



December 26, 2019

QUARTERLY REPORT

This Quarterly Report has been prepared by Banco do Brasil S.A., for its role as Bond Administrator in connection with the issuance of (a) US\$ 2,000,000,000 aggregate principal amount of 6.25% Series 2014-1 Notes due 2024 (the “Series 2014-1 Notes”); (b) R\$ 2,400,000,000 aggregate principal amount of 16.25% Series 2014-2 Notes due 2022 (the “Series 2014-2 Notes”), (c) US\$ 1,100,000,000 aggregate principal amount of 6.75% Series 2014-3 Notes due 2027 (the “Series 2014-3 Notes”); and (d) US\$ 600,000,000 aggregate principal amount of 8.20% Series 2018-1 Notes due 2028 by Rio Oil Finance Trust and in accordance with the terms set forth in the Amended and Restated Indenture dated as of June 20, 2014, and as amended and restated as of April 03, 2018 (the “Indenture”), in the Amended and Restated Series 2014-1 Indenture Supplement and the Amended and Restated Series 2014-2 Indenture Supplement, dated as of June 20, 2014, and as amended and restated as of March 07, 2018, in the Amended and Restated Series 2014-3 Indenture Supplement dated as of November 21, 2014, and as amended and restated as of March 07, 2018, and in the Series 2018-1 Indenture Supplement dated as of April 19, 2018 (the “Indenture Supplements”).

Some of the terms set forth in the Indenture and in the Indenture Supplements were amended by that certain Waiver and Amendment Agreement dated as of October 20, 2015 (the “First Waiver and Amendment Agreement”), by that certain Waiver and Amendment Agreement dated as of June 20, 2016 (the “Second Waiver and Amendment Agreement”), by that certain Waiver and Amendment Agreement dated as of October 11, 2016 (the “Third Waiver and Amendment Agreement”), by that certain Rescission and Amendment Agreement dated as of December 05, 2016 (the “Fourth Rescission and Amendment Agreement”), by that certain Rescission and Amendment Agreement dated as of December 04, 2017 (the “Fifth Rescission and Amendment Agreement”), and by that certain Waiver, Rescission and Amendment Agreement dated as of March 07, 2018 (the “Sixth Waiver, Rescission and Amendment Agreement”), and are fully reflected in all calculations of this Quarterly Report.

The duties and obligations of Banco do Brasil S.A. is determined solely by the express provisions of the Indenture and the other Transactions Documents which it is a part, such as the responsibility for producing the Bond Administrator Reports. Banco do Brasil S.A. shall not be liable except for the performance of such duties and obligations.

Banco do Brasil S.A. may conclusively rely as to the truth of the statements and the correctness of the opinions expressed in any Transaction Document and upon any statements, certificates or opinions furnished in writing to Banco do Brasil S.A. pursuant to any of the Transaction Documents and conforming to the requirements of the Transaction Documents. Banco do Brasil S.A. may conclusively rely upon, and shall be protected in acting or refraining from acting upon, and shall not be bound to make any investigation into the facts or matters stated in a written resolution, certificate, statement, instrument, opinion, report, notice, request, consent, order, note, Officer’s Certificate, guaranty or other paper or document reasonably believed by it to be genuine and to have been signed or presented by the proper Person(s).

This Quarterly Report is addressed exclusively to Rio Oil Finance Trust (the Issuer), to Fundo Único de Previdência Social do Estado do Rio de Janeiro – Rioprevidência (the Sponsor), to Citibank N.A. (the Indenture Trustee), to Standard & Poor’s Financial Services, LLC and Fitch Ratings, Inc (the Rating Agencies).

The Reporting Period for this Quarterly Report is from, and including September 23, 2019 and ends on, and including, December 22, 2019. The exchange rate for dollar/reaís conversion used in this Quarterly Report is R\$ 4.0972. The Reais Allocation Date during such Reporting Period and the related exchange rate for dollar/reaís conversion used in this Quarterly Report happened in:

Date	Exchange Rate	Date	Exchange Rate
Sep 26, 2019	R\$ 4.1500	Nov 25, 2019	R\$ 4.2391
Oct 17, 2019	R\$ 4.1200	Nov 29, 2019	R\$ 4.2152
Nov 08, 2019	R\$ 4.1525	Dec 11, 2019	R\$ 4.1100
Nov 20, 2019	R\$ 4.1956	Dec 20, 2019	R\$ 4.0972



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Defined Terms

“Bond Administration Report” shall mean any Transfer Report, any Monthly Report and any Quarterly Report.

“Collections” shall mean, with respect to any period of time, all income, revenue, receipts, collections, the Series Purchase Prices of an Optional Redemption, the RJS Damages, the Sponsor Refund Obligations, and proceeds of the foregoing received by the Servicer with respect to the Collateral during such period of time.

“Officer’s Certificate” shall mean, in the case any of the Issuer and the Sponsor and the Indenture Trustee, a certificate signed by an Authorized Officer or the president or chairman (or other equivalent officer) of such Person or acting on behalf of such Person.

“Person” shall mean any individual, corporation, company, partnership, joint venture, trust, estate, unincorporated association, Governmental Authority or other entity of whatever nature.

“Quarterly Reporting Period” shall mean (a) initially, the period commencing on the Closing Date and ending on, and including, September 22, 2014 and (b) subsequently, from, and including, the calendar day immediately succeeding the final day of the immediately preceding Quarterly Reporting Period, to, and including, the twenty-second calendar day of the third succeeding calendar month; provided that, for the initial Quarterly Reporting Period for the purpose of determining the Debt Service Coverage Ratio, the Annualized Average Debt Service Coverage Ratio, the Forward-Looking Debt Service Coverage Ratio, the Minimum Average Forward-Looking Debt Service Coverage Ratio, the Subordinate Debt Service Coverage Ratio, and the Subordinate Annualized Average Debt Service Coverage Ratio and to the extent used in any of the foregoing terms for the initial Quarterly Reporting Period, the Quarterly Debt Service and the Subordinate Quarterly Debt Service any reference to such initial Quarterly Reporting Period shall instead refer to the Quarterly Reporting Period (Alternate Initial).

“Reais Allocation Date” shall mean, with respect to any Reais Transfer Date, the Business Day which is immediately prior to such Reais Transfer Date.

“Reais Transfer Date” shall mean each Business Day of each calendar month following a Business Day when, as of the Balance Transfer Time for the Bond Administrator, there are available funds in the Collections Account for allocation in accordance with the Indenture.

“Transaction Documents” shall mean, collectively, the Indenture, the Series 2014-1 Notes, the Series 2014-2 Notes, the Series 2014-1 Indenture Supplement, the Series 2014-2 Indenture Supplement, the Bill of Sale, the Royalties Rights Agreement, the Servicing Agreement, the Pledge Agreement, the Trust Agreement, the Initial Oil Revenue and Rights Bill of Sale, the Banco do Brasil Oil Revenue and Rights Bill of Sale, the Caixa Oil Revenue and Rights Bill of Sale, the Instruments and any Indenture Supplements with respect to future Series of Instruments, and any purchase agreement related to the Instruments.

“Reporting Period” shall mean a Monthly Reporting Period or a Quarterly Reporting Period.



Section (A) – Collections Revenue and Expense Breakdowns

The tables below show the total Collections received by Banco do Brasil S.A. on such Allocation Date, with respect to the Collateral of the transaction.

RJS Oil Revenues and RJS Oil Revenue Rights	Amount
Royalties – up to 5% (Law N° 7,990 of December 28, 1989)	R\$ 694,377,839.53
Royalties – more than 5% (Law N° 9,478 of August 6, 1997)	R\$ 516,622,580.55
Special Participations (Law N° 9,478 of August 6, 1997)	R\$ 2,199,727,390.12
FEP (Special Petroleum Fund) – Law N° 7,990 and Law N° 9,478	R\$ 4,054,575.42
Total amount transferred to RJS Oil Revenues Dedicated Account	R\$ 3,414,782,385.62

Statutory Oil Revenue Allocations by RJS	Amount
PASEP (Program for the Formation of Assets of Public Servants)	(R\$ 34,147,823.76)
FECAM (State Fund for Environmental Conservation and Urban Development) ¹	R\$ 0.00
Municipalities within RJS	(R\$ 171,858,515.30)
Brazilian Federal Government (Assignment Agreement of October 29, 1999)	R\$ 0.00
Conta B (State Decree N° 43,783 of September 12, 2012)	R\$ 0.00
Total RJS Oil Revenue Allocations	(R\$ 206,006,339.06)

Assigned Oil Revenues and Assigned Oil Revenue Rights	Amount
RJS Oil Revenues and RJS Oil Revenue Rights	R\$ 3,414,782,385.62
RJS Oil Revenue Allocations	(R\$ 206,006,339.06)
Net amount transferred to Collections Account	R\$ 3,208,776,046.56

1) According to the Amendment to the State of Rio de Janeiro Constitution N° 70 of December 12, 2017 and the State Law N° 178 of December 20, 2017 (the “FECAM Subordination Legislation”), amounts related to FECAM Allocation are not deducted from Royalties and Special Participations, but instead are allocated according to priority fifteenth of the Revenue Account Waterfall (Section 4.3.(o) of the Indenture).



Section (B) – Detailed Allocation of Funds

In accordance with the Collections Account Waterfall and the Revenue Account Waterfall, the full amount of funds available for transfer on each Reais Transfer Date, was allocated as per below:

Allocation of Funds	Amount
Taxation Expenses Transfer Amount	R\$ 63,073,375.51
Servicer Fee Transfer Amount	R\$ 100,472.02
Bond Administrator Fees Transfer Amount	R\$ 100,472.02
Excess Companhia Securitizadora Expenses Transfer Amount	R\$ 156,425.08
Issuer Expenses Transfer Amount	R\$ 367,434.00
Series 2014-1 Senior Interest Transfer Amount	R\$ 109,908,114.34
Series 2014-2 Senior Interest Transfer Amount	R\$ 14,304,547.86
Series 2014-3 Senior Interest Transfer Amount	R\$ 76,439,456.08
Series 2018-1 Senior Interest Transfer Amount	R\$ 50,676,000.00
Series 2014-1 Senior Scheduled Principal Transfer Amount	R\$ 160,584,345.85
Series 2014-2 Senior Scheduled Principal Transfer Amount	R\$ 32,451,625.73
Series 2014-3 Senior Scheduled Principal Transfer Amount	R\$ 71,761,538.81
Series 2014-1 Debt Service Reserve Account Transfer Amount	R\$ 6,696,833.59
Liquidity Reserve Account Transfer Amount	R\$ 79,935,749.95
Special Interest Liquidity Reserve Account Transfer Amount	R\$ 7,328,308.20
To the holder of the Sponsor Note and/or RJS	R\$ 2,534,891,347.52
Total allocation	R\$ 3,208,776,046.56



Section (C) – Debt Service Coverage Ratio (DSCR) Calculation

(i) Annualized Average Debt Service Coverage Ratio (AADSCR)

$$AADSCR = \frac{DSCR_q + DSCR_{(q-1)} + DSCR_{(q-2)} + DSCR_{(q-3)}}{n}$$

$DSCR_q$ = Debt Service Coverage Ratio for the current Quarterly Reporting Period

$DSCR_{(q-1)}$ = Debt Service Coverage Ratio for the preceding Quarterly Reporting Period

$DSCR_{(q-2)}$ = Debt Service Coverage Ratio for the second preceding Quarterly Reporting Period

$DSCR_{(q-3)}$ = Debt Service Coverage Ratio for the third preceding Quarterly Reporting Period

n = Number of total preceding Quarterly Reports already produced (up to four)

$$\text{Debt Service Coverage Ratio} = \frac{\text{Collections} - [(a) + (b) + (c)]}{\text{Quarterly Debt Service}}$$

$$\text{Quarterly Debt Service} = (d) + (e)$$

- (a) Amounts allocated with respect to priority (a) of the Collections Account Waterfall
- (b) Amounts allocated with respect to priority (b) of the Collections Account Waterfall
- (c) Amounts paid in respect of priority (a) of the Revenue Account Waterfall
- (d) The sum of Scheduled Principal Amounts for the next Scheduled Payment Date
- (e) The sum of the Class Interest Amounts to be paid on the next Scheduled Payment Date

Supporting Calculations:

1) Quarterly Debt Service (QDS)

- (i) Scheduled Principal Amount for the Series 2014-1 Notes = US\$ 38,711,012.92
- (ii) Scheduled Principal Amount for the Series 2014-2 Notes = US\$ 7,992,215.03
- (iii) Scheduled Principal Amount for the Series 2014-3 Notes = US\$ 17,299,082.56
- (iv) Scheduled Principal Amount for the Series 2018-1 Notes = US\$ 0.00
- (v) Class Interest Amount for the Series 2014-1 Notes = US\$ 26,676,726.78
- (vi) Class Interest Amount for the Series 2014-2 Notes = US\$ 3,491,298.41
- (vii) Class Interest Amount for the Series 2014-3 Notes = US\$ 18,553,266.04
- (viii) Class Interest Amount for the Series 2018-1 Notes = US\$ 12,300,000.00

$$\text{Scheduled Principal Amount} = \text{US\$ } 38,711,012.92 + \text{US\$ } 7,992,215.03 + \text{US\$ } 17,299,082.56 + \text{US\$ } 0.00 = \text{US\$ } 64,002,310.51$$

$$\text{Class Interest Amount} = \text{US\$ } 26,676,726.78 + \text{US\$ } 3,491,298.41 + \text{US\$ } 18,553,266.04 + \text{US\$ } 12,300,000.00 = \text{US\$ } 61,021,291.23$$

$$QDS = \text{US\$ } 64,002,310.51 + \text{US\$ } 61,021,291.23 = \text{US\$ } 125,023,601.74$$

2) Priority (b) of the Collections Account Waterfall

- (i) Servicer Fee Transfer Amount = US\$ 24,522.12
- (ii) Bond Administrator Fees Transfer Amount = US\$ 24,522.12
- (iii) Brazilian Collateral Agent Fees Transfer Amount = US\$ 0.00
- (iv) Excess Companhia Securitizadora Expenses Transfer Amount = US\$ 38,178.53

$$\text{Priority (b)} = \text{US\$ } 24,522.12 + \text{US\$ } 24,522.12 + \text{US\$ } 0.00 + \text{US\$ } 38,178.53 = \text{US\$ } 87,222.77$$

3) Debt Service Coverage Ratio (DSCR)

- (i) Collections received during such Quarterly Reporting Period = US\$ 783,163,147.16
- (ii) Taxation Expenses Transfer Amount = US\$ 15,394,263.28
- (iii) Issuer Expenses Transfer Amount = US\$ 89,400.00

$$DSCR = \frac{\text{US\$ } 783,163,147.16 - (\text{US\$ } 15,394,263.28 + \text{US\$ } 87,222.77 + \text{US\$ } 89,400.00)}{\text{US\$ } 125,023,601.74}$$

$$DSCR = \frac{\text{US\$ } 767,592,261.12}{\text{US\$ } 125,023,601.74} = 6.1$$



(i) Annualized Average Debt Service Coverage Ratio (AADSCR) (cont.)

