



## **DNA Parentage**

# **Test No. 22-5872/7 Summary Report**

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Each participant received a sample pack consisting of four blood samples representing a paternity case. Samples were collected from a mother, a daughter, and two potential fathers. Participants were requested to analyze the samples using their existing protocols. The test also included a paper kinship exercise where participants were requested to evaluate the provided DNA profiles and determine if a half sibling relationship was supported. Data were returned from 93 participants and are compiled into the following tables:

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This report contains the data received from the participants in this test. Since these participants are located in many countries around the world, and it is their option how the samples are to be used (e.g., training exercise, known or blind proficiency testing, research and development of new techniques, etc.), the results compiled in the Summary Report are not intended to be an overview of the quality of work performed in the profession and cannot be interpreted as such. The Summary Comments are included for the benefit of participants to assist with maintaining or enhancing the quality of their results. These comments are not intended to reflect the general state of the art within the profession.

Participant results are reported using a randomly assigned "WebCode". This code maintains participant's anonymity, provides linking of the various report sections, and will change with every report.

## **Manufacturer's Information**

Each sample set was a collection of known blood samples, provided on either FTA Micro Cards or swabs, from four individuals (Items 1-4); a mother, a daughter, and two potential fathers. Participants were requested to analyze these items using their existing protocols. Also included with this test was a kinship exercise that consisted of autosomal DNA profiles of two individuals for comparison. Participants were requested to determine if a half sibling relationship claim was supported following the review of these profiles.

**SAMPLE PREPARATION:** All stains were prepared from human whole blood which was drawn into EDTA tubes. Item 1 was blood from a female (mother) donor, Item 2 was blood from a female (daughter) donor, Item 3 was blood from a male donor who was the biological father of the Item 2 female, and Item 4 was blood from a male donor who was not the biological father of the Item 2 female. Each FTA card was spotted with 75uL of blood, while each swab (two swabs per item) was spotted with 100uL of blood. The different items were prepared at separate times and were packaged once they were thoroughly dried. Completed sample sets were stored at -20°C until shipment on August 22, 2022.

**SAMPLE SET ASSEMBLY:** For each sample set, all four Items (1-4) in their separate envelopes were placed in a pre-labeled sample pack envelope and sealed. The sample pack envelopes were then packaged in pre-labeled Heat Seal envelopes and sealed. This process was repeated until all of the sample sets were prepared.

**KINSHIP EXERCISE:** This exercise included allelic results representing a half sibling relationship.

**VERIFICATION:** Laboratories that conducted predistribution analysis of the samples reported consistent results and associations.

### **Key to Test Substrates**

5872 - FTA™ Micro Cards

5877 - Swabs

### Amelogenin and STR Results

*Results compiled from predistribution laboratories and a consensus of at least 10 participants.*

| Item | D1S1656 | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|------|---------|---------|----------|----------|------------|---------|
|      | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|      | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|      | FGA     | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|      | vWA     | DYS391  | DYS570   | DYS576   | Y Indel    |         |
| 1    | 14,17.3 | 17,24   | 14,14    | 15,15    | 11,12      | 11,12   |
|      | 10,11   | 13,15   | 13,16    | 15,21    | 13,13      | 11,12   |
|      | 14,15   | 14,15   | 29,29    | 15,15    | X,X        | 10,12   |
|      | 22.2,26 | 11,14   | 5,12     | 15,19    | 6,8        | 8,8     |
|      | 16,19   | NM      | NM       | NM       | NM         |         |
| 2    | 15,17.3 | 17,20   | 10,14    | 15,19    | 11,12      | 12,20   |
|      | 11,11   | 13,13   | 15,16    | 15,21    | 8,13       | 11,12   |
|      | 13,15   | 14,14   | 29,30    | 15,17    | X,X        | 12,12   |
|      | 20,26   | 9,11    | 5,16     | 19,19.2  | 7,8        | 8,11    |
|      | 17,19   | NM      | NM       | NM       | NM         |         |
| 3    | 15,15   | 20,22   | 9,10     | 15,19    | 12,12      | 17,20   |
|      | 11,11   | 13,15   | 15,15    | 20,21    | 8,8        | 11,14   |
|      | 13,14   | 14,14   | 30,30    | 17,17    | X,Y        | 12,13   |
|      | 20,20   | 9,12    | 12,16    | 14,19.2  | 7,7        | 8,11    |
|      | 17,17   | 10      | 17       | 18       | 2          |         |
| 4    | 14,15   | 20,22   | 11,11    | 15,17    | 11,13      | 12,19   |
|      | 8,12    | 15,15   | 13,14    | 17,19    | 12,14      | 11,11   |
|      | 15,20   | 12,14   | 29,30.2  | 10,18    | X,Y        | 7,10    |
|      | 22,23   | 2.2,9   | 13,15    | 16,18    | 7,9        | 8,9     |
|      | 15,17   | 10      | 18       | 17       | 2          |         |

### YSTR Results

*Results compiled from predistribution laboratories and a consensus of at least 10 participants.*

| Item | DYF387S1 | DYS19  | DYS385 | DYS389-I | DYS389-II | DYS390 | DYS391 | DYS392 | DYS393    |
|------|----------|--------|--------|----------|-----------|--------|--------|--------|-----------|
|      | DYS437   | DYS438 | DYS439 | DYS448   | DYS449    | DYS456 | DYS458 | DYS460 | DYS481    |
|      | DYS518   | DYS533 | DYS549 | DYS570   | DYS576    | DYS627 | DYS635 | DYS643 | Y GATA H4 |
| 3    | 35,37    | 15     | 11,14  | 14       | 30        | 24     | 10     | 13     | 13        |
|      | 15       | 12     | 12     | 20       | 29        | 15     | 17     | 10     | 24        |
|      | 38       | 12     | 13     | 17       | 18        | 22     | 23     | 10     | 11        |
| 4    | 39,40    | 16     | 18,18  | 13       | 30        | 21     | 10     | 11     | 15        |
|      | 14       | 11     | 12     | 21       | 31        | 16     | 16     | 10     | 24        |
|      | 39       | 11     | 11     | 18       | 17        | 22     | 21     | 14     | 11        |

NM - Non-Male profile, YSTR results not expected.

## Paternity Indices

*Mode Paternity Index results compiled from predistribution laboratories and a consensus of at least 10 participants.*

### Item - Database

| D1S1656    | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|------------|---------|----------|----------|------------|---------|
| D7S820     | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
| D18S51     | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
| FGA        | Penta D | Penta E  | SE33     | TH01       | TPOX    |
| <b>vWA</b> |         |          |          |            |         |

#### 4PI - Grand Mean $\pm$ 3STD Range\*\*

|           |            |           |           |            |           |
|-----------|------------|-----------|-----------|------------|-----------|
| 1.53-5.17 | 1.13-8.34  | 0-0.0036  | 0-0.0115  | 0.465-1.17 | 0-0.0209  |
| 0-0.00275 | 0-0.00466  | 0-0.00371 | 0-0.00347 | 0-0.00258  | 1.28-2.44 |
| 0-0.00401 | 0.900-3.44 | 0-0.00236 | 0-0.0052  | -          | 0-0.00363 |
| 0-0.00593 | 1.58-4.23  | 0-0.0124  | 0-0.0442  | 0-4.19     | 0-0.00042 |
| 1.00-3.32 |            |           |           |            |           |

#### 3PI - NIST STRBASE

|      |      |      |      |      |       |
|------|------|------|------|------|-------|
| 6.68 | 3.19 | 2.38 | 30.1 | 1.34 | *     |
| 4.88 | 1.52 | 5.08 | 3.11 | 8.30 | 0.795 |
| 4.06 | 2.77 | 3.54 | 13.4 | -    | 1.39  |
| 8.11 | 2.26 | 9.77 | 119  | 5.16 | 1.98  |
| 3.52 |      |      |      |      |       |

#### 3PI - Grand Mean $\pm$ 3STD Range\*\*

|           |            |           |            |            |            |
|-----------|------------|-----------|------------|------------|------------|
| 3.96-9.14 | 0-7.37     | 0-6.90    | 0-75.1     | 0.711-2.16 | 6.45-21.1  |
| 2.63-6.39 | 0.829-2.41 | 3.76-6.09 | 0.406-6.05 | 2.42-15.0  | 0.513-1.18 |
| 2.08-5.74 | 1.98-3.88  | 2.37-5.10 | 2.71-21.3  | -          | 1.07-1.78  |
| 1.59-16.5 | 1.49-2.98  | 5.06-13.8 | 0-341      | 1.59-8.02  | 0-6.27     |
| 1.20-6.30 |            |           |            |            |            |

\* Results were not received from a minimum of 10 participants for the loci and database indicated.

\*\*These ranges are provided to allow participants that utilized databases other than the one(s) listed above to review their results. Following AABB guidelines, ranges were determined by taking the grand mean of all data submitted for the associated locus and calculating 3 standard deviations above and below that value. Data values are presented in three significant figures. Data values less than zero are presented as "0."

## **Summary Comments**

The 22-5872/7 DNA Parentage test was designed to allow participants to assess their proficiency in the analysis and interpretation of four known blood samples, along with the determination of paternity. Item 1 was blood from a female (mother) donor, Item 2 was blood from a female (daughter) donor, Item 3 was blood from a male donor who was the biological father of the Item 2 female, and Item 4 was blood from a male donor who was not the biological father of the Item 2 female. Participants were requested to analyze the samples and provide allelic and statistical results as well as relationship conclusions. The test also included a paper kinship exercise where participants were requested to evaluate the provided DNA profiles and report the kinship index and relationship conclusions (Refer to the Manufacturer's Information for preparation details).

### DNA Analysis:

All 93 participants who returned data, reported STR results for all four items. For Item 1, all participants reported consistent data.

For Items 2, 3, and 4, at least one participant reported an inconsistent result for one or more loci.

For YSTR results, all participants reported consistent data for Items 3 and 4.

### Paternity DNA Statistics:

All participants reported that the source of Item 3 could not be excluded as the biological father of Item 2. Of the participants that reported probability of paternity values, all reported 99.99% or higher. The most frequently reported population database was NIST-STRBASE.

### Kinship DNA Statistics:

There were 43 participants who responded for the paper kinship exercise. For the loci likelihood ratio (LR) data, seven participants reported values that differed from the consensus, five of which reported differing values at multiple loci.

Of the 43 participants, 34 (~79%) reported a combined Kinship Index (KI) between 2.49 and 2.535. A consensus was not achieved for the question regarding whether the relationship was supported. Seventeen participants reported that the claim of a half sibling relationship was supported, four participants did not support the relationship claim, and twenty-two reported "Inconclusive."

# STR Amplification Kit(s) & Results

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
| Item         | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|              | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 1 - STR Results

33G37G-5872 GlobalFiler™ Express

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14    | 15    | 11,12 |       |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13    | 11,12 |
| 1 | 14,15   | 14,15 | 29    | 15    | X,X   | 10,12 |
|   | 22.2,26 |       |       | 15,19 | 6,8   | 8     |
|   | 16,19   | NM    |       |       | NM    |       |

39LYUM-5872 PowerPlex® Fusion 6C, GlobalFiler™, NGM SElect

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14    | 15    | 11,12 |       |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13    | 11,12 |
| 1 | 14,15   | 14,15 | 29    | 15    | X     | 10,12 |
|   | 22.2,26 | 11,14 | 5,12  | 15,19 | 6,8   | 8     |
|   | 16,19   |       |       |       |       |       |

3ECBR6-5877 GlobalFiler™

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14    | 15    | 11,12 |       |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13    | 11,12 |
| 1 | 14,15   | 14,15 | 29    | 15    | X     | 10,12 |
|   | 22.2,26 |       |       | 15,19 | 6,8   | 8     |
|   | 16,19   |       |       |       |       |       |

3F8R7M-5877 PowerPlex® 21

|   |         |       |      |       |       |       |
|---|---------|-------|------|-------|-------|-------|
|   | 14,17.3 | 17,24 |      | 15    | 11,12 | 11,12 |
|   | 10,11   | 13,15 |      | 15,21 | 13    | 11,12 |
| 1 | 14,15   | 14,15 | 29   |       | X     | 10,12 |
|   | 22.2,26 | 11,14 | 5,12 |       | 6,8   | 8     |
|   | 16,19   |       |      |       |       |       |

3FRDYD-5877 PowerPlex® Fusion 6C

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14    | 15    | 11,12 |       |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13    | 11,12 |
| 1 | 14,15   | 14,15 | 29    | 15    | X     | 10,12 |
|   | 22.2,26 | 11,14 | 5,12  | 15,19 | 6,8   | 8     |
|   | 16,19   |       |       |       |       |       |

3LW7VU-5872 GlobalFiler™

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14    | 15    | 11,12 |       |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13    | 11,12 |
| 1 | 14,15   | 14,15 | 29    | 15    | X     | 10,12 |
|   | 22.2,26 |       |       | 15,19 | 6,8   | 8     |
|   | 16,19   |       |       |       |       |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|              | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
| Item         | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 1 - STR Results

|             |  |       |       |       |       |       |
|-------------|--|-------|-------|-------|-------|-------|
| 3M2YKL-5877 | PowerPlex® Fusion 6C, GlobalFiler™ Express |       |       |       |       |       |
|             | 14,17.3                                    | 17,24 | 14    | 15    | 11,12 |       |
|             | 10,11                                      | 13,15 | 13,16 | 15,21 | 13    | 11,12 |
| 1           | 14,15                                      | 14,15 | 29    | 15    | X     | 10,12 |
|             | 22.2,26                                    | 11,14 | 5,12  | 15,19 | 6,8   | 8     |
|             | 16,19                                      |       |       |       |       |       |
| 3PVM4G-5877 | GlobalFiler™                               |       |       |       |       |       |
|             | 14,17.3                                    | 17,24 | 14    | 15    | 11,12 |       |
|             | 10,11                                      | 13,15 | 13,16 | 15,21 | 13    | 11,12 |
| 1           | 14,15                                      | 14,15 | 29    | 15    | X     | 10,12 |
|             | 22.2,26                                    |       |       | 15,19 | 6,8   | 8     |
|             | 16,19                                      |       |       |       |       |       |
| 63UDXK-5872 | GlobalFiler™ Express                       |       |       |       |       |       |
|             | 14,17.3                                    | 17,24 | 14,14 | 15,15 | 11,12 |       |
|             | 10,11                                      | 13,15 | 13,16 | 15,21 | 13,13 | 11,12 |
| 1           | 14,15                                      | 14,15 | 29,29 | 15,15 | X,X   | 10,12 |
|             | 22.2,26                                    |       |       | 15,19 | 6,8   | 8,8   |
|             | 16,19                                      |       |       |       |       |       |
| 6CHZCV-5872 | PowerPlex® 21 (Kinship)                    |       |       |       |       |       |
|             | 14,17.3                                    | 17,24 |       | 15,15 | 11,12 | 11,12 |
|             | 10,11                                      | 13,15 |       | 15,21 | 13,13 | 11,12 |
| 1           | 14,15                                      | 14,15 | 29,29 |       | X,X   | 10,12 |
|             | 22.2,26                                    | 11,14 | 5,12  |       | 6,8   | 8,8   |
|             | 16,19                                      |       |       |       |       |       |
| 73W8G7-5872 | PowerPlex® Fusion 6C                       |       |       |       |       |       |
|             | 14,17.3                                    | 17,24 | 14    | 15    | 11,12 |       |
|             | 10,11                                      | 13,15 | 13,16 | 15,21 | 13    | 11,12 |
| 1           | 14,15                                      | 14,15 | 29    | 15    | X     | 10,12 |
|             | 22.2,26                                    | 11,14 | 5,12  | 15,19 | 6,8   | 8     |
|             | 16,19                                      |       |       |       |       |       |
| 77PJU3-5877 | GlobalFiler™                               |       |       |       |       |       |
|             | 14,17.3                                    | 17,24 | 14    | 15    | 11,12 |       |
|             | 10,11                                      | 13,15 | 13,16 | 15,21 | 13    | 11,12 |
| 1           | 14,15                                      | 14,15 | 29    | 15    | X     | 10,12 |
|             | 22.2,26                                    |       |       | 15,19 | 6,8   | 8     |
|             | 16,19                                      |       |       |       |       |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 1 - STR Results

786NQE-5872 PowerPlex® Fusion, PP21, ESX17, CS7, Verifiler

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14    | 15    | 11,12 | 11,12 |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13    | 11,12 |
| 1 | 14,15   | 14,15 | 29    | 15    | X     | 10,12 |
|   | 22.2,26 | 11,14 | 5,12  | 15,19 | 6,8   | 8     |
|   | 16,19   |       |       |       |       |       |

7DPWQ-5872 GlobalFiler™

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14,14 | 15,15 | 11,12 |       |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13,13 | 11,12 |
| 1 | 14,15   | 14,15 | 29,29 | 15,15 | X,X   | 10,12 |
|   | 22.2,26 |       |       | 15,19 | 6,8   | 8,8   |
|   | 16,19   |       |       |       |       |       |

7F4KV8-5872 Identifiler®, NGMSelect

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14    | 15    | 11,12 |       |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13    | 11,12 |
| 1 | 14,15   | 14,15 | 29    | 15    | X     | 10,12 |
|   | 22.2,26 |       |       | 15,19 | 6,8   | 8     |
|   | 16,19   |       |       |       |       |       |

7PKXQF-5872 GlobalFiler™ Express

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14    | 15    | 11,12 |       |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13    | 11,12 |
| 1 | 14,15   | 14,15 | 29    | 15    | X,X   | 10,12 |
|   | 22.2,26 |       |       | 15,19 | 6,8   | 8     |
|   | 16,19   | NM    |       |       | NM    |       |

84E29B-5872 GlobalFiler™ Express

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14    | 15    | 11,12 |       |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13    | 11,12 |
| 1 | 14,15   | 14,15 | 29    | 15    | X,X   | 10,12 |
|   | 22.2,26 |       |       | 15,19 | 6,8   | 8     |
|   | 16,19   | NM    |       |       | NM    |       |

8D3UK9-5877 PowerPlex® Fusion 6C

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14    | 15    | 11,12 |       |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13    | 11,12 |
| 1 | 14,15   | 14,15 | 29    | 15    | X     | 10,12 |
|   | 22.2,26 | 11,14 | 5,12  | 15,19 | 6,8   | 8     |
|   | 16,19   |       |       |       |       |       |



TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 1 - STR Results

8MBE64-5872 Investigator ESSPlex SE plus

|   |         |       |       |       |     |       |
|---|---------|-------|-------|-------|-----|-------|
|   | 14,17.3 | 17,24 | 14,14 | 15,15 |     |       |
|   |         | 13,15 | 13,16 | 15,21 |     | 11,12 |
| 1 | 14,15   | 14,15 | 29,29 | 15,15 | X,X |       |
|   | 22.2,26 |       |       | 15,19 | 6,8 |       |
|   | 16,19   |       |       |       |     |       |

9HTLAG-5877 Verifiler Plus (GeneMapper ID-X v.1.5)

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14    | 15    | 11,12 | 11,12 |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13    | 11,12 |
| 1 | 14,15   | 14,15 | 29    | 15    | X,X   | 10,12 |
|   | 22.2,26 | 11,14 | 5,12  |       | 6,8   | 8     |
|   | 16,19   |       |       |       | -     |       |

9P9DFV-5877 PowerPlex® FUSION 5C

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14,14 | 15,15 | 11,12 |       |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13,13 | 11,12 |
| 1 | 14,15   | 14,15 | 29,29 | 15,15 | X,X   | 10,12 |
|   | 22.2,26 | 11,14 | 5,12  |       | 6,8   | 8,8   |
|   | 16,19   |       |       |       |       |       |

9QBQKP-5872 PowerPlex® Fusion 6C

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14,14 | 15,15 | 11,12 |       |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13,13 | 11,12 |
| 1 | 14,15   | 14,15 | 29,29 | 15,15 | X,X   | 10,12 |
|   | 22.2,26 | 11,14 | 5,12  | 15,19 | 6,8   | 8,8   |
|   | 16,19   |       |       |       |       |       |

AFLNDE-5877 PowerPlex® 5C

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14    | 15    | 11,12 | --    |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13    | 11,12 |
| 1 | 14,15   | 14,15 | 29    | 15    | X     | 10,12 |
|   | 22.2,26 | 11,14 | 5,12  | --    | 6,8   | 8     |
|   | 16,19   | --    | --    | --    | --    |       |

AJHDUL-5877 PowerPlex® Fusion 6C

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14,14 | 15,15 | 11,12 |       |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13,13 | 11,12 |
| 1 | 14,15   | 14,15 | 29,29 | 15,15 | X,X   | 10,12 |
|   | 22.2,26 | 11,14 | 5,12  | 15,19 | 6,8   | 8,8   |
|   | 16,19   |       |       |       |       |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 1 - STR Results

|             |                                 |           |       |       |           |       |
|-------------|---------------------------------|-----------|-------|-------|-----------|-------|
| ARWY24-5872 | GlobalFiler™                    |           |       |       |           |       |
|             | 14,17.3                         | 17,24     | 14    | 15    | 11,12     |       |
|             | 10,11                           | 13,15     | 13,16 | 15,21 | 13        | 11,12 |
| 1           | 14,15                           | 14,15     | 29    | 15    | X         | 10,12 |
|             | 22.2,26                         |           |       | 15,19 | 6,8       | 8     |
|             | 16,19                           |           |       |       |           |       |
| ATTEFL-5877 | Identifiler®                    |           |       |       |           |       |
|             |                                 | 17,24     |       | 15    | 11,12     |       |
|             | 10,11                           | 13,15     |       |       | 13        | 11,12 |
| 1           | 14,15                           | 14,15     | 29    |       | X,X       | 10,12 |
|             | 22.2,26                         |           |       |       | 6,8       | 8     |
|             | 16,19                           |           |       |       |           |       |
| BQVKU2-5877 | GlobalFiler™, MiniFiler         |           |       |       |           |       |
|             | 14,17.3                         | 17,24     | 14,14 | 15,15 | 11,12     |       |
|             | 10,11                           | 13,15     | 13,16 | 15,21 | 13,13     | 11,12 |
| 1           | 14,15                           | 14,15     | 29,29 | 15,15 | X,X       | 10,12 |
|             | 22.2,26                         |           |       | 15,19 | 6,8       | 8,8   |
|             | 16,19                           | No result |       |       | No result |       |
| BQZZ9N-5872 | GlobalFiler™ express            |           |       |       |           |       |
|             | 14,17.3                         | 17,24     | 14    | 15    | 11,12     |       |
|             | 10,11                           | 13,15     | 13,16 | 15,21 | 13        | 11,12 |
| 1           | 14,15                           | 14,15     | 29    | 15    | X         | 10,12 |
|             | 22.2,26                         |           |       | 15,19 | 6,8       | 8     |
|             | 16,19                           | NR        |       |       | NR        |       |
| C8ZC9C-5877 | PowerPlex® Fusion 6C            |           |       |       |           |       |
|             | 14,17.3                         | 17,24     | 14    | 15    | 11,12     |       |
|             | 10,11                           | 13,15     | 13,16 | 15,21 | 13        | 11,12 |
| 1           | 14,15                           | 14,15     | 29    | 15    | X         | 10,12 |
|             | 22.2,26                         | 11,14     | 5,12  | 15,19 | 6,8       | 8     |
|             | 16,19                           |           |       |       |           |       |
| CV64QA-5872 | PowerPlex® Fusion, GlobalFiler™ |           |       |       |           |       |
|             | 14,17.3                         | 17,24     | 14,14 | 15,15 | 11,12     |       |
|             | 10,11                           | 13,15     | 13,16 | 15,21 | 13,13     | 11,12 |
| 1           | 14,15                           | 14,15     | 29,29 | 15,15 | X,X       | 10,12 |
|             | 22.2,26                         | 11,14     | 5,12  | 15,19 | 6,8       | 8,8   |
|             | 16,19                           |           |       |       |           |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 1 - STR Results

DTFCVH-5877 PowerPlex® Fusion (Gene Analysen)

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14    | 15    | 11,12 |       |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13    | 11,12 |
| 1 | 14,15   | 14,15 | 29    |       | X     | 10,12 |
|   | 22.2,26 | 11,14 | 5,12  |       | 6,8   | 8     |
|   | 16,19   |       |       |       |       |       |

DUAZED-5877 Fusion 6C

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14    | 15    | 11,12 |       |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13    | 11,12 |
| 1 | 14,15   | 14,15 | 29    | 15    | X     | 10,12 |
|   | 22.2,26 | 11,14 | 5,12  | 15,19 | 6,8   | 8     |
|   | 16,19   |       |       |       |       |       |

EAH9U8-5872 Verifiler

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14,14 | 15,15 | 11,12 | 11,12 |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13,13 | 11,12 |
| 1 | 14,15   | 14,15 | 29,29 | 15,15 | X,X   | 10,12 |
|   | 22.2,26 | 11,14 | 5,12  |       | 6,8   | 8,8   |
|   | 16,19   |       |       |       |       |       |

EBAAT4-5877 GlobalFiler™

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14    | 15    | 11,12 |       |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13    | 11,12 |
| 1 | 14,15   | 14,15 | 29    | 15    | X,X   | 10,12 |
|   | 22.2,26 |       |       | 15,19 | 6,8   | 8     |
|   | 16,19   |       |       |       |       |       |

ENJRPD-5877 GlobalFiler™

|   |         |            |       |       |            |       |
|---|---------|------------|-------|-------|------------|-------|
|   | 14,17.3 | 17,24      | 14    | 15    | 11,12      |       |
|   | 10,11   | 13,15      | 13,16 | 15,21 | 13         | 11,12 |
| 1 | 14,15   | 14,15      | 29    | 15    | X          | 10,12 |
|   | 22.2,26 |            |       | 15,19 | 6,8        | 8     |
|   | 16,19   | No Results |       |       | No Results |       |

ERKVGZ-5872 GlobalFiler™

|   |         |              |       |       |              |       |
|---|---------|--------------|-------|-------|--------------|-------|
|   | 14,17.3 | 17,24        | 14,14 | 15,15 | 11,12        |       |
|   | 10,11   | 13,15        | 13,16 | 15,21 | 13,13        | 11,12 |
| 1 | 14,15   | 14,15        | 29,29 | 15,15 | X,X          | 10,12 |
|   | 22.2,26 |              |       | 15,19 | 6,8          | 8,8   |
|   | 16,19   | Not detected |       |       | Not detected |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 1 - STR Results

|             |                      |            |       |       |            |       |
|-------------|----------------------|------------|-------|-------|------------|-------|
| F87XDU-5872 | PowerPlex® Fusion 6C |            |       |       |            |       |
|             | 14,17.3              | 17,24      | 14,14 | 15,15 | 11,12      |       |
|             | 10,11                | 13,15      | 13,16 | 15,21 | 13,13      | 11,12 |
| 1           | 14,15                | 14,15      | 29,29 | 15,15 | X,X        | 10,12 |
|             | 22.2,26              | 11,14      | 5,12  | 15,19 | 6,8        | 8,8   |
|             | 16,19                |            |       |       |            |       |
| FDVD22-5872 | PowerPlex® Fusion    |            |       |       |            |       |
|             | 14,17.3              | 17,24      | 14    | 15    | 11,12      |       |
|             | 10,11                | 13,15      | 13,16 | 15,21 | 13         | 11,12 |
| 1           | 14,15                | 14,15      | 29    | 15    | X          | 10,12 |
|             | 22.2,26              | 11,14      | 5,12  |       | 6,8        | 8     |
|             | 16,19                |            |       |       |            |       |
| FDX37Y-5877 | GlobalFiler™         |            |       |       |            |       |
|             | 14,17.3              | 17,24      | 14,14 | 15,15 | 11,12      |       |
|             | 10,11                | 13,15      | 13,16 | 15,21 | 13,13      | 11,12 |
| 1           | 14,15                | 14,15      | 29,29 | 15,15 | X,X        | 10,12 |
|             | 22.2,26              |            |       | 15,19 | 6,8        | 8,8   |
|             | 16,19                | no results |       |       | no results |       |
| G48YJG-5872 | PowerPlex® Fusion 6C |            |       |       |            |       |
|             | 14,17.3              | 17,24      | 14,14 | 15,15 | 11,12      |       |
|             | 10,11                | 13,15      | 13,16 | 15,21 | 13,13      | 11,12 |
| 1           | 14,15                | 14,15      | 29,29 | 15,15 | X,X        | 10,12 |
|             | 22.2,26              | 11,14      | 5,12  | 15,19 | 6,8        | 8,8   |
|             | 16,19                |            |       |       |            |       |
| GDT3MA-5872 | PowerPlex® Fusion 6C |            |       |       |            |       |
|             | 14,17.3              | 17,24      | 14    | 15    | 11,12      |       |
|             | 10,11                | 13,15      | 13,16 | 15,21 | 13         | 11,12 |
| 1           | 14,15                | 14,15      | 29    | 15    | X,X        | 10,12 |
|             | 22.2,26              | 11,14      | 5,12  | 15,19 | 6,8        | 8     |
|             | 16,19                | -          | -     | -     |            |       |
| GU22R8-5877 | Identifiler® Plus    |            |       |       |            |       |
|             |                      | 17,24      |       | 15,15 | 11,12      |       |
|             | 10,11                | 13,15      |       |       | 13,13      | 11,12 |
| 1           | 14,15                | 14,15      | 29,29 |       | X,X        | 10,12 |
|             | 22.2,26              |            |       |       | 6,8        | 8,8   |
|             | 16,19                |            |       |       |            |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|              | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
| Item         | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 1 - STR Results

|                                  |         |              |       |       |       |       |
|----------------------------------|---------|--------------|-------|-------|-------|-------|
| GW36G9-5872 GlobalFiler™         |         |              |       |       |       |       |
|                                  | 14,17.3 | 17,24        | 14,14 | 15,15 | 11,12 |       |
|                                  | 10,11   | 13,15        | 13,16 | 15,21 | 13,13 | 11,12 |
| 1                                | 14,15   | 14,15        | 29,29 | 15,15 | X,X   | 10,12 |
|                                  | 22.2,26 |              |       | 15,19 | 6,8   | 8,8   |
|                                  | 16,19   | /            |       |       | /     |       |
| H9TEJ8-5872 GlobalFiler™ Express |         |              |       |       |       |       |
|                                  | 14,17.3 | 17,24        | 14,14 | 15,15 | 11,12 |       |
|                                  | 10,11   | 13,15        | 13,16 | 15,21 | 13,13 | 11,12 |
| 1                                | 14,15   | 14,15        | 29,29 | 15,15 | X,X   | 10,12 |
|                                  | 22.2,26 |              |       | 15,19 | 6,8   | 8,8   |
|                                  | 16,19   | 0            |       |       | 0     |       |
| HFE6AA-5872 GlobalFiler™         |         |              |       |       |       |       |
|                                  | 14,17.3 | 17,24        | 14,14 | 15,15 | 11,12 |       |
|                                  | 10,11   | 13,15        | 13,16 | 15,21 | 13,13 | 11,12 |
| 1                                | 14,15   | 14,15        | 29,29 | 15,15 | X,X   | 10,12 |
|                                  | 22.2,26 |              |       | 15,19 | 6,8   | 8,8   |
|                                  | 16,19   |              |       |       |       |       |
| HWYZF6-5877 GlobalFiler™ IQC     |         |              |       |       |       |       |
|                                  | 14,17.3 | 17,24        | 14,14 | 15,15 | 11,12 |       |
|                                  | 10,11   | 13,15        | 13,16 | 15,21 | 13,13 | 11,12 |
| 1                                | 14,15   | 14,15        | 29,29 | 15,15 | X,X   | 10,12 |
|                                  | 22.2,26 |              |       | 15,19 | 6,8   | 8,8   |
|                                  | 16,19   |              |       |       |       |       |
| J2C32Z-5872 PowerPlex® Fusion 5C |         |              |       |       |       |       |
|                                  | 14,17.3 | 17,24        | 14    | 15    | 11,12 |       |
|                                  | 10,11   | 13,15        | 13,16 | 15,21 | 13    | 11,12 |
| 1                                | 14,15   | 14,15        | 29    | 15    | X     | 10,12 |
|                                  | 22.2,26 | 11,14        | 5,12  |       | 6,8   | 8     |
|                                  | 16,19   | Inconclusive |       |       |       |       |
| JHJYKY-5877 GlobalFiler™         |         |              |       |       |       |       |
|                                  | 14,17.3 | 17,24        | 14    | 15    | 11,12 |       |
|                                  | 10,11   | 13,15        | 13,16 | 15,21 | 13    | 11,12 |
| 1                                | 14,15   | 14,15        | 29    | 15    | X,X   | 10,12 |
|                                  | 22.2,26 |              |       | 15,19 | 6,8   | 8     |
|                                  | 16,19   |              |       |       |       |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 1 - STR Results

|             |                               |            |       |       |            |       |
|-------------|-------------------------------|------------|-------|-------|------------|-------|
| JLGFXT-5877 | GlobalFiler™                  |            |       |       |            |       |
|             | 14,17.3                       | 17,24      | 14,14 | 15,15 | 11,12      |       |
|             | 10,11                         | 13,15      | 13,16 | 15,21 | 13,13      | 11,12 |
| 1           | 14,15                         | 14,15      | 29,29 | 15,15 | X,X        | 10,12 |
|             | 22.2,26                       |            |       | 15,19 | 6,8        | 8,8   |
|             | 16,19                         | no results |       |       | no results |       |
| K4UEK3-5872 | PowerPlex® FUSION 6C (MFYSIS) |            |       |       |            |       |
|             | 14,17.3                       | 17,24      | 14,14 | 15,15 | 11,12      |       |
|             | 10,11                         | 13,15      | 13,16 | 15,21 | 13,13      | 11,12 |
| 1           | 14,15                         | 14,15      | 29,29 | 15,15 | X,X        | 10,12 |
|             | 22.2,26                       | 11,14      | 5,12  | 15,19 | 6,8        | 8,8   |
|             | 16,19                         |            |       |       |            |       |
| K8WKWM-5872 | PowerPlex® Fusion             |            |       |       |            |       |
|             | 14,17.3                       | 17,24      | 14    | 15    | 11,12      |       |
|             | 10,11                         | 13,15      | 13,16 | 15,21 | 13         | 11,12 |
| 1           | 14,15                         | 14,15      | 29    | 15    | X          | 10,12 |
|             | 22.2,26                       | 11,14      | 5,12  |       | 6,8        | 8     |
|             | 16,19                         |            |       |       |            |       |
| K9R2B7-5872 | PowerPlex® Fusion             |            |       |       |            |       |
|             | 14,17.3                       | 17,24      | 14    | 15    | 11,12      |       |
|             | 10,11                         | 13,15      | 13,16 | 15,21 | 13         | 11,12 |
| 1           | 14,15                         | 14,15      | 29    | 15    | X          | 10,12 |
|             | 22.2,26                       | 11,14      | 5,12  |       | 6,8        | 8     |
|             | 16,19                         | NR         |       |       |            |       |
| KFPQWF-5872 | GlobalFiler™                  |            |       |       |            |       |
|             | 14,17.3                       | 17,24      | 14,14 | 15,15 | 11,12      |       |
|             | 10,11                         | 13,15      | 13,16 | 15,21 | 13,13      | 11,12 |
| 1           | 14,15                         | 14,15      | 29,29 | 15,15 | X,X        | 10,12 |
|             | 22.2,26                       |            |       | 15,19 | 6,8        | 8,8   |
|             | 16,19                         |            |       |       |            |       |
| KKHW9X-5872 | PowerPlex® Fusion 5C          |            |       |       |            |       |
|             | 14,17.3                       | 17,24      | 14,14 | 15,15 | 11,12      |       |
|             | 10,11                         | 13,15      | 13,16 | 15,21 | 13,13      | 11,12 |
| 1           | 14,15                         | 14,15      | 29,29 | 15,15 | X,X        | 10,12 |
|             | 22.2,26                       | 11,14      | 5,12  |       | 6,8        | 8,8   |
|             | 16,19                         |            |       |       |            |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 1 - STR Results

|             |                      |            |            |            |            |            |
|-------------|----------------------|------------|------------|------------|------------|------------|
| L2XMK2-5872 | Identifiler®         |            |            |            |            |            |
|             |                      | 17,24      |            | 15,15      | 11,12      |            |
|             | 10,11                | 13,15      |            |            | 13,13      | 11,12      |
| 1           | 14,15                | 14,15      | 29,29      |            | X,X        | 10,12      |
|             | 22.2,26              |            |            |            | 6,8        | 8,8        |
|             | 16,19                |            |            |            |            |            |
| NBJ97Q-5872 | PowerPlex® Fusion 5C |            |            |            |            |            |
|             | 14,17.3              | 17,24      | 14,14      | 15,15      | 11,12      |            |
|             | 10,11                | 13,15      | 13,16      | 15,21      | 13,13      | 11,12      |
| 1           | 14,15                | 14,15      | 29,29      | 15,15      | X,X        | 10,12      |
|             | 22.2,26              | 11,14      | 5,12       |            | 6,8        | 8,8        |
|             | 16,19                |            |            |            |            |            |
| NQDVAV-5872 | GlobalFiler™ Express |            |            |            |            |            |
|             | 14,17.3              | 17,24      | 14         | 15         | 11,12      | -          |
|             | 10,11                | 13,15      | 13,16      | 15,21      | 13         | 11,12      |
| 1           | 14,15                | 14,15      | 29         | 15         | X,X        | 10,12      |
|             | 22.2,26              | -          | -          | 15,19      | 6,8        | 8          |
|             | 16,19                | NM         | -          | -          | NM         |            |
| P2R7J9-5872 | PowerPlex® Fusion 6C |            |            |            |            |            |
|             | 14,17.3              | 17,24      | 14,14      | 15,15      | 11,12      |            |
|             | 10,11                | 13,15      | 13,16      | 15,21      | 13,13      | 11,12      |
| 1           | 14,15                | 14,15      | 29,29      | 15,15      | X,X        | 10,12      |
|             | 22.2,26              | 11,14      | 5,12       | 15,19      | 6,8        | 8,8        |
|             | 16,19                |            |            |            |            |            |
| P99QKY-5872 |                      |            |            |            |            |            |
|             | 14,17.3              | 17,24      | 14,14      | 15,15      | 11,12      |            |
|             | 10,11                | 13,15      | 13,16      | 15,21      | 13,13      | 11,12      |
| 1           | 14,15                | 14,15      | 29,29      | 15,15      | X,X        | 10,12      |
|             | 22.2,26              |            |            | 15,19      | 6,8        | 8,8        |
|             | 16,19                |            |            |            |            |            |
| PMBG2X-5877 | GlobalFiler™         |            |            |            |            |            |
|             | 14,17.3              | 17,24      | 14         | 15         | 11,12      | Not Tested |
|             | 10,11                | 13,15      | 13,16      | 15,21      | 13         | 11,12      |
| 1           | 14,15                | 14,15      | 29         | 15         | X          | 10,12      |
|             | 22.2,26              | Not Tested | Not Tested | 15,19      | 6,8        | 8          |
|             | 16,19                | No Results | Not Tested | Not Tested | No Results |            |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 1 - STR Results

PMD6KW-5872 GlobalFiler™ Express

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14,14 | 15,15 | 11,12 |       |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13,13 | 11,12 |
| 1 | 14,15   | 14,15 | 29,29 | 15,15 | X,X   | 10,12 |
|   | 22.2,26 |       |       | 15,19 | 6,8   | 8,8   |
|   | 16,19   |       |       |       |       |       |

PTVD6M-5872 GlobalFiler™

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14,14 | 15,15 | 11,12 |       |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13,13 | 11,12 |
| 1 | 14,15   | 14,15 | 29,29 | 15,15 | X,X   | 10,12 |
|   | 22.2,26 |       |       | 15,19 | 6,8   | 8,8   |
|   | 16,19   |       |       |       |       |       |

PTX3AK-5877 GlobalFiler™

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14    | 15    | 11,12 |       |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13    | 11,12 |
| 1 | 14,15   | 14,15 | 29    | 15    | X     | 10,12 |
|   | 22.2,26 |       |       | 15,19 | 6,8   | 8     |
|   | 16,19   |       |       |       |       |       |

PU94VJ-5877 GlobalFiler™

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14    | 15    | 11,12 |       |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13    | 11,12 |
| 1 | 14,15   | 14,15 | 29    | 15    | X     | 10,12 |
|   | 22.2,26 |       |       | 15,19 | 6,8   | 8     |
|   | 16,19   |       |       |       |       |       |

QHBLZA-5872 PowerPlex®

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 |       | 15,15 | 11,12 | 11,12 |
|   | 10,11   | 13,15 |       | 15,21 | 13,13 | 11,12 |
| 1 | 14,15   | 14,15 | 29,29 |       | X,X   | 10,12 |
|   | 22.2,26 | 11,14 | 5,12  |       | 6,8   | 8,8   |
|   | 16,19   |       |       |       |       |       |

QV46G2-5872 GlobalFiler™

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14,14 | 15,15 | 11,12 |       |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13,13 | 11,12 |
| 1 | 14,15   | 14,15 | 29,29 | 15,15 | X,X   | 10,12 |
|   | 22.2,26 |       |       | 15,19 | 6,8   | 8,8   |
|   | 16,19   |       |       |       |       |       |



TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 1 - STR Results

QZUGCW-5872 PowerPlex® Fusion

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14    | 15    | 11,12 |       |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13    | 11,12 |
| 1 | 14,15   | 14,15 | 29    | 15    | X     | 10,12 |
|   | 22.2,26 | 11,14 | 5,12  |       | 6,8   | 8     |
|   | 16,19   | NR    |       |       |       |       |

R3EPWH-5872 PowerPlex® Fusion 6C

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14    | 15    | 11,12 |       |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13    | 11,12 |
| 1 | 14,15   | 14,15 | 29    | 15    | X     | 10,12 |
|   | 22.2,26 | 11,14 | 5,12  | 15,19 | 6,8   | 8     |
|   | 16,19   |       |       |       |       |       |

RBTEVQ-5877 GlobalFiler™

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14,14 | 15,15 | 11,12 |       |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13,13 | 11,12 |
| 1 | 14,15   | 14,15 | 29,29 | 15,15 | X,X   | 10,12 |
|   | 22.2,26 |       |       | 15,19 | 6,8   | 8,8   |
|   | 16,19   | F     |       |       | F     |       |

RKEH3P-5872 PowerPlex® Fusion

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14    | 15    | 11,12 |       |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13    | 11,12 |
| 1 | 14,15   | 14,15 | 29    | 15    | X     | 10,12 |
|   | 22.2,26 | 11,14 | 5,12  |       | 6,8   | 8     |
|   | 16,19   |       |       |       |       |       |

TFFNHU-5872 PowerPlex® Fusion 5C

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14    | 15    | 11,12 |       |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13    | 11,12 |
| 1 | 14,15   | 14,15 | 29    | 15    | X     | 10,12 |
|   | 22.2,26 | 11,14 | 5,12  |       | 6,8   | 8     |
|   | 16,19   |       |       |       |       |       |

TNRV34-5872 GlobalFiler™

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14,14 | 15,15 | 11,12 |       |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13,13 | 11,12 |
| 1 | 14,15   | 14,15 | 29,29 | 15,15 | X,X   | 10,12 |
|   | 22.2,26 |       |       | 15,19 | 6,8   | 8,8   |
|   | 16,19   |       |       |       |       |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 1 - STR Results

|             |   |            |       |       |            |       |
|-------------|---|------------|-------|-------|------------|-------|
| TYCCNJ-5877 | GlobalFiler™  |            |       |       |            |       |
|             | 14,17.3   | 17,24      | 14,14 | 15,15 | 11,12      |       |
|             | 10,11   | 13,15      | 13,16 | 15,21 | 13,13      | 11,12 |
| 1           | 14,15   | 14,15      | 29,29 | 15,15 | X,X        | 10,12 |
|             | 22.2,26   |            |       | 15,19 | 6,8        | 8,8   |
|             | 16,19   | No Results |       |       | No Results |       |
| TZ8R32-5872 | GlobalFiler™  |            |       |       |            |       |
|             | 14,17.3   | 17,24      | 14    | 15    | 11,12      |       |
|             | 10,11   | 13,15      | 13,16 | 15,21 | 13         | 11,12 |
| 1           | 14,15   | 14,15      | 29    | 15    | X          | 10,12 |
|             | 22.2,26   |            |       | 15,19 | 6,8        | 8     |
|             | 16,19   |            |       |       |            |       |
| UALBVW-5877 | PowerPlex® 21   |            |       |       |            |       |
|             | 14,17.3   | 17,24      |       | 15    | 11,12      | 11,12 |
|             | 10,11   | 13,15      |       | 15,21 | 13         | 11,12 |
| 1           | 14,15   | 14,15      | 29    |       | X          | 10,12 |
|             | 22.2,26   | 11,14      | 5,12  |       | 6,8        | 8     |
|             | 16,19   |            |       |       |            |       |
| URUYR6-5872 | PowerPlex® 21   |            |       |       |            |       |
|             | 14,17.3   | 17,24      |       | 15,15 | 11,12      | 11,12 |
|             | 10,11   | 13,15      |       | 15,21 | 13,13      | 11,12 |
| 1           | 14,15   | 14,15      | 29,29 |       | X,X        | 10,12 |
|             | 22.2,26   | 11,14      | 5,12  |       | 6,8        | 8,8   |
|             | 16,19   |            |       |       |            |       |
| UZLJPQ-5872 | PowerPlex® FUSION, PowerPlex ESX17, CS7 and Verifiler Plus (FAMILIAS VERSION 3.2.1) |            |       |       |            |       |
|             | 14,17.3   | 17,24      | 14    | 15    | 11,12      | 11,12 |
|             | 10,11   | 13,15      | 13,16 | 15,21 | 13         | 11,12 |
| 1           | 14,15   | 14,15      | 29    | 15    | X          | 10,12 |
|             | 22.2,26   | 11,14      | 5,12  | 15,19 | 6,8        | 8     |
|             | 16,19   |            |       |       |            |       |
| V2BAAV-5877 | ForenSeq Signature Prep - Primer Set B  |            |       |       |            |       |
|             | 14,17.3   | 17,24      | 14    | 15    | 11,12      | 11,12 |
|             | 10,11   | 13,15      | 13,16 | 15,21 | 13         | 11,12 |
| 1           | 14,15   | 14,15      | 29    | 15,*  | X          | 10,12 |
|             | 22.2,26   | 11,14      | 5,12  |       | 6,8        | 8     |
|             | 16,19   | NR         | NR    | NR    |            |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 1 - STR Results

W2RKQF-5872 GlobalFiler™

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14,14 | 15,15 | 11,12 |       |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13,13 | 11,12 |
| 1 | 14,15   | 14,15 | 29,29 | 15,15 | X,X   | 10,12 |
|   | 22.2,26 |       |       | 15,19 | 6,8   | 8,8   |
|   | 16,19   |       |       |       |       |       |

W7GZEM-5872 GlobalFiler™ Express

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14    | 15    | 11,12 |       |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13    | 11,12 |
| 1 | 14,15   | 14,15 | 29    | 15    | X,X   | 10,12 |
|   | 22.2,26 |       |       | 15,19 | 6,8   | 8     |
|   | 16,19   | NM    |       |       | NM    |       |

W7KMRU-5877 GlobalFiler™

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14    | 15    | 11,12 |       |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13    | 11,12 |
| 1 | 14,15   | 14,15 | 29    | 15    | X     | 10,12 |
|   | 22.2,26 |       |       | 15,19 | 6,8   | 8     |
|   | 16,19   | NR    |       |       | NR    |       |

WAKXNU-5877 GlobalFiler™

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14    | 15    | 11,12 |       |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13    | 11,12 |
| 1 | 14,15   | 14,15 | 29    | 15    | X     | 10,12 |
|   | 22.2,26 |       |       | 15,19 | 6,8   | 8     |
|   | 16,19   |       |       |       |       |       |

WRGJ6E-5872 GlobalFiler™

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14,14 | 15,15 | 11,12 |       |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13,13 | 11,12 |
| 1 | 14,15   | 14,15 | 29,29 | 15,15 | X,X   | 10,12 |
|   | 22.2,26 |       |       | 15,19 | 6,8   | 8,8   |
|   | 16,19   |       |       |       |       |       |

WYXW8K-5872 PowerPlex® Fusion 5C

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14    | 15    | 11,12 |       |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13    | 11,12 |
| 1 | 14,15   | 14,15 | 29    | 15    | X     | 10,12 |
|   | 22.2,26 | 11,14 | 5,12  |       | 6,8   | 8     |
|   | 16,19   |       |       |       |       |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 1 - STR Results

XQMVLJ-5872 PowerPlex® Fusion

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14    | 15    | 11,12 |       |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13    | 11,12 |
| 1 | 14,15   | 14,15 | 29    | 15    | X     | 10,12 |
|   | 22.2,26 | 11,14 | 5,12  |       | 6,8   | 8     |
|   | 16,19   |       |       |       |       |       |

XWQWMD-5872 PowerPlex® Fusion 5C

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14    | 15    | 11,12 |       |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13    | 11,12 |
| 1 | 14,15   | 14,15 | 29    | 15    | X     | 10,12 |
|   | 22.2,26 | 11,14 | 5,12  |       | 6,8   | 8     |
|   | 16,19   |       |       |       |       |       |

XWTLQB-5872 PowerPlex® Fusion 5C

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14    | 15    | 11,12 |       |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13    | 11,12 |
| 1 | 14,15   | 14,15 | 29    | 15    | X     | 10,12 |
|   | 22.2,26 | 11,14 | 5,12  |       | 6,8   | 8     |
|   | 16,19   |       |       |       |       |       |

XZQ8HD-5872 PowerPlex® Fusion 6C

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14    | 15    | 11,12 |       |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13    | 11,12 |
| 1 | 14,15   | 14,15 | 29    | 15    | X     | 10,12 |
|   | 22.2,26 | 11,14 | 5,12  | 15,19 | 6,8   | 8     |
|   | 16,19   |       |       |       |       |       |

YA99BR-5872 GlobalFiler™ Express (Familias)

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 | 14    | 15    | 11,12 |       |
|   | 10,11   | 13,15 | 13,16 | 15,21 | 13    | 11,12 |
| 1 | 14,15   | 14,15 | 29    | 15    | X     | 10,12 |
|   | 22.2,26 |       |       | 15,19 | 6,8   | 8     |
|   | 16,19   |       |       |       |       |       |

YGVRZ2-5872 PowerPlex® 21

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 14,17.3 | 17,24 |       | 15,15 | 11,12 | 11,12 |
|   | 10,11   | 13,15 |       | 15,21 | 13,13 | 11,12 |
| 1 | 14,15   | 14,15 | 29,29 |       | X,X   | 10,12 |
|   | 22.2,26 | 11,14 | 5,12  |       | 6,8   | 8,8   |
|   | 16,19   |       |       |       |       |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

Item 1 - STR Results

|             |                   |       |       |       |       |       |
|-------------|-------------------|-------|-------|-------|-------|-------|
| ZEKBY9-5877 | GlobalFiler™      |       |       |       |       |       |
|             | 14,17.3           | 17,24 | 14    | 15    | 11,12 |       |
|             | 10,11             | 13,15 | 13,16 | 15,21 | 13    | 11,12 |
| 1           | 14,15             | 14,15 | 29    | 15    | X     | 10,12 |
|             | 22.2,26           |       |       | 15,19 | 6,8   | 8     |
|             | 16,19             |       |       |       |       |       |
| ZFX3RQ-5872 | PowerPlex® fusion |       |       |       |       |       |
|             | 14,17.3           | 17,24 | 14,14 | 15,15 | 11,12 |       |
|             | 10,11             | 13,15 | 13,16 | 15,21 | 13,13 | 11,12 |
| 1           | 14,15             | 14,15 | 29,29 | 15,15 | X,X   | 10,12 |
|             | 22.2,26           | 11,14 | 5,12  |       | 6,8   | 8,8   |
|             | 16,19             |       |       |       |       |       |
| ZZEH7B-5872 | GlobalFiler™      |       |       |       |       |       |
|             | 14,17.3           | 17,24 | 14,14 | 15,15 | 11,12 |       |
|             | 10,11             | 13,15 | 13,16 | 15,21 | 13,13 | 11,12 |
| 1           | 14,15             | 14,15 | 29,29 | 15,15 | X,X   | 10,12 |
|             | 22.2,26           |       |       | 15,19 | 6,8   | 8,8   |
|             | 16,19             |       |       |       |       |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 2 - STR Results

33G37G-5872 GlobalFiler™ Express

|   |         |       |       |         |       |       |
|---|---------|-------|-------|---------|-------|-------|
|   | 15,17.3 | 17,20 | 10,14 | 15,19   | 11,12 |       |
|   | 11      | 13    | 15,16 | 15,21   | 8,13  | 11,12 |
| 2 | 13,15   | 14    | 29,30 | 15,17   | X,X   | 12    |
|   | 20,26   |       |       | 19,19.2 | 7,8   | 8,11  |
|   | 17,19   | NM    |       |         | NM    |       |

39LYUM-5872 PowerPlex® Fusion 6C, GlobalFiler™, NGM SElect

|   |         |       |       |         |       |       |
|---|---------|-------|-------|---------|-------|-------|
|   | 15,17.3 | 17,20 | 10,14 | 15,19   | 11,12 |       |
|   | 11      | 13    | 15,16 | 15,21   | 8,13  | 11,12 |
| 2 | 13,15   | 14    | 29,30 | 15,17   | X     | 12    |
|   | 20,26   | 9,11  | 5,16  | 19,19.2 | 7,8   | 8,11  |
|   | 17,19   |       |       |         |       |       |

3ECCR6-5877 GlobalFiler™

|   |         |       |       |         |       |       |
|---|---------|-------|-------|---------|-------|-------|
|   | 15,17.3 | 17,20 | 10,14 | 15,19   | 11,12 |       |
|   | 11      | 13    | 15,16 | 15,21   | 8,13  | 11,12 |
| 2 | 13,15   | 14    | 29,30 | 15,17   | X     | 12    |
|   | 20,26   |       |       | 19,19.2 | 7,8   | 8,11  |
|   | 17,19   |       |       |         |       |       |

3F8R7M-5877 PowerPlex® 21

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 15,17.3 | 17,20 |       | 15,19 | 11,12 | 12,20 |
|   | 11      | 13    |       | 15,21 | 8,13  | 11,12 |
| 2 | 13,15   | 14    | 29,30 |       | X     | 12    |
|   | 20,26   | 9,11  | 5,16  |       | 7,8   | 8,11  |
|   | 17,19   |       |       |       |       |       |

3FRDYD-5877 PowerPlex® Fusion 6C

|   |         |       |       |         |       |       |
|---|---------|-------|-------|---------|-------|-------|
|   | 15,17.3 | 17,20 | 10,14 | 15,19   | 11,12 |       |
|   | 11      | 13    | 15,16 | 15,21   | 8,13  | 11,12 |
| 2 | 13,15   | 14    | 29,30 | 15,17   | X     | 12    |
|   | 20,26   | 9,11  | 5,16  | 19,19.2 | 7,8   | 8,11  |
|   | 17,19   |       |       |         |       |       |

3LW7VU-5872 GlobalFiler™

|   |         |       |       |         |       |       |
|---|---------|-------|-------|---------|-------|-------|
|   | 15,17.3 | 17,20 | 10,14 | 15,19   | 11,12 |       |
|   | 11      | 13    | 15,16 | 15,21   | 8,13  | 11,12 |
| 2 | 13,15   | 14    | 29,30 | 15,17   | X     | 12    |
|   | 20,26   |       |       | 19,19.2 | 7,8   | 8,11  |
|   | 17,19   |       |       |         |       |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 2 - STR Results

|             |                         |       |       |         |       |       |
|-------------|-------------------------|-------|-------|---------|-------|-------|
| 3M2YKL-5877 | PowerPlex® Fusion 6C    |       |       |         |       |       |
|             | 15,17.3                 | 17,20 | 10,14 | 15,19   | 11,12 |       |
|             | 11                      | 13    | 15,16 | 15,21   | 8,13  | 11,12 |
| 2           | 13,15                   | 14    | 29,30 | 15,17   | X     | 12    |
|             | 20,26                   | 9,11  | 5,16  | 19,19.2 | 7,8   | 8,11  |
|             | 17,19                   |       |       |         |       |       |
| 3PVM4G-5877 | GlobalFiler™            |       |       |         |       |       |
|             | 15,17.3                 | 17,20 | 10,14 | 15,19   | 11,12 |       |
|             | 11                      | 13    | 15,16 | 15,21   | 8,13  | 11,12 |
| 2           | 13,15                   | 14    | 29,30 | 15,17   | X     | 12    |
|             | 20,26                   |       |       | 19,19.2 | 7,8   | 8,11  |
|             | 17,19                   |       |       |         |       |       |
| 63UDXK-5872 | GlobalFiler™ Express    |       |       |         |       |       |
|             | 15,17.3                 | 17,20 | 10,14 | 15,19   | 11,12 |       |
|             | 11,11                   | 13,13 | 15,16 | 15,21   | 8,13  | 11,12 |
| 2           | 13,15                   | 14,14 | 29,30 | 15,17   | X,X   | 12,12 |
|             | 20,26                   |       |       | 19,19.2 | 7,8   | 8,11  |
|             | 17,19                   |       |       |         |       |       |
| 6CHZCV-5872 | PowerPlex® 21 (Kinship) |       |       |         |       |       |
|             | 15,17.3                 | 17,20 |       | 15,19   | 11,12 | 12,20 |
|             | 11,11                   | 13,13 |       | 15,21   | 8,13  | 11,12 |
| 2           | 13,15                   | 14,14 | 29,30 |         | X,X   | 12,12 |
|             | 20,26                   | 9,11  | 5,16  |         | 7,8   | 8,11  |
|             | 17,19                   |       |       |         |       |       |
| 73W8G7-5872 | PowerPlex® Fusion 6C    |       |       |         |       |       |
|             | 15,17.3                 | 17,20 | 10,14 | 15,19   | 11,12 |       |
|             | 11                      | 13    | 15,16 | 15,21   | 8,13  | 11,12 |
| 2           | 13,15                   | 14    | 29,30 | 15,17   | X     | 12    |
|             | 20,26                   | 9,11  | 5,16  | 19,19.2 | 7,8   | 8,11  |
|             | 17,19                   |       |       |         |       |       |
| 77PJU3-5877 | GlobalFiler™            |       |       |         |       |       |
|             | 15,17.3                 | 17,20 | 10,14 | 15,19   | 11,12 |       |
|             | 11                      | 13    | 15,16 | 15,21   | 8,13  | 11,12 |
| 2           | 13,15                   | 14    | 29,30 | 15,17   | X     | 12    |
|             | 20,26                   |       |       | 19,19.2 | 7,8   | 8,11  |
|             | 17,19                   |       |       |         |       |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 2 - STR Results

