

## MEMORANDUM

**To:** Kingtime International Ltd  
Attention: Dato' Nagendran Nadarajah, Mohan Samy  
**From:** Alban Kang & Oh Pin-Ping  
**Date:** 15 June 2022  
**Subject:** Calculation of profits accountable by Petronas to Kingtime  
**Matter No:** KINIM.0002/AKC/OPP

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1. We are instructed to provide our opinion on the amount that the High Court of Malaya is likely to assess as profits payable by Petronas Carigali Sdn Bhd (“**Petronas**”) to Kingtime International Ltd (“**Kingtime**”) if the court were to find Petronas liable for patent infringement in Suit No. WA-22IP-55-11/2018, and thereby the total sum (including interest) that Petronas is likely to have to pay to Kingtime.

2. Our advice is based the guidance set out in English cases, which we understand to be persuasive on the Malaysian courts.

### A. Legal basis for an account of profits

3. An account of profits aims to divert the profits earned by the defendant derived from the infringement back to the plaintiff. This is done by treating the defendant as having carried out its business on behalf of the plaintiff.

4. The English courts have held that the profits earned by the defendant are subject to apportionment. In other words, where the defendant’s total profits arise from both infringing and non-infringing parts of an infringing product or activity, only the part of the profit which are derived from the infringement are recoverable (*Celanese international Corp v BP Chemicals Ltd* [1999] RPC 203 (“*Celanese*”). A copy of the *Celanese* case is annexed hereto and marked as Annex A.

5. Further, it may be necessary to weight (i.e., adjust) the apportionment up or down to take into account various considerations. For instance, it may be appropriate to weight the apportionment up to take into account the value that the invention adds to the process or the commercial value of the final product. (See *Celanese* at paras 81-82.)

### B. Our calculations

#### *Preliminary point - Petronas will bear the burden of proof*

6. As a preliminary point, if/once Petronas’ liability for patent infringement is established, Kingtime will have the option to elect to receive either damages or an account of profits from Petronas. The court will then assess the amount payable by Petronas to Kingtime based on the election made.

7. If Kingtime elects to receive an account of profits, Petronas will be required to produce documents which will help the court decide the appropriate amount to be awarded to Kingtime. This will include documents (i) evidencing Petronas’ revenue from sale of crude oil produced by

the MOPU Sepat during the period of infringement; and (ii) justifying any deductions for its costs and expenses.

8. In the absence of documents from Petronas at this stage, we have made best guesses of its revenue and deductible costs and expenses based on certain assumptions (set out below), as well as on documents obtained from the public domain or which you have provided to us.

### *Petronas' estimated revenue*

9. To determine the profits for which Petronas is likely to be liable to account, the first step was to estimate its revenue derived from its sale of crude oil extracted from the Sepat oil field during the relevant period.
10. We are instructed that:
  - a. Petronas had used the MOPU Sepat including its attached well-head support structure ("WHSS") in production from October 2011 to around June 2017 ("Phase 1").
  - b. In June 2017, the WHSS was removed from the MOPU Sepat, the MOPU Sepat was decommissioned, and the WHSS was then supported by a jack-up rig (the "Naga 7") as a temporary measure ("Phase 2").
  - c. Finally, from around May 2018, the WHSS was reconfigured with a supporting jacket (being an offshore unit - in the form of the Sepat WHP) ("Phase 3"). Petronas has admitted that the WHSS with its supporting jacket continues to be in use to-date (see Petronas' Amended Defence dated 17 November 2020 at para 9).
11. In its Judgment dated 11 July 2018 made in Civil Suit No. 22IP-63-11/2015 against Petrofac E&C Sdn Bhd ("Petrofac"), the High Court of Malaya had ordered Petrofac to deliver up and destroy "all infringing articles limited to the mobile offshore production unit referred to in paragraphs 10 and 10.1 of the Re-Amended Statement of Claim as 'the Infringing MOPU Sepat' and well-head support structure referred to in paragraph 10.1 of the Re-Amended Statement of Claim". A copy of the Judgment dated 11 July 2018 is annexed hereto and marked as **Annex B**.
12. Based on this order, it would appear that the High Court had considered both the MOPU Sepat and WHSS to be infringing articles, so that use of either or both of the articles would constitute an infringement.
13. Further, we are instructed that Kingtime has been advised by its Malaysian patent attorneys that both the MOPU Sepat and the WHSS standalone infringe claim 1 of Patent No. 5004.
14. Accordingly, Kingtime is claiming Petronas' profits derived from its infringement during all three phases - that is, Phase 1 to Phase 3.
15. For the purposes of the present exercise, we have taken the relevant period to be from 12 November 2013 (i.e., 5 years prior to the commencement of the action) to 31 December 2021, as a convenient cut-off date. If the WHSS continued to be in use beyond this date (as we have been instructed is the case), Petronas would also be liable to account for any profits made from sale of crude oil produced during this period.

