

Crestech Engineering Limited

Company Profile & Project Capabilities

May 2018



CresTech

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Company Introduction

Who we are:

- Crestech is an Engineering Design & Project Management Company based in Lagos delivering world class services to the Nigerian Oil & Gas Industry.

What we do:

- Crestech provide services for offshore and onshore oil production facilities which includes: Conceptual Design, Front End Engineering Design (FEED), Detailed Engineering Design (DED), Construction follow-on engineering and Project Management
- In accordance with provisions of the Nigerian Oil and gas Industry Content Development act of 2010 (NOGICD), Crestech Engineering Limited has demonstrated sustainable capabilities.



Company Introduction

Where we are:

Ivie House, 4/6 Ajose Adeogun Street,
Victoria Island, Lagos.

Engineering dedicated floors:

1,400 m² open space
Up to 200 workstations
15 offices



Company Introduction

Foreign Companies Alliance Agreements

The following working agreements have been entered into between Crestech Engineering Limited and some foreign engineering companies:

- ▶ Collaboration agreement between Technip Offshore Nigeria limited and Crestech Engineering Limited
- ▶ Frame Agreement for provision of engineering and consultancy services by and between Genesis Oil and Gas Consultants Ltd and Crestech Engineering Limited
- ▶ Strategic Alliance Agreement between Crestech and Penspen Limited
- ▶ Cooperation Agreement between Crestech and Sofresid S.A

Company Introduction

Field of Activities

Our field of activities comprises of conceptual/feasibility study, Front End Engineering Design (FEED), Detailed Engineering Design and Project Management Services for greenfield and brownfield facilities in the Oil and Gas industry, including:

▶ **Offshore fixed and floating facilities**

- Production, wellhead, gathering, pumping, separation, compression platforms
- Floating production facilities (FPSOs, FSOs, Off-loading Buoys)
- Subsea (deep water) facilities: pipelines and risers, PLEMs, suction piles, etc.

▶ **Onshore facilities**

- Upstream facilities, wellhead, gathering centers, processing plant, pipelines, etc.
- Terminals, Depots, Storage facilities, Flow-lines
- Tanker loading and unloading facilities
- Refineries, Downstream plants
- Natural gas treatment plants
- Petrochemicals & Fertilizers
- Buildings & Facilities

Capabilities & Experience

Engineering Capabilities

- ▶ **Crestech offices are fully equipped with up to date Engineering Facilities and an array of specialist engineering software applications.**

- ▶ **Crestech has the following skill centres in the Lagos office:**
 - Project Management
 - Project Controls and Planning
 - Process / Safety Engineering
 - Civil / Structural Engineering
 - Piping / Pipeline Engineering
 - Mechanical Engineering
 - Electrical Engineering
 - Instrumentation and Telecoms Engineering
 - 3D CAD Modelling & Review (PDMS, PDS, INVENTOR, NAVISWORKS)

Capabilities & Experience

QA/QC & HSE

Crestech operates with standard quality, health, safety and environmental management systems, and is committed to providing a safe working environment for it's employees, clients and visitors.

- ▶ **This is achieved by enforcing it's policy statements on HSE, Quality, Environment, Community Relations, and Drug & Alcohol Use.**

- ▶ **Crestech is accredited to the following international standards:**
 - ISO 9001: 2008 - Quality Management System (certified by Bureau Veritas)
 - ISO14001: 2004 - Environmental Management System (certified by Bureau Veritas)
 - OHSAS 18001: 2007 - Occupational, Health and Safety Management System (certified by Bureau Veritas)

Capabilities & Experience

Project Capabilities

- **Crestech has successfully executed the following types of projects: -**
 - FPSO FEED & Detailed Design
 - Conceptual Studies for Onshore & Offshore Oil and Gas Facilities
 - Debottlenecking Studies for Onshore Oil and Gas Facilities
 - Deepwater OLT Buoy Detailed Design
 - Subsea Umbilical Detailed Design (Secondment to Technip Umbilicals)
 - Fixed Platforms Topsides and Jackets FEED, Detailed Design and Follow-On Engineering.
 - Conceptual Studies, FEED and Detailed Design for Buildings, Workshop & Other Facilities
 - Onshore Gas Pipeline FEED & Detailed Engineering

