

OIL, NATURAL GAS
AND BIOFUELS
STATISTICAL YEARBOOK

2014

OIL, NATURAL GAS
AND BIOFUELS
STATISTICAL YEARBOOK

2014



PRESIDENT OF BRAZIL

Dilma Vana Rousseff

MINISTER OF MINES AND ENERGY

Edison Lobão

**NATIONAL AGENCY OF PETROLEUM,
NATURAL GAS AND BIOFUELS**

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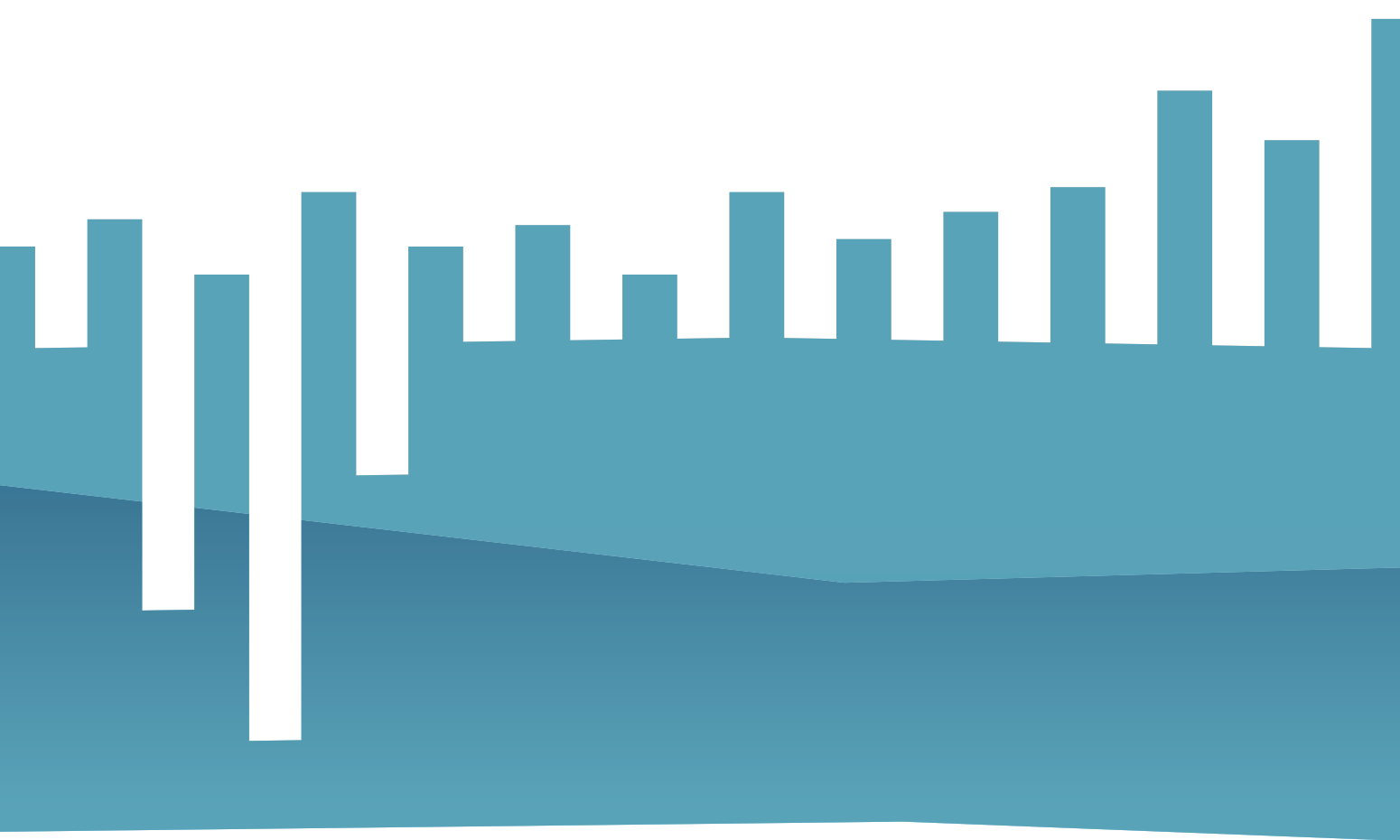
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MINISTRY OF MINES AND ENERGY
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NATURAL GAS AND BIOFUELS

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NATIONAL AGENCY OF PETROLEUM, NATURAL GAS AND BIOFUELS

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PRESENTATION

The scenario presented in this edition of the Oil, Natural Gas, and Biofuels Statistical Yearbook is marked by the holding, in 2013, of three bidding rounds of blocks for exploration, development and production of oil and gas. The prospects for the future of the oil, natural gas, and biofuels sector in Brazil are promising, with the introduction of new investments in the pre-salt area and the development of new sedimentary basins onshore and in the Brazilian equatorial margin. In addition to the new possibilities for exploration, the bidding rounds, especially the first production sharing auction, generated a total signature bonus revenue of almost R\$ 18 billion (around US\$ 7.9 billion) and an investment commitment of at least R\$ 6.9 billion (around US\$ 3 billion).

The production of the pre-salt has been showing growth. In December 2013 it reached a record 422.1 thousand BOE/D and in 2014 it has already surpassed 500 thousand BOE/D. The production of natural gas increased, exceeding in 9.1% the volume produced in 2012. The pre-salt fields were responsible for 70% of this growth. The total oil reserves showed, in 2013, an increase of 5.81% compared to 2012, reaching 30.21 billion barrels. The proven oil reserves totaled 15.59 billion barrels, an increase of 1.82%.

Furthermore, Brazil reached a record in reducing the flaring of natural gas, with a

9.8% decrease in the volume of flaring and losses, and a 95.4% harnessing of the natural gas produced. This is the highest harnessing rate and the lowest volume of flared gas since the creation of the Agency in 1988.

The year of 2013 was also marked by a production record in the refining segment, with the production of derivatives reaching 2.1 million barrels/day. The production of diesel oil was the one that increased the most in terms of volume, followed by gasoline A, thus contributing to reduce imports of these products. The consumption of derivatives also had an increase (4.7%) in the distributors' sales, which reached 2.36 million barrels/day, notably diesel oil and gasoline C, which accounted for 46.6% and 33% of the total sales, respectively.

There was a slight decrease on the demand for gasoline A and a 24% reduction in imports of this fuel, partly explained by the increase, from 20% to 25%, in the blend of anhydrous ethanol in automotive gasoline. Consumption of hydrated ethanol increased 19.3% that year. Natural gas sales increased 21.9% in 2013, totalizing 25.9 billion m³. In a 10-year period, this increase was on average of 6.3% per year. With regard to biofuels, the total production of ethanol in 2013 increased 18.1%. As for the production of biodiesel (B100), it was 7.4% higher.

MAGDA MARIA DE REGINA CHAMBRIARD
ANP GENERAL DIRECTOR

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GENERAL NOTES

ROUNDING OFF

Numeric data in tables were rounded up. Therefore, any differences between the resulting summation of items and totals amounts may be accounted for the rounding off criterion.

GEOGRAPHIC AND GEOPOLITICAL

Geographic groupings used in this book were adopted with merely statistic aims. Doing so, they imply no judgement based on political or economic criteria.

South and Central America: Caribbean (including Puerto Rico), Central America and South America.

Dutch Antilles: comprise the Bonaire Islands, Curaçao, Saint Eustatius and South Saint Martin.

Asia-Pacific: comprises Brunei, Cambodia, China, Hong Kong (region under China's special administration), Indonesia, Japan, Laos Popular Democratic Republic, Malaysia, Mongolia, Korea Popular Democratic Republic, Singapore, The Philippines, South Asia (Afghanistan, Bangladesh, India, Myanmar, Nepal, Pakistan and Sri Lanka), Republic of Korea, Taiwan, Thailand, Vietnam, Australia, New Zealand, Papua New Guinea and other Oceania countries.

United Arab Emirates: comprise Abu Dhabi, Dubai, Ras-al-Khaimah and Sharjah.

OPEC: Organization of Petroleum Exporting Countries. Multilateral organization founded in 1960, which aimed to coordinate petroleum policy of member-countries, besides providing them with technical and economic support. Includes Angola, Saudi Arabia, Algeria, Qatar, Kuwait, United Arab Emirates, Ecuador, Iran, Iraq, Libya, Nigeria and Venezuela.

Middle East: comprises Bahrain, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syria, United Arab Emirates and Yemen.

United Kingdom: comprises Great Britain (England, Scotland, Wales), Northern Ireland,

Isle of Man, Channel Islands, Orkney Islands and Shetland Islands.

Republic of Korea: South Korea.

Democratic Republic of the Congo: former Zaire.

People's Republic of the Congo: Congo (Brazzaville).

Democratic People's Republic of Korea: North Korea.

NATURAL GAS AND SHALE GAS

Volumes of gas shown in this book refer to the product at 20 °C and 1 atm pressure.

BRAZILIAN OIL AND NATURAL GAS RESERVES

Oil and Natural Gas data series are subject to changes. Current values are available on ANP website (www.anp.gov.br/dadosestatisticos).

SALES OF OIL PRODUCTS AND HYDRATED ETHANOL

Up to 2006, sales of oil products and hydrated ethanol were based on enterprise mandatory data declaration to ANP, by means of Product Control Demonstrative (DCP). DCP includes enterprises sales and own consumption. Since 2007, that information includes only enterprises sales, as per Ordinance ANP No. 17/2004.

FOREIGN TRADE

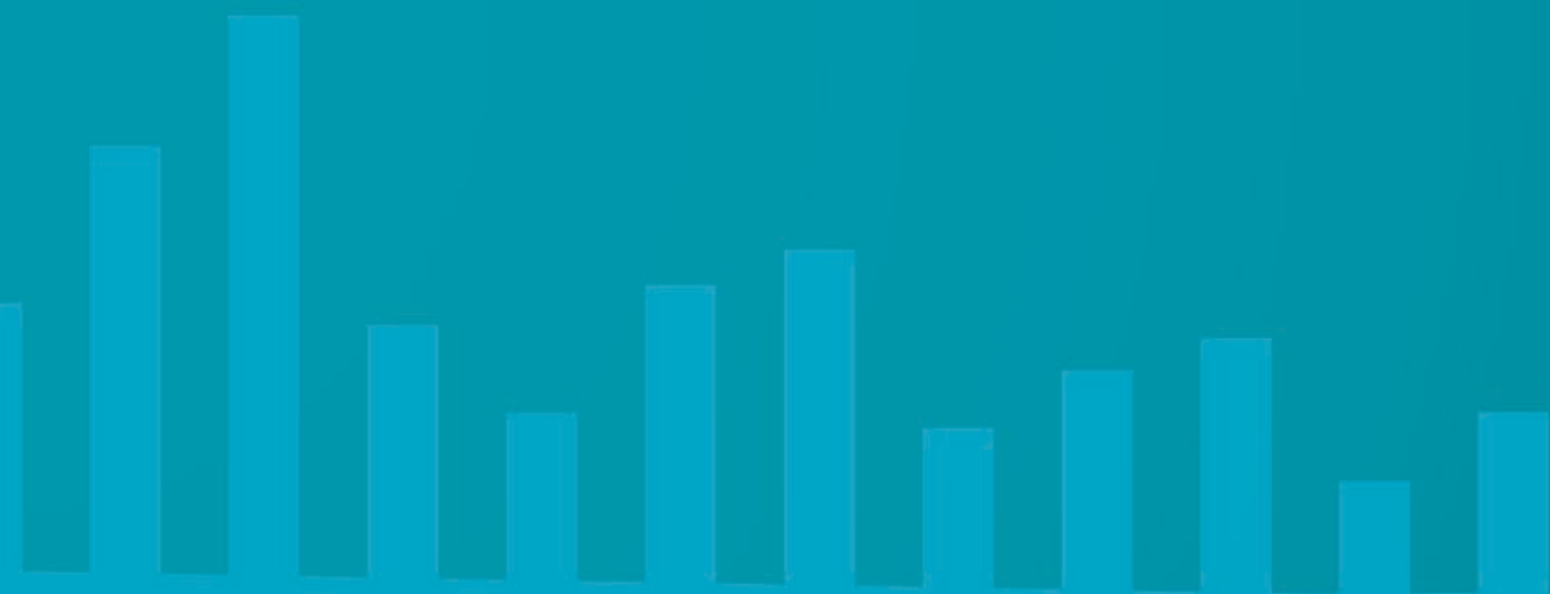
Data on imports and exports of oil and oil products were extracted from Ministério da Indústria e Comércio (MDIC)/Secretaria de Comércio Exterior (Secex) data system. Those data are subjected to changes without any previous warning and, therefore, may diverge from data series already published in former editions of this book.

CONVENTIONS

SYMBOLS

- numeric datum equal to zero not resulting from rounding off.
- .. numeric datum not applicable.
- ... numeric datum not available.
- 0 numeric datum equal to zero resulting from rounding off an originally positive numeric data point.
- (0) numeric datum equal to zero resulting from rounding off an originally negative numeric data point.

SECTION 1
**THE BRAZILIAN OIL
AND NATURAL GAS INDUSTRY**





EXPLORATION AND PRODUCTION

1.1 Blocks and Fields Under Concession

FRAME 1.1. BLOCKS IN THE EXPLORATION PHASE ON 12/31/2013 (CONTINUE)

SEDIMENTARY BASINS	BLOCKS IN THE EXPLORATION PHASE ON 12/31/2013				
	ONSHORE/ OFFSHORE	CONTRACTS	BLOCKS	ROUNDS	CONCESSIONARIES (%)
Alagoas	Onshore	SEAL-T-187_R10	SEAL-T-187	Round 10	Integral ¹ (100)
Almada	Offshore	BM-CAL-5	BM-CAL-5	Round 3	Petrobras ¹ (59.2)/Queiroz Galvão (22.5)/El Paso (18.3)
Amazonas	Onshore	AM-T-62_R10	AM-T-62	Round 10	Petrobras ¹ (60)/Petrogal Brasil (40)
	Onshore	AM-T-83_R10	AM-T-83	Round 10	Petra Energia ¹ (80)/STR (20)
	Onshore	AM-T-84_R10	AM-T-84	Round 10	Petrobras ¹ (60)/Petrogal Brasil (40)
	Onshore	AM-T-85_R10	AM-T-85	Round 10	Petrobras ¹ (60)/Petrogal Brasil (40)
Barreirinhas	Offshore	BM-BAR-1	BM-BAR-1	Round 3	Petrobras ¹ (75)/ONCG Campos (25)
	Onshore/ Offshore	BM-BAR-3	BM-BAR-3	Round 4	Petrobras ¹ (60)/BP Energy (40)
	Offshore	BM-BAR-4	BM-BAR-377	Round 5	Petrobras ¹ (100)
	Offshore	BM-BAR-5	BM-BAR-175	Round 6	Petrobras ¹ (60)/BP Energy (40)
	Offshore	BAR-M-215_R11	BAR-M-215	Round 11	BG Brasil ¹ (100)
	Offshore	BAR-M-217_R11	BAR-M-217	Round 11	BG Brasil ¹ (100)
	Offshore	BAR-M-252_R11	BAR-M-252	Round 11	BG Brasil ¹ (100)
	Offshore	BAR-M-254_R11	BAR-M-254	Round 11	BG Brasil ¹ (100)
	Offshore	BAR-M-292_R11	BAR-M-292	Round 11	Chariot Brasil ¹ (100)
	Offshore	BAR-M-293_R11	BAR-M-293	Round 11	Chariot Brasil ¹ (100)
	Offshore	BAR-M-298_R11	BAR-M-298	Round 11	BG Brasil ¹ (100)
	Offshore	BAR-M-300_R11	BAR-M-300	Round 11	BG Brasil ¹ (50)/Petrobras (40)/Galp Energia Brasil (10)
	Offshore	BAR-M-313_R11	BAR-M-313	Round 11	Chariot Brasil ¹ (100)
	Offshore	BAR-M-314_R11	BAR-M-314	Round 11	Chariot Brasil ¹ (100)
	Offshore	BAR-M-340_R11	BAR-M-340	Round 11	BG Brasil ¹ (100)
	Offshore	BAR-M-342_R11	BAR-M-342	Round 11	BG Brasil ¹ (50)/Petrobras (40)/Galp Energia Brasil (10)
	Offshore	BAR-M-344_R11	BAR-M-344	Round 11	BG Brasil ¹ (50)/Petrobras (40)/Galp Energia Brasil (10)
	Offshore	BAR-M-346_R11	BAR-M-346	Round 11	BP Energy ¹ (50)/Total E&P Brasil (50)
	Offshore	BAR-M-387_R11	BAR-M-387	Round 11	Ouro Preto ¹ (100)
	Offshore	BAR-M-388_R11	BAR-M-388	Round 11	BG Brasil ¹ (50)/Petrobras (40)/Galp Energia Brasil (10)
Camamu	Offshore	BM-CAL-9	CAL-M-188	Round 6	Petrobras ¹ (100)
	Offshore	BM-CAL-10	CAL-M-3	Round 6	Petrobras ¹ (100)
	Offshore	BM-CAL-10	CAL-M-58	Round 6	Petrobras ¹ (100)
	Offshore	BM-CAL-10	CAL-M-60	Round 6	Petrobras ¹ (100)
	Offshore	BM-CAL-11	CAL-M-248	Round 6	Petrobras ¹ (100)
	Offshore	BM-CAL-12	CAL-M-312	Round 6	Petrobras ¹ (60)/EP Energy do Brasil (20)/Queiroz Galvão (20)
Campos	Offshore	BM-CAL-12	CAL-M-372	Round 6	Petrobras ¹ (60)/EP Energy do Brasil (20)/Queiroz Galvão (20)
	Offshore	BM-C-14A	BM-C-14	Round 3	Petrobras ¹ (100)
	Offshore	BM-C-25	BM-C-25	Round 4	Petrobras ¹ (100)
	Offshore	BM-C-26	C-M-78	Round 5	Petrobras ¹ (100)
	Offshore	BM-C-26	C-M-98	Round 5	Petrobras ¹ (100)
	Offshore	BM-C-27	C-M-122	Round 5	Petrobras ¹ (100)
	Offshore	BM-C-27	C-M-145	Round 5	Petrobras ¹ (100)
	Offshore	BM-C-27	C-M-146	Round 5	Petrobras ¹ (100)
	Offshore	BM-C-28	C-M-333	Round 5	Petrobras ¹ (100)
	Offshore	BM-C-29	C-M-202	Round 6	Anadarko ¹ (50)/Ecopetrol Óleo e Gás (50)
	Offshore	BM-C-30	C-M-101	Round 6	Anadarko ¹ (30)/BP Energy (25)/IBV Brasil Petróleo (25)/Maersk Energy (20)
	Offshore	BM-C-32	C-M-61	Round 6	BP Energy ¹ (40)/Anadarko (33)/Maersk Energy (27)
	Offshore	BM-C-33	C-M-539	Round 7	Repsol Sinopec ¹ (35)/Statoil Brasil (35)/Petrobras(30)
	Offshore	BM-C-34	C-M-471	Round 7	BP Energy ¹ (30)/Petrobras (50)/Maersk (20)
	Offshore	BM-C-34	C-M-473	Round 7	BP Energy ¹ (30)/Petrobras (50)/Maersk (20)
	Offshore	BM-C-35	C-M-535	Round 6	Petrobras ¹ (65)/BP Energy (35)
	Offshore	BM-C-36	C-M-401	Round 7	Petrobras ¹ (100)
Offshore	BM-C-36	C-M-403	Round 7	Petrobras ¹ (100)	
Offshore	BM-C-37	C-M-560	Round 9	OGX ¹ (70)/Maersk (30)	
Offshore	BM-C-38	C-M-591	Round 9	OGX ¹ (70)/Maersk (30)	
Offshore	BM-C-39	C-M-466	Round 9	OGX ¹ (100)	
Offshore	BM-C-41	C-M-592	Round 9	OGX ¹ (100)	
Offshore	BM-C-42	C-M-620	Round 9	OGX ¹ (100)	
Offshore	BM-C-43	C-M-621	Round 9	OGX ¹ (100)	
Offshore	BM-C-47	C-M-530	Round 9	Statoil Brasil Óleo e Gás ¹ (60)/Sinochem Brasil (40)	
Ceará	Offshore	BM-CE-2	BM-CE-2	Round 3	Petrobras ¹ (60)/ BP Energy (40)
	Offshore	CE-M-603_R11	CE-M-603	Round 11	Exxon Mobil ¹ (50)/OGX (50)

FRAME 1.1. BLOCKS IN THE EXPLORATION PHASE ON 12/31/2013 (CONTINUATION)

SEDIMENTARY BASINS	BLOCKS IN THE EXPLORATION PHASE ON 12/31/2013				
	ONSHORE/ OFFSHORE	CONTRACTS	BLOCKS	ROUNDS	CONCESSIONARIES (%)
Ceará	Offshore	CE-M-661_R11	CE-M-661	Round 11	Total E&P ¹ (45)/OGX (30)/Queiroz Galvão (25)
	Offshore	CE-M-665_R11	CE-M-665	Round 11	Premier Oil Brasil ¹ (50)/Cepsa (50)
	Offshore	CE-M-715_R11	CE-M-715	Round 11	Chevron Frade ¹ (50)/Ecopetrol Oleo e Gas (50)
	Offshore	CE-M-717_R11	CE-M-717	Round 11	Premier Oil Brasil ¹ (50)/Cepsa (50)
Espírito Santo	Offshore	BM-ES-5	BM-ES-5	Round 3	Petrobras ¹ (65)/EP Energy do Brasil (35)
	Offshore	BM-ES-21	ES-M-414	Round 6	Petrobras ¹ (88.89)/Repsol (11.11)
	Offshore	BM-ES-22A	ES-M-468	Round 6	Petrobras ¹ (75)/CVRD (25)
	Offshore	BM-ES-22A	ES-M-527	Round 6	Petrobras ¹ (75)/CVRD (25)
	Offshore	BM-ES-23	ES-M-525	Round 6	Petrobras ¹ (65)/Shell (20)/Impex (15)
	Offshore	BM-ES-24	ES-M-661	Round 6	Petrobras ¹ (70)/IBV Brasil Petróleo (30)
	Offshore	BM-ES-26	ES-M-413	Round 7	Petrobras ¹ (100)
	Offshore	BM-ES-27	ES-M-411	Round 7	Petrobras ¹ (65)/ Shell (17.5)/CVRD (17.5)
	Offshore	BM-ES-27	ES-M-436	Round 7	Petrobras ¹ (65)/ Shell (17.5)/CVRD (17.5)
	Offshore	BM-ES-27	ES-M-437	Round 7	Petrobras ¹ (65)/ Shell (17.5)/CVRD (17.5)
	Onshore	BT-ES-33	ES-T-466	Round 7	Vipetro ¹ (100)
	Offshore	BM-ES-32	ES-M-594	Round 7	Petrobras ¹ (60)/Statoil Brasil (40)
	Offshore	BM-ES-39	ES-M-472	Round 9	Perenco Brasil ¹ (50)/OGX (40)/Sinochen Petróleo (10)
	Offshore	BM-ES-40	ES-M-529	Round 9	Perenco Brasil ¹ (50)/OGX (40)/Sinochen Petróleo (10)
	Offshore	BM-ES-41	ES-M-531	Round 9	Perenco Brasil ¹ (50)/OGX (40)/Sinochen Petróleo (10)
	Onshore	BT-ES-38	ES-T-391	Round 9	Vipetro ¹ (100)
	Onshore	BT-ES-41	ES-T-400	Round 9	Cowan Petróleo e Gás ¹ (90)/Lábrea (10)
	Offshore	ES-M-596_R11	ES-M-596	Round 11	Petrobras ¹ (50)/Statoil Brasil (50)
	Offshore	ES-M-598_R11	ES-M-598	Round 11	Statoil Brasil ¹ (40)/ Petrobras (40)/Queiroz Galvão (20)
	Offshore	ES-M-669_R11	ES-M-669	Round 11	Petrobras ¹ (40)/ Statoil Brasil (35)/Total E&P Brasil (25)
	Offshore	ES-M-671_R11	ES-M-671	Round 11	Statoil Brasil ¹ (40)/ Petrobras (40)/Queiroz Galvão (20)
	Offshore	ES-M-673_R11	ES-M-673	Round 11	Statoil Brasil ¹ (40)/ Petrobras (40)/Queiroz Galvão (20)
	Offshore	ES-M-743_R11	ES-M-743	Round 11	Statoil Brasil ¹ (40)/ Petrobras (40)/Queiroz Galvão (20)
Onshore	ES-T-485_R11	ES-T-485	Round 11	Petrobras ¹ (100)	
Onshore	ES-T-486_R11	ES-T-486	Round 11	Petrobras ¹ (100)	
Onshore	ES-T-495_R11	ES-T-495	Round 11	Petrobras ¹ (100)	
Onshore	ES-T-496_R11	ES-T-496	Round 11	Cowan Petróleo e Gás ¹ (50)/Petrobras (50)	
Onshore	ES-T-506_R11	ES-T-506	Round 11	Cowan Petróleo e Gás ¹ (50)/Petrobras (50)	
Onshore	ES-T-516_R11	ES-T-516	Round 11	Cowan Petróleo e Gás ¹ (50)/Petrobras (50)	
Foz do Amazonas	Offshore	BM-FZA-4	FZA-M-217	Round 5	Petrobras ¹ (100)
	Offshore	BM-FZA-4	FZA-M-252	Round 5	Petrobras ¹ (100)
	Offshore	FZA-M-125_R11	FZA-M-125	Round 11	Total E&P ¹ (40)/BP Energy (30)/Petrobras (30)
	Offshore	FZA-M-127_R11	FZA-M-127	Round 11	Total E&P ¹ (40)/BP Energy (30)/Petrobras (30)
	Offshore	FZA-M-254_R11	FZA-M-254	Round 11	Brasoil Manati ¹ (100)
	Offshore	FZA-M-257_R11	FZA-M-257	Round 11	BHP Billiton Brasil ¹ (100)
	Offshore	FZA-M-320_R11	FZA-M-320	Round 11	Ecopetrol Óleo e Gás ¹ (100)
	Offshore	FZA-M-324_R11	FZA-M-324	Round 11	BHP Billiton Brasil ¹ (100)
	Offshore	FZA-M-539_R11	FZA-M-539	Round 11	Brasoil Manati ¹ (100)
	Offshore	FZA-M-57_R11	FZA-M-57	Round 11	Total E&P ¹ (40)/BP Energy (30)/Petrobras (30)
	Offshore	FZA-M-59_R11	FZA-M-59	Round 11	BP Energy ¹ (70)/Petrobras (30)
Jequitinhonha	Offshore	FZA-M-86_R11	FZA-M-86	Round 11	Total E&P ¹ (40)/BP Energy (30)/Petrobras (30)
	Offshore	FZA-M-88_R11	FZA-M-88	Round 11	Total E&P ¹ (40)/BP Energy (30)/Petrobras (30)
	Offshore	FZA-M-90_R11	FZA-M-90	Round 11	Queiroz Galvão ¹ (35)/Premier Oil Brasil (35)/ Pacif Brasil (30)
	Offshore	BM-J-1	BM-J-1	Round 3	Petrobras ¹ (100)
	Offshore	BM-J-2	BM-J-2	Round 4	Queiroz Galvão ¹ (100)
	Offshore	BM-J-3	BM-J-3	Round 4	Petrobras ¹ (60)/Statoil (40)
	Offshore	BM-J-3A	BM-J-3A	Round 4	Petrobras ¹ (100)
Pará - Maranhão	Offshore	BM-J-4	J-M-115	Round 5	Petrobras ¹ (100)
	Offshore	BM-J-4	J-M-165	Round 5	Petrobras ¹ (100)
	Offshore	BM-J-4	J-M-3	Round 5	Petrobras ¹ (100)
	Offshore	BM-J-4	J-M-5	Round 5	Petrobras ¹ (100)
	Offshore	BM-J-4	J-M-63	Round 5	Petrobras ¹ (100)
	Offshore	BM-J-5	J-M-59	Round 6	Petrobras ¹ (100)
	Offshore	BM-J-5	J-M-61	Round 6	Petrobras ¹ (100)
	Offshore	BM-PAMA-3	BM-PAMA-3	Round 3	Petrobras ¹ (80)/Sinopec (20)

FRAME 1.1. BLOCKS IN THE EXPLORATION PHASE ON 12/31/2013 (CONTINUATION)

SEDIMENTARY BASINS	BLOCKS IN THE EXPLORATION PHASE ON 12/31/2013				
	ONSHORE/ OFFSHORE	CONTRACTS	BLOCKS	ROUNDS	CONCESSIONARIES (%)
	Offshore	BM-PAMA-8	PAMA-M-192	Round 6	Petrobras ¹ (80)/Sinopec (20)
	Offshore	BM-PAMA-8	PAMA-M-194	Round 6	Petrobras ¹ (80)/Sinopec (20)
	Offshore	BM-PAMA-10	PAMA-M-188	Round 9	Petrobras ¹ (40)/ CVRD (30)/ Ecopetrol Óleo e Gás (30)
	Offshore	BM-PAMA-11	PAMA-M-222	Round 9	Petrobras ¹ (40)/ CVRD (30)/ Ecopetrol Óleo e Gás (30)
	Offshore	BM-PAMA-12	PAMA-M-223	Round 9	Petrobras ¹ (40)/ CVRD (30)/ Ecopetrol Óleo e Gás (30)
	Offshore	BM-PAMA-13	PAMA-M-407	Round 9	OGX ¹ (100)
	Offshore	BM-PAMA-14	PAMA-M-408	Round 9	OGX ¹ (100)
	Offshore	BM-PAMA-15	PAMA-M-443	Round 9	OGX ¹ (100)
	Offshore	BM-PAMA-16	PAMA-M-591	Round 9	OGX ¹ (100)
	Offshore	BM-PAMA-17	PAMA-M-624	Round 9	OGX ¹ (100)
	Offshore	PAMA-M-265_R11	PAMA-M-265	Rodada 11	Queroz Galvão ¹ (30)/Pacific (70)
	Offshore	PAMA-M-337_R11	PAMA-M-337	Rodada 11	Queroz Galvão ¹ (50)/Pacific (50)
Parecis - Alto Xingu	Onshore	PRC-T-106_R10	PRC-T-106	Round 10	Petrobras ¹ (100)
	Onshore	PRC-T-121_R10	PRC-T-121	Round 10	Petrobras ¹ (100)
	Onshore	PRC-T-122_R10	PRC-T-122	Round 10	Petrobras ¹ (100)
	Onshore	PRC-T-123_R10	PRC-T-123	Round 10	Petrobras ¹ (100)
Parnaíba	Onshore	BT-PN-1	PN-T-102	Round 9	Parnaíba Gás ¹ (50)/Imetame (16.67)/ Orteng (16.67)/Delp (16.67)
	Onshore	BT-PN-2	PN-T-66	Round 9	BP Energy ¹ (40)/ Petrobras (40)/ CVRD (20)
	Onshore	BT-PN-3	PN-T-86	Round 9	Petrobras ¹ (40)/ BP Energy (40)/ CVRD (20)
	Onshore	BT-PN-4	PN-T-48	Round 9	Parnaíba Gás ¹ (70)/Petra Parnaíba (30)
	Onshore	BT-PN-5	PN-T-49	Round 9	Parnaíba Gás ¹ (70)/Petra Parnaíba (30)
	Onshore	BT-PN-6	PN-T-50	Round 9	Parnaíba Gás ¹ (70)/Petra Parnaíba (30)
	Onshore	BT-PN-7	PN-T-67	Round 9	Parnaíba Gás ¹ (70)/Petra Parnaíba (30)
	Onshore	BT-PN-8	PN-T-68	Round 9	Parnaíba Gás ¹ (70)/Petra Parnaíba (30)
	Onshore	BT-PN-9	PN-T-84	Round 9	Parnaíba Gás ¹ (70)/Petra Parnaíba (30)
	Onshore	BT-PN-10	PN-T-85	Round 9	Parnaíba Gás ¹ (70)/Petra Parnaíba (30)
	Onshore	PN-T-114_R11	PN-T-114	Round 11	Ouro Preto ¹ (100)
	Onshore	PN-T-136_R11	PN-T-136	Round 11	Galp Energia ¹ (50)/Petrobras (50)
	Onshore	PN-T-137_R11	PN-T-137	Round 11	Ouro Preto ¹ (100)
	Onshore	PN-T-150_R11	PN-T-150	Round 11	Petrobras ¹ (50)/Galp Energia (50)
	Onshore	PN-T-151_R11	PN-T-151	Round 11	Ouro Preto ¹ (100)
	Onshore	PN-T-165_R11	PN-T-165	Round 11	Ouro Preto ¹ (100)
	Onshore	PN-T-166_R11	PN-T-166	Round 11	Petrobras ¹ (50)/Galp Energia (50)
	Onshore	PN-T-182_R11	PN-T-182	Round 11	Galp Energia ¹ (50)/Petrobras (50)
Pelotas	Offshore	BM-P-2	P-M-1269	Round 6	Petrobras ¹ (100)
	Offshore	BM-P-2	P-M-1271	Round 6	Petrobras ¹ (100)
	Offshore	BM-P-2	P-M-1351	Round 6	Petrobras ¹ (100)
	Offshore	BM-P-2	P-M-1353	Round 6	Petrobras ¹ (100)
Pernambuco - Paraíba	Offshore	BM-PEPB-1	PEPB-M-783	Round 9	Petrobras ¹ (80)/Petrogal Brasil (20)
	Offshore	BM-PEPB-3	PEPB-M-839	Round 9	Petrobras ¹ (80)/Petrogal Brasil (20)
	Offshore	PEPB-M-621_R11	PEPB-M-621	Round 11	Niko ¹ (30)/Petra Energia (70)
	Offshore	PEPB-M-729_R11	PEPB-M-729	Round 11	Niko ¹ (30)/Petra Energia (70)
	Offshore	PEPB-M-894_R11	PEPB-M-894	Round 11	Queroz Galvão ¹ (30)/Petra Energia (70)
	Offshore	PEPB-M-896_R11	PEPB-M-896	Round 11	Queroz Galvão ¹ (30)/Petra Energia (70)
Potiguar	Onshore	BT-POT-8	BT-POT-8	Round 4	Petrobras ¹ (100)
	Onshore/ Offshore	BM-POT-11	BM-POT-11	Round 4	Petrobras ¹ (100)
	Offshore	BM-POT-16	POT-M-663	Round 7	Petrobras ¹ (60)/ Petrogal Brasil (20)/ IBV Brasil Petróleo (20)
	Offshore	BM-POT-16	POT-M-760	Round 7	Petrobras ¹ (60)/ Petrogal Brasil (20)/ IBV Brasil Petróleo (20)
	Offshore	BM-POT-17	POT-M-665	Round 7	Petrobras ¹ (80)/ Petrogal Brasil (20)
	Offshore	BM-POT-17	POT-M-853	Round 7	Petrobras ¹ (80)/ Petrogal Brasil (20)
	Offshore	BM-POT-17	POT-M-855	Round 7	Petrobras ¹ (80)/ Petrogal Brasil (20)
	Onshore	BT-POT-55	POT-T-794	Round 7	Sonangol Starfish (30) ¹ /Petrobras (70)
	Offshore	POT-M-475_R11	POT-M-475	Round 11	OGX ¹ (100)
	Offshore	POT-M-567_R11	POT-M-567	Round 11	Ecopetrol Óleo e Gás ¹ (100)
	Offshore	POT-M-762_R11	POT-M-762	Round 11	ExxonMobil ¹ (50)/OGX (50)
	Offshore	POT-M-764_R11	POT-M-764	Round 11	Petrobras ¹ (40)/BP Energy (40)/Galp Energia Brasil (20)
	Onshore	POT-T-485_R11	POT-T-485	Round 11	Imetame ¹ (100)
	Onshore	POT-T-569_R11	POT-T-569	Round 11	Imetame ¹ (100)
	Onshore	POT-T-575_R11	POT-T-575	Round 11	UTC Óleo e Gás ¹ (100)
	Onshore	POT-T-613_R11	POT-T-613	Round 11	Petrobras ¹ (100)
	Onshore	POT-T-614_R11	POT-T-614	Round 11	Petrobras ¹ (100)
Potiguar	Onshore	POT-T-617_R11	POT-T-617	Round 11	UTC Óleo e Gás ¹ (100)
	Onshore	POT-T-618_R11	POT-T-618	Round 11	UTC Óleo e Gás ¹ (100)

