



# SECTION 6

## Oil transportation

**Table 6.1****Oil transportation**

## Tanker fleet development in OPEC Members (1,000 dwt)

	2011		2012		2013		2014		2015	
	number	dwt	number	dwt	number	dwt	number	dwt	number	dwt
Algeria	1	160	1	160	1	160	1	160	1	160
Angola	8	1,186	31	2,363	31	2,363	27	2,498	27	2,498
Ecuador	10	579	14	957	18	1,231	20	1,457	9	638
Indonesia	15	2,903	15	2,903	17	3,226	18	3,313	23	3,829
IR Iran	47	10,994	47	10,994	47	10,994	46	10,982	46	10,982
Iraq	4	53	4	53	4	50	4	53	4	53
Kuwait	16	2,223	21	3,404	19	3,547	26	4,825	26	4,825
Libya	5	548	5	548	5	548	5	548	5	548
Nigeria	2	409	2	409	2	409	2	409	2	409
Qatar	6	528	6	528	6	528	5	397	5	397
Saudi Arabia	32	5,766	20	5,051	23	6,004	23	6,004	23	6,004
United Arab Emirates	13	660	13	660	13	660	19	1,139	19	1,139
Venezuela	18	1,348	19	1,452	22	2,066	26	2,627	26	2,627
<b>OPEC</b>	<b>177</b>	<b>27,357</b>	<b>198</b>	<b>29,482</b>	<b>208</b>	<b>31,786</b>	<b>222</b>	<b>34,412</b>	<b>216</b>	<b>34,109</b>
Total world	4,494	422,849	4,734	453,168	4,912	472,169	5,153	482,975	5,359	499,922
<i>OPEC percentage</i>		6.5		6.5		6.7		7.1		6.8

## Notes:

Figures as at year-end.

**Table 6.2**

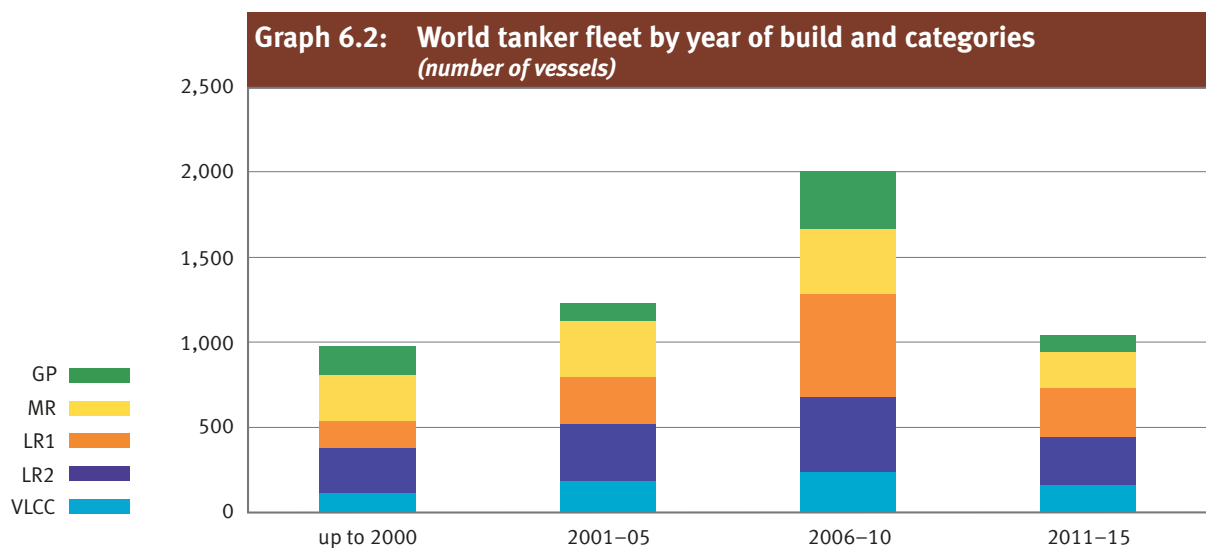
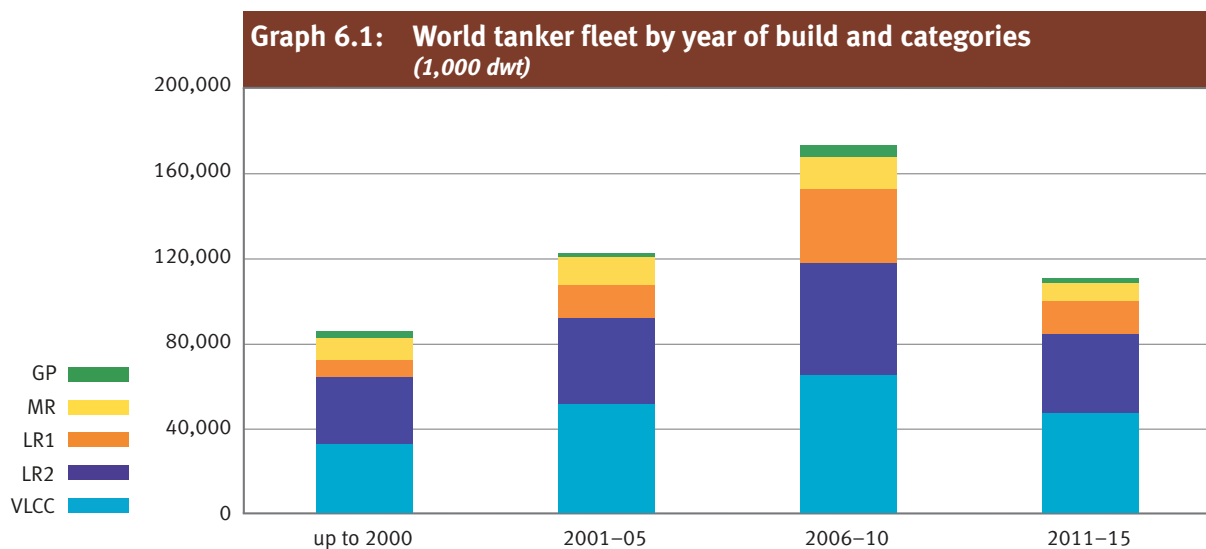
## World tanker fleet by year of build and categories (1,000 dwt)

Tanker size	up to 2000		2001–05		2006–10		2011–15		Total	
	no	dwt	no	dwt	no	dwt	no	dwt	no	dwt
GP 16.5–24.9	169	2,844	104	1,848	344	5,359	110	2,023	726	12,074
MR 25.0–44.9	275	10,557	337	13,172	385	15,490	251	10,627	1,248	49,846
LR1 45.0–79.9	157	8,075	275	15,678	611	34,617	318	17,267	1,361	75,636
LR2 80.0–159.9	264	31,377	336	40,393	438	52,712	295	38,218	1,333	162,700
VLCC 160.0–319.9	109	32,216	179	51,178	233	64,949	171	51,322	692	199,665
<b>Total world</b>	<b>974</b>	<b>85,069</b>	<b>1,231</b>	<b>122,270</b>	<b>2,010</b>	<b>173,126</b>	<b>1,145</b>	<b>119,457</b>	<b>5,359</b>	<b>499,922</b>

## Notes:

Figures as at year-end. Data is adjusted to take in account different categories of vessels. Data includes clean, dirty and chemical tankers.

