

## **Commission of Inquiry**

### **Montara Well Head Platform Uncontrolled Hydrocarbon Release**

#### **Submissions by Atlas Drilling (S) Pte Ltd and Seadrill Management (S) Pte Ltd arising from Oral Hearings**

1. In the course of the oral hearing convened by the Commission of Inquiry, the factual position in relation to a number of key issues related to the Inquiry's terms of reference has been clarified. These short submissions seek to summarise the evidence on those issues and advance particular contentions on behalf of Atlas Drilling (S) Pte Ltd and Seadrill Management (S) Pte Ltd (both referred to in these submissions as Atlas). They do not seek to deal with all issues before the Inquiry.

#### **Cementing of the H1 Well**

2. The oral evidence before the Commission has been to the effect that the cementing of the H1 Well was supervised by PTT personnel without involvement of Atlas representatives in that:
  - (a) there was a PTT representative on the cement unit during the process and throughout the operation and you would generally never see an Atlas representative on the cement unit (O'Shea T786.33);
  - (b) you don't involve the OIM in the detail of the cementing work and Atlas personnel are not involved in the pumping or displacement of cement (O'Shea T786.44; Jacob T1794-5);

- (c) the cementing job was carried out by Halliburton personnel who were directly contracted by PTT (see paragraph 12 of the statutory declaration of David Doeg (WIT.1804.0003.0001) and directly supervised by PTT (Horne T726.35);
  - (d) the Atlas driller on duty during the cementing operation was a considerable distance from those operations and not involved in the decisions made (O'Shea T700.33-T701.16, Horne T745-7);
  - (e) the Atlas driller cannot actually see what is happening in relation to the operation of the cement pumps, nor can he see what is happening down at the well heads. The driller depends on receiving information from others (Wishart T701.6; Horne, T747.19-25);
  - (f) the decisions about what to do when the float failed and there was a rapid increase in pressure were made by Mr Wilson and Mr Treasure without reference to Atlas personnel (Wilson T1166:3-16; Treasure T266-272);
  - (g) the cementing operation on 7 March was a PTT operation, purely a well operation which did not fall within the rubric of a simultaneous operation (Wilson T1125.25); and
  - (h) Mr Duncan agreed that onshore PTTEP personnel need to accept responsibility for the failure of the cemented casing shoe as a barrier (Duncan T1273.27).
3. It was generally accepted in the course of the hearing that there was an over displacement of cement from the casing shoe as a result of pumping back too much fluid when there was a failure of the float valves in carrying out the cementing of the H1 Well. If this had not occurred then there would not have been a blowout. So, it is important to identify those

persons who knew or had reasonable means of knowing of the problem with the casing shoe who failed to act.

4. There is no evidence of any communication with the Atlas OIM of any concern in relation to the cementing of the casing shoe. Indeed, the OIM had no role or responsibility in supervising the cementing operation. Mr Treasure and Mr Wilson were responsible for supervising the cementing job (Wilson T1175.47, Treasure T570.6). To the extent that the OIM's overall responsibility for safety may cause him to become involved then he depended upon receiving information from PTTEP personnel as to any safety issue arising from the way the cementing operation was carried out (see Gouldin, T157.33-158.10). There is no suggestion that there were any such communications with the OIM concerning the cementing of the H1 Well.
5. There were no oral communications with Mr Millar concerning what occurred in relation to the cementing of the casing shoe. Mr Millar does not recall having a discussion with the OIM about the cementing job for the H1 Well (Millar T182.13). This is consistent with the PTTEP personnel involved in the cementing of the H1 Well not raising any concern with the OIM. Mr Millar would have expected any such issue to have been communicated to him by the OIM and the fact that there were no such communications indicated that there were no concerns with the cementing job (Millar 228.46 and 229.2).
6. Therefore, the only means by which Atlas personnel became aware of what had occurred in the cementing operation was through the process of written reporting. They were not involved in the events as they occurred.
7. The written record is summarised in the attachment to these submissions. From the perspective of Mr Millar, the available information was as follows:

