rates –

A. That's correct.

Q. – that had actually occurred and projected ones for the future?

A. Yes there was a number of, from my recollection, a number production profiles or schedules presented and just an indication of what was actual advance rates versus what was used in the schedules.

Q. Now I understand that those six proposals in terms of an alternative ventilation setup were taken from a report that Jim Rennie provided to Pike in August of 2010?

A. The six options were developed by Mr Borichevsky.

Q. I'm sorry.

A. And Mr Borichevsky, well let's say the technical services department, but Mr Borichevsky had a fair bit of his hand in that, and he was looking at the longer-term design, mine design, and he identified these positions or let's say the team identified these positions and they were evaluated, well (inaudible 15:07:58) evaluation by Mr Rennie.

Q. Was it only in August of 2010 that Pike had started to consider alternative options for the placement of a second fan?

A. Alternative placements of the second fan yes, but the second intake was always planned. So a second drive to the surface and potentially a third and fourth were always planned.

Q. So I take it from an earlier answer that there was a decision actually made by Pike that in the medium term you'd be striking out towards position 6?

A. Yes. Well I recommended that.

Q. Yes, and that was accepted that recommendation?

A. From my understanding, yes.

Q. That’s a decision that has to be made at which level?

A. Definitely above me.

Q. You don't know by who exactly?

A. Well Mr White would have an input, but ultimately Mr Whittall and, well at that point in time when I left he was CEO so I presume by him and from what I understand he would probably present that to the board as well and I think that was the reason for my presentation, to give them the initial indications.

Q. And so this decision to strike out towards second egress in location 6 and move as well the position of the second fan towards that direction as well because that was part of it wasn't it?

A. That's correct.

Q. Meant, as I understand it, that the earlier plans to put in that extra 700-odd metres of drives and stone back to the vent shaft could be abandoned?

A. That's correct.

Q. That saved Pike significant amount of money in terms of having to develop those areas but also, as I understand it, meant a better ventilation outcome for Pike?

1510

A. Yes I think a part of, well I can't recall the exact sequence but Mr Rowland did some modelling for me earlier, indicating that placement of a fan in that inbye location or towards that area would be beneficial not only in terms of ventilation but also in terms of running costs of the fan. It's a better business decision to place it there. It had a number of advantages. We also had a look at development rights to make sure that, I mean placement of the second fan was not necessarily on the critical path short term but medium to long term was critical for the success of the mine and we needed to ensure that picking a new location would not necessarily be detrimental to that and then also general obviously safety considerations of having two drives with having a return and an intake in that specific location meant people could actually walk out in fresh air.

Q. The concept of explosion paths that we've discussed already didn't feature did it within this new design for moving the fan further inbye?

A. No it didn't.

Q. The second fan?

A. No it did not.

Q. And an explosion path that rightly or wrongly that would have been available for the first underground fan was no longer available. Going back again to the 2007 risk assessment, one of the mitigations to

protect or to put the fan underground was described as blast panels to protect the surface backup fan. You're aware, I know, from reading the Department of Labour's report that the blast panels that were installed were now considered to have been inadequate in terms of size?

A. Yeah I can't recall reading that but I heard Mr Reece's evidence in Court.

Q. Do you know who it was that designed those particular specifications for the surface fan?

A. No, I'm not certain. The project team was working on it, but ...

Q. In your tenure at Pike, was it designed during that period?

A. I'm not certain when exactly was the exact blast panels designed so no.

Q. Did the installation and specifications of the surface fan fall within the technical services department?

A. Not in the time I was there. The specifications of the fan was already determined pre my employment because it was already ordered and being constructed and the construction and assembly in relation of the underground fans were part of the project team.

Q. If we could have DOL3000070172/3?

WITNESS REFERRED TO DOCUMENT DOL3000070172/3

Q. I'm just going to have an expansion of that brought up in front of you Mr van Rooyen. So just to orientate me, the bridging panel that they were mining on the 19th of November is the yellow one on the right?

A. Yes, the narrow yellow one.

Q. And can you please point out to us with your pointer where the second intake and return were going to be located?

A. That area there.

Q. Now, in your statement that you filed you say that if hydro-mining development had been delayed from July of 2010 that at least theoretically, and those are my words, Pike may have been able to have completed the drivage required out to that second intake and egress by I think the end of 2010?

A. Yes I was asked to express my opinion on that and did so.

Q. And that would be in the path that we see or perhaps you can show us and describe it for us?

1515

A. That would be from that point there driving towards the west and up north to that position.

Q. So it would've gone that direction rather than heading up, I think, you'll have to help me, is it two west?

A. That would be one north.

Q. I'm sorry one north.

A. Going up there and that would be two west.

Q. Right thank you. So that wouldn't have been a preferred way out one north?

A. Not that I'm aware of, no. The plan was, well, initially there was a plan to move up to one north and have two west cut across in approximately this location but with more geological information it became evident that this would be a better design.

Q. And in terms of distance can you estimate how far would have had…

A. I have made that estimation and I can't recall precisely.

Q. And you made that estimation in your written statement you mean?

A. I think I did. I know I had to calculate it out to determine the time. But it was six, seven, 800 metres in terms of, from this location across up and over there, might be more.

Q. And it would've required two headings driving at once I take it, parallel?

A. You will have to take two headings out to actually have your ventilation circuit follow you as well.

Q. Yes.

COMMISSION ADJOURNS: 3.17 PM

COMMISSION RESUMES: 3.33 PM

CROSS-EXAMINATION CONTINUES: MS BEATON

Q. Mr van Rooyen, I'm just going to bring up a page of your statement, PVR001/14, and you'll see there, paragraph 64 and 65 in particular, where you refer to the development of the hydro-panel rather than continuation of development out towards a second intake, wasn't your decision and indeed wasn't discussed.

WITNESS REFERRED TO DOCUMENT PVR001/14

Q. You say in the second half of that paragraph, "I did not propose that the hydro-panel development be delayed until the surface egress was completed because I knew what the answer would be." Can you expand on that for me?

A. Well understanding the position of the company at that stage, being a project that's been delayed for significant amounts of time.

Q. And are pushed for coal quickly?

A. Well, as you would expect in a project trying to start up and – establishing some form of cash flow, yes, a push for coal in that sense.

Q. Did anyone else raise it to your knowledge?

A. No.

Q. You go on in paragraph 65 to say why it is that you had a personal preference to get a second intake and egress because of your concerns about the Alimak shaft as an emergency exit –

A. Yeah, I think that's correct.

Q. Why couldn't both hydro production and striking out towards the north-west, towards a second egress be done at the same time?

A. Both were scheduled at the same time. It's not like you would only do one with three production machines, or miners, and two seams in the roadheader and later on the ABM, the schedules always had one, at least one piece of equipment mining towards the west, but it depends on where you put the priority in terms of what happens if a machine breaks down, or so forth and as it was the priority at that stage as the hydro-panel.

Q. So in theory, more machines, more men, could have provided more resources?

A. Well, not necessarily more men, or, well, from what I recall there was a shortage of personnel in general because of experience and having experienced people available on the West Coast, but that's just a general comment. The more equipment, not necessarily, just equipment that didn't fail, would've been an advantage.

Q. In your handover notes, perhaps if we can have them up on the screen so you can refresh your memory, PVR002/26, the last page, you refer to the second intake and return project and it's timing.

