

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)		Approximate limit of swath bathymetry coverage (shown only in areas of full swath)
	Downslope gradient in degrees (°) as measured over the shortest significant distance		

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, dashed 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: CC (Piston Core), OS (Grab Sample), DS (Diver Sample), DP (Diver Probing), SP (Beach Probing)
	Very coarse sediment (COBBLES and BOULDERS)		Mn/CPT (CP), Location with reference number
	Subsiding 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 POC/MARK with diameter (d) and depth (D) in metres, where discernible
	HARDGROUND (Very dense/consolidated 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 (fluctuates on down side)
	Seabed scar (trail or anchor)		Isobath Contours shown at 1m interval with labels every 1m
	Charted or reported wreck		Anchorage Area / Fishing Area (Admiralty chart position)
	Dumping ground database position		Anchorage / Fishing Prohibited (Admiralty chart position)
	Well / Platform		
	Oil Concession Block		

CHART COMMENT:

GENERAL NOTES:

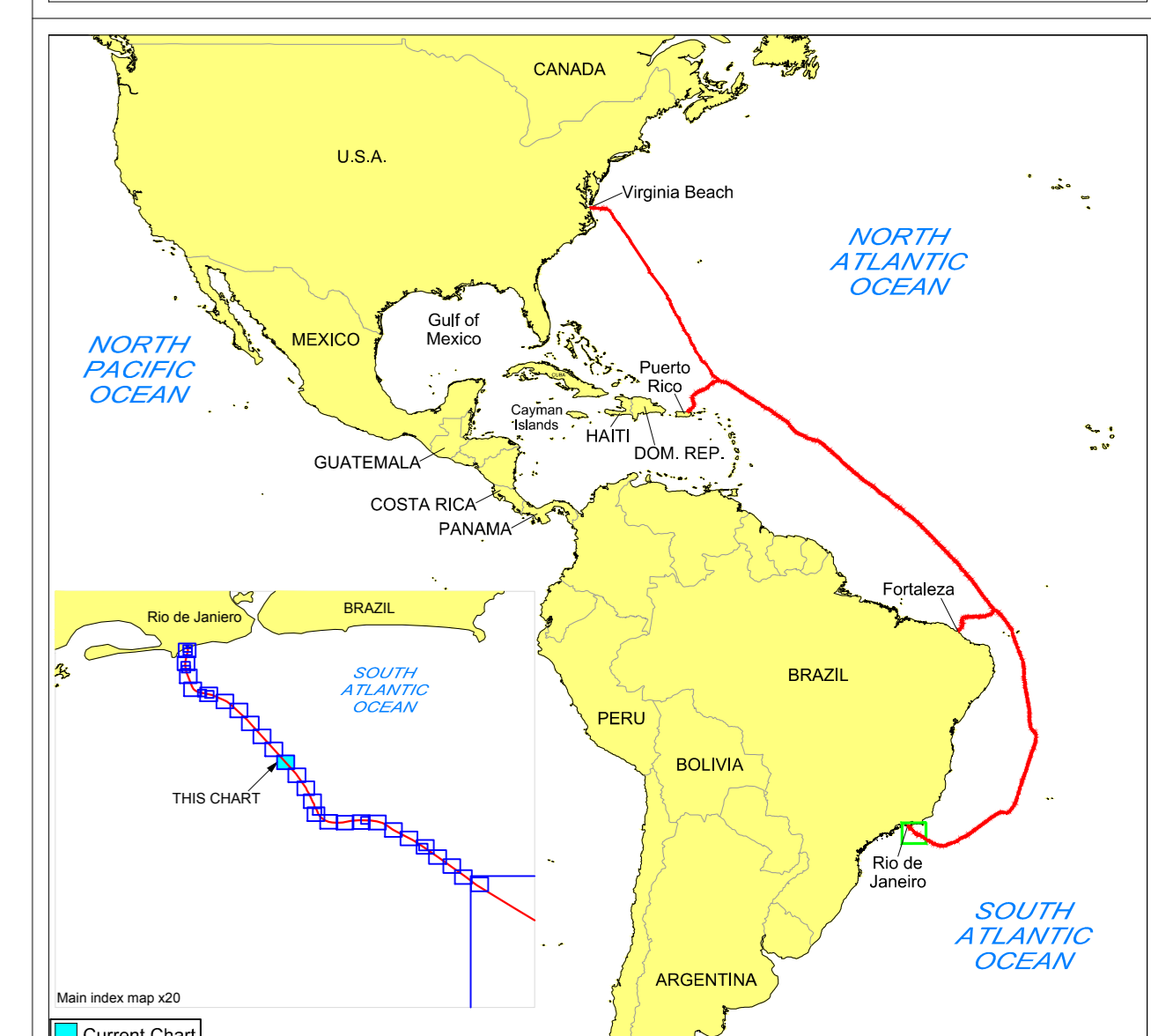
SURVEY VESSEL: M.V. Ocean Endeavour
Surface positioning system: Furuno STARBUCK 1500S
Underwater positioning system: Sonantyne Ranger 1 USBL, Kongsberg EM100, Kongsberg EM300, Kongsberg EM60 Combi
Bathymetry: Edgetech 4200-FS, Kleinbow Coda and pager, SES Seaprobe SSS/SBP, Geometrics S82, Kullenberg Proton Core, Neptune 3000 CPT

Morphology and stratigraphy: Edgetech 4200 MP, Kongsberg Geosoundics, Geopulse
Magnetometer survey: Marine Magnetics Seagay, Van Veen Grab Sampler, Neptune 3000 CPT

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
 Longitude of Origin: 53°W
 Standard Parallel: 7°N
 Semi-Major Axis (a) (metres): 6378137.000
 Reciprocal Flattening (1/f): 298.257222563
 Scale Factor: 1
 Datum: WGS84
 False Easting: 3 000 000
 False Northing: 5 000 000



This document may only be used for the purpose for which it was commissioned and in accordance with the terms of engagement for that commission. Unauthorised use of this document in any form whatsoever is under the entirety of the user's risk.

Survey Date: MAY to AUGUST 2016

Scale: **NATURAL SCALE 1 : 10,000 at 7°N**

(At Mean Latitude of Chart)
 TRUE SCALE 1 : 9238.46 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. 059 OF 071 (KP 3571.179 - KP 3580.911)**

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.NU059

REVISION 01