Capabilities & Experience

Current / Past Clients



ExxonMobil



Project References

Project Experience – Some Completed Projects

➤ Key Past Completed Projects

- Ikike Wellhead Platform FEED Verification (TOTAL) - 52,100 hrs
 - *FEED optimisation for 12-Slot Wellhead Platform and design of tie-ins to host platform*
- Erha North Phase 2 FPSO Topside Modification (ExxonMobil) - 70,000 hrs
 - *Detailed Engineering for brown field modifications of the existing FPSO topside facilities as part of development of additional subsea wells*
- OFON Phase 2 Wellhead Platforms/Bridges Detailed Design (TOTAL) - 166,000 hrs
- EGINA FPSO FEED - as part of Consortium (TOTAL) - 136,000 hrs
 - *Overall project and interface management, system definition, process and safety design of two modules and pipe rack*
- OAGM FEED and Detailed Design (CHEVRON) - 115,000 hrs
 - *Gas gathering for 6 offshore platforms and associated onshore facilities.*

Project References

Project Experience – Some Completed Projects (Cont'd)

➤ Key Past Completed Projects

- EGP3B FEED and Detailed Design (CHEVRON) - 140,000 hrs
 - *Design of Gas Gathering Compression Platform (GGCP) and Modification of 9 offshore production platforms for gas gathering for the CNL flare-out campaign*
- Installation Engineering Design of Deepwater Subsea Jumpers (several) - 5,000 hrs
 - *Design of production, water injection and multiphase jumpers for subsea flow lines as part of FPSO subsea tie-backs.*
- Brass LNG Upstream Project (AGIP) - 31,700 hrs
 - *FEED for 2 flow stations modification and 6 new onshore gas pipelines*
- EGINA Buoy OLT Detailed Design (TOTAL) - 53,000 hrs
 - *Engineering design of CALM Buoy, 3D Modelling and procurement support to EPC Contractor*
- OFON Phase 2 Follow-on Engineering (TOTAL) - 16,000 hrs
 - *Follow-on engineering during fabrication phase to two wellhead platforms topsides and jackets*

Project References

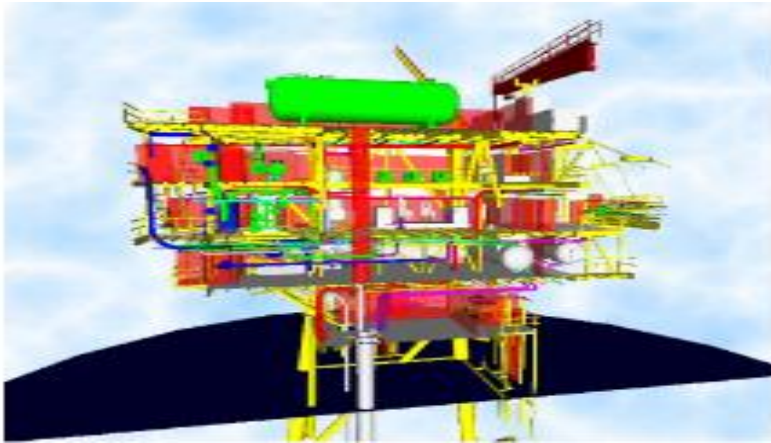
Project Experience – Some Completed Projects (Cont'd)

➤ Recently Completed Projects (2015 - 2017)

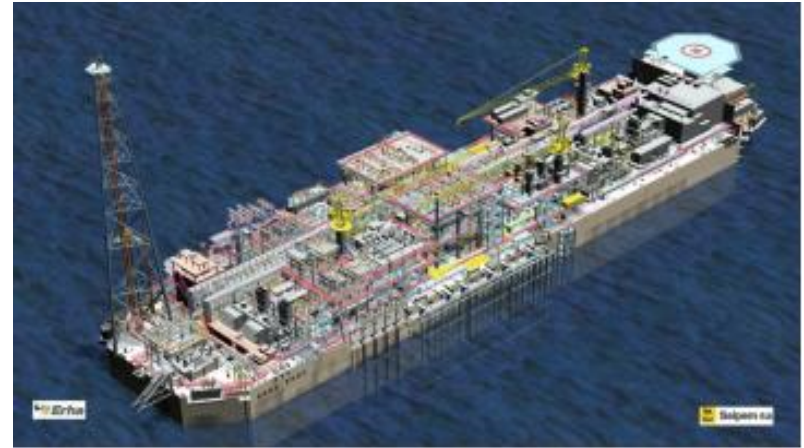
- Egina Umbilicals (DUCO) Detailed Design (TOTAL) - 40,000 hrs
 - *In-country project and interface management, STI design, procedure and specifications preparation.*
- Liquid Treatment Facility (LTF) Phase 1 Project – Detail Design (SEPLAT) - 6,084 hrs
 - *Design, routing of piping, tubing and cables connecting the process equipment and utilities of the new LTF Phase 1 Facilities.*
- Sapele Flowstation Debottlenecking Study (SEPLAT) - 2,581 hrs
 - *Determination of the maximum production capacity achievable from the existing facility, bottlenecks identification, and provision of the process design for the upgrade (Executed along with Genesis Oil & Gas, Houston, USA).*
- Piping Modification Works at OB-OB Gas Plant – Detailed Design (MORPOL/NAOC) - 2,778 hrs
 - *Detailed Engineering Design for piping modification works to enable provision of alternative gas supply to Indorama Eleme Fertilizer and Chemicals Limited from Ob-Ob Gas Plant.*
- Provision of Volumetric Flow Control System – Detailed Design (MORPOL/NGPTC) - 2,270 hrs
 - *Engineering design of volumetric flow control system for Omotosho and Ihovbor metering stations*