GP = general purpose carrier; MR = medium range carrier; LR1 = large range 1 carrier; LR2 = large range 2 carrier; VLCC = very large crude carrier.



**Table 6.3****Oil transportation**

LPG carrier fleet in OPEC Members (1,000 cu m)

	2011		2012		2013		2014		2015	
	no	capacity	no	capacity	no	capacity	no	capacity	no	capacity
Algeria	8	324	8	324	8	324	8	324	8	324
Angola	4	23	5	51	5	51	6	48	6	54
Ecuador	4	67	5	110	5	145	5	145	2	109
Indonesia	7	778	7	778	7	778	1	19	1	19
IR Iran	1	12	1	12	1	12	1	12	1	12
Iraq	–	–	–	–	–	–	–	–	–	–
Kuwait	4	321	4	321	4	321	4	215	4	215
Libya	2	8	2	8	2	8	2	8	2	8
Nigeria	2	157	2	157	2	157	–	–	–	–
Qatar	4	328	4	328	4	328	4	328	4	328
Saudi Arabia	–	–	–	–	–	–	–	–	–	–
United Arab Emirates	1	3	1	3	1	3	1	9	1	9
Venezuela	2	24	2	24	2	24	–	–	–	–
<b>OPEC</b>	<b>39</b>	<b>2,045</b>	<b>41</b>	<b>2,116</b>	<b>41</b>	<b>2,151</b>	<b>32</b>	<b>1,108</b>	<b>29</b>	<b>1,078</b>
Total world	1,184	19,338	1,207	19,628	1,220	19,947	1,253	21,322	1,277	22,303
<i>OPEC percentage</i>		<i>10.6</i>		<i>10.8</i>		<i>10.8</i>		<i>5.2</i>		<i>4.8</i>

Notes:  
Figures as at year-end.

**Table 6.4**

World LPG carrier fleet by size and type (1,000 cu m)

	2011		2012		2013		2014		2015	
	no	capacity	no	capacity	no	capacity	no	capacity	no	capacity
up to 19,999	917	3,760	931	3,857	940	3,958	955	4,102	963	4,169
20,000–39,999	106	3,090	116	3,338	118	3,394	123	3,552	131	3,797
40,000–59,999	21	1,241	20	1,184	20	1,184	20	1,184	20	1,184
60,000–99,999	140	11,247	140	11,249	142	11,411	155	12,484	163	13,153
100,000 and over	–	–	–	–	–	–	–	–	–	–
<b>Total world</b>	<b>1,184</b>	<b>19,338</b>	<b>1,207</b>	<b>19,628</b>	<b>1,220</b>	<b>19,947</b>	<b>1,253</b>	<b>21,322</b>	<b>1,277</b>	<b>22,303</b>

Notes:  
Figures as at year-end.

World combined carrier fleet by size (1,000 dwt)

	2011		2012		2013		2014		2015	
	no	dwt	no	dwt	no	dwt	no	dwt	no	dwt
10,000–39,999	2	42	2	42	2	42	1	28	1	28
40,000–49,999	4	182	3	135	2	87	2	87	2	87
50,000–59,999	1	55	–	–	–	–	–	–	–	–
60,000–69,999	2	132	1	66	–	–	–	–	–	–
70,000–79,999	4	300	3	225	–	–	6	435	6	435
80,000–99,999	6	510	4	333	–	–	–	–	–	–
100,000–119,999	12	1,304	10	1,098	10	1,098	10	1,098	10	1,098
120,000–129,999	2	241	2	241	2	241	2	241	2	241
130,000–319,999	7	1,915	5	1,599	5	1,599	5	1,599	–	–
<b>Total world</b>	<b>40</b>	<b>4,681</b>	<b>30</b>	<b>3,739</b>	<b>21</b>	<b>3,066</b>	<b>26</b>	<b>3,490</b>	<b>21</b>	<b>1,890</b>

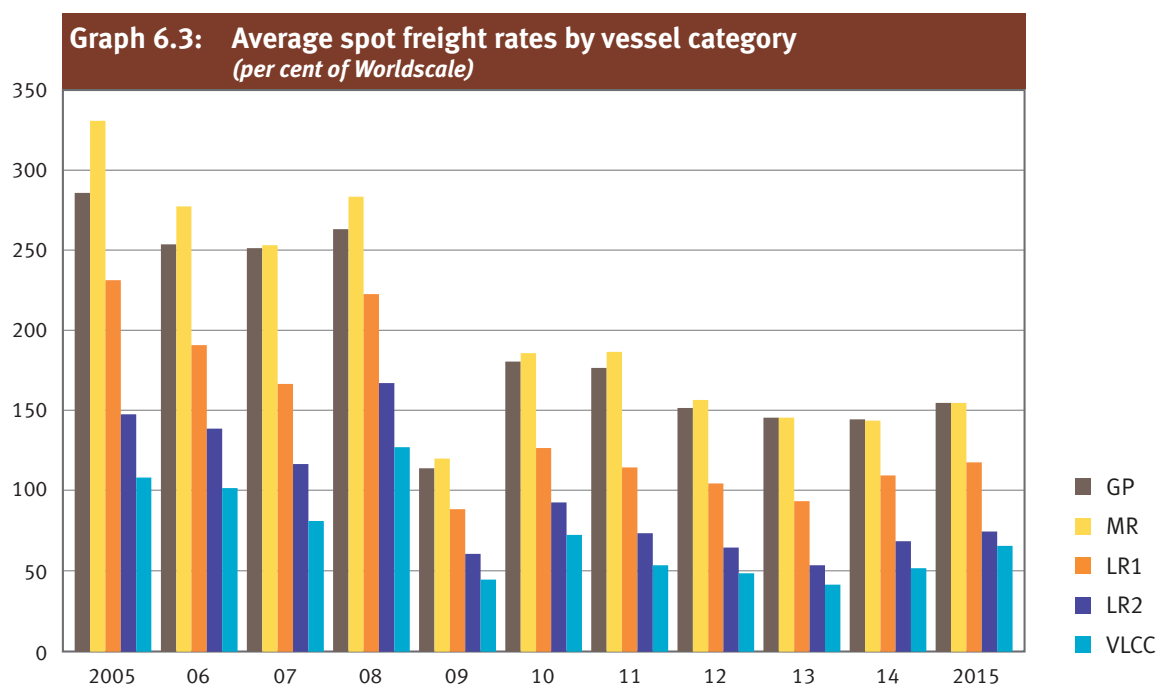
**Notes:**  
Figures as at year-end.

