

James Wiltshire

Offshore Client Representative and Site Investigation Geologist

Marine Geology Solutions Ltd
+44 (0)7517210633
marinegeologysolutions@gmail.com
www.marinegeologysolutions.com



PROFILE

James is an offshore client representative with over 20 years of marine experience in academic research, technical consultancy, and site investigation contractors.

Positions held have been; client representative, project manager, technical authority, project engineer, site manager, lead geologist, and engineer in charge.

Able to draw upon expertise based upon use and exposure to the primary equipment of seabed characterisation and sampling used in site investigation surveys.

Training and education to enable the evaluation of geotechnical and geophysical data, provide feedback to the project team of effectiveness, input into the design process going forward, undertake the design and review of proposed site investigations, and creation of geological ground models.

Proven to be able to introduce and maintain a strong safe working ethic into the vessel & crews, along with bringing together reporting systems, regular auditing & inspection, and thorough incident investigation.

A strong academic background of relevant offshore research topics together with training on research cruises with premier oceanographic organisations such as the Woods Hole Institute, Scripps Institution of Oceanography, Alfred Wegner Institute, GeoForschungsZentrum, and Massachusetts Institute of Technology (MIT).

ACADEMIC QUALIFICATIONS

- MScR Marine Geology (University of Cape Town, 2007)
- BSc (Hons) Quaternary Science (University of Cape Town, 2004)
- BSc Geological Science (Oxford Brookes University, 2001)

DEVELOPMENT SURVEYS

Offshore Wind Farms:

- Geophysical and geotechnical site survey
- Regional geology assessment
- Wind turbine generator foundation placement
- Metmast and substation platform foundation placement
- Intra-array cable routing

Oil and Gas Production:

- Platform foundation placement
- Pipeline routing and burial assessment
- Spudcan placement hazards

Subsea Cable Routing:

- International inter-connector power cables
- Power export cable to shore
- International telecoms cable and junctions
- Cable crossings

Coastal Construction:

- Tidal Lagoons
- Harbour and port development
- Passenger ferry terminal expansion
- Aggregate dredging
- Wave generator site viability

CERTIFICATIONS

- FOET including HUET, CAEBS, & ECT
- ENG1 UK Seaman Medical
- H2S EBA Basic Training
- IOSH Managing Safely
- IOSH Working Safely

NATIONALITY

British and South African

EQUIPMENT EXPERIENCE

Borehole Geotechnical:

- Wireline WIP sampler
- Wireline CPTu
- Rotary corer
- Triple-tube corer

Borehole Geophysics:

- P-S logger
- Gamma source logger
- Acoustic borehole imaging
- Seismic CPT
- Thermoconductivity CPT
- Magnetometry CPT
- High pressure dilatometer

Seabed Geotechnical:

- Vibrocorer
- Drop / piston corer
- Wheel-drive CPT
- Flexible-rod CPT
- Deep push CPT
- Hydraulic power grab
- Boxcorer

Shallow Geophysics:

- Side-scan sonar
- Magnetometer / Gradiometer
- Sub-bottom profiler
- Sparker / Boomer / Chirp UHRS
- ROV TSS Gradiometer

Benthic:

- Camera ROV
- Drop camera
- Day / Hammon / Van-Veen grabs
- Water samplers

MEMBERSHIP

Elected Member of the Institute of Marine, Engineering, Science and Technology (IMarEST)

Member of Society for Undersea Technology (SUT)

OFFSHORE EMPLOYMENT AND PROJECTS

Director & Offshore Client Representative Marine Geology Solutions, Hampshire, UK

2017 - Present

LanWin & BalWin Offshore Wind Farms, North Sea, Germany

IfG/TenneT and Intertek Metoc

2023 & 2024

Licensing authority technical representative ensuring technical compliance to the German BSH Standards of all parties undertaking geotechnical OSP foundations survey using rotary coring with down-hole CPT & push sampling.

Morven Offshore Wind Farm, North Sea, UK

BP/ENEW and RPS Energy

2023

Senior client representative overseeing technical and HSE representatives ensuring contractual and technical compliance and SIMOPS interaction of the GI contractor undertaking geotechnical WTG foundations survey using rotary coring with Geobor S; down-hole CPT & push sampling, P-S logging and acoustic borehole imager.

Central North Sea Electrification Cable, North Sea, UK

Harbour Energy and Verisub

2023

Onboard technical client representative ensuring compliance of the GI contractor undertaking a very fluid geophysical 2DHR & UHR survey of a power cable route, rig debris clearance within 500m zones, and environmental sampling, using differing airguns and streamers, pinger, side scan sonar, magnetometer, multibeam, drop camera frame and day/hamon grabs.

