YES

### **Nicholson Electrical Ltd**

### **ELECTRICAL INSTALLATION CERTIFICATE**

(Requirements for Electrical Installations – BS 7671 IEE Wiring Regulations)

| DETAILS OF THECLIENT  |   |                                 |   |              |                      |   |              |                       |            |  |  |  |
|---|---|---------------------------------|---|--------------|----------------------|---|--------------|-----------------------|------------|--|--|--|
| Client/<br>Address:   | ·   | Cormac Sol                      | utions Ltd, Castle                        | Canyl        | ke Road,             | Bodmin, PL31 1DZ  |              |                       |            |  |  |  |
| DETAILS OF  | THE INSTALLATION  | NC                              |   |              |                      |   |              |                       |            |  |  |  |
| Address:  |   | New Cut Ca                      | r Park - Redruth T                        | R15 1        | IAF                  |   | New          |                       |            |  |  |  |
| Extent of the in by this Certification  | stallation covered ate:   | Complete el                     | ectrical installatior                     | 1            |                      |   | An<br>Additi | Yes                   |            |  |  |  |
|   |   |                                 |   |              |                      |   |              |                       |            |  |  |  |
|   |   | An v                            |   |              |                      |   |              |                       |            |  |  |  |
|   |   | Altera                          | ition                                     | Yes          |                      |   |              |                       |            |  |  |  |
| DESIGN  |   |                                 |   |              |                      |   |              |                       |            |  |  |  |
| which are desc<br>for which I/We  | being the person(s) responsible for the design of the electrical installation (as indicated by my/our signature(s) below, particulary have described above, having exercised reasonable skill and care when carrying out the design, hereby Certify that the design thich I/We have been responsible is, to the best of my/our knowledge and belief, in accordance with BS 7671:2008 amended to |                                 |   |              |                      |   |              |                       |            |  |  |  |
| ·   | cept for the departures, if any, detailed as follows:   |                                 |   |              |                      |   |              |                       |            |  |  |  |
| Details of departures from BS 7671, as amended (Regulations 120.3.120.4)  See notes  The extent of liability of the signatory/signatories is limited to the work described above as the subject of this certificate. For the DE of the installation:  ** (Where there is divided responsibility for the design)   |   |                                 |   |              |                      |   |              |                       |            |  |  |  |
| Signature   | PR Nicholson  | Date                            | 17/12/14                                  | Name<br>(CAP | )<br>ITALS)          | PAUL NICHOLSON  | ı            | Designer 1            |            |  |  |  |
| Signature   |   | Date                            |   | Name         | •                    |   | ı            | r 2 **                |            |  |  |  |
|   |   |                                 |   |              |                      |   |              |                       |            |  |  |  |
| particulars of v<br>that the constr   | e person(s) responsib<br>which are described ab   | ove, having ex<br>I/We have bee | cercised reasonable in responsible is, to | skill an     | nd care what of my/o | on (as indicated by my<br>nen carrying out the con<br>ur knowledge and belief | structio     | on, herel             | by Certify |  |  |  |
| ·   | rtures from BS 7671, as   | •                               |   | ·            | See not              |   |              |                       |            |  |  |  |
|   | ability of the signatory<br>RUCTION of the install  |                                 | e work described abo                      | ve as        | the subjec           | ct of this certificate.   |              |                       |            |  |  |  |
| Signature   | A Withers   | Date                            | 16/12/2014                                | Name<br>(CAP | )<br>ITALS)          | AARON WITHERS   | (            | Constru               | ctor       |  |  |  |
| INSPECTION AND TESTING  I/We, being the person(s) responsible for the inspection and testing of the electrical installation (as indicated by my/our signatu below, particulars of which are described above, having exercised reasonable skill and care when carrying out the inspection and test hereby Certify that the inspection and testing work for which I/We have been responsible is, to the best of my/our knowledge and belie accordance with BS 7671:2008 amended to 2013 except for the departures, if any, detailed as follows: |   |                                 |   |              |                      |   |              |                       | d testing, |  |  |  |
| The extent of li  | rtures from BS 7671, as<br>ability of the signatory<br>CTION AND TESTING of   | is limited to the               | e work described abo                      |              | See not              |   |              |                       |            |  |  |  |
| Signature   | A Withers   | Date                            | 16/12/2014                                | Name<br>(CAP | )<br>ITALS)          | AARON WITHERS   | ı            | INSPECT               | TOR        |  |  |  |
| Reviewed by   |   |                                 |   | •            | ŕ                    |   |              |                       |            |  |  |  |
| Signature   | PR Nicholson  | Date                            | 17/12/2014                                | Name<br>(CAP | r<br>ITALS)          | PAUL NICHOLSON  |              | Qualified<br>Supervis |            |  |  |  |

### DESIGN, CONSTRUCTION, INSPECTION AND TESTING

\* This box is to be completed only where the design, construction, inspection and testing have been the responsibility of one person.

I, being the person responsible for the design, construction, inspection and testing of the electrical installation (as indicated by my signature below), particulars of which are described above, having exercised reasonable skill and care when carrying out the design, construction, inspection and testing, hereby CERTIFY that the inspection and testing work for which I have been responsible is, to the best of my knowledge and belief, in accordance with BS 7671:2008 amended to 2013 except for the departures, if any, detailed as follows:

Details of departures from BS 7671, as amended (Regulations 120.3.120.4) See notes

The extent of liability of the signatory is limited to the work described above as the subject of this certificate. For the DESIGN, CONSTRUCTION, and the INSPECTION AND TESTING of the installation.

Date

Reviewed by

Signature

PR Nicholson Signature

A Withers

Date 16/12/2014

17/12/2014

Name (CAPITALS)

Name (CAPITALS)

**AARON WITHERS** 

**INSPECTOR** 

Qualified

PAUL NICHOLSON Supervisor

| PATICULARS (               | OF THE O | RGANISATION(S) RESPONSIBLE F               | OR THE ELECTRICAL I                     | NST/ | LLA | TION |   |   |   |   |
|----------------------------|----------|--|---|------|-----|------|---|---|---|---|
| DESIGN (1)<br>Organisation |          | Nicholson Electrical Ltd                   |   |      |     |      |   |   |   |   |
|                            | Address: | 33 Century Close<br>St Austell             | Registration No. (Where appropriate)    | 6    | 0   | 3    | 4 | 8 | 7 | 0 |
|                            |          | Cornwall<br>PL25 3UY                       | Branch number (If applicable)           | 0    | 0   | 1    |   |   |   |   |
| DESIGN (2)<br>Organisation |          |  |   |      |     |      |   |   |   |   |
|                            | Address: |  | Registration No.<br>(Where appropriate) |      |     |      |   |   |   |   |
|                            |          |  | Branch number (If applicable)           |      |     |      |   |   |   |   |
| CONSTRUCTION Organisation  | N        | Nicholson Electrical Ltd                   |   |      |     |      |   |   |   |   |
|                            | Address: | 33 Century Close<br>St Austell<br>Cornwall | Registration No.<br>(Where appropriate) | 6    | 0   | 3    | 4 | 8 | 7 | 0 |
|                            |          | PL25 3UY                                   | Branch number (If applicable)           | 0    | 0   | 1    |   |   |   |   |
| INSPECTION & Organisation  | TESTING  | Nicholson Electrical Ltd                   |   |      |     |      |   |   |   |   |
|                            | Address: | 33 Century Close<br>St Austell<br>Cornwall | Registration No. (Where appropriate)    | 6    | 0   | 3    | 4 | 8 | 7 | 0 |
|                            |          | PL25 3UY                                   | Branch number<br>(If applicable)        | 0    | 0   | 1    |   |   |   |   |

