## United Nations Convention on the Law of the Sea



# Commission on the Limits of the Continental Shelf 

## SUMMARY OF RECOMMENDATIONS OF THE COMMISSION ON THE LIMITS OF THE CONTINENTAL SHELF IN REGARD TO THE PARTIAL REVISED SUBMISSION MADE BY BRAZIL IN RESPECT OF THE BRAZILIAN SOUTHERN REGION ON 10 APRIL 2015

Recommendations prepared by the Subcommission established for the consideration of the partial revised Submission made by Brazil in respect of the Brazilian Southern Region

Approved by the Subcommission on 1 February 2019
Approved by the Commission, with amendments, on 8 March $2019^{1}$

[^0]
## TABLE OF CONTENTS

GLOSSARY OF TERMS ..... III
I. INTRODUCTION ..... 1
II. CONTENTS OF THE PARTIAL REVISED SUBMISSION ..... 3
A. Original Submission ..... 3
B. Communications and additional material ..... 3
III. EXAMINATION OF THE PARTIAL REVISED SUBMISSION BY THE SUBCOMMISSION ..... 4
A. Examination of the format and completeness of the partial revised Submission ..... 4
B. Preliminary analysis of the partial revised Submission ..... 4
C. Main scientific and technical examination of the partial revised Submission ..... 5
IV. RECOMMENDATIONS OF THE COMMISSION WITH RESPECT TO THE BRAZILIAN SOUTHERN REGION ..... 6

1. Geographical and geological description of the region ..... 6
2. The determination of the foot of the continental slope (article 76, paragraph 4(b)) ..... 10
2.1 Considerations ..... 10
2.2 Recommendations ..... 19
3. The establishment of the outer edge of the continental margin (article 76, paragraph 4(a)). ..... 20
3.1 The application of the 60 M distance formula (article 76, paragraph 4(a)(ii)) ..... 20
3.2 The application of the 1 per cent sediment thickness formula (article 76, paragraph 4(a)(i)) ..... 20
3.3 Configuration of the Outer Edge of the Continental Margin ..... 24
3.4 Recommendations ..... 24
4. The application of the constraint criteria (article 76, paragraphs 5 and 6) ..... 25
4.1 The construction of the distance constraint line ..... 25
4.2 The construction of the constraint line ..... 26
5. The outer limits of the continental shelf (article 76, paragraph 7) ..... 26
6. Recommendations for the Brazilian Southern Region (article 76, paragraph 8) ..... 27
REFERENCES ..... 28
ANNEX I TABLES OF GEOGRAPHICAL COORDINATES OF: THE FOOT OF THE CONTINENTAL SLOPE POINTS, THE OUTER EDGE OF THE CONTINENTAL MARGIN BEYOND 200 M AND THE OUTER LIMITS OF THE CONTINENTAL SHELF BEYOND 200 M AS RECOMMENDED BY THE COMMISSION, BASED ON THE SUBMISSION BY BRAZIL IN THE BRAZILIAN SOUTHERN REGION ..... 30

## GLOSSARY OF TERMS

| 200 M line | Line at a distance of 200 nautical miles from the baselines from which the breadth of the territorial sea is measured |
| :---: | :---: |
| 2,500 m isobath | A line connecting the depth of 2,500 metres |
| Article 76 | Article 76 of the Convention |
| Baselines | Baselines from which the breadth of the territorial sea is measured |
| BOS | Base of the continental slope |
| Commission | Commission on the Limits of the Continental Shelf |
| Convention | United Nations Convention on the Law of the Sea of 10 December 1982 |
| Depth constraint | Constraint line determined at a distance of 100 M from the 2,500 m isobath |
| Distance constraint | Constraint line determined at a distance of 350 M from the baselines from which the breadth of the territorial sea is measured |
| Distance formula line | Line delineated by reference to fixed points determined at a distance of not more than 60 nautical miles from the foot of the continental slope |
| Distance formula point | Fixed point determined at a distance of not more than 60 nautical miles from the foot of the continental slope |
| DOALOS | Division for Ocean Affairs and the Law of the Sea, Office of Legal Affairs, United Nations |
| FOS | Foot of the continental slope |
| Guidelines | Scientific and Technical Guidelines of the Commission (CLCS/11 and CLCS/11/Add.1) |
| M | Nautical mile |
| Rules of Procedure | Rules of Procedure of the Commission (CLCS/40/Rev.1) |
| Secretary-General | Secretary-General of the United Nations |
| Sediment thickness formula line | Line delineated by reference to the outermost fixed points at each of which the thickness of sedimentary rocks is at least 1 per cent of the shortest distance from such point to the foot of the continental slope |
| Sediment thickness formula point | Fixed point at which the thickness of sedimentary rocks is at least 1 per cent of the shortest distance from that point to the foot of the continental slope |

(page left intentionally blank)

## I. INTRODUCTION

1 On 10 April 2015, Brazil submitted to the Commission, through the Secretary-General ${ }^{1}$ of the United Nations, information on the limits of the continental shelf beyond 200 M from the baselines from which the breadth of the territorial sea is measured in respect of the Brazilian Southern Region, in accordance with paragraph 8 of article 76 of the Convention.
2 It is recalled that, on 17 May 2004, Brazil had made a Submission to the Commission. On 4 April 2007, the Commission adopted the Recommendations of the Commission on the Limits of the Continental Shelf in regard to the Submission made by Brazil on 17 May 2004 of Information on the Proposed Outer Limits of its Continental Shelf beyond 200 Nautical Miles. In these Recommendations the Commission recommended, inter alia, "[...] that Brazil utilizes the foot of the continental slope locations as contained in its original submission for the Southern Region when delineating the outer limit of the continental shelf where it extends beyond 200 nautical miles." ${ }^{2}$
3 Pursuant to those Recommendations, Brazil made a partial revised Submission in respect of the Brazilian Southern Region, on 10 April 2015.
4 On 24 April 2015, the Secretary-General issued Continental Shelf Notification CLCS.2.REV.2015.LOS ${ }^{3}$ giving due publicity to the Executive Summary of the partial revised Submission in accordance with rule 50 of the Rules of Procedure of the Commission. Pursuant to rule 51 of the Rules of Procedure, the consideration of the partial revised Submission was included in the agenda of the thirty-eighth session of the Commission.
5 Pursuant to section 2 of Annex III to the Rules of Procedure, a presentation of the partial revised Submission was made to the plenary of the thirty-eighth session of the Commission on 25 August 2015 by the head of the delegation of Brazil, Carlos Sérgio Sobral Duarte, Deputy Permanent Representative of Brazil to the United Nations; Chargé d'affaires a.i., Antonio Reginaldo Lima Junior, Director; and Izabel King Jeck, Geologist, from the Directorate of Hydrography and Navigation, Brazilian Navy. The delegation of Brazil also included a number of advisers. In addition to elaborating on substantive points of the partial revised Submission, Mr . Duarte noted that the current submission was the first of a number of partial revised submissions which were being submitted by his Government following the recommendations which had been adopted on 4 April 2007 with regard to the submission made by Brazil on 17 May 2004. He also informed the Commission that one of its members, Mr. Marques, had assisted Brazil by providing scientific and technical advice. Mr. Duarte stated that the area of continental shelf covered by the submission was not subject to any disputes.
6 The Commission proceeded to address the modalities for the consideration of the partial revised Submission and, recalling the decision taken at its twenty-sixth session whereby revised submissions would be considered on a priority basis notwithstanding the queue, the Commission assigned the examination of the submission to the Subcommission established to consider the submission made by Brazil on 17 May 2004. In light of the partial change in the membership of the

[^1]Commission, which had occurred since the adoption of the recommendations on 4 April 2007, the Commission first proceeded to fill certain vacancies in the Subcommission for consideration of the submission made by Brazil on 17 May 2004. Following consultations, the Commission appointed Messrs. Heinesen, Madon and Oduro to fill the vacancies. They joined the original members of the Subcommission, namely Messrs. Awosika, Carrera and Park. In addition, the Commission decided that Mr. Lyu would no longer serve as a member of the Subcommission, so that he could be appointed as a member of another subcommission with a view to ensuring an even distribution of the workload among the members of the Commission. In this regard, the Commission agreed that the seventh member of the Subcommission would be appointed at a subsequent stage. The Subcommission met and elected Messrs. Oduro and Park as Vice-Chairs.

7 Following its establishment, the Subcommission met at the thirty-ninth session, from 2 to 13 November 2015, to commence its consideration of the partial revised Submission and to conduct a preliminary analysis thereof pursuant to paragraph 5(1) of Annex III to the Rules of Procedure.

8 The Subcommission analysed the partial revised Submission during the following sessions: thirty-ninth, fortieth, forty-first, forty-second and forty-third.

9 At the forty-fourth session of the Commission, owing to the expiration of the term of office of the Members of the Commission and the partial change in membership of the Commission following the elections held by the twenty-seventh Meeting of States Parties to the Convention on 14 June 2017, the Commission appointed Messrs. Moreira, Yamazaki and Yáñez to fill the vacancies in the Subcommission. In addition, the Commission decided that Mr. Madon would no longer serve as a member of the Subcommission, so that he could be appointed as a member of another Subcommission with a view to ensuring an even distribution of the workload among the members of the Commission. In this regard, the Commission agreed that the seventh member of the Subcommission would be appointed at a subsequent stage. Messrs. Moreira, Yamazaki and Yáñez joined Messrs. Awosika, Heinesen and Park, as members of the Subcommission. The Subcommission elected Mr. Awosika as Chair and Mr. Heinesen as Vice-Chair and confirmed Mr. Park as Vice-Chair.

10 The Subcommission continued its analysis of the partial revised Submission during the following sessions: forty-fourth, forty-fifth, forty-sixth, forty-seventh, forty-eighth and forty-ninth.
11 In total, the Subcommission held 14 meetings with the Delegation in which it posed questions in writing and presented preliminary considerations involving documents and presentations. The Delegation provided responses to the questions posed both in writing and as presentations and provided additional material.

12 On 21 November 2018, the Subcommission presented a consolidated set of views and general conclusions in accordance with paragraph 10.3 of Annex III to the Rules of Procedure. On 28 November 2018, the Delegation provided its response pursuant to paragraph 10.4 of Annex III to the Rules of Procedure.

13 The Subcommission approved its Recommendations on 1 February 2019 and submitted them to the Commission for consideration and approval on the same date.

14 On 6 February 2019, the Subcommission made a presentation to the Commission of the substance and rationale for its Recommendations. On 7 February 2019, the Delegation made a presentation to the Commission in accordance with paragraph 15.1 bis of Annex III to the Rules of Procedure.

15 The Commission prepared these Recommendations, which were approved on 8 March 2019, taking into consideration article 76 and Annex II to the Convention, the Guidelines and the Rules of Procedure.
16 The Recommendations of the Commission are based on the scientific and technical data and other material provided by the Delegation in relation to the implementation of article 76. The Commission makes these Recommendations to Brazil in fulfilment of its mandate as contained in article 76 and in articles 3 and 5 of Annex II to the Convention.

17 The Recommendations of the Commission only deal with issues related to article 76 and Annex II to the Convention and shall not prejudice matters relating to delimitation of boundaries between States with opposite or adjacent coasts, or prejudice the position of States which are parties to a land or maritime dispute, or application of other parts of the Convention or any other treaties.
18 The Commission makes Recommendations to coastal States on matters related to the establishment of the outer limits of their continental shelf in accordance with paragraph 8 of article 76 of the Convention. Pursuant to this paragraph, the limits of the continental shelf established by a coastal State on the basis of these Recommendations shall be final and binding.

19 Throughout the examination of the partial revised Submission, the Subcommission requested and received support from the Division for Ocean Affairs and the Law of the Sea, Office of Legal Affairs.

## II. CONTENTS OF THE PARTIAL REVISED SUBMISSION

A. Original Submission

20 The partial revised Submission received on 10 April 2015 contained three parts: an Executive Summary; a Main Body which is the analytical and descriptive part; and Scientific and Technical Data.

## B. Communications and additional material

21 In the course of the examination of the partial revised Submission by the Subcommission, the Delegation submitted additional material, including in response to questions and requests for clarification of the Subcommission.
22 In addition to the data contained in the submission of 17 May 2004, the partial revised Submission contained substantial amount of new data covering the entire margin in the Brazilian Southern Region (Figure 1).


Figure 1*: Map of data coverage in the Submission: blue coloured objects depict data from the initial Submission (single beam bathymetry, multichannel seismic, and potential field data); red coloured objects depict additional data from the partial revised Submission (single beam bathymetry, multibeam bathymetry, multichannel seismic, sub-bottom profiler, mini airgun, and potential field data as well as sonobuoy locations as points). Not all potential field data are depicted in the map.

## III. EXAMINATION OF THE PARTIAL REVISED SUBMISSION BY THE SUBCOMMISSION

A. Examination of the format and completeness of the partial revised Submission

23 Pursuant to paragraph 3 of Annex III to the Rules of Procedure, the Subcommission examined and verified the format and completeness of the partial revised Submission.
B. Preliminary analysis of the partial revised Submission

24 Pursuant to paragraph 5 of Annex III to the Rules of Procedure, the Subcommission undertook a preliminary analysis of the partial revised Submission, in accordance with article 76 of the Convention and the Guidelines and determined that:

[^2](a) The outer edge of the continental margin, established from the FOS in the Southern Region by applying the provisions of paragraph 4 of article 76 of the Convention, extends beyond the 200 M line of Brazil to delineate the outer limits of its continental shelf beyond its 200 M line in this region (i.e. the test of appurtenance for the region was satisfied by Brazil);
(b) The issue related to whether the proposed outer limits of Brazil's continental shelf beyond 200 M consist of an appropriate combination of foot of the continental slope points and constraint lines has been used would be addressed in the context of the main scientific and technical examination of the submission;
(c) The construction of the outer limits contains straight line segments not exceeding 60 M in length;
(d) The advice of any other member of the Commission and/or a specialist in accordance with rule 57 of the Rules of Procedure, or the cooperation of relevant international organizations, in accordance with rule 56, would not be sought; and
(e) Additional time would be required to review all the data and to prepare its Recommendations during future sessions of the Commission.

## C. Main scientific and technical examination of the partial revised Submission

25 Pursuant to paragraph 9, section IV of Annex III to the Rules of Procedure, the Subcommission conducted an examination of the partial revised Submission based on the Guidelines and evaluated the following, as applicable:
(a) The data and methodology employed by the coastal State, or coastal States in the case of joint submissions, to determine the location of the foot of the continental slope;
(b) The methodology used to determine the formula line at a distance of 60 M from the foot of the continental slope;
(c) The data and methodology used to determine the formula line delineated by reference to the outermost fixed points at each of which the thickness of sedimentary rocks is at least 1 per cent of the shortest distance from such point to the foot of the continental slope, or not less than 1 kilometre in the cases in which the Statement of Understanding applies;
(d) The data and methodology employed in the determination of the 2,500-metre isobath;
(e) The methodology used to determine the constraint line at a distance of 100 M from the 2,500-metre isobath;
(f) The data and methodology used to determine the constraint line at a distance of 350 M from the baselines from which the breadth of the territorial sea is measured;
(g) The construction of the formulae line as the outer envelope of the two formulae;
(h) The construction of the constraint line as the outer envelope of the two constraints;
(i) The construction of the inner envelope of the formulae and constraint lines;
(j) The delineation of the outer limit of the continental shelf by means of straight lines not longer than 60 M with a view to ensuring that only the portion of the seabed that satisfies all the provisions of article 76 of the Convention and the Statement of Understanding is enclosed;
(k) The estimates of the uncertainties in the methods applied, with a view to identifying the main source(s) of such uncertainties and their effect on the submission; and
(I) Whether the data submitted are sufficient in terms of quantity and quality to justify the proposed limits.
In conducting its examination of the Submission, the Subcommission:
(a) Proceeded with a detailed examination of the data and information supporting every FOS point selected for the establishment of the outer edge of the continental margin;
(b) Sought clarifications and additional data and information from the Delegation, where necessary, through exchanges with the Delegation;
(c) Presented preliminary views and conclusions to the Delegation; and
(d) Made a comprehensive presentation of its views and general conclusions to the Delegation at an advanced stage of the examination of the Submission, as provided for in paragraph 10(3) of annex III to the Rules of Procedure.