WITNESS REFERRED TO DOCUMENT PVR002/26

Q. And this, of course, is dated the 2nd of November, so effectively your last day at work, and in that, your view is that "completion date" you'll see at the very bottom line there, would've been October of 2011, so about a year from the time of your handover notes? You see that?

A. Yeah, that's a rough sort of desktop level project outline from my point of view at that time.

Q. And there was a need, as I understand it, for a significant amount of scoping to be done for the project?

A. I think the, what I refer to in terms of the scoping is that the detailed design is, or the detail requirements of what the specific installation would require is thoroughly worked through and that could include things like understanding the topography in the area, making sure about flooding levels and so forth, working through the installation of a fan in that specific location, may it be underground or what was also talked about at that stage was a surface, installing that fan in a surface set up by Mr Borichevsky's specific, and scoping out exactly what you want, in my opinion, planning the work is a fairly important part of it, so scoping it from the start in the correct way would make the rest of the project flow easier.

Q. This is the beginning of November and this scoping and planning is just about to commence as I understand it, although really this proposal had

been on the table and in fact I think agreed, you said, from about August of that year, so there's been a delay.

A. I wouldn't call it a delay. I was, in my point of view, we were busy with almost the desktop study of that. We identified the possibility or the option through work by Mr Rowland and his ventilation. We double checked that in the modelling. We had a look at what is the potential effects on longer term mine design? We'd done a number of scenarios, scheduling scenarios. We've done design work.

1540

A. We've gained more geological information and we were busy with putting a project in a sort of desktop form on the table saying, "This is something we can have a look at, this is going to improve the total mine design in long-term, but now we've got to do the detail work," so I wouldn't call it a delay no.

Q. And so your estimate of time, the day that you left, was that that whole process including right through to installation, effectively, of the second intake was going to probably be about a year?

A. That from what I can recall and what I'm seeing on the screen without reading it all in detail again, that seems right, yes.

Q. Over that period of two months between the end of August and beginning of November, I take it your team had been busy with the commissioning of both the hydro-panel and the fan?

A. No, the commissioning of the hydro-panel and the fan were predominantly taken care of by the project team. They obviously had been some influence in some aspects that we were involved in in reviewing the panel designs and those sort of things, that takes a lot of time. The process you go through in mine design is a intuitive process where you do it to a certain level, get more information and do the more detail but I'm confident that during the time there was enough or the correct resources spent on this project, it was a big drive for us, was pretty important to us, because without this we couldn't have the three to five year plan in place.

Q. From a ventilation perspective you mean?

A. Ventilation and mine and production and all the other aspects needed to be incorporated into this bigger plan.

Q. To move now to ventilation issues and some discrete topics. You've made it clear in your statement that the technical services department was responsible only for the long-term ventilation design and not for the operational daily involvement?

A. That's correct.

Q. And you've told us your views about the need for a ventilation officer?

A. Yes I have.

Q. And you've heard Mr White's evidence, I think you were in Court this week?

A. Yes.

Q. When he's acknowledged or accepted that he was, as mine manager, the quasi ventilation officer as well?

A. Yes.

Q. And you would agree with that, he was the person who had ownership of the ventilation decisions on an operational basis?

A. He was in charge of the underground operations and yes, he'd taken those decisions.

Q. And that was well understood that that was part of his role by his staff?

A. (no audible answer 15:43:02)

Q. Now you're now, I know, well aware of the evidence of these high methane spikes that Pike was experiencing in the couple of months prior to the explosion and as part of your preparation for giving evidence you've had a chance to have a look at the large schedule that the Commission's analyst has prepared which sets that information?

A. That's correct.

Q. At the time that these were incurring in September and October leading up to your last day of work, were you aware, at the time that they were happening?

A. I was informed by Greg on occasion when there was spikes, Mr Borichevsky, sorry.

Q. What about through Mr Oki Nishioka, when you were having these occasional, well, occasional's my word, chats with him when he came out of the mine in the evening was he giving you information about high methane spikes?

A. Yes he told me there was methane in the panel, there was methane to a level that the monitor was down but no specifics on specific elevations or percentages.

Q. In your statement you talk about your understanding that Greg Borichevsky who was in your team had a role once there was free venting occurring of the gas into the return that he was having a role on a daily basis in monitoring the methane trends?

A. That's correct.

Q. I take it that as at the time you left, you still understood he was doing that?

A. Yes.

Q. You now know that that's not the case, that he was checking it sporadically?

A. That's what I've heard over the last few days.

Q. Yes.

1545

Q. Yes, did anyone else to your knowledge over that period have a daily understanding of the methane spikes or the methane levels I'm sorry?

A. Well I'm only aware of Greg. I can't comment on anybody else.

Q. If we could have a look please at an email which is INV.03.29646.

WITNESS REFERRED TO DOCUMENT INV.03.29646

Q. It's from Greg Borichevsky in your team, 18 June, to Dani du Preez regarding the continuous monitoring of CH4, methane? I know you've seen this before, recently I mean?

A. Yes you've given me a copy.

Q. Yes. Now in there we can see that Mr Borichevsky is asking Mr du Preez to assist him in obtaining data about methane on a regular level so that reports could be prepared, and you see part way down there's a sentence there, "The audience for this report would be the

statutory managers, mining engineers and operations manager." Now as I understand it, such reports would assist in terms of daily operations of the mine but also assist I think in terms of measuring emissions for other purposes?

A. Yeah, during this specific time we were working on some reporting to the Crown in terms of emission as well as working on doing some work for emission trading scheme and yeah I'm not exactly sure what was the purpose of, well exact timing of this but that's what's it appear like with him specifying the audience, that it could also imply that it could be used for general oversight or management.

Q. You see the last paragraph, "Would also be keen to specify a number of key points for continuous monitoring within the mine now that we are experiencing significant gas make in some workings." Do you know, given you were Mr Borichevsky's manager, whether that occurred? Whether there was further involvement between technical services department and Mr du Preez about that?

A. No, I'm not sure if that occurred.

Q. And do you know whether or not there were types of reports that Mr Borichevsky was hoping to be able to create ever eventuated?

A. I'm not aware of any. All I do know is he had some graphed information as well as some point information over time of CH4.

Q. To move now please to a document created in March 2010, DAO.003.05885?

WITNESS REFERRED TO DOCUMENT DAO.003.05885

Q. And this is a, the first page is an email from Andrew Sanders of Comlek, Wednesday 31st of March 2010, sent to Terry Moynihan, copied to a number of people including yourself. You see that?

A. I can see that, yes.

Q. And in that email setting out a description of a document attached to it, which with me paraphrasing is a document reviewing all of the steps up until March 2010 by Pike in terms of its ventilation system?

A. Yes.

Q. And attaching links to all of the supporting documentation?

A. Yes.

Q. Now you've had a chance to have a look at this document in some length I understand and you're aware of its contents?

A. Yes, you've given me a copy.

Q. Point 1 of that email, Mr Sanders says that he understands Pike are intending to employ a ventilation consultant. I take it that's a reference to an outside contractor rather than employee?

A. Yes that's correct.

Q. The purpose being to review the current status of the ventilation system prior to the operation or the sign up of the hydro-monitor? Now, as I understand it, the ventilation consultants that were involved after March 2010 were only Jim Rennie and John Rowland?

