



# **Oil Companies International Marine Forum**

## **MTIS Programme**

### **Terminal TPQ**

**Terminal TPQ: PANTALÁN DE REPSOL TARRAGONA**

ReportName 96964e90-0253-44f6-b002-c9cc18bce967

**Terminal Name: PANTALÁN DE REPSOL TARRAGONA**

**Terminal Port: PANTALÁN DE REPSOL PETRÓLEO TARRAGONA**

**Terminal Port Authority: PORT AUTHORITY OF TARRAGONA**

**Country: SPAIN**

## 1 General

1.1	Date this TPQ document was completed/updated	10 May 2014
1.2	Specify units used	Metres and Metric Tonnes

## 2 Port Details

2.1	Port Name	PANTALÁN DE REPSOL PETRÓLEO TARRAGONA
2.2	UN LOCODE	ESTAR
2.3	Country	Spain
2.4	Latitude and Longitude of Port	
1	Latitude	410528 North
2	Longitude	0011149 East
2.5	Is this location affected by ice?	No
2.6	Name of port authority	PORT AUTHORITY OF TARRAGONA
2.7	Port authority contact name and title	TARRAGONA PORT CONTROL
2.8	Port authority full style contact address	
1	Address Line 1	PASSEIG DE L'ESCULLERA S/N
2	Address Line 2	N/A
3	Address Line 3	N/A
4	City	TARRAGONA
5	County/State	SPAIN
6	Postcode/Zipcode	43004
7	Phone	(34) 977 52 79 34
8	Fax	N/A
9	Email	sac@porttarragona.cat
10	Website	www.porttarragona.cat

## 3 Terminal Details

3.1	Terminal name	PANTALÁN DE REPSOL TARRAGONA
3.2	Terminal owner	REPSOL
3.2	Number of berths included in this TPQ	6
3.3	Name of first point of contact for terminal owner	EL QUIEBRO BUILDING
3.4	Terminal owner full style contact address	
1	Address Line 1	C/ CARRETERA DE LA PINEDA S/N
2	Address Line 2	N/A
3	Address Line 3	N/A
4	City	TARRAGONA
5	County/State	SPAIN

6	Postcode/Zipcode	43080
7	Phone	977559801 / 977559811
8	Fax	977559807
9	Email	RPTINSMARINAS@REPSOL.COM
10	Website	WWW.REPSOL.COM
3.5	Terminal operator, if different from owner	NOT APPLICABLE
3.6	Name of first point of contact for terminal operator	JORDI MAS RUBIO
3.7	Terminal operator full style contact address	
1	Address Line 1	C/ CARRETERA DE LA PINEDA S/N
2	Address Line 2	N/A
3	Address Line 3	N/A
4	City	TARRAGONA
5	County/State	SPAIN
6	Postcode/Zipcode	APARTADO (P.O. BOX) 472 – 43080 TARRAGONA
7	Phone	977559811
8	Fax	977559807
9	Email	RPTINSMARINAS@REPSOL.COM
10	Website	WWW.REPSOL.COM

#### 4 TPQ Accountability

4.1	Name and title of person completing this TPQ	ARTURO DE LAS HERAS (LOADING MASTER)
4.2	Full style contact details of person completing this TPQ	
1	Address Line 1	C/ CARRETERA DE LA PINEDA S/N
2	Address Line 2	N/A
3	Address Line 3	N/A
4	City	TARRAGONA
5	County/State	SPAIN
6	Postcode/Zipcode	43080
7	Phone	(34) 977559811
8	Fax	N/A
9	Email	rptinsmarinas@repsol.com

#### 5 Port Facility Security Officer Details

5.1	Does the port facility comply with the ISPS code?	
1		Yes
2	Port Facility Security Officer contact name	JORDI MAS RUBIO
5.2	Port Facility Security Officer full style contact details	
1	Address Line 1	C/ CARRETERA DE LA PINEDA S/N
2	Address Line 2	N/A
3	Address Line 3	N/A

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4	City	TARRAGONA
5	County/State	SPAIN
6	Postcode/Zipcode	43080
7	Phone	(34) 977559801
8	Fax	N/A
9	Email	jmasr@repsol.com

## 6 Operational Integrity Details

6.1	State details of any pre-arrival/operational clearance formalities for vessels	1- PRIOR ARRIVAL ALL THE VESSELS MUST BE ACCEPTED BY REPSOL VETTING 2- ALL THE VESSELS MUST SEND PRIOR ARRIVAL THE ISPS DOCUMENTS 3- ALL THE VESSELS MUST SEND ETA 72, 48 AND 24 HOURS PRIOR ARRIVAL
6.2	Has the terminal completed an assessment using the standard industry process?	
1		Yes
2	If 'Yes', state date completed	10 June 2010
6.3	Additional comments or information	N/A



# **Oil Companies International Marine Forum**

## **MTIS Programme**

### **Berth TPQ**

**Berth TPQ: 80T**

ReportName 25b1210a-0c4f-47ef-81b1-0257cc84dfa3

**Terminal Name: PANTALÁN DE REPSOL TARRAGONA**

**Terminal Port: PANTALÁN DE REPSOL PETRÓLEO TARRAGONA**

**Terminal Port Authority: PORT AUTHORITY OF TARRAGONA**

**Country: SPAIN**

**Berth Name: 80T**

## 1 Berth General

1.1	Berth name or number	80T
1.2	Berth type	
1		Jetty - 'T' finger
2	If 'Other' please specify	
1.3	Terrestrial co-ordinates of manifold centreline	
1	Latitude	410502 North
2	Longitude	0011237 East
1.4	Berth users for liquid and gas cargoes	REPSOL PETROLEO REPSOL QUIMICA DOW
1.5	Has a structural survey of the berth been undertaken, including its underwater structure?	
1		Yes
2	If 'Yes', state date of last survey	15 June 2009
1.6	Has an engineering (mooring and fendering) analysis of berth been undertaken?	
1		Yes
2	If 'Yes', state date of last analysis	15 June 2009
1.7	Additional comments or information	N/A

## 2 Berth Approaches

2.1	Is pilotage compulsory?	
1		Yes
2	If 'Yes', state if any vessels are exempted	NO
2.2	State distance from pilot station(s) to berth	1.5 NM
2.3	Is a waiting anchorage available?	
1		Yes
3	If 'Yes', state distance from waiting anchorage to berth	3 NM
2.4	Controlling depth of water for transit to and from berth	
1	Water depth	18.00 Metres
2	State datum used	Chart Datum (CD)
3	If 'Other' please specify datum	
2.5	Date of latest survey from which transit depth has been determined	01 November 2008
2.6	Date next survey is due	15 January 2020
2.7	State Maximum Tidal Range in berth approaches	0.20
2.8	Is laden transit to and/or from the berth conducted using the tide?	
1		No
2	If 'Yes', state optimum transit window (i.e. at High Water, HW +/- 1 hr)	

2.9	State details of any specific berthing and/or unberthing restrictions	WEATHER RESTRICTIONS DAYTIME: WIND SPEED: 40 KNOTS MAXIMUM WAVE HEIGHT: 2,5 METERS MAXIMUM  WEATHER RESTRICTIONS NIGHTTIME: WIND SPEED: 15 KNOTS MAXIMUM WAVE HEIGHT: 0,8 METERS MAXIMUM  NO NIGHT TIME BERTHING PERMITTED FOR VESSEL MORE THAN 200 METERS OF LENGTH OVER ALL
2.10	Minimum under keel clearance (UKC) in berth approaches	
1	Value	3.80 Meters
2	Percentage	20.50 Vessel static draft
3	Specify other UKC criterion where applicable	THE RESTRICTION IS VESSEL'S DRAFT
2.11	Absolute maximum draught in berth approaches, if applicable	14.25
2.12	State minimum vertical clearance of any bridges/power cables/vertical obstructions	
1	Vertical clearance	999.00 Metres
2	State datum used	Chart Datum (CD)
3	If 'Other' specify other datum used	
4	Further details	N/A
2.13	Does the port require tankers and gas carriers to be escorted by tugs?	
1		Yes
2	If 'Yes', state whether Active or Passive escort is employed and the maximum towline force that the tug is able to generate	ACTIVE ESCORT MAXIMUM TOWLINE FORCE: 85 MT
2.14	Additional comments or information	N/A

### 3 Water Depth Alongside

3.1	Minimum controlled water depth alongside berth at chart datum	
1	Water depth	18.00 Metres
2	State datum used	Chart Datum (CD)
3	If 'Other' specify datum	
3.2	Date of latest survey from which alongside depth has been determined	27 November 2008
3.3	Date next survey is due	15 January 2020
3.4	Minimum static under keel clearance (UKC) alongside berth	
1	Value	3.75 Meters
2	Percentage	20.80 Vessel static draft
3	Specify other UKC criterion where applicable	THE RESTRICTION IS VESSEL'S DRAFT (14.25 METERS)
3.5	State range of water densities at berth	
1	From	1025.00
2	To	1025.00
3	Further details	BERTH IS IN OPEN WATER

3.6	Type of bottom alongside berth	
1		Sand
2	If 'Other' please specify	
3.7	Absolute maximum draft alongside, if applicable	14.25
3.8	State maximum tidal range at berth, if applicable	0.20
3.9	Are 'over-the-tide' cargo handling operations permitted at the berth?	No
3.10	Does the berth location experience water-level anomalies?	
1		No
2	Provide details	
3.11	Additional comments or information	N/A

#### 4 Limiting Vessel Dimensions

4.1	Summer deadweight	
1	TPQ NA Selector	
2	Minimum	0.00 Metric Tonnes
3	Maximum	80000.00 Metric Tonnes
4.2	Berthing displacement	
1	TPQ NA Selector	
2	Minimum	0.00 Metric Tonnes
3	Maximum	125000.00 Metric Tonnes
4.3	Alongside displacement	
1	TPQ NA Selector	
2	Minimum	0.00 Metric Tonnes
3	Maximum	125000.00 Metric Tonnes
4.4	State any deadweight/displacement exceptions	
1	TPQ NA Selector	Not applicable
2		
4.5	Cubic capacity (gas carriers)	
1	TPQ NA Selector	
2	Minimum	0.00 Cubic metres
3	Maximum	6000.00 Cubic metres
4.6	Length over all (LOA)	
1	TPQ NA Selector	
2	Minimum	140.00 Metres
3	Maximum	290.00 Metres
4.7	Beam	
1	TPQ NA Selector	No restrictions
2	Minimum	
3	Maximum	



4.8	Minimum parallel body length (PBL)	
1	TPQ NA Selector	Not applicable
2		
4.9	Minimum PBL forward of manifold	
1	TPQ NA Selector	Not applicable
2		
4.10	Minimum PBL aft of manifold	
1	TPQ NA Selector	Not applicable
2		
4.11	Bow to centre of manifold (BCM)	
1	TPQ NA Selector	Applicable
2	Minimum	70.00 Metres
3	Maximum	148.00 Metres
4.12	Stern to centre of manifold (SCM)	
1	TPQ NA Selector	Not applicable
2	Minimum	
3	Maximum	
4.13	Freeboard	
1	TPQ NA Selector	
2	Minimum	2.00 Metres
3	Maximum	11.70 Metres
4.14	Manifold height above water	
1	TPQ NA Selector	
2	Minimum	3.20 Metres
3	Maximum	16.80 Metres
4.15	Manifold to shipside rail distance	
1	TPQ NA Selector	Not applicable
2	Minimum	
3	Maximum	
4.16	Height of manifold above deck or drip tray	
1	TPQ NA Selector	Not applicable
2	Minimum	
3	Maximum	
4	Specify whether height is from the deck or the drip tray	
4.17	Manifold spacing	
1	TPQ NA Selector	Not applicable
2	Minimum	
3	Maximum	
4.18	Maximum air draft alongside	
1	TPQ NA Selector	Not applicable

2

4.19	Vessel's minimum derrick/crane Safe Working Load (SWL)	
1	TPQ NA Selector	Not applicable
2		

4.20 Additional comments or information N/A

## 5 Mooring and Berthing Information

5.1	State availability and specifications of tugs and mooring craft required for berthing and/or unberthing.	IS COMPULSORY USE TUGS DURING BERTHING MANEUVERINGS NAME: CAMBRILS, LENGTH: 29.5 M, BOLLARD PULL: 60 T NAME: GETXO, LENGTH: 29.5 M, BOLLARD PULL: 46 T NAME: POBLET, LENGTH: 29.5 M, BOLLARD PULL: 55 T NAME: GUERNICA, LENGTH: 29.5 M, BOLLARD PULL: 46 T NAME: ROMULO, LENGTH: 33 M, BOLLARD PULL: 85.5 T NAME: REMO, LENGTH: 33 M, BOLLARD PULL: 85.5 T
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5.2 Are ship's or tug's lines used?

- |   |          |   |
|---|----------|---|
| 1 | Ship/Tug | Tug's Lines   |
| 2 | Comments | Line forward: 1 x 200 meters<br>Bollard Pull: 67,2 MT maximum |

5.3 Type of fenders installed at berth

- |   |                           |                    |
|---|---------------------------|--------------------|
| 1 |                           | Other              |
| 2 | If 'Other' please specify | SEYBU 150 H TYPE B |

5.4 State orientation of vessel alongside berth

Starboard Side To

5.5 At buoy moorings, state which side hose is normally connected

- |   |                           |                |
|---|---------------------------|----------------|
| 1 |                           | Not applicable |
| 2 | If 'Other' please specify |                |

5.6 Minimum mooring arrangement

4 X 2 FORE AND AFT

5.7 Describe any additional mooring requirements

N/A

5.8 Are there any restrictions using wire mooring ropes?

- |   |   |    |
|---|---|----|
| 1 |   | No |
| 2 | If 'yes', provide details of restrictions in wire moorings as part of the mooring pattern |    |

5.9 Are there any restrictions using synthetic mooring ropes?

- |   |   |    |
|---|---|----|
| 1 |   | No |
| 2 | If 'yes'; provide details of restrictions in synthetic mooring ropes as part of the mooring pattern |    |

5.10 Are there any restrictions on using high modulus synthetic mooring ropes?

- |   |  |    |
|---|--|----|
| 1 |  | No |
|---|--|----|

2	If 'yes' provide details	
5.11	Details of any specific mooring equipment required for any vessel utilising the berth	N/A
5.12	Does the terminal require the vessel to rig Emergency Towing Off Pennants (ETOPs) while at the berth?	
1		Yes
2	If 'Yes', provide details of particular requirements regarding ETOPs.	1 M ABOVE THE WATER
5.13	Details of any shore-provided mooring equipment	N/A
5.14	Are berthing aids provided?	
1		Yes
2	If 'Yes', state type of aids	ELECTRONIC INDICATOR OF: DISTANCE TO FENDERS AND APPROACH VELOCITY
5.15	State allowable speed of approach if applicable	
1		0,20 KNOTS
1		0.20 Knots
5.16	Is a mooring tension monitor fitted?	Yes
5.17	Are mooring hook quick release arrangements provided?	Yes
5.18	Chain stopper requirements	
1	Applicable	No
2		
5.19	Largest ship handled at berth to date	UNKNOWN
5.20	Additional comments or information	N/A

## 6 Berth Equipment and Facilities

6.1	Number, type and size of cargo transfer connections	3 CARGO ARMS: - 2 CARGO ARMS WOODFIELD, 1 OF 12 INCHES AND 1 OF 8 INCHES. - 1 CARGO ARM CHIKSAN OF 8 INCHES.
6.2	List grades handled at berth	Gas oils, Diesels and Kerosenes, Naphtha, Platformate, Raffinate, Reformate, Commercial LPG
2	State specific grades handled at berth (e.g. Ekofisk crude oil, Unleaded Gasoline, Jet A1).	NAPHTHA KEROSENE BUTADIENE PROPANE
6.3	State transfer rate restrictions and back pressure for each cargo grade	NAFTA: 2.500 M3/H KEROSENE: 1.600 M3/H PROPANE: 200 M3/H BUTADIENE: 150 M3/H
6.4	Are transfer connections fitted with insulation flanges?	
1		Yes
2	Provide details	ALL CARGO ARMS
6.5	State storage type for LPG	Pressurised