## IV. RECOMMENDATIONS OF THE COMMISSION WITH RESPECT TO THE BRAZILIAN SOUTHERN REGION

1. Geographical and geological description of the region

27 According to Brazil, this partial revised Submission relates to the portion of the Brazilian continental margin which is denominated the Southern Region; it is delimited to the north by the São Paulo Ridge and to the south by the lateral maritime border with Uruguay while the western limit is the onshore continental region (Figure 2).


Figure 2: Map of the Brazilian Southern Region. Red rectangle in the inset indicates the location of the submission area (adapted from Main Body of the partial revised Submission, figure 2).

28 Morphologically, the continental margin of Brazil in the Southern Region comprises the marginal sedimentary basins of Santos and Pelotas (Figure 2), including Santa Catarina Plateau, Rio Grande Terrace, Pelotas Sedimentary Drift, Rio Grande Cone, Rio Grande Sedimentary Drift, Chuí Sedimentary Drift and the Chuí Slide (Figure 2).
29 Tectonically, the Brazilian margin is a typical volcanic passive margin with rifts and grabens predominantly filled with volcanic rocks (White and McKenzie, 1989; Geoffroy, 2005). The architecture of such volcanic filling is represented in the seismic profiles as Seaward-Dipping Reflectors (SDRs), reflecting the accumulation of volcanic rocks as growth strata during the active phase of normal faults, which consistently dip towards the continent (Figure 3, and adapted from Main Body of the partial revised Submission, paragraph 46).


Figure 3: Upper panel: conceptual geological section of a typical volcanic passive margin (Main Body of the partial revised Submission, figure 4). Lower panel: seismic image and interpretation of the geological processes associated with the passive margin of the Southern Region, illustrating the structures of the continental basement, and the graben fillings with volcano-sedimentary sequences (adapted from Main Body of the partial revised Submission, figure 44).

30 Several interpretations regarding the position of the Continent-Ocean Boundary (COB) have been proposed in the scientific literature (e.g. Leyden et al., 1971; Kowsmann et al., 1974; Rabinowitz and LaBrecque, 1979; Asmus, 1982; Gomes et al., 1993; Fontana, 1996; Mohriak, 2001; Silveira and Machado, 2004; Kumar et al., 2012; Aslanian and Moulin, 2013; Gomes et al., 2014; Stica et al., 2014). Based on new geophysical data from LEPLAC PHASE 2, Brazil proposed a revised COB in the area under consideration. Figure 4 shows different interpretations of the COB
position along the margin. The latest version of the COB by Brazil, as a hashed white and brown line, is the most seaward amongst them.


Figure 4: A synthesis of proposed locations for the COB in the Southern Region. The location for the COB proposed by Brazil is shown as a hashed white and brown line (Main Body of the partial revised Submission, figure 9).

31 Sedimentation in the Southern Region is predominantly controlled by a combination of gravity processes and contour currents (Faugères et al. 1999). Brazil notes that sediments transferred from shallower to deeper regions through gravitational flows were eroded and redeposited by contour currents as sedimentary drifts connected to the margin.

32 Mass Transport Deposits are observed in seismic sections in distal portions of the margin. According to Brazil (for example paragraph 54 of the Main Body of the partial revised Submission), there is evidence of a high degree of internal deformation of the deposits, comprising a set of representative facies from sediment slides to debris flows, mainly in the southern and central portions of the Southern Region, close to the Rio Grande and Pelotas sedimentary drifts. Gravitational deposits are less pronounced in the north.

33 Another morphological and geological feature of the Southern Region of Brazil is the Santa Catarina Plateau including the Torres High (Figure 2). Seaward of the Santa Catarina Plateau across the Vema Channel lies the Rio Grande Rise. According to Brazil, the Torres High "represent[s] a volume of continental crust that was stretched and thinned, staying attached to the South American continent as a crustal promontory [...]. In a similar way, there are other features, such as the highs in the eastern portion of the Santa Catarina Plateau and the Rio Grande Elevation, that may be microcontinents linked to the South American continent" (Main Body of the partial revised Submission, paragraph 75).

34 The Subcommission notes, however, that most researchers (O'Connor and Duncan, 1990; Coffin and Eldhom, 1994, Courtillot et al. 2003, Torsvik et al., 2009, Gassmoller et al., 2015, among others) consider the nature of the Rio Grande Rise
as a classical trace of a ridge-hotspot interaction. They consider that the Southern Region of Brazil is affected by the activity of the Tristan da Cunha mantle plume magmatism. The oldest expression of this activity is observed landward of the Southern Region, at the Parana flood basalts ( $\sim 120 \mathrm{Ma}$ ). This magmatism predates the opening of the Southern Atlantic. The mantle plume upwelling would subsequently ( $\sim 60 \mathrm{Ma}$ ) be responsible for the Rio Grande Rise (Figure 2). An almost symmetric configuration and coeval magmatism is observed in the African plate, represented by the Etendeka flood basalts ( $\sim 120 \mathrm{Ma}$ ) and Walvis Ridge (50-80 Ma), strongly suggesting the direct interaction between the ridge axis and the Tristan da Cunha hotspot (located today close to the ridge axis but in the African plate).
35 Based on the geological features recognized on the seismic profiles such as SDRs and fault patterns as well as gravity and magnetic anomalies, the Subcommission considers that the Santa Catarina Plateau with the Torres High, which are located between the onshore Parana igneous province and the more seaward located Rio Grande Rise, is the product of rifting and hotspot-related magmatic underplating processes. The Subcommission could not find enough support for the continental nature of the Torres High proposed by Brazil.
2. The determination of the foot of the continental slope (article 76, paragraph 4(b))

36 The FOS should be established in accordance with paragraph 4(b) of article 76 of the Convention.

### 2.1 Considerations

37 According to Brazil, the BOS in the Southern Region was identified by means of bathymetric, geomorphological, geological and geophysical evidence. Four of the FOS points, determined by the maximum change in the gradient at its base, are used to generate formula points and lines beyond the 200 M line of Brazil. The evidence to the contrary rule of paragraph 4 (b) of Article 76 was not applied by Brazil.

38 The Southern Region of Brazil is dominated by a large submarine slide in its southernmost part (the Chuí Slide). To the north and east of the Chuí Slide, the continental margin is dominated by a number of contourite drifts (Chuí Drift, Rio Grande Drift, Pelotas Drift and Santa Catarina Drift). The Santa Catarina Plateau which covers the northern part of the submission area includes the Torres High, and the Pelotas and Santa Catarina drifts (Figure 2).

39 According to Brazil, "the transition from slope to rise is quite gradual and requires the identification of a relatively broad base of slope, which was associated with the sedimentary process and the seabed bathymetric gradient (Figure 5A). In other areas, the slope can be divided into an upper, steeper continental slope, and a lower, gentle continental slope. This composite slope morphology is controlled by local features such as in the Rio Grande Cone, where gravitational deformation increased seafloor gradients in the upper slope. As a continuous process, sediments that are transferred from shallower to deeper portions of the margin through gravitational flows, such as turbidites and mass movements, were eroded and redeposited by contour currents, as sedimentary drifts (Figure 5B and C). Sedimentary drifts plastered to the lower slope (Chuí, Rio Grande and Pelotas drifts) also created morphological changes in seabed gradients."

40 The BOS, as presented by Brazil, comprises a zone along the base of the Chuí Slide, Rio Grande Cone, Chuí Drift, Rio Grande Drift and the Santa Catarina Plateau where the BOS region is smoothed by the Pelotas Drift sedimentation (Figures 5 and 6).


Figure 5: Three regional bathymetric profiles showing the general configuration of the Southern Brazilian Region, divided into slope, rise and deep ocean floor, according to Brazil. A: Across the Chuí Slide; B: Across the Rio Grande Cone and inner part of Rio Grande Drift; C: Across the Santa Catarina Plateau with the Torres High and Pelotas Drift, and the Rio Grande Drift (adapted from document BR-SR-answers_to_2017_09_08_SC_BB1, figures 2, 3 and 4).


Figure 6: Bathymetric map with the base of the slope (BOS, in light blue) in the Southern Region, as contained in the submission (Main Body of the partial revised Submission, figure 46).

41 With regard to the Chuí Slide region, Brazil notes (Main Body of the partial revised Submission, paragraphs 142-144) (Figure 7):
"... it is a unique region of the southern margin, in which gravitational processes, evidenced by a removal scar and mass transport deposits, are predominant in the modelling of the submarine bottom and in the nature of the sedimentary deposition.
The occurrence of erosive and depositional features [...], that extend down gradient, attest to the character of gravitational instability of the slope [...].
Associating the geological and geophysical information with the morphologic criteria, the base of the slope, in the Chui Slide area, was identified in a continuous 300 km long strip with width varying from 60 km to 100 km , bounded by the $3,800 \mathrm{~m}$ isobath with inclinations between $1.2^{\circ}$ and $0.6^{\circ}$, up to isobaths of $4,500 \mathrm{~m}$ and $4,600 \mathrm{~m}$, with inclinations of approximately $0.25^{\circ}$ [...]."


Figure 7: Multi beam profiles acquired in the Chuí Slide region, overlaying a bathymetric grid, showing erosive and depositional features. Yellow line indicates location of bathymetric profile shown in Figure 8 (adapted from Main Body of the partial revised Submission, figure 41).

42 The Subcommission notes that the Chuí Slide extends from water depths that are shallower than 2,000 m to approximately $4,500 \mathrm{~m}$. It shows overall relatively uniform seafloor gradients between $0.6^{\circ}-0.8^{\circ}$, with a marked regional inflection in the gradient at its base (Figures 7 and 8 ). In addition, the MBES, seismic and sub-bottom profiler data show clear evidence of gravitational related sedimentary instability characteristic of the slope (Figures 7 and 9).


Figure 8*: Bathymetric profile across the continental margin in the Chuí Slide region showing a seafloor gradient of $2.5^{\circ}$ descending from the shelf edge toward a water depth of less than $2,000 \mathrm{~m}$, where the seafloor gradient changes to values between $0.83^{\circ}$ to $0.64^{\circ}$. Another general change in the seafloor gradient is observed in water depths of approximately $4,500 \mathrm{~m}$ seaward of which the gradient is about $0.2^{\circ}$.


Figure 9*: Sub-bottom profile down the Chuí Slide (Line B49) demonstrating gravitational slope instability structures, such as head scarps and detached blocks.

43 Consequently, the Subcommission agrees with Brazil that the Chuí Slide constitutes part of the continental slope rather than the continental rise, and that the BOS in the Chuí Slide region is located at the regional gradient change at water depths of approximately $4,500 \mathrm{~m}$ (Figure 14).
44 To the north of the Chuí Slide, up to the Pelotas and Santa Catarina drifts in the north, the Brazilian Southern Region is characterized by a number of contourites. Brazil describes the contourites as follows (Main Body of the partial revised Submission, paragraphs 84, 88, 91 and 93):
"In the Southern Region, the continental margin presents several contourite drifts developed by the interaction between the bottom currents and the seabed topography of the margin.
[...]
In the central portion of the margin it may be observed the Pelotas, Rio Grande and Chuí drifts ...

## [...]

The architectural characteristics and the spatial interaction of the Rio Grande Drift with the protuberance represented by the Rio Grande Cone are indicative of the preponderant morphologic role of the Cone reorganizing the dynamic pattern of the bottom currents and distribution of the sedimentary drifts (Pereira, 2011) ...

## [...]

The erosive action of [bottom] currents is strong enough to dig the bottom layers and to induce local processes of gravitational instability along the inclined surfaces in the range of $0.3^{\circ}$ to $0.9^{\circ}$. Moreover, this interpretation rests on secondary features, such as the presence of small listric faults [...], removal scars [...], and thick arched and irregular sedimentary accumulations, at the base of the flanks, typical of mass movements and processes of sedimentary redeposition [...]."

45 With regard to the Rio Grande Cone and Rio Grande Drift, Brazil notes (Main Body of the partial revised Submission, para 136-138):
"The upper slope presents inclinations between $5^{\circ}$ and $0.5^{\circ}$, dominated by prograding sedimentary processes, with normal faults and block overturning. The lower slope, with smoother gradients and inclinations between $1^{\circ}$ and $0.2^{\circ}$, presents deposits characterized by gravitational slides.

In that region, the base of the slope surrounds the drifts that are accreted to the lower slope of the Rio Grande Cone.

Combining the geological and geophysical information with the morphologic criteria, the base of the slope, in the Rio Grande Cone region was identified in a 35 km to 70 km wide strip, whose upper boundary is the $3,800 \mathrm{~m}$ isobath, with inclinations varying between $0.8^{\circ}$ and $0.5^{\circ}$; and whose lower boundary is the 4,700 isobath, with inclinations of approximately $0.2^{\circ}[\ldots] . "$

46 The Subcommission observes that the regional inflection in gradient at the base of the Chuí Slide region continues in a general easterly orientation along the southern base of the Rio Grande Drift. The drift maintains a vertical height of approximately 600 m above the seafloor level further seaward. The slope gradient of the flank of the drift amounts to $0.6^{\circ}$ in its western/landward part, gradually decreasing toward its eastern/seaward extreme.
47 In addition, evidence of gravitational related slope instability is seen in the sub-bottom profiler data in the western and central part of the drift in this region (Figure 10).


Figure 10*: Sub-bottom profile across the Santa Catarina Plateau (Line B56), Pelotas Drift, and Rio Grande Drift. The enlargement of the Rio Grande Drift demonstrates gravitational slope instability structures associated with erosion of strong bottom currents.

48 The Subcommission agrees with Brazil that the BOS in this part of the Rio Grande Drift region is located along the regional gradient change at the base of the Rio Grande Drift (Figure 14).

49 With regards to the Santa Catarina Plateau region, Brazil notes the following (Main Body, paragraphs 123-126) (see also Figures 11, 12 and 13):
"The origin of the outstanding morphology of the Santa Catarina Plateau is both structural and sedimentary. Structural highs, as the Torres High, control the basement [...] and they were barriers to sedimentation, conditioning the bottom currents. [...]

The Pelotas Drift coupling to the plateau's southern limit is also an evidence of its morphologic elevation, about 600 m higher than the adjacent submarine bottom.

The new interpretations reveal that some portions of the Santa Catarina Plateau's basement have geophysical characteristics of the continental crust, indicated by the Moho deepening, SDRs delineation [...].

The geological and geophysical information were associated with the morphological criteria, and the base of the slope in the southern region of the Santa Catarina Plateau, was identified on the scarp smoothed by sedimentation of the Pelotas Drift."


Figure 11: Bathymetric profile showing the plateau extension and its morphology across the São Paulo Plateau, the São Paulo Ridge and the Santa Catarina Plateau, including the Torres High and the Pelotas Drift (adapted from presentation BR_SR_revised_submission_15MAR18, slide 5).


Figure 12: Bathymetric profiles demonstrating the scarp along the Pelotas Drift, with heights that range from 900 m , in its eastern portion, to 500 m in its western portion (Presentation BR_SR_revised_submission_15MAR18, slide 6).

Figure not made public at the request of the coastal State, by virtue of paragraph 11.3 of annex III to the Rules of Procedure

Figure 13

50 The Subcommission observes that the Santa Catarina Plateau is an elevated feature, $1,000-1,500 \mathrm{~m}$ shallower than the adjacent basin floor (Figure 11), and is morphologically continuous with the landmass of Brazil. In this respect, the Subcommission agrees with Brazil that the regional inflection in the seafloor gradient, which is clearly observed at the southeastern edge of the Santa Catarina Plateau continues westward along the base of the Pelotas Drift, which constitutes the southern edge of the Santa Catarina Plateau (Figure 12).
51 Whilst not in agreement with the view of Brazil on the crustal nature of Santa Catarina Plateau (paragraph 35), the Subcommission agrees with Brazil that the structural and sedimentary character of the Santa Catarina Plateau, with the Torres High, support the identification of the BOS in this region.
52 Based on the morphological nature of the Santa Catarina Plateau, and supporting geological evidence, the Subcommission agrees with Brazil that the BOS in this part of Brazilian margin is located along the regional gradient change at the base of the Pelotas Drift (Figures 12 and 14).
53 The Subcommission agrees with Brazil on the BOS in the Chuí Slide region, the western and central parts of the Rio Grande Drift region, and the southern and southeastern parts of the Pelotas Drift (paragraphs 43, 48, 52). However, the Subcommission was unable to find sufficient data and information to support the full extent of the continuous BOS region in the other parts of the margin as presented by Brazil (Figure 6). Consequently, the Delegation presented a revised BOS with which the Subcommission agreed (Figure 14).

