Company Overview

William Jacob Management
Company Overview

- Founded in 2004.
- Headquartered in the heart of the Energy Corridor in Houston, Texas.
- Independently owned oil and gas service provider.
- Offering comprehensive capabilities and world-class expertise in engineering, procurement, construction, commissioning, operations, maintenance and project management.

ENSURING SUCCESS FOR HIGH-STAKES CAPITAL PROJECTS. ONSHORE. OFFSHORE. WORLDWIDE.
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World-wide Experience

North Slope, Beaufort Sea, Alaska - Prudhoe Bay
  Doyon Drilling - Arctic Land Rig Project (C)
  BP - Liberty Arctic Land Rig (F, CA, E)

Cook Inlet, AK
  Eni - Kishinev Lights - Arctic Production Facility (F, PM, E, D, P)
  Eni - Cook Inlet Arctic Monopod (F, PM, E, D, P)
  Spartan 151 - Arctic Jackup Rig (PM, E, D)

US Land
  IDM - Quicksilver Drilling System (E, D)
  Sidewinder - Land Rig (PM, E, D)
  Savannah - Land Rig (PM, CM, E)

Gulf of Mexico (US Shelf)
  Kerr NGeE - Two Ensco Jackups (S)
  GalDive - Eight Vessels (E, D)
  ENSCO - 26 Platform (S)
  TODCO - Two Jackups (PS)
  TODCO - Barge (PS)
  Superior Offshore - Endeavour Vessel (E, D)
  Marlin Offshore - Barge (C)
  Cross Logistics - Barge (E, D)
  Noble Drilling - Danny Adkins Semi (D)

Gulf of Mexico (US Deepwater)
  Shell - Mars B Olympus TLP (E, D, on DP)
  BP - Project 20K Semi (PS)
  Chevron - Bigfoot TLP (F)
  Chevron - Bigfoot Transport Cartridges (E, D)
  Opportunity - Drilship (C)
  Pride - Ascension Drilship (E, D)
  Devon - Jack/St. Malo Semi (C)

Gulf of Mexico (MX)
  Pemex - Two 3,000 hp Ayaste Monopods (F, PM, E, D, CD, ES, IM)
  Matthews Daniel/MenaDrill - Jackup (S)

Venezuela/Trinidad & Tobago
  Chevron - Loran Manatee Platform Drill Rig (F)

Brazil
  Devon - Pulo Platform Drill Rig (FEED, PS, PM, E, D, P, CM, GS, IM, HAZOP)
  SSP - Flotel/Monopod (F)
  Statoil - Peregrino Two 3,000 hp MPDR (F, PS, PM, CM, E, D, P, CM, HS, IM, HAZOP)
  EEP - Drillship (C)

Denmark
  Northern Offshore - Jackup (FEED)

Norway
  StatOil - Johan Thiessen Platform (V)

Barents Sea
  Eni - Oyo FPSO (S, PM, CM, E, D, HAZOP)

Nigeria
  Eni/Esso - Production System (F)

Angola
  Maersk - Chassonga TLP (FEED)

Congo
  Murphy - Azurite FPSO (IM, E, D, CM, PM)

Alaska
  ExxonMobil - Arctic Land Rig (F, PM, E, D, P)
  ExxonMobil - Verity Platform (IM, E, D, CM, PS)

Sahalina Island
  Eni - Sakhalin Island 1 (Akuren-Dagi) (IM, E, D, CM, PS)

Bay of Thailand
  Coastal Energy - MOPU (F, E, D, PS)

ACRONYMS

A - Consulting Services
B - Construction Drawings
C - Procurement
D - Design
E - Equipment Specifications
F - Flare
P - Production Facility
S - Survey/Audit
S - Scheduling
T - Drilling Support Module
P - Pipe/Line Module
M - Drilling Module
R - Riser Module
M - Monopod
S - Semisubmersible
L - Level
R - Rig

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ENGINEERING AND PROJECT MANAGEMENT SOLUTIONS.

William Jacob Management
If they said it couldn’t be done or called it the world’s first, chances are we worked on it. For nearly a decade, William Jacob Management has been steadily earning a reputation for its work on the industry’s most innovative projects.

Beyond the immediate goal to be on time and on budget, William Jacob Management aims for the optimum balance of drivers, objectives and constraints that maximize the long-term business impact of every project.