- (a) in all likelihood, the first document considered by Mr Millar was an email from Mr Wilson summarising the events of 7 March 2009 received on his Blackberry (Millar T227.26);
- (b) as to the email from Mr Wilson :
- (i) it contained no statement indicating any problem with the cementing of the H1 Well;
  - (ii) on the contrary, it stated that the floats were checked and were okay after waiting on cement;
  - (iii) it contained none of the information as to volumes that were pumped back and without that information there was no reason to suspect any problem with the cementing job;
  - (iv) the author of the email, Mr Wilson accepted that the content of the email was misleading having regard to the information that was available to him (including an email from the PTTEP drilling supervisor which stated that PTTEP had "encountered float failure" and a PTTEP daily drilling report that included as a matter to "note" the quantities that had been pumped back) (Wilson T1184-5). He accepted that it is possible that a reader (even of professional experience) would draw the conclusion from the email that there was no problem with the floats (Wilson T1185.13, 34).
- (c) in all likelihood the next document received by Mr Millar was the Atlas 30 hour report on events of 7 March (Millar T202). It is to be expected that any person in the position of Mr Millar would be influenced by the positive terms of the summary in the email from Mr Wilson when reading the 30 hour report;
- (d) as to the 30 hour report:

- (i) it contained a statement that "Halliburton apply 4,000 PSI, (9.25 bbls) test CSG 10 mins ok, decrease prease T/200 PSI, pressure increased T/1,300 PSI, (16.5 bbls) returned, Halliburton pump 16.5 bbls back into CSG, no increase in pressure, close in low-torque";
  - (ii) the relevant section concluded "check float, ok";
  - (iii) the report did not state in clear terms that the amount of 16.5 bbls "given ... back" in respect of which there was a decision to "pump ... back in hole" was not net of the 9.25 bbls used to pressure up;
  - (iv) Mr Wishart in preparing the PTTEP daily drilling report (based on the same information in the IADC Report that was used to prepare the Atlas 30 hour report) required clarification concerning the amounts pumped back. He spoke to Mr Treasure in that regard and as a result included a note to make it clear that the amount of 16.5 bbls was pumped back (Wishart T698-700). As a result there was a material difference between the information provided to Mr Millar and the information available to Mr Wilson (who also had direct conversation with Mr Treasure concerning the cementing job).
- (e) in due course the IADC Report would have been provided to Mr Millar. However, it contained information in substantially similar terms to that contained in the 30 hour report; and
- (f) Mr Millar did not receive the PTT or Halliburton cementing reports (Millar T203).
8. Mr Millar accepted that he should have looked harder at the issue of the float valve failing (Millar T183.15) and that he didn't give the contents of

the written reports sufficient weight or recognise the ramifications of the backflow and reinjection (Millar T190). It is to the credit of Mr Millar that he accepted responsibility despite:

- (a) those who supervised the cementing operation not recognising the problem and therefore not reporting the problem to the OIM or Mr Millar;
- (b) Mr Millar receiving a misleading report in two respects. Firstly it did not provide clear information as to the fact that too much had been "pumped back". Secondly, it did not state that there had been a failure of the floats (but simply stated that "the float appeared to let go") and stated that the floats had been checked and were okay;
- (c) the 30 hour report being materially different to the terms of the PTTEP daily drilling report (the latter document not being available to Mr Millar at the time);
- (d) reading the 30 hour report indicated to Mr Millar that an inflow test had been done and there was a competent cement job (Millar T233.27-35);
- (e) Mr Millar not having any responsibility to plan, manage, supervise or direct the cementing operation and his role being one where he was entitled to rely upon PTTEP personnel to report relevant matters to him; and
- (f) Mr Millar being entitled to expect that any serious issue would be raised with him by PTTEP in a telephone discussion or meeting (Wilson T1094.23).

9. In its response to the Seadrill Investigation Report concerning the root cause of the blowout PTTEP stated (at para 27, p22):

"It is also possible to conclude that the primary root cause to the incident was the failure to recognise that a positive pressure test was required to verify shoe cement integrity after float failure. This did not occur and a contributing factor was procedures generated by Seadrill to manage their MODU which contemplated float valve failure during cementing operations but did not suggest any course of action other than what was performed. The procedure was followed."

