

Detailed CV of William David Richard Hughes

Part A – Expert Witness summary

Part B - Consulting and work experience



Part A – Expert Witness summary





WILLIAM DAVID RICHARD HUGHES 02-12-1955. British

PASSPORT AND DRIVING LICENCE COUNTRY OF ISSUE:	United Kingdom for both Documents.
ROLES	Sole Expert. Joint Expert. Arbitrator. Investigator.
EDUCATION &TRAINING:	Royal Navy Accredited Technical Education 1971 – 1980. Root Cause Analysis –Process Improvement Institute – Houston. Safe Hull analysis for Marine applications (Residential) – American Bureau of Shipping Huston. Safety and Risk Practitioners role in CDM Regulation update and examination – APS Edinburgh. Bowtie Analysis. General QHSE courses (details available on request). General Technical Safety Courses (details available on request).
PROFESSIONAL MEMBERSHIP:	UK Chartered Engineer (CEng- 674871). Fellow of the Royal Institute of Naval Architects (0042899). Fellow of the Institute of Marine Engineering Science and Technology (8081158). Fellow of the Chartered Management Institute (P05078980). Corporate Member of the International Institute of Risk and Safety Management (309242). Corporate Member of the Safety and Reliability Society (2115/M). Corporate Member of the Institute of Engineering and Technology (MIET – 00513144). Corporate Member of the Association of Project Management (PO297924). Vetted and registered on the UK Register of Expert Witness. Vetted and registered on the National Expert Witness Agency (NEWA).
SOCIETY MEMBERSHIPS	Member of the Association for Facility Engineering. Member of the Society of Petroleum Engineers.
PANELS	Specialist Member of CDIOF Specialist Member of Non Ferrous Metals Alliance (COMAH)
SPECIALIST AREAS	 Incident/Accident Investigation as both investigator and Expert Witness. This has included representation at Legal proceedings, Tribunals and Court settings both in the UK and Overseas. Report preparation and delivery for Regulators, Courts and Tribunals. Loss investigation which has included claims assessment for both plaintiff and defendant which also included arbitration evidence provision and appearance at meetings and tribunals. This has been centred around Project Management, Systematic failures (HSEQ, etc), claims for physical (equipment) and management (time and cost). This has related to construction and total loss of asset claims in varying industrial settings. Peer review and Due Diligence review and reporting.
SKILLS	Risk, HSEQ and Integrity Consultant.
PREVIOUS ROLES	Project Engineer, Marine Engineer, HSEQ Manager and Consultant.
LOCATIONS	 Worked on projects in the following areas. Europe (UK, Norway, Denmark, France, Cyprus, Belgium and Monaco). Middle East (Kuwait, Kurdistan, Qatar, KSA, Bahrain, UAE and Oman). Americas (Brazil, USA and Mexico).



	 Africa (Cote de Ivory, Ghana, Nigeria, Namibia, Gabon and South Africa). Asia and Far East (Australia, Thailand, India, Brunei, Singapore, China and
	Myanmar).
BASE LOCATION:	Carlisle, United Kingdom.
1 6 -	A Professional with over 35 years of both National and International experience in the fields of HSEQ, Technical Safety and Integrity across wide ranging industrial applications. These include Construction, FEED and EPIC, Onshore Oil and Gas, Offshore Oil and Gas, Chemical, Utilities, Storage and Warehousing Transportation (Rail, Air and Sea) and Marine (Ports, Construction, Pipelay and Vessels).
TRAINING APPLICATIONS	 ✓ Hazard Identification and Environmental hazard identification training and leadership studies. ✓ Accident and Incident investigation. ✓ Risk assessment. ✓ Safe Systems of work, Ergonomics and Human Factors. ✓ Risk and vulnerability study leadership/chairmanship. ✓ SECE/Performance standard development leadership. ✓ Management systems Gap analysis and structure leadership/chairmanship. ✓ Job task risk assessment. ✓ QRA Training and quantification/sensitivity workshops. ✓ Root Cause Analysis leadership/ investigator/chairmanship and training. ✓ PHSSER, SHEAMS, SWIFT, Bows Tie and PHA Leadership/chairmanship. ✓ LOPA/SIL graph and table lead study leadership. ✓ Human Factors and Safety Critical Task Analysis. ✓ Occupational HSE programme leadership, behavioural safety and training Applications.
CORE SKILLS FOR INVESTIGATION AND EXPERT WITNESS	 ✓ Accident and Incident investigation, prevention, control and human factors. ✓ Functional Safety Assessments 1 – 5 and Verification. ✓ Fire and Explosion. ✓ ATEX/DSEAR investigations and assessments. ✓ Process and Chemical failures. ✓ Permit to work and isolation. ✓ Machinery safety and guarding (PUWER). ✓ Work at height and falling objects including LOLER. ✓ Risk assessment and training. ✓ COSHH and EMS. ✓ Manual Handling. ✓ Workplace transport. ✓ Construction Design Management Regulations (CDM). ✓ Safety Management systems. ✓ Safe systems of work. ✓ Culture and behavioural safety. ✓ SHEQ Inspection, audit and continuous improvement programme development and implementation. ✓ Technical and process safety failure assessments. ✓ Lifting and transportation (Land and Marine). ✓ Shipyard activities. ✓ Insurance risk, Claims Management and Expert Witness. ✓ Report preparation and giving of Evidence both Legal and Regulatory settings ✓ Marine Operations and design.
	✓ Hazardous area assessment and Workplaces including COVID 19



Personal Injury and Loss

Piper Alpha Investigation

Engaged as part of the investigation team for Cremer and Warner on behalf of the UK Department of Energy. The role was to support the Lord Cullen Technical Panel into the investigation of the events leading to the Piper Alpha fires and explosions with subsequent loss of life and asset. Provided reports and briefings for Council at all stages of the Inquiry.

Kings Cross Investigation

Engaged as part of the investigation team for Cremer and Warner on behalf of the UK Department of Transport. The role was to support the investigation of the events leading to underground system fire at Kings Cross and explosions with subsequent loss of life and asset. Provided reports and briefings for Council at all stages of the Inquiry.

Clapham Junction Incident Investigation

Engaged as part of the investigation team for Cremer and Warner on behalf of the Anthony Hidden (QC) Investigation team. The role was to support the Technical Panel into the investigation of the events leading to the incident and investigation for failure modes with the "WARS" that was in pace for signalling and potential Human Failure using Root Cause and THERP software. Provided reports and briefings for Council at all stages of the Inquiry.

Personal Injury investigation for Wood Group North Sea

Investigation initiated by Wood Group North Sea to support their internal Legal department to determine cause and potential liability for an injury sustained by a contracted employee during lifting operations on the Brent Charlie Offshore facility during maintenance and work over operations.

Employee injury due to rotating equipment accident

Investigation initiated by a canning and conveying company based in the NW of England which resulted in a debilitating injury to an employee. HSE improvement notices were issued as well as personal injury claim against the Company

Crane Collapse

Engaged by Al Ain Ahlia Insurance Company for an investigation following a collapse of a crane boom during a heavy lift operation at the National

Petroleum Construction Company site at Sadiyatt Island in Abu Dhabi. The crane owner was Al Jabeer and the operation were jointly supervised by NPCC rigging personnel and Al Jabeer the accident resulted in several injuries and asset damage. The investigation was conducted under UAE Federal Law and Ministerial Decree.