Raw speed is only part of the equation for successful projects. William Jacob Management considers such factors as time-to-market, time/cost of money, payback schedules and many more performance criteria in helping clients create sustainable momentum.
Safety Record

- 0.0 Incident Rate since company startup in 2004
- No First Aids
- No Lost Time Incidents
- No Recordables
- 1,800,000 + manhours worked to date offshore, in manufacturing shops or in fabrication yards
  - Commended by Murphy on the Azurite Project
  - Commended by Anadarko on the Peregrino Project
Personnel

- Personnel Count: 85+ employees
- Each member of the Management Team has 20+ years of experience in the oil and gas industry.
- Project Management personnel are required to have field, yard and site experience.
- Recruitment of new engineers, designers and support staff to the industry.
- Investment in training programs.
Management Services

- Project Management
- Project Planning, Budgeting and Scheduling
- Procurement
- Contract Negotiations
- Commissioning / Startup
- Construction Management
- Health, Safety and Environmental
- Quality Assurance / Quality Control
- Procedure Development
- Database Development and Management
- Document Control System Development and Management
- Computerized Labeling System for Equipment and Piping
Engineering Services

- Engineering
  - Process
  - Mechanical
  - Electrical
  - Instrumentation
  - Structural
  - Pipeline
- Front End Engineering and Design Studies
- Technical Assistance and Coordination
- Construction Engineering and Detailing
Company Information

- 120+ engagements to date
- MSAs in place with numerous clients
- MSAs in place with other service providers
  - “Bolt on” additional services to create solutions for clients
Company Information, continued

- Reorganized to focus on existing engineering capabilities for specific clients
- Engineering capability always existed
- Project management now provided as standalone or to support engineering function
# Clients

<table>
<thead>
<tr>
<th>Anadarko</th>
<th>ExxonMobil / ExxonNeftgas</th>
<th>Northern Offshore</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ascot / Willbros</td>
<td>Fairwinds</td>
<td>Oceanic Consultants</td>
</tr>
<tr>
<td>Blake International</td>
<td>Frontier Drilling</td>
<td>Parker Drilling</td>
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<tr>
<td>British Petroleum (BP)</td>
<td>Furie Operating, Alaska</td>
<td>PEMSA</td>
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<tr>
<td>Bumi Armada</td>
<td>IDM Equipment</td>
<td>Pride International</td>
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<tr>
<td>CalDive</td>
<td>Irving Shipbuilding</td>
<td>Savannah Energy</td>
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<tr>
<td>CAMAC</td>
<td>Kerr McGee</td>
<td>Sidewinder Drilling</td>
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<tr>
<td>Chevron</td>
<td>Lonestar Energy Fabrication</td>
<td>Shell</td>
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<tr>
<td>Coastal Oil and Gas</td>
<td>Maersk Oil</td>
<td>Statoil</td>
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<td>Cross Logistics</td>
<td>Marlin Offshore</td>
<td>SSP Offshore</td>
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<td>Devon Energy</td>
<td>McCullough &amp; Associates</td>
<td>Superior Offshore</td>
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<tr>
<td>Drillmec Drilling Technologies</td>
<td>Murphy Oil</td>
<td>TODCO</td>
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<td>EEP</td>
<td>Mustang Engineering</td>
<td>TPM</td>
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<tr>
<td>EDG</td>
<td>Nabors Offshore Corporation</td>
<td>Worley Parsons</td>
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<tr>
<td>Eni</td>
<td>NAE</td>
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<tr>
<td>Escopeta E&amp;P</td>
<td>Noble Drilling</td>
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Areas of Expertise

Drilling Facilities Engineering
Drilling Facilities Engineering

- Department was constructed around a core team of former Pride International personnel
- Pride personnel worked in the Technical Department for the Deepwater Projects Coordinator
- Projects executed at Pride:
  - Mad Dog
  - Holstein
  - Thunderhorse
  - Kizomba A
  - Kizomba B

Mad Dog photo courtesy of BP p.l.c.
Thunder Horse photo courtesy of BP p.l.c.
Drilling Group

Drilling group personnel have experience with:

<table>
<thead>
<tr>
<th>FDPSO</th>
<th>TLPs</th>
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<tbody>
<tr>
<td>Drillships</td>
<td>Semis</td>
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<tr>
<td>Jackups</td>
<td>Modular platform rigs</td>
</tr>
<tr>
<td>Land rigs</td>
<td>“Round” FDPSO</td>
</tr>
</tbody>
</table>
## Drill Rig Projects

