A BKG Holding Company

QATAR ENGINEERING LABORATORIES W.L.L

PRE-QUALIFICATION

DOCUMENT

INDEPENDENT MATERIALS TESTING LABORATORY
NDT AND GEOTECHNICAL CONSULTANTS

ACCREDITED
Testing Laboratory

Commercial Registration No. 38301

ISO 9001 : 2008
IND91565

P.O. Box 40278, Industrial Area, Doha, State of Qatar
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INTRODUCTION

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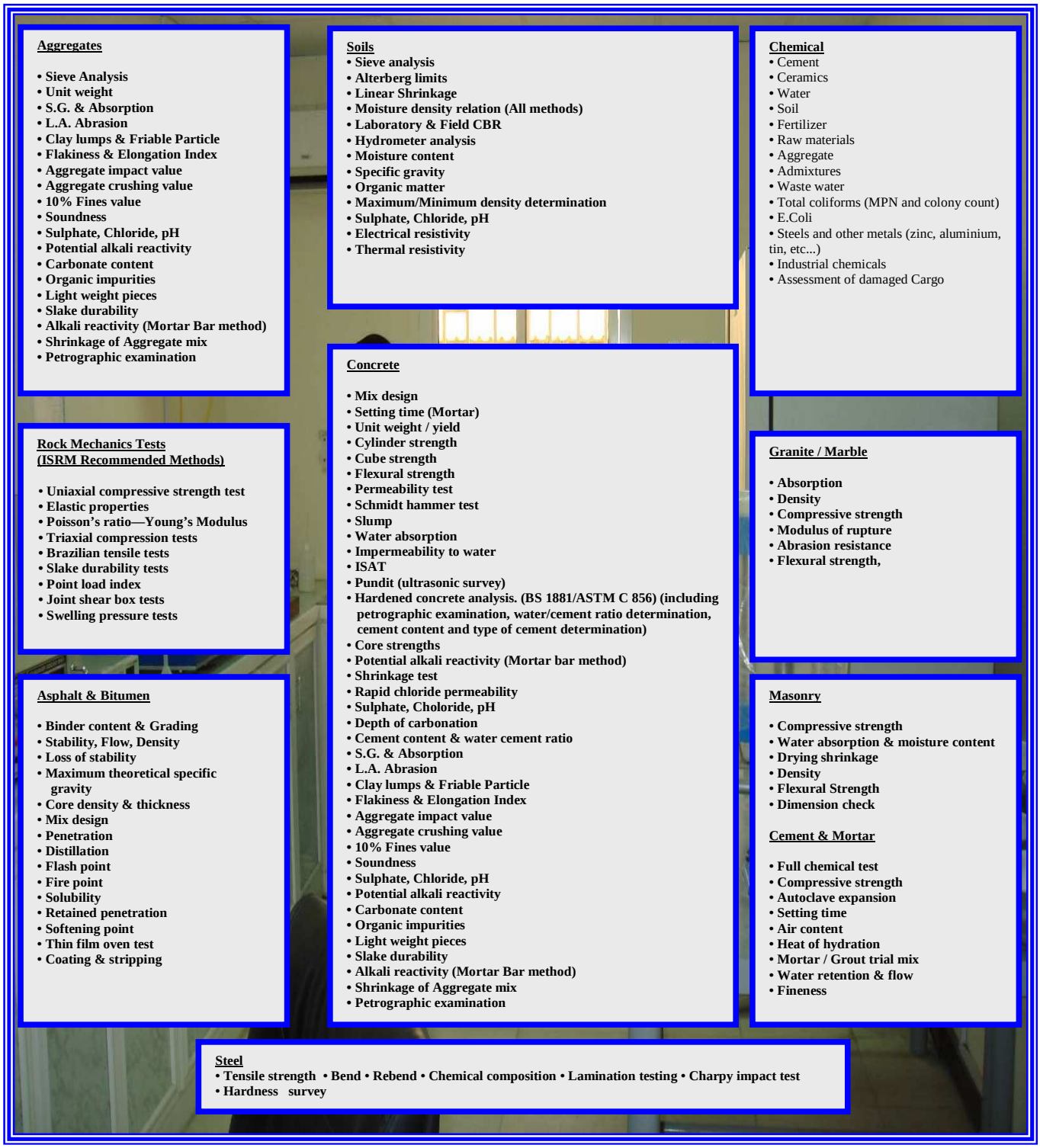
QATAR ENGINEERING LABORATORIES (QEL) W.L.L was established in Qatar since 2008 to provide Material testing and consultancy services to the construction and other related industries. QEL was awarded the contract for material testing for the prestigious Qatalum Project, Mesaieed on behalf of M/s SNC Lavalin. Within this short period we have built a strong reputation in the specialist field of independent material testing with a particular emphasis on quality evaluation and quality assurance of construction materials and activities.

Schedule of Tests and Services



Aggregates

- Sieve Analysis
- Unit weight
- S.G. & Absorption
- L.A. Abrasion
- Clay lumps & Friable Particle
- Flakiness & Elongation Index
- Aggregate impact value
- Aggregate crushing value
- 10% Fines value
- Soundness
- Sulphate, Chloride, pH
- Potential alkali reactivity
- Carbonate content
- Organic impurities
- Light weight pieces
- Slake durability
- Alkali reactivity (Mortar Bar method)
- Shrinkage of Aggregate mix
- Petrographic examination

Soils

- Sieve analysis
- Alterberg limits
- Linear Shrinkage
- Moisture density relation (All methods)
- Laboratory & Field CBR
- Hydrometer analysis
- Moisture content
- Specific gravity
- Organic matter
- Maximum/Minimum density determination
- Sulphate, Chloride, pH
- Electrical resistivity
- Thermal resistivity

Chemical

- Cement
- Ceramics
- Water
- Soil
- Fertilizer
- Raw materials
- Aggregate
- Admixtures
- Waste water
- Total coliforms (MPN and colony count)
- E.Coli
- Steels and other metals (zinc, aluminium, tin, etc...)
- Industrial chemicals
- Assessment of damaged Cargo

Rock Mechanics Tests (ISRM Recommended Methods)

- Uniaxial compressive strength test
- Elastic properties
- Poisson's ratio—Young's Modulus
- Triaxial compression tests
- Brazilian tensile tests
- Slake durability tests
- Point load index
- Joint shear box tests
- Swelling pressure tests

Concrete

- Mix design
- Setting time (Mortar)
- Unit weight / yield
- Cylinder strength
- Cube strength
- Flexural strength
- Permeability test
- Schmidt hammer test
- Slump
- Water absorption
- Impermeability to water
- ISAT
- Pundit (ultrasonic survey)
- Hardened concrete analysis. (BS 1881/ASTM C 856) (including petrographic examination, water/cement ratio determination, cement content and type of cement determination)
- Core strengths
- Potential alkali reactivity (Mortar bar method)
- Shrinkage test
- Rapid chloride permeability
- Sulphate, Choloride, pH
- Depth of carbonation
- Cement content & water cement ratio
- S.G. & Absorption
- L.A. Abrasion
- Clay lumps & Friable Particle
- Flakiness & Elongation Index
- Aggregate impact value
- Aggregate crushing value
- 10% Fines value
- Soundness
- Sulphate, Chloride, pH
- Potential alkali reactivity
- Carbonate content
- Organic impurities
- Light weight pieces
- Slake durability
- Alkali reactivity (Mortar Bar method)
- Shrinkage of Aggregate mix
- Petrographic examination

Granite / Marble

- Absorption
- Density
- Compressive strength
- Modulus of rupture
- Abrasion resistance
- Flexural strength,

Asphalt & Bitumen

- Binder content & Grading
- Stability, Flow, Density
- Loss of stability
- Maximum theoretical specific gravity
- Core density & thickness
- Mix design
- Penetration
- Distillation
- Flash point
- Fire point
- Solubility
- Retained penetration
- Softening point
- Thin film oven test
- Coating & stripping

Masonry

- Compressive strength
- Water absorption & moisture content
- Drying shrinkage
- Density
- Flexural Strength
- Dimension check

Cement & Mortar

- Full chemical test
- Compressive strength
- Autoclave expansion
- Setting time
- Air content
- Heat of hydration
- Mortar / Grout trial mix
- Water retention & flow
- Fineness

Steel

• Tensile strength • Bend • Rebend • Chemical composition • Lamination testing • Charpy impact test • Hardness survey

Our staffs are available for site laboratory services to operate on whatever scale is required either as independent laboratories on site or under secondment to consultant and /or contractor. Facilities provided may range from batch plant monitoring to multi—disciplined laboratories with computerized management and Q.C. systems and Co-ordination of back—up services from our Consultancy and Laboratory facilities.

GENERAL

QEL was established in Qatar since 2006 to offer services in the field of quality control, quality assurance and martial consultancy service to construction industry.

QEL has a well established laboratory where independent testing being carried ie soil and rock, concrete, asphalt and a broad range of chemical testing.

The main services and capabilities are mentioned below;

- Geotechnical Site Investigation both on-shore and off-shore.
- Geophysical Site Investigation.
- Foundation Engineering & Recommendations.
- Engineering & Consulting Services.
- Soil and Rock Laboratory Testing.
- Construction Materials Testing. ie Concrete and Asphalt.
- Non Destructive Testing (NDT)
- Pile Testing
- Special Testing

QATAR ENGINEERING LABORATORIES W.L.L

CONTACT DETAILS

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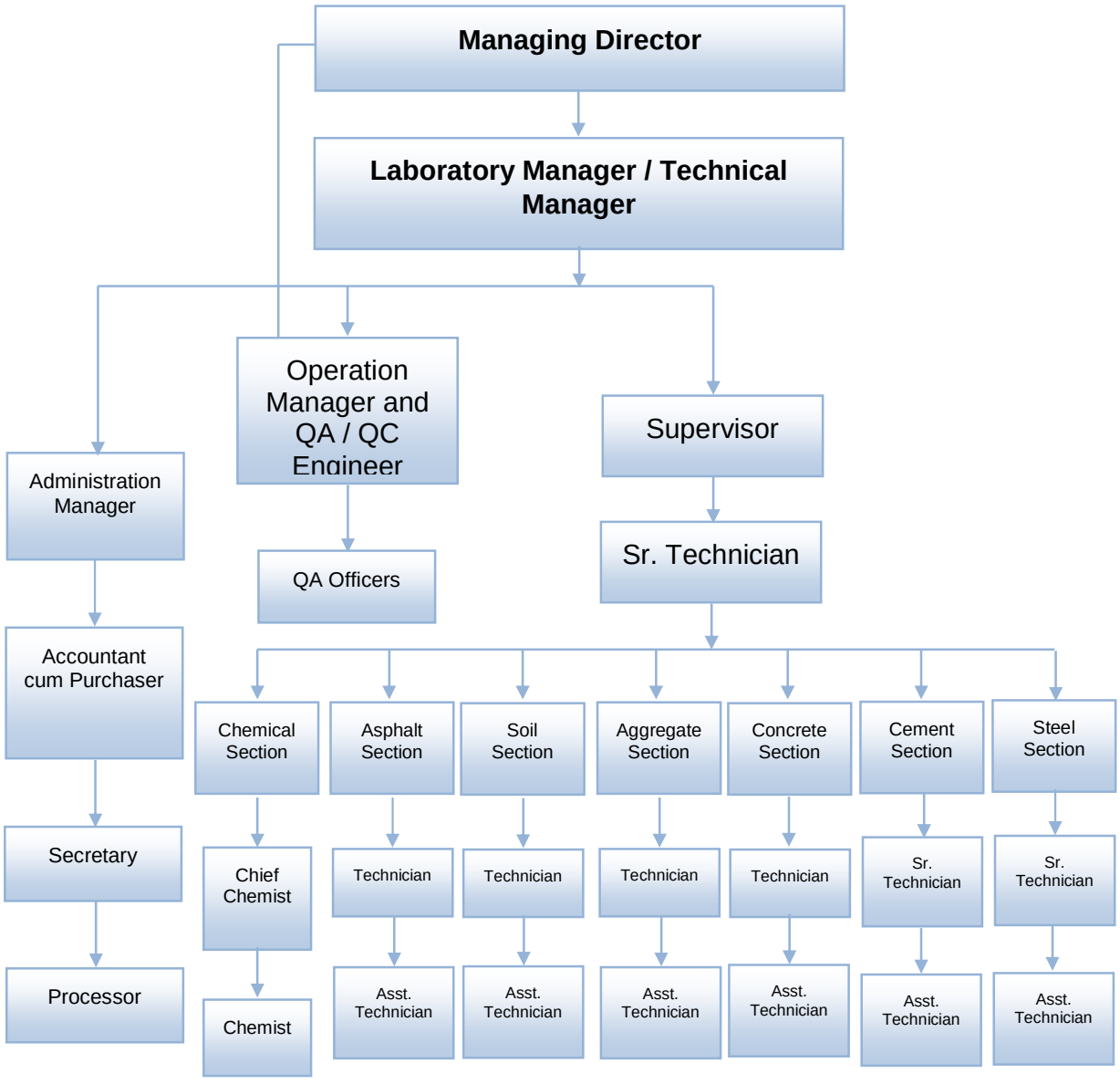
ORGANIZATION CHART

*** Organization Chart – Qatar Engineering Laboratories**



Note : -

- Technical Manager is appointed as Deputy Quality Engineer and Quality Engineer is nominated as Deputy Technical Manager. QA / QC Engineer works as a Quality Engineer.
- Quality Engineer is having direct access to the Top Management for the effective implementation of ISO/IEC 17025 in the **Qatar Engineering Laboratories**.

LOCATION PLAN

ACTIVITIES & CAPABILITIES

MAIN ACTIVITIES

❖ Geotechnical Investigations for both Onshore and Near Shore

Site Investigations
Foundation Engineering and Consulting
Topographic and bathymetric survey

❖ Material Testing

Soil	Asphalt	Aggregate	Metals
Cement	Paint	Concrete	Oil
Water			

❖ Chemical Testing

Construction Materials
Oil
Water
Environmental & Pollution Control

❖ Non Destructive Testing (NDT)

Radiographic Examination
Ultrasonic Survey
Magnetic Particle Inspection
Dye Penetrant Testing
Harness Survey
Welder and Welding Procedure Qualifications

❖ Special Testing

Quarry Inspections
Aggregate and armour rock Evaluations
Material failure investigations
Building Condition Survey
Electrical and Thermal resistivity
Concrete Coring

❖ Steel Testing

Tensile
Bend / Rebend
Chemical
Lamination Testing

❖ Pile Testing

Static and Dynamic load testing
Sonic pile integrity Testing
Sonic Cross hole testing
Caliper Logging
O-cell testing for large capacity

Services in the above areas are provided by locally based staff and equipment while for large or more Complex projects the world wide resources of BKGH and other associates Groups are used in co-operation with other experienced and reputed specialist companies.

Qatar Engineering Laboratories operates a comprehensive quality system and a detailed Quality Policy tailor made to ensure that its services to the clients are of high standard and that the safety of the personnel are protected with zero-tolerance.

LABORATORY TESTING SERVICES

Qatar Engineering Laboratories (QEL) offers a wide range of routine and specialized tests for Geotechnical applications and Construction Materials QA/QC.

Together with our survey and Engineering Consultancy Services we are able to cater to a broad range of industry need, whether it is geotechnical, site investigation, environmental survey,pile monitoring, structural instrumentation or quantity or quality control of materials.

The laboratory division functions under strict quality control procedures using regularly maintained and calibrated equipment operated by experienced and trained technician. The company's quality manual is approved to ISO/IEC 17025 - 2005 guidelines and conforms to the regulations of local statutory bodies. All routine tests are conducted in accordance with internationally recognized British, American, European, or local standards

QEL's range of routine laboratory services includes the following activities:

SOIL AND ROCK

Classification Tests

Classification for Engineering purposes
Moisture content
Bulk and dry densities
Specific gravity (particle density)
Liquid limit, plastic limit and plasticity index
Linear shrinkage Characteristics
Particle size distribution (sieve analysis and hydrometer)
Chemical analysis (including pH, sulphates, chloride and carbonate content)

Compaction Testing

Maximum and minimum dry densities of granular soil
Determination of dry density / moisture content relationship (Proctor compaction using 2.5 Kg and 4.5 Kg or vibrating rammers)
California Bearing Ration (CBR), soaked or unsoaked

Strength Testing

Unconfined compressive strength
Triaxial Compression Test (consolidated / unconsolidated, drained / undrained, with or without pore pressure measurement)
Shear strength by direct shear box apparatus (60x60mm and 300x300mm samples)

Settlement / Permeability Testing

One–dimensional consolidation properties
Swelling characteristic
Permeability (constant and falling head)

Geophysical Testing

Thermal conductivity / resistivity measurements
Electrical conductivity / resistivity measurements
Ground probing radar

ROCK TESTING

Uniaxial compressive strength
Deformability of rock core (Young's modulus and Poisson's ratio)
Indirect tensile strength of intact rock core specimens
Point load strength
Triaxial testing
Slake durability index
Compression and shear wave velocities
Moh's Scratch Hardness
Petrographic Examination
Rock Grading
Drop Breakage index tests for rock armour
Length to thickness ratio test for rock armour

In-situ Testing

In-situ density test (Sand replacement or sand cone method)
In-situ density test (water replacement method suitable for coarse grained materials)
In-situ density test (Nuclear Method)
Plate loading test

In-situ California Bearing Ratio (CBR)
In-situ corrosivity of soil (electrical resistivity, Four Point Wenner array)
In-situ measurements of thermal resistivity
Permeability

AGGREGATES

Moisture content
Unit weight and voids
Sieve analysis of fine and coarse aggregates
Material finer than 75 microns (no. 200) sieve
Clay, silt and dust contents
Clay lumps and friable particles
Specific gravity (particle density)
Water absorption
Flakiness index
Elongation index
Sand equivalent value
Lightweight particles
Aggregate crushing value (ACV)
Ten per cent fines value (TFV)
Aggregate impact value (AIV)
Resistance to degradation by Los Angeles Abrasion
Potential alkali-silica reactivity (Chemical method, mortar bar method, Petrographic Examination)
Soundness (sodium sulfate or magnesium sulfate)
Shell content
Organic matter content
Chemical analysis (including sulfate and chloride contents)
Petrographic examination
Drying shrinkage characteristics

CEMENT

Initial and final setting
Fineness
Soundness
Heat of hydration
Compressive strength
Chemical analysis
Alkali content

GRG COMPOSITE

Flexural Strength
Impact Resistance
Hardness
Coeff. of linear thermal expansion

Humidified deflection
Surface burning characteristic
Behavior at 750oC
Nail Pull resistance

FRESH CONCRETE

Mix design
Temperature monitoring
Slump test
Compacting factor
Air content
Bleeding
Density
Cement content
Aggregate content
Water content
Chemical analysis (including chloride and alkali content)
Chemical analysis of water, suitability for making concrete

HARDENED CONCRETE

Strength Testing
Compressive strength (cubes, cylinders and cores)
Tensile splitting strength
Flexural strength
Terrazzo Tile (dimension, transverse strength, water absorption)
Pre cast concrete masonry units (dimension and compressive strength)
Pre cast concrete paving blocks (dimension and compressive strength)
Pre cast concrete flags, kerbs, channels edgings and quadrants (dimension, transverse
Strength, water absorption)
Durability studies
Water absorption
Initial surface absorption of concrete (ISAT)
Water permeability (DIN)
Porosity (RILEM)
Rapid determination of chloride ion permeability
Building Investigations
Concrete coring, with or without compressive strength
Concrete dust sampling
Chemical analysis (including sulfate and chloride contents)
Bond Strength (concrete, mortar)
Surface hardness using rebound hammer
Hammer sounding surveys
Carbonation depth surveys
Cover meter depth to reinforcement surveys
Haft cell potential surveys (reinforcement corrosion potential)
Ultrasonic pulse velocity measurements (PUNDIT), concrete quality, crack and void detection
Crack monitoring and investigation
Radar surveys

CERAMIC & STONE TILES

Bond strength (pull-off test)
Dimension
Flatness, straightness of sides, rectangularity
Water absorption / Porosity
Modulus of rapture / Flexural strength
Compressive strength
Moh's scratch hardness
Resistance to thermal shack
Chemical resistance (including acid and alkali's)
Abrasion resistance
Robinson floor system rating tests

STEEL

Tensile strength (including ultimate stress, yield point stress, elongation and mass per unit length
6 to 14 mm
15 to 26 mm
26 to 32
Bend and Rebend
Chemical analysis
Epoxy coating thickness
Welder and Welding Procedure qualification tests to ASME IX and AWS

ASPHALT

Marshall stability
Binder content / mix analysis (rotary extraction)
Bulk density
Theoritical maximum specific gravity
Air voids contents
Coring

CHEMICAL LAB SERVICES

❖ SOIL

pH value
Electrical conductivity
Total Dissolved solids
Sulphate
Chloride
Carbonate Content
Organic Matter
SAR (Sodium Absorption Ratio)
Nitrite

Nitrate
Boron
Phosphorous
Calcium
Magnesium
Sodium
Potassium
Redox potential
Ammoniacal Nitrogen
Total Kjeldahl nitrogen

- **AGGREGATE**

Chloride content (Acid soluble)
Sulphate Content (acid soluble)
Organic matter

- **CONCRETE**

Sulphate content (Acid soluble)
Chloride content (Acid soluble)

- **ADMIXTURE**

Specific gravity
Oven dry residue

- **MICRO SILICA**

Moisture
Silica content
Alkali level
Loss on ignition

- **CEMENT**

Heat of hydration
Loss on ignition
Insoluble impurity
Silica
Chloride
Sulphate
Iron Oxide
Alumina
Calcium oxide
Magnesium oxide
Ammonium hydroxide
Tricalcium aluminate
Chemical of for GGBS, Micro silica and blast furnace slag, fly ash etc.

❖ BIO-FERTILIZER

pH
TKN (Total Kjeldahl Nitrogen)
Calcium
Magnesium
Chloride
Sodium
Potassium
Organic content
Phosphorous

❖ LIME STONE

Assay (Calcium)
Magnesium

❖ WATER/ WASTE WATER

pH
Total suspended solids (TSS)
Total dissolved solids (TDS)
MixedLiqor Suspended Solids (MLSS)
Total volatile solids (TVS)
Settleable solids (SS)
Total Solids (TS)
Odour
Taste
Turbidity
Colour
Electrical conductivity
Alkalinity
Acidity
Salinity
Free chlorine
Chloride
Nitrite
Nitrate
Carbonate
Bicarbonate
Sulphite
Sulphate
Phosphate
Silica
Boron
Hardness
Sodium
Potassium
Calcium
Magnesium
Manganese
Iron
Copper
Lead
Cadmium
Silver
Nickel
Zinc
Total Kjeldahl Nitrogen
Ammoniacal Nitrogen
Organic Nitrogen
Sulphide
Oil and Grease
COD
BOD
Bio Assay
E-Coli
Total coliform
Dissolved oxygen

❖ **AIR**

SPM (Suspended Particulate Matter)
RSPM (Respiratory Suspended Particulate Matter)
NOX (NO and NO_2)
SOX (Sulphur-di-oxide)
CO_2 (Carbon-di-oxide)
O_3 (Ozone)
Sulphide
Ammonia

SPECIALISED TESTINGS

The Qatar Engineering Laboratories (QEL) has developed and uses numerous specialist-testing methods to determine geotechnical parameters and to observe soil/structure interaction. These techniques Includes;

Sonic pile testing (PIT)	:	Integrity testing of precast and cast in-situ concrete Piles using Seismic echo technique.
Dynamic Pile Testing (PDA)	:	Analysis of pile and hammer parameters by measurements taken during driving, with predictions of Pile bearing capacity.
Geophysical testing	:	Seismic refraction, cross-hole sonic logging. Electrical resistivity, thermal conductivity, Microgravity survey, electromagnetic inductive Conductivity measurements, vertical magnetic Gradient surveys, ground probing radar and high Speed pavement radar.
Instrumentation	:	Monitoring of loads and movements in soils, rock and structures including strain gauges on steel And concrete, load cells, earth pressure Cells, Extensiometers, settlement markers, Inclinometer Tunnel Convergece measurement, real time data Collection.
Quality control	:	Independent piling supervision, quality of concrete or earthworks other Quality Control Sevices.

MATERIALS CONSULTANCY

QUARRY INVESTIGATIONS

Experienced Geologist and Geomaterial Engineers are available who are capable of evaluating the potential new sources and assessment of the existing quarries.

AGGREGATE EVALUATION

Expert opinion can be provided on the type of the aggregate, suitability of the aggregate for its intended usage etc.

MATERIALS FAILURE INVESTIGATION

Detailed investigations can be undertaken to establish the cause / causes of material failure or deterioration or other distress. Moreover if found to be necessary detailed test programme can be prepared and implemented, results analyzed to arrive at the fruit cause of the problems and to suggest remedial measures.

BUILDING CONDITION SURVEY

Condition survey of the existing structures can be undertaken by performing various tests insurance purpose, structural evaluation, fire damage assessment, deterioration assessment etc.

QATAR ENGINEERING LABORATORIES W.L.L

CVs OF KEY PERSONNEL

LIST OF CVs

- **K.G BABURAJAN – MANAGING DIRECTOR**
- **N. SABU – TECHNICAL MANAGER**
- **RAJATH BABURAJ – QA/QC - OPERATIONS MANAGER**
- **ARUN BHASI – QA/QC ENGINEER - LEAD AUDITOR**
- **SREENIVASAN – TECHNIAL SUPERVISOR**

K.G BABURAJAN

Phone: +974 77250333 • E-Mail: remjath@batelco.com.bh

Personal Summary

Results driven, self-motivated, and resourceful senior Managing Director, with a proven ability to develop and strengthen management teams, in order to maximize profitability and efficiency. Experienced in leading and growing all sectors of a business, to make it a dynamic and progressive organization.

Total of 36 years experience in the field of design and execution of Civil Engineering Structures like multi-storey buildings, marine structures, caissons, jetties, roads, pavements, and bridges including 41 years in the field of Geotechnical Site Investigation, both Offshore and Onshore and Geophysical Investigation.

Work Experience

QEL – QATAR ENGINEERING LABORATORIES W.L.L (Qatar) **2009 – Present**

Director

Established Company in 2006 in Doha , Qatar, to offer services in the field of quality control, quality assurance and martial consultancy service to construction industry.

Bahrain Foundation & Construction Co. (Bahrain) **1999 – 2009**

Managing Director & Partner

Managed Technical team of Structural Engineers Managed Technical team of Structural Engineers, Geologists, Project Managers, Project Engineers and other piling operators including all the administration and financial aspects of the company operations. Developed a specialized team of engineers and technicians to carry out various pile and other foundation related testing including Static and Dynamic load testing, Integrity testing using Sonic, Cross-hole Seismic methods, Caliper logging, perform instrumented pile load tests etc. During the peak time the company employed up to 500 employees mainly technical and skilled category.

Fast Flow Services. (Bahrain) **1999 – 2009**

Managing Director & Partner

I was responsible for Setting up and Managing the above company for 16 years which is a specialized Contracting and Trading Company activity includes calibration services, Corrosion monitoring and construction of marine structures.

Al Hoty Analytical Services. (Bahrain) **1988 – 2008**

General Manager

Continued to operate as above including all Administration and Management responsibilities for profitability, staffing, QA/QC, finance, reporting to the Director with projected incomes, equipment and staffing, resource requirements, overseas operations, setting up of new venues in other countries, coordinate the various departments etc.
Was fully responsible for setting up and managing the Materials Testing Laboratory in Qatar, Kuwait, Oman, Yemen. Since 1994 with added responsibility as Director of Qatar Industrial Laboratory, fully operational Materials testing laboratory in Qatar.

Al Hoty Analytical Services. (Bahrain) **1985 – 1988**

Laboratory Manager

Managing team of Engineers and technicians of various departments – (Concrete, soil, metallurgy, cement, asphalt, chemical, offshore and on land surveys, Site Investigation and Geotechnical including Geophysical surveys water well drilling, NDT services). Carryout detailed investigation associated with settlement of foundation, deterioration of concrete, fire damaged buildings, collapsed structures, etc., in various Middle East countries, Qatar, Kuwait, Saudi Arabia, Dubai and Abu Dhabi.

Al Hoty Analytical Services. (Bahrain) **1982 – 1985**

Materials Engineer & Head of Testing & Conclusion Division.

Was responsible in the setting up of the laboratory facilities for Concrete, Soils, Asphalt, Steel, Chemical, Site Investigation and Geotechnical. Managed team of Engineers and Technicians for various QA/QC operations for the Saudi Bahrain Causeway, including selection of materials used on the project like aggregate, cement, reinforcement, rock armour, etc. Carryout detailed concrete trial mixer for various elements of the causeway construction with M/S Ballast Nedam and Saudi Danish Consultants (Consultant for Causeway Project).

Al Hoty Stanger. (Saudi Arabia) **1981 – 1982**

Head of Material Division & Material Engineer.

In charges of the Material Laboratory for testing and reporting of construction materials like Concrete, Soils, Asphalt, Cement, Timber, Reinforcements, liaising and coordinating with various clients in QA/QC Procedure, material selection etc.

M/S GAMMON INDIA LTD **1980 – 1981**

Design Engineer

Design of Marine structures. Coordinating with M/S TATA Consulting Engineers in the design and positioning of the Floating Caissons for the 500 MW Power Plant at Trombay for Bhaba Atomic Research Centre (BARC).

CENTRAL PUBLIC WORKS DEPARTMENT OF GOVERNMENT OF INDIA **1979 – 1980**

Assistant Engineer

Design of Housing Scheme for the Central Government Employees – Bombay – Five Storey building blocks

Education

BSc (Engineering) in Civil Engineering **1979**
Kerala University, India

BSc in Chemistry **1975**
Kerala University, India

Professional Memberships/Affiliations

- Member of Institution of Civil Engineers (U.K)
- Life Member of Bahrain Society of Engineers (Member M-339)
- Member of Society of Engineers (India)
- Associate Member of Institution of Civil Engineers (India)

N. SABU

DATE OF BIRTH : 28th May 1955

INFORMATION : Nationality: Indian

EDUCATION : Diploma in Civil Engineering

AREAS OF EXPERTISE

Extensive experience in geotechnical materials testing services covering the selection, testing, quality control, evaluation, failure investigation and inspection of construction materials.

SUPPLEMENTARY INFORMATION

2009-Present	Technical Manager - Qatar Engineering Laboratories, Doha, Qatar
1997-2008	Laboratory Manager - Fugro Peninsular, Doha, Qatar.
1989-1996	Field Supervisor - Fugro Middle East, Abu Dhabi, U.A.E
1987-1989	Field Supervisor – Gulf Testing Laboratory, Dubai.
1980-1986	Technical Supervisor - Gibca Limited, Sharjah
1979-1980	Laboratory Technician - Ghurair Tarmac, Al Ain and Abu Dhabi
1979-1980	Laboratory Technician - Laing R & D Ltd

MAJOR PROJECTS INVOLVED

CLIENT	PROJECT
CHINA HARBOUR ENGINEERING CO. LTD.	NEW PORT PROJECT
STFA MARINE CONSTRUCTION CO	BERTH EXPANSION (PACKAGE-1) AT MESAIEED PORT
BIN OMRAN TRADING & CONTRACTING CO.	ROADS IN BANI HAJER, ZONE 51
QBS INTERNATIONAL	ROADS AT NORTH KHALIFA & MARKHIYA
TEKFEN CONSTRUCTION	CONSTRUCTION OF NORTH ROAD
WCT BERHAD	MINISTRY OF INTERIOR HEAD QUARTERS
ARCHIRODON CONSTRUCTION	NAKILAT SHIP REPAIR YARD PROJECT AT RAS LAFFAN
SIEMENS AG POWER GENERATION	POWER PLANT
TEKFEN CONSTRUCTION	CONSTRUCTION OF NORTH ROAD CORRIDOR
SINOHYDRO GROUP LTD.	TRANSMISSION PIPELINES GTC – 606
SHAPOORJI PALLONJI QATAR	BARWA CITY
CHINA HARBOUR – DOMOPAN JV	LUSAIL DEVELOPMENT

Rajath Baburaj

GEOTECHNICAL MANAGER / QA-QC MANAGER

PERSONAL INFORMATION : Date of birth: 09 March1987

: Nationality: Indian

Education:

B.E in Civil Engineering (2006-2009)
Visveswaraiah Technological University, India.
First Class With Distinction

M.Sc Geotechnical Engineering With Management
University Of Birmingham , United Kingdom
First Class With Merit

SUPPLEMENTARY INFORMATION

2009– Present

Qatar Engineering Laboratories, Doha, Qatar
Geotechnical Manager/ QA/QC Manager

Responsible for the company's compliance to ISO 9001 and ISO 17025.

Managing team of Engineers and technicians of various departments (Concrete, Soil , Site Investigation and Geotechnical including Geophysical Surveys ,Water well drilling ,NDT Services)

Discussing with clients on their specific requirements suggesting suitable methods for implanting proper QA/QC procedures on various projects including that for various concrete Ready Mix Factories.

Preparation of Geotechnical Investigation reports and recommendations for foundations as well as slope stability analysis and analysis by Plaxis.

Handling team of geologist and drilling crews in carryon out site investigation and soil exploration.

SKILLS:

- Corrective / Preventive Action Implementation
- QA/QC Requirements
- Goal Setting
- Program Management
- ISO 17025/ ISO 9001 Requirements
- Internal & External Audit Control and Monitoring
- Lab Requirements.
- Proficiency / Inter laboratory Testing Management.
- Data/Document Management.
- Plaxis Certified
- IAS Certified Internal Auditor

Major Projects Involved

- Managed Quality Control Activities for various other major companies and consultants such as Bin Omran Trading & Contracting, China Harbor Engineering Co. Ltd, Daewoo E & C, AICI , Boskalis Westminster Middle East , Hyundai Engineering & Construction Co., Archirodon , QDVC, Al Cat, China Gezhouba Group Company , GCC-WAC-Terna JV, Nasser Al Hajiri, Toyo-Thai Co., Culligen International, Tashgheel – Besix, Great Lakes, Generic Engineering Technologies , Sinohydro Group Limited, Samsung Engineering & Construction , Leighton Contracting Qatar WLL / Al Jaber LLC Joint Venture , Gulf Systems for Contracting & Services , AL Balagh-Larsen & Toubro JV , Dogus Insat, Bauer International, MEDCO International, Mott Mc Donald , Flour International ,QBS International, Simplex, STFA, Sharpoorji Pallonji etc.

- Managed Quality Control Activities for Bechtel Overseas for the New Doha International Airport.

- Managed Site Investigation for New Doha Port Project & Qatar Emiri Navel Force Base Project.

- Managed Site Investigation for Doha Metro Project with QDVC-GS & EC–ADE JV.

- Managed Site Investigation for Hotels & Complex of AL Najada Souq

- Managed Site Investigation for Doha Industrial Area Sewage Treatment Plant

- Managed Site Investigation for Energy City Qatar
- Managed Site Investigation for Pearl , Palm & Crescent Park at Umm Garn
- Managed Site Investigation for Al Qamara Twin Towers with Lusail Consultants.
- Managed Site Investigation for villa projects at Um Guwalina, Umm Sala Ali-2 & Umm Salal ali-3 with Assets Real Estate Company.
- Managed Site Investigation for the project Integrated Workers Accommodation Community - Plot 4, 5, 6 & 7 with Gulf System, Daruna & Firm consulting.
- Managed Site Investigation for Al Meshaf project Package 2 with Bin Omran Trading & Contracting Co.
- Managed Site Investigation for P76-Moughalina Commercial/Office Bldg.-Qatar Rail .
- Slope Stability analysis for various prestigious projects such as GTC 599/2013-Construction of Pipelines for Mega Reservoir,Corridor Main 2, Roads Surrounding Al-Bayt Stadium (QN-090) including QN005-P03 etc.
- Muharraq STP Project (Samsung Engineering).
- Tubley Soil Investigation – Bahrain.
- At Jiddah Island (Nass Contracting Co).
- Managed the Site Investigation of Bahrain's Welfare Housing Project.
- Conducted an Initial Study of Failure of Granite Cladding at Qatar's Hilton Hotel Project.
- Managed Quality Control Activities for SNC Lavlin on the Qatalum Project.

ARUN BHASI

QA-QC ENGINEER / LEAD AUDITOR/RPO

PERSONAL	Date of birth: 05-02-1983
INFORMATION :	Nationality: Indian
EDUCATION :	Bachelor of Engineering (Mechanical)
	BSI Certified ISO 17025 Lead Auditor.
EXPERIENCE :	More than Eight years' experience in Quality Assurance & Control Related to Material Testing and Certification.

SUPPLEMENTARY INFORMATION

2008-2010	Experience in BrahMos aerospace Trivandrum limited as planning engineer for the manufacturing of feed lines by preparing job cards by guiding the job in the entire process .Familiar with welding methods such as TIG,MIG etc and various machining process. Knowledge in various NDT methods such as X - Ray test etc.
2010– Present	Qatar Engineering Laboratories QA/QC Engineer and Lead Auditor.
	Responsible for the company's compliance to ISO 17025 and ISO 9001 and for Quality Audits.
	Responsible for ensuring that the tests are carried out in strict compliance to the relevant national/international standards or the contract specifications as required by the client and to verify the results obtained.
	Responsible for evaluation of customer complaintsand analysis of root cause and implementation of corrective action.
	Trained new employees according to the standard operating procedures within the national and international standards.
	Responsible for the safety of handling and working with radioactive materials.

SKILLS:

- Knowledge of BS and ASTM standards relating to testing on various civil projects.
- International Certified Lead Auditor from BSI for ISO 17025
- Testing as per relevant BS or ASTM standards and preparation of the reports.
- Test and Validation for Different Standards
- Customer Compliant Analysis
- Practical Involvement of Project Phases.
- Preparing and Guiding Team in Preparation Matrix
- Capable to Lean and Apply New Technologies
- Document and drive corrective actions
- Maintain the ISO 9001 quality management system
- Conduct process audits.

A BKG HOLDING COMPANY

SREENIVASAN.K

TECHNICAL SUPERVISOR

PERSONAL INFORMATION

NATIONALITY	:	Indian
EDUCATION	:	Diploma in Electronics and Instrumentation
Experience	:	Extensive experience in Construction material testing, Geotechnical Testing, Quality control and NDT testing. Presently working as Technical supervisor of Qatar Engineering Laboratories, Doha Qatar.

SUPPLIMENTARY INFORMATION

Qatar Engineering Laboratory (2008 – Continuing)

- Assigning and distributing day to day laboratory operations and assisting laboratory Manager.
- Observation of Laboratory testing and verification of test reports
- Specialized testing asphalt mix design, concrete pulse velocity, cover meter survey, Pull off test, Concrete Setting Time, Surface Hardness, Half Cell Potential etc.
- Mechanical testing of Steel re-bars, welded material as per ASTM, BS and ASME standards
- Sand Patch Test (Pavement macro texture depth using a volumetric technique)
- Load testing of manhole top.
- Involved in special testing like International Roughness Index (IRI) test
- Conducted shear test of soil based on BS specification
- Specialized testing in soil Plate load, Crane outrigger on pavements etc.
- In situ CBR, Plate bearing Testing.

QATAR ENGINEERING LABORATORIES W.L.L

QUALITY & SAFETY POLICY

Quality Policy

Qatar Engineering Laboratories is committed to customer satisfaction by providing the customers with service which meets their expectation and continuously improve upon our performance goal while complying with all required regulations.

QEL will achieve this by;

a.) Establishing good professional practices and provide quality services to customers,

b.) Maintaining accuracy, precision, and reliability of testing services through maintaining standards,

c.) Adoption and maintenance of an international quality management system for our laboratory testing activities in accordance with ISO/IEC 17025,

d.) Encouraging and welcoming customer feedback to proactively improve our performance and quality of services,

e.) Familiarizing all employees with relevant documents,

f.) Complying with ISO/IEC 17025 and continually improving the effectiveness of the management system through regular review.

K.G Baburajan – Director	27th June 2019

Quality Objectives	
Participate in Inter laboratory Comparison	1 Per Year
Customer complaint related to testing service provided to them	1 Max. / Quarter
Customer satisfaction level achievement	90 % Min.

8.2.4 All documentation, processes, systems and records related to the fulfillment of the requirements of ISO/IEC 17025:2017 are included in, referenced from, or linked to the management system. The Hierarchy of documentation prepared, implemented and cross referred in the lab are as under;

Tier	Name of Documents	Cross referred in
1st	Quality Manual	=======
2nd	Quality Procedure	Quality Manual
3rd	Work Instructions / Test methods	Quality Procedures
4th	Formats	Quality Manual, Quality Procedures and

SAFETY POLICY

QATAR ENGINEERING LABORATORIES W.L.L is committed to ensuring the health, safety and welfare of its employees, so far as is reasonably practicable. The Company also accepts fully its responsibility for other persons who may be affected by its activities. The Company will take all necessary steps to ensure that its statutory duties are met at all times. This is to be achieved by committing the necessary resources and by involving all the employees. The successful Implementation of this policy requires total commitment from all levels of employee, from the boardroom to the site operations. Each individual has a legal obligation to take reasonable care for his or her own health and safety of other people who may be affected by his or her acts or missions. Full details of the organization and arrangements for health and safety are set out in the QATAR ENGINEERING LABORATORIES W.L.L Safety Management System manual, which Include separate safety modules,

The Company is committed to:

- **The provision and maintenance of a working environment for employees that is as safe as possible, minimizes risk to health and adequate as regards facilities and arrangements for their welfare at work.**
- **The provision and maintenance of plant and systems of work that are safe and without risks to health.**
- **Safety and absence of risks to health in connection with the handling, storage and transport of articles and substances.**
- **The maintenance of a system for communicating safety policy to all employees for Instructing and training and for the supervision of safe operations.**
- **The maintenance of adequate facilities and arrangements to enable employees and their representatives to raise issues of health and safety.**

As Managing Director of QATAR ENGINEERING LABORATORIES W.L.L, I have overall responsibility for safety. I have delegated day to day implementation of our Safety Policy.

It is a condition of employment, as well as a statutory duty, for all employees (Managers. Supervisors and Operatives) to comply with the obligations lay upon them by all statutory regulations. They are also required to co-operate fully with all measures introduced by QATAR ENGINEERING LABORATORIES W.L.L to prevent accidents and ensure a healthy and safe working environment.

In circumstances where the Company Safety Policy is willfully disregarded by an employee, whether a Manager, Supervisor or Operative, action will be taken against that person for industrial misconduct, irrespective of any proceedings which may be brought by others.

This policy will be reviewed and, if necessary, revised in the light of legislative or organizational changes and its implementation will be regularly monitored to ensure that the objectives are achieved and the current policy found to satisfactory.

Date: Jan 2015

Name: K.G.Baburajan

Position: Managing Director

QATAR ENGINEERING LABORATORIES W.L.L

LEGAL DOCUMENTS

INDEX

LEGAL DOCUMENTS

- Commercial Registration
- Computer Card
- Ministry of Economy & Commerce
- Tax Card

وزارة التجارة والصناعة
Ministry of Commerce and Industry

Registration and Commercial Licenses Department

إدارة التسجيل والتراخيص التجارية

مستخرج ببعض بيانات السجل التجارى

تاريخ الطباعة: 2021/02/18

رقم السجل التجارى:	38301	رقم التسجيل الضريبي:	5000677278
الأسم التجارى:	قطر للمختبرات الهندسية	السمة التجارية:	
تاريخ انشاء السجل:	24/02/2008	تاريخ انتهاء السجل:	21/02/2022
الشكل القانونى:	شركة ذات مسئولية محدودة	راس المال:	200000
حالة السجل:	نشط	جنسية المنشأة:	قطر
عدد الفروع:	0		

معلومات الاتصال

صندوق البريد:		أرقام الاتصال:	+974

الشركاء

الأسم	رقم الإثبات	رقم السجل	الجنسية	النسبة	الحالة
لاغون قطر		31681	قطر	51	نشط
شركة بي كي جي القابضة		66978	البحرين	49	نشط

المدراء (المخولون بالتوقيع)

الأسم	رقم الإثبات	رقم السجل	الجنسية	الصفة (الصلاحية)
راجاته بابوراج	28735612726		الهند	صلاحيات كاملة ومطلقة - مدير

غرفة قطر
QATAR CHAMBER

تشهد غرفة تجارة و صناعة قطر بان المنشاة المذكورة اعلاه سجلت لدينا
Qatar Chamber certifies that the above mentioned establishment has been registered

وزارة التجارة والصناعة
Ministry of Commerce and Industry

Registration and Commercial Licenses Department

إدارة التسجيل والتراخيص التجارية

مستخرج ببعض بيانات السجل التجارى

بابو راجان غوبلان	25435607677		الهند	صلاحيات كاملة ومطلقة - مدير
احمد على حسين الانصارى	26363400843		قطر	صلاحيات كاملة ومطلقة - مدير

الأنشطة التجارية

الرقم	إسم النشاط
1000173	القيام بأعمال الاختبارات و الضبط و الموازنة والتدقيق و التحكم للاعمال الهندسية والفنية
452120	مقاولات الحفر والدفان

الرقم	إسم النشاط
252455	التجارة فى اثاث ومعدات المختبرات

رقم السجل : 38301

غرفة قطر
QATAR CHAMBER

تشهد غرفة تجارة و صناعة قطر بان المنشاة المذكورة اعلاه سجلت لدينا
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STATE OF QATAR
MINISTRY OF INTERIOR
General Directorate of Passport

دولة قطر
وزارة الداخلية
الادارة العامة للجوازات

Establishment Card بطاقـــة قيد المنشأة

Est. ID	12-7846-00 رقم قيد المنشأة
اسم المنشأة : قطر للمختبرات الهندسيه	
Est. Name : QATAR ENGINEERING LABOEATORIES	
Sector : COMMERCIAL	القطاع : تجاري
First Issue :	2008-09-14 : تاريخ اول اصدار
Expiry Date :	2022-12-11 : تاريخ الصلاحيـة

مدير عام الادارة العامة للجوازات

12784600

2021/11/28 05\072

Authorizers المفوضين

التوقيع	الاسم	رقم الوثيقة
	بابو راجان BABURAJAN VAVA GOPALAN	25435607677
	راجاته بابوراج RAJATH BABURAJ	28735612726
	احمد على حسين الانصارى AHMAD ALI H AL-ANSARI	26363400843

Cards 1 / 1 عدد البطاقات

Instruction تعليمات

• على من يجد هذه البطاقة ان يقوم بتسليمها الى اي مركز للشرطة
• Whoever finds this card should deliver it to any police station.

وزارة التجارة والصناعة
Ministry of Commerce and Industry

Registration and Commercial Licenses Department

إدارة التسجيل والتراخيص التجارية

مستخرج ببعض بيانات السجل التجارى

تاريخ الطباعة: 2021/02/18

رقم السجل التجارى:	38301	رقم التسجيل الضريبي:	5000677278
الأسم التجارى:	قطر للمختبرات الهندسية	السمة التجارية:	
تاريخ انشاء السجل:	24/02/2008	تاريخ انتهاء السجل:	21/02/2022
الشكل القانونى:	شركة ذات مسئولية محدودة	راس المال:	200000
حالة السجل:	نشط	جنسية المنشأة:	قطر
عدد الفروع:	0		

معلومات الاتصال

صندوق البريد:		أرقام الاتصال:	+974

الشركاء

الأسم	رقم الإثبات	رقم السجل	الجنسية	النسبة	الحالة
لاغون قطر		31681	قطر	51	نشط
شركة بي كي جي القابضة		66978	البحرين	49	نشط

المدراء (المخولون بالتوقيع)

الأسم	رقم الإثبات	رقم السجل	الجنسية	الصفة (الصلاحية)
راجاته بابوراج	28735612726		الهند	صلاحيات كاملة ومطلقة - مدير

غرفة قطر
QATAR CHAMBER

تشهد غرفة تجارة و صناعة قطر بان المنشاة المذكورة اعلاه سجلت لدينا
Qatar Chamber certifies that the above mentioned establishment has been registered

22/09/2020

ضريبة Dhareeba tax portal

TAX CARD - بطاقة ضريبية

The General Tax Authority of Qatar certifies that the entity is registered as per the following details:

تشهد الهيئة العامة للضرائب في دولة قطر أن الجهة أدناه مسجلة حسب البيانات التالية:

TIN Number	**5000677278**	**رقم التعريف الضريبي**
Taxpayer Name:	قطر للمختبرات الهندسية **Qatar Engineering Labs**	إسم المكلف:
Commercial Registration Number	**38301**	رقم السجل التجاري القطري
Address [Headquarter]:	Zone: 57 منطقة: Building: المبنى: Street: 50 شارع: Qatar - قطر	العنوان (المركز الرئيسي):
Main Activity:	القيام بأعمال الاختبارات و الضبط و الموازنة والتدقيق و **1000173-Carrying out tests, inspection, budgeting, auditing and monitoring of en**	النشاط الرئيسي:
Legal Form:	شركة ذات مسؤولية محدودة **Limited Liability Company**	الشكل القانوني:
Activity Commencement Date:	**24/02/2008**	تاريخ بدئ النشاط:
Number of Branches:	**0**	عدد الفروع:
Registered taxes :		**الضرائب المسجلة :**
Income Tax	**REGISTERED - 24/02/2008 -** مسجل	الضريبة على الدخل

الهيئة العامة للضرائب
GENERAL TAX AUTHORITY

هذه الوثيقة مستخرجة من النظام الآلي و ليس من الضروري التوقيع عليها

This is a system generated document and does not require to be signed.

CERTIFICATES & APPROVALS

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CERTIFICATES & APPROVALS

- ISO/IEC-17025-2005 – IAS – TL-424
- ISO 9001 : 2015
- Ministry of Environment-Qatar
- OHSAS 18001 : 2007 Approval
- ASHGHAL Approval
- MIC (Mesaieed Industrial City) Approval
- US Army Corps of Engineers
- Kahramaa Approvals
- KEO Approval
- Parsons Approval
- AECOM Approval
- CEG International Approval
- QDC Approval
- New Port Project Approval
- Qatar Rail Approval

CERTIFICATE OF ACCREDITATION

This is to attest that

QATAR ENGINEERING LABORATORIES WLL

P.O. BOX 40278
DOHA, STATE OF QATAR

Testing Laboratory TL-424

has met the requirements of AC89, *IAS Accreditation Criteria for Testing Laboratories*, and has demonstrated compliance with ISO/IEC Standard 17025:2017, *General requirements for the competence of testing and calibration laboratories.* This organization is accredited to provide the services specified in the scope of accreditation.

Effective Date August 3, 2021

IAS ACCREDITED

President

Visit www.iasonline.org for current accreditation information.

SCOPE OF ACCREDITATION

International Accreditation Service, Inc.

