

LONDON COURT OF INTERNATIONAL ARBITRATION

ARBITRATION NO. 132527

BETWEEN:

**PEARL PETROLEUM COMPANY LIMITED
DANA GAS PJSC
CRESCENT PETROLEUM COMPANY INTERNATIONAL LIMITED**

Claimants

and

THE KURDISTAN REGIONAL GOVERNMENT OF IRAQ

Respondent/Counterclaimant

THIRD PARTIAL FINAL AWARD

Tribunal:

Lord Hoffmann (Presiding Arbitrator)
Lord Collins of Mapesbury
Mr John Beechey

30 January 2017

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ABBREVIATIONS

Crescent	Crescent Petroleum Company International Limited
Dana	Dana Gas PJSC
EPC	Engineering Procurement and Construction
E&Y	Ernst & Young
FDP	Full Development Plan
GCL	Gas City Limited
HoA	Heads of Agreement of 4 April 2007
KDP	Kurdish Democratic Party
KRG	Kurdish Regional Government of Iraq
KRI	Kurdish Region of Iraq
LPG	Liquid Petroleum Gas
NKZ	Nokan, Kar and Zozick joint venture.
Pearl	Pearl Petroleum Company Limited
PEP	Project Execution Plan
Petroleum Liquids	LPG and condensate
Pewand	Pewand Petroleum Transportation and Food Inc
PwC	PriceWaterhouseCooper
PUK	Patriotic Union of Kurdistan
ROS	Required on site
SAP	Strategic Alliance Protocol of 4 April 2007

PART ONE: INTRODUCTORY

A. Summary of the Proceedings

1. This arbitration arises principally out of a contract called Heads of Agreement (“HoA”) dated 4 April 2007 and made between the second claimant Dana Gas PJSC (“Dana”) and the respondent, the Kurdistan Regional Government of Iraq (“the KRG”). On 17 October 2007 Dana assigned 50% of its interest in the HoA to the third claimant Crescent Petroleum Company International Limited (“Crescent”) and on 5 February 2009 Dana and Crescent assigned their respective interests to the first claimant Pearl Petroleum Company Limited (“Pearl”). For convenience, the Tribunal will use the name “Pearl” to refer to whichever of the claimants had an interest in the HoA at the relevant time. Also on 4 April 2007 Dana and Crescent entered into a separate agreement with the KRG called the Strategic Alliance Protocol (“SAP”) for the development of the gas industry in Kurdistan.
2. The arbitration was commenced by the claimants on 21 October 2013. In its original Statement of Case dated 1 August 2014 Pearl made substantial claims for (a) damages for breaches of the HoA (b) the price of condensate and LPG (“petroleum liquids”) and gas sold to the KRG under contracts made pursuant to the HoA (c) damages for non-acceptance of petroleum liquids sold under such contracts (d) damages for refusal to perform the SAP.
3. In its Defence and Counterclaim dated 12 December 2014 the KRG denied liability for Pearl’s claims and counterclaimed for substantial damages for breaches of the HoA.
4. On 17 February 2015, the Tribunal ordered that 13 specified issues arising out of the pleadings be tried as preliminary issues. A hearing for this purpose took place on 20 to

24 April 2015. On 30 June 2015, the Tribunal issued a First Partial Award in which it made 10 declarations as to the rights of the parties on the issues in question.

5. On 6 August 2015 Pearl applied for a Partial Final Award ordering the KRG to pay it for petroleum liquids sold and delivered or not accepted pursuant to contracts of sale. After a hearing on 21 September 2015 the Tribunal issued a Second Partial Final Award dated 27 November 2015 ordering the KRG to pay Pearl US\$1,963,370,320.

6. On 9 August 2016, the Tribunal held a case management conference at which it gave directions for a further hearing on all questions of the liability of the KRG under the claims advanced by Pearl and the liability of Pearl under the counterclaims advanced by the KRG, leaving only the quantification of any successful damages claims to a further hearing.

B. The Tribunal, the Parties and their Lawyers

7. The Tribunal, the parties and their lawyers remain as stated in paragraphs 1 – 7 of the First Partial Award save that –
 - (a) At the hearing in September 2016, Pearl was represented by Constantine Partasides QC of Three Crowns plc, Reza Mohtashami of Freshfields Bruckhaus Derringer LLP and Daniel Hubbard of 1 Essex Court, London EC4Y 9AR and the KRG was represented by Graham Dunning QC and Edmund King of Essex Court Chambers, 24 Lincoln's Inn Fields, London WC2A 3EG.

 - (b) The contact details of Mr John Beechey CBE are now jb@beecheyarbitration.com and Oriel Cottage, Long Common, Shamley Green, Surrey GU5 0TG.

C. Procedural History

8. The procedural history of the arbitration up to the Second Partial Final Award will be found in the First and Second Partial Final Awards.
9. After the Second Partial Award, the KRG applied to the Tribunal on 3 December 2015 to discharge its order for interim measures of 10 July 2014 (ordering the KRG to make part payment for petroleum liquids of which it had taken delivery) on the grounds that it had been superseded by the Second Partial Final Award. On 11 December 2015 Pearl wrote to oppose the application and on 14 December 2015 the KRG replied. After a hearing on 8 January 2016 the Tribunal issued a ruling on 15 January 2016 by which it dismissed the application.
10. On 8 February 2016 Pearl served a revised Statement of Case. On the same date the KRG served a Statement of Amended Counterclaim.
11. On 15 March 2016 Pearl served an amended Statement of Defence to Counterclaim. On the same date the KRG served a Defence to the Revised Statement of Case and a request for further and better particulars of the Revised Statement of Case.
12. On 21 March 2016, the parties exchanged requests for the production of documents in the form of Redfern schedules.

13. On 31 March 2016, the parties exchanged responses to each other's requests for the production of documents.
14. On 8 April 2016, the KRG submitted the expert report of John Lancaster in support of its application for document disclosure.
15. On 11 April 2016, the parties exchanged replies to each other's responses to the requests for production of documents. On the same date the KRG submitted the expert report of John Emory in support of its application for document disclosure.
16. On 19 April 2016, the Tribunal ruled upon the disputed applications for disclosure.
17. On 21 April 2016 Pearl wrote refusing the further and better particulars requested by the KRG on 15 March 2016.
18. On 29 April 2016, the KRG renewed its application for further and better particulars to the Tribunal and applied for further documentary disclosure,
19. On 6 May 2016 Pearl wrote to oppose the application for further and better particulars and offering limited further disclosure.
20. By a ruling on 18 May 2016 the Tribunal dismissed the application for further and better particulars and ruled upon the application for disclosure.

21. On 2 June 2016 Pearl served the fifth witness statement of Mr Hamid Jafar and the sixth witness statement of Mohammad Makkawi. On the same date the KRG served the seventh witness statement of Ashti Hawrami, the fourth witness statement of Ahmed Mufti and the witness statements of Bradford Camp, Faris Naoom and Diyar Yahya.
22. On 7 June 2016 Pearl served the third witness statement of Thomas Watts.
23. On 8 June 2016 Pearl served the second expert report of A. Pedro van Meurs.
24. On 22 June 2016 Pearl served the expert reports of Richard Boulton, Charles Freeny, Giacomo Luciani, Mike Wood and Rene Thomson. On the same date the KRG served the second expert report of John Emory and the second expert report of Gervase McGregor and the expert reports of Philip Daniel and Herbinder Mudan.
25. On 30 June 2016, the KRG served the fourth expert report of Mark Cronshaw.
26. On 29 July 2016 Pearl served the sixth witness statement of Hamid Jafar, the seventh witness statement of Mohammad Makkawi and the witness statement of Amed Kebali. On the same date the KRG served the second witness statements of Bradford Camp, Faris Naoom and Diyar Yahya.
27. On 4 August 2016, the KRG served an amended Statement of Amended Counterclaim and the third expert report of Gervase McGregor, the fifth expert report of Mark Cronshaw, the second expert report of John Emory, the second expert report of John

Lancaster and the expert report of William Hobbs. On the same date Pearl served the third expert report of A. Pedro van Meurs, the second expert report of Charles Freeny and the second expert report of Giacomo Luciani.

28. On 31 August 2016 the parties each served skeleton arguments upon each other and the Tribunal.

29. The hearing took place at the International Dispute Resolution Centre, 70 Fleet Street, London EC4Y 1EU on 5 to 9 and 12 to 16 September 2016. Opening statements were made by each of the parties and the following witnesses and experts were cross-examined:

30. (a) Called by Pearl: Mr Jafar, Dr Allman-Ward, Mr Makkawi, Mr Watts and Dr Kebaili (witnesses of fact) and Mr Freeny, Dr van Meurs, Professor Luciani and Mr Boulton (experts)

(b) Called by the KRG: Mr Diyar Yahya and Mr Faris Naoom (both by video-link from Erbil, Kurdistan), Dr Hawrami and Mr Mufti (witnesses of fact) and Dr Lancaster, Mr Emory, Mr Moritz, Mr McPherson, Mr Tomkins, Mr Daniel, Mr McGregor and Dr Cronshaw (experts).

31. At the end of the hearing the Tribunal gave directions for the service of post-hearing submissions and submissions on costs.

32. On 21 October 2016 the parties each served on each other and the Tribunal their post-hearing submissions and submissions on costs.

33. On 25 October 2016, the KRG made further submissions on costs, inviting the Tribunal to make no order until the last stage of the arbitration had been completed.
34. On 26 October 2016 the KRG requested the Tribunal to invite oral closing submissions and on 28 October 2016 Pearl opposed this application. The Tribunal had stated at the case management conference on 9 August 2016 that it would not invite oral closing submissions unless, after having read the written closing submissions, it considered that they were necessary for the purpose of enabling the Tribunal to dispose fairly of the reference. In the event, the Tribunal did not think they were necessary.
35. On 4 November 2016 Pearl served a reply to the KRG's submissions on costs.

PART TWO: PEARL'S CLAIMS

A. The Delayed Development Claim

36. Pearl's delayed development claim is stated as follows in its Revised Statement of Case:

16. The Parties agreed in the Contract that, following the initial development and production of Petroleum within the Khor Mor HoA Area, and appraisal of the reserves and development potential of Chemchemical, there would be "full-scale development" of both fields, in accordance with good petroleum industry practice. The Claimants were granted the right to perform every activity connected with that full-scale development in order to maximise their exploitation of both fields during their contractual term.

17. The Claimants began to produce Petroleum at Khor Mor, and to supply gas to the HoA Areas, in October 2008. They had commenced appraisal of the resources at Chemchemical in October 2007 by acquiring seismic data on both fields. As explained in the SoC, in May 2009, pursuant to and

simultaneously with an illegitimate demand by the MNR for a share of the proceeds of Dana's and Crescent's sale of a minority equity stake in Pearl to each of OMV and MOL, Dr Hawrami (on behalf of the KRG) began to dispute the Claimants' rights under the Contract on grounds that were baseless and legally incoherent. Dr Hawrami ordered the stoppage of ongoing appraisal drilling activities at the HoA Areas (at gunpoint in the case of Chemchemical) and since that time, has prevented all further appraisal and development of the HoA Areas. The capriciousness of the MNR's approach is apparent from a later meeting between Dr Hawrami and Mr Makkawi in July 2013:

"[U]nless MEM dropped his insistence on such [payment] guarantee, AH [Dr Hawrami] would make sure that Pearl and its operators could not implement any expansion project. AH would [continue to] prevent them from any further development and Pearl would stagnate as per the status quo, producing only 320MMscfd, which the MNR refuses to pay for, despite what the HoA may say. AH continued that he was fine with such scenario and happy for the gas to stay in the ground for future generations."

18. As a result of this forced stoppage, since May 2009 the Claimants have indeed "stagnate[d]" as ordered by Dr Hawrami. They have wrongfully been deprived of their full Contract rights and prevented from carrying out the full-scale development of the HoA Areas, their activities being instead confined to the initial production of gas for the IPPs to the benefit of the KRG and associated quantities of condensate and LPG (for which, as the Tribunal has found, they have not been paid in accordance with their contractual entitlements).

37. The principal issue which the Tribunal is asked to decide in relation to the delayed development claim is whether the KRG was in breach of the HoA in the respects alleged in these paragraphs.
38. The first question is whether these alleged acts, which may be summarized as a forced stoppage of appraisal of the Khor Mor and Chemchemical Areas, were in breach of the terms of the HoA. As formulated in their post hearing brief, the Claimants' case is that clause 9 of the HoA granted them the right to "develop and produce" Petroleum within the two HoA Areas in accordance with a full development program ("FDP") agreed under clause 7. That means, they say, that the KRG had an obligation not unreasonably to reject a proposal for a FDP. They do not complain that the KRG has done so. They

accept that no such program has been put forward. As they have been unable to complete the appraisals, they have not yet got to that stage. The allegation is rather that having granted them rights which can be exercised only after completing appraisals, the KRG was under a duty to co-operate with them or at any rate not unreasonably to obstruct them in carrying out the necessary preliminary work.

39. The Tribunal has already expressed in paragraph 115 of the First Partial Award its opinion that the KRG was under an obligation not unreasonably to refuse consent to an appropriate FDP in accordance with industry practice. That opinion was however unnecessary for the purposes of deciding the issue before it and the Tribunal considers that it remains open to reconsideration.
40. The KRG's expert witnesses on petroleum industry practice, Mr William Hobbs and Mr Philip Daniel, said that in the absence of express provision, no duty not unreasonably to withhold consent could be implied. Mr Hobbs said:¹

“Based on my experience, express and specific approval from the state is required and development cannot proceed without such approval. Moreover, I am not aware of any requirement in international petroleum industry practice that a state cannot unreasonably withhold its consent unless this is expressly not allowed in the agreement or agreements or the legislative framework”

41. Likewise, Mr Daniel said:²

“[T]he Claimants contend that the KRG could not unreasonably withhold its approval for any FDP. In my view, formed from my experience of international petroleum industry and regulatory practice, this standard

¹ C4/39/19, paragraph 77.

² C4/36/10, paragraph 39.

applies only when expressly provided in law or contract. I am not aware of any instance where a contractor has been permitted to or sought to proceed with an FDP without the express and affirmative approval of the government.”

42. On the other hand, the Claimants’ expert Dr A. Pedro H. van Meurs³ said:

“The fact that a development plan needs to be approved, does not mean that it can be rejected for no reason. Indeed, I am not aware of any upstream petroleum contract or concession in which the disapproval of a development plan is at the ‘discretion’ of the government.”

43. There may be less between the witnesses than appears, because while it is hard to accept that in theory a government could reject a FDP proposed by a concessionary like Pearl on arbitrary and irrational grounds, there must be many areas in which the demands of a government charged with the exploitation of its country’s natural resources cannot easily be rejected as unreasonable. In such matters, it would be realistic to say that the government has, as Mr Daniel puts it, a discretion. However, there are cases in which rejection would plainly be unreasonable (for example, if based on a misunderstanding of the applicant’s rights).

