



FREMANTLE PORTS

Private Facilities



BP Refinery



BP REFINERY (KWINANA PTY LTD) – OIL REFINERY JETTY

Operated by the BP Refinery, this facility accommodates tankers loading and unloading bulk petroleum products.

| OIL REFINERY JETTY | NO. 1 | NO. 2 | NO. 3 |
|---------------------------|--------------|--------------|--------------|
| Length of T-head | 71.6 metres | 71.6 metres | 71 metres |
| Design depth alongside | 14.7 metres* | 14.7 metres* | 14.7 metres* |
| Maximum length of tanker | 229 metres | 229 metres | 274 metres |
| Maximum permissible draft | 13.7 metres# | 13.7 metres# | 13.7 metres# |

EQUIPMENT

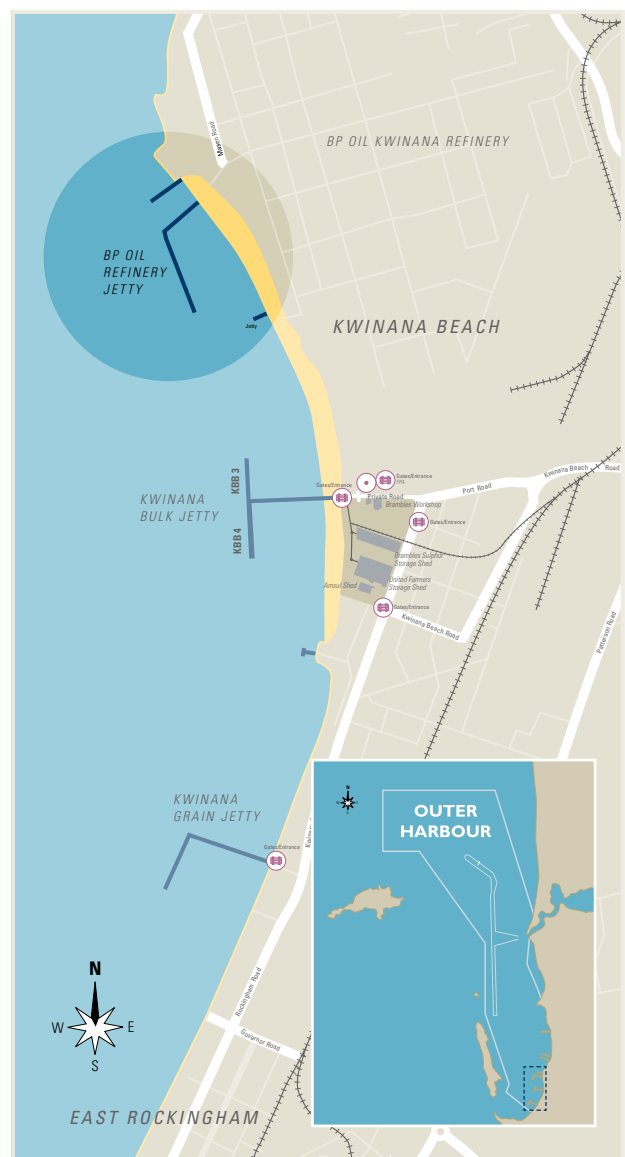
All jetties have Connex general marine loading arms.

| MAXIMUM BERTH DISPLACEMENT | BERTH 3 |
|----------------------------|------------------|
| Tonnage | 150,000 tonnes** |

* The design depth alongside can be subject to siltation and variations to the depth displayed may occur. Enquiries should be directed to the Harbour Master's office to confirm depths alongside particular berths. All depths are related to Low Water Mark Fremantle being 0.2 metres below LAT.

** Maximum berth displacement as provided by BP.

The Port of Fremantle operates a Dynamic Under-Keel Clearance program which nominates specific criteria for applicable vessels. Enquiries should be directed to the Harbour Master's office to confirm maximum drafts for any given time.



Alcoa of Australia Limited



ALCOA OF AUSTRALIA LIMITED

Constructed and operated by Alcoa of Australia Limited, this berth accommodates ships unloading bulk caustic soda and loading refined alumina.

The jetty is equipped with a belt conveyor system specially designed for the loading of refined bulk alumina.