3060 Saturn Street, Suite 100, Brea, California 92821, U.S.A. | www.iasonline.org

QATAR ENGINEERING LABORATORIES WLL

www.qelonweb.com

Contact Name N. Sabu **Contact Phone** + 974-33096029

Accredited to ISO/IEC 17025:2017 *Effective Date August 3, 2021*

Category	Standard/ Method No./ Date	Standard/ Method Title & Section	Location/ Facility
Aggregate	ASTM C88 - 18	Soundness of Aggregate Using Sodium Sulfate or Magnesium Sulfate	QEL Main Laboratory
Aggregate	ASTM C117 - 13	Standard Test Method for Material Finer Than 75 Micron Sieve in Mineral Aggregate by Washing	QEL Main Laboratory
Aggregate	ASTM C123 / C23M - 14	Standard Test Method for Light Weight Particles in Aggregate	QEL Main Laboratory
Aggregate	ASTM C127 - 15	Standard Test Method for Density, Relative Density and Absorption of Coarse Aggregate	QEL Main Laboratory
Aggregate	ASTM C128 - 15	Standard Test Method for Density, Relative Density and Absorption of Fine Aggregate	QEL Main Laboratory
Aggregate	ASTM C131 / C131 - 14	Standard Test Method for Los Angeles Abrasion –Small Size Coarse Aggregate	QEL Main Laboratory
Aggregate	ASTM C142 - 17	Standard Test Method for Clay Lumps and Friable Particles in Aggregate	QEL Main Laboratory
Aggregate	ASTM C535 - 16	Standard Test Method for Los Angeles Abrasion –Large Size Coarse Aggregate	QEL Main Laboratory
Aggregate	ASTM C702 / C702M - 18	Standard Practice for Reducing Samples of Aggregate to Testing Size	QEL Main Laboratory
Aggregate	ASTM D75 / D75M - 14	Standard Practice for Sampling Aggregates	QEL Main Laboratory
Aggregate	ASTM D4791 - 10	Standard Test Method for Flat & Elongated Particles	QEL Main Laboratory
Aggregate	BS 812-2:1995 Cl 5.3	Sampling Method for Aggregate Larger Than 10 mm.	QEL Main Laboratory
Aggregate	BS 812-2:1995 CL 5.4	Particle Density and Water Absorption CL 5.4 Method for aggregates between 40 mm and 5 mm	QEL Main Laboratory
Aggregate	BS 812-2:1995 CL 5.5	Particle Density and Water Absorption CL 5.5 Method for aggregates 10 mm nominal size and smaller	QEL Main Laboratory
Aggregate	BS 812-2:1995 Cl 6.2	Testing aggregates CL 6.2 Sampling	QEL Main Laboratory
Aggregate	BS 812-2:1995 Cl 6.3.4.2	Determination of Bulk Density and Voids of Aggregate	QEL Main Laboratory
Aggregate	BS 812-102:1989	Method of Sampling of Aggregate	QEL Main Laboratory
Aggregate	BS 812-103:1985	Method for the Determination of Particle Size Distribution	QEL Main Laboratory

Category	Standard/ Method No./ Date	Standard/ Method Title & Section	Location/ Facility
Aggregate	BS 812-105.1:1989	Method for the Determination of Particle Shape, Flakiness Index of Coarse Aggregate	QEL Main Laboratory
Aggregate	BS 812-105.2:1989	Method for the Determination of Particle Shape, Elongation Index of Coarse Aggregate	QEL Main Laboratory
Aggregate	BS 812-109:1990	Method for the Determination of Moisture Content	QEL Main Laboratory
Aggregate	BS 812-110:1990	Method for the Determination of Aggregate Crushing Value	QEL Main Laboratory
Aggregate	BS 812-111:1990	Method for the Determination of Ten Percentage Fines Value of Aggregate	QEL Main Laboratory
Aggregate	BS 812-112:1990	Method for the Determination of Aggregate Impact Value	QEL Main Laboratory
Aggregate	BS 812-121:1989	Testing Aggregate-Method for Determination of Soundness of Aggregate	QEL Main Laboratory
Aggregate	BS EN 932-1:1997	Tests for General Properties of Aggregate. Method of Sampling	QEL Main Laboratory
Aggregate	BS EN 932-2:1999 CL 8 & CL 10	Tests for General Properties of Aggregate. Test for Reducing the Samples	QEL Main Laboratory
Aggregate	BS EN 933-1:2012	Determination of Particle Size Distribution of Aggregate)	QEL Main Laboratory
Aggregate	BS EN 933-3:2012	Determination of Aggregate Particle Shape-Flakiness Index	QEL Main Laboratory
Aggregate	BS EN 933-7:1998	Determination of Shell Content in Coarse Aggregate	QEL Main Laboratory
Aggregate	BS EN 933-8:2012	Assessment of Sand Equivalent Test	QEL Main Laboratory
Aggregate	BS EN 1097-6:2013	Determination of Particle Density and Water Absorption of Aggregate	QEL Main Laboratory
Asphalt Aggregate	ASTM C136 / C136 M - 14	Standard Test Method for Sieve Analysis	QEL Main Laboratory
Asphalt Aggregate	ASTM D546 - 10	Standard Practice for Sieve Analysis of Mineral Filler in Bituminous Mixtures	QEL Main Laboratory
Asphalt Aggregate	ASTM D5821 - 13	Standard Practice for Determining the Percentage of Fractured Particles in Coarse Aggregate	QEL Main Laboratory
Asphalt	AASTHO T 283	Resistance of Compacted Asphalt to Moisture Induced Damage	QEL Main Laboratory
Asphalt	AASHTO T 312	Sample Preparation and Density of Specimens Using Gyratory Compactor	QEL Main Laboratory
Asphalt	AASHTO PP60	Preparation of Performance Test Specimens Using Gyratory Compactor	QEL Main Laboratory
Asphalt	ASTM D6	Loss on Heating of Oil and Asphaltic Compounds	Main Laboratory
Asphalt	ASTM D36 / D36M - 14e	Standard Test Method for Softening Point of Bitumen (Ring & Ball Apparatus)	QEL Main Laboratory

Category	Standard/ Method No./ Date	Standard/ Method Title & Section	Location/ Facility
Asphalt	ASTM D70 - 09	Standard Test Method for Density of Semi Solid Bituminous Mixtures	QEL Main Laboratory
Asphalt	ASTM D92 – 12	Standard Test Method for Flash and Fire Points by Cleveland Open Cup Tester	QEL Main Laboratory
Asphalt	ASTM D113	Standard Test Method for Ductility of Bituminous Material.	Main Laboratory
Asphalt	ASTM D140 / D140M - 14	Standard Practice for Sampling Bituminous Materials	QEL Main Laboratory
Asphalt	ASTM D979 / D979M - 12	Standard Practice for Sampling Bituminous Paving Mixtures	QEL Main Laboratory
Asphalt	ASTM D1188 – 07	Standard Test Method for Bulk Specific Gravity and Density of Compacted Bituminous Mixtures Using Coated Samples	QEL Main Laboratory
Asphalt	ASTM D1754	Standard Test Method for the Effect of Air and Air on Asphaltic Materials.	Main Laboratory
Asphalt	ASTM D2041 / D2041 - 11	Standard Test Method for Theoretical Specific Gravity & Density of Bituminous Mixtures	QEL Main Laboratory
Asphalt	ASTM D2171	Standard Test Method for Viscosity of Asphalt by Vacuum Capillary Viscometer.	Main Laboratory
Asphalt	ASTM D2172 / D2172M - 11	Standard Test Method for the Quantitative Extraction of Bitumen From Bituminous Paving Mixtures	QEL Main Laboratory
Asphalt	ASTM D2726 / D2726 - 14	Standard Test Method for Bulk Specific Gravity and Density of Non Absorptive Compacted Bituminous Mixtures	QEL Main Laboratory
Asphalt	ASTM D2950 / D2950M - 14	Standard Test Method for Density of Bituminous Concrete in Place by Nuclear Methods	QEL Main Laboratory
Asphalt	ASTM D2995 – 99 (2009)	Standard Practice for Estimating Application Rate of Bituminous Distributors	QEL Main Laboratory
Asphalt	ASTM D3549 / D3549 - 11	Standard Test Method for Thickness or Height of Compacted Bituminous Specimens	QEL Main Laboratory
Asphalt	ASTM D5361 / D5361M - 14	Standard Practice for Sampling Compacted Bituminous Mixtures for Laboratory Testing	QEL Main Laboratory
Asphalt	ASTM D5444	Standard Test Method for Mechanical Size Analysis of Extracted Aggregate	QEL Main Laboratory
Asphalt	ASTM D5581 - 07 (2013)	Standard Test Method for Resistance to Plastic Flow of Bituminous Mixtures Using Marshall Apparatus (6 inch- Diameter Specimen)	QEL Main Laboratory
Asphalt	ASTM D6925 - 15	Standard Test Method for Preparation and Determination of the Relative Density of Asphalt Mix Specimens by Means of the Superpave Gyratory Compactor	QEL Main Laboratory

Category	Standard/ Method No./ Date	Standard/ Method Title & Section	Location/ Facility
Asphalt	ASTM D6926 - 10	Standard Practice for Preparation of Bituminous Specimen Using Marshall Apparatus	QEL Main Laboratory
Asphalt	ASTM D6927 - 15	Standard Test Method for Marshall Stability & Flow of Asphalt Mixtures	QEL Main Laboratory
Asphalt	ASTM E1926- 08 (2015)	Standard Practice for Computing International Roughness Index of Roads from Longitudinal Profile Measurements	QEL Main Laboratory
Asphalt	BS 598-102:2003 Annex E & F	Determination of Binder Content by Centrifugal Extraction Method	QEL Main Laboratory
Asphalt	BS EN 1426:2007	Determination of Needle Penetration of Bituminous Binders	QEL Main Laboratory
Asphalt	BS EN 1427:2007	Determination of Softening Point- Ring & Ball Method.	QEL Main Laboratory
Asphalt	BS EN 12697-1:2012	Test Method for Hot Mix Asphalt- Soluble Binder Content.	QEL Main Laboratory
Asphalt	BS EN 12697-2:2002	Determination of Hot Mix Asphalt– Determination of Particle Size Distribution.	QEL Main Laboratory
Asphalt	BS EN 12697-5:2009	Test Method for Hot Mix Asphalt- Determination of Maximum Density	QEL Main Laboratory
Asphalt	BS EN 12697-6:2012	Test Method for Hot Mix Asphalt- Determination of Bulk Density of Bituminous Specimens	QEL Main Laboratory
Asphalt	BS EN 12697-8:2003	Test Method for Hot Mix Asphalt- Determination of Void Characteristics of Bituminous Specimens	QEL Main Laboratory
Asphalt	BS EN 12697-13:2000	Test Method for Hot Mix Asphalt - Temperature Measurement	QEL Main Laboratory
Asphalt	BS EN 12697-14:2000	Test Method for Hot Mix Asphalt - Water Content	QEL Main Laboratory
Asphalt	BS EN 12697-27:2001	Test Method for Hot Mix Asphalt – Sampling	QEL Main Laboratory
Asphalt	BS EN 12697-28:2001	Test Method for Hot Mix Asphalt - Preparation of Samples for Determining Binder Content, Water Content & Grading	QEL Main Laboratory
Asphalt	BS EN 12697-29:2002	Test Method for Hot Mix Asphalt - Determination of Dimensions of Bituminous Specimen	QEL Main Laboratory
Asphalt	BS EN 12697-30:2012	Test Method for Hot Mix Asphalt - Specimen by Impact Compactor	QEL Main Laboratory
Asphalt	BS EN 12697-34:2012	Test Method for Hot Mix Asphalt- Marshall Test	QEL Main Laboratory
Asphalt	BS EN 12697-36:2003	Test Method for Hot Mix Asphalt - Determination of Thickness of Bituminous Pavement	QEL Main Laboratory

Category	Standard/ Method No./ Date	Standard/ Method Title & Section	Location/ Facility
Asphalt	BS EN 13036-6:2008	Test Method- Measurement of Transverse and Longitudinal Profiles in the Evenness and Mega structure Wavelength Ranges	QEL Main Laboratory
Bitumen	ASTM D5 / D5M - 13	Standard Test Method for Penetration of Bituminous Mixtures	QEL Main Laboratory
Bitumen	ASTM D2042	Solubility in Trichloroethylene	QEL Main Laboratory
Bitumen	ASTM D2872	Effect of Heat and Air on Moving Film of Asphalt	QEL Main Laboratory
Bitumen	ASTM D4402	Viscosity Determination by Rotational Viscometer	QEL Main Laboratory
Bitumen	ASTM D7113 / D7113 - 10	Standard Test Method for Density of Bituminous Mixtures in Place by Electromagnetic Surface Contact Method	QEL Main Laboratory
Bitumen	BS 812-103:1985	Method for the Determination of Particle Size Distribution of Aggregate	QEL Main Laboratory
Cement	ASTM C183 - 02	Standard Practice for Sampling & Amount of Testing for Hydraulic Cement	QEL Main Laboratory
Cement	ASTM C191 - 13	Standard Test Method for Setting Time of Cement by Vicat Needle.	QEL Main Laboratory
Cement	BS EN 196-1:2005	Determination of Strength Test for Cement	QEL Main Laboratory
Cement	BS EN 196-3:2008	Determination of Soundness and Setting Time.	QEL Main Laboratory
Cement	BS EN 196-6:2010	Determination of Fines of Cement	QEL Main Laboratory
Cement	BS EN 196-7:2007	Method of Taking and Preparing Samples of Cement	QEL Main Laboratory
Cementitious Materials	ASTM C187 - 11	Standard Test Method for the Amount of Water Required for the Standard Consistency of Hydraulic Cement Paste.	QEL Main Laboratory
Cementitious Materials	ASTM C311 / C311M - 13	Standard Test Method for Sampling and Testing Fly Ash	QEL Main Laboratory
Cementitious Materials	ASTM C349 - 14	Standard Test Method for Compressive Strength of Hydraulic Cement	QEL Main Laboratory
Cementitious Materials	ASTM C989 / C989M - 14	Standard Specification for Slag Cement for Use in Concrete	QEL Main Laboratory
Cementitious Materials	ASTM C1012	Length Change of Cement Mortars	QEL Main Laboratory
Cementitious Materials	ASTM C1240 - 14	Standard Test Method for Silica Fumes Used In Cementitious Mixture	QEL Main Laboratory
Cementitious Materials	ASTM D5759 - 12	Standard Guide for Characterization of Coal and Fly Ash	QEL Main Laboratory
Chemical	HACH 8192	Quantitative Determination of Nitrate.	Main Laboratory
Chemical Aggregate	ASTM C40 / C40M - 11	Standard Test Method for Organic Impurities in Fine Aggregate for Concrete	QEL Main Laboratory
Chemical Aggregate	ASTM C1218 / C1218M 1999 (2008)	Standard Test Method of Water Soluble Chloride in Mortar Concrete	QEL Main Laboratory
Chemical Aggregate	BS 812-117:1988 Appendix C	Method for the Determination for Water Soluble Chloride Content in Aggregate.	QEL Main Laboratory

Category	Standard/ Method No./ Date	Standard/ Method Title & Section	Location/ Facility
Chemical Aggregate	BS 812-118:1988–Cl 6	Determination of Total Sulphate Content by Acid Extraction	QEL Main Laboratory
Chemical Aggregate	BS EN 933-9	Methlyne Blue Test	QEL Main Laboratory
Chemical Aggregate	BS EN 1744-1:2009+A1:2012	Test for Chemical Properties of Aggregate Sulphate -Chemical Analysis	QEL Main Laboratory
Chemical Aggregate	BS EN 1744-5:2006	Test for Chemical Properties of Aggregate- Determination of acid Soluble Chloride Salts	QEL Main Laboratory
Chemical Cement	ASTM C114 - 13	Standard Test Method for Chemical Analysis of Hydraulic Cement	QEL Main Laboratory
Chemical Cement	BS EN 196-2:2013 Tests-7, 8, 9, 13.5, 13.6, 13.8, 13.9, 13.10, 13.11, 13.14, 13.15, 14, 17	Chemical Analysis of Cement	QEL Main Laboratory
Chemical Cement	BS EN 196-4:2007	Quantitative Determination of Constituents of Cement	QEL Main Laboratory
Chemical Cement	BS EN 196-5:2011	Pozzolancty Test of Pozzolanic Cement	QEL Main Laboratory
Chemical Cement	BS EN 196-21:1992 (Tests 4 and 7)	Determination of Chloride, Carbon Dioxide & Alkali Content of Cement (tests 4 and 7)	QEL Main Laboratory
Chemical Concrete	ASTM C1152 / C1152M – 04 (2012)	Standard Test Method for Acid Soluble Chloride in Mortar & Concrete	QEL Main Laboratory
Chemical Concrete	BS 1881-124:1988 CL 10.2 & 10.3	Determination of Chloride & Sulphate Content of Concrete	QEL Main Laboratory
Concrete	AASHTO TP- 64. 03 /NT BUILD 492	Predicting Chloride Penetration of Hydraulic Cement Concrete by Rapid Migration Process	QEL Main Laboratory
Concrete	ASTM C31 / C31M - 12	Standard Practice for Making & Curing Concrete Test Specimens	QEL Main Laboratory
Concrete	ASTM C39 / C39M - 14a	Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens	QEL Main Laboratory
Concrete	ASTM C42 - 04	Obtaining and Testing of Drilled Cores and Sawed Beams	QEL Main Laboratory
Concrete	ASTM C78 / C78M - 10e1	Standard Test Method for Flexural Strength of Concrete (3 Point Method)	QEL Main Laboratory
Concrete	ASTM C138 / C138M - 14	Standard Test Method for Density and Air Content (Gravimetric) of Concrete	QEL Main Laboratory
Concrete	ASTM C143 / C143M - 12	Standard Test Method for Slump of Hydraulic Cement Concrete	QEL Main Laboratory
Concrete	ASTM C172 / C172M - 14a	Standard Practice for Sampling Freshly Mixed Concrete	QEL Main Laboratory
Concrete	ASTM C231 / C231M - 14	Standard Test Method for Air Content of Freshly Mixed Concrete by Pressure Method	QEL Main Laboratory

Category	Standard/ Method No./ Date	Standard/ Method Title & Section	Location/ Facility
Concrete	ASTM C403 / C403M - 08	Standard Test Method for Time of Setting of Concrete by Penetration Resistance	QEL Main Laboratory
Concrete	ASTM C597 - 16	Standard Test Method of Pulse Velocity Through Concrete.	Main Laboratory
Concrete	ASTM C617 / C617M - 12	Standard Test Method for Capping Cylindrical Concrete Specimens	QEL Main Laboratory
Concrete	ASTM C876 - 15	Standard Test Method for Corrosion Potentials of Uncoated Resistance Steel in Concrete	QEL Main Laboratory
Concrete	ASTM C900 - 14	Standard Test Method for Pull Out Strength of Harden Concrete	QEL Main Laboratory
Concrete	ASTM C1064 / C1064 - 12	Standard Test Method for Temperature of Freshly Mixed Hydraulic Cement Concrete	QEL Main Laboratory
Concrete	ASTM C1202 - 12	Standard Test Method for Electrical Indication of Concrete Ability to Resist to Chloride Ion Penetration	QEL Main Laboratory
Concrete	ASTM C1231 / C1231M - 14	Standard Practice for Use of Unbounded Caps in the Determination of Compressive Strength of Hardened Concrete	QEL Main Laboratory
Concrete	ASTM C1385 - 10 (2017)	Sampling of Shotcrete ASTM C1385	QEL Main Laboratory
Concrete	ASTM C1688 - 14	Density Determination of Pervious Concrete	QEL Main Laboratory
Concrete	ASTM C1701 - 17	Infiltration Test for In place Pervious Concrete	QEL Main Laboratory
Concrete	BS 1881-102:1983	Method of Determination of Slump	QEL Main Laboratory
Concrete	BS 1881-108:1983	Method for Making Test Cubes from Fresh Concrete	QEL Main Laboratory
Concrete	BS 1881-116:1983	Method for the Determination of Compressive Strength of Concrete Cube	QEL Main Laboratory
Concrete	BS 1881-118:1983	Determination of Flexural Strength of Beams	QEL Main Laboratory
Concrete	BS 1881-120:1983	Method for the Determination of Compressive Strength of Concrete Cores	QEL Main Laboratory
Concrete	BS 1881-122:2011	Method for the Determination of Water Absorption of Concrete	QEL Main Laboratory
Concrete	BS 1881-208:1996	Initial Surface Absorption of Hardened Concrete	QEL Main Laboratory
Concrete	BS 6717-1:2001	Precast, Unreinforced Concrete Paving Blocks	QEL Main Laboratory
Concrete	BS EN 1338	Concrete paving blocks. Requirements and test methods (Cl. 5.3.4) Abrasion Resistance of Paving Block	QEL Main Laboratory
Concrete	BS EN 1338	Concrete paving blocks. Requirements and test methods (Cl. 5.3.5) Skid Resistance of Paving Block	QEL Main Laboratory
Concrete	BS EN 12350-1:2012	Testing of Fresh Concrete-Sampling & Temperature	QEL Main Laboratory

Category	Standard/ Method No./ Date	Standard/ Method Title & Section	Location/ Facility
Concrete	BS EN 12350-2:2009	Testing Fresh Concrete –Slump Test	QEL Main Laboratory
Concrete	BS EN 12350-5:2009	Flow Table Test	QEL Main Laboratory
Concrete	BS EN 12350-9	V Funnel Test for Self Compacting Concrete	QEL Main Laboratory
Concrete	BS EN 12390-1:2012	Testing Hardened Concrete, Shape, Dimension and Other Requirements	QEL Main Laboratory
Concrete	BS EN 12390-2:2009	Making & Curing for Strength Test	QEL Main Laboratory
Concrete	BS EN 12390-3:2009	Compressive Strength of Test Specimens	QEL Main Laboratory
Concrete	BS EN 12390-5	Testing hardened concrete. Flexural strength of test specimens	Main Laboratory
Concrete	BS EN 12390-6:2009	Tensile Splitting Strength of Test Specimens	QEL Main Laboratory
Concrete	BS EN 12390 Part-7, CL 5.1.2	Density of Hardened Concrete	QEL Main Laboratory
Concrete	BS EN 12390-8:2009	Water Penetration of Hardened Concrete	QEL Main Laboratory
Concrete	BS EN 12504-1:2009	Cored Specimens: Taking, Examining & Testing in Compression.	QEL Main Laboratory
Concrete	BS EN 12504-2	Testing Hardened Concrete in Structures. Non Destructive Testing- Determination of Rebound Number	QEL Main Laboratory
Concrete	DIN-1048	Permeability Test	QEL Main Laboratory
Concrete	IWPT 146 - (Robin Summers Specification Appendix A)	Capillary Index of Concrete	QEL Main Laboratory
Environmental Testing	APHA/AWWA 2130 B	Turbidity	QEL Main Laboratory
Environmental Testing	APHA/AWWA 2320-B	Phenolphthalein Alkalinity	QEL Main Laboratory
Environmental Testing	APHA/AWWA 2320-B	Total Alkalinity	QEL Main Laboratory
Environmental Testing	APHA 2340-C	Total Hardness-EDTA Method	QEL Main Laboratory
Environmental Testing	APHA 2510-B	Electrical Conductivity	QEL Main Laboratory
Environmental Testing	APHA/AWWA 2540 B	Total Solids	QEL Main Laboratory
Environmental Testing	APHA 2540-C	Total Dissolved Solids	QEL Main Laboratory
Environmental Testing	APHA 2540-D	Total Suspended Solids	QEL Main Laboratory
Environmental Testing	APHA/AWWA 2540 D	Total Suspended Solids	QEL Main Laboratory
Environmental Testing	APHA/AWWA 2540F	Settleable Solids	QEL Main Laboratory
Environmental Testing	APHA, SM, 2710 D, 2005	Sludge Volume	QEL Main Laboratory
Environmental Testing	APHA, SM, 2710 D, 2005	Sludge Volume Index	QEL Main Laboratory

Category	Standard/ Method No./ Date	Standard/ Method Title & Section	Location/ Facility
Environmental Testing	APHA, SM, 2710 D, 2005	Sludge Weight	QEL Main Laboratory
Environmental Testing	APHA 3500 Ca- B	Calcium-EDTA Titration Method	QEL Main Laboratory
Environmental Testing	APHA 3500 Mg- B	Magnesium- Calculation Method	QEL Main Laboratory
Environmental Testing	APHA 4500 Cl- B	Chloride- Argentometric Method	QEL Main Laboratory
Environmental Testing	APHA/AWWA 4500-ClG	Total Chlorine	QEL Main Laboratory
Environmental Testing	APHA/AWWA 4500-Cll	Residual Chlorine	QEL Main Laboratory
Environmental Testing	APHA 4500- H+- B	pH Value- Electrometric Method	QEL Main Laboratory
Environmental Testing	APHA/AWWA 4500 N	Total Kjeldahl Nitogen	QEL Main Laboratory
Environmental Testing	APHA/AWWA 4500 NO3-D	Nitrate	QEL Main Laboratory
Environmental Testing	APHA/AWWA 4500-SO4	Sulphate	QEL Main Laboratory
Environmental Testing	APHA 4500- SO24 –E	Sulphate-Turbudity Method	QEL Main Laboratory
Environmental Testing	APHA/AWWA 4500-S2 F	Sulphide	QEL Main Laboratory
Environmental Testing	APHA 5210-B	Biochemical Oxygen Demand	QEL Main Laboratory
Environmental Testing	APHA 5220-D	Chemical Oxygen Demand	QEL Main Laboratory
Environmental Testing	APHA/AWWA 5520 D	Oil & Grease	QEL Main Laboratory
Environmental Testing	APHA/AWWA 5310-B or C	Total Organic Carbon	QEL Main Laboratory
Environmental Testing	APHA/AWWA 9222 B & 9222 D	Total Coliforms	QEL Main Laboratory
Environmental Testing	APHA/AWWA 9223 B & G	E- Coli	QEL Main Laboratory
Environmental Testing	BS 1377-3:1990	Chemical & Electrochemical Test of Soil	QEL Main Laboratory
Environmental Testing	HACH Method	Cadmium	QEL Main Laboratory
Environmental Testing	HACH Method	Iron	QEL Main Laboratory
Environmental Testing	HACH Method	Silica	QEL Main Laboratory
Environmental Testing	HACH Method 8009	Zinc	QEL Main Laboratory
Environmental Testing	HACH 8027	Cyanide	QEL Main Laboratory

Category	Standard/ Method No./ Date	Standard/ Method Title & Section	Location/ Facility
Environmental Testing	HACH Method 8033	Lead	QEL Main Laboratory
Environmental Testing	HACH 8047	Phenol	QEL Main Laboratory
Environmental Testing	HACH Method 8049	Potassium	QEL Main Laboratory
Environmental Testing	HACH Method 8143	Copper	QEL Main Laboratory
Environmental Testing	HACH Method 8150	Nickel	QEL Main Laboratory
Environmental Testing	HACH 8326	Aluminum	QEL Main Laboratory
Environmental Testing	QEL SOP/OPN/10	Microscopic Examination	QEL Main Laboratory
Geotechnical	ASTM D2435 / D2435 M - 11	Standard Test Method for One Dimensional Consolidation Properties of Soil Using Incremental Loading.	QEL Main Laboratory
GeoTech	ASTM G57	Standard Test Method for Field Measurement of Soil Resisitivity Using te Wenner Four- Electrode Method	Street 50 Lab
GeoTech	BS 1377-9:1990 CL 4.1	Methods of test for Soils for civil engineering purposes — Part 9: In-situ tests CL 4.1 Determination of the vertical deformation and strength characteristics of soil by the plate loading test	Street 50 Lab
GeoTech	BS 5930:2010 CL 25.5	Code of Practice for Site Investigation CL 25.5 Packer Test	QEL Main Laboratory
Geotextiles & Waterproofing Tests	ASTM D412	Tensile Strength of Vulcanized Rubber & Thermoplastic Elastomers	QEL Main Laboratory
Geotextiles & Waterproofing Tests	ASTM D570	Water Absorption of Plastics	QEL Main Laboratory
Geotextiles & Waterproofing Tests	ASTM D638	Determination of Tensile Properties of Plastics	QEL Main Laboratory
Geotextiles & Waterproofing Tests	ASTM D751	Textiles Puncture Resistance.	QEL Main Laboratory
Geotextiles & Waterproofing Tests	ASTM D1004	Initial Tear Resistance of Plastic Film and Sheeting	QEL Main Laboratory
Geotextiles & Waterproofing Tests	ASTM D2240	Determination of Durometer Hardness	QEL Main Laboratory
Geotextiles & Waterproofing Tests	ASTM D3767	Dimensions Measurement of Rubber	QEL Main Laboratory

Category	Standard/ Method No./ Date	Standard/ Method Title & Section	Location/ Facility
Geotextiles & Waterproofing Tests	ASTM D3787	Textiles Bursting Strength	QEL Main Laboratory
Geotextiles & Waterproofing Tests	ASTM D4533	Trapezoid Tearing Strength of Geotextiles.	QEL Main Laboratory
Geotextiles & Waterproofing Tests	ASTM D5199	Determination of Thickness of Geosynthetics	QEL Main Laboratory
Geotextiles & Waterproofing Tests	ASTM D5034	Breaking Strength and Elongation of Textile Fabrics (Grab Test)	QEL Main Laboratory
Geotextiles & Waterproofing Tests	ASTM D5035	Breaking Strength and Elongation of Textile (Strip Test)	QEL Main Laboratory
Geotextiles & Waterproofing Tests	ASTM E154	Puncture Resistance of Ground Covers	QEL Main Laboratory
Geotextiles & Waterproofing Tests	BS EN ISO 527-3	Determination of Tensile Properties of Plastics	QEL Main Laboratory
Geotextiles & Waterproofing Tests	BS EN 1849-1	Determination of Thickness and Mass per unit area of Bitumen sheets for roof waterproofing	QEL Main Laboratory
Geotextiles & Waterproofing Tests	BS EN 1849-2	Determination of Thickness and Mass per unit area of Plastic and Rubber	QEL Main Laboratory
Geotextiles & Waterproofing Tests	BS EN ISO 5084	Determination of Thickness of Textiles	QEL Main Laboratory
Geotextiles & Waterproofing Tests	BS EN ISO 10319:2015	Tensile Strength & Elongation at Rupture	QEL Main Laboratory
Geotextiles & Waterproofing Tests	BS EN ISO 11058	Geotextiles and geotextile-related products. Determination of water permeability characteristics normal to the plane, without load	QEL Main Laboratory
Geotextiles & Waterproofing Tests	BS EN 12127	Determination of Mass Per Unit Area (Weight)	QEL Main Laboratory
Geotextiles & Waterproofing Tests	BS EN ISO 12236	Static Puncture Test (CBR Test)	QEL Main Laboratory
Geotextiles & Waterproofing Tests	BS EN ISO 12956	Pore Size	QEL Main Laboratory

Category	Standard/ Method No./ Date	Standard/ Method Title & Section	Location/ Facility
Geotextiles & Waterproofing Tests	BS EN ISO 13433	Dynamic Perforation Test (Cone Drop Test)	QEL Main Laboratory
GRP Pipe Test	ASTM D2122, ASTM D3567	Dimensions	QEL Main Laboratory
GRP Pipe Test	ASTM D2563	Visual Inspection	QEL Main Laboratory
GRP Pipe Test	ASTM D2583	Hardness	QEL Main Laboratory
GRP Pipe Test	ASTM D3681	Strain Corrosion	QEL Main Laboratory
Masonry	ASTM C140 / C140M - 14 Cl 8	Standard Test Method for Sampling and Testing Concrete Masonry Units& Related Units	QEL Main Laboratory
Masonry	BS 6073-1:1981 Appendix A & B	Specification for Precast Concrete Masonry Units	QEL Main Laboratory
Masonry	BS 6073-2:2008	Specification for Precast Concrete Masonry Units	QEL Main Laboratory
Masonry	BS 6717:2001	Specification for Precast Concrete Masonry Units	QEL Main Laboratory
Masonry	BS EN 771-3:2011	Specification for Masonry Units	QEL Main Laboratory
Masonry	BS EN 772-1:2011	Determination of Compressive Strength of Masonry Units	QEL Main Laboratory
Masonry	BS EN 772-11:2011	Determination of Water Absorption of Aggregate Concrete Autoclaved Aerated Concrete, Manufactured Stone & Natural Stone Masonry Units Due to Capillary Action and the Internal Rate of Water Absorption of Clay Masonry Units.	QEL Main Laboratory
Masonry	BS EN 1338:2003 Annex E & F	Requirements and Test Method for Concrete Paving Blocks	QEL Main Laboratory
Masonry	BS EN 1339:2003 Annex E & F	Concrete Paving Flags and Test Methods	QEL Main Laboratory
Masonry	BS EN 1340:2003 Annex C, E & F	Determination of Water Absorption of Paving Flags.	QEL Main Laboratory
NDT	ASTM C805	Standard Test Method for Rebound Number of Hardened Concrete	QEL Main Laboratory
NDT	ASTM C805 / C805 - 13a	Standard Test Method for Rebound Number of Hardened Concrete	QEL Main Laboratory
NDT	ASTM D4787 - 13	Standard Practice for Continuity Verification of Liquid or Sheet Linings Applied to Concrete	QEL Main Laboratory
NDT	ASTM D4541 – 09 Method B	Standard Test Method for Pull off Strength of Coatings Using Portable Adhesion Tester - Method B	QEL Main Laboratory
NDT	ASTM D4945 - 12	Standard Test Method for High Strain Dynamic Testing of Deep Foundations	QEL Main Laboratory

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NDT	ASTM D5162 - 08	Standard Practice for Discontinuity Testing of Nonconductive Protective Coating on Metallic Substance	QEL Main Laboratory
NDT	ASTM D5882 - 07(2013)	Standard Test Method for Low Strain Impact Integrity Testing of Deep Foundations	QEL Main Laboratory
NDT	ASTM D6132-13	Standard Test Method for Nondestructive Measurement of Dry Film Thickness of Applied Organic Coatings Using an Ultrasonic Coating Thickness Gage	QEL Main Laboratory
NDT	ASTM D6760 - 14	Standard Test Method for Integrity Testing of Concrete Deep Foundations by Ultrasonic Cross hole Testing	QEL Main Laboratory
NDT	ASTM E 965	Standard Test Method for Measuring Pavement Macrotexture Depth Using a Volumetric Technique.	Main Laboratory
NDT	BS EN 10002:2001	Tensile Testing of Metallic Materials	QEL Main Laboratory
NDT	BS EN 12504-4:2004	Testing Concrete – Determination of Ultrasonic Pulse Velocity	QEL Main Laboratory
Paints & Varnishes Tests	ASTM D1005	Measurement of Dry-Film Thickness of Organic Coatings	QEL Main Laboratory
Paints & Varnishes Tests	ASTM D1212	Measurement of Wet Film Thickness of Organic Coatings	QEL Main Laboratory
Paints & Varnishes Tests	ASTM D1475	Density of Liquid Coatings, Inks & paints	QEL Main Laboratory
Paints & Varnishes Tests	ASTM D1640	Drying, Curing, or Film Formation of Organic Coatings at Room Temperature	QEL Main Laboratory
Paints & Varnishes Tests	ASTM D1647	Alkali Resistance	QEL Main Laboratory
Paints & Varnishes Tests	ASTM D2196	Rheological Properties of Non-Newtonian Materials by Rotational Viscometer	QEL Main Laboratory
Paints & Varnishes Tests	ASTM D2369	Determination Volatile Content of Coatings	QEL Main Laboratory
Paints & Varnishes Tests	ASTM D2486	Scrub Resistance of Wall Paints	QEL Main Laboratory
Paints & Varnishes Tests	ASTM D3723	Pigment Content of Water-Emulsion Paints by Low-Temperature Ashing	QEL Main Laboratory
Paints & Varnishes Tests	ASTM D4060	Abrasion Resistance of Organic Coatings by the Taber Abraser	QEL Main Laboratory

Category	Standard/ Method No./ Date	Standard/ Method Title & Section	Location/ Facility
Paints & Varnishes Tests	ASTM D5401	Determination of resistance to liquids	QEL Main Laboratory
Paints & Varnishes Tests	BS EN ISO 2409	Cross-cut Tests of Paints and Varnishes	QEL Main Laboratory
Road Marking Test	AASHTO T250	Glass Bead Content of Thermoplastic Material	QEL Main Laboratory
Road Marking Test	BS 2000-58	Softening Point (Ring and Ball Method) of Thermoplastic Material	QEL Main Laboratory
Road Marking Test	BS 3262 Part 1–Ap. D	Combined Gradation of Material	QEL Main Laboratory
Road Marking Test	BS 3262 Part 1–Ap. D	Glass Bead Content of Thermoplastic Material	QEL Main Laboratory
Road Marking Test	BS 3262 Part 1–Ap. H	Flow Resistance of Thermoplastic Material	QEL Main Laboratory
Road Marking Test	BS 3262 Part 3–Ap. C	Determination of Density of Thermoplastic Material	QEL Main Laboratory
Road Marking Test	BS 6088 Appendix B	Particle Size Distribution of Glass Beads	QEL Main Laboratory
Rock	ASTM D4543 - 08	Standard Practice for Preparing Rock Core as Cylindrical Specimens& Verifying conformance to Dimensional and Shape Tolerance.	QEL Main Laboratory
Rock	ASTM D5731 - 08	Standard Test Method for the Determination of Point Load Index of Rock	QEL Main Laboratory
Rock	ASTM D7012 - 14	Standard Test Method for the Determination of Compressive Strength and Elastic Moduli of Intact Rock Core Specimen Under Varying Stress and Temperature	QEL Main Laboratory
Rock	BS EN 13383-1:2002 CL 4, 5.2, 5.3, 5.4, 5.6, 6.3	Drop Test	QEL Main Laboratory
Soil	ASTM C 702	Standard Practice for Reducing Samples of Aggregate to Testing Size	QEL Main Laboratory
Soil	ASTM D1140- 2017	Standards Test Method for Determining the Amount of Material Finer Than 75 Micron Sieves in Solid by Washing	QEL Main Laboratory
Soil	ASTM D1196 / D1196M - 12	Standard Test Method for Non Repetitive Static Plate Load Tests of Soil & Flexible Pavement Components	QEL Main Laboratory
Soil	ASTM D1556 / D1556M - 15	Standard Test Method for Density and Unit Weight of Soil in Place by Sand-Cone Method	QEL Main Laboratory

Category	Standard/ Method No./ Date	Standard/ Method Title & Section	Location/ Facility
Soil	ASTM D1557 - 12	Standard Test Method for Laboratory Compaction Characteristics of Soil	QEL Main Laboratory
Soil	ASTM D1883 - 16	Standard Test Method for California Bearing Ratio of Laboratory Compacted Soils	QEL Main Laboratory
Soil	ASTM D2216 - 10	Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass1	QEL Main Lab
Soil	ASTM D2419 - 14	Standard Test Method for Sand Equivalent Value of Soil & Fine Aggregate	QEL Main Laboratory
Soil	ASTM D2922 - 05	Standard Test Method for Density of Soil-Aggregate in Place by Nuclear Methods	QEL Main Laboratory
Soil	ASTM D4318 - 10	Standard Test Method of Liquid Limit, Plastic Limit & Plasticity Index of Soils	QEL Main Laboratory
Soil	ASTM D4429 -09a	Standard Test Method for CBR in Place	QEL Main Laboratory
Soil	ASTM D4718	Standard Practice for Correction of Unit Weight and Water Content for Soils Containing Oversize Particles	QEL Main Laboratory
Soil	ASTM D4944	In Place Moisture Content (Calcium Carbide Tester)	QEL Main Laboratory
Soil	ASTM D6913 - 17	Standard Test Method for Particle Size Distribution of Soils Using Sieve Analysis	QEL Main Laboratory
Soil	ASTM D6938 - 10	Standard Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)	QEL Main Laboratory
Soil	BS 1377-2:1990 Cl 4	Determination of Liquid Limit of Soil	QEL Main Laboratory
Soil	BS 1377-2:1990 Cl 5	Determination of Plastic Limit & Plasticity Index of Soil	QEL Main Laboratory
Soil	BS 1377-2:1990 Cl 8	Determination of Particle Density	QEL Main Laboratory
Soil	BS 1377-2:1990 Cl 9	Determination of Particle Size Distribution	QEL Main Laboratory
Soil	BS 1377-4:1990 Cl 3	Determination of Dry Density- Moisture Content Relationship of Soil	QEL Main Laboratory
Soil	BS 1377-4:1990 Cl 7	Determination of CBR	QEL Main Laboratory
Soil	BS 1377-9:1990 Cl 4.3	Methods of test for Soils for civil engineering purposes — Part 9: In-situ tests CL 4.3 Determination of In Situ California Bearing Ratio	QEL Main Laboratory
Soil	BS 1924.2:1990Part 4.2	Method of Testing for Cement Stabilized & Lime Stabilized Material Part 4.2 Determination of Compressive Strength of Cubic Specimens	QEL Main Laboratory

Category	Standard/ Method No./ Date	Standard/ Method Title & Section	Location/ Facility
Soil/Rock	AASHTO T- 304.11 Method A- Standard Grade Sample	Standard Method of Test for Un-compacted Void content of Fine aggregate	QEL Main Laboratory
Soil/Rock	ASTM D6951 / D6951 M - 09 (2015)	Standard Method for use of the Dynamic Cone Penetrometer in Shallow Pavement Application	QEL Main Laboratory
Steel	ASME BPVC IX QW-183, QW- 184, QW-472.1, QW-472.4	ASME Boiler & Pressure Vessel Code Section IX: Welding & Brazing Qualifications Macro Examination (QW-183, QW-184), Etching (QW-472.1, QW-472.4)	QEL Main Laboratory
Steel	ASTM A370 - 14	Standard Test Method & Definition of Mechanical Testing of Steel Products	QEL Main Laboratory
Steel	ASTM A615 / 615M - 14	Standard Test Method for Deformed and Plain Carbon Steel Bars for Concrete Reinforcement	QEL Main Laboratory
Steel	ASTM A931	Tension Testing of Wire Ropes & Strands	QEL Main Laboratory
Steel	ASTM A1061	Testing Multiwire Steel Prestressing Strand	QEL Main Laboratory
Steel	ASTM E23 - 12	Standard Test Method for Notched Bar Impact Testing of Metallic Materials.	QEL Main Laboratory
Steel	ASTM G62	Standard Test Method for Holiday Detection of Pipe Line coating	QEL Main Laboratory
Steel	BS 131-1961	Notched Bar Test. Izod Impact Test of Materials	QEL Main Laboratory
Steel	BS 4449:2009	Steel for Reinforcement of Concrete. Weldable Reinforcing Steel, Bar Coil & Decoil Product Specification	QEL Main Laboratory
Steel	BS EN 124	Load Resistance Test of Manhole covers	QEL Main Laboratory
Steel	BS EN 10045-1:1990	Charpy Impact Test on Metallic Materials	QEL Main Laboratory
Steel	BS EN 15630-3	Tensile Test of High Tensile Steel Wire Strands	QEL Main Laboratory
Water Leakage	AAMA 501.2	Quality Assurance and Diagnostic Water Leakage Field Check of Installed Store Fronts, Curtains walls and Sloped Glazing Systems	Field Test

QEL Daewoo Site Laboratory:
Daewoo E & C Co Ltd. Construction and Upgrading of E-ring Road North South Link (P008-C2) P.O Box 40278, Doha, State of Qatar

Category	Standard/ Method No./ Date	Standard/ Method Title & Section	Location/ Facility
Aggregate	ASTM C127 - 15	Standard Test Method for Density, Relative Density and Absorption of Coarse Aggregate	QEL Daewoo Site Laboratory

Category	Standard/ Method No./ Date	Standard/ Method Title & Section	Location/ Facility
Aggregate	ASTM C128 - 15	Standard Test Method for Density, Relative Density and Absorption of Fine Aggregate	QEL Daewoo Site Laboratory
Aggregate	ASTM C136	Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates	QEL Daewoo Site Laboratory
Aggregate	ASTM C142 - 17	Standard Test Method for Clay Lumps and Friable Particles in Aggregate	QEL Daewoo Site Laboratory
Aggregate	ASTM C535, ASTM C131	Standard Test Method for Los Angeles Abrasion –Large Size Coarse Aggregate	QEL Daewoo Site Laboratory
Aggregate	ASTM C702 / C702M - 18	Standard Practice for Reducing Samples of Aggregate to Testing Size	QEL Daewoo Site Laboratory
Aggregate	ASTM D75 / D75M - 14	Standard Practice for Sampling Aggregates	QEL Daewoo Site Laboratory
Aggregate	ASTM D2419-14	Standard Test Method for Sand Equivalent Value of Soils and Fine Aggregate	QEL Daewoo Site Laboratory
Aggregate	ASTM D4791 - 10	Standard Test Method for Flat & Elongated Particles	QEL Daewoo Site Laboratory
Aggregate	ASTM D5821	Standard Test Method for Determining the Percentage of Fractured Particles in Coarse Aggregate	QEL Daewoo Site Laboratory
Aggregate	BS EN 933-7:1998	Determination of Shell Content in Coarse Aggregate	QEL Daewoo Site Laboratory
Concrete	ASTM C1064	Test for Temprature of fresh concrete	QEL Daewoo Site Laboratory
Concrete	BS EN 12350-1:2012	Testing of Fresh Concrete-Sampling & Temprature	QEL Daewoo Site Laboratory
Concrete	BS EN 12350-2:2009	Testing Fresh Concrete –Slump Test	QEL Daewoo Site Laboratory
Concrete	BS EN 12390-1:2012	Testing Hardened Concrete, Shape, Dimension and Other Requirements	QEL Daewoo Site Laboratory
Concrete	BS EN 12390-2:2009	Making & Curing for Strength Test	QEL Daewoo Site Laboratory
Concrete	BS EN 12390-3:2009	Compressive Strength of Test Specimens	QEL Daewoo Site Laboratory
Concrete	BSEN 12390-7	Density of Concrete	QEL Daewoo Site Laboratory
Concrete	IWPT 146 - (Robin Summers Specification Appendix A)	Capillary Index of Concrete	QEL Daewoo Site Laboratory
Soil	ASTM C 702	Standard Practice for Reducing Samples of Aggregate to Testing Size	QEL Daewoo Site Laboratory
Soil	ASTM D1140- 2017	Standards Test Method for Determining the Amount of Material Finer Than 75 Micron Sieves in Solid by Washing	QEL Daewoo Site Laboratory
Soil	ASTM D1557 - 12	Standard Test Method for Laboratory Compaction Characteristics of Soil	QEL Daewoo Site Laboratory

Category	Standard/ Method No./ Date	Standard/ Method Title & Section	Location/ Facility
Soil	ASTM D1883 - 16	Standard Test Method for California Bearing Ratio of Laboratory Compacted Soils	QEL Daewoo Site Laboratory
Soil	ASTM D2216 - 10	Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass1	QEL Daewoo Site Laboratory
Soil	ASTM D4318 - 10	Standard Test Method of Liquid Limit, Plastic Limit & Plasticity Index of Soils	QEL Daewoo Site Laboratory
Soil	ASTM D6913 - 17	Standard Test Method for Particle Size Distribution of Soils Using Sieve Analysis	QEL Daewoo Site Laboratory

QEL Hyundai Site Laboratory:
Hyundai Engineering & Construction Co. Ltd, Construction of Al Bustan Street South (P007 C5 P1)
Doha, Qatar

Category	Standard/ Method No./ Date	Standard/ Method Title & Section	Location/ Facility
Aggregate	ASTM C127 - 15	Standard Test Method for Density, Relative Density and Absorption of Coarse Aggregate	QEL Daewoo Site Laboratory
Concrete	ASTM C1064	Test for Temprature of fresh concrete	QEL Hyundai Site Laboratory
Concrete	BS EN 12350-1:2012	Testing of Fresh Concrete-Sampling & Temprature	QEL Hyundai Site Laboratory
Concrete	BS EN 12350-2:2009	Testing Fresh Concrete –Slump Test	QEL Hyundai Site Laboratory
Concrete	BS EN 12390-1:2012	Testing Hardened Concrete, Shape, Dimension and Other Requirements	QEL Hyundai Site Laboratory
Concrete	BS EN 12390-2:2009	Making & Curing for Strength Test	QEL Hyundai Site Laboratory
Concrete	BS EN 12390-3:2009	Compressive Strength of Test Specimens	QEL Hyundai Site Laboratory
Concrete	BS EN 12390 Part-7, CL 5.1.2	Density of Hardened Concrete	QEL Hyundai Site Laboratory
Soil	ASTM C 702	Standard Practice for Reducing Samples of Aggregate to Testing Size	QEL Hyundai Site Laboratory
Soil	ASTM D75	Sampling	QEL Hyundai Site Laboratory
Soil	ASTM D1140- 2017	Standards Test Method for Determining the Amount of Material Finer Than 75 Micron Sieves in Solid by Washing	QEL Hyundai Site Laboratory
Soil	ASTM D1557 - 12	Standard Test Method for Laboratory Compaction Characteristics of Soil	QEL Hyundai Site Laboratory
Soil	ASTM D2216 - 10	Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass1	QEL Hyundai Site Laboratory

Category	Standard/ Method No./ Date	Standard/ Method Title & Section	Location/ Facility
Soil	ASTM D4318 - 10	Standard Test Method of Liquid Limit, Plastic Limit & Plasticity Index of Soils	QEL Hyundai Site Laboratory
Soil	ASTM D6913 - 17	Standard Test Method for Particle Size Distribution of Soils Using Sieve Analysis	QEL Hyundai Site Laboratory

QEL TSE Site Laboratory:
Hyundai Engineering & Construction Co. Ltd, CP832-TSE Seasonal Storage Lagoon (Phase 1)
Doha, Qatar

Category	Standard/ Method No./ Date	Standard/ Method Title & Section	Location/ Facility
Aggregate	ASTM C117-17	Standard Test Method for Materials Finer than 75-µm (No. 200) Sieve in Mineral Aggregates by Washing	QEL TSE Site Laboratory
Aggregate	ASTM C127-15	Standard Test Method for Density, Relative Density and Absorption of Coarse Aggregate	QEL TSE Site Laboratory
Aggregate	ASTM C128 - 15	Standard Test Method for Density, Relative Density and Absorption of Fine Aggregate	QEL TSE Site Laboratory
Aggregate	ASTM C131-20	Standard Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine	QEL TSE Site Laboratory
Aggregate	ASTM C136-19	Standard Test Method for Sieve Analysis of Fine and Coarse	QEL TSE Site Laboratory
Aggregate	ASTM C142-17	Standard Test Method for Clay Lumps and Friable Particles in Aggregate	QEL TSE Site Laboratory
Aggregate	ASTM C702-18	Standard Practice for Reducing Samples of Aggregate to Testing Size	QEL TSE Site Laboratory
Aggregate	ASTM D75-19	Standard Practice for Sampling Aggregates	QEL TSE Site Laboratory
Aggregate	ASTM D2419-14	Standard Test Method for Sand Equivalent Value of Soils and Fine Aggregate	QEL TSE Site Laboratory
Aggregate	BS 812-105.1:1989	Testing aggregates. Methods for determination of particle shape. Flakiness index	QEL TSE Site Laboratory
Aggregate	BS 812-105.2:1990	Testing aggregates. Methods for determination of particle shape. Elongation index of coarse aggregate	QEL TSE Site Laboratory
Aggregate	BS EN 933-1:2012	Tests for geometrical properties of aggregates Part 1: Determination of particle size distribution — Sieving method	QEL TSE Site Laboratory

Category	Standard/ Method No./ Date	Standard/ Method Title & Section	Location/ Facility
Aggregate	BS EN 933-3:2012	Tests for geometrical properties of aggregates. Determination of particle shape. Flakiness index	QEL TSE Site Laboratory
Aggregate	BS EN 933-7:1998	Tests for geometrical properties of aggregates. Determination of shell content. Percentage of shells in coarse aggregates	QEL TSE Site Laboratory
Aggregate	BS EN 933-8:2015	Tests for geometrical properties of aggregates. Assessment of fines. Sand equivalent test	QEL TSE Site Laboratory
Aggregate	BS EN 1097-2:2020	Tests for mechanical and physical properties of aggregates. Methods for the determination of resistance to fragmentation	QEL TSE Site Laboratory
Aggregate	BS EN 1097-3:1998	Tests for mechanical and physical properties of aggregates. Determination of loose bulk density and voids	QEL TSE Site Laboratory
Aggregate	BS EN 1097-6:2012	Tests for mechanical and physical properties of aggregates. Determination of particle density and water absorption	QEL TSE Site Laboratory
Concrete	ASTM C1064-17	Standard Test Method for Temperature of Freshly Mixed Hydraulic-Cement Concrete	QEL TSE Site Laboratory
Concrete	BS EN 12350-1:2019	Testing fresh concrete. Sampling and common apparatus	QEL TSE Site Laboratory
Concrete	BS EN 12350-2:2019	Testing Fresh Concrete –Slump Test	QEL TSE Site Laboratory
Concrete	BS EN 12390-1:2021	Testing hardened concrete. Shape, dimensions and other requirements for specimens and moulds	QEL TSE Site Laboratory
Concrete	BS EN 12390-2:2019	Testing hardened concrete. Making and curing specimens for strength tests	QEL TSE Site Laboratory
Concrete	BS EN 12390-3:2019	Testing hardened concrete. Compressive strength of test specimens	QEL TSE Site Laboratory
Concrete	BS EN 12390-7:2019	Testing hardened concrete. Density of hardened concrete	QEL TSE Site Laboratory
Soil	ASTM D1140-17	Standards Test Method for Determining the Amount of Material Finer Than 75 Micron Sieves in Solid by Washing	QEL TSE Site Laboratory
Soil	ASTM D1557-21	Standard Test Method for Laboratory Compaction Characteristics of Soil	QEL TSE Site Laboratory
Soil	ASTM D2216-19	Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass	QEL TSE Site Laboratory
Soil	ASTM D4318-17	Standard Test Method of Liquid Limit, Plastic Limit & Plasticity Index of Soils	QEL TSE Site Laboratory

Category	Standard/ Method No./ Date	Standard/ Method Title & Section	Location/ Facility
Soil	ASTM D4718-15	Standard Practice for Correction of Unit Weight and Water Content for Soils Containing Oversize Particles	QEL TSE Site Laboratory
Soil	ASTM D6913-17	Standard Test Method for Particle Size Distribution of Soils Using Sieve Analysis	QEL TSE Site Laboratory

CERTIFICATE

This is to Certify that the Management System of

Qatar Engineering Laboratories W.L.L.

