



Accreditation Scope

Geoscience Testing Laboratory (NAL 018) Testing Laboratory, (ISO/IEC 17025:2017)

ICAD3, South of Mussafah Industrial Area, Abu Dhabi, UAE

Issue Date: 27-05-2022

Expiry Date: 01-05-2023

Issue No: 03

| Testing Field | Materials/ Products tested | Type of test/ Test parameter/ Properties measured/Range of measurement | Test Method (Standard, Internal Procedure, Technique) | Permanent lab (P) / Client- site (S) |
|---|----------------------------------|---|---|---|
| Geotechnical Site Investigation | Rotary and Percussion | Determination of the penetration resistance using the split-barrel sampler (Standard penetration test - SPT) | BS 1377 Part 9:1990 – AMD 8264:1995, Clause 3.3 | S |
| | | Geotechnical investigation and testing, Field Testing Standard penetration test (SPT) | BS 5930:2015 | |
| | Soils | Soil Sampling | BS 5930:2015, Sec. 4, Cl. 25.6 | S |
| | | Description of Soils | BS 5930:2015, Sec. 6, Cl. 33 | S/P |
| | Ground Water | Groundwater Sampling | BS 5930:2015, Sec. 4, Cl. 26.4 | S |
| | | Groundwater Measurements | BS 5930:2015, Sec. 4, Cl. 26.1 to 26.3 & Sec. 8, Cl. 52 | S |
| Geotechnical Testing | Rock | Rock Sampling Rock Core Recovery (RCR) | BS 5930:2015, Sec. 4, Cl. 25.7 | S |
| | | Description of Rocks | BS 5930:2015, Sec. 6, Cl. 36 | S/P |
| | | Rock Quality Designation (RQD) | BS 5930:2015, Sec. 6, Cl. 36.4 | S/P |
| | | Preparation of rock Core | ASTM D4543:2019 | P |
| | Rock | Unconfined Compressive Strength | ASTM D 7012:2014E1, Method C | P |
| | | Determination of Water (Moisture) Content of soil & Rock sample | ASTM D2216:2019 | P |
| | Soil | Determination of Particle Size Distribution | BS 1377 Part 2:1990 Cl. 9.2 and 9.3 AMD 9027-1996 | P |
| | | Determination of Liquid Limit | BS 1377 Part 2:1990 Cl. 4.3 AMD 9027-1996 | P |
| | | Determination of Plastic Limit and Plasticity Index | BS 1377 Part 2:1990 Cl. 5.3 and 5.4 AMD 9027-1996 | P |
| | | Determination of Particle Size Distribution by Hydrometer Method | BS 1377 Part 2:1990 Cl. 9.5 AMD 9027-1996 | P |
| Determination of Water (Moisture) Content of soil sample | | BS 1377 Part 2:1990 Cl. 3.2 AMD 9027-1996 | P | |



Accreditation Scope

Geoscience Testing Laboratory (NAL 018) Testing Laboratory, (ISO/IEC 17025:2017)

ICAD3, South of Mussafah Industrial Area, Abu Dhabi, UAE

Issue Date: 27-05-2022

Expiry Date: 01-05-2023

Issue No: 03

| Testing Field | Materials/ Products tested | Type of test/ Test parameter/ Properties measured/Range of measurement | Test Method (Standard, Internal Procedure, Technique) | Permanent lab (P) / Client- site (S) |
|---|----------------------------------|---|---|---|
| Geotechnical Testing | Factual Report | Reporting | BS 5930:2015, Clause 63 Section 10 | P |
| Physical | Soil | Determination of In-Situ Density by Sand Replacement Method | BS 1377 Part 9:1990 Cl. 2.2 AMD 8264-1995 | S |
| | | Determination of Dry Density Moisture Content Relationship | BS 1377 Part 4:1990, Cl. 3.5 and 3.6 AMD 13925 – 2002 | P |
| | | Determination of Particle Size Distribution | BS 1377 Part 2:1990 Cl. 9.2 and 9.3 AMD 9027- 1996 | P |
| | | Determination of California Bearing Ratio | BS 1377 Part 4:1990 Cl. 7.2.3 AMD 13925 - 2002 | P |
| | | California Bearing Ratio of Laboratory Compacted soils | ASTM D 1883:2016 | P |
| | Aggregate | Determination of Particle Size Distribution – Sieve tests | BS 812 Part 103-1:1985 | P |
| | | Determination of Particle Size Distribution – Sieving method | BS EN 933-1:2012 | P |
| | | Determination of Flakiness Index of Aggregates | BS 812 Part 105-1:1989 | P |
| | | Determination of Elongation Index of Aggregates | BS 812 Part 105-2:1990 | P |
| | | Determination of Shell Content in Coarse Aggregates | BS 812 Part 106:1985 | P |
| | | Determination of Shell Content in Coarse Aggregates | BS EN 933-7:1998 | P |
| | | Determination of Crushing Value | BS 812 Part 110:1990 | P |
| | | Determination of Ten Percent Fines Value | BS 812 Part 111:1990 | P |
| Determination of Soundness of Aggregates by use of Sodium Sulphate and Magnesium Sulphate | ASTM C 88/C88M:2018 | P | | |



Accreditation Scope

Geoscience Testing Laboratory (NAL 018) Testing Laboratory, (ISO/IEC 17025:2017)

