

ELIXIR Services Overview



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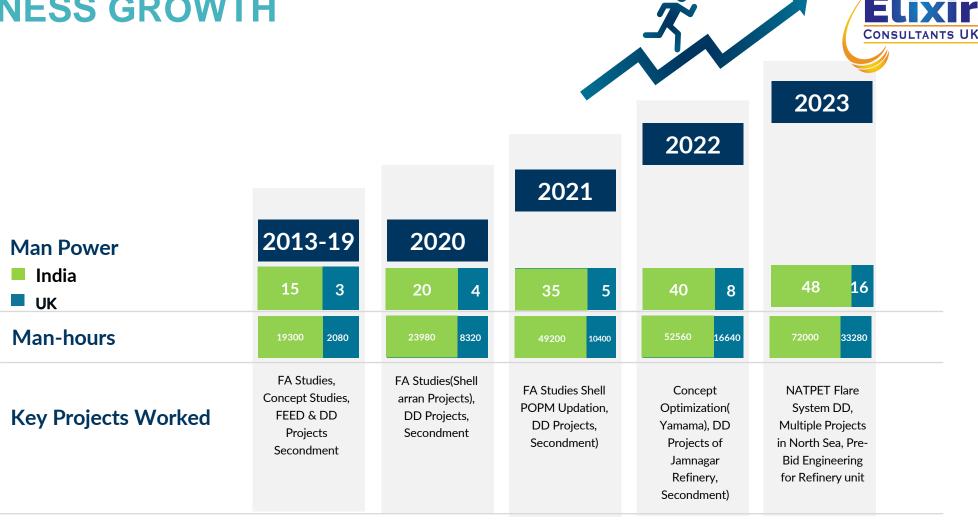
GLOBAL EXPERT IN ENGINEERING SERVICES

ELIXIT CONSULTANTS UK

- Rapid Growth turnover up by 100%
- High % repeat business
- Good staff retention and hence continuity in support
- Services with competitive edge
- Achilles Registration
- QS ISO 9001 approved
- One stop solution (Reservoir to Export)
- Holistic Approach
- Aspen Suite, OLGA, PHAST, PIPENET, ANSYS Fluent etc.
- Multidisciplinary Engineering
- Vendor Registration is already with Px



BUSINESS GROWTH



ORGANISATION CHART CONSULTANTS UK Vishwas Shinde Managing Elixir - Management **Director** Elixir - UK Elixir - India **Anil Muskawad** Vrijal Kulkarni Shubhangi Shinde Engineering Contract Manager Company Head Secretary Elizabeth McAlpine **Sheetal Dolas** Suvarna Bhamare Tanaji Shinde Pravin Bhamare **Business Development** QA/QC Engineer IT Analyst Commercial Manager Project Manager Rajesh Wankhade Dinesh Yatin K. Preeti Raskar Jim Mallon Allan Hunter Geetesh Ghanekar Seamus Byrne Anil Manjare **Amey Bhate** Lead -Subsea Expert Manager - Process Mech Lead Lead - Material Instrumentatio Lead - Civil & Lead - Flow Lead - Tech Lead -Mech(Static & (Rotation) n & Control & Corrosion Structural Assurance Electrical Safety Piping) **Anant Dolas** Amol Avinash Prashant Petkar Stephen Pandharpatte Sydney K. Amol T. 1. Anuradha Amit Gharde Raskar Lamos Prawin J Sr. Designer-1 Amol G. Sharma Nilesh Vijay Shinde Saurabh Designer - 1 Sanjay Z. Shevate Ghantade Bhushan T. Aniket M. Ratnakar Patil Mayuri Indrajit Shinde Sandeep Mangesh W. Kochale Sagar Bhui Tichkul Senior Suraj Abhishek Birje Madhav Designer - 3 Suryavanshi Ghantala Ajith Kawale Designer - 3 Mahesh M. Amit Mane Avinash Khot Puneet Pisal Indrajit Shinde Draftsman - 1 11. Sr. Designer - 1 12. Designer - 2 13. Trainee Engineer - 8 Copyright @ Elixir Consultants 2023 Assured Quality to Global Engineering & Technological Needs.

OVERVIEW



SECTORS

| Upstream <i>i</i> | / Midstream Oil |
|--------------------------|-----------------|
| & Gas | |

Refinery & Petrochemical

Chemicals(Organic/Inorganic)

Energy Transition(CCUS & Hydrogen)