FRAME 1.1. BLOCKS IN THE EXPLORATION PHASE ON 12/31/2013 (CONTINUATION)

SEDIMENTARY BASINS	BLOCKS IN THE EXPLORATION PHASE ON 12/31/2013				
	ONSHORE/ OFFSHORE	CONTRACTS	BLOCKS	ROUNDS	CONCESSIONARIES (%)
	Onshore	POT-T-619_R11	POT-T-619	Round 11	Geopark Brasil ¹ (100)
	Onshore	POT-T-620_R11	POT-T-620	Round 11	Geopark Brasil ¹ (100)
	Onshore	POT-T-663_R11	POT-T-663	Round 11	Geopark Brasil ¹ (100)
	Onshore	POT-T-664_R11	POT-T-664	Round 11	Geopark Brasil ¹ (100)
	Onshore	POT-T-665_R11	POT-T-665	Round 11	Geopark Brasil ¹ (100)
Recôncavo	Onshore	BT-REC-35	REC-T-210	Round 9	Imetame ¹ (33.34)/ Delp (33.33)/ Orteng (33.33)
	Onshore	BT-REC-36	REC-T-211	Round 9	Imetame ¹ (33.34)/ Delp (33.33)/ Orteng (33.33)
	Onshore	BT-REC-37	REC-T-158	Round 9	Cowan Petróleo e Gás ¹ (90)/Lábrea (10)
	Onshore	BT-REC-39	REC-T-129	Round 9	Gran Tierra ¹ (100)
	Onshore	BT-REC-40	REC-T-131	Round 9	Alvopetro ¹ (100)
	Onshore	BT-REC-41	REC-T-132	Round 9	Alvopetro ¹ (100)
	Onshore	BT-REC-42	REC-T-142	Round 9	Gran Tierra ¹ (100)
	Onshore	BT-REC-43	REC-T-157	Round 9	Alvopetro ¹ (100)
	Onshore	BT-REC-44	REC-T-196	Round 9	Alvopetro ¹ (100)
	Onshore	BT-REC-45	REC-T-197	Round 9	Alvopetro ¹ (100)
	Onshore	BT-REC-46	REC-T-224	Round 9	Gran Tierra ¹ (100)
	Onshore	BT-REC-47	REC-T-144	Round 9	Alvopetro ¹ (100)
	Onshore	BT-REC-47	REC-T-155	Round 9	Gran Tierra ¹ (100)
	Onshore	BT-REC-47	REC-T-182	Round 9	Alvopetro ¹ (100)
	Onshore	BT-REC-57	REC-T-130	Round 9	Sonangol Starfish ¹ (50)/Petrobras (50)
	Onshore	BT-REC-58	REC-T-183	Round 9	Petrosynergy ¹ (100)
	Onshore	BT-REC-60	REC-T-170	Round 9	BrazAlta ¹ (75)/Petro Vista (25)
	Onshore	REC-T-163_R10	REC-T-163	Round 10	Imetame ¹ (51)/Cemig (24.5)/Codemig (24.5)
	Onshore	REC-T-220_R10	REC-T-220	Round 10	Petrobras ¹ (100)
	Onshore	REC-T-235_R10	REC-T-235	Round 10	Petrobras ¹ (100)
	Onshore	REC-T-104_R11	REC-T-104	Round 10	Nova Petróleo ¹ (100)
	Onshore	REC-T-105_R11	REC-T-105	Round 11	Nova Petróleo ¹ (100)
	Onshore	REC-T-106_R11	REC-T-106	Round 11	Alvopetro ¹ (100)
	Onshore	REC-T-107_R11	REC-T-107	Round 11	Alvopetro ¹ (100)
	Onshore	REC-T-115_R11	REC-T-115	Round 11	Nova Petróleo ¹ (100)
	Onshore	REC-T-116_R11	REC-T-116	Round 11	Nova Petróleo ¹ (100)
	Onshore	REC-T-117_R11	REC-T-117	Round 11	Gran Tierra ¹ (100)
	Onshore	REC-T-118_R11	REC-T-118	Round 11	Gran Tierra ¹ (100)
	Onshore	REC-T-75_R11	REC-T-75	Round 11	Imetame ¹ (100)
	Onshore	REC-T-76_R11	REC-T-76	Round 11	Imetame ¹ (100)
	Onshore	REC-T-84_R11	REC-T-84	Round 11	Nova Petróleo ¹ (100)
	Onshore	REC-T-85_R11	REC-T-85	Round 11	Geopark Brasil ¹ (100)
	Onshore	REC-T-86_R11	REC-T-86	Round 11	Gran Tierra ¹ (100)
	Onshore	REC-T-94_R11	REC-T-94	Round 11	Geopark Brasil ¹ (100)
	Onshore	REC-T-95_R11	REC-T-95	Round 11	Brasoil Manati ¹ (100)
Santos	Offshore	BM-S-8	BM-S-8	Round 2	Petrobras ¹ (66)/Petrogal Brasil (14)/ Queiroz Galvão (10)/Barra Energia (10)
	Offshore	BM-S-10	BM-S-10	Round 2	Petrobras ¹ (65)/ BG Brasil (25)/ Partex (10)
	Offshore	BM-S-11	BM-S-11	Round 2	Petrobras ¹ (65)/ BG Brasil (25)/ Petrogal (10)
	Offshore	BM-S-12	BM-S-12	Round 3	Petrobras ¹ (70)/ Queiroz Galvão (30)
	Offshore	BM-S-21	BM-S-21	Round 3	Petrobras ¹ (80)/ Petrogal Brasil (20)
	Offshore	BM-S-24	BM-S-24	Round 3	Petrobras ¹ (80)/ Petrogal Brasil (20)
	Offshore	BM-S-42	S-M-239	Round 6	Petrobras ¹ (100)
	Offshore	BM-S-42	S-M-324	Round 6	Petrobras ¹ (100)
	Offshore	BM-S-42	S-M-417	Round 6	Petrobras ¹ (100)
	Offshore	BM-S-50	S-M-623	Round 7	Petrobras ¹ (60)/Repsol Sinopec (20)/ BG Brasil (20)
	Offshore	BM-S-51	S-M-619	Round 7	Petrobras ¹ (80)/ Repsol Sinopec (20)
	Offshore	BM-S-53	S-M-405	Round 7	Petrobras ¹ (100)
	Offshore	BM-S-54	S-M-518	Round 7	Shell ¹ (80)/Total E&P Brasil (20)
	Offshore	BM-S-56	S-M-226	Round 9	OGX ¹ (100)
	Offshore	BM-S-58	S-M-270	Round 9	OGX ¹ (100)
	Offshore	BM-S-59	S-M-314	Round 9	OGX ¹ (100)
	Offshore	BM-S-61	S-M-1037	Round 9	Karoon Petróleo e Gás ¹ (65)/Pacific Brasil (35)
	Offshore	BM-S-62	S-M-1102	Round 9	Karoon Petróleo e Gás ¹ (65)/Pacific Brasil (35)
	Offshore	BM-S-68	S-M-1101	Round 9	Karoon Petróleo e Gás ¹ (65)/Pacific Brasil (35)
	Offshore	BM-S-69	S-M-1165	Round 9	Karoon Petróleo e Gás ¹ (65)/Pacific Brasil (35)
	Offshore	BM-S-70	S-M-1166	Round 9	Karoon Petróleo e Gás ¹ (65)/Pacific Brasil (35)
	Offshore	Onerous Assignment	Florim	Onerous Assignment	Petrobras ¹ (100)
	Offshore	Onerous Assignment	Guará Sul	Onerous Assignment	Petrobras ¹ (100)
Santos	Offshore	Onerous Assignment	Iara Ent	Onerous Assignment	Petrobras ¹ (100)

FRAME 1.1. BLOCKS IN THE EXPLORATION PHASE ON 12/31/2013 (CONTINUATION)

SEDIMENTARY BASINS	BLOCKS IN THE EXPLORATION PHASE ON 12/31/2013				
	ONSHORE/ OFFSHORE	CONTRACTS	BLOCKS	ROUNDS	CONCESSIONARIES (%)
	Offshore	Onerous Assignment	Peroba	Onerous Assignment	Petrobras ¹ (100)
	Offshore	Onerous Assignment	Tupi NE	Onerous Assignment	Petrobras ¹ (100)
São Francisco	Onshore	BT-SF-3	SF-T-118	Round 7	Petra Energia ¹ (100)
	Onshore	BT-SF-3	SF-T-124	Round 7	Petra Energia ¹ (100)
	Onshore	BT-SF-3	SF-T-125	Round 7	Petra Energia ¹ (100)
	Onshore	BT-SF-3	SF-T-130	Round 7	Petra Energia ¹ (100)
	Onshore	BT-SF-3	SF-T-131	Round 7	Petra Energia ¹ (100)
	Onshore	BT-SF-3	SF-T-137	Round 7	Petra Energia ¹ (100)
	Onshore	BT-SF-3	SF-T-139	Round 7	Petra Energia ¹ (100)
	Onshore	BT-SF-3	SF-T-143	Round 7	Petra Energia ¹ (100)
	Onshore	BT-SF-3	SF-T-144	Round 7	Petra Energia ¹ (100)
	Onshore	BT-SF-3A	SF-T-85	Round 7	Petra Energia ¹ (100)
	Onshore	BT-SF-3A	SF-T-86	Round 7	Petra Energia ¹ (100)
	Onshore	BT-SF-3A	SF-T-94	Round 7	Petra Energia ¹ (100)
	Onshore	BT-SF-3A	SF-T-95	Round 7	Petra Energia ¹ (100)
	Onshore	BT-SF-3A	SF-T-96	Round 7	Petra Energia ¹ (100)
	Onshore	BT-SF-3A	SF-T-105	Round 7	Petra Energia ¹ (100)
	Onshore	BT-SF-3A	SF-T-106	Round 7	Petra Energia ¹ (100)
	Onshore	BT-SF-3A	SF-T-115	Round 7	Petra Energia ¹ (100)
	Onshore	BT-SF-3A	SF-T-121	Round 7	Petra Energia ¹ (100)
	Onshore	BT-SF-3A	SF-T-128	Round 7	Petra Energia ¹ (100)
	Onshore	BT-SF-3A	SF-T-134	Round 7	Petra Energia ¹ (100)
	Onshore	BT-SF-3A	SF-T-138	Round 7	Petra Energia ¹ (100)
	Onshore	BT-SF-5	SF-T-132	Round 7	Cemes ¹ (51)/Codemig (49)
	Onshore	BT-SF-6	SF-T-133	Round 7	Cisco Oil and Gas ¹ (100)
	Onshore	BT-SF-7	SF-T-92	Round 7	Petra Energia ¹ (100)
	Onshore	BT-SF-8	SF-T-119	Round 7	Petra Energia ¹ (100)
	Onshore	BT-SF-9	SF-T-126	Round 7	Petra Energia ¹ (100)
	Onshore	SF-T-104_R10	SF-T-104	Round 10	Imetame ¹ (51)/Cemig (24.5)/Codemig (24.5)
	Onshore	SF-T-114_R10	SF-T-114	Round 10	Imetame ¹ (51)/Cemig (24.5)/Codemig (24.5)
	Onshore	SF-T-120_R10	SF-T-120	Round 10	Imetame ¹ (30)/Cemig (24.5)/Codemig (24.5)/Orteng (11)/Sipet(10)
	Onshore	SF-T-127_R10	SF-T-127	Round 10	Orteng ¹ (30)/Cemig (24.5)/Codemig (24.5)/ Imetame (11)/ Sipet (10)
	Onshore	SF-T-81_R10	SF-T-81	Round 10	Shell ¹ (60)/CVRD (40)
Sergipe	Offshore	BM-SEAL-4	BM-SEAL-4	Round 2	Petrobras ¹ (75)/ONGC Campos (25)
	Offshore	BM-SEAL-9	BM-SEAL-9	Round 4	Petrobras ¹ (85)/ Partex Brasil (15)
	Offshore	BM-SEAL-10	SEAL-M-347	Round 6	Petrobras ¹ (100)
	Offshore	BM-SEAL-10	SEAL-M-424	Round 6	Petrobras ¹ (100)
	Offshore	BM-SEAL-10	SEAL-M-499	Round 6	Petrobras ¹ (100)
	Offshore	BM-SEAL-11	SEAL-M-349	Round 6	Petrobras ¹ (60)/IBV Brasil Petróleo (40)
	Offshore	BM-SEAL-11	SEAL-M-426	Round 6	Petrobras ¹ (60)/IBV Brasil Petróleo (40)
	Offshore	BM-SEAL-11	SEAL-M-497	Round 6	Petrobras ¹ (60)/IBV Brasil Petróleo (40)
	Offshore	BM-SEAL-11	SEAL-M-569	Round 6	Petrobras ¹ (60)/IBV Brasil Petróleo (40)
	Onshore	SEAL-T-30_R11	SEAL-T-30	Round 11	Imetame ¹ (100)
	Onshore	SEAL-T-31_R11	SEAL-T-31	Round 11	Imetame ¹ (100)
	Onshore	SEAL-T-44_R11	SEAL-T-44	Round 11	G3 Óleo e Gás ¹ (100)
	Onshore	SEAL-T-50_R11	SEAL-T-50	Round 11	G3 Óleo e Gás ¹ (100)
	Onshore	SEAL-T-51_R11	SEAL-T-51	Round 11	G3 Óleo e Gás ¹ (100)
	Onshore	SEAL-T-56_R11	SEAL-T-56	Round 11	G3 Óleo e Gás ¹ (100)
	Onshore	SEAL-T-61_R11	SEAL-T-61	Round 11	Petrobras ¹ (100)
	Onshore	SEAL-T-62_R11	SEAL-T-62	Round 11	Imetame ¹ (100)
	Onshore	SEAL-T-67_R11	SEAL-T-67	Round 11	Petrobras ¹ (100)
	Onshore	SEAL-T-72_R11	SEAL-T-72	Round 11	G3 Óleo e Gás ¹ (100)
	Onshore	SEAL-T-78_R11	SEAL-T-78	Round 11	G3 Óleo e Gás ¹ (100)
Solimões	Onshore	BT-SOL-1	BT-SOL-1	Round 4	Petrobras ¹ (100)
	Onshore	BT-SOL-3	SOL-T-171	Round 7	Petrobras ¹ (100)
	Onshore	BT-SOL-3	SOL-T-193	Round 7	Petrobras ¹ (100)
	Onshore	BT-SOL-4	SOL-T-151	Round 7	HRT O&G ¹ (55)/TNK Brasil (45)
	Onshore	BT-SOL-4	SOL-T-172	Round 7	HRT O&G ¹ (55)/TNK Brasil (45)
	Onshore	BT-SOL-4	SOL-T-174	Round 7	HRT O&G ¹ (55)/TNK Brasil (45)
	Onshore	BT-SOL-4	SOL-T-194	Round 7	HRT O&G ¹ (55)/TNK Brasil (45)
	Onshore	BT-SOL-4	SOL-T-195	Round 7	HRT O&G ¹ (55)/TNK Brasil (45)
	Onshore	BT-SOL-4	SOL-T-196	Round 7	HRT O&G ¹ (55)/TNK Brasil (45)
	Onshore	BT-SOL-4	SOL-T-197	Round 7	HRT O&G ¹ (55)/TNK Brasil (45)
	Onshore	BT-SOL-4	SOL-T-218	Round 7	HRT O&G ¹ (55)/TNK Brasil (45)
	Onshore	BT-SOL-4A	SOL-T-148	Round 7	HRT O&G ¹ (55)/TNK Brasil (45)
	Onshore	BT-SOL-4A	SOL-T-149	Round 7	HRT O&G ¹ (55)/TNK Brasil (45)
Solimões	Onshore	BT-SOL-4A	SOL-T-168	Round 7	HRT O&G ¹ (55)/TNK Brasil (45)
	Onshore	BT-SOL-4A	SOL-T-169	Round 7	HRT O&G ¹ (55)/TNK Brasil (45)
	Onshore	BT-SOL-4A	SOL-T-170	Round 7	HRT O&G ¹ (55)/TNK Brasil (45)

FRAME 1.1. BLOCKS IN THE EXPLORATION PHASE ON 12/31/2013 (CONCLUSION)

SEDIMENTARY BASINS	BLOCKS IN THE EXPLORATION PHASE ON 12/31/2013				
	ONSHORE/ OFFSHORE	CONTRACTS	BLOCKS	ROUNDS	CONCESSIONARIES (%)
	Onshore	BT-SOL-4A	SOL-T-191	Round 7	HRT O&G ¹ (55)/TNK Brasil (45)
	Onshore	BT-SOL-4A	SOL-T-192	Round 7	HRT O&G ¹ (55)/TNK Brasil (45)
	Onshore	BT-SOL-4A	SOL-T-214	Round 7	HRT O&G ¹ (55)/TNK Brasil (45)
	Onshore	BT-SOL-4A	SOL-T-215	Round 7	HRT O&G ¹ (55)/TNK Brasil (45)
	Onshore	BT-SOL-4A	SOL-T-216	Round 7	HRT O&G ¹ (55)/TNK Brasil (45)
	Onshore	BT-SOL-4A	SOL-T-217	Round 7	HRT O&G ¹ (55)/TNK Brasil (45)
Tucano Sul	Onshore	TUC-T-132_R11	TUC-T-132	Round 11	Cowan Petróleo e Gás ¹ (50)/Petrobras (50)
	Onshore	TUC-T-133_R11	TUC-T-133	Round 11	Cowan Petróleo e Gás ¹ (50)/Petrobras (50)
	Onshore	TUC-T-139_R11	TUC-T-139	Round 11	Petra Energia ¹ (100)
	Onshore	TUC-T-140_R11	TUC-T-140	Round 11	Cowan Petróleo e Gás ¹ (50)/Petrobras (50)
	Onshore	TUC-T-147_R11	TUC-T-147	Round 11	Petra Energia ¹ (100)
	Onshore	TUC-T-148_R11	TUC-T-148	Round 11	Petra Energia ¹ (100)
	Onshore	TUC-T-149_R11	TUC-T-149	Round 11	Petra Energia ¹ (100)
	Onshore	TUC-T-150_R11	TUC-T-150	Round 11	Petra Energia ¹ (100)
	Onshore	TUC-T-155_R11	TUC-T-155	Round 11	Petra Energia ¹ (100)
	Onshore	TUC-T-156_R11	TUC-T-156	Round 11	Petra Energia ¹ (100)
	Onshore	TUC-T-157_R11	TUC-T-157	Round 11	Petra Energia ¹ (100)
	Onshore	TUC-T-158_R11	TUC-T-158	Round 11	Petra Energia ¹ (100)
	Onshore	TUC-T-163_R11	TUC-T-163	Round 11	Petra Energia ¹ (100)
	Onshore	TUC-T-164_R11	TUC-T-164	Round 11	Petra Energia ¹ (100)
	Onshore	TUC-T-168_R11	TUC-T-168	Round 11	Petra Energia ¹ (100)
	Onshore	TUC-T-169_R11	TUC-T-169	Round 11	Petra Energia ¹ (100)
	Onshore	TUC-T-173_R11	TUC-T-173	Round 11	Petra Energia ¹ (100)
	Onshore	TUC-T-174_R11	TUC-T-174	Round 11	Petra Energia ¹ (100)
	Onshore	TUC-T-177_R11	TUC-T-177	Round 11	Alvopetro ¹ (100)

SOURCE: ANP/SEP.
¹Operator.

FRAME 1.2. FIELDS IN DEVELOPMENT OF PRODUCTION PHASE ON 12/31/2013 (CONTINUE)

SEDIMENTARY BASINS	FIELDS IN DEVELOPMENT OF PRODUCTION PHASE ON 12/31/2013			
	STATES	ONSHORE/ OFFSHORE	FIELDS	CONCESSIONARIES (%)
Alagoas	Alagoas	Onshore	Arapaçu	Petrobras ¹ (100)
	Alagoas	Onshore	Fazenda Guindaste	Petrosynergy ¹ (100)
	Alagoas	Onshore	Mutum ²	Petrobras ¹ (100)
	Alagoas	Onshore	Sebastião Ferreira	Petrosynergy ¹ (100)
Amazonas	Amazonas	Onshore	Azulão	Petrobras ¹ (100)
	Amazonas	Onshore	Japiim	Petrobras ¹ (100)
Camamu	Bahia	Offshore	Camarão	EP Energy do Brasil ¹ (100)
	Bahia	Offshore	Camarão Norte	Queiroz Galvão (45)/Petrobras ¹ (35)/Brasoil Manati (10)/Rio das Contas (10)
	Bahia	Offshore	Pinaúna	EP Energy do Brasil ¹ (100)
	Bahia	Offshore	Sardinha	Petrobras ¹ (100)
Campos	Espírito Santo	Offshore	Baleia Anã	Petrobras ¹ (100)
	Espírito Santo	Offshore	Catuá	Petrobras ¹ (100)
	Espírito Santo	Offshore	Caxaréu	Petrobras ¹ (100)
	Espírito Santo	Offshore	Mangangá	Petrobras ¹ (100)
	Espírito Santo	Offshore	Nautilus	Shell Brasil ¹ (50)/ONGC Campos (27)/BC-10 Petróleo Ltda. (23)
	Rio de Janeiro	Offshore	Carapicu	Petrobras ¹ (100)
	Rio de Janeiro	Offshore	Carataí	Petrobras ¹ (100)
	Rio de Janeiro	Offshore	Maromba	Petrobras ¹ (70)/Chevron Brasil (30)
	Rio de Janeiro	Offshore	Pitangola	Statoil Brasil ¹ (60) /Sinochem Petróleo (40)
	Rio de Janeiro	Offshore	Rêmora	OGX ¹ (100)
	Rio de Janeiro	Offshore	Tartaruga Mestiça	Petrobras ¹ (100)
	Rio de Janeiro	Offshore	Tartaruga Verde	Petrobras ¹ (100)
	Rio de Janeiro	Offshore	Tabarão Areia	OGX ¹ (100)
	Rio de Janeiro	Offshore	Tabarão Gato	OGX ¹ (100)
	Rio de Janeiro	Offshore	Tabarão Tigre	OGX ¹ (100)
	Rio de Janeiro	Offshore	Xerelete	Total E&P Brasil ¹ (41.18)/Petrobras (41.18)/Brasil Energy (17.64)
	Rio de Janeiro	Offshore	Xerelete Sul	Total E&P Brasil ¹ (50)/Petrobras (50)
Espírito Santo	Espírito Santo	Onshore	Albatroz	Petrosynergy ¹ (100)
	Espírito Santo	Offshore	Carapó ²	Petrobras ¹ (100)
	Espírito Santo	Onshore	Curruira	Petrobras ¹ (100)
	Espírito Santo	Onshore	Jacupemba	Petrobras ¹ (100)
	Espírito Santo	Onshore	Tucano	Vipetro ¹ (100)
Paraná	Paraná	Onshore	Barra Bonita	Petrobras ¹ (100)
Parnaíba	Maranhão	Onshore	Gavião Azul	Parnaíba Gás ¹ (70)/Petra Parnaíba (30)
	Maranhão	Onshore	Gavião Branco	Parnaíba Gás ¹ (70)/Petra Parnaíba (30)

FRAME 1.2. FIELDS IN DEVELOPMENT OF PRODUCTION PHASE ON 12/31/2013 (CONCLUSION)

SEDIMENTARY BASINS	FIELDS IN DEVELOPMENT OF PRODUCTION PHASE ON 12/31/2013			
	STATES	ONSHORE/ OFFSHORE	FIELDS	CONCESSIONARIES (%)
Parnaíba	Maranhão	Onshore	Gavião Branco Oeste	Parnaíba Gás ¹ (70)/Petra Parnaíba (30)
Potiguar	Rio Grande do Norte	Onshore	Acauã Leste	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Arribaçã	UTC Óleo e Gás ¹ (50)/Potióleo (50)
	Rio Grande do Norte	Onshore	Chopim	Petrogal Brasil ¹ (50)/Petrobras (50)
	Rio Grande do Norte	Offshore	Gaiuba	Petrobras ¹ (65)/EP Energy Pescada (35)
	Rio Grande do Norte	Offshore	Guajá	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Graúna	UTC Óleo e Gás ¹ (50)/Potióleo (50)
	Rio Grande do Norte	Onshore	Maçarico	Petrobras ¹ (100)
	Rio Grande do Norte	Offshore	Salema Branca	Petrobras ¹ (100)
	Rio Grande do Norte	Offshore	Siri	Petrobras ¹ (100)
Recôncavo	Rio Grande do Norte	Onshore	Urutau	Petrogal Brasil ¹ (50)/Petrobras (50)
	Bahia	Onshore	Maritaca ²	Sonangol Starfish ¹ (50)/Somoil do Brasil (50)
	Bahia	Onshore	Pariri	Petrobras ¹ (100)
	Bahia	Onshore	Tapiranga Norte	Petrobras ¹ (100)
Santos	Bahia	Onshore	Uirapuru Sudoeste	Petrosynergy ¹ (50)/Silver Marlin (50)
	Rio de Janeiro	Offshore	Atlanta	Petrobras (40)/Queiroz Galvão ¹ (30)/Barra Energia (30)
	São Paulo	Offshore	Bauna Sul	Petrobras ¹ (80)/Karooon (20)
	Rio de Janeiro	Offshore	Buzios ³	Petrobras ¹ (100)
	Rio de Janeiro	Offshore	Carapiá	Petrobras ¹ (100)
	Santa Catarina	Offshore	Cavalo-Marinho	Petrobras (40)/Queiroz Galvão ¹ (30)/Barra Energia (30)
	Paraná	Offshore	Estrela-do-Mar	Petrobras ¹ (35)/Panoro Energy (65)
	São Paulo	Offshore	Guaiamá	Petrobras ¹ (100)
	São Paulo	Offshore	Lapa	Petrobras ¹ (100)
	Rio de Janeiro	Offshore	Oliva	Petrobras (40)/Queiroz Galvão ¹ (30)/Barra Energia (30)
	São Paulo	Offshore	Piracucá	Petrobras ¹ (63)/Repsol (37)
	Rio de Janeiro	Offshore	Pirapitanga	Petrobras ¹ (100)
	Rio de Janeiro	Offshore	Sul de Lula ²	Petrobras ¹ (100)
	Rio de Janeiro	Offshore	Tambuatá	Petrobras ¹ (100)
Santa Catarina	Offshore	Tubarão	Petrobras ¹ (100)	
Sergipe	Sergipe	Onshore	Carmópolis Sudeste	Petrobras ¹ (100)
	Sergipe	Onshore	Dó-Ré-Mi	Petrogal Brasil ¹ (50)/Petrobras (50)
	Sergipe	Onshore	Guará	Nord ¹ (60)/Mercury (40)
	Sergipe	Offshore	Piranema Sul	Petrobras ¹ (100)
	Sergipe	Onshore	Sirizinho Oeste	Petrobras ¹ (100)
Solimões	Amazonas	Onshore	Araracanga	Petrobras ¹ (100)
	Amazonas	Onshore	Juruá	Petrobras ¹ (100)
Tucano Sul	Bahia	Onshore	Iraí	Petrobras ¹ (100)
	Bahia	Onshore	Lagoa Branca	Petrobras ¹ (100)

SOURCE: ANP/SEP.

¹Operator company. ²Marginal fields. ³Fields to be returned by concessionaire(s).

FRAME 1.3. FIELDS IN THE PRODUCTION PHASE ON 12/31/2013 (CONTINUE)

SEDIMENTARY BASINS	FIELDS IN THE PRODUCTION PHASE ON 12/31/2013			
	STATES	ONSHORE/ OFFSHORE	FIELDS	CONCESSIONARIES (%)
Alagoas	Alagoas	Onshore	Cidade de São Miguel dos Campos	Petrobras ¹ (100)
	Alagoas	Onshore	Cidade de Sebastião Ferreira	Petrosynergy ¹ (100)
	Alagoas	Onshore	Coqueiro Seco	Petrosynergy ¹ (100)
	Alagoas	Onshore	Fazenda Pau Brasil	Petrosynergy ¹ (100)
	Alagoas	Onshore	Furado	Petrobras ¹ (100)
	Alagoas	Onshore	Japuaçu	Petrobras ¹ (100)
	Alagoas	Onshore	Jequiá	Petrosynergy ¹ (100)
	Alagoas	Onshore	Lagoa Pacas	Petrosynergy ¹ (100)
	Alagoas	Offshore	Paru	Petrobras ¹ (100)
	Alagoas	Onshore	Pilar	Petrobras ¹ (100)
	Alagoas	Onshore	São Miguel dos Campos	Petrobras ¹ (100)
	Alagoas	Onshore	Sul de Coruripe	Petrosynergy ¹ (100)
	Alagoas	Onshore	Tabuleiro dos Martins	Petrosynergy ¹ (100)
	Camamu	Bahia	Onshore	Jiribatuba ²
Bahia		Offshore	Manati	Queiroz Galvão (45) /Petrobras ¹ (35)/Brasoil Manati (10)/Rio das Contas (10)
Bahia		Onshore	Morro do Barro ²	Panergy ¹ (30)/ERG (70)
Campos	Espirito Santo	Offshore	Abalone	Shell Brasil ¹ (50)/ONGC Campos (27)/BC-10 Petróleo Ltda. (23)
	Rio de Janeiro	Offshore	Albacora	Petrobras ¹ (100)
	Rio de Janeiro	Offshore	Albacora Leste	Petrobras ¹ (90)/Repsol Sinopec (10)
	Rio de Janeiro	Offshore	Anequim	Petrobras ¹ (100)
	Espirito Santo	Offshore	Argonauta	Shell Brasil ¹ (50)/ONGC Campos (27)/BC-10 Petróleo Ltda. (23)
Rio de Janeiro	Offshore	Badejo	Petrobras ¹ (100)	

FRAME 1.3. FIELDS IN THE PRODUCTION PHASE ON 12/31/2013 (CONTINUATION)

SEDIMENTARY BASINS	FIELDS IN THE PRODUCTION PHASE ON 12/31/2013			
	STATES	ONSHORE/ OFFSHORE	FIELDS	CONCESSIONARIES (%)
Campos	Rio de Janeiro	Offshore	Bagre	Petrobras ¹ (100)
	Espírito Santo	Offshore	Baleia Azul	Petrobras ¹ (100)
	Espírito Santo	Offshore	Baleia Franca	Petrobras ¹ (100)
	Rio de Janeiro	Offshore	Barracuda	Petrobras ¹ (100)
	Rio de Janeiro	Offshore	Bicudo	Petrobras ¹ (100)
	Rio de Janeiro	Offshore	Bijupirá	Shell ¹ (80)/Petrobras (20)
	Rio de Janeiro	Offshore	Bonito	Petrobras ¹ (100)
	Espírito Santo	Offshore	Cachalote	Petrobras ¹ (100)
	Rio de Janeiro	Offshore	Carapeba	Petrobras ¹ (100)
	Rio de Janeiro	Offshore	Caratinga	Petrobras ¹ (100)
	Rio de Janeiro	Offshore	Cherne	Petrobras ¹ (100)
	Rio de Janeiro	Offshore	Congro	Petrobras ¹ (100)
	Rio de Janeiro	Offshore	Corvina	Petrobras ¹ (100)
	Rio de Janeiro	Offshore	Enchova	Petrobras ¹ (100)
	Rio de Janeiro	Offshore	Enchova Oeste	Petrobras ¹ (100)
	Rio de Janeiro	Offshore	Espadarte	Petrobras ¹ (100)
	Rio de Janeiro	Offshore	Frade	Chevron Frade ¹ (51.74)/Petrobras (30)/Frade Japão (18.26)
	Rio de Janeiro	Offshore	Garoupa	Petrobras ¹ (100)
	Rio de Janeiro	Offshore	Garoupinha	Petrobras ¹ (100)
	Espírito Santo	Offshore	Jubarte	Petrobras ¹ (100)
	Rio de Janeiro	Offshore	Linguado	Petrobras ¹ (100)
	Rio de Janeiro	Offshore	Malhado	Petrobras ¹ (100)
	Rio de Janeiro	Offshore	Marimbá	Petrobras ¹ (100)
	Rio de Janeiro	Offshore	Marlim	Petrobras ¹ (100)
	Rio de Janeiro	Offshore	Marlim Leste	Petrobras ¹ (100)
	Rio de Janeiro	Offshore	Marlim Sul	Petrobras ¹ (100)
	Rio de Janeiro	Offshore	Moréia	Petrobras ¹ (100)
	Rio de Janeiro	Offshore	Namorado	Petrobras ¹ (100)
	Rio de Janeiro	Offshore	Nordeste de Namorado	Petrobras ¹ (100)
	Espírito Santo	Offshore	Ostra	Shell Brasil ¹ (50)/ONGC Campos (27)/BC-10 Petróleo Ltda. (23)
	Rio de Janeiro	Offshore	Pampo	Petrobras ¹ (100)
	Rio de Janeiro	Offshore	Papa-Terra	Petrobras ¹ (62.5)/Chevron Brasil (37.5)
	Rio de Janeiro	Offshore	Parati	Petrobras ¹ (100)
	Rio de Janeiro	Offshore	Pargo	Petrobras ¹ (100)
Rio de Janeiro	Offshore	Peregrino	Statoil Brasil ¹ (60)/Sinochem Petróleo (40)	
Espírito Santo	Offshore	Pirambu	Petrobras ¹ (100)	
Rio de Janeiro	Offshore	Piraúna	Petrobras ¹ (100)	
Rio de Janeiro	Offshore	Polvo	HRT O&G ¹ (60)/Maersk Energia (40)	
Rio de Janeiro	Offshore	Roncador	Petrobras ¹ (100)	
Rio de Janeiro	Offshore	Salema	Shell ¹ (80)/Petrobras (20)	
Rio de Janeiro	Offshore	Trilha	Petrobras ¹ (100)	
Rio de Janeiro	Offshore	Tubarão Azul	OGX ¹ (100)	
Rio de Janeiro	Offshore	Tubarão Martelo	OGX ¹ (100)	
Rio de Janeiro	Offshore	Vermelho	Petrobras ¹ (100)	
Rio de Janeiro	Offshore	Viola	Petrobras ¹ (100)	
Rio de Janeiro	Offshore	Voador	Petrobras ¹ (100)	
Ceará	Ceará	Offshore	Atum	Petrobras ¹ (100)
	Ceará	Offshore	Curimã	Petrobras ¹ (100)
	Ceará	Offshore	Espada	Petrobras ¹ (100)
	Ceará	Offshore	Xaréu	Petrobras ¹ (100)
Espírito Santo	Espírito Santo	Onshore	Barra do Ipiranga	Petrobras ¹ (100)
	Espírito Santo	Onshore	Biguá	Petrobras ¹ (100)
	Espírito Santo	Offshore	Caçãõ ³	Petrobras ¹ (100)
	Espírito Santo	Onshore	Cacimbas	Petrobras ¹ (100)
	Espírito Santo	Offshore	Camarupim	Petrobras ¹ (100)
	Espírito Santo	Offshore	Camarupim Norte	Petrobras ¹ (65)/EP Energy do Brasil (35)
	Espírito Santo	Onshore	Campo Grande	Petrobras ¹ (100)
	Espírito Santo	Offshore	Canapu	Petrobras ¹ (100)
	Espírito Santo	Onshore	Cancã	Petrobras ¹ (100)
	Espírito Santo	Offshore	Cangoá	Petrobras ¹ (100)
	Espírito Santo	Onshore	Córrego Cedro Norte	Petrobras ¹ (100)
	Espírito Santo	Onshore	Córrego Cedro Norte Sul	Petrobras ¹ (100)
	Espírito Santo	Onshore	Córrego das Pedras	Petrobras ¹ (100)
	Espírito Santo	Onshore	Córrego Dourado	Petrobras ¹ (100)
	Espírito Santo	Onshore	Crejoá ²	Central Resources ¹ (100)
	Espírito Santo	Onshore	Fazenda Alegre	Petrobras ¹ (100)
	Espírito Santo	Onshore	Fazenda Cedro	Petrobras ¹ (100)
	Espírito Santo	Onshore	Fazenda Cedro Norte	Petrobras ¹ (100)
	Espírito Santo	Onshore	Fazenda Queimadas	Petrobras ¹ (100)