A. That's correct. Well from what I can recall, yes.

1550

Q. At point 2, Mr Sanders refers there to, in the second part of the sentence, that he's" highlighted issues that I believe need some follow up or clarification prior to commissioning." And I understand that he's referring to commissioning of the panel and the underground fan, would that be right?

A. Yes.

Q. If you could turn to page 5 please of the document, Mr Sanders sets out there the scope and purpose, and are you able to confirm having looked at it that this was a draft document prepared by Mr Sanders for use by Pike to finalise update and on provide to a ventilation consultant?

A. Yes.

Q. The idea being to give the ventilation consultant the entire range of information that would be required before they started doing their work?

A. Yes. Oh, it depends on – for the commissioning of the fan, yes.

Q. Right. Page 8 please; now, you'll see there that on page 8, Mr Sanders goes through and sets out a history as to how it was that Pike came to have an underground fan, a main fan underground on March 2010. He has four concerns as I understand it, the first being the paragraph that starts "Ref 07" about half way down, which is the Flakt Woods, the fan

designer's tender offer, where he says, "It should be noted the final equipment selection differs significantly from the original proposal." And then in the first shaded box there are three points there in relation to the risk assessment of 2007 for the underground fan, where he inquires at the third point, "Would it be appropriate to conduct another risk assessment on the latest proposed design and installation?" He goes on throughout the rest of this document to set out a number of other inquiries and points and suggestions and critiques of a number of things to do with Pike's ventilation system, including a significant critique on the ventilation management plan which is this rather unwieldy document that we're aware of. Now, do you have any independent recollection now of having seen this document back in March 2010?

A. I have some recollection of receiving it as a copy.

Q. Do you recall whether you read it at the time?

A. Knowing myself, I probably did read all of it, or at least the majority of it.

Q. And do you recall what reaction you had to the concerns that are outlined in it?

A. Well, at that stage I was working on a number of other issues. The commissioning of the fan, and was part of the project team. The project team's responsibility to, what I understand, Mr Sanders was reporting to as well.

Q. Yes.

A. And I accepted the fact that they are managing this and actually driving this process.

Q. Would you accept that this document raises a number of red flags for Pike about what needs to be looked at and assessed prior to commissioning the fan –

A. It appears like that, yes.

Q. Do you know whether others in the operational team or other departments in late March 2010, on receiving this report, discussed it, did anything about it?

A. I don't know, I can't comment on that.

Q. If they did, I take it you weren't a part of that?

A. No.

Q. Do you recall whether you discussed any concerns you had arising from this report with anyone in management?

A. Well, I did discuss the ventilation management plan on occasions with Mr White and I've also made note of the fact that I've asked John Rowland to assist with updating the ventilation management plan.

Q. Do I take it from your answers and your role that you're not aware of what became of this document?

A. No, I'm not.

1555

Q. It's described though as intending to assist a ventilation consultant both of whom were engaged by technical services department so I take it that this or a version of it and the documents contained within it weren't provided onto Mr Rennie or Mr Rowland?

A. I can't comment on that. Mr Rowland was initially, his first involvement with the mine was initiated by the project team, Mr Terry Moynihan, and from there on I met him at one of those, I think it was a close-down meeting, and from there on I've asked Mr Rowland to assist with longer term modelling and model calibration work which he subsequently reported on.

Q. So these types of questions, I take it, are better aimed towards Mr Moynihan or others in the project team?

A. Yes I would suggest that.

Q. Turning to the surface fan, I think you've already told me that you and your department weren't responsible for either the design or installation of it, is that right?

A. No we weren't.

Q. Is that part of the project team as well?

A. Yes, Mr Moynihan and the project team was working on that as well, without knowing specifically but yes, with the project team.

Q. There were operational issues with that fan and they were highlighted quite clearly on the 5th of October when the fan was damaged and the mine gassed out for a period of a couple of days I think?

A. That's correct.

Q. You're aware that there was a review conducted of that event by a team within Pike?

A. Yes, I've seen the document.

Q. Yes and if we could have a look please at DAO.001.00359/17 and /19?

WITNESS REFERRED TO DOCUMENT DAO.001.00359/17 AND /19

Q. That's the review of the event on the 5th of October, the fan failure.

A. Yes, I've been shown this document.

Q. And you're not a participant in that. Is that unusual? Should you have been on behalf of technical services department?

A. That is a possibility but at that stage I can't recall exactly on what I was working during that time but it might be that it's an engineering maintenance issue as well as the project team would probably, well, don't see the project team there so.

Q. No Mr Moynihan not there I don't think is he, no.

A. No, Mr Moynihan's not there so it's the maintenance department and the operational department.

Q. Was this review circulated to technical services department?

A. Potentially I can't recall receiving it but probably, I don't know.

Q. You'll see on the second page that it identifies a number of what I described as positive bullet points as to how Pike dealt with the problem and there's a longer list of improvements that were required, was there any site wide notice or discussion about the improvements or in some respects some of them are failures actually of Pike's systems?

A. I was aware of the event at the time but I can't recall any detail on discussions or communication, that's not saying it didn't happen.

Q. Do you agree that even looking at the first couple of points listed under improvements, the first being the lack of working communication devices underground, the lack of communication to the surface fan, further down, "There was a high risk of not knowing what gas levels are present underground due to relying on UPS powered real-time monitoring, pipeline cannot be flushed with a power outage." Would you agree that these are significant issues for –

1600

A. It would appear that way.

Q. Some of which hadn't been improved or remedied by the time you left?

A. I can't comment on all of them.

Q. What's your view on whether, having had this event on the 5th of October, hydro extraction should have continued?

A. View in terms of?

Q. Whether that was ideal in terms of safety?

OBJECTION: MR MABEY (16:00:54)

CROSS-EXAMINATION CONTINUES: MS BEATON

Q. Move to another topic then Mr van Rooyen and that's the designation of the hazardous and non-hazardous zones. Is that something of which you or your department had anything to do with?

A. No.

Q. Is it something in which you yourself had any level of expertise or not?

A. Not at all.

Q. Stoppings. Are you aware of whether at the time that you left there was any plan or document in existence showing not only the location of the stoppings within the mine but also what they were constructed from and the ratings of stoppings?

A. There's a ventilation plan that's drawn up regularly and we could talk about regularly, and that should indicate the type of stopping being permanent or temporary. I'm not aware of any rating as such being on them or yeah.

Q. That's something I actually meant to ask you in the context of the permits to mine, which refer to mining occurring in accordance with the approved ventilation plan. That's not a reference to the ventilation management plan, that large document is it? It's to something else?

A. No, it refers to the ventilation plan of the mine at that specific moment, which is a plan of the workings.

Q. Is that the same as the one you've just mentioned or a different document again?

A. That's the same.

Q. Same thing?

A. That's what I'm talking about. It's the mine ventilation plan which is referred to the PTM as the approved ventilation plan, which shows the current ventilation circuit, the stoppings or VCDs as such, and then also the auxiliary fans and it had all the tubes, all the ventilation tubes drawn onto it as well as a indication of the gas drainage line.

Q. And so are you saying that that type of plan should have been available immediately to anyone's fingertips through Pike's system? Was it saved within a particular computer program? How did it work?

