From: WILKINSON Phillip Sent: Friday, 9 October 2020 3:13 PM To: MCNAMARA Andrew Cc: BURGE James; CHAN Wendy Subject: FW: Potential Commercial Area Applications 305 & 309

#### Hi Macca,

Please see attached for QGC's response to the information request on PCAs 305 and 309. Could you please get someone in your team to review and let me know if this is sufficient to address our concerns.

#### Thanks

Phill

 From:
 sch4p4( 6) Personal information
 @shell.com>

 Sent:
 Friday, 9 October 2020 3:08 PM

 To:
 BARTHOLOMEW Lana

 Cc:
 BYRNE Kate;
 CHAN Wendy;

 WILKINSON Phillip;
 SDA-Environment-Admin@shell.com;
 sch4p4( 6) @shell.com

 Subject:
 RE:
 Potential Commercial Area Applications 305 & 309

Afternoon Lana,

Please find attached letter in response to the additional information request from DNRME for BNG Surat's Potential Commercial Area applications 305 and 309.

Should you wish to discuss further the content of the response, please do not hesitate to contact us.

Regards,

Tyson Croll Team Lead Tenures and Permits

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Please consider the environment before printing this email

From: BARTHOLOMEW Lana <<u>Lana.Bartholomew@dnrme.qld.gov.au</u>> Sent: Tuesday, 22 September 2020 8:24 AM To: Croll, Tyson QGC-IGA/Q/A/A <u>sch4p4( 6)</u> P@shell.com> Cc: BYRNE Kate <<u>Kate.Byrne@dnrme.qld.gov.au</u>>; CHAN Wendy <<u>Wendy.Chan@dnrme.qld.gov.au</u>> Subject: Potential Commercial Area Applications 305 & 309

Think Secure. This email is from an external source. Hi Tyson,

Please find attached correspondence regarding Potential Commercial Area applications 305 and 309. The department would appreciate if any

submissions could be provided by no later than 4.30pm on 9 October 2020.

Phill Wilkinson is currently on leave returning 6 October 2020. If you need to discuss in the interim please do not hesitate to contact Kate Bryne on 3199 8064.

Regards

Lana



### P: sch4p4( 6) Pe

E: lana.bartholomew@dnrme.qld.gov.au

A: Level 4 - 1 William Street, Brisbane QLD 4002 | PO BOX 15216, CITY EAST, QLD 4002 W: <u>www.dnrme.qld.gov.au</u>



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# **QGC Pty Limited**

275 George Street Brisbane QLD 4001 Australia **Website:** shell.com.au **Tel:** +61 7 3024 9000 **Fax:** +61 7 3024 8999

Lana Bartholomew Executive Director Petroleum and Gas Department of Natural Resources, Mines and Energy PO Box 15216 City East Brisbane QLD 4002

9 October 2020

Dear Lana

# RE: Potential Commercial Area (PCA) applications 305 and 309

We refer to your letter dated 21 September 2020 regarding PCA applications (**PCAA**) 305 and 309 over ATP 645. QGC Pty Limited, (**QGC**), on behalf of BNG (Surat) Pty Ltd (100%) (**BNG**), hereby provides the following requested information for PCAAs 305 and 309.

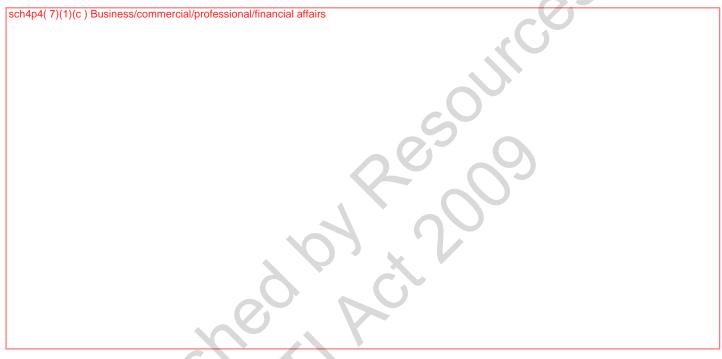
# 1. Further justification to support the area of PCA 309 is no more than is needed to cover the maximum extent of the natural underground reservoir, that allows the decision-maker to be satisfied of this requirement.

The inclusion of the area of PCA 309 forms part of QGC's major campaign focussing on the exploration and development of tight gas sands (TGS) in the Permian and Triassic section within the Taroom Trough of the Bowen Basin. This play includes ATP 645, ATP 785 and Joint Venture (JV) partnerships with Santos in ATP 2040 and ATP 2045. It is important to note that the play and reservoirs associated with ATP 2045 are the same as those associated with the area of PCA 309, as they extend to the north and east into this tenure. Further complexities arise with PCA 309 being a stranded block, where is it not contiguous to PCA 305 and is surrounded on two (2) sides by ATP 2045 and adjacent ATP 785. The retention of the area under PCA 309 is critical to form a larger strategic development bolstered by potential finds within neighbouring ATP 2045 and ATP 785. Additionally, the inclusion of the area of PCA 309 into a larger development strategy by its declaration provides the probability of the earliest production royalty to the State as compared to being relinquished and the exploration to development clock restarting for this area.

