

沃旭能源股份有限公司 函

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受文者：交通部航港局中部航務中心

435 臺中市梧棲區臨海路83之3號

發文日期：中華民國110年12月14日

發文文號：2021-OTW-083

附件：如文

**主旨：本公司委託地海儀股份有限公司（Geoquip Marine Operations AG）
執行海域地工調查，詳如說明，請惠予發布航船布告。**

說明：

- 一、本公司於民國110年7月16日依文號2021-OTW-044惠請 貴局發布航船布告使用期程至民國110年10月31日，惟因應疫情影響須調整調查期程至民國111年5月31日。
- 二、本公司委託地海儀股份有限公司（Geoquip Marine Operations AG）執行海域地工調查所使用船舶及預訂工作期程如下表所示，另有關工作範圍、工作船舶資料及相關聯絡資訊請見附件。

使用船舶名稱	使用期程
MV Geoquip Speer	110年7月25日 至 111年5月31日

附件一：工作範圍座標表

附件二：工作船舶資料

正本：交通部航港局中部航務中心

副本：



附件一

風場區調查範圍座標表
Windfarm boundaries coordinates

No.	TWD97	
	緯度 / Latitude	經度 / Longitude
12-1A	24,26865371	119,80916770
12-2	24,26204106	119,95309735
12-3	24,19270555	119,90605813
12-4A	24,19880532	119,76091388
14-1	24,19884944	119,75985177
14-3	24,11910610	119,85619062
14-4	24,12371988	119,70802121
14-5	24,14080403	119,87088524
14-6	24,14276436	119,83049302
14-7	24,19395587	119,75647363

本專案作業時程 Proposed Project Schedule

自 110 年 7 月 25 日起，視天氣情況進行海域鑽探調查，原預計 110 年 10 月 31 日前完成所有調查工作，惟因應疫情影響需延長本次海域鑽探時程至 111 年 5 月 31 日，實際作業時程仍需視氣象因素與作業狀況而定。

The geotechnical investigation will be carried out on July 25, 2021, subject to weather condition. Originally, all the fieldwork is estimated to be completed by October 31, 2021. However, due to the COVID, the investigation work is estimated to be finished by May 31, 2022, the working schedule will be subject to weather condition and actual operation progress.

表 1 作業期間相關人員聯繫資料

Table 1 communication list

廠商名稱 Company Name	職位 Position	姓名 Name	聯絡電話 Phone no.
沃旭能源 Ørsted	專案許可協理 Consent Project Manager	王瑜萍	0905-529-016
東亞能源探勘股份有限公司 DONG FANG SPEER MARINE CO., LTD.	專案經理 Project Manager	Ryan Tickelpenny	+44 7735 681 011

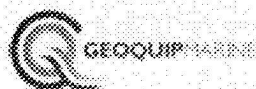
附件二

Vessel Specification 船隻規格

船舶名稱 Vessel name	東亞玉山 GEOQUIP SPEER	總長 Total length	84.00 m
IMO	9546021	船舶認證	CR & RINA
船舶國籍 Flag	台灣 (Republic of China)	船籍港 Registry port	臺中港 Taichung Harbour
總噸位	3504 噸	淨噸位	1052 噸
主要設備	Drilling Derrick 起重設備, Deck Crane		

附件二

Picture of Vessel (船舶照片)



SAFELY DELIVERING RELIABLE DATA.

Geoquip Speer



Introduction

The Geoquip Speer is a 2000 built, dynamically positioned geotechnical site investigation vessel designed for safe operations in harsh and remote regions. The vessel is 84m in length with the GMR302 heave compensated geotechnical drilling rig installed over a centrally located moonpool. The GMR302 can also deploy and recover a 20t deep push seabed CPT unit. The vessel is ideally suited to largescale offshore geotechnical site investigations.