Street No. 50, Gate No. 26, Industrial Area, P.O. Box No. 40278, Doha, State of Qatar

has been found to conform to the Quality Management System standard:

ISO 9001:2015

This certificate is valid for the following scope of operations:

Physical, Chemical, Mechanical and Nondestructive Testing for Construction Materials and Insulation and Bolt Testing.

Certificate No.: QA84642A

Date of initial registration	*Date of this Certificate*	*Surv. audit on or before/ Certificate expiry*	*Recertification Due*
29 January 2019	*08 January 2021*	*28 January 2022*	*28 January 2022*

This Certificate remains valid subject to satisfactory surveillance audits.

Director

For verification and updated information concerning the present certificate visit to www.lmscert.com

IAS ACCREDITED Management Systems Certification Body MSCB132

LMS Certification Limited
Labrynth Business Centre, 43 Middle Hill Gate, Stockport,
Great Manchester, England-SK1 3DG
Phone :+44 208 935 5094
Company No.: 11029176
Visit :- www.lmscert.com
E-mail :- info@lmscert.com

CERTIFICATE

This is to Certify that the

Occupational Health & Safety Management System

of

Qatar Engineering Laboratories W.L.L.

P.O. Box No. 40278, Street No. 50, Building No 18 ,
Industrial Area, Doha, State of Qatar

has been independently assessed and is compliant with the requirements of

OHSAS 18001:2007

This Certificate is applicable to the following product or service ranges:

Physical, Chemical, Mechanical & Non Destructive Testing for Construction Related Materials, Geotechnical Investigation including Geophysical survey & Construction Consultancy Services.

Certificate No.: QA86793C

Date of initial registration	**16 October 2019**
Date of this Certificate	**10 October 2020**
Surveillance audit on or before	**21 September 2021**
Recertification Due / Certificate expiry	**21 September 2021**

This Certificate is property of LMS Certifications and remains valid subject to satisfactory surveillance audits.

Director

For verification and updated information concerning the present certificate visit to www.lmscert.com

This Certificate is the property of LMS Certification Limited and shall be returned immediately when demanded.

IAS ACCREDITED Management Systems Certification Body MSCB132

LMS Certification Limited
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Great Manchester, England-SK1 3DG
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هيئة الأشغال العامة
Public Works Authority

التاريخ: 9/3/2021

تعميم تواصل رقم (105)(ع س) لسنة 2021

قائمة أشغال للاختبارات المعتمدة لدى المختبرات المحايدة رقم 2021/2

Communication Circular No (105) (QSD), 2021

Ashghal List of Approved Tests in Independent Labs No.2/2021

تحية طيبة وبعد،

بناءً على التعميم رقم 35 لسنة 2020 والتقييم الدوري لفريق مراقبة المختبرات التابع لإدارة الجودة والسلامة، نرفق لسيادتكم تحديث قائمة الاختبارات المعتمدة في مشاريع هيئة الأشغال العامة.

أهم التحديثات التي تمت هي:

2- **تم إضافة اختبارات جديدة لنطاق اختبارات المختبر "المعامل الفنية" بعد حصوله على اعتماد ISO 17025 في هذه الاختبارات.**

يمكنكم الاطلاع والحصول على نسخة من قائمة الاختبارات المعتمدة من خلال الموقع التالي:

www.ldts.com.qa/approvedtestlist/index

لمزيد من المعلومات يمكنكم الاتصال بإدارة الجودة والسلامة على:

44951200.

Dear All ,

With reference to Circular No. 35 of 2020 and periodical assessment carried out by the laboratory control team of the Quality and Safety Department, you will find attached the updated list of approved tests, which used in Public Works Authority (Ashghal) projects. The basic updates can be summarized as follows:

1- **New tests approved for the technical laboratories "TECH LAB" after being accredited for ISO 17025 in these tests.**

The list of approved tests can be downloaded from the following website:

www.ldts.com.qa/approvedtestlist/index

For further information, please contact Quality and Safety Dept. through:

Tel: 44950200.

د. علي محمد المري
Dr.Ali Mohammed Al Marri
مدير إدارة الجودة والسلامة
Quality & Safety Department Manager

Soil Tests

No.	Test Name	Standard	Laboratory																
			Ashghal	Gulflab	ACES	DTL	Element Doha LLC	ACTS	Tech Lab	QIL	QEL	Pioneer	Teyseer Labs	ITL	QGEC	Al Baraha	JEL	Geotechn Group	CTL	Universal Lab
1.1	Reducing Samples to Testing Size	ASTM C 702	√	√	√	√	-	√	√	√	√	√	-	√	√	-	√	-	√	√
1.2	Determination of Moisture content	ASTM D2216	√	√	√	√	-	√	√	√	√	√	√	√	√	√	√	-	√	√
1.3	Particle-Size Distribution (Gradation) of Soils Using Sieve Analysis	ASTM D6913	√	√	√	√	-	√	√	√	√	√	√	√	√	√	√	-	√	x
1.4	Materials finer than No. 200(0.075mm) sieve.	ASTM D1140	√	√	√	√	-	√	√	√	√	√	-	√	√	√	√	-	√	√
1.5	Liquid Limit, Plastic Limit and Plasticity Index of Soil	ASTM D 4318	√	√	√	√	-	√	√	√	√	√	√	√	√	√	√	-	√	x
1.6	Lab Compaction Test using modified Effort	ASTM D 1557	√	√	√	√	-	√	√	√	√	√	√	√	√	√	√	√	√	√
1.7	Correction of Density and Water Content for Soils	ASTM D4718	√*	√	√	√	-	√	√	√	√	√	√	√	√	√	√	-	√	√
1.8	Field Density (Sand Cone)	ASTM D1556	√*	√	√	√	-	√	√	√	√	√	-	√	√	√	√	-	√	√
1.9	Field Density (Nuclear)	ASTM D6938	-	√	√	√	-	√	√	√	√	√	-	√	-	√	√	-	-	-
1.10	In Place Moisture Content (Calcium Carbide Tester)	ASTM D4944	√*	√	√	√	-	-	√	√	√	-	-	√	√	-	-	-	-	-
1.11	California Bearing Ratio(CBR)	ASTM D1883	√	√	√	√	-	√	√	√	√	√	√	√	√	√	√	√	√	√
1.12	In Place California Bearing Ratio (CBR)	ASTM D4429	-	√	√	√	-	-	√	√	√	√	-	√	√	√*	√	-	-	-
1.13	Sand Equivalent Value.	ASTM D2419	√	√	√	√	-	√	√	√	√	√	√	√	√	√	√	-	√	√
1.14	Determination of Moisture Content (Oven Drying)	BS 1377 Part 2: Sec. 3.2	-	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	-
1.15	Determination of Liquid Limit (Cone Penetrometer)	BS 1377 Part 2: Sec. 4.3	-	√	√	√	-	√	√	√	√	√	√	√	√	√	√	√	√	-
1.16	Determination of Liquid Limit (Casagrande Method)	BS 1377 Part 2: Sec. 4.5	-	√	√	√	-	√	√	√	√	√	-	√	√	√	√	√	√	-
1.17	Determination of Plastic Limit and Plasticity Index	BS 1377 Part 2: Sec. 5	-	√	√	√	-	√	√	√	√	√	√	√	√	√	√	√	√	-

No.	Test Name	Standard	Laboratory																
			Ashghal	Gulflab	ACES	DTL	Element Doha LLC	ACTS	Tech Lab	QIL	QEL	Pioneer	Teyseer Labs	ITL	QGEC	Al Baraha	JEL	Geotechn Group	CTL	Universal Lab
1.18	Particle Size Distribution (Wet Sieving Method)	BS 1377 Part 2: Sec. 9.2	-	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	-
1.19	Particle Size Distribution (Dry Sieving Method)	BS 1377 Part 2: Sec. 9.3	-	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	-
1.20	Dry Density/Moisture Content Relationship	BS 1377 Part 4: Sec.3.5/3.6	-	√	√	√	-	√	√	√	√	√	√	√	√	√	√	√	√	-
1.21	Determination of California Bearing Ratio (CBR)	BS 1377 Part4: Sec. 7	-	√	√	√	-	√	√	√	√	√	√	√	√	√	√	√	√	-
1.22	In-Situ Density Test (Sand Replacement Method - Small Pouring Cylinder)	BS 1377 Part 9: Sec. 2.1	-	√	√	√	-	√	√	√	√	√	-	√	-	√	√	√	√	-
1.23	In-Situ Density Test (Sand Replacement Method – Large Pouring Cylinder)	BS 1377 Part 9: Sec. 2.2	-	√	√	√	-	√	√	√	√	√	√	√	√	√	√	√	√	-
1.24	In-Situ Density Test (Nuclear Gauge Method)	BS 1377 Part 9: Sec. 2.5	-	√	√	√	-	√	√	√	√	√	√	√	-	√	-	√	-	-
1.25	Determination of Organic Matter Content	BS 1377 Part 3: Sec. 3	-	√	√	√	√	√	√	√	√	√	-	√	√	√	√	-	√	-
1.26	Determination of Water Soluble Chloride Content	BS 1377 Part 3: Sec. 7.2	-	√	√	√	√	√	√	√	√	√	-	√	√	√	√	-	-	-
1.27	Determination of Acid Soluble Chloride Content	BS 1377 Part 3: Sec. 7.3/5.5	-	√	√	√	√	√	√	√	√	√	-	√	√	√	√	-	√	-
1.28	Determination of Water Soluble Sulphate Content	BS 1377 Part 3: Sec. 5.3/5.5	-	√	√	√	√	√	√	√	√	√	-	√	√	√	√	-	-	-
1.29	Determination of Acid Soluble Sulphate Content	BS 1377 Part 3: Sec. 5.2	-	√	√	√	√	√	√	√	√	√	-	√	√	√	√	-	-	-
1.30	Sand Equivalent Value	BS EN 933 Part 8	-	√	√	√	-	√	√	√	√	√	-	√	-	-	√	-	√	√
1.31	Method of Test for Cement Stabilized Materials	BS 1924 Part 2-Cl 4.2	-	√	√	√	-	-	-	√	√	-	-	√	-	-	-	-	-	-
Aggregate Tests																				

No.	Test Name	Standard	Laboratory																	
			Ashghal	Gulflab	ACES	DTL	Element Doha LLC	ACTS	Tech Lab	QIL	QEL	Pioneer	Teyseer Labs	ITL	QGEC	Al Baraha	JEL	Geotechn Group	CTL	Universal Lab
2.1	Sampling of Aggregates	ASTM D75	√	√	√	√	-	√	√	√	√	√	√	√	√	√	√	-	√	√
2.2	Reducing Samples to Testing Size	ASTM C702	√	√	√	√	-	√	√	√	√	√	-	√	√	√	√	-	√	√
2.3	Particle Size Distribution	ASTM C136	√	√	√	√	-	√	√	√	√	√	√	√	√	√	√	-	√	√
2.4	Material Finer than 0.075 mm	ASTM C117	√	√	√	√	-	√	√	√	√	√	√	√	√	√	√	-	√	√
2.5	Determination of Specific Gravity and Water Absorption of Fine Aggregate	ASTM C128	√	√	√	√	-	√	√	√	√	√	√	√	√	√	√	√	√	√
2.6	Determination of Specific Gravity and Water Absorption of Coarse Aggregate	ASTM C127	√	√	√	√	-	√	√	√	√	√	√	√	√	√	√	√	√	√
2.7	Clay Lumps and Friable Particles.	ASTM C142	√	√	√	√	-	√	√	√	√	√	√	√	√	√	√	√	√	√
2.8	Lightweight Particles	ASTM C123	√	√	√	√	-	√	√	√	√	√	-	√	√	√	√	-	√	-
2.9	Organic Impurities for Fine Aggregates	ASTM C40	√	√	√	√	√	√	√	√	√	√	-	√	√	√	√	-	√	-
2.10	Flat and Elongated Particles	ASTM D4791	√	√	√	√	-	√	√	√	√	√	-	√	-	√	√	√	-	√
2.11	Los Angeles Abrasion	ASTM C131	√	√	√	√	-	√	√	√	√	√	√	√	√	√	√	√	√	√
2.12	Los Angeles Abrasion	ASTM C535	√	√	√	√	-	√	√	√	√	√	√	√	√	√	√	√	√	√
2.13	Magnesium Sulphate Soundness	ASTM C88	√	√	√	√	-	√	√	√	√	√	-	√	√	√	√	-	-	-
2.14	Percentage of Fractured Particles	ASTM D5821	√	√	√	√	-	√	√	√	√	√	-	√	√	√	√	-	√	√
2.15	Sieve Analysis of Mineral filler	ASTM D546	√	√	√	√	-	√	√	√	√	√	-	√	-	√	√	-	√	-
2.16	Uncompacted Void Content of Fine Aggregate	AASHTO T304	-	√	√	√	-	-	-	√	√	-	-	√	√	-	√	-	-	-
2.17	Determination of Potential Alkali Reactivity of Carbonate Rocks as Concrete Aggregates	ASTM C586	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.18	Sampling of Aggregates (From Heaps)	BS 812 Part 102	-	√	√	√	-	√	√	√	√	√	√	√	-	√	√	-	√	-
2.19	Determination of Moisture Content (Oven Drying)	BS 812 Part 109: Sec.6	-	√	√	√	√	√	√	√	√	√	-	√	√	√	√	√	√	-

No.	Test Name	Standard	Laboratory																
			Ashghal	Gulflab	ACES	DTL	Element Doha LLC	ACTS	Tech Lab	QIL	QEL	Pioneer	Teyseer Labs	ITL	QGEC	Al Baraha	JEL	Geotechn Group	CTL	Universal Lab
2.20	Determination of Particle Density and Water Absorption	BS EN 1097 Part 6	-	√	√	√	-	-	√	√	√	√	-	√	-	-	√	-	√	-
2.21	Particle Density and Water Absorption (All larger than 10mm aggregate)	BS 812 Part 2–5.3	-	√	√	√	-	-	√	√	√	√	-	√	-	-	-	-	√	-
2.22	Particle Density and Water Absorption (5-40mm aggregate)	BS 812 Part 2–5.4	-	√	√	√	-	-	√	√	√	√	√	√	-	√	-	√	√	-
2.23	Particle Density and Water Absorption (10mm aggregate and smaller)	BS 812 Part 2–5.5	-	√	√	√	-	-	√	√	√	√	√	√	-	-	-	√	√	-
2.24	Particle Size Distribution	BS EN 933 Part 1	-	√	√	√	-	√	√	√	√	√	√	√	√	√	√	√	√	√
2.25	Particle Size Distribution (Wet)	BS 812 Part 103.1-7.2	-	√	√	√	-	√	√	√	√	√	√	√	-	√	√	-	√	-
2.26	Particle Size Distribution (Dry)	BS 812 Part 103.1-7.3	-	√	√	√	-	√	√	√	√	√	√	√	-	√	√	-	√	-
2.27	Material Finer than 0.075 mm	BS EN 933 Part 1	-	√	√	√	-	√	√	√	√	√	√	-	√	√	-	-	-	-
2.28	Material Finer than 0.063 mm	BS EN 933Part 1	-	√	√	√	-	√	√	√	√	√	√	-	√	√	√	-	√	√
2.29	Determination of Shell Content	BS EN 933 Part 7	√	√	√	√	-	-	√	√	√	√	√	√	-	√	√	√	√	√
2.30	Flakiness Index	BS EN 933 Part 3	-	√	√	√	-	√	√	√	√	-	√	√	√	√	√	-	√	√
2.31	Flakiness Index	BS 812 Part 105.1	-	√	√	√	-	√	√	√	√	√	√	√	-	√	√	-	-	-
2.32	Elongation (Shape) Index	BS EN 933 Part 4	-	√	√	√	-	√	√	√	√	-	√	√	-	√	√	-	√	√
2.33	Elongation Index	BS 812 Part 105.2	-	√	√	√	-	√	√	√	√	√	√	√	-	√	√	-	√	-
2.34	Determination of Aggregate Crushing Value	BS 812 Part 110	√	√	√	√	-	√	√	√	√	√	√	√	√	√	√	-	√	√
2.35	Determination of Ten Percent Value	BS 812 Part 111	-	√	√	√	-	√	√	√	√	√	√	√	-	√	√	√	√	√
2.36	Determination of Aggregate Impact Value	BS 812 Part 112	-	√	√	√	-	√	√	√	√	√	√	√	-	-	-	√	√	-
2.37	Determination of Magnesium Sulphate Soundness	BS EN 1367 Part 2	-	-	-	-	-	-	-	-	-	-	-	√	-	-	-	-	-	-
2.38	Determination of Drying Shrinkage	BS EN 1367 Part 4	-	-	-	-	-	-	-	-	-	-	-	√	-	-	-	-	-	-

No.	Test Name	Standard	Laboratory																
			Ashghal	Gulflab	ACES	DTL	Element Doha LLC	ACTS	Tech Lab	QIL	QEL	Pioneer	Teyseer Labs	ITL	QGEC	Al Baraha	JEL	Geotechn Group	CTL	Universal Lab
2.39	Determination of Los Angeles Abrasion	BS EN 1097 Part 2 Cl.5	-	-	-	-	-	-	-	-	-	-	-	√	-	-	-	-	-	-
2.40	Methylene blue test	BS EN 933 Part 9	-	-	-	-	-	-	-	-	-	-	-	√	-	-	-	-	-	-
2.41	Determination of Acid Soluble Chloride Content	BS EN 1744 Part 5	-	√	√	√	√	√	√	√	√	√	-	√	-	√	√	-	√	-
2.42	Determination of Water Soluble Chloride Content	BS 812 Part 117	-	√	√	√	√	√	√	√	√	√	-	√	√	√	√	-	√	-
2.43	Determination of Chloride Content (Acid Extract)	BS 812 Part 117-App. C	-	√	√	√	√	-	-	√	√	-	-	√	√	√	√	-	√	-
2.44	Determination of Sulphate Content	BS 812 Part 118	-	√	√	√	√	√	-	√	√	√	-	√	√	√	√	-	√	-
2.45	Determination of Acid Soluble Sulphate Content	BS EN 1744 Part 1: Sec 12	-	√	√	√	√	√	√	√	√	√	-	√	-	√	√	-	√	-

Concrete Tests

No.	Test Name	Standard	Laboratory																
			Ashghal	Gulflab	ACES	DTL	Element Doha LLC	ACTS	Tech Lab	QIL	QEL	Pioneer	Teyseer Labs	ITL	QGEC	Al Baraha	JEL	Geotechn Group	CTL	Universal Lab
3.1	Making and Curing of Concrete Tests Specimen	ASTM C31	-	√	√	√	-	√	√	√	√	-	-	√	√	√	√	-	√	-
3.2	Sampling of Fresh Concrete	ASTM C172	-	√	√	√	-	√	√	√	√	√	-	√	√	√	√	-	√	-
3.3	Test for Temperature of Fresh Concrete	ASTM C1064	-	√	√	√	-	√	√	√	√	√	-	√	√	√	√	√	√	-
3.4	Slump Test	ASTM C143	-	√	√	√	-	√	√	√	√	√	-	√	√	√	√	-	√	-
3.5	Compressive Strength of Concrete Cylindrical Specimens	ASTM C39	-	√	√	√	-	√	√	√	√	√	-	√	√	√	-	-	√	√
3.6	Capping of Cylindrical Concrete Specimen	ASTM C617	-	√	√	√	-	√	√	-	√	√	-	√	-	-	√	-	√	-
3.7	Testing Concrete Cylinders Using Unbonded Caps	ASTM C1231	-	-	√	-	-	√	-	-	√	-	-	-	-	-	-	√	√	-
3.8	Obtaining and Testing of Drilled Cores and Sawed Beams	ASTM C42	-	√	√	√	-	√	√	√	√	√	-	√	√	-	√	√	√	-

No.	Test Name	Standard	Laboratory																
			Ashghal	Gulflab	ACES	DTL	Element Doha LLC	ACTS	Tech Lab	QIL	QEL	Pioneer	Teyseer Labs	ITL	QGEC	Al Baraha	JEL	Geotechn Group	CTL	Universal Lab
3.9	Water Soluble Chloride in Concrete.	ASTM C1218	-	√	√	√	-	-	-	-	√	-	-	-	-	-	√	-	-	-
3.10	Acid Soluble Chloride in Concrete.	ASTM C1152	-	√	√	-	-	-	-	-	√	-	-	-	-	-	√	-	-	-
3.11	Resistance to Chloride Ion Penetration	ASTM C1202	-	√	√	√	-	√	√	√	√	√	-	√	√	√	-	-	√	-
3.12	Air Content Test for Fresh Concrete by Pressure Method	ASTM C231	-	√	√	√	-	√	√	√	√	√	-	√	√	√	√	-	√	√
3.13	Air Content Test for Fresh Concrete by Volumetric Method	ASTM C173	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-	-	√	-
3.14	Density Determination for Fresh Concrete	ASTM C138	-	√	√	√	-	√	√	√	√	-	-	√	√	√	√	-	√	√
3.15	Sampling of Shotcrete	ASTM C1385	-	√	√	-	-	√	-	-	√	-	-	-	-	-	-	-	√	-
3.16	Pullout Strength of Hardened Concrete	ASTM C900	-	-	√	-	-	-	√	√	√	-	-	√	√	-	-	√	√	-
3.17	Density Determination of Pervious Concrete	ASTM C1688	-	-	√	-	-	-	-	-	√	-	-	-	-	-	-	-	√	-
3.18	Infiltration Test for In place Pervious Concrete	ASTM C1701	-	-	√	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-
3.19	Slump Flow Test for Self- Consolidated Concrete	ASTM C1611	-	√	√	√	-	√	√	√	-	-	-	√	-	-	-	-	√	-
3.20	Passing Ability for Self- Consolidating Concrete by J-Ring	ASTM C1621	-	-	√	√	-	√	-	-	-	-	-	√	-	-	-	-	√	-
3.21	Determination of Potential Alkali Reactivity of Cement - Aggregate Combinations	ASTM C227	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.22	Admixtures to Inhibit Chloride- Induced Corrosion of Reinforcing Steel in Concrete	ASTM C 1582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.23	Chemical Admixtures for concrete	ASTM C494	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.24	Sampling of Fresh Concrete	BS EN 12350 Part 1	-	√	√	√	-	√	√	√	√	√	-	√	√	√	√	√	√	√
3.25	Making and Curing of Specimen for Strength Test	BS EN 12390 Part 2	√	√	√	√	-	√	√	√	√	√	-	√	√	√	√	√	√	√
3.26	Slump Test	BS EN 12350 Part 2	-	√	√	√	-	√	√	√	√	√	-	√	√	√	√	√	√	√

No.	Test Name	Standard	Laboratory																
			Ashghal	Gulflab	ACES	DTL	Element Doha LLC	ACTS	Tech Lab	QIL	QEL	Pioneer	Teyseer Labs	ITL	QGEC	Al Baraha	JEL	Geotechn Group	CTL	Universal Lab
3.27	Flow Table Test	BS EN 12350 Part 5	-	√	√	√	-	√	√	√	√	√	-	√	-	√	-	-	√	-
3.28	Shape and Dimensions of Specimen	BS EN 12390 Part 1	√	√	√	√	-	√	√	√	√	√	√	√	√	√	√	√	√	√
3.29	Compressive Strength of Concrete Specimens	BS EN 12390 Part 3	√	√	√	√	-	√	√	√	√	√	√	√	√	√	√	√	√	√
3.30	Density of Hardened Concrete	BS EN 12390 Part 7	√	√	√	√	-	√	√	√	√	√	√	√	√	√	√	√	√	√
3.31	Obtaining and Testing of Drilled Cores	BS EN 12504 Part 1	-	√	√	√	-	√	√	√	√	-	√	√	√	√	√	√	√	-
3.32	Water Penetration Test	BS EN 12390 Part 8	-	√	√	√	-	√	√	√	√	-	-	√	√	√	-	√	√	-
3.33	Water Absorption Test	BS 1881 Part 122	-	√	√	√	-	√	√	√	√	√	-	√	√	√	√	√	√	-
3.34	Initial Surface Absorption (ISAT)	BS 1881 Part 208	-	√	√	√	-	√	√	√	√	√	-	√	-	√	√	√	√	-
3.35	Chloride Penetration Test.	NT Build 492	-	√	√	√	-	√	√	√	√	√	-	√	-	√	-	-	√	-
3.36	Acid Soluble Chloride in Concrete.	BS 1881 Part 124 Sec. 10.2	-	√	√	√	√	√	√	√	√	√	-	√	√	√	√	-	√	-
3.37	Acid Soluble Sulphate in Concrete	BS 1881 Part 124 Sec. 10.3	-	√	√	√	√	√	√	√	√	√	-	√	√	√	√	-	√	-
3.38	V-Funnel Test for Self-Compacting Concrete	BS EN 12350 Part 9	-	-	√	√	-	√	√	√	-	-	-	√	-	-	-	-	√	-
3.39	L-Box Test for Self-Compacting Concrete	BS EN 12350 Part 10	-	-	√	√	-	√	-	√	-	-	-	√	-	-	-	-	√	-
Masonry Blocks and Paving Units Tests																				

No.	Test Name	Standard	Laboratory																
			Ashghal	Gulflab	ACES	DTL	Element Doha LLC	ACTS	Tech Lab	QIL	QEL	Pioneer	Teyseer Labs	ITL	QGEC	Al Baraha	JEL	Geotechn Group	CTL	Universal Lab
4.1	Compressive Strength of Concrete Masonry Blocks	BS 6073 Part 1	-	√	√	√	-	-	√	√	√	√	-	-	-	√	√	-	-	-
4.2	Compressive Strength of Concrete Masonry Blocks	BS EN 772 Part 1	-	√	√	√	-	√	√	√	√	√	√	√	-	-	√	√	√	√
4.3	Water Absorption for Masonry Blocks	EN 771 Part 3	-	√	√	-	-	√	√	√	√	√	-	√	√	√	-	√	√	-
4.4	Measurement of Dimensions of Kerbs	BS EN 1340 Annex C	-	√	√	√	-	√	√	√	√	√	-	√	-	√	√	√	√	√
4.5	Water Absorption for Kerbs	BS EN 1340 Annex E	-	√	√	√	-	√	√	√	√	√	-	√	-	√	√	√	√	-
4.6	Transverse Strength of Kerbs	BS EN 1340 Annex F	-	√	√	√	-	√	√	√	√	√	-	√	-	-	√	√	√	√
4.7	Water Absorption for Paving Blocks/Interlocks	BS EN 1338 Annex E	-	√	√	√	-	√	√	√	√	√	-	√	√	√	√	-	√	√
4.8	Tensile Strength of Paving Blocks	BS EN 1338 Annex F	-	√	√	√	-	√	√	√	√	√	-	-	√	-	√	-	√	√
4.9	Transverse Strength of Concrete Paving Flags/Slabs	BS EN 1339 Appendix F	-	√	√	√	-	√	√	√	√	-	-	√	√	-	√	-	√	-
4.10	Water Absorption for Concrete Paving Flags/Slabs	BS EN 1339 Appendix E	-	√	√	√	-	√	√	√	√	-	-	√	√	√	√	-	√	-
4.11	Measurement of Dimensions of Paving Blocks	BS 6717 Annex B	-	√	√	-	-	√	√	√	√	√	-	√	√	-	√	-	-	-
4.12	Tensile Strength of Paving Blocks	BS 6717 ANNEX E	-	√	√	√	-	√	√	√	√	√	√	√	√	-	√	-	-	-
4.13	Water Absorption for Interlocks	ASTM C140	-	-	√	√	-	√	√	√	√	√	-	√	-	√	√	-	√	-
4.14	Compressive Strength and water Absorption of Terrazzo Tiles (Internal Use)	BS EN 13748 Part 1- Sec.5.5/5.8	-	-	√	√	-	√	√	-	-	-	-	√	√	-	-	-	-	-
Cementitious Materials Tests																				

No.	Test Name	Standard	Laboratory																
			Ashghal	Gulflab	ACES	DTL	Element Doha LLC	ACTS	Tech Lab	QIL	QEL	Pioneer	Teyseer Labs	ITL	QGEC	Al Baraha	JEL	Geotechn Group	CTL	Universal Lab
5.1	Taking and Preparing Samples of Cement	BS EN 196 Part 7	-	√	√	√	-	√	√	√	√	√	-	-	-	√	-	-	√	-
5.2	Method of Sampling of Cement	ASTM C183	-	√	√	-	-	√	√	√	√	-	-	-	-	√	-	-	√	-
5.3	Determination of Strength of Cement	BS EN 196 Part 1	-	√	√	√	-	√	√	√	√	-	-	-	-	-	√	-	√	-
5.4	Compressive Strength of Prisms of Cement Mortars	ASTM C349	-	√	√	-	-	√	√	√	√	-	-	-	-	-	-	-	√	-
5.5	Compressive Strength of Cube of Hydraulic Cement Mortars	ASTM C109	-	-	-	√	-	-	√	-	-	-	-	√	-	-	√	-	√	-
5.6	Calcium Oxide Content	BS EN 196 Part 2-Cl. 13.14	-	√	√	√	√	√	√	√	√	-	-	-	-	√	√	-	-	-
5.7	Magnesium Oxide Content	BS EN 196 Part 2-Cl. 13.15	-	√	√	√	√	√	√	√	√	-	-	-	-	√	√	-	-	-
5.8	Aluminum Oxide Content	BS EN 196 Part 2-Cl. 13.11	-	√	√	√	√	√	√	√	√	-	-	-	-	√	√	-	-	-
5.9	Ferric Oxide Content	BS EN 196 Part 2-Cl. 13.10	-	√	√	√	√	√	√	√	√	-	-	-	-	√	√	-	-	-
5.10	Loss on Ignition	BS EN 196 Part 2-Cl. 7	-	√	√	√	√	√	√	√	√	√	-	-	-	√	√	-	√	-
5.11	Impure Silica Content	BS EN 196 Part 2-Cl. 13.2&3	-	-	√	-	-	√	√	-	√	-	-	-	-	√	-	-	-	-
5.12	Pure Silica Content	BS EN 196 art 2-Cl. 13.6	-	√	√	-	√	-	√	-	√	-	-	-	-	√	-	-	-	-
5.13	Total Silica Content	BS EN 196 Part 2-Cl. 13.9	-	√	√	√	√	-	√	-	√	-	-	-	-	-	√	-	-	-
5.14	Alkalies Content	BS EN 196 Part 2-Cl. 17	-	√	√	√	-	-	√	-	√	-	-	-	-	-	√	-	√	-
5.15	Determination of Setting Times of Cement	BS EN 196 Part 3	-	√	√	√	-	√	√	√	√	-	-	-	-	√	√	-	√	-
5.16	Determination of Soundness of Cement	BS EN 196 Part 3	-	√	√	√	-	√	√	√	√	√	-	-	-	√	√	-	√	-
5.17	Setting Time by Vicat Needle	ASTM C191	-	√	√	√	-	√	√	√	√	√	-	-	-	√	√	-	√	-

No.	Test Name	Standard	Laboratory																	
			Ashghal	Gulflab	ACES	DTL	Element Doha LLC	ACTS	Tech Lab	QIL	QEL	Pioneer	Teyseer Labs	ITL	QGEC	Al Baraha	JEL	Geotechn Group	CTL	Universal Lab
5.18	Normal Consistency of Cement	ASTM C187	-	√	√	√	-	√	√	√	√	√	-	-	-	√	-	-	√	-
5.19	Pozzolanicity Test of Pozzolanic Cement	BS EN 196 Part 5	-	-	-	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-
5.20	Chloride Content	BS EN 196 Part 21-Cl. 4	-	√	√	√	√	√	√	-	√	√	-	-	-	-	-	-	√	-
5.21	Carbon Dioxide Content	BS EN 196 Part 21	-	-	-	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-
5.22	Fineness Test of Cement	BS EN 196 Part 6	-	√	√	√	-	√	√	√	√	-	-	-	-	√	√	-	-	-
5.23	Compressive strength for Ground Granulated Blast Furnace Slag	ASTM C989	-	√	√	-	-	√	-	√	√	√	-	-	-	-	-	-	√	-
5.24	Pozzolanic Activity Test	ASTM C1240	-	√	-	-	-	√	√	√	√	-	-	-	-	-	√	-	√	-
5.25	Characterization of Fly Ash for Potential Uses	ASTM D5759	-	-	√	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-
5.26	Chemical Analysis of Fly Ash	ASTM C311	-	√	-	√	-	√	-	-	√	-	-	-	-	-	√	-	-	-
5.27	Length Change of Cement Mortars	ASTM C1012	-	-	√	-	-	√	-	√	√	-	-	-	-	-	-	-	-	-
5.28	Measurement of Modulus of Elasticity In Flexure And Flexural Strength of Grout	BS 6319 Part 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Road and Pavement Tests

No.	Test Name	Standard	Laboratory																	
			Ashghal	Gulflab	ACES	DTL	Element Doha LLC	ACTS	Tech Lab	QIL	QEL	Pioneer	Teyseer Labs	ITL	QGEC	Al Baraha	JEL	Geotechn Group	CTL	Universal Lab
6.1	Sampling of Binders	ASTM D140	√	√	√	√	-	√	√	√	√	√	-	√	√	√	√	-	-	-
6.2	Distillation of Cutback Asphalt	ASTM D402	-	-	√	√	-	-	√	√	-	√	-	-	√	-	-	-	-	-
6.3	Application Rate of Bituminous Distributors	ASTM D2995	-	√	√	√	-	√	√	√	√	√	-	√	√	√	√	√	-	-
6.4	Determination of Density of Bitumen	ASTM D70	√	-	√	√	-	√	√	√	√	√	-	√	-	√	√	-	-	√
6.5	Penetration of Bituminous Materials	ASTM D5	√	√	√	√	-	√	√	√	√	√	-	√	√	√	√	-	√	√

No.	Test Name	Standard	Laboratory																
			Ashghal	Gulflab	ACES	DTL	Element Doha LLC	ACTS	Tech Lab	QIL	QEL	Pioneer	Teyseer Labs	ITL	QGEC	Al Baraha	JEL	Geotechn Group	CTL	Universal Lab
6.6	Determination of Softening Point (Ring and Ball Method)	ASTM D36	√	√	√	√	-	√	√	√	√	√	-	√	√	√	√	-	-	√
6.7	Flash Point, Cleveland Open Cup	ASTM D92	√	√	√	√	-	√	√	√	√	√	-	-	√	-	√	-	-	-
6.8	Ductility of Bituminous Materials	ASTM D113	√	√	√	√	-	-	√	√	-	-	-	-	√	-	-	-	-	-
6.9	Solubility in Trichloroethylene	ASTM D2042	√	√	√	√	-	√	√	√	√	√	-	-	-	-	-	-	-	-
6.10	Loss on Heating	ASTM D6	√	√	√	√	-	-	√	√	√	-	-	-	-	-	-	-	-	-
6.11	Determination of Viscosity of Asphalt	ASTM D2171	-	-	-	√	-	-	-	-	√	-	-	-	-	-	√	-	-	-
6.12	Viscosity Determination using Rotational Viscometer (RV)	ASTM D4402 AASHTO T316	√	-	√	√	-	√	√	√	√	√	-	-	√	-	-	-	-	-
6.13	Flexural Creep Stiffness using the Bending Beam Rheometer (BBR)	ASTM D6648 AASHTO T313	√	-	√	√	-	√	√	-	-	-	-	-	√	-	-	-	-	-
6.15	Determining the Rheological Properties using Dynamic Shear Rheometer (DSR)	ASTM D7175 AASHTO T315	√	-	√	√	-	√	√	-	-	-	-	-	√	-	-	-	-	-
6.15	Accelerated Aging of Asphalt Binder Using a Pressurized Aging Vessel (PAV)	ASTM D6521 AASHTO R28	√	-	√	√	-	√	√	-	-	-	-	-	√	-	-	-	-	-
6.16	Effect of Heat and Air on a Moving Film of Asphalt (Rolling Thin-Film Oven Test)	ASTM D2872 AASHTO T240	√	-	√	√	-	√	√	-	√	-	-	-	√	-	-	-	-	-
6.17	Multiple Creep and Recovery (MSCR) using Dynamic Shear Rheometer (DSR)	ASTM D7405 AASHTO TP70	√	-	√	√	-	√	√	-	-	-	-	-	√	-	-	-	-	-
6.18	Water in Petroleum Products and Bituminous Materials by Distillation	ASTM D95	-	-	√	√	-	-	√	-	-	√	-	-	-	-	√	-	-	-
6.19	Separation Tendency of Polymers	ASTM D7173	-	-	√	√	-	-	√	-	-	-	-	-	√	-	-	-	-	-

No.	Test Name	Standard	Laboratory																	
			Ashghal	Gulflab	ACES	DTL	Element Doha LLC	ACTS	Tech Lab	QIL	QEL	Pioneer	Teyseer Labs	ITL	QGEC	Al Baraha	JEL	Geotechn Group	CTL	Universal Lab
6.20	Solubility of Binders in Toluene	ASTM D5546 AASHTO T44	-	-	√	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.21	Direct Tension Test	ASTM D6723 AASHTO T314	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.22	Sampling of Bituminous Mixtures	ASTM D979	√	√	-	√	-	√	√	√	√	√	√	√	√	√	√	√	√	√
6.23	Reducing (HMA) Samples to Testing Size	AASHTO R47	-	-	-	-	-	-	-	-	-	-	-	√	-	-	-	-	-	-
6.24	Sampling Compacted Bituminous Mixtures for Laboratory Testing	ASTM D5361	√	√	√	√	-	√	√	√	√	√	-	√	√	√	√	√	√	-
6.25	Preparation of Specimens Using Marshall Apparatus	ASTM D6926	√	√	√	√	-	√	√	√	√	√	-	√	√	√	√	√	√	√
6.26	Determination of Bulk Specific Gravity and Density	ASTM D2726	√	√	√	√	-	√	√	√	√	√	√	√	√	√	√	√	√	√
6.27	Bulk Specific Gravity and Density Using Coated Samples	ASTM D1188	-	√	√	√	-	-	√	√	√	√	-	√	-	√	-	-	-	-
6.28	Theoretical Maximum Specific Gravity and Density	ASTM D2041	√	√	√	√	-	√	√	√	√	√	-	√	√	√	√	-	-	-
6.29	Maximum Specific Gravity and Density Using Vacuum Sealing	ASTM D6857	-	-	√	√	-	-	-	-	-	-	-	√	-	√	-	-	-	-
6.30	Thickness of Asphalt Specimen	ASTM D3549	√	√	√	√	-	√	√	√	√	√	-	√	√	√	√	√	√	√
6.31	Marshall Stability and Flow of Bituminous Mixtures	ASTM D6927	√	√	√	√	-	√	√	√	√	√	-	√	√	√	√	√	√	√
6.32	Resistance to Plastic Flow Using Marshall Apparatus (6 in. Specimen)	ASTM D5581	√	-	√	√	-	-	√	√	√	√	-	√	√	-	-	-	-	-
6.33	Quantitative Extraction of Bitumen from Bituminous Paving Mixtures	ASTM D2172	√	√	√	√	-	√	√	√	√	√	√	√	√	√	√	√	√	-
6.34	Asphalt Content of Hot-Mix Asphalt by Ignition Method	ASTM D6307	√	-	√	-	-	-	-	-	-	-	-	√	√	-	-	-	-	-
6.35	Mechanical Size Analysis of Extracted Aggregate	ASTM D5444	√	√	√	√	-	√	√	√	√	√	-	√	√	√	√	√	√	-
6.36	Density of Bituminous Concrete in Place by Nuclear Methods	ASTM D2950	-	√	√	√	-	√	√	√	√	√	-	√	-	√	-	-	-	-
6.37	Sample Preparation and Density of Specimens Using Gyratory Compactor	AASHTO T312	√*	-	√	√	-	-	√	√	-	-	-	√	-	-	-	-	-	-

No.	Test Name	Standard	Laboratory																	
			Ashghal	Gulflab	ACES	DTL	Element Doha LLC	ACTS	Tech Lab	QIL	QEL	Pioneer	Teyseer Labs	ITL	QGEC	Al Baraha	JEL	Geotechn Group	CTL	Universal Lab
6.38	Preparation of Performance Test Specimens Using Gyratory Compactor	AASHTO PP60	√*	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.39	Developing Dynamic Modulus Master Curves Using AMPT	AASHTO PP61	-	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.40	Determining the Dynamic Modulus and Flow Number for Hot Mix Asphalt (HMA)	AASHTO TP79	-	-	√	-	-	-	-	-	-	-	-	-	√	-	-	-	-	-
6.41	Indirect Tensile (IDT) Strength of Bituminous Mixtures	ASTMD 6931	√	√	√	√	-	-	√	√	-	√	-	√	√	-	-	-	-	-
6.42	Fatigue life of Asphalt subjected to rerpeated flexural tester	AASHTO T321	√*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.43	Surface frictional properties using the british pendulum tester	ASTM E303	-	-	√	√	-	-	-	√	-	√	-	√	-	-	-	-	-	-
6.44	Skid Resistance of Paved Surfaces Using a Full-Scale Tire	ASTM E274	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.45	Accelerated Polishing of Aggregates Using the British Wheel	ASTM D3319	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.46	Computing IRI of Roads from Longitudinal Profile Measurements	ASTM E1926	-	-	√	√	-	√	-	-	√	-	-	√	-	-	-	-	-	-
6.47	Resistance of compacted asphalt to moisture induced damage	AASHTO T283	√	√	√	√	-	-	√	-	√	-	-	√	-	-	-	-	-	-
6.48	Temperature Measurement	BS EN 12697 Part 13	√	√	√	√	-	√	√	√	√	√	-	√	-	√	√	√	√	√
6.49	Binder Content of Thermoplastic Material	BS 3262 Part 1-Ap. C	-	-	√	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.50	Softening Point (Ring and Ball Method) of Thermoplastic Material	BS 2000-58	-	-	√	√	-	-	-	-	√	√	-	-	-	-	-	-	-	-
6.51	Glass Bead Content of Thermoplastic Material	BS 3262 Part 1-Ap. D	-	-	√	-	-	-	-	-	√	√	-	-	-	-	-	-	-	-
6.52	Glass Bead Content of Thermoplastic Material	AASHTO T250	-	-	√	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-
6.53	Determination of Density of Thermoplastic Material	BS 3262 Part 3-Ap. C	-	-	√	-	-	-	-	-	√	√	-	-	-	-	√	-	-	-
6.54	Flash Point (Open) of Thermoplastic Material	BS 2000-35	-	-	√	-	-	-	-	-	-	√	-	-	-	-	-	-	-	-
6.55	Flow Resistance of Thermoplastic Material	BS 3262 Part 1-Ap. H	-	-	√	√	-	-	-	-	√	√	-	-	-	-	-	-	-	-

No.	Test Name	Standard	Laboratory																	
			Ashghal	Gulflab	ACES	DTL	Element Doha LLC	ACTS	Tech Lab	QIL	QEL	Pioneer	Teyseer Labs	ITL	QGEC	Al Baraha	JEL	Geotechn Group	CTL	Universal Lab
6.56	Combined Gradation of Material	BS 3262 Part 1-Ap. D	-	-	√	√	-	-	-	-	-	√	-	-	-	-	-	-	-	-
6.57	Particle Size Distribution of Glass Beads	BS 6088 Appendix B	-	-	√	√	-	-	-	-	√	√	-	-	-	-	-	-	-	-
6.58	Measurement of Retro-reflectivity of pavement marking materials	BS EN 1436 Annex A&B	-	-	√	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.59	Measurement of Retro-reflectivity of pavement marking materials	ASTM E1710	-	-	√	-	-	-	-	-	-	-	-	-	-	√	-	-	-	-
6.60	Measurement of Skid Resistance	BS 3262 Part 1-Ap. J	-	-	√	√	-	-	√	-	-	√	-	-	-	-	-	-	-	-
6.61	Determination of Heat Stability	BS 3262 Part 1-Ap. G	-	-	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.62	Determination of Luminance Factor	BS 3262 Part 1-Ap. F	-	-	√	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.63	Dry Film Thickness	BS 3262 Part 3-Ap. B	-	-	√	√	-	-	-	-	-	√	-	-	-	√	-	-	-	-
6.64	Wet Film Thickness by Notch Gauge	BS EN 13197 Annex C	-	-	√	√	-	-	-	-	-	√	-	-	-	-	-	-	-	-
6.65	Wet Film Thickness by Notch Gauge	ASTM D4414	-	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Steel Tests

No.	Test Name	Standard	Laboratory																
			Ashghal	Gulflab	ACES	DTL	Element Doha LLC	ACTS	Tech Lab	QIL	QEL	Pioneer	Teyseer Labs	ITL	QGEC	Al Baraha	JEL	Geotechn Group	CTL	Universal Lab
7.1	Tensile Strength Test	BS EN 10002- 1	-	√	√	√	-	√	√	√	√	-	-	√	√	-	-	-	√	-
7.2	Tensile Strength Test	ASTM A370	-	-	√	-	√	√	√	√	√	-	-	√	√	-	-	-	√	-
7.3	Bend Test & Rebend Test	BS 4449 Sec. 7.2.5	-	√	√	√	√	√	√	√	√	-	-	√	√	-	-	-	√	-
7.4	Tensile Strength Test of Reinforcing bars, wire rods and wires	BS EN ISO 15630-1	-	-	-	-	-	-	-	-	-	-	-	√	-	-	-	-	-	-
7.5	Izod Impact Test of Metals	BS 131 Part 1	-	-	-	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-
7.6	Bend Test & Rebend	BS EN ISO 15630-1	-	-	-	-	-	-	-	-	-	-	-	√	-	-	-	-	-	-
7.7	Notched Bar Impact Test of Metals	ASTM E23	-	-	-	-	√	-	-	-	√	-	-	-	-	-	-	-	-	-
7.8	Charpy Impact Method	BS EN 10045	-	-	-	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-
7.9	Tensile Test Of High Tensile Steel Wire &Strand	BS EN ISO 15630-3 -cl 5	-	-	√	-	√	√	-	-	√	-	-	√	-	-	-	-	-	-
7.10	Isothermal stress relaxation test Of High Tensile Steel Wire &Strand	BS EN ISO 15630-3 –cl 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7.11	Testing Multi-Wire Steel Prestressing Strand	ASTM A1061	-	-	√	-	√	√	√	-	√	-	-	√	-	-	-	-	-	-
7.12	Tension Testing of Wire Ropes and Strand	ASTM A 931	-	-	-	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-
7.13	Load Resistance Test Of Manhole Covers	BS EN 124	-	-	√	√	√	-	-	√	√	-	-	-	-	-	-	-	-	-

Geotechnical Tests

No.	Test Name	Standard	Laboratory																
			Ashghal	Gulflab	ACES	DTL	Element Doha LLC	ACTS	Tech Lab	QIL	QEL	Pioneer	Teyseer Labs	ITL	QGEC	Al Baraha	JEL	Geotechn Group	CTL	Universal Lab
8.1	Description of Soil and Rock	BS 5930 Section 6	-	√	√	√	-	√	√	√	√	-	-	√	√	-	-	-	-	-
8.2	Undrained Triaxial Test without Pore Water Pressure Measurement	BS 1377 Part 7-Sec. 8	-	√	-	√	-	-	-	-	√	-	-	-	-	-	-	-	-	-

