

# HUMAN ASSAYED MULTI-SERA - LEVEL 2 (HUM ASY CONTROL 2)

**CAT. NO.** HNI530 / HS2611  
**SIZE:** 20 x 5ml / 5 x 5ml

**LOT NO.** 858UN  
**EXPIRY:** 2017-07

## INTENDED USE

This product is intended for *in vitro* diagnostic use in the quality control of diagnostic assays. The Human Assayed Multi-sera is for the control of accuracy.

## DEVICE DESCRIPTION

The Human Assayed Multi-sera is supplied at 2 levels, level 2 and 3. Target values and ranges are supplied for the analytes listed in the values section at both levels.

## SAFETY PRECAUTIONS AND WARNINGS

For *in vitro* diagnostic use only. Do not pipette by mouth. Exercise the normal precautions required for handling laboratory reagents.

Human source material from which this product has been derived has been tested at donor level for the Human Immunodeficiency Virus (HIV 1, HIV 2) antibody, Hepatitis B Surface Antigen (HbsAg), and Hepatitis C Virus (HCV) antibody and found to be NON-REACTIVE. FDA approved methods have been used to conduct these tests.

However, since no method can offer complete assurance as to the absence of infectious agents, this material and all patient samples should be handled as though capable of transmitting infectious diseases and disposed of accordingly.

Health and Safety Data Sheets are available on request.

## STORAGE AND STABILITY

**OPENED:** Store refrigerated (+2°C to +8°C). Reconstituted serum is stable for 8 hours at +15°C to +25°C or 7 days at +2°C to +8°C, and 28 days when frozen once at -20°C (see Limitations).

**UNOPENED:** Store refrigerated (+2°C to +8°C). Stable to expiration date printed on individual vials.

## LIMITATIONS

For Total & Prostatic Acid Phosphatase, the material should be stabilised by adding 1 drop (25-30 µl) of 0.7M Acetic acid solution to 1ml of the serum exactly 30 minutes after reconstitution. After stabilisation Total and Prostatic Acid Phosphatase is stable for 2 hours at +15°C to +25°C, 2 days at +2°C to +8°C and 28 days when frozen once at -20°C.

Alkaline Phosphatase levels in the reconstituted serum will rise over the stability period. It is recommended that the reconstituted serum is allowed to stand for 1 hour at +15°C to +25°C before measurement.

Bilirubin in the serum is light sensitive and it is recommended that the serum is stored in the dark. Stored in the dark, it is stable for 4 days at +2°C to +8°C. Do not store at +15°C to +25°C. Do not freeze.

NEFA is stable for 1 day at +2°C to +8°C.

Total PSA is stable for 4 days at +2°C to +8°C, or 28 days in aliquots frozen at -20°C.

Bacterial contamination of the reconstituted serum will cause reductions in the stability of many components.

Different lot numbers of this control should not be interchanged, as the values assigned to the controls vary from lot to lot.

The control should not be used as a calibration material.

## PREPARATION FOR USE

The Human Assayed Multi-sera is supplied lyophilised.

1. Carefully reconstitute each vial of lyophilised serum with exactly 5ml of distilled water at +15°C to +25°C. Close the bottle and allow to stand for 30 minutes before use. Ensure contents are completely dissolved by swirling gently. Avoid formation of foam. Do not shake.
2. Refer to the Control section of the individual analyser application.
3. Refrigerate any unused material. Prior to reuse, mix contents thoroughly.

## MATERIALS PROVIDED

Human Assayed Multi-sera - Level 2 20 x 5ml / 5 x 5ml

## MATERIALS REQUIRED BUT NOT PROVIDED

Volumetric pipette

**ASSIGNED VALUES**

Each batch of assayed human serum is submitted to reference laboratories for assignment against international Reference Standards. Where international Reference Standards are unavailable, Reference Methods are used. Values are also collected from approx. 3000 laboratories worldwide and using a unique statistical analysis, a value is assigned.

With each batch, a control range is provided for individual parameters and each parameter method. The control range is equivalent to the assigned mean  $\pm 2S.D.$  This results in an assayed serum with extremely accurate values, which may be confidently used by laboratories to ensure the accuracy of their methods.

If an instrument specific value is not available, refer to the Mean of all Instruments section. If necessary, contact Randox Laboratories - Technical Services, Northern Ireland, tel: +44 (0) 28 9445 1070 or email [Technical.Services@randox.com](mailto:Technical.Services@randox.com)

**NOTES**

® All trademarks recognised

- (1) Applies only in Germany. Ranges established according to the Guidelines of the Federal Chamber of Physicians in Germany.
- (2) Values established by reference laboratories officially recognised by the Federal Chamber of Physicians in Germany.
- (3) DGKC: German Society for Clinical Chemistry.
- (4) IFCC: International Federation of Clinical Chemistry.
- (5) SCE: Scandinavian Committee on Enzymes.

21 Jan '14 ne

## ABBOTT AEROSET®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte          | unit   | target | Range |      | 1SD   | 2SD   | methods                              |
|------------------|--------|--------|-------|------|-------|-------|--------------------------------------|
|                  |        |        | low   | high |       |       |                                      |
| Albumin          | g/l    | 40.6   | 34.5  | 46.7 | 3.05  | 6.10  | Bromocresol Green                    |
|                  | g/dl   | 4.06   | 3.45  | 4.67 | 0.31  | 0.61  |                                      |
| ALT (GPT)        | U/l    | 35     | 28    | 42   | 3.50  | 7.00  | Tris buffer without P5P 37°C         |
| AST (GOT)        | U/l    | 35     | 28    | 42   | 3.50  | 7.00  | Tris buffer without P5P 37°C         |
| Bilirubin Direct | µmol/l | 18.3   | 14.5  | 22.1 | 1.90  | 3.80  | Diazo with Sulphanilic Acid          |
|                  | mg/dl  | 1.07   | 0.848 | 1.29 | 0.11  | 0.22  |                                      |
| Bilirubin Total  | µmol/l | 28.0   | 22.2  | 33.8 | 2.90  | 5.80  | Diazo with Dichloroaniline (DCA)     |
|                  | mg/dl  | 1.64   | 1.30  | 1.98 | 0.17  | 0.34  |                                      |
| Calcium          | mmol/l | 2.22   | 2.00  | 2.44 | 0.11  | 0.22  | Cresolphthalein complexone           |
|                  | mg/dl  | 8.90   | 8.02  | 9.78 | 0.44  | 0.88  |                                      |
|                  | mmol/l | 2.37   | 2.13  | 2.61 | 0.12  | 0.24  | Arsenazo III                         |
|                  | mg/dl  | 9.50   | 8.54  | 10.5 | 0.48  | 0.96  |                                      |
| Chloride         | mmol/l | 98.2   | 90.3  | 106  | 3.95  | 7.90  | ISE direct                           |
| Cholesterol      | mmol/l | 4.79   | 4.17  | 5.41 | 0.31  | 0.62  | Cholesterol Oxidase                  |
|                  | mg/dl  | 185    | 161   | 209  | 12.00 | 24.00 |                                      |
| CK Total         | U/l    | 231    | 190   | 272  | 20.50 | 41.00 | CK-NAC (IFCC) 37°C                   |
| Creatinine       | µmol/l | 113    | 90.2  | 136  | 11.40 | 22.80 | Alkaline picrate no deproteinization |
|                  | mg/dl  | 1.28   | 1.02  | 1.54 | 0.13  | 0.26  |                                      |
| Glucose          | mmol/l | 6.81   | 5.79  | 7.83 | 0.51  | 1.02  | Hexokinase                           |
|                  | mg/dl  | 123    | 104   | 142  | 9.50  | 19.00 |                                      |
|                  | mmol/l | 6.92   | 5.89  | 7.95 | 0.52  | 1.03  | Glucose oxidase                      |
|                  | mg/dl  | 125    | 106   | 144  | 9.50  | 19.00 |                                      |

## ABBOTT AEROSET®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

|                     |        | Range  |      |      |      |       |                                                   |
|---------------------|--------|--------|------|------|------|-------|---------------------------------------------------|
| Analyte             | unit   | target | low  | high | 1SD  | 2SD   | methods                                           |
| Iron                | μmol/l | 18.7   | 15.4 | 22.0 | 1.65 | 3.30  | Colorimetric without ppt.                         |
|                     | μg/dl  | 105    | 86.1 | 124  | 9.45 | 18.90 |                                                   |
| Phosphate Inorganic | mmol/l | 1.37   | 1.16 | 1.58 | 0.11 | 0.21  | Phosphomolybdate UV                               |
|                     | mg/dl  | 4.25   | 3.60 | 4.90 | 0.33 | 0.65  |                                                   |
| Potassium           | mmol/l | 3.95   | 3.64 | 4.26 | 0.16 | 0.31  | ISE method - direct                               |
| Protein Total       | g/l    | 59.9   | 48.0 | 71.8 | 5.95 | 11.90 | Biuret reaction end point                         |
|                     | g/dl   | 5.99   | 4.80 | 7.18 | 0.60 | 1.19  |                                                   |
| Sodium              | mmol/l | 140    | 133  | 147  | 3.50 | 7.00  | ISE method - direct                               |
| Triglycerides       | mmol/l | 1.06   | 0.89 | 1.23 | 0.08 | 0.17  | Lipase/GPO-PAP no correction                      |
|                     | mg/dl  | 93.8   | 79.0 | 109  | 7.40 | 14.80 |                                                   |
| Urea                | mmol/l | 7.49   | 6.37 | 8.61 | 0.56 | 1.12  | Urease kinetic                                    |
|                     | mg/dl  | 45.0   | 38.3 | 51.7 | 3.35 | 6.70  |                                                   |
|                     | mmol/l | 7.55   | 6.41 | 8.69 | 0.57 | 1.14  | Urease hypochlorite                               |
|                     | mg/dl  | 45.4   | 38.5 | 52.3 | 3.45 | 6.90  |                                                   |
|                     | mmol/l | 7.49   | 6.37 | 8.61 | 0.56 | 1.12  | BUN                                               |
|                     | mg/dl  | 21.0   | 17.9 | 24.1 | 1.55 | 3.10  |                                                   |
| Uric Acid (Urate)   | mmol/l | 0.35   | 0.31 | 0.40 | 0.02 | 0.05  | Uricase peroxidase no ascorbate oxidase           |
|                     | mg/dl  | 5.90   | 5.12 | 6.68 | 0.39 | 0.78  |                                                   |
|                     | mmol/l | 0.35   | 0.31 | 0.40 | 0.02 | 0.05  | Uricase Peroxidase with ascorbate oxidase @ 546nm |
|                     | mg/dl  | 5.93   | 5.16 | 6.70 | 0.39 | 0.77  |                                                   |

## Abbott Architect c/ci Systems®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

|                      |        | Range  |       |      |       |       |                                     |
|----------------------|--------|--------|-------|------|-------|-------|-------------------------------------|
| Analyte              | unit   | target | low   | high | 1SD   | 2SD   | methods                             |
| Albumin              | g/l    | 41.2   | 35.0  | 47.4 | 3.10  | 6.20  | Bromocresol Green                   |
|                      | g/dl   | 4.12   | 3.50  | 4.74 | 0.31  | 0.62  |                                     |
|                      | g/l    | 41.9   | 35.7  | 48.1 | 3.10  | 6.20  | Bromocresol Purple                  |
|                      | g/dl   | 4.19   | 3.57  | 4.81 | 0.31  | 0.62  |                                     |
| Alkaline Phosphatase | U/l    | 164    | 139   | 189  | 12.50 | 25.00 | AMP optimised to IFCC 37°C          |
|                      | U/l    | 167    | 142   | 192  | 12.50 | 25.00 | AMP non-optimised 37°C              |
| ALT (GPT)            | U/l    | 35     | 28    | 42   | 3.50  | 7.00  | Tris buffer without P5P 37°C        |
| Amylase Pancreatic   | U/l    | 66     | 56    | 76   | 5.00  | 10.00 | Immunoinhibition EPS substrate 37°C |
| AST (GOT)            | U/l    | 35     | 28    | 42   | 3.50  | 7.00  | Tris buffer without P5P 37°C        |
| Bicarbonate          | mmol/l | 13.6   | 10.8  | 16.4 | 1.40  | 2.80  | Enzymatic                           |
| Bile Acids           | µmol/l | 26.2   | 21.0  | 31.4 | 2.60  | 5.20  | Enzymatic Colorimetric              |
| Bilirubin Direct     | µmol/l | 20.4   | 16.1  | 24.7 | 2.15  | 4.30  | Diazo with Sulphanilic Acid         |
|                      | mg/dl  | 1.19   | 0.942 | 1.44 | 0.12  | 0.25  |                                     |
|                      | µmol/l | 20.6   | 16.3  | 24.9 | 2.15  | 4.30  | Diazo with Dichloroaniline (DCA)    |
|                      | mg/dl  | 1.21   | 0.954 | 1.47 | 0.13  | 0.26  |                                     |
| Bilirubin Total      | µmol/l | 28.1   | 22.2  | 34.0 | 2.95  | 5.90  | Diazo with Dichloroaniline (DCA)    |
|                      | mg/dl  | 1.64   | 1.30  | 1.98 | 0.17  | 0.34  |                                     |
|                      | µmol/l | 27.5   | 21.8  | 33.2 | 2.85  | 5.70  | Diazo with Sulphanilic Acid         |
|                      | mg/dl  | 1.61   | 1.28  | 1.94 | 0.17  | 0.33  |                                     |
|                      | µmol/l | 28.2   | 22.3  | 34.1 | 2.95  | 5.90  | Dichlorophenyl Diazonium (DPD)      |
|                      | mg/dl  | 1.65   | 1.30  | 2.00 | 0.18  | 0.35  |                                     |

## Abbott Architect c/ci Systems®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

|                 |        | Range  |      |      |       |       |                                                     |
|-----------------|--------|--------|------|------|-------|-------|-----------------------------------------------------|
| Analyte         | unit   | target | low  | high | 1SD   | 2SD   | methods                                             |
| Bilirubin Total | µmol/l | 28.4   | 22.5 | 34.3 | 2.95  | 5.90  | Diazonium ion                                       |
|                 | mg/dl  | 1.66   | 1.32 | 2.00 | 0.17  | 0.34  |                                                     |
| Calcium         | mmol/l | 2.37   | 2.13 | 2.61 | 0.12  | 0.24  | Arsenazo III                                        |
|                 | mg/dl  | 9.50   | 8.54 | 10.5 | 0.48  | 0.96  |                                                     |
| Chloride        | mmol/l | 98.2   | 90.3 | 106  | 3.95  | 7.90  | ISE indirect                                        |
| Cholesterol     | mmol/l | 4.96   | 4.31 | 5.61 | 0.33  | 0.65  | Cholesterol Oxidase                                 |
|                 | mg/dl  | 191    | 166  | 216  | 12.50 | 25.00 |                                                     |
| CK Total        | U/l    | 220    | 180  | 260  | 20.00 | 40.00 | CK-NAC (IFCC) 37°C                                  |
|                 | U/l    | 232    | 190  | 274  | 21.00 | 42.00 | Monothioglycerol 37°C                               |
| Creatinine      | µmol/l | 124    | 99.3 | 149  | 12.35 | 24.70 | Alkaline picrate no deproteinization                |
|                 | mg/dl  | 1.40   | 1.12 | 1.68 | 0.14  | 0.28  |                                                     |
|                 | µmol/l | 120    | 96.3 | 144  | 11.85 | 23.70 | Randox Enzymatic UV method                          |
|                 | mg/dl  | 1.36   | 1.09 | 1.63 | 0.14  | 0.27  |                                                     |
|                 | µmol/l | 127    | 102  | 152  | 12.50 | 25.00 | Jaffe rate blanked                                  |
|                 | mg/dl  | 1.44   | 1.15 | 1.73 | 0.15  | 0.29  |                                                     |
|                 | µmol/l | 123    | 98.6 | 147  | 12.20 | 24.40 | IDMS traceable                                      |
|                 | mg/dl  | 1.39   | 1.11 | 1.67 | 0.14  | 0.28  |                                                     |
| Free T4         | pmol/l | 19.7   | 14.7 | 24.7 | 2.50  | 5.00  | Abbott Architect                                    |
|                 | ng/dl  | 1.54   | 1.15 | 1.93 | 0.20  | 0.39  |                                                     |
|                 | pg/ml  | 15.4   | 11.5 | 19.3 | 1.95  | 3.90  | Abbott Architect                                    |
| gamma-GT        | U/l    | 49     | 41   | 57   | 4.00  | 8.00  | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C       |
|                 | U/l    | 48     | 41   | 55   | 3.50  | 7.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
|                 | U/l    | 46     | 39   | 53   | 3.50  | 7.00  | DCL gamma glutamyl-3-carboxy-4-nitroanilide 37°C    |
| Glucose         | mmol/l | 7.00   | 5.95 | 8.05 | 0.53  | 1.05  | Hexokinase                                          |
|                 | mg/dl  | 126    | 107  | 145  | 9.50  | 19.00 |                                                     |

## Abbott Architect c/ci Systems®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte             | unit   | target | Range |       | 1SD   | 2SD   | methods                      |
|---------------------|--------|--------|-------|-------|-------|-------|------------------------------|
|                     |        |        | low   | high  |       |       |                              |
| Glucose             | mmol/l | 7.21   | 6.13  | 8.29  | 0.54  | 1.08  | Glucose oxidase              |
|                     | mg/dl  | 130    | 110   | 150   | 10.00 | 20.00 |                              |
| HDL - Cholesterol   | mmol/l | 1.74   | 1.48  | 2.00  | 0.13  | 0.26  | Direct HDL PPD               |
|                     | mg/dl  | 67.2   | 57.1  | 77.3  | 5.05  | 10.10 |                              |
|                     | mmol/l | 1.70   | 1.44  | 1.96  | 0.13  | 0.26  | Direct Clearance Method      |
|                     | mg/dl  | 65.6   | 55.6  | 75.6  | 5.00  | 10.00 |                              |
|                     | mmol/l | 1.71   | 1.45  | 1.97  | 0.13  | 0.26  | HDL - Ultra                  |
|                     | mg/dl  | 66.0   | 56.0  | 76.0  | 5.00  | 10.00 |                              |
| Iron                | µmol/l | 18.8   | 15.4  | 22.2  | 1.70  | 3.40  | Colorimetric with ppt.       |
|                     | µg/dl  | 105    | 86.1  | 124   | 9.45  | 18.90 |                              |
|                     | µmol/l | 18.6   | 15.3  | 21.9  | 1.65  | 3.30  | Colorimetric without ppt.    |
|                     | µg/dl  | 104    | 85.5  | 123   | 9.25  | 18.50 |                              |
| Lactate             | mmol/l | 1.47   | 1.21  | 1.73  | 0.13  | 0.26  | Colorimetric Lactate Oxidase |
|                     | mg/dl  | 13.2   | 10.9  | 15.5  | 1.15  | 2.30  |                              |
| LD (LDH)            | U/l    | 210    | 179   | 241   | 15.50 | 31.00 | L->P 37°C                    |
|                     | U/l    | 209    | 178   | 240   | 15.50 | 31.00 | L->P IFCC 37°C               |
| Lipase              | U/l    | 34     | 27    | 41    | 3.50  | 7.00  | Other Colorimetric 37°C      |
| Lithium             | mmol/l | 1.02   | 0.90  | 1.15  | 0.06  | 0.13  | Spectrophotometric           |
|                     | mg/dl  | 0.708  | 0.621 | 0.795 | 0.04  | 0.09  |                              |
| Magnesium           | mmol/l | 0.91   | 0.80  | 1.02  | 0.05  | 0.11  | Arsenazo III                 |
|                     | mg/dl  | 2.21   | 1.94  | 2.48  | 0.14  | 0.27  |                              |
|                     | mmol/l | 0.89   | 0.78  | 1.00  | 0.05  | 0.11  | Enzymatic                    |
|                     | mg/dl  | 2.16   | 1.90  | 2.42  | 0.13  | 0.26  |                              |
| Phosphate Inorganic | mmol/l | 1.36   | 1.16  | 1.56  | 0.10  | 0.20  | Phosphomolybdate enzymatic   |
|                     | mg/dl  | 4.22   | 3.60  | 4.84  | 0.31  | 0.62  |                              |

## Abbott Architect c/ci Systems®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

|                             |         | Range  |      |      |       |       |                                      |
|-----------------------------|---------|--------|------|------|-------|-------|--------------------------------------|
| Analyte                     | unit    | target | low  | high | 1SD   | 2SD   | methods                              |
| Phosphate Inorganic         | mmol/l  | 1.37   | 1.16 | 1.58 | 0.11  | 0.21  | Phosphomolybdate UV                  |
|                             | mg/dl   | 4.25   | 3.60 | 4.90 | 0.33  | 0.65  |                                      |
| Potassium                   | mmol/l  | 3.94   | 3.63 | 4.25 | 0.16  | 0.31  | ISE method - indirect                |
| Protein Total               | g/l     | 58.9   | 47.1 | 70.7 | 5.90  | 11.80 | Biuret reaction end point            |
|                             | g/dl    | 5.89   | 4.71 | 7.07 | 0.59  | 1.18  |                                      |
|                             | g/l     | 58.4   | 46.7 | 70.1 | 5.85  | 11.70 | Biuret reaction kinetic              |
|                             | g/dl    | 5.84   | 4.67 | 7.01 | 0.59  | 1.17  |                                      |
| PSA Total                   | ng/ml = | 14.2   | 10.7 | 17.7 | 1.75  | 3.50  | Abbott Architect                     |
| Sodium                      | mmol/l  | 140    | 133  | 147  | 3.50  | 7.00  | ISE method - indirect                |
| Thyroid Stimulating Hormone | µU/ml = | 1.11   | 0.89 | 1.33 | 0.11  | 0.22  | Abbott Architect                     |
| TIBC                        | µmol/l  | 46.4   | 36.7 | 56.1 | 4.85  | 9.70  | Removal of excess free iron          |
|                             | µg/dl   | 259    | 205  | 313  | 27.00 | 54.00 |                                      |
|                             | µmol/l  | 43.6   | 34.5 | 52.7 | 4.55  | 9.10  | FE+UIBC(saturation with iron)        |
|                             | µg/dl   | 244    | 193  | 295  | 25.50 | 51.00 |                                      |
| Total T3                    | nmol/l  | 2.26   | 1.70 | 2.82 | 0.28  | 0.56  | Abbott Architect                     |
|                             | ng/ml   | 1.47   | 1.11 | 1.83 | 0.18  | 0.36  |                                      |
|                             | ng/dl   | 147    | 111  | 183  | 18.00 | 36.00 | Abbott Architect                     |
| Total T4                    | nmol/l  | 92.1   | 69.1 | 115  | 11.50 | 23.00 | Abbott Architect                     |
|                             | µg/dl   | 7.18   | 5.39 | 8.97 | 0.90  | 1.79  |                                      |
|                             | ng/ml   | 71.8   | 53.9 | 89.7 | 8.95  | 17.90 | Abbott Architect                     |
| Triglycerides               | mmol/l  | 1.01   | 0.85 | 1.18 | 0.08  | 0.17  | Lipase/GPO-PAP no correction         |
|                             | mg/dl   | 89.4   | 74.8 | 104  | 7.30  | 14.60 |                                      |
|                             | mmol/l  | 1.01   | 0.85 | 1.17 | 0.08  | 0.16  | Lipase/GPO-PAP 0.11mmol/l correction |
|                             | mg/dl   | 89.4   | 75.1 | 104  | 7.15  | 14.30 |                                      |
|                             | mmol/l  | 0.97   | 0.81 | 1.12 | 0.08  | 0.15  | L/G Kinase EP. no correction         |
|                             | mg/dl   | 85.4   | 71.8 | 99.0 | 6.80  | 13.60 |                                      |

## Abbott Architect c/ci Systems®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte           | unit   | target | Range |      | 1SD  | 2SD   | methods                                           |
|-------------------|--------|--------|-------|------|------|-------|---------------------------------------------------|
|                   |        |        | low   | high |      |       |                                                   |
| Triglycerides     | mmol/l | 1.02   | 0.86  | 1.19 | 0.08 | 0.17  | Lipase/Glycerol Dehydrogenase                     |
|                   | mg/dl  | 90.3   | 75.7  | 105  | 7.30 | 14.60 |                                                   |
| Urea              | mmol/l | 7.69   | 6.54  | 8.84 | 0.58 | 1.15  | Urease end point                                  |
|                   | mg/dl  | 46.2   | 39.3  | 53.1 | 3.45 | 6.90  |                                                   |
|                   | mmol/l | 7.39   | 6.28  | 8.50 | 0.56 | 1.11  | Urease kinetic                                    |
|                   | mg/dl  | 44.4   | 37.7  | 51.1 | 3.35 | 6.70  |                                                   |
|                   | mmol/l | 7.39   | 6.28  | 8.50 | 0.56 | 1.11  | BUN                                               |
|                   | mg/dl  | 20.7   | 17.6  | 23.8 | 1.55 | 3.10  |                                                   |
| Uric Acid (Urate) | mmol/l | 0.34   | 0.30  | 0.39 | 0.02 | 0.04  | Uricase peroxidase with ascorbate oxidase         |
|                   | mg/dl  | 5.75   | 5.01  | 6.49 | 0.37 | 0.74  |                                                   |
|                   | mmol/l | 0.34   | 0.30  | 0.39 | 0.02 | 0.04  | Uricase peroxidase no ascorbate oxidase           |
|                   | mg/dl  | 5.75   | 5.01  | 6.49 | 0.37 | 0.74  |                                                   |
|                   | mmol/l | 0.34   | 0.30  | 0.39 | 0.02 | 0.04  | Uricase Peroxidase with ascorbate oxidase @ 546nm |
|                   | mg/dl  | 5.73   | 4.99  | 6.47 | 0.37 | 0.74  |                                                   |

## Beckman Coulter AU400/500/600/800®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

|                      |        | Range  |       |      |       |       |                                      |
|----------------------|--------|--------|-------|------|-------|-------|--------------------------------------|
| Analyte              | unit   | target | low   | high | 1SD   | 2SD   | methods                              |
| Albumin              | g/l    | 40.9   | 34.8  | 47.0 | 3.05  | 6.10  | Bromocresol Green                    |
|                      | g/dl   | 4.09   | 3.48  | 4.70 | 0.31  | 0.61  |                                      |
|                      | g/l    | 46.2   | 39.3  | 53.1 | 3.45  | 6.90  | Bromocresol Purple                   |
|                      | g/dl   | 4.62   | 3.93  | 5.31 | 0.35  | 0.69  |                                      |
| Alkaline Phosphatase | U/l    | 204    | 173   | 235  | 15.50 | 31.00 | p-Nitrophenylphosphate AMP 37°C      |
|                      | U/l    | 291    | 247   | 335  | 22.00 | 44.00 | Diethanolamine buffer DEA 37°C       |
|                      | U/l    | 201    | 171   | 231  | 15.00 | 30.00 | AMP optimised to IFCC 37°C           |
| ALT (GPT)            | U/l    | 38     | 30    | 46   | 4.00  | 8.00  | Tris buffer without P5P 37°C         |
| Amylase Total        | U/l    | 84     | 71    | 97   | 6.50  | 13.00 | Roche liquid stable pNPG7 37°C       |
|                      | U/l    | 86     | 73    | 99   | 6.50  | 13.00 | Beckman Coulter - blocked pNPG7 37°C |
| AST (GOT)            | U/l    | 38     | 31    | 45   | 3.50  | 7.00  | Tris buffer without P5P 37°C         |
| Bicarbonate          | mmol/l | 15.0   | 11.9  | 18.1 | 1.55  | 3.10  | Enzymatic                            |
| Bilirubin Direct     | µmol/l | 19.4   | 15.4  | 23.4 | 2.00  | 4.00  | Dichlorophenyl Diazonium (DPD)       |
|                      | mg/dl  | 1.13   | 0.901 | 1.36 | 0.11  | 0.23  |                                      |
|                      | µmol/l | 19.4   | 15.3  | 23.5 | 2.05  | 4.10  | Diazo with Sulphanilic Acid          |
|                      | mg/dl  | 1.13   | 0.895 | 1.37 | 0.12  | 0.24  |                                      |
| Bilirubin Total      | µmol/l | 30.6   | 24.2  | 37.0 | 3.20  | 6.40  | Diazo with Sulphanilic Acid          |
|                      | mg/dl  | 1.79   | 1.42  | 2.16 | 0.19  | 0.37  |                                      |
|                      | µmol/l | 30.8   | 24.3  | 37.3 | 3.25  | 6.50  | Dichlorophenyl Diazonium (DPD)       |
|                      | mg/dl  | 1.80   | 1.42  | 2.18 | 0.19  | 0.38  |                                      |
|                      | µmol/l | 31.8   | 25.1  | 38.5 | 3.35  | 6.70  | Oxidation to Biliverdin              |
|                      | mg/dl  | 1.86   | 1.47  | 2.25 | 0.20  | 0.39  |                                      |

## Beckman Coulter AU400/500/600/800®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte        | unit   | target | Range |      | 1SD    | 2SD    | methods                               |
|----------------|--------|--------|-------|------|--------|--------|---------------------------------------|
|                |        |        | low   | high |        |        |                                       |
| Calcium        | mmol/l | 2.34   | 2.11  | 2.57 | 0.12   | 0.23   | Cresolphthalein complexone            |
|                | mg/dl  | 9.38   | 8.46  | 10.3 | 0.46   | 0.92   |                                       |
|                | mmol/l | 2.37   | 2.14  | 2.60 | 0.12   | 0.23   | Arsenazo III                          |
|                | mg/dl  | 9.50   | 8.58  | 10.4 | 0.46   | 0.92   |                                       |
| Chloride       | mmol/l | 97.0   | 89.3  | 105  | 3.85   | 7.70   | ISE indirect                          |
| Cholesterol    | mmol/l | 5.04   | 4.38  | 5.70 | 0.33   | 0.66   | Cholesterol Oxidase                   |
|                | mg/dl  | 195    | 169   | 221  | 13.00  | 26.00  |                                       |
| Cholinesterase | U/l    | 4521   | 3617  | 5425 | 452.00 | 904.00 | Colorimetric Butyrylthiocholine 37°C  |
| CK Total       | U/l    | 230    | 189   | 271  | 20.50  | 41.00  | CK-NAC substrate start (DGKC) 37°C    |
|                | U/l    | 232    | 190   | 274  | 21.00  | 42.00  | CK-NAC (IFCC) 37°C                    |
| Copper         | µmol/l | 17.4   | 14.0  | 20.8 | 1.70   | 3.40   | Colorimetric                          |
|                | µg/dl  | 111    | 89.0  | 133  | 11.00  | 22.00  |                                       |
| Creatinine     | µmol/l | 125    | 100   | 150  | 12.50  | 25.00  | Alkaline picrate no deproteinization  |
|                | mg/dl  | 1.41   | 1.13  | 1.69 | 0.14   | 0.28   |                                       |
|                | µmol/l | 119    | 95.6  | 142  | 11.70  | 23.40  | Randox Enzymatic UV method            |
|                | mg/dl  | 1.34   | 1.08  | 1.60 | 0.13   | 0.26   |                                       |
|                | µmol/l | 117    | 94.0  | 140  | 11.50  | 23.00  | Creatinine PAP method                 |
|                | mg/dl  | 1.32   | 1.06  | 1.58 | 0.13   | 0.26   |                                       |
|                | µmol/l | 119    | 95.0  | 143  | 12.00  | 24.00  | Roche Creatinine Plus                 |
|                | mg/dl  | 1.34   | 1.07  | 1.61 | 0.14   | 0.27   |                                       |
|                | µmol/l | 125    | 100   | 150  | 12.50  | 25.00  | Jaffe rate blanked                    |
|                | mg/dl  | 1.41   | 1.13  | 1.69 | 0.14   | 0.28   |                                       |
|                | µmol/l | 123    | 98.0  | 148  | 12.50  | 25.00  | Jaffe rate blanked comp. (-26 µmol/l) |
|                | mg/dl  | 1.39   | 1.11  | 1.67 | 0.14   | 0.28   |                                       |

## Beckman Coulter AU400/500/600/800®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

|                     |        | Range  |      |      |       |       |                                                     |
|---------------------|--------|--------|------|------|-------|-------|-----------------------------------------------------|
| Analyte             | unit   | target | low  | high | 1SD   | 2SD   | methods                                             |
| Creatinine          | μmol/l | 114    | 91.5 | 137  | 11.25 | 22.50 | Jaffe rate blanked compensated (-18 μmol/l)         |
|                     | mg/dl  | 1.29   | 1.03 | 1.55 | 0.13  | 0.26  |                                                     |
|                     | μmol/l | 114    | 91.1 | 137  | 11.45 | 22.90 | IDMS traceable                                      |
|                     | mg/dl  | 1.29   | 1.03 | 1.55 | 0.13  | 0.26  |                                                     |
| D-3-Hydroxybutyrate | mmol/l | 0.29   | 0.25 | 0.34 | 0.02  | 0.04  | Tris buffer 100mmol pH 8.5                          |
| gamma-GT            | U/l    | 50     | 43   | 57   | 3.50  | 7.00  | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C       |
|                     | U/l    | 50     | 42   | 58   | 4.00  | 8.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| GLDH                | U/l    | 16     | 13   | 19   | 1.50  | 3.00  | Triethanolamine buffer 50 mmol 37°C                 |
| Glucose             | mmol/l | 7.17   | 6.09 | 8.25 | 0.54  | 1.08  | Hexokinase                                          |
|                     | mg/dl  | 129    | 110  | 148  | 9.50  | 19.00 |                                                     |
|                     | mmol/l | 7.27   | 6.18 | 8.36 | 0.55  | 1.09  | Glucose oxidase                                     |
|                     | mg/dl  | 131    | 111  | 151  | 10.00 | 20.00 |                                                     |
| HDL - Cholesterol   | mmol/l | 1.74   | 1.48 | 2.00 | 0.13  | 0.26  | Direct HDL Immunoseparation                         |
|                     | mg/dl  | 67.2   | 57.1 | 77.3 | 5.05  | 10.10 |                                                     |
|                     | mmol/l | 1.76   | 1.50 | 2.02 | 0.13  | 0.26  | Direct Clearance Method                             |
|                     | mg/dl  | 67.9   | 57.9 | 77.9 | 5.00  | 10.00 |                                                     |
|                     | mmol/l | 1.99   | 1.70 | 2.28 | 0.15  | 0.29  | Direct HDL Roche 3rd generation                     |
|                     | mg/dl  | 76.8   | 65.6 | 88.0 | 5.60  | 11.20 |                                                     |
| Iron                | μmol/l | 18.9   | 15.5 | 22.3 | 1.70  | 3.40  | Colorimetric with ppt.                              |
|                     | μg/dl  | 106    | 86.6 | 125  | 9.70  | 19.40 |                                                     |
|                     | μmol/l | 19.0   | 15.6 | 22.4 | 1.70  | 3.40  | Colorimetric without ppt.                           |
|                     | μg/dl  | 106    | 87.2 | 125  | 9.40  | 18.80 |                                                     |
| Lactate             | mmol/l | 1.47   | 1.20 | 1.74 | 0.14  | 0.27  | Colorimetric Lactate Oxidase                        |
|                     | mg/dl  | 13.2   | 10.8 | 15.6 | 1.20  | 2.40  |                                                     |
| LD (LDH)            | U/l    | 212    | 180  | 244  | 16.00 | 32.00 | L->P 37°C                                           |

## Beckman Coulter AU400/500/600/800®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

|                     |        | Range  |       |       |       |       |                                      |
|---------------------|--------|--------|-------|-------|-------|-------|--------------------------------------|
| Analyte             | unit   | target | low   | high  | 1SD   | 2SD   | methods                              |
| LD (LDH)            | U/l    | 462    | 393   | 531   | 34.50 | 69.00 | P->L Scandinavian & Dutch 37°C       |
|                     | U/l    | 402    | 342   | 462   | 30.00 | 60.00 | P->L German methods 37°C             |
|                     | U/l    | 402    | 341   | 463   | 30.50 | 61.00 | P->L SFBC 37°C                       |
|                     | U/l    | 211    | 179   | 243   | 16.00 | 32.00 | L->P IFCC 37°C                       |
| Lipase              | U/l    | 34     | 27    | 41    | 3.50  | 7.00  | Other Colorimetric 37°C              |
|                     | U/l    | 33     | 26    | 40    | 3.50  | 7.00  | Roche Colorimetric 37°C              |
| Lithium             | mmol/l | 0.98   | 0.86  | 1.09  | 0.06  | 0.12  | Spectrophotometric                   |
|                     | mg/dl  | 0.678  | 0.597 | 0.759 | 0.04  | 0.08  |                                      |
| Magnesium           | mmol/l | 0.93   | 0.82  | 1.04  | 0.06  | 0.11  | Xylidyl Blue                         |
|                     | mg/dl  | 2.26   | 1.99  | 2.53  | 0.14  | 0.27  |                                      |
| Phosphate Inorganic | mmol/l | 1.39   | 1.18  | 1.60  | 0.11  | 0.21  | Phosphomolybdate enzymatic           |
|                     | mg/dl  | 4.31   | 3.66  | 4.96  | 0.33  | 0.65  |                                      |
|                     | mmol/l | 1.36   | 1.16  | 1.56  | 0.10  | 0.20  | Phosphomolybdate UV                  |
|                     | mg/dl  | 4.22   | 3.60  | 4.84  | 0.31  | 0.62  |                                      |
| Potassium           | mmol/l | 4.01   | 3.69  | 4.33  | 0.16  | 0.32  | ISE method - indirect                |
| Protein Total       | g/l    | 58.6   | 46.9  | 70.3  | 5.85  | 11.70 | Biuret reaction end point            |
|                     | g/dl   | 5.86   | 4.69  | 7.03  | 0.59  | 1.17  |                                      |
| Sodium              | mmol/l | 140    | 133   | 147   | 3.50  | 7.00  | ISE method - indirect                |
| TIBC                | µmol/l | 43.4   | 34.3  | 52.5  | 4.55  | 9.10  | Removal of excess free iron          |
|                     | µg/dl  | 243    | 192   | 294   | 25.50 | 51.00 |                                      |
|                     | µmol/l | 44.7   | 35.3  | 54.1  | 4.70  | 9.40  | FE+UIBC(saturation with iron)        |
|                     | µg/dl  | 250    | 197   | 303   | 26.50 | 53.00 |                                      |
| Triglycerides       | mmol/l | 1.08   | 0.91  | 1.25  | 0.08  | 0.17  | Lipase/GPO-PAP no correction         |
|                     | mg/dl  | 95.6   | 80.6  | 111   | 7.50  | 15.00 |                                      |
|                     | mmol/l | 1.01   | 0.85  | 1.17  | 0.08  | 0.16  | Lipase/GPO-PAP 0.11mmol/l correction |
|                     | mg/dl  | 89.4   | 75.2  | 104   | 7.10  | 14.20 |                                      |

## Beckman Coulter AU400/500/600/800®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Range

| Analyte           | unit   | target | low  | high | 1SD   | 2SD   | methods                                           |
|-------------------|--------|--------|------|------|-------|-------|---------------------------------------------------|
| Triglycerides     | mmol/l | 1.10   | 0.92 | 1.28 | 0.09  | 0.18  | L/G Kinase EP. no correction                      |
|                   | mg/dl  | 97.4   | 81.8 | 113  | 7.80  | 15.60 |                                                   |
| Urea              | mmol/l | 7.73   | 6.57 | 8.89 | 0.58  | 1.16  | Urease end point                                  |
|                   | mg/dl  | 46.5   | 39.5 | 53.5 | 3.50  | 7.00  |                                                   |
|                   | mmol/l | 7.53   | 6.40 | 8.66 | 0.57  | 1.13  | Urease kinetic                                    |
|                   | mg/dl  | 45.3   | 38.5 | 52.1 | 3.40  | 6.80  |                                                   |
|                   | mmol/l | 7.53   | 6.40 | 8.66 | 0.57  | 1.13  | BUN                                               |
|                   | mg/dl  | 21.1   | 17.9 | 24.3 | 1.60  | 3.20  |                                                   |
| Uric Acid (Urate) | mmol/l | 0.35   | 0.30 | 0.39 | 0.02  | 0.05  | Uricase peroxidase with ascorbate oxidase         |
|                   | mg/dl  | 5.81   | 5.06 | 6.56 | 0.38  | 0.75  |                                                   |
|                   | mmol/l | 0.35   | 0.30 | 0.39 | 0.02  | 0.05  | Uricase peroxidase no ascorbate oxidase           |
|                   | mg/dl  | 5.83   | 5.07 | 6.59 | 0.38  | 0.76  |                                                   |
|                   | mmol/l | 0.35   | 0.30 | 0.39 | 0.02  | 0.05  | Uricase Peroxidase with ascorbate oxidase @ 546nm |
|                   | mg/dl  | 5.86   | 5.11 | 6.61 | 0.38  | 0.75  |                                                   |
| Zinc              | µmol/l | 23.5   | 18.8 | 28.2 | 2.35  | 4.70  | Colorimetric with deproteinisation                |
|                   | µg/dl  | 153    | 123  | 183  | 15.00 | 30.00 |                                                   |

