Hydrotek Engineering Co.

Technical Services Division

BOOSTER PUMP OVERHAUL & TEST REPORT

Job / WO No: **HY-TSD-TR-2026-0640**	Date: **23/09/2026**	Result: **ACCEPTED**

1. EQUIPMENT DETAILS

Project Details	Mishref Station (Ministry of Public Works (MPW))		
Tag / Equipment ID	**SV404F07T/2**	**Location**	Main Building - Roof
Equipment Name	**Vertical Multistage In-Line Booster Pump** (Vertical Multistage In-Line Booster Pump)		
Motor Specs	**0.7 kW (1 HP)** | **415 V** | **1.70 A** | 2900 RPM RPM		
Pump Specs	Model: **LOWARA SV404F07T/2** | Flow: **8 m³/hr** | Head: **34 m m**		
Booster Specs	Suction: **1.00 Bar** | Discharge: **3.40 Bar** | Boost Head: **25.00 m** | Stages: **4** | Hydro Test: **3.40 Bar**		

2. 1. ELECTRICAL & STATOR INSULATION TEST

Test Parameter	Measured Value	Result
Stator Condition / Winding Status	**Overhauled, Serviced & Tested OK**	PASS
Winding Resistance (U1-U2, V1-V2, W1-W2 in Ohms)	U1–U2: **15.236 Ω** | V1–V2: **15.205 Ω** | W1–W2: **14.998 Ω**	PASS
Insulation Resistance (500V DC) – Phase to Ground	U–G: **439.95 MΩ** | V–G: **449.51 MΩ** | W–G: **433.67 MΩ**	PASS
Insulation Resistance (500V DC) – Phase to Phase	U–V: **434.70 MΩ** | V–W: **443.30 MΩ** | W–U: **421.50 MΩ**	PASS

3. 2. MECHANICAL SPECIFICATIONS & RENEWALS

Component Checked	Replacement Details / Part No.	Result
Drive End (DE) Bearing Fitted	Part No: **6203** • Brand: SKF (Replaced New)	PASS
Non-Drive End (NDE) Bearing Fitted	Part No: **6202** • Brand: SKF (Replaced New)	PASS
Mechanical Seal / Seal Spec	Cartridge Balanced Mechanical Seal (EPDM) • Static Leak Test: PASS	PASS

4. 3. HYDRAULIC & HYDROSTATIC PRESSURE TESTING

Test Parameter	Measured Value / Verification	Result
Hydraulic Pressure Boost Head	Suction: **1.00 Bar** • Discharge: **3.40 Bar** • Head: **25.00 m** • Stages: **4**	PASS
Hydrostatic Pressure Hold Test	Hold Test: **3.40 Bar** • Duration: **30 mins** • Integrity: **PASS - Zero Leakage**	PASS
Pressure Control & Transducer	Cut-In: **2 Bar** • Cut-Out: **3.4 Bar**	PASS

5. 4. OPERATIONAL RUN TEST (NO-LOAD / FULL SYSTEM RUN)

Test Parameter	Measured Value	Result
Running Current (A)	L1: **0.6 A** | L2: **0.6 A** | L3: **0.6 A**	PASS
Bearing Temperature (°C)	DE: **48.5 °C** | NDE: **43.2 °C** (Normal)	PASS
Vibration (mm/s RMS)	DE: **1.55 mm/s** | NDE: **1.68 mm/s** (Smooth)	PASS
Rotation & Seal Check	Rotation: **Correct (CW)** | Seal Leakage: **Nil / None**	PASS

6. 5. SPECIALIZED WORKSHOP VERIFICATIONS

Test Name	Standard / Criteria	Measured / Inspection	Result
Hydrostatic Pressure Shell Test	1.5x Design Pressure (15 mins)	**No leakage or drop observed**	PASS
Control Panel & PLC	-	**Calibrated and No Fluctuation found**	PASS
Pressure Tank 200ltr 10 bar	-	**No leakage or drop observed**	PASS

7. SIGN-OFF & APPROVALS

TESTED & OVERHAULED BY	QA / QC ENGINEER	HEAD OF DIVISION / WORKSHOP MANAGER
ENG. JITHU THOMAS	**ASWATH KUMAR HOSDURG**	**ABU GEROGE**
Signature — Date: 23/09/2026	Signature — Date: 23/09/2026	Signature — Date: 23/09/2026