

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 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/nh = no measurable height)
	Gas seepage area with predominant sediment classification		Linear sonar contact, dished where partially buried
	Fine sediment (predominantly CLAY/SILT)		Unidentified magnetic anomaly with reference number and amplitude
	Coarse sediment (SAND and GRAVEL)		Cable/Pipeline position, as determined by magnetometer, with reference number and amplitude
	Very coarse sediment (COBBLES and BOULDERS)		Seabed sample location with reference number
	Subsiding ROCK with predominant sediment classification (sediment thickness + target burial depth)		IC (Piper Core)
	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 POC/MARK 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 (fluctures 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: Fugro Starbuck WIP 030455	M.V. Ocean Endeavour Fugro Starbuck WIP 030455	M.V. Capibon Eng III Aplicor ROSBY WaveMaster, Verpos LDS
Underwater positioning System: Kongsberg EM120, Kongsberg EM300, Kongsberg EM400 Combi	Scanalyzer Ranger 1 USBL Kongsberg EM120, Kongsberg EM300, Kongsberg EM400 Combi	Reson Seabat T-20
Morphology and stratigraphy: Edgetech 4200-FS, Kongsberg Chirp and prap, SEB Seaprobe SSS/SBP, Geomatrix S&Z	Edgetech 4200 MP, Kongsberg Geosonics Geopulse	
Magnetometer survey: Geotechnical	Marine Magnetics Seateq Kullenberg Proton Core, Neptune 3000 CPT	Van Veen Grab Sampler

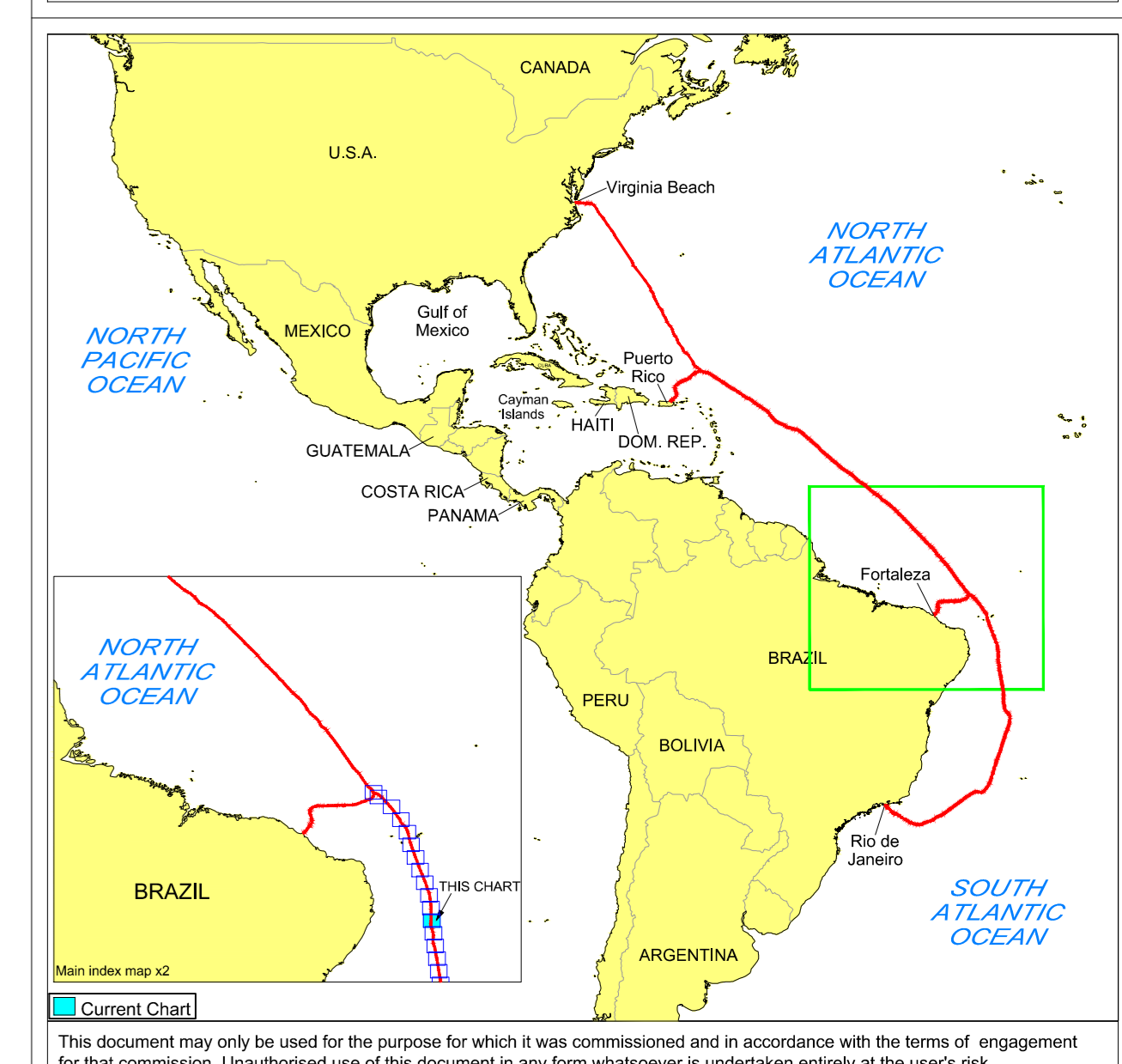
Target burial depth
1.0m below seabed

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

Multi-beam 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)
TITLE SCALE 1 : 99994.99 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. 011 OF 071 (KP 808.678 - KP 887.140)**

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REVISION 01