Personnel Injury

Engaged by CEONA to undertake an independent investigation to review safe work practices and equipment integrity for an incident resulting in injury and asset damage during Lifting, pipelay and tie back operations as part of Offshore EPIC programme for offshore floating facilities operations.

Personnel Injury

Engaged by Corker Binning on behalf of C.RO Ports to undertake an independent accident investigation following personnel injury at the Killingholme Port Facility, Humberside, UK.

Personnel Injury

Engaged by Attias and Levy, Gibraltar for crush injury to personnel during lifting operations at GIBDOCK, Gibraltar as expert witness and submission reporting.

Personnel Injury

Engaged by Thompson Solicitors Edinburgh for serious injury to employee in



performance of work duties at Stagecoach Glenrothes. Case settled out of Court.

Personal Injury investigation for 6 Construct - UAE

Investigation initiated by 6 Construct following investigation and Court proceedings being issued by the Abu Dhabi Federal Court. Conducted accident investigation and reported on the fatalities of four workers due to gas explosion.

Multiple Fatality Investigation and reporting for Consolidated Contractors Company - UAE

Investigation initiated by CCC due to cofferdam collapse and the fatal loss of personnel. Investigation. Provided testimony for CCC legal Counsel.

Employee injury due to rotating equipment accident

Investigation initiated by a canning and conveying company based in the NW of England which resulted in a debilitating injury to an employee. HSE improvement notices were issued as well as personal injury claim against the Company.

Employee injury and Asset damage due to Fire

Engaged to support an investigation of a fire incident that also resulted in employee injury and loss of assets. The Injury and Loss occurred to a fire in the chemical refining processes on a Chemical Facility in Flimby, Workington, Cumbria.

Employee injury and Asset damage due to Machinery guarding

Engaged to support an investigation of a loss of limb accident resulting in cranage and lifting operations. This was conducted in the UAE under UAE Federal Law Regulations and Ministerial decree.

Worker Fatality

Providing expert witness support to Greater Manchester Police (GMP) relating to a fatality incident in lift maintenance operations at Oldham General Hospital. Report for HM Coroner.

Loss Investigations

Tank Collapse Abu Dhabi United Arab Emirates

Investigation initiated by Abu Dhabi Oil Company (ADNOC) following a collapse of a crude oil tank during the construction phase of the Umm Al Nar Refinery in Mussafah area Abu Dhabi. The main contractor was Six Construct but also there were three other contractors under subcontract arrangements supporting this activity. The accident resulted in two fatalities, several injuries and asset damage.

British Gypsum Lopulco Mill Explosion, Kirkby Thore, Cumbria.

Internal investigation initiated by British Gypsum to determine cause and remedial risk improvement measures following an explosion of number 1 Lopulco Mill process at British Gypsum Plant at Kirkby Thore in Cumbria. This case investigation covered employee injury as well as plant damage.

Gas Turbine Fire and Explosion Centrica Easington Facility

Engaged as part of the investigation team for Cremer and Warner on behalf of Centrica to determine the cause of a fire and explosion to gas turbine house and equipment. The remit was to determine causation as well as to table quantities for loss of production and rebuild of facilities. Inherent design considerations with the manufacturer of the Turbines were undertaken as part of the causation and mitigation measures. Supported Arbitration meetings and advised Client.

Hydrogen Explosion at INCO Refinery Swansea.

Internal investigation initiated by INCO following an explosion within its nickel extraction process, namely the hydrogen plant. The explosion caused structural damage, downtime, and injury to three employees who suffered burns during planned change over



and maintenance activities at the refinery. The case was investigated and taken to court for prosecution by the HSE where I provided expert witness evidence.

Environmental Pollution

Engaged by Lawson Mardon Packing and Printing to support an investigation into alleged pollution of the SSSI site Salter beck Burn adjacent to their facilities on the Salter beck Estate, Workington, Cumbria. A notice of intention to prosecute was issued by the Environmental Agency due to damage to flora, fora and aquatic life. Prepared case for defence against Environmental Agency summons which resulted in official (non-legal) hearing and evidence.

Fire and Explosion

Investigation for Tank and Marine Storage area fire and resulting explosion at LUBREF facilities in the Kingdom of Saudi Arabia. Further supported the loss investigation with reports for Loss Adjusters as well as Insurers. Provided Mediation support of financial loss agreements.

Crane Collapse

Engaged by Al Ain Ahlia Insurance Company for an investigation following a collapse of a crane boom during a heavy lift operation at the National Petroleum Construction Company site at Sadiyatt Island in Abu Dhabi. The crane owner was Al Jabeer, and the operation were jointly supervised by NPCC rigging personnel and Al Jabeer The accident resulted in several injuries and asset damage. The investigation was conducted under UAE Federal Law guidance. Further review reinstatement cost and loss as part of the claim process.

Pipeline Loss

Ahlia Insurance Company to assess possible loss of significant GRP pipeline construction and materials site due to flash flooding in the Al Ain desert, Abu Dhabi UAE. The assessment was to determine the credibility of the main contractor Tannorri Engineering claim for £3 million loss of pipeline, construction/trenchworks and material due to the incident. Provided support as part of the arbitration of loss in UAE.

Fire and Explosion

Engaged directly by the Company (Client) to assess failures in design supplied equipment that resulted in a fire and ensuing dust explosion of a Coffee Manufacturing process (Raw – Finished). Developed a report that was used in mediation and settlement.

Waste Plant Loss

Engaged by Bankside Solicitors for Expert Witness report on potential engineering design failures and contractual issues for SRF pellet plant following fire cases. Preparing case file for arbitration between Principal Contractor and Designer under CDM.

COVID 19 - Investigation

Review of Food and Beverage facility for breaches in COVID 19 Risk requirements. Undertook full review and reporting on failures to support case actions.

Mediation and Support

Mediation with UK HSE

Provided mediation support to a Major Drilling Contractor supporting defence against IDMSO UK HSE audit findings and subsequent rectifications.

Mediation with UK HSE

Provided mediation support to a Client (Graphix) supporting defence against closure by the UK HSE. Result was non closure of site with agreed special measures which were completed



Arbitration Support

Petrobras P36 (Spirt of Columbus)

Engaged as part of the investigation team for Poyry Aberdeen to assess the overall loss of production and construction costs for the P36 rig following total loss due to fire and explosion which also incurred 11 fatalities. The review was to establish fair and reasonable reimbursement for the rig (Scott Company) and damage sustained to the Marlim Field facilities. Specialist focus was on HSE and Safety related systems costs and suitability This included the development of report for the arbitration session and meetings with Council.

Arbitration Lamprel Drilling

Provided support for the HSE performance and verification aspects of marine systems and upgrades of an offshore drilling unit upgrading for Lamprel. This was due to cancellation of contract and claim for work undertaken.

Arbitration ECO Power and Perry

Provided input to HSE, CE Marking and technical engineering interfaces for claim for inadequate supply on manufactured items for waste treatment drying system and supporting engineering controls and manufactured belts.

Arbitration Dodsal GMBH and WM Kellog

Part of Dodsal claim team for variations and changes requests for work undertaken and disputed by Kellog. This was for major equipment changes a at Umm Al Nar refinery expansion UAE.

Arbitration NPCC and Daewoo Shipbuilding

Part of NPCC team for disputed costs and arbitration relating to the build of the pipelay barge IN South Korea.