- Undisclosed Arctic Land Drill Rig
- Undisclosed Angola TLP
- Savanna Drilling 1,500 hp Land Rig
- Furie Alaska Operating Monopod
- Shell Mars B Olympus TLP
- Devon Jack/St. Malo TLP
- PEMSA 3,000hp Drill Rigs (2)
- BP Liberty Satellite Drilling Island
- Coastal Oil and Gas MOPU
- ExxonMobil/Parker Sakhalin Arkutun-Dagi Drilling Facility
- Sidewinder Land Rig
- SSP – Concept development for Round FDPSO

- Spartan Drilling Jackup Rig 151
- Chevron Big Foot TLP
- Blake International – Blake 5 Platform Rig
- Chevron Loran Manatee Study
- Statoil Peregrino – 2 Platform Rigs
- Halk El Menzel Jackup
- Murphy Azurite FDPSO
- Devon Polvo Platform Rigs
- CalDive Q4000
- Noble Danny Adkins
- TODCO 155 re-fit
- TODCO 185 re-fit
- TODCO Barge Rig 49 re-fit
- Pride Deep Ocean Ascension
Areas of Expertise

Production Facilities Engineering
Production Facilities Engineering

- Department is complemented by former Petro-Marine Engineering personnel
- Experience with:
  - FPSOs
  - MOPUs
  - Production barges
  - Junction platforms
  - 100 K BOPD production facilities
  - 100 mmscfd standard gas facilities
  - Shallow water pipelines
Production Group

Production group personnel have experience with:

<table>
<thead>
<tr>
<th>FPSOs</th>
<th>MOPUs</th>
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<td>100 mmcf Standard Gas Facilities</td>
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<tr>
<td>Shallow Water Pipelines</td>
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</table>
WJM Solutions
WJM MORF™
Breakthrough Modular Design Erases High Installation Costs

- 3,000hp modular offshore rig facility.
- Used for drilling and production.
- Two main modules: The Drilling Equipment Structure (DES) and the Drilling Support Module (DSM), which is equipped with Two (2) Offshore Pedestal Cranes rated for 75 Tons SWL c/w 120 foot Lattice Booms. The DES has the capacity to move approximately 15 wells arranged in a 3 x 5 matrix and is capable of drilling wells up to 25,000 feet.
- Accommodates 100 rig personnel.
- Helipad sits on top of the housing unit.
- FIRST OF ITS KIND in size and a first for the Gulf of Mexico.
Featured Projects
Undisclosed
Client – Undisclosed

Location – Angola, West Africa

Project - The TLP, which will be moored in about 4,265 ft. of water, is expected to be delivered by mid-2016.

Scope - Pre-tender front-end engineering design services for the self contained drilling rig that will be mounted on a field development TLP off the coast of Angola.
Undisclosed
Arctic Land Drilling Rig

- **Client** - Undisclosed
- **Location** – Russia
- **Project** - Modular drill rig with three basic module components:
  - Drilling Module
  - Drilling Support Module
  - Pipe Barn Module
- **Scope** - Providing Engineering and Design for the Drilling Support Module, as well as, piping, electrical and HVAC for the entire rig including the Derrick Equipment Set and the Pipe Barn.
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MENAdrill Rig Survey

- **Client** – MENAdrill
- **Location** – Campeche, Gulf of Mexico
- **Project** – Rig survey
- **Scope** – Determine cost analysis to refurbish fire damaged areas of the rig
Savanna Land Rig

- **Client** - Savanna Energy Services Corporation
- **Location** – North America
- **Project** - Fast Track Newbuild 1,500HP Land Rig with an 6 - 8 month turn around.
- **Scope of Work**
  - Engineering support on the construction of a newbuild 1,500HP land drilling rig for drilling services in the lower US 48.
  - Project Management
  - Construction Management
Land Rig #5

- **Client** – Sidewinder Drilling, Inc.
- **Location** – Onshore North America
- **Project** - Design piping system for Modular Land Drilling *Rig #5*
- **Description**
  - Completed AutoCad 3D layout of modules and pipe routing for new generation land rig.
Land Rig #5 - Scope of Work

- Project Management, Concept Design and Engineering & Design
  - Supplied Engineering and Detailed Design
  - Produced Piping Material Take-off
  - Produced Construction Isometric’s
  - Reviewed Equipment Scope of Supply
  - Produced 3-D Structural modeling
  - Produced 3-D Equipment modeling.
  - Produced 3-D Piping design.
  - Produced P&IDs for LP System.
  - Reviewed interfaces Main Platform
Kitchen Lights Development