44. It is unnecessary for the Tribunal to decide whether such a term should be implied from petroleum industry practice because the Tribunal considers that the express words used in clause 7 mean that approval cannot be unreasonably withheld. Indeed, the absence of such words would substantially detract from the grant of exclusive rights in clause 9. The Tribunal therefore adheres to the opinion expressed in paragraph 115 of the First Partial Award.

³ C3/6/7 paragraph 22.

The Tribunal was also invited to decide whether it had concluded in paragraph 115 of the First Partial Final Award that the KRG could not unreasonably withhold approval of a "Further Services Plan". As it has already said, the Tribunal expressed a view (which it has now confirmed) but did not decide anything in paragraph 115. It certainly did not decide anything about a Further Services Plan, which appears to be a concept used solely in the accounting provisions of Annexure 6A to the HoA to distinguish, for the purposes of calculating petroleum costs, between costs incurred under the existing Services Plan and costs which might be incurred under work authorized later. The Tribunal's remarks were made in relation to an FDP.

5. The next stage of the argument is that Pearl claims, by reference to the HoA and in particular Recital G, that the "Initial Development and Production of Petroleum" within the Khor Mor HoA Area, an appraisal of its additional deep oil reserves potential and an appraisal of the reserves and development potential of the Chemchemical HoA area were contemplated by the parties as preliminaries to "full scale development in accordance with good petroleum industry practice".
17. Such appraisals were, according to the expert evidence, a necessary preliminary to an FDP. No full development could be planned with inadequate knowledge of what was there. The Claimants say in paragraph 17 of their Revised Statement of Case that they had begun the appraisal process in both HoA areas by acquiring some seismic data. However, following the outbreak of "controversy" over the assignment to Pearl and the sale of shares to OMV and MOL, the KRG has prevented them from carrying out any further appraisal and they have been confined to supplying gas, condensates and LNG from the existing wells at Khor Mor.
48. Mr Watts was cross-examined about Pearl's failure to submit a proposal for a FDP:⁴

⁴ *Transcript Day 3*, p. 146.

“Q. The claimants never made a proposal to the KRG for full field development. They never put forward a full field development plan to the KRG, did they?”

A. No, because we never completed the appraisal. Why should I submit a field development plan that was half-baked.”

49. The KRG’s experts were agreed that a full field development plan must be preceded by a thorough appraisal of the resources of the relevant area.⁵ This is something known to everyone in the industry.
50. The Tribunal therefore accepts that Pearl’s exclusive right to develop and produce Petroleum in accordance with a reasonably agreed FDP was, in practice and to the knowledge of both parties, dependent upon Pearl being able to make appraisals of the resources of the two HoA areas.
51. It follows that, in the opinion of the Tribunal, the KRG was under an obligation not unreasonably to obstruct such appraisals. It is clear law that if the exercise of a party’s rights under a contract is dependent upon a condition, the other party is under a duty not to prevent the fulfilment of that condition. In some cases, there is even a duty to co-operate in ensuring that the condition is fulfilled, but for present purposes it is sufficient to say that there is clearly a duty not unreasonably to obstruct.⁶
52. The Tribunal therefore considers that, as a matter of law, the allegations made in paragraphs 16-18 of the Revised Statement of Case would constitute breaches of the HoA which would delay Pearl’s exercise of its exclusive right to full development of the HoA Areas.

⁵ *Hobbs*, Table 3.1.1 item 2, *Daniel* paragraphs 25-27 (“determining commercial viability...can take a number of years”) Mr Hobbs criticises the Claimants for not having undertaken more research into the market for gas. However, it seems to the Tribunal reasonable not to investigate the market in depth until one knows what one has to sell.

⁶ See the well-known case of *Mackay v Dick* (1881) 6 App. Cas. 251.

53. The next question is whether these allegations have been made out. The Claimants' case that the KRG unreasonably obstructed their appraisals is based principally upon the actions of Dr Hawrami, the Minister of Natural Resources, after the outbreak of the controversy in May 2009. On 18 May 2009 Dr Hawrami wrote a letter Pearl saying that he was very alarmed by the announcement of the deal with OMV and MOL. He went on:⁷

"We have always stated that the HoA does not entitle the contractors to develop Chemchemical field, nor to extract oil or gas outside the license boundaries of the Khor Mor licence area. On the Chemchemical field, the contractors have no development rights except obligations to shoot seismic and drill 2 appraisal wells for the KRG, and the costs to be recovered under the Khor Mor revenue.

It is clear in you press release that your deal with OMV and MOL has been concluded under false assumptions by taken for granted such development rights. What is more alarming is that you have sold these right, which you are not entitled to, and this we cannot accept.

Therefore, you are hereby instructed to stop, with immediate effect, all your drilling activities in the Chemchemical field and temporarily plug the well until the HoA is fully reviewed and the dispute is resolved."

54. It appears that the order to stop drilling at Chemchemical was enforced by armed security police.⁸
55. The letter advances no reason for the stoppage other than the KRG's view that Dana had no rights outside the provision of the Services in Annexures 3 and 5. However, the Tribunal has found in its First Partial Award that the HoA, by clause 9, *did* grant Dana the right to develop the Khor Mor and Chemchemical fields.

⁷ D1/13/1

⁸ D1/15/1

56. On 15 July 2009, the KRG wrote a letter to Dana and Crescent which included the following direction:⁹

“Dana and Crescent is prohibited under the HoA from undertaking any work in the two areas except as has been approved by the Ministry of Natural Resources, With the continuing delay in the Article 140 process and in light of the purpose of the HoA the Ministry at Natural Resources has not, cannot and is not authorised by the Council to approve any work plan except and to the extent required to provide a source of gas for processing and transportation in amounts nominated by the power plants. There has been no formal agreement on any work plan. Any work that has been undertaken or may be authorised in the future by the Ministry of Natural Resources on the Chemchemical Area has been undertaken and should only continue to be for the sole purpose of supplementing possible gas supply shortfalls from the Khor Mor area (as delineated in the HoA) to satisfy the needs of the power plants.”

57. The prohibitions in this letter were never withdrawn. Dr Hawrami said in evidence that he would have been willing to discuss a deal with Dana but that the letter would be withdrawn only as part of such a deal.
58. There was some discussion in the submissions over whether the letter and associated conduct (such as the forcible stopping of drilling at Chemchemical) evinced an intention not under any circumstances to agree to a FDP and was an anticipatory breach of the obligation not unreasonably to withhold approval. The Claimants say that the terms of the letters were stark and clear and the KRG say that it was always open to discussion with a view to the parties entering into a suitable FDP.
59. We do not think it is necessary to decide whether the KRG’s conduct was an anticipatory breach of the HoA. The effect of an anticipatory breach, if sufficiently serious, is to enable the other party to accept the repudiation and sue for damages at once without

⁹ D1/23

waiting for an actual breach to occur: *Hochster v De la Tour*¹⁰. However, if the other party does not accept the repudiation but decides to keep the contract alive, the Tribunal considers that the only question is whether there was an actual breach. In this case, the Claimants have not purported to accept a repudiation. It follows that the Tribunal must decide whether the HoA created an obligation on the part of the KRG not to obstruct the appraisal of the two areas in respect of which Dana had been granted exclusive rights, whether the KRG was in breach of that obligation and if so, what loss the breach has caused to the Claimants.

60. The first question is whether or not Pearl was prevented from appraising the two HoA Areas as contemplated by Recital G. The letters of 18 May and 15 July 2009 are in clear and peremptory terms and Dr Hawrami agreed in evidence that Pearl would be obliged to take them seriously:

“Q. Did you think, Dr Hawrami, that the recipients of this letter, coming from the prime minister and yourself as Minister of Natural Resources, could ignore it?

A. No, actually sir, this letter and other letters we send, they are strong letters. We accept that.”¹¹

61. The KRG, in its closing submissions, accepts that the effect was to stop appraisal work at Chemchemical but says that it went on at Khor Mor.¹² The position at Khor Mor when the controversy broke out was that the KRG had approved the location of three wells KM-9, 10 and 11.¹³ On 19 January 2009, the KM-9 well was ceremonially spudded, i.e. the drilling rig penetrated the well surface, in the presence of a representative of the Ministry of Natural Resources.¹⁴ On 16 June 2009 KM-9 was completed at a cost of US\$23.1

¹⁰ (1852) 2 El & Bl 678.

¹¹ *Transcript Day 5*, p. 173.

¹² *Closing submissions*, paragraph 295.

¹³ Minutes of meeting 5 November 2008, item 4 (D1/697/4)

¹⁴ Photograph at D1/749

million.¹⁵ The rig was then moved to KM-10. On 21 July 2009 the KRG instructed Pearl to stop drilling, shut down the rig and move to KM-11, where the site was not yet ready.¹⁶ In giving the instructions to stop drilling, Mr Tahir of the KRG referred to the KRG's letter of 15 July 2009.¹⁷ On 17 September 2009 Mr Watts wrote to Mr Nazhat of the MNR, protesting against the stoppage as "contrary to the agreed drilling programs, unreasonable and without any proper legal or contractual justification." There does not appear to have been a reply to this letter. Mr Watts said that Pearl kept the rigs on standby for a considerable time in the hope that the controversy would be resolved but they were released in the following year. "No further drilling (as per the agreed appraisal drilling programmes) was conducted at Khor Mor or Chemchemal."¹⁸

62. Pearl did obtain some further data from drilling for other purposes. In late 2010 Dr Hawrami gave permission for some further drilling at the existing production well KM-4 to understand the gas/water contact depth. This was to prevent water ingress from affecting the gas being produced for the power stations. In the process, Pearl obtained some additional seismic data. The KRG relies upon this episode as showing that appraisal work was not obstructed. The Tribunal does not accept that this incidental access to data was such as to satisfy the obligation upon the KRG not to prevent appraisal. It is a telling and unchallenged fact that Pearl retained a drilling rig for some months after the stoppage at KM-10 in the hope that it would be allowed to proceed with the agreed drilling program but eventually gave up.
63. The KRG also relies¹⁹ upon the minutes of a board meeting of Pearl in September 2009²⁰ (part of the material stolen from of Mr Makkawi²¹) in which Mr Badr Jafar is recorded as having –

¹⁵ 3 *Watts* paragraph 34 (C1/22/18).

¹⁶ E-mails at C-710 (D1/710)

¹⁷ See paragraph 56 above.

¹⁸ 3 *Watts* paragraph 37 (C1/22/19); *Transcript* Day 3, pp. 144-146.

¹⁹ *Skeleton Argument* paragraph 499 (B/61/244)

“clarified that as per the HoA, we have an obligation to present [the Further Services Plan work program and budgets] to the KRG for their comments and suggestions...”

64. The Tribunal cannot see the relevance of this remark. It was true, but takes the matter no further.
65. The Tribunal considers it clearly established that since 2009, the KRG has prevented the Claimants from conducting appraisals of the hydrocarbon resources in the HoA Areas such as to enable them to present for approval a meaningful proposal for a full field development program.
66. The next question is whether, in terms of the KRG’s obligations under the HoA, such conduct was justifiable. As appears from Dr Hawrami’s letter of 18 May 2009, the reasons given for the stoppage were that (a) Dana and Crescent had acted unlawfully in assigning the benefit of the HoA to Pearl and selling shares in Pearl to OMV and MOL and (b) that the HoA conferred upon Dana no rights except to provide and be rewarded for the services specified in Appendices 3 and 5. The letter of 15 July 2009 (which Mr Tahir cited as a reason for ordering Dana to stop drilling at KM-10) gave a number of further reasons why the HoA was altogether invalid. But the Tribunal has found in its First Partial Award that the HoA was valid and binding and that it conferred upon Dana the exclusive right to develop and produce Petroleum in the two HoA areas. There is nothing in the HoA to prohibit the shareholders in Dana, Crescent or any Affiliated or Associated Company to which the benefit of the HoA has been lawfully assigned from selling their shares in that company. Accordingly, the Tribunal need say no more about the grounds of justification given at the time when the stoppage was ordered.

²⁰ Exhibit at D2/532/4

²¹ See the *First Partial Award*, paragraphs 58-60.

7. Further grounds have been supplied later. *First*, Dr Hawrami in his seventh witness statement on 2 June 2016 said the Claimants had been ordered “temporarily” to stop drilling because “they had not been properly authorized to drill the well”.²² The Tribunal considers this to be a recent invention. *First*, nothing was said about it at the time. *Secondly*, in his third witness statement made on 7 June 2016, Mr Watts produced the minutes of a meeting on 18 February 2009 between Pearl and the KRG, at which the latter was represented by Mr Tahir and Mr Nazhat, when “the KRG agreed that the locations of Wells CH-3 and CH-4 were acceptable and that the company could proceed with drilling CH-3 well pursuant to Company’s drilling programme.” These minutes were signed by Mr Tahir on behalf of the KRG. Dr Hawrami made an eighth witness statement on 29 July 2016 but made only the vague and general assertion that “the Claimants did not obtain all required approvals from other Ministries and governmental authorities or from me, as Minister of Natural Resources, to proceed with drilling well CH-3”.²³ He did not attempt to explain the consent given on 18 February 2009. *Thirdly*, Mr Watts was cross-examined on his witness statement and it was not suggested to him that there was any consent which he had omitted to obtain.

68. *Secondly*, Dr Hawrami produced an entirely new justification, never before mentioned, during his oral evidence in chief at the recent hearing. He explained that the Sulaymania sub-region in which Chemchemical was situated was dominated by a political party, the Patriotic Union of Kurdistan (“PUK”). Erbil and the area around it was dominated by the Kurdistan Democratic Party (“KDP”).²⁴ When Pearl suggested a Production Sharing Contract for Chemchemical²⁵ the PUK members of the Kurdistan government were opposed. So Dr Hawrami persuaded the PUK that “nothing will happen without PUK generally be happy.”²⁶ To keep them happy, he envisaged that a “local entity” should

²² 7 *Hawrami* paragraph 30 (2/7/8).

²³ 8 *Hawrami* paragraph 56 (C2/8/14).

²⁴ *Transcript* Day 3, p. 108

²⁵ See *First Partial Award* paragraph 72.

²⁶ *Transcript* Day 3, p. 108

have an interest in Chemchemical field. This would happen under the proposed FDP. In the meanwhile, he –

“put two of my key guys, who are very close to the PUK...as committee members to liase and sort out the rough edges on the land compensation...access rights, things like that.”

But, he said, he hadn't yet prepared his colleagues for the start of the drilling. He was “in this process” when -

“two significant things happened in the space of 15, 16 17 May which undermined the entire project, actually endangered the project into possible explosive thing, conflict and undermined the government structure entirely.”²⁷

9. The first thing was that Mr Jafar had gone to Sulaymania and “organized and arranged a powerful PUK member, to start the drilling of the well.” Mr Jafar had indeed done so. Mr Nazhat of the Ministry of Natural Resources, who cut the tape to start the drilling of CH-3 at Chemchemical,²⁸ was one of the “key guys...close to the PUK” whom Dr Hawrami had put on the liaison committee.²⁹ He is a “highly experienced and well-respected geologist” who had been the Director General of Exploration for Iraq national oil company.³⁰ According to Dr Hawrami, however, he was the wrong kind of PUK guy. “Within the PUK there are factions” and Mr Nazhat's presence made “others perceive that...the interests that they have promised ...may go to a private party rather than to the whole government.”³¹

²⁷ *Transcript Day 5*, p. 116.