Arbitration BGC / AVAX SA

Engaged by Eversheds-Sutherland as part of a team to support arbitration case relating to dredging and jetty rehabilitation works at Jetty 2 at the Umm Qasr Marine Terminal, Basrah Iraq.

Marine Projects

Lloyds Insurers

Undertook damage survey for the Total ABK platform in the UAE following war Damage. Provided report of platform integrity and estimated damage costing.

Llovds Insurers

Undertook damage survey, vessel loading and transportation inspection and supervision of repairs for the UAE Royal Yacht Annad after extensive hull damage.

American Bureau of Shipping

Classification Society surveys and examinations.

Regulatory submissions, supporting Legal cases and loss assessments for Adjusters and Brokers.

Matthews Daniel International

Provision of consultancy based services to a range of Clients in the Marine industries.

This has included the following key areas.

- Warrant and Loss adjusting services cover loss, damage and repair Certification.
- Provision of survey reporting on behalf of Shipowners, designers and Classification Societies.



- Validation of verification of design and repair for inland and ocean going Vessels.
- P and I club investigations.
- Accident and incident reporting for damage to total loss of assets.
- Load out and structural assessment.
- Port and facilities layout and assessment.
- Draught survey.
- Ballast and propulsion FMEA/FMECA reviews.
- General Marine survey

General

Cases of accident and incident investigations resulting in damage, injury or consequential third party losses.

These have been IN the Construction, Transportation, Marine, Manufacturing, Storage, Warehousing and Energy and Industries at all phases of operation.



Part B - Consulting and work experience



Name	William David Richard Hughes
Current Position	
	Engineering, Marine, Risk, HSEQ and Integrity Consultant
Previous	HSEQ manager, Project Manager/ Engineer, Marine Engineer, Consultant, Surveyor, and Business
Positions	Manager
Experience	A Professional with over 35 years of both National and International experience.
	Onshore Oil and Gas – Refining, Pipeline Distribution, Storage Facilities, LNG Facilities, Terminals and
	Tanker operations Offshore Oil and Gas – Production facilities, FSO, FPU, FSPO, Subsea and pipelines
	Onshore and Offshore Exploration – Jack Up, Drillship, Semi Submersibles. UDW, Tender Assist and
	Land rigs
	Construction – Petrochemical facilities, Marine facilities, Transportation (rail infrastructure, Airport and
	Transportation network
	General Industry — Chemical, Utilities, Power, Construction and Manufacturing Marine and Surveying
	- Loss adjusting, Classification Society, Integrity and Structural
	impact reviews to Marine systems and Vessels
	Project Management – Regional development of businesses and projects, EPIC for Onshore and Off-
	shore facilities with integrity and verification interfaces, Construction and CDM in various roles, studies,
	and technical submission management, Green and Brown field project development and Conceptual
	studies (On and Offshore)
Locations	Worked on projects in the following areas.
	Europe
	Middle East (Kuwait, Kurdistan, Qatar, KSA, Bahrain, UAE, and Oman
	Americas (Brazil, USA, and Mexico)
	Africa (Cote de Ivory, Ghana, Nigeria, Namibia, Gabon, and South Africa)
	Asia and Far East (Australia, Thailand, India, Brunei, Singapore, China and Myanmar)
Specialist areas	• Incident/Accident Investigation as both investigator and Expert Witness. This has included repre-
	sentation at Legal proceedings and Court settings both in the UK and Overseas
	• Loss investigation which has included claims assessment for both plaintiff and defendant which also
	included arbitration evidence provision ad appearance at meetings and tribunal. This has been cen-
	tred around Project Management, Systematic failures (HSEQ, etc), claims for physical (equipment)
	and management (time and cost). This has related to construction and total loss of asset claims.
	Peer review and due Diligence review and reporting.
= 1	Project development and management
Education,	Panel specialist member for CDIOF
Training and	Panel specialist member for the Non Ferrous Metals Alliance (COMAH) And The American State of the Non Ferrous Metals Alliance (COMAH) And The American State of the Non Ferrous Metals Alliance (COMAH)
current	Royal Navy Accredited Technical Education (RNATE) 1971 – 1980 Sefectively (Residential) Acceptage Representation (RNATE) 1971 – 1980
Committee	Safe Hull (Residential) – American Bureau of Shipping Houston Safety and Bigly Prostition are role in CDMA Population and quantization. A DC Ediphyroph
engagements	Safety and Risk Practitioners role in CDM Regulation update and examination – APS Edinburgh
Professional	UK Chartered Engineer (674871)
Memberships	Fellow of the Royal Institute of Naval Architects (0042899)
	Fellow of the Institute of Marine Engineering Science and Technology (8081158)
	Fellow of the Chartered Management Institute (P03078980)
	Corporate Member of the Safety and Reliability Society (2115/M)
	Corporate Member of the International Institute of Risk and Safety Management (309242)
	Corporate Member of the Institute of Engineering and Technology (MIET – 00513144) Corporate Member of the Association of Region Management (P0307034)
	Corporate Member of the Association of Project Management (P0297924) Vetted and registered on the LIV Register of Funert Witness.
	Vetted and registered on the UK Register of Expert Witness Vetted and registered on the National Expert Witness Agency (NEWA)
Cociotu	Vetted and registered on the National Expert Witness Agency (NEWA) Namber of the Association for Escility Engineering
Society	Member of the Association for Facility Engineering Member of the Society of Potrology Engineers
Memberships	Member of the Society of Petroleum Engineers
Courses	1986 Hazard and Operability course – IChemE UK 1993 Pick Analysis in the Process to deather ADNOS was Course with ICh and E
	1993 Risk Analysis in the Process Industry – ADNOC run Course with IChemE 1996 Sefety and Birly Technology - Residential sources
	1996 Safety and Risk Technology – Residential course THESIS how this chairman training. ARS Consulting Warrington.
	THESIS bowtie chairman training – ABS Consulting Warrington



	2008 Safety and Risk Practitioners role in CDM Regulation update – APS
	2011 Introduction to Structural Integrity Management (SIM) – DNV
	2014 Functional Safety Assessments and Verification
	• 2015 Bowtie XP
Key Skills	TRAINER AND CHAIRMANSHIP
	Hazard Identification and Environmental hazard identification training and
	leadership studies
	Risk and vulnerability study leadership/chairmanship
	Construction HSEQ
	SECE/Performance standard development leadership
	Management systems Gap analysis and structure leadership/chairmanship
	QRA Training and quantification/sensitivity workshops
	Root Cause Analysis leadership/investigator/chairmanship and training
	PHSSER, SHEAMS, SWIFT, Bows Tie and PHA Leadership/chairmanship.
	LOPA/SIL graph and table lead study leadership.
	Bowtie Analysis Chair and facilitation
	Accident, Incident investigation and Expert Witness
	Occupational HSE programme leadership and training applications
	Functional Safety Assessments 1 – 5 and Verification
	CORE TECHNICAL SKILLS AND APPLICATION
	Construction HSEQ management
	Engineering HSEQ Management for Front end engineering, design, construction and commission
	ing for multi contractor site projects and interfaces
	 Planning Supervision under the CDM Regulations and Insurance risk, Claims Management and Expert Witness
	Loss adjusting and Insurance EML/MPL reviews for Marine and Onshore facilities.
	HSEMS, HSE Case and HSEIA programmes with integrated support studies
	Accident and Incident investigation, prevention, control, and human factors
	SHEQ Inspection, audit and continuous improvement programme development and implement
	tion

