

PROJECT REFERENCES

OIL & GAS AND PETROCHEMICAL

United Arab Emirates:

M-Project HVAC Control System

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of the Zone-1 HVAC electrical and control panel for electrical substation at Fujairah MOT. **Solution:** Simplex ABB PLC enclosed in an Ex-e enclosure **Location:** Abu Dhabi, UAE **Client:** ADNOC

Vapor Extraction and Collection Control System Upgrade

Scope of Work: Design, Supply, Installation, and Commissioning of upgrade of the vapor extraction and collection control system
Solution: upgrade of the Schneider Electric PLC system for process control and batch management for the vapor extraction and collection with integration with the existing Wonderware SCADA system
Location: Dubai, United Arab Emirates
Client: Total Lubricant Blending Company

Habshan to Fujairah Crude Oil Pipe Line HVAC

Scope of Work: Design, Supply, Installation Supervision, and Commissioning of Twenty-Two HVAC Control System and Instrumentation
Solution: Redundant Siemens S7-300 (Software Redundancy), WinCC SCADA System, and Siemens Instrumentation System
Location: Sweihan & Fujairah, United Arab Emirates
Client: ADCO

Haliba & Near Haliba Early Production Facilities (EPF) Project

Scope of Work: Supply, Configuration and Programming of PLC Based Flare Control System. Solution: Rockwell Automation make Compactlogix Location: Abu Dhabi, United Arab Emirates Client: Al Dhafra Petroleum Operations Company (ADNOC)

UMM AL DALKH EARLY PRODUCTION SCHEME EPC PROJECT

Scope of Work: Design, Engineering, Manufacture, Programming, Testing, FAT and Supply of PLC based HVAC Control System. Solution: Siemens make Redundant S7 Control System with Siemens HMI System Location: Abu Dhabi, United Arab Emirates Client: ADNOC Offshore

Kingdom of Saudi Arabia:

PBR/EPDM Synthetic Rubber Process Refrigeration Control System

Scope of Work: Design, Supply, and Commissioning of PLC and HMI system. **Solution:** Redundant Siemens S7400H PLC System with local HMI and integration to the main plant DCS **Location:** Jubail, Kingdom Saudi Arabia **Client:** KEMYA – SABIC/Exxon

Poly Methyl Methacrylate (PMMA) Process Refrigeration Control System

Scope of Work: Design, Supply, and Commissioning of PLC and HMI system. **Solution:** Redundant Siemens S7400H PLC System with local HMI and integration to the main plant DCS **Location:** Jubail, Kingdom Saudi Arabia **Client:** SAMAC – SABIC/Mitsubishi Rayon

<u> Under Balanced Drilling – Phase 4</u>

Scope of Work: Design, Supply, Manufacture, Programming, Testing, FAT and Supply of Zone-2 rated PCS and ESD/FGS system. **Solution:** Redundant SIL-2 Rockwell make Control logix with 1715 IO System. **Location:** Kingdom Saudi Arabia **Client:** ARAMCO

Kingdom of Bahrain:

Non-Associated Gas Compression Facility (NCF) 1&2 Containerized Control System and LV MCC

Scope of Work: Design, Supply, and commissioning of the Containerized Control and Electrical Systems (E-House).

Solution: PCS and ESD/FGS Systems with Redundant SIL-2 Rockwell PLC System, ICONICS SCADA System, Control Room Setup, 415V LV MCC Panel, and 30KVA redundant UPS with Lead Acid Batteries (60 minutes backup) housed in 4 Nos. of modified ISO 40"HC containerized buildings. *Location:* Bahrain

Client: Tatweer Petroleum Bahrain

State of Qatar:

HVAC Control System Upgrade

Scope of Work: Design, Supply, and Commissioning of PLC and HMI system. Solution: Redundant Siemens S7400H PLC System and Siemens WinCC HMI Station, Location: Mesied, Qatar Client: QAFCO

EPIC for New Gasoline and Jet Storage Facilities in MIC - Nitrogen Generation Unit

Scope of Work: Design, Supply, Manufacture, Programming, Testing, FAT and Supply of PCS-7 and HMI system. **Solution:** Redundant Siemens SIL-3 PCS-7 System and HMI Station,

Location: Mesied, Qatar

Client: Qatar Energy

Sultanate of Oman:

Al-Baraka Water Injection Station – Containerized Control System

Scope of Work: Design, Supply, and commissioning of the Containerized Control and Electrical Systems (E-House).

Solution: Two Redundant Rockwell PLC and IO system, Network panel, and Redundant UPS with Lead Acid Batteries (30 minutes backup) housed in customized containerized buildings.

Location: Baraka Field, Oman

Client: Occidental Petroleum of Oman

Far West Gas Compression Station – Containerized Control System and LV MCC

Scope of Work: Design, Supply, and commissioning of the Containerized Control and Electrical Systems (E-House).