FRAME 1.3. FIELDS IN THE PRODUCTION PHASE ON 12/31/2013 (CONTINUATION)

SEDIMENTARY BASINS	FIELDS IN THE PRODUCTION PHASE ON 12/31/2013			
	STATES	ONSHORE/ OFFSHORE	FIELDS	CONCESSIONARIES (%)
Espírito Santo	Espírito Santo	Onshore	Fazenda Santa Luzia	Petrobras ¹ (100)
	Espírito Santo	Onshore	Fazenda São Jorge	Petrobras ¹ (100)
	Espírito Santo	Onshore	Fazenda São Rafael	Petrobras ¹ (100)
	Espírito Santo	Onshore	Garça Branca ³	Petrobras ¹ (100)
	Espírito Santo	Offshore	Golfinho	Petrobras ¹ (100)
	Espírito Santo	Onshore	Guriri	Petrobras ¹ (100)
	Espírito Santo	Onshore	Inhambu	Petrobras ¹ (100)
	Espírito Santo	Onshore	Jacutinga	Petrobras ¹ (100)
	Espírito Santo	Onshore	Jacutinga Norte	Petrobras ¹ (100)
	Espírito Santo	Onshore	Lagoa Bonita	Petrobras ¹ (100)
	Espírito Santo	Onshore	Lagoa Parda	Petrobras ¹ (100)
	Espírito Santo	Onshore	Lagoa Parda Norte	Petrobras ¹ (100)
	Espírito Santo	Onshore	Lagoa Parda Sul	Petrobras ¹ (100)
	Espírito Santo	Onshore	Lagoa Piabanha	Petrobras ¹ (100)
	Espírito Santo	Onshore	Lagoa Suruaca	Petrobras ¹ (100)
	Espírito Santo	Onshore	Mariricu	Petrobras ¹ (100)
	Espírito Santo	Onshore	Mariricu Norte	Petrobras ¹ (100)
	Espírito Santo	Onshore	Mariricu Oeste	Petrobras ¹ (100)
	Espírito Santo	Onshore	Mosquito	Petrobras ¹ (100)
	Espírito Santo	Onshore	Mosquito Norte	Petrobras ¹ (100)
	Espírito Santo	Onshore	Nativo Oeste	Petrobras ¹ (100)
	Espírito Santo	Offshore	Peroá	Petrobras ¹ (100)
	Espírito Santo	Onshore	Rio Barra Seca	Petrobras ¹ (100)
	Espírito Santo	Onshore	Rio Doce ³	Petrobras ¹ (100)
	Espírito Santo	Onshore	Rio Ibiribas ³	Petrobras ¹ (100)
	Espírito Santo	Onshore	Rio Ipiranga ²	Cheim ¹ (100)
	Espírito Santo	Onshore	Rio Itaúnas	Petrobras ¹ (100)
	Espírito Santo	Onshore	Rio Itaúnas Leste	Petrobras ¹ (100)
	Espírito Santo	Onshore	Rio Mariricu	Petrobras ¹ (100)
	Espírito Santo	Offshore	Rio Mariricu Sul	Petrobras ¹ (100)
Espírito Santo	Onshore	Rio Preto	Petrobras ¹ (100)	
Espírito Santo	Onshore	Rio Preto Oeste	Petrobras ¹ (100)	
Espírito Santo	Onshore	Rio Preto Sul	Petrobras ¹ (100)	
Espírito Santo	Onshore	Rio São Mateus	Petrobras ¹ (100)	
Espírito Santo	Onshore	Rio São Mateus Oeste	Petrobras ¹ (100)	
Espírito Santo	Onshore	Saira	Petrobras ¹ (100)	
Espírito Santo	Onshore	São Mateus	Petrobras ¹ (100)	
Espírito Santo	Onshore	São Mateus Leste	Petrobras ¹ (100)	
Espírito Santo	Onshore	Seriema	Petrobras ¹ (100)	
Espírito Santo	Onshore	Tabuaiaá	Petrobras ¹ (100)	
Parnaíba	Maranhão	Onshore	Gavião Real	Parnaíba Gás ¹ (70)/Petra Parnaíba (30)
Potiguar	Rio Grande do Norte	Onshore	Acauã	Petrobras ¹ (100)
	Rio Grande do Norte	Offshore	Agulha	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Alto do Rodrigues	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Andorinha	Petrogal Brasil ¹ (50)/Petrobras (50)
	Rio Grande do Norte	Onshore	Angico	Petrobras ¹ (100)
	Rio Grande do Norte	Offshore	Arabaiana	Petrobras ¹ (65)/Energy Pescada (35)
	Rio Grande do Norte	Onshore	Araçari	Petrosynergy ¹ (100)
	Rio Grande do Norte	Offshore	Aratum	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Asa Branca	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Baixa do Algodão	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Baixa do Juazeiro	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Barrinha	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Barrinha Leste	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Barrinha Sudeste	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Benfica	Petrobras ¹ (100)
	Rio Grande do Norte	Offshore	Biquara	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Boa Esperança	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Boa Vista	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Brejinho	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Caboclinho	UTC Óleo e Gás ¹ (50)/Potióleo (50)
	Rio Grande do Norte	Onshore	Cachoeirinha	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Canto do Amaro	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Carcará	Central Resources ¹ (100)
	Rio Grande do Norte	Onshore	Cardeal	Partex Brasil ¹ (50)/Petrobras (50)
	Rio Grande do Norte	Offshore	Chauá ²	Alipetro ¹ (100)
	Rio Grande do Norte	Offshore	Cioba	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Colibri	Partex Brasil ¹ (50)/Petrobras (50)
	Rio Grande do Norte	Onshore	Concriz	UTC Óleo e Gás ¹ (51)/Phoenix Petróleo (39)/Quantra (10)
	Rio Grande do Norte	Offshore	Dentão	Petrobras ¹ (65)/Energy Pescada (35)

FRAME 1.3. FIELDS IN THE PRODUCTION PHASE ON 12/31/2013 (CONTINUATION)

SEDIMENTARY BASINS	FIELDS IN THE PRODUCTION PHASE ON 12/31/2013			
	STATES	ONSHORE/ OFFSHORE	FIELDS	CONCESSIONARIES (%)
Potiguar	Rio Grande do Norte	Onshore	Estreito	Petrobras ¹ (100)
	Ceará	Onshore	Fazenda Belém	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Fazenda Canaan	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Fazenda Curral	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Fazenda Junco	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Fazenda Malaquias	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Fazenda Pocinho	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Galo de Campina	UTC Óleo e Gás ¹ (50)/Potióleo (50)
	Rio Grande do Norte	Onshore	Guamaré	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Guamaré Sudeste	Petrobras ¹ (100)
	Ceará	Onshore	Icapuí	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Iraúna	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Irerê	Petrosynergy ¹ (100)
	Rio Grande do Norte	Onshore	Jaçanã	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Janduí	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	João de Barro	UTC Óleo e Gás ¹ (50)/Aurizônia Petróleo (50)
	Rio Grande do Norte	Onshore	Juazeiro	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Lagoa Aroeira	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Leste de Poço Xavier	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Livramento	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Lorena	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Macau	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Monte Alegre	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Morrinho	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Mossoró	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Noroeste do Morro Rosado	Petrobras ¹ (100)
	Rio Grande do Norte	Offshore	Oeste de Ubarana	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Pajeú	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Pardal	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Patativa	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Paturi	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Pedra Sentada	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Periquito	UTC Óleo e Gás ¹ (38)/Aurizônia Petróleo (37)/Phoenix (25)
	Rio Grande do Norte	Offshore	Pescada	Petrobras ¹ (21)/Unopaso (79)
	Rio Grande do Norte	Onshore	Pintassilgo	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Pitiguari	Petrosynergy ¹ (100)
	Rio Grande do Norte	Onshore	Poço Verde	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Poço Xavier	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Ponta do Mel	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Porto Carão	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Redonda	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Redonda Profundo	Petrobras ¹ (100)
	Rio Grande do Norte	Onshore	Riacho da Forquilha	Petrobras ¹ (100)
Rio Grande do Norte	Onshore	Riacho Velho ²	Genesis 2000 ¹ (100)	
Rio Grande do Norte	Onshore	Rio do Carmo ²	Proen ¹ (100)	
Rio Grande do Norte	Onshore	Rio Mossoró	Petrobras ¹ (100)	
Rio Grande do Norte	Onshore	Rolinha	UTC Óleo e Gás ¹ (50)/Potióleo (50)	
Rio Grande do Norte	Onshore	Sabiá	Petrobras ¹ (100)	
Rio Grande do Norte	Onshore	Sabiá Bico de Osso	Petrobras (70)/Sonangol Starfish ¹ (30)	
Rio Grande do Norte	Onshore	Sabiá da Mata	Petrobras (70)/Sonangol Starfish ¹ (30)	
Rio Grande do Norte	Onshore	Salina Cristal	Petrobras ¹ (100)	
Rio Grande do Norte	Onshore	Sanhaçu	Petrogal Brasil (50)/Petrobras ¹ (50)	
Rio Grande do Norte	Onshore	São Manoel ²	Arclima ¹ (100)	
Rio Grande do Norte	Offshore	Serra	Petrobras ¹ (100)	
Rio Grande do Norte	Onshore	Serra do Mel	Petrobras ¹ (100)	
Rio Grande do Norte	Onshore	Serra Vermelha	Petrobras ¹ (100)	
Rio Grande do Norte	Onshore	Serraria	Petrobras ¹ (100)	
Rio Grande do Norte	Onshore	Tiziu	Petrobras ¹ (100)	
Rio Grande do Norte	Onshore	Três Marias	Petrobras ¹ (100)	
Rio Grande do Norte	Onshore	Trinca Ferro	Petrobras ¹ (100)	
Rio Grande do Norte	Offshore	Ubarana	Petrobras ¹ (100)	
Rio Grande do Norte	Onshore	Upanema	Petrobras ¹ (100)	
Rio Grande do Norte	Onshore	Varginha	Petrobras ¹ (100)	
Recôncavo	Bahia	Onshore	Acajá-Burizinho	Recôncavo E&P ¹ (100)
	Bahia	Onshore	Água Grande	Petrobras ¹ (100)
	Bahia	Onshore	Apraiús	Petrobras ¹ (100)
	Bahia	Onshore	Araçás	Petrobras ¹ (100)
	Bahia	Onshore	Araçás Leste ²	Egesa ¹ (100)
Bahia	Onshore	Aratu	Petrobras ¹ (100)	

FRAME 1.3. FIELDS IN THE PRODUCTION PHASE ON 12/31/2013 (CONTINUATION)

SEDIMENTARY BASINS	FIELDS IN THE PRODUCTION PHASE ON 12/31/2013			
	STATES	ONSHORE/OFFSHORE	FIELDS	CONCESSIONARIES (%)
Recôncavo	Bahia	Onshore	Biriba	Petrobras ¹ (100)
	Bahia	Onshore	Bom Lugar ²	Alvorada ¹ (100)
	Bahia	Onshore	Bonsucesso	Petrobras ¹ (100)
	Bahia	Onshore	Brejinho	Petrobras ¹ (100)
	Bahia	Onshore	Buracica	Petrobras ¹ (100)
	Bahia	Onshore	Cambacica	Petrobras (75)/Sonangol Starfish ¹ (25)
	Bahia	Onshore	Canabrava	Petrobras ¹ (100)
	Bahia	Onshore	Canário	Petrosynergy ¹ (100)
	Bahia	Onshore	Candeias	Petrobras ¹ (100)
	Bahia	Onshore	Cantagalo	Petrobras ¹ (100)
	Bahia	Onshore	Cassarongongo	Petrobras ¹ (100)
	Bahia	Onshore	Cexis	Petrobras ¹ (100)
	Bahia	Onshore	Cidade de Entre Rios	Petrobras ¹ (100)
	Bahia	Onshore	Dom João	Petrobras ¹ (100)
	Bahia	Offshore	Dom João Mar	Petrobras ¹ (100)
	Bahia	Onshore	Fazenda Alto das Pedras	Petrobras ¹ (100)
	Bahia	Onshore	Fazenda Alvorada	Petrobras ¹ (100)
	Bahia	Onshore	Fazenda Azevedo	Petrobras ¹ (100)
	Bahia	Onshore	Fazenda Bálsamo	Petrobras ¹ (100)
	Bahia	Onshore	Fazenda Belém	Petrobras ¹ (100)
	Bahia	Onshore	Fazenda Boa Esperança	Petrobras ¹ (100)
	Bahia	Onshore	Fazenda Imbé	Petrobras ¹ (100)
	Bahia	Onshore	Fazenda Onça	Petrobras ¹ (100)
	Bahia	Onshore	Fazenda Panelas	Petrobras ¹ (100)
	Bahia	Onshore	Fazenda Rio Branco	Nova Petróleo Rec ¹ (100)
	Bahia	Onshore	Fazenda Santo Estevão	Nova Petróleo Rec ¹ (100)
	Bahia	Onshore	Fazenda Sori ³	Petrobras ¹ (100)
	Bahia	Onshore	Gomo	Petrobras ¹ (100)
	Bahia	Onshore	Guanambi	Petrobras ¹ (80)/Sonangol Guanambi (20)
	Bahia	Onshore	Ilha de Bimbarra	Petrobras ¹ (100)
	Bahia	Onshore	Itaparica	Petrobras ¹ (100)
	Bahia	Onshore	Jacupé	Petrobras ¹ (100)
	Bahia	Onshore	Jandaia	Petrobras ¹ (100)
	Bahia	Onshore	Juriti	Recôncavo E&P ¹ (100)
	Bahia	Onshore	Lagoa do Paulo	Recôncavo E&P ¹ (100)
	Bahia	Onshore	Lagoa do Paulo Norte	Recôncavo E&P ¹ (100)
	Bahia	Onshore	Lagoa do Paulo Sul	Recôncavo E&P ¹ (100)
	Bahia	Onshore	Lagoa Verde ³	Petrobras ¹ (100)
	Bahia	Onshore	Lamarão	Petrobras ¹ (100)
	Bahia	Onshore	Leodório	Petrobras ¹ (100)
	Bahia	Onshore	Malombê	Petrobras ¹ (100)
	Bahia	Onshore	Mandacaru	Petrobras ¹ (100)
	Bahia	Onshore	Mapele	Petrobras ¹ (100)
	Bahia	Onshore	Massapê	Petrobras ¹ (100)
	Bahia	Onshore	Massuí	Petrobras ¹ (100)
	Bahia	Onshore	Mata de São João	Petrobras ¹ (100)
	Bahia	Onshore	Miranga	Petrobras ¹ (100)
	Bahia	Onshore	Miranga Norte	Petrobras ¹ (100)
	Bahia	Onshore	Norte Fazenda Caruaçu	Petrobras ¹ (100)
	Bahia	Onshore	Paramirim do Vencimento ³	Petrobras ¹ (100)
	Bahia	Onshore	Pedrinhas	Petrobras ¹ (100)
	Bahia	Onshore	Pojuca	Petrobras ¹ (100)
	Bahia	Onshore	Pojuca Norte	Petrobras ¹ (100)
	Bahia	Onshore	Remanso	Petrobras ¹ (100)
	Bahia	Onshore	Riacho da Barra	Petrobras ¹ (100)
	Bahia	Onshore	Riacho Ouricuri	Petrobras ¹ (100)
	Bahia	Onshore	Riacho São Pedro	Petrobras ¹ (100)
	Bahia	Onshore	Rio da Serra	Petrobras ¹ (100)
	Bahia	Onshore	Rio do Bu	Petrobras ¹ (100)
	Bahia	Onshore	Rio dos Ovos	Petrobras ¹ (100)
	Bahia	Onshore	Rio Itariri	Petrobras ¹ (100)
	Bahia	Onshore	Rio Joanes	Petrobras ¹ (100)
	Bahia	Onshore	Rio Pipiri	Petrobras ¹ (100)
	Bahia	Onshore	Rio Pojuca	Petrobras ¹ (100)
	Bahia	Onshore	Rio Sauípe	Petrobras ¹ (100)
	Bahia	Onshore	Rio Subaúma	Petrobras ¹ (100)
	Bahia	Onshore	Santana	Santana ¹ (100)
	Bahia	Onshore	São Domingos	Petrobras ¹ (100)
	Bahia	Onshore	São Pedro	Petrobras ¹ (100)
	Bahia	Onshore	Sauípe	Nova Petróleo Rec ¹ (100)

FRAME 1.3. FIELDS IN THE PRODUCTION PHASE ON 12/31/2013 (CONCLUSION)

SEDIMENTARY BASINS	FIELDS IN THE PRODUCTION PHASE ON 12/31/2013			
	STATES	ONSHORE/OFFSHORE	FIELDS	CONCESSIONARIES (%)
Recôncavo	Bahia	Onshore	Sesmaria	Petrobras ¹ (100)
	Bahia	Onshore	Socorro	Petrobras ¹ (100)
	Bahia	Onshore	Socorro Extensão	Petrobras ¹ (100)
	Bahia	Onshore	Sussuarana	Petrobras ¹ (100)
	Bahia	Onshore	Tangará	Petrobras ¹ (100)
	Bahia	Onshore	Tapiranga	Petrobras ¹ (100)
	Bahia	Onshore	Taquipe	Petrobras ¹ (100)
	Bahia	Onshore	Tico-Tico	Nova Petróleo Rec ¹ (100)
	Bahia	Onshore	Tiê	Gran Tierra ¹ (100)
	Bahia	Onshore	Trovoada	Petrosynergy ¹ (70)/Silver Marlin (30)
Santos	São Paulo	Offshore	Baúna	Petrobras ¹ (100)
	Paraná	Offshore	Caravela	Petrobras ¹ (100)
	Paraná	Offshore	Coral	Petrobras ¹ (35)/Panoro Energy (35)/BS-3 (15)/Brasoil Coral (15)/
	São Paulo	Offshore	Lagosta	Petrobras ¹ (100)
	Rio de Janeiro	Offshore	Lula	Petrobras ¹ (65)/ BG Brasil (25)/Petrogal (10)
	São Paulo	Offshore	Merluza	Petrobras ¹ (100)
	São Paulo	Offshore	Mexilhão	Petrobras ¹ (100)
	São Paulo	Offshore	Sapinhoá	Petrobras ¹ (45)/BG Brasil (30)/Repsol Sinopec (25)
	Rio de Janeiro	Offshore	Tambaú	Petrobras ¹ (100)
	Rio de Janeiro	Offshore	Uruguá	Petrobras ¹ (100)
Sergipe	Sergipe	Onshore	Aguilhada	Petrobras ¹ (100)
	Sergipe	Onshore	Angelim	Petrobras ¹ (100)
	Sergipe	Onshore	Aracuaã ³	Sonangol Starfish ¹ (30)/Petrobras (70)
	Sergipe	Onshore	Aruari	Petrobras ¹ (100)
	Sergipe	Onshore	Atalaia Sul	Petrobras ¹ (100)
	Sergipe	Onshore	Brejo Grande	Petrobras ¹ (100)
	Sergipe	Offshore	Caioba	Petrobras ¹ (100)
	Sergipe	Offshore	Camorim	Petrobras ¹ (100)
	Sergipe	Onshore	Carapitanga ²	Silver Marlin ¹ (100)
	Sergipe	Onshore	Carmópolis	Petrobras ¹ (100)
	Sergipe	Onshore	Carmópolis Nordeste	Petrobras ¹ (100)
	Sergipe	Onshore	Castanhal	Petrobras ¹ (100)
	Sergipe	Onshore	Cidade de Aracaju ²	Alvorada ¹ (100)
	Sergipe	Offshore	Dourado	Petrobras ¹ (100)
	Sergipe	Onshore	Foz do Vaza-Barris ²	Ral ¹ (100)
	Sergipe	Offshore	Guaricema	Petrobras ¹ (100)
	Sergipe	Onshore	Harpia	Nord ¹ (60)/Mercury (40)
	Sergipe	Onshore	Ilha Pequena	Petrobras ¹ (100)
	Sergipe	Onshore	Mato Grosso	Petrobras ¹ (100)
	Sergipe	Onshore	Mato Grosso Noroeste	Petrobras ¹ (100)
	Sergipe	Onshore	Mato Grosso Norte	Petrobras ¹ (100)
	Sergipe	Onshore	Mato Grosso Sudoeste	Petrobras ¹ (100)
	Sergipe	Onshore	Mato Grosso Sul	Petrobras ¹ (100)
	Sergipe	Offshore	Piranema	Petrobras ¹ (100)
	Sergipe	Offshore	Rabo Branco	Petrobras ¹ (100)
	Sergipe	Onshore	Riachuelo	Petrobras ¹ (100)
	Sergipe	Offshore	Salgo	Petrobras ¹ (100)
Sergipe	Onshore	Siririnho	Petrobras ¹ (100)	
Sergipe	Onshore	Siririnho Sul	Petrobras ¹ (100)	
Sergipe	Offshore	Tartaruga	UP Petróleo Brasil ¹ (30)/Petro Vista (37.5)/Petrobras (25)/TDC (7.5)	
Sergipe	Offshore	Tatui	Petrobras ¹ (100)	
Sergipe	Offshore	Tigre ²	Severo Villares ¹ (100)	
Solimões	Amazonas	Onshore	Carapanaúba	Petrobras ¹ (100)
	Amazonas	Onshore	Capiúba	Petrobras ¹ (100)
	Amazonas	Onshore	Leste de Urucu	Petrobras ¹ (100)
	Amazonas	Onshore	Rio Urucu	Petrobras ¹ (100)
	Amazonas	Onshore	Sudoeste Urucu	Petrobras ¹ (100)
Tucano Sul	Bahia	Onshore	Conceição	Petrobras ¹ (100)
	Bahia	Onshore	Fazenda Matinha	Petrobras ¹ (100)
	Bahia	Onshore	Fazenda Santa Rosa	Petrobras ¹ (100)
	Bahia	Onshore	Quererá	Petrobras ¹ (100)
	Bahia	Onshore	Sempre Viva ²	Orteng ¹ (34)/Delp (33)/Logos Engenharia (33)

SOURCE: ANP/SDP.

¹Operator company. ²Marginal fields. ³Fields to be returned by concessionaire(s).

1.2 Reserves

TABLE 1.1. PROVED OIL RESERVES¹, PER LOCATION (ONSHORE AND OFFSHORE), BY STATE - 2004-2013

STATES	LOCATION	PROVED OIL RESERVES (10 ⁶ BARRELS)										13/12 %
		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
BRAZIL		11,243.3	11,772.6	12,181.6	12,623.8	12,801.4	12,875.7	14,246.3	15,049.9	15,314.2	15,592.7	1.82
Subtotal	Onshore	864.5	882.7	904.9	886.4	895.8	938.6	916.3	915.2	920.4	898.0	-2.43
	Offshore	10,378.8	10,890.0	11,276.8	11,737.5	11,905.6	11,937.1	13,330.0	14,134.7	14,393.9	14,694.7	2.09
Amazonas	Onshore	100.0	91.9	96.7	102.7	107.6	114.0	104.4	102.6	104.8	101.3	-3.39
Maranhão	Onshore	-	-	-	-	-	-	-	-	-	0.1	..
Ceará	Onshore	6.8	6.3	5.5	8.4	10.4	15.3	15.4	14.1	16.6	16.1	-2.99
	Offshore	70.1	71.3	69.5	57.5	58.9	58.9	47.8	49.1	46.3	42.0	-9.13
Rio Grande do Norte	Onshore	250.2	259.4	263.0	264.6	265.1	266.3	254.6	252.1	277.8	247.4	-10.94
	Offshore	67.4	80.7	79.6	98.1	98.1	105.4	120.5	121.0	117.1	119.3	1.86
Alagoas	Onshore	10.9	11.8	11.3	8.7	6.9	5.8	5.2	10.5	6.3	7.0	11.86
	Offshore	1.6	1.2	0.9	0.7	0.6	0.7	0.8	0.7	0.6	1.0	73.82
Sergipe	Onshore	223.3	230.0	226.6	231.8	226.4	242.4	250.7	246.3	240.1	237.4	-1.12
	Offshore	36.1	37.8	38.1	34.6	35.0	26.2	31.6	28.4	32.3	27.3	-15.34
Bahia	Onshore	214.8	228.6	241.1	216.1	228.6	241.9	241.1	255.9	239.9	256.4	6.85
	Offshore	2.3	2.3	3.5	37.8	59.6	69.4	65.8	69.7	69.4	68.0	-1.94
Espírito Santo	Onshore	58.4	54.6	60.7	54.1	50.8	53.0	44.8	33.6	34.9	32.5	-7.03
	Offshore	1,205.6	1,126.1	1,286.5	1,277.1	1,275.5	1,240.8	1,297.8	1,305.5	1,334.3	1,313.0	-1.59
Rio de Janeiro ²	Offshore	8,931.1	9,532.6	9,762.2	10,177.9	10,328.5	10,381.9	11,707.3	12,143.3	12,211.5	12,417.1	1.68
São Paulo	Offshore	39.9	19.2	23.8	27.6	23.9	24.2	26.1	384.4	545.9	670.5	22.82
Paraná ³	Onshore	-	-	-	-	-	0.0	0.0	0.0	-	-	..
	Offshore	14.8	10.7	6.2	21.3	20.7	24.4	27.0	27.3	31.3	31.1	-0.56
Santa Catarina ⁴	Offshore	9.9	8.2	6.6	4.8	4.8	5.3	5.3	5.3	5.3	5.3	0.09

SOURCE: ANP/SDP, as per Ordinance ANP No. 9/2000.

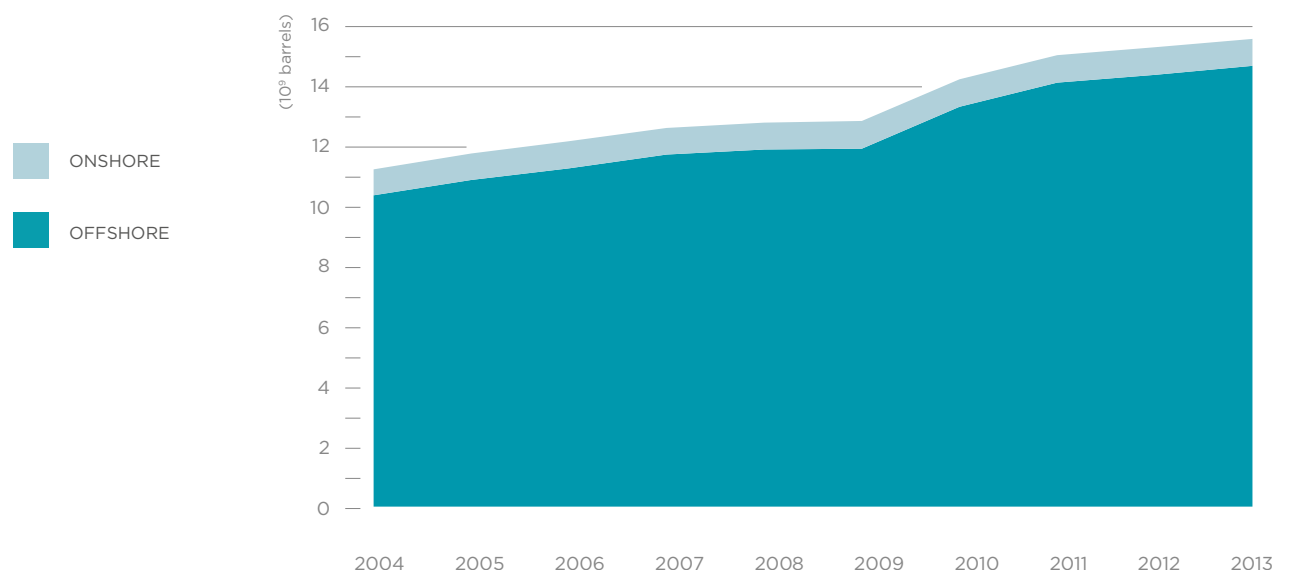
NOTES: 1. Reserves on December 31st of reference years.

2. Condensates included.

3. See item in General Notes on "Brazilian Oil and Natural Gas Reserves".

¹Reserves related to fields whose development plans are still under analysis by ANP included. ²Reserves related to Roncador and Frade fields were totally accounted to the State of Rio de Janeiro by means of simplification. ³Reserves related to Caravela field were totally accounted to the State of Paraná by means of simplification. ⁴Reserves related to Tubarão field are totally accounted to the State of Santa Catarina by means of simplification.

FIGURE 1.1. PROVED OIL RESERVES, BY LOCATION (ONSHORE AND OFFSHORE) - 2004-2013



SOURCE: ANP/SDP (Table 1.1).

NOTES: 1. Reserves on December, 31st of reference years.

2. Condensates included.

3. See General Notes on "Brazilian Oil and Natural Gas Reserves".

TABLE 1.2. PROVED NATURAL GAS RESERVES¹, PER LOCATION (ONSHORE AND OFFSHORE), BY STATE - 2004-2013

STATES	LOCATION	PROVED OIL RESERVES (10 ⁶ M ³)										13/12 %
		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
BRAZIL		326,084	306,395	347,903	364,991	364,236	367,095	423,003	459,403	459,187	458,163	-0.22
Subtotal	Onshore	73,730	71,752	74,522	68,131	66,305	65,489	68,803	70,577	72,375	69,780	-3.59
	Offshore	252,354	234,643	273,381	296,860	297,931	301,606	354,200	388,827	386,812	388,382	0.41
Amazonas	Onshore	49,448	51,465	53,232	52,774	52,143	52,397	55,878	57,455	51,816	50,522	-2.50
Maranhão	Onshore	-	-	-	-	-	-	-	-	7,286	6,990	-4.06
Ceará	Offshore	1,066	995	825	825	1,028	784	652	528	387	458	18.54
Rio Grande do Norte	Onshore	2,870	2,558	2,397	1,942	1,585	1,656	1,418	1,464	2,550	1,714	-32.76
	Offshore	18,337	15,059	14,047	11,755	8,663	8,376	8,676	7,645	7,297	5,614	-23.07
Alagoas	Onshore	3,929	3,525	3,241	3,042	3,058	2,665	2,391	2,515	2,740	2,518	-8.08
	Offshore	1,198	1,084	815	850	730	825	1,085	981	762	656	-13.82
Sergipe	Onshore	829	768	814	761	989	925	1,039	1,433	1,460	1,555	6.47
	Offshore	3,286	2,751	2,978	2,842	2,678	2,523	2,588	2,323	3,422	3,398	-0.70
Bahia	Onshore	15,636	12,379	11,474	8,470	7,447	7,202	7,356	6,844	5,988	5,912	-1.27
	Offshore	9,625	9,388	14,269	26,423	24,671	28,169	26,161	23,708	24,290	20,507	-15.57
Espírito Santo	Onshore	1,018	1,057	3,364	1,140	940	640	587	717	535	568	6.17
	Offshore	21,286	31,271	37,385	37,594	38,004	47,058	44,025	43,631	42,590	42,863	0.64
Rio de Janeiro ²	Offshore	119,049	145,378	164,503	167,917	173,142	166,770	220,506	249,984	246,438	257,192	4.36
São Paulo	Offshore	78,471	28,696	38,543	47,881	48,340	46,189	49,373	58,882	60,336	56,406	-6.51
Paraná ³	Onshore	-	-	-	1	142	4	134	149	-	-	..
	Offshore	26	15	9	568	468	684	904	913	1,062	1,058	-0.39
Santa Catarina ⁴	Offshore	11	7	7	206	205	230	230	230	230	230	0.09

SOURCE: ANP/SDP, as per Ordinance ANP No. 9/2000.