6.6	Describe any terminal-specific requirements for vessel manifolds	FOR LOADING NAFTA VESSEL MUST PROVIDE ONE CONNECTION OF VAPOR RETURN LINE.
6.7	Is berth fitted with a vapour manifold connection?	
1		No
2	If 'Yes' state type and size of vapour connection	
3	State cargo types for which it is required to use vapour connection (if applicable)	
6.8	State throughput rate(s) of vapour recovery system	300 M3/H
6.9	Are Powered Emergency Release Couplings (PERCS) installed to the cargo transfer arms?	
1		Yes
2	Supply details	CARGO ARM CHIKSAN 101  1- CLOSE THE VALVE 2- ACTIVATE PERC IN BOTH MANIFOLDS LIQUID AND GAS
6.10	Does the berth have an emergency shutdown (ESD) capability that can be activated by the ship?	
1		No
2	If 'yes' provide details	
6.11	Describe access arrangements between ship and shore.	IF POSSIBLE, SHORE GANGWAY
6.12	Does the berth have pollution response equipment?	
1		Yes
2	If 'yes' provide details	Containment boom(s), skimming equipment, absorbent materials and dispersant stocks.
6.13	Additional comments or information	N/A
<b>7</b>	<b>Berth Operations</b>	
7.1	What is the primary and backup communication system between ship and terminal during cargo operations?	PRIMARY: VERBAL, BY VOICE WITH THE JETTY MAN BACK UP: VHF CH-10
7.2	Is it required that terminal or shore representatives stay on board during operations?	
1		No
2	If 'Yes', state requirements including number of persons and their roles	
7.3	Specify weather/environmental restrictions for stopping cargo operations, disconnecting hoses or arms and vacating the berth?	STOPPING CARGO OPERATIONS: 30 KNOTS WIND SPEED DISCONNECTING HOSES: 35 KNOTS WIND SPEED VACATING THE BERTH: 40 KNOTS WIND SPEED
7.4	Are there any restrictions regarding tank cleaning/Crude Oil Washing (COW) operations at the berth?	
1		Yes
2	If 'Yes' provide full details of these restrictions	NO CRUDE OIL CARGO IN THIS BERTH
7.5	Are there any berth specific requirements regarding tanker inerting procedures?	

1		Yes
2	If 'Yes', state requirements	ALL THE VESSELS OPERATE PRODUCTS WITH FLASH POINT EQUAL TO OR LOWER THAN 60°C, THE LOADING OR DISCHARGING OPERATION WILL BE CARRIED OUT ON TANKS WITH INERT ATMOSPHERE.
7.6	Is there a temperature limit for cargo handled?	
1		Yes
2	If 'Yes', state temperature limits	PROPANE, BETWEEN 0 AND - 6 °C
7.7	Is it permitted for vessels to undertake double-banked operations alongside the berth?	
1		No
2	If 'Yes', state limiting criteria	
7.8	Is vessel required to pump water ashore or receive water on board for line clearance purposes?	
1		No
2	If 'Yes', provide operational details	
7.9	Can the berth be used for Ship-to-Ship transfers using terminal facilities?	
1		Yes
2	Provide details	ONLY FOR SLUDGES, AND NEVER SIMULTANOUSLY WITH LOADING OR DISCHARGING LIGHT PRODUCTS OPERATIONS.
7.10	State details regarding any environmental restrictions applicable at the berth	EMISSIONS OF CARGO VAPOURS, INERT GAS OR ENGINE SMOKE IS NOT PERMITTED.
7.11	Are there any restrictions regarding Hydrogen Sulphide content in Cargo Tanks?	
1		No
2	If 'Yes', state restriction	
7.12	Are there any restrictions regarding Mercaptan content in Cargo Tanks?	
1		No
2	If 'Yes', state restriction	
7.13	Are there any restrictions on handling stores when a ship is moored alongside berth?	
1		Yes
2	If 'Yes', state restriction	STORES ALONGSIDE ARE FORBIDDEN
7.14	Additional comments or information	N/A

## 8 Available Services

8.1	Are Fuel Oil bunkers available?	
1		No
2	If 'Yes', state how delivered (e.g. Ex-Pipe, barge, truck)	
8.2	Are Diesel Oil bunkers available?	
1		No

2	If 'Yes', state how delivered (e.g. Ex-Pipe, barge, truck)	
8.3	Are Intermediate Oil bunkers available?	
1		No
2	If 'Yes', state how delivered (e.g. Ex-Pipe, barge, truck)	
8.4	Is fresh water available?	
1		Yes
2	If 'Yes', state how delivered (e.g. Ex-Pipe, barge, truck)	BY HOSES OF THE VESSEL
8.5	Are slop reception facilities available?	
1		Yes
2	If 'Yes', state how received (e.g. Ex-Pipe, barge, truck)	PIPE
3	State capacity of slop reception facilities (if applicable)	6000.00 Cubic metres
4	State any specific exclusions for slop receipts (e.g. chemicals, detergents, cleaning agents)	N/A
8.6	Are dirty ballast reception facilities available?	
1		No
2	If 'Yes', state how received	
3	State capacity of dirty ballast reception facilities	
8.7	Are engine room sludge and bilge reception facilities available?	
1		Yes
2	If 'Yes', state how received (e.g. Ex-pipe, barge, truck)	BARGE
8.8	Are garbage reception facilities available at the berth.	
1		Yes
2	If 'Yes', provide details	BARGE
8.9	Additional comments or information	N/A

## 9 Berth Low Temperature Impact

9.1	What is the typical range of temperatures the terminal operates in during a winter season?	
9.2	Which months of the year can ice be expected?	
9.3	Specify any terminal requirements for vessel Ice Class notation and winterisation capabilities	
9.4	State any limitations for cargo operations in sub-zero temperatures	
9.5	State the minimum allowable ambient temperature for safe cargo operations	
9.6	State the minimum temperature of cargoes handled	
9.7	State the minimum temperature for the emergency shut-down system to operate safely	
9.8	Does the terminal have its own resources for conducting icebreaker escort	
1		
2	If 'Yes' provide details and specify how they can be requested	
9.9	Are there icebreakers available to operate in the terminal area	

1	
2	Specify details (e.g. Name/IMO Nr/GRT/Power/Ice Class)
9.10	Does the terminal have ice-capable tugs and support craft
1	
2	Specify details (e.g. Name/IMO Nr/GRT/Power/Ice Class)
9.11	Does the terminal have specific requirements for the vessel speed and manoeuvrability characteristics in ice?
1	
2	If 'Yes', provide details
9.12	Does the terminal provide its own ice navigator/advisor?
1	
2	If 'Yes', provide details of how the service may be requested
9.13	Additional comments or information

## 10 Supplementary Information

10.1	Berth transparency	PILED JETTY					
10.2	Specify datum used for height and depth measurements in this section						
1		Chart Datum (CD)					
2	If 'Other' please specify other						
10.3	Berth height above datum	9.60					
10.4	Berth heading	133					
10.5	Width of the channel adjacent to the berth	550.00					
10.6	Position of mooring bollards and hooks						
		Hook/Bollard ID Number and Type	'x' dist to Target Line (m)	'y' dist to Fender Face (m)	Height (m)	SWL (tonnes)	
		M-1A	202.75	18.00	8.00	100.00	
		M-3	138.75	18.00	8.00	100.00	
		M-5	78.75	18.00	8.00	60.00	
		B-1	44.00	1.00	5.00	60.00	
		B-7	-44.00	1.00	5.00	60.00	
		M-7	-78.75	18.00	8.00	60.00	
		M-9	-138.75	18.00	8.00	100.00	
		M-11	-202.75	18.00	8.00	100.00	
10.7	Position of mooring buoys						
10.8	Fender Location						
		Fender ID Number	'x' Dist to Target Line (m)	Elevation of Fenders (m)	Fender Width (m)	Fender Height (m)	Fender Contact Area (m2)
		B-1	44.00	-0.50	5.54	5.51	19.05
		B-3	24.00	0.00	3.06	3.12	6.20
		B-5	-24.00	0.00	3.06	3.12	6.20

B-7	-44.00	-0.50	5.54	5.51	19.05
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## 10.9 Fender Reaction Data

Fender Id Number	Point No.	Compression (metres)	Load (tonnes)
B-1	1	2.40	133.00
B-3	2	2.40	35.00
B-5	2	2.40	35.00
B-7	1	2.40	133.00

10.10 Fender friction coefficient ( $\mu$ )

0.50

## 10.11 State identity and horizontal position of loading arms

Loading Arm/Shore Connection ID Number	Horizontal co-ordinate X	Horizontal co-ordinate Y	Max Excursion Surge	Max Excursion Sway	Max Excursion Heave
BC-102	7.00	2.00			
BC-101	7.00	-1.00			
BC-103	7.00	-4.00			

## 10.12 State loading arm operating limits

Loading Arm ID Number	Max Op Height	Min Op Height	Max Excursion Surge	Max Excursion Sway	Max Excursion Heave
102	16.80	3.20			
101	16.80	3.20			
103	16.80	3.20			

## 10.13 Additional comments or information

N/A





# Oil Companies International Marine Forum

## MTIS Programme

### Berth TPQ

**Berth TPQ: SBM**

ReportName 17a24563-f6a0-4e14-95e7-1bef5a67efa4

**Terminal Name: PANTALÁN DE REPSOL TARRAGONA**

**Terminal Port: PANTALÁN DE REPSOL PETRÓLEO TARRAGONA**

**Terminal Port Authority: PORT AUTHORITY OF TARRAGONA**

**Country: SPAIN**

**Berth Name: SBM**

## 1 Berth General

1.1	Berth name or number	SBM
1.2	Berth type	
1		
2	If 'Other' please specify	
1.3	Terrestrial co-ordinates of manifold centreline	
1	Latitude	410403 North
2	Longitude	0011320 East
1.4	Berth users for liquid and gas cargoes	REPSOL PETROLEO
1.5	Has a structural survey of the berth been undertaken, including its underwater structure?	
1		Yes
2	If 'Yes', state date of last survey	01 April 2013
1.6	Has an engineering (mooring and fendering) analysis of berth been undertaken?	
1		No
2	If 'Yes', state date of last analysis	
1.7	Additional comments or information	2 BOW CHAIN STOPPERS, SWL 200 MT. 2 BOW CLOSED FAIRLEADS OF OCIMF RECOMMENDED SIZE (600mm x 450mm). 4 METRES MAXIMUM DISTANCE BRACKET TO BOW FAIRLEADS 30 METRES MAXIMUM HEIGHT CHAIN STOPPERS TO SEA-WATER.

## 2 Berth Approaches

2.1	Is pilotage compulsory?	
1		Yes
2	If 'Yes', state if any vessels are exempted	NO
2.2	State distance from pilot station(s) to berth	1.0 NM
2.3	Is a waiting anchorage available?	
1		Yes
3	If 'Yes', state distance from waiting anchorage to berth	2.5 NM
2.4	Controlling depth of water for transit to and from berth	
1	Water depth	40.00 Metres
2	State datum used	Chart Datum (CD)
3	If 'Other' please specify datum	
2.5	Date of latest survey from which transit depth has been determined	01 November 2008
2.6	Date next survey is due	15 January 2020
2.7	State Maximum Tidal Range in berth approaches	0.20
2.8	Is laden transit to and/or from the berth conducted using the tide?	

1		No
2	If 'Yes', state optimum transit window (i.e. at High Water, HW +/- 1 hr)	
2.9	State details of any specific berthing and/or unberthing restrictions	WEATHER RESTRICTIONS DAYTIME: WIND SPEED: 40 KNOTS MAXIMUM WAVE HEIGHT: 2,5 METERS MAXIMUM  NO NIGHT TIME BERTHING PERMITTED
2.10	Minimum under keel clearance (UKC) in berth approaches	
1	Value	10.00 Meters
2	Percentage	25.00 Vessel static draft
3	Specify other UKC criterion where applicable	THE RESTRICTION IS VESSEL'S DRAFT
2.11	Absolute maximum draught in berth approaches, if applicable	30.00
2.12	State minimum vertical clearance of any bridges/power cables/vertical obstructions	
1	Vertical clearance	999.00 Metres
2	State datum used	Chart Datum (CD)
3	If 'Other' specify other datum used	
4	Further details	N/A
2.13	Does the port require tankers and gas carriers to be escorted by tugs?	
1		Yes
2	If 'Yes', state whether Active or Passive escort is employed and the maximum towline force that the tug is able to generate	ACTIVE ESCORT MAXIMUM TOWLINE FORCE: 85 MT
2.14	Additional comments or information	N/A

### 3 Water Depth Alongside

3.1	Minimum controlled water depth alongside berth at chart datum	
1	Water depth	40.00 Metres
2	State datum used	Chart Datum (CD)
3	If 'Other' specify datum	
3.2	Date of latest survey from which alongside depth has been determined	27 November 2008
3.3	Date next survey is due	15 January 2020
3.4	Minimum static under keel clearance (UKC) alongside berth	
1	Value	10.00 Meters
2	Percentage	25.00 Vessel static draft
3	Specify other UKC criterion where applicable	THE RESTRICTION IS VESSEL'S DRAFT (30.00 METERS)
3.5	State range of water densities at berth	
1	From	1025.00
2	To	1025.00
3	Further details	BERTH IS IN OPEN WATER
3.6	Type of bottom alongside berth	
1		Sand

2	If 'Other' please specify	
3.7	Absolute maximum draft alongside, if applicable	30.00
3.8	State maximum tidal range at berth, if applicable	0.20
3.9	Are 'over-the-tide' cargo handling operations permitted at the berth?	No
3.10	Does the berth location experience water-level anomalies?	
1		No
2	Provide details	
3.11	Additional comments or information	N/A

#### 4 Limiting Vessel Dimensions

4.1	Summer deadweight	
1	TPQ NA Selector	
2	Minimum	0.00 Metric Tonnes
3	Maximum	325000.00 Metric Tonnes
4.2	Berthing displacement	
1	TPQ NA Selector	No restrictions
2	Minimum	
3	Maximum	
4.3	Alongside displacement	
1	TPQ NA Selector	Not applicable
2	Minimum	
3	Maximum	
4.4	State any deadweight/displacement exceptions	
1	TPQ NA Selector	Not applicable
2		
4.5	Cubic capacity (gas carriers)	
1	TPQ NA Selector	Not applicable
2	Minimum	
3	Maximum	
4.6	Length over all (LOA)	
1	TPQ NA Selector	
2	Minimum	0.00 Metres
3	Maximum	350.00 Metres
4.7	Beam	
1	TPQ NA Selector	No restrictions
2	Minimum	
3	Maximum	
4.8	Minimum parallel body length (PBL)	
1	TPQ NA Selector	Not applicable

2		
4.9	Minimum PBL forward of manifold	
1	TPQ NA Selector	Not applicable
2		
4.10	Minimum PBL aft of manifold	
1	TPQ NA Selector	Not applicable
2		
4.11	Bow to centre of manifold (BCM)	
1	TPQ NA Selector	Not applicable
2	Minimum	
3	Maximum	
4.12	Stern to centre of manifold (SCM)	
1	TPQ NA Selector	Not applicable
2	Minimum	
3	Maximum	
4.13	Freeboard	
1	TPQ NA Selector	Not applicable
2	Minimum	
3	Maximum	
4.14	Manifold height above water	
1	TPQ NA Selector	Not applicable
2	Minimum	
3	Maximum	
4.15	Manifold to shipside rail distance	
1	TPQ NA Selector	Not applicable
2	Minimum	
3	Maximum	
4.16	Height of manifold above deck or drip tray	
1	TPQ NA Selector	Not applicable
2	Minimum	
3	Maximum	
4	Specify whether height is from the deck or the drip tray	
4.17	Manifold spacing	
1	TPQ NA Selector	Not applicable
2	Minimum	
3	Maximum	
4.18	Maximum air draft alongside	
1	TPQ NA Selector	Not applicable
2		
4.19	Vessel's minimum derrick/crane Safe Working Load (SWL)	

1	TPQ NA Selector	
2		15.00 Metric Tonnes
4.20	Additional comments or information	N/A

## 5 Mooring and Berthing Information

5.1	State availability and specifications of tugs and mooring craft required for berthing and/or unberthing.	IS COMPULSORY USE TUGS DURING BERTHING MANEUVERINGS NAME: CAMBRILS, LENGTH: 29.5 M, BOLLARD PULL: 60 T NAME: GETXO, LENGTH: 29.5 M, BOLLARD PULL: 46 T NAME: POBLET, LENGTH: 29.5 M, BOLLARD PULL: 55 T NAME: GUERNICA, LENGTH: 29.5 M, BOLLARD PULL: 46 T NAME: ROMULO, LENGTH: 33 M, BOLLARD PULL: 85.5 T NAME: REMO, LENGTH: 33 M, BOLLARD PULL: 85.5 T
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5.2	Are ship's or tug's lines used?	
1	Ship/Tug	Tug's Lines
2	Comments	Line forward: 1 x 200 meters Bollard Pull: 67,2 MT maximum After complete berthing at SBM, Vessel will change tug's line for ship's line astern.