ICAD3, South of Mussafah Industrial Area, Abu Dhabi, UAE

Issue Date: 27-05-2022

Expiry Date: 01-05-2023

Issue No: 03

| Testing Field | Materials/ Products tested | Type of test/ Test parameter/ Properties measured/Range of measurement | Test Method (Standard, Internal Procedure, Technique) | Permanent lab (P) / Client- site (S) |
|---------------|----------------------------------|--|---|---|
| Physical | Aggregate | Material Finer Than 75 Microns sieve in Mineral Aggregates by Washing | ASTM C 117:2017 | P |
| | | Specific Gravity and water Absorption of Coarse Aggregates | ASTM C 127:2015 | P |
| | | Specific Gravity and Water Absorption of Fine Aggregates | ASTM C 128:2015 | P |
| | | Sieve Analysis of Fine and Coarse Aggregates | ASTM C 136/C136M: 2019 | P |
| | | Determination of Clay Lumps and Friable Particles | ASTM C142/C142M:2017 | P |
| | | Determination of Sand Equivalent Value | ASTM D 2419:2014 | P |
| | | Determination of Aggregate Impact Value | BS 812 Part 112:1990 | P |
| | Concrete | Determination of density of hardened concrete | BS 1881 Part 114:1983 | P |
| | | Method of normal curing of test specimens | BS 1881 Part 111:1983 | P |
| | | Compressive strength of concrete cubes | BS 1881 Part 116:1983, | P |
| | | Shape, dimension, and other requirements for specimen | BS EN 12390 Part 1:2021 | P |
| | | Making and curing of specimen for strength test | BS EN 12390 Part 2:2019 | P |
| | | Compressive strength of test specimens | BS EN 12390 Part 3: 2019 | P |
| | | Density of Hardened Concrete | BS EN 12390 Part 7: 2019 | P |
| | | Electrical Indication of Concrete's Ability to Resist Chloride Ion Penetration | ASTM C 1202:2019 | P |



Accreditation Scope

Geoscience Testing Laboratory (NAL 018) Testing Laboratory, (ISO/IEC 17025:2017)

ICAD3, South of Mussafah Industrial Area, Abu Dhabi, UAE

Issue Date: 27-05-2022

Expiry Date: 01-05-2023

Issue No: 03

| Testing Field | Materials/ Products tested | Type of test/ Test parameter/ Properties measured/Range of measurement | Test Method (Standard, Internal Procedure, Technique) | Permanent lab (P) / Client- site (S) |
|--------------------------|----------------------------------|--|--|---|
| Physical | Concrete | Determination of Depth of Penetration of Water under Pressure | BS EN 12390 Part 8:2019 | P |
| | | Determination of Water Permeability | DIN 1048 Part 5:1991 | P |
| | | Determination of Water Absorption of Hardened Concrete | BS 1881 Part 122:2011+A1:2020 | P |
| | | Determination of Initial Surface Water Absorption of Concrete | BS 1881 Part 208:1996 | P |
| Civil Steel Test | Tensile Properties | Steel for the Reinforcement of Concrete: Weldable Reinforcing Steel: Bar, Coil and De coiled Product: Specification Tensile Properties | BS 4449: 2005+A3 :2016 Clause 7.2.3 | P |
| | | Steel for the reinforcement and prestressing of concrete. Part 1: Reinforcing bars, wire rod and wire Test methods. | BS EN ISO 15630-1-2019 Clause 5 | |
| | | Metallic materials. Tensile testing. Method of test at room temperature | BS EN ISO 6892-1:2019 | |
| | | Specification for Carbon steel bars for the reinforcement of concrete Metallic materials —Tensile testing Part 1: Method of test at ambient temperature Tensile Test | BS 4449: 1997 Annex E, Clause E.1.4 & BS EN 10002-1 -2001 | |
| | | Specification for Carbon steel bars for the reinforcement of concrete Tensile Strength | BS 4449 - 1988 Appendix C, Clause C.1.6.1 | |
| Physical / Mechanical | Paving Blocks | Precast concrete paving blocks. Specification for paving blocks | BS 6717-1: 1993 Annex -A | P |
| | | -Dimension | | |
| | | Compressive strength | BS 6717-1: 1993 Annex -B | P |



Accreditation Scope

Geoscience Testing Laboratory (NAL 018) Testing Laboratory, (ISO/IEC 17025:2017)

ICAD3, South of Mussafah Industrial Area, Abu Dhabi, UAE

Issue Date: 27-05-2022

Expiry Date: 01-05-2023

Issue No: 03

| Testing Field | Materials/ Products tested | Type of test/ Test parameter/ Properties measured/Range of measurement | Test Method (Standard, Internal Procedure, Technique) | Permanent lab (P) / Client- site (S) |
|--------------------------|----------------------------------|--|---|---|
| Physical / Mechanical | Paving Blocks | Sampling and Testing Concrete Masonry Units and Related Units- Water Absorption | ASTM C 140 /C140 M 2021 | P |
| | | Sampling and Testing Concrete Masonry Units and Related Units- Density & Relative density | ASTM C 140 /C140 M 2021 | P |
| | | Concrete paving blocks. Requirements and test methods- Tensile splitting strength | BS EN 1338:2003 | P |
| | Masonry Blocks | Determination of dimensions | BSEN 772-16:2011 | P |
| | | Test for masonry units- Density | BSEN 772-13:2000 | P |
| | | Compressive strength | BSEN 772-1:2011+A1:2015 | P |
| | Kerbstone | Water absorption | BS EN 1340:2003 | P |
| | | Compressive strength | BS EN 12504 -1:2019 | P |
| | Aggregate | Resistance to Degradation of Small- Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine | AASHTO T 96-02 (2019) | P |
| | | Resistance to Degradation of Small- Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine | ASTM C 131/C131M:2020 | P |
| | | Standard Practice for Sampling Aggregates | ASTM D 75/D75M:2019 | P/S |
| | Soil | Initial Sample Preparation | BS 1377 Part 1 :2016 | P |
| | Asphalt | Theoretical maximum specific gravity and density of bituminous paving mixtures (GMM) | ASTM D 2041:2019 | P |
| | | Thickness or Height of Compacted Asphalt Mixture Specimens | ASTM D 3549/D3549M -18 | P |
| | | Mechanical size analysis of extracted aggregate | ASTM D 5444:2015 | P |