| SUPPLY | SUPPLY CHARACTERISTICS AND EARTHING ARRANGEMENTS |                   |       |                   |                   |                           |                             |       |  |  |  |  |  |  |
|--------|--|-------------------|-------|-------------------|-------------------|---------------------------|-----------------------------|-------|--|--|--|--|--|--|
| Systen | n Types  |                   | Numbe | r and types o     | f live conductors | Nature of supply Page 1   | Nature of supply Parameters |       |  |  |  |  |  |  |
| TN-S   |  | _ A               | A.C.  | √                 | D.C.              | Nominal Voltage U/Uo      | 230/230                     | Volts |  |  |  |  |  |  |
| TN-C-S | $\checkmark$                                     | 1-Phase<br>2 wire | √     | 1-Phase<br>3 wire | 2 pole            | Nominal Frequency         | 50                          | Hz    |  |  |  |  |  |  |
| TN-C   |  | 2-Phase<br>3 wire |       |                   | 3 pole            | Prospective fault current | 0.61                        | kA    |  |  |  |  |  |  |
| тт     |  | 3-Phase<br>3 wire |       | 3-Phase<br>4 wire | Other             | External Ze               | 0.31                        | Ohms  |  |  |  |  |  |  |
| ΙΤ     |  | Other             |       |                   |                   | Number of supplies        | 1                           |       |  |  |  |  |  |  |

| CHARACTERISTICS OF THE SUPPLY OVERCURRENT PROTECTIVE DEVICE |                             |                        |    |      |                        |    |    |  |  |  |  |  |
|---|-----------------------------|------------------------|----|------|------------------------|----|----|--|--|--|--|--|
| Type BS/EN  | BS3161 Fuse HBC -<br>Type 2 | Nominal current rating | 80 | Amps | Short circuit capacity | 16 | KA |  |  |  |  |  |

| PARTIC                                     | ULARS                 | OF IN     | STALI        | ATION      | IAITH              | E ORIG   | N     |                  |                     |        |            |         |        |               |                 |      |
|--|-----------------------|-----------|--------------|------------|--------------------|----------|-------|------------------|---------------------|--------|------------|---------|--------|---------------|-----------------|------|
| Means of                                   | earthing              |           |              |            |                    | Detai    | ls of | installation     | Earth Ele           | ectrod | le (where  | applic  | cable) |               |                 |      |
| Su   | pplier's facility     | $\sqrt{}$ | (e.g         | . rods, ta | Type:<br>ape ect)  | N/A      |       |                  | Loca                | ation  | N/A        |         |        |               |                 |      |
| Installatio<br>el                          | on earth<br>ectrode   | N/A       |              |            | ectrode<br>nce, RA | N/A      |       | Ohms             | Metho<br>measure    |        | N/A        |         |        |               |                 |      |
|  | um Dema<br>I) Per pha |           | 80           | Amps       |                    | Method   | of pr | otection ag      | ainst indir<br>cont |        | ADS        |         |        |               |                 |      |
|  |                       |           |              |            |                    | Main S   | Switc | h or circuit     | -Breaker            |        |            |         |        |               |                 |      |
| Type<br>BSEN                               | 60947-3 Is            | olator    | No. Of poles | 2          | Voltage rating     | 7311     | ٧     | Current rating   | 100                 | Α      | RCD<br>I∆n | N/A     | mA     | RCD<br>at l∆n | N/A             | ms   |
|  |                       |           |              |            |                    | ;        | Supp  | ly conduct       | ors                 |        |            |         |        |               |                 |      |
|  |                       | Condu     | uctor m      | aterial    | Copper             |          |       | С                | onductor (          | CSA    | 25         | 5       | mm²    |               |                 |      |
|  |                       |           |              |            |                    | E        | arth  | ing conduc       | tors                |        |            |         |        |               |                 |      |
| Co   | onductor              | material  | Cop          | per        | C                  | onductor | csa   | 16               | mm²                 |        | Con        | tinuity | check  | $\sqrt{}$     | (√) OK          | (    |
| Main equipotential bonding conductors      |                       |           |              |            |                    |          |       |                  |                     |        |            |         |        |               |                 |      |
| Co   | onductor              | material  | Cop          | per        | C                  | onductor | csa   | 10               | mm²                 |        | Con        | tinuity | check  | $\checkmark$  | (√) OK          | (    |
| Bonding of extraneous conductive parts (✓) |                       |           |              |            |                    |          |       |                  |                     |        |            |         |        |               |                 |      |
| Wate                                       | 1                     | Servi     | ice N        | I/A        | Oil<br>service     | N/A      | Str   | uctural<br>steel | N/A                 | Light  |            | N/A     | Oth    | - N//         | A List in notes | repo |

### **COMMENTS ON THE EXISTING INSTALLATION**

Additional information and report notes

### NEXT INSPECTION

I/We the designer(s), recommend that this installation is further inspected and tested after an interval of not more than 5 Years

| SCHEDUL      | E OF ITEMS INSPECTED  |           |  |
|--------------|---|-----------|--|
|              | PROTECTIVE MEASURES AGAINST ELECTRIC SHOCK  |           | Prevention of mutual detrimental influences  |
|              | Basic and fault protection  | V         | Proximity of non-electrical services and other influences  |
| N/A          | SELV  | V         | Segregation of band I and band II circuits or band II insulation used  |
| N/A          | PELV  | $\sqrt{}$ | Segregation of safety circuits   |
|              | Basic protection  |           | <u>Identification</u>  |
| V            | Insulation of live parts  | V         | Presence of diagrams, instructions, circuit charts and similar information   |
| $\checkmark$ | Barriers and enclosures   | <b>V</b>  | Presence of danger notices and other warning signs   |
| N/A          | Obstacles   | <b>V</b>  | Labelling of protective devices, switches and terminals  |
| N/A          | Placing out of reach  | V         | Identification of conductors   |
| $\checkmark$ | Double or Reinforced insulation   |           | Cables and conductors  |
|              | Fault Protection (Automatic disconnection of supply)                                      | $\sqrt{}$ | Selection of conductors for current-carrying capacity and volt drop  |
| $\checkmark$ | Presence of earthing conductors   | V         | Erection methods   |
| $\checkmark$ | Presence of circuit protection conductors   | <b>V</b>  | Routing of cables in prescribed zones  |
| V            | Presence of main equipotential conductors   | V         | Cables incorporating earthed armour or sheath or run in<br>an earthed wiring system or protected against nails,<br>screws and the like               |
| V            | Presence of earthing arrangements for combined protective and functional purposes         | V         | Additional protection by a 30mA for cables concealed in walls (where required in premises not under the supervision of skilled or instructed persons |
| V            | Presence of adequate arrangements for alternative sources(s), where applicable            | $\sqrt{}$ | Connection of conductors   |
| V            | PELV  | $\sqrt{}$ | Presence of fire barriers, suitable seals and protection against thermal effects   |
| $\checkmark$ | Choice and setting of protective and monitoring devices                                   | $\sqrt{}$ | General Adequacy of access to switchgear and other equipment   |
| N/A          | Non-conducting location: Absence of protective conductors                                 | V         | Presence and correct location of appropriate devices for isolation and switching   |
| N/A          | Earth free equipotential bonding: Presence of earth free equipotential bonding conductors | $\sqrt{}$ | Particular protective measures for special installations and locations   |
| N/A          | Electrical separation for one item of current using equipment                             | V         | Connection of single pole devices for protection or switching in phase conductors only   |
| N/A          | Electrical separation for more than one item of current using equipment                   | V         | Correct connection of accessories and equipment  |
|              | Additional protection (For use in controlled supervised conditions only)                  | N/A       | Presence of under voltage protective devices   |
| V            | Presence of residual current device(s)  | V         | Selection of equipment and protective measures appropriate to external influences  |
| V            | Presence of supplementary bonding conductors  | V         | Selection of appropriate functional switching devices  |
|              |   |           |  |

| √   |   | To indicate that an inspection or test has been carried out and the result is satisfactory         |
|-----|---|--|
| Х   |   | To indicate that an inspection or test has been carried out and the result was unsatisfactory      |
| LIN | И | To indicate that an inspection or test has not been carried out following agreed limitations of in |

To indicate that an inspection or test has not been carried out following agreed limitations of inspection or testing

N/A To indicate the inspection or test is not applicable

N/V To indicate that details could not be verified

| SC | HEDUL        | E OF ITEMS TESTED                                       |           |  |
|----|--------------|---|-----------|--|
|    | $\sqrt{}$    | External earth loop impedance, Ze                       | $\sqrt{}$ | Basic protection against direct contact by barrier or enclosure provided during erection |
|    | $\checkmark$ | Installation earth electrode resistance, Ra             | $\sqrt{}$ | Insulation of non-conducting floors or walls   |
|    | $\checkmark$ | Continuity of protective conductors                     | $\sqrt{}$ | Polarity   |
|    | N/A          | Continuity of ring circuit conductors                   | $\sqrt{}$ | Earth fault loop impedance Zs  |
|    | $\checkmark$ | Insulation resistance between live conductors           | N/A       | Verification of phase sequence   |
|    | $\checkmark$ | Insulation resistance between live conductors and earth | V         | Operation of residual current devices  |
|    | $\checkmark$ | Protection by separation of circuits                    | $\sqrt{}$ | Functional testing of assemblies   |
|    |              |   | <b>√</b>  | Verification of voltage drop   |

| SCHEDULE OF ADDITIONAL RECORDS (                   | (See attached schedule) |
|--|-------------------------|
| CONTRACTOR AND | (Sociation College)     |

Note: Additional page(s) must be identified by the Electrical Installation Certificate serial number and page number(s).

