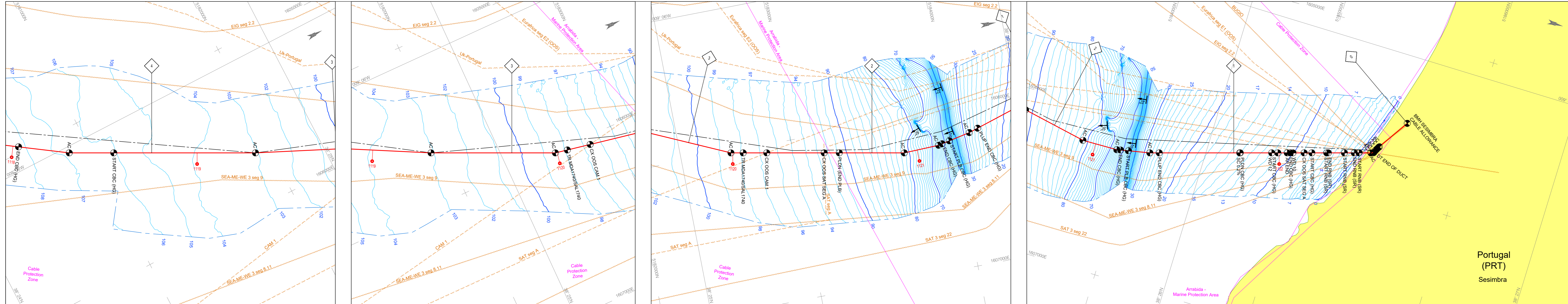
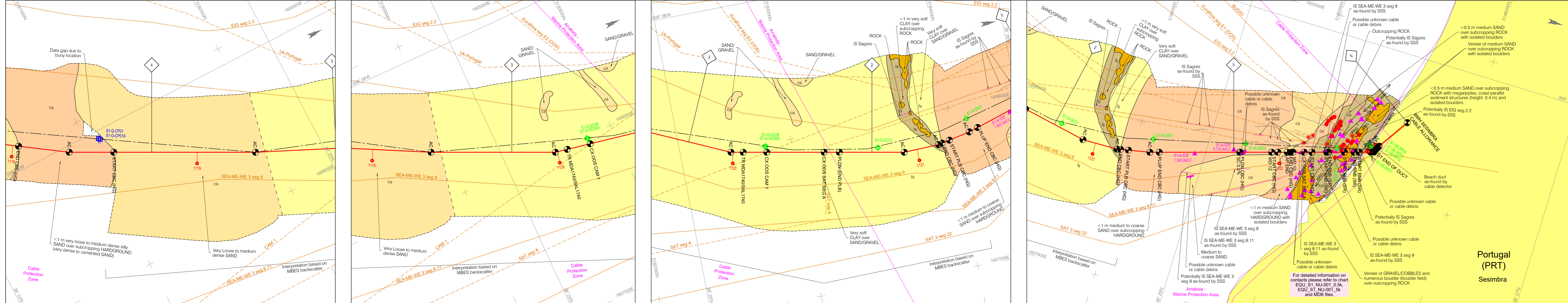