²⁸ See paragraph 39 above.

²⁹ *Transcript Day 5*, p. 126.

³⁰ 3 *Watts*, footnote 37.

³¹ *Transcript Day 5*, p. 117.

70. When he was asked in cross-examination why he had never mentioned any of this before, Dr Hawrami said that he “didn’t actually try to get into the politics in my witness statements”.³² He also drew attention to a passage in his letter of 18 May 2009³³ in which he accused Mr Jafar of lobbying “other ministers and senior politicians” to get unfair influence. Whatever may have been the truth of this allegation (and the Tribunal has never been invited to investigate it) it can have had nothing to do with the spudding ceremony which so exercised Dr Hawrami. Mr Nazhat was not a minister or senior politician and it difficult to see why having the courtesy to invite the senior KRG technical representative on the liaison committee to cut the tape should be regarded as illicit lobbying.
71. The Tribunal considers that Dr Hawrami’s claim that Pearl had created political instability in Kurdistan (“it could have been a civil war”³⁴) is not only irrelevant to the rights of the parties under the HoA but another recent invention.
72. The other significant thing that Dr Hawrami says happened in mid-May was the sale of shares to MOL and OMV. The Tribunal has already stated that this transaction was entirely within the rights of Dana, Crescent and Pearl under the HoA and will say no more about it.
73. *Thirdly*, there is some suggestion that the KRG was entitled to stop further appraisals because the Claimants had not disclosed the seismic data it had so far obtained. This reason was not mentioned at the time and it is not altogether clear to the Tribunal whether it is relied upon. (There is a separate counterclaim for damages by the KRG for failure to disclose seismic data, which will be considered at a later stage, but that is a different matter.) All that need be said is that the KRG, although perfectly entitled to disclosure of seismic data, never asked for it before May 2009 and never suggested then or later that if

³² *Transcript Day 5*, p. 152.

³³ D1/13/1

³⁴ *Transcript Day 5*, p. 147.

it was disclosed, the Claimants could proceed with the drilling programme. The Tribunal therefore rejects the suggestion that it may justify preventing appraisals.

74. *Fourthly*, Dr Hawrami says that the letters of May and July 2009 were not intended to repudiate the HoA but to persuade Pearl that it was necessary for the parties to have further discussions about the way forward, including accommodating the demands of the PUK. It is clear, however, that if Dr Hawrami was to be open to discussions, they were to be on his terms, of which a key element was to negotiate afresh without regard to the HoA. He made this clear in cross-examination:

“A. I was open to discuss developments.

Q. Under the HoA?

A. Any time, looking at plans, but implementing them we have to find a solution about this \$12 billion investment, for example. That cannot be managed under the HoA framework.³⁵

...

Q. Your discussion with the claimants after [the July 2009 letter] were about renegotiating the HoA itself; yes?

A. Renegotiating the contents, moving it as required by the HoA itself onto the platform it should have been on years before.³⁶

...

Q. ...If you are presented with a development plan which optimizes production in a way which is consistent with international petroleum industry practice, do you agree that under the existing HoA you have an obligation to approve it?

A. Under the existing HoA terms? No sir.”³⁷

75. In summary, the Tribunal considers that the refusal of the KRG to allow the Claimants to continue appraisals was, first, because of a mistaken view that Dana and Crescent was not entitled to assign the benefit of the HoA to their joint subsidiary Pearl or to sell shares in Pearl without cutting the KRG in on the deal and secondly, to put pressure on the Claimants to negotiate better terms for the KRG in a FDP than it could legitimately have

³⁵ *Transcript* Day 5, p. 169.

³⁶ *Transcript* Day 5, p.175

³⁷ *Transcript* Day 5, p. 190.

claimed under the terms of the HoA. Neither of these was a proper justification for its actions, which the Tribunal considers was a breach of its obligations under the HoA.

76. The question of what loss these breaches of contract have caused the Claimants will have to be decided at the next stage of the arbitration.

B. The Earn-out Payments Claim³⁸

77. The consideration for the sale of shares in Pearl by Dana and Crescent to OMV and MOL was a lump sum together with further payments contingent upon further reserves of gas being proved and quantities of gas being produced. Such arrangements are common in the industry and the contingent consideration is called an “earn-out” payment.
78. Dana and Crescent claim that the KRG’s wrongful refusal to allow Pearl to appraise the gas reserves at Khor Mor and Chemchemical and then to develop those reserves has caused them the loss of some US\$3.3 billion in earn-out payments which would otherwise have become due. The question for the Tribunal at this stage is whether as a matter of law this loss is recoverable.
79. Dana and Crescent assigned their rights under the HoA to Pearl on 5 February 2009. The breaches of the HoA upon which Dana and Crescent rely all occurred after they had ceased to be parties. The KRG owed them no contractual duties. But they submit that Pearl is entitled to recover their losses under the exceptional rule based on the decision of the House of Lords in *The Albazero*.³⁹
80. In *The Albazero* the plaintiff had shipped a cargo of oil pursuant to a time charter. Due to a breach of the charter by the owner, the cargo was lost at sea. However, the charterer had

³⁸ *Revised Statement of Case* paragraphs 74-82.

³⁹ [1977] AC 774.

issued a bill of lading under which, by the time of the loss, the property in the oil had already passed to a purchaser. So the breach of the charter had caused no loss to property of the charterer and the purchaser was not a party to the charter. Lord Diplock said that there was an exception to the rule that the party to the contract of carriage could recover only for his own loss, which he formulated as follows:⁴⁰

“[I]n a commercial contract concerning goods where it is in the contemplation of the parties that the proprietary interests in the goods may be transferred from one owner to another after the contract has been entered into and before the breach which causes loss or damage to the goods, an original party to the contract, if such be the intention of them both, is to be treated in law as having entered into the contract for the benefit of all persons who have or may acquire an interest in the goods before they are lost or damaged, and is entitled to recover by way of damages for breach of contract the actual loss sustained by those for whose benefit the contract is entered into.”

81. On the facts of *The Albazero*, however, the exception did not apply because it was contemplated by the parties that the purchaser would have his own remedy under the bill of lading.

82. The exception noted by Lord Diplock was applied by the House of Lords in *Linden Gardens Trust Ltd v Lenesta Sludge Disposals Ltd*⁴¹. A property company contracted with a builder for the construction of a development on land in Hammersmith. Before the building had been erected it transferred the property in question to an associated company (“Investments”). There were defects in the construction and the question was whether the property company could claim substantial damages when, at the time of the breach, it no longer had an interest in the property. The House decided that it fell within the general principle of the *Albazero* exception.

83. The Tribunal considers that, stated at its broadest, the *Albazero* exception applies when a party has entered into a contract concerning property (e.g. goods to be carried, buildings

⁴⁰ At p. 847.

⁴¹ [1994] 1 AC 85

to be erected) which is either owned or may be transferred to someone else. The contracting party may then recover substantial damages for a breach of contract which causes loss relating to that property even though he had no interest in the property at the time of the breach. Otherwise there would be no remedy for the loss caused by the breach. It would fall into what has been aptly called a black hole.

84. The present case, however, is quite different. Pearl does have a remedy for loss caused by delayed development. And Dana and Crescent are not in the position of parties on whose behalf the HoA was made or who have acquired the property to which it related. If the shareholders in Dana or Crescent had sold their shares on similar terms, they would plainly not have had a claim against Dana for losses caused by breaches of the HoA. Only the companies themselves would have been able to bring such a claim. This is not because the claim by the shareholders is for “reflective loss”. The loss does not reflect a diminution the value of the company’s assets. It is a different kind of loss. But it arises out of a transaction to which the KRG was not a party and for which the KRG has assumed no responsibility.
85. Why should it be any different because the claim is by the shareholders in Pearl, the assignee of Dana and Crescent. It still arises out of a transaction to which the KRG was not a party. The assignment of the HoA to Pearl is quite irrelevant to the claim by Crescent and Dana for loss of the earn-out payments. Their claim would have been exactly the same if Pearl had been the original contracting party, with Dana and Crescent each owning 50% of the shares. It could not then have been argued that the KRG’s liabilities could be increased by the arrangements which the shareholders in Pearl made for the sale of their shares.
86. The Tribunal therefore considers that the claim for earn-out payments must fail.

C. Losses Suffered by Dana

87. Pearl alleges that in consequence of the KRG's failure to pay for condensate and LPG, one of its shareholders, namely Dana, was starved of the cash which would otherwise have flowed through by way of dividends or loan repayments. As a result, it had to take retrenching measures which caused it losses. Pearl claims that under the *Albazero* principle it should be entitled to recover these losses on behalf of Dana.
88. The Tribunal considers that this claim must fail for the same reason as the earn-out claim, namely that it is a claim for loss suffered by a third party which does not fall within the *Albazero* principle. The KRG, in entering into the HoA with Dana and Crescent, assumed obligations to those companies but not to their shareholders. When the benefit of the contract was assigned to Pearl, the KRG became liable to Pearl but not to Pearl's shareholders. One may ask whether it could credibly have been asserted that MOL or OMV could have made a claim for losses suffered as a result of not receiving cash as creditors of or shareholders in Pearl. But Dana was in the same position. It is true that Dana and Crescent were not, by virtue of the assignment without any novation, released from their obligations under the HoA. But they ceased to have any enforceable rights under the HoA. Such rights are being enforceable by Pearl, which can sue only for loss caused to itself.

D. Claims under the SAP

89. The SAP⁴² was an agreement concluded on the same date as the HoA between Dana and Crescent ("the Companies") of the one part and the KRG of the other. It provided in clause 2 (entitled "Purpose") for the parties to –

⁴² D1/2

“...undertake a joint review of the natural gas energy sector to prepare a comprehensive natural gas subsector development plan that will guide and promote the development of KRI’s natural gas infrastructure for the future.”

90. Clause 3 provided for a review which would investigate, among other things, the investment requirements for the development of the natural gas energy sector and clause 4 for the formulation of a development plan. Clause 5 then provided:

“On the basis of the review and investor plan referred to in Clauses 3 and 4 above, the Parties shall develop and implement the concept of a private sector-driven petrochemical/downstream complex, “Kurdistan Gas City” to be located in an optimal location within the Kurdistan Region, utilizing gas as it becomes developed and available from future development of gas fields in and into the KRI.”

91. Finally, clause 6 provided:

“In consideration of the Companies undertaking activities under the SAP, the Companies shall be entitled to reimbursement of all costs and expenses funded by the Companies under the SAP, the terms of which shall be separately agreed...”

92. The KRG terminated the SAP in one of its letters of 24 May 2009.⁴³ It did, however, invite a claim for reimbursement of costs under clause 6:

“In accordance with section 6 of the SAP, if you wish to agree on terms to pay reimbursable costs and expenses funded by the Companies under the SAP, please provide to the Minister of Natural Resources, within 30 days hereof, a statement, receipts and other supporting documentation, and an accounting of such reimbursable costs and expenses funded by the Companies.”

93. Pearl at first alleged that the termination was wrongful. The KRG answered that it had no further obligations under the SAP. It was not obliged actually to build Kurdistan Gas

⁴³ D1/20

City. Dana and Crescent now say that the point is moot because they confine their claim to reimbursement under clause 6. There is a complication about this because Pearl's quantum expert Mr Boulton, in estimating *Pearl's* losses from delayed development, has surveyed the potential market for the gas it could have produced and included a scenario in which Gas City had become a reality. The KRG invites the Tribunal to declare that the KRG had no obligation to build Kurdistan Gas City and that Mr Boulton's scenario therefore lacks reality.

94. The Tribunal does not think it should make such a declaration because the fact that the KRG was not obliged to build Kurdistan Gas City does not mean that it would not have been built, whether in co-operation with Dana and Crescent or someone else. The terms of the SAP are only one matter to be taken into account in deciding whether this prediction is realistic or not.

95. That leaves the claim for reimbursement. Dana and Crescent formed a joint subsidiary (Gas Cities Limited or "GCL") to carry out the SAP work. Its accounts, audited by PricewaterhouseCoopers ("PwC"), show expenditure of US\$1,263,000.⁴⁴ PwC has also verified direct expenditure by Crescent of US\$391,000.⁴⁵ The total claim is for US\$1,654,000.

96. To this claim the KRG raises three technical and unmeritorious objections. First, clause 6 says that the terms of reimbursement "shall be separately agreed". The KRG says that it has not agreed the terms and therefore does not have to pay anything. The Tribunal has no hesitation in rejecting that proposition. The clause provided that reimbursement of costs was the consideration for the Companies' services under the SAP, as the KRG itself recognized in its letter of termination. The terms to which clause 6 referred were simply

⁴⁴ E2/343

⁴⁵ E2/344

those relating to the method of making claims and payment. As it is accepted that the Tribunal has jurisdiction over the dispute concerning the SAP, the Tribunal can decide these matters.

97. Secondly, the KRG says that Dana and Crescent cannot claim for the US\$1,263,000 spent by GCL, which was not a party to the SAP. The unreality of this objection is shown by the fact that by far the largest part of this expenditure consisted of recharges to GCL of expenditure by its shareholders, Dana and Crescent. In any case, it does not matter where the money spent in discharge of Dana and Crescent's obligations under the SAP came from. That is a matter between them and whoever provided the money. So far as the KRG is concerned, it is money spent to carry out the obligations assumed by Dana and Crescent.
98. Thirdly, the PwC audits were for the entire financial year ending 31 December 2009 and do not have a cut-off date at 24 May, when the KRG terminated the contract. Therefore, says the KRG, they might include money spent when there was no longer any obligation to do so. The Crescent accounts for 2009 show that US\$71,000 was spent, as against US\$214,000 in 2007 and US\$106,000 in 2008. That does not suggest substantial expenditure after the date of termination. The GCL figures are not broken down by year.
99. Considering the inherent improbability that Dana and Crescent (or GCL) went on incurring expense on the SAP after the outbreak of the controversy and the limit to the detail in which these matters can be investigated by the Tribunal, it accepts the audited figures and will order payment of US\$1,654,000.

E. The Pewand Invoices

100. The obligation the KRG under BP [7] of Annexure 2 to the HoA, in the event that (as the Tribunal has found) Pearl was unable to export and market the LPG and condensate, was to “purchase and lift (or arrange for the lifting by domestic companies/users) and pay for” the LPG and condensate. The KRG nominated Pewand Petrol Transporting and Food Inc (“Pewand”) to lift the petroleum liquids⁴⁶ but would not pay them for doing so. Faced with the possibility that Pewand would not lift the liquids without being paid, Pearl decided it pay them on the KRG’s behalf. On 15 November 2009 Mr Watts wrote to Dr Hawrami:⁴⁷

“[W]e are aware of the meeting held on 12 November 2009 with Pewand, the trucking contractor engaged on behalf of the KRG in September 2008, concerning its outstanding invoices committed to be paid not later than 15 November. We understand that the KRG is now unable to settle these invoices direct and we are accordingly arranging to pay Pewand on behalf of the KRG forthwith. This is being done on the basis that KRG will reimburse us in due course.”