**Table 6.6****Oil transportation**Average spot freight rates by vessel category (*% of Worldscale*)

	Tanker size (1,000 dwt)	2011	2012	2013	2014	2015
GP	16.5–24.9	177.4	151.9	146.2	144.7	154.6
MR	25.0–44.9	186.7	157.3	145.7	144.2	154.9
LR1	45.0–79.9	115.5	105.1	94.4	110.3	117.9
LR2	80.0–159.9	74.4	65.2	54.0	68.9	75.1
VLCC	160.0–319.9	54.4	48.8	41.7	52.5	66.0

**Notes:**

Average spot freight rates are the average of all spot freight rates by tanker size reported each month in the spot market. GP = general purpose carrier; MR = medium range carrier; LR1 = large range 1 carrier; LR2 = large range 2 carrier; VLCC = very large crude carrier.

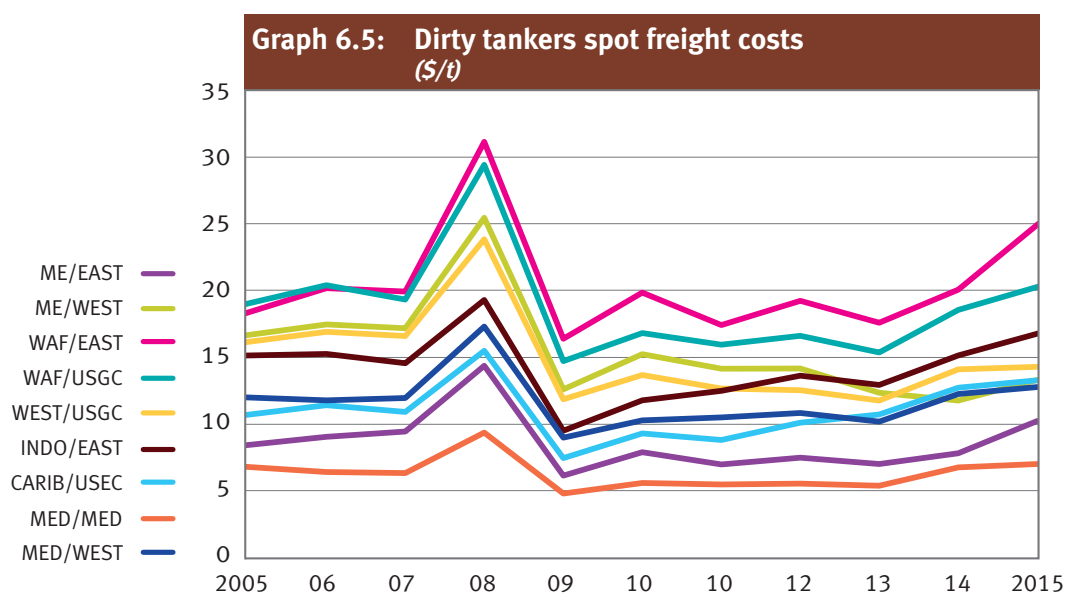
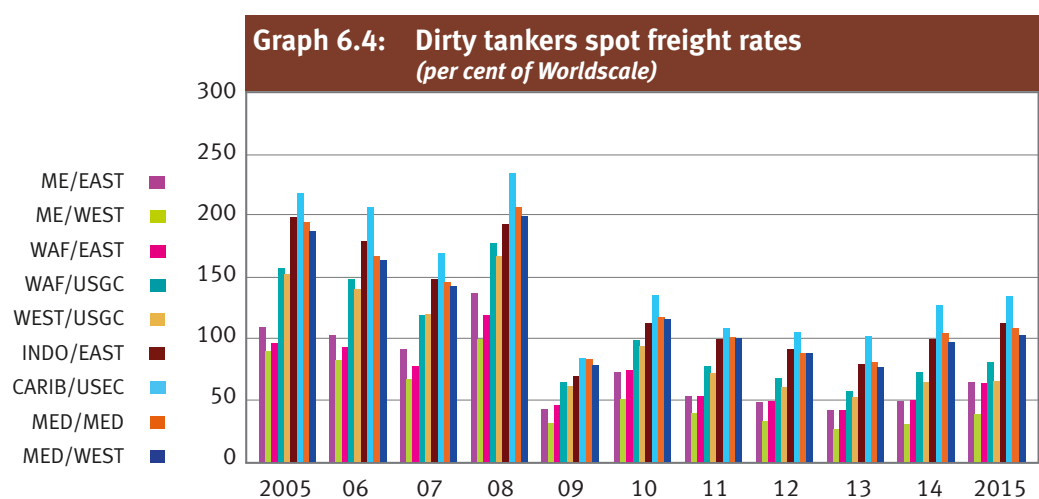


Dirty tanker spot freight rates (% of Worldscale and \$/t)

	2011		2012		2013		2014		2015	
	%	\$/t	%	\$/t	%	\$/t	%	\$/t	%	\$/t
ME/EAST	53	7.0	48	7.5	41	7.1	49	7.9	65	10.3
ME/WEST	39	14.2	33	14.2	26	12.4	30	11.8	38	13.4
WAF/EAST	53	17.5	49	19.3	41	17.7	50	20.1	64	25.0
WAF/USGC	77	16.0	67	16.7	57	15.4	73	18.6	81	20.3
WEST/USGC	72	12.7	60	12.6	52	11.8	65	14.2	66	14.3
INDO/EAST	99	12.5	91	13.7	79	13.0	99	15.2	112	16.8
CAR/USEC	108	8.9	105	10.2	102	10.8	127	12.8	134	13.3
MED/MED	101	5.5	88	5.6	81	5.4	104	6.8	108	7.1
MED/WEST	100	10.6	88	10.9	77	10.2	97	12.3	102	12.8

**Notes:**

ME = Middle East; EAST = Far East; WEST = North-West Europe; WAF = West Africa; USGC = US Gulf Coast; INDO = Indonesia; CAR = Caribbean; USEC = US East Coast; MED = Mediterranean.



