

CARTOGRAPHIC SYMBOLS

	Post Survey Route with kilometre post and reverse kilometre post		Telecommunications cable position, in Service/Out of Service/Planned (As found in magenta)
	Beach Mark/Alter Course		Pipeline position, in Service/Out of Service/Planned (As found in magenta)
	Survey Route		Power cable position, in Service/Out of Service (As found in magenta)
	Coastline (from Admiralty Charts)		Chart Matchline
			Territorial Sea / EEZ limit

BATHYMETRY

Bathymetric contours in metres. Contour interval may be reduced to aid in clarity. All bathymetry reduced to Lowest Astronomical Tide (LAT)

SEABED FEATURES AND SHALLOW GEOLOGY

	Coral		Isolated sonar contact with reference number (length x width x height in metres where measurable; n/m = no measurable height)
	Gas seepage area with predominant sediment classification		Linear sonar contact, dished where partially buried
	Boulders with predominant sediment classification		Unidentified magnetic anomaly with reference number and amplitude
	Fine sediment (predominantly CLAY/SILT)		Cable/Pipeline position, as determined by magnetometer, with reference number and amplitude
	Coarse sediment (SAND and GRAVEL)		Seabed sample location with reference number: GC (Piper Core), GS (Grab Sample), DS (Diver Sample), DP (Diver Probe), SP (Beach Probed)
	Very coarse sediment (COBBLES and BOULDERS)		MarsCPT (CP) Location with reference number
	Submerged ROCK with predominant sediment classification (sediment thickness = target burial depth)		Small outcrop of rock with height in metres if discernible
	ROCK outcrop		Seabed DEPRESSION or ROCKMARK with diameter (d) and depth (D) in metres, where discernible
	HARDGROUND (Very dense/silicified sediment)		Orientation of SANDWAVE crest (with wavelength and height in metres)
	Sediment or feature boundary		Orientation of MEGARIPPLE crest (with wavelength and height in metres)
	Inferred Sediment or Feature Boundary		Orientation of sediment ribbon
	Approximate limit of side scan sonar coverage and survey swath		Fault with depth below seafloor (fractures on down side)
	Seabed scar (trail or anchor)		Isobath Contours shown at 1m interval with labels every 1m
	Charted or reported wreck		Located wreck with reference no. (length x width x height in metres where measurable)
	Dumping ground database position		Anchorage Area / Fishing Area (Admiralty chart position)
	Well / Platform		Anchorage / Fishing Prohibited (Admiralty chart position)
	Oil Concession Block		

CHART COMMENT:

GENERAL NOTES:

SURVEY VESSEL: M.V. Ocean Endeavour	M.V. Capibó Eng III
Survey positioning system: Furop Starb HIF US04S	Aplicor POSMV WaveMaster, Verpos LDS
Underwater positioning System: Kongsberg Ranger 1 USBL	Reson Seabat T-20
Bathymetry: Kongsberg EM100, Kongsberg EM400 Combi	
Morphology and stratigraphy: Edgetech 4200 FS, Kongsberg Chirp and prap, SEB Seaprobe SSS/SBP	Edgetech 4200 MP, Kongsberg Geosonics, Geopulse
Magnetometer survey: Geomatrix M2	Magna Magnetics Seateq
Geotechnical: Kullenberg Piston Core, Neptune 3000 CPT	Van Veen Grab Sampler

