

EQUIPMENT OVERHAUL & TEST REPORT

Job / WO No: CPR-2026-0001

Date: 18/05/2026

Result: ACCEPTED

1. EQUIPMENT DETAILS

Project Details	Sulaibiya RO Plant High Pressure Booster Rehabilitation (Ministry of Electricity & Water (MEW))		
Tag / Equipment ID	RO-PMP-101	Location	RO Train B - Skid 01
Equipment Name	High Pressure RO Feed Booster Pump (High-Pressure Multistage Pump)		
Motor Specs	75 kW (100 HP) 415 V 128.50 A 2950 RPM		
Pump Specs	Model: Flowserve MSX-150/8-Stg Flow: 180 m³/hr Head: 145 m		

2. ELECTRICAL & INSULATION CHECKS

Test Parameter	Measured Value	Result
Motor Rewinding & Stator Check	REPLACED AND TESTED OK	PASS
Winding Resistance (Ohms)	U-V: 0.118 Ω V-W: 0.117 Ω W-U: 0.118 Ω	PASS
Insulation Resistance (500V DC) - Phase to Ground	480.50 MΩ (Min standard: > 5 MΩ)	PASS
Insulation Resistance (500V DC) - Phase to Phase	492.00 MΩ (Min standard: > 5 MΩ)	PASS

3. MECHANICAL SEAL & BEARING REPLACEMENT

Component Checked	Replacement Details / Part No.	Result
Bearings - Drive End (DE)	Part No: 7314 BECBM (Angular Contact Pair) • Brand: SKF (Replaced New)	PASS
Bearings - Non-Drive End (NDE)	Part No: 6312 C3 (Deep Groove) • Brand: SKF (Replaced New)	PASS
Mechanical Seal & Leak Test	Burgmann H75N Balanced Cartridge Seal • Static Leak Test: PASS	PASS

4. OPERATIONAL RUN TEST

Test Parameter	Measured Value	Result
Running Current (A)	L1: 44.2 A L2: 44.8 A L3: 43.9 A	PASS
Bearing Temperature (°C)	DE: 52.1 °C NDE: 46.8 °C (Normal)	PASS
Vibration (mm/s RMS)	DE: 1.42 mm/s NDE: 1.58 mm/s (Smooth)	PASS
Rotation & Seal Check	Rotation: Correct (CW) Seal Leakage: Nil / None	PASS

5. PROJECT-SPECIFIC CUSTOM TESTS

Test Name	Standard / Criteria	Measured / Inspection	Result
Hydrostatic Pressure Shell Test	1.5x Design Pressure (25 bar, 20 mins)	25.2 bar held with zero pressure drop	PASS
Impeller Dynamic Balancing	ISO 1940 Grade G2.5	0.8 g-mm/kg residual imbalance	PASS
Shaft Radial & Axial Runout	< 0.04 mm TIR	0.015 mm DE / 0.018 mm NDE	PASS

6. SIGN-OFF & APPROVALS

PREPARED BY: ENG. JITHU THOMAS	INSPECTED BY: ASWATH KUMAR HOSDURG	APPROVED BY: ABU GEROG
Signature	Signature	Signature
Date: 18/05/2026	Date: 18/05/2026	Date: 18/05/2026