Viewed in combination with previous conventional petroleum exploration drilling, new and legacy seismic, and by extension of data from adjacent areas, QGC has identified two prospective natural underground reservoir intervals in ATP 645. These are the Permian Tinowon Formation and Lorelle Sandstone, both part of the Back Creek Group. However, only the Tinowon Formation reservoir is present in the area of PCA 309, but which is the primary target in ATP 645 (PCA 305) and to date has provided the most encouraging prospectivity in ATP 645 and in surrounding areas. The figures further below include both a well stratigraphic cross section and a seismic section that confirm the presence of the reservoir section sought and underpinning that the entire area of PCA 309 is a valid candidate in area for PCA application, given the play concept described. Therefore, the Minister should consider that the

area of PCA 309 reasonably forms part of the maximum extent of the reservoir for this resource type, while taking into account the limitations that apply to the negative economics and development timeframes associated with an otherwise stranded block such as the area of PCA 309. Additionally, if the area was not declared a PCA and relinquished, the exploration work and expenditure undertaken on ATP 645 there to date (seismic review and G&G studies) by QGC on proving up existing resources present within PCA 309 would have been for nought and an unacceptable penalty for the financial and technical resources applied in that area.

# 2. Further justification to support the existence of the tight gas reservoir because no discovery has been established in the area of PCA 309.



3. Details explaining how the resource estimate has been determined in this area including methods used to interpret data from legacy wells.

sch4p4(7)(1)(c) Business/commercial/professional/financial affairs

4. A map that depicts the reservoir properties or extents that are consistent with the resources estimates to support the application.

5. The department requests that BNG provide any additional information to that may support the upgrading of current prospective resources to contingent resources in PCA 309.

sch4p4(7)(1)(c) Business/commercial/professional/financial affairs

An updated map for the application for PCA 305 that depicts the reservoir properties and extents and 6. is consistent with the resources estimates provided.

sch4p4(7)(1)(c) Business/commercial/professional/financial affairs

Additional information to better understand what additional data BNG need to upgrade the current 7. prospective resource estimates for the area to contingent resources for PCA 305.

sch4p4(7)(1)(c) Business/commercial/professional/financial affairs

If you require any further information or wish to discuss the responses provided above, QGC is more than happy to meet. Should you wish to discuss, please contact Tyson Croll on 3024 7806 or email sch4p4(6) Pert shell.com.

Yours Faithfully,

sch4p4( 6) Personal infor

Ryan Dreibelbis

Manager Access – QGC Pty Limited, Authorised representative for BNG (Surat) Pty Ltd

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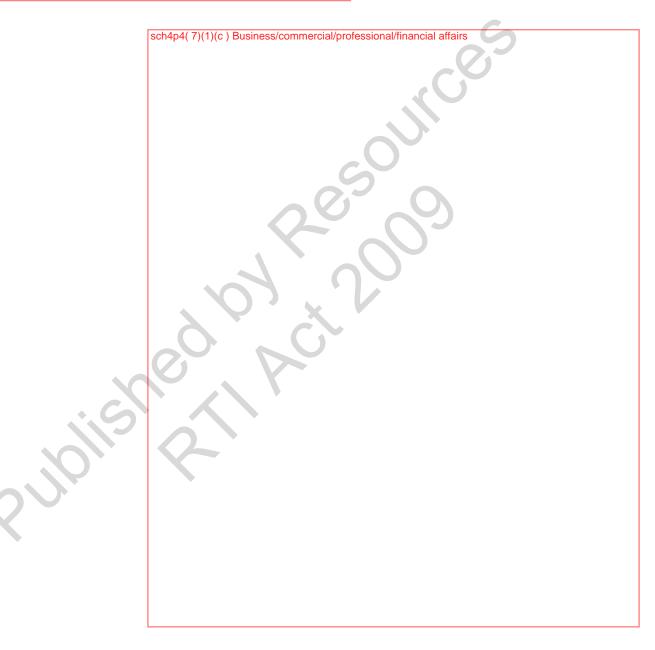