- Legislation and compliance programmes and submissions (IPPC/COMAH/ATEX, HSE Case, SimOps, Combined Operations etc)
- Risk based Maintenance and Inspection plans, programmes and Asset Management Systems, Integrity Models, FEED and EPIC consolidation and CAPEX/OPEX reviews.
- Mathematical assessments for quantitative and integrity-based projects.
- Computer base consequence and design impact modelling using CIRRUS, PHAST, SAFETI, etc
- Business management, development, marketing, and office set up/operation into profit centres.
- Project development, bid compilation, execution, and overall task management.
- Risk assessment (Qualitative PHA Pro, Bow Tie XP, THESIS, etc) and Quantitative (ETA, PHAST, CIRRUS, FRED, Risk Plot, etc)
- Risk and safety management and workplace safety systems
- Technical management and delivery of risk and environmental studies
- PHSSER, SHEAMS and Design Safety Review study support and Chairmanship
- Marine surveying, inspection, and verification
- Safe hull assessments in accordance with ABS procedural guidance
- IADC HSE Case development and MAHRA studies
- Technical and process safety (HazOp, Hazan, FMEA, FTA, ETA, SIL, IPF, etc)
- Training programmes, Behavioural safety programmes (Bsafe, STOP, etc)
- COSHH and Chemical Management systems review and development.



AWARDS

- Awarded Individual Sword of Honour by the British Safety Council presented by Sir John Mill and Mr James Tye at the Grosvenor Hotel London in 1988
- Awarded individual chalice award by British Safety Council presented by Lord Gerry Fitt and Mr James Tye at the Grosvenor Hotel London in 1987

EXPERIENCE

2007 - Present

Hughes Risk Management Limited, Carlisle

Managing Director and Projects Principal

Provision of consultancy based services to a range of Clients on a Global basis for the Oil, Gas, Manufacturing, Renewables, Transportation and Utility industries.

Ocean Offshore Drilling (OOD)

- HSE Case development for the B152, Arias Driller to meet ADNOC HSEIA and supportive standards
- HSECES Performance Standards and Verification.
- MAHRA, ESSA, EERA and QRA to support the HSE cases.

Client TAQA Morrocco

• MAH bowtie ratification, Consequence Analysis and QRA for the Jorf Lasfar Thermal Power Plant.

Evershed Sutherland Solicitors

- Provided expert report in the Arbitration case of Avax versus Basrah Gas Company for HSE matters.
- Provided expert testimony in the Arbitration case sitting in Dubai.

Client: Quanta Engineering

Providing EPC support for INEOS projects in Denmark and UK supporting Quanta Newcastle office. This included:

- Hazop, SIL and LOPA.
- HazOp and EnvId.
- QRA.
- MAH ALARP reports.
- HSE Case and Safety Report update for Danish Authorities.

Client- Royal Mint

• HCN Modelling with PHAST for Ryal Mint Llantristant South Wales.

Greater Manchester Police

- Expert witness report for a fatality at ROH Oldham during lift refurbishment.
- Coroner Court testimony given in Rochdale.

Client - Seadrill

- EPA study for West Bolsta including DSHA workshops at Seadrill Stavanger.
- HSE Case Through review for West Phoenix.
- HSE Case update and submission to OSDR for West Phoenix for UK operations.
- Project Manager and HSEQ specialist for Rig intake for West Hercules for Equinor Tiger Lilly well.
 Interfaces and documentation for HSE, BEIS and OPRED.
- SECE Performance standards and Process Barrier Management development for Seadrill and uploading as part of RAMP project into MAXIMO maintenance and verification programme for Seadrill Global fleet. – 42 rigs. This further including Classification Society interfaces as well as Independent Verifier for the Written Schemes of Examination.
- Bowtie analysis and HazOp process review workshop facilitation for multiple assets.
- HazOp and LOPA studies.
- Fire risk analysis for West Saturn and West Mira.
- Development of HSE Cases and Major Accident Hazard Analysis (MAHRA)Studies which included bowtie analysis for MAH events, Ship Collison studies, QRA, FEA, ERRA and ESSA studies in Europe, Middle East, Far East, GOM and Americas. This has covered 40 Rigs in total. Submission have been approved by UK HSE, PSA Norway (AOC submissions) and CNLOB (Canada).
- FMEA/FMECA of ballast, propulsion and DP systems for semi and drillship assets.



- Well test equipment installation of 3 Drillship chairmanship and reporting which including interface with established rig based SECE's and assurance into MAXIMO maintenance system for verification activities by the appointed IV.
- SCTA and Human factors template following EIC guidance for Seadrill fleet.
- Construction HSEQ plan and contractor integration programme for new facilities and infrastructure programme.
- Classification Society interfaces and report support for verification and assurance activities.
- Lifeboat analysis for two Semi-Submersible Units to meet the challenges posed by the change in
 the NMA regulations and PSA requirements in Norway. This included design review, simulation of
 MAH accidents and responses to the lifeboat ability to traverse to sae areas under weather and
 operation derogated options. Compilation of the results from the assessment and consequence
 analysis in a technical report to the PSA for approvals and dispensation of current lifeboat
 configurations. Presentation of results to PSA.
- Class survey support activities for verification activities across the rigs.
- Project Management role between SDRL and Operator and Regulatory for rig intakes in the UK Sector of the North Sea for approval and licences to drill and HSEQ compliance with the Regulators.
- Marine reporting integration with Class Societies for condition assessment, safety surveying and integration of integrity and insurance through Verification Schemes.
- Development of Process Safety Management standard and procedures for Seadrill Corporate.

Client - ECO Power Hull

- SRF waste plant integrity review and fire investigation as Expert Witness for Eco Power and Bankside Solicitor group in Hull UK.
- Assessment of Process and SIL functional safety programme.

Client - CRO Ports Killingholme

Fire Accident investigation and HSEQ management systems reviews.

Client - Borr Drilling

- HSE Update and MAHRA development for the SKALD, MIST and SAGA Rigs in Singapore to IADC Guidance.
- HSE Case and technical studies for the GERD.
- Environmental Management Plan to meet JASTRe Brunei (EMPO issue).
- Safety critical activity and documentation assessment for the SAGA rig.
- SQP for the SKALD Rig.
- EERA and Fire assessment study for Groa.
- Lifeboat survivability (fire and explosion) analysis for Groa.
- HSE Case, Technical Studies and SQP for SAGA to meet Brune SHENA and JASTRe requirements.
- Through Review for Prospector 1.
- HSE Case and MAHRA updating project for RAN, GALAR, GERSMI, GRID and NJORD to meet the requirements of PERFORACIONES ESTRATEGICAS E INTEGRALES MEXICANA SA DE CV programme.
- HSE Case, MAHRA, HSECES P. Standards and Verification for the GERD rig to meet ADNOC HSEIA and supporting standards.
- HSE Case, MAHRA, supporting technical studies and SECE Performance standards for the rigs Vali and Var.
- HSE Case, MAHRA, supporting technical studies and SECE Performance standards for the rigs Gunnold, Idun and Thor.
- Qatar Energy Gap Analysis against the Major Accident Hazard Management Standards for GROA.
- Legal resisters for operations in Brunie and Malasia.