54 The Subcommission noted that the foot of the continental slope points(5-BR-FOS-SR-B59; 20-BR-FOS-SR-B60A; 28-BR-FOS-SR-B52_1; and 35-BR-FOS-SR-500-0056, respectively - see Figure 14) are located at the maximum change in gradient within the BOS region, and are thus acceptable to the Subcommission.


Figure 14*: Map showing the final BOS (light blue shading) and FOS positions (red stars) used in the establishment of the outer edge of the continental margin in the Brazilian Southern Region. Coordinates of FOS points are contained in Table 1 of Annex I to these Recommendations.

### 2.2 Recommendations

55 Based on the morphological information used to identify the position of the BOS and supporting geological information the Commission recommends on the position of the BOS in the Brazilian South Region as presented in Figure 14. In that context the Commission concludes that, in the Brazilian Southern Region, the FOS points listed in Table 1 of Annex I fulfil the requirements of article 76 and Chapter 5 of the Guidelines. The Commission recommends that these FOS points should form the basis for the establishment of the outer edge of the continental margin in the Brazilian Southern Region.
3. The establishment of the outer edge of the continental margin (article 76, paragraph 4(a))
56 The outer edge of the continental margin of Brazil in the Southern Region shall, for the purposes of the Convention, be established in accordance with paragraph 4(a) of article 76 of the Convention.
3.1 The application of the 60 M distance formula (article 76, paragraph 4(a)(ii))

57 In the Southern Region of Brazil, the distance formula line is constructed at not more than 60 M from 4 critical FOS points (5-BR-FOS-SR-B59, 20-BR-FOS-SR-B60A, 28-BR-FOS-SR-B52_1 and 35-BR-FOS-SR-500-0056), in accordance with the provisions contained in paragraph 4(a)(ii) of article 76 of the Convention (Figure 15).


Figure 15*: Application of the 60 M distance formula based on the 4 critical FOS points.
58 The Commission agrees with the procedure and the accuracy by which the distance formula line had been constructed by Brazil in the Southern Region.
3.2 The application of the 1 per cent sediment thickness formula (article 76, paragraph 4(a)(i))

59 In the Southern Region, Brazil submitted 5 fixed points based on the sediment thickness provision of paragraph 4 (a)(i) of article 76 of the Convention utilizing 2 FOS points on its continental margin (Figure 16). Brazil established these sediment thickness points (1-BR-STP-SR, 1b-BR-STP-SR, 2-BR-STP-SR, 3-BR-STP-SR, 4-BR-STP-SR) based on the multichannel seismic (MCS) lines 500-0054, 500-0055, 500-0056, and BGR04-01SA (Figure 16).


Figure 16*: Location of FOS points (brown stars), sediment thickness points (yellow stars) and seismic lines used to apply the 1 per cent sediment thickness formula.

60 For each of the sediment thickness formula points, in accordance with the Guidelines, the Subcommission requested and received from Brazil detailed velocity analyses of the seismic data in its vicinity, including selected common depth point gathers and velocity spectra. The identification of the basement as submitted by Brazil was supported by a significant increase in seismic velocity (RMS velocities transition from $\sim 2000 \mathrm{~m} / \mathrm{s}$ to $5000 \mathrm{~m} / \mathrm{s}$ ) (Figure 18). The Subcommission agrees with the identification of the acoustic basement by Brazil (Figure 17).
61 To validate the velocity-depth relation used by Brazil to convert two-way travel time into depth on MCS lines, the Subcommission examined and confirmed the velocity analysis provided. For example, Figure 18 shows the analysis of shot point 101 on MCS line 500-0054 (sediment thickness fixed point 1-BR-STP-SR). Using this velocity-time profile, the Subcommission verified the sediment thickness at shot point 101 and that the 1 per cent sediment thickness criteria is met.

62 The Subcommission performed similar analyses for sediment thickness points 1 b-BR-STP-SR, 2-BR-STP-SR and 3-BR-STP-SR, and verified and confirmed the sediment thickness results provided by Brazil and that the 1 per cent sediment thickness criteria is met for each point.


Figure 17: MCS line 500-0054, used to determine sediment thickness point 1-BR-STP-SR. Acoustic basement is shown in red, and the location of the sediment thickness fixed point at shot point 101, is highlighted (adapted from Main Body Appendix C of the partial revised Submission, page 9).

500-0054 SP101


Figure 18: Velocity analysis at shot point 101 on MCS line 500-0054 (Appendix 1 NV 364 seismic_velocity_analysis1, page 1).

63 For the southernmost sediment thickness fixed point, 4-BR-STP-SR, located on seismic line BGR04-01SA for which velocity information was not available, Brazil provided a proximal parallel line, MCS 500-0057B (Figure 16), in order to support the velocity analysis. The Subcommission verified that the seismic reflectors along both lines contain essentially the same seismic sequences (Figure 19). Hence, the Subcommission agrees that the seismic velocity analysis along line 500-0057B corroborates that of line BGR04-01SA and furthermore verifies the sediment thickness estimate at the fixed point and that the 1 per cent sediment thickness criteria is met.


Figure 19*: Sediment thickness determination at point 4-BR-STP-SR. Lower panel: seismic image of MCS line 500-0057B, acoustic basement interpretation in red, blue box indicate the section close to the 1 per cent sediment thickness point. Upper left panel: seismic image of MCS line BGR04-15A, including sediment thickness formula point 4-BR-STP-SR (green line), and MCS line 500-0057B nearby. The Subcommission notes the similar seismic stratigraphy in both sections. Right upper panel: plan view location of the two MCS lines and the 1 per cent sediment thickness point (yellow-red star).

64 Brazil provided composite seismic profiles demonstrating sediment continuity from each of the sediment thickness fixed points to the FOS in the vicinity of each of the corresponding FOS points (see for example Figure 17). The Subcommission examined the continuity of the sedimentary sequence between each of the outermost sediment thickness fixed points and the sediments at the foot of the continental slope in accordance with paragraph 8.5.3 (b) of the Guidelines.

65 In addition, Brazil provided a map of sediment thickness along the southern part of the margin, based on the interpretation of selected seismic data (Figure 20). The Subcommission was satisfied that all sediment thickness formula points were connected by the same continuous sedimentary apron across the entire margin and it concluded that the criterion of sediment continuity was satisfied.


Figure 20: Sediment thickness grid based on thickness estimate derived from the interpretation of MCS lines 500-0054, 500-0055, 500-0056, and BGR04-01SA (Main Body Appendix C of the partial revised Submission, figure C2).

66 In conclusion, the Commission agrees with the procedure and the accuracy by which Brazil established the sediment thickness points utilizing FOS points on the continental margin of the Southern Region including the data provided, the seismic interpretation, the methods of depth conversion, and the distance calculations.

### 3.3 Configuration of the Outer Edge of the Continental Margin

67 In the Brazilian Southern Region, the outer edge of the continental margin extends in a northeastwards direction beyond the 200 M line of Brazil from the border with Uruguay towards the southeastern part of the Santa Catarina Plateau (Figure 21).

### 3.4 Recommendations

68 In the Southern Region, the outer edge of the continental margin of Brazil beyond 200 M is based on 5 sediment thickness formula points as described in sections 3.1 and 3.2 and 598 distance formula points as described in section 2.1 above (Figure 21). The fixed points are listed in Table 2 of Annex 1 to these Recommendations. The Commission recommends that these points be used as the basis for delineating the outer limits of the continental shelf in this region, subject to the application of the relevant constraints (see section 4 below).


Figure 21: Map of the outer edge of the continental margin of Brazil in the Southern Region (Main Body of the partial revised Submission, figure 51; with labels added by the Subcommission). Coordinates of fixed points defining the outer edge of the continental margin are contained in Table 2 of Annex I to these Recommendations.
4. The application of the constraint criteria (article 76, paragraphs 5 and 6 )

69 The outer limits of the continental shelf cannot extend beyond the constraints as per the provisions contained in paragraphs 5 and 6 of article 76 of the Convention. The fixed points comprising the line of the outer limits of the continental shelf on the seabed either shall not exceed 350 M from the baselines (the distance constraint), or, shall not exceed 100 M from the 2,500 metre isobath (the depth constraint).
70 For the outer limits of the continental shelf in the Southern region, Brazil invoked the distance constraint only.

### 4.1 The construction of the distance constraint line

71 The distance constraint line submitted by Brazil in the Southern region is constructed by arcs at 350 M distance from the baselines from which the breadth of the territorial sea of Brazil is measured. The Commission agrees with the procedure and methods applied by Brazil in the construction of this constraint line.


Figure 22: Map of Brazil southern region showing the Brazil-Uruguay maritime boundary line, the 200 M line of Brazil, the outer edge of continental margin, the 350 M constraint line and the outer limits of continental shelf as submitted by Brazil (Main Body of the partial revised Submission, figure 53; with key added by the Subcommission).

### 4.2 The construction of the constraint line

72 In the Southern region, Brazil has applied a constraint line based only on the distance constraint constructed in accordance with paragraph 5 of article 76 of the Convention (see section 4.1 above). The Commission agrees with the way this constraint line has been constructed.
5. The outer limits of the continental shelf (article 76, paragraph 7)

73 The outer limits of the continental shelf result from the application of the distance constraint line determined according to paragraph 72 above, to the outer edge of the continental margin, determined according paragraph 68. The outer limits of the continental shelf of the Southern region of Brazil consist of fixed points connected by straight lines not exceeding 60 M in length.


Figure 23*: Map of the outer limits of the continental shelf of Brazil in the southern region.
6. Recommendations for the Brazilian Southern Region (article 76, paragraph 8)

74 The Commission recommends that the delineation of the outer limits of the continental shelf in the Southern Region be conducted in accordance with paragraph 7 of article 76 of the Convention by straight lines not exceeding 60 M in length, connecting fixed points, defined by coordinates of latitude and longitude listed in Table 3 of Annex I to these Recommendations.

75 The Commission recommends that Brazil proceeds to establish the outer limits of the continental shelf in the Southern region from fixed point 001-BR-OL-SR to fixed point 312-BR-OL-SR, accordingly, noting that sediment thickness point 4BR-STP-SR also represents a valid outer edge point. Given that the Commission does not have specific information on the delimitation of the continental shelf between Brazil and Uruguay despite the fact that Brazil has shown a projected maritime boundary line extending far out in the margin, the Commission, in order not to prejudice maritime boundary delimitation between Brazil and Uruguay, does not recommend on establishment of the outer limits in this area. The Commission recommends, that the final outer limit position should lie at the intersection of the maritime boundary line between Brazil and Uruguay and an outer limit straight line segment not exceeding 60 M in length connecting two valid outer limit fixed points.

## REFERENCES

ASLANIAN, D. and MOULIN, M. 2013. Palaeographical consequences of conservational models in the South Atlantic Ocean. In: MOHRIAK, W. U.; DANFORTH, A.; POST, P. J.; BROWN, D. E.; TARI, G. C.; NEMČOK, M.; SINHA, S. T. (Eds) Conjugate Divergent Margins. Geological Society, London, Special Publications, 369, 75-90.

ASMUS, H.E. 1982. Significado geotectônico das feições estruturais das bacias marginais brasileiras e áreas adjacentes. Proceedings from XXXII Congresso Brasileiro de Geologia (vol 4), 1547-1557.

COFFIN, M.F. and ELDHOM, O 1994. Large igneous provinces: Crustal structure, dimensions, and external consequences, Reviews of Geophysics, 32, 1, pages 1-36.

COURTILLOT, V., DAVAILLE, A., BESSE, J. and STOCK, J. 2003. Three distinct types of hotspots in the Earth's mantle. Earth and Planetary Science Letters, 205: 295-308.

FAUGÈRES, J.C., STOW D.A.V., IMBERT P. and VIANA A.R. 1999. Seismic features diagnostic of contourite drifts. Marine Geology. Elsevier, 162, 1-38.

FONTANA, R. L. 1996. Geotectônica e sismoestratigrafia da Bacia de Pelotas e Plataforma de Florianópolis. Thesis (Doctor's Degree), Geosciences Post-Graduation Course. Universidade Federal do Rio Grande do Sul. 214 pp.

GASSMOLLER, R., DANNBERG, J., BREDOW, E., STEINBERGER, B. and TORSVIK T.H. 2015. Major influence of plume-ridge interaction, lithosphere thickness variations, and global mantle flow on hotspot volcanism - The example of Tristan, Geochemistry, Geophysics, Geosystems, 17, 4: 1454-1479.

GEOFFROY, L. 2005. Volcanic passive margins. CR Geoscience, 337. Elsevier, 1395-1408.
GOMES, B.S, ALBERONI, A.A.L and JECK, I.K. 2014. Margem Continental Sul Brasileira: Proposta de um novo traçado do limite crustal por gravimetria. Proceedings from $47^{\circ}$ Congresso Brasileiro de Geologia. Salvador. p. 1491.

GOMES, P.O., SEVERINO, M.C.G. and GOMES, B.S. 1993. Projeto Leplac : Interpretaçăo Integrada dos Dados Geofísicos do Prospecto LEPLAC-IV - Margem Continental Sul Brasileira. Proceedings from III Congresso Internacional da Sociedade Brasileira de Geofísica. Rio de Janeiro, 1275-1280.

KOWSMANN, R.O., FRANCISCONI, O. and LEYDEN, R. 1974. Refração sísmica marinha nas bacias de Pelotas Santos Sul e na plataforma de Torres. Proceedings from XXVIII Congresso Brasileiro de Geologia, Porto Alegre, (vol.3), 283-295.

KUMAR, N., DANFORTH, A., NUTTALL, P., HELWIG, J., BIRD, D.E. and VENKATRAMAN, S. 2012. From oceanic crust to exhumed mantle: a 40 year the Santos Basin, SE Brazil (1970-2010) perspective on the nature of crust under. In: MOHRIAK, W., DANFORTH, A., POST, P. J., BROWN, D. E., TARI, G. C., NEMČOK, M. and SINHA, S. T. (Eds) Conjugate Divergent Margins. Geological Society, London, Special Publications, 369, 147-165.

LEYDEN, R., LUDWIG, W.J. and EWING, J. 1971. Structure of the continental margin of Punta del Este, Uruguay, and Rio de Janeiro, Brazil. AAPG Bulletin, 55, 2161-2173.

MOHRIAK, W.U. 2001. Salt tectonics, volcanic centers, fracture zones and their relationship with the origin and evolution of the South Atlantic Ocean: geophysical evidence in the Brazilian and West African margins. Proceedings from VII Congresso Internacional da Sociedade Brasileira de Geofísica. Salvador, 1594-1597.

O'CONNOR, J.M. and DUNCAN, R.A. 1990, Evolution of the Walvis Ridge-Rio Grande Rise Hot Spot System: Implications for African and South American Plate motions over plumes, Journal of Geophysical Research, 95(B11): 17475-17502.

PEREIRA, F.C. 2011. Depósitos de Deriva Sedimentar: Principal Elemento Arquitetural na Estratigrafia Cenozoica da Bacia de Pelotas - Margem Sul Brasileira. Dissertation (Master's Degree) Marine Geology and Geophysics Post-Graduated Program, Universidade Federal Fluminense, 161 p.

RABINOWITZ, P.D. and LABRECQUE, J. 1979. The Mesozoic South Atlantic Ocean and evolution of its continental margins. Journal of Geophysical Research: Solid Earth (1978-2012), 84, B11, 5973-6002.

SILVEIRA, D.P. and MACHADO, M.A.P. 2004. Bacias sedimentares brasileiras. Bacia de Pelotas. Fundação Paleontológica Phoenix, 63, ano 6, 1-6.