786NQE-5872 PowerPlex® Fusion, PP21, ESX17, CS7, Verifiler

|   |         |       |       |         |       |       |
|---|---------|-------|-------|---------|-------|-------|
|   | 15,17.3 | 17,20 | 10,14 | 15,19   | 11,12 | 12,20 |
|   | 11      | 13    | 15,16 | 15,21   | 8,13  | 11,12 |
| 2 | 13,15   | 14    | 29,30 | 15,17   | X     | 12    |
|   | 20,26   | 9,11  | 5,16  | 19,19.2 | 7,8   | 8,11  |
|   | 17,19   |       |       |         |       |       |

7DPWQ-5872 GlobalFiler™

|   |         |       |       |         |       |       |
|---|---------|-------|-------|---------|-------|-------|
|   | 15,17.3 | 17,20 | 10,14 | 15,19   | 11,12 |       |
|   | 11,11   | 13,13 | 15,16 | 15,21   | 8,13  | 11,12 |
| 2 | 13,15   | 14,14 | 29,30 | 15,17   | X,X   | 12,12 |
|   | 20,26   |       |       | 19,19.2 | 7,8   | 8,11  |
|   | 17,19   |       |       |         |       |       |

7F4KV8-5872 Identifiler®, NGMSelect

|   |         |       |       |         |       |       |
|---|---------|-------|-------|---------|-------|-------|
|   | 15,17.3 | 17,20 | 10,14 | 15,19   | 11,12 |       |
|   | 11      | 13    | 15,16 | 15,21   | 8,13  | 11,12 |
| 2 | 13,15   | 14    | 29,30 | 15,17   | X     | 12    |
|   | 20,26   |       |       | 19,19.2 | 7,8   | 8,11  |
|   | 17,19   |       |       |         |       |       |

7PKXQF-5872 GlobalFiler™ Express

|   |         |       |       |         |       |       |
|---|---------|-------|-------|---------|-------|-------|
|   | 15,17.3 | 17,20 | 10,14 | 15,19   | 11,12 |       |
|   | 11      | 13    | 15,16 | 15,21   | 8,13  | 11,12 |
| 2 | 13,15   | 14    | 29,30 | 15,17   | X,X   | 12    |
|   | 20,26   |       |       | 19,19.2 | 7,8   | 8,11  |
|   | 17,19   | NM    |       |         | NM    |       |

84E29B-5872 GlobalFiler™ Express

|   |         |       |       |         |       |       |
|---|---------|-------|-------|---------|-------|-------|
|   | 15,17.3 | 17,20 | 10,14 | 15,19   | 11,12 |       |
|   | 11      | 13    | 15,16 | 15,21   | 8,13  | 11,12 |
| 2 | 13,15   | 14    | 29,30 | 15,17   | X,X   | 12    |
|   | 20,26   |       |       | 19,19.2 | 7,8   | 8,11  |
|   | 17,19   | NM    |       |         | NM    |       |

8D3UK9-5877 PowerPlex® Fusion 6C

|   |         |       |       |         |       |       |
|---|---------|-------|-------|---------|-------|-------|
|   | 15,17.3 | 17,20 | 10,14 | 15,19   | 11,12 |       |
|   | 11      | 13    | 15,16 | 15,21   | 8,13  | 11,12 |
| 2 | 13,15   | 14    | 29,30 | 15,17   | X     | 12    |
|   | 20,26   | 9,11  | 5,16  | 19,19.2 | 7,8   | 8,11  |
|   | 17,19   |       |       |         |       |       |



TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 2 - STR Results

|             |  |       |       |         |       |       |
|-------------|--|-------|-------|---------|-------|-------|
| 8MBE64-5872 | Investigator ESSPlex SE plus           |       |       |         |       |       |
|             | 15,17.3                                | 17,20 | 10,14 | 15,19   |       |       |
|             |  | 13,13 | 15,16 | 15,21   |       | 11,12 |
| 2           | 13,15                                  | 14,14 | 29,30 | 15,17   | X,X   |       |
|             | 20,26                                  |       |       | 19,19.2 | 7,8   |       |
|             | 17,19                                  |       |       |         |       |       |
| 9HTLAG-5877 | Verifiler Plus (GeneMapper ID-X v.1.5) |       |       |         |       |       |
|             | 15,17.3                                | 17,20 | 10,14 | 15,19   | 11,12 | 12,20 |
|             | 11                                     | 13    | 15,16 | 15,21   | 8,13  | 11,12 |
| 2           | 13,15                                  | 14    | 29,30 | 15,17   | X,X   | 12    |
|             | 20,26                                  | 9,11  | 5,16  |         | 7,8   | 8,11  |
|             | 17,19                                  |       |       |         | -     |       |
| 9P9DFV-5877 | PowerPlex® FUSION 5C                   |       |       |         |       |       |
|             | 15,17.3                                | 17,20 | 10,14 | 15,19   | 11,12 |       |
|             | 11,11                                  | 13,13 | 15,16 | 15,21   | 8,13  | 11,12 |
| 2           | 13,15                                  | 14,14 | 29,30 | 15,17   | X,X   | 12,12 |
|             | 20,26                                  | 9,11  | 5,16  |         | 7,8   | 8,11  |
|             | 17,19                                  |       |       |         |       |       |
| 9QBQKP-5872 | PowerPlex® Fusion 6C                   |       |       |         |       |       |
|             | 15,17.3                                | 17,20 | 10,14 | 15,19   | 11,12 |       |
|             | 11,11                                  | 13,13 | 15,16 | 15,21   | 8,13  | 11,12 |
| 2           | 13,15                                  | 14,14 | 29,30 | 15,17   | X,X   | 12,12 |
|             | 20,26                                  | 9,11  | 5,16  | 19,19.2 | 7,8   | 8,11  |
|             | 17,19                                  |       |       |         |       |       |
| AFLNDE-5877 | PowerPlex® 5C                          |       |       |         |       |       |
|             | 15,17.3                                | 17,20 | 10,14 | 15,19   | 11,12 | --    |
|             | 11                                     | 13    | 15,16 | 15,21   | 8,13  | 11,12 |
| 2           | 13,15                                  | 14    | 29,30 | 15,17   | X     | 12    |
|             | 20,26                                  | 9,11  | 5,16  | --      | 7,8   | 8,11  |
|             | 17,19                                  |       | --    | --      | --    |       |
| AJHDUL-5877 | PowerPlex® Fusion6C                    |       |       |         |       |       |
|             | 15,17.3                                | 17,20 | 10,14 | 15,19   | 11,12 |       |
|             | 11,11                                  | 13,13 | 15,16 | 15,21   | 8,13  | 11,12 |
| 2           | 13,15                                  | 14,14 | 29,30 | 15,17   | X,X   | 12,12 |
|             | 20,26                                  | 9,11  | 5,16  | 19,19.2 | 7,8   | 8,11  |
|             | 17,19                                  |       |       |         |       |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 2 - STR Results

|             |                                 |           |       |         |           |       |
|-------------|---------------------------------|-----------|-------|---------|-----------|-------|
| ARWY24-5872 | GlobalFiler™                    |           |       |         |           |       |
|             | 15,17.3                         | 17,20     | 10,14 | 15,19   | 11,12     |       |
|             | 11                              | 13        | 15,16 | 15,21   | 8,13      | 11,12 |
| 2           | 13,15                           | 14        | 29,30 | 15,17   | X         | 12    |
|             | 20,26                           |           |       | 19,19.2 | 7,8       | 8,11  |
|             | 17,19                           |           |       |         |           |       |
| ATTEFL-5877 | Identifiler®                    |           |       |         |           |       |
|             |                                 | 17,20     |       | 15,19   | 11,12     |       |
|             | 11                              | 13        |       |         | 8,13      | 11,12 |
| 2           | 13,15                           | 14        | 29,30 |         | X,X       | 12    |
|             | 20,26                           |           |       |         | 7,8       | 8,11  |
|             | 17,19                           |           |       |         |           |       |
| BQVKU2-5877 | GlobalFiler™, MiniFiler         |           |       |         |           |       |
|             | 15,17.3                         | 17,20     | 10,14 | 15,19   | 11,12     |       |
|             | 11,11                           | 13,13     | 15,16 | 15,21   | 8,13      | 11,12 |
| 2           | 13,15                           | 14,14     | 29,30 | 15,17   | X,X       | 12,12 |
|             | 20,26                           |           |       | 19,19.2 | 7,8       | 8,11  |
|             | 17,19                           | No result |       |         | No result |       |
| BQZZ9N-5872 | GlobalFiler™ express            |           |       |         |           |       |
|             | 15,17.3                         | 17,20     | 10,14 | 15,19   | 11,12     |       |
|             | 11                              | 13        | 15,16 | 15,21   | 8,13      | 11,12 |
| 2           | 13,15                           | 14        | 29,30 | 15,17   | X         | 12    |
|             | 20,26                           |           |       | 19,19.2 | 7,8       | 8,11  |
|             | 17,19                           | NR        |       |         | NR        |       |
| C8ZC9C-5877 | PowerPlex® Fusion 6C            |           |       |         |           |       |
|             | 15,17.3                         | 17,20     | 10,14 | 15,19   | 11,12     |       |
|             | 11                              | 13        | 15,16 | 15,21   | 8,13      | 11,12 |
| 2           | 13,15                           | 14        | 29,30 | 15,17   | X         | 12    |
|             | 20,26                           | 9,11      | 5,16  | 19,19.2 | 7,8       | 8,11  |
|             | 17,19                           |           |       |         |           |       |
| CV64QA-5872 | PowerPlex® Fusion, GlobalFiler™ |           |       |         |           |       |
|             | 15,17.3                         | 17,20     | 10,14 | 15,19   | 11,12     |       |
|             | 11,11                           | 13,13     | 15,16 | 15,21   | 8,13      | 11,12 |
| 2           | 13,15                           | 14,14     | 29,30 | 15,17   | X,X       | 12,12 |
|             | 20,26                           | 9,11      | 5,16  | 19,19.2 | 7,8       | 8,11  |
|             | 17,19                           |           |       |         |           |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 2 - STR Results

DTFCVH-5877 PowerPlex® Fusion (Gene Analysen)

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 15,17.3 | 17,20 | 10,14 | 15,19 | 11,12 |       |
|   | 11      | 13    | 15,16 | 15,21 | 8,13  | 11,12 |
| 2 | 13,15   | 14    | 29,30 |       | X     | 12    |
|   | 20,26   | 9,11  | 5,16  |       | 7,8   | 8,11  |
|   | 17,19   |       |       |       |       |       |

DUAZED-5877 Fusion 6C

|   |         |       |       |         |       |       |
|---|---------|-------|-------|---------|-------|-------|
|   | 15,17.3 | 17,20 | 10,14 | 15,19   | 11,12 |       |
|   | 11      | 13    | 15,16 | 15,21   | 8,13  | 11,12 |
| 2 | 13,15   | 14    | 29,30 | 15,17   | X     | 12    |
|   | 20,26   | 9,11  | 5,16  | 19,19.2 | 7,8   | 8,11  |
|   | 17,19   |       |       |         |       |       |

EAH9U8-5872 Verifiler

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 15,17.3 | 17,20 | 10,14 | 15,19 | 11,12 | 12,20 |
|   | 11,11   | 13,13 | 15,16 | 15,21 | 8,13  | 11,12 |
| 2 | 13,15   | 14,14 | 29,30 | 15,17 | X,X   | 12,12 |
|   | 20,26   | 9,11  | 5,16  |       | 7,8   | 8,11  |
|   | 17,19   |       |       |       |       |       |

EBAAT4-5877 GlobalFiler™

|   |         |       |       |         |       |       |
|---|---------|-------|-------|---------|-------|-------|
|   | 15,17.3 | 17,20 | 10,14 | 15,19   | 11,12 |       |
|   | 11      | 13    | 15,16 | 15,21   | 8,13  | 11,12 |
| 2 | 13,15   | 14    | 29,30 | 15,17   | X,X   | 12    |
|   | 20,26   |       |       | 19,19.2 | 7,8   | 8,11  |
|   | 17,19   |       |       |         |       |       |

ENJRPD-5877 GlobalFiler™

|   |         |            |       |         |            |       |
|---|---------|------------|-------|---------|------------|-------|
|   | 15,17.3 | {17,20}    | 10,14 | 15,19   | 11,12      |       |
|   | 11      | 13         | 15,16 | 15,21   | 8,13       | 11,12 |
| 2 | 13,15   | 14         | 29,30 | 15,17   | X          | 12    |
|   | 20,26   |            |       | 19,19.2 | 7,8        | 8,11  |
|   | 17,19   | No Results |       |         | No Results |       |

ERKVGZ-5872 GlobalFiler™

|   |         |              |       |         |              |       |
|---|---------|--------------|-------|---------|--------------|-------|
|   | 15,17.3 | 17,20        | 10,14 | 15,19   | 11,12        |       |
|   | 11,11   | 13,13        | 15,16 | 15,21   | 8,13         | 11,12 |
| 2 | 13,15   | 14,14        | 29,30 | 15,17   | X,X          | 12,12 |
|   | 20,26   |              |       | 19,19.2 | 7,8          | 8,11  |
|   | 17,19   | Not detected |       |         | Not detected |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 2 - STR Results

|             |                      |            |       |         |            |       |
|-------------|----------------------|------------|-------|---------|------------|-------|
| F87XDU-5872 | PowerPlex® Fusion 6C |            |       |         |            |       |
|             | 15,17.3              | 17,20      | 10,14 | 15,19   | 11,12      |       |
|             | 11,11                | 13,13      | 15,16 | 15,21   | 8,13       | 11,12 |
| 2           | 13,15                | 14,14      | 29,30 | 15,17   | X,X        | 12,12 |
|             | 20,26                | 9,11       | 5,16  | 19,19.2 | 7,8        | 8,11  |
|             | 17,19                |            |       |         |            |       |
| FDVD22-5872 | PowerPlex® Fusion    |            |       |         |            |       |
|             | 15,17.3              | 17,20      | 10,14 | 15,19   | 11,12      |       |
|             | 11                   | 13         | 15,16 | 15,21   | 8,13       | 11,12 |
| 2           | 13,15                | 14         | 29,30 | 15,17   | X          | 12    |
|             | 20,26                | 9,11       | 5,16  |         | 7,8        | 8,11  |
|             | 17,19                |            |       |         |            |       |
| FDX37Y-5877 | GlobalFiler™         |            |       |         |            |       |
|             | 15,17.3              | 17,20      | 10,14 | 15,19   | 11,12      |       |
|             | 11,11                | 13,13      | 15,16 | 15,21   | 8,13       | 11,12 |
| 2           | 13,15                | 14,14      | 29,30 | 15,17   | X,X        | 12,12 |
|             | 20,26                |            |       | 19,19.2 | 7,8        | 8,11  |
|             | 17,19                | no results |       |         | no results |       |
| G48YJG-5872 | PowerPlex® Fusion 6C |            |       |         |            |       |
|             | 15,17.3              | 17,20      | 10,14 | 15,19   | 11,12      |       |
|             | 11,11                | 13,13      | 15,16 | 15,21   | 8,13       | 11,12 |
| 2           | 13,15                | 14,14      | 29,30 | 15,17   | X,X        | 12,12 |
|             | 20,26                | 9,11       | 5,16  | 19,19.2 | 7,8        | 8,11  |
|             | 17,19                |            |       |         |            |       |
| GDT3MA-5872 | PowerPlex® Fusion 6C |            |       |         |            |       |
|             | 15,17.3              | 17,20      | 10,14 | 15,19   | 11,12      |       |
|             | 11                   | 13         | 15,16 | 15,21   | 8,13       | 11,12 |
| 2           | 13,15                | 14         | 29,30 | 15,17   | X,X        | 12    |
|             | 20,26                | 9,11       | 5,16  | 19,19.2 | 7,8        | 8,11  |
|             | 17,19                | -          | -     | -       |            |       |
| GU22R8-5877 | Identifiler® Plus    |            |       |         |            |       |
|             |                      | 17,20      |       | 15,19   | 11,12      |       |
|             | 11,11                | 13,13      |       |         | 8,13       | 11,12 |
| 2           | 13,15                | 14,14      | 29,30 |         | X,X        | 12,12 |
|             | 20,26                |            |       |         | 7,8        | 8,11  |
|             | 17,19                |            |       |         |            |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 2 - STR Results

|                                  |         |              |       |         |       |       |
|----------------------------------|---------|--------------|-------|---------|-------|-------|
| GW36G9-5872 GlobalFiler™         |         |              |       |         |       |       |
|                                  | 15,17.3 | 17,20        | 10,14 | 15,19   | 11,12 |       |
|                                  | 11,11   | 13,13        | 15,16 | 15,21   | 8,13  | 11,12 |
| 2                                | 13,15   | 14,14        | 29,30 | 15,17   | X,X   | 12,12 |
|                                  | 20,26   |              |       | 19,19.2 | 7,8   | 8,11  |
|                                  | 17,19   | /            | /     | /       | /     |       |
| H9TEJ8-5872 GlobalFiler™ Express |         |              |       |         |       |       |
|                                  | 15,17.3 | 17,20        | 10,14 | 15,19   | 11,12 |       |
|                                  | 11,11   | 13,13        | 15,16 | 15,21   | 8,13  | 11,12 |
| 2                                | 13,15   | 14,14        | 29,30 | 15,17   | X,X   | 12,12 |
|                                  | 20,26   |              |       | 19,19.2 | 7,8   | 8,11  |
|                                  | 17,19   | 0            |       |         | 0     |       |
| HFE6AA-5872 GlobalFiler™         |         |              |       |         |       |       |
|                                  | 15,17.3 | 17,20        | 10,14 | 15,19   | 11,12 |       |
|                                  | 11,11   | 13,13        | 15,16 | 15,21   | 8,13  | 11,12 |
| 2                                | 13,15   | 14,14        | 29,30 | 15,17   | X,X   | 12,12 |
|                                  | 20,26   |              |       | 19,19.2 | 7,8   | 8,11  |
|                                  | 17,19   |              |       |         |       |       |
| HWYZF6-5877 GlobalFiler™ IQC     |         |              |       |         |       |       |
|                                  | 15,17.3 | 17,20        | 10,14 | 15,19   | 11,12 |       |
|                                  | 11,11   | 13,13        | 15,16 | 15,21   | 8,13  | 11,12 |
| 2                                | 13,15   | 14,14        | 29,30 | 15,17   | X,X   | 12,12 |
|                                  | 20,26   |              |       | 19,19.2 | 7,8   | 8,11  |
|                                  | 17,19   |              |       |         |       |       |
| J2C32Z-5872 PowerPlex® Fusion 5C |         |              |       |         |       |       |
|                                  | 15,17.3 | 17,20        | 10,14 | 15,19   | 11,12 |       |
|                                  | 11      | 13           | 15,16 | 15,21   | 8,13  | 11,12 |
| 2                                | 13,15   | 14           | 29,30 | 15,17   | X     | 12    |
|                                  | 20,26   | 9,11         | 5,16  |         | 7,8   | 8,11  |
|                                  | 17,19   | Inconclusive |       |         |       |       |
| JHJYKY-5877 GlobalFiler™         |         |              |       |         |       |       |
|                                  | 15,17.3 | 17,20        | 10,14 | 15,19   | 11,12 |       |
|                                  | 11      | 13           | 15,16 | 15,21   | 8,13  | 11,12 |
| 2                                | 13,15   | 14           | 29,30 | 15,17   | X,X   | 12    |
|                                  | 20,26   |              |       | 19,19.2 | 7,8   | 8,11  |
|                                  | 17,19   |              |       |         |       |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 2 - STR Results

|             |                               |            |       |         |            |       |
|-------------|-------------------------------|------------|-------|---------|------------|-------|
| JLGFXT-5877 | GlobalFiler™                  |            |       |         |            |       |
|             | 15,17.3                       | 17,20      | 10,14 | 15,19   | 11,12      |       |
|             | 11,11                         | 13,13      | 15,16 | 15,21   | 8,13       | 11,12 |
| 2           | 13,15                         | 14,14      | 29,30 | 15,17   | X,X        | 12,12 |
|             | 20,26                         |            |       | 19,19.2 | 7,8        | 8,11  |
|             | 17,19                         | no results |       |         | no results |       |
| K4UEK3-5872 | PowerPlex® FUSION 6C (MFYSIS) |            |       |         |            |       |
|             | 15,17.3                       | 17,20      | 10,14 | 15,19   | 11,12      |       |
|             | 11,11                         | 13,13      | 15,16 | 15,21   | 8,13       | 11,12 |
| 2           | 13,15                         | 14,14      | 29,30 | 15,17   | X,X        | 12,12 |
|             | 20,26                         | 9,11       | 5,16  | 19,19.2 | 7,8        | 8,11  |
|             | 17,19                         |            |       |         |            |       |
| K8WKWM-5872 | PowerPlex® Fusion             |            |       |         |            |       |
|             | 15,17.3                       | 17,20      | 10,14 | 15,19   | 11,12      |       |
|             | 11                            | 13         | 15,16 | 15,21   | 8,13       | 11,12 |
| 2           | 13,15                         | 14         | 29,30 | 15,17   | X          | 12    |
|             | 20,26                         | 9,11       | 5,16  |         | 7,8        | 8,11  |
|             | 17,19                         |            |       |         |            |       |
| K9R2B7-5872 | PowerPlex® Fusion             |            |       |         |            |       |
|             | 15,17.3                       | 17,20      | 10,14 | 15,19   | 11,12      |       |
|             | 11                            | 13         | 15,16 | 15,21   | 8,13       | 11,12 |
| 2           | 13,15                         | 14         | 29,30 | 15,17   | X          | 12    |
|             | 20,26                         | 9,11       | 5,16  |         | 7,8        | 8,11  |
|             | 17,19                         | NR         |       |         |            |       |
| KFPQWF-5872 |                               |            |       |         |            |       |
|             | 15,17.3                       | 17,20      | 10,14 | 15,19   | 11,12      |       |
|             | 11,11                         | 13,13      | 15,16 | 15,21   | 8,13       | 11,12 |
| 2           | 13,15                         | 14,14      | 29,30 | 15,17   | X,X        | 12,12 |
|             | 20,26                         |            |       | 19,19.2 | 7,8        | 8,11  |
|             | 17,19                         |            |       |         |            |       |
| KKHW9X-5872 | PowerPlex® Fusion 5C          |            |       |         |            |       |
|             | 15,17.3                       | 17,20      | 10,14 | 15,19   | 11,12      |       |
|             | 11,11                         | 13,13      | 15,16 | 15,21   | 8,13       | 11,12 |
| 2           | 13,15                         | 14,14      | 29,30 | 15,17   | X,X        | 12,12 |
|             | 20,26                         | 9,11       | 5,16  |         | 7,8        | 8,11  |
|             | 17,19                         |            |       |         |            |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 2 - STR Results

|             |                      |         |            |            |            |            |
|-------------|----------------------|---------|------------|------------|------------|------------|
| L2XMK2-5872 | Identifiler®         |         |            |            |            |            |
|             |                      | 17,20   |            | 15,19      | 11,12      |            |
|             |                      | 11,11   | 13,13      |            | 8,13       | 11,12      |
| 2           |                      | 13,15   | 14,14      | 29,30      | X,X        | 12,12      |
|             |                      | 20,26   |            |            | 7,8        | 8,11       |
|             |                      | 17,19   |            |            |            |            |
| NBJ97Q-5872 | PowerPlex® Fusion 5C |         |            |            |            |            |
|             |                      | 15,17.3 | 17,20      | 10,14      | 15,19      | 11,12      |
|             |                      | 11,11   | 13,13      | 15,16      | 15,21      | 8,13       |
| 2           |                      | 13,15   | 14,14      | 29,30      | 15,17      | X,X        |
|             |                      | 20,26   | 9,11       | 5,16       | 7,8        | 8,11       |
|             |                      | 17,19   |            |            |            |            |
| NQDVAW-5872 | GlobalFiler™ Express |         |            |            |            |            |
|             |                      | 15,17.3 | 17,20      | 10,14      | 15,19      | 11,12      |
|             |                      | 11      | 13         | 15,16      | 15,21      | 8,13       |
| 2           |                      | 13,15   | 14         | 29,30      | 15,17      | X,X        |
|             |                      | 20,26   | -          | -          | 19,19.2    | 7,8        |
|             |                      | 17,19   | NM         | -          | -          | NM         |
| P2R7J9-5872 | PowerPlex® Fusion 6C |         |            |            |            |            |
|             |                      | 15,17.3 | 17,20      | 10,14      | 15,19      | 11,12      |
|             |                      | 11,11   | 13,13      | 15,16      | 15,21      | 8,13       |
| 2           |                      | 13,15   | 14,14      | 29,30      | 15,17      | X,X        |
|             |                      | 20,26   | 9,11       | 5,16       | 19,19.2    | 7,8        |
|             |                      | 17,19   |            |            |            | 8,11       |
| P99QKY-5872 |                      |         |            |            |            |            |
|             |                      | 15,17.3 | 17,20      | 10,14      | 15,19      | 11,12      |
|             |                      | 11,11   | 13,13      | 15,16      | 15,21      | 8,13       |
| 2           |                      | 13,15   | 14,14      | 29,30      | 15,17      | X,X        |
|             |                      | 20,26   |            |            | 19,19.2    | 7,8        |
|             |                      | 17,19   |            |            |            | 8,11       |
| PMBG2X-5877 | GlobalFiler™         |         |            |            |            |            |
|             |                      | 15,17.3 | 17,20      | 10,14      | 15,19      | 11,12      |
|             |                      | 11      | 13         | 15,16      | 15,21      | 8,13       |
| 2           |                      | 13,15   | 14         | 29,30      | 15,17      | X          |
|             |                      | 20,26   | Not Tested | Not Tested | 19,19.2    | 7,8        |
|             |                      | 17,19   | No Results | Not Tested | Not Tested | No Results |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 2 - STR Results

PMD6KW-5872 GlobalFiler™ Express

|   |         |       |       |         |       |       |
|---|---------|-------|-------|---------|-------|-------|
|   | 15,17.3 | 17,20 | 10,14 | 15,19   | 11,12 |       |
|   | 11,11   | 13,13 | 15,16 | 15,21   | 8,13  | 11,12 |
| 2 | 13,15   | 14,14 | 29,30 | 15,17   | X,X   | 12,12 |
|   | 20,26   |       |       | 19,19.2 | 7,8   | 8,11  |
|   | 17,19   |       |       |         |       |       |

PTVD6M-5872 GlobalFiler™

|   |         |       |       |         |       |       |
|---|---------|-------|-------|---------|-------|-------|
|   | 15,17.3 | 17,20 | 10,14 | 15,19   | 11,12 |       |
|   | 11,11   | 13,13 | 15,16 | 15,21   | 8,13  | 11,12 |
| 2 | 13,15   | 14,14 | 29,30 | 15,17   | X,X   | 12,12 |
|   | 20,26   |       |       | 19,19.2 | 7,8   | 8,11  |
|   | 17,19   |       |       |         |       |       |

PTX3AK-5877 GlobalFiler™

|   |         |       |       |         |       |       |
|---|---------|-------|-------|---------|-------|-------|
|   | 15,17.3 | 17,20 | 10,14 | 15,19   | 11,12 |       |
|   | 11      | 13    | 15,16 | 15,21   | 8,13  | 11,12 |
| 2 | 13,15   | 14    | 29,30 | 15,17   | X     | 12    |
|   | 20,26   |       |       | 19,19.2 | 7,8   | 8,11  |
|   | 17,19   |       |       |         |       |       |

PU94VJ-5877 GlobalFiler™

|   |         |       |       |         |       |       |
|---|---------|-------|-------|---------|-------|-------|
|   | 15,17.3 | 17,20 | 10,14 | 15,19   | 11,12 |       |
|   | 11      | 13    | 15,16 | 15,21   | 8,13  | 11,12 |
| 2 | 13,15   | 14    | 29,30 | 15,17   | X     | 12    |
|   | 20,26   |       |       | 19,19.2 | 7,8   | 8,11  |
|   | 17,19   |       |       |         |       |       |

QHBLZA-5872 PowerPlex®

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 15,17.3 | 17,20 |       | 15,19 | 11,12 | 12,20 |
|   | 11,11   | 13,13 |       | 15,21 | 8,13  | 11,12 |
| 2 | 13,15   | 14,14 | 29,30 |       | X,X   | 12,12 |
|   | 20,26   | 9,11  | 5,16  |       | 7,8   | 8,11  |
|   | 17,19   |       |       |       |       |       |

QV46G2-5872 GlobalFiler™

|   |         |       |       |         |       |       |
|---|---------|-------|-------|---------|-------|-------|
|   | 15,17.3 | 17,20 | 10,14 | 15,19   | 11,12 |       |
|   | 11,11   | 13,13 | 15,16 | 15,21   | 8,13  | 11,12 |
| 2 | 13,15   | 14,14 | 29,30 | 15,17   | X,X   | 12,12 |
|   | 20,26   |       |       | 19,19.2 | 7,8   | 8,11  |
|   | 17,19   |       |       |         |       |       |



TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 2 - STR Results

QZUGCW-5872 PowerPlex® Fusion

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 15,17.3 | 17,20 | 10,14 | 15,19 | 11,12 |       |
|   | 11      | 13    | 15,16 | 15,21 | 8,13  | 11,12 |
| 2 | 13,15   | 14    | 29,30 | 15,17 | X     | 12    |
|   | 20,26   | 9,11  | 5,16  |       | 7,8   | 8,11  |
|   | 17,19   | NR    |       |       |       |       |

R3EPWH-5872 PowerPlex® Fusion 6C

|   |         |       |       |         |       |       |
|---|---------|-------|-------|---------|-------|-------|
|   | 15,17.3 | 17,20 | 10,14 | 15,19   | 11,12 |       |
|   | 11      | 13    | 15,16 | 15,21   | 8,13  | 11,12 |
| 2 | 13,15   | 14    | 29,30 | 15,17   | X     | 12    |
|   | 20,26   | 9,11  | 5,16  | 19,19.2 | 7,8   | 8,11  |
|   | 17,19   |       |       |         |       |       |

RBTEVQ-5877 GlobalFiler™

|   |         |       |       |         |       |       |
|---|---------|-------|-------|---------|-------|-------|
|   | 15,17.3 | 17,20 | 10,14 | 15,19   | 11,12 |       |
|   | 11,11   | 13,13 | 15,16 | 15,21   | 8,13  | 11,12 |
| 2 | 13,15   | 14,14 | 29,30 | 15,17   | X,X   | 12,12 |
|   | 20,26   |       |       | 19,19.2 | 7,8   | 8,11  |
|   | 17,19   | F     |       |         | F     |       |

RKEH3P-5872 PowerPlex® Fusion

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 15,17.3 | 17,20 | 10,14 | 15,19 | 11,12 |       |
|   | 11      | 13    | 15,16 | 15,21 | 8,13  | 11,12 |
| 2 | 13,15   | 14    | 29,30 | 15,17 | X     | 12    |
|   | 20,26   | 9,11  | 5,16  |       | 7,8   | 8,11  |
|   | 17,19   |       |       |       |       |       |

TFFNHU-5872 PowerPlex® Fusion 5C

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 15,17.3 | 17,20 | 10,14 | 15,19 | 11,12 |       |
|   | 11      | 13    | 15,16 | 15,21 | 8,13  | 11,12 |
| 2 | 13,15   | 14    | 29,30 | 15,17 | X     | 12    |
|   | 20,26   | 9,11  | 5,16  |       | 7,8   | 8,11  |
|   | 17,19   |       |       |       |       |       |

TNRV34-5872 GlobalFiler™

|   |         |       |       |         |       |       |
|---|---------|-------|-------|---------|-------|-------|
|   | 15,17.3 | 17,20 | 10,14 | 15,19   | 11,12 |       |
|   | 11,11   | 13,13 | 15,16 | 15,21   | 8,13  | 11,12 |
| 2 | 13,15   | 14,14 | 29,30 | 15,17   | X,X   | 12,12 |
|   | 20,26   |       |       | 19,19.2 | 7,8   | 8,11  |
|   | 17,19   |       |       |         |       |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 2 - STR Results

|             |   |            |       |         |            |       |
|-------------|---|------------|-------|---------|------------|-------|
| TYCCNJ-5877 | GlobalFiler™  |            |       |         |            |       |
|             | 15,17.3   | 17,20      | 10,14 | 15,19   | 11,12      |       |
|             | 11,11   | 13,13      | 15,16 | 15,21   | 8,13       | 11,12 |
| 2           | 13,15   | 14,14      | 29,30 | 15,17   | X,X        | 12,12 |
|             | 20,26   |            |       | 19,19.2 | 7,8        | 8,11  |
|             | 17,19   | No Results |       |         | No Results |       |
| TZ8R32-5872 | GlobalFiler™  |            |       |         |            |       |
|             | 15,17.3   | 17,20      | 10,14 | 15,19   | 11,12      |       |
|             | 11  | 13         | 15,16 | 15,21   | 8,13       | 11,12 |
| 2           | 13,15   | 14         | 29,30 | 15,17   | X          | 12    |
|             | 20,26   |            |       | 19,19.2 | 7,8        | 8,11  |
|             | 17,19   |            |       |         |            |       |
| UALBVW-5877 | PowerPlex® 21   |            |       |         |            |       |
|             | 15,17.3   | 17,20      |       | 15,19   | 11,12      | 12,20 |
|             | 11  | 13         |       | 15,21   | 8,13       | 11,12 |
| 2           | 13,15   | 14         | 29,30 |         | X          | 12    |
|             | 20,26   | 9,11       | 5,16  |         | 7,8        | 8,11  |
|             | 17,19   |            |       |         |            |       |
| URUYR6-5872 | PowerPlex® 21   |            |       |         |            |       |
|             | 15,17.3   | 17,20      |       | 15,19   | 11,12      | 12,20 |
|             | 11,11   | 13,13      |       | 15,21   | 8,13       | 11,12 |
| 2           | 13,15   | 14,14      | 29,30 |         | X,X        | 12,12 |
|             | 20,26   | 9,11       | 5,16  |         | 7,8        | 8,11  |
|             | 17,19   |            |       |         |            |       |
| UZLJPQ-5872 | PowerPlex® FUSION, PowerPlex ESX17, CS7 and Verifiler Plus (FAMILIAS 3.2.1) |            |       |         |            |       |
|             | 15,17.3   | 17,20      | 10,14 | 15,19   | 11,12      | 12,20 |
|             | 11  | 13         | 15,16 | 15,21   | 8,13       | 11,12 |
| 2           | 13,15   | 14         | 29,30 | 15,17   | X          | 12    |
|             | 20,26   | 9,11       | 5,16  | 19,19.2 | 7,8        | 8,11  |
|             | 17,19   |            |       |         |            |       |
| V2BAAV-5877 | ForenSeq Signature Prep - Primer Set B                                      |            |       |         |            |       |
|             | 15,17.3   | 17,20      | 10,14 | 15,19   | 11,12      | 12,20 |
|             | 11  | 13         | 15,16 | 15,21   | 8,13       | 11,12 |
| 2           | 13,15   | 14         | 29,30 | 15,17   | X          | 12    |
|             | 20,26   | 9,11       | 5,16  |         | 7,8        | 8,11  |
|             | 17,19   | NR         | NR    | 18      |            |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 2 - STR Results

W2RKQF-5872 GlobalFiler™

|   |         |       |       |         |       |       |
|---|---------|-------|-------|---------|-------|-------|
|   | 15,17.3 | 17,20 | 10,14 | 15,19   | 11,12 |       |
|   | 11,11   | 13,13 | 15,16 | 15,21   | 8,13  | 11,12 |
| 2 | 13,15   | 14,14 | 29,30 | 15,17   | X,X   | 12,12 |
|   | 20,26   |       |       | 19,19.2 | 7,8   | 8,11  |
|   | 17,19   |       |       |         |       |       |

W7GZEM-5872 GlobalFiler™ Express

|   |         |       |       |         |       |       |
|---|---------|-------|-------|---------|-------|-------|
|   | 15,17.3 | 17,20 | 10,14 | 15,19   | 11,12 |       |
|   | 11      | 13    | 15,16 | 15,21   | 8,13  | 11,12 |
| 2 | 13,15   | 14    | 29,30 | 15,17   | X,X   | 12    |
|   | 20,26   |       |       | 19,19.2 | 7,8   | 8,11  |
|   | 17,19   | NM    |       |         | NM    |       |

W7KMRU-5877 GlobalFiler™

|   |         |       |       |         |       |       |
|---|---------|-------|-------|---------|-------|-------|
|   | 15,17.3 | 17,20 | 10,14 | 15,19   | 11,12 |       |
|   | 11      | 13    | 15,16 | 15,21   | 8,13  | 11,12 |
| 2 | 13,15   | 14    | 29,30 | 15,17   | X     | 12    |
|   | 20,26   |       |       | 19,19.2 | 7,8   | 8,11  |
|   | 17,19   | NR    |       |         | NR    |       |

WAKXNU-5877 GlobalFiler™

|   |         |       |       |         |       |       |
|---|---------|-------|-------|---------|-------|-------|
|   | 15,17.3 | 17,20 | 10,14 | 15,19   | 11,12 |       |
|   | 11      | 13    | 15,16 | 15,21   | 8,13  | 11,12 |
| 2 | 13,15   | 14    | 29,30 | 15,17   | X     | 12    |
|   | 20,26   |       |       | 19,19.2 | 7,8   | 8,11  |
|   | 17,19   |       |       |         |       |       |

WRGJ6E-5872 GlobalFiler™

|   |         |       |       |         |       |       |
|---|---------|-------|-------|---------|-------|-------|
|   | 15,17.3 | 17,20 | 10,14 | 15,19   | 11,12 |       |
|   | 11,11   | 13,13 | 15,16 | 15,21   | 8,13  | 11,12 |
| 2 | 13,15   | 14,14 | 29,30 | 15,17   | X,X   | 12,12 |
|   | 20,26   |       |       | 19,19.2 | 7,8   | 8,11  |
|   | 17,19   |       |       |         |       |       |

WYXW8K-5872 PowerPlex® Fusion 5C

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 15,17.3 | 17,20 | 10,14 | 15,19 | 11,12 |       |
|   | 11      | 13    | 15,16 | 15,21 | 8,13  | 11,12 |
| 2 | 13,15   | 14    | 29,30 | 15,17 | X     | 12    |
|   | 20,26   | 9,11  | 5,16  |       | 7,8   | 8,11  |
|   | 17,19   |       |       |       |       |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 2 - STR Results

XQMVLJ-5872 PowerPlex® Fusion

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 15,17.3 | 17,20 | 10,14 | 15,19 | 11,12 |       |
|   | 11      | 13    | 15,16 | 15,21 | 8,13  | 11,12 |
| 2 | 13,15   | 14    | 29,30 | 15,17 | X     | 12    |
|   | 20,26   | 9,11  | 5,16  |       | 7,8   | 8,11  |
|   | 17,19   |       |       |       |       |       |

XWQWMD-5872 PowerPlex® Fusion 5C

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 15,17.3 | 17,20 | 10,14 | 15,19 | 11,12 |       |
|   | 11      | 13    | 15,16 | 15,21 | 8,13  | 11,12 |
| 2 | 13,15   | 14    | 29,30 | 15,17 | X     | 12    |
|   | 20,26   | 9,11  | 5,16  |       | 7,8   | 8,11  |
|   | 17,19   |       |       |       |       |       |

XWTLQB-5872 PowerPlex® Fusion 5C

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 15,17.3 | 17,20 | 10,14 | 15,19 | 11,12 |       |
|   | 11      | 13    | 15,16 | 15,21 | 8,13  | 11,12 |
| 2 | 13,15   | 14    | 29,30 | 15,17 | X     | 12    |
|   | 20,26   | 9,11  | 5,16  |       | 7,8   | 8,11  |
|   | 17,19   |       |       |       |       |       |

XZQ8HD-5872 PowerPlex® Fusion 6C

|   |         |       |       |         |       |       |
|---|---------|-------|-------|---------|-------|-------|
|   | 15,17.3 | 17,20 | 10,14 | 15,19   | 11,12 |       |
|   | 11      | 13    | 15,16 | 15,21   | 8,13  | 11,12 |
| 2 | 13,15   | 14    | 29,30 | 15,17   | X     | 12    |
|   | 20,26   | 9,11  | 5,16  | 19,19.2 | 7,8   | 8,11  |
|   | 17,19   |       |       |         |       |       |

YA99BR-5872 GlobalFiler™ Express (Familias)

|   |         |       |       |         |       |       |
|---|---------|-------|-------|---------|-------|-------|
|   | 15,17.3 | 17,20 | 10,14 | 15,19   | 11,12 |       |
|   | 11      | 13    | 15,16 | 15,21   | 8,13  | 11,12 |
| 2 | 13,15   | 14    | 29,30 | 15,17   | X     | 12    |
|   | 20,26   |       |       | 19,19.2 | 7,8   | 8,11  |
|   | 17,19   |       |       |         |       |       |

YGVRZ2-5872 PowerPlex® 21

|   |         |       |       |       |       |       |
|---|---------|-------|-------|-------|-------|-------|
|   | 15,17.3 | 17,20 |       | 15,19 | 11,12 | 12,20 |
|   | 11,11   | 13,13 |       | 15,21 | 8,13  | 11,12 |
| 2 | 13,15   | 14,14 | 29,30 |       | X,X   | 12,12 |
|   | 20,26   | 9,11  | 5,16  |       | 7,8   | 8,11  |
|   | 17,19   |       |       |       |       |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

Item 2 - STR Results

|             |                   |       |       |         |       |       |
|-------------|-------------------|-------|-------|---------|-------|-------|
| ZEKBY9-5877 | GlobalFiler™      |       |       |         |       |       |
|             | 15,17.3           | 17,20 | 10,14 | 15,19   | 11,12 |       |
|             | 11                | 13    | 15,16 | 15,21   | 8,13  | 11,12 |
| 2           | 13,15             | 14    | 29,30 | 15,17   | X     | 12    |
|             | 20,26             |       |       | 19,19.2 | 7,8   | 8,11  |
|             | 17,19             |       |       |         |       |       |
| ZFX3RQ-5872 | PowerPlex® fusion |       |       |         |       |       |
|             | 15,17.3           | 17,20 | 10,14 | 15,19   | 11,12 |       |
|             | 11,11             | 13,13 | 15,16 | 15,21   | 8,13  | 11,12 |
| 2           | 13,15             | 14,14 | 29,30 | 15,17   | X,X   | 12,12 |
|             | 20,26             | 9,11  | 5,16  |         | 7,8   | 8,11  |
|             | 17,19             |       |       |         |       |       |
| ZZEH7B-5872 | GlobalFiler™      |       |       |         |       |       |
|             | 15,17.3           | 17,20 | 10,14 | 15,19   | 11,12 |       |
|             | 11,11             | 13,13 | 15,16 | 15,21   | 8,13  | 11,12 |
| 2           | 13,15             | 14,14 | 29,30 | 15,17   | X,X   | 12,12 |
|             | 20,26             |       |       | 19,19.2 | 7,8   | 8,11  |
|             | 17,19             |       |       |         |       |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 3 - STR Results

|             |  |       |       |         |     |       |
|-------------|--|-------|-------|---------|-----|-------|
| 33G37G-5872 | GlobalFiler™ Express                           |       |       |         |     |       |
|             | 15   | 20,22 | 9,10  | 15,19   | 12  |       |
|             | 11   | 13,15 | 15    | 20,21   | 8   | 11,14 |
| 3           | 13,14  | 14    | 30    | 17      | X,Y | 12,13 |
|             | 20   |       |       | 14,19.2 | 7   | 8,11  |
|             | 17   | 10    |       |         | 2   |       |
| 39LYUM-5872 | PowerPlex® Fusion 6C, GlobalFiler™, NGM Select |       |       |         |     |       |
|             | 15   | 20,22 | 9,10  | 15,19   | 12  |       |
|             | 11   | 13,15 | 15    | 20,21   | 8   | 11,14 |
| 3           | 13,14  | 14    | 30    | 17      | X,Y | 12,13 |
|             | 20   | 9,12  | 12,16 | 14,19.2 | 7   | 8,11  |
|             | 17   | 10    | 17    | 18      | 2   |       |
| 3ECBR6-5877 | GlobalFiler™                                   |       |       |         |     |       |
|             | 15   | 20,22 | 9,10  | 15,19   | 12  |       |
|             | 11   | 13,15 | 15    | 20,21   | 8   | 11,14 |
| 3           | 13,14  | 14    | 30    | 17      | X,Y | 12,13 |
|             | 20   |       |       | 14,19.2 | 7   | 8,11  |
|             | 17   | 10    |       |         | 2   |       |
| 3F8R7M-5877 | PowerPlex® 21                                  |       |       |         |     |       |
|             | 15   | 20,22 |       | 15,19   | 12  | 17,20 |
|             | 11   | 13,15 |       | 20,21   | 8   | 11,14 |
| 3           | 13,14  | 14    | 30    |         | X,Y | 12,13 |
|             | 20   | 9,12  | 12,16 |         | 7   | 8,11  |
|             | 17   |       |       |         |     |       |
| 3FRDYD-5877 | PowerPlex® Fusion 6C                           |       |       |         |     |       |
|             | 15   | 20,22 | 9,10  | 15,19   | 12  |       |
|             | 11   | 13,15 | 15    | 20,21   | 8   | 11,14 |
| 3           | 13,14  | 14    | 30    | 17      | X,Y | 12,13 |
|             | 20   | 9,12  | 12,16 | 14,19.2 | 7   | 8,11  |
|             | 17   | 10    | 17    | 18      |     |       |
| 3LW7VU-5872 | GlobalFiler™ (ForeStatistics)                  |       |       |         |     |       |
|             | 15   | 20,22 | 9,10  | 15,19   | 12  |       |
|             | 11   | 13,15 | 15    | 20,21   | 8   | 11,14 |
| 3           | 13,14  | 14    | 30    | 17      | X,Y | 12,13 |
|             | 20   |       |       | 14,19.2 | 7   | 8,11  |
|             | 17   | 10    |       |         | 2   |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 3 - STR Results

|             |                         |       |       |         |       |       |
|-------------|-------------------------|-------|-------|---------|-------|-------|
| 3M2YKL-5877 | PowerPlex® Fusion 6C    |       |       |         |       |       |
|             | 15                      | 20,22 | 9,10  | 15,19   | 12    |       |
|             | 11                      | 13,15 | 15    | 20,21   | 8     | 11,14 |
| 3           | 13,14                   | 14    | 30    | 17      | X,Y   | 12,13 |
|             | 20                      | 9,12  | 12,16 | 14,19.2 | 7     | 8,11  |
|             | 17                      | 10    | 17    | 18      |       |       |
| 3PVM4G-5877 | GlobalFiler™            |       |       |         |       |       |
|             | 15                      | 20,22 | 9,10  | 15,19   | 12    |       |
|             | 11                      | 13,15 | 15    | 20,21   | 8     | 11,14 |
| 3           | 13,14                   | 14    | 30    | 17      | X,Y   | 12,13 |
|             | 20                      |       |       | 14,19.2 | 7     | 8,11  |
|             | 17                      | 10    |       |         | 2     |       |
| 63UDXK-5872 | GlobalFiler™ Express    |       |       |         |       |       |
|             | 15,15                   | 20,22 | 9,10  | 15,19   | 12,12 |       |
|             | 11,11                   | 13,15 | 15,15 | 20,21   | 8,8   | 11,14 |
| 3           | 13,14                   | 14,14 | 30,30 | 17,17   | X,Y   | 12,13 |
|             | 20,20                   |       |       | 14,19.2 | 7,7   | 8,11  |
|             | 17,17                   | 10    |       |         | 2     |       |
| 6CHZCV-5872 | PowerPlex® 21 (Kinship) |       |       |         |       |       |
|             | 15,15                   | 20,22 |       | 15,19   | 12,12 | 17,20 |
|             | 11,11                   | 13,15 |       | 20,21   | 8,8   | 11,14 |
| 3           | 13,14                   | 14,14 | 30,30 |         | X,Y   | 12,13 |
|             | 20,20                   | 9,12  | 12,16 |         | 7,7   | 8,11  |
|             | 17,17                   |       |       |         |       |       |
| 73W8G7-5872 | PowerPlex® Fusion 6C    |       |       |         |       |       |
|             | 15                      | 20,22 | 9,10  | 15,19   | 12    |       |
|             | 11                      | 13,15 | 15    | 20,21   | 8     | 11,14 |
| 3           | 13,14                   | 14    | 30    | 17      | X,Y   | 12,13 |
|             | 20                      | 9,12  | 12,16 | 14,19.2 | 7     | 8,11  |
|             | 17                      | 10    | 17    | 18      |       |       |
| 77PJU3-5877 | GlobalFiler™            |       |       |         |       |       |
|             | 15                      | 20,22 | 9,10  | 15,19   | 12    |       |
|             | 11                      | 13,15 | 15    | 20,21   | 8     | 11,14 |
| 3           | 13,14                   | 14    | 30    | 17      | X,Y   | 12,13 |
|             | 20                      |       |       | 14,19.2 | 7     | 8,11  |
|             | 17                      | 10    |       |         | 2     |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 3 - STR Results

786NQE-5872 PowerPlex® Fusion, PP21, ESX17, CS7, Y23, Verifiler (Familias and PAT-PCR)

|   |       |       |       |         |     |       |
|---|-------|-------|-------|---------|-----|-------|
|   | 15    | 20,22 | 9,10  | 15,19   | 12  | 17,20 |
|   | 11    | 13,15 | 15    | 20,21   | 8   | 11,14 |
| 3 | 13,14 | 14    | 30    | 17      | X,Y | 12,13 |
|   | 20    | 9,12  | 12,16 | 14,19.2 | 7   | 8,11  |
|   | 17    | 10    |       |         |     |       |

7DPWQ-5872 GlobalFiler™

|   |       |       |       |         |       |       |
|---|-------|-------|-------|---------|-------|-------|
|   | 15,15 | 20,22 | 9,10  | 15,19   | 12,12 |       |
|   | 11,11 | 13,15 | 15,15 | 20,21   | 8,8   | 11,14 |
| 3 | 13,14 | 14,14 | 30,30 | 17,17   | X,Y   | 12,13 |
|   | 20,20 |       |       | 14,19.2 | 7,7   | 8,11  |
|   | 17,17 | 10    |       |         | 2     |       |

7F4KV8-5872 Identifiler®, NGMSelect

|   |       |       |      |         |     |       |
|---|-------|-------|------|---------|-----|-------|
|   | 15    | 20,22 | 9,10 | 15,19   | 12  |       |
|   | 11    | 13,15 | 15   | 20,21   | 8   | 11,14 |
| 3 | 13,14 | 14    | 30   | 17      | X,Y | 12,13 |
|   | 20    |       |      | 14,19.2 | 7   | 8,11  |
|   | 17    |       |      |         |     |       |

7PKXQF-5872 GlobalFiler™ Express

|   |       |       |      |         |     |       |
|---|-------|-------|------|---------|-----|-------|
|   | 15    | 20,22 | 9,10 | 15,19   | 12  |       |
|   | 11    | 13,15 | 15   | 20,21   | 8   | 11,14 |
| 3 | 13,14 | 14    | 30   | 17      | X,Y | 12,13 |
|   | 20    |       |      | 14,19.2 | 7   | 8,11  |
|   | 17    | 10    |      |         | 2   |       |

84E29B-5872 GlobalFiler™ Express

|   |       |       |      |         |     |       |
|---|-------|-------|------|---------|-----|-------|
|   | 15    | 20,22 | 9,10 | 15,19   | 12  |       |
|   | 11    | 13,15 | 15   | 20,21   | 8   | 11,14 |
| 3 | 13,14 | 14    | 30   | 17      | X,Y | 12,13 |
|   | 20    |       |      | 14,19.2 | 7   | 8,11  |
|   | 17    | 10    |      |         | 2   |       |

8D3UK9-5877 PowerPlex® Fusion 6C

|   |       |       |       |         |     |       |
|---|-------|-------|-------|---------|-----|-------|
|   | 15    | 20,22 | 9,10  | 15,19   | 12  |       |
|   | 11    | 13,15 | 15    | 20,21   | 8   | 11,14 |
| 3 | 13,14 | 14    | 30    | 17      | X,Y | 12,13 |
|   | 20    | 9,12  | 12,16 | 14,19.2 | 7   | 8,11  |
|   | 17    | 10    | 17    | 18      |     |       |



TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|              | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
| Item         | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 3 - STR Results

|             |  |       |       |         |       |       |
|-------------|--|-------|-------|---------|-------|-------|
| 8MBE64-5872 | Investigator ESSPlex SE plus           |       |       |         |       |       |
|             | 15,15                                  | 20,22 | 9,10  | 15,19   |       |       |
|             |  | 13,15 | 15,15 | 20,21   |       | 11,14 |
| 3           | 13,14                                  | 14,14 | 30,30 | 17,17   | X,Y   |       |
|             | 20,20                                  |       |       | 14,19.2 | 7,7   |       |
|             | 17,17                                  |       |       |         |       |       |
| 9HTLAG-5877 | Verifiler Plus (GeneMapper ID-X v.1.5) |       |       |         |       |       |
|             | 15                                     | 20,22 | 9,10  | 15,19   | 12    | 17,20 |
|             | 11                                     | 13,15 | 15    | 20,21   | 8     | 11,14 |
| 3           | 13,14                                  | 14    | 30    | 17      | X,Y   | 12,13 |
|             | 20                                     | 9,12  | 12,16 |         | 7     | 8,11  |
|             | 17                                     |       |       |         | 2     |       |
| 9P9DFV-5877 | PowerPlex® FUSION 5C (GENOPROOF V. 3)  |       |       |         |       |       |
|             | 15,15                                  | 20,22 | 9,10  | 15,19   | 12,12 |       |
|             | 11,11                                  | 13,15 | 15,15 | 20,21   | 8,8   | 11,14 |
| 3           | 13,14                                  | 14,14 | 30,30 | 17,17   | X,Y   | 12,13 |
|             | 20,20                                  | 9,12  | 12,16 |         | 7,7   | 8,11  |
|             | 17,17                                  | 10    |       |         |       |       |
| 9QBQKP-5872 | PowerPlex® Fusion 6C                   |       |       |         |       |       |
|             | 15,15                                  | 20,22 | 9,10  | 15,19   | 12,12 |       |
|             | 11,11                                  | 13,15 | 15,15 | 20,21   | 8,8   | 11,14 |
| 3           | 13,14                                  | 14,14 | 30,30 | 17,17   | X,Y   | 12,13 |
|             | 20,20                                  | 9,12  | 12,16 | 14,19.2 | 7,7   | 8,11  |
|             | 17,17                                  | 10    | 17    | 18      |       |       |
| AFLNDE-5877 | PowerPlex® 5C                          |       |       |         |       |       |
|             | 15                                     | 20,22 | 9,10  | 15,19   | 12    | --    |
|             | 11                                     | 13,15 | 15    | 20,21   | 8     | 11,14 |
| 3           | 13,14                                  | 14    | 30    | 17      | X,Y   | 12,13 |
|             | 20                                     | 9,12  | 12,16 | --      | 7     | 8,11  |
|             | 17                                     | 10    | --    | --      | --    |       |
| AJHDUL-5877 | PowerPlex® Fusion6C (Familias v3.3)    |       |       |         |       |       |
|             | 15,15                                  | 20,22 | 9,10  | 15,19   | 12,12 |       |
|             | 11,11                                  | 13,15 | 15,15 | 20,21   | 8,8   | 11,14 |
| 3           | 13,14                                  | 14,14 | 30,30 | 17,17   | X,Y   | 12,13 |
|             | 20,20                                  | 9,12  | 12,16 | 14,19.2 | 7,7   | 8,11  |
|             | 17,17                                  | 10    | 17    | 18      |       |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|              | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
| Item         | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 3 - STR Results

|             |                                 |       |       |       |         |       |
|-------------|---------------------------------|-------|-------|-------|---------|-------|
| ARWY24-5872 | GlobalFiler™                    |       |       |       |         |       |
|             |                                 | 15    | 20,22 | 9,10  | 15,19   | 12    |
|             |                                 | 11    | 13,15 | 15    | 20,21   | 8     |
| 3           |                                 | 13,14 | 14    | 30    | 17      | X,Y   |
|             |                                 | 20    |       |       | 14,19.2 | 7     |
|             |                                 | 17    | 10    |       |         | 2     |
| ATTEFL-5877 | Identifiler®                    |       |       |       |         |       |
|             |                                 |       | 20,22 |       | 15,19   | 12    |
|             |                                 | 11    | 13,15 |       |         | 8     |
| 3           |                                 | 13,14 | 14    | 30    |         | X,Y   |
|             |                                 | 20    |       |       |         | 7     |
|             |                                 | 17    |       |       |         |       |
| BQVKU2-5877 | GlobalFiler™, MiniFiler         |       |       |       |         |       |
|             |                                 | 15,15 | 20,22 | 9,10  | 15,19   | 12,12 |
|             |                                 | 11,11 | 13,15 | 15,15 | 20,21   | 8,8   |
| 3           |                                 | 13,14 | 14,14 | 30,30 | 17,17   | X,Y   |
|             |                                 | 20,20 |       |       | 14,19.2 | 7,7   |
|             |                                 | 17,17 | 10    |       |         | 2     |
| BQZZ9N-5872 | GlobalFiler™ express            |       |       |       |         |       |
|             |                                 | 15    | 20,22 | 9,10  | 15,19   | 12    |
|             |                                 | 11    | 13,15 | 15    | 20,21   | 8     |
| 3           |                                 | 13,14 | 14    | 30    | 17      | X,Y   |
|             |                                 | 20    |       |       | 14,19.2 | 7     |
|             |                                 | 17    | 10    |       |         | 2     |
| C8ZC9C-5877 | PowerPlex® Fusion 6C            |       |       |       |         |       |
|             |                                 | 15    | 20,22 | 9,10  | 15,19   | 12    |
|             |                                 | 11    | 13,15 | 15    | 20,21   | 8     |
| 3           |                                 | 13,14 | 14    | 30    | 17      | X,Y   |
|             |                                 | 20    | 9,12  | 12,16 | 14,19.2 | 7     |
|             |                                 | 17    | 10    | 17    | 18      |       |
| CV64QA-5872 | PowerPlex® Fusion, GlobalFiler™ |       |       |       |         |       |
|             |                                 | 15,15 | 20,22 | 9,10  | 15,19   | 12,12 |
|             |                                 | 11,11 | 13,15 | 15,15 | 20,21   | 8,8   |
| 3           |                                 | 13,14 | 14,14 | 30,30 | 17,17   | X,Y   |
|             |                                 | 20,20 | 9,12  | 12,16 | 14,19.2 | 7,7   |
|             |                                 | 17,17 | 10    |       |         | 2     |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 3 - STR Results

|             |                                   |         |       |         |       |       |
|-------------|-----------------------------------|---------|-------|---------|-------|-------|
| DTFCVH-5877 | PowerPlex® Fusion (Gene Analysen) |         |       |         |       |       |
|             | 15                                | 20,22   | 9,10  | 15,19   | 12    |       |
|             | 11                                | 13,15   | 15    | 20,21   | 8     | 11,14 |
| 3           | 13,14                             | 14      | 30    |         | X,Y   | 12,13 |
|             | 20                                | 9,12    | 12,16 |         | 7     | 8,11  |
|             | 17                                | 10      |       |         |       |       |
| DUAZED-5877 | GlobalFiler™                      |         |       |         |       |       |
|             | 15                                | 20,22   | 9,10  | 15,19   | 12    |       |
|             | 11                                | 13,15   | 15    | 20,21   | 8     | 11,14 |
| 3           | 13,14                             | 14      | 30    | 17      | X,Y   | 12,13 |
|             | 20                                |         |       | 14,19.2 | 7     | 8,11  |
|             | 17                                | 10      |       |         | 2     |       |
| EAH9U8-5872 | Verifiler                         |         |       |         |       |       |
|             | 15,15                             | 20,22   | 9,10  | 15,19   | 12,12 | 17,20 |
|             | 11,11                             | 13,15   | 15,15 | 20,21   | 8,8   | 11,14 |
| 3           | 13,14                             | 14,14   | 30,30 | 17,17   | X,Y   | 12,13 |
|             | 20,20                             | 9,12    | 12,16 |         | 7,7   | 8,11  |
|             | 17,17                             |         |       |         | 2     |       |
| EBAAT4-5877 | GlobalFiler™                      |         |       |         |       |       |
|             | 15                                | 20,22   | 9,10  | 15,19   | 12    |       |
|             | 11                                | 13,15   | 15    | 20,21   | 8     | 11,14 |
| 3           | 13,14                             | 14      | 30    | 17      | X,Y   | 12,13 |
|             | 20                                |         |       | 14,29.2 | 7     | 8,11  |
|             | 17                                | 10      |       |         | 2     |       |
| ENJRPD-5877 | GlobalFiler™                      |         |       |         |       |       |
|             | 15                                | {20,22} | 9,10  | 15,19   | 12    |       |
|             | 11                                | 13,15   | 15    | 20,21   | 8     | 11,14 |
| 3           | 13,14                             | 14      | 30    | 17      | X,Y   | 12,13 |
|             | 20                                |         |       | 14,19.2 | 7     | 8,11  |
|             | 17                                | 10      |       |         | 2     |       |
| ERKVGZ-5872 | GlobalFiler™                      |         |       |         |       |       |
|             | 15,15                             | 20,22   | 9,10  | 15,19   | 12,12 |       |
|             | 11,11                             | 13,15   | 15,15 | 20,21   | 8,8   | 11,14 |
| 3           | 13,14                             | 14,14   | 30,30 | 17,17   | X,Y   | 12,13 |
|             | 20,20                             |         |       | 14,19.2 | 7,7   | 8,11  |
|             | 17,17                             | 10      |       |         | 2     |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 3 - STR Results

|             |                      |       |       |         |       |       |
|-------------|----------------------|-------|-------|---------|-------|-------|
| F87XDU-5872 | PowerPlex® Fusion 6C |       |       |         |       |       |
|             | 15,15                | 20,22 | 9,10  | 15,19   | 12,12 |       |
|             | 11,11                | 13,15 | 15,15 | 20,21   | 8,8   | 11,14 |
| 3           | 13,14                | 14,14 | 30,30 | 17,17   | X,Y   | 12,13 |
|             | 20,20                | 9,12  | 12,16 | 14,19.2 | 7,7   | 8,11  |
|             | 17,17                | 10    | 17    | 18      |       |       |
| FDVD22-5872 | PowerPlex® Fusion    |       |       |         |       |       |
|             | 15                   | 20,22 | 9,10  | 15,19   | 12    |       |
|             | 11                   | 13,15 | 15    | 20,21   | 8     | 11,14 |
| 3           | 13,14                | 14    | 30    | 17      | X,Y   | 12,13 |
|             | 20                   | 9,12  | 12,16 |         | 7     | 8,11  |
|             | 17                   | 10    |       |         |       |       |
| FDX37Y-5877 | GlobalFiler™         |       |       |         |       |       |
|             | 15,15                | 20,22 | 9,10  | 15,19   | 12,12 |       |
|             | 11,11                | 13,15 | 15,15 | 20,21   | 8,8   | 11,14 |
| 3           | 13,14                | 14,14 | 30,30 | 17,17   | X,Y   | 12,13 |
|             | 20,20                |       |       | 14,19.2 | 7,7   | 8,11  |
|             | 17,17                | 10    |       |         | 2     |       |
| G48YJG-5872 | PowerPlex® Fusion 6C |       |       |         |       |       |
|             | 15,15                | 20,22 | 9,10  | 15,19   | 12,12 |       |
|             | 11,11                | 13,15 | 15,15 | 20,21   | 8,8   | 11,14 |
| 3           | 13,14                | 14,14 | 30,30 | 17,17   | X,Y   | 12,13 |
|             | 20,20                | 9,12  | 12,16 | 14,19.2 | 7,7   | 8,11  |
|             | 17,17                | 10    | 17    | 18      |       |       |
| GDT3MA-5872 | PowerPlex® Fusion 6C |       |       |         |       |       |
|             | 15                   | 20,22 | 9,10  | 15,19   | 12    |       |
|             | 11                   | 13,15 | 15    | 20,21   | 8     | 11,14 |
| 3           | 13,14                | 14    | 30    | 17      | X,Y   | 12,13 |
|             | 20                   | 9,12  | 12,16 | 14,19.2 | 7     | 8,11  |
|             | 17                   | 10    | 17    | 18      |       |       |
| GU22R8-5877 | Identifiler® Plus    |       |       |         |       |       |
|             |                      | 20,22 |       | 15,19   | 12,12 |       |
|             | 11,11                | 13,15 |       |         | 8,8   | 11,14 |
| 3           | 13,14                | 14,14 | 30,30 |         | X,Y   | 12,13 |
|             | 20,20                |       |       |         | 7,7   | 8,11  |
|             | 17,17                |       |       |         |       |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|              | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
| Item         | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 3 - STR Results

|                                  |       |              |       |         |       |       |
|----------------------------------|-------|--------------|-------|---------|-------|-------|
| GW36G9-5872 GlobalFiler™         |       |              |       |         |       |       |
|                                  | 15,15 | 20,22        | 9,10  | 15,19   | 12,12 | /     |
|                                  | 11,11 | 13,15        | 15,15 | 20,21   | 8,8   | 11,14 |
| 3                                | 13,14 | 14,14        | 30,30 | 17,17   | X,Y   | 12,13 |
|                                  | 20,20 | /            | /     | 14,19.2 | 7,7   | 8,11  |
|                                  | 17,17 | 10           | /     | /       | 2     |       |
| H9TEJ8-5872 GlobalFiler™ Express |       |              |       |         |       |       |
|                                  | 15,15 | 20,22        | 9,10  | 15,19   | 12,12 |       |
|                                  | 11,11 | 13,15        | 15,15 | 20,21   | 8,8   | 11,14 |
| 3                                | 13,14 | 14,14        | 30,30 | 17,17   | X,Y   | 12,13 |
|                                  | 20,20 |              |       | 14,19.2 | 7,7   | 8,11  |
|                                  | 17,17 | 10           |       |         | 2     |       |
| HFE6AA-5872 GlobalFiler™         |       |              |       |         |       |       |
|                                  | 15,15 | 20,22        | 9,10  | 15,19   | 12,12 |       |
|                                  | 11,11 | 13,15        | 15,15 | 20,21   | 8,8   | 11,14 |
| 3                                | 13,14 | 14,14        | 30,30 | 17,17   | X,Y   | 12,13 |
|                                  | 20,20 |              |       | 14,19.2 | 7,7   | 8,11  |
|                                  | 17,17 | 10           |       |         | 2     |       |
| HWYZF6-5877 GlobalFiler™ IQC     |       |              |       |         |       |       |
|                                  | 15,15 | 20,22        | 9,10  | 15,19   | 12,12 |       |
|                                  | 11,11 | 13,15        | 15,15 | 20,21   | 8,8   | 11,14 |
| 3                                | 13,14 | 14,14        | 30,30 | 17,17   | X,Y   | 12,13 |
|                                  | 20,20 |              |       | 14,19.2 | 7,7   | 8,11  |
|                                  | 17,17 | 10           |       |         | 2     |       |
| J2C32Z-5872 PowerPlex® Fusion 5C |       |              |       |         |       |       |
|                                  | 15    | 20,22        | 9,10  | 15,19   | 12    |       |
|                                  | 11    | 13,15        | 15    | 20,21   | 8     | 11,14 |
| 3                                | 13,14 | 14           | 30    | 17      | X,Y   | 12,13 |
|                                  | 20    | 9,12         | 12,16 |         | 7     | 8,11  |
|                                  | 17    | Inconclusive |       |         |       |       |
| JHJYKY-5877 GlobalFiler™         |       |              |       |         |       |       |
|                                  | 15    | 20,22        | 9,10  | 15,19   | 12    |       |
|                                  | 11    | 13,15        | 15    | 20,21   | 8     | 11,14 |
| 3                                | 13,14 | 14           | 30    | 17      | X,Y   | 12,13 |
|                                  | 20    |              |       | 14,19.2 | 7     | 8,11  |
|                                  | 17    | 10           |       |         | 2     |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 3 - STR Results

|             |                               |       |       |         |       |       |
|-------------|-------------------------------|-------|-------|---------|-------|-------|
| JLGFXT-5877 | GlobalFiler™                  |       |       |         |       |       |
|             | 15,15                         | 20,22 | 9,10  | 15,19   | 12,12 |       |
|             | 11,11                         | 13,15 | 15,15 | 20,21   | 8,8   | 11,14 |
| 3           | 13,14                         | 14,14 | 30,30 | 17,17   | X,Y   | 12,13 |
|             | 20,20                         |       |       | 14,19.2 | 7,7   | 8,11  |
|             | 17,17                         | 10    |       |         | 2     |       |
| K4UEK3-5872 | PowerPlex® FUSION 6C (MFYSIS) |       |       |         |       |       |
|             | 15,15                         | 20,22 | 9,10  | 15,19   | 12,12 |       |
|             | 11,11                         | 13,15 | 15,15 | 20,21   | 8,8   | 11,14 |
| 3           | 13,14                         | 14,14 | 30,30 | 17,17   | X,Y   | 12,13 |
|             | 20,20                         | 9,12  | 12,16 | 14,19.2 | 7,7   | 8,11  |
|             | 17,17                         | 10    | 17    | 18      |       |       |
| K8WKWM-5872 | PowerPlex® Fusion             |       |       |         |       |       |
|             | 15                            | 20,22 | 9,10  | 15,19   | 12    |       |
|             | 11                            | 13,15 | 15    | 20,21   | 8     | 11,14 |
| 3           | 13,14                         | 14    | 30    | 17      | X,Y   | 12,13 |
|             | 20                            | 9,12  | 12,16 |         | 7     | 8,11  |
|             | 17                            | 10    |       |         |       |       |
| K9R2B7-5872 | PowerPlex® Fusion             |       |       |         |       |       |
|             | 15                            | 20,22 | 9,10  | 15,19   | 12    |       |
|             | 11                            | 13,15 | 15    | 20,21   | 8     | 11,14 |
| 3           | 13,14                         | 14    | 30    | 17      | X,Y   | 12,13 |
|             | 20                            | 9,12  | 12,16 |         | 7     | 8,11  |
|             | 17                            | 10    |       |         |       |       |
| KFPQWF-5872 | GlobalFiler™                  |       |       |         |       |       |
|             | 15,15                         | 20,22 | 9,10  | 15,19   | 12,12 |       |
|             | 11,11                         | 13,15 | 15,15 | 20,21   | 8,8   | 11,14 |
| 3           | 13,14                         | 14,14 | 30,30 | 17,17   | X,Y   | 12,13 |
|             | 20,20                         |       |       | 14,19.2 | 7,7   | 8,11  |
|             | 17,17                         | 10    |       |         | 2     |       |
| KKHW9X-5872 | PowerPlex® Fusion 5C          |       |       |         |       |       |
|             | 15,15                         | 20,22 | 9,10  | 15,19   | 12,12 |       |
|             | 11,11                         | 13,15 | 15,15 | 20,21   | 8,8   | 11,14 |
| 3           | 13,14                         | 14,14 | 30,30 | 17,17   | X,Y   | 12,13 |
|             | 20,20                         | 9,12  | 12,16 |         | 7,7   | 8,11  |
|             | 17,17                         | 10    |       |         |       |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 3 - STR Results

|             |                      |       |            |            |            |            |
|-------------|----------------------|-------|------------|------------|------------|------------|
| L2XMK2-5872 | Identifiler®         |       |            |            |            |            |
|             |                      | 20,22 |            | 15,19      | 12,12      |            |
|             |                      | 11,11 | 13,15      |            | 8,8        | 11,14      |
| 3           |                      | 13,14 | 14,14      | 30,30      | X,Y        | 12,13      |
|             |                      | 20,20 |            |            | 7,7        | 8,11       |
|             |                      | 17,17 |            |            |            |            |
| NBJ97Q-5872 | PowerPlex® Fusion 5C |       |            |            |            |            |
|             |                      | 20,22 | 9,10       | 15,19      | 12,12      |            |
|             |                      | 11,11 | 13,15      | 15,15      | 20,21      | 8,8        |
| 3           |                      | 13,14 | 14,14      | 30,30      | 17,17      | X,Y        |
|             |                      | 20,20 | 9,12       | 12,16      | 7,7        | 8,11       |
|             |                      | 17,17 | 10         |            |            |            |
| NQDVAW-5872 | GlobalFiler™ Express |       |            |            |            |            |
|             |                      | 20,22 | 9,10       | 15,19      | 12         | -          |
|             |                      | 11    | 13,15      | 15         | 20,21      | 8          |
| 3           |                      | 13,14 | 14         | 30         | 17         | X,Y        |
|             |                      | 20    | -          | -          | 14,19.2    | 7          |
|             |                      | 17    | 10         | -          | 2          | 8,11       |
| P2R7J9-5872 | PowerPlex® Fusion 6C |       |            |            |            |            |
|             |                      | 20,22 | 9,10       | 15,19      | 12,12      |            |
|             |                      | 11,11 | 13,15      | 15,15      | 20,21      | 8,8        |
| 3           |                      | 13,14 | 14,14      | 30,30      | 17,17      | X,Y        |
|             |                      | 20,20 | 9,12       | 12,16      | 14,19.2    | 7,7        |
|             |                      | 17,17 | 10         | 17         | 18         | 8,11       |
| P99QKY-5872 |                      |       |            |            |            |            |
|             |                      | 20,22 | 9,10       | 15,19      | 12,12      |            |
|             |                      | 11,11 | 13,15      | 15,15      | 20,21      | 8,8        |
| 3           |                      | 13,14 | 14,14      | 30,30      | 17,17      | X,Y        |
|             |                      | 20,20 |            |            | 14,19.2    | 7,7        |
|             |                      | 17,17 | 10         |            | 2          | 8,11       |
| PMBG2X-5877 | GlobalFiler™         |       |            |            |            |            |
|             |                      | 20,22 | 9,10       | 15,19      | 12         | Not Tested |
|             |                      | 11    | 13,15      | 15         | 20,21      | 8          |
| 3           |                      | 13,14 | 14         | 30         | 17         | X,Y        |
|             |                      | 20    | Not Tested | Not Tested | 14,19.2    | 7          |
|             |                      | 17    | 10         | Not Tested | Not Tested | 2          |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 3 - STR Results

PMD6KW-5872 GlobalFiler™ Express

|   |       |       |       |         |       |       |
|---|-------|-------|-------|---------|-------|-------|
|   | 15,15 | 20,22 | 9,10  | 15,19   | 12,12 |       |
|   | 11,11 | 13,15 | 15,15 | 20,21   | 8,8   | 11,14 |
| 3 | 13,14 | 14,14 | 30,30 | 17,17   | X,Y   | 12,13 |
|   | 20,20 |       |       | 14,19.2 | 7,7   | 8,11  |
|   | 17,17 | 10    |       |         | 2     |       |

PTVD6M-5872 GlobalFiler™

|   |       |       |       |         |       |       |
|---|-------|-------|-------|---------|-------|-------|
|   | 15,15 | 20,22 | 9,10  | 15,19   | 12,12 |       |
|   | 11,11 | 13,15 | 15,15 | 20,21   | 8,8   | 11,14 |
| 3 | 13,14 | 14,14 | 30,30 | 17,17   | X,Y   | 12,13 |
|   | 20,20 |       |       | 14,19.2 | 7,7   | 8,11  |
|   | 17,17 | 10    |       |         | 2     |       |

PTX3AK-5877 GlobalFiler™

|   |       |       |      |         |     |       |
|---|-------|-------|------|---------|-----|-------|
|   | 15    | 20,22 | 9,10 | 15,19   | 12  |       |
|   | 11    | 13,15 | 15   | 20,21   | 8   | 11,14 |
| 3 | 13,14 | 14    | 30   | 17      | X,Y | 12,13 |
|   | 20    |       |      | 14,19.2 | 7   | 8,11  |
|   | 17    | 10    |      |         | 2   |       |

PU94VJ-5877 GlobalFiler™

|   |       |       |      |         |     |       |
|---|-------|-------|------|---------|-----|-------|
|   | 15    | 20,22 | 9,10 | 15,19   | 12  |       |
|   | 11    | 13,15 | 15   | 20,21   | 8   | 11,14 |
| 3 | 13,14 | 14    | 30   | 17      | X,Y | 12,13 |
|   | 20    |       |      | 14,19.2 | 7   | 8,11  |
|   | 17    | 10    |      |         | 2   |       |

QHBLZA-5872 PowerPlex®

|   |       |       |       |       |       |       |
|---|-------|-------|-------|-------|-------|-------|
|   | 15,15 | 20,22 |       | 15,19 | 12,12 | 17,20 |
|   | 11,11 | 13,15 |       | 20,21 | 8,8   | 11,14 |
| 3 | 13,14 | 14,14 | 30,30 |       | X,Y   | 12,13 |
|   | 20,20 | 9,12  | 12,16 |       | 7,7   | 8,11  |
|   | 17,17 |       |       |       |       |       |

QV46G2-5872 GlobalFiler™

|   |       |       |       |         |       |       |
|---|-------|-------|-------|---------|-------|-------|
|   | 15,15 | 20,22 | 9,10  | 15,19   | 12,12 |       |
|   | 11,11 | 13,15 | 15,15 | 20,21   | 8,8   | 11,14 |
| 3 | 13,14 | 14,14 | 30,30 | 17,17   | X,Y   | 12,13 |
|   | 20,20 |       |       | 14,19.2 | 7,7   | 8,11  |
|   | 17,17 | 10    |       |         | 2     |       |



TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 3 - STR Results

QZUGCW-5872 PowerPlex® Fusion

|   |       |       |       |       |     |       |
|---|-------|-------|-------|-------|-----|-------|
|   | 15    | 20,22 | 9,10  | 15,19 | 12  |       |
|   | 11    | 13,15 | 15    | 20,21 | 8   | 11,14 |
| 3 | 13,14 | 14    | 30    | 17    | X,Y | 12,13 |
|   | 20    | 9,12  | 12,16 |       | 7   | 8,11  |
|   | 17    | 10    |       |       |     |       |

R3EPWH-5872 PowerPlex® Fusion 6C

|   |       |       |       |         |     |       |
|---|-------|-------|-------|---------|-----|-------|
|   | 15    | 20,22 | 9,10  | 15,19   | 12  |       |
|   | 11    | 13,15 | 15    | 20,21   | 8   | 11,14 |
| 3 | 13,14 | 14    | 30    | 17      | X,Y | 12,13 |
|   | 20    | 9,12  | 12,16 | 14,19.2 | 7   | 8,11  |
|   | 17    | 10    | 17    | 18      |     |       |

RBTEVQ-5877 GlobalFiler™

|   |       |       |       |         |       |       |
|---|-------|-------|-------|---------|-------|-------|
|   | 15,15 | 20,22 | 9,10  | 15,19   | 12,12 |       |
|   | 11,11 | 13,15 | 15,15 | 20,21   | 8,8   | 11,14 |
| 3 | 13,14 | 14,14 | 30,30 | 17,17   | X,Y   | 12,13 |
|   | 20,20 |       |       | 14,19.2 | 7,7   | 8,11  |
|   | 17,17 | 10    |       |         | 2     |       |

RKEH3P-5872 PowerPlex® Fusion

|   |       |       |       |       |     |       |
|---|-------|-------|-------|-------|-----|-------|
|   | 15    | 20,22 | 9,10  | 15,19 | 12  |       |
|   | 11    | 13,15 | 15    | 20,21 | 8   | 11,14 |
| 3 | 13,14 | 14    | 30    | 17    | X,Y | 12,13 |
|   | 20    | 9,12  | 12,16 |       | 7   | 8,11  |
|   | 17    | 10    |       |       |     |       |

TFFNHU-5872 PowerPlex® Fusion 5C

|   |       |       |       |       |     |       |
|---|-------|-------|-------|-------|-----|-------|
|   | 15    | 20,22 | 9,10  | 15,19 | 12  |       |
|   | 11    | 13,15 | 15    | 20,21 | 8   | 11,14 |
| 3 | 13,14 | 14    | 30    | 17    | X,Y | 12,13 |
|   | 20    | 9,12  | 12,16 |       | 7   | 8,11  |
|   | 17    | 10    |       |       |     |       |

TNRV34-5872 GlobalFiler™

|   |       |       |       |         |       |       |
|---|-------|-------|-------|---------|-------|-------|
|   | 15,15 | 20,22 | 9,10  | 15,19   | 12,12 |       |
|   | 11,11 | 13,15 | 15,15 | 20,21   | 8,8   | 11,14 |
| 3 | 13,14 | 14,14 | 30,30 | 17,17   | X,Y   | 12,13 |
|   | 20,20 |       |       | 14,19.2 | 7,7   | 8,11  |
|   | 17,17 | 10    |       |         | 2     |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 3 - STR Results

|             |   |       |       |         |       |       |
|-------------|---|-------|-------|---------|-------|-------|
| TYCCNJ-5877 | GlobalFiler™  |       |       |         |       |       |
|             | 15,15   | 20,22 | 9,10  | 15,19   | 12,12 |       |
|             | 11,11   | 13,15 | 15,15 | 20,21   | 8,8   | 11,14 |
| 3           | 13,14   | 14,14 | 30,30 | 17,17   | X,Y   | 12,13 |
|             | 20,20   |       |       | 14,19.2 | 7,7   | 8,11  |
|             | 17,17   | 10    |       |         | 2     |       |
| TZ8R32-5872 | GlobalFiler™ (Forestatitics)  |       |       |         |       |       |
|             | 15  | 20,22 | 9,10  | 15,19   | 12    |       |
|             | 11  | 13,15 | 15    | 20,21   | 8     | 11,14 |
| 3           | 13,14   | 14    | 30    | 17      | X,Y   | 12,13 |
|             | 20  |       |       | 14,19.2 | 7     | 8,11  |
|             | 17  | 10    |       |         | 2     |       |
| UALBVW-5877 | PowerPlex® 21   |       |       |         |       |       |
|             | 15  | 20,22 |       | 15,19   | 12    | 17,20 |
|             | 11  | 13,15 |       | 20,21   | 8     | 11,14 |
| 3           | 13,14   | 14    | 30    |         | X,Y   | 12,13 |
|             | 20  | 9,12  | 12,16 |         | 7     | 8,11  |
|             | 17  |       |       |         |       |       |
| URUYR6-5872 | PowerPlex® 21   |       |       |         |       |       |
|             | 15,15   | 20,22 |       | 15,19   | 12,12 | 17,20 |
|             | 11,11   | 13,15 |       | 20,21   | 8,8   | 11,14 |
| 3           | 13,14   | 14,14 | 30,30 |         | X,Y   | 12,13 |
|             | 20,20   | 9,12  | 12,16 |         | 7,7   | 8,11  |
|             | 17,17   |       |       |         |       |       |
| UZLJPQ-5872 | PowerPlex® FUSION, PowerPlex ESX17, CS7 and Verifiler Plus (FAMILIAS 3.2.1) |       |       |         |       |       |
|             | 15  | 20,22 | 9,10  | 15,19   | 12    | 17,20 |
|             | 11  | 13,15 | 15    | 20,21   | 8     | 11,14 |
| 3           | 13,14   | 14    | 30    | 17      | X,Y   | 12,13 |
|             | 20  | 9,12  | 12,16 | 14,19.2 | 7     | 8,11  |
|             | 17  | 10    | 17    | 18      |       |       |
| V2BAAV-5877 | ForenSeq Signature Prep - Primer Set B                                      |       |       |         |       |       |
|             | 15  | 20,22 | 9,10  | 15,19   | 12    | 17,20 |
|             | 11  | 13,15 | 15    | 20,21   | 8     | 11,14 |
| 3           | 13,14   | 14    | 30    | 17,*    | X,Y   | 12,13 |
|             | 20  | 9,12  | 12,16 |         | 7     | 8,11  |
|             | 17  | 10    | 17    | 18      |       |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 3 - STR Results

|                                  |       |       |       |         |       |       |
|----------------------------------|-------|-------|-------|---------|-------|-------|
| W2RKQF-5872 GlobalFiler™         |       |       |       |         |       |       |
|                                  | 15,15 | 20,22 | 9,10  | 15,19   | 12,12 |       |
|                                  | 11,11 | 13,15 | 15,15 | 20,21   | 8,8   | 11,14 |
| 3                                | 13,14 | 14,14 | 30,30 | 17,17   | X,Y   | 12,13 |
|                                  | 20,20 |       |       | 14,19.2 | 7,7   | 8,11  |
|                                  | 17,17 | 10    |       |         | 2     |       |
| W7GZEM-5872 GlobalFiler™ Express |       |       |       |         |       |       |
|                                  | 15    | 20,22 | 9,10  | 15,19   | 12    |       |
|                                  | 11    | 13,15 | 15    | 20,21   | 8     | 11,14 |
| 3                                | 13,14 | 14    | 30    | 17      | X,Y   | 12,13 |
|                                  | 20    |       |       | 14,19.2 | 7     | 8,11  |
|                                  | 17    | 10    |       |         | 2     |       |
| W7KMRU-5877 GlobalFiler™         |       |       |       |         |       |       |
|                                  | 15    | 20,22 | 9,10  | 15,19   | 12    |       |
|                                  | 11    | 13,15 | 15    | 20,21   | 8     | 11,14 |
| 3                                | 13,14 | 14    | 30    | 17      | X,Y   | 12,13 |
|                                  | 20    |       |       | 14,19.2 | 7     | 8,11  |
|                                  | 17    | 10    |       |         | 2     |       |
| WAKXNU-5877 GlobalFiler™         |       |       |       |         |       |       |
|                                  | 15    | 20,22 | 9,10  | 15,19   | 12    |       |
|                                  | 11    | 13,15 | 15    | 20,21   | 8     | 11,14 |
| 3                                | 13,14 | 14    | 30    | 17      | X,Y   | 12,13 |
|                                  | 20    |       |       | 14,19.2 | 7     | 8,11  |
|                                  | 17    | 10    |       |         | 2     |       |
| WRGJ6E-5872 GlobalFiler™         |       |       |       |         |       |       |
|                                  | 15,15 | 20,22 | 9,10  | 15,19   | 12,12 |       |
|                                  | 11,11 | 13,15 | 15,15 | 20,21   | 8,8   | 11,14 |
| 3                                | 13,14 | 14,14 | 30,30 | 17,17   | X,Y   | 12,13 |
|                                  | 20,20 |       |       | 14,19.2 | 7,7   | 8,11  |
|                                  | 17,17 | 10    |       |         | 2     |       |
| WYXW8K-5872 PowerPlex® Fusion 5C |       |       |       |         |       |       |
|                                  | 15    | 20,22 | 9,10  | 15,19   | 12    |       |
|                                  | 11    | 13,15 | 15    | 20,21   | 8     | 11,14 |
| 3                                | 13,14 | 14    | 30    | 17      | X,Y   | 12,13 |
|                                  | 20    | 9,12  | 12,16 |         | 7     | 8,11  |
|                                  | 17    | 10    |       |         |       |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 3 - STR Results

|             |                                 |       |       |         |       |       |
|-------------|---------------------------------|-------|-------|---------|-------|-------|
| XQMVLJ-5872 | PowerPlex® Fusion               |       |       |         |       |       |
|             | 15                              | 20,22 | 9,10  | 15,19   | 12    |       |
|             | 11                              | 13,15 | 15    | 20,21   | 8     | 11,14 |
| 3           | 13,14                           | 14    | 30    | 17      | X,Y   | 12,13 |
|             | 20                              | 9,12  | 12,16 |         | 7     | 8,11  |
|             | 17                              | 10    |       |         |       |       |
| XWQWMD-5872 | PowerPlex® Fusion 5C            |       |       |         |       |       |
|             | 15                              | 20,22 | 9,10  | 15,19   | 12    |       |
|             | 11                              | 13,15 | 15    | 20,21   | 8     | 11,14 |
| 3           | 13,14                           | 14    | 30    | 17      | X,Y   | 12,13 |
|             | 20                              | 9,12  | 12,16 |         | 7     | 8,11  |
|             | 17                              | 10    |       |         |       |       |
| XWTLQB-5872 | PowerPlex® Fusion 5C            |       |       |         |       |       |
|             | 15                              | 20,22 | 9,10  | 15,19   | 12    |       |
|             | 11                              | 13,15 | 15    | 20,21   | 8     | 11,14 |
| 3           | 13,14                           | 14    | 30    | 17      | X,Y   | 12,13 |
|             | 20                              | 9,12  | 12,16 |         | 7     | 8,11  |
|             | 17                              | 10    |       |         |       |       |
| XZQ8HD-5872 | PowerPlex® Fusion 6C            |       |       |         |       |       |
|             | 15                              | 20,22 | 9,10  | 15,19   | 12    |       |
|             | 11                              | 13,15 | 15    | 20,21   | 8     | 11,14 |
| 3           | 13,14                           | 14    | 30    | 17      | X,Y   | 12,13 |
|             | 20                              | 9,12  | 12,16 | 14,19.2 | 7     | 8,11  |
|             | 17                              | 10    | 17    | 18      |       |       |
| YA99BR-5872 | GlobalFiler™ Express (Familias) |       |       |         |       |       |
|             | 15                              | 20,22 | 9,10  | 15,19   | 12    |       |
|             | 11                              | 13,15 | 15    | 20,21   | 8     | 11,14 |
| 3           | 13,14                           | 14    | 30    | 17      | X,Y   | 12,13 |
|             | 20                              |       |       | 14,19.2 | 7     | 8,11  |
|             | 17                              | 10    |       |         | 2     |       |
| YGVRZ2-5872 | PowerPlex® 21                   |       |       |         |       |       |
|             | 15,15                           | 20,22 |       | 15,19   | 12,12 | 17,20 |
|             | 11,11                           | 13,15 |       | 20,21   | 8,8   | 11,14 |
| 3           | 13,14                           | 14,14 | 30,30 |         | X,Y   | 12,13 |
|             | 20,20                           | 9,12  | 12,16 |         | 7,7   | 8,11  |
|             | 17,17                           |       |       |         |       |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

Item 3 - STR Results

|             |                   |       |       |         |       |       |
|-------------|-------------------|-------|-------|---------|-------|-------|
| ZEKBY9-5877 | GlobalFiler™      |       |       |         |       |       |
|             | 15                | 20,22 | 9,10  | 15,19   | 12    |       |
|             | 11                | 13,15 | 15    | 20,21   | 8     | 11,14 |
| 3           | 13,14             | 14    | 30    | 17      | X,Y   | 12,13 |
|             | 20                |       |       | 14,19.2 | 7     | 8,11  |
|             | 17                | 10    |       |         | 2     |       |
| ZFX3RQ-5872 | PowerPlex® Fusion |       |       |         |       |       |
|             | 15,15             | 20,22 | 9,10  | 15,19   | 12,12 |       |
|             | 11,11             | 13,15 | 15,15 | 20,21   | 8,8   | 11,14 |
| 3           | 13,14             | 14,14 | 30,30 | 17,17   | X,X   | 12,13 |
|             | 20,20             | 9,12  | 12,16 |         | 7,7   | 8,11  |
|             | 17,17             | 10,10 |       |         |       |       |
| ZZEH7B-5872 | GlobalFiler™      |       |       |         |       |       |
|             | 15,15             | 20,22 | 9,10  | 15,19   | 12,12 |       |
|             | 11,11             | 13,15 | 15,15 | 20,21   | 8,8   | 11,14 |
| 3           | 13,14             | 14,14 | 30,30 | 17,17   | X,Y   | 12,13 |
|             | 20,20             |       |       | 14,19.2 | 7,7   | 8,11  |
|             | 17,17             | 10    |       |         | 2     |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 4 - STR Results

|             |  |       |         |       |       |       |
|-------------|--|-------|---------|-------|-------|-------|
| 33G37G-5872 | GlobalFiler™ Express                           |       |         |       |       |       |
|             | 14,15  | 20,22 | 11      | 15,17 | 11,13 |       |
|             | 8,12   | 15    | 13,14   | 17,19 | 12,14 | 11    |
| 4           | 15,20  | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23  |       |         | 16,18 | 7,9   | 8,9   |
|             | 15,17  | 10    |         |       | 2     |       |
| 39LYUM-5872 | PowerPlex® Fusion 6C, GlobalFiler™, NGM Select |       |         |       |       |       |
|             | 14,15  | 20,22 | 11      | 15,17 | 11,13 |       |
|             | 8,12   | 15    | 13,14   | 17,19 | 12,14 | 11    |
| 4           | 15,20  | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23  | 2.2,9 | 13,15   | 16,18 | 7,9   | 8,9   |
|             | 15,17  | 10    | 18      | 17    | 2     |       |
| 3ECBR6-5877 | GlobalFiler™                                   |       |         |       |       |       |
|             | 14,15  | 20,22 | 11      | 15,17 | 11,13 |       |
|             | 8,12   | 15    | 13,14   | 17,19 | 12,14 | 11    |
| 4           | 15,20  | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23  |       |         | 16,18 | 7,9   | 8,9   |
|             | 15,17  | 10    |         |       | 2     |       |
| 3F8R7M-5877 | PowerPlex® 21                                  |       |         |       |       |       |
|             | 14,15  | 20,22 |         | 15,17 | 11,13 | 12,19 |
|             | 8,12   | 15    |         | 17,19 | 12,14 | 11    |
| 4           | 15,20  | 12,14 | 29,30.2 |       | X,Y   | 7,10  |
|             | 22,23  | 2.2,9 | 13,15   |       | 7,9   | 8,9   |
|             | 15,17  |       |         |       |       |       |
| 3FRDYD-5877 | PowerPlex® Fusion 6C                           |       |         |       |       |       |
|             | 14,15  | 20,22 | 11      | 15,17 | 11,13 |       |
|             | 8,12   | 15    | 13,14   | 17,19 | 12,14 | 11    |
| 4           | 15,20  | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23  | 2.2,9 | 13,15   | 16,18 | 7,9   | 8,9   |
|             | 15,17  | 10    | 18      | 17    |       |       |
| 3LW7VU-5872 | GlobalFiler™ (ForeStatistics)                  |       |         |       |       |       |
|             | 14,15  | 20,22 | 11      | 15,17 | 11,13 |       |
|             | 8,12   | 15    | 13,14   | 17,19 | 12,14 | 11    |
| 4           | 15,20  | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23  |       |         | 16,18 | 7,9   | 8,9   |
|             | 15,17  | 10    |         |       | 2     |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 4 - STR Results

|             |                         |       |       |         |       |       |
|-------------|-------------------------|-------|-------|---------|-------|-------|
| 3M2YKL-5877 | PowerPlex® Fusion 6C    |       |       |         |       |       |
|             |                         | 14,15 | 20,22 | 11      | 15,17 | 11,13 |
|             |                         | 8,12  | 15    | 13,14   | 17,19 | 12,14 |
| 4           |                         | 15,20 | 12,14 | 29,30.2 | 10,18 | X,Y   |
|             |                         | 22,23 | 2.2,9 | 13,15   | 16,18 | 7,9   |
|             |                         | 15,17 | 10    | 18      | 17    |       |
| 3PVM4G-5877 | GlobalFiler™            |       |       |         |       |       |
|             |                         | 14,15 | 20,22 | 11      | 15,17 | 11,13 |
|             |                         | 8,12  | 15    | 13,14   | 17,19 | 12,14 |
| 4           |                         | 15,20 | 12,14 | 29,30.2 | 10,18 | X,Y   |
|             |                         | 22,23 |       |         | 16,18 | 7,9   |
|             |                         | 15,17 | 10    |         |       | 2     |
| 63UDXK-5872 | GlobalFiler™ Express    |       |       |         |       |       |
|             |                         | 14,15 | 20,22 | 11,11   | 15,17 | 11,13 |
|             |                         | 8,12  | 15,15 | 13,14   | 17,19 | 12,14 |
| 4           |                         | 15,20 | 12,14 | 29,30.2 | 10,18 | X,Y   |
|             |                         | 22,23 |       |         | 16,18 | 7,9   |
|             |                         | 15,17 | 10    |         |       | 2     |
| 6CHZCV-5872 | PowerPlex® 21 (Kinship) |       |       |         |       |       |
|             |                         | 14,15 | 20,22 |         | 15,17 | 11,13 |
|             |                         | 8,12  | 15,15 |         | 17,19 | 12,14 |
| 4           |                         | 15,20 | 12,14 | 29,30.2 |       | X,Y   |
|             |                         | 22,23 | 2.2,9 | 13,15   |       | 7,9   |
|             |                         | 15,17 |       |         |       |       |
| 73W8G7-5872 | PowerPlex® Fusion 6C    |       |       |         |       |       |
|             |                         | 14,15 | 20,22 | 11      | 15,17 | 11,13 |
|             |                         | 8,12  | 15    | 13,14   | 17,19 | 12,14 |
| 4           |                         | 15,20 | 12,14 | 29,30.2 | 10,18 | X,Y   |
|             |                         | 22,23 | 2.2,9 | 13,15   | 16,18 | 7,9   |
|             |                         | 15,17 | 10    | 18      | 17    |       |
| 77PJU3-5877 | GlobalFiler™            |       |       |         |       |       |
|             |                         | 14,15 | 20,22 | 11      | 15,17 | 11,13 |
|             |                         | 8,12  | 15    | 13,14   | 17,19 | 12,14 |
| 4           |                         | 15,20 | 12,14 | 29,30.2 | 10,18 | X,Y   |
|             |                         | 22,23 |       |         | 16,18 | 7,9   |
|             |                         | 15,17 | 10    |         |       | 2     |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 4 - STR Results

786NQE-5872 PowerPlex® Fusion, PP21, ESX17, CS7, Y23, Verifiler

|   |       |       |         |       |       |       |
|---|-------|-------|---------|-------|-------|-------|
|   | 14,15 | 20,22 | 11      | 15,17 | 11,13 | 12,19 |
|   | 8,12  | 15    | 13,14   | 17,19 | 12,14 | 11    |
| 4 | 15,20 | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|   | 22,23 | 2.2,9 | 13,15   | 16,18 | 7,9   | 8,9   |
|   | 15,17 | 10    |         |       |       |       |

7DPWQ-5872 GlobalFiler™

|   |       |       |         |       |       |       |
|---|-------|-------|---------|-------|-------|-------|
|   | 14,15 | 20,22 | 11,11   | 15,17 | 11,13 |       |
|   | 8,12  | 15,15 | 13,14   | 17,19 | 12,14 | 11,11 |
| 4 | 15,20 | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|   | 22,23 |       |         | 16,18 | 7,9   | 8,9   |
|   | 15,17 | 10    |         |       | 2     |       |

7F4KV8-5872 Identifiler®, NGMSelect

|   |       |       |         |       |       |      |
|---|-------|-------|---------|-------|-------|------|
|   | 14,15 | 20,22 | 11      | 15,17 | 11,13 |      |
|   | 8,12  | 15    | 13,14   | 17,19 | 12,14 | 11   |
| 4 | 15,20 | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10 |
|   | 22,23 |       |         | 16,18 | 7,9   | 8,9  |
|   | 15,17 |       |         |       |       |      |

7PKXQF-5872 GlobalFiler™ Express

|   |       |       |         |       |       |      |
|---|-------|-------|---------|-------|-------|------|
|   | 14,15 | 20,22 | 11      | 15,17 | 11,13 |      |
|   | 8,12  | 15    | 13,14   | 17,19 | 12,14 | 11   |
| 4 | 15,20 | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10 |
|   | 22,23 |       |         | 16,18 | 7,9   | 8,9  |
|   | 15,17 | 10    |         |       | 2     |      |

84E29B-5872 GlobalFiler™ Express

|   |       |       |         |       |       |      |
|---|-------|-------|---------|-------|-------|------|
|   | 14,15 | 20,22 | 11      | 15,17 | 11,13 |      |
|   | 8,12  | 15    | 13,14   | 17,19 | 12,14 | 11   |
| 4 | 15,20 | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10 |
|   | 22,23 |       |         | 16,18 | 7,9   | 8,9  |
|   | 15,17 | 10    |         |       | 2     |      |

8D3UK9-5877 PowerPlex® Fusion 6C

|   |       |       |         |       |       |      |
|---|-------|-------|---------|-------|-------|------|
|   | 14,15 | 20,22 | 11      | 15,17 | 11,13 |      |
|   | 8,12  | 15    | 13,14   | 17,19 | 12,14 | 11   |
| 4 | 15,20 | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10 |
|   | 22,23 | 2.2,9 | 13,15   | 16,18 | 7,9   | 8,9  |
|   | 15,17 | 10    | 18      | 17    |       |      |



TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 4 - STR Results

|             |  |       |         |       |       |       |
|-------------|--|-------|---------|-------|-------|-------|
| 8MBE64-5872 | Investigator ESSPlex SE plus           |       |         |       |       |       |
|             | 14,15                                  | 20,22 | 11,11   | 15,17 |       |       |
|             |  | 15,15 | 13,14   | 17,19 |       | 11,11 |
| 4           | 15,20                                  | 12,14 | 29,30.2 | 10,18 | X,Y   |       |
|             | 22,23                                  |       |         | 16,18 | 7,9   |       |
|             | 15,17                                  |       |         |       |       |       |
| 9HTLAG-5877 | Verifiler Plus (GeneMapper ID-X v.1.5) |       |         |       |       |       |
|             | 14,15                                  | 20,22 | 11      | 15,17 | 11,13 | 12,19 |
|             | 8,12                                   | 15    | 13,14   | 17,19 | 12,14 | 11    |
| 4           | 15,20                                  | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23                                  | 2.2,9 | 13,15   |       | 7,9   | 8,9   |
|             | 15,17                                  |       |         |       | 2     |       |
| 9P9DFV-5877 | PowerPlex® FUSION 5C (GENOPROOF V. 3)  |       |         |       |       |       |
|             | 14,15                                  | 20,22 | 11,11   | 15,17 | 11,13 |       |
|             | 8,12                                   | 15,15 | 13,14   | 17,19 | 12,14 | 11,11 |
| 4           | 15,20                                  | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23                                  | 2.2,9 | 13,15   |       | 7,9   | 8,9   |
|             | 15,17                                  | 10    |         |       |       |       |
| 9QBQKP-5872 | PowerPlex® Fusion 6C                   |       |         |       |       |       |
|             | 14,15                                  | 20,22 | 11,11   | 15,17 | 11,13 |       |
|             | 8,12                                   | 15,15 | 13,14   | 17,19 | 12,14 | 11,11 |
| 4           | 15,20                                  | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23                                  | 2.2,9 | 13,15   | 16,18 | 7,9   | 8,9   |
|             | 15,17                                  | 10    | 18      | 17    |       |       |
| AFLNDE-5877 | PowerPlex® 5C                          |       |         |       |       |       |
|             | 14,15                                  | 20,22 | 11      | 15,17 | 11,13 | --    |
|             | 8,12                                   | 15    | 13,14   | 17,19 | 12,14 | 11    |
| 4           | 15,20                                  | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23                                  | 2.2,9 | 13,15   | --    | 7,9   | 8,9   |
|             | 15,17                                  | 10    | --      | --    | --    |       |
| AJHDUL-5877 | PowerPlex® Fusion6C (Familias v3.3)    |       |         |       |       |       |
|             | 14,15                                  | 20,22 | 11,11   | 15,17 | 11,13 |       |
|             | 8,12                                   | 15,15 | 13,14   | 17,19 | 12,14 | 11,11 |
| 4           | 15,20                                  | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23                                  | 2.2,9 | 13,15   | 16,18 | 7,9   | 8,9   |
|             | 15,17                                  | 10    | 18      | 17    |       |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 4 - STR Results

|             |                         |       |         |       |       |       |
|-------------|-------------------------|-------|---------|-------|-------|-------|
| ARWY24-5872 | GlobalFiler™            |       |         |       |       |       |
|             | 14,15                   | 20,22 | 11      | 15,17 | 11,13 |       |
|             | 8,12                    | 15    | 13,14   | 17,19 | 12,14 | 11    |
| 4           | 15,20                   | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23                   |       |         | 16,18 | 7,9   | 8,9   |
|             | 15,17                   | 10    |         |       | 2     |       |
| ATTEFL-5877 | Identifiler®            |       |         |       |       |       |
|             |                         | 20,22 |         | 15,17 | 11,13 |       |
|             | 8,12                    | 15    |         |       | 12,14 | 11    |
| 4           | 15,20                   | 12,14 | 29,30.2 |       | X,Y   | 7,10  |
|             | 22,23                   |       |         |       | 7,9   | 8,9   |
|             | 15,17                   |       |         |       |       |       |
| BQVKU2-5877 | GlobalFiler™, MiniFiler |       |         |       |       |       |
|             | 14,15                   | 20,22 | 11,11   | 15,17 | 11,13 |       |
|             | 8,12                    | 15,15 | 13,14   | 17,19 | 12,14 | 11,11 |
| 4           | 15,20                   | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23                   |       |         | 16,18 | 7,9   | 8,9   |
|             | 15,17                   | 10    |         |       | 2     |       |
| BQZZ9N-5872 | GlobalFiler™ express    |       |         |       |       |       |
|             | 14,15                   | 20,22 | 11      | 15,17 | 11,13 |       |
|             | 8,12                    | 15    | 13,14   | 17,19 | 12,14 | 11    |
| 4           | 15,20                   | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23                   |       |         | 16,18 | 7,9   | 8,9   |
|             | 15,17                   | 10    |         |       | 2     |       |
| C8ZC9C-5877 | PowerPlex® Fusion 6C    |       |         |       |       |       |
|             | 14,15                   | 20,22 | 11      | 15,17 | 11,13 |       |
|             | 8,12                    | 15    | 13,14   | 17,19 | 12,14 | 11    |
| 4           | 15,20                   | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23                   | 2,2,9 | 13,15   | 16,18 | 7,9   | 8,9   |
|             | 15,17                   | 10    | 18      | 17    |       |       |
| CV64QA-5872 | GlobalFiler™            |       |         |       |       |       |
|             | 14,15                   | 20,22 | 11,11   | 15,17 | 11,13 |       |
|             | 8,12                    | 15,15 | 13,14   | 17,19 | 12,14 | 11,11 |
| 4           | 15,20                   | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23                   |       |         | 16,18 | 7,9   | 8,9   |
|             | 15,17                   | 10    |         |       | 2     |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 4 - STR Results

|             |                                   |       |         |       |       |       |
|-------------|-----------------------------------|-------|---------|-------|-------|-------|
| DTFCVH-5877 | PowerPlex® Fusion (Gene Analysen) |       |         |       |       |       |
|             | 14,15                             | 20,22 | 11      | 15,17 | 11,13 |       |
|             | 8,12                              | 15    | 13,14   | 17,19 | 12,14 | 11    |
| 4           | 15,20                             | 12,14 | 29,30.2 |       | X,Y   | 7,10  |
|             | 22,23                             | 2.2,9 | 13,15   |       | 7,9   | 8,9   |
|             | 15,17                             | 10    |         |       |       |       |
| DUAZED-5877 | Fusion 6C                         |       |         |       |       |       |
|             | 14,15                             | 20,22 | 11      | 15,17 | 11,13 |       |
|             | 8,12                              | 15    | 13,14   | 17,19 | 12,14 | 11    |
| 4           | 15,20                             | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23                             | 2.2,9 | 13,15   | 16,18 | 7,9   | 8,9   |
|             | 15,17                             | 10    | 18      | 17    |       |       |
| EAH9U8-5872 | Verifiler                         |       |         |       |       |       |
|             | 14,15                             | 20,22 | 11,11   | 15,17 | 11,13 | 12,19 |
|             | 8,12                              | 15,15 | 13,14   | 17,19 | 12,14 | 11,11 |
| 4           | 15,20                             | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23                             | 2.2,9 | 13,15   |       | 7,9   | 8,9   |
|             | 15,17                             |       |         |       | 2     |       |
| EBAAT4-5877 | GlobalFiler™                      |       |         |       |       |       |
|             | 14,15                             | 20,22 | 11      | 15,17 | 11,13 |       |
|             | 8,12                              | 15    | 13,14   | 17,19 | 12,14 | 11    |
| 4           | 15,20                             | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23                             |       |         | 16,18 | 7,9   | 8,9   |
|             | 15,17                             | 10    |         |       | 2     |       |
| ENJRPD-5877 | GlobalFiler™                      |       |         |       |       |       |
|             | 14,15                             | 20,22 | 11      | 15,17 | 11,13 |       |
|             | 8,12                              | 15    | 13,14   | 17,19 | 12,14 | 11    |
| 4           | 15,20                             | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23                             |       |         | 16,18 | 7,9   | 8,9   |
|             | 15,17                             | 10    |         |       | 2     |       |
| ERKVGZ-5872 | GlobalFiler™                      |       |         |       |       |       |
|             | 14,15                             | 20,22 | 11,11   | 15,17 | 11,13 |       |
|             | 8,12                              | 15,15 | 13,14   | 17,19 | 12,14 | 11,11 |
| 4           | 15,20                             | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23                             |       |         | 16,18 | 7,9   | 8,9   |
|             | 15,17                             | 10    |         |       | 2     |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 4 - STR Results

|             |                      |       |         |       |       |       |
|-------------|----------------------|-------|---------|-------|-------|-------|
| F87XDU-5872 | PowerPlex® Fusion 6C |       |         |       |       |       |
|             | 14,15                | 20,22 | 11,11   | 15,17 | 11,13 |       |
|             | 8,12                 | 15,15 | 13,14   | 17,19 | 12,14 | 11,11 |
| 4           | 15,20                | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23                | 2.2,9 | 13,15   | 16,18 | 7,9   | 8,9   |
|             | 15,17                | 10    | 18      | 17    |       |       |
| FDVD22-5872 | PowerPlex® Fusion    |       |         |       |       |       |
|             | 14,15                | 20,22 | 11      | 15,17 | 11,13 |       |
|             | 8,12                 | 15    | 13,14   | 17,19 | 12,14 | 11    |
| 4           | 15,20                | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23                | 2.2,9 | 13,15   |       | 7,9   | 8,9   |
|             | 15,17                | 10    |         |       |       |       |
| FDX37Y-5877 | GlobalFiler™         |       |         |       |       |       |
|             | 14,15                | 20,22 | 11,11   | 15,17 | 11,13 |       |
|             | 8,12                 | 15,15 | 13,14   | 17,19 | 12,14 | 11,11 |
| 4           | 15,20                | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23                |       |         | 16,18 | 7,9   | 8,9   |
|             | 15,17                | 10    |         |       | 2     |       |
| G48YJG-5872 | PowerPlex® Fusion 6C |       |         |       |       |       |
|             | 14,15                | 20,22 | 11,11   | 15,17 | 11,13 |       |
|             | 8,12                 | 15,15 | 13,14   | 17,19 | 12,14 | 11,11 |
| 4           | 15,20                | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23                | 2.2,9 | 13,15   | 16,18 | 7,9   | 8,9   |
|             | 15,17                | 10    | 18      | 17    |       |       |
| GDT3MA-5872 | PowerPlex® Fusion 6C |       |         |       |       |       |
|             | 14,15                | 20,22 | 11      | 15,17 | 11,13 |       |
|             | 8,12                 | 15    | 13,14   | 17,19 | 12,14 | 11    |
| 4           | 15,20                | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23                | 2.2,9 | 13,15   | 16,18 | 7,9   | 8,9   |
|             | 15,17                | 10    | 18      | 17    |       |       |
| GU22R8-5877 | Identifiler® Plus    |       |         |       |       |       |
|             |                      | 20,22 |         | 15,17 | 11,13 |       |
|             | 8,12                 | 15,15 |         |       | 12,14 | 11,11 |
| 4           | 15,20                | 12,14 | 29,30.2 |       | X,Y   | 7,10  |
|             | 22,23                |       |         |       | 7,9   | 8,9   |
|             | 15,17                |       |         |       |       |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|              | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
| Item         | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 4 - STR Results

|                                  |       |              |         |       |       |       |
|----------------------------------|-------|--------------|---------|-------|-------|-------|
| GW36G9-5872 GlobalFiler™         |       |              |         |       |       |       |
|                                  | 14,15 | 20,22        | 11,11   | 15,17 | 11,13 | /     |
|                                  | 8,12  | 15,15        | 13,14   | 17,19 | 12,14 | 11,11 |
| 4                                | 15,20 | 12,14        | 29,30.2 | 10,18 | X,Y   | 7,10  |
|                                  | 22,23 | /            | /       | 16,18 | 7,9   | 8,9   |
|                                  | 15,17 | 10           | /       | /     | 2     |       |
| H9TEJ8-5872 GlobalFiler™ Express |       |              |         |       |       |       |
|                                  | 14,15 | 20,22        | 11,11   | 15,17 | 11,13 |       |
|                                  | 8,12  | 15,15        | 13,14   | 17,19 | 12,14 | 11,11 |
| 4                                | 15,20 | 12,14        | 29,30.2 | 10,18 | X,Y   | 7,10  |
|                                  | 22,23 |              |         | 16,18 | 7,9   | 8,9   |
|                                  | 15,17 | 10           |         |       | 2     |       |
| HFE6AA-5872 GlobalFiler™         |       |              |         |       |       |       |
|                                  | 14,15 | 20,22        | 11,11   | 15,17 | 11,13 |       |
|                                  | 8,12  | 15,15        | 13,14   | 17,19 | 12,14 | 11,11 |
| 4                                | 15,20 | 12,14        | 29,30.2 | 10,18 | X,Y   | 7,10  |
|                                  | 22,23 |              |         | 16,18 | 7,9   | 8,9   |
|                                  | 15,17 | 10           |         |       | 2     |       |
| HWYZF6-5877 GlobalFiler™ IQC     |       |              |         |       |       |       |
|                                  | 14,15 | 20,22        | 11,11   | 15,17 | 11,13 |       |
|                                  | 8,12  | 15,15        | 13,14   | 17,19 | 12,14 | 11,11 |
| 4                                | 15,20 | 12,14        | 29,30.2 | 10,18 | X,Y   | 7,10  |
|                                  | 22,23 |              |         | 16,18 | 7,9   | 8,9   |
|                                  | 15,17 | 10           |         |       | 2     |       |
| J2C32Z-5872 PowerPlex® Fusion 5C |       |              |         |       |       |       |
|                                  | 14,15 | 20,22        | 11      | 15,17 | 11,13 |       |
|                                  | 8,12  | 15           | 13,14   | 17,19 | 12,14 | 11    |
| 4                                | 15,20 | 12,14        | 29,30.2 | 10,18 | X,Y   | 7,10  |
|                                  | 22,23 | 2,2,9        | 13,15   |       | 7,9   | 8,9   |
|                                  | 15,17 | Inconclusive |         |       |       |       |
| JHJYKY-5877 GlobalFiler™         |       |              |         |       |       |       |
|                                  | 14,15 | 20,22        | 11      | 15,17 | 11,13 |       |
|                                  | 8,12  | 15           | 13,14   | 17,19 | 12,14 | 11    |
| 4                                | 15,20 | 12,14        | 29,30.2 | 10,18 | X,Y   | 7,10  |
|                                  | 22,23 |              |         | 16,18 | 7,9   | 8,9   |
|                                  | 15,17 | 10           |         |       | 2     |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 4 - STR Results

|             |                      |       |         |       |       |       |
|-------------|----------------------|-------|---------|-------|-------|-------|
| JLGFXT-5877 | GlobalFiler™         |       |         |       |       |       |
|             | 14,15                | 20,22 | 11,11   | 15,17 | 11,13 |       |
|             | 8,12                 | 15,15 | 13,14   | 17,19 | 12,14 | 11,11 |
| 4           | 15,20                | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23                |       |         | 16,18 | 7,9   | 8,9   |
|             | 15,17                | 10    |         |       | 2     |       |
| K4UEK3-5872 | PowerPlex® FUSION 6C |       |         |       |       |       |
|             | 14,15                | 20,22 | 11,11   | 15,17 | 11,13 |       |
|             | 8,12                 | 15,15 | 13,14   | 17,19 | 12,14 | 11,11 |
| 4           | 15,20                | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23                | 2.2,9 | 13,15   | 16,18 | 7,9   | 8,9   |
|             | 15,17                | 10    | 18      | 17    |       |       |
| K8WKWM-5872 | PowerPlex® Fusion    |       |         |       |       |       |
|             | 14,15                | 20,22 | 11      | 15,17 | 11,13 |       |
|             | 8,12                 | 15    | 13,14   | 17,19 | 12,14 | 11    |
| 4           | 15,20                | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23                | 2.2,9 | 13,15   |       | 7,9   | 8,9   |
|             | 15,17                | 10    |         |       |       |       |
| K9R2B7-5872 | PowerPlex® Fusion    |       |         |       |       |       |
|             | 14,15                | 20,22 | 11      | 15,17 | 11,13 |       |
|             | 8,12                 | 15    | 13,14   | 17,19 | 12,14 | 11    |
| 4           | 15,20                | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23                | 2.2,9 | 13,15   |       | 7,9   | 8,9   |
|             | 15,17                | 10    |         |       |       |       |
| KFPQWF-5872 | GlobalFiler™         |       |         |       |       |       |
|             | 14,15                | 20,22 | 11,11   | 15,17 | 11,13 |       |
|             | 8,12                 | 15,15 | 13,14   | 17,19 | 12,14 | 11,11 |
| 4           | 15,20                | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23                |       |         | 16,18 | 7,9   | 8,9   |
|             | 15,17                | 10    |         |       | 2     |       |
| KKHW9X-5872 | PowerPlex® Fusion 5C |       |         |       |       |       |
|             | 14,15                | 20,22 | 11,11   | 15,17 | 11,13 |       |
|             | 8,12                 | 15,15 | 13,14   | 17,19 | 12,14 | 11,11 |
| 4           | 15,20                | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23                | 2.2,9 | 13,15   |       | 7,9   | 8,9   |
|             | 15,17                | 10    |         |       |       |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|              | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
| Item         | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 4 - STR Results

|             |                      |            |            |            |       |            |
|-------------|----------------------|------------|------------|------------|-------|------------|
| L2XMK2-5872 | Identifiler®         |            |            |            |       |            |
|             |                      | 20,22      |            | 15,17      | 11,13 |            |
|             | 8,12                 | 15,15      |            |            | 12,14 | 11,11      |
| 4           | 15,20                | 12,14      | 29,30.2    |            | X,Y   | 7,10       |
|             | 22,23                |            |            |            | 7,9   | 8,9        |
|             | 15,17                |            |            |            |       |            |
| NBJ97Q-5872 | PowerPlex® Fusion 5C |            |            |            |       |            |
|             | 14,15                | 20,22      | 11,11      | 15,17      | 11,13 |            |
|             | 8,12                 | 15,15      | 13,14      | 17,19      | 12,14 | 11,11      |
| 4           | 15,20                | 12,14      | 29,30.2    | 10,18      | X,Y   | 7,10       |
|             | 22,23                | 2.2,9      | 13,15      |            | 7,9   | 8,9        |
|             | 15,17                | 10         |            |            |       |            |
| NQDVAV-5872 | GlobalFiler™ Express |            |            |            |       |            |
|             | 14,15                | 20,22      | 11         | 15,17      | 11,13 | -          |
|             | 8,12                 | 15         | 13,14      | 17,19      | 12,14 | 11         |
| 4           | 15,20                | 12,14      | 29,30.2    | 10,18      | X,Y   | 7,10       |
|             | 22,23                | -          | -          | 16,18      | 7,9   | 8,9        |
|             | 15,17                | 10         | -          | -          | 2     |            |
| P2R7J9-5872 | PowerPlex® Fusion 6C |            |            |            |       |            |
|             | 14,15                | 20,22      | 11,11      | 15,17      | 11,13 |            |
|             | 8,12                 | 15,15      | 13,14      | 17,19      | 12,14 | 11,11      |
| 4           | 15,20                | 12,14      | 29,30.2    | 10,18      | X,Y   | 7,10       |
|             | 22,23                | 2.2,9      | 13,15      | 16,18      | 7,9   | 8,9        |
|             | 15,17                | 10         | 18         | 17         |       |            |
| P99QKY-5872 |                      |            |            |            |       |            |
|             | 14,15                | 20,22      | 11,11      | 15,17      | 11,13 |            |
|             | 8,12                 | 15,15      | 13,14      | 17,19      | 12,14 | 11,11      |
| 4           | 15,20                | 12,14      | 29,30.2    | 10,18      | X,Y   | 7,10       |
|             | 22,23                |            |            | 16,18      | 7,9   | 8,9        |
|             | 15,17                | 10         |            |            | 2     |            |
| PMBG2X-5877 | GlobalFiler™         |            |            |            |       |            |
|             | 14,15                | 20,22      | 11         | 15,17      | 11,13 | Not Tested |
|             | 8,12                 | 15         | 13,14      | 17,19      | 12,14 | 11         |
| 4           | 15,20                | 12,14      | 29,30.2    | 10,18      | X,Y   | 7,10       |
|             | 22,23                | Not Tested | Not Tested | 16,18      | 7,9   | 8,9        |
|             | 15,17                | 10         | Not Tested | Not Tested | 2     |            |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 4 - STR Results