Baltyk 1 Offshore Wind Farm, Baltic Sea, Poland

Equinor and RPS Energy

2022 & 2023

Long-term onboard client representation ensuring contractual and HSEQ compliance of the GI contractor undertaking UUHRs and UXO geophysical survey and environmental sampling of a large-scale development site and power export cable route using Innomar SBP, sparker, ROTV side scan sonar, magnetometers, multibeam, drop camera frame and day grabs.

Xlinks Interconnector Cable, North Atlantic, Morocco, France & Spain

Xlinks and Marine Space

2022

Onboard client representative for feasibility route engineering of two subsea HVDC power cables ensuring contractual and HSEQ compliance of the GI contractor undertaking shallow seismic, sparker, ROTV side scan sonar, magnetometers, and multibeam hydrographic geophysical survey; technical support for evaluation of geophysical interpretation; assessment and approval of block reports and geohazard list.

Dudgeon and Sheringham Shoal Offshore Wind Farm Extensions, Southern North Sea, UK

Equinor and Atlas Professionals

2022

Long-term onboard client representation ensuring contractual and HSEQ compliance of the GI contractor undertaking geophysical UXO survey of a large-scale development site, and SIMOPS liaison with consecutive geophysical survey and scout vessels. Using multiple magnetometers mounted on twin Katria ROTVs, side scan sonar, and multibeam hydrographic survey equipment.

Five Estuaries Offshore Wind Farm, Southern North Sea, UK

RWE and Vysus Group

2021 & 2022

Onboard client representation ensuring contractual and HSEQ compliance of the GI contractor undertaking geophysical survey of a large-scale development site and power export cable route using sparker, ROTV side scan sonar, magnetometers and multibeam hydrographic survey equipment.

Eastern Link HVDC Interconnector Cable Lots 1 & 2, Southern North Sea, UK

National Grid and Intertek Metoc

2020 & 2021

Onboard client representative for route engineering survey of two subsea HVDC power cables ensuring contractual and HSEQ compliance of the GI contractor undertaking benthic camera and environmental sampling; shallow seismic with chirp and sparker, ROTV side scan sonar magnetometer, UXO and hydrographic geophysical survey; multiple CPT and VC sampling with lab testing; SIMOPS liaison with consecutive geophysical survey vessels, technical support for evaluation of geotechnical locations against the geophysical survey interpretation; assessment and approval of proposed onshore laboratory testing schedules.

East Anglia Offshore Wind Hub, Southern North Sea, UK

Scottish Power Renewables and Intecsea

2021

Onboard technical client representation ensuring contractual and HSEQ compliance of the GI contractor undertaking rotary coring with down-hole CPT & push sampling; SIMOPS liaison with consecutive geophysical survey vessels, and technical support for evaluation of geotechnical locations against the geophysical survey interpretation.

Seagreen Wind Farm, North Sea, UK

SSE and Cathie Associates

2018 & 2020

Onboard and reserve client representative for geotechnical WTG foundations survey ensuring contractual and HSEQ compliance of the GI contractor undertaking rotary coring with both API and Geobor S; down-hole CPT & push sampling; assessment of proposed onshore laboratory testing schedules for the Client.

North Field Expansion Platform Construction Survey, North Field, Qatar
Qatar Gas and DNV GL **2020**
Technical and QC authority for long term site survey of gas production platform foundations and connecting subsea pipelines within 500m exclusion zones; ensuring contractual and HSEQ compliance of the GI contractor undertaking down-hole CPT, push sampling & rotary coring, and PS Logging; providing additional onshore technical and QC support to other representatives during SIMOPS; critical review of contractor data and project documentation including SoW, PEP and RAs.

Gridlink HVDC Interconnector Cable, English Channel, UK
Gridlink Interconnector and Intertek Metoc **2019**
Onboard client representative for subsea HVDC power cable ensuring contractual and HSEQ compliance of the GI contractor undertaking multiple CPT and VC sampling; benthic camera and environmental sampling; technical and QC support during survey planning; critical review of developer and contractor project documentation including SoW, Technical Specifications, Procedures, and required standards.

Greater Changhua Wind Farm, Taiwan Strait, Taiwan
Ørsted and Cathie Associates **2018 & 2019**
Onboard client representative for WTG foundations and subsea HVDC power export cable survey ensuring contractual and HSEQ compliance of the GI contractor undertaking push sampling & rotary coring, deep-push CPTs with dissipation, thermal conductivity CPT, and VC sampling; technical support for evaluation of geotechnical equipment for further assignment; assessment of proposed onshore laboratory testing schedules in preparation of the Burial Assessment Report for the Client.