# Table 6.8

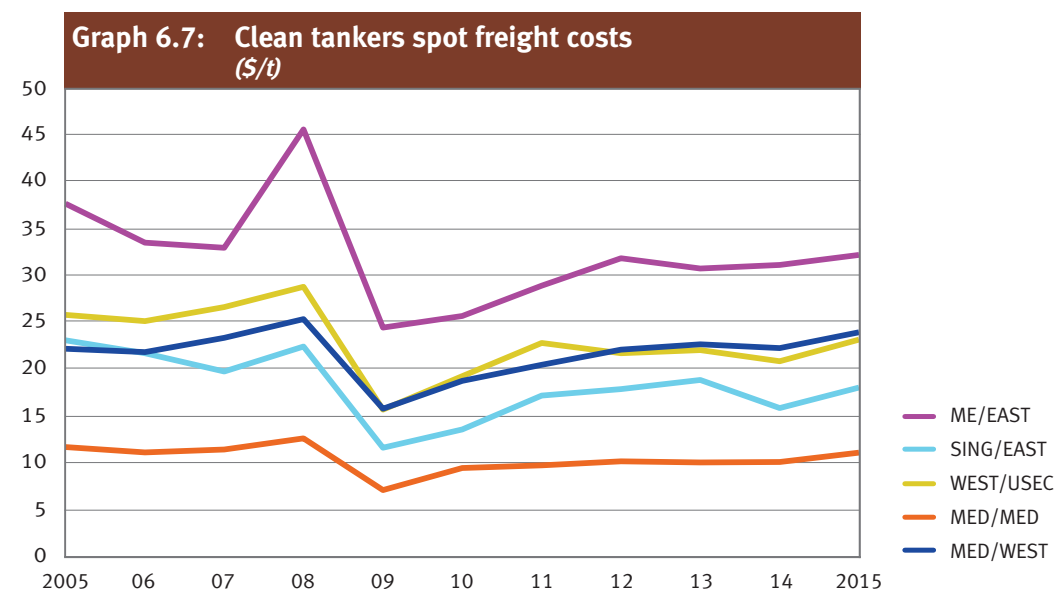
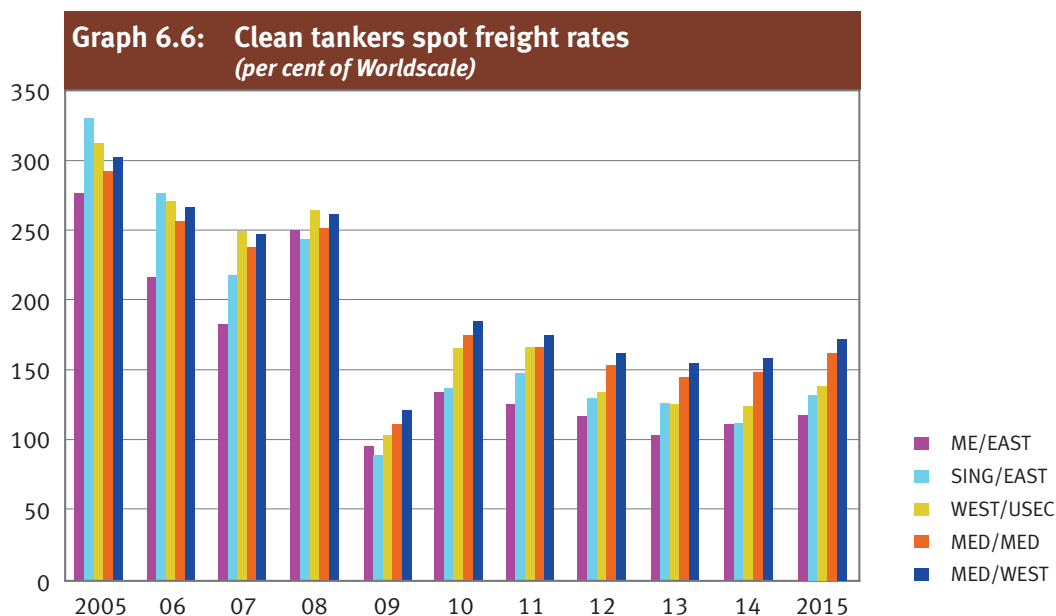
## Oil transportation

Clean tanker spot freight rates (% of *Worldscale* and \$/t)

	2011		2012		2013		2014		2015	
	%	\$/t	%	\$/t	%	\$/t	%	\$/t	%	\$/t
ME/EAST	125	28.6	117	31.6	103	30.4	111	30.8	118	31.9
SING/EAST	148	16.6	130	17.3	126	18.3	112	15.3	132	17.5
WEST/USEC	167	22.3	134	21.2	125	21.6	124	20.4	139	22.7
MED/MED	167	9.0	153	9.5	145	9.3	149	9.4	162	10.4
MED/WEST	175	20.0	162	21.6	155	22.2	159	21.8	172	23.5

**Notes:**

ME = Middle East; EAST = Far East; SING = Singapore; WEST = North-West Europe; USEC = US East Coast, MED = Mediterranean.