4) Annualized Average Debt Service Coverage Ratio (AADSCR)

$$AADSCR = \frac{5.0 + 6.0 + 5.8 + 6.1}{4} = 5.7$$

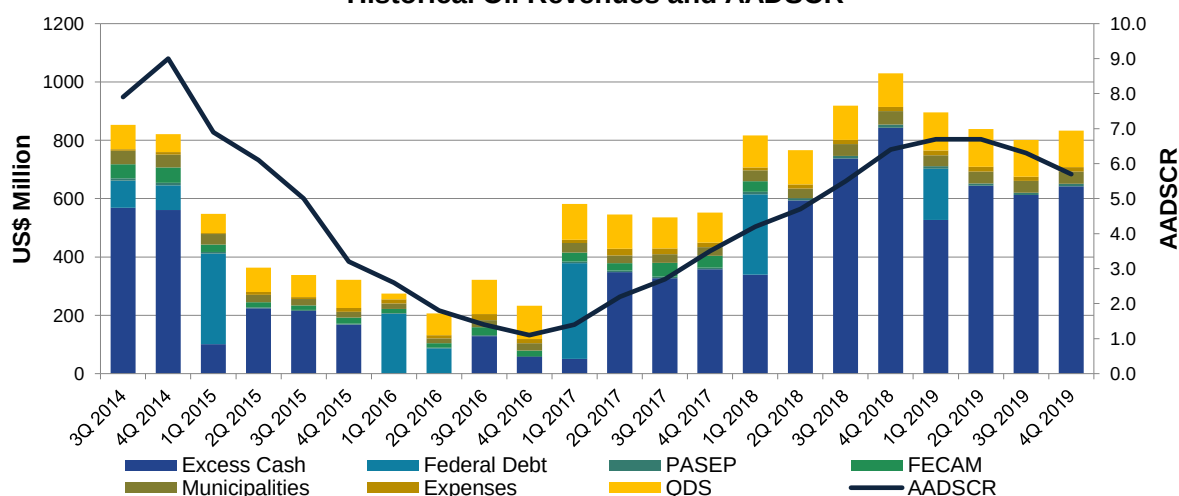
5) Historical AADSCR

- (a) Royalty for each Field
- (b) Special Participation for each Field
- (c) Oil Hedge Expected Payout
- (d) Federal Debt Allocation
- (e) PASEP Allocation
- (f) FECAM Allocation
- (g) Municipalities Allocation
- (h) Expected Expenses

Amounts in (US\$ million)

Year	Quarter	(a) + (b)	(c)	(d)	(e)	(f)	(g)	(h)	QDS	AADSCR	
										Quarter	Annual
2014	3Q	852.43	0.00	93.28	8.52	47.73	45.84	6.33	82.41	7.9	7.9
	4Q	821.10	0.00	84.42	8.21	52.90	43.97	9.18	61.26	10.2	9.0
2015	1Q	548.20	0.00	310.92	5.48	25.34	35.87	3.60	66.08	2.5	6.9
	2Q	363.55	0.00	0.00	3.64	17.02	26.20	9.03	83.86	3.7	6.1
	3Q	338.70	0.00	0.00	3.39	15.41	22.05	7.26	75.87	3.8	5.0
	4Q	322.16	0.00	0.00	3.22	20.42	20.49	13.08	96.84	2.7	3.2
2016	1Q	274.70	0.00	204.87	2.75	14.54	17.95	14.50	122.64	0.2	2.6
	2Q	206.33	0.00	86.45	2.06	15.36	16.73	11.29	124.59	0.6	1.8
	3Q	321.62	0.00	0.00	3.22	27.24	24.72	20.00	117.86	2.1	1.4
	4Q	233.01	0.00	0.00	2.33	19.13	25.29	14.40	114.21	1.5	1.1
2017	1Q	581.88	0.00	327.59	5.82	31.18	31.93	10.94	123.45	1.4	1.4
	2Q	545.54	0.00	0.00	5.46	25.94	26.50	22.84	117.12	4.0	2.2
	3Q	535.77	0.00	0.00	5.36	47.09	29.62	19.57	106.68	4.1	2.7
	4Q	552.37	0.00	0.00	5.52	40.30	29.90	15.38	103.10	4.5	3.5
2018	1Q	816.66	0.00	276.03	8.17	35.94	37.44	10.20	109.72	4.1	4.2
	2Q	765.95	0.00	0.00	7.66	0.00	33.02	13.91	117.00	6.1	4.7
	3Q	918.27	0.00	0.00	9.18	0.00	40.76	14.09	116.76	7.3	5.5
	4Q	1029.75	0.00	0.00	10.30	0.00	46.72	14.03	115.39	8.3	6.4
2019	1Q	895.96	0.00	176.46	8.96	0.00	37.24	16.03	130.80	5.0	6.7
	2Q	838.56	0.00	0.00	8.39	0.00	40.41	16.28	129.31	6.0	6.7
	3Q	801.85	0.00	0.00	8.02	0.00	40.40	13.93	126.80	5.8	6.3
	4Q	833.44	0.00	0.00	8.33	0.00	41.95	15.57	125.02	6.1	5.7

Historical Oil Revenues and AADSCR



Note: The amount described as "Excess Cash" in this graph means the available cash after mandatory deductions, expenses and quarterly debt service. This amount shall be used to fund other accounts, according to the waterfall set forth in the Indenture.



(ii) Forward-Looking Debt Service Coverage Ratio (FLDSCR)

$$FLDSCR = \frac{\{\sum(a) + \sum(b) + \sum(c)\} - [(d) + (e) + (f) + (g) + (h)]}{\text{Forward Quarterly Debt Service}}$$

- (a) Forward Royalty for each Field
- (b) Forward Special Participation for each Field
- (c) Forward Oil Hedge Expected Payout
- (d) Forward Federal Debt Allocation
- (e) Forward PASEP Allocation
- (f) Forward FECAM Allocation ¹
- (g) Forward Municipalities Allocation
- (h) Forward Expected Expenses

Amounts in (US\$ million)

Year	Quarter	(a) + (b)	(c)	(d)	(e)	(f)	(g)	(h)	FQDS	FLDSCR	
										Quarter	Annual
2020	1Q	495.07	0.00	43.85	4.95	0.00	30.34	10.42	133.52	3.0	3.3
	2Q	511.91	0.00	0.00	5.12	0.00	33.32	10.16	137.59	3.4	3.4
	3Q	511.91	0.00	0.00	5.12	0.00	33.32	9.78	135.58	3.4	3.2
	4Q	511.91	0.00	0.00	5.12	0.00	33.32	9.48	133.53	3.5	3.0
2021	1Q	494.16	0.00	1.99	4.94	0.00	31.10	9.18	141.32	3.2	2.8
	2Q	419.49	0.00	0.00	4.19	0.00	26.68	8.85	142.73	2.7	2.7
	3Q	419.49	0.00	0.00	4.19	0.00	26.68	8.48	140.39	2.7	2.7
	4Q	419.49	0.00	0.00	4.19	0.00	26.68	8.12	138.03	2.8	2.7
2022	1Q	419.85	0.00	0.00	4.20	0.00	26.73	7.76	149.46	2.6	2.7
	2Q	414.10	0.00	0.00	4.14	0.00	26.85	7.36	142.43	2.6	2.6
	3Q	414.10	0.00	0.00	4.14	0.00	26.85	6.81	140.05	2.7	2.6
	4Q	414.10	0.00	0.00	4.14	0.00	26.85	6.38	137.68	2.7	2.6
2023	1Q	415.06	0.00	0.00	4.15	0.00	26.98	5.96	149.08	2.5	2.5
	2Q	410.07	0.00	0.00	4.10	0.00	27.26	5.49	150.04	2.5	2.6
	3Q	410.07	0.00	0.00	4.10	0.00	27.26	4.97	147.27	2.5	2.6
	4Q	410.07	0.00	0.00	4.10	0.00	27.26	4.47	144.50	2.6	3.4
2024	1Q	411.93	0.00	0.00	4.12	0.00	27.50	3.97	138.31	2.7	4.2
	2Q	409.31	0.00	0.00	4.09	0.00	27.99	3.50	139.27	2.7	5.0
	3Q	409.31	0.00	0.00	4.09	0.00	27.99	2.99	66.82	5.6	5.7
	4Q	409.31	0.00	0.00	4.09	0.00	27.99	2.78	65.66	5.7	5.7
2025	1Q	411.05	0.00	0.00	4.11	0.00	28.21	2.57	64.50	5.8	5.7
	2Q	404.10	0.00	0.00	4.04	0.00	28.68	2.37	67.00	5.5	5.6
	3Q	405.61	0.00	0.00	4.06	0.00	28.74	2.13	65.76	5.6	5.5
	4Q	405.61	0.00	0.00	4.06	0.00	28.74	1.91	64.53	5.7	5.4
2026	1Q	407.91	0.00	0.00	4.08	0.00	29.02	1.69	67.62	5.5	5.3
	2Q	395.23	0.00	0.00	3.95	0.00	29.62	1.46	69.93	5.2	6.9
	3Q	396.29	0.00	0.00	3.96	0.00	29.67	1.19	68.52	5.3	8.1
	4Q	397.38	0.00	0.00	3.97	0.00	29.73	0.94	67.10	5.4	9.4
2027	1Q	396.66	0.00	0.00	3.97	0.00	29.55	0.68	31.09	11.7	10.7
	2Q	374.16	0.00	0.00	3.74	0.00	29.12	0.59	33.69	10.1	10.4
	3Q	375.38	0.00	0.00	3.75	0.00	29.18	0.46	33.06	10.3	10.5
	4Q	376.58	0.00	0.00	3.77	0.00	29.25	0.35	32.42	10.6	10.6
2028	1Q	371.68	0.00	0.00	3.72	0.00	28.55	0.23	31.78	10.7	10.7

Minimum Average Forward-Looking Debt Service Coverage Ratio: 2.5



(ii) Forward-Looking Debt Service Coverage Ratio (FLDSCR) (cont.)

Supporting Calculations:

1) Forward Royalty (FR)

$$FR = (a) \times (b) \times (c)$$

$$FRGR = [(d) \times (e)] + [(f) \times (g)]$$

$$FOP = (h) \times (i)$$

$$FOPE = 365 \times 0.25 \times FOP (\$90 \text{ Scenario}) - \text{Table 6}$$

$$FOPAF = \frac{AOP_q + AOP_{(q-1)} + AOP_{(q-2)} + AOP_{(q-3)}}{FOPE_q + FOPE_{(q-1)} + FOPE_{(q-2)} + FOPE_{(q-3)}}$$

$$FOPX = [1 - (n)] \times [(o) \text{ or } (p)]$$

$$FGP = (q) \times (r)$$

$$FGPE = 365 \times 0.25 \times FGP (\$90 \text{ Scenario}) - \text{Table 7}$$

$$FGPAF = \frac{AGP_q + AGP_{(q-1)} + AGP_{(q-2)} + AGP_{(q-3)}}{FGPE_q + FGPE_{(q-1)} + FGPE_{(q-2)} + FGPE_{(q-3)}}$$

- (a) Forward Royalty Gross Revenue (FRGR) for each Field
- (b) Forward Field Royalty Rate (FFRR) for each Field – Table 13
- (c) Forward RJS Royalty Rate – Table 16 (Juridical Condition 1)
- (d) Forward Oil Production (FOP)
- (e) Forward Oil Price (FOPX)
- (f) Forward Gas Production (FGP)
- (g) Forward Gas Price (\$70 Scenario) (FGPX) – Table 9
- (h) Forward Oil Production Estimates (FOPE)
- (i) Forward Oil Production Adjustment Factor (FOPAF)
- (j) AOP_q = Actual Oil Production for the current Quarterly Reporting Period
- (k) $AOP_{(q-1)}$ = Actual Oil Production for the preceding Quarterly Reporting Period
- (l) $AOP_{(q-2)}$ = Actual Oil Production for the second preceding Quarterly Reporting Period
- (m) $AOP_{(q-3)}$ = Actual Oil Production for the third preceding Quarterly Reporting Period
- (n) Brent Discount – Table 12
- (o) Forward Estimated Oil Price
- (p) Brent Futures Contract
- (q) Forward Gas Production Estimates (FGPE)
- (r) Forward Gas Production Adjustment Factor (FGPAF)
- (s) AGP_q = Actual Gas Production for the current Quarterly Reporting Period
- (t) $AGP_{(q-1)}$ = Actual Gas Production for the preceding Quarterly Reporting Period
- (u) $AGP_{(q-2)}$ = Actual Gas Production for the second preceding Quarterly Reporting Period
- (v) $AGP_{(q-3)}$ = Actual Gas Production for the third preceding Quarterly Reporting Period



(ii) Forward-Looking Debt Service Coverage Ratio (FLDSCR) (cont.)