10. In addition, witness statements provided by PTTEP referred to the West Atlas SDI Operations Procedures Manual ("the Manual") and in particular its provisions concerning cementing procedures as being relevant to the cementing of the H1 Well (Wishart, para 106-7, Wilson, para 192-3, Duncan, para 109-10, Jacob, paras 55(b)(ii), 102-5).
11. Wishart's paragraphs 106 and 107 were presented to him in a pre-prepared format (T691.22). Wishart didn't raise any issues about the Manual. The first time it arose in his statutory declaration was because someone else put it there (T691.28). (Paragraphs 109-10 of Duncan's statutory declaration, together with the majority of the paragraphs in his declaration under the heading "*Launching the plugs*", are identical to the same part of Wishart's declaration.)
12. All of the persons involved for PTTEP in carrying out the cementing operation at the time of deciding how to deal with the float failure and the cementing operation did not advert to the Manual; (Duncan T1450.28, Duncan T1450.43, Wilson T991.31-992.30, T1052:1 (not operating by reference to Atlas documents), Wishart T643:6 (doesn't know whether had knowledge of Manual in March 2009)).
13. An identical conclusion may be reached in relation to the Atlas Well Control Manual (See Jacob, T1795.10, T1797.38).
14. In any event, the Manual is generic in the nature of the information it contains and properly identifies the issue of a float failure.

15. The fact that the Manual does not go on and say that there should be a pressure test does not mean that the Manual is indicating that such a test should not be undertaken.
16. It is evident from its terms that the Manual is a document for Seadrill personnel in dealing with the requirements of "clients" which sets out the primary steps for the drilling crew to follow when performing various tasks without always allocating responsibility for each task or particularising all responses to possible scenarios; see, for example, the text under the heading *General Description* in the various sections.
17. It is submitted that the content of the Manual was not a contributing factor to the problems with the integrity of the shoe.

**The failure to install the 13<sup>3/8</sup>" PCCC**

18. The suspension of the H1 Well was undertaken in 2 stages.
19. The first stage was undertaken on 7 March 2009 (after the cementing of the casing shoe). The approved Stage 1 suspension plan provided for suspension with a 9<sup>5/8</sup>" PCCC and a BOP. The Stage 2 suspension plan provided for the fitting of a 13<sup>3/8</sup>" PCCC. Therefore, the plans provided to senior Atlas personnel did not indicate a period when the H1 Well would not have either a BOP or a 13<sup>3/8</sup>" PCCC. Mr Millar had no problem with the Stage 1 suspension with a BOP for upward of 5 weeks, but once it was removed he would expect the 13<sup>3/8</sup>" PCCC to be installed (Millar T192.5).
20. There is evidence to suggest that the BOP may have been moved from the H1 Well before the time when the installation of the 13<sup>3/8</sup>" PCCC was believed (wrongly) to have occurred. There is no evidence that this occurred to the knowledge of Atlas drillers or senior Atlas personnel. The drilling programme was supervised by the PTTEP Drilling Supervisor. It is

not to be expected that Atlas drilling personnel would be aware of the sequence of events being undertaken because their task was to implement the forward plan (see below) not to keep track of the overall programme.

21. On 15 April 2009 work was commenced to be undertaken to prepare for Stage 2 of the suspension of the H1 Well.
22. The work included removal of the conductor casing (or riser) between the well head and Rig floor.
23. Until the conductor casing was removed, it was not possible for anyone at the well head to observe that the 13 $\frac{3}{8}$ " PCCC was not in place (Wishart, T704.21-29). The evidence of Mr Millar (at T211.45) to the effect that he would suggest that the likelihood is that the non-installation of the 13 $\frac{3}{8}$ " PCCC came to the attention of personnel from PTTEP and Atlas around March/April 2009 is not to contrary effect because it appears to refer the delay in installation until Stage 2 of the suspension. Mr Millar was not taken to the configuration of the well at the relevant time with the conductor casing in place which prevented any physical inspection of the well in the course of moving about the Rig.
24. See also the evidence of Mr Wishart to the effect that Atlas personnel would possibly not be in a position to observe that the 13 $\frac{3}{8}$ " PCCC was not installed because they act on the forward plan or what they are instructed to do (Wishart T683.28; see also O'Shea T889.15, Jacob at 1799.34).
25. In the course of the night shift on 15 April 2009, Mr Wishart prepared a draft daily drilling report and draft email concerning the events on 15 April 2009. In doing so, he reviewed the IADC Report and included that information in the draft daily drilling report. He also had reference to matters listed on a whiteboard in the office of the drilling supervisor. On his evidence the whiteboard recorded matters that had been completed on

the previous shift that would not otherwise be evident from the IADC Report (Wishart, T620.32, T621.22-37, T702.37).