Accreditation Scope

Geoscience Testing Laboratory (NAL 018) Testing Laboratory, (ISO/IEC 17025:2017)

ICAD3, South of Mussafah Industrial Area, Abu Dhabi, UAE

Issue Date: 27-05-2022

Expiry Date: 01-05-2023

Issue No: 03

| Testing Field | Materials/ Products tested | Type of test/ Test parameter/ Properties measured/Range of measurement | Test Method (Standard, Internal Procedure, Technique) | Permanent lab (P) / Client- site (S) |
|---|---|---|---|---|
| Physical / Mechanical | Asphalt | Quantitative Extraction of Asphalt Binder from Hot-Mix Asphalt (HMA) | AASHTO T 164:2011 | P |
| | | Bulk specific gravity and density of non-absorptive compacted asphalt mixture | ASTM D 2726/D2726M – 2017 | P |
| | | Resistance to plastic flow of bituminous mixture using Marshall apparatus | AASHTO T 245:15(2019) | P |
| Microbiology | Food | Sampling | SOP-MB-22 Issue No: 01: 01/05/2008 Rev. 9:14/12/2019 | S |
| | | Aerobic Plate Count | USFDA BAM Chapter 3 (2001) | P |
| | | Enumeration of Enterobacteriaceae | CCFRA 2.3.1:2007 | |
| | | Enumeration of Yeast and Moulds | CCFRA 2.1.1:2007 | |
| | | Enumeration of Coliforms by Colony Count Method | CCFRA 2.2.1:2007 | |
| | | Enumeration of Coliform- 3M Petrifilm Coliform Colony count plate method | CCFRA 2.2.2:2003 | |
| | | Coliforms by MPN Method | CMMEF 9.71, 5 th Edition (2015) | |
| | | Fecal Coliforms by MPN Method | CMMEF 9.81, 5 th Edition (2015) | |
| | | E. coli by MPN Method | CMMEF 9.91, 5 th Edition (2015) | |
| | | Enumeration of E.coli- 3M Petrifilm E.coli Colony count plate method | CCFRA 2.4.3:2007 | |
| Detection of E.coli O 157 H7 | AOAC 2000.14, 18 th Edition (2010) - Reveal Microbial Screening test by Neogen Corporation | | | |
| Enumeration of Coagulase Positive Staphylococcus aureus | CCFRA 3.5.1:2007 | | | |



Accreditation Scope

Geoscience Testing Laboratory (NAL 018) Testing Laboratory, (ISO/IEC 17025:2017)

ICAD3, South of Mussafah Industrial Area, Abu Dhabi, UAE

Issue Date: 27-05-2022

Expiry Date: 01-05-2023

Issue No: 03

| Testing Field | Materials/ Products tested | Type of test/ Test parameter/ Properties measured/Range of measurement | Test Method (Standard, Internal Procedure, Technique) | Permanent lab (P) / Client- site (S) |
|---------------|---|---|--|---|
| Microbiology | Food | Detection of Salmonella spp, Cultural Method | CCFRA 3.1.2:2007 | P |
| | | Salmonella Confirmatory Test | CCFRA 3.1.5:2007 | P |
| | | Enumeration of Bacillus cereus | USFDA BAM Chapter 14 (2012) | P |
| | | Enumeration of Clostridium perfringens | CCFRA 3.6.1:2007 | P |
| | | Detection of Listeria Spp. | Reveal Microbial Screening Test for Listeria by Neogen Corporation AOAC Approved | P |
| | | Listeria monocytogenes | BAM Chapter 10:2016 | P |
| | | Detection of Vibrio parahaemolyticus | CCFRA 3.8.2:2007 | P |
| | | Detection of <i>Campylobacter</i> spp. | ISO 10272-1:2017 | P |
| | Potable/ Drinking Water/ Dialysis Water | Sampling | SOP-MB-19 Issue No: 01:16/12/2007 Rev. 7:14/12/2019 | S |
| | Water | Heterotrophic Plate Count | APHA AWWA 9215B 23 rd Ed. (2017) | P |
| | | Enumeration of Total Coliforms | APHA AWWA 9222B 23 rd Ed. (2017) | |
| | | Enumeration of Fecal coliforms | APHA AWWA 9222B and 9222G 23 rd Ed. (2017) | |
| | | Enumeration of E. coli | APHA AWWA 9222B and 9222H 23 rd Ed. (2017) | |
| | | Enumeration of Pseudomonas aeruginosa | NSM W6 Issue No.3 (2007) | |
| | | Enumeration of Fecal Streptococci | APHA AWWA 9230C 23 rd edition (2017) | |
| | | Legionella | ISO 11731:2017 | |
| | | Sampling for legionella | BS 7592:2008 | |
| | | Enumeration of Yeast and Mould | APHA AWWA 9610D 23 rd Ed. (2017) | |



Accreditation Scope

Geoscience Testing Laboratory (NAL 018) Testing Laboratory, (ISO/IEC 17025:2017)