PMD6KW-5872 GlobalFiler™ Express

|   |       |       |         |       |       |       |
|---|-------|-------|---------|-------|-------|-------|
|   | 14,15 | 20,22 | 11,11   | 15,17 | 11,13 |       |
|   | 8,12  | 15,15 | 13,14   | 17,19 | 12,14 | 11,11 |
| 4 | 15,20 | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|   | 22,23 |       |         | 16,18 | 7,9   | 8,9   |
|   | 15,17 | 10    |         |       | 2     |       |

PTVD6M-5872 GlobalFiler™

|   |       |       |         |       |       |       |
|---|-------|-------|---------|-------|-------|-------|
|   | 14,15 | 20,22 | 11,11   | 15,17 | 11,13 |       |
|   | 8,12  | 15,15 | 13,14   | 17,19 | 12,14 | 11,11 |
| 4 | 15,20 | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|   | 22,23 |       |         | 16,18 | 7,9   | 8,9   |
|   | 15,17 | 10    |         |       | 2     |       |

PTX3AK-5877 GlobalFiler™

|   |       |       |         |       |       |      |
|---|-------|-------|---------|-------|-------|------|
|   | 14,15 | 20,22 | 11      | 15,17 | 11,13 |      |
|   | 8,12  | 15    | 13,14   | 17,19 | 12,14 | 11   |
| 4 | 15,20 | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10 |
|   | 22,23 |       |         | 16,18 | 7,9   | 8,9  |
|   | 15,17 | 10    |         |       | 2     |      |

PU94VJ-5877 GlobalFiler™

|   |       |       |         |       |       |      |
|---|-------|-------|---------|-------|-------|------|
|   | 14,15 | 20,22 | 11      | 15,17 | 11,13 |      |
|   | 8,12  | 15    | 13,14   | 17,19 | 12,14 | 11   |
| 4 | 15,20 | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10 |
|   | 22,23 |       |         | 16,18 | 7,9   | 8,9  |
|   | 15,17 | 10    |         |       | 2     |      |

QHBLZA-5872 PowerPlex®

|   |       |       |         |       |       |       |
|---|-------|-------|---------|-------|-------|-------|
|   | 14,15 | 20,22 |         | 15,17 | 11,13 | 12,19 |
|   | 8,12  | 15,15 |         | 17,19 | 12,14 | 11,11 |
| 4 | 15,20 | 12,14 | 29,30.2 |       | X,Y   | 7,10  |
|   | 22,23 | 2,2,9 | 13,15   |       | 7,9   | 8,9   |
|   | 15,17 |       |         |       |       |       |

QV46G2-5872 GlobalFiler™

|   |       |       |         |       |       |       |
|---|-------|-------|---------|-------|-------|-------|
|   | 14,15 | 20,22 | 11,11   | 15,17 | 11,13 |       |
|   | 8,12  | 15,15 | 13,14   | 17,19 | 12,14 | 11,11 |
| 4 | 15,20 | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|   | 22,23 |       |         | 16,18 | 7,9   | 8,9   |
|   | 15,17 | 10    |         |       | 2     |       |



TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|              | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
| Item         | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 4 - STR Results

QZUGCW-5872 PowerPlex® Fusion

|   |       |       |         |       |       |      |
|---|-------|-------|---------|-------|-------|------|
|   | 14,15 | 20,22 | 11      | 15,17 | 11,13 |      |
|   | 8,12  | 15    | 13,14   | 17,19 | 12,14 | 11   |
| 4 | 15,20 | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10 |
|   | 22,23 | 2.2,9 | 13,15   |       | 7,9   | 8,9  |
|   | 15,17 | 10    |         |       |       |      |

R3EPWH-5872 PowerPlex® Fusion 6C

|   |       |       |         |       |       |      |
|---|-------|-------|---------|-------|-------|------|
|   | 14,15 | 20,22 | 11      | 15,17 | 11,13 |      |
|   | 8,12  | 15    | 13,14   | 17,19 | 12,14 | 11   |
| 4 | 15,20 | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10 |
|   | 22,23 | 2.2,9 | 13,15   | 16,18 | 7,9   | 8,9  |
|   | 15,17 | 10    | 18      | 17    |       |      |

RBTEVQ-5877 GlobalFiler™

|   |       |       |         |       |       |       |
|---|-------|-------|---------|-------|-------|-------|
|   | 14,15 | 20,22 | 11,11   | 15,17 | 11,13 |       |
|   | 8,12  | 15,15 | 13,14   | 17,19 | 12,14 | 11,11 |
| 4 | 15,20 | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|   | 22,23 |       |         | 16,18 | 7,9   | 8,9   |
|   | 15,17 | 10    |         |       | 2     |       |

RKEH3P-5872 PowerPlex® Fusion

|   |       |       |         |       |       |      |
|---|-------|-------|---------|-------|-------|------|
|   | 14,15 | 20,22 | 11      | 15,17 | 11,13 |      |
|   | 8,12  | 15    | 13,14   | 17,19 | 12,14 | 11   |
| 4 | 15,20 | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10 |
|   | 22,23 | 2.2,9 | 13,15   |       | 7,9   | 8,9  |
|   | 15,17 | 10    |         |       |       |      |

TFFNHU-5872 PowerPlex® Fusion 5C

|   |       |       |         |       |       |      |
|---|-------|-------|---------|-------|-------|------|
|   | 14,15 | 20,22 | 11      | 15,17 | 11,13 |      |
|   | 8,12  | 15    | 13,14   | 17,19 | 12,14 | 11   |
| 4 | 15,20 | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10 |
|   | 22,23 | 2.2,9 | 13,15   |       | 7,9   | 8,9  |
|   | 15,17 | 10    |         |       |       |      |

TNRV34-5872 GlobalFiler™

|   |       |       |         |       |       |       |
|---|-------|-------|---------|-------|-------|-------|
|   | 14,15 | 20,22 | 11,11   | 15,17 | 11,13 |       |
|   | 8,12  | 15,15 | 13,14   | 17,19 | 12,14 | 11,11 |
| 4 | 15,20 | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|   | 22,23 |       |         | 16,18 | 7,9   | 8,9   |
|   | 15,17 | 10    |         |       | 2     |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 4 - STR Results

|             |  |       |         |       |       |       |
|-------------|--|-------|---------|-------|-------|-------|
| TYCCNJ-5877 | GlobalFiler™   |       |         |       |       |       |
|             | 14,15  | 20,22 | 11,11   | 15,17 | 11,13 |       |
|             | 8,12   | 15,15 | 13,14   | 17,19 | 12,14 | 11,11 |
| 4           | 15,20  | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23  |       |         | 16,18 | 7,9   | 8,9   |
|             | 15,17  | 10    |         |       | 2     |       |
| TZ8R32-5872 | GlobalFiler™   |       |         |       |       |       |
|             | 14,15  | 20,22 | 11      | 15,17 | 11,13 |       |
|             | 8,12   | 15    | 13,14   | 17,19 | 12,14 | 11    |
| 4           | 15,20  | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23  |       |         | 16,18 | 7,9   | 8,9   |
|             | 15,17  | 10    |         |       | 2     |       |
| UALBVW-5877 | PowerPlex® 21  |       |         |       |       |       |
|             | 14,15  | 20,22 |         | 15,17 | 11,13 | 12,19 |
|             | 8,12   | 15    |         | 17,19 | 12,14 | 11    |
| 4           | 15,20  | 12,14 | 29,30.2 |       |       | 7,10  |
|             | 22,23  | 2.2,9 | 13,15   |       | 7,9   | 8,9   |
|             | 15,17  |       |         |       |       |       |
| URUYR6-5872 | PowerPlex® 21  |       |         |       |       |       |
|             | 14,15  | 20,22 |         | 15,17 | 11,13 | 12,19 |
|             | 8,12   | 15,15 |         | 17,19 | 12,14 | 11,11 |
| 4           | 15,20  | 12,14 | 29,30.2 |       | X,Y   | 7,10  |
|             | 22,23  | 2.2,9 | 13,15   |       | 7,9   | 8,9   |
|             | 15,17  |       |         |       |       |       |
| UZLJPQ-5872 | PowerPlex® FUSION, PowerPlex ESX17, CS7 and Verifiler Plus |       |         |       |       |       |
|             | 14,15  | 20,22 | 11      | 15,17 | 11,13 | 12,19 |
|             | 8,12   | 15    | 13,14   | 17,19 | 12,14 | 11    |
| 4           | 15,20  | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23  | 2.2,9 | 13,15   | 16,18 | 7,9   | 8,9   |
|             | 15,17  | 10    | 18      | 17    |       |       |
| V2BAAV-5877 | ForenSeq Signature Prep - Primer Set B                     |       |         |       |       |       |
|             | 14,15  | 20,22 | 11      | 15,17 | 11,13 | 12,19 |
|             | 8,12   | 15    | 13,14   | 17,19 | 12,14 | 11    |
| 4           | 15,20  | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23  | 2.2,9 | 13,15   |       | 7,9   | 8,9   |
|             | 15,17  | 10    | 18      | 17    |       |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 4 - STR Results

W2RKQF-5872 GlobalFiler™

|   |       |       |         |       |       |       |
|---|-------|-------|---------|-------|-------|-------|
|   | 14,15 | 20,22 | 11,11   | 15,17 | 11,13 |       |
|   | 8,12  | 15,15 | 13,14   | 17,19 | 12,14 | 11,11 |
| 4 | 15,20 | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|   | 22,23 |       |         | 16,18 | 7,9   | 8,9   |
|   | 15,17 | 10    |         |       | 2     |       |

W7GZEM-5872 GlobalFiler™ Express

|   |       |       |         |       |       |      |
|---|-------|-------|---------|-------|-------|------|
|   | 14,15 | 20,22 | 11      | 15,17 | 11,13 |      |
|   | 8,12  | 15    | 13,14   | 17,19 | 12,14 | 11   |
| 4 | 15,20 | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10 |
|   | 22,23 |       |         | 16,18 | 7,9   | 8,9  |
|   | 15,17 | 10    |         |       | 2     |      |

W7KMRU-5877 GlobalFiler™

|   |       |       |         |       |       |      |
|---|-------|-------|---------|-------|-------|------|
|   | 14,15 | 20,22 | 11      | 15,17 | 11,13 |      |
|   | 8,12  | 15    | 13,14   | 17,19 | 12,14 | 11   |
| 4 | 15,20 | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10 |
|   | 22,23 |       |         | 16,18 | 7,9   | 8,9  |
|   | 15,17 | 10    |         |       | 2     |      |

WAKXNU-5877 GlobalFiler™

|   |       |       |         |       |       |      |
|---|-------|-------|---------|-------|-------|------|
|   | 14,15 | 20,22 | 11      | 15,17 | 11,13 |      |
|   | 8,12  | 15    | 13,14   | 17,19 | 12,14 | 11   |
| 4 | 15,20 | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10 |
|   | 22,23 |       |         | 16,18 | 7,9   | 8,9  |
|   | 15,17 | 10    |         |       | 2     |      |

WRGJ6E-5872 GlobalFiler™

|   |       |       |         |       |       |       |
|---|-------|-------|---------|-------|-------|-------|
|   | 14,15 | 20,22 | 11,11   | 15,17 | 11,13 |       |
|   | 8,12  | 15,15 | 13,14   | 17,19 | 12,14 | 11,11 |
| 4 | 15,20 | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|   | 22,23 |       |         | 16,18 | 7,9   | 8,9   |
|   | 15,17 | 10    |         |       | 2     |       |

WYXW8K-5872 PowerPlex® Fusion 5C

|   |       |       |         |       |       |      |
|---|-------|-------|---------|-------|-------|------|
|   | 14,15 | 20,22 | 11      | 15,17 | 11,13 |      |
|   | 8,12  | 15    | 13,14   | 17,19 | 12,14 | 11   |
| 4 | 15,20 | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10 |
|   | 22,23 | 2.2,9 | 13,15   |       | 7,9   | 8,9  |
|   | 15,17 | 10    |         |       |       |      |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 4 - STR Results

|             |                                 |       |         |       |       |       |
|-------------|---------------------------------|-------|---------|-------|-------|-------|
| XQMVLJ-5872 | PowerPlex® Fusion               |       |         |       |       |       |
|             | 14,15                           | 20,22 | 11      | 15,17 | 11,13 |       |
|             | 8,12                            | 15    | 13,14   | 17,19 | 12,14 | 11    |
| 4           | 15,20                           | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23                           | 2.2,9 | 13,15   |       | 7,9   | 8,9   |
|             | 15,17                           | 10    |         |       |       |       |
| XWQWMD-5872 | PowerPlex® Fusion 5C            |       |         |       |       |       |
|             | 14,15                           | 20,22 | 11      | 15,17 | 11,13 |       |
|             | 8,12                            | 15    | 13,14   | 17,19 | 12,14 | 11    |
| 4           | 15,20                           | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23                           | 2.2,9 | 13,15   |       | 7,9   | 8,9   |
|             | 15,17                           | 10    |         |       |       |       |
| XWTLQB-5872 | PowerPlex® Fusion 5C            |       |         |       |       |       |
|             | 14,15                           | 20,22 | 11      | 15,17 | 11,13 |       |
|             | 8,12                            | 15    | 13,14   | 17,19 | 12,14 | 11    |
| 4           | 15,20                           | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23                           | 2.2,9 | 13,15   |       | 7,9   | 8,9   |
|             | 15,17                           | 10    |         |       |       |       |
| XZQ8HD-5872 | PowerPlex® Fusion 6C            |       |         |       |       |       |
|             | 14,15                           | 20,22 | 11      | 15,17 | 11,13 |       |
|             | 8,12                            | 15    | 13,14   | 17,19 | 12,14 | 11    |
| 4           | 15,20                           | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23                           | 2.2,9 | 13,15   | 16,18 | 7,9   | 8,9   |
|             | 15,17                           | 10    | 18      | 17    |       |       |
| YA99BR-5872 | GlobalFiler™ Express (Familias) |       |         |       |       |       |
|             | 14,15                           | 20,22 | 11      | 15,17 | 11,13 |       |
|             | 8,12                            | 15    | 13,14   | 17,19 | 12,14 | 11    |
| 4           | 15,20                           | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23                           |       |         | 16,18 | 7,9   | 8,9   |
|             | 15,17                           | 10    |         |       | 2     |       |
| YGVRZ2-5872 | PowerPlex® 21                   |       |         |       |       |       |
|             | 14,15                           | 20,22 |         | 15,17 | 11,13 | 12,19 |
|             | 8,12                            | 15,15 |         | 17,19 | 12,14 | 11,11 |
| 4           | 15,20                           | 12,14 | 29,30.2 |       | X,Y   | 7,10  |
|             | 22,23                           | 2.2,9 | 13,15   |       | 7,9   | 8,9   |
|             | 15,17                           |       |         |       |       |       |

TABLE 1

| WebCode-Test | Amplification Kits (Probabilistic Genotyping) |         |          |          |            |         |
|--------------|---|---------|----------|----------|------------|---------|
|              | D1S1656                                       | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820  | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51  | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA   | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA   | DYS391  | DYS570   | DYS576   | Y Indel    |         |

Item 4 - STR Results

|             |                   |       |         |       |       |       |
|-------------|-------------------|-------|---------|-------|-------|-------|
| ZEKBY9-5877 | GlobalFiler™      |       |         |       |       |       |
|             | 14,15             | 20,22 | 11      | 15,17 | 11,13 |       |
|             | 8,12              | 15    | 13,14   | 17,19 | 12,14 | 11    |
| 4           | 15,20             | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23             |       |         | 16,18 | 7,9   | 8,9   |
|             | 15,17             | 10    |         |       | 2     |       |
| ZFX3RQ-5872 | PowerPlex® Fusion |       |         |       |       |       |
|             | 14,15             | 20,22 | 11,11   | 15,17 | 11,13 |       |
|             | 8,12              | 15,15 | 13,14   | 17,19 | 12,14 | 11,11 |
| 4           | 15,20             | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23             | 2.2,9 | 13,15   |       | 7,9   | 8,9   |
|             | 15,17             | 10,10 |         |       |       |       |
| ZZEH7B-5872 | GlobalFiler™      |       |         |       |       |       |
|             | 14,15             | 20,22 | 11,11   | 15,17 | 11,13 |       |
|             | 8,12              | 15,15 | 13,14   | 17,19 | 12,14 | 11,11 |
| 4           | 15,20             | 12,14 | 29,30.2 | 10,18 | X,Y   | 7,10  |
|             | 22,23             |       |         | 16,18 | 7,9   | 8,9   |
|             | 15,17             | 10    |         |       | 2     |       |

# Paternity Index Results

## TABLE 2

| WebCode-Test | Population Database(s) |         |          |          |            |         |
|--------------|------------------------|---------|----------|----------|------------|---------|
| Item         | D1S1656                | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|              | D7S820                 | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51                 | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA                    | Penta D | Penta E  | SE33     | TH01       | TPOX    |
| vWA          |                        |         |          |          |            |         |

### Item 3PI - Paternity Index Results

|                            |             |             |        |             |        |             |
|----------------------------|-------------|-------------|--------|-------------|--------|-------------|
| 33G37G-5872 NIST-STRBASE   |             |             |        |             |        |             |
|                            | 6.6844      | 3.1948      | 2.3752 | 30.1204     | 1.3444 |             |
|                            | 4.8780      | 1.5169      | 5.0838 | 3.1113      | 8.2987 | 0.7951      |
| 3PI                        | 4.0551      | 2.7662      | 3.5398 | 13.3689     |        | 1.3885      |
|                            | 8.1103      |             |        | 119.0476    | 5.1572 | 1.9833      |
|                            | 3.5223      |             |        |             |        |             |
| 39LYUM-5872 Local Database |             |             |        |             |        |             |
|                            | 9.71        | 3.51        | 2.66   | 39.37       | 1.44   |             |
|                            | 5.10        | 1.44        | 4.29   | 2.76        | 7.12   | 0.81        |
| 3PI                        | 4.84        | 2.67        | 4.20   | 15.20       |        | 1.64        |
|                            | 7.57        | 1.96        | 12.85  | 68.49       | 7.55   | 1.97        |
|                            | 3.38        |             |        |             |        |             |
| 3ECCR6-5877 FBI PopStats   |             |             |        |             |        |             |
|                            | 6.6357      | 3.7994      | 1.1484 | 34.722      | 1.4075 |             |
|                            | 3.4542      | 1.5480      | 4.0984 | 4.0193      | 13.928 | 0.82932     |
| 3PI                        | 2.9851      | 3.2404      | 3.0960 | 16.722      |        | 1.2745      |
|                            | 14.409      |             |        | 41.667      | 2.9647 | 1.8335      |
| 3F8R7M-5877 Promega        |             |             |        |             |        |             |
|                            | 6.6845      | 3.1949      |        | 30.1205     | 1.3444 | 15.6740     |
|                            | 4.8780      | 1.5170      |        | 3.1114      | 8.2988 | 0.7952      |
| 3PI                        | 4.0552      | 2.7663      | 3.5398 |             |        | 1.3885      |
|                            | 8.1103      | 2.2563      | 9.7656 |             | 5.1573 | 1.9833      |
|                            | 3.5224      |             |        |             |        |             |
| 3FRDYD-5877 FBI PopStats   |             |             |        |             |        |             |
|                            | 6.6357      | 3.7994      | 1.1484 | 34.722      | 1.4075 |             |
|                            | 3.4542      | 1.5480      | 4.0984 | 4.0193      | 13.928 | 0.82932     |
| 3PI                        | 2.9851      | 3.2404      | 3.0960 | 16.722      |        | 1.2745      |
|                            | 14.409      | 2.5176      | 4.3554 | 41.667      | 2.9647 | 1.8335      |
|                            | 4.4464      |             |        |             |        |             |
| 3LW7VU-5872 NIST-STRBASE   |             |             |        |             |        |             |
|                            |             | 1.597345133 | 1.1875 | 15.95791032 |        |             |
|                            | 4.878378378 | 1.516806723 |        | 1.940860215 |        | 0.795154185 |
| 3PI                        | 2.028089888 | 2.766283525 |        |             |        | 1.388461538 |
|                            |             |             |        | 60.16666667 |        | 1.46801154  |
| 3M2YKL-5877 NIST-STRBASE   |             |             |        |             |        |             |
|                            | 6.68        | 3.19        | 2.37   | 30.0        | 1.34   |             |
|                            | 4.87        | 1.51        | 5.08   |             | 8.29   | 0.795       |
| 3PI                        | 4.05        | 2.76        | 3.53   | 13.3        |        | 1.38        |
|                            | 8.11        | 2.25        | 9.75   | 72.2        | 5.15   | 1.98        |
|                            | 3.52        |             |        |             |        |             |

TABLE 2

| WebCode-Test | Population Database(s) |         |          |          |            |         |
|--------------|------------------------|---------|----------|----------|------------|---------|
|              | D1S1656                | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820                 | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51                 | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA                    | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA                    |         |          |          |            |         |

Item 3PI - Paternity Index Results

|             |                                 |         |        |        |         |         |
|-------------|---------------------------------|---------|--------|--------|---------|---------|
| 3PVM4G-5877 | [Location Identifying Database] |         |        |        |         |         |
|             |                                 | 3.42    |        | 50.00  | 1.34    |         |
|             |                                 | 5.54    | 1.54   |        | 8.21    | 0.80    |
| 3PI         |                                 | 4.11    | 2.93   | 3.97   |         | 1.52    |
|             |                                 | 7.19    |        |        | 4.59    | 1.93    |
|             |                                 | 4.08    |        |        |         |         |
| 63UDXK-5872 | FBI PopStats                    |         |        |        |         |         |
|             |                                 | 6.9638  | 3.3670 | 2.7670 | 40.323  | 1.3160  |
|             |                                 | 4.9261  | 1.4961 | 5.7703 | 2.8852  | 0.81446 |
| 3PI         |                                 | 4.2088  | 2.8653 | 4.2974 | 10.363  | 1.5305  |
|             |                                 | 6.9638  |        |        | 5.7703  | 1.9608  |
|             |                                 | 3.7411  |        |        |         |         |
| 6CHZCV-5872 | NIST-STRBASE                    |         |        |        |         |         |
|             |                                 | 6.1843  | 3.7679 |        | 54.3478 | 1.4948  |
|             |                                 | 4.2463  | 1.8636 |        | 3.2982  | 10.3093 |
| 3PI         |                                 | 4.7755  | 3.2884 | 4.0388 |         | 1.4510  |
|             |                                 | 11.3250 | 2.3020 | 9.8619 |         | 3.3910  |
|             |                                 | 3.8153  |        |        |         |         |
| 73W8G7-5872 | FBI PopStats                    |         |        |        |         |         |
|             |                                 | 6.68    | 3.20   | 2.38   | 30.1    | 1.34    |
|             |                                 | 4.88    | 1.52   | 5.08   | 3.11    | 8.30    |
| 3PI         |                                 | 4.06    | 2.77   | 3.54   | 13.4    | 1.39    |
|             |                                 | 8.11    | 2.26   | 9.77   | 119     | 5.16    |
|             |                                 | 3.52    |        |        |         |         |
| 77PJU3-5877 | FBI PopStats                    |         |        |        |         |         |
|             |                                 | 6.6357  | 3.7994 | 1.1484 | 34.722  | 1.4075  |
|             |                                 | 3.4542  | 1.5480 | 4.0984 | 4.0193  | 13.928  |
| 3PI         |                                 | 2.9851  | 3.2404 | 3.0960 | 16.722  | 1.2745  |
|             |                                 | 14.409  |        |        | 41.667  | 2.9647  |
|             |                                 | 1.8335  |        |        |         |         |
| 786NQE-5872 | NIST-STRBASE                    |         |        |        |         |         |
|             |                                 | 6.68    | 3.19   | 2.38   | 30.12   | 1.34    |
|             |                                 | 4.88    | 1.52   | 5.08   | 3.11    | 8.30    |
| 3PI         |                                 | 4.06    | 2.77   | 3.54   | 13.37   | 1.39    |
|             |                                 | 8.11    | 2.26   | 9.77   | 119.05  | 5.16    |
|             |                                 | 3.52    |        |        |         |         |
| 7DPVWQ-5872 | FBI PopStats, NIST 2017         |         |        |        |         |         |
|             |                                 | 6.68    | 3.19   | 2.37   | 30.1    | 1.34    |
|             |                                 | 4.87    | 1.51   | 5.08   | 3.11    | 8.29    |
| 3PI         |                                 | 4.05    | 2.76   | 3.53   | 13.3    | 1.38    |
|             |                                 | 8.11    |        |        |         | 5.15    |
|             |                                 | 1.98    |        |        |         |         |

TABLE 2

| WebCode-Test | Population Database(s) |         |          |          |            |         |
|--------------|------------------------|---------|----------|----------|------------|---------|
|              | D1S1656                | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820                 | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51                 | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA                    | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA                    |         |          |          |            |         |

Item 3PI - Paternity Index Results

|             |                                     |             |             |             |             |             |
|-------------|-------------------------------------|-------------|-------------|-------------|-------------|-------------|
| 7F4KV8-5872 | laboratory specific database        |             |             |             |             |             |
|             | 9,523810                            | 3,521127    | 2,637131    | 41,666667   | 1,439885    |             |
|             | 5,102041                            | 1,440922    | 4,255319    | 2,673797    | 7,132668    | 0,808146    |
| 3PI         | 4,854369                            | 2,673797    | 5,434783    | 2,702703    |             | 1,636661    |
|             | 7,575758                            |             |             | 250,000000  | 7,518797    | 1,945525    |
|             | 3,357958                            |             |             |             |             |             |
| 7PKXQF-5872 | NIST-STRBASE                        |             |             |             |             |             |
|             | 6.6844                              | 3.1948      | 2.3752      | 30.1204     | 1.3444      |             |
|             | 4.8780                              | 1.5169      | 5.0838      | 3.1113      | 8.2987      | 0.7951      |
| 3PI         | 4.0551                              | 2.7662      | 3.5398      | 13.3689     |             | 1.3885      |
|             | 8.1103                              |             |             | 119.0476    | 5.1572      | 1.9833      |
|             | 3.5223                              |             |             |             |             |             |
| 84E29B-5872 | NIST-STRBASE                        |             |             |             |             |             |
|             | 6.6844                              | 3.1948      | 2.3752      | 30.1204     | 1.3444      |             |
|             | 4.8780                              | 1.5169      | 5.0838      | 3.1113      | 8.2987      | 0.7951      |
| 3PI         | 4.0551                              | 2.7662      | 3.5398      | 13.3689     |             | 1.3885      |
|             | 8.1103                              |             |             | 119.0476    | 5.1572      | 1.9833      |
|             | 3.5223                              |             |             |             |             |             |
| 8D3UK9-5877 | FBI PopStats                        |             |             |             |             |             |
|             | 6.63                                | 3.79        | 1.14        | 34.72       | 1.40        |             |
|             | 3.45                                | 1.54        | 4.09        | 4.01        | 13.92       | 0.82        |
| 3PI         | 2.98                                | 3.24        | 3.09        | 16.72       |             | 1.27        |
|             | 14.40                               | 2.51        | 4.35        | 41.66       | 2.96        | 1.83        |
|             | 4.44                                |             |             |             |             |             |
| 8MBE64-5872 | local database                      |             |             |             |             |             |
|             | 6.6888                              | 3.254       | 2.5457      | 35.8482     |             |             |
|             |                                     | 1.6799      | 4.1082      | 3.1587      |             | 0.8799      |
| 3PI         | 4.5432                              | 3.3082      | 5.0412      | 11.6482     |             |             |
|             | 7.5723                              |             |             | 151.8485    | 7.2778      |             |
|             | 3.4708                              |             |             |             |             |             |
| 9HTLAG-5877 | NIST-STRBASE                        |             |             |             |             |             |
|             | 6.684491979                         | 3.194888179 | 2.375296912 | 30.12048193 | 1.344447432 | 15.67398119 |
|             | 4.87804878                          | 1.516990291 | 5.083884087 | 3.111387679 | 8.298755187 | 0.795165394 |
| 3PI         | 4.055150041                         | 2.766251729 | 3.539823009 | 13.36898396 |             | 1.388503194 |
|             | 8.110300081                         | 2.25631769  | 9.765625    |             | 5.157297576 | 1.983339944 |
|             | 3.522367031                         |             |             |             |             |             |
| 9P9DFV-5877 | Qualityte database based on STRider |             |             |             |             |             |
|             | 7.57                                | 3.33        | 2.47        | 40.98       | 1.43        |             |
|             | 5.10                                | 1.56        | 5.15        | 3.05        | 7.06        | 0.85        |
| 3PI         | 3.86                                | 3.04        | 4.40        | 10.87       |             | 1.69        |
|             | 7.36                                | 2.35        | 8.93        |             | 6.23        | 1.99        |
|             | 3.60                                |             |             |             |             |             |



TABLE 2

| WebCode-Test | Population Database(s) |         |          |          |            |         |
|--------------|------------------------|---------|----------|----------|------------|---------|
|              | D1S1656                | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820                 | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51                 | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA                    | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA                    |         |          |          |            |         |

Item 3PI - Paternity Index Results

|             |                                   |            |            |            |        |            |
|-------------|-----------------------------------|------------|------------|------------|--------|------------|
| 9QBQKP-5872 | FBI PopStats                      |            |            |            |        |            |
|             |                                   | 3.5920     | 3.1289     | 1.8657     | 19.380 | 2.0859     |
|             |                                   | 2.8531     | 2.4876     | 4.8497     | 3.5945 | 4.6189     |
| 3PI         |                                   | 2.3095     | 3.3445     | 3.0312     | 4.5126 | 1.2933     |
|             |                                   | 11.416     | 1.5903     | 8.8183     | 19.380 | 3.7313     |
|             |                                   | 3.1807     |            |            |        |            |
| AFLNDE-5877 | FBI PopStats, Promega/NIST        |            |            |            |        |            |
|             |                                   | 6.67       | 3.18       | 2.34       | 40.5   | 1.3        |
|             |                                   | 4.88       | 1.47       | 5.09       | 3.07   | 9.83       |
| 3PI         |                                   | 4.01       | 2.96       | 4.27       | 12.8   | 1.52       |
|             |                                   | 6.78       | 2.88       | 8.13       | --     | 5.73       |
|             |                                   | 3.78       |            |            |        |            |
| AJHDUL-5877 | NIST-STRBASE                      |            |            |            |        |            |
|             |                                   | 6.685      | 3.195      | 2.375      | 30.083 | 1.345      |
|             |                                   | 4.878      | 1.517      | 5.085      | 3.112  | 8.3        |
| 3PI         |                                   | 4.056      | 2.766      | 3.539      | 13.37  | 1.388      |
|             |                                   | 8,112      | 2.256      | 9.757      | 120.3  | 5.157      |
|             |                                   | 3.522      |            |            |        |            |
| ARWY24-5872 | NIST-STRBASE                      |            |            |            |        |            |
|             |                                   | 7.2622     | 3.9339     | 1.4841     | 47.170 | 1.3721     |
|             |                                   | 3.6036     | 1.8295     | 4.7192     |        | 9.0744     |
| 3PI         |                                   | 4.0683     | 2.8265     | 3.6590     | 10.977 | 1.3333     |
|             |                                   | 11.806     |            |            | 47.170 | 3.3715     |
|             |                                   |            |            |            |        | 1.9670     |
| ATTEFL-5877 | User's Manual AmpFISTR Identifier |            |            |            |        |            |
|             |                                   |            | 3,42465753 |            | 50     | 1,43228188 |
|             |                                   | 5,5401662  | 1,53751538 |            |        | 8,21018062 |
| 3PI         |                                   | 4,10509031 | 2,93255132 | 3,96667989 |        | 1,52392563 |
|             |                                   | 7,1942446  |            |            |        | 4,59136823 |
|             |                                   | 4,08163265 |            |            |        | 1,92826841 |
| BQVKU2-5877 | NIST-STRBASE                      |            |            |            |        |            |
|             |                                   | 6.13       | 3.12       | 2.36       | 19.37  | 1.33       |
|             |                                   | 4.42       | 1.49       | 4.80       | 2.72   | 7.39       |
| 3PI         |                                   | 3.90       | 2.66       | 3.44       | 10.94  | 1.37       |
|             |                                   | 7.26       |            |            | 36.41  | 4.86       |
|             |                                   | N/A        |            |            |        | 1.99       |
| BQZZ9N-5872 | FBI PopStats                      |            |            |            |        |            |
|             |                                   | 6.9638     | 3.3670     | 2.7670     | 40.323 | 1.3160     |
|             |                                   | 4.9261     | 1.4961     | 5.7703     | 2.8852 | 9.8522     |
| 3PI         |                                   | 4.2088     | 2.8653     | 4.2974     | 10.363 | 1.5305     |
|             |                                   | 6.9638     |            |            | 40.323 | 5.7703     |
|             |                                   | 3.7411     |            |            |        | 1.9608     |

TABLE 2

| WebCode-Test | Population Database(s) |         |          |          |            |         |
|--------------|------------------------|---------|----------|----------|------------|---------|
|              | D1S1656                | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820                 | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51                 | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA                    | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA                    |         |          |          |            |         |

## Item 3PI - Paternity Index Results

|             |              |        |        |          |         |        |
|-------------|--------------|--------|--------|----------|---------|--------|
| C8ZC9C-5877 | NIST-STRBASE |        |        |          |         |        |
|             | 6.68         | 3.19   | 2.37   | 30.08    | 1.34    |        |
|             | 4.87         | 1.51   | 5.08   |          | 8.29    | 0.795  |
| 3PI         | 4.05         | 2.76   | 3.53   | 13.37    |         | 1.38   |
|             | 8.11         | 2.25   | 9.75   | 72.2     | 5.15    | 1.98   |
|             | 3.52         |        |        |          |         |        |
| CV64QA-5872 | NIST-STRBASE |        |        |          |         |        |
|             | 6.1851       | 3.7673 | 2.4608 | 54.5263  | 1.4949  |        |
|             | 4.2634       | 1.8633 | 4.9688 | 3.2994   | 10.3600 | 0.9120 |
| 3PI         | 4.7742       | 3.2889 | 4.0390 | 7.3216   |         | 1.4510 |
|             | 11.3224      | 2.3000 | 9.8667 | 172.6667 | 3.3912  | 2.0455 |
|             | 3.8158       |        |        |          |         |        |
| DTFCVH-5877 | NIST-STRBASE |        |        |          |         |        |
|             | 6.69         | 3.19   | 2.38   | 30.08    | 1.34    |        |
|             | 4.88         | 1.52   | 5.08   | 3.11     | 8.30    | 0.80   |
| 3PI         | 4.06         | 2.77   | 3.54   |          |         | 1.39   |
|             | 8.11         | 2.26   | 9.76   |          | 5.16    | 1.98   |
|             | 3.52         |        |        |          |         |        |
| DUAZED-5877 | NIST-STRBASE |        |        |          |         |        |
|             | 6.6854       | 3.1947 | 2.375  | 30.0842  | 1.3445  |        |
|             | 4.8783       | 1.5168 | 5.0844 | 3.112    | 8.2988  | 0.7952 |
| 3PI         | 4.0561       | 2.7663 | 3.5392 | 13.3708  |         | 1.3885 |
|             | 8.1123       |        |        | 120.1923 | 5.157   | 1.9835 |
|             | 3.522        |        |        |          |         |        |
| EBAAT4-5877 | NIST-STRBASE |        |        |          |         |        |
|             | 6.6845       | 3.1949 | 2.3753 | 30.1205  | 1.3444  |        |
|             | 4.8780       | 1.5170 | 5.0839 | 3.1114   | 8.2988  | 0.7952 |
| 3PI         | 4.0552       | 2.7663 | 3.5398 | 13.3690  |         | 1.3885 |
|             | 8.1103       |        |        | 119.0476 | 5.1573  | 1.9833 |
|             | 3.5224       |        |        |          |         |        |
| ENJRPD-5877 | NIST-STRBASE |        |        |          |         |        |
|             | 6.69         | 3.19   | 2.38   | 30.1     | 1.34    |        |
|             | 4.88         | 1.52   | 5.08   | 3.11     | 8.30    | 0.795  |
| 3PI         | 4.06         | 2.77   | 3.54   | 13.4     |         | 1.39   |
|             | 8.11         |        |        | 72.2     | 5.16    | 1.98   |
|             | 3.52         |        |        |          |         |        |
| ERKVGZ-5872 | NIST-STRBASE |        |        |          |         |        |
|             | 6.1843       | 3.7679 | 2.4606 | 50.0000  | 1.4950  |        |
|             | 4.2626       | 1.8636 | 4.9677 | -        | 10.3627 | 0.9119 |
| 3PI         | 4.7755       | 3.2884 | 4.0388 | 7.3206   |         | 1.4510 |
|             | 11.3250      |        |        | 50.0000  | 3.3910  | 2.0458 |
|             | 3.8153       |        |        |          |         |        |

TABLE 2

| WebCode-Test | Population Database(s) |         |          |          |            |         |
|--------------|------------------------|---------|----------|----------|------------|---------|
|              | D1S1656                | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820                 | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51                 | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA                    | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA                    |         |          |          |            |         |

## Item 3PI - Paternity Index Results

|             |                                 |         |         |         |           |         |
|-------------|---------------------------------|---------|---------|---------|-----------|---------|
| F87XDU-5872 | FBI PopStats                    |         |         |         |           |         |
|             |                                 | 3.2342  |         | 40.323  | 1.3087    |         |
|             |                                 | 4.9261  | 1.4736  |         | 10.050    | 0.81713 |
| 3PI         |                                 | 4.0850  | 2.9806  | 4.3085  |           | 1.5305  |
|             |                                 | 6.8776  |         |         | 5.7703    | 1.9608  |
|             |                                 | 3.8052  |         |         |           |         |
| FDVD22-5872 | NIST-STRBASE                    |         |         |         |           |         |
|             |                                 | 6.6845  | 3.1949  | 2.3753  | 30.120    | 1.3444  |
|             |                                 | 4.8780  | 1.5170  | 5.0839  |           | 8.2988  |
| 3PI         |                                 | 4.0552  | 2.7663  | 3.5398  | 13.369    | 1.3885  |
|             |                                 | 8.1103  | 2.2563  | 9.7656  |           | 5.1573  |
|             |                                 | 3.5224  |         |         |           | 1.9833  |
| FDX37Y-5877 | NIST-STRBASE                    |         |         |         |           |         |
|             |                                 | 6.13    | 3.12    | 2.36    | 19.4      | 1.33    |
|             |                                 | 4.42    | 1.49    | 4.80    | 2.72      | 7.39    |
| 3PI         |                                 | 3.90    | 2.66    | 3.44    | 10.9      | 1.37    |
|             |                                 | 7.26    |         |         | 36.4      | 4.86    |
|             |                                 | N/A     |         |         |           | 1.99    |
| G48YJG-5872 | FBI PopStats                    |         |         |         |           |         |
|             |                                 | 3.5920  | 3.1289  | 1.8657  | 19.380    | 2.0859  |
|             |                                 | 2.8531  | 2.4876  | 4.8497  | 3.5945    | 4.6189  |
| 3PI         |                                 | 2.3095  | 3.3445  | 3.0312  | 4.5126    | 1.2933  |
|             |                                 | 11.416  | 1.5903  | 8.8183  | 19.380    | 3.7313  |
|             |                                 | 3.1807  |         |         |           | 1.7018  |
| GDT3MA-5872 | [Location Identifying Database] |         |         |         |           |         |
|             |                                 | 6.68449 | 3.19489 | 2.3753  | 30.12048  | 1.34445 |
|             |                                 | 4.87805 | 1.51699 | 5.08388 | 3.11139   | 8.29876 |
| 3PI         |                                 | 4.05515 | 2.76625 | 3.53982 | 13.36898  | 1.3885  |
|             |                                 | 8.1103  | 2.25632 | 9.76563 | 119.04762 | 5.1573  |
|             |                                 | 3.52237 |         |         |           | 1.98334 |
| GU22R8-5877 | [Location Identifying Database] |         |         |         |           |         |
|             |                                 |         | 4.484   |         | 87.719    | 1.884   |
|             |                                 | 2.865   | 2.404   |         |           | 3.559   |
| 3PI         |                                 | 2.798   | 4.314   | 3.807   |           | 1.371   |
|             |                                 | 18.692  |         |         |           | 3.671   |
|             |                                 | 4.054   |         |         |           | 1.743   |
| GW36G9-5872 | laboratory specific database    |         |         |         |           |         |
|             |                                 | 8,21    | 3,52    | 2,75    | 30,26     | 1,44    |
|             |                                 | 4,71    | 1,61    | 4,56    | 2,93      | 7,12    |
| 3PI         |                                 | 4,11    | 2,99    | 4,47    | 10,61     | 1,59    |
|             |                                 | 7,94    | /       | /       | 246,25    | 7,69    |
|             |                                 | 3,68    |         |         |           | 2,11    |

TABLE 2

| WebCode-Test | Population Database(s) |         |          |          |            |         |
|--------------|------------------------|---------|----------|----------|------------|---------|
|              | D1S1656                | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820                 | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51                 | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA                    | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA                    |         |          |          |            |         |

## Item 3PI - Paternity Index Results

|             |  |        |        |         |        |         |
|-------------|--|--------|--------|---------|--------|---------|
| H9TEJ8-5872 | NIST-STRBASE                               |        |        |         |        |         |
|             | 6.6852                                     | 3.1947 | 2.375  | 30.0833 | 1.3445 |         |
|             | 4.8784                                     | 1.5168 | 5.0845 | 3.1121  | 8.2989 | 0.7952  |
| 3PI         | 4.0562                                     | 2.7663 | 3.5392 | 13.3704 |        | 1.3885  |
|             | 8.1124                                     |        |        | 72.2000 | 5.1571 | 1.9835  |
|             | 3.5220                                     |        |        |         |        |         |
| HFE6AA-5872 | [Location Identifying Database]            |        |        |         |        |         |
|             | 5.78                                       | 14.87  | 14.87  | 16.73   | 2.15   |         |
|             | 4.13                                       | 1.61   | 4.85   | 10.36   | 6.75   | 0.829   |
| 3PI         | 3.39                                       | 2.72   | 4.01   | 11.38   |        | 2.15    |
|             | 6.52                                       |        |        | 46.86   | 5.20   | 14.87   |
|             | 10.36                                      |        |        |         |        |         |
| HWYZF6-5877 | NIST-STRBASE                               |        |        |         |        |         |
|             | 6.685                                      | 3.195  | 2.375  | 30.121  | 1.344  |         |
|             | 4.878                                      | 1.517  | 5.084  | 3.111   | 8.299  | 0.795   |
| 3PI         | 4.055                                      | 2.766  | 3.540  | 13.369  |        | 1.389   |
|             | 8.110                                      |        |        | 119.048 | 5.157  | 1.983   |
|             | 3.522                                      |        |        |         |        |         |
| J2C32Z-5872 | FBI PopStats, Laboratory Specific Database |        |        |         |        |         |
|             |  | 3.18   |        | 40.7    | 1.3    |         |
|             | 4.9  | 1.47   |        |         | 9.83   | 0.813   |
| 3PI         | 4.01                                       | 2.96   | 4.27   |         |        | 1.53    |
|             | 6.78                                       | 2.88   | 9.58   |         | 5.73   | 1.96    |
|             | 3.78                                       |        |        |         |        |         |
| JHJYKY-5877 | NIST-STRBASE                               |        |        |         |        |         |
|             | 6.68                                       | 3.19   | 2.38   | 30.12   | 1.34   |         |
|             | 4.88                                       | 1.52   | 5.08   | 3.11    | 8.30   | 0.79    |
| 3PI         | 4.06                                       | 2.77   | 3.54   | 13.37   |        | 1.39    |
|             | 8.11                                       |        |        | 119.05  | 5.16   | 1.98    |
|             | 3.52                                       |        |        |         |        |         |
| JLGFXT-5877 | NIST-STRBASE                               |        |        |         |        |         |
|             | 6.13                                       | 3.12   | 2.36   | 19.3    | 1.33   |         |
|             | 4.42                                       | 1.49   | 4.80   | 2.72    | 7.39   | 0.790   |
| 3PI         | 3.90                                       | 2.66   | 3.44   | 10.9    |        | 1.37    |
|             | 7.26                                       |        |        | 36.4    | 4.86   | 1.99    |
|             | not used -linkage                          |        |        |         |        |         |
| K8WKWM-5872 | NIST-STRBASE                               |        |        |         |        |         |
|             | 6.6845                                     | 3.1949 | 2.3753 | 30.120  | 1.3444 |         |
|             | 4.8780                                     | 1.5170 | 5.0839 |         | 8.2988 | 0.79517 |
| 3PI         | 4.0552                                     | 2.7663 | 3.5398 | 13.369  |        | 1.3885  |
|             | 8.1103                                     | 2.2563 | 9.7656 |         | 5.1573 | 1.9833  |
|             | 3.5224                                     |        |        |         |        |         |

TABLE 2

| WebCode-Test | Population Database(s) |         |          |          |            |         |
|--------------|------------------------|---------|----------|----------|------------|---------|
|              | D1S1656                | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820                 | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51                 | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA                    | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA                    |         |          |          |            |         |

## Item 3PI - Paternity Index Results

|             |                                     |        |         |          |         |        |
|-------------|-------------------------------------|--------|---------|----------|---------|--------|
| K9R2B7-5872 | NIST-STRBASE                        |        |         |          |         |        |
|             | 6.6844                              | 3.1948 | 2.3752  | 30.1204  | 1.3444  |        |
|             | 4.8780                              | 1.5169 | 5.0838  | 3.1113   | 8.2987  | 0.7951 |
| 3PI         | 4.0551                              | 2.7662 | 3.5398  | 13.3689  |         | 1.3885 |
|             | 8.1103                              | 2.2563 | 9.7656  |          | 5.1572  | 1.9833 |
|             | 3.5223                              |        |         |          |         |        |
| KFPQWF-5872 | [Location Identifying Database]     |        |         |          |         |        |
|             | 6.2619                              | 3.4065 | 2.2278  | 24.0     | 1.4118  |        |
|             | 4.5128                              | 1.6552 | 5.1512  | 3.1243   | 7.4894  | 0.8368 |
| 3PI         | 3.4967                              | 2.8387 | 4.1905  | 14.0800  |         | 1.5796 |
|             | 7.2329                              |        |         | 527.9998 | 5.5579  | 2.0269 |
|             | 3.9403                              |        |         |          |         |        |
| KKHW9X-5872 | FBI PopStats                        |        |         |          |         |        |
|             | 6.6845                              | 3.2342 | 2.3753  | 38.4615  | 1.3086  |        |
|             | 4.9261                              | 1.4736 | 5.0839  | 3.1114   | 10.0503 | 0.8171 |
| 3PI         | 4.0816                              | 2.9806 | 4.3085  | 13.3690  |         | 1.5305 |
|             | 6.8776                              | 2.3585 | 10.4167 |          | 5.7703  | 1.9608 |
|             | 3.8052                              |        |         |          |         |        |
| NBJ97Q-5872 | NIST-STRBASE                        |        |         |          |         |        |
|             | 6.68                                | 3.19   | 2.38    | 30.1     | 1.34    |        |
|             | 4.88                                | 1.52   | 5.08    | 3.11     | 8.30    | 0.795  |
| 3PI         | 4.06                                | 2.77   | 3.54    | 13.4     |         | 1.39   |
|             | 8.11                                | 2.26   | 9.77    |          | 5.16    | 1.98   |
|             | 3.52                                |        |         |          |         |        |
| NQDVAW-5872 | NIST-STRBASE                        |        |         |          |         |        |
|             | 6.6844                              | 3.1948 | 2.3752  | 30.1204  | 1.3444  | -      |
|             | 4.8780                              | 1.5169 | 5.0838  | 3.1113   | 8.2987  | 0.7951 |
| 3PI         | 4.0551                              | 2.7662 | 3.5398  | 13.3689  |         | 1.3885 |
|             | 8.1103                              | -      | -       | 119.0476 | 5.1572  | 1.9833 |
|             | 3.5223                              |        |         |          |         |        |
| P2R7J9-5872 | FBI PopStats                        |        |         |          |         |        |
|             | 3.59                                | 3.12   | 1.86    | 19.38    | 2.08    |        |
|             | 2.85                                | 2.48   | 4.84    | 3.59     | 4.61    | 1.36   |
| 3PI         | 2.30                                | 3.34   | 3.03    | 4.51     |         | 1.29   |
|             | 11.41                               | 1.59   | 8.81    | 19.38    | 3.73    | 1.70   |
|             | 3.18                                |        |         |          |         |        |
| P99QKY-5872 | FBI PopStats, FBI_extended_Cauc.csv |        |         |          |         |        |
|             | 6.4                                 | 3.3    | 2.7     | 33.9     | 1.3     |        |
|             | 4.5                                 | 1.5    | 5.4     | 2.6      | 8.5     | 0.81   |
| 3PI         | 4.0                                 | 2.7    | 4.1     | 8.9      |         | 1.5    |
|             | 6.4                                 |        |         | 34.4     | 5.4     | 2.0    |
|             | 3.6                                 |        |         |          |         |        |

TABLE 2

| WebCode-Test | Population Database(s) |         |          |          |            |         |
|--------------|------------------------|---------|----------|----------|------------|---------|
|              | D1S1656                | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820                 | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51                 | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA                    | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA                    |         |          |          |            |         |

## Item 3PI - Paternity Index Results

|             |                                    |        |        |         |        |         |
|-------------|------------------------------------|--------|--------|---------|--------|---------|
| PMBG2X-5877 | NIST-STRBASE                       |        |        |         |        |         |
|             | 6.6845                             | 3.1949 | 2.3753 | 30.1205 | 1.3444 |         |
|             | 4.8780                             | 1.5170 | 5.0839 | 3.1114  | 8.2988 | 0.7952  |
| 3PI         | 4.0552                             | 2.7663 | 3.5398 | 13.3690 |        | 1.3885  |
|             | 8.1103                             |        |        | 72.4638 | 5.1573 | 1.9833  |
|             | Not Reported                       |        |        |         |        |         |
| PTVD6M-5872 | FBI PopStats, NIST 2017            |        |        |         |        |         |
|             | 6.68                               | 3.19   | 2.37   | 30.1    | 1.34   |         |
|             | 4.87                               | 1.51   | 5.08   | 3.11    | 8.29   | 0.795   |
| 3PI         | 4.05                               | 2.76   | 3.53   | 13.3    |        | 1.38    |
|             | 8.11                               |        |        | N/A     | 5.15   | 1.98    |
|             | N/A                                |        |        |         |        |         |
| PTX3AK-5877 | FBI PopStats                       |        |        |         |        |         |
|             | 6.6357                             | 3.7994 | 1.1484 | 34.722  | 1.4075 |         |
|             | 3.4542                             | 1.5480 | 4.0984 | 4.0193  | 13.928 | 0.82932 |
| 3PI         | 2.9851                             | 3.2404 | 3.0960 | 16.722  |        | 1.2745  |
|             | 14.409                             |        |        | 41.667  | 2.9647 | 1.8335  |
| PU94VJ-5877 | FBI PopStats                       |        |        |         |        |         |
|             | 6.6357                             | 3.7994 | 1.1484 | 34.722  | 1.4075 |         |
|             | 3.4542                             | 1.548  | 4.0984 | 4.0193  | 13.928 | .82932  |
| 3PI         | 2.9851                             | 3.2404 | 3.096  | 16.722  |        | 1.2745  |
|             | 14.409                             |        |        | 41.667  | 2.9647 | 1.8335  |
| QV46G2-5872 | Local database                     |        |        |         |        |         |
|             | 6.262                              | 3.406  | 2.228  | 24.039  | 1.412  |         |
|             | 4.513                              | 1.656  | 5.152  | 3.125   | 7.491  | 0.837   |
| 3PI         | 3.497                              | 2.839  | 4.191  | 14.085  |        | 1.580   |
|             | 7.231                              |        |        | 25.000  | 5.559  | 2.027   |
|             | 3.940                              |        |        |         |        |         |
| QZUGCW-5872 | NIST-STRBASE                       |        |        |         |        |         |
|             | 6.6844                             | 3.1948 | 2.3752 | 30.1204 | 1.3444 |         |
|             | 4.8780                             | 1.5169 | 5.0838 | 3.1113  | 8.2987 | 0.7951  |
| 3PI         | 4.0551                             | 2.7662 | 3.5398 | 13.3689 |        | 1.3885  |
|             | 8.1103                             | 2.2563 | 9.7656 |         | 5.1572 | 1.9833  |
|             | 3.5223                             |        |        |         |        |         |
| R3EPWH-5872 | FBI PopStats, NIST 2017 population |        |        |         |        |         |
|             | 7.2622                             | 3.9339 | 1.4841 | 47.170  | 1.3721 |         |
|             | 3.6036                             | 1.8295 | 4.7192 | 3.1888  | 9.0744 | 0.92200 |
| 3PI         | 4.0683                             | 2.8265 | 3.6590 | 10.977  |        | 1.3333  |
|             | 11.806                             | 2.0610 | 8.1433 | 47.170  | 3.3715 | 1.9670  |
|             | 4.0683                             |        |        |         |        |         |

TABLE 2

| WebCode-Test | Population Database(s) |         |          |          |            |         |
|--------------|------------------------|---------|----------|----------|------------|---------|
|              | D1S1656                | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820                 | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51                 | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA                    | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA                    |         |          |          |            |         |

## Item 3PI - Paternity Index Results

|             |                              |             |         |             |          |             |
|-------------|------------------------------|-------------|---------|-------------|----------|-------------|
| RBTEVQ-5877 | laboratory specific database |             |         |             |          |             |
|             | 5.87                         | 3.06        | 2.68    | 12.76       | 1.31     |             |
|             | 3.67                         | 1.3         | 4.98    | 2.1         | 5.97     | 0.8         |
| 3PI         | 3.5                          | 2.57        | 3.65    | 9.05        |          | 1.44        |
|             | 5.63                         |             |         | 14.99       | 4.19     | 1.9         |
|             | 3.43                         |             |         |             |          |             |
| RKEH3P-5872 | NIST-STRBASE                 |             |         |             |          |             |
|             | 6.6845                       | 3.1949      | 2.3753  | 30.120      | 1.3444   |             |
|             | 4.8780                       | 1.5170      | 5.0839  |             | 8.2988   | 0.79517     |
| 3PI         | 4.0552                       | 2.7663      | 3.5398  | 13.369      |          | 1.3885      |
|             | 8.1103                       | 2.2563      | 9.7656  |             | 5.1573   | 1.9833      |
|             | 3.5224                       |             |         |             |          |             |
| TFFNHU-5872 | FBI PopStats                 |             |         |             |          |             |
|             | 6.9638                       | 3.3670      | 2.7670  | 40.323      | 1.3160   |             |
|             | 4.9261                       | 1.4961      | 5.7703  | 2.8852      | 9.8522   | 0.81446     |
| 3PI         | 4.2088                       | 2.8653      | 4.2974  | 10.363      |          | 1.5305      |
|             | 6.9638                       | 2.1268      | 11.211  |             | 5.7703   | 1.9608      |
|             | 3.7411                       |             |         |             |          |             |
| TNRV34-5872 | FBI PopStats                 |             |         |             |          |             |
|             | 6.684                        | 3.194       | 2.375   | 30.120      | 1.344    |             |
|             | 4.878                        | 1.517       | 5.083   | 3.111       | 8.298    | 0.795       |
| 3PI         | 4.055                        | 2.766       | 3.539   | 13.369      |          | 1.388       |
|             | 8.110                        |             |         |             | 5.157    | 1.983       |
| TYCCNJ-5877 | NIST-STRBASE                 |             |         |             |          |             |
|             | 6.13                         | 3.12        | 2.36    | 19.4        | 1.33     |             |
|             | 4.42                         | 1.49        | 4.80    | 2.72        | 7.39     | .790        |
| 3PI         | 3.90                         | 2.66        | 3.44    | 10.9        |          | 1.37        |
|             | 7.26                         |             |         | 36.4        | 4.86     | 1.99        |
|             | N/A                          |             |         |             |          |             |
| TZ8R32-5872 | NIST-STRBASE                 |             |         |             |          |             |
|             |                              | 1.597345133 | 1.1875  | 15.95791032 |          |             |
|             | 4.878378378                  | 1.516806723 |         | 1.940860215 |          | 0.795154185 |
| 3PI         | 2.028089888                  | 2.766283525 |         |             |          | 1.388461538 |
|             |                              |             |         | 60.16666667 |          | 1.46801154  |
| UALBVW-5877 | NIST-STRBASE                 |             |         |             |          |             |
|             | 6.18507                      | 3.76727     |         | 54.52632    | 1.49495  | 10.90526    |
|             | 4.26337                      | 1.86331     |         | 3.29936     | 10.36000 | 0.91197     |
| 3PI         | 4.77419                      | 3.28889     | 4.03899 |             |          | 1.45098     |
|             | 11.32240                     | 2.30000     | 9.86667 |             | 3.39116  | 2.04545     |
|             | 3.81584                      |             |         |             |          |             |

