Deepwater Geotechnical Vessel





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Bluestone Offshore's Greatship Maya is a dynamically positioned (IMO Class 2) geotechnical vessel, capable of operating worldwide in water depths of up to 1800m. The vessel holds a valid Special Purpose Ship Safety Certificate according to the IMO SPS Code 2008.

This newly built vessel classed with DNV, is fitted with modern technology in in-situ testing and sampling tools.

The drilling rig system is designed and built to industry standards, with unique customised features to meet the practical balance of safety and efficiency.

The main capabilities of the vessel are:

- Performing geotechnical or geological surveys
- Drilling deep boreholes at deep water depths
- Collecting high-quality, undisturbed soil samples
- Performing real time in-situ tests, in downhole or seabed mode
- Performing various geotechnical laboratory tests onboard
- Drilling deep pilot hole for shallow gas detection
- Providing ideal platform for ROV Construction Support works



Greatship Maya

Deepwater Geotechnical Vessel



Vessel Name	Greatship Maya	Classification Society	Det Norske Veritas (DNV)
Builder / Year	Keppel Singmarine, Singapore / 2009	Design	Marin Teknikk AS, Norway
Flag / Port of Registry	Singapore	Speed / Endurance	13 knots / 45 days
IMO Number	9463499	Operational Water Depth	1,800 m

riag / Fort or Kegi	Siriyapore			
IMO Number	9463499			
Ships Particulars				
Length Overall	93.60 m			
Breadth Moulded	19.70 m			
Depth Moulded	7.85 m			
Max. Loaded Draught	6.3 m			
Class Notation		11, E0, SF, DYNPOS		
		ean, Comf-V(3), Supply		
		L*, DK(+), hl(2,5/2,8)		
0.07	Naut OSV			
GRT	4765 tons	•		
NRT	1430 tons			
Deadweight Official Number	4600 tons 394878			
Call sign	9V7820			
Gair Sigir	747020			
Propulsion & Machinery				
Main Engines	4x 2133 kW each			
-	Total: 853	32 kW		
		N280L-EV		
Propellers		ble rotatable (360 deg)		
		2600kW, 2800mm (dia)		
Bow Thrusters	3 x 1050 l Tunnel Th	kW / 900rpm CPP,		
Auxiliary Engines	Tunnel Tr	nrusters		
Emergency Generators	1 x 189 k\	M		
Supply System	690 V, 60Hz			
эцриј зумен	070 1,00	112		
Accommodation				
1 Man Cabin		w/private WC)		
1 Man Cabin (Client)		w/private WC)		
2 Man Cabin		w/private WC)		
Hospital		medical facility with		
Recreation Rooms		nedic on standby 24hrs. um, Reception Area,		
Nedication Noons		Dayroom, Smoking		
		Mess room		
Additional Work Rooms	Workshop	o for Instrument &		
	Electrical			
Total Accommodation	66 Berths	s, fully air-conditioned		
Deck Machinery				
Deck Cranes	2 x 5 tons	@ 15m radius,		
2 22 0.000	Knuckle J			
		ns @ 5m radius,		
		a Dalfinger erene		

2 x 10 tons Capstans Moon pool 7m x 7m Dynamic Positioning System Gyro Compass DGPS 3 units 2 units Motion reference 2 units Underwater reference 1 x Sonardyne / Hipap 500 Cargo Capacities $5 - 10T / m^2$

Telescopic Palfinger crane

2 x 15 tons

Deck Strength Potable / Fresh Water 1140 m³ Fuel Oil 1140 m³ Ballast 1530 m³ Drill Water 1310 m³

Tugger Winches

Discharge 1 x 0 - 200 m³ / hr at 9 bar Fresh Water Fuel Oil 2 x 0 - 200 m3 / hr at 9 bar

Anchoring 2 x Min 10MT Anchors Winches 2 x electric driven anchor/mooring

Drilling System Derrick Bluestone 2000 Height: 32 m Pulling Capacity: 100 MT Top Drive Rotary drill F150 Torque: 23,000 ft.lb Speed: 80 – 100 rpm Drawworks Winch Line Pull 35 MT

In-line Drill String Compensator Heave Compensation 3.5 m stroke. Capacity: 80 MT Single Drum Hydraulic Winch 60 MT Heavy Load Winch

Drill String Drill String Length 1800m (approx.)

Drill Pipes API 5-1/2" with 5-1/2" FH Tool Joint

Drill Collar API 7" with 5-1/2" FH Tool Joint

Seabed Frame 3 m (L) x 3 m (W) x 1.95 m (H) Dimension Skirt 0.15 m Features Tilt Meter Current Meter

Shear Ram

Mud System 2 x GD 5-1/2 x 5-1/2 Triplex Mud Pump 300 gpm Mixina Pump Mission Magnum

Horizontal centrifugal pump Mud Tank 2 x 30 m³

Engineering Data Processing Borehole Log Generation

Design Parameters Generation Shallow Foundation Analysis

Deep Foundation Analysis

Down-hole Sampling and Testing

Rock Coring PQ or HQ size selection Variety of bits onboard 1 x Longyear HQ3 2 x API Core Barrel

WISON-APB Maximum of 3 m stroke

Piston Sampler WIP Sampler

Piezocone Penetration Test

In-situ Vane Shear Test

Seabed Sampling and Testing

Electrical Wheel Drive Method

Rated to 40m push @2000 WD ROSON

Piezocone Penetration Test In-situ Vane Shear Test Deepwater Sampler (DWS) 4" diameter piston corer

Free Fall Control Method

600cm2 or 1000 cm2

Grab Sampler 250cm2 or 1000 cm2 Gravity Piston Corer 6 - 9 m, ø101.6mm

Vibro Corer 3 - 6 m, ø101.6mm

Geotechnical Laboratory

(20FT Container) 1 x Wet Laboratory

1 x Dry Laboratory (12FT Container)

Classification / Physical Property Tests Water Content

Soil Unit Weight

Grain Size Distribution

Organic Content Carbonate Content

Photography of Samples

Index Strength Test

Torvane

Max 200 kPa

Motorvane Set of 4 springs Pocket Penetrometer Max 430 kPa

UU Triaxial 2 x 3500 kPa cell

Max 250 kPa

Options

1 x MSCL Laboratory (20FT Container)

Liquid and plastic limits (clay samples)

Maximum and minimum density (sand samples)

Unit Weight of solid particles

Point Load Test CRSC Oedometer

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