

## 80 2103 ECB-SEA\_ALSUB BRASIL

(PETROBRAS – CONSÓRCIO ECB-SEA\_ALSUB)

SURVEY FOR DECOMISSIONING
OF FLEXIBLE LINES FROM THE
SEABED IN THE ALSUB AREA
("ALMOXARIFADOS SUBMARINOS")

BACIA DE CAMPOS-CABIUNAS - MACAE'-RJ (BRAZIL)



#### **SEA PROJECT No. 2103**

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### SURVEY FOR DECOMISSIONING OF FLEXIBLE LINES FROM THE SEABED IN THE ALSUB AREA ("ALMOXARIFADOS SUBMARINOS") IN BACIA DE CAMPOS - MACAE'- RJ (BRAZIL)

#### 1 General project Overview and Reference

Removal, processing and disposal of Flexible Lines located in Corvina, Pargo A&B and Garoupinha areas, in an environmentally appropriate manner by hiring a specialized Company to provide services of the EPRD type (Engineering, preparation, removal and disposal of submarine waste).

Relevant Quantities: Collection of Flexible Pipes/lines

Diameter up to 4" - 263,944.71 m

Diameter from 4" to 6" - 210,758.24 m

Diameter from 8" to 10" - 81,700.57 m

Diameter from 11" to 14" - 15,176, 77 m

Umbilical collection: 322,059.86 m

Client: PETROBRAS

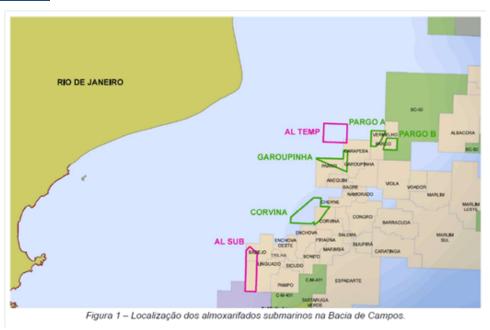


Figure 1: Location Map



#### 2 Scope of work

The Management of the ECB-SEA\_ALSUB Consorcio (of which SEA is part) visited Biopetro, a Company that deals with the disposal of hoses that are recovered from on board in the AlSub Decommissioning project.

SEA is implementing the recovery, treatment and disposal operations of scheduled lines at the B-Port base of the Alsub project at Port of Açu:

- from the CORVINA area
- from the GAROUPINHA area
- from PARGO A/B area

| ALMOXARIFADO<br>SUBMARINO | TIPOLOGIA DE<br>ESTRUTURAS<br>ARMAZENADAS | ÁREA (KM²)* | DISTÂNCIA<br>PARA A<br>COSTA (KM)* |
|---------------------------|---|-------------|------------------------------------|
| Corvina                   | Linhas Flexíveis                          | 134         | 65                                 |
| Pargo A e B               | Linhas Flexíveis                          | 69          | 65                                 |
| Garoupinha                | Linhas Flexíveis                          | 55          | 50                                 |

Table 1: Flexible lines Areas

| ALMOXARIFADO<br>SUBMARINO | QUANTIDADE<br>DE TRAMOS | COMPRIMENTO<br>ESTIMADO (m) | PESO ESTIMADO (t) |
|---------------------------|-------------------------|-----------------------------|-------------------|
| Corvina                   | 483                     | 376.014,92                  | 18.428,27         |
| Pargo A e B               | 76                      | 93.913,54                   | 5.930,24          |
| Garoupinha                | 558                     | 513.873,87                  | 31.298,36         |
| TOTAL                     | 1117                    | 983.820,33                  | 55.656,87         |

Table 2: Flexible lines quantities

The Company CONSÓRCIO ECB-SEA\_ALSUB contracted SEA BRASIL Serviços SUBMARINOS (SEA Brasil) for the charter of the vessel as support to survey services. The vessel is equipped with underwater unearthing equipment, which will be used for recovery, processing and final disposal of flexible lines and anchoring systems in the "Submarine Warehouses" areas of the Campos Basin, in the State of Rio de Janeiro (RJ) / Brazil.

#### **PROJECT STILL IN PROGRESS!!**



#### 3 Photos at worksite



Reel Drive System (RDS) at B-Port base in Açu Port



Recovered cables, pipes and hoses





Storage of recovered cables, pipes and hoses



Cleaning station



Treatment Effluent Station