Positioning

The vessel uses a Rolls-Royce Icon dynamic positioning (DP) system for station keeping. The system consists of a dual DP controller unit and operator stations. The controller unit and the operator station communicate via a dual high-speed data network. The DP system provides a direct interface to the azimuth propellers, and bow thrusters, and includes the necessary interfaces to power plants, position-reference systems and sensors. This provides accurate and precise station-keeping during all borehole and seabed testing operations.

Key Features

- Class 2 Dynamic Positioning
- Heave compensated offshore geotechnical drilling rig
- Combined water and borehole depth of 360m
- Large deck space
- Comprehensive on board soil and rock testing laboratory

Drilling, Monitoring and Downhole Tools

The GMR302 drill rig includes instrumentation for the electronic display of drilling parameters: torque, bit weight, mud pressure, mud flow rate and rotation speed. A comprehensive range of wireline downhole sampling and testing tools is available including PCPT (Piezocone Penetration Test), piston sampling, push sampling, wireline core barrel and percussion (hammer) sampling. All downhole tools (coring, sampling, PL logging, etc.) are fully compatible with the 8 1/2" API drill string. A range of drag and specialised coring bits are provided. Large diameter drill pipe can also be used to allow larger diameter cores to be recovered.

Offshore Geotechnical Site Investigations



SAFELY DELIVERING RELIABLE DATA.

Drilling Rig GMR302		Geoquip Speer	
Power Swivel	Dando 500 with dual speed setting for high torque / high rotation dependent on soil / rock type	Flag, IMO, Call Sign	Marshall Islands, IMO 9546021, Call Sign: V7VKA
Drill String	5½" or 6¾" API drill string	Class	Rina Green Plus, SPS
Seabed Frame	18t, with hydraulic clamps	Built	2010, converted 2020
Heave Compensation	Effective drill string compensation 0m to 4m. Seabed frame and seabed CPT unit heave compensation with an effective stroke from 0m to 5m	Tonnage	GRT 3,504 NRT 1,052
Mud	4,000l mix tank, 8,000l storage tank guar gum seawater miscible	Principal Dimensions	LOA 84.0m Breadth (moulded) 17.6m Draft (max.) 6.5m
Downhole Sampling	Wireline piston / push sampler, percussion / hammer sampler	Tank Capacity	Fuel Oil 1,720m³ Fresh Water 1,650m³
Downhole <i>in situ</i> Testing Tools	WISON-APB PCPT cone penetration testing with pore water pressure and seismic velocity measurements PS wireline logging	Speed / Consumption	Standby 3m³/24h On DP 9m³/24h Economic (transit) 14m³/24h at 12 knots
Downhole Coring	Traditional and leading shoe core barrel	Endurance	>28days
HPU	Electro-hydraulic, 3 x 125hp	Machinery	Main Engine 4 x Caterpillar 3512C, 1,700kW each
HP Air	2,000l high pressure air with associated compressors, filters and driers	Propellers	2 x Rolls-Royce CPP azimuthal 1,600kW each
Drill Control Cabin	Lever controlled operations, fully HVAC	Thrusters / Rudders	2 x Rolls-Royce CPP tunnel thrusters 880kW
Drill Rig Workshop	ISO 20ft container sized fully equipped workshop, tools and equipment. 220v supply	Fuel Type	MGO
Equipment Winches	Braden draw-works winch, seabed frame umbilical winch, 2 x piston sample winch (electro mechanical), 2 x headline tugger winch, tail line tugger winch.	DP System	Rolls-Royce Icon
Seabed CPT Unit	20t deep push seabed CPT system. Straight rod push thrust mechanism allows recording of <i>in situ</i> data to 40m below mudline, or greater, depending on soil conditions.	Moon Pool	Main Deck 4.0m x 3.5m
		Cargo Deck	830m²
		Accommodation	7 x Single berth cabins 23 x Double berth cabins 1 x Project / drilling office 1 x Client office 2 x Recreation rooms 1 x Gymnasium, 1 x Hospital Fully air-conditioned.

For more information, please contact Geoquip Marine Group or visit us at geoquip-marine.com