Dogger Bank Wind Farm, North Sea, UK
SSE & Equinor and Atlas Professionals **2019**
Onboard client representative for WTG foundations ensuring contractual and HSEQ compliance of the GI contractor undertaking deep-push CPTs with dissipation, and seismic and dummy CPTs; technical support for evaluation of geotechnical equipment for further assignment; SIMOPS coordination with concurrent geophysical survey.

Greenlink HVDC Interconnector Cable, Irish Sea, UK & Ireland
Element Power and Intertek Metoc **2018 & 2019**
Onboard client representative for subsea HVDC power cable ensuring contractual and HSEQ compliance of the GI contractor undertaking ROV cable crossing survey; benthic camera and environmental sampling; shallow seismic, side scan, UXO and hydrographic geophysical survey; multiple CPT and VC sampling; technical support for evaluation of geotechnical sampling locations against the geophysical survey interpretation.

NeuConnect HVDC Interconnector Cable, Southern North Sea, UK
NeuConnect and Intertek Group **2018**
Onboard client representative for subsea HVDC power cable ensuring contractual and HSEQ compliance of the GI contractor undertaking multiple CPT and VC sampling; technical support for evaluation of geotechnical equipment against the geophysical survey interpretation; assessment of proposed onshore laboratory testing schedules in preparation of the Burial Assessment Report for the Client.

FPSO Installations, Arabian Gulf, UAE
EPC Solutions **2017 & 2018**
Ongoing technical and QC support during tendering process for various planned floating production storage and offloading (FPSO) anchor point placements; including evaluation of contractor supplied geophysical & geotechnical survey data and reports in regard to potential seabed hazards.

Shetland Link HVDC Interconnector Cable, Scotland, UK
Prysmian Group and Next Geosolutions **2017**
Onboard client representative for subsea HVDC power cable ensuring contractual and HSEQ compliance of the GI contractor undertaking multiple CPT and VC sampling; benthic grab sampling; initial evaluation of geotechnical data against geophysical survey interpretations; initial preparation of the Burial Assessment Report for the installation contractor.

Senior Engineering Geologist & Technical Lead **2011 - 2016**
Atkins, Epsom, UK

Triton Knoll Wind Farm, Southern North Sea, UK
RWE Innogy and Statkraft **2015 - 2016**
Design and preparation of Scope of Work and Technical Specifications for geophysical, geotechnical and UXO investigations for WTG foundations and cable route locations; technical support for the evaluation and procurement of GI contractors; initial evaluation of incoming geotechnical, geophysical and UXO survey data.

Swansea Bay, Cardiff, And Newport Tidal Lagoon Generators, Wales**Tidal Lagoon****2011 - 2016**

Preparation of Desk Study reports and initial geological ground model of the site areas, including evaluation of geophysical survey data; the design and preparation of Scope of Work and Technical Specifications for further geotechnical investigations; production of full tender packages and technical management for the evaluation and procurement of GI contractors.

Beatrice Offshore Wind Farm, Moray Firth, Scotland**SSE and Repsol****2014 - 2015**

Onboard technical client representation ensuring contractual and HSEQ compliance of the GI contractor undertaking down-hole CPT, push sampling & rotary coring, and high pressure dilatometer logging; design and preparation of Scope of Work and Technical Specifications for geophysical, geotechnical and UXO investigations for WTG foundations and cable route locations; technical support for the evaluation and procurement of GI contractors; initial evaluation of incoming geotechnical, geophysical and UXO survey data; the evaluation of previous GI data and the expansion and refinement of a previous 3D geological ground model with IHS Kingdom.

Doha Metro Red Line South, Qatar**Qatar Rail and QDVC****2014**

Managing the formation and training of an onsite team of geotechnical engineers undertaking inspection and characterisation of live open cut station-box excavations and passages; creation of ongoing project reporting structure and templates; evaluation of ground models, core data and geophysical interpretation against encountered ground conditions; liaison with Client's engineering teams, site managers and project designers.

Rampion Offshore Wind Farm, English Channel, UK**E.ON Climate & Renewables****2011 - 2014**

Senior onboard client representative managing teams across multiple vessels and ensuring contractual and HSEQ compliance of the GI contractor undertaking down-hole push sampling & CPT, seismic CPT & P-S logging, gamma source logging, and rotary coring with API and Geobor-S system; design and preparation of Scope of Work and Technical Specifications for geophysical, geotechnical and UXO investigations for WTG foundations and cable route locations; technical support for the evaluation and procurement of GI contractors; initial evaluation of incoming geotechnical, geophysical and UXO survey data; the creation of a 3D geological ground model with IHS Kingdom.