No.	Test Name	Standard	Laboratory																	
			Ashghal	Gulflab	ACES	DTL	Element Doha LLC	ACTS	Tech Lab	QIL	QEL	Pioneer	Teyseer Labs	ITL	QGEC	Al Baraha	JEL	Geotechn Group	CTL	Universal Lab
8.3	Point Load Index Determination	ASTM D5731	-	√	√	√	-	√	√	√	√	-	-	√	√	-	-	-	-	-
8.4	Preparing Rock Core Specimens to Dimensional and Shape Tolerances	ASTM D4543	-	√	√	√	-	√	√	√	√	√	-	-	-	-	-	-	-	-
8.5	Compressive Strength of Rock Core Specimen	ASTM D7012	-	√	√	√	-	√	√	√	√	√	-	√	√	-	√	√	-	-
8.6	Determination of One Dimensional Consolidation Properties of Soils	BS 1377 Part 5-Sec. 3	-	√	√	-	-	-	-	-	√	-	-	-	√	-	-	-	-	-
8.7	Determination of One Dimensional Consolidation Properties of Soils	ASTM D2435	-	-	√	√	-	-	-	-	√	-	-	-	-	-	-	-	-	-
8.8	Direct Shear on Soil (Small Box)	BS 1377 Part 7-Sec. 4	-	√	-	√	-	√	√	√	√	-	-	-	√	-	-	-	-	-
8.9	Direct Shear on Soil (Large Box)	BS 1377 Part 7-Sec. 5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8.10	Direct Shear on Rock	ASTM D5607	-	-	√	-	-	-	-	-	√	-	-	-	√	-	-	-	-	-
8.11	One Dimensional Swell of Cohesive Soils	ASTM D4546	-	-	√	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-
8.12	Constant Head Permeability Test	BS 1377 Part 5-Sec. 5	-	-	√	√	-	√	-	√	√	-	-	-	-	-	-	-	-	-
8.13	Vane Shear Test	BS 1377 Part 7-Sec. 3	-	-	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8.14	Soil Sampling	BS 5930 Cl. 22	-	√	√	√	-	√	√	√	√	-	-	-	√	-	-	-	-	-
8.15	Ground Water Sampling	BS 5930 Cl. 23	-	√	√	√	-	√	√	√	√	-	-	-	√	-	-	-	-	-
8.16	Ground Water Level Measurement	BS 5930 Cl. 23, 27, 47	-	√	√	√	-	√	√	√	√	-	-	-	√	-	-	-	-	-
8.17	Falling Head Permeability Test	BS 5930 Cl. 25	-	√	√	√	-	√	√	√	√	-	-	-	√	-	-	-	-	-
8.18	Packer Test / Permeability	BS 5930 Cl. 25	-	√	√	√	-	√	√	√	√	-	-	-	√	-	-	-	-	-
8.19	Standard Penetration Test (SPT)	BS 1377 Part 9-Sec. 3.3	-	√	√	√	-	√	√	√	√	-	-	-	√	-	-	-	-	-

No.	Test Name	Standard	Laboratory																
			Ashghal	Gulflab	ACES	DTL	Element Doha LLC	ACTS	Tech Lab	QIL	QEL	Pioneer	Teyseer Labs	ITL	QGEC	Al Baraha	JEL	Geotechn Group	CTL	Universal Lab
8.20	Electrical Resistivity Test	ASTM G57	-	√	√	√	-	√	√	√	√	√	-	√	√	-	-	-	-	-
8.21	Plate Load Test	BS 1377 Part 9-Sec. 4.1	-	√	√	√	-	√	√	√	√	√	-	√	√	√	√	-	√	-
8.22	California Bearing Ratio (CBR) Test	BS 1377 Part 9-Sec. 4.3	-	√	√	√	-	√	√	√	√	-	-	√	√	√	-	-	-	-
8.23	Dynamic Cone Penetrometer for Shallow Pavements	ASTM D6951	√*	-	√	-	-	√	-	-	√	-	-	-	-	√	-	-	-	-

Environmental Tests

No.	Test Name	Standard	Laboratory																
			Ashghal	Gulflab	ACES	DTL	Element Doha LLC	ACTS	Tech Lab	QIL	QEL	Pioneer	Teyseer Labs	ITL	QGEC	Al Baraha	JEL	Geotechn Group	CTL	Universal Lab
9.1	pH	APHA/AWWA 4500-H+B	√	√	√	√	√	√	√	√	-	-	-	-	√	√	-	-	√	-
9.2	Electrical Conductivity	APHA/AWWA 2510-B	√	√	√	√	√	√	√	√	-	-	-	-	√	√	-	-	√	-
9.3	Turbidity	APHA/AWWA 2130 B	√	√	√	√	√	√	√	√	√	-	-	-	√	√	-	-	-	-
9.4	Total Solids	APHA/AWWA 2540-B	√*	√	√	√	√	√	√	√	-	-	-	-	√	-	-	-	-	-
9.5	Total Suspended Solids (TSS)	APHA/AWWA 2540-D	√	√	√	√	√	√	√	√	√	-	-	-	√	-	-	-	-	-
9.6	Total Volatile Suspended Solids (TVSS)	APHA/AWWA 2540-D	√*	-	√	√	-	√	-	√	-	-	-	-	√	-	-	-	-	-
9.7	Total Dissolved Solids (TDS)	APHA/AWWA 2540-C	√	√	√	√	√	√	√	√	-	-	-	-	√	√	-	-	-	-
9.8	Total Volatile Dissolved Solids (TVDS)	APHA/AWWA 2540-C	√*	-	√	√	-	√	-	√	-	-	-	-	√	-	-	-	-	-
9.9	Settleable Solids	APHA/AWWA 2540-F	√*	√	√	-	-	√	-	√	-	-	-	-	√	-	-	-	-	-
9.10	Sludge Weight	APHA, SM,2710 D	√*	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.11	Sludge Volume	APHA, SM,2710 D	√*	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

No.	Test Name	Standard	Laboratory																
			Ashghal	Gulflab	ACES	DTL	Element Doha LLC	ACTS	Tech Lab	QIL	QEL	Pioneer	Teyseer Labs	ITL	QGEC	Al Baraha	JEL	Geotechn Group	CTL	Universal Lab
9.12	Sludge Volume Index	APHA, SM,2710 D	√*	√	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.13	Total, Fixed Solids in Solid and semi solid samples	APHA 2540 G	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.14	Total Volatile Solids in Solid and semi solid samples	APHA 2540- G	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.15	Biochemical Oxygen Demand (BOD)	APHA/AWWA Test-5210B & 4500-OC	√	√	√	√	√	√	√	√	-	-	-	-	-	-	-	-	-	-
9.16	Dissolved oxygen	APHA/AWWA Test-4500-O G	√	√	√	√	√	√	√	√	-	-	-	-	√*	-	-	-	-	-
9.17	Chemical Oxygen Demand (COD)	APHA/AWWA Test-5220 D	√	√	√	√	√	√	√	√	-	-	-	-	-	√	-	-	-	-
9.18	Chemical Oxygen Demand (COD)	APHA/AWWA Test-5220 B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.19	Total Kjeldahl Nitrogen	APHA/AWWA 4500 N	√	√	√	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-
9.20	Total Organic Nitrogen	APHA/AWWA 4500 N	√	√	√	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-
9.21	Ammonia Nitrogen	APHA/AWWA Test-4500 NH3 B&C	√	√	√	-	√	-	-	-	-	-	-	-	√	-	-	-	-	-
9.22	Nitrate Nitrogen	APHA/AWWA Test-4500-NO3D	-	√	√	√	-	√	-	-	-	-	-	-	√	√	-	-	-	-
9.23	Nitrite Nitrogen	APHA/AWWA Test-4500-NO2B	-	√	√	-	√	√	√	-	-	-	-	-	√	-	-	-	-	-
9.24	Oil & grease	APHA/AWWA 5520 B	√*	√	√	-	√	√	-	-	-	-	-	-	√	-	-	-	-	-
9.25	Total Chlorine	APHA/AWWA 4500-Cl G	√*	√	√	√	√	√	√	-	√	-	-	-	-	-	-	-	-	-
9.26	Residual Chlorine	APHA/AWWA 4500-Cl I	√	-	√	-	√	-	-	-	√	-	-	-	√	√	-	-	-	-

No.	Test Name	Standard	Laboratory																	
			Ashghal	Gulflab	ACES	DTL	Element Doha LLC	ACTS	Tech Lab	QIL	QEL	Pioneer	Teyseer Labs	ITL	QGEC	Al Baraha	JEL	Geotechn Group	CTL	Universal Lab
9.27	Free Chlorine	SMWW Test 4500 Cl G	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.28	Chloride	APHA/AW WA 4500-Cl B	√*	√	√	√	√	√	√	√	-	-	-	-	√	√	-	-	-	-
9.29	Chloride	APHA 4110-B	√*	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.30	Sulphate	APHA 4110-B	-	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.31	Nitrate	APHA 4110B	√	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.32	Nitrite	APHA 4110B	√	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.33	Fluride	APHA 4110-B	-	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.34	Iodide	APHA 4110-B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.35	Phosphate	APHA 4110-B	-	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.36	Phosphorous (total)	APHA/AW WA 4500-P D&C	√	√	√	√	√	-	√	√	-	-	-	-	√	√	-	-	-	-
9.37	Phenol Concentrations	APHA/AW WA 5530	-	-	√	-	-	-	-	-	-	-	-	-	√	-	-	-	-	-
9.38	Cyanide	APHA/AW WA 4500-CN C&E	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.39	Sulphate	APHA/AW WA 4500-SO4	√*	√	√	√	√	√	√	√	√	-	-	-	√	√	-	-	-	-
9.40	Sulphide	APHA/AW WA 4500--S2 E or F	√*	-	√	-	√	√	√	-	√	-	-	-	√	-	-	-	-	-
9.41	Fluoride	APHA/AW WA 4500F	-	√	-	√	√	-	√	-	-	-	-	-	√	-	-	-	-	-
9.42	Total Hardness	APHA/AW WA 2340-C	√	√	√	√	√	√	√	√	-	-	-	-	√	√	-	-	-	-
9.43	Calcium hardness as calcium carbonate	APHA/AW WA 3500-Ca B	√	√	√	√	√	√	√	√	-	-	-	-	√	√	-	-	-	-

No.	Test Name	Standard	Laboratory																	
			Ashghal	Gulflab	ACES	DTL	Element Doha LLC	ACTS	Tech Lab	QIL	QEL	Pioneer	Teyseer Labs	ITL	QGEC	Al Baraha	JEL	Geotechn Group	CTL	Universal Lab
9.44	Magnesium Concentration by calculation	APHA/AWWA 3500-Mg B	√	√	√	√	-	√	√	√	-	-	-	-	√	√	-	-	-	-
9.45	Magnesium	APHA 3120-B	√	√	√	√	√	√	√	√	-	-	-	-	√	-	-	-	-	-
9.46	Calcium	APHA 3120-B	√*	√	√	√	√	√	√	√	-	-	-	-	√	-	-	-	-	-
9.47	Sodium	APHA 3120-B	√	√	√	√	√	√	√	√	-	-	-	-	-	-	-	-	-	-
9.48	Potassium	APHA 3120-B	√	√	√	√	√	√	√	√	-	-	-	-	√	-	-	-	-	-
9.49	Iron	APHA 3120-B	√	√	√	√	√	√	√	√	√	-	-	-	√	-	-	-	-	-
9.50	Aluminum	APHA 3120-B	√	√	√	√	√	√	√	√	-	-	-	-	√	-	-	-	-	-
9.51	Arsenic	APHA 3120 B	√	√	√	√	√	√	√	-	-	-	-	-	√	-	-	-	-	-
9.52	Cadmium	APHA 3120 B	√	√	√	√	√	√	√	√	-	-	-	-	√	-	-	-	-	-
9.53	Chromium	APHA 3120 B	√	√	√	√	√	√	√	√	-	-	-	-	√	-	-	-	-	-
9.54	COBALT	APHA 3120B	√	√	√	√	√	√	√	√	-	-	-	-	√	-	-	-	-	-
9.55	Copper	APHA 3120 B	√*	√	√	√	√	√	√	√	-	-	-	-	√	-	-	-	-	-
9.56	Nickel	APHA 3120 B	√	√	√	√	√	√	√	√	-	-	-	-	√	-	-	-	-	-
9.57	phosphorous	APHA 3120-B	-	-	√	√	√	√	√	√	-	-	-	-	-	-	-	-	-	-
9.58	Zinc	APHA 3120 B	√	√	√	√	√	√	√	√	-	-	-	-	√	-	-	-	-	-
9.59	Silicon	APHA 3120-B	-	√	√	√	√	√	√	√	-	-	-	-	√	-	-	-	-	-
9.60	Silver	APHA 3120 B	-	√	√	√	√	√	√	√	-	-	-	-	-	-	-	-	-	-
9.61	Antimony	APHA 3120 B	-	√	√	√	√	√	√	√	-	-	-	-	√	-	-	-	-	-
9.62	Barium	APHA 3120 B	-	√	√	√	√	√	√	√	-	-	-	-	√	-	-	-	-	-

No.	Test Name	Standard	Laboratory																	
			Ashghal	Gulflab	ACES	DTL	Element Doha LLC	ACTS	Tech Lab	QIL	QEL	Pioneer	Teyseer Labs	ITL	QGEC	Al Baraha	JEL	Geotechn Group	CTL	Universal Lab
9.63	Beryllium	APHA 3120 B	-	√	√	√	√	√	√	√	-	-	-	-	√	-	-	-	-	-
9.64	Boron	APHA 3120 B	-	√	√	√	√	√	√	√	-	-	-	-	√	-	-	-	-	-
9.65	Manganese	APHA 3120 B	√*	√	√	√	√	√	√	√	-	-	-	-	√	-	-	-	-	-
9.66	Molybdenum	APHA 3120 B	-	√	√	√	√	√	√	√	-	-	-	-	√	-	-	-	-	-
9.67	Selenium	APHA 3120 B	-	√	√	√	√	√	√	√	-	-	-	-	√	-	-	-	-	-
9.68	Thallium	APHA 3120 B	-	√	√	√	√	√	√	√	-	-	-	-	√	-	-	-	-	-
9.69	Titanium	APHA 3120 B	-	√	√	√	√	√	√	√	-	-	-	-	√	-	-	-	-	-
9.70	Vanadium	APHA 3120 B	-	√	√	√	√	√	√	√	-	-	-	-	√	-	-	-	-	-
9.71	Lead	APHA 3120 B	√	√	√	√	√	√	√	√	-	-	-	-	√	-	-	-	-	-
9.72	Lithium	APHA 3120 B	-	√	√	√	√	√	√	-	-	-	-	-	-	-	-	-	-	-
9.73	Mercury	APHA 3120 B	√*	√	√	√	√	√	√	√	-	-	-	-	-	-	-	-	-	-
9.74	Tin	APHA 3120 B	√	√	-	-	-	√	√	√	-	-	-	-	-	-	-	-	-	-
9.75	Chromium(VI)	APHA 3500-Cr B	-	-	√	-	-	-	√	√	-	-	-	-	-	-	-	-	-	-
9.76	Bromide	APHA 4110-B	-	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.77	Bromate	APHA 4110-B	-	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.78	Total Alkalinity	APHA/AWWA 2320-B	√	√	√	√	√	√	√	√	√	-	-	-	√	√	-	-	√	-
9.79	Phenolphthalein Alkalinity	APHA/AWWA 2320-B	√*	√	√	√	√	√	√	√	√	-	-	-	√	√	-	-	√	-
9.80	Bicarbonate	APHA 2320-B	-	√	√	√	√	√	√	-	-	-	-	-	√	√	-	-	√	-
9.81	Carbonate	APHA 2320-B	-	√	√	√	√	√	√	-	-	-	-	-	√	√	-	-	√	-

No.	Test Name	Standard	Laboratory																	
			Ashghal	Gulflab	ACES	DTL	Element Doha LLC	ACTS	Tech Lab	QIL	QEL	Pioneer	Teyseer Labs	ITL	QGEC	Al Baraha	JEL	Geotechn Group	CTL	Universal Lab
9.82	Total Organic Carbon (TOC)	APHA/AWWA 5310-B or C	√*	-	√	-	√*	√	√	√	-	-	-	-	-	-	-	-	-	-
9.83	Residual Pesticides	EPA 608	√*	√	-	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-
9.84	Zinc	APHA/AWWA 3125-B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.85	lead	APHA/AWWA 3125-B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.86	Organic Hydrocarbon	APHA/AWWA/ 6200 volatile Organic Compounds	√*	√	√	-	√	√	√	√	-	-	-	-	-	-	-	-	-	-
9.87	Total Silicates	APHA/AWWA/ 4500-SiO2-C	√*	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.88	Silicon, Aluminum	APHA/AWWA/ 3111 D Direct Nitrous Oxide – Acetylene flame method (AAS)	√*	√	-	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-
9.89	Total Coliforms	APHA/AWWA 9222B & 9222D	√*	√	√	-	√	-	-	-	√	-	-	-	-	-	-	-	-	-
9.90	Fecal Coliform	APHA/AWWA-9222D	√*	√	√	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-
9.91	E-Coli	APHA/AWWA-9223B IDEXX method	√*	√	√	√	√	√	√	-	√	-	-	-	-	-	-	-	-	-
9.92	Total Coliforms	APHA/AWWA-9223B IDEXX method	√	√	√	√	-	√	√	-	-	-	-	-	-	-	-	-	-	-
9.93	Fecal Coliform	APHA/AWWA-9223B IDEXX method	√	√	√	√	-	-	√	-	-	-	-	-	-	-	-	-	-	-

No.	Test Name	Standard	Laboratory																	
			Ashghal	Gulflab	ACES	DTL	Element Doha LLC	ACTS	Tech Lab	QIL	QEL	Pioneer	Teyseer Labs	ITL	QGEC	Al Baraha	JEL	Geotechn Group	CTL	Universal Lab
9.94	Nematodes (Helminths) Eggs	WHO, Lab manual of Parasitological and Bacteriological Techniques, 1996	√	√	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.95	Microscopic Examination	-	√*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.96	Pseudomonas Aeruginosa	APHA 9213-E	-	√	√	√	-	√	-	-	-	-	-	-	-	-	-	-	-	-
9.97	Fecal Streptococcus/ Enterococcus	APHA 9230-C	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.98	Legionella	APHA 9260-J	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.99	Detection of Enterococci	APHA 9223 B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.100	Enteric Viruses	RT – PCR Methodology	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.101	Cryptosporidium	RT – PCR Methodology	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Non Destructive

No.	Test Name	Standard	Laboratory																	
			Ashghal	Gulflab	ACES	DTL	Element Doha LLC	ACTS	Tech Lab	QIL	QEL	Pioneer	Teyseer Labs	ITL	QGEC	Al Baraha	JEL	Geotechn Group	CTL	Universal Lab
10.1	Falling Weight Deflectometer	ASTM D4694	√*	-	-	-	-	-	-	-	-	-	-	√	-	-	-	-	-	-
10.2	Road Profilometer (IRI)	ASTM E950	√*	-	√	√	-	√	-	-	√	-	-	√	-	-	-	-	-	-
10.3	Measuring Rut-Depth of Pavement Surfaces Using a Straightedge	ASTM E1703	-	-	-	-	-	-	-	-	-	-	-	√	-	-	-	-	-	-
10.4	Pavement Quality Indicator	ASTM D7113	√*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10.5	Rebound Hammer Test for Concrete	ASTM C805	√	-	√	√	-	√	-	√	√	-	-	√	√	√	√	√	√	-

No.	Test Name	Standard	Laboratory																	
			Ashghal	Gulflab	ACES	DTL	Element Doha LLC	ACTS	Tech Lab	QIL	QEL	Pioneer	Teyseer Labs	ITL	QGEC	Al Baraha	JEL	Geotechn Group	CTL	Universal Lab
10.6	Concrete Cover Determination	BS 1881 Part 204	-	√	√	√	-	√	√	√	-	-	-	-	√	-	-	-	√	-
10.7	Ultrasonic Pulse Velocity	BS EN 12504 Part 4	-	-	√	√	-	√	√	√	√	-	-	-	√	-	√	√	√	-
10.8	Crack Width Gauge	Gauge Manual	-	-	√	√	-	√	√	-	-	-	-	-	-	-	-	-	-	-
10.9	Crack Measurement Microscope	Microscope Manual	-	-	√	-	-	√	√	√	-	-	-	-	√	-	-	-	-	-
10.10	Pile Integrity (Pulse Echo Test)	ASTM D5882	-	-	√	√	-	√	-	√	√	-	-	-	-	-	-	-	-	-
10.11	Pile Integrity (Cross Hole Test)	ASTM D6760	-	-	√	-	-	√	-	√	√	-	-	-	-	-	-	-	-	-
10.12	Pile Dynamic Test	ASTM D4945	-	-	√	-	-	√	-	√	√	-	-	-	-	-	-	-	-	-
10.13	Caliper Logging of Borehole	ASTM D6167	-	-	√	-	-	-	-	√	-	-	-	-	-	-	-	-	-	-
10.14	Coating Pull-Off Test	ASTM D4541	-	-	√	√	-	√	-	√	√	-	-	-	-	-	-	-	√	-
10.15	Coating Thickness Measurement	ASTM D7091 / D6132	-	-	√	√	-	-	-	√	√	-	-	-	-	-	-	-	-	-
10.16	Holiday Detection of Coating	ASTM D4787 / D5162	-	-	√	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-
10.17	Magnetic Particle Inspection	ASTM E709 / ASME - Sec. V	-	-	√	-	-	√	-	√	-	-	-	-	-	-	-	-	-	-
10.18	Dye Penetration Test	ASTM E165 / ASME - Sec. V	-	-	√	-	-	√	-	√	-	-	-	-	-	-	-	-	-	-
Leakage Testing of Buildings																				

No.	Test Name	Standard	Laboratory																	
			Ashghal	Gulflab	ACES	DTL	Element Doha LLC	ACTS	Tech Lab	QIL	QEL	Pioneer	Teyseer Labs	ITL	QGEC	Al Baraha	JEL	Geotechn Group	CTL	Universal Lab
12.1	Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences	ASTM E283	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.2	Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Static Air Pressure Difference	ASTM E330	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.3	Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference	ASTM E331	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.4	Air Permeability of Doors and Windows	BS EN 1026	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.5	Water tightness of Doors and Windows	BS EN 1027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.6	Doors and Windows Resistance to Wind Loads	BS EN 12211	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.7	Air Permeability of Curtain Walling	BS EN 12153	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.8	Water Tightness of Curtain Walling under Static Pressure	BS EN 12155	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.9	Resistance to Wind Load of Curtain Walling	BS EN 12179	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.10	Air Permeability of Buildings	BS EN 13829	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.11	Water Penetration using Dynamic Pressure for Windows, Curtain Walls and Doors	AAMA 501.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.12	Water leakage field check for Storefronts, Curtain Walls and Sloped Glazing Systems	AAMA 501.2	-	-	-	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-

Geotextiles & Waterproofing Tests

No.	Test Name	Standard	Laboratory																	
			Ashghal	Gulflab	ACES	DTL	Element Doha LLC	ACTS	Tech Lab	QIL	QEL	Pioneer	Teyseer Labs	ITL	QGEC	Al Baraha	JEL	Geotechn Group	CTL	Universal Lab
11.1	Breaking Strength and Elongation of Textile Fabrics (Grab Test).	ASTM D5034	-	-	√	√	-	√	-	√	√	-	-	-	-	-	-	-	-	-
11.2	Textiles Puncture Resistance.	ASTM D751	-	-	√	√	-	√	-	√	√	-	-	-	-	-	-	-	-	-

No.	Test Name	Standard	Laboratory																	
			Ashghal	Gulflab	ACES	DTL	Element Doha LLC	ACTS	Tech Lab	QIL	QEL	Pioneer	Teyseer Labs	ITL	QGEC	Al Baraha	JEL	Geotechn Group	CTL	Universal Lab
11.3	Textiles Bursting Strength.	ASTM D3787	-	-	√	√	-	√	-	√	√	-	-	-	-	-	-	-	-	-
11.4	Trapezoid Tearing Strength of Geotextiles.	ASTM D4533	-	-	√	√	-	√	-	√	√	-	-	-	-	-	-	-	-	-
11.5	Static Puncture Test (CBR Test)	BS EN ISO 12236	-	-	√	√	-	√	-	√	√	-	-	-	-	-	-	-	-	-
11.6	Tensile Strength &Elongation At Rupture.	BS EN ISO 10319	-	-	√	√	-	√	-	√	√	-	-	-	-	-	-	-	-	-
11.7	Breaking Strength and Elongation of Textile (strip Test).	ASTM D5035	-	-	√	√	-	√	-	√	√	-	-	-	-	-	-	-	-	-
11.8	Dynamic Perforation Test (Cone Drop Test)	BS EN ISO 13433	-	-	√	√	-	√	-	√	√	-	-	-	-	-	-	-	-	-
11.9	Water Permeability	BS EN ISO 11058	-	-	√	√	-	√	-	√	-	-	-	-	-	-	-	-	-	-
11.10	Pore Size	BS EN ISO 12956	-	-	√	√	-	-	-	√	√	-	-	-	-	-	-	-	-	-
11.11	Determination Of Mass Per Unit Area (Weight)	BS EN 12127	-	-	√	√	-	√	-	√	√	-	-	-	-	-	-	-	-	-
11.12	Measuring The Nominal Thickness Of Geosynthetics	ASTM D5199	-	-	√	√	-	√	-	√	√	-	-	-	-	-	-	-	-	-
11.13	Determination Of Thickness Of Textiles	BS EN ISO 5084	-	-	-	√	-	√	-	√	√	-	-	-	-	-	-	-	-	-
11.14	Determination of Tensile Properties for plastic	ASTM D 638	-	-	√	√	-	√	-	√	√	-	-	-	-	-	-	-	-	-
11.15	Determination of Tensile Properties for plastic	BS EN ISO 527 Part 3	-	-	√	√	-	√	-	√	√	-	-	-	-	-	-	-	-	-
11.16	Tensile strength of Vulcanized Rubber and Thermoplastic Elastomers	ASTM D 412	-	-	√	-	-	√	-	√	√	-	-	-	-	-	-	-	-	-
11.17	Initial Tear Resistance of Plastic Film and Sheeting	ASTM D 1004	-	-	√	√	-	√	-	√	√	-	-	-	-	-	-	-	-	-
11.18	Pressure-Sensitive Adhesion to Primed Concrete	ASTM D 1000	-	-	√	√	-	√	-	√	-	-	-	-	-	-	-	-	-	-
11.19	Puncture Resistance of Ground Covers	ASTM E 154	-	-	√	√	-	√	-	√	√	-	-	-	-	-	-	-	-	-
11.20	Water Absorption of Plastics	ASTM D 570	-	-	√	√	-	√	-	√	√	-	-	-	-	-	-	-	-	-
11.21	Resistance of Plastics to Chemical Reagents	ASTM D 543	-	-	√	√	-	-	-	√	-	-	-	-	-	-	-	-	-	-

No.	Test Name	Standard	Laboratory																	
			Ashghal	Gulflab	ACES	DTL	Element Doha LLC	ACTS	Tech Lab	QIL	QEL	Pioneer	Teyseer Labs	ITL	QGEC	Al Baraha	JEL	Geotechn Group	CTL	Universal Lab
11.22	Water Vapor Transmission rate	ASTM E 96	-	-	√	√	-	√	-	√	-	-	-	-	-	-	-	-	-	-
11.23	Brittleness Temperature of Plastics and Elastomers by Impact	ASTM D 746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11.24	Determination of Durometer Hardness	ASTM D 2240	-	-	√	-	-	-	-	√	√	-	-	-	-	-	-	-	-	-
11.25	Determination of thickness and mass per unit area of Bitumen sheets for roof waterproofing	BS EN 1849-1	-	-	-	√	-	√	-	√	√	-	-	-	-	-	-	-	-	-
11.26	Determination of thickness and mass per unit area of Plastic and rubber sheets	BS EN 1849-2	-	-	√	-	-	√	-	√	√	-	-	-	-	-	-	-	-	-
11.27	Dimensions Measurement of Rubber	ASTM D 3767	-	-	-	-	-	√	-	√	√	-	-	-	-	-	-	-	-	-

Paints and vernishies

No.	Test Name	Standard	Laboratory																	
			Ashghal	Gulflab	ACES	DTL	Element Doha LLC	ACTS	Tech Lab	QIL	QEL	Pioneer	Teyseer Labs	ITL	QGEC	Al Baraha	JEL	Geotechn Group	CTL	Universal Lab
13.1	Density of Liquid Coatings, Inks &paints	ASTM D1475	-	-	√	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-
13.2	Measurement of Dry-Film Thickness of Organic Coatings	ASTM D1005	-	-	√	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-
13.3	Measurement of Wet Film Thickness of Organic Coatings	ASTM D1212	-	-	√	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-
13.4	Scrub Resistance of Wall Paints	ASTM D2486	-	-	√	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-
13.5	Viscosity of Paints	ASTM D562	-	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.6	Sag Resistance of Paints	ASTM D4400	-	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.7	Measurement of specular gloss of nonmetallic paint films	BS EN ISO 2813	-	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.8	Fineness of Dispersion of Pigment-Vehicle Systems	ASTM D1210	-	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.9	Determination of color and color difference	ISO 7724-2	-	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.10	Comparison of contrast ratio	BS EN ISO 2814	-	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

No.	Test Name	Standard	Laboratory																	
			Ashghal	Gulflab	ACES	DTL	Element Doha LLC	ACTS	Tech Lab	QIL	QEL	Pioneer	Teyseer Labs	ITL	QGEC	Al Baraha	JEL	Geotechn Group	CTL	Universal Lab
13.11	Determination of pH value of aqueous suspension	BS EN ISO 787-9	-	-	√	-	-	√	-	-	-	-	-	-	-	-	-	-	-	-
13.12	Cross-cut test of paints &varnishes	BS EN ISO 2409	-	-	√	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-
13.13	Adhesion (Pull off) strength	ASTM D4541	-	-	√	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-
13.14	Pigment Content of Water-Emulsion Paints by Low-Temperature Ashing	ASTM D3723 -	-	-	√	-	-	√	-	-	√	-	-	-	-	-	-	-	-	-
13.15	Determination of resistance to liquids	ASTM D5401	-	-	√	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-
13.16	Pigments for the coloring of building materials	BS EN 12878	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.17	Determination Volatile Content of Coatings	ASTM D2369	-	-	√	-	-	√	-	-	√	-	-	-	-	-	-	-	-	-
13.18	Determination of the Nonvolatile Content	ASTM D5095	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.19	Bend Test of Attached Organic Coatings	ASTM D522	-	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.20	Bend test of Paints and varnishes	BS EN ISO 1519	-	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.21	Abrasion Resistance of Organic Coatings by the Taber Abraser	ASTM D4060	-	-	√	-	-	-	-	√	√	-	-	-	-	-	-	-	-	-
13.22	Tensile Properties of Organic Coatings	ASTM D2370	-	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.23	Fluorescent UV-Condensation Exposures of Paint and Related Coatings	ASTM D4587	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.24	Filtered Open-Flame Carbon-Arc Exposures of Paint and Related Coatings	ASTM D822	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.25	Drying, Curing, or Film Formation of Organic Coatings at Room Temperature	ASTM D1640	-	-	√	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-
13.26	Rheological Properties of Non-Newtonian Materials by Rotational Viscometer	ASTM D2196	-	-	√	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-
13.27	Alkali Resistance	ASTM D1647	-	-	√	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-
Asphalt Mix Preparation and Verification																				

No.	Test Name	Standard	Laboratory																
			Ashghal	Gulflab	ACES	DTL	Element Doha LLC	ACTS	Tech Lab	QIL	QEL	Pioneer	Teyseer Labs	ITL	QGEC	Al Baraha	JEL	Geotechn Group	CTL	Universal Lab
6.66	Asphalt Mix Design	Marshall Mixtures	-	-	√	√	-	-	√	-	-	-	-	-	-	-	-	-	-	-
6.67	Asphalt Mix Verification*	*Mix design verification shall be carried out by a lab different from the one that prepared the mix.	-	-	√	√	-	-	√	-	-	-	-	-	√	-	-	-	-	-

7. Steel Tests

No.	Test	Standard	Laboratory																
			ELEMENT	ACES	ACTS	Gulf Lab	Tech Lab	Pioneer	Teyseer	QEL	DTL	QGEC	JEL	BATLABS	ITL	QIL	CTL	Geotechnical Group	Universal Lab	Ashghal
7.1	Tensile Strength Test	BS EN 10002- 1	-	√	√	√	√	-	-	√	√	√	-	-	√	√	-	-	-	-
7.2	Tensile Strength Test	ASTM A370	√	√	√	-	√	-	-	√	-	√	-	-	√	√	-	-	-	-
7.3	Bend Test & Rebend Test	BS 4449 Sec. 7.2.5	√	√	√	√	√	-	-	√	√	√	-	-	√	√	-	-	-	-
7.4	Tensile Strength Test of Reinforcing bars, wire rods and wires	BS EN ISO 15630-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7.5	Bend Test & Rebend	BS EN ISO 15630-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7.6	Izod Impact Test of Metals	BS 131 Part 1	-	-	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-	-
7.7	Notched Bar Impact Test of Metals	ASTM E23	√	-	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-	-
7.8	Charpy Impact Method	BS EN 10045	-	-	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-	-
7.9	Tensile Test Of High Tensile Steel Wire &Strand	BS EN ISO 15630-3	√	√	√	-	-	-	-	√	-	-	-	-	-	-	-	-	-	-
7.10	Testing Multi-Wire Steel Prestressing Strand	ASTM A1061	√	√	√	-	√	-	-	√	-	-	-	-	-	-	-	-	-	-
7.11	Tension Testing of Wire Ropes and Strand	ASTM A 931	-	-	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-	-
7.12	Load Resistance Test Of Manhole Covers	BS EN 124	√	√	-	-	-	-	-	√	√	-	-	-	-	√	-	-	-	-

Notes: - It is the responsibility of the Engineer and Consultant to ensure the materials testing laboratory proposed by the Contractor is totally independent and has no relationship, inclusive of formal, financial, family or legal, or other with the Contractor or the Contractors Sub-contractors.

- (V*) means conditional approval
- (X) Means suspended test.

ملاحظات: - انها مسؤولية مهندس المشروع والاستشاري التأكد من عدم وجود صله بين المختبر المقترح والمقاول أو المقاول من الباطن بأي شكل كان سواء قانوني، مالي، عائلي أو خلافه.

- (V*) تعني اعتماد مشروط ولفتره محدودة. – (X) تعني الاختبار تم تعليقة بعد اعتماده.

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8. Geotechnical Tests

No.	Test	Standard	Laboratory																
			ELEMENT	ACES	ACTS	Gulf Lab	Tech Lab	Pioneer	Teyseer	QEL	DTL	QGEC	JEL	BATLABS	ITL	QIL	CTL	Geotechnical Group	Universal Lab	Ashghal
Laboratory Tests																				
8.1	Description of Soil and Rock	BS 5930 Section 6	-	√	√	√	√	-	-	√	√	√	-	-	√	√	-	-	-	-
8.2	Undrained Triaxial Test without Pore Water Pressure Measurement	BS 1377 Part 7-Sec. 8	-	-	-	√	-	-	-	√	√	-	-	-	-	-	-	-	-	-
8.3	Point Load Index Determination	ASTM D5731	-	√	√	√	√	-	-	√	√	√	-	-	√	√	-	-	-	-
8.4	Preparing Rock Core Specimens to Dimensional and Shape Tolerances	ASTM D4543	-	√	√	√	√	√	-	√	√	-	-	-	-	√	-	-	-	-
8.5	Compressive Strength of Rock Core Specimen	ASTM D7012	-	√	√	√	√	√	-	√	√	√	√	-	√	√	-	√	-	-
8.6	Determination of One Dimensional Consolidation Properties of Soils	BS 1377 Part 5-Sec. 3	-	√	-	√	-	-	-	√	-	√	-	-	-	-	-	-	-	-
8.7	Determination of One Dimensional Consolidation Properties of Soils	ASTM D2435	-	√	-	-	-	-	-	√	√	-	-	-	-	-	-	-	-	-
8.8	Direct Shear on Soil (Small Box)	BS 1377 Part 7-Sec. 4	-	-	√	√	√	-	-	√	√	√	-	-	-	√	-	-	-	-
8.9	Direct Shear on Soil (Large Box)	BS 1377 Part 7-Sec. 5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8.10	Direct Shear on Rock	ASTM D5607	-	√	-	-	-	-	-	√	-	√	-	-	-	-	-	-	-	-

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Geotechnical Tests (Cont.)

No.	Test	Standard	Laboratory																	
			ELEMENT	ACES	ACTS	Gulf Lab	Tech Lab	Pioneer	Teyseer	QEL	DTL	QGEC	JEL	BATLABS	ITL	QIL	CTL	Geotechnical Group	Universal Lab	Ashghal
8.11	One Dimensional Swell of Cohesive Soils	ASTM D4546	-	√	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-	-
8.12	Constant Head Permeability Test	BS 1377 Part 5-Sec. 5	-	√	√	-	-	-	-	√	√	-	-	-	-	√	-	-	-	-
8.13	Vane Shear Test	BS 1377 Part 7-Sec. 3	-	-	-	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-
		Field Tests																		
8.14	Soil Sampling	BS 5930 Cl. 22	-	√	√	√	√	-	-	√	√	√	-	-	-	√	-	-	-	-
8.15	Ground Water Sampling	BS 5930 Cl. 23	-	√	√	√	√	-	-	√	√	√	-	-	-	√	-	-	-	-
8.16	Ground Water Level Measurement	BS 5930 Cl. 23, 27, 47	-	√	√	√	√	-	-	√	√	√	-	-	-	√	-	-	-	-
8.17	Falling Head Permeability Test	BS 5930 Cl. 25	-	√	√	√	√	-	-	√	√	√	-	-	-	√	-	-	-	-
8.18	Packer Test	BS 5930 Cl. 25	-	√	√	√	√	-	-	√	√	√	-	-	-	√	-	-	-	-
8.19	Standard Penetration Test (SPT)	BS 1377 Part 9-Sec. 3.3	-	√	√	√	√	-	-	√	√	√	-	-	-	√	-	-	-	-

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Geotechnical Tests (Cont.)

No.	Test	Standard	Laboratory																	
			ELEMENT	ACES	ACTS	Gulf Lab	Tech Lab	Pioneer	Teyseer	QEL	DTL	QGEC	JEL	BATLABS	ITL	QIL	CTL	Geotechnical Group	Universal Lab	Ashghal
8.20	Electrical Resistivity Test	ASTM G57	-	√	√	√	√	√	-	√	√	√	-	-	√	√	-	-	-	-
8.21	Plate Load Test	BS 1377 Part 9-Sec. 4.1	-	√	√	√	√	√	-	√	√	√	√	√	√	√	-	-	-	-
8.22	California Bearing Ratio (CBR) Test	BS 1377 Part 9-Sec. 4.3	-	√	√	√	√	-	-	√	√	√	-	√	√	√	-	-	-	-
8.23	Dynamic Cone Penetrometer for Shallow Pavements	ASTM D6951	-	√	√	-	-	-	-	√	-	-	-	√	-	-	-	-	-	√*

Notes:

- **Other tests related to geotechnical field can be found in soil and aggregate tests sections.**
- **This list is for geotechnical related tests. General requirements for geotechnical soil investigation firms should follow the Ministry of Environment conformity criteria.**
- **It is the responsibility of the Engineer and Consultant to ensure the Materials Testing Laboratory proposed by the Contractor is totally independent and has no relationship, inclusive of formal, financial, family or legal, or other with the Contractor or the Contractors Sub-contractors.**
- **(V*) means conditional approval.**
- **(X) Means suspended test.**

ملاحظات: - انها مسؤولية مهندس المشروع والاستشاري التأكد من عدم وجود صله بين المختبر المقترح والمقاول أو المقاول من الباطن بأي شكل كان سواء قانوني، مالي، عائلي أو خلافه.
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9. Environmental Tests

No.	Test	Standard	Laboratory																
			ELEMENT	ACES	ACTS	Gulf Lab	Tech Lab	Pioneer	Teyseer	QEL	DTL	QGEC	BATLABS	JEL	ITL	QIL	CTL	Geotechnical Group	Universal Lab	Ashghal
9.1	pH	APHA/AWWA 4500-H+B	√	√	√	√	√	-	-	-	√	√	√	-	-	√	-	-	-	√
9.2	Electrical Conductivity	APHA/AWWA 2510-B	√	√	√	√	√	-	-	-	√	√	√	-	-	√	-	-	-	√
9.3	Turbidity	APHA/AWWA 2130 B	√	√	√	√	√	-	-	√	√	√	√	-	-	√	-	-	-	√
9.4	Total Solids	APHA/AWWA 2540-B	√	√	√	√	√	-	-	-	√	√	-	-	-	√	-	-	-	√*
9.5	Total Suspended Solids (TSS)	APHA/AWWA 2540-D	√	√	√	√	√	-	-	√	√	√	-	-	-	√	-	-	-	√
9.6	Total Volatile Suspended Solids (TVSS)	APHA/AWWA 2540-D	-	√	√	-	-	-	-	-	√	√	-	-	-	√	-	-	-	√*
9.7	Total Dissolved Solids (TDS)	APHA/AWWA 2540-C	√	√	√	√	√	-	-	-	√	√	√	-	-	√	-	-	-	√
9.8	Total Volatile Dissolved Solids (TVDS)	APHA/AWWA 2540-C	-	√	√	-	-	-	-	-	√	√	-	-	-	√	-	-	-	√*
9.9	Settleable Solids	APHA/AWWA 2540-F	-	√	√	√	-	-	-	-	-	√	-	-	-	√	-	-	-	√*
9.10	Sludge Weight	APHA, SM,2710 D	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	√*
9.11	Sludge Volume	APHA, SM,2710 D	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	√*

Environmental Tests (Cont.)

No.	Test	Standard	Laboratory																	
			ELEMENT	ACES	ACTS	Gulf Lab	Tech Lab	Pioneer	Teyseer	QEL	DTL	QGEC	BATLABS	JEL	ITL	QIL	CTL	Geotechnical Group	Universal Lab	Ashghal
9.12	Sludge Volume Index	APHA, SM,2710 D	-	√	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	√*
9.13	Total, Fixed Solids in Solid and semi solid samples	APHA 2540-G	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.14	Total Volatile Solids in Solid and semi solid samples	APHA 2540- G	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.15	Biochemical Oxygen Demand (BOD)	APHA/AWWA Test-5210B & 4500-OC	√	√	√	√	√	-	-	-	√	-	-	-	-	√	-	-	-	√
9.16	Dissolved Oxygen	APHA/AWWA Test-4500-O G	√	√	√	√	√	-	-	-	√	√*	-	-	-	√	-	-	-	√
9.17	Chemical Oxygen Demand (COD)	APHA/AWWA Test-5220 D	√	√	√	√	√	-	-	-	√	-	√	-	-	√	-	-	-	√
9.18	Chemical Oxygen Demand (COD)	APHA/AWWA Test-5220 B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.19	Total Kjeldahl Nitrogen	APHA/AWWA 4500 N	√	√	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	√
9.20	Total Organic Nitrogen	APHA/AWWA 4500 N	√	√	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	√
9.21	Ammonia Nitrogen	APHA/AWWA Test-4500 NH3 B&C	√	√	-	√	-	-	-	-	-	√	-	-	-	-	-	-	-	√
9.22	Nitrate Nitrogen	APHA/AWWA Test-4500-NO3D	-	√	√	√	-	-	-	-	√	√	√	-	-	-	-	-	-	-
9.23	Nitrite Nitrogen	APHA/AWWA Test-4500-NO2B	√	√	√	√	√	-	-	-	-	√	-	-	-	-	-	-	-	-

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Environmental Tests (Cont.)

No.	Test	Standard	Laboratory																	
			ELEMENT	ACES	ACTS	Gulf Lab	Tech Lab	Pioneer	Teyseer	QEL	DTL	QGEC	BATLABS	JEL	ITL	QIL	CTL	Geotechnical Group	Universal Lab	Ashghal
9.24	Oil & grease	APHA/AWWA 5520 B	√	√	√	√	-	-	-	-	-	√	-	-	-	-	-	-	-	√*
9.25	Total Chlorine	APHA/AWWA 4500-Cl G	√	√	√	√	√	-	-	√	√	-	-	-	-	-	-	-	-	√*
9.26	Residual Chlorine	APHA/AWWA 4500-Cl I	√	√	-	-	-	-	-	√	-	√	√	-	-	-	-	-	-	√
9.27	Free Chlorine	APHA/AWWA 4500-Cl G	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.28	Chloride	APHA/AWWA 4500-Cl B	√	√	√	√	√	-	-	-	√	√	√	-	-	√	-	-	-	√*
9.29	Chloride	APHA 4110-B	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	√*
9.30	Sulphate	APHA 4110-B	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.31	Nitrate	APHA 4110-B	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	√
9.32	Nitrite	APHA 4110-B	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	√
9.33	Fluride	APHA 4110-B	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.34	Iodide	APHA 4110-B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.35	Phosphate	APHA 4110-B	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.36	Phosphorous (total)	APHA/AWWA 4500-P D&C	√	√	-	√	√	-	-	-	√	√	√	-	-	√	-	-	-	√
9.37	Phenol Concentrations	APHA/AWWA 5530	-	√	-	-	-	-	-	-	-	√	-	-	-	-	-	-	-	-

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Environmental Tests (Cont.)

No.	Test	Standard	Laboratory																	
			ELEMENT	ACES	ACTS	Gulf Lab	Tech Lab	Pioneer	Teyseer	QEL	DTL	QGEC	BATLABS	JEL	ITL	QIL	CTL	Geotechnical Group	Universal Lab	Ashghal
9.38	Cyanide	APHA/AWWA 4500-CN C&E	-	-	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.39	Sulphate	APHA/AWWA 4500-SO4	√	√	√	√	√	-	-	√	√	√	√	-	-	√	-	-	-	√*
9.40	Sulphide	APHA/AWWA 4500--S2 E or F	√	√	√	-	√	-	-	√	-	√	-	-	-	-	-	-	-	√*
9.41	Fluoride	APHA/AWWA 4500F	√	-	-	√	√	-	-	-	√	√	-	-	-	-	-	-	-	-
9.42	Total Hardness	APHA/AWWA 2340-C	√	√	√	√	√	-	-	-	√	√	√	-	-	√	-	-	-	√
9.43	Calcium	APHA/AWWA 3500-Ca B	√	√	√	√	√	-	-	-	√	√	√	-	-	√	-	-	-	√
9.44	Magnesium Concentration by calculation	APHA/AWWA 3500-Mg B	-	√	√	√	√	-	-	-	√	√	√	-	-	√	-	-	-	√
9.45	Magnesium	APHA 3120-B	√	√	√	√	√	-	-	-	-	√	-	-	-	√	-	-	-	√
9.46	Calcium	APHA 3120-B	√	√	√	√	√	-	-	-	-	√	-	-	-	√	-	-	-	√*
9.47	Sodium	APHA 3120-B	√	√	√	√	√	-	-	-	-	-	-	-	-	√	-	-	-	√

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9.48	Potassium	APHA 3120-B	√	√	√	√	√	-	-	-	-	√	-	-	-	√	-	-	-	√
9.49	Iron	APHA 3120-B	√	√	√	√	√	-	-	√	-	√	-	-	-	√	-	-	-	√
9.50	Aluminum	APHA 3120-B	√	√	√	√	√	-	-	-	-	√	-	-	-	√	-	-	-	√
9.51	Arsenic	APHA 3120-B	√	√	√	√	√	-	-	-	-	√	-	-	-	√	-	-	-	√
9.52	Cadmium	APHA 3120-B	√	√	√	√	√	-	-	-	-	√	-	-	-	√	-	-	-	√
9.53	Chromium	APHA 3120-B	√	√	√	√	√	-	-	-	-	√	-	-	-	√	-	-	-	√
9.54	Cobalt	APHA 3120-B	√	√	√	√	√	-	-	-	-	√	-	-	-	√	-	-	-	√
9.55	Copper	APHA 3120-B	√	√	√	√	√	-	-	-	-	√	-	-	-	√	-	-	-	√*
9.56	Nickel	APHA 3120-B	√	√	√	√	√	-	-	-	-	√	-	-	-	√	-	-	-	√
9.57	phosphorous	APHA 3120-B	√	√	√	-	√	-	-	-	-	-	-	-	-	√	-	-	-	-
9.58	Zinc	APHA 3120-B	√	√	√	√	√	-	-	-	-	√	-	-	-	√	-	-	-	√
9.59	Silicon	APHA 3120-B	√	√	√	√	√	-	-	-	-	√	-	-	-	√	-	-	-	-
9.60	Silver	APHA 3120-B	√	√	√	√	√	-	-	-	-	-	-	-	-	√	-	-	-	-
9.61	Antimony	APHA 3120-B	√	√	√	√	√	-	-	-	-	√	-	-	-	√	-	-	-	-

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No.	Test	Standard	Laboratory																	
			ELEMENT	ACES	ACTS	Gulf Lab	Tech Lab	Pioneer	Teyseer	QEL	DTL	QGEC	BATLABS	JEL	ITL	QIL	CTL	Geotechnical Group	Universal Lab	Ashghal
9.62	Barium	APHA 3120-B	√	√	√	√	√	-	-	-	-	√	-	-	-	√	-	-	-	-
9.63	Beryllium	APHA 3120-B	√	√	√	√	√	-	-	-	-	√	-	-	-	√	-	-	-	-
9.64	Boron	APHA 3120-B	√	√	√	√	√	-	-	-	-	√	-	-	-	√	-	-	-	-
9.65	Manganese	APHA 3120-B	√	√	√	√	√	-	-	-	-	√	-	-	-	√	-	-	-	√*
9.66	Molybdenum	APHA 3120-B	√	√	√	√	√	-	-	-	-	√	-	-	-	√	-	-	-	-
9.67	Selenium	APHA 3120-B	√	√	√	√	√	-	-	-	-	√	-	-	-	√	-	-	-	-
9.68	Thallium	APHA 3120-B	√	√	√	√	√	-	-	-	-	√	-	-	-	√	-	-	-	-
9.69	Titanium	APHA 3120-B	√	√	√	√	√	-	-	-	-	√	-	-	-	√	-	-	-	-
9.70	Vanadium	APHA 3120-B	√	√	√	√	√	-	-	-	-	√	-	-	-	√	-	-	-	-
9.71	Lead	APHA 3120-B	√	√	√	√	√	-	-	-	-	√	-	-	-	√	-	-	-	√
9.72	Lithium	APHA 3120-B	√	√	√	√	√	-	-	-	-	-	-	-	-	-	-	-	-	-
9.73	Mercury	APHA 3120-B	√	√	√	√	√	-	-	-	-	-	-	-	-	√	-	-	-	√*
9.74	Tin	APHA 3120-B	-	-	√	√	√	-	-	-	-	-	-	-	-	√	-	-	-	√
9.75	Chromium(VI)	APHA 3500-Cr B	-	√	-	-	√	-	-	-	-	-	-	-	-	√	-	-	-	-
9.76	Bromide	APHA 4110-B	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-

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Environmental Tests (Cont.)