Actual Oil Production (AOP)

Grouping Field	Actual Oil Production ('000 bbl)							
	2017 Q4	2018 Q1	2018 Q2	2018 Q3	2018 Q4	2019 Q1	2019 Q2	2019 Q3
Albacora	3287.19	3857.52	3188.16	1,263.53	2806.23	2906.93	1343.98	1886.70
Albacora Leste	3837.96	3651.18	2557.91	3,093.57	3045.15	2189.93	1868.85	1840.07
Atlanta	0.00	0.00	593.74	1,185.18	1144.57	1102.63	1163.38	2036.64
Barracuda Area	5293.12	5022.74	5341.59	5,872.99	5243.38	3498.44	4102.13	3981.36
Berbigao	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bijupira	815.05	0.00	0.00	0.00	34.47	501.84	441.81	466.45
BM-C-33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Buzios	0.00	0.00	2263.45	2,718.89	7165.39	7907.67	17769.29	29404.53
Caratinga Area	2644.54	2095.65	1832.02	1,447.45	1219.22	1011.44	974.75	645.26
Espadarte Area	170.61	134.26	141.66	0.72	0.00	0.00	0.00	0.00
Frade	1627.01	1574.38	1546.01	1,524.22	1855.21	1717.51	1700.14	1736.08
Gato do Mato	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Iara Entorno	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Itapu	1847.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lula-Iracema	75162.99	75705.02	79026.22	77,645.31	82759.22	80537.24	78369.57	89460.59
Marlim	13210.37	12738.68	11706.43	10,960.01	8927.09	7416.15	5815.38	6251.91
Marlim Leste Area	5420.59	6641.78	6045.13	6,577.30	6761.36	4189.80	6118.78	5276.90
Marlim Sul	15443.05	14289.25	13772.87	13,245.08	13602.19	12936.33	12906.15	12185.29
Maromba	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oeste de Atapu	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oliva	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Papa-Terra	630.91	330.24	378.11	770.66	940.63	1275.67	1649.16	1765.98
Peregrino	5728.58	5197.10	5824.26	6,191.67	5318.75	4580.30	5659.46	6633.29
Polo Enchova	1247.52	1273.57	1169.52	2,103.69	997.94	828.35	762.39	898.85
Polo Garoupa	1706.50	1818.83	1573.77	1,780.86	1567.12	1180.77	840.70	994.56
Polo Nordeste	1431.38	1357.35	1227.31	694.54	964.24	655.00	491.62	506.29
Polo Pampo	1747.64	940.63	1624.97	902.36	1888.58	1629.09	819.39	1388.28
Polvo	677.60	553.83	742.31	927.48	925.11	861.02	775.66	742.48
Roncador	22017.59	19862.19	19105.01	16,209.63	17603.06	16208.09	14833.22	14605.51
Salema	321.31	0.00	0.00	0.00	54.81	143.45	167.61	186.26
Sepia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sepia Leste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sul de Lula	0.00	0.00	0.00	0.00	0.00	1034.48	4652.22	5279.01
Sururu	1.50	872.96	1476.20	338.79	0.00	0.00	0.00	0.00
Tambau	0.94	4.39	2.15	2.41	0.56	4.78	7.54	2.23
Tartaruga Verde	556.42	0.00	102.51	0.00	4333.23	7712.09	7964.01	9253.20
Tubarao Azul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tubarao Martelo	500.79	691.48	615.67	543.53	530.25	532.61	530.94	530.62
Urugua	908.39	789.77	757.11	689.26	732.98	743.70	770.71	538.60
Voador	216.33	230.91	180.67	55.72	224.31	149.15	131.90	57.45

Source – ANP (<http://www.anp.gov.br/wwwanp/royalties-e-outras-participacoes/royalties>)



(ii) Forward-Looking Debt Service Coverage Ratio (FLDSCR) (cont.)

Forward Oil Production Adjustment Factor (FOPAF)

Grouping Field	$\sum_{x=0}^3 AOP_{(q-x)}$	$\sum_{x=0}^3 FOPE_{(q-x)}$	Adjustment Factor ^{1 2} $\frac{(A)}{(B)}$
	(A)	(B)	
Albacora	8943.84	15877.5	1.00000000
Albacora Leste	8944.00	10763.9	1.00000000
Atlanta	5447.22	4144.6	1.00000000
Barracuda Area	16825.31	15884.8	1.00000000
Berbigao	0.00	6843.8	1.00000000
Bijupira	1444.56	2439.1	1.00000000
BM-C-33	0.00	0.0	1.00000000
Buzios	62246.88	74759.3	1.00000000
Caratinga Area	3850.68	4691.2	1.00000000
Espadarte Area	0.00	213.5	1.00000000
Frade	7008.94	5846.4	1.00000000
Gato do Mato	0.00	0.0	1.00000000
Iara Entorno	0.00	0.0	1.00000000
Itapu	0.00	0.0	1.00000000
Lula-Iracema	331126.62	351620.0	1.00000000
Marlim	28410.52	43039.9	1.00000000
Marlim Leste Area	22346.84	27546.6	1.00000000
Marlim Sul	51629.96	49726.7	1.00000000
Maromba	0.00	0.0	1.00000000
Oeste de Atapu	0.00	0.0	1.00000000
Oliva	0.00	0.0	1.00000000
Papa-Terra	5631.44	1978.3	1.00000000
Peregrino	22191.80	21075.1	1.00000000
Polo Enchova	3487.53	7065.5	1.00000000
Polo Garoupa	4583.15	6320.9	1.00000000
Polo Nordeste	2617.15	1904.4	1.00000000
Polo Pampo	5725.34	3357.1	1.00000000
Polvo	3304.27	4805.2	1.00000000
Roncador	63249.88	103859.8	1.00000000
Salema	552.13	971.8	1.00000000
Sepia	0.00	0.0	1.00000000
Sepia Leste	0.00	0.0	1.00000000
Sul de Lula	10965.70	2343.3	1.00000000
Sururu	0.00	806.7	1.00000000
Tambau	15.11	11.9	1.00000000
Tartaruga Verde	29262.54	30235.7	1.00000000
Tubarao Azul	0.00	0.0	1.00000000
Tubarao Martelo	2124.42	2711.0	1.00000000
Urugua	2785.98	2783.1	1.00000000
Voador	562.81	842.2	1.00000000

Note 1: If $\frac{(A)}{(B)} > 1$, then, FOPAF equals 1.

Note 2: According to the definition of "Forward Oil Production Adjustment Factor" in Indenture Appendix, "if the most recent Independent Consultant's Report was dated as of a date, and delivered in accordance with the requirements of the Indenture and made available to Instrumentholders pursuant to Section 2.13 of the Indenture within, not more than six months prior to such time of determination, the FOPAF shall be 1.



(ii) Forward-Looking Debt Service Coverage Ratio (FLDSCR) (cont.)

Minimum Oil Price between Forward Estimated Oil Price and Brent Futures Contract:

Quarter	Future Contract Maturity ¹	Forward Estimated Oil Price		Brent Futures Contract	Minimum
		(Wood Mackenzie)			
		Base Case	Low Case		
		Table 4	Table 8		
2019 Q4	Nov 19 ²	\$ 58.00	\$ 58.00	\$ 60.78	\$ 58.00
2020 Q1	Feb 20	\$ 57.00	\$ 57.00	\$ 66.14	\$ 57.00
2020 Q2	May 20	\$ 57.00	\$ 57.00	\$ 63.96	\$ 57.00
2020 Q3	Aug 20	\$ 57.00	\$ 57.00	\$ 62.34	\$ 57.00
2020 Q4	Nov 20	\$ 57.00	\$ 57.00	\$ 61.17	\$ 57.00
2021 Q1	Feb 21	\$ 68.98	\$ 53.06	\$ 60.18	\$ 53.06
2021 Q2	May 21	\$ 68.98	\$ 53.06	\$ 59.38	\$ 53.06
2021 Q3	Aug 21	\$ 68.98	\$ 53.06	\$ 58.68	\$ 53.06
2021 Q4	Nov 21	\$ 68.98	\$ 53.06	\$ 58.10	\$ 53.06
2022 Q1	Feb 22	\$ 70.36	\$ 54.12	\$ 57.64	\$ 54.12
2022 Q2	May 22	\$ 70.36	\$ 54.12	\$ 57.30	\$ 54.12
2022 Q3	Aug 22	\$ 70.36	\$ 54.12	\$ 57.09	\$ 54.12
2022 Q4	Nov 22	\$ 70.36	\$ 54.12	\$ 56.70	\$ 54.12
2023 Q1	Feb 23	\$ 71.77	\$ 55.20	\$ 56.56	\$ 55.20
2023 Q2	May 23	\$ 71.77	\$ 55.20	\$ 56.51	\$ 55.20
2023 Q3	Aug 23	\$ 71.77	\$ 55.20	\$ 56.49	\$ 55.20
2023 Q4	Nov 23	\$ 71.77	\$ 55.20	\$ 56.49	\$ 55.20
2024 Q1	Feb 24	\$ 73.20	\$ 56.31	\$ 56.63	\$ 56.31
2024 Q2	May 24	\$ 73.20	\$ 56.31	\$ 56.78	\$ 56.31
2024 Q3	Aug 24	\$ 73.20	\$ 56.31	\$ 56.93	\$ 56.31
2024 Q4	Nov 24	\$ 73.20	\$ 56.31	\$ 57.08	\$ 56.31
2025 Q1	Feb 25	\$ 74.67	\$ 57.43	\$ 57.25	\$ 57.25
2025 Q2	May 25	\$ 74.67	\$ 57.43	\$ 57.44	\$ 57.43
2025 Q3	Aug 25	\$ 74.67	\$ 57.43	\$ 57.65	\$ 57.43
2025 Q4	Nov 25	\$ 74.67	\$ 57.43	\$ 57.84	\$ 57.43
2026 Q1	Feb 26	\$ 76.16	\$ 58.58	\$ 57.97	\$ 57.97
2026 Q2	May 26	\$ 76.16	\$ 58.58	\$ 58.09	\$ 58.09
2026 Q3	Aug 26	\$ 76.16	\$ 58.58	\$ 58.21	\$ 58.21
2026 Q4	Nov 26	\$ 76.16	\$ 58.58	\$ 58.35	\$ 58.35
2027 Q1	Feb 27	\$ 77.68	\$ 59.75	\$ 58.49	\$ 58.49
2027 Q2	May 27	\$ 77.68	\$ 59.75	\$ 58.64	\$ 58.64
2027 Q3	Aug 27	\$ 77.68	\$ 59.75	\$ 58.79	\$ 58.79
2027 Q4	Nov 27	\$ 77.68	\$ 59.75	\$ 58.92	\$ 58.92
2028 Q1	Feb 28	\$ 79.24	\$ 60.95	\$ 59.01	\$ 59.01
2028 Q2	May 28	\$ 79.24	\$ 60.95	\$ 59.07	\$ 59.09
2028 Q3	Aug 28	\$ 79.24	\$ 60.95	\$ 59.13	\$ 59.13
2028 Q4	Nov 28	\$ 79.24	\$ 60.95	\$ 59.19	\$ 59.19
2029 Q1	Feb 29	\$ 80.82	\$ 62.17	-	\$ 62.17

Note 1: Source – Bloomberg (COM9 Comdty CT) as of Dec 20, 2019

Note 2: Nov 19 last price, as of Sep 30, 2019 (Bloomberg COX9 Comdty)



(ii) Forward-Looking Debt Service Coverage Ratio (FLDSCR) (cont.)

Actual Gas Production (AGP)

Grouping Field	Actual Gas Production (MMcf)							
	2017 Q4	2018 Q1	2018 Q2	2018 Q3	2018 Q4	2019 Q1	2019 Q2	2019 Q3
Albacora	2156.77	2164.72	2049.48	797.42	1541.44	1268.99	698.43	1039.88
Albacora Leste	2414.53	2429.45	1562.41	1,671.71	1616.71	1593.76	1578.69	1450.79
Atlanta	0.00	0.00	143.26	275.10	264.57	248.92	267.33	470.08
Barracuda Area	2621.67	2479.04	2815.10	2,828.10	2530.63	2190.90	2515.86	2390.45
Berbigao	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bijupira	302.87	0.00	0.00	0.00	9.03	201.64	176.49	191.44
BM-C-33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Buzios	0.00	0.00	2418.83	2,774.75	3389.94	4932.17	7855.73	6080.42
Caratinga Area	1355.77	1173.14	1088.46	760.53	644.59	803.74	803.64	540.95
Espadarte Area	37.66	60.50	37.28	1.37	0.00	0.00	0.00	0.00
Frade	843.48	697.81	653.05	667.14	912.04	827.35	780.41	773.05
Gato do Mato	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Iara Entorno	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Itapu	804.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lula-Iracema	65809.16	63690.49	69203.69	55,874.01	70116.01	68961.03	65092.38	75823.07
Marlim	6492.16	6204.34	5637.94	5,370.51	4149.26	3942.50	2886.66	2533.92
Marlim Leste Area	3091.30	3649.74	3447.52	3,215.37	3344.99	2297.20	3095.28	2720.21
Marlim Sul	11142.46	10310.11	9921.74	0.00	9647.49	8329.19	8387.49	7915.01
Maromba	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oeste de Atapu	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oliva	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Papa-Terra	122.66	32.70	77.54	186.49	222.69	272.11	310.80	359.55
Peregrino	349.39	330.53	363.04	376.30	333.28	279.11	317.72	386.90
Polo Enchova	524.02	533.14	435.72	1,102.27	405.82	433.58	361.89	385.58
Polo Garoupa	949.86	975.95	744.61	1,140.79	858.63	1145.99	866.48	959.18
Polo Nordeste	312.39	308.29	236.74	101.50	285.18	328.62	247.44	208.68
Polo Pampo	1291.80	563.76	862.00	119.20	975.35	949.72	347.35	649.02
Polvo	67.63	52.65	73.52	76.26	79.92	74.68	70.96	67.04
Roncador	20750.30	16850.24	16260.07	13,231.07	16323.03	14987.13	14089.64	14882.48
Salema	230.26	0.00	0.00	0.00	30.46	144.38	138.57	144.29
Sepia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sepia Leste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sul de Lula	0.00	0.00	0.00	0.00	0.00	471.20	3082.72	3473.30
Sururu	1.79	939.37	1572.02	360.07	0.00	0.00	0.00	0.00
Tambau	121.38	625.89	327.26	315.84	94.97	624.05	1099.80	413.43
Tartaruga Verde	215.76	0.00	73.58	0.00	1762.80	3206.90	3353.65	3787.19
Tubarao Azul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tubarao Martelo	24.41	42.26	32.78	31.65	29.44	28.62	27.70	29.36
Urugua	3425.88	5358.00	3681.22	1,754.01	1512.36	5646.36	5050.32	3547.62
Voador	246.51	242.37	193.41	66.96	269.35	173.18	161.13	70.14

Source – ANP (<http://www.anp.gov.br/wwwanp/royalties-e-outras-participacoes/royalties>)



(ii) Forward-Looking Debt Service Coverage Ratio (FLDSCR) (cont.)