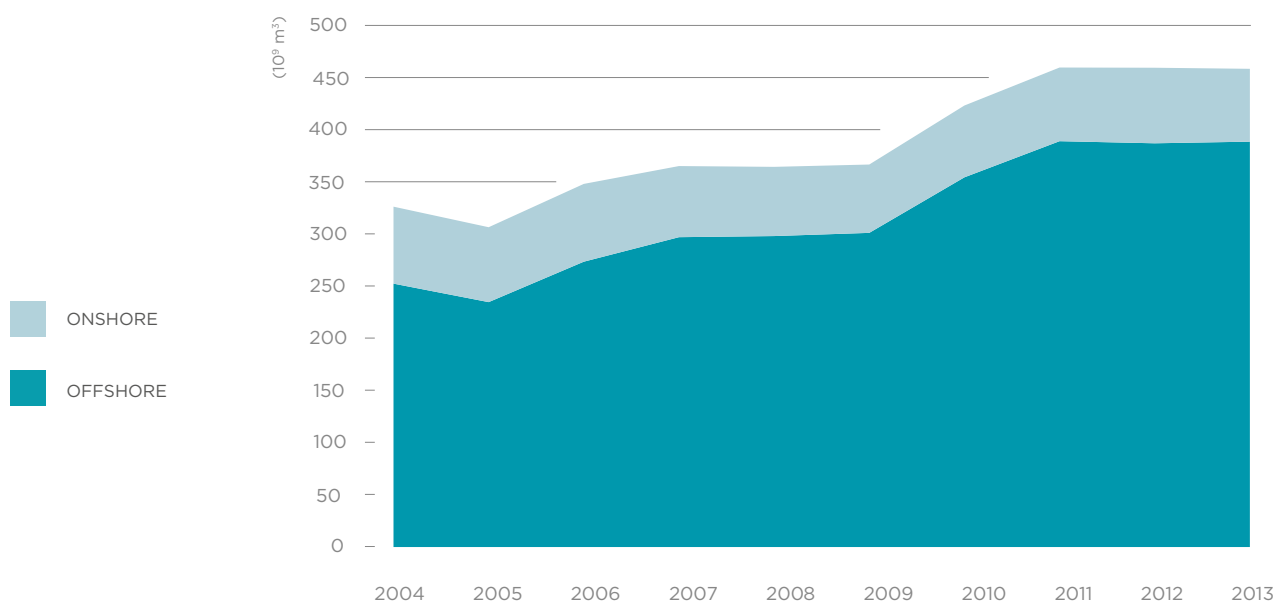
NOTES: 1. Reserves on December, 31st of reference years.

2. Condensates included.

3. See item in General Notes on "Brazilian Oil and Natural Gas Reserves".

¹Reserves related to fields whose development plans are still under analysis by ANP included. ²Reserves related to Roncador and Frade fields were totally accounted to the State of Rio de Janeiro by means of simplification. ³Reserves related to Caravela field were totally accounted to the State of Paraná by means of simplification. ⁴Reserves related to Tubarão field are totally accounted to the State of Santa Catarina by means of simplification.

FIGURE 1.2. PROVED NATURAL GAS RESERVES, BY LOCATION (ONSHORE AND OFFSHORE) - 2004-2013



SOURCE: ANP/SDP (Table 1.2).

NOTES: 1. Reserves on December, 31st of reference years.

2. See General Notes item on "Brazilian Oil and Natural Gas Reserves".

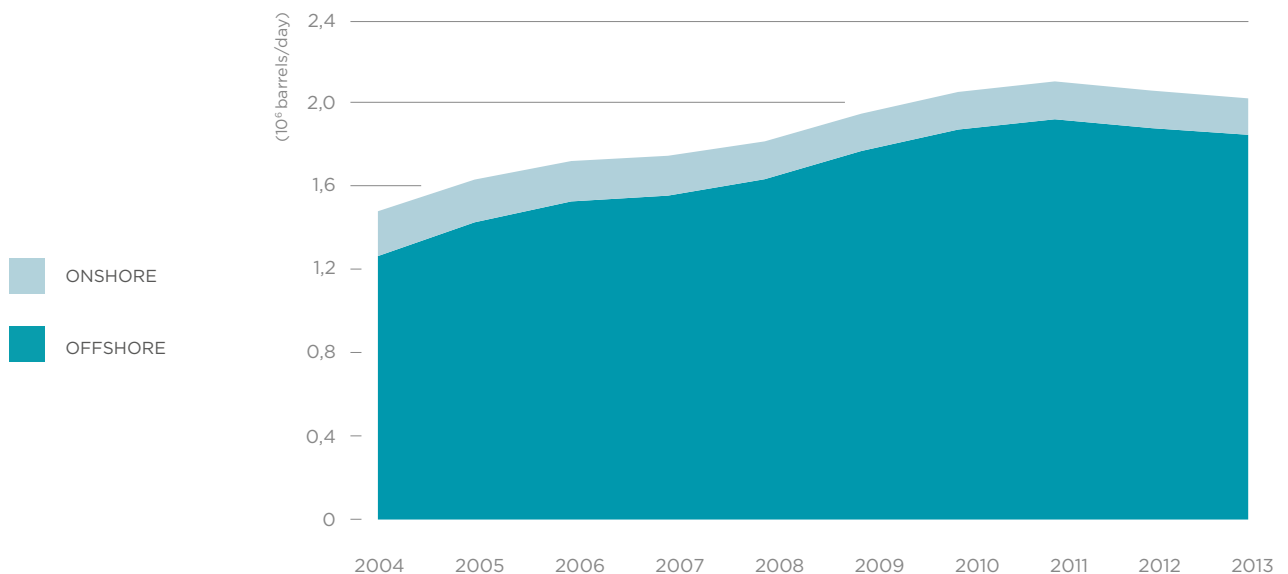
1.3 Production

TABLE 1.3. OIL PRODUCTION, PER LOCATION (ONSHORE AND OFFSHORE), BY STATE - 2004-2013

STATES	LOCATION	OIL PRODUCTION (10 ³ BARRELS)										13/12 %
		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
BRAZIL		540,717	596,255	628,797	638,018	663,275	711,883	749,954	768,471	754,409	738,715	-2.08
Subtotal	Onshore	78,632	74,962	70,841	69,893	66,337	65,465	65,973	66,441	66,046	63,893	-3.26
	Offshore	462,085	521,292	557,957	568,126	596,938	646,418	683,981	702,029	688,363	674,822	-1.97
Subtotal	Pre-salt area	-	-	-	-	2,558	6,756	16,317	44,394	62,488	110,538	76.90
	Post-salt area	540,717	596,255	628,797	638,018	660,717	705,126	733,637	724,077	691,921	628,176	-9.21
Amazonas	Onshore	15,541	14,376	13,062	12,276	11,657	12,351	13,030	12,683	12,283	11,270	-8.24
Maranhão	Onshore	-	-	-	-	-	-	-	-	-	29	..
Ceará	Onshore	806	593	559	668	699	761	674	567	457	413	-9.59
	Offshore	4,176	3,796	3,250	3,098	2,788	2,539	2,261	2,051	1,919	2,633	37.24
Rio Grande do Norte	Onshore	24,774	23,031	20,435	19,676	19,208	18,295	17,868	18,595	18,966	19,116	0.79
	Offshore	4,319	4,153	3,731	3,141	3,124	3,012	2,914	2,808	2,785	2,708	-2.75
Alagoas	Onshore	2,477	2,572	2,935	2,897	2,139	2,246	2,030	1,896	1,647	1,310	-20.43
	Offshore	196	186	162	126	109	96	85	108	81	131	60.82
Sergipe	Onshore	11,433	11,909	12,044	12,889	12,371	12,583	12,020	11,745	11,547	10,627	-7.97
	Offshore	2,530	2,307	2,300	2,404	4,823	3,515	3,063	3,586	3,200	3,620	13.11
Bahia	Onshore	16,324	16,144	15,703	15,525	15,156	14,642	15,551	15,776	15,712	15,777	0.41
	Offshore	-	-	-	134	284	338	343	247	307	385	25.16
Espírito Santo	Onshore	7,278	6,338	6,103	5,963	5,108	4,587	4,801	5,179	5,435	5,350	-1.57
	Offshore	4,407	5,945	16,759	36,197	37,133	31,371	75,232	110,689	107,666	108,034	0.34
Rio de Janeiro	Offshore	443,156	501,772	529,627	520,922	547,348	605,213	594,804	568,557	561,482	532,037	-5.24
São Paulo	Offshore	509	514	457	724	302	333	5,278	13,984	10,921	25,274	131.42
Paraná	Offshore	2,793	2,619	1,670	1,380	1,029	-	-	-	-	-	..

SOURCE: ANP/SDP, as per Decree No. 2.705/1998.
NOTE: Condensates included.

FIGURE 1.3. OIL PRODUCTION, BY LOCATION (ONSHORE AND OFFSHORE) - 2004-2013



SOURCE: ANP/SDP (Table 1.3).
NOTE: Condensate included.

TABLE 1.4. NGL PRODUCTION, BY STATE - 2004-2013

STATES	NGL PRODUCTION (10 ³ BARRELS)										13/12 %
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
BRAZIL	22,457	28,943	31,532	30,903	31,628	28,717	30,204	31,942	32,131	32,938	2.51
Amazonas	5,573	6,245	6,405	6,894	6,983	6,759	6,173	6,560	6,613	5,836	-11.75
Ceará	194	170	144	87	90	68	66	22	28	68	140.80
Rio Grande do Norte	2,977	2,946	2,785	2,763	2,442	2,063	1,877	1,613	1,524	1,470	-3.54
Alagoas	795	857	768	682	612	598	587	548	568	510	-10.19
Sergipe	1,841	1,855	1,777	1,726	1,635	1,522	1,428	1,177	1,042	1,149	10.29
Bahia	2,595	2,670	2,682	2,276	2,199	2,037	1,957	1,616	1,506	1,542	2.38
Espírito Santo	87	87	59	71	253	185	708	1,788	2,094	4,654	122.25
Rio de Janeiro	8,396	14,113	16,912	16,403	17,412	15,485	17,409	18,412	17,699	16,514	-6.70
São Paulo	-	-	-	-	-	-	-	205	1,057	1,195	13.14

SOURCE: ANP/SDP, as per Decree No. 2.705/1998.

NOTE: Condensates not included. LPG and C₅⁺ included, as per Ordinance ANP No. 9/2000.

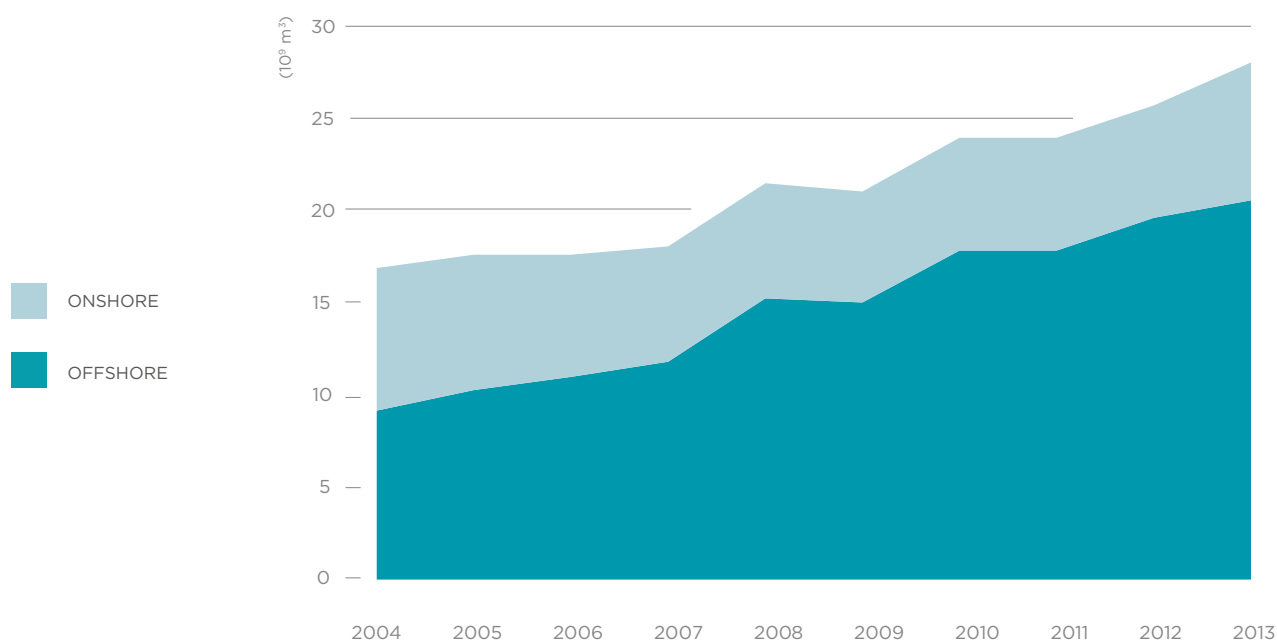
TABLE 1.5. NATURAL GAS PRODUCTION, PER LOCATION (ONSHORE AND OFFSHORE), BY STATE - 2004-2013

STATES	LOCATION	NATURAL GAS PRODUCTION (10 ⁶ M ³)										13/12 %
		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
BRAZIL		16,971.2	17,699.2	17,699.2	18,151.7	21,592.7	21,141.5	22,938.4	24,073.7	25,832.2	28,174.2	9.07
Subtotal	Onshore	7,765.5	7,375.3	6,656.9	6,282.9	6,273.1	6,045.2	6,024.0	6,147.7	6,122.9	7,512.0	22.69
	Offshore	9,205.7	10,323.9	11,042.3	11,868.7	15,319.6	15,096.3	16,914.4	17,926.0	19,709.3	20,662.2	4.83
Subtotal	Pre-salt area	-	-	-	-	117.7	266.7	648.5	1,387.7	2,078.0	3,710.1	78.54
	Post-salt area	16,971	17,699	17,699	18,152	21,475	20,875	22,290	22,686	23,754	24,464	2.99
Amazonas	Onshore	3,620.8	3,567.2	3,376.3	3,546.1	3,732.6	3,780.2	3,857.9	4,161.2	4,188.3	4,150.3	-0.91
Maranhão	Onshore	-	-	-	-	-	-	-	-	0.4	1,419.7	372,433.73
Ceará	Onshore	0.6	0.5	0.5	0.6	0.6	0.6	0.5	0.5	0.4	0.3	-9.56
	Offshore	125.4	110.6	98.9	77.4	65.8	55.5	42.1	30.7	27.2	33.1	21.89
Rio Grande do Norte	Onshore	333.5	296.0	266.1	313.9	317.8	273.0	269.5	272.1	258.1	277.5	7.50
	Offshore	1,032.1	1,020.5	914.5	765.0	609.8	488.1	419.4	362.4	305.1	268.4	-12.03
Alagoas	Onshore	1,042.2	999.5	878.6	765.4	685.7	618.0	564.5	462.7	508.5	499.5	-1.77
	Offshore	144.9	169.1	144.1	141.0	128.2	124.4	108.2	100.4	53.2	86.8	63.32
Sergipe	Onshore	76.3	79.0	84.2	93.2	91.2	92.5	94.7	101.9	102.8	93.0	-9.55
	Offshore	601.2	538.7	525.2	453.9	766.5	863.6	1,007.1	999.2	927.0	963.7	3.96
Bahia	Onshore	2,218.4	1,959.1	1,878.1	1,480.0	1,285.4	1,172.3	1,138.3	1,057.5	970.8	989.9	1.96
	Offshore	38.2	25.2	16.3	1,166.3	2,079.5	1,881.1	2,261.1	1,500.2	2,245.9	2,183.0	-2.80
Espírito Santo	Onshore	473.7	474.0	173.1	83.7	159.7	108.5	98.7	91.8	93.6	81.8	-12.58
	Offshore	36.1	45.1	736.6	881.7	2,642.4	967.9	2,602.4	4,240.3	3,814.3	4,333.5	13.61
Rio de Janeiro	Offshore	6,779.1	7,967.2	8,210.8	8,025.1	8,763.3	10,497.2	10,132.2	9,386.9	10,344.4	10,005.8	-3.27
São Paulo	Offshore	383.4	379.7	357.0	324.1	242.1	218.4	342.0	1,305.8	1,992.1	2,787.8	39.94
Paraná	Offshore	65.2	67.7	39.0	34.3	21.9	-	-	-	-	-	..

SOURCE: ANP/SDP, as per Decree No. 2.705/1998.

NOTE: Total production volume includes reinjection, flared gas, losses, own consumption, as well as condensed gas in LNG form.

FIGURE 1.4. NATURAL GAS PRODUCTION, BY LOCATION (ONSHORE AND OFFSHORE) - 2004-2013



SOURCE: ANP/SDP (Table 1.5).

NOTE: Total production volume includes reinjection, flared gas, losses, own consumption, as well as condensed gas in LNG form.

TABLE 1.6. PRODUCTION OF ASSOCIATED AND NON-ASSOCIATED NATURAL GAS, BY STATE - 2004-2013

STATES	TYPE	NATURAL GAS PRODUCTION (10 ⁶ M ³)										13/12 %
		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
BRAZIL		16,971	17,699	17,706	18,152	21,593	21,142	22,938	24,072	25,832	28,174	9.07
Subtotal	Associated	12,981	13,778	13,661	13,506	14,519	16,976	17,300	17,650	17,939	18,767	4.62
	Non-associated	3,990	3,921	4,045	4,645	7,074	4,165	5,638	6,422	7,893	9,407	19.18
Amazonas	Associated	3,562	3,533	3,367	3,523	3,699	3,723	3,809	4,130	4,107	4,052	-1.35
	Non-associated	59	34	9	23	34	57	49	31	81	99	21.70
Maranhão	Non-associated	-	-	-	-	-	-	-	-	0.4	1,419.7	372,433.44
Ceará	Associated	126	111	99	78	66	56	43	31	28	33	21.48
Rio Grande do Norte	Associated	740	769	716	590	541	518	491	460	433	418	-3.46
	Non-associated	625	548	465	489	386	243	198	175	131	128	-1.80
Alagoas	Associated	409	369	249	219	218	319	231	204	170	136	-19.90
	Non-associated	778	800	773	688	596	423	442	357	392	450	14.94
Sergipe	Associated	420	304	300	292	590	819	952	964	908	946	4.22
	Non-associated	257	313	309	255	268	137	150	137	122	111	-9.39
Bahia	Associated	826	642	476	478	495	630	594	555	537	541	0.87
	Non-associated	1,430	1,343	1,419	2,168	2,870	2,423	2,806	2,002	2,680	2,632	-1.81
Espírito Santo	Associated	107	116	472	603	437	432	1,024	1,962	1,820	2,612	43.57
	Non-associated	403	403	437	363	2,365	644	1,677	2,370	2,088	1,803	-13.67
Rio de Janeiro	Associated	6,725	7,867	7,943	7,689	8,450	10,479	10,121	9,180	9,852	9,556	-3.00
	Non-associated	54	100	274	336	313	19	11	207	493	450	-8.71
São Paulo	Associated	-	-	-	-	-	-	37	163	86	473	450.39
	Non-associated	383	380	357	324	242	218	305	1,142	1,906	2,315	21.45
Paraná	Associated	65	68	39	34	22	-	-	-	-	-	..

SOURCE: ANP/SDP, as per Decree No. 2.705/1998.

NOTE: Total production volume includes reinjection, flared gas, losses, own consumption, as well as condensed gas in LNG form.

REFINING AND PROCESSING

1.4 Oil Refining

TABLE 1.7. REFINING CAPACITY, BY REFINERY - 2004-2013

REFINERY (STATES)	REFINING CAPACITY (BARREL/DAY)									
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
TOTAL¹	2,027,072	2,044,054	2,044,054	2,063,552	2,076,604	2,092,643	2,092,643	2,115,859	2,105,795	2,203,287
Riograndense (RS)	16,983	16,983	16,983	16,983	16,983	16,983	16,983	17,014	17,014	17,014
Lubnor (CE)	6,290	6,919	6,919	6,919	8,177	8,177	8,177	8,177	8,177	8,177
Manguinhos (RJ)	13,838	13,838	13,838	13,838	13,838	13,838	13,838	13,838	13,838	13,838
Recap (SP)	53,463	53,463	53,463	53,463	53,463	53,463	53,463	53,463	53,463	53,463
Reduc (RJ)	242,158	242,158	242,158	242,158	242,158	242,158	242,158	242,158	242,158	242,158
Refap (RS)	188,695	188,695	188,695	188,695	188,695	188,695	188,695	201,274	201,274	201,274
Regap (MG)	150,956	150,956	150,956	150,956	150,956	150,956	150,956	150,956	150,956	150,956
Reman (AM)	45,916	45,916	45,916	45,916	45,916	45,916	45,916	45,916	45,916	45,916
Repar (PR)	188,695	188,695	188,695	201,274	220,144	220,144	220,144	220,144	207,564	207,564
Replan (SP)	364,810	364,810	364,810	364,810	383,679	415,128	415,128	415,128	415,128	415,128
Revap (SP)	251,593	251,593	251,593	251,593	251,593	251,593	251,593	251,593	251,593	251,593
RLAM (BA) ²	322,982	322,982	322,982	322,982	295,307	279,897	279,897	279,897	279,897	377,389
RPBC (SP)	169,825	169,825	169,825	169,825	169,825	169,825	169,825	169,825	169,825	169,825
RPCC (RN)	10,869	27,222	27,222	27,222	27,222	27,222	27,222	35,223	37,739	37,739
Univen (SP)	-	-	-	6,919	6,919	6,919	6,919	9,158	9,158	9,158
Dax Oil (BA)	-	-	-	-	1,730	1,730	1,730	2,095	2,095	2,095
TOTAL³ (BARRIL/DAY-CALENDAR)	1,925,718	1,941,851	1,941,851	1,960,375	1,972,774	1,988,011	1,988,011	2,010,066	2,000,505	2,093,123
UTILIZATION FACTOR⁴ (%)	90.0	89.6	90.3	91.1	89.9	91.1	91.2	92.8	96.3	98.2

SOURCE: ANP/SRP, as per Ordinances ANP No. 16/2010 and 17/2010.

¹Nominal capacity in m³/day. ²RLAM has an asphalt production plant with 600 m³/day capacity. ³Calendar-day refining a 95% mean utilization factor.

⁴Refining utilization factor, considering the volume of processed oil within a year.

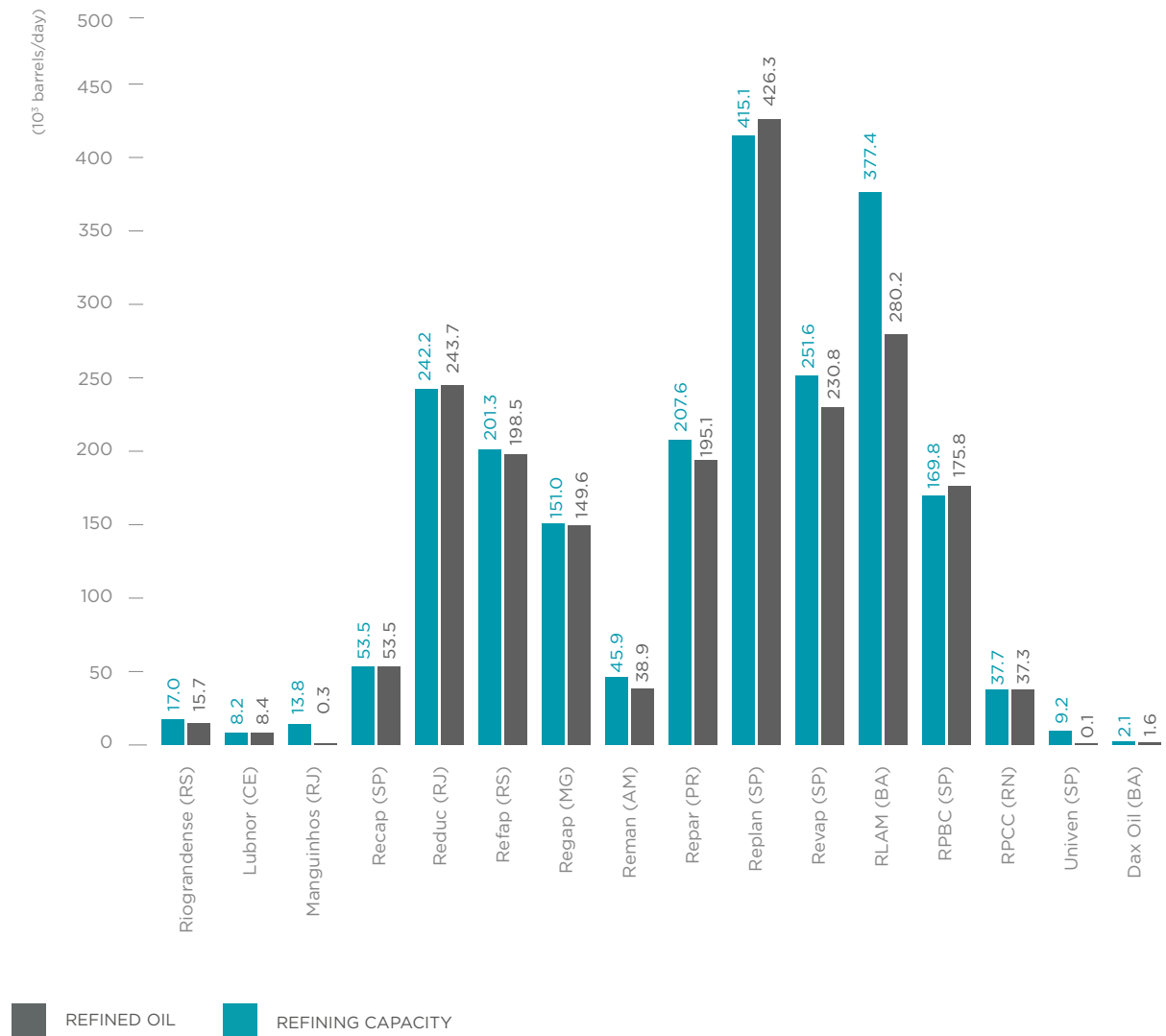
TABLE 1.8. VOLUME OF PROCESSED OIL, PER ORIGIN (DOMESTIC AND IMPORTED), BY REFINERY - 2013

REFINERY (STATES)	VOLUME OF PROCESSED OIL (BARRIL/DAY)			
	TOTAL	OIL		OTHER LOADS ³
		DOMESTIC ¹	IMPORTED ²	
TOTAL	2,055,343	1,647,328	382,754	25,260
Manguinhos (RJ)	277	246	15	16
Riograndense (RS)	15,706	15,264	441	-
Lubnor (CE)	8,412	8,309	-	103
Recap (SP)	53,456	45,138	8,074	244
Reduc (RJ)	243,720	143,237	97,585	2,898
Refap (RS)	198,513	128,858	68,041	1,614
Regap (MG)	149,602	146,595	1,676	1,331
Reman (AM)	38,895	38,279	303	314
Repar (PR)	195,089	154,106	40,324	658
Replan (SP)	426,329	316,517	104,116	5,696
Revap (SP)	230,815	203,006	25,888	1,921
RLAM (BA)	280,192	261,436	9,441	9,316
RPBC (SP)	175,769	148,528	26,364	876
RPCC (RN)	37,272	37,272	-	-
Univen (SP)	64	-	-	64
Dax Oil (BA)	1,233	538	486	209

SOURCES: Manguinhos, Riograndense, Univen, Dax Oil and Petrobras/Abast.

¹Oil and condensates included. ²Oil and condensates included. ³Include oil and oil products residues which are reprocessed in the atmospheric distillation units together with oil and condensate.

FIGURE 1.5. VOLUME OF REFINED OIL AND REFINING CAPACITY, BY REFINERY - 2013



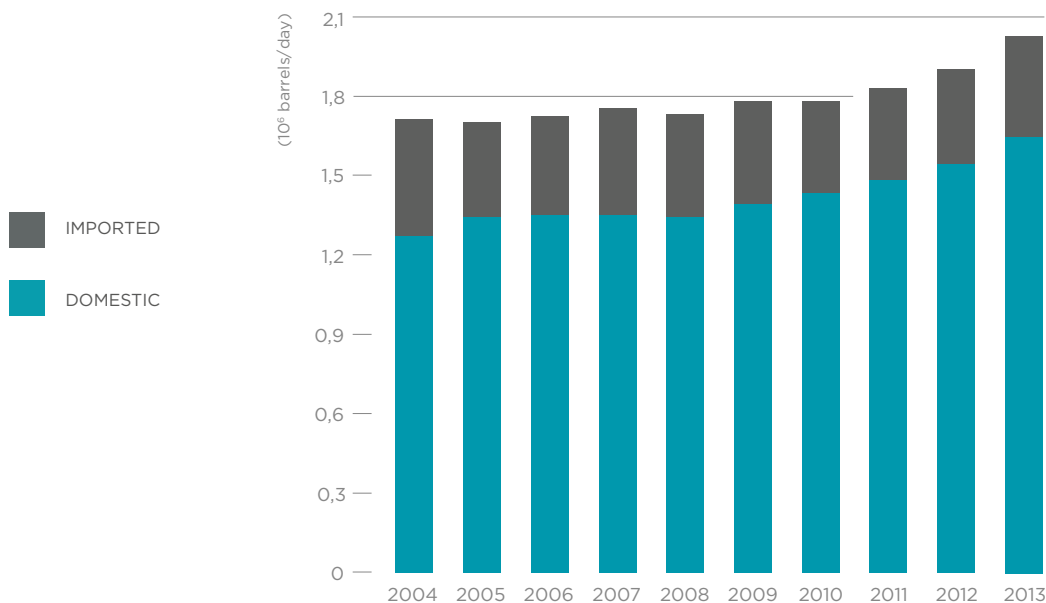
SOURCES: Riograndense, Univen, Manguinhos, Dax Oil and Petrobras/Abast (Tables 1.7 and 1.8).

TABLE 1.9. VOLUME OF PROCESSED OIL¹, PER ORIGIN (DOMESTIC AND IMPORTED), BY COUNTRY - 2004-2013

REGION AND COUNTRY	VOLUME OF PROCESSED OIL (BARRELS/DAY)										13/12 %
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
TOTAL	1,734,095	1,740,720	1,752,692	1,786,809	1,773,469	1,810,386	1,813,257	1,864,502	1,926,718	2,055,343	6.68
Other loads ²	24,603	31,210	38,445	30,574	35,277	34,211	38,507	33,288	30,075	25,260	-16.01
Oil ¹	1,709,492	1,709,510	1,714,247	1,756,235	1,738,193	1,776,175	1,774,749	1,831,214	1,896,643	2,030,082	7.04
Domestic ³	1,272,479	1,344,754	1,348,663	1,352,824	1,343,476	1,388,603	1,427,417	1,476,585	1,537,632	1,647,328	7.13
Imported ³	437,013	364,756	365,584	403,411	394,717	387,572	347,332	354,629	359,011	382,754	6.61
North America	-	-	-	-	-	-	-	5,486	5,276	15	-99.71
United States of America	-	-	-	-	-	-	-	5,486	5,276	15	-99.71
South and Central America	21,159	17,412	8,075	6,893	6,436	9,105	731	5,230	9,320	6,468	-30.60
Argentina	8,985	4,602	875	787	0	8,357	731	2,156	9,320	3,866	-58.53
Bolivia	6,176	8,726	6,678	2,231	2,974	-	-	-	-	-	..
Colombia	1,416	-	-	3,875	3,462	-	-	-	-	2,603	..
Ecuador	4,134	4,085	522	-	-	-	-	-	-	-	..
Peru	-	-	-	-	-	-	-	3,073	-	-	..
Venezuela	449	0	-	-	-	748	-	-	-	-	..
Europe	882	12,484	2,895	1,518	3,675	8,065	3,834	7,185	5,655	23,673	318.63
Norway	118	-	-	-	-	-	93	-	-	-	..
United Kingdom	764	12,484	2,895	1,518	3,675	8,065	3,742	7,185	5,655	23,673	318.63
Former Soviet Union	-	-	2,742	12,380	7	-	2,809	38	-	-	..
Azerbaijan	-	-	2,742	11,306	7	-	-	-	-	-	..
Russia	-	-	-	1,074	-	-	2,809	38	-	-	..
Middle East	97,633	100,756	94,179	89,337	91,153	94,592	93,858	97,226	94,012	100,598	7.01
Saudi Arabia	62,370	64,909	66,626	55,054	58,523	63,488	66,412	72,848	71,027	79,601	12.07
Irak	35,263	35,848	27,553	34,283	32,630	31,104	27,447	24,378	22,985	20,997	-8.65
Africa	315,440	234,102	257,693	293,283	292,957	271,312	244,296	223,536	234,126	241,855	3.30
Angola	-	4,211	20,376	33,213	53,326	4,457	13,090	6,467	1,965	13,815	603.03
Algeria	82,467	98,972	50,583	30,395	36,555	21,003	16,604	5,802	22,681	16,796	-25.95
Cameroon	-	-	-	-	-	-	2,249	-	-	-	..
Congo (Brazzaville)	-	2,768	17,731	11,521	3	-	-	2,552	-	-	..
Gana	152	83	-	-	-	-	-	-	-	-	..
Equatorial Guinea	-	-	-	5,343	9,036	3,816	9,754	6,456	4	-	..
Libya	-	-	7,305	36,152	33,029	36,576	5,958	-	-	1,675	..
Nigeria	232,821	128,069	161,698	176,660	161,008	205,460	196,641	202,259	209,476	209,569	0.04
Asia-Pacific	1,899	-	-	-	489	4,498	1,803	15,928	10,622	10,144	-4.50
Australia	1,899	-	-	-	489	4,498	1,803	15,729	10,072	10,144	0.71
Indonesia	-	-	-	-	-	-	-	199	550	-	..

SOURCES: Manguinhos, Riograndense, Univen, Dax Oil and Petrobras/Abast.

¹Refers to oil feed which is processed in primary distillation units. ²Oil and oil products residuals included, as well as residuals from terminals which are reprocessed together with oil and condensate feeds in atmospheric distillation units. ³Oil and condensates included.

FIGURE 1.6. VOLUME OF PROCESSED OIL, PER ORIGIN (DOMESTIC¹ AND IMPORTED²) - 2004-2013

SOURCES: Riograndense, Univen, Manguinhos, Dax Oil and Petrobras/Abast (Table 1.9).

¹Oil and condensate included. ²Oil and condensate included.