Project References

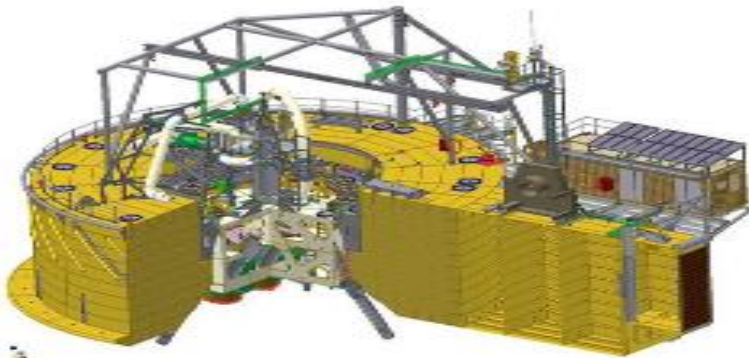
TOTAL E&P - OFON PHASE 2



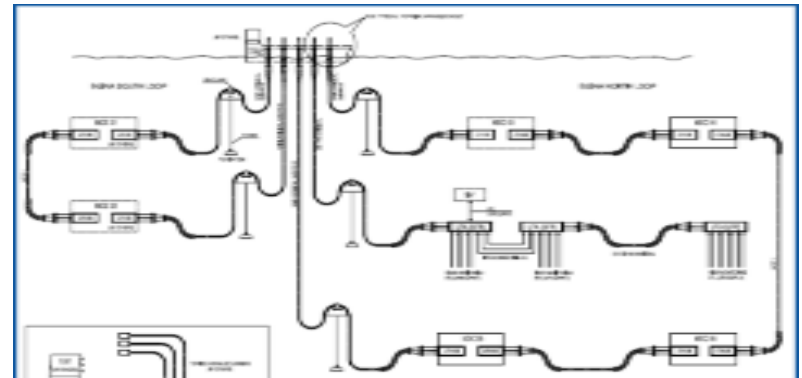
EXXONMOBIL - ERHA NORTH PHASE 2



TOTAL E&P - EGINA OFFLOADING BUOY

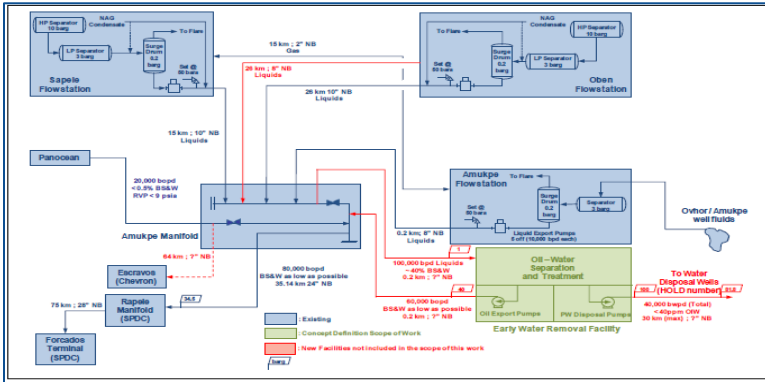


TECHNIP – UMBILICAL FOR EGINA FPSO

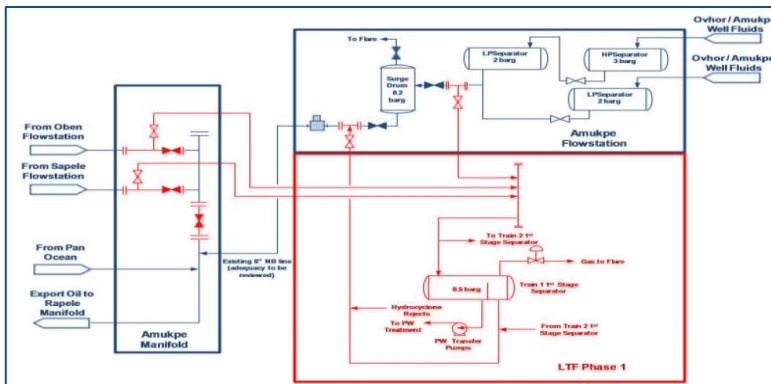


Project References

SEPLAT - LIQUID TREATMENT FACILITY PHASE 1 PROJECT



SEPLAT - SAPELE FLOW STATION DEBOTTLENECKING STUDY



Project References

Details of Key Past Projects (Cont'd)

Project Title	Client Name	Detailed Scope of Work performed by Tenderer	Start / Completion year or in progress	Role
Seven (7) Critical Gas Development Projects (7CGDP)	NNPC	Provision of Project Management Consultancy Services for four (4) of the 7CGDP for NNPC.	2018 - In progress	Project Management Consultants
EGINA Offloading Buoy – Detailed Engineering Design	Total E & P	Detailed Engineering Design for the CALM Buoy- including Process & Safety, Piping, Structural, Mechanical, E& I. Autodesk Inventor 3D Modelling. Engineering Hours: 52,900	2013 - 2016	Engineering Subcontractor to NOV Nigeria Oil & Gas Ltd, the EPC Contractor
Umbilicals for EGINA FPSO - Detailed Engineering Design	TOTAL	In-country project and interface management, STI design, procedure and specifications preparation. Engineering Hours: 40,000	2013 - 2016	Engineering Subcontractor to Technip
IKIKE Project Optimization Phase 2	Total E & P	FEED Optimisation for Ikike wellhead platform, Amenam Tie-ins design, multidisciplinary FEED verification and design and 3D CAD computer modelling using PDMS etc. Engineering Hours: 58,671	2013 - 2014	Main Contractor
NLNG Bonny Vocational Centre Expansion Project -	Nigeria LNG Limited	Detailed Engineering Design for BVC Facilities; Classrooms, Workshops, Canteen and Office Buildings. Engineering Hours: 24,744	2013 - 2014	Main Contractor
