



**COMMONWEALTH OF AUSTRALIA**

***Section 708***

***Offshore Petroleum and Greenhouse Gas Storage Act 2006***

**APPLICATION FOR GRANT OF A PIPELINE LICENCE**

I, **TERRENCE JOHN MCKINLEY**, Delegate of the National Offshore Petroleum Titles Administrator, on behalf of the Commonwealth–Western Australia Offshore Petroleum Joint Authority hereby give notice pursuant to section 708 of the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* that an application has been received from

**Woodside Energy Ltd.**  
(ABN 63 005 482 986)

**Mitsui E&P Australia Pty Ltd**  
(ACN 108 437 529)

for the grant of a pipeline licence for the conveyance of petroleum in the offshore area of Western Australia, as set out below.

This notice takes effect on the day in which it appears in the  
*Australian Government Gazette.*

Made under the *Offshore Petroleum and Greenhouse Gas Storage Act 2006*  
of the Commonwealth of Australia.

**TERRY MCKINLEY**  
DELEGATE OF THE TITLES ADMINISTRATOR  
ON BEHALF OF THE COMMONWEALTH–WESTERN AUSTRALIA  
OFFSHORE PETROLEUM JOINT AUTHORITY

## **ROUTE OF THE PIPELINE**

The pipeline route is described in the table hereunder, commencing at the tie-in flange for the Laverda Area high boost subsea multi-phase pump (MPP) station and ending at the Remote Emergency Shut-Down Valve (RESDV) on the *Ngujima Yin* FPSO. Coordinates are based on Geodetic Datum of Australia (GDA94).

| <b>Main Pipeline</b> |                           |        |              |               |                 |
|----------------------|---------------------------|--------|--------------|---------------|-----------------|
|                      | Feature Name              | KP*    | Easting (mE) | Northing (mN) | Bend Radius (m) |
| 1                    | Start Point               | 0      | 173 111      | 7 617 098     |                 |
| 2                    | Tangent Point (TP) 1      | 2.911  | 175 758      | 7 618 118     |                 |
| 3                    | Intersection Point (IP) 1 |        | 176 973      | 7 618 576     |                 |
| 4                    | TP 2                      | 5.344  | 177 503      | 7 619 745     |                 |
| 5                    | TP 3                      | 9.437  | 179 192      | 7 623 473     |                 |
| 6                    | IP 2                      |        | 179 971      | 7 625 191     |                 |
| 7                    | TP 4                      | 12.825 | 181 854      | 7 625 289     |                 |
| 8                    | TP 5                      | 13.334 | 182 363      | 7 625 316     |                 |
| 9                    | IP 3                      |        | 182 751      | 7 625 336     |                 |
| 10                   | TP 6                      | 14.107 | 183 121      | 7 625 452     |                 |
| 11                   | TP7                       | 16.946 | 185 833      | 7 626 295     |                 |
| 12                   | IP 4                      |        | 186 442      | 7 626 484     |                 |
| 13                   | TP 8                      | 18.204 | 190 135      | 7 628 877     |                 |
| 14                   | TP 9                      | 20.309 | 188 526      | 7 628 266     |                 |
| 15                   | IP 5                      |        | 189 221      | 7 628 860     |                 |
| 16                   | TP 10                     | 22.064 | 190 135      | 7 628 877     |                 |
| 17                   | TP 11                     | 26.614 | 194 684      | 7 628 963     |                 |
| 18                   | IP 6                      |        | 195 399      | 7 628 976     |                 |
| 19                   | TP 12                     | 28.007 | 196 016      | 7 628 617     |                 |
| 20                   | End Point                 | 28.410 | 196 708      | 7 628 306     |                 |

\* KP=Kilometre Point

## **SPECIFICATIONS**

### **Design and Construction**

The offshore pipeline must be designed and constructed in accordance with Offshore Standard DNV-OS-F101 – Submarine Pipeline Systems (Offshore Pipeline), which is incorporated in its entirety in Australian Standard AS2885.4 – Pipelines, Gas and Liquid Petroleum (Part 4: Submarine Pipelines). Specifically, the design and construction phase of the pipeline must comply with DNV-OS-F101.

### **Basis of Design**

The pipeline design is based on the following parameters:

| <b>Item</b> | <b>Item Description</b>                         | <b>Details</b>                                                                                                                                                                                                             |
|-------------|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1           | Design and Construction                         | Offshore Standard DNV-OS-F101 – Submarine Pipeline Systems (Offshore Pipeline), which is incorporated in its entirety in Australian Standard AS2885.4 – Pipelines, Gas and Liquid Petroleum (Part 4: Submarine Pipelines). |
| 2           | Outside diameter of pipe and riser              | 16” rigid pipeline: 406 mm                                                                                                                                                                                                 |
| 3           | Wall thickness of pipe and riser (carbon steel) | 16” rigid pipeline: 21.44 mm<br>Buckle arrestor pipes: 23.83 mm                                                                                                                                                            |
| 5           | Length                                          | 31 km (approximate)                                                                                                                                                                                                        |
| 6           | Design life                                     | 20 years (approximate)                                                                                                                                                                                                     |
| 7           | Pipeline Material                               | Carbon Steel Linepipe                                                                                                                                                                                                      |
| 8           | Pipeline and Riser Steel Grade                  | DNV-OS-F101 Grade 450S                                                                                                                                                                                                     |
| 9           | Maximum Allowable Operating Pressure            | 16” rigid pipeline: 25.5 MPag<br>10” flexible production riser: 25.3 MPag<br>11” flexible production jumper: 34.5 MPag                                                                                                     |
| 10          | Minimum yield strength of pipe steel            | 16” rigid pipeline: 450 MPa<br>10” flexible production riser: 450 MPa<br>11” flexible production jumper: 450 MPa                                                                                                           |
| 11          | Design Capacity                                 | Peak oil rate: 60 kstb/d<br>Peak produced water rate: 104 kstb/d<br>Peak liquid rate: 111 kstb/d                                                                                                                           |
| 12          | Maximum Operating Temperature                   | 16” rigid pipeline: 86 °C<br>10” flexible production riser: 75 °C<br>11” flexible production jumper: 86 °C                                                                                                                 |
| 13          | Maximum Design Temperature                      | 16” rigid pipeline: 92 °C (5 km upstream and downstream of the Cimatti tie-in)<br>10” flexible production riser: 75 °C<br>11” flexible production jumper: 86 °C                                                            |
| 14          | Minimum Design Temperature                      | 16” rigid pipeline: -11 °C<br>10” flexible production riser: -10 °C<br>11” flexible production jumper: -11 °C                                                                                                              |

|    |                                                                                                      |                                                                                                                                                                                                                                                                                                                              |
|----|------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 15 | Characteristics of substance proposed to be conveyed                                                 | Commingled petroleum (intermediate to heavy 19 API biodegradable oil                                                                                                                                                                                                                                                         |
| 16 | General plans and descriptions of pump stations, tank stations or valve stations and their equipment | To be confirmed.                                                                                                                                                                                                                                                                                                             |
| 17 | General plans and description of pigging facilities                                                  | Subsea to subsea pigging capability is incorporated into the design via in-line connection onto each FLET on the 16" rigid flowline onto which a subsea pig launcher and receiver will periodically be connected.                                                                                                            |
| 18 | Cathodic Protection                                                                                  | A sacrificial cathodic protection system will be installed on the main 16" pipeline and in-line structures. Full shell bracelet Aluminium Indium Alloy anodes will be strapped directly onto the pipeline and the MLPP coating will be bare in this section. Anode design and supply will be in accordance with DNV-RP-F103. |