A. Well the way the ventilation plan was drawn up was there was an approved ventilation plan signed by the mine manager and if there was ventilation changes or changes done that changes would be drawn up during the ventilation surveys and handed to technical services who would draw up the plan in the CAD software basically and supply to the mine manager for signature for approval.

Q. And in the last couple of months before you left how often was that changing and being signed off. Do you recall?

A. Well, according to my recollection every time there was a ventilation change that happened. Additionally there was also the statutory plans that were created by the acting, let's call it acting mine surveyor, and he prepared plans on a monthly basis and three monthly basis and distributed that to the emergency area or the rescue area or the emergency rooms, the control room. Mines Rescue had copies of those. There was a schedule, there was an electronic copy but also there was a schedule on the wall where Mr McNaughton actually signed off when he did that. So there was regular plans updated.

Q. Mr McNaughton though, as I understand it, was only at Pike a couple of days a month. Is that right?

A. A week a month, roughly, yes.

1605

Q. A week a month, I'm sorry, because he resides in Australia?

A. That's correct.

Q. So it'd be updated as part of his work when he was at Pike?

A. Well, on – as part of his visit, part of his role was to update the statutory plans, which is the official mines plans that are presented to the Department of Labour as well as to Mines Rescue. There was also the approved mine plans or ventilation plans which was drawn up by Mr Hamm, Gregor Hamm, the mining engineer –

Q. Yes.

A. – which were distributed on site and they were, they happened as required when there was a ventilation change, when we've moved information and it became available to technical services, we would draw that up and update the ventilation plan.

Q. Moving on, what was your understanding of the rating or strength of the stoppings? You've told us in your statement that you agree with the suggestion that stoppings, in particular, that one in one west cut-through three should have been permanent?

A. Yeah, I stated it should be permanent either at the start or shortly after the commissioning or the start of the panel, not necessarily just at the start, but that's my opinion.

Q. Do you know what the ratings or strength of the stoppings were within the mine?

A. No, I can't comment on that.

Q. As I understand it though the technical services department, you said earlier, were responsible for deciding in the context of the ventilation plan where a stopping would go, i.e. in a particular cut-through?

A. That's correct.

Q. But the actual location within that cut-through was a matter for engineering department?

A. That's to a – well, operations, the people that actually construct the stopping, because it's a practical, just a practical issue, I mean –

Q. So was your department though also responsible for advising the team that constructed the stoppings as to how strong they should be?

A. No, we did not.

Q. Who did? Who did do that, do you know?

A. Well, I – from my understanding, it resided with Mr White.

Q. Mr White?

A. Mr White.

Q. You were still at Pike when there was the goaf fall on the 30th of October?

A. Yeah, it was in that last few days.

Q. And you're aware that that goaf fall knocked over the stopping within the first cross-cut in the panel itself?

A. I'm aware of that, yes.

Q. Were stoppings and ventilation in general reconsidered or reviewed after that incident?

A. I don't know. I don't know if the location of the stopping or the construction of it was reviewed, at that stage I was focussing on the geology and the geotechnical aspects of that specific fall and had the Geotech underground to assess it.

Q. In terms of the stoppings that were in place around the underground fan, what was your level of knowledge about those?

A. The only recollection that I have is when once we'd made the decision, or once the decision has been made to locate the fan at – the first underground fan and the location, I did forward a sketch diagrammatical plan to Mr Rennie and Mr Beikoff, and asked them for their opinion on stoppings and asked them, "Which needs to be explosion-proof" or if they could give any advice. There was some advice given.

Q. Just pause there. Was it given to you in writing?

A. There was an email from my recollection that that was done and that was forwarded to Mr Moynihan.

Q. Email from which of the consultants?

A. I think both Mr Rennie and Mr Beikoff made comment on that.

Q. If we could have up on the screen DAO.025.50636/1 and /2 please?

WITNESS REFERRED TO DOCUMENT DAO.025.50636/1 AND /2

Q. This is an underground ventilation fan and stopping design scope and, you'll see, its three signatories to it including yourself dated the 23rd of April, 2010?

A. That's correct.

1610

Q. I'm just interested in middle column on the right-hand page there under point 2 under the heading, “Stoppings,” where they're described there as being Type B 35 kPa overpressure capability as per the Queensland mining regulations. Is that the type of advice that you were talking about that was received from the overseas consultants?

A. From memory I can't recall that being the specific advice. It was more in terms of concrete stoppings or this sort of stoppings. Not specific types. But no I...

Q. And who created this document? Was it you or was it the task manager, Terry Moynihan?

A. It was Terry, Mr Moynihan, from my recollection.

Q. Do you know, looking at this now, what the final design was of the stoppings installed around the fan?

A. No I don't have, I don't know the detail and probably best to ask Mr Moynihan.

Q. In your statement, Mr van Rooyen, at page 131, I'm sorry, paragraph 131 thank you. You said, “I agree it would have been preferable to have delayed commencement of hydro-mining until after commissioning of the main fan but that is a matter beyond my control and was decided by others.” Why did you think it was preferable to delay?

A. Based on –

Q. Sorry just before you go on. That had been the plan right up until, as I understand it, August-September of 2010, was that the underground fan would always be commissioned first?

A. Yeah that was my understanding.

Q. Yes.

A. So my preference was based on the quantity of ventilation. With the surface fan we had roughly about 80 cubic metres per second of ventilation available give or take, and with the first underground fan about 120 and it’s just a matter of how much ventilation you have

available and the faces that you can operate with the available ventilation.

Q. John Rowland in his second of three reports, raised issues. I know you've had a chance to review those too, about concerns, well about the limitations of the ventilation system and proceeding to hydro-mine without the second fan. Did that inform your concerns as well?

A. I can't recall which passage you are referring to in Mr Rowland's report.

Q. Who made the decision to push on to commence hydro without the fan being operative?

A. I don't know who made the final decision, but my discussions was with Mr White at the time.

Q. And when you raised your, or did you raise your concerns with Mr White?

A. Yes I did.

Q. Did he give you an explanation as to why it would continue?

A. What Mr White told me and explained to me was that the ventilation would be divided between faces and that he would manage the ventilation to make sure the panel has enough ventilation but also restrict other operations to make sure we have enough ventilation while hydro is starting.

Q. To your knowledge, were other operations restricted?

A. I think from memory there was times when certain faces weren't operational.

Q. In the witness statement that John Rowland has filed, he refers to the fact that when he was doing or modelling ventilation scenarios for Pike, that he was given a figure of 25 cubic metres per second of air was required for the hydro-panel. Where did that figure come from?

A. I gave him the figures that he used for his modelling in terms of quantities required.

Q. Because that was primarily why he was brought on board was because of his expertise in ventilation modelling, is that –

A. Ventilation modelling, ventilation systems, ventilation control, yes.

Q. How did you calculate a figure of 25 cubic metres per second?

A. For the hydro-panel?

Q. Yes.

A. That was based on information gained by talking to people that has previously worked at Spring Creek and I also visited Spring Creek on this specific day and spoke to some of the people, actually visit the hydro face while it was operational. They were kind enough to share information with us.

1615

Q. Did you discuss it with anyone else at Pike as to how much would be required?

A. Yes, that discussion has been taking place for a, or did take place on a number of occasions, talking about what's the quantity that would be required.

