TASK RISK ASSESSMENT WORKSHEET

CONTRACT NO	REF	DATE	REV
190707	RA-2026-s3H1ZXGD	05.08.2026	A

PROJECT 132 kv cable works

CLIENT	CONSULTANT	MAIN CONTRACTOR	SUBCONTRACTOR
Taqa	Green	El Sewdy	Heliopolis

ACTIVITY thermal resistivity test

ASSESSORS	— PROJECT MANAGER *signature*	— HSE ENGINEER *signature*	— PROJECT MANAGER *signature*	— CIVIL ENGINEER *signature*	— HSE ENGINEER *signature*

SN	Activity	Hazard / Aspect	Consequence	Groups Exposed	Existing Controls	Initial Risk P × S = R	Additional Controls	Residual Risk P × S = R
1	**Site Mobilization, Equipment Transport, and Access Setup**	1. Vehicle movement and collision during transit/site access 2. Slips, trips, and falls on uneven ground or terrain 3. Manual handling injuries during offloading of testing equipment	Fractures, lacerations, vehicle damage, bodily trauma, muscle strain	Site operatives, drivers, visitors, site engineers	1. Enforce site speed limit of 20 km/h and designated access routes 2. Mandate banksman/flagman for all reversing vehicles 3. Conduct site safety induction and toolbox talk prior to entry 4. Wear mandatory PPE (safety helmet, high-vis vest, safety boots, gloves) 5.sdasdasd asdsd dssad asds 6. adsdsad asdsad dads	**P 1 × S 1** **1**	1. Implement site-specific Traffic Management Plan as per ADOSH SF CoP 27.0 (Building and Road Work Safety) 2. Conduct manual handling assessment per ADOSH SF CoP 14.0 (Manual Handling) 3. Verify third-party competency and licenses for drivers per ADOSH SF CoP 2.0	**P 2 × S 2** **4**
2	**Underground Utility Identification and GPR Scanning**	1. Contact with live underground electrical cables or pressurized utilities 2. Extreme heat and sun exposure during outdoor field scanning 3. Ergonomic posture strain from prolonged operation of GPR units	Electrocution, utility damage, explosion, heat exhaustion, heat stroke, musculoskeletal disorders	Surveyors, GPR technicians, HSE personnel, site supervisors	1. Review existing GIS/as-built drawings and obtain all relevant utility NOCs 2. Scan trial pit locations using calibrated cable avoidance tools (CAT & Genny) and GPR 3. Provide shaded rest areas, cool drinking water, and electrolytes 4. Implement work-rest rotation schedules during peak thermal conditions	**P 4 × S 4** **16**	1. Strictly comply with ADOSH SF CoP 11.0 (Safety Structures - Working in Sun/Heat Stress) and UAE Midday Work Ban guidelines 2. Issue formal Permit to Dig / Work Permits as per ADOSH SF CoP 21.0 (Permit to Work Systems) 3. Deploy TAQA/ADDC competent persons to verify cable locator readings per TAQA System Safety Rules	**P 2 × S 2** **4**
3	**Manual and Mechanical Excavation of Trial Pits**	1. Cave-in or structural collapse of trial pit trench walls 2. Accidental strike on live underground services during digging 3. Flying soil particles and hand injury during manual shovel excavation 4. Excessive dust generation under dry conditions	Suffocation, structural entrapment, severe trauma, electrocution, respiratory irritation, eye injury	Excavator operators, ground workers, site supervisors, HSE officers	1. Mandate hand digging (trial pits) around marked utility zones within 1 meter 2. Batter or shore excavation walls if depth exceeds 1.2 meters 3. Keep excavated spoil and heavy equipment at least 1 meter away from pit edges 4. Apply water spray for dust suppression and issue FFP2 dust masks 5. Erect physical rigid barriers and warning lights around open pits	**P 4 × S 4** **16**	1. Execute excavation works strictly in accordance with ADOSH SF CoP 29.0 (Excavation Works) 2. Obtain Confined Space Entry Permit if excavation depth exceeds 1.5 meters per ADOSH SF CoP 28.0 (Confined Spaces) 3. Ensure valid third-party inspection certificates for mechanical excavators per ADOSH SF CoP 34.0 (Plant and Machinery)	**P 2 × S 2** **4**

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4	**In-Situ Thermal Resistivity Testing (Thermal Needle Probe Operation)**	1. Sharp needle probe insertion causing puncture or skin laceration 2. Electrical shock from battery apparatus or power supply units 3. Thermal burns from heated probe tip during testing cycles 4. Tripping hazards over apparatus cables in work area	Puncture wounds, electrical shocks, skin burns, trip injuries	Thermal test technicians, field engineers, site assistants	1. Inspect thermal needle apparatus, probes, and electrical wiring prior to use 2. Wear cut-resistant and thermal protective gloves during probe insertion/removal 3. Neatly route apparatus cabling clear of walkway paths 4. Ensure apparatus is operated strictly by trained and competent technicians	**P 3 × S 3** **9**	1. Ensure all portable electrical testing equipment complies with ADOSH SF CoP 15.0 (Electrical Safety) 2. Provide task-specific PPE complying with ADOSH SF CoP 3.0 (Personal Protective Equipment) 3. Perform daily pre-use inspection logs as per TAQA HSP.31 requirements	**P 1 × S 2** **2**

LIKELIHOOD / FREQUENCY

Descriptor	Likely Frequency	Probability
Frequent	Occurs frequently	5
Often	Occurs several times per year	4
Likely	Has occurred more than once	3
Possible	Has occurred	2
Rare	Never occurred	1

RISK MATRIX — PROBABILITY × CONSEQUENCE

Probability	Consequence				
	Insignificant (1)	**Minor (2)**	**Moderate (3)**	**Major (4)**	**Catastrophic (5)**
Rare (1)	1	2	3	4	5
Possible (2)	2	4	6	8	10
Likely (3)	3	6	9	12	15
Often (4)	4	8	12	16	20
Frequent / Almost Certain (5)	5	10	15	20	25

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15 - 25	**Extreme Risk**	Activity or industry should not proceed in current form.
8 - 12	**High Risk**	Activity or industry should be modified to include remedial planning and action and be subject to detailed EHS assessment.
4 - 6	**Moderate Risk**	Activity or industry can operate subject to management and/or modification.
1 - 3	**Low Risk**	No action required, unless escalation of risk is possible.