Main crude oil pipelines in OPEC Members, 2015

Connection from/to	Owner or operator	Length (miles)	Diameter (inches)
<b>Algeria</b>			
Haoud El Hamra/Arzew (2)	Sonatrach/TRC	498, 511	28, 34
Haoud El Hamra/Bejaia	Sonatrach/TRC	415	24
Haoud El Hamra/Skikda	Sonatrach/TRC	400	34
In Amenas/La Skhirra (Tunisia)	Sonatrach/TRC	165	24
<b>Angola</b>			
Block 0: Banzala Platform 'A'/GS-Mike platform	Chevron	14	12
Block 0: East Kokongo/Malongo terminal	Chevron	65	24
Block 0: GS-M platform/GS-N platform	Chevron	11	20
Block 0: GS-N platform/Malongo terminal	Chevron	35	30
Block 0: PPP/Malongo tank farm	Chevron	45	18
Block 0: South Nemba/East Kokongo	Chevron	22	18
Block 0: South Sanha/East Kokongo	Chevron	16	12
Block 14: Tombua Landana CPT/East Kokongo	Chevron	27	18
Block 14: Lianzi DC-A/BBLT	Chevron	43	13
Block 15/06: PLET M2/PLET M1	Eni	15	8
Block 15: FLET production line/FLET production line (4)	Esso	4 x 13	4 x 12
Block 15: Kizomba C1/Kizomba A SHR	Esso	24	10
Block 15: Kizomba MV1 (North)/Kizomba B SHR	Esso	13	10
Block 17: FLET P10/SSU Zinia	Total	34	10
Block 17: P20/FPSO Girassol	Total	17	8
Block 17: P50/FPSO Girassol	Total	11	8
Block 17: P60/FPSO Girassol	Total	11	8
Block 17: P70/FPSO Girassol	Total	26	8
Block 17: P80/FPSO Girassol	Total	40	8
Block 18: Greater Plutonio Project (2)	BP	20, 22	2 x 12
Block 2/85: Bagre B/Bagre F	Snl P & P	13	16
Block 2: Essungo/Quinfuquena terminal	Snl P & P	22	18
Block 2: Lombo East/Essungo	Snl P & P	76	16
Block 3: IPSF1/PLAP2	Snl P & P	13	10
Block 3: Lombo East/PALP2	Snl P & P	14	16
Block 3: PACF1/PALP1	Snl P & P	15	12
Block 3: PAMF1/PALP 2	Snl P & P	23	16
Block 31: PSVM Project (3)	BP	19, 33, 35	11, 2 x 13
<b>Ecuador</b>			
Lago Agrio/Esmeraldas	Oleoducto Transecuatoriano SOTE (State)	311	26/20/26
Lago Agrio/Esmeraldas	Oleoducto de crudos pesados OCP (Private)	303	24, 2 x 32, 34, 36
<b>Indonesia</b>			
AW platform/Ke-30 platform	Pertamina EP	25	12
BKO-DMI/terminal Dumai	Chevron Pasific Indonesia	76	30
Booster CLM/booster CMS	Pertamina EP	69	8
Booster CMS/terminal Balongan	Pertamina EP	28	8
Duri CPS/terminal Dumai	Chevron Pasific Indonesia	47, 50	30, 36
JOB P-GSIL/PPP Pangabuan	Pertamina EP	13	4
K Barat & K Timur (PTM)/SPU K Asam (PPP Tempino)	Pertamina EP	46	4
KHT/SPU CMR	Pertamina EP	13	6
Kota Batak/NBS (2) (Duri CPS – terminal Dumai)	Chevron Pasific Indonesia	23	12
Langgak/Petapahan (Kota Batak – NBS (2) – Duri CPS – terminal Dumai)	Chevron Pasific Indonesia	13	12
Lindai/Petapahan (Kota Batak - NBS (2) – Duri CPS – terminal Dumai)	Chevron Pasific Indonesia	14	8
NBS/Duri CPS (terminal Dumai)	Chevron Pasific Indonesia	21, 22, 36	26, 2 x 30
No Menggala/terminal Dumai	Chevron Pasific Indonesia	28	8
Petani/Duri CPS (terminal Dumai)	Chevron Pasific Indonesia	21	18

**Table 6.9****Oil transportation****Main crude oil pipelines in OPEC Members, 2015**

Connection from/to	Owner or operator	Length (miles)	Diameter (inches)
<b>Indonesia (cont'd)</b>			
Pinang/Bangko (terminal Dumai)	Chevron Pasific Indonesia	30	10
Poleng processing platform (PPP)/Ke-38 platform	Pertamina EP	22	16
Poleng processing platform (PPP)/ORF Gresik	Pertamina EP	70	16
PPP Sangatta/loading terminal Sangatta	Pertamina EP	13	6
PPP Tempino/Kilang Plaju	Pertamina EP	65, 100, 192, 257	6, 3 x 8
SB-I Batubutok/SB-II Longikis	Pertamina EP	75	20
SB-II Longikis/Tanki RU V Balikpapan	Pertamina EP	79	20
SP BJR/Tanki booster CLM – booster CLM	Pertamina EP	8	4
SP SBG/SPU PGD	Pertamina EP	32	3
SP Tambun/booster TGD	Pertamina EP	35	8
SPU Bajubang/PPP Tempino	Pertamina EP	27	4
SPU Jirak/booster Talang Akar (PPP Pangabuan)	Pertamina EP	14	5,5
SPU K Asam/PPP Tempino	Pertamina EP	27	6
SPU Manunggal (mixing device)/SB-I Batubutok	Pertamina EP	78	20
Suram/Petapahan (Kota Batak – NBS (2) – Duri CPS – terminal Dumai)	Chevron Pasific Indonesia	14	18
Tanki terminal/SBM (darat)	Pertamina EP	14, 18	2 x 30
Terantam/Petapahan (Kota Batak – NBS (2) – Duri CPS – terminal Dumai)	Chevron Pasific Indonesia	19	12
Topaz – Petapahan/Kota Batak (NBS (2) – Duri CPS – terminal Dumai)	Chevron Pasific Indonesia	20	18
Waduk – So Libo/NBS (2) (Duri CPS – terminal Dumai)	Chevron Pasific Indonesia	36	10
<b>IR Iran</b>			
Ahwaz/Ray	NIOC	934	30/26
Ahwaz/Abadan (2)	NIOC	121, 137	12/20, 24
Cheshmeh Khosh/Ahwaz	NIOC	154	18
Darkhoin/Abadan	NIOC	60	16
Esfahan/Ray	NIOC	225	24
Gachsaran/Shiraz	NIOC	228	10
Genaveh/Kharg	NIOC	47	30/42/52
Goreh/Genaveh	NIOC	33	26/30/42
Marun/Esfahan	NIOC	440	30/32
Naftshahr/Kermanshah	NIOC	231	8
Neka/Sari/Ray	NIOC	320	30/32
Omidieh/Abadan	NIOC	103	12
Ray/Tabriz	NIOC	607	16
Tang-e-Fani/Kermanshah	NIOC	241	10–16
<b>Iraq</b>			
(IT1) Station/Al-Fat'ha (Tigris river crossing)	North Oil Company	46	40
(IT1) Station/North Refinery Company	Oil Pipeline Company	52	26
(IT1A) Station/Iraqi-Turkish border	North Oil Company	139	46
(K3) Station/Iraqi-Syrian border (2)	North Oil Company	2 x 98	32, 30
Ahdeb/PS2	SOC	131	24
Ahdeb/Wassit P P (2)	OPC	42, 45	16, 10
Al-Fat'ha (Tigris river crossing)/(IT1A) Station	North Oil Company	29	40
Badra/PS2 (Section 1)	MOC	103	24
Badra/PS2 (Section 2)	SOC	59	28
BUT/Haammdan	MOC	139	28
BUT/Halfaya junction	Petrochina & CNOOC	32	32
East Baghdad/Daura refinery	OPC	44	16
FAO/SPM1, SPM2, SPM3 (3)	SOC	36, 38, 39	3 x 48
Halfaya junction/SOC	Petrochina & CNOOC	169	42
MOC/SOC	Petrochina & CNOOC	181	28
Neft-Khana/Daura refinery	OPC	81	12

