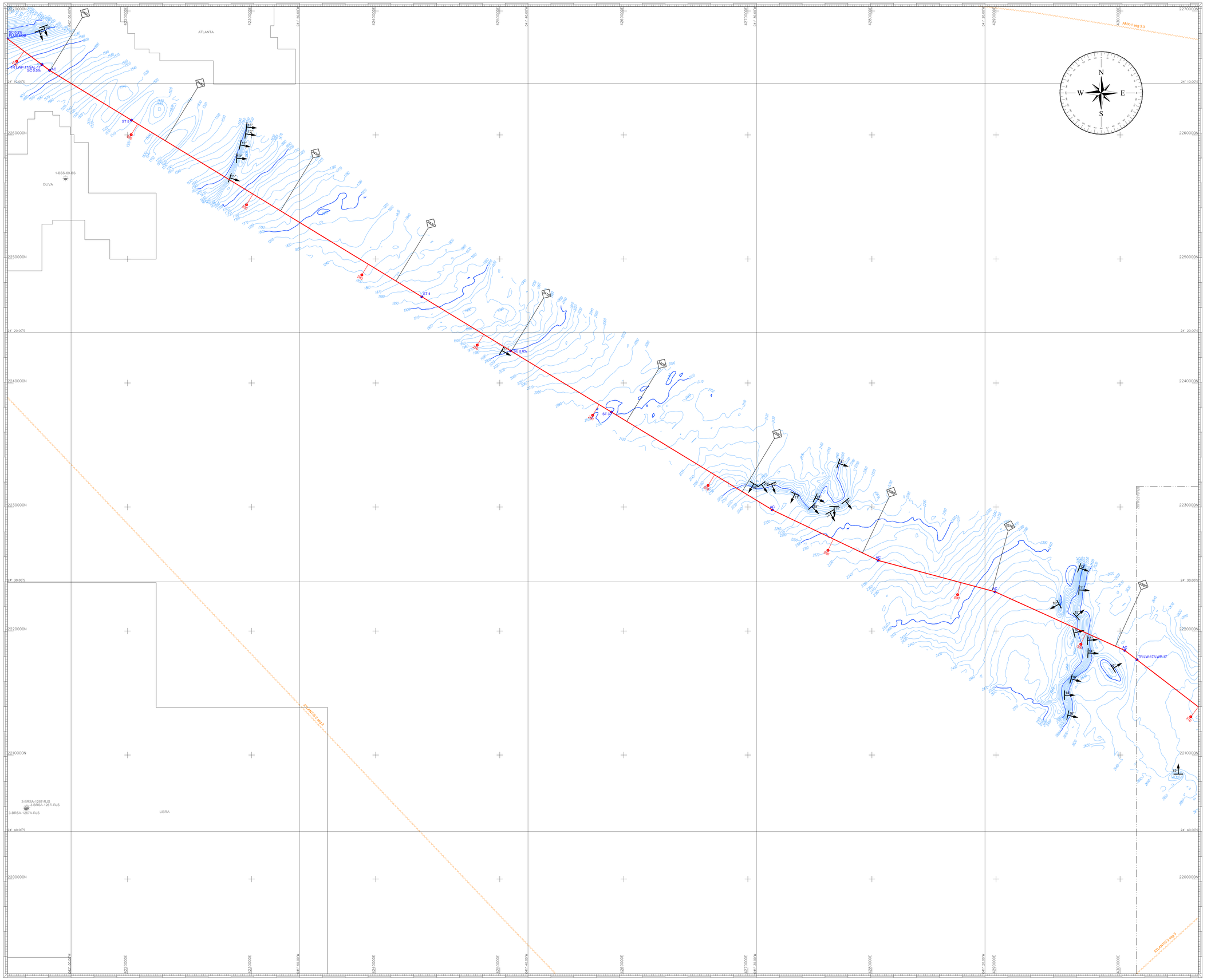


CARTOGRAPHIC SYMBOLS

- Post Survey Route with kilometre post and reverse kilometre post
- Beach Manhole
- Alter Course
- Survey Route
- Coastline (from Admiralty Charts)
- Telecommunications cable position, In service/ Out of Service/Planned (As found in magenta)
- Pipeline position; In Service/Out of Service/Planned (As found in magenta)
- Power cable position, In Service/Out of Service (As found in magenta)
- 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)
- Downslope gradient in degrees (°) as measured over the shortest significant distance
- Approximate limit of swath bathymetry coverage (shown only in areas of flat seabed)