STICA, J.M., ZALÁN, P.V. and FERRARI, A.L. 2014. The evolution of rifting on the volcanic margin of the Pelotas Basin and the contextualization of the Paraná-Etendeka LIP in the separation of Gondwana in the South Atlantic. Marine and Petroleum Geology, 50, 1-21.

TORSVIK, T.H., ROUSSE, S., LABAILS, C. and SMETHURST, M.A, 2009. A new scheme for the opening of the South Atlantic Ocean and the dissection of an Aptian salt basin, Geophysical Journal International, 177(3) 1315-1333.

WHITE, R.S. and MCKENZIE, D.P. 1989. Magmatism at rift zones: the generation of volcanic continental margins and flood basalts. Journal of Geophysical Research, 94, B6, 7685-7729.

ANNEX I
TABLES OF GEOGRAPHICAL COORDINATES OF: THE FOOT OF THE CONTINENTAL SLOPE POINTS, THE OUTER EDGE OF THE CONTINENTAL MARGIN BEYOND 200 M AND THE OUTER LIMITS OF THE CONTINENTAL SHELF BEYOND 200 M AS RECOMMENDED BY THE COMMISSION, BASED ON THE SUBMISSION BY BRAZIL IN THE BRAZILIAN SOUTHERN REGION

Table 1. Coordinates of the foot of the continental slope points (Main Body of the partial revised Submission, Appendix B, Table B1)

| FOS <br> number | FOS Name of the Point | Line | LATITUDE <br> (GG.MM.SS.DEC) | LONGITUDE <br> (GG.MM.SS.DEC) |
| :--- | :--- | :--- | :--- | :--- |
| 5 | 5-BR-FOS-SR-B59 | B59 | $-32^{\circ} 48^{\prime} 38.48^{\prime \prime}$ | $-43^{\circ} 55^{\prime} 39.81^{\prime \prime}$ |
| 20 | 20-BR-FOS-SR-B60A | B60A | $-34^{\circ} 06^{\prime} 40.04^{\prime \prime}$ | $-45^{\circ} 30^{\prime} 13.28^{\prime \prime}$ |
| 28 | 28-BR-FOS-SR-B52_1 | B52_1 | $-34^{\circ} 37^{\prime} 04.66^{\prime \prime}$ | $-47^{\circ} 38^{\prime} 23.42^{\prime \prime}$ |
| 35 | 35-BR-FOS-SR-500-0056 | $500-0056$ | $-35^{\circ} 30^{\prime} 11.83^{\prime \prime}$ | $-49^{\circ} 28^{\prime} 52.00^{\prime \prime}$ |

Table 2. Coordinates of fixed points defining the outer edge of the continental margin beyond 200 M and their corresponding FOS points (Annex NV Brazil - BR-OLSR_table_02FEV2019 provided by Brazil on 1 February 2019)

| Latitude (DD.DEC) | Longitude (DD.DEC) | FOS POINT | Art. 76 (4) Criterion | $\sum_{\substack{0}}^{\substack{0 \\ \omega}}$ | SP |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| -31.9995864524 | -43.2341416288 | 5-BR-FOS-SR-B59 | 60 M FOS | X | x | x |
| -32.0044960746 | -43.2262142749 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -32.0094613151 | -43.2183343610 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.0144818435 | -43.2105024172 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.0195573212 | -43.2027189734 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -32.0246874024 | -43.1949845776 | 5-BR-FOS-SR-B59 | 60 M FOS | x | x | x |
| -32.0298717409 | -43.1872997688 | 5-BR-FOS-SR-B59 | 60 M FOS | x | x | x |
| -32.0351099753 | -43.1796650681 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -32.0404017674 | -43.1720809964 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.0457467555 | -43.1645480657 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.0511445554 | -43.1570668332 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.0565948286 | -43.1496377748 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -32.0620972059 | -43.1422614115 | 5-BR-FOS-SR-B59 | 60 M FOS | x | x | x |
| -32.0676512954 | -43.1349382645 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.0732567278 | -43.1276688277 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.0789131266 | -43.1204536132 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.0846201149 | -43.1132931062 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.0903772853 | -43.1061878275 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.0961842612 | -43.0991382444 | 5-BR-FOS-SR-B59 | 60 M FOS | x | x | x |
| -32.1020406505 | -43.0921448510 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.1079460459 | -43.0852081322 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.1139000708 | -43.0783285733 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |


| Latitude (DD.DEC) | Longitude (DD.DEC) | FOS POINT | Art. 76 (4) Criterion | $\sum_{\substack{n}}^{U}$ | SP |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| -32.1199022797 | -43.0715066592 | 5-BR-FOS-SR-B59 | 60 M FOS | x | x | x |
| -32.1259522958 | -43.0647428571 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.1320497045 | -43.0580376163 | 5-BR-FOS-SR-B59 | 60 M FOS | $x$ | X | X |
| -32.1381940984 | -43.0513914306 | 5-BR-FOS-SR-B59 | 60 M FOS | x | x | x |
| -32.1443850399 | -43.0448047584 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -32.1506221066 | -43.0382780667 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -32.1569049066 | -43.0318117777 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.1632329873 | -43.0254063764 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.1696059185 | -43.0190622942 | 5-BR-FOS-SR-B59 | 60 M FOS | X | x | x |
| -32.1760232781 | -43.0127799802 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -32.1824846135 | -43.0065598835 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | x |
| -32.1889895100 | -43.0004024263 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -32.1955375076 | -42.9943080398 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.2021281611 | -42.9882771642 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -32.2087610183 | -42.9823102127 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -32.2154356342 | -42.9764076166 | 5-BR-FOS-SR-B59 | 60 M FOS | x | x | x |
| -32.2221515642 | -42.9705697710 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -32.2289083407 | -42.9647970981 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.2357055039 | -42.9590900203 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -32.2425425940 | -42.9534489147 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.2494191209 | -42.9478742126 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -32.2563346553 | -42.9423662733 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -32.2632886921 | -42.9369255190 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.2702807719 | -42.9315523180 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.2773104199 | -42.9262470565 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.2843771465 | -42.9210101120 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.2914804773 | -42.9158418437 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.2986199379 | -42.9107426468 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.3057950237 | -42.9057128627 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.3130052529 | -42.9007528598 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.3202501287 | -42.8958629883 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.3275291696 | -42.8910436077 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.3348418560 | -42.8862950592 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.3421876914 | -42.8816176932 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.3495661947 | -42.8770118331 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.3569768392 | -42.8724778113 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.3644191438 | -42.8680159512 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.3718925821 | -42.8636265940 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.3793966278 | -42.8593100454 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.3869307849 | -42.8550666285 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.3944945275 | -42.8508966490 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.4020873601 | -42.8468003942 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |


| Latitude (DD.DEC) | Longitude (DD.DEC) | FOS POINT | Art. 76 (4) Criterion | $\sum_{i=1}^{U} \underset{y}{0}$ | SP |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| -32.4097087415 | -42.8427781785 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.4173581613 | -42.8388302894 | 5-BR-FOS-SR-B59 | 60 M FOS | $x$ | X | X |
| -32.4250350864 | -42.8349570234 | 5-BR-FOS-SR-B59 | 60 M FOS | x | x | x |
| -32.4327389761 | -42.8311586679 | 5-BR-FOS-SR-B59 | 60 M FOS | x | x | x |
| -32.4404693510 | -42.8274354835 | 5-BR-FOS-SR-B59 | 60 M FOS | x | x | x |
| -32.4482256326 | -42.8237877575 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.4560073340 | -42.8202157505 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.4638138619 | -42.8167197499 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.4716447070 | -42.8132999984 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -32.4794993449 | -42.8099567474 | 5-BR-FOS-SR-B59 | 60 M FOS | x | x | x |
| -32.4873772511 | -42.8066902394 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -32.4952778484 | -42.8035007351 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -32.5032006051 | -42.8003884769 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.5111449823 | -42.7973536804 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.5191104410 | -42.7943965882 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -32.5270964199 | -42.7915174248 | 5-BR-FOS-SR-B59 | 60 M FOS | x | x | x |
| -32.5351023804 | -42.7887163969 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.5431277462 | -42.7859937290 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.5511719868 | -42.7833496278 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.5592345566 | -42.7807842819 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.5673148951 | -42.7782979069 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -32.5754124190 | -42.7758907004 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -32.5835265986 | -42.7735628242 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.5916568814 | -42.7713144758 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.5998026849 | -42.7691458349 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.6079634493 | -42.7670570722 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.6161386382 | -42.7650483404 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.6243276542 | -42.7631198102 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.6325299306 | -42.7612716343 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.6407449088 | -42.7595039654 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.6489720908 | -42.7578169383 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.6572108270 | -42.7562106966 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.6654605364 | -42.7546853842 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.6737207065 | -42.7532411089 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.6819907416 | -42.7518780052 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.6902700612 | -42.7505961902 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.6985580927 | -42.7493957715 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.7068543094 | -42.7482768569 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.7151581086 | -42.7472395363 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.7234688728 | -42.7462839175 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.7317860911 | -42.7454100903 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.7401091539 | -42.7446181265 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |


| Latitude (DD.DEC) | Longitude (DD.DEC) | FOS POINT | Art. 76 (4) Criterion | $\sum_{\substack{n}}^{U}$ | SP |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| -32.7484374595 | -42.7439081071 | 5-BR-FOS-SR-B59 | 60 M FOS | x | x | x |
| -32.7567704747 | -42.7432801129 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.7651076136 | -42.7427341977 | 5-BR-FOS-SR-B59 | 60 M FOS | $x$ | X | X |
| -32.7734482902 | -42.7422704245 | 5-BR-FOS-SR-B59 | 60 M FOS | x | x | x |
| -32.7817919189 | -42.7418888650 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -32.7901379446 | -42.7415895464 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -32.7984857897 | -42.7413725224 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.8068348237 | -42.7412378380 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.8151845149 | -42.7411855111 | 5-BR-FOS-SR-B59 | 60 M FOS | X | x | x |
| -32.8235342940 | -42.7412155777 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -32.8318835463 | -42.7413280558 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | x |
| -32.8402317028 | -42.7415229633 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.8485781873 | -42.7418003001 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.8569224388 | -42.7421600844 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -32.8652638284 | -42.7426023160 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -32.8736018108 | -42.7431269681 | 5-BR-FOS-SR-B59 | 60 M FOS | x | x | x |
| -32.8819358333 | -42.7437340406 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -32.8902652450 | -42.7444235155 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.8985895162 | -42.7451953660 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.9069080949 | -42.7460495560 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.9152203310 | -42.7469860587 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -32.9235256727 | -42.7480048201 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -32.9318235686 | -42.7491058133 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.9401133920 | -42.7502889574 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.9483945766 | -42.7515542075 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.9566665566 | -42.7529014918 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.9649287967 | -42.7543307563 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.9731806707 | -42.7558419023 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.9814216136 | -42.7574348668 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.9896510602 | -42.7591095511 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -32.9978684079 | -42.7608658563 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.0060730770 | -42.7627036836 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.0142645182 | -42.7646229252 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.0224422128 | -42.7666235003 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.0306055061 | -42.7687052561 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.0387538418 | -42.7708680670 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.0468866639 | -42.7731118340 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.0550034319 | -42.7754364044 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.0631035297 | -42.7778416346 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.0711864094 | -42.7803273898 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.0792515084 | -42.7828934993 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.0872982792 | -42.7855398373 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |


| Latitude (DD.DEC) | Longitude (DD.DEC) | FOS POINT | Art. 76 (4) Criterion | $\sum_{\substack{n}}^{U}$ | SP |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| -33.0953261066 | -42.7882662062 | 5-BR-FOS-SR-B59 | 60 M FOS | x | x | x |
| -33.1033344739 | -42.7910724533 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.1113227889 | -42.7939584079 | 5-BR-FOS-SR-B59 | 60 M FOS | $x$ | X | X |
| -33.1192905504 | -42.7969238904 | 5-BR-FOS-SR-B59 | 60 M FOS | x | x | x |
| -33.1272371212 | -42.7999686941 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -33.1351619853 | -42.8030926394 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -33.1430645893 | -42.8062955377 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.1509443872 | -42.8095771822 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.1588007881 | -42.8129373485 | 5-BR-FOS-SR-B59 | 60 M FOS | X | x | x |
| -33.1666332540 | -42.8163758299 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -33.1744412624 | -42.8198924198 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | x |
| -33.1822242303 | -42.8234868668 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -33.1899816432 | -42.8271589640 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.1977129184 | -42.8309084602 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -33.2054175189 | -42.8347351036 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -33.2130949307 | -42.8386386608 | 5-BR-FOS-SR-B59 | 60 M FOS | x | x | x |
| -33.2207446094 | -42.8426188803 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -33.2283660111 | -42.8466754924 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.2359585691 | -42.8508082278 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -33.2435217625 | -42.8550168080 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.2510550854 | -42.8593009814 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -33.2585580019 | -42.8636604605 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -33.2660299841 | -42.8680949580 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.2734704660 | -42.8726041593 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.2808789577 | -42.8771877772 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.2882549240 | -42.8818455060 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.2955978523 | -42.8865770404 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.3029072379 | -42.8913820749 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.3101825310 | -42.8962602683 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.3174232423 | -42.9012113060 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.3246288672 | -42.9062348647 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.3317988640 | -42.9113305851 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.3389327588 | -42.9164981438 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.3460300249 | -42.9217371814 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.3530901737 | -42.9270473477 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.3601127240 | -42.9324283011 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.3670971346 | -42.9378796556 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.3740429549 | -42.9434010606 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.3809496739 | -42.9489921300 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.3878167960 | -42.9546524865 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.3946438481 | -42.9603817617 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.4014303273 | -42.9661795335 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |


| Latitude (DD.DEC) | Longitude (DD.DEC) | FOS POINT | Art. 76 (4) Criterion | $\sum_{i=1}^{U} \underset{y}{0}$ | SP |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| -33.4081757609 | -42.9720454245 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.4148796911 | -42.9779790395 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.4215416153 | -42.9839799653 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.4281610836 | -42.9900477975 | 5-BR-FOS-SR-B59 | 60 M FOS | x | x | x |
| -33.4347376160 | -42.9961821231 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | x |
| -33.4412707479 | -43.0023825198 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.4477600145 | -43.0086485653 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.4542049511 | -43.0149798286 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.4606051084 | -43.0213758693 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -33.4669600368 | -43.0278362564 | 5-BR-FOS-SR-B59 | 60 M FOS | x | x | x |
| -33.4732692721 | -43.0343605317 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -33.4795323724 | -43.0409482639 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -33.4857488962 | -43.0475989950 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.4919183941 | -43.0543122489 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.4980404473 | -43.0610875853 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -33.5041145916 | -43.0679245282 | 5-BR-FOS-SR-B59 | 60 M FOS | x | x | x |
| -33.5101404083 | -43.0748225834 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.5161174858 | -43.0817813199 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.5220453679 | -43.0888002076 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.5279236509 | -43.0958787793 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.5337519159 | -43.1030165500 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -33.5395297594 | -43.1102130256 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -33.5452567551 | -43.1174677031 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.5509324845 | -43.1247800524 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.5565565665 | -43.1321495884 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.5621285900 | -43.1395757992 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.5676481516 | -43.1470581546 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.5731148777 | -43.1545961427 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.5785283574 | -43.1621892335 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.5838882247 | -43.1698369060 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.5891940761 | -43.1775385941 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.5944455532 | -43.1852937859 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.5996422751 | -43.1931019423 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.6047838607 | -43.2009625065 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.6098699517 | -43.2088749124 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.6149001746 | -43.2168386122 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.6198741935 | -43.2248530577 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.6247916423 | -43.2329176922 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.6296521701 | -43.2410319316 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.6344554108 | -43.2491952011 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.6392010509 | -43.2574069346 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.6438887469 | -43.2656665843 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |


| Latitude <br> (DD.DEC) | Longitude <br> (DD.DEC) |  |  |  |  |  |
| :---: | :--- | :--- | :--- | :--- | :--- | :--- |