Client - Shelf Drilling

- MAHRA update for the Tenacious rig for operation in Africa.
- HSE Case update and SECE Performance standards and verification scheme for Shelf Drilling High Island VII, Key Singapore and Key Manhattan.



- Marine reporting integration with Class Societies for condition assessment, safety surveying and integration of integrity and insurance through Verification Schemes.
- Bowtie analysis workshop facilitation for multiple assets as well as QRA, FEA. TRIA, EERA and ESSA studies.
- Completion of HSE Case, MAHRA, and technical studies for 20 Shelf Assets worldwide.

Client - ADES Egypt

- Completion of HSE Case and technical studies for AdMarine VI to UK and EU Standards for operation in Egypt.
- QRA and FEA studies.
- SECE Performance Standards and VS

Client - Hercules Drilling

- HSE Cases and technical studies for AdMarine VI to UK and EU Standards for operation in KSA.
- QRA, FEA, EERA and ESSA studies.
- HSE Case update for Rigs 261, 262 and 263 including Technical Studies.

Clients - Transocean

HSE Cases and MAHRA development for three rigs based in Africa.

- Bowtie analysis workshop facilitation for multiple assets.
- QRA, FEA. TRIA, EERA and ESSA studies.

Client - TaqTaq Operating Company - Kurdistan

- Bowtie analysis workshop facilitation for CFP1/2, TLS, TP2 and Offsites construction project
- Functional Safety Assessments 1 5 and Verification.
- Contractor HSEQ integration programmes and management.
- Full QRA, FEA and Risk Reduction studies for CFP1/2, TLS, TP2 and Offsites
- HazOp Programmes
- SECE Performance standards development and uploading into CMMS for maintenance and inspection verification.
- HazOp, LOPA and Sil assessments.
- MOC Audit
- Risk reduction programme of modification to processing and Tanker loading.
 facilities including design review input and verification.
- Development of HSE Case and MAHRA study for the onshore well exploration and drilling programme with land rig IRI 9000.

Client- James Aimer

- DSEAR and ATEX review and reporting for coffee manufacturing processes in Dundee.
- Development of classification drawings and equipment specification approvals.
- Functional Safety Assessment and Verification.
- Reporting to local Authorities.

Client: ECi and Stolle Engineering Carlisle

Conveying system process and interlock review for ECi Carlisle for projects in Germany, Hungary and Saudi Arabia:

- Bowtie analysis workshop facilitation for construction and commissioning of the facilities.
- Safety System review and EC marking technical file development.
- FMEA and FMECA of interlock systems Programmes.
- Functional Safety Assessments 1 5 and Verification.
- FMEA for conveying and belt system for loading facilities and interfaces.
 including design impact review.
- Hazard review using bowtie analysis.
- HSE Audit.
- Technical file development for 2 projects based in Hungary to Machinery Directive.

Client - American Bureau of Shipping London

Development of HSE Case and Marine Performance Standards for the Heavy Lift Vessel Apollo.



- Update and review of technical studies previously undertaken by ARC whi8hc included QRA, FEA, EERA and ESSA.
- Development of Marine SECE Performance Standards and Verification Scheme.
- HSE Case to meet SCR 2015.

Client- Jan De Nul - Belgium

Development of studies and HSE Case for the Heavy Lift Vessel Vol Au Vent for North Sea decommissioning operations and CDM manual for windfarm installations.

- Development of technical studies.
- Development of Marine SECE Performance Standards and Verification Scheme.
- HSE Case to meet SCR 2015.
- CDM guidance manual for all required roles and submissions under wind farm operations in the UK and Ireland.
- Classification Society approvals support.

Client: Wood Group Glasgow and Aberdeen

Provision technical safety and IVB process input across the BP Andrew project and the management of a nine person technical team between Aberdeen and Glasgow offices.

- HIRA/HazId/Risk Assessment/HazOp/LOPA interfaces attendance/lead and action close out for construction projects in Tunisia and the UK and CDM role support.
- Marine risk assessment for the ship out and lifting/securing programme for the new module to the
 existing Andrew structure. This included calculation reviews for the securing pads and hooks based
 on the established weight management loading plan and software.
- PIMMS/ATMS/DSA process, IVB and Performance standard development/update.
- Functional Safety Assessments 1 5 and Verification.
- 3 party FRA/BLAST/EERA/Fire Protection/QRA/Flare Radiation/Reliability studies input into the design and construction phases.
- Sensitivities studies input to weight reduction and deflection.
- HSE Case updates.
- PHSSER and ISD processes.
- Provision technical safety and IVB process input across the BP Andrew project and the management of a nine person technical team between Aberdeen and Glasgow offices.

Client: BGTT, BBTT and Repsol - Trinidad and Tobago

- Provision of process and technical safety input across concept, feed. Detailed design and operational based projects in Trinidad.
- MAH Vulnerability risk assessment for Repsol Teak, Poui and Samaan facilities.
- Repsol OCOT project HazOp, PHA, Criticality review, LOPA, SIL, F and G update, active/passive Fire Protection review, FEA, QRA studies with input into detailed design.
- BpTT Bleachfield facilities fire water upgrade and construction HSEQ.
- Repsol -Safety equipment for the Poui, Teak, Salman platforms and their satellites against MAH
 profiles, PFEER regulations and compliance with codes and regulations. Remedial plan and full EER
 review of existing procedures and management system.
- Repsol Major Hazard Review, FEA and QRA assessment of temporary accommodation options for HWO Drilling campaign for Poui, Teak and Salman platform.
- BGTT- Process safety design review for blow down facilities and changes to HIPS system. Updating SCE listing and performance standards as part of the deliverable process.
- Review and approval input to BT Galeotta marine loading systems and structural expansion of the jetty loading arms and platform for various vessels

Client - NMWG and BGTT Trinidad and Tobago

Provision of consultancy support services for British Gas Trinidad and Tobago along with Neil Massey Wood Group for the development of risk management programmes and engineering options supporting PFEER/DCR and QRA risk reduction. Development of strategies and goals to support ongoing contractor work scopes and management of results back into a QRA and risk reduction model. These included:



- Full F and G upgrades, Active and Passive fire upgrades with HSEQ planning and contractor Selection.
- Further 9 discrete risk reduction projects with developed HSEQ construction plans and integration matrix.
- HazOp, LOPA and SIL studies for Dolphin and Beachfield facilities.
- Construction HSEQ programme and contractor integration plans and management.
- Offshore Platforms Verification Scheme and approval by DNV as part of Integrity reviews.
- Ship collision study and the redesign of platform leg and mezzanine level fenders based on calculated MJ impact scenarios.
- BGTT with MMI design of composite lightweight blast wall for Dolphin platform to weight constraints.
- HazOp and LOPA for EPC contracts for gas lift operations.

Client - Centrica Easington Facility

• Provision of services to Poyry for the development of HSE plan, COMAH, IPPC and hazard management programme for the Rough Field gas compressor upgrade at the Centrica Easington Facility.

Client - SBM Offshore Monaco

- SBM Offshore studies input for FPSO Tanker Conversion P-57. This included turret and mooring system on design and development of Classification approval programme.
- HSE Case and verification programme for the Unit.
- Design HazOp studies.
- QRA, FEA and ESSA studies.
- Construction HSEQ plans and contractor integration framework for construction and commissioning.