1.5 Production of Oil Products

TABLE 1.10. PRODUCTION OF ENERGY AND NON-ENERGY OIL PRODUCTS - 2004-2013

OIL PRODUCTS	PRODUCTION (M ³)										13/12 %
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
TOTAL	103,262,231	104,484,699	106,357,391	108,536,780	108,185,966	109,796,334	110,450,810	114,421,921	120,203,986	127,299,882	5.90
Energy	88,068,589	88,946,604	89,954,756	91,406,647	91,428,257	92,463,797	93,132,847	97,397,037	102,528,383	110,160,883	7.44
Gasoline A	18,582,826	19,980,836	21,330,106	21,598,969	21,041,901	20,874,989	23,067,253	24,886,352	27,061,075	29,720,707	9.83
Aviation gasoline	79,829	70,199	64,598	62,169	67,966	52,765	90,104	80,166	77,606	93,685	20.72
LPG ¹	9,986,520	10,728,055	10,289,227	10,431,558	10,233,783	10,008,677	9,698,813	9,968,352	10,361,616	10,228,151	-1.29
Fuel oil ^{2,3}	16,500,123	15,075,499	15,128,532	15,389,937	14,704,452	14,053,755	13,895,071	13,208,484	13,691,084	14,761,276	7.82
Diesel oil ³	38,510,683	38,746,959	39,115,648	39,581,215	41,134,038	42,898,667	41,429,263	43,388,313	45,504,004	49,539,186	8.87
Jet fuel	4,143,169	4,154,451	3,825,069	4,103,399	3,873,337	4,380,983	4,664,552	5,395,177	5,422,769	5,554,391	2.43
Lighthning kerosene	114,551	58,091	38,273	27,033	23,158	19,707	25,457	24,096	23,885	15,393	-35.55
Others ⁴	150,888	132,515	163,303	212,367	349,622	174,254	262,334	446,096	386,345	248,094	-35.78
Non-energy	15,193,642	15,538,094	16,402,635	17,130,132	16,757,709	17,332,537	17,317,963	17,024,884	17,675,603	17,138,999	-3.04
Asphalt	1,415,881	1,420,791	1,866,460	1,681,174	2,129,966	2,089,926	2,767,281	2,464,544	2,569,635	2,653,348	3.26
Coke ⁵	1,738,899	2,394,882	2,372,802	2,563,296	2,811,485	3,084,025	3,056,971	3,756,284	4,452,350	4,810,510	8.04
Naphtha ⁶	8,810,610	8,550,037	8,663,731	9,244,639	8,142,804	8,412,608	7,355,761	6,344,074	6,440,115	5,354,014	-16.86
Lubricating oil	759,667	801,741	785,822	645,053	756,200	593,794	603,154	580,691	607,979	689,214	13.36
Paraffin	143,729	140,457	134,417	129,738	130,069	105,596	94,196	100,291	123,445	122,647	-0.65
Solvent	1,085,199	827,306	620,324	581,913	479,331	461,993	508,705	406,708	290,241	454,262	56.51
Others ⁷	1,239,657	1,402,879	1,959,079	2,284,320	2,307,855	2,584,595	2,931,895	3,372,294	3,191,837	3,055,004	-4.29

SOURCES: ANP, as per Ordinance ANP No. 17/2004, and Petrobras/Abast.

NOTES: 1. Refineries, petrochemical plants, NGPPs and other producers production included.

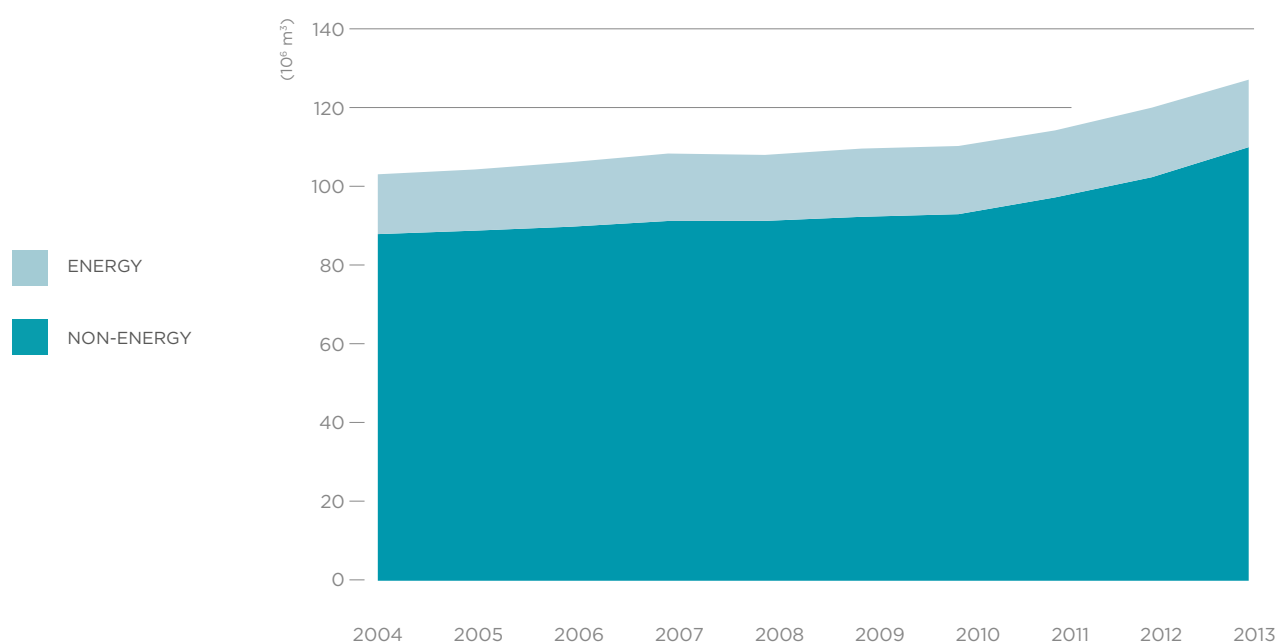
2. Shale plants production, except naphtha, not included.

3. Oil products own consumption of production plants not included.

4. Fuel gas production of refineries not included.

¹Refers to propane/butane mixtures for household and industrial uses. ²Refinery fuel oil not included. ³Components intended to marine diesel oil production in some waterway/marine terminals included. ⁴Light oil for power generation included. ⁵Coke for energy use included. ⁶Naphtha produced from shale processing included. That naphtha is then used as raw material for oil products production at Repar (refinery). ⁷Diluents, non-energy LPG and other non-energy products included.

FIGURE 1.7. PRODUCTION OF ENERGY AND NON-ENERGY OIL PRODUCTS - 2004-2013



SOURCES: ANP, as per Ordinance ANP No. 17/2004, and Petrobras/Abast (Table 1.10).

NOTES: 1. Production of refineries and petrochemical plants included, as well as the ones of NGPPs and other producers.

2. Production of shale processing plants not included.

3. Own consumption of producing plants not included.

4. Fuel gas from refineries and shale producing plants not included.

1.6 Natural Gas Processing

TABLE 1.11. NATURAL GAS PROCESSING CAPACITY, BY PRODUCING POLES, ON DECEMBER 31ST, 2013

PRODUCING POLES	LOCATION (STATE)	START UP	NOMINAL CAPACITY
			10 ³ M ³ /DAY
TOTAL			92,396.0
Urucu	Coari (AM)	1993	9,706.0
Lubnor	Fortaleza (CE)	1987	350.0
Guamaré	Guamaré (RN)	1985	5,700.0
Alagoas	Pilar (AL)	2003	1,800.0
Atalaia	Aracaju (SE)	1981	2,900.0
Candeias	Candeias (BA)	1972	2,900.0
Santiago	Pojuca (BA)	1962	4,400.0
Estação Vandemir Ferreira	São Francisco do Conde (BA)	2007	6,000.0
Cacimbas	Linhares (ES)	2008	16,000.0
Sul Capixaba	Anchieta (ES)	2010	2,500.0
Reduc	Duque de Caxias (RJ)	1983	4,500.0
Cabiúnas	Macaé (RJ)	1987	17,240.0
RPBC	Cubatão (SP)	1993	2,300.0
Caraguatatuba	Caraguatatuba (SP)	2011	14,000.0
Araucária	Araucária (PR)	2002	2,100.0

SOURCE: ANP/SRP, as per Ordinances ANP No. 16/2010 and 17/2010.

TABLE 1.12. VOLUME OF PROCESSED NATURAL GAS AND DRY NATURAL GAS, LPG, C₅⁺, ETHANE AND PROPANE PROCESSING PLANTS- 2013

NGPPS (STATE)	VOLUME OF PROCESSED NATURAL GAS AND PRODUCTION OF DRY NATURAL GAS, LPG, C ₅ ⁺ , ETHANE AND PROPANE					
	PROCESSED NATURAL GAS (10 ³ M ³) ¹	LPG (M ³) ²	C ₅ ⁺ (M ³) ²	ETHANE (10 ³ M ³) ¹	PROPANE (M ³) ²	DRY NATURAL GAS (10 ³ M ³) ¹
TOTAL	18,638,202	2,566,795	1,040,231	252,131	810,485	17,323,331
Atalaia (SE) ³	746,386	138,190	44,581	-	-	702,367
Bahia (BA) ⁴	1,477,812	188,387	50,323	-	-	1,364,797
Cabiúnas (RJ) ⁵	4,353,130	519,005	268,744	252,131	781,258	3,775,687
Cacimbas (ES) ⁶	3,214,415	553,293	165,911	-	-	3,072,656
Guamaré (RN) ⁷	740,244	186,598	46,718	-	357	682,058
Lubnor (CE)	29,862	9,663	1,819	-	-	27,058
Alagoas (AL)	501,183	59,625	21,493	-	-	481,550
Reduc (RJ) ⁸	57,972	31,066	9,975	-	28,572	9,467
RPBC (SP) ⁹	464,718	-	-	-	-	448,241
Sul Capixaba (ES) ¹⁰	413,256	-	20,816	-	-	409,430
Urucu (AM) ¹¹	3,614,905	803,798	123,740	-	297	3,358,674
Caraguatatuba (SP) ¹²	3,024,320	77,171	286,112	-	-	2,991,346

SOURCE: Petrobras/Abast.

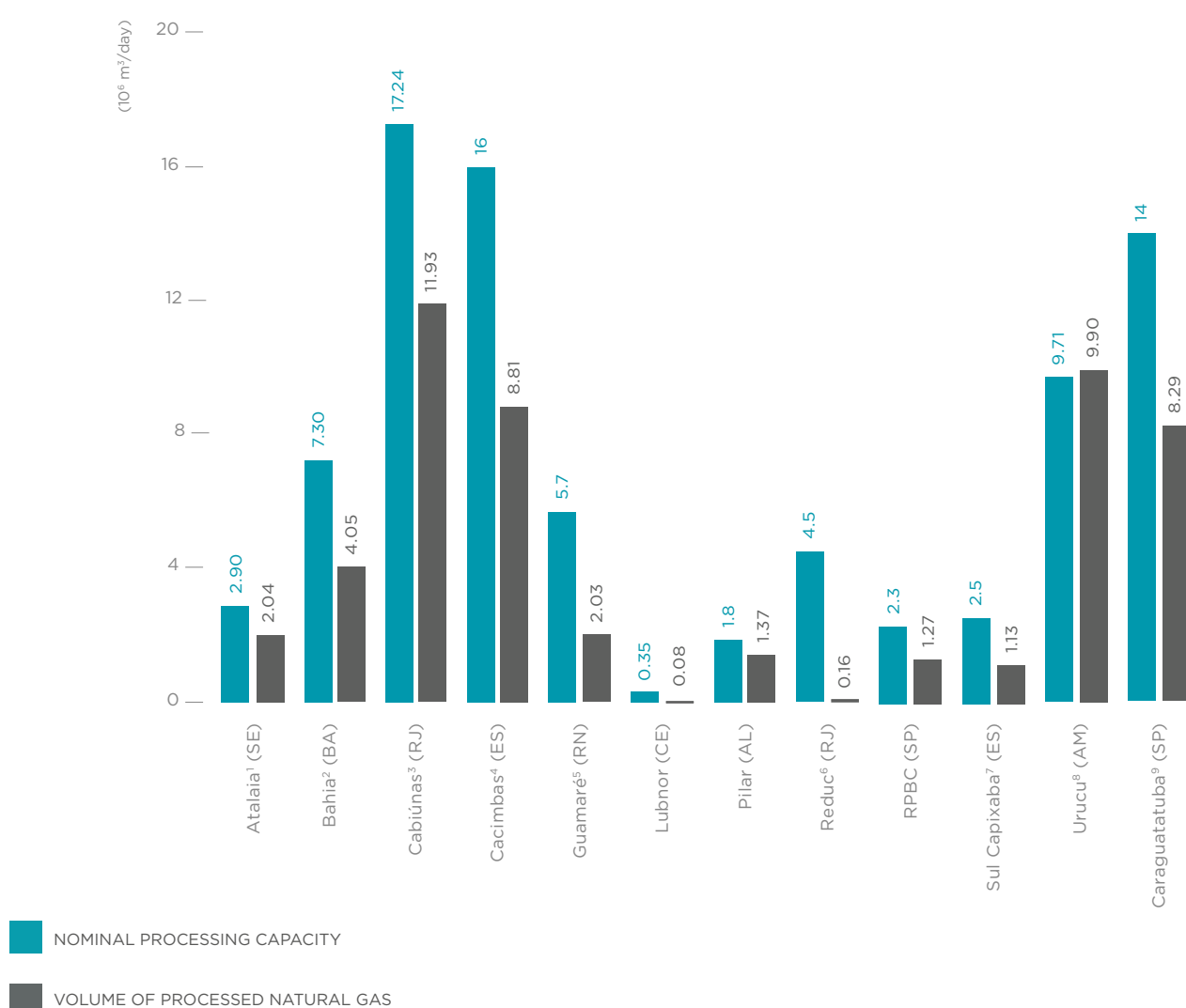
¹Volumes in gaseous state. ²Volumes in liquid state. ³Production of Atalaia and Carmópolis NGPPs included. LNG produced in Carmópolis NGPP is fractionated in LPG and C₅⁺ at Atalaia NGPP. ⁴Processed volumes in Bahia, Catu and Candeias NGPPs included. NGL produced in that units is in RLAM, while LPG and C₅⁺ fractions are accounted for in that refinery's production. ⁵Processed volumes in Cabiúnas NGCPPs, NGPPs, NGRP and LRP included. NGL produced in NGRP is fractionated in NGCPPs. LNG produced in LRPs is fractionated in Reduc's LFP, while LPG, C₅⁺, ethane and propane are accounted for in that refinery's production. ⁶Processed volumes in NGPPs, NGCPPs and DPP Cacimbas included. ⁷Processed volumes produced in Guamaré I, II and III NGPPs included. ⁸Processed volumes in Reduc I and II NGPPs are accounted for in Reduc's production, as well as LPG and C₅⁺ parcels. ⁹That NGP only separates and stabilizes gas condensate. ¹⁰Processed volumes in DPP Sul Capixaba included. ¹¹Produced volumes in Urucu I, II and III NGPPs included. ¹²Processed volumes in DPP UTGCA I, II, UAPO/DPP - UTGCA and NGCPP UTGCA included.

TABLE 1.13. PRODUCTION OF DRY NATURAL GAS, LQP, C₅⁺, ETHANE AND PROPANE IN NATURAL GAS PROCESSING POLES - 2004-2013

PRODUCTS	PRODUCTION (10 ³ m ³)										13/12 %
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
Dry natural gas ¹	11,810,761	12,538,167	12,722,170	12,055,517	15,207,091	12,891,650	14,369,384	15,886,738	17,913,275	17,619,563	-1.64
Ethane ¹	-	158,203	255,421	243,141	222,324	205,292	268,388	304,271	281,013	252,131	-10.28
Liquids ²	3,597	3,531	3,580	3,607	3,824	3,538	3,471	3,230	3,451	3,607	4.51
GLP	2,574	2,855	2,876	2,926	3,100	2,816	2,546	2,377	2,330	2,567	10.15
C ₅ ⁺	1,023	677	704	681	724	722	924	853	1,121	1,040	-7.23
Propane	-	285	676	657	609	557	686	331	772	810	5.04

SOURCE: Petrobras/Abast.

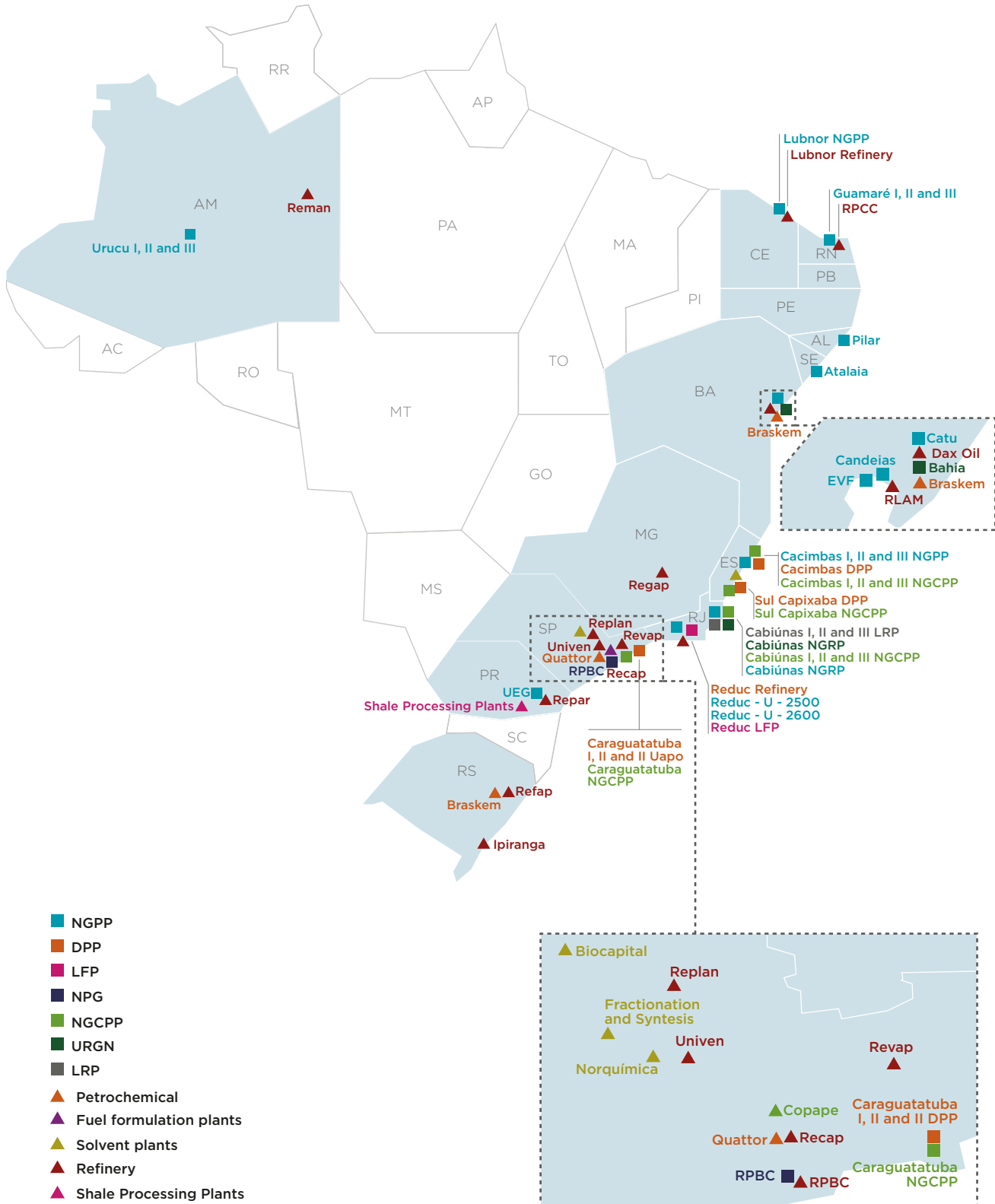
¹Volumes in gaseous state. ²Volumes in liquid state.

FIGURE 1.8. VOLUME OF PROCESSED NATURAL GAS AND PROCESSING CAPACITY, BY NGPPS - 2013

SOURCES: ANP/SRP; Petrobras/Unidade de Negócios de Gás Natural (Table 1.12 and 1.13).

¹Atalaia and Carmópolis NGPPs included. ²NGPPs Catu, Candeias and Bahia included. ³Cabiúnas NGCPP, NGPP, NGRP and LRP included. ⁴Cacimbas NGPP, NGCPP and DPP included. ⁵Guamaré I, II and III NGPPs included. ⁶Reduc I and II NGPP included. ⁷Sul Capixaba NGCPP and DPP included. ⁸Urucu I, II and III included. ⁹Caraguatatuba DPPs and NGCPP included.

MAP 1.1. REFINING AND NATURAL GAS PROCESSING PLANTS - 2013



SOURCE: ANP/SRP; Petrobras/Abast; Petrobras/Unidade de Negócios de Gás Natural.

SHALE INDUSTRIALIZATION

1.7 Shale Industrialization

TABLE 1.14. VOLUME OF PROCESSED SHALE OIL AND PRODUCTION OF SHALE OIL PRODUCTS - 2004-2013

SPECIFICATION	UNIT	VOLUME OF PROCESSED SHALE OIL AND PRODUCTION OF SHALE OIL PRODUCTS										13/12 %
		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
Processed shale oil	T	2,414,326	1,969,652	2,242,079	2,343,086	1,925,285	2,117,820	2,069,197	1,579,347	1,732,378	1,458,191	-15.83
PRODUCTS												
Energy												
Shale gas	T	14,855	13,936	15,619	18,756	13,087	14,314	16,992	13,128	10,619	8,109	-23.64
LPG ¹	M ³	24,607	20,079	20,958	23,624	18,529	27,044	26,761	18,766	24,122	21,563	-10.61
Fuel oil	M ³	121,068	104,385	107,944	102,544	155,691	270,576	281,779	213,014	244,754	216,689	-11.47
Non-energy												
Naphtha ²	M ³	39,694	34,552	44,632	48,083	37,725	40,809	42,536	33,112	31,689	24,001	-24.26
Others ³	M ³	16,045	12,097	13,623	4,012	2,349	1,548	3,145	3,418	2,587	2,374	-8.22

SOURCE: Petrobras/Abast.

¹Propane and butane included. ²Naphtha production is sent to Repar, where is used as raw material in the production of oil products. ³Other non-energy oil products of lesser importance included.

TRANSPORTATION OF OIL, ITS PRODUCTS AND NATURAL GAS

1.8 Terminals

TABLE 1.15. STORAGE CAPACITY OF OIL, OIL PRODUCTS AND ETHANOL, BY TERMINAL, ON DECEMBER 31ST, 2013 (CONTINUE)

TYPE, LOCATION (STATE) AND OPERATOR	STORAGE CAPACITY OF OIL, OIL PRODUCTS AND ETHANOL				
	NUMBER OF TANKS	OIL	OIL PRODUCTS (EXCEPT LPG)	LPG	TOTAL
TOTAL	1,866	5,319,288	7,492,549	369,407	13,181,244
Ethanol Storage Facility	21	-	105,000	-	105,000
Aracaju (SE) - Petrobras	2	-	10,000	-	10,000
Araraquara (SP) - Petrobras	2	-	10,000	-	10,000
Bauru (SP) - Petrobras	2	-	10,000	-	10,000
Brasília (DF) - Petrobras	3	-	15,000	-	15,000
Campos (RJ) - Petrobras	2	-	10,000	-	10,000
Londrina (PR) - Petrobras	2	-	10,000	-	10,000
Ourinhos (SP) - Petrobras	4	-	20,000	-	20,000
Santa Adélia (SP) - Petrobras	2	-	10,000	-	10,000
Sertãozinho (SP) - Petrobras	2	-	10,000	-	10,000
Waterway terminals	1,415	3,854,195	5,184,178	282,830	9,321,203
Angra dos Reis (RJ) - Transpetro - Ilha Grande	17	845,577	132,489	-	978,066
Aracaju (ex-Carmópolis) (SE) - Transpetro	5	155,788	-	-	155,788
Aracruz (ES) - Transpetro	9	-	60,988	43,687	104,675
Belém (PA) - Transpetro - Miramar	7	-	37,899	9,535	47,434
Cabedelo (PB) - Tecab	5	-	27,072	-	27,072
Cabedelo (PB) - Transpetro	4	-	10,022	-	10,022
Canoas (RS) - Transpetro	5	-	21,842	-	21,842
Candeias (BA) - Tequimar - Aratu	89	-	209,470	-	209,470
Candeias (BA) - Vopak - Aratu	58	-	86,832	-	86,832
Coari (AM) - Transpetro	13	60,000	275	19,551	79,826

TABLE 1.15. STORAGE CAPACITY OF OIL, OIL PRODUCTS AND ETHANOL, BY TERMINAL, ON DECEMBER 31ST, 2013 (CONTINUATION)

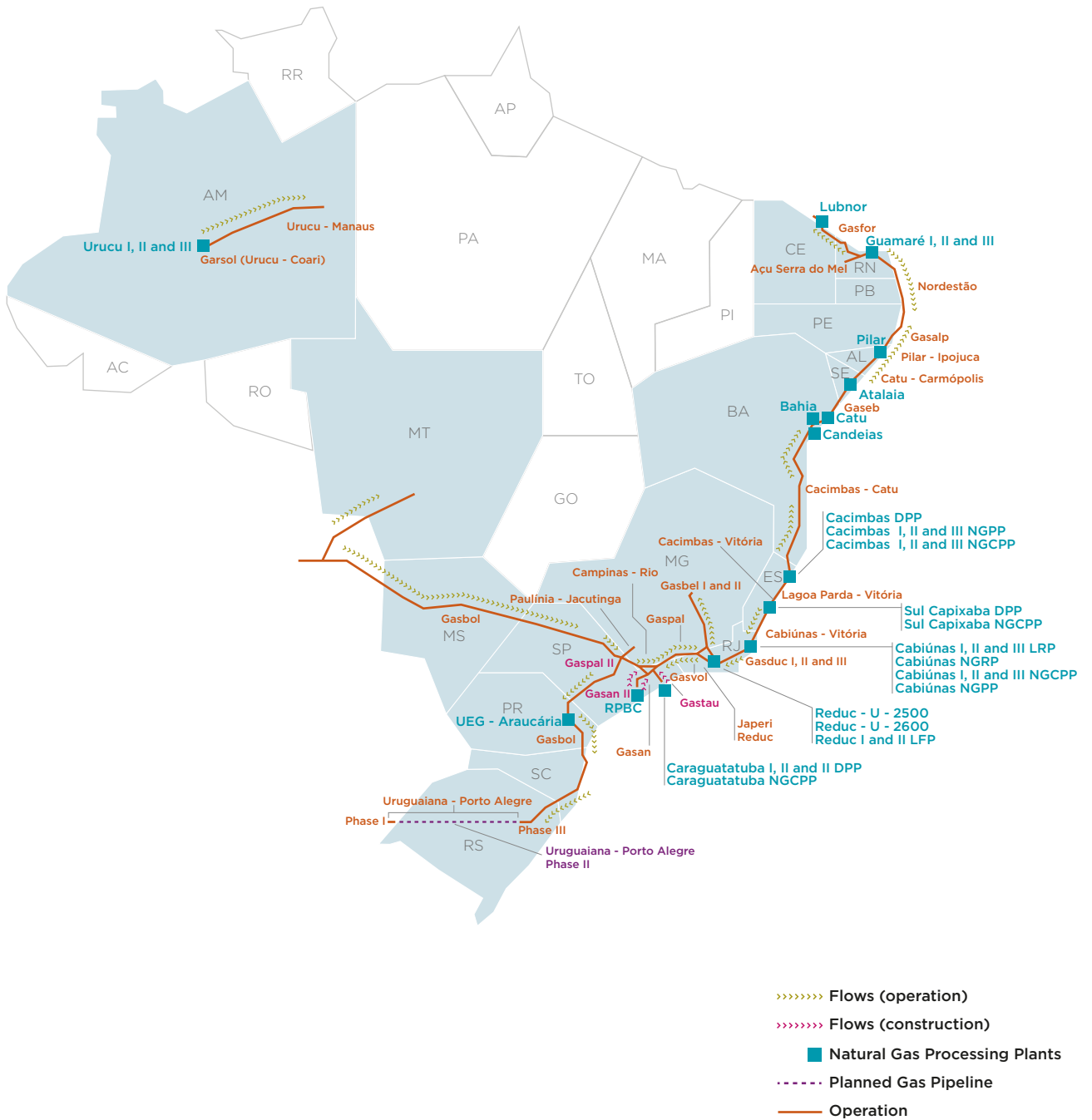
TYPE, LOCATION (STATE) AND OPERATOR	STORAGE CAPACITY OF OIL, OIL PRODUCTS AND ETHANOL				
	NUMBER OF TANKS	NOMINAL CAPACITY (M ³)			
		OIL	OIL PRODUCTS (EXCEPT LPG)	LPG	TOTAL
Guamaré (RN) - Transpetro	14	190,147	92,454	-	282,601
Ipojuca (PE) - Pandenor - Suape	17	-	33,350	-	33,350
Ipojuca (PE) - Decal - Suape	13	-	156,222	-	156,222
Ipojuca (PE) - Temape - Suape	17	-	56,271	-	56,271
Ipojuca (PE) - Tequimar - Suape	33	-	118,545	5,000	123,545
Ipojuca (PE) - Transpetro - Suape	21	-	104,864	15,940	120,804
Itacoatiara (AM) - Terminais Fluviais do Brasil S/A (ex-Ecuador Log)	14	-	63,059	-	63,059
Ladario (MS) - Granel	6	-	8,052	-	8,052
Maceió (AL) - Transpetro	10	20,757	37,140	-	57,897
Madre de Deus (BA) - Transpetro	47	-	604,079	52,611	656,690
Natal (RN) - Transpetro - Dunas	6	-	26,642	-	26,642
Osório (RS) - Braskem	4	-	164,000	-	164,000
Paranaguá (PR) - Álcool do Paraná	8	-	38,619	-	38,619
Paranaguá (PR) - Cattalini	58	-	257,599	-	257,599
Paranaguá (PR) - CPA	8	-	52,990	-	52,990
Paranaguá (PR) - Transpetro	34	-	194,602	9,532	204,134
Rio de Janeiro (RJ) - Tequimar (ex-União) - Caju	24	-	17,245	-	17,245
Rio de Janeiro (RJ) - Cosan (ex-Esso) - Ilha do Governador	8	-	17,199	-	17,199
Rio de Janeiro (RJ) - ExxonMobil - Ilha do Governador	14	-	33,509	-	33,509
Rio de Janeiro (RJ) - Transpetro - Ilha Redonda	5	-	-	33,563	33,563
Rio de Janeiro (RJ) - Transpetro Alm. Tamandaré - Ilha d'Água	18	-	165,066	-	165,066
Rio Grande (RS) - Braskem	32	-	36,800	2,616	39,416
Rio Grande (RS) - Granel	24	-	59,590	-	59,590
Rio Grande (RS) - Transpetro	23	-	86,021	-	86,021
Santos (SP) - Stolthaven - Alemoa	54	-	92,946	-	92,946
Santos (SP) - Adonai - Ilha Barnabé	41	-	43,044	-	43,044
Santos (SP) - Ageo - Ilha Barnabé	105	-	193,201	-	193,201
Santos (SP) - Copape - Ilha Barnabé	6	-	50,459	-	50,459
Santos (SP) - Granel - Ilha Barnabé	82	-	78,000	-	78,000
Santos (SP) - Tequimar (ex-União) TIS - Alemoa	149	-	245,018	-	245,018
Santos (SP) - Transpetro - Alemoa	26	-	263,134	83,002	346,136
Santos (SP) - Vopak - Ilha Barnabé	66	-	47,512	-	47,512
Santos (SP) - Vopak - Alemoa	52	-	83,937	-	83,937
São Francisco do Sul (SC) - Transpetro	7	466,622	-	-	466,622
São Luís (MA) - Alumar	1	-	21,849	-	21,849
São Luís (MA) - Granel	35	-	75,904	-	75,904
São Luís (MA) - Tequimar	16	-	57,761	-	57,761
São Luís (MA) - Transpetro	10	-	71,290	7,793	79,083
São Mateus (ES) - Transpetro - Norte Capixaba	5	78,000	-	-	78,000
São Sebastião (SP) - Transpetro - Almirante Barroso	38	1,528,304	541,009	-	2,069,313
Tramandaí (RS) - Transpetro - Tedut	16	509,000	192,159	-	701,159
Triunfo (RS) - Braskem (Central Petroquímica)	4	-	18,000	-	18,000
Triunfo (RS) - Braskem - Santa Clara	2	-	12,255	-	12,255
Vila Velha (ES) - CPVV	3	-	1,504	-	1,504
Vila Velha (ES) - Hiper Petro	2	-	3,200	-	3,200
Vila Velha (ES) - Oiltanking	23	-	70,189	-	70,189
Vitória (ES) - Transpetro	2	-	11,000	-	11,000
Land terminals	430	1,465,093	2,203,371	86,577	3,755,041
Araucária (PR) - Utingás	18	-	-	2,117	2,117
Barueri (SP) - Transpetro	25	-	200,134	9,570	209,704

TABLE 1.15. STORAGE CAPACITY OF OIL, OIL PRODUCTS AND ETHANOL, BY TERMINAL, ON DECEMBER 31ST, 2013 (CONCLUSION)

TYPE, LOCATION (STATE) AND OPERATOR	STORAGE CAPACITY OF OIL, OIL PRODUCTS AND ETHANOL				
	NUMBER OF TANKS	NOMINAL CAPACITY (M ³)			TOTAL
		OIL	OIL PRODUCTS (EXCEPT LPG)	LPG	
Betim (MG) - SHV (ex-Betingás)	22	-	-	2,584	2,584
Biguaçu (SC) - Transpetro	10	-	38,361	-	38,361
Brasília (DF) - Transpetro	10	-	72,351	9,528	81,879
Cabiúnas (RJ) - Transpetro	12	485,198	-	4,770	489,968
Chapadão do Sul (MS) - Cerradinho Bioenergia	4	-	4,393	-	4,393
Duque de Caxias (RJ) - Transpetro - Campos Elísios	10	483,928	68,364	-	552,292
Candeias (BA) - Transpetro	12	-	36,417	-	36,417
Cubatão (SP) - Transpetro	15	47,229	112,625	-	159,854
Guamaré (RN) - Nordeste Logisitca	8	-	5,914	-	5,914
Guaramirim (SC) - Transpetro	9	-	19,146	-	19,146
Guararema (SP) - Transpetro	14	448,738	600,254	-	1,048,992
Guarulhos (SP) - Copape	8	-	11,267	-	11,267
Guarulhos (SP) - Integração	7	-	12,580	-	12,580
Guarulhos (SP) - Transpetro	19	-	165,146	-	165,146
Itabuna (BA) - Transpetro	14	-	24,050	4,798	28,848
Itajaí (SC) - Transpetro	14	-	50,553	6,364	56,917
Japerí (RJ) - Transpetro	7	-	38,588	-	38,588
Jequié (BA) - Transpetro	18	-	22,413	4,462	26,875
Maringá (PR) - Sta. Terezinha	2	-	2,800	-	2,800
Osasco (SP) - Bona	30	-	6,076	-	6,076
Paulínia (SP) - Tequimar	4	-	6,703	-	6,703
Paulínia (SP) - Tercom	6	-	9,252	-	9,252
Ribeirão Preto (SP) - Logum	5	-	60,577	-	60,577
Ribeirão Preto (SP) - Transpetro	4	-	52,228	-	52,228
Rio Grande (RS) - Refinaria de Petróleo Riograndense	8	-	7,809	-	7,809
Santo André (SP) - Utingás	4	-	-	12,515	12,515
São Bernardo do Campo (SP) - Bona	7	-	3,479	-	3,479
São Caetano do Sul (SP) - Transpetro	21	-	230,842	-	230,842
São Paulo (SP) - Diamond	14	-	1,235	-	1,235
Sarandi (PR) - CPA	17	-	91,419	-	91,419
Senador Canedo (GO) - Transpetro	14	-	122,366	20,320	142,686
Teresina (PI) - Granel	6	-	7,636	-	7,636
Uberaba (MG) - Transpetro	8	-	42,925	-	42,925
Uberlândia (MG) - Transpetro	15	-	47,331	9,549	56,880
Volta Redonda (RJ) - Transpetro	9	-	28,137	-	28,137

SOURCE: ANP/SCM, as per Ordinance ANP No. 170/1998.