## Beckman CX4/5/7/9/LX20®/DxC600/800®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte              | unit   | target | Range |       | 1SD   | 2SD   | methods                             |
|----------------------|--------|--------|-------|-------|-------|-------|-------------------------------------|
|                      |        |        | low   | high  |       |       |                                     |
| Albumin              | g/l    | 41.2   | 35.1  | 47.3  | 3.05  | 6.10  | Bromocresol Green                   |
|                      | g/dl   | 4.12   | 3.51  | 4.73  | 0.31  | 0.61  |                                     |
|                      | g/l    | 43.4   | 36.9  | 49.9  | 3.25  | 6.50  | Bromocresol Purple                  |
|                      | g/dl   | 4.34   | 3.69  | 4.99  | 0.33  | 0.65  |                                     |
| Alkaline Phosphatase | U/l    | 181    | 154   | 208   | 13.50 | 27.00 | p-Nitrophenylphosphate AMP 37°C     |
|                      | U/l    | 181    | 154   | 208   | 13.50 | 27.00 | AMP optimised to IFCC 37°C          |
| ALT (GPT)            | U/l    | 36     | 28    | 44    | 4.00  | 8.00  | Tris buffer without P5P 37°C        |
|                      | U/l    | 35     | 28    | 42    | 3.50  | 7.00  | Tris buffer SCE 37°C                |
| Amylase Pancreatic   | U/l    | 53     | 45    | 61    | 4.00  | 8.00  | Immunoinhibition EPS substrate 37°C |
|                      | U/l    | 55     | 47    | 63    | 4.00  | 8.00  | Beckman Synchron/CX/LXi/DxC 37°C    |
| Amylase Total        | U/l    | 92     | 78    | 106   | 7.00  | 14.00 | Beckman maltotetraose 37°C          |
|                      | U/l    | 90     | 77    | 103   | 6.50  | 13.00 | Beckman Synchron AMY7 37°C          |
| AST (GOT)            | U/l    | 35     | 28    | 42    | 3.50  | 7.00  | Tris buffer without P5P 37°C        |
|                      | U/l    | 36     | 29    | 43    | 3.50  | 7.00  | Tris buffer SCE 37°C                |
| Bicarbonate          | mmol/l | 14.5   | 11.5  | 17.5  | 1.50  | 3.00  | Differential rate pH change         |
|                      | mmol/l | 15.3   | 12.1  | 18.5  | 1.60  | 3.20  | Ion selective electrode             |
| Bilirubin Direct     | µmol/l | 13.8   | 10.9  | 16.7  | 1.45  | 2.90  | Diazo with Sulphanilic Acid         |
|                      | mg/dl  | 0.807  | 0.638 | 0.976 | 0.08  | 0.17  |                                     |
| Bilirubin Total      | µmol/l | 30.4   | 24.0  | 36.8  | 3.20  | 6.40  | Diazo with Sulphanilic Acid         |
|                      | mg/dl  | 1.78   | 1.40  | 2.16  | 0.19  | 0.38  |                                     |
| Calcium              | mmol/l | 2.27   | 2.04  | 2.50  | 0.12  | 0.23  | Cresolphthalein complexone          |
|                      | mg/dl  | 9.10   | 8.18  | 10.0  | 0.46  | 0.92  |                                     |

## Beckman CX4/5/7/9/LX20®/DxC600/800®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

|                |        | Range  |      |      |        |        |                                                     |
|----------------|--------|--------|------|------|--------|--------|-----------------------------------------------------|
| Analyte        | unit   | target | low  | high | 1SD    | 2SD    | methods                                             |
| Calcium        | mmol/l | 2.29   | 2.06 | 2.52 | 0.12   | 0.23   | Ion selective electrode                             |
|                | mg/dl  | 9.18   | 8.26 | 10.1 | 0.46   | 0.92   |                                                     |
|                | mmol/l | 2.35   | 2.12 | 2.58 | 0.12   | 0.23   | Arsenazo III                                        |
|                | mg/dl  | 9.42   | 8.50 | 10.3 | 0.46   | 0.92   |                                                     |
| Chloride       | mmol/l | 97.9   | 90.1 | 106  | 3.90   | 7.80   | ISE indirect                                        |
| Cholesterol    | mmol/l | 4.90   | 4.26 | 5.54 | 0.32   | 0.64   | Cholesterol Oxidase                                 |
|                | mg/dl  | 189    | 164  | 214  | 12.50  | 25.00  |                                                     |
| Cholinesterase | U/l    | 4827   | 3861 | 5793 | 483.00 | 966.00 | Colorimetric Butyrylthiocholine 37°C                |
| CK Total       | U/l    | 222    | 182  | 262  | 20.00  | 40.00  | CK-NAC serum start (DGKC) 37°C                      |
|                | U/l    | 224    | 184  | 264  | 20.00  | 40.00  | CK-NAC (IFCC) 37°C                                  |
|                | U/l    | 225    | 185  | 265  | 20.00  | 40.00  | Monothioglycerol 37°C                               |
| Creatinine     | µmol/l | 118    | 94.5 | 142  | 11.75  | 23.50  | Alkaline picrate no deproteinization                |
|                | mg/dl  | 1.33   | 1.07 | 1.59 | 0.13   | 0.26   |                                                     |
|                | µmol/l | 118    | 94.6 | 141  | 11.70  | 23.40  | Randox Enzymatic UV method                          |
|                | mg/dl  | 1.33   | 1.07 | 1.59 | 0.13   | 0.26   |                                                     |
|                | µmol/l | 121    | 96.9 | 145  | 12.05  | 24.10  | Jaffe rate blanked                                  |
|                | mg/dl  | 1.37   | 1.09 | 1.65 | 0.14   | 0.28   |                                                     |
|                | µmol/l | 116    | 92.8 | 139  | 11.60  | 23.20  | IDMS traceable                                      |
|                | mg/dl  | 1.31   | 1.05 | 1.57 | 0.13   | 0.26   |                                                     |
| gamma-GT       | U/l    | 41     | 35   | 47   | 3.00   | 6.00   | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C       |
|                | U/l    | 40     | 34   | 46   | 3.00   | 6.00   | Gamma glutamyl-4-nitroanilide 37°C                  |
|                | U/l    | 44     | 37   | 51   | 3.50   | 7.00   | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| Glucose        | mmol/l | 6.99   | 5.94 | 8.04 | 0.53   | 1.05   | Hexokinase                                          |
|                | mg/dl  | 126    | 107  | 145  | 9.50   | 19.00  |                                                     |

## Beckman CX4/5/7/9/LX20®/DxC600/800®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Range

| Analyte             | unit    | target | low   | high  | 1SD   | 2SD   | methods                             |
|---------------------|---------|--------|-------|-------|-------|-------|-------------------------------------|
| Glucose             | mmol/l  | 7.03   | 5.97  | 8.09  | 0.53  | 1.06  | Oxygen electrode                    |
|                     | mg/dl   | 127    | 108   | 146   | 9.50  | 19.00 |                                     |
|                     | mmol/l  | 6.90   | 5.87  | 7.93  | 0.52  | 1.03  | Glucose oxidase                     |
|                     | mg/dl   | 124    | 106   | 142   | 9.00  | 18.00 |                                     |
| HDL - Cholesterol   | mmol/l  | 2.40   | 2.04  | 2.76  | 0.18  | 0.36  | Direct HDL PPD                      |
|                     | mg/dl   | 92.6   | 78.7  | 107   | 6.95  | 13.90 |                                     |
| Iron                | µmol/l  | 19.1   | 15.7  | 22.5  | 1.70  | 3.40  | Colorimetric without ppt.           |
|                     | µg/dl   | 107    | 87.8  | 126   | 9.60  | 19.20 |                                     |
| Lactate             | mmol/l  | 1.49   | 1.22  | 1.76  | 0.14  | 0.27  | Colorimetric Lactate Oxidase        |
|                     | mg/dl   | 13.4   | 11.0  | 15.8  | 1.20  | 2.40  |                                     |
| LD (LDH)            | U/l     | 175    | 149   | 201   | 13.00 | 26.00 | L->P 37°C                           |
|                     | U/l     | 543    | 462   | 624   | 40.50 | 81.00 | Pyruvate 1.4 mM - Beckman LD-P 37°C |
|                     | U/l     | 201    | 171   | 231   | 15.00 | 30.00 | L->P IFCC 37°C                      |
| Lipase              | U/l     | 31     | 25    | 37    | 3.00  | 6.00  | Other Colorimetric 37°C             |
| Lithium             | mmol/l  | 1.02   | 0.90  | 1.14  | 0.06  | 0.12  | Spectrophotometric                  |
|                     | mg/dl   | 0.708  | 0.623 | 0.793 | 0.04  | 0.09  |                                     |
| Magnesium           | mmol/l  | 0.92   | 0.81  | 1.03  | 0.06  | 0.11  | Calmagite                           |
|                     | mg/dl   | 2.24   | 1.97  | 2.51  | 0.14  | 0.27  |                                     |
|                     | mmol/l  | 0.91   | 0.80  | 1.02  | 0.05  | 0.11  | Xylidyl Blue                        |
|                     | mg/dl   | 2.21   | 1.94  | 2.48  | 0.14  | 0.27  |                                     |
| Osmolality          | mOsm/kg | 282    | 226   | 338   | 28.00 | 56.00 | Calculated                          |
| Phosphate Inorganic | mmol/l  | 1.39   | 1.18  | 1.60  | 0.11  | 0.21  | Phosphomolybdate enzymatic          |
|                     | mg/dl   | 4.31   | 3.66  | 4.96  | 0.33  | 0.65  |                                     |
|                     | mmol/l  | 1.38   | 1.18  | 1.58  | 0.10  | 0.20  | Phosphomolybdate UV                 |
|                     | mg/dl   | 4.28   | 3.66  | 4.90  | 0.31  | 0.62  |                                     |

## Beckman CX4/5/7/9/LX20®/DxC600/800®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

|                   |        | Range  |      |      |       |       |                                         |
|-------------------|--------|--------|------|------|-------|-------|-----------------------------------------|
| Analyte           | unit   | target | low  | high | 1SD   | 2SD   | methods                                 |
| Potassium         | mmol/l | 3.96   | 3.65 | 4.27 | 0.16  | 0.31  | ISE method - indirect                   |
| Protein Total     | g/l    | 58.8   | 47.0 | 70.6 | 5.90  | 11.80 | Biuret reaction CX4/5/7                 |
|                   | g/dl   | 5.88   | 4.70 | 7.06 | 0.59  | 1.18  |                                         |
|                   | g/l    | 59.1   | 47.3 | 70.9 | 5.90  | 11.80 | Biuret reaction end point               |
|                   | g/dl   | 5.91   | 4.73 | 7.09 | 0.59  | 1.18  |                                         |
|                   | g/l    | 56.8   | 45.5 | 68.1 | 5.65  | 11.30 | Biuret reaction kinetic                 |
|                   | g/dl   | 5.68   | 4.55 | 6.81 | 0.57  | 1.13  |                                         |
| Sodium            | mmol/l | 140    | 133  | 147  | 3.50  | 7.00  | ISE method - indirect                   |
| TIBC              | μmol/l | 47.0   | 37.2 | 56.8 | 4.90  | 9.80  | Removal of excess free iron             |
|                   | μg/dl  | 263    | 208  | 318  | 27.50 | 55.00 |                                         |
|                   | μmol/l | 44.2   | 34.9 | 53.5 | 4.65  | 9.30  | FE+UIBC(saturation with iron)           |
|                   | μg/dl  | 247    | 195  | 299  | 26.00 | 52.00 |                                         |
| Triglycerides     | mmol/l | 1.08   | 0.91 | 1.25 | 0.09  | 0.17  | Lipase/GPO-PAP no correction            |
|                   | mg/dl  | 95.6   | 80.5 | 111  | 7.55  | 15.10 |                                         |
|                   | mmol/l | 1.09   | 0.92 | 1.26 | 0.09  | 0.17  | L/G Kinase EP. no correction            |
|                   | mg/dl  | 96.5   | 81.2 | 112  | 7.65  | 15.30 |                                         |
| Urea              | mmol/l | 7.77   | 6.61 | 8.93 | 0.58  | 1.16  | Urease end point                        |
|                   | mg/dl  | 46.7   | 39.7 | 53.7 | 3.50  | 7.00  |                                         |
|                   | mmol/l | 7.68   | 6.53 | 8.83 | 0.58  | 1.15  | Urease kinetic                          |
|                   | mg/dl  | 46.2   | 39.2 | 53.2 | 3.50  | 7.00  |                                         |
|                   | mmol/l | 7.68   | 6.53 | 8.83 | 0.58  | 1.15  | BUN                                     |
|                   | mg/dl  | 21.6   | 18.4 | 24.8 | 1.60  | 3.20  |                                         |
| Uric Acid (Urate) | mmol/l | 0.32   | 0.28 | 0.37 | 0.02  | 0.04  | Uricase peroxidase no ascorbate oxidase |
|                   | mg/dl  | 5.43   | 4.72 | 6.14 | 0.36  | 0.71  |                                         |

## BIOSYSTEMS A15

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte              | unit   | target | Range |      | 1SD   | 2SD   | methods                              |
|----------------------|--------|--------|-------|------|-------|-------|--------------------------------------|
|                      |        |        | low   | high |       |       |                                      |
| Alkaline Phosphatase | U/l    | 180    | 153   | 207  | 13.50 | 27.00 | AMP optimised to IFCC 37°C           |
|                      | U/l    | 140    | 119   | 161  | 10.50 | 21.00 | AMP optimised to IFCC 30°C           |
|                      | U/l    | 115    | 98    | 132  | 8.50  | 17.00 | AMP optimised to IFCC 25°C           |
| ALT (GPT)            | U/l    | 39     | 31    | 47   | 4.00  | 8.00  | Tris buffer without P5P 37°C         |
|                      | U/l    | 29     | 23    | 35   | 3.00  | 6.00  | Tris buffer without P5P 30°C         |
|                      | U/l    | 22     | 17    | 27   | 2.50  | 5.00  | Tris buffer without P5P 25°C         |
| AST (GOT)            | U/l    | 42     | 33    | 51   | 4.50  | 9.00  | Tris buffer without P5P 37°C         |
|                      | U/l    | 28     | 22    | 34   | 3.00  | 6.00  | Tris buffer without P5P 30°C         |
|                      | U/l    | 20     | 16    | 24   | 2.00  | 4.00  | Tris buffer without P5P 25°C         |
| Bilirubin Total      | µmol/l | 32.3   | 25.5  | 39.1 | 3.40  | 6.80  | Diazo with Sulphanilic Acid          |
|                      | mg/dl  | 1.89   | 1.49  | 2.29 | 0.20  | 0.40  |                                      |
| Cholesterol          | mmol/l | 5.21   | 4.53  | 5.89 | 0.34  | 0.68  | Cholesterol Oxidase                  |
|                      | mg/dl  | 201    | 175   | 227  | 13.00 | 26.00 |                                      |
| Creatinine           | µmol/l | 119    | 95.2  | 143  | 11.90 | 23.80 | Alkaline picrate no deproteinization |
|                      | mg/dl  | 1.34   | 1.08  | 1.60 | 0.13  | 0.26  |                                      |
| Glucose              | mmol/l | 7.18   | 6.11  | 8.25 | 0.54  | 1.07  | Glucose oxidase                      |
|                      | mg/dl  | 129    | 110   | 148  | 9.50  | 19.00 |                                      |
| HDL - Cholesterol    | mmol/l | 1.87   | 1.59  | 2.15 | 0.14  | 0.28  | Direct Clearance Method              |
|                      | mg/dl  | 72.2   | 61.4  | 83.0 | 5.40  | 10.80 |                                      |
| Protein Total        | g/l    | 59.3   | 47.4  | 71.2 | 5.95  | 11.90 | Biuret reaction end point            |
|                      | g/dl   | 5.93   | 4.74  | 7.12 | 0.60  | 1.19  |                                      |

## BIOSYSTEMS A15

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Range

| Analyte           | unit   | target | low  | high | 1SD  | 2SD   | methods                                 |
|-------------------|--------|--------|------|------|------|-------|-----------------------------------------|
| Triglycerides     | mmol/l | 1.11   | 0.93 | 1.29 | 0.09 | 0.18  | Lipase/GPO-PAP no correction            |
|                   | mg/dl  | 98.2   | 82.6 | 114  | 7.80 | 15.60 |                                         |
| Uric Acid (Urate) | mmol/l | 0.34   | 0.30 | 0.39 | 0.02 | 0.05  | Uricase peroxidase no ascorbate oxidase |
|                   | mg/dl  | 5.75   | 4.99 | 6.51 | 0.38 | 0.76  |                                         |

## BIOSYSTEMS A25

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte              | unit   | target | Range |      | 1SD   | 2SD   | methods                              |
|----------------------|--------|--------|-------|------|-------|-------|--------------------------------------|
|                      |        |        | low   | high |       |       |                                      |
| Albumin              | g/l    | 37.7   | 32.1  | 43.3 | 2.80  | 5.60  | Bromocresol Green                    |
|                      | g/dl   | 3.77   | 3.21  | 4.33 | 0.28  | 0.56  |                                      |
| Alkaline Phosphatase | U/l    | 165    | 141   | 189  | 12.00 | 24.00 | AMP optimised to IFCC 37°C           |
|                      | U/l    | 129    | 110   | 148  | 9.50  | 19.00 | AMP optimised to IFCC 30°C           |
|                      | U/l    | 105    | 90    | 120  | 7.50  | 15.00 | AMP optimised to IFCC 25°C           |
| Bilirubin Direct     | µmol/l | 20.5   | 16.2  | 24.8 | 2.15  | 4.30  | Diazo with Sulphanilic Acid          |
|                      | mg/dl  | 1.20   | 0.948 | 1.45 | 0.13  | 0.25  |                                      |
| Bilirubin Total      | µmol/l | 32.6   | 25.8  | 39.4 | 3.40  | 6.80  | Diazo with Sulphanilic Acid          |
|                      | mg/dl  | 1.91   | 1.51  | 2.31 | 0.20  | 0.40  |                                      |
| Calcium              | mmol/l | 2.33   | 2.10  | 2.56 | 0.12  | 0.23  | Arsenazo III                         |
|                      | mg/dl  | 9.34   | 8.42  | 10.3 | 0.46  | 0.92  |                                      |
| Cholesterol          | mmol/l | 4.97   | 4.32  | 5.62 | 0.33  | 0.65  | Cholesterol Oxidase                  |
|                      | mg/dl  | 192    | 167   | 217  | 12.50 | 25.00 |                                      |
| CK Total             | U/l    | 231    | 190   | 272  | 20.50 | 41.00 | CK-NAC (IFCC) 37°C                   |
|                      | U/l    | 145    | 119   | 171  | 13.00 | 26.00 | CK-NAC (IFCC) 30°C                   |
|                      | U/l    | 98     | 81    | 115  | 8.50  | 17.00 | CK-NAC (IFCC) 25°C                   |
| Creatinine           | µmol/l | 116    | 92.6  | 139  | 11.70 | 23.40 | Alkaline picrate no deproteinization |
|                      | mg/dl  | 1.31   | 1.05  | 1.57 | 0.13  | 0.26  |                                      |
| Glucose              | mmol/l | 7.12   | 6.05  | 8.19 | 0.54  | 1.07  | Glucose oxidase                      |
|                      | mg/dl  | 128    | 109   | 147  | 9.50  | 19.00 |                                      |
| LD (LDH)             | U/l    | 431    | 367   | 495  | 32.00 | 64.00 | P->L German methods 37°C             |
|                      | U/l    | 311    | 265   | 357  | 23.00 | 46.00 | P->L German methods 30°C             |
|                      | U/l    | 219    | 186   | 252  | 16.50 | 33.00 | P->L German methods 25°C             |

## BIOSYSTEMS A25

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Range

| Analyte           | unit   | target | low  | high | 1SD  | 2SD   | methods                                   |
|-------------------|--------|--------|------|------|------|-------|-------------------------------------------|
| Protein Total     | g/l    | 58.7   | 47.0 | 70.4 | 5.85 | 11.70 | Biuret reaction end point                 |
|                   | g/dl   | 5.87   | 4.70 | 7.04 | 0.59 | 1.17  |                                           |
| Triglycerides     | mmol/l | 1.07   | 0.90 | 1.24 | 0.08 | 0.17  | Lipase/GPO-PAP no correction              |
|                   | mg/dl  | 94.7   | 79.8 | 110  | 7.45 | 14.90 |                                           |
| Urea              | mmol/l | 7.35   | 6.24 | 8.46 | 0.56 | 1.11  | Urease kinetic                            |
|                   | mg/dl  | 44.2   | 37.5 | 50.9 | 3.35 | 6.70  |                                           |
|                   | mmol/l | 7.35   | 6.25 | 8.45 | 0.55 | 1.10  | BUN                                       |
|                   | mg/dl  | 20.6   | 17.5 | 23.7 | 1.55 | 3.10  |                                           |
| Uric Acid (Urate) | mmol/l | 0.35   | 0.30 | 0.39 | 0.02 | 0.05  | Uricase peroxidase with ascorbate oxidase |
|                   | mg/dl  | 5.83   | 5.07 | 6.59 | 0.38 | 0.76  |                                           |
|                   | mmol/l | 0.33   | 0.29 | 0.38 | 0.02 | 0.04  | Uricase peroxidase no ascorbate oxidase   |
|                   | mg/dl  | 5.59   | 4.87 | 6.31 | 0.36 | 0.72  |                                           |

## COBAS INTEGRA®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte              | unit   | target | Range |      | 1SD   | 2SD   | methods                                        |
|----------------------|--------|--------|-------|------|-------|-------|------------------------------------------------|
|                      |        |        | low   | high |       |       |                                                |
| Albumin              | g/l    | 43.7   | 37.1  | 50.3 | 3.30  | 6.60  | Bromocresol Green                              |
|                      | g/dl   | 4.37   | 3.71  | 5.03 | 0.33  | 0.66  |                                                |
| Alkaline Phosphatase | U/l    | 132    | 112   | 152  | 10.00 | 20.00 | Roche Integra AMP buffer 37°C                  |
|                      | U/l    | 103    | 87    | 119  | 8.00  | 16.00 | Roche Integra AMP buffer 30°C                  |
|                      | U/l    | 84     | 72    | 96   | 6.00  | 12.00 | Roche Integra AMP buffer 25°C                  |
| ALT (GPT)            | U/l    | 33     | 27    | 39   | 3.00  | 6.00  | Tris buffer without P5P 37°C                   |
|                      | U/l    | 24     | 20    | 28   | 2.00  | 4.00  | Tris buffer without P5P 30°C                   |
|                      | U/l    | 19     | 15    | 23   | 2.00  | 4.00  | Tris buffer without P5P 25°C                   |
| Amylase Pancreatic   | U/l    | 65     | 55    | 75   | 5.00  | 10.00 | Randox EPS Liquid and BM/Roche EPS Liquid 37°C |
| Amylase Total        | U/l    | 87     | 74    | 100  | 6.50  | 13.00 | Saccharogenic 37°C                             |
|                      | U/l    | 87     | 74    | 100  | 6.50  | 13.00 | Roche Integra 2-chloro-pNPG7 37°C              |
|                      | U/l    | 86     | 73    | 99   | 6.50  | 13.00 | Roche liquid stable pNPG7 37°C                 |
| AST (GOT)            | U/l    | 35     | 28    | 42   | 3.50  | 7.00  | Tris buffer without P5P 37°C                   |
|                      | U/l    | 24     | 19    | 29   | 2.50  | 5.00  | Tris buffer without P5P 30°C                   |
|                      | U/l    | 17     | 13    | 21   | 2.00  | 4.00  | Tris buffer without P5P 25°C                   |
| Bicarbonate          | mmol/l | 14.2   | 11.3  | 17.1 | 1.45  | 2.90  | Enzymatic                                      |
| Bilirubin Direct     | µmol/l | 18.4   | 14.5  | 22.3 | 1.95  | 3.90  | Dichlorophenyl Diazonium (DPD)                 |
|                      | mg/dl  | 1.08   | 0.848 | 1.31 | 0.12  | 0.23  |                                                |
|                      | µmol/l | 17.6   | 13.9  | 21.3 | 1.85  | 3.70  | Diazo with Sulphanilic Acid                    |
|                      | mg/dl  | 1.03   | 0.813 | 1.25 | 0.11  | 0.22  |                                                |
| Bilirubin Total      | µmol/l | 25.6   | 20.2  | 31.0 | 2.70  | 5.40  | Diazo with Sulphanilic Acid                    |
|                      | mg/dl  | 1.50   | 1.18  | 1.82 | 0.16  | 0.32  |                                                |

## COBAS INTEGRA®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte         | unit   | target | Range |      | 1SD   | 2SD   | methods                               |
|-----------------|--------|--------|-------|------|-------|-------|---------------------------------------|
|                 |        |        | low   | high |       |       |                                       |
| Bilirubin Total | µmol/l | 25.5   | 20.2  | 30.8 | 2.65  | 5.30  | Dichlorophenyl Diazonium (DPD)        |
|                 | mg/dl  | 1.49   | 1.18  | 1.80 | 0.16  | 0.31  |                                       |
|                 | µmol/l | 25.8   | 20.4  | 31.2 | 2.70  | 5.40  | Diazonium ion                         |
|                 | mg/dl  | 1.51   | 1.19  | 1.83 | 0.16  | 0.32  |                                       |
| Calcium         | mmol/l | 2.34   | 2.11  | 2.57 | 0.12  | 0.23  | Cresolphthalein complexone            |
|                 | mg/dl  | 9.38   | 8.46  | 10.3 | 0.46  | 0.92  |                                       |
|                 | mmol/l | 2.34   | 2.10  | 2.58 | 0.12  | 0.24  | NM-BAPTA                              |
|                 | mg/dl  | 9.38   | 8.42  | 10.3 | 0.48  | 0.96  |                                       |
| Chloride        | mmol/l | 97.1   | 89.3  | 105  | 3.90  | 7.80  | ISE indirect                          |
| Cholesterol     | mmol/l | 5.04   | 4.38  | 5.70 | 0.33  | 0.66  | Cholesterol Oxidase                   |
|                 | mg/dl  | 195    | 169   | 221  | 13.00 | 26.00 |                                       |
| CK Total        | U/l    | 221    | 181   | 261  | 20.00 | 40.00 | CK-NAC substrate start (DGKC) 37°C    |
|                 | U/l    | 138    | 113   | 163  | 12.50 | 25.00 | CK-NAC substrate start (DGKC) 30°C    |
|                 | U/l    | 94     | 77    | 111  | 8.50  | 17.00 | CK-NAC substrate start (DGKC) 25°C    |
|                 | U/l    | 236    | 194   | 278  | 21.00 | 42.00 | CK-NAC (IFCC) 37°C                    |
|                 | U/l    | 148    | 121   | 175  | 13.50 | 27.00 | CK-NAC (IFCC) 30°C                    |
|                 | U/l    | 100    | 82    | 118  | 9.00  | 18.00 | CK-NAC (IFCC) 25°C                    |
|                 |        |        |       |      |       |       |                                       |
| Creatinine      | µmol/l | 112    | 89.4  | 135  | 11.30 | 22.60 | Alkaline picrate no deproteinization  |
|                 | mg/dl  | 1.27   | 1.01  | 1.53 | 0.13  | 0.26  |                                       |
|                 | µmol/l | 114    | 91.5  | 137  | 11.25 | 22.50 | Roche Creatinine Plus                 |
|                 | mg/dl  | 1.29   | 1.03  | 1.55 | 0.13  | 0.26  |                                       |
|                 | µmol/l | 114    | 91.3  | 137  | 11.35 | 22.70 | Jaffe rate blanked                    |
|                 | mg/dl  | 1.29   | 1.03  | 1.55 | 0.13  | 0.26  |                                       |
|                 | µmol/l | 114    | 90.8  | 137  | 11.60 | 23.20 | Jaffe rate blanked comp. (-26 µmol/l) |
|                 | mg/dl  | 1.29   | 1.03  | 1.55 | 0.13  | 0.26  |                                       |
|                 |        |        |       |      |       |       |                                       |
|                 |        |        |       |      |       |       |                                       |

## COBAS INTEGRA®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte           | unit   | target | Range |      | 1SD   | 2SD   | methods                                             |
|-------------------|--------|--------|-------|------|-------|-------|-----------------------------------------------------|
|                   |        |        | low   | high |       |       |                                                     |
| Creatinine        | μmol/l | 115    | 91.8  | 138  | 11.60 | 23.20 | Jaffe rate blanked compensated (-18 μmol/l)         |
|                   | mg/dl  | 1.30   | 1.04  | 1.56 | 0.13  | 0.26  |                                                     |
| gamma-GT          | U/l    | 45     | 38    | 52   | 3.50  | 7.00  | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C       |
|                   | U/l    | 35     | 30    | 40   | 2.50  | 5.00  | Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C       |
|                   | U/l    | 28     | 23    | 33   | 2.50  | 5.00  | Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C       |
|                   | U/l    | 50     | 42    | 58   | 4.00  | 8.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
|                   | U/l    | 39     | 33    | 45   | 3.00  | 6.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
|                   | U/l    | 31     | 26    | 36   | 2.50  | 5.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |
| Glucose           | mmol/l | 7.21   | 6.13  | 8.29 | 0.54  | 1.08  | Glucose dehydrogenase                               |
|                   | mg/dl  | 130    | 110   | 150  | 10.00 | 20.00 |                                                     |
|                   | mmol/l | 7.21   | 6.13  | 8.29 | 0.54  | 1.08  | Hexokinase                                          |
|                   | mg/dl  | 130    | 110   | 150  | 10.00 | 20.00 |                                                     |
|                   | mmol/l | 7.26   | 6.17  | 8.35 | 0.55  | 1.09  | Glucose oxidase                                     |
|                   | mg/dl  | 131    | 111   | 151  | 10.00 | 20.00 |                                                     |
| HDL - Cholesterol | mmol/l | 2.09   | 1.78  | 2.40 | 0.16  | 0.31  | Direct HDL Roche 3rd generation                     |
|                   | mg/dl  | 80.7   | 68.7  | 92.7 | 6.00  | 12.00 |                                                     |
| Iron              | μmol/l | 19.9   | 16.3  | 23.5 | 1.80  | 3.60  | Colorimetric with ppt.                              |
|                   | μg/dl  | 111    | 91.1  | 131  | 9.95  | 19.90 |                                                     |
|                   | μmol/l | 19.6   | 16.1  | 23.1 | 1.75  | 3.50  | Colorimetric without ppt.                           |
|                   | μg/dl  | 110    | 90.0  | 130  | 10.00 | 20.00 |                                                     |
| Lactate           | mmol/l | 1.57   | 1.29  | 1.85 | 0.14  | 0.28  | Colorimetric Lactate Oxidase                        |
|                   | mg/dl  | 14.1   | 11.6  | 16.6 | 1.25  | 2.50  |                                                     |
| LD (LDH)          | U/l    | 221    | 188   | 254  | 16.50 | 33.00 | L->P IFCC 37°C                                      |
|                   | U/l    | 160    | 136   | 184  | 12.00 | 24.00 | L->P IFCC 30°C                                      |
|                   | U/l    | 112    | 95    | 129  | 8.50  | 17.00 | L->P IFCC 25°C                                      |

## COBAS INTEGRA®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

### Range

| Analyte             | unit   | target | low   | high  | 1SD   | 2SD   | methods                              |
|---------------------|--------|--------|-------|-------|-------|-------|--------------------------------------|
| Lipase              | U/l    | 36     | 29    | 43    | 3.50  | 7.00  | Roche Colorimetric 37°C              |
| Lithium             | mmol/l | 1.02   | 0.90  | 1.14  | 0.06  | 0.12  | Ion selective electrode              |
|                     | mg/dl  | 0.708  | 0.624 | 0.792 | 0.04  | 0.08  |                                      |
| Magnesium           | mmol/l | 0.91   | 0.80  | 1.02  | 0.05  | 0.11  | Methylthymol blue                    |
|                     | mg/dl  | 2.20   | 1.94  | 2.46  | 0.13  | 0.26  |                                      |
|                     | mmol/l | 0.92   | 0.81  | 1.03  | 0.06  | 0.11  | Chlorphosphonazo III                 |
|                     | mg/dl  | 2.24   | 1.97  | 2.51  | 0.14  | 0.27  |                                      |
| Phosphate Inorganic | mmol/l | 1.41   | 1.20  | 1.62  | 0.11  | 0.21  | Phosphomolybdate enzymatic           |
|                     | mg/dl  | 4.37   | 3.72  | 5.02  | 0.33  | 0.65  |                                      |
|                     | mmol/l | 1.42   | 1.20  | 1.64  | 0.11  | 0.22  | Phosphomolybdate UV                  |
|                     | mg/dl  | 4.40   | 3.72  | 5.08  | 0.34  | 0.68  |                                      |
| Potassium           | mmol/l | 3.99   | 3.67  | 4.31  | 0.16  | 0.32  | ISE method - indirect                |
| Protein Total       | g/l    | 57.4   | 45.9  | 68.9  | 5.75  | 11.50 | Biuret reaction end point            |
|                     | g/dl   | 5.74   | 4.59  | 6.89  | 0.58  | 1.15  |                                      |
|                     | g/l    | 56.8   | 45.4  | 68.2  | 5.70  | 11.40 | Biuret reaction kinetic              |
|                     | g/dl   | 5.68   | 4.54  | 6.82  | 0.57  | 1.14  |                                      |
| Sodium              | mmol/l | 139    | 132   | 146   | 3.50  | 7.00  | ISE method - indirect                |
| TIBC                | µmol/l | 44.9   | 35.5  | 54.3  | 4.70  | 9.40  | FE+UIBC(saturation with iron)        |
|                     | µg/dl  | 251    | 198   | 304   | 26.50 | 53.00 |                                      |
| Triglycerides       | mmol/l | 1.04   | 0.87  | 1.21  | 0.08  | 0.17  | Lipase/GPO-PAP no correction         |
|                     | mg/dl  | 92.0   | 77.3  | 107   | 7.35  | 14.70 |                                      |
|                     | mmol/l | 1.04   | 0.88  | 1.21  | 0.08  | 0.17  | Lipase/GPO-PAP 0.11mmol/l correction |
|                     | mg/dl  | 92.0   | 77.4  | 107   | 7.30  | 14.60 |                                      |
|                     | mmol/l | 1.05   | 0.88  | 1.22  | 0.09  | 0.17  | L/G Kinase EP. no correction         |
|                     | mg/dl  | 92.9   | 77.7  | 108   | 7.60  | 15.20 |                                      |

## COBAS INTEGRA®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte           | unit   | target | Range |      | 1SD  | 2SD   | methods                                           |
|-------------------|--------|--------|-------|------|------|-------|---------------------------------------------------|
|                   |        |        | low   | high |      |       |                                                   |
| Triglycerides     | mmol/l | 1.02   | 0.86  | 1.18 | 0.08 | 0.16  | Lipase/Glycerol Dehydrogenase                     |
|                   | mg/dl  | 90.3   | 76.1  | 105  | 7.10 | 14.20 |                                                   |
| Urea              | mmol/l | 7.23   | 6.15  | 8.31 | 0.54 | 1.08  | Urease end point                                  |
|                   | mg/dl  | 43.5   | 37.0  | 50.0 | 3.25 | 6.50  |                                                   |
|                   | mmol/l | 7.11   | 6.05  | 8.17 | 0.53 | 1.06  | Urease kinetic                                    |
|                   | mg/dl  | 42.7   | 36.4  | 49.0 | 3.15 | 6.30  |                                                   |
|                   | mmol/l | 7.11   | 6.04  | 8.18 | 0.54 | 1.07  | BUN                                               |
|                   | mg/dl  | 20.0   | 17.0  | 23.0 | 1.50 | 3.00  |                                                   |
| Uric Acid (Urate) | mmol/l | 0.34   | 0.30  | 0.38 | 0.02 | 0.04  | Uricase peroxidase with ascorbate oxidase         |
|                   | mg/dl  | 5.70   | 4.96  | 6.44 | 0.37 | 0.74  |                                                   |
|                   | mmol/l | 0.34   | 0.30  | 0.39 | 0.02 | 0.04  | Uricase peroxidase no ascorbate oxidase           |
|                   | mg/dl  | 5.73   | 4.99  | 6.47 | 0.37 | 0.74  |                                                   |
|                   | mmol/l | 0.34   | 0.30  | 0.38 | 0.02 | 0.04  | Uricase Peroxidase with ascorbate oxidase @ 546nm |
|                   | mg/dl  | 5.70   | 4.96  | 6.44 | 0.37 | 0.74  |                                                   |

## HITACHI SERIES®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte                          | unit | target | Range |      | 1SD   | 2SD   | methods                                                         |
|----------------------------------|------|--------|-------|------|-------|-------|-----------------------------------------------------------------|
|                                  |      |        | low   | high |       |       |                                                                 |
| alpha-HBDH                       | U/l  | 255    | 201   | 309  | 27.00 | 54.00 | Oxobutyrate < 10 mmol/l 37°C                                    |
|                                  | U/l  | 193    | 152   | 234  | 20.50 | 41.00 | Oxobutyrate < 10 mmol/l 30°C                                    |
|                                  | U/l  | 144    | 114   | 174  | 15.00 | 30.00 | Oxobutyrate < 10 mmol/l 25°C                                    |
| Acid Phosphatase (non-prostatic) | U/l  | 4.44   | 2.97  | 5.91 | 0.74  | 1.47  | 1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C |
|                                  | U/l  | 5.64   | 3.78  | 7.50 | 0.93  | 1.86  | 1-Naphthyl Phosphate substrate Kinetic 37°C                     |
| Acid Phosphatase (Prostatic)     | U/l  | 17.4   | 11.7  | 23.1 | 2.85  | 5.70  | 1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C |
|                                  | U/l  | 10.7   | 7.17  | 14.2 | 1.77  | 3.53  | 1-Naphthyl Phosphate substrate Kinetic 37°C                     |
| Acid Phosphatase (Total)         | U/l  | 21.8   | 14.6  | 29.0 | 3.60  | 7.20  | 1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C |
|                                  | U/l  | 16.3   | 10.9  | 21.7 | 2.70  | 5.40  | 1-Naphthyl Phosphate substrate Kinetic 37°C                     |
| Albumin                          | g/l  | 42.9   | 36.5  | 49.3 | 3.20  | 6.40  | Bromocresol Green                                               |
|                                  | g/dl | 4.29   | 3.65  | 4.93 | 0.32  | 0.64  |                                                                 |
|                                  | g/l  | 42.4   | 36.0  | 48.8 | 3.20  | 6.40  | Bromocresol Purple                                              |
|                                  | g/dl | 4.24   | 3.60  | 4.88 | 0.32  | 0.64  |                                                                 |
| Alkaline Phosphatase             | U/l  | 275    | 234   | 316  | 20.50 | 41.00 | Diethanolamine buffer DEA 37°C                                  |
|                                  | U/l  | 214    | 182   | 246  | 16.00 | 32.00 | Diethanolamine buffer DEA 30°C                                  |
|                                  | U/l  | 176    | 150   | 202  | 13.00 | 26.00 | Diethanolamine buffer DEA 25°C                                  |
|                                  | U/l  | 122    | 104   | 140  | 9.00  | 18.00 | Roche Integra AMP buffer 37°C                                   |
|                                  | U/l  | 95     | 81    | 109  | 7.00  | 14.00 | Roche Integra AMP buffer 30°C                                   |
|                                  | U/l  | 78     | 66    | 90   | 6.00  | 12.00 | Roche Integra AMP buffer 25°C                                   |
|                                  | U/l  | 170    | 144   | 196  | 13.00 | 26.00 | AMP non-optimised 37°C                                          |
|                                  | U/l  | 132    | 112   | 152  | 10.00 | 20.00 | AMP non-optimised 30°C                                          |
|                                  | U/l  | 109    | 92    | 126  | 8.50  | 17.00 | AMP non-optimised 25°C                                          |

