# Schedule of Accreditation

**issued by**

# United Kingdom Accreditation Service

2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

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| UKAS TESTING<br>**1497**<br>**Accredited to ISO/IEC 17025:2017** | **Forensic Science Northern Ireland**<br>**Issue No:** 077 **Issue date:** 12 October 2026 |
| **151 Belfast Road**<br>**Carrickfergus**<br>**Co Antrim**<br>**Northern Ireland**<br>**BT38 8PL** | **Contact: Quality Manager**<br>**Tel: +44 (0)289 036 1888**<br>**E-Mail: quality.enquiries@fsni.gov.uk**<br>**Website: www.fsni.gov.uk** |

**Testing performed at the above address only**

DETAIL OF ACCREDITATION

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used |
|---|---|---|
| BODY FLUIDS and TISSUES<br><br>Blood<br>- Whole<br>- Stains<br>Semen<br>- Whole<br>- Azoospermic<br>Saliva<br>- Whole<br>- Stains<br>Hair<br>Cellular Material | <u>Forensic Analysis</u><br><br>DNA Profiling:<br>Short Tandem Repeat (STR) for forensic analysis of:<br>- Subject Samples (CJ and Volunteer) meeting the requirements of the Custodian for the Purpose of Supply to the National DNA Database<br>- Crime Scene Samples meeting the requirements of the Custodian for the Purpose of Supply to the National DNA Database | Documented in-house method (TP4102) using manual extraction<br>- QIAamp® DNA Investigator<br><br>Documented in-house method (TP4158) using Manual quantification<br>- Quantiplex Pro<br><br>Documented in-house method (TP4170) using Manual amplification (PCR) and the following chemistry:<br>- Investigator® ESSplex SE QS Kit<br>- PowerPlex® ESI 17 Fast<br><br>Documented in-house methods (TP4159) using Electrophoresis<br>- 3500xl Genetic Analyser© |
| Saliva<br>- Swabs (buccal cells) | DNA Profiling:<br>Short Tandem Repeat (STR) for forensic analysis of:<br>- Subject Samples (CJ and Volunteer) meeting the requirements of the Custodian for the Purpose of Supply to the National DNA Database | Documented in-house method (TP4169) using Direct amplification (PCR) and the following chemistry:<br>- Qiagen Investigator STR GO! with Investigator® ESSplex SE QS Kit<br>- Promega swabsolution- Direct Amp PowerPlex® ESI 17 Fast<br><br>Documented in-house methods (TP4171) using Electrophoresis<br>- 3500xl Genetic Analyser© |

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used |
|---|---|---|
| BODY FLUIDS and TISSUES (cont'd) | Forensic Analysis (cont'd) | |
| | Related Opinions and Interpretation<br>Interpretation of DNA profiles generated internally from crime stains (single source/major-minor/complex mixtures) and reference samples | Documented in-house methods (TP4172)<br>- Genetic Characterisation<br>- Genemapper IdX<br>- Expert Systems<br>- STRMix (v2.11) |
| | Statistical analysis and comparison of DNA profiles generated from crime stains with compatible reference DNA profiles (internally generated or from other accredited laboratories) | |
| Blood<br>- Whole<br>- Stains<br>Semen<br>- Whole<br>- Azoospermic<br>Saliva<br>- Whole<br>- Stains<br>Hair<br>Cellular Material | DNA profiling:<br>Y Chromosome DNA profiling for forensic analysis of:<br>- Crime Scene Samples<br>- Subject Samples (PACE and Volunteer) | Documented In-House Methods (TP4165) using Manual amplification (PCR) and the following chemistry:<br>- Y23<br><br>Documented In-House Methods (TP4166) using Electrophoresis<br>- Applied Biosystems 3500 Genetic Analyser© |