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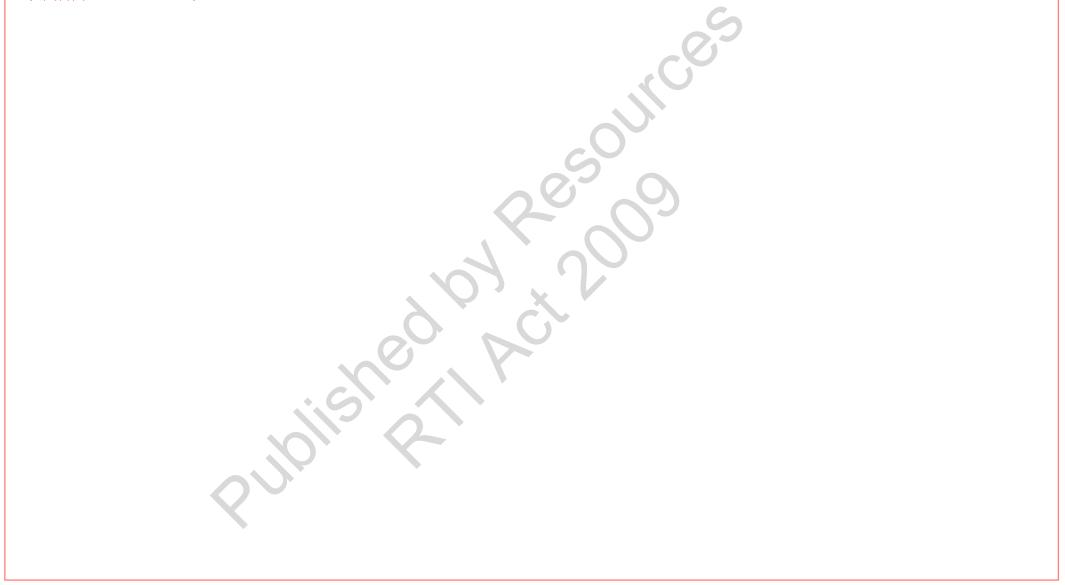


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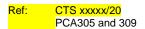
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Figure 6 - sch4p4( 7)(1)(c ) Business/commercial/professional/financial affairs	
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Figure 7 –	sch4p4( 7)(1)(c)	) Business/commercial/professional/financial affairs
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sch4p4(7)(1)(c) Business/commercial/professional/financial affairs







Department of Natural Resources, Mines and Energy

BNG (SURAT) PTY. LTD. Tyson Croll GPO Box 3107 BRISBANE QLD 4001

Email: sch4p4(6) Perso shell.com

Dear Tyson,

I refer to applications lodged by BNG (SURAT) PTY. LTD. (ACN: 090 629 913) (BNG) for the declaration of Potential Commercial Areas (PCA) 305 and 309 (proposed PCAs) under section 89 of the *Petroleum and Gas (Production and Safety) Act 2004* (P&G Act) over Authority to Prospect (ATP) 645, each for a period of 15 years.

I acknowledge that the Department of Natural Resources, Mines and Energy (the department) has previously advised that the proposed PCA applications have met all requirements under the P&G Act and decision was imminent on PCA 305 and 309. However, as part of the department's final audit process a number of issues were identified that require further input from QGC before the applications can be progressed.

Under section 90(1) the Minister may declare a PCA, only if satisfied that the area is no more than is needed to cover the extent of a natural underground reservoir identified in the report [the commercial viability report under section 231 of the P&G Act].

Section 231(1)(a) of the P&G Act requires that the applicant must identify each natural underground reservoir in the area the subject of the relevant report requirement.

In regard to the application for PCA 309, the final audit noted that:

- no petroleum discovery has been established in the area of PCA 309;
- the standards and procedures used to make the estimate of the amount of petroleum in the reservoir required additional detail; and
- the maps provided for PCA 309 were not consistent with the resources estimates provided;

The department is seeking the following additional information from BNG to justify the area of PCA 309 and the extent of the natural underground reservoir:

- further justification to support the area is no more than is needed to cover the maximum extent of the natural underground reservoir, that allows the decision-maker be satisfied of this requirement;
- Because no discovery has been established in the area of PCA 309, further justification to support the existence of the tight gas reservoir;
- Details explaining how the resource estimate has been determined in this area including methods used to interpret data from legacy wells; and
- A map that depicts the reservoir properties or extents that are consistent with the resources estimates to support the application.
- Also, it's been noted the application refers to having prospective resources. In line with the departments Operational Policy Potential Commercial Area Application Guideline

(PCA operational policy) prospective resources are detailed as being 'unlikely to support a PCA application'. Can BNG please provide

In regard to the application for PCA 305, the final audit identified that the map that depicts the reservoir properties or extents was not consistent with the resources estimates.

To assist in finalising the assessment of PCA 305, can BNG please provide the following information:

- an updated map for the application for PCA 305 that depicts the reservoir properties and extents and is consistent with the resources estimates provided; and
- similar to PCA 309 additional information to better understand what additional data BNG need to upgrade the current prospective resource estimates for the area to contingent resources.

BNG is invited to provide the additional information requested this letter for consideration by the decision-maker prior to a decision being made on the PCA applications. The additional information is required to be provided to the department no later than 4.30pm on X October 2020.

Should you have any queries in relation to the above, please do not hesitate to contact Phill Wilkinson, Manager Assessment, Petroleum Assessment Hub on sch4p4(6) Person or phill.wilkinson@dnrme.qld.gov.au with a copy to the Petroleum Assessment Hub at petroleumhub@dnrme.qld.gov.au

Yours sincerely

Lana Bartholomew Executive Director Petroleum and Gas