- **Client** – Furie Operating Alaska, LLC
- **Location** - Cook Inlet, Alaska
- **Project** – *Kitchen Lights Development*
  - Well Test & Central Production Facility
- **Description**
  - Offshore Platform with utilities to support Drilling and Well Testing
  - Onshore Separation Facility designed for 100 MMSCF/D and 8000 BLP/D
  - Final Separation, Compression, Produced Water Disposal, Dehydration and Sales Gas Metering Tie-in. Design includes future oil production and pipeline
  - PLC Communication between Offshore Test Facility and Onshore Separation Plant.
  - Production equipment enclosed in climate control buildings.
Kitchen Lights - Scope of Work

- AFE Estimate
- Equipment Arrangement
- Process Flow Diagrams
- Permit Documents
- Facility Bid Packages
- Interconnect Piping Design
- Electrical Design
- Instrument Control System / PLC
- Civil / Structural Design
- Work Over Drilling Rig
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Pemex 1 & 2 Drill Rigs

- **Client**
  - Drillmec
  - Lonestar
  - GrupoMexico (PEMSA)

- **Location** – MX Gulf of Mexico

- **Project** – Engineering and design of two 3,000 hp API platform rigs

- **Description**
  - Fast track new design modular drill rigs for international major oil company
  - For use in the Bay of Campeche on new drilling and production platforms.
Pemex 1 & 2 - Scope of Work

- Produce feasibility concept study for small modular Offshore Rigs
- Supply Engineering and Detailed Design
- Produce Construction drawings
- Write Equipment Specifications.
- Review Equipment Scope of Supply
- Provide 3-D Structural design
- Provide Structural Load Analysis
Pemex 1 & 2 - Scope of Work, con’t.

- Project Management, Concept Design and Engineering and Design of new concept, low weight module drilling unit.
  - Provide Main Deck Analysis review.
  - Provide bill of materials.
  - Provide 3-D Piping design and interface.
  - Provide P&IDs for all systems.
  - Provide Electrical design and interface.
  - Provide 3-D electrical design.
  - Review interfaces with Quarters and interfaces Main Platform.
  - Provide Offshore Field Engineering.
Mars B Olympus

- **Client** – Shell Oil, Inc.
- **Location** – US Gulf of Mexico
- **Project** – MARS B Olympus New Build Drilling Facility
- **Description**
  - Design Production - 100 kbbl/d with production capacity of about 100,000 boe/d.
  - 24-slot drilling unit and includes capacity for Six subsea wells to gather production from the nearby West Boreas and South Diemos fields.
  - Water Depth - 3,000 feet in the Mississippi Canyon area about 1 mile from existing Mars platform, which started production in 1996.
Olympus – Scope of Work

- Providing support to Shell for the engineering and design of a new build drill rig for the Mars B Olympus TLP.
- Teams in the office and on site are providing assistance.
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POLVO
BRASIL BM-C-8

Prosafe

FPSO POLVO

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Polvo Development

- **Client** – Devon Energy
- **Location** - Brazil
- **Project** - Refurbishment of Ensco drill rig and related equipment that was installed on a new wellhead platform and merged with new production equipment.

**Highlights**
- First independent into Brazil without Petrobras.
- Fastest lead time to first oil for a Devon project.
- Managed the FEED study by Paragon Eng. (27 development concepts).
- Instrumental in selecting the development scenario.
- Managed the Brazil regulatory and importation scopes of work and commended by the Brazilian Navy.

- **Greatest challenge** – new territory
Polvo Development – Scope of Work

- Managed the drill rig scope of work and acted as E&C Manager of the overall project.
- Purchased existing 3000 hp SPAR platform rig from ENSO to install on fixed platform.
- Evaluated existing rig and equipment and made recommendations for refurbishment or replacement.
Polvo Development - Scope of Work

- Wrote specifications for new equipment.
- Provided Scope of Work for refurbishment.
- Evaluated technical bid(s) content and made recommendations.
- Provided 3-D piping design, P&IDs for all systems, PLC design and interface, 3-D electrical design and interface.
- Provided equipment expediting / inspection. Milestone endorsement / progress payments.
- Construction Management and planning.
- Onsite QA/QC during construction / installation.
- Provided onshore commissioning of rig systems.
- Provided offshore hook-up and commissioning.
- Prepared Ibama regulatory documents.
- Managed all importation for entire development.
- Managed all interface with Brazilian Navy and prepared, submitted and defended all regulatory submittals.
- Assisted with offshore hookup and commissioning.
Azurite F(D)PSO / VLCC