TABLE 2

| WebCode-Test | Population Database(s) |         |          |          |            |         |
|--------------|------------------------|---------|----------|----------|------------|---------|
|              | D1S1656                | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820                 | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51                 | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA                    | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA                    |         |          |          |            |         |

Item 3PI - Paternity Index Results

|             |                               |        |        |          |        |         |
|-------------|-------------------------------|--------|--------|----------|--------|---------|
| URUYR6-5872 | National Caucasian Database   |        |        |          |        |         |
|             | 5.86                          | 3.53   |        | 16.38    | 1.36   | 10.21   |
|             | 4.01                          | 1.48   |        | 2.56     | 6.57   | 0.83    |
| 3PI         | 3.87                          | 2.63   | 3.68   |          |        | 1.50    |
|             | 6.03                          | 2.30   | 7.93   |          | 4.77   | 2.00    |
|             | 3.57                          |        |        |          |        |         |
| UZLJPQ-5872 | NIST-STRBASE                  |        |        |          |        |         |
|             | 6.6844                        | 3.1948 | 2.3752 | 30.1204  | 1.3444 | 15.6739 |
|             | 4.8780                        | 1.5169 | 5.0838 | 3.1113   | 8.2987 | 0.7951  |
| 3PI         | 4.0551                        | 2.7662 | 3.5398 | 13.3689  |        | 1.3885  |
|             | 8.1103                        | 2.2563 | 9.7656 | 119.0476 | 5.1572 | 1.9833  |
|             | 3.5223                        |        |        |          |        |         |
| V2BAAV-5877 | Laboratory Specific Database  |        |        |          |        |         |
|             | 6.964                         | 3.367  | 2.767  | 40.323   | 1.316  | NC      |
|             | 4.926                         | 1.496  | 5.770  | 2.885    | 9.852  | 0.814   |
| 3PI         | 4.209                         | 2.865  | 4.297  | NC       |        | 1.530   |
|             | 6.964                         | 2.127  | 11.211 |          | 5.770  | 1.961   |
|             | 3.741                         |        |        |          |        |         |
| W2RKQF-5872 | FBI PopStats, NIST population |        |        |          |        |         |
|             | 6.68                          | 3.19   | 2.37   | 30.1     | 1.34   |         |
|             | 4.87                          | 1.51   | 5.08   | 3.11     | 8.29   | 0.795   |
| 3PI         | 4.05                          | 2.76   | 3.53   | 13.3     |        | 1.38    |
|             | 8.11                          |        |        |          | 5.15   | 1.98    |
| W7GZEM-5872 | local database                |        |        |          |        |         |
|             | 4.46                          | 4.72   | 2.63   | 32.1     | 2.06   |         |
|             | 3.45                          | 2.92   | 4.22   | 2.97     | 3.57   | 1.02    |
| 3PI         | 4.12                          | 4.52   | 5.02   | 5.84     |        | 1.41    |
|             | 11.5                          |        |        | 32.1     | 3.53   | 1.8     |
|             | 3.65                          |        |        |          |        |         |
| W7KMRU-5877 | FBI PopStats                  |        |        |          |        |         |
|             | 6.1843                        | 3.7679 | 2.4606 | 54.348   | 1.495  |         |
|             | 4.2626                        | 1.8636 | 4.9677 | 3.2982   | 10.363 | 0.91191 |
| 3PI         | 4.7755                        | 3.2884 | 4.0388 | 7.3206   |        | 1.451   |
|             | 11.325                        |        |        | 172.41   | 3.391  | 2.0458  |
|             | 3.8153                        |        |        |          |        |         |
| WAKXNU-5877 | FBI PopStats                  |        |        |          |        |         |
|             | 6.1843                        | 3.7679 | 2.4606 | 54.348   | 1.4950 |         |
|             | 4.2626                        | 1.8636 | 4.9677 | 3.2982   | 10.363 | 0.91191 |
| 3PI         | 4.7755                        | 3.2884 | 4.0388 | 7.3206   |        | 1.4510  |
|             | 11.325                        |        |        | 172.41   | 3.3910 | 2.0458  |
|             | 3.8153                        |        |        |          |        |         |



TABLE 2

| WebCode-Test | Population Database(s) |         |          |          |            |         |
|--------------|------------------------|---------|----------|----------|------------|---------|
|              | D1S1656                | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820                 | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51                 | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA                    | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA                    |         |          |          |            |         |

## Item 3PI - Paternity Index Results

|             |   |        |        |        |        |         |
|-------------|---|--------|--------|--------|--------|---------|
| WRGJ6E-5872 | FBI PopStats, NIST 2017                     |        |        |        |        |         |
|             | 6.68  | 3.19   | 2.37   | 30.1   | 1.34   |         |
|             | 4.87  | 1.51   | 5.08   | 3.11   | 8.29   | 0.795   |
| 3PI         | 4.05  | 2.76   | 3.53   | 13.3   |        | 1.38    |
|             | 8.11  |        |        | N/A    | 5.15   | 1.98    |
|             | N/A   |        |        |        |        |         |
| WYXW8K-5872 | NIST-STRBASE                                |        |        |        |        |         |
|             | 6.6845                                      | 3.1949 | 2.3753 | 30.120 | 1.3444 |         |
|             | 4.8780                                      | 1.5170 | 5.0839 |        | 8.2988 | 0.79517 |
| 3PI         | 4.0552                                      | 2.7663 | 3.5398 | 13.369 |        | 1.3885  |
|             | 8.1103                                      | 2.2563 | 9.7656 |        | 5.1573 | 1.9833  |
|             | 3.5224                                      |        |        |        |        |         |
| XQMVLJ-5872 | FBI PopStats                                |        |        |        |        |         |
|             | 6.6845                                      | 3.1949 | 2.3753 | 30.120 | 1.3444 |         |
|             | 4.8780                                      | 1.5170 | 5.0839 |        | 8.2988 | 0.79517 |
| 3PI         | 4.0552                                      | 2.7663 | 3.5398 | 13.369 |        | 1.3885  |
|             | 8.1103                                      | 2.2563 | 9.7656 |        | 5.1573 | 1.9833  |
|             | 3.5224                                      |        |        |        |        |         |
| XWQWMD-5872 | NIST-STRBASE                                |        |        |        |        |         |
|             | 6.1843                                      | 3.7679 | 2.4606 | 54.348 | 1.4950 |         |
|             | 4.2626                                      | 1.8636 | 4.9677 | 3.2982 | 10.363 | 0.91191 |
| 3PI         | 4.7755                                      | 3.2884 | 4.0388 | 7.3206 |        | 1.4510  |
|             | 11.325                                      | 2.2999 | 9.8619 |        | 3.3910 | 2.0458  |
|             |   |        |        |        |        |         |
| XWTLQB-5872 | NIST-STRBASE                                |        |        |        |        |         |
|             | 6.68  | 3.19   | 2.37   | 30.12  | 1.34   |         |
|             | 4.87  | 1.51   | 5.08   |        | 8.29   | 0.79    |
| 3PI         | 4.05  | 2.76   | 3.53   | 13.36  |        | 1.38    |
|             | 8.11  | 2.25   | 9.76   |        | 5.15   | 1.98    |
|             | 3.52  |        |        |        |        |         |
| XZQ8HD-5872 | FBI PopStats, NIST 2017 amended frequencies |        |        |        |        |         |
|             | 7.2622                                      | 3.9339 | 1.4841 | 47.170 | 1.3721 |         |
|             | 3.6036                                      | 1.8295 | 4.7192 | 3.1888 | 9.0744 | 0.92200 |
| 3PI         | 4.0683                                      | 2.8265 | 3.6590 | 10.977 |        | 1.3333  |
|             | 11.806                                      | 2.0610 | 8.1433 | 47.170 | 3.3715 | 1.9670  |
|             | 4.0683                                      |        |        |        |        |         |
| YA99BR-5872 | NIST-STRBASE                                |        |        |        |        |         |
|             | 6.18  | 3.77   | 2.46   | 54.35  | 1.49   |         |
|             | 4.26  | 1.86   | 4.97   | 3.30   | 10.36  | 0.91    |
| 3PI         | 4.78  | 3.29   | 4.04   | 7.32   |        | 1.45    |
|             | 11.32                                       |        |        | 172.41 | 3.39   | 2.05    |
|             | 3.82  |        |        |        |        |         |

TABLE 2

| WebCode-Test | Population Database(s) |         |          |          |            |         |
|--------------|------------------------|---------|----------|----------|------------|---------|
|              | D1S1656                | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820                 | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51                 | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA                    | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA                    |         |          |          |            |         |

Item 3PI - Paternity Index Results

|             |                         |        |        |        |        |         |
|-------------|-------------------------|--------|--------|--------|--------|---------|
| YGVRZ2-5872 | NIST-STRBASE            |        |        |        |        |         |
|             | 6.685                   | 3.195  |        | 30.08  | 1.345  | 15.70   |
|             | 4.878                   | 1.517  |        | 3.112  | 8.299  | 0.795   |
| 3PI         | 4.056                   | 2.766  | 3.539  |        |        | 1.388   |
|             | 8.112                   | 2.256  | 9.757  |        | 5.157  | 1.984   |
|             | 3.522                   |        |        |        |        |         |
| ZEKBY9-5877 | FBI PopStats            |        |        |        |        |         |
|             | 6.6357                  | 3.7994 | 1.1484 | 34.722 | 1.4075 |         |
|             | 3.4542                  | 1.5480 | 4.0984 | 4.0193 | 13.928 | 0.82932 |
| 3PI         | 2.9851                  | 3.2404 | 3.0960 | 16.722 |        | 1.2745  |
|             | 14.409                  |        |        | 41.667 | 2.9647 | 1.8335  |
| ZFX3RQ-5872 | FBI PopStats            |        |        |        |        |         |
|             | 6.96                    | 3.37   | 2.77   | 100    | 2.84   |         |
|             | 4.93                    | 1.5    | 5.77   | 2.89   | 9.85   | 0.81    |
| 3PI         | 4.21                    | 2.87   | 4.3    | 10.36  |        | 1.53    |
|             | 6.96                    | 2.13   | 11.21  |        | 5.77   | 1.96    |
|             | 3.74                    |        |        |        |        |         |
| ZZEH7B-5872 | FBI PopStats, NIST 2017 |        |        |        |        |         |
|             | 6.684                   | 3.194  | 2.375  | 30.120 | 1.344  |         |
|             | 4.878                   | 1.517  | 5.083  | 3.111  | 8.298  | 0.795   |
| 3PI         | 4.055                   | 2.766  | 3.539  | 13.36  |        | 1.388   |
|             | 8.110                   |        |        | N/A    | 5.157  | 1.983   |
|             | N/A                     |        |        |        |        |         |

TABLE 2

| WebCode-Test | Population Database(s) |         |          |          |            |         |
|--------------|------------------------|---------|----------|----------|------------|---------|
|              | D1S1656                | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820                 | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51                 | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA                    | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA                    |         |          |          |            |         |

Item 4PI - Paternity Index Results

|             |                                 |        |        |        |        |        |
|-------------|---------------------------------|--------|--------|--------|--------|--------|
| 33G37G-5872 | NIST-STRBASE                    |        |        |        |        |        |
|             | 3.1665                          | 4.8169 | 0.0028 | 0.0020 | 0.8301 |        |
|             | 0.0020                          | 0.0040 | 0.0028 | 0.0028 | 0.0020 | 1.9267 |
| 4PI         | 0.0030                          | 2.3752 | 0.0010 | 0.0028 |        | 0.0030 |
|             | 0.0041                          |        |        | 0.0064 | 1.2257 | 0.0001 |
|             | 2.1240                          |        |        |        |        |        |
| 39LYUM-5872 | Local Database                  |        |        |        |        |        |
|             | 4.85                            | 3.51   |        |        | 0.72   |        |
|             |                                 |        |        |        |        | 1.62   |
| 4PI         |                                 | 1.33   |        |        |        |        |
|             |                                 | 1.96   |        |        | 3.77   |        |
|             | 1.69                            |        |        |        |        |        |
| 3F8R7M-5877 | Promega                         |        |        |        |        |        |
|             | 3.1666                          | 4.8170 |        | 0      | 0.8281 | 0      |
|             | 0                               | 0      |        | 0      | 0      | 1.9268 |
| 4PI         | 0                               | 2.3753 | 0      |        |        | 0      |
|             | 0                               | 2.9744 | 0      |        | 1.2258 | 0      |
|             | 2.1240                          |        |        |        |        |        |
| 3PVM4G-5877 | [Location Identifying Database] |        |        |        |        |        |
|             |                                 | 8.31   |        | 0      | 0.81   |        |
|             | 0                               | 0      |        |        | 0      | 1.99   |
| 4PI         | 0                               | 2.38   | 0      |        |        | 0      |
|             | 0                               |        |        |        | 1.17   | 0      |
|             | 2.43                            |        |        |        |        |        |
| 6CHZCV-5872 | NIST-STRBASE                    |        |        |        |        |        |
|             | 3.0921                          | 3.7679 |        | 0      | 0.7474 | 0      |
|             | 0                               | 0      |        | 0      | 0      | 1.8238 |
| 4PI         | 0                               | 1.6442 | 0      |        |        | 0      |
|             | 0                               | 2.3020 | 0      |        | 1.6955 | 0      |
|             | 1.9077                          |        |        |        |        |        |
| 73W8G7-5872 | FBI PopStats                    |        |        |        |        |        |
|             | 3.17                            | 4.82   | 0      | 0      | 0.830  |        |
|             | 0                               | 0      | 0      | 0      | 0      | 1.93   |
| 4PI         | 0                               | 2.38   | 0      | 0      |        | 0      |
|             | 0                               | 2.97   | 0      | 0      | 1.23   | 0      |
|             | 2.12                            |        |        |        |        |        |
| 7DPVWQ-5872 | FBI PopStats, NIST 2017         |        |        |        |        |        |
|             | 3.16                            | 4.81   | 0      | 0      | 0.828  |        |
|             | 0                               | 0      | 0      | 0      | 0      | 1.92   |
| 4PI         | 0                               | 2.37   | 0      | 0      |        | 0      |
|             | 0                               |        |        |        | 1.22   | 0      |

TABLE 2

| WebCode-Test | Population Database(s) |         |          |          |            |         |
|--------------|------------------------|---------|----------|----------|------------|---------|
|              | D1S1656                | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820                 | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51                 | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA                    | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA                    |         |          |          |            |         |

Item 4PI - Paternity Index Results

|             |                                     |          |          |          |          |          |
|-------------|-------------------------------------|----------|----------|----------|----------|----------|
| 7F4KV8-5872 | laboratory specific database        |          |          |          |          |          |
|             | 4,761905                            | 3,521127 | 0,000527 | 0,002750 | 0,719942 |          |
|             | 0,001135                            | 0,000117 | 0,001702 | 0,000428 | 0,000002 | 1,616292 |
| 4PI         | 0,000408                            | 1,336898 | 0,001975 | 0,006154 |          | 0,000068 |
|             | 0,000451                            |          |          | 0,062500 | 3,759398 | 0,000020 |
|             | 1,678979                            |          |          |          |          |          |
| 7PKXQF-5872 | NIST-STRBASE                        |          |          |          |          |          |
|             | 3.1665                              | 4.8169   | 0.0028   | 0.0020   | 0.8301   |          |
|             | 0.0020                              | 0.0040   | 0.0028   | 0.0028   | 0.0020   | 1.9267   |
| 4PI         | 0.0030                              | 2.3752   | 0.0010   | 0.0028   |          | 0.0030   |
|             | 0.0041                              |          |          | 0.0064   | 1.2257   | 0.0001   |
|             | 2.1240                              |          |          |          |          |          |
| 84E29B-5872 | NIST-STRBASE                        |          |          |          |          |          |
|             | 3.1665                              | 4.8169   | 0.0028   | 0.0020   | 0.8301   |          |
|             | 0.0016                              | 0.0028   | 0.0028   | 0.0028   | 0.0019   | 1.9267   |
| 4PI         | 0.0036                              | 2.3752   | 0.0022   | 0.0028   |          | 0.0022   |
|             | 0.0048                              |          |          | 0.0064   | 1.2257   | 0.0007   |
|             | 2.1240                              |          |          |          |          |          |
| 8MBE64-5872 | local database                      |          |          |          |          |          |
|             | 3.3444                              | 3.254    | 0        | 0        |          |          |
|             |                                     | 0        | 0        | 0        |          | 1.7599   |
| 4PI         | 0                                   | 1.6541   | 0        | 0        |          |          |
|             | 0                                   |          |          | 0        | 3.6389   |          |
|             | 1.7354                              |          |          |          |          |          |
| 9HTLAG-5877 | NIST-STRBASE                        |          |          |          |          |          |
|             | -                                   | -        | -        | -        | -        | -        |
|             | -                                   | -        | -        | -        | -        | -        |
| 4PI         | -                                   | -        | -        | -        | -        | -        |
|             | -                                   | -        | -        | -        | -        | -        |
|             | -                                   | -        | -        | -        | -        | -        |
| 9P9DFV-5877 | Qualityte database based on STRider |          |          |          |          |          |
|             | 3.79                                | 3.33     | no match | no match | 0.71     |          |
|             | no match                            | no match | no match | no match | no match | 1.70     |
| 4PI         | no match                            | 1.52     | no match | no match |          | no match |
|             | no match                            | 2.35     | no match |          | 3.12     | no match |
|             | 1.80                                |          |          |          |          |          |
| AFLNDE-5877 | FBI PopStats, Promega/NIST          |          |          |          |          |          |
|             | 3.34                                | 3.18     | --       | --       | 0.652    | --       |
|             | --                                  | --       | --       | --       | --       | 1.62     |
| 4PI         | --                                  | 1.48     | --       | --       |          | --       |
|             | --                                  | 2.88     | --       | --       | 2.87     | --       |
|             | 1.89                                |          |          |          |          |          |

TABLE 2

| WebCode-Test | Population Database(s) |         |          |          |            |         |
|--------------|------------------------|---------|----------|----------|------------|---------|
|              | D1S1656                | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820                 | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51                 | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA                    | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA                    |         |          |          |            |         |

Item 4PI - Paternity Index Results

|             |              |        |      |      |         |        |
|-------------|--------------|--------|------|------|---------|--------|
| AJHDUL-5877 | NIST-STRBASE |        |      |      |         |        |
|             | 3.167        | 4.817  | 0    | 0    | 0.83    |        |
|             | 0            | 0      | 0    | 0    | 0       | 1.927  |
| 4PI         | 0            | 2.375  | 0    | 0    |         | 0      |
|             | 0            | 2.974  | 0    | 0    | 1.226   | 0      |
|             | 2.124        |        |      |      |         |        |
| BQVKU2-5877 | NIST-STRBASE |        |      |      |         |        |
|             | 3.10         | 4.57   | 0    | 0    | 0.823   |        |
|             | 0            | 0      | 0    | 0    | 0       | 1.86   |
| 4PI         | 0            | 2.26   | 0    | 0    |         | 0      |
|             | 0            |        |      | 0    | 1.25    | 0      |
|             | 2.12         |        |      |      |         |        |
| BQZZ9N-5872 | FBI PopStats |        |      |      |         |        |
|             | 2.7293       | 6.1728 | 0    | 0    | 0.80567 |        |
|             | 0            | 0      | 0    | 0    | 0       | 2.0807 |
| 4PI         | 0            | 2.5368 | 0    | 0    |         | 0      |
|             | 0            |        |      | 0    | 1.2453  | 0      |
|             | 2.6752       |        |      |      |         |        |
| C8ZC9C-5877 | NIST-STRBASE |        |      |      |         |        |
|             | 3.16         | 4.81   | 0    | 0    | 0.83    |        |
|             | 0            | 0      | 0    | 0    | 0       | 1.92   |
| 4PI         | 0            | 2.37   | 0    | 0    |         | 0      |
|             | 0            | 2.97   | 0    | 0    | 1.22    | 0      |
|             | 2.12         |        |      |      |         |        |
| CV64QA-5872 | NIST-STRBASE |        |      |      |         |        |
|             | 3.0921       | 3.7679 | 0    | 0    | 0.7475  |        |
|             | 0            | 0      | 0    | 0    | 0       | 1.8238 |
| 4PI         | 0            | 1.6442 | 0    | 0    |         | 0      |
|             | 0            |        |      | 0    | 1.6955  | 0      |
|             | 1.9077       |        |      |      |         |        |
| DTFCVH-5877 | NIST-STRBASE |        |      |      |         |        |
|             | 2.82         | 5.05   | 0.00 | 0.02 | 0.87    |        |
|             | 0.00         | 0.00   | 0.00 | 0.00 | 0.00    | 2.00   |
| 4PI         | 0.00         | 2.19   | 0.00 |      |         | 0.00   |
|             | 0.00         | 3.37   | 0.01 |      | 1.40    | 0.00   |
|             | 2.62         |        |      |      |         |        |
| DUAZED-5877 | NIST-STRBASE |        |      |      |         |        |
|             | 3.1668       | 4.817  | 0    | 0    | 0.8281  |        |
|             | 0            | 0      | 0    | 0    | 0       | 1.9267 |
| 4PI         | 0            | 2.375  | 0    | 0    |         | 0      |
|             | 0            | 2.9739 | 0    | 0    | 1.2258  | 0      |
|             | 2.1242       |        |      |      |         |        |

TABLE 2

| WebCode-Test | Population Database(s) |         |          |          |            |         |
|--------------|------------------------|---------|----------|----------|------------|---------|
|              | D1S1656                | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820                 | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51                 | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA                    | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA                    |         |          |          |            |         |

Item 4PI - Paternity Index Results

|             |                                 |          |          |          |          |           |
|-------------|---------------------------------|----------|----------|----------|----------|-----------|
| EBAAT4-5877 | NIST-STRBASE                    |          |          |          |          |           |
|             | 3.1666                          | 4.8170   |          |          | 0.8302   |           |
|             | 1.9268                          |          |          |          |          |           |
| 4PI         |                                 | 2.3753   |          |          |          |           |
|             | 1.2258                          |          |          |          |          |           |
|             | 2.1240                          |          |          |          |          |           |
| F87XDU-5872 | FBI PopStats                    |          |          |          |          |           |
|             |                                 | 7.9491   |          |          | 0.81077  |           |
|             | 2.0794                          |          |          |          |          |           |
| 4PI         |                                 | 2.5694   |          |          |          |           |
|             | 1.1351                          |          |          |          |          |           |
|             | 2.7278                          |          |          |          |          |           |
| FDX37Y-5877 | NIST-STRBASE                    |          |          |          |          |           |
|             | 3.10                            | 4.57     | 0.00     | 0.00     | 0.823    |           |
|             | 1.86                            |          |          |          |          |           |
| 4PI         | 0.00                            | 0.00     | 0.00     | 0.00     | 0.00     | 0.00      |
|             | 0.00                            | 2.26     | 0.00     | 0.00     |          | 0.00      |
|             | 1.25                            |          |          |          |          |           |
|             | 0.00                            |          |          |          |          |           |
|             | N/A                             |          |          |          |          |           |
| GDT3MA-5872 | [Location Identifying Database] |          |          |          |          |           |
|             | 3.16656                         | 4.81696  | 0        | 0        | 0.83015  |           |
|             | 1.92678                         |          |          |          |          |           |
| 4PI         | 0                               | 2.3753   | 0        | 0        |          | 0         |
|             | 0                               |          |          |          |          |           |
|             | 0                               | 2.97442  | 0        | 0        | 1.22579  | 0         |
|             | 1.22579                         |          |          |          |          |           |
|             | 2.12404                         |          |          |          |          |           |
| GU22R8-5877 | [Location Identifying Database] |          |          |          |          |           |
|             |                                 | 4.484    |          |          | 0.942    |           |
|             | 2.081                           |          |          |          |          |           |
| 4PI         |                                 | 2.157    |          |          |          |           |
|             | 1.836                           |          |          |          |          |           |
|             | 2.027                           |          |          |          |          |           |
| GW36G9-5872 | laboratory specific database    |          |          |          |          |           |
|             | 4,11                            | 3,52     | 1,24 E-2 | 6,99 E-3 | 0,72     | /         |
|             | 1,73                            |          |          |          |          |           |
| 4PI         | 5,41 E-3                        | 7,32 E-4 | 5,67 E-3 | 1,34 E-3 | 8,14 E-6 | 3,60 E-4  |
|             | 1,11 E-2                        | 1,50     | 1,01 E-2 | 1,26 E-2 |          | 3,60 E-4  |
|             | 3,84                            |          |          |          |          |           |
|             | 9,87 E-4                        | /        | /        | 9,92 E-5 | 3,84     | 6,92 E-4  |
|             | 6,92 E-4                        |          |          |          |          |           |
|             | 1,84                            |          |          |          |          |           |
| H9TEJ8-5872 | NIST-STRBASE                    |          |          |          |          |           |
|             | 3.3426                          | 3.1947   | 0.0028   | 0.001691 | 0.6723   |           |
|             | 1.5903                          |          |          |          |          |           |
| 4PI         | 0.001348                        | 0.002031 | 0.0028   | 0.0028   | 0.001743 | 0.002021  |
|             | 0.00253                         | 1.3831   | 0.001709 | 0.0028   |          | 0.002021  |
|             | 2.5786                          |          |          |          |          |           |
|             | 0.003713                        |          |          | 0.0064   | 2.5786   | 0.0001300 |
|             | 0.0001300                       |          |          |          |          |           |
|             | 1.7610                          |          |          |          |          |           |

TABLE 2

| WebCode-Test | Population Database(s) |         |          |          |            |         |
|--------------|------------------------|---------|----------|----------|------------|---------|
|              | D1S1656                | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820                 | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51                 | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA                    | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA                    |         |          |          |            |         |

Item 4PI - Paternity Index Results

|             |  |        |        |        |        |         |
|-------------|--|--------|--------|--------|--------|---------|
| J2C32Z-5872 | FBI PopStats, Laboratory Specific Database |        |        |        |        |         |
|             |  | 7.61   |        | 0.002  | 0.806  |         |
|             |  | 0.002  | 0.004  |        | 0.002  | 2.06    |
| 4PI         |  | 0.003  | 2.5    | 0.001  |        | 0.003   |
|             |  | 0.006  | 3.49   | 0.001  | 1.13   | 0.00014 |
|             |  | 2.69   |        |        |        |         |
| JHJYKY-5877 | NIST-STRBASE                               |        |        |        |        |         |
|             |  | 3.17   | 4.82   | 0.00   | 0.00   | 0.83    |
|             |  | 0.00   | 0.00   | 0.00   | 0.00   | 1.93    |
| 4PI         |  | 0.00   | 2.38   | 0.00   | 0.00   | 0.00    |
|             |  | 0.00   |        | 0.00   | 1.23   | 0.00    |
|             |  | 2.12   |        |        |        |         |
| JLGFXT-5877 | NIST-STRBASE                               |        |        |        |        |         |
|             |  | 3.10   | 4.57   | 0      | 0      | 0.823   |
|             |  | 0      | 0      | 0      | 0      | 1.86    |
| 4PI         |  | 0      | 2.26   | 0      | 0      | 0       |
|             |  | 0      |        | 0      | 1.25   | 0       |
|             |  | 2.12   |        |        |        |         |
| KKHW9X-5872 | FBI PopStats                               |        |        |        |        |         |
|             |  | 3.1666 | 7.9491 | 0      | 0      | 0.8108  |
|             |  | 0      | 0      | 0      | 0      | 2.0794  |
| 4PI         |  | 0      | 2.5694 | 0      | 0      | 0       |
|             |  | 0      | 2.7364 | 0      | 1.1351 | 0       |
|             |  | 2.7278 |        |        |        |         |
| NBJ97Q-5872 | NIST-STRBASE                               |        |        |        |        |         |
|             |  | 3.17   | 4.82   | 0      | 0      | 0.830   |
|             |  | 0      | 0      | 0      | 0      | 1.93    |
| 4PI         |  | 0      | 2.38   | 0      | 0      | 0       |
|             |  | 0      | 2.97   | 0      | 1.23   | 0       |
|             |  | 2.12   |        |        |        |         |
| NQDVAV-5872 | NIST-STRBASE                               |        |        |        |        |         |
|             |  | 3.1665 | 4.8169 | 0.0028 | 0.0020 | 0.8301  |
|             |  | 0.0020 | 0.0040 | 0.0028 | 0.0028 | 1.9267  |
| 4PI         |  | 0.0030 | 2.3752 | 0.0010 | 0.0028 | 0.0030  |
|             |  | 0.0041 | -      | -      | 0.0064 | 1.2257  |
|             |  | 0.0001 |        |        |        |         |
|             |  | 2.1240 |        |        |        |         |
| P99QKY-5872 | FBI PopStats, FBI_extended_Cauc.csv        |        |        |        |        |         |
|             |  | 3.1    | 4.6    | 0      | 0      | 0.8     |
|             |  | 0      | 0      | 0      | 0      | 1.9     |
| 4PI         |  | 0      | 2.3    | 0      | 0      | 0       |
|             |  | 0      |        | 0      | 1.2    | 0       |
|             |  | 2.1    |        |        |        |         |

TABLE 2

| WebCode-Test | Population Database(s) |         |          |          |            |         |
|--------------|------------------------|---------|----------|----------|------------|---------|
|              | D1S1656                | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820                 | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51                 | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA                    | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA                    |         |          |          |            |         |

Item 4PI - Paternity Index Results

|             |                              |         |         |         |         |         |
|-------------|------------------------------|---------|---------|---------|---------|---------|
| PMBG2X-5877 | NIST-STRBASE                 |         |         |         |         |         |
|             | 3.1666                       | 4.8170  | 0.0000  | 0.0000  | 0.8302  |         |
|             | 0.0000                       | 0.0000  | 0.0000  | 0.0000  | 0.0000  | 1.9268  |
| 4PI         | 0.0000                       | 2.3753  | 0.0000  | 0.0000  |         | 0.0000  |
|             | 0.0000                       |         |         | 0.0000  | 1.2258  | 0.0000  |
|             | 2.1240                       |         |         |         |         |         |
| PTVD6M-5872 | FBI PopStats, NIST 2017      |         |         |         |         |         |
|             | 3.16                         | 4.81    | 0       | 0       | 0.828   |         |
|             | 0                            | 0       | 0       | 0       | 0       | 1.92    |
| 4PI         | 0                            | 2.37    | 0       | 0       |         | 0       |
|             | 0                            |         |         | N/A     | 1.22    | 0       |
|             | N/A                          |         |         |         |         |         |
| RBTEVQ-5877 | laboratory specific database |         |         |         |         |         |
|             | 3.54                         | 3.06    | 0.0     | 0.0     | 0.68    |         |
|             | 0.0                          | 0.0     | 0.0     | 0.0     | 0.0     | 1.52    |
| 4PI         | 0.0                          | 1.39    | 0.0     | 0.0     |         | 0.0     |
|             | 0.0                          |         |         | 0.0     | 2.38    | 0.0     |
|             | 1.9                          |         |         |         |         |         |
| TNRV34-5872 | FBI PopStats                 |         |         |         |         |         |
|             | 3.166                        | 4.817   |         |         | 0.828   |         |
|             |                              |         |         |         |         | 1.926   |
| 4PI         |                              | 2.375   |         |         |         |         |
|             |                              |         |         |         | 1.225   |         |
| TYCCNJ-5877 | NIST-STRBASE                 |         |         |         |         |         |
|             | 3.10                         | 4.57    | 0       | 0       | .823    |         |
|             | 0                            | 0       | 0       | 0       | 0       | 1.86    |
| 4PI         | 0                            | 2.26    | 0       | 0       |         | 0       |
|             | 0                            |         |         | 0       | 1.25    | 0       |
|             | 2.12                         |         |         |         |         |         |
| UALBVV-5877 | NIST-STRBASE                 |         |         |         |         |         |
|             | 6.18507                      | 3.76727 |         | 0.00545 | 1.49495 | 0.01091 |
|             | 0.00213                      | 0.00037 |         | 0.00066 | 0.00001 | 0.91197 |
| 4PI         | 0.00119                      | 3.28889 | 0.00202 |         |         | 0.00015 |
|             | 0.00057                      | 2.30000 | 0.00987 |         | 3.39116 | 0.00020 |
|             | 3.81584                      |         |         |         |         |         |
| V2BAAV-5877 | Laboratory Specific Database |         |         |         |         |         |
|             | 2.729                        | 6.173   | 0.000   | 0.000   | 0.806   | NC      |
|             | 0.000                        | 0.000   | 0.000   | 0.000   | 0.000   | 2.081   |
| 4PI         | 0.000                        | 2.537   | 0.000   | NC      |         | 0.000   |
|             | 0.000                        | 3.687   | 0.000   |         | 1.245   | 0.000   |
|             | 2.675                        |         |         |         |         |         |



TABLE 2

| WebCode-Test | Population Database(s) |         |          |          |            |         |
|--------------|------------------------|---------|----------|----------|------------|---------|
|              | D1S1656                | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
| Item         | D7S820                 | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|              | D18S51                 | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|              | FGA                    | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|              | vWA                    |         |          |          |            |         |

Item 4PI - Paternity Index Results

|             |                               |        |   |     |         |        |
|-------------|-------------------------------|--------|---|-----|---------|--------|
| W2RKQF-5872 | FBI PopStats, NIST population |        |   |     |         |        |
|             | 3.16                          | 4.81   | 0 | 0   | 0.828   |        |
|             | 0                             | 0      | 0 | 0   | 0       | 1.92   |
| 4PI         | 0                             | 2.37   | 0 | 0   |         | 0      |
|             | 0                             |        |   |     | 1.22    | 0      |
| <hr/>       |                               |        |   |     |         |        |
| W7KMRU-5877 | FBI PopStats                  |        |   |     |         |        |
|             | 3.0921                        | 3.7679 |   |     | 0.7475  |        |
|             |                               |        |   |     |         | 1.8238 |
| 4PI         |                               | 1.6442 |   |     |         |        |
|             |                               |        |   |     | 1.6955  |        |
|             | 1.9077                        |        |   |     |         |        |
| <hr/>       |                               |        |   |     |         |        |
| WAKXNU-5877 | FBI PopStats                  |        |   |     |         |        |
|             | 3.0921                        | 3.7679 |   |     | 0.74750 |        |
|             |                               |        |   |     |         | 1.8238 |
| 4PI         |                               | 1.6442 |   |     |         |        |
|             |                               |        |   |     | 1.6955  |        |
|             | 1.9077                        |        |   |     |         |        |
| <hr/>       |                               |        |   |     |         |        |
| WRGJ6E-5872 | FBI PopStats, NIST 2017       |        |   |     |         |        |
|             | 3.16                          | 4.81   | 0 | 0   | 0.828   |        |
|             | 0                             | 0      | 0 | 0   | 0       | 1.92   |
| 4PI         | 0                             | 2.37   | 0 | 0   |         | 0      |
|             | 0                             |        |   | N/A | 1.22    | 0      |
|             | N/A                           |        |   |     |         |        |
| <hr/>       |                               |        |   |     |         |        |
| ZZEH7B-5872 | FBI PopStats, NIST 2017       |        |   |     |         |        |
|             | 3.166                         | 4.817  | 0 | 0   | 0.828   |        |
|             | 0                             | 0      | 0 | 0   | 0       | 1.926  |
| 4PI         | 0                             | 2.375  | 0 | 0   |         | 0      |
|             | 0                             |        |   | NA  | 1.225   | 0      |
|             | NA                            |        |   |     |         |        |

# YSTR Amplification Kit(s) & Results

TABLE 3

| WebCode-Test<br>Item         | Amplification Kit      |        |        |          |           |        |        |        |           |
|------------------------------|------------------------|--------|--------|----------|-----------|--------|--------|--------|-----------|
|                              | DYF387S1               | DYS19  | DYS385 | DYS389-I | DYS389-II | DYS390 | DYS391 | DYS392 | DYS393    |
|                              | DYS437                 | DYS438 | DYS439 | DYS448   | DYS449    | DYS456 | DYS458 | DYS460 | DYS481    |
|                              | DYS518                 | DYS533 | DYS549 | DYS570   | DYS576    | DYS627 | DYS635 | DYS643 | Y GATA H4 |
| <b>Item 3 - YSTR Results</b> |                        |        |        |          |           |        |        |        |           |
| 33G37G-5872                  | Yfiler®                |        |        |          |           |        |        |        |           |
|                              |                        | 15     | 11,14  | 14       | 30        | 24     | 10     | 13     | 13        |
| 3                            | 15                     | 12     | 12     | 20       |           | 15     | 17     |        |           |
|                              |                        |        |        |          |           |        | 23     |        | 11        |
| 39LYUM-5872                  | PowerPlex® Y 23 System |        |        |          |           |        |        |        |           |
|                              |                        | 15     | 11,14  | 14       | 30        | 24     | 10     | 13     | 13        |
| 3                            | 15                     | 12     | 12     | 20       |           | 15     | 17     |        | 24        |
|                              |                        | 12     | 13     | 17       | 18        |        | 23     | 10     | 11        |
| 3ECBR6-5877                  | Yfiler® Plus           |        |        |          |           |        |        |        |           |
|                              | 35,37                  | 15     | 11,14  | 14       | 30        | 24     | 10     | 13     | 13        |
| 3                            | 15                     | 12     | 12     | 20       | 29        | 15     | 17     | 10     | 24        |
|                              | 38                     | 12     |        | 17       | 18        | 22     | 23     |        | 11        |
| 3F8R7M-5877                  | PowerPlex® Y Y23       |        |        |          |           |        |        |        |           |
|                              |                        | 15     | 11,14  | 14       | 30        | 24     | 10     | 13     | 13        |
| 3                            | 15                     | 12     | 12     | 20       |           | 15     | 17     |        | 24        |
|                              |                        | 12     | 13     | 17       | 18        |        | 23     | 10     | 11        |
| 77PJU3-5877                  | Yfiler® Plus           |        |        |          |           |        |        |        |           |
|                              | 35,37                  | 15     | 11,14  | 14       | 30        | 24     | 10     | 13     | 13        |
| 3                            | 15                     | 12     | 12     | 20       | 29        | 15     | 17     | 10     | 24        |
|                              | 38                     | 12     |        | 17       | 18        | 22     | 23     |        | 11        |
| 786NQE-5872                  | PowerPlex® Y           |        |        |          |           |        |        |        |           |
|                              |                        | 15     | 11,14  | 14       | 30        | 24     | 10     | 13     | 13        |
| 3                            | 15                     | 12     | 12     | 20       |           | 15     | 17     |        | 24        |
|                              |                        | 12     | 13     | 17       | 18        |        | 23     | 10     | 11        |
| 7PKXQF-5872                  | Yfiler®                |        |        |          |           |        |        |        |           |
|                              |                        | 15     | 11,14  | 14       | 30        | 24     | 10     | 13     | 13        |
| 3                            | 15                     | 12     | 12     | 20       |           | 15     | 17     |        |           |
|                              |                        |        |        |          |           |        | 23     |        | 11        |
| 84E29B-5872                  | Yfiler®                |        |        |          |           |        |        |        |           |
|                              |                        | 15     | 11,14  | 14       | 30        | 24     | 10     | 13     | 13        |
| 3                            | 15                     | 12     | 12     | 20       |           | 15     | 17     |        |           |
|                              |                        |        |        |          |           |        | 23     |        | 11        |
| 9HTLAG-5877                  | Yfiler® Plus           |        |        |          |           |        |        |        |           |
|                              | 35,37                  | 15     | 11,14  | 14       | 30        | 24     | 10     | 13     | 13        |
| 3                            | 15                     | 12     | 12     | 20       | 29        | 15     | 17     | 10     | 24        |
|                              | 38                     | 12     |        | 17       | 18        | 22     | 23     |        | 11        |

TABLE 3

| WebCode-Test                 |                 | Amplification Kit |        |        |          |           |        |        |        |           |
|------------------------------|-----------------|-------------------|--------|--------|----------|-----------|--------|--------|--------|-----------|
|                              |                 | DYF387S1          | DYS19  | DYS385 | DYS389-I | DYS389-II | DYS390 | DYS391 | DYS392 | DYS393    |
| Item                         |                 | DYS437            | DYS438 | DYS439 | DYS448   | DYS449    | DYS456 | DYS458 | DYS460 | DYS481    |
|                              |                 | DYS518            | DYS533 | DYS549 | DYS570   | DYS576    | DYS627 | DYS635 | DYS643 | Y GATA H4 |
| <b>Item 3 - YSTR Results</b> |                 |                   |        |        |          |           |        |        |        |           |
| 9P9DFV-5877                  | PowerPlex® Y    |                   |        |        |          |           |        |        |        |           |
|                              |                 | 15                | 11,14  | 14     | 30       | 24        | 10     | 13     | 13     |           |
| 3                            |                 | 15                | 12     | 12     | 20       | 15        | 17     |        | 24     |           |
|                              |                 | 12                | 13     | 17     | 18       |           | 23     | 10     | 11     |           |
| AJHDUL-5877                  | PowerPlex® Y 23 |                   |        |        |          |           |        |        |        |           |
|                              |                 | 15                | 11,14  | 14     | 30       | 24        | 10     | 13     | 13     |           |
| 3                            |                 | 15                | 12     | 12     | 20       | 15        | 17     |        | 24     |           |
|                              |                 | 12                | 13     | 17     | 18       |           | 23     | 10     | 11     |           |
| CV64QA-5872                  | Yfiler®         |                   |        |        |          |           |        |        |        |           |
|                              | 35,37           | 15                | 11,14  | 14     | 30       | 24        | 10     | 13     | 13     |           |
| 3                            |                 | 15                | 12     | 12     | 20       | 29        | 15     | 17     | 10     | 24        |
|                              | 38              | 12                |        | 17     | 18       | 22        | 23     |        |        | 11        |
| GDT3MA-5872                  | PowerPlex® Y 23 |                   |        |        |          |           |        |        |        |           |
|                              |                 | 15                | 11,14  | 14     | 30       | 24        | 10     | 13     | 13     |           |
| 3                            |                 | 15                | 12     | 12     | 20       | 15        | 17     |        | 24     |           |
|                              |                 | 12                | 13     | 17     | 18       |           | 23     | 10     | 11     |           |
| GW36G9-5872                  | Yfiler® Plus    |                   |        |        |          |           |        |        |        |           |
|                              | 35,37           | 15                | 11,14  | 14     | 30       | 24        | 10     | 13     | 13     |           |
| 3                            |                 | 15                | 12     | 12     | 20       | 29        | 15     | 17     | 10     | 24        |
|                              | 38              | 12                | /      | 17     | 18       | 22        | 23     | /      |        | 11        |
| H9TEJ8-5872                  | Yfiler® Plus    |                   |        |        |          |           |        |        |        |           |
|                              | 35,37           | 15                | 11,14  | 14     | 30       | 24        | 10     | 13     | 13     |           |
| 3                            |                 | 15                | 12     | 12     | 20       | 29        | 15     | 17     | 10     | 24        |
|                              | 38              | 12                |        | 17     | 18       | 22        | 23     |        |        | 11        |
| HWYZF6-5877                  | Yfiler® PLUS    |                   |        |        |          |           |        |        |        |           |
|                              | 35,37           | 15                | 11,14  | 14     | 30       | 24        | 10     | 13     | 13     |           |
| 3                            |                 | 15                | 12     | 12     | 20       | 29        | 15     | 17     | 10     | 24        |
|                              | 38              | 12                |        | 17     | 18       | 22        | 23     |        |        | 11        |
| KKHW9X-5872                  | PowerPlex® Y 23 |                   |        |        |          |           |        |        |        |           |
|                              |                 | 15                | 11,14  | 14     | 30       | 24        | 10     | 13     | 13     |           |
| 3                            |                 | 15                | 12     | 12     | 20       | 15        | 17     |        | 24     |           |
|                              |                 | 12                | 13     | 17     | 18       |           | 23     | 10     | 11     |           |
| NQDVAW-5872                  | Yfiler®         |                   |        |        |          |           |        |        |        |           |
|                              | -               | 15                | 11,14  | 14     | 30       | 24        | 10     | 13     | 13     |           |
| 3                            |                 | 15                | 12     | 12     | 20       | -         | 15     | 17     | -      | -         |
|                              | -               | -                 | -      | -      | -        | -         | 23     | -      |        | 11        |
| PMD6KW-5872                  | PowerPlex® Y 23 |                   |        |        |          |           |        |        |        |           |
|                              |                 | 15                | 11,14  | 14     | 30       | 24        | 10     | 13     | 13     |           |
| 3                            |                 | 15                | 12     | 12     | 20       | 15        | 17     |        | 24     |           |
|                              |                 | 12                | 13     | 17     | 18       |           | 23     | 10     | 11     |           |

TABLE 3

| WebCode-Test<br>Item         | Amplification Kit                      |        |        |          |           |        |        |        |           |
|------------------------------|--|--------|--------|----------|-----------|--------|--------|--------|-----------|
|                              | DYF387S1                               | DYS19  | DYS385 | DYS389-I | DYS389-II | DYS390 | DYS391 | DYS392 | DYS393    |
|                              | DYS437                                 | DYS438 | DYS439 | DYS448   | DYS449    | DYS456 | DYS458 | DYS460 | DYS481    |
|                              | DYS518                                 | DYS533 | DYS549 | DYS570   | DYS576    | DYS627 | DYS635 | DYS643 | Y GATA H4 |
| <b>Item 3 - YSTR Results</b> |  |        |        |          |           |        |        |        |           |
| PTX3AK-5877                  | Yfiler® Plus                           |        |        |          |           |        |        |        |           |
|                              | 35,37                                  | 15     | 11,14  | 14       | 30        | 24     | 10     | 13     | 13        |
| 3                            | 15                                     | 12     | 12     | 20       | 29        | 15     | 17     | 10     | 24        |
|                              | 38                                     | 12     |        | 17       | 18        | 22     | 23     |        | 11        |
| PU94VJ-5877                  | Yfiler® Plus                           |        |        |          |           |        |        |        |           |
|                              | 35,37                                  | 15     | 11,14  | 14       | 30        | 24     | 10     | 13     | 13        |
| 3                            | 15                                     | 12     | 12     | 20       | 29        | 15     | 17     | 10     | 24        |
|                              | 38                                     | 12     |        | 17       | 18        | 22     | 23     |        | 11        |
| UALBVW-5877                  | Yfiler®                                |        |        |          |           |        |        |        |           |
|                              |  | 15     | 11,14  | 14       | 30        | 24     | 10     | 13     | 13        |
| 3                            | 15                                     | 12     | 12     | 20       |           | 15     | 17     |        |           |
|                              |  |        |        |          |           |        | 23     |        | 11        |
| URUYR6-5872                  | Yfiler® Plus                           |        |        |          |           |        |        |        |           |
|                              | 35,37                                  | 15     | 11,14  | 14       | 30        | 24     | 10     | 13     | 13        |
| 3                            | 15                                     | 12     | 12     | 20       | 29        | 15     | 17     | 10     | 24        |
|                              | 38                                     | 12     |        | 17       | 18        | 22     | 23     |        | 11        |
| UZLJPQ-5872                  | PowerPlex® Y 23                        |        |        |          |           |        |        |        |           |
|                              |  | 15     | 11,14  | 14       | 30        | 24     | 10     | 13     | 13        |
| 3                            | 15                                     | 12     | 12     | 20       |           | 15     | 17     |        | 24        |
|                              |  | 12     | 13     | 17       | 18        |        | 23     | 10     | 11        |
| V2BAAV-5877                  | ForenSeq Signature Prep - Primer Set B |        |        |          |           |        |        |        |           |
|                              | 35,37                                  | 15     | 11,14  | 14       | 30        | 24     | 10     | 13     |           |
| 3                            | 15                                     | 12     | 12     | 20       |           |        |        | 10     | 24        |
|                              |  | 12     | 13     | 17       | 18        |        | 23     | 10     | 11        |
| WYXW8K-5872                  | Yfiler®                                |        |        |          |           |        |        |        |           |
|                              |  | 15     | 11,14  | 14       | 30        | 24     | 10     | 13     | 13        |
| 3                            | 15                                     | 12     | 12     | 20       |           | 15     | 17     |        |           |
|                              |  |        |        |          |           |        | 23     |        | 11        |
| XQMVLJ-5872                  | Yfiler®                                |        |        |          |           |        |        |        |           |
|                              |  | 15     | 11,14  | 14       | 30        | 24     | 10     | 13     | 13        |
| 3                            | 15                                     | 12     | 12     | 20       |           | 15     | 17     |        |           |
|                              |  |        |        |          |           |        | 23     |        | 11        |
| XWTLQB-5872                  | Yfiler®                                |        |        |          |           |        |        |        |           |
|                              |  | 15     | 11,14  | 14       | 30        | 24     | 10     | 13     | 13        |
| 3                            | 15                                     | 12     | 12     | 20       |           | 15     | 17     |        |           |
|                              |  |        |        |          |           |        | 23     |        | 11        |
| ZEKBY9-5877                  | Yfiler® Plus                           |        |        |          |           |        |        |        |           |
|                              | 35,37                                  | 15     | 11,14  | 14       | 30        | 24     | 10     | 13     | 13        |
| 3                            | 15                                     | 12     | 12     | 20       | 29        | 15     | 17     | 10     | 24        |
|                              | 38                                     | 12     |        | 17       | 18        | 22     | 23     |        | 11        |

TABLE 3

| WebCode-Test | Amplification Kit |        |        |          |           |        |        |        |           |
|--------------|-------------------|--------|--------|----------|-----------|--------|--------|--------|-----------|
|              | DYF387S1          | DYS19  | DYS385 | DYS389-I | DYS389-II | DYS390 | DYS391 | DYS392 | DYS393    |
| Item         | DYS437            | DYS438 | DYS439 | DYS448   | DYS449    | DYS456 | DYS458 | DYS460 | DYS481    |
|              | DYS518            | DYS533 | DYS549 | DYS570   | DYS576    | DYS627 | DYS635 | DYS643 | Y GATA H4 |

Item 3 - YSTR Results

| WebCode-Test | Amplification Kit | DYF387S1 | DYS19 | DYS385 | DYS389-I | DYS389-II | DYS390 | DYS391 | DYS392 | DYS393 |
|--------------|-------------------|----------|-------|--------|----------|-----------|--------|--------|--------|--------|
| ZFX3RQ-5872  | PowerPlex® Y Y23  |          | 15    | 11,14  | 14       | 30        | 24     | 10     | 13     | 13     |
| 3            |                   | 15       | 12    | 12     | 20       |           | 15     | 17     |        | 24     |
|              |                   |          | 12    | 13     | 17       | 18        |        | 23     | 10     | 11     |

TABLE 3

| WebCode-Test<br>Item         | Amplification Kit      |        |        |          |           |        |        |        |           |
|------------------------------|------------------------|--------|--------|----------|-----------|--------|--------|--------|-----------|
|                              | DYF387S1               | DYS19  | DYS385 | DYS389-I | DYS389-II | DYS390 | DYS391 | DYS392 | DYS393    |
|                              | DYS437                 | DYS438 | DYS439 | DYS448   | DYS449    | DYS456 | DYS458 | DYS460 | DYS481    |
|                              | DYS518                 | DYS533 | DYS549 | DYS570   | DYS576    | DYS627 | DYS635 | DYS643 | Y GATA H4 |
| <b>Item 4 - YSTR Results</b> |                        |        |        |          |           |        |        |        |           |
| 33G37G-5872                  | Yfiler®                |        |        |          |           |        |        |        |           |
|                              |                        | 16     | 18     | 13       | 30        | 21     | 10     | 11     | 15        |
| 4                            | 14                     | 11     | 12     | 21       |           | 16     | 16     |        |           |
|                              |                        |        |        |          |           |        | 21     |        | 11        |
| 39LYUM-5872                  | PowerPlex® Y 23 System |        |        |          |           |        |        |        |           |
|                              |                        | 16     | 18     | 13       | 30        | 21     | 10     | 11     | 15        |
| 4                            | 14                     | 11     | 12     | 21       |           | 16     | 16     |        | 24        |
|                              |                        | 11     | 11     | 18       | 17        |        | 21     | 14     | 11        |
| 3ECBR6-5877                  | Yfiler® Plus           |        |        |          |           |        |        |        |           |
|                              | 39,40                  | 16     | 18     | 13       | 30        | 21     | 10     | 11     | 15        |
| 4                            | 14                     | 11     | 12     | 21       | 31        | 16     | 16     | 10     | 24        |
|                              | 39                     | 11     |        | 18       | 17        | 22     | 21     |        | 11        |
| 3F8R7M-5877                  | PowerPlex® Y Y23       |        |        |          |           |        |        |        |           |
|                              |                        | 16     | 18     | 13       | 30        | 21     | 10     | 11     | 15        |
| 4                            | 14                     | 11     | 12     | 21       |           | 16     | 16     |        | 24        |
|                              |                        | 11     | 11     | 18       | 17        |        | 21     | 14     | 11        |
| 77PJU3-5877                  | Yfiler® Plus           |        |        |          |           |        |        |        |           |
|                              | 39,40                  | 16     | 18     | 13       | 30        | 21     | 10     | 11     | 15        |
| 4                            | 14                     | 11     | 12     | 21       | 31        | 16     | 16     | 10     | 24        |
|                              | 39                     | 11     |        | 18       | 17        | 22     | 21     |        | 11        |
| 786NQE-5872                  | PowerPlex® Y           |        |        |          |           |        |        |        |           |
|                              |                        | 16     | 18     | 13       | 30        | 21     | 10     | 11     | 15        |
| 4                            | 14                     | 11     | 12     | 21       |           | 16     | 16     |        | 24        |
|                              |                        | 11     | 11     | 18       | 17        |        | 21     | 14     | 11        |
| 7PKXQF-5872                  | Yfiler®                |        |        |          |           |        |        |        |           |
|                              |                        | 16     | 18     | 13       | 30        | 21     | 10     | 11     | 15        |
| 4                            | 14                     | 11     | 12     | 21       |           | 16     | 16     |        |           |
|                              |                        |        |        |          |           |        | 21     |        | 11        |
| 84E29B-5872                  | Yfiler®                |        |        |          |           |        |        |        |           |
|                              |                        | 16     | 18     | 13       | 30        | 21     | 10     | 11     | 15        |
| 4                            | 14                     | 11     | 12     | 21       |           | 16     | 16     |        |           |
|                              |                        |        |        |          |           |        | 21     |        | 11        |
| 9HTLAG-5877                  | Yfiler® Plus           |        |        |          |           |        |        |        |           |
|                              | 39,40                  | 16     | 18     | 13       | 30        | 21     | 10     | 11     | 15        |
| 4                            | 14                     | 11     | 12     | 21       | 31        | 16     | 16     | 10     | 24        |
|                              | 39                     | 11     |        | 18       | 17        | 22     | 21     |        | 11        |
| 9P9DFV-5877                  | PowerPlex® Y           |        |        |          |           |        |        |        |           |
|                              |                        | 16     | 18,18  | 13       | 30        | 21     | 10     | 11     | 15        |
| 4                            | 14                     | 11     | 12     | 21       |           | 16     | 16     |        | 24        |
|                              |                        | 11     | 11     | 18       | 17        |        | 21     | 14     | 11        |