Galloper Offshore Wind Farm, Southern North Sea, UK**SSE and RWE Npower Renewables****2012 - 2014**

Onboard client representation ensuring contractual and HSEQ compliance of the GI contractor undertaking down-hole CPT, push sampling and P-S logging; design and preparation of Scope of Work and Technical Specifications for geophysical, geotechnical and UXO investigations for WTG foundations and cable route locations; technical support for the evaluation and procurement of GI contractors; initial evaluation of incoming geotechnical, geophysical and UXO survey data; the creation of a 3D geological ground model with IHS Kingdom; technical support during external assurance audit.

West Anglia Main Line, London, UK**Network Rail****2014**

Onsite supervision of multiple teams undertaking a GI on a railway trackside; liaison with Client's engineering and safety teams; approval of sampling and trial pits and evaluation of recovered samples; scoping of second phase GI.

M1 Motorway Junctions 19-16, Northamptonshire, UK**UK Highways Agency****2014**

Onsite supervision of multiple teams undertaking a GI on a closed carriageway; liaison with Client's engineering and safety teams; approval of traffic management planning; evaluation of recovered core samples, SPT, and CPT data, preparation of laboratory testing schedule.

Courseulles Sur Mer Wind Farm, France**Eolien Maritime France****2013**

Evaluation of supplied geological and geophysical data from three wind farm sites to create a ground models; determination of required engineering parameters for the met-mast platform foundation design.

Gumusut-Kakup Semi-FPS Launch, Malaysia**Global Maritime****2012**

Client support by comparison of geophysical survey data with piling installation logs in order to evaluate the contractor's conclusions and verification of proposed foundation design for the lift and skid areas of a dockside launch facility.

Cleeton Platform, North Sea, UK**BP****2012**

Evaluation of supplied geophysical survey data and reports to determine any potential seabed hazards to planned jack-up rig spudcan placements within 500m exclusion zone during renovation works.

Block 61 Central Processing Facility, Oman**BP****2012**

Creation of initial ground model using supplied geophysical survey, geotechnical borehole data, and trial pit descriptions; Client support through evaluation of the GI contractor's methodology and assurance of conclusions.

**Geosciences Projects Manager & Offshore Manager
Partrac, Glasgow, UK**

2010 - 2011

**London Gateway Port Development, Essex, UK
Dredging International and DP World**

2010 - 2011

Offshore manager undertaking a continuous programme for regular sediment & water sampling campaigns and discharge monitoring from the site works and dredging vessels; onboard technical client representative using barge deployed CPT magcone and push sampler for UXO investigation, along with laboratory analysis of sediment core samples for licence application of new dredging sites.

**DEFRA Research Project, UK
ADAS Consultancy**

2010 – 2011

Design and implementation of UK nationwide agricultural study to evaluate the effectiveness of riparian buffers at preventing soil erosion from ploughed fields by use of seeded florescent/magnetic tracer particles and magnetic recovery traps.

**US Government Research Project, Moloka'i Island, Hawaii
US Geological Survey**

2011

Methodology design of an investigation into the input and dispersal of volcanoclastic terrigenous sediment into a coastal coral reef ecosystem by use of seeded florescent/magnetic tracer particles and magnetic recovery traps.

**Clyde Passenger Ferry Terminal, Glasgow, UK
Clydelink and Atkins**

2010

Onboard client representative for the recovery and laboratory test scheduling of sediment core samples for a dredging licence on the River Clyde, Glasgow, using a seabed deployed high-power vibrocorer.

**Offshore Geologist & Client Representative
Freelance Contractor**

2010

**Geotechnical Equipment Evaluation, Portsmouth, UK
Emu Survey**

2009

Providing an independent evaluation and witnessing initial operation of newly commissioned seabed deployed vibrocorer and piston corer sampling units prior to final payment and commercial introduction.

**BP Ula Platform Pipeline, North Sea, Norway
Coastline Surveys and Deep Ocean**

2009

Recovery and laboratory analysis of sediment core samples, along with in-situ testing and ROV inspection of a proposed pipeline route in the Norwegian Sector within 500m exclusion zone, using thermal conductivity testing, seabed deployed high-power vibrocorer and Roson PCPT.

**Bristol Dockyards Deep Sea Container Terminal, Bristol, UK
Coastline Surveys and Arup**

2009

Recovery and laboratory test scheduling of sediment core samples for environmental monitoring around the sea container terminal, using a seabed deployed high-power vibrocorer and box corer.