26. On the morning of 16 April 2009, Mr O'Shea settled the daily drilling report and covering email reporting on the previous day which stated "Corrosion caps and trash caps should be installed by late afternoon". [PTT.9002.0081.0046].
27. Mr O'Shea's evidence as to the whiteboard was to the effect that it was all very unfocused and non-systematic and not a very good system of information management (O'Shea T859.32-43, T860.3, T898-899). A system to write on the whiteboard a record of work that was done while the night drilling supervisor was off-shift so it could be included in the PTTEP daily drilling report may have been agreed between Mr Wishart and Mr Robinson, but it appears that if there was such a system Mr O'Shea was not aware of it and he did not use any such system (O'Shea T898.12).
28. Mr O'Shea left the Rig on the morning of 16 April 2009 and his relief, Mr Treasure, commenced duty as the day drilling supervisor on the morning of 16 April 2009.
29. Mr Treasure's evidence was that the whiteboard was a list of things to do and matters were ticked off (Treasure T517.5). However, the recording of the off-line work in reports was not systematic and there may have been no record of what was done and when (Treasure T519).
30. Mr Robinson, an extra PTTEP night drilling supervisor on the Rig was generally responsible for supervising for the off-line operations required to suspend the H1 Well. His usual shift was from midnight to noon (although he may work longer hours). There has been no evidence from Mr Robinson.
31. In the afternoon of 16 April 2009, Mr Treasure was on duty and, it is submitted, that in accordance with his view of the procedure for use of the

whiteboard, he is likely to have put up on the whiteboard the fitting of the 13 $\frac{3}{8}$ " PCCC on the H1 Well as a task to be done. (The report to PTTEP personnel for the previous day showed that this work was expected to be done that afternoon [PTTEP internal email of 16 April 2009, PTT.9002.0081.0046]).

32. That evening, after Mr Treasure was off duty, Mr Wishart prepared the draft email and daily drilling report in respect of the events of 16 April 2009.
33. It is submitted that in doing so Mr Wishart is likely to have recorded matters on the whiteboard as recording what had been done (when those matters placed on the whiteboard by Mr Treasure reflected his view as to the procedure for the whiteboard, namely including matters to be done).
34. The following morning, Mr Treasure came on shift and reviewed the draft document. His practice was to do so without discussion with Mr Wishart. He would request changes which Mr Wishart would make (Wishart T705.45).
35. It is submitted that, in all likelihood, Mr Treasure assumed that the task which he had placed on the whiteboard concerning the fitting of the 13 $\frac{3}{8}$ " PCCC on the H1 Well had been completed when he was off shift.
36. Therefore the daily drilling report was settled in a form that stated "Corrosion caps fitted to 340mm MLS and trash caps fitted to 508mm conductors on H1 and H3-ST1" (GEO.0003.001.1098). Also, the covering email was settled in a form which stated " Corrosion caps and trash caps installed by on (sic) wells H1 and H3-ST1" (PTT.9002.0081.0071).
37. The content of the draft statement by Mr Treasure to the effect that there was a conversation with Mr Robinson concerning the installation of the 13 $\frac{3}{8}$ " PCCC should not be accepted because:

- (a) Mr Treasure gave oral evidence that the statement was conjecture and he could not remember (Treasure T549.19);
- (b) the statements in Mr Treasure's draft statement deflecting responsibility to others (including the above statement) should not be accepted given his oral evidence (Treasure T541-9);
- (c) it is unlikely that a person when asked to install a PCCC as part of the suspension of a well would not undertake the activity – it is more likely that there was a failure to make the request;
- (d) the explanation above provides a coherent explanation based upon the available evidence;
- (e) the statement in Mr Treasure's draft statement is a hearsay account;
- (f) although Mr Kok was not called as a witness, the independent investigation of Atlas did obtain information from him that he was on the rig floor when the H1 20" trash cap was removed on 20 August 2009 and he was advised by Mr Robinson that there was no 13<sup>3/8</sup>" PCCC fitted and that there was thread corrosion problems with H1 and there is no suggestion this was due to his oversight (Report, p57);
- (g) Mr Wishart did not refer to any statement made to him by anyone else that instructions had been given to fit the 13<sup>3/8</sup>" PCCC. His evidence was to the effect that he took for granted after seeing the 20" trash cap on top of the H1 well that everything was taken care of (Wishart T683.4);
- (h) it was apparent from the evidence of Mr Horne, one of the drillers working at the time, and confirmed by other witnesses (O'Shea T889.12-892.21, Jacob at 1799.34) that drillers need not pay particular attention to the work to be undertaken over the course of the entire drilling program as to the manner of suspension of a well –

as they work off the forward plans issued by the Drilling Supervisors (see below). Indeed, in relation to off-line activities on 16 April there was no reference to the particular work to be undertaken in order to suspend the H1 Well. Therefore, there would be no information to suggest to any person instructed to place the 20" trash cap on the H1 Well that the well was to be suspended with a 13 $\frac{3}{8}$ " inch PCCC in place. It is submitted that a driller or tool pusher might well assume that the well was being suspended with a cement plug or other barrier which could not be visually inspected at the time of placing the trash cap.

#### **Removal of the 9 $\frac{5}{8}$ " PCCC**

38. The discovery of the non-installation of the 13 $\frac{3}{8}$ " PCCC and the corrosion of the 13 $\frac{3}{8}$ " casing thread and the decision to remove the 9 $\frac{5}{8}$ " PCCC all occurred between 8.00 am and 11.00 am (rig time) on 20 August 2009 (see DDR for 20 August 2009: SEA.001.005.2681, on the page ending in .2688).
39. The decision to remove the 9 $\frac{5}{8}$ " PCCC, and the consideration of the alternative means of dealing with the corrosion on the 13 $\frac{3}{8}$ " casing thread, were made and undertaken exclusively by PTTEP personnel. In particular, there were relevantly three discussions:
  - (a) the discussion between Mr O'Shea and Mr Robinson at the wellhead (O'Shea, T900-901);
  - (b) the discussion between Mr Duncan, Mr O'Shea and Mr Robinson at the wellhead helipad (O'Shea, T901-902);
  - (c) the discussion between Mr Duncan, Mr Wilson and Mr O'Shea in the Drilling Supervisor's office (O'Shea, T906, 908; Wilson, T1188-1190; Duncan, T1557).

40. None of those discussions, or decisions, involved engagement with Atlas personnel and, in particular, the OIM Mr Trueman (O'Shea, T901, 902, 903.38-904.6, 908; Wilson, T1188-1190; Duncan, T1557).
41. Insofar as there was any contact with Mr Trueman prior to the removal of the 9½" PCCC, that contact:
- (a) unlike the discussions between the PTTEP personnel, was not concerned with considering "the variety of ways" of approaching the problem that had arisen (O'Shea, T905.31);
  - (b) was concerned only "in broad terms" with what Mr O'Shea wanted to do and not the "specifics of it" (O'Shea, T 903-904); and
  - (c) was prior to the development of a Supplementary Forward Plan (later produced as SEA.002.010.4096) (O'Shea, T 903-904).
42. In relation to the preparation of a Supplementary Forward Plan it is clear that the preparation of a Forward Plan by the Drilling Supervisor is the point at which the detail of drilling operations, particularly as concerns safety issues, will be considered (compare the drilling plan SEA.009.001.0034 with forward plan SEA.002.010.4092). In that regard, as Mr O'Shea agreed, in "preparing the forward plan, sometimes the devil is in the detail that you are not going to be finding in the drilling plan" (T892.7). Indeed, it is the preparation of that document which in the ordinary course, would enable the Atlas personnel, and in particular the OIM, to consider and comment on the conformity of the plan with the West Atlas Safety Case (see paragraphs 48 to 50 of Mr O'Shea's Statutory Declaration (WIT.1000.0001.0126), and in particular the capacity for the OIM to provide comment and review in paragraph 49(c)).
43. There can be no doubt that that usual course was **not** followed in relation to the removal of the 9½" PCCC (see O'Shea, T911.32).