ICAD3, South of Mussafah Industrial Area, Abu Dhabi, UAE

Issue Date: 27-05-2022

Expiry Date: 01-05-2023

Issue No: 03

| Testing Field | Materials/ Products tested | Type of test/ Test parameter/ Properties measured/Range of measurement | Test Method (Standard, Internal Procedure, Technique) | Permanent lab (P) / Client- site (S) |
|--------------------------------|----------------------------------|---|---|---|
| Microbiology | Water | Total Coliforms by MPN | APHA AWWA 9221B 23 rd Ed. (2017) | P |
| | | Fecal coliforms by MPN | APHA AWWA 9221E.1, 23 rd Ed. (2017) | |
| | | E. coli by MPN | APHA AWWA 9221F 23 rd Ed. (2017) | |
| | | Endotoxin | Chromogenic LAL Endotoxin Assay Controlled Kit brochure 05/2018 | |
| | Water & Ice | Enumeration of Staphylococcus aureus | National Standard Method, NSM W10:2005 | P |
| | Environment - Air | Total Viable Count - Total Yeast and Mould Count - Total Bacterial Count | IESO Method 1220, 2 nd Ed.(2003) Method 800, NIOSH, 4 th Ed.(1998) | P |
| | Swab (Hand/ Surface) | Sampling | SOP-MB-21 Issue No: 01:16/12/2007 Rev. 6:08/06/2017 | S |
| | Swab (Hand/ Surface) | Enumeration of Coliform- 3M Petrifilm Coliform Colony count plate method | CCFRA 2.2.2:2003 | P |
| | Swab (Hand/ Surface) | Enumeration of E.coli- 3M Petrifilm E.coli Colony count plate method | CCFRA 2.4.3:2007 | P |
| | Hand Swab | Aerobic Colony Count | USFDA BAM Chapter 3 (2001) | |
| | | Enumeration of Total Coliforms | CCFRA 2.2.1:2007 | |
| | | Enumeration of Staphylococcus aureus | CCFRA 3.5.1:2007 | |
| | Surface Swab | Aerobic Colony Count | USFDA BAM Chapter 3 (2001) | P |
| Enumeration of Total Coliforms | | CCFRA 2.2.1:2007 | | |
| Enumeration of E. coli | | CCFRA 2.4.4:2007 | | |



Accreditation Scope

Geoscience Testing Laboratory (NAL 018) Testing Laboratory, (ISO/IEC 17025:2017)

ICAD3, South of Mussafah Industrial Area, Abu Dhabi, UAE

Issue Date: 27-05-2022

Expiry Date: 01-05-2023

Issue No: 03

| Testing Field | Materials/ Products tested | Type of test/ Test parameter/ Properties measured/Range of measurement | Test Method (Standard, Internal Procedure, Technique) | Permanent lab (P) / Client- site (S) |
|--|----------------------------------|--|---|---|
| Chemical | Aggregate | Chloride Content of Agg. using Nitric Acid Extract for Agg. containing chloride not extracted by water | BS 812 Part 117:1988 | P |
| | | Total Sulphate by Acid Extraction Method | BS 812 Part 118:1988 | |
| | | Organic Impurities in Fine Aggregates for Concrete | ASTM C 40/C40M: 2020 cl.10.2 | |
| | Concrete | Determination of Chloride Content in Hardened Concrete | BS 1881 Part 124:2015 Cl. 12.1 | P |
| | | Determination of Sulphate Content in Hardened Concrete | BS 1881 Part 124:2015 Cl. 12.2 | |
| | Ground Water | Determination of the pH value of Groundwater | BS 1377-3:2018 Cl. 12 | P |
| | | Determination of sulphate content of Groundwater | BS 1377-3:2018 Cl. 7.6, 7.8 | |
| | | Determination of Chloride content in Ground Water | BS 1377-3:2018 Cl. 9.1 | |
| | Soil | Determination of the pH value of soil | BS 1377-3:2018 Cl. 12 | P |
| | | Determination of Water-soluble sulphate in soil | BS 1377-3:2018 Cl. 7.3, 7.6 | |
| | | Determination of acid soluble sulphate | BS 1377-3:2018 Cl. 7.6, 7.9 | |
| | | Determination of Water soluble chloride content | BS 1377-3:2018 Cl. 9.2 | |
| Determination of acid soluble chloride content | | BS 1377-3:2018 Cl. 9.3 | | |
| Organic Matter content of Soil | | BS 1377 Part 3:2018 Cl. 4 | | |



Accreditation Scope

Geoscience Testing Laboratory (NAL 018) Testing Laboratory, (ISO/IEC 17025:2017)

ICAD3, South of Mussafah Industrial Area, Abu Dhabi, UAE

Issue Date: 27-05-2022

Expiry Date: 01-05-2023

Issue No: 03

| Testing Field | Materials/ Products tested | Type of test/ Test parameter/ Properties measured/Range of measurement | Test Method (Standard, Internal Procedure, Technique) | Permanent lab (P) / Client- site (S) |
|---------------|--|--|--|---|
| Chemical | Drinking Water | pH | APHA AWWA 23 rd Ed:2017, 4500 H+ B | P |
| | | Electrical Conductivity @25 °C | APHA AWWA 23 rd Ed:2017, 2510 B | |
| | | Total Dissolved Solids | APHA AWWA 23 rd Ed:2017, 2540 C | |
| | | Total Suspended Solids | APHA AWWA 23 rd Ed:2017, 2540 D | |
| | | Chloride | APHA AWWA 23 rd Ed:2017, 4500 Cl B | |
| | | Sulphate | APHA AWWA 23 rd Ed:2017, 4500 SO ₄ ²⁻ C, Hach 8051 | |
| | | Calcium | APHA AWWA 23 rd Ed:2017, 3500 Ca B | |
| | | Magnesium | APHA AWWA 23 rd Ed:2017, 3500 Mg B | |
| | | Total Hardness | APHA AWWA 23 rd Ed:2017, 2340 C | |
| | Total Alkalinity to 4.4 | APHA AWWA 23 rd Ed:2017, 2320 B | | |
| | Drinking Water (Metals - ICPMS) | Chromium | SOP-CH-59 based on APHA 3125 B,3030 F | P |
| | | Nickel | | |
| | | Iron | | |
| | | Manganese | | |
| | | Aluminum | | |
| | | Lead | | |
| | | Cadmium | | |
| | | Copper | | |
| | | Zinc | | |
| Silver | | | | |
| Barium | | | | |
| Boron | | | | |
| Arsenic | | | | |



