

# R.V. Brone Explorer



brone positioning † survey limited

Originally built as an oceanographic research vessel, the R/V Brone Explorer has been refitted as a high resolution seismic vessel. Recent additions and fittings have produced a permanently mobilised dedicated multi-purpose survey vessel that can be rapidly deployed to survey locations worldwide.

The Brone Explorer is extremely well arranged with a large mess-room and day room, excellent cabins and large survey room. The vessel is fitted with a full suite of analogue and digital geophysical equipment, including a High Resolution Seismic system and a swathe bathymetry system. With the provision of a suite of deck equipment which includes a 20 tonne A frame, 15 tonne hydraulic winch at 5000m operating water depth, 3 tonne winch with 1500m operating water depth and clear deck area of 80m<sup>2</sup>, the vessel has a multi –role capability including OBC work, ROV inspection (observation class ROVs), pipeline and cable route surveys, high resolution seismic acquisition surveys and geotechnical and environmental surveys utilising a vibrocorer, CPT, 24metre corer and grab samplers.

Clients within the oil and gas industry, the cable sector and government agencies are presented with a variety of solutions offered by the Brone Explorer to obtain high resolution data for permitting, planning, design activities, geo-hazard evaluation and cable engineering within the offshore industry.

Brone Survey operations are conducted to comply with the international quality standard ISO 9001:2000. We operate in accordance with a Health, Safety and Environmental Management System which is integrated with its Quality Management System.

Together these systems conform to all national and international legislation as well as industry guidelines, and provide mechanisms for integration with the company's management system.

## Vessel Capabilities

- ✦ Hazard Surveys
- ✦ 2D High Resolution Site Surveys
- ✦ VSP Surveys
- ✦ Tow Route Surveys
- ✦ Cable Route Surveys
- ✦ Pipeline Route Surveys
- ✦ Pipeline Inspection Surveys
- ✦ Swathe Bathymetry Surveys (3000m)
- ✦ ROV Inspection Surveys
- ✦ 24m Seabed Coring
- ✦ On-board Geotechnical Laboratory

# R. V. Brone Explorer



## Vessel Details

<b>Owner</b>	Brone Positioning & Survey Ltd
<b>Ship Managers</b>	Brone Geo-Solutions Ltd
<b>Type</b>	Seismic, Site and Hydrographic Survey Vessel
<b>Port of Registry</b>	Lagos
Specifications	
<b>Classification</b>	INSB
<b>IMO Number</b>	7103225
<b>Call Sign</b>	5NMI
<b>Material/Type International</b>	Steel/Monohull
<b>Gross Tonnage</b>	697 Tonnes
<b>Net Tonnage</b>	297 Tonnes
<b>Length Overall</b>	45.7m
<b>Beam</b>	10.9m
<b>Light Draft</b>	2.1m
<b>Maximum Draft</b>	3.3m
<b>Cruising Speed</b>	11.0 knots
<b>Main Engines</b>	2 x Caterpillar D398B (1,800 BHP)
<b>Propulsion</b>	Four Blade S/S,
<b>Bow Thruster</b>	1 x GM 6-71N (200 HP)
<b>Fuel Capacity</b>	55,000 USG
<b>Fuel Consumption</b>	6200 litres per day <b>Free Running ½ Load</b>
<b>Fuel Consumption</b>	6800 litres per day <b>Free Running Max Load</b>
<b>Water Capacity</b>	60,000 USG fresh water
<b>Water Making</b>	TBA

## Electrical Power

3 generators, **380/220 VAC, 50Hz:**  
GM 8V-71N

## Navigation Aids

Furuno GP 150 IMO GPS System  
Furuno GPS  
Furuno FA-150 AIS system  
Sperry gyrocompass  
Sperry Auto Pilot  
JRC ARPA Radar  
Furuno Radar  
KODEN Radar  
JRC IMO Colour echo Sounder  
Furuno NX500 Navtex

## Communication Aids

2 x Furuno FM 8500  
Furuno SSB  
Thrane & Thrane Inmarsat Sat C  
ICOM MH/HF  
1x Furuno GMDSS Console (A1,A2 & A3)  
1 xx Sailor Fleet Broadband – email/phone/fax/internet  
1 x Iridium Satellite Phone