TABLE 3

| WebCode-Test                 |  | Amplification Kit |        |        |          |           |        |        |        |           |
|------------------------------|--|-------------------|--------|--------|----------|-----------|--------|--------|--------|-----------|
|                              |  | DYF387S1          | DYS19  | DYS385 | DYS389-I | DYS389-II | DYS390 | DYS391 | DYS392 | DYS393    |
| Item                         |  | DYS437            | DYS438 | DYS439 | DYS448   | DYS449    | DYS456 | DYS458 | DYS460 | DYS481    |
|                              |  | DYS518            | DYS533 | DYS549 | DYS570   | DYS576    | DYS627 | DYS635 | DYS643 | Y GATA H4 |
| <b>Item 4 - YSTR Results</b> |  |                   |        |        |          |           |        |        |        |           |
| AJHDUL-5877                  |  | PowerPlex® Y 23   |        |        |          |           |        |        |        |           |
|                              |  | 16                | 18,18  | 13     | 30       | 21        | 10     | 11     | 15     |           |
| 4                            |  | 14                | 11     | 12     | 21       | 16        | 16     | 16     | 24     |           |
|                              |  | 11                | 11     | 18     | 17       |           | 21     | 14     | 11     |           |
| CV64QA-5872                  |  | Yfiler®           |        |        |          |           |        |        |        |           |
|                              |  | 39,40             | 16     | 18     | 13       | 30        | 21     | 10     | 11     | 15        |
| 4                            |  | 14                | 11     | 12     | 21       | 31        | 16     | 16     | 10     | 24        |
|                              |  | 39                | 11     |        | 18       | 17        | 22     | 21     |        | 11        |
| GDT3MA-5872                  |  | PowerPlex® Y 23   |        |        |          |           |        |        |        |           |
|                              |  | 16                | 18,18  | 13     | 30       | 21        | 10     | 11     | 15     |           |
| 4                            |  | 14                | 11     | 12     | 21       | 16        | 16     | 16     | 24     |           |
|                              |  | 11                | 11     | 18     | 17       |           | 21     | 14     | 11     |           |
| GW36G9-5872                  |  | Yfiler® Plus      |        |        |          |           |        |        |        |           |
|                              |  | 39,40             | 16     | 18,18  | 13       | 30        | 21     | 10     | 11     | 15        |
| 4                            |  | 14                | 11     | 12     | 21       | 31        | 16     | 16     | 10     | 24        |
|                              |  | 39                | 11     | /      | 18       | 17        | 22     | 21     | /      | 11        |
| H9TEJ8-5872                  |  | Yfiler® Plus      |        |        |          |           |        |        |        |           |
|                              |  | 39,40             | 16     | 18,18  | 13       | 30        | 21     | 10     | 11     | 15        |
| 4                            |  | 14                | 11     | 12     | 21       | 31        | 16     | 16     | 10     | 24        |
|                              |  | 39                | 11     |        | 18       | 17        | 22     | 21     |        | 11        |
| HWYZF6-5877                  |  | Yfiler® PLUS      |        |        |          |           |        |        |        |           |
|                              |  | 39,40             | 16     | 18,18  | 13       | 30        | 21     | 10     | 11     | 15        |
| 4                            |  | 14                | 11     | 12     | 21       | 31        | 16     | 16     | 10     | 24        |
|                              |  | 39                | 11     |        | 18       | 17        | 22     | 21     |        | 11        |
| KKHW9X-5872                  |  | PowerPlex® Y 23   |        |        |          |           |        |        |        |           |
|                              |  | 16                | 18     | 13     | 30       | 21        | 10     | 11     | 15     |           |
| 4                            |  | 14                | 11     | 12     | 21       | 16        | 16     | 16     | 24     |           |
|                              |  | 11                | 11     | 18     | 17       |           | 21     | 14     | 11     |           |
| NQDVAW-5872                  |  | Yfiler®           |        |        |          |           |        |        |        |           |
|                              |  | -                 | 16     | 18     | 13       | 30        | 21     | 10     | 11     | 15        |
| 4                            |  | 14                | 11     | 12     | 21       | -         | 16     | 16     | -      | -         |
|                              |  | -                 | -      | -      | -        | -         | 21     | -      | -      | 11        |
| PMD6KW-5872                  |  | PowerPlex® Y 23   |        |        |          |           |        |        |        |           |
|                              |  | 16                | 18,18  | 13     | 30       | 21        | 10     | 11     | 15     |           |
| 4                            |  | 14                | 11     | 12     | 21       | 16        | 16     | 16     | 24     |           |
|                              |  | 11                | 11     | 18     | 17       |           | 21     | 14     | 11     |           |
| PTX3AK-5877                  |  | Yfiler® Plus      |        |        |          |           |        |        |        |           |
|                              |  | 39,40             | 16     | 18     | 13       | 30        | 21     | 10     | 11     | 15        |
| 4                            |  | 14                | 11     | 12     | 21       | 31        | 16     | 16     | 10     | 24        |
|                              |  | 39                | 11     |        | 18       | 17        | 22     | 21     |        | 11        |

TABLE 3

| WebCode-Test<br>Item         | Amplification Kit                      |        |        |          |           |        |        |        |           |
|------------------------------|--|--------|--------|----------|-----------|--------|--------|--------|-----------|
|                              | DYF387S1                               | DYS19  | DYS385 | DYS389-I | DYS389-II | DYS390 | DYS391 | DYS392 | DYS393    |
|                              | DYS437                                 | DYS438 | DYS439 | DYS448   | DYS449    | DYS456 | DYS458 | DYS460 | DYS481    |
|                              | DYS518                                 | DYS533 | DYS549 | DYS570   | DYS576    | DYS627 | DYS635 | DYS643 | Y GATA H4 |
| <b>Item 4 - YSTR Results</b> |  |        |        |          |           |        |        |        |           |
| PU94VJ-5877                  | Yfiler® Plus                           |        |        |          |           |        |        |        |           |
|                              | 39,40                                  | 16     | 18     | 13       | 30        | 21     | 10     | 11     | 15        |
| 4                            | 14                                     | 11     | 12     | 21       | 31        | 16     | 16     | 10     | 24        |
|                              | 39                                     | 11     |        | 18       | 17        | 22     | 21     |        | 11        |
| UALBVW-5877                  | Yfiler®                                |        |        |          |           |        |        |        |           |
|                              |  | 16     | 18     | 13       | 30        | 21     | 10     | 11     | 15        |
| 4                            | 14                                     | 11     | 12     | 21       |           | 16     | 16     |        |           |
|                              |  |        |        |          |           |        | 21     |        | 11        |
| URUYR6-5872                  | Yfiler® Plus                           |        |        |          |           |        |        |        |           |
|                              | 39,40                                  | 16     | 18,18  | 13       | 30        | 21     | 10     | 11     | 15        |
| 4                            | 14                                     | 11     | 12     | 21       | 31        | 16     | 16     | 10     | 24        |
|                              | 39                                     | 11     |        | 18       | 17        | 22     | 21     |        | 11        |
| UZLJPQ-5872                  | PowerPlex® Y 23                        |        |        |          |           |        |        |        |           |
|                              |  | 16     | 18     | 13       | 30        | 21     | 10     | 11     | 15        |
| 4                            | 14                                     | 11     | 12     | 21       |           | 16     | 16     |        | 24        |
|                              |  | 11     | 11     | 18       | 17        |        | 21     | 14     | 11        |
| V2BAAV-5877                  | ForenSeq Signature Prep - Primer Set B |        |        |          |           |        |        |        |           |
|                              | 39,40                                  | 16     | 18     | 13       | 30        | 21     | 10     | 11     |           |
| 4                            | 14                                     | 11     | 12     | 21       |           |        |        | 10     | 24        |
|                              |  | 11     | 11     | 18       | 17        |        | 21     | 14     | 11        |
| WYXW8K-5872                  | Yfiler®                                |        |        |          |           |        |        |        |           |
|                              |  | 16     | 18     | 13       | 30        | 21     | 10     | 11     | 15        |
| 4                            | 14                                     | 11     | 12     | 21       |           | 16     | 16     |        |           |
|                              |  |        |        |          |           |        | 21     |        | 11        |
| XQMV LJ-5872                 | Yfiler®                                |        |        |          |           |        |        |        |           |
|                              |  | 16     | 18     | 13       | 30        | 21     | 10     | 11     | 15        |
| 4                            | 14                                     | 11     | 12     | 21       |           | 16     | 16     |        |           |
|                              |  |        |        |          |           |        | 21     |        | 11        |
| XWTLQB-5872                  | Yfiler®                                |        |        |          |           |        |        |        |           |
|                              |  | 16     | 18     | 13       | 30        | 21     | 10     | 11     | 15        |
| 4                            | 14                                     | 11     | 12     | 21       |           | 16     | 16     |        |           |
|                              |  |        |        |          |           |        | 21     |        | 11        |
| ZEKBY9-5877                  | Yfiler® Plus                           |        |        |          |           |        |        |        |           |
|                              | 39,40                                  | 16     | 18     | 13       | 30        | 21     | 10     | 11     | 15        |
| 4                            | 14                                     | 11     | 12     | 21       | 31        | 16     | 16     | 10     | 24        |
|                              | 39                                     | 11     |        | 18       | 17        | 22     | 21     |        | 11        |
| ZFX3RQ-5872                  | PowerPlex® Y Y23                       |        |        |          |           |        |        |        |           |
|                              |  | 16     | 18     | 13       | 30        | 21     | 10     | 11     | 15        |
| 4                            | 14                                     | 11     | 12     | 21       |           | 16     | 16     |        | 24        |
|                              |  | 11     | 11     | 18       | 17        |        | 21     | 14     | 11        |



# Additional DNA & PI Results

## TABLE 4

| Locus    | WebCode-Test | Item 1 | Item 2 | Item 3 | Item 3<br>PI | Item 4 | Item 4<br>PI |
|----------|--------------|--------|--------|--------|--------------|--------|--------------|
| D17S1301 | V2BAAV-5877  | 12     | 12     | 11,12  | NC           | 12     | NC           |
| D20S482  | V2BAAV-5877  | 14     | 14,15  | 14,15  | NC           | 14,15  | NC           |
| D4S2408  | V2BAAV-5877  | 9      | 9,10   | 8,10   | NC           | 10     | NC           |
| D9S1122  | V2BAAV-5877  | 12,13  | 13     | 11,13  | NC           | 13,14  | NC           |
| DXS10074 | V2BAAV-5877  | 18,19  | 8,18   | 8      | NC           | 13     | NC           |
| DXS10103 | V2BAAV-5877  | 19,20  | 19,20  | 19     | NC           | 19     | NC           |
| DXS10135 | V2BAAV-5877  | 20,25  | 25,26  | 26     | NC           | 21     | NC           |
| DXS7132  | V2BAAV-5877  | 14     | 13,14  | 13     | NC           | 13     | NC           |
| DXS7423  | V2BAAV-5877  | 14     | 13,14  | 13     | NC           | 14     | NC           |
| DXS8378  | V2BAAV-5877  | 11     | 11,12  | 12     | NC           | 12     | NC           |
| DYS389I  | V2BAAV-5877  | NR     | 14     | -      | -            | -      | -            |
| DYS438   | V2BAAV-5877  | NR     | 9      | -      | -            | -      | -            |
| DYS505   | V2BAAV-5877  | NR     | NR     | 12     | -            | 13     | -            |
| DYS522   | V2BAAV-5877  | NR     | NR     | 10     | -            | 11     | -            |
| DYS612   | V2BAAV-5877  | NR     | NR     | 30     | -            | 30     | -            |
| F13A     | 3F8R7M-5877  | 6,7    | 6,7    | 6,7    | 1.5011       | 3.2    | 0            |
| F13A01   | 73W8G7-5872  | 6,7    | 6,7    | 6,7    | 1.50         | 3.2    | 0            |
|          | 786NQE-5872  | 6,7    | 6,7    | 6,7    | 1.50         | 3.2    |              |
|          | UZLJPQ-5872  | 6,7    | 6,7    | 6,7    | 1.5042       | 3.2    |              |
| F13B     | 3F8R7M-5877  | 8,10   | 8,10   | 8,10   | 1.5694       | 6      | 0            |
|          | 73W8G7-5872  | 8,10   | 8,10   | 8,10   | 1.57         | 6      | 0            |
|          | 786NQE-5872  | 8,10   | 8,10   | 8,10   | 1.57         | 6      |              |
|          | UZLJPQ-5872  | 8,10   | 8,10   | 8,10   | 1.5730       | 6      |              |
| FES/FPS  | 73W8G7-5872  | 8,11   | 8,10   | 10,11  | 1.77         | 10,13  | 2.22         |
| FESFPS   | 3F8R7M-5877  | 8,11   | 8,10   | 10,11  | 1.7781       | 10,13  | 2.2212       |
|          | 786NQE-5872  | 8,11   | 8,10   | 10,11  | 1.77         | 10,13  |              |
| HPRTB    | V2BAAV-5877  | 13     | 12,13  | 12     | NC           | 13     | NC           |
| LPL      | 3F8R7M-5877  | 10,11  | 10,11  | 10,11  | 1.4556       | 9,12   | 0            |
|          | 73W8G7-5872  | 10,11  | 10,11  | 10,11  | 1.46         | 9,12   | 0            |
|          | 786NQE-5872  | 10,11  | 10,11  | 10,11  | 1.46         | 9,12   |              |
|          | UZLJPQ-5872  | 10,11  | 10,11  | 10,11  | 1.4558       | 9,12   |              |
| PENTA C  | 3F8R7M-5877  | 11,12  | 11     | 11     | 2.5246       | 10,12  | 0            |
|          | 73W8G7-5872  | 11,12  | 11     | 11     | 2.53         | 10,12  | 0            |
|          | 786NQE-5872  | 11,12  | 11     | 11     | 2.53         | 10,12  |              |
|          | UZLJPQ-5872  | 11,12  | 11     | 11     | 2.5335       | 10,12  |              |

# Paternity DNA Statistics & Conclusions

TABLE 5

| WebCode-Test | Chosen Biological Father  | Combined Paternity Index | Probability of Paternity | Population Database Used        |
|--------------|---------------------------|--------------------------|--------------------------|---------------------------------|
| 33G37G-5872  | Item 3 - Alleged Father A | 4.0684E+13               | 99.9999%                 | NIST-STRBASE                    |
| 39LYUM-5872  | Item 3 - Alleged Father A | 2.298E+15                | >99.999999%              | Local Database                  |
| 3ECBR6-5877  | Item 3 - Alleged Father A | 2.999 trillion           | >99.99%                  | FBI PopStats                    |
| 3F8R7M-5877  | Item 3 - Alleged Father A | 11,253,654,216,751.2000  | 99.9999                  | Promega                         |
| 3FRDYD-5877  | Item 3 - Alleged Father A | 3.6370E+13               | >99.9999%                | FBI PopStats                    |
| 3LW7VU-5872  | Item 3 - Alleged Father A | 237827.954               | 0.999999                 | NIST-STRBASE                    |
| 3M2YKL-5877  | Item 3 - Alleged Father A | 1.7E14                   | (lab does not calculate) | NIST-STRBASE                    |
| 3PVM4G-5877  | Item 3 - Alleged Father A | 244,363,200              | 99.99%                   | [Location Identifying Database] |
| 63UDXK-5872  | Item 3 - Alleged Father A | 821,300,000,000          | 99.9999999998782         | FBI PopStats                    |
| 6CHZCV-5872  | Item 3 - Alleged Father A | 3.131E+12                | 0.99999999999681         | NIST-STRBASE                    |
| 73W8G7-5872  | Item 3 - Alleged Father A | 1.39E+16                 | >99.99999999%            | FBI PopStats                    |
| 77PJU3-5877  | Item 3 - Alleged Father A | 2,999,000,000,000        | >99.99%                  | FBI PopStats                    |
| 786NQE-5872  | Item 3 - Alleged Father A | 217050705216570000,00    | 99.99999999999999%       | NIST-STRBASE                    |
| 7DPWVQ-5872  | Item 3 - Alleged Father A | 97,020,000,000           | 99.9999%                 | FBI PopStats, NIST 2017         |
| 7F4KV8-5872  | Item 3 - Alleged Father A | 74 259 915 897 331       | 0,999999999999998        | laboratory specific database    |
| 7PKXQF-5872  | Item 3 - Alleged Father A | 4.0684E+13               | 99.9999%                 | NIST-STRBASE                    |
| 84E29B-5872  | Item 3 - Alleged Father A | 4.0668E+13               | 99.9999%                 | NIST-STRBASE                    |
| 8D3UK9-5877  | Item 3 - Alleged Father A | 36 trillion              |                          | FBI PopStats                    |
| 8MBE64-5872  | Item 3 - Alleged Father A | 976 693 341 000          | 99.99999999%             | local database                  |
| 9HTLAG-5877  | Item 3 - Alleged Father A | 118,030,106,799,956.000  | 99.99999999 %            | NIST-STRBASE                    |

TABLE 5 - Paternity DNA Statistics &amp; Conclusions

| WebCode-Test | Chosen Biological Father  | Combined Paternity Index | Probability of Paternity | Population Database Used              |
|--------------|---------------------------|--------------------------|--------------------------|---------------------------------------|
| 9P9DFV-5877  | Item 3 - Alleged Father A | 17896140666623           | 99.999999999             | Qualitytype database based on STRider |
| 9QBQKP-5872  | Item 3 - Alleged Father A | 5.6660E+12               | >99.99                   | FBI PopStats                          |
| AFLNDE-5877  | Item 3 - Alleged Father A | 15300000000000           | 99.99999999              | FBI PopStats, Promega/NIST            |
| AJHDUL-5877  | Item 3 - Alleged Father A | 9.047322923e+014         | >0,999999                | NIST-STRBASE                          |
| ARWY24-5872  | Item 3 - Alleged Father A | 1.62 trillion            | >99.999999999            | NIST-STRBASE                          |
| ATTEFL-5877  | Item 3 - Alleged Father A | 244363182,357694         | 0,99999999590773         | User's Manual AmpFISTR Identifier     |
| BQVKU2-5877  | Item 3 - Alleged Father A | 800 billion              | N/A                      | NIST-STRBASE                          |
| BQZZ9N-5872  | Item 3 - Alleged Father A | 8,852,000,000,000        | 99.999999999             | FBI PopStats                          |
| C8ZC9C-5877  | Item 3 - Alleged Father A | 1.7E+14                  | not reported             | NIST-STRBASE                          |
| CV64QA-5872  | Item 3 - Alleged Father A | 4524809048000000         | 99.999999999999          | NIST-STRBASE                          |
| DTFCVH-5877  | Item 3 - Alleged Father A | 249924148358.481         | 99.99%                   | NIST-STRBASE                          |
| DUAZED-5877  | Item 3 - Alleged Father A | 41,048,120,092,842.0000  | >99.9999%                | NIST-STRBASE                          |
| EAH9U8-5872  | Item 3 - Alleged Father A | 3198309526174,30         | 99,999999999687          | NIST-STRBASE                          |
| EBAAT4-5877  | Item 3 - Alleged Father A | 40,684,960,727,681       | 99.9999                  | NIST-STRBASE                          |
| ENJRPD-5877  | Item 3 - Alleged Father A | 2.47e13                  | 99.99999999%             | NIST-STRBASE                          |
| ERKVGZ-5872  | Item 3 - Alleged Father A | 1.61 x 10 <sup>^13</sup> | 99.9999%                 | NIST-STRBASE                          |
| F87XDU-5872  | Item 3 - Alleged Father A | 241,900,000              | 99.9999995866            | FBI PopStats                          |
| FDVD22-5872  | Item 3 - Alleged Father A | 2.4 trillion             | 99.9999%                 | NIST-STRBASE                          |
| FDX37Y-5877  | Item 3 - Alleged Father A | 800 billion              | N/A                      | NIST-STRBASE                          |
| G48YJG-5872  | Item 3 - Alleged Father A | 5.6660E+12               | >99.999999999            | FBI PopStats                          |



TABLE 5 - Paternity DNA Statistics &amp; Conclusions

| WebCode-Test | Chosen Biological Father  | Combined Paternity Index             | Probability of Paternity | Population Database Used               |
|--------------|---------------------------|--------------------------------------|--------------------------|--|
| P99QKY-5872  | Item 3 - Alleged Father A | 8.06441E12                           | 99.9999999999%           | FBI PopStats,<br>FBI_extended_Cauc.csv |
| PMBG2X-5877  | Item 3 - Alleged Father A | 7.030 trillion                       | 99.9999%                 | NIST-STRBASE                           |
| PMD6KW-5872  | Item 3 - Alleged Father A |                                      |                          |  |
| PTVD6M-5872  | Item 3 - Alleged Father A | 97,020,000,000                       | 99.9999                  | FBI PopStats, NIST<br>2017             |
| PTX3AK-5877  | Item 3 - Alleged Father A | 2,999,000,000,000                    | >99.99%                  | FBI PopStats                           |
| PU94VJ-5877  | Item 3 - Alleged Father A | 2.999x10 <sup>12</sup>               | >99.99%                  | FBI PopStats                           |
| QHBLZA-5872  | Item 3 - Alleged Father A | 7.311e+011                           | N/A                      | NIST-STRBASE                           |
| QV46G2-5872  | Item 3 - Alleged Father A | 9.026E+12                            | Not calculated           | Local database                         |
| QZUGCW-5872  | Item 3 - Alleged Father A | 7.53 trillion                        | 99.9%                    | NIST-STRBASE                           |
| R3EPWH-5872  | Item 3 - Alleged Father A | 353 trillion                         | 99.99%                   | FBI PopStats, NIST<br>2017 population  |
| RBTEVQ-5877  | Item 3 - Alleged Father A | 1.90e+011                            | 99.9999999999%           | laboratory specific<br>database        |
| RKEH3P-5872  | Item 3 - Alleged Father A | 2.4 trillion Caucasian<br>population | 99.9999%                 | NIST-STRBASE                           |
| TFFNHU-5872  | Item 3 - Alleged Father A | 19,580,000,000,000                   | 99.9999999999%           | FBI PopStats                           |
| TNRV34-5872  | Item 3 - Alleged Father A | 97,020,000,000                       | 99.9999%                 | FBI PopStats                           |
| TYCCNJ-5877  | Item 3 - Alleged Father A | 800,000,000,000                      | N/A                      | NIST-STRBASE                           |
| TZ8R32-5872  | Item 3 - Alleged Father A | 237827.954                           | 0.999999                 | NIST-STRBASE                           |
| UALBVW-5877  | Item 3 - Alleged Father A | 3209955155419.29000                  | 0.9999999999997          | NIST-STRBASE                           |
| URUYR6-5872  | Item 3 - Alleged Father A | 83 billion                           | NA                       | National Caucasian<br>Database         |
| UZLJPQ-5872  | Item 3 - Alleged Father A | 122.633.648.400.000.000              | 99.99999999%             | NIST-STRBASE                           |
| V2BAAV-5877  | Item 3 - Alleged Father A | 1.8 trillion                         | >99.99%                  | Laboratory Specific<br>Database        |

TABLE 5 - Paternity DNA Statistics & Conclusions

| WebCode-Test | Chosen Biological Father  | Combined Paternity Index | Probability of Paternity | Population Database Used                    |
|--------------|---------------------------|--------------------------|--------------------------|---|
| W2RKQF-5872  | Item 3 - Alleged Father A | 97,020,000,000           | 99.9999%                 | FBI PopStats, NIST population               |
| W7GZEM-5872  | Item 3 - Alleged Father A | 1.1e13                   | 99.9999%                 | local database                              |
| W7KMUR-5877  |                           | 199,500,000,000,000      | >99.9999999999           | FBI PopStats                                |
| WAKXNU-5877  | Item 3 - Alleged Father A | 199,000,000,000,000      | 99.9999999999            | FBI PopStats                                |
| WRGJ6E-5872  | Item 3 - Alleged Father A | 97,020,000,000           | 99.9999%                 | FBI PopStats, NIST 2017                     |
| WYXW8K-5872  | Item 3 - Alleged Father A | 2.4 trillion             | 99.9999%                 | NIST-STRBASE                                |
| XQMVLJ-5872  | Item 3 - Alleged Father A | 2,400,000,000,000        | 99.9999%                 | FBI PopStats                                |
| XWQWMD-5872  | Item 3 - Alleged Father A | 6.8790e+12               |                          | NIST-STRBASE                                |
| XWTLQB-5872  | Item 3 - Alleged Father A | 2,400,000,000,000        | 99.9999%                 | NIST-STRBASE                                |
| XZQ8HD-5872  | Item 3 - Alleged Father A | 353 trillion             | 99.99%                   | FBI PopStats, NIST 2017 amended frequencies |
| YA99BR-5872  | Item 3 - Alleged Father A | 1.995e+014               | 99.999999999%            | NIST-STRBASE                                |
| YGVZR2-5872  | Item 3 - Alleged Father A | >100 billion             |                          | NIST-STRBASE                                |
| ZEKBY9-5877  | Item 3 - Alleged Father A | 2.9990E+12               | >99.99%                  | FBI PopStats                                |
| ZFX3RQ-5872  | Item 3 - Alleged Father A | 105,087,705,561,667.3    | 99.99%                   | FBI PopStats                                |
| ZZEH7B-5872  | Item 3 - Alleged Father A | 97020000000              | 99.9999%                 | FBI PopStats, NIST 2017                     |

| Paternity DNA Statistics Response Summary  |                           | Participants: 93 |
|--|---------------------------|------------------|
| <i>Which of the alleged fathers cannot be excluded as the biological parent of Item 2?</i> |                           |                  |
| <b>Responses</b>   | Item 3 - Alleged Father A | 92               |
|  | Item 4 - Alleged Father B | 0                |
|  | Inconclusive              | 0                |
|  | No Response               | 1                |

# Kinship Likelihood Ratio Results

TABLE 6

| Locus       | WebCode-Test            | Formula       | Allele Legend | Likelihood Ratio |
|-------------|-------------------------|---------------|---------------|------------------|
| D1S1656     | 33G37G-5872             | $(1+4s)/8s$   | $s=15$        | 1.2916           |
|             | 39LYUM-5872             | $(1+4p)/8p$   | $p=15$        | 1.292            |
|             | 3ECBR6-5877             | $(1+4p)/8p$   | $p=15$        | 1.292            |
|             | 3F8R7M-5877             | $1+4p/8p$     | $p=15$        | 1.2916           |
|             | 73W8G7-5872             | $(1+4p)/8p$   | $p=15$        | 1.292            |
|             | 77PUJ3-5877             | $(1+4p)/(8p)$ | $p=15$        | 1.2916           |
|             | 786NQE-5872             | $(1+4p)/8p$   | $P=15$        | 1.292            |
|             | 7F4KV8-5872             | $(1+4p)/8p$   | $p=15$        | 1.291640279      |
|             | 7PKXQF-5872             | $(1+4s)/8s$   | $s=15$        | 1.2916           |
|             | 84E29B-5872             | $(1+4s)/8s$   | $s=15$        | 1.2916           |
|             | 8MBE64-5872             | $(1+4p)/8p$   | $p=15$        | 1.2916           |
|             | 9HTLAG-5877             | $1+4p/8p$     | $p=15$        | 1.291640279      |
|             | AFLNDE-5877             | $(1+4s)/8s$   | $s=0.1579$    | 1.2916           |
|             | BQVKU2-5877             | *             | *             | 1.267            |
|             | CV64QA-5872             | $4p+1/8p$     | $p=15$        | 1.2916           |
|             | DUAZED-5877             | $(1+4p)/8p$   | $p=15$        | 1.2916           |
|             | EBAAT4-5877             | $(1+4p)/8p$   | $p=15$        | 1.2916           |
|             | ENJRPD-5877             | $(1+4p)/8p$   | $p=15$        | 1.29             |
|             | ERKVGZ-5872             | $(1+4p)/8p$   | $p=15$        | 1.2916           |
|             | FDX37Y-5877             | N/A           | N/A           | 1.267            |
|             | GDT3MA-5872             | $(1+4p)/8p$   | $p=15$        | 1.291            |
|             | GU22R8-5877             | $(1+4p)/8p$   | $p=15$        | 1.292            |
| GW36G9-5872 | $H0:C*0,25+A*CH1:2*A*C$ | $A=15 C=12$   | 1.291640298   |                  |

TABLE 6 - Kinship Likelihood Ratio Results

| Locus   | WebCode-Test | Formula       | Allele Legend    | Likelihood Ratio |
|---------|--------------|---------------|------------------|------------------|
| D1S1656 | H9TEJ8-5872  | $(1+4p)/8p$   | p=15             | 1.2916           |
|         | HWYZF6-5877  | $(1+4p)/8p$   | p=15             | 1.292            |
|         | JHJYKY-5877  | $(1+4p)/8p$   | p = 15           | 1.2916           |
|         | JLGFXT-5877  | *             | *                | 1.267            |
|         | KKHW9X-5872  | $(1+4p)/8p$   | p=15             | 1.2916           |
|         | NBJ97Q-5872  | $(1+4q)/8q$   | q=15 r=16.3 p=12 | 1.292            |
|         | NQDVAW-5872  | $(1+4p)/8p$   | p=15             | 1.2916           |
|         | P99QKY-5872  | $0.5+1(4p)$   | P=15             | 1.1316           |
|         | PTX3AK-5877  | $(1+4p)/8p$   | p=15             | 1.2916           |
|         | PU94VJ-5877  | $(1+4p)/8p$   | p = 15           | 1.2916           |
|         | TYCCNJ-5877  | N/A           | N/A              | 01.267           |
|         | UALBVW-5877  | $(4q+1)/(8q)$ | q=15             | 1.292            |
|         | URUYR6-5872  | $(1+4p)/8p$   | p = 15           | 1.292            |
|         | UZLJPQ-5872  | $4a+1/8a$     | a=15             | 1.2916           |
|         | W7GZEM-5872  | $(1+4q)/8q$   | q=15             | 1.2916           |
|         | W7KMRU-5877  | $(1+4p)/8p$   | p = 15           | 1.2916           |
|         | WAKXNU-5877  | $(1+4p)/8p$   | p=15             | 1.292            |
|         | YGVZR2-5872  | $(z1/4pa)+z0$ | a=15             | 1.292            |
|         | ZEKBY9-5877  | $(1+4p)/8p$   | p=15             | 1.2916           |
|         | ZFX3RQ-5872  | $1+4p/8p$     | p=15             | 1.292            |

**Statistical Analysis Summary of D1S1656**
**Likelihood Ratio Mode: 1.2916**



TABLE 6 - Kinship Likelihood Ratio Results

| Locus       | WebCode-Test  | Formula                 | Allele Legend | Likelihood Ratio |
|-------------|---------------|-------------------------|---------------|------------------|
| D2S1338     | 33G37G-5872   | $(1 + 4s)/8s$           | s=22          | 1.4097           |
|             | 39LYUM-5872   | $(1 + 4p)/8p$           | p=22          | 1.410            |
|             | 3ECBR6-5877   | $(1 + 4p)/8p$           | p=22          | 1.410            |
|             | 3F8R7M-5877   | $1 + 4q/8q$             | q=22          | 1.4098           |
|             | 73W8G7-5872   | $(1 + 4p)/8p$           | p = 22        | 1.410            |
|             | 77PUJ3-5877   | $(1 + 4p)/(8p)$         | p = 22        | 1.4098           |
|             | 786NQE-5872   | $(1 + 4p)/8p$           | P=22          | 1.410            |
|             | 7F4KV8-5872   | $(1 + 4p)/8p$           | p = 22        | 1.409752547      |
|             | 7PKXQF-5872   | $(1 + 4s)/8s$           | s=22          | 1.4097           |
|             | 84E29B-5872   | $(1 + 4s)/8s$           | s=22          | 1.4098           |
|             | 8MBE64-5872   | $(1 + 4p)/8p$           | p = 22        | 1.4098           |
|             | 9HTLAG-5877   | $1 + 4p/8p$             | p=22          | 1.409752547      |
|             | AFLNDE-5877   | $(1 + 4s)/8s$           | s=0.1374      | 1.4098           |
|             | BQVKU2-5877   | *                       | *             | 1.373            |
|             | CV64QA-5872   | $4p + 1/8p$             | p=22          | 1.4098           |
|             | DUAZED-5877   | $(1 + 4q)/8q$           | q=22          | 1.4098           |
|             | EBAAT4-5877   | $(1 + 4p)/8p$           | p=22          | 1.4098           |
|             | ENJRPD-5877   | $(1 + 4p)/8p$           | p=22          | 1.41             |
|             | ERKVGZ-5872   | $(1 + 4p)/8p$           | p = 22        | 1.4098           |
|             | FDX37Y-5877   | N/A                     | N/A           | 1.373            |
|             | GDT3MA-5872   | $(1 + 4p)/8p$           | p = 22        | 1.409            |
|             | GU22R8-5877   | $(1 + 4p)/8p$           | p=22          | 1.410            |
|             | GW36G9-5872   | $H0:C*0,25+A*CH1:2*A*C$ | A=22 C=19     | 1.409752544      |
| H9TEJ8-5872 | $(1 + 4p)/8p$ | p=22                    | 1.4098        |                  |

TABLE 6 - Kinship Likelihood Ratio Results

| Locus   | WebCode-Test | Formula         | Allele Legend  | Likelihood Ratio |
|---------|--------------|-----------------|----------------|------------------|
| D2S1338 | HWYZF6-5877  | $(1 + 4p)/8p$   | p=22           | 1.410            |
|         | JHJYKY-5877  | $(1 + 4q)/8q$   | q = 22         | 1.4098           |
|         | JLGFXT-5877  | *               | *              | 1.373            |
|         | KKHW9X-5872  | $(1 + 4q)/8q$   | q=22           | 1.4098           |
|         | NBJ97Q-5872  | $(1 + 4r)/8r$   | q=21 r=22 p=19 | 1.410            |
|         | NQDVAW-5872  | $(1 + 4p)/8p$   | p=22           | 1.4097           |
|         | P99QKY-5872  | $0.5 + 1(4p)$   | P=22           | 1.0496           |
|         | PTX3AK-5877  | $(1 + 4p)/8p$   | p=22           | 1.4098           |
|         | PU94VJ-5877  | $(1 + 4p)/8p$   | p = 22         | 1.4098           |
|         | TYCCNJ-5877  | N/A             | N/A            | 1.373            |
|         | UALBVW-5877  | $(4q + 1)/(8q)$ | q=22           | 1.410            |
|         | URUYR6-5872  | $(1 + 4p)/8p$   | p = 22         | 1.41             |
|         | UZLJPQ-5872  | $4a + 1/8a$     | a=22           | 1.4097           |
|         | W7GZEM-5872  | $(1 + 4a)/8a$   | a=22           | 1.4098           |
|         | W7KMRU-5877  | $(1 + 4p)/8p$   | p = 22         | 1.4098           |
|         | WAKXNU-5877  | $(1 + 4p)/8p$   | p=22           | 1.410            |
|         | YGVZ2-5872   | $(z1/4pa) + z0$ | a=22           | 1.410            |
|         | ZEKBY9-5877  | $(1 + 4p)/8p$   | p=22           | 1.4098           |
|         | ZFX3RQ-5872  | $1 + 4p/8p$     | p=22           | 1.41             |

**Statistical Analysis Summary of D2S1338**
**Likelihood Ratio Mode: 1.4098**

TABLE 6 - Kinship Likelihood Ratio Results

| Locus       | WebCode-Test            | Formula       | Allele Legend | Likelihood Ratio |
|-------------|-------------------------|---------------|---------------|------------------|
| D2S441      | 33G37G-5872             | $(1+4p)/8p$   | $p=11$        | 0.8447           |
|             | 39LYUM-5872             | $(1+4p)/8p$   | $p=11$        | 0.845            |
|             | 3ECBR6-5877             | $(1+4p)/8p$   | $p=11$        | 0.8447           |
|             | 3F8R7M-5877             | $1+4p/8p$     | $p=11$        | 0.8447           |
|             | 73W8G7-5872             | $(1+4p)/8p$   | $p = 11$      | 0.8447           |
|             | 77PUJ3-5877             | $(1+4p)/(8p)$ | $p = 11$      | 0.84473          |
|             | 786NQE-5872             | $(1+4p)/8p$   | $P=11$        | 0.845            |
|             | 7F4KV8-5872             | $(1+4p)/8p$   | $p = 11$      | 0.844732487      |
|             | 7PKXQF-5872             | $(1+4p)/8p$   | $p=11$        | 0.8447           |
|             | 84E29B-5872             | $(1+4p)/8p$   | $p=11$        | 0.8447           |
|             | 8MBE64-5872             | $(1+4p)/8p$   | $p = 11$      | 0.8447           |
|             | 9HTLAG-5877             | $1+4p/8p$     | $p=11$        | 0.844732488      |
|             | AFLNDE-5877             | $(1+4p)/8p$   | $p=0.3626$    | 0.8447           |
|             | BQVKU2-5877             | *             | *             | 0.8459           |
|             | CV64QA-5872             | $4p+1/8p$     | $p= 11$       | 0.8447           |
|             | DUAZED-5877             | $(1+4p)/8p$   | $p=11$        | 0.8447           |
|             | EBAAT4-5877             | $(1+4p)/8p$   | $p=11$        | 0.8447           |
|             | ENJRPD-5877             | $(1+4p)/8p$   | $p=11$        | 0.845            |
|             | ERKVGZ-5872             | $(1+4p)/8p$   | $p = 11$      | 0.8447           |
|             | FDX37Y-5877             | N/A           | N/A           | 0.8459           |
|             | GDT3MA-5872             | $(1+4p)/8p$   | $p = 11$      | 0.844            |
|             | GU22R8-5877             | $(1+4p)/8p$   | $p=11$        | 0.8447           |
| GW36G9-5872 | $H0:C*0,25+A*CH1:2*A*C$ | $A=11 C=12$   | 0.844732526   |                  |
| H9TEJ8-5872 | $(1+4p)/8p$             | $p=11$        | 0.8447        |                  |

TABLE 6 - Kinship Likelihood Ratio Results

| Locus  | WebCode-Test | Formula       | Allele Legend    | Likelihood Ratio |
|--------|--------------|---------------|------------------|------------------|
| D2S441 | HWYZF6-5877  | $(1+4p)/8p$   | $p=11$           | 0.845            |
|        | JHJYKY-5877  | $(1+4p)/8p$   | $p = 11$         | 0.8447           |
|        | JLGFXT-5877  | *             | *                | 0.8459           |
|        | KKHW9X-5872  | $(1+4p)/8p$   | $p=11$           | 0.8447           |
|        | NBJ97Q-5872  | $(1+4p)/8p$   | $p=11 r=14 q=12$ | 0.8447           |
|        | NQDVAW-5872  | $(1+4p)/8p$   | $p=11$           | 0.8447           |
|        | P99QKY-5872  | $0.5+1(4p)$   | $P=11$           | 1.9504           |
|        | PTX3AK-5877  | $(1+4p)/8p$   | $p=11$           | 0.84473          |
|        | PU94VJ-5877  | $(1+4p)/8p$   | $p = 11$         | 0.84473          |
|        | TYCCNJ-5877  | N/A           | N/A              | .8459            |
|        | UALBVW-5877  | $(4q+1)/(8q)$ | $p=11$           | 0.845            |
|        | URUYR6-5872  | $(1+4p)/8p$   | $p = 11$         | 0.8447           |
|        | UZLJPQ-5872  | $4a+1/8a$     | $a=11$           | 0.8447           |
|        | W7GZEM-5872  | $(1+4p)/8p$   | $p=11$           | 0.8447           |
|        | W7KMRU-5877  | $(1+4p)/8p$   | $p = 11$         | 0.84473          |
|        | WAKXNU-5877  | $(1+4p)/8p$   | $p=11$           | 0.8447           |
|        | YGVZ2-5872   | $(z1/4pa)+z0$ | $a=11$           | 0.8447           |
|        | ZEKBY9-5877  | $(1+4p)/8p$   | $p=11$           | 0.8447           |
|        | ZFX3RQ-5872  | $1+4p/8p$     | $p=11$           | 0.845            |

**Statistical Analysis Summary of D2S441**
**Likelihood Ratio Mode: 0.8447**

TABLE 6 - Kinship Likelihood Ratio Results

| Locus       | WebCode-Test | Formula                 | Allele Legend | Likelihood Ratio |
|-------------|--------------|-------------------------|---------------|------------------|
| D3S1358     | 33G37G-5872  | $(1+4p)/8p$             | $p=15$        | 0.9051           |
|             | 39LYUM-5872  | $(1+4p)/8p$             | $p=15$        | 0.905            |
|             | 3ECBR6-5877  | $(1+4p)/8p$             | $p=15$        | 0.9052           |
|             | 3F8R7M-5877  | $1+4p/8p$               | $p=15$        | 0.9052           |
|             | 73W8G7-5872  | $(1+4p)/8p$             | $p=15$        | 0.9052           |
|             | 77PJU3-5877  | $(1+4p)/(8p)$           | $p=15$        | 0.90519          |
|             | 786NQE-5872  | $(1+4p)/8p$             | $P=15$        | 0.905            |
|             | 7F4KV8-5872  | $(1+4p)/8p$             | $p=15$        | 0.905186385      |
|             | 7PKXQF-5872  | $(1+4p)/8p$             | $p=15$        | 0.9051           |
|             | 84E29B-5872  | $(1+4p)/8p$             | $p=15$        | 0.9051           |
|             | 8MBE64-5872  | $(1+4p)/8p$             | $p=15$        | 0.9052           |
|             | 9HTLAG-5877  | $1+4p/8p$               | $p=15$        | 0.905186386      |
|             | AFLNDE-5877  | $(1+4p)/8p$             | $p=0.3085$    | 0.9052           |
|             | BQVKU2-5877  | *                       | *             | 0.9046           |
|             | CV64QA-5872  | $4p+1/8p$               | $p=15$        | 0.9052           |
|             | DUAZED-5877  | $(1+4p)/8p$             | $p=15$        | 0.9052           |
|             | EBAAT4-5877  | $(1+4p)/8p$             | $p=15$        | 0.9052           |
|             | ENJRPD-5877  | $(1+4p)/8p$             | $p=15$        | 0.905            |
|             | ERKVGZ-5872  | $(1+4p)/8p$             | $p=15$        | 0.9052           |
|             | FDX37Y-5877  | N/A                     | N/A           | 0.9046           |
|             | GDT3MA-5872  | $(1+4p)/8p$             | $p=15$        | 0.905            |
|             | GU22R8-5877  | $(1+4p)/8p$             | $p=15$        | 0.9052           |
|             | GW36G9-5872  | $H0:C*0,25+A*CH1:2*A*C$ | $A=15 C=16$   | 0.905186401      |
| H9TEJ8-5872 | $(1+4p)/8p$  | $p=15$                  | 0.9052        |                  |

TABLE 6 - Kinship Likelihood Ratio Results

| Locus   | WebCode-Test | Formula       | Allele Legend    | Likelihood Ratio |
|---------|--------------|---------------|------------------|------------------|
| D3S1358 | HWYZF6-5877  | $(1+4p)/8p$   | $p=15$           | 0.905            |
|         | JHJYKY-5877  | $(1+4p)/8p$   | $p = 15$         | 0.9052           |
|         | JLGFXT-5877  | *             | *                | 0.9046           |
|         | KKHW9X-5872  | $(1+4p)/8p$   | $p=15$           | 0.9052           |
|         | NBJ97Q-5872  | $(1+4p)/8p$   | $p=15 r=17 q=16$ | 0.9052           |
|         | NQDVAW-5872  | $(1+4p)/8p$   | $p=15$           | 0.9051           |
|         | P99QKY-5872  | $0.5+1(4p)$   | $P=15$           | 1.734            |
|         | PTX3AK-5877  | $(1+4p)/8p$   | $p=15$           | 0.90519          |
|         | PU94VJ-5877  | $(1+4p)/8p$   | $p = 15$         | 0.90519          |
|         | TYCCNJ-5877  | N/A           | N/A              | .9046            |
|         | UALBVW-5877  | $(4q+1)/(8q)$ | $p=15$           | 0.905            |
|         | URUYR6-5872  | $(1+4p)/8p$   | $p = 15$         | 0.9052           |
|         | UZLJPQ-5872  | $4a+1/8a$     | $a=15$           | 0.9051           |
|         | W7GZEM-5872  | $(1+4p)/8p$   | $p=15$           | 0.9052           |
|         | W7KMRU-5877  | $(1+4p)/8p$   | $p = 15$         | 0.90519          |
|         | WAKXNU-5877  | $(1+4p)/8p$   | $p=15$           | 0.9051           |
|         | YGVZ2-5872   | $(z1/4pa)+z0$ | $a=15$           | 0.9052           |
|         | ZEKBY9-5877  | $(1+4p)/8p$   | $p=15$           | 0.9052           |
|         | ZFX3RQ-5872  | $1+4p/8p$     | $p=15$           | 0.905            |

**Statistical Analysis Summary of D3S1358**
**Likelihood Ratio Mode: 0.9052**

TABLE 6 - Kinship Likelihood Ratio Results

| Locus       | WebCode-Test | Formula                 | Allele Legend | Likelihood Ratio |
|-------------|--------------|-------------------------|---------------|------------------|
| D5S818      | 33G37G-5872  | $(1+4t)/8t$             | $t=12$        | 0.8393           |
|             | 39LYUM-5872  | $(1+4p)/8p$             | $p=12$        | 0.839            |
|             | 3ECBR6-5877  | $(1+4p)/8p$             | $p=12$        | 0.8393           |
|             | 3F8R7M-5877  | $1+4p/8p$               | $p=12$        | 0.8393           |
|             | 73W8G7-5872  | $(1+4p)/8p$             | $p=12$        | 0.8393           |
|             | 77PUJ3-5877  | $(1+4p)/(8p)$           | $p=12$        | 0.83931          |
|             | 786NQE-5872  | $(1+4p)/8p$             | $P=12$        | 0.839            |
|             | 7F4KV8-5872  | $(1+4p)/8p$             | $p=12$        | 0.839305103      |
|             | 7PKXQF-5872  | $(1+4t)/8t$             | $t=12$        | 0.8393           |
|             | 84E29B-5872  | $(1+4t)/8t$             | $t=12$        | 0.8393           |
|             | 8MBE64-5872  | $(1+4p)/8p$             | $p=12$        | 0.8393           |
|             | 9HTLAG-5877  | $1+4p/8p$               | $p=12$        | 0.839305103      |
|             | AFLNDE-5877  | $(1+4t)/8t$             | $t=0.3684$    | 0.8393           |
|             | BQVKU2-5877  | *                       | *             | 0.8406           |
|             | CV64QA-5872  | $4p+1/8p$               | $p=12$        | 0.8393           |
|             | DUAZED-5877  | $(1+4p)/8p$             | $p=12$        | 0.8393           |
|             | EBAAT4-5877  | $(1+4p)/8p$             | $p=12$        | 0.8393           |
|             | ENJRPD-5877  | $(1+4p)/8p$             | $p=12$        | .839             |
|             | ERKVGZ-5872  | $(1+4p)/8p$             | $p=12$        | 0.8393           |
|             | FDX37Y-5877  | N/A                     | N/A           | 0.8406           |
|             | GDT3MA-5872  | $(1+4p)/8p$             | $p=12$        | 0.839            |
|             | GU22R8-5877  | $(1+4p)/8p$             | $p=12$        | 0.8393           |
|             | GW36G9-5872  | $H0:C*0,25+A*CH1:2*A*C$ | $A=12 C=8$    | 0.839305083      |
| H9TEJ8-5872 | $(1+4p)/8p$  | $p=12$                  | 0.8393        |                  |

TABLE 6 - Kinship Likelihood Ratio Results

| Locus  | WebCode-Test | Formula       | Allele Legend       | Likelihood Ratio |
|--------|--------------|---------------|---------------------|------------------|
| D5S818 | HWYZF6-5877  | $(1+4p)/8p$   | $p=12$              | 0.839            |
|        | JHJYKY-5877  | $(1+4p)/8p$   | $p = 12$            | 0.8393           |
|        | JLGFXT-5877  | *             | *                   | 0.8406           |
|        | KKHW9X-5872  | $(1+4p)/8p$   | $p=12$              | 0.8393           |
|        | NBJ97Q-5872  | $(1+4p)/8p$   | $p=12$ $q=14$ $r=8$ | 0.8393           |
|        | NQDVAV-5872  | $(1+4p)/8p$   | $p=12$              | 0.8393           |
|        | P99QKY-5872  | $0.5+1(4p)$   | $P=12$              | 1.9736           |
|        | PTX3AK-5877  | $(1+4p)/8p$   | $p=12$              | 0.83931          |
|        | PU94VJ-5877  | $(1+4p)/8p$   | $p = 12$            | 0.83931          |
|        | TYCCNJ-5877  | N/A           | N/A                 | .8406            |
|        | UALBVV-5877  | $(4q+1)/(8q)$ | $q=12$              | 0.839            |
|        | URUYR6-5872  | $(1+4p)/8p$   | $p = 12$            | 0.8393           |
|        | UZLJPQ-5872  | $4a+1/8a$     | $a=12$              | 0.8393           |
|        | W7GZEM-5872  | $(1+4q)/8q$   | $q=12$              | 0.8393           |
|        | W7KMRU-5877  | $(1+4p)/8p$   | $p = 12$            | 0.83931          |
|        | WAKXNU-5877  | $(1+4p)/8p$   | $p=12$              | 0.8393           |
|        | YGVZ2-5872   | $(z1/4pa)+z0$ | $a=12$              | 0.8393           |
|        | ZEKBY9-5877  | $(1+4p)/8p$   | $p=12$              | 0.8393           |
|        | ZFX3RQ-5872  | $1+4p/8p$     | $p=12$              | 0.839            |

**Statistical Analysis Summary of D5S818**
**Likelihood Ratio Mode: 0.8393**



TABLE 6 - Kinship Likelihood Ratio Results

| Locus       | WebCode-Test | Formula                     | Allele Legend | Likelihood Ratio |
|-------------|--------------|-----------------------------|---------------|------------------|
| D7S820      | 33G37G-5872  | $(1+2p)/4p$                 | $p=10$        | 1.2433           |
|             | 39LYUM-5872  | $(2+4p)/8p$                 | $p=10$        | 1.243            |
|             | 3ECBR6-5877  | $(1+2p)/4p$                 | $p=10$        | 1.243            |
|             | 3F8R7M-5877  | $1+2p/4p$                   | $p=10$        | 1.2434           |
|             | 73W8G7-5872  | $(1+2p)/4p$                 | $p=10$        | 1.243            |
|             | 77PUJ3-5877  | $(1+2p)/(4p)$               | $p=10$        | 1.2434           |
|             | 786NQE-5872  | $(1+2p)/4p$                 | $P=10$        | 1.243            |
|             | 7F4KV8-5872  | $(1+2p)/4p$                 | $p=10$        | 1.243383883      |
|             | 7PKXQF-5872  | $(1+2p)/4p$                 | $p=10$        | 1.2433           |
|             | 84E29B-5872  | $(1+2p)/4p$                 | $p=10$        | 1.2433           |
|             | 8MBE64-5872  | $(1+2p)/4p$                 | $p=10$        | 1.2434           |
|             | 9HTLAG-5877  | $1+2p/4p$                   | $p=10$        | 1.243383883      |
|             | AFLNDE-5877  | $(1+2p)/4p$                 | $p=0.3363$    | 1.2434           |
|             | BQVKU2-5877  | *                           | *             | 1.223            |
|             | CV64QA-5872  | $2p+1/4p$                   | $p=10$        | 1.2434           |
|             | DUAZED-5877  | $(1+2p)/4p$                 | $p=10$        | 1.2434           |
|             | EBAAT4-5877  | $(1+2p)/4p$                 | $p=10$        | 1.2434           |
|             | ENJRPD-5877  | $(1+2p)/4p$                 | $p=10$        | 1.24             |
|             | ERKVGZ-5872  | $(1+2p)/4p$                 | $p=10$        | 1.2434           |
|             | FDX37Y-5877  | N/A                         | N/A           | 1.223            |
|             | GDT3MA-5872  | $(1+2p)/4p$                 | $p=10$        | 1.243            |
|             | GU22R8-5877  | $(1+2p)/4p$                 | $p=10$        | 1.243            |
|             | GW36G9-5872  | $H0:A*0,25+(A^2)*0,5H1:A^2$ | $A=10$        | 1.2433839        |
| H9TEJ8-5872 | $(1+2p)/4p$  | $p=10$                      | 1.2434        |                  |

TABLE 6 - Kinship Likelihood Ratio Results

| Locus  | WebCode-Test | Formula                                    | Allele Legend                 | Likelihood Ratio |
|--------|--------------|--|-------------------------------|------------------|
| D7S820 | HWYZF6-5877  | $R = a(k1) + a^*a(k0), U = a^*a, LR = R/U$ | $a = 10, k0 = 0.5, k1 = 0.25$ | 1.243            |
|        | JHJYKY-5877  | $(1 + 2p)/4p$                              | $p = 10$                      | 1.2434           |
|        | JLGFXT-5877  | *  | *                             | 1.223            |
|        | KKHW9X-5872  | $(1 + 2p)/4p$                              | $p = 10$                      | 1.2434           |
|        | NBJ97Q-5872  | $(1 + 2p)/4p$                              | $p = 10, q = 11$              | 1.243            |
|        | NQDVAW-5872  | $(1 + 2p)/4p$                              | $p = 10$                      | 1.2433           |
|        | P99QKY-5872  | $0.5 + 1(4p)$                              | $P = 10$                      | 1.8452           |
|        | PTX3AK-5877  | $(1 + 2p)/4p$                              | $p = 10$                      | 1.2434           |
|        | PU94VJ-5877  | $(1 + 2p)/4p$                              | $p = 10$                      | 1.2434           |
|        | TYCCNJ-5877  | N/A  | N/A                           | 1.223            |
|        | UALBVW-5877  | $(2p + 1)/(4p)$                            | $p = 10$                      | 1.243            |
|        | URUYR6-5872  | $(1 + 2p)/4p$                              | $p = 10$                      | 1.243            |
|        | UZLJPQ-5872  | $2a + 1/4a$                                | $a = 10$                      | 1.2433           |
|        | W7GZEM-5872  | $(1 + 2p)/4p$                              | $p = 10$                      | 1.2434           |
|        | W7KMRU-5877  | $(1 + 2p)/4p$                              | $p = 10$                      | 1.2434           |
|        | WAKXNU-5877  | $(1 + 2p)/4p$                              | $p = 10$                      | 1.243            |
|        | YGVZ2-5872   | $(z1/2pa) + z0$                            | $a = 10$                      | 1.243            |
|        | ZEKBY9-5877  | $(1 + 2p)/4p$                              | $p = 10$                      | 1.2434           |
|        | ZFX3RQ-5872  | $1 + 2p/4p$                                | $p = 10$                      | 1.243            |

**Statistical Analysis Summary of D7S820**
**Likelihood Ratio Mode: 1.2434**

TABLE 6 - Kinship Likelihood Ratio Results

| Locus       | WebCode-Test | Formula                 | Allele Legend | Likelihood Ratio |
|-------------|--------------|-------------------------|---------------|------------------|
| D8S1179     | 33G37G-5872  | $(1+4s)/8s$             | $s=14$        | 0.9253           |
|             | 39LYUM-5872  | $(1+4p)/8p$             | $p=14$        | 0.925            |
|             | 3ECBR6-5877  | $(1+4p)/8p$             | $p=14$        | 0.9253           |
|             | 3F8R7M-5877  | $1+4q/8q$               | $q=14$        | 0.9253           |
|             | 73W8G7-5872  | $(1+4p)/8p$             | $p=14$        | 0.9253           |
|             | 77PJU3-5877  | $(1+4p)/(8p)$           | $p=14$        | 0.92531          |
|             | 786NQE-5872  | $(1+4p)/8p$             | $P=14$        | 0.925            |
|             | 7F4KV8-5872  | $(1+4p)/8p$             | $p=14$        | 0.925314732      |
|             | 7PKXQF-5872  | $(1+4s)/8s$             | $s=14$        | 0.9253           |
|             | 84E29B-5872  | $(1+4s)/8s$             | $s=14$        | 0.9253           |
|             | 8MBE64-5872  | $(1+4p)/8p$             | $p=14$        | 0.9253           |
|             | 9HTLAG-5877  | $1+4p/8p$               | $p=14$        | 0.925314733      |
|             | AFLNDE-5877  | $(1+4s)/8s$             | $s=0.2939$    | 0.9253           |
|             | BQVKU2-5877  | *                       | *             | 0.9241           |
|             | CV64QA-5872  | $4p+1/8p$               | $p=14$        | 0.9253           |
|             | DUAZED-5877  | $(1+4q)/8q$             | $q=14$        | 0.9253           |
|             | EBAAT4-5877  | $(1+4p)/8p$             | $p=14$        | 0.9253           |
|             | ENJRPD-5877  | $(1+4p)/8p$             | $p=14$        | 0.925            |
|             | ERKVGZ-5872  | $(1+4p)/8p$             | $p=14$        | 0.9253           |
|             | FDX37Y-5877  | N/A                     | N/A           | 0.9241           |
|             | GDT3MA-5872  | $(1+4p)/8p$             | $p=14$        | 0.925            |
|             | GU22R8-5877  | $(1+4p)/8p$             | $p=14$        | 0.9253           |
|             | GW36G9-5872  | $H0:C*0,25+A*CH1:2*A*C$ | $A=14 C=13$   | 0.925314699      |
| H9TEJ8-5872 | $(1+4p)/8p$  | $p=14$                  | 0.9253        |                  |

TABLE 6 - Kinship Likelihood Ratio Results

| Locus   | WebCode-Test | Formula       | Allele Legend    | Likelihood Ratio |
|---------|--------------|---------------|------------------|------------------|
| D8S1179 | HWYZF6-5877  | $(1+4p)/8p$   | $p=14$           | 0.925            |
|         | JHJYKY-5877  | $(1+4q)/8q$   | $q = 14$         | 0.9253           |
|         | JLGFXT-5877  | *             | *                | 0.9241           |
|         | KKHW9X-5872  | $(1+4q)/8q$   | $q=14$           | 0.9253           |
|         | NBJ97Q-5872  | $(1+4r)/8r$   | $p=11 r=14 q=13$ | 0.9253           |
|         | NQDVAW-5872  | $(1+4p)/8p$   | $p=14$           | 0.9253           |
|         | P99QKY-5872  | $0.5+1(4p)$   | $P=14$           | 1.6756           |
|         | PTX3AK-5877  | $(1+4p)/8p$   | $p=14$           | 0.92531          |
|         | PU94VJ-5877  | $(1+4p)/8p$   | $p = 14$         | 0.92531          |
|         | TYCCNJ-5877  | N/A           | N/A              | .9241            |
|         | UALBVW-5877  | $(4q+1)/(8q)$ | $q=14$           | 0.925            |
|         | URUYR6-5872  | $(1+4p)/8p$   | $p = 14$         | 0.9253           |
|         | UZLJPQ-5872  | $4a+1/8a$     | $a=14$           | 0.9253           |
|         | W7GZEM-5872  | $(1+4a)/8a$   | $a=14$           | 0.9253           |
|         | W7KMRU-5877  | $(1+4p)/8p$   | $p = 14$         | 0.92531          |
|         | WAKXNU-5877  | $(1+4p)/8p$   | $p=14$           | 0.9253           |
|         | YGVZ2-5872   | $(z1/4pa)+z0$ | $a=14$           | 0.9253           |
|         | ZEKBY9-5877  | $(1+4p)/8p$   | $p=14$           | 0.9253           |
|         | ZFX3RQ-5872  | $1+4p/8p$     | $p=14$           | 0.925            |

**Statistical Analysis Summary of D8S1179**
**Likelihood Ratio Mode: 0.9253**

TABLE 6 - Kinship Likelihood Ratio Results

| Locus    | WebCode-Test | Formula        | Allele Legend  | Likelihood Ratio |
|----------|--------------|----------------|----------------|------------------|
| D10S1248 | 33G37G-5872  | 0.5            |                | 0.5000           |
|          | 39LYUM-5872  | 1/2            |                | 0.5              |
|          | 3ECBR6-5877  | 2/4            | N/A            | 0.5000           |
|          | 3F8R7M-5877  |                |                | 0.5000           |
|          | 73W8G7-5872  | 1/2            |                | 0.5000           |
|          | 77PUJ3-5877  | 1/2            | N/A            | 0.50000          |
|          | 786NQE-5872  | 2/4            |                | 0.500            |
|          | 7F4KV8-5872  | 2/4            |                | 0.5              |
|          | 7PKXQF-5872  | 0.5            |                | 0.5000           |
|          | 84E29B-5872  | 1/2            |                | 0.5000           |
|          | 8MBE64-5872  | 2/4            |                | 0.5              |
|          | 9HTLAG-5877  | 2/4            | -              | 0.5              |
|          | AFLNDE-5877  | 1/2            |                | 0.5000           |
|          | BQVKU2-5877  | *              | *              | 0.5000           |
|          | CV64QA-5872  | 1/2            |                | 0.5              |
|          | DUAZED-5877  | 1/2            |                | 0.5000           |
|          | EBAAT4-5877  | 1/2            |                | 0.5000           |
|          | ENJRPD-5877  | 1/2            | NA             | 0.5              |
|          | ERKVGZ-5872  | 2/4            | Not applicable | 0.5000           |
|          | FDX37Y-5877  | N/A            | N/A            | 0.5000           |
|          | GDT3MA-5872  | 1/2            | -              | 0.5              |
|          | GU22R8-5877  | 0.5            |                | 0.5000           |
|          | GW36G9-5872  | HO:C*DH1:2*C*D | C=13 D=14      | 0.5              |
|          | H9TEJ8-5872  | 1/2            |                | 0.5000           |