Accreditation Scope

Geoscience Testing Laboratory (NAL 018) Testing Laboratory, (ISO/IEC 17025:2017)

ICAD3, South of Mussafah Industrial Area, Abu Dhabi, UAE

Issue Date: 27-05-2022

Expiry Date: 01-05-2023

Issue No: 03

| Testing Field | Materials/ Products tested | Type of test/ Test parameter/ Properties measured/Range of measurement | Test Method (Standard, Internal Procedure, Technique) | Permanent lab (P) / Client- site (S) |
|---------------|---|--|---|---|
| Chemical | Drinking Water (Metals - ICPMS) | Selenium | SOP-CH-59 based on APHA 3125 B,3030 F | P |
| | | Antimony | | |
| | | Strontium | | |
| | | Lithium | | |
| | | Cobalt | | |
| | | Vanadium | | |
| | | Molybdenum | | |
| | | Tin | | |
| | | Beryllium | | |
| | | Mercury | SOP-CH-59 based on USEPA 200.8 | P |
| | Drinking water (Pesticides) | Aldrin | SOP-CH-62 based on APHA 6630 B / 8141B | P |
| | | Dieldrin | SOP-CH-62 based on APHA 6630 B / 8141B | |
| | | Endrin | SOP-CH-62 based on APHA 6630 B / 8141B | |
| | | Heptachlor | SOP-CH-62 based on APHA 6630 B / 8141B | |
| | | HCH-A (Alpha hexachlorocyclohexane) | SOP-CH-62 based on APHA 6630 B / 8141B | |
| | | HCH-B (Beta hexachlorocyclohexane) | SOP-CH-62 based on APHA 6630 B / 8141B | |
| | | HCH-D (delta hexachlorocyclohexane) | SOP-CH-62 based on APHA 6630 B / 8141B | |
| | | HCH-G (gamma hexachlorocyclohexane) | SOP-CH-62 based on APHA 6630 B / 8141B | |
| | | Trifluralin | SOP-CH-62 based on APHA 6630 B / 8141B | |
| Atrazine | | SOP-CH-62 based on APHA 6630 B / 8141B | | |
| Simazine | SOP-CH-62 based on APHA 6630 B / 8141B | | | |



Accreditation Scope

Geoscience Testing Laboratory (NAL 018) Testing Laboratory, (ISO/IEC 17025:2017)

ICAD3, South of Mussafah Industrial Area, Abu Dhabi, UAE

Issue Date: 27-05-2022

Expiry Date: 01-05-2023

Issue No: 03

| Testing Field | Materials/ Products tested | Type of test/ Test parameter/ Properties measured/Range of measurement | Test Method (Standard, Internal Procedure, Technique) | Permanent lab (P) / Client- site (S) |
|--------------------|-----------------------------------|---|---|---|
| Chemical | Drinking water (Pesticides) | Alachlor | SOP-CH-62 based on APHA 6630 B / 8141B | P |
| | | Azinphos-methyl | SOP-CH-62 based on APHA 6630 B / 8141B | |
| | | Chlorpyrifos | SOP-CH-62 based on APHA 6630 B / 8141B | |
| | | Diazinon | SOP-CH-62 based on APHA 6630 B / 8141B | |
| | | Dichlorvos | SOP-CH-62 based on APHA 6630 B / 8141B | |
| | | Fenthion | SOP-CH-62 based on APHA 6630 B / 8141B | |
| | | Parathion-methyl | SOP-CH-62 based on APHA 6630 B / 8141B | |
| | Drinking water (VOC) | Bromodichloromethane | SOP-CH-63 based on USEPA 8260B | |
| | | Bromoform | SOP-CH-63 based on USEPA 8260B | |
| | | Carbon Tetrachloride | SOP-CH-63 based on USEPA 8260B | |
| | | Chloroform | SOP-CH-63 based on USEPA 8260B | |
| | | Dibromochloromethane | SOP-CH-63 based on USEPA 8260B | |
| | | Hexachlorobutadiene | SOP-CH-63 based on USEPA 8260B | |
| | | Tetrachloroethene | SOP-CH-63 based on USEPA 8260B | |
| | | Trichloroethane | SOP-CH-63 based on USEPA 8260B | |
| 1,2-Dichloroethene | SOP-CH-63 based on USEPA 8260B | | | |



Accreditation Scope

Geoscience Testing Laboratory (NAL 018) Testing Laboratory, (ISO/IEC 17025:2017)

ICAD3, South of Mussafah Industrial Area, Abu Dhabi, UAE

Issue Date: 27-05-2022

Expiry Date: 01-05-2023

Issue No: 03

| Testing Field | Materials/ Products tested | Type of test/ Test parameter/ Properties measured/Range of measurement | Test Method (Standard, Internal Procedure, Technique) | Permanent lab (P) / Client-site (S) | |
|------------------------|----------------------------|---|---|-------------------------------------|---|
| Chemical | Drinking water (VOC) | 1,2,3- Trichlorobenzene | SOP-CH-63 based on USEPA 8260B | P | |
| | | 1,1,1-Trichloroethane | SOP-CH-63 based on USEPA 8260B | | |
| | Drinking water (PAH) | Anthracene | SOP-CH-60 based on APHA 6440C/ EPA 8270 D | | |
| | | Benzo(b)fluoranthene | SOP-CH-60 based on APHA 6440C/ EPA 8270 D | | |
| | | Benzo(K)fluoranthene | SOP-CH-60 based on APHA 6440C/ EPA 8270 D | | |
| | | Benzo(g,h,i)perylene | SOP-CH-60 based on APHA 6440C/ EPA 8270 D | | |
| | | Benzo[a]pyrene | SOP-CH-60 based on APHA 6440C/ EPA 8270 D | | |
| | | Fluoranthene | SOP-CH-60 based on APHA 6440C/ EPA 8270 D | | |
| | | Indeno (1,2,3-cd) pyrene | SOP-CH-60 based on APHA 6440C/ EPA 8270 D | | |
| | | Naphthalene | SOP-CH-60 based on APHA 6440C/ EPA 8270 D | | |
| | Sea Water | pH | APHA/AWWA 23 rd Ed: 2017, 4500 H+B | | P |
| | | Total Dissolved solids | APHA/AWWA 23 rd Ed: 2017, 2540 C | | |
| | | Total suspended solids | APHA/AWWA 23 rd Ed: 2017, 2540 D | | |
| | | Chloride | APHA/AWWA 23 rd Ed: 2017, 4500 Cl ⁻ B | | |
| Sulphate | | APHA/AWWA 23 rd Ed: 2017, 4500 SO ₄ ²⁻ C | | | |
| Chemical Oxygen Demand | | APHA/AWWA 23 rd Ed: 2017, 5220 B | | | |



