TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

# ANALYTICAL REPORT

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TestAmerica Job ID: 550-69591-1
Client Project/Site: CCR

For:
Arizona Public Service Company
4801 Cholla Lake Rd
Joseph City, Arizona 86032

Attn: Doug Lavarnway

*Authorized for release by:*
*10/30/2016 11:13:43 AM*

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*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CNF | Contains no Free Liquid |
| DER | Duplicate error ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision level concentration |
| MDA | Minimum detectable activity |
| EDL | Estimated Detection Limit |
| MDC | Minimum detectable concentration |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| NC | Not Calculated |
| ND | Not detected at the reporting limit (or MDL or EDL if shown) |
| PQL | Practical Quantitation Limit |
| QC | Quality Control |
| RER | Relative error ratio |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |

## Job ID: 550-69591-1

### Laboratory: TestAmerica Phoenix

**Narrative**

**Job Narrative**
**550-69591-1**

**Comments**
No additional comments.

**Receipt**
The samples were received on 9/15/2016 8:03 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 5 coolers at receipt time were 1.0º C, 1.0º C, 1.2º C, 1.4º C and 1.5º C.

**HPLC/IC**
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

**Metals**
Method(s) 200.8 LL: The method blank for preparation batch 550-98618 contained Chromium above the reporting limit (RL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

Method(s) 200.8 LL: The following samples was diluted due to the nature of the sample matrix: FC-CCR-MW7-916 (550-69591-1), FC-CCR-MW8-916 (550-69591-2), FC-CCR-MW49A-916 (550-69591-3), FC-CCR-MW60-916 (550-69591-4), FC-CCR-MW61-916 (550-69591-5), FC-CCR-MW62-916 (550-69591-6), FC-CCR-MW63-916 (550-69591-7), FC-CCR-MW64-916 (550-69591-8), FC-CCR-MW65-916 (550-69591-9), FC-CCR-MW67-916 (550-69591-11) and FC-CCR-MW69-916 (550-69591-13). Elevated reporting limits (RLs) are provided.

Method(s) 200.8 LL: The continuing calibration blank (CCB) for analytical batch 440-362716 contained Antimony above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

Method(s) 200.8 LL: The following samples was diluted due to the nature of the sample matrix: FC-CCR-MW7-916 (550-69591-1), FC-CCR-MW8-916 (550-69591-2), FC-CCR-MW49A-916 (550-69591-3), FC-CCR-MW60-916 (550-69591-4), FC-CCR-MW61-916 (550-69591-5), FC-CCR-MW62-916 (550-69591-6), FC-CCR-MW63-916 (550-69591-7), FC-CCR-MW64-916 (550-69591-8), FC-CCR-MW65-916 (550-69591-9), FC-CCR-MW66-916 (550-69591-10), FC-CCR-MW67-916 (550-69591-11), FC-CCR-MW69-916 (550-69591-13), FC-CCR-MW70-916 (550-69591-14), FC-CCR-MW71-916 (550-69591-15), FC-CCR-MW72-916 (550-69591-16), FC-CCR-MW100-916 (550-69591-17) and (550-70151-B-22-D ^5). Elevated reporting limits (RLs) are provided.

Method(s) 200.8 LL: The following sample was diluted due to the nature of the sample matrix: FC-CCR-MW68-916 (550-69591-12). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