Q. You're aware, I understand now, that by back in 2006 in the Minarco ventilation report that had been suggested in that report that a minimum of 45 cubic metres per second would be required for a hydro-panel.

A. Yes, you've also shown me the report.

Q. Were you aware of that at the time that there was discussion about lower figures?

A. No I don't, but yes.

Q. Miles Brown from Drive Mining in Australia was engaged by the technical services department?

A. That's correct.

Q. He made three visits to Pike and produced three reports?

A. That's correct.

Q. Primarily in relation to gas management?

A. Gas drainage.

Q. And do you recall that in his second report which is dated the 22nd of July, that he provided you or provided Pike and your department with some information and advice on the effect on the gas levels within the mine of commencing hydro extraction before the additional air was available from the underground fan?

A. Yes I do.

Q. His view was it would be pretty tight, wasn't it, to keep the level of methane in the return at an acceptable level and have the desired amount of production, I'm sorry, development also continuing?

A. He made some assumptions and calculations based on production rates as well as development rates and coals and gas content and based on those he had an opinion on the gas spike in panel 1 as well as in the main return.

Q. He had in one of the things he gave in that report, and you can take it from me, is that a solution for short-term gas drainage or improvement to enable panel 1 to commence was to replace the drainage pipeline with the larger diameter one?

A. Yes he did.

Q. That's something that he had suggested from the outset I understand. He had concerns about the management of the pipeline?

A. He did.

Q. It was at capacity, wasn't it, when he came on the scene in April?

A. (no audible answer 16:18:28)

Q. In-seam drilling that wasn't something you'd been involved with before prior to Pike?

A. Not in the sense that we were doing. I've been involved with drilling in a coal seam for exploratory purposes, horizontal drilling basically, but not the same equipment, slightly different equipment.

Q. This four inch gas drainage pipeline, was part of that already installed by the time you arrived at Pike?

A. Yes, when I arrived the first two drill holes have been completed. There was a gas drainage line installed from those to the six inch riser, or PRDH36 and they were busy commissioning the flame arrester at surface when I arrived.

Q. If we could perhaps have up on the screen while we're discussing this topic DAO.031.00002 and this is just a map of the mine.

WITNESS REFERRED TO DOCUMENT DAO.031.00002

Q. So can you just show us what you just told us then what was in place when you arrived?

A. Do you perhaps have one with drill holes on them, would just make it easier, but I can attempt from this one.

1620

Q. Well we do, of course, but not right to hand I'm sorry.

A. I can attempt answering it on...

Q. You're talking about the inseam drillholes?

A. Inseam drillholes, yes.

THE COMMISSION:

DOL30001500/09.

CROSS-EXAMINATION CONTINUES: MS BEATON

WITNESS REFERRED TO DOCUMENT DOL30001500/09

Q. You see that there in front of you now. Do you need us to expand any particular part of that or not?

A. If you could expand pit bottom area that would make it easier. The six inch riser is in this little stub towards the edge there. At that stage the stub was, were a bit shorter and the first two drillholes, that being drillhole number 1 and drillhole number 2, had been completed by the time I arrived and they were connected up in that area against riser, and they were busy installing the flame arrestor on the surface.

Q. Do you know why there was no suction unit also or installed instead of a flame arrestor?

A. No. At that point in time I don't know why. From what I understand, there was the need to drain some gas from the drillholes to the surface. The drillhole existed, PRDH36 existed, and it was connected up and for safety purposes a flame arrestor was placed at the top.

Q. Now I understand that's a six inch riser?

A. That's correct. It's a six inch drillhole.

Q. But yet a four inch pipe was connected to it?

A. Yes.

Q. And that didn't change after you came and took over the technical services department because –

A. No I did not.

Q. – as the mine progressed and the drainage line was extended it continued to be four inch pipeline?

A. That's correct. After these holes we drilled these two holes at the bottom and the four inch line we extended to them and later on holes were drilled in this location, this location and eventually from that location.

Q. Was the first time that you became aware that the four inch pipeline was struggling to cope after Brian Wishart sent an email to one of your team members, Jimmy Cory?

A. I can't recall if that's the first time I became aware of it. I can tell you what my opinion was the first time we drilled through the graben into the western side of the graben and we intersected, we drilled long holes into the coal seam on that side, that – well this is in hindsight. That caused the issue within the coal –

Q. Because of the amount of gas that was going into the pipeline there?

A. Those holes produce more gas than the other holes that we drill in that area.

Q. I see, now the email that I'm talking about of Brian Wishart, DAO.025.32975. We don't need that up Ms Basher, is dated 11 April 2010?

WITNESS REFERRED TO DOCUMENT DAO.025.32975

A. That's correct.

Q. To Jimmy Cory who, as I understand it, brought it almost immediately to you. Is that right?

A. Yeah, from recollection the date that email is dated I actually checked it was a Sunday and earlier that Monday morning Jimmy handed it to me even before the production meeting or the morning meeting.

Q. What was the response of you and your department?

A. Well we immediately took it to the production meeting that same morning and that was discussed. There was various actions taken from that meeting. One of them were that we got Mr Brown, we engaged Mr Brown.

Q. As a result of those concerns?

A. We were busy talking to Mr Brown to establish a relationship, but based on that from recollection Mr Cory that same morning sent Mr Brown all the information we had available and asked him to be on site as soon as possible.

Q. And he arrived on the 28th of April, I think, if you take that from me?

A. Yeah, a few days, less than two weeks later from memory, something like that.

Q. He provided you with a report, again take it from me if you can, dated the 15th of May?

1625

A. That's correct.

Q. And in that report he set out a number of issues but including concerns about the lack of core sampling data from the drilling and of course the pressure on the pipeline and on the riser to cope with the gas make at the mine?

A. That's correct.

Q. And his suggestion was that in the short term you could disconnect the drilling rig from the gas line, so that's effectively the beginning of the free venting?

A. Yeah, in a different sense, it's not free venting as such. It's just de-connecting the drillhole being drilled at that point in time to enable water and gas separation at the drill rig to be more effective.

Q. So when do you know, or do you know looking back now, when the free venting of methane from holes commenced?

A. I once again can't recall the date, based on Mr Brown's report and I think it was around his second visit, he was on site and there was a discussion between – I know Mr Borichevsky was there. I know Mr White was involved. I was not involved. I think Mr Jamieson was involved as well and they made certain, or they had a discussion and there was some suggestion to free vent at that meeting and that was implemented that evening from recollection, while Mr Brown was on site.

Q. You've heard the evidence from Mr Reece last week, actually, now about free venting as a, he described as a stopgap measure. Would you agree with that?

A. Well, once again, I'm not an expert, not a lot of experience in that field. I accept Mr Reece's comment, but, yes, it depends on the period he's referring to as short term.

Q. You would agree though that Miles Brown's advice to Pike was to use free venting of methane into the return on a short term basis until you could increase the capacity of the drainage lines?

A. Yes, until we could get the drainage line to a capacity that can accommodate all the gas made in the different holes.

Q. Cope with the gas made, right.

A. That's correct.

Q. By the time you left on the 3rd of November the gas drainage pipeline hadn't yet been improved and I understand that –

A. The size hadn't been increased but the management of the line has definitely been improved.

Q. Yes, my apologies, you're right. The management of it had improved, in fact Mr Brown on his third visit had acknowledged that and said that it was being managed much better.