| | |
|--|--------------------------------------|
| WHARF | |
| Berth length | 244 metres |
| Design depth alongside | 11.6 metres* |
| CAUSTIC BERTH | |
| Max ship length | 200 metres |
| Min ship length | 120 metres |
| Min parallel body length | 78 metres |
| Max arrival draft | 11.2 metres |
| Min freeboard | 3 metres |
| Discharge boom flange | 300mm ASA |
| Pump head height | 12.19 metres |
| Pumping distance | 335 metres |
| Max operating pressure | 150psi (1034.25 kPa) |
| Min operating pressure | 100psi (689.5kPa) |
| EQUIPMENT | |
| Bulk loader (not travelling) | |
| Maximum | 1,300 tonnes per hour |
| Average | 1,000 tonnes per hour |
| High water to underside of loader boom in operation | 17 metres |
| Fender face to vertical centre line of spout extended | 17.45 metres |
| Fender face to vertical centre line of spout retracted | 7.85 metres |
| Loader chute fully lowered is below high water mark | 7.32 metres |
| Loader chute fully raised is above high water mark | 8.61 metres |
| High water below top of cell | 3.66 metres |
| MAXIMUM BERTHING DISPLACEMENT | |
| Tonnage | 50,000 tonnes |
| BULK CARGO HANDLED | |
| | Alumina, bulk caustic soda |
| WORKING TIMES | |
| | 7 days per week, 24 hours per day |

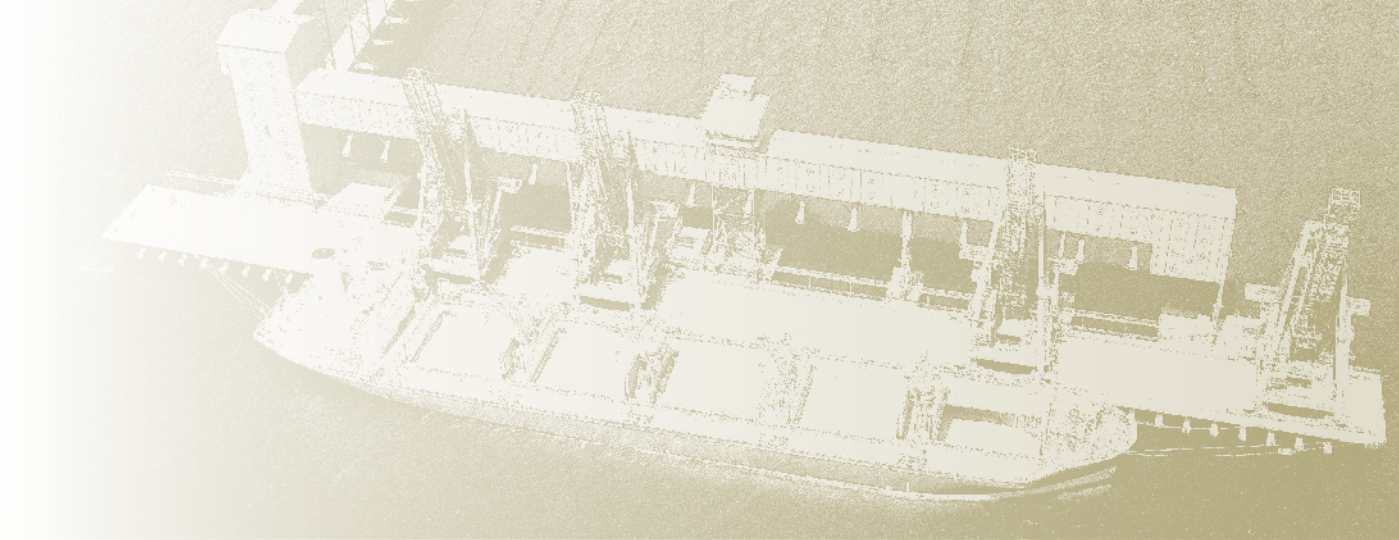
* The design depth alongside can be subject to siltation and variations to the depth displayed may occur. Enquiries should be directed to the Harbour Master's office to confirm depths alongside particular berths. All depths are related to Low Water Mark Fremantle being 0.2 metres below LAT.

** Due to the cell type construction of the berth.

*** Required to protect the integrity of the loading chute.

The Port of Fremantle operates a Dynamic Under Keel Clearance (DUKC) program which nominates specific under keel criteria for applicable vessels. Enquiries should be directed to the Harbour Master's office to confirm maximum drafts for any given time.

The CBH Group-Kwinana Grain Terminal



THE CBH GROUP – KWINANA GRAIN TERMINAL

Operated by the CBH Group, this facility accommodates ships loading bulk grain.

The CBH Group is owned and controlled by the grain growers of Western Australia.

| WHARF | BERTH |
|--|-----------------------|
| Length of berth | 291 metres |
| Design depth alongside | 16.8 metres* |
| EQUIPMENT | |
| Four bulk loaders and belt conveyor system | 5,000 tonnes per hour |
| MAXIMUM BERTH DISPLACEMENT | |
| Tonnage | 75,000 tonnes |

* The design depth alongside can be subject to siltation and variations to the depth displayed may occur. Enquiries should be directed to the Harbour Master's office to confirm depths alongside particular berths. All depths are related to Low Water Mark Fremantle being 0.2 metres below LAT.

The Port of Fremantle operates a Dynamic Under Keel Clearance (DUKC) program which nominates specific under keel criteria for applicable vessels. Enquiries should be directed to the Harbour Master's office to confirm maximum drafts for any given time.





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