Page No(s): N/A

| TEST INSTRUMENTS USED      |                           |
|----------------------------|---------------------------|
| Instrument Serial No(s)    | KT64 - Serial No. 8037327 |
| Earth fault loop impedance | KT64 - Serial No. 8037327 |
| Insulation resistance      | KT64 - Serial No. 8037327 |
| Continuity                 | KT64 - Serial No. 8037327 |
| RCD                        | KT64 - Serial No. 8037327 |
| Other                      | Socket Tester             |

### **NOTES FOR RECIPIENT**

### THIS CERTIFICATE IS A VALUABLE DOCUMENT AND SHOULD BE RETAINED FOR FUTURE REFERENCE

This safety certificate has been issued to confirm that the electrical installation work to which it relates has been designed, constructed and inspected and tested in accordance with British Standard 7671 (The IEE Wiring regulations).

You should have received an original Certificate and the contractor should have retained a duplicate Certificate. If you were the person ordering the work, but not the owner of the installation, you should pass this Certificate, or a full copy of it including the schedules immediately to the user.

The original certificate should be retained in a safe place and be shown to any person inspecting or undertaking further work on the electrical installation in the future. If you later vacate the property, this Certificate will demonstrate to the new owner that the electrical installation complied with the requirements of British Standard 7671 at the time the Certificate was issued was issued. The Construction (Design and Management) Regulations require that for a project covered by those Regulations, a copy of this Certificate, together with schedules is included in the health and safety documentations.

For safety reasons, the electrical installation will need to be inspected at appropriate intervals by a competent person. The maximum time interval recommended before the next inspection is stated in the Certificate under "Next Inspection."

This Certificate is intended to be issued only for a new electrical installation or for new work associated with an alteration or addition to a existing installation. It should not have been issued for the inspection of an existing electrical installation. A "Periodic Inspection Report" should be issued for such a periodic inspection.

The Certificate is only valid if a Schedule of Inspection of Test Results is appended.

| _           | Nicholson Electrical Ltd - DISTRIBUTION BOARD DETAILS |                                   |                  |                                 |                               |              |                                 |                                      |   |            |                       |        |                   |                 |   |  |                   |  |               |                |                |                  |          |                  |                    |           |               |
|-------------|---|-----------------------------------|------------------|---------------------------------|-------------------------------|--------------|---------------------------------|--------------------------------------|---|------------|-----------------------|--------|-------------------|-----------------|---|--|-------------------|--|---------------|----------------|----------------|------------------|----------|------------------|--------------------|-----------|---------------|
| DE<br>ref.: |   | Z <sub>s</sub> at this board (Ω): | 0.31             | b                               | I <sub>pf</sub> at<br>oard (I | this<br>KA): | 0.61                            |                                      | Main switch type BSEN reference: 60947-3 Isolator |            |                       | F      | Rating:           | 10              | 0 Amp                                   | s c                                    | Sı<br>onduc       | ipply<br>tors:                             |               |                |                | Earth:           | 16       | 6 mm²            |                    |           |               |
|             | Distribution d location:                              | Service Cupb                      | oard             |                                 |                               |              |                                 | Su                                   | Supplied from: Mains                              |            |                       |        |                   | No. O<br>phases | S I I                                   | Single Supply pro devic BSEN reference |                   |  | vice type:    |                |                |                  | Rating   | j: 8(            | ) Amps             | ;         |               |
| CIF         | CUIT DE   | TAILS                             |                  |                                 |                               |              |                                 |                                      |   |            |                       |        |                   | TES             | ST RI                                   | ESUI                                   | LTS               |  |               |                |                |                  |          |                  |                    |           |               |
|             |   |                                   |                  |                                 |                               |              | cuit S Over-current devices RCD |                                      |   |            |                       |        |                   |                 | Circui                                  | t impe                                 | dances            | Ω  | Insu          | lation         | n resistance   |                  |          |                  |                    | RCD       |               |
| leference   | Circuit designation                                   |                                   | Reference method | Type of wiring (see code below) | oints served                  |              |                                 | n time permitted                     | S EN  | (A)        | circuit capacity (KA) | Αι     | rmitted Zs Ω      | cir<br>(Me      | Ring fin<br>cuits o<br>asured<br>to end | nly<br>end                             | (At le            | circuits<br>ast one<br>on to be<br>pleted) | Ω M əsı       | tral M 🗅       | th M Q         | rth M D          | Polarity | esured Zs Ω      | Testing            | ms        | n ms          |
| Circuit R   | On can ac   | osignation                        | Referenc         | Type of wiring (                | Number of points              | Live (mm²)   | cpc (mm²)                       | Max.Disconnection time permitted (s) | Type BS EN  | Rating (A) | Short circuit ca      | IΔn mA | Maximum permitted | r <sub>1</sub>  | r <sub>n</sub>                          | r <sub>2</sub>                         | R <sub>1+</sub> R | 2 R <sub>2</sub>                           | Mase /Phase M | Phase /Neutral | Phase /Earth M | Neutral /Earth M | Pol      | Maximum Measured | Functional Testing | At IΔn ms | At 5 x IΔn ms |
| 1           | Temp Supply   |                                   | A                | А                               | 1                             | 10           | 6                               | 0.4                                  | 61009 Type B                                      | 32         | 6                     | 30     | 1.15              | N/A             | N/A                                     | N/A                                    | Lim               | N/A  | N/A           | 1999           | 1999           | 1999             | √        | Lim              | √                  | 23        | 23            |
| 2           | Service area soc                                      | ckets                             | А                | А                               | 3                             | 2.5          | 1.5                             | 0.4                                  | 61009 Type B                                      | 16         | 6                     | 30     | 2.30              | N/A             | N/A                                     | N/A                                    | 0.09              | N/A  | N/A           | 1999           | 1999           | 1999             | √        | 0.44             | <b>√</b>           | 19        | 9             |
| 3           | Lights passage  |                                   | А                | А                               | 1                             | 1.5          | 1.0                             | 0.4                                  | 61009 Type B                                      | 6          | 6                     | 30     | 6.13              | N/A             | N/A                                     | N/A                                    | 0.11              | N/A  | N/A           | 1999           | 1999           | 1999             | √        | 0.48             | <b>√</b>           | 21        | 21            |
| 4           | Lights ladies   |                                   | А                | А                               | 3                             | 1.5          | 1.0                             | 0.4                                  | 61009 Type B                                      | 6          | 6                     | 30     | 6.13              | N/A             | N/A                                     | N/A                                    | 0.41              | N/A  | N/A           | 1999           | 1999           | 1999             | √        | 0.7              | √                  | 38        | 16            |
| 5           | Lights service a                                      | rea                               | А                | А                               | 2                             | 1.5          | 1.0                             | 0.4                                  | 61009 Type B                                      | 6          | 6                     | 30     | 6.13              | N/A             | N/A                                     | N/A                                    | 0.36              | N/A  | N/A           | 1999           | 1999           | 1999             | √        | 0.75             | <b>√</b>           | 20        | 18            |
| 6           | Lights gents  |                                   | Α                | А                               | 6                             | 1.5          | 1.0                             | 0.4                                  | 61009 Type B                                      | 6          | 6                     | 30     | 6.13              | N/A             | N/A                                     | N/A                                    | 0.58              | N/A  | N/A           | 1999           | 1999           | 1999             | √        | 0.89             | √                  | 37        | 18            |
| 7           | Water / Unknow  | n                                 | N/A              | N/A                             | N/A                           | 2.5          | 1.5                             | 0.4                                  | 61009 Type B                                      | 20         | 6                     | 30     | 1.84              | N/A             | N/A                                     | N/A                                    | N/a               | N/A  | N/A           | 1999           | 1999           | 1999             | √        | N/A              | <b>√</b>           | 22        | 29            |
| 8           | Ladies hand dry                                       | er                                | Α                | А                               | 1                             | 2.5          | 1.5                             | 0.4                                  | 61009 Type B                                      | 20         | 6                     | 30     | 1.84              | N/A             | N/A                                     | N/A                                    | 0.29              | N/A  | N/A           | 1999           | 1999           | 1999             | √        | 0.58             | <b>V</b>           | 22        | 18            |
| 9           | Gents hand drye                                       | ər                                | Α                | А                               | 1                             | 2.5          | 1.5                             | 0.4                                  | 61009 Type B                                      | 16         | 6                     | 30     | 2.30              | N/A             | N/A                                     | N/A                                    | 0.31              | N/A  | N/A           | 1999           | 1999           | 1999             | √        | 0.55             | <b>V</b>           | 27        | 15            |
| 10          | Ladies lights   |                                   | Α                | Α                               | 3                             | 1.5          | 1.0                             | 0.4                                  | 61009 Type B                                      | 6          | 6                     | 30     | 6.13              | N/A             | N/A                                     | N/A                                    | 0.32              | N/A  | N/A           | 1999           | 1999           | 1999             | √        | 0.63             | <b>V</b>           | 29        | 19            |
| 11          | Disabled lights                                       |                                   | Α                | Α                               | 2                             | 1.5          | 1.0                             | 0.4                                  | 61009 Type B                                      | 6          | 6                     | 30     | 6.13              | N/A             | N/A                                     | N/A                                    | 0.47              | N/A  | N/A           | 1999           | 1999           | 1999             | √        | 0.89             | √                  | 19        | 18            |
| 12          | Outside lights  |                                   | Α                | Α                               | 5                             | 1.5          | 1.0                             | 0.4                                  | 61009 Type B                                      | 6          | 6                     | 30     | 6.13              | N/A             | N/A                                     | N/A                                    | 0.63              | N/A  | N/A           | 1999           | 1999           | 1999             | √        | 0.79             | <b>V</b>           | 25        | 20            |
| 13          |   |                                   |                  |                                 |                               |              |                                 |                                      |   |            |                       |        |                   |                 |   |  |                   |  |               |                |                |                  |          |                  |                    |           |               |
| 14          |   |                                   |                  |                                 |                               |              |                                 |                                      |   |            |                       |        |                   |                 |   |  |                   |  |               |                |                |                  |          |                  |                    |           |               |
| 15          |   |                                   |                  |                                 |                               |              |                                 |                                      |   | I          |                       |        |                   |                 |   |  |                   |  | -             |                |                |                  |          |                  |                    |           |               |
| 16          |   |                                   |                  |                                 |                               |              |                                 |                                      |   |            |                       |        |                   |                 |   |  |                   |  |               |                |                |                  |          |                  |                    |           |               |