No.	Test	Standard	Local Labs																
			ELEMENT	ACES	ACTS	Gulf Lab	Tech Lab	Pioneer	Teyseer	QEL	DTL	QGEC	BATLABS	JEL	ITL	QIL	CTL	Geotechnical Group	Universal Lab	Ashghal
9.77	Bromate	APHA 4110-B	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.78	Total Alkalinity	APHA/AWWA 2320-B	√	√	√	√	√	-	-	√	√	√	√	-	-	√	-	-	-	√
9.79	Phenolphthalein Alkalinity	APHA/AWWA 2320-B	√	√	√	√	√	-	-	√	√	√	√	-	-	√	-	-	-	√*
9.80	Bicarbonate	APHA 2320-B	√	√	√	√	√	-	-	-	√	√	√	-	-	-	-	-	-	-
9.81	Carbonate	APHA 2320-B	√	√	√	√	√	-	-	-	√	√	√	-	-	-	-	-	-	-
9.82	Total Organic Carbon (TOC)	APHA/AWWA 5310-B or C	√*	√	√	-	√	-	-	-	-	-	-	-	-	√	-	-	-	√*
9.83	Residual Pesticides	EPA 608	√	-	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	√*
9.84	Zinc	APHA/AWWA 3125-B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.85	Lead	APHA/AWWA 3125-B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.86	Organic Hydrocarbon	APHA/AWWA/ 6200 volatile Organic Compounds	√	√	√	√	√	-	-	-	-	-	-	-	-	-	-	-	-	√*
9.87	Total Silicates	APHA/AWWA/ 4500-SiIO2-C	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	√*

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Environmental Tests (Cont.)

No.	Test	Standard	Local Labs																	
			ELEMENT	ACES	ACTS	Gulf Lab	Tech Lab	Pioneer	Teyseer	QEL	DTL	QGEC	BATLABS	JEL	ITL	QIL	CTL	Geotechnical Group	Universal Lab	Ashghal
9.88	Silicon, Aluminum	APHA/AWWA/ 3111 D Direct Nitrous Oxide – Acetylene flame method (AAS)	√	-	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	√*
9.89	Total Coliforms	APHA/AWWA 9222B & 9222D	√	√	-	√	-	-	-	√	-	-	-	-	-	-	-	-	-	√*
9.90	Fecal Coliform	APHA/AWWA-9222D	√	√	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	√*
9.91	E-Coli	APHA/AWWA-9223B IDEXX method	√	√	√	√	√	-	-	√	√	-	-	-	-	-	-	-	-	√*
9.92	Total Coliforms	APHA/AWWA-9223B IDEXX method	-	√	√	√	√	-	-	-	√	-	-	-	-	-	-	-	-	√
9.93	Fecal Coliform	APHA/AWWA-9223B IDEXX method	-	√	-	√	√	-	-	-	√	-	-	-	-	-	-	-	-	√
9.94	Nematodes (Helminths) Eggs	WHO, Lab manual of Parasitological and Bacteriological Techniques, 1996	-	√	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	√
9.95	Microscopic Examination	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	√*
9.96	Pseudomonas Aeruginosa	APHA 9213-E	-	√	√	√	-	-	-	-	√	-	-	-	-	-	-	-	-	-

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No.	Test	Standard	Local Labs																	
			ELEMENT	ACES	ACTS	Gulf Lab	Tech Lab	Pioneer	Teyseer	QEL	DTL	QGEC	BATLABS	JEL	ITL	QIL	CTL	Geotechnical Group	Universal Lab	Ashghal
9.97	Fecal Streptococcus/ Enterococcus	APHA 9230-C	-	-	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.98	Legionella	APHA 9260-J	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.99	Detection of Enterococci	APHA 9223-B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.100	Enteric Viruses	RT – PCR Methodology	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.101	Cryptosporidium	RT – PCR Methodology	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes: - It is the responsibility of the Engineer and Consultant to ensure the materials testing laboratory proposed by the Contractor is totally independent and has no relationship, inclusive of formal, financial, family or legal, or other with the Contractor or the Contractors Sub-contractors.
- (V*) means conditional approval
- (X) Means suspended test.

ملاحظات: - انها مسؤولية مهندس المشروع والاستشاري التأكد من عدم وجود صله بين المختبر المقترح والمقاول أو المقاول من الباطن بأي شكل كان سواء قانوني، مالي، عائلي أو خلافه.
- (V*) تعني اعتماد مشروط ولفتره محدودة. – (X) تعني الاختبار تم تعليقة بعد اعتماده.

10. Non Destructive Tests

No.	Test	Standard	Laboratory																
			ELEMENT	ACES	ACTS	Gulf Lab	Tech Lab	Pioneer	Teyseer	QEL	DTL	QGEC	BATLABS	JEL	ITL	QIL	CTL	Geotechnical Group	Universal Lab	Ashghal
10.1	Falling Weight Deflectometer	ASTM D4694	-	-	-	-	-	-	-	-	-	-	-	-	√	-	-	-	-	√*
10.2	Road Profilometer (IRI)	ASTM E950	-	√	√	-	-	-	-	√	√	-	-	-	√	-	-	-	-	√*
10.3	Measuring Rut-Depth of Pavement Surfaces Using a Straightedge	ASTM E1703	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10.4	Pavement Quality Indicator	ASTM D7113	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	√*
10.5	Rebound Hammer Test for Concrete	ASTM C805	-	√	√	-	-	-	-	√	√	√	√	√	-	√	√	√	-	√
10.6	Concrete Cover Determination	BS 1881 Part 204	-	√	√	√	√	-	-	-	√	√	-	-	-	√	√	-	-	-
10.7	Ultrasonic Pulse Velocity	BS EN 12504 Part 4	-	√	√	-	√	-	-	√	√	√	-	√	-	√	√	√	-	-
10.8	Crack Width Gauge	Gauge Manual	-	√	√	-	√	-	-	-	√	-	-	-	-	-	-	-	-	-
10.9	Crack Measurement Microscope	Microscope Manual	-	√	√	-	√	-	-	-	-	√	-	-	-	√	-	-	-	-
10.10	Pile Integrity (Pulse Echo Test)	ASTM D5882	-	√	√	-	-	-	-	√	√	-	-	-	-	√	-	-	-	-
10.11	Pile Integrity (Cross Hole Test)	ASTM D6760	-	√	√	-	-	-	-	√	-	-	-	-	-	√	-	-	-	-

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Non-Destructive Tests (Cont.)

No.	Test	Standard	Laboratory																
			ELEMENT	ACES	ACTS	Gulf Lab	Tech Lab	Pioneer	Teyseer	QEL	DTL	QGEC	BATLABS	JEL	ITL	QIL	CTL	Geotechnical Group	Universal Lab	Ashghal
10.12	Pile Dynamic Test	ASTM D4945	-	√	√	-	-	-	-	√	-	-	-	-	-	√	-	-	-	-
10.13	Caliper Logging of Borehole	ASTM D6167	-	√	-	-	-	-	-	-	-	-	-	-	-	√	-	-	-	-
10.14	Coating Pull-Off Test	ASTM D4541	-	√	√	-	-	-	-	√	√	-	-	-	-	√	√	-	-	-
10.15	Coating Thickness Measurement	ASTM D7091 / D6132	-	√	-	-	-	-	-	√	√	-	-	-	-	√	-	-	-	-
10.16	Holiday Detection of Coating	ASTM D4787 / D5162	-	√	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-	-
10.17	Magnetic Particle Inspection	ASTM E709 / ASME - Sec. V	-	√	√	-	-	-	-	-	-	-	-	-	-	√	-	-	-	-
10.18	Dye Penetration Test	ASTM E165 / ASME - Sec. V	-	√	√	-	-	-	-	-	-	-	-	-	-	√	-	-	-	-

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11. Geotextiles & Waterproofing Tests

No.	Test	Standard	Laboratory																	
			ELEMENT	ACES	ACTS	Gulf Lab	Tech Lab	Pioneer	Teyseer	QEL	DTL	QGEC	JEL	BATLABS	ITL	QIL	CTL	Geotechnical Group	Universal Lab	Ashghal
GEOTEXTILES TESTING																				
11.1	Breaking Strength and Elongation of Textile Fabrics (Grab Test).	ASTM D5034	-	√	√	-	-	-	-	√*	√	-	-	-	-	√	-	-	-	-
11.2	Textiles Puncture Resistance.	ASTM D751	-	√	√	-	-	-	-	√*	√	-	-	-	-	√	-	-	-	-
11.3	Textiles Bursting Strength.	ASTM D3787	-	√	√	-	-	-	-	√*	√	-	-	-	-	√	-	-	-	-
11.4	Trapezoid Tearing Strength of Geotextiles.	ASTM D4533	-	√	√	-	-	-	-	√*	√	-	-	-	-	√	-	-	-	-
11.5	Static Puncture Test (CBR Test)	BS EN ISO 12236	-	√	√	-	-	-	-	√*	√	-	-	-	-	√	-	-	-	-
11.6	Tensile Strength &Elongation At Rupture.	BS EN ISO 10319	-	√	√	-	-	-	-	√*	√	-	-	-	-	√	-	-	-	-
11.7	Breaking Strength and Elongation of Textile (strip Test).	ASTM D5035	-	√	√	-	-	-	-	√*	√	-	-	-	-	√	-	-	-	-
11.8	Dynamic Perforation Test (Cone Drop Test)	BS EN ISO 13433	-	√	√	-	-	-	-	√*	√	-	-	-	-	√	-	-	-	-
11.9	Water Permeability	BS EN ISO 11058	-	√	√	-	-	-	-	-	√	-	-	-	-	√	-	-	-	-
11.10	Pore Size	BS EN ISO 12956	-	√	-	-	-	-	-	√*	√	-	-	-	-	√	-	-	-	-
11.11	Determination Of Mass Per Unit Area (Weight)	BS EN 12127	-	√	√	-	-	-	-	√*	√	-	-	-	-	√	-	-	-	-
11.12	Measuring The Nominal Thickness Of Geosynthetics	ASTM D5199	-	√	√	-	-	-	-	√*	√	-	-	-	-	√	-	-	-	-
11.13	Determination Of Thickness Of Textiles	BS EN ISO 5084	-	-	√	-	-	-	-	√*	√	-	-	-	-	√	-	-	-	-

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No.	Test	Standard	Laboratory																	
			ELEMENT	ACES	ACTS	Gulf Lab	Tech Lab	Pioneer	Teyseer	QEL	DTL	QGEC	JEL	BATLABS	ITL	QIL	CTL	Geotechnical Group	Universal Lab	Ashghal
WATERPROOF MEMBRAINS & PLASTIC LINER TESTING																				
11.14	Determination of Tensile Properties for plastic	ASTM D 638	-	√	√	-	-	-	-	√*	√	-	-	-	-	√	-	-	-	-
11.15	Determination of Tensile Properties for plastic	BS EN ISO 527 Part 3	-	√	√	-	-	-	-	√*	√	-	-	-	-	√	-	-	-	-
11.16	Tensile strength of Vulcanized Rubber and Thermoplastic Elastomers	ASTM D 412	-	√	√	-	-	-	-	√*	-	-	-	-	-	√	-	-	-	-
11.17	Initial Tear Resistance of Plastic Film and Sheeting	ASTM D 1004	-	√	√	-	-	-	-	√*	√	-	-	-	-	√	-	-	-	-
11.18	Pressure-Sensitive Adhesion to Primed Concrete	ASTM D 1000	-	√	√	-	-	-	-	-	√	-	-	-	-	√	-	-	-	-
11.19	Puncture Resistance of Ground Covers	ASTM E 154	-	√	√	-	-	-	-	√*	√	-	-	-	-	√	-	-	-	-
11.20	Water Absorption of Plastics	ASTM D 570	-	√	√	-	-	-	-	√*	√	-	-	-	-	√	-	-	-	-
11.21	Resistance of Plastics to Chemical Reagents	ASTM D 543	-	√	-	-	-	-	-	√*	√	-	-	-	-	√	-	-	-	-
11.22	Water Vapor Transmission rate	ASTM E 96	-	√	√	-	-	-	-	-	√	-	-	-	-	√	-	-	-	-
11.23	Brittleness Temperature of Plastics and Elastomers by Impact	ASTM D 746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11.24	Determination of Durometer Hardness	ASTM D 2240	-	√	-	-	-	-	-	√*	-	-	-	-	-	√	-	-	-	-
11.25	Determination of thickness and mass per unit area of Bitumen sheets for roof waterproofing	BS EN 1849-1	-	-	√	-	-	-	-	√*	√	-	-	-	-	√	-	-	-	-

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Geotextiles & Water Proofing Tests (Cont.)

No.	Test	Standard	Laboratory																	
			ELEMENT	ACES	ACTS	Gulf Lab	Tech Lab	Pioneer	Teyseer	QEL	DTL	QGEC	JEL	BATLABS	ITL	QIL	CTL	Geotechnical Group	Universal Lab	Ashghal
WATERPROOF MEMBRAINS & PLASTIC LINER TESTING																				
11.26	Determination of thickness and mass per unit area of Plastic and rubber sheets	BS EN 1849-2	-	√	√	-	-	-	-	√*	-	-	-	-	-	√	-	-	-	-
11.27	Dimensions Measurement of Rubber	ASTM D 3767	-	-	√	-	-	-	-	√*	-	-	-	-	-	√	-	-	-	-

Notes: - It is the responsibility of the Engineer and Consultant to ensure the materials testing laboratory proposed by the Contractor is totally independent and has no relationship, inclusive of formal, financial, family or legal, or other with the Contractor or the Contractors Sub-contractors.

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12. Leakage Testing of Buildings

No.	Test	Standard	Laboratories																	
			ELEMENT	ACES	ACTS	Gulf Lab	Tech Lab	Pioneer	Teyseer	QEL	DTL	QGEC	JEL	BATLABS	ITL	QIL	CTL	Geotechnical Group	Universal Lab	Ashghal
12.1	Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences	ASTM E283	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
12.2	Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Static Air Pressure Difference	ASTM E330	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
12.3	Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference	ASTM E331	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
12.4	Air Permeability of Doors and Windows	BS EN 1026	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
12.5	Water tightness of Doors and Windows	BS EN 1027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
12.6	Doors and Windows Resistance to Wind Loads	BS EN 12211	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
12.7	Air Permeability of Curtain Walling	BS EN 12153	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
12.8	Water Tightness of Curtain Walling under Static Pressure	BS EN 12155	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-

Leakage Testing of Buildings (Cont.)

No.	Test	Standard	Laboratories																	
			ELEMENT	ACES	ACTS	Gulf Lab	Tech Lab	Pioneer	Teyseer	QEL	DTL	QGEC	JEL	BATLABS	ITL	QIL	CTL	Geotechnical Group	Universal Lab	Ashghal
12.9	Resistance to Wind Load of Curtain Walling	BS EN 12179	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
12.10	Air Permeability of Buildings	BS EN 13829	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
12.11	Water Penetration using Dynamic Pressure for Windows, Curtain Walls and Doors	AAMA 501.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
12.12	Water leakage field check for Storefronts, Curtain Walls and Sloped Glazing Systems	AAMA 501.2	-	-	-	-	-	-	-	√	-	-	-	-	-	-	-	-		-

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13. Paints &varnishes Tests

No.	Test	Standard	Laboratory																
			ELEMENT	ACES	ACTS	Gulf Lab	Tech Lab	Pioneer	Teyseer	QEL	DTL	QGEC	JEL	BATLABS	ITL	QIL	CTL	Geotechnical Group	Universal Lab	Ashghal
PAINTS &VARNISHES TESTING																				
13.1	Density of Liquid Coatings, Inks &paints	ASTM D1475	-	√	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-	-
13.2	Measurement of Dry-Film Thickness of Organic Coatings	ASTM D1005	-	√	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-	-
13.3	Measurement of Wet Film Thickness of Organic Coatings	ASTM D1212	-	√	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-	-
13.4	Scrub Resistance of Wall Paints	ASTM D2486	-	√	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-	-
13.5	Viscosity of Paints	ASTM D562	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.6	Sag Resistance of Paints	ASTM D4400	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.7	Measurement of specular gloss of non-metallic paint films	BS EN ISO 2813	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.8	Fineness of Dispersion of Pigment-Vehicle Systems	ASTM D1210	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.9	Determination of color and color difference	ISO 7724-2	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.10	Comparison of contrast ratio	BS EN ISO 2814	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.11	Determination of pH value of aqueous suspension	BS EN ISO 787-9	-	√	√*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.12	Cross-cut test of paints &varnishes	BS EN ISO 2409	-	√	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-	-
13.13	Adhesion (Pull off) strength	ASTM D4541	-	√	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-	-

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Paints &Varnishes Tests (Cont.)

No.	Test	Standard	Laboratory																	
			ELEMENT	ACES	ACTS	Gulf Lab	Tech Lab	Pioneer	Teyseer	QEL	DTL	QGEC	JEL	BATLABS	ITL	QIL	CTL	Geotechnical Group	Universal Lab	Ashghal
13.14	Pigment Content of Water-Emulsion Paints by Low-Temperature Ashing	ASTM D3723	-	√	√*	-	-	-	-	√	-	-	-	-	-	-	-	-	-	-
13.15	Determination of resistance to liquids	ASTM D5401	-	√	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-	-
13.16	Pigments for the coloring of building materials	BS EN 12878	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.17	Determination Volatile Content of Coatings	ASTM D2369	-	√	√*	-	-	-	-	√	-	-	-	-	-	-	-	-	-	-
13.18	Determination of the Nonvolatile Content	ASTM D5095	-	-	-	-	-	-	-	√*	-	-	-	-	-	-	-	-	-	-
13.19	Bend Test of Attached Organic Coatings	ASTM D522	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.20	Bend test of Paints and varnishes	BS EN ISO 1519	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.21	Abrasion Resistance of Organic Coatings by the Taber Abraser	ASTM D4060	-	√	√*	-	-	-	-	√	-	-	-	-	-	√	-	-	-	-
13.22	Tensile Properties of Organic Coatings	ASTM D2370	-	√	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.23	Fluorescent UV-Condensation Exposures of Paint and Related Coatings	ASTM D4587	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
132.4	Filtered Open-Flame Carbon-Arc Exposures of Paint and Related Coatings	ASTM D822	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.25	Drying, Curing, or Film Formation of Organic Coatings at Room Temperature	ASTM D1640	-	√	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-	-

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Paints &Varnishes Tests (Cont.)

No.	Test	Standard	Laboratory																	
			ELEMENT	ACES	ACTS	Gulf Lab	Tech Lab	Pioneer	Teyseer	QEL	DTL	QGEC	JEL	BATLABS	ITL	QIL	CTL	Geotechnical Group	Universal Lab	Ashghal
13.26	Rheological Properties of Non-Newtonian Materials by Rotational Viscometer	ASTM D2196	-	√	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-	-
13.27	Alkali Resistance	ASTM D1647	-	√	-	-	-	-	-	√	-	-	-	-	-	-	-	-	-	-

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هيئة الأشغال العامة
إدارة الجودة و السلامة
قسم المختبرات - وحدة مراقبة المختبرات

Approved Laboratories Contact Details

1. Local Laboratories:

No.	Laboratory Name	Tel.	Fax	P.O. Box	E. Mail
	قطر للمختبرات الهندسية (QEL)	44515401	44515317	40278	qel@qel.com.qa

REGISTRATION CERTIFICATE

الهيئة العامة القطرية للمواصفات والتقييس
Qatar General Organization for Standardization

REGISTRATION CERTIFICATE

شهادة تسجيل مختبر خاص

وفقاً للائحة الصادرة بقرار وزير البلدية والبيئة رقم (٣٥٦) لسنة ٢٠١٧م
According to the Ministerial Decree No. (356)/2017

No: RL011 -19

Date of Issue:	16/08/2021	تاريخ اصدار الشهادة:
Date of Expiry :	15/08/2022	الصلاحية حتى:
Lab Name:	قطر للمختبرات الهندسية ذ.م.م Qatar Engineering Laboratories W.L.L.	اسم المختبر:
Address:	المنطقة الصناعية، شارع ٥٠، بوابة٢٦، ص.ب: ٤٠٢٧٨، الدوحة – قطر Industrial Area, Street 50, Gate 26, P.O.Box: 40278 Doha-Qatar	العنوان:
CR No:	38301	رقم السجل التجاري :
Activity:	Testing (Material, Geotechnical)	النشاط:
Scope of Registration:	Attached Scope of accreditation No: IAS TL-424 مرفق مجال الاعتماد شهادة رقم:	مجال التسجيل:

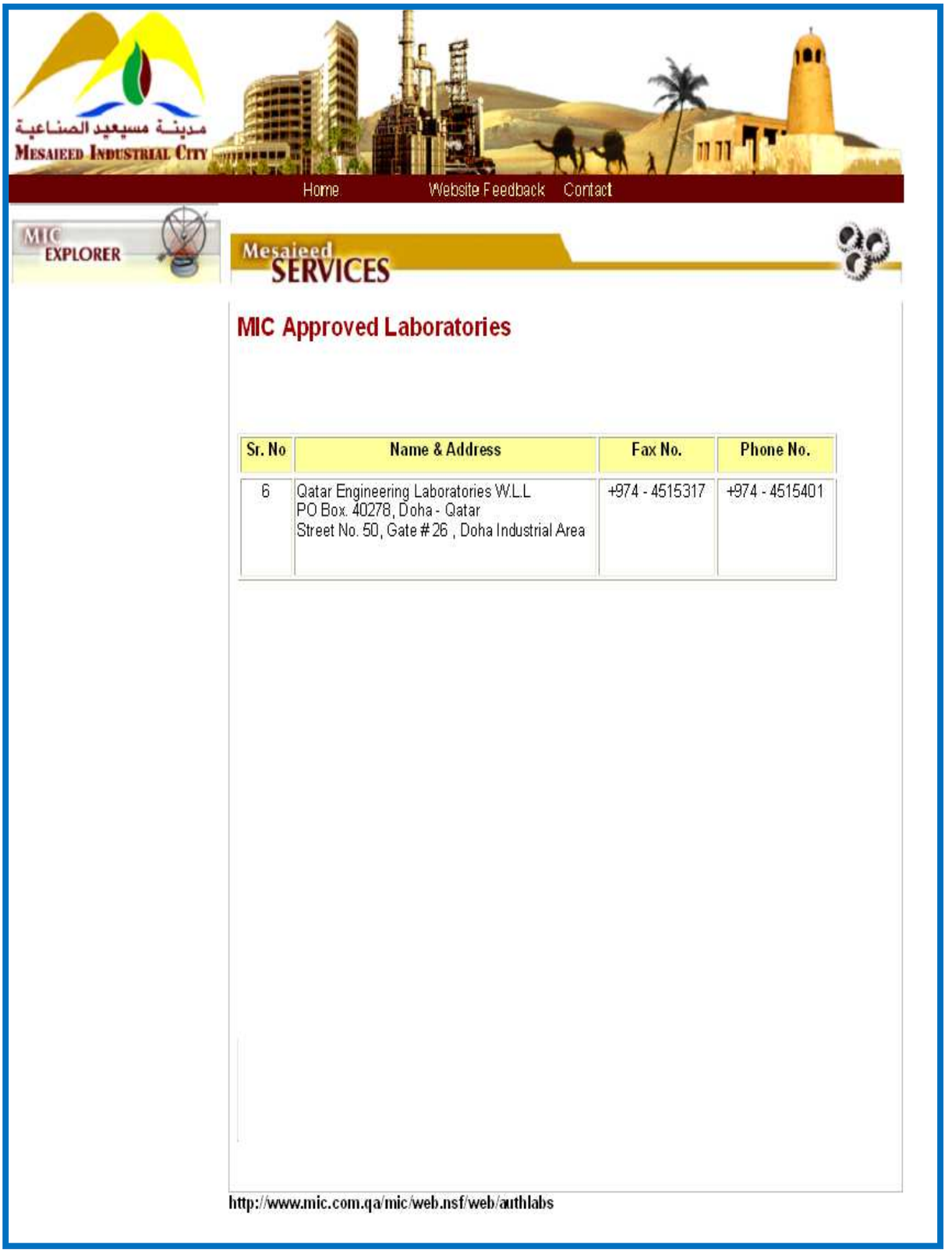
Notes:

1. QS has no any responsibility for poor performance by this lab during the validity period.
2. This certificate will remain valid for the period specified, subject to compliance with the Technical Regulations.
3. This certificate is invalid without the attached scope of accreditation
3. It is important to apply two months before expiry date of validity for renewal of this conformity certificate.
4. The required fee for this certificate has been stated according to the decision No. (112)/2019

Recommended by: .....
Head of CC Section

Authorized by: .....
Director of Quality & Conformity Dept

Approved by: .....
PRESEDENT, QGOS



MIC Approved Laboratories

Sr. No	Name & Address	Fax No.	Phone No.
6	Qatar Engineering Laboratories W.L.L PO Box. 40278, Doha - Qatar Street No. 50, Gate # 26 , Doha Industrial Area	+974 - 4515317	+974 - 4515401

http://www.mic.com.qa/mic/web.nsf/web/authlabs

US Army Corps of Engineers
Al Udeid Air Base – Qatar

CERTIFICATE OF APPRECIATION
IS AWARDED TO:

QATAR ENGINEERING LABORATORY
(Material Testing Laboratory)

For Outstanding service & support to the US Army Corps of Engineers.
Your professionalism, dedication and genuine concern in providing quality service while employed with American International Contractors, Inc. at the Tactical Ramp and Vehicle Maintenance Facility - Project Contract W912ER-11-D-0001-0007, has been exemplary and reflects distinct credit upon you and your employer.
Everyday your efforts are translated into the history books.

A. M. Botros

Adel M. Botros, PE
Resident Engineer - COR
USACE - Qatar Area

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, TRANSATLANTIC MIDDLE EAST DISTRICT
201 PRINCE FREDERICK DRIVE
WINCHESTER, VIRGINIA 22602-4373

8 April 2021

Qatar Engineering Laboratories W.L.L.
Street No. 50, Gate No. 26
Doha Industrial Area
Doha, Qatar

Email: arun.bhasi@qelqatar.com

SUBJECT: Qatar Engineering Laboratories W.L.L. at Doha, Qatar - Laboratory Validation
VALIDATION EXPIRES 16 May 2022

Dear Mr. N. Sabu,

This letter confirms the extension of our validation for the Qatar Engineering Laboratories W.L.L. materials testing laboratory located at Doha, Qatar.

This laboratory is approved to perform the materials tests listed on Tables 1-5 of your initial validation letter for Middle East District (MED), U.S. Army Corps of Engineers (USACE) projects. This validation is based on the laboratory inspection performed by MED 11 March 2017.

This validation will be included with records that are maintained at the MED Headquarters in Winchester, Virginia. This validation is valid until **16 May 2022**. To maintain certification past this date, the laboratory must be re-inspected by MED.

This validation applies only to the location(s) listed above and is contingent upon the laboratory's continued adherence to applicable testing and quality control standards and equipment calibrations. MED may revoke this certification or require re-inspection at any time.

The inspection and validation process for the laboratory adhered to procedures outlined by the Materials Testing Center (MTC), which is located at the Geotechnical and Structures Laboratory (GSL), U.S. Army Engineer Research and Development Center (ERDC) in Vicksburg, Mississippi, USA. To facilitate construction in Gulf Region countries, MED conducts laboratory validations in accordance with MTC protocol.

Questions about this certification or requests for renewal should be sent to DLL-CETAM-CONSTRUCTION-LAB@USACE.ARMY.MIL.

UPSON.EDWARD.O.1387025908
Digitally signed by UPSON.EDWARD.O.1387025908
Date: 2021.04.08 13:49:00 -04'00'

Edward O. Upson, P.E., PMP
Middle East District
U.S. Army Corps of Engineers

KAHRAMAA المؤسسة العامة القطرية للكهرباء والماء
Qatar General Electricity & Water Corporation
Technical Affairs- Water Projects Department

KEO كيو انترناشيونال كونسلتنتس
KEO International Consultants

the C.A.T. group

DOCUMENT SUBMITTAL

Project [1] :	Afjat Muaither RPS & Associated Pipelines	**Contract no.**[2]:	GTC-899/2017
From[3]	Elie Nseir	**To**[4]	Engr. Jabr Rashid Al Nuaimi
Company	C.A.T. International Qatar W.L.L.	**Company**	Kahramaa

Submittal No:[5]	GTC899-CAT-G-QFN-19-003	**Submitted For:**[8]	Approval	☒
Revision No:[6]	0		Information	☐
Date:[7]	23/07/2019		As Requested	☐

Discipline:[9] ☐ Architectural ☐ Civil ☐ Structural ☐ Electrical ☐ Mechanical ☐ Instrumentation ☒ General

Type of submittal [10]

- ☐ Design drawing (DWG)
- ☐ Issue for construction drawings (IFC)
- ☐ Shop drawing (SHD)
- ☐ -Built drawings (ABD)
- ☐ etch (SKT)
- ☐ ata sheet (DTS)
- ☐ esign calculation (DEC)
- ☐ Inspection & test plan (ITP)
- ☐ * Materials (MAT)
- ☐ Method statement (MST)
- ☐ Organization chart/CV (OCV)
- ☒ Pre-qualification (QFN)
- ☐ Program & schedule (PGS)
- ☐ Project quality plan (PQP)
- ☐ Reports; progress, quality, FAT… (RPT)
- ☐ Test result / certificates (TRC)
- ☐ Tender documents (TDR)
- ☐ HSE plan/report (HSE)
- ☐ Operation & Maintenance Manual (OMM)
- ☐ Procedures/Forms/ checklist (FRC)
- ☐ Other (OTH)

mittal description: [11] * For materials: Include Materials description, Brand name, item code, Manufacturer & supplier with address.

awing/ Document No.	Rev.	Description	No of Pages
899-CAT-G-QFN-19-003	0	Prequalification/Subcontractor's Approval: Qatar Engineering Laboratories W.L.L. – Independent (Third Party) Material Testing Laboratory NDT and Geotechnical Consultants	155
		P.O. Box 40278, Doha- Qatar	
		Tel: +974 44515401, 44515320, 44515326 Fax: +974 44515317	

hment: Hard- 01 copies + CD-00copies+Samples 00 nos., (* Required; data sheet, compliance statement, other supporting docs.)

KM Specification/QCS/BOQ/Drawing/Codes [12]	Location/ use [13]
ope of Works - Appendix A Article 1.28	GTC-899/2017

aration [14]: This is to certify that this submission has been verified and found in compliance with the contract requirements.

Gina D. Salac	Rony Seyouri	Elie Nseir
epared by: Name/Sig. / date	QA/QC Reviewed by: Name/ Sig./ date	Approved by: Name/Sig./ date

ultant's Comments [15]

Approved, The certificate of Conformity for the genenal requirements of materials testing laboratory is about to expire on 28-7-2019. To be renewed.

ewed by:	Approved by:
e/ Signature: Anmar AL-Najjar Date: 25/7/19	Name/ Signature; Anmar AL-Najjar Date: 25/7/19

Comments By KAHRAMAA [16]

☐ A - APPROVED ☑ B - APPROVED WITH COMMENTS ☐ C - REVISE & RESUBMIT ☐ D - REJECTED ☐ N - NOTED

Reviewed by(Name):	Approved by (Name) :	Approved by (Name):
Sig.: Date: 25/7	Sig.: Date:	Sig.: Date:
Dept./ Section:	Dept./ Section:	Dept./ Section: 28 JUL 2019

Acknowledged by (put stamps here from left towards right in sequence of date of receipt)

17			
Receipt 1	Receipt 2	Receipt 3	Receipt 4
TW 23 JUL 2019 RECEIVED	TW 23 JUL 2019 RECEIVED		

Qatar General Electricity & Water Corporation

Technical Affairs- Water ProjectsDepartment

DOCUMENT SUBMITTAL

Project:	CONSTRUCTION OF MEGA RESERVOIR PRPS 4 – ABU NAKHLA	**Contract no.:**	GTC/626E/2014	
From	MR.WANG SHAOHUA	**To**	MR. JABR RASHID AL NUAIMI, TWM	
Company	CGGC-BURHAN JOINT VENTURE	**Company**	QATAR GENERAL ELECTRICITY & WATER CORPORATION (KAHRAMAA)	
			CC:DDSSC,PMC	
Submittal No:	WMR-CGB-PR4-DSK-15-0088 R GTC626E-CGB-G-QFN-15-002	**Submitted For:**	Approval	☒
Revision No:	3		Information	☐
Date:	10th AUGUST 2015		As Requested	☐

Discipline: ☐ Architectural ☐ Civil ☐ Structural ☐ Electrical ☐ Mechanical ☐ Instrumentation ☒ General

Type of submittal

- ☐ Data sheet (DTS)
- ☐ Design calculation (DEC)
- ☐ Design Drawing (DWG)
- ☐ As-Built Drawings (ABD)
- ☐ Sketch (SKT)
- ☐ Shop Drawing (SHD)
- ☐ Forms/ checklist (FRC)
- ☐ Inspection & Test Plan (ITP)
- ☐ * **Materials** (MAT)
- ☐ Method Statement (MST)
- ☐ Organization Chart/CV (OCV)
- ☒ Pre-Qualification (QFN)
- ☐ Program & schedule (PGS)
- ☐ Project Quality Plan (PQP)
- ☐ Reports (progress, quality, FAT etc.) (RPT)
- ☐ Test Result / Certificates (TRC)
- ☐ Other (OTH)

Submittal description: * For materials: Include Materials description, Brand name, item code, Manufacturer & supplier with address.

Drawing / Document No.	Rev.	Description	No. of Pages
WMR-PR4-54-00-V002	D	PREQUALIFICATION DOCUMENTS OF MATERIAL TESTING FOR THIRD PARTY LAB QATAR ENGINEERING LABORATORIES W.L.L	28

Attachment: Hard- 01 copies + CD-01copies.

Ref. KM Specification/QCS/BOQ/Drawing/Codes	Location/ use
.....	.....

Declaration: This is to certify that this submission has been verified and found in compliance with the contract requirements.

JASON B. QUIZON
Prepared by: Name/Sig. / date

XIONG WENTAO
Reviewed by: Name/ Sig./ date

WANG SHAOHUA
Approved by: Name/Sig./ date 10th Aug 2015

Consultant's comments/ Recommendation Please find attached comments from DDSSC/PMC

Reviewed by: Name/ Signature: ..... Date: 17/08/15

Approved by: Name/ Signature: ..... Date: .....

Comments By KAHRAMAA

☐ A - APPROVED ☒ B - APPROVED WITH COMMENTS ☐ C - REVISE & RESUBMIT ☐ D - REJECTED ☐ N – NOTED

Reviewed by:(Name):	**Approved by: (Name) :**	**Approved by: (Name) :** .....
Sig. : ..... **Date;**	**Sig. :** ..... **Date;** 18 AUG 2015	**Sig. :** ..... **Date;** 18 AUG 2015
Dept/ Section:	**Dept/ Section:**	**Dept/ Section:** .....

Receipt 1	Receipt 2	Receipt 3	Receipt 4
17 AUG 2015			

Acknowledged by (put stamps here from left towards right in sequence of date of receipt)

KAHRAMAA

المؤسسة العامة القطرية للكهرباء والماء

Qatar General Electricity & Water Corporation

Technical Affairs- Water Projects Department

DOCUMENT REVIEW SHEET

Project	Construction of Mega Reservoirs PRPS 4 – ABU NAKHLA	Date: 13.08.2015
Project no.	GTC 626/2014E	

Submittal ref. no	WMR-CGB-PR4-DSK-15-0088	Submittal Date: 10.08.2015 Received Date: 10.08.2015
Submittal type	PREQUALIFICATION DOCUMENTS OF MATERIAL TESTING FOR THIRD PARTY LAB QATAR ENGINEERING LABORATORIES W.L.L	

Discipline	☐ Architectural	☐ Civil	☐ Structural	☐ Electrical	☐ Mechanical	☐ Instrumentation	■ General

Sl. No.	Document/ drawing no.	Rev. no.	Section	Comments by Kahramaa	Review Status	Remarks
01	WMR-PR4-54-00-V002	D	IWPT-88-B	Except para 3.1, all other sections are copy of IWPT-87. Rectify the duplication.	B	Approved with comments

Reviewed by: Signature:	Name:	Designation:	Date:
	Badie Altimimi	Chief Resident Engineer	13.08.2015

KAHRAMAA المؤسسة العامة القطرية للكهرباء والماء
Qatar General Electricity & Water Corporation

Technical Affairs- Water Projects Department

DOCUMENT REVIEW SHEET

Project	Transmission Pipeline Associated with Qatar Economic Zone (QEZ) Desalination Plant	Date: 07.12.2014
Project no.	GTC 606/2013	

Submittal ref. no	WMR-SGL-QEZ-DSK-14-0035	Submittal Date: 23.11.2014 Received Date: 23.11.2014
Submittal type	Prequalification Documents of Third Party Laboratory – Qatar Engineering Laboratories	

Discipline	☐ Civil	☐ Electrical	☐ Mechanical	☑ Others

Sl. No.	Document/ drawing no.	Rev. no.	Section	Comments by Kahramaa	Review Status	Remarks
01	WMR-QEZ-25-00-V010	A	N/A	• The document checked and found satisfactory • SGL should provide details of the tests to be carried out by QEL	B	Approved with comments

Reviewed by: Signature:	Name:	Designation:	Date:
	Badie Altimimi	Chief Resident Engineer	07.12.2014

KAHRAMAA Qatar General Electricity & Water Corporation — ENERGOPROJEKT ENTEL LTD — Hyder — SINOHYDRO

Technical Affairs- Water Projects Department

DOCUMENT SUBMITTAL

Project :	**Transmission Pipeline Associated with QEZ Desalination Plant**	**Contract no.: GTC 606/2013**			
From	**Mr. Fan Lianyong**	**To**	**Eng. Mohammed Salem Al Mansoori**		
Company	**Sinohydro Group Limited**	**Company**	**Qatar General Electricity & Water Corporation**		
			CC: PMC Hyder		
Submittal No:	WMR-SGL-QEZ-DSK-14-0035 _R	**Submitted For:**	Approval	☒	
Revision No:	A		Information	☐	
Date:	Nov. 23, 2014		As Requested	☐	

Discipline: ☐ Civil ☐ Electrical ☐ Mechanical ☐ Structural ☐ Architectural ☒ Others (CVs)

Type of submittal

☐ Drawing	☐ Test Result / Certificates	☐ Program & schedule
☐ Design calculation	☐ Reports	☐ Forms/ checklist
☐ Data sheet	☒ Pre-Qualification	☐ Quality Plan
☐ Materials*	☐ Sketch	☐ Organization Chart
☐ Method Statement / Inspection & Test Plan		

Submittal description: * For materials: Include Materials description, Brand name, item code, Manufacturer & supplier with address.

Drawing / Document No.	Rev.	Description	No. of pages
WMR-QEZ-25-00-V010	A	Prequalification Documents of Third part laboratory QATAR ENGINEERING LABORATORIES W.L.L.(QEL)	64

Attachment: Hard- 02copies + CD-02 copies (* Required; data sheet , compliance statement, other supporting docs.)

Ref. KMSpecification/QCS/BOQ/Drawing/Codes	Location/ use

Declaration: This is to certify that this submission has been verified and found in compliance with the contract requirements

Yuan Yang 23/11/14 — **Prepared by: Name/Sig. / date**

Sun Zhanyong 23/11/2014 — **Reviewed by: Name/ Sig./ date**

Fan Lianyong 23/11/2014 — **Approved by: Name/Sig./ date**

Consultant's comments/ Recommendation Please find attached comments from DDSSC/PMC

Reviewed by: Name/ sig. ..... **Date** 09/12/14

Approved by: Name/ Signature; **Date:** .....

Comments by KAHRAMAA

☐ A - APPROVED ☐ C - REVISE & RESUBMIT ☐ N - NOTED

☒ B - APPROVED WITH COMMENTS ☐ D - REJECTED

Reviewed by: (Name) :	Approved by;(Name) :	Approved by(Name):
Sig. : .....Date; 11/12	Sig.: ..... Date:	Sig.:..... Date: .....
Dept./ Section:	Dept./ Section:	Dept./ Section: .....

Receipt 1	Receipt 2	Receipt 3	Receipt 4
09 DEC 2014			

KAHRAMAA المؤسسة العامة القطرية للكهرباء والماء
Qatar General Electricity & Water Corporation

Technical Affairs- Water Projects Department

DOCUMENT REVIEW SHEET

Project	Transmission Pipeline Associated with Qatar Economic Zone (QEZ) Desalination Plant	Date: 21.03.2015
Project no.	GTC 606/2013	

Submittal ref. no	WMR-SGL-QEZ-DSK-15-0029	Submittal Date: 08.03.2015 Received Date: 09.03.2015
Submittal type	Prequalification Document of Third Party Laboratory – Qatar Engineering Laboratories W.L.L. (QEL)	

Discipline	☐ Civil	☐ Electrical	☐ Mechanical	☐ Structural	☐ Architectural	☑ Others

Sl. No.	Document/ drawing no.	Rev. no.	Section	Comments by Kahramaa	Review Status	Remarks
01	WMR-QEZ-25-00-V010	B	N/A	• All previous comments addressed	A	Approved

Reviewed by: Signature:	Name:	Designation:	Date:
	Badie Altimimi	Chief Resident Engineer	21.03.2015

PARSONS
PARSONS INTERNATIONAL LIMITED
P. O. Box 2091, Doha, Qatar • Tel: (+974) 4405 8444 • Fax: (974) 4437 7434 • www.parsons.com • dohaptg.parsons@parsons.com

Date : 04 February 2019

Transmittal Ref: GEC-DW044(P1)-TN-0023

To : **Ramy Abdellatif**
Project Manager
Bin Omran Trading and Contracting L.L.C
Qatar Tower No.35. Floor 21
Doha, Qatar

Material sent via:
☐ Hand Delivered ☐ Fax
☐ **E-mail** ☐ _____

Project: **Contract 2 - GEC Services for Local Roads and Drainage Programme DW044 P01 (Package 1) Roads and Infrastructure in Al Mearad and Southwest of Muaither**

Subject: **Prequalification for the Subcontractor Qatar Engineering Laboratories**

We are sending you the following:

☐ Drawings ☐ MOM ☐ Plans
☐ Copy of Letter ☐ Report ☐ Change Order
☐ Calculations ☐ Drawings ☒ Approval Form

S#	Document No.	Document Title	Rev	Copy (Hard/Soft)	Remarks
1	DW044-P01-BTC-CON-APR-A10042	Prequalification for the Subcontractor Qatar Engineering Laboratories	00	Hard Copy	1 Hard

These are transmitted for:

☐ For Action ☐ For Review & Comment ☐ With Our Comments Marked in Red
☐ For Your Use ☐ As Requested ☒ For Information and Records

Status: Approved

Regards,

P.P. **Mohamed Boutaleb**
Construction Director

Received
BIN OMRAN
Name:
Date: 06-02-19 Time: 3:16
Signature:

Received by: _____ Date: _____ Signature: _____

Sub-Contractor Approval Request

PMC-FM-CON-0302	Local Roads & Drainage Programme	Revision:	2	Date:	Oct 2016

Document No:	DW044-P01-BTC-CON-APR-A10042 DW044-P01-BTC-CON-PQD-A10044	Revision No:	00
Project Title:	Roads & Infrastructure in Al Mearad and Southwest Muaither Package-01 (DW044)	Project No:	IA 2018 C 012 G
Contractor:	Bin Omran Trading and Contracting L.L.C.	Date:	07-Jan-2019
GEC:	Parsons International Ltd	Area:	DW044

We request the approval of the following Sub-Contractor to undertake the section of work identified in this submittal

Part 1 - Particulars of the Sub-Contractor

Company Name:	Qatar Engineering Laboratories W.L.L.		
Address 1:	P.O. Box 40278, Industrial Area, Doha, State of Qatar		
Address 2:	Street 50, Gate 26, Doha Industrial Area		
Address 3:			
Address 4:			
e-mail:	qel@qel.com.qa		
Telephone No:	44515401	Fax No:	44515317

Confirm that the following pre-qualification documents are enclosed (tick to conform)

- ☑ Covering Letters from the Contractor addressed to the Supervision Consultant proposing the Sub-Contractor
- ☑ Commercial Register
- ☐ Compliance Statement with Qatar standard specification requirements (QCS 2014 or latest updates)
- ☑ International quality certification (BS EN ISO and / or others) BSI Kite mark,
- ☐ Company Quality Manual / Inspecting and Testing Plans
- ☑ Summary of Experience
- ☐ Financial Status
- ☑ Details of work being undertaken in the Region
- ☑ Company Staff details / Management Structure
- ☑ Equipment owned by the Company
- ☐ Sub-Contractor included In Tender Submission
- ☑ Sub-Contractor is a GCC Company

Part 2 – Subcontracted Work Details

Scope of Subcontracted Work:	Third Party Testing Works
Discipline:	Civil

Bill of Quantities items to be supplied by the Subcontractor

(a)	Testing of Materials as directed by Engineer	BoQ Ref:	1.2.13
(b)	Testing of the Works	BoQ Ref::	1.2.14
(c)		BoQ Ref::	
(d)		BoQ Ref::	
(e)		BoQ Ref::	
(f)		BoQ Ref::	
(g)		BoQ Ref::	
(h)		BoQ Ref::	

Part 4 - Contractor Authorised Representative

Name:	Ramy Abdellatif	Position:	Project Manager
Signature:		Date:	07-Jan-2019

Part 5 - GEC Recommendation Comments

To Contractor:

Action Code A:	☑	Can be recommended for Approval without any comments
Action Code B:	☐	Can be recommended for Approval subject to corrections and/or comments attached
Action Code C:	☐	Revised & resubmitted in accordance with the completion of corrections shown and/or comments attached
Action Code D:	☐	Rejected

Name:		Position:	Senior Resident Engineer
Signature:		Date:	04. FEB. 19.

Part 6 - PMC Verification (if Required)

Name:		Position:	
Signature:		Date:	

PARSONS
INTERNATIONAL LIMITED

SUB-CONTRACTOR - COMMENT SHEET

PROJECT NAME	Roads and Infrastructure in West of Al Meshaf-P03	REFERENCE NO	DS007-P03-BTC-PAR-TML-00006
PROJECT CODE	DS007	DS007-P03-BTC-CON-APR-A10010	Rev.0
CONTRACT NO	IA 14/15 C 053 ST	DATE	22/04/2015
Contractor: Bin Omran Trading & Contracting		Consultant: Parsons International Ltd.	

CHECK LIST FOR SUB-CONTRACTOR

Name of the Subcontractor: Qatar Engineering Lab.(QEL)
Scope of Work: Materials Testing in Field and Laboratory

S.N.	Description	Submission Status	
		Yes	No
1	Ashghal approved Vendor List	√	
2	MOE Certificate of Conformity	√	
3	IAS Accreditation of ISO 17025	√	
4	ISO 9001:2008 Certificate	√	
5	Scope of accreditation	√	
6	List Of major projects	√	
7	Company Profile	√	
8	Organization Chart & CVs of technical staff	√	
9	Commercial Registration	√	
10	Testing schedule	√	
11	Facility Location map and Contact Nos.	√	
12	Health, Safety policy	√	

- Qatar Engineering Laboratory (QEL), Third Party Testing Laboratory is recommended for approval until and unless this is in the ASHGHAL approved list of testing Laboratories and its continued compliance with QCS 2010 and Ashghal Quality & Safety Department's rules and regulations.
- QEL to provide the calibration certificates of the testing equipment.

STATUS: Approved As Noted

MUHAMMAD YASIN (SENIOR MATERIALS ENGINEER)	QAMAR HAYAT RESIDENT ENGINEER-ROADS

مشروع الميناء الجديد
NEW PORT PROJECT

Ref: No. NPP/0013/ LT/MDC/2013/0319
Date: 16 December 2013

Middle East Dredging Company Q.S.C
P.O. Box: 24745
Doha, State of Qatar

Attention: Mr. Gert De Smet,
Project Director

Subject: New Port Project (NPP)
NPP/0013 – Dredging, Reclamation & Outer Breakwater Construction
Approval of Subcontractor for Undertaking Ground Investigation for Buildings and Infrastructure

Dear Mr. De Smet,

We write with reference to the Middle East Dredging Company Q.S.C. (MEDCO) correspondence (Ref: GEN -4604-9902-LTR-00542-C05816, dated 11 November 2013) and (Ref: GEN -4604-9902-LTR-00585-C06478, dated 5 December 2013) concerning your request for the approval of Qatar Engineering Laboratories (QEL) for undertaking the geotechnical borehole testing for the Naval Base buildings and infrastructure.

We acknowledge and record MEDCO's admission of liability in bringing to site an unapproved Subcontractor for carrying out the ground investigation for the Naval Base buildings and infrastructure and reiterate that it is MEDCO's obligation to comply entirely with all Conditions of Contract.

The Engineer has reconsidered MEDCO's request as mitigation against further MEDCO delays in handover of Section A and Section B and agrees to accept Qatar Engineering Laboratories (QEL).

Pursuant to Clause 4.3 (Subcontracting) of the Conditions of Contract, the Engineer approves QEL for undertaking the ground investigation for the Naval Base buildings and Infrastructure.

Yours sincerely,

Jassim Bin Saif Al-Sulaiti
Minister of Transport
Chairman, NPP Steering Committee

Nabeel Mohammed AL-Buenain
Project Executive Director

cc: NPP CPT, PMC

Ph : +974 4406 4444
Fax : +974 4406 4420

New Port Project
P.O Box: 28333
Doha – QATAR

Shary Orgil

From: Proliance Notification
Sent: Monday, January 06, 2014 10:53 AM
To: macahilas-sales.hacel@medconpp.com; jardin.jasmin@medconpp.com; Orgil.Shary@medconpp.com
Cc: SParambath@npp.com.qa; kuddin@npp.com.qa; Jmajeed@npp.com.qa; lailani.desacula@aecom.com; rmirabel@npp.com.qa; normy.ortega@aecom.com; maerlinda.haduca@aecom.com; jocelyn.cacho@aecom.com; erlinda.villanueva@aecom.com
Subject: Correspondence: NPP/0013 - Approval of Subcontractor for Undertaking Ground Investigation for Buildings and Infrastructure (#NPP-MED-0309), Read and Review

Document:	**Correspondence: NPP/0013 - Approval of Subcontractor for Undertaking Ground Investigation for Buildings and Infrastructure (#NPP-MED-0309)**
Workspace:	PROJECT: NDPP - Dredging, Reclamation and Breakwater Construction (#NDPP-0013-DRBC)
From:	Proliance Notification
Date Sent (Project Time Zone):	01/06/2014 10:52 AM (GMT +03:00)
Action by:	Carlson Avila (New Port Steering Committee (NPPSC))
Action taken:	Transitioned from - Draft
Current state:	**Submitted**
Priority:	Normal
Expected Action:	Read and Review
Due Date:	01/06/2014
Message:	Attn: Gert De Smet, For your information/ action.