TABLE 6 - Kinship Likelihood Ratio Results

| Locus    | WebCode-Test | Formula                    | Allele Legend  | Likelihood Ratio |
|----------|--------------|----------------------------|--|------------------|
| D10S1248 | HWYZF6-5877  | $R=2cd(k0), U=2cd, LR=R/U$ | $c=13, d=14, k0=0.5$   | 0.5              |
|          | JHJYKY-5877  | 1/2                        |  | 0.5000           |
|          | JLGFXT-5877  | *                          | *  | 0.5000           |
|          | KKHW9X-5872  | 1/2                        |  | 0.5000           |
|          | NBJ97Q-5872  | 1/2                        | $r=16, s=17, p=13, q=14$   | 0.5000           |
|          | NQDVAW-5872  | 1/2                        | 0.5  | 0.5000           |
|          | P99QKY-5872  | 0.5                        |  | 0.5              |
|          | PTX3AK-5877  | 2/4                        | N/A  | 0.5              |
|          | PU94VJ-5877  | 1/2                        |  | 0.5              |
|          | TYCCNJ-5877  | N/A                        | N/A  | .5000            |
|          | UALBVV-5877  | 1/2                        | /  | 0.500            |
|          | URUYR6-5872  | 0.5                        |  | 0.5              |
|          | UZLJPQ-5872  | $ab/2ab=1/2$               | $a=13 \text{ or } 14 \text{ or } 16 \text{ or } 17, b=13 \text{ or } 14 \text{ or } 16 \text{ or } 17$ | 0.5              |
|          | W7GZEM-5872  | 1/2                        |  | 0.5              |
|          | W7KMRU-5877  | 1/2                        |  | 0.50000          |
|          | WAKXNU-5877  | 1/2                        |  | 0.5000           |
|          | YGVZR2-5872  | Z0                         | Z0   | 0.5000           |
|          | ZEKBY9-5877  | 2/4                        |  | 0.5000           |
|          | ZFX3RQ-5872  | 1/2                        |  | 0.5              |

**Statistical Analysis Summary of D10S1248**
**Likelihood Ratio Mode: 0.5000**

TABLE 6 - Kinship Likelihood Ratio Results

| Locus   | WebCode-Test | Formula                 | Allele Legend | Likelihood Ratio |
|---------|--------------|-------------------------|---------------|------------------|
| D12S391 | 33G37G-5872  | $(1+4r)/8r$             | $r=18$        | 0.9942           |
|         | 39LYUM-5872  | $(1+4p)/8p$             | $p=18$        | 0.994            |
|         | 3ECBR6-5877  | $(1+4p)/8p$             | $p=18$        | 0.9943           |
|         | 3F8R7M-5877  | $1+4q/8q$               | $q=18$        | 0.9943           |
|         | 73W8G7-5872  | $(1+4p)/8p$             | $p=18$        | 0.9943           |
|         | 77PJU3-5877  | $(1+4p)/(8p)$           | $p=18$        | 0.99427          |
|         | 786NQE-5872  | $(1+4p)/8p$             | $P=18$        | 0.994            |
|         | 7F4KV8-5872  | $(1+4p)/8p$             | $p=18$        | 0.994266508      |
|         | 7PKXQF-5872  | $(1+4r)/8r$             | $r=18$        | 0.9942           |
|         | 84E29B-5872  | $(1+4r)/8r$             | $r=18$        | 0.9942           |
|         | 8MBE64-5872  | $(1+4p)/8p$             | $p=18$        | 0.9943           |
|         | 9HTLAG-5877  | $1+4p/8p$               | $p=18$        | 0.994266509      |
|         | AFLNDE-5877  | $(1+4r)/8r$             | $r=0.2529$    | 0.9943           |
|         | CV64QA-5872  | $4p+1/8p$               | $p=18$        | 0.9943           |
|         | DUAZED-5877  | $(1+4q)/8q$             | $q=18$        | 0.9943           |
|         | EBAAT4-5877  | $(1+4p)/8p$             | $p=18$        | 0.9943           |
|         | ENJRPD-5877  | $(1+4p)/8p$             | $p=18$        | .994             |
|         | GDT3MA-5872  | $(1+4p)/8p$             | $p=18$        | 0.994            |
|         | GU22R8-5877  | $(1+4p)/8p$             | $p=18$        | 0.9943           |
|         | GW36G9-5872  | $H0:C*0,25+A*CH1:2*A*C$ | $A=19 C=17$   | 0.994266498      |
|         | H9TEJ8-5872  | $(1+4p)/8p$             | $p=18$        | 0.9943           |
|         | HWYZF6-5877  | $(1+4p)/8p$             | $p=18$        | 0.994            |
|         | JHJYKY-5877  | $(1+4q)/8q$             | $q=18$        | 0.9943           |
|         | KKHW9X-5872  | $(1+4q)/8q$             | $q=18$        | 0.9943           |

TABLE 6 - Kinship Likelihood Ratio Results

| Locus   | WebCode-Test | Formula       | Allele Legend  | Likelihood Ratio |
|---------|--------------|---------------|----------------|------------------|
| D12S391 | NBJ97Q-5872  | $(1+4r)/8r$   | p=16 r=18 q=17 | 0.9943           |
|         | NQDVAW-5872  | $(1+4p)/8p$   | p=18           | 0.9942           |
|         | P99QKY-5872  | $0.5+1(4p)$   | P=18           | 1.5116           |
|         | PTX3AK-5877  | $(1+4p)/8p$   | p=18           | 0.99427          |
|         | PU94VJ-5877  | $(1+4p)/8p$   | p = 18         | 0.99427          |
|         | UALBVW-5877  | $(4q+1)/(8q)$ | q=18           | 0.994            |
|         | URUYR6-5872  | $(1+4p)/8p$   | p = 18         | 0.9943           |
|         | UZLJPQ-5872  | $4a+1/8a$     | a=18           | 0.9942           |
|         | W7GZEM-5872  | $(1+4a)/8a$   | a=18           | 0.9943           |
|         | W7KMRU-5877  | $(1+4p)/8p$   | p = 18         | 0.99427          |
|         | WAKXNU-5877  | $(1+4p)/8p$   | p=18           | 0.9943           |
|         | YGVRZ2-5872  | $(z1/4pa)+z0$ | a=18           | 0.9943           |
|         | ZEKBY9-5877  | $(1+4p)/8p$   | p=18           | 0.9943           |
|         | ZFX3RQ-5872  | $1+4p/8p$     | p=18           | 0.994            |

**Statistical Analysis Summary of D12S391**
**Likelihood Ratio Mode: 0.9943**



TABLE 6 - Kinship Likelihood Ratio Results

| Locus       | WebCode-Test | Formula        | Allele Legend  | Likelihood Ratio |
|-------------|--------------|----------------|----------------|------------------|
| D13S317     | 33G37G-5872  | 0.5            |                | 0.5000           |
|             | 39LYUM-5872  | 1/2            |                | 0.5              |
|             | 3ECBR6-5877  | 2/4            | N/A            | 0.5000           |
|             | 3F8R7M-5877  |                |                | 0.5000           |
|             | 73W8G7-5872  | 1/2            |                | 0.5000           |
|             | 77PUJ3-5877  | 1/2            | N/A            | 0.50000          |
|             | 786NQE-5872  | 2/4            |                | 0.500            |
|             | 7F4KV8-5872  | 2/4            |                | 0.5              |
|             | 7PKXQF-5872  | 0.5            |                | 0.5000           |
|             | 84E29B-5872  | 1/2            |                | 0.5000           |
|             | 8MBE64-5872  | 2/4            |                | 0.5              |
|             | 9HTLAG-5877  | 2/4            | -              | 0.5              |
|             | AFLNDE-5877  | 1/2            |                | 0.5000           |
|             | BQVKU2-5877  | *              | *              | 0.5000           |
|             | CV64QA-5872  | 1/2            |                | 0.5              |
|             | DUAZED-5877  | 1/2            |                | 0.5000           |
|             | EBAAT4-5877  | 1/2            |                | 0.5000           |
|             | ENJRPD-5877  | 1/2            | NA             | 0.5              |
|             | ERKVGZ-5872  | 2/4            | Not applicable | 0.5000           |
|             | FDX37Y-5877  | N/A            | N/A            | 0.5000           |
|             | GDT3MA-5872  | 1/2            | -              | 0.5              |
|             | GU22R8-5877  | 0.5            |                | 0.5000           |
|             | GW36G9-5872  | H0:B*CH1:2*B*C | B=9 C=13       | 0.5              |
| H9TEJ8-5872 | 1/2          |                | 0.5000         |                  |

TABLE 6 - Kinship Likelihood Ratio Results

| Locus   | WebCode-Test | Formula                     | Allele Legend                       | Likelihood Ratio |
|---------|--------------|-----------------------------|-------------------------------------|------------------|
| D13S317 | HWYZF6-5877  | $R=2bc(k_0), U=2bc, LR=R/U$ | $b=9, c=13, k_0=0.5$                | 0.5              |
|         | JHJYKY-5877  | 1/2                         |                                     | 0.5000           |
|         | JLGFXT-5877  | *                           | *                                   | 0.5000           |
|         | KKHW9X-5872  | 1/2                         |                                     | 0.5000           |
|         | NBJ97Q-5872  | 1/2                         | $p=12, r=9, q=13$                   | 0.5000           |
|         | NQDVAW-5872  | 1/2                         | 0.5                                 | 0.5000           |
|         | P99QKY-5872  | 0.5                         |                                     | 0.5              |
|         | PTX3AK-5877  | 2/4                         | N/A                                 | 0.5              |
|         | PU94VJ-5877  | 1/2                         |                                     | 0.5              |
|         | TYCCNJ-5877  | N/A                         | N/A                                 | 0.5000           |
|         | UALBVV-5877  | 1/2                         | /                                   | 0.500            |
|         | URUYR6-5872  | 0.5                         |                                     | 0.5              |
|         | UZLJPQ-5872  | $1/2a^2/a^2=1/2$            | $a=9 \text{ or } 12 \text{ or } 13$ | 0.5              |
|         | W7GZEM-5872  | 1/2                         |                                     | 0.5              |
|         | W7KMRU-5877  | 1/2                         |                                     | 0.50000          |
|         | WAKXNU-5877  | 1/2                         |                                     | 0.5000           |
|         | YGVZ2-5872   | Z0                          | Z0                                  | 0.5000           |
|         | ZEKBY9-5877  | 2/4                         |                                     | 0.5000           |
|         | ZFX3RQ-5872  | 1/2                         |                                     | 0.5              |

**Statistical Analysis Summary of D13S317**
**Likelihood Ratio Mode: 0.5000**

TABLE 6 - Kinship Likelihood Ratio Results

| Locus       | WebCode-Test | Formula        | Allele Legend  | Likelihood Ratio |
|-------------|--------------|----------------|----------------|------------------|
| D16S539     | 33G37G-5872  | 0.5            |                | 0.5000           |
|             | 39LYUM-5872  | 1/2            |                | 0.5              |
|             | 3ECBR6-5877  | 2/4            | N/A            | 0.5000           |
|             | 3F8R7M-5877  |                |                | 0.5000           |
|             | 73W8G7-5872  | 1/2            |                | 0.5000           |
|             | 77PUJ3-5877  | 1/2            | N/A            | 0.50000          |
|             | 786NQE-5872  | 2/4            |                | 0.500            |
|             | 7F4KV8-5872  | 2/4            |                | 0.5              |
|             | 7PKXQF-5872  | 0.5            |                | 0.5000           |
|             | 84E29B-5872  | 1/2            |                | 0.5000           |
|             | 8MBE64-5872  | 2/4            |                | 0.5              |
|             | 9HTLAG-5877  | 2/4            | -              | 0.5              |
|             | AFLNDE-5877  | 1/2            |                | 0.5000           |
|             | BQVKU2-5877  | *              | *              | 0.5000           |
|             | CV64QA-5872  | 1/2            |                | 0.5              |
|             | DUAZED-5877  | 1/2            |                | 0.5000           |
|             | EBAAT4-5877  | 1/2            |                | 0.5000           |
|             | ENJRPD-5877  | 1/2            | NA             | 0.5              |
|             | ERKVGZ-5872  | 2/4            | Not applicable | 0.5000           |
|             | FDX37Y-5877  | N/A            | N/A            | 0.5000           |
|             | GDT3MA-5872  | 1/2            | -              | 0.5              |
|             | GU22R8-5877  | 0.5            |                | 0.5000           |
|             | GW36G9-5872  | H0:B*CH1:2*B*C | B=11 C=12      | 0.5              |
| H9TEJ8-5872 | 1/2          |                | 0.5000         |                  |

TABLE 6 - Kinship Likelihood Ratio Results

| Locus   | WebCode-Test | Formula                     | Allele Legend                       | Likelihood Ratio |
|---------|--------------|-----------------------------|-------------------------------------|------------------|
| D16S539 | HWYZF6-5877  | $R=2bc(k_0), U=2bc, LR=R/U$ | $b=11, c=12, k_0=0.5$               | 0.5              |
|         | JHJYKY-5877  | 1/2                         |                                     | 0.5000           |
|         | JLGFXT-5877  | *                           | *                                   | 0.5000           |
|         | KKHW9X-5872  | 1/2                         |                                     | 0.5000           |
|         | NBJ97Q-5872  | 1/2                         | $r=9 \ p=11 \ q=12$                 | 0.5000           |
|         | NQDVAW-5872  | 1/2                         | 0.5                                 | 0.5000           |
|         | P99QKY-5872  | 0.5                         |                                     | 0.5              |
|         | PTX3AK-5877  | 2/4                         | N/A                                 | 0.5              |
|         | PU94VJ-5877  | 1/2                         |                                     | 0.5              |
|         | TYCCNJ-5877  | N/A                         | N/A                                 | 0.5000           |
|         | UALBVV-5877  | 1/2                         | /                                   | 0.500            |
|         | URUYR6-5872  | 0.5                         |                                     | 0.5              |
|         | UZLJPQ-5872  | $1/2a^2/a^2=1/2$            | $a=9 \text{ or } 11 \text{ or } 12$ | 0.5              |
|         | W7GZEM-5872  | 1/2                         |                                     | 0.5              |
|         | W7KMRU-5877  | 1/2                         |                                     | 0.50000          |
|         | WAKXNU-5877  | 1/2                         |                                     | 0.5000           |
|         | YGVZR2-5872  | Z0                          | Z0                                  | 0.5000           |
|         | ZEKBY9-5877  | 2/4                         |                                     | 0.5000           |
|         | ZFX3RQ-5872  | 1/2                         |                                     | 0.5              |

**Statistical Analysis Summary of D16S539**
**Likelihood Ratio Mode: 0.5000**

TABLE 6 - Kinship Likelihood Ratio Results

| Locus       | WebCode-Test  | Formula                 | Allele Legend | Likelihood Ratio |
|-------------|---------------|-------------------------|---------------|------------------|
| D18S51      | 33G37G-5872   | $(1 + 4x)/8x$           | $x=20$        | 2.4872           |
|             | 39LYUM-5872   | $(1 + 4p)/8p$           | $p=20$        | 2.487            |
|             | 3ECBR6-5877   | $(1 + 4p)/8p$           | $p=20$        | 2.487            |
|             | 3F8R7M-5877   | $1 + 4q/8q$             | $q=20$        | 2.4873           |
|             | 73W8G7-5872   | $(1 + 4p)/8p$           | $p = 20$      | 2.487            |
|             | 77PJU3-5877   | $(1 + 4p)/(8p)$         | $p = 20$      | 2.4873           |
|             | 786NQE-5872   | $(1 + 4p)/8p$           | $P=20$        | 2.487            |
|             | 7F4KV8-5872   | $(1 + 4p)/8p$           | $p = 20$      | 2.487281399      |
|             | 7PKXQF-5872   | $(1 + 4x)/8x$           | $x=20$        | 2.4872           |
|             | 84E29B-5872   | $(1 + 4x)/8x$           | $x=20$        | 2.4872           |
|             | 8MBE64-5872   | $(1 + 4p)/8p$           | $p = 20$      | 2.4873           |
|             | 9HTLAG-5877   | $1 + 4p/8p$             | $p=20$        | 2.487281399      |
|             | AFLNDE-5877   | $(1 + 4x)/8x$           | $x=0.0629$    | 2.4873           |
|             | BQVKU2-5877   | *                       | *             | 2.265            |
|             | CV64QA-5872   | $4p + 1/8p$             | $p=20$        | 2.4873           |
|             | DUAZED-5877   | $(1 + 4q)/8q$           | $q=20$        | 2.4873           |
|             | EBAAT4-5877   | $(1 + 4p)/8p$           | $p=20$        | 2.4873           |
|             | ENJRPD-5877   | $(1 + 4p)/8p$           | $p=20$        | 2.49             |
|             | ERKVGZ-5872   | $(1 + 4p)/8p$           | $p = 20$      | 2.4873           |
|             | FDX37Y-5877   | N/A                     | N/A           | 2.265            |
|             | GDT3MA-5872   | $(1 + 4p)/8p$           | $p = 20$      | 2.487            |
|             | GU22R8-5877   | $(1 + 4p)/8p$           | $p=20$        | 2.487            |
|             | GW36G9-5872   | $H0:C*0,25+A*CH1:2*A*C$ | $A=20 C=15$   | 2.487281329      |
| H9TEJ8-5872 | $(1 + 4p)/8p$ | $p=20$                  | 2.4873        |                  |

TABLE 6 - Kinship Likelihood Ratio Results

| Locus  | WebCode-Test | Formula         | Allele Legend    | Likelihood Ratio |
|--------|--------------|-----------------|------------------|------------------|
| D18S51 | HWYZF6-5877  | $(1 + 4p)/8p$   | $p=20$           | 2.487            |
|        | JHJYKY-5877  | $(1 + 4q)/8q$   | $q = 20$         | 2.4873           |
|        | JLGFXT-5877  | *               | *                | 2.265            |
|        | KKHW9X-5872  | $(1 + 4q)/8q$   | $q=20$           | 2.4873           |
|        | NBJ97Q-5872  | $(1 + 4r)/8r$   | $p=12 r=20 q=15$ | 2.487            |
|        | NQDVAW-5872  | $(1 + 4p)/8p$   | $p=20$           | 2.4872           |
|        | P99QKY-5872  | $0.5 + 1(4p)$   | $P=20$           | 0.7516           |
|        | PTX3AK-5877  | $(1 + 4p)/8p$   | $p=20$           | 2.4873           |
|        | PU94VJ-5877  | $(1 + 4p)/8p$   | $p = 20$         | 2.4873           |
|        | TYCCNJ-5877  | N/A             | N/A              | 2.265            |
|        | UALBVW-5877  | $(4q + 1)/(8q)$ | $q=20$           | 2.487            |
|        | URUYR6-5872  | $(1 + 4p)/8p$   | $p = 20$         | 2.487            |
|        | UZLJPQ-5872  | $4a + 1/8a$     | $a=20$           | 2.4872           |
|        | W7GZEM-5872  | $(1 + 4a)/8a$   | $a=20$           | 2.4873           |
|        | W7KMRU-5877  | $(1 + 4p)/8p$   | $p = 20$         | 2.4873           |
|        | WAKXNU-5877  | $(1 + 4p)/8p$   | $p=20$           | 2.487            |
|        | YGVZ2-5872   | $(z1/4pa) + z0$ | $a=20$           | 2.487            |
|        | ZEKBY9-5877  | $(1 + 4p)/8p$   | $p=20$           | 2.4873           |
|        | ZFX3RQ-5872  | $1 + 4p/8p$     | $p=20$           | 2.487            |

**Statistical Analysis Summary of D18S51**
**Likelihood Ratio Mode: 2.4873**

TABLE 6 - Kinship Likelihood Ratio Results

| Locus       | WebCode-Test | Formula        | Allele Legend  | Likelihood Ratio |
|-------------|--------------|----------------|----------------|------------------|
| D19S433     | 33G37G-5872  | 0.5            |                | 0.5000           |
|             | 39LYUM-5872  | 1/2            |                | 0.5              |
|             | 3ECBR6-5877  | 2/4            | N/A            | 0.5000           |
|             | 3F8R7M-5877  |                |                | 0.5000           |
|             | 73W8G7-5872  | 1/2            |                | 0.5000           |
|             | 77PUJ3-5877  | 1/2            | N/A            | 0.50000          |
|             | 786NQE-5872  | 2/4            |                | 0.500            |
|             | 7F4KV8-5872  | 2/4            |                | 0.5              |
|             | 7PKXQF-5872  | 0.5            |                | 0.5000           |
|             | 84E29B-5872  | 1/2            |                | 0.5000           |
|             | 8MBE64-5872  | 2/4            |                | 0.5              |
|             | 9HTLAG-5877  | 2/4            | -              | 0.5              |
|             | AFLNDE-5877  | 1/2            |                | 0.5000           |
|             | BQVKU2-5877  | *              | *              | 0.5000           |
|             | CV64QA-5872  | 1/2            |                | 0.5              |
|             | DUAZED-5877  | 1/2            |                | 0.5000           |
|             | EBAAT4-5877  | 1/2            |                | 0.5000           |
|             | ENJRPD-5877  | 1/2            | NA             | 0.5              |
|             | ERKVGZ-5872  | 2/4            | Not applicable | 0.5000           |
|             | FDX37Y-5877  | N/A            | N/A            | 0.5000           |
|             | GDT3MA-5872  | 1/2            | -              | 0.5              |
|             | GU22R8-5877  | 0.5            |                | 0.5000           |
|             | GW36G9-5872  | HO:C*DH1:2*C*D | C=11 D=13.2    | 0.5              |
| H9TEJ8-5872 | 1/2          |                | 0.5000         |                  |

TABLE 6 - Kinship Likelihood Ratio Results

| Locus   | WebCode-Test | Formula                    | Allele Legend  | Likelihood Ratio |
|---------|--------------|----------------------------|--|------------------|
| D19S433 | HWYZF6-5877  | $R=2cd(k0), U=2cd, LR=R/U$ | $c=11, d=13.2, k0=0.5$   | 0.5              |
|         | JHJYKY-5877  | 1/2                        |  | 0.5000           |
|         | JLGFXT-5877  | *                          | *  | 0.5000           |
|         | KKHW9X-5872  | 1/2                        |  | 0.5000           |
|         | NBJ97Q-5872  | 1/2                        | $q=13, s=15.2, p=11, r=13.2$   | 0.5000           |
|         | NQDVAW-5872  | 1/2                        | 0.5  | 0.5000           |
|         | P99QKY-5872  | 0.5                        |  | 0.5              |
|         | PTX3AK-5877  | 2/4                        | N/A  | 0.5              |
|         | PU94VJ-5877  | 1/2                        |  | 0.5              |
|         | TYCCNJ-5877  | N/A                        | N/A  | .5000            |
|         | UALBVV-5877  | 1/2                        | /  | 0.500            |
|         | URUYR6-5872  | 0.5                        |  | 0.5              |
|         | UZLJPQ-5872  | $ab/2ab=1/2$               | $a=11 \text{ or } 13 \text{ or } 13.2 \text{ or } 15.2, b=11 \text{ or } 13 \text{ or } 13.2 \text{ or } 15.2$ | 0.5              |
|         | W7GZEM-5872  | 1/2                        |  | 0.5              |
|         | W7KMRU-5877  | 1/2                        |  | 0.50000          |
|         | WAKXNU-5877  | 1/2                        |  | 0.5000           |
|         | YGVZR2-5872  | Z0                         | Z0   | 0.5000           |
|         | ZEKBY9-5877  | 2/4                        |  | 0.5000           |
|         | ZFX3RQ-5872  | 1/2                        |  | 0.5              |

**Statistical Analysis Summary of D19S433**
**Likelihood Ratio Mode: 0.5000**



TABLE 6 - Kinship Likelihood Ratio Results

| Locus       | WebCode-Test    | Formula                                 | Allele Legend         | Likelihood Ratio |
|-------------|-----------------|---|-----------------------|------------------|
| D21S11      | 33G37G-5872     | $(p+q+4pq)/8pq$                         | $p=28 \ q=29$         | 1.6196           |
|             | 39LYUM-5872     | $(p+q+4pq)/8pq$                         | $p=28 \ q=29$         | 1.620            |
|             | 3ECBR6-5877     | $(p+q+4pq)/8pq$                         | $p=28 \ q=29$         | 1.620            |
|             | 3F8R7M-5877     | $p+q+4pq/8pq$                           | $p=28 \ q=29$         | 1.6196           |
|             | 73W8G7-5872     | $(p+q+4pq)/8pq$                         | $p = 28 \ q = 29$     | 1.620            |
|             | 77PJU3-5877     | $(p+q+4pq)/(8pq)$                       | $p = 28 \ q = 29$     | 1.6196           |
|             | 786NQE-5872     | $(p+q+4pq)/8pq$                         | $P=28 \ q=29$         | 1.620            |
|             | 7F4KV8-5872     | $(p+q+4pq)/8pq$                         | $p = 28 \ q = 29$     | 1.619607386      |
|             | 7PKXQF-5872     | $(p+q+4pq)/8pq$                         | $p=28 \ q=29$         | 1.6196           |
|             | 84E29B-5872     | $(p+q+4pq)/8pq$                         | $p=28 \ q=29$         | 1.6196           |
|             | 8MBE64-5872     | $(p+q+4pq)/8pq$                         | $p = 28 \ q = 29$     | 1.6196           |
|             | 9HTLAG-5877     | $p+q+4pq/8pq$                           | $p=28 \ q=29$         | 1.619607386      |
|             | AFLNDE-5877     | $(p+q+4pq)/8pq$                         | $p=0.2456 \ q=0.2047$ | 1.6196           |
|             | BQVKU2-5877     | *                                       | *                     | 1.604            |
|             | CV64QA-5872     | $p+q+4pq/8pq$                           | $p=28 \ q=29$         | 1.6196           |
|             | DUAZED-5877     | $(p+q+4pq)/8pq$                         | $p=28 \ q=29$         | 1.6196           |
|             | EBAAT4-5877     | $(p+q+4pq)/8pq$                         | $p=28 \ q=29$         | 1.6196           |
|             | ENJRPD-5877     | $(p+q+4pq)/8pq$                         | $p=28 \ q=29$         | 1.62             |
|             | ERKVGZ-5872     | $(p+q+4pq)/8pq$                         | $p = 28 \ q = 29$     | 1.6196           |
|             | FDX37Y-5877     | N/A                                     | N/A                   | 1.604            |
|             | GDT3MA-5872     | $(p+q+4pq)/8pq$                         | $p = 28 \ q = 29$     | 1.619            |
|             | GU22R8-5877     | $(p+q+4pq)/8pq$                         | $p=28 \ q=29$         | 1.620            |
|             | GW36G9-5872     | $H00,5+B*0,25+A*0,25+A*BH$<br>$1:2*A*B$ | $A=28 \ B=29$         | 1.619607407      |
| H9TEJ8-5872 | $(p+q+4pq)/8pq$ | $p=28 \ q=29$                           | 1.6196                |                  |

TABLE 6 - Kinship Likelihood Ratio Results

| Locus  | WebCode-Test | Formula                      | Allele Legend | Likelihood Ratio |
|--------|--------------|------------------------------|---------------|------------------|
| D21S11 | HWYZF6-5877  | $(p+q+4pq)/8pq$              | $p=28, q=29$  | 1.620            |
|        | JHJYKY-5877  | $(p+q+4pq)/8pq$              | $p=28, q=29$  | 1.6196           |
|        | JLGFXT-5877  | *                            | *             | 1.604            |
|        | KKHW9X-5872  | $(p+q+4pq)/8pq$              | $p=28, q=29$  | 1.6196           |
|        | NBJ97Q-5872  | $(p+q+4pq)/8pq$              | $p=28, q=29$  | 1.620            |
|        | NQDVAV-5872  | $(p+q+4pq)/8pq$              | $p=28, q=29$  | 1.6196           |
|        | P99QKY-5872  | $0.5+(p+q)/(8pq)$            | $p=28, q=29$  | 1.619607386      |
|        | PTX3AK-5877  | $(p+q+4pq)/8pq$              | $p=28, q=29$  | 1.6196           |
|        | PU94VJ-5877  | $(p+q+4pq)/8pq$              | $p=28, q=29$  | 1.6196           |
|        | TYCCNJ-5877  | N/A                          | N/A           | 1.604            |
|        | UALBVV-5877  | $(4pq+p+q)/(8pq)$            | $p=28, q=29$  | 1.620            |
|        | URUYR6-5872  | $(p+q+4pq)/8pq$              | $p=28, q=29$  | 1.62             |
|        | UZLJPQ-5872  | $a+b+4ab/8ab$                | $a=28, b=29$  | 1.6196           |
|        | W7GZEM-5872  | $(p+q+4pq)/8pq$              | $p=28, q=29$  | 1.6196           |
|        | W7KMRU-5877  | $(p+q+4pq)/8pq$              | $p=28, q=29$  | 1.6196           |
|        | WAKXNU-5877  | $(p+q+4pq)/8pq$              | $p=28, q=29$  | 1.619            |
|        | YGVRZ2-5872  | $(2z^2+z^1(pa+pb)/4papb)+Z0$ | $a=28, b=29$  | 1.620            |
|        | ZEKBY9-5877  | $(p+q+4pq)/8pq$              | $p=28, q=29$  | 1.6196           |
|        | ZFX3RQ-5872  | $p+q+4pq/8pq$                | $p=28, q=29$  | 1.62             |

**Statistical Analysis Summary of D21S11**
**Likelihood Ratio Mode: 1.6196**

TABLE 6 - Kinship Likelihood Ratio Results

| Locus    | WebCode-Test | Formula                 | Allele Legend | Likelihood Ratio |
|----------|--------------|-------------------------|---------------|------------------|
| D22S1045 | 33G37G-5872  | $(1+4t)/8t$             | $t=16$        | 1.1527           |
|          | 39LYUM-5872  | $(1+4p)/8p$             | $p=16$        | 1.153            |
|          | 3ECBR6-5877  | $(1+4p)/8p$             | $p=16$        | 1.153            |
|          | 3F8R7M-5877  | $1+4q/8q$               | $q=16$        | 1.1527           |
|          | 73W8G7-5872  | $(1+4p)/8p$             | $p=16$        | 1.153            |
|          | 77PJU3-5877  | $(1+4p)/(8p)$           | $p=16$        | 1.1527           |
|          | 786NQE-5872  | $(1+4p)/8p$             | $P=16$        | 1.153            |
|          | 7F4KV8-5872  | $(1+4p)/8p$             | $p=16$        | 1.152741514      |
|          | 7PKXQF-5872  | $(1+4t)/8t$             | $t=16$        | 1.1527           |
|          | 84E29B-5872  | $(1+4t)/8t$             | $t=16$        | 1.1527           |
|          | 8MBE64-5872  | $(1+4p)/8p$             | $p=16$        | 1.1527           |
|          | 9HTLAG-5877  | $1+4p/8p$               | $p=16$        | 1.152741514      |
|          | AFLNDE-5877  | $(1+4t)/8t$             | $t=0.1915$    | 1.1527           |
|          | BQVKU2-5877  | *                       | *             | 1.139            |
|          | CV64QA-5872  | $4p+1/8p$               | $p=16$        | 1.1527           |
|          | DUAZED-5877  | $(1+4q)/8q$             | $q=16$        | 1.1527           |
|          | EBAAT4-5877  | $(1+4p)/8p$             | $p=16$        | 1.1527           |
|          | ENJRPD-5877  | $(1+4p)/8p$             | $p=16$        | 1.15             |
|          | ERKVGZ-5872  | $(1+4p)/8p$             | $p=16$        | 1.1527           |
|          | FDX37Y-5877  | N/A                     | N/A           | 1.139            |
|          | GDT3MA-5872  | $(1+4p)/8p$             | $p=16$        | 1.152            |
|          | GU22R8-5877  | $(1+4p)/8p$             | $p=16$        | 1.153            |
|          | GW36G9-5872  | $H0:C*0,25+A*CH1:2*A*C$ | $A=16 C=15$   | 1.152741518      |
|          | H9TEJ8-5872  | $(1+4p)/8p$             | $p=16$        | 1.1527           |

TABLE 6 - Kinship Likelihood Ratio Results

| Locus    | WebCode-Test | Formula       | Allele Legend    | Likelihood Ratio |
|----------|--------------|---------------|------------------|------------------|
| D22S1045 | HWYZF6-5877  | $(1+4p)/8p$   | $p=16$           | 1.153            |
|          | JHJYKY-5877  | $(1+4q)/8q$   | $q = 16$         | 1.1527           |
|          | JLGFXT-5877  | *             | *                | 1.139            |
|          | KKHW9X-5872  | $(1+4q)/8q$   | $q=16$           | 1.1527           |
|          | NBJ97Q-5872  | $(1+4r)/8r$   | $p=12 r=16 q=15$ | 1.153            |
|          | NQDVAW-5872  | $(1+4p)/8p$   | $p=16$           | 1.1527           |
|          | P99QKY-5872  | $0.5+1(4p)$   | $p=16$           | 1.266            |
|          | PTX3AK-5877  | $(1+4p)/8p$   | $p=16$           | 1.1527           |
|          | PU94VJ-5877  | $(1+4p)/8p$   | $p = 16$         | 1.1527           |
|          | TYCCNJ-5877  | N/A           | N/A              | 1.139            |
|          | UALBVW-5877  | $(4q+1)/(8q)$ | $q=16$           | 1.153            |
|          | URUYR6-5872  | $(1+4p)/8p$   | $p = 16$         | 1.153            |
|          | UZLJPQ-5872  | $4a+1/8a$     | $a=16$           | 1.1527           |
|          | W7GZEM-5872  | $(1+4a)/8a$   | $a=16$           | 1.1527           |
|          | W7KMRU-5877  | $(1+4p)/8p$   | $p = 16$         | 1.1527           |
|          | WAKXNU-5877  | $(1+4p)/8p$   | $p=16$           | 1.153            |
|          | YGVZ2-5872   | $(z1/4pa)+z0$ | $a=16$           | 1.153            |
|          | ZEKBY9-5877  | $(1+4p)/8p$   | $p=16$           | 1.1527           |
|          | ZFX3RQ-5872  | $1+4p/8p$     | $p=16$           | 1.153            |

**Statistical Analysis Summary of D22S1045**
**Likelihood Ratio Mode: 1.1527**

TABLE 6 - Kinship Likelihood Ratio Results

| Locus       | WebCode-Test | Formula                 | Allele Legend | Likelihood Ratio |
|-------------|--------------|-------------------------|---------------|------------------|
| CSF1PO      | 33G37G-5872  | $(1+4r)/8r$             | $r=12$        | 0.9232           |
|             | 39LYUM-5872  | $(1+4p)/8p$             | $p=12$        | 0.923            |
|             | 3ECBR6-5877  | $(1+4p)/8p$             | $p=12$        | 0.9233           |
|             | 3F8R7M-5877  | $1+4q/8q$               | $q=12$        | 0.9233           |
|             | 73W8G7-5872  | $(1+4p)/8p$             | $p=12$        | 0.9233           |
|             | 77PJU3-5877  | $(1+4p)/(8p)$           | $p=12$        | 0.92330          |
|             | 786NQE-5872  | $(1+4p)/8p$             | $P=12$        | 0.923            |
|             | 7F4KV8-5872  | $(1+4p)/8p$             | $p=12$        | 0.923298340      |
|             | 7PKXQF-5872  | $(1+4r)/8r$             | $r=12$        | 0.9232           |
|             | 84E29B-5872  | $(1+4r)/8r$             | $r=12$        | 0.9232           |
|             | 8MBE64-5872  | $(1+4p)/8p$             | $p=12$        | 0.9233           |
|             | 9HTLAG-5877  | $1+4p/8p$               | $p=12$        | 0.923298341      |
|             | AFLNDE-5877  | $(1+4r)/8r$             | $r=0.2953$    | 0.9233           |
|             | BQVKU2-5877  | *                       | *             | 0.9220           |
|             | CV64QA-5872  | $4p+1/8p$               | $p=12$        | 0.9233           |
|             | DUAZED-5877  | $(1+4q)/8q$             | $q=12$        | 0.9233           |
|             | EBAAT4-5877  | $(1+4p)/8p$             | $p=12$        | 0.9233           |
|             | ENJRPD-5877  | $(1+4p)/8p$             | $p=12$        | 0.923            |
|             | ERKVGZ-5872  | $(1+4p)/8p$             | $p=12$        | 0.9233           |
|             | FDX37Y-5877  | N/A                     | N/A           | 0.9220           |
|             | GDT3MA-5872  | $(1+4p)/8p$             | $p=12$        | 0.923            |
|             | GU22R8-5877  | $(1+4p)/8p$             | $p=12$        | 0.9233           |
|             | GW36G9-5872  | $H0:C*0,25+A*CH1:2*A*C$ | $A=12 C=10$   | 0.923298331      |
| H9TEJ8-5872 | $(1+4p)/8p$  | $p=12$                  | 0.9233        |                  |

TABLE 6 - Kinship Likelihood Ratio Results

| Locus  | WebCode-Test | Formula       | Allele Legend    | Likelihood Ratio |
|--------|--------------|---------------|------------------|------------------|
| CSF1PO | HWYZF6-5877  | $(1+4p)/8p$   | $p=12$           | 0.923            |
|        | JHJYKY-5877  | $(1+4q)/8q$   | $q = 12$         | 0.9233           |
|        | JLGFXT-5877  | *             | *                | 0.9220           |
|        | KKHW9X-5872  | $(1+4q)/8q$   | $q=12$           | 0.9233           |
|        | NBJ97Q-5872  | $(1+4r)/8r$   | $q=11 r=12 p=10$ | 0.9233           |
|        | NQDVAW-5872  | $(1+4p)/8p$   | $p=12$           | 0.9232           |
|        | P99QKY-5872  | $0.5+1(4p)$   | $p=12$           | 1.6812           |
|        | PTX3AK-5877  | $(1+4p)/8p$   | $p=12$           | 0.92330          |
|        | PU94VJ-5877  | $(1+4p)/8p$   | $p = 12$         | 0.92330          |
|        | TYCCNJ-5877  | N/A           | N/A              | .9220            |
|        | UALBVW-5877  | $(4q+1)/(8q)$ | $q=12$           | 0.923            |
|        | URUYR6-5872  | $(1+4p)/8p$   | $p = 12$         | 0.9233           |
|        | UZLJPQ-5872  | $4a+1/8a$     | $a=12$           | 0.9232           |
|        | W7GZEM-5872  | $(1+4a)/8a$   | $a=12$           | 0.9233           |
|        | W7KMRU-5877  | $(1+4p)/8p$   | $p = 12$         | 0.92330          |
|        | WAKXNU-5877  | $(1+4p)/8p$   | $p=12$           | 0.9233           |
|        | YGVZ2-5872   | $(z1/4pa)+z0$ | $a=12$           | 0.9233           |
|        | ZEKBY9-5877  | $(1+4p)/8p$   | $p=12$           | 0.9233           |
|        | ZFX3RQ-5872  | $1+4p/8p$     | $p=12$           | 0.923            |

**Statistical Analysis Summary of CSF1PO**
**Likelihood Ratio Mode: 0.9233**

TABLE 6 - Kinship Likelihood Ratio Results

| Locus | WebCode-Test | Formula                | Allele Legend | Likelihood Ratio |
|-------|--------------|------------------------|---------------|------------------|
| FGA   | 33G37G-5872  | $(1+2a)/4a$            | $a=23$        | 1.9740           |
|       | 39LYUM-5872  | $(2+4p)/8p$            | $p=23$        | 1.974            |
|       | 3ECBR6-5877  | $(1+2p)/4p$            | $p=23$        | 1.974            |
|       | 3F8R7M-5877  | $1+2p/4p$              | $p=23$        | 1.9741           |
|       | 73W8G7-5872  | $(1+2p)/4p$            | $p = 23$      | 1.974            |
|       | 77PJU3-5877  | $(1+2p)/(4p)$          | $p = 23$      | 1.9741           |
|       | 786NQE-5872  | $(1+2p)/4p$            | $P=23$        | 1.974            |
|       | 7F4KV8-5872  | $(1+2p)/4p$            | $p = 23$      | 1.974056604      |
|       | 7PKXQF-5872  | $(1+2a)/4a$            | $a=23$        | 1.9740           |
|       | 84E29B-5872  | $(1+2a)/4a$            | $a=23$        | 1.9740           |
|       | 8MBE64-5872  | $(1+2p)/4p$            | $p = 23$      | 1.9741           |
|       | 9HTLAG-5877  | $1+2p/4p$              | $p=23$        | 1.974056604      |
|       | AFLNDE-5877  | $(1+2a)/4a$            | $a=0.1696$    | 1.9741           |
|       | BQVKU2-5877  | *                      | *             | 1.858            |
|       | CV64QA-5872  | $2p+1/4p$              | $p=23$        | 1.9741           |
|       | DUAZED-5877  | $(1+2p)/4p$            | $p=23$        | 1.9741           |
|       | EBAAT4-5877  | $(1+2p)/4p$            | $p=23$        | 1.9741           |
|       | ENJRPD-5877  | $(1+2p)/4p$            | $p=23$        | 1.97             |
|       | ERKVGZ-5872  | $(1+2p)/4p$            | $p = 23$      | 1.9741           |
|       | FDX37Y-5877  | N/A                    | N/A           | 1.858            |
|       | GDT3MA-5872  | $(1+2p)/4p$            | $p = 23$      | 1.974            |
|       | GU22R8-5877  | $(1+2p)/4p$            | $p=23$        | 1.974            |
|       | GW36G9-5872  | $H0:0,5*B+A*BH1:2*A*B$ | $A=23 B=19,2$ | 1.974056501      |
|       | H9TEJ8-5872  | $(1+2p)/4p$            | $p=23$        | 1.9741           |

TABLE 6 - Kinship Likelihood Ratio Results

| Locus | WebCode-Test | Formula                                    | Allele Legend                   | Likelihood Ratio |
|-------|--------------|--|---------------------------------|------------------|
| FGA   | HWYZF6-5877  | $R=b(k1)+b(k1)+2ab(k0),U=2a$<br>$b,LR=R/U$ | $a=23, b=19.2, k0=0.5, k1=0.25$ | 1.974            |
|       | JHJYKY-5877  | $(1+2p)/4p$                                | $p = 23$                        | 1.9741           |
|       | JLGFXT-5877  | *  | *                               | 1.858            |
|       | KKHW9X-5872  | $(1+2p)/4p$                                | $p=23$                          | 1.9741           |
|       | NBJ97Q-5872  | $(1+2q)/4q$                                | $q=23 p=19.2$                   | 1.974            |
|       | NQDVAW-5872  | $(1+2p)/4p$                                | $p=23$                          | 1.9740           |
|       | P99QKY-5872  | $0.5+1(4p)$                                | $p=23$                          | 1.1784           |
|       | PTX3AK-5877  | $(1+2p)/4p$                                | $p=23$                          | 1.9741           |
|       | PU94VJ-5877  | $(1+2p)/4p$                                | $p = 23$                        | 1.9741           |
|       | TYCCNJ-5877  | N/A  | N/A                             | 1.858            |
|       | UALBVW-5877  | $(2q+1)/(4q)$                              | $q=23$                          | 1.974            |
|       | URUYR6-5872  | $(1+2p)/4p$                                | $p = 23$                        | 1.974            |
|       | UZLJPQ-5872  | $2a+1/4a$                                  | $a=23$                          | 1.9740           |
|       | W7GZEM-5872  | $(1+2q)/4q$                                | $q=23$                          | 1.9741           |
|       | W7KMRU-5877  | $(1+2p)/4p$                                | $p = 23$                        | 1.9741           |
|       | WAKXNU-5877  | $(1+2p)/4p$                                | $p=23$                          | 1.974            |
|       | YGVZ2-5872   | $(z1/2pa)+z0$                              | $a=23$                          | 1.974            |
|       | ZEKBY9-5877  | $(1+2p)/4p$                                | $p=23$                          | 1.9741           |
|       | ZFX3RQ-5872  | $1+2p/4p$                                  | $p=23$                          | 1.974            |

Statistical Analysis Summary of FGA

Likelihood Ratio Mode: 1.9741



TABLE 6 - Kinship Likelihood Ratio Results

| Locus  | WebCode-Test | Formula                 | Allele Legend | Likelihood Ratio |
|--------|--------------|-------------------------|---------------|------------------|
| PentaD | 33G37G-5872  | $(1 + 4p)/8p$           | $p=2.2$       | 1.5964           |
|        | 39LYUM-5872  | $(1 + 4p)/8p$           | $p=2.2$       | 1.596            |
|        | 3ECBR6-5877  | $(1 + 4p)/8p$           | $p=2.2$       | 1.596            |
|        | 3F8R7M-5877  | $1 + 4p/8p$             | $p=2.2$       | 1.5965           |
|        | 73W8G7-5872  | $(1 + 4p)/8p$           | $p = 2.2$     | 1.596            |
|        | 77PJU3-5877  | $(1 + 4p)/(8p)$         | $p = 2.2$     | 1.5965           |
|        | 786NQE-5872  | $(1 + 4p)/8p$           | $P=2.2$       | 1.596            |
|        | 7F4KV8-5872  | $(1 + 4p)/8p$           | $p = 2.2$     | 1.596491228      |
|        | 7PKXQF-5872  | $(1 + 4p)/8p$           | $p=2.2$       | 1.5964           |
|        | 84E29B-5872  | $(1 + 4x)/8x$           | $x=2.2$       | 1.5964           |
|        | 8MBE64-5872  | $(1 + 4p)/8p$           | $p = 2.2$     | 1.5965           |
|        | 9HTLAG-5877  | $1 + 4p/8p$             | $p=2.2$       | 1.596491228      |
|        | AFLNDE-5877  | $(1 + 4p)/8p$           | $p=0.114$     | 1.5965           |
|        | CV64QA-5872  | $4p + 1/8p$             | $p=2.2$       | 1.5965           |
|        | DUAZED-5877  | $(1 + 4p)/8p$           | $p=2.2$       | 1.5965           |
|        | EBAAT4-5877  | $(1 + 4p)/8p$           | $p=2.2$       | 1.5965           |
|        | ENJRPD-5877  | $(1 + 4p)/8p$           | $p=2.2$       | 1.6              |
|        | ERKVGZ-5872  | $(1 + 4p)/8p$           | $p = 2.2$     | 1.5965           |
|        | GDT3MA-5872  | $(1 + 4p)/8p$           | $p = 2.2$     | 1.596            |
|        | GU22R8-5877  | $(1 + 4p)/8p$           | $p=2.2$       | 1.596            |
|        | GW36G9-5872  | $H0:C*0,25+A*CH1:2*A*C$ | $A=2,2 C=13$  | 1.596491228      |
|        | H9TEJ8-5872  | $(1 + 4p)/8p$           | $p=2.2$       | 1.5965           |
|        | HWYZF6-5877  | $(1 + 4p)/8p$           | $p=2.2$       | 1.596            |
|        | JHJYKY-5877  | $(1 + 4p)/8p$           | $p = 2.2$     | 1.5964           |

TABLE 6 - Kinship Likelihood Ratio Results

| Locus  | WebCode-Test | Formula       | Allele Legend         | Likelihood Ratio |
|--------|--------------|---------------|-----------------------|------------------|
| PentaD | KKHW9X-5872  | $(1+4p)/8p$   | $p=2.2$               | 1.5965           |
|        | NBJ97Q-5872  | $(1+4r)/8r$   | $r=2.2 \ p=10 \ q=13$ | 1.596            |
|        | NQDVAW-5872  | $(1+4p)/8p$   | $p=2.2$               | 1.5964           |
|        | P99QKY-5872  | $0.5+1(4p)$   | $p=2.2$               | 0.956            |
|        | PTX3AK-5877  | $(1+4p)/8p$   | $p=2.2$               | 1.5965           |
|        | PU94VJ-5877  | $(1+4p)/8p$   | $p = 2.2$             | 1.5965           |
|        | UALBVW-5877  | $(4q+1)/(8q)$ | $p=2.2$               | 1.596            |
|        | URUYR6-5872  | $(1+4p)/8p$   | $p = 2.2$             | 1.597            |
|        | UZLJPQ-5872  | $4a+1/8a$     | $a=2.2$               | 1.5964           |
|        | W7GZEM-5872  | $(1+4p)/8p$   | $p=2.2$               | 1.5965           |
|        | W7KMRU-5877  | $(1+4p)/8p$   | $p = 2.2$             | 1.5965           |
|        | WAKXNU-5877  | $(1+4p)/8p$   | $p=2.2$               | 1.596            |
|        | YGVRZ2-5872  | $(z1/4pa)+z0$ | $a=2.2$               | 1.596            |
|        | ZEKBY9-5877  | $(1+4p)/8p$   | $p=2.2$               | 1.5965           |
|        | ZFX3RQ-5872  | $1+4p/8p$     | $p=2.2$               | 1.597            |

**Statistical Analysis Summary of PentaD**
**Likelihood Ratio Mode: 1.5965**

TABLE 6 - Kinship Likelihood Ratio Results

| Locus       | WebCode-Test | Formula                | Allele Legend      | Likelihood Ratio |
|-------------|--------------|------------------------|--------------------|------------------|
| PentaE      | 33G37G-5872  | 0.5                    |                    | 0.5000           |
|             | 39LYUM-5872  | 1/2                    |                    | 0.5              |
|             | 3ECBR6-5877  | 2/4                    | N/A                | 0.5000           |
|             | 3F8R7M-5877  |                        |                    | 0.5000           |
|             | 73W8G7-5872  | 1/2                    |                    | 0.5000           |
|             | 77PJU3-5877  | 1/2                    | N/A                | 0.50000          |
|             | 786NQE-5872  | 2/4                    |                    | 0.500            |
|             | 7F4KV8-5872  | 2/4                    |                    | 0.5              |
|             | 7PKXQF-5872  | 0.50                   |                    | 0.5000           |
|             | 84E29B-5872  | 1/2                    |                    | 0.5000           |
|             | 8MBE64-5872  | 2/4                    |                    | 0.5              |
|             | 9HTLAG-5877  | 2/4                    | -                  | 0.5              |
|             | AFLNDE-5877  | 1/2                    |                    | 0.5000           |
|             | CV64QA-5872  | 1/2                    |                    | 0.5              |
|             | DUAZED-5877  | 1/2                    |                    | 0.5000           |
|             | EBAAT4-5877  | 1/2                    |                    | 0.5000           |
|             | ENJRPD-5877  | 1/2                    |                    | 0.5              |
|             | ERKVGZ-5872  | 2/4                    |                    | Not applicable   |
|             | GDT3MA-5872  | 1/2                    |                    | -                |
|             | GU22R8-5877  | 0.5                    |                    | 0.5000           |
|             | GW36G9-5872  | HO:C*DH1:2*C*D         | C=5 D=16           | 0.5              |
|             | H9TEJ8-5872  | 1/2                    |                    | 0.5000           |
|             | HWYZF6-5877  | R=2cd(k0),U=2cd,LR=R/U | c=5, d= 16, k0=0.5 | 0.5              |
| JHJYKY-5877 | 1/2          |                        | 0.5000             |                  |

TABLE 6 - Kinship Likelihood Ratio Results

| Locus       | WebCode-Test | Formula    | Allele Legend                               | Likelihood Ratio |
|-------------|--------------|------------|---|------------------|
| PentaE      | KKHW9X-5872  | 1/2        |   | 0.5000           |
|             | NBJ97Q-5872  | 1/2        | p=12 q=13 s=5 r=16                          | 0.5000           |
|             | NQDVAW-5872  | 1/2        | 0.5   | 0.5000           |
|             | P99QKY-5872  | 0.5        |   | 0.5              |
|             | PTX3AK-5877  | 2/4        | N/A   | 0.5              |
|             | PU94VJ-5877  | 1/2        |   | 0.5              |
|             | UALBVW-5877  | 1/2        | /   | 0.500            |
|             | URUYR6-5872  | 0.5        |   | 0.5              |
|             | UZLJPQ-5872  | ab/2ab=1/2 | a=5 or 12 or 13 or 16 b=5 or 12 or 13 or 16 | 0.5              |
|             | W7GZEM-5872  | 1/2        |   | 0.5              |
|             | W7KMRU-5877  | 1/2        |   | 0.50000          |
|             | WAKXNU-5877  | 1/2        |   | 0.5000           |
|             | YGVZR2-5872  | Z0         | Z0  | 0.5000           |
|             | ZEKBY9-5877  | 2/4        |   | 0.5000           |
| ZFX3RQ-5872 | 1/2          |            | 0.5   |                  |

**Statistical Analysis Summary of PentaE**
**Likelihood Ratio Mode: 0.5000**

TABLE 6 - Kinship Likelihood Ratio Results

| Locus | WebCode-Test | Formula                 | Allele Legend | Likelihood Ratio |
|-------|--------------|-------------------------|---------------|------------------|
| SE33  | 33G37G-5872  | $(1+4a)/8a$             | $p=18$        | 1.5425           |
|       | 39LYUM-5872  | $(1+4p)/8p$             | $p=18$        | 1.543            |
|       | 3ECBR6-5877  | $(1+4p)/8p$             | $p=18$        | 1.543            |
|       | 3F8R7M-5877  | $1+4q/8q$               | $q=18$        | 1.5425           |
|       | 73W8G7-5872  | $(1+4p)/8p$             | $p=18$        | 1.543            |
|       | 77PJU3-5877  | $(1+4p)/(8p)$           | $p=18$        | 1.5425           |
|       | 786NQE-5872  | $(1+4p)/8p$             | $P=18$        | 1.543            |
|       | 7F4KV8-5872  | $(1+4p)/8p$             | $p=18$        | 1.542535446      |
|       | 7PKXQF-5872  | $(1+4a)/8a$             | $a=18$        | 1.5425           |
|       | 84E29B-5872  | $(1+4a)/8a$             | $a=18$        | 1.5425           |
|       | 8MBE64-5872  | $(1+4p)/8p$             | $p=18$        | 1.5425           |
|       | 9HTLAG-5877  | $2/4$                   | -             | 0.5              |
|       | AFLNDE-5877  | $(1+4a)/8a$             | $a=0.1199$    | 1.5425           |
|       | BQVKU2-5877  | *                       | *             | 1.492            |
|       | CV64QA-5872  | $4p+1/8p$               | $P=18$        | 1.5425           |
|       | DUAZED-5877  | $(1+4q)/8q$             | $q=18$        | 1.5425           |
|       | EBAAT4-5877  | $(1+4p)/8p$             | $p=18$        | 1.5425           |
|       | ENJRPD-5877  | $(1+4p)/8p$             | $p=18$        | 1.54             |
|       | ERKVGZ-5872  | $(1+4p)/8p$             | $p=18$        | 1.5425           |
|       | FDX37Y-5877  | N/A                     | N/A           | 1.492            |
|       | GDT3MA-5872  | $(1+4p)/8p$             | $p=18$        | 1.542            |
|       | GU22R8-5877  | $(1+4p)/8p$             | $p=18$        | 1.543            |
|       | GW36G9-5872  | $H0:C*0,25+A*CH1:2*A*C$ | $A=18 C=34$   | 1.542535442      |
|       | H9TEJ8-5872  | $(1+4p)/8p$             | $p=18$        | 1.5425           |

TABLE 6 - Kinship Likelihood Ratio Results

| Locus | WebCode-Test | Formula       | Allele Legend          | Likelihood Ratio |
|-------|--------------|---------------|------------------------|------------------|
| SE33  | HWYZF6-5877  | $(1+4p)/8p$   | $p=18$                 | 1.543            |
|       | JHJYKY-5877  | $(1+4q)/8q$   | $q=18$                 | 1.5425           |
|       | JLGFXT-5877  | *             | *                      | 1.492            |
|       | KKHW9X-5872  | $(1+4q)/8q$   | $q=18$                 | 1.5425           |
|       | NBJ97Q-5872  | $(1+4q)/8q$   | $p=16.2 \ q=18 \ r=34$ | 1.543            |
|       | NQDVAW-5872  | $(1+4p)/8p$   | $p=18$                 | 1.5425           |
|       | P99QKY-5872  | $0.5+1(4p)$   | $p=18$                 | 0.9796           |
|       | PTX3AK-5877  | $(1+4p)/8p$   | $p=18$                 | 1.5425           |
|       | PU94VJ-5877  | $(1+4p)/8p$   | $p=18$                 | 1.5425           |
|       | TYCCNJ-5877  | N/A           | N/A                    | 1.492            |
|       | UALBVW-5877  | $(4q+1)/(8q)$ | $q=18$                 | 1.543            |
|       | URUYR6-5872  | $(1+4p)/8p$   | $p=18$                 | 1.543            |
|       | UZLJPQ-5872  | $4a+1/8a$     | $a=18$                 | 1.5425           |
|       | W7GZEM-5872  | $(1+4q)/8q$   | $q=18$                 | 1.5425           |
|       | W7KMRU-5877  | $(1+4p)/8p$   | $p=18$                 | 1.5425           |
|       | WAKXNU-5877  | $(1+4p)/8p$   | $p=18$                 | 1.542            |
|       | YGVZ2-5872   | $(z1/4pa)+z0$ | $a=18$                 | 1.542            |
|       | ZEKBY9-5877  | $(1+4p)/8p$   | $p=18$                 | 1.5425           |
|       | ZFX3RQ-5872  | $1+4p/8p$     | $p=18$                 | 1.543            |