101. Dr Hawrami made no answer and Pearl continued to pay Pewand’s invoices. It alleges that these payments amount to US\$17,378,904.10 and claims repayment by the KRG.
102. There is no dispute that the KRG was obliged to arrange for lifting at its own expense. That is plain on the face of the HoA and is not denied. Nor is it denied that it did not pay Pewand and that Pearl did so instead. Pearl did so because it was concerned that Pewand might be reluctant to do the lifting for nothing, which seems to be Tribunal an entirely reasonable apprehension.

⁴⁶ D1/89

⁴⁷ D1/13/2

103. In those circumstances, the Tribunal considers that it would be a defective system of law which did not allow Pearl to recover its expenditure. Various legal theories have been put forward to explain this result, but the one which seems to the Tribunal most appropriate is that the payments are recoverable as damages for breach of the KRG's failure to pay Pewand to lift the liquids. It was reasonable for Pearl to apprehend that, unless paid, Pewand would not lift and that this could cause the plant to have to shut down. It was reasonable for Pearl to take steps to mitigate the loss it would otherwise have suffered by paying Pewand's charges, especially as this was done after giving notice to the KRG that it would be seeking to reclaim the payments and not receiving any objection. As Lord MacMillan said in *Banco de Portugal v Waterlow & Sons Ltd*⁴⁸

“Where the sufferer from a breach of contract finds himself in consequence of that breach placed in a position of embarrassment the measures which he may be driven to adopt in order to extricate himself ought not to be weighed in nice scales at the instance of the party whose breach of contract has caused the difficulty.”

104. It is agreed between the quantum experts (Mr Boulton and Mr McGregor) that Pearl has submitted invoices to the KRG for Pewand payments in the sums of US\$5,151,850 from Pearl itself and US\$12,227,054 from Dana. The KRG objects that Pearl cannot recover the loss suffered by Dana, but the Tribunal considers that as assignee of all the rights of Dana and Pearl under the HoA, Pearl must be the party entitled to make the claim.
105. The KRG's quantum expert Mr McGregor gave evidence that there was insufficient proof that Pearl had actually paid all the sums invoiced to the KRG as payments to Pewand. On 14 September 2016 the quantum experts submitted a joint report⁴⁹ in which they said they were giving further consideration to the supporting evidence on payment. The Tribunal will therefore defer quantification of this sum to the next hearing.

⁴⁸ [1932] AC 452, 507.

⁴⁹ K/68

F. Liquids Lifted Since 30 June 2015

106. The Second Partial Final Award was in respect of petroleum liquids sold and delivered to the KRG or which the KRG had refused to buy up to 30 June 2015. Pearl now makes a claim for liquids lifted from that date until 31 March 2016.
107. The quantum experts (Mr Boulton and Mr McGregor) agree that the sums invoiced at international prices in accordance with the First Partial Final Award for this period totaled US\$151,095,282. It is also agreed that the KRG paid Pearl US\$30,000,000 during this period. So Mr Boulton quantifies the claim at \$US121,095,282.⁵⁰
108. The KRG objects that Pearl has failed to prove that during the period in question it was unable to export within the meaning of BP [7]. The Tribunal considers that there is nothing in this point. The Tribunal considered the evidence in detail for the purposes of the First Partial Final Award and concluded that Pearl was unable to export. There was no evidence from the KRG to suggest that anything had changed.
109. The invoices were audited by Ernst & Young (E&Y"). Their report stated that they had been provided with all the invoices, loading tickets, contracts for direct local sales, bank accounts and underlying accounting records. E&Y adopted a sampling method in accordance with ISA 530 but did not state what proportion they sampled. They also adopted a materiality test in accordance with ISA 320 but did not state their level of materiality. Mr Boulton explained why he regarded this as a sufficient audit but Mr McGregor was not satisfied. On the point the Tribunal accepts the opinion of Mr Boulton.

⁵⁰ K 68/4-5.

110. There is however a more difficult point arising out of a Second Memorandum of Agreement dated 14 March 2016. According to Mr Makkawi, from September 2015 the KRG stopped Pearl from selling condensate and LPG in the local market. It lifted the products but did not pay for them.⁵¹ This went on until February 2016. Pearl, starved of cash, negotiated an agreement under which, in return for being allowed to sell in the local market, it waived its right to charge the KRG international prices.⁵² The relevant part of the agreement read as follows:

“Currently, Dana Gas PJSC, Crescent Petroleum Company International, and Pearl Petroleum (the "Companies") are directly selling and receiving payments for condensate and LPG. We agree, in respect of all condensate and LPG produced from Khor Mor since 1 February 2016, that:

1. For the purposes of this agreement, the price the Companies receive for the LPG and condensate produced at Khor Mor will be deemed to be the international FOB Med market prices without netback, and the Companies will not invoice for the delta between the actual price realised for the LPG and condensate and the international FOB Med market price for those products.

...”

111. Pearl was allowed to sell LPG locally from 1 February 2016 and has not invoiced the KRG for any sales since that date. But it says that in fact it was not allowed to sell condensate until 3 March 2016. Until then, the condensate was lifted on behalf of the KRG but not paid for.⁵³ Mr Mufti, the Ministry of Natural Resources head of audit, confirmed in cross-examination that on 29 February 2016, Qaiwan (a transporter) “were still lifting condensate on the KRG’s instructions”.⁵⁴

⁵¹ *Transcript Day 3*, pp. 47-48

⁵² D1/601

⁵³ Makkawi at *Transcript Day 3*, p. 48.

⁵⁴ *Transcript Day 6*, pp.5-6

112. The amount invoiced by Pearl for condensate for the period from 1 February 2016 to 3 March 2016 was US\$11,633,590.
113. The KRG submits that as the Second Memorandum of Agreement was operative from 1 February 2016, Pearl must be deemed to have sold directly into the local market from that date. It therefore cannot invoice the KRG under BP [7] of the MoA. The Tribunal does not accept this. Pearl agreed not to charge the KRG the delta between the international price and the actual price realized. This cannot apply to a case in which the KRG simply took the condensate and Pearl realized no price at all.
114. The Tribunal will therefore order payment of US\$121,095,282 for the period from 30 June 2015 to 31 March 2016.

G. Excess Gas

115. The HoA provides for the sale by Pearl of what it calls "Excess Gas".⁵⁵

"Dana shall be entitled to take title and market any " Excess Gas" on an optimised arms-length commercial basis, with first priority being given to local industries, and then (if available in sufficient quantities) for export. "Excess Gas" shall mean any gas in excess of the specification gas required to be supplied by Dana to the IPP, on behalf of the KRG, free of charge..."

116. In its First Partial Final Award, the Tribunal said that "excess gas" meant gas in excess of such as was "produced by the plant at Khor Mor constructed in accordance with the Initial Services Plan".

⁵⁵ BP [3].

117. Pearl says that the Initial Services Plan, as updated, provided for the installation of two LPG trains. These were capable of producing a maximum of 291,600 MMBtu/d. Because the construction of the LPG plant was delayed, Pearl installed an EPF. This was intended to be a temporary stop-gap measure. The intention was that when the LPG trains were commissioned, it would be removed. Its permanent use was not part of the Initial Services Plan. But the KRG has instructed Pearl to run the EPF in parallel with the LPG plant, thereby producing about 330,000 MMBtu/d for the power stations. Pearl says that the additional gas provided by the EPF is Excess Gas and the KRG must pay for it.
118. The reasoning of the Tribunal in its First Partial Final Award is set out in paragraphs 188 and 189:

“188. The drafting of the HoA could have been clearer but we think that the KRG is right. Dana was to receive repayment of all its expenses in providing the services in Annexure 3 and a remuneration fee, but the KRG in return was entitled to the gas that Khor Mor produced. As we noted in connection with issue (a), the KRG accepts that it would not be entitled to demand that Dana make further investments at Khor Mor (or anywhere else) to enlarge its gas producing capacity. That would be a Further Services Plan requiring the consent of both parties. But the KRG is in our opinion entitled to whatever gas the Initial Services Plan can produce.

189. The parties clearly considered what the position would be if the power stations were unable to use all the gas. They provided that in such a case, Dana should be able to sell the gas to third parties or, if unable to sell, to re-inject or flare it. But they do not appear to have contemplated the possibility of a sale to the KRG itself. There are no provisions for determining the price at which such sales would take place. On the contrary, Dana's obligation was to market the gas on an "arm's length commercial basis" and Annexure 6A says the sales involving the KRG are not to be regarded as at arm's length.”

119. The Tribunal considers that it was never contemplated by the parties that the KRG would be buying Khor Mor gas from Pearl under the terms of the HoA. That is demonstrated by the provision that Pearl was to sell excess gas at arm's length prices but that sales to the KRG were not to count as being at arm's length. The concept of excess gas in the HoA

was, in the opinion of the Tribunal, intended to mean gas from Khor Mor as constructed and operated pursuant to Annexure 3 to the HoA but which the KRG for some reason could not or did not want to use. On the other hand, if the parties agreed to an enlargement of the facilities beyond the requirements of Annexure 3, they could also agree on arrangements as to what, if anything, the KRG would pay for the additional gas thereby made available.

120. Annexure 6A (Accounting Procedure) defines "Initial Services Plan" as "the scope of the Services set out in Annexure 3 and Annexure 5 as updated and including appraisal, drilling, well rehabilitation, Operation Activities and the purchase and installation of two LPG trains and other processing facilities..." A "Further Services Plan" is an "approved plan or plans other than the Initial Services Plan".

121. It must be borne in mind that the main purpose of the provisions of Annexure 6A is to control the expenditure which Pearl can charge as petroleum costs. Expenditure under the Initial Services Plan is authorized and chargeable but a Further Services Plan would require KRG approval under clause 2.1 of the Annexure.

122. The definition of the Initial Services Plan as the Services "set out in Annexure 3...as updated" reflects the view that the Initial Services Plan would in practice from time to time undergo agreed modifications without the formality of Pearl presenting a Further Services Plan. The addition of the EPF would have been such a modification, whether it was to be on a temporary or permanent basis, and Pearl would have been entitled to charge the costs as petroleum costs.

123. The Tribunal therefore considers whatever gas plant has been constructed and put into operation at Khor Mor without there having been any revision of the terms must be treated as having been part of the Initial Services Plan. If Pearl considered that running

the EPF in parallel with the LPG plant was outside its obligations under Annexure 3 it was open to it to say so and, if necessary, have the dispute resolved. But the Tribunal considers that Pearl was not entitled to agree to run the EPF and unilaterally charge the KRG for the gas.

124. The claim for excess gas therefore fails.

H. Interest

125. Pearl is entitled to interest on the sums owing in respect of condensate and LPG sold or agreed to be sold to the KRG and the sums paid in respect of the Pewand invoices. Clause 1.6.2 of the HoA provides:

“All sums due by one Party to the other under the HoA shall, for each day such sums are overdue, bear interest compounded monthly at LIBOR plus two percent (2%) or actual interest cost incurred by the affected Party, whichever is the greater.”

126. There is no evidence of the actual interest cost incurred by Pearl and the Tribunal therefore considers that interest should be payable at LIBOR plus 2%, compounded as directed by clause 1.6.2. It is submitted by Dana that it (but not Crescent) incurred an actual interest cost of 9%, that being the rate payable under the *sukuk* by which it financed its interest in the project. The Tribunal considers, however, that Dana was not for this purpose an “affected Party”. The LPG and condensate was sold by Pearl and the Pewand invoices were paid by Pearl. It was Pearl alone which was the affected Party.
127. The SAP has no provision about interest but the Tribunal considers that in the exercise of its jurisdiction under rule 26(4) of the LCIA Rules it should award Dana and Crescent simple interest at LIBOR plus 2% on the sums payable by way of reimbursement of expenses.

128. In each case, interest will run until the order is complied with.
129. The question of interest on sums which may be recovered by Pearl under its delayed development claim is deferred until that claim has been quantified.

PART THREE: THE KRG'S COUNTERCLAIMS

A. Breach of Warranty

130. In its Statement of Amended Counterclaim dated 8 February 2016 the KRG introduced a claim for breach of a warranty as to the availability of an LPG plant alleged to have been given by Pearl in the HoA.⁵⁶ This allegation was elaborated in the KRG's skeleton argument of 31 August 2016⁵⁷ but makes no appearance in its post-hearing submissions of 21 October 2016. This may be because the skeleton argument said that the KRG did not allege that the breach of warranty had caused it any loss. It asked only for a declaration which it said would be relevant to determining what would have been a reasonable time within which to have the LPG plant ready. It is not clear to the Tribunal whether this means that the warranty point as such has been abandoned, but it will nevertheless deal with the issues raised in the earlier documents.
131. The warranty is alleged to have been contained in sections 5 and 6 of Annexure 3 to the HoA. The purpose of the Annexure was to set out the services which Dana was required

⁵⁶ *Statement of Amended Counterclaim*, paragraphs 20-24.

⁵⁷ Paragraphs 94-126.

to supply pursuant to clause 7 of the HoA (“Dana shall implement the initial Works Program... of the Khor Mor Gas Utilisation Plan set out in Annexure 3... 3...”). Paragraph 5, which dealt with the LPG plant, said:

“A 150 MMscfd liquids recovery expander plant (after appropriate modifications) that is currently being built by a US manufacturer has recently become available and will be ready for shipment from the US in July 2007... This plant will require some modifications (larger depropaniser and debutaniser columns) to handle the higher liquid loads but such columns can be constructed readily at the US suppliers newly opened facilities in the UAE. Consequently, the LPG plant could be installed and ready for operation by the end of 2007.”

132. Paragraph 6 included the following statement:

“The timetable for such a project is typically 18 to 20 months; the key long lead item is the LPG plant. However, because the LPG plant is available from the US in July 2007 the timetable may be reduced to circa 9 months...”

133. The KRG says that the statements that an LPG plant “has recently become available and will be ready for shipment from the US in July 2007” and “the LPG plant is available from the US in July 2007” were contractual promises that this was or would be the case.

134. Whether these words were contractual promises or simply statements of belief is a matter of construction. Would a reasonable person aware of the background to the HoA have thought that Pearl was promising that the facts were true or only that it honestly believed them to be true? Putting the same thing in a different way, was Pearl offering a guarantee that the plant would be available in July 2007, or at any rate was in such a state that it could be available in July 2007?

135. The Tribunal considers that no such guarantee was being given. First, the claim that Pearl warranted the availability of the LPG reflects the evidence of Dr Hawrami that Pearl only obtained the contract by promising early delivery of an LPG plant. If that were

the case, the inclusion of a warranty would have some plausibility. But the Tribunal, in its First Partial Award, rejected Dr Hawrami's evidence. It said:⁵⁸

“In summary, we find that contrary to Dr Hawrami's present recollection, the ability of Dana to provide an LPG plant in short order played little or no part in the background against which the HoA was negotiated. The important factor was the urgency with which the KRG required gas to be delivered to the IPPs. The LPG plant was a last-minute addition to the Khor Mor plan.”