People receiving this notice:

Name	Department	Expected Action
Erlinda Ma Haduca A.	AECOM	none
Erlinda Villanueva O.	AECOM	none
Hacel Macahilas-Sales	Middle East Dredging Company (Q.S.C)	Read and Review
Jafeer Majeed	New Port Steering Committee (NPPSC)	none
Jasmin Jardin	Middle East Dredging Company (Q.S.C)	Read and Review
Jocelyn Cacho	AECOM	none
Karim Uddin	New Port Steering Committee (NPPSC)	none
Lailani Desacula J.	AECOM	none
Normy Ortega	AECOM	none
Rosalinda Mirabel	New Port Steering Committee (NPPSC)	none
Shanavas Parambath	New Port Steering Committee (NPPSC)	none
Shary Orgil	Middle East Dredging Company (Q.S.C)	Read and Review

مشروع الميناء الجديد
NEW PORT PROJECT

Contractor's Submittal Review Comments Form

AECOM

NPP/0032: COMMERCIAL TERMINALS INFRASTRUCTURE AND BUILDINGS

Document Submittal Date:	28-Apr-2014
Submittal Reference:	NPP0032-HBK-DSU-00633_0_CSRC
Revision Number:	0
Submittal Title:	NPP/0032: Prequalification Documents for M/s Qatar Engineering Laboratories (QEL) - Geotechnical Investigation - D & B Building Package
Date of Submission:	28-Apr-2014
Drawings/Specs/Report Reference:	NPP0032-QA-SUB-0096
Status:	☐ **Reviewed** ☒ **Reviewed as Noted** ☐ **Revise and Resubmit**

☒ **PMC REVIEW COMMENTS**	**PMC Review Date:** 18 May 2014
☐ **EC REVIEW COMMENTS**	**EC Review Date:**
☐ **EDC REVIEW COMMENTS**	**EDC Review Date:**

No	Party PMC/EC/ EDC	Review Comments	Contractor's Response
1	PMC	Document reviewed for Prequalification Supplier/ Manufacturer: M/s Qatar Engineering Laboratories Work: Geotechnical Investigation Area: D & B buildings	
2	PMC	Note: This is additional lab for carrying out geotechnical investigation for D&B buildings. ACES is executing work at site for the same purpose	
3	PMC	Approval from the Employer is also required [Note]	

Colin Sheppard
AECOM
18 MAY 2014

Sr. Resident Engineer
New Port Project

Qatar Rail
Document Review Sheet (Engineer)

Company Management System

PROJECT:	Gold Line Metro			PROJECT NO.:	M006
DRS NUMBER:	M006-GDB-COM-SAR-00051 ERS-2	REV.:	2	DATE:	29-Sep-14
ORIGINATOR:				TRANSMITTAL NO. / DATE:	
DOCUMENT NO.:	M006-GDB-COM-SAR-00051	REV.:	2	DISCIPLINE:	Commercial / Engineering / Quality / HSSE / Construction
DOCUMENT TITLE:	Geotechnical Investigation Works (Including Laboratory Analyses)- Qatar Engineering Laboratories			DOCUMENT TYPE:	Supplier / Sub-Contractor Approval Request

			Comment Code Legend (for individual comments):		Reply Code Legend		
			1 = Action required for this issue 3 = to be addressed at DD2 2 = advisory comment		I=incorporated, II= evaluated and not incorporated for reason stated		Open/Closed
No.	Initial	Page/Section	Comment Code	Reviewers Comments (PMC/CPO, CTO)	Reply Code	D&B Contractor/Other Party Reply	Reply Status by Reviewer
1	AMA	General	2	The contractor should note that the enclosed DRS 'approval' has been achieved based on all relevant SAR submissions associated with this sub-contractor, and not on the latest submission alone. Any future reviews / audits should consider all of the associated SAR revisions and the relevant correspondence to ensure a full understanding of the contractor achieving the full 'approval' status.			Closed

		Status Code Legend:		
Document Review Status Code:	A	A. *Approved*	C. *SONO*	E *Fail/Not approved*
		B. *Approved with comments*	D. *NOWC: No Objection with comments*	F. *Responded/Reviewed/Actioned*

		PMC/CPO Comments/Reply Status		Chief Technical Office (CTO)		Engineer/Delegated Party		D&B Contractor	
Reviewer's Name	Position	COMMENTS/STATUS RECOMMENDED BY PMC		COMMENTS/STATUS RECOMMENDED BY CTO		NO OBJECTION BY (Where necessary)		REPLY APPROVED BY	
Adieb Mahmoud	Contract Engineer	Name:	Declan Shanahan	Name:		Name:	Mehrail Sims	Name:	
		Position:	Commercial Manager	Position:		Position:	Engineer's Assistant	Position:	
		Date:	29-Sep-14	Date:		Signature:		Signature:	
						Date:	08 OCT. 2014	Date:	

MASTER COPY

Contractor:

ALYSJ joint venture

QATAR INTEGRATED RAIL PROJECT

Doha Metro: Gold Line

Supplier/Subcontractor Approval Request For Qatar Engineering Laboratories - Geotechnical Investigation Works (Including Laboratory Analysis)

M006-GDB-COM-SAR-00051

PREPARATION BY CONTRACTOR:					
Action	**Name**	**Signature**	**Role**	**Company**	**Date**
Originator	Fred Ruizol		Sr. Quantity Surveyor	ALYSJ-JV	30-Aug-2014
Checker	Ufuk Yasin Yurtbil		Technical Office Engineer	ALYSJ-JV	04-Sep-2014
Reviewer	Vamsi Raju		Contracts Administrator	ALYSJ-JV	06/09/14
Approval	Andreas Tauschinger		Project Director	ALYSJ-JV	07-Sep-14
ENGINEER'S ASSISTANT					
Merrall Sims			Project Director	PMC	08 OCT. 2014

STATUS											
(A)		B		C		D		E		F	
Approved		Approved with Comments		SONO		NOWC		Fail/Not Approved		No Review Required	

PRE QUALIFICATION FORM

Date	9-Nov-2020	Reference No: BTCC-CEG-PQ-0055	Rev. No.:0
Project Name	**Design and Build for Construction of Three (3) Number Temporary Bus Depots at Various Sites**		
Project No.	BP2019-C-052G		
Client	ASHGHAL		

Address: STREET NO. 50, GATE NO. 26, DOHA INDUSTRIAL AREA Doha - Qatar Telephone: +974 44515401 Fax: +974 33285941	Contact Person: Mr. Vijesh Mobile:

Supplier/ Vendor/ Manufacturer/ Sub-Contractor Scope of Work:

Prequalification of M/s Qatar Engineering Laboratories WLL – Independent material Testing Laboratories

Project Reference

☐ Specs_____ ☐ BOQ_____ ☐ Others_____

For the Contractor

Name, Signature MR. NABIL IBRAHEM (PD) Date: 09-Nov-2020

Consultant Response:

(1) Approved ☐ (2) Approved As Noted ☑ (3) Revise & Resubmit ☐

(4) Rejected ☐ (5) Others ☐

Remarks

* Contractor strictly adhere to the project specification and local & international Codes.
* All the test which will be carried out should be permitted By Ashghal Quality department as per the independent laboratory approved list
* Contractor to identify and classify the approved Qatar testing lab and assigned for each project (main / secondary) for each project (Bus depots).

Name, Signature Date

Customer / Engineering Dept. Comments: Action Code:

Remarks

Rafeh Product

Signature Date 10/11/2020

File:

WI-PST-11-03
05-May-2019-2019A

10 NOV 2020

BUS DEPOT BOJAMHOOR

RECEIVED
09 NOV 2020
BY:

3775

	Sub-Contractor Approval Request	Document No. :	PWA-RPD-CON-FM-0302
		Revision No. :	04
		Issue Date :	15 Jan. 2019

Project Details

Document No.:	DS140-P01-ICI-GEN-PQD-A15269	Rev. No.:	01	Date:	12 November 2020
Project No.:	DS140-P01	Area:	DS140-P01		
Project Title:	ROADS AND INFRASTRUCTURE IN SEMAISMA - PACKAGE 1 (WEST)				
Contractor:	IRIS	GEC:	CEG		

CEG International RECEIVED 16 NOV 2020 Project No 19015, DS140-P01 Semaisma West

We request the approval of the following Sub-Contractor to undertake the section of work identified in this submittal

Part 1 - Particulars of the Sub-Contractor

Company Name:	QATAR ENGINEERING LABORATORIES W.L.L (QEL)
Address 1:	P.O. Box 40278, Industrial Area,
Address 2:	Doha, Qatar
Address 3:	
Address 4:	
e-mail:	qel@qel.com.qa
Telephone No:	44515401
Fax No:	

Confirm that the following pre-qualification documents are enclosed (tick to conform)

- ☐ Covering Letters from the Contractor addressed to the Supervision Consultant proposing the Sub-Contractor
- ☑ Commercial Register
- ☐ Compliance Statement with Qatar standard specification requirements (QCS 2014 or latest updates)
- ☐ International quality certification (BS EN ISO and / or others) BSI Kite mark,
- ☑ Company Quality Manual / Inspecting and Testing Plans
- ☑ Summary of Experience
- ☐ Financial Status
- ☑ Details of work being undertaken in the Region
- ☑ Company Staff details / Management Structure
- ☑ Equipment owned by the Company

☐ Sub-Contractor included In Tender Submission ☑ Sub-Contractor is a GCC Company

	Sub-Contractor Approval Request	Document No. :	PWA-RPD-CON-FM-0302
		Revision No. :	04
		Issue Date :	15 Jan. 2019

Part 2 - Product Details

Section of Subcontracted Work: PREQUALIFICATION OF QATAR ENGINEERING LABORATORIES W.L.L (QEL) FOR THIRD PARTY LABORATORY AND GEOTECHNICAL INVESTIGATION

Discipline: THIRD PARTY LABORATORY

Bill of Quantities items to be supplied by the Subcontractor

(a) BoQ Ref. :

(b) BoQ Ref. :

(c) BoQ Ref. :

(d) BoQ Ref. :

Part 4\3 - Contractor Authorized Representative

Name: Derya Yavuz Position: QA/QC Manager

Signature: Date: 12 November 2020

Part 5 - GEC Recommendation Comments

To Contractor:

Action Code A : ☑ Can be recommended for Approval without any comments

Action Code B : ☐ Can be recommended for Approval subject to corrections and/or comments attached

Action Code C : ☐ Revised & resubmitted in accordance with the completion of corrections shown and/or comments attached

Action Code D : ☐ Rejected

ME

Name : Osman Eltayeb Position: SRE

Signature : Date: 21-11-2020

Part 6 - RPD Verification (if required)

Name : Position:

Signature : Date:

REVIEW COMMENTS SHEET (RCS)

Project: DS140 P01 - ROADS AND INFRASTRUCTURE IN SEMAISMA (WEST)- PACKAGE 1
Project ID: IA 2018 C 041 G
Consultant: CEG INTERNATIONAL
Contractor: IRIS CONSTRUCTION TOURISM INDUSTRY AND TRADE WILL.

Transmittal Reference No.:	DS140-P01-ICI-CEG-TML-03775	Revision	0	Created Date:	12-Nov-20
Submittal Title:	PRE-QUALIFICATION APPROVAL REQUEST OF QATAR ENGINEERING LABORATORIES (QEL) W.L.L			Received by CEG:	16-Nov-20
Document Ref. No.:	DS140-P01-ICI-GEN-PQD-A15269	Revision	1	Reply To IRIS:	21-Nov-20
Reviewed by:	CEG INTERNATIONAL	Issued To:	IRIS		

Reviewer / Focal: Material Engineer: Muhammad Javed Khan

Assessment Code:	A

A = Approval without any comments
B = Approval subject to corrections and/or comments attached
C- Revised & resubmitted
D = Reject

Consultant						Contractor		Consultant
S/N	Reviewer	Document / Drawing No./Rev.	Identification of comment's source: [doc/part/page/para]	Observations / Comments: Comment	Observations / Comments: Assessment Code	Comments (if any)	Open - Closed	Sign-Off [Open Closed]
1	M.J.K	DS140-P01-ICI-GEN-PQD-A15269-Rev-0		Any approval shall not relieve the contractor of his contractual obligation.	INFO	Noted	Closed	Closed
2	M.J.K	DS140-P01-ICI-GEN-PQD-A15269-Rev-0		No objection in princple for the proposed sub-contractor (Third party Laboratory) QATAR ENGINEERING LABORATORIES. WLL,attached organization chart, Valid commercial registration, Trade license,Establishment card,ISO 9001:2015,previous project approvals & catalogue.	INFO	Noted	Closed	Closed
3	M.J.K	DS140-P01-ICI-GEN-PQD-A15269-Rev-0		Approval only for the test which mentioned in PWA list and subject to compliance with all related standards in QCS 2014, All test reports should have coordinates of sampling & testing location, all test reports shall be uploaded to the PWA Laboratory Quality tracking system (Lastrada).	B	Noted	Closed	Closed
4	M.J.K	DS140-P01-ICI-GEN-PQD-A15269-Rev-0		The contractor shall ensure that the proposed Sub Contractor shall provide the services in strict accordance with the requirements of the project specification and QCS 2014 requirements	INFO	Noted	Closed	Closed

Footnote:
Approval by the GEC shall not relieve the Contractor of its obligations and liabilities under the contract or constitute authorization of any change to Contract Documents, and therefore, shall not imply any recognition whatsoever of additional time or cost to the contract.

PROJECT JOB NO. J-284	PROJECT NAME: MV-2 DATA CENTER FACILITY AND ADDITION OF 900KW EXTENSION AT UMM QUARN- (MZA-BOP-PROC-RFP-PR1909)	
CLIENT	CONSULTANT	MAIN CONTRACTOR
MEEZA	QATAR DESIGN CONSORTIUM W.L.L.	

REQUEST FOR PRE-QUALIFICATION DOCUMENT APPROVAL

Ref. No. T/AMCC/QDC/J284/2020/PQD/014	**Date:** 31st Mar. 2020
PROJECT:	Construction, Completion and Maintenance of Proposed Modification in Existing MV-2 Data Center Facility and Addition of 900KW Extension at Umm Quarn
CLIENT:	M/S. MEEZA
CONTRACTOR:	M/S. AL MUFTAH CONTRACTING CO.

TRADE	■ CIVIL ☐ ARCHITECTURAL ☐ MECHANICAL ☐ ELECTRICAL ☐ EXTERNAL
STATUS	■ NEW SUBMITTAL ☐ REVISED SUBMITTAL

Description of Documents :-

PRE-QUALIFICATION DOCUMENT FOR THIRD PARTY LABORATORY- M/S QEL (OPTION 2)

RECEIVED 31 MAR 2020 891 QDC

Supplier :- Contact person Name and Contact No.: (Mr. Vijesh- 44515401)
Contractor signature and stamp :p
Submitted by:
Name: MANOLETT CARLUEN (QA/QC Engineer) **Signature:** _____ **Date:** 31st Mar.2020
Reviewed by:
Name: G.K PILLAI (Operations Manager) **Signature:** _____ **Date:** 31st Mar.2020
ENCLOSURES: .....

QDC Comments and Status

Refer to attach add-on sheet for comments.

Client Comments:

.....

☐ Approved ☑ Approved as Noted ☐ Revise & Resubmit ☐ Additional Information Required

☐ Not Approved ☐ Others.....

Signature Date:

Architect/ Engineer..... Project Manager..... Client Rep.....

Note: Allow for at least seven working days for review.

Consultant Received **Client Received** **Consultant Received** **Contractor Received**

Almuftah Contracting Co W.L.L. J-284 Submittal

ADD-ON SHEET

REFERENCE NO.	T/AMCC/QDC/J284/2020/PQD/014	REV. NO.	0	DATE	01-04-2020

PROJECT	Construction ,completion and maintenance of proposed modification in existing MV-2 data center facility and addition of 900KW extension at Umm Quarn
CLIENT	M/S. MEEZA
CONTRACTOR	M/S. AL MUFTAH CONTRACTING CO.

DOCUMENT/ SUBMITTAL REF. NO.	T/AMCC/QDC/J284/2020/PQD/014
DESCRIPTION	PQD FOR THIRD PARTY - M/S QEL (OPTION 2)

DETAILED DESCRIPTION

1. Field personnel incharge of sampling shall be certified from recognized institution (ref: QCS 2014 SECTION 5 PART-6 6.8.2). Certificate should be available with technician if requested at site.
2. Calibration certificate of equipment to be used should be available on site while testing.
3. All testing method & standards should comply in accordance with QCS 2014.

STATUS : APPROVED AS NOTED

PREPARED BY		REVIEWED BY		APPROVED BY	
Name	SHAKIR PATEL	Name	SHAKIR PATEL	Name	SANDIP CHAKRABORTY
Signature		Signature		Signature	
Designation	SR.CIVIL ENGINEER	Designation	SR.CIVIL ENGINEER	Designation	PROJECT MANAGER
Date	01-04-2020	Date	01-04-2020	Date	01-04-2020

MAJOR PROJECTS

LIST OF CONTENTS

- GEOTECHNICAL INVESIGATIONS
- CONSTRUCTION MATERIALS TESTING

MAJOR PROJECT LIST – MATERIALS TESTING

YEAR	CONTRACTOR	CLIENT	PROJECT DESCRIPTION
2008-2010	SNC Lavalin International	Qatalum	Contract No. QA-SI-NHT-A45-5332165 Qatalum Project
2009-2011	STFA Marine Construction Co	Qatar Petroleum	Contract No. GC08112800 - EPIC for Container Terminal Berth 7 at Mesaieed Industrial City
2009-2011	STFA Marine Construction Co	Qatar Petroleum	Contract No. GC07106000 - EPIC for Gabbro Berth Expansion (Package- 1)
2009	Simplex Infrastructure Ltd.	Qatalum	Qatalum Power Plant, Civil and Bldg. Works
2010	Archirodon Construction (Overseas) Co. SA	Qatar Petroleum	0165-EPIC for Replacement and Construction of New Service Berth Project at Ras Laffan
2010	Tekfen Construction	ASHGHAL	Construction of Qatar Primary Routes, North Road Project Contract 2 & 3
2010	ShapoorjiPallonji Qatar	Brawa Real Estate Company	Barwa City Project,Phase-1
2010	Burhan International	ASHGHAL	Bani Hajer Road Development, Zone 51
2010	STFA Marine Constrictions.	Qatar Gas / Fluor Mideast Limited	Jetty Boil-Off Gas Recovery Project.
2010	Bin Omran Trading	ASHGHAL	Access Road to Solid Waste Management's Center & Transfer Station in Mesaieed
2011	Simplex Infrastructures Limited	KAHRAMAA	GTC / 240D / 2008 Qatar Power Transition System Expansion Phase IX Sub Station
2011	WCT Berhad	Private Engineering Office	Ministry of Interior Head Quarters
2011	HBK/QBS Joint Venture.	ASHGHAL	RA-07-08C016G - Development of Main Roads in Zone 46
2011	Bin Omran Trading & Contracting	Qatar Olympic Committee	Renovation of Six Clubs Division
2011	Bin Omran Trading & Contracting	Qatar Olympic Committee	Kharatiyat Sports Club
2011	Bin Omran Trading & Contracting	Qatar Olympic Committee	Mesaimeer Sports Club
2011	China Harbour Engineering Company Ltd.	New Doha Port Project	New Doha Port Project
2012	Bin Omran Trading & Contracting	ASHGHAL	Al Huwailah Project
2012	Gulf Consolidated Contractors	Qatar Petroleum	GC 1101500
2013	Ministry of Environment	State of Qatar	Internal Quality Checking – Aggregate, Asphalt, Cement, Admixture, Fresh Concrete, Concrete Cube etc
2012	QBS International	ASHGHAL	Construction of upgrade of Al Rayyan Road

MAJOR PROJECT LIST – MATERIALS TESTING

2012	Nasser Al Hajiri Co	Ras Gas	Barzan On Shore Project
2012	Al Qamar	New Port Project	NEW Port Project – Rock Testing
2013	Great Lakes,Dredge&Dock Co. L.L.C	UCC	The Base Project –Beach Project Simsima
2013	Simplex	Dolphin Energy Ltd.	EGC Facilities Upgrade Project,Raslaffan
2013	Toyo-Thai Corporation	QEWC	Ras Abu Fontas A2 Desalination Project
2013	China Harbour Engineering Co. Ltd.	Ashghal	Construction of East Corridor P011 (Package 2) / Site Lab
2013	Simplex Infrastructures Limited	Kahramaa	Qatar Transmission System Expantion - Ph-10 Substation package S5 & S8
2013	American International Contractors In	USACE	New Runway & Related Works – Al Udaied
2013	ShapoorjiPallonji Qatar, WLL	Commercial Bank	Le Boulevard Al Sadd Street, Doha, Qatar
2014	Hyundai Engineering Company	State of Qatar	National Museum of Qatar
2014	Bin Omran Trading & Contracting	ASHGHAL	Improvement of C-Ring Road Junctions and Roundabouts Qatar Zone 1 to 68
2014	Bin Omran Trading & Contracting	Arkash	Al ErkiyaLusail City
2014	Culligan International L.L.C	Anel Electrical	CP-111 - NDHIA
2014	China Harbour Engineering Co. Ltd	State of Qatar	Navy Port Project
2014	Tashgeel-Besix JV	Private Engineering Office	Construction Completion and Maintenance of theSalwa Resort Hotel-Salwa Beach Resort
2014	Apollo Fleet W.L.L	Private Engineering Office	Construction Completion and Maintenance of the Salwa Resort
2014	Bin Omran Trading & Contracting	Aspire Zone	Al Khor Stadium (Enabling Bulk Earthworks)
2014	Boskalis Westminster Middle East	Hyundai Heavy Inds. Co. LTD	Flow Assurance Project-Shore approach trenching and Backfilling Works
2014	China Harbour Engineering Co. Ltd.	KAHRAMAA	Construction of Pipelines for Mega Reservoir,Corridor Main 2(Package B)
2014	QDVC-BOTC JV	ASHGHAL	New Orbital Highway & Truck Route C2
2015	ALCAT Contracting Co.	ASHGHAL	Roads And Infrastructure in Alkhor Industrial Area (AbalGararees) Package - 5
2015	Bin Omran Trading & Contracting WLL	ASHGHAL	Roads & Infrastructure in West of Al-Meshaf
2015	Bin Omran Trading & Contracting WLL	ASHGHAL	Improvement of C-Ring Road Junctions and Roundabouts Qatar Zone 1 to 68

MAJOR PROJECT LIST – MATERIALS TESTING

2015	Bin Omran Trading & Contracting WLL	ASHGHAL	DW 048- Flow Diversion Scheme in Al-WAJBA and Al-Rayyan
2015	Bin Omran Trading & Contracting WLL	ASHGHAL	Public Realm & Landscape Design, Mock-Up 1
2015	Bin Omran Trading & Contracting WLL	ASHGHAL	Bypass From Rawdat Rashid to Umm-Garn Package-2
2015	China Gezhouba Group Company	KAHRAMAA	Mega Reservoir GTC-626E / Site Lab
2015	Generic Engineering Technologies	Private Engineering Office	Al Bidda Park - Phase-1
2015	Generic Engineering Technologies	Private Engineering Office	Design & Build of Swimming Shore at Simaismah 1 (South) & 2 (North)
2015	Marbu Contracting Company	ASHGHAL	Roads & Infrastructure for Government Residential Division Project in South of Wukair-Package 2B Grading
2015	Sinohydro Group Limited	KAHRAMAA	Sinohydro Transmission Pipelines GTC - 606
2015	Tecton Engineering & Construction W.L.L	KAHRAMAA	Installation Tank Filling Station & Piping Improvement Work
2015	Bin Omran Trading & Contracting WLL	ASHGHAL	Interim Upgrade of E-Ring and Najma Street
2015	Bin Omran Trading & Contracting WLL	Supreme Committee	Al Rayyan Stadium
2016	Samsung Engineering & Construction	Umm Al Houl	Umm Al Houl Power IWPP
2016	Leighton Contracting Qatar WLL / Al Jaber LLC Joint Venture	ASHGHAL	Design & Construct New Orbital Highway & Truck Route (P023)
2016	First Burhan& CGGC JV	KAHRAMAA	GTC 644B-Extension & Distribution Network Phase 6(Package B)
2016	Gulf Systems for Contracting & Services	Ministry of Municipality	Integrated Workers Accommodation Community
2016	HBK Contracting Co./ QBS International	ASHGHAL	Roads Infrastructure at Bani Hajer North, Phase 1 & 2, Package 2
2016	Tecton Engineering & Construction	Qatar Petroleum	3731, Epic of Water Tank and Pump Station
2016	GCC - WAC - TERNA JV	ASHGHAL	QS001 - P02 Road and Infrastructure in Doha Industrial Area (Package-2)
2016	AL Balagh-Larsen & Toubro JV	Qatar 2022 Supreme Committee	Construction of AL Rayyan Stadium
2016	Bin Omran Trading & Contracting Co..	ASHGHAL	Advance Grading Work (DN-110 P-03 & P04)
2016	BOTC / ARC	Dayar Qatar	Crescent Park CP10E2
2016	Bin Omran Trading & Contracting	PEO	Construction Completion and Maintenance of External Services and Infrastructure Works for Ras Laffan Workers Hospital
2017	Civiltech WLL / Belhasa Project Qatar LLC	Adabisc	Angry Bird Outdoor – Family Entertainment Center - Doha Festival city

MAJOR PROJECT LIST – MATERIALS TESTING

2017	Dogus / Bin Omran	ASHGHAL	Al Rayyan Road Development
2017	Bin Omran Trading & Contracting WLL	ASHGHAL	Design, Built& Maintenance of Link Road between Al Khor& Ras Mulaiji
2017	BAUER INTERNATIONAL QATAR LLC.	KAHRAMAA	Umm Al Houl Power /WPP
2017	American International Contractors Inc.	USACE	M25 - Re Procurement Project
2017	Generic Engineering Technologies	PEO	Al Bidda Park Rumailah Underpass
2017	Larsen & Toubro	ASHGHAL	P015 Wakrah Bypass Road Project
2017	Tekfen / Bin Omran	ASHGHAL	Design and Construct Al Khor Expressway (16 - 031)
2017	Daewoo E & C	ASHGHAL	Construction & Upgrading of E-Ring Road North/South Link (P008-C2)
2017	Bin Omran Trading & Contracting WLL	ASHGHAL	Roads and Infrastructure in Rawadat Egdaim& Ezghawa Package 01 (DW-077-P01)
2017	Bin Omran Trading & Contracting WLL	ASHGHAL	Roads and Infrastructure in Al Froosh / Al Kharitiyat Package 01 (DN-107-P01)
2017	Bin Omran Trading & Contracting WLL	ASHGHAL	Al-Bayt Stadium Road (QN-090)
2017	Marbu Trading & Contracting Co.	ASHGHAL	Access Road for Birkat Al Awamer Integrated Worker Accommodation Community QS028-P09.
2017	Qatar Building Engineering Co.	Manateq	Design & Build of LIU at Umm Al Houl - EZ 01 & 03
2017	Bauer International Qatar LLC.	Kahramaa	Umm Al Houl Power /WPP
2017	Al Seal Trading & Contracting	UASCE	Shield Program S5 - Mesaieed
2017	Al Seal Trading & Contracting	UASCE	Shield Program S2 – Al Udaieed
2017	Al Seal Trading & Contracting	UASCE	Shield Program S7 – Al Khor
2018	Hyundai Engineering & construction co. Ltd	ASHGHAL	Construction of Al Bustan Street South (P007 C5 P1)
2018	Boom Construction Co.	ASHGHAL	P017 Upgrade of Al Wakrah Main Road
2018	Boom Construction Co.	ASHGHAL	Construction of Al Bustan Street South (P007 C5 P1)
2018	Bin Omran Trading & Contracting WLL	ASHGHAL	Link Road Infrastructure to Salwa Beach Resort (QS042)
2018	Marbu Contracting	Supreme Committee	Design & Build Khalifa International Stadium Car Park & Walk Facility during the Event
2019	Bin Omran Trading & Contracting WLL	ASHGHAL	Roads & Infrastructure at Al-Mearad and South West Muaither Package-01 (DW-044)

MAJOR PROJECT LIST – MATERIALS TESTING

2019	Bin Omran Trading & Contracting WLL	ASHGHAL	Doha Industrial Area Offsite Works QS043
2019	Va Tech Wabag	ASHGHAL	Design and Build contract for rehabilitation of Doha South Sewage Treatment Works
2019	UCC-Infraroad-Yuksel JV	ASHGHAL	Construction of Duhail Intersection and Al-Gharrafa Street (P007 C7 P1)
2019	CAT International	Kahramaa	GTC/899/2017-Aftaj Muaither RPS & Asociated Pipelines
2020	Redco-Porr IC3 JV	ASHGHAL	Construction of New Interchange IC3 at Ras Bufontas Free Zone
2020	Jefferson International	ASPIRE ZONE	Aspire Zone Reclamation
2020	Petroserve Ltd.	ASHGHAL	Design And Build For FIFA Readiness Project 6 For Surface And Ground Water Network At Madinat Khalifa And Immigration Underpass Scheme
2020	Petroserve Ltd.	ASHGHAL	Roads and Infrastrutre in North Ain Khalid Zone-56
2020	Marbu Contracting Co.	ASHGHAL	Roads and Infrastructure in Al Mearad And South West Muaither Package 2 DW-044 P-02
2020	Al Seal Contracting company	Raytheon	Qatar Early Warning Radar (QWER)
2020	UCC-Infraroad-Limak JV	ASHGHAL	D Ring Road Improvement Works
2020	Tempo International	KAHRAMAA	Qatar Power Transmission System Expansion Phase 2
2020	Omega Enginering WLL	Lusail City	Complete Miscellaneous Items of Works for the District Cooling Network in FoX Hills
2020	BOJAMHOOR Trading & Construction	ASHGHAL	Design & Build for Construction of Three (3) Number Temporary Bus Depots at various Sites
2021	Al Jaber & Partners-Construction & Energy Projects	ASHGHAL	DS140-Roads And Infrastructure In Semaisma – Package 2 (South)
2021	Boom Construction Co.	ASHGHAL	Central Doha and Corniche Beautification Project-Package-3
2021	Hyundai Engineering & Construction Co.	ASHGHAL	CP832-TSE Seasonal Storage Lagoon (Phase 1)
2021	IRIS Construction Tourism Industry and Trade W.L.L	ASHGHAL	DS140 P01 - Road and Infrastructure in Semaisima (West) - Package 1
2021	UCC-Infraroad - Yuksel-JV	ASHGHAL	Construction of Duhail Inspection and Al Gharrafa Street (P007 C7 P1) Al Waab

MAJOR PROJECT LIST - GEOTECHNICAL INVESTIGATIONS

Sl No.	CLIENT	PROJECT DESCRIPTION
1	China Harbour Engineering Co. Ltd	Port Basin & Break Water Construction – NDPP/0009 - Phase 1
2	MEDCO	Dredging, Reclamation & Outer Breakwater Construction-New Port Project – NPP / 0013
3	ACE International / Qatar Petroleum	New Road & Related Infrastructure Utilities at Medium Industrial Zone
4	UrbaCon Contracting & Trading L.L.C	Banana Island Terminal at Wakra Port
5	Gulf Consolidated Contractors Co.	New Runway and Associated works at Al Udeid Air Base
6	QDVC - GS E& C - ADE JV	Red Line South Under Ground – Qatar Metro
7	China Harbour Engineering Co. Ltd	QENFB Quay Wall Construction (Navy Port) – NPP/0037
8	Tecton Engineering & Co. L.LC.	GTC-524 Installation of Emergency TFSS & Internal Piping Improvements / KAHRAMAA
9	Six Construct	Design-Build of Second Phase Industrial Area Sewage Treatment Facility
10	UrbaCon Contracting & Trading L.L.C	Sheikh Abu Khalifa Majlis
11	Urbacon Trading & Contracting LLC	Hotels & Complex at Al Najada Souq
12	Bin Omran Trading & Contracting Co.	Roads & Infrastructure in West of Al Meshaf / ASHGHAL
13	Faisal Al Attiya Trading & Contracting	Qatar Islamic Bank – Office Building at Al Sadd
14	ACE International	Office Building F-09-B at Energy City Qatar
15	China Gezhouba Engineering Co Ltd.	Mega Reservoir at Abu Nakhila
16	Assets Real Estate Development W.L.L	Villas & Apartments at Um Ghuwailina
17	Lusail Consultants	Twin Tower at Marina Mix Lusail City
18	Assets Real Estate Development W.L.L	Villas & Apartments at Um Salal Ali -2 & 3
19	Gulf Engineering & Industrial Consultancy	Proposed Store With Mezzanine Offices
20	Union Trading & Contracting Co	Fire Fighting And Detection System At KM Warehouse
21	Lusail Consultants	PIN:27010037 at Umm Ghuwalina
22	Bin Omra Trading & Contracting	Al Khor Ras Mulaiji Road Project
23	Al Seal Contracting	Shiled 5 Program Package S2, S3 & S7
24	CAT International	Aftaj Muaither RPS and Associated Pipeline
25	Suez International	Doha West STP Plan Refurbishment
26	Va Tech Wabag	Design and Build (D&B) Contract for Rehabilitation of Doha South Sewage Treatment works (DSSTW)
27	Peroserve Ltd	Road & Infrastructure in North Ain Khalid Zone 56 – P01

SPECIAL TESTING

SPECIAL TESTING

PILED & RAFT FOUNDATION

- Static Pile Load Testing
- Dynamic Pile Load Testing
- Horizontal Pile Load Testing
- Pile Integrity Testing
- Plate Load Testing

STRUCTURES

- Plate Load Testing
- Structural Load Testing
- Structural Integrity Investigations
- Cover Meter Survey

ROADS

- International Roughness Index (IRI)
- Beam Dynamic Deflection Test
- Rolling Straight Edge (3.0 m) Test
- Falling Weight Deflection Test
- Dynamic Probing (Super Heavy) Test

OTHER FIELD TESTING

- Lugeon / Packer Test
- Soil Resistivity
- Rock Fill Classification

INSURANCE

LIBANO-SUISSE INSURANCE COMPANY
Tel: +974 44 66 44 06
Fax: +974 44 66 44 09
P.O. Box: 441
Doha-Qatar
E-mail : qatar@libano-suisse.com

الشركة اللبنانية السويسرية للضمان
LIBANO-SUISSE
Insurance Company

الشركة اللبنانية السويسرية للضمان
تليفون : ٠٦ ٤٤ ٦٦ ٤٤ ٩٧٤+
فاكس : ٠٩ ٤٤ ٦٦ ٤٤ ٩٧٤+
ص.ب : ٤٤١
الدوحة - قطر
البريد الإلكتروني : qatar@libano-suisse.com

INVOICE

Date : 12/09/2021

Invoice No. : W0 / 406172
Policy No. : 13/W0/201857/0/6

QATAR ENGINEERING LABORATORIES W.L.L
ST # 45, INDUSTRIAL AREA, QATAR
P.O. BOX NO. 40278,

Tel: 44515401
Fax: 44515317

Client Name	:	QATAR ENGINEERING LABORATORIES W.L.L
Insured's Name	:	QATAR ENGINEERING LABORATORIES W.L.L
Cover From	:	16/09/2021
Cover To	:	15/09/2022
Type of Risk	:	WC - COMMERCIAL
Regarding	:	AS PER THE LIST ATTACHED
Transaction	:	RENEWAL

Premium : QR 10,836.00

For the Company

LIBANO-SUISSE S.A.L. DOHA INSURANCE

Please detach and return this portion together with your remittance

Client Code	:	17878
Due from	:	QATAR ENGINEERING LABORATORIES W.L.L
Broker Ref.	:	805
Policy No.	:	13/W0/201857/0/6

Premium : QR 10,836.00

The above limits shall not apply in respect of claims under the Workmen's Compensation Law(s) set out in the Schedule.

It is also declared and agreed that the maximum compensation payable by virtue of this endorsement to any individual employee shall be limited to QRs.200,000.- during the Period of Indemnity.

EXCLUSION OF OCCUPATIONAL SICKNESS/DISEASE, HERNIA, AVIAN FLU, PRE-EXISTING CONDITIONS AND SUNSTROKE:

It is hereby understood and agreed that this policy excludes any liability in respect of occupational sickness/disease, hernia, avian flue, pre existing conditions and sunstroke.

EXCESS CLAUSE:

The company shall not be liable under this policy in respect of wages for the first two days of disability.

TERRORISM EXCLUSION ENDORSEMENT:

Notwithstanding any provision to the contrary within the Policy or any endorsement thereto it is agreed that this insurance excludes loss, damage, cost or expense of whatsoever nature directly or indirectly caused by, resulting from or in connection with any act of terrorism regardless of any other cause or event contributing concurrently or in any other sequence to the loss.

For the purpose of this exclusion an act of terrorism means an act - whether involving violence or the use of force or not - or the threat or the preparation thereof, of any person or group(s) of persons - whether acting alone or on behalf of or in connection with any organisation(s) or government(s) - which

- Appears to be intended to
  intimidate or influence a de jure or de facto government or the public or a section of the public, or
  disrupt any segment of the economy, or
- from its nature or context is done in connection with political, social,

LIBANO-SUISSE S.A.L. INSURANCE CO. DOHA

For and on behalf of:
LIBANO-SUISSE INSURANCE CO.

religious, ideological or similar objectives.

This endorsement also excludes loss, damage, cost or expense of whatsoever nature directly or indirectly caused by, resulting from or in connection with any action taken in controlling, preventing, suppressing or in any way relating to any act of terrorism.

If the Company alleges that by reason of this exclusion, any loss, damage, cost or expense is not covered by this insurance the burden of proving the contrary shall be upon the Insured.

INFORMATION TECHNOLOGY CLARIFICATION CLAUSE:

Losses arising, directly or indirectly, out of:

(i) loss of, alteration of, or damage to, or
(ii) a reduction in the functionality, availability or operation of

a computer system, hardware, programme, software, data, information repository, microchip, integrated circuit or similar device in computer equipment or non-computer equipment, whether the property of the Insured or not, is not covered by the policy unless arising out of one or more of the following Perils:

fire, lightning, explosion, aircraft or vehicle impact, storm, tornado, cyclone, hurricane, earthquake, volcano, flood.

Provided always that the above referred Perils are insured by the Policy

NUCLEAR ENERGY EXCLUSION CLAUSE:

This Agreement does not apply to and does not cover any loss, damage, cost or expenses:

i.) Directly or indirectly caused by, resulting from or in any way involving any nuclear, atomic or radioactive material or substances in any form, device, state or process; or
ii.) That is insurable under nuclear or atomic pool insurance or any other form of insurance specifically available for nuclear or atomic risks.

This exclusion applies whether or not there are one or more other clauses (whether covered or not) that contribute concurrently or in any sequence to the occasioning of the loss, damage, cost or expense.

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For and on behalf of:
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Notwithstanding the above, this exclusion shall not apply to any loss, damage, cost or expense caused directly by radioactive isotopes which are used in the ordinary course of any non-governmental scientific, medical, agricultural or industrial business that does not involve in whole or in part the generation of electricity through or by use of nuclear, atomic or radioactive material, substances or processes. This paragraph does not apply to loss, damage, cost or expense caused by radioactive contamination.

This exclusion applies notwithstanding any provision in this Agreement affording coverage in whole or in part for any loss, damage, cost or expense (including but not limited to any provision dealing with Terrorism), regardless of any other cause that contribute concurrently or in any sequence to the loss, damage cost or expense.

TOTAL ASBESTOS EXCLUSION:

It is hereby understood and agreed that this Policy does not apply to loss, demand, claim or suit arising out of or related in any way to asbestos or asbestos-containing materials.

The company shall have no duty of any kind with respect to any such loss, demand, claim or suit.

This clause applies to all coverage's under this policy.

TOXIC MOULD EXCLUSION CLAUSE:

Notwithstanding anything to the contrary contained in the policy,We will not pay for any liability arising directly or indirectly by,resulting from, contributed by,or related in any way to 'mould'.Liability directly or indirectly by,resulting from,contributed to by,or related in any way to 'mould' is excluded regardless of any other cause or event that contribute concurrently,or in any sequence with, the liability.

The following definition is added to the policy;
'Mould' means any species or fungi,including,but not limited to,mould, yeast, mildew,spores,mould toxins,mycotoxins,mould metabolites, mould antigens,mould allergens,smut,wet or dry rot,mould-produced antibiotics, or dust or fumes containing any of the foregoing, individuality, or is any

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combination therewith or with another substance.

ELECTROMAGNETIC FIELDS EXCLUSION CLAUSE:

It is hereby noted and agreed that notwithstanding anything to the contrary contained herein, this Policy shall not cover any loss or liability which arises out of or is contributed directly or indirectly by exposure to magnetic electric or electromagnetic fields or radiation howsoever caused or generated.

INDUSTRIES, SEEPAGE, POLLUTION AND CONTAMINATION CLAUSE:

This Insurance does not cover any liability for:

1. Personal injury or Bodily injury or loss of, damage to, or loss of use of property directly or indirectly caused by seepage, pollution or contamination, provided always that this paragraph (1) shall not apply to liability for Personal injury or Bodily injury or loss of or physical damage to or destruction of tangible property, or loss of use of such property damaged or destroyed, where such seepage, pollution or contamination is caused by sudden, unintended and unexpected happening during the period of this Insurance.

2. The cost of removing, nullifying or cleaning-up seeping, polluting or contaminating substances unless the seepage, pollution or contamination is caused by a sudden unintended and unexpected happening during the period of this insurance.

3. Fine, penalties, punitive or exemplary damages.

This Clause shall not extend this Insurance to cover any liability which would not have been covered under this Insurance had this Clause not been attached.

EXCLUSION OF DIVING &/OR UNDER WATER ACTIVITIES:

The company shall not be liable under this policy in respect of any liability arising out of involving in Diving &/or under-water activities as a part of their employment or not.

LIBANO-SUISSE S.A.L. DOHA INSURANCE CO.

For and on behalf of:
LIBANO-SUISSE INSURANCE CO.

EXCLUSION OF ACQUIRED IMMUNE DEFICIENCY SYNDROME:

It is hereby understood and agreed that this policy excludes any liability in respect of Acquired Immune Deficiency Syndrome.

SANCTION LIMITATION AND EXCLUSION CLAUSE

No insurer shall be deemed to provide cover and no insurer shall be liable to pay any claim or provide any benefit hereunder to the extent that the provision of such cover, payment of such claim or provision of such benefit would expose that insurer to any sanction, prohibition or restriction under the trade or economic sanctions, laws or regulations of any jurisdiction applicable to that insurer.

Subject otherwise to the terms, exceptions and conditions of the policy.

Subject otherwise to the terms, conditions and exceptions of the policy.

Any Addition or amendment not bearing the company's official signature shall be null and void

Issued in QATAR on 10/09/2020

LIBANO-SUISSE S.A.L. INSURANCE CO. DOHA

For and on behalf of:
LIBANO-SUISSE INSURANCE CO.

QATAR ENGINEERING LABORATORIES W.L.L

EQUIPMENT INVENTORY

EQUIPMENT INVENTORY

Form No : QF-08
Rev No: 03
Date: 20-12-2016

REF. No	EQUIPMENT NAME	CAPACITY	EQUIPMENT MAKE	TYPE OR MODEL	SERIAL NO.	CAL DATE	CAL DUE DATE	MODE OF CALIBRATION	FREQUENCY OF CALIBRATION	EQUIPMENT LOCATION
QEL 002 (RSP-1)	Road Surface Profiler-RSP-1	-	Dynatest-Denmark	Mark-IV	5051-4-259	15/11/2021	15/11/2022	Out House Calibration	1 Year	QEL Main Lab
	Road Surface Profiler-(Accelerometer-1) RSP-1	-	Dynatest-Denmark	Mark-IV	1521-495152	15/11/2021	15/11/2022	Out House Calibration	1 Year	QEL Main Lab
	Road Surface Profiler-(Accelerometer-2) RSP-1	-	Dynatest-Denmark	Mark-IV	1521-495153	15/11/2021	15/11/2022	Out House Calibration	1 Year	QEL Main Lab
	Road Surface Profiler-(DMI)RSP-1	-	Dynatest-Denmark	Mark-IV	QEL	15/11/2021	15/11/2022	Out House Calibration	1 Year	QEL Main Lab
	Road Surface Profiler-(Laser Displacement Sensor-1) RSP-1	-	Dynatest-Denmark	Mark-IV	IR 4505	15/11/2021	15/11/2022	Out House Calibration	1 Year	QEL Main Lab
	Road Surface Profiler-(Laser Displacement Sensor-2) RSP-1	-	Dynatest-Denmark	Mark-IV	IR 4480	15/11/2021	15/11/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 168	Compression Machine (CM-3)	2000kN	ELE	ADR-AUTO	1881-1-10146	04/01/2021	04/01/2022	Out House Calibration	1 Year	Concrete Lab
QEL 470	Compression Machine (CM-5)	3000kN	ELE	ADR-AUTO V2.0	1913-3-0525	01/05/2021	01/05/2022	Out House Calibration	1 Year	Concrete Lab
QEL 527	Compression Machine (CM-6)	3000kN	ELE		1890-3-2039	08/05/2021	08/05/2022	Out House Calibration	1 Year	Concrete Lab
QEL 522	Compression Machine (CM-7)	3000 KN	ELE		1890-1-1622	30/07/2021	29/07/2022	Out House Calibration	1 Year	Hyundai TSE
QEL 522	Compression Machine - Stability	3000Kn	ELE	ADR-AUTO V2.0	1890-1-1622	28/07/2021	27/07/2022	Out House Calibration	1 Year	Hyundai TSE
QEL 693	Compression Machine (CM-10)	30010KN	ELE	36-5165/01	1890-1-1669	12/08/2021	11/08/2022	Out House Calibration	1 Year	Concrete Lab
QEL 170	Flexural Machine (FM-1)	100kN	ELE	ADR-AUTO	1639-7-1180	04/01/2021	04/01/2022	Out House Calibration	1 Year	Concrete Lab
QEL 171	Universal Testing Machine-UTM-1	1000 kN	TESTWELL	TUTE 100	2009/219	20/11/2021	20/11/2022	Out House Calibration	1 Year	Steel Lab
QEL 424	Universal Testing Machine-UTM-2		Universal Motion Inc	UMI-50	181922222	17/06/2021	16/06/2022	Out House Calibration	1 Year	Steel Lab
QEL 753	Gyratory Compactor		Pine Instrument Company	AFG2C	8528	28/08/2021	28/08/2022	Out House Calibration	1 Year	Asphalt Lab
QEL 753	Gyratory Compactor - Load Ring		Pine Instrument Company		-	07/09/2021	07/09/2022	Out House Calibration	1 Year	Asphalt Lab
QEL 793	Gyratory Compactor		Pine Instrument Company			28/08/2021	28/08/2022	Out House Calibration	1 Year	Asphalt Lab
QEL 462	Humidity Chamber		Osworld	OPSH-G-28	3112	03/02/2021	03/02/2022	Out House Calibration	1 Year	Durability Lab
QEL 553	Ductility		Labtest		4026-105	07/07/2021	06/07/2022	Out House Calibration	1 Year	Asphalt Lab
QEL 554	Thin film Oven		Labtest		4034-115	08/12/2021	08/12/2022	Out House Calibration	1 Year	Asphalt Lab
QEL 639	Rolling Thin Film Oven		Zeal International		-	08/12/2021	08/12/2022	Out House Calibration	1 Year	Asphalt Lab
QEL 650	Kinematic Viscocity Rotational				-	12/06/2021	11/06/2022	Out House Calibration	1 Year	Asphalt Lab
QEL 756	Viscometer Rotational		Brookfield	DV2T-RVTJ0	8716074	20/09/2021	20/09/2022	Out House Calibration	1 Year	Asphalt Lab
QEL 782	Viscometer Water Bath		Cannon Instrument Company	CT-1000F	1455-A2818	20/09/2021	20/09/2022	Out House Calibration	1 Year	Asphalt Lab
QEL 809	Permeability Apparatus for Geo-textile (Manual)	-	Universal Motion Inc.	GT-101 CF	1072021	15/08/2021	15/08/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 810	Rotap Sieve Shaker		Universal Motion Inc.	BSEN ISO12956	BSEN ISO12956	08/08/2021	08/08/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 651	Low Temperature Incubator	-50	MEMMERT	INB200	E207.0361	17/05/2021	17/05/2022	Out House Calibration	1 Year	Chemical Lab

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QEL 719	Multifunction Abrasion Scrub Tester		Biuged Laboratory Instruments	BGD 528	5281806006	03/02/2021	03/02/2022	Out House Calibration	1 Year	Asphalt Lab
QEL 720	Abrasison Tester - Taper Type		Caktech Engineering		122	03/02/2021	03/02/2022	Out House Calibration	1 Year	Asphalt Lab
QEL 005	Tester Insulation		MEGGER	DETGTR2	080508/1004	05/03/2021	05/03/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 082	COD Reactor	-	HATCH	DRB 200	09070C0391	19/01/2021	19/01/2022	Out House Calibration	1 Year	Chemical Lab
QEL 718	Wet Film Wheel Thickness Gauge	50 Microns	Elcometer	TJ01783	3230	20/03/2021	20/03/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 021	Master Loader	50 kN	Humboldt / USA	HM-3000	708469	20/11/2021	20/11/2022	Out House Calibration	1 Year	Soil Lab
QEL 680	Master Loader	50 kN	HUMBOLT	HM-5120.3F	1709049	07/07/2021	06/07/2022	Out House Calibration	1 Year	Asphalt Lab
QEL 083	Muffle Furnace	1200C	ELE INTERNATIONAL	83-4070/01	83-4170/01-0052	07/07/2021	06/07/2022	Out House Calibration	1 Year	Chemical Lab
QEL 788	Muffle Furnace	1100C	Carbolite / UK		-	18/10/2021	18/10/2022	Out House Calibration	1 Year	Chemical Lab
QEL 090	Centrifugal Extractor	*-	HOUGHTON		H 080443	12/08/2021	11/08/2022	Out House Calibration	1 Year	Asphalt Lab
QEL 646	Centrifugal Extractor		Controls	75-B2312	15006205	17/05/2021	17/05/2022	Out House Calibration	1 Year	Asphalt Lab
QEL 559	Point Load Apparatus	50 kN	ELE INTERNATIONAL	-	-	28/02/2021	28/02/2022	Out House Calibration	1 Year	Durability Lab
QEL 075	Drying Oven	250 C	OVEN	SERIES 2000	100011107.00	09/08/2021	08/08/2022	Out House Calibration	1 Year	Chemical Lab
QEL 078	Drying Oven	250 C	Carbolite / UK	SERIES 2000	*1100006007	17/05/2021	17/05/2022	Out House Calibration	1 Year	Asphalt Lab
QEL 079	Drying Oven	300C	Carbolite / UK	PF 200	20-701317	17/05/2021	17/05/2022	Out House Calibration	1 Year	Durability Lab
QEL 092	Drying Oven	250 C	OVEN	SERIES 2000	LCO/27/H/DIG	10/10/2021	10/10/2022	Out House Calibration	1 Year	Soil Lab
QEL 128	Drying Oven	250C	GENLAB	SDO/225/DC	111074.00	10/10/2021	10/10/2022	Out House Calibration	1 Year	
QEL 294	Drying Oven	250C	GENLAB	SDO/225/GDIG	15B174	08/12/2021	08/12/2022	Out House Calibration	1 Year	Aggregate Lab
QEL 296	Drying Oven	250 C	GENLAB	SD	15B173	19/11/2021	19/11/2022	Out House Calibration	1 Year	Asphalt Lab
QEL 466	Drying Oven	40 0C - 190 0C	GENLAB	16D407	SDO/225/GDIG	03/04/2021	03/04/2022	Out House Calibration	1 Year	Asphalt Lab
QEL 482	Drying Oven	40 0C - 190 0C	GENLAB	SDO	225/GDIG	09/08/2021	08/08/2022	Out House Calibration	1 Year	Cement Lab
QEL 520	Drying Oven		GENLAB	SDO	16B104	28/07/2021	27/07/2022	Out House Calibration	1 Year	Hyundai TSE
QEL 521	Drying Oven		GENLAB	SDO	14EO51	19/11/2021	19/11/2022	Out House Calibration	1 Year	Hyundai TSE
QEL 601	Drying Oven		GENLAB	SDO	17G028	01/09/2021	01/09/2022	Out House Calibration	1 Year	Asphalt Lab
QEL 642	Drying Oven		Calor Instruments	LDR SO 225	AGA.125	18/07/2021	17/07/2022	Out House Calibration	1 Year	Hyundai Site Lab
QEL 658	Drying Oven		GENLAB	SDO	225/GDIG	18/07/2021	17/07/2022	Out House Calibration	1 Year	Hyundai Site Lab
QEL 678	Drying Oven		GENLAB	SDO	225/GDIG	19/11/2021	19/11/2022	Out House Calibration	1 Year	Hyundai TSE
QEL 686	Drying Oven		GENLAB	SDO	18A086	10/10/2021	10/10/2022	Out House Calibration	1 Year	Soil Lab