# Sample Summary

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-69591-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 550-69591-1 | FC-CCR-MW7-916 | Water | 09/13/16 15:10 | 09/15/16 08:03 |
| 550-69591-2 | FC-CCR-MW8-916 | Water | 09/13/16 14:01 | 09/15/16 08:03 |
| 550-69591-3 | FC-CCR-MW49A-916 | Water | 09/13/16 11:21 | 09/15/16 08:03 |
| 550-69591-4 | FC-CCR-MW60-916 | Water | 09/13/16 12:21 | 09/15/16 08:03 |
| 550-69591-5 | FC-CCR-MW61-916 | Water | 09/13/16 13:19 | 09/15/16 08:03 |
| 550-69591-6 | FC-CCR-MW62-916 | Water | 09/12/16 17:16 | 09/15/16 08:03 |
| 550-69591-7 | FC-CCR-MW63-916 | Water | 09/12/16 13:43 | 09/15/16 08:03 |
| 550-69591-8 | FC-CCR-MW64-916 | Water | 09/12/16 14:39 | 09/15/16 08:03 |
| 550-69591-9 | FC-CCR-MW65-916 | Water | 09/12/16 18:03 | 09/15/16 08:03 |
| 550-69591-10 | FC-CCR-MW66-916 | Water | 09/12/16 16:18 | 09/15/16 08:03 |
| 550-69591-11 | FC-CCR-MW67-916 | Water | 09/13/16 07:26 | 09/15/16 08:03 |
| 550-69591-12 | FC-CCR-MW68-916 | Water | 09/13/16 08:10 | 09/15/16 08:03 |
| 550-69591-13 | FC-CCR-MW69-916 | Water | 09/13/16 08:58 | 09/15/16 08:03 |
| 550-69591-14 | FC-CCR-MW70-916 | Water | 09/12/16 10:51 | 09/15/16 08:03 |
| 550-69591-15 | FC-CCR-MW71-916 | Water | 09/12/16 18:42 | 09/15/16 08:03 |
| 550-69591-16 | FC-CCR-MW72-916 | Water | 09/13/16 10:09 | 09/15/16 08:03 |
| 550-69591-17 | FC-CCR-MW100-916 | Water | 09/13/16 12:21 | 09/15/16 08:03 |

# Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-69591-1

## Client Sample ID: FC-CCR-MW7-916 — Lab Sample ID: 550-69591-1

| Analyte | Result | Qualifier | RL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|
| Lithium | 0.90 | | 0.20 | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Barium | 0.017 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Cadmium | 0.0014 | | 0.00050 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Cobalt | 0.0020 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Molybdenum | 0.041 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Selenium | 0.0064 | | 0.0030 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Thallium | 0.00053 | | 0.00050 | mg/L | 5 | | 200.8 LL | Total Recoverable |

## Client Sample ID: FC-CCR-MW8-916 — Lab Sample ID: 550-69591-2

| Analyte | Result | Qualifier | RL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|
| Lithium | 1.1 | | 0.20 | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Barium | 0.013 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Cadmium | 0.00074 | | 0.00050 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Cobalt | 0.0013 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Molybdenum | 0.044 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |

## Client Sample ID: FC-CCR-MW49A-916 — Lab Sample ID: 550-69591-3

| Analyte | Result | Qualifier | RL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|
| Lithium | 1.2 | | 0.20 | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Barium | 0.029 | | 0.0040 | mg/L | 20 | | 200.8 LL | Total Recoverable |
| Molybdenum | 0.027 | | 0.0040 | mg/L | 20 | | 200.8 LL | Total Recoverable |
| Thallium | 0.0020 | | 0.0020 | mg/L | 20 | | 200.8 LL | Total Recoverable |

## Client Sample ID: FC-CCR-MW60-916 — Lab Sample ID: 550-69591-4

| Analyte | Result | Qualifier | RL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|
| Fluoride | 6.2 | | 0.40 | mg/L | 1 | | 300.0 | Total/NA |
| Lithium | 0.76 | | 0.20 | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Barium | 0.019 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Cadmium | 0.0021 | | 0.00050 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Cobalt | 0.32 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Lead | 0.0014 | | 0.00050 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Molybdenum | 0.16 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |

This Detection Summary does not include radiochemical test results.

# Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-69591-1

## Client Sample ID: FC-CCR-MW61-916 — Lab Sample ID: 550-69591-5

| Analyte | Result | Qualifier | RL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|
| Fluoride | 1.1 | | 0.40 | mg/L | 1 | | 300.0 | Total/NA |
| Lithium | 0.37 | | 0.20 | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Barium | 0.014 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Cadmium | 0.00094 | | 0.00050 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Cobalt | 0.013 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Lead | 0.00089 | | 0.00050 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Molybdenum | 0.069 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |

## Client Sample ID: FC-CCR-MW62-916 — Lab Sample ID: 550-69591-6

| Analyte | Result | Qualifier | RL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|
| Fluoride | 1.3 | | 0.40 | mg/L | 1 | | 300.0 | Total/NA |
| Arsenic | 0.0020 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Barium | 0.026 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Cobalt | 0.0069 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Molybdenum | 0.0044 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |

## Client Sample ID: FC-CCR-MW63-916 — Lab Sample ID: 550-69591-7

| Analyte | Result | Qualifier | RL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|
| Fluoride | 2.0 | | 0.40 | mg/L | 1 | | 300.0 | Total/NA |
| Barium | 0.022 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Cobalt | 0.0069 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Molybdenum | 0.0031 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |

## Client Sample ID: FC-CCR-MW64-916 — Lab Sample ID: 550-69591-8

| Analyte | Result | Qualifier | RL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|
| Fluoride | 1.5 | | 0.40 | mg/L | 1 | | 300.0 | Total/NA |
| Barium | 0.027 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Cobalt | 0.0015 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Molybdenum | 0.0052 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |

## Client Sample ID: FC-CCR-MW65-916 — Lab Sample ID: 550-69591-9

| Analyte | Result | Qualifier | RL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|
| Fluoride | 2.0 | | 0.40 | mg/L | 1 | | 300.0 | Total/NA |
| Barium | 0.013 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |

This Detection Summary does not include radiochemical test results.

# Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-69591-1

## Client Sample ID: FC-CCR-MW65-916 (Continued) — Lab Sample ID: 550-69591-9

| Analyte | Result | Qualifier | RL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|
| Cobalt | 0.0014 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Molybdenum | 0.0084 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |

## Client Sample ID: FC-CCR-MW66-916 — Lab Sample ID: 550-69591-10

| Analyte | Result | Qualifier | RL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|
| Fluoride | 17 | | 0.40 | mg/L | 1 | | 300.0 | Total/NA |
| Lithium | 0.27 | | 0.20 | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Barium | 0.011 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Cobalt | 0.0029 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Molybdenum | 0.010 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Selenium | 0.11 | | 0.0030 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Thallium | 0.00088 | | 0.00050 | mg/L | 5 | | 200.8 LL | Total Recoverable |

## Client Sample ID: FC-CCR-MW67-916 — Lab Sample ID: 550-69591-11

| Analyte | Result | Qualifier | RL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|
| Fluoride | 17 | | 0.40 | mg/L | 1 | | 300.0 | Total/NA |
| Lithium | 0.31 | | 0.20 | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Arsenic | 0.0023 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Barium | 0.021 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Cobalt | 0.0057 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Molybdenum | 0.045 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Selenium | 0.059 | | 0.0030 | mg/L | 5 | | 200.8 LL | Total Recoverable |

## Client Sample ID: FC-CCR-MW68-916 — Lab Sample ID: 550-69591-12

| Analyte | Result | Qualifier | RL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|
| Fluoride | 5.7 | | 0.40 | mg/L | 1 | | 300.0 | Total/NA |
| Lithium | 0.29 | | 0.20 | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Arsenic | 0.0016 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Barium | 0.0074 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Cobalt | 0.0025 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Molybdenum | 0.012 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Selenium | 0.15 | | 0.0030 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Thallium | 0.0012 | | 0.00050 | mg/L | 5 | | 200.8 LL | Total Recoverable |

This Detection Summary does not include radiochemical test results.

# Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-69591-1

## Client Sample ID: FC-CCR-MW69-916 — Lab Sample ID: 550-69591-13

| Analyte | Result | Qualifier | RL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|
| Fluoride | 11 | | 0.40 | mg/L | 1 | | 300.0 | Total/NA |
| Lithium | 0.31 | | 0.20 | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Arsenic | 0.0093 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Barium | 0.016 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Cobalt | 0.0042 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Molybdenum | 0.015 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Selenium | 0.012 | | 0.0030 | mg/L | 5 | | 200.8 LL | Total Recoverable |

## Client Sample ID: FC-CCR-MW70-916 — Lab Sample ID: 550-69591-14

| Analyte | Result | Qualifier | RL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|
| Lithium | 0.29 | | 0.20 | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Barium | 0.0073 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Cobalt | 0.0023 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Molybdenum | 0.0036 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Selenium | 0.13 | | 0.0030 | mg/L | 5 | | 200.8 LL | Total Recoverable |

## Client Sample ID: FC-CCR-MW71-916 — Lab Sample ID: 550-69591-15

| Analyte | Result | Qualifier | RL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|
| Lithium | 0.30 | | 0.20 | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Barium | 0.013 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Cobalt | 0.0012 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Molybdenum | 0.0013 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Selenium | 0.18 | | 0.0030 | mg/L | 5 | | 200.8 LL | Total Recoverable |