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used |
|---|---|---|
| BODY FLUIDS and TISSUES (cont'd) | Forensic Analysis (cont'd) | |
| | Related Opinions and Interpretation<br>Comparison, interpretation and statistical analysis of DNA profiles against compatible DNA Profile information from within submitted cases | Documented in-house methods (TP4167, TP4168 and TP4067). Genetic Characterisation using<br>- GMIDX v1.5<br>- YHRD |
| Any Material | Searching for:<br>- Blood<br>- Semen<br>- Saliva<br>- Hair | Documented in-house methods (TP4022, TP4023, TP4026, TP4030, TP4063, TP4065 and TP4064) using:<br>- visual examination<br>- low power microscopy<br>- high power microscopy<br>- chemical testing (see below) |
| | Recovery and preparation, including for contingency purposes, for subsequent DNA analysis by an ISO/IEC 17025 accredited laboratory of the following from searched materials:<br>- Blood<br>- Semen<br>- Saliva<br>- Cellular DNA<br>- Hair | Documented in-house methods (TP4022, TP4023, TP4026, TP4030, TP4063, TP4064, and TP4065) using:<br>- cutting<br>- swabs and swabbing<br>- extraction of stained materials<br>- extraction of swabs<br>- taping<br>- mini-taping |
| Blood | Presumptive testing for Blood via detection of:<br>- Peroxidase | Documented in-house method (TP4023) using:<br>- visual Examination<br>- KM (Kastle Meyer) |
| | Related Opinions and Interpretations<br>Identification, interpretation and recording of blood patterns (BPA) on clothing and other items examined at the laboratory | Documented in-house method (TP-4062) using :<br>- visual examination<br>- low power microscopy<br>- dimensional measurement |

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used |
|---|---|---|
| BODY FLUIDS and TISSUES (cont'd) | Forensic Analysis (cont'd) | |
| Semen | Presumptive testing for seminal fluid, via detection of:<br>- Acid Phosphatase<br>- Choline | Documented in-house methods (TP4026, and TP4044) using:<br>- visual Examination<br>- acid phosphatase detection (colour reaction)<br>- choline detection by Florence Iodine test |
| | Confirmatory testing for seminal fluid via identification of:<br>Spermatozoa | Documented in-house methods (TS4035, TP4041 and TP6500) using:<br>- high power microscopy<br>- Haematoxylin and Eosin staining<br>- Christmas tree Stains |
| Saliva | Presumptive testing for saliva via detection of:<br>- Amylase | Documented in-house method (TP4030) using:<br>- visual examination<br>- Phadebas paper<br>- Phadebas tube test |
| BODY FLUIDS | Forensic Analysis/Medical and Legal Analysis | |
| Blood and Urine | Detection and quantification in relation to Article 13 the Northern Ireland Road Traffic Act 1995<br>Alcohol (10 - 700 mg%):<br>Blood 80mg/100ml<br>Urine 107mg/100ml | Documented in-house method (TP1013) using:<br>- Headspace GC/FID<br>- Autodilutor/Liquid handler |
| Blood (Preserved, Unpreserved)<br>Urine (Preserved, Unpreserved) | Presumptive screening for the presence of drugs (Cut-off Limit Blood/Urine)<br><br>**Drug types/groups :**<br>- Ephedrine /<br>- Pseudoephedrine (10/10ng/ml) | Documented in-house method (TP1240) using automated SPE:<br><br>- Extrahera extraction<br>- UPLC-HRMS<br>- Q-Exactive LC-HRMS |

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used |
|---|---|---|
| BODY FLUIDS (cont'd)<br><br>Blood (Preserved, Unpreserved)<br>Urine (Preserved, Unpreserved (cont'd) | <u>Forensic Analysis/Medical and Legal Analysis</u> (cont'd)<br><br>Presumptive screening for the presence of drugs (Cut-off Limit Blood/Urine) (cont'd):<br><br>**Opiods group :**<br>- Morphine (5/5ng/ml)<br>- Dihydrocodeine (5/5ng/ml)<br>- Codeine (5/5ng/ml)<br>- Oxycodone(5/5ng/ml)<br>- 6 – MAM (blood only) (1ng/ml)<br>- Methadone (5/5ng/ml)<br>- Tramadol (5/5ng/ml)<br>- Buprenorphine (1/1ng/ml)<br>- Fentanyl (1/1ng/ml)<br><br>**Antidepressant group:**<br>- Trazodone (5/5ng/ml)<br>- Mirtazepine (5/5ng/ml)<br>- Dothiepin (5/5ng/ml)<br>- Imipramine (5/5ng/ml)<br>- Amitriptyline (5/5ng/ml)<br>- Nortriptyline (5/5ng/ml)<br>- Citalopram (5/5ng/ml)<br>- Venlafaxine (5/5ng/ml)<br>- Paroxetine (5/5ng/ml)<br>- Duloxetine (5/5ng/ml)<br>- Fluoxetine (blood only) (5ng/ml)<br>- Sertraline (blood only) (5ng/ml) | Documented in-house method (TP1240) using automated SPE:<br><br>- Extrahera extraction<br>- UPLC-HRMS<br>- Q-Exactive LC-HRMS |