SEABED FEATURES AND SHALLOW GEOLOGY

Loose Sediments:
- cor — Coral
- fs/cs/vcs — Gas seepage area with predominant sediment classification
- fs/cs/vcs — Boulders with predominant sediment classification
- fs — Fine sediment (predominantly CLAY/SILT)
- cs — Coarse sediment (SAND and GRAVEL)
- vcs — Very coarse sediment (COBBLES and BOULDERS)

Rock:
- fs/cs/vcs — Subcropping ROCK with predominant sediment classification (sediment thickness < target burial depth)
- r — ROCK outcrop
- hs — HARDGROUND (Very dense/stiff/consolidated sediment)

- Isolated sonar contact with reference number (length x width x height in metres where measurable; nmh = no measurable height) — SO001 5x5x1
- Linear sonar contact, dashed where partially buried — ASH 8Y0
- Unidentified magnetic anomaly with reference number and amplitude — MC001 5.0
- Cable/Pipeline position, as determined by magnetometer, with reference number and amplitude — MC002 5.0
- Seabed sample location with reference number: GC (Piston Core) GG (Grab Sample) DS (Diver Sample) DP (Diver Probing) BP (Beach Probing) — SG001
- MiniCPT (CP), Location with reference number — CP001
- Small outcrop of rock with height in metres if discernible — 0.5
- Seabed DEPRESSION or POCKMARK with diameter (d) and depth (D) in metres, where discernible — d:D
- Sediment or feature boundary
- Inferred Sediment or Feature Boundary
- Approximate limit of side scan sonar coverage and survey swath
- Seabed scar (trawl or anchor)
- Charted or reported wreck
- Dumping ground database position
- Well / Platform
- Oil Concession Block — 22 a/b
- Orientation of SANDWAVE crest (with wavelength and height in metres) — 50/3
- Orientation of MEGARIPPLE crest (with wavelength and height in metres) — 4/0.6
- Orientation of sediment ribbon — 22
- Fault with depth below seafloor (Hachures on down side) — 25
- Isopach Contours shown at: 1m interval with labels every 1m
- Located wreck with reference no. (length x width x height in metres where measurable) — SO001 20x10x3
- Anchorage Area / Fishing Area (Admiralty chart position)
- Anchorage / Fishing Prohibited (Admiralty chart position) — 90 — 090 — 270 — 090

CHART COMMENT:

GENERAL NOTES:

SURVEY VESSEL	M.V. Ocean Endeavour	M.V. Capitão Bra Rl
Surface positioning system	Fugro Starfix HP DGNSS	Applanix POSMV Wavemaster, Veripos LDS
Underwater positioning System	Sonardyne Ranger 1 USBL	
Bathymetry	Kongsberg EM120, Kongsberg EM1002, Kongsberg EA400 Combi	Reson Seabat T-20
Morphology and stratigraphy	Edgetech 4200-FS, Knudsen Chirp and pinger, SES Seasonbe SSS/SBP	Edgetech 4200 MP, Kongsberg Geoacoustics Geopulse
Magnetometer survey	Geometrics 882	Marine Magnetics Seaspy
Geotechnical	Kullenberg Piston Core, Neptune 3000 CPT	Van Veen Grab Sampler

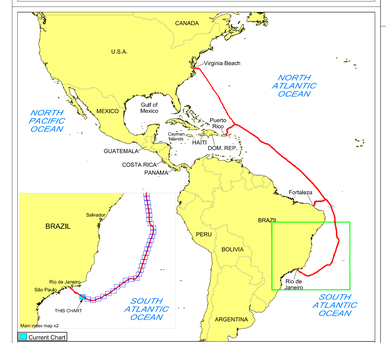
Target burial depth
1.5m below seabed

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) (meters) : 6378137,000	False Northing : 5 000 000
Reciprocal Flattening (1/f) : 298.257223563	



Survey Date: MAY to AUGUST 2016

Scale :
NATURAL SCALE 1 : 100,000 at 7°N
(At Mid-Latitude of Chart)
TRUE SCALE 1 : 91775 at km
0 2 4 6 8 10

Purchaser : TELXIUS Enabling Connectivity

Contractor : Alcatel·Lucent

Surveyor : Gardline

Project Name:
BRUSA
CABLE ROUTE SURVEY

Document Title:
SEGMENT 7
NORTH-UP CHART
CHART NO. 043 OF 071
(KP 3352.389 - KP 3453.949)

Rev.	Date	Prepared by	Checked by	Approved by	
01	16.09.2016	JS/RM	PB	CB	REVISION 01
00	24.06.2016	JS/RM	PB	CB	

ROUTE BASED UPON: BRUSA PSR02

File Name: BRUSA.S7.NU043