5.3	Type of fenders installed at berth	
1		Other
2	If 'Other' please specify	NO FENDERS INSTALLED, THE BERTH IS DONE TO A SBM BY 2 SINGLE POINT MOORING

5.4	State orientation of vessel alongside berth	Not applicable
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5.5	At buoy moorings, state which side hose is normally connected	
1		Port
2	If 'Other' please specify	

5.6	Minimum mooring arrangement	2 CHAINS STOPPER
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5.7	Describe any additional mooring requirements	N/A
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5.8	Are there any restrictions using wire mooring ropes?	
1		No
2	If 'yes', provide details of restrictions in wire moorings as part of the mooring pattern	

5.9	Are there any restrictions using synthetic mooring ropes?	
1		No
2	If 'yes'; provide details of restrictions in synthetic mooring ropes as part of the mooring pattern	

5.10	Are there any restrictions on using high modulus synthetic mooring ropes?	
1		No
2	If 'yes' provide details	

5.11	Details of any specific mooring equipment required for any vessel utilising the berth	N/A
5.12	Does the terminal require the vessel to rig Emergency Towing Off Pennants (ETOPs) while at the berth?	
1		Yes
2	If 'Yes', provide details of particular requirements regarding ETOPs.	1 M ABOVE THE WATER
5.13	Details of any shore-provided mooring equipment	N/A
5.14	Are berthing aids provided?	
1		No
2	If 'Yes', state type of aids	
5.15	State allowable speed of approach if applicable	
1		0,20 KNOTS
1		0.20 Knots
5.16	Is a mooring tension monitor fitted?	No
5.17	Are mooring hook quick release arrangements provided?	No
5.18	Chain stopper requirements	
1	Applicable	Yes
2		- 2 BOW CHAIN STOPPERS, SWL 200 MT - 2 BOW CLOSED FAIRLEADS OF OCIMF RECOMMENDED SIZE (600 mm X 450 mm) - MAXIMUM DISTANCE STOPPER BRACKET TO BOW FAIRLEADS ACCORDING OCIMF (2700 mm X 3700 mm) - 30 METRES MAXIMUM HEIGHT CHAIN STOPPERS TO SEA-WATER
5.19	Largest ship handled at berth to date	UNKNOWN
5.20	Additional comments or information	N/A

## 6 Berth Equipment and Facilities

6.1	Number, type and size of cargo transfer connections	2 CARGO HOSES - 1 CARGO HOSES OF 16 INCHES FOR CARGO OPERATIONS - 1 CARGO HOSES OF 16 INCHES FOR BLOW THE LINE WITH FRESH WATER AFTER COMPLETE DISCHARGE OPERATIONS
6.2	List grades handled at berth	Crude Oils/Condensates
2	State specific grades handled at berth (e.g. Ekofisk crude oil, Unleaded Gasoline, Jet A1).	CRUDE OIL
6.3	State transfer rate restrictions and back pressure for each cargo grade	MAX. DISCHARGE RATE: 9.000 M3/H
6.4	Are transfer connections fitted with insulation flanges?	
1		No
2	Provide details	
6.5	State storage type for LPG	Not applicable

6.6	Describe any terminal-specific requirements for vessel manifolds	HOSES CONNECTION ALWAYS IS DONE IN PORT SIDE.
6.7	Is berth fitted with a vapour manifold connection?	
1		No
2	If 'Yes' state type and size of vapour connection	
3	State cargo types for which it is required to use vapour connection (if applicable)	
6.8	State throughput rate(s) of vapour recovery system	N/A
6.9	Are Powered Emergency Release Couplings (PERCS) installed to the cargo transfer arms?	
1		No
2	Supply details	
6.10	Does the berth have an emergency shutdown (ESD) capability that can be activated by the ship?	
1		No
2	If 'yes' provide details	
6.11	Describe access arrangements between ship and shore.	COMBINATION LADDER, 1 METER ABOVE THE WATER
6.12	Does the berth have pollution response equipment?	
1		No
2	If 'yes' provide details	
6.13	Additional comments or information	N/A

## 7 Berth Operations

7.1	What is the primary and backup communication system between ship and terminal during cargo operations?	VERBAL WITH THE LOADING MASTER
7.2	Is it required that terminal or shore representatives stay on board during operations?	
1		Yes
2	If 'Yes', state requirements including number of persons and their roles	- 1 LOADING MASTER - 1 COW SURVEYOR- - 5 MOORING ASSISTANCE
7.3	Specify weather/environmental restrictions for stopping cargo operations, disconnecting hoses or arms and vacating the berth?	STOPPING CARGO OPERATIONS: 35 KNOTS WIND SPEED DISCONNECTING HOSES: 40 KNOTS WIND SPEED VACATING THE BERTH: 45 KNOTS WIND SPEED
7.4	Are there any restrictions regarding tank cleaning/Crude Oil Washing (COW) operations at the berth?	
1		No
2	If 'Yes' provide full details of these restrictions	
7.5	Are there any berth specific requirements regarding tanker inerting procedures?	
1		Yes



2	If 'Yes', state requirements	ALL THE VESSELS OPERATE PRODUCTS WITH FLASH POINT EQUAL TO OR LOWER THAN 60°C, THE LOADING OR DISCHARGING OPERATION WILL BE CARRIED OUT ON TANKS WITH INERT ATMOSPHERE.
7.6	Is there a temperature limit for cargo handled?	
1		No
2	If 'Yes', state temperature limits	
7.7	Is it permitted for vessels to undertake double-banked operations alongside the berth?	
1		No
2	If 'Yes', state limiting criteria	
7.8	Is vessel required to pump water ashore or receive water on board for line clearance purposes?	
1		Yes
2	If 'Yes', provide operational details	AFTER COMPLETE DISCHARGE OPERATIONS, SHORE FLUSHING THE LINE WITH 200 M3 OF FRESH WATER
7.9	Can the berth be used for Ship-to-Ship transfers using terminal facilities?	
1		No
2	Provide details	
7.10	State details regarding any environmental restrictions applicable at the berth	EMISSIONS OF CARGO VAPOURS, INERT GAS OR ENGINE SMOKE IS NOT PERMITTED.
7.11	Are there any restrictions regarding Hydrogen Sulphide content in Cargo Tanks?	
1		No
2	If 'Yes', state restriction	
7.12	Are there any restrictions regarding Mercaptan content in Cargo Tanks?	
1		No
2	If 'Yes', state restriction	
7.13	Are there any restrictions on handling stores when a ship is moored alongside berth?	
1		Yes
2	If 'Yes', state restriction	STORES NOT PERMITTED AT THE BERTH
7.14	Additional comments or information	N/A
<b>8</b>	<b>Available Services</b>	
8.1	Are Fuel Oil bunkers available?	
1		No
2	If 'Yes', state how delivered (e.g. Ex-Pipe, barge, truck)	
8.2	Are Diesel Oil bunkers available?	
1		No
2	If 'Yes', state how delivered (e.g. Ex-Pipe, barge, truck)	
8.3	Are Intermediate Oil bunkers available?	

1		No
2	If 'Yes', state how delivered (e.g. Ex-Pipe, barge, truck)	
8.4	Is fresh water available?	
1		No
2	If 'Yes', state how delivered (e.g. Ex-Pipe, barge, truck)	
8.5	Are slop reception facilities available?	
1		Yes
2	If 'Yes', state how received (e.g. Ex-Pipe, barge, truck)	CARGO HOSE
3	State capacity of slop reception facilities (if applicable)	6000.00 Cubic metres
4	State any specific exclusions for slop receipts (e.g. chemicals, detergents, cleaning agents)	N/A
8.6	Are dirty ballast reception facilities available?	
1		No
2	If 'Yes', state how received	
3	State capacity of dirty ballast reception facilities	
8.7	Are engine room sludge and bilge reception facilities available?	
1		No
2	If 'Yes', state how received (e.g. Ex-pipe, barge, truck)	
8.8	Are garbage reception facilities available at the berth.	
1		No
2	If 'Yes', provide details	
8.9	Additional comments or information	N/A
<b>9</b>	<b>Berth Low Temperature Impact</b>	
9.1	What is the typical range of temperatures the terminal operates in during a winter season?	
9.2	Which months of the year can ice be expected?	
9.3	Specify any terminal requirements for vessel Ice Class notation and winterisation capabilities	
9.4	State any limitations for cargo operations in sub-zero temperatures	
9.5	State the minimum allowable ambient temperature for safe cargo operations	
9.6	State the minimum temperature of cargoes handled	
9.7	State the minimum temperature for the emergency shut-down system to operate safely	
9.8	Does the terminal have its own resources for conducting icebreaker escort	
1		
2	If 'Yes' provide details and specify how they can be requested	
9.9	Are there icebreakers available to operate in the terminal area	
1		
2	Specify details (e.g. Name/IMO Nr/GRT/Power/Ice Class)	

9.10 Does the terminal have ice-capable tugs and support craft

1

2 Specify details (e.g. Name/IMO Nr/GRT/Power/Ice Class)

9.11 Does the terminal have specific requirements for the vessel speed and manoeuvrability characteristics in ice?

1

2 If 'Yes', provide details

9.12 Does the terminal provide its own ice navigator/advisor?

1

2 If 'Yes', provide details of how the service may be requested

9.13 Additional comments or information

## 10 Supplementary Information

10.1 Berth transparency OPEN WATER

10.2 Specify datum used for height and depth measurements in this section

1

Chart Datum (CD)

2 If 'Other' please specify other

10.3 Berth height above datum

10.4 Berth heading

N/A

10.5 Width of the channel adjacent to the berth

10.6 Position of mooring bollards and hooks

10.7 Position of mooring buoys

10.8 Fender Location

10.9 Fender Reaction Data

10.10 Fender friction coefficient ( $\mu$ )

10.11 State identity and horizontal position of loading arms

10.12 State loading arm operating limits

10.13 Additional comments or information

N/A



# Oil Companies International Marine Forum

## MTIS Programme

### Berth TPQ

**Berth TPQ: 11S**

ReportName 5c7446c0-da23-48a2-8be7-5d6ae8f90391

**Terminal Name: PANTALÁN DE REPSOL TARRAGONA**

**Terminal Port: PANTALÁN DE REPSOL PETRÓLEO TARRAGONA**

**Terminal Port Authority: PORT AUTHORITY OF TARRAGONA**

**Country: SPAIN**

**Berth Name: 11S**

## 1 Berth General

1.1	Berth name or number	11S
1.2	Berth type	
1		Jetty - 'T' finger
2	If 'Other' please specify	
1.3	Terrestrial co-ordinates of manifold centreline	
1	Latitude	410521 North
2	Longitude	0011204 East
1.4	Berth users for liquid and gas cargoes	REPSOL PETROLEO REPSOL QUIMICA DOW
1.5	Has a structural survey of the berth been undertaken, including its underwater structure?	
1		Yes
2	If 'Yes', state date of last survey	15 June 2009
1.6	Has an engineering (mooring and fendering) analysis of berth been undertaken?	
1		Yes
2	If 'Yes', state date of last analysis	15 June 2009
1.7	Additional comments or information	N/A

## 2 Berth Approaches

2.1	Is pilotage compulsory?	
1		Yes
2	If 'Yes', state if any vessels are exempted	NO
2.2	State distance from pilot station(s) to berth	1,5 NM
2.3	Is a waiting anchorage available?	
1		Yes
3	If 'Yes', state distance from waiting anchorage to berth	3 NM
2.4	Controlling depth of water for transit to and from berth	
1	Water depth	11.00 Metres
2	State datum used	Chart Datum (CD)
3	If 'Other' please specify datum	
2.5	Date of latest survey from which transit depth has been determined	01 November 2008
2.6	Date next survey is due	15 January 2020
2.7	State Maximum Tidal Range in berth approaches	0.20
2.8	Is laden transit to and/or from the berth conducted using the tide?	
1		No
2	If 'Yes', state optimum transit window (i.e. at High Water, HW +/- 1 hr)	

2.9	State details of any specific berthing and/or unberthing restrictions	WEATHER RESTRICTIONS DAYTIME: WIND SPEED: 40 KNOTS MAXIMUM WAVE HEIGHT: 2 METERS MAXIMUM  WEATHER RESTRICTIONS NIGHTTIME: WIND SPEED: 15 KNOTS MAXIMUM WAVE HEIGHT: 0,8 METERS MAXIMUM
2.10	Minimum under keel clearance (UKC) in berth approaches	
1	Value	2.80 Meters
2	Percentage	25.00 Vessel static draft
3	Specify other UKC criterion where applicable	THE RESTRICTION IS VESSEL'S DRAFT
2.11	Absolute maximum draught in berth approaches, if applicable	8.20
2.12	State minimum vertical clearance of any bridges/power cables/vertical obstructions	
1	Vertical clearance	999.00 Metres
2	State datum used	Chart Datum (CD)
3	If 'Other' specify other datum used	
4	Further details	N/A
2.13	Does the port require tankers and gas carriers to be escorted by tugs?	
1		Yes
2	If 'Yes', state whether Active or Passive escort is employed and the maximum towline force that the tug is able to generate	ACTIVE ESCORT MAXIMUM TOWLINE FORCE: 85 MT
2.14	Additional comments or information	N/A

### 3 Water Depth Alongside

3.1	Minimum controlled water depth alongside berth at chart datum	
1	Water depth	11.00 Metres
2	State datum used	Chart Datum (CD)
3	If 'Other' specify datum	
3.2	Date of latest survey from which alongside depth has been determined	27 November 2008
3.3	Date next survey is due	15 January 2020
3.4	Minimum static under keel clearance (UKC) alongside berth	
1	Value	2.80 Meters
2	Percentage	25.00 Vessel static draft
3	Specify other UKC criterion where applicable	THE RESTRICTION IS VESSEL'S DRAFT (8.20 METERS)
3.5	State range of water densities at berth	
1	From	1025.00
2	To	1025.00
3	Further details	BERTH IS IN OPEN WATER
3.6	Type of bottom alongside berth	
1		Sand