A. Yes, he did.

Q. The size of it though, the diameter and its overall capacity was still a concern to him and I take it, also to Pike?

A. Yes, we, well, from the time of his first comment there was a lot of work that were done to achieve the objective of increasing the gas drainage line and increasing the riser as such.

Q. And it wasn't just Mr Brown who was giving that advice to Pike, it was also Chris Mann, who was another consultant engaged?

A. From Mr Brown's first visit, he suggested that the drainage line be increased in size and we subsequently got Mr Mann to do some flow calculations. Mr Mann is an expert in gas pipelines and so forth, from my understanding, and asked him to specify a line, and in detail what is required to achieve this.

Q. And that had all occurred. It had been scoped, so to speak?

A. That's correct.

Q. And budgeted for, there was money available?

A. It is included in the budget for that specific financial year, yes.

Q. So it was available to your department in a monetary sense?

A. That's correct.

Q. Can you explain to us why it was that by the 3rd of November when you left, this improvement to the line and also the riser, hadn't yet occurred when there'd been some priority suggested by Mr Brown and accepted, I think, by your department.

A. If I – yes, okay, is it possible to zoom out of this and I can possibly show to, or point to the map? You've earlier pointed us, or pointed me to a position for the second intake and return and part of that study we've also identified position number 5 which is in that location there.

1630

Q. Is that the same position 5 that was on the earlier map?

A. That's the same position 5 and that was part of the same, trying to find locations where we can put things in place, things that makes practical sense and has a long-term practical solution for Pike River. Position 5 was, if used as a second intake or return, would've been a shaft which didn't give us much benefit by using that location but it had significant value for Pike in terms of being able to house a gas drainage riser and peripheral equipment. It had a plateau or a smallish plateau at the top and we could actually place the gas drainage line or riser there, we control, practically actually drill it from that location, drill a bigger hole and it had place for infrastructure for future development. Along with that there was already restrictions in this area, I would preferably not try and refer to Spaghetti Junction but adding another 12 inch line in there would have some additional practical complications. Along with that, the majority of these holes have seized in producing gas just because they've been open for some time.

Q. And you're referring for the record to the pit bottom south area?

A. To the holes drilled from pit bottom pretty much, so what happens is they're either degassed area and they stop producing gas or they potentially close overtime and water plays a role and the majority of these holes produced very low quantities of gas. The newer holes were producing, obviously, the larger volumes of gas from the hole and installing the 12 inch line from there all the way through there was, to a certain extent, not practical going into the return while we were trying to do all the other things.

Q. You mean in terms of men and equipment?

A. Men equipment, and with us being fairly close to that location, it seemed like a, it wasn't in my opinion, a good decision to use that, it's called Mr Reece's words, "Stop-gap measure," of free venting until we can actually achieve that position. In one of Mr Brown's reports we were also looking, well, I've asked him actually to identify a place or a position of a riser and he was referring to a position somewhere up here which is, let's say, north of the panel, panel 1, that became impractical later due to topography. I can't remember exactly the topography but and also the development sequence of us aiming towards that area over the second egress and intakes so with this being our preferred route, it became more practical to use this area as our gas riser. Part of Mr Mann's scope was not only to specify the drainage line but also have a look at the possibility of flaring and potentially even power generation from coals and gas.

Q. So I take it then that by the time you left the plan was not actually to replace the four inch line that was running from the gas riser in the FAB throughout the mine but rather create an entirely new line of a larger diameter heading out towards a new riser that you've described?

A. That's correct.

Q. So the four inch line as it was would stay there, would still be used if required?

A. No.

Q. Would be removed?

Q. It would not be required it would not be used because you would connect these holes to that new riser. You would install a riser and lay your pipes down and create the 12 inch line. I think it's important to note that part of, and I've said it earlier, being these, especially these designs, piecemeal and trying just to solve a short term problem creates other problems that's not always foreseen when you try and solve the problem, so rather spending the time and finding the larger solution for the medium term, short or let's call it medium term plan, three to five year plan, is pretty important and this gas drainage line and gas drainage system form part of that.

1635

Q. So what was the timeframe then for Pike developing out to the point where the new gas riser had been identified at 5?

A. Well if I've made a comment about developing to there taking approximately what's it six months I think. That's more or less the timeframe I've added to that. Over there. Mining from the current location -

Q. Yes.

A. – when C was mining in that direction.

Q. Yes.

A. To 5 or location 5 I would estimate that being approximately 120 metres linear, which would give you 240 less say 300 metres of development, a couple of months I guess. I estimate right now. Depends on advance rates, it depends on geological features and it's very difficult making that calculation in this position that I am right now.

Q. No, I understand. So, in a general sense the free venting of the drillholes in that area would have continued then through until you'd reached that location and the new riser could be constructed?

A. Yes.

Q. Moving to a new topic and that's hopefully a short one. Outburst?

A. Yes.

Q. This was a significant concern for Mr Brown. In his second report, which for the record is DAO.001.04909/28. He refers to the concern

that Pike didn't have an outburst threshold value established and we've already heard evidence about the DRI900 measurement and what that means and that a company called Geogas had developed a formula to be able to assess that. And you're aware, I know, that there had been a core sample taken from close to panel 1. You might be able to help us with how close it was. Which had suggested that there was about 8.2 is it cubic metres per tonne, is that the measurement?

A. 8.29 cubic metres per tonne.

Q. Which Mr Brown pointed out to Pike was close to the threshold that had been established in a Queensland seam, the bulli seam. And he emphasised the importance to Pike in his reports of obtaining that type of measurement. Raised it again in his last report as well. In your statement you refer to this issue and as I understand it you're saying that or your understanding at least is that further core samples had been taken and had been analysed?

A. Yes there's definitely more core samples being taken and analysed.

Q. Analysed by who, do you know?

A. They were sent to, would you like me to say the company specific?

Q. Yes please.

A. CRL Energy.

Q. On the coast I think?

A. In Greymouth.

Q. Were they, I take it, weren't the original company that Pike had sent some samples to which had created an assumed result?

A. We used a different company initially and there were some issues with some of their analysis and some inconsistencies as pointed out by Mr Brown as well and confirmed by Geogas. And at that stage I was also spending a fair bit of my time talking to CRL in general for specific analysis that wasn't available on the coast or some of it not even in New Zealand to set that up so that we could make use of CRL as preferred supplier.

Q. As I understand it, there would need to be a number of samples taken before a threshold could be established, is that right?

A. I'm not expert but that's my understanding as well yes.

Q. And had that occurred by the time you left?

A. There's –

Q. Enough data?

A. I can't recall exactly how many samples had been taken by the time I left. If you put the map up I can possibly give you a good idea. If that is enough I'm not able to say. I'm of the opinion it's probably not because it's located in that one specific area.

Q. Is this the map that you mean?

A. Yes, this would be perfect. The sample Mr Brown is referring to of the 8 point, I think he says 8.25, I recall 8.29, was in this area. There was –

1640

Q. Okay, let's just pause, we'll talk that in. It's DOL3000150009 and it's a drillhole flanking the B heading of panel 1?

WITNESS REFERRED TO DOCUMENT DOL3000150009

A. From memory, I'll work it out. That's drillhole 16 from memory, GBH to geological borehole 0016. There was three samples taken in that drillhole.

