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Onshore Gas  
Department of Environment and Natural Resources  
Northern Territory Government  
Floor 1, Goyder Centre, Chung Wah Terrace, Palmerston, NT  
PO Box 496, Palmerston, 0831

23 May 2019

Dear Mr. Shaw,

Santos QNT Pty Ltd (Santos) is the operator of exploration permits (EP) 161, located approximately 350 km south-east of Katherine in the Northern Territory (NT). On 12 December 2018, Santos received formal advice that the Environmental Management Plan: *Water Bore Monitoring Program - Tanumbirini South, Inacumba North & Inacumba South* (Document Number: MAB-PLN-004, DPIR ref: E2018/0024-0010), referred to herein as the "EMP", had been approved.

In accordance with Regulation 22 of the Petroleum (Environment) Regulations, Santos proposes to modify the regulated activity for the above EMP and is writing to the Minister to give notice and specify details of the proposed modification.

### ***Details of the Proposed Modification***

The modification of the regulated activity relates to the installation of two additional groundwater bores. This variation encompasses the installation of one water supply bore and undertake the associated monitoring, and the installation of one Impact Monitoring Bore and undertake the associated monitoring.

Santos will apply to amend our existing extraction licence (GRF10280) to authorise extraction from the water supply bore, in accordance with conditions of the licence. Extraction from the bore will not result in a change to the Maximum Water Entitlement on that licence. We have been advised by Manager Water Licencing, Water Resources Division (DENR), that our licence can only be amended after the bore has been constructed.

The impact monitoring bore is a requirement of the *Draft Code of Practice for Petroleum Activities in the Northern Territory and Preliminary Guideline: Groundwater Monitoring Bores for Exploration Petroleum Wells in the Beetaloo Sub-basin*. Groundwater monitoring will be undertaken for the water supply bore in accordance with extraction licence GRF10280.

### ***Scope of Works***

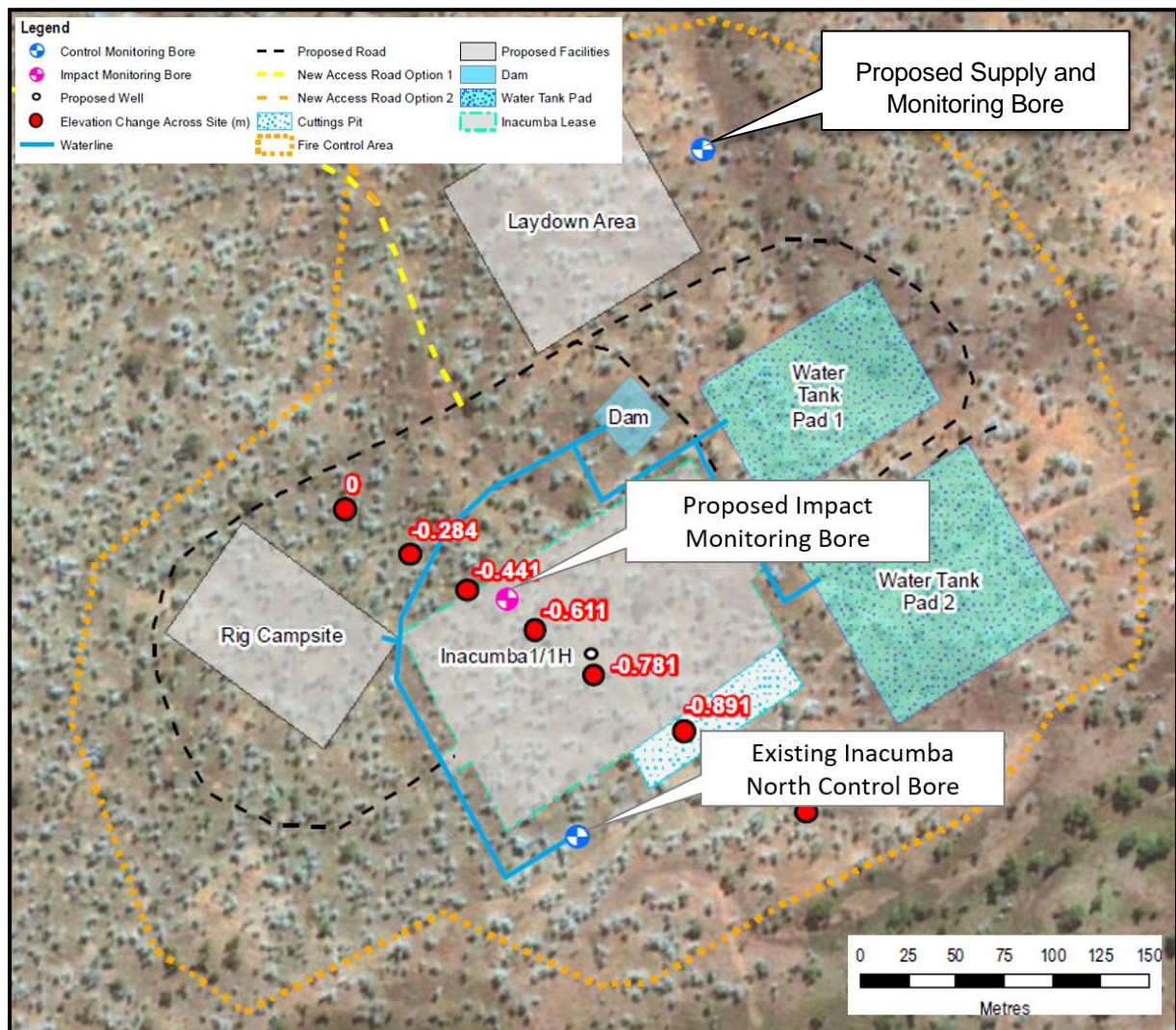
The modification involves the following construction activities:

- 50x50m ground water monitoring bore lease area at both locations;
- 300m x 4m of new access track at the Inacumba North 2 location;
- 100m x 4m of new access track at the I-N Impact 1 location; and
- Drilling of the two groundwater bores.

The type and approximate locations of the new groundwater bores proposed are outlined in Table 1 below. The location of the new bores in relation to the proposed Inacumba 1/1H exploration well are shown in Figure 1.

**Table 1: Location and Type of Monitoring Bores**

Water Bore	Type	Latitude	Longitude
Inacumba North 2	Supply and Monitoring	-16.5141	134.8430
Inacumba North Impact 1	Impact Monitoring	-16.5165	134.8425



**Figure 1 Location of the Water Bores**

### **Environmental Impact**

The additional activities and associated risk profile are identical to that covered by the current and approved EMP. The scope variation will not result in an increase in environmental risk. Environmental impacts are limited to the 0.66 hectares of additional clearing.

The environmental impacts associated with the additional activities are not considered to be significant because:

- The activities are in close proximity the exiting access track in the approved EMP;
- An ecological assessment of this area has been conducted;
- The vegetation being cleared is a eucalypt dominated open woodland community that is regionally extensive and not threatened. This vegetation community has a sparse structural category and is usually devoid of large trees;
- A baseline weed assessment has been completed over these areas. A post-wet weed monitoring assessment is currently underway (commencing 20 May 2019). The activities are covered by an approved Weed Management Plan;
- Baseline soils assessment and chemical analysis has been completed. The results indicate that the soils are not dispersive and the erosion risk is low. In addition the activities are covered by an existing Erosion and Sediment Control Plan; and
- Each groundwater bore will be drilled by a licenced driller in accordance with the Minimum Construction Requirements for Water Bores in Australia.

The risk mitigation controls outlined in the existing EMP are identical and will not require any amendment to accommodate the additional scope.

The additional minor scope is covered under the existing security agreement. The existing approved EMP and associated security agreement considers installation of up to two (2) groundwater bores, at three (3) locations (i.e. up to 6 groundwater bores in total). No more than six groundwater bores are proposed to be drilled.

### ***Cultural Heritage***

The additional activities are located on land that has undergone cultural heritage clearance, sacred site avoidance clearance and AAPA certification. The scope of works and the location of all proposed activities, including the drilling of groundwater monitoring bores are covered by AAPA Certificate C2018/105 and AAPA Certificate C2019/043 (provided under separate cover on 20 May 2019). These approval certificates cover the proposed works including 'water bore installation'.

### ***Stakeholder Engagement***

Santos QNT Pty Ltd has continued to engage with key stakeholders on an ongoing basis. Contact has been maintained as per the existing Land Access Agreement (LAA) and in accordance with the LAA, the landholder will be notified of these works.

If you require any further information or have any queries please don't hesitate to contact me via david.close@santos.com or on (08) 8116 7897.

Yours Sincerely,



David Close  
**General Manager – Onshore New Ventures**