Solution: Redundant Rockwell PLC System with SIL II IO system, FactoryTalk View SCADA System, Control Room Setup, LV Switchgear, LV MCC Panel, and Redundant 20KVA UPS with Lead Acid Batteries (30 minutes backup) housed in two standard 40"HC containerized buildings. **Location:** Safa Field, Oman

Client: Occidental Petroleum of Oman

Al Barakah Water Injection – PLC/PESD Shelter Far West Fresh Water Injection Expansion Phase II Scope of Work: Design and Supply of ESD & F&G Control Panel Solution: Rockwell Automation ControlLogix System Location: Safa Field, Oman Client: Occidental Petroleum of Oman

MVC HCL Tanks Relocation

Scope of Work: Design and Supply of ESD & F&G Control Panel **Solution:** Rockwell Automation ControlLogix System **Location:** Mukhaizna, Oman **Client:** Occidental Mukhaizna LLC

Far West Fresh Water Injection Expansion Project – Al Barakah Development Phase I

Scope of Work: Design and Supply of ESD & F&G Control Panel **Solution:** Rockwell Automation ControlLogix System **Location:** Al Khazain, Oman **Client:** Occidental Mukhaizna LLC

K-610 Gas Lift Compressor ESD and F&G

Scope of Work: Design and Supply of ESD & F&G Control Panel **Solution:** Rockwell Automation ControlLogix System **Location:** Safa Field, Oman **Client:** Occidental Petroleum of Oman

K-610 Gas Lift Compressor Control System

Scope of Work: Design and Supply of Gas Lift Compressor Control Panel **Solution:** Rockwell Automation ControlLogix System **Location:** Safa Field, Oman **Client:** Occidental Petroleum of Oman

Safah Field Water Injection Control System

Scope of Work: Design, Supply, and Commissioning of the control panels for well water injection. **Solution:** ControlLogix System **Location:** Safa Field, Oman **Client:** Occidental Petroleum of Oman

Expansion of Liquid Handling Facility at Jalal

Scope of Work: Design, Supply, Installation, and Commissioning of the control system. Solution: ControlLogix System Location: Safa Field, Oman Client: Occidental Petroleum of Oman

PLC Control Panel for LOT-4: PCS & SGS Cabinets

Scope of Work: Design, Supply, and Commissioning of the PLC System for L-4 at Mukhaiznah field **Solution:** Rockwell Automation ControlLogix System **Location:** Mukhaizna, Oman **Client:** Occidental Mukhaizna LLC

PLC Control Panel for KGP Tie-in Area Fushaigah Field

Scope of Work: Design, Supply, and Commissioning of the PLC System for Block 62 Development **Solution:** Rockwell Automation ControlLogix System **Location:** Fushaigah, Oman **Client:** Occidental Oman Gas Company LLC

BISAT-C Production Facility – Nitrogen Generation and Air Compressor Package

Scope of Work: Design, Engineering, Programming, Panel Integration, Testing, Supply and Documentation of PCS-7 Control System **Solution:** Siemens make PCS-7 **Client:** OQ

Thuleilat Oil Well Injection (ESP) Skid

Scope of Work: Design, Engineering, Panel Integration, Supply, and Documentation of the 6 Nos. of RTU System. **Solution:** Rockwell Automation Compactlogix System

Location: Thuleilat, Oman *Client:* Occidental Oman Gas Company LLC

Republic of Iraq:

SIBA Gas Field Development Project

Scope of Work: Design, Supply, Installation, and Commissioning of the Control System for the Gas Compression Process Cooling in Addition to the Integration with the Main DCS System over Modbus TCP/IP.

Solution: Redundant Siemens S7400H PLC System in SIL2 configuration with HMI Station and Main Distribution Boards and MCC Panels. **Location:** Siba, Iraq

Client: Kuwait Energy Iraq Limited (KEIL)

EPC for Well pad 7 and CPF WI area at the West Qurna (phase 2)

Scope of Work: Design, Engineering, Supply & Commissioning of PLC based HVAC Control System for Satellite Instrument Houses Solution: Schneider make Redundant M580 Control System Location: Kurdistan, Iraq Client: Lukoil

Provision of Extended Well Test Equipment and Services

Scope of Work: Design, Engineering, Panel Integration and Supply of RTU Systems (4 Nos.) in Zone-2 rated Ex'e Enclosure. **Solution:** Rockwell Automation make Compact Logix Control System **Location:** Kurdistan, Iraq **Client:** Rosneft

Modernization of Bejil EWT Facilities (Stage 1) and Well BJ-11 Hookup

Scope of Work: Design, Engineering, Panel Integration, Testing, Supply and Commissioning of ICSS System, PAGA System, 20ft Container and UPS System Solution: Schneider make M340 for PCS and Safety M580 System for ESD/FGS. Location: Kurdistan, Iraq Client: Rosneft

Arab Republic of Egypt:

Basin 3 Liquid Gas Bulk Terminal at Sokhna Port

Scope of Work: Design, Supply, Installation, and Commissioning the control system and the integration of Bentley Nevada Vibration Monitoring System for the Boil Off Gas (BOG) Liquification and Refrigeration Packages, in addition to the Integration with Main DCS System over Modbus TCP/IP. Solution: Four Redundant Siemens S7400H PLC System with four HMI Stations and Bentley Nevada Vibration Monitoring Racks. Location: Sokhna, Egypt Client: Sonker

Turkmenistan:

LAM off-shore Platforms HVAC RTU and SCADA Upgrade

Scope of Work: Programming and commissioning of 4 off-shore platforms HVAC RTU and the supply of Cimplicity SCADA system.

Solution: programming and configuration of King fisher RTUs (4) with the supply and programming of GE Cimplicity SCADA and the integration of HIMA ESD system.

Location: Turkmenistan *Client:* Dragon Oil

<u>Nigeria:</u>

Ajaokuta Kaduna Kano Gas Pipeline Project

Scope of Work: Design, Engineering, Manufacture, Programming, Testing, FAT and Supply of Metering Control System. **Solution:** Emerson make Flobos S600+, Siemens make Redundant S7 PLC System and Siemens WINCC SCADA System. **Location:** Nigeria

Client: Nigeria National Petroleum Corporation