Q. Yes.

A. Three core samples, from memory one was around 3.5. I can't be specific, because I can't recall the specifics, 3.5, 5.5 and the 8.25/8.29 one, that's referred to. The 8.25/29 sample was close to, or relatively close to the collar. We took these samples approximately at 50 or 70 metre intervals, 50, 100, 150 metres or up to around about almost 200 metres and they were spaced throughout the drillhole, some of those three were taken. After that, drillhole 16, there was a drillhole drilled from this location to intersect drillhole number 8, which is a different situation, so we didn't core any samples from there. From there we drilled another hole, or after that –

Q. Where are you referring –

A. Sorry, after that –

Q. Yes.

A. – we drilled another hole in A – C heading sorry, in one west, that was drillhole number 17, 18 – sorry, drillhole 18.

Q. Yes.

A. And there were samples taken in those and they –

Q. And do you know, are you able to say what the results of those were?

A. I can't be specific. From memory they were all 3 to 5.5 m^3/t.

Q. So by the time you left with a summary of all the data that had been able to be obtained, had a threshold been provided by CRL?

A. No, CRL won't be able to provide the threshold.

Q. They do the core –

A. They did the gas absorption analysis.

Q. I'm sorry, right.

A. This information –

Q. Is then forwarded to someone else.

A. – was forwarded to Miles Brown and Geogas?

Q. Right, okay, when did that happen, do you know?

A. When did that happen?

Q. Yes.

A. I can't be specific, but knowing the people in my team that worked with it, it would happen, as it came in that would be just forwarded to them as well for their oversight, but I can't guarantee that.

Q. The idea was that Geogas would be engaged to provide that threshold –

A. They would use that information to generate the threshold value.

Q. And that hadn't happened, I take it, by the time you left?

A. No.

Q. So, no outburst management plan, which is a document that we've had reference to during the first sessions of evidence wasn't in place by the time you left?

A. Well I've, since I've left the mine seen a, I was shown an outburst management plan –

Q. Oh, you have – sorry, take it back.

A. – by Mr Stokes, during the interview.

Q. By Mr Stokes? Okay. The location of gas monitoring within the mine, you said in your statement, was not within the province of the technical services department?

A. Correct.

Q. You'll be aware that within the ventilation management plan document there's a reference that, "The position and the threshold response of sampling points should be identified by the ventilation engineer as part of the authority to mine process for each panel to be developed and extracted to enable review at the time of operational risk assessment." It's a quote from the ventilation management plan at page 78 and 79. I take it that didn't happen in the context of the authority to mine process that was in place at Pike by the time you left?

A. No.

Q. Moving to panel 1, there's a reference in the operations meeting minutes in August of 2010 that panel 1 wouldn't – the length of panel 1 wouldn't intersect GBH11 at the back of the panel, which I think we can actually see on that map in front of you, can't we?

A. That's correct.

1645

Q. We can see that it clearly did. Can you explain that in the context of concern that that might've been a drill hole, it was at the time of the explosion a source of methane into the goaf?

A. Yes, I, well, what I recall from that was the reference to the panel not intersecting the drill hole was based on the decision to determine the length of the panel and also for practical and safety reasons not to intersect the hole, it's just another intersection that you don't need to happen. From that point it was always, from my understanding, always expected that once hydro commenced that you would cut forward and that hole would anyway be exposed into the goaf. I don't recall it ever said or discussed or intended not to intersect that drill hole. Sorry with hydro-mining.

Q. Sorry?

A. With hydro-mining I didn't say with hydro-mining at the end of that.

Q. Was there a plan in place for sealing panel 1, there's obviously ultimately, barring events of 19 November, it would've had to have been sealed once mining had reached its limit or, for example, if there was spontaneous combustion issue. Was there a plan in place for sealing do you know?

A. Well, we were working, well, there was a plan in terms of what the support was supposed to be around the area of intended seal so what secondary support and support installation is required.

Q. Had there been any installation of infrastructure necessary for that?

A. I can't recall if it had been completed or not. I'm aware that we discussed that the seals would be constructed, we discussed the fact that in that area if for long-term purposes of ventilation and panel stability that we'll look at potential ways of building water traps and so forth and u-tubes to assist with barometric references and so forth but was a final design completed and on the table, no.

Q. You were a participant in a risk assessment on ventilation and gas monitoring on the 7th of September 2010?

A. Yes.

Q. And I understand that you were also a participant in a risk assessment, assuming, around the same time in relation to panel 1 extractions specifically?

A. Yes.

Q. You had a chance to refresh your memory, I think, from those risk assessment documents?

A. Yes.

Q. So hopefully if I paraphrase a few things you'll be able to take it from me, but there were a number of hazards identified obviously and again, the risk assessments both list existing controls and additional controls that would be required, and we've already heard evidence in the course of this session that some of the existing controls that are listed weren't in place by the time you left, or indeed by the 19th of November and they include an updated or an appropriate ventilation management plan, dilution doors, rated stoppings, a new gas drainage system which was

one of the controls, or additional controls, and methane monitoring from appropriate places in the return to the control room that was operational. Were you aware that, and I know you've heard evidence about it last week, that the fixed methane monitor in the return of panel 1 hadn't been reading to the control room since mid-October?

A. No.

Q. In relation to the dilution doors, you said in your statement that you were surprised that they weren't operational?

A. Yes I was.

Q. When did you become aware that they weren't operational?

A. Well, I was aware that they weren't operational by the time I left the mine.

Q. Right.

A. But I was under the impression they would be operational fairly soon after that from what I recall and I think they were waiting for a mechanical or a – some part to make it operational.

1650

Q. Bleeder roads were another or are another potential factor, they're used at Spring Creek and I think you were indeed were quite interested, or you and your department I'm sorry, were interested in bleeder roads in terms of mine design options for hydro-mining?

A. Yes in terms of bleeder roads there's a few options. One is, especially if you have bigger panels, wider panels and multiple, not only lift but width panels, bleeder panels or bleeder roads is an option. There's other options of drilling holes from another area into the goaf and to the back of the goaf that you can actually drain off methane from that location. Mr Borichevsky once again had a distinct opinion about that as well which was shared at occasions.

Q. Was shared?

A. Shared yes.

Q. By you?

A. Yeah, I thought without being an expert in that area that it sounded like a reasonable plan.

Q. Bleeder road though wasn't in place in relation to panel 1 and I don't understand it was going to be for panel 2 either, is that right?

A. Well panel, well the design that's currently on there for panel 2 changed since I've left so I can't actually comment on that. But, no it was never part of panel 1 or the original concept of bridging panels being narrow panels.

Q. And so if Greg Borichevsky and your team and yourself on occasion were of the view that they would be of assistance in terms of controlling methane and retreat mining, who was it that made the decision that that wasn't going to be installed as a control for panel 1?

A. The bleeder road and all the drillhole into the goaf is one of the options that can be followed. The other option was like, well, I discussed it with Mr White and as, as I think he gave evidence to that today, that he chose, well can't remember if it was today, but he gave evidence to say well he chose a different method of ventilating the fringe which has other benefits in comparison with having a hole into the back of the goaf.

Q. The concept of drilling down from the surface to get the methane out directly, was that…

1653

A. On panel 1 the topography was probably going to be a bit of an issue. On that specific panel the topography from memory varied from let's say the north-western side to let's say half way down the panel on the eastern side with more than 60 metres. So it's pretty steep country.