LNG Manufacturing & LNG Regassification

Storage Terminals

Desalination Plant

Effluent Treatment Plant

Biorefinery



SCOPES HANDELED

| Feasibility Studies / |
|-----------------------|
| Concept Studies |

FEED/ Detailed Design

Operational/
Commissioning Support

Flow Assurance Studies

Process Optimization & Debottlenecking

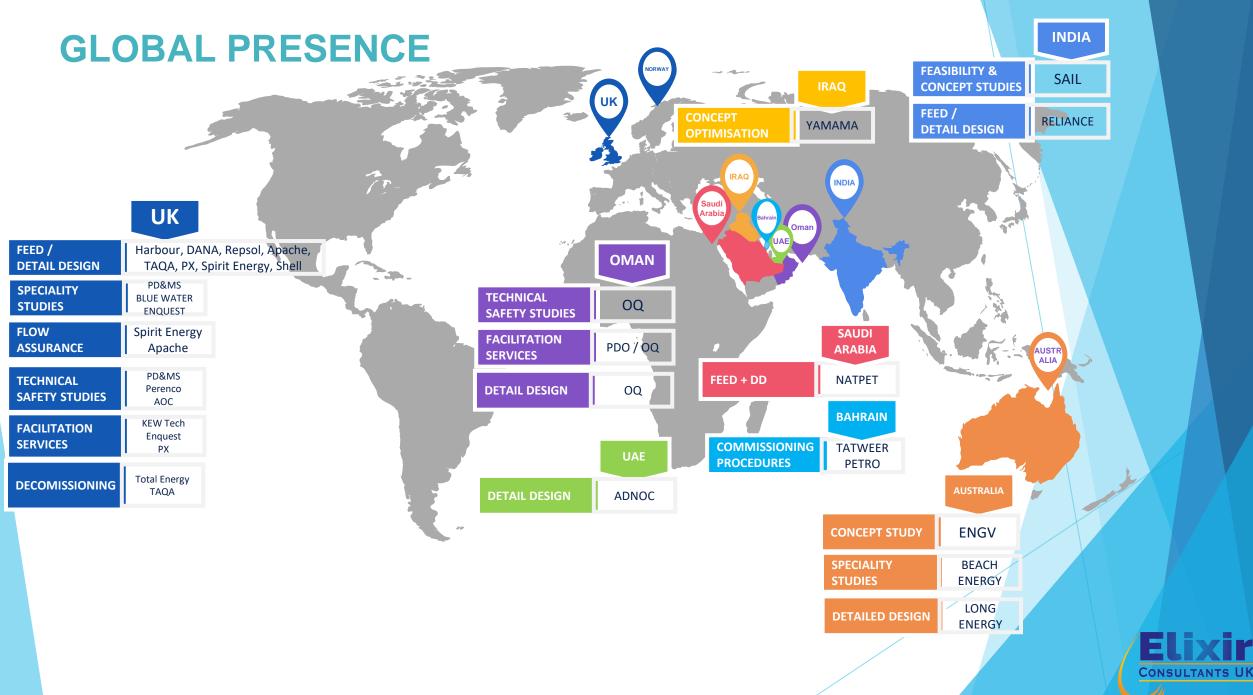
Flare Network Analysis & Blowdown Studies

Dynamic Simulation, CFD Analysis

Firefighting Network Analysis

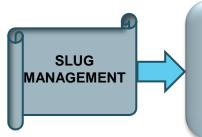
Technical Safety Studies

Project Management & Control

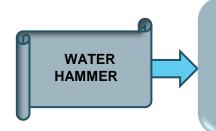


FLOW ASSURANCE STUDIES

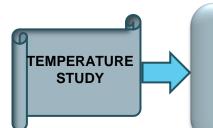




- Arran pipeline to shearwater platform slug management study- For Shell.
- Slug prediction and impact on pipeline & piping- For Iona-3, Australia.



- Water hammer effect study for produced water injection system- For BW offshore, UK.
- Water hammer effect study for produced water treatment facility- For Blue Water, UK.



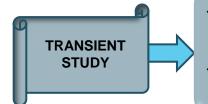
Minimum temperature analysis for FG import scrubber during platform startup –For Spirit Energy.



- Steady state & dynamic simulation of Arran Pipeline to shearwater platform (temperature & pressure profile) - for Shell, UK.
- Steady state and dynamic for CO2 dense phase of SWAG CO2 EOR Pilot pipeline project- For Bu Hasa, Qatar.



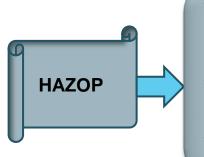
Sand Transport modelling in subsea well to Offshore Platform-For North Sea Client.



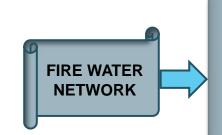
- Transient simulation for N16, N7 and BK8 wells- For Apache, UK.
- DP6 DP8 pipeline transient analysis- For Spirit Energy

TECHNICAL SAFETY STUDIES & WORKSHOPS

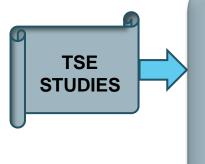




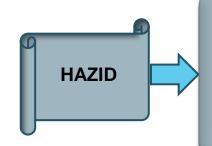
- HAZOP facilitation for ILI Pigging Campaign for Shetland Gas Pipeline to Alwyn Platform – For TOTAL, UK.
- HAZOP facilitation for various brownfield projects- For Enquest, UK
- Procedural HAZOP for pipeline pigging facility-For North Sea UK



- Fire Water network hydraulic study- For Perenco UK.
- Fire Water demand calculations based on various Fire Scenarios - For OQ Oman.