2	If 'Other' please specify	
3.7	Absolute maximum draft alongside, if applicable	8.20
3.8	State maximum tidal range at berth, if applicable	0.20
3.9	Are 'over-the-tide' cargo handling operations permitted at the berth?	No
3.10	Does the berth location experience water-level anomalies?	
1		No
2	Provide details	
3.11	Additional comments or information	N/A

#### 4 Limiting Vessel Dimensions

4.1	Summer deadweight	
1	TPQ NA Selector	
2	Minimum	0.00 Metric Tonnes
3	Maximum	11000.00 Metric Tonnes
4.2	Berthing displacement	
1	TPQ NA Selector	
2	Minimum	0.00 Metric Tonnes
3	Maximum	18700.00 Metric Tonnes
4.3	Alongside displacement	
1	TPQ NA Selector	
2	Minimum	0.00 Metric Tonnes
3	Maximum	18700.00 Metric Tonnes
4.4	State any deadweight/displacement exceptions	
1	TPQ NA Selector	Not applicable
2		
4.5	Cubic capacity (gas carriers)	
1	TPQ NA Selector	
2	Minimum	0.00 Cubic metres
3	Maximum	8500.00 Cubic metres
4.6	Length over all (LOA)	
1	TPQ NA Selector	
2	Minimum	74.00 Metres
3	Maximum	155.00 Metres
4.7	Beam	
1	TPQ NA Selector	No restrictions
2	Minimum	
3	Maximum	
4.8	Minimum parallel body length (PBL)	
1	TPQ NA Selector	Not applicable

2		
4.9	Minimum PBL forward of manifold	
1	TPQ NA Selector	Not applicable
2		
4.10	Minimum PBL aft of manifold	
1	TPQ NA Selector	Not applicable
2		
4.11	Bow to centre of manifold (BCM)	
1	TPQ NA Selector	
2	Minimum	37.00 Metres
3	Maximum	80.00 Metres
4.12	Stern to centre of manifold (SCM)	
1	TPQ NA Selector	Not applicable
2	Minimum	
3	Maximum	
4.13	Freeboard	
1	TPQ NA Selector	
2	Minimum	1.80 Metres
3	Maximum	10.00 Metres
4.14	Manifold height above water	
1	TPQ NA Selector	
2	Minimum	1.40 Metres
3	Maximum	11.60 Metres
4.15	Manifold to shipside rail distance	
1	TPQ NA Selector	Not applicable
2	Minimum	
3	Maximum	
4.16	Height of manifold above deck or drip tray	
1	TPQ NA Selector	Not applicable
2	Minimum	
3	Maximum	
4	Specify whether height is from the deck or the drip tray	
4.17	Manifold spacing	
1	TPQ NA Selector	Not applicable
2	Minimum	
3	Maximum	
4.18	Maximum air draft alongside	
1	TPQ NA Selector	Not applicable
2		
4.19	Vessel's minimum derrick/crane Safe Working Load (SWL)	



1	TPQ NA Selector	Not applicable
2		
4.20	Additional comments or information	N/A
<b>5 Mooring and Berthing Information</b>		
5.1	State availability and specifications of tugs and mooring craft required for berthing and/or unberthing.	IS COMPULSORY USE TUGS DURING BERTHING MANEUVERINGS NAME: CAMBRILS, LENGTH: 29.5 M, BOLLARD PULL: 60 T NAME: GETXO, LENGTH: 29.5 M, BOLLARD PULL: 46 T NAME: POBLET, LENGTH: 29.5 M, BOLLARD PULL: 55 T NAME: GUERNICA, LENGTH: 29.5 M, BOLLARD PULL: 46 T NAME: ROMULO, LENGTH: 33 M, BOLLARD PULL: 85.5 T NAME: REMO, LENGTH: 33 M, BOLLARD PULL: 85.5 T
5.2	Are ship's or tug's lines used?	
1	Ship/Tug	Tug's Lines
2	Comments	Line forward: 1 x 200 meters Bollard Pull: 67,2 MT maximum
5.3	Type of fenders installed at berth	
1		Other
2	If 'Other' please specify	SEYBU 150 H TYPE B
5.4	State orientation of vessel alongside berth	Port Side To
5.5	At buoy moorings, state which side hose is normally connected	
1		Not applicable
2	If 'Other' please specify	
5.6	Minimum mooring arrangement	3 X 2 FORE AND AFT
5.7	Describe any additional mooring requirements	N/A
5.8	Are there any restrictions using wire mooring ropes?	
1		No
2	If 'yes', provide details of restrictions in wire moorings as part of the mooring pattern	
5.9	Are there any restrictions using synthetic mooring ropes?	
1		No
2	If 'yes'; provide details of restrictions in synthetic mooring ropes as part of the mooring pattern	
5.10	Are there any restrictions on using high modulus synthetic mooring ropes?	
1		No
2	If 'yes' provide details	
5.11	Details of any specific mooring equipment required for any vessel utilising the berth	N/A

5.12	Does the terminal require the vessel to rig Emergency Towing Off Pennants (ETOPs) while at the berth?	
1		Yes
2	If 'Yes', provide details of particular requirements regarding ETOPs.	1 M ABOVE WATER
5.13	Details of any shore-provided mooring equipment	N/A
5.14	Are berthing aids provided?	
1		Yes
2	If 'Yes', state type of aids	ELECTRONIC INDICATOR OF: DISTANCE TO FENDERS AND APPROACH VELOCITY
5.15	State allowable speed of approach if applicable	
1		0,25 KNOTS
1		0.25 Knots
5.16	Is a mooring tension monitor fitted?	Yes
5.17	Are mooring hook quick release arrangements provided?	Yes
5.18	Chain stopper requirements	
1	Applicable	No
2		
5.19	Largest ship handled at berth to date	UNKNOWN
5.20	Additional comments or information	N/A

## 6 Berth Equipment and Facilities

6.1	Number, type and size of cargo transfer connections	4 CARGO ARMS: - 2 WOODFIELD OF 8 INCHES, AND - 2 CHIKSAN OF 8 INCHES
6.2	List grades handled at berth	Black Petroleum Products, Gasoils, Diesels and Kerosenes, Gasolines and Gasoline Blendstocks, Naphtha, Commercial LPG, Chemical Gases, Biodiesel/Biosiesel Blends, Vegetable Oils
2	State specific grades handled at berth (e.g. Ekofisk crude oil, Unleaded Gasoline, Jet A1).	ETHYLENE PROPYLENE KEROSENE BUTADIENE GASOLINE GAS OIL FAME NAPHTHA PYGAS FUEL OIL PROPANE FC-4

6.3	State transfer rate restrictions and back pressure for each cargo grade	ETHYLENE: 300 M3/H PROPYLENE: 300 M3/H, BACKPRESSURE: 5 KG/CM2 PROPANE: 200 M3/H BUTADIENE: 150 M3/H KEROSENE: 1.600 M3/H CAR: 2.000 M3/H GASOIL: 2.500 M3/H GASOLINE: 2.500 M3/H FUEL: 1.800 M3/H
6.4	Are transfer connections fitted with insulation flanges?	
1		Yes
2	Provide details	ALL CARGO ARMS
6.5	State storage type for LPG	Pressurised
6.6	Describe any terminal-specific requirements for vessel manifolds	PRODUCTS WITH FLASHPOINT EQUAL TO OR LOWER THAN 60°C, VAPOR RETURN LINE MUST BE CONNECTED.
6.7	Is berth fitted with a vapour manifold connection?	
1		Yes
2	If 'Yes' state type and size of vapour connection	CARGO ARM OF 8 INCHES
3	State cargo types for which it is required to use vapour connection (if applicable)	PRODUCTS WITH FLASHPOINT EQUAL TO OR LOWER THAN 60°C
6.8	State throughput rate(s) of vapour recovery system	300 M3/H
6.9	Are Powered Emergency Release Couplings (PERCS) installed to the cargo transfer arms?	
1		Yes
2	Supply details	CARGO ARM CHIKSAN 20 CARGO ARM CHIKSAN 21  1- CLOSE THE VALVE 2- ACTIVATE PERC IN BOTH MANIFOLDS LIQUID AND GAS
6.10	Does the berth have an emergency shutdown (ESD) capability that can be activated by the ship?	
1		No
2	If 'yes' provide details	CARGO ARM ETHYLENE: CLOSE IN 25 SEC. CARGO ARM PROPYLENE: CLOSE IN 35 SEC.
6.11	Describe access arrangements between ship and shore.	SHIP'S GANGWAY IS COMPULSORY
6.12	Does the berth have pollution response equipment?	
1		Yes
2	If 'yes' provide details	Containment boom(s), skimming equipment, absorbent materials and dispersant stocks.
6.13	Additional comments or information	N/A

## 7 Berth Operations

7.1	What is the primary and backup communication system between ship and terminal during cargo operations?	PRIMARY: VERBAL, BY VOICE WITH THE JETTY MAN BACK UP: VHF CH-10
7.2	Is it required that terminal or shore representatives stay on board during operations?	
1		No
2	If 'Yes', state requirements including number of persons and their roles	
7.3	Specify weather/environmental restrictions for stopping cargo operations, disconnecting hoses or arms and vacating the berth?	STOPPING CARGO OPERATIONS: 30 KNOTS WIND SPEED DISCONNECTING HOSES: 35 KNOTS WIND SPEED VACATING THE BERTH: 40 KNOTS WIND SPEED
7.4	Are there any restrictions regarding tank cleaning/Crude Oil Washing (COW) operations at the berth?	
1		Yes
2	If 'Yes' provide full details of these restrictions	NO CRUDE OIL CARGO IN THIS BERTH
7.5	Are there any berth specific requirements regarding tanker inerting procedures?	
1		Yes
2	If 'Yes', state requirements	ALL THE VESSELS OPERATE PRODUCTS WITH FLASH POINT EQUAL TO OR LOWER THAN 60°C, THE LOADING OR DISCHARGING OPERATION WILL BE CARRIED OUT ON TANKS WITH INERT ATMOSPHERE.
7.6	Is there a temperature limit for cargo handled?	
1		Yes
2	If 'Yes', state temperature limits	ETHYLENE. -103°C
7.7	Is it permitted for vessels to undertake double-banked operations alongside the berth?	
1		No
2	If 'Yes', state limiting criteria	
7.8	Is vessel required to pump water ashore or receive water on board for line clearance purposes?	
1		No
2	If 'Yes', provide operational details	
7.9	Can the berth be used for Ship-to-Ship transfers using terminal facilities?	
1		Yes
2	Provide details	ONLY FOR SLUDGES, AND NEVER SIMULTANOUSLY WITH LOADING OR DISCHARGING LIGHT PRODUCTS OPERATIONS.
7.10	State details regarding any environmental restrictions applicable at the berth	EMISSIONS OF CARGO VAPOURS, INERT GAS OR ENGINE SMOKE IS NOT PERMITTED.
7.11	Are there any restrictions regarding Hydrogen Sulphide content in Cargo Tanks?	
1		No
2	If 'Yes', state restriction	

7.12	Are there any restrictions regarding Mercaptan content in Cargo Tanks?	
1		No
2	If 'Yes', state restriction	
7.13	Are there any restrictions on handling stores when a ship is moored alongside berth?	
1		Yes
2	If 'Yes', state restriction	STORES ALONGSIDE ARE FORBIDDEN
7.14	Additional comments or information	N/A

## 8 Available Services

8.1	Are Fuel Oil bunkers available?	
1		No
2	If 'Yes', state how delivered (e.g. Ex-Pipe, barge, truck)	
8.2	Are Diesel Oil bunkers available?	
1		No
2	If 'Yes', state how delivered (e.g. Ex-Pipe, barge, truck)	
8.3	Are Intermediate Oil bunkers available?	
1		No
2	If 'Yes', state how delivered (e.g. Ex-Pipe, barge, truck)	
8.4	Is fresh water available?	
1		Yes
2	If 'Yes', state how delivered (e.g. Ex-Pipe, barge, truck)	BY HOSES OF THE VESSEL
8.5	Are slop reception facilities available?	
1		Yes
2	If 'Yes', state how received (e.g. Ex-Pipe, barge, truck)	BY PIPE
3	State capacity of slop reception facilities (if applicable)	6000.00 Cubic metres
4	State any specific exclusions for slop receipts (e.g. chemicals, detergents, cleaning agents)	N/A
8.6	Are dirty ballast reception facilities available?	
1		No
2	If 'Yes', state how received	
3	State capacity of dirty ballast reception facilities	
8.7	Are engine room sludge and bilge reception facilities available?	
1		Yes
2	If 'Yes', state how received (e.g. Ex-pipe, barge, truck)	BARGE
8.8	Are garbage reception facilities available at the berth.	
1		Yes
2	If 'Yes', provide details	BARGE
8.9	Additional comments or information	N/A

## 9 Berth Low Temperature Impact

9.1 What is the typical range of temperatures the terminal operates in during a winter season?

9.2 Which months of the year can ice be expected?

9.3 Specify any terminal requirements for vessel Ice Class notation and winterisation capabilities

9.4 State any limitations for cargo operations in sub-zero temperatures

9.5 State the minimum allowable ambient temperature for safe cargo operations

9.6 State the minimum temperature of cargoes handled

9.7 State the minimum temperature for the emergency shut-down system to operate safely

9.8 Does the terminal have its own resources for conducting icebreaker escort

1

2 If 'Yes' provide details and specify how they can be requested

9.9 Are there icebreakers available to operate in the terminal area

1

2 Specify details (e.g. Name/IMO Nr/GRT/Power/Ice Class)

9.10 Does the terminal have ice-capable tugs and support craft

1

2 Specify details (e.g. Name/IMO Nr/GRT/Power/Ice Class)

9.11 Does the terminal have specific requirements for the vessel speed and manoeuvrability characteristics in ice?

1

2 If 'Yes', provide details

9.12 Does the terminal provide its own ice navigator/advisor?

1

2 If 'Yes', provide details of how the service may be requested

9.13 Additional comments or information

## 10 Supplementary Information

10.1 Berth transparency

PILED JETTY

10.2 Specify datum used for height and depth measurements in this section

1

Lowest Astronomical Tide (LAT)

2 If 'Other' please specify other

10.3 Berth height above datum

9.60

10.4 Berth heading

133

10.5 Width of the channel adjacent to the berth

800.00

10.6 Position of mooring bollards and hooks

Hook/Bollard ID Number and Type	'x' dist to Target Line (m)	'y' dist to Fender Face (m)	Height (m)	SWL (tonnes)
M-16	90.00	18.00	8.00	100.00
M-18	60.00	18.00	8.00	60.00
B-18	27.25	1.00	5.00	60.00
B-24	-27.25	1.00	5.00	60.00
M-20	-60.00	18.00	8.00	60.00
M-22	-120.00	18.00	8.00	60.00

## 10.7 Position of mooring buoys

## 10.8 Fender Location

Fender ID Number	'x' Dist to Target Line (m)	Elevation of Fenders (m)	Fender Width (m)	Fender Height (m)	Fender Contact Area (m2)
B-18	27.25	-0.32	4.16	3.76	11.25
B-20	9.50	0.00	3.06	3.12	6.20
B-22	-9.50	0.00	3.06	3.12	6.20
B-24	-27.25	-0.32	4.16	3.68	10.96

## 10.9 Fender Reaction Data

Fender Id Number	Point No.	Compression (metres)	Load (tonnes)
B-18	1	2.00	35.00
B-20	2	2.00	20.00
B-22	2	2.00	20.00
B-24	1	2.00	35.00

10.10 Fender friction coefficient ( $\mu$ )

0.50

## 10.11 State identity and horizontal position of loading arms

Loading Arm/Shore Connection ID Number	Horizontal co-ordinate X	Horizontal co-ordinate Y	Max Excursion Surge	Max Excursion Sway	Max Excursion Heave
BC-17	7.00	8.00			
BC-21	7.00	5.00			
BC-20	7.00	2.00			
BC-19	7.00	-1.00			