Client - INCO Refinery Swansea (now Vale)

- Provision of services to INCO Refining for expert witness support for Hydrogen vessel failure and resultant explosion in Nickel refining process resulting in Court persecution and provision of evidence as expert.
- Crown court representation on failures and losses (fire) including personnel injury as defence for INCO following HSE Improvement notice prosecution with findings of the court in INCO's favour.

Client- Wood Group Glasgow

- Provision of consultancy support for Wood Group Glasgow as technical authority over the BP Aurora, Bruce (modifications) and Moss Moran (upgrades) projects. Talisman (Auk over Fulmar and Fulmar upgrades, In MENAAS gas processing upgrades and Total modification programme.
- FEA and QRA updates to the existing risk modelling and to determine level of active and passive fire protection requirements.

Client: Performance Improvement Aberdeen

- Espier venting studies.
- Rig P45 Expert Witness reporting on construction and design failures. This
 included a full survey report on the studies and surveys undertaken to support the investigation.
 This further required evidence preparation and report for the Arbitration process.
- Business risk model.
- Peer review of LNG Carrier HSE Case for Qatari based operator/owner.

Client: SeaTech Glasgow (V Ships)

- Ice Maiden 1 HSE Case development support to SeaTech, Survey report to be passed to Lloyds Register for initial design approvals.
- QRA, FEA and Ship collision assessment and design review for collision avoidance and MJ acceptance within the structural design.
- Combined Operations/SimOps template for Ice Maiden 1 and generic North Sea Operations.
- TS Marine design and operational (hull and propulsion) SECE/Performance Standards development for ROV services vessels.



• Claim support for the in delivery of scopes from third party contractor. This further lead to evidence support for Tribunal proceedings

General

- Utilities due diligence audit for leading Power supply company.
- HSEMS and CDM Performa's for Construction company for onshore and rail Operations.
- Expert Witness report to support counsel submissions for multiple failures of lifting and crane equipment for offshore construction yard in the UAE for the Ministry of Justice.

2006 - 2007

Client: Qatar Gas 3 and 4 project

Position: HSEQ Technical Authority

This position supported the QG3 & 4 Programme for the drilling, design, construction, commissioning and start-up of QG3&4 facilities.

Provided expertise in technical HSE practices and risk management to identify, mitigate & manage the HSE hazards and risks throughout all phases, and across all 3 component (wells, offshore, onshore facilities) projects. The position scope is at the level of the total Programme but reaches additionally to all 3 individual component projects. Specific roles were:

- Determine and scope the HSE studies required to achieve and demonstrate ALARP risk levels.
- Bowtie analysis for the QG2 and 3 interfaces and Offshore drilling programme.
- HazOp and SIL integration studies for new and existing tie ins.
- Functional Safety Assessments and Verification.
- Provide guidance on technical HSE requirements and supporting studies (QRA, FEA and SIA) in a manner of challenge and assurance, establish the coverage, adequacy and follow-up of ongoing/completed studies.
- Contractor integration and management across all construction and commissioning phases of the work.
- Provide proactive advice on the identification, mitigation & management of technical, constructability, operability, and layout hazards & risks of an HSE nature as they apply through the design process on into operations.
- Develop, in conjunction with the Projects, the performance standards for HSE critical aspects & systems
- Participate in contractor (and, for drilling, in-house) design activities in support of the individual project components that may need occasional "peak-shaving" support (reviews, risk assessments, etc.).
- Support the monitoring and verification of contractor compliance with technical HSE requirements.
- Coordination of all Warranty and Marine Survey reports for the new offshore structures and marine support vessels. This included ABS and DNV Societies.

2006 - 2006

Attric PBI Middle East – HSEQ Consultant

Short term contract (rotational status) with ATTRIC PBI to undertake HSEMS and HEMP related projects in Abu Dhabi, Qatar, and Sharjah.

- Development of Contractor HSE Guidance manual in accordance with ADNOC COP's.
- Development of ADCO HSEMS.
- Construction HSEQ plans for Qatar Gas and multi contractor integration.
- Development of Corporate Marine Operations manual.
- Development of BP Sharjah Gas Plant operations HSEMS.
- HazOp and PHA review on behalf of Tekfen Qatar Business.
- Marine structures and topside verification process.

2003 - 2006

Project: Vectra Group Warrington and UAE

Position: Regional Manager

- Project Management over full product ranges for Risk Management and Environmental Services.
- Safety, Risk and Environmental studies, management systems development, safe work systems and audit/compliance programmes.



- Provision of technical support and input to HSE case programmes, risk assessment, safety and reliability engineering, management systems and compliance studies.
- HSE Case development (and studies) for Onshore Gas and Oil facilities.
- Construction HSEQ and management programmes.
- HSEMS programmes and integrated management systems development.
- FEED, EPC study programme support for design/risk management and safety engineering.
- Marine verification and Classification Society approvals for structures and topsides.
- PHSSER and SHEAMS Reviews and close outs.
- HazOp, Sil and LOPA studies.
- Dispersion modelling, FEA and QRA.
- Systems engineering (Risk Based).
- HSEIA. EMAS and EMS programmes Business.
- Responsible for business generation, Office set up, P and L account and retention of clients.
- Project Management and delivery.
- Accident investigation and claims management.

Key Specific Projects

- Dolphin Energy (UAE and Qatar) Project Management and Technical input to the following Design verification scheme of examination for jacket and topsides including full performance standards and close out reviews. Development of SIMOP manuals and assessments for drilling and pipeline interface projects.
- Design verification scheme of examination for jacket and topsides including full performance standards and close out reviews. Development of SIMOP manuals and assessments for drilling and pipeline interface projects. AFP Pipeline risk and reliability study.
- AFP Pipeline risk and reliability study.
- KBR Support for the P -43 FPSO studies and marine verification scheme.
- ADGAS HSEIA and HazOp for BOG and SRU upgrade at Das Island. This included jetty and loading facility upgrading and ABS classification for design changes.
- ZADCO PHSSER close outs for Upper Zakum Field projects and marine verification scheme interface and Class approvals.
- Petrofac Rag and Flare QRA, EIA and SIMOPS assessments for Qatar Petroleum. Design Hazid, SHEAMS close out for the AGIP/KCO Kazakhstan gas project including full COSHH and Chemical handling risk assessment and MSDS based system.
- LootaGas Feasibility HazOp and FEA for gas filling project.
- VECO Engineering QRA and F and G systems assessment for Umm Al Dalk upgrade. Classification Society approvals for design and installation/testing.
- Qatar Petroleum Input and close out actions for the Masieed Refinery QRA and FEA project.
- National Drilling Company Technical resource and Project Manager for three year HSE and Risk services call off contract. Fatal accident enquiry support. Marine survey reporting on the Offshore Jack ups and supply vessels. Condition and overall oper-

ational assessment reports.

2001 - 2003 Company: American Bureau of Shipping, Warrington and UAE

Position: Regional Manager(Risk Consultancy)

Co-ordination, planning and delivery of projects in the Middle East region. Latterly supporting ABS takeover of BEQE in Warrington to develop strategy and services for Europe Sector.

- Safety, Risk and Environmental studies, management systems development, safe work systems and audit/compliance programmes. Business risk profiling and Insurance EML/MPL assessments.
- Bowtie analysis for PDO Oman process facilities.
- Production facilities and FPSO reviews and assessments for Total in Nigeria.
- Vessel hull and machinery assessments and Classification surveys.
- Marine survey support and damage reports.