44. Insofar as Mr Duncan suggested early in his evidence that the decision not to reinstall the 9 $\frac{5}{8}$ " PCCC was made by Mr O'Shea "in conjunction with the OIM" (T1290.46), Mr Duncan ultimately agreed that he did not know what discussions Mr O'Shea may have had with the OIM, or indeed whether he had had any discussions in that regard (T1558.13-23; see also Wilson T1190.20-32). Indeed, as the evidence proceeded it became clear that the only person who, being aware that the 9 $\frac{5}{8}$ " PCCC was not in place late on 20 August 2009, made a positive decision not to reinstall it, was Mr Duncan (T1318, 1322-1323). This was a fact that only came to light in the course of Mr Duncan's oral evidence (see Jacob, T1659-1661, T 1662.1-3).
45. In the present case, when the Supplementary Forward Plan for the removal of the 9 $\frac{5}{8}$ " PCCC was provided to Atlas, it was provided directly to the driller and toolpusher, Mr Horne and Mr Kok. Mr Horne and Mr Kok were relevantly the only persons present when Mr O'Shea provided the Supplementary Forward Plan (Horne, T747-748; O'Shea T908.33-40). It is clear that the OIM was not then present on the rig floor (Horne, T748). The only material suggesting that the OIM was actually even given a copy of the Supplementary Forward Plan (WIT.1000.0001.0126, paragraph 157) provides no detail as to the circumstances or timing of that occurring (even as to whether it was before or after the removal of the 9 $\frac{5}{8}$ " PCCC).
46. The driller and the toolpusher (Mr Horne and Mr Kok) could not reasonably be expected to be alert to any potential issue associated with barrier integrity arising from the removal of the 9 $\frac{5}{8}$ " PCCC. In particular:
- (a) unlike the Drilling Supervisor, who may be expected to have a broader perspective on the contents of the drilling plan prior to and following the matters reflected in a particular forward plan (O'Shea, T889.44),

- the driller is only expected to work off the forward plan and does not require the drilling plan (O'Shea, T889.15, 892.21);
- (b) the driller and the toolpusher, being given an instruction to remove a barrier, would not be expected to know how long it would be intended or anticipated to remain off (Jacob, T1799.34);
  - (c) the driller will, accordingly, not necessarily be conscious of the particular barriers that have been placed in a particular well in accordance with earlier parts of the drilling plan (particularly in light of the variety of potential suspension configurations) - indeed, as reflected in Mr Horne's own understanding of the barriers in H1 as including two cement plugs (Horne, T736.28); and
  - (d) Mr O'Shea instructed Mr Horne and Mr Kok to rack the running tool used to remove the 9 $\frac{5}{8}$ " PCCC with the 9 $\frac{5}{8}$ " PCCC still attached (O'Shea, T910.1-24).
47. Finally, in relation to the removal of the 9 $\frac{5}{8}$ " PCCC, there was no engagement with the Atlas Rig Manager, Mr Millar in relation to the non-installation of the 13 $\frac{3}{8}$ " PCCC and the decision to remove the 9 $\frac{5}{8}$ " PCCC at all. This was so, notwithstanding:
- (a) the fact that those matters were discussed between the three most senior PTTEP personnel, both onshore and offshore, in relation to the Montara development (O'Shea T906-907; Wilson, T1188-1130; Duncan, T1557);
  - (b) the fact that the OIM was not invited to be present at that discussion (see Jacob, T1799.3);
  - (c) the fact that that discussion may have taken as long as 15 minutes (Wilson, T1189.15);

- (d) the fact that those persons specifically discussed whether the change control process should be engaged with the result that Mr Millar would be involved (O'Shea, T 907; Wilson, T1188-1189); and
- (e) a deliberate decision was made by senior PTTEP personnel not to engage the change control process.

48. It is clear that, in addition to communication from the OIM, Mr Millar expected that Mr Wilson would have communicated with him in relation to the proposed change (Millar, T196.33-45). In this regard, Mr Wilson ultimately agreed that:

"not only should there have been some review undertaken of the existing barriers, or the only existing barrier that would be relied upon, but there should have been some significant engagement with Atlas." (T1094.23)

49. Had that occurred, it would have provided the opportunity for risk assessment and for Mr Millar to raise the matter with his operations manager, Mr Gouldin (Millar, T199.13). In that event:

"It would have involved the Atlas supervisors and the PTTEP supervisors. It is still a significant event that was taking place, although the argument is that it was going to take place several days later; that wasn't the issue. It was going to take place as a new plan there and then and, in my view, should have been dealt with to a serious level at that point.