MAP 1.3. INFRASTRUCTURE FOR NATURAL GAS PRODUCTION AND TRANSPORTATION - 2013



SOURCE: ANP/SCM.

COMMERCIALIZATION OF OIL, ITS PRODUCTS AND NATURAL GAS

1.10 External Trade

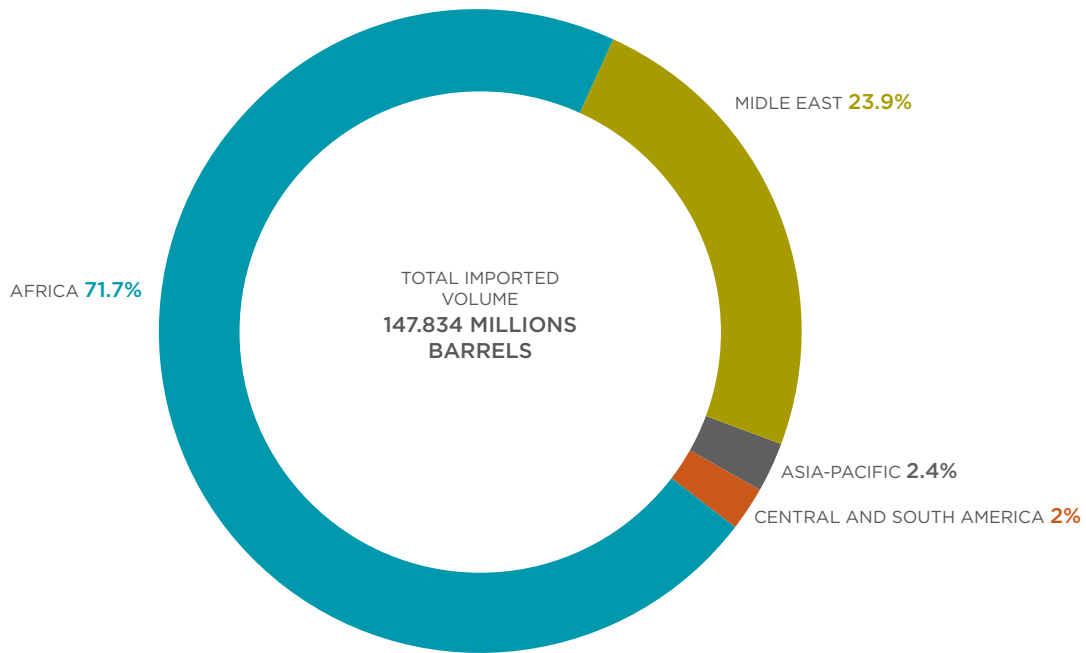
TABLE 1.16. OIL IMPORTS, BY REGION AND COUNTRY OF ORIGIN - 2004-2013

REGIONS AND COUNTRIES OF ORIGIN	OIL IMPORTS (10 ³ BARRELS)										13/12 %
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
TOTAL	169,275	138,213	131,508	159,634	149,208	143,513	123,649	120,491	113,948	147,834	29.74
Not specified	-	-	-	-	572	-	-	-	-	-	..
North America	-	5,130	3,445	7,998	654	896	2,689	2,054	553	-	..
United States of America	-	5,130	3,445	7,998	654	896	2,689	2,054	553	-	..
Central and South America	8,636	6,423	3,510	2,429	3,537	3,670	2,001	1,610	2,209	2,957	33.81
Argentina	2,821	1,922	230	226	-	3,459	243	583	1,966	1,514	-23.00
Barbados	604	-	-	-	-	-	581	-	-	-	..
Bermuda	-	-	954	238	1,022	-	-	-	-	-	..
Bolivia	2,768	2,907	2,094	781	832	-	-	-	-	-	..
Colombia	558	-	109	1,184	1,684	-	853	-	-	524	..
Ecuador	1,696	1,595	123	-	-	-	-	-	-	-	..
Peru	-	-	-	-	-	-	305	1,027	244	-	..
Venezuela	190	-	-	-	-	211	19	-	-	919	..
Europe and Former Soviet Union	-	-	994	5,157	1,402	166	3,203	463	884	-	..
Azerbaijan	-	-	994	4,152	-	-	-	-	-	-	..
Germany	-	-	-	411	-	-	-	-	-	-	..
Netherlands	-	-	-	-	-	-	-	463	-	-	..
Portugal	-	-	-	-	872	-	-	-	-	-	..
Russia	-	-	-	-	-	-	1,308	-	884	-	..
Switzerland	-	-	-	595	52	-	-	-	-	-	..
United Kingdom	-	-	-	-	479	166	1,895	-	-	-	..
Middle East	37,830	35,248	32,669	26,612	35,103	37,223	34,522	34,173	35,209	35,304	0.27
Iran	-	-	-	-	-	-	-	-	-	-	..
Iraq	13,639	10,607	9,764	4,082	12,211	12,128	10,208	9,071	9,162	7,379	-19.46
Saudi Arabia	24,192	24,641	22,906	22,531	22,893	25,095	24,315	25,102	26,047	27,925	7.21
Africa	122,809	91,412	90,890	117,438	107,939	99,560	80,652	77,529	71,733	105,941	47.69
Algeria	38,466	38,603	21,830	20,626	13,379	11,473	3,136	1,950	8,045	11,859	47.42
Angola	-	-	6,814	12,220	18,798	1,937	4,868	2,866	-	5,600	..
Cameroon	-	-	-	-	-	-	853	-	-	-	..
Congo (Democratic Republic)	-	-	3,835	2,503	-	-	-	1,000	-	-	..
Congo (Brazzaville)	-	956	1,825	1,830	-	-	-	-	-	-	..
Ecuatorial Guinea	284	4,362	1,390	2,462	3,617	3,699	5,332	4,385	1,354	8,198	505.31
Libya	-	-	2,621	11,783	11,955	12,326	1,006	-	-	1,205	..
Nigeria	84,059	47,491	52,575	66,014	60,191	70,125	65,457	67,328	62,334	79,078	26.86
Asia-Pacific	-	-	-	-	-	1,999	581	4,661	3,360	3,632	8.11
Australia	-	-	-	-	-	1,999	581	4,661	2,807	3,140	11.87
Indonesia	-	-	-	-	-	-	-	241	552	-	..
Japan	-	-	-	-	-	-	-	-	-	492	..
Malaysia	-	-	-	-	-	-	-	542	-	-	..

SOURCE: MDIC/Secex.

NOTE: Condensate included. Condensate imported by petrochemical plants included.

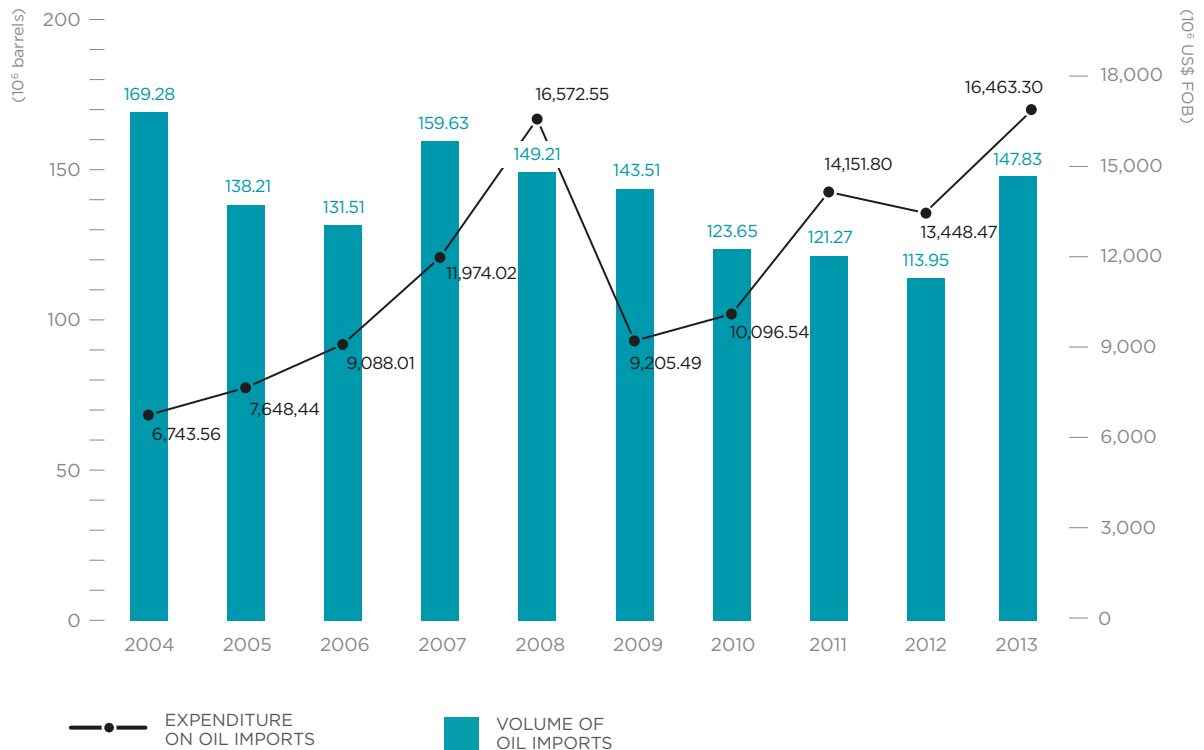
FIGURE 1.9. OIL IMPORTS, BY REGION OF ORIGIN - 2013



SOURCE: MDIC/Secex.

NOTE: Condensate included. Condensate imported by petrochemical plants included.

FIGURE 1.10. EVOLUTION OF OIL IMPORTS AND EXPENDITURE ON OIL IMPORTS - 2004-2013



SOURCE: MDIC/Secex.

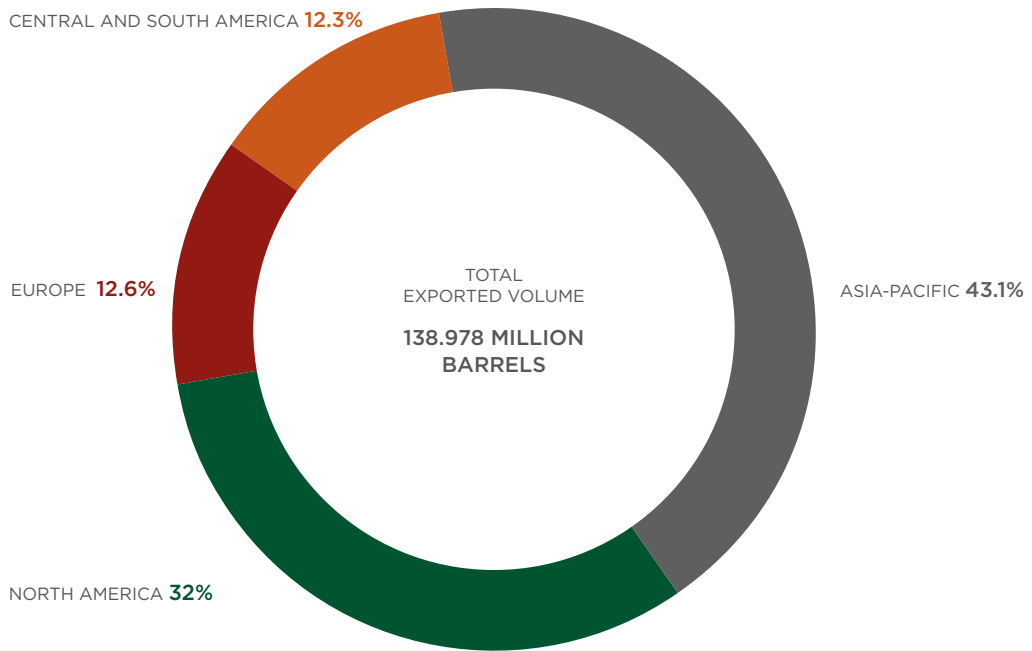
NOTES: 1. Condensate included.
2. Dolar in current value.

TABLE 1.17. OIL EXPORTS, BY REGION AND COUNTRY OF DESTINATION - 2004-2013

REGION AND COUNTRY OF DESTINATION	OIL EXPORTS (10 ³ BARRELS)										13/12 %
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
TOTAL	84,252	100,190	134,336	153,813	158,110	191,859	230,492	220,649	200,528	138,978	-30.69
North America	10,866	15,928	38,674	54,414	49,617	49,811	59,827	66,079	63,932	44,409	-30.54
Canada	-	-	-	-	-	-	4,898	6,768	6,871	5,561	-19.06
United States	10,866	15,928	38,674	54,414	49,617	49,811	54,929	59,311	57,061	38,847	-31.92
Central and South America	39,394	47,254	47,590	48,806	64,697	72,000	60,782	58,009	27,843	17,143	-38.43
Argentina	-	-	-	-	18	-	-	-	-	-	..
Aruba	5,375	8,125	3,605	1,013	-	1,366	-	664	-	-	..
Bahamas	10,489	15,215	12,705	-	-	-	-	322	1,890	1,525	-19.31
Barbados	-	-	-	-	-	-	464	-	-	-	..
Chile	10,887	11,987	20,865	23,471	17,252	10,421	14,341	21,244	9,661	11,179	15.71
Cayman Islands	-	-	-	-	357	-	4,023	3,052	-	-	..
Colombia	891	-	366	-	-	-	-	-	-	-	..
Netherlands Antilles	-	-	-	-	-	-	-	767	-	-	..
Peru	883	2,722	6,217	5,038	3,751	4,512	2,287	1,700	1,762	805	-54.32
Puerto Rico	886	564	-	-	-	-	-	-	-	-	..
Santa Lucia	-	-	-	15,955	41,711	55,242	39,180	29,763	12,384	998	-91.94
Trinidad and Tobago	9,056	8,640	3,831	3,329	1,608	459	486	-	489	-	..
Uruguay	926	-	-	-	-	-	-	497	1,658	2,636	59.02
Europe	19,323	18,063	21,734	32,704	22,513	28,102	32,973	29,271	28,544	17,564	-38.47
France	4,719	2,369	3,032	3,644	1,906	210	4,504	4,955	7,430	1,215	-83.65
Germany	-	-	-	3,392	2,091	1,982	2,905	-	464	842	81.56
Italy	341	-	-	-	-	-	-	-	-	-	..
Netherlands	2,110	6,607	3,093	10,586	6,567	5,573	10,966	6,554	8,144	7,513	-7.74
Norway	-	-	-	-	-	-	-	293	-	-	..
Portugal	8,255	8,397	12,435	11,301	6,984	7,829	6,666	10,537	7,831	1,969	-74.86
Spain	1,010	-	992	1,339	3,620	5,289	5,493	4,929	4,675	6,025	28.87
United Kingdom ¹	2,888	690	2,183	2,442	1,345	7,218	2,439	2,002	-	-	..
Middle East	3,114	-	-	-	-	-	-	-	-	-	..
United Arab Emirates	3,114	-	-	-	-	-	-	-	-	-	..
Asia-Pacific	11,555	18,945	26,338	17,889	21,283	41,946	76,911	67,290	80,209	59,862	-25.37
China	6,577	13,016	16,333	15,295	20,302	26,902	58,712	49,807	45,577	41,833	-8.22
India	-	2,042	4,993	-	982	14,041	17,259	17,483	34,632	18,029	-47.94
Japan	-	-	-	-	-	-	939	-	-	-	..
North Korea	988	-	-	-	-	-	-	-	-	-	..
South Korea	3,990	3,887	5,011	2,593	-	1,003	-	-	-	-	..

SOURCE: MDIC/Secex.
¹Virgin Islands included.

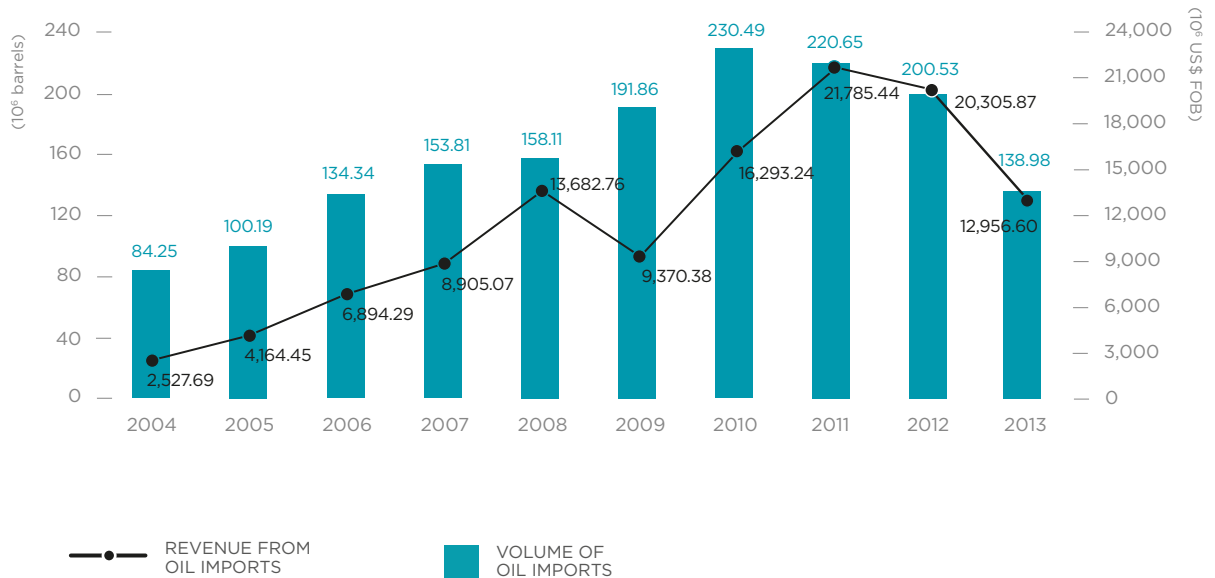
FIGURE 1.11. OIL EXPORTS, BY REGION OF DESTINATION - 2013



SOURCE: MDIC/Secex.

NOTE: Condensate included. Condensate imported by petrochemical plants included.

FIGURE 1.12. EVOLUTION OF OIL EXPORTS AND REVENUE FROM OIL EXPORTS - 2004-2013



SOURCES: MDIC/Secex.

NOTES: 1. Condensate included.

2. Dolar in current value.

TABLE 1.18. IMPORTS OF OIL PRODUCTS, BY REGION AND COUNTRY OF ORIGIN - 2013

REGION AND COUNTRY OF ORIGIN	OIL PRODUCTS IMPORTS (10 ³ M ³)									
	TOTAL	NAPHTHA	DIESEL OIL	GASOLINE A	JET FUEL	COKE	LPG ¹	LUBRICATING OIL	SOLVENT	OTHERS ²
TOTAL	30,619	7,008.3	10,283.0	2,878.0	1,961.6	3,776.7	3,324.4	862.5	303.3	221.3
North America	10,300.5	549.4	3,460.6	1,283.1	200.4	2,356.2	1,794.3	460.0	67.8	128.6
United States	9,889.5	362.0	3,460.6	1,283.1	200.4	2,137.2	1,794.3	456.4	67.5	127.9
Mexico	408.1	187.4	-	-	-	219.0	-	0.7	0.3	0.7
Canada	2.9	-	-	-	-	-	-	2.9	-	-
Central and South America	5,713.9	2,593.2	780.4	49.0	-	1,414.7	769.5	20.1	83.4	3.6
Argentina	1,628.0	865.1	-	-	-	-	713.4	13.5	35.4	0.5
Colombia	2.0	-	-	-	-	-	-	-	-	2.0
Netherlands Antilles	921.7	89.6	780.4	49.0	-	-	-	2.8	-	-
Peru	648.2	600.2	-	-	-	-	-	-	48.0	-
Dominican Republic	1.1	-	-	-	-	-	-	-	-	1.1
Uruguay	16.9	16.6	-	-	-	-	-	0.3	-	-
Venezuela	2,439.9	1,021.6	-	-	-	1,414.7	-	3.5	-	-
Chile	56.1	-	-	-	-	-	56.1	-	-	-
Europe and Former Soviet Union	3,226.0	1,037.5	161.4	1,546.0	-	5.8	-	264.1	142.4	68.8
Belgium	33.2	-	-	-	-	-	-	32.1	1.1	-
Finland	66.7	-	-	50.0	-	-	-	16.7	-	-
France	38.3	-	-	-	-	-	-	33.9	4.5	-
Germany	30.0	-	-	-	-	-	-	25.7	0.8	3.4
Greece	123.0	123.0	-	-	-	-	-	-	-	-
Italy	209.6	-	-	99.4	-	-	-	98.1	3.4	8.8
Netherlands	1,214.2	133.8	50.6	1,016.9	-	-	-	10.7	-	2.2
Poland	31.7	-	-	-	-	-	-	-	-	31.7
Portugal	44.4	-	-	44.4	-	-	-	-	-	-
Russia	327.3	195.2	110.8	-	-	-	-	-	-	21.3
Spain	707.0	572.6	-	-	-	-	-	0.9	132.4	1.2
Sweden	43.7	-	-	-	-	-	-	43.7	-	-
Switzerland	1.3	-	-	-	-	-	-	1.3	-	-
Turkey	283.5	-	-	283.4	-	-	-	-	-	0.1
United Kingdom	58.6	-	-	51.8	-	5.8	-	0.5	0.3	0.1
Others ³	13.3	12.9	-	-	-	-	-	0.4	-	-
Middle East	1,856.6	77.2	422.5	-	1,339.5	-	-	15.8	-	1.6
Bahrein	6.1	-	-	-	-	-	-	6.1	-	-
Qatar	5.6	-	-	-	-	-	-	5.6	-	-
Israel	5.8	-	-	-	-	-	-	4.1	-	1.6
Kuwait	1,232.0	-	328.7	-	903.3	-	-	-	-	-
Saudi Arabia	162.7	77.2	-	-	85.5	-	-	-	-	-
United Arab Emirates	444.6	-	93.8	-	350.7	-	-	-	-	-
Africa	3,700.3	2,751.0	27.6	-	151.6	-	759.8	0.9	5.3	4.1
Angola	138.8	-	-	-	-	-	138.8	-	-	-
Algeria	2,496.8	2,252.0	-	-	100	-	144.9	-	-	-
Libya	124.9	121.2	-	-	-	-	-	-	3.7	-
Marrocos	344.9	344.9	-	-	-	-	-	-	-	-
Nigeria	476.1	-	-	-	-	-	476.1	-	-	-
South Africa	6.6	-	-	-	-	-	-	0.9	1.6	4.1
Zimbabwe	79.3	-	27.6	-	51.7	-	-	-	-	-
Egypt	32.9	32.9	-	-	-	-	-	-	-	-
Asia-Pacific	5,822.1	-	5,430.5	-	270.2	-	0.8	101.7	4.4	14.5
China	10.5	-	-	-	-	-	-	-	-	10.5
India	4,185.7	-	4,166.8	-	-	-	-	18.4	0.1	0.4
Japan	186.9	-	185.3	-	-	-	-	1.5	0.1	-
Malaysia	308.6	-	291.3	-	-	-	-	14.1	-	3.1
North Korea	753.1	-	412.0	-	270.2	-	-	66.5	4.2	0.2
Others ⁴	377.3	-	375.1	-	-	-	0.8	1.2	-	0.3

SOURCE: MDIC/Secex.

¹Propane and butane included. ²Asphalt, gasoline A, aviation gasoline, fuel oil, paraffin, jet fuel and other non-energy products included. ³Bosnia-Herzegovina and Denmark. ⁴Hong Kong, Indonesia, Singapore, Thailand and Taiwan included.

TABLE 1.19. IMPORTS OF ENERGY AND NON-ENERGY OIL PRODUCTS - 2004-2013

OIL PRODUCTS	IMPORTS (10 ³ M ³)										13/12 %
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
TOTAL	11,744.4	10,921.6	13,501.3	15,959.5	17,913.7	15,936.7	27,375.4	30,314.9	27,177.6	30,619.4	12.66
Energy	4,870.8	3,767.4	6,111.3	7,912.1	9,713.5	7,354.7	14,724.4	17,427.4	16,152.4	18,543.4	14.80
Gasoline A	55.4	71.2	28.2	10.0	0.2	0.0	505.1	2,186.8	3,780.2	2,878.0	-23.87
Aviation Gasoline	1.7	-	-	-	-	3.1	6.2	6.1	6.2	-	..
LPG ¹	1,880.1	947.6	1,585.5	1,794.6	2,188.8	2,556.7	3,122.6	3,389.7	2,520.3	3,324.4	31.91
Fuel Oil	130.4	52.9	251.7	116.9	198.3	10.2	160.7	709.4	212.3	96.3	-54.65
Diesel	2,694.7	2,371.3	3,545.1	5,099.4	5,829.3	3,515.0	9,007.0	9,332.8	7,970.2	10,283.0	29.02
Jet fuel	108.5	324.5	700.8	891.2	1,496.9	1,269.6	1,922.8	1,802.7	1,663.2	1,961.6	17.94
Non-energy	6,873.6	7,154.2	7,390.0	8,047.4	8,200.2	8,582.1	12,651.0	12,887.5	11,025.3	12,076.0	9.53
Asphalt	4.4	6.5	8.0	7.8	4.8	29.5	249.9	91.0	103.7	84.8	-18.23
Coke	2,465.7	2,284.2	2,577.5	3,131.4	3,536.0	3,286.4	3,876.7	4,448.5	3,713.2	3,776.7	1.71
Naphtha	3,235.3	4,275.2	4,278.2	4,176.7	3,593.7	4,119.6	6,714.0	7,129.6	6,098.3	7,008.3	14.92
Lubricating oil	270.5	340.0	289.9	435.5	565.3	459.3	787.0	731.1	801.0	862.5	7.68
Paraffin	9.3	5.3	12.0	21.4	23.3	35.0	46.7	55.3	35.3	31.9	-9.54
Solvent	878.1	216.4	208.8	256.8	451.2	617.5	930.1	385.3	263.8	303.3	14.95
Others ²	10.3	26.6	15.6	17.7	25.9	34.8	46.7	46.7	10.0	8.4	-15.50

SOURCE: MDIC/Secex.

¹Propane and butane included. ²Non-energy oil products of lesser importance included.

TABLE 1.20. EXPORTS OF ENERGY AND NON-ENERGY OIL PRODUCTS, BY REGION AND COUNTRY OF DESTINATION - 2013

REGION AND COUNTRY OF DESTINATION	EXPORTS OF ENERGY AND NON-ENERGY OIL PRODUCTS (10 ⁵ M ³)										
	TOTAL	FUEL OIL	MARINE FUELS (BUNKERS) ¹	GASOLINE A	SOLVENT	COKE	LUBRICATING OIL	FUEL AND LUBRICATING OIL FOR AIRCRAFTS ²	DIESEL	LPG	OTHERS ³
TOTAL	14,072.9	5,926.6	3,201.9	332.3	641.9	405.1	120.1	2,763.5	363.6	90.1	228.0
Unknown destination	5,965.4	-	3,201.9	-	-	-	-	2,763.5	-	-	-
North America	736.2	-	-	153.6	470.9	88.5	19.5	-	-	-	3.7
United States	679.4	-	-	153.6	470.9	32.8	18.6	-	-	-	3.5
Others ⁴	56.8	-	-	-	-	55.7	0.9	-	-	-	0.2
Central and South America	2,998.4	2,088.7	-	178.7	77.2	4.2	67.5	-	363.6	24.1	194.4
Argentina	752.8	447.9	-	54.6	57.0	0.3	7.8	-	131.1	-	54.1
Bolivia	105.2	-	-	1.1	0.3	-	8.0	-	43.1	-	52.7
Chile	28.8	-	-	-	13.7	0.2	14.7	-	-	-	0.1
Colombia	1.5	-	-	-	-	-	1.3	-	-	-	0.2
Costa Rica	0.2	-	-	-	-	-	-	-	-	-	0.2
Dominican Republic	19.8	-	-	-	-	-	0.2	-	-	-	19.6
Ecuador	0.5	-	-	-	-	-	0.5	-	-	-	-
Guatemala	0.2	-	-	-	-	-	0.2	-	-	-	-
Netherlands Antilles	1,434.0	1,429.3	-	-	-	-	4.7	-	-	-	-
Paraguay	275.2	8.7	-	2.2	3.3	-	18.1	-	189.4	-	53.6
Peru	3.3	2.0	-	-	0.3	-	0.8	-	-	-	0.2
Puerto Rico	120.8	-	-	120.8	-	-	-	-	-	-	-
Uruguay	250.4	200.8	-	-	2.2	0.9	9.9	-	-	24.1	12.5
Venezuela	0.9	-	-	-	-	-	0.7	-	-	-	0.2
Others ⁵	4.9	-	-	-	0.4	2.9	0.7	-	-	-	1.0
Europe	2,905.1	2,678.5	-	-	78.8	118.9	21.3	-	-	-	7.7
Belgium	16.3	-	-	-	1.3	14.8	-	-	-	-	0.1
France	5.9	-	-	-	5.6	0.3	-	-	-	-	-
Germany	46.9	-	-	-	46.9	-	-	-	-	-	-
Netherlands	2,808.7	2,678.5	-	-	8.3	102.6	17.0	-	-	-	2.3
Spain	16.7	-	-	-	16.7	-	-	-	-	-	-
Turkey	4.3	-	-	-	-	-	4.3	-	-	-	-
United Kingdom	6.0	-	-	-	-	1.0	-	-	-	-	5.0
Others ⁶	0.4	-	-	-	-	0.1	-	-	-	-	0.3
Middle East	85.4	-	-	-	-	85.4	-	-	-	-	-
United Arab Emirates	85.4	-	-	-	-	85.4	-	-	-	-	-
Africa	114.1	-	-	-	-	82.4	11.1	-	-	-	20.6
Angola	0.5	-	-	-	-	-	0.3	-	-	-	0.1
Gabon	2.8	-	-	-	-	-	-	-	-	-	2.8
Equatorial Guinea	14.2	-	-	-	-	-	0.4	-	-	-	13.8
Mozambique	3.7	-	-	-	-	-	-	-	-	-	3.7
Nigeria	10.4	-	-	-	-	-	10.4	-	-	-	-
South Africa	82.4	-	-	-	-	82.4	-	-	-	-	-
Others ⁷	0.2	-	-	-	-	-	-	-	-	-	0.2
Asia-Pacific	1,268.4	1,159.4	-	-	15.0	25.7	0.6	-	-	66.0	1.6
Singapore	1,225.7	1,159.4	-	-	-	-	-	-	-	66.0	0.4
South Korea	15.0	-	-	-	15.0	-	-	-	-	-	-
Thailand	1.2	-	-	-	-	1.1	0.1	-	-	-	-
Others ⁸	26.4	-	-	-	-	24.6	0.5	-	-	-	1.3

SOURCES: MDIC/Secex, excluding marine fuel oil; for marine fuel oil, Petrobras/Abast.

¹Fuel oil, diesel oil and lubricating oil sales for foreign ships in transit included. ²Jet fuel and lubricating oil sales for foreign aircrafts in transit included.

³Asphalt, aviation gasoline, naphtha, other non-energy products, paraffin and jet fuel included. ⁴Canada and Mexico included. ⁵Aruba, Bahamas, Cuba, El Salvador, Honduras, Panama and Trinidad and Tobago included. ⁶Austria, Greece, Portugal, Serbia, Sweden and Switzerland included. ⁷Congo, Ghana and Senegal included. ⁸Australia, China, India, Indonesia, Japan, Mali, New Caledonia, Pakistan, Philippines and Taiwan included.

TABLE 1.21. EXPORTS OF ENERGY AND NON-ENERGY OIL PRODUCTS - 2004-2013

OIL PRODUCTS	EXPORTS (10 ³ M ³)										13/12 %
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
TOTAL	15,796.2	15,991.0	16,777.3	17,647.9	15,986.4	15,161.9	13,782.9	13,522.3	14,896.3	14,072.9	-5.53
Energy	14,964.1	14,757.6	15,807.8	16,550.4	14,906.4	14,279.4	12,999.8	12,727.6	14,014.3	12,756.5	-8.98
Gasoline A	2,015.1	2,831.5	2,696.6	3,698.1	2,590.8	2,513.2	761.5	309.3	122.3	332.3	171.73
Aviation gasoline	12.5	18.7	4.4	8.1	8.0	6.0	10.9	14.8	8.4	14.7	74.43
LPG ¹	63.7	152.2	34.1	23.2	7.5	20.1	7.5	43.2	31.2	90.1	188.27
Fuel oil	7,463.0	5,756.2	6,792.3	5,403.9	5,159.7	4,319.6	4,940.5	5,328.9	7,279.0	5,926.6	-18.58
Bunker ²	3,917.0	3,930.0	3,840.2	4,431.0	4,522.3	4,163.5	4,242.2	3,814.3	3,442.2	3,201.9	-6.98
Diesel	64.5	301.0	601.8	1,046.1	652.3	1,221.3	669.5	597.3	321.2	363.6	13.19
Jet fuel	16.1	0.4	2.5	1.0	26.5	23.4	33.1	23.7	28.7	63.7	122.02
Aircraft fuels ³	-	-	-	-	-	-	-	-	-	0.2	..
Lighthouse kerosene	1,412.2	1,767.7	1,835.9	1,939.0	1,939.4	2,012.3	2,334.5	2,596.1	2,781.3	2,763.5	-0.64
Non-energy	832.2	1,233.4	969.5	1,097.5	1,080.0	882.4	783.1	794.7	882.0	1,316.4	49.26
Asphalt	20.4	10.5	19.0	17.8	30.8	63.7	75.5	94.7	110.1	140.8	27.89
Naphtha	17.1	69.7	31.9	26.5	103.4	50.4	-	0.01	-	-	..
Lubricating oil and lubricating grease	71.0	72.2	110.1	71.7	40.9	50.8	51.1	55.2	119.4	120.1	0.55
Paraffin	6.7	9.1	14.6	8.6	8.7	7.9	7.1	5.3	6.3	8.1	26.91
Solvent	443.1	618.5	555.6	649.7	574.2	459.9	467.2	365.9	326.7	641.9	96.47
Others ⁴	273.9	453.4	238.3	323.3	322.0	249.7	182.2	273.6	319.4	405.7	27.00

SOURCES: MDIC/Secex, excluding marine fuel oil. For marine fuel oil, Petrobras/Abast.

¹Propane and butane included. ²Fuel oil and diesel oil sales for ships in transit included. ³Jet fuel sales for aircrafts in transit included. ⁴Coke and other non-energy products of lesser importance included.