- Provision of technical support and input to HSE case programmes, risk assessment (PHA, HAZOP Leader, THESIS, FRED, SHEPHARD, Cirrus, Trace), safety and reliability engineering, management systems and compliance studies.
- HSE Case development (and studies) for Onshore Gas and Oil facilities.
- Development of risk management and reduction programmes coupled with performance metrics and standards for systems and hardware.
- HSEMS programmes and integrated management systems development, implementation and audit.
- FEED, EPC study programme support for design/risk management and safety engineering.
- PHSSER reviews and support as technical team member.
- Development of new technology support in Gas to Liquids business in relation to marine environments for military and commercial application.
- WDL/DTL onshore and offshore performance and integrity audits.
- Integrity management programmes (RBI, RBM and vulnerability) Business.
- Responsible for business generation, P and L account and retention of clients and project management and delivery.

Key Specific Projects

- Dolphin Energy (UAE) Risk Management procedure development, QRA guidelines and Risk Assessment application guidelines for the Qatar and UAE construction and commission phases of the onshore and offshore facilities.
- Shell Support work for Nigeria (HSEMS), Sakhalin Island (HSE) and Iran (HSE Cases/ THESIS).
- ABS Classification Society Marine Survey and rig move support as part of inhouse programmes.
- ADGAS HSEIA PEER review for LNG train 4 facilities on Das Island. Technical input and review for the Das Island Pre Fire Plan study.
- Oman Refining Company Risk assessment and design review for the existing and new facilities.
 SHEPHERD Modelling for refinery MAH profiles. Full update of COSHH and MSDS system as part of the overall hazard register process.
- PDO (Oman) Scoping study for HSE Case upgrade project. Upgrade project for 14 HSE Cases.
- Dubai Petroleum Project Management and technical input for the Al Wassal FSO verification scheme and performance standards and Class approvals.
- Al Khafji (KSA) Project Management and technical support for the risk and environmental studies for the onshore and offshore facilities, which included flare studies, SIL, HazOp, QRA, FEA and HSE Case integration. PHA Pro and SHEPHERD/FRED models utilised.
- Kuwait Oil Company \$1.7 million project for risk based integrity and QRA/FEA .studies over the Gathering Stations (South).
- Syntroleum / US Navy Marinised gas to liquids project for US Navy as FPSO type units.
- National Drilling Company Land Transport QRA studies, Integrity studies for land rigs, WDL/DTL reviews and risk assessments. Classification, condition, and operational marine survey support.
- Total ABK Major Hazards scoping study review of the ABK facilities and future modification SI-MOPS.
- Dragon Oil Risk assessment for platform abandonment and business risk case together with Chemical Management review for platform decommissioning activities.
- Marine Classification, Condition and Operational assessments linked to Class activities, Production facilities and FPSO reviews and assessments for Total in Nigeria.

2000 - 2001

Company: INCO Nickel Refinery Swansea (now Vale)

Position: HSEQ Consultant

Employed on a 12 month contract to establish and implement a total asset care model based upon risk techniques across all assets. Further provided assistance in combining relevant disciplines into Compliance Management Group. The refinery employed a total of 400 personnel engaged in the refining and production of Nickel based products. During this period, all systems were accredited to ISO standards. As part of the process full integrity and risk assessment was undertaken in order to



establish performance requirements using the FARSI approach, using RCM and RBM techniques. Key Specific Projects

- Vulnerability and criticality assessment full plant HazOp was undertaken of Kiln, decomposers, and
 packaging as well as FMEA/FMECA for critical systems feeding into a RAM profile using Fault Tree
 plus and associated software.
- HSEQ management of new gas facilities and contractor interfaces.
- QRA and FEA update for the refinery.
- HazOp and SIL programme for the refinery.
- COMAH and IPPC report development, submission and approval management with HSE and EA.
- Overall Risk and Integrity model and process for INCO Worldwide operations.
- Explosion Investigation support to Canadian operations using Root Cause Analysis for Hydrogen system.
- 9/11 Security review of facilities with Krull Consultants.

1998 - 2000

Company: Haden Freeman Manchester

Position: HSEQ Consultant / Principal Engineer

Provided Management, development, and technical input within the risk group of Haden Freeman providing clients with FEED and EPIC safety and risk support from risk and environmental studies to project management, advice, audit and inspections. Undertook COMAH and Offshore HSE case development complete with technical support studies, management system development and environmental impact (IPPC) case development. Pioneered the *INSIGHT* business risk software model. Further support investigations and claims management reports

Key Specific Studies

- COMAH Safety report development for Felindre Water Treatment Plant (Welsh Water), St Fergus
 Gas Facilities (Exxon Mobil), Teesside Refinery (Phillips Petroleum), Carrington Facilities (NOVA
 Chemicals), Great Bank Chemical Works (AtoFina), Wilton Facilities (Union Carbide), Belvedere
 Chemicals (London) and Swansea Nickel Refinery (INCO).
- QRA, HazOp and Integrity models for INCO Refinery Swansea, Arco British Yarmouth, Schlumberger South Africa, and Pentagon Chemicals Workington.
- Construction HSEQ programmes.
- HSEMS support and development for NuFarm Chemicals and Mission Energy for ongoing construction and plant modification FEED programmes.
- Business Risk for NORWEB and Mission Energy using the developed software INSIGHT.
- HazOp and PHA/PHSSER for Great Lake Chemicals at Hale bank and Chemoxy Middleborough.
- Bow tie analysis for St Fergus facilities processing and pipelines.
- Procedure updates and technical authorship for Elf Caledonia Aberdeen.
- FTA/FMEA for new process systems at Great Lake Chemicals Hale bank.
- Major Accident Hazard profiling for Great Lake Chemicals Hale bank.
- HSEMS interfaces for London Underground and claims management support for the Jubilee line project overrun and HSEQ implications as well as reliability targets.
- Passenger movement and ERP studies for London Underground.
- HSE Case for the ORCA and Omega Offshore facilities in South Africa (Stumberger / Sedco Forex).
 This include marine systems FMEA and FMECA and Verification reporting for Class Society approvals on behalf of the Client.
- Marine loss adjusting and survey report for VLCC damage on behalf of Lloyds Syndicate.

1992 - 1998

Company: Consult (UK)/ Risk Management Centre Ltd

Position: HSEQ Principal/Owner

Provided safety, risk and environmental support on a field, contract and consultancy basis to operators, sub-contractors and establish consulting groups.

Key Specific Studies

- Elf and Texaco CIMAH Safety reports.
- Accident investigation for Lupulco Mill Explosion (British Gypsum).