Forward Gas Production Adjustment Factor (FGPAF)

Grouping Field	$\sum_{x=0}^3 AGP_{(q-x)}$	$\sum_{x=0}^3 FGPE_{(q-x)}$	Adjustment Factor ^{1 2} $\frac{(A)}{(B)}$
	(A)	(B)	
Albacora	4548.74	5608.2	1.00000000
Albacora Leste	6239.94	6626.6	1.00000000
Atlanta	1250.90	1070.4	1.00000000
Barracuda Area	9627.84	9057.5	1.00000000
Berbigao	0.00	4193.9	1.00000000
Bijupira	578.60	744.6	1.00000000
BM-C-33	0.00	0.0	1.00000000
Buzios	22258.25	49056.9	1.00000000
Caratinga Area	2792.92	3349.8	1.00000000
Espadarte Area	0.00	285.6	1.00000000
Frade	3292.84	2839.7	1.00000000
Gato do Mato	0.00	0.0	1.00000000
Iara Entorno	0.00	0.0	1.00000000
Itapu	0.00	0.0	1.00000000
Lula-Iracema	279992.49	220539.4	1.00000000
Marlim	13512.34	15974.2	1.00000000
Marlim Leste Area	11457.68	13344.4	1.00000000
Marlim Sul	34279.19	32718.6	1.00000000
Maromba	0.00	0.0	1.00000000
Oeste de Atapu	0.00	0.0	1.00000000
Oliva	0.00	0.0	1.00000000
Papa-Terra	1165.15	399.7	1.00000000
Peregrino	1317.02	1196.3	1.00000000
Polo Enchova	1586.86	3831.6	1.00000000
Polo Garoupa	3830.28	6177.6	1.00000000
Polo Nordeste	1069.93	855.9	1.00000000
Polo Pampo	2921.43	2279.4	1.00000000
Polvo	292.59	470.9	1.00000000
Roncador	60282.29	76251.2	1.00000000
Salema	457.70	501.0	1.00000000
Sepia	0.00	0.0	1.00000000
Sepia Leste	0.00	0.0	1.00000000
Sul de Lula	7027.22	1554.9	1.00000000
Sururu	0.00	862.3	1.00000000
Tambau	2232.25	1581.4	1.00000000
Tartaruga Verde	12110.54	5654.8	1.00000000
Tubarao Azul	0.00	0.0	1.00000000
Tubarao Martelo	115.11	269.2	1.00000000
Urugua	15756.65	15235.1	1.00000000
Voador	673.80	945.4	1.00000000

Note 1: If $\frac{(A)}{(B)} > 1$, then, FGPAF equals 1.

Note 2: According to the definition of "Forward Gas Production Adjustment Factor" in Indenture Appendix, "if the most recent Independent Consultant's Report was dated as of a date, and delivered in accordance with the requirements of the Indenture and made available to Instrumentholders pursuant to Section 2.13 of the Indenture within, not more than six months prior to such time of determination, the FGPAF shall be 1.



(ii) Forward-Looking Debt Service Coverage Ratio (FLDSCR) (cont.)

2) Forward Special Participations (FSP)

$$FSP = (a) \times (b) \times (c)$$

$$FNR = (d) \times (e)$$

$$FSPRA = (f) + \left\{ (g) \times \left[\left(\frac{(h)}{1 - (i)} \right) - (j) \right] \right\} + \{ (k) \times [(l) - (m)] \} + \{ (n) \times [(o) - (p)] \} + \{ (q) \times [(r) - (s)] \}$$

$$OPXSPRA = (t) \times \left\{ \frac{[(f) - (u)]}{[(j) - (v)]} \right\}$$

$$GPXSPRA = (w) \times \left\{ \frac{[(f) - (u)]}{[(m) - (l)]} \right\}$$

$$OPSPRA = (t) \times \left\{ \frac{[(f) - (x)]}{[(p) - (y)]} \right\}$$

$$GPSPRA = (w) \times \left\{ \frac{[(f) - (x)]}{[(s) - (z)]} \right\}$$

$$OGRR = \frac{[(p) \times (j)]}{(aa)}$$

$$GGRR = \frac{[(s) \times (m)]}{(aa)}$$

$$FRGR\$90 = [(o) \times (j)] + [(r) \times (m)]$$

$$FTP = [0.178 \times (r)] + (o)$$

- (a) Forward Net Revenue (FNR) for each Field
- (b) Forward Special Participation Rate (FSPR) for each Field
- (c) Forward RJS Special Participation Rate – Table 16 (Juridical Condition 1)
- (d) Forward Royalty Gross Revenue (FRGR) for each Field
- (e) Forward Special Participation Ratio (FSPRA)
- (f) Forward Special Participation Ratio (\$90 Scenario) – Table 1
- (g) Oil Price SP Ratio Adjustment (OPXSPRA)
- (h) Forward Oil Price (FOPX)
- (i) Brent Discount – Table 12
- (j) Forward Oil Price (\$90 Scenario) – Table 4
- (k) Gas Price SP Ratio Adjustment (GPXSPRA)
- (l) Forward Gas Price (\$70 Scenario) – Table 9
- (m) Forward Gas Price (\$90 Scenario) – Table 5
- (n) Oil Production SP Ratio Adjustment (OPSPRA)
- (o) Forward Oil Production (FOP)
- (p) Forward Oil Production (\$90 Scenario) – Table 6 (Appendix 2)
- (q) Gas Production SP Ratio Adjustment (GPSPRA)
- (r) Forward Gas Production (FGP)
- (s) Forward Gas Production (\$90 Scenario) – Table 7 (Appendix 3)
- (t) Oil Gross Revenue Ratio (OGRR)
- (u) Forward Special Participation Ratio (\$70 Scenario) – Table 2
- (v) Forward Oil Price (\$70 Scenario) – Table 8
- (w) Gas Gross Revenue Ratio (GGRR)
- (x) Forward Special Participation Ratio (Downside Scenario) – Table 3
- (y) Forward Oil Production (Downside Scenario) – Table 10
- (z) Forward Gas Production (Downside Scenario) – Table 11
- (aa) Forward Royalty Gross Revenue – under \$90 Scenario (FRGR\$90)
- (bb) Forward Total Production



(ii) Forward-Looking Debt Service Coverage Ratio (FLDSCR) (cont.)

3) Forward Oil Hedge Expected Payout (FOHEP)

$$FOHEP = \sum (Oil\ Hedge\ Agreement\ Expected\ Net\ Payout)$$

No Oil Hedge Agreement was executed during such Reporting Period

4) Forward Federal Debt Allocation (FFDA)

Year	Expected Payments	
	(R\$)	(US\$)
2020	179,671,170	43,852,184
2021	8,160,790	1,991,797
Total allocation	187,831,960	45,843,981

The amounts to be deducted from RJS Oil Revenues are based on a report (Ofício SEFAZ/SGAB nº 247/2018), dated March 14, 2018, prepared *Secretaria da Fazenda do Estado do Rio de Janeiro*.

5) Forward PASEP Allocation (FPA)

$$FPA = 0.01 \times \left[\sum (a) + \sum (b) \right]$$

- (a) Forward Royalty (FR) for each Field
- (b) Forward Special Participation (FSP) for each Field

6) Forward FECAM Allocation (FFA)

$$FFA = \left\{ 0.05 \times \left[\sum (a) + \sum (b) \right] \times (c) \right\} + \left\{ 0.10 \times \left[\sum (a) + \sum (b) \right] \times [1 - (c)] \right\}$$

- (a) Forward Royalty (FR) for each Field
- (b) Forward Special Participation (FSP) for each Field
- (c) Forward FECAM Allocation Factor (FFAF) – Table 17

7) Forward Municipalities Allocation (FMA)

$$FMA = (a) \times 0.25$$

$$FR < 5\% = 0.05 \times (b) \times (c)$$

- (a) Forward Royalty up to 5% (FR<5%)
- (b) Forward Royalty Gross Revenue (FRGR) for each Field
- (c) Forward RJS Royalty Rate – Table 16 (Juridical Condition 1)



(ii) Forward-Looking Debt Service Coverage Ratio (FLDSCR) (cont.)

8) Forward Expected Expenses (FEE)

$$FEE = (a) + (b) + (c)$$

- (a) Expected Amount of Priority (a) of the Collections Account Waterfall
 (b) Expected Amount of Priority (b) of the Collections Account Waterfall
 (c) Expected Amount of Priority (a) of the Revenue Account Waterfall

Amounts in (US\$)

Year	Quarter	(a)		(b)				(c)	Total
		IRRF	IOF	SF	BAF	BCAF	ECSE		
2020	1Q	9,963,412.17	213,898.90	12,261.06	12,261.06	0.00	145,628.00	76,050.00	10,423,511.19
	2Q	9,692,544.59	208,014.21	12,261.06	12,261.06	13,687.63	145,628.00	76,050.00	10,160,446.55
	3Q	9,385,407.49	201,658.13	12,261.06	12,261.06	0.00	91,525.92	75,000.00	9,778,113.65
	4Q	9,090,418.57	195,306.03	12,261.06	12,261.06	0.00	91,525.92	75,000.00	9,476,772.64
2021	1Q	8,795,429.65	188,953.94	12,261.06	12,261.06	0.00	91,525.92	75,000.00	9,175,431.62
	2Q	8,461,959.73	181,721.20	12,261.06	12,261.06	13,687.63	91,525.92	75,000.00	8,848,416.61
	3Q	8,110,418.31	174,203.36	12,261.06	12,261.06	0.00	91,525.92	75,000.00	8,475,669.70
	4Q	7,761,292.34	166,685.51	12,261.06	12,261.06	0.00	91,525.92	75,000.00	8,119,025.89
2022	1Q	7,412,166.38	159,167.67	12,261.06	12,261.06	0.00	91,525.92	75,000.00	7,762,382.08
	2Q	7,008,761.91	150,429.01	12,261.06	12,261.06	13,687.63	91,525.92	75,000.00	7,363,926.59
	3Q	6,571,134.30	141,405.24	12,261.06	12,261.06	0.00	0.00	75,000.00	6,812,061.66
	4Q	6,152,073.78	132,381.47	12,261.06	12,261.06	0.00	0.00	75,000.00	6,383,977.37
2023	1Q	5,733,013.27	123,357.70	12,261.06	12,261.06	0.00	0.00	75,000.00	5,955,893.09
	2Q	5,259,674.25	113,113.12	12,261.06	12,261.06	13,687.63	0.00	75,000.00	5,485,997.12
	3Q	4,768,263.72	102,583.43	12,261.06	12,261.06	0.00	0.00	75,000.00	4,970,369.26
	4Q	4,279,268.65	92,053.73	12,261.06	12,261.06	0.00	0.00	75,000.00	4,470,844.50
2024	1Q	3,790,273.58	81,524.04	12,261.06	12,261.06	0.00	0.00	75,000.00	3,971,319.74
	2Q	3,316,686.12	71,274.11	12,261.06	12,261.06	13,687.63	0.00	75,000.00	3,501,169.98
	3Q	2,825,027.15	60,739.07	12,261.06	12,261.06	0.00	0.00	75,000.00	2,985,288.33
	4Q	2,620,138.79	56,327.14	12,261.06	12,261.06	0.00	0.00	75,000.00	2,775,988.05
2025	1Q	2,415,250.44	51,915.21	12,261.06	12,261.06	0.00	0.00	75,000.00	2,566,687.77
	2Q	2,212,777.56	47,503.28	12,261.06	12,261.06	13,687.63	0.00	75,000.00	2,373,490.59
	3Q	1,992,233.15	42,806.24	12,261.06	12,261.06	0.00	0.00	75,000.00	2,134,561.51
	4Q	1,774,104.21	38,109.19	12,261.06	12,261.06	0.00	0.00	75,000.00	1,911,735.52
2026	1Q	1,555,975.27	33,412.15	12,261.06	12,261.06	0.00	0.00	75,000.00	1,688,909.54
	2Q	1,321,658.92	28,314.53	12,261.06	12,261.06	13,687.63	0.00	75,000.00	1,463,183.20
	3Q	1,069,271.06	22,931.79	12,261.06	12,261.06	0.00	0.00	75,000.00	1,191,724.96
	4Q	819,298.66	17,549.05	12,261.06	12,261.06	0.00	0.00	75,000.00	936,369.82
2027	1Q	569,326.26	12,166.31	12,261.06	12,261.06	0.00	0.00	75,000.00	681,014.68
	2Q	470,592.31	9,988.22	12,261.06	12,261.06	13,687.63	0.00	75,000.00	593,790.28
	3Q	355,523.31	7,562.42	12,261.06	12,261.06	0.00	0.00	75,000.00	462,607.85
	4Q	242,869.79	5,136.61	12,261.06	12,261.06	0.00	0.00	75,000.00	347,528.51
2028	1Q	130,216.26	2,710.81	12,261.06	12,261.06	0.00	0.00	75,000.00	232,449.18

IRRF – Imposto de Renda Retido na Fonte

IOF – Imposto sobre Operações de Crédito, Câmbio e Seguros ou relativos a Títulos ou Valores Mobiliário

SF – Servicer Fee

BAF – Bond Administrator Fee

BCAF – Brazilian Collateral Agent Fee

ECSE – Excess Companhia Securitizadora Expenses



(ii) Forward-Looking Debt Service Coverage Ratio (FLDSCR) (cont.)