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REF. No	EQUIPMENT NAME	CAPACITY	EQUIPMENT MAKE	TYPE OR MODEL	SERIAL NO.	CAL DATE	CAL DUE DATE	MODE OF CALIBRATION	FREQUENCY OF CALIBRATION	EQUIPMENT LOCATION
QEL 073	Proving Ring	50kN	ELE INTER	EL 78-0860	780860-00453	14/09/2021	14/09/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 163	Proving Ring (Shear Box)	2 kN	ELE	EL78-0060	02121(XIR1413)	14/09/2021	14/09/2022	Out House Calibration	1 Year	Durability Lab
QEL 164	Proving Ring (Shear Box)	4.5 kN	ELE	EL78-0060	02120(YAB1819)	14/09/2021	14/09/2022	Out House Calibration	1 Year	Durability Lab
QEL 327	Proving Ring	50 KN			12304	02/06/2021	01/06/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 697	Proving Ring	28 KN	ELE		78-0760-00473	08/10/2021	08/10/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 173	Pull Off Tester	-	ELCOMETER	106	JMA637	28/02/2021	28/02/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 174	Pull Off Tester	3.5 Mpa	ELCOMETER	F106-6	LM03508	28/02/2021	28/02/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 175	Thermal Properties Analyzer		Decagon Devices	KD2-Pro	KP 1488	16/05/2021	16/05/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 038	Power Supply	-	ISO TECH	-	905D002G1	25/04/2021	25/04/2022	Out House Calibration	1 Year	Durability Lab
QEL 613	Power Supply		Sky Toppower	STP6005H	-	09/04/2021	09/04/2022	Out House Calibration	1 Year	Durability Lab
QEL 614	Power Supply		Sky Toppower	STP6005H	-	09/04/2021	09/04/2022	Out House Calibration	1 Year	Durability Lab
QEL 616	Power Supply		Sky Toppower	STP6005H	-	28/06/2021	27/06/2022	Out House Calibration	1 Year	Durability Lab
QEL 580	Aircontent Full Set		Gilson	HM-30	-	21/03/2021	21/03/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 581	Aircontent Full Set		Gilson	HM-30	-	10/03/2021	10/03/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 007	Electronic Balance	720 grams	CITIZEN	CY 720	185245/07	17/05/2021	17/05/2022	Out House Calibration	1 Year	Chemical Lab
QEL 010	Electronic Balance	3100 grams	CITIZEN	CG3102	211608/07	17/02/2021	17/02/2022	Out House Calibration	1 Year	Soil Lab
QEL 015	Electronic Balance	15 Kg	CITIZEN	CTG-15H	122112013	03/04/2021	03/04/2022	Out House Calibration	1 Year	Durability Lab
QEL 041	Electronic Balance	15000 grams	CITIZEN	CTG-15H	12212004	04/01/2021	04/01/2022	Out House Calibration	1 Year	Asphalt Lab
QEL 062	Electronic Balance Analytical	180 grams	CITIZEN	PW 184	AE 437413	09/02/2021	09/02/2022	Out House Calibration	1 Year	Chemical Lab
QEL 096	Electronic Balance	15000 grams	OHAUS	EB 15	8031224809	04/01/2021	04/01/2022	Out House Calibration	1 Year	Concrete Lab
QEL 139	Electronic Balance	8100 grams	OHAUS	AV8101	1126330289	03/04/2021	03/04/2022	Out House Calibration	1 Year	Soil Lab
QEL 160	Electronic Balance	30 Kg	OHAUS	R31P30	8334320001	27/07/2021	27/07/2022	Out House Calibration	1 Year	Concrete Lab
QEL 176	Electronic Balance (A26-2)	3100 grams	CITIZEN	CG 3102	160199-06	28/07/2021	27/07/2022	Out House Calibration	1 Year	Cement Lab
QEL 177	Electronic Balance	30 Kg	OHAUS	R31P30	8335340725	17*05-2021	17/05/2022	Out House Calibration	1 Year	Soil Lab
QEL 351	Electronic Balance	200 g	ELE		120206001	17/05/2021	17/05/2022	Out House Calibration	1 Year	Cement Lab
QEL 378	Electronic Balance	30 Kg	OHAUS		8336410334	12/06/2021	11/06/2022	Out House Calibration	1 Year	Steel Lab
QEL 422	Electronic Balance (CBM)	30 kg	OHAUS	R31P30	8336410337	10/10/2021	10/10/2022	Out House Calibration	1 Year	BNOH Site Lab
QEL 459	Electronic Balance	6000 grms	CITIZEN	16305035	16305035	08/12/2021	08/12/2022	Out House Calibration	1 Year	Aggregate Lab

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QEL 469	Electronic Balance	150 kg	OHAUS	T23P	B000187JES	03/04/2021	03/04/2022	Out House Calibration	1 Year	Concrete Lab
QEL 509	Electronic Balance	15 Kg	CITIZEN		8119026011	10/10/2021	10/10/2022	Out House Calibration	1 Year	Aggregate Lab
QEL 519	Electronic Balance	150 Kg		XK3190-A6	1310048979	04/07/2021	03/07/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 557	Electronic Balance	6 Kg	CITIZEN	CTG6H	8119025029	28/07/2021	27/07/2022	Out House Calibration	1 Year	Hyundai TSE
QEL 560	Electronic Balance	5 Kg	TM		TN14036	04/01/2021	04/01/2022	Out House Calibration	1 Year	Asphalt Lab
QEL 600	Electronic Balance	15 Kg	Aczet	CZ15H	27017007	21/02/2021	21/02/2022	Out House Calibration	1 Year	Asphalt Lab
QEL 602	Electronic Balance	30 Kg	OHAUS	R31P30	83377280029	05/11/2021	05/11/2022	Out House Calibration	1 Year	UCC Site
QEL 603	Electronic Balance	2200 g	OHAUS		B170807298	28/07/2021	27/07/2022	Out House Calibration	1 Year	Hyundai TSE
QEL 643	Electronic Balance	30 Kg	OHAUS	R31P30	8337280031	28/07/2021	27/07/2022	Out House Calibration	1 Year	Hyundai TSE
QEL 659	Electronic Balance	30 kg	OHAUS	R31P30	8337280051	18/07/2021	17/07/2022	Out House Calibration	1 Year	Hyundai Site Lab
QEL 682	Electronic Balance	2200g	OHAUS	PA2202	B746992541	18/07/2021	17/07/2022	Out House Calibration	1 Year	Hyundai Site Lab
QEL 683	Electronic Balance	30 Kg	OHAUS	R21PHE30	8339130003	18/07/2021	17/07/2022	Out House Calibration	1 Year	Hyundai Site Lab
QEL 685	Electronic Balance	30 Kg	OHAUS	R21PHE30	8339130005	10/10/2021	10/10/2022	Out House Calibration	1 Year	Asphalt Lab
QEL 745	Electronic Balance Analytical	320 grm	OHAUS	AX324	89341144813	17/02/2021	17/02/2022	Out House Calibration	1 Year	Chemical Lab
QEL 786	Electronic Balance Analytical	310 grm	OHAUS	AR3130	8726344205	10/10/2021	10/10/2022	Out House Calibration	1 Year	Chemical Lab
QEL 787	Electronic Balance Analytical	220 gm	CITIZEN		-	10/10/2021	10/10/2022	Out House Calibration	1 Year	Asphalt Lab-2
QEL 178	Standard Weight - 100 gm	100 gm			TN 12000	08/07/2021	07/07/2022	Out House Calibration	1 Year	Chemical Lab
QEL 179	Standard Weight - 100 gm	100 gm			TN 11999	17/07/2021	16/07/2022	Out House Calibration	1 Year	Asphalt Lab
QEL 180	Standard Weight - 100 gm	100 gm			TN 12380	31/10/2021	31/10/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 182	Standard Weight - 200 gm	200 gm			TN 12379	31/10/2021	31/10/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 183	Standard Weight - 500 gm	100 gm			TN 11998	29/07/2021	28/07/2022	Out House Calibration	1 Year	Concrete Lab
QEL 183	Standard Weight - 183 gm	500 gm			TN 11998	29/07/2021	28/07/2022	Out House Calibration	1 Year	Concrete Lab
QEL 362	Standard Weight - 2000 gm	2 Kg	-	-	-	02/08/2021	01/08/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 363	Weight Set Full		China		8015	28/07/2021	28/07/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 775	Standard Weight - 500 gm	500 gm	M Class		-	31/10/2021	31/10/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 777	Standard Weight - 50gm	50 gm			-	31/10/2021	31/10/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 778	Standard Weight - 100 gm	100 gm			-	31/10/2021	31/10/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 781	Weight Set			F2	-	31/10/2021	31/10/2022	Out House Calibration	1 Year	QEL Main Lab

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QEL 814	Standard Weight - 100 gm	100 gm				15/12/2021	15/12/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 815	Standard Weight - 100 gm	100 gm				15/12/2021	15/12/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 114	Digital Caliper - Master	300	BAKER	SDN 30	924	29/06/2021	28/06/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 371	Digital Caliper	300mm	BAKER	SDN 30	EA300721	19/04/2021	19/04/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 484	Digital Caliper	300mm	BAKER	SDN 30	FB02504	19/04/2021	19/04/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 562	Digital Caliper	300mm	BAKER	SDN 30	FA309759	29/03/2021	29/03/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 563	Digital Caliper	300mm	BAKER	SDN 30	FA309771	06/03/2021	06/03/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 630	Digital Caliper	300 mm	BAKER	SDN 30	EA309427	22/06/2021	21/06/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 652	Digital Caliper	300 mm	BAKER	SDN 30	GH503042	24/07/2021	23/07/2022	Out House Calibration	1 Year	Hyundai Site Lab
QEL 766	Digital Caliper	600 mm	Mitutoyo		8016275	07/10/2021	07/10/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 036	Dial Gauge	25mm	BAKER	J08A	SDC 153	15/01/2021	15/01/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 043	Dial Gauge	50mm	ELE	.01-50MM	Z20563	20/11/2021	20/11/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 057	Dial Gauge	0.001-5 mm	BAKER	0.001-5 mm	499	05/04/2021	05/04/2022	Out House Calibration	1 Year	Cement Lab
QEL 063	Dial Gauge	25mm	BAKER	J08A	SDC 157	15/01/2021	15/01/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 065	Dial Gauge	25mm	BAKER	J08A	SDC059	15/01/2021	15/01/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 093	Dial Gauge	25mm	BAKER	J08A	SDC 049	26/01/2021	26/01/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 094	Dial Gauge	25mm	BAKER	J08A	N 7636	31/10/2021	31/10/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 118	Dial Gauge	0-25 mm	LTL	0-25 mm	5230	02/10/2021	02/10/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 120	Dial Gauge	0-25 mm	LTL	0-25 mm	5707	31/10/2021	31/10/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 122	Dial Gauge	0-25 mm	LTL	0-25 mm	5678	26/01/2021	26/01/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 124	Dial Gauge	0-25 mm	LTL	0-25 mm	6470	11/12/2021	11/12/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 142	Dial Gauge	25mm	BAKER	J08A	N 7641	11/12/2021	11/12/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 185	Dial Gauge	10 mm	ELE	SX-698/1	XIR 1662	26/01/2021	26/01/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 186	Dial Gauge	10 mm	ELE	SX-698/1	WIM 652	31/10/2021	31/10/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 187	Dial Gauge	10 mm	ELE	SX-698/1	XIR 1654	26/01/2021	26/01/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 188	Dial Gauge	10 mm	ELE	SX-698/1	XH 0002	02/10/2021	02/10/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 189	Dial Gauge	50 mm	BAKER	J72	Z 22951	12/12/2021	12/12/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 191	Dial Gauge	50 mm	BAKER	J72	Z 22924	16/01/2021	16/01/2022	Out House Calibration	1 Year	QEL Main Lab

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QEL 192	Dial Gauge	0-10 mm	ELE International	SX-694/1	WLU 444	02/10/2021	02/10/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 200	Dial Gauge - China Gezhuba	25 mm	BAKER	K08	YHD3078	11/12/2021	11/12/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 201	Dial Gauge - China Gezhuba	25 mm	BAKER	K08	YIC2668	06/07/2021	05/07/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 202	Dial Gauge - China Gezhuba	25 mm	BAKER	K08	YHD3916	11/12/2021	11/12/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 393	Dial Gauge	25 mm	BAKER	K08	CBA279	20/11/2021	20/11/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 394	Dial Gauge	25 mm	BAKER	K08	CBA219	11/12/2021	11/12/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 395	Dial Gauge	25 mm	BAKER	K08	BLB223	12/10/2021	12/10/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 396	Dial Gauge	25 mm	BAKER	K08	CBA238	21/06/2021	20/06/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 397	Dial Gauge	25 mm	BAKER	K08	CBA225	20/11/2021	20/11/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 398	Dial Gauge	25 mm	BAKER	K08	BKC158	30/06/2021	29/06/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 399	Dial Gauge	25 mm	BAKER	K08	CBA204	11/12/2021	11/12/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 400	Dial Gauge	25 mm	BAKER	K08	CAC130	21/06/2021	20/06/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 401	Dial Gauge	25 mm	BAKER	K08	CBA196	20/11/2021	20/11/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 402	Dial Gauge	25 mm	BAKER	K08	CBA241	11/12/2021	11/12/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 502	Dial Gauge	50 mm	BAKER	J72	AFF 222	02/10/2021	02/10/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 503	Dial Gauge	50 mm	BAKER	J72	AFF 212	16/01/2021	16/01/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 504	Dial Gauge	50 mm	BAKER	J72	AFF 055	16/01/2021	16/01/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 515	Dial Gauge	50 mm	BAKER	J72	AFF 203	12/12/2021	12/12/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 537	Dial Gauge	50 mm	ELE		XLE4958	06/03/2021	06/03/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 620	Dial Gauge - Digital	0 mm to 12.7 mm			DDG-01	09/04/2021	09/04/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 621	Dial Gauge - Digital	0 mm to 12.7 mm			DDG-02	09/04/2021	09/04/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 622	Dial Gauge - Digital	0 mm to 12.7 mm			DDG-03	09/04/2021	09/04/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 709	Dial Gauge		ELE International		AHA033	13/09/2021	13/09/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 728	Dial Gauge	25 mm	BAKER	K08	CBA214	11/12/2021	11/12/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 729	Dial Gauge	25 mm	BAKER	K08	CBA155	20/11/2021	20/11/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 730	Dial Gauge	25 mm	BAKER	K08	CBA273	20/11/2021	20/11/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 769	Dial Gauge - Digital		Mitutoyo	ID-C112MXB	16115518	05/10/2021	05/10/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 770	Dial Gauge - Digital		Mitutoyo	ID-C112MXB	16097057	05/10/2021	05/10/2022	Out House Calibration	1 Year	QEL Main Lab

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QEL 774	Dial Gauge		BAKER		-	30/03/2021	30/03/2022	Out House Calibration	1 Year	Soil Lab
QEL 795	Dial Gauge		BAKER		-	30/03/2021	30/03/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 796	Dial Gauge		BAKER		-	30/03/2021	30/03/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 797	Dial Gauge		BAKER		-	30/03/2021	30/03/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 798	Dial Gauge		BAKER		-	30/03/2021	30/03/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 799	Dial Gauge		BAKER		-	30/03/2021	30/03/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 800	Dial Gauge		BAKER		-	30/03/2021	30/03/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 801	Dial Gauge		BAKER		-	30/03/2021	30/03/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 802	Dial Gauge		BAKER		-	30/03/2021	30/03/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 803	Dial Gauge		BAKER		-	30/03/2021	30/03/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 146	Thermometer	.-49.9 to 299.9.	THERMAPEN,ETI	THERMAPEN	R 13240334	15/12/2021	15/12/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 199	Thermometer - Glass	*-40 to 50 C.			TN11862	01/08/2021	31/07/2022	Out House Calibration	1 Year	Chemical Lab
QEL 205	Thermometer	.-49.9 to 299.9.	ETI LTD	810-260	-	22/10/2021	22/10/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 225	Thermometer	.-49.9 to 299.9.	Testo 104	Testo	35755202	25/01/2021	25/01/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 240	Thermometer	.-49.9 to 299.9.	THERMAPEN,ETI	THERMAPEN	B1803316	21/02/2021	21/02/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 243	Thermometer	.-49.9 to 299.9.	THERMAPEN,ETI	THERMAPEN	B18032350	29/11/2021	29/11/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 313	Thermometer	.-49.9 to 299.9.	ETI LTD	THERMAPEN	B14442237	16/04/2021	16/04/2022	Out House Calibration	1 Year	asif redco 25-5-2021
QEL 314	Thermometer (White Color)	.-50 to 250.9.	TESTO AG GERMANY	104	*35745130	28/06/2021	28/06/2022	Out House Calibration	1 Year	Sreejith K Tech.
QEL 384	Thermometer K Type	.-50 to 250.9.	CENTER		190500250	24/11/2021	24/11/2022	Out House Calibration	1 Year	Soil Lab
QEL 385	Thermometer K Type	.-50 to 250.9.	CENTER		190500261	03/12/2021	03/12/2022	Out House Calibration	1 Year	Concrete Lab
QEL 386	Thermometer K Type	.-50 to 250.9.	CENTER		190500336	24/11/2021	24/11/2022	Out House Calibration	1 Year	Cement Lab
QEL 387	Thermometer K Type	.-50 to 250.9.	CENTER		190500326	30/11/2021	30/11/2022	Out House Calibration	1 Year	Asphalt Lab
QEL 477	Thermometer			THERMAPEN	B 16211370	01-06-2021	31-05-2022	Out House Calibration	1 Year	QEL Main Lab
QEL 485 - Master	Thermometer with Probe - Master	.-100 to1372	ETI Ltd	Therma3	B 16140910	04-10-2021	04-10-2022	Out House Calibration	1 Year	QEL Main Lab
QEL 538	Thermometer	.-49 to 299.9.	ETI LTD	THERMAPEN	B 17183764	06-03-2021	06-03-2022	Out House Calibration	1 Year	QEL Main Lab
QEL 571	Thermometer	.-49 to 299.9.	ETI LTD	THERMAPEN	B17312490	16-04-2021	16-04-2022	Out House Calibration	1 Year	QEL Main Lab
QEL 595	Thermometer	.-50 to 250.9.	ETI LTD	THERMAPEN	B17393231	01-06-2021	31-05-2022	Out House Calibration	1 Year	Durability Lab
QEL 154	Thermometer	.-50 to 250.9.	Testo		35755181	13-02-2021	13-02-2022	Out House Calibration	1 Year	asphalt lab

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QEL 332	Infrared Thermometer	50 m Max	Infrared Thermometer	Ray Temp 8	LCS 1600028	11/04/2021	11/04/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 690	Thermometer	.-50 to 250.9.	Testo		35745139	29/11/2021	29/11/2022	Out House Calibration	1 Year	UCC D Ring
QEL 673	Thermometer - K Type	.-200 to 1370	Center	300	180300425	30/11/2021	30/11/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 739	Thermometer		ETI LTD		B19485080	02/02/2021	02/02/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 740	Thermometer		ETI LTD		B19485084	02/02/2021	02/02/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 742	Thermometer		ETI LTD		B19485071	02/02/2021	02/02/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 743	Thermometer		ETI LTD		B19485083	02/02/2021	02/02/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 757	Thermometer - K Type	.-200 to 1370	Center	300	170600494	08/08/2021	07/08/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 791	Thermometer		ETI LTD			22/10/2021	22/10/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 792	Thermometer		ETI LTD			22/10/2021	22/10/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 804	Thermometer	-49.9 to 199.9	ETI LTD	Thermapen	B21151555	28/06/2021	27/06/2022	Out House Calibration	1 Year	QEL Main Lab
QEL805	Thermometer	-49.9 to 199.9	ETI LTD	Thermapen	B21156125	28/06/2021	27/09/2022	Out House Calibration	1 Year	QEL Main Lab
QEL806	Thermometer	-49.9 to 199.9	ETI LTD	Thermapen	B21156117	28/06/2021	27/06/2022	Out House Calibration	1 Year	QEL Main Lab
QEL807	Thermometer	-49.9 to 199.9	ETI LTD	Thermapen	B21156126	28/06/2021	27/06/2022	Out House Calibration	1 Year	QEL Main Lab
QEL808	Thermometer	-49.9 to 199.9	ETI LTD	Thermapen	B21151510	28/06/2021	27/06/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 159	Glass Thermometer-Hydrometer	0.50C				24/10/2021	24/10/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 140	Spirit Level					16/02/2021	16/02/2022	Out House Calibration	1 Year	QEL BAHRAIN
QEL 237	Long Stem Soil Hydrometer	0.995/1.030	ELE International	BS	13-789031	22/03/2021	22/03/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 722	Long Stem Soil Hydrometer	1.150/1.200	ELE International	BS	8295453	22/03/2021	22/03/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 109	Feeler Gauge	.05-1.00mm	FORCE	618	FILG-1	24/04/2021	24/04/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 377	Feeler Gauge	0.04 mm TO 1 mm	AUTOMASTER		915-6889	08/10/2021	08/10/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 552	Feeler Gauge					11/04/2021	11/04/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 623	Feeler Gauge	0.03mm to 0.50 mm	Insize			24/04/2021	24/04/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 624	Feeler Gauge	0.03mm to 0.50 mm	Insize			19/07/2021	18/07/2022	Out House Calibration	1 Year	Concrete Lab
QEL 629	Feeler Gauge	0.03mm to 0.50 mm	Insize			26/04/2021	26/04/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 645	Feeler Gauge	0.03mm to 0.50 mm	Mitutoyo	184-304S		21/11/2021	21/11/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 812	Feeler Gauge	0.03mm to 0.50 mm	Impact Moore		387M	08/10/2021	08/10/2022	Out House Calibration	1 Year	Concrete Lab
QEL 813	Feeler Gauge	0.03mm to 0.50 mm	Impact Moore		387M	17/10/2021	17/10/2022	Out House Calibration	1 Year	Concrete Lab

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QEL 017	Steel Rule	900 mm	Kaoreda	-	-	05/04/2021	04/04/2022	Out House Calibration	1 Year	Steel Lab
QEL 108	Steel Rule	100 CM	N/A	N/A	RULE-1	06/04/2021	05/04/2022	Out House Calibration	1 Year	Concrete Lab
QEL 241	Steel Rule	0-30 Cm		FSRU30S	TN12357	30/05/2021	29/05/2022	Out House Calibration	1 Year	Concrete Lab
QEL 426	Steel Rule	300 mm	Amitco			21/06/2021	20/06/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 427	Steel Rule	300 mm	Amitco			21/06/2021	20/06/2022	Out House Calibration	1 Year	Anandhu Tech.
QEL 428	Steel Rule	300 mm	Amitco			17/06/2021	16/06/2022	Out House Calibration	1 Year	Jesil Joy Tech.
QEL 429	Steel Rule	300 mm	Amitco			15/01/2021	15/01/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 433	Steel Rule	1000 mm	Kennedy			08/10/2021	08/10/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 435	Steel Rule	300 mm	Fis		FSRU30S	14/08/2021	13/08/2022	Out House Calibration	1 Year	UCC Site
QEL 472	Steel Rule - DCP	1000 mm	Kennedy	LCS160088	518-391	12/10/2021	12/10/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 514	Steel Rule	300 mm	Clarke			19/04/2021	19/04/2022	Out House Calibration	1 Year	Asphalt Lab
QEL 591	Steel Rule	300 mm	Clarke			30/05/2021	29/05/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 746	Steel Rule					05/03/2021	05/03/2022	Out House Calibration	1 Year	Asphalt Lab
QEL 074	Pressure gauge	0-10000 psi	HI FORCE	0-700 BAR	4130343150	30/03/2021	30/03/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 245	Pressure Gauge-Plate Load	0 to 6000 Psi	ROTOTHERM	100 mm Dial	9913590071	10/10/2021	10/10/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 247	Pressure Gauge	0 to 30 psi	Equitron			28/06/2021	27/06/2022	Out House Calibration	1 Year	Chemical Lab
QEL 251	Pressure Gauge - Aircontent	15 psi	Charles R Watts Co		TN7689	10/10/2021	10/10/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 328	Pressure Gauge - Din Permeability	0 to 10 Bar	Wika		90264369-110-6	19/04/2021	19/04/2022	Out House Calibration	1 Year	Concrete Lab
QEL 329	Pressure Gauge - Aircontent	15 PSI	Charles R Watts Co	100 mm Dail	TN9102	30/03/2021	30/03/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 336	Pressure Gauge - Plate Load	0 to 6000 Psi	ROTOTHERM		0920PG120673	08/07/2021	07/07/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 364	Pressure Gauge	0 to 6000 Psi	Wika		TN 11258	10/10/2021	10/10/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 423	Pressure Gauge - Din Permeability	0-10 BAR	KI	0-10 BAR	NONE	20/08/2021	20/08/2022	Out House Calibration	1 Year	Durability Lab
QEL 467	Pressure Gauge	0 to 0.4 Mpa	Hongqi			10/10/2021	10/10/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 784	Pressure Gauge					10/10/2021	10/10/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 266	Turbidimeter (Turbi-1)	0 to 1000 NTU	Hach	2100P	3054010	03/07/2021	02/07/2022	Out House Calibration	1 Year	Chemical Lab
QEL 267	Barcol Hardness Tester		Barber Colman Company	GYZJ 934-1	100720-04	13/04/2021	13/04/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 761	Rebound Hammer	0 to 100 RN	Proceq Testing Ins			06/12/2021	06/12/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 008	Cover Meter (CMT-3)				55.5591	12/10/2021	12/10/2022	Out House Calibration	1 Year	QEL Main Lab

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QEL 768	Cover Meter - Digital		Proceq Testing Ins			30/03/2021	30/03/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 270	Coating Thickness Gauge CTG-1		Elcometer	456	HC0599	12/10/2021	12/10/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 721	Coating Thickness Gauge		Elcometer			06/04/2021	06/04/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 754	Coating Thickness Gauge		Elcometer			31/01/2021	31/01/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 272	Digital Vaccum Gauge	0-1000 mm	Absolute Vacuum	9210	5663	30/03/2021	30/03/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 273	Vaccum Gauge	0 to -30 in Hg	WIKA		TN9606	11/10/2021	11/10/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 565	Vaccum Gauge for Pyknometer	0-30	WIKA	*--	*--	20/11/2021	20/11/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 034	Vacuum Dessicator of RCPT	100mm	ACCU TECH	100MM DIAL	RN20385-1	21/08/2021	20/08/2022	Out House Calibration	1 Year	Durability Lab
QEL 031	Rapid Chloride Permaibility Tester		Lab Tech			24/08/2021	23/08/2022	Out House Calibration	1 Year	Durability Lab
QEL 391	Condutivity Meter		OHAUS			08/10/2021	08/10/2022	Out House Calibration	1 Year	Chemical Lab
QEL 392	pH meter		OHAUS			08/10/2021	08/10/2022	Out House Calibration	1 Year	Chemical Lab
QEL 794	pH Meter					03/01/2021	03/01/2022	Out House Calibration	1 Year	Chemical Lab
QEL 506	TDS Meter	0 ppm-2000 ppm	Lovibond	0311/27420		21/02/2021	21/02/2022	Out House Calibration	1 Year	Chemical Lab
QEL 758	Pyknometer 25 mL	25 mL				04/10/2021	04/10/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 759	Pyknometer 50 mL	50 mL				10/03/2021	10/03/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 350	Data Logger - Squirrel		GRANT	2020		07/05/2021	07/05/2022			QEL Main Lab
QEL 404	Data Logger - Squirrel		GRANT	2020	KS1618007	16/09/2021	16/09/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 507	Data Logger - Squirrel		GRANT	2020		14/01/2021	14/01/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 508	Data Logger - Squirrel		GRANT	2020		03/01/2021	03/01/2022	Out House Calibration	1 Year	Concrete Lab
QEL 636	Data Logger - Squirrel		GRANT	2020		15/09/2021	15/09/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 138	Penetrometer	,....	HUMBOLT	1591	H-1240	30/10/2021	30/10/2022	Out House Calibration	1 Year	Asphalt Lab-2
QEL 695	Penetrometer		CONTROLS			15/08/2021	14/08/2022	Out House Calibration	1 Year	Asphalt Lab
QEL 726	Penetrometer	.--	MATEST	B056-10	B056-10.16.06	11/04/2021	11/04/2022	Out House Calibration	1 Year	Soil Lab
QEL 115	Shape Index Gauge (Digital)	300 mm	Impact	*	*	04/12/2021	04/12/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 767	Shape Index Gauge (Digital)	300 mm	Impact			07/10/2021	07/10/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 129	Straight Edge					09/04/2021	09/04/2022	Out House Calibration	1 Year	Concrete Lab
QEL 155	Straight Edge			LCS190228		15/01/2021	15/01/2022	Out House Calibration	1 Year	Concrete Lab
QEL 607	Straight Edge	300 mm				19/07/2021	18/07/2022	Out House Calibration	1 Year	Hyundai TSE

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QEL 625	Straight Edge	300 mm				19/07/2021	18/07/2022	Out House Calibration	1 Year	Hyundai TSE
QEL 641	Straight Edge	300 mm				19/07/2021	18/07/2022	Out House Calibration	1 Year	Hyundai Site Lab
QEL 380	Straight Edge- 3 Meter	3000 mm	Benson Hand Tools	B099N	TN9200	31/07/2021	30/07/2022	Out House Calibration	1 Year	UCC Site
QEL 381	Straight Edge- 3 Meter	3000 mm	Matest	B099N	B099N/AF/0018	08/08/2021	07/08/2022	Out House Calibration	1 Year	Main Lab
QEL 555	Straight Edge- 3 Meter	3000 mm			B099N/AF/0049	24/02/2021	24/02/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 732	Straight Edge- 3 Meter	3000 mm	U Test			18/12/2021	18/12/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 747	Straight Edge					01/06/2021	31/05/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 281	Concrete Penetrometer-Setting Time				TN7698	13/03/2021	13/03/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 088	Water Bath		HUMBOLT	H-1394		17/01/2021	17/01/2022	Out House Calibration	1 Year	Asphalt Lab
QEL 744	Water Bath		Matest		B052-01/AG/0013	03/04/2021	03/04/2022	Out House Calibration	1 Year	Asphalt Lab
QEL 275	Weighing Equipment (WE-3)	10000 Kg	RINSTRUM	R320	3369853	01/05/2021	01/05/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 283	Weighing Equipment (WE-2)	3000 Kg	DINIARCEO	MCWN11T6	500009309	01/08/2021	01/08/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 287	Stop Watch			806-105	TN 11257	10/04/2021	10/04/2022	Out House Calibration	1 Year	Aggregate Lab
QEL 289	Stop Watch			806-105	TN 11256	10/04/2021	10/04/2022	Out House Calibration	1 Year	Soil Lab
QEL 352	Stop Watch		Casio	HS-3		07/11/2021	07/11/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 357	Stop Watch		Casio	HS-3		19/07/2021	18/07/2022	Out House Calibration	1 Year	Hyundai TSE
QEL 676	Stop Watch					07/11/2021	07/11/2022	Out House Calibration	1 Year	Asphalt Lab
QEL 677	Stop Watch	0 to 3600 s	ETI Ltd.	-	-	07/11/2021	07/11/2022	Out House Calibration	1 Year	Asphalt Lab
QEL 700	Stop Watch		Q&Q	HS-47		01/09/2021	01/09/2022	Out House Calibration	1 Year	QEL BAHRAIN
QEL 702	Stop Watch		Q&Q	HS-48		01/09/2021	01/09/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 703	Stop Watch		Q&Q	HS-48		22/10/2021	22/10/2022	Out House Calibration	1 Year	Chemical Lab
QEL 705	Stop Watch		Q&Q			07/11/2021	07/11/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 707	Stop Watch		Q&Q			01/09/2021	01/09/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 708	Stop Watch		Q&Q			07/11/2021	07/11/2022	Out House Calibration	1 Year	QEL BAHRAIN
QEL 593	Sand Equivalent Shaker		Controls			29/07/2021	29/07/2022	Out House Calibration	1 Year	Hyundai TSE
QEL 684	Sand Equivalent Shaker		Matest	S160N	96	10/10/2021	10/10/2022	Out House Calibration	1 Year	Aggregate Lab
QEL 657	Sand Equivalent Apparatus- BS EN				TN 11861	19/06/2021	18/06/2022	Out House Calibration	1 Year	Aggregate Lab
QEL 550	Sand Equivalent Set -ASTM					29/07/2021	28/07/2022	Out House Calibration	1 Year	Hyundai TSE

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QEL 663	Sand Equivalent Set -ASTM		Matest	ASTM	S158-07N	17/11/2021	17/11/2022	Out House Calibration	1 Year	Aggregate Lab
QEL 724	Sand Equivalent Set -BS EN					28/07/2021	27/07/2022	Out House Calibration	1 Year	Hyundai TSE
386886	Test Sieve	4.75 mm	Impact	ASTM E -11	386886	22/06/2021	21/06/2022	Out House Calibration	1 Year	Soil Lab
QEL 724 (A to E)	Sand Equivalent Shaker Accessories					28/07/2021	27/07/2022	Out House Calibration	1 Year	Hyundai TSE
QEL 365	Test Sieve - PFA Microsilica Washing	45 Micron	ELE International	ELE	TN 12056	23/11/2021	23/11/2022	Out House Calibration	1 Year	Cement Lab
610834	Test Sieve	212 Micron	Glenammer Engineering	BS	610834	11/02/2021	11/02/2022	Out House Calibration	1 Year	Soil Lab
431571	Test Sieve	850um	Impact	BS	431571	11/02/2021	11/02/2022	Out House Calibration	1 Year	Soil Lab
412248	Test Sieve	63 Micron	Impact	BS	412248	12/02/2021	12/02/2022	Out House Calibration	1 Year	Soil Lab
379451	Test Sieve	1.7mm		BS	379451	11/02/2021	11/02/2022	Out House Calibration	1 Year	Soil Lab
808343	Test Sieve	63 Micron	Impact	BS	808343	11/02/2021	11/02/2022	Out House Calibration	1 Year	Soil Lab
278707	Test Sieve	250 Micron	Impact	BS	278707	11/02/2021	11/02/2022	Out House Calibration	1 Year	Soil Lab
187933	Test Sieve	600 Micron		BS	187933	11/02/2021	11/02/2022	Out House Calibration	1 Year	Soil Lab
709209	Test Sieve	3.35 mm		BS	709209	12/02/2021	12/02/2022	Out House Calibration	1 Year	Soil Lab
403884	Test Sieve	75 Micron	Impact	ASTM E -11	403884	11/02/2021	11/02/2022	Out House Calibration	1 Year	Soil Lab
403875	Test Sieve	1.8 mm	Impact	ASTM E -11	403875	11/02/2021	11/02/2022	Out House Calibration	1 Year	Soil Lab
403873	Test Sieve	2.00 mm	Impact	ASTM E -11	403873	11/02/2021	11/02/2022	Out House Calibration	1 Year	Soil Lab
386881	Test Sieve	2.36 mm	Impact	ASTM E -11	386881	11/02/2021	11/02/2022	Out House Calibration	1 Year	Soil Lab
383989	Test Sieve	600 Micron	Impact	ASTM E -11	383989	11/02/2021	11/02/2022	Out House Calibration	1 Year	Soil Lab
383984	Test Sieve	425 Micron	Impact	ASTM E -11	383984	11/02/2021	11/02/2022	Out House Calibration	1 Year	Soil Lab
343526	Test Sieve	150 Micron		ASTM E -11	343526	11/02/2021	11/02/2022	Out House Calibration	1 Year	Soil Lab
407856	Test Sieve	300 Micron	Impact	ASTM E -11	407856	11/02/2021	11/02/2022	Out House Calibration	1 Year	Soil Lab
452726	Test Sieve	106 Micron	Impact	ASTM E -11	452726	12/02/2021	12/02/2022	Out House Calibration	1 Year	Soil Lab
493964	Test Sieve	75 Micron	Impact	ASTM E -11	493964	02/03/2021	02/03/2022	Out House Calibration	1 Year	Soil Lab
608399	Test Sieve	425 Micron		BS	608399	16/03/2021	16/03/2022	Out House Calibration	1 Year	Soil Lab
608475	Test Sieve	212 Micron	Glenammer Engineering	BS/ISO 3310	608475	28/02/2021	28/02/2022	Out House Calibration	1 Year	Aggregate Lab
187821	Test Sieve	425 Micron	Glenammer Engineering	BS/ISO 3310	187821	27/02/2021	27/02/2022	Out House Calibration	1 Year	Aggregate Lab
298119	Test Sieve	600 Micron	Impact	BS/ISO 3310	298119	28/02/2021	28/02/2022	Out House Calibration	1 Year	Aggregate Lab
301148	Test Sieve	1.7 mm	Impact	BS 410-1	301148	28/02/2021	28/02/2022	Out House Calibration	1 Year	Aggregate Lab

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805107	Test Sieve	1.18 mm	Glenammer Engineering	BS/ISO 3310	805107	27/02/2021	27/02/2022	Out House Calibration	1 Year	Aggregate Lab
804940	Test Sieve	2.36 mm	Glenammer Engineering	BS/ISO 3310	804940	28/02/2021	28/02/2022	Out House Calibration	1 Year	Aggregate Lab
306744	Test Sieve	75 Micron	Impact	BS 410-1	306744	27/02/2021	27/02/2022	Out House Calibration	1 Year	Aggregate Lab
280891	Test Sieve	150 Micron	Impact	BS 410-1	280891	27/02/2021	27/02/2022	Out House Calibration	1 Year	Aggregate Lab
399849	Test Sieve	63 Micron	Impact	BS 410-1	399849	02/03/2021	02/03/2022	Out House Calibration	1 Year	Aggregate Lab
310352	Test Sieve	250 Micron	Impact	BS 410-1	310352	27/02/2021	27/02/2022	Out House Calibration	1 Year	Aggregate Lab
274277	Test Sieve	500 Micron		BS	274277	27/02/2021	27/02/2022	Out House Calibration	1 Year	Aggregate Lab
297489	Test Sieve	300 Micron		BS	297489	27/02/2021	27/02/2022	Out House Calibration	1 Year	Aggregate Lab
282115	Test Sieve	125 Micron		BS	282115	02/03/2021	02/03/2022	Out House Calibration	1 Year	Aggregate Lab
312028	Test Sieve	63 Micron		BS	312028	02/03/2021	02/03/2022	Out House Calibration	1 Year	Aggregate Lab
709210	Test Sieve	3.35 mm		BS	709210	02/03/2021	02/03/2022	Out House Calibration	1 Year	Aggregate Lab
312972	Test Sieve	2 mm		BS	312972	27/02/2021	27/02/2022	Out House Calibration	1 Year	Aggregate Lab
185415	Test Sieve	4 mm		BS	185415	02/03/2021	02/03/2022	Out House Calibration	1 Year	Aggregate Lab
E40807	Test Sieve	4.75 mm	Humboldt	ASTM E -11	E40807	02/03/2021	02/03/2022	Out House Calibration	1 Year	Aggregate Lab
E54033	Test Sieve	425 Micron	Humboldt	ASTM E -11	E54033	26/02/2021	26/02/2022	Out House Calibration	1 Year	Aggregate Lab
E52447	Test Sieve	300 Micron	Humboldt	ASTM E -11	E52447	26/02/2021	26/02/2022	Out House Calibration	1 Year	Aggregate Lab
E53555	Test Sieve	150 Micron	Humboldt	ASTM E -11	E53555	27/02/2021	27/02/2022	Out House Calibration	1 Year	Aggregate Lab
E54233	Test Sieve	850 Micron	Humboldt	ASTM E -11	E54233	26/02/2021	26/02/2022	Out House Calibration	1 Year	Aggregate Lab
E22471	Test Sieve	600 Micron	Humboldt	ASTM E -11	E22471	26/02/2021	26/02/2022	Out House Calibration	1 Year	Aggregate Lab
443633	Test Sieve	180 Micron	Impact	ASTM E -11	443633	26/02/2021	26/02/2022	Out House Calibration	1 Year	Aggregate Lab
403874	Test Sieve	1.18 mm	Impact	ASTM E -11	403874	27/02/2021	27/02/2022	Out House Calibration	1 Year	Aggregate Lab
475293	Test Sieve	75 Micron	Impact	ASTM E -11	475293	02/03/2021	02/03/2022	Out House Calibration	1 Year	Aggregate Lab
168115	Test Sieve	05.00 mm	Impact	BS EN	168115	02/03/2021	02/03/2022	Out House Calibration	1 Year	Aggregate Lab
298454	Test Sieve	05.00 mm	Impact	BS EN	298454	02/03/2021	02/03/2022	Out House Calibration	1 Year	Aggregate Lab
300866	Test Sieve	1 mm		BS	300866	27/02/2021	27/02/2022	Out House Calibration	1 Year	Aggregate Lab
E41219	Test Sieve	75 Micron	Impact	ASTM E -11	E41219	27/02/2021	27/02/2022	Out House Calibration	1 Year	Aggregate Lab
E25094	Test Sieve	2.00 mm	Humboldt	ASTM E -11	E25094	26/02/2021	26/02/2022	Out House Calibration	1 Year	Aggregate Lab
E43220	Test Sieve	2.36 mm	Humboldt	ASTM E -11	E43220	26/02/2021	26/02/2022	Out House Calibration	1 Year	Aggregate Lab

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513622	Test Sieve	150 Micron	Impact	ASTM E -11	E0513622	30/07/2021	29/07/2022	Out House Calibration	1 Year	Asphalt Lab
513568	Test Sieve	75 Micron	Impact	ASTM E -11	E0513568	30/07/2021	29/07/2022	Out House Calibration	1 Year	Asphalt Lab
14030228	Test Sieve	4.75 MM	Glenammer Engineering	ASTM E -11	14030228	31/07/2021	30/07/2022	Out House Calibration	1 Year	Asphalt Lab
187941	Test Sieve	2 mm	Impact	BS	187941	25/03/2021	25/03/2022	Out House Calibration	1 Year	Chemical Lab
280884	Test Sieve	150 Micron	Impact	BS	280884	25/03/2021	25/03/2022	Out House Calibration	1 Year	Chemical Lab
282097	Test Sieve	125 Micron	Impact	BS	282097	25/03/2021	25/03/2022	Out House Calibration	1 Year	Chemical Lab
608410	Test Sieve	425 Micron	Glenammer Engineering	BS	608410	25/03/2021	25/03/2022	Out House Calibration	1 Year	Chemical Lab
403879	Test Sieve	150 Micron	Impact	ASTM E-11	403879	25/03/2021	25/03/2022	Out House Calibration	1 Year	Chemical Lab
331834	Test Sieve	75 Micron	Impact	ASTM E-11	331834	25/03/2021	25/03/2022	Out House Calibration	1 Year	Chemical Lab
709276	Test Sieve	4.75 mm	Impact	BS	709276	25/03/2021	25/03/2022	Out House Calibration	1 Year	Chemical Lab
804972	Test Sieve	300 Micron		BS	804972	25/03/2021	25/03/2022	Out House Calibration	1 Year	Chemical Lab
18053145	Test Sieve - Washing	75 Micron	Glenammer Engineering	ASTM	18053145	01/11/2021	01/11/2022	Out House Calibration	1 Year	Hyundai TSE
513717	Test Sieve	63 Micron	Impact	ASTM	513717	31/10/2021	31/10/2022	Out House Calibration	1 Year	Hyundai TSE
513717	Test Sieve	425 Micron			513717	31/10/2021	31/10/2022	Out House Calibration	1 Year	Hyundai TSE
403883	Test Sieve	75 Micron	Impact	ASTM E -11	403883	28/03/2021	28/03/2022	Out House Calibration	1 Year	Asphalt Lab
257734	Test Sieve	850 Micron		ASTM E -11	257734	28/03/2021	28/03/2022	Out House Calibration	1 Year	Asphalt Lab
343545	Test Sieve	2.36 mm		ASTM E -11	343545	28/03/2021	28/03/2022	Out House Calibration	1 Year	Asphalt Lab
257749	Test Sieve	425 Micron		ASTM E -11	257749	28/03/2021	28/03/2022	Out House Calibration	1 Year	Asphalt Lab
343555	Test Sieve	4.75 mm		ASTM E -11	343555	28/03/2021	28/03/2022	Out House Calibration	1 Year	Asphalt Lab
411894	Test Sieve	180 Micron	Impact	BS	411894	28/03/2021	28/03/2022	Out House Calibration	1 Year	Asphalt Lab
379500	Test Sieve	45 Micron	Impact	BS	379500	26/04/2021	26/04/2022	Out House Calibration	1 Year	Cement Lab
431687	Test Sieve	2.8mm	Impact	BS	431687	25/04/2021	25/04/2022	Out House Calibration	1 Year	Cement Lab
QEL 618	Casagrande Apparatus	ASTM	Matet	S170	AG/0033	18/07/2021	17/07/2022	Out House Calibration	1 Year	Hyundai Site Lab
QEL 672	Casagrande Apparatus	ASTM	Tinius Olsen	TO-040-ASTM-03	18024	23/08/2021	23/08/2022	Out House Calibration	1 Year	Soil Lab
QEL 211	Straight Edge	200 mm	Mitutoyo Corporation USA	DN874/06		08/10/2021	08/10/2022	Out House Calibration	1 Year	Concrete Lab
QEL 149	Try Square	-	Stanley		TN11557	19/04/2021	19/04/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 212	Try Square	225 mm	Kennedy Quality Industrial Tooling	KEN-518-468		08/10/2021	08/10/2022	Out House Calibration	1 Year	Concrete Lab
QEL 505	Try Square		INOER			31/03/2021	31/03/2022	Out House Calibration	1 Year	QEL Main Lab

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QEL 579	Try Square				TN 12817	31-03-202	31/03/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 638	Try Square					19/07/2021	19/07/2022	Out House Calibration	1 Year	Hyundai Site Lab
QEL 321	Laser Distance Meter	50 m	Fluke	414 D	31500077	11/10/2021	11/10/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 152	Marshall Compactor					09/02/2021	09/02/2022	Out House Calibration	1 Year	Asphalt Lab
QEL 592	Marshall Compactor		Humboldt			09/02/2021	09/02/2022	Out House Calibration	1 Year	Asphalt Lab
QEL 342	Thermo hygometer	20% to 99%	ETI Ltd			06/07/2021	05/07/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 343	Thermo hygometer	20% to 99%	ETI Ltd			22/06/2021	22/06/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 344	Thermo hygometer	20% to 99%	ETI Ltd			23/07/2021	23/07/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 346	Thermo hygometer	20% to 99%	ETI Ltd			05/10/2021	05/10/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 347	Thermo hygometer	20% to 99%	ETI Ltd			01/06/2021	31/05/2022	Out House Calibration	1 Year	Cement Lab
QEL 450	Thermo hygometer	20% to 99%	ETI Ltd			21/02/2021	21/02/2022	Out House Calibration	1 Year	Hyundai Site Lab
QEL 457	Thermo hygometer	20% to 99%	ETI Ltd			23/04/2021	23/04/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 417	Thermo Hygrometer	20% to 99%	ETI Ltd			05/10/2021	05/10/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 419	Thermo Hygrometer	20% to 99%	ETI Ltd			23/10/2021	23/10/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 543	Thermo Hygrometer	20% to 99%	ETI Ltd			25/01/2021	25/01/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 544	Thermo Hygrometer	20% to 99%	ETI Ltd			01/12/2021	01/12/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 545	Thermo Hygrometer	20% to 99%	ETI Ltd			13/12/2021	13/12/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 606	Thermo Hygrometer	20% to 99%	ETI Ltd			13/12/2021	13/12/2022	Out House Calibration	1 Year	Hyundai Site Lab
QEL 617	Thermo Hygrometer	20% to 99%	Brannan			27/04/2021	27/04/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 626	Thermo Hygrometer	20% to 99%	Brannan			05/10/2021	05/10/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 627	Thermo Hygrometer	20% to 99%	Brannan			24/07/2021	23/07/2022	Out House Calibration	1 Year	Hyundai TSE
QEL 628	Thermo Hygrometer	20% to 99%	Brannan			08/08/2021	07/08/2022	Out House Calibration	1 Year	CGGM Site Lab
QEL 653	Thermo Hygrometer	20% to 99%	ETI Ltd			01/08/2021	31/07/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 654	Thermo Hygrometer	20% to 99%	ETI Ltd			08/08/2021	07/08/2022	Out House Calibration	1 Year	Hyundai Site Lab
QEL 655	Thermo Hygrometer	20% to 99%	ETI Ltd			05/10/2021	05/10/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 656	Thermo Hygrometer	20% to 99%	ETI Ltd			08/08/2021	07/08/2022	Out House Calibration	1 Year	Hyundai Site Lab
QEL 664	Thermo Hygrometer	20% to 99%	ETI Ltd			21/11/2021	21/11/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 665	Thermo Hygrometer	20% to 99%	ETI Ltd			01/08/2021	31/07/2022	Out House Calibration	1 Year	QEL Main Lab