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used |
|---|---|---|
| BODY FLUIDS (cont'd)<br><br>Blood (Preserved, Unpreserved)<br>Urine (Preserved, Unpreserved (cont'd) | <u>Forensic Analysis/Medical and Legal Analysis</u> (cont'd)<br><br>Presumptive screening for the presence of drugs (Cut-off Limit Blood;Urine (cont'd):<br><br>**Benzodiazepines and "z" groups:**<br>- 7 –Aminoclonazepam (blood only) (5ng/ml)<br>- 7 –Aminoflunitrazepam (5/5ng/ml)<br>- 7 – Aminonitrazepam (5/5ng/ml)<br>- Flurazepam (5/5ng/ml)<br>- Midazolam (5/5ng/ml)<br>- Clonazepam (5/5ng/ml)<br>- Flunitrazepam (5/5ng/ml)<br>- Alprazolam (5/5ng/ml)<br>- Chlordiazepoxide (5/5ng/ml)<br>- Bromazepam (5/5ng/ml)<br>- Demoxepam (5/5ng/ml)<br>- Nitrazepam (5/5ng/ml)<br>- Oxazepam (5/5ng/ml)<br>- Lorazepam (5/5ng/ml)<br>- Nordiazepam (5/5ng/ml)<br>- Temazepam (5/5ng/ml)<br>- Diazepam (5/5ng/ml)<br>- Phenazepam (5/5ng/ml)<br>- Zopiclone(5/5ng/ml)<br>- Zolpidem (5/5ng/ml)<br>- Zaleplon (5/5ng/ml)<br><br>**Cocaine group:**<br>- Cocaine (5/5ng/ml)<br>- Benzoylecgonine (10/10ng/ml) | Documented in-house method (TP1240) using automated SPE extraction:<br><br>- Extrahera extraction<br>- UPLC-HRMS<br>- Q-Exactive LC-HRMS |

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used |
|---|---|---|
| BODY FLUIDS (cont'd)<br><br>Blood (Preserved, Unpreserved)<br>Urine (Preserved, Unpreserved (cont'd) | <u>Forensic Analysis/Medical and Legal Analysis</u> (cont'd)<br><br>Presumptive screening for the presence of drugs (Cut-off Limit Blood/Urine) (cont'd):<br><br>**Amphetamine group:**<br>- Amphetamine (10/10ng/ml)<br>- Methamphetamine (10/10ng/ml)<br>- Chloroamphetamine (10/10ng/ml)<br>- MDMA (10/10ng/ml)<br>- MDA (10/10ng/ml)<br>- MDEA (10/10ng/ml)<br>- PMA (10/10ng/ml)<br>- PMMA (10/10ng/ml)<br>- Methylphenidate (10/10ng/ml)<br>- Ethylphenidate (10/10ng/ml)<br>- MBDB (10/10ng/ml)<br>- 2C – B (10/10ng/ml)<br>- 2C –I (10/10ng/ml)<br>- DOB (2,5 - Dimethoxy-4-bromo-amphetamine) (10/10ng/ml)<br>- DOM (10/10ng/ml)<br><br>**Novel Psychoactive Substances:**<br>- Cathinone (10/10ng/ml)<br>- Ethylone (10/10ng/ml)<br>- Methedrone (10/10ng/ml)<br>- Methylone (10/10ng/ml)<br>- Butylone (10/10ng/ml)<br>- Pentylone (10/10ng/ml)<br>- MDPBP (10/10ng/ml)<br>- BMDP (10/10ng/ml)<br>- Buphedrone (10/10ng/ml)<br>- Mephedrone (4-MMC) (10/10ng/ml)<br>- 4 - Methyl - paramethyl - Aminorex (10/10ng/ml)<br>- BZP (Benzylpiperazine) (10/10ng/ml)<br>- MDPV (Methylenedioxy - pyrovalerone) (10/10ng/ml)<br>- TFMPP (Trifluoromethyl-phenylpiperazine) (10/10ng/ml)<br>- 4 – MEC (10/10ng/ml)<br>- 3 – FMC (urine only) (10ng/ml)<br>- 4 – FMC (10/10ng/ml) | Documented in-house method (TP1240) using automated SPE:<br><br>- Extrahera extraction<br>- UPLC-HRMS<br>- Q-Exactive LC-HRMS |

