

|                                   |                       |                        |
|-----------------------------------|-----------------------|------------------------|
| Quest Diagnostics                 | PATIENT INFORMATION   | REPORT STATUS: FINAL   |
| SPECIMEN INFORMATION              | <b>Beaman, Cooper</b> | ORDERING PHYSICIAN     |
| SPECIMEN: SZ002697E               | DOB: April 23, 1998   | <b>Ramos, C.</b>       |
| REQUISITION: 100379983            | AGE: 23               | <b>NPI: 1447451323</b> |
| Lab ref no:                       | GENDER: Male          | CLIENT INFORMATION     |
|                                   | FASTING: Unknown      | Private MD Labs        |
| COLLECTED: 12/13/2021 09:47AM PST | Clinical Info:        | 445 Hwy 46S            |
| RECEIVED: 12/13/2021 09:48AM PST  |                       | Suite 29-214           |
| REPORTED: 12/23/2021 02:45PM PST  |                       | Dickson, TN 37055      |

| Test Name                                                                                                                                                                                                                                                                                                    | Result | Flag   | Reference Range  | Lab |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|------------------|-----|
| FASTING: YES                                                                                                                                                                                                                                                                                                 |        |        |                  |     |
| FASTING: YES                                                                                                                                                                                                                                                                                                 |        |        |                  |     |
| <b>ESTRADIOL, ULTRASENSITIVE, LC/MS/MS</b>                                                                                                                                                                                                                                                                   |        |        |                  |     |
| ESTRADIOL, ULTRASENSITIVE, LC/MS                                                                                                                                                                                                                                                                             | 16     | NORMAL | < OR = 29 pg/mL  | 03  |
| <p>This test was developed and its analytical performance characteristics have been determined by Quest Diagnostics Nichols Institute San Juan Capistrano. It has not been cleared or approved by FDA. This assay has been validated pursuant to the CLIA regulations and is used for clinical purposes.</p> |        |        |                  |     |
| <b>Sex Hormone Binding Globulin (SHBG)</b>                                                                                                                                                                                                                                                                   |        |        |                  |     |
| SEX HORMONE BINDING GLOBULIN                                                                                                                                                                                                                                                                                 | 39     | NORMAL | 10-50 nmol/L     | 04  |
| <b>T3, FREE</b>                                                                                                                                                                                                                                                                                              |        |        |                  |     |
| T3, FREE                                                                                                                                                                                                                                                                                                     | 3.8    | NORMAL | 2.3-4.2 pg/mL    | 02  |
| <b>T4 Free Direct Dialysis</b>                                                                                                                                                                                                                                                                               |        |        |                  |     |
| T4, FREE, DIRECT DIALYSIS                                                                                                                                                                                                                                                                                    | 1.5    | NORMAL | 0.9-2.2 ng/dL    | 03  |
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| <b>TESTOSTERONE, FREE AND TOTAL, LC/MS/MS</b>                                                                                                                                                                                                                                                                |        |        |                  |     |
| TESTOSTERONE, TOTAL, MS                                                                                                                                                                                                                                                                                      | 571    | NORMAL | 250-1100 ng/dL   | 01  |
| <p>For additional information, please refer to <a href="http://education.questdiagnostics.com/faq/TotalTestosteroneLCMSMS">http://education.questdiagnostics.com/faq/TotalTestosteroneLCMSMS</a><br/>(This link is being provided for informational/educational purposes only.)</p>                          |        |        |                  |     |
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| TESTOSTERONE, FREE                                                                                                                                                                                                                                                                                           | 80.2   | NORMAL | 35.0-155.0 pg/mL | 01  |
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| <b>DHEA SULFATE, IMMUNOASSAY</b>                                                                                                                                                                                                                                                                             |        |        |                  |     |
| DHEA SULFATE                                                                                                                                                                                                                                                                                                 | 360    | NORMAL | 85-690 mcg/dL    | 04  |
| <b>Cortisol, A.M.</b>                                                                                                                                                                                                                                                                                        |        |        |                  |     |
| CORTISOL, A.M.                                                                                                                                                                                                                                                                                               | 17.7   | NORMAL | mcg/dL           | 02  |
| <p>Reference Range<br/>8 a.m. (7-9 a.m.) Specimen: 4.0-22.0</p>                                                                                                                                                                                                                                              |        |        |                  |     |
| <b>FERRITIN</b>                                                                                                                                                                                                                                                                                              |        |        |                  |     |