| Latitude (DD.DEC) | Longitude (DD.DEC) | FOS POINT | Art. 76 (4) Criterion | $\sum_{\substack{n}}^{U}$ | SP |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| -33.7865262380 | -43.6573779252 | 5-BR-FOS-SR-B59 | 60 M FOS | x | x | x |
| -33.7883942672 | -43.6671229302 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.7901936636 | -43.6768866562 | 5-BR-FOS-SR-B59 | 60 M FOS | $x$ | X | X |
| -33.7919242964 | -43.6866684113 | 5-BR-FOS-SR-B59 | 60 M FOS | x | x | x |
| -33.7935860424 | -43.6964674770 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -33.7951787782 | -43.7062831525 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -33.7967023800 | -43.7161147372 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.7981567617 | -43.7259615303 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.7995417918 | -43.7358228133 | 5-BR-FOS-SR-B59 | 60 M FOS | X | x | x |
| -33.8008573912 | -43.7456978854 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -33.8021034582 | -43.7555860370 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | x |
| -33.8032798982 | -43.7654865494 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.8043866393 | -43.7753987220 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.8054235866 | -43.7853218270 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -33.8063906753 | -43.7952551728 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -33.8072878326 | -43.8051980228 | 5-BR-FOS-SR-B59 | 60 M FOS | x | x | x |
| -33.8081149935 | -43.8151496763 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -33.8088721073 | -43.8251094236 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.8095591086 | -43.8350765372 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -33.8101759465 | -43.8450503072 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.8107225925 | -43.8550300151 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -33.8111989881 | $-43.8650149422$ | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -33.8116051193 | -43.8750043608 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.8119409348 | -43.8849975614 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.8122064279 | -43.8949938342 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.8124015767 | -43.9049924606 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.8125263592 | -43.9149927220 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.8125807757 | -43.9249939086 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.8125648115 | -43.9349953018 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.8124784813 | -43.9449961740 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.8123217776 | -43.9549958155 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.8120947223 | -43.9649934987 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.8117973301 | -43.9749885049 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.8114296150 | -43.9849801334 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.8109916063 | -43.9949676386 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.8104833402 | -44.0049503110 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.8099048455 | -44.0149274407 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.8092561733 | -44.0248983091 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.8085373595 | -44.0348621977 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.8077484623 | -44.0448183787 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.8068895396 | -44.0547661515 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.8059606570 | -44.0647047794 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |


| Latitude (DD.DEC) | Longitude (DD.DEC) | FOS POINT | Art. 76 (4) Criterion | $\sum_{\substack{n}}^{U}$ | SP |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| -33.8049618644 | -44.0746335888 | 5-BR-FOS-SR-B59 | 60 M FOS | x | x | x |
| -33.8038932496 | -44.0845518159 | 5-BR-FOS-SR-B59 | 60 M FOS | $x$ | X | X |
| -33.8027548848 | -44.0944587872 | 5-BR-FOS-SR-B59 | 60 M FOS | x | x | X |
| -33.8015468498 | -44.1043537840 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | x |
| -33.8002692314 | -44.1142360696 | 5-BR-FOS-SR-B59 | 60 M FOS | x | x | x |
| -33.7989221242 | -44.1241049703 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.7975056297 | -44.1339597405 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.7960198421 | -44.1437996974 | 5-BR-FOS-SR-B59 | 60 M FOS | x | x | X |
| -33.7944648701 | -44.1536241315 | 5-BR-FOS-SR-B59 | 60 M FOS | X | x | x |
| -33.7928408225 | -44.1634323331 | 5-BR-FOS-SR-B59 | 60 M FOS | x | x | x |
| -33.7911478228 | -44.1732235834 | 5-BR-FOS-SR-B59 | 60 M FOS | x | x | X |
| -33.7893859943 | -44.1829972088 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.7875554529 | -44.1927524905 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.7856563366 | -44.2024887280 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -33.7836887833 | -44.2122052385 | 5-BR-FOS-SR-B59 | 60 M FOS | x | x | x |
| -33.7816529308 | -44.2219013303 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | x |
| -33.7795489167 | -44.2315763207 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -33.7773769009 | -44.2412294999 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.7751370433 | -44.2508601584 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.7728294960 | -44.2604676584 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.7704544262 | -44.2700512721 | 5-BR-FOS-SR-B59 | 60 M FOS | x | x | X |
| -33.7680120157 | -44.2796102899 | 5-BR-FOS-SR-B59 | 60 M FOS | x | x | X |
| -33.7655024312 | -44.2891440651 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | x |
| -33.7629258469 | -44.2986519239 | 5-BR-FOS-SR-B59 | 60 M FOS | $x$ | x | X |
| -33.7602824518 | -44.3081331477 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.7575724422 | -44.3175870806 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.7547960144 | -44.3270130400 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | X |
| -33.7519533570 | -44.3364103342 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.7490446884 | -44.3457783253 | 5-BR-FOS-SR-B59 | 60 M FOS | x | X | x |
| -33.7460701970 | -44.3551163306 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.7430301160 | -44.3644236944 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.7399246411 | -44.3736997519 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.7367540128 | -44.3829438474 | 5-BR-FOS-SR-B59 | 60 M FOS | X | X | X |
| -33.7446329484 | -44.3852061646 | 20-BR-FOS-SR-B60A | 60 M FOS | x | x | X |
| -33.7523988592 | -44.3815380738 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -33.7601899009 | -44.3779469237 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | x |
| -33.7680055636 | -44.3744329838 | 20-BR-FOS-SR-B60A | 60 M FOS | X | x | X |
| -33.7758452927 | -44.3709965057 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -33.7837085936 | -44.3676377318 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -33.7915948595 | -44.3643569586 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -33.7995035736 | -44.3611544017 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -33.8074342271 | -44.3580303037 | 20-BR-FOS-SR-B60A | 60 M FOS | X | x | x |


| Latitude (DD.DEC) | Longitude (DD.DEC) | FOS POINT | Art. 76 (4) Criterion | $\sum_{\substack{n}}^{U}$ | SP |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| -33.8153862661 | -44.3549848981 | 20-BR-FOS-SR-B60A | 60 M FOS | x | x | x |
| -33.8233590995 | -44.3520184275 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -33.8313522038 | -44.3491311254 | 20-BR-FOS-SR-B60A | 60 M FOS | $x$ | X | X |
| -33.8393650408 | -44.3463231894 | 20-BR-FOS-SR-B60A | 60 M FOS | x | x | x |
| -33.8473970649 | -44.3435948352 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -33.8554476933 | -44.3409462963 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -33.8635163882 | -44.3383777614 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -33.8716026047 | -44.3358894191 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -33.8797057830 | -44.3334814850 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -33.8878253410 | -44.3311541387 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -33.8959607419 | -44.3289075690 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | x |
| -33.9041114639 | -44.3267419285 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -33.9122768731 | -44.3246574238 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -33.9204564408 | -44.3226541986 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -33.9286495934 | -44.3207324238 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -33.9368557875 | -44.3188922519 | 20-BR-FOS-SR-B60A | 60 M FOS | x | x | x |
| -33.9450744125 | -44.3171338356 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -33.9533049406 | -44.3154573188 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -33.9615468288 | -44.3138628361 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -33.9697994375 | -44.3123505313 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -33.9780622318 | -44.3109205302 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -33.9863346395 | -44.3095729494 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -33.9946161114 | -44.3083079059 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.0029060235 | -44.3071255254 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.0112038717 | -44.3060258887 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.0195090175 | -44.3050091125 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.0278208975 | -44.3040752958 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.0361389784 | -44.3032245194 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.0444626522 | -44.3024568641 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.0527913263 | -44.3017724107 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.0611244531 | -44.3011712312 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.0694614478 | -44.3006533973 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.0778017258 | -44.3002189631 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.0861447104 | -44.2998679733 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.0944898473 | -44.2996005000 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.1028365303 | -44.2994165699 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.1111841757 | -44.2993162191 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.1195322301 | -44.2992994835 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.1278800954 | -44.2993663990 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.1362271885 | -44.2995169656 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.1445729344 | -44.2997512103 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.1529167729 | -44.3000691510 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |


| Latitude (DD.DEC) | Longitude (DD.DEC) | FOS POINT | Art. 76 (4) Criterion | $\sum_{\substack{n}}^{U}$ | SP |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| -34.1612580845 | -44.3004707608 | 20-BR-FOS-SR-B60A | 60 M FOS | x | x | x |
| -34.1695963095 | -44.3009560667 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.1779308961 | -44.3015250416 | 20-BR-FOS-SR-B60A | 60 M FOS | $x$ | X | X |
| -34.1862612105 | -44.3021776767 | 20-BR-FOS-SR-B60A | 60 M FOS | x | x | x |
| -34.1945867162 | -44.3029139538 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -34.2029068470 | -44.3037338462 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -34.2112209548 | -44.3046373178 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.2195285263 | -44.3056243328 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.2278289662 | -44.3066948371 | 20-BR-FOS-SR-B60A | 60 M FOS | X | x | x |
| -34.2361216494 | -44.3078487950 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -34.2444060410 | -44.3090861434 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | x |
| -34.2526815611 | -44.3104068196 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -34.2609476377 | -44.3118107606 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.2692036619 | -44.3132978856 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -34.2774491068 | -44.3148681228 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -34.2856833787 | -44.3165213912 | 20-BR-FOS-SR-B60A | 60 M FOS | x | x | x |
| -34.2939058617 | -44.3182575831 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -34.3021160223 | -44.3200766177 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.3103132973 | -44.3219783871 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -34.3184970789 | -44.3239627745 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.3266668269 | -44.3260296812 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -34.3348219562 | -44.3281789724 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -34.3429618897 | -44.3304105223 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.3510860355 | -44.3327242052 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.3591938763 | -44.3351198773 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.3672848283 | -44.3375974129 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.3753582926 | -44.3401566323 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.3834137230 | -44.3427973918 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.3914505882 | -44.3455195386 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.3994682753 | -44.3483229021 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.4074662310 | -44.3512072937 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.4154439175 | -44.3541725606 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.4234007893 | -44.3572185052 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.4313362418 | -44.3603449298 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.4392497301 | -44.3635516369 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.4471407243 | -44.3668384468 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.4550086503 | -44.3702051258 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.4628529636 | -44.3736514765 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.4706730905 | -44.3771772562 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.4784685094 | -44.3807822673 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.4862386689 | -44.3844662762 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.4939830108 | -44.3882290225 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |


| Latitude (DD.DEC) | Longitude (DD.DEC) | FOS POINT | Art. 76 (4) Criterion | $\sum_{\substack{n}}^{U}$ | SP |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| -34.5017009842 | -44.3920702815 | 20-BR-FOS-SR-B60A | 60 M FOS | x | x | x |
| -34.5093920535 | -44.3959897928 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.5170556978 | -44.3999873228 | 20-BR-FOS-SR-B60A | 60 M FOS | $x$ | X | X |
| -34.5246913596 | -44.4040625930 | 20-BR-FOS-SR-B60A | 60 M FOS | x | x | x |
| -34.5322984887 | -44.4082153428 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -34.5398765502 | -44.4124452939 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -34.5474250314 | -44.4167521677 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.5549433978 | -44.4211357127 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.5624311222 | -44.4255956146 | 20-BR-FOS-SR-B60A | 60 M FOS | X | x | x |
| -34.5698876479 | -44.4301315767 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -34.5773124631 | -44.4347433028 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | x |
| -34.5847050634 | -44.4394304964 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -34.5920648928 | -44.4441928340 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.5993914695 | -44.4490300103 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -34.6066842450 | -44.4539417018 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -34.6139427157 | -44.4589275762 | 20-BR-FOS-SR-B60A | 60 M FOS | x | x | x |
| -34.6211663706 | -44.4639873011 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -34.6283546914 | -44.4691205352 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.6355071748 | -44.4743269460 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -34.6426233252 | -44.4796061832 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.6497026246 | -44.4849578696 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -34.6567445850 | -44.4903816817 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -34.6637487038 | -44.4958772332 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.6707144707 | -44.5014441379 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.6776414131 | -44.5070820545 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.6845290285 | -44.5127905696 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.6913768221 | -44.5185693151 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.6981843214 | -44.5244178956 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.7049510467 | -44.5303359068 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.7116765033 | -44.5363229536 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.7183602489 | -44.5423786407 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.7250017668 | -44.5485025278 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.7316005999 | -44.5546942198 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.7381562838 | -44.5609532675 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.7446683466 | -44.5672792666 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.7511363390 | -44.5736717770 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.7575598041 | -44.5801303584 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.7639382556 | -44.5866545618 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.7702712590 | -44.5932439380 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.7765583874 | -44.5998980648 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.7827991474 | -44.6066164390 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.7889931269 | -44.6133986206 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |


| Latitude (DD.DEC) | Longitude (DD.DEC) | FOS POINT | Art. 76 (4) Criterion | $\sum_{\substack{n}}^{U}$ | SP |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| -34.7951398843 | -44.6202441424 | 20-BR-FOS-SR-B60A | 60 M FOS | x | x | x |
| -34.8012389709 | -44.6271525283 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.8072899599 | -44.6341233022 | 20-BR-FOS-SR-B60A | 60 M FOS | $x$ | X | X |
| -34.8132924248 | -44.6411559790 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | x |
| -34.8192459243 | -44.6482500736 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -34.8251500541 | -44.6554051099 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -34.8310043729 | -44.6626205579 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.8368084692 | -44.6698959326 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.8425619462 | -44.6772307397 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -34.8482643703 | -44.6846244405 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -34.8539153446 | -44.6920765496 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | x |
| -34.8595144800 | -44.6995865463 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -34.8650613501 | -44.7071538824 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.8705555732 | -44.7147780369 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -34.8759967600 | -44.7224584888 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -34.8813845286 | -44.7301947172 | 20-BR-FOS-SR-B60A | 60 M FOS | x | x | x |
| -34.8867184900 | -44.7379861560 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -34.8919982475 | -44.7458322483 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.8972234414 | -44.7537324820 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -34.9023936974 | -44.7616862734 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.9075086410 | -44.7696930833 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -34.9125679052 | -44.7777523278 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -34.9175711303 | -44.7858634501 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.9225179640 | -44.7940258931 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.9274080467 | -44.8022390640 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.9322410333 | -44.8105024058 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.9370165790 | -44.8188153166 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.9417343313 | -44.8271772125 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.9463939599 | -44.8355875097 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.9509951346 | -44.8440456153 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.9555375251 | -44.8525509362 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.9600208008 | -44.8611028618 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.9644446389 | -44.8697007721 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.9688087235 | -44.8783440743 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.9731127612 | -44.8870321935 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.9773564286 | -44.8957644738 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.9815394321 | -44.9045403224 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.9856614557 | -44.9133590836 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.9897222130 | -44.9222201554 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.9937214025 | -44.9311228821 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -34.9976587452 | -44.9400666438 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.0015339542 | -44.9490508207 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |


| Latitude (DD.DEC) | Longitude (DD.DEC) | FOS POINT | Art. 76 (4) Criterion | $\sum_{\substack{0}}^{U}$ | SP |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| -35.0053467725 | -44.9580747750 | 20-BR-FOS-SR-B60A | 60 M FOS | x | x | X |
| -35.0090969130 | -44.9671378779 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -35.0127841036 | -44.9762394646 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -35.0164080869 | -44.9853788794 | 20-BR-FOS-SR-B60A | 60 M FOS | $x$ | X | X |
| -35.0199685904 | -44.9945554755 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.0234653639 | -45.0037685880 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -35.0268981495 | -45.0130175703 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -35.0302667116 | -45.0223017576 | 20-BR-FOS-SR-B60A | 60 M FOS | x | x | x |
| -35.0335708069 | -45.0316205031 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -35.0368102068 | -45.0409731510 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.0399846679 | -45.0503590365 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.0430939761 | -45.0597774770 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.0461378878 | -45.0692277987 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.0491161960 | -45.0787093189 | 20-BR-FOS-SR-B60A | 60 M FOS | x | x | x |
| -35.0520286865 | -45.0882213728 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -35.0548751447 | -45.0977632688 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.0576553706 | -45.1073343331 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.0603691496 | -45.1169338560 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.0630163037 | -45.1265611637 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.0655966399 | -45.1362155737 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.0681099652 | -45.1458963762 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.0705561087 | -45.1556028884 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -35.0729348917 | -45.1653344457 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.0752461430 | -45.1750903293 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -35.0774897059 | -45.1848698476 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -35.0796654088 | -45.1946723089 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.0817730946 | -45.2044969856 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.0838126137 | -45.2143431948 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.0857838162 | -45.2242102180 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.0876865740 | -45.2340973545 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.0895207297 | -45.2440038677 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.0912861623 | -45.2539290658 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.0929827434 | -45.2638722482 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.0946103593 | -45.2738326782 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.0961688739 | -45.2838096462 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.0976581877 | -45.2938024336 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.0990781938 | -45.3038103306 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.1004287853 | -45.3138326007 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.1017098621 | -45.3238685431 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.1029213390 | -45.3339174213 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.1040631305 | -45.3439785165 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.1051351511 | -45.3540511012 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |


| $\begin{aligned} & \text { Latitude } \\ & \text { (DD.DEC) } \end{aligned}$ | Longitude (DD.DEC) | FOS POINT | Art. 76 (4) Criterion |  | SP |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| -35.1061373223 | -45.3641344567 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -35.1070695728 | -45.3742278554 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.1079318313 | -45.3843305696 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.1087240409 | -45.3944418807 | 20-BR-FOS-SR-B60A | 60 M FOS | x | x | X |
| -35.1094461520 | -45.4045610610 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -35.1100980928 | -45.4146873739 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.1106798353 | -45.4248200918 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.1111913295 | -45.4349584781 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.1116325397 | -45.4451018142 | 20-BR-FOS-SR-B60A | 60 M FOS | x | x | x |
| -35.1120034301 | -45.4552493543 | 20-BR-FOS-SR-B60A | 60 M FOS | x | x | x |
| -35.1123039871 | -45.4654003889 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.1125341744 | -45.4755541723 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.1126939780 | -45.4857099769 | 20-BR-FOS-SR-B60A | 60 M FOS | X | x | X |
| -35.1127833907 | -45.4958670841 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -35.1128024056 | -45.5060247662 | 20-BR-FOS-SR-B60A | 60 M FOS | X | x | x |
| -35.1127510226 | -45.5161822687 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -35.1126292417 | -45.5263388818 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -35.1124370771 | -45.5364938510 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.1121745360 | -45.5466464486 | 20-BR-FOS-SR-B60A | 60 M FOS | x | x | x |
| -35.1118416396 | -45.5567959471 | 20-BR-FOS-SR-B60A | 60 M FOS | x | x | x |
| -35.1114384166 | -45.5669416277 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.1109648882 | -45.5770827449 | 20-BR-FOS-SR-B60A | 60 M FOS | x | x | x |
| -35.1104210901 | -45.5872185799 | 20-BR-FOS-SR-B60A | 60 M FOS | x | x | x |
| -35.1098070723 | -45.5973483963 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.1091228630 | -45.6074714753 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.1083685193 | -45.6175870713 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.1075440984 | -45.6276944747 | 20-BR-FOS-SR-B60A | 60 M FOS | X | X | X |
| -35.1066496572 | -45.6377929489 | 20-BR-FOS-SR-B60A | 60 M FOS | x | x | X |
| -35.1056852598 | -45.6478817662 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -35.1046509774 | -45.6579601989 | 20-BR-FOS-SR-B60A | 60 M FOS | x | X | X |
| -35.9720002765 | -46.2678858329 | 28-BR-FOS-SR-B52_1 | 1 \% ST | 5000054 | 270 | 1.1516 |
| -36.0258516693 | -46.2017961127 | 28-BR-FOS-SR-B52_1 | 1 \% ST | 5000054 | 101 | 1.0456 |
| -36.3883472184 | -46.8740419384 | 28-BR-FOS-SR-B52_1 | 1 \% ST | 5000055 | 6580 | 1.0281 |
| -36.8175161093 | -47.6481288874 | 35-BR-FOS-SR-500-0056 | 1 \% ST | 5000056 | 890 | 1.0061 |
| -37.3629780373 | -47.9538871581 | 35-BR-FOS-SR-500-0056 | 1 \% ST | BGR04-01SA | 1860 | 1.0001 |

Table 3. Coordinates of fixed points defining the outer limits of the continental shelf beyond $\mathbf{2 0 0} \mathbf{M}$ and their corresponding FOS points (Annex NV Brazil - BR-OLSR_table_02FEV2019 provided by Brazil* on 1 February 2019)

| OL Point | Latitude (DD.DEC) | Longitude (DD.DEC) | Art. 76 <br> Criterion | FOS point |
| :---: | :---: | :---: | :---: | :---: |
| 001-BR-OL-SR | -31.9890353362 | -43.3118262188 | 350 M | 5-BR-FOS-SR-B59 |
| 002-BR-OL-SR | -32.0027483309 | -43.3230137475 | 350 M | 5-BR-FOS-SR-B59 |
| 003-BR-OL-SR | -32.0164340745 | -43.3342489767 | 350 M | 5-BR-FOS-SR-B59 |
| 004-BR-OL-SR | -32.0300852100 | -43.3455431700 | 350 M | 5-BR-FOS-SR-B59 |
| 005-BR-OL-SR | -32.0437132700 | -43.3568768000 | 350 M | 5-BR-FOS-SR-B59 |
| 006-BR-OL-SR | -32.0573123300 | -43.3682589500 | 350 M | 5-BR-FOS-SR-B59 |
| 007-BR-OL-SR | -32.0708818000 | -43.3796891500 | 350 M | 5-BR-FOS-SR-B59 |
| 008-BR-OL-SR | -32.0848016995 | -43.3905509770 | 350 M | 5-BR-FOS-SR-B59 |
| 009-BR-OL-SR | -32.0984470731 | -43.4018634614 | 350 M | 5-BR-FOS-SR-B59 |
| 010-BR-OL-SR | -32.1120638587 | -43.4132247243 | 350 M | 5-BR-FOS-SR-B59 |
| 011-BR-OL-SR | -32.1256519914 | -43.4246349453 | 350 M | 5-BR-FOS-SR-B59 |
| 012-BR-OL-SR | -32.1392131642 | -43.4360912500 | 350 M | 5-BR-FOS-SR-B59 |
| 013-BR-OL-SR | -32.1527497570 | -43.4475894161 | 350 M | 5-BR-FOS-SR-B59 |
| 014-BR-OL-SR | -32.1662566600 | -43.4591371693 | 350 M | 5-BR-FOS-SR-B59 |
| 015-BR-OL-SR | -32.1797353367 | -43.4707321738 | 350 M | 5-BR-FOS-SR-B59 |
| 016-BR-OL-SR | -32.1931843471 | -43.4823763162 | 350 M | 5-BR-FOS-SR-B59 |
| 017-BR-OL-SR | -32.2066039322 | -43.4940687879 | 350 M | 5-BR-FOS-SR-B59 |
| 018-BR-OL-SR | -32.2199940275 | -43.5058096789 | 350 M | 5-BR-FOS-SR-B59 |
| 019-BR-OL-SR | -32.2333546448 | -43.5175988992 | 350 M | 5-BR-FOS-SR-B59 |
| 020-BR-OL-SR | -32.2466854143 | -43.5294360895 | 350 M | 5-BR-FOS-SR-B59 |
| 021-BR-OL-SR | -32.2599863478 | -43.5413213397 | 350 M | 5-BR-FOS-SR-B59 |
| 022-BR-OL-SR | -32.2732573810 | -43.5532547396 | 350 M | 5-BR-FOS-SR-B59 |
| 023-BR-OL-SR | -32.2864982969 | -43.5652360197 | 350 M | 5-BR-FOS-SR-B59 |
| 024-BR-OL-SR | -32.2997089549 | -43.5772649105 | 350 M | 5-BR-FOS-SR-B59 |
| 025-BR-OL-SR | -32.3128893672 | -43.5893416815 | 350 M | 5-BR-FOS-SR-B59 |
| 026-BR-OL-SR | -32.3260393169 | -43.6014661531 | 350 M | 5-BR-FOS-SR-B59 |
| 027-BR-OL-SR | -32.3391586638 | -43.6136380557 | 350 M | 5-BR-FOS-SR-B59 |
| 028-BR-OL-SR | -32.3522472674 | -43.6258573893 | 350 M | 5-BR-FOS-SR-B59 |
| 029-BR-OL-SR | -32.3653052162 | -43.6381242439 | 350 M | 5-BR-FOS-SR-B59 |
| 030-BR-OL-SR | -32.3783321412 | -43.6504383498 | 350 M | 5-BR-FOS-SR-B59 |
| 031-BR-OL-SR | -32.3913280548 | -43.6627996172 | 350 M | 5-BR-FOS-SR-B59 |
| 032-BR-OL-SR | -32.4042927406 | -43.6752077768 | 350 M | 5-BR-FOS-SR-B59 |
| 033-BR-OL-SR | -32.4172262873 | -43.6876633673 | 350 M | 5-BR-FOS-SR-B59 |
| 034-BR-OL-SR | -32.4301283261 | -43.7001656703 | 350 M | 5-BR-FOS-SR-B59 |


| OL Point | Latitude (DD.DEC) | Longitude (DD.DEC) | Art. 76 Criterion | FOS point |
| :---: | :---: | :---: | :---: | :---: |
| 035-BR-OL-SR | -32.4429988695 | -43.7127147755 | 350 M | 5-BR-FOS-SR-B59 |
| 036-BR-OL-SR | -32.4558373207 | -43.7253111321 | 350 M | 5-BR-FOS-SR-B59 |
| 037-BR-OL-SR | -32.4686444539 | -43.7379537519 | 350 M | 5-BR-FOS-SR-B59 |
| 038-BR-OL-SR | -32.4814202813 | -43.7506420960 | 350 M | 5-BR-FOS-SR-B59 |
| 039-BR-OL-SR | -32.4941635972 | -43.7633776016 | 350 M | 5-BR-FOS-SR-B59 |
| 040-BR-OL-SR | -32.5068747950 | -43.7761595501 | 350 M | 5-BR-FOS-SR-B59 |
| 041-BR-OL-SR | -32.5195538873 | -43.7889876720 | 350 M | 5-BR-FOS-SR-B59 |
| 042-BR-OL-SR | -32.5322005061 | -43.8018619673 | 350 M | 5-BR-FOS-SR-B59 |
| 043-BR-OL-SR | -32.5448147402 | -43.8147823462 | 350 M | 5-BR-FOS-SR-B59 |
| 044-BR-OL-SR | -32.5573963742 | -43.8277486290 | 350 M | 5-BR-FOS-SR-B59 |
| 045-BR-OL-SR | -32.5699455727 | -43.8407604564 | 350 M | 5-BR-FOS-SR-B59 |
| 046-BR-OL-SR | -32.5824614359 | -43.8538188166 | 350 M | 5-BR-FOS-SR-B59 |
| 047-BR-OL-SR | -32.5949445851 | -43.8669223619 | 350 M | 5-BR-FOS-SR-B59 |
| 048-BR-OL-SR | -32.6073947288 | -43.8800714519 | 350 M | 5-BR-FOS-SR-B59 |
| 049-BR-OL-SR | -32.6198116517 | -43.8932659068 | 350 M | 5-BR-FOS-SR-B59 |
| 050-BR-OL-SR | -32.6321953669 | -43.9065059063 | 350 M | 5-BR-FOS-SR-B59 |
| 051-BR-OL-SR | -32.6445458110 | -43.9197912707 | 350 M | 5-BR-FOS-SR-B59 |
| 052-BR-OL-SR | -32.6568626931 | -43.9331216407 | 350 M | 5-BR-FOS-SR-B59 |
| 053-BR-OL-SR | -32.6691460260 | -43.9464971061 | 350 M | 5-BR-FOS-SR-B59 |
| 054-BR-OL-SR | -32.6813955947 | -43.9599175771 | 350 M | 5-BR-FOS-SR-B59 |
| 055-BR-OL-SR | -32.6936113364 | -43.9733828741 | 350 M | 5-BR-FOS-SR-B59 |
| 056-BR-OL-SR | -32.7057931880 | -43.9868929970 | 350 M | 5-BR-FOS-SR-B59 |
| 057-BR-OL-SR | -32.7179408587 | -44.0004475865 | 350 M | 5-BR-FOS-SR-B59 |
| 058-BR-OL-SR | -32.7300542099 | -44.0140456544 | 350 M | 5-BR-FOS-SR-B59 |
| 059-BR-OL-SR | -32.7445611789 | -44.0236355294 | 350 M | 5-BR-FOS-SR-B59 |
| 060-BR-OL-SR | -32.7601407882 | -44.0307516237 | 350 M | 5-BR-FOS-SR-B59 |
| 061-BR-OL-SR | -32.7757026200 | -44.0379226052 | 350 M | 5-BR-FOS-SR-B59 |
| 062-BR-OL-SR | -32.7912467574 | -44.0451484736 | 350 M | 5-BR-FOS-SR-B59 |
| 063-BR-OL-SR | -32.8067728284 | -44.0524293190 | 350 M | 5-BR-FOS-SR-B59 |
| 064-BR-OL-SR | -32.8222810680 | -44.0597648718 | 350 M | 5-BR-FOS-SR-B59 |
| 065-BR-OL-SR | -32.8377712559 | -44.0671542337 | 350 M | 5-BR-FOS-SR-B59 |
| 066-BR-OL-SR | -32.8532427173 | -44.0746005487 | 350 M | 5-BR-FOS-SR-B59 |
| 067-BR-OL-SR | -32.8686958390 | -44.0821004932 | 350 M | 5-BR-FOS-SR-B59 |
| 068-BR-OL-SR | -32.8841304770 | -44.0896552349 | 350 M | 5-BR-FOS-SR-B59 |
| 069-BR-OL-SR | -32.8995462600 | -44.0972644145 | 350 M | 5-BR-FOS-SR-B59 |
| 070-BR-OL-SR | -32.9149434232 | -44.1049284812 | 350 M | 5-BR-FOS-SR-B59 |
| 071-BR-OL-SR | -32.9303212168 | -44.1126477943 | 350 M | 5-BR-FOS-SR-B59 |


