RICHARD S. MILES – CEng. MICE, BSc (Hons) Civil Engineering
MILES OFFSHORE SERVICES LIMITED
'CREDENTIALS'

Experience

Specialist technical expertise in grouting and cementing techniques for the installation and strengthening of offshore platforms, pipelines, monopiles, etc. with extensive experience and knowledge in the use of cementitious grouts for foundations and structural connections, underbase and suction piles. This often required attendance at offshore sites and locations included Alaska, Gulf of Mexico, North Sea, UAE and China and given the individuality of each project, the work often required unique and innovative solutions to difficult problems; in this respect regarded by many people in the oil & gas and renewables industries as an expert in the field of structural grouting.

Held management positions in the offshore industry since 1985. Experienced in many aspects of offshore projects encompassing engineering, construction, installation, repair and maintenance of offshore platforms, subsea templates and pipelines, including:

- Project management
- Operations management
- Project cost control & commercial management
- Management and supervision of personnel
- Offshore construction planning
- Design of grouted connections for pile sleeves and strengthening schemes
- Design of pipeline & umbilical free span correction, stabilisation and repair schemes
- Preparation of method statements and procedures
- Design of structural installation methods

Some notable engineering achievements include:

- Engineering development of the solution to stabilise a concrete gravity base structure offshore Sakhalin Island by underbase grouting.
- Technical development of remote (ROV) grouting techniques to +1,000m w.d.
- Design and development of grouted repair to a buckle at ExxonMobil's Skene bundle
- Sodium Silicate grouting of tunnel crossings beneath the Kura River (Azerbaijan)
- Detailed design of dropped object protection structures, and the stabilisation of subsea templates and pipelines

Background

A Chartered Civil Engineer with more than 30-years' experience in the oil & gas industry and a leading specialist in grouting techniques. In 2007 established Miles Offshore Services Limited providing specialist consultancy and technical expertise to the oil & gas and renewable energy industries. Prior to this was employed by FoundOcean/SeaMark Systems Limited (formerly the Offshore Division of Wimpey Laboratories).

A shareholder in the management buyout of SeaMark Systems in 1995 (re-branded FoundOcean in 2006) was a Board Director in the Company for more than 10-years. Reporting to the CEO and with profit responsibility for the offshore business, undertook a wide range of responsibilities including client liaison, business acquisition, contract negotiation, engineering & project management, planning & operations for the assignment of resources and assets, implementation of Company's QHSE systems, and overall supervision of projects to ensure required standards were achieved.

2007 To date **Miles Offshore Services Limited – Independent Consultant**

Providing specialist consultancy and technical expertise to the oil & gas and renewable energy industries, specifically related to construction, structural integrity management, repair and strengthening applications using cementitious and high strength grouts. Projects encompass conceptual studies, project management and the provision of specialist personnel for offshore construction and grouting operations. Clients and projects include:

- Seaway Heavy Lifting, RWE Gwynt y Môr Wind Farm – Provide expert opinion on the quality and performance of the transition piece grouting operations and assist SHL with technical audit of the grouting subcontractor.
- Saipem UK Limited – Provision of specialist expertise to determine the in-situ integrity of the grouted pile connection to substantiate the salvage methodology for the removal of the Statoil A/S Ekofisk 2/4S Platform. Work included preparation of procedures for the recovery & testing of grout samples, together with on-site support to the ROV operator.
- Trianel Windkraftwerk, Borkum West II Wind Farm – Technical review of and recommendations for the grout delivery system, together with selection of grout mixture to achieve the specified design requirements.
- Technip Oceania (Chevron Australia) – Wheatstone SGS - FEED Study to establish the requirements for installation of a grouted layer between the steel gravity structure and the foundation material, including development of a conceptual design for the underbase grout delivery system, perimeter containment, materials, grouting procedures and construction schedules.
- Shell Expro BV - Technical assessment of repair scheme to Far East gas pipeline. Responsible for developing concept for the grout stabilisation of rock berm to mitigate scour and turbidity current effects by use of tracked ROV.
- Shell Expro/Atkins Oil & Gas - Technical assessment of caisson repair scheme with recommendations for remedial operations to strengthening clamps using high performance and ultra-high performance grouts.
- ULO Systems FZC – Established long-term agreement to provide technical and commercial expertise for the provision of structural grouting services to the oil & gas and the offshore wind renewable industries that resulted in almost 100-projects over a period of 8-years. Responsibilities included the development of financial models, preparation and presentation of tender documents, contract negotiation and project management.
    - As Acting General Manager for ULO during 2014 and working from their UAE Sharjah Base was responsible for the on-going commercial & operational performance of the Company and assisted with the selection and appointment of a new General Manager.