136. Secondly, the description of the proposed services in Annexure 3 is not the most obvious place in which to find an important warranty. One would expect it to be among the terms of the contract. Indeed, clause 3 of the HoA itself says:

“Dana has an LPG plant under construction which is scheduled for completion in July 2007 (ex- works US) and is willing to divert said LPG plant (which is destined for another project) for use in the Khor Mor Gas Utilisation Plan.”

137. This is where one would expect to find a warranty. But the clause is not expressed as a warranty and the KRG does not rely upon it.
138. Thirdly, the Tribunal has already found that Pearl did not commit itself to a fixed timetable for the construction of the plant. “There were hopes and aspirations but no promises.”⁵⁹ It would be odd, to say the least, for Pearl to have given a guarantee that the LPG plant was available for shipment but no promise as to when it would be installed.

⁵⁸ At paragraph 86.

⁵⁹ *First Partial Award*, paragraph 195.

B. Misrepresentation

139. In the alternative, the KRG claims that the statements about the availability of the LPG plant were, even if not promises, misrepresentations of fact which induced the KRG to enter into the HoA. Were it not for the representations that an LPG plant could be quickly installed, Dr Hawrami would have contracted with another supplier.
140. The Tribunal will deal first with the question of reliance. The KRG says that Dr Hawrami was not cross-examined as to his reliance on the representations.⁶⁰ But the Tribunal does not think it necessary to go over this ground again. Dr Hawrami's assertion to this effect has already been rejected by the Tribunal in the passage from the First Partial Award cited above.⁶¹ He was no doubt pleased when Mr Watts told him that an LPG plant was available but the Tribunal does not consider that it had any effect upon the decision of the KRG to enter into the HoA. What mattered was that Dana was willing, "on a fast track basis", to fund and arrange the erection of a plant and pipeline to supply gas to the power stations.
141. The Tribunal also does not accept that, but for the representation that an LPG plant was available for shipment in July 2007, the KRG would have employed Mass Jordan to build the plant. Mass Jordan had been contractors to build the power stations. If the KRG had thought of them as suitable candidates for funding and building the gas plant as well, it would have done so at a much earlier stage. Instead it approached Mr Jafar.
142. In any case, the Tribunal considers that the only representation made by Dana was that it had been informed by Exterran that an LPG plant would be available for shipment from

⁶⁰ KRG's *Closing Submissions*, paragraph 48.

⁶¹ At paragraph 86 of the *First Final Award*.

the US in about July 2007.⁶² This representation was true.⁶³ The claim for misrepresentation therefore fails.

C. Delay in Completion of the LPG Plant

143. The main thrust of the KRG's counterclaim is an allegation that Dana was in various respects in breach of the express or implied terms of the HoA. Of these, the main complaint is that it took an unreasonably long time to complete the installation of the LPG plant.

I. Construction of the LPG Plant: A Brief History

144. As recounted in the first Partial Final Award⁶⁴, the proposal to incorporate an LPG in the scheme was first made by Mr Watts to Dr Hawrami on 12 March 2007. The HoA dated 4 April 2007 noted that the plant would require modifications "to handle the higher liquid loads" at Khor Mor but said that these could be constructed at Exterran's plant in the UAE and that the LPG plant "could be installed and ready for operation by the end of 2007".
145. During 2007 various unexpected events caused some delays. The removal of mines, the discovery that the Khor Mor gas was sour and contained mercury (both requiring modifications of the LPG plant) the additional of a second LPG train and problems over

⁶² 1 *Watts* paragraph 14.

⁶³ Letter Exterran to Dana of 21 March 2007 (D1/449/1).

⁶⁴ Paragraph 83.

security with local officials set back the early stages of the project by some weeks. A two-week procurement freeze imposed by the KRG in May 2007 caused a six-week delay in delivery of steel pipes because it was a time of heavy demand and Dana lost its place in the queue. However, when delivering its first detailed monthly report to the KRG in August 2007, Dana felt able to forecast that the pipeline would be ready for first gas at the end of February 2008.

146. The main source of delay began to emerge a month later, when the September 2007 report noted that there had been slow progress in the construction of the security camp for the workers who were going to do the civil work for the LPG plant.⁶⁵ The camp was being built by an affiliate of Nokan, one of the local companies which Dana had engaged as sub-contractor. This was a matter of political necessity. Nokan, together with Kar and Zozik, was a company affiliated to the PUK, the dominant political party in the Sulamaniya Province of the Kurdistan Region. The three companies had formed a joint venture ("NKZ")⁶⁶ to bid for the available sub-contracts. The KRG made it clear to Dana that if they wanted to work in the Sulamaniya Province, they would have to employ NKZ.⁶⁷
147. In December 2007, the construction of the site camp was still causing problems. On 10 December 2007 Mr Tom Fuller, the project director on site, reported to Mr Watts:⁶⁸

"The buildings are made from thin corrugated metal with thin doors. No water, heating, etc. apparent in the housing units. These units made with small footings, which are set on small concrete pedestals. No actual connection to foundation. First big wind - blown over. This facility won't last through the construction period, much less be a long-term camp for the operating and maintenance."

⁶⁵ D1/484/1

⁶⁶ In Claimants' internal minutes, sometimes referred to as "KZN"

⁶⁷ 3 *Watts* paragraphs 201-6; e-mail D1/467.

⁶⁸ D1/674

148. The report at the end of December 2007 said that delays in the civil works caused by the delay in constructing the security and accommodation camp had caused the first gas target to slip to May 2008. There had also been an alarming crisis over delivery of the pipes by the Chinese suppliers.⁶⁹

“The manufacture of the remaining line pipe at PCK in China suffered a setback in early December due to non-arrival of the plates, which was followed by PCK stating that production would be deferred for several months due to other priority orders from Chinese national companies. Following intervention of Company’s senior management (a week was spent in China with PCK’s top management), the order was finally brought back on track...”

149. This incident had produced a furious e-mail from Mr Jafar to the board colleague through whom the Chinese order was placed, as a result of which the latter went to China to sort the matter out.⁷⁰ This document, obtained from Mr Makkawi’s stolen lap top, has been heavily relied upon by the KRG as demonstrating Dana’s recognition of its shortcomings and potential liability.
150. At the end of January 2008 Dana contracted with NKZ for the construction of the LPG plant.⁷¹ However, the monthly report at the end of March 2008 recorded that there was little chance of its being available by the time the power stations and the pipeline were ready:⁷²

“The current slow rate of construction progress by the Contractor (NKZ group) for both the pipeline and the LPG plant is of major concern. With respect to the LPG plant, it is now evident, given the delays and late completion of the civil works, the slow mobilization of cranes and skilled manpower resources and the late deliveries of bulk materials (all within Contractor’s supply) that the Contractor will not have the LPG plant ready

⁶⁹ D1/505/4

⁷⁰ D2/324. See cross-examination of Mr Jafar, *Transcript 21* April 2015, pp. 164-167.

⁷¹ D2/441

⁷² D1/122

till after the summer and there is little scope to accelerate that programme. Accordingly, an early production facility has been sourced that will be on the site before the summer...The actual progress as of end March '08, is 75%, only 1% progress since last month and given the poor performance of the construction company to date, the first-gas target date can no longer be predicted with any confidence..."

151. In June 2008 Mr Fuller gave a bleak description of the way NKZ were performing:⁷³

1. No Manager/ Coordinator for KZN at site. Shortage has been addressed with Kar several times.
2. No Site Org Chart nor Project Org Chart. Has been requested and promised several times.
3. No QC procedures at site. Have been requested and promised several times.
4. Absence of Manager/ Coordinator leads to these problems - - Lack of absence of planning - No communication on personnel mob/ assignments/ absences - Poor communication on equipment and materials movements - Poor communication of urgent materials/ equipment for welder testing. As result, Crescent directly sourced materials. - Slow to finalise urgent procurement items for EPF - piping, instr., elect, tools, consumables.

Major change in direction required immediately."

152. Mr Fuller's proposal for a "major change in direction" was "all project management and direction by Crescent". On 29 July 2008 Mr Watts sent NKZ a formal "Notice of Inadequate Performance", listing the matters mentioned by Mr Fuller. His proposal was discussed but not immediately taken up.

153. The quality of welding on the pipeline gave particular cause for concern. On 9 July 2008 Dana sent a formal notification to NKZ instructing them to terminate all local welders

⁷³ D1/805

and replace them with skilled welders.⁷⁴ Dana then arranged to bring a team of 40 skilled Vietnamese welders to supplement the workmen available to NKZ.⁷⁵

154. At the end of August 2008, as the time for first gas approached, tempers began to fray. On 25 August 2008 Mr Jafar wrote to Dr Hawrami asking for “KRG assistance to exert all influence possible on NKZ to perform”. Dr Hawrami’s immediate reply was unhelpful:⁷⁶

“Essentially, we feel that the ultimate responsibility rests with Dana Gas and Crescent (the Contractor) and we cannot get involved more than what we have done with sub-contractors who have not been appointed by us.”

155. On 26 August 2008 Mr Makkawi notified Mr Jafar that completion of the pipeline was unlikely before the end of September and that the Ministry of Natural Resources was threatening a meeting with Dana to take a “serious decision”. Mr Jafar was alarmed and replied:⁷⁷

“this is terrible, absolutely terrible. Extremely disconcerting and worrying, and (despite contractor failings) begs the obvious question and responsibility: why have we (the Companies, DG/CP) so incredibly and consistently fooled ourselves and the KRG?... [H]ow come we (the Companies) have so consistently and regularly misjudged and progressively misrepresented the completion schedule???”

156. On 1 September 2008 Mr Jafar wrote a long letter to Dr Hawrami, saying that Dana was not responsible for the failures of NKZ but that everyone, including the KRG, should concentrate on getting the job done rather than blaming each other. Dr Hawrami

⁷⁴ D2/228.

⁷⁵ 4 *Watts* paragraph 44.

⁷⁶ D2/5

⁷⁷ D2/403

answered that the position of the KRG was that Dana was the party responsible. He went on to say:⁷⁸

“I am not driving this, but I am caught (quite rightly and deservedly) in the middle of it. I am responsible for bring[ing] Dana Gas to Kurdistan, I fought hard for it. The strong belief and argument I had at the time was that Dana Gas could do the project in the fraction of the time, because of your plant availability, hence the required gas could be delivered to the power plants by January 2008, and that others would take a year or two more to do the job. Unfortunately, the January 2008 deadline has long gone, and we are now talking about January 2009 for the initial completion and probably well beyond, hence my original trump card (the timing card) has completely lost its credibility.”

157. This passage, which the Tribunal considers to be truthful, is revealing of two points. First, it shows Dr Hawrami’s perception of his position as a technocrat Minister in the minefield of Kurdistan tribal politics. It accords with Mr Watts’s evidence that Dr Hawrami asked for the most optimistic indicative timetable to be included in the HoA because of “tensions with the Ministry of Electricity” which was putting forward an equally optimistic timetable for the construction of the power stations.⁷⁹ Secondly, the reference to “because of your plant availability” suggests that although the Tribunal did not (and does not) accept his evidence that Dana sold him the project on the basis of having a readymade LPG plant,⁸⁰ it was the basis on which Dr Hawrami himself had, in fact, sold it to his Cabinet colleagues.
158. In September 2008, it was decided to construct a liquid pipeline to Chemchemical for the storage there of condensate and LPG. This required appropriate changes to the pipes of the LPG plant at Khor Mor.

⁷⁸ D2/5

⁷⁹ 1 *Watts* paragraph 15; 3 *Watts* paragraph 343.

⁸⁰ *First Partial Final Award* paragraph 86.

159. Dana followed up its Notice of Inadequate Performance of 29 July 2008 by arranging a meeting with the NKZ management in Sharjah, noted in its (now weekly) report for 6 September 2008.⁸¹

“The progress by KZN, the Contractor on the main plant is extremely poor even allowing for unforeseen obstacles. The Contractor has been formally served notice for deficient performance under the contract. Meetings with KZN top management have been arranged for 14th and 15th September in Sharjah to try and put a recovery plan in place. The intention is to form a joint team under Company's direct control (as used for the EPF) utilising only Contractor's personnel that have demonstrated their capability. Failure to agree this approach will mean the construction contract will have to be terminated and Company will have to adopt alternate direct implementation methods.”

160. First gas was provided to the power stations on 5 October 2008.

161. The Sharjah meeting resulted in a Revised Construction Plan which was sent to the KRG on 20 October 2008 in which Dana and NKZ formed a joint management team. Dana took over entire responsibility for instrumentation and electrical works while NKZ retained responsibility for civil, mechanical and piping works. The new plan forecast the commissioning of the first LPG plant in March 2009, but added:⁸²

“The new schedule is intentionally very aggressive, and assumes all resources will be available on or before the time they are needed. As such, it serves to keep focus on the construction work at-hand, as it does not include continuity and slippage. That being said, it is common that such projects have schedule slippage due to unforeseen circumstances and imperfect resource and material availability... Furthermore several key bulk deliveries from KZN have still not arrived at site, and the delivery dates are not yet confirmed. The reasons for the delays in these bulk

⁸¹ D1/127

⁸² D1/761/11

deliveries are not yet fully understood, but KZN advise that it is mostly due to the competition for resources on a worldwide basis resulting in much longer deliveries than anticipated... The consequences of the late delivery of these bulk materials on the project schedule have not yet been quantified, and so this uncertainty may affect the completion date.”

162. Joint management turned out not to be a success. Dana continued to complain of inefficiencies by NKZ in the areas for which they were responsible and Mr Naoom, of Kar, said that Dana treated joint management as a “pretext” to use Kar “solely as a manpower provided rather than as an autonomous subcontractor”.⁸³ At the end of March 2009, NKZ's contract was terminated by mutual consent. As it was a lump sum contract, this may not have caused NKZ much loss.⁸⁴
163. Dana was now left to finish the construction of the two trains of the LPG plant by itself. This required additional resources and a new form of organisation. Mr Peter Baron, a consultant employed by NRG-Global, was commissioned to prepare a Recovery Plan to address the new situation. Mr Baron delivered his plan on 5 April 2009.
164. The progress report for May 2009 recorded that productivity was improving.⁸⁵

“From the cessation of the Kar JV construction contract in mid-March '09 through to the end of April, only 2% progress was made. The efforts expended at that time were directed at resourcing equipment, materials and tools to replace those services previously provided by the construction contractor. Time was also spent on organising materials and setting up onsite stores and workshops, to increase productivity as the workforce increases. By late April progress began to pick up and at the start of May weekly progress had reached 1.5% per week and by the last week of May it had reached 2%. Overall progress in the 4 reporting weeks in May was thus 7%. Such progress is far better than what was being achieved with the Kar JV construction contract. Indeed, in excess of twice the productivity is

⁸³ 1 Naoom, paragraph 21.

⁸⁴ The contract price was US\$17 million and on 7 March 2009, with the contract 60% complete, Kar claimed to have spent US\$24 million.

⁸⁵ D2/472/13

being achieved with only 60% of the manpower. If the target progress of 2% per week can be maintained, then mechanical completion of Plant 1 should be achieved at the end of September 2009.”