| CODES FOR TYPES OF WIRING |                                      |   |                                      |  |                   |                    |                                 |  |  |  |  |  |  |
|---------------------------|--------------------------------------|---|--------------------------------------|--|-------------------|--------------------|---------------------------------|--|--|--|--|--|--|
| Α                         | В                                    | С                                       | D                                    | E  | F                 | Н                  | O (other please state)          |  |  |  |  |  |  |
| C/PVC<br>ABLES            | PVC CABLES<br>IN METALLIC<br>CONDUIT | PVC CABLES IN<br>NON-METALIC<br>CONDUIT | PVC CABLES IN<br>METALIC<br>TRUNKING | PVC CABLES IN<br>NON-METALIC<br>TRUNKING | PVC/SWA<br>CABLES | XLPE/SWA<br>CABLES | MINERAL-<br>INSULATED<br>CABLES |  |  |  |  |  |  |

YES

### **Nicholson Electrical Ltd**

### **ELECTRICAL INSTALLATION CERTIFICATE**

(Requirements for Electrical Installations – BS 7671 IEE Wiring Regulations)

| DETAILS OF THECLIENT  |   |                                 |   |              |                      |   |              |                       |            |  |  |  |
|---|---|---------------------------------|---|--------------|----------------------|---|--------------|-----------------------|------------|--|--|--|
| Client/<br>Address:   | ·   | Cormac Sol                      | utions Ltd, Castle                        | Canyl        | ke Road,             | Bodmin, PL31 1DZ  |              |                       |            |  |  |  |
| DETAILS OF  | THE INSTALLATION  | NC                              |   |              |                      |   |              |                       |            |  |  |  |
| Address:  |   | New Cut Ca                      | r Park - Redruth T                        | R15 1        | IAF                  |   | New          |                       |            |  |  |  |
| Extent of the in by this Certification  | stallation covered ate:   | Complete el                     | ectrical installatior                     | 1            |                      |   | An<br>Additi | Yes                   |            |  |  |  |
|   |   |                                 |   |              |                      |   |              |                       |            |  |  |  |
|   |   | An v                            |   |              |                      |   |              |                       |            |  |  |  |
|   |   | Altera                          | ition                                     | Yes          |                      |   |              |                       |            |  |  |  |
| DESIGN  |   |                                 |   |              |                      |   |              |                       |            |  |  |  |
| which are desc<br>for which I/We  | being the person(s) responsible for the design of the electrical installation (as indicated by my/our signature(s) below, particulary have described above, having exercised reasonable skill and care when carrying out the design, hereby Certify that the design thich I/We have been responsible is, to the best of my/our knowledge and belief, in accordance with BS 7671:2008 amended to |                                 |   |              |                      |   |              |                       |            |  |  |  |
| ·   | cept for the departures, if any, detailed as follows:   |                                 |   |              |                      |   |              |                       |            |  |  |  |
| Details of departures from BS 7671, as amended (Regulations 120.3.120.4)  See notes  The extent of liability of the signatory/signatories is limited to the work described above as the subject of this certificate. For the DE of the installation:  ** (Where there is divided responsibility for the design)   |   |                                 |   |              |                      |   |              |                       |            |  |  |  |
| Signature   | PR Nicholson  | Date                            | 17/12/14                                  | Name<br>(CAP | )<br>ITALS)          | PAUL NICHOLSON  | ı            | Designer 1            |            |  |  |  |
| Signature   |   | Date                            |   | Name         | •                    |   | ı            | r 2 **                |            |  |  |  |
|   |   |                                 |   |              |                      |   |              |                       |            |  |  |  |
| particulars of v<br>that the constr   | e person(s) responsib<br>which are described ab   | ove, having ex<br>I/We have bee | cercised reasonable in responsible is, to | skill an     | nd care what of my/o | on (as indicated by my<br>nen carrying out the con<br>ur knowledge and belief | structio     | on, herel             | by Certify |  |  |  |
| ·   | rtures from BS 7671, as   | •                               |   | ·            | See not              |   |              |                       |            |  |  |  |
|   | ability of the signatory<br>RUCTION of the install  |                                 | e work described abo                      | ve as        | the subjec           | ct of this certificate.   |              |                       |            |  |  |  |
| Signature   | A Withers   | Date                            | 16/12/2014                                | Name<br>(CAP | )<br>ITALS)          | AARON WITHERS   | (            | Constru               | ctor       |  |  |  |
| INSPECTION AND TESTING  I/We, being the person(s) responsible for the inspection and testing of the electrical installation (as indicated by my/our signatu below, particulars of which are described above, having exercised reasonable skill and care when carrying out the inspection and test hereby Certify that the inspection and testing work for which I/We have been responsible is, to the best of my/our knowledge and belie accordance with BS 7671:2008 amended to 2013 except for the departures, if any, detailed as follows: |   |                                 |   |              |                      |   |              |                       | d testing, |  |  |  |
| The extent of li  | rtures from BS 7671, as<br>ability of the signatory<br>CTION AND TESTING of   | is limited to the               | e work described abo                      |              | See not              |   |              |                       |            |  |  |  |
| Signature   | A Withers   | Date                            | 16/12/2014                                | Name<br>(CAP | )<br>ITALS)          | AARON WITHERS   | ı            | INSPECT               | TOR        |  |  |  |
| Reviewed by   |   |                                 |   | •            | ŕ                    |   |              |                       |            |  |  |  |
| Signature   | PR Nicholson  | Date                            | 17/12/2014                                | Name<br>(CAP | r<br>ITALS)          | PAUL NICHOLSON  |              | Qualified<br>Supervis |            |  |  |  |

### DESIGN, CONSTRUCTION, INSPECTION AND TESTING

\* This box is to be completed only where the design, construction, inspection and testing have been the responsibility of one person.

