Warde Medical Laboratory

# LABORATORY REPORT

QC ACCOUNT (WARDE)
300 W. TEXTILE
ANN ARBOR MI 48108

**EXAMPLE, REPORT**
WX0000000158 M 07/08/1968 58 Y

## Referral Testing

Collected: 09/17/2026 11:42 Received: 09/17/2026 11:42

| Test Name | Result | Flag | Ref-Ranges | Units | Site |
|---|---|---|---|---|---|
| **Manganese, Urine** | | | | | |
| Hours Collected | 24 | | | hr | ARRL |
| Per 24h calculations are provided to aid interpretation for collections with a duration of 24 hours and an average daily urine volume. For specimens with notable deviations in collection time or volume, ratios of analytes to a corresponding urine creatinine concentration may assist in result interpretation. | | | | | |
| Total Volume | 1850 | | | mL | ARRL |
| Creatinine, Urine - per volume | 612 | | | mg/dL | ARRL |
| Creatinine, Urine - per 24h | **11322** | **H** | 500-1400 | mg/d | ARRL |
| Performed By: ARUP Laboratories<br>500 Chipeta Way<br>Salt Lake City, UT 84108<br>Laboratory Director: Jonathan R. Genzen, MD, PhD<br>CLIA Number: 46D0523979 | | | | | |
| Manganese, Urine - per volume | <1.0 | | <=5.0 | ug/L | ARRL |
| INTERPRETIVE INFORMATION: Manganese, Urine - per volume<br><br>Urine manganese provides limited utility in determining manganese exposure. Whole blood measurements are recommended for determining recent or active exposure.<br><br>Elevated results may be due to skin or collection-related contamination, including the use of collection containers that are not certified to be trace element-free. If an elevated result is suspected to be due to contamination, confirmation with a second specimen collected in a certified trace element-free container is recommended.<br><br>Methodology: Inductively Coupled Plasma - Mass Spectrometry (ICP-MS)<br><br>This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes. | | | | | |
| Manganese, Urine - per 24h | Not Applicable | | <=5.0 | ug/d | ARRL |
| INTERPRETIVE INFORMATION: Manganese, Urine - per 24h<br><br>The per 24 hr result will not be calculated if the per | | | | | |

LAB: L - LOW, H - HIGH, AB - ABNORMAL, C - CRITICAL, . - NOT TESTED

Warde Medical Laboratory

# LABORATORY REPORT

QC ACCOUNT (WARDE)
300 W. TEXTILE
ANN ARBOR MI 48108

**EXAMPLE, REPORT**
WX0000000158 M 07/08/1968 58 Y

## Referral Testing

Collected: 09/17/2026 11:42 Received: 09/17/2026 11:42

| Test Name | Result | Flag | Ref-Ranges | Units | Site |
|---|---|---|---|---|---|
| | volume result is less than or greater than the analytical measuring range. | | | | |
| Manganese, Urine - ratio to CRT | Not Applicable | | <=5.0 | ug/g CRT | ARRL |
| | INTERPRETIVE INFORMATION: Manganese, Urine - ratio to CRT<br><br>Ratio to creatinine will not be calculated if the per volume result is less than the analytical measuring range. | | | | |

**Reported Date:** 09/17/2026 11:42 MNU

Performing Site:
ARRL: ARUP REFERENCE LAB 500 Chipeta Way Salt Lake City UT 841081221

LAB: L - LOW, H - HIGH, AB - ABNORMAL, C - CRITICAL, . - NOT TESTED

F317000011
WX0000000158
Printed D&T: 09/17/26 11:42

Ordered By: CLIENT CLIENT
WX00000000000260

Kajal V. Sitwala, MD, PhD - Medical Director
Form: MM RL1