## 10.12 State loading arm operating limits

Loading Arm ID Number	Max Op Height	Min Op Height	Max Excursion Surge	Max Excursion Sway	Max Excursion Heave
17	11.60	1.40			
21	11.60	1.40			
20	11.60	1.40			
19	11.60	1.40			

## 10.13 Additional comments or information

N/A



# **Oil Companies International Marine Forum**

## **MTIS Programme**

### **Berth TPQ**

**Berth TPQ: 35S**

ReportName dd7cd1e0-a78c-4fd2-baa2-78b5a7ec3ad2

**Terminal Name: PANTALÁN DE REPSOL TARRAGONA**

**Terminal Port: PANTALÁN DE REPSOL PETRÓLEO TARRAGONA**

**Terminal Port Authority: PORT AUTHORITY OF TARRAGONA**

**Country: SPAIN**

**Berth Name: 35S**



## 1 Berth General

1.1	Berth name or number	35S
1.2	Berth type	
1		Jetty - 'T' finger
2	If 'Other' please specify	
1.3	Terrestrial co-ordinates of manifold centreline	
1	Latitude	410512 North
2	Longitude	0011217 East
1.4	Berth users for liquid and gas cargoes	REPSOL PETROLEO REPSOL QUIMICA DOW
1.5	Has a structural survey of the berth been undertaken, including its underwater structure?	
1		Yes
2	If 'Yes', state date of last survey	15 June 2009
1.6	Has an engineering (mooring and fendering) analysis of berth been undertaken?	
1		Yes
2	If 'Yes', state date of last analysis	15 June 2009
1.7	Additional comments or information	N/A

## 2 Berth Approaches

2.1	Is pilotage compulsory?	
1		Yes
2	If 'Yes', state if any vessels are exempted	NO
2.2	State distance from pilot station(s) to berth	1.5 NM
2.3	Is a waiting anchorage available?	
1		Yes
3	If 'Yes', state distance from waiting anchorage to berth	3 NM
2.4	Controlling depth of water for transit to and from berth	
1	Water depth	14.40 Metres
2	State datum used	Chart Datum (CD)
3	If 'Other' please specify datum	
2.5	Date of latest survey from which transit depth has been determined	01 November 2008
2.6	Date next survey is due	15 January 2020
2.7	State Maximum Tidal Range in berth approaches	0.20
2.8	Is laden transit to and/or from the berth conducted using the tide?	
1		No
2	If 'Yes', state optimum transit window (i.e. at High Water, HW +/- 1 hr)	

2.9	State details of any specific berthing and/or unberthing restrictions	WEATHER RESTRICTIONS DAYTIME: WIND SPEED: 40 KNOTS MAXIMUM WAVE HEIGHT: 2 METERS MAXIMUM  WEATHER RESTRICTIONS NIGHTTIME: WIND SPEED: 15 KNOTS MAXIMUM WAVE HEIGHT: 0,8 METERS MAXIMUM  NO NIGHT TIME BERTHING PERMITTED FOR VESSEL MORE THAN 200 METERS OF LENGTH OVER ALL
2.10	Minimum under keel clearance (UKC) in berth approaches	
1	Value	3.20 Meters
2	Percentage	21.80 Vessel static draft
3	Specify other UKC criterion where applicable	THE RESTRICTION IS VESSEL'S DRAFT
2.11	Absolute maximum draught in berth approaches, if applicable	11.25
2.12	State minimum vertical clearance of any bridges/power cables/vertical obstructions	
1	Vertical clearance	999.00 Metres
2	State datum used	Chart Datum (CD)
3	If 'Other' specify other datum used	
4	Further details	N/A
2.13	Does the port require tankers and gas carriers to be escorted by tugs?	
1		Yes
2	If 'Yes', state whether Active or Passive escort is employed and the maximum towline force that the tug is able to generate	ACTIVE ESCORT MAXIMUM TOWLINE FORCE: 85 MT
2.14	Additional comments or information	N/A

### 3 Water Depth Alongside

3.1	Minimum controlled water depth alongside berth at chart datum	
1	Water depth	14.40 Metres
2	State datum used	Chart Datum (CD)
3	If 'Other' specify datum	
3.2	Date of latest survey from which alongside depth has been determined	27 November 2008
3.3	Date next survey is due	15 January 2020
3.4	Minimum static under keel clearance (UKC) alongside berth	
1	Value	3.15 Meters
2	Percentage	21.80 Vessel static draft
3	Specify other UKC criterion where applicable	THE RESTRICTION IS VESSEL'S DRAFT (11.25 METERS)
3.5	State range of water densities at berth	
1	From	1025.00
2	To	1025.00
3	Further details	BERTH IS IN OPEN WATER

3.6	Type of bottom alongside berth	
1		Sand
2	If 'Other' please specify	
3.7	Absolute maximum draft alongside, if applicable	11.25
3.8	State maximum tidal range at berth, if applicable	0.20
3.9	Are 'over-the-tide' cargo handling operations permitted at the berth?	No
3.10	Does the berth location experience water-level anomalies?	
1		No
2	Provide details	
3.11	Additional comments or information	N/A

#### 4 Limiting Vessel Dimensions

4.1	Summer deadweight	
1	TPQ NA Selector	
2	Minimum	0.00 Metric Tonnes
3	Maximum	40000.00 Metric Tonnes
4.2	Berthing displacement	
1	TPQ NA Selector	
2	Minimum	0.00 Metric Tonnes
3	Maximum	55000.00 Metric Tonnes
4.3	Alongside displacement	
1	TPQ NA Selector	
2	Minimum	0.00 Metric Tonnes
3	Maximum	55000.00 Metric Tonnes
4.4	State any deadweight/displacement exceptions	
1	TPQ NA Selector	Not applicable
2		
4.5	Cubic capacity (gas carriers)	
1	TPQ NA Selector	
2	Minimum	0.00 Cubic metres
3	Maximum	8500.00 Cubic metres
4.6	Length over all (LOA)	
1	TPQ NA Selector	
2	Minimum	85.00 Metres
3	Maximum	230.00 Metres
4.7	Beam	
1	TPQ NA Selector	No restrictions
2	Minimum	
3	Maximum	

4.8	Minimum parallel body length (PBL)	
1	TPQ NA Selector	Not applicable
2		
4.9	Minimum PBL forward of manifold	
1	TPQ NA Selector	Not applicable
2		
4.10	Minimum PBL aft of manifold	
1	TPQ NA Selector	Not applicable
2		
4.11	Bow to centre of manifold (BCM)	
1	TPQ NA Selector	
2	Minimum	43.00 Metres
3	Maximum	118.00 Metres
4.12	Stern to centre of manifold (SCM)	
1	TPQ NA Selector	Not applicable
2	Minimum	
3	Maximum	
4.13	Freeboard	
1	TPQ NA Selector	
2	Minimum	1.55 Metres
3	Maximum	10.75 Metres
4.14	Manifold height above water	
1	TPQ NA Selector	
2	Minimum	2.30 Metres
3	Maximum	14.30 Metres
4.15	Manifold to shipside rail distance	
1	TPQ NA Selector	Not applicable
2	Minimum	
3	Maximum	
4.16	Height of manifold above deck or drip tray	
1	TPQ NA Selector	Not applicable
2	Minimum	
3	Maximum	
4	Specify whether height is from the deck or the drip tray	
4.17	Manifold spacing	
1	TPQ NA Selector	Not applicable
2	Minimum	
3	Maximum	
4.18	Maximum air draft alongside	
1	TPQ NA Selector	Not applicable

2

4.19	Vessel's minimum derrick/crane Safe Working Load (SWL)	
1	TPQ NA Selector	Not applicable
2		

4.20 Additional comments or information N/A

## 5 Mooring and Berthing Information

5.1	State availability and specifications of tugs and mooring craft required for berthing and/or unberthing.	IS COMPULSORY USE TUGS DURING BERTHING MANEUVERINGS NAME: CAMBRILS, LENGTH: 29.5 M, BOLLARD PULL: 60 T NAME: GETXO, LENGTH: 29.5 M, BOLLARD PULL: 46 T NAME: POBLET, LENGTH: 29.5 M, BOLLARD PULL: 55 T NAME: GUERNICA, LENGTH: 29.5 M, BOLLARD PULL: 46 T NAME: ROMULO, LENGTH: 33 M, BOLLARD PULL: 85.5 T NAME: REMO, LENGTH: 33 M, BOLLARD PULL: 85.5 T
-----	--	--

5.2 Are ship's or tug's lines used?

- |   |          |   |
|---|----------|---|
| 1 | Ship/Tug | Tug's Lines   |
| 2 | Comments | Line forward: 1 x 200 meters<br>Bollard Pull: 67,2 MT maximum |

5.3 Type of fenders installed at berth

- |   |                           |                    |
|---|---------------------------|--------------------|
| 1 |                           | Other              |
| 2 | If 'Other' please specify | SEYBU 150 H TYPE B |

5.4 State orientation of vessel alongside berth

Port Side To

5.5 At buoy moorings, state which side hose is normally connected

- |   |                           |                |
|---|---------------------------|----------------|
| 1 |                           | Not applicable |
| 2 | If 'Other' please specify |                |

5.6 Minimum mooring arrangement

3 X 2 FORE AND AFT

5.7 Describe any additional mooring requirements

N/A

5.8 Are there any restrictions using wire mooring ropes?

- |   |   |    |
|---|---|----|
| 1 |   | No |
| 2 | If 'yes', provide details of restrictions in wire moorings as part of the mooring pattern |    |

5.9 Are there any restrictions using synthetic mooring ropes?

- |   |   |    |
|---|---|----|
| 1 |   | No |
| 2 | If 'yes'; provide details of restrictions in synthetic mooring ropes as part of the mooring pattern |    |

5.10 Are there any restrictions on using high modulus synthetic mooring ropes?

- |   |  |    |
|---|--|----|
| 1 |  | No |
|---|--|----|

2	If 'yes' provide details	
5.11	Details of any specific mooring equipment required for any vessel utilising the berth	N/A
5.12	Does the terminal require the vessel to rig Emergency Towing Off Pennants (ETOPs) while at the berth?	
1		Yes
2	If 'Yes', provide details of particular requirements regarding ETOPs.	1 M ABOVE THE WATER
5.13	Details of any shore-provided mooring equipment	N/A
5.14	Are berthing aids provided?	
1		Yes
2	If 'Yes', state type of aids	ELECTRONIC INDICATOR OF: DISTANCE TO FENDERS AND APPROACH VELOCITY
5.15	State allowable speed of approach if applicable	
1		0,20 KNOTS
1		0.20 Knots
5.16	Is a mooring tension monitor fitted?	Yes
5.17	Are mooring hook quick release arrangements provided?	Yes
5.18	Chain stopper requirements	
1	Applicable	No
2		
5.19	Largest ship handled at berth to date	UNKNOWN
5.20	Additional comments or information	N/A

## 6 Berth Equipment and Facilities

6.1	Number, type and size of cargo transfer connections	5 CARGO ARMS: - 4 WOODFIELD, 3 OF 12 INCHES AND 1 OF 8 INCHES, - 1 CHIKSAN OF 8 INCHES.
6.2	List grades handled at berth	Crude Oils/Condensates, Black Petroleum Products, Gasoils, Diesels and Kerosenes, Gasolines and Gasoline Blendstocks, Naphtha, Platformate, Raffinate, Reformate, Commercial LPG, Chemical Gases, Biodiesel/Biosiesel Blends, Vegetable Oils

2	State specific grades handled at berth (e.g. Ekofisk crude oil, Unleaded Gasoline, Jet A1).	VGO CRUDE OIL FAME KEROSENE ETHYLENE PROPYLENE NAPHTHA GASOLINE GAS OIL PYGAS FUEL OIL BIA RHC
6.3	State transfer rate restrictions and back pressure for each cargo grade	ETHYLENE: 300 M3/H PROPYLENE: 300 M3/H, BACK PRESSURE: 5 KG/CM2 NAFTA: 2.500 M3/H VGO-RHC: 2.000 M3/H CAR: 2.000 M3/H GASOIL: 2.500 M3/H GASOLINE: 2.500 M3/H FUEL: 1.800 M3/H CRUDE: 3.000 M3/H
6.4	Are transfer connections fitted with insulation flanges?	
1		Yes
2	Provide details	ALL CARGO ARMS
6.5	State storage type for LPG	Pressurised
6.6	Describe any terminal-specific requirements for vessel manifolds	PRODUCTS WITH FLASHPOINT EQUAL TO OR LOWER THAN 60°C, VAPOR RETURN LINE MUST BE CONNECTED.
6.7	Is berth fitted with a vapour manifold connection?	
1		Yes
2	If 'Yes' state type and size of vapour connection	CARGO ARM OF 8 INCHES
3	State cargo types for which it is required to use vapour connection (if applicable)	PRODUCTS WITH FLASHPOINT EQUAL TO OR LOWER THAN 60°C
6.8	State throughput rate(s) of vapour recovery system	900 M3/H
6.9	Are Powered Emergency Release Couplings (PERCS) installed to the cargo transfer arms?	
1		Yes
2	Supply details	CARGO ARM CHIKSAN 121-A  1- CLOSE THE VALVE 2- ACTIVATE PERC IN BOTH MANIFOLDS LIQUID AND GAS
6.10	Does the berth have an emergency shutdown (ESD) capability that can be activated by the ship?	
1		No
2	If 'yes' provide details	
6.11	Describe access arrangements between ship and shore.	IF POSSIBLE SHORE GANGWAY

6.12	Does the berth have pollution response equipment?	
1		Yes
2	If 'yes' provide details	Containment boom(s), skimming equipment, absorbent materials and dispersant stocks.
6.13	Additional comments or information	N/A
<b>7</b>	<b>Berth Operations</b>	
7.1	What is the primary and backup communication system between ship and terminal during cargo operations?	PRIMARY: VERBAL, BY VOICE WITH THE JETTY MAN BACK UP: VHF CH-10
7.2	Is it required that terminal or shore representatives stay on board during operations?	
1		No
2	If 'Yes', state requirements including number of persons and their roles	
7.3	Specify weather/environmental restrictions for stopping cargo operations, disconnecting hoses or arms and vacating the berth?	STOPPING CARGO OPERATIONS: 30 KNOTS WIND SPEED DISCONNECTING HOSES: 35 KNOTS WIND SPEED VACATING THE BERTH: 40 KNOTS WIND SPEED
7.4	Are there any restrictions regarding tank cleaning/Crude Oil Washing (COW) operations at the berth?	
1		No
2	If 'Yes' provide full details of these restrictions	
7.5	Are there any berth specific requirements regarding tanker inerting procedures?	
1		Yes
2	If 'Yes', state requirements	ALL THE VESSELS OPERATE PRODUCTS WITH FLASH POINT EQUAL TO OR LOWER THAN 60°C, THE LOADING OR DISCHARGING OPERATION WILL BE CARRIED OUT ON TANKS WITH INERT ATMOSPHERE.
7.6	Is there a temperature limit for cargo handled?	
1		Yes
2	If 'Yes', state temperature limits	-103 °C
7.7	Is it permitted for vessels to undertake double-banked operations alongside the berth?	
1		No
2	If 'Yes', state limiting criteria	
7.8	Is vessel required to pump water ashore or receive water on board for line clearance purposes?	
1		No
2	If 'Yes', provide operational details	
7.9	Can the berth be used for Ship-to-Ship transfers using terminal facilities?	
1		Yes



2	Provide details	ONLY FOR SLUDGES, AND NEVER SIMULTANOUSLY WITH LOADING OR DISCHARGING LIGHT PRODUCTS OPERATIONS.
7.10	State details regarding any environmental restrictions applicable at the berth	EMISSIONS OF CARGO VAPOURS, INERT GAS OR ENGINE SMOKE IS NOT PERMITTED.
7.11	Are there any restrictions regarding Hydrogen Sulphide content in Cargo Tanks?	
1		No
2	If 'Yes', state restriction	
7.12	Are there any restrictions regarding Mercaptan content in Cargo Tanks?	
1		No
2	If 'Yes', state restriction	
7.13	Are there any restrictions on handling stores when a ship is moored alongside berth?	
1		Yes
2	If 'Yes', state restriction	STORES ALONGSIDE ARE FORBIDDEN
7.14	Additional comments or information	N/A

## 8 Available Services

8.1	Are Fuel Oil bunkers available?	
1		No
2	If 'Yes', state how delivered (e.g. Ex-Pipe, barge, truck)	
8.2	Are Diesel Oil bunkers available?	
1		No
2	If 'Yes', state how delivered (e.g. Ex-Pipe, barge, truck)	
8.3	Are Intermediate Oil bunkers available?	
1		No
2	If 'Yes', state how delivered (e.g. Ex-Pipe, barge, truck)	
8.4	Is fresh water available?	
1		Yes
2	If 'Yes', state how delivered (e.g. Ex-Pipe, barge, truck)	BY HOSES OF THE VESSEL
8.5	Are slop reception facilities available?	
1		Yes
2	If 'Yes', state how received (e.g. Ex-Pipe, barge, truck)	PIPE
3	State capacity of slop reception facilities (if applicable)	6000.00 Cubic metres
4	State any specific exclusions for slop receipts (e.g. chemicals, detergents, cleaning agents)	N/A
8.6	Are dirty ballast reception facilities available?	
1		No
2	If 'Yes', state how received	
3	State capacity of dirty ballast reception facilities	
8.7	Are engine room sludge and bilge reception facilities available?	