I, being the person responsible for the design, construction, inspection and testing of the electrical installation (as indicated by my signature below), particulars of which are described above, having exercised reasonable skill and care when carrying out the design, construction, inspection and testing, hereby CERTIFY that the inspection and testing work for which I have been responsible is, to the best of my knowledge and belief, in accordance with BS 7671:2008 amended to 2013 except for the departures, if any, detailed as follows:

Details of departures from BS 7671, as amended (Regulations 120.3.120.4) See notes

The extent of liability of the signatory is limited to the work described above as the subject of this certificate. For the DESIGN, CONSTRUCTION, and the INSPECTION AND TESTING of the installation.

Date

Reviewed by

Signature

PR Nicholson Signature

A Withers

Date 16/12/2014

17/12/2014

Name (CAPITALS)

Name (CAPITALS)

**AARON WITHERS** 

**INSPECTOR** 

Qualified

PAUL NICHOLSON Supervisor

| PATICULARS (               | OF THE O | RGANISATION(S) RESPONSIBLE F               | OR THE ELECTRICAL I                     | NST/ | LLA | TION |   |   |   |   |
|----------------------------|----------|--|---|------|-----|------|---|---|---|---|
| DESIGN (1)<br>Organisation |          | Nicholson Electrical Ltd                   |   |      |     |      |   |   |   |   |
|                            | Address: | 33 Century Close<br>St Austell             | Registration No. (Where appropriate)    | 6    | 0   | 3    | 4 | 8 | 7 | 0 |
|                            |          | Cornwall<br>PL25 3UY                       | Branch number (If applicable)           | 0    | 0   | 1    |   |   |   |   |
| DESIGN (2)<br>Organisation |          |  |   |      |     |      |   |   |   |   |
|                            | Address: |  | Registration No.<br>(Where appropriate) |      |     |      |   |   |   |   |
|                            |          |  | Branch number (If applicable)           |      |     |      |   |   |   |   |
| CONSTRUCTION Organisation  | N        | Nicholson Electrical Ltd                   |   |      |     |      |   |   |   |   |
|                            | Address: | 33 Century Close<br>St Austell<br>Cornwall | Registration No.<br>(Where appropriate) | 6    | 0   | 3    | 4 | 8 | 7 | 0 |
|                            |          | PL25 3UY                                   | Branch number (If applicable)           | 0    | 0   | 1    |   |   |   |   |
| INSPECTION & Organisation  | TESTING  | Nicholson Electrical Ltd                   |   |      |     |      |   |   |   |   |
|                            | Address: | 33 Century Close<br>St Austell<br>Cornwall | Registration No. (Where appropriate)    | 6    | 0   | 3    | 4 | 8 | 7 | 0 |
|                            |          | PL25 3UY                                   | Branch number<br>(If applicable)        | 0    | 0   | 1    |   |   |   |   |

| SUPPLY | SUPPLY CHARACTERISTICS AND EARTHING ARRANGEMENTS |                   |       |                   |                   |                           |                             |       |  |  |  |  |  |  |
|--------|--|-------------------|-------|-------------------|-------------------|---------------------------|-----------------------------|-------|--|--|--|--|--|--|
| Systen | n Types  |                   | Numbe | r and types o     | f live conductors | Nature of supply Page 1   | Nature of supply Parameters |       |  |  |  |  |  |  |
| TN-S   |  | _ A               | A.C.  | √                 | D.C.              | Nominal Voltage U/Uo      | 230/230                     | Volts |  |  |  |  |  |  |
| TN-C-S | $\checkmark$                                     | 1-Phase<br>2 wire | √     | 1-Phase<br>3 wire | 2 pole            | Nominal Frequency         | 50                          | Hz    |  |  |  |  |  |  |
| TN-C   |  | 2-Phase<br>3 wire |       |                   | 3 pole            | Prospective fault current | 0.61                        | kA    |  |  |  |  |  |  |
| тт     |  | 3-Phase<br>3 wire |       | 3-Phase<br>4 wire | Other             | External Ze               | 0.31                        | Ohms  |  |  |  |  |  |  |
| ΙΤ     |  | Other             |       |                   |                   | Number of supplies        | 1                           |       |  |  |  |  |  |  |

| CHARACTERISTICS OF THE SUPPLY OVERCURRENT PROTECTIVE DEVICE |                             |                        |    |      |                        |    |    |  |  |  |  |  |
|---|-----------------------------|------------------------|----|------|------------------------|----|----|--|--|--|--|--|
| Type BS/EN  | BS3161 Fuse HBC -<br>Type 2 | Nominal current rating | 80 | Amps | Short circuit capacity | 16 | KA |  |  |  |  |  |

| PARTIC                                     | ULARS                 | OF IN     | STALI        | ATION      | IAITH              | E ORIG   | N     |                  |                     |        |            |         |        |               |                 |      |
|--|-----------------------|-----------|--------------|------------|--------------------|----------|-------|------------------|---------------------|--------|------------|---------|--------|---------------|-----------------|------|
| Means of                                   | earthing              |           |              |            |                    | Detai    | ls of | installation     | Earth Ele           | ectrod | le (where  | applic  | cable) |               |                 |      |
| Su   | pplier's facility     | $\sqrt{}$ | (e.g         | . rods, ta | Type:<br>ape ect)  | N/A      |       |                  | Loca                | ation  | N/A        |         |        |               |                 |      |
| Installatio<br>el                          | on earth<br>ectrode   | N/A       |              |            | ectrode<br>nce, RA | N/A      |       | Ohms             | Metho<br>measure    |        | N/A        |         |        |               |                 |      |
|  | um Dema<br>I) Per pha |           | 80           | Amps       |                    | Method   | of pr | otection ag      | ainst indir<br>cont |        | ADS        |         |        |               |                 |      |
|  |                       |           |              |            |                    | Main S   | Switc | h or circuit     | -Breaker            |        |            |         |        |               |                 |      |
| Type<br>BSEN                               | 60947-3 Is            | olator    | No. Of poles | 2          | Voltage rating     | 7311     | ٧     | Current rating   | 100                 | Α      | RCD<br>I∆n | N/A     | mA     | RCD<br>at l∆n | N/A             | ms   |
|  |                       |           |              |            |                    | ;        | Supp  | ly conduct       | ors                 |        |            |         |        |               |                 |      |
|  |                       | Condu     | uctor m      | aterial    | Copper             |          |       | С                | onductor (          | CSA    | 25         | 5       | mm²    |               |                 |      |
|  |                       |           |              |            |                    | E        | arth  | ing conduc       | tors                |        |            |         |        |               |                 |      |
| Co   | onductor              | material  | Cop          | per        | C                  | onductor | csa   | 16               | mm²                 |        | Con        | tinuity | check  | $\sqrt{}$     | (√) OK          | (    |
| Main equipotential bonding conductors      |                       |           |              |            |                    |          |       |                  |                     |        |            |         |        |               |                 |      |
| Co   | onductor              | material  | Cop          | per        | C                  | onductor | csa   | 10               | mm²                 |        | Con        | tinuity | check  | $\checkmark$  | (√) OK          | (    |
| Bonding of extraneous conductive parts (✓) |                       |           |              |            |                    |          |       |                  |                     |        |            |         |        |               |                 |      |
| Wate                                       | 1                     | Servi     | ice N        | I/A        | Oil<br>service     | N/A      | Str   | uctural<br>steel | N/A                 | Light  |            | N/A     | Oth    | - N//         | A List in notes | repo |