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used |
|---|---|---|
| BODY FLUIDS (cont'd) | Forensic Analysis/Medical and Legal Analysis (cont'd) | |
| Blood (Preserved, Unpreserved) Urine (Preserved, Unpreserved (cont'd) | Presumptive screening for the presence of drugs (Cut-off Limit Blood/Urine) (cont'd):<br><br>**Anti-epileptics Group:**<br>- Pregabalin (100;1000/100;1000ng/ml)<br>- Lamotrigine (10/10ng/ml)<br>- Carbamazepine (10/10ng/ml)<br>- Phenytoin (5/5ng/ml)<br><br>**Cannabis group:**<br>- Delta-9-THC (blood Only) (5ng/ml)<br>- 11-Hydroxy– delta-9-THC (blood only) (5ng/ml)<br>- 11-Carboxy-delta- 9-THC (blood only) (5ng/ml)<br><br>**Miscellaneous:**<br>- Risperidone (5/5ng/ml)<br>- Chlorpheniramine (5/5ng/ml)<br>- Propranolol (10/10ng/ml)<br>- Diphenhydramine (5/5ng/ml)<br>- Cyclizine (5/5ng/ml)<br>- Promethazine (5/5ng/ml)<br>- Amiodarone (Blood Only) (10ng/ml)<br>- Paracetamol (100;1000/100;1000ng/ml)<br>- Ketamine (5/5ng/ml) | Documented in-house method (TP1240) using automated SPE:<br><br>- Extrahera extraction<br>- UPLC-HRMS<br>- Q-Exactive LC-HRMS |
| Blood (Preserved, Unpreserved) | - 3 FMC /4- FMC(10/5/ng/ml)<br>- Clomipramine (5/5ng/ml) | Q-Exactive LC-HRMS |
| Urine (Preserved, Unpreserved | - 3 FMC /4- FMC(10/10/ng/ml)<br>- Clomipramine (5/5ng/ml)<br>- 6 – MAM (10/10ng/ml)<br>- 7-Amino clonazepam (10/10ng/ml)<br>- Fluoxetine (5/5ng/ml)<br>- Sertraline (5/5ng/ml) | Q-Exactive LC-HRMS |

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used |
|---|---|---|
| DOCUMENTS | Forensic Analysis | |
| Handwriting (Roman script) | The examination of submitted items to compare handwriting from known and suspect sources.<br><br>Opinions and Interpretation<br>The evaluation of the significance of any similarities and differences between the handwriting on submitted items and/or suspect/reference sources to determine the likelihood of them being written by the same/different individuals. | Documented in-house Methods (TP5603, TP5610 and TS5612) using<br>- Microscopy<br>- ESDA (TP5611) |
| Signatures | The examination of submitted items to compare signatures from known and suspect sources.<br><br>Opinions and Interpretation<br>The evaluation of the significance of any similarities and differences between signatures on submitted items and/or suspect/reference sources to determine the likelihood of them being written by the same/different individuals. | Documented in house methods (TP5604, TP5610, TS5612) using<br>- visual examination<br>- low power microscopy<br>- photography |