165. In May 2009, however, there commenced the “controversy” which has been described earlier in this award. The KRG denied the Claimants’ development rights and put them on a drip feed of underpayments for condensate which the Claimants regarded as inadequate to fund the increasing cost of the installations. The workforce was reduced and bills went unpaid. In addition, examination of the work which had been done under the NKZ regime showed that a good deal of it had to be undone and redone. The result was that the construction of the two LPG trains progressed very slowly. The second train was finally commissioned in April 2011.

II The Extent of Dana’s Obligations

166. In its First Partial Award, the Tribunal said “there was an obligation to do the work within a reasonable time in all the circumstances.”⁸⁶ The HoA did not expressly say so. It was a matter of implication. As the Tribunal found, Dana had not committed itself to any specific timetable. But the question of what would be a reasonable time depends very much upon what Dana had undertaken to do. What obligations would a reasonable person, reading the HoA and knowing both the specific factual background and the practices of the oil and gas industry, have considered that Dana was undertaking? What risks was it agreeing to bear?
167. The battle lines of the parties on these questions were drawn up in the summer of 2008⁸⁷ and have not changed. The KRG’s position is that Dana was responsible for the work of its sub-contractors. If competent contractors could have completed the work within a given time, that is a reasonable time. If the sub-contractors fell short of this standard, they

⁸⁶ Paragraph 195.

⁸⁷ See paragraphs 154-157 above.

should have been better trained or supervised. Dana, on the other hand, says that the KRG knew that Dana was not a specialist EPC (engineering, procurement and construction) contractor and would have to rely on sub-contractors. Furthermore, the KRG recognised that Dana would have little or no choice in engaging subcontractors for the work within Kurdistan.

168. Since then, the views of each side have been supported by expert evidence. The Claimants' experts, Dr van Meurs and Mr Freeny, say that supplying first gas to the power plants in October 2008 was a signal achievement and that in the circumstances as they existed in Kurdistan there was no unreasonable delay by Claimants in the construction of the LPG plant. The KRG's expert, Dr Lancaster, on the other hand, says that the Claimants' "approach to and performance on the project was entirely inadequate" and that the LPG plant should have been commissioned and functioning by November 2008 instead of the spring of 2011.

169. The disagreement between the experts is almost entirely attributable to the different views they have taken about the meaning of the HoA. This of course a question of construction, to be decided as a matter of law by the Tribunal. But the language of the HoA must be construed against the background known at the time to the parties and this will include practices of the oil and gas industry which will not necessarily be known to the Tribunal. The evidence of experts as to what they consider someone with knowledge of the industry would have understood the HoA to mean is therefore admissible.⁸⁸

(a) The KRG's position

170. The KRG says its position is based on the plain language of the contract. The Key Commercial Terms in Annexure 2 of the HoA included a provision that –

⁸⁸ Expert evidence of what a "person skilled in the art" would have understood a claim in a patent to mean is frequently admitted.

“Dana shall provide all managerial services, supervision, labour, materials and equipment for the performance of the Services, and to procure all funds necessary to carry out and complete the Construction Services.”

171. In addition, recital E stated:

“Dana, being a natural gas resource company does not normally enter into service-type agreements, but being suitably qualified and desirous of developing a strategic partnership with the KRG for development of gas resources, is willing to co-operate with the KRG by entering into these HoA. ...” (Emphasis supplied)

172. The KRG therefore submits that the HoA should be construed to mean that Dana accepted the responsibilities of an EPC contractor who had undertaken to ensure that whatever subcontractors he might employ completed their work within the required time. That was what was understood to be the responsibility of an EPC contractor engaged to build a plant for an upstream oil and gas company. It was ultimately responsible for any failure on the part of the subcontractors and has therefore to undertake whatever planning, supervision and supply of equipment and materials is required to prevent this from happening.

173. The KRG’s expert, Dr Lancaster, explained in his opening presentation the basis of his approach:⁸⁹

“On any complex oil and gas project of the nature of this project, it’s essential to have single project management control from an entity that has both contractual and practical control over all of the phases of the project being engineering, procurement and construction, as well as over the numerous subcontracting parties. [T]he claimants were really in that unique position, in my opinion, that they were able to exert both the contractual and practical control over all of the subcontractors and over all of the phases of the work.”

⁸⁹ *Transcript Day 6*, pp. 39-40.

(b) *The Claimants' position*

174. The Claimants dispute the KRG's construction of the contract. The contractual provision that Dana would "provide all managerial services, supervision, labour, materials and equipment for the performance of the Services" obviously did not mean that Dana would do all these things in-house. It meant that Dana would procure them to be done by engaging subcontractors. This obligation Dana discharged. But the provision is neutral as to the degree of control and supervision which Dana was required to exercise. As for the statement in recital E that Dana was "suitably qualified" for "developing a strategic partnership with the KRG for development of gas resources", that was true. It is put at a very high level and could not have been taken to mean that Dana had experience of hands-on plant construction. Everyone knew it did not.
175. The HoA is, say the Claimants, altogether different from an EPC contract. The responsibility of the main contractor for any delays or poor work by subcontractors makes sense when the contract specifies a time within which the work must be completed and when the contractor is receiving stage payments for its work. But the HoA deliberately omitted any commitment to a completion date and it would be wrong to try to smuggle one in by treating the indicative timetable as a "reasonable time" subject only to delays outside the control of Dana or its sub-contractors.
176. Both parties referred to the principle stated by Judge Seymour QC in *Astea (UK) Ltd v Time Group Ltd*⁹⁰ for deciding whether a reasonable time has been exceeded. This requires –

⁹⁰ [2003] EWHC 725.

“...a broad consideration, with the benefit of hindsight, and viewed from the time as at which one party contends that a reasonable time for performance has been exceeded, of what would, in all the circumstances which are by then known to have happened, have been a reasonable time for performance. That broad consideration is likely to include taking into account any estimate given by the performing party of how long it would take him to perform; whether that estimate has been exceeded and, if so, in what circumstances; whether the party for whose benefit the relevant obligation was to be performed needed to participate in the performance, actively, in the sense of collaborating in what was needed to be done, or passively, in the sense of being in a position to receive performance, or not at all; whether it was necessary for third parties to collaborate with the performing party in order to enable it to perform; and what exactly was the cause, or were the causes of the delay to performance. This list is not intended to be exhaustive.”

177. The Claimants say that the application of these principles requires one to consider what the parties contemplated as being Dana’s obligations and what actually happened on the ground. The KRG knew, and indeed it was public knowledge, that Dana and Crescent are upstream oil and gas investors. They are not EPC contractors. For the purpose of their oil and gas projects, they have a team of project directors who can exercise high level supervision over what the building contractors are doing. Mr Watts, who was Projects Director on the Khor Mor project, had joined Crescent in 1989. But they have no experience of the detailed ground-level control which an EPC contractor would exercise over his sub-contractors.

178. The background to the HoA was that no international EPC company was willing to take on the job. The Claimants therefore undertook to co-ordinate the necessary sub-contractors but cannot have been expected to exercise detailed supervision. In the event the slow progress forced them to exercise closer control and eventually to dismiss the principal sub-contractor and step into its shoes, but that was not something they were contractually obliged to do. They had no choice in their appointment of sub-contractors, who were nominated by the KRG on the basis of their political connections. It cannot therefore be reasonable to hold the Claimants responsible for the subcontractors’ poor

work. After the passage relied upon by the KRG, recital E goes on to say that “current legal and political circumstances in Iraq may render engagement of subcontractors for the performance of the Services problematic.” This was a recognition of facts on the ground which the Claimants say demonstrate that the HoA could not reasonably be construed as making them responsible for the shortcomings of such subcontractors as they were able to engage.

(c) Opinion of the Tribunal

179. The Tribunal considers that the Claimants’ construction of the HoA is correct. The HoA required Dana to devise a general plan for the procurement of plant such as the LPG and engagement of the necessary subcontractors, to co-ordinate their activities and exercise a high-level supervision over what they were doing. Mr Watts reflected what both parties knew to be the realities of the situation when he said of NKZ, the main contractor nominated on political grounds by the KRG, which was building the LPG plant:⁹¹

“We do not ‘plan and utilize’ the manpower of a third-party construction contractor. We had little or no control over NKZ’s manpower. All we could do was insist that NKZ perform their contractual obligations, pressure them if they didn’t perform and ultimately terminate them when, despite our best efforts, they turned out to be hopeless...”

180. The question of what was a reasonable time for completion must therefore be answered by consideration of all the circumstances, including the performance of the subcontractors and the limited ability and obligation of Dana to exercise control over them.
181. It is clear from the background and the references to the work being done on a “fast track basis” that the absolute priority was to get the gas out of the ground and into the power

⁹¹ 4 *Watts* paragraph 108.

stations as soon as possible. It was for this reason that work on the LPG plant was more or less suspended to give priority to the EPF. Gas had been found at Khor Mor but very little was known about its quantity or quality. As Dr van Meurs said in his oral evidence:⁹²

“...[T]he facts and circumstances of this field were very very poor if you look at the information available in Annexure 3 and Annexure 5. There was no information to make anything like we talked about in the field development plan. There was almost no information and consequently the so-called work plans that were added were I think ideas of what the parties wanted to do.”

182. Dr van Meurs said that an international oil and gas company will normally expect to take some time in evaluating the resources of the field (between 1 to 3 years) and preparing a development plan. Instead, these stages were omitted:⁹³

“Making major investment commitments without a proper appraisal program was a very high risk undertaking and was done in in order to provide the power plants as soon as possible with natural gas... This strategy turned out to be very successful for the two Parties since first commercial gas was established in October 2008, which is in about 18 months after the Effective Date. This is a far shorter time frame than even a short international time line, which would have been 54 months.”

183. It must also be borne in mind that Dana had its own commercial interest in being able to produce condensate and then LPG as soon as possible. Only by the sale of these products would it be able to recoup its considerable expenditure. It was therefore in its own interest, when it became apparent that the subcontractors building the LPG plant lacked the necessary competence and organizational skills, to undertake more and more of the planning and supervision themselves. But this does not mean that it had a duty to the KRG to do these things. One cannot infer from what it did at a later stage that, as a

⁹² *Transcript Day 8*, p. 70.

⁹³ *Van Meurs*, paragraphs 99-100.

matter of contractual obligation, it ought to have been done earlier or better. The Tribunal considers that the heavy reliance placed by the KRG on such matters as Mr Peter Baron's recovery plan is based upon this fallacy.

III Pearl's Performance

(a) *The expert witnesses*

184. The KRG's expert, Dr Lancaster, is a consultant who specialises in analyses of the causes of delay and whether contractors are entitled to extensions of time. These questions will ordinarily arise in the context of a contract which specifies a time within which the work must be completed, subject to the possibility of extensions on grounds such as events outside the control of the contractor. In the present case, the contract specified no time for completion. Dr Lancaster, as appeared in cross-examination, took instead the indicative dates in Annexure 3⁹⁴ and treated them as contractually binding, subject to Dana being able to show grounds for extension.⁹⁵

"A. I have used the schedule that was developed by the claimants in May 2007, that was presented to the respondents early in June 2007, and I view this as the claimants' baseline schedule, which I believe is a fundamental document stating the intention as far as execution and planning of the project.

Q. So you have taken the end point from the indicative time-line, which is also in the baseline schedule?

A. Hm-hm.

⁹⁴ These had been attached to the Project Execution Plan ("PEP") produced by Dana in the month after the HoA was signed. Dr Lancaster's view was that although the timeline in the HoA was merely indicative, its repetition in the PEP suggested that Dana had by then decided that it was achievable: *1 Lancaster*, paragraphs 183-186; *Transcript* Day 6, pp. 115-116.

⁹⁵ *Transcript* Day 6, pp. 116-117

Q. And you asked yourself where there are specific events that justify extensions of time from that?

A. Yes, again, as I said, from the baseline schedule.

Q. You have effectively approached the analysis of delay as you would if there were a fixed timeline in our contract and a mechanism for extensions of time, yes?

A. That is largely correct....”

185. The Tribunal considers that as a matter of law it was wrong of Dr Lancaster to treat Pearl as if it had undertaken to complete the work within the time lines stated in the HoA or the first PEP, neither of which was contractually binding. The question of what was a reasonable time to complete a given project is an objective question, requiring all the circumstances to be taken into account. An indicative timeline is a relevant item of evidence as a prediction but it may turn out to have considerably underestimated what would be a reasonable time to complete the work. As mentioned above, Mr Jafar had occasion to criticise his team for producing over-optimistic forecasts. That does not mean that such forecasts must be deemed to have been a reasonable time. Pearl may simply have got them wrong. In such a case, it does not have to show that circumstances out of its control made it take longer. Its only obligation is to complete the work within what in all the circumstances was actually a reasonable time, taking into account what the contract required it to do.⁹⁶

186. The second defect in Dr Lancaster’s evidence was that he treated Dana as responsible for the shortcomings of its subcontractors. For the reasons given above, the Tribunal does not consider that this correctly reflected Dana’s obligations under the HoA.

187. The result is that the Tribunal found Dr Lancaster’s evidence of little assistance. That is not to question his expertise in assessing contractual delays. But he applied it to the wrong contract.

⁹⁶ See *Shawton Engineering Ltd v DGP International Ltd* [2005] EWCA Civ 1359, Exhibit RLM-259.

188. The Claimants' first expert, Mr Freeny, was a project engineer from Texas whose experience lay in the design, construction and management of oil and gas facilities, including projects in the Middle East. He noted that Dana had originally hoped that Exterran would build the LPG plant but declined for security reasons. He had never heard of NKZ.⁹⁷

“an operator/investor in the position of the Claimants would typically expect to rely upon experienced international EPC contractors to design, procure, and build facilities – especially in a remote region such as Khor Mor that lacks an experienced base of technicians. I understand that the Claimants tried repeatedly, for all aspects of the work, to engage qualified contractors. To have succeeded in implementing the project without reliance upon international EPC contractors is remarkable, in my view.”

189. Both Mr Freeny and the Claimants' second expert, Dr van Meurs, a well-known authority on the oil and gas industry, made “bench marking” comparisons with the times taken to construct other LPG plants in Iraq and elsewhere.⁹⁸ This was largely because such projects are usually preceded by substantial periods of evaluation and planning which Dana was obliged to omit in order to deliver gas to the power stations as soon as they were ready to receive it. This objective was substantially achieved, but the construction of the LPG turned out to be more difficult for the reasons already discussed.

(b) Specific Complaints

(i) Planning

190. Dr Lancaster was very critical of the planning for the project. He said it was the most poorly planned project he had ever experienced. That may well be true. But the question is whether the Dana was contractually responsible for this poverty. Dr Lancaster said

⁹⁷ 1 *Freeny* paragraph 114.

⁹⁸ 1 *Freeny* paragraphs 129-130, 2 *Van Meurs* paragraph 101.

that, in addition to a regularly updated PEP, he expected Dana to have a control schedule.⁹⁹

“Typically, the project manager, with the support of a planning team, will develop a master schedule which sets out every activity that needs to be completed in order to complete the entire project. The key interfaces between the contractor and the subcontractors must be clearly detailed in this schedule to ensure all the works are coordinated. Once this has been completed, the subcontractors develop more detailed schedules together with the project manager, who is responsible for refining the subcontractors’ project schedules and subsequently integrating them to produce a Control Schedule. The Control Schedule in turn is used to control the works and to ensure that the work of one subcontractor supports rather than delays the work of the other subcontractors.”