Accreditation Scope

Geoscience Testing Laboratory (NAL 018) Testing Laboratory, (ISO/IEC 17025:2017)

ICAD3, South of Mussafah Industrial Area, Abu Dhabi, UAE

Issue Date: 27-05-2022

Expiry Date: 01-05-2023

Issue No: 03

| Testing Field | Materials/ Products tested | Type of test/ Test parameter/ Properties measured/Range of measurement | Test Method (Standard, Internal Procedure, Technique) | Permanent lab (P) / Client- site (S) |
|---------------|----------------------------------|---|---|---|
| Chemical | Sea Water | Bio Chemical Oxygen Demand | APHA/AWWA 23 rd Ed: 2017, 5210 D | P |
| | | Oil and Grease | APHA/AWWA 23 rd Ed: 2017, 5520 B | |
| | | Iron | APHA/AWWA 23 rd Ed: 2017-3111B, 3030F | |
| | | Zinc | APHA/AWWA 23 rd Ed: 2017-3111B, 3030F | |
| | Sea Water (Metals - ICPMS) | Aluminium | SOP-CH-59 based on APHA 3125 B,3030F | |
| | | Arsenic | | |
| | | Beryllium | | |
| | | Cadmium | | |
| | | Chromium | | |
| | | Cobalt | | |
| | | Lead | | |
| | | Manganese | | |
| | | Selenium | | |
| | | Copper, Nickel | | |
| Mercury | SOP-CH-59 based on USEPA 200.8 | | | |
| Chemical | Waste Water | pH | APHA/AWWA 23 rd Ed: 2017, 4500 H+B | P |
| | | Total Dissolved solids | APHA/AWWA 23 rd Ed: 2017, 2540 C | |
| | | Total suspended solids | APHA/AWWA 23 rd Ed: 2017, 2540 D | |
| | | Oil and Grease | APHA/AWWA 23 rd Ed: 2017, 5520 B | |
| | | Chemical Oxygen Demand | APHA/AWWA 23 rd Ed: 2017, 5220 B | |
| | | Bio Chemical Oxygen Demand | APHA/AWWA 23 rd Ed: 2017, 5210 D | |



Accreditation Scope

Geoscience Testing Laboratory (NAL 018) Testing Laboratory, (ISO/IEC 17025:2017)

ICAD3, South of Mussafah Industrial Area, Abu Dhabi, UAE

Issue Date: 27-05-2022

Expiry Date: 01-05-2023

Issue No: 03

| Testing Field | Materials/ Products tested | Type of test/ Test parameter/ Properties measured/Range of measurement | Test Method (Standard, Internal Procedure, Technique) | Permanent lab (P) / Client- site (S) |
|---------------|------------------------------------|---|---|---|
| Chemical | Waste Water (Metals - ICPMS) | Aluminium | SOP-CH-59 based on APHA 3125 B,3030F | P |
| | | Arsenic | | |
| | | Beryllium | | |
| | | Lead | | |
| | | Selenium | | |
| | | Cadmium | | |
| | | Chromium | | |
| | | Cobalt | | |
| | | Copper | | |
| | | Iron | | |
| | | Manganese | | |
| | | Nickel | | |
| | | Zinc | | |
| | | Vanadium | | |
| | | Barium | | |
| | | Boron | | |
| | | Molybdenum | | |
| Silver | | | | |
| Tin | | | | |
| Lithium | | | | |
| Chemical | Wastewater (VOC's) | Mercury | SOP-CH-59 based on USEPA 200.8 | P |
| | | Chloroform | SOP-CH-63 based on USEPA 8260 B | |
| | | Bromodichloromethane | SOP-CH-63 based on USEPA 8260 B | |
| | | Dibromochloromethane | SOP-CH-63 based on USEPA 8260 B | |
| | | Bromoform | SOP-CH-63 based on USEPA 8260 B | |
| Chemical | Wastewater (VOC's) | 1,2-Dichloroethane | SOP-CH-63 based on USEPA 8260 B | P |



Accreditation Scope

Geoscience Testing Laboratory (NAL 018) Testing Laboratory, (ISO/IEC 17025:2017)