Whenever you have a deviation or a discovery or a combination of these things, as took place here, there is every option just to stop at that point, review the situation and consider the alternative ways forward. Without oversimplifying the situation here, there were two choices - take the 9-5/8" cap out or leave it in. They were two very simple, opposite solutions to the problem at that time. It wasn't necessary to clean those threads then. It was the easiest time to clean them, but it certainly wasn't necessary. So that's why I say it was a point where discussion of the alternatives could have taken place and the options at that time." (Gouldin, T60.19-38)

50. The circumstances surrounding the removal and non-reinstallation of the 9%" PCCC, provide a clear illustration of:

- (a) the conclusion reached by Mr Ross, in his memorandum of 29 October 2009, that:

"PTTEP onshore management very much drive the offshore work programme (and any changes made) and there is no **effective** working system in place that allows Seadrill [Atlas] the opportunity to review and comment." (SEA.003.015.2947, paragraph 4.2.8, emphasis in original)

- (b) the attitude which Mr Jacob accepted was manifest by PTTEP personnel on the rig:

"Q. Would you agree, sir, that having listened to the evidence, most of the PTTEP people on the rig at the time approached the performance by them of specific activities on 7 March and 20 August referable to well control largely on the basis that if the OIM had had a role, it wasn't one of any great practical significance to them?

A. I believe that's what they indicated, yes. That's not my view." (Jacob, T1898.27-34)

### **Corporate Culture**

51. As a final matter, Atlas submits that there should be an express finding by the Inquiry that the conduct of Atlas and its personnel throughout the course of events following the Uncontrolled Release, and indeed its participation in the Inquiry, demonstrates a corporate culture committed to safety, transparency and "good oilfield practice".

52. That culture is demonstrated by the following matters.

53. Atlas undertook to, and did, prepare and provide an independent, clear and unambiguous report as to the causes of the blowout and the lessons to be learnt by all parties following the Uncontrolled Release. The investigative team assembled for the purposes of that report was mobilised within days

of the blow-out (Jacob, T1694.40) as is reflected in the report itself (see page 2).

54. The Atlas Report (SEA.010.001.0001) was finalised on 2 February 2010. The Inquiry was advised of its completion that day and a copy of the report was provided and provided to the Inquiry within days (by letter dated 5 February 2010). The Atlas Report was clearly completed by Atlas in full knowledge that its results would be made available to the Inquiry, whatever its conclusions would be (having regard to the Inquiry's Notice to Produce documents served well in advance of its completion).

55. Indeed, Atlas, in its Submission to the Inquiry in December 2009 advised that:

"Atlas Drilling is undertaking ongoing investigations into the likely causes of the hydrocarbon release and any changes to its systems and practice that should be implemented. It will provide details of the outcomes of those investigations to the Commissioner as soon as they are available." (SUBM.1501.001.001)

56. That submission also identified a number of significant issues which, the investigations later revealed, were pertinent to many of the issues scrutinized by the Inquiry (including why the cement shoe failed and the adequacy of supervision, communication and planning).

57. The Atlas Report was issued by Duane Kelly (see T139.19), the Atlas Q & H S E Manager, Jack-Up Division, an Atlas employee who was not personally involved in the events on the West Atlas from March to August 2009. In addition, as page 2 of Atlas Report reveals, there were two members of the Investigation Group and four members of the Technical Review Team including Mr Gouldin and Mr Ross, a wholly independent qualified expert, Graham Ross. Mr Ross was widely recognised by witnesses before the Inquiry as a highly regarded well construction professional (see Gouldin,

T101-102; Wilson, T997-998; Duncan, T1349.10). Mr Ross provided a good deal of useful comment and analysis prompted by the Atlas investigation and as a result of his own review of the material, including:

- (a) on 24 September 2009 (SEA.001.006.4674); and
- (b) on 29 October 2009 (SEA.003.015.2947).