- MossGas Safety Cases for MossGas Mosel Bay Refinery, Vorr Bai Terminal and the FA Platform with fully integrated HSEMS and Chemical Management System (MSDS based). modifications listed and developed for Classification Society (Lloyds) approval.
- Loss investigation and claims management support for construction programme for Mossgas extension facilities.
- Marne Survey support for VLCC, Costal and Oil and Gas operations. This was for ABS, Gulf Marine, NPCC, Al Masorri, National Dredging and Volker Steven Al Wassel FSO risk review and Marine survey report for Class approval for Dubai Petroleum.
- El Norge Integrated HSE Case programme which included UK and Norwegian sectors (Frigg and Heimdal).
- Statoil HazOp and QRA and options review for the Sliepner Vest development with verification scheme for change management process for marine structures and topsides.
- Diamond Offshore Drilling HSE Case programme for 5 Rigs in –Perth WA with fully integrated HSEMS and Chemical Management System (MSDS based).
- Attwood Oceanics HSE Case programme for 6 rigs in Perth WA and Malaysia (Falcon). These were passed to ABS Classification Society for verification and Performance Standards for Marine Systems and Structures.
- GATX Chemicals HSE and Environmental case at Pattaya Thailand with fully integrated HSEMS and Chemical Management System (MSDS based). Jetty operations verification report.
- Elf Caledonia HSEMS development across Elf Caledonia (UK, France, and Norway) for corporate and area specific systems.
- London Underground Station safety reviews including Jubilee line readiness audit.
- Stolt Comex Seaways Cossack Wanneia safety programme and associated studies This included FMECA and FMEA marine systems.
- Arco British Subsea optimisation review for Arco British.
- Arco British HSE Case for Welland and Thames Platforms including marine traffic and ship collision reviews
- Arco British Safety Cases for Welland and Thames Platforms.
- Conoco HSE Cases for LOGGS, Hutton, and Murchison.
- Apache Oil FTA/FMEA for new process systems.
- Egypt Oil Company Major Accident Hazard profiling (QRA/FEA).
- London Underground HSEMS interfaces .
- London Underground Passenger movement and ERP studies.
- Yemen Hunt QRA and FEA of loading facilities and ship collision studies of Jetty loading facilities
- Stork/SBM FPSO HSE Case and reliability of turret assessment. This included marine systems FMECA.
- Full COSHH and Chemical Management assessment for Phillips Petroleum and Conoco.
- FMECA and FMEA for Diamond offshore for Well barriers, Ballast, Propulsion and Jacking systems.
- Ice Maiden troop carrier conversion concept reviews (HazOp, QRA) with SeaTech for North and Bearing sea accommodation vessel.
- Mombasa port and loading facilities (at risk—EML/MPL) review on behalf of Lloyds Syndicate London. This included full marine system, jetty structures and rail transportation of crude oil and general cargo.
- Undertook reliability and QRA study for Drax Power facilities.
- MAH and Environmental impact review d for Pembroke Power Sation.

1990 - 1992

Company: BEQE Warrington, Aberdeen and UAE

Position: HSEQ Principal Consultant / Manager

Responsible for setting up, managing and development of an Offshore Oil and Gas Division within BEQE based in Warrington with satellite offices in Aberdeen, Cambridge, and UAE. Key responsibility for bid and proposal management, client presentations and project delivery.

Key Specific Studies



	Conoco Voluntary HSE case programme for Southern North Sea.
	ADMA OPCO Umm Shaif Risk assessment programme and HazOp studies.
	Construction HSEQ programmes for NPCC, McDermott and Petrofac in the UAE, KSA and Oman
	• Conoco Refinery upgrade risk assessment, HazOp and EIA programme at Easington with fully integrated HSEMS and Chemical Management System (MSDS based).
	Al Mansoori Engineering Abu Dhabi Gulf Training School project for offshore survival courses including design of facilities for HUET and firefighting/escape (smoke) modular structure.
	 Bunduq Risk assessment and HSEMS upgrade programme. Design review of production facilities as part of detailed PHSA process.
	BP Grangemouth Process safety study and EIS support.
	 British Sugar Silvertown Refinery Risk assessment, process upgrade studies and modification pro- gramme support (QRA/FEA).
	LubRef Saudi Arabia Risk Assessment of lub facilities.
	ABS Classification Society Procedure updates for Petronas which included all warranty and survey
	reporting requirements.
	• Lloyds of London Review of the Assab refinery in Ethiopia and the Port facilities. This also included a full Marine Survey report on overall condition and Operation.
1987 - 1990	Company: Cremer and Warner London
1307 1330	Position: HSEQ Senior Consultant / Engineer
	Cremer and Warner London
	 Placed as Deputy Team leader, then responsible for module investigation and recovery as part of the Department of Energy Piper Alpha team.
	Provided technical support into the Kings cross and Clapham Junction investigation. Responsible
	for targeting markets and developing/sustaining core business by objective and performance
	setting indicators. Had key role in bid and proposal development with client interface and
	presentations.
	 Further provided both technical input on safety management, risk assessment (QRA) and process safety services to ADNOC, BP, British Rail, CONOCO, Crescent Petroleum, DPC, ELF, ESSO, EGPT, GATX, KNOC, MAERSK, PHILLIPS, QGPC, Ranger Oil, Scottish Power, TATOIL, SOEKOR, Texaco, Total
1985 – 1987	Marine and ZADCO.
1985 – 1987	Company: Matthews Daniel International - UAE
	Position: Principal Surveyor / Manager
	Principal responsible for the Abu Dhabi branch for all Marine warranty, surveying and risk based studies with a team of eight personnel (Surveyors, and Master Mariners).
	NPPC – Marine report and load out assessments for constructed jackets and platforms.
	Various Marine Companies in India, UAE, and overall Gulf – Marine report and
	condition assessments for Supply vessels, Costal Bunkering vessels, VLCC (supporting Class), Heavy
	Lift Barges, accommodation barges and commercial craft.
	Various Drilling Contractors – Marine reporting and condition assessments as well as rig move.
	Various Insurers – Marine loss investigation, accident, and damage reporting.
	Conducted FMEA and FMECA on Ballast, Bilge, Propulsion and Jacking systems.
	War damage vessel surveys for Lloyds of London in Straits of Hormoz and Bahrain.
	War damage marine warranty survey for the Total ABK platform near Iranian maritime border.
	Hull and Machinery survey and repair review for Luxury Ocean going Yacht Annad the owner being Sheikh Zayed in Abu Dhabi. Resident in Genoa for the repairs.
	Marine loss adjusting reports.
	 Loss investigation and arbitration support for 2 x Jack Up rigs and Construction failure at Abu Dhabi
	airport.
1983 - 1985	Company: National Petroleum Construction Company – UAE and KSA
	Position: Loss Prevention and Warranty Manager
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	 Responsible for the Marine reporting and condition assessments for 18 Marine vessels including supply, heavy lift, accommodation, etc. Ensuring full class compliance and ongoing management Integration of contracted companies and HSEQ performance. FMEA and FMECA of vessel ballast management and Lifting operations structural response. Marne loadouts and warranty approvals of topside and jacket structures.
1980 - 1983	Company: Dodsal GMBH and WM Kellogg - UAE
	Position: HSEQ / Project Manager
	HSE Construction management including the integration of 7 contracted companies or the construction and commission phase of the refinery project.
	• The internal review and approvals of Loading facilities at the Umm Al Nar refinery and Jebel Dhana. Marine terminals. This included design reviews and marine handling systems. Verification reports and approvals submissions which were verified by Lloyds and Matthews Daniel International.
	• Technical Safety design and construction for the EPC of the Abu Dhabi refinery extension including Process interfaces with existing facilities, jetty and offsite storage.
1971 – 1980	Employer: HM Armed Forces – Royal Navy
	Royal Navy Accredited Training. Ocean going service on HMS Tiger, HMS Gurkha, HMS Yarmouth and HMS Nubian. Dockyard service in Rosyth and Chatham.