- Risk Decision Analysis and work prioritization for AOC FPSO UK
- Shell Gannet DGS Seals N2 & O2 Rich vent Dispersion Study, UK
- Thermal Radiation study for Beach Energy Beharra Spring Gas Plant
- QRA study for Pride Packaging project, OQ, OMAN
- HAZOP and LOPA Actions Closeout for Anasuria Operating Company (AOC) UK



- HAZID facilitation Ras Tanura Refinery, Hydrogen Manufacturing Unit- For Saudi Aramco
- HAZID, DR, HAZOP, SIMOP Facilitation-Network Gas Supply Stations of- For OQ, OMAN
- HAZID for subsea pipeline (Alwyn Platform to St. Fergus ILI campaign- For TOTAL UK

FEASIBILITY & CONCEPT STUDIES

CONCEPT STUDY

Gas Plant Concept Optimization Study- For Yamama Iraq

H2 Generation & Dispensation Facilities Concept Study for ENGV Australia

Process support for finalizing the concept of flare gas recovery facility for Oman client through Norwegian EPC company

Feasibility / Concept Study for CO2 Utilization from Steel Plant (SAIL India)

Concept Selection for Buzzard Enhancement Project for Nexen UK

Design Review of Auersthal Process Plant PWT Quality Upgrade for OMV Austria Exploration & Production GmbH)

PROCESS STUDIES

Review of impact of saline formation water on BHP Billiton Minerva Gas Facility

Study of sand removal and sand disposal options for Nexen Buzzard

Design verification and assessment for Bouri Gas Utilization Project (BGUP) with associated sour gas of 42% CO2 and 1% H2S for Mellitah Oil and Gas (MOG)

Acid Gas Removal (AGR) Stabilization Project for Nexen Buzzard

Debottlenecking study of both oil and gas facilities of Buzzard for 230 kbopd oil production

PROCEDURES / DESIGN GUIDELINE

Preparation of Produced Water Design Guidelines for Chevron

Preparation of commissioning procedures of BAPCO upstream

BEST AVAILABLE TECHNOLOGY

Maersk Al-Shaheen New Centralized Process Platform – Oil and Water Separation Technology Review



MAJOR FEED PLUS DETAILED DESIGN PROJECTS

Flare System Improvement Project for NATPET Saudi Arabia Process and Technical Safety support for Fire Water Network modifications Project for OQ Oman Process Engineering Simulation Support for Beach Energy Gas Production Facility for additional HC recovery by installing one more stage to CO2 membrane system.

MAJOR DETAILED DESIGN PROJECTS

Process Decommissioning Support for Attic Oil Removal for Cormorant Alpha TAQA UK Structural Piperack Modification for DANA Tritan repair & replacement of perforated areas Work, UK POPM updation of Chemical Injection System and North Sea pipeline (Scoter Merganser) post decommissioning for Shell Subsea Well and Pipeline Tieback to Shearwater - Shell Acorn Detailed Design Project **TOTAL Pipeline Decommissioning Process Support** Flare Network Analysis & Blowdown Studies for Beach Energy Gas Plant –2nd Stage addition to CO2 membrane System Process Engineering Assurance for Bu Hasa SWAG CO2 EOR Pilot Project (Dense Phase CO2 Pipeline Transpiration & Injection) Stress Analysis Support to Long Energy for various Brown Field Modifications of Lochard **Energy and Beach Energy**

MAJOR DETAILED DESIGN PROJECTS

Detailed Design of Brownfield Modification Projects of Reliance Jamnagar Refinery As Building of Catalytic Point Gas Detectors Work pack 8 and 10- Instrumentation upgrade, UK Replace Local Deck Plating- Structural Modification scope for replacing Kennedy gratings, UK Claymore - Oil Export - Pump Outages Post SD Pipework Replace- Instrumentation Detailed Design, UK Armada Destec Seal ring Replacement NWS & Maria - Piping Drawings, Civil Support Drawings & Load data Preparation. Pre-Bid Engineering support for Refinery unit (7000lines)

POSSIBLE SUPPORT AREAS



FLOW ASSURANCE RELATED WORK

- Hydraulic Studies
- Transient Analysis (wax, hydrate, slug etc.)
- Developing First Gas Procedure and LP Cold Restart procedure based on Production Technologist input (drawdown and ramp rates)
- Chemical Injection requirement & Umbilical Core Sizing
- Pipeline POPM development covering planned and unplanned shutdown
- Pipeline pigging analysis and procedure development
- Pipeline sand deposition study

ENGINEERING SUPPORT

- Options Screening and Concept Select for Brown Field Modification Projects
- Technical Safety Studies (Radiation & Dispersion Analysis, QRA followed by Safety Case Updation, Demonstration, Risk Decision Analysis, SIMOPS HAZOP/LOPA Closeout)
- Workshop Facilitation Services
- Multidisciplinary FEED + Detailed Design work for Brownfield Modification Projects

SIMULATION STUDIES

- Steady State & Dynamic Process Simulation
- Blowdown / Depressurisation Studies, Flare System adequacy checks
- Pressure Surge Studies
- CFD Analysis

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Thank You