**Main crude oil pipelines in OPEC Members, 2015**

Connection from/to	Owner or operator	Length (miles)	Diameter (inches)
<b>Iraq (cont'd)</b>			
PS1/Basrah terminal	SOC	115	48
PS2/Tuba (Warehouse)	SOC	124	36
Tuba/SPM1, SPM2, SPM3 (3)	SOC	96, 95, 99	3 x 48
Valves Site Alekhala/Haammdan	MOC	103	28
West Al-Fat'ha/(IT1A) Station (3)	North Oil Company	3 x 27	20, 28, 34
West Al-Fat'ha/(K3) Station	North Oil Company	84	12
ZB1/Al-Umaya terminal	SOC	114	42
ZB1/Basrah terminal	SOC	99	42
<b>Kuwait</b>			
Kadma/Doha P S	KOC	14	20
KADMA/MF-CR181R	KOC	48	30
MF-CPHMAA/CALM 21	KOC	14	56
MF-CR125L/MF-CR125R	KOC	34	16
MF-GC27L/R/MF-TWK	KOC	24	24
MF-GC28L/R/MF-TWK	KOC	28	24
MF-NPP MS/CALM 20	KOC	14	56
MF-PointA/MF-CR119R	KOC	73	48
MF-Ratqa1/SC-130	KOC	22	36
MF-T18/MF-TWK	KOC	22	20
MF-TB1/2/MF-CR088R	KOC	16	36
Point-A/KADMA	KOC	24	30
Wafra/MF/TB1	KGOC/KOC	24	16
<b>Libya</b>			
El-Sharara/Az-Zawiyah	Akakus	451	30
El-Sharara/Mellitah	Mellitah Oil & Gas	451	30
Sarir/Tobruk	Arabian Oil	318	34
Hamada/Az-Zawiyah	Arabian Oil	240	18
Amal/Ras Lanuf (2)	Harouge	2 x 169	36/30
Zaggut/Es-Sider	Waha Oil	166	24
Intesar/Zueitina	Zuetina	136	40
Messla/Amal	Arabian Oil	128	42
Samah/Dahra	Waha Oil	114	32
Nasser/Al-Brayqah	Sirte	107	36
Gialo/Waha	Waha Oil	94	30
Ora-Beda gathering/Aseida gathering	Harouge	84	24
Bu-Attifel/Intesar	Mellitah Oil & Gas	82	30
Zella/Hofra	Zuetina	70	20
Magid/Nafoora	Arabian Oil	65	14
Sabah/Zella	Zuetina	56	16
Raguba/'Nasser – Al-Brayqah' Line	Sirte	55	20
Aseida gathering/Ras Lanuf	Harouge	55	30
Dor Marada/Ora	Harouge	51	10
Rimal/Bu-Attifel	Mellitah Oil & Gas	47	12
El-Feel/El-Sharara	Mellitah Oil & Gas	47	24
Bahi gathering/Es-Sider (2)	Waha Oil	2 x 44	30
Dahra/Bahi gathering	Waha Oil	43	30
Faregh/Gialo	Waha Oil	40	12
Waha/Samah	Waha Oil	40	24
Hofra/Aseida gathering	Harouge	35	24
Nafoora/Amal	Arabian Oil	32	32
Waha/Zaggut	Waha Oil	27	24
Zaggut/Samah	Waha Oil	22	24

**Table 6.9****Oil transportation**

## Main crude oil pipelines in OPEC Members, 2015

Connection from/to	Owner or operator	Length (miles)	Diameter (inches)
<b>Nigeria</b>			
Escravos/Warri/Kaduna	NNPC/PPMC	421	24/16
Obriafu/Oben node	NNPC/PPMC	130	48
Drill Center 2/Drill Center North	MPNU	100	11
Ogoda/Brass	NAOC	62	24
Okoro 2/IMA terminal	AMNI	60	12
Tebidaba/Brass	NAOC	57	24
Bonny/Port Harcourt refinery	NNPC/PPMC	34	24
Brass Creek/Forcados	SPDC	34	24
Oso/Qit/tanker berth 2 & Oso SPM	MPN/MPNU	31, 37, 45	18, 36, 42
Rapele manifold/Forcados terminal	SPDC	31	28
Edop/Qit	MPN	30	24
Alakiri/Bonny	SPDC	21	24
Buguma Creek/Alakiri	SPDC	20	29
Idoho/Qit (2)	MPNU	19, 48	2 x 24
Forcados/CLP	SPDC	19	48
Ughelli PS/WRM LL	SPDC	19	20
Bonny terminal/offshore SBM (1 & 2)	SPDC	2 x 19	2 x 48
Bonny/CLP	SPDC	18	48
Forcados terminal/offshore SBM	SPDC	18	48
Brass manifold/Brass offshore terminal	NAOC	16	36
<b>Qatar</b>			
Mile 32/storage tank Mesaieed (3)	QP	3 x 60	16, 20, 24
Bul Hanine/Halule Island	QP	43	20
DP (1 & 2)/Halule Island (3)	Total	3 x 40	2 x 12, 20
GIP/PS3	QPD	41	10
Idd El Shargi/Halule Island (2)	OXY	20, 24	20, 12
Um Bab/Mile 32 (4)	QP	4 x 25	2 x 14, 16, 24
<b>Saudi Arabia</b>			
Abqaiq/Yanbu	Saudi Aramco	748	56
Shaybah/Abqaiq	Saudi Aramco	397	46
Hawtah/Hawtah stabilizer	Saudi Aramco	206	24
Safaniyah/Juaymah	Saudi Aramco	123	46/48
Ghawar/Abqaiq (3)	Saudi Aramco	2 x 110, 134	18/20/24/30/31, 46/48, 36/40/42
AY-1L KP 65.628/Rabigh	Saudi Aramco	90	36
Khurais/Riyadh	Saudi Aramco	88	26
Safiniyah/Khursaniyah (4)	Saudi Aramco	4 x 66	22, 30, 40/42, 40/42/48
Khursaniyah/Ras Tanura (4)	Saudi Aramco	53, 63, 65, 67	40/42/48, 22, 40/42, 30
Abqaiq/Qatif junction (5)	Saudi Aramco	2 x 44, 3 x 34	30/32, 46/48, 30, 40/42
Abqaiq Plants/Dhahrab (3)	Saudi Aramco	39, 2 x 38	14, 12/14
Berri/Ras Tanura	Saudi Aramco	37	40/42
KM 50/Qatif junction	Saudi Aramco	31	46/48
Neutral Zone: Wafra field/Mina Saud (3)	SAC	3 x 31	10, 16, 20
Aindar/Abqaiq plants (3)	Saudi Aramco	3 x 28	20/22, 24/26/28, 24/26/30/32
Qatif junction/Ju'aymah terminal (3)	Saudi Aramco	3 x 24	48, 2 x 46/48