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used |
|---|---|---|
| DOCUMENTS (cont'd) | Forensic Analysis (cont'd) | |
| Paper and other material | Detection and enhancement of indented marks made by handwriting | Documented in-house methods (TP5612 and TS5612) using<br>- oblique lighting<br>- low power microscopy<br>- ESDA |
| Printing Machines and their output including Impact and Non-Impact Printers and Photocopiers | Comparison of office printing equipment and outputs with suspect material | Documented in-house methods ( TP5608 and TS5612) using<br>- visual examination,<br>- microscopy,<br>- physical fit<br>- visual comparison |
| Documents | Detection of alterations and decipherment of altered or obliterated entries<br>- Ink examination<br>- Paper examinations<br>- Photocopying | Documented in-house methods (TP5609, TP5610 and TS5612) using<br>- lighting techniques,<br>- visual examination<br>- microscopy<br>- VSC |
| EXPLOSIVES | Forensic Analysis | |
| Trace Explosives | Recovery of explosives at trace level | Documented in-house methods (TP2003 and TP2005) using swabs |
| | Identification of explosives at trace level | Documented in-house methods using<br>- GC/TEA (TP2002, TP2005, TP 2006, TS2023, TS2024 and TS2025)<br>- UPLC-HRMS (TP2029 and TP2031) |
| Aqueous solutions extracted from Non-Trace Pyrotechnics and associated materials | Identification and confirmation of inorganic anions and cations and sugars found in explosives (cut off limit 2 $mg.l^{-1}$) | Documented In-House Methods (TP2030) using Ion Chromatography |
| Non-Trace Pyrotechnics and associated materials | Identification and confirmation of sugars found in explosives (cut off limit 2 $mg.l^{-1}$) | Documented In-House Methods (TP2030) using<br>- Electrochemical detection (Integrion system EXP090) |

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used |
|---|---|---|
| EXPLOSIVES (cont'd) | Forensic Analysis (cont'd) | |
| Non-Trace, Pyrotechnics and Associated Material | Identification of energetic materials | Documented in-house method (TP2035) using<br>- FTIR Spectroscopy |
| Non-Trace, Pyrotechnics and Associated Material | Identification of bulk explosives | Documented in-house method (TP2023;2034;2017) using GC-FID |
| FIBRES | Forensic Analysis | |
| | Search and recovery of fibres from clothing and objects for analysis | Documented in-house method (TP4058) using<br>- visual examination,<br>- low power microscopy and screening,<br>- fibre recovery (taping) mounting |
| | Identification of fibre type | Documented in-house method (TP4060) using<br>- FTIR |
| | Comparison of fibres | Documented in-house method (TP4009) using<br>- stereo microscopy<br>- comparison microscopy (TP4010) |
| | Spectroscopic analysis of fibres in the visible range for the purpose of comparison of fibres | Documented in-house method (TP4015) using<br>- MSP (visiblelight) |
| FIREARMS | Forensic Analysis | |
| Ammunition | Examination of discharged ammunition components to determine the number of guns used. | Documented in-house method (TP3016) using<br>- comparison microscopy |
| | Opinion and Interpretation<br>The evaluation of features between recovered fired ballistic components | Documented in house methods TP3016 using:<br>- Personal experience<br>- Reference Collections |

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used |
|---|---|---|
| FIREARMS (cont'd) | Forensic Analysis (cont'd) | |
| Ammunition (cont'd) | Examination of cartridges to determine if ammunition has been loaded into a firearm | Documented in-house method (TP3016) using :<br>- microscopy<br>- comparison microscopy |
| | Comparison of spent ammunition to suspect guns | Documented in-house method (TP3016) using<br>- comparison microscopy |
| | Opinion and Interpretation<br>The evaluation of features on recovered fired ballistic components | Documented in house methods TP3016 using:<br>- Personal experience<br>- Reference Collections |
| | Ammunition and component identification and legal classification | Documented in-house method (TP3032) using :<br>- weighing<br>- length measurement<br>- use of known samples or standard reference data. |
| Firearms | Firearm and firearm component part identification and legal classification (Firearms Act 1968 & Firearms Northern Ireland Order 2004) | Documented in-house method (TP3017 & TP3035) using comparison with known samples, reference standards and publications |
| | Firearm identification from class marks present on ammunition components | Documented in-house method (TP3016) using comparison with known samples and use of reference databases. |
| | Opinion and Interpretation<br>The evaluation of features between recovered fired ballistic components | Documented in house methods TP3016 using:<br>- Personal experience<br>- Reference Collections |
| | Determination of Kinetic Energy of projectiles | Documented in-house method (TP3034) using chronograph and balance |
| | Test Firing to assess the functionality of weapons and/or ammunition. | Documented in-house method (TP3015) using suspect or reference guns and ammunition |