1987 to 2006 **FoundOcean Ltd - formerly SeaMark Systems Ltd / Wimpey Geotech Ltd**
(SeaMark acquired Wimpey Geotech in 1993)

Operations Director responsible for providing specialist products and pile grouting services to the oil & gas industry, including foundations engineering, the design of subsea protection and stabilisation schemes and structural strengthening, inspection, repair and maintenance works. Extensive experience in piled foundations and grouted connections together with IRM works for steel and concrete structures including detailed design, preparation of construction procedures and planning associated with the installation of permanent and temporary structures, co-ordination of personnel and equipment. Subsea experience includes the design of reinforced concrete and grout filled protection structures for the stabilisation and protection of templates and pipelines, utilising both diver and ROV techniques

Where-as almost 500 individual platform pile grouting, pipeline stabilisation and structural strengthening projects were successfully performed during the period, notable achievements included the following Projects:

- ExxonMobil - Thebaud platform, jacket strengthening by filling main piles/legs using pressure grouting techniques
- BP - Valhall WIP development of procedures and offshore operations for grouting of piggy-back piles using Densit Ducorit high performance cement grouts
- Statoil – Kvitebjorn, development of procedures, including full scale trials, for the use of Densit Ducorit materials for leg infill grouting

- Veba Oil – Hanze F2A, material selection and engineering procedures for the onshore ballasting of tank substructure using 33,000 tonnes high density concrete 'orecrete'; subsequently offshore underbase grouting using a sodium silicate cement mixture
- Kvaerner Oil & Gas – Siri, materials selection and development of procedures using sodium silicate cement grouts for underbase grouting & for impact protection of tank roof
- Amerada Hess – Garden Banks Block 260, material selection and grouting methodology for compliant tower in 500m w.d.
- Puerto Rico Dev. Council – Ponce ocean outfalls, design of fabric formworks, grout system and procedures for placement using ADS
- Alcatel – Haenam to Chesu power interconnection, impact protection. Development of equipment, material selection and procedures for the continuous production of fibre reinforced grout, for filling 2 No. x 40Km long fabric mattresses
- Statoil - Sleipner SLT, material selection, development trials and preparation of procedures for grouting of foundation 'buckets' using sodium silicate cement grout
- Phillips Petroleum Norge - Ekofisk complex, strengthening of tubulars and nodes using Densit Ducorit high performance grout for the deck elevation project
- Shell Expro, development of procedures, including trials, for the sealing and plugging of ducts, pipe penetrations, etc. at Brent A, Cormorant A and other locations, using hot-tap grouting techniques
- EPA/MMS, USA: Environmental clean-up of spilt materials using grouts for the subsea encapsulation of the hazardous waste product prior to recovery by ROV
- Exxon SYU – Harmony & Heritage, responsible for technical development of procedures for ROV deployment and grouting of fabric formworks - an industry first; from underwater trials at Texas A&M University through to successful offshore application. This project also required specialised light-weight grouts due to the soft sea beds
- Petrobras – Marlim, enhancement of the Exxon SYU ROV techniques for deployment and grouting of pipeline stabilisation fabric formworks to +1,000m w.d.
- Conoco – Green Canyon 184, material selection and procedures for ROV pile grouting of foundation templates at 550m w.d. Techniques subsequently implemented for pile grouting at Shell Oil's 'Bullwinkle' and BP's 'Pompano' platforms; w.d's circa 400m.