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QEL 666	Thermo Hygrometer	20% to 99%	ETI Ltd			21/11/2021	21/11/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 669	Thermo Hygrometer	20% to 99%	ETI Ltd			25/07/2021	24/07/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 670	Thermo Hygrometer	20% to 99%	ETI Ltd			08/08/2021	07/08/2022	Out House Calibration	1 Year	Hyundai Site Lab
QEL 714	Thermo Hygrometer	20% to 99%	Brannan			02/02/2021	02/02/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 715	Thermo Hygrometer	20% to 99%	Brannan			21/02/2021	21/02/2022	Out House Calibration	1 Year	Hyundai Site Lab
QEL 716	Thermo Hygrometer	20% to 99%	Brannan			13/02/2021	13/02/2022	Out House Calibration	1 Year	Steel Lab
QEL 734	Thermo Hygrometer	20% to 99%	ETI Ltd			11/04/2021	11/04/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 735	Thermo Hygrometer	20% to 99%	ETI Ltd			25/01/2021	25/01/2022	Out House Calibration	1 Year	Al Waab - Raja
QEL 736	Thermo Hygrometer	20% to 99%	ETI Ltd			25/01/2021	25/01/2022	Out House Calibration	1 Year	CEMENT LAB
QEL 737	Thermo Hygrometer	20% to 99%	ETI Ltd			25/01/2021	25/01/2022	Out House Calibration	1 Year	Asphalt Lab
QEL 738	Thermo Hygrometer	20% to 99%	ETI Ltd			25/01/2021	25/01/2022	Out House Calibration	1 Year	Concrete Lab
QEL 382	Travelling Beam		ELE International			30/10/2021	30/10/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 458	Digital Micrometer	0mm to 25mm	Mitutoyo			16/01/2021	16/01/2022	Out House Calibration	1 Year	QEL Main Lab
QEL 558	Mechanical Shaking Apparatus					03/04/2021	03/04/2022	Out House Calibration	1 Year	Soil Lab
QEL 577	Hot Plate	0 - 300 C	Matest	B073-01	B073-01	03/06/2021	02/06/2022	Out House Calibration	1 Year	Chemical Lab
QEL 750	Hot Plate	0 - 540 0C	Thermoscintific	SP88857105	C3710515021763368	02/08/2021	01/08/2022	Out House Calibration	1 Year	Asphalt Lab
QEL 637	V Block		Millhard		VBMH3	12/10/2021	12/10/2022	Out House Calibration	1 Year	Steel Lab
QEL SPM-1	Spectrophotometer					13/02/2021	13/02/2022	Out House Calibration	1 Year	Chemical Lab
QEL Plunger-01	CBR Plunger - Geotextile					31/03/2021	31/03/2022	Out House Calibration	1 Year	Steel Lab
Nuclear Gauge-1	Nuclear Gauge-7824		Humbolt	H5001	H-7824	10/09/2021	10/03/2022	Out House Calibration	6 Months	Sajeevan
Nuclear Gauge-2	Nuclear Gauge-9050		Humbolt	H5001	H-9050	09/09/2021	09/03/2022	Out House Calibration	6 Months	Omraj Tech.
Nuclear Gauge-3	Nuclear Gauge-9056		Humbolt	H5001	H-9056	12/07/2021	10/01/2022	Out House Calibration	6 Months	Ali
Nuclear Gauge-4	Nuclear Gauge-9419		Humbolt	H5001	H-9419	05/08/2021	03/02/2022	Out House Calibration	6 Months	Yusuf / Krishna
Nuclear Gauge-8	Nuclear Gauge-4167		Xplorer 2	Instrotek 3500	I-4167	07/07/2021	05/01/2022	Out House Calibration	6 Months	Ali
Nuclear Gauge-9	Nuclear Gauge-4206		Xplorer 2	Instrotek 3500	I-4206	27/09/2021	27/03/2022	Out House Calibration	6 Months	QEL Main Lab
Nuclear Gauge-10	Nuclear Gauge-4207		Xplorer 2	Instrotek 3500	I-4207	28/09/2021	28/09/2022	Out House Calibration	6 Months	QEL Main Lab
359577	Test Sieve	20 mm	Impact	BS	359577	06/06/2021	06/06/2022	In House Calibration	1 Year	Chemical Lab
294226	Test Sieve	12.50 mm	Impact	BS EN	294226	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab

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710589	Test Sieve	12.50 mm	Impact	BS EN	710589	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
606932	Test Sieve	9.50 mm	Impact	BS EN	606932	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
206076	Test Sieve	45.00 mm	Impact	BS EN	206076	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
804973	Test Sieve	300 Micron	Glenammer Engineering	BS EN	804973	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
257709	Test Sieve	125.00 mm	Impact	BS EN	257709	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
316620	Test Sieve	100.00 mm	Impact	BS EN	316620	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
252711	Test Sieve	63.00 mm	Impact	BS EN	252711	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
301754	Test Sieve	1.6 mm	Impact	BS 410-1	301754	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
805106	Test Sieve	1.18 mm	Glenammer Engineering	BS/ISO 3310	805106	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
709288	Test Sieve	90 Micron	Glenammer Engineering	BS 410-1	709288	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
502776	Test Sieve	53 Micron	VJ Technology	BS/ISO 3310	502776	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
512976	Test Sieve	1.00 mm	Glenammer Engineering	BS/ISO 3310	512976	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
709284	Test Sieve	90 Micron	Glenammer Engineering	BS/ISO 3310	709284	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
333549	Test Sieve	90 Micron	Impact	BS 410-1	333549	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
298118	Test Sieve	600 Micron	Impact	BS 410-1	298118	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
282273	Test Sieve	125 Micron	Impact	BS 410-1	282273	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
282283	Test Sieve	125 Micron	Impact	BS 410-1	282283	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
303855	Test Sieve	500 Micron	Impact	BS 410-1	303855	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
710522	Test Sieve	1.00 mm	Glenammer Engineering	BS/ISO 3310	710522	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
294238	Test Sieve	50.00 mm	Impact	BS EN	294238	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
184589	Test Sieve	37.50 mm	Impact	BS EN	184589	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
710569	Test Sieve	28.00 mm	Impact	BS EN	710569	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
238670	Test Sieve	31.50 mm	Impact	BS EN	238670	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
318251	Test Sieve	22.40 mm	Impact	BS EN	318251	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
804911	Test Sieve	20.00 mm	Impact	BS EN	804911	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
243363	Test Sieve	16.00 mm	Impact	BS EN	243363	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
276239	Test Sieve	12.50 mm	Impact	BS EN	276239	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
292639	Test Sieve	11.20 mm	Impact	BS EN	292639	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab

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281010	Test Sieve	08.00 mm	Impact	BS EN	281010	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
225117	Test Sieve	10.00 mm	Impact	BS EN	225117	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
236886	Test Sieve	14.00 mm	Impact	BS EN	236886	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
610673	Test Sieve	06.30 mm	Impact	BS EN	610673	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
610670	Test Sieve	06.30 mm	Impact	BS EN	610670	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
268203	Test Sieve	04.00 mm	Impact	BS	268203	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
334749	Test Sieve	40.00 mm	Impact	BS	334749	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
120680	Test Sieve	5 mm		BS	120680	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
610613	Test Sieve	37.5 mm		BS	610613	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
257661	Test Sieve	12.5 mm		BS	257661	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
258203	Test Sieve	90 mm		BS	258203	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
343562	Test Sieve	63 Micron		BS	343562	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
E52558	Test Sieve	300 Micron	Humboldt	ASTM E -11	E52558	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
E21352	Test Sieve	1.00 mm	Humboldt	ASTM E -11	E21352	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
E25089	Test Sieve	2.00 mm	Humboldt	ASTM E -11	E25089	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
8296987	Test Sieve	14 mm	Impact	ASTM E -11	8296987	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
E32236	Test Sieve	19 mm	Impact	ASTM E -11	E32236	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
444431	Test Sieve	75 Micron	Impact	ASTM E -11	444431	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
452747	Test Sieve	75 Micron	Impact	ASTM E -11	452747	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
E36726	Test Sieve	50 mm		ASTM E -11	E36726	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
E16633	Test Sieve	16 mm		ASTM E -11	E16633	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
E57325	Test Sieve	12.5 mm		ASTM E -11	E57325	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
E16631	Test Sieve	16 mm		ASTM E -11	E16631	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
E56347	Test Sieve	38.1 mm		ASTM E -11	E56347	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
E08507	Test Sieve	31.5 mm		ASTM E -11	E08507	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
E09818	Test Sieve	31.5 mm		ASTM E -11	E09818	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
E37409	Test Sieve	50 mm		ASTM E -11	E37409	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
E42335	Test Sieve	9.5 mm		ASTM E -11	E42335	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab

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E19864	Test Sieve	8 mm		ASTM E -11	E19864	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
E22168	Test Sieve	8 mm		ASTM E -11	E22168	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
E51845	Test Sieve	63 mm		ASTM E -11	E51845	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
E53554	Test Sieve	850 Micron	Humboldt	ASTM E -11	E53554	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
E13228	Test Sieve	25 mm	Humboldt	ASTM E -11	E13228	11/06/2021	11/06/2022	In House Calibration	1 Year	Aggregate Lab
120681	Test Sieve	5.00 mm	Impact	BS	120681	16/06/2021	16/06/2022	In House Calibration	1 Year	Soil Lab
281718	Test Sieve	6.3 mm	Impact	BS	281718	16/06/2021	16/06/2022	In House Calibration	1 Year	Soil Lab
806441	Test Sieve	10.00 mm	Impact	BS	806441	16/06/2021	16/06/2022	In House Calibration	1 Year	Soil Lab
120520	Test Sieve	14.00 mm	Impact	BS	120520	16/06/2021	16/06/2022	In House Calibration	1 Year	Soil Lab
87156	Test Sieve	20.00 mm	Impact	BS	87156	16/06/2021	16/06/2022	In House Calibration	1 Year	Soil Lab
710568	Test Sieve	28.00 mm	Impact	BS	710568	16/06/2021	16/06/2022	In House Calibration	1 Year	Soil Lab
610618	Test Sieve	37.50 mm	Impact	BS	610618	16/06/2021	16/06/2022	In House Calibration	1 Year	Soil Lab
120534	Test Sieve	50.00 mm	Impact	BS	120534	16/06/2021	16/06/2022	In House Calibration	1 Year	Soil Lab
293966	Test Sieve	63.00 mm	Impact	BS	293966	16/06/2021	16/06/2022	In House Calibration	1 Year	Soil Lab
293976	Test Sieve	75.00 mm	Impact	BS	293976	16/06/2021	16/06/2022	In House Calibration	1 Year	Soil Lab
6214845	Test Sieve	20.00 mm	Impact	BS	6214845	16/06/2021	16/06/2022	In House Calibration	1 Year	Soil Lab
276212	Test Sieve	28.00 mm	Impact	BS EN	276212	16/06/2021	16/06/2022	In House Calibration	1 Year	Soil Lab
292464	Test Sieve	37.50 mm	Impact	BS EN	292464	16/06/2021	16/06/2022	In House Calibration	1 Year	Soil Lab
252530	Test Sieve	50.00 mm	Impact	BS EN	252530	16/06/2021	16/06/2022	In House Calibration	1 Year	Soil Lab
298063	Test Sieve	600 Micron	Impact	BS	298063	21/06/2021	20/06/2022	In House Calibration	1 Year	Soil Lab
16061052	Test Sieve	4.75 mm		BS	16061052	16/06/2021	16/06/2022	In House Calibration	1 Year	Soil Lab
442694	Test Sieve	63 Micron		BS	442694	21/06/2021	20/06/2022	In House Calibration	1 Year	Soil Lab
400213	Test Sieve	2 mm		BS	400213	21/06/2021	20/06/2022	In House Calibration	1 Year	Soil Lab
292445	Test Sieve	63.00 mm	Impact	BS EN	292445	16/06/2021	16/06/2022	In House Calibration	1 Year	Soil Lab
472382	Test Sieve	75 Micron	Impact	BS	472382	20/06/2021	19/06/2022	In House Calibration	1 Year	Soil Lab
804937	Test Sieve	2.36 mm		BS	804937	21/06/2021	20/06/2022	In House Calibration	1 Year	Soil Lab
257712	Test Sieve	12.5 mm		ASTM E -11	257712	16/06/2021	16/06/2022	In House Calibration	1 Year	Soil Lab
257495	Test Sieve	9.5 mm		ASTM E -11	257495	16/06/2021	16/06/2022	In House Calibration	1 Year	Soil Lab

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403891	Test Sieve	12.5 mm		ASTM E -11	403891	16/06/2021	16/06/2022	In House Calibration	1 Year	Soil Lab
403895	Test Sieve	19.00 mm		ASTM E -11	403895	16/06/2021	16/06/2022	In House Calibration	1 Year	Soil Lab
403897	Test Sieve	25.00 mm		ASTM E -11	403897	16/06/2021	16/06/2022	In House Calibration	1 Year	Soil Lab
257685	Test Sieve	50.00 mm		ASTM E -11	257685	16/06/2021	16/06/2022	In House Calibration	1 Year	Soil Lab
257692	Test Sieve	63.00 mm		ASTM E -11	257692	16/06/2021	16/06/2022	In House Calibration	1 Year	Soil Lab
386886	Test Sieve	4.75 mm		ASTM E -11	386886	22/06/2021	21/06/2022	In House Calibration	1 Year	Soil Lab
121815	Test Sieve	63 mm		ASTM E -11	121815	16/06/2021	16/06/2022	In House Calibration	1 Year	Soil Lab
403919	Test Sieve	2 mm		ASTM E -11	403919	21/06/2021	20/06/2022	In House Calibration	1 Year	Soil Lab
391378	Test Sieve	75 Micron		ASTM E -11	391378	21/06/2021	20/06/2022	In House Calibration	1 Year	Soil Lab
258206	Test Sieve	90.00 mm	Impact	ASTM E -11	258206	16/06/2021	16/06/2022	In House Calibration	1 Year	Soil Lab
184243	Test Sieve	212 Micron		ASTM E -11	184243	16/06/2021	16/06/2022	In House Calibration	1 Year	Soil Lab
343538	Test Sieve	1.18 mm		ASTM E -11	343538	21/06/2021	20/06/2022	In House Calibration	1 Year	Soil Lab
488732	Test Sieve	1.7 mm	Impact	ASTM E -11	488732	21/06/2021	21/06/2022	In House Calibration	1 Year	Soil Lab
18053027	Test Sieve	4.75 mm	Glenammer Engineering	ASTM E -11	18053027	03/07/2021	02/07/2022	In House Calibration	1 Year	Soil Lab
335688	Test Sieve	300 Micron	Impact	BS	335688	10/07/2021	09/07/2022	In House Calibration	1 Year	Asphalt Lab
400146	Test Sieve	2.00 mm	Impact	BS	400146	07/07/2021	06/07/2022	Out House Calibration	1 Year	Asphalt Lab
325431	Test Sieve	2.36 mm	Impact	BS	325431	11/07/2021	10/07/2022	Out House Calibration	1 Year	Asphalt Lab
323990	Test Sieve	600 Micron	Impact	BS	323990	10/07/2021	09/07/2022	Out House Calibration	1 Year	Asphalt Lab
343527	Test Sieve	150 Micron		ASTM E -11	343527	10/07/2021	09/07/2022	Out House Calibration	1 Year	Asphalt Lab
403921	Test Sieve	2.00 mm	Impact	ASTM E -11	403921	07/07/2021	06/07/2022	Out House Calibration	1 Year	Asphalt Lab
383990	Test Sieve	600 Micron	Impact	ASTM E -11	383990	11/07/2021	10/07/2022	Out House Calibration	1 Year	Asphalt Lab
343537	Test Sieve	1.18 mm		ASTM E -11	343537	11/07/2021	10/07/2022	In House Calibration	1 Year	Asphalt Lab
QEL-15060541	Test Sieve	0.425 mm	Impact	ASTM E -11	15060541	30/07/2021	29/07/2022	In House Calibration	1 Year	Hyundai TSE
QEL-15120667	Test Sieve	0.150 mm	Impact	ASTM E -11	15120667	26/07/2021	25/07/2022	In House Calibration	1 Year	Hyundai TSE
QEL 434534	Test Sieve	106 Micron	Impact	ASTM	434534	27/07/2021	26/07/2022	Out House Calibration	1 Year	Hyundai TSE
QEL 349632	Test Sieve	0.425 Micron	Impact	BS	349632	26/07/2021	26/07/2022	Out House Calibration	1 Year	Hyundai TSE
QEL 0445517	Test Sieve	1.6 mm	Impact	BS	445517	31/07/2021	30/07/2022	Out House Calibration	1 Year	Hyundai TSE
QEL 0418551	Test Sieve	2 MM	Impact	BS	418551	29/07/2021	28/07/2022	Out House Calibration	1 Year	Hyundai TSE

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QEL 0484621	Test Sieve	1 mm	Impact	BS	484621	29/07/2021	28/07/2022	Out House Calibration	1 Year	Hyundai TSE
QEL 0475751	Test Sieve	500 Micron	Impact	BS	475751	26/07/2021	25/07/2022	Out House Calibration	1 Year	Hyundai TSE
QEL 0480347	Test Sieve	125 Micron	Impact	BS	480347	27/07/2021	26/07/2022	Out House Calibration	1 Year	Hyundai TSE
QEL 0486744	Test Sieve	63 Micron	Impact	BS	486744	28/07/2021	27/07/2022	In House Calibration	1 Year	Hyundai TSE
QEL 463191	Test Sieve	850 Micron	Impact	BS	463191	28/07/2021	27/07/2022	Out House Calibration	1 Year	Hyundai Site Lab
QEL 0335732	Test Sieve	0.300 micron	Impact	BS	335732	28/07/2021	27/07/2022	Out House Calibration	1 Year	Hyundai Site Lab
QEL 0380331	Test Sieve	0.600 Micron	Impact	BS	380331	28/07/2021	27/07/2022	Out House Calibration	1 Year	Hyundai Site Lab
QEL 474968	Test Sieve	4.75 mm	Impact	ASTM E 11	474968	03/07/2021	02/07/2022	In House Calibration	1 Year	Hyundai Site Lab
QEL 0393220	Test Sieve	0.150 Micron	Impact	BS	393220	28/07/2021	27/07/2022	Out House Calibration	1 Year	Hyundai TSE
QEL 456067	Test Sieve	0.075 Micron	Impact	BS	456067	28/07/2021	27/07/2022	Out House Calibration	1 Year	Hyundai Site Lab
QEL 17020173	Test Sieve	425 Micron	Glenammer Engineering	ASTM E11	17020173	27/07/2021	26/07/2022	In House Calibration	1 Year	Hyundai Site Lab
QEL 434570	Test Sieve	250 Micron	Impact	ASTM E11	434570	28/07/2021	27/07/2022	In House Calibration	1 Year	Hyundai Site Lab
QEL 475041	Test Sieve	106 Micron	Impact	ASTM E11	475041	27/07/2021	26/07/2022	In House Calibration	1 Year	Hyundai Site Lab
QEL 475034	Test Sieve	75 Micron	Impact	ASTM E11	475034	28/07/2021	27/07/2022	In House Calibration	1 Year	Hyundai Site Lab
QEL 18010492	Test Sieve	150 Micron	Glenammer Engineering	ASTM E11	18010492	28/07/2021	27/07/2022	Out House Calibration	1 Year	Hyundai Site Lab
QEL 434522	Test Sieve	63 Microm	Impact	ASTM E11	434522	28/07/2021	27/07/2022	Out House Calibration	1 Year	Hyundai Site Lab
QEL 0403097	Test Sieve	0.600 Micron	Impact	ASTM E11	403097	31/07/2021	30/07/2022	Out House Calibration	1 Year	Hyundai Site Lab
QEL 475043	Test Sieve	2.36 mm	Impact	ASTM E11	475043	30/07/2021	29/07/2022	In House Calibration	1 Year	Hyundai Site Lab
QEL 17020176	Test Sieve	2 mm	Impact	ASTM E11	17020176	30/07/2021	29/07/2022	In House Calibration	1 Year	Hyundai Site Lab
QEL 18053050	Test Sieve	425 Micron	Glenammer Engineering	ASTM E -11	18053050	27/07/2021	26/07/2022	In House Calibration	1 Year	Hyundai TSE
QEL 17010446	Test Sieve	106 Micron	Glenammer Engineering	ASTM E -11	17010446	30/07/2021	29/07/2022	Out House Calibration	1 Year	Hyundai TSE
QEL 434646	Test Sieve	2 micron	Impact	ASTM E11	434646	31/07/2021	30/07/2022	Out House Calibration	1 Year	Hyundai TSE
QEL 445133	Test Sieve	1.6 micron	Impact	ISO 3310-1	445133	29/07/2021	28/07/2022	Out House Calibration	1 Year	Hyundai TSE
QEL 17010428	Test Sieve	600 Micron	Glenammer Engineering	ASTM E -11	17010428	30/07/2021	29/07/2022	In House Calibration	1 Year	Hyundai TSE
QEL 0407899	Test Sieve	2.36 mm	Impact	ASTM E -11	407899	29/07/2021	30/07/2022	In House Calibration	1 Year	Hyundai TSE
QEL 18010461	Test Sieve	4.75 mm	Impact	ASTM E -11	18010461	31/07/2021	30/07/2022	In House Calibration	1 Year	Hyundai TSE
QEL 16031821	Test Sieve	75 mm	Impact	ASTM E -11	16031821	28/07/2021	27/07/2022	In House Calibration	1 Year	Concrete Lab
QEL AR-1	Abrasion Resistance Apparatus					19/10/2021	19/01/2022	In House Calibration	2 Months	Concrete Lab

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DM-1	Ductility Mould		Zeal International	ASTM		15/03/2021	15/03/2022	In House Calibration	1 Year	Asphalt Lab
FPM-1	Flash Point Mould			ASTM		15/03/2021	15/03/2022	In House Calibration	1 Year	Asphalt Lab
FPM-2	Flash Point Mould			ASTM		15/03/2021	15/03/2022	In House Calibration	1 Year	Asphalt Lab
QEL SA-1	Soundness Split Cylinder		ELE	BS EN		20/02/2021	20/02/2022	In House Calibration	1 Year	Cement Lab
DSC-1 , DSCP-1	Density Sand Cone & Base Plate					17/04/2021	17/04/2022	In House Calibration	1 Year	QEL Main Lab
LCF-1	Le Chatller Flask			BS EN		28/11/2021	28/11/2022	In House Calibration	1 Year	Cement Lab
QEL BA-1	Blaine Apparatus		Controls	ASTM	6129210	23/06/2021	23/06/2022	In House Calibration	1 Year	Cement Lab
QEL BA-1	Blaine Apparatus		Controls	BS EN	6129210	23/06/2021	23/06/2022	In House Calibration	1 Year	Cement Lab
QEL CBRM-3	CBR Mouls & Accessories - BS	150 mm	ELE	BS		21/07/2021	21/07/2022	In House Calibration	1 Year	Soil Lab
QEL CBRM-4	CBR Mouls & Accessories - BS	150 mm	ELE	BS		21/07/2021	21/07/2022	In House Calibration	1 Year	Soil Lab
QEL CBRM-6	CBR Mouls & Accessories - BS	150 mm	ELE	BS		21/07/2021	21/07/2022	In House Calibration	1 Year	Soil Lab
QEL CBRM-8	CBR Mouls & Accessories - BS	150 mm	ELE	BS		21/07/2021	21/07/2022	In House Calibration	1 Year	Soil Lab
QEL CBRM-10	CBR Mouls & Accessories - BS	150 mm	ELE	BS		21/07/2021	21/07/2022	In House Calibration	1 Year	Soil Lab
QEL CBRM-11	CBR Mouls & Accessories - BS	150 mm	ELE	BS		21/07/2021	21/07/2022	In House Calibration	1 Year	Soil Lab
QEL CBRM-12	CBR Mouls & Accessories - BS	150 mm	ELE	BS		21/07/2021	21/07/2022	In House Calibration	1 Year	Soil Lab
QEL CBRM-13	CBR Mouls & Accessories - BS	150 mm	ELE	BS		21/07/2021	21/07/2022	In House Calibration	1 Year	Soil Lab
QEL CBRM-14	CBR Mouls & Accessories - BS	150 mm	ELE	BS		21/07/2021	21/07/2022	In House Calibration	1 Year	Soil Lab
QEL CBRM-15	CBR Mouls & Accessories - BS	150 mm	ELE	BS		21/07/2021	21/07/2022	In House Calibration	1 Year	Soil Lab
QEL CBRM-16	CBR Mouls & Accessories - BS	150 mm	ELE	BS		21/07/2021	21/07/2022	In House Calibration	1 Year	Soil Lab
QEL CBRM-17	CBR Mouls & Accessories - BS	150 mm	ELE	BS		21/07/2021	21/07/2022	In House Calibration	1 Year	Soil Lab
QEL CBRM-18	CBR Mouls & Accessories - BS	150 mm	ELE	BS		21/07/2021	21/07/2022	In House Calibration	1 Year	Soil Lab
QEL CBRM-19	CBR Mouls & Accessories - BS	150 mm	ELE	BS		21/07/2021	21/07/2022	In House Calibration	1 Year	Soil Lab
QEL CBRM-20	CBR Mouls & Accessories - BS	150 mm	ELE	BS		21/07/2021	21/07/2022	In House Calibration	1 Year	Soil Lab
CBRM-1	CBR Mouls & Accessories - ASTM	150 mm	ELE	ASTM		26/07/2021	26/07/2022	In House Calibration	1 Year	Soil Lab
CBRM-2	CBR Mouls & Accessories - ASTM	150 mm	ELE	ASTM		26/07/2021	26/07/2022	In House Calibration	1 Year	Soil Lab
CBRM-3	CBR Mouls & Accessories - ASTM	150 mm	ELE	ASTM		26/07/2021	26/07/2022	In House Calibration	1 Year	Soil Lab
CBRM-4	CBR Mouls & Accessories - ASTM	150 mm	ELE	ASTM		26/07/2021	26/07/2022	In House Calibration	1 Year	Soil Lab
CBRM-5	CBR Mouls & Accessories - ASTM	150 mm	ELE	ASTM		26/07/2021	26/07/2022	In House Calibration	1 Year	Soil Lab

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CBRM-6	CBR Mouls & Accessories - ASTM	150 mm	ELE	ASTM		26/07/2021	26/07/2022	In House Calibration	1 Year	Soil Lab
CBRM-7	CBR Mouls & Accessories - ASTM	150 mm	ELE	ASTM		26/07/2021	26/07/2022	In House Calibration	1 Year	Soil Lab
CBRM-8	CBR Mouls & Accessories - ASTM	150 mm	ELE	ASTM		26/07/2021	26/07/2022	In House Calibration	1 Year	Soil Lab
CBRM-9	CBR Mouls & Accessories - ASTM	150 mm	ELE	ASTM		26/07/2021	26/07/2022	In House Calibration	1 Year	Soil Lab
CBRM-10	CBR Mouls & Accessories - ASTM	150 mm	ELE	ASTM		26/07/2021	26/07/2022	In House Calibration	1 Year	Soil Lab
CBRM-11	CBR Mouls & Accessories - ASTM	150 mm	ELE	ASTM		18/05/2021	18/05/2022	In House Calibration	1 Year	Soil Lab
CBRM-12	CBR Mouls & Accessories - ASTM	150 mm	ELE	ASTM		18/05/2021	18/05/2022	In House Calibration	1 Year	Soil Lab
CBRM-13	CBR Mouls & Accessories - ASTM	150 mm	ELE	ASTM		18/05/2021	18/05/2022	In House Calibration	1 Year	Soil Lab
CBRM-14	CBR Mouls & Accessories - ASTM	150 mm		ASTM		18/05/2021	18/05/2022	In House Calibration	1 Year	Soil Lab
CBRM-15	CBR Mouls & Accessories - ASTM	150 mm		ASTM		18/05/2021	18/05/2022	In House Calibration	1 Year	Soil Lab
CBRM-16	CBR Mouls & Accessories - ASTM	150 mm		ASTM		18/05/2021	18/05/2022	In House Calibration	1 Year	Soil Lab
CBRM-17	CBR Mouls & Accessories - ASTM	150 mm		ASTM		18/05/2021	18/05/2022	In House Calibration	1 Year	Soil Lab
CBRM-18	CBR Mouls & Accessories - ASTM	150 mm		ASTM		18/05/2021	18/05/2022	In House Calibration	1 Year	Soil Lab
CBRM-19	CBR Mouls & Accessories - ASTM	150 mm		ASTM		18/05/2021	18/05/2022	In House Calibration	1 Year	Soil Lab
CBRM-20	CBR Mouls & Accessories - ASTM	150 mm		ASTM		18/05/2021	18/05/2022	In House Calibration	1 Year	Soil Lab
CBRM-21	CBR Mouls & Accessories - ASTM	150 mm		ASTM		18/05/2021	18/05/2022	In House Calibration	1 Year	Soil Lab
CBRM-22	CBR Mouls & Accessories - ASTM	150 mm	ELE	ASTM		18/05/2021	18/05/2022	In House Calibration	1 Year	Soil Lab
CBRM-23	CBR Mouls & Accessories - ASTM	150 mm	ELE	ASTM		18/05/2021	18/05/2022	In House Calibration	1 Year	Soil Lab
CBRM-24	CBR Mouls & Accessories - ASTM	150 mm	ELE	ASTM		18/05/2021	18/05/2022	In House Calibration	1 Year	Soil Lab
CBRM-ASTM-25	CBR Mouls & Accessories - ASTM	150 mm	Matest	ASTM		06/01/2021	06/01/2022	In House Calibration	1 Year	Soil Lab
CBRM-ASTM-26	CBR Mouls & Accessories - ASTM	150 mm	Matest	ASTM		06/01/2021	06/01/2022	In House Calibration	1 Year	Soil Lab
CBRM-ASTM-27	CBR Mouls & Accessories - ASTM	150 mm	Matest	ASTM		06/01/2021	06/01/2022	In House Calibration	1 Year	Soil Lab
CBRM-ASTM-28	CBR Mouls & Accessories - ASTM	150 mm	Matest	ASTM		06/01/2021	06/01/2022	In House Calibration	1 Year	Soil Lab
CBRM-ASTM-29	CBR Mouls & Accessories - ASTM	150 mm	Matest	ASTM		06/01/2021	06/01/2022	In House Calibration	1 Year	Soil Lab
CBRM-ASTM-30	CBR Mouls & Accessories - ASTM	150 mm	Matest	ASTM		06/01/2021	06/01/2022	In House Calibration	1 Year	Soil Lab
CBRM-ASTM-31	CBR Mouls & Accessories - ASTM	150 mm	Matest	ASTM		06/01/2021	06/01/2022	In House Calibration	1 Year	Soil Lab
CBRM-ASTM-32	CBR Mouls & Accessories - ASTM	150 mm	Matest	ASTM		06/01/2021	06/01/2022	In House Calibration	1 Year	Soil Lab
CBRM-ASTM-33	CBR Mouls & Accessories - ASTM	150 mm	Matest	ASTM		06/01/2021	06/01/2022	In House Calibration	1 Year	Soil Lab

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CBRM-ASTM-34	CBR Mouls & Accessories - ASTM	150 mm	Matest	ASTM		20/11/2021	20/11/2022	In House Calibration	1 Year	Soil Lab
CBRM-ASTM-35	CBR Mouls & Accessories - ASTM	150 mm	Matest	ASTM		20/11/2021	20/11/2022	In House Calibration	1 Year	Soil Lab
CBRM-ASTM-36	CBR Mouls & Accessories - ASTM	150 mm	Matest	ASTM		20/11/2021	20/11/2022	In House Calibration	1 Year	Soil Lab
CBRM-ASTM-37	CBR Mouls & Accessories - ASTM	150 mm	Matest	ASTM		20/11/2021	20/11/2022	In House Calibration	1 Year	Soil Lab
CBRM-ASTM-38	CBR Mouls & Accessories - ASTM	150 mm	Matest	ASTM		20/11/2021	20/11/2022	In House Calibration	1 Year	Soil Lab
CBRM-ASTM-39	CBR Mouls & Accessories - ASTM	150 mm	Matest	ASTM		20/11/2021	20/11/2022	In House Calibration	1 Year	Soil Lab
CBRM-ASTM-40	CBR Mouls & Accessories - ASTM	150 mm	Matest	ASTM		20/11/2021	20/11/2022	In House Calibration	1 Year	Soil Lab
CBRM-ASTM-41	CBR Mouls & Accessories - ASTM	150 mm	Matest	ASTM		20/11/2021	20/11/2022	In House Calibration	1 Year	Soil Lab
CBRM-ASTM-42	CBR Mouls & Accessories - ASTM	150 mm	Matest	ASTM		20/11/2021	20/11/2022	In House Calibration	1 Year	Soil Lab
CBRM-ASTM-43	CBR Mouls & Accessories - ASTM	150 mm	Matest	ASTM		20/11/2021	20/11/2022	In House Calibration	1 Year	Soil Lab
CBRM-ASTM-44	CBR Mouls & Accessories - ASTM	150 mm	Matest	ASTM		20/11/2021	20/11/2022	In House Calibration	1 Year	Soil Lab
CBRM-ASTM-45	CBR Mouls & Accessories - ASTM	150 mm	Matest	ASTM		20/11/2021	20/11/2022	In House Calibration	1 Year	Soil Lab
CBRM-ASTM-46	CBR Mouls & Accessories - ASTM	150 mm	Matest	ASTM		20/11/2021	20/11/2022	In House Calibration	1 Year	Soil Lab
CBRM-ASTM-47	CBR Mouls & Accessories - ASTM	150 mm	Matest	ASTM		20/11/2021	20/11/2022	In House Calibration	1 Year	Soil Lab
CBRM-ASTM-48	CBR Mouls & Accessories - ASTM	150 mm	Matest	ASTM		20/11/2021	20/11/2022	In House Calibration	1 Year	Soil Lab
QEL MM-1	Marshall Mould	100 mm	ELE	BS		25/03/2021	25/03/2022	In House Calibration	1 Year	Asphalt Lab
QEL MM-2	Marshall Mould	100 mm	ELE	BS		25/03/2021	25/03/2022	In House Calibration	1 Year	Asphalt Lab
QEL MM-3	Marshall Mould	100 mm	ELE	BS		25/03/2021	25/03/2022	In House Calibration	1 Year	Asphalt Lab
QEL MM-4	Marshall Mould	100 mm	ELE	BS		25/03/2021	25/03/2022	In House Calibration	1 Year	Asphalt Lab
QEL MM-5	Marshall Mould	100 mm	ELE	BS		25/03/2021	25/03/2022	In House Calibration	1 Year	Asphalt Lab
QEL MM-6	Marshall Mould	100 mm	ELE	BS		25/03/2021	25/03/2022	In House Calibration	1 Year	Asphalt Lab
QEL MM-7	Marshall Mould	100 mm	ELE	BS		25/03/2021	25/03/2022	In House Calibration	1 Year	Asphalt Lab
QEL MM-8	Marshall Mould	100 mm	ELE	BS		25/03/2021	25/03/2022	In House Calibration	1 Year	Asphalt Lab
QEL MM-9	Marshall Mould	100 mm	ELE	BS		25/03/2021	25/03/2022	In House Calibration	1 Year	Asphalt Lab
QEL MM-10	Marshall Mould	100 mm	ELE	BS		25/03/2021	25/03/2022	In House Calibration	1 Year	Asphalt Lab
QEL MM-11	Marshall Mould	100 mm	ELE	BS		25/03/2021	25/03/2022	In House Calibration	1 Year	Asphalt Lab
QEL MM-12	Marshall Mould	100 mm	ELE	BS		25/03/2021	25/03/2022	In House Calibration	1 Year	Asphalt Lab
QEL MM-13	Marshall Mould	100 mm	ELE	BS		25/03/2021	25/03/2022	In House Calibration	1 Year	Asphalt Lab

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QEL MM-14	Marshall Mould	100 mm	ELE	BS		25/03/2021	25/03/2022	In House Calibration	1 Year	Asphalt Lab
QEL MM-15	Marshall Mould	100 mm	ELE	BS		25/03/2021	25/03/2022	In House Calibration	1 Year	Asphalt Lab
QEL MM-16	Marshall Mould	100 mm	ELE	BS		25/03/2021	25/03/2022	In House Calibration	1 Year	Asphalt Lab
QEL MM-17	Marshall Mould	100 mm	ELE	BS		25/03/2021	25/03/2022	In House Calibration	1 Year	Asphalt Lab
QEL MM-18	Marshall Mould	100 mm	ELE	ASTM		25/03/2021	25/03/2022	In House Calibration	1 Year	Asphalt Lab
QEL MM-19	Marshall Mould	100 mm	ELE			25/03/2021	25/03/2022	In House Calibration	1 Year	Asphalt Lab
QEL MM-20	Marshall Mould	100 mm	ELE			25/03/2021	25/03/2022	In House Calibration	1 Year	Asphalt Lab
QEL MM-21	Marshall Mould	100 mm	ELE			25/03/2021	25/03/2022	In House Calibration	1 Year	Asphalt Lab
QEL MM-22	Marshall Mould	100 mm	ELE			25/03/2021	25/03/2022	In House Calibration	1 Year	Asphalt Lab
QEL MM-23	Marshall Mould	100 mm	ELE			25/03/2021	25/03/2022	In House Calibration	1 Year	Asphalt Lab
QEL MM-24	Marshall Mould	100 mm	ELE			25/03/2021	25/03/2022	In House Calibration	1 Year	Asphalt Lab
QEL MM-25	Marshall Mould	100 mm	ELE			25/03/2021	25/03/2022	In House Calibration	1 Year	Asphalt Lab
QEL MM-26	Marshall Mould	100 mm	ELE			25/03/2021	25/03/2022	In House Calibration	1 Year	Asphalt Lab
QEL MM-27	Marshall Mould	100 mm	ELE			25/03/2021	25/03/2022	In House Calibration	1 Year	Asphalt Lab
QEL MM-28	Marshall Mould	100 mm	ELE			25/03/2021	25/03/2022	In House Calibration	1 Year	Asphalt Lab
QEL MM-29	Marshall Mould	100 mm	ELE			25/03/2021	25/03/2022	In House Calibration	1 Year	Asphalt Lab
QEL MM-30	Marshall Mould	100 mm	ELE			25/03/2021	25/03/2022	In House Calibration	1 Year	Asphalt Lab
QEL MM-31	Marshall Mould	100 mm	ELE			25/03/2021	25/03/2022	In House Calibration	1 Year	Asphalt Lab
QEL MM-32	Marshall Mould	100 mm	ELE			25/03/2021	25/03/2022	In House Calibration	1 Year	Asphalt Lab
QEL MM-33	Marshall Mould	100 mm	ELE			25/03/2021	25/03/2022	In House Calibration	1 Year	Asphalt Lab
QEL MM-34	Marshall Mould	100 mm	ELE			25/03/2021	25/03/2022	In House Calibration	1 Year	Asphalt Lab
QEL MM-35	Marshall Mould	100 mm	ELE			25/03/2021	25/03/2022	In House Calibration	1 Year	Asphalt Lab
QEL MM-36	Marshall Mould	100 mm	ELE			25/03/2021	25/03/2022	In House Calibration	1 Year	Asphalt Lab
QEL MM-37	Marshall Mould	100 mm	ELE			25/03/2021	25/03/2022	In House Calibration	1 Year	Asphalt Lab
QEL ASTM C-1	MDD Mould	100 mm Diameter	ELE			22/05/2021	22/05/2022	In House Calibration	1 Year	Soil Lab
QEL ASTM C-2	MDD Mould	100 mm Diameter	ELE			22/05/2021	22/05/2022	In House Calibration	1 Year	Soil Lab
QEL CR-5	Compaction Rammer-4.5 Kg ASTM	4.5	ELE	ASTM		30/01/2021	30/01/2022	In House Calibration	1 Year	Soil Lab
QEL BS -1	Bar Sieve- Flakiness	40 mm	Impact			19/10/2021	19/10/2022	In House Calibration	1 Year	Aggregate Lab

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QEL BS -2	Bar Sieve- Flakiness	31.50 mm	Impact			19/10/2021	19/10/2022	In House Calibration	1 Year	Aggregate Lab
QEL BS -3	Bar Sieve- Flakiness	25.00 mm	Impact			19/10/2021	19/10/2022	In House Calibration	1 Year	Aggregate Lab
QEL BS -4	Bar Sieve- Flakiness	20.00 mm	Impact			19/10/2021	19/10/2022	In House Calibration	1 Year	Aggregate Lab
QEL BS -5	Bar Sieve- Flakiness	16.00 mm	Impact			19/10/2021	19/10/2022	In House Calibration	1 Year	Aggregate Lab
QEL BS -6	Bar Sieve- Flakiness	12.50 mm	Impact			19/10/2021	19/10/2022	In House Calibration	1 Year	Aggregate Lab
QEL BS -7	Bar Sieve- Flakiness	10.00 mm	Impact			19/10/2021	19/10/2022	In House Calibration	1 Year	Aggregate Lab
QEL BS -8	Bar Sieve- Flakiness	08.00 mm	Impact			19/10/2021	19/10/2022	In House Calibration	1 Year	Aggregate Lab
QEL BS -9	Bar Sieve- Flakiness	6.30 mm	Impact			19/10/2021	19/10/2022	In House Calibration	1 Year	Aggregate Lab
QEL BS -10	Bar Sieve- Flakiness	05.00 mm	Impact			19/10/2021	19/10/2022	In House Calibration	1 Year	Aggregate Lab
QEL BS -11	Bar Sieve- Flakiness	04.50 mm	Impact			19/10/2021	19/10/2022	In House Calibration	1 Year	Aggregate Lab
QEL BS -12	Bar Sieve- Flakiness	03.15 mm	Impact			19/10/2021	19/10/2022	In House Calibration	1 Year	Aggregate Lab
QEL BS -13	Bar Sieve- Flakiness	02.50 mm	Impact			19/10/2021	19/10/2022	In House Calibration	1 Year	Aggregate Lab
QEL JOT-1	Jolting Apparatus		ELE		1792-6-1207	31/05/2021	31/05/2022	In House Calibration	1 Year	Cement Lab
QEL JIG-1	Tensile Splitting Jig		ELE			28/03/2021	28/03/2022	In House Calibration	1 Year	Concrete Lab
QEL 276 (AGGIM-1)	Aggregate Impact Apparatus		CONTROLS		8003929	16/10/2021	16/10/2022	In House Calibration	1 Year	Aggregate Lab
QEL AGGCC-1	Aggregate Crushing Value-Cylinder	150 mm	ELE			20/02/2021	20/02/2022	In House Calibration	1 Year	Aggregate Lab
QEL AGGCP-1	Aggregate Crushing Value-Plunger	150 mm	ELE			20/02/2021	20/02/2022	In House Calibration	1 Year	Aggregate Lab
AGGCBP-1	Aggregate Crushing Value- Base Plate	230 mm	ELE			20/02/2021	20/02/2022	In House Calibration	1 Year	Aggregate Lab
AGGCMM-1	Aggregate Crushing Value- Cylindrical Metal Measure	115 mm	ELE			20/02/2021	20/02/2022	In House Calibration	1 Year	Aggregate Lab
AGGCC-2	Aggregate Crushing Value-Cylinder					25/03/2021	25/03/2022	In House Calibration	1 Year	Aggregate Lab
AGGCP-2	Aggregate Crushing Value-Plunger					25/03/2021	25/03/2022	In House Calibration	1 Year	Aggregate Lab
AGGBP-2	Aggregate Crushing Value- Base Plate					25/03/2021	25/03/2022	In House Calibration	1 Year	Aggregate Lab
AGGMM-2	Aggregate Crushing Value- Cylindrical Metal Measure					25/03/2021	25/03/2022	In House Calibration	1 Year	Aggregate Lab
QEL EG-ASTM-1	Elongation Gauge	1:.5	Forney			07/07/2021	07/07/2022	In House Calibration	1 Year	Aggregate Lab
QEL EG-BS-1	Elongation Gauge					20/02/2021	20/02/2022	In House Calibration	1 Year	Aggregate Lab
QEL FG-BS-1	Flakiness Gauge					18/11/2021	18/11/2022	In House Calibration	1 Year	Aggregate Lab
QEL SSDM-1	Mould & Tamper (SSD)			ASTM C 128		20/02/2021	20/02/2022	In House Calibration	1 Year	Aggregate Lab
QEL ISAT-1	Initial Surface Absorption Test Apparatus					13/01/2021	13/01/2022	In House Calibration	1 Year	Durability Lab

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REF. No	EQUIPMENT NAME	CAPACITY	EQUIPMENT MAKE	TYPE OR MODEL	SERIAL NO.	CAL DATE	CAL DUE DATE	MODE OF CALIBRATION	FREQUENCY OF CALIBRATION	EQUIPMENT LOCATION
QEL SEA-1	Sand Equivalent Test Kit & Apparatus					25/03/2021	25/03/2022	In House Calibration	1 Year	Aggregate Lab
MDAM-1	MICRO DEVAL ABRATION MACHINE					07/07/2021	07/07/2022	In House Calibration	1 Year	Aggregate Lab
PM-1	PRISM MOULD		ELE	BS EN 196		31/05/2021	31/05/2022	In House Calibration	1 Year	Cement Lab
PM-2	PRISM MOULD		ELE	BS EN 196		31/05/2021	31/05/2022	In House Calibration	1 Year	Cement Lab
PM-3	PRISM MOULD		ELE	BS EN 196		31/05/2021	31/05/2022	In House Calibration	1 Year	Cement Lab
PM-4	PRISM MOULD		ELE	BS EN 196		31/05/2021	31/05/2022	In House Calibration	1 Year	Cement Lab
PM-5	PRISM MOULD		ELE	BS EN 196		31/05/2021	31/05/2022	In House Calibration	1 Year	Cement Lab
PM-6	PRISM MOULD		ELE	BS EN 196		31/05/2021	31/05/2022	In House Calibration	1 Year	Cement Lab
PM-7	PRISM MOULD		ELE	BS EN 196		31/05/2021	31/05/2022	In House Calibration	1 Year	Cement Lab
FT-1	Flow Table For Hydraulic Cement					31/01/2021	31/01/2022	In House Calibration	1 Year	Cement Lab
UVA-1	Un Compacted Void Content Apparatus					30/07/2021	30/07/2022	In House Calibration	1 Year	Soil Lab
TSRJ	Tensile Splitting Ratio Loading Device (TSR)					28/09/2021	28/09/2022	In House Calibration	1 Year	Asphalt Lab
CDA-1	Cone Drop Apparatus					28/11/2021	28/11/2022	In House Calibration	1 Year	Steel Lab
BHR-1	Breaking Head For Mashall					28/09/2021	28/09/2022	In House Calibration	1 Year	Asphalt Lab
FF-1	Flexural Frame					28/03/2021	28/03/2022	In House Calibration	1 Year	Concrete Lab
BBA-1	Ball Burst Apparatus					28/11/2021	28/11/2022	In House Calibration	1 Year	Steel Lab
CF-1	Compressive Frame					28/03/2021	28/03/2022	In House Calibration	1 Year	Concrete Lab
MMIX-1	Mortar Mixer					28/11/2021	28/11/2022	In House Calibration	1 Year	Cement Lab
INV-1, 2	Invar Rods					28/03/2021	28/03/2022	In House Calibration	1 Year	Cement Lab
DSM-1,2	Linear Shrinkage Mould		ELE			25/03/2021	25/03/2022	In House Calibration	1 Year	Soil Lab
RIFB-2	Riffle Box	50 mm	ELE			25/03/2021	25/03/2022	In House Calibration	1 Year	Aggregate Lab
RIFB-3	Riffle Box	37.5 mm	ELE			25/03/2021	25/03/2022	In House Calibration	1 Year	Asphalt Lab
RIFB-4	Riffle Box	14 mm	ELE			25/03/2021	25/03/2022	In House Calibration	1 Year	Aggregate Lab
RIFB-5	Riffle Box	7.5 mm	ELE			25/03/2021	25/03/2022	In House Calibration	1 Year	Chemical Lab
PAC-1	Potential Alkali Container		Humboldt	3320		31/10/2021	31/10/2022	In House Calibration	1 Year	Chemical Lab
PAC-2	Potential Alkali Container		Humboldt	3320		31/10/2021	31/10/2022	In House Calibration	1 Year	Chemical Lab
PAC-3	Potential Alkali Container		Humboldt	3320		31/10/2021	31/10/2022	In House Calibration	1 Year	Chemical Lab
PF-1	Thickness Tester Foot					09/03/2021	09/03/2022	In House Calibration	1 Year	Cement Lab

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VC-1, VC-2	Vicat Apparatus		ELE			01/04/2021	01/04/2022	In House Calibration	1 Year	Cement Lab
LOSAAM-2	Los Angeles Abrasion Machine		ELE			12/07/2021	12/07/2022	In House Calibration	1 Year	Aggregate Lab
SGC-1	Specific Gravity Cylinder					17/05/2021	17/05/2022	In House Calibration	1 Year	Aggregate Lab
SGWB-2	Wire Basket specific Gravity		ELE			18/01/2021	18/01/2022	In House Calibration	1 Year	Aggregate Lab
MCH-1	Measuring Cylinder-Hydrometer					13/03/2021	13/03/2022	In House Calibration	1 Year	Durability Lab
MCH-2	Measuring Cylinder-Hydrometer					13/03/2021	13/03/2022	In House Calibration	1 Year	Durability Lab
MCH-3	Measuring Cylinder-Hydrometer					13/03/2021	13/03/2022	In House Calibration	1 Year	Durability Lab
MCH-4	Measuring Cylinder-Hydrometer					13/03/2021	13/03/2022	In House Calibration	1 Year	Durability Lab
MCH-5	Measuring Cylinder-Hydrometer					13/03/2021	13/03/2022	In House Calibration	1 Year	Durability Lab
QEL MD-1	Deflection Mandrel		200 mm			15/06/2021	15/06/2022	In House Calibration	1 Year	Hyundai Site Lab
QEL MD-2	Deflection Mandrel		400 mm			15/06/2021	15/06/2022	In House Calibration	1 Year	Hyundai Site Lab
QEL MD-3	Deflection Mandrel		500 mm			15/06/2021	15/06/2022	In House Calibration	1 Year	Hyundai Site Lab
QEL MD-4	Deflection Mandrel		300 mm			15/06/2021	15/06/2022	In House Calibration	1 Year	Hyundai Site Lab
QEL MD-5	Deflection Mandrel		600 mm			15/06/2021	15/06/2022	In House Calibration	1 Year	Hyundai Site Lab
QEL MD-6	Deflection Mandrel		700 mm			15/06/2021	15/06/2022	In House Calibration	1 Year	Hyundai Site Lab