**English Channel Academic Research Project, East Sussex, UK
Coastline Surveys, Hanson Marine, and University Of Liverpool**

2009

Overseeing recovery of sediment core samples for OSL dating off Beachy Head for an industry sponsored PhD student, using a seabed deployed high-power vibrocorer and grab sampler.

**Shell Pipeline Route Investigation, North Sea, Netherlands
Fugro and Shell**

2009

Geophysical survey and recovery and laboratory analysis of sediment core samples, along with in-situ testing of a proposed pipeline routes in the Dutch sector using thermal conductivity testing, seabed deployed Roson PCPT, high-power vibrocorer, sub-bottom profiler, side scan sonar and magnetometer.

**Donegal Wave Generator Site Investigation, Co Donegal, ROI
Sustainable Energy Ireland**

2009

Recovery and laboratory analysis of sediment core samples, along with in-situ testing of a proposed wave generator test site and power export cable route off Donegal Bay, using a seabed deployed Roson PCPT, high-power vibrocorer and Hamon grab.

**Lead Offshore Geotechnical Engineer & SIC
UTec Survey, Lowestoft, UK**

2007 - 2009

**IMEWE Fibreoptic Undersea Cable, Mediterranean Sea
Alcatel Lucent Submarine Networks**

2008 – 2009

Geophysical survey and recovery and laboratory analysis of sediment core samples, along with in-situ testing of a fibre optic telecom cable route across the Mediterranean from Gibraltar to Egypt using a seabed deployed Neptune PCPT, piston corer, sub-bottom profiler, side scan sonar and magnetometer, hammon grabs.

**UK Aggregate Deposit Evaluation Studies, Irish Sea And Southern North Sea
Coastline Surveys and Cemex**

2008 – 2009

Seabed sampling and evaluation program of various proposed aggregate extraction sites around the UK continental shelf using a seabed deployed high-power vibrocorer and Hamon grab.

**Adriatic LNG Pipeline Route Investigation, Venice, Italy
CTC Marine and Cathie Associates**

2008

Recovery and laboratory analysis of sediment core samples, along with in-situ testing of a proposed tanker terminal pipeline route in the Venice Lagoon, using thermal conductivity testing, seabed deployed high-power vibrocorer and Neptune PCPT.

**Postgraduate Student and Freelance Consultant
University Of Cape Town, RSA**

2003 - 2007

MSc Thesis Research

University Of Cape Town and Inkaba Ye Afrika

2005 - 2007

Research and authoring of MSc Geology thesis '*Late Quaternary sedimentation on the continental slope off Cape Columbine: Variations in off-shelf transport related to sea level*'; using carbonate and terrigenous sediment stratigraphy at the continental shelf/slope break to ascertain bottom transport mechanisms and derive a proxy for calculating palaeo-sea levels.

Research Cruise KNOX06RR, Indian Ocean

Massachusetts Institute Of Technology (MIT), Woods Hole Oceanographic Institute, Scripps Institution of Oceanography, and Texas A&M University

2007

A 3-month research cruise aboard the US vessel RV Roger Revelle to recover and classify basalt and carbonate samples by dredging, and undertaking seismic profiling and charting of the Ninety East Ridge in preparation for a proposed future Ocean Drilling Program drilling leg.

Research Cruises M57/1 & M63/1, South Africa, Namibia, and Mozambique

University of Bremmerhaven, Alfred Wegner Institute, Geoforschungszentrum, and University of Cape Town

2003 & 2005

Two 2-month research cruises aboard the German vessel RV Meteor and follow up laboratory analysis. Role involved ensuring the expedition complies with territorial licence requirements; recovery of giant gravity core samples; logging the geochemical profiles of the sediment and water column; grain size/carbonate/mineral analysis, and undertaking seismic profiling & charting of the continental shelf/slope of Southern Africa.

Independent Sedimentological Consultancy Report, South Africa

BHP Billiton

2004

An independent laboratory analysis of recovered giant pistoncore samples, and authoring of geotechnical report; *Sedimentology of BHP Cores 037/038/047/048 from the upper slope of the western continental margin of South Africa.*

Independent Geomorphological Consultancy Report, South Africa RSA Dept of Environment and Natural Resources

2003

Part of a multidisciplinary team providing an independent evaluation of the interpreted relationship of hominid-produced middens to interglacial palaeo-beach deposits at Mossel Bay, Western Cape in respect to an excavation licence and funding application by Arizona State University.