1		Yes
2	If 'Yes', state how received (e.g. Ex-pipe, barge, truck)	BARGE
8.8	Are garbage reception facilities available at the berth.	
1		Yes
2	If 'Yes', provide details	BARGE
8.9	Additional comments or information	N/A

## 9 Berth Low Temperature Impact

9.1	What is the typical range of temperatures the terminal operates in during a winter season?	
9.2	Which months of the year can ice be expected?	
9.3	Specify any terminal requirements for vessel Ice Class notation and winterisation capabilities	
9.4	State any limitations for cargo operations in sub-zero temperatures	
9.5	State the minimum allowable ambient temperature for safe cargo operations	
9.6	State the minimum temperature of cargoes handled	
9.7	State the minimum temperature for the emergency shut-down system to operate safely	
9.8	Does the terminal have its own resources for conducting icebreaker escort	
1		
2	If 'Yes' provide details and specify how they can be requested	
9.9	Are there icebreakers available to operate in the terminal area	
1		
2	Specify details (e.g. Name/IMO Nr/GRT/Power/Ice Class)	
9.10	Does the terminal have ice-capable tugs and support craft	
1		
2	Specify details (e.g. Name/IMO Nr/GRT/Power/Ice Class)	
9.11	Does the terminal have specific requirements for the vessel speed and manoeuvrability characteristics in ice?	
1		
2	If 'Yes', provide details	
9.12	Does the terminal provide its own ice navigator/advisor?	
1		
2	If 'Yes', provide details of how the service may be requested	
9.13	Additional comments or information	

## 10 Supplementary Information

10.1	Berth transparency	PILED JETTY
10.2	Specify datum used for height and depth measurements in this section	
1		Chart Datum (CD)

2 If 'Other' please specify other

10.3 Berth height above datum 9.60

10.4 Berth heading 133

10.5 Width of the channel adjacent to the berth 800.00

10.6 Position of mooring bollards and hooks

Hook/Bollard ID Number and Type	'x' dist to Target Line (m)	'y' dist to Fender Face (m)	Height (m)	SWL (tonnes)
M-10	146.25	18.00	8.00	100.00
M-12	86.25	18.00	8.00	60.00
B-10	38.50	1.00	5.00	60.00
B-16	-38.50	1.00	5.00	60.00
M-14	-86.25	18.00	8.00	60.00
M-16	-146.25	18.00	8.00	100.00

10.7 Position of mooring buoys

10.8 Fender Location

Fender ID Number	'x' Dist to Target Line (m)	Elevation of Fenders (m)	Fender Width (m)	Fender Height (m)	Fender Contact Area (m2)
B-10	38.50	-0.32	4.16	3.76	11.25
B-12	17.00	0.00	3.06	3.12	6.20
B-14	-17.00	0.00	3.06	3.12	6.20
B-16	-38.50	-0.32	4.16	3.76	11.25

10.9 Fender Reaction Data

Fender Id Number	Point No.	Compression (metres)	Load (tonnes)
B-10	1	2.10	60.00
B-12	2	2.10	30.00
B-14	2	2.10	30.00
B-16	1	2.10	60.00

10.10 Fender friction coefficient ( $\mu$ ) 0.50

10.11 State identity and horizontal position of loading arms

Loading Arm/Shore Connection ID Number	Horizontal co-ordinate X	Horizontal co-ordinate Y	Max Excursion Surge	Max Excursion Sway	Max Excursion Heave
BC-7	7.00	6.00			
BC-8	7.00	3.00			
BC-121B	7.00	0.10			
BC-10	7.00	-3.00			
BC-11	7.00	-6.00			

10.12 State loading arm operating limits

Loading Arm ID Number	Max Op Height	Min Op Height	Max Excursion Surge	Max Excursion Sway	Max Excursion Heave
7	14.30	2.30			
8	14.30	2.30			
121-B	14.30	2.30			
10	14.30	2.30			
11	14.30	2.30			

10.13 Additional comments or information

N/A



# Oil Companies International Marine Forum

## MTIS Programme

### Berth TPQ

**Berth TPQ: 35T**

ReportName c1e3107a-051d-43e1-b867-7d852cbdebfb

**Terminal Name: PANTALÁN DE REPSOL TARRAGONA**

**Terminal Port: PANTALÁN DE REPSOL PETRÓLEO TARRAGONA**

**Terminal Port Authority: PORT AUTHORITY OF TARRAGONA**

**Country: SPAIN**

**Berth Name: 35T**

## 1 Berth General

1.1	Berth name or number	35T
1.2	Berth type	
1		Jetty - 'T' finger
2	If 'Other' please specify	
1.3	Terrestrial co-ordinates of manifold centreline	
1	Latitude	410515 North
2	Longitude	0011220 East
1.4	Berth users for liquid and gas cargoes	REPSOL PETROLEO REPSOL QUIMICA DOW
1.5	Has a structural survey of the berth been undertaken, including its underwater structure?	
1		Yes
2	If 'Yes', state date of last survey	15 June 2009
1.6	Has an engineering (mooring and fendering) analysis of berth been undertaken?	
1		Yes
2	If 'Yes', state date of last analysis	15 June 2009
1.7	Additional comments or information	N/A

## 2 Berth Approaches

2.1	Is pilotage compulsory?	
1		Yes
2	If 'Yes', state if any vessels are exempted	NO
2.2	State distance from pilot station(s) to berth	1.5 NM
2.3	Is a waiting anchorage available?	
1		Yes
3	If 'Yes', state distance from waiting anchorage to berth	3 NM
2.4	Controlling depth of water for transit to and from berth	
1	Water depth	14.40 Metres
2	State datum used	Chart Datum (CD)
3	If 'Other' please specify datum	
2.5	Date of latest survey from which transit depth has been determined	01 November 2008
2.6	Date next survey is due	15 January 2020
2.7	State Maximum Tidal Range in berth approaches	0.20
2.8	Is laden transit to and/or from the berth conducted using the tide?	
1		No
2	If 'Yes', state optimum transit window (i.e. at High Water, HW +/- 1 hr)	

2.9	State details of any specific berthing and/or unberthing restrictions	WEATHER RESTRICTIONS DAYTIME: WIND SPEED: 40 KNOTS MAXIMUM WAVE HEIGHT: 2 METERS MAXIMUM  WEATHER RESTRICTIONS NIGHTTIME: WIND SPEED: 15 KNOTS MAXIMUM WAVE HEIGHT: 0,8 METERS MAXIMUM  NO NIGHT TIME BERTHING PERMITTED FOR VESSEL MORE THAN 200 METERS OF LENGTH OVER ALL
2.10	Minimum under keel clearance (UKC) in berth approaches	
1	Value	3.20 Meters
2	Percentage	21.80 Vessel static draft
3	Specify other UKC criterion where applicable	THE RESTRICTION IS VESSEL'S DRAFT
2.11	Absolute maximum draught in berth approaches, if applicable	11.25
2.12	State minimum vertical clearance of any bridges/power cables/vertical obstructions	
1	Vertical clearance	999.00 Metres
2	State datum used	Chart Datum (CD)
3	If 'Other' specify other datum used	
4	Further details	N/A
2.13	Does the port require tankers and gas carriers to be escorted by tugs?	
1		Yes
2	If 'Yes', state whether Active or Passive escort is employed and the maximum towline force that the tug is able to generate	ACTIVE ESCORT MAXIMUM TOWLINE FORCE: 85 MT
2.14	Additional comments or information	N/A

### 3 Water Depth Alongside

3.1	Minimum controlled water depth alongside berth at chart datum	
1	Water depth	14.40 Metres
2	State datum used	Chart Datum (CD)
3	If 'Other' specify datum	
3.2	Date of latest survey from which alongside depth has been determined	27 November 2008
3.3	Date next survey is due	15 January 2020
3.4	Minimum static under keel clearance (UKC) alongside berth	
1	Value	3.15 Meters
2	Percentage	21.80 Vessel static draft
3	Specify other UKC criterion where applicable	THE RESTRICTION IS VESSEL'S DRAFT (11.25 METERS)
3.5	State range of water densities at berth	
1	From	1025.00
2	To	1025.00
3	Further details	BERTH IS IN OPEN WATER

3.6	Type of bottom alongside berth	
1		Sand
2	If 'Other' please specify	
3.7	Absolute maximum draft alongside, if applicable	11.25
3.8	State maximum tidal range at berth, if applicable	0.20
3.9	Are 'over-the-tide' cargo handling operations permitted at the berth?	No
3.10	Does the berth location experience water-level anomalies?	
1		No
2	Provide details	
3.11	Additional comments or information	N/A

#### 4 Limiting Vessel Dimensions

4.1	Summer deadweight	
1	TPQ NA Selector	
2	Minimum	0.00 Metric Tonnes
3	Maximum	40000.00 Metric Tonnes
4.2	Berthing displacement	
1	TPQ NA Selector	
2	Minimum	0.00 Metric Tonnes
3	Maximum	55000.00 Metric Tonnes
4.3	Alongside displacement	
1	TPQ NA Selector	
2	Minimum	0.00 Metric Tonnes
3	Maximum	55000.00 Metric Tonnes
4.4	State any deadweight/displacement exceptions	
1	TPQ NA Selector	Not applicable
2		
4.5	Cubic capacity (gas carriers)	
1	TPQ NA Selector	
2	Minimum	0.00 Cubic metres
3	Maximum	8500.00 Cubic metres
4.6	Length over all (LOA)	
1	TPQ NA Selector	
2	Minimum	85.00 Metres
3	Maximum	230.00 Metres
4.7	Beam	
1	TPQ NA Selector	No restrictions
2	Minimum	
3	Maximum	



4.8	Minimum parallel body length (PBL)		
1	TPQ NA Selector		Not applicable
2			
4.9	Minimum PBL forward of manifold		
1	TPQ NA Selector		Not applicable
2			
4.10	Minimum PBL aft of manifold		
1	TPQ NA Selector		Not applicable
2			
4.11	Bow to centre of manifold (BCM)		
1	TPQ NA Selector		
2	Minimum		43.00 Metres
3	Maximum		118.00 Metres
4.12	Stern to centre of manifold (SCM)		
1	TPQ NA Selector		Not applicable
2	Minimum		
3	Maximum		
4.13	Freeboard		
1	TPQ NA Selector		
2	Minimum		1.55 Metres
3	Maximum		10.75 Metres
4.14	Manifold height above water		
1	TPQ NA Selector		
2	Minimum		2.30 Metres
3	Maximum		14.30 Metres
4.15	Manifold to shipside rail distance		
1	TPQ NA Selector		Not applicable
2	Minimum		
3	Maximum		
4.16	Height of manifold above deck or drip tray		
1	TPQ NA Selector		Not applicable
2	Minimum		
3	Maximum		
4	Specify whether height is from the deck or the drip tray		
4.17	Manifold spacing		
1	TPQ NA Selector		Not applicable
2	Minimum		
3	Maximum		
4.18	Maximum air draft alongside		
1	TPQ NA Selector		Not applicable

2

4.19	Vessel's minimum derrick/crane Safe Working Load (SWL)	
1	TPQ NA Selector	Not applicable
2		

4.20 Additional comments or information N/A

## 5 Mooring and Berthing Information

5.1	State availability and specifications of tugs and mooring craft required for berthing and/or unberthing.	IS COMPULSORY USE TUGS DURING BERTHING MANEUVERINGS NAME: CAMBRILS, LENGTH: 29.5 M, BOLLARD PULL: 60 T NAME: GETXO, LENGTH: 29.5 M, BOLLARD PULL: 46 T NAME: POBLET, LENGTH: 29.5 M, BOLLARD PULL: 55 T NAME: GUERNICA, LENGTH: 29.5 M, BOLLARD PULL: 46 T NAME: ROMULO, LENGTH: 33 M, BOLLARD PULL: 85.5 T NAME: REMO, LENGTH: 33 M, BOLLARD PULL: 85.5 T
-----	--	--

5.2 Are ship's or tug's lines used?

- |   |          |   |
|---|----------|---|
| 1 | Ship/Tug | Tug's Lines   |
| 2 | Comments | Line forward: 1 x 200 meters<br>Bollard Pull: 67,2 MT maximum |

5.3 Type of fenders installed at berth

- |   |                           |                    |
|---|---------------------------|--------------------|
| 1 |                           | Other              |
| 2 | If 'Other' please specify | SEYBU 150 H TYPE B |

5.4 State orientation of vessel alongside berth

Starboard Side To

5.5 At buoy moorings, state which side hose is normally connected

- |   |                           |                |
|---|---------------------------|----------------|
| 1 |                           | Not applicable |
| 2 | If 'Other' please specify |                |

5.6 Minimum mooring arrangement

3 X 2 FORE AND AFT

5.7 Describe any additional mooring requirements

N/A

5.8 Are there any restrictions using wire mooring ropes?

- |   |   |    |
|---|---|----|
| 1 |   | No |
| 2 | If 'yes', provide details of restrictions in wire moorings as part of the mooring pattern |    |

5.9 Are there any restrictions using synthetic mooring ropes?

- |   |   |    |
|---|---|----|
| 1 |   | No |
| 2 | If 'yes'; provide details of restrictions in synthetic mooring ropes as part of the mooring pattern |    |

5.10 Are there any restrictions on using high modulus synthetic mooring ropes?

- |   |  |    |
|---|--|----|
| 1 |  | No |
|---|--|----|

2	If 'yes' provide details	
5.11	Details of any specific mooring equipment required for any vessel utilising the berth	N/A
5.12	Does the terminal require the vessel to rig Emergency Towing Off Pennants (ETOPs) while at the berth?	
1		Yes
2	If 'Yes', provide details of particular requirements regarding ETOPs.	1 M ABOVE THE WATER
5.13	Details of any shore-provided mooring equipment	N/A
5.14	Are berthing aids provided?	
1		Yes
2	If 'Yes', state type of aids	ELECTRONIC INDICATOR OF: DISTANCE TO FENDERS AND APPROACH VELOCITY
5.15	State allowable speed of approach if applicable	
1		0,20 KNOTS
1		0.20 Knots
5.16	Is a mooring tension monitor fitted?	Yes
5.17	Are mooring hook quick release arrangements provided?	Yes
5.18	Chain stopper requirements	
1	Applicable	No
2		
5.19	Largest ship handled at berth to date	UNKNOWN
5.20	Additional comments or information	N/A