## HITACHI SERIES®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

### Range

| Analyte              | unit   | target | low   | high | 1SD   | 2SD   | methods                          |
|----------------------|--------|--------|-------|------|-------|-------|----------------------------------|
| Alkaline Phosphatase | U/l    | 181    | 154   | 208  | 13.50 | 27.00 | Randox AMP 37°C                  |
|                      | U/l    | 141    | 120   | 162  | 10.50 | 21.00 | Randox AMP 30°C                  |
|                      | U/l    | 116    | 98    | 134  | 9.00  | 18.00 | Randox AMP 25°C                  |
| ALT (GPT)            | U/l    | 36     | 29    | 43   | 3.50  | 7.00  | Tris buffer without P5P 37°C     |
|                      | U/l    | 27     | 21    | 33   | 3.00  | 6.00  | Tris buffer without P5P 30°C     |
|                      | U/l    | 20     | 16    | 24   | 2.00  | 4.00  | Tris buffer without P5P 25°C     |
| Amylase Pancreatic   | U/l    | 65     | 55    | 75   | 5.00  | 10.00 | Roche liquid stable pNPG7 37°C   |
|                      | U/l    | 73     | 62    | 84   | 5.50  | 11.00 | Randox liquid stable pNPG7 37°C  |
| Amylase Total        | U/l    | 84     | 72    | 96   | 6.00  | 12.00 | Roche liquid stable pNPG7 37°C   |
|                      | U/l    | 94     | 80    | 108  | 7.00  | 14.00 | Randox liquid stable pNPG7 37°C  |
| AST (GOT)            | U/l    | 36     | 29    | 43   | 3.50  | 7.00  | Tris buffer without P5P 37°C     |
|                      | U/l    | 24     | 20    | 28   | 2.00  | 4.00  | Tris buffer without P5P 30°C     |
|                      | U/l    | 17     | 14    | 20   | 1.50  | 3.00  | Tris buffer without P5P 25°C     |
| Bicarbonate          | mmol/l | 15.4   | 12.2  | 18.6 | 1.60  | 3.20  | Colorimetric                     |
|                      | mmol/l | 14.3   | 11.4  | 17.2 | 1.45  | 2.90  | Enzymatic                        |
| Bile Acids           | µmol/l | 24.5   | 19.6  | 29.4 | 2.45  | 4.90  | 5th Generation Colorimetric      |
| Bilirubin Direct     | µmol/l | 18.4   | 14.5  | 22.3 | 1.95  | 3.90  | Dichlorophenyl Diazonium (DPD)   |
|                      | mg/dl  | 1.08   | 0.848 | 1.31 | 0.12  | 0.23  |                                  |
|                      | µmol/l | 18.7   | 14.8  | 22.6 | 1.95  | 3.90  | Diazo with Sulphanilic Acid      |
|                      | mg/dl  | 1.09   | 0.866 | 1.31 | 0.11  | 0.22  |                                  |
| Bilirubin Total      | µmol/l | 27.9   | 22.0  | 33.8 | 2.95  | 5.90  | Diazo with Dichloroaniline (DCA) |
|                      | mg/dl  | 1.63   | 1.29  | 1.97 | 0.17  | 0.34  |                                  |
|                      | µmol/l | 25.6   | 20.2  | 31.0 | 2.70  | 5.40  | Diazo with Sulphanilic Acid      |
|                      | mg/dl  | 1.50   | 1.18  | 1.82 | 0.16  | 0.32  |                                  |

## HITACHI SERIES®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte         | unit   | target | Range |      | 1SD    | 2SD    | methods                              |
|-----------------|--------|--------|-------|------|--------|--------|--------------------------------------|
|                 |        |        | low   | high |        |        |                                      |
| Bilirubin Total | µmol/l | 25.7   | 20.3  | 31.1 | 2.70   | 5.40   | Dichlorophenyl Diazonium (DPD)       |
|                 | mg/dl  | 1.50   | 1.19  | 1.81 | 0.16   | 0.31   |                                      |
|                 | µmol/l | 26.3   | 20.8  | 31.8 | 2.75   | 5.50   | Diazonium ion                        |
|                 | mg/dl  | 1.54   | 1.22  | 1.86 | 0.16   | 0.32   |                                      |
| Calcium         | mmol/l | 2.34   | 2.10  | 2.58 | 0.12   | 0.24   | Cresolphthalein complexone           |
|                 | mg/dl  | 9.38   | 8.42  | 10.3 | 0.48   | 0.96   |                                      |
|                 | mmol/l | 2.33   | 2.10  | 2.56 | 0.12   | 0.23   | Arsenazo III                         |
|                 | mg/dl  | 9.34   | 8.42  | 10.3 | 0.46   | 0.92   |                                      |
|                 | mmol/l | 2.35   | 2.11  | 2.59 | 0.12   | 0.24   | NM-BAPTA                             |
|                 | mg/dl  | 9.42   | 8.46  | 10.4 | 0.48   | 0.96   |                                      |
| Chloride        | mmol/l | 94.4   | 86.8  | 102  | 3.80   | 7.60   | ISE indirect                         |
| Cholesterol     | mmol/l | 4.94   | 4.30  | 5.58 | 0.32   | 0.64   | Cholesterol Oxidase                  |
|                 | mg/dl  | 191    | 166   | 216  | 12.50  | 25.00  |                                      |
| Cholinesterase  | U/l    | 4566   | 3653  | 5479 | 456.50 | 913.00 | Colorimetric Butyrylthiocholine 37°C |
| CK Total        | U/l    | 215    | 176   | 254  | 19.50  | 39.00  | CK-NAC substrate start (DGKC) 37°C   |
|                 | U/l    | 135    | 110   | 160  | 12.50  | 25.00  | CK-NAC substrate start (DGKC) 30°C   |
|                 | U/l    | 91     | 75    | 107  | 8.00   | 16.00  | CK-NAC substrate start (DGKC) 25°C   |
|                 | U/l    | 222    | 182   | 262  | 20.00  | 40.00  | CK-NAC (IFCC) 37°C                   |
|                 | U/l    | 139    | 114   | 164  | 12.50  | 25.00  | CK-NAC (IFCC) 30°C                   |
|                 | U/l    | 94     | 77    | 111  | 8.50   | 17.00  | CK-NAC (IFCC) 25°C                   |
| Creatinine      | µmol/l | 124    | 99.0  | 149  | 12.50  | 25.00  | Alkaline picrate no deproteinization |
|                 | mg/dl  | 1.40   | 1.12  | 1.68 | 0.14   | 0.28   |                                      |
|                 | µmol/l | 120    | 95.7  | 144  | 12.15  | 24.30  | Randox Enzymatic UV method           |
|                 | mg/dl  | 1.36   | 1.08  | 1.64 | 0.14   | 0.28   |                                      |
|                 | µmol/l | 122    | 97.4  | 147  | 12.30  | 24.60  | Creatinine PAP method                |
|                 | mg/dl  | 1.38   | 1.10  | 1.66 | 0.14   | 0.28   |                                      |

## HITACHI SERIES®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte             | unit   | target | Range |      | 1SD   | 2SD   | methods                                              |
|---------------------|--------|--------|-------|------|-------|-------|------------------------------------------------------|
|                     |        |        | low   | high |       |       |                                                      |
| Creatinine          | µmol/l | 120    | 96.1  | 144  | 11.95 | 23.90 | Roche Creatinine Plus                                |
|                     | mg/dl  | 1.36   | 1.09  | 1.63 | 0.14  | 0.27  |                                                      |
|                     | µmol/l | 125    | 99.6  | 150  | 12.70 | 25.40 | Jaffe rate blanked comp. (-26 µmol/l)                |
|                     | mg/dl  | 1.41   | 1.13  | 1.69 | 0.14  | 0.28  |                                                      |
| D-3-Hydroxybutyrate | mmol/l | 0.28   | 0.24  | 0.32 | 0.02  | 0.04  | Tris buffer 100mmol pH 8.5                           |
| gamma-GT            | U/l    | 43     | 36    | 50   | 3.50  | 7.00  | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C        |
|                     | U/l    | 34     | 28    | 40   | 3.00  | 6.00  | Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C        |
|                     | U/l    | 27     | 22    | 32   | 2.50  | 5.00  | Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C        |
|                     | U/l    | 47     | 40    | 54   | 3.50  | 7.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C  |
|                     | U/l    | 37     | 32    | 42   | 2.50  | 5.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C  |
|                     | U/l    | 29     | 25    | 33   | 2.00  | 4.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C  |
|                     | U/l    | 49     | 42    | 56   | 3.50  | 7.00  | Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C |
|                     | U/l    | 39     | 33    | 45   | 3.00  | 6.00  | Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C |
| GLDH                | U/l    | 18     | 14    | 22   | 2.00  | 4.00  | Triethanolamine buffer 50 mmol 37°C                  |
|                     | U/l    | 14     | 11    | 17   | 1.50  | 3.00  | Triethanolamine buffer 50 mmol 30°C                  |
|                     | U/l    | 11     | 9     | 13   | 1.00  | 2.00  | Triethanolamine buffer 50 mmol 25°C                  |
| Glucose             | mmol/l | 7.16   | 6.08  | 8.24 | 0.54  | 1.08  | Hexokinase                                           |
|                     | mg/dl  | 129    | 110   | 148  | 9.50  | 19.00 |                                                      |
|                     | mmol/l | 7.28   | 6.19  | 8.37 | 0.55  | 1.09  | Glucose oxidase                                      |
|                     | mg/dl  | 131    | 112   | 150  | 9.50  | 19.00 |                                                      |
| HDL - Cholesterol   | mmol/l | 1.69   | 1.44  | 1.94 | 0.13  | 0.25  | Direct HDL Immunoseparation                          |
|                     | mg/dl  | 65.2   | 55.6  | 74.8 | 4.80  | 9.60  |                                                      |
|                     | mmol/l | 2.03   | 1.73  | 2.33 | 0.15  | 0.30  | Direct HDL PEGME                                     |
|                     | mg/dl  | 78.4   | 66.8  | 90.0 | 5.80  | 11.60 |                                                      |

## HITACHI SERIES®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte           | unit   | target | Range |       | 1SD   | 2SD   | methods                         |
|-------------------|--------|--------|-------|-------|-------|-------|---------------------------------|
|                   |        |        | low   | high  |       |       |                                 |
| HDL - Cholesterol | mmol/l | 1.71   | 1.45  | 1.97  | 0.13  | 0.26  | Direct Clearance Method         |
|                   | mg/dl  | 66.0   | 56.0  | 76.0  | 5.00  | 10.00 |                                 |
|                   | mmol/l | 2.04   | 1.73  | 2.35  | 0.16  | 0.31  | Direct HDL Roche 3rd generation |
|                   | mg/dl  | 78.7   | 66.8  | 90.6  | 5.95  | 11.90 |                                 |
| Iron              | µmol/l | 18.8   | 15.4  | 22.2  | 1.70  | 3.40  | Colorimetric with ppt.          |
|                   | µg/dl  | 105    | 86.1  | 124   | 9.45  | 18.90 |                                 |
|                   | µmol/l | 18.8   | 15.4  | 22.2  | 1.70  | 3.40  | Colorimetric without ppt.       |
|                   | µg/dl  | 105    | 86.1  | 124   | 9.45  | 18.90 |                                 |
| Lactate           | mmol/l | 1.49   | 1.22  | 1.76  | 0.14  | 0.27  | Colorimetric Lactate Oxidase    |
|                   | mg/dl  | 13.4   | 11.0  | 15.8  | 1.20  | 2.40  |                                 |
| LD (LDH)          | U/l    | 416    | 353   | 479   | 31.50 | 63.00 | P->L German methods 37°C        |
|                   | U/l    | 300    | 255   | 345   | 22.50 | 45.00 | P->L German methods 30°C        |
|                   | U/l    | 211    | 179   | 243   | 16.00 | 32.00 | P->L German methods 25°C        |
|                   | U/l    | 205    | 175   | 235   | 15.00 | 30.00 | L->P IFCC 37°C                  |
|                   | U/l    | 148    | 126   | 170   | 11.00 | 22.00 | L->P IFCC 30°C                  |
|                   | U/l    | 104    | 89    | 119   | 7.50  | 15.00 | L->P IFCC 25°C                  |
| Lipase            | U/l    | 33     | 27    | 39    | 3.00  | 6.00  | Other Colorimetric 37°C         |
|                   | U/l    | 32     | 26    | 38    | 3.00  | 6.00  | Roche Colorimetric 37°C         |
| Lithium           | mmol/l | 1.01   | 0.89  | 1.13  | 0.06  | 0.12  | Spectrophotometric              |
|                   | mg/dl  | 0.701  | 0.619 | 0.783 | 0.04  | 0.08  |                                 |
| Magnesium         | mmol/l | 0.91   | 0.80  | 1.02  | 0.05  | 0.11  | Xylidyl Blue                    |
|                   | mg/dl  | 2.22   | 1.95  | 2.49  | 0.14  | 0.27  |                                 |
|                   | mmol/l | 0.88   | 0.78  | 0.99  | 0.05  | 0.11  | Enzymatic                       |
|                   | mg/dl  | 2.15   | 1.89  | 2.41  | 0.13  | 0.26  |                                 |

## HITACHI SERIES®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

|                     |        | Range  |      |      |       |       |                                                   |
|---------------------|--------|--------|------|------|-------|-------|---------------------------------------------------|
| Analyte             | unit   | target | low  | high | 1SD   | 2SD   | methods                                           |
| Phosphate Inorganic | mmol/l | 1.36   | 1.15 | 1.57 | 0.11  | 0.21  | Phosphomolybdate UV                               |
|                     | mg/dl  | 4.22   | 3.57 | 4.87 | 0.33  | 0.65  |                                                   |
| Potassium           | mmol/l | 4.01   | 3.69 | 4.33 | 0.16  | 0.32  | ISE method - indirect                             |
| Protein Total       | g/l    | 58.6   | 46.9 | 70.3 | 5.85  | 11.70 | Biuret reaction end point                         |
|                     | g/dl   | 5.86   | 4.69 | 7.03 | 0.59  | 1.17  |                                                   |
|                     | g/l    | 58.7   | 47.0 | 70.4 | 5.85  | 11.70 | Biuret reaction kinetic                           |
|                     | g/dl   | 5.87   | 4.70 | 7.04 | 0.59  | 1.17  |                                                   |
| Sodium              | mmol/l | 141    | 134  | 148  | 3.50  | 7.00  | ISE method - indirect                             |
| TIBC                | µmol/l | 42.0   | 33.2 | 50.8 | 4.40  | 8.80  | FE+UIBC(saturation with iron)                     |
|                     | µg/dl  | 235    | 186  | 284  | 24.50 | 49.00 |                                                   |
| Triglycerides       | mmol/l | 1.03   | 0.87 | 1.19 | 0.08  | 0.16  | Lipase/GPO-PAP no correction                      |
|                     | mg/dl  | 91.2   | 76.9 | 106  | 7.15  | 14.30 |                                                   |
|                     | mmol/l | 1.04   | 0.87 | 1.21 | 0.08  | 0.17  | Lipase/GPO-PAP 0.11mmol/l correction              |
|                     | mg/dl  | 92.0   | 77.1 | 107  | 7.45  | 14.90 |                                                   |
| Urea                | mmol/l | 7.44   | 6.32 | 8.56 | 0.56  | 1.12  | Urease kinetic                                    |
|                     | mg/dl  | 44.7   | 38.0 | 51.4 | 3.35  | 6.70  |                                                   |
|                     | mmol/l | 7.44   | 6.32 | 8.56 | 0.56  | 1.12  | BUN                                               |
|                     | mg/dl  | 20.9   | 17.8 | 24.0 | 1.55  | 3.10  |                                                   |
| Uric Acid (Urate)   | mmol/l | 0.33   | 0.29 | 0.37 | 0.02  | 0.04  | Uricase catalase 340nm                            |
|                     | mg/dl  | 5.54   | 4.82 | 6.26 | 0.36  | 0.72  |                                                   |
|                     | mmol/l | 0.34   | 0.29 | 0.38 | 0.02  | 0.04  | Uricase peroxidase with ascorbate oxidase         |
|                     | mg/dl  | 5.63   | 4.91 | 6.35 | 0.36  | 0.72  |                                                   |
|                     | mmol/l | 0.33   | 0.29 | 0.37 | 0.02  | 0.04  | Uricase peroxidase no ascorbate oxidase           |
|                     | mg/dl  | 5.53   | 4.82 | 6.24 | 0.36  | 0.71  |                                                   |
|                     | mmol/l | 0.33   | 0.29 | 0.37 | 0.02  | 0.04  | Uricase Peroxidase with ascorbate oxidase @ 546nm |
|                     | mg/dl  | 5.56   | 4.84 | 6.28 | 0.36  | 0.72  |                                                   |

## ILab 600®/650®/Aries®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte              | unit   | target | Range |      | 1SD   | 2SD   | methods                      |
|----------------------|--------|--------|-------|------|-------|-------|------------------------------|
|                      |        |        | low   | high |       |       |                              |
| Albumin              | g/l    | 42.2   | 35.9  | 48.5 | 3.15  | 6.30  | Bromocresol Green            |
|                      | g/dl   | 4.22   | 3.59  | 4.85 | 0.32  | 0.63  |                              |
| Alkaline Phosphatase | U/l    | 193    | 164   | 222  | 14.50 | 29.00 | AMP optimised to IFCC 37°C   |
|                      | U/l    | 150    | 128   | 172  | 11.00 | 22.00 | AMP optimised to IFCC 30°C   |
|                      | U/l    | 123    | 105   | 141  | 9.00  | 18.00 | AMP optimised to IFCC 25°C   |
| ALT (GPT)            | U/l    | 35     | 28    | 42   | 3.50  | 7.00  | Tris buffer without P5P 37°C |
|                      | U/l    | 26     | 21    | 31   | 2.50  | 5.00  | Tris buffer without P5P 30°C |
|                      | U/l    | 20     | 16    | 24   | 2.00  | 4.00  | Tris buffer without P5P 25°C |
| Amylase Total        | U/l    | 90     | 77    | 103  | 6.50  | 13.00 | I.L. - blocked pNPG7 37°C    |
| AST (GOT)            | U/l    | 35     | 28    | 42   | 3.50  | 7.00  | Tris buffer without P5P 37°C |
|                      | U/l    | 24     | 19    | 29   | 2.50  | 5.00  | Tris buffer without P5P 30°C |
|                      | U/l    | 17     | 13    | 21   | 2.00  | 4.00  | Tris buffer without P5P 25°C |
| Bile Acids           | µmol/l | 26.9   | 21.5  | 32.3 | 2.70  | 5.40  | Enzymatic Colorimetric       |
| Bilirubin Total      | µmol/l | 30.6   | 24.2  | 37.0 | 3.20  | 6.40  | Diazo with Sulphanilic Acid  |
|                      | mg/dl  | 1.79   | 1.42  | 2.16 | 0.19  | 0.37  |                              |
| Calcium              | mmol/l | 2.37   | 2.13  | 2.61 | 0.12  | 0.24  | Cresolphthalein complexone   |
|                      | mg/dl  | 9.50   | 8.54  | 10.5 | 0.48  | 0.96  |                              |
| Chloride             | mmol/l | 95.5   | 87.8  | 103  | 3.85  | 7.70  | ISE indirect                 |
| Cholesterol          | mmol/l | 5.03   | 4.38  | 5.68 | 0.33  | 0.65  | Cholesterol Oxidase          |
|                      | mg/dl  | 194    | 169   | 219  | 12.50 | 25.00 |                              |
| CK Total             | U/l    | 210    | 172   | 248  | 19.00 | 38.00 | CK-NAC (IFCC) 37°C           |
|                      | U/l    | 131    | 108   | 154  | 11.50 | 23.00 | CK-NAC (IFCC) 30°C           |
|                      | U/l    | 89     | 73    | 105  | 8.00  | 16.00 | CK-NAC (IFCC) 25°C           |

## ILab 600®/650®/Aries®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte             | unit   | target | Range |      | 1SD   | 2SD   | methods                                             |
|---------------------|--------|--------|-------|------|-------|-------|-----------------------------------------------------|
|                     |        |        | low   | high |       |       |                                                     |
| Creatinine          | μmol/l | 126    | 101   | 151  | 12.50 | 25.00 | Alkaline picrate no deproteinization                |
|                     | mg/dl  | 1.42   | 1.14  | 1.70 | 0.14  | 0.28  |                                                     |
| D-3-Hydroxybutyrate | mmol/l | 0.30   | 0.25  | 0.34 | 0.02  | 0.04  | Tris buffer 100mmol pH 8.5                          |
| gamma-GT            | U/l    | 45     | 38    | 52   | 3.50  | 7.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
|                     | U/l    | 35     | 30    | 40   | 2.50  | 5.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
|                     | U/l    | 28     | 23    | 33   | 2.50  | 5.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |
| Glucose             | mmol/l | 7.40   | 6.29  | 8.51 | 0.56  | 1.11  | Hexokinase                                          |
|                     | mg/dl  | 133    | 113   | 153  | 10.00 | 20.00 |                                                     |
|                     | mmol/l | 7.16   | 6.08  | 8.24 | 0.54  | 1.08  | Glucose oxidase                                     |
|                     | mg/dl  | 129    | 110   | 148  | 9.50  | 19.00 |                                                     |
| Iron                | μmol/l | 19.5   | 16.0  | 23.0 | 1.75  | 3.50  | Colorimetric without ppt.                           |
|                     | μg/dl  | 109    | 89.4  | 129  | 9.80  | 19.60 |                                                     |
| LD (LDH)            | U/l    | 437    | 372   | 502  | 32.50 | 65.00 | P->L German methods 37°C                            |
|                     | U/l    | 316    | 269   | 363  | 23.50 | 47.00 | P->L German methods 30°C                            |
|                     | U/l    | 222    | 189   | 255  | 16.50 | 33.00 | P->L German methods 25°C                            |
| Magnesium           | mmol/l | 0.93   | 0.82  | 1.04 | 0.06  | 0.11  | Xylidyl Blue                                        |
|                     | mg/dl  | 2.25   | 1.98  | 2.52 | 0.14  | 0.27  |                                                     |
|                     | mmol/l | 1.00   | 0.88  | 1.12 | 0.06  | 0.12  | Enzymatic                                           |
|                     | mg/dl  | 2.43   | 2.13  | 2.73 | 0.15  | 0.30  |                                                     |
| Phosphate Inorganic | mmol/l | 1.39   | 1.18  | 1.60 | 0.11  | 0.21  | Phosphomolybdate UV                                 |
|                     | mg/dl  | 4.31   | 3.66  | 4.96 | 0.33  | 0.65  |                                                     |
| Potassium           | mmol/l | 4.15   | 3.82  | 4.48 | 0.17  | 0.33  | ISE method - indirect                               |
| Protein Total       | g/l    | 59.1   | 47.3  | 70.9 | 5.90  | 11.80 | Biuret reaction end point                           |
|                     | g/dl   | 5.91   | 4.73  | 7.09 | 0.59  | 1.18  |                                                     |

## ILab 600®/650®/Aries®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

|                   |        | Range  |      |      |      |       |                                         |
|-------------------|--------|--------|------|------|------|-------|-----------------------------------------|
| Analyte           | unit   | target | low  | high | 1SD  | 2SD   | methods                                 |
| Sodium            | mmol/l | 144    | 137  | 151  | 3.50 | 7.00  | ISE method - indirect                   |
| Triglycerides     | mmol/l | 1.05   | 0.88 | 1.22 | 0.08 | 0.17  | Lipase/GPO-PAP no correction            |
|                   | mg/dl  | 92.9   | 78.0 | 108  | 7.45 | 14.90 |                                         |
|                   | mmol/l | 1.09   | 0.92 | 1.26 | 0.09 | 0.17  | L/G Kinase EP. no correction            |
|                   | mg/dl  | 96.5   | 81.3 | 112  | 7.60 | 15.20 |                                         |
| Urea              | mmol/l | 7.65   | 6.50 | 8.80 | 0.58 | 1.15  | Urease end point                        |
|                   | mg/dl  | 46.0   | 39.1 | 52.9 | 3.45 | 6.90  |                                         |
|                   | mmol/l | 7.65   | 6.50 | 8.80 | 0.58 | 1.15  | BUN                                     |
|                   | mg/dl  | 21.5   | 18.3 | 24.7 | 1.60 | 3.20  |                                         |
| Uric Acid (Urate) | mmol/l | 0.35   | 0.30 | 0.39 | 0.02 | 0.05  | Uricase peroxidase no ascorbate oxidase |
|                   | mg/dl  | 5.86   | 5.11 | 6.61 | 0.38 | 0.75  |                                         |

## JOHNSON AND JOHNSON VITROS®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte              | unit   | target | Range |      | 1SD   | 2SD   | methods                                    |
|----------------------|--------|--------|-------|------|-------|-------|--------------------------------------------|
|                      |        |        | low   | high |       |       |                                            |
| Albumin              | g/l    | 38.8   | 33.0  | 44.6 | 2.90  | 5.80  | Ortho Vitros Microslide Systems            |
|                      | g/dl   | 3.88   | 3.30  | 4.46 | 0.29  | 0.58  |                                            |
| Alkaline Phosphatase | U/l    | 145    | 123   | 167  | 11.00 | 22.00 | Ortho Vitros Microslide Systems 37°C       |
|                      | U/l    | 130    | 111   | 149  | 9.50  | 19.00 | Vitros DT60/DT60 II/DTSC II 37°C           |
| ALT (GPT)            | U/l    | 45     | 36    | 54   | 4.50  | 9.00  | Ortho Vitros Microslide Systems 37°C       |
|                      | U/l    | 41     | 33    | 49   | 4.00  | 8.00  | Vitros DT60/DT60 II/DTSC II 37°C           |
| Amylase Total        | U/l    | 61     | 52    | 70   | 4.50  | 9.00  | Ortho Vitros Microslide Systems 37°C       |
| AST (GOT)            | U/l    | 49     | 40    | 58   | 4.50  | 9.00  | Ortho Vitros Microslide visible slide 37°C |
| Bicarbonate          | mmol/l | 16.2   | 12.9  | 19.5 | 1.65  | 3.30  | Ortho Vitros Microslide Systems            |
| Bilirubin Total      | µmol/l | 24.7   | 19.5  | 29.9 | 2.60  | 5.20  | Vitros 250/500/700/950 Total Bilirubin     |
|                      | mg/dl  | 1.44   | 1.14  | 1.74 | 0.15  | 0.30  |                                            |
|                      | µmol/l | 25.6   | 20.2  | 31.0 | 2.70  | 5.40  | Vitros 250/500/700/950 Total BUBC          |
|                      | mg/dl  | 1.50   | 1.18  | 1.82 | 0.16  | 0.32  |                                            |
| Calcium              | mmol/l | 2.40   | 2.16  | 2.64 | 0.12  | 0.24  | Ortho Vitros Microslide Systems            |
|                      | mg/dl  | 9.62   | 8.66  | 10.6 | 0.48  | 0.96  |                                            |
|                      | mmol/l | 2.29   | 2.06  | 2.52 | 0.12  | 0.23  | Vitros DT60/DT60 II/DTSC II                |
|                      | mg/dl  | 9.18   | 8.26  | 10.1 | 0.46  | 0.92  |                                            |
| Chloride             | mmol/l | 97.9   | 90.0  | 106  | 3.95  | 7.90  | Ortho Vitros Microslide Systems            |
| Cholesterol          | mmol/l | 4.81   | 4.19  | 5.43 | 0.31  | 0.62  | Ortho Vitros Microslide Systems            |
|                      | mg/dl  | 186    | 162   | 210  | 12.00 | 24.00 |                                            |
|                      | mmol/l | 4.47   | 3.89  | 5.05 | 0.29  | 0.58  | Vitros DT60/DT60 II                        |
|                      | mg/dl  | 173    | 150   | 196  | 11.50 | 23.00 |                                            |

## JOHNSON AND JOHNSON VITROS®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

|                   |        | Range  |      |      |        |        |                                            |
|-------------------|--------|--------|------|------|--------|--------|--------------------------------------------|
| Analyte           | unit   | target | low  | high | 1SD    | 2SD    | methods                                    |
| Cholinesterase    | U/l    | 4679   | 3743 | 5615 | 468.00 | 936.00 | Ortho Vitros Microslide Systems 37°C       |
| CK Total          | U/l    | 206    | 169  | 243  | 18.50  | 37.00  | Ortho Vitros Microslide Systems 37°C       |
| Creatinine        | µmol/l | 120    | 95.7 | 144  | 12.15  | 24.30  | Vitros 250/500/700/950/5.1FS single slide  |
|                   | mg/dl  | 1.36   | 1.08 | 1.64 | 0.14   | 0.28   |                                            |
|                   | µmol/l | 123    | 98.3 | 148  | 12.35  | 24.70  | Vitros 250/500/700/950 double slide        |
|                   | mg/dl  | 1.39   | 1.11 | 1.67 | 0.14   | 0.28   |                                            |
|                   | µmol/l | 122    | 97.5 | 147  | 12.25  | 24.50  | Vitros IDMS Traceable                      |
|                   | mg/dl  | 1.38   | 1.10 | 1.66 | 0.14   | 0.28   |                                            |
| Free T4           | pmol/l | 35.7   | 26.8 | 44.6 | 4.45   | 8.90   | Vitros ECI                                 |
|                   | ng/dl  | 2.78   | 2.09 | 3.47 | 0.35   | 0.69   |                                            |
|                   | pg/ml  | 27.8   | 20.9 | 34.7 | 3.45   | 6.90   | Vitros ECI                                 |
| gamma-GT          | U/l    | 61     | 52   | 70   | 4.50   | 9.00   | Ortho Vitros Microslide Systems 37°C       |
| Glucose           | mmol/l | 6.91   | 5.87 | 7.95 | 0.52   | 1.04   | Ortho Vitros Microslide Systems            |
|                   | mg/dl  | 125    | 106  | 144  | 9.50   | 19.00  |                                            |
|                   | mmol/l | 6.88   | 5.85 | 7.91 | 0.52   | 1.03   | Vitros DT60/DT60 II                        |
|                   | mg/dl  | 124    | 105  | 143  | 9.50   | 19.00  |                                            |
| HDL - Cholesterol | mmol/l | 1.97   | 1.68 | 2.26 | 0.15   | 0.29   | Vitros Magnetic HDL                        |
|                   | mg/dl  | 76.0   | 64.8 | 87.2 | 5.60   | 11.20  |                                            |
|                   | mmol/l | 1.91   | 1.62 | 2.20 | 0.15   | 0.29   | Vitros 5.1 FS microtip assay               |
|                   | mg/dl  | 73.7   | 62.5 | 84.9 | 5.60   | 11.20  |                                            |
|                   | mmol/l | 1.92   | 1.63 | 2.21 | 0.15   | 0.29   | Vitros dHDL PTA/MgCl2 direct precipitation |
|                   | mg/dl  | 74.1   | 62.9 | 85.3 | 5.60   | 11.20  |                                            |
| Iron              | µmol/l | 19.7   | 16.2 | 23.2 | 1.75   | 3.50   | Ortho Vitros Microslide Systems            |
|                   | µg/dl  | 110    | 90.6 | 129  | 9.70   | 19.40  |                                            |

## JOHNSON AND JOHNSON VITROS®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

|                             |         | Range  |       |       |       |       |                                      |
|-----------------------------|---------|--------|-------|-------|-------|-------|--------------------------------------|
| Analyte                     | unit    | target | low   | high  | 1SD   | 2SD   | methods                              |
| Lactate                     | mmol/l  | 1.43   | 1.17  | 1.69  | 0.13  | 0.26  | Ortho Vitros Microslide Systems      |
|                             | mg/dl   | 12.9   | 10.5  | 15.3  | 1.20  | 2.40  |                                      |
| LD (LDH)                    | U/l     | 605    | 514   | 696   | 45.50 | 91.00 | Ortho Vitros Microslide Systems 37°C |
| Lipase                      | U/l     | 260    | 209   | 311   | 25.50 | 51.00 | Ortho Vitros Microslide Systems 37°C |
| Lithium                     | mmol/l  | 1.12   | 0.99  | 1.25  | 0.07  | 0.13  | Ortho Vitros Microslide Systems      |
|                             | mg/dl   | 0.778  | 0.686 | 0.870 | 0.05  | 0.09  |                                      |
| Magnesium                   | mmol/l  | 0.91   | 0.80  | 1.02  | 0.06  | 0.11  | Ortho Vitros Microslide Systems      |
|                             | mg/dl   | 2.22   | 1.95  | 2.49  | 0.14  | 0.27  |                                      |
|                             | mmol/l  | 0.86   | 0.76  | 0.97  | 0.05  | 0.10  | Vitros DT60/DT60 II                  |
|                             | mg/dl   | 2.10   | 1.85  | 2.35  | 0.13  | 0.25  |                                      |
| Phosphate Inorganic         | mmol/l  | 1.46   | 1.24  | 1.68  | 0.11  | 0.22  | Ortho Vitros Microslide Systems      |
|                             | mg/dl   | 4.53   | 3.84  | 5.22  | 0.35  | 0.69  |                                      |
| Potassium                   | mmol/l  | 4.09   | 3.77  | 4.41  | 0.16  | 0.32  | Ortho Vitros Microslide Systems      |
|                             | mmol/l  | 4.03   | 3.71  | 4.35  | 0.16  | 0.32  | Vitros DT60/DT60 II/DTE II           |
| Protein Total               | g/l     | 59.1   | 47.3  | 70.9  | 5.90  | 11.80 | Ortho Vitros Microslide Systems      |
|                             | g/dl    | 5.91   | 4.73  | 7.09  | 0.59  | 1.18  |                                      |
| PSA Total                   | ng/ml = | 17.0   | 12.7  | 21.3  | 2.15  | 4.30  | Ortho Vitros 3600/5600/ECi PSA II    |
| Sodium                      | mmol/l  | 141    | 134   | 148   | 3.50  | 7.00  | Ortho Vitros Microslide Systems      |
|                             | mmol/l  | 142    | 135   | 149   | 3.50  | 7.00  | Vitros DT60/DT60 II/DTE II           |
| Thyroid Stimulating Hormone | µU/ml = | 1.19   | 0.95  | 1.43  | 0.12  | 0.24  | Vitros ECi                           |
| TIBC                        | µmol/l  | 46.7   | 36.9  | 56.5  | 4.90  | 9.80  | Ortho Vitros Microslide Systems      |
|                             | µg/dl   | 261    | 206   | 316   | 27.50 | 55.00 |                                      |
| Triglycerides               | mmol/l  | 1.28   | 1.08  | 1.48  | 0.10  | 0.20  | Ortho Vitros Microslide Systems      |
|                             | mg/dl   | 113    | 95.6  | 130   | 8.70  | 17.40 |                                      |
|                             | mmol/l  | 1.29   | 1.08  | 1.50  | 0.11  | 0.21  | Vitros DT60/DT60 II                  |
|                             | mg/dl   | 114    | 95.6  | 132   | 9.20  | 18.40 |                                      |

## JOHNSON AND JOHNSON VITROS®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Range

| Analyte           | unit   | target | low  | high | 1SD  | 2SD  | methods                         |
|-------------------|--------|--------|------|------|------|------|---------------------------------|
| Urea              | mmol/l | 6.84   | 5.81 | 7.87 | 0.52 | 1.03 | Ortho Vitros Microslide Systems |
|                   | mg/dl  | 41.1   | 34.9 | 47.3 | 3.10 | 6.20 |                                 |
|                   | mmol/l | 6.93   | 5.89 | 7.97 | 0.52 | 1.04 | Vitros DT60/DT60 II             |
|                   | mg/dl  | 41.6   | 35.4 | 47.8 | 3.10 | 6.20 |                                 |
|                   | mmol/l | 6.84   | 5.81 | 7.87 | 0.52 | 1.03 | BUN                             |
|                   | mg/dl  | 19.2   | 16.3 | 22.1 | 1.45 | 2.90 |                                 |
| Uric Acid (Urate) | mmol/l | 0.33   | 0.28 | 0.37 | 0.02 | 0.04 | Ortho Vitros Microslide Systems |
|                   | mg/dl  | 5.49   | 4.77 | 6.21 | 0.36 | 0.72 |                                 |
|                   | mmol/l | 0.32   | 0.28 | 0.36 | 0.02 | 0.04 | Vitros DT60/DT60 II             |
|                   | mg/dl  | 5.36   | 4.65 | 6.07 | 0.36 | 0.71 |                                 |

## Konelab 20/30/60®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte              | unit   | target | Range |      | 1SD   | 2SD   | methods                         |
|----------------------|--------|--------|-------|------|-------|-------|---------------------------------|
|                      |        |        | low   | high |       |       |                                 |
| Albumin              | g/l    | 39.4   | 33.5  | 45.3 | 2.95  | 5.90  | Bromocresol Green               |
|                      | g/dl   | 3.94   | 3.35  | 4.53 | 0.30  | 0.59  |                                 |
| Alkaline Phosphatase | U/l    | 285    | 242   | 328  | 21.50 | 43.00 | Diethanolamine buffer DEA 37°C  |
|                      | U/l    | 222    | 189   | 255  | 16.50 | 33.00 | Diethanolamine buffer DEA 30°C  |
|                      | U/l    | 182    | 155   | 209  | 13.50 | 27.00 | Diethanolamine buffer DEA 25°C  |
|                      | U/l    | 183    | 155   | 211  | 14.00 | 28.00 | AMP optimised to IFCC 37°C      |
|                      | U/l    | 143    | 121   | 165  | 11.00 | 22.00 | AMP optimised to IFCC 30°C      |
|                      | U/l    | 117    | 99    | 135  | 9.00  | 18.00 | AMP optimised to IFCC 25°C      |
| ALT (GPT)            | U/l    | 38     | 30    | 46   | 4.00  | 8.00  | Tris buffer without P5P 37°C    |
|                      | U/l    | 28     | 22    | 34   | 3.00  | 6.00  | Tris buffer without P5P 30°C    |
|                      | U/l    | 21     | 17    | 25   | 2.00  | 4.00  | Tris buffer without P5P 25°C    |
| Amylase Total        | U/l    | 87     | 74    | 100  | 6.50  | 13.00 | bioMerieux - blocked pNPG7 37°C |
|                      | U/l    | 95     | 81    | 109  | 7.00  | 14.00 | Randox - Ethylidene pNPG7 37°C  |
|                      | U/l    | 80     | 68    | 92   | 6.00  | 12.00 | bioMerieux 2-chloro-pNPG3 37°C  |
| AST (GOT)            | U/l    | 38     | 31    | 45   | 3.50  | 7.00  | Tris buffer without P5P 37°C    |
|                      | U/l    | 26     | 21    | 31   | 2.50  | 5.00  | Tris buffer without P5P 30°C    |
|                      | U/l    | 18     | 15    | 21   | 1.50  | 3.00  | Tris buffer without P5P 25°C    |
| Bile Acids           | µmol/l | 27.1   | 21.7  | 32.5 | 2.70  | 5.40  | Enzymatic Colorimetric          |
| Bilirubin Direct     | µmol/l | 17.0   | 13.5  | 20.5 | 1.75  | 3.50  | Diazo with Sulphanilic Acid     |
|                      | mg/dl  | 0.995  | 0.790 | 1.20 | 0.10  | 0.21  |                                 |
| Bilirubin Total      | µmol/l | 24.6   | 19.4  | 29.8 | 2.60  | 5.20  | Diazo with Sulphanilic Acid     |
|                      | mg/dl  | 1.44   | 1.13  | 1.75 | 0.16  | 0.31  |                                 |