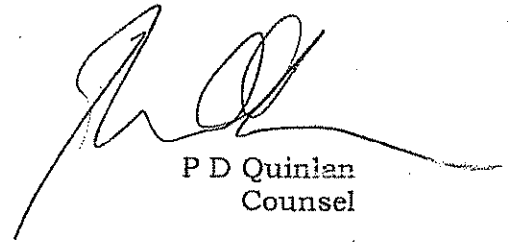
58. Atlas' senior management (Mr Gouldin and Mr Millar) demonstrated, by their evidence before the Inquiry, that they had undertaken a close analysis of the events surrounding the Uncontrolled Release, including matters in relation to which they had no personal involvement. Their evidence in that regard was reflective and, where appropriate, self-critical (including the acceptance by Mr Millar of some responsibility as discussed above).
59. Indeed, all of the witnesses called from Atlas (Mr Gouldin, Mr Millar and Mr Horne) demonstrated a capacity and a willingness to give frank and candid evidence in relation to the events in question. Their willingness to do so is, it is submitted, reflective of the corporate culture of Atlas revealed by its conduct generally.
60. Finally, insofar as some of the information potentially relevant to the Inquiry was obtained by the solicitors for Atlas in the course of preparations for the Inquiry (and which would otherwise inevitably attract legal professional privilege), that privilege was promptly waived by Atlas when requested by the Inquiry. In particular a draft, but apparently adopted, witness statement prepared by Atlas' solicitors for Mr Trueman (who had left the employment of Atlas) was provided to the Inquiry within a day of its request (see email correspondence to Mr Berger dated 15 March 2010 3.48pm).

61. All of the above matters, it is submitted, demonstrate Atlas' committed to safety, transparency and "good oilfield practice".

Dated 22 April 2010



C G Colvin



P D Quinlan  
Counsel

	IADC Handwritten Report	Atlas 30hr Report	PTT Daily Drilling Report	PTT Email to Mr Wilson	PTT Email to Seadrill
14.00-15.00	Swap to Hallib pressure	Halliburton apply 4000psi, (9.25bbbls)	Switched back to Halliburton	Circulated casing volume and cemented casing into position, bumped plug Ok	Cemented 9 5/8ths" casing -- plugs bumped
	Test casing to 4000psi, 10 mins (ok)	test csg 10 mins ok	And pressure tested casing to 27.6Mpa x 10 mins - Ok	Tested casing to 27.6MPa - Ok	And the casing was pressure tested to 4000 psi - OK
	9.25 bbls to pressure and decrease pressure to 200psi	decrease pressure t/200psi	Bled off test pressure to 1.37MPa	Bled off	When bleeding-off the pressure after testing the casing
	then pressure shot up to 1300psi	Pressure increased t/1300psi	Then observed pressure rapidly increase to 8.96MPa		
	Given 16.5 bbbls back	(16.5bbbls) returned	Note: Pumped 1.47m3 and bled off 2.62m3, suspected float valve failure	And encountered float failure	The float appeared to let go
	Decide to pump the 16.5 bbbls back in hole.	Halliburton pump 16.5bbbls back into csg	Pumped 2.54m3 back into casing at 9.3MPa		
	No increase in pressure	No increase in pressure, close in lo-torque			
	At this stage lock the pressure by closing lo-torque on CMT head		T947 line 17-28		Held pressure on the casing and But it bled off
15.00-18.00	WOC. Maintenance change oil on top drive. Others cleaning flow lines.	WDC concurrently conduct PM's on top drive (oil/filter change)	Waited on cement. Concurrently maintenance department changed oil and filters on TDS, drill crew cleaned out flow lines	WOC 3 hrs, concurrently changed oil on TDS and cleaned flow lines	Waited on cement
	Remove mouse holes in preparation to skid	Remove 2 x mouse holes, continue clean surface equipment	And prepared to skid and serviced top drive whilst waiting on cement		
	Install BOP cranes	Connect BOP winches onto BOP's			
18.00-18.30	Retest float good	Check float, ok,	Open casing annulus to atmosphere and confirm no back flow - Ok	Checked cement integrity OK	Checked floats on casing - OK
	R/D CMT head and CMT lines	R/D CMT head	R/D cement head	R/D cement head and L/O same	