| OL Point | Latitude (DD.DEC) | Longitude (DD.DEC) | Art. 76 Criterion | FOS point |
| :---: | :---: | :---: | :---: | :---: |
| 072-BR-OL-SR | -32.9456805579 | -44.1204203774 | 350 M | 5-BR-FOS-SR-B59 |
| 073-BR-OL-SR | -32.9610202424 | -44.1282475782 | 350 M | 5-BR-FOS-SR-B59 |
| 074-BR-OL-SR | -32.9763405816 | -44.1361302948 | 350 M | 5-BR-FOS-SR-B59 |
| 075-BR-OL-SR | -32.9916411292 | -44.1440670900 | 350 M | 5-BR-FOS-SR-B59 |
| 076-BR-OL-SR | -33.0069224992 | -44.1520579638 | 350 M | 5-BR-FOS-SR-B59 |
| 077-BR-OL-SR | -33.0221834888 | -44.1601041738 | 350 M | 5-BR-FOS-SR-B59 |
| 078-BR-OL-SR | -33.0374252416 | -44.1682029352 | 350 M | 5-BR-FOS-SR-B59 |
| 079-BR-OL-SR | -33.0526460300 | -44.1763577000 | 350 M | 5-BR-FOS-SR-B59 |
| 080-BR-OL-SR | -33.0679234541 | -44.1843660526 | 350 M | 5-BR-FOS-SR-B59 |
| 081-BR-OL-SR | -33.0831466300 | -44.1925175452 | 350 M | 5-BR-FOS-SR-B59 |
| 082-BR-OL-SR | -33.0983498316 | -44.2007234756 | 350 M | 5-BR-FOS-SR-B59 |
| 083-BR-OL-SR | -33.1135329162 | -44.2089827660 | 350 M | 5-BR-FOS-SR-B59 |
| 084-BR-OL-SR | -33.1286950610 | -44.2172979316 | 350 M | 5-BR-FOS-SR-B59 |
| 085-BR-OL-SR | -33.1438369549 | -44.2256657385 | 350 M | 5-BR-FOS-SR-B59 |
| 086-BR-OL-SR | -33.1589579267 | -44.2340887917 | 350 M | 5-BR-FOS-SR-B59 |
| 087-BR-OL-SR | -33.1740580607 | -44.2425653846 | 350 M | 5-BR-FOS-SR-B59 |
| 088-BR-OL-SR | -33.1891372904 | -44.2510958764 | 350 M | 5-BR-FOS-SR-B59 |
| 089-BR-OL-SR | -33.2041955492 | -44.2596804467 | 350 M | 5-BR-FOS-SR-B59 |
| 090-BR-OL-SR | -33.2192315300 | -44.2683203700 | 350 M | 5-BR-FOS-SR-B59 |
| 091-BR-OL-SR | -33.2342462900 | -44.2770121600 | 350 M | 5-BR-FOS-SR-B59 |
| 092-BR-OL-SR | -33.2493840760 | -44.2854069388 | 350 M | 5-BR-FOS-SR-B59 |
| 093-BR-OL-SR | -33.2644217575 | -44.2940475640 | 350 M | 5-BR-FOS-SR-B59 |
| 094-BR-OL-SR | -33.2794379629 | -44.3027421780 | 350 M | 5-BR-FOS-SR-B59 |
| 095-BR-OL-SR | -33.2944327768 | -44.3114905112 | 350 M | 5-BR-FOS-SR-B59 |
| 096-BR-OL-SR | -33.3094058312 | -44.3202931027 | 350 M | 5-BR-FOS-SR-B59 |
| 097-BR-OL-SR | -33.3243575127 | -44.3291487846 | 350 M | 5-BR-FOS-SR-B59 |
| 098-BR-OL-SR | -33.3392868502 | -44.3380583654 | 350 M | 5-BR-FOS-SR-B59 |
| 099-BR-OL-SR | -33.3541944566 | -44.3470217553 | 350 M | 5-BR-FOS-SR-B59 |
| 100-BR-OL-SR | -33.3690797381 | -44.3560386848 | 350 M | 5-BR-FOS-SR-B59 |
| 101-BR-OL-SR | -33.3839427045 | -44.3651091539 | 350 M | 5-BR-FOS-SR-B59 |
| 102-BR-OL-SR | -33.3987827625 | -44.3742339711 | 350 M | 5-BR-FOS-SR-B59 |
| 103-BR-OL-SR | -33.4136012784 | -44.3834105312 | 350 M | 5-BR-FOS-SR-B59 |
| 104-BR-OL-SR | -33.4283966041 | -44.3926413495 | 350 M | 5-BR-FOS-SR-B59 |
| 105-BR-OL-SR | -33.4431689757 | -44.4019255278 | 350 M | 5-BR-FOS-SR-B59 |
| 106-BR-OL-SR | -33.4579185538 | -44.4112629762 | 350 M | 5-BR-FOS-SR-B59 |
| 107-BR-OL-SR | -33.4726448966 | -44.4206536049 | 350 M | 5-BR-FOS-SR-B59 |
| 108-BR-OL-SR | -33.4873482400 | -44.4300975935 | 350 M | 5-BR-FOS-SR-B59 |


| OL Point | Latitude (DD.DEC) | Longitude (DD.DEC) | Art. 76 Criterion | FOS point |
| :---: | :---: | :---: | :---: | :---: |
| 109-BR-OL-SR | -33.5020275404 | -44.4395952115 | 350 M | 5-BR-FOS-SR-B59 |
| 110-BR-OL-SR | -33.5166843884 | -44.4491444826 | 350 M | 5-BR-FOS-SR-B59 |
| 111-BR-OL-SR | -33.5313169882 | -44.4587474730 | 350 M | 5-BR-FOS-SR-B59 |
| 112-BR-OL-SR | -33.5459261026 | -44.4684034640 | 350 M | 5-BR-FOS-SR-B59 |
| 113-BR-OL-SR | -33.5605112906 | -44.4781124556 | 350 M | 5-BR-FOS-SR-B59 |
| 114-BR-OL-SR | -33.5750723369 | -44.4878740884 | 350 M | 5-BR-FOS-SR-B59 |
| 115-BR-OL-SR | -33.5896093275 | -44.4976886321 | 350 M | 5-BR-FOS-SR-B59 |
| 116-BR-OL-SR | -33.6041219719 | -44.5075555475 | 350 M | 5-BR-FOS-SR-B59 |
| 117-BR-OL-SR | -33.6186099052 | -44.5174746550 | 350 M | 5-BR-FOS-SR-B59 |
| 118-BR-OL-SR | -33.6330722900 | -44.5274474600 | 350 M | 5-BR-FOS-SR-B59 |
| 119-BR-OL-SR | -33.6479608861 | -44.5365153458 | 350 M | 5-BR-FOS-SR-B59 |
| 120-BR-OL-SR | -33.6627088719 | -44.5458769589 | 350 M | 5-BR-FOS-SR-B59 |
| 121-BR-OL-SR | -33.6774338781 | -44.5552920217 | 350 M | 20-BR-FOS-SR-B60A |
| 122-BR-OL-SR | -33.6921389936 | -44.5647519105 | 350 M | 20-BR-FOS-SR-B60A |
| 123-BR-OL-SR | -33.7068742289 | -44.5741477493 | 350 M | 20-BR-FOS-SR-B60A |
| 124-BR-OL-SR | -33.7215869459 | -44.5835951515 | 350 M | 20-BR-FOS-SR-B60A |
| 125-BR-OL-SR | -33.7362757283 | -44.5930962729 | 350 M | 20-BR-FOS-SR-B60A |
| 126-BR-OL-SR | -33.7509408868 | -44.6026518323 | 350 M | 20-BR-FOS-SR-B60A |
| 127-BR-OL-SR | -33.7655802100 | -44.6122645200 | 350 M | 20-BR-FOS-SR-B60A |
| 128-BR-OL-SR | -33.7802987167 | -44.6217068063 | 350 M | 20-BR-FOS-SR-B60A |
| 129-BR-OL-SR | -33.7949503496 | -44.6312964118 | 350 M | 20-BR-FOS-SR-B60A |
| 130-BR-OL-SR | -33.8095783054 | -44.6409392873 | 350 M | 20-BR-FOS-SR-B60A |
| 131-BR-OL-SR | -33.8241825197 | -44.6506353432 | 350 M | 20-BR-FOS-SR-B60A |
| 132-BR-OL-SR | -33.8387628530 | -44.6603844895 | 350 M | 20-BR-FOS-SR-B60A |
| 133-BR-OL-SR | -33.8533191660 | -44.6701867262 | 350 M | 20-BR-FOS-SR-B60A |
| 134-BR-OL-SR | -33.8678510195 | -44.6800420533 | 350 M | 20-BR-FOS-SR-B60A |
| 135-BR-OL-SR | -33.8823590987 | -44.6899497523 | 350 M | 20-BR-FOS-SR-B60A |
| 136-BR-OL-SR | -33.8968425151 | -44.6999106315 | 350 M | 20-BR-FOS-SR-B60A |
| 137-BR-OL-SR | -33.9113006057 | -44.7099228045 | 350 M | 20-BR-FOS-SR-B60A |
| 138-BR-OL-SR | -33.9260535127 | -44.7193069653 | 350 M | 20-BR-FOS-SR-B60A |
| 139-BR-OL-SR | -33.9408958582 | -44.7284807406 | 350 M | 20-BR-FOS-SR-B60A |
| 140-BR-OL-SR | -33.9557158301 | -44.7377085945 | 350 M | 20-BR-FOS-SR-B60A |
| 141-BR-OL-SR | -33.9705131389 | -44.7469899880 | 350 M | 20-BR-FOS-SR-B60A |
| 142-BR-OL-SR | -33.9852875702 | -44.7563256398 | 350 M | 20-BR-FOS-SR-B60A |
| 143-BR-OL-SR | -34.0000388348 | -44.7657145617 | 350 M | 20-BR-FOS-SR-B60A |
| 144-BR-OL-SR | -34.0147672423 | -44.7751572926 | 350 M | 20-BR-FOS-SR-B60A |
| 145-BR-OL-SR | -34.0294721296 | -44.7846541021 | 350 M | 20-BR-FOS-SR-B60A |


| OL Point | Latitude (DD.DEC) | Longitude (DD.DEC) | Art. 76 Criterion | FOS point |
| :---: | :---: | :---: | :---: | :---: |
| 146-BR-OL-SR | -34.0441542550 | -44.7942033732 | 350 M | 20-BR-FOS-SR-B60A |
| 147-BR-OL-SR | -34.0588125072 | -44.8038065433 | 350 M | 20-BR-FOS-SR-B60A |
| 148-BR-OL-SR | -34.0734471209 | -44.8134632529 | 350 M | 20-BR-FOS-SR-B60A |
| 149-BR-OL-SR | -34.0880580320 | -44.8231732327 | 350 M | 20-BR-FOS-SR-B60A |
| 150-BR-OL-SR | -34.1026453257 | -44.8329362130 | 350 M | 20-BR-FOS-SR-B60A |
| 151-BR-OL-SR | -34.1172083402 | -44.8427532719 | 350 M | 20-BR-FOS-SR-B60A |
| 152-BR-OL-SR | -34.1317471609 | -44.8526229721 | 350 M | 20-BR-FOS-SR-B60A |
| 153-BR-OL-SR | -34.1462619479 | -44.8625459424 | 350 M | 20-BR-FOS-SR-B60A |
| 154-BR-OL-SR | -34.1607521147 | -44.8725218235 | 350 M | 20-BR-FOS-SR-B60A |
| 155-BR-OL-SR | -34.1752179709 | -44.8825507950 | 350 M | 20-BR-FOS-SR-B60A |
| 156-BR-OL-SR | -34.1896591539 | -44.8926327671 | 350 M | 20-BR-FOS-SR-B60A |
| 157-BR-OL-SR | -34.2040753764 | -44.9027675601 | 350 M | 20-BR-FOS-SR-B60A |
| 158-BR-OL-SR | -34.2184667986 | -44.9129551741 | 350 M | 20-BR-FOS-SR-B60A |
| 159-BR-OL-SR | -34.2328331332 | -44.9231955192 | 350 M | 20-BR-FOS-SR-B60A |
| 160-BR-OL-SR | -34.2471743914 | -44.9334885954 | 350 M | 20-BR-FOS-SR-B60A |
| 161-BR-OL-SR | -34.2614902860 | -44.9438342230 | 350 M | 20-BR-FOS-SR-B60A |
| 162-BR-OL-SR | -34.2757807539 | -44.9542325817 | 350 M | 20-BR-FOS-SR-B60A |
| 163-BR-OL-SR | -34.2900457317 | -44.9646833122 | 350 M | 20-BR-FOS-SR-B60A |
| 164-BR-OL-SR | -34.3042848581 | -44.9751864145 | 350 M | 20-BR-FOS-SR-B60A |
| 165-BR-OL-SR | -34.3184982939 | -44.9857419785 | 350 M | 20-BR-FOS-SR-B60A |
| 166-BR-OL-SR | -34.3326856777 | -44.9963497345 | 350 M | 20-BR-FOS-SR-B60A |
| 167-BR-OL-SR | -34.3468470957 | -45.0070098623 | 350 M | 20-BR-FOS-SR-B60A |
| 168-BR-OL-SR | -34.3609822617 | -45.0177220026 | 350 M | 20-BR-FOS-SR-B60A |
| 169-BR-OL-SR | -34.3750907403 | -45.0284869638 | 350 M | 20-BR-FOS-SR-B60A |
| 170-BR-OL-SR | -34.3891735861 | -45.0393026798 | 350 M | 20-BR-FOS-SR-B60A |
| 171-BR-OL-SR | -34.4032293958 | -45.0501710371 | 350 M | 20-BR-FOS-SR-B60A |
| 172-BR-OL-SR | -34.4172584792 | -45.0610911374 | 350 M | 20-BR-FOS-SR-B60A |
| 173-BR-OL-SR | -34.4312607740 | -45.0720631602 | 350 M | 20-BR-FOS-SR-B60A |
| 174-BR-OL-SR | -34.4452359198 | -45.0830866566 | 350 M | 20-BR-FOS-SR-B60A |
| 175-BR-OL-SR | -34.4591842265 | -45.0941621654 | 350 M | 20-BR-FOS-SR-B60A |
| 176-BR-OL-SR | -34.4731051108 | -45.1052888782 | 350 M | 20-BR-FOS-SR-B60A |
| 177-BR-OL-SR | -34.4869987337 | -45.1164674237 | 350 M | 20-BR-FOS-SR-B60A |
| 178-BR-OL-SR | -34.5008705365 | -45.1276866630 | 350 M | 20-BR-FOS-SR-B60A |
| 179-BR-OL-SR | -34.5147643254 | -45.1388688916 | 350 M | 20-BR-FOS-SR-B60A |
| 180-BR-OL-SR | -34.5286305737 | -45.1501024141 | 350 M | 20-BR-FOS-SR-B60A |
| 181-BR-OL-SR | -34.5424691449 | -45.1613872303 | 350 M | 20-BR-FOS-SR-B60A |
| 182-BR-OL-SR | -34.5562797540 | -45.1727236099 | 350 M | 20-BR-FOS-SR-B60A |


| OL Point | Latitude (DD.DEC) | Longitude (DD.DEC) | Art. 76 Criterion | FOS point |
| :---: | :---: | :---: | :---: | :---: |
| 183-BR-OL-SR | -34.5700630824 | -45.1841108341 | 350 M | 20-BR-FOS-SR-B60A |
| 184-BR-OL-SR | -34.5838180277 | -45.1955492623 | 350 M | 20-BR-FOS-SR-B60A |
| 185-BR-OL-SR | -34.5975448998 | -45.2070388046 | 350 M | 20-BR-FOS-SR-B60A |
| 186-BR-OL-SR | -34.6112436367 | -45.2185795509 | 350 M | 20-BR-FOS-SR-B60A |
| 187-BR-OL-SR | -34.6249138798 | -45.2301709622 | 350 M | 20-BR-FOS-SR-B60A |
| 188-BR-OL-SR | -34.6385557901 | -45.2418133079 | 350 M | 20-BR-FOS-SR-B60A |
| 189-BR-OL-SR | -34.6521690092 | -45.2535064085 | 350 M | 20-BR-FOS-SR-B60A |
| 190-BR-OL-SR | -34.6657534013 | -45.2652500842 | 350 M | 20-BR-FOS-SR-B60A |
| 191-BR-OL-SR | -34.6793091276 | -45.2770446045 | 350 M | 20-BR-FOS-SR-B60A |
| 192-BR-OL-SR | -34.6928358299 | -45.2888895204 | 350 M | 20-BR-FOS-SR-B60A |
| 193-BR-OL-SR | -34.7063333726 | -45.3007847419 | 350 M | 20-BR-FOS-SR-B60A |
| 194-BR-OL-SR | -34.7198017687 | -45.3127306283 | 350 M | 20-BR-FOS-SR-B60A |
| 195-BR-OL-SR | -34.7332407344 | -45.3247265510 | 350 M | 20-BR-FOS-SR-B60A |
| 196-BR-OL-SR | -34.7466502827 | -45.3367725996 | 350 M | 20-BR-FOS-SR-B60A |
| 197-BR-OL-SR | -34.7600302784 | -45.3488690437 | 350 M | 20-BR-FOS-SR-B60A |
| 198-BR-OL-SR | -34.7733804380 | -45.3610152545 | 350 M | 20-BR-FOS-SR-B60A |
| 199-BR-OL-SR | -34.7867007747 | -45.3732110523 | 350 M | 20-BR-FOS-SR-B60A |
| 200-BR-OL-SR | -34.7999858700 | -45.3854634500 | 350 M | 20-BR-FOS-SR-B60A |
| 201-BR-OL-SR | -34.8132441700 | -45.3977573600 | 350 M | 20-BR-FOS-SR-B60A |
| 202-BR-OL-SR | -34.8268816562 | -45.4094563672 | 350 M | 20-BR-FOS-SR-B60A |
| 203-BR-OL-SR | -34.8402213414 | -45.4216295275 | 350 M | 20-BR-FOS-SR-B60A |
| 204-BR-OL-SR | -34.8535311504 | -45.4338521849 | 350 M | 20-BR-FOS-SR-B60A |
| 205-BR-OL-SR | -34.8668120400 | -45.4461226400 | 350 M | 20-BR-FOS-SR-B60A |
| 206-BR-OL-SR | -34.8802216838 | -45.4581892527 | 350 M | 20-BR-FOS-SR-B60A |
| 207-BR-OL-SR | -34.8935727021 | -45.4703514535 | 350 M | 20-BR-FOS-SR-B60A |
| 208-BR-OL-SR | -34.9068937802 | -45.4825636905 | 350 M | 20-BR-FOS-SR-B60A |
| 209-BR-OL-SR | -34.9201853012 | -45.4948257840 | 350 M | 20-BR-FOS-SR-B60A |
| 210-BR-OL-SR | -34.9334463906 | -45.5071377339 | 350 M | 20-BR-FOS-SR-B60A |
| 211-BR-OL-SR | -34.9466773577 | -45.5194993607 | 350 M | 20-BR-FOS-SR-B60A |
| 212-BR-OL-SR | -34.9598780678 | -45.5319108440 | 350 M | 20-BR-FOS-SR-B60A |
| 213-BR-OL-SR | -34.9730482386 | -45.5443718245 | 350 M | 20-BR-FOS-SR-B60A |
| 214-BR-OL-SR | -34.9861878095 | -45.5568822123 | 350 M | 20-BR-FOS-SR-B60A |
| 215-BR-OL-SR | -34.9992967202 | -45.5694421871 | 350 M | 20-BR-FOS-SR-B60A |
| 216-BR-OL-SR | -35.0123748363 | -45.5820514794 | 350 M | 20-BR-FOS-SR-B60A |
| 217-BR-OL-SR | -35.0254219497 | -45.5947098197 | 350 M | 20-BR-FOS-SR-B60A |
| 218-BR-OL-SR | -35.0384377046 | -45.6074176572 | 350 M | 20-BR-FOS-SR-B60A |
| 219-BR-OL-SR | -35.0514230011 | -45.6201740038 | 350 M | 20-BR-FOS-SR-B60A |