## Konelab 20/30/60®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte         | unit   | target | Range |      | 1SD   | 2SD   | methods                                             |
|-----------------|--------|--------|-------|------|-------|-------|-----------------------------------------------------|
|                 |        |        | low   | high |       |       |                                                     |
| Bilirubin Total | µmol/l | 25.2   | 19.9  | 30.5 | 2.65  | 5.30  | Nitrobenzenediazonium salt                          |
|                 | mg/dl  | 1.47   | 1.16  | 1.78 | 0.16  | 0.31  |                                                     |
| Calcium         | mmol/l | 2.38   | 2.14  | 2.62 | 0.12  | 0.24  | Arsenazo III                                        |
|                 | mg/dl  | 9.54   | 8.58  | 10.5 | 0.48  | 0.96  |                                                     |
| Chloride        | mmol/l | 99.7   | 91.8  | 108  | 3.95  | 7.90  | ISE direct                                          |
| Cholesterol     | mmol/l | 4.84   | 4.21  | 5.47 | 0.32  | 0.63  | Cholesterol Oxidase                                 |
|                 | mg/dl  | 187    | 163   | 211  | 12.00 | 24.00 |                                                     |
| CK Total        | U/l    | 225    | 184   | 266  | 20.50 | 41.00 | CK-NAC (IFCC) 37°C                                  |
|                 | U/l    | 141    | 115   | 167  | 13.00 | 26.00 | CK-NAC (IFCC) 30°C                                  |
|                 | U/l    | 96     | 78    | 114  | 9.00  | 18.00 | CK-NAC (IFCC) 25°C                                  |
| Creatinine      | µmol/l | 122    | 97.4  | 147  | 12.30 | 24.60 | Alkaline picrate no deproteinization                |
|                 | mg/dl  | 1.38   | 1.10  | 1.66 | 0.14  | 0.28  |                                                     |
|                 | µmol/l | 119    | 95.6  | 142  | 11.70 | 23.40 | Randox Enzymatic UV method                          |
|                 | mg/dl  | 1.34   | 1.08  | 1.60 | 0.13  | 0.26  |                                                     |
|                 | µmol/l | 117    | 93.7  | 140  | 11.65 | 23.30 | Creatinine PAP method                               |
|                 | mg/dl  | 1.32   | 1.06  | 1.58 | 0.13  | 0.26  |                                                     |
|                 | µmol/l | 122    | 97.4  | 147  | 12.30 | 24.60 | Jaffe rate blanked                                  |
|                 | mg/dl  | 1.38   | 1.10  | 1.66 | 0.14  | 0.28  |                                                     |
| gamma-GT        | U/l    | 46     | 39    | 53   | 3.50  | 7.00  | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C       |
|                 | U/l    | 36     | 31    | 41   | 2.50  | 5.00  | Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C       |
|                 | U/l    | 28     | 24    | 32   | 2.00  | 4.00  | Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C       |
|                 | U/l    | 51     | 43    | 59   | 4.00  | 8.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
|                 | U/l    | 40     | 34    | 46   | 3.00  | 6.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
|                 | U/l    | 31     | 27    | 35   | 2.00  | 4.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |

## Konelab 20/30/60®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte             | unit   | target | Range |      | 1SD   | 2SD   | methods                        |
|---------------------|--------|--------|-------|------|-------|-------|--------------------------------|
|                     |        |        | low   | high |       |       |                                |
| Glucose             | mmol/l | 7.18   | 6.10  | 8.26 | 0.54  | 1.08  | Hexokinase                     |
|                     | mg/dl  | 129    | 110   | 148  | 9.50  | 19.00 |                                |
|                     | mmol/l | 7.17   | 6.09  | 8.25 | 0.54  | 1.08  | Glucose oxidase                |
|                     | mg/dl  | 129    | 110   | 148  | 9.50  | 19.00 |                                |
| HDL - Cholesterol   | mmol/l | 1.89   | 1.60  | 2.18 | 0.15  | 0.29  | Direct HDL PEGME               |
|                     | mg/dl  | 73.0   | 61.8  | 84.2 | 5.60  | 11.20 |                                |
| Iron                | µmol/l | 20.6   | 16.9  | 24.3 | 1.85  | 3.70  | Colorimetric without ppt.      |
|                     | µg/dl  | 115    | 94.5  | 136  | 10.25 | 20.50 |                                |
| LD (LDH)            | U/l    | 436    | 371   | 501  | 32.50 | 65.00 | P->L Scandinavian & Dutch 37°C |
|                     | U/l    | 315    | 268   | 362  | 23.50 | 47.00 | P->L Scandinavian & Dutch 30°C |
|                     | U/l    | 221    | 188   | 254  | 16.50 | 33.00 | P->L Scandinavian & Dutch 25°C |
| Magnesium           | mmol/l | 0.95   | 0.84  | 1.06 | 0.06  | 0.11  | Calmagite                      |
|                     | mg/dl  | 2.31   | 2.03  | 2.59 | 0.14  | 0.28  |                                |
|                     | mmol/l | 0.89   | 0.78  | 0.99 | 0.05  | 0.11  | Xylidyl Blue                   |
|                     | mg/dl  | 2.16   | 1.90  | 2.42 | 0.13  | 0.26  |                                |
| Phosphate Inorganic | mmol/l | 1.36   | 1.15  | 1.57 | 0.11  | 0.21  | Phosphomolybdate enzymatic     |
|                     | mg/dl  | 4.22   | 3.57  | 4.87 | 0.33  | 0.65  |                                |
|                     | mmol/l | 1.41   | 1.20  | 1.62 | 0.11  | 0.21  | Phosphomolybdate UV            |
|                     | mg/dl  | 4.37   | 3.72  | 5.02 | 0.33  | 0.65  |                                |
| Potassium           | mmol/l | 3.88   | 3.57  | 4.19 | 0.16  | 0.31  | ISE method - direct            |
| Protein Total       | g/l    | 58.7   | 46.9  | 70.5 | 5.90  | 11.80 | Biuret reaction end point      |
|                     | g/dl   | 5.87   | 4.69  | 7.05 | 0.59  | 1.18  |                                |
| Sodium              | mmol/l | 138    | 131   | 145  | 3.50  | 7.00  | ISE method - direct            |
| Triglycerides       | mmol/l | 1.06   | 0.89  | 1.23 | 0.08  | 0.17  | Lipase/GPO-PAP no correction   |
|                     | mg/dl  | 93.8   | 79.1  | 109  | 7.35  | 14.70 |                                |

## Konelab 20/30/60®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte           | unit   | target | Range |      | 1SD  | 2SD   | methods                                           |
|-------------------|--------|--------|-------|------|------|-------|---------------------------------------------------|
|                   |        |        | low   | high |      |       |                                                   |
| Triglycerides     | mmol/l | 1.07   | 0.90  | 1.24 | 0.08 | 0.17  | Lipase/GPO-PAP 0.11mmol/l correction              |
|                   | mg/dl  | 94.7   | 79.8  | 110  | 7.45 | 14.90 |                                                   |
|                   | mmol/l | 1.06   | 0.89  | 1.23 | 0.08 | 0.17  | Lipase/Glycerol Dehydrogenase                     |
|                   | mg/dl  | 93.8   | 78.9  | 109  | 7.45 | 14.90 |                                                   |
| Urea              | mmol/l | 7.34   | 6.24  | 8.44 | 0.55 | 1.10  | Urease kinetic                                    |
|                   | mg/dl  | 44.1   | 37.5  | 50.7 | 3.30 | 6.60  |                                                   |
|                   | mmol/l | 7.34   | 6.24  | 8.44 | 0.55 | 1.10  | BUN                                               |
|                   | mg/dl  | 20.6   | 17.5  | 23.7 | 1.55 | 3.10  |                                                   |
| Uric Acid (Urate) | mmol/l | 0.35   | 0.30  | 0.39 | 0.02 | 0.05  | Uricase peroxidase with ascorbate oxidase         |
|                   | mg/dl  | 5.86   | 5.11  | 6.61 | 0.38 | 0.75  |                                                   |
|                   | mmol/l | 0.35   | 0.31  | 0.40 | 0.02 | 0.05  | Uricase peroxidase no ascorbate oxidase           |
|                   | mg/dl  | 5.93   | 5.16  | 6.70 | 0.39 | 0.77  |                                                   |
|                   | mmol/l | 0.35   | 0.30  | 0.39 | 0.02 | 0.05  | Uricase Peroxidase with ascorbate oxidase @ 546nm |
|                   | mg/dl  | 5.81   | 5.06  | 6.56 | 0.38 | 0.75  |                                                   |

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte                          | unit | target | Range |      | 1SD   | 2SD   | methods                                                         |
|----------------------------------|------|--------|-------|------|-------|-------|-----------------------------------------------------------------|
|                                  |      |        | low   | high |       |       |                                                                 |
| alpha-HBDH                       | U/l  | 255    | 201   | 309  | 27.00 | 54.00 | Oxobutyrate < 10 mmol/l 37°C                                    |
|                                  | U/l  | 193    | 152   | 234  | 20.50 | 41.00 | Oxobutyrate < 10 mmol/l 30°C                                    |
|                                  | U/l  | 144    | 114   | 174  | 15.00 | 30.00 | Oxobutyrate < 10 mmol/l 25°C                                    |
| Acid Phosphatase (non-prostatic) | U/l  | 5.64   | 3.78  | 7.50 | 0.93  | 1.86  | 1-Naphthyl Phosphate substrate Kinetic 37°C                     |
|                                  | U/l  | 4.44   | 2.97  | 5.91 | 0.74  | 1.47  | 1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C |
| Acid Phosphatase (Prostatic)     | U/l  | 10.7   | 7.17  | 14.2 | 1.77  | 3.53  | 1-Naphthyl Phosphate substrate Kinetic 37°C                     |
|                                  | U/l  | 17.4   | 11.7  | 23.1 | 2.85  | 5.70  | 1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C |
| Acid Phosphatase (Total)         | U/l  | 16.3   | 10.9  | 21.7 | 2.70  | 5.40  | 1-Naphthyl Phosphate substrate Kinetic 37°C                     |
|                                  | U/l  | 21.8   | 14.6  | 29.0 | 3.60  | 7.20  | 1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C |
| Albumin                          | g/l  | 41.9   | 35.7  | 48.1 | 3.10  | 6.20  | Bromocresol Green                                               |
|                                  | g/dl | 4.19   | 3.57  | 4.81 | 0.31  | 0.62  |                                                                 |
|                                  | g/l  | 43.4   | 36.9  | 49.9 | 3.25  | 6.50  | Bromocresol Purple                                              |
|                                  | g/dl | 4.34   | 3.69  | 4.99 | 0.33  | 0.65  |                                                                 |
|                                  | g/l  | 38.8   | 33.0  | 44.6 | 2.90  | 5.80  | Ortho Vitros Microslide Systems                                 |
|                                  | g/dl | 3.88   | 3.30  | 4.46 | 0.29  | 0.58  |                                                                 |
|                                  | g/l  | 40.3   | 34.3  | 46.3 | 3.00  | 6.00  | Turbidimetric Assays                                            |
|                                  | g/dl | 4.03   | 3.43  | 4.63 | 0.30  | 0.60  |                                                                 |
| Alkaline Phosphatase             | U/l  | 181    | 154   | 208  | 13.50 | 27.00 | p-Nitrophenylphosphate AMP 37°C                                 |
|                                  | U/l  | 141    | 120   | 162  | 10.50 | 21.00 | p-Nitrophenylphosphate AMP 30°C                                 |
|                                  | U/l  | 116    | 98    | 134  | 9.00  | 18.00 | p-Nitrophenylphosphate AMP 25°C                                 |
|                                  | U/l  | 145    | 123   | 167  | 11.00 | 22.00 | Ortho Vitros Microslide Systems 37°C                            |

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

|                      |      | Range  |     |      |       |       |                                      |
|----------------------|------|--------|-----|------|-------|-------|--------------------------------------|
| Analyte              | unit | target | low | high | 1SD   | 2SD   | methods                              |
| Alkaline Phosphatase | U/l  | 272    | 232 | 312  | 20.00 | 40.00 | Diethanolamine buffer DEA 37°C       |
|                      | U/l  | 212    | 181 | 243  | 15.50 | 31.00 | Diethanolamine buffer DEA 30°C       |
|                      | U/l  | 174    | 148 | 200  | 13.00 | 26.00 | Diethanolamine buffer DEA 25°C       |
|                      | U/l  | 184    | 157 | 211  | 13.50 | 27.00 | AMP optimised to IFCC 37°C           |
|                      | U/l  | 143    | 122 | 164  | 10.50 | 21.00 | AMP optimised to IFCC 30°C           |
|                      | U/l  | 118    | 100 | 136  | 9.00  | 18.00 | AMP optimised to IFCC 25°C           |
|                      | U/l  | 175    | 149 | 201  | 13.00 | 26.00 | AMP reduced interference 37°C        |
|                      | U/l  | 136    | 116 | 156  | 10.00 | 20.00 | AMP reduced interference 30°C        |
|                      | U/l  | 112    | 95  | 129  | 8.50  | 17.00 | AMP reduced interference 25°C        |
| ALT (GPT)            | U/l  | 45     | 36  | 54   | 4.50  | 9.00  | Ortho Vitros Microslide Systems 37°C |
|                      | U/l  | 37     | 30  | 44   | 3.50  | 7.00  | Tris buffer with P5P 37°C            |
|                      | U/l  | 27     | 22  | 32   | 2.50  | 5.00  | Tris buffer with P5P 30°C            |
|                      | U/l  | 21     | 17  | 25   | 2.00  | 4.00  | Tris buffer with P5P 25°C            |
|                      | U/l  | 36     | 28  | 44   | 4.00  | 8.00  | Tris buffer without P5P 37°C         |
|                      | U/l  | 27     | 21  | 33   | 3.00  | 6.00  | Tris buffer without P5P 30°C         |
|                      | U/l  | 20     | 16  | 24   | 2.00  | 4.00  | Tris buffer without P5P 25°C         |
|                      | U/l  | 35     | 28  | 42   | 3.50  | 7.00  | Phosphate buffer DGKC 37°C           |
|                      | U/l  | 26     | 21  | 31   | 2.50  | 5.00  | Phosphate buffer DGKC 30°C           |
|                      | U/l  | 20     | 16  | 24   | 2.00  | 4.00  | Phosphate buffer DGKC 25°C           |
|                      | U/l  | 35     | 28  | 42   | 3.50  | 7.00  | Tris buffer SCE 37°C                 |
|                      | U/l  | 26     | 21  | 31   | 2.50  | 5.00  | Tris buffer SCE 30°C                 |
|                      | U/l  | 20     | 16  | 24   | 2.00  | 4.00  | Tris buffer SCE 25°C                 |
| Amylase Pancreatic   | U/l  | 60     | 51  | 69   | 4.50  | 9.00  | Immunoinhibition EPS substrate 37°C  |
|                      | U/l  | 65     | 55  | 75   | 5.00  | 10.00 | Roche liquid stable pNPG7 37°C       |
|                      | U/l  | 73     | 62  | 84   | 5.50  | 11.00 | Randox liquid stable pNPG7 37°C      |

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte            | unit  | target | Range |      | 1SD  | 2SD   | methods                                    |
|--------------------|-------|--------|-------|------|------|-------|--------------------------------------------|
|                    |       |        | low   | high |      |       |                                            |
| Amylase Total      | U/l   | 85     | 72    | 98   | 6.50 | 13.00 | pNP Maltotrioxide substrates 37°C          |
|                    | U/l   | 84     | 72    | 96   | 6.00 | 12.00 | Siemens - blocked pNPG7 37°C               |
|                    | U/l   | 87     | 74    | 100  | 6.50 | 13.00 | bioMerieux - blocked pNPG7 37°C            |
|                    | U/l   | 89     | 76    | 102  | 6.50 | 13.00 | I.L. - blocked pNPG7 37°C                  |
|                    | U/l   | 71     | 60    | 82   | 5.50 | 11.00 | Randox - Ethylidene pNPG7 37°C             |
|                    | U/l   | 94     | 80    | 108  | 7.00 | 14.00 | Randox liquid stable pNPG7 37°C            |
|                    | U/l   | 83     | 71    | 95   | 6.00 | 12.00 | BM/Roche Colorimetric pNPG7 37°C           |
|                    | U/l   | 92     | 78    | 106  | 7.00 | 14.00 | Beckman maltotetraose 37°C                 |
|                    | U/l   | 87     | 74    | 100  | 6.50 | 13.00 | Saccharogenic 37°C                         |
|                    | U/l   | 86     | 73    | 99   | 6.50 | 13.00 | Roche Integra 2-chloro-pNPG7 37°C          |
|                    | U/l   | 61     | 52    | 70   | 4.50 | 9.00  | Ortho Vitros Microslide Systems 37°C       |
|                    | U/l   | 85     | 72    | 98   | 6.50 | 13.00 | Other Roche 2-chloro-pNPG7 37°C            |
|                    | U/l   | 85     | 72    | 98   | 6.50 | 13.00 | Roche liquid stable pNPG7 37°C             |
|                    | U/l   | 90     | 77    | 103  | 6.50 | 13.00 | Siemens 2-chloro-pNPG3 37°C                |
|                    | U/l   | 82     | 69    | 95   | 6.50 | 13.00 | bioMerieux 2-chloro-pNPG3 37°C             |
|                    | U/l   | 86     | 73    | 99   | 6.50 | 13.00 | Beckman Coulter - blocked pNPG7 37°C       |
|                    | U/l   | 90     | 77    | 103  | 6.50 | 13.00 | Beckman Synchron AMY7 37°C                 |
| Apolipoprotein A-1 | g/l   | 1.10   | 0.90  | 1.30 | 0.10 | 0.20  | Immunoturbidimetric                        |
|                    | mg/dl | 110    | 90.2  | 130  | 9.90 | 19.80 |                                            |
| Apolipoprotein B   | g/l   | 0.53   | 0.43  | 0.62 | 0.05 | 0.10  | Immunoturbidimetric                        |
|                    | mg/dl | 52.9   | 43.4  | 62.4 | 4.75 | 9.50  |                                            |
| AST (GOT)          | U/l   | 49     | 40    | 58   | 4.50 | 9.00  | Ortho Vitros Microslide visible slide 37°C |
|                    | U/l   | 47     | 38    | 56   | 4.50 | 9.00  | Tris buffer with P5P 37°C                  |
|                    | U/l   | 32     | 26    | 38   | 3.00 | 6.00  | Tris buffer with P5P 30°C                  |
|                    | U/l   | 22     | 18    | 26   | 2.00 | 4.00  | Tris buffer with P5P 25°C                  |

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte          | unit   | target | Range |      | 1SD  | 2SD  | methods                          |
|------------------|--------|--------|-------|------|------|------|----------------------------------|
|                  |        |        | low   | high |      |      |                                  |
| AST (GOT)        | U/l    | 34     | 27    | 41   | 3.50 | 7.00 | Tris buffer without P5P 37°C     |
|                  | U/l    | 23     | 18    | 28   | 2.50 | 5.00 | Tris buffer without P5P 30°C     |
|                  | U/l    | 16     | 13    | 19   | 1.50 | 3.00 | Tris buffer without P5P 25°C     |
|                  | U/l    | 39     | 31    | 47   | 4.00 | 8.00 | Phosphate buffer DGKC 37°C       |
|                  | U/l    | 26     | 21    | 31   | 2.50 | 5.00 | Phosphate buffer DGKC 30°C       |
|                  | U/l    | 19     | 15    | 23   | 2.00 | 4.00 | Phosphate buffer DGKC 25°C       |
|                  | U/l    | 36     | 29    | 43   | 3.50 | 7.00 | Tris buffer SCE 37°C             |
|                  | U/l    | 24     | 20    | 28   | 2.00 | 4.00 | Tris buffer SCE 30°C             |
|                  | U/l    | 17     | 14    | 20   | 1.50 | 3.00 | Tris buffer SCE 25°C             |
| Bicarbonate      | mmol/l | 14.2   | 11.3  | 17.1 | 1.45 | 2.90 | Colorimetric                     |
|                  | mmol/l | 16.2   | 12.9  | 19.5 | 1.65 | 3.30 | Ortho Vitros Microslide Systems  |
|                  | mmol/l | 14.5   | 11.5  | 17.5 | 1.50 | 3.00 | Differential rate pH change      |
|                  | mmol/l | 14.9   | 11.8  | 18.0 | 1.55 | 3.10 | Enzymatic                        |
|                  | mmol/l | 15.3   | 12.1  | 18.5 | 1.60 | 3.20 | Ion selective electrode          |
| Bile Acids       | μmol/l | 28.8   | 23.0  | 34.6 | 2.90 | 5.80 | 4th Generation Colorimetric      |
|                  | μmol/l | 24.5   | 19.6  | 29.4 | 2.45 | 4.90 | 5th Generation Colorimetric      |
| Bilirubin Direct | μmol/l | 19.0   | 15.0  | 23.0 | 2.00 | 4.00 | Dichlorophenyl Diazonium (DPD)   |
|                  | mg/dl  | 1.11   | 0.878 | 1.34 | 0.12 | 0.23 |                                  |
|                  | μmol/l | 19.9   | 15.7  | 24.1 | 2.10 | 4.20 | Diazo with Sulphanilic Acid      |
|                  | mg/dl  | 1.16   | 0.918 | 1.40 | 0.12 | 0.24 |                                  |
|                  | μmol/l | 19.8   | 15.6  | 24.0 | 2.10 | 4.20 | Diazo with Dichloroaniline (DCA) |
|                  | mg/dl  | 1.16   | 0.913 | 1.41 | 0.12 | 0.25 |                                  |
|                  | μmol/l | 17.5   | 13.8  | 21.2 | 1.85 | 3.70 | Oxidation to Biliverdin          |
|                  | mg/dl  | 1.02   | 0.807 | 1.23 | 0.11 | 0.21 |                                  |
|                  | μmol/l | 15.1   | 11.9  | 18.3 | 1.60 | 3.20 | Modified Jendrassik              |
|                  | mg/dl  | 0.883  | 0.696 | 1.07 | 0.09 | 0.19 |                                  |

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte         | unit   | target | Range |      | 1SD  | 2SD  | methods                                |
|-----------------|--------|--------|-------|------|------|------|----------------------------------------|
|                 |        |        | low   | high |      |      |                                        |
| Bilirubin Total | μmol/l | 24.7   | 19.5  | 29.9 | 2.60 | 5.20 | Vitros 250/500/700/950 Total Bilirubin |
|                 | mg/dl  | 1.44   | 1.14  | 1.74 | 0.15 | 0.30 |                                        |
|                 | μmol/l | 25.6   | 20.2  | 31.0 | 2.70 | 5.40 | Vitros 250/500/700/950 Total BUBC      |
|                 | mg/dl  | 1.50   | 1.18  | 1.82 | 0.16 | 0.32 |                                        |
|                 | μmol/l | 33.5   | 26.5  | 40.5 | 3.50 | 7.00 | Diazo with Dichloroaniline (DCA)       |
|                 | mg/dl  | 1.96   | 1.55  | 2.37 | 0.21 | 0.41 |                                        |
|                 | μmol/l | 28.6   | 22.6  | 34.6 | 3.00 | 6.00 | Diazo with Sulphanilic Acid            |
|                 | mg/dl  | 1.67   | 1.32  | 2.02 | 0.18 | 0.35 |                                        |
|                 | μmol/l | 29.6   | 23.4  | 35.8 | 3.10 | 6.20 | Dichlorophenyl Diazonium (DPD)         |
|                 | mg/dl  | 1.73   | 1.37  | 2.09 | 0.18 | 0.36 |                                        |
|                 | μmol/l | 25.2   | 19.9  | 30.5 | 2.65 | 5.30 | Nitrobenzenediazonium salt             |
|                 | mg/dl  | 1.47   | 1.16  | 1.78 | 0.16 | 0.31 |                                        |
|                 | μmol/l | 25.7   | 20.3  | 31.1 | 2.70 | 5.40 | Diazonium ion                          |
|                 | mg/dl  | 1.50   | 1.19  | 1.81 | 0.16 | 0.31 |                                        |
|                 | μmol/l | 30.5   | 24.1  | 36.9 | 3.20 | 6.40 | Oxidation to Biliverdin                |
|                 | mg/dl  | 1.78   | 1.41  | 2.15 | 0.19 | 0.37 |                                        |
|                 | μmol/l | 33.7   | 26.6  | 40.8 | 3.55 | 7.10 | Modified Jendrassik                    |
|                 | mg/dl  | 1.97   | 1.56  | 2.38 | 0.21 | 0.41 |                                        |
| Calcium         | mmol/l | 2.41   | 2.17  | 2.65 | 0.12 | 0.24 | Atomic absorption                      |
|                 | mg/dl  | 9.66   | 8.70  | 10.6 | 0.48 | 0.96 |                                        |
|                 | mmol/l | 2.31   | 2.08  | 2.54 | 0.12 | 0.23 | Cresolphthalein complexone             |
|                 | mg/dl  | 9.26   | 8.34  | 10.2 | 0.46 | 0.92 |                                        |
|                 | mmol/l | 2.40   | 2.16  | 2.64 | 0.12 | 0.24 | Ortho Vitros Microslide Systems        |
|                 | mg/dl  | 9.62   | 8.66  | 10.6 | 0.48 | 0.96 |                                        |

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

|                |        | Range  |      |      |        |        |                                      |
|----------------|--------|--------|------|------|--------|--------|--------------------------------------|
| Analyte        | unit   | target | low  | high | 1SD    | 2SD    | methods                              |
| Calcium        | mmol/l | 2.29   | 2.06 | 2.52 | 0.12   | 0.23   | Ion selective electrode              |
|                | mg/dl  | 9.18   | 8.26 | 10.1 | 0.46   | 0.92   |                                      |
|                | mmol/l | 2.34   | 2.11 | 2.57 | 0.12   | 0.23   | Methylthymol blue                    |
|                | mg/dl  | 9.38   | 8.46 | 10.3 | 0.46   | 0.92   |                                      |
|                | mmol/l | 2.37   | 2.13 | 2.61 | 0.12   | 0.24   | Arsenazo III                         |
|                | mg/dl  | 9.50   | 8.54 | 10.5 | 0.48   | 0.96   |                                      |
| Chloride       | mmol/l | 2.35   | 2.12 | 2.58 | 0.12   | 0.23   | NM-BAPTA                             |
|                | mg/dl  | 9.42   | 8.50 | 10.3 | 0.46   | 0.92   |                                      |
|                | mmol/l | 98.4   | 90.5 | 106  | 3.95   | 7.90   | Colorimetric                         |
|                | mmol/l | 97.9   | 90.0 | 106  | 3.95   | 7.90   | Ortho Vitros Microslide Systems      |
| Cholesterol    | mmol/l | 95.8   | 88.2 | 103  | 3.80   | 7.60   | ISE indirect                         |
|                | mmol/l | 98.2   | 90.3 | 106  | 3.95   | 7.90   | ISE direct                           |
|                | mmol/l | 4.81   | 4.19 | 5.43 | 0.31   | 0.62   | Ortho Vitros Microslide Systems      |
|                | mg/dl  | 186    | 162  | 210  | 12.00  | 24.00  |                                      |
| Cholinesterase | mmol/l | 4.95   | 4.30 | 5.60 | 0.33   | 0.65   | Cholesterol Oxidase                  |
|                | mg/dl  | 191    | 166  | 216  | 12.50  | 25.00  |                                      |
| CK Total       | U/l    | 4755   | 3804 | 5706 | 475.50 | 951.00 | Colorimetric Butyrylthiocholine 37°C |
|                | U/l    | 206    | 169  | 243  | 18.50  | 37.00  | Ortho Vitros Microslide Systems 37°C |
|                | U/l    | 221    | 181  | 261  | 20.00  | 40.00  | CK-NAC serum start (DGKC) 37°C       |
|                | U/l    | 138    | 113  | 163  | 12.50  | 25.00  | CK-NAC serum start (DGKC) 30°C       |
|                | U/l    | 94     | 77   | 111  | 8.50   | 17.00  | CK-NAC serum start (DGKC) 25°C       |
|                | U/l    | 222    | 182  | 262  | 20.00  | 40.00  | CK-NAC substrate start (DGKC) 37°C   |
|                | U/l    | 139    | 114  | 164  | 12.50  | 25.00  | CK-NAC substrate start (DGKC) 30°C   |
|                | U/l    | 94     | 77   | 111  | 8.50   | 17.00  | CK-NAC substrate start (DGKC) 25°C   |
|                | U/l    | 227    | 186  | 268  | 20.50  | 41.00  | CK-NAC (IFCC) 37°C                   |
|                | U/l    | 142    | 116  | 168  | 13.00  | 26.00  | CK-NAC (IFCC) 30°C                   |
|                | U/l    | 96     | 79   | 113  | 8.50   | 17.00  | CK-NAC (IFCC) 25°C                   |

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte    | unit   | target | Range |      | 1SD   | 2SD    | methods                                     |
|------------|--------|--------|-------|------|-------|--------|---------------------------------------------|
|            |        |        | low   | high |       |        |                                             |
| CK Total   | U/l    | 225    | 184   | 266  | 20.50 | 41.00  | Monothioglycerol 37°C                       |
|            | U/l    | 141    | 115   | 167  | 13.00 | 26.00  | Monothioglycerol 30°C                       |
|            | U/l    | 96     | 78    | 114  | 9.00  | 18.00  | Monothioglycerol 25°C                       |
|            | U/l    | 210    | 172   | 248  | 19.00 | 38.00  | Dithioerythritol 37°C                       |
|            | U/l    | 131    | 108   | 154  | 11.50 | 23.00  | Dithioerythritol 30°C                       |
|            | U/l    | 89     | 73    | 105  | 8.00  | 16.00  | Dithioerythritol 25°C                       |
|            | U/l    | 215    | 176   | 254  | 19.50 | 39.00  | Dithioerythritol (DTE) IFCC correlated 37°C |
|            | U/l    | 135    | 110   | 160  | 12.50 | 25.00  | Dithioerythritol (DTE) IFCC correlated 30°C |
|            | U/l    | 91     | 75    | 107  | 8.00  | 16.00  | Dithioerythritol (DTE) IFCC correlated 25°C |
| Copper     | µmol/l | 18.3   | 14.6  | 22.0 | 1.85  | 3.70   | Atomic absorption                           |
|            | µg/dl  | 116    | 92.9  | 139  | 11.55 | 23.10  |                                             |
|            | µmol/l | 17.6   | 14.1  | 21.1 | 1.75  | 3.50   | Colorimetric                                |
|            | µg/dl  | 112    | 89.7  | 134  | 11.15 | 22.30  |                                             |
| Cortisol   | nmol/l | 552    | 414   | 690  | 69.00 | 138.00 | Roche Cobas E411                            |
|            | µg/dl  | 19.9   | 14.9  | 24.9 | 2.50  | 5.00   |                                             |
| Creatinine | µmol/l | 118    | 94.3  | 142  | 11.85 | 23.70  | Alkaline picrate with deproteinization      |
|            | mg/dl  | 1.33   | 1.07  | 1.59 | 0.13  | 0.26   |                                             |
|            | µmol/l | 121    | 96.9  | 145  | 12.05 | 24.10  | Alkaline picrate no deproteinization        |
|            | mg/dl  | 1.37   | 1.09  | 1.65 | 0.14  | 0.28   |                                             |
|            | µmol/l | 120    | 95.7  | 144  | 12.15 | 24.30  | Vitros 250/500/700/950/5.1FS single slide   |
|            | mg/dl  | 1.36   | 1.08  | 1.64 | 0.14  | 0.28   |                                             |
|            | µmol/l | 124    | 99.2  | 149  | 12.40 | 24.80  | Randox Enzymatic UV method                  |
|            | mg/dl  | 1.40   | 1.12  | 1.68 | 0.14  | 0.28   |                                             |

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte             | unit   | target | Range |      | 1SD   | 2SD   | methods                                     |
|---------------------|--------|--------|-------|------|-------|-------|---------------------------------------------|
|                     |        |        | low   | high |       |       |                                             |
| Creatinine          | μmol/l | 121    | 96.7  | 145  | 12.15 | 24.30 | Creatinine PAP method                       |
|                     | mg/dl  | 1.37   | 1.09  | 1.65 | 0.14  | 0.28  |                                             |
|                     | μmol/l | 120    | 95.7  | 144  | 12.15 | 24.30 | Roche Creatinine Plus                       |
|                     | mg/dl  | 1.36   | 1.08  | 1.64 | 0.14  | 0.28  |                                             |
|                     | μmol/l | 124    | 99.1  | 149  | 12.45 | 24.90 | Jaffe rate blanked                          |
|                     | mg/dl  | 1.40   | 1.12  | 1.68 | 0.14  | 0.28  |                                             |
|                     | μmol/l | 122    | 97.7  | 146  | 12.15 | 24.30 | Jaffe rate blanked comp. (-26 μmol/l)       |
|                     | mg/dl  | 1.38   | 1.10  | 1.66 | 0.14  | 0.28  |                                             |
|                     | μmol/l | 116    | 93.2  | 139  | 11.40 | 22.80 | Jaffe rate blanked compensated (-18 μmol/l) |
|                     | mg/dl  | 1.31   | 1.05  | 1.57 | 0.13  | 0.26  |                                             |
|                     | μmol/l | 122    | 97.5  | 147  | 12.25 | 24.50 | Vitros IDMS Traceable                       |
|                     | mg/dl  | 1.38   | 1.10  | 1.66 | 0.14  | 0.28  |                                             |
|                     | μmol/l | 116    | 92.9  | 139  | 11.55 | 23.10 | IDMS traceable                              |
|                     | mg/dl  | 1.31   | 1.05  | 1.57 | 0.13  | 0.26  |                                             |
| D-3-Hydroxybutyrate | mmol/l | 0.29   | 0.25  | 0.33 | 0.02  | 0.04  | Tris buffer 100mmol pH 8.5                  |
| Digoxin             | nmol/l | 1.97   | 1.58  | 2.36 | 0.20  | 0.39  | Immunoturbidimetric                         |
|                     | ng/ml  | 1.54   | 1.23  | 1.85 | 0.16  | 0.31  |                                             |
| Folate              | nmol/l | 44.9   | 34.1  | 55.7 | 5.40  | 10.80 | Roche Cobas E411                            |
|                     | ng/ml  | 19.8   | 15.0  | 24.6 | 2.40  | 4.80  |                                             |
| Free T4             | pmol/l | 19.7   | 14.8  | 24.6 | 2.45  | 4.90  | Abbott Architect                            |
|                     | ng/dl  | 1.54   | 1.15  | 1.93 | 0.20  | 0.39  |                                             |
|                     | pg/ml  | 15.4   | 11.5  | 19.3 | 1.95  | 3.90  | Abbott Architect                            |
|                     | pmol/l | 23.3   | 17.4  | 29.2 | 2.95  | 5.90  |                                             |
|                     | ng/dl  | 1.82   | 1.36  | 2.28 | 0.23  | 0.46  | Siemens Advia Centaur                       |
|                     | pg/ml  | 18.2   | 13.6  | 22.8 | 2.30  | 4.60  |                                             |

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

|         |        | Range  |      |      |      |      |                            |
|---------|--------|--------|------|------|------|------|----------------------------|
| Analyte | unit   | target | low  | high | 1SD  | 2SD  | methods                    |
| Free T4 | pmol/l | 19.9   | 14.9 | 24.9 | 2.50 | 5.00 | Beckman Access             |
|         | ng/dl  | 1.55   | 1.16 | 1.94 | 0.20 | 0.39 |                            |
|         | pg/ml  | 15.5   | 11.6 | 19.4 | 1.95 | 3.90 | Beckman Access             |
|         | pmol/l | 21.9   | 16.4 | 27.4 | 2.75 | 5.50 | BioMerieux Vidas           |
|         | ng/dl  | 1.71   | 1.28 | 2.14 | 0.22 | 0.43 |                            |
|         | pg/ml  | 17.1   | 12.8 | 21.4 | 2.15 | 4.30 | BioMerieux Vidas           |
|         | pmol/l | 20.5   | 15.4 | 25.6 | 2.55 | 5.10 | Siemens Immulite 1000      |
|         | ng/dl  | 1.60   | 1.20 | 2.00 | 0.20 | 0.40 |                            |
|         | pg/ml  | 16.0   | 12.0 | 20.0 | 2.00 | 4.00 | Siemens Immulite 1000      |
|         | pmol/l | 19.1   | 14.3 | 23.9 | 2.40 | 4.80 | Siemens Immulite 2000/2500 |
|         | ng/dl  | 1.49   | 1.12 | 1.86 | 0.19 | 0.37 |                            |
|         | pg/ml  | 14.9   | 11.2 | 18.6 | 1.85 | 3.70 | Siemens Immulite 2000/2500 |
|         | pmol/l | 35.7   | 26.8 | 44.6 | 4.45 | 8.90 | Vitros ECi                 |
|         | ng/dl  | 2.78   | 2.09 | 3.47 | 0.35 | 0.69 |                            |
|         | pg/ml  | 27.8   | 20.9 | 34.7 | 3.45 | 6.90 | Vitros ECi                 |
|         | pmol/l | 22.5   | 16.9 | 28.1 | 2.80 | 5.60 | Roche Elecsys              |
|         | ng/dl  | 1.76   | 1.32 | 2.20 | 0.22 | 0.44 |                            |
|         | pg/ml  | 17.6   | 13.2 | 22.0 | 2.20 | 4.40 | Roche Elecsys              |
|         | pmol/l | 22.7   | 17.0 | 28.4 | 2.85 | 5.70 | Roche Modular E170         |
|         | ng/dl  | 1.77   | 1.33 | 2.21 | 0.22 | 0.44 |                            |
|         | pg/ml  | 17.7   | 13.3 | 22.1 | 2.20 | 4.40 | Roche Modular E170         |
|         | pmol/l | 25.0   | 18.7 | 31.3 | 3.15 | 6.30 | Tosoh AIA360               |
|         | ng/dl  | 1.95   | 1.46 | 2.44 | 0.25 | 0.49 |                            |
|         | pg/ml  | 19.5   | 14.6 | 24.4 | 2.45 | 4.90 | Tosoh AIA360               |
|         | pmol/l | 23.1   | 17.3 | 28.9 | 2.90 | 5.80 | Roche Cobas E411           |
|         | ng/dl  | 1.80   | 1.35 | 2.25 | 0.23 | 0.45 |                            |
|         | pg/ml  | 18.0   | 13.5 | 22.5 | 2.25 | 4.50 | Roche Cobas E411           |

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

|            |        | Range  |      |      |      |       |                                                      |
|------------|--------|--------|------|------|------|-------|------------------------------------------------------|
| Analyte    | unit   | target | low  | high | 1SD  | 2SD   | methods                                              |
| Free T4    | pmol/l | 22.5   | 16.9 | 28.1 | 2.80 | 5.60  | Roche Cobas 6000/8000                                |
|            | ng/dl  | 1.76   | 1.32 | 2.20 | 0.22 | 0.44  |                                                      |
|            | pg/ml  | 17.6   | 13.2 | 22.0 | 2.20 | 4.40  | Roche Cobas 6000/8000                                |
| Gentamicin | µmol/l | 6.38   | 5.10 | 7.66 | 0.64 | 1.28  | Immunoturbidimetric                                  |
|            | µg/ml  | 3.05   | 2.44 | 3.66 | 0.31 | 0.61  |                                                      |
| gamma-GT   | U/l    | 45     | 38   | 52   | 3.50 | 7.00  | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C        |
|            | U/l    | 35     | 30   | 40   | 2.50 | 5.00  | Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C        |
|            | U/l    | 28     | 23   | 33   | 2.50 | 5.00  | Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C        |
|            | U/l    | 61     | 52   | 70   | 4.50 | 9.00  | Ortho Vitros Microslide Systems 37°C                 |
|            | U/l    | 40     | 34   | 46   | 3.00 | 6.00  | Gamma glutamyl-4-nitroanilide 37°C                   |
|            | U/l    | 32     | 27   | 37   | 2.50 | 5.00  | Gamma glutamyl-4-nitroanilide 30°C                   |
|            | U/l    | 25     | 21   | 29   | 2.00 | 4.00  | Gamma glutamyl-4-nitroanilide 25°C                   |
|            | U/l    | 50     | 42   | 58   | 4.00 | 8.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C  |
|            | U/l    | 39     | 33   | 45   | 3.00 | 6.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C  |
|            | U/l    | 31     | 26   | 36   | 2.50 | 5.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C  |
|            | U/l    | 49     | 42   | 56   | 3.50 | 7.00  | Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C |
|            | U/l    | 39     | 33   | 45   | 3.00 | 6.00  | Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C |
|            | U/l    | 30     | 26   | 34   | 2.00 | 4.00  | Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C |
| GLDH       | U/l    | 16     | 12   | 20   | 2.00 | 4.00  | Triethanolamine buffer 50 mmol 37°C                  |
|            | U/l    | 12     | 9    | 15   | 1.50 | 3.00  | Triethanolamine buffer 50 mmol 30°C                  |
|            | U/l    | 10     | 7    | 13   | 1.50 | 3.00  | Triethanolamine buffer 50 mmol 25°C                  |
| Glucose    | mmol/l | 6.91   | 5.87 | 7.95 | 0.52 | 1.04  | Ortho Vitros Microslide Systems                      |
|            | mg/dl  | 125    | 106  | 144  | 9.50 | 19.00 |                                                      |