Target burial depth:
1.0m below seabed

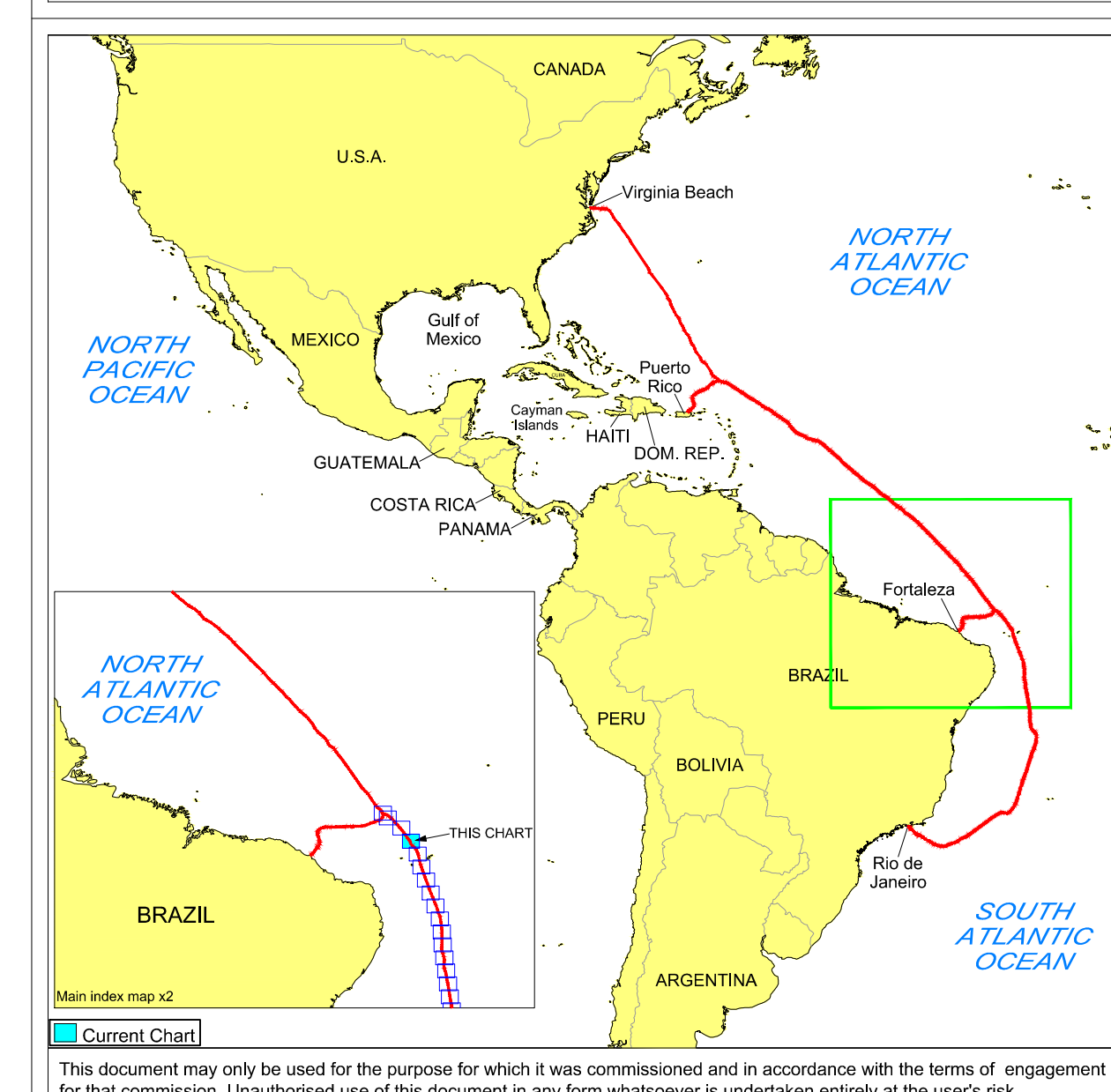
Descriptive Terms and Definitions:
The criteria used for interpretation and descriptions are presented in the Survey Results

Multibeam Processing Parameters: Depths in metres, reduced to LAT

Predictions used from tide stations: Rio de Janeiro, Brazil

GEODETIC PARAMETERS:

Projection: MERCATOR	Scale Factor: 1
Longitude of Origin: 53°W	Datum: WGS84
Standard Parallel: 7°N	False Easting: 3 000 000
Semi-Major Axis (a) (metres): 6378137.000	False Northing: 5 000 000
Reciprocal Flattening (1/f): 298.257223563	



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Survey Date: MAY to AUGUST 2016

Scale: **NATURAL SCALE 1 : 100,000 at 7°N**

(At Mid-Latitude of Chart)
TRUE SCALE 1 : 100000/17 km

Purchaser: **TELXIUS** Enabling Connectivity

Contractor: **Alcatel-Lucent**

Surveyor: **Gardline**

Project Name: **BRUSA CABLE ROUTE SURVEY**

Document Title: **SEGMENT 7 NORTH-UP CHART CHART NO. 003 OF 071 (KP 176.540 - KP 274.051)**

01	16.09.2016	JSRM	PB	CB
00	24.06.2016	JSRM	PB	CB
Rev	Date	Prepared by	Checked by	Approved by

ROUTE BASED UPON: BRUSA PSR02 File Name: BRUSA.S7.NU003

REVISION 01