**Statistical Analysis Summary of SE33**
**Likelihood Ratio Mode: 1.5425**

TABLE 6 - Kinship Likelihood Ratio Results

| Locus | WebCode-Test | Formula                                 | Allele Legend         | Likelihood Ratio |
|-------|--------------|---|-----------------------|------------------|
| TH01  | 33G37G-5872  | $(p+q+4pq)/8pq$                         | $p=6 \ q=7$           | 1.7562           |
|       | 39LYUM-5872  | $(p+q+4pq)/8pq$                         | $p=6 \ q=7$           | 1.756            |
|       | 3ECBR6-5877  | $(p+q+4pq)/8pq$                         | $p=6 \ q=7$           | 1.756            |
|       | 3F8R7M-5877  | $p+q+4pq/8pq$                           | $p=6 \ q=7$           | 1.7563           |
|       | 73W8G7-5872  | $(p+q+4pq)/8pq$                         | $p = 6 \ q = 7$       | 1.543            |
|       | 77PUJ3-5877  | $(p+q+4pq)/(8pq)$                       | $p = 6 \ q = 7$       | 1.7563           |
|       | 786NQE-5872  | $(p+q+4pq)/8pq$                         | $P=6 \ q=7$           | 1.756            |
|       | 7F4KV8-5872  | $(p+q+4pq)/8pq$                         | $p = 6 \ q = 7$       | 1.756295683      |
|       | 7PKXQF-5872  | $(p+q+4pq)/8pq$                         | $p=6 \ q=7$           | 1.7562           |
|       | 84E29B-5872  | $(p+q+4pq)/8pq$                         | $p=6 \ q=7$           | 1.7562           |
|       | 8MBE64-5872  | $(p+q+4pq)/8pq$                         | $p = 6 \ q = 7$       | 1.7563           |
|       | 9HTLAG-5877  | $p+q+4pq/8pq$                           | $p=6 \ q=7$           | 1.756295683      |
|       | AFLNDE-5877  | $(p+q+4pq)/8pq$                         | $p=0.1316 \ q=0.4079$ | 1.7563           |
|       | BQVKU2-5877  | *                                       | *                     | 1.717            |
|       | CV64QA-5872  | $p+q+4pq/8pq$                           | $p=6 \ q=7$           | 1.7563           |
|       | DUAZED-5877  | $(p+q+4pq)/8pq$                         | $p=6 \ q=7$           | 1.7563           |
|       | EBAAT4-5877  | $(p+q+4pq)/8pq$                         | $p=6 \ q=7$           | 1.7563           |
|       | ENJRPD-5877  | $(p+q+4pq)/8pq$                         | $p=6 \ q=7$           | 1.76             |
|       | ERKVGZ-5872  | $(p+q+4pq)/8pq$                         | $p = 6 \ q = 7$       | 1.7563           |
|       | FDX37Y-5877  | N/A                                     | N/A                   | 1.717            |
|       | GDT3MA-5872  | $(p+q+4pq)/8pq$                         | $p = 6 \ q = 7$       | 1.756            |
|       | GU22R8-5877  | $(p+q+4pq)/8pq$                         | $p=6 \ q=7$           | 1.756            |
|       | GW36G9-5872  | $H00,5+B*0,25+A*0,25+A*BH$<br>$1:2*A*B$ | $A=6 \ B=7$           | 1.75629556       |
|       | H9TEJ8-5872  | $(p+q+4pq)/8pq$                         | $p=6 \ q=7$           | 1.7563           |

TABLE 6 - Kinship Likelihood Ratio Results

| Locus | WebCode-Test | Formula                      | Allele Legend | Likelihood Ratio |
|-------|--------------|------------------------------|---------------|------------------|
| TH01  | HWYZF6-5877  | $(p+q+4pq)/8pq$              | $p=6, q=7$    | 1.756            |
|       | JHJYKY-5877  | $(p+q+4pq)/8pq$              | $p=6, q=7$    | 1.7563           |
|       | JLGFXT-5877  | *                            | *             | 1.717            |
|       | KKHW9X-5872  | $(p+q+4pq)/8pq$              | $p=6, q=7$    | 1.7563           |
|       | NBJ97Q-5872  | $(p+q+4pq)/8pq$              | $p=6, q=7$    | 1.756            |
|       | NQDVAW-5872  | $(p+q+4pq)/8pq$              | $p=6, q=7$    | 1.7562           |
|       | P99QKY-5872  | $0.5+(p+q)/(8pq)$            | $p=6, q=7$    | 1.756295683      |
|       | PTX3AK-5877  | $(p+q+4pq)/8pq$              | $p=6, q=7$    | 1.7564           |
|       | PU94VJ-5877  | $(p+q+4pq)/8pq$              | $p=6, q=7$    | 1.7563           |
|       | TYCCNJ-5877  | N/A                          | N/A           | 1.717            |
|       | UALBVW-5877  | $(4pq+p+q)/(8pq)$            | $p=6, q=7$    | 1.756            |
|       | URUYR6-5872  | $(p+q+4pq)/8pq$              | $p=6, q=7$    | 1.756            |
|       | UZLJPQ-5872  | $a+b+4ab/8ab$                | $a=6, b=7$    | 1.7562           |
|       | W7GZEM-5872  | $(p+q+4pq)/8pq$              | $p=6, q=7$    | 1.7563           |
|       | W7KMRU-5877  | $(p+q+4pq)/8pq$              | $p=6, q=7$    | 1.7563           |
|       | WAKXNU-5877  | $(p+q+4pq)/8pq$              | $p=6, q=7$    | 1.756            |
|       | YGVZ2-5872   | $(2z^2+z^1(pa+pb)/4papb)+Z0$ | $a=6, b=7$    | 1.756            |
|       | ZEKBY9-5877  | $(p+q+4pq)/8pq$              | $p=6, q=7$    | 1.7563           |
|       | ZFX3RQ-5872  | $p+q+4pq/8pq$                | $p=6, q=7$    | 1.756            |

**Statistical Analysis Summary of TH01**
**Likelihood Ratio Mode: 1.7563**



TABLE 6 - Kinship Likelihood Ratio Results

| Locus | WebCode-Test | Formula                   | Allele Legend | Likelihood Ratio |
|-------|--------------|---------------------------|---------------|------------------|
| TPOX  | 33G37G-5872  | $(1+2p)/4p$               | $p=6$         | 3.2964           |
|       | 39LYUM-5872  | $(2+4p)/8p$               | $p=6$         | 3.296            |
|       | 3ECBR6-5877  | $(1+2p)/4p$               | $p=6$         | 3.296            |
|       | 3F8R7M-5877  | $1+2p/4p$                 | $p=6$         | 3.2964           |
|       | 73W8G7-5872  | $(1+2p)/4p$               | $p = 6$       | 3.296            |
|       | 77PJU3-5877  | $(1+2p)/(4p)$             | $p = 6$       | 3.2964           |
|       | 786NQE-5872  | $(1+2p)/4p$               | $P=6$         | 3.296            |
|       | 7F4KV8-5872  | $(1+2p)/4p$               | $p = 6$       | 3.296420582      |
|       | 7PKXQF-5872  | $(1+2p)/4p$               | $p=6$         | 3.2964           |
|       | 84E29B-5872  | $(1+2p)/4p$               | $p=6$         | 3.2964           |
|       | 8MBE64-5872  | $(1+2p)/4p$               | $p = 6$       | 3.2964           |
|       | 9HTLAG-5877  | $1+2p/4p$                 | $p=6$         | 3.296420582      |
|       | AFLNDE-5877  | $(1+2p)/4p$               | $p=0.0894$    | 3.2964           |
|       | BQVKU2-5877  | *                         | *             | 2.848            |
|       | CV64QA-5872  | $2p+1/4p$                 | $P=6$         | 3.2964           |
|       | DUAZED-5877  | $(1+2p)/4p$               | $p=6$         | 3.2964           |
|       | EBAAT4-5877  | $(1+2p)/4p$               | $p=6$         | 3.2964           |
|       | ENJRPD-5877  | $(1+2p)/4p$               | $p=6$         | 3.3              |
|       | ERKVGZ-5872  | $(1+2p)/4p$               | $p = 6$       | 3.2964           |
|       | FDX37Y-5877  | N/A                       | N/A           | 2.848            |
|       | GDT3MA-5872  | $(1+2p)/4p$               | $p = 6$       | 3.296            |
|       | GU22R8-5877  | $(1+2p)/4p$               | $p=6$         | 3.296            |
|       | GW36G9-5872  | $H0:A*0,25+0,5*A^2H1:A^2$ | $A=6$         | 3.296420734      |
|       | H9TEJ8-5872  | $(1+2p)/4p$               | $p=6$         | 3.2964           |

TABLE 6 - Kinship Likelihood Ratio Results

| Locus | WebCode-Test | Formula  | Allele Legend                | Likelihood Ratio |
|-------|--------------|--|------------------------------|------------------|
| TPOX  | HWYZF6-5877  | $R = a(k1) + a * a(k0), U = a * a, LR = R / U$ | $a = 6, k0 = 0.5, k1 = 0.25$ | 3.296            |
|       | JHJYKY-5877  | $(1 + 2p) / 4p$                                | $p = 6$                      | 3.2964           |
|       | JLGFXT-5877  | *  | *                            | 2.848            |
|       | KKHW9X-5872  | $(1 + 2p) / 4p$                                | $p = 6$                      | 3.2964           |
|       | NBJ97Q-5872  | $(1 + 2p) / 4p$                                | $p = 6, q = 8$               | 3.296            |
|       | NQDVAW-5872  | $(1 + 2p) / 4p$                                | $p = 6$                      | 3.2964           |
|       | P99QKY-5872  | $0.5 + 1(4p)$                                  | $p = 6$                      | 0.8576           |
|       | PTX3AK-5877  | $(1 + 2p) / 4p$                                | $p = 6$                      | 3.2964           |
|       | PU94VJ-5877  | $(1 + 2p) / 4p$                                | $p = 6$                      | 3.2964           |
|       | TYCCNJ-5877  | N/A  | N/A                          | 2.848            |
|       | UALBVW-5877  | $(2p + 1) / (4p)$                              | $p = 6$                      | 3.296            |
|       | URUYR6-5872  | $(1 + 2p) / 4p$                                | $p = 6$                      | 3.296            |
|       | UZLJPQ-5872  | $2a + 1 / 4a$                                  | $a = 6$                      | 3.2964           |
|       | W7GZEM-5872  | $(1 + 2p) / 4p$                                | $p = 6$                      | 3.2964           |
|       | W7KMRU-5877  | $(1 + 2p) / 4p$                                | $p = 6$                      | 3.2964           |
|       | WAKXNU-5877  | $(1 + 2p) / 4p$                                | $p = 6$                      | 3.296            |
|       | YGVZR2-5872  | $(z1 / 2pa) + z0$                              | $a = 6$                      | 3.296            |
|       | ZEKBY9-5877  | $(1 + 2p) / 4p$                                | $p = 6$                      | 3.2964           |
|       | ZFX3RQ-5872  | $1 + 2p / 4p$                                  | $p = 6$                      | 3.296            |

**Statistical Analysis Summary of TPOX**
**Likelihood Ratio Mode: 3.2964**

TABLE 6 - Kinship Likelihood Ratio Results

| Locus | WebCode-Test | Formula                | Allele Legend  | Likelihood Ratio |
|-------|--------------|------------------------|----------------|------------------|
| vWA   | 33G37G-5872  | 0.5                    |                | 0.5000           |
|       | 39LYUM-5872  | 1/2                    |                | 0.5              |
|       | 3ECBR6-5877  | 2/4                    | N/A            | 0.5000           |
|       | 3F8R7M-5877  |                        |                | 0.5000           |
|       | 73W8G7-5872  | 1/2                    |                | 0.5000           |
|       | 77PUJ3-5877  | 1/2                    | N/A            | 0.50000          |
|       | 786NQE-5872  | 2/4                    |                | 0.500            |
|       | 7F4KV8-5872  | 2/4                    |                | 0.5              |
|       | 7PKXQF-5872  | 0.50                   |                | 0.5000           |
|       | 84E29B-5872  | 1/2                    |                | 0.5000           |
|       | 8MBE64-5872  | 2/4                    |                | 0.5              |
|       | 9HTLAG-5877  | 2/4                    | -              | 0.5              |
|       | AFLNDE-5877  | 1/2                    |                | 0.5000           |
|       | BQVKU2-5877  | *                      | *              | 0.5000           |
|       | CV64QA-5872  | 1/2                    |                | 0.5              |
|       | DUAZED-5877  | 1/2                    |                | 0.5000           |
|       | EBAAT4-5877  | 1/2                    |                | 0.5000           |
|       | ENJRPD-5877  | 1/2                    | NA             | 0.5              |
|       | ERKVGZ-5872  | 2/4                    | Not applicable | 0.5000           |
|       | FDX37Y-5877  | N/A                    | N/A            | 0.5000           |
|       | GDT3MA-5872  | 1/2                    | -              | 0.5              |
|       | GU22R8-5877  | 0.5                    |                | 0.5000           |
|       | GW36G9-5872  | $H_0:(C^2)*0,5H_1:C^2$ | C=16           | 0.5              |
|       | H9TEJ8-5872  | 1/2                    |                | 0.5000           |

TABLE 6 - Kinship Likelihood Ratio Results

| Locus | WebCode-Test | Formula                     | Allele Legend                        | Likelihood Ratio |
|-------|--------------|-----------------------------|--------------------------------------|------------------|
| vWA   | HWYZF6-5877  | $R=2bc(k_0), U=2bc, LR=R/U$ | $b=15, c=17, k_0=0.5$                | 0.5              |
|       | JHJYKY-5877  | 1/2                         |                                      | 0.5000           |
|       | JLGFXT-5877  | *                           | *                                    | 0.5000           |
|       | KKHW9X-5872  | 1/2                         |                                      | 0.5000           |
|       | NBJ97Q-5872  | 1/2                         | $p=15, r=17, q=16$                   | 0.5000           |
|       | NQDVAW-5872  | 1/2                         |                                      | 0.5000           |
|       | P99QKY-5872  | 0.5                         |                                      | 0.5              |
|       | PTX3AK-5877  | 2/4                         | N/A                                  | 0.5              |
|       | PU94VJ-5877  | 1/2                         |                                      | 0.5              |
|       | TYCCNJ-5877  | N/A                         | N/A                                  | .5000            |
|       | UALBVV-5877  | 1/2                         | /                                    | 0.500            |
|       | URUYR6-5872  | 0.5                         |                                      | 0.5              |
|       | UZLJPQ-5872  | $1/2a^2/a^2=1/2$            | $a=15 \text{ or } 16 \text{ or } 17$ | 0.5              |
|       | W7GZEM-5872  | 1/2                         |                                      | 0.5              |
|       | W7KMRU-5877  | 1/2                         |                                      | 0.50000          |
|       | WAKXNU-5877  | 1/2                         |                                      | 0.500            |
|       | YGVZR2-5872  | Z0                          | Z0                                   | 0.5000           |
|       | ZEKBY9-5877  | 2/4                         |                                      | 0.5000           |
|       | ZFX3RQ-5872  | 1/2                         |                                      | 0.5              |

**Statistical Analysis Summary of vWA**
**Likelihood Ratio Mode: 0.5000**

## Kinship DNA Statistics

Is the claim of the following relationship supported by the genetic evidence: **Half Siblings?**

TABLE 7

| WebCode-Test | Kinship Index | Claim Supported? |
|--------------|---------------|------------------|
| 33G37G-5872  | 2.5205        | Inconclusive     |
| 39LYUM-5872  | 2.52          | Inconclusive     |
| 3ECBR6-5877  | 2.521         | Yes              |
| 3F8R7M-5877  | 2.5205        | Inconclusive     |
| 73W8G7-5872  | 2.521E+00     | No               |
| 77PJU3-5877  | 2.521         | Yes              |
| 786NQE-5872  | 2,520515024   | No               |
| 7F4KV8-5872  | 2.520515024   | Inconclusive     |
| 7PKXQF-5872  | 2.5205        | Inconclusive     |
| 84E29B-5872  | 2.5205        | Inconclusive     |
| 8MBE64-5872  | 2.5205        | Inconclusive     |
| 9HTLAG-5877  | 0.8170        | Yes              |
| AFLNDE-5877  | 2.5205        | Inconclusive     |
| BQVKU2-5877  | 2.0           | Yes              |
| CV64QA-5872  | 2.5205        | Inconclusive     |
| DUAZED-5877  | 2.5205        | No               |
| EBAAT4-5877  | 2.5206        | Yes              |
| ENJRPD-5877  | 2.52          | Inconclusive     |
| ERKVGZ-5872  | 2.535         | Inconclusive     |
| FDX37Y-5877  | 2.000         | Yes              |
| GDT3MA-5872  | 2.505         | Yes              |
| GU22R8-5877  | 2.521         | Inconclusive     |
| GW36G9-5872  | 2.520514817   | Inconclusive     |
| H9TEJ8-5872  | 2.5205        | Inconclusive     |
| HWYZF6-5877  | 2.518         | No               |
| JHJYKY-5877  | 2.522         | Yes              |
| JLGFXT-5877  | 2.0           | Yes              |
| KKHW9X-5872  | 5.0410        | Inconclusive     |
| NBJ97Q-5872  | 2.521         | Yes              |

TABLE 7 - Kinship DNA Statistics

| WebCode-Test | Kinship Index | Claim Supported? |
|--------------|---------------|------------------|
| NQDVAW-5872  | 2.5203        | Inconclusive     |
| P99QKY-5872  | 2.493163737   | Inconclusive     |
| PTX3AK-5877  | 2.521         | Yes              |
| PU94VJ-5877  | 2.520         | Yes              |
| TYCCNJ-5877  | 2.000         | Yes              |
| UALBVW-5877  | 0.016         | Inconclusive     |
| URUYR6-5872  | 2.521         | Yes              |
| UZLJPQ-5872  | 2.5205        | Inconclusive     |
| W7GZEM-5872  | 2.5205        | Inconclusive     |
| W7KMRU-5877  | 2.52          | Inconclusive     |
| WAKXNU-5877  | 2.517         | Inconclusive     |
| YGVZR2-5872  | 2.519         | Yes              |
| ZEKBY9-5877  | 2.5204        | Yes              |
| ZFX3RQ-5872  | 71.6%         | Yes              |

| Response Summary   |    | Participants: 43 |
|--|----|------------------|
| <i>Is the relationship claim of Half Siblings supported?</i> |    |                  |
| Yes  | 17 |                  |
| No   | 4  |                  |
| Inconclusive   | 22 |                  |

# Additional Kinship Statistical Results

TABLE 8

| WebCode-Test | Additional Statistical Results  |
|--------------|---|
| 33G37G-5872  | The probability of kinship is calculated via Excel using formula derived from the DNA View software. Laboratory SOP DNA-AN013: Guidelines for Interpretation and Reporting DNA Paternity/Maternity/Kinship profile. Clause 4.1.4.3 Parentage/Sibling/Kinship scenario states that for LR " $10 \geq LR > 0$ " will interpreted as Inconclusive.   |
| 3ECBR6-5877  | The shared results between Alleged Sibling C and Alleged Sibling D are 2.521 times more likely to be observed if they were half-siblings rather than if they were unrelated.  |
| 3F8R7M-5877  | AABB standards state that this result should be reported as inconclusive and a statement such as "Pu and Linacre have shown at a likelihood ratio less than 33 that the predictive value of test results is less than 99% and at a likelihood ratio less than 1 that the predictive value of test results is less than 90%. (Increasing the confidence in half-sibship determination based upon 15 STR loci. Pu and Linacre. Journal of Forensic and Legal Medicine 15 (2008) 373–377.)" would need to be included in the report. |
| 73W8G7-5872  | Based on the results provided, a half-sibling relationship cannot be established or ruled out. Therefore, a deeper analysis may be required.  |
| 77PJU3-5877  | The alleles shared between the two individuals are 2.521 times more likely to be observed if they were half-siblings, rather than if they were unrelated.   |
| 786NQE-5872  | Conclusion: Inconclusive. With the genetic information obtained from the half-siblings, the probability value was calculated, which is less than the established minimum, therefore, it is not possible to determine the relationship.  |
| 7PKXQF-5872  | The probability of kinship is calculated via Excel using formula derived from the DNA View software. Laboratory SOP DNA-AN013: Guidelines for Interpretation and Reporting DNA Paternity/Maternity/Kinship profile. Clause 4.1.4.3 Parentage/Sibling/Kinship Scenario states that for LR " $10 \geq LR > 0$ " will interpreted as Inconclusive.   |
| 84E29B-5872  | The probability of kinship is calculated via Excel using formula derived from the DNView Software. Laboratory SOP DNA-AN013: Guidelines for Interpretation and Reporting DNA Paternity/Maternity/Kinship profile. Clause 4.1.4.3 Parentage/Sibling/Kinship Scenario states that for LR " $10 \geq LR > 0$ " will be interpreted as inconclusive.  |
| 9HTLAG-5877  | These two person show 69.56 % of their DNA. According to Probability percentage calculation they may be a half-sibling of each other with the confidence of 44.96434560 %.  |
| AFLNDE-5877  | CRI: 2.5205. Probability: 71.5951% (50% prior probability). Outcome: Inconclusive. AABB RT Standard 5.3.8.3 states that likelihood ratios of 0.1 through 10 shall be considered inconclusive for the tested relationship.   |
| BQVKU2-5877  | *The likelihood ratios were calculated with the Kin Calc software that uses standard formulae for simple PI/s and 2-person KI's that incorporate a theta value of 0.1 with allele probabilities with no rounding and a 1/k prior instead of just x/N. Locus D12S391 was omitted due to linkage with VWA. ^ Only GlobalFiler loci used in calculation per TL, additional loci (PentaD and PentaE) not tested at our laboratory.  |
| CV64QA-5872  | The genetic finding is 2.5 times more likely if the individuals analyzed are half-siblings than if they were not related.   |
| ENJRPD-5877  | NA=Not applicable; no alleles are shared between the two individual at that specific locus. LR values are expressed with three significant figures based on our protocol. Using three significant figures represents how [Laboratory] would determine kinship on this case. We do not use 4 significant figures because the NIST STR allele frequencies are based on N value of < 1000.   |

TABLE 8

| WebCode-Test | Additional Statistical Results   |
|--------------|--|
| FDX37Y-5877  | The reported values are Kinship Index (KI) values calculated using Kin CALc 5.0.12 BFS software that uses standard formulae for simple PI's and 2-person KI's that incorporate a theta value of 0.01 with allele probabilities with no rounding and a 1/k prior instead of 1/N. Due to possible genetic linkage between the vWA and D12S391 loci, the genotypes from only one of these loci were reported and used to calculate the combined KI. Per our laboratory practice, only the GlobalFiler loci are used for the KI calculations, hence no KI's were reported for the Penta D and Penta E loci.  |
| GDT3MA-5872  | The two DNA profiles cannot be excluded as a potential African American half sibling relationship.   |
| GU22R8-5877  | This laboratory only provides the likelihood ratio of half-sibling relationship versus being unrelated, and does not make a conclusion.  |
| JHJYKY-5877  | There is limited support for Subjects C & Subject D for a half siblings' relationship.   |
| JLGFXT-5877  | *The likelihood ratios were calculated with the Kin CALc software that uses standard formulae for simple PI's and 2-person KI's that incorporate a theta value of 0.01 with allele probabilities with no rounding and a 1/k prior instead of just x/N. Combined kinship index omits the locus D12S391 due to linkage disequilibrium. ^ Only GlobalFiler loci used in calculation per TL, additional loci (PentaD, PentaE) not tested at our laboratory.  |
| K8WKWM-5872  | Half Sibling relationships are not evaluated at this lab.  |
| KKHW9X-5872  | Locus vWA was excluded from the kinship calculations due to linkage with D12S391.  |
| NBJ97Q-5872  | Limited support.   |
| NQDVAW-5872  | The probability of kinship is calculated via Excel using formula derived from the DNAAview software. Laboratory SOP DNA-AN013: GUIDELINES FOR INTERPRETATION & REPORTING DNA PATERNITY / MATERNITY / KINSHIP PROFILES Clause 4.1.4.3 Parentage/Sibling/Kinship scenario states that for LR "10≥LR>0" will be interpreted as inconclusive.  |
| PMBG2X-5877  | Half sibling relationships not reported.   |
| PTX3AK-5877  | The shared results between Alleged Sibling 1 and Alleged Sibling 2 are 2.521 times more likely to be observed if they were half-siblings rather than if they were unrelated.   |
| TYCCNJ-5877  | The likelihood ratios shown above [Table 6: Kinship Likelihood Ratio Results] were calculated using the KinCALc software that uses standard formulae for simple PI's and 2-person KI's that incorporate a theta value of 0.01 with allele probabilities with no rounding and a 1/k prior instead of x/N. The combined KI (African American) shown above [Table 7: Kinship DNA Statistics] does not include D12. D12 was removed due to genetic linkage with vWA. The Penta D and Penta E loci were not calculated as these loci are not tested in this laboratory. The combined KI (African American) is only calculated to 2 significant figures by the KinCALc software. |
| URUYR6-5872  | Kinship calculations in this laboratory would normally involve the use of the Balding and Nichols sampling formula incorporating Fst. To allow comparison of our results to those of other laboratories, I have opted to calculate the KI as per the example provided using the product rule only. It is expected that a lower KI would be obtained with the incorporation of Fst. Using the product rule, the DNA evidence provides slight support for the proposition that the two males are half siblings.  |
| UZLJPQ-5872  | The LR value reached it's in favor of the relationship hypothesis; however, it does not allow by itself to make a decision about the relationship between the people analyzed. It is necessary to evaluate non-genetic information or alternatively, complement the genetic analysis with more relatives, Y chromosome analysis and mitochondrial DNA.   |
| W7GZEM-5872  | On comparison of the DNA profiles obtained, I found that the relationship between the donor of "C" with "D" cannot be conclusively determined.   |



TABLE 8

| <b>WebCode-Test</b> | <b>Additional Statistical Results</b>  |
|---------------------|--|
| W7KMRU-5877         | KI > 1; however, per our policy, this will be reported as inconclusive because the KI is < 1000  |
| XQMVLJ-5872         | Half sibling kinship statistic not calculated at this laboratory.  |
| ZEKBY9-5877         | The shared results between the alleged siblings are 2.5204 times more likely to be observed if they were half-siblings rather than if they were unrelated. |

# Additional Comments

## TABLE 9

| WebCode-Test | Additional Comments  |
|--------------|--|
| 33G37G-5872  | 1) On comparison to the DNA profiles obtained, I found that the source of bloodstained specimen "Item 3" is the biological father to the source of bloodstained specimen "Item 2" (given that the biological mother is represented by the source of bloodstained specimen "Item 1"). 2) On comparison to the DNA profiles obtained, I found that the source of bloodstained specimen "Item 4" is not the biological father to the source of bloodstained specimen "Item 2" (given that the biological mother is represented by the source of bloodstained specimen "Item 1"). 3) Extraction: -Item 1, Item 2, Item 3 and Item 4 were extracted using in-situ method. 4) Amplification: -Item 1, Item 2, Item 3 and Item 4 were amplified using Globalfiler Express (GFE) on PROFLEX PCR System. - Item 3 and Item 4 were further amplified using AmpFISTR Y-Filer PCR Amplification kit on 9700 GeneAmp PCR System. 5) Electrophoresis: -Electrophoresis were carried out on Genetic Analyzer 3500xl for Item 1, Item 2, Item 3 and Item 4 (Globalfiler Express). -Electrophoresis were carried out on Genetic Analyzer 3500xl for Item 3 and Item 4 (Yfiler). 6) Quality Control: -Reagent blank, positive control and negative control were incorporated in the overall analysis and gave designated results. 7) NM represents non male profile. 8) The statistical formula were derived from DNAView Statistical Software and calculated using Microsoft Excel. |
| 3ECBR6-5877  | Assuming prior probabilities of 10%, 50% and 90%, the probability of paternity in this case is greater than 99.99%. The following locus was not used in the statistical calculation: vWA. For the locus and combined Paternity Index values. Our laboratory protocol is to report the smallest CPI calculated in Popstats of the selected population groups/ethnicities.   |
| 3FRDYD-5877  | Combined Paternity Index value excludes D12S391 due to linkage with vWA (both loci listed with per-locus PI) and uses Southwest Hispanic database).  |
| 3M2YKL-5877  | D12 was removed due to Laboratory procedures. Caucasian stat reported since the Known Mother and Alleged Father A are Caucasian.   |
| 77PJU3-5877  | For the locus and Combined Paternity Index values, our lab reports the smallest Paternity Index value calculated, using the FBI PopStats program for selected population groups/ethnicities (African American, Caucasian, Southeast and Southwest Hispanics). Based on our laboratory protocol, the vWA locus is not used for kinship statistical estimation purposes. Additionally, the Probability of Paternity is calculated using prior values of 0.1, 0.5, and 0.9. Probability of Paternity values greater than 99.99% are reported as >99.99%.  |
| 786NQE-5872  | It is observed that the alleged father B does not have all the alleles that the daughter must inherited from her biological father. According to the protocols established in our laboratory, statistical calculations are not performed for the excluded cases.   |
| 7DPWVQ-5872  | - vWA and SE33 not included for statistics calculations per lab SOP. - NIST 2017 is the database in Popstats.  |
| 7F4KV8-5872  | Statistical software used for PI calculation in our laboratory includes mutation rate information for particular loci into PI formula.   |

TABLE 9

| WebCode-Test | Additional Comments   |
|--------------|---|
| 7PKXQF-5872  | <p>1) On comparison to the DNA profiles obtained, i found that the source of bloodstained specimen "Item 3" is the biological father to the source of bloodstained specimen "Item 2" (given that the biological mother is represented by the source of bloodstained specimen "Item 1"). 2) On comparison to the DNA profiles obtained, i found that the source of bloodstained specimen "Item 4" is not the biological father to the source of bloodstained specimen "Item 2" (given that the biological mother is represented by the source of bloodstained specimen "Item 1"). 3) Extraction: -Item 1, Item 2, Item 3 and Item 4 were extracted using in-situ method. 4) Amplification: -Item 1, Item 2, Item 3 and Item 4 were amplified using GlobalFiler Express on 9700 GeneAmp PCR system. -Item 3 and Item 4 were amplified using AMPFLSTR Y-Filer Kit on 9700 GeneAmp PCR System. 5) Electrophoresis: -All electrophoresis were carried out using Genetic Analyzer 3500xL. 6) Quality Control: -Reagent blank, Positive Control and Negative Control carried out throughout the analysis all gave intended results. 7) NM represents non male profile. 8) The statistical formula were derived from DNAnview Statistical Software and calculated using Microsoft Excel.</p>  |
| 84E29B-5872  | <p>1) On comparison to the DNA profiles obtained, I found that the source of bloodstained specimen "Item 3" is the biological father to the source of bloodstained specimen "Item 2".(given that the biological mother is represented by the source of bloodstained specimen "Item 1"). 2) On comparison to the DNA profiles obtained, I found that the source of bloodstained specimen "Item 4" is not the biological father to the source of bloodstained specimen "Item 2".(given that the biological mother is represented by the source of bloodstained specimen "Item 1"). 3) Extraction: Item 1, Item 2, Item 3 and Item 4 were extracted using in-situ method. 4) Amplification: Item 1,Item 2, Item 3 and Item 4 were amplified using GlobalFiler Express PCR amplification kit on Applied Biosystem Proflex PCR System.Item 3 and Item 4 were further amplified using AmpFLSTR Y-Filer PCR Amplification kit on Applied Biosystem Proflex PCR System. 5) Electrophoresis: Electrophoresis was carried out using genetic Analyzer 3500 for all amplified product of GlobalFiler Express and Y-Filer Amplificocation kit. 6) Quality Control: Reagent blank, Positive Control and Negative Control were incorporated in the overall analysis and gave expected results. 7) The statistical formula were derived from DNAnview Statistical Software and calculated using Microsoft Excel. 8) NM: Non-Male profile.</p> |
| 8D3UK9-5877  | <p>It is our Laboratory's policy to report the most conservative number when using multiple population databases. Additionally, vWA and D12S391 are not included together in the same statistical calculation. The locus selected provides the most discriminating potential. The Combined Paternity Index value reported in Part 2 [Table 5: Paternity DNA Statistics &amp; Conclusions] is from the Southwest Hispanic database using vWA (excluding D12S391). We do not report the Probability of Paternity.</p>   |
| ARWY24-5872  | <p>PI is not calculated when an individual is excluded as the biological father of the offspring. The laboratory does not use vWA or D12 when calculating statistics for related individuals.</p>   |
| BQVKU2-5877  | <p>Our laboratory does not calculate probability of paternity. The likelihood ratios were calculated with the Kin Calc software that uses standard formulae for simple PI's and 2-person KI's that incorporate a theta value of 0.01 with allele probabilities with no rounding and a 1/k prior instead of just x/N. For Item 3 VWA was omitted due to linkage with D12S391. For Item 4 was an exclusion; therefore, neither VWA nor D12S391 was omitted.</p>   |
| BQZZ9N-5872  | <p>NR=No Results</p>  |
| C8ZC9C-5877  | <p>vWA and D12S391 have been found to be linked and cannot be used together in kinship analysis. The reported KI is selected based on the KI with the most informative of the two loci (vWA or D12; in this case VWA) and designated ethnicity of the alleged father.</p>   |
| CV64QA-5872  | <p>Although the value obtained is in favor of the kinship hypothesis, it is suggested to complement the analysis with uniparental markers.</p>  |

TABLE 9

| WebCode-Test | Additional Comments   |
|--------------|---|
| DTFCVH-5877  | CURRENTLY, THE LABORATORY DOES NOT DO SIBSHIP.  |
| ERKVGZ-5872  | Part I & II [Table 1: STR Amplification Kit(s) & Results and Table 2: Paternity Index Results]: Item 3: No PI provided for D12S391; Minimum Allele Frequency of 0.01 used for D3S1358 allele 19 and SE33 allele 19.2. The Laboratory does not include the locus D12S391 for kinship statistical calculation. The Laboratory will use a Minimum Allele Frequency of 0.01 when the Allele Frequency is less than 0.01 for kinship statistical calculation. The Laboratory uses the NIST (combined races n=1036) dataset for kinship statistical calculation. Item 4: No PI provided due to exclusion. The Laboratory will exclude the alleged parent as a biological parent of the child when there are three or more markers with genetic inconsistencies. Likelihood ratio is not calculated when the alleged parent is excluded. Legend: " <sup>^</sup> " refers to "to the power of". Part III [Table 6: Kinship Likelihood Ratio Results and Table 7: Kinship DNA Statistics]: The Laboratory does not include the locus D12S391 for kinship statistical calculation. The Laboratory will report that the evidence do not provide conclusive support if cumulative likelihood ratio is 0.1 through 10 for half sibling relationship. |
| FDVD22-5872  | D12S391 is omitted from the final calculation, as per laboratory policy. The CPI is truncated to 2 significant figures, as per laboratory policy. The Probability of Paternity is truncated to 4 digits past the decimal point, as per laboratory policy.   |
| FDX37Y-5877  | For Part I [Table 2: Paternity Index Results] - PI values at specific loci, Part II [Table 5 Paternity DNA Statistics & Conclusions] - Combined PI value, and Part III [Table 7: Kinship DNA Statistics] Kinship DNA Statistics: the reported values are Kinship Index (KI) values calculated using Kin CALc 5.0.12 BFS software that uses standard formulae for simple PI's and 2-person KI's that incorporate a theta value of 0.01 with allele probabilities with no rounding and a 1/k prior instead of 1/N. Due to possible genetic linkage between the vWA and D12S391 loci, the genotypes from only one of these loci were used to calculate the combined KI. For Part II [Table 5: Paternity DNA Statistics & Conclusions]: our laboratory does not report Probabilities of Paternity.  |
| H9TEJ8-5872  | Paternity DNA: the software DNA-View (used to calculate the paternity index) uses the minimum frequency in those cases where the observed allele frequency is below the minimum frequency. Therefore, the PI reported for marker SE33 in this test was calculated using the minimum frequency of 0.0069 by DNA-View. Under the same criteria, individual PIs in markers D2S441, D22S1045, SE33, D10S1248 and D12S391 in Item 4 have only two significant figures.   |
| HFE6AA-5872  | Y-STR profiling of items 3 and 4 was not undertaken as child was female. As per laboratory policy paternity index calculations were not undertaken for Alleged father B as there were greater than 3 loci across the profile showing exclusion.   |
| J2C32Z-5872  | DYS391 is reported as INC for all samples tested as per laboratory policy. For all samples tested, any labeled peaks that are likely due to PCR/STR artifact were not reported and will not be used for conclusions or comparisons. The profile obtained from the alleged father A is 640,000,000 to 666,000,000,000 times more likely if he is the father of the child than if he is unrelated. The relative chance of paternity for a Caucasian individual assuming a 50% prior chance is 99.99%. Paternity is practically proven. The alleged father A is consistent with being the biological father of the child. The alleged father B is excluded as being the biological father of the child.  |
| JLGFXT-5877  | *The likelihood ratios were calculated with the Kin CALc software that uses standard formulae for simple PI's and 2-person KI's that incorporate a theta value of 0.01 with allele probabilities with no rounding and a 1/k prior instead of just x/N. Combined kinship index omits the locus D12S391 due to linkage disequilibrium.  |
| K9R2B7-5872  | NR = No Results   |
| L2XMK2-5872  | Alleged Father A is the biological father of the child in question.   |

TABLE 9

| WebCode-Test | Additional Comments  |
|--------------|--|
| NQDVAW-5872  | 1) On comparison to the DNA profiles obtained, I found that the source of bloodstain specimen "Item 3" is the biological father to the source of bloodstain specimen "Item 2" (given that the biological mother is represented by the source of bloodstain specimen "Item 1"). 2) On comparison to the DNA profiles obtained, I found that the source of bloodstain specimen "Item 4" is not the biological father to the source of bloodstain specimen "Item 2" (given that the biological mother is represented by the source of bloodstain specimen "Item 1"). 3) Extraction: Item 1, Item 2, Item 3 and Item 4 were punched using 1.2mm size puncher and the FTA disc subjected for direct amplification. 4) Amplification: Item 1, Item 2, Item 3 and Item 4 were amplified using GlobalFiler Express PCR Amplification Kit on Applied Biosystem Proflex PCR System. Item 3 and Item 4 were further amplified using AmpFLSTR Y-Filer PCR Amplification Kit on 9700 GeneAmp PCR System. 5) Electrophoresis: Electrophoresis was carried out using Genetic Analyzer 3500xl for all amplified product of GlobalFiler Express and YFiler Amplification kit. 6) Quality Control: Reagent Blank, Positive Control and Negative Control were incorporated in the overall analysis and gave designated results. 7) The statistical formula were derived from DNView Statistical Software and calculated using Microsoft Excel. 8) NM represents non-male profile. |
| PMBG2X-5877  | AF1, M, and C Comparison vWA and D12S391 are only 6.3 Mb apart and significant linkage disequilibrium has been detected. In this pedigree, the relationship index for each locus is as follows: vWA = 3.5224; D12S391 = 3.1114. As such, D12S391 will be the only locus evaluated. D12S391 has more alleles in its locus (23 versus 15) and more variation amongst the population statistics for each allele than vWA.   |
| PMD6KW-5872  | Individual completing the proficiency test is not qualified in statistical calculations, thus no statistical calculations have been provided for assessment.   |
| PTVD6M-5872  | Locus vWA was not statistically considered for this test due to the known linkage with D12S391. Locus SE33 was not statistically considered for this test due to laboratory standard operating procedures. No YSTR testing at this laboratory. No additional loci tested at this laboratory. Kinship statistics not applicable to this laboratory (only perform parent-child comparisons).   |
| PTX3AK-5877  | For part II [Table 5: Paternity DNA Statistics & Conclusions], the locus vWA was not used in the statistical calculation. For the locus and combined paternity index values, our laboratory protocol is to report the smallest CPI calculated in FBI Popstats of the selected population groups/ethnicities. The probability of paternity was calculated assuming prior probabilities of 10%, 50% and 90%.   |
| PU94VJ-5877  | For part II [Table 5: Paternity DNA Statistics & Conclusions], the locus vWA was not used in the statistical calculation. For the locus and combined paternity index values, our laboratory protocol is to report the smallest CPI calculated in FBI Popstats of the selected population groups/ethnicities. The probability of paternity was calculated assuming prior probabilities of 10%, 50% and 90%.   |
| QZUGCW-5872  | NR = No Result   |
| RKEH3P-5872  | D12S391 is omitted from calculations, as per laboratory policy. The CPI is truncated to 2 significant figures, as per laboratory policy. PI values reported as provided from calculations using the NIST 1036 U.S. Population Dataset. Probability of paternity truncated at 4 digits past the decimal point, as per laboratory policy.  |
| TNRV34-5872  | No statistics were calculated on vWA and SE33 per laboratory SOP.  |

TABLE 9

| WebCode-Test | Additional Comments   |
|--------------|---|
| TYCCNJ-5877  | For the paternity statistics, the likelihood ratios entered were calculated using the KinCALc software that uses standard formulae for simple PI's and 2-person KI's that incorporate a theta value of 0.01 with allele probabilities with no rounding and a 1/k prior instead of x/N. The combined PI (Caucasian) shown does not include vWA. vWA was removed due to genetic linkage with D12. The Penta D and Penta E loci were not calculated as these loci are not tested in this laboratory. This laboratory does not report probability of paternity and so this value was not calculated.                                    |
| UZLJPQ-5872  | - Alleged father B was excluded because he does not share the paternal obligatory alleles, our laboratory does not perform exclusion calculations.  |
| V2BAAV-5877  | Three Y-STR types detected for Female Child sample - types are low level (possible background contamination) - limited/inconclusive, auSTR and X-STR loci will be reported. Only loci available in LIMS used for PI calculations, NC = not calculated. D22 not used for PI calculations due to potential dropout. NR = no results. Y-STR calls for Item 1 and 2 listed in the Additional DNA section - Only Y-STRs not included on the Item 3 and 4 page will be included in the Additional DNA section. Sibship stats not calculated - LIMS is used by [Laboratory] and uses a different database - no hand calculations performed |
| W2RKQF-5872  | The NIST population used for statistics is the 2017 dataset. Per laboratory procedures, vWA and SE33 were not included in statistical calculations.   |
| W7GZEM-5872  | Amplification: Item 1, Item 2, Item 3 and Item 4 were amplified using Globalfiler Express PCR Amplification Kit on 9700 GeneAmp PCR System. Electrophoresis: The electrophoresis process was carried out by Genetic Analyzer 3500xl for Item 1 to Item 4. Quality Control: Reagent blank, positive control and negative control were carried out along with the analysis and all gave the intended results.   |
| WRGJ6E-5872  | Our laboratory does not use vWA or SE33 for statistical calculations.   |
| WYXW8K-5872  | One population database ethnicity was chosen for all statistical calculations in this test, per CTS instructions. D12S391 is omitted from the CPI calculation, per laboratory policy. Our laboratory does not calculate a likelihood ratio for half-siblings or for exclusions.   |
| XQMVLJ-5872  | Per laboratory policy, D12S391 genetic locus not used for statistical analysis and CPI value truncated to 2 significant figures.  |
| XWQWMD-5872  | Our lab only reports the combined CPI, not a particular ethnic group. If an alleged parent is excluded, we do not calculate stats for that person. We do not include vWA in stats. Our lab only does paternity cases, not any other family relationship.  |
| XWTLQB-5872  | The D12S391 locus is not utilized by our laboratory for statistics when the vWA locus is being used due to the potential for linkage between those loci for distant relatives. Following laboratory protocol, the CPI value is truncated to 2 significant figures. The probability of Paternity value is truncated to 4 integers past the decimal point. Item 4 was eliminated as a possible biological parent due to > or = to 3 inconsistencies and therefore no individual locus LR's were calculated, as per our manual. All locus LR calculations were left blank due to the visual elimination for Item 4.                    |
| XZQ8HD-5872  | We are using the FBI Popstats program with the NIST 1036 (2017 amended) frequencies. Paternity indices were not calculated for Item 4, per laboratory policy, due to exclusion.   |
| YGVZR2-5872  | Raw LR for combined paternity= 730,906,262,921 (Theta not used)   |

TABLE 9

| <b>WebCode-Test</b> | <b>Additional Comments</b>  |
|---------------------|---|
| ZEKBY9-5877         | For the DNA Paternity Statistics: For the locus and Combined Paternity Index values, our laboratory protocol is to report the smallest CPI calculated in PopStats of the selected population groups/ethnicities. Assuming prior probabilities of 10%, 50%, and 90%, the probability of paternity in this case is greater than 99.99%. The following locus was not used in the statistical calculation: vWA. |
| ZZEH7B-5872         | our lab does not use vWA or SE33 in Paternity statistics  |

-End of Report-  
(Appendix may follow)

## Test No. 22-5782: Body Fluid Identification

DATA MUST BE SUBMITTED BY **Nov. 21, 2022, 11:59 p.m. EST** TO BE INCLUDED IN THE REPORT

Participant Code: U1234A

WebCode: JA3U4Y

The Accreditation Release section can be accessed by using the "Continue to Final Submission" button above. This information can be entered at any time prior to submitting to CTS.

### **Scenario (this scenario applies only to Items 3-6):**

Police are investigating a sexual assault that occurred at a downtown subway station late at night. The victim, a female nurse, reported the assault to police with help from a station employee who helped her escape. The victim told police that she was waiting on the platform alone when the suspect, a man dressed in all black, approached her and asked for money. The victim told the suspect she did not have money to spare. In response, the suspect pushed the victim to the ground and kicked her repeatedly in the face, causing several broken teeth. The suspect removed the victim's underwear, licked the victim's genital area and forced vaginal sex. The victim reported that the suspect ejaculated in her mouth and in her vagina. The victim explained that she promptly spit the ejaculate on the ground and put her underwear back on. In an attempt to escape, the victim hit the suspect with her purse, causing him to bleed. It was at this time that the station employee found the victim and suspect. Police were able to apprehend the suspect based on the description provided by the victim and station employee. The following items are being submitted to your laboratory for examination: One envelope containing four duplicate swabs (Item 3) taken from a stain on the right shoe the suspect was wearing. One envelope containing four duplicate swabs (Item 4) which were taken from where the victim spit on the ground. One stained purse (Item 5) used by the victim to hit the suspect. One pair of underwear (Item 6) worn by the victim during the assault.

### **Items Submitted (Sample Pack BFI2):**

Item 1: Swab with white handle (provided as 4 replicates) - please examine this item for body fluids tested in normal laboratory casework; scenario not applicable

Item 2: Swab with pink handle (provided as 4 replicates) - please examine this item for body fluids tested in normal laboratory casework; scenario not applicable

Item 3: Swab with blue handle (provided as 4 replicates) - taken from stain on suspect's right shoe

Item 4: Swab with yellow handle (provided as 4 replicates) - taken from the ground where the victim spit

Item 5: One purse used by the victim to hit the suspect

Item 6: One pair of underwear worn by the victim

Control swabs (unused): One package to be used for substrate control testing, as necessary.



**Instructions:**

Please indicate the overall conclusion for each body fluid using the check boxes provided. List the tests performed and the results of each test. Item descriptions (as applicable) are provided at the top of each Item page.

For the purposes of this test, all swabs within an Item have been prepared as duplicates in order to provide sufficient sample quantity. A package of unused swabs is also provided for control purposes.

Please use the abbreviations listed in this response key to fill in the Screening Test tables. This is not an all inclusive list of tests, and should not be used to determine what tests should be performed. TESTS NOT ON THIS LIST MAY BE USED FOR SCREENING.

| Test                   | Abbreviation | Test                                  | Abbreviation |
|------------------------|--------------|---------------------------------------|--------------|
| Acid Phosphatase       | AP           | Ortho-tolidine                        | O-tol        |
| Alternate Light Source | ALS          | Phenolphthalein-Tetramethyl benzidine | PTMB         |
| Kastle Meyer           | KM           | Prostate Specific Antigen             | PSA          |
| Leucomalachite Green   | LMG          | Rapid Stain Identification            | RSID         |
| Microscopic            | Micro        | Tetramethyl benzidine                 | TMB          |

**Example  
Blood Tests**

|                              |  | Pos./Ind.                        | Neg.                  | Inc.                  | NT*                   |
|------------------------------|--|----------------------------------|-----------------------|-----------------------|-----------------------|
|                              | <b>What is the overall conclusion for blood?</b> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <b>Test(s)<br/>Performed</b> | HemaTrace  | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |                       |
|                              | KM   | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |                       |

**Pos./Ind. - Positive/Indicative; Neg. - Negative; Inc. - Inconclusive; NT - Not Tested**

\*Should a body fluid conclusion be marked as NT (Not Tested), please document any Item specific reasons under the "Test(s) Performed" section. All other reasons should be documented in the Additional Comments section of this data sheet.

### Cotton tipped swabs with white plastic handle.

Four replicate white handled swabs. Scenario is not applicable for this item. Utilizing your laboratory policies, please examine this item for body fluids tested in normal laboratory casework.

| Blood Tests                               |                      | Pos./Ind.             | Neg.                  | Inc.                  | NT*                   |
|---|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| What is the overall conclusion for blood? |                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Test(s)<br>Performed                      | <input type="text"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |                       |

| Semen Tests                               |                      | Pos./Ind.             | Neg.                  | Inc.                  | NT*                   |
|---|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| What is the overall conclusion for semen? |                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Test(s)<br>Performed                      | <input type="text"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |                       |

| Saliva Tests                               |                      | Pos./Ind.             | Neg.                  | Inc.                  | NT*                   |
|--|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| What is the overall conclusion for saliva? |                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Test(s)<br>Performed                       | <input type="text"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |                       |

\*Should a body fluid conclusion be marked as NT (Not Tested), please document any Item specific reasons under the "Test(s) Performed" section. All other reasons should be documented in the Additional Comments section of this data sheet.

| Other Tests  |  | Pos./Ind.             | Neg.                  | Inc.                  |
|--|--|-----------------------|-----------------------|-----------------------|
| Please report Other Tests as 'Body Fluid - Test Performed' |  |                       |                       |                       |
| <input type="text"/>                                       |  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

### Cotton tipped swabs with pink plastic handle.

Four replicate pink handled swabs. Scenario is not applicable for this item. Utilizing your laboratory policies, please examine this item for body fluids tested in normal laboratory casework.

| Blood Tests                               |                      | Pos./Ind.             | Neg.                  | Inc.                  | NT*                   |
|---|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| What is the overall conclusion for blood? |                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Test(s)<br>Performed                      | <input type="text"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |                       |

| Semen Tests                               |                      | Pos./Ind.             | Neg.                  | Inc.                  | NT*                   |
|---|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| What is the overall conclusion for semen? |                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Test(s)<br>Performed                      | <input type="text"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |                       |

| Saliva Tests                               |                      | Pos./Ind.             | Neg.                  | Inc.                  | NT*                   |
|--|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| What is the overall conclusion for saliva? |                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Test(s)<br>Performed                       | <input type="text"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |                       |

\*Should a body fluid conclusion be marked as NT (Not Tested), please document any Item specific reasons under the "Test(s) Performed" section. All other reasons should be documented in the Additional Comments section of this data sheet.

| Other Tests  |  | Pos./Ind.             | Neg.                  | Inc.                  |
|--|--|-----------------------|-----------------------|-----------------------|
| Please report Other Tests as 'Body Fluid - Test Performed' |  |                       |                       |                       |
| <input type="text"/>                                       |  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

### Cotton tipped swabs with blue plastic handle.

Four replicate blue handled swabs taken from stain on suspect's right shoe.

|                              |  |                       |                       |                       |                       |
|------------------------------|--|-----------------------|-----------------------|-----------------------|-----------------------|
| <b>Blood Tests</b>           |  | <b>Pos./Ind.</b>      | <b>Neg.</b>           | <b>Inc.</b>           | <b>NT*</b>            |
|                              | <b>What is the overall conclusion for blood?</b> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <b>Test(s)<br/>Performed</b> | <input type="text"/>                             | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |                       |

|                              |  |                       |                       |                       |                       |
|------------------------------|--|-----------------------|-----------------------|-----------------------|-----------------------|
| <b>Semen Tests</b>           |  | <b>Pos./Ind.</b>      | <b>Neg.</b>           | <b>Inc.</b>           | <b>NT*</b>            |
|                              | <b>What is the overall conclusion for semen?</b> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <b>Test(s)<br/>Performed</b> | <input type="text"/>                             | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |                       |

|                              |   |                       |                       |                       |                       |
|------------------------------|---|-----------------------|-----------------------|-----------------------|-----------------------|
| <b>Saliva Tests</b>          |   | <b>Pos./Ind.</b>      | <b>Neg.</b>           | <b>Inc.</b>           | <b>NT*</b>            |
|                              | <b>What is the overall conclusion for saliva?</b> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <b>Test(s)<br/>Performed</b> | <input type="text"/>                              | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |                       |

\*Should a body fluid conclusion be marked as NT (Not Tested), please document any Item specific reasons under the "Test(s) Performed" section. All other reasons should be documented in the Additional Comments section of this data sheet.

|                    |   |                       |                       |                       |  |
|--------------------|---|-----------------------|-----------------------|-----------------------|--|
| <b>Other Tests</b> |   | <b>Pos./Ind.</b>      | <b>Neg.</b>           | <b>Inc.</b>           |  |
|                    | <b>Please report Other Tests as 'Body Fluid - Test Performed'</b> |                       |                       |                       |  |
|                    | <input type="text"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |  |

### Cotton tipped swabs with yellow plastic handle.

Four replicate yellow handled swabs taken from ground where the victim spit.

| Blood Tests                               |                      | Pos./Ind.             | Neg.                  | Inc.                  | NT*                   |
|---|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| What is the overall conclusion for blood? |                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Test(s)<br>Performed                      | <input type="text"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |                       |

| Semen Tests                               |                      | Pos./Ind.             | Neg.                  | Inc.                  | NT*                   |
|---|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| What is the overall conclusion for semen? |                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Test(s)<br>Performed                      | <input type="text"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |                       |

| Saliva Tests                               |                      | Pos./Ind.             | Neg.                  | Inc.                  | NT*                   |
|--|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| What is the overall conclusion for saliva? |                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Test(s)<br>Performed                       | <input type="text"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |                       |

\*Should a body fluid conclusion be marked as NT (Not Tested), please document any Item specific reasons under the "Test(s) Performed" section. All other reasons should be documented in the Additional Comments section of this data sheet.

| Other Tests  |  | Pos./Ind.             | Neg.                  | Inc.                  |
|--|--|-----------------------|-----------------------|-----------------------|
| Please report Other Tests as 'Body Fluid - Test Performed' |  |                       |                       |                       |
| <input type="text"/>                                       |  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**One purse used by victim to hit suspect.**

This item of evidence is a purse used by the victim to hit the suspect.

|                              |  |                       |                       |                       |                       |
|------------------------------|--|-----------------------|-----------------------|-----------------------|-----------------------|
| <b>Blood Tests</b>           |  | <b>Pos./Ind.</b>      | <b>Neg.</b>           | <b>Inc.</b>           | <b>NT*</b>            |
|                              | <b>What is the overall conclusion for blood?</b> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <b>Test(s)<br/>Performed</b> | <input type="text"/>                             | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |                       |

|                              |  |                       |                       |                       |                       |
|------------------------------|--|-----------------------|-----------------------|-----------------------|-----------------------|
| <b>Semen Tests</b>           |  | <b>Pos./Ind.</b>      | <b>Neg.</b>           | <b>Inc.</b>           | <b>NT*</b>            |
|                              | <b>What is the overall conclusion for semen?</b> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <b>Test(s)<br/>Performed</b> | <input type="text"/>                             | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |                       |

|                              |   |                       |                       |                       |                       |
|------------------------------|---|-----------------------|-----------------------|-----------------------|-----------------------|
| <b>Saliva Tests</b>          |   | <b>Pos./Ind.</b>      | <b>Neg.</b>           | <b>Inc.</b>           | <b>NT*</b>            |
|                              | <b>What is the overall conclusion for saliva?</b> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <b>Test(s)<br/>Performed</b> | <input type="text"/>                              | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |                       |

\*Should a body fluid conclusion be marked as NT (Not Tested), please document any Item specific reasons under the "Test(s) Performed" section. All other reasons should be documented in the Additional Comments section of this data sheet.

|                    |   |                       |                       |                       |  |
|--------------------|---|-----------------------|-----------------------|-----------------------|--|
| <b>Other Tests</b> |   | <b>Pos./Ind.</b>      | <b>Neg.</b>           | <b>Inc.</b>           |  |
|                    | <b>Please report Other Tests as 'Body Fluid - Test Performed'</b> |                       |                       |                       |  |
|                    | <input type="text"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |  |

**One pair of underwear worn by victim.**

This item of evidence is a pair of underwear worn by the victim.

|                              |  |                       |                       |                       |                       |
|------------------------------|--|-----------------------|-----------------------|-----------------------|-----------------------|
| <b>Blood Tests</b>           |  | <b>Pos./Ind.</b>      | <b>Neg.</b>           | <b>Inc.</b>           | <b>NT*</b>            |
|                              | <b>What is the overall conclusion for blood?</b> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <b>Test(s)<br/>Performed</b> | <input type="text"/>                             | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |                       |

|                              |  |                       |                       |                       |                       |
|------------------------------|--|-----------------------|-----------------------|-----------------------|-----------------------|
| <b>Semen Tests</b>           |  | <b>Pos./Ind.</b>      | <b>Neg.</b>           | <b>Inc.</b>           | <b>NT*</b>            |
|                              | <b>What is the overall conclusion for semen?</b> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <b>Test(s)<br/>Performed</b> | <input type="text"/>                             | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |                       |

|                              |   |                       |                       |                       |                       |
|------------------------------|---|-----------------------|-----------------------|-----------------------|-----------------------|
| <b>Saliva Tests</b>          |   | <b>Pos./Ind.</b>      | <b>Neg.</b>           | <b>Inc.</b>           | <b>NT*</b>            |
|                              | <b>What is the overall conclusion for saliva?</b> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <b>Test(s)<br/>Performed</b> | <input type="text"/>                              | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |                       |

\*Should a body fluid conclusion be marked as NT (Not Tested), please document any Item specific reasons under the "Test(s) Performed" section. All other reasons should be documented in the Additional Comments section of this data sheet.

|                    |   |                       |                       |                       |
|--------------------|---|-----------------------|-----------------------|-----------------------|
| <b>Other Tests</b> |   | <b>Pos./Ind.</b>      | <b>Neg.</b>           | <b>Inc.</b>           |
|                    | <b>Please report Other Tests as 'Body Fluid - Test Performed'</b> |                       |                       |                       |
|                    | <input type="text"/>  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

### Additional Comments

*Please note: Any additional formatting applied in the free form space below will not transfer to the Summary Report and may cause your information to be illegible. This includes additional spacing and returns that present your responses in lists and tabular formats.*



## RELEASE OF DATA TO ACCREDITATION BODIES

The Accreditation Release is accessed by pressing the "Continue to Final Submission" button online and can be completed at any time prior to submission to CTS.

CTS submits external proficiency test data directly to ASCLD/LAB, ANAB, and/or A2LA. Please select one of the following statements to ensure your data is handled appropriately.

- This participant's data is intended for submission to ASCLD/LAB, ANAB, and/or A2LA. (Accreditation Release section below must be completed.)
- This participant's data is not intended for submission to ASCLD/LAB, ANAB, and/or A2LA.

Have the laboratory's designated individual complete the following steps **only if your laboratory is accredited in this testing/calibration discipline** by one or more of the following Accreditation Bodies.

**Step 1: Provide the applicable Accreditation Certificate Number(s) for your laboratory.**

ANAB Certificate No.   
(Include ASCLD/LAB Certificate here)

A2LA Certificate No.

**Step 2: Complete the Laboratory Identifying Information in its entirety.**

Authorized Contact Person and Title

Laboratory Name

Location (City/State)