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

|                   |        | Range  |      |      |       |        |                                            |
|-------------------|--------|--------|------|------|-------|--------|--------------------------------------------|
| Analyte           | unit   | target | low  | high | 1SD   | 2SD    | methods                                    |
| Glucose           | mmol/l | 7.14   | 6.07 | 8.21 | 0.54  | 1.07   | Glucose dehydrogenase                      |
|                   | mg/dl  | 129    | 109  | 149  | 10.00 | 20.00  |                                            |
|                   | mmol/l | 7.12   | 6.05 | 8.19 | 0.54  | 1.07   | Hexokinase                                 |
|                   | mg/dl  | 128    | 109  | 147  | 9.50  | 19.00  |                                            |
|                   | mmol/l | 7.03   | 5.97 | 8.09 | 0.53  | 1.06   | Oxygen electrode                           |
|                   | mg/dl  | 127    | 108  | 146  | 9.50  | 19.00  |                                            |
|                   | mmol/l | 7.03   | 5.98 | 8.08 | 0.53  | 1.05   | Glucose oxidase                            |
|                   | mg/dl  | 127    | 108  | 146  | 9.50  | 19.00  |                                            |
| HDL - Cholesterol | mmol/l | 1.72   | 1.46 | 1.98 | 0.13  | 0.26   | Direct HDL Immunoseparation                |
|                   | mg/dl  | 66.4   | 56.4 | 76.4 | 5.00  | 10.00  |                                            |
|                   | mmol/l | 1.97   | 1.68 | 2.26 | 0.15  | 0.29   | Vitros Magnetic HDL                        |
|                   | mg/dl  | 76.0   | 64.8 | 87.2 | 5.60  | 11.20  |                                            |
|                   | mmol/l | 1.96   | 1.67 | 2.25 | 0.15  | 0.29   | Direct HDL PEGME                           |
|                   | mg/dl  | 75.7   | 64.5 | 86.9 | 5.60  | 11.20  |                                            |
|                   | mmol/l | 1.75   | 1.49 | 2.01 | 0.13  | 0.26   | Direct Clearance Method                    |
|                   | mg/dl  | 67.6   | 57.5 | 77.7 | 5.05  | 10.10  |                                            |
|                   | mmol/l | 1.92   | 1.63 | 2.21 | 0.15  | 0.29   | Vitros dHDL PTA/MgCl2 direct precipitation |
|                   | mg/dl  | 74.1   | 62.9 | 85.3 | 5.60  | 11.20  |                                            |
|                   | mmol/l | 2.03   | 1.73 | 2.33 | 0.15  | 0.30   | Direct HDL Roche 3rd generation            |
|                   | mg/dl  | 78.4   | 66.8 | 90.0 | 5.80  | 11.60  |                                            |
| Immunoglobulin A  | mmol/l | 1.70   | 1.45 | 1.95 | 0.13  | 0.25   | HDL - Ultra                                |
|                   | mg/dl  | 65.6   | 56.0 | 75.2 | 4.80  | 9.60   |                                            |
| Immunoglobulin A  | g/l    | 1.64   | 1.23 | 2.05 | 0.21  | 0.41   | Immunoturbidimetric                        |
|                   | mg/dl  | 164    | 123  | 205  | 20.50 | 41.00  |                                            |
| Immunoglobulin G  | g/l    | 5.61   | 4.60 | 6.62 | 0.51  | 1.01   | Immunoturbidimetric                        |
|                   | mg/dl  | 561    | 460  | 662  | 50.50 | 101.00 |                                            |

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte          | unit   | target | Range |      | 1SD   | 2SD   | methods                              |
|------------------|--------|--------|-------|------|-------|-------|--------------------------------------|
|                  |        |        | low   | high |       |       |                                      |
| Immunoglobulin M | g/l    | 0.68   | 0.54  | 0.81 | 0.07  | 0.14  | Immunoturbidimetric                  |
|                  | mg/dl  | 67.6   | 54.1  | 81.1 | 6.75  | 13.50 |                                      |
| Iron             | μmol/l | 19.0   | 15.5  | 22.5 | 1.75  | 3.50  | Colorimetric with ppt.               |
|                  | μg/dl  | 106    | 86.6  | 125  | 9.70  | 19.40 |                                      |
|                  | μmol/l | 19.0   | 15.6  | 22.4 | 1.70  | 3.40  | Colorimetric without ppt.            |
|                  | μg/dl  | 106    | 87.2  | 125  | 9.40  | 18.80 |                                      |
|                  | μmol/l | 19.7   | 16.2  | 23.2 | 1.75  | 3.50  | Ortho Vitros Microslide Systems      |
|                  | μg/dl  | 110    | 90.6  | 129  | 9.70  | 19.40 |                                      |
| Lactate          | mmol/l | 1.49   | 1.22  | 1.76 | 0.14  | 0.27  | Colorimetric Lactate Oxidase         |
|                  | mg/dl  | 13.4   | 11.0  | 15.8 | 1.20  | 2.40  |                                      |
|                  | mmol/l | 1.43   | 1.17  | 1.69 | 0.13  | 0.26  | Ortho Vitros Microslide Systems      |
|                  | mg/dl  | 12.9   | 10.5  | 15.3 | 1.20  | 2.40  |                                      |
|                  | mmol/l | 1.47   | 1.21  | 1.73 | 0.13  | 0.26  | Enzymatic Electrode                  |
|                  | mg/dl  | 13.2   | 10.9  | 15.5 | 1.15  | 2.30  |                                      |
|                  | mmol/l | 1.37   | 1.12  | 1.62 | 0.13  | 0.25  | UV LDH                               |
|                  | mg/dl  | 12.3   | 10.1  | 14.5 | 1.10  | 2.20  |                                      |
| LAP              | U/l    | 17     | 14    | 20   | 1.50  | 3.00  | NAGEL 37°C                           |
| LD (LDH)         | U/l    | 605    | 514   | 696  | 45.50 | 91.00 | Ortho Vitros Microslide Systems 37°C |
|                  | U/l    | 188    | 160   | 216  | 14.00 | 28.00 | L->P 37°C                            |
|                  | U/l    | 136    | 116   | 156  | 10.00 | 20.00 | L->P 30°C                            |
|                  | U/l    | 95     | 81    | 109  | 7.00  | 14.00 | L->P 25°C                            |
|                  | U/l    | 455    | 386   | 524  | 34.50 | 69.00 | P->L Scandinavian & Dutch 37°C       |
|                  | U/l    | 329    | 279   | 379  | 25.00 | 50.00 | P->L Scandinavian & Dutch 30°C       |
|                  | U/l    | 231    | 196   | 266  | 17.50 | 35.00 | P->L Scandinavian & Dutch 25°C       |

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

|           |        | Range  |       |       |       |       |                                         |
|-----------|--------|--------|-------|-------|-------|-------|-----------------------------------------|
| Analyte   | unit   | target | low   | high  | 1SD   | 2SD   | methods                                 |
| LD (LDH)  | U/l    | 416    | 353   | 479   | 31.50 | 63.00 | P->L German methods 37°C                |
|           | U/l    | 300    | 255   | 345   | 22.50 | 45.00 | P->L German methods 30°C                |
|           | U/l    | 211    | 179   | 243   | 16.00 | 32.00 | P->L German methods 25°C                |
|           | U/l    | 420    | 357   | 483   | 31.50 | 63.00 | P->L SFBC 37°C                          |
|           | U/l    | 303    | 258   | 348   | 22.50 | 45.00 | P->L SFBC 30°C                          |
|           | U/l    | 213    | 181   | 245   | 16.00 | 32.00 | P->L SFBC 25°C                          |
|           | U/l    | 209    | 178   | 240   | 15.50 | 31.00 | L->P IFCC 37°C                          |
|           | U/l    | 151    | 129   | 173   | 11.00 | 22.00 | L->P IFCC 30°C                          |
|           | U/l    | 106    | 90    | 122   | 8.00  | 16.00 | L->P IFCC 25°C                          |
| Lipase    | U/l    | 34     | 27    | 41    | 3.50  | 7.00  | Other Colorimetric 37°C                 |
|           | U/l    | 260    | 209   | 311   | 25.50 | 51.00 | Ortho Vitros Microslide Systems 37°C    |
|           | U/l    | 33     | 27    | 39    | 3.00  | 6.00  | Roche Colorimetric 37°C                 |
|           | U/l    | 185    | 148   | 222   | 18.50 | 37.00 | Randox Turbidimetric with colipase 37°C |
|           | U/l    | 41     | 33    | 49    | 4.00  | 8.00  | Randox Colorimetric 37°C                |
| Lithium   | mmol/l | 1.12   | 0.99  | 1.25  | 0.07  | 0.13  | Ortho Vitros Microslide Systems         |
|           | mg/dl  | 0.778  | 0.686 | 0.870 | 0.05  | 0.09  |                                         |
|           | mmol/l | 1.04   | 0.91  | 1.17  | 0.06  | 0.13  | Flame photometry                        |
|           | mg/dl  | 0.722  | 0.633 | 0.811 | 0.04  | 0.09  |                                         |
|           | mmol/l | 1.01   | 0.89  | 1.13  | 0.06  | 0.12  | Ion selective electrode                 |
|           | mg/dl  | 0.701  | 0.618 | 0.784 | 0.04  | 0.08  |                                         |
|           | mmol/l | 1.01   | 0.89  | 1.14  | 0.06  | 0.13  | Spectrophotometric                      |
|           | mg/dl  | 0.701  | 0.615 | 0.787 | 0.04  | 0.09  |                                         |
| Magnesium | mmol/l | 1.04   | 0.92  | 1.17  | 0.06  | 0.13  | Randox Colorimetric                     |
|           | mg/dl  | 0.722  | 0.635 | 0.809 | 0.04  | 0.09  |                                         |
| Magnesium | mmol/l | 0.90   | 0.79  | 1.01  | 0.05  | 0.11  | Arsenazo III                            |
|           | mg/dl  | 2.19   | 1.93  | 2.45  | 0.13  | 0.26  |                                         |

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

|                     |         | Range  |      |      |       |       |                                 |
|---------------------|---------|--------|------|------|-------|-------|---------------------------------|
| Analyte             | unit    | target | low  | high | 1SD   | 2SD   | methods                         |
| Magnesium           | mmol/l  | 0.91   | 0.80 | 1.02 | 0.06  | 0.11  | Ortho Vitros Microslide Systems |
|                     | mg/dl   | 2.22   | 1.95 | 2.49 | 0.14  | 0.27  |                                 |
|                     | mmol/l  | 0.90   | 0.79 | 1.00 | 0.05  | 0.11  | Atomic absorption               |
|                     | mg/dl   | 2.17   | 1.91 | 2.43 | 0.13  | 0.26  |                                 |
|                     | mmol/l  | 0.92   | 0.81 | 1.03 | 0.06  | 0.11  | Calmagite                       |
|                     | mg/dl   | 2.24   | 1.97 | 2.51 | 0.14  | 0.27  |                                 |
|                     | mmol/l  | 0.92   | 0.81 | 1.03 | 0.06  | 0.11  | Xylidyl Blue                    |
|                     | mg/dl   | 2.24   | 1.97 | 2.51 | 0.14  | 0.27  |                                 |
|                     | mmol/l  | 0.88   | 0.77 | 0.99 | 0.05  | 0.11  | Methylthymol blue               |
|                     | mg/dl   | 2.14   | 1.88 | 2.40 | 0.13  | 0.26  |                                 |
|                     | mmol/l  | 0.92   | 0.81 | 1.03 | 0.06  | 0.11  | Chlorphosphonazo III            |
|                     | mg/dl   | 2.23   | 1.96 | 2.50 | 0.14  | 0.27  |                                 |
|                     | mmol/l  | 0.89   | 0.79 | 1.00 | 0.05  | 0.11  | Enzymatic                       |
|                     | mg/dl   | 2.17   | 1.91 | 2.43 | 0.13  | 0.26  |                                 |
| NEFA                | mmol/l  | 2.03   | 1.73 | 2.33 | 0.15  | 0.30  | Colorimetric                    |
| Osmolality          | mOsm/kg | 286    | 229  | 343  | 28.50 | 57.00 | Calculated                      |
|                     | mOsm/kg | 310    | 248  | 372  | 31.00 | 62.00 | Freezing point depression       |
|                     | mOsm/kg | 306    | 245  | 367  | 30.50 | 61.00 | Vapour pressure                 |
| Paracetamol         | mmol/l  | 0.08   | 0.06 | 0.09 | 0.01  | 0.02  | Colorimetric                    |
|                     | mg/l    | 11.5   | 9.23 | 13.8 | 1.14  | 2.27  |                                 |
| Phosphate Inorganic | mmol/l  | 1.46   | 1.24 | 1.68 | 0.11  | 0.22  | Ortho Vitros Microslide Systems |
|                     | mg/dl   | 4.53   | 3.84 | 5.22 | 0.35  | 0.69  |                                 |
|                     | mmol/l  | 1.39   | 1.18 | 1.60 | 0.11  | 0.21  | Phosphomolybdate enzymatic      |
|                     | mg/dl   | 4.31   | 3.66 | 4.96 | 0.33  | 0.65  |                                 |

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

|                     |         | Range  |      |      |      |       |                                   |
|---------------------|---------|--------|------|------|------|-------|-----------------------------------|
| Analyte             | unit    | target | low  | high | 1SD  | 2SD   | methods                           |
| Phosphate Inorganic | mmol/l  | 1.37   | 1.17 | 1.57 | 0.10 | 0.20  | Phosphomolybdate UV               |
|                     | mg/dl   | 4.25   | 3.63 | 4.87 | 0.31 | 0.62  |                                   |
| Potassium           | mmol/l  | 4.09   | 3.77 | 4.41 | 0.16 | 0.32  | Ortho Vitros Microslide Systems   |
|                     | mmol/l  | 4.13   | 3.80 | 4.46 | 0.17 | 0.33  | Enzymatic                         |
|                     | mmol/l  | 4.00   | 3.68 | 4.32 | 0.16 | 0.32  | Flame photometry                  |
|                     | mmol/l  | 3.97   | 3.65 | 4.29 | 0.16 | 0.32  | ISE method - direct               |
|                     | mmol/l  | 3.99   | 3.67 | 4.31 | 0.16 | 0.32  | ISE method - indirect             |
| Protein Total       | g/l     | 59.1   | 47.3 | 70.9 | 5.90 | 11.80 | Ortho Vitros Microslide Systems   |
|                     | g/dl    | 5.91   | 4.73 | 7.09 | 0.59 | 1.18  |                                   |
|                     | g/l     | 59.0   | 47.2 | 70.8 | 5.90 | 11.80 | Biuret reaction end point         |
|                     | g/dl    | 5.90   | 4.72 | 7.08 | 0.59 | 1.18  |                                   |
|                     | g/l     | 57.4   | 46.0 | 68.8 | 5.70 | 11.40 |                                   |
| PSA Total           | g/dl    | 5.74   | 4.60 | 6.88 | 0.57 | 1.14  | Biuret reaction kinetic           |
|                     | ng/ml = | 11.6   | 8.68 | 14.5 | 1.46 | 2.92  | Tosoh AIA360                      |
|                     | ng/ml = | 16.5   | 12.4 | 20.6 | 2.05 | 4.10  | Roche Cobas Core EIA              |
|                     | ng/ml = | 17.0   | 12.7 | 21.3 | 2.15 | 4.30  | Roche Elecsys Modular E170        |
|                     | ng/ml = | 15.7   | 11.8 | 19.6 | 1.95 | 3.90  | Beckman Access Hybritech TPSA     |
|                     | ng/ml = | 14.4   | 10.8 | 18.0 | 1.80 | 3.60  | Siemens ADVIA Centaur (equimolar) |
|                     | ng/ml = | 17.2   | 12.9 | 21.5 | 2.15 | 4.30  | bioMerieux VIDAS TPSA             |
|                     | ng/ml = | 15.0   | 11.2 | 18.8 | 1.90 | 3.80  | Siemens Advia Centaur             |
|                     | ng/ml = | 13.9   | 10.4 | 17.4 | 1.75 | 3.50  | Abbott Architect                  |
|                     | ng/ml = | 17.5   | 13.1 | 21.9 | 2.20 | 4.40  | Cobas E411                        |
|                     | ng/ml = | 17.4   | 13.0 | 21.8 | 2.20 | 4.40  | Roche Cobas 6000/8000             |
|                     | ng/ml = | 17.0   | 12.7 | 21.3 | 2.15 | 4.30  | Ortho Vitros 3600/5600/ECi PSA II |
| Salicylate          | mmol/l  | 0.42   | 0.34 | 0.50 | 0.04 | 0.08  | Enzymatic                         |
|                     | mg/dl   | 5.80   | 4.64 | 6.96 | 0.58 | 1.16  |                                   |

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte                     | unit    | target | Range |      | 1SD   | 2SD   | methods                                |
|-----------------------------|---------|--------|-------|------|-------|-------|----------------------------------------|
|                             |         |        | low   | high |       |       |                                        |
| Sodium                      | mmol/l  | 141    | 134   | 148  | 3.50  | 7.00  | Ortho Vitros Microslide Systems        |
|                             | mmol/l  | 144    | 137   | 151  | 3.50  | 7.00  | Enzymatic                              |
|                             | mmol/l  | 141    | 134   | 148  | 3.50  | 7.00  | Flame photometry                       |
|                             | mmol/l  | 139    | 132   | 146  | 3.50  | 7.00  | ISE method - direct                    |
|                             | mmol/l  | 140    | 133   | 147  | 3.50  | 7.00  | ISE method - indirect                  |
| Theophylline                | µmol/l  | 24.8   | 19.8  | 29.8 | 2.50  | 5.00  | Immunoturbidimetric                    |
|                             | µg/ml   | 4.47   | 3.57  | 5.37 | 0.45  | 0.90  |                                        |
| Thyroid Stimulating Hormone | µU/ml = | 1.13   | 0.91  | 1.35 | 0.11  | 0.22  | Abbott Architect                       |
|                             | µU/ml = | 1.51   | 1.21  | 1.81 | 0.15  | 0.30  | Siemens Advia Centaur                  |
|                             | µU/ml = | 1.16   | 0.93  | 1.39 | 0.11  | 0.23  | Siemens ADVIA Centaur 3rd Generation   |
|                             | µU/ml = | 1.23   | 0.98  | 1.48 | 0.12  | 0.25  | Beckman Access hyperTSH 3rd Generation |
|                             | µU/ml = | 1.42   | 1.14  | 1.70 | 0.14  | 0.28  | bioMerieux VIDAS TSH                   |
|                             | µU/ml = | 1.27   | 1.01  | 1.53 | 0.13  | 0.26  | Siemens Immulite 1000                  |
|                             | µU/ml = | 1.38   | 1.10  | 1.66 | 0.14  | 0.28  | Siemens Immulite 2000/2500             |
|                             | µU/ml = | 1.19   | 0.95  | 1.43 | 0.12  | 0.24  | Vitros ECI                             |
|                             | µU/ml = | 1.37   | 1.10  | 1.64 | 0.14  | 0.27  | Roche Elecsys                          |
|                             | µU/ml = | 1.43   | 1.15  | 1.71 | 0.14  | 0.28  | Roche Modular E170                     |
|                             | µU/ml = | 1.24   | 0.99  | 1.49 | 0.13  | 0.25  | Tosoh AIA360                           |
|                             | µU/ml = | 1.41   | 1.13  | 1.69 | 0.14  | 0.28  | Roche Cobas E411                       |
|                             | µU/ml = | 1.40   | 1.12  | 1.68 | 0.14  | 0.28  | Roche Cobas 6000/8000                  |
| TIBC                        | µmol/l  | 46.7   | 36.9  | 56.5 | 4.90  | 9.80  | Ortho Vitros Microslide Systems        |
|                             | µg/dl   | 261    | 206   | 316  | 27.50 | 55.00 |                                        |
|                             | µmol/l  | 44.2   | 34.9  | 53.5 | 4.65  | 9.30  | Removal of excess free iron            |
|                             | µg/dl   | 247    | 195   | 299  | 26.00 | 52.00 |                                        |

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

|            |        | Range  |      |      |       |       |                               |
|------------|--------|--------|------|------|-------|-------|-------------------------------|
| Analyte    | unit   | target | low  | high | 1SD   | 2SD   | methods                       |
| TIBC       | μmol/l | 43.8   | 34.6 | 53.0 | 4.60  | 9.20  | FE+UIBC(saturation with iron) |
|            | μg/dl  | 245    | 193  | 297  | 26.00 | 52.00 |                               |
|            | μmol/l | 45.5   | 35.9 | 55.1 | 4.80  | 9.60  | Direct Colorimetric           |
|            | μg/dl  | 254    | 201  | 307  | 26.50 | 53.00 |                               |
|            | μmol/l | 47.5   | 37.5 | 57.5 | 5.00  | 10.00 | Randox Direct                 |
|            | μg/dl  | 266    | 210  | 322  | 28.00 | 56.00 |                               |
| Tobramycin | μmol/l | 5.07   | 4.06 | 6.08 | 0.51  | 1.01  | Immunoturbidimetric           |
|            | μg/ml  | 2.37   | 1.90 | 2.84 | 0.24  | 0.47  |                               |
| Total T3   | nmol/l | 2.24   | 1.68 | 2.80 | 0.28  | 0.56  | Abbott Architect              |
|            | ng/ml  | 1.46   | 1.09 | 1.83 | 0.19  | 0.37  |                               |
|            | ng/dl  | 146    | 109  | 183  | 18.50 | 37.00 | Abbott Architect              |
|            | nmol/l | 2.51   | 1.88 | 3.14 | 0.32  | 0.63  | Siemens Advia Centaur         |
|            | ng/ml  | 1.63   | 1.22 | 2.04 | 0.21  | 0.41  |                               |
|            | ng/dl  | 163    | 122  | 204  | 20.50 | 41.00 | Siemens Advia Centaur         |
|            | nmol/l | 2.33   | 1.75 | 2.91 | 0.29  | 0.58  | BioMerieux Vidas              |
|            | ng/ml  | 1.52   | 1.14 | 1.90 | 0.19  | 0.38  |                               |
|            | ng/dl  | 152    | 114  | 190  | 19.00 | 38.00 | BioMerieux Vidas              |
|            | nmol/l | 2.43   | 1.82 | 3.04 | 0.31  | 0.61  | Roche Modular E170            |
|            | ng/ml  | 1.58   | 1.18 | 1.98 | 0.20  | 0.40  |                               |
|            | ng/dl  | 158    | 118  | 198  | 20.00 | 40.00 | Roche Modular E170            |
|            | nmol/l | 2.72   | 2.04 | 3.40 | 0.34  | 0.68  | Roche Cobas E411              |
|            | ng/ml  | 1.77   | 1.33 | 2.21 | 0.22  | 0.44  |                               |
|            | ng/dl  | 177    | 133  | 221  | 22.00 | 44.00 | Roche Cobas E411              |
| Total T4   | nmol/l | 92.2   | 69.1 | 115  | 11.55 | 23.10 | Abbott Architect              |
|            | μg/dl  | 7.19   | 5.39 | 8.99 | 0.90  | 1.80  |                               |
|            | ng/ml  | 71.9   | 53.9 | 89.9 | 9.00  | 18.00 | Abbott Architect              |

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte       | unit   | target | Range |      | 1SD   | 2SD   | methods                      |
|---------------|--------|--------|-------|------|-------|-------|------------------------------|
|               |        |        | low   | high |       |       |                              |
| Total T4      | nmol/l | 95.4   | 71.6  | 119  | 11.90 | 23.80 | Siemens Advia Centaur        |
|               | µg/dl  | 7.44   | 5.58  | 9.30 | 0.93  | 1.86  |                              |
|               | ng/ml  | 74.4   | 55.8  | 93.0 | 9.30  | 18.60 | Siemens Advia Centaur        |
|               | nmol/l | 82.0   | 61.5  | 103  | 10.25 | 20.50 | BioMerieux Vidas             |
|               | µg/dl  | 6.40   | 4.80  | 8.00 | 0.80  | 1.60  |                              |
|               | ng/ml  | 64.0   | 48.0  | 80.0 | 8.00  | 16.00 | BioMerieux Vidas             |
|               | nmol/l | 81.9   | 61.4  | 102  | 10.25 | 20.50 | Siemens Immulite 1000        |
|               | µg/dl  | 6.39   | 4.79  | 7.99 | 0.80  | 1.60  |                              |
|               | ng/ml  | 63.9   | 47.9  | 79.9 | 8.00  | 16.00 | Siemens Immulite 1000        |
|               | nmol/l | 82.7   | 62.0  | 103  | 10.35 | 20.70 | Siemens Immulite 2000/2500   |
|               | µg/dl  | 6.45   | 4.84  | 8.06 | 0.81  | 1.61  |                              |
|               | nmol/l | 90.3   | 67.7  | 113  | 11.30 | 22.60 | Roche Modular E170           |
|               | µg/dl  | 7.04   | 5.28  | 8.80 | 0.88  | 1.76  |                              |
|               | ng/ml  | 70.4   | 52.8  | 88.0 | 8.80  | 17.60 | Roche Modular E170           |
|               | nmol/l | 93.1   | 69.9  | 116  | 11.60 | 23.20 | Roche Cobas E411             |
|               | µg/dl  | 7.26   | 5.45  | 9.07 | 0.91  | 1.81  |                              |
|               | ng/ml  | 72.6   | 54.5  | 90.7 | 9.05  | 18.10 | Roche Cobas E411             |
|               | nmol/l | 87.8   | 65.9  | 110  | 10.95 | 21.90 | Roche Cobas 6000/8000        |
|               | µg/dl  | 6.85   | 5.14  | 8.56 | 0.86  | 1.71  |                              |
|               | ng/ml  | 68.5   | 51.4  | 85.6 | 8.55  | 17.10 | Roche Cobas 6000/8000        |
| Transferrin   | g/l    | 2.01   | 1.61  | 2.41 | 0.20  | 0.40  | Immunoturbidimetric          |
|               | mg/dl  | 201    | 161   | 241  | 20.00 | 40.00 |                              |
| Triglycerides | mmol/l | 1.06   | 0.89  | 1.23 | 0.09  | 0.17  | Lipase/GPO-PAP no correction |
|               | mg/dl  | 93.8   | 78.7  | 109  | 7.55  | 15.10 |                              |

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

|                   |        | Range  |      |      |      |       |                                       |
|-------------------|--------|--------|------|------|------|-------|---------------------------------------|
| Analyte           | unit   | target | low  | high | 1SD  | 2SD   | methods                               |
| Triglycerides     | mmol/l | 1.03   | 0.87 | 1.19 | 0.08 | 0.16  | Lipase/GPO-PAP 0.11mmol/l correction  |
|                   | mg/dl  | 91.2   | 76.8 | 106  | 7.20 | 14.40 |                                       |
|                   | mmol/l | 1.06   | 0.89 | 1.23 | 0.08 | 0.17  | L/G Kinase EP. no correction          |
|                   | mg/dl  | 93.8   | 78.9 | 109  | 7.45 | 14.90 |                                       |
|                   | mmol/l | 1.08   | 0.91 | 1.26 | 0.09 | 0.18  | L/G kinase EP. 0.11 mmol/l correction |
|                   | mg/dl  | 95.6   | 80.1 | 111  | 7.75 | 15.50 |                                       |
|                   | mmol/l | 1.02   | 0.86 | 1.18 | 0.08 | 0.16  | Lipase/Glycerol Dehydrogenase         |
|                   | mg/dl  | 90.3   | 75.9 | 105  | 7.20 | 14.40 |                                       |
| Urea              | mmol/l | 1.28   | 1.08 | 1.48 | 0.10 | 0.20  | Ortho Vitros Microslide Systems       |
|                   | mg/dl  | 113    | 95.6 | 130  | 8.70 | 17.40 |                                       |
|                   | mmol/l | 6.84   | 5.81 | 7.87 | 0.52 | 1.03  | Ortho Vitros Microslide Systems       |
|                   | mg/dl  | 41.1   | 34.9 | 47.3 | 3.10 | 6.20  |                                       |
|                   | mmol/l | 7.53   | 6.40 | 8.66 | 0.57 | 1.13  | Urease end point                      |
|                   | mg/dl  | 45.3   | 38.5 | 52.1 | 3.40 | 6.80  |                                       |
|                   | mmol/l | 7.37   | 6.27 | 8.47 | 0.55 | 1.10  | Urease kinetic                        |
|                   | mg/dl  | 44.3   | 37.7 | 50.9 | 3.30 | 6.60  |                                       |
|                   | mmol/l | 7.05   | 5.99 | 8.11 | 0.53 | 1.06  | Urease hypochlorite                   |
|                   | mg/dl  | 42.4   | 36.0 | 48.8 | 3.20 | 6.40  |                                       |
| Uric Acid (Urate) | mmol/l | 7.69   | 6.54 | 8.84 | 0.58 | 1.15  | Urease Berthelot                      |
|                   | mg/dl  | 46.2   | 39.3 | 53.1 | 3.45 | 6.90  |                                       |
|                   | mmol/l | 7.37   | 6.26 | 8.48 | 0.56 | 1.11  | BUN                                   |
|                   | mg/dl  | 20.7   | 17.6 | 23.8 | 1.55 | 3.10  |                                       |
|                   | mmol/l | 0.33   | 0.28 | 0.37 | 0.02 | 0.04  | Ortho Vitros Microslide Systems       |
|                   | mg/dl  | 5.49   | 4.77 | 6.21 | 0.36 | 0.72  |                                       |
| Uric Acid (Urate) | mmol/l | 0.33   | 0.29 | 0.38 | 0.02 | 0.04  | Uricase catalase 340nm                |
|                   | mg/dl  | 5.61   | 4.89 | 6.33 | 0.36 | 0.72  |                                       |

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

|                   |        | Range  |      |      |       |        |                                                   |
|-------------------|--------|--------|------|------|-------|--------|---------------------------------------------------|
| Analyte           | unit   | target | low  | high | 1SD   | 2SD    | methods                                           |
| Uric Acid (Urate) | mmol/l | 0.34   | 0.30 | 0.38 | 0.02  | 0.04   | Uricase peroxidase with ascorbate oxidase         |
|                   | mg/dl  | 5.70   | 4.96 | 6.44 | 0.37  | 0.74   |                                                   |
|                   | mmol/l | 0.34   | 0.29 | 0.38 | 0.02  | 0.04   | Uricase peroxidase no ascorbate oxidase           |
|                   | mg/dl  | 5.63   | 4.89 | 6.37 | 0.37  | 0.74   |                                                   |
|                   | mmol/l | 0.33   | 0.29 | 0.38 | 0.02  | 0.04   | Spectrophotometric at 280-290                     |
|                   | mg/dl  | 5.61   | 4.89 | 6.33 | 0.36  | 0.72   |                                                   |
| Vitamin B12       | mmol/l | 0.34   | 0.30 | 0.39 | 0.02  | 0.05   | Uricase Peroxidase with ascorbate oxidase @ 546nm |
|                   | mg/dl  | 5.76   | 5.01 | 6.51 | 0.38  | 0.75   |                                                   |
| Zinc              | pmol/l | 429    | 343  | 515  | 43.00 | 86.00  | Roche Cobas E411                                  |
|                   | pg/ml  | 581    | 465  | 697  | 58.00 | 116.00 |                                                   |
| Zinc              | µmol/l | 25.1   | 20.0 | 30.2 | 2.55  | 5.10   | Atomic absorption                                 |
|                   | µg/dl  | 164    | 131  | 197  | 16.50 | 33.00  |                                                   |
|                   | µmol/l | 26.1   | 20.9 | 31.3 | 2.60  | 5.20   | Colorimetric with deproteinisation                |
|                   | µg/dl  | 170    | 136  | 204  | 17.00 | 34.00  |                                                   |

## MEAN OF ALL INSTRUMENTS (Elec.)

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

|                           |      | Range  |      |      |      |      |                                        |
|---------------------------|------|--------|------|------|------|------|----------------------------------------|
| Analyte                   | unit | target | low  | high | 1SD  | 2SD  | methods                                |
| Albumin (electrophoresis) |      | 68.5   | 61.7 | 75.3 | 3.40 | 6.80 | % of total Protein (Beckman Capillary) |
| alpha-1-globulin          |      | 2.7    | 2.1  | 3.4  | 0.33 | 0.65 | % of total Protein (Beckman Capillary) |
| alpha-2-globulin          |      | 3.5    | 2.7  | 4.3  | 0.42 | 0.84 | % of total Protein (Beckman Capillary) |
| beta-globulin             |      | 12.6   | 9.6  | 15.6 | 1.51 | 3.02 | % of total Protein (Beckman Capillary) |
| gamma-globulin            |      | 12.7   | 9.7  | 15.8 | 1.53 | 3.05 | % of total Protein (Beckman Capillary) |

## MINDRAY BS-200/300/400

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte              | unit   | target | Range |      | 1SD   | 2SD   | methods                              |
|----------------------|--------|--------|-------|------|-------|-------|--------------------------------------|
|                      |        |        | low   | high |       |       |                                      |
| Albumin              | g/l    | 42.2   | 35.8  | 48.6 | 3.20  | 6.40  | Bromocresol Green                    |
|                      | g/dl   | 4.22   | 3.58  | 4.86 | 0.32  | 0.64  |                                      |
| Alkaline Phosphatase | U/l    | 176    | 149   | 203  | 13.50 | 27.00 | AMP optimised to IFCC 37°C           |
|                      | U/l    | 137    | 116   | 158  | 10.50 | 21.00 | AMP optimised to IFCC 30°C           |
|                      | U/l    | 112    | 95    | 129  | 8.50  | 17.00 | AMP optimised to IFCC 25°C           |
| ALT (GPT)            | U/l    | 38     | 30    | 46   | 4.00  | 8.00  | Tris buffer without P5P 37°C         |
|                      | U/l    | 28     | 22    | 34   | 3.00  | 6.00  | Tris buffer without P5P 30°C         |
|                      | U/l    | 21     | 17    | 25   | 2.00  | 4.00  | Tris buffer without P5P 25°C         |
| AST (GOT)            | U/l    | 36     | 29    | 43   | 3.50  | 7.00  | Tris buffer without P5P 37°C         |
|                      | U/l    | 24     | 20    | 28   | 2.00  | 4.00  | Tris buffer without P5P 30°C         |
|                      | U/l    | 17     | 14    | 20   | 1.50  | 3.00  | Tris buffer without P5P 25°C         |
| Calcium              | mmol/l | 2.31   | 2.08  | 2.54 | 0.12  | 0.23  | Cresolphthalein complexone           |
|                      | mg/dl  | 9.26   | 8.34  | 10.2 | 0.46  | 0.92  |                                      |
|                      | mmol/l | 2.42   | 2.18  | 2.66 | 0.12  | 0.24  | Arsenazo III                         |
|                      | mg/dl  | 9.70   | 8.74  | 10.7 | 0.48  | 0.96  |                                      |
| Cholesterol          | mmol/l | 4.95   | 4.31  | 5.59 | 0.32  | 0.64  | Cholesterol Oxidase                  |
|                      | mg/dl  | 191    | 166   | 216  | 12.50 | 25.00 |                                      |
| CK Total             | U/l    | 220    | 180   | 260  | 20.00 | 40.00 | CK-NAC (IFCC) 37°C                   |
|                      | U/l    | 138    | 113   | 163  | 12.50 | 25.00 | CK-NAC (IFCC) 30°C                   |
|                      | U/l    | 94     | 77    | 111  | 8.50  | 17.00 | CK-NAC (IFCC) 25°C                   |
| Creatinine           | µmol/l | 115    | 91.9  | 138  | 11.55 | 23.10 | Alkaline picrate no deproteinization |
|                      | mg/dl  | 1.30   | 1.04  | 1.56 | 0.13  | 0.26  |                                      |

## MINDRAY BS-200/300/400

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte             | unit   | target | Range |      | 1SD   | 2SD   | methods                                             |
|---------------------|--------|--------|-------|------|-------|-------|-----------------------------------------------------|
|                     |        |        | low   | high |       |       |                                                     |
| Creatinine          | μmol/l | 123    | 98.1  | 148  | 12.45 | 24.90 | Jaffe rate blanked                                  |
|                     | mg/dl  | 1.39   | 1.11  | 1.67 | 0.14  | 0.28  |                                                     |
| gamma-GT            | U/l    | 46     | 39    | 53   | 3.50  | 7.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
|                     | U/l    | 36     | 31    | 41   | 2.50  | 5.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
|                     | U/l    | 28     | 24    | 32   | 2.00  | 4.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |
| Glucose             | mmol/l | 7.15   | 6.08  | 8.22 | 0.54  | 1.07  | Glucose oxidase                                     |
|                     | mg/dl  | 129    | 110   | 148  | 9.50  | 19.00 |                                                     |
| LD (LDH)            | U/l    | 419    | 356   | 482  | 31.50 | 63.00 | P->L SFBC 37°C                                      |
|                     | U/l    | 303    | 257   | 349  | 23.00 | 46.00 | P->L SFBC 30°C                                      |
|                     | U/l    | 212    | 180   | 244  | 16.00 | 32.00 | P->L SFBC 25°C                                      |
|                     | U/l    | 214    | 182   | 246  | 16.00 | 32.00 | L->P IFCC 37°C                                      |
|                     | U/l    | 155    | 131   | 179  | 12.00 | 24.00 | L->P IFCC 30°C                                      |
|                     | U/l    | 108    | 92    | 124  | 8.00  | 16.00 | L->P IFCC 25°C                                      |
| Magnesium           | mmol/l | 0.91   | 0.80  | 1.02 | 0.05  | 0.11  | Xylidyl Blue                                        |
|                     | mg/dl  | 2.20   | 1.94  | 2.46 | 0.13  | 0.26  |                                                     |
| Phosphate Inorganic | mmol/l | 1.46   | 1.24  | 1.68 | 0.11  | 0.22  | Phosphomolybdate UV                                 |
|                     | mg/dl  | 4.53   | 3.84  | 5.22 | 0.35  | 0.69  |                                                     |
| Potassium           | mmol/l | 3.87   | 3.56  | 4.18 | 0.16  | 0.31  | ISE method - direct                                 |
| Protein Total       | g/l    | 59.1   | 47.3  | 70.9 | 5.90  | 11.80 | Biuret reaction end point                           |
|                     | g/dl   | 5.91   | 4.73  | 7.09 | 0.59  | 1.18  |                                                     |
| Sodium              | mmol/l | 136    | 130   | 142  | 3.00  | 6.00  | ISE method - direct                                 |
| Triglycerides       | mmol/l | 1.06   | 0.89  | 1.23 | 0.09  | 0.17  | Lipase/GPO-PAP no correction                        |
|                     | mg/dl  | 93.8   | 78.5  | 109  | 7.65  | 15.30 |                                                     |
| Urea                | mmol/l | 7.03   | 5.98  | 8.08 | 0.53  | 1.05  | Urease end point                                    |
|                     | mg/dl  | 42.3   | 35.9  | 48.7 | 3.20  | 6.40  |                                                     |

