

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		Pipeline position, in Service/Out of Service/Planned (As found in magenta)
	Alter Course		Power cable position, in Service/Out of Service (As found in magenta)
	Survey Route		Chart Matchline
	Coastline (from Admiralty Charts)		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 flat seabed)
	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
	Builders 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
	Very coarse sediment (COBBLES and BOULDERS)		IC (Piston Core)
	Subsiding ROCK with predominant sediment classification (sediment thickness = target burial depth)		OS (Grab Sample)
	ROCK outcrop		DS (Diver Sample)
	HARDGROUND (Very dense/consolidated sediment)		DP (Diver Probing)
	Sediment or feature boundary		Mn/CPT (CP), Location with reference number
	Inferred Sediment or Feature Boundary		Small outcrop of rock with height in metres if discernible
	Approximate limit of side scan sonar coverage and survey swath		Seabed DEPRESSION or ROCKMARK with diameter (d) and depth (D) in metres, where discernible
	Seabed scar (trail or anchor)		Orientation of SANDWAVE crest (with wavelength and height in metres)
	Charted or reported wreck		Orientation of MEGARIPPLE crest (with wavelength and height in metres)
	Dumping ground database position		Orientation of sediment ribbon
	Well / Platform		Fault with depth below seafloor (fractures on down side)
	Oil Concession Block		Isobath Contours shown at 1m interval with labels every 1m
			Located wreck with reference no. (length x width x height in metres where measurable)
			Anchorage Area / Fishing Area (Admiralty chart position)
			Anchorage / Fishing Prohibited (Admiralty chart position)

CHART COMMENT:

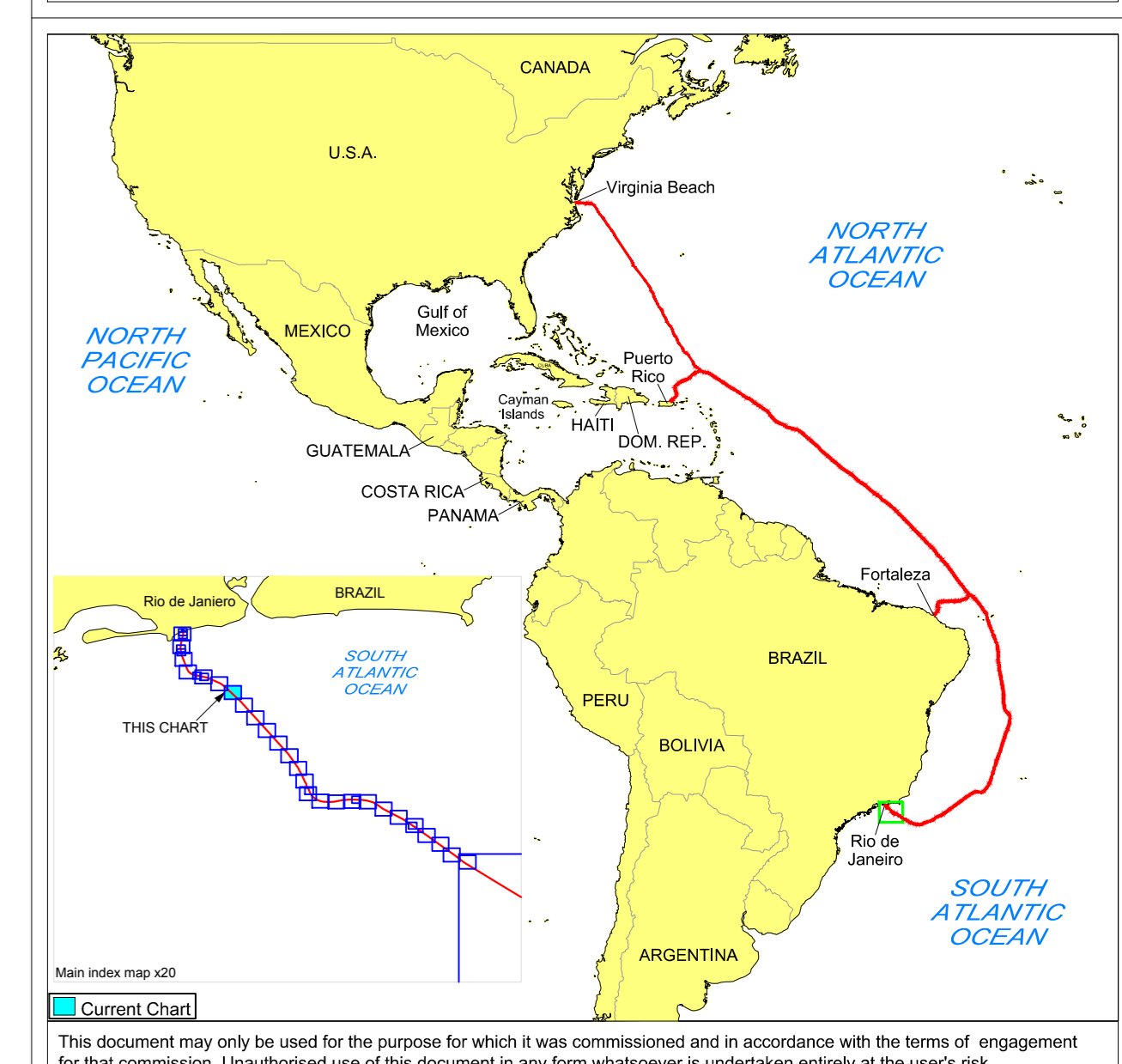
GENERAL NOTES:

SURVEY VESSEL: M.V. Ocean Endeavour
Surface positioning system: Furgo Starb HIF US94SS
Underwater positioning System: Sontar/Star Ranger 1 USBL
Bathymetry: Kongsberg EM120, Kongsberg EM60 Combi
Morphology and stratigraphy: Edgetech 4200-FS, Kongsberg Chirp and prap, SEB Seaglobe SSS/SBP
Magnetometer survey: Geometrics S82
Geotechnical: Kullenberg Piston Core, Neptune 3000 CPT

M.V. Capibó Eng III
Aplicativo POSNAV WaveMaster, Verpos LDS
Reson Seabat T-20
Edgetech 4200 MP, Kongsberg Geosonics, Geopulse Marine Magnetics Seagry, 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
 Longitude of Origin: 53°W
 Standard Parallel: 7°N
 Semi-Major Axis (a) (metres): 6378137.000
 Reciprocal Flattening (1/f): 298.257223563
 Scale Factor: 1
 Datum: WGS84
 False Easting: 3 000 000
 False Northing: 5 000 000



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Survey Date: MAY to AUGUST 2016

Scale: **NATURAL SCALE 1 : 10,000 at 7°N**
 (At Mid-Latitude of Chart)
 TRUE SCALE 1 : 9554.43 km

Purchaser: **TELXIUS** (Building Connectivity)
 Contractor: **Alcatel-Lucent**
 Surveyor: **Gardline**

Project Name: **BRUSA CABLE ROUTE SURVEY**
 Document Title: **SEGMENT 7 NORTH-UP CHART CHART NO. 063 OF 071 (KP 3607.786 - KP 3617.827)**

01	16.06.2016	JSRM	PB	CB
00	24.06.2016	JSRM	PB	CB

ROUTE BASED UPON: BRUSA.PSR02 File Name: BRUSA.S7.NU063

REVISION 01