- **Client**: Murphy West Africa Ltd.
- **Location**: Republic Of Congo
- **Project**: Industry first ever FDPSO
- **Description**
  - 40,000 BOP/D and 18 MMSCF/D
  - Storage Capacity 1.3MM Barrels of Oil
  - Positioned in 5000 ft W.D.
  - 3000 HP Drill Rig
  - William Jacob Management was the Drilling Interface Coordinator for Murphy Exploration
  - Provided on site support in FELS in Singapore and PT Citra in Indonesia
Azurite F(D)PSO / VLCC, con’t.

- Provided detailed designs of numerous system components including pony decks and riser handling
- Vendor coordination

**Greatest challenge** – change of scope
Azurite - Scope of Work

- Provided all the interface management and engineering between the FPSO production facilities, sub-sea and drilling modules.
- Provided on-site construction management in Singapore and Batam, Malaysia.
- Engineer and design drilling modules for integration onto FDPSO vessel deck and substructure for integration over the vessel moon pool.
- Engineer and design of tensioner system.
- Liaise with drilling module transportation and installation companies (Batam-Singapore).
- DnV Interface.
OML 120 Development

- **Client** – Allied Energy / Camac International / Eni
- **Location** – West Africa
- **Project** - 40,000 BOP/D & 60 MMSCF/D FPSO with Water Injection & Gas Lift/Injection

- **Highlights**
  - Scope of work increased during project timeline
  - Fast track project with First Oil achieved on 12-15-2009
OML 120 Development

- Interface management between partners Allied, ENI, NAE and CAMAC and their vendors
  - Bumi Armada – FPSO
  - Aker - subsea
  - Technip – flowlines

- Greatest challenge – Global coordination of multiple entities
OML 120 - Scope of Work

- Validated detail design.
- Provided oversight / design review of FPSO topsides design by Bumi Armada (KL) and DPS (UK)

Specific activities included:

- Surveyed and Inspected FPSO Candidate (Romania).
- Evaluated Technical Bid(s).
- Interface engineering between subsea company, flexible flowlines, ship’s system and topsides design.
- HAZOP review in U.K. / Indonesia.
- Design review in Singapore and Italy.
- On site construction surveillance in Singapore
- ABS interface coordination in Kuala Lumpur.
- Review/approval of vendor drawings
- Review/approval of P&ID’s.
Peregrino DR-1 / DR-2

- **Client**: Kerr Mcgee / Anadarko / Statoil
- **Location**: Brazil
- **Project**
  - Refurbishment of two H&P (DR-1 / DR-2) drilling rigs and related equipment onto two wellhead platforms and merge with new equipment.
  - Project management, engineering, construction management, onshore and offshore commissioning for drill rigs.
- **Highlights**
  - Project started with Kerr McGee in 2006 then in 2008 transferred ownership from Anadarko to StatoilHydro
  - On site at Kiewit Offshore in Corpus Christi, Max Welders in Houma and ESI in Houma from 1/07 – 12/09
Peregrino DR-1 / DR-2, con’t.

- Provided ongoing engineering support through 2/11
- Provided a 15 man team for commissioning services of drill rigs, topsides and FPSO offshore Brazil through 6/11

- Greatest challenge – multiple changes in operating partner with differing requirements
Peregrino - Scope of Work

- Provided mechanical, process and electrical engineering and design.
- Assist in procurement of two existing 3000 hp platform drill rigs.
- Evaluate existing rig and equipment and make recommendations for refurbishment or replacement.
- Write specifications for new equipment.
- Evaluate technical bid(s) content and make recommendations.
- Provide 3-D piping design, Provide P&IDs for all systems, Provide PLC design and interface, Provide 3-D electrical design and interface.
Peregrino
Peregrino - Scope of Work, con’t.