## MINDRAY BS-200/300/400

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

|                   |        | Range  |      |      |      |      |                                                   |
|-------------------|--------|--------|------|------|------|------|---------------------------------------------------|
| Analyte           | unit   | target | low  | high | 1SD  | 2SD  | methods                                           |
| Urea              | mmol/l | 7.41   | 6.30 | 8.52 | 0.56 | 1.11 | Urease kinetic                                    |
|                   | mg/dl  | 44.5   | 37.9 | 51.1 | 3.30 | 6.60 |                                                   |
|                   | mmol/l | 7.41   | 6.30 | 8.52 | 0.56 | 1.11 | BUN                                               |
|                   | mg/dl  | 20.8   | 17.7 | 23.9 | 1.55 | 3.10 |                                                   |
| Uric Acid (Urate) | mmol/l | 0.36   | 0.31 | 0.40 | 0.02 | 0.05 | Uricase peroxidase no ascorbate oxidase           |
|                   | mg/dl  | 5.98   | 5.21 | 6.75 | 0.39 | 0.77 |                                                   |
|                   | mmol/l | 0.35   | 0.30 | 0.39 | 0.02 | 0.05 | Uricase Peroxidase with ascorbate oxidase @ 546nm |
|                   | mg/dl  | 5.81   | 5.06 | 6.56 | 0.38 | 0.75 |                                                   |

## PRESTIGE 24i

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte              | unit   | target | Range |      | 1SD   | 2SD   | methods                              |
|----------------------|--------|--------|-------|------|-------|-------|--------------------------------------|
|                      |        |        | low   | high |       |       |                                      |
| Albumin              | g/l    | 41.8   | 35.6  | 48.0 | 3.10  | 6.20  | Bromocresol Green                    |
|                      | g/dl   | 4.18   | 3.56  | 4.80 | 0.31  | 0.62  |                                      |
| Alkaline Phosphatase | U/l    | 253    | 215   | 291  | 19.00 | 38.00 | Diethanolamine buffer DEA 37°C       |
|                      | U/l    | 197    | 167   | 227  | 15.00 | 30.00 | Diethanolamine buffer DEA 30°C       |
|                      | U/l    | 162    | 137   | 187  | 12.50 | 25.00 | Diethanolamine buffer DEA 25°C       |
| ALT (GPT)            | U/l    | 40     | 32    | 48   | 4.00  | 8.00  | Tris buffer without P5P 37°C         |
|                      | U/l    | 30     | 24    | 36   | 3.00  | 6.00  | Tris buffer without P5P 30°C         |
|                      | U/l    | 23     | 18    | 28   | 2.50  | 5.00  | Tris buffer without P5P 25°C         |
| Bilirubin Direct     | µmol/l | 17.8   | 14.1  | 21.5 | 1.85  | 3.70  | Diazo with Dichloroaniline (DCA)     |
|                      | mg/dl  | 1.04   | 0.825 | 1.26 | 0.11  | 0.22  |                                      |
| Cholesterol          | mmol/l | 4.95   | 4.30  | 5.60 | 0.33  | 0.65  | Cholesterol Oxidase                  |
|                      | mg/dl  | 191    | 166   | 216  | 12.50 | 25.00 |                                      |
| Creatinine           | µmol/l | 126    | 101   | 151  | 12.50 | 25.00 | Alkaline picrate no deproteinization |
|                      | mg/dl  | 1.42   | 1.14  | 1.70 | 0.14  | 0.28  |                                      |
| Glucose              | mmol/l | 7.20   | 6.12  | 8.28 | 0.54  | 1.08  | Glucose oxidase                      |
|                      | mg/dl  | 130    | 110   | 150  | 10.00 | 20.00 |                                      |
| HDL - Cholesterol    | mmol/l | 1.61   | 1.37  | 1.85 | 0.12  | 0.24  | Direct HDL Immunoseparation          |
|                      | mg/dl  | 62.1   | 52.9  | 71.3 | 4.60  | 9.20  |                                      |
| Protein Total        | g/l    | 58.6   | 46.9  | 70.3 | 5.85  | 11.70 | Biuret reaction end point            |
|                      | g/dl   | 5.86   | 4.69  | 7.03 | 0.59  | 1.17  |                                      |
| Triglycerides        | mmol/l | 1.05   | 0.88  | 1.22 | 0.09  | 0.17  | Lipase/GPO-PAP no correction         |
|                      | mg/dl  | 92.9   | 77.8  | 108  | 7.55  | 15.10 |                                      |

## PRESTIGE 24i

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Range

| Analyte           | unit   | target | low  | high | 1SD  | 2SD  | methods                                 |
|-------------------|--------|--------|------|------|------|------|-----------------------------------------|
| Urea              | mmol/l | 7.18   | 6.10 | 8.26 | 0.54 | 1.08 | Urease kinetic                          |
|                   | mg/dl  | 43.2   | 36.7 | 49.7 | 3.25 | 6.50 |                                         |
|                   | mmol/l | 7.18   | 6.10 | 8.26 | 0.54 | 1.08 | BUN                                     |
|                   | mg/dl  | 20.2   | 17.2 | 23.2 | 1.50 | 3.00 |                                         |
| Uric Acid (Urate) | mmol/l | 0.32   | 0.28 | 0.37 | 0.02 | 0.04 | Uricase peroxidase no ascorbate oxidase |
|                   | mg/dl  | 5.43   | 4.72 | 6.14 | 0.36 | 0.71 |                                         |

## Roche Cobas 6000 c501 e601

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte              | unit   | target | Range |      | 1SD   | 2SD   | methods                                        |
|----------------------|--------|--------|-------|------|-------|-------|------------------------------------------------|
|                      |        |        | low   | high |       |       |                                                |
| Albumin              | g/l    | 43.1   | 36.7  | 49.5 | 3.20  | 6.40  | Bromocresol Green                              |
|                      | g/dl   | 4.31   | 3.67  | 4.95 | 0.32  | 0.64  |                                                |
|                      | g/l    | 43.1   | 36.6  | 49.6 | 3.25  | 6.50  | Bromocresol Purple                             |
|                      | g/dl   | 4.31   | 3.66  | 4.96 | 0.33  | 0.65  |                                                |
|                      | g/l    | 40.2   | 34.2  | 46.2 | 3.00  | 6.00  | Turbidimetric Assays                           |
|                      | g/dl   | 4.02   | 3.42  | 4.62 | 0.30  | 0.60  |                                                |
| Alkaline Phosphatase | U/l    | 135    | 115   | 155  | 10.00 | 20.00 | Roche Integra AMP buffer 37°C                  |
|                      | U/l    | 105    | 90    | 120  | 7.50  | 15.00 | Roche Integra AMP buffer 30°C                  |
|                      | U/l    | 86     | 73    | 99   | 6.50  | 13.00 | Roche Integra AMP buffer 25°C                  |
| ALT (GPT)            | U/l    | 34     | 27    | 41   | 3.50  | 7.00  | Tris buffer without P5P 37°C                   |
|                      | U/l    | 25     | 20    | 30   | 2.50  | 5.00  | Tris buffer without P5P 30°C                   |
|                      | U/l    | 19     | 15    | 23   | 2.00  | 4.00  | Tris buffer without P5P 25°C                   |
| Amylase Pancreatic   | U/l    | 62     | 53    | 71   | 4.50  | 9.00  | Randox EPS Liquid and BM/Roche EPS Liquid 37°C |
| Amylase Total        | U/l    | 83     | 71    | 95   | 6.00  | 12.00 | BM/Roche Colorimetric pNPG7 37°C               |
|                      | U/l    | 85     | 72    | 98   | 6.50  | 13.00 | Roche Integra 2-chloro-pNPG7 37°C              |
|                      | U/l    | 84     | 71    | 97   | 6.50  | 13.00 | Other Roche 2-chloro-pNPG7 37°C                |
|                      | U/l    | 85     | 72    | 98   | 6.50  | 13.00 | Roche liquid stable pNPG7 37°C                 |
| AST (GOT)            | U/l    | 34     | 27    | 41   | 3.50  | 7.00  | Tris buffer without P5P 37°C                   |
|                      | U/l    | 23     | 18    | 28   | 2.50  | 5.00  | Tris buffer without P5P 30°C                   |
|                      | U/l    | 16     | 13    | 19   | 1.50  | 3.00  | Tris buffer without P5P 25°C                   |
| Bicarbonate          | mmol/l | 14.1   | 11.2  | 17.0 | 1.45  | 2.90  | Colorimetric                                   |

## Roche Cobas 6000 c501 e601

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

|                  |        | Range  |       |      |        |        |                                      |
|------------------|--------|--------|-------|------|--------|--------|--------------------------------------|
| Analyte          | unit   | target | low   | high | 1SD    | 2SD    | methods                              |
| Bicarbonate      | mmol/l | 14.7   | 11.7  | 17.7 | 1.50   | 3.00   | Enzymatic                            |
| Bile Acids       | μmol/l | 26.9   | 21.5  | 32.3 | 2.70   | 5.40   | Enzymatic Colorimetric               |
| Bilirubin Direct | μmol/l | 18.9   | 14.9  | 22.9 | 2.00   | 4.00   | Dichlorophenyl Diazonium (DPD)       |
|                  | mg/dl  | 1.11   | 0.872 | 1.35 | 0.12   | 0.24   |                                      |
|                  | μmol/l | 18.9   | 14.9  | 22.9 | 2.00   | 4.00   | Diazo with Sulphanilic Acid          |
|                  | mg/dl  | 1.11   | 0.872 | 1.35 | 0.12   | 0.24   |                                      |
| Bilirubin Total  | μmol/l | 25.0   | 19.8  | 30.2 | 2.60   | 5.20   | Diazo with Sulphanilic Acid          |
|                  | mg/dl  | 1.46   | 1.16  | 1.76 | 0.15   | 0.30   |                                      |
|                  | μmol/l | 24.7   | 19.5  | 29.9 | 2.60   | 5.20   | Dichlorophenyl Diazonium (DPD)       |
|                  | mg/dl  | 1.44   | 1.14  | 1.74 | 0.15   | 0.30   |                                      |
|                  | μmol/l | 25.3   | 20.0  | 30.6 | 2.65   | 5.30   | Diazonium ion                        |
|                  | mg/dl  | 1.48   | 1.17  | 1.79 | 0.16   | 0.31   |                                      |
| Calcium          | mmol/l | 2.34   | 2.11  | 2.57 | 0.12   | 0.23   | Cresolphthalein complexone           |
|                  | mg/dl  | 9.38   | 8.46  | 10.3 | 0.46   | 0.92   |                                      |
|                  | mmol/l | 2.35   | 2.11  | 2.59 | 0.12   | 0.24   | NM-BAPTA                             |
|                  | mg/dl  | 9.42   | 8.46  | 10.4 | 0.48   | 0.96   |                                      |
| Chloride         | mmol/l | 91.4   | 84.1  | 98.7 | 3.65   | 7.30   | ISE indirect                         |
| Cholesterol      | mmol/l | 4.95   | 4.30  | 5.60 | 0.33   | 0.65   | Cholesterol Oxidase                  |
|                  | mg/dl  | 191    | 166   | 216  | 12.50  | 25.00  |                                      |
| Cholinesterase   | U/l    | 4544   | 3635  | 5453 | 454.50 | 909.00 | Colorimetric Butyrylthiocholine 37°C |
| CK Total         | U/l    | 242    | 199   | 285  | 21.50  | 43.00  | CK-NAC substrate start (DGKC) 37°C   |
|                  | U/l    | 151    | 125   | 177  | 13.00  | 26.00  | CK-NAC substrate start (DGKC) 30°C   |
|                  | U/l    | 103    | 85    | 121  | 9.00   | 18.00  | CK-NAC substrate start (DGKC) 25°C   |
|                  | U/l    | 236    | 194   | 278  | 21.00  | 42.00  | CK-NAC (IFCC) 37°C                   |
|                  | U/l    | 148    | 121   | 175  | 13.50  | 27.00  | CK-NAC (IFCC) 30°C                   |
|                  | U/l    | 100    | 82    | 118  | 9.00   | 18.00  | CK-NAC (IFCC) 25°C                   |

## Roche Cobas 6000 c501 e601

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte             | unit   | target | Range |      | 1SD   | 2SD   | methods                                             |
|---------------------|--------|--------|-------|------|-------|-------|-----------------------------------------------------|
|                     |        |        | low   | high |       |       |                                                     |
| Creatinine          | μmol/l | 123    | 98.2  | 148  | 12.40 | 24.80 | Alkaline picrate no deproteinization                |
|                     | mg/dl  | 1.39   | 1.11  | 1.67 | 0.14  | 0.28  |                                                     |
|                     | μmol/l | 123    | 98.4  | 148  | 12.30 | 24.60 | Randox Enzymatic UV method                          |
|                     | mg/dl  | 1.39   | 1.11  | 1.67 | 0.14  | 0.28  |                                                     |
|                     | μmol/l | 121    | 96.4  | 146  | 12.30 | 24.60 | Creatinine PAP method                               |
|                     | mg/dl  | 1.37   | 1.09  | 1.65 | 0.14  | 0.28  |                                                     |
|                     | μmol/l | 121    | 96.8  | 145  | 12.10 | 24.20 | Roche Creatinine Plus                               |
|                     | mg/dl  | 1.37   | 1.09  | 1.65 | 0.14  | 0.28  |                                                     |
|                     | μmol/l | 123    | 98.6  | 147  | 12.20 | 24.40 | Jaffe rate blanked                                  |
|                     | mg/dl  | 1.39   | 1.11  | 1.67 | 0.14  | 0.28  |                                                     |
|                     | μmol/l | 122    | 97.5  | 147  | 12.25 | 24.50 | Jaffe rate blanked comp. (-26 μmol/l)               |
|                     | mg/dl  | 1.38   | 1.10  | 1.66 | 0.14  | 0.28  |                                                     |
|                     | μmol/l | 121    | 96.5  | 146  | 12.25 | 24.50 | Jaffe rate blanked compensated (-18 μmol/l)         |
|                     | mg/dl  | 1.37   | 1.09  | 1.65 | 0.14  | 0.28  |                                                     |
| D-3-Hydroxybutyrate | mmol/l | 0.29   | 0.25  | 0.34 | 0.02  | 0.04  | Tris buffer 100mmol pH 8.5                          |
| Free T4             | pmol/l | 22.5   | 16.9  | 28.1 | 2.80  | 5.60  | Roche Cobas 6000/8000                               |
|                     | ng/dl  | 1.76   | 1.32  | 2.20 | 0.22  | 0.44  |                                                     |
|                     | pg/ml  | 17.6   | 13.2  | 22.0 | 2.20  | 4.40  | Roche Cobas 6000/8000                               |
| gamma-GT            | U/l    | 44     | 37    | 51   | 3.50  | 7.00  | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C       |
|                     | U/l    | 35     | 29    | 41   | 3.00  | 6.00  | Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C       |
|                     | U/l    | 27     | 23    | 31   | 2.00  | 4.00  | Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C       |
|                     | U/l    | 50     | 43    | 57   | 3.50  | 7.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
|                     | U/l    | 39     | 34    | 44   | 2.50  | 5.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
|                     | U/l    | 31     | 27    | 35   | 2.00  | 4.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |

## Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

|                   |        | Range  |      |      |       |       |                                     |
|-------------------|--------|--------|------|------|-------|-------|-------------------------------------|
| Analyte           | unit   | target | low  | high | 1SD   | 2SD   | methods                             |
| GLDH              | U/l    | 14     | 11   | 17   | 1.50  | 3.00  | Triethanolamine buffer 50 mmol 37°C |
|                   | U/l    | 11     | 8    | 14   | 1.50  | 3.00  | Triethanolamine buffer 50 mmol 30°C |
|                   | U/l    | 9      | 7    | 11   | 1.00  | 2.00  | Triethanolamine buffer 50 mmol 25°C |
| Glucose           | mmol/l | 7.11   | 6.04 | 8.18 | 0.54  | 1.07  | Hexokinase                          |
|                   | mg/dl  | 128    | 109  | 147  | 9.50  | 19.00 |                                     |
|                   | mmol/l | 7.23   | 6.14 | 8.32 | 0.55  | 1.09  | Glucose oxidase                     |
|                   | mg/dl  | 130    | 111  | 149  | 9.50  | 19.00 |                                     |
| HDL - Cholesterol | mmol/l | 2.03   | 1.73 | 2.33 | 0.15  | 0.30  | Direct HDL PEGME                    |
|                   | mg/dl  | 78.4   | 66.8 | 90.0 | 5.80  | 11.60 |                                     |
|                   | mmol/l | 2.03   | 1.72 | 2.34 | 0.16  | 0.31  | Direct HDL Roche 3rd generation     |
|                   | mg/dl  | 78.4   | 66.4 | 90.4 | 6.00  | 12.00 |                                     |
| Iron              | µmol/l | 18.8   | 15.4 | 22.2 | 1.70  | 3.40  | Colorimetric with ppt.              |
|                   | µg/dl  | 105    | 86.1 | 124  | 9.45  | 18.90 |                                     |
|                   | µmol/l | 19.0   | 15.6 | 22.4 | 1.70  | 3.40  | Colorimetric without ppt.           |
|                   | µg/dl  | 106    | 87.2 | 125  | 9.40  | 18.80 |                                     |
| Lactate           | mmol/l | 1.49   | 1.22 | 1.76 | 0.14  | 0.27  | Colorimetric Lactate Oxidase        |
|                   | mg/dl  | 13.4   | 11.0 | 15.8 | 1.20  | 2.40  |                                     |
| LD (LDH)          | U/l    | 416    | 354  | 478  | 31.00 | 62.00 | P->L German methods 37°C            |
|                   | U/l    | 300    | 256  | 344  | 22.00 | 44.00 | P->L German methods 30°C            |
|                   | U/l    | 211    | 179  | 243  | 16.00 | 32.00 | P->L German methods 25°C            |
|                   | U/l    | 420    | 357  | 483  | 31.50 | 63.00 | P->L SFBC 37°C                      |
|                   | U/l    | 303    | 258  | 348  | 22.50 | 45.00 | P->L SFBC 30°C                      |
|                   | U/l    | 213    | 181  | 245  | 16.00 | 32.00 | P->L SFBC 25°C                      |
|                   | U/l    | 207    | 176  | 238  | 15.50 | 31.00 | L->P IFCC 37°C                      |
|                   | U/l    | 149    | 127  | 171  | 11.00 | 22.00 | L->P IFCC 30°C                      |
|                   | U/l    | 105    | 89   | 121  | 8.00  | 16.00 | L->P IFCC 25°C                      |

## Roche Cobas 6000 c501 e601

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte                     | unit    | target | Range |       | 1SD   | 2SD   | methods                                |
|-----------------------------|---------|--------|-------|-------|-------|-------|----------------------------------------|
|                             |         |        | low   | high  |       |       |                                        |
| Lipase                      | U/l     | 33     | 26    | 40    | 3.50  | 7.00  | Roche Colorimetric 37°C                |
|                             | U/l     | 33     | 27    | 39    | 3.00  | 6.00  | Roche Turbidimetric with colipase 37°C |
| Lithium                     | mmol/l  | 1.00   | 0.88  | 1.12  | 0.06  | 0.12  | Spectrophotometric                     |
|                             | mg/dl   | 0.694  | 0.612 | 0.776 | 0.04  | 0.08  |                                        |
| Magnesium                   | mmol/l  | 0.92   | 0.81  | 1.03  | 0.06  | 0.11  | Xylidyl Blue                           |
|                             | mg/dl   | 2.22   | 1.96  | 2.48  | 0.13  | 0.26  |                                        |
|                             | mmol/l  | 0.91   | 0.80  | 1.02  | 0.05  | 0.11  | Chlorphosphonazo III                   |
|                             | mg/dl   | 2.22   | 1.95  | 2.49  | 0.14  | 0.27  |                                        |
| Osmolality                  | mOsm/kg | 282    | 226   | 338   | 28.00 | 56.00 | Calculated                             |
| Phosphate Inorganic         | mmol/l  | 1.35   | 1.14  | 1.56  | 0.11  | 0.21  | Phosphomolybdate enzymatic             |
|                             | mg/dl   | 4.19   | 3.53  | 4.85  | 0.33  | 0.66  |                                        |
|                             | mmol/l  | 1.36   | 1.16  | 1.56  | 0.10  | 0.20  | Phosphomolybdate UV                    |
|                             | mg/dl   | 4.22   | 3.60  | 4.84  | 0.31  | 0.62  |                                        |
| Potassium                   | mmol/l  | 3.99   | 3.67  | 4.31  | 0.16  | 0.32  | ISE method - indirect                  |
| Protein Total               | g/l     | 58.4   | 46.7  | 70.1  | 5.85  | 11.70 | Biuret reaction end point              |
|                             | g/dl    | 5.84   | 4.67  | 7.01  | 0.59  | 1.17  |                                        |
|                             | g/l     | 57.7   | 46.1  | 69.3  | 5.80  | 11.60 | Biuret reaction kinetic                |
|                             | g/dl    | 5.77   | 4.61  | 6.93  | 0.58  | 1.16  |                                        |
| PSA Total                   | ng/ml = | 17.4   | 13.1  | 21.7  | 2.15  | 4.30  | Roche Cobas 6000/8000                  |
| Sodium                      | mmol/l  | 140    | 133   | 147   | 3.50  | 7.00  | ISE method - indirect                  |
| Thyroid Stimulating Hormone | µU/ml = | 1.40   | 1.12  | 1.68  | 0.14  | 0.28  | Roche Cobas 6000/8000                  |
| TIBC                        | µmol/l  | 43.3   | 34.2  | 52.4  | 4.55  | 9.10  | FE+UIBC(saturation with iron)          |
|                             | µg/dl   | 242    | 191   | 293   | 25.50 | 51.00 |                                        |
|                             | µmol/l  | 43.7   | 34.5  | 52.9  | 4.60  | 9.20  | Direct Colorimetric                    |
|                             | µg/dl   | 244    | 193   | 295   | 25.50 | 51.00 |                                        |

## Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

|                   |        | Range  |      |      |       |       |                                                   |
|-------------------|--------|--------|------|------|-------|-------|---------------------------------------------------|
| Analyte           | unit   | target | low  | high | 1SD   | 2SD   | methods                                           |
| Total T4          | nmol/l | 87.8   | 65.9 | 110  | 10.95 | 21.90 | Roche Cobas 6000/8000                             |
|                   | µg/dl  | 6.85   | 5.14 | 8.56 | 0.86  | 1.71  |                                                   |
|                   | ng/ml  | 68.5   | 51.4 | 85.6 | 8.55  | 17.10 | Roche Cobas 6000/8000                             |
| Triglycerides     | mmol/l | 1.03   | 0.87 | 1.19 | 0.08  | 0.16  | Lipase/GPO-PAP no correction                      |
|                   | mg/dl  | 91.2   | 76.8 | 106  | 7.20  | 14.40 |                                                   |
|                   | mmol/l | 1.02   | 0.86 | 1.18 | 0.08  | 0.16  | Lipase/GPO-PAP 0.11mmol/l correction              |
|                   | mg/dl  | 90.3   | 75.9 | 105  | 7.20  | 14.40 |                                                   |
|                   | mmol/l | 1.04   | 0.88 | 1.20 | 0.08  | 0.16  | L/G Kinase EP. no correction                      |
|                   | mg/dl  | 92.0   | 77.5 | 107  | 7.25  | 14.50 |                                                   |
| Urea              | mmol/l | 7.17   | 6.09 | 8.25 | 0.54  | 1.08  | Urease kinetic                                    |
|                   | mg/dl  | 43.1   | 36.6 | 49.6 | 3.25  | 6.50  |                                                   |
|                   | mmol/l | 7.17   | 6.09 | 8.25 | 0.54  | 1.08  | BUN                                               |
|                   | mg/dl  | 20.1   | 17.1 | 23.1 | 1.50  | 3.00  |                                                   |
| Uric Acid (Urate) | mmol/l | 0.33   | 0.29 | 0.37 | 0.02  | 0.04  | Uricase peroxidase with ascorbate oxidase         |
|                   | mg/dl  | 5.56   | 4.84 | 6.28 | 0.36  | 0.72  |                                                   |
|                   | mmol/l | 0.33   | 0.29 | 0.38 | 0.02  | 0.04  | Uricase peroxidase no ascorbate oxidase           |
|                   | mg/dl  | 5.58   | 4.86 | 6.30 | 0.36  | 0.72  |                                                   |
|                   | mmol/l | 0.33   | 0.29 | 0.38 | 0.02  | 0.04  | Uricase Peroxidase with ascorbate oxidase @ 546nm |
|                   | mg/dl  | 5.58   | 4.84 | 6.32 | 0.37  | 0.74  |                                                   |

## Roche Cobas C111®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte              | unit   | target | Range |      | 1SD   | 2SD   | methods                           |
|----------------------|--------|--------|-------|------|-------|-------|-----------------------------------|
|                      |        |        | low   | high |       |       |                                   |
| Albumin              | g/l    | 43.2   | 36.8  | 49.6 | 3.20  | 6.40  | Bromocresol Green                 |
|                      | g/dl   | 4.32   | 3.68  | 4.96 | 0.32  | 0.64  |                                   |
| Alkaline Phosphatase | U/l    | 132    | 112   | 152  | 10.00 | 20.00 | Roche Integra AMP buffer 37°C     |
|                      | U/l    | 103    | 87    | 119  | 8.00  | 16.00 | Roche Integra AMP buffer 30°C     |
|                      | U/l    | 84     | 72    | 96   | 6.00  | 12.00 | Roche Integra AMP buffer 25°C     |
| ALT (GPT)            | U/l    | 34     | 27    | 41   | 3.50  | 7.00  | Tris buffer without P5P 37°C      |
|                      | U/l    | 25     | 20    | 30   | 2.50  | 5.00  | Tris buffer without P5P 30°C      |
|                      | U/l    | 19     | 15    | 23   | 2.00  | 4.00  | Tris buffer without P5P 25°C      |
| Amylase Total        | U/l    | 90     | 77    | 103  | 6.50  | 13.00 | Roche Integra 2-chloro-pNPG7 37°C |
|                      | U/l    | 87     | 74    | 100  | 6.50  | 13.00 | Roche liquid stable pNPG7 37°C    |
| AST (GOT)            | U/l    | 36     | 29    | 43   | 3.50  | 7.00  | Tris buffer without P5P 37°C      |
|                      | U/l    | 24     | 20    | 28   | 2.00  | 4.00  | Tris buffer without P5P 30°C      |
|                      | U/l    | 17     | 14    | 20   | 1.50  | 3.00  | Tris buffer without P5P 25°C      |
| Bilirubin Direct     | µmol/l | 18.4   | 14.6  | 22.2 | 1.90  | 3.80  | Dichlorophenyl Diazonium (DPD)    |
|                      | mg/dl  | 1.08   | 0.854 | 1.31 | 0.11  | 0.23  |                                   |
|                      | µmol/l | 18.5   | 14.6  | 22.4 | 1.95  | 3.90  | Diazo with Sulphanilic Acid       |
|                      | mg/dl  | 1.08   | 0.854 | 1.31 | 0.11  | 0.23  |                                   |
| Bilirubin Total      | µmol/l | 25.8   | 20.4  | 31.2 | 2.70  | 5.40  | Diazo with Sulphanilic Acid       |
|                      | mg/dl  | 1.51   | 1.19  | 1.83 | 0.16  | 0.32  |                                   |
|                      | µmol/l | 25.9   | 20.4  | 31.4 | 2.75  | 5.50  | Dichlorophenyl Diazonium (DPD)    |
|                      | mg/dl  | 1.52   | 1.19  | 1.85 | 0.17  | 0.33  |                                   |

## Roche Cobas C111®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte         | unit   | target | Range |      | 1SD   | 2SD   | methods                                             |
|-----------------|--------|--------|-------|------|-------|-------|-----------------------------------------------------|
|                 |        |        | low   | high |       |       |                                                     |
| Bilirubin Total | µmol/l | 25.9   | 20.4  | 31.4 | 2.75  | 5.50  | Diazonium ion                                       |
|                 | mg/dl  | 1.52   | 1.19  | 1.85 | 0.17  | 0.33  |                                                     |
| Calcium         | mmol/l | 2.33   | 2.10  | 2.56 | 0.12  | 0.23  | Cresolphthalein complexone                          |
|                 | mg/dl  | 9.34   | 8.42  | 10.3 | 0.46  | 0.92  |                                                     |
|                 | mmol/l | 2.25   | 2.03  | 2.47 | 0.11  | 0.22  | NM-BAPTA                                            |
|                 | mg/dl  | 9.02   | 8.14  | 9.90 | 0.44  | 0.88  |                                                     |
| Chloride        | mmol/l | 95.8   | 88.2  | 103  | 3.80  | 7.60  | ISE indirect                                        |
| Cholesterol     | mmol/l | 5.03   | 4.37  | 5.69 | 0.33  | 0.66  | Cholesterol Oxidase                                 |
|                 | mg/dl  | 194    | 169   | 219  | 12.50 | 25.00 |                                                     |
| CK Total        | U/l    | 234    | 192   | 276  | 21.00 | 42.00 | CK-NAC (IFCC) 37°C                                  |
|                 | U/l    | 146    | 120   | 172  | 13.00 | 26.00 | CK-NAC (IFCC) 30°C                                  |
|                 | U/l    | 99     | 82    | 116  | 8.50  | 17.00 | CK-NAC (IFCC) 25°C                                  |
| Creatinine      | µmol/l | 112    | 89.8  | 134  | 11.10 | 22.20 | Alkaline picrate no deproteinization                |
|                 | mg/dl  | 1.27   | 1.01  | 1.53 | 0.13  | 0.26  |                                                     |
|                 | µmol/l | 112    | 89.7  | 134  | 11.15 | 22.30 | Roche Creatinine Plus                               |
|                 | mg/dl  | 1.27   | 1.01  | 1.53 | 0.13  | 0.26  |                                                     |
|                 | µmol/l | 114    | 91.4  | 137  | 11.30 | 22.60 | Jaffe rate blanked compensated (-18 µmol/l)         |
|                 | mg/dl  | 1.29   | 1.03  | 1.55 | 0.13  | 0.26  |                                                     |
| gamma-GT        | U/l    | 49     | 41    | 57   | 4.00  | 8.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
|                 | U/l    | 39     | 32    | 46   | 3.50  | 7.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
|                 | U/l    | 30     | 25    | 35   | 2.50  | 5.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |
| Glucose         | mmol/l | 7.34   | 6.24  | 8.44 | 0.55  | 1.10  | Hexokinase                                          |
|                 | mg/dl  | 132    | 112   | 152  | 10.00 | 20.00 |                                                     |
|                 | mmol/l | 7.05   | 5.99  | 8.11 | 0.53  | 1.06  | Glucose oxidase                                     |
|                 | mg/dl  | 127    | 108   | 146  | 9.50  | 19.00 |                                                     |

## Roche Cobas C111®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte             | unit   | target | Range |      | 1SD   | 2SD   | methods                              |
|---------------------|--------|--------|-------|------|-------|-------|--------------------------------------|
|                     |        |        | low   | high |       |       |                                      |
| HDL - Cholesterol   | mmol/l | 2.02   | 1.72  | 2.32 | 0.15  | 0.30  | Direct HDL Roche 3rd generation      |
|                     | mg/dl  | 78.0   | 66.4  | 89.6 | 5.80  | 11.60 |                                      |
| Iron                | µmol/l | 19.6   | 16.1  | 23.1 | 1.75  | 3.50  | Colorimetric without ppt.            |
|                     | µg/dl  | 110    | 90.0  | 130  | 10.00 | 20.00 |                                      |
| LD (LDH)            | U/l    | 406    | 345   | 467  | 30.50 | 61.00 | P->L German methods 37°C             |
|                     | U/l    | 293    | 249   | 337  | 22.00 | 44.00 | P->L German methods 30°C             |
|                     | U/l    | 206    | 175   | 237  | 15.50 | 31.00 | P->L German methods 25°C             |
|                     | U/l    | 222    | 189   | 255  | 16.50 | 33.00 | L->P IFCC 37°C                       |
|                     | U/l    | 160    | 136   | 184  | 12.00 | 24.00 | L->P IFCC 30°C                       |
|                     | U/l    | 113    | 96    | 130  | 8.50  | 17.00 | L->P IFCC 25°C                       |
| Lipase              | U/l    | 34     | 27    | 41   | 3.50  | 7.00  | Roche Colorimetric 37°C              |
| Magnesium           | mmol/l | 0.93   | 0.81  | 1.04 | 0.06  | 0.11  | Chlorphosphonazo III                 |
|                     | mg/dl  | 2.25   | 1.98  | 2.52 | 0.14  | 0.27  |                                      |
| Phosphate Inorganic | mmol/l | 1.42   | 1.20  | 1.64 | 0.11  | 0.22  | Phosphomolybdate UV                  |
|                     | mg/dl  | 4.40   | 3.72  | 5.08 | 0.34  | 0.68  |                                      |
| Potassium           | mmol/l | 3.91   | 3.60  | 4.22 | 0.16  | 0.31  | ISE method - indirect                |
| Protein Total       | g/l    | 59.1   | 47.3  | 70.9 | 5.90  | 11.80 | Biuret reaction end point            |
|                     | g/dl   | 5.91   | 4.73  | 7.09 | 0.59  | 1.18  |                                      |
| Sodium              | mmol/l | 137    | 130   | 144  | 3.50  | 7.00  | ISE method - indirect                |
| Triglycerides       | mmol/l | 1.06   | 0.89  | 1.23 | 0.08  | 0.17  | Lipase/GPO-PAP no correction         |
|                     | mg/dl  | 93.8   | 79.0  | 109  | 7.40  | 14.80 |                                      |
|                     | mmol/l | 1.03   | 0.87  | 1.19 | 0.08  | 0.16  | Lipase/GPO-PAP 0.11mmol/l correction |
|                     | mg/dl  | 91.2   | 76.7  | 106  | 7.25  | 14.50 |                                      |
| Urea                | mmol/l | 7.19   | 6.11  | 8.27 | 0.54  | 1.08  | Urease kinetic                       |
|                     | mg/dl  | 43.2   | 36.7  | 49.7 | 3.25  | 6.50  |                                      |

## Roche Cobas C111®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

|                   |        | Range  |      |      |      |      |                                                   |
|-------------------|--------|--------|------|------|------|------|---------------------------------------------------|
| Analyte           | unit   | target | low  | high | 1SD  | 2SD  | methods                                           |
| Urea              | mmol/l | 7.13   | 6.06 | 8.20 | 0.54 | 1.07 | Urease hypochlorite                               |
|                   | mg/dl  | 42.9   | 36.4 | 49.4 | 3.25 | 6.50 |                                                   |
|                   | mmol/l | 7.19   | 6.11 | 8.27 | 0.54 | 1.08 | BUN                                               |
|                   | mg/dl  | 20.2   | 17.2 | 23.2 | 1.50 | 3.00 |                                                   |
| Uric Acid (Urate) | mmol/l | 0.34   | 0.30 | 0.39 | 0.02 | 0.05 | Uricase peroxidase with ascorbate oxidase         |
|                   | mg/dl  | 5.71   | 4.96 | 6.46 | 0.38 | 0.75 |                                                   |
|                   | mmol/l | 0.34   | 0.30 | 0.39 | 0.02 | 0.04 | Uricase peroxidase no ascorbate oxidase           |
|                   | mg/dl  | 5.76   | 5.02 | 6.50 | 0.37 | 0.74 |                                                   |
|                   | mmol/l | 0.34   | 0.30 | 0.38 | 0.02 | 0.04 | Uricase Peroxidase with ascorbate oxidase @ 546nm |
|                   | mg/dl  | 5.70   | 4.96 | 6.44 | 0.37 | 0.74 |                                                   |

## Roche Cobas C311®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte              | unit   | target | Range |      | 1SD   | 2SD   | methods                        |
|----------------------|--------|--------|-------|------|-------|-------|--------------------------------|
|                      |        |        | low   | high |       |       |                                |
| Albumin              | g/l    | 43.1   | 36.6  | 49.6 | 3.25  | 6.50  | Bromocresol Green              |
|                      | g/dl   | 4.31   | 3.66  | 4.96 | 0.33  | 0.65  |                                |
|                      | g/l    | 43.2   | 36.7  | 49.7 | 3.25  | 6.50  | Bromocresol Purple             |
|                      | g/dl   | 4.32   | 3.67  | 4.97 | 0.33  | 0.65  |                                |
| Alkaline Phosphatase | U/l    | 279    | 237   | 321  | 21.00 | 42.00 | Diethanolamine buffer DEA 37°C |
|                      | U/l    | 217    | 185   | 249  | 16.00 | 32.00 | Diethanolamine buffer DEA 30°C |
|                      | U/l    | 178    | 151   | 205  | 13.50 | 27.00 | Diethanolamine buffer DEA 25°C |
|                      | U/l    | 131    | 111   | 151  | 10.00 | 20.00 | Roche Integra AMP buffer 37°C  |
|                      | U/l    | 102    | 86    | 118  | 8.00  | 16.00 | Roche Integra AMP buffer 30°C  |
|                      | U/l    | 84     | 71    | 97   | 6.50  | 13.00 | Roche Integra AMP buffer 25°C  |
| ALT (GPT)            | U/l    | 34     | 27    | 41   | 3.50  | 7.00  | Tris buffer without P5P 37°C   |
|                      | U/l    | 25     | 20    | 30   | 2.50  | 5.00  | Tris buffer without P5P 30°C   |
|                      | U/l    | 19     | 15    | 23   | 2.00  | 4.00  | Tris buffer without P5P 25°C   |
| Amylase Total        | U/l    | 85     | 73    | 97   | 6.00  | 12.00 | Roche liquid stable pNPG7 37°C |
| AST (GOT)            | U/l    | 35     | 28    | 42   | 3.50  | 7.00  | Tris buffer without P5P 37°C   |
|                      | U/l    | 24     | 19    | 29   | 2.50  | 5.00  | Tris buffer without P5P 30°C   |
|                      | U/l    | 17     | 13    | 21   | 2.00  | 4.00  | Tris buffer without P5P 25°C   |
| Bicarbonate          | mmol/l | 14.7   | 11.7  | 17.7 | 1.50  | 3.00  | Enzymatic                      |
| Bilirubin Direct     | µmol/l | 19.5   | 15.4  | 23.6 | 2.05  | 4.10  | Dichlorophenyl Diazonium (DPD) |
|                      | mg/dl  | 1.14   | 0.901 | 1.38 | 0.12  | 0.24  |                                |
|                      | µmol/l | 19.3   | 15.2  | 23.4 | 2.05  | 4.10  | Diazo with Sulphanilic Acid    |
|                      | mg/dl  | 1.13   | 0.889 | 1.37 | 0.12  | 0.24  |                                |