191. Dr Lancaster said that Dana had particularly fallen short in relation to the construction of the LPG plant.¹⁰⁰

“In contrast to the thousands of activities in the Control Schedules of the other oil and gas projects I have been involved in, the Claimants’ project schedule from May 2007 contains only 156 activities. Whilst I have seen an example of a slightly more detailed schedule created by the Claimants (with approximately 400 activities), I have seen no evidence that the Claimants were holding a more detailed integrated Control Schedule – of the type I have described above – that would provide a sound management basis and that could be utilised to monitor the levels of progress and productivity.

For example, the Claimants’ schedule identified as one single activity “LPG Plant Installation” with a duration of one-hundred-and-twenty days. This activity actually comprises many hundreds of activities. Each of those hundreds of activities needs to be individually planned and coordinated as part of the schedule. Without a plan, the individual activities will not be completed efficiently: the contractor will have no way to ensure that the right people and equipment for the activity are on site at the right time.”

⁹⁹ 1 Lancaster 59

¹⁰⁰ 1 Lancaster 69, 71

192. Mr Watts, the Dana Project Manager, was cross-examined about why he had not prepared a plan of the kind described by Dr Lancaster:

“Q. The proper plan that should have been drawn up should have planned, right from the outset, exactly how the LPG plant was going to be transported, constructed, installed and commissioned?

A. Well there was a high-level plan that was prepared and that plan would be based upon the information provided at that time that was known, from Hanover, the time known for the shipping times, the time known for the manufacture of the pipe, the time known for the wells and it was based upon a timeline that Hanover had given based upon their experience of a local contractor and it was based upon a set of assumptions of one LPG plant set out in the HoA.¹⁰¹

...

Q. ...[Y]ou didn't have a level 2 [detailed plan] covering the whole of the construction, installation and commissioning of the LPG plant at any time, did you?

A. Yes, what happened was that we were expecting the contractor, the construction contractor, to provide a detailed schedule on that. And as it transpired, we hired our own site planner to assist him on that...¹⁰²

193. In the opinion of the Tribunal, Dana was acting within its contractual responsibilities under the HoA in expecting the detailed plan to be provided by the site contractor. So far as it went further in providing the contractor with a planner, it was no doubt acting in its own commercial interest but was not contractually obliged to do so. Even the provision of such assistance to the contractor required a degree of co-operation which does not always appear to have been forthcoming. Mr Watts said:¹⁰³

A.... [The site planner provided for the contractor] was Mark Minna originally, who arrived in February 2008. He became very frustrated with the lack of co-operation by NKZ, he left, he was also concerned for his safety. He was replaced by Yandri Jandak and those detailed plans were worked out on site under Tom Fuller...”

¹⁰¹ *Transcript Day 3*, p.182

¹⁰² *Transcript Day 3*, p.194

¹⁰³ *Transcript Day 3*, p. 194,

(ii) Project Management Team

194. Dr Lancaster's opinion was that Dana's project management team was inadequate and the KRG says that this is supported by the report of Mr Peter Baron, which recommended that it be strengthened. The Tribunal considers, however, that Dr Lancaster's opinion was given on the assumption that Dana had the duties of an EPC contractor. Mr Baron's report was directed to Dana's decision to take greater control over the work of NKZ and eventually to replace them. The Tribunal does not consider that the project management team put in place by Dana fell short of its contractual responsibilities.

(iii) Supervision

195. Dr Lancaster's views on supervision show clearly how he was assuming the contract to be something other than it actually was. He was asked in cross-examination:¹⁰⁴

"Q....[W]hat clauses or mechanisms/procedures, would you expect to see in the contract to be used as a means in the future of controlling the performance of the installation subcontractor?"

A. There [are] normally numerous procedures that are tied into the contract and normally the way I'm used to working is that the contractor would develop his own PEP and a suite of procedures. The procedures would deal with each of the different disciplines of project management, such as project controls and quality control and then typically what you do is you either write your procedures in a way that they can be passed to the subcontractor, or otherwise you make a second set of those procedures, which specifically mirror your own procedures as instructions to the subcontractor, and I would have expected to have seen that that was all tied into the contract.

Q. Have you seen evidence of that being done by –

A. No, both in the PEP and in the contract it's only very high level."

¹⁰⁴ *Transcript Day 6, pp. 203-4*

196. The terms of the subcontract with NKZ were no secret. They had been approved by the KRG. So was the PEP. They imposed the duty of detailed supervision of the workforce upon the sub-contractor and contemplated only high-level supervision by Dana because that was what the parties intended. But Dr Lancaster has proceeded on the assumption that the parties had agreed to the way he “was used to working”.

197. Mr Faris Naoom, the head electrical engineer at Kar, also considers in retrospect that Dana should have exercised detailed day to day supervision over the work.¹⁰⁵ The answer to NKZ’s admittedly lamentable performance in welding was, he says, that Dana should have had a “quality control team” to—

“review... the welding jobs done every day to ensure that adequate welding procedures are being followed. If they are not, the quality control team provides specific instructions to the welders to resolve any welding procedure deficienciesThe Claimants did not have an adequate quality control team in place across the different sub-systems of the LPG plant. They had one welding supervisor, but no quality control engineers or managers on site.”¹⁰⁶

198. This again appears to the Tribunal to be based upon a misapprehension about the terms of the subcontract under which NKZ had been engaged. This provided:¹⁰⁷

“[NKZ] shall provide a dedicated and experienced construction management team to plan, schedule and supervise efforts to comply with the project’s requirements”

and

“[NKZ] shall provide all labour, general equipment, special equipment, materials, resources, accommodation, sustenance, supervision, management, finances, H & S requirements, technical expertise, quality

¹⁰⁵ 1 Naoom paragraphs 26-27.

¹⁰⁶ 1 Naoom, paragraphs 26-27.

¹⁰⁷ D2/441

control, environmental management, survey, security, land management liaison, and approvals processes necessary to carry out the scope of work under the contract and complete the Work on or before the Contract Completion Date.”

199. The Tribunal does not consider that Dana failed in performing any contractual duties of supervision.

(iv) Procurement

200. Mr Makkawi was cross-examined at some length about the importance of planning for procurement and linking the plan for construction with a schedule of when items will be required on site (“ROS dates”). Dr Lancaster regarded Dana as responsible for creating such a schedule. When asked why Dana did not have one, Mr Makkawi said that Dana was the owner, not the contractor.¹⁰⁸ It was acquiring the long lead items (such as the LPG plant from Exterran) and was concerned about the planning for when they would be required but otherwise the ROS dates for bulk materials were a matter for NKZ. The Tribunal considers that Mr Makkawi’s position was correct.

(v) The Alternate Work Programme

201. The KRG complain that Dana was not entitled to reduce manpower in response to the KRG’s denial of its rights and reduction in payments.¹⁰⁹ But the question is whether the construction was completed in a reasonable time in all the circumstances and the fact that Dana’s rights were denied and its cash flow reduced were facts, part of the relevant circumstances. The Tribunal considers that the KRG is not in a position to complain of Dana’s reaction.

IV Conclusion

¹⁰⁸ *Transcript Day 3*, p. 97

¹⁰⁹ *Respondent’s Closing Submissions* paragraph 172.

202. The Tribunal considers that the KRG's counterclaim based on delay in completion of the project has not been made out.

D. Design and Operational Defects

(a) Residue gas

203. The KRG alleges that the plant has been producing less residue gas, LPG and condensate than it should have done and that this reflects defects in its design and operation for which Dana is contractually liable. The KRG's expert, Mr Emory, had calculated the quantity of these products which he thought the plant should have been able to produce and arrived at higher figures than the actual production. This, says the KRG, is a "tell-tale sign that something is badly wrong with the plant".¹¹⁰ The KRG does not identify what was wrong. It says that the Claimants are in a position to provide an explanation for the shortfall and have not done so. The Claimants on the other hand say that they have a financial interest in operating the plant at maximum capacity. If it can be operated to produce more, they would like to know how.
204. Mr Emory at first said that the plant should have been able to produce 350 million scf/d. This was on the assumption that it ran with 5 compressors. The Claimants' practice, however, was to run the plant with 4 compressors and have one in reserve. That reduced the output to 330 million scf/d. Mr Emory regarded this as conservative but accepted that it was reasonable.¹¹¹ This average daily quantity which the plant ordinarily produced

¹¹⁰ *Respondent's Closing Submissions* paragraph 186.

¹¹¹ 2 *Emory* paragraph 35, *Transcript* Day 6, p. 231.

was about 325 million scf/d.¹¹² The Claimants' expert, Mr Freeny, did not think this indicated there was something wrong;¹¹³

"Mr. Emory's data shows the actual production values indicating an average of 325 MMScf/D being produced by the combined facilities. Many engineers, including myself, would conclude, based upon three years of data, consistently indicating a maximum residue gas production from the combined facilities averaging 325 MMScf/D that the maximum production was, in fact, this quantity. If they had "calculated" a different quantity, the presumption is that the calculated value, rather than the actual value, is incorrect."

205. The argument then resolved itself into whether, when looking at average figures, the 330 million scf/d notional capacity should be discounted by an "availability factor" to allow for stoppages, planned or unplanned maintenance and so forth. The conventional figure in the industry is 5%. In his first report, Mr Emory said:¹¹⁴

"Assuming no gas supply or product off take interruptions, residue gas production should be at or near plant capacity with 95+% annual availability."

206. In his later reports and oral evidence, however, Mr Emory said that no availability factor should be applied, apparently on the ground that the operator could compensate for stoppages, maintenance and so on by running the plant at higher than 330 million scf/d for some of the time.
207. The Tribunal considers that this would make nonsense of the concept of an availability factor. It must be obvious that one could to a greater or lesser extent make up lost ground by running the plant harder and if this were the answer, no one would use an availability factor at all. Mr Emory's solution might be relevant to the plant meeting some short-term target but makes no sense in relation to year by year capacity.

¹¹² See graph in exhibit JWE 1 (F1/1)

¹¹³ 2 Freeny 189

¹¹⁴ 1 Emory paragraph 40.

208. The Tribunal therefore rejects the submission that there was a significant shortfall in residue gas production which indicated that there was something badly wrong with the plant.

(b) Condensate and LPG

209. Mr Emory says that the design basis of the plant indicated that it would produce a great deal more condensate and LPG than it has actually been doing. Again, the KRG submits that this must be due to some major but unspecified defect in the way in which the Claimants have been operating the plant. Mr Freeny, however, points out that the design basis, calculated before the plant was built and without information about the gas which it would process, made certain assumptions about the content of the feedstock. The fact that the plant produces less condensate per million scf than indicated by the design basis shows only that the actual feedstock differs from the design basis assumptions.¹¹⁵

“Condensate is simply “light oil” and, unlike propane and butane, cannot be reinjected into the residue gas. Put simply, what comes out of the reservoir via the well must go through to the storage tank. Condensate is too “heavy” (chemically) to be put into the LPG or into the residue gas. There are 15,000 B/D (as opposed to 26,000 B/D) of condensate being produced for the simple reason that that is all there is in the reservoir gas being fed to the combined facilities; you simply cannot produce what is not there to begin with. In my opinion, Mr. Emory’s estimates of potential LPG production are similarly flawed and for the same reason.”

210. The Tribunal does not consider that the KRG was able to produce an answer to these observations. Of course, in running the LPG plant in tandem with the EPF (which produces no LPG) the Claimants would have been able to vary the feedstock fed to each

¹¹⁵ 1 Freeny paragraph 192.

and thereby produce more or less LPGs, but the Tribunal considers this to have been a commercial decision rather than indicating any fault in the operation of the plant.

(c) Improvements

211. Mr Emory also gave evidence that the plant could be modified at a cost of some US\$22 million to process more gas and produce more condensate and LPGs. The Tribunal considers this to be irrelevant to the KRG's claim for damages. The Claimants had no obligation to spend any money on modifications which they had not agreed as part of the Services Plan.

(d) The residue gas compressors

212. The KRG say that the plant's gas compressors were not fit for purpose. They were designed for a maximum ambient temperature of 42°C. Summer temperatures at Khor Mor are sometimes higher. During the summer of 2011 one or other of the compressors occasionally tripped on account of overheating. In the following year Dana installed cooling pads which dealt with the problem.
213. Mr Watts says that Dana ordered standard off-the-shelf compressors from Exterran because they could be delivered more quickly and were cheaper. It had agreed to a fast track construction and did not want to delay matters by ordering bespoke compressors. A maximum ambient temperature of 42°C is a standard specification in the Middle East, although there are places where temperatures go higher.¹¹⁶ Mr Freeny agrees that this was a reasonable decision.

¹¹⁶ 3 Watts paragraphs 306-307.

214. The Tribunal considers that this issue has received more attention than it deserves. It is not at all clear that the tripping of the compressors had any effect on the gas flow to the power stations. It was Dana's practice to use four compressors and have one in reserve. Mr Freeny said that if one compressor tripped the spare would take over. There would be no loss of pressure in the pipeline.¹¹⁷ Mr Emory said he would require more operational data to say whether this was true or not. The Tribunal has no evidence of complaints from the power stations about loss of pressure in hot weather.

215. The Tribunal considers that the installation of the original compressors was a reasonable commercial decision which was not a breach of Dana's contractual obligations to the KRG.

(e) Coalescer filters

216. These are used to remove lube oil which has entered the gas stream from the compressors. Those originally purchased did not filter all the oil because they were designed for a higher pressure than the power stations required. This appears to have been result of inadequate communication between Dana and the Ministry of Electricity at the design stage: another consequence of the fast track construction. They are due to be replaced when an opportunity to shut down the plant becomes available. There is no evidence that such lube oil as got into the gas stream has caused any damage or loss. The Tribunal does not consider that more need be said about the filters.

(f) Depropaniser

217. A depropaniser separates propane from butane in the LPG mix and enables it to be sold in whatever proportions the buyers require. As noted in the first Partial Final Award,¹¹⁸ the

¹¹⁷ 2 Freeny 224.

¹¹⁸ Paragraph 169

propane/butane ratio (by weight) of the LPG from Khor Mor in its natural state is on average 60-40. Dana has not installed a depropaniser and the KRG says that it ought to have done so. Although a depropaniser is mentioned in the HoA as something which Exterran had (subject to modifications) on offer, the Tribunal does not consider that Dana undertook any contractual obligation to install one. It could have no effect on the supply of gas to the power station but only on the saleability of the LPG. As there is no evidence that the Claimants could have sold their LPG at higher prices if the propane and butane were in different proportions, the Tribunal considers that doing without a depropaniser was a reasonable commercial decision.

(g) *Other matters*

218. There are also various peripheral complaints concerning matters such as the amount of condensate storage installed at Khor Mor and the validity of the plant performance test conducted in 2015. The Tribunal has considered these but does not find that they evidence any breaches of the HoA.

