



Well Testing Services – Remotely Operable TMU

NESR Remotely Operable TMU provides the ultimate solution to its Customers for reliable, accurate, and efficient Well Testing operations

THE CHALLENGE

Due to the complexity of operation and processing of hazardous effluent, it was required to deploy a Well Testing setup which offers...

- Remote equipment control to reduce human intervention.
- Fail safe set up (commanded by conditional parameters) to ensure safe operation.
- Precise setting of flow parameter for enhanced measurement.

SOLUTION

Provision of fully equipped Well Testing package with Remote Monitoring and Control.

RESULTS

Effective deployment of Remotely Operable TMU for seven (7) zones flow- back operation with...

- Extreme-High H2S flow back (higher than 25% H2S).
- Extremely unstable/surging wellhead conditions.



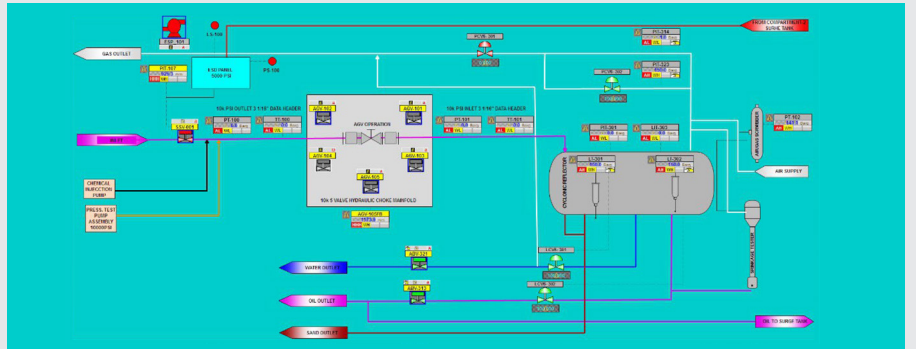
The successful deployment

of the Remotely Operable Well Testing unit in Saudi Arabia met the operational and logistical challenges. Well Testing was performed for seven flow back zones without any problem and the finest data quality was delivered.



The unit was successfully utilized and operated with...

- Reduced personnel for operation and flow back procedure.
- No human intervention by remotely controlling and monitoring.
- Elimination of human error by setting conditional parameters for Fail-Safe Operation.
- Redundant monitoring of parameters for improved data quality.
- Built-in H2S and LEL monitoring.



Equipment Controls and Monitoring

NESR designed Remotely Operable Unit is a complete Well Testing package with redundant measurement capabilities and remote controllability.

The complete Well Testing Operation was conducted remotely by all parameters (e.g. Flow route, Choke setting,

Separator Pressure, and Liquid retention time) were being monitored and precisely controlled from our control room.

Equipment Specifications

Working Pressure (psi) (Test)	10,000 (Upstream) 1,440	Separator)
Design Temperature (degF)	-20 to 350 (Upstream)	-20 to 250 (Test Separator)
Design Code	PSL-3G, EE-NL, NACE MR-175 (No limit for H2S)	ASME Sec VIII Div I, IX, V, ASME B31.3, NACE MR0175
Gas Flow Meters	6" & 2" Senior Daniel Orifice with Coriolis Meter	
Oil Flow Meters	3/8" to 3" Turbine Meter with Coriolis Meter	
Water Flow Meters	3/8" to 3" Turbine Meter	
Water Cut Meter	Water Cut Analyzer	
Handling Capacity	Gas: 60MMscf/d, Oil: 13,000bbls/d	
Inlet Connection	API Flange with x-over adapter	
Outlet Connections	ANSI Flange (with x-over) for Gas, Oil, Water, Relief and Vent lines	