TABLE 1.22. BRAZILIAN FOREIGN DEPENDENCE ON OIL AND OIL PRODUCTS - 2004-2013

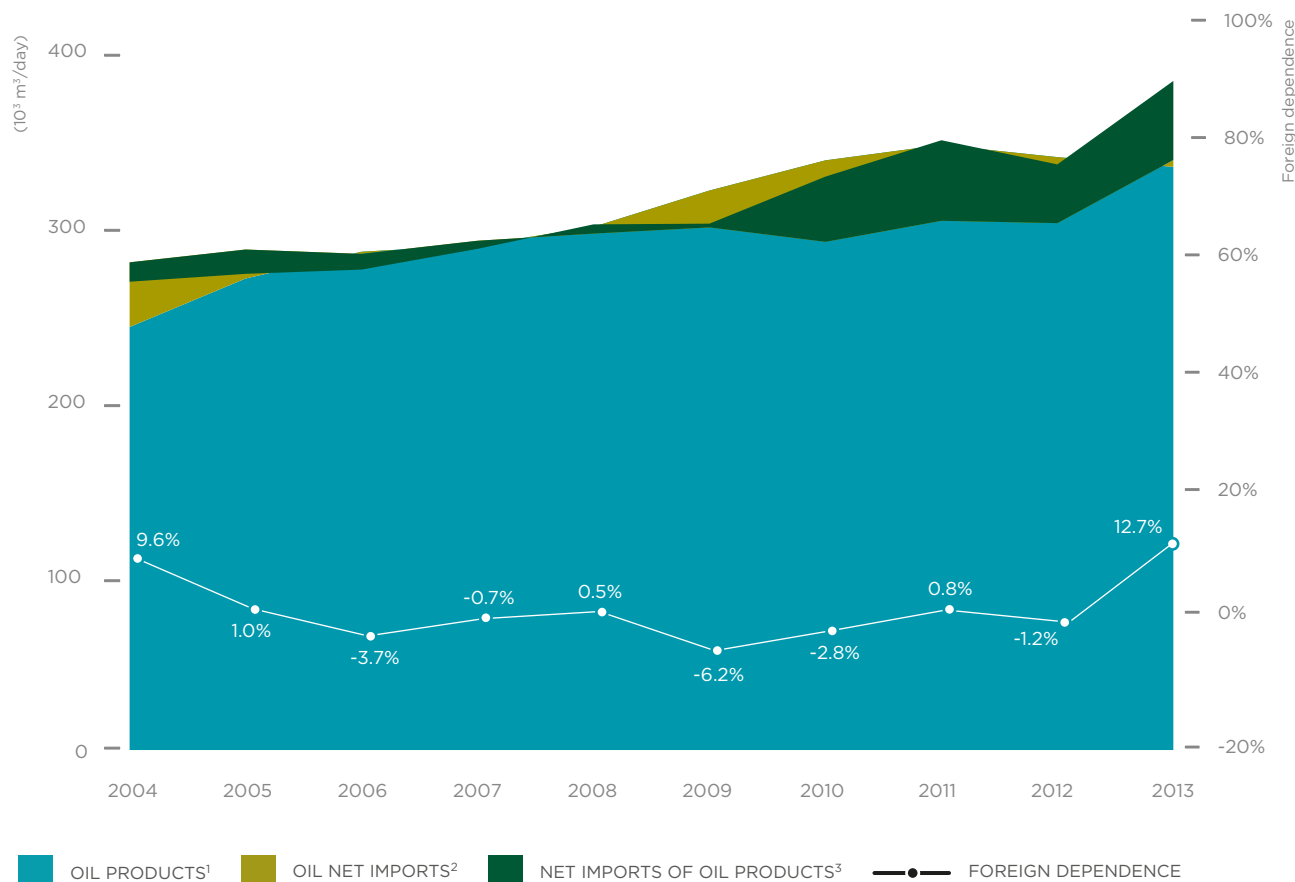
SPECIFICATION	BRAZILIAN FOREIGN DEPENDENCE ON OIL AND OIL PRODUCTS (10 ³ M ³ /DAY)										13/12 %
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
Oil production (a) ¹	244.6	272.3	287.6	291.4	301.9	322.6	339.8	348.6	341.7	336.1	-1.62
Oil net imports (b) ²	36.9	16.6	-1.2	2.5	-3.9	-21.1	-46.5	-43.4	-37.6	3.9	
Net imports of oil products (c)	-11.1	-13.9	-9.0	-4.6	5.3	2.1	37.2	46.0	33.6	45.3	
Apparent consumption (d)=(a)+(b)+(c)	270.5	275.0	277.4	289.3	303.3	303.7	330.5	351.3	337.6	385.3	14.13
Foreign dependence (e)=(d)-(a)	25.9	2.7	-10.2	-2.1	1.4	-18.9	-9.3	2.7	-4.1	49.2	-
Foreign dependence (e)/(d) %	9.6	1.0	-3.7	-0.7	0.5	-6.2	-2.8	0.8	-1.2	12.8	-

SOURCES: ANP/SDP, as per Ordinance No. 2.705/1998, for oil production data; MDIC/Secex, for imports and exports data, except for bunker.

NOTE: Consolidated data by ANP/SPD.

¹Includes condensate and NGL. ²Includes condensate.

FIGURE 1.13. BRAZILIAN FOREIGN DEPENDENCE ON OIL AND OIL PRODUCTS - 2004-2013



SOURCES: ANP/SDP; MDIC/Secex; Petrobras/Abast (Table 1.22)

NOTE: All calculations made by ANP/SPD.

¹Condensate and NGL included. ²Condensate included.

TABLE 1.23. NATURAL GAS IMPORTS, BY COUNTRY OF ORIGIN - 2004-2013

COUNTRIES	NATURAL GAS IMPORTS (10 ⁶ M ³)										13/12 %
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
TOTAL (A)+(B)	8,086	8,998	9,789	10,334	11,348	8,543	12,647	10,481	13,143	16,513	25.65
Natural Gas (a)	8,086	8,998	9,789	10,334	11,313	8,108	9,820	9,796	10,082	11,648	15.53
Argentina	451	349	475	166	135	-	-	-	-	59	..
Bolivia	7,635	8,648	9,314	10,168	11,178	8,108	9,820	9,796	10,082	11,589	14.95
Liquefied Natural Gas (LNG)¹ (b)	-	-	-	-	35	435	2,827	686	3,061	4,866	58.96
Abu Dhabi	-	-	-	-	-	-	32	-	-	-	..
Algeria	-	-	-	-	-	-	-	-	-	87	..
Angola	-	-	-	-	-	-	-	-	-	75	..
Belgium	-	-	-	-	-	-	79	-	214	128	-40.25
Ecuadorian Guinea	-	-	-	-	-	-	89	-	-	-	..
Egypt	-	-	-	-	-	-	-	-	-	75	..
France	-	-	-	-	-	-	-	-	77	57	-25.97
Nigeria	-	-	-	-	-	75	869	-	451	851	88.60
Norway	-	-	-	-	-	-	-	-	168	398	137.31
Peru	-	-	-	-	-	-	154	-	-	-	..
Portugal	-	-	-	-	-	-	-	-	67	6	-91.09
Qatar	-	-	-	-	-	-	635	295	1,078	302	-71.94
Spain	-	-	-	-	-	-	-	-	27	703	2,522.48
Trinidad & Tobago	-	-	-	-	35	360	880	225	846	2,184	158.02
United States	-	-	-	-	-	-	88	166	133	-	..

SOURCE: ANP/SCM, as per Ordinance ANP No. 43/1998.

NOTE: Brazilian natural gas imports started in July, 1999 and LNG in August 2008.

¹Refers to the imported LNG considering its volume in gaseous state.

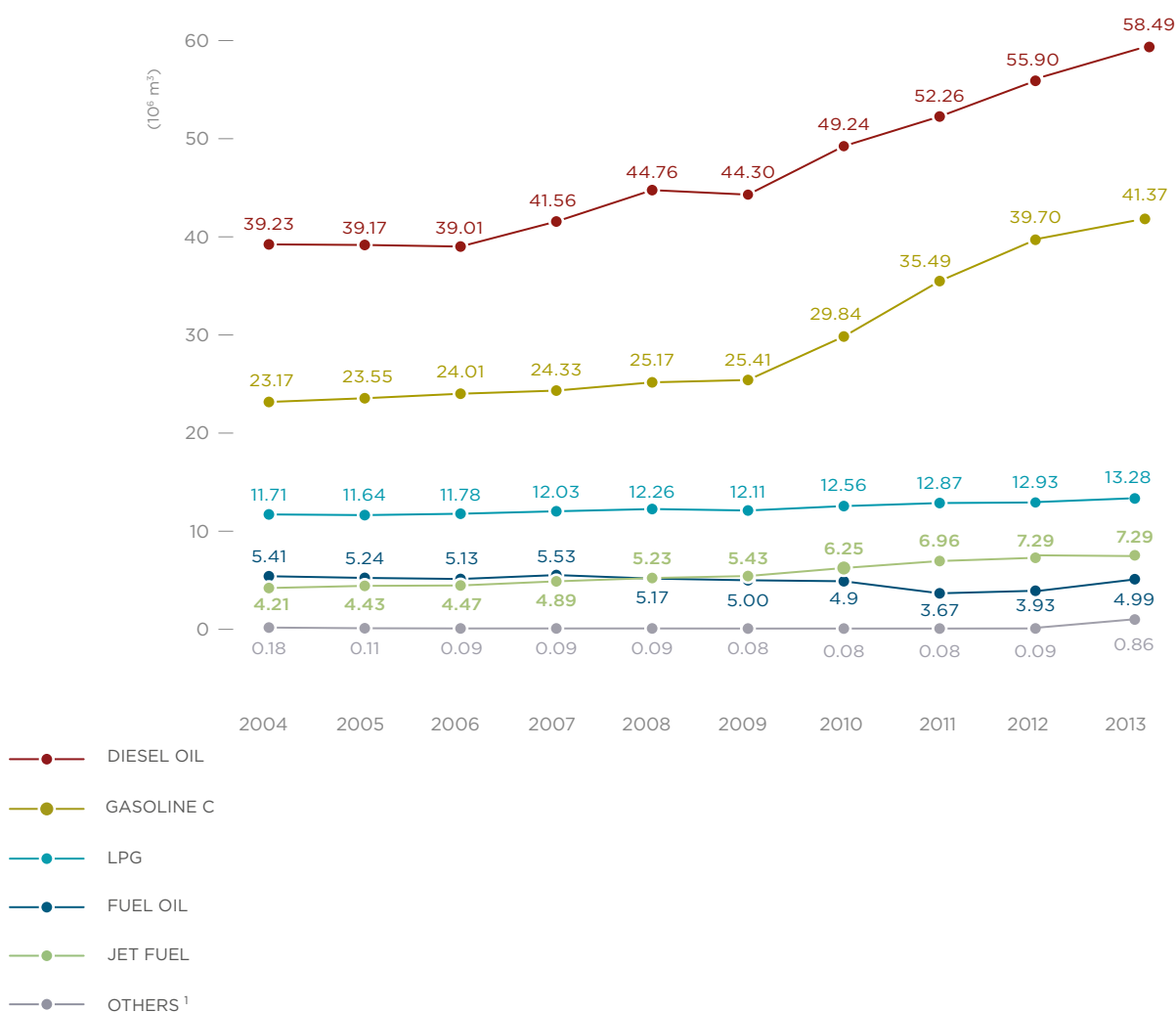
1.11 Commercialization of Oil, its Products and Natural Gas

TABLE 1.24. DOMESTIC SALES OF MAIN OIL PRODUCTS, BY DISTRIBUTORS - 2004-2013

OIL PRODUCTS	DOMESTIC SALES AT DISTRIBUTION LEVEL (10 ⁵ M ³)										13/12 %
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
TOTAL	83,907	84,140	84,486	88,419	92,682	92,332	102,878	111,335	119,838	125,435	4.67
Gasoline C	23,174	23,553	24,008	24,325	25,175	25,409	29,844	35,491	39,698	41,365	4.20
Aviation gasoline	61	55	52	55	61	62	70	70	76	77	0.88
LPG	11,708	11,639	11,783	12,034	12,259	12,113	12,558	12,868	12,926	13,276	2.71
Fuel oil	5,413	5,237	5,127	5,525	5,172	5,004	4,901	3,672	3,934	4,991	26.85
Diesel oil	39,226	39,167	39,008	41,558	44,764	44,298	49,239	52,264	55,900	58,492	4.64
Jet fuel	4,209	4,429	4,466	4,891	5,227	5,428	6,250	6,955	7,292	7,225	-0.92
Lamp oil	116	59	42	31	24	16	15	14	12	9	-18.64

SOURCE: ANP/SAB. Up to 2006, data as per Ordinance CNP No. 221/1981. Since 2007, data as per Ordinance ANP No. 17/2004.
NOTE: Up to 2006, data include distributors sales and their own consumption. Since 2007, only distributor sales are included.

FIGURE 1.14. DOMESTIC SALES OF MAIN OIL PRODUCTS, BY DISTRIBUTORS - 2004-2013



SOURCE: ANP/SAB (Table 1.24).

¹Aviation gasoline, jet fuel and lamp oil included.

TABLE 1.25. NATURAL GAS DOMESTIC SALES BY BRAZILIAN REGION AND STATE - 2004-2013

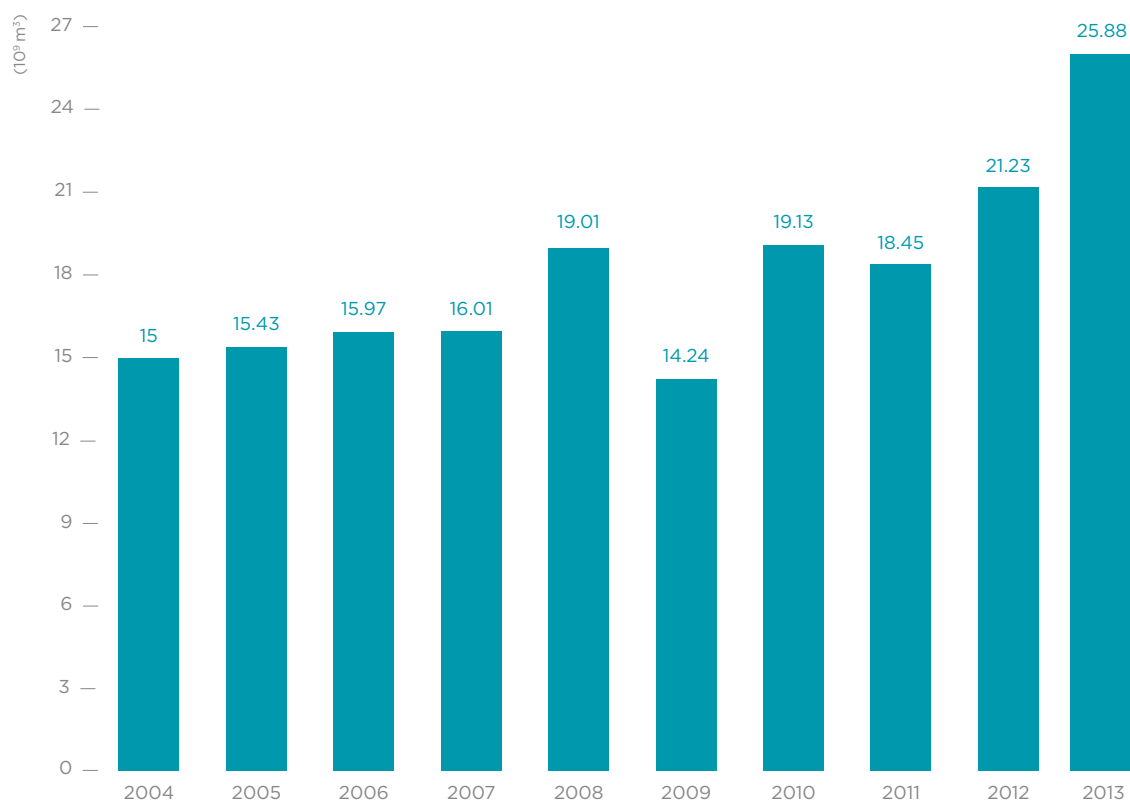
STATES	NATURAL GAS SALES BY PRODUCERS (10 ⁶ M ³)										13/12 %
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
TOTAL	14,997	15,426	15,974	16,012	19,011	14,236	19,126	18,450	21,229	25,885	21.93
North	-	-	-	-	1	1	46	647	897	1,120	24.88
Amazonas	-	-	-	-	1	1	46	647	897	1,120	24.88
Northeast	4,022	3,539	3,291	3,393	3,376	3,388	4,429	4,198	4,221	6,219	47.34
Maranhão	-	-	-	-	-	-	-	-	-	1,403	..
Ceará	479	266	225	173	186	266	509	398	464	716	54.43
Rio Grande do Norte	112	125	137	152	148	134	142	139	126	125	-1.21
Paraíba	93	99	115	132	138	131	133	126	130	126	-3.73
Pernambuco	780	662	490	391	422	475	854	864	885	1,066	20.46
Alagoas	145	155	169	181	181	165	174	162	197	214	8.47
Sergipe ¹	443	513	491	476	405	428	490	566	526	565	7.46
Bahia ¹	1,970	1,719	1,664	1,889	1,895	1,789	2,128	1,943	1,892	2,004	5.91
Southeast	8,448	9,421	10,194	10,619	13,965	9,443	12,917	11,829	14,303	16,591	16.00
Minas Gerais	726	647	733	616	830	531	945	1,045	1,318	1,480	12.4
Espírito Santo	409	385	406	445	673	490	808	1,047	1,101	1,107	0.6
Rio de Janeiro	3,203	3,610	3,730	3,770	6,453	3,448	5,350	4,015	5,750	7,657	33.18
São Paulo	4,110	4,779	5,324	5,788	6,009	4,974	5,814	5,721	6,135	6,347	3.45
South	1,558	1,749	1,934	1,652	1,564	1,350	1,542	1,700	1,712	1,766	3.19
Paraná	219	249	303	363	348	293	351	369	375	381	1.60
Santa Catarina	389	474	527	567	579	582	642	675	679	679	0.07
Rio Grande do Sul	949	1,026	1,105	723	637	475	549	656	658	706	7.32
Central-West	969	716	555	348	105	54	191	75	97	188	93.56
Mato Grosso do Sul	653	476	342	139	87	54	189	73	93	183	96.59
Mato Grosso	316	240	213	208	18	-	2	3	4	5	22.47

SOURCE: Petrobras and ANP.

NOTE: Related only the States where there were sales of natural gas in the specified period.

¹Sales for Nitrogen Fertilizer plants (Fafen), owned by Petrobras, included.

FIGURE 1.15. NATURAL GAS DOMESTIC SALES, AT PRODUCTION LEVEL - 2004-2013



SOURCE: Petrobras and (Table 1.25).

NOTE: Sales to nitrofertilizer plants (Fafen) owned by Petrobras included.

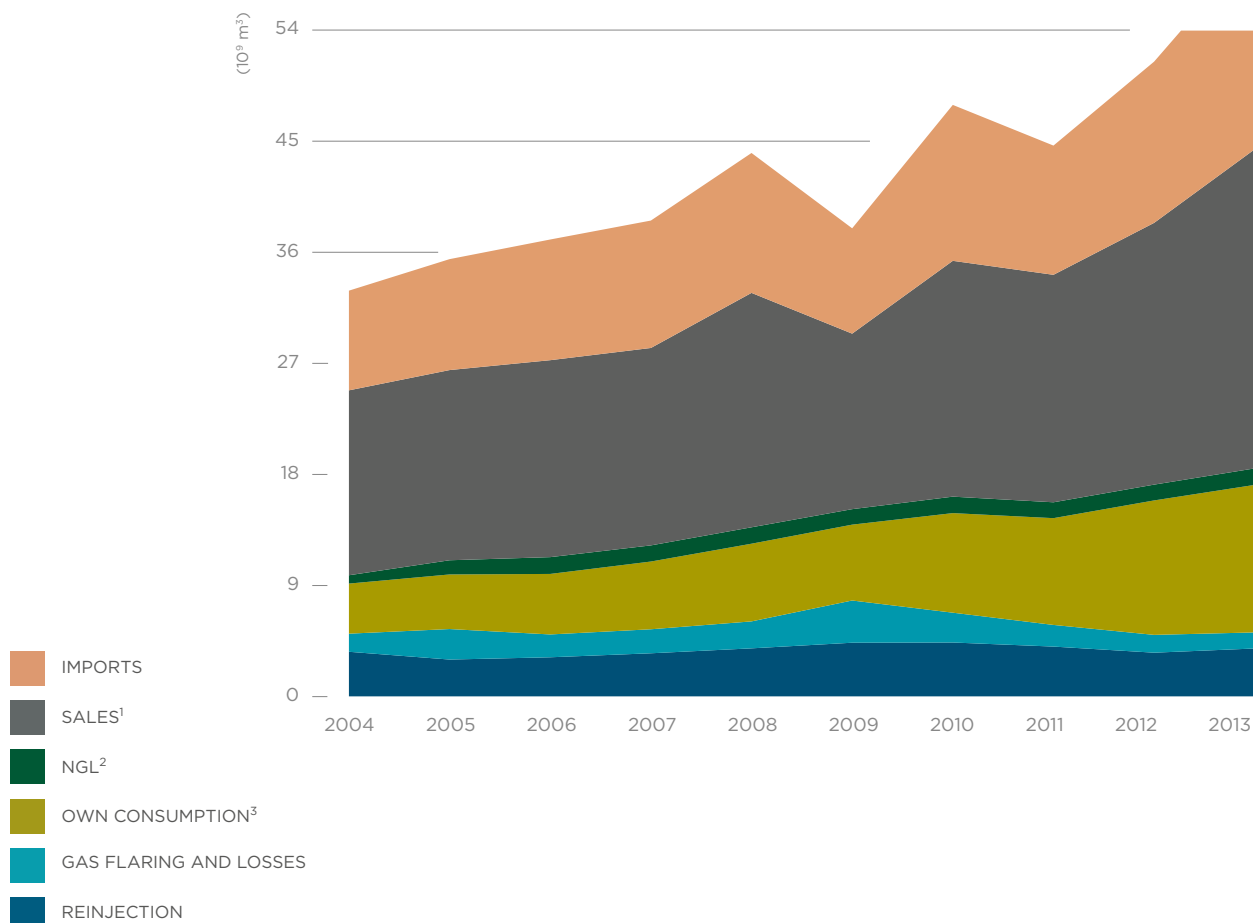
TABLE 1.26. BRAZILIAN NATURAL GAS BALANCE - 2004-2013

SPECIFICATION	BRAZILIAN NATURAL GAS BALANCE (10 ³ M ³)										12/11 %
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
Imports	8,086	8,998	9,789	10,334	11,348	8,543	12,647	10,481	13,143	16,513	25.65
Export	-	-	-	-	-	-	-	50	312	37	-88.03
Production	16,971	17,699	17,706	18,152	21,593	21,142	22,938	24,074	25,832	28,174	9.07
Reinjection	3,616	2,986	3,170	3,494	3,894	4,351	4,369	4,038	3,543	3,883	9.60
Gas flaring and losses	1,469	2,474	1,852	1,947	2,187	3,424	2,418	1,756	1,445	1,303	-9.80
Own consumption	4,063	4,428	4,909	5,494	6,301	6,152	8,076	8,660	10,905	11,967	9.74
E&P ¹	2,215	2,473	2,805	2,879	2,892	3,084	3,548	3,703	3,869	3,959	2.34
Refining, NGPPs and transfers ²	1,848	1,955	2,103	2,615	3,410	3,068	4,528	4,957	7,036	8,008	13.81
NGL ³	675	1,150	1,362	1,309	1,331	1,256	1,335	1,287	1,281	1,337	4.32
Sales ⁴	14,997	15,426	15,974	16,012	19,011	14,236	19,126	18,450	21,229	25,885	21.93
Adjustments and losses	237	233	229	229	216	265	261	314	260	276	6.06

SOURCES: ANP/SCM, as per Ordinance ANP No. 43/98, for imports data; ANP/SDP, as per Decree No. 2.705/98, for production, reinjection, gas flaring and losses data; Petrobras/Unidade de Negócios de Gás Natural, for own consumption, NGL and sales data.

¹Refers to Petrobras own consumption in production areas and in Urucu I, II and III, Guamaré I, II and III, Pilar, Atalaia, Carmópolis, Candeias, Catu, Bahia, Lagoa Parda, Cacimbas and Sul Capixaba NGPPs. ²Refers to Petrobras own consumption in refining, electricity generation and gas transfer areas as well as in Lubnor, Cabiúnas plants, Reduc I and II and RPBC NGPPs. ³Volume of gas absorbed in NGPPs (LPG, C₂, ethane and propane). ⁴Sales to Nitrofertilizers Plants (Fafen), owned by Petrobras, included.

FIGURE 1.16. NATURAL GAS DOMESTIC SALES, AT PRODUCTION LEVEL - 2004-2013



SOURCES: ANP/SDP; ANP/SCM; Petrobras (Table 1.26).

¹Sales to nitrofertilizer plants (Fafen), owned by Petrobras, included. ²Volume of gas absorbed in NGPPs (LPG, C₂, ethane and propane). ³Refers to Petrobras' own consumption in natural gas production, refining, electricity generation and processing and transferring areas.

SECTION 2
BIOFUELS



2.1 Ethanol

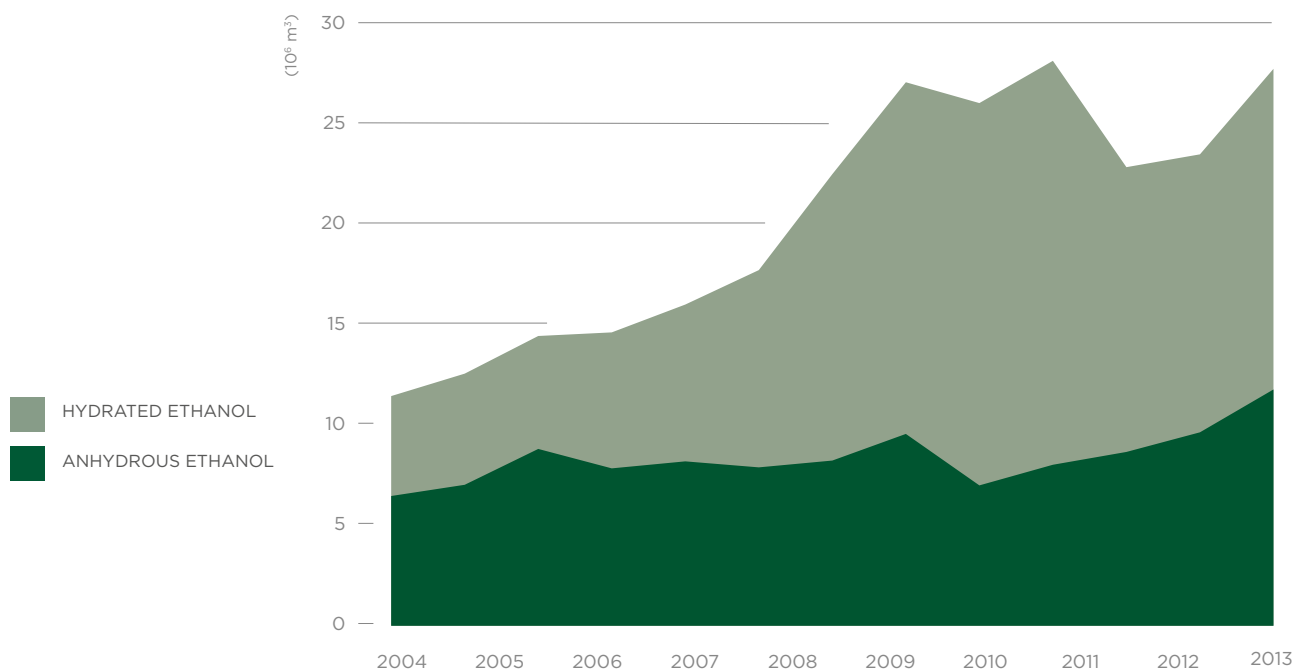
TABLE 2.1. PRODUCTION OF ANHYDROUS AND HYDRATED ETHANOL, BY BRAZILIAN REGION AND STATE - 2004-2013

BRAZILIAN REGION AND STATE	PRODUCTION OF ANHYDROUS AND HYDRATED ETHANOL (10 ³ M ³)										13/12 %
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
BRAZIL	14,647.25	16,039.89	17,764.26	22,556.90	27,133.19	26,103.09	28,203.42	22,892.50	23,540.06	27,808.59	18.13
North	47.53	47.51	75.88	47.66	55.67	51.73	59.71	169.86	209.35	253.61	21.14
Acre	-	-	-	-	-	-	1.49	2.68	4.10	5.01	22.14
Rondonia	-	-	-	-	-	8.55	10.76	12.42	8.64	10.62	22.84
Amazonas	4.67	6.01	5.65	8.26	7.96	4.74	7.14	6.43	4.05	4.87	20.46
Pará	42.86	37.28	58.66	39.39	44.91	36.02	23.81	39.14	33.50	36.99	10.42
Tocantins	-	4.22	11.57	-	2.80	2.42	16.51	109.19	159.06	196.12	23.30
Northeast	1,675.49	1,695.56	1,572.56	1,901.72	2,371.62	2,210.50	1,822.89	1,938.53	1,854.79	1,703.67	-8.15
Maranhão	95.91	48.92	113.56	192.30	181.56	168.50	180.62	178.37	158.92	305.49	92.24
Piauí	19.45	19.93	65.66	36.17	44.55	40.95	35.50	36.64	33.68	31.92	-5.22
Ceará	0.15	1.02	1.00	0.57	7.52	10.76	4.04	8.78	3.98	9.00	126.36
Rio Grande do Norte	64.21	99.35	95.56	55.60	87.40	117.30	102.03	95.92	89.81	55.55	-38.15
Pernambuco	243.80	353.50	255.94	363.50	401.48	395.30	318.08	327.96	333.82	285.45	-14.49
Alagoas	397.02	380.18	311.95	395.39	558.92	469.03	396.01	366.88	318.40	257.84	-19.02
Sergipe	729.65	620.27	572.32	681.45	892.64	790.99	575.53	721.70	600.64	478.51	-20.33
Bahia	62.47	67.64	62.79	35.49	57.56	101.12	80.91	97.89	146.43	104.56	-28.59
Southeast	9,948.40	11,154.24	12,478.67	15,782.23	19,212.33	17,676.39	18,860.06	14,208.83	14,116.98	17,167.74	21.61
Minas Gerais	758.25	918.80	1,270.58	1,790.91	2,200.92	2,284.23	2,680.51	2,105.65	2,040.34	2,627.35	28.77
Espírito Santo	167.83	217.39	159.46	281.79	250.32	238.35	208.62	197.00	180.80	180.68	-0.07
Rio de Janeiro	161.25	164.29	90.24	120.27	125.98	112.82	69.87	81.26	68.10	82.16	20.66
São Paulo	8,861.07	9,853.77	10,958.39	13,589.27	16,635.12	15,041.00	15,901.06	11,824.93	11,827.75	14,277.55	20.71
South	1,178.31	995.67	1,308.24	1,923.23	1,906.00	1,901.26	1,746.03	1,405.64	1,313.30	1,475.83	12.38
Paraná	1,173.49	992.33	1,302.74	1,916.23	1,899.68	1,898.80	1,740.23	1,399.06	1,311.64	1,471.32	12.17
Rio Grande do Sul	4.82	3.34	5.50	7.00	6.32	2.46	5.81	6.58	1.67	4.51	170.87
Central-West	1,797.52	2,146.91	2,328.92	2,902.06	3,587.57	4,263.22	5,714.73	5,169.65	6,045.64	7,207.75	19.22
Mato Grosso do Sul	413.61	619.92	644.55	873.64	945.27	1,331.48	1,881.51	1,630.29	1,938.16	2,248.37	16.01
Mato Grosso	792.63	723.78	811.80	863.59	898.52	809.92	853.53	862.11	977.58	1,087.45	11.24
Goiás	591.28	803.21	872.57	1,164.83	1,743.78	2,121.83	2,979.69	2,677.25	3,129.90	3,871.93	23.71

SOURCE: MAPA/Sapcana.

NOTE: Only states with anhydrous and/or hydrated ethanol production within the past ten years were listed.

FIGURE 2.1. PRODUCTION OF ANHYDROUS AND HYDRATED ETHANOL - 2004-2013



SOURCE: MAPA/Sapcana (Tables 2.1 and 2.2).

TABLE 2.2. PRODUCTION OF HYDRATED ETHANOL, BY BRAZILIAN REGION AND STATE - 2004-2013

BRAZILIAN REGION AND STATE	PRODUCTION OF HYDRATED ETHANOL (10 ³ M ³)										13/12 %
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
BRAZIL	6,788.47	7,832.15	9,851.38	14,302.66	17,556.28	19,089.27	20,166.88	14,217.18	13,875.96	16,011.56	15.39
North	9.24	13.61	19.09	17.91	34.90	47.62	48.99	77.77	75.84	114.69	51.23
Rondônia	-	-	-	-	-	8.55	10.76	12.42	8.64	10.62	22.84
Acre	-	-	-	-	-	-	1.49	2.68	4.10	5.01	22.14
Amazonas	4.67	6.01	5.65	8.26	7.96	4.74	7.14	6.43	4.05	4.87	20.46
Pará	4.57	7.49	11.32	9.64	25.26	31.91	17.61	22.39	10.87	8.90	-18.14
Tocantins	-	0.11	2.13	-	1.68	2.42	11.99	33.85	48.17	85.29	77.04
Northeast	861.09	775.80	711.40	987.60	1,211.57	1,284.18	983.80	930.61	843.07	629.29	-25.36
Maranhão	8.72	11.08	20.26	50.15	60.44	58.75	39.12	30.67	23.44	56.15	139.59
Piauí	4.33	5.83	13.95	9.53	11.42	5.15	2.39	1.88	1.48	1.07	-27.53
Ceará	0.15	1.02	1.00	0.57	6.90	10.76	4.04	8.78	3.98	9.00	126.36
Rio Grande do Norte	37.44	39.14	28.60	35.44	46.77	82.36	49.30	44.52	37.48	20.08	-46.44
Paraíba	158.66	171.71	147.47	212.88	213.15	237.95	182.13	184.84	186.75	121.36	-35.01
Pernambuco	151.66	128.22	112.28	212.07	297.94	309.47	237.11	184.69	141.89	102.50	-27.76
Alagoas	447.87	361.04	328.90	399.25	494.34	421.62	330.25	359.07	254.21	178.97	-29.60
Sergipe	33.78	39.05	30.48	12.46	29.09	85.39	68.50	78.02	103.36	74.16	-28.25
Bahia	18.49	18.72	28.45	55.26	51.53	72.74	70.97	38.14	90.48	65.99	-27.06
Southeast	4,279.67	5,115.17	6,877.56	9,875.79	12,347.86	12,915.91	13,298.17	8,489.67	7,771.42	9,173.17	18.04
Minas Gerais	429.32	525.88	691.18	1,167.92	1,634.03	1,793.39	2,084.00	1,362.74	1,192.36	1,455.29	22.05
Espírito Santo	46.67	46.27	47.48	88.72	125.43	130.73	104.37	69.02	68.65	73.25	6.71
Rio de Janeiro	101.65	84.08	59.52	93.32	89.20	102.86	69.87	81.26	68.10	82.16	20.66
São Paulo	3,702.04	4,458.95	6,079.38	8,525.84	10,499.20	10,888.94	11,039.93	6,976.65	6,442.32	7,562.46	17.39
South	760.64	656.29	864.81	1,563.79	1,471.32	1,528.92	1,464.59	1,039.75	919.83	1,006.24	9.39
Paraná	755.82	652.95	859.31	1,556.79	1,465.00	1,526.46	1,458.79	1,033.18	918.16	1,001.73	9.10
Rio Grande do Sul	4.82	3.34	5.50	7.00	6.32	2.46	5.81	6.58	1.67	4.51	170.87
Central-West	877.83	1,271.28	1,378.51	1,857.57	2,490.64	3,312.64	4,371.33	3,679.39	4,265.81	5,088.19	19.28
Mato Grosso do Sul	239.99	401.83	437.40	659.43	709.03	1,088.88	1,520.53	1,194.17	1,455.36	1,661.03	14.13
Mato Grosso	364.17	436.01	485.88	486.18	546.22	538.35	579.38	532.58	501.81	549.23	9.45
Goiás	273.67	433.43	455.24	711.96	1,235.39	1,685.42	2,271.42	1,952.65	2,308.64	2,877.92	24.66

SOURCE: MAPA/Sapcana.