Q. So the plan then for managing the goaf in panel 1 was to allow it to fill with high concentrate percentage of methane, manage the fringes with the ventilation system?

A. That's the way I understand it and that's the way it was.

Q. And caving, I think you've already said to Mr Mabey earlier today, caving was intended?

A. That's correct.

Q. We know that on a number of occasions actually the monitor operators using the nozzle of water displaced large amounts of methane down the goaf – I'm sorry down the panel return and out of the mine via the vent

shaft. Was that something that was discussed within the technical services department?

A. We did have discussions regarding that. Mr Borichevsky and I have had a few discussions on that as well and part of that is the discussions of having a bleeder hole instead of a bleeder road. Having dilution doors and those sort of concepts to counteract that.

Q. Was your department involved in cutting and training methods for the monitor operators to ensure that they weren't creating this risk, hazard?

A. I personally didn't have anything to do with it. I know Mr Borichevsky had specific views on it and has shared those views with others, but he also, Mr Borichevsky also commented on the cutting sequences and that they form part of the (inaudible 16:55:16) and he had much more experience in that, well I had no experience in that area and didn't comment on it at all.

Q. Final topic. The reports that were obtained from Dr St George, Strata Engineering and also GeoWork I think all had some degree, a suggestion that more data was required and this issue of core logging and the need for that was something that was raised by Strata, do you recall that?

1656

A. Yes I do.

Q. And that's in the context of panel 1 and future panels, is that right?

A. That's correct.

Q. There's also a theme in the GeoWork report of the 25th of October and they listed a number of areas in which further information was desired and would you accept that core logging, and by that I mean literally taking cores from drilling and I think in that the roof and the floor of a development road for example with the drill rig, in Pike's case it was initially intended to use what was called a Highlander Drill Rig, is that right?

A. That's correct.

Q. It wasn't completed in panel 1 prior to the start of extraction?

A. It was not.

Q. The idea had been, though I think, prior to that, given some comments that you provided to Hawcroft for their insurance assessment purposes was that core logging would be a way of obtaining additional data from panel 1 before mining commenced?

A. It would definitely give us more information, correct.

Q. The idea being you'd go into both roadways, both the return and the intake and take samples from the roof and the floor?

A. Yes, I think if I had always my way I would draw that core every 20, 30 metres. The more information you have the better it is. It's just not always practical.

Q. And it hadn't been able to happen prior to 22 of September when hydro-mining started which meant that the return road wasn't going to be able to be cored, is that right?

A. That's correct. That was discussed.

Q. And the intake road hadn't been cored either prior to your leaving on the 3rd of November?

A. No it was not. We had significant issues with getting the Highlander Drill Rig operational. It's a compressed air over hydraulic system and there was some issues with the compressed air.

Q. Was there insufficient compressed air for the rig in that location?

A. I'm not mechanically at all, I'll probably stuff it up if I try and give an answer. I know there was issues and we couldn't get the drill rig operational.

Q. So are you able to say how important that type of information from core samples is to the safety of mining in particular in this case in panel 1?

1659

A. What I can say is that in panel 1, we did a number of bore scopes, which is not core drills, but we drilled a number and I can't recall the number of holes but there was a fair number of holes drilled from the coal working into the roof and these were blocked by Strata Engineering using a bore scope. It doesn't give you exactly the same information as a drill core but it gives you information on the geology. It's pretty much lanes in which you connect a light and it has an eye piece and actually

by pushing it up in the hole you can actually log the strata and the geology. So that was done, like I said a number of holes and there was also done into the ribs. Drilling these holes would give you more detailed information. Earlier you've asked me a question about a drillhole situated somewhere there and one there and there's always a number of drillholes around and understanding the variability and the geology between them. In other words correlating from one drillhole to the other one gives you some idea of the complexity of the geology and how easy it is to extrapolate information between them. Now, these faults as indicated there do have an effect on the let's say the placement of the different strata. It also has an effect on if strata is broken in different areas. If you have a look at the characteristics of a specific lithology or a specific strata, band of strata, they would in my opinion be fairly similar or you could have some correlation between drillholes some distance away from a panel and there's obviously a less or lower certainty but you won't have the toll unknown. So maybe the short answer to everything I've just said is it would have improved our knowledge of the panel, but I'm still of the opinion we had reasonable information to make the decision we've made.

Q. By the time you left on the 3rd of November what kind of monitoring was there of caving characteristics within the goaf in panel 1?

A. Oh there's actually a few. The first thing that I'll mention is there was telltales and gel extents geometers which I think Mr Reece referred to them in his evidence as well, was installed in panel 1.

Q. In the roof and the intake?

1702

A. In the roof and the intake and there was a strata control trigger action response plan developed for that. That measurements were recorded daily and I had, well the geotechnical engineer went down, not to record those because those were recorded by the deputy in the panel, but the Strata engineer was down there daily, pretty much daily to review what is happening in the panel and to see how, what we call the weight is being transferred, while you're creating the goaf how the weight is

coming back onto the panel and see how the fringe and everything else is reacting. In terms of cave-in itself there was, whatever, there was note of anything falling or anything happening in the goaf, those were recorded, typically in the geotechnical engineers little notebook, nothing –

Q. Do you know if that information was transferred into any other kind of document?

A. At that stage, by the time I left, definitely not, it was early on in the start, I mean there wasn't a big hole or goaf created at that stage, and except for that one roof fall which I was aware of, which Mr Parker went and investigated.

Q. Would it be Mr Parker whose notebook references you're talking about?

A. Yeah, I presume, he was pretty good at making, he, little underground notebook comments.

Q. And what about the fall on the 30th of October, you were still there then, Saturday morning –

A. Yes, I can't recall all the detail, but I know there was a roof fall that went up to the, from memory, the roof of the Rider seam, and that it fell in the front of the goaf and from memory there was no apparent weight coming onto the air where the monitor and the people were so from that point of view still is safe –

Q. How was that, is that measured by the telltales?

A. The telltales show it but there's also other aspects you can have a look at which is your support and your roof faults and you can see weight coming on, cracking, gaps opening up and those sort of things.

Q. What about the stumps, or they've been called various things, but you know what I'm referring to?

A. Yeah, I know what you're referring to.

Q. How many of those – well, no, you don't need to answer that, because you weren't there the last few weeks, but did you have any concern about the fact that these were being left within the panel? That wasn't intended as I understand it.

A. Well from what I understand, you would – there was also, there was always intention to have some of the coal in the panel not being extracted.

Q. But wasn't that from the roof and the ceiling?

A. Not necessarily.

Q. I mean the roof and the floor?

A. Not necessarily. From what I understood, stoop or the stumps were important in terms of stability of the working face. The idea was to remove some of it, if not possible everything later on, but usually that would not be possible, so, from –

Q. But in a situation which I understand was present here which was that a stoop was left which wasn't able to, and then the monitor retreated and it wasn't able to reach that with the water any longer, so we have this, we have a structure in the middle of the goaf. Was that an issue that had been considered in terms of a hazard and how it could be managed, managing the goaf, I mean?

A. I have not considered that.

THE COMMISSION ADDRESSES COUNSEL - TIMING

COMMISSION ADJOURNS: 5.05 PM

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