|                                                               |       |        |                       |    |
|---------------------------------------------------------------|-------|--------|-----------------------|----|
| FERRITIN                                                      | 70    | NORMAL | 38-380 ng/mL          | 02 |
| <b>FOLATE, SERUM</b>                                          |       |        |                       |    |
| FOLATE, SERUM                                                 | 15.4  | NORMAL | ng/mL                 | 02 |
| Reference Range                                               |       |        |                       |    |
| Low: <3.4                                                     |       |        |                       |    |
| Borderline: 3.4-5.4                                           |       |        |                       |    |
| Normal: >5.4                                                  |       |        |                       |    |
| <b>CBC (INCLUDES DIFF/PLT)</b>                                |       |        |                       |    |
| WHITE BLOOD CELL COUNT                                        | 4.2   | NORMAL | 3.8-10.8 Thousand/uL  | 02 |
| RED BLOOD CELL COUNT                                          | 5.03  | NORMAL | 4.20-5.80 Million/uL  | 02 |
| HEMOGLOBIN                                                    | 14.2  | NORMAL | 13.2-17.1 g/dL        | 02 |
| HEMATOCRIT                                                    | 42.5  | NORMAL | 38.5-50.0 %           | 02 |
| MCV                                                           | 84.5  | NORMAL | 80.0-100.0 fL         | 02 |
| MCH                                                           | 28.2  | NORMAL | 27.0-33.0 pg          | 02 |
| MCHC                                                          | 33.4  | NORMAL | 32.0-36.0 g/dL        | 02 |
| RDW                                                           | 12.0  | NORMAL | 11.0-15.0 %           | 02 |
| PLATELET COUNT                                                | 208   | NORMAL | 140-400 Thousand/uL   | 02 |
| MPV                                                           | 11.5  | NORMAL | 7.5-12.5 fL           | 02 |
| ABSOLUTE NEUTROPHILS                                          | 2087  | NORMAL | 1500-7800 cells/uL    | 02 |
| ABSOLUTE BAND NEUTROPHILS                                     | DNR   | NORMAL | 0-750 cells/uL        | 02 |
| ABSOLUTE METAMYELOCYTES                                       | DNR   | NORMAL | 0 cells/uL            | 02 |
| ABSOLUTE MYELOCYTES                                           | DNR   | NORMAL | 0 cells/uL            | 02 |
| ABSOLUTE PROMYELOCYTES                                        | DNR   | NORMAL | 0 cells/uL            | 02 |
| ABSOLUTE LYMPHOCYTES                                          | 1617  | NORMAL | 850-3900 cells/uL     | 02 |
| ABSOLUTE MONOCYTES                                            | 378   | NORMAL | 200-950 cells/uL      | 02 |
| ABSOLUTE EOSINOPHILS                                          | 88    | NORMAL | 15-500 cells/uL       | 02 |
| ABSOLUTE BASOPHILS                                            | 29    | NORMAL | 0-200 cells/uL        | 02 |
| ABSOLUTE BLASTS                                               | DNR   | NORMAL | 0 cells/uL            | 02 |
| ABSOLUTE NUCLEATED RBC                                        | DNR   | NORMAL | 0 cells/uL            | 02 |
| NEUTROPHILS                                                   | 49.7  | NORMAL | %                     | 02 |
| BAND NEUTROPHILS                                              | DNR   | NORMAL | %                     | 02 |
| METAMYELOCYTES                                                | DNR   | NORMAL | %                     | 02 |
| MYELOCYTES                                                    | DNR   | NORMAL | %                     | 02 |
| PROMYELOCYTES                                                 | DNR   | NORMAL | %                     | 02 |
| LYMPHOCYTES                                                   | 38.5  | NORMAL | %                     | 02 |
| REACTIVE LYMPHOCYTES                                          | DNR   | NORMAL | 0-10 %                | 02 |
| MONOCYTES                                                     | 9.0   | NORMAL | %                     | 02 |
| EOSINOPHILS                                                   | 2.1   | NORMAL | %                     | 02 |
| BASOPHILS                                                     | 0.7   | NORMAL | %                     | 02 |
| BLASTS                                                        | DNR   | NORMAL | %                     | 02 |
| NUCLEATED RBC                                                 | DNR   | NORMAL | 0 /100 WBC            | 02 |
| COMMENT(S)                                                    | DNR   | NORMAL |                       | 02 |
| <b>THYROID PANEL WITH TSH (T3 UPTAKE, TOTAL T4, FTI, TSH)</b> |       |        |                       |    |
| T3 UPTAKE                                                     | 29    | NORMAL | 22-35 %               | 02 |
| T4 (THYROXINE), TOTAL                                         | 8.4   | NORMAL | 4.9-10.5 mcg/dL       | 02 |
| FREE T4 INDEX (T7)                                            | 2.4   | NORMAL | 1.4-3.8               | 02 |
| TSH                                                           | 1.17  | NORMAL | 0.40-4.50 mIU/L       | 02 |
| <b>PROGESTERONE</b>                                           |       |        |                       |    |
| PROGESTERONE                                                  | 0.5   | NORMAL | <1.4 ng/mL            | 02 |
| <b>Prolactin</b>                                              |       |        |                       |    |
| PROLACTIN                                                     | 7.5   | NORMAL | 2.0-18.0 ng/mL        | 02 |
| <b>IRON AND TOTAL IRON BINDING CAPACITY</b>                   |       |        |                       |    |
| IRON, TOTAL                                                   | 66    | NORMAL | 50-195 mcg/dL         | 02 |
| IRON BINDING CAPACITY                                         | 293   | NORMAL | 250-425 mcg/dL (calc) | 02 |
| % SATURATION                                                  | 23    | NORMAL | 20-48 % (calc)        | 02 |
| <b>RETICULOCYTE COUNT</b>                                     |       |        |                       |    |
| RETICULOCYTE COUNT, AUTOMATED                                 | 0.8   | NORMAL | %                     | 02 |
| RETICULOCYTE, ABSOLUTE                                        | 40240 | NORMAL | 25000-90000 cells/uL  | 02 |
| <b>T3, TOTAL</b>                                              |       |        |                       |    |
| T3, TOTAL                                                     | 146   | NORMAL | 76-181 ng/dL          | 02 |
| <b>Dihydrotestosterone, LC/MS/MS</b>                          |       |        |                       |    |
| DIHYDROTESTOSTERONE, LC/MS/MS                                 | 31    | NORMAL | 12-65 ng/dL           | 03 |