1985 - 1987 George Wimpey Inc. Houston, USA

Project Manager responsible for establishing an operations office and the expansion of Company's specialist grouting services in the USA, producing a significant turnover growth over an 18-month period. Developed Company capability and market presence, liaised with clients, prepared tenders and negotiated terms and conditions for projects. Responsible for overall supervision of projects to ensure required standards were achieved, within budget and schedule, together with implementation of Company's QHSE systems. Notable achievements include:

- Technical development and promotion of ROV subsea grouting techniques; first utilised by Mobil Oil for the grouting of the Green Canyon Block 18 platform.
- Seconded to Marathon Oil, Anchorage, as Foundations Engineer for the installation and grouting of the Steelhead Platform in the Cook Inlet, Alaska.
- Structural grouting projects at Chevron's Hermosa, Gail & Hidalgo platforms and Texaco's Harvest platform.

1984 - 1985 Heerema Engineering Services (UK) Limited

Structural Engineer responsible for all aspects for the load out and installation of platforms, modules and templates, encompassing detailed design of transportation sea fastenings, including site inspection prior to load out; analysis of lift frames, rigging systems and lifting attachments; subsea surveys and positioning systems for jackets and templates; spool piece installations; offshore supervision; preparation of manuals providing detailed procedures for all installation aspects for jackets, topsides and templates.

1983 - 1984 Wimpey Laboratories Limited

Senior Civil Engineer, Offshore Grouting Division. Responsibilities included client liaison; project engineering; implementation and monitoring of Company's quality assurance & safety procedures; supervision and co-ordination of all offshore project activities together with monitoring of competitor activity to maintain market viability. Responsible for the overall supervision of almost 30-pile grouting projects to ensure required standards were achieved.

1982 - 1983 Wimpey Offshore Engineers and Constructors

Civil/Structural Engineer assigned to the design and construction of a substantial grouted subsea repair scheme to strengthen framing on the Elf A/N DP2 Platform. Responsible for detailed design of stress grouted clamps; preparation of contract documents, drawings & specifications; negotiated subcontract terms/conditions; co-ordination of engineering & fabrication activities; preparation of installation/grouting procedures; offshore supervision of subcontractors during installation of the repair scheme.

1982 Heerema Engineering Services (UK) Limited

Seconded to Heerema's London Office to develop the installation and grouting procedures for the Conoco Hutton Tension Leg Platform, the industry's first TLP. Responsible for producing the installation manual defining all diving and grouting procedures necessary for the placement of the four foundation templates.

1981 - 1982 Wimpey Laboratories Limited

Project Engineer assigned to various offshore construction projects including pile grouting, cement logging, radioactive grout density monitoring and structural repair & maintenance contracts. Responsible for the preparation of procedures, offshore supervision and client liaison and ensuring that the work was undertaken in accordance with the required standards. Notable achievements included:

- BP Magnus: Assisted in developing the contingency grouting scheme at the offshore site following significant failures to jacket grout piping.
- Conoco Hutton TLP project: Assisted with the technical development and successful introduction of a computer-operated acoustic cement logging system for the template pile grouting.

1977 - 1981 George Wimpey & Co. Limited

Company Indentured Engineer training under an Institution of Civil Engineers Registered Agreement and undertaking a sandwich course, attending The City University, London, from 1977 to 1981. Construction experience gained in the administration and supervision of various contracts, which included:

1980 - 1981 Site and Planning Engineer at Highlands Fabricators Limited, Nigg Bay constructing the BP Magnus platform, working for both the Dimensional Control and Planning Departments.

1979 - 1980 Assistant Engineer working for the Geotechnical Division, Wimpey Laboratories, Scotland. Responsible for land stabilisation and remediation contracts using infill consolidation grouting techniques, and also for bridge refurbishment contracts. Offshore Engineer, supervising pile grouting at Conoco's Murchison Platform and subsequently at Gorm 'B' Platform, North Sea.

1978 - 1979 Assistant Engineer, working on various housing projects for the Planning and Design Department of Wimpey Homes, Bristol Region.

1977 - 1978 Measurement Engineer on an open cast coal site, for Wimpey, Newcastle.