### **COMMENTS ON THE EXISTING INSTALLATION**

Additional information and report notes

### NEXT INSPECTION

I/We the designer(s), recommend that this installation is further inspected and tested after an interval of not more than 5 Years

| SCHEDUL      | E OF ITEMS INSPECTED  |           |  |
|--------------|---|-----------|--|
|              | PROTECTIVE MEASURES AGAINST ELECTRIC SHOCK  |           | Prevention of mutual detrimental influences  |
|              | Basic and fault protection  | V         | Proximity of non-electrical services and other influences  |
| N/A          | SELV  | V         | Segregation of band I and band II circuits or band II insulation used  |
| N/A          | PELV  | $\sqrt{}$ | Segregation of safety circuits   |
|              | Basic protection  |           | <u>Identification</u>  |
| V            | Insulation of live parts  | V         | Presence of diagrams, instructions, circuit charts and similar information   |
| $\checkmark$ | Barriers and enclosures   | <b>V</b>  | Presence of danger notices and other warning signs   |
| N/A          | Obstacles   | <b>V</b>  | Labelling of protective devices, switches and terminals  |
| N/A          | Placing out of reach  | V         | Identification of conductors   |
| $\checkmark$ | Double or Reinforced insulation   |           | Cables and conductors  |
|              | Fault Protection (Automatic disconnection of supply)                                      | $\sqrt{}$ | Selection of conductors for current-carrying capacity and volt drop  |
| $\checkmark$ | Presence of earthing conductors   | V         | Erection methods   |
| $\checkmark$ | Presence of circuit protection conductors   | <b>V</b>  | Routing of cables in prescribed zones  |
| V            | Presence of main equipotential conductors   | V         | Cables incorporating earthed armour or sheath or run in<br>an earthed wiring system or protected against nails,<br>screws and the like               |
| V            | Presence of earthing arrangements for combined protective and functional purposes         | V         | Additional protection by a 30mA for cables concealed in walls (where required in premises not under the supervision of skilled or instructed persons |
| V            | Presence of adequate arrangements for alternative sources(s), where applicable            | $\sqrt{}$ | Connection of conductors   |
| V            | PELV  | $\sqrt{}$ | Presence of fire barriers, suitable seals and protection against thermal effects   |
| $\checkmark$ | Choice and setting of protective and monitoring devices                                   | $\sqrt{}$ | General Adequacy of access to switchgear and other equipment   |
| N/A          | Non-conducting location: Absence of protective conductors                                 | V         | Presence and correct location of appropriate devices for isolation and switching   |
| N/A          | Earth free equipotential bonding: Presence of earth free equipotential bonding conductors | $\sqrt{}$ | Particular protective measures for special installations and locations   |
| N/A          | Electrical separation for one item of current using equipment                             | V         | Connection of single pole devices for protection or switching in phase conductors only   |
| N/A          | Electrical separation for more than one item of current using equipment                   | V         | Correct connection of accessories and equipment  |
|              | Additional protection (For use in controlled supervised conditions only)                  | N/A       | Presence of under voltage protective devices   |
| V            | Presence of residual current device(s)  | V         | Selection of equipment and protective measures appropriate to external influences  |
| V            | Presence of supplementary bonding conductors  | V         | Selection of appropriate functional switching devices  |
|              |   |           |  |

| √   |   | To indicate that an inspection or test has been carried out and the result is satisfactory         |
|-----|---|--|
| Х   |   | To indicate that an inspection or test has been carried out and the result was unsatisfactory      |
| LIN | И | To indicate that an inspection or test has not been carried out following agreed limitations of in |

To indicate that an inspection or test has not been carried out following agreed limitations of inspection or testing

N/A To indicate the inspection or test is not applicable

N/V To indicate that details could not be verified

| SC | HEDUL        | E OF ITEMS TESTED                                       |           |  |
|----|--------------|---|-----------|--|
|    | $\sqrt{}$    | External earth loop impedance, Ze                       | $\sqrt{}$ | Basic protection against direct contact by barrier or enclosure provided during erection |
|    | $\checkmark$ | Installation earth electrode resistance, Ra             | $\sqrt{}$ | Insulation of non-conducting floors or walls   |
|    | $\checkmark$ | Continuity of protective conductors                     | $\sqrt{}$ | Polarity   |
|    | N/A          | Continuity of ring circuit conductors                   | $\sqrt{}$ | Earth fault loop impedance Zs  |
|    | $\checkmark$ | Insulation resistance between live conductors           | N/A       | Verification of phase sequence   |
|    | $\checkmark$ | Insulation resistance between live conductors and earth | V         | Operation of residual current devices  |
|    | $\checkmark$ | Protection by separation of circuits                    | $\sqrt{}$ | Functional testing of assemblies   |
|    |              |   | <b>√</b>  | Verification of voltage drop   |

| SCHEDULE OF ADDITIONAL RECORDS (                   | (See attached schedule) |
|--|-------------------------|
| CONTRACTOR AND | (Sociation College)     |

Note: Additional page(s) must be identified by the Electrical Installation Certificate serial number and page number(s).

Page No(s): N/A

| TEST INSTRUMENTS USED      |                           |
|----------------------------|---------------------------|
| Instrument Serial No(s)    | KT64 - Serial No. 8037327 |
| Earth fault loop impedance | KT64 - Serial No. 8037327 |
| Insulation resistance      | KT64 - Serial No. 8037327 |
| Continuity                 | KT64 - Serial No. 8037327 |
| RCD                        | KT64 - Serial No. 8037327 |
| Other                      | Socket Tester             |

### **NOTES FOR RECIPIENT**

### THIS CERTIFICATE IS A VALUABLE DOCUMENT AND SHOULD BE RETAINED FOR FUTURE REFERENCE

This safety certificate has been issued to confirm that the electrical installation work to which it relates has been designed, constructed and inspected and tested in accordance with British Standard 7671 (The IEE Wiring regulations).

You should have received an original Certificate and the contractor should have retained a duplicate Certificate. If you were the person ordering the work, but not the owner of the installation, you should pass this Certificate, or a full copy of it including the schedules immediately to the user.

The original certificate should be retained in a safe place and be shown to any person inspecting or undertaking further work on the electrical installation in the future. If you later vacate the property, this Certificate will demonstrate to the new owner that the electrical installation complied with the requirements of British Standard 7671 at the time the Certificate was issued was issued. The Construction (Design and Management) Regulations require that for a project covered by those Regulations, a copy of this Certificate, together with schedules is included in the health and safety documentations.

For safety reasons, the electrical installation will need to be inspected at appropriate intervals by a competent person. The maximum time interval recommended before the next inspection is stated in the Certificate under "Next Inspection."

This Certificate is intended to be issued only for a new electrical installation or for new work associated with an alteration or addition to a existing installation. It should not have been issued for the inspection of an existing electrical installation. A "Periodic Inspection Report" should be issued for such a periodic inspection.

The Certificate is only valid if a Schedule of Inspection of Test Results is appended.

