

CHEVRON AUSTRALIA – OPERATIONS

TITLE: 4D Seismic Survey Services - Wheatstone (R-40849)

DESCRIPTION: Chevron Australia is seeking expressions of interest from service providers

able to provide 4D Seismic Survey services in support of the Wheatstone

project.

Contractor shall provide services to record marine seismic Data for timelapse seismic imaging over the Wheatstone and lago gas fields for the Wheatstone project whilst minimising the impact on the environment.

Please refer to Attachment A for further detail on the Scope of Work.

CONTACT: Industry Capability Network of Western Australia –

www.icnwa.org.au/ContactUs.asp

Please Note: This is a request for specific expressions of interest. Service Providers will be considered for inclusion in the RFP if

suitably qualified against this package.

PROJECT URL: https://australia.chevron.com/

ATTACHMENT: Attachment A: Scope of Work

CLOSING DATE: September 16th, 2020

ATTACHMENT A – SCOPE OF WORK

1. INTRODUCTION

- 1.1 Chevron Australia Pty Ltd (**Company**) is planning to carry out a 4D seismic survey over the Wheatstone and Iago gas fields as part of its standard reservoir management practice.
- 1.2 The Wheatstone 4D survey will serve as a "timelapse" measurement and will be compared to data acquired in 2011/2012 to assist Company to understand how the Wheatstone reservoir is performing. The fields came online in 2017.
- 1.3 To ensure good 4D signal, the new survey will replicate the acquisition parameters of the 2011/2012 one as closely as possible.

2. AREA OF OPERATIONS

2.1 The Wheatstone 4D survey will be conducted offshore in Western Australia over WA-46-L, WA-47-L, WA-48-L and surrounding permits, located approximately 150 kilometres north-west of Dampier. Figures 1 and 2 show the location and survey outline.

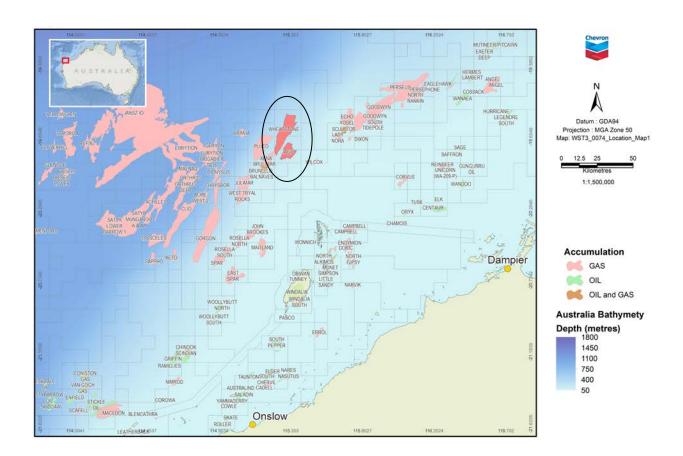


Figure 1: Location Map

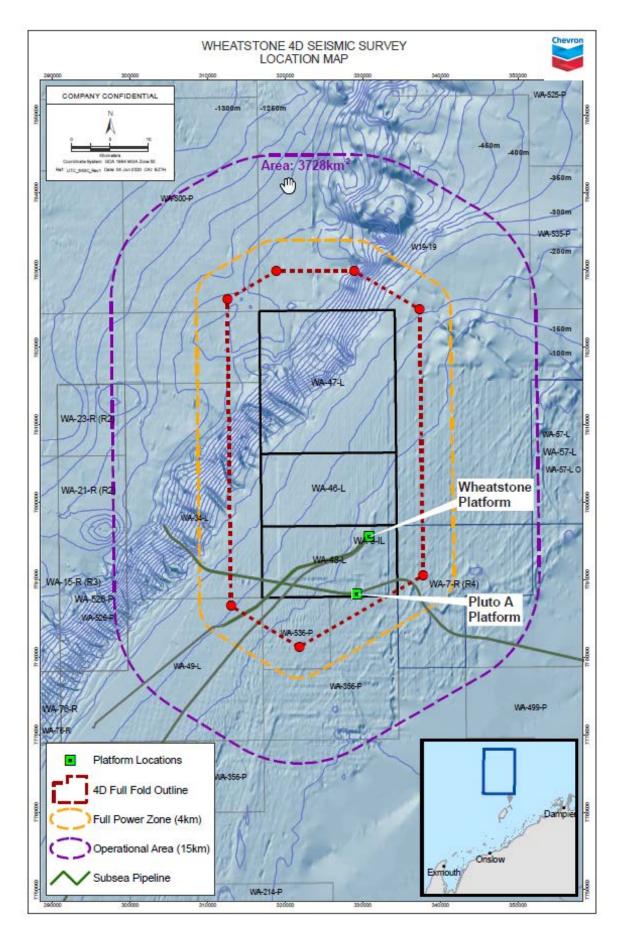


Figure 2: Wheatstone 4D Survey Outline

3. COMMENCEMENT AND COMPLETION DATES

- 3.1 Company requires the acquisition to start between end-December 2021 and early January 2022.
- 3.2 Company requires the acquisition to be completed no later than early-April 2022 and fast-track processing to be completed 6 weeks after the last shot point.

4. **DESCRIPTION OF WORK**

4.1 Survey Information

- (A) The water depths within the survey area range from approximately 80 to 1,140m.
- (B) There are two key surface obstructions in the area Pluto-A platform and Wheatstone platform as shown in Figure 2.
- (C) The maximum survey full fold area (based on the 2011/2012 Wheatstone MAZ) is approximately 1,074 km² as shown in Figure 2. Company is current carrying out studies to evaluate if the 4D area can be reduced slightly.
- (D) The main acquisition direction is 120^{0} with some lines potentially being acquired in 60^{0} direction to reduce the gap around the platforms.

4.2 Proposed Acquisition Parameters

Table 1: Proposed Acquisition Parameters

| Parameters | Recommended Specifications |
|---------------------------------|---|
| Survey Type | Broadband 3D towed streamer marine seismic survey |
| Technique | Single vessel with dual source and multiple streamers |
| Streamers | |
| Streamer type | TBC |
| Number of streamers | 12 |
| Streamer length | Max. 7,000 m |
| Streamer separation | 100 m |
| Receiver group spacing | 12.5 m |
| Streamer depth | TBC - Baseline survey 15m |
| Source | |
| Туре | TBC, steerable |
| Number of sources | 2 |
| Source separation | 50 m |
| Source depth | TBC - Baseline survey 5 m |
| Shot point interval (flip-flop) | 18.75 m |

| Source volume | TBC - Baseline survey 4,130 cu. in. | |
|-------------------------------------|--|--|
| Source pressure | 2,000 psi | |
| Recording Instrument | | |
| Record length | 7 seconds | |
| Sample rate | 2 ms | |
| Data format | SEG-D | |
| Recording devise | TBC | |
| Navigation | | |
| Raw and final processed data format | IOGP P2/11 and P1/11 | |
| Recording format | ASCII | |
| Recording devise | TBC | |
| T/S dips | Required weekly | |
| Acquisition direction | 120/300 degrees and potentially 60/240 degrees | |
| On-board Processing | | |
| QC | Required | |
| Fast-track volume | Required | |
| Other requirements | | |
| ADCP data recording | Required | |

5. MISCELLANEOUS ITEMS

5.1 Vessels

- (A) Contractor shall provide a modern 3D seismic vessel, a supply vessel and a chase vessel.
- (B) All vessels must meet Australian laws, regulations and requirements.

5.2 Permits

(A) Company shall obtain all necessary permits and approvals related to the seismic survey operations.

END OF ATTACHMENT A