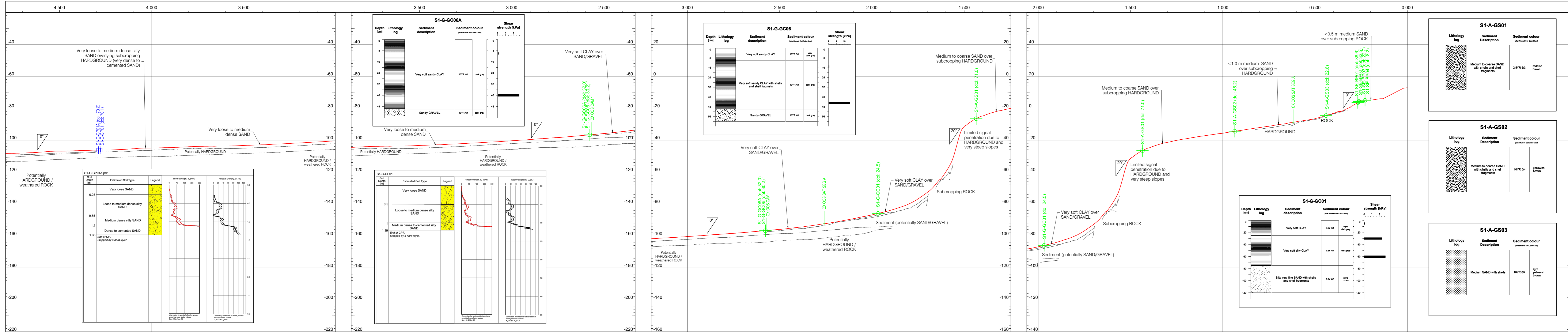
BATHYMETRY PANEL



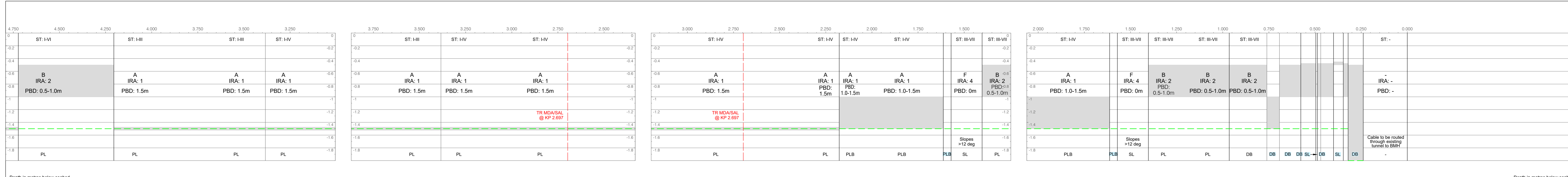
SEABED FEATURE PANEL



SEABED PROFILE AND GEOLOGICAL INFORMATION PANEL

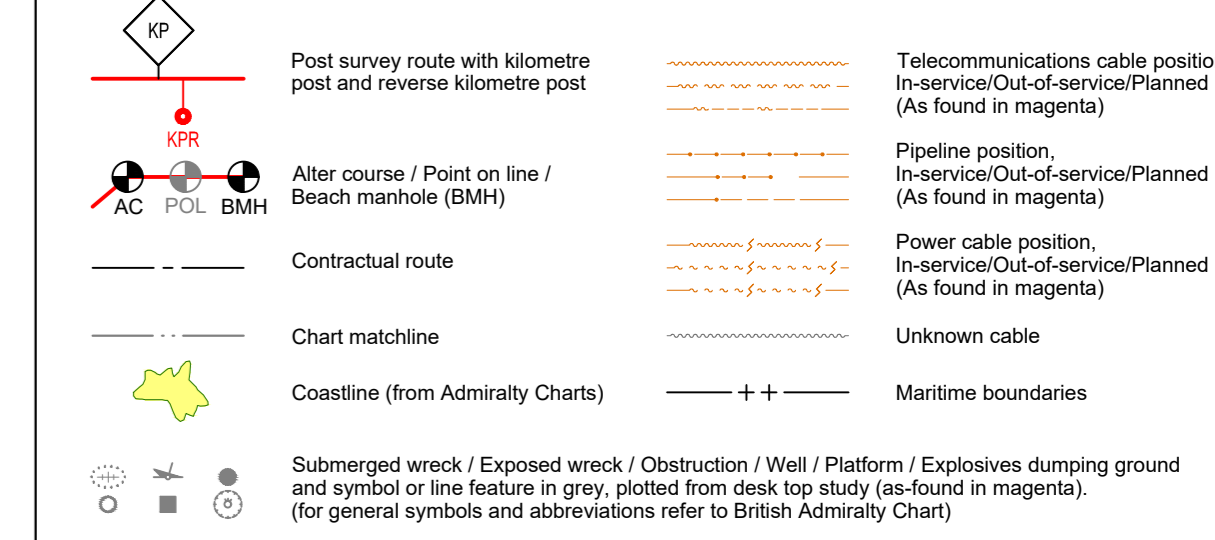


ROUTE ENGINEERING - BURIAL ASSESSMENT

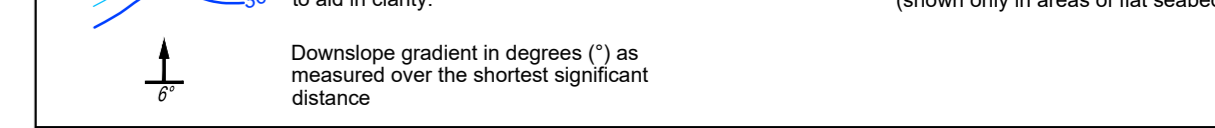


Burial Categories		Installation Risk Assessment (IRA) Categories		Seabed Type Classification for Burial Assessment		Sediment Description	
Category	Description	Category	Description	Sediment Type	Strength / Density Description	Relative Shear Strength	Sediment Description
A	FULLY BURIAL - Full depth cable burial expected to be achieved	1	Low risk	I	Very soft / very loose	< 15	Typically, very loose SAND/SILT, or very soft CLAY/SILT
B	REDUCED BURIAL - Target burial cover depth might not be achieved due to seabed conditions. Reduced cable cover depth predicted < 0.5m	2	Medium risk	II	Soft / loose	20 - 40	Typically, loose SAND/SILT, or soft CLAY/SILT
C	POOR BURIAL - Poor burial in predicted < 0.5m cover depth	3	High risk	III	Very soft / very loose	40 - 75	Typically, medium dense SAND/SILT, or soft SILT/CLAY
D	NO BURIAL - No burial in predicted < 0.5m cover depth	4	Very high risk	IV	Very soft / very loose	75 - 150	Typically, dense SAND/SILT, or soft SILT/CLAY
E	CONTRACT SPECIFIC BURIAL - Cable burial to specific target cover depth			V	Very soft / very loose	150 - 300	Typically, very dense SAND/SILT, or very soft CLAY/SILT
F	UNPREDICTABLE - Not appropriate due to seabed conditions or route design criteria			VI	Rock	> 300	Weathered bedrock or isolated sediment (partly cemented) Rock