9) Forward Quarterly Debt Service (FQDS)

(i) Debt Service for the Series 2014-1 Notes

Date	Scheduled Payment		Early Principal Payment	Debt Service	Balance
	Principal	Interest			
10/06/2014	0	36,805,556	0	36,805,556	2,000,000,000
01/06/2015	0	31,250,000	0	31,250,000	2,000,000,000
04/06/2015	0	31,250,000	0	31,250,000	2,000,000,000
07/06/2015	0	31,250,000	0	31,250,000	2,000,000,000
10/06/2015	0	31,250,000	0	31,250,000	2,000,000,000
01/06/2016	0	43,916,667	0	43,916,667	2,000,000,000
04/06/2016	20,000,000	46,250,000	0	66,250,000	1,980,000,000
07/06/2016	20,000,000	45,787,500	29,758,320	95,545,820	1,930,241,680
08/06/2016	0	14,878,946	5,170,988	20,049,934	1,925,070,692
09/06/2016	0	14,885,452	68,866,247	83,751,699	1,856,204,445
10/06/2016	7,587,042	14,308,243	0	21,895,284	1,848,617,403
11/06/2016	8,550,900	14,249,759	0	22,800,660	1,840,066,503
12/06/2016	2,802,920	14,183,846	0	16,986,766	1,837,263,583
01/06/2017	18,940,862	14,162,240	0	33,103,102	1,818,322,722
02/06/2017	0	14,016,238	0	14,016,238	1,818,322,722
03/06/2017	0	14,016,238	0	14,016,238	1,818,322,722
04/06/2017	28,411,293	14,016,238	1,668,129	44,095,659	1,788,243,300
05/06/2017	0	13,784,375	0	13,784,375	1,788,243,300
06/06/2017	0	13,784,375	184,216,034	198,000,409	1,604,027,266
07/06/2017	12,683,902	12,364,377	0	25,048,278	1,591,343,364
08/06/2017	12,776,849	12,266,605	1,456,007	26,499,461	1,577,110,508
09/06/2017	0	12,156,894	127,601,056	139,757,949	1,449,509,453
10/06/2017	17,007,904	11,173,302	0	28,181,206	1,432,501,549
11/06/2017	6,371,280	11,042,199	9,307,195	26,720,675	1,416,823,073
01/06/2018	23,226,608	21,842,689	0	45,069,297	1,393,596,465
04/06/2018	30,968,810	32,226,918	0	63,195,729	1,362,627,655
07/06/2018	30,968,810	31,510,765	0	62,479,575	1,331,658,844
10/06/2018	30,968,810	30,794,611	0	61,763,421	1,300,690,034
01/06/2019	30,968,810	30,078,457	0	61,047,267	1,269,721,224
04/06/2019	38,711,013	29,362,303	0	68,073,316	1,231,010,211
07/06/2019	38,711,013	28,467,111	0	67,178,124	1,192,299,198
10/06/2019	38,711,013	27,571,919	0	66,282,932	1,153,588,185
01/06/2020	38,711,013	26,676,727	0	65,387,740	1,114,877,172
04/06/2020	46,453,216	25,781,535	0	72,234,750	1,068,423,957
07/06/2020	46,453,216	24,707,304	0	71,160,519	1,021,970,741
10/06/2020	46,453,216	23,633,073	0	70,086,289	975,517,526
01/06/2021	46,453,216	22,558,843	0	69,012,058	929,064,310
04/06/2021	54,195,418	21,484,612	0	75,680,030	874,868,892
07/06/2021	54,195,418	20,231,343	0	74,426,761	820,673,474
10/06/2021	54,195,418	18,978,074	0	73,173,492	766,478,056
01/06/2022	54,195,418	17,724,805	0	71,920,223	712,282,638
04/06/2022	65,808,722	16,471,536	0	82,280,258	646,473,916
07/06/2022	65,808,722	14,949,709	0	80,758,431	580,665,194
10/06/2022	65,808,722	13,427,883	0	79,236,605	514,856,472
01/06/2023	65,808,722	11,906,056	0	77,714,778	449,047,750
04/06/2023	77,422,026	10,384,229	0	87,806,255	371,625,724
07/06/2023	77,422,026	8,593,845	0	86,015,871	294,203,698
10/06/2023	77,422,026	6,803,461	0	84,225,486	216,781,672
01/06/2024	77,422,026	5,013,076	0	82,435,102	139,359,647
04/06/2024	69,679,823	3,222,692	0	72,902,515	69,679,823
07/06/2024	69,679,823	1,611,346	0	71,291,169	0



(ii) Forward-Looking Debt Service Coverage Ratio (FLDSCR) (cont.)

9) Forward Quarterly Debt Service (FQDS) (cont.)

(ii) Debt Service for the Series 2014-2 Notes

Date	Scheduled Payment		Early Principal Payment	Debt Service	Balance
	Principal	Interest			
10/06/2014	0	109,998,331	0	109,998,331	2,400,000,000
01/06/2015	0	55,239,401	0	55,239,401	1,440,000,000
04/06/2015	0	52,561,534	0	52,561,534	1,440,000,000
07/06/2015	51,422,400	53,453,623	0	104,876,023	1,388,577,600
10/06/2015	51,422,400	54,128,577	0	105,550,977	1,337,155,200
01/06/2016	51,422,400	57,938,770	0	109,361,170	1,285,732,800
04/06/2016	51,422,400	56,146,749	0	107,569,149	1,234,310,400
07/06/2016	51,422,400	56,640,579	45,550,176	153,613,155	1,137,337,824
08/06/2016	0	0	0	0	1,137,337,824
09/06/2016	0	33,018,434	100,716,323	133,734,757	1,036,621,501
10/06/2016	18,164,108	15,782,069	0	33,946,177	1,018,457,393
11/06/2016	20,298,717	14,671,452	0	34,970,169	998,158,677
12/06/2016	6,601,092	14,379,040	0	20,980,132	991,557,585
01/06/2017	45,063,916	15,720,506	0	60,784,422	946,493,669
02/06/2017	0	12,949,675	0	12,949,675	946,493,669
03/06/2017	0	12,264,928	0	12,264,928	946,493,669
04/06/2017	45,063,916	15,692,215	868,086	61,624,217	900,561,661
05/06/2017	0	12,321,245	0	12,321,245	900,561,661
06/06/2017	0	13,625,290	134,886,276	148,511,566	765,675,385
07/06/2017	19,368,984	11,584,492	0	30,953,476	746,306,401
08/06/2017	18,908,354	11,832,205	1,647,062	32,387,620	725,750,986
09/06/2017	0	11,506,312	94,082,811	105,589,123	631,668,175
10/06/2017	24,195,777	9,556,994	0	33,752,771	607,472,399
11/06/2017	9,044,038	8,311,275	8,895,660	26,250,972	589,532,701
01/06/2018	32,745,703	17,073,654	0	49,819,357	556,786,997
04/06/2018	32,745,703	24,314,368	0	57,060,071	524,041,294
07/06/2018	32,745,703	23,659,555	0	56,405,258	491,295,590
10/06/2018	32,745,703	22,908,623	0	55,654,327	458,549,887
01/06/2019	32,745,703	19,346,863	0	52,092,567	425,804,183
04/06/2019	32,745,703	19,244,320	0	51,970,023	393,058,480
07/06/2019	32,745,703	17,455,127	0	50,200,830	360,312,776
10/06/2019	32,745,703	16,801,025	0	49,546,729	327,567,073
01/06/2020	32,745,703	14,304,548	0	47,050,251	294,821,370
04/06/2020	32,745,703	13,912,144	0	46,657,847	262,075,666
07/06/2020	32,745,703	12,366,927	0	45,112,630	229,329,963
10/06/2020	32,745,703	10,989,543	0	43,735,247	196,584,259
01/06/2021	32,745,703	9,420,362	0	42,166,065	163,838,556
04/06/2021	32,745,703	7,611,457	0	40,357,160	131,092,852
07/06/2021	32,745,703	6,186,060	0	38,931,763	98,347,149
10/06/2021	32,745,703	4,712,817	0	37,458,521	65,601,446
01/06/2022	32,745,703	3,143,636	0	35,889,339	32,855,742
04/06/2022	32,855,742	1,526,381	0	34,382,123	0



(ii) Forward-Looking Debt Service Coverage Ratio (FLDSCR) (cont.)

9) Forward Quarterly Debt Service (FQDS) (cont.)

(iii) Debt Service for the Series 2014-3 Notes

Date	Scheduled Payment		Early Principal Payment	Debt Service	Balance
	Principal	Interest			
01/06/2015	0	9,281,250	0	9,281,250	1,100,000,000
04/06/2015	0	18,562,500	0	18,562,500	1,100,000,000
07/06/2015	0	18,562,500	0	18,562,500	1,100,000,000
10/06/2015	0	18,562,500	0	18,562,500	1,100,000,000
01/06/2016	0	25,529,167	0	25,529,167	1,100,000,000
04/06/2016	0	26,812,500	0	26,812,500	1,100,000,000
07/06/2016	0	26,812,500	37,656,262	64,468,762	1,100,000,000
08/06/2016	0	8,631,543	2,999,783	11,631,326	1,062,343,738
09/06/2016	0	8,635,521	26,854,876	35,490,397	1,059,343,955
10/06/2016	0	8,388,974	0	8,388,974	1,032,489,079
11/06/2016	0	8,388,974	0	8,388,974	1,032,489,079
12/06/2016	0	8,388,974	0	8,388,974	1,032,489,079
01/06/2017	0	8,388,974	0	8,388,974	1,032,489,079
02/06/2017	0	8,388,974	0	8,388,974	1,032,489,079
03/06/2017	0	8,388,974	0	8,388,974	1,032,489,079
04/06/2017	0	8,388,974	947,205	9,336,179	1,031,541,874
05/06/2017	0	8,381,278	0	8,381,278	1,031,541,874
06/06/2017	0	8,381,278	95,353,657	103,734,935	936,188,217
07/06/2017	2,331,926	7,606,529	0	9,938,456	933,856,290
08/06/2017	2,349,015	7,587,582	593,232	10,529,829	930,914,044
09/06/2017	0	7,563,677	65,242,256	72,805,933	865,671,788
10/06/2017	3,164,620	7,033,583	0	10,198,204	862,507,168
11/06/2017	1,185,489	7,007,871	5,017,092	13,210,452	856,304,587
01/06/2018	8,649,541	13,914,950	0	22,564,491	847,655,045
04/06/2018	8,649,541	20,661,592	0	29,311,133	839,005,504
07/06/2018	8,649,541	20,450,759	0	29,100,300	830,355,963
10/06/2018	8,649,541	20,239,927	0	28,889,468	821,706,421
01/06/2019	8,649,541	20,029,094	0	28,678,635	813,056,880
04/06/2019	17,299,083	19,818,261	0	37,117,344	795,757,798
07/06/2019	17,299,083	19,396,596	0	36,695,679	778,458,715
10/06/2019	17,299,083	18,974,931	0	36,274,014	761,159,632
01/06/2020	17,299,083	18,553,266	0	35,852,349	743,860,550
04/06/2020	19,461,468	18,131,601	0	37,593,069	724,399,082
07/06/2020	19,461,468	17,657,228	0	37,118,696	704,937,614
10/06/2020	19,461,468	17,182,854	0	36,644,322	685,476,146
01/06/2021	19,461,468	16,708,481	0	36,169,949	666,014,678
04/06/2021	21,623,853	16,234,108	0	37,857,961	644,390,825
07/06/2021	21,623,853	15,707,026	0	37,330,880	622,766,972
10/06/2021	21,623,853	15,179,945	0	36,803,798	601,143,119
01/06/2022	21,623,853	14,652,864	0	36,276,717	579,519,266
04/06/2022	23,786,239	14,125,782	0	37,912,021	555,733,027
07/06/2022	23,786,239	13,545,993	0	37,332,231	531,946,789
10/06/2022	23,786,239	12,966,203	0	36,752,441	508,160,550
01/06/2023	23,786,239	12,386,413	0	36,172,652	484,374,312
04/06/2023	25,948,624	11,806,624	0	37,755,248	458,425,688
07/06/2023	25,948,624	11,174,126	0	37,122,750	432,477,064
10/06/2023	25,948,624	10,541,628	0	36,490,252	406,528,440
01/06/2024	25,948,624	9,909,131	0	35,857,755	380,579,816
04/06/2024	30,273,394	9,276,633	0	39,550,027	350,306,422
07/06/2024	30,273,394	8,538,719	0	38,812,114	320,033,027
10/06/2024	30,273,394	7,800,805	0	38,074,200	289,759,633
01/06/2025	30,273,394	7,062,891	0	37,336,286	259,486,238
04/06/2025	30,273,394	6,324,977	0	36,598,372	229,212,844
07/06/2025	30,273,394	5,587,063	0	35,860,458	198,939,449
10/06/2025	30,273,394	4,849,149	0	35,122,544	168,666,055
01/06/2026	30,273,394	4,111,235	0	34,384,630	138,392,660



(ii) Forward-Looking Debt Service Coverage Ratio (FLDSCR) (cont.)