## 6 Berth Equipment and Facilities

6.1	Number, type and size of cargo transfer connections	5 CARGO ARMS: - 4 WOODFIELD, 2 OF 12 INCHES AND 2 OF 10 INCHES, - 1 CHIKSAN OF 8 INCHES.
6.2	List grades handled at berth	Crude Oils/Condensates, Black Petroleum Products, Gasoils, Diesels and Kerosenes, Gasolines and Gasoline Blendstocks, Naphtha, Platformate, Raffinate, Reformate, Commercial LPG, Chemical Gases, Biodiesel/Biosiesel Blends, Vegetable Oils
2	State specific grades handled at berth (e.g. Ekofisk crude oil, Unleaded Gasoline, Jet A1).	VGO FAME KEROSENE ETHYLENE PROPYLENE NAPHTHA GASOLINE GAS OIL PYGAS FUEL OIL BIA RHC

6.3	State transfer rate restrictions and back pressure for each cargo grade	ETHYLENE: 300 M3/H PROPYLENE: 300 M3/H, BACK PRESSURE: 5 KG/CM2 NAFTA: 2.500 M3/H VGO-RHC: 2.000 M3/H CAR: 2.000 M3/H GASOIL: 2.500 M3/H GASOLINE: 2.500 M3/H FUEL: 1.800 M3/H CRUDE: 3.000 M3/H
6.4	Are transfer connections fitted with insulation flanges?	
1		Yes
2	Provide details	ALL CARGO ARMS
6.5	State storage type for LPG	Pressurised
6.6	Describe any terminal-specific requirements for vessel manifolds	PRODUCTS WITH FLASHPOINT EQUAL TO OR LOWER THAN 60°C, VAPOR RETURN LINE MUST BE CONNECTED.
6.7	Is berth fitted with a vapour manifold connection?	
1		Yes
2	If 'Yes' state type and size of vapour connection	CARGO ARM OF 10 INCHES
3	State cargo types for which it is required to use vapour connection (if applicable)	PRODUCTS WITH FLASHPOINT EQUAL TO OR LOWER THAN 60°C
6.8	State throughput rate(s) of vapour recovery system	900 M3/H
6.9	Are Powered Emergency Release Couplings (PERCS) installed to the cargo transfer arms?	
1		Yes
2	Supply details	CARGO ARM CHIKSAN 121-B  1- CLOSE THE VALVE 2- ACTIVATE PERC IN BOTH MANIFOLDS LIQUID AND GAS
6.10	Does the berth have an emergency shutdown (ESD) capability that can be activated by the ship?	
1		No
2	If 'yes' provide details	
6.11	Describe access arrangements between ship and shore.	IF POSSIBLE, SHORE GANGWAY
6.12	Does the berth have pollution response equipment?	
1		Yes
2	If 'yes' provide details	Containment boom(s), skimming equipment, absorbent materials and dispersant stocks.
6.13	Additional comments or information	N/A

## 7 Berth Operations

7.1	What is the primary and backup communication system between ship and terminal during cargo operations?	PRIMARY: VERBAL, BY VOICE WITH THE JETTY MAN BACK UP: VHF CH-10
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7.2	Is it required that terminal or shore representatives stay on board during operations?	
1		No
2	If 'Yes', state requirements including number of persons and their roles	
7.3	Specify weather/environmental restrictions for stopping cargo operations, disconnecting hoses or arms and vacating the berth?	STOPPING CARGO OPERATIONS: 30 KNOTS WIND SPEED DISCONNECTING HOSES: 35 KNOTS WIND SPEED VACATING THE BERTH: 40 KNOTS WIND SPEED
7.4	Are there any restrictions regarding tank cleaning/Crude Oil Washing (COW) operations at the berth?	
1		No
2	If 'Yes' provide full details of these restrictions	
7.5	Are there any berth specific requirements regarding tanker inerting procedures?	
1		Yes
2	If 'Yes', state requirements	ALL THE VESSELS OPERATE PRODUCTS WITH FLASH POINT EQUAL TO OR LOWER THAN 60°C, THE LOADING OR DISCHARGING OPERATION WILL BE CARRIED OUT ON TANKS WITH INERT ATMOSPHERE.
7.6	Is there a temperature limit for cargo handled?	
1		Yes
2	If 'Yes', state temperature limits	-103 °C
7.7	Is it permitted for vessels to undertake double-banked operations alongside the berth?	
1		No
2	If 'Yes', state limiting criteria	
7.8	Is vessel required to pump water ashore or receive water on board for line clearance purposes?	
1		No
2	If 'Yes', provide operational details	
7.9	Can the berth be used for Ship-to-Ship transfers using terminal facilities?	
1		Yes
2	Provide details	ONLY FOR SLUDGES, AND NEVER SIMULTANOUSLY WITH LOADING OR DISCHARGING LIGHT PRODUCTS OPERATIONS.
7.10	State details regarding any environmental restrictions applicable at the berth	EMISSIONS OF CARGO VAPOURS, INERT GAS OR ENGINE SMOKE IS NOT PERMITTED.
7.11	Are there any restrictions regarding Hydrogen Sulphide content in Cargo Tanks?	
1		No
2	If 'Yes', state restriction	
7.12	Are there any restrictions regarding Mercaptan content in Cargo Tanks?	
1		No

2	If 'Yes', state restriction	
7.13	Are there any restrictions on handling stores when a ship is moored alongside berth?	
1		Yes
2	If 'Yes', state restriction	STORES ALONGSIDE ARE FORBIDDEN
7.14	Additional comments or information	N/A

## 8 Available Services

8.1	Are Fuel Oil bunkers available?	
1		No
2	If 'Yes', state how delivered (e.g. Ex-Pipe, barge, truck)	
8.2	Are Diesel Oil bunkers available?	
1		No
2	If 'Yes', state how delivered (e.g. Ex-Pipe, barge, truck)	
8.3	Are Intermediate Oil bunkers available?	
1		No
2	If 'Yes', state how delivered (e.g. Ex-Pipe, barge, truck)	
8.4	Is fresh water available?	
1		Yes
2	If 'Yes', state how delivered (e.g. Ex-Pipe, barge, truck)	BY HOSES OF THE VESSEL
8.5	Are slop reception facilities available?	
1		Yes
2	If 'Yes', state how received (e.g. Ex-Pipe, barge, truck)	PIPE
3	State capacity of slop reception facilities (if applicable)	6000.00 Cubic metres
4	State any specific exclusions for slop receipts (e.g. chemicals, detergents, cleaning agents)	N/A
8.6	Are dirty ballast reception facilities available?	
1		No
2	If 'Yes', state how received	
3	State capacity of dirty ballast reception facilities	
8.7	Are engine room sludge and bilge reception facilities available?	
1		Yes
2	If 'Yes', state how received (e.g. Ex-pipe, barge, truck)	BARGE
8.8	Are garbage reception facilities available at the berth.	
1		Yes
2	If 'Yes', provide details	BARGE
8.9	Additional comments or information	N/A

## 9 Berth Low Temperature Impact

9.1	What is the typical range of temperatures the terminal operates in during a winter season?	
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- 9.2 Which months of the year can ice be expected?
- 9.3 Specify any terminal requirements for vessel Ice Class notation and winterisation capabilities
- 9.4 State any limitations for cargo operations in sub-zero temperatures
- 9.5 State the minimum allowable ambient temperature for safe cargo operations
- 9.6 State the minimum temperature of cargoes handled
- 9.7 State the minimum temperature for the emergency shut-down system to operate safely
- 9.8 Does the terminal have its own resources for conducting icebreaker escort
- 1
  - 2 If 'Yes' provide details and specify how they can be requested
- 9.9 Are there icebreakers available to operate in the terminal area
- 1
  - 2 Specify details (e.g. Name/IMO Nr/GRT/Power/Ice Class)
- 9.10 Does the terminal have ice-capable tugs and support craft
- 1
  - 2 Specify details (e.g. Name/IMO Nr/GRT/Power/Ice Class)
- 9.11 Does the terminal have specific requirements for the vessel speed and manoeuvrability characteristics in ice?
- 1
  - 2 If 'Yes', provide details
- 9.12 Does the terminal provide its own ice navigator/advisor?
- 1
  - 2 If 'Yes', provide details of how the service may be requested
- 9.13 Additional comments or information

## 10 Supplementary Information

- |      |  |                                 |
|------|--|---------------------------------|
| 10.1 | Berth transparency   | PILED JETTY                     |
| 10.2 | Specify datum used for height and depth measurements in this section |                                 |
|      | 1  | Chart Datum (CD)                |
|      | 2  | If 'Other' please specify other |
| 10.3 | Berth height above datum   | 9.60                            |
| 10.4 | Berth heading  | 133                             |
| 10.5 | Width of the channel adjacent to the berth                           | 550.00                          |
| 10.6 | Position of mooring bollards and hooks                               |                                 |

Hook/Bollard ID Number and Type	'x' dist to Target Line (m)	'y' dist to Fender Face (m)	Height (m)	SWL (tonnes)
M-11	146.25	18.00	8.00	100.00
M-13	86.25	18.00	8.00	60.00
B-9	38.50	1.00	5.00	60.00
B-15	-38.50	1.00	5.00	60.00
M-15	-86.25	18.00	8.00	60.00
M-17	-146.25	18.00	8.00	60.00

## 10.7 Position of mooring buoys

## 10.8 Fender Location

Fender ID Number	'x' Dist to Target Line (m)	Elevation of Fenders (m)	Fender Width (m)	Fender Height (m)	Fender Contact Area (m2)
B-9	38.50	-0.32	4.16	3.76	11.25
B-11	17.00	0.00	3.06	3.12	6.20
B-13	-17.00	0.00	3.06	3.12	6.20
B-15	-38.50	-0.32	4.16	3.76	11.25

## 10.9 Fender Reaction Data

Fender Id Number	Point No.	Compression (metres)	Load (tonnes)
B-9	1	2.10	60.00
B-11	2	2.10	30.00
B-13	2	2.10	30.00
B-15	1	2.10	60.00

10.10 Fender friction coefficient ( $\mu$ )

0.50

## 10.11 State identity and horizontal position of loading arms

Loading Arm/Shore Connection ID Number	Horizontal co-ordinate X	Horizontal co-ordinate Y	Max Excursion Surge	Max Excursion Sway	Max Excursion Heave
BC-12	7.00	6.00			
BC-13	7.00	3.00			
BC-121A	7.00	0.10			
BC-15	7.00	-3.00			
BC-16	7.00	-6.00			

## 10.12 State loading arm operating limits

Loading Arm ID Number	Max Op Height	Min Op Height	Max Excursion Surge	Max Excursion Sway	Max Excursion Heave
12	14.30	2.30			
13	14.30	2.30			
121-A	14.30	2.30			
15	14.30	2.30			
16	14.30	2.30			



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10.13	Additional comments or information	N/A
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# **Oil Companies International Marine Forum**

## **MTIS Programme**

### **Berth TPQ**

**Berth TPQ: 80S**

ReportName 9826e979-f5aa-4b19-babd-ad1df102ce4e

**Terminal Name: PANTALÁN DE REPSOL TARRAGONA**

**Terminal Port: PANTALÁN DE REPSOL PETRÓLEO TARRAGONA**

**Terminal Port Authority: PORT AUTHORITY OF TARRAGONA**

**Country: SPAIN**

**Berth Name: 80S**

## 1 Berth General

1.1	Berth name or number	80S
1.2	Berth type	
1		Jetty - 'T' finger
2	If 'Other' please specify	
1.3	Terrestrial co-ordinates of manifold centreline	
1	Latitude	410499 North
2	Longitude	0011234 East
1.4	Berth users for liquid and gas cargoes	REPSOL PETROLEO REPSOL QUIMICA DOW
1.5	Has a structural survey of the berth been undertaken, including its underwater structure?	
1		Yes
2	If 'Yes', state date of last survey	15 June 2009
1.6	Has an engineering (mooring and fendering) analysis of berth been undertaken?	
1		Yes
2	If 'Yes', state date of last analysis	15 June 2009
1.7	Additional comments or information	N/A

## 2 Berth Approaches

2.1	Is pilotage compulsory?	
1		Yes
2	If 'Yes', state if any vessels are exempted	NO
2.2	State distance from pilot station(s) to berth	1.5 NM
2.3	Is a waiting anchorage available?	
1		Yes
3	If 'Yes', state distance from waiting anchorage to berth	3 NM
2.4	Controlling depth of water for transit to and from berth	
1	Water depth	18.00 Metres
2	State datum used	Chart Datum (CD)
3	If 'Other' please specify datum	
2.5	Date of latest survey from which transit depth has been determined	01 November 2008
2.6	Date next survey is due	15 January 2020
2.7	State Maximum Tidal Range in berth approaches	0.20
2.8	Is laden transit to and/or from the berth conducted using the tide?	
1		No
2	If 'Yes', state optimum transit window (i.e. at High Water, HW +/- 1 hr)	

2.9	State details of any specific berthing and/or unberthing restrictions	WEATHER RESTRICTIONS DAYTIME: WIND SPEED: 40 KNOTS MAXIMUM WAVE HEIGHT: 2,5 METERS MAXIMUM  WEATHER RESTRICTIONS NIGHTTIME: WIND SPEED: 15 KNOTS MAXIMUM WAVE HEIGHT: 0,8 METERS MAXIMUM  NO NIGHT TIME BERTHING PERMITTED FOR VESSEL MORE THAN 200 METERS OF LENGTH OVER ALL
2.10	Minimum under keel clearance (UKC) in berth approaches	
1	Value	3.30 Meters
2	Percentage	18.00 Vessel static draft
3	Specify other UKC criterion where applicable	THE RESTRICTION IS VESSEL'S DRAFT
2.11	Absolute maximum draught in berth approaches, if applicable	14.75
2.12	State minimum vertical clearance of any bridges/power cables/vertical obstructions	
1	Vertical clearance	999.00 Metres
2	State datum used	Chart Datum (CD)
3	If 'Other' specify other datum used	
4	Further details	N/A
2.13	Does the port require tankers and gas carriers to be escorted by tugs?	
1		Yes
2	If 'Yes', state whether Active or Passive escort is employed and the maximum towline force that the tug is able to generate	ACTIVE ESCORT MAXIMUM TOWLINE FORCE: 85 MT
2.14	Additional comments or information	N/A

### 3 Water Depth Alongside

3.1	Minimum controlled water depth alongside berth at chart datum	
1	Water depth	18.00 Metres
2	State datum used	Chart Datum (CD)
3	If 'Other' specify datum	
3.2	Date of latest survey from which alongside depth has been determined	27 November 2008
3.3	Date next survey is due	15 January 2020
3.4	Minimum static under keel clearance (UKC) alongside berth	
1	Value	3.25 Meters
2	Percentage	18.00 Vessel static draft
3	Specify other UKC criterion where applicable	THE RESTRICTION IS VESSEL'S DRAFT (14.75 METERS)
3.5	State range of water densities at berth	
1	From	1025.00
2	To	1025.00
3	Further details	BERTH IS IN OPEN WATER

3.6	Type of bottom alongside berth	
1		Sand
2	If 'Other' please specify	
3.7	Absolute maximum draft alongside, if applicable	14.75
3.8	State maximum tidal range at berth, if applicable	0.20
3.9	Are 'over-the-tide' cargo handling operations permitted at the berth?	No
3.10	Does the berth location experience water-level anomalies?	
1		No
2	Provide details	
3.11	Additional comments or information	N/A