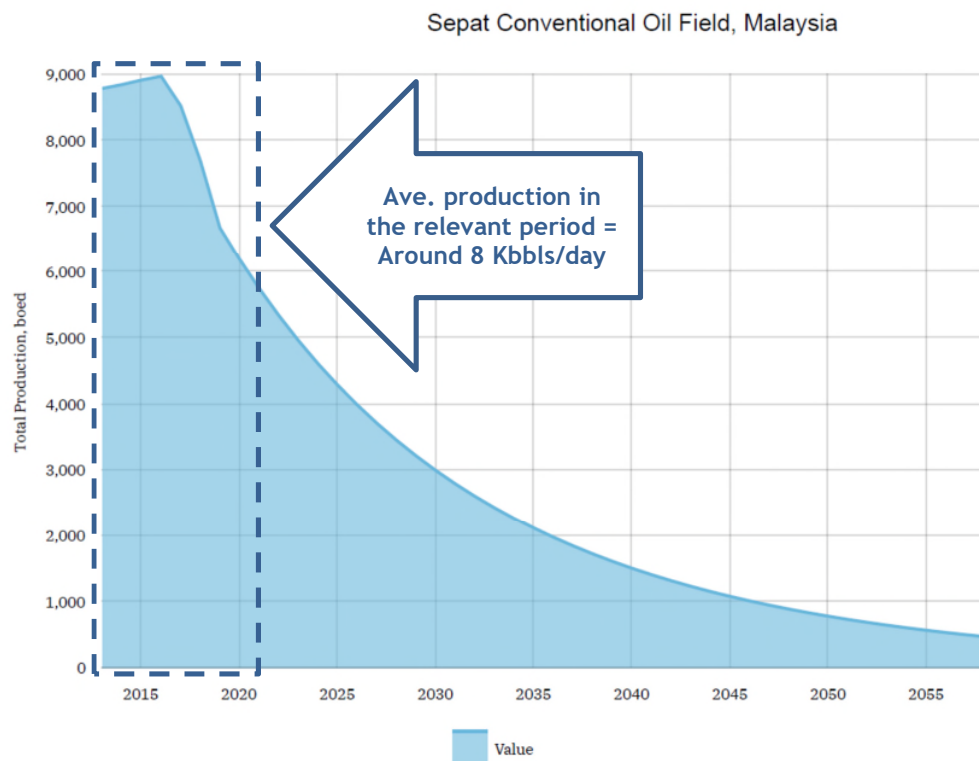
16. Based on our calculations, Petronas’ revenue from sale of crude oil produced by the MOPU Sepat / WHSS during the relevant period is around **USD 1,510M**. This is based on the following assumptions:

- a. First, we assumed that the MOPU Sepat / WHSS produced 8 Kbbbls of crude oil per day during the relevant period. This is based on a report entitled “Sepat Conventional Oil Field” published by Offshore Technology on 26 November 2021 (available at <https://www.offshore-technology.com/marketdata/sepat-conventional-oil-field-malaysia/>), which reported that:

**“Production from Sepat**

*The Sepat conventional oil field recovered 45.12% of its total recoverable reserves, with peak production in 2016. The peak production was approximately 8.98 thousand bpd of crude oil and condensate. Based on economic assumptions, production will continue until the field reaches its economic limit in 2058.”*

Based on the chart in the report (below), the average daily crude oil production in the relevant period from 12 November 2013 to 31 December 2021 was around 8 Kbbbls/day.