9) Forward Quarterly Debt Service (FQDS) (cont.)

(iii) Debt Service for the Series 2014-3 Notes (cont.)

Date	Scheduled Payment		Early Principal Payment	Debt Service	Balance
	Principal	Interest			
04/06/2026	34,598,165	3,373,321	0	37,971,486	103,794,495
07/06/2026	34,598,165	2,529,991	0	37,128,156	69,196,330
10/06/2026	34,598,165	1,686,661	0	36,284,826	34,598,165
01/06/2027	34,598,165	843,330	0	35,441,495	0



(ii) Forward-Looking Debt Service Coverage Ratio (FLDSCR) (cont.)

9) Forward Quarterly Debt Service (FQDS) (cont.)

(iv) Debt Service for the Series 2018-1 Notes

Date	Scheduled Payment		Early Principal Payment	Debt Service	Balance
	Principal	Interest			
07/06/2018	0	10,523,333	0	10,523,333	600,000,000
10/06/2018	0	12,300,000	0	12,300,000	600,000,000
01/06/2019	0	12,300,000	0	12,300,000	600,000,000
04/06/2019	0	12,300,000	0	12,300,000	600,000,000
07/06/2019	0	12,300,000	0	12,300,000	600,000,000
10/06/2019	0	12,300,000	0	12,300,000	600,000,000
01/06/2020	0	12,300,000	0	12,300,000	600,000,000
04/06/2020	0	12,300,000	0	12,300,000	600,000,000
07/06/2020	6,000,000	12,300,000	0	18,300,000	594,000,000
10/06/2020	6,000,000	12,177,000	0	18,177,000	588,000,000
01/06/2021	6,000,000	12,054,000	0	18,054,000	582,000,000
04/06/2021	6,000,000	11,931,000	0	17,931,000	576,000,000
07/06/2021	9,660,000	11,808,000	0	21,468,000	566,340,000
10/06/2021	9,660,000	11,609,970	0	21,269,970	556,680,000
01/06/2022	9,660,000	11,411,940	0	21,071,940	547,020,000
04/06/2022	9,660,000	11,213,910	0	20,873,910	537,360,000
07/06/2022	13,320,000	11,015,880	0	24,335,880	524,040,000
10/06/2022	13,320,000	10,742,820	0	24,062,820	510,720,000
01/06/2023	13,320,000	10,469,760	0	23,789,760	497,400,000
04/06/2023	13,320,000	10,196,700	0	23,516,700	484,080,000
07/06/2023	16,980,000	9,923,640	0	26,903,640	467,100,000
10/06/2023	16,980,000	9,575,550	0	26,555,550	450,120,000
01/06/2024	16,980,000	9,227,460	0	26,207,460	433,140,000
04/06/2024	16,980,000	8,879,370	0	25,859,370	416,160,000
07/06/2024	20,640,000	8,531,280	0	29,171,280	395,520,000
10/06/2024	20,640,000	8,108,160	0	28,748,160	374,880,000
01/06/2025	20,640,000	7,685,040	0	28,325,040	354,240,000
04/06/2025	20,640,000	7,261,920	0	27,901,920	333,600,000
07/06/2025	24,300,000	6,838,800	0	31,138,800	309,300,000
10/06/2025	24,300,000	6,340,650	0	30,640,650	285,000,000
01/06/2026	24,300,000	5,842,500	0	30,142,500	260,700,000
04/06/2026	24,300,000	5,344,350	0	29,644,350	236,400,000
07/06/2026	27,960,000	4,846,200	0	32,806,200	208,440,000
10/06/2026	27,960,000	4,273,020	0	32,233,020	180,480,000
01/06/2027	27,960,000	3,699,840	0	31,659,840	152,520,000
04/06/2027	27,960,000	3,126,660	0	31,086,660	124,560,000
07/06/2027	31,140,000	2,553,480	0	33,693,480	93,420,000
10/06/2027	31,140,000	1,915,110	0	33,055,110	62,280,000
01/06/2028	31,140,000	1,276,740	0	32,416,740	31,140,000
04/06/2028	31,140,000	638,370	0	31,778,370	0



Section (D) – Expenses Account Detailed Information

(i) Taxation Expenses Transfer Amount

1) All funds transferred from Brazil to the Issuer abroad and/or from the Issuer abroad to Brazil are subject to IOF (*Imposto sobre Operações de Crédito, Câmbio e Seguros ou relativos a Títulos ou Valores Mobiliário*) at the rate of 0.38%;

2) All funds transferred from Brazil to the Issuer abroad are subject to IRRF (*Imposto de Renda Retido na Fonte*) at the rate of 15.00%, for the amounts other than related to a portion of Principal Payments that does not represent capital gain as a consequence of exchange rate movement, to fund the Debt Service Reserve Account, to fund the Liquidity Reserve Account and to fund the Trigger Event Reserve Account;

3) All funds drawn from the Debt Service Reserve Account, from the Liquidity Reserve Account and from the Trigger Event Reserve Account outside Brazil to be used for Interest Payment and for the portion of Principal Payment that represents capital gain as a consequence of exchange rate movement are subject to IRRF (*Imposto de Renda Retido na Fonte*) at the rate of 15.00%.

Tax	Amount
IOF	R\$ 2,015,015.90
IRRF	R\$ 61,058,359.61
Total Taxation Expenses	R\$ 63,073,375.51

(ii) Excess Companhia Securitizadora Expenses Transfer Amount

Service Provider	Amount
Cetip S.A. – Mercados Organizados	R\$ 18,609.97
Banco do Brasil S.A. – Paying Agent Fee	R\$ 19,481.46
Banco do Brasil S.A. – Local Debenture Collateral Agent Fee	R\$ 12,681.87
BDO RCS Controladoria e Contabilidade Ltda.	R\$ 39,183.68
Fundo Único de Previdência Social do Estado do Rio de Janeiro	R\$ 2,360.01
Companhia Securitizadora Director's Remuneration	R\$ 47,775.00
Cescon, Barrieu, Flesch & Barreto Sociedade de Advogados	R\$ 6,659.32
Lersch Traduções	R\$ 2,400.00
Taxation on Companhia Securitizadora's Revenue – PIS/COFINS	R\$ 7,273.77
Total Excess Companhia Securitizadora Expenses	R\$ 156,425.08

(iii) Issuer Expenses Transfer Amount

Service Provider	Amount
Standard & Poor's Financial Services, LLC	R\$ 164,400.00
Citibank, N.A.	R\$ 82,200.00
Puglisi & Associates	R\$ 120,834.00
Total Issuer Expenses	R\$ 367,434.00



Section (E) – Transaction Accounts Balance

Collections Account		Amount
Date	Description	
09/20/19	Balance	R\$ 0.00
09/30/19	Assigned Oil Revenues and Assigned Oil Revenue Rights	R\$ 10,885,259.48
09/30/19	Taxation Expenses Transfer Amount	(R\$ 17,730.36)
09/30/19	Servicer Fee Transfer Amount	(R\$ 50,236.01)
09/30/19	Bond Administrator Fees Transfer Amount	(R\$ 50,236.01)
09/30/19	To the holder of the Sponsor Note and/or RJS	(R\$ 10,767,057.10)
10/18/19	Assigned Oil Revenues and Assigned Oil Revenue Rights	R\$ 330,836,717.58
10/18/19	Taxation Expenses Transfer Amount	(R\$ 45,294,294.20)
10/18/19	Excess Companhia Securitizadora Expenses Transfer Amount	(R\$ 46,055.28)
10/18/19	Series 2014-1 Senior Interest Transfer Amount	(R\$ 109,908,114.34)
10/18/19	Series 2014-2 Senior Interest Transfer Amount	(R\$ 14,304,547.86)
10/18/19	Series 2014-3 Senior Interest Transfer Amount	(R\$ 76,439,456.08)
10/18/19	Series 2018-1 Senior Interest Transfer Amount	(R\$ 50,676,000.00)
10/18/19	Series 2014-1 Senior Scheduled Principal Transfer Amount	(R\$ 20,680,538.31)
10/18/19	Series 2014-2 Senior Scheduled Principal Transfer Amount	(R\$ 4,246,043.24)
10/18/19	Series 2014-3 Senior Scheduled Principal Transfer Amount	(R\$ 9,241,668.27)
11/08/19	Assigned Oil Revenues and Assigned Oil Revenue Rights	R\$ 2,136,051,542.27
11/08/19	From the Series 2014-2 Debt Service Reserve Account	R\$ 13,636,021.03
11/08/19	From the Series 2014-3 Debt Service Reserve Account	R\$ 13,797,467.86
11/08/19	From the Series 2018-1 Debt Service Reserve Account	R\$ 19,072,071.40
11/08/19	Taxation Expenses Transfer Amount	(R\$ 17,657,906.02)
11/08/19	Series 2014-1 Senior Scheduled Principal Transfer Amount	(R\$ 139,903,807.54)
11/08/19	Series 2014-2 Senior Scheduled Principal Transfer Amount	(R\$ 28,205,582.49)
11/08/19	Series 2014-3 Senior Scheduled Principal Transfer Amount	(R\$ 62,519,870.54)
11/08/19	Series 2014-1 Debt Service Reserve Account Transfer Amount	(R\$ 6,696,833.59)
11/08/19	Liquidity Reserve Account Transfer Amount	(R\$ 79,935,749.95)
11/08/19	Special Interest Liquidity Reserve Account Transfer Amount	(R\$ 7,328,308.20)
11/08/19	To the holder of the Sponsor Note and/or RJS	(R\$ 1,840,309,044.23)
11/21/19	Assigned Oil Revenues and Assigned Oil Revenue Rights	R\$ 348,672,201.59
11/21/19	Taxation Expenses Transfer Amount	(R\$ 7,987.09)
11/21/19	Excess Companhia Securitizadora Expenses Transfer Amount	(R\$ 45,260.16)
11/21/19	To the holder of the Sponsor Note and/or RJS	(R\$ 348,618,954.34)
11/26/19	Assigned Oil Revenues and Assigned Oil Revenue Rights	R\$ 12,091,065.95
11/26/19	To the holder of the Sponsor Note and/or RJS	(R\$ 21,091,065.95)
11/29/19	Assigned Oil Revenues and Assigned Oil Revenue Rights	R\$ 25,233,760.02



Section (E) – Transaction Accounts Balance (cont.)

Collections Account (cont.)		Amount
Date	Description	
11/29/19	To the holder of the Sponsor Note and/or RJS	(R\$ 25,233,760.02)
12/12/19	Assigned Oil Revenues and Assigned Oil Revenue Rights	R\$ 17,496,876.00
12/12/19	Taxation Expenses Transfer Amount	(R\$ 66,681.73)
12/12/19	Excess Companhia Securitizadora Expenses Transfer Amount	(R\$ 2,517.04)
12/12/19	Issuer Expenses Transfer Amount	(R\$ 367,434.00)
12/12/19	To the holder of the Sponsor Note and/or RJS	(R\$ 17,060,243.23)
12/20/19	Assigned Oil Revenues and Assigned Oil Revenue Rights	R\$ 327,508,623.67
12/20/19	Taxation Expenses Transfer Amount	(R\$ 28,776.11)
12/20/19	Servicer Fee Transfer Amount	(R\$ 50,236.01)
12/20/19	Bond Administrator Fees Transfer Amount	(R\$ 50,236.01)
12/20/19	Excess Companhia Securitizadora Expenses Transfer Amount	(R\$ 62,592.60)
12/20/19	To the holder of the Sponsor Note and/or RJS	(R\$ 327,316,782.94)
Final Balance as of the close of business of December 20, 2019		R\$ 0.00

Revenue Account		Amount
Date	Description	
09/20/19	Balance	US\$ 0.00
10/18/19	From the Collections Account	US\$ 64,792,664.32
10/18/19	To the Series 2014-1 Senior Interest Subaccount	(US\$ 26,676,726.78)
10/18/19	To the Series 2014-3 Senior Interest Subaccount	(US\$ 18,553,266.04)
10/18/19	To the Series 2018-1 Senior Interest Subaccount	(US\$ 12,300,000.00)
10/18/19	To the Series 2014-1 Senior Scheduled Principal Subaccount	(US\$ 5,019,548.13)
10/18/19	To the Series 2014-3 Senior Scheduled Principal Subaccount	(US\$ 2,243,123.37)
11/08/19	From the Series 2014-3 Debt Service Reserve Account	US\$ 3,322,689.43
11/08/19	From the Series 2018-1 Debt Service Reserve Account	US\$ 4,592,913.05
11/08/19	From the Collections Account	US\$ 61,694,574.91
11/08/19	To the Series 2014-1 Senior Scheduled Principal Subaccount	(US\$ 33,691,464.79)
11/08/19	To the Series 2014-3 Senior Scheduled Principal Subaccount	(US\$ 15,055,959.19)
11/08/19	To the Series 2014-1 Debt Service Reserve Account	(US\$ 1,612,723.32)
11/08/19	To the Liquidity Reserve Account	(US\$ 19,250,030.09)
12/12/19	From the Collections Account	US\$ 89,400.00
12/12/19	To the Issuer Expenses Subaccount	(US\$ 89,400.00)
Final Balance as of the close of business of December 20, 2019		US\$ 0.00



Section (E) – Transaction Accounts Balance (cont.)