(h) *Conclusion*

219. The Tribunal finds that the KRG has not established any defects in the design or operation of the plant which constituted a breach of the terms of the HoA.

E. Appraisal Work and Seismic Data

220. Article 32 (first) of the Kurdistan Region Oil and Gas Law provides that the Region "shall have title" to all data and information, "whether raw, processed, interpreted or analysed, regarding Petroleum in the Region". In September 2009 Dr Hawrami sent Mr Jafar an e-mail asking for the seismic data which Dana had obtained from its appraisal

work at Khor Mor and Chemchemical.¹¹⁹ On 13 November 2009 Dr Hawrami wrote a letter repeating the request.¹²⁰

221. On 26th November 2009 Mr Watts sent Dr Hawrami a disc containing seismic data for Khor Mor and Chemchemical and a “Summary Report on Seismic Data Interpretation and Mapping” for Khor Mor.¹²¹ On 16 December 2009 he sent a similar report on Chemchemical.

222. There does not appear to have been any further request for seismic data until the commencement of this arbitration.¹²² There had been nothing previously to indicate that the KRG was not satisfied with the information provided. The main complaint now is that Dana sent only the interpretation of the data and did not supply the raw and intermediate data from which it was derived. Dana’s Chief Geophysist Dr Kaibili explained that raw data by itself is useless. It must be processed to remove noise and then interpreted. This is a lengthy and costly process.¹²³ It would be most unusual, he said, for a host government to commission its own interpretation of the raw or intermediate data.

223. The KRG’s expert, Mr Moritz, explained why a host government needed seismic data.¹²⁴

¹¹⁹ D2/480

¹²⁰ D2/11

¹²¹ D2/249

¹²² KRG’s *Statement of Defence and Counterclaim* 12 December 2014, paragraphs 572 and 573.

¹²³ *Kaibili*, paragraph 11.

¹²⁴ C4/33/10.

“Having complete information about the extent and distribution of its petroleum reserves and resources is crucial to a government’s ability to evaluate proposals for further development and negotiate the scope and terms of any further development.”

224. That seems entirely reasonable. Equally, it is possible that for some reason a government may wish to reinterpret the raw data. In such a case, the government would be entitled to ask for it. However, the present situation is that the parties have not reached the stage at which the Claimants are in a position to make proposals for further development pursuant to their exclusive rights in Khor Mor and Chemchemal. And the main reason for this, as the Tribunal has found in section A of Part Two above, is that the KRG has, in breach of its obligations under the HoA, obstructed the attempts of the Claimants to carry out the appraisals (including obtaining more seismic data) which would enable them to make such proposals. This no doubt is the reason why the KRG made no further requests for seismic data after 2009.

225. The Tribunal therefore considers that the KRG has not demonstrated that it has suffered any loss from not having obtained more seismic data than the Claimants have already provided and that it would be premature for the Tribunal to make any order requiring the Claimants to provide such data.

F. Audit Request

226. Clause 1.5 of Annexure 6A to the HoA provides:

“1.5.1. The KRG shall have the right: (a) to audit the Accounts with respect to each Calendar Year within a period of two (2) Calendar Years following the end of such Calendar Year (“Audit Period”); and (b) to retain an auditor of international standing familiar with international petroleum industry accounting practice to undertake or assist the KRG to undertake the said audit.

1.5.2 For purposes of auditing, the KRG, acting reasonably and in accordance with prudent international petroleum industry practice, may examine and verify, at reasonable times upon reasonable prior written

notice to the CONTRACTOR, all charges and credits relating to the Services, such as books of account, accounting entries, material records and inventories, vouchers, payrolls, invoices and any other documents, correspondence and records including electronic records reasonably considered necessary by the KRG to audit and verify the charges and credits, values and treatments.”

227. On 24 May 2009, the KRG wrote to Dana making a peremptory request for an audit. This request was part of a group of letters sent by the KRG to mark its displeasure at the sale of minority interests in Pearl to MOL and OMV.¹²⁵ On 1 August 2009 the KRG wrote to say that it would shortly be giving instructions about the audit¹²⁶ and on 10 August 2009 Dana wrote to say that it would co-operate.¹²⁷ Nearly two years then passed without anything happening. On 14 May 2011 Dr Hawrami sent an e-mail to tell Dana that it was allocating it US\$35 million of the “*silfa*” payments¹²⁸ received from the Federal Government. The e-mail went on:¹²⁹

“[T]his payment should be treated as a cash advance from the KRG to Dana...until your actual entitlements have been agreed by KRG appointed independent international auditors.”

228. The audit to agree or determine the “actual entitlements” to *silfa* payments appears to have been a requirement of the Federal Government, as Dr Hawrami explained in an e-mail a month later.¹³⁰

“Please be advised that we have recently received a written notification from the federal Ministry of Finance stating that there will be no further

¹²⁵ *Transcript Day 5*, p. 159 (Dr Hawrami).

¹²⁶ D1/90

¹²⁷ There had been a “without prejudice” meeting at which it was reported that the KRG agreed to treat its 24 May letters as “ineffective” (see e-mail from Jeremy Carver, C-134) but the Tribunal does not regard this as significant.

¹²⁸ For an explanation of the *silfa* payments, see the first Partial Final Award, paragraph 135.

¹²⁹ D2/41

¹³⁰ D2/494

cash advances to the KRG with respect to any oil exports made from the end of March onwards until all the cost statements related to the companies contributing to the oil export have been prepared and independently verified (audited). This unfortunate new and unexpected development is contrary to the clear agreement previously reached with Baghdad. It was understood that the payments will continue during the audit process and then all the cash advances will be reconciled with each of the project audit findings and outcomes when the audits are completed.”

229. It appears therefore that the audit to which this correspondence refers had nothing to do with the audit under the HoA which had been requested two years earlier.
230. The next mention of an audit was in a letter from Dr Hawrami to Dana dated 6th August 2014, requesting compliance with the audit request of 24 May 2009. The KRG now seeks an order that the Claimants permit an audit to take place.
231. The Tribunal considers that the request of 24 May 2009 must be considered as abandoned and that it cannot be revived after the limitation period in clause 15.1.1 has expired. The purpose of the limitation period, like most limitation periods, is to protect Dana against having to find explanations for transactions which took place years ago, when evidence may have been lost or the persons involved not available. It would be contrary to the purpose of this provision if the KRG were able to make a request without taking any action upon it for five years and then claim to be able to demand the audit. The Tribunal considers that unless a request for an audit is followed by steps to conduct that audit within a reasonable time thereafter, it must be treated as having been abandoned. Five years is well in excess of a reasonable time.
232. In 2014 KRG made a further request for an audit in respect of the years 2012 and 2013. This was conducted by Deloitte and completed in 2015. Dana disputes most of the “audit exceptions” raised by Deloitte and these have not been agreed. For such a case, the HoA provides:

"1.5.6...If thereafter there still exists a disagreement between the KRG and the CONTRACTOR, the Dispute *will* be settled in accordance with Paragraph 1.5.7. (Emphasis supplied).

1.5.7. Any Dispute between the Parties under this Paragraph 1.5 that cannot be settled amicably within sixty (60) days of the KRG's final notice under Paragraph 1.5.6 may be submitted to an independent expert at the request of either the KRG or the CONTRACTOR. In this specific instance, the decision of the expert shall not necessarily be final and any Party may decide to submit the matter to arbitration in accordance with the HoA."

233. Dana proposes to submit the matter to an independent expert. The KRG says that the procedure of an expert is merely optional and invites the Tribunal to rule upon the exceptions. The Tribunal considers that either party has the right to refer the dispute to an independent expert and that the Tribunal cannot pre-empt this right. If the KRG is dissatisfied with the decision of the expert, it can refer the matter to arbitration.

G. Delayed Development Claim

234. During the period 2008 to 2012 negotiations (mostly without prejudice) took place between the parties with a view to settling the dispute. The KRG says in paragraphs 383 to 405 of the Statement of Amended Counterclaim that by insisting on unreasonable terms in the course of these negotiations, the Claimants were in breach of their obligation to negotiate a reasonable development plan in accordance with industry standards.
235. Although there was a statutory model PSC contract in Kurdistan, there is no evidence that any definite offer was made to the Claimants and the Tribunal has found that although the KRG was willing to negotiate, it would do so only on the basis that negotiations started from scratch without regard to Dana's development rights under the HoA. Indeed, until the first Partial Award, the existence of such rights was consistently denied. The Tribunal therefore considers it impossible to say that the Claimants were in breach of their

obligation to enter into reasonable negotiations. The claims in paragraphs 383 to 405 therefore fail.

H. Conclusion on the KRG's Counterclaims

236. The Tribunal considers that none of the heads of the KRG's counterclaim has been established and therefore dismisses it in its entirety.

PART FOUR: DECLARATORY RELIEF

237. In paragraph 113 of its Revised Statement of Claim, as amended by Appendix 3 to its skeleton argument, Pearl invites the Tribunal to make 18 declarations. The Tribunal will consider each of these, but in general it considers that it would be unwise, in the absence of some dispute over the meaning of the contract, simply to restate in other words what is already stated in the HoA. Whether to make a declaration is a matter for the discretion of the Tribunal.

(a) *A declaration that the "term of the Contract" is 35 years.*

238. BP[33] of Annexure 2 provided that –

"The term of these HOA or any successor agreement(s) thereto shall be for a duration to be agreed between the Parties but in any event shall not be less than the maximum duration of gas supply to any IPP or the duration of RRC's normally applicable to this type of agreement, whichever is greater".

239. In addition, paragraph 4.2 of Annexure 6A says that the term of the HoA shall be "not less than 25 years".

240. These provisions seem clear enough. How much longer than 25 years the contract will last depends upon what may in future be agreed between the parties or determined by arbitration. The Tribunal sees no advantage in making a declaration now.

(b) Declarations as to Pearl's rights in respect of the Initial Services Plan and Further Services Plans.¹³¹

241. The first declaration sought is (aa):

“(aa) That full field development of the HoA Areas can take place pursuant to one or more FSPs, and that no other contractual instrument (such as a PSC, RSC or any other agreement) is required.”

242. The Tribunal refuses to make this declaration because it thinks it is wrong. An FSP is concerned merely with additional work by way of extension to the work authorized by the ISP. Whether the KRG has an obligation not unreasonably to refuse approval of an FSP is not something which the Tribunal has considered because there has been no occasion to do so. A FSP, as contemplated by Annexure 6A, is not the same thing as an FDP. Nor can a FDP be achieved by an incremental series of FSPs. They are different concepts.

243. The Tribunal has already found that the KRG may not unreasonably refuse a proposal for an FDP in respect of the HoA Areas in which Pearl has exclusive rights. Furthermore, the Tribunal has found that the KRG is not entitled to obstruct Pearl from doing whatever is necessary by way of appraisal to enable it to make a proposal for an FDP in accordance with general practice in the oil and gas industry.

¹³¹ *Revised Statement of Claim*, paragraph 113 B and C.

244. The Tribunal does not consider that it should make any of the other declarations sought in respect of Service Plans because they do not relate to any concrete controversy or arise out of a dispute over the meaning of the contract.

245. The Tribunal concludes that none of the declarations requested in this section (b) appears to relate to any dispute over the meaning of the contract.

(c) *Declaration as to delayed development.*¹³²

246. The Tribunal has dealt with this question and will make a suitable declaration in the disposition.

(d) *Declarations as to title, sales and export rights and aggregate revenues.*¹³³

247. The declarations do not appear to arise out of any dispute over the meaning of the contract.

(e) *Excess gas*

248. This claim has failed.

(f) *Guarantee*

249. The declaration requested does not arise out of any dispute about the meaning of the contract.

¹³² Section DD in Appendix 3 to Pearl's *Skeleton Argument*.

¹³³ Section D and E.

PART FIVE: COSTS

250. Pearl has made an application for an interim award of costs in respect of the proceedings up to the issue of the Second Partial Final Award (and its Memorandum of Correction) on 27 November 2015. The KRG opposes the application in principle, on the ground that the Tribunal cannot at this stage determine the “relative success and failure” of the parties, to which the Tribunal should have regard under rule 28.4 of the LCIA Rules and also on the ground that it would be more efficient to have a single order for costs.
251. It is agreed between the parties that if the Tribunal should decide that it was appropriate to make an interim award of costs, the quantification of the costs should be adjourned and form the subject of a separate award. It is also not disputed that the Tribunal has a discretion as to whether to make such an award or not.
252. The Tribunal considers that it would fair for an interim order to be made. It does not envisage great difficulty in deciding the relative success and failure of the parties in relation to the First and Second Partial Final Awards and the related interlocutory proceedings. As for efficiency, the Tribunal considers that any saving of costs in having a single costs order at the end of the proceedings is outweighed by the requirement of fairness to Pearl, which has expended considerable sums on costs over the long course which this arbitration has taken. Now that all that remains is to quantify Pearl’s delayed development claim, it appears to the Tribunal an appropriate moment to make an interim costs award.
253. The Tribunal therefore rules that it will make an interim costs order in an amount to be determined in a further award after receiving the submissions of the parties.

PART SIX: DISPOSITION

254. We, Leonard, Lord Hoffmann, Lawrence, Lord Collins of Mapesbury and John Beechey, having read and heard the evidence and the parties written and oral submissions made to us, and having carefully considered the same and for the reasons stated above, make our Third Partial Final Award as follows:
- (a) We declare that the KRG has in breach of its obligations under the HoA wrongfully prevented the Claimants from carrying out appraisals and such other activities as are necessary to enable Pearl to put forward a proposal for a FDP in respect of the HoA areas in which it has exclusive rights and has thereby delayed the Claimants' opportunity to develop those Areas;
 - (b) We reserve to ourselves the determination of the amount payable by the KRG to the Claimants by way of damages for the aforesaid breaches of the HoA;
 - (c) We declare that the KRG is not entitled under the HoA to reject a proposal from Pearl for a FDP otherwise than on reasonable grounds in accordance with good petroleum industry practice.
 - (d) We order the KRG to pay to the Claimants \$US\$121,095,282 in respect of condensate and LPG lifted by or on behalf of the KRG between 30 June 2015 and 31 March 2016, together with interest from the dates on which payment for such liquids was due until compliance with this order at the rate of LIBOR plus two percent compounded monthly.
 - (e) We declare that the KRG is liable to refund to the Claimants the payments which it made to Pewand Petrol Transporting and Food Inc ("Pewand") for lifting condensate and LPG on behalf of the KRG together with interest from the dates on such payments were made until compliance with this order at the rate of LIBOR plus two percent compounded monthly.

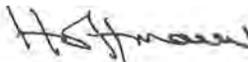
- (f) We reserve to ourselves the determination of the sum payable in respect of the aforesaid payments to Peward;
- (g) We reserve to ourselves the determination of the Claimants' application for an interim order for costs.
- (h) All other claims by the Claimants are dismissed.
- (i) All the counterclaims by the KRG are dismissed.

Place of arbitration: London, United Kingdom

30 January 2017

Signed:

Lord Hoffmann



Lord Collins of Mapesbury



Mr John Beechey CBE