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used |
|---|---|---|
| FIREARMS (cont'd) | Forensic Analysis (cont'd) | |
| Firearms (cont'd) | Test Firing to generate test samples of ammunition for comparison to exhibits | Documented in-house method (TP3015) using suspect or reference guns and ammunition |
| FLAMMABLE LIQUIDS (FIRE ACCELERANTS) | Forensic Analysis | |
| Material Recovered from and associated with Fire Scenes<br><br>Common fire accelerant liquids | Examination and analysis of the following flammable liquids:<br>- petrol<br>- paraffin<br>- diesel<br>- white spirit | Documented in-house methods (TP2116 and TP2117) using:<br>- GCMS<br>- ATD/GCMS |
| GUN SHOT RESIDUE (GSR / FDR / CDR) | Forensic Analysis | |
| Any Material<br>Including type of matrix<br>Bore Wipes | Recovery of in-organic gunshot residues (primer) | Documented in-house methods (TP3003 and TP3004) using<br>- swabbing<br>- vacuuming<br>- carbon coated aluminium stubs |
| | Recovery of organic gunshot residue (propellant) | Documented in-house methods (TP3003 and TP3004) using<br>- swabbing<br>- vacuuming<br>- filtering |
| Recovered Material | Identification of in-organic gunshot residues (primer) | Documented in-house methods (TP3002 and TP3006) using<br>- SEM/EDX |
| | Identification of organic gunshot residues (propellant) | Documented in-house methods (TP2002, TP2006, TP2029, TP2031, TS2023, TS2024 & TS2025) using<br>- GC TEA<br>- UPLC-HRMS |

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used |
|---|---|---|
| MARKS AND IMPRESSIONS<br><br>Fingermarks<br>Any material which is capable of retaining friction ridge marks | Forensic Analysis (cont'd)<br><br>Enhancement of fingermarks | Documented in-house methods using chemical and physical enhancement techniques (method numbers provided in brackets) :<br><br>- Acid Dye Treatments: Fuschin Acid - 2% sulphosalicylic acid (TS5526), Acid Black 1 - aqueous (TP5115)<br>- Cyanoacrylate (CNA) Fuming (TS5504 and TS5507)<br>- Basic Yellow 40 - methanol based (BY40) (TS5508)<br>- Rhodamine-6-G; methanol based and aqueous (TS5508)<br>- Gentian Violet ethanol based and aqueous (TS4062)<br>- Basic Red 14 - ethanol based (TS5508)<br>- Safranine O – methanol based (TS5508)<br>- Powdering Techniques (TS5528)<br>Aluminium flake powder<br>Black magnetic powder<br>Black granular powder<br>- 1,8-Diazafluoren-9-one (DFO) (TP5111)<br>- Physical Developer (TP5119)<br>- Ninhydrin (TP5113 and TS5523)<br>- Sudan Black - ethanol based (TS5518)<br>- Stabilised Iodine - aqueous (TS5524)<br>- Leuococrystal Violet (TS5520)<br>- Selenious Acid etching (TS5521)<br>- ISO Mark Casting (TS5527)<br>- 1,2-Indandione (TP5511)<br>- Natural Yellow 3 (TP5512.) |

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used |
|---|---|---|
| MARKS AND IMPRESSIONS (cont'd)<br><br>Fingermarks<br>Any material which is capable of retaining friction ridge marks (cont'd) | Forensic Analysis (cont'd)<br><br>Enhancement of fingermarks (cont'd) | Documented in-house methods using visual and lighting enhancement techniques<br>- Visual examination<br>- White Light and filtered Sources<br>- High Intensity Light Sources (TP5501 and TS5502)<br>Crimelite<br>Uv (λ =350-380nm)<br>Violet (λ =395-425nm),<br>Blue (λ =430-470nm),<br>Blue/green (λ =460-510nm),<br>Green (λ =500-550nm)<br><br>Rofin Polilight<br>λ = 350nm<br>λ = 415nm<br>λ = 450nm<br>λ = 450-505nm<br>λ = 505nm<br>λ = 505-530nm<br>λ > 530nm<br><br>TracER laser<br>λ = 460nm<br>λ = 532nm<br>λ = 577nm<br><br>Documented in-house method (TP5504) for imaging / digital capture:<br>- Digital SLR |