NOTE: Only states with hydrated ethanol production within the past ten years were listed.

TABLE 2.3. ETHANOL IMPORTS, BY REGION AND BY COUNTRY OF DESTINATION - 2011-2013

REGION AND COUNTRY OF ORIGIN	ETHANOL IMPORTS (M ³)			13/12 %
	2011	2012	2013	
TOTAL	1,136,901	553,886	131,712	-76.22
North America	1,099,623	553,198	131,217	-76.28
Mexico	10	9	14	55.56
United States	1,099,612	553,189	131,203	-76.28
Central and South America	790	549	358	-34.79
Barbados	88	135	23	-82.96
Guyana	-	21	-	..
Jamaica	285	369	335	-9.21
Trinidad and Tobago	417	24	-	..
Europe	36,489	139	137	-1.44
France	1,674	5	11	120.00
Germany	61	39	50	28.21
Italy	9	21	-	..
Netherlands	17	-	-	..
Poland	-	71	72	1.41
Spain	11	3	3	..
United Kingdom	34,718	-	1	..

SOURCE: MDIC/Secex.

TABLE 2.4. ETHANOL EXPORTS, BY REGION AND BY COUNTRY OF DESTINATION - 2004-2013

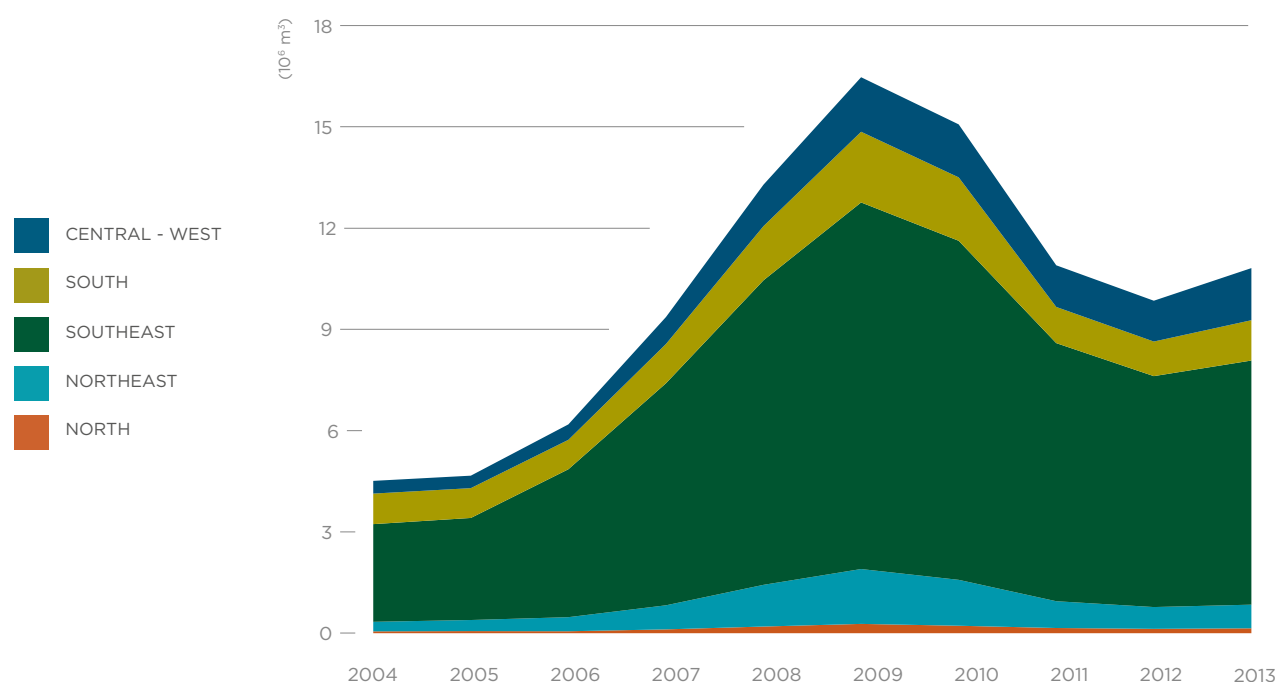
REGION AND COUNTRY OF DESTINATION	ETHANOL EXPORTS (M ³)										13/12 %
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
TOTAL	2,432,618	2,592,293	3,428,863	3,532,668	5,123,820	3,323,467	1,900,165	1,964,018	3,050,373	2,916,561	-4.39
North America	545,613	387,652	1,836,156	972,212	1,776,481	358,984	348,494	668,005	2,042,420	1,731,006	-15.25
Canada	26,334	26,839	18,855	4,250	37,467	-	-	-	-	-	..
Mexico	90,417	100,098	50,241	49,210	29,930	73,740	35,100	4,080	6,553	8,156	24.46
United States	428,863	260,715	1,767,060	918,752	1,709,084	285,244	313,394	663,925	2,035,867	1,722,850	-15.38
Central and South America	305,537	552,374	609,211	898,737	1,160,262	783,144	200,309	372,343	472,341	193,798	-58.97
Argentina	-	-	-	-	-	-	5,945	16,415	7,663	153	-98.00
Chile	1,131	1,287	1,324	2,006	2,843	1,677	5,477	5,536	4,548	2,169	-52.31
Colombia	-	-	10,320	5,390	8,187	2,420	-	8	260	9,348	3,495.38
Costa Rica	117,893	126,693	91,265	170,367	109,504	100,276	-	-	92,213	-	..
Dominican Republic	-	13,452	-	5,428	1,617	4,001	2,010	1,310	2,015	850	-57.82
El Salvador	29,154	157,851	181,143	224,397	356,238	71,101	-	50,083	108,421	44,451	-59.00
Ecuador	-	-	1,646	7,072	3,965	-	4,903	25	-	-	..
Jamaica	135,759	133,288	131,543	308,968	436,503	437,657	138,622	137,589	216,270	112,419	-48.02
Paraguay	977	-	-	-	5,068	7	74	15	112	101	-9.82
Porto Rico	5,243	10,261	10,371	13,993	10,246	22,150	32,253	20,255	19,866	15,697	-20.99
Trinidad and Tobago	7,155	36,116	71,579	158,869	224,510	139,951	6,636	135,881	14,700	3,854	-73.78
Uruguay	-	453	440	658	466	445	3,071	5,050	6,248	4,726	-24.36
Venezuela	2,903	49,478	104,605	-	-	-	965	-	-	-	..
Others	5,323	23,495	4,975	1,589	1,116	3,459	353	176	25	30	20.00
Europe	434,673	569,937	600,167	1,007,913	1,498,807	938,360	477,259	193,233	105,299	191,474	81.84
Belgium	3,625	1,400	-	1,611	6,277	5,016	4,900	18,028	162	-	..
Finland	12,429	-	-	19,986	41,477	26,812	14,843	-	-	-	..
France	7,106	-	8,900	5,064	10,213	-	-	-	5,000	13,029	160.58
Germany	-	-	-	-	4,486	-	-	4	-	-	..
Netherlands	168,573	259,403	346,615	808,557	1,332,756	678,466	238,988	95,504	91,101	142,261	56.16
Norway	-	-	-	-	-	-	6,000	-	-	-	..
Spain	375	-	173	4,698	4,911	-	-	-	-	-	..
Sweden	195,337	245,891	204,614	116,466	5,142	-	-	-	-	-	..
Switzerland	22,401	9,896	-	-	11,572	54,724	52,158	79,677	9,018	29,691	229.24
Turkey	23,181	29,313	12,856	3,747	-	-	-	-	-	6,443	..
United Kingdom	-	13,662	27,008	47,784	81,972	161,637	160,336	20	18	25	38.89
Others	1,647	10,372	1	-	1	11,705	34	-	-	25	..
Middle East	-	-	48	43,849	5,191	29,527	-	-	-	58,762	..
Saudi Arabia	-	-	-	-	-	-	-	-	-	57,440	..
United Arab Emirates	-	-	-	43,749	5,162	23,814	-	-	-	-	..
Others	-	-	48	100	29	5,713	-	-	-	1,322	..
Africa	124,766	131,723	55,531	172,578	137,676	180,723	117,398	105,511	99,265	128,387	29.34
Angola	5,848	6,577	3,178	11,661	9,871	35,118	14,548	12,173	14,995	22,774	51.88
Ghana	7,849	3,861	6,075	33,172	19,759	14,803	18,874	8,314	7,808	13,236	69.52
Nigeria	109,096	118,441	42,680	122,879	97,888	115,766	80,123	73,603	71,066	92,377	29.99
Sierra Leone	803	1,566	648	2,355	2,313	1,659	82	32	-	-	..
South Africa	-	-	2,008	-	5,563	12,318	3,556	11,368	5,334	-	..
Others	1,170	1,278	942	2,511	2,281	1,059	215	21	62	-	..
Asia-Pacific	1,022,029	950,607	327,750	437,379	545,403	1,032,729	756,705	624,926	331,048	613,134	85.21
Australia	-	-	-	-	6,374	8,040	19,338	16,443	3,533	124	-96.49
China	-	-	-	-	4,050	-	24	-	14,799	-	..
India	441,050	410,757	10,074	-	66,510	367,570	58,603	27,565	-	25,599	..
Japan	225,437	315,392	225,403	364,003	263,473	279,961	261,672	280,873	108,170	124,137	14.76
New Zeland	-	-	-	-	-	-	3,597	-	-	-	..
North Korea	-	-	-	4,790	1,755	11,181	-	-	-	8,121	..
Philippines	2,021	4,499	-	1,564	4,522	32,799	26,679	-	-	69,362	..
Singapore	29,595	3,603	-	-	10,706	19,464	6,500	-	-	-	..
South Korea	281,230	216,356	92,273	66,693	186,782	313,714	375,309	300,045	165,788	359,823	117.04
Taiwan	-	-	-	-	-	-	-	-	38,758	25,968	-33.00
Others	42,695	-	-	329	1,230	-	4,983	-	-	-	..

SOURCE: MDIC/Secex.

TABLE 2.5. HYDRATED ETHANOL SALES, BY BRAZILIAN REGION AND STATE, AT DISTRIBUTION LEVEL - 2004-2013

BRAZILIAN REGION AND STATE	HYDRATED ETHANOL SALES (10 ³ M ³)										13/12 %
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
TOTAL	4,512.93	4,667.22	6,186.55	9,366.84	13,290.10	16,470.95	15,074.30	10,899.22	9,850.18	11,754.96	19.34
North	54.98	62.68	57.77	113.63	197.77	275.85	221.36	154.07	129.35	145.79	12.71
Rondônia	12.74	13.63	10.62	21.53	40.58	57.19	40.08	26.51	19.70	20.75	5.34
Acre	3.75	4.00	4.14	6.37	9.51	11.95	9.49	8.58	5.75	6.02	4.86
Amazonas	13.53	19.02	16.27	32.50	54.70	79.60	54.88	40.52	40.07	47.01	17.32
Roraima	0.58	0.74	1.30	2.26	2.87	2.91	2.76	2.49	1.93	1.82	-5.50
Pará	10.51	10.81	10.37	17.75	31.55	46.19	46.97	33.57	30.72	32.96	7.30
Amapá	0.77	0.89	0.93	1.45	2.77	8.30	6.72	4.93	3.31	1.46	-55.94
Tocantins	13.09	13.60	14.16	31.76	55.78	69.71	60.46	37.47	27.88	35.77	28.30
Northeast	282.56	328.33	417.41	712.96	1,235.70	1,625.37	1,360.03	793.48	645.64	699.69	8.37
Maranhão	8.26	11.27	16.59	49.10	107.36	142.65	88.46	35.20	23.84	26.44	10.93
Piauí	16.22	14.97	14.04	19.44	28.27	33.11	19.25	13.86	15.98	17.94	12.25
Ceará	35.62	40.50	66.10	107.88	152.94	174.59	157.51	113.61	93.42	97.86	4.76
Rio Grande do Norte	23.36	26.50	33.37	67.38	94.71	98.37	79.16	55.27	46.05	48.02	4.27
Paraíba	32.05	34.03	36.60	63.59	89.66	112.98	86.56	58.02	44.72	54.25	21.33
Pernambuco	69.22	93.53	107.51	163.31	280.71	365.49	315.41	184.82	163.34	153.90	-5.78
Alagoas	23.52	26.90	34.90	51.46	83.10	104.51	76.10	53.24	39.55	34.97	-11.60
Sergipe	14.76	13.52	12.77	16.85	29.43	52.50	39.23	25.25	21.12	20.76	-1.70
Bahia	59.55	67.11	95.53	173.95	369.51	541.17	498.36	254.23	197.61	245.54	24.25
Southeast	2,893.98	3,023.31	4,381.77	6,578.10	9,022.76	10,860.08	10,044.63	7,646.56	6,841.20	8,008.67	17.07
Minas Gerais	420.90	391.48	371.41	602.74	957.20	1,204.43	838.16	568.76	524.09	726.90	38.70
Espírito Santo	36.72	50.55	42.43	70.83	137.25	172.83	85.76	55.73	47.37	41.95	-11.45
Rio de Janeiro	109.82	180.53	224.25	359.40	677.06	872.81	746.46	531.76	435.28	583.07	33.95
São Paulo	2,326.54	2,400.75	3,743.68	5,545.12	7,251.25	8,610.00	8,374.26	6,490.31	5,834.46	6,656.75	14.09
South	904.65	883.41	872.40	1,163.95	1,605.38	2,094.71	1,878.49	1,071.58	1,024.50	1,350.85	31.85
Paraná	538.76	518.24	520.58	701.25	904.33	1,193.03	1,347.00	811.37	814.62	1,128.90	38.58
Santa Catarina	173.87	175.27	193.06	242.40	376.16	498.65	290.59	123.08	94.66	110.50	16.73
Rio Grande do Sul	192.01	189.90	158.76	220.30	324.89	403.03	240.89	137.12	115.22	111.45	-3.27
Central-West	376.76	369.50	457.19	798.20	1,228.50	1,614.95	1,569.79	1,233.53	1,209.49	1,549.96	28.15
Mato Grosso do Sul	71.21	71.59	65.29	105.47	166.28	207.98	168.27	105.79	90.76	130.87	44.19
Mato Grosso	59.25	70.98	72.47	107.20	276.85	393.94	416.31	338.64	371.86	488.53	31.37
Goias	170.10	149.38	238.58	435.31	610.59	773.68	851.08	705.07	688.74	852.55	23.78
Distrito Federal	76.20	77.56	80.86	150.22	174.78	239.35	134.13	84.02	58.13	78.02	34.20

SOURCE: ANP/SAB. Up to 2006, data as per Ordinance CNP No. 221/1981. Since 2007, data as per Ordinance ANP No. 17/2004.
NOTE: Up to 2006 data include distributors sales and their own consumption. Since 2007, data include solely distributors sales.

FIGURE 2.2. HYDRATED ETHANOL SALES, BY REGION, AT DISTRIBUTION LEVEL - 2004-2013

SOURCE: ANP/SAB (Table 2.5).

2.2 Biodiesel

TABLE 2.6. NOMINAL CAPACITY OF BIODIESEL¹ (B100), BY PLANT - 2013

PLANT	LOCATION (STATE)	NOMINAL CAPACITY
		(M ³ /YEAR)
TOTAL		21,957.8
Abdiesel	Varginha/MG	2.4
Abdiesel	Araguari/MG	6.0
ADM	Rondonópolis/MT	1,352.0
ADM	Joaçaba/SC	510.0
Agrenco	Alto Araguaia/MT	660.0
Amazonbio	Ji-Paraná/RO	90.0
Araguassú	Porto Alegre do Norte/MT	100.0
Barralcool	Barra dos Bugres/MT	190.5
Beira Rio	Terra Nova do Norte/MT	12.0
Bianchini	Canoas/RS	900.0
Big Frango	Rolândia/PR	6.0
Binatural	Formosa/GO	450.0
Bio Brazilian	Barra do Garças/MT	98.0
Bio Óleo	Cuiabá/MT	150.0
Bio Petro	Araraquara/SP	194.4
Bio Vida	Várzea Grande/MT	18.0
Biocamp	Campo Verde/MT	300.0
Biocapital	Charqueada/SP	400.0
Biocar	Charqueada/SP	30.0
Bionasa	Porangatu/GO	653.0
Biopar	Rolândia/PR	120.0
Biopar	Nova Marilândia/MT	338.0
Biotins	Paraíso do Tocantins/TO	81.0
Bocchi	Muitos Capões/RS	300.0
Bsbios	Passo Fundo/RS	444.0
Bsbios	Marialva/PR	510.0
Bunge	Nova Mutum/MT	413.8
Camera	Ijuí/RS	650.0
Caramuru	Ipameri/GO	625.0
Caramuru	São Simão/GO	625.0
Cargill	Três Lagoas/MS	700.0
Cesbra	Volta Redonda/RJ	166.7
Cooperbio	Cuiabá/MT	460.0
Cooperfeliz	Feliz Natal/MT	10.0
Delta	Rio Brilhante/MS	300.0
Fertibom	Catanduva/SP	333.3
Fiagril	Lucas do Rio Verde/MT	563.0
Fuga Couros	Camargo/RS	300.0
Grand Valle	Porto Real/RJ	247.0
Granol	Porto Nacional/TO	360.0
Granol	Anápolis/GO	1,033.0
Granol	Cachoeira do Sul/RS	933.3
Grupal	Sorriso/MT	120.0
Innovatti	Mairinque/SP	30.0
Jataí	Jataí/GO	50.0
JBS	Colider/MT	100.0
JBS	Lins/SP	560.2
Minerva	Palmeiras de Goiás/GO	45.0
Noble	Rondonópolis/MT	600.0
Oleoplan	Veranópolis/RS	1,050.0
Olfar	Erechim/RS	600.0
Orlândia	Orlândia/SP	150.0
Ouro Verde	Rolim de Moura/RO	9.0
Petrobras Biocombustíveis	Montes Claros/MG	422.7
Petrobras Biocombustíveis	Quixadá/CE	301.7
Petrobras Biocombustíveis	Candeias/BA	603.4
Potencial	Lapa/PR	477.0
Rondobio	Rondonópolis/MT	10.0
Spbio	Sumaré/SP	83.3
SSIL	Rondonópolis/MT	50.0
Tauá	Nova Mutum/MT	100.0
Transportadora Caiense	Rondonópolis/MT	100.0
Três Tentos	Ijuí/RS	500.0
V-Biodiesel	Iraquara/BA	360.0

SOURCE: ANP/SRP, as per Ordinance ANP No. 30/2013.

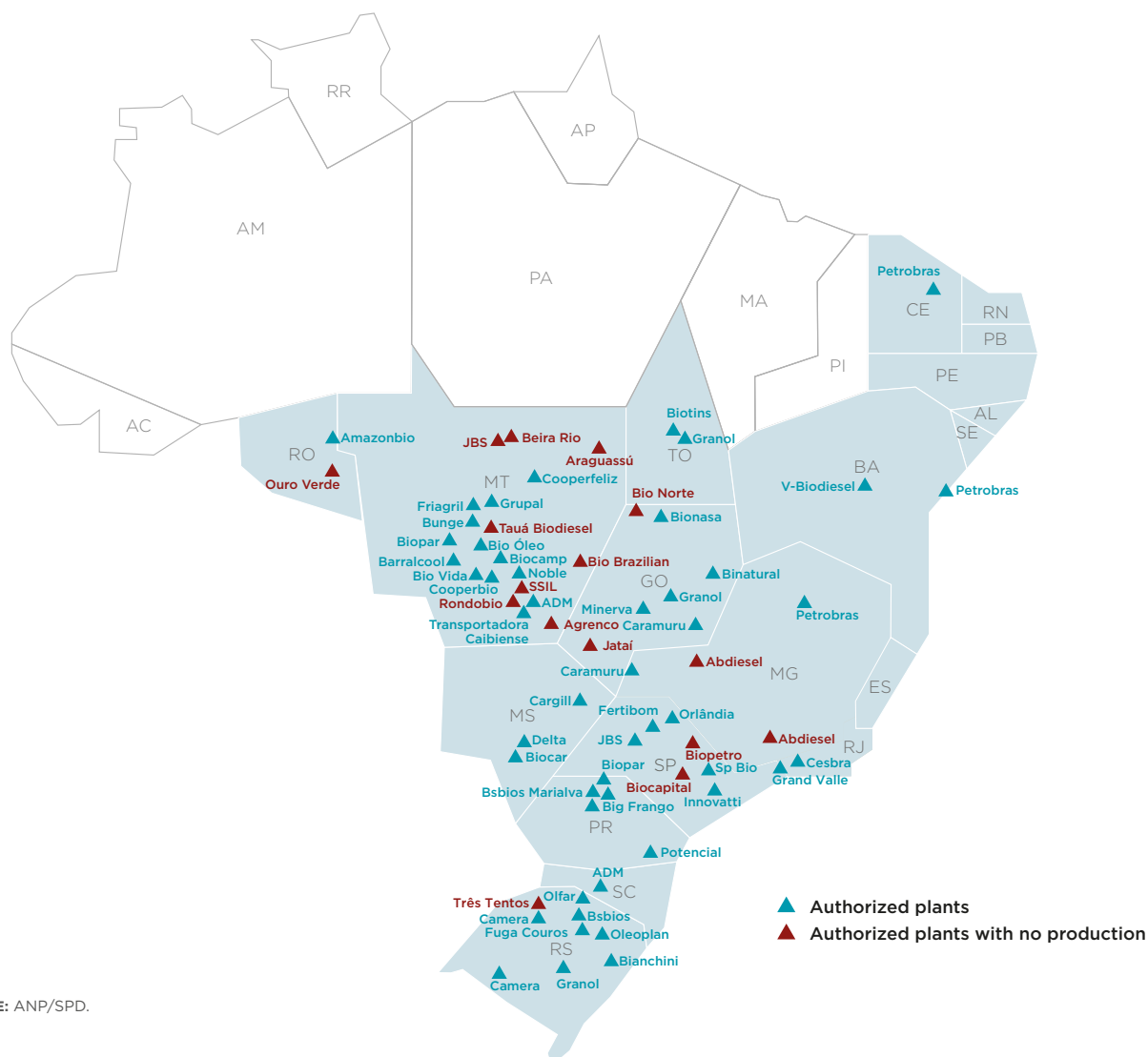
¹Biodiesel (B100), as per Ordinance ANP No. 14/2012.

TABLE 2.7. PRODUCTION OF BIODIESEL¹, BY BRAZILIAN REGION AND STATE - 2005-2013

BRAZILIAN REGION AND STATE	PRODUCTION OF BIODIESEL (B100) - (M ³)									13/12 %
	2005	2006	2007	2008	2009	2010	2011	2012	2013	
BRAZIL	736	69,002	404,329	1,167,128	1,608,448	2,386,399	2,672,760	2,717,483	2,917,488	7.36
North	510	2,421	26,589	15,987	41,821	95,106	103,446	78,654	62,239	-20.87
Rondônia	-	-	99	228	4,779	6,190	2,264	8,406	13,553	61.22
Pará	510	2,421	3,717	2,625	3,494	2,345	-	-	-	..
Tocantins	-	-	22,773	13,135	33,547	86,570	101,182	70,247	48,687	-30.69
Northeast	156	34,798	172,200	125,910	163,905	176,994	176,417	293,573	278,379	-5.18
Maranhão	-	-	23,509	36,172	31,195	18,705	-	-	-	..
Piauí	156	28,604	30,474	4,548	3,616	-	-	-	-	..
Ceará	-	1,956	47,276	19,208	49,154	66,337	44,524	62,369	84,191	34.99
Bahia	-	4,238	70,942	65,982	79,941	91,952	131,893	231,204	194,188	-16.01
Southeast	44	21,562	37,023	185,594	284,774	420,328	379,410	255,733	261,373	2.21
Minas Gerais	44	311	138	-	40,271	72,693	76,619	80,100	88,020	9.89
Rio de Janeiro	-	-	-	-	8,201	20,177	7,716	17,046	8,891	-47.84
São Paulo	-	21,251	36,885	185,594	236,302	327,458	295,076	158,587	164,462	3.70
South	26	100	42,708	313,350	477,871	675,668	976,928	926,611	1,132,405	22.21
Paraná	26	100	12	7,294	23,681	69,670	114,819	120,111	210,716	75.43
Santa Catarina	-	-	-	-	-	-	-	-	38,358	..
Rio Grande do Sul	-	-	42,696	306,056	454,189	605,998	862,110	806,500	883,331	9.53
Central-West	-	10,121	125,808	526,287	640,077	1,018,303	1,036,559	1,162,913	1,183,092	1.74
Mato Grosso do Sul	-	-	-	-	4,367	7,828	31,023	84,054	188,897	124.73
Mato Grosso	-	13	15,170	284,923	367,009	568,181	499,950	477,713	418,480	-12.40
Goiás	-	10,108	110,638	241,364	268,702	442,293	505,586	601,146	575,715	-4.23

SOURCE: ANP/SPD, as per Ordinance ANP No. 17/2004.
¹Biodiesel (B100), as per Ordinance ANP No. 14/2012.

MAP 2.1. INFRASTRUCTURE FOR BIODIESEL PRODUCTION - 2013



SOURCE: ANP/SPD.

CONVERSION FACTORS, DENSITIES AND LOWER CALORIFIC VALUES

MEAN VALUES FOR YEAR 2013				
PRODUCTS AND UNITS		CONVERSION FACTOR TO BOE	DENSITY ¹ (T/M ³)	LOWER CALORIFIC VALUE (KCAL/KG)
Anhydrous ethanol	m ³	3.841	0.791	6,750
Hydrated ethanol	m ³	3.666	0.809	6,300
Asphalt	m ³	7.219	1.025	9,790
Pure biodiesel (B100)	m ³	5.698	0.880	9,000
Green petroleum coke	m ³	6.277	1.040	8,390
Dry natural gas	10 ³ m ³	4.685	0.001	8,800
Wet natural gas	10 ³ m ³	5.286	0.001	9,930
Refinery fuel gas	10 ³ m ³	4.714	0.001	8,400
Gasoline A	m ³	5.552	0.742	10,400
Gasoline C	m ³	5.535	0.754	10,200
Aviation gasoline	m ³	5.536	0.726	10,600
LPG	m ³	4.408	0.552	11,100
NGL	m ³	4.469	0.580	10,710
Naphtha	m ³	5.368	0.702	10,630
Bunker	m ³	6.899	1.000	9,590
Diesel oil	m ³	6.104	0.840	10,100
Fuel oil ²	m ³	6.989	1.013	9,590
Lubricating oil	m ³	6.370	0.875	10,120
Other energy products	m ³	6.340	0.864	10,200
Other non-energy products	m ³	6.340	0.864	10,200
Paraffin	m ³	6.141	0.820	10,410
Imported oil	m ³	6.229	0.850	10,190
Domestic oil (offshore and onshore)	m ³	6.484	0.884	10,190
Exported oil (Marlim)	m ³	6.562	0.895	10,190
Jet fuel	m ³	5.978	0.799	10,400
Lamp kerosene	m ³	5.978	0.799	10,400
Solvent	m ³	5.624	0.741	10,550

SOURCE: ANP/SPD.

¹At 20 °C temperature and 1 atm for natural gas as well as oil and natural gas products. ²Fuel oil ATE e BTE.

Prefixes of SI Units

(k) quilo = 10³

(M) mega = 10⁶

(G) giga = 10⁹

(T) tera = 10¹²

(P) peta = 10¹⁵

(E) exa = 10¹⁸

Relationships between Units

1 m³ = 6.28981 barrels

1 barrel = 0.158987 m³

1 joule (J) = 0.239 cal

1 BTU = 252 cal

1 boe = 1,390 Mcal

1 toe = 10,000 Mcal

GLOSSARY

Anhydrous Ethanol: obtained in Brazil through the fermentation of sugar cane molasses. It has an alcoholic content of 99.3° INPM. The anhydrous ethanol is used in mixtures with gasoline A, for producing gasoline type C, in proportions defined by applicable law.

Apparent Consumption: the summation of parcels referring to production and imports, minus the exported volume.

Bbl/d: barrels per day.

Bidding Round: denomination for the several international public bids promoted by ANP, aiming the granting of concessions to the winning bidders (previously qualified companies) for exploring and producing oil and natural gas in pre-defined areas (blocks).

Biodiesel: fuel composed by alkyl esters, derived from vegetal oils or animal fats, according to the specification of Ordinance ANP No. 14/2012.

Boe: "barrel of oil equivalent". A measurement unit for equivalent energy, per convention equal to 1,390 Mcal.

Calorie: this book adopts the calorie at 15 °C (cal_{15}). 1 cal_{15} is the amount of thermal energy required to heat 1g of air-free water from 14.5 °C to 15.5 °C under a constant pressure of 101.325 kPa (quiloPascals). Conversion factor: 1 cal_{15} = 4.1855 J.

Concession: an administrative contract through which ANP grants to companies that meet the technical, economic and legal requirements the right to explore and produce oil and natural gas in the Brazilian territory.

Concessionaire: a company incorporated under Brazilian law, with main office and management located in Brazil that was granted a concession contract by ANP for the exploration and production of oil and natural gas in a sedimentary basin located in the Brazilian territory.

Dew Point Plant (DPP): plant that uses Joule-Thomson effect to adjust dew point of processed gas.

Energy Oil Products: oil products mainly utilized as fuels, which release energy and/or light when burned. That denomination covers the following oil products: LPG, gasoline A, aviation gasoline, lamp fuel, jet fuel, diesel oil, fuel oil and coke.

Ethanol: Composed of two carbon atoms, five hydrogen atoms and one hydroxyl group (C_2H_5OH), it is obtained in Brazil through the fermentation of sugar cane molasses. Used as a fuel in Otto cycle internal combustion engines, mainly on road transportation.

Gasoline A: Fuel produced by the process of oil refining or formulated by mixing currents from the petroleum refining and natural gas processing, for vehicles equipped with automotive Otto cycle engines, free of oxygenated components. ANP Ordinance No. 57/2011.

Gasoline C: gasoline composed of a mixture of gasoline A and anhydrous ethanol, which proportions are defined by applicable law. ANP Ordinance No. 57/2011.

Hydrated Ethanol: motor vehicle fuel obtained in Brazil through the fermentation of sugar cane molasses. When free from hydrocarbons, it has an alcoholic content between 92.6° and 93.8° INPM. Used in Otto cycle internal combustion engines, specifically in alcohol powered vehicles for road transportation.

INPM: Represents the alcohol percentage in mass in the mixture (% m/m) used in Brazil.

Liquefied Petroleum Gas (LPG): natural gas cooled to temperatures below -160 °C for transfer and storage in liquid state. Mainly composed by methane, although it may have minimum quantities of ethane, propane, nitrogen and or other components generally found in natural gas. ANP Ordinance No. 9/2000.

Liquid Fractionation Plant (LFP): plant designed to separate NGLs components (ethane, propane, butane, iso-butane and C_5^+), consisting of boiling off of hydrocarbons one by one.

Liquid Recovery Plant (LRP): plant designed to process natural gas in order to recover NGLs. That process is required to meet pipeline dewpoint specifications.

Methanol: chemical compound whose chemical formula is CH_3OH . It is liquid and inflammable, besides possessing an invisible flame and freezing point of around $-98\text{ }^\circ\text{C}$. Methanol has large scale utilization in plastics industry and in reactions of pharmacological importance. Concerning biofuels industry, methanol is used in transesterification of vegetal oils and animal grasses, in order to produce biodiesel.

Natural Gas Condensate Processing Plant (NGCPP): plant that separates natural gas condensate from a raw natural gas.

Natural Gas Liquids (NGL): hydrocarbons in natural gas removed from gas as liquids, in lease separators, field facilities, NGPPs or in pipeline transfers, according to Ordinance ANP No. 118/2000.

Natural Gas Processing Plant (NGPP): plant designed to separate heavy components (propane and butane) from natural gas.

Natural Gas Refrigeration Plant (NGRP): Plant that separates natural gas from natural gas liquids.

Non-Energy Oil Products: oil products that, although having significant energy content, are used for non-energy aims. That denomination covers the following oil products: greases, lubricants, paraffin, asphalts, solvents, coke, naphtha, aromatic extract, vacuum gas oil, light cycle oil, atmospheric residue, diluents, n-paraffin, others petroleum oils, bituminous minerals, as well as other oil products of lesser importance.

Operator company: enterprise that is legally designated by the consortium for conducting and executing all the operations and activities in the concession area, according to the provisions established in the concession contract signed by ANP and the concessionaire.

Petroleum Law: Law No. 9478, of August 6th, 1997.

Refining capacity: processing capacity for which an industrial plant was designed, measured in bbl/d or m^3/d .

Refining Capacity per Operation Day: maximum load volume that the primary distillation plant(s) can process in a 24-hour period, when operating at full capacity, under optimal and stable conditions in terms of raw materials, products and downstream plants, without any maintenance interruptions scheduled in any of the components of the refinery's production system. It is expressed in operation m^3/d or bbl/stream day.

Refining Capacity per Calendar Day: maximum load volume, expressed in a 24-hour period, that the primary distillation plant(s) can process, under average and normal operating conditions, during the complete cycle of plant maintenance activities. This capacity takes into account any reduction in capacity of all the refinery's plants in continuous operation resulting from limitations that may delay, interrupt or reduce production. It is expressed in $\text{m}^3/\text{calendar day}$ or bbl/calendar day.

Round Zero: denominates the act of signing, under the provisions of the Petroleum Law, article 34, on August 6th 1998, of licensing contracts between ANP and Petrobras for 397 blocks that were already under exploration, development or production by the state-owned company at the time the Petroleum Law was enforced.

Toe: "ton of oil equivalent". A measuring unit for equivalent energy, per convention, equal to 10,000 Mcal.

Shale: generally clay sedimentary rock, organic material (kerogen) -rich. When submitted to high temperatures, shale releases oil, water and gas, as well as a carbon solid residual.

LIST OF SOURCES

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