| _           | Nicholson Electrical Ltd - DISTRIBUTION BOARD DETAILS |                                   |                  |                                 |                               |              |                                 |                                      |   |            |                       |        |                   |                 |   |  |                   |  |               |                |                |                  |          |                  |                    |           |               |
|-------------|---|-----------------------------------|------------------|---------------------------------|-------------------------------|--------------|---------------------------------|--------------------------------------|---|------------|-----------------------|--------|-------------------|-----------------|---|--|-------------------|--|---------------|----------------|----------------|------------------|----------|------------------|--------------------|-----------|---------------|
| DE<br>ref.: |   | Z <sub>s</sub> at this board (Ω): | 0.31             | b                               | I <sub>pf</sub> at<br>oard (I | this<br>KA): | 0.61                            |                                      | Main switch type BSEN reference: 60947-3 Isolator |            |                       | F      | Rating:           | 10              | 0 Amp                                   | s c                                    | Sı<br>onduc       | ipply<br>tors:                             |               |                |                | Earth:           | 16       | 6 mm²            |                    |           |               |
|             | Distribution d location:                              | Service Cupb                      | oard             |                                 |                               |              |                                 | Su                                   | Supplied from: Mains                              |            |                       |        |                   | No. O<br>phases | S I I                                   | Single Supply pro devic BSEN reference |                   |  | vice type:    |                |                |                  | Rating   | j: 8(            | ) Amps             | ;         |               |
| CIF         | CUIT DE   | TAILS                             |                  |                                 |                               |              |                                 |                                      |   |            |                       |        |                   | TES             | ST RI                                   | ESUI                                   | LTS               |  |               |                |                |                  |          |                  |                    |           |               |
|             |   |                                   |                  |                                 |                               |              | cuit S Over-current devices RCD |                                      |   |            |                       |        |                   |                 | Circui                                  | t impe                                 | dances            | Ω  | Insu          | lation         | n resistance   |                  |          |                  |                    | RCD       |               |
| leference   | Circuit designation                                   |                                   | Reference method | Type of wiring (see code below) | oints served                  |              |                                 | n time permitted                     | S EN  | (A)        | circuit capacity (KA) | Αι     | rmitted Zs Ω      | cir<br>(Me      | Ring fin<br>cuits o<br>asured<br>to end | nly<br>end                             | (At le            | circuits<br>ast one<br>on to be<br>pleted) | Ω M əsı       | tral M 🗅       | th M Q         | rth M D          | Polarity | esured Zs Ω      | Testing            | ms        | n ms          |
| Circuit R   | On can ac   | osignation                        | Referenc         | Type of wiring (                | Number of points              | Live (mm²)   | cpc (mm²)                       | Max.Disconnection time permitted (s) | Type BS EN  | Rating (A) | Short circuit ca      | IΔn mA | Maximum permitted | r <sub>1</sub>  | r <sub>n</sub>                          | r <sub>2</sub>                         | R <sub>1+</sub> R | 2 R <sub>2</sub>                           | Mase /Phase M | Phase /Neutral | Phase /Earth M | Neutral /Earth M | Pol      | Maximum Measured | Functional Testing | At IΔn ms | At 5 x IΔn ms |
| 1           | Temp Supply   |                                   | A                | А                               | 1                             | 10           | 6                               | 0.4                                  | 61009 Type B                                      | 32         | 6                     | 30     | 1.15              | N/A             | N/A                                     | N/A                                    | Lim               | N/A  | N/A           | 1999           | 1999           | 1999             | √        | Lim              | √                  | 23        | 23            |
| 2           | Service area soc                                      | ckets                             | А                | А                               | 3                             | 2.5          | 1.5                             | 0.4                                  | 61009 Type B                                      | 16         | 6                     | 30     | 2.30              | N/A             | N/A                                     | N/A                                    | 0.09              | N/A  | N/A           | 1999           | 1999           | 1999             | √        | 0.44             | √                  | 19        | 9             |
| 3           | Lights passage  |                                   | А                | А                               | 1                             | 1.5          | 1.0                             | 0.4                                  | 61009 Type B                                      | 6          | 6                     | 30     | 6.13              | N/A             | N/A                                     | N/A                                    | 0.11              | N/A  | N/A           | 1999           | 1999           | 1999             | √        | 0.48             | <b>√</b>           | 21        | 21            |
| 4           | Lights ladies   |                                   | Α                | А                               | 3                             | 1.5          | 1.0                             | 0.4                                  | 61009 Type B                                      | 6          | 6                     | 30     | 6.13              | N/A             | N/A                                     | N/A                                    | 0.41              | N/A  | N/A           | 1999           | 1999           | 1999             | √        | 0.7              | √                  | 38        | 16            |
| 5           | Lights service a                                      | rea                               | А                | А                               | 2                             | 1.5          | 1.0                             | 0.4                                  | 61009 Type B                                      | 6          | 6                     | 30     | 6.13              | N/A             | N/A                                     | N/A                                    | 0.36              | N/A  | N/A           | 1999           | 1999           | 1999             | √        | 0.75             | √                  | 20        | 18            |
| 6           | Lights gents  |                                   | Α                | А                               | 6                             | 1.5          | 1.0                             | 0.4                                  | 61009 Type B                                      | 6          | 6                     | 30     | 6.13              | N/A             | N/A                                     | N/A                                    | 0.58              | N/A  | N/A           | 1999           | 1999           | 1999             | √        | 0.89             | √                  | 37        | 18            |
| 7           | Water / Unknow  | n                                 | N/A              | N/A                             | N/A                           | 2.5          | 1.5                             | 0.4                                  | 61009 Type B                                      | 20         | 6                     | 30     | 1.84              | N/A             | N/A                                     | N/A                                    | N/a               | N/A  | N/A           | 1999           | 1999           | 1999             | √        | N/A              | <b>√</b>           | 22        | 29            |
| 8           | Ladies hand dry                                       | er                                | Α                | А                               | 1                             | 2.5          | 1.5                             | 0.4                                  | 61009 Type B                                      | 20         | 6                     | 30     | 1.84              | N/A             | N/A                                     | N/A                                    | 0.29              | N/A  | N/A           | 1999           | 1999           | 1999             | √        | 0.58             | <b>V</b>           | 22        | 18            |
| 9           | Gents hand drye                                       | ər                                | Α                | А                               | 1                             | 2.5          | 1.5                             | 0.4                                  | 61009 Type B                                      | 16         | 6                     | 30     | 2.30              | N/A             | N/A                                     | N/A                                    | 0.31              | N/A  | N/A           | 1999           | 1999           | 1999             | √        | 0.55             | <b>V</b>           | 27        | 15            |
| 10          | Ladies lights   |                                   | Α                | Α                               | 3                             | 1.5          | 1.0                             | 0.4                                  | 61009 Type B                                      | 6          | 6                     | 30     | 6.13              | N/A             | N/A                                     | N/A                                    | 0.32              | N/A  | N/A           | 1999           | 1999           | 1999             | √        | 0.63             | <b>V</b>           | 29        | 19            |
| 11          | Disabled lights                                       |                                   | Α                | Α                               | 2                             | 1.5          | 1.0                             | 0.4                                  | 61009 Type B                                      | 6          | 6                     | 30     | 6.13              | N/A             | N/A                                     | N/A                                    | 0.47              | N/A  | N/A           | 1999           | 1999           | 1999             | √        | 0.89             | √                  | 19        | 18            |
| 12          | Outside lights  |                                   | Α                | Α                               | 5                             | 1.5          | 1.0                             | 0.4                                  | 61009 Type B                                      | 6          | 6                     | 30     | 6.13              | N/A             | N/A                                     | N/A                                    | 0.63              | N/A  | N/A           | 1999           | 1999           | 1999             | √        | 0.79             | <b>V</b>           | 25        | 20            |
| 13          |   |                                   |                  |                                 |                               |              |                                 |                                      |   |            |                       |        |                   |                 |   |  |                   |  |               |                |                |                  |          |                  |                    |           |               |
| 14          |   |                                   |                  |                                 |                               |              |                                 |                                      |   |            |                       |        |                   |                 |   |  |                   |  |               |                |                |                  |          |                  |                    |           |               |
| 15          |   |                                   |                  |                                 |                               |              |                                 |                                      |   | I          |                       |        |                   |                 |   |  |                   |  | -             |                |                |                  |          |                  |                    |           |               |
| 16          |   |                                   |                  |                                 |                               |              |                                 |                                      |   |            |                       |        |                   |                 |   |  |                   |  |               |                |                |                  |          |                  |                    |           |               |

| CODES FOR TYPES OF WIRING |                                      |   |                                      |  |                   |                    |                                 |  |  |  |  |  |  |
|---------------------------|--------------------------------------|---|--------------------------------------|--|-------------------|--------------------|---------------------------------|--|--|--|--|--|--|
| Α                         | В                                    | С                                       | D                                    | E  | F                 | Н                  | O (other please state)          |  |  |  |  |  |  |
| C/PVC<br>ABLES            | PVC CABLES<br>IN METALLIC<br>CONDUIT | PVC CABLES IN<br>NON-METALIC<br>CONDUIT | PVC CABLES IN<br>METALIC<br>TRUNKING | PVC CABLES IN<br>NON-METALIC<br>TRUNKING | PVC/SWA<br>CABLES | XLPE/SWA<br>CABLES | MINERAL-<br>INSULATED<br>CABLES |  |  |  |  |  |  |