Main crude oil pipelines in OPEC Members, 2015

Connection from/to	Owner or operator	Length (miles)	Diameter (inches)
<b>United Arab Emirates</b>			
ABK/Das Island	ABK	33	10
AR site terminal Mubarraz terminal	ADOC	10	8
ASAB (MOL3)/BAB	ADCO	58	36
BAB (MOL 1.1–4.1)/MP21 (2)	ADCO	2 x 21	24, 36
BIDA QEMZAN/Bu Hasa	ADCO	12	16
Buhasa spur line 1–2/MP21 (2)	ADCO	2 x 22	2 x 24
Bunduq/Das Island	Bunduq	16	18
Dhabbiya/BAB	ADCO	63	20
Huwaila/remote degassing station 3	ADCO	17	10
Intermediate pumping station/Fujeirah main oil terminal	ADCO/IPIC	92	48
Main pumping station/intermediate pumping station	ADCO/IPIC	146	48
MP21 (MOL 1.2)/Jebel Dhanna	ADCO	49	24
MP21 (MOL 3.4)/Mile post 48	ADCO	27	32
MP21 (MOL 3.5)/Jebel Dhanna	ADCO	22	36
MP21 (MOL 4.2)/Jebel Dhanna	ADCO	49	36
MP21/MPS	ADCO/IPIC	12	48
Mubarraz field/Mubarraz terminal	ADOC	22	14
Nasr field/TABK	ADMA-OPCO	24	20
Qushawira/ASAB	ADCO	50	14
Rumaita (Neb El 2)/Tie in to Dy-BAB main pipeline	ADCO	4	12
Sahil/ASAB	ADCO	28	16
Satah/Zirku Island	ZADCO	36	14
Shah/ASAB	ADCO	37	16
Umm Al Dalkh/Upper Zakum	ZADCO	41	14
Umm Lulu field/UAD	ADMA-OPCO	10	12
Umm-Shaif field/Das Island (2)	ADMA-OPCO	21, 22	18, 36
Upper Zakum/Zirku (2)	ZADCO	2 x 37	2 x 42
Zakum field (ZWSC)/Das Island	ADMA-OPCO	57	30
<b>Venezuela</b>			
Bachaquero/PT Miranda (2)	PDVSA	2 x 66	30/31, 30/34
EPM-1/PT Officina	PDVSA	91	36
ERB-II/PT la Cruz	PDVSA	32	16
ERB-II/T Jose	PDVSA	29	36
ERB-II, PT Oficina/PT Anaco	PDVSA	34, 35	2 x 16
La Victoria/Las Monas	PDVSA	40	16
Lagunillas/La Salina	PDVSA	26	34
Mata Larga/PT Silvestre	PDVSA	165	20
PT Miranda/Cardon	PDVSA	141	30
PT Oficina/PT la Cruz (3)	PDVSA	2 x 97, 62	30, 26, 16
PT Oficina/T Jose (2)	PDVSA (31%/30%)	2 x 93	42/20
PT Silvestre/El Palito	PDVSA	213	20
PT Travieso/ERB-II	PDVSA	62	16
PT Travieso/Naricual	PDVSA	84	30
PT Travieso/T Jose	PDVSA	94	26
Pta de Palma/PT Miranda	PDVSA	42	24
Ule/Amuya (2)	PDVSA	2 x 143	24/26, 26

Notes: .../... — Pipeline with changing diameter.

**Table 6.10****Oil transportation**

## Main petroleum product pipelines in OPEC Members, 2015

Connection from/to	Owner or operator	Length (miles)	Diameter (inches)
<b>Algeria</b>			
Arzew/Oran	Naftal	19	8
Arzew/Sidi Bel Abbès (2)	Naftal	45, 45 (LPG)	12, 10
El Khroub/El Eulma	Naftal	64	16
Sidi Abdeli/Remchi	Naftal	14	8
Sidi Arcine/Blida (2)	Naftal	30, 24 (LPG)	2 x 10
Sidi Bel Abbès/Sidi Abdeli	Naftal	32	10
Sidi Bel Abbès/Tlemcen	Naftal	44 (LPG)	8
Skikda/Berrahal (2) <sup>1</sup>	Naftal	53, 53 (LPG)	12, 8
Skikda/El Khroub (3)	Naftal	65 <sup>1</sup> , 56, 57 (LPG)	16 <sup>1</sup> , 12, 10
<b>Angola</b>			
Lobito-Lusaka (Zambia) <sup>1</sup>	Sonangol	868	na
<b>Ecuador</b>			
Beaterio (Quito)/Ambato	EP Petroecuador	69	6
Esmeraldas/Santo Domingo	EP Petroecuador	101	16
Libertad/Barbasquilo	EP Petroecuador	104	6
Libertad/Pascuales	EP Petroecuador	78	10
Monteverde/Chorrillos	EP Petroecuador	77	10
Quito/Ambato	EP Petroecuador	69	6
Santo Domingo/Beaterio	EP Petroecuador	55	12
Santo Domingo/Pascuales	EP Petroecuador	170	10
Shushufindi/Beaterio	EP Petroecuador	187	6/4
<b>Indonesia</b>			
TBBM Balongan/TBBM Cikampek	TBBM Balongan	76	16
TBBM Balongan/TBBM Plumpang	TBBM Balongan	130	16
TBBM Lomanis/TBBM Rewulu	TBBM Lomanis	112	8
TBBM Lomanis/TBBM Boyolali	TBBM Lomanis	153	12
TBBM Lomanis/TBBM Tasikmalaya	TBBM Lomanis	80	10
TBBM Lomanis/TBBM Bdg Group	TBBM Lomanis	168	16
TBBM Tuban/TBBM Surabaya Grp	TBBM Tuban	87	16
<b>IR Iran</b>			
Abadan/Ahwaz	NIOC	94	12, 16
Ahwaz/Rey (2)	NIOC	510, 469	10/14/10, 16/20/16
Arak/Hamadan	NIOC	107	12
Arak/Rey	NIOC	160	10, 16
Esfahan/Rey (2)	NIOC	2 x 231	18, 24
Gazvin/Rasht	NIOC	109	6
Imam – Taghy/Torbat Haidar	NIOC	58	8
Mahshahr/Abadan	NIOC	63	16
Rey/Karadj	NIOC	36	8
Rey/Rasht	NIOC	195	14, 16, 18
Rey/Sary	NIOC	178	12, 16
Rey/Tabriz	NIOC	476	14