## Roche Cobas C311®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte         | unit   | target | Range |      | 1SD   | 2SD   | methods                               |
|-----------------|--------|--------|-------|------|-------|-------|---------------------------------------|
|                 |        |        | low   | high |       |       |                                       |
| Bilirubin Total | µmol/l | 24.3   | 19.2  | 29.4 | 2.55  | 5.10  | Diazo with Sulphanilic Acid           |
|                 | mg/dl  | 1.42   | 1.12  | 1.72 | 0.15  | 0.30  |                                       |
|                 | µmol/l | 24.7   | 19.5  | 29.9 | 2.60  | 5.20  | Dichlorophenyl Diazonium (DPD)        |
|                 | mg/dl  | 1.44   | 1.14  | 1.74 | 0.15  | 0.30  |                                       |
|                 | µmol/l | 26.0   | 20.5  | 31.5 | 2.75  | 5.50  | Diazonium ion                         |
|                 | mg/dl  | 1.52   | 1.20  | 1.84 | 0.16  | 0.32  |                                       |
| Calcium         | mmol/l | 2.39   | 2.15  | 2.63 | 0.12  | 0.24  | Cresolphthalein complexone            |
|                 | mg/dl  | 9.58   | 8.62  | 10.5 | 0.48  | 0.96  |                                       |
|                 | mmol/l | 2.37   | 2.13  | 2.61 | 0.12  | 0.24  | NM-BAPTA                              |
|                 | mg/dl  | 9.50   | 8.54  | 10.5 | 0.48  | 0.96  |                                       |
| Chloride        | mmol/l | 92.2   | 84.9  | 99.5 | 3.65  | 7.30  | ISE indirect                          |
| Cholesterol     | mmol/l | 4.98   | 4.33  | 5.63 | 0.33  | 0.65  | Cholesterol Oxidase                   |
|                 | mg/dl  | 192    | 167   | 217  | 12.50 | 25.00 |                                       |
| CK Total        | U/l    | 236    | 194   | 278  | 21.00 | 42.00 | CK-NAC (IFCC) 37°C                    |
|                 | U/l    | 148    | 121   | 175  | 13.50 | 27.00 | CK-NAC (IFCC) 30°C                    |
|                 | U/l    | 100    | 82    | 118  | 9.00  | 18.00 | CK-NAC (IFCC) 25°C                    |
| Creatinine      | µmol/l | 124    | 99.6  | 148  | 12.20 | 24.40 | Alkaline picrate no deproteinization  |
|                 | mg/dl  | 1.40   | 1.13  | 1.67 | 0.14  | 0.27  |                                       |
|                 | µmol/l | 122    | 97.7  | 146  | 12.15 | 24.30 | Randox Enzymatic UV method            |
|                 | mg/dl  | 1.38   | 1.10  | 1.66 | 0.14  | 0.28  |                                       |
|                 | µmol/l | 121    | 97.0  | 145  | 12.00 | 24.00 | Roche Creatinine Plus                 |
|                 | mg/dl  | 1.37   | 1.10  | 1.64 | 0.14  | 0.27  |                                       |
|                 | µmol/l | 123    | 98.7  | 147  | 12.15 | 24.30 | Jaffe rate blanked comp. (-26 µmol/l) |
|                 | mg/dl  | 1.39   | 1.12  | 1.66 | 0.14  | 0.27  |                                       |

## Roche Cobas C311®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte           | unit   | target | Range |      | 1SD   | 2SD   | methods                                             |
|-------------------|--------|--------|-------|------|-------|-------|-----------------------------------------------------|
|                   |        |        | low   | high |       |       |                                                     |
| gamma-GT          | U/l    | 47     | 40    | 54   | 3.50  | 7.00  | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C       |
|                   | U/l    | 37     | 32    | 42   | 2.50  | 5.00  | Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C       |
|                   | U/l    | 29     | 25    | 33   | 2.00  | 4.00  | Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C       |
|                   | U/l    | 49     | 42    | 56   | 3.50  | 7.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
|                   | U/l    | 39     | 33    | 45   | 3.00  | 6.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
|                   | U/l    | 30     | 26    | 34   | 2.00  | 4.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |
| Glucose           | mmol/l | 7.16   | 6.08  | 8.24 | 0.54  | 1.08  | Hexokinase                                          |
|                   | mg/dl  | 129    | 110   | 148  | 9.50  | 19.00 |                                                     |
|                   | mmol/l | 7.18   | 6.10  | 8.26 | 0.54  | 1.08  | Glucose oxidase                                     |
|                   | mg/dl  | 129    | 110   | 148  | 9.50  | 19.00 |                                                     |
| HDL - Cholesterol | mmol/l | 2.02   | 1.72  | 2.32 | 0.15  | 0.30  | Direct HDL Roche 3rd generation                     |
|                   | mg/dl  | 78.0   | 66.4  | 89.6 | 5.80  | 11.60 |                                                     |
| Iron              | µmol/l | 19.5   | 16.0  | 23.0 | 1.75  | 3.50  | Colorimetric without ppt.                           |
|                   | µg/dl  | 109    | 89.4  | 129  | 9.80  | 19.60 |                                                     |
| Lactate           | mmol/l | 1.48   | 1.21  | 1.75 | 0.14  | 0.27  | Colorimetric Lactate Oxidase                        |
|                   | mg/dl  | 13.3   | 10.9  | 15.7 | 1.20  | 2.40  |                                                     |
| LD (LDH)          | U/l    | 416    | 354   | 478  | 31.00 | 62.00 | P->L German methods 37°C                            |
|                   | U/l    | 300    | 256   | 344  | 22.00 | 44.00 | P->L German methods 30°C                            |
|                   | U/l    | 211    | 179   | 243  | 16.00 | 32.00 | P->L German methods 25°C                            |
|                   | U/l    | 208    | 177   | 239  | 15.50 | 31.00 | L->P IFCC 37°C                                      |
|                   | U/l    | 150    | 128   | 172  | 11.00 | 22.00 | L->P IFCC 30°C                                      |
|                   | U/l    | 105    | 90    | 120  | 7.50  | 15.00 | L->P IFCC 25°C                                      |
| Lipase            | U/l    | 33     | 26    | 40   | 3.50  | 7.00  | Roche Colorimetric 37°C                             |
| Magnesium         | mmol/l | 0.92   | 0.81  | 1.03 | 0.06  | 0.11  | Xylidyl Blue                                        |
|                   | mg/dl  | 2.24   | 1.97  | 2.51 | 0.14  | 0.27  |                                                     |

## Roche Cobas C311®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte             | unit   | target | Range |      | 1SD   | 2SD   | methods                                           |
|---------------------|--------|--------|-------|------|-------|-------|---------------------------------------------------|
|                     |        |        | low   | high |       |       |                                                   |
| Magnesium           | mmol/l | 0.91   | 0.80  | 1.02 | 0.06  | 0.11  | Chlorphosphonazo III                              |
|                     | mg/dl  | 2.22   | 1.95  | 2.49 | 0.14  | 0.27  |                                                   |
| Phosphate Inorganic | mmol/l | 1.39   | 1.18  | 1.60 | 0.11  | 0.21  | Phosphomolybdate UV                               |
|                     | mg/dl  | 4.31   | 3.66  | 4.96 | 0.33  | 0.65  |                                                   |
| Potassium           | mmol/l | 4.00   | 3.68  | 4.32 | 0.16  | 0.32  | ISE method - indirect                             |
| Protein Total       | g/l    | 58.9   | 47.1  | 70.7 | 5.90  | 11.80 | Biuret reaction end point                         |
|                     | g/dl   | 5.89   | 4.71  | 7.07 | 0.59  | 1.18  |                                                   |
| Sodium              | mmol/l | 140    | 133   | 147  | 3.50  | 7.00  | ISE method - indirect                             |
| TIBC                | µmol/l | 42.8   | 33.8  | 51.8 | 4.50  | 9.00  | FE+UIBC(saturation with iron)                     |
|                     | µg/dl  | 239    | 189   | 289  | 25.00 | 50.00 |                                                   |
| Triglycerides       | mmol/l | 1.05   | 0.88  | 1.22 | 0.08  | 0.17  | Lipase/GPO-PAP no correction                      |
|                     | mg/dl  | 92.9   | 78.1  | 108  | 7.40  | 14.80 |                                                   |
|                     | mmol/l | 1.03   | 0.87  | 1.19 | 0.08  | 0.16  | Lipase/GPO-PAP 0.11mmol/l correction              |
|                     | mg/dl  | 91.2   | 76.9  | 106  | 7.15  | 14.30 |                                                   |
| Urea                | mmol/l | 7.26   | 6.17  | 8.35 | 0.55  | 1.09  | Urease kinetic                                    |
|                     | mg/dl  | 43.6   | 37.1  | 50.1 | 3.25  | 6.50  |                                                   |
|                     | mmol/l | 7.26   | 6.17  | 8.35 | 0.55  | 1.09  | BUN                                               |
|                     | mg/dl  | 20.4   | 17.3  | 23.5 | 1.55  | 3.10  |                                                   |
| Uric Acid (Urate)   | mmol/l | 0.34   | 0.30  | 0.38 | 0.02  | 0.04  | Uricase peroxidase with ascorbate oxidase         |
|                     | mg/dl  | 5.71   | 4.97  | 6.45 | 0.37  | 0.74  |                                                   |
|                     | mmol/l | 0.34   | 0.30  | 0.39 | 0.02  | 0.05  | Uricase peroxidase no ascorbate oxidase           |
|                     | mg/dl  | 5.73   | 4.97  | 6.49 | 0.38  | 0.76  |                                                   |
|                     | mmol/l | 0.34   | 0.29  | 0.38 | 0.02  | 0.04  | Uricase Peroxidase with ascorbate oxidase @ 546nm |
|                     | mg/dl  | 5.64   | 4.91  | 6.37 | 0.37  | 0.73  |                                                   |

## Roche Cobas c701 / c702 / c711

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

|                      |        | Range  |       |      |      |       |                                                |
|----------------------|--------|--------|-------|------|------|-------|------------------------------------------------|
| Analyte              | unit   | target | low   | high | 1SD  | 2SD   | methods                                        |
| Albumin              | g/l    | 42.8   | 36.4  | 49.2 | 3.20 | 6.40  | Bromocresol Green                              |
|                      | g/dl   | 4.28   | 3.64  | 4.92 | 0.32 | 0.64  |                                                |
| Alkaline Phosphatase | U/l    | 120    | 102   | 138  | 9.00 | 18.00 | Roche Integra AMP buffer 37°C                  |
|                      | U/l    | 93     | 79    | 107  | 7.00 | 14.00 | Roche Integra AMP buffer 30°C                  |
|                      | U/l    | 77     | 65    | 89   | 6.00 | 12.00 | Roche Integra AMP buffer 25°C                  |
| ALT (GPT)            | U/l    | 34     | 27    | 41   | 3.50 | 7.00  | Tris buffer without P5P 37°C                   |
|                      | U/l    | 25     | 20    | 30   | 2.50 | 5.00  | Tris buffer without P5P 30°C                   |
|                      | U/l    | 19     | 15    | 23   | 2.00 | 4.00  | Tris buffer without P5P 25°C                   |
| Amylase Pancreatic   | U/l    | 64     | 54    | 74   | 5.00 | 10.00 | Randox EPS Liquid and BM/Roche EPS Liquid 37°C |
| Amylase Total        | U/l    | 85     | 72    | 98   | 6.50 | 13.00 | Roche liquid stable pNPG7 37°C                 |
| AST (GOT)            | U/l    | 35     | 28    | 42   | 3.50 | 7.00  | Tris buffer without P5P 37°C                   |
|                      | U/l    | 24     | 19    | 29   | 2.50 | 5.00  | Tris buffer without P5P 30°C                   |
|                      | U/l    | 17     | 13    | 21   | 2.00 | 4.00  | Tris buffer without P5P 25°C                   |
| Bicarbonate          | mmol/l | 14.9   | 11.8  | 18.0 | 1.55 | 3.10  | Enzymatic                                      |
| Bilirubin Direct     | µmol/l | 18.8   | 14.8  | 22.8 | 2.00 | 4.00  | Dichlorophenyl Diazonium (DPD)                 |
|                      | mg/dl  | 1.10   | 0.866 | 1.33 | 0.12 | 0.23  |                                                |
| Bilirubin Total      | µmol/l | 24.4   | 19.3  | 29.5 | 2.55 | 5.10  | Diazo with Sulphanilic Acid                    |
|                      | mg/dl  | 1.43   | 1.13  | 1.73 | 0.15 | 0.30  |                                                |
|                      | µmol/l | 24.2   | 19.1  | 29.3 | 2.55 | 5.10  | Dichlorophenyl Diazonium (DPD)                 |
|                      | mg/dl  | 1.42   | 1.12  | 1.72 | 0.15 | 0.30  |                                                |
|                      | µmol/l | 24.7   | 19.5  | 29.9 | 2.60 | 5.20  | Diazonium ion                                  |
|                      | mg/dl  | 1.44   | 1.14  | 1.74 | 0.15 | 0.30  |                                                |

## Roche Cobas c701 / c702 / c711

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

|                   |        | Range  |      |      |       |       |                                                     |
|-------------------|--------|--------|------|------|-------|-------|-----------------------------------------------------|
| Analyte           | unit   | target | low  | high | 1SD   | 2SD   | methods                                             |
| Calcium           | mmol/l | 2.33   | 2.09 | 2.57 | 0.12  | 0.24  | Cresolphthalein complexone                          |
|                   | mg/dl  | 9.34   | 8.38 | 10.3 | 0.48  | 0.96  |                                                     |
|                   | mmol/l | 2.34   | 2.10 | 2.58 | 0.12  | 0.24  | NM-BAPTA                                            |
|                   | mg/dl  | 9.38   | 8.42 | 10.3 | 0.48  | 0.96  |                                                     |
| Chloride          | mmol/l | 93.6   | 86.1 | 101  | 3.75  | 7.50  | ISE indirect                                        |
| Cholesterol       | mmol/l | 4.90   | 4.26 | 5.54 | 0.32  | 0.64  | Cholesterol Oxidase                                 |
|                   | mg/dl  | 189    | 164  | 214  | 12.50 | 25.00 |                                                     |
| CK Total          | U/l    | 213    | 175  | 251  | 19.00 | 38.00 | CK-NAC (IFCC) 37°C                                  |
|                   | U/l    | 133    | 110  | 156  | 11.50 | 23.00 | CK-NAC (IFCC) 30°C                                  |
|                   | U/l    | 91     | 74   | 108  | 8.50  | 17.00 | CK-NAC (IFCC) 25°C                                  |
| Creatinine        | µmol/l | 125    | 100  | 150  | 12.50 | 25.00 | Roche Creatinine Plus                               |
|                   | mg/dl  | 1.41   | 1.13 | 1.69 | 0.14  | 0.28  |                                                     |
|                   | µmol/l | 124    | 99.1 | 149  | 12.45 | 24.90 | Jaffe rate blanked comp. (-26 µmol/l)               |
|                   | mg/dl  | 1.40   | 1.12 | 1.68 | 0.14  | 0.28  |                                                     |
| gamma-GT          | U/l    | 43     | 36   | 50   | 3.50  | 7.00  | Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C       |
|                   | U/l    | 34     | 28   | 40   | 3.00  | 6.00  | Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C       |
|                   | U/l    | 27     | 22   | 32   | 2.50  | 5.00  | Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C       |
|                   | U/l    | 49     | 42   | 56   | 3.50  | 7.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
|                   | U/l    | 39     | 33   | 45   | 3.00  | 6.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
|                   | U/l    | 30     | 26   | 34   | 2.00  | 4.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |
| Glucose           | mmol/l | 7.10   | 6.04 | 8.16 | 0.53  | 1.06  | Hexokinase                                          |
|                   | mg/dl  | 128    | 109  | 147  | 9.50  | 19.00 |                                                     |
| HDL - Cholesterol | mmol/l | 1.90   | 1.61 | 2.19 | 0.15  | 0.29  | Direct HDL Roche 3rd generation                     |
|                   | mg/dl  | 73.3   | 62.1 | 84.5 | 5.60  | 11.20 |                                                     |

## Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

|                     |        | Range  |      |      |       |       |                                           |
|---------------------|--------|--------|------|------|-------|-------|-------------------------------------------|
| Analyte             | unit   | target | low  | high | 1SD   | 2SD   | methods                                   |
| Iron                | μmol/l | 18.7   | 15.4 | 22.0 | 1.65  | 3.30  | Colorimetric without ppt.                 |
|                     | μg/dl  | 105    | 86.1 | 124  | 9.45  | 18.90 |                                           |
| Lactate             | mmol/l | 1.48   | 1.21 | 1.75 | 0.14  | 0.27  | Colorimetric Lactate Oxidase              |
|                     | mg/dl  | 13.3   | 10.9 | 15.7 | 1.20  | 2.40  |                                           |
| LD (LDH)            | U/l    | 205    | 174  | 236  | 15.50 | 31.00 | L->P IFCC 37°C                            |
|                     | U/l    | 148    | 126  | 170  | 11.00 | 22.00 | L->P IFCC 30°C                            |
|                     | U/l    | 104    | 88   | 120  | 8.00  | 16.00 | L->P IFCC 25°C                            |
| Lipase              | U/l    | 33     | 27   | 39   | 3.00  | 6.00  | Roche Colorimetric 37°C                   |
| Magnesium           | mmol/l | 0.91   | 0.80 | 1.02 | 0.06  | 0.11  | Xylidyl Blue                              |
|                     | mg/dl  | 2.22   | 1.95 | 2.49 | 0.14  | 0.27  |                                           |
| Phosphate Inorganic | mmol/l | 1.34   | 1.14 | 1.54 | 0.10  | 0.20  | Phosphomolybdate UV                       |
|                     | mg/dl  | 4.15   | 3.53 | 4.77 | 0.31  | 0.62  |                                           |
| Potassium           | mmol/l | 3.99   | 3.67 | 4.31 | 0.16  | 0.32  | ISE method - indirect                     |
| Protein Total       | g/l    | 58.4   | 46.7 | 70.1 | 5.85  | 11.70 | Biuret reaction end point                 |
|                     | g/dl   | 5.84   | 4.67 | 7.01 | 0.59  | 1.17  |                                           |
| Sodium              | mmol/l | 141    | 134  | 148  | 3.50  | 7.00  | ISE method - indirect                     |
| TIBC                | μmol/l | 44.1   | 34.9 | 53.3 | 4.60  | 9.20  | FE+UIBC(saturation with iron)             |
|                     | μg/dl  | 247    | 195  | 299  | 26.00 | 52.00 |                                           |
| Triglycerides       | mmol/l | 1.04   | 0.87 | 1.21 | 0.08  | 0.17  | Lipase/GPO-PAP no correction              |
|                     | mg/dl  | 92.0   | 77.3 | 107  | 7.35  | 14.70 |                                           |
| Urea                | mmol/l | 7.10   | 6.04 | 8.16 | 0.53  | 1.06  | Urease kinetic                            |
|                     | mg/dl  | 42.7   | 36.3 | 49.1 | 3.20  | 6.40  |                                           |
|                     | mmol/l | 7.10   | 6.04 | 8.16 | 0.53  | 1.06  | BUN                                       |
|                     | mg/dl  | 19.9   | 16.9 | 22.9 | 1.50  | 3.00  |                                           |
| Uric Acid (Urate)   | mmol/l | 0.34   | 0.29 | 0.38 | 0.02  | 0.04  | Uricase peroxidase with ascorbate oxidase |
|                     | mg/dl  | 5.66   | 4.92 | 6.40 | 0.37  | 0.74  |                                           |

## Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Range

| Analyte           | unit   | target | low  | high | 1SD  | 2SD  | methods                                           |
|-------------------|--------|--------|------|------|------|------|---------------------------------------------------|
| Uric Acid (Urate) | mmol/l | 0.32   | 0.28 | 0.36 | 0.02 | 0.04 | Uricase peroxidase no ascorbate oxidase           |
|                   | mg/dl  | 5.41   | 4.70 | 6.12 | 0.36 | 0.71 |                                                   |
|                   | mmol/l | 0.33   | 0.28 | 0.37 | 0.02 | 0.04 | Uricase Peroxidase with ascorbate oxidase @ 546nm |
|                   | mg/dl  | 5.48   | 4.75 | 6.21 | 0.37 | 0.73 |                                                   |

## RX DAYTONA®/IMOLA®/SUZUKA®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

### Range

| Analyte              | unit   | target | low   | high | 1SD   | 2SD   | methods                         |
|----------------------|--------|--------|-------|------|-------|-------|---------------------------------|
| Albumin              | g/l    | 40.2   | 34.2  | 46.2 | 3.00  | 6.00  | Bromocresol Green               |
|                      | g/dl   | 4.02   | 3.42  | 4.62 | 0.30  | 0.60  |                                 |
| Alkaline Phosphatase | U/l    | 294    | 250   | 338  | 22.00 | 44.00 | Diethanolamine buffer DEA 37°C  |
|                      | U/l    | 181    | 154   | 208  | 13.50 | 27.00 | AMP optimised to IFCC 37°C      |
| ALT (GPT)            | U/l    | 35     | 28    | 42   | 3.50  | 7.00  | Tris buffer without P5P 37°C    |
| Amylase Pancreatic   | U/l    | 70     | 60    | 80   | 5.00  | 10.00 | Randox liquid stable pNPG7 37°C |
| Amylase Total        | U/l    | 97     | 82    | 112  | 7.50  | 15.00 | Randox liquid stable pNPG7 37°C |
| AST (GOT)            | U/l    | 38     | 31    | 45   | 3.50  | 7.00  | Tris buffer without P5P 37°C    |
| Bicarbonate          | mmol/l | 14.6   | 11.6  | 17.6 | 1.50  | 3.00  | Enzymatic                       |
| Bile Acids           | µmol/l | 24.5   | 19.6  | 29.4 | 2.45  | 4.90  | 5th Generation Colorimetric     |
| Bilirubin Direct     | µmol/l | 20.4   | 16.1  | 24.7 | 2.15  | 4.30  | Diazo with Sulphanilic Acid     |
|                      | mg/dl  | 1.19   | 0.942 | 1.44 | 0.12  | 0.25  |                                 |
|                      | µmol/l | 14.8   | 11.7  | 17.9 | 1.55  | 3.10  | Vanadate Oxidation              |
|                      | mg/dl  | 0.866  | 0.684 | 1.05 | 0.09  | 0.18  |                                 |
| Bilirubin Total      | µmol/l | 31.0   | 24.5  | 37.5 | 3.25  | 6.50  | Diazo with Sulphanilic Acid     |
|                      | mg/dl  | 1.81   | 1.43  | 2.19 | 0.19  | 0.38  |                                 |
|                      | µmol/l | 34.5   | 27.3  | 41.7 | 3.60  | 7.20  | Vanadate Oxidation              |
|                      | mg/dl  | 2.02   | 1.60  | 2.44 | 0.21  | 0.42  |                                 |
| Calcium              | mmol/l | 2.43   | 2.19  | 2.67 | 0.12  | 0.24  | Arsenazo III                    |
|                      | mg/dl  | 9.74   | 8.78  | 10.7 | 0.48  | 0.96  |                                 |
| Chloride             | mmol/l | 95.3   | 87.7  | 103  | 3.80  | 7.60  | ISE direct                      |

## RX DAYTONA®/IMOLA®/SUZUKA®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte             | unit   | target | Range |       | 1SD   | 2SD   | methods                                             |
|---------------------|--------|--------|-------|-------|-------|-------|-----------------------------------------------------|
|                     |        |        | low   | high  |       |       |                                                     |
| Cholesterol         | mmol/l | 5.07   | 4.41  | 5.73  | 0.33  | 0.66  | Cholesterol Oxidase                                 |
|                     | mg/dl  | 196    | 170   | 222   | 13.00 | 26.00 |                                                     |
| CK Total            | U/l    | 222    | 182   | 262   | 20.00 | 40.00 | CK-NAC substrate start (DGKC) 37°C                  |
|                     | U/l    | 246    | 202   | 290   | 22.00 | 44.00 | CK-NAC (IFCC) 37°C                                  |
| Creatinine          | µmol/l | 123    | 98.4  | 148   | 12.30 | 24.60 | Alkaline picrate no deproteinization                |
|                     | mg/dl  | 1.39   | 1.11  | 1.67  | 0.14  | 0.28  |                                                     |
| gamma-GT            | U/l    | 49     | 42    | 56    | 3.50  | 7.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| Glucose             | mmol/l | 7.43   | 6.32  | 8.54  | 0.56  | 1.11  | Hexokinase                                          |
|                     | mg/dl  | 134    | 114   | 154   | 10.00 | 20.00 |                                                     |
|                     | mmol/l | 7.47   | 6.35  | 8.59  | 0.56  | 1.12  | Glucose oxidase                                     |
|                     | mg/dl  | 135    | 114   | 156   | 10.50 | 21.00 |                                                     |
| Iron                | µmol/l | 19.7   | 16.2  | 23.2  | 1.75  | 3.50  | Colorimetric without ppt.                           |
|                     | µg/dl  | 110    | 90.6  | 129   | 9.70  | 19.40 |                                                     |
| Lactate             | mmol/l | 1.44   | 1.18  | 1.70  | 0.13  | 0.26  | Enzymatic Colorimetric                              |
|                     | mg/dl  | 13.0   | 10.6  | 15.4  | 1.20  | 2.40  |                                                     |
| LD (LDH)            | U/l    | 412    | 350   | 474   | 31.00 | 62.00 | P->L German methods 37°C                            |
|                     | U/l    | 219    | 186   | 252   | 16.50 | 33.00 | L->P IFCC 37°C                                      |
| Lipase              | U/l    | 42     | 34    | 50    | 4.00  | 8.00  | Randox Colorimetric 37°C                            |
| Lithium             | mmol/l | 1.00   | 0.88  | 1.11  | 0.06  | 0.12  | Colorimetric                                        |
|                     | mg/dl  | 0.691  | 0.608 | 0.774 | 0.04  | 0.08  |                                                     |
| Magnesium           | mmol/l | 0.94   | 0.83  | 1.06  | 0.06  | 0.11  | Xylidyl Blue                                        |
|                     | mg/dl  | 2.29   | 2.02  | 2.56  | 0.14  | 0.27  |                                                     |
| Phosphate Inorganic | mmol/l | 1.39   | 1.18  | 1.60  | 0.11  | 0.21  | Phosphomolybdate UV                                 |
|                     | mg/dl  | 4.31   | 3.66  | 4.96  | 0.33  | 0.65  |                                                     |
| Potassium           | mmol/l | 4.00   | 3.68  | 4.32  | 0.16  | 0.32  | Enzymatic                                           |

## RX DAYTONA®/IMOLA®/SUZUKA®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

### Range

| Analyte           | unit   | target | low  | high | 1SD   | 2SD   | methods                                           |
|-------------------|--------|--------|------|------|-------|-------|---------------------------------------------------|
| Potassium         | mmol/l | 4.02   | 3.70 | 4.34 | 0.16  | 0.32  | ISE method - direct                               |
| Protein Total     | g/l    | 60.6   | 48.5 | 72.7 | 6.05  | 12.10 | Biuret reaction end point                         |
|                   | g/dl   | 6.06   | 4.85 | 7.27 | 0.61  | 1.21  |                                                   |
| Sodium            | mmol/l | 142    | 135  | 149  | 3.50  | 7.00  | Enzymatic                                         |
|                   | mmol/l | 141    | 134  | 148  | 3.50  | 7.00  | ISE method - direct                               |
| TIBC              | μmol/l | 48.7   | 38.5 | 58.9 | 5.10  | 10.20 | Direct Colorimetric                               |
|                   | μg/dl  | 272    | 215  | 329  | 28.50 | 57.00 |                                                   |
| Triglycerides     | mmol/l | 1.08   | 0.91 | 1.25 | 0.09  | 0.17  | Lipase/GPO-PAP no correction                      |
|                   | mg/dl  | 95.6   | 80.3 | 111  | 7.65  | 15.30 |                                                   |
| Urea              | mmol/l | 7.51   | 6.38 | 8.64 | 0.57  | 1.13  | Urease kinetic                                    |
|                   | mg/dl  | 45.1   | 38.3 | 51.9 | 3.40  | 6.80  |                                                   |
|                   | mmol/l | 7.51   | 6.38 | 8.64 | 0.57  | 1.13  | BUN                                               |
|                   | mg/dl  | 21.1   | 17.9 | 24.3 | 1.60  | 3.20  |                                                   |
| Uric Acid (Urate) | mmol/l | 0.33   | 0.29 | 0.38 | 0.02  | 0.04  | Uricase peroxidase no ascorbate oxidase           |
|                   | mg/dl  | 5.58   | 4.86 | 6.30 | 0.36  | 0.72  |                                                   |
|                   | mmol/l | 0.34   | 0.29 | 0.38 | 0.02  | 0.04  | Uricase Peroxidase with ascorbate oxidase @ 546nm |
|                   | mg/dl  | 5.63   | 4.89 | 6.37 | 0.37  | 0.74  |                                                   |

## SIEMENS ADVIA 1200/1650/2400®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte              | unit   | target | Range |      | 1SD   | 2SD   | methods                             |
|----------------------|--------|--------|-------|------|-------|-------|-------------------------------------|
|                      |        |        | low   | high |       |       |                                     |
| Albumin              | g/l    | 39.9   | 33.9  | 45.9 | 3.00  | 6.00  | Bromocresol Green                   |
|                      | g/dl   | 3.99   | 3.39  | 4.59 | 0.30  | 0.60  |                                     |
| Alkaline Phosphatase | U/l    | 275    | 234   | 316  | 20.50 | 41.00 | Diethanolamine buffer DEA 37°C      |
|                      | U/l    | 179    | 152   | 206  | 13.50 | 27.00 | AMP optimised to IFCC 37°C          |
|                      | U/l    | 179    | 152   | 206  | 13.50 | 27.00 | AMP non-optimised 37°C              |
| ALT (GPT)            | U/l    | 37     | 30    | 44   | 3.50  | 7.00  | Tris buffer without P5P 37°C        |
| Amylase Pancreatic   | U/l    | 63     | 54    | 72   | 4.50  | 9.00  | Immunoinhibition EPS substrate 37°C |
| Amylase Total        | U/l    | 85     | 72    | 98   | 6.50  | 13.00 | Siemens - blocked pNPG7 37°C        |
| AST (GOT)            | U/l    | 38     | 30    | 46   | 4.00  | 8.00  | Tris buffer without P5P 37°C        |
| Bicarbonate          | mmol/l | 17.1   | 13.6  | 20.6 | 1.75  | 3.50  | Enzymatic                           |
| Bilirubin Direct     | µmol/l | 16.9   | 13.3  | 20.5 | 1.80  | 3.60  | Diazo with Sulphanilic Acid         |
|                      | mg/dl  | 0.989  | 0.778 | 1.20 | 0.11  | 0.21  |                                     |
|                      | µmol/l | 17.5   | 13.8  | 21.2 | 1.85  | 3.70  | Oxidation to Biliverdin             |
|                      | mg/dl  | 1.02   | 0.807 | 1.23 | 0.11  | 0.21  |                                     |
| Bilirubin Total      | µmol/l | 30.2   | 23.9  | 36.5 | 3.15  | 6.30  | Diazo with Sulphanilic Acid         |
|                      | mg/dl  | 1.77   | 1.40  | 2.14 | 0.19  | 0.37  |                                     |
|                      | µmol/l | 30.3   | 23.9  | 36.7 | 3.20  | 6.40  | Oxidation to Biliverdin             |
|                      | mg/dl  | 1.77   | 1.40  | 2.14 | 0.19  | 0.37  |                                     |
| Calcium              | mmol/l | 2.31   | 2.08  | 2.54 | 0.12  | 0.23  | Cresolphthalein complexone          |
|                      | mg/dl  | 9.26   | 8.34  | 10.2 | 0.46  | 0.92  |                                     |
|                      | mmol/l | 2.35   | 2.11  | 2.59 | 0.12  | 0.24  | Arsenazo III                        |
|                      | mg/dl  | 9.42   | 8.46  | 10.4 | 0.48  | 0.96  |                                     |

## SIEMENS ADVIA 1200/1650/2400®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

|                   |        | Range  |      |      |        |        |                                                     |
|-------------------|--------|--------|------|------|--------|--------|-----------------------------------------------------|
| Analyte           | unit   | target | low  | high | 1SD    | 2SD    | methods                                             |
| Chloride          | mmol/l | 98.3   | 90.4 | 106  | 3.95   | 7.90   | ISE indirect                                        |
| Cholesterol       | mmol/l | 4.87   | 4.23 | 5.51 | 0.32   | 0.64   | Cholesterol Oxidase                                 |
|                   | mg/dl  | 188    | 163  | 213  | 12.50  | 25.00  |                                                     |
| Cholinesterase    | U/l    | 4873   | 3899 | 5847 | 487.00 | 974.00 | Colorimetric Butyrylthiocholine 37°C                |
| CK Total          | U/l    | 219    | 180  | 258  | 19.50  | 39.00  | CK-NAC substrate start (DGKC) 37°C                  |
|                   | U/l    | 219    | 180  | 258  | 19.50  | 39.00  | CK-NAC (IFCC) 37°C                                  |
| Creatinine        | µmol/l | 124    | 99.2 | 149  | 12.40  | 24.80  | Alkaline picrate no deproteinization                |
|                   | mg/dl  | 1.40   | 1.12 | 1.68 | 0.14   | 0.28   |                                                     |
|                   | µmol/l | 114    | 90.9 | 137  | 11.55  | 23.10  | Randox Enzymatic UV method                          |
|                   | mg/dl  | 1.29   | 1.03 | 1.55 | 0.13   | 0.26   |                                                     |
|                   | µmol/l | 128    | 102  | 154  | 13.00  | 26.00  | Jaffe rate blanked                                  |
|                   | mg/dl  | 1.45   | 1.15 | 1.75 | 0.15   | 0.30   |                                                     |
|                   | µmol/l | 117    | 94.0 | 140  | 11.50  | 23.00  | Jaffe rate blanked comp. (-26 µmol/l)               |
|                   | mg/dl  | 1.32   | 1.06 | 1.58 | 0.13   | 0.26   |                                                     |
| gamma-GT          | U/l    | 49     | 42   | 56   | 3.50   | 7.00   | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| Glucose           | mmol/l | 7.00   | 5.95 | 8.05 | 0.53   | 1.05   | Hexokinase                                          |
|                   | mg/dl  | 126    | 107  | 145  | 9.50   | 19.00  |                                                     |
|                   | mmol/l | 7.16   | 6.09 | 8.23 | 0.54   | 1.07   | Glucose oxidase                                     |
|                   | mg/dl  | 129    | 110  | 148  | 9.50   | 19.00  |                                                     |
| HDL - Cholesterol | mmol/l | 1.37   | 1.17 | 1.57 | 0.10   | 0.20   | Direct HDL Immunoseparation                         |
|                   | mg/dl  | 52.9   | 45.2 | 60.6 | 3.85   | 7.70   |                                                     |
|                   | mmol/l | 1.46   | 1.24 | 1.68 | 0.11   | 0.22   | Direct Clearance Method                             |
|                   | mg/dl  | 56.4   | 47.9 | 64.9 | 4.25   | 8.50   |                                                     |
| Iron              | µmol/l | 19.0   | 15.6 | 22.4 | 1.70   | 3.40   | Colorimetric without ppt.                           |
|                   | µg/dl  | 106    | 87.2 | 125  | 9.40   | 18.80  |                                                     |

## SIEMENS ADVIA 1200/1650/2400®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte             | unit   | target | Range |       | 1SD   | 2SD   | methods                       |
|---------------------|--------|--------|-------|-------|-------|-------|-------------------------------|
|                     |        |        | low   | high  |       |       |                               |
| Lactate             | mmol/l | 1.36   | 1.12  | 1.60  | 0.12  | 0.24  | Colorimetric Lactate Oxidase  |
|                     | mg/dl  | 12.3   | 10.1  | 14.5  | 1.10  | 2.20  |                               |
| LD (LDH)            | U/l    | 210    | 178   | 242   | 16.00 | 32.00 | L->P 37°C                     |
|                     | U/l    | 412    | 350   | 474   | 31.00 | 62.00 | P->L German methods 37°C      |
|                     | U/l    | 212    | 180   | 244   | 16.00 | 32.00 | L->P IFCC 37°C                |
| Lipase              | U/l    | 41     | 33    | 49    | 4.00  | 8.00  | Other Colorimetric 37°C       |
| Lithium             | mmol/l | 1.02   | 0.90  | 1.14  | 0.06  | 0.12  | Spectrophotometric            |
|                     | mg/dl  | 0.708  | 0.624 | 0.792 | 0.04  | 0.08  |                               |
| Magnesium           | mmol/l | 0.94   | 0.83  | 1.06  | 0.06  | 0.11  | Xylidyl Blue                  |
|                     | mg/dl  | 2.29   | 2.02  | 2.56  | 0.14  | 0.27  |                               |
| Phosphate Inorganic | mmol/l | 1.37   | 1.16  | 1.58  | 0.11  | 0.21  | Phosphomolybdate UV           |
|                     | mg/dl  | 4.25   | 3.60  | 4.90  | 0.33  | 0.65  |                               |
| Potassium           | mmol/l | 4.05   | 3.72  | 4.38  | 0.17  | 0.33  | ISE method - indirect         |
| Protein Total       | g/l    | 59.3   | 47.5  | 71.1  | 5.90  | 11.80 | Biuret reaction end point     |
|                     | g/dl   | 5.93   | 4.75  | 7.11  | 0.59  | 1.18  |                               |
| Sodium              | mmol/l | 142    | 135   | 149   | 3.50  | 7.00  | ISE method - indirect         |
| TIBC                | µmol/l | 47.6   | 37.6  | 57.6  | 5.00  | 10.00 | Removal of excess free iron   |
|                     | µg/dl  | 266    | 210   | 322   | 28.00 | 56.00 |                               |
|                     | µmol/l | 47.2   | 37.3  | 57.1  | 4.95  | 9.90  | FE+UIBC(saturation with iron) |
|                     | µg/dl  | 264    | 209   | 319   | 27.50 | 55.00 |                               |
| Triglycerides       | mmol/l | 1.09   | 0.91  | 1.27  | 0.09  | 0.18  | Lipase/GPO-PAP no correction  |
|                     | mg/dl  | 96.5   | 80.8  | 112   | 7.85  | 15.70 |                               |
|                     | mmol/l | 1.08   | 0.91  | 1.25  | 0.09  | 0.17  | L/G Kinase EP. no correction  |
|                     | mg/dl  | 95.6   | 80.5  | 111   | 7.55  | 15.10 |                               |

## SIEMENS ADVIA 1200/1650/2400®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

|                   |        | Range  |      |      |      |      |                                                   |
|-------------------|--------|--------|------|------|------|------|---------------------------------------------------|
| Analyte           | unit   | target | low  | high | 1SD  | 2SD  | methods                                           |
| Urea              | mmol/l | 7.68   | 6.53 | 8.83 | 0.58 | 1.15 | Urease kinetic                                    |
|                   | mg/dl  | 46.2   | 39.2 | 53.2 | 3.50 | 7.00 |                                                   |
|                   | mmol/l | 7.68   | 6.53 | 8.83 | 0.58 | 1.15 | BUN                                               |
|                   | mg/dl  | 21.6   | 18.4 | 24.8 | 1.60 | 3.20 |                                                   |
| Uric Acid (Urate) | mmol/l | 0.34   | 0.30 | 0.39 | 0.02 | 0.04 | Uricase peroxidase no ascorbate oxidase           |
|                   | mg/dl  | 5.73   | 4.99 | 6.47 | 0.37 | 0.74 |                                                   |
|                   | mmol/l | 0.34   | 0.30 | 0.38 | 0.02 | 0.04 | Uricase Peroxidase with ascorbate oxidase @ 546nm |
|                   | mg/dl  | 5.70   | 4.96 | 6.44 | 0.37 | 0.74 |                                                   |