#### 4 Limiting Vessel Dimensions

4.1	Summer deadweight	
1	TPQ NA Selector	
2	Minimum	0.00 Metric Tonnes
3	Maximum	100000.00 Metric Tonnes
4.2	Berthing displacement	
1	TPQ NA Selector	
2	Minimum	0.00 Metric Tonnes
3	Maximum	135000.00 Metric Tonnes
4.3	Alongside displacement	
1	TPQ NA Selector	
2	Minimum	0.00 Metric Tonnes
3	Maximum	135000.00 Metric Tonnes
4.4	State any deadweight/displacement exceptions	
1	TPQ NA Selector	Not applicable
2		
4.5	Cubic capacity (gas carriers)	
1	TPQ NA Selector	Not applicable
2	Minimum	
3	Maximum	
4.6	Length over all (LOA)	
1	TPQ NA Selector	
2	Minimum	140.00 Metres
3	Maximum	290.00 Metres
4.7	Beam	
1	TPQ NA Selector	No restrictions
2	Minimum	
3	Maximum	

4.8	Minimum parallel body length (PBL)		
1	TPQ NA Selector		Not applicable
2			
4.9	Minimum PBL forward of manifold		
1	TPQ NA Selector		Not applicable
2			
4.10	Minimum PBL aft of manifold		
1	TPQ NA Selector		Not applicable
2			
4.11	Bow to centre of manifold (BCM)		
1	TPQ NA Selector		
2	Minimum		70.00 Metres
3	Maximum		148.00 Metres
4.12	Stern to centre of manifold (SCM)		
1	TPQ NA Selector		Not applicable
2	Minimum		
3	Maximum		
4.13	Freeboard		
1	TPQ NA Selector		
2	Minimum		2.00 Metres
3	Maximum		13.90 Metres
4.14	Manifold height above water		
1	TPQ NA Selector		
2	Minimum		3.20 Metres
3	Maximum		16.80 Metres
4.15	Manifold to shipside rail distance		
1	TPQ NA Selector		Not applicable
2	Minimum		
3	Maximum		
4.16	Height of manifold above deck or drip tray		
1	TPQ NA Selector		Not applicable
2	Minimum		
3	Maximum		
4	Specify whether height is from the deck or the drip tray		
4.17	Manifold spacing		
1	TPQ NA Selector		Not applicable
2	Minimum		
3	Maximum		
4.18	Maximum air draft alongside		
1	TPQ NA Selector		Not applicable

2

4.19	Vessel's minimum derrick/crane Safe Working Load (SWL)	
1	TPQ NA Selector	Not applicable
2		

4.20 Additional comments or information N/A

## 5 Mooring and Berthing Information

5.1	State availability and specifications of tugs and mooring craft required for berthing and/or unberthing.	IS COMPULSORY USE TUGS DURING BERTHING MANEUVERINGS NAME: CAMBRILS, LENGTH: 29.5 M, BOLLARD PULL: 60 T NAME: GETXO, LENGTH: 29.5 M, BOLLARD PULL: 46 T NAME: POBLET, LENGTH: 29.5 M, BOLLARD PULL: 55 T NAME: GUERNICA, LENGTH: 29.5 M, BOLLARD PULL: 46 T NAME: ROMULO, LENGTH: 33 M, BOLLARD PULL: 85.5 T NAME: REMO, LENGTH: 33 M, BOLLARD PULL: 85.5 T
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5.2 Are ship's or tug's lines used?

- |   |          |   |
|---|----------|---|
| 1 | Ship/Tug | Tug's Lines   |
| 2 | Comments | Line forward: 1 x 200 meters<br>Bollard Pull: 67,2 MT maximum |

5.3 Type of fenders installed at berth

- |   |                           |                    |
|---|---------------------------|--------------------|
| 1 |                           | Other              |
| 2 | If 'Other' please specify | SEYBU 150 H TYPE B |

5.4 State orientation of vessel alongside berth

Port Side To

5.5 At buoy moorings, state which side hose is normally connected

- |   |                           |                |
|---|---------------------------|----------------|
| 1 |                           | Not applicable |
| 2 | If 'Other' please specify |                |

5.6 Minimum mooring arrangement

4 X 2 FORE AND AFT

5.7 Describe any additional mooring requirements

N/A

5.8 Are there any restrictions using wire mooring ropes?

- |   |   |    |
|---|---|----|
| 1 |   | No |
| 2 | If 'yes', provide details of restrictions in wire moorings as part of the mooring pattern |    |

5.9 Are there any restrictions using synthetic mooring ropes?

- |   |   |    |
|---|---|----|
| 1 |   | No |
| 2 | If 'yes'; provide details of restrictions in synthetic mooring ropes as part of the mooring pattern |    |

5.10 Are there any restrictions on using high modulus synthetic mooring ropes?

- |   |  |    |
|---|--|----|
| 1 |  | No |
|---|--|----|

2	If 'yes' provide details	
5.11	Details of any specific mooring equipment required for any vessel utilising the berth	N/A
5.12	Does the terminal require the vessel to rig Emergency Towing Off Pennants (ETOPs) while at the berth?	
1		Yes
2	If 'Yes', provide details of particular requirements regarding ETOPs.	1 M ABOVE THE WATER
5.13	Details of any shore-provided mooring equipment	N/A
5.14	Are berthing aids provided?	
1		Yes
2	If 'Yes', state type of aids	ELECTRONIC INDICATOR OF: DISTANCE TO FENDERS AND APPROACH VELOCITY
5.15	State allowable speed of approach if applicable	
1		0,20 KNOTS
1		0.20 Knots
5.16	Is a mooring tension monitor fitted?	Yes
5.17	Are mooring hook quick release arrangements provided?	Yes
5.18	Chain stopper requirements	
1	Applicable	No
2		
5.19	Largest ship handled at berth to date	UNKNOWN
5.20	Additional comments or information	N/A

## 6 Berth Equipment and Facilities

6.1	Number, type and size of cargo transfer connections	4 CARGO ARMS: - 4 CARGO ARMS WOODFIELD OF 12 INCHES.
6.2	List grades handled at berth	Crude Oils/Condensates, Black Petroleum Products, Heavy Distillates, Gasoils, Diesels and Kerosenes, Naphtha, Platformate, Raffinate, Reformate, Vegetable Oils
2	State specific grades handled at berth (e.g. Ekofisk crude oil, Unleaded Gasoline, Jet A1).	CRUDE OIL KEROSENE NAPHTHA GAS OIL FUEL OIL BIA RHC VGO FAME



6.3	State transfer rate restrictions and back pressure for each cargo grade	NAFTA: 2.500 M3/H VGO-RHC: 2.000 M3/H GASOIL: 2.500 M3/H KEROSENE: 1.600 M3/H FUEL: 1.800 M3/H CRUDE I: 9.000 M3/H CRUDE II: 4.800 M3/H
6.4	Are transfer connections fitted with insulation flanges?	
1		Yes
2	Provide details	ALL CARGO ARMS
6.5	State storage type for LPG	Not applicable
6.6	Describe any terminal-specific requirements for vessel manifolds	N/A
6.7	Is berth fitted with a vapour manifold connection?	
1		No
2	If 'Yes' state type and size of vapour connection	
3	State cargo types for which it is required to use vapour connection (if applicable)	
6.8	State throughput rate(s) of vapour recovery system	N/A
6.9	Are Powered Emergency Release Couplings (PERCS) installed to the cargo transfer arms?	
1		No
2	Supply details	
6.10	Does the berth have an emergency shutdown (ESD) capability that can be activated by the ship?	
1		No
2	If 'yes' provide details	
6.11	Describe access arrangements between ship and shore.	IF POSSIBLE, SHORE GANGWAY
6.12	Does the berth have pollution response equipment?	
1		Yes
2	If 'yes' provide details	Containment boom(s), skimming equipment, absorbent materials and dispersant stocks.
6.13	Additional comments or information	N/A

## 7 Berth Operations

7.1	What is the primary and backup communication system between ship and terminal during cargo operations?	PRIMARY: VERBAL, BY VOICE WITH THE JETTY MAN BACK UP: VHF CH-10
7.2	Is it required that terminal or shore representatives stay on board during operations?	
1		No
2	If 'Yes', state requirements including number of persons and their roles	

7.3	Specify weather/environmental restrictions for stopping cargo operations, disconnecting hoses or arms and vacating the berth?	STOPPING CARGO OPERATIONS: 30 KNOTS WIND SPEED DISCONNECTING HOSES: 35 KNOTS WIND SPEED VACATING THE BERTH: 40 KNOTS WIND SPEED
7.4	Are there any restrictions regarding tank cleaning/Crude Oil Washing (COW) operations at the berth?	
1		No
2	If 'Yes' provide full details of these restrictions	
7.5	Are there any berth specific requirements regarding tanker inerting procedures?	
1		Yes
2	If 'Yes', state requirements	ALL THE VESSELS OPERATE PRODUCTS WITH FLASH POINT EQUAL TO OR LOWER THAN 60°C, THE LOADING OR DISCHARGING OPERATION WILL BE CARRIED OUT ON TANKS WITH INERT ATMOSPHERE.
7.6	Is there a temperature limit for cargo handled?	
1		No
2	If 'Yes', state temperature limits	
7.7	Is it permitted for vessels to undertake double-banked operations alongside the berth?	
1		No
2	If 'Yes', state limiting criteria	
7.8	Is vessel required to pump water ashore or receive water on board for line clearance purposes?	
1		No
2	If 'Yes', provide operational details	
7.9	Can the berth be used for Ship-to-Ship transfers using terminal facilities?	
1		Yes
2	Provide details	ONLY FOR SLUDGES, AND NEVER SIMULTANOUSLY WITH LOADING OR DISCHARGING LIGHT PRODUCTS OPERATIONS.
7.10	State details regarding any environmental restrictions applicable at the berth	EMISSIONS OF CARGO VAPOURS, INERT GAS OR ENGINE SMOKE IS NOT PERMITTED.
7.11	Are there any restrictions regarding Hydrogen Sulphide content in Cargo Tanks?	
1		No
2	If 'Yes', state restriction	
7.12	Are there any restrictions regarding Mercaptan content in Cargo Tanks?	
1		No
2	If 'Yes', state restriction	
7.13	Are there any restrictions on handling stores when a ship is moored alongside berth?	
1		Yes

2	If 'Yes', state restriction	STORES ALONGSIDE ARE FORBIDDEN
7.14	Additional comments or information	N/A
<b>8 Available Services</b>		
8.1	Are Fuel Oil bunkers available?	
1		No
2	If 'Yes', state how delivered (e.g. Ex-Pipe, barge, truck)	
8.2	Are Diesel Oil bunkers available?	
1		No
2	If 'Yes', state how delivered (e.g. Ex-Pipe, barge, truck)	
8.3	Are Intermediate Oil bunkers available?	
1		No
2	If 'Yes', state how delivered (e.g. Ex-Pipe, barge, truck)	
8.4	Is fresh water available?	
1		Yes
2	If 'Yes', state how delivered (e.g. Ex-Pipe, barge, truck)	BY HOSES OF THE VESSEL
8.5	Are slop reception facilities available?	
1		Yes
2	If 'Yes', state how received (e.g. Ex-Pipe, barge, truck)	PIPE
3	State capacity of slop reception facilities (if applicable)	6000.00 Cubic metres
4	State any specific exclusions for slop receipts (e.g. chemicals, detergents, cleaning agents)	N/A
8.6	Are dirty ballast reception facilities available?	
1		No
2	If 'Yes', state how received	
3	State capacity of dirty ballast reception facilities	
8.7	Are engine room sludge and bilge reception facilities available?	
1		Yes
2	If 'Yes', state how received (e.g. Ex-pipe, barge, truck)	BARGE
8.8	Are garbage reception facilities available at the berth.	
1		Yes
2	If 'Yes', provide details	BARGE
8.9	Additional comments or information	N/A

**9 Berth Low Temperature Impact**

9.1	What is the typical range of temperatures the terminal operates in during a winter season?	
9.2	Which months of the year can ice be expected?	
9.3	Specify any terminal requirements for vessel Ice Class notation and winterisation capabilities	

- 9.4 State any limitations for cargo operations in sub-zero temperatures
- 9.5 State the minimum allowable ambient temperature for safe cargo operations
- 9.6 State the minimum temperature of cargoes handled
- 9.7 State the minimum temperature for the emergency shut-down system to operate safely
- 9.8 Does the terminal have its own resources for conducting icebreaker escort
- 1
  - 2 If 'Yes' provide details and specify how they can be requested
- 9.9 Are there icebreakers available to operate in the terminal area
- 1
  - 2 Specify details (e.g. Name/IMO Nr/GRT/Power/Ice Class)
- 9.10 Does the terminal have ice-capable tugs and support craft
- 1
  - 2 Specify details (e.g. Name/IMO Nr/GRT/Power/Ice Class)
- 9.11 Does the terminal have specific requirements for the vessel speed and manoeuvrability characteristics in ice?
- 1
  - 2 If 'Yes', provide details
- 9.12 Does the terminal provide its own ice navigator/advisor?
- 1
  - 2 If 'Yes', provide details of how the service may be requested
- 9.13 Additional comments or information

## 10 Supplementary Information

- |      |  |                                 |
|------|--|---------------------------------|
| 10.1 | Berth transparency   | PILED JETTY                     |
| 10.2 | Specify datum used for height and depth measurements in this section |                                 |
|      | 1  | Chart Datum (CD)                |
|      | 2  | If 'Other' please specify other |
| 10.3 | Berth height above datum   | 9.60                            |
| 10.4 | Berth heading  | 133                             |
| 10.5 | Width of the channel adjacent to the berth                           | 800.00                          |
| 10.6 | Position of mooring bollards and hooks                               |                                 |

Hook/Bollard ID Number and Type	'x' dist to Target Line (m)	'y' dist to Fender Face (m)	Height (m)	SWL (tonnes)
M-1	202.75	18.00	8.00	100.00
M-2	138.75	18.00	8.00	100.00
M-4	78.75	18.00	8.00	60.00
B-2	44.00	1.00	5.00	60.00
B-8	-44.00	1.00	5.00	60.00
M-6	-71.25	18.00	8.00	60.00
M-8	-131.25	18.00	8.00	100.00
M-10	-191.25	18.00	8.00	100.00

## 10.7 Position of mooring buoys

## 10.8 Fender Location

Fender ID Number	'x' Dist to Target Line (m)	Elevation of Fenders (m)	Fender Width (m)	Fender Height (m)	Fender Contact Area (m2)
B-2	44.00	-0.50	6.49	5.50	23.13
B-4	24.00	0.00	3.06	3.12	6.20
B-6	-24.00	0.00	3.06	3.12	6.20
B-8	-44.00	-0.50	6.49	5.50	23.13

## 10.9 Fender Reaction Data

Fender Id Number	Point No.	Compression (metres)	Load (tonnes)
B-2	1	2.40	133.00
B-4	2	2.40	35.00
B-6	2	2.40	35.00
B-8	1	2.40	133.00

10.10 Fender friction coefficient ( $\mu$ )

0.50

## 10.11 State identity and horizontal position of loading arms

Loading Arm/Shore Connection ID Number	Horizontal co-ordinate X	Horizontal co-ordinate Y	Max Excursion Surge	Max Excursion Sway	Max Excursion Heave
BC-1	7.00	8.00			
BC-2	7.00	5.00			
BC-3	7.00	2.00			
BC-4	7.00	-1.00			

## 10.12 State loading arm operating limits

Loading Arm ID Number	Max Op Height	Min Op Height	Max Excursion Surge	Max Excursion Sway	Max Excursion Heave
1	16.80	3.20			
2	16.80	3.20			
3	16.80	3.20			
4	16.80	3.20			

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10.13	Additional comments or information	N/A
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