Main petroleum product pipelines in OPEC Members, 2015

Connection from/to	Owner or operator	Length (miles)	Diameter (inches)
<b>IR Iran (cont'd)</b>			
Rey/Mashhad	NIOC	523	20, 22
Shahrood/Gorgan	NIOC	103	8, 10
Shahrood/Mashhad	NIOC	275	8
Tabriz/Orumieh	NIOC	174	8, 10
<b>Iraq</b>			
Baiji/Hamam Alil	OPC	167	16
Baiji/Kirkuk	OPC	86	12
Baiji/Mushahdah (2)	OPC	2 x 168	22, 8
Baiji/T1	OPC	242	16
Basrah refinery/Hartha and Najibia electric stations	OPC	30	8/12
Daura refinery/Baghdad int airport	OPC	28	8
Daura refinery/Rusafa	OPC	51	10
Hamam Alil/Felfel	OPC	65	32
Huzairan depot/Cement Al Tamem	OPC	42	6
Karkh/Habania	OPC	156	(16 x 31)(12 x 125)
Khour Al- Zubair/Shuaiba (2)	OPC	2 x 45	10, 8/10
Mushahdah/Karkh	OPC	111	12
Mushahdah/Rusafa	OPC	52	12
Nasuria/Daura refinery	OPC	379	10
Nasuria/Kut	OPC	186	8
North Gas/Sallah Al-Dean refinery	OPC	86	8
Rusafa/Diala	OPC	25	8
Shuaiba/Abu – Phlooce	OPC	38	10/24
Shuaiba/Khour Al-Zubair	OPC	45	16/24
Shuaiba/Muftia	OPC	21	10
Shuaiba/Nasuria (2)	OPC	161, 164	14, 10
<b>Kuwait</b>			
Mina al Ahmadi refinery/Al-Zour/Doha	KNPC	52	2 x 18, 2 x 20
Mina al Ahmadi/Kafco	KNPC	25	12
Mina al Ahmadi refinery/al Ahmadi (2)	KNPC	12	8, 2 x 6
Mina al Ahmadi refinery/Subhan (2)	KNPC	2 x 12	12, 8
<b>Libya</b>			
Azzawya/Elwettia depot	Elbrega Co	56	16
Azzawya/Eljmail depot	Elbrega Co	40	16
Azzawya/Airport road depot (2)	Elbrega Co	2 x 34	16, 10
Azzawya/Janzour depot	Elbrega Co	21	8
<b>Nigeria</b>			
Atlas Cove/Moisimi	PPMC	30	16
Auchi/Benin	PPMC	66	12
Auchi/Suleja	PPMC	155	12
Benin/Ore	PPMC	71	14

**Table 6.10****Oil transportation**

## Main petroleum product pipelines in OPEC Members, 2015

Connection from/to	Owner or operator	Length (miles)	Diameter (inches)
<b>Nigeria (cont'd)</b>			
Enugu/Auchi	PPMC	105	12
Ibadan/Ilorin	PPMC	106	6
Moisimi/Ibadan	PPMC	49	12
Ore/Moisimi	PPMC	94	12
Suleja/Kaduna	PPMC	93	12
Suleja/Minna	PPMC	50	8
Warri/Benin	PPMC	56	16
<b>Qatar</b>			
QP refinery, Mesaieed/Q-Jet, Doha	QP Refinery	33	16
QP refinery, Mesaieed/WOQOD, Doha (2)	QP Refinery	19, 26	6, 18
<b>Saudi Arabia</b>			
Dharan/Riyadh	Saudi Aramco	246	20
Riyadh/Qasim	Saudi Aramco	225	16
Yanbu/Madina	Saudi Aramco	93	14
Ras Tanura/Dhahran (3)	Saudi Aramco	66, 2 x 23	20, 2 x 12
Abqaiq/Alhasa	Saudi Aramco	40	8
<b>United Arab Emirates</b>			
Abu Dhabi refinery/ADIA (S)	Takreer	11	10
Eil Jebel Ali Tml/JIFF	EPPCO Aviation	22	10
HEJAP/DIA	HEJP/ENOC	34	20, 16
Abu Dhabi refinery/Mussaffah	Takreer	11 (LPG)	8
Mussaffah/ADIA (S)	Takreer	11	10
Mussaffah/ADIA (N)	Takreer	19	20
Mussaffah/Al Ain (2)	Takreer	2 x 100	10, 12
Ruwais refinery/Mussaffah (2)	Takreer	2 x 127	16, 28
Ruwais/Shuweihat	Takreer	13	16
Tarif/Madinat Zayed	Takreer	26	10
<b>Venezuela</b>			
San Tomé/Puerto Ordaz	PDVSA	124	12
San Lorenzo/El Vigía	PDVSA	104	12
PT La Cruz/San Tomé	PDVSA	99	16
San Tomé/Maturín	PDVSA	99	8
El Palito refinery/Barquisimeto	PDVSA	95	12
Bajo Grande/San Lorenzo	PDVSA	70	12
Carenero/Guatire	PDVSA	45	16
Puerto Ordaz/Bolívar	PDVSA	44	8
El Palito refinery/Yagua	PDVSA	29	16

**Notes:**

1. Project underway.

.../... — Pipeline with changing diameter.