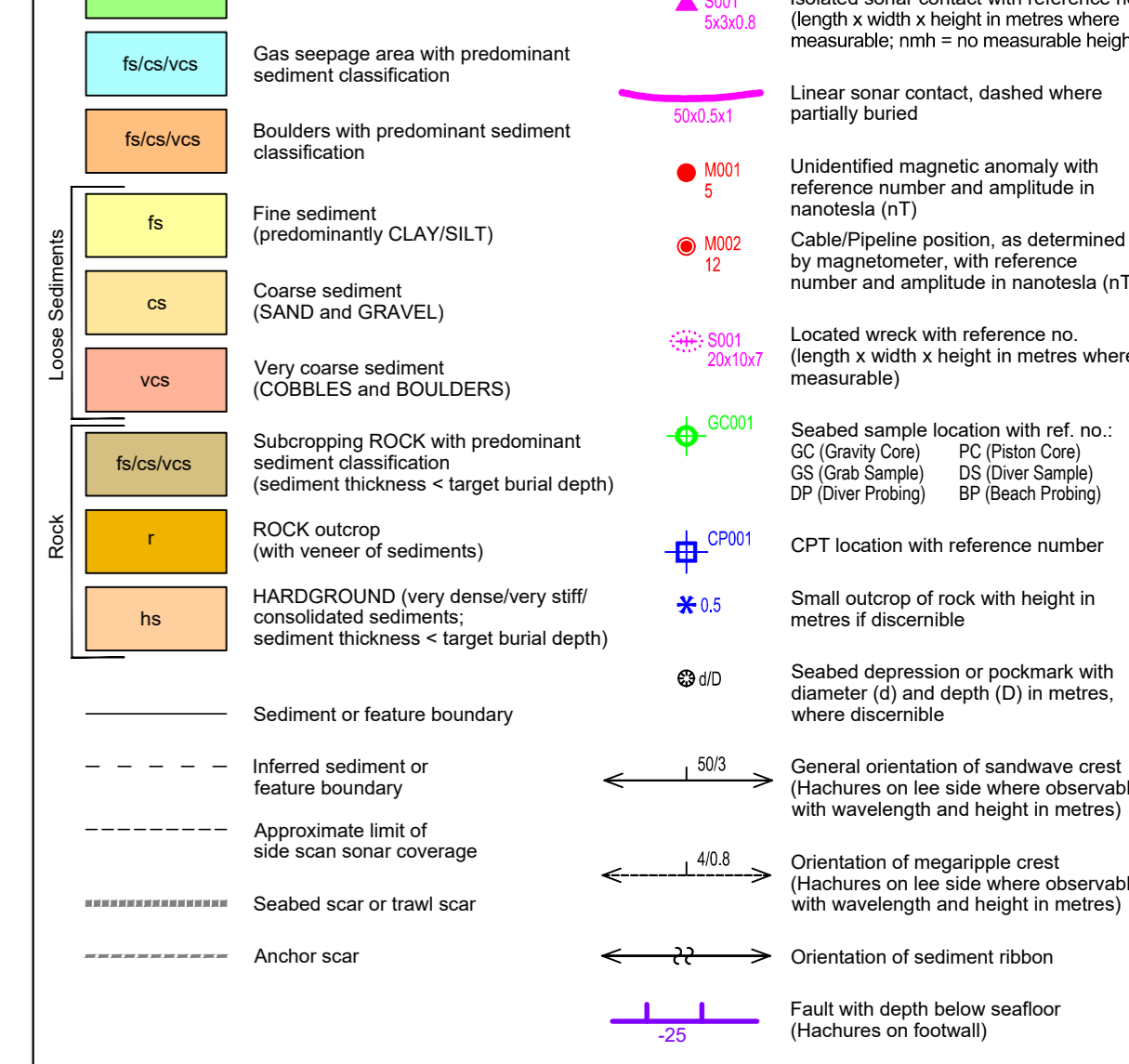
CARTOGRAPHIC SYMBOLS



BATHYMETRY



SEABED FEATURES AND SHALLOW GEOLOGY



SHALLOW GEOLOGY PROFILE



CHART COMMENTS

Cable and Pipeline Crossing:
 CX 10 FO SIGMA 3 SEG 8 (1) (gabobank), KP 0.243, water depth: onshore, crossing angle: 38°
 CX 10 FO SEAME-WE 3 SEG 8 (1) (gabobank), KP 0.252, water depth: onshore, crossing angle: 32°
 CX 10 FO EURASIA SEG 1 (1) (gabobank), KP 0.256, water depth: onshore, crossing angle: 35°
 CX 10 FO EURASIA SEG 2 (1) (gabobank), KP 0.275, water depth: onshore, crossing angle: 12°
 CX 10 COAX SAT 3 SEG 1 (1) (RPL/Satellite), KP 0.818, water depth: 97 m, crossing angle: 88°
 CX 10 COAX SAT 3 SEG 2 (1) (RPL/Satellite), KP 2.255, water depth: 97 m, crossing angle: 88°
 CX 10 COAX SAT 3 SEG 3 (1) (RPL/Satellite), KP 2.571, water depth: 97 m, crossing angle: 21°

Hazardous Features:
 In the northern oriented inshore area, the route enters seabed comprising medium SAND overlying subsiding ROCK with megapiles, coast parallel sediment structures 0.4 m in height and isolated boulders. Towards the southeast, the route crosses areas of outcropping ROCK and areas of medium SAND overlying subsiding HARDGROUND with isolated boulders. The central area is marked by very soft CLAY over SAND/SILT, to very loose to medium SAND in the southern part. These sediments are overlying subsiding HARDGROUND (very dense to cemented SAND) in the southernmost area. Slope area is generally very gentle, except where crossing a rock slope edge, where slopes are moderate. Several converging cables and potential cable debris are observed in the magnetometer and sidescan sonar data near the landing point.