| OL Point | Latitude (DD.DEC) | Longitude <br> (DD.DEC) | Art. 76 <br> Criterion | FOS point |
| :---: | :---: | :---: | :---: | :---: |
| 220-BR-OL-SR | -35.0643765971 | -45.6329794881 | 350 M | 20-BR-FOS-SR-B60A |
| 221-BR-OL-SR | -35.0772986541 | -45.6458337510 | 350 M | 20-BR-FOS-SR-B60A |
| 222-BR-OL-SR | -35.0901894075 | -45.6587369721 | 350 M | 20-BR-FOS-SR-B60A |
| 223-BR-OL-SR | -35.1030484278 | -45.6716888819 | 350 M | 20-BR-FOS-SR-B60A |
| 224-BR-OL-SR | -35.1158756552 | -45.6846891210 | 350 M | 28-BR-FOS-SR-B52_1 |
| 225-BR-OL-SR | -35.1286708822 | -45.6977379590 | 350 M | 28-BR-FOS-SR-B52_1 |
| 226-BR-OL-SR | -35.1414342702 | -45.7108353060 | 350 M | 28-BR-FOS-SR-B52_1 |
| 227-BR-OL-SR | -35.1541655379 | -45.7239808925 | 350 M | 28-BR-FOS-SR-B52_1 |
| 228-BR-OL-SR | -35.1668640355 | -45.7371751678 | 350 M | 28-BR-FOS-SR-B52_1 |
| 229-BR-OL-SR | -35.1795311047 | -45.7504165147 | 350 M | 28-BR-FOS-SR-B52_1 |
| 230-BR-OL-SR | -35.1921651367 | -45.7637062809 | 350 M | 28-BR-FOS-SR-B52_1 |
| 231-BR-OL-SR | -35.2047665146 | -45.7770437476 | 350 M | 28-BR-FOS-SR-B52_1 |
| 232-BR-OL-SR | -35.2173348101 | -45.7904296334 | 350 M | 28-BR-FOS-SR-B52_1 |
| 233-BR-OL-SR | -35.2298711431 | -45.8038622317 | 350 M | 28-BR-FOS-SR-B52_1 |
| 234-BR-OL-SR | -35.2423741271 | -45.8173429797 | 350 M | 28-BR-FOS-SR-B52_1 |
| 235-BR-OL-SR | -35.2548439239 | -45.8308711587 | 350 M | 28-BR-FOS-SR-B52_1 |
| 236-BR-OL-SR | -35.2672805476 | -45.8444465891 | 350 M | 28-BR-FOS-SR-B52_1 |
| 237-BR-OL-SR | -35.2796839390 | -45.8580694506 | 350 M | 28-BR-FOS-SR-B52_1 |
| 238-BR-OL-SR | -35.2920538912 | -45.8717393837 | 350 M | 28-BR-FOS-SR-B52_1 |
| 239-BR-OL-SR | -35.3043901975 | -45.8854563886 | 350 M | 28-BR-FOS-SR-B52_1 |
| 240-BR-OL-SR | -35.3166977300 | -45.8992185000 | 350 M | 28-BR-FOS-SR-B52_1 |
| 241-BR-OL-SR | -35.3297887232 | -45.9118685648 | 350 M | 28-BR-FOS-SR-B52_1 |
| 242-BR-OL-SR | -35.3428268620 | -45.9245891584 | 350 M | 28-BR-FOS-SR-B52_1 |
| 243-BR-OL-SR | -35.3558337357 | -45.9373588898 | 350 M | 28-BR-FOS-SR-B52_1 |
| 244-BR-OL-SR | -35.3688094317 | -45.9501780286 | 350 M | 28-BR-FOS-SR-B52_1 |
| 245-BR-OL-SR | -35.3817538902 | -45.9630463950 | 350 M | 28-BR-FOS-SR-B52_1 |
| 246-BR-OL-SR | -35.3946668308 | -45.9759638095 | 350 M | 28-BR-FOS-SR-B52_1 |
| 247-BR-OL-SR | -35.4075481204 | -45.9889299126 | 350 M | 28-BR-FOS-SR-B52_1 |
| 248-BR-OL-SR | -35.4203978464 | -46.0019452434 | 350 M | 28-BR-FOS-SR-B52_1 |
| 249-BR-OL-SR | -35.4332162435 | -46.0150084545 | 350 M | 28-BR-FOS-SR-B52_1 |
| 250-BR-OL-SR | -35.4460016346 | -46.0281219712 | 350 M | 28-BR-FOS-SR-B52_1 |
| 251-BR-OL-SR | -35.4587555043 | -46.0412833680 | 350 M | 28-BR-FOS-SR-B52_1 |
| 252-BR-OL-SR | -35.4714771316 | -46.0544930045 | 350 M | 28-BR-FOS-SR-B52_1 |
| 253-BR-OL-SR | -35.4841663836 | -46.0677511499 | 350 M | 28-BR-FOS-SR-B52_1 |
| 254-BR-OL-SR | -35.4968232746 | -46.0810574451 | 350 M | 28-BR-FOS-SR-B52_1 |
| 255-BR-OL-SR | -35.5094477453 | -46.0944122492 | 350 M | 28-BR-FOS-SR-B52_1 |
| 256-BR-OL-SR | -35.5220394426 | -46.1078149336 | 350 M | 28-BR-FOS-SR-B52_1 |


| OL Point | Latitude (DD.DEC) | Longitude (DD.DEC) | Art. 76 Criterion | FOS point |
| :---: | :---: | :---: | :---: | :---: |
| 257-BR-OL-SR | -35.5345983075 | -46.1212654982 | 350 M | 28-BR-FOS-SR-B52_1 |
| 258-BR-OL-SR | -35.5471248682 | -46.1347630447 | 350 M | 28-BR-FOS-SR-B52_1 |
| 259-BR-OL-SR | -35.5596173770 | -46.1483102680 | 350 M | 28-BR-FOS-SR-B52_1 |
| 260-BR-OL-SR | -35.5720773166 | -46.1619043833 | 350 M | 28-BR-FOS-SR-B52_1 |
| 261-BR-OL-SR | -35.5845040408 | -46.1755460196 | 350 M | 28-BR-FOS-SR-B52_1 |
| 262-BR-OL-SR | -35.5968974171 | -46.1892351767 | 350 M | 28-BR-FOS-SR-B52_1 |
| 263-BR-OL-SR | -35.6092572401 | -46.2029716750 | 350 M | 28-BR-FOS-SR-B52_1 |
| 264-BR-OL-SR | -35.6215834507 | -46.2167553349 | 350 M | 28-BR-FOS-SR-B52_1 |
| 265-BR-OL-SR | -35.6338759169 | -46.2305860665 | 350 M | 28-BR-FOS-SR-B52_1 |
| 266-BR-OL-SR | -35.6461345798 | -46.2444637800 | 350 M | 28-BR-FOS-SR-B52_1 |
| 267-BR-OL-SR | -35.6583596007 | -46.2583883856 | 350 M | 28-BR-FOS-SR-B52_1 |
| 268-BR-OL-SR | -35.6705501877 | -46.2723604222 | 350 M | 28-BR-FOS-SR-B52_1 |
| 269-BR-OL-SR | -35.6827067953 | -46.2863789915 | 350 M | 28-BR-FOS-SR-B52_1 |
| 270-BR-OL-SR | -35.6948173468 | -46.3004298104 | 350 M | 28-BR-FOS-SR-B52_1 |
| 271-BR-OL-SR | -35.7100236290 | -46.3092482122 | 350 M | 28-BR-FOS-SR-B52_1 |
| 272-BR-OL-SR | -35.7251872826 | -46.3178026890 | 350 M | 28-BR-FOS-SR-B52_1 |
| 273-BR-OL-SR | -35.7403306675 | -46.3264132206 | 350 M | 28-BR-FOS-SR-B52_1 |
| 274-BR-OL-SR | -35.7554530611 | -46.3350798072 | 350 M | 28-BR-FOS-SR-B52_1 |
| 275-BR-OL-SR | -35.7705548392 | -46.3438026282 | 350 M | 28-BR-FOS-SR-B52_1 |
| 276-BR-OL-SR | -35.7856356455 | -46.3525810550 | 350 M | 28-BR-FOS-SR-B52_1 |
| 277-BR-OL-SR | -35.8006951972 | -46.3614162553 | 350 M | 28-BR-FOS-SR-B52_1 |
| 278-BR-OL-SR | -35.8157331386 | -46.3703073309 | 350 M | 28-BR-FOS-SR-B52_1 |
| 279-BR-OL-SR | -35.8307502846 | -46.3792534731 | 350 M | 28-BR-FOS-SR-B52_1 |
| 280-BR-OL-SR | -35.8457457672 | -46.3882559397 | 350 M | 28-BR-FOS-SR-B52_1 |
| 281-BR-OL-SR | -35.8607195968 | -46.3973142816 | 350 M | 28-BR-FOS-SR-B52_1 |
| 282-BR-OL-SR | -35.8756714912 | -46.4064282291 | 350 M | 28-BR-FOS-SR-B52_1 |
| 283-BR-OL-SR | -35.8906015339 | -46.4155978722 | 350 M | 28-BR-FOS-SR-B52_1 |
| 284-BR-OL-SR | -35.9055095160 | -46.4248233007 | 350 M | 28-BR-FOS-SR-B52_1 |
| 285-BR-OL-SR | -35.9203953749 | -46.4341042450 | 350 M | 28-BR-FOS-SR-B52_1 |
| 286-BR-OL-SR | -35.9352583907 | -46.4434415138 | 350 M | 28-BR-FOS-SR-B52_1 |
| 287-BR-OL-SR | -35.9500996698 | -46.4528330407 | 350 M | 28-BR-FOS-SR-B52_1 |
| 288-BR-OL-SR | -35.9649183463 | -46.4622802633 | 350 M | 28-BR-FOS-SR-B52_1 |
| 289-BR-OL-SR | -35.9797141388 | -46.4717830017 | 350 M | 28-BR-FOS-SR-B52_1 |
| 290-BR-OL-SR | -35.9944869854 | -46.4813412559 | 350 M | 28-BR-FOS-SR-B52_1 |
| 291-BR-OL-SR | -36.0092368968 | -46.4909547566 | 350 M | 28-BR-FOS-SR-B52_1 |
| 292-BR-OL-SR | -36.0239635923 | -46.5006236833 | 350 M | 28-BR-FOS-SR-B52_1 |
| 293-BR-OL-SR | -36.0386673748 | -46.5103474971 | 350 M | 28-BR-FOS-SR-B52_1 |


| OL Point | Latitude <br> (DD.DEC) | Longitude <br> (DD.DEC) | Art. 76 <br> Criterion | FOS point |
| :---: | :---: | :---: | :--- | :--- |
| 294-BR-OL-SR | -36.0533475257 | -46.5201264675 | 350 M | 28-BR-FOS-SR-B52_1 |
| 295-BR-OL-SR | -36.0680042022 | -46.5299605944 | 350 M | 28-BR-FOS-SR-B52_1 |
| 296-BR-OL-SR | -36.0826367593 | -46.5398505067 | 350 M | 28-BR-FOS-SR-B52_1 |
| 297-BR-OL-SR | -36.0972464481 | -46.5497938687 | 350 M | 28-BR-FOS-SR-B52_1 |
| 298-BR-OL-SR | -36.1118417347 | -46.5597708278 | 350 M | 28-BR-FOS-SR-B52_1 |
| 299-BR-OL-SR | -36.1264474037 | -46.5697260476 | 350 M | 28-BR-FOS-SR-B52_1 |
| 300-BR-OL-SR | -36.1410715351 | -46.5796425500 | 350 M | 28-BR-FOS-SR-B52_1 |
| 301-BR-OL-SR | -36.1556718635 | -46.5896138497 | 350 M | 28-BR-FOS-SR-B52_1 |
| 302-BR-OL-SR | -36.1702480362 | -46.5996399466 | 350 M | 28-BR-FOS-SR-B52_1 |
| 303-BR-OL-SR | -36.1848003559 | -46.6097211102 | 350 M | 28-BR-FOS-SR-B52_1 |
| 304-BR-OL-SR | -36.1993283245 | -46.6198568913 | 350 M | 28-BR-FOS-SR-B52_1 |
| 305-BR-OL-SR | -36.2138319538 | -46.6300475596 | 350 M | 28-BR-FOS-SR-B52_1 |
| 306-BR-OL-SR | -36.2283108916 | -46.6402929352 | 350 M | 28-BR-FOS-SR-B52_1 |
| 307-BR-OL-SR | -36.2427655135 | -46.6505925691 | 350 M | 28-BR-FOS-SR-B52_1 |
| 308-BR-OL-SR | -36.2571952492 | -46.6609470003 | 350 M | 28-BR-FOS-SR-B52_1 |
| 309-BR-OL-SR | -36.2716002562 | -46.6713560489 | 350 M | 28-BR-FOS-SR-B52_1 |
| 310-BR-OL-SR | -36.2841450186 | -46.6804840012 | 350 M | 28-BR-FOS-SR-B52_1 |
| 311-BR-OL-SR | -36.3883472184 | -46.8740419384 | $1 \% \mathrm{ST}$ | 28-BR-FOS-SR-B52_1 |
| 312-BR-OL-SR | -36.8175161093 | -47.6481288874 | $1 \% \mathrm{ST}$ | 35-BR-FOS-SR-500-0056 |

* Received table amended in accordance with paragraph 75 of these Recommendations.


[^0]:    ${ }^{1}$ The aim of this Summary is to provide information which is not of confidential or proprietary nature in order to facilitate the function of the Secretary-General in accordance with paragraph 11(3) of annex III to the Rules of Procedure. This Summary is based on excerpts of the Recommendations and may refer to material not necessarily included either in the full Recommendations or this Summary.

[^1]:    ${ }^{1}$ On whose behalf the Submission was received by DOALOS.
    ${ }^{2}$ Paragraph 254.
    ${ }^{3}$ See http://www.un.org/depts/los/clcs_new/submissions_files/bra02_rev15/2015_04_24_un_nv_as_001.pdf

[^2]:    * The illustrative maps marked by an asterisk are prepared by the Division for Ocean Affairs and the Law of the Sea, Office of Legal Affairs, United Nations, upon the request of the Subcommission established to consider the Submission made by Brazil on the basis of the submitted information. The designation employed and the presentation of material on these maps does not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