- Provide equipment expediting / inspection.
- Milestone endorsement / progress payments.
- Construction Management.
- Onsite QA/QC during construction / installation.
- Provide onshore/offshore/commissioning team.
- Prepare Ibama regulatory documents (HAZOP)
Liberty Satellite Drilling Island

- **Client** – British Petroleum / Worley Parsons
- **Location** - North Slope, Beaufort Sea, Alaska
- **Project** – Extended Reach Drilling Rig
- **Highlights**
  - Plan was to revamp and start-up the Liberty Rig located on the Endicott satellite drilling island, 15 miles east of Prudhoe Bay, near Alaska’s Arctic coast.
  - Evaluated and assessed the design to advise on “fit for purpose”.
  - Completed sufficient engineering to assess the cost of putting everything in working order.
Liberty – Scope of Work

- Met with state and federal regulations authorities
- Detail Engineering / Work Packages
- Onsite Survey
- Cost Development and Analysis
- Technical Audit / Discovery Phase
- Detail Engineering / Work Packages
- Onsite Survey
- Cost Development and Analysis
East Kitchen Lights/Blake 151

- **Client** – Spartan Offshore Drilling / Furie Operating Alaska, LLC.
- **Location** – Cook Inlet, Alaska
- **Project** – East Kitchen Lights Development
  - Engineering and on-site Project/Construction Management for winterizing the Spartan *Blake 151* Jack-up drilling rig for arctic environment and modify the existing piping to accommodate drilling operations.
East Kitchen Lights – Scope of Work

- On site support of drill rig upgrade and maintenance overhaul during winter shutdown in Port Graham, Alaska
  - Performed an electric trace affecting piping and equipment.
  - Added new 15,000# BOP and revise piping, Choke Manifold and Choke and Kill lines.
  - Provided QA/QC for 4130 Piping.
  - Scheduled Stress Relieving and Hydrostatic testing.
  - Modified High Pressure Mud Manifold.
  - Specified Fire/Gas Detectors (replaced).
  - Added new Diverter Assembly, hoses for drilling and Shaker Cuttings Auger.
  - Reviewed/approved subcontractors’ invoices.
Berkut Platform

- **Client** - Exxon Neftegas Ltd
- **Location** – Sakhalin Island, Russia
- **Project** - Drilling Rig Re-Design and Certification Support.
- Worked with WorleyParsons and supported the drill rig portion of the project.
Berkut - Scope of Work, con’t.

- Engineering and Detailed Design support and supervision.
- Review Equipment Specifications.
- Material Handling Engineering and Design
- Drilling/Mechanical Engineering input and support
- Structural Load Analysis support
- 3-D Piping Design support
- 3-D HVAC Design support
- Construction Design/Field support
Conceptual Designs, Feasibility Studies and FEED Studies
WJM Conceptual Design, Feasibility & FEED Study Experience

- **Undisclosed** – Angola TLP
- **Undisclosed** - Arctic Land Rig
- **Pemex** – Mexico 3,000HP Modular Drilling Rigs
- **Devon Polvo** – Brazil Development
- **Statoil Peregrino** - Brazil Platforms
- **BP Liberty** – Alaska Arctic Land Rig
- **Northern Offshore** - Danish Jackup
- **BP Project 20K** – Gulf of Mexico Advanced Technology Offshore Drilling Rigs
- **CAMAC Fairwinds** - Production System
- **Chevron Loran Manatee** – Trinidad TLP
- **SSP Flotel** – Satellite Service Platform
Northern Offshore FEED

- **Client** – Northern Offshore
- **Location** – Europe
- **Project** – Jackup FEED
- **Scope of Work**
  - FEED study to upgrade a jackup drill rig for operations in Danish waters.
  - The upgrade primarily addressed the total replacement of the living quarters to meet Danish regulatory requirements.
Project 20K™

- **Client** – BP
- **Location** – US Gulf of Mexico
- **Project** - New breed of advanced technology offshore drilling rigs that will unlock the next frontier of deepwater oil and gas resources.

**Scope of Work**
- Retained by BP to review strategies for the development of an ultra deepwater drilling unit
Loran Manatee

- **Client** - Chevron
- **Location** - Trinidad
- **Project** - Preliminary study considering possible solutions for drilling the production wells on the Loran Manatee Development offshore Trinidad.

**Scope of Work**
- For the platform based solution, WJM team members assembled an equipment list and provided weights and costs to develop this possible option.
- WJM was also tasked with examining the viability of alternate options.
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Flotel
Flotel

- **Client** – SSP/Flotel
- **Location** – Undisclosed
- **Project** – The Satellite Services Platform study was done to determine the feasibility of a 3000hp Drilling Rig installation. SSP+ round floater concept.

**Scope of Work**
- A weight control study and equipment arrangement for deepwater tree installation was performed.
- WJM worked with SSP on the initial concept development and provided assistance to them as they moved the SSP Plus from concept to design, construction and operation.