Bonga South West Project - FEED	SNEPCO	Topside Mechanical Static Design, Mechanical Piping Data Sheets, Instrumentation (PACO) Design Data Sheet, Process & Utilities to support ITT documents for Shell Bonga South West FEED. Engineering Hours:10,000	2013	Main Contractor

Project References

Details of Key Past Projects (Cont'd)

Project Title	Client Name	Detailed Scope of Work performed by Tenderer	Start / Completion year or in progress	Role
Erha North Phase 2 – Detailed Engineering Design	ExxonMobil	Detailed Engineering for brown field modifications of the existing FPSO Topside Facilities and Subsea system. New Production, Water injection and Gas Lift Lines, New Riser Base Gas Lift Module, new Pig Launcher/Receiver, new TUTAs, Chemical Injection Skids & HPU. Engineering Hours: 70,000	2012 - 2014	Engineering Subcontractor to Subsea 7, the EPC Contractor
OFON Phase 2 Project – Detailed Engineering Design	Total E & P	Detailed Engineering Design of two wellhead platforms and two interconnecting bridges Engineering Hours: 166,000	2011 - 2012	Engineering Subcontractor to Nigerdock, the EPC Contractor
Onshore Asset Gas Management Project	CHEVRON	Detailed design, Procurement Support, Construction & Commissioning for 6 onshore platforms (Dibi, Olero, Abiteye, Makaraba, Utonana and Opuekeba); FEED also executed by us (Crestville) in Dec, 2007 Engineering Hours: 80,000	2008 - 2009	Main Contractor
Escravos Gas Project	CHEVRON	Brownfield Detailed Engineering Design involving the modification of 9 offshore production platforms for gas gathering for the CNL flare-out campaign; Covering conceptual studies, basic engineering and detailed design; Overall scope shared with Technip USA Engineering Hours: 140,000	2006 - 2008	Main Contractor
Brass LNG Upstream Project (FEED)	NAOC	FEED for 2 flow stations modification and 6 new gas pipelines; The flow stations are Clough Creek and Kwale Gas Plant Engineering Hours: 31,700	2006 - 2007	Engineering Subcontractor to GENESIS Oil & Gas