GENERAL NOTES

Survey Vessel: MV Fugro Gauss
 Navigation Systems: Seapath 3300
 Underwater Pos. Systems: Koningsloot HFS 351
 Motion Sensor: Seapath 3300+ incl. MRU 5+
 Bathymetry: Koningsloot EM 122 / EM 712
 Seabed Feature / SBP: EdgeTech 420V / Knudsen 3200
 Magnetometer: G-S&E ARI4

MV Alugaster
 POS MV WAVEMASTER
 POS MV WAVEMASTER
 EdgeTech 8200
 EdgeTech 8200 / Innomar SES2000 compact
 G-S&E ARI4

DESCRIPTIVE TERMS AND DEFINITIONS

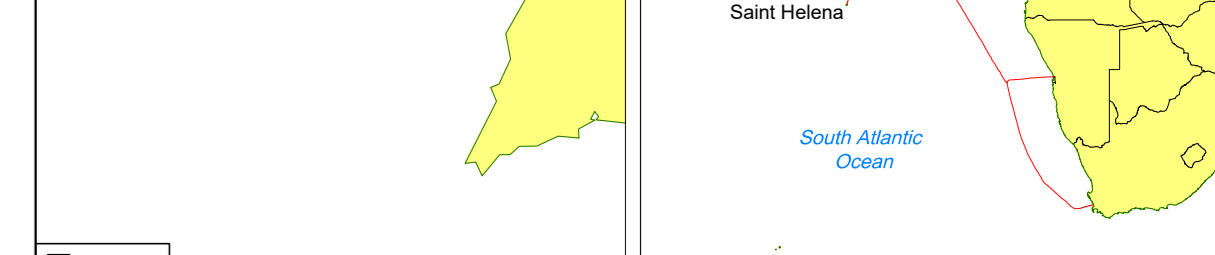
The criteria used for interpretation and descriptions are presented in the Survey Report.
 Bathymetry & Tide:
 Depths in metres, reduced to Lowest Astronomical Tide (LAT).

GEODETTIC PARAMETERS

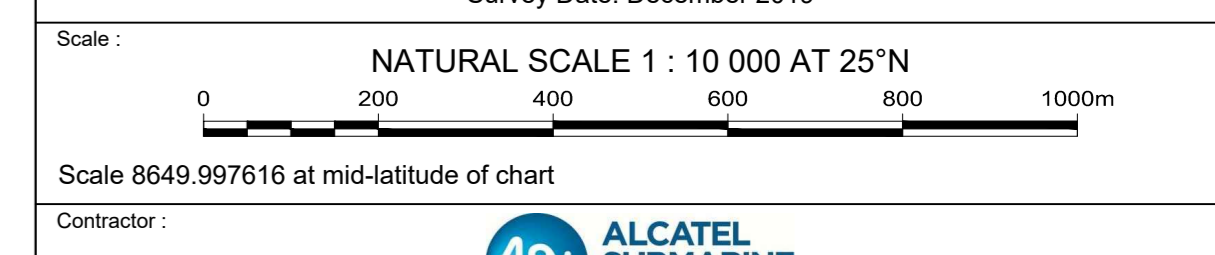
Projection: Mercator
 Datum: WGS84
 Semi-Major Axis: 6 378 137 000 m
 Inverse Flattening (1/f): 298 257 223 863
 (GDA to BRD 14/08/2016 257 224)

Longitude of Origin: 25° W
 Standard Parallel: 25° W
 False Easting: 0 m
 False Northing: 1 000 000 m
 Scale Factor: 1

CHART LAYOUT PLAN



ROUTE OVERVIEW PLAN



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Survey Date: December 2019

Scale: NATURAL SCALE 1 : 10 000 AT 25° N
 Scale 8649 997616 at mid-latitude of chart

Contractor: **ALCATEL SUBMARINE NETWORKS**

Surveyor: **FUGRO** Fugro Germany Marine GmbH

Project Name: **EQUIANO Cable Route Survey**

Document Title: **SEGMENT 1 BMH Sesimbra to BU MAD ALIGNMENT CHART NO. 001 OF 101 (KP 0.00 to KP 4.794)**

2.0	06.03.2020	RMJ / JE	KS	BW
1.0	07.02.2020	RMJ / JE	KS	BW
0.0	20.12.2019	AB	OV	RY

Rev: _____ Date: _____ Prepared by: _____ Checked by: _____ Approved by: _____

ROUTE: EQUIANO ST. BARS/S&S&S TO BU MAD, PORTG. 16-JAN-2019

File Name: EQUI_AS-001_101

REVISION 2