A copy of the Offshore Technology report is annexed hereto and marked as **Annex C**.

- b. We also assumed the selling price of crude oil from the SEPAT oil field to be the same as that of Brent Crude in the relevant period. The historical average selling price of Brent Crude in each year from 2013 to 2021 is reported here:

<https://www.macrotrends.net/2480/brent-crude-oil-prices-10-year-daily-chart>. A print-out from the website is annexed hereto and marked as **Annex D**.

***Petronas' estimated profit***

17. We deducted the following items from Petronas' estimated revenue of USD 1,510M to arrive at a profit before tax figure of around **USD 931M**:

S/N	Item	Basis	Amount
a.	Royalties at a rate of 5% of Petronas' revenue paid to each of the Malaysian state and federal governments	<p>The Petroleum Development Act 1975 requires Petronas to pay royalties to the federal government and each of the 13 state governments. These agreements currently provide for 5 percent of the value of the petroleum obtained to be paid to the state in which the oil is found, and 5 percent to be paid to the federal government.</p> <p>See Rajah &amp; Tann Asia's report titled "Oil Regulations in Malaysia" (updated on June 2020), a copy of which is annexed hereto and marked as <b>Annex E</b>.</p>	USD 151M
b.	Production cost of crude oil of USD 18 per bbl	<p>In Hibiscus Petroleum's Corporate and Business Update dated 25 May 2022 (issued in conjunction with its Quarterly Report for the Financial Quarter ended 31 March 2022), for its production operations in North Sabah, the average OPEX per bbl between April to December 2021 ranged between USD 13.06 and 19.14 per bbl in various periods. A copy of the Hibiscus report is annexed hereto and marked as <b>Annex F</b>. The average of the figures reported in the Hibiscus report is USD 16 per bbl.</p> <p>We are instructed that crude oil extracted from the Sepat oil field is waxy crude, so that flow improvers need to be added to reduce handling cost. We are further instructed that the cost of flow improved are around USD 2 per bbl. We have therefore taken USD 18 per bbl to be the approximate production cost in the relevant period.</p>	USD 428M

18. We have not taken into account Petronas' drilling cost on the assumption that this would have been written off as OPEX in the first two years when the MOPU Sepat was first put in production.
19. Further, we are instructed that a petroleum income tax is chargeable on income derived from petroleum operations in Malaysia, and that the petroleum income tax rate is 25% for petroleum operations in marginal fields, like the Sepat oil field. See PWC report last updated on 14 December 2021 entitled "Corporate - Taxes on corporate income" (available at <https://taxsummaries.pwc.com/malaysia/corporate/taxes-on-corporate-income#:~:text=Petroleum%20income%20tax%20is%20imposed,from%20petroleum%20operations%20in%20Malaysia>). A copy of the report is annexed hereto and marked as **Annex G**.
20. Based on the above, the profit *after tax* is calculated to be around **USD 698M** (i.e., 75% of USD 931M).