Expenses Account		Amount
Date	Description	
09/20/19	Balance	US\$ 0.00
12/12/19	From the Revenue Account	US\$ 89,400.00
12/12/19	Issuer Expenses	(US\$ 89,400.00)
Final Balance as of the close of business of December 20, 2019		US\$ 0.00

Series 2014-1 Series Account		Amount
Date	Description	
09/20/19	Balance	US\$ 66,282,931.87
10/07/19	Interest Payment	(US\$ 27,571,918.95)
10/07/19	Pending Scheduled Principal Payment	(US\$ 38,711,012.92)
10/18/19	Series 2014-1 Senior Interest Subaccount	US\$ 26,676,726.78
10/18/19	Series 2014-1 Senior Scheduled Principal Subaccount	US\$ 5,019,548.13
11/08/19	Series 2014-1 Senior Scheduled Principal Subaccount	US\$ 33,691,464.79
Final Balance as of the close of business of December 20, 2019		US\$ 65,387,739.70

Series 2014-2 Special Series Account		Amount
Date	Description	
09/20/19	Balance	R\$ 49,546,728.64
10/07/19	Interest Payment	(R\$ 16,801,025.17)
10/07/19	Pending Scheduled Principal Payment	(R\$ 32,745,703.47)
10/18/19	Series 2014-2 Senior Interest Transfer Amount	R\$ 14,304,547.86
10/18/19	Series 2014-2 Senior Scheduled Principal Transfer Amount	R\$ 4,246,043.24
11/08/19	Interest (Eligible Investments)	R\$ 294,077.74
11/08/19	Series 2014-2 Senior Scheduled Principal Transfer Amount	R\$ 28,205,582.49
Final Balance as of the close of business of December 20, 2019		R\$ 47,050,251.33

Series 2014-3 Series Account		Amount
Date	Description	
09/20/19	Balance	US\$ 36,274,013.74
10/07/19	Interest Payment	(US\$ 18,974,931.18)
10/07/19	Pending Scheduled Principal Payment	(US\$ 17,299,082.56)
10/18/19	Series 2014-3 Senior Interest Subaccount	US\$ 18,553,266.04
10/18/19	Series 2014-3 Senior Scheduled Principal Subaccount	US\$ 2,243,123.37
11/08/19	Series 2014-3 Senior Scheduled Principal Subaccount	US\$ 15,055,959.19
Final Balance as of the close of business of December 20, 2019		US\$ 35,852,348.60



Section (E) – Transaction Accounts Balance (cont.)

Series 2018-1 Series Account		Amount
Date	Description	
09/20/19	Balance	US\$ 12,300,000.00
10/07/19	Interest Payment	(US\$ 12,300,000.00)
10/18/19	Series 2018-1 Senior Interest Subaccount	US\$ 12,300,000.00
Final Balance as of the close of business of December 20, 2019		US\$ 12,300,000.00

Series 2014-1 Debt Service Reserve Account		Amount
Date	Description	
09/20/19	Balance	US\$ 221,159,293.68
11/08/19	Series 2014-1 Debt Service Reserve Account	US\$ 1,612,723.32
Final Balance as of the close of business of December 20, 2019		US\$ 222,772,017.00

Series 2014-2 Special Debt Service Reserve Account		Amount
Date	Description	
09/20/19	Balance	R\$ 144,895,470.00
11/08/19	Interest (Eligible Investments)	R\$ 1,727,014.42
11/08/19	To the Collections Account	(R\$ 13,636,021.03)
Final Balance as of the close of business of December 20, 2019		R\$ 132,986,463.39

Series 2014-3 Debt Service Reserve Account		Amount
Date	Description	
09/20/19	Balance	US\$ 121,191,953.38
11/08/19	To the Revenue Account	(US\$ 3,322,689.43)
Final Balance as of the close of business of December 20, 2019		US\$ 117,869,263.95

Series 2018-1 Debt Service Reserve Account		Amount
Date	Description	
09/20/19	Balance	US\$ 43,411,764.71
11/08/19	To the Revenue Account	(US\$ 4,592,913.05)
Final Balance as of the close of business of December 20, 2019		US\$ 38,818,851.66



Section (E) – Transaction Accounts Balance (cont.)

Liquidity Reserve Account		Amount
Date	Description	
09/20/19	Balance	US\$ 0.00
11/08/19	Liquidity Reserve Account	US\$ 19,250,030.09
Final Balance as of the close of business of December 20, 2019		US\$ 19,250,030.09

Special Interest Liquidity Reserve Account		Amount
Date	Description	
09/20/19	Balance	R\$ 0.00
11/08/19	Special Interest Liquidity Reserve Account Transfer Amount	R\$ 7,328,308.20
Final Balance as of the close of business of December 20, 2019		R\$ 7,328,308.20

Trigger Event Reserve Account		Amount
Date	Description	
09/20/19	Balance	US\$ 0.00
Final Balance as of the close of business of December 20, 2019		US\$ 0.00

Special Interest Trigger Event Reserve Account		Amount
Date	Description	
09/20/19	Balance	R\$ 0.00
Final Balance as of the close of business of December 20, 2019		R\$ 0.00



Section (F) – Other Information

Events	Y / N
Has any Event of Default occurred or continued during such Reporting Period?	No
Has any Trigger Event occurred or continued during such Reporting Period?	No
Has any Bond Administrator Replacement Event occurred or continued during such Reporting Period?	No
Has any Servicer Replacement Event occurred or continued during such Reporting Period?	No
Has any Event of Default been declared during such Reporting Period?	No
Has any Early Amortization Period been declared during such Reporting Period?	No
Has there been the occurrence of conditions which give rise to any Sponsor Refund Obligations or any RJS Damages during such Reporting Period?	No



Appendix 1

Updated Forward Oil Production provided by Wood Mackenzie on September 18, 2019.

Grouping Field	Forward Oil Production (Base Case Scenario) – Table 6 ('000 bbl/d)											
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Albacora	37.17	45.61	30.47	26.39	23.39	21.00	19.08	17.38	15.94	14.68	0.00	0.00
Albacora Leste	33.75	28.07	23.45	19.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Atlanta	8.01	12.47	16.35	21.73	39.41	60.29	70.95	67.23	58.49	50.89	44.27	38.52
Barracuda Area	58.85	38.41	38.70	40.78	33.02	26.92	22.11	18.30	15.25	12.79	10.79	9.16
Berbigao	0.00	25.00	61.25	70.69	67.15	63.80	59.59	54.16	48.75	43.87	38.82	33.37
Bijupira	0.00	8.91	7.57	6.44	5.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BM-C-33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.53	59.87	98.06	96.84	95.68
Buzios	33.28	262.00	484.40	147.58	154.94	178.02	197.89	224.21	268.70	307.15	336.61	365.97
Caratinga Area	18.08	11.11	12.68	19.26	14.78	11.39	8.80	6.83	0.00	0.00	0.00	0.00
Espadarte Area	2.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Frade	17.81	15.42	12.47	14.36	26.81	28.74	23.08	18.54	14.94	12.15	9.19	5.60
Gato do Mato	0.00	0.00	0.00	0.00	0.00	10.50	30.98	39.93	37.93	36.03	33.80	30.87
Iara Entorno	0.00	0.00	67.50	54.78	66.80	65.46	72.16	93.61	106.69	102.77	96.24	90.29
Itapu	0.00	0.00	0.00	0.00	0.00	21.73	69.53	84.16	79.95	80.48	80.10	82.36
Lula-Iracema	874.13	993.08	1075.19	1085.14	1041.21	974.80	920.61	891.22	814.55	726.69	639.67	564.82
Marlim	132.55	113.04	97.30	81.64	112.14	104.77	124.66	128.92	115.59	103.80	93.44	84.02
Marlim Leste Area	71.39	76.83	74.44	65.09	57.46	50.98	0.00	0.00	0.00	0.00	0.00	0.00
Marlim Sul	150.90	131.35	108.08	89.17	74.37	62.45	52.94	0.00	0.00	0.00	0.00	0.00
Maromba	0.00	0.00	0.00	0.00	0.00	23.92	53.30	50.56	48.19	37.38	29.13	22.82
Oeste de Atapu	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.50	24.38	29.41	34.19	32.48
Oliva	0.00	0.00	0.00	0.00	0.00	5.00	9.25	14.86	23.63	24.09	20.47	17.40
Papa-Terra	4.91	5.59	5.39	4.26	3.41	2.74	2.23	1.81	1.48	0.00	0.00	0.00
Peregrino	61.73	56.41	63.25	64.45	65.47	65.71	66.35	63.40	60.43	57.14	55.39	54.43
Polo Enchova	20.34	19.03	16.14	13.75	11.76	10.13	8.75	7.57	6.58	5.74	5.01	4.40
Polo Garoupa	21.03	16.08	14.52	12.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Polo Nordeste	9.08	3.93	4.51	4.31	4.49	4.39	4.05	3.14	0.00	0.00	0.00	0.00
Polo Pampo	9.52	9.09	8.48	7.92	7.39	6.89	6.44	6.01	5.61	5.24	4.89	4.57
Polvo	12.07	13.53	12.27	9.28	7.23	5.78	0.00	0.00	0.00	0.00	0.00	0.00
Roncador	205.70	310.83	350.33	345.71	354.95	365.35	371.77	362.13	317.68	279.29	246.63	218.13
Salema	0.00	3.55	3.02	2.56	2.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sepia	0.00	0.00	0.00	10.37	29.37	41.62	51.43	65.33	72.31	72.10	69.92	70.58
Sepia Leste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.50	36.88	35.03	33.28	31.62
Sul de Lula	3.75	7.31	10.70	13.91	16.97	15.97	14.88	15.22	16.93	19.11	20.41	18.64
Sururu	8.84	0.00	0.00	0.00	6.25	12.19	11.58	23.50	72.32	68.45	64.55	60.88
Tambau	0.04	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tartaruga Verde	21.84	103.17	113.49	107.52	84.60	66.62	52.49	41.39	32.67	25.81	0.00	0.00
Tubarao Azul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tubarao Martelo	6.52	7.73	8.40	6.60	5.25	4.22	3.43	0.00	0.00	0.00	0.00	0.00
Urugua	8.54	7.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Voador	2.33	2.30	2.27	2.22	2.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	1834.50	2327.20	2722.62	2348.41	2318.46	2311.38	2328.33	2334.94	2355.74	2248.15	2063.64	1936.61



Appendix 2

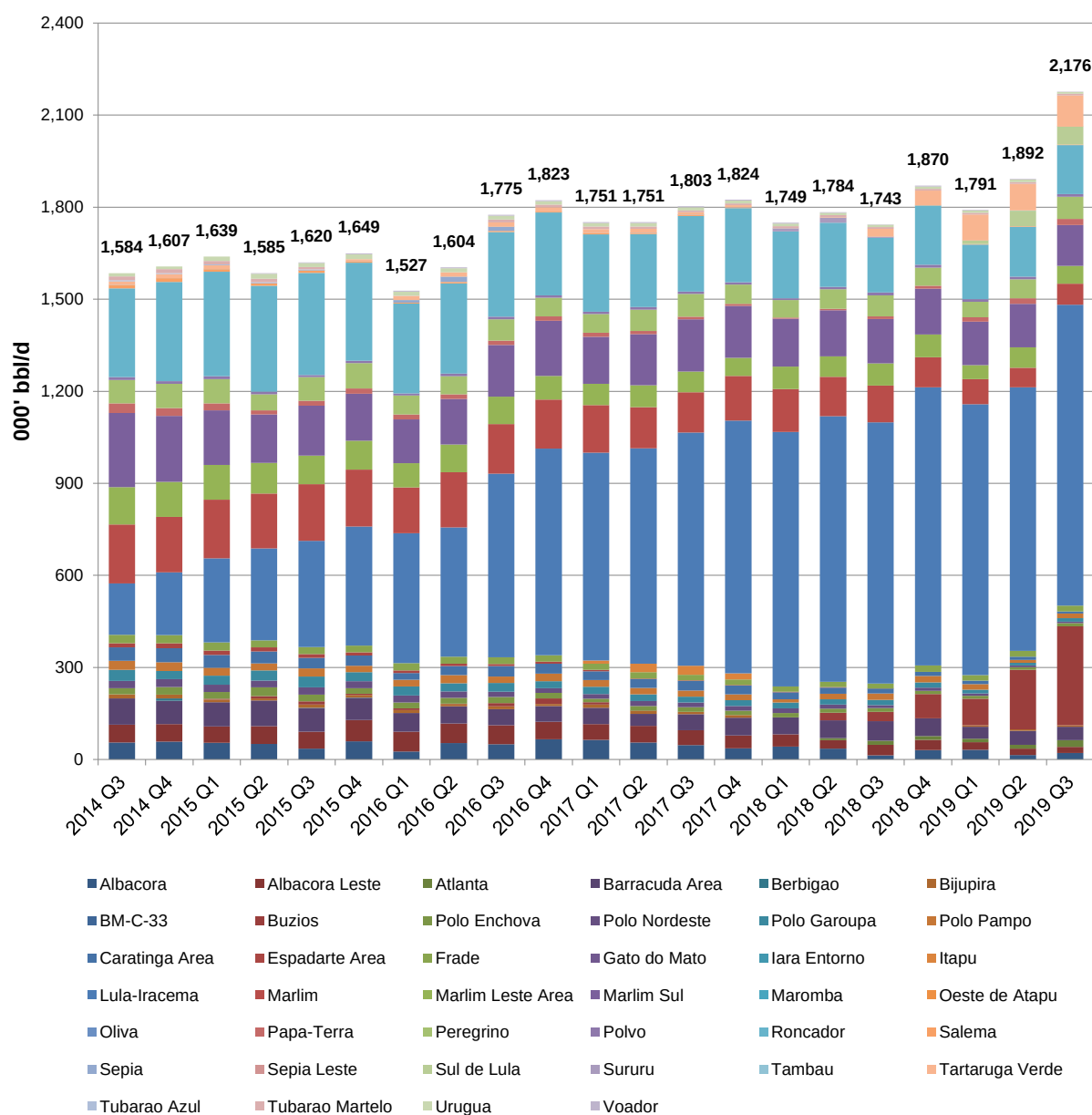
Updated Forward Gas Production provided by Wood Mackenzie on September 18, 2019.