ICAD3, South of Mussafah Industrial Area, Abu Dhabi, UAE

Issue Date: 27-05-2022

Expiry Date: 01-05-2023

Issue No: 03

| Testing Field | Materials/ Products tested | Type of test/ Test parameter/ Properties measured/Range of measurement | Test Method (Standard, Internal Procedure, Technique) | Permanent lab (P) / Client- site (S) |
|---------------|----------------------------------|---|---|---|
| Chemical | Wastewater (PAH) | Fluoranthene | SOP-CH-60 based on APHA 6440C/ EPA 8270 D | P |
| | | Benzo(b)fluoranthene | SOP-CH-60 based on APHA 6440C/ EPA 8270 D | |
| | | Benzo(k)fluoranthene | SOP-CH-60 based on APHA 6440C/ EPA 8270 D | |
| | | Benz(a)pyrene | SOP-CH-60 based on APHA 6440C/ EPA 8270 D | |
| | | Benzo(ghi)perylene | SOP-CH-60 based on APHA 6440C/ EPA 8270 D | |
| | | Acenaphthene | SOP-CH-60 based on APHA 6440C/ EPA 8270 D | |
| | | Acenaphthylene | SOP-CH-60 based on APHA 6440C/ EPA 8270 D | |
| | | Anthracene | SOP-CH-60 based on APHA 6440C/ EPA 8270 D | |
| | | Benz(a)anthracene | SOP-CH-60 based on APHA 6440C/ EPA 8270 D | |
| | Wastewater (PAH) | Chrysene | SOP-CH-60 based on APHA 6440C/ EPA 8270 D | P |
| | | Fluorene | SOP-CH-60 based on APHA 6440C/ EPA 8270 D | |
| | | Naphthalene | SOP-CH-60 based on APHA 6440C/ EPA 8270 D | |
| | | Phenanthrene | SOP-CH-60 based on APHA 6440C/ EPA 8270 D | |
| | | Pyrene | SOP-CH-60 based on APHA 6440C/ EPA 8270 D | |
| | | PCB (52) | SOP-CH-61 based on EPA 8082 A / APHA 6431 C | |



Accreditation Scope

Geoscience Testing Laboratory (NAL 018) Testing Laboratory, (ISO/IEC 17025:2017)

ICAD3, South of Mussafah Industrial Area, Abu Dhabi, UAE

Issue Date: 27-05-2022

Expiry Date: 01-05-2023

Issue No: 03

| Testing Field | Materials/ Products tested | Type of test/ Test parameter/ Properties measured/Range of measurement | Test Method (Standard, Internal Procedure, Technique) | Permanent lab (P) / Client- site (S) |
|---------------|----------------------------------|---|--|---|
| Chemical | Wastewater (PCB) | PCB (101) | SOP-CH-61 based on EPA 8082 A / APHA 6431 C | P |
| | | PCB (138) | SOP-CH-61 based on EPA 8082 A / APHA 6431 C | |
| Chemical | Wastewater (PCB) | PCB (153) | SOP-CH-61 based on EPA 8082 A / APHA 6431 C | |
| | | PCB (170) | SOP-CH-61 based on EPA 8082 A / APHA 6431 C | P |
| Chemical | Ground Water | pH | APHA/AWWA 23 rd Ed: 2017, 4500 H+B | |
| | | Total Dissolved solids | APHA/AWWA 23 rd Ed: 2017, 2540 C | |
| | | Chloride | APHA/AWWA 23 rd Ed: 2017, 4500 Cl B | |
| | | Sulphate | APHA/AWWA 23 rd Ed: 2017, 4500 SO ₄ ²⁻ C | P |
| | | Total suspended solids | APHA/AWWA 23 rd Ed: 2017, 2540 D | |
| | | Oil and Grease | APHA/AWWA 23 rd Ed: 2017, 5520 B | |
| | | Chemical Oxygen Demand | APHA/AWWA 23 rd Ed: 2017, 5220 B | |
| | | Biochemical Oxygen Demand | APHA/AWWA 23 rd Ed: 2017, 5210 D | P |
| | | Aluminium | | P |
| | | Boron | | |
| | | Silver | | |
| | | Strontium | | |
| | | Manganese | | |
| | | Lithium | | |
| | | Iron | SOP-CH-59 based on APHA 3125 B,3030F | |



Accreditation Scope

Geoscience Testing Laboratory (NAL 018) Testing Laboratory, (ISO/IEC 17025:2017)

ICAD3, South of Mussafah Industrial Area, Abu Dhabi, UAE

Issue Date: 27-05-2022

Expiry Date: 01-05-2023

Issue No: 03

| Testing Field | Materials/ Products tested | Type of test/ Test parameter/ Properties measured/Range of measurement | Test Method (Standard, Internal Procedure, Technique) | Permanent lab (P) / Client- site (S) |
|---------------------------|--|---|---|---|
| Chemical | Ground Water (Metals - ICPMS) | Barium | SOP-CH-59 based on APHA 3125 B,3030F | |
| | | Copper | | |
| | | Zinc | | |
| | | Arsenic | | |
| | | Cadmium | | |
| | | Chromium | | |
| | | Cobalt | | |
| | | Lead | | |
| | | Molybdenum | | |
| | | Nickel | | |
| | | Selenium | | |
| | | Beryllium | | |
| | | Mercury | SOP-CH-59 based on USEPA 200.8 | |
| Environment Monitoring | Ambient Air | Determination of Carbon dioxide - CO ₂ | SOP CH –16 Issue 01/20-04-2017, Rev 04/22-03-2020 | S |
| | | Determination of Carbon monoxide - CO | SOP CH –16 Issue 01/20-04-2017, Rev 04/22-03-2020 | |
| | | Determination of Ozone - O ₃ | SOP CH –16 Issue 01/20-04-2017, Rev 04/22-03-2020 | |
| | | Determination of PM 10, PM 2.5 | SOP CH –16 Issue 01/20-04-2017, Rev 04/22-03-2020 | |
| | | Determination of PM 2.5, PM 10 and Total Suspended Particulate | SOP CH –24 Issue 01/04-04-2018, Rev 02/22-03-2020 | |
| | | Determination of Relative Humidity | SOP CH –16 Issue 01/20-04-2017, Rev 04/22-03-2020 | |
| | | Determination of Sulfur dioxide - SO ₂ | SOP CH –16 | |



Accreditation Scope

Geoscience Testing Laboratory (NAL 018) Testing Laboratory, (ISO/IEC 17025:2017)