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used |
|---|---|---|
| MARKS AND IMPRESSIONS (cont'd) | Forensic Analysis (cont'd) | |
| Footwear marks (physically or image) | Enhancement of footwear marks recovered from scenes | Documented in-house methods using<br>- lighting techniques (TP5201, TS5533 and TS5537)<br>- powders (TP5122)<br>- ESLA (TP5120)<br>Gel Lifting (TP5121)<br>- digital capture photography (TP5201 and TP5202) |
| | Production of test marks from suspect footwear | Documented in-house methods (TP5108) using<br>- black powder, adhesive film plus clear acetate sheet- static and dynamic<br>- vegetable oil and Magna black method-- static and dynamic |
| Footwear mark (physically or image) | Assessment, Comparison and evaluation of footwear with scene marks | Documented in-house methods (TP5103, and TP5509) using visual examination, low power microscopy and dimensional measurements |
| VEHICLE COMPONENTS | Forensic Analysis | |
| Wheel assemblies removed from vehicles (tyres) | Examination of wheel assemblies and constituent parts of wheel assemblies (rims, tyres, inner tubes)<br><br>Identification of damage and defects<br>- Measurement of tread depth<br>- Measurement of valve back pressure | Documented in-house method (TP3101) using:<br>- visual examination,<br>- optical microscopy,<br>- length measurement,<br>- pressure measurement. |
| Light bulbs from motor vehicles and pedal bicycles | Examination and investigation of cause of failure or defect | Documented in-house method (TP3104) using<br>- visual examination,<br>- optical microscopy,<br>- electrical continuity illumination test. |

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used |
|---|---|---|
| DRUGS | Forensic Analysis (cont'd)<br><br>Legal classification of controlled drugs (Misuse of Drugs Act 1971)<br><br>Presumptive testing for:<br>Amphetamines<br>Opiates<br>MDMA<br><br>Presumptive testing for:<br>Cocaine<br><br>Identification of Named controlled and non-controlled drugs:<br>o Amphetamine<br>o Heroin<br>o Fentanyl<br>o Paracetamol<br>o Methamphetamine<br>o Methyltestosterone<br>o Morphine<br>o Oxycodone<br>o Zolpidem<br>o MPA<br>o Testosterone<br>o MMB CHIMICA<br>o Gabapentin<br>o Flualprazolam<br>o CBD<br>o CBN<br>o Ketamine<br>o Cocaine<br>o Etizolam<br>o Tetramisole<br>o Temazepam<br>o Delta 9 THC<br>o Pregabalin<br>o Methoxetamine<br>o Methadone<br>o 25C-NBOMe<br>o Acetyl fentanyl<br>o 5F AKB48<br>o Clonazolam<br>o Diclazepam | <br><br><br><br>Documented in house method (method ref TP1118) using spot test<br>- Marquis reagent<br><br>Documented in house method (method ref TP1118) using spot test<br>- Acidified Cobalt Thiocyanate colour test<br><br>Documented in house method (method ref TP1119) using<br>- UPLC-HRMS |

| Materials/Products tested | Type of test/Properties measured/Range of measurement | Standard specifications/ Equipment/Techniques used |
|---|---|---|
| DRUGS (cont'd) | Forensic Analysis (cont'd) | |
| | Identification of characteristically marked proprietary pharmaceuticals, illicit copies and other drugs products | Documented in house method (method ref TP1118) using<br>- visual comparison of appearance, markings<br>- dimensions with reference materials, data collections and descriptions in authoritative texts |
| Drugs | Quantification of<br>- Amphetamine<br>- Cocaine<br>- Heroin | Documented in-house method (TS1123 and TS1113) using UPLC/MSMS |
| END | | |