Grouping Field	Forward Gas Production (Base Case Scenario) – Table 7 (MMcf/d)											
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Albacora	19.55	13.97	12.66	10.96	9.72	8.72	7.93	7.22	6.62	6.10	0.00	0.00
Albacora Leste	20.51	17.37	13.93	11.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Atlanta	2.07	3.22	4.22	5.61	10.18	15.57	18.33	17.36	15.11	13.14	11.43	9.95
Barracuda Area	29.24	23.34	22.20	22.67	18.76	15.63	13.20	11.24	9.66	8.39	7.37	6.80
Berbigao	0.00	15.32	36.38	41.99	39.89	37.89	35.40	32.17	28.96	26.06	23.06	19.82
Bijupira	0.00	2.72	2.30	1.96	1.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BM-C-33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	60.00	292.82	464.48	462.25	460.14
Buzios	20.26	172.45	328.65	97.76	102.25	117.93	130.71	148.12	177.57	203.05	222.58	242.05
Caratinga Area	10.79	8.64	9.02	12.10	9.42	7.37	5.78	4.56	0.00	0.00	0.00	0.00
Espadarte Area	3.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Frade	8.05	7.69	6.33	6.99	12.07	12.77	10.32	8.36	6.78	4.73	3.99	3.39
Gato do Mato	0.00	0.00	0.00	0.00	0.00	5.07	6.76	7.50	7.33	297.64	279.22	255.02
Iara Entorno	0.00	0.00	21.57	32.54	41.07	41.60	46.83	60.84	60.12	59.30	57.17	53.63
Itapu	0.00	0.00	0.00	0.00	0.00	8.91	32.95	39.88	37.88	38.13	37.95	39.02
Lula-Iracema	550.75	622.04	677.36	683.12	653.65	611.28	576.56	558.79	510.92	455.74	401.18	354.42
Marlim	43.36	43.90	38.21	32.13	66.04	71.88	86.98	89.96	80.66	72.42	65.20	58.63
Marlim Leste Area	32.69	37.85	36.56	31.70	27.78	24.47	0.00	0.00	0.00	0.00	0.00	0.00
Marlim Sul	91.44	89.04	75.43	64.35	55.62	48.51	42.72	0.00	0.00	0.00	0.00	0.00
Maromba	0.00	0.00	0.00	0.00	0.00	6.05	6.12	6.11	6.11	6.08	6.07	6.05
Oeste de Atapu	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.06	14.48	17.47	20.30	19.29
Oliva	0.00	0.00	0.00	0.00	0.00	1.29	2.39	3.84	6.10	6.22	5.29	4.50
Papa-Terra	0.78	1.20	0.85	0.60	0.43	0.31	0.22	0.16	0.11	0.00	0.00	0.00
Peregrino	3.84	3.09	3.49	3.50	4.33	3.51	3.52	3.36	3.20	3.01	2.92	2.86
Polo Enchova	9.95	10.68	10.89	9.11	7.66	6.46	5.47	4.65	3.97	3.39	2.92	2.50
Polo Garoupa	17.09	16.87	11.95	10.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Polo Nordeste	3.68	1.90	1.81	1.88	1.67	1.67	1.66	1.55	0.00	0.00	0.00	0.00
Polo Pampo	5.15	6.61	5.66	5.28	4.93	4.61	4.30	4.01	3.75	3.50	3.27	3.05
Polvo	1.20	1.32	1.19	0.90	0.71	0.57	0.00	0.00	0.00	0.00	0.00	0.00
Roncador	160.30	225.11	272.46	286.47	291.14	313.18	319.19	310.39	296.57	254.41	219.28	189.41
Salema	0.00	1.83	1.55	1.32	1.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sepia	0.00	0.00	0.00	4.50	14.46	20.49	24.71	32.16	35.60	35.49	34.42	34.74
Sepia Leste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.15	18.15	17.24	16.38	15.56
Sul de Lula	2.49	4.85	7.09	9.23	11.25	10.59	9.87	10.09	11.23	12.67	13.54	12.36
Sururu	9.45	0.00	0.00	0.00	0.74	7.23	6.88	13.96	42.96	40.66	38.34	36.16
Tambau	5.27	4.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tartaruga Verde	16.70	15.09	13.41	15.17	15.14	15.12	15.10	15.09	15.08	15.06	0.00	0.00
Tubarao Azul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tubarao Martelo	0.64	0.77	0.83	0.65	0.51	0.41	0.33	0.00	0.00	0.00	0.00	0.00
Urugua	49.96	39.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Voador	2.62	2.58	2.55	2.49	2.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	1120.96	1392.47	1618.55	1407.08	1404.66	1419.09	1414.23	1459.58	1691.74	2064.38	1934.13	1829.35



Appendix 3

Actual Oil Production (AOP)



Note 1 – The total oil production for each quarter is show in annual basis,
Source – ANP (<http://www.anp.gov.br/royalties-e-outras-participacoes/royalties>)

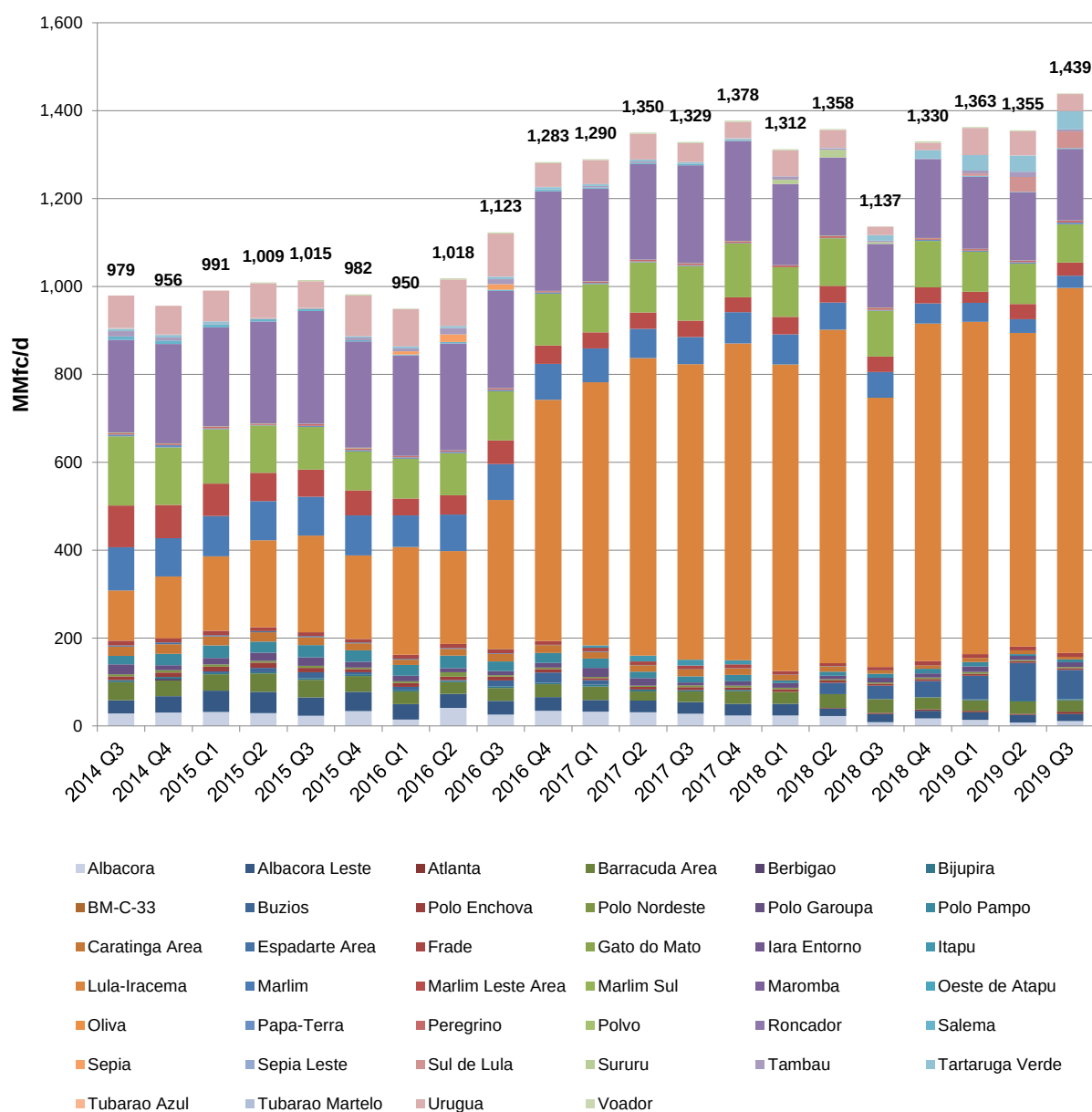
The top five grouping fields, representing 78.02% of the 2019 Q3 Actual Oil Production, and their respective percentage in the total oil production were:

- (i) Lula-Iracema: 45.06%
- (ii) Buzios: 14.81%
- (iii) Roncador: 7.36%
- (iv) Marlim Sul: 6.14%
- (v) Tartaruga Verde: 4.66%



Appendix 4

Actual Gas Production (AGP)



Note 1 – The total gas production for each quarter is show in annual basis,
Source – ANP (<http://www.anp.gov.br/royalties-e-outras-participacoes/royalties>)

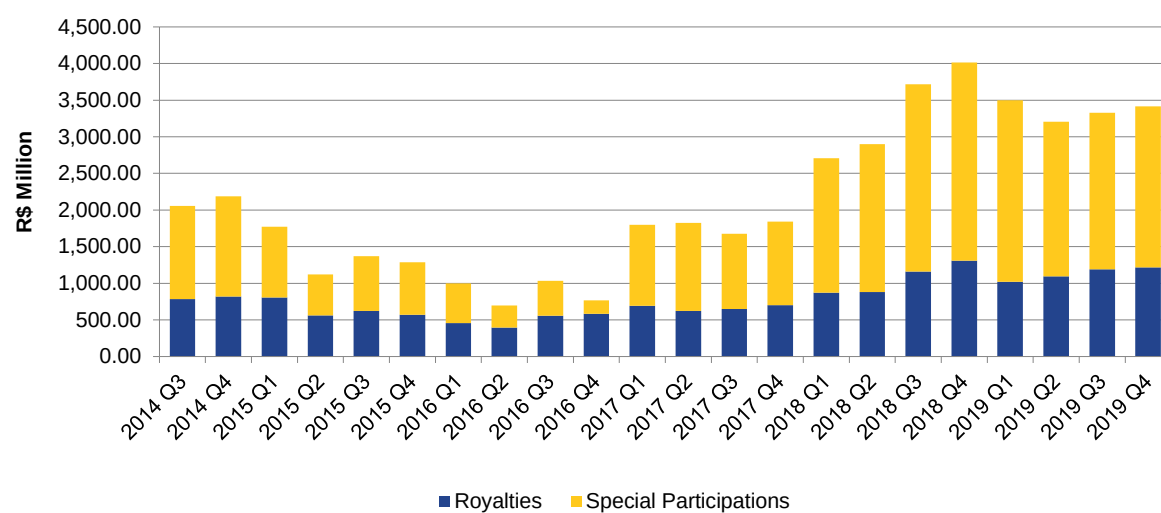
The top five grouping fields, representing 82.63% of the 2019 Q3 Actual Gas Production, and their respective percentage in the total gas production were:

- (i) Lula-Iracema: 57.75%
- (ii) Roncador: 11.34%
- (iii) Marlim Sul: 6.03%
- (iv) Buzios: 4.63%
- (v) Tartaruga Verde: 2.88%



Appendix 5

RJS Oil Revenues and RJS Oil Revenue Rights

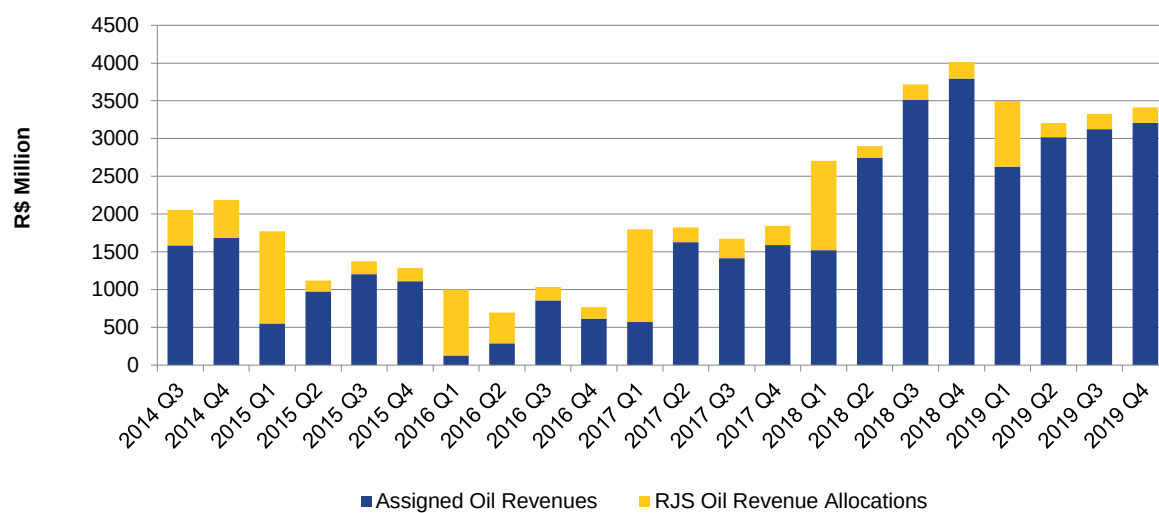


Source – Banco do Brasil S.A.



Appendix 6

RJS Oil Revenues Allocation and Assigned Oil Revenues



Source – Banco do Brasil S.A.