ICAD3, South of Mussafah Industrial Area, Abu Dhabi, UAE

Issue Date: 27-05-2022

Expiry Date: 01-05-2023

Issue No: 03

| Testing Field | Materials/ Products tested | Type of test/ Test parameter/ Properties measured/Range of measurement | Test Method (Standard, Internal Procedure, Technique) | Permanent lab (P) / Client- site (S) |
|---------------------------|----------------------------------|---|---|---|
| Environment Monitoring | Ambient Air | | Issue 01/20-04-2017, Rev 04/22-03-2020 | S |
| | | Determination of Temperature | SOP CH -16 Issue 01/20-04-2017, Rev 04/22-03-2020 | |
| | | Determination of VOC | SOP CH -16 Issue 01/20-04-2017, Rev 04/22-03-2020 | |
| | | Total Suspended Particulate Matter | SOP CH -16 Issue 01/20-04-2017, Rev 04/22-03-2020 | |
| Environment Monitoring | Indoor Air Quality | Illuminance Monitoring | SOP CH 22 Issue 01/04/04/2018 Rev.01/26/04/2018 | S |
| | | Determination of Carbon dioxide - CO ₂ | SOP CH - 04 Issue no: 01:18/12/2016 Rev no: 03:22/03/2020 based on BS EN 60079-29-2:2015 | |
| | | Determination of Carbon Monoxide - CO | SOP CH - 04 Issue no: 01:18/12/2016 Rev no: 03:22/03/2020 based on BS EN 60079-29-2:2015 | |
| | | Determination of Formaldehyde - HCHO | SOP CH - 04 Issue no: 01:18/12/2016 Rev no: 03:22/03/2020 based on BS EN 60079-29-2:2015 | |
| Environment Monitoring | Indoor Air Quality | Determination of Nitrogen dioxide - NO ₂ | SOP CH - 04 Issue no: 01:18/12/2016 Rev no: 03:22/03/2020 based on BS EN 60079-29-2:2015 | S |
| | | Determination of Ozone - O ₃ | SOP CH - 04 Issue no: 01:18/12/2016 Rev no: 03:22/03/2020 based on BS EN 60079-29-2:2015 | |



Accreditation Scope

Geoscience Testing Laboratory (NAL 018) Testing Laboratory, (ISO/IEC 17025:2017)

ICAD3, South of Mussafah Industrial Area, Abu Dhabi, UAE

Issue Date: 27-05-2022

Expiry Date: 01-05-2023

Issue No: 03

| Testing Field | Materials/ Products tested | Type of test/ Test parameter/ Properties measured/Range of measurement | Test Method (Standard, Internal Procedure, Technique) | Permanent lab (P) / Client- site (S) |
|------------------------------------|----------------------------------|---|---|---|
| Environment Monitoring | Indoor Air Quality | Determination of PM 10, PM 7, PM 2.5 and PM 1 | SOP CH - 05 Issue no: 01:18/12/2016 Rev no: 03:22/03/2020 | S |
| | | Determination of Relative Humidity | SOP CH - 04 Issue no: 01:18/12/2016 Rev no: 03:22/03/2020 based on BS EN 60079-29-2:2015 | |
| | | Determination of Sulfur dioxide | SOP CH - 04 Issue no: 01:18/12/2016 Rev no: 03:22/03/2020 based on BS EN 60079-29-2:2015 | |
| | | Determination of Temperature | SOP CH - 04 Issue no: 01:18/12/2016 Rev no: 03:22/03/2020 based on BS EN 60079-29-2:2015 | |
| | Indoor Air Quality | Determination of TVOC | SOP CH - 04 Issue no: 01:18/12/2016 Rev no: 03:22/03/2020 based on BS EN 60079-29-2:2015 | S |
| | | Total Suspended Particulate | SOP CH - 05 Issue no: 01:18/12/2016 Rev no: 03:22/03/2020 | |
| | Noise | Noise Monitoring - LAEq, LA Max, LA Min | ISO 1996 - 1 :2016and ISO 1996-2:2017 | |
| | Stack Emission | Determination of Carbon dioxide - CO ₂ | SOP CH - 27 Issue no: 01: 28/05/2018 Rev no: 01: 31/07/ 2019 based on Testo 350 | S |
| | | Determination of Carbon Monoxide - CO | USEPA CTM 034 | |
| | | Determination of Flue Gas Temperature | USEPA CTM 034 | |
| Determination of Hydrocarbon - VOC | | USEPA CTM 034 | | |



Accreditation Scope

Geoscience Testing Laboratory (NAL 018) Testing Laboratory, (ISO/IEC 17025:2017)

ICAD3, South of Mussafah Industrial Area, Abu Dhabi, UAE

Issue Date: 27-05-2022

Expiry Date: 01-05-2023

Issue No: 03

| Testing Field | Materials/ Products tested | Type of test/ Test parameter/ Properties measured/Range of measurement | Test Method (Standard, Internal Procedure, Technique) | Permanent lab (P) / Client- site (S) |
|---------------------------|----------------------------------|--|---|---|
| Environment Monitoring | Stack Emission | Determination of Nitrogen dioxide - NO ₂ | USEPA CTM 034 | S |
| | | Determination of Nitrogen Monoxide - NO | USEPA CTM 034 | |
| | | Determination of Oxides of Nitrogen - NO _x | USEPA CTM 034 | |
| | Stack Emission | Determination of Oxygen - O ₂ | USEPA CTM 034 | S |
| | | Determination of stack gas velocity and volumetric flow rate | SOP CH - 01 based on USEPA Method 2 | |
| | | Determination of Sulfur dioxide - SO ₂ | USEPA Method 6C, 2017 | |
| | | Determination of TSP emission from stationary source | SOP CH - 01 based on USEPA Method 5 | |
| END | | | | |