# Log Book – Outlet Temperatures (Sentinels & Representatives) (CP) Month.....

rotational basis. Failures must be reported to the Responsible Person for further action in accordance with the written scheme. water from the cold water outlets should be below 20°C after running the water for up to 2 minutes. Sentinel outlets are the nearest and furthest outlets on a system or the To comply with the specified control measures, water from the hot water outlets should reach at least 50°C within 1 minute of running (55°C in healthcare premises) and first and last outlets on a recirculated system and must be monitored on a monthly basis. A representative amount on non sentinel outlets must be monitored annually on a

|       | HELSTON - GUILDHALL | HELSTON – COVERACK HARBOUR | HELSTON - COVERACK CAR PARK | Site Name: HELSTON - BOWLING GREEN, MONUMENT |
|-------|---------------------|----------------------------|-----------------------------|--|
| 3     | Tab Cent            | TAP Grants.                | Sink top Guts               | Outlet Reference & Location:                 |
| 32.72 | ٨, ١                | Purins                     | MAIN                        | Outlet Fed From:                             |
|       |                     |                            | ✓                           | Outlet Type (S/R)                            |
| 1     | W 1.                | 14.                        | (2.2.                       | Temp in °C                                   |
|       | 0 % 0               | 6.0                        | C.6-                        | Name:  |
|       | 18.1.6              | 80 % 15                    | 2 - 5 - (5                  | Date:  |

Outlet Fed From = Source of water i.e.: Water Heater No, Cold Water Storage Tank No, Mains Cold, etc

Outlet Type: S = Sentinel; R = Representative

### Log Book - Outlet Temperatures (Sentinels & Representatives)

Month. M. S

(CP)

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| Site Name:                     | Outlet Reference & Location: | Outlet<br>Fed<br>From: | Outlet<br>Type<br>(S/R) | Temp<br>in °C | Name:  | Date:   |
|--------------------------------|------------------------------|------------------------|-------------------------|---------------|--------|---------|
| HELSTON- GUNWALLOE CHURCH COVE | TAP MENS.                    | PAIN                   | S .                     | 12.3.         | (26f   | 23.5.6  |
| HELSTON – HELFORD VILLAGE      | SIK TAP GEST                 | WA W                   | V                       | 11.3          |        | 5:65    |
| HELSTON - LIZARD GREEN         | IN IXX TON.                  | maki                   | 9                       | 12.8:         | C:38   | 67.5-8  |
| HELSTON - PORTHALLOW           | Tap UNIVER (54 P.G.          | MAIN                   |                         | 12.7.         | (3.4.) | 80.5.16 |

Outlet Fed From = Source of water i.e.: Water Heater No. Cold Water Storage Tank No, Mains Cold, etc

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# Log Book – Outlet Temperatures (Sentinels & Representatives) (CP)

Month MAY 15

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|   | , |                          |   |   |       |                             |  |   |                                 |   |               |             |                              |                              |
|---|---|--------------------------|---|---|-------|-----------------------------|--|---|---------------------------------|---|---------------|-------------|------------------------------|------------------------------|
|   |   | HELSTON - TRENGROUSE WAY |   |   |       | HELSTON – ST KEVERNE SQUARE |  |   | HELSTON - PORTHLEVEN SHUTE LANE |   | Pana Grand S. |             | HELSTON - PORTHLEVEN HARBOUR | Site Name:                   |
| - |   | C6559                    | 7 |   |       | Gents tap.                  |  |   | TAP GRAM.                       |   | WAISEX TAP    | 1 1 1 1 1 1 | Walthate Ram.                | Outlet Reference & Location: |
|   |   |                          |   | E |       | ma/ns                       |  |   | MAN                             |   | BAIN          |             | the is                       | Outlet Fed From:             |
|   |   |                          |   |   | ,     | <u>S</u>                    |  |   | <                               |   | h             |             | S                            | Outlet<br>Type<br>(S/R)      |
|   |   |                          |   |   |       | 12.5                        |  |   | 14.5                            |   | 146           |             | 19.4.                        | Temp<br>in °C                |
|   |   |                          |   |   | 181 = | C. E. P.                    |  | ī | C.E. /_                         |   | 686           | E*          | (28.1                        | Name:                        |
|   |   |                          |   |   |       | 20.5.15                     |  |   | 205.15                          | 4 | 3.8.15        | a "         | 20. 5.15                     | Date:                        |

Outlet Fed From = Source of water i.e.: Water Heater No, Cold Water Storage Tank No, Mains Cold, etc

Outlet Type: S = Sentinel; R = Representative

## Log Book – Outlet Temperatures (Sentinels & Representatives)

Month MAy (5

(CP)

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| PRA |                             | & I ocotion.              | Fed                                      | Type     | Temp<br>in °C | Name:                | Date:     |
|-----|-----------------------------|---------------------------|--|----------|---------------|----------------------|-----------|
| PRA |                             | LUCA                      | From:                                    | (S/R)    |               | W.                   |           |
|     | PRAA SANDS                  | Urisex 1AP                | main                                     | <b>S</b> | 5. 7          | (-4.1                | 20.5.6    |
| 1   |                             |                           |  |          |               | ,                    |           |
| RED | REDRUTH – NEW CUT           | Like Tal                  | ス・ | 5        | 14.8.         | (36                  | 11.5.13   |
|     |                             |                           |  |          |               |                      |           |
| STA | ST AGNES- CHURCHTOWN        | 1. c. p. 1/2, . C. A Bank | ha // ,                                  |          | 1 01          | 0.40                 | 9) - > 1) |
|     |                             | LALCORUL MASS             |  |          | 1.71          | 0                    | 4.11      |
| 1   |                             |                           |  |          |               |                      |           |
| ST  | ST AGNES – TREVAUNANCE COVE | UNISEX WALLENTE FRANS     | KR (NS                                   | 5        | (3.2,         | C. E. Canor 11.5. 15 | 11.5.13   |
|     |                             | 6                         |  |          |               |                      |           |

Outlet Fed From = Source of water i.e.: Water Heater No, Cold Water Storage Tank No, Mains Cold, etc G:\text{Commercial\Departments\CLEANING\PUBLIC CONVENIENCES\LEGIONELLA\Area 2 (CP) Legionella log book 050515 doc

## Log Book - Outlet Temperatures (Sentinels & Representatives)

Month....

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| CAMBORNE - PARK | CAMBORNE - ROSEWARNE | PORTREATH      |          | PORTHTOWAN | Site Name:                   |
|-----------------|----------------------|----------------|----------|------------|------------------------------|
|                 |                      |                | 5        |            | , Š                          |
| SINK. JA.       | HALLGAIR ment MAINS  | WALLESTO Pents | ALCCARS. | the gests  | Outlet Reference & Location: |
| MAN             | TAILS                | MAWS           |          | MAR 1 2    | Outlet<br>Fed<br>From:       |
|                 |                      |                |          | 5          | Outlet<br>Type<br>(S/R)      |
| 12.3            | 5.51                 | 8              | -        | 14-5       | Temp<br>in °C                |
| 73.3            | 0.5                  | C.E.S.         |          | 18-        | Name:                        |
| 26.5.15         | 26.5.13              | 7.5.15         |          | 11.5.16    | Date:                        |

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Month.

(CP)

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| Site Name:      | Outlet Reference<br>& Location: | Outlet<br>Fed<br>From: | Outlet<br>Type<br>(S/R) | Temp<br>in °C | Name:  | Date:   |
|-----------------|---------------------------------|------------------------|-------------------------|---------------|--------|---------|
| PRAZE AN BEEBLE | Yr S                            | MAINS                  | S                       | 13.B.         | 081    | 27,5,00 |
|                 |                                 |                        |                         |               |        |         |
| ГОЕ ВЕАСН       | Wallgake Gents majors           | MA, N                  | 9                       | 1.00          | 656    | 8.5.15  |
|                 |                                 |                        |                         |               |        |         |
| MYLOR BRIDGE    | Grange 17                       | MANS                   | 4                       | 7-11          | 2.50   | 8.5.15  |
|                 |                                 |                        |                         |               |        |         |
| MALPAS          | Upclarate Lasjes                | ואצרו                  |                         | 1.8           | P.E.P. | 8.5.(5  |
|                 |                                 |                        |                         |               |        |         |
|                 |                                 |                        |                         |               |        |         |

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