### ***Apportionment of profit***

21. The **USD 698M** represents Petronas' total profit after tax derived from sale of crude oil extracted from the Sepat oil field. However, as this profit arises from both infringing and non-infringement parts of Petronas' activity, an apportionment is necessary so that only the profit attributable to the infringing parts are taken into account (see para 4 above).
22. In *Celanese*, the court held that in the absence of some special reason to the contrary, the profits of a project could be attributed to different parts or aspects of the project in the same proportions as the costs and expenses are attributed to them.
23. The patent in-suit in *Celanese* claimed a method for removing iodide impurities from acetic acid by passing the acid through a guard bed. The defendant operated two acetic acid plants, both of which had infringing guard beds. The court awarded the plaintiff 0.6% and 0.3%, respectively, of the defendant's profit from the sale of acetic acid produced in each of these plants based on the relative capital expenditure of the infringing guard beds *vis-a-vis* the entire plant.
24. Applying this approach, we calculated Petronas' profit attributable to its infringement by applying an apportionment of:
  - a. 55% for the relevant period from 12 November 2013 to 31 May 2017 when the MOPU Sepat with the WHSS attached was in production use; and
  - b. 10% for the period from 1 June 2017 to 31 December 2021 when the WHSS alone was in use.
25. The figures of 55% for the MOPU Sepat and 10% for the WHSS were based on the apportionment of the contract price in the contract dated 20 April 2011 between Petronas and Petrofac (Contract No. CHO/2010/DPG/228).
  - a. We are instructed that the contract price was USD 280M, of which around 55% was for the supply, installation and commissioning of the MOPU Sepat including the WHSS.
  - b. the cost of a conventional wellhead platforms is typically around USD 30M to 50M, depending on its size and complexity. Two key differences between a conventional

wellhead platform and the WHSS are: (i) the former has to be installed by heavy lift barges, but this is not required for the WHSS, which is installed by the MOPU; and (ii) the former is installed as two separate components (the jacket structure and the wellhead deck) while the WHSS does not require a separate jacket. As such, the supply and installation costs of the WHSS would be slightly lower than that for a conventional wellhead platform. This being the case, the cost for the supply, installation and commission of the WHSS alone is established to be around USD 28M - or 10% of the contract price.

26. We also considered if it was necessary to weight the apportionment up or down to factor in the value that the invention adds to the process or the commercial value of the final product (see para 5 above).
27. In *Celanese*, the court concluded that there was no reason to apply a weighting up or down of the apportionment which it had arrived at based on the capital expenditure of the infringing guard bed because, *inter alia*, use of the invention (i) did not affect the total quantity of acid that the defendant could sell; or (ii) the price that final product could be sold at.
28. In our view, if anything, there appears to be good reason for weighting the apportionment of 55% or 10% (as the case may be) up.
29. This is because, as we are instructed, one advantage of your proprietary MOPU is said to be that it can be used at small and marginal fields in remote locations where a pipeline network is non-existent. This allows for incremental field development with minimal risks given that your proprietary MOPU is easily relocated recoverability from the field where it was originally installed was poorer than anticipated.
30. In Petronas' Invitation to Bid (ITB) Document, Section 1.0 (Part D) issued in relation to its tender relating to the Sepat project, it was noted (on page 5) that: "*Although the oil accumulation is large, the field development faces significant technical challenges that may undermine economic successful if it [sic] is not properly addressed. An Early Production System (EPS) is proposed to reduce the project risk by properly evaluating Sepat reservoirs prior to full field development.*" The relevant pages of the ITB Document are annexed hereto and marked as **Annex H**.
31. Given the limitations of the Sepat oil field, Petronas would not have the confidence to exploit this oil field if not for the use of the patented invention. As such, a larger proportion of Petronas' profits from sale of the crude oil produced from the oil field is attributable to use of the patented invention.
32. Even so, for prudence, we kept to the apportionment of 55% or 10% (as the case may be) in our calculation.
33. Based on this calculation, the profit which Petronas is accountable for is around **USD 217M**.

## ***Interest***

34. Kingtime is entitled to interest on any sum which the court may find Petronas to be liable to pay. In the Judgment dated 11 July 2018, Petrofac was ordered to pay the claimants interest on any

sums found to be due at a rate of 5% per annum from the time Petrofac's infringement commenced until payment is made.

35. We assumed that the court will similarly award interest at the same rate against Petronas.
36. The total interest calculated at a rate of 5% per annum of the cumulative profit after tax at the end of each yearly annum in the relevant period from 12 November 2013 to 31 December 2021 amounts to around USD 70M.
37. The profit accountable plus interest adds up to around USD 287M.