## Deck Machinery

1 x 7t N85 Crane  
1 x 4.5t N55Crane  
1 x Lockheed Geoeel Streamer winch  
1 X 1 ton towing davits  
1 x 20 ton hydraulic A frame  
1 X Boeing freefall coring winch  
1 X Mid deck sampling winch  
1 X 3 ton tugger winch  
2 X sonar winches  
1 X sparker winch

## Accommodation

32 persons (marine crew inclusive)

## Climate Control

Central AirConditioning + Heating

## Working Area

About 80m<sup>2</sup> shelter deck  
About 90m<sup>2</sup> on main deck  
1 x 18m<sup>2</sup> instrument room  
1 x 36 m<sup>2</sup> instrument room  
35m<sup>2</sup> storage – various areas  
1 x 20m<sup>2</sup> processing room

## Recreational Areas

Mess Room  
Lounge  
Film/Video

## Vessel Safety Equipment

**Liferafts (16 man) – x 4**

**Fast Rescue Craft – x 1 ZODIAC Rib**

**Life Rafts -** 4 x (total 64 persons)

**Life Jackets -** 200%

**Smoke Hoods -** 2

**Work Vest -** For all crew

**Emergency Radios –** 3 x Icom

**Emergency Beacons –** 1 X EPIRB

2 X SART

**Fire Pump -** 1, El. Driven - 1 portable

**Halon System -**

**Foam System -** Helideck

## Survey Equipment

### Positioning System(s)

3 Independent DGPS systems

### SSBL System

Simrad HiPaP 500

### GPS Receivers/Demodulators

3 x Trimble

2 X CSI-VS

### Computer Systems

Pentium PCs running QPS' Qinsy  
Seis Windows -based software suite

### Heave, Pitch and Roll Sensor

Seatex MRU-5

TSS DMS05

### Single Beam Echo Sounder

2 x Marimatech Dual Frequency 33/210KHz

### Attitude Sensor

Seapath 200 GPS Array

Survey Gyro

### Multibeam Echo Sounder

Kongsberg EM 3000

### Sound Velocity Probe

AML SV Plus

Valeport SV650

### Side Scan Sonar

Geoacoustics Dual Frequency  
(100/500KHz)

### Deep Towed Profiler

Deep Tow Profiler

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# R. V. Brone Explorer



## Over-the-side Profiler

16 x 137D transducers

### Mini Sleeve Gun

10 or 20 cu.in. sleeve air gun

## Hydrophone Streamer

Benthos 8 element streamer

## Graphic Recorders

1 x 3710 thermal recorder

1 x Alden 9315 CTP Plotters

1X 120 Ultra recorders

## Data Logging and Digital Processing

Storage array

CODA PI & DA Units

### Swell Filter

TSS 320B heave compensator

### TVG Amplifier

Octopus DMS360

## Magnetometer

Geometrics G880

## Seabed Sampling

Free fall Piston corer: 24m, 6m & 2m barrel. Core diameter 83mm. More than 5000m cable length.

Van Veen grab sampler.

## Digital Seismic Recording System

**Sample Rate** 0.5-4.00 milsec.

### Filters

High Cut 206Hz  
(programmable dependant on Sample rate)

Low Cut 5Hz

**Tape Format** Seg D 8035

### Recording

**Medium** 3490 tape decks

### Streamer

Digital 96 channels  
programmable digital streamer

## Digital QC System

Processing Uniseis

Online Display GS 612 Plotter

Testifoi Instrument Test

Analysis

## Streamer Testing Unit

### Firing Control

Macha/RTS

### Far Field

Recorded on tape as well as displayed on camera. Pulse monitor via onboard QC system

### Depth Controllers

Digicourse model 5010 digibird

### Gun Source

Sodera G & GI guns in various combinations

## Compressors

2 x seismic compressors

## Camera

OYO. GS-612 plotter

## Near Trace Analogue Recorder

Ultra P120 thermal recorder

OYO. GS-612 plotter

## Draughting

Microstation SE on Pentium PC

Hewlett Packard DesignJet plotter

ACAD MAP 2008

## Network

Local computer network