## Siemens/Dade Dimension EXL

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte              | unit   | target | Range |       | 1SD   | 2SD   | methods                                        |
|----------------------|--------|--------|-------|-------|-------|-------|------------------------------------------------|
|                      |        |        | low   | high  |       |       |                                                |
| Albumin              | g/l    | 43.1   | 36.7  | 49.5  | 3.20  | 6.40  | Bromocresol Purple                             |
|                      | g/dl   | 4.31   | 3.67  | 4.95  | 0.32  | 0.64  |                                                |
| Alkaline Phosphatase | U/l    | 140    | 119   | 161   | 10.50 | 21.00 | Siemens Dimension AMP buffer 37°C              |
| ALT (GPT)            | U/l    | 40     | 32    | 48    | 4.00  | 8.00  | Tris buffer with P5P 37°C                      |
| Amylase Total        | U/l    | 90     | 77    | 103   | 6.50  | 13.00 | Siemens 2-chloro-pNPG3 37°C                    |
| AST (GOT)            | U/l    | 44     | 35    | 53    | 4.50  | 9.00  | Siemens Dade Standard Non IFCC Correlated 37°C |
| Bicarbonate          | mmol/l | 16.1   | 12.7  | 19.5  | 1.70  | 3.40  | Enzymatic                                      |
| Bilirubin Direct     | μmol/l | 12.4   | 9.76  | 15.0  | 1.32  | 2.64  | Diazo with Sulphanilic Acid                    |
|                      | mg/dl  | 0.725  | 0.571 | 0.879 | 0.08  | 0.15  |                                                |
| Bilirubin Total      | μmol/l | 28.3   | 22.3  | 34.3  | 3.00  | 6.00  | Diazo with Sulphanilic Acid                    |
|                      | mg/dl  | 1.66   | 1.30  | 2.02  | 0.18  | 0.36  |                                                |
| Calcium              | mmol/l | 2.25   | 2.03  | 2.47  | 0.11  | 0.22  | Cresolphthalein complexone                     |
|                      | mg/dl  | 9.02   | 8.14  | 9.90  | 0.44  | 0.88  |                                                |
| Chloride             | mmol/l | 95.7   | 88.0  | 103   | 3.85  | 7.70  | ISE indirect                                   |
| Cholesterol          | mmol/l | 4.48   | 3.90  | 5.06  | 0.29  | 0.58  | Dimension-Siemens reagents                     |
|                      | mg/dl  | 173    | 151   | 195   | 11.00 | 22.00 |                                                |
| CK Total             | U/l    | 210    | 173   | 247   | 18.50 | 37.00 | CK-NAC (IFCC) 37°C                             |
| Creatinine           | μmol/l | 129    | 104   | 154   | 12.50 | 25.00 | Alkaline picrate no deproteinization           |
|                      | mg/dl  | 1.46   | 1.18  | 1.74  | 0.14  | 0.28  |                                                |
|                      | μmol/l | 131    | 105   | 157   | 13.00 | 26.00 | IDMS traceable                                 |
|                      | mg/dl  | 1.48   | 1.19  | 1.77  | 0.15  | 0.29  |                                                |

## Siemens/Dade Dimension EXL

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

|                     |        | Range  |      |      |       |       |                                                |
|---------------------|--------|--------|------|------|-------|-------|------------------------------------------------|
| Analyte             | unit   | target | low  | high | 1SD   | 2SD   | methods                                        |
| gamma-GT            | U/l    | 63     | 54   | 72   | 4.50  | 9.00  | Siemens Dimension (non IFCC) 37°C              |
| Glucose             | mmol/l | 7.07   | 6.01 | 8.13 | 0.53  | 1.06  | Hexokinase                                     |
|                     | mg/dl  | 127    | 108  | 146  | 9.50  | 19.00 |                                                |
| Lactate             | mmol/l | 1.35   | 1.11 | 1.59 | 0.12  | 0.24  | Colorimetric Lactate Oxidase                   |
|                     | mg/dl  | 12.2   | 10.0 | 14.4 | 1.10  | 2.20  |                                                |
| LD (LDH)            | U/l    | 204    | 173  | 235  | 15.50 | 31.00 | L->P IFCC 37°C                                 |
| Lipase              | U/l    | 148    | 119  | 177  | 14.50 | 29.00 | Siemens Dimension Colorimetric (LIP Kit) 37°C  |
|                     | U/l    | 143    | 115  | 171  | 14.00 | 28.00 | Colorimetric Siemens Dimension (LIPL Kit) 37°C |
| Magnesium           | mmol/l | 0.88   | 0.78 | 0.99 | 0.05  | 0.11  | Methylthymol blue                              |
|                     | mg/dl  | 2.14   | 1.89 | 2.39 | 0.13  | 0.25  |                                                |
| Phosphate Inorganic | mmol/l | 1.37   | 1.17 | 1.57 | 0.10  | 0.20  | Phosphomolybdate UV                            |
|                     | mg/dl  | 4.25   | 3.63 | 4.87 | 0.31  | 0.62  |                                                |
| Potassium           | mmol/l | 3.93   | 3.61 | 4.25 | 0.16  | 0.32  | ISE method - indirect                          |
| Protein Total       | g/l    | 60.2   | 48.1 | 72.3 | 6.05  | 12.10 | Biuret reaction end point                      |
|                     | g/dl   | 6.02   | 4.81 | 7.23 | 0.61  | 1.21  |                                                |
| Sodium              | mmol/l | 140    | 133  | 147  | 3.50  | 7.00  | ISE method - indirect                          |
| Triglycerides       | mmol/l | 0.99   | 0.83 | 1.15 | 0.08  | 0.16  | L/G Kinase EP. no correction                   |
|                     | mg/dl  | 87.9   | 73.8 | 102  | 7.05  | 14.10 |                                                |
|                     | mmol/l | 1.00   | 0.84 | 1.16 | 0.08  | 0.16  | Lipase/Glycerol Dehydrogenase                  |
|                     | mg/dl  | 88.5   | 74.4 | 103  | 7.05  | 14.10 |                                                |
| Urea                | mmol/l | 7.34   | 6.24 | 8.44 | 0.55  | 1.10  | Urease kinetic                                 |
|                     | mg/dl  | 44.1   | 37.5 | 50.7 | 3.30  | 6.60  |                                                |
|                     | mmol/l | 7.34   | 6.24 | 8.44 | 0.55  | 1.10  | BUN                                            |
|                     | mg/dl  | 20.6   | 17.5 | 23.7 | 1.55  | 3.10  |                                                |
| Uric Acid (Urate)   | mmol/l | 0.34   | 0.29 | 0.38 | 0.02  | 0.04  | Spectrophotometric at 280-290                  |
|                     | mg/dl  | 5.64   | 4.91 | 6.37 | 0.37  | 0.73  |                                                |

## SIEMENS DIMENSION RxL/Max/Xpand®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

### Range

| Analyte              | unit   | target | low   | high  | 1SD   | 2SD   | methods                                        |
|----------------------|--------|--------|-------|-------|-------|-------|------------------------------------------------|
| Albumin              | g/l    | 44.3   | 37.7  | 50.9  | 3.30  | 6.60  | Bromocresol Green                              |
|                      | g/dl   | 4.43   | 3.77  | 5.09  | 0.33  | 0.66  |                                                |
|                      | g/l    | 43.7   | 37.1  | 50.3  | 3.30  | 6.60  | Bromocresol Purple                             |
|                      | g/dl   | 4.37   | 3.71  | 5.03  | 0.33  | 0.66  |                                                |
| Alkaline Phosphatase | U/l    | 127    | 108   | 146   | 9.50  | 19.00 | Siemens Dimension AMP buffer 37°C              |
|                      | U/l    | 178    | 151   | 205   | 13.50 | 27.00 | Randox AMP 37°C                                |
| ALT (GPT)            | U/l    | 41     | 32    | 50    | 4.50  | 9.00  | Tris buffer with P5P 37°C                      |
|                      | U/l    | 48     | 39    | 57    | 4.50  | 9.00  | Siemens Dade Standard Non IFCC Correlated 37°C |
| Amylase Total        | U/l    | 90     | 76    | 104   | 7.00  | 14.00 | Siemens 2-chloro-pNPG3 37°C                    |
| AST (GOT)            | U/l    | 45     | 36    | 54    | 4.50  | 9.00  | Tris buffer with P5P 37°C                      |
|                      | U/l    | 46     | 37    | 55    | 4.50  | 9.00  | Siemens Dade Standard Non IFCC Correlated 37°C |
| Bicarbonate          | mmol/l | 15.8   | 12.5  | 19.1  | 1.65  | 3.30  | Enzymatic                                      |
| Bilirubin Direct     | µmol/l | 12.5   | 9.87  | 15.1  | 1.32  | 2.63  | Diazo with Sulphanilic Acid                    |
|                      | mg/dl  | 0.731  | 0.577 | 0.885 | 0.08  | 0.15  |                                                |
| Bilirubin Total      | µmol/l | 28.1   | 22.2  | 34.0  | 2.95  | 5.90  | Diazo with Sulphanilic Acid                    |
|                      | mg/dl  | 1.64   | 1.30  | 1.98  | 0.17  | 0.34  |                                                |
| Calcium              | mmol/l | 2.24   | 2.02  | 2.46  | 0.11  | 0.22  | Cresolphthalein complexone                     |
|                      | mg/dl  | 8.98   | 8.10  | 9.86  | 0.44  | 0.88  |                                                |
| Chloride             | mmol/l | 95.8   | 88.1  | 104   | 3.85  | 7.70  | ISE indirect                                   |
| Cholesterol          | mmol/l | 4.54   | 3.95  | 5.13  | 0.30  | 0.59  | Dimension-Siemens reagents                     |
|                      | mg/dl  | 175    | 152   | 198   | 11.50 | 23.00 |                                                |

## SIEMENS DIMENSION RxL/Max/Xpand®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

|                   |        | Range  |      |      |       |       |                                                     |
|-------------------|--------|--------|------|------|-------|-------|-----------------------------------------------------|
| Analyte           | unit   | target | low  | high | 1SD   | 2SD   | methods                                             |
| CK Total          | U/l    | 208    | 171  | 245  | 18.50 | 37.00 | CK-NAC (IFCC) 37°C                                  |
|                   | U/l    | 211    | 173  | 249  | 19.00 | 38.00 | Dithioerythritol 37°C                               |
|                   | U/l    | 224    | 184  | 264  | 20.00 | 40.00 | Dithioerythritol (DTE) IFCC correlated 37°C         |
| Creatinine        | µmol/l | 129    | 103  | 155  | 13.00 | 26.00 | Alkaline picrate no deproteinization                |
|                   | mg/dl  | 1.46   | 1.16 | 1.76 | 0.15  | 0.30  |                                                     |
|                   | µmol/l | 124    | 99.2 | 149  | 12.40 | 24.80 | Creatinine PAP method                               |
|                   | mg/dl  | 1.40   | 1.12 | 1.68 | 0.14  | 0.28  |                                                     |
|                   | µmol/l | 128    | 102  | 154  | 13.00 | 26.00 | Jaffe rate blanked                                  |
|                   | mg/dl  | 1.45   | 1.15 | 1.75 | 0.15  | 0.30  |                                                     |
|                   | µmol/l | 135    | 108  | 162  | 13.50 | 27.00 | Jaffe rate blanked compensated (-18 µmol/l)         |
|                   | mg/dl  | 1.53   | 1.22 | 1.84 | 0.16  | 0.31  |                                                     |
| gamma-GT          | µmol/l | 129    | 103  | 155  | 13.00 | 26.00 | IDMS traceable                                      |
|                   | mg/dl  | 1.46   | 1.16 | 1.76 | 0.15  | 0.30  |                                                     |
|                   | U/l    | 55     | 47   | 63   | 4.00  | 8.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| Glucose           | U/l    | 64     | 54   | 74   | 5.00  | 10.00 | Siemens Dimension (non IFCC) 37°C                   |
|                   | mmol/l | 7.16   | 6.09 | 8.23 | 0.54  | 1.07  | Hexokinase                                          |
|                   | mg/dl  | 129    | 110  | 148  | 9.50  | 19.00 |                                                     |
|                   | mmol/l | 7.07   | 6.01 | 8.13 | 0.53  | 1.06  | Glucose oxidase                                     |
|                   | mg/dl  | 127    | 108  | 146  | 9.50  | 19.00 |                                                     |
| HDL - Cholesterol | mmol/l | 1.92   | 1.63 | 2.21 | 0.15  | 0.29  | Direct HDL PPD                                      |
|                   | mg/dl  | 74.1   | 62.9 | 85.3 | 5.60  | 11.20 |                                                     |
|                   | mmol/l | 1.89   | 1.61 | 2.17 | 0.14  | 0.28  | Direct HDL PEGME                                    |
|                   | mg/dl  | 73.0   | 62.1 | 83.9 | 5.45  | 10.90 |                                                     |
|                   | mmol/l | 1.95   | 1.65 | 2.25 | 0.15  | 0.30  | Direct Clearance Method                             |
|                   | mg/dl  | 75.3   | 63.7 | 86.9 | 5.80  | 11.60 |                                                     |

## SIEMENS DIMENSION RxL/Max/Xpand®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte             | unit   | target | Range |       | 1SD   | 2SD   | methods                                        |
|---------------------|--------|--------|-------|-------|-------|-------|------------------------------------------------|
|                     |        |        | low   | high  |       |       |                                                |
| Iron                | μmol/l | 17.9   | 14.7  | 21.1  | 1.60  | 3.20  | Colorimetric with ppt.                         |
|                     | μg/dl  | 100    | 82.2  | 118   | 8.90  | 17.80 |                                                |
|                     | μmol/l | 18.2   | 14.9  | 21.5  | 1.65  | 3.30  | Colorimetric without ppt.                      |
|                     | μg/dl  | 102    | 83.3  | 121   | 9.35  | 18.70 |                                                |
| LD (LDH)            | U/l    | 213    | 181   | 245   | 16.00 | 32.00 | Siemens Dimension L-P Non IFCC 37°C            |
|                     | U/l    | 210    | 178   | 242   | 16.00 | 32.00 | L->P IFCC 37°C                                 |
| Lipase              | U/l    | 145    | 116   | 174   | 14.50 | 29.00 | Siemens Dimension Colorimetric (LIP Kit) 37°C  |
|                     | U/l    | 141    | 113   | 169   | 14.00 | 28.00 | Colorimetric Siemens Dimension (LIPL Kit) 37°C |
| Lithium             | mmol/l | 1.02   | 0.90  | 1.14  | 0.06  | 0.12  | Spectrophotometric                             |
|                     | mg/dl  | 0.708  | 0.626 | 0.790 | 0.04  | 0.08  |                                                |
| Magnesium           | mmol/l | 0.89   | 0.78  | 0.99  | 0.05  | 0.11  | Methylthymol blue                              |
|                     | mg/dl  | 2.15   | 1.90  | 2.40  | 0.13  | 0.25  |                                                |
| Phosphate Inorganic | mmol/l | 1.36   | 1.16  | 1.56  | 0.10  | 0.20  | Phosphomolybdate enzymatic                     |
|                     | mg/dl  | 4.22   | 3.60  | 4.84  | 0.31  | 0.62  |                                                |
|                     | mmol/l | 1.37   | 1.16  | 1.58  | 0.11  | 0.21  | Phosphomolybdate UV                            |
|                     | mg/dl  | 4.25   | 3.60  | 4.90  | 0.33  | 0.65  |                                                |
| Potassium           | mmol/l | 3.97   | 3.66  | 4.28  | 0.16  | 0.31  | ISE method - indirect                          |
| Protein Total       | g/l    | 60.7   | 48.6  | 72.8  | 6.05  | 12.10 | Biuret reaction end point                      |
|                     | g/dl   | 6.07   | 4.86  | 7.28  | 0.61  | 1.21  |                                                |
|                     | g/l    | 59.9   | 47.9  | 71.9  | 6.00  | 12.00 | Biuret reaction kinetic                        |
|                     | g/dl   | 5.99   | 4.79  | 7.19  | 0.60  | 1.20  |                                                |
| Sodium              | mmol/l | 141    | 134   | 148   | 3.50  | 7.00  | ISE method - indirect                          |
| TIBC                | μmol/l | 41.0   | 32.4  | 49.6  | 4.30  | 8.60  | Removal of excess free iron                    |
|                     | μg/dl  | 229    | 181   | 277   | 24.00 | 48.00 |                                                |
|                     | μmol/l | 40.4   | 31.9  | 48.9  | 4.25  | 8.50  | Direct Colorimetric                            |
|                     | μg/dl  | 226    | 178   | 274   | 24.00 | 48.00 |                                                |

## SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Range

| Analyte           | unit   | target | low  | high | 1SD  | 2SD   | methods                                           |
|-------------------|--------|--------|------|------|------|-------|---------------------------------------------------|
| Triglycerides     | mmol/l | 1.01   | 0.85 | 1.17 | 0.08 | 0.16  | Lipase/GPO-PAP no correction                      |
|                   | mg/dl  | 89.4   | 75.4 | 103  | 7.00 | 14.00 |                                                   |
|                   | mmol/l | 1.01   | 0.85 | 1.17 | 0.08 | 0.16  | L/G Kinase EP. no correction                      |
|                   | mg/dl  | 89.4   | 75.0 | 104  | 7.20 | 14.40 |                                                   |
|                   | mmol/l | 1.02   | 0.86 | 1.18 | 0.08 | 0.16  | Lipase/Glycerol Dehydrogenase                     |
|                   | mg/dl  | 90.3   | 76.0 | 105  | 7.15 | 14.30 |                                                   |
|                   | mmol/l | 7.49   | 6.37 | 8.61 | 0.56 | 1.12  | Urease end point                                  |
|                   | mg/dl  | 45.0   | 38.3 | 51.7 | 3.35 | 6.70  |                                                   |
| Urea              | mmol/l | 7.35   | 6.25 | 8.45 | 0.55 | 1.10  | Urease kinetic                                    |
|                   | mg/dl  | 44.2   | 37.6 | 50.8 | 3.30 | 6.60  |                                                   |
|                   | mmol/l | 7.35   | 6.25 | 8.45 | 0.55 | 1.10  | BUN                                               |
|                   | mg/dl  | 20.6   | 17.5 | 23.7 | 1.55 | 3.10  |                                                   |
|                   | mmol/l | 0.33   | 0.29 | 0.38 | 0.02 | 0.04  | Uricase catalase 340nm                            |
|                   | mg/dl  | 5.58   | 4.86 | 6.30 | 0.36 | 0.72  |                                                   |
|                   | mmol/l | 0.33   | 0.29 | 0.37 | 0.02 | 0.04  | Uricase peroxidase no ascorbate oxidase           |
|                   | mg/dl  | 5.56   | 4.84 | 6.28 | 0.36 | 0.72  |                                                   |
| Uric Acid (Urate) | mmol/l | 0.33   | 0.29 | 0.38 | 0.02 | 0.04  | Spectrophotometric at 280-290                     |
|                   | mg/dl  | 5.61   | 4.87 | 6.35 | 0.37 | 0.74  |                                                   |
|                   | mmol/l | 0.34   | 0.29 | 0.38 | 0.02 | 0.04  | Uricase Peroxidase with ascorbate oxidase @ 546nm |
|                   | mg/dl  | 5.63   | 4.91 | 6.35 | 0.36 | 0.72  |                                                   |

## Siemens/Dade Dimension Vista

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte              | unit   | target | Range |       | 1SD   | 2SD   | methods                                        |
|----------------------|--------|--------|-------|-------|-------|-------|------------------------------------------------|
|                      |        |        | low   | high  |       |       |                                                |
| Albumin              | g/l    | 43.2   | 36.7  | 49.7  | 3.25  | 6.50  | Bromocresol Purple                             |
|                      | g/dl   | 4.32   | 3.67  | 4.97  | 0.33  | 0.65  |                                                |
| Alkaline Phosphatase | U/l    | 167    | 142   | 192   | 12.50 | 25.00 | Siemens Dimension AMP buffer 37°C              |
| ALT (GPT)            | U/l    | 40     | 32    | 48    | 4.00  | 8.00  | Tris buffer with P5P 37°C                      |
|                      | U/l    | 40     | 32    | 48    | 4.00  | 8.00  | Siemens Dade Standard Non IFCC Correlated 37°C |
| Amylase Total        | U/l    | 90     | 76    | 104   | 7.00  | 14.00 | Siemens 2-chloro-pNPG3 37°C                    |
| AST (GOT)            | U/l    | 44     | 35    | 53    | 4.50  | 9.00  | Tris buffer with P5P 37°C                      |
|                      | U/l    | 44     | 35    | 53    | 4.50  | 9.00  | Siemens Dade Standard Non IFCC Correlated 37°C |
| Bicarbonate          | mmol/l | 15.0   | 11.9  | 18.1  | 1.55  | 3.10  | Enzymatic                                      |
| Bilirubin Direct     | µmol/l | 12.6   | 9.98  | 15.2  | 1.31  | 2.62  | Diazo with Sulphanilic Acid                    |
|                      | mg/dl  | 0.737  | 0.584 | 0.890 | 0.08  | 0.15  |                                                |
| Bilirubin Total      | µmol/l | 28.1   | 22.2  | 34.0  | 2.95  | 5.90  | Diazo with Sulphanilic Acid                    |
|                      | mg/dl  | 1.64   | 1.30  | 1.98  | 0.17  | 0.34  |                                                |
| Calcium              | mmol/l | 2.26   | 2.03  | 2.49  | 0.12  | 0.23  | Cresolphthalein complexone                     |
|                      | mg/dl  | 9.06   | 8.14  | 9.98  | 0.46  | 0.92  |                                                |
| Chloride             | mmol/l | 99.4   | 91.4  | 107   | 4.00  | 8.00  | ISE indirect                                   |
| Cholesterol          | mmol/l | 4.48   | 3.90  | 5.06  | 0.29  | 0.58  | Dimension-Siemens reagents                     |
|                      | mg/dl  | 173    | 151   | 195   | 11.00 | 22.00 |                                                |
| CK Total             | U/l    | 209    | 171   | 247   | 19.00 | 38.00 | CK-NAC (IFCC) 37°C                             |
|                      | U/l    | 208    | 171   | 245   | 18.50 | 37.00 | Dithioerythritol 37°C                          |
|                      | U/l    | 211    | 173   | 249   | 19.00 | 38.00 | Dithioerythritol (DTE) IFCC correlated 37°C    |

## Siemens/Dade Dimension Vista

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte           | unit   | target | Range |       | 1SD   | 2SD   | methods                                             |
|-------------------|--------|--------|-------|-------|-------|-------|-----------------------------------------------------|
|                   |        |        | low   | high  |       |       |                                                     |
| Creatinine        | μmol/l | 129    | 103   | 155   | 13.00 | 26.00 | Alkaline picrate no deproteinization                |
|                   | mg/dl  | 1.46   | 1.16  | 1.76  | 0.15  | 0.30  |                                                     |
|                   | μmol/l | 116    | 92.6  | 139   | 11.70 | 23.40 | Randox Enzymatic UV method                          |
|                   | mg/dl  | 1.31   | 1.05  | 1.57  | 0.13  | 0.26  |                                                     |
|                   | μmol/l | 120    | 96.2  | 144   | 11.90 | 23.80 | IDMS traceable                                      |
|                   | mg/dl  | 1.36   | 1.09  | 1.63  | 0.14  | 0.27  |                                                     |
| gamma-GT          | U/l    | 60     | 51    | 69    | 4.50  | 9.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
|                   | U/l    | 60     | 51    | 69    | 4.50  | 9.00  | Siemens Dimension (non IFCC) 37°C                   |
| Glucose           | mmol/l | 7.06   | 6.00  | 8.12  | 0.53  | 1.06  | Hexokinase                                          |
|                   | mg/dl  | 127    | 108   | 146   | 9.50  | 19.00 |                                                     |
| HDL - Cholesterol | mmol/l | 1.86   | 1.58  | 2.14  | 0.14  | 0.28  | Direct HDL PEGME                                    |
|                   | mg/dl  | 71.8   | 61.0  | 82.6  | 5.40  | 10.80 |                                                     |
| Iron              | μmol/l | 19.0   | 15.6  | 22.4  | 1.70  | 3.40  | Colorimetric without ppt.                           |
|                   | μg/dl  | 106    | 87.2  | 125   | 9.40  | 18.80 |                                                     |
| Lactate           | mmol/l | 1.34   | 1.10  | 1.58  | 0.12  | 0.24  | Colorimetric Lactate Oxidase                        |
|                   | mg/dl  | 12.1   | 9.91  | 14.3  | 1.10  | 2.19  |                                                     |
|                   | mmol/l | 1.32   | 1.08  | 1.56  | 0.12  | 0.24  | UV LDH                                              |
|                   | mg/dl  | 11.9   | 9.73  | 14.1  | 1.09  | 2.17  |                                                     |
| LD (LDH)          | U/l    | 214    | 182   | 246   | 16.00 | 32.00 | Siemens Dimension L-P Non IFCC 37°C                 |
|                   | U/l    | 216    | 184   | 248   | 16.00 | 32.00 | L->P IFCC 37°C                                      |
| Lipase            | U/l    | 154    | 123   | 185   | 15.50 | 31.00 | Siemens Dimension Colorimetric (LIP Kit) 37°C       |
|                   | U/l    | 151    | 121   | 181   | 15.00 | 30.00 | Colorimetric Siemens Dimension (LIPL Kit) 37°C      |
| Lithium           | mmol/l | 1.03   | 0.90  | 1.16  | 0.06  | 0.13  | Spectrophotometric                                  |
|                   | mg/dl  | 0.715  | 0.628 | 0.802 | 0.04  | 0.09  |                                                     |
| Magnesium         | mmol/l | 0.82   | 0.72  | 0.92  | 0.05  | 0.10  | Methylthymol blue                                   |
|                   | mg/dl  | 2.00   | 1.76  | 2.24  | 0.12  | 0.24  |                                                     |

## Siemens/Dade Dimension Vista

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Range

| Analyte             | unit   | target | low  | high | 1SD  | 2SD   | methods                                 |
|---------------------|--------|--------|------|------|------|-------|-----------------------------------------|
| Phosphate Inorganic | mmol/l | 1.32   | 1.12 | 1.52 | 0.10 | 0.20  | Phosphomolybdate UV                     |
|                     | mg/dl  | 4.09   | 3.47 | 4.71 | 0.31 | 0.62  |                                         |
| Potassium           | mmol/l | 3.94   | 3.62 | 4.26 | 0.16 | 0.32  | ISE method - indirect                   |
| Protein Total       | g/l    | 61.3   | 49.0 | 73.6 | 6.15 | 12.30 | Biuret reaction end point               |
|                     | g/dl   | 6.13   | 4.90 | 7.36 | 0.62 | 1.23  |                                         |
| Sodium              | mmol/l | 140    | 133  | 147  | 3.50 | 7.00  | ISE method - indirect                   |
| Triglycerides       | mmol/l | 1.09   | 0.91 | 1.27 | 0.09 | 0.18  | Lipase/GPO-PAP no correction            |
|                     | mg/dl  | 96.5   | 80.9 | 112  | 7.80 | 15.60 |                                         |
| Urea                | mmol/l | 7.62   | 6.47 | 8.77 | 0.58 | 1.15  | Urease kinetic                          |
|                     | mg/dl  | 45.8   | 38.9 | 52.7 | 3.45 | 6.90  |                                         |
|                     | mmol/l | 7.62   | 6.48 | 8.76 | 0.57 | 1.14  | BUN                                     |
|                     | mg/dl  | 21.4   | 18.2 | 24.6 | 1.60 | 3.20  |                                         |
| Uric Acid (Urate)   | mmol/l | 0.31   | 0.27 | 0.36 | 0.02 | 0.04  | Uricase peroxidase no ascorbate oxidase |
|                     | mg/dl  | 5.28   | 4.59 | 5.97 | 0.35 | 0.69  |                                         |
|                     | mmol/l | 0.32   | 0.28 | 0.36 | 0.02 | 0.04  | Spectrophotometric at 280-290           |
|                     | mg/dl  | 5.36   | 4.67 | 6.05 | 0.35 | 0.69  |                                         |

## VITALAB FLEXOR®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte              | unit   | target | Range |      | 1SD   | 2SD   | methods                                           |
|----------------------|--------|--------|-------|------|-------|-------|---------------------------------------------------|
|                      |        |        | low   | high |       |       |                                                   |
| Albumin              | g/l    | 41.1   | 34.9  | 47.3 | 3.10  | 6.20  | Bromocresol Green                                 |
|                      | g/dl   | 4.11   | 3.49  | 4.73 | 0.31  | 0.62  |                                                   |
| Alkaline Phosphatase | U/l    | 186    | 158   | 214  | 14.00 | 28.00 | AMP optimised to IFCC 37°C                        |
| ALT (GPT)            | U/l    | 36     | 29    | 43   | 3.50  | 7.00  | Tris buffer without P5P 37°C                      |
| AST (GOT)            | U/l    | 37     | 30    | 44   | 3.50  | 7.00  | Tris buffer without P5P 37°C                      |
| Bilirubin Total      | µmol/l | 29.4   | 23.2  | 35.6 | 3.10  | 6.20  | Diazo with Sulphanilic Acid                       |
|                      | mg/dl  | 1.72   | 1.36  | 2.08 | 0.18  | 0.36  |                                                   |
| Calcium              | mmol/l | 2.28   | 2.05  | 2.51 | 0.12  | 0.23  | Cresolphthalein complexone                        |
|                      | mg/dl  | 9.14   | 8.22  | 10.1 | 0.46  | 0.92  |                                                   |
| Glucose              | mmol/l | 6.92   | 5.88  | 7.96 | 0.52  | 1.04  | Glucose oxidase                                   |
|                      | mg/dl  | 125    | 106   | 144  | 9.50  | 19.00 |                                                   |
| Protein Total        | g/l    | 61.0   | 48.8  | 73.2 | 6.10  | 12.20 | Biuret reaction end point                         |
|                      | g/dl   | 6.10   | 4.88  | 7.32 | 0.61  | 1.22  |                                                   |
| Triglycerides        | mmol/l | 1.10   | 0.92  | 1.28 | 0.09  | 0.18  | Lipase/GPO-PAP no correction                      |
|                      | mg/dl  | 97.4   | 81.6  | 113  | 7.90  | 15.80 |                                                   |
| Urea                 | mmol/l | 7.43   | 6.31  | 8.55 | 0.56  | 1.12  | Urease kinetic                                    |
|                      | mg/dl  | 44.7   | 37.9  | 51.5 | 3.40  | 6.80  |                                                   |
|                      | mmol/l | 7.43   | 6.32  | 8.54 | 0.56  | 1.11  | BUN                                               |
|                      | mg/dl  | 20.9   | 17.8  | 24.0 | 1.55  | 3.10  |                                                   |
| Uric Acid (Urate)    | mmol/l | 0.33   | 0.29  | 0.37 | 0.02  | 0.04  | Uricase Peroxidase with ascorbate oxidase @ 546nm |
|                      | mg/dl  | 5.51   | 4.80  | 6.22 | 0.36  | 0.71  |                                                   |

## VITALAB SELECTRA®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte              | unit   | target | Range |      | 1SD   | 2SD   | methods                              |
|----------------------|--------|--------|-------|------|-------|-------|--------------------------------------|
|                      |        |        | low   | high |       |       |                                      |
| Albumin              | g/l    | 43.2   | 36.7  | 49.7 | 3.25  | 6.50  | Bromocresol Green                    |
|                      | g/dl   | 4.32   | 3.67  | 4.97 | 0.33  | 0.65  |                                      |
| Alkaline Phosphatase | U/l    | 262    | 223   | 301  | 19.50 | 39.00 | Diethanolamine buffer DEA 37°C       |
| ALT (GPT)            | U/l    | 39     | 31    | 47   | 4.00  | 8.00  | Tris buffer without P5P 37°C         |
| AST (GOT)            | U/l    | 38     | 30    | 46   | 4.00  | 8.00  | Tris buffer without P5P 37°C         |
| Bilirubin Total      | µmol/l | 29.7   | 23.5  | 35.9 | 3.10  | 6.20  | Diazo with Sulphanilic Acid          |
|                      | mg/dl  | 1.74   | 1.37  | 2.11 | 0.19  | 0.37  |                                      |
|                      | µmol/l | 28.2   | 22.3  | 34.1 | 2.95  | 5.90  | Dichlorophenyl Diazonium (DPD)       |
|                      | mg/dl  | 1.65   | 1.30  | 2.00 | 0.18  | 0.35  |                                      |
| Calcium              | mmol/l | 2.30   | 2.07  | 2.53 | 0.12  | 0.23  | Cresolphthalein complexone           |
|                      | mg/dl  | 9.22   | 8.30  | 10.1 | 0.46  | 0.92  |                                      |
|                      | mmol/l | 2.40   | 2.16  | 2.64 | 0.12  | 0.24  | Arsenazo III                         |
|                      | mg/dl  | 9.62   | 8.66  | 10.6 | 0.48  | 0.96  |                                      |
| Cholesterol          | mmol/l | 4.98   | 4.34  | 5.62 | 0.32  | 0.64  | Cholesterol Oxidase                  |
|                      | mg/dl  | 192    | 168   | 216  | 12.00 | 24.00 |                                      |
| CK Total             | U/l    | 230    | 188   | 272  | 21.00 | 42.00 | CK-NAC (IFCC) 37°C                   |
| Creatinine           | µmol/l | 113    | 90.4  | 136  | 11.30 | 22.60 | Alkaline picrate no deproteinization |
|                      | mg/dl  | 1.28   | 1.02  | 1.54 | 0.13  | 0.26  |                                      |
|                      | µmol/l | 119    | 95.1  | 143  | 11.95 | 23.90 | Creatinine PAP method                |
|                      | mg/dl  | 1.34   | 1.07  | 1.61 | 0.14  | 0.27  |                                      |
|                      | µmol/l | 119    | 94.9  | 143  | 12.05 | 24.10 | Jaffe rate blanked                   |
|                      | mg/dl  | 1.34   | 1.07  | 1.61 | 0.14  | 0.27  |                                      |

## VITALAB SELECTRA®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte             | unit   | target | Range |      | 1SD   | 2SD   | methods                                             |
|---------------------|--------|--------|-------|------|-------|-------|-----------------------------------------------------|
|                     |        |        | low   | high |       |       |                                                     |
| gamma-GT            | U/l    | 49     | 42    | 56   | 3.50  | 7.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
| Glucose             | mmol/l | 7.18   | 6.11  | 8.25 | 0.54  | 1.07  | Glucose oxidase                                     |
|                     | mg/dl  | 129    | 110   | 148  | 9.50  | 19.00 |                                                     |
| Iron                | µmol/l | 19.8   | 16.2  | 23.4 | 1.80  | 3.60  | Colorimetric without ppt.                           |
|                     | µg/dl  | 111    | 90.6  | 131  | 10.20 | 20.40 |                                                     |
| LD (LDH)            | U/l    | 209    | 178   | 240  | 15.50 | 31.00 | L->P IFCC 37°C                                      |
| Phosphate Inorganic | mmol/l | 1.41   | 1.20  | 1.62 | 0.11  | 0.21  | Phosphomolybdate UV                                 |
|                     | mg/dl  | 4.37   | 3.72  | 5.02 | 0.33  | 0.65  |                                                     |
| Protein Total       | g/l    | 60.9   | 48.7  | 73.1 | 6.10  | 12.20 | Biuret reaction end point                           |
|                     | g/dl   | 6.09   | 4.87  | 7.31 | 0.61  | 1.22  |                                                     |
| Triglycerides       | mmol/l | 1.14   | 0.96  | 1.32 | 0.09  | 0.18  | Lipase/GPO-PAP no correction                        |
|                     | mg/dl  | 101    | 85.0  | 117  | 8.00  | 16.00 |                                                     |
| Urea                | mmol/l | 7.40   | 6.29  | 8.51 | 0.56  | 1.11  | Urease kinetic                                      |
|                     | mg/dl  | 44.5   | 37.8  | 51.2 | 3.35  | 6.70  |                                                     |
|                     | mmol/l | 7.40   | 6.29  | 8.51 | 0.56  | 1.11  | BUN                                                 |
|                     | mg/dl  | 20.8   | 17.7  | 23.9 | 1.55  | 3.10  |                                                     |
| Uric Acid (Urate)   | mmol/l | 0.35   | 0.30  | 0.39 | 0.02  | 0.05  | Uricase peroxidase no ascorbate oxidase             |
|                     | mg/dl  | 5.81   | 5.06  | 6.56 | 0.38  | 0.75  |                                                     |

## Weiner Lab BT 3000 Plus/CB 350i

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

| Analyte          | unit   | target | Range |      | 1SD   | 2SD   | methods                                             |
|------------------|--------|--------|-------|------|-------|-------|-----------------------------------------------------|
|                  |        |        | low   | high |       |       |                                                     |
| Albumin          | g/l    | 39.7   | 33.7  | 45.7 | 3.00  | 6.00  | Bromocresol Green                                   |
|                  | g/dl   | 3.97   | 3.37  | 4.57 | 0.30  | 0.60  |                                                     |
| ALT (GPT)        | U/l    | 40     | 32    | 48   | 4.00  | 8.00  | Tris buffer without P5P 37°C                        |
|                  | U/l    | 30     | 24    | 36   | 3.00  | 6.00  | Tris buffer without P5P 30°C                        |
|                  | U/l    | 23     | 18    | 28   | 2.50  | 5.00  | Tris buffer without P5P 25°C                        |
| Bilirubin Direct | µmol/l | 17.1   | 13.5  | 20.7 | 1.80  | 3.60  | Dichlorophenyl Diazonium (DPD)                      |
|                  | mg/dl  | 1.00   | 0.790 | 1.21 | 0.11  | 0.21  |                                                     |
| Bilirubin Total  | µmol/l | 29.6   | 23.4  | 35.8 | 3.10  | 6.20  | Dichlorophenyl Diazonium (DPD)                      |
|                  | mg/dl  | 1.73   | 1.37  | 2.09 | 0.18  | 0.36  |                                                     |
| Calcium          | mmol/l | 2.35   | 2.12  | 2.58 | 0.12  | 0.23  | Arsenazo III                                        |
|                  | mg/dl  | 9.42   | 8.50  | 10.3 | 0.46  | 0.92  |                                                     |
| Cholesterol      | mmol/l | 4.96   | 4.31  | 5.61 | 0.33  | 0.65  | Cholesterol Oxidase                                 |
|                  | mg/dl  | 191    | 166   | 216  | 12.50 | 25.00 |                                                     |
| CK Total         | U/l    | 224    | 184   | 264  | 20.00 | 40.00 | CK-NAC (IFCC) 37°C                                  |
|                  | U/l    | 140    | 115   | 165  | 12.50 | 25.00 | CK-NAC (IFCC) 30°C                                  |
|                  | U/l    | 95     | 78    | 112  | 8.50  | 17.00 | CK-NAC (IFCC) 25°C                                  |
| Creatinine       | µmol/l | 114    | 91.3  | 137  | 11.35 | 22.70 | Alkaline picrate no deproteinization                |
|                  | mg/dl  | 1.29   | 1.03  | 1.55 | 0.13  | 0.26  |                                                     |
| gamma-GT         | U/l    | 50     | 43    | 57   | 3.50  | 7.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C |
|                  | U/l    | 39     | 34    | 44   | 2.50  | 5.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C |
|                  | U/l    | 31     | 27    | 35   | 2.00  | 4.00  | Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C |

## Weiner Lab BT 3000 Plus/CB 350i

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 858UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Range

| Analyte             | unit   | target | low  | high | 1SD   | 2SD   | methods                                 |
|---------------------|--------|--------|------|------|-------|-------|-----------------------------------------|
| Glucose             | mmol/l | 7.12   | 6.05 | 8.19 | 0.54  | 1.07  | Glucose oxidase                         |
|                     | mg/dl  | 128    | 109  | 147  | 9.50  | 19.00 |                                         |
| LD (LDH)            | U/l    | 440    | 374  | 506  | 33.00 | 66.00 | P->L SFBC 37°C                          |
|                     | U/l    | 318    | 270  | 366  | 24.00 | 48.00 | P->L SFBC 30°C                          |
|                     | U/l    | 223    | 190  | 256  | 16.50 | 33.00 | P->L SFBC 25°C                          |
| Phosphate Inorganic | mmol/l | 1.43   | 1.22 | 1.64 | 0.11  | 0.21  | Phosphomolybdate UV                     |
|                     | mg/dl  | 4.43   | 3.78 | 5.08 | 0.33  | 0.65  |                                         |
| Protein Total       | g/l    | 55.7   | 44.6 | 66.8 | 5.55  | 11.10 | Biuret reaction end point               |
|                     | g/dl   | 5.57   | 4.46 | 6.68 | 0.56  | 1.11  |                                         |
| Urea                | mmol/l | 7.82   | 6.65 | 8.99 | 0.59  | 1.17  | Urease kinetic                          |
|                     | mg/dl  | 47.0   | 40.0 | 54.0 | 3.50  | 7.00  |                                         |
|                     | mmol/l | 7.82   | 6.65 | 8.99 | 0.59  | 1.17  | BUN                                     |
|                     | mg/dl  | 21.9   | 18.6 | 25.2 | 1.65  | 3.30  |                                         |
| Uric Acid (Urate)   | mmol/l | 0.34   | 0.29 | 0.38 | 0.02  | 0.04  | Uricase peroxidase no ascorbate oxidase |
|                     | mg/dl  | 5.68   | 4.94 | 6.42 | 0.37  | 0.74  |                                         |