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#### REVERSE T3, LC/MS/MS

|                      |    |        |            |    |
|----------------------|----|--------|------------|----|
| T3 REVERSE, LC/MS/MS | 11 | NORMAL | 8-25 ng/dL | 03 |
|----------------------|----|--------|------------|----|

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#### VITAMIN B12

|             |     |        |                |    |
|-------------|-----|--------|----------------|----|
| VITAMIN B12 | 324 | NORMAL | 200-1100 pg/mL | 02 |
|-------------|-----|--------|----------------|----|

Please Note: Although the reference range for vitamin B12 is 200-1100 pg/mL, it has been reported that between 5 and 10% of patients with values between 200 and 400 pg/mL may experience neuropsychiatric and hematologic abnormalities due to occult B12 deficiency; less than 1% of patients with values above 400 pg/mL will have symptoms.

#### QUESTASSURED 25-OH VIT D, (D2,D3), LC/MS/MS

|                         |    |        |              |    |
|-------------------------|----|--------|--------------|----|
| VITAMIN D, 25-OH, TOTAL | 38 | NORMAL | 30-100 ng/mL | 01 |
|-------------------------|----|--------|--------------|----|

Vitamin D, 25-Hydroxy reports concentrations of two common forms, 25-OHD2 and 25-OHD3. 25-OHD3 indicates both endogenous production and supplementation. 25-OHD2 is an indicator of exogenous sources, such as diet or supplementation. Therapy is based on measurement of Total 25-OHD, with levels <20 ng/mL indicative of Vitamin D deficiency, while levels between 20 ng/mL and 30 ng/mL suggest insufficiency. Optimal levels are > or = 30 ng/mL.

Vitamin D is fat-soluble and therefore inadvertent or intentional ingestion of excessively high amounts could be toxic. Studies in children and adults suggest blood levels would need to exceed 150 ng/mL before there is any concern. Holick MF, Binkley NC, Bischoff-ferrari HA, et al., Evaluation, treatment, and prevention of vitamin D deficiency: an Endocrine Society clinical practice guideline. J Clin. Endocrinol. Metab. 2011;96(7):1911-30.

|                      |    |        |                 |    |
|----------------------|----|--------|-----------------|----|
| VITAMIN D, 25-OH, D3 | 38 | NORMAL | See Note: ng/mL | 01 |
|----------------------|----|--------|-----------------|----|

Reference Range:

Reference Range  
Not established

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|                      |    |        |                 |    |
|----------------------|----|--------|-----------------|----|
| VITAMIN D, 25-OH, D2 | <4 | NORMAL | See Note: ng/mL | 01 |
|----------------------|----|--------|-----------------|----|

Reference Range:

Reference Range  
Not established

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See Note 1

Note 1

For additional information, please refer to  
<http://education.QuestDiagnostics.com/faq/FAQ199>  
(This link is being provided for informational/  
educational purposes only.)

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**Performing Laboratory Information:**

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