## Client Sample ID: FC-CCR-MW72-916 — Lab Sample ID: 550-69591-16

| Analyte | Result | Qualifier | RL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|
| Lithium | 0.35 | | 0.20 | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Barium | 0.019 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Cobalt | 0.0073 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Molybdenum | 0.011 | | 0.0010 | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Thallium | 0.00056 | | 0.00050 | mg/L | 5 | | 200.8 LL | Total Recoverable |

## Client Sample ID: FC-CCR-MW100-916 — Lab Sample ID: 550-69591-17

This Detection Summary does not include radiochemical test results.

# Detection Summary

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-69591-1

## Client Sample ID: FC-CCR-MW100-916 (Continued) — Lab Sample ID: 550-69591-17

| Analyte | Result | Qualifier | RL | | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Fluoride | 6.4 | | 0.40 | | mg/L | 1 | | 300.0 | Total/NA |
| Lithium | 0.77 | | 0.20 | | mg/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Barium | 0.020 | | 0.0010 | | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Cadmium | 0.0022 | | 0.00050 | | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Cobalt | 0.33 | | 0.0010 | | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Lead | 0.0015 | | 0.00050 | | mg/L | 5 | | 200.8 LL | Total Recoverable |
| Molybdenum | 0.17 | | 0.0010 | | mg/L | 5 | | 200.8 LL | Total Recoverable |

This Detection Summary does not include radiochemical test results.

# Client Sample Results

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-69591-1

## Client Sample ID: FC-CCR-MW7-916

**Lab Sample ID: 550-69591-1**
**Date Collected: 09/13/16 15:10**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

### Method: 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Fluoride | ND | | 0.40 | mg/L | | | 09/21/16 20:48 | 1 |

### Method: 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | mg/L | | 09/20/16 09:01 | 09/21/16 15:29 | 1 |
| **Lithium** | **0.90** | | 0.20 | mg/L | | 09/20/16 09:01 | 09/21/16 15:29 | 1 |

### Method: 200.8 LL - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0025 | mg/L | | 10/10/16 11:33 | 10/18/16 18:30 | 5 |
| Arsenic | ND | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 18:30 | 5 |
| **Barium** | **0.017** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 18:30 | 5 |
| **Cadmium** | **0.0014** | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 18:30 | 5 |
| Chromium | ND | | 0.0025 | mg/L | | 10/10/16 11:33 | 10/18/16 18:30 | 5 |
| **Cobalt** | **0.0020** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 18:30 | 5 |
| Lead | ND | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 18:30 | 5 |
| **Molybdenum** | **0.041** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/21/16 00:18 | 5 |
| **Selenium** | **0.0064** | | 0.0030 | mg/L | | 10/10/16 11:33 | 10/18/16 18:30 | 5 |
| **Thallium** | **0.00053** | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 18:30 | 5 |

### Method: 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Hg | ND | | 0.00020 | mg/L | | 09/16/16 11:50 | 09/20/16 14:10 | 1 |

## Client Sample ID: FC-CCR-MW8-916

**Lab Sample ID: 550-69591-2**
**Date Collected: 09/13/16 14:01**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

### Method: 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Fluoride | ND | | 0.40 | mg/L | | | 09/21/16 21:07 | 1 |

### Method: 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | mg/L | | 09/20/16 09:01 | 09/21/16 15:35 | 1 |
| **Lithium** | **1.1** | | 0.20 | mg/L | | 09/20/16 09:01 | 09/21/16 15:35 | 1 |

### Method: 200.8 LL - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0025 | mg/L | | 10/10/16 11:33 | 10/18/16 18:33 | 5 |
| Arsenic | ND | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 18:33 | 5 |
| **Barium** | **0.013** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 18:33 | 5 |
| **Cadmium** | **0.00074** | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 18:33 | 5 |
| Chromium | ND | | 0.0025 | mg/L | | 10/10/16 11:33 | 10/18/16 18:33 | 5 |
| **Cobalt** | **0.0013** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 18:33 | 5 |
| Lead | ND | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 18:33 | 5 |
| **Molybdenum** | **0.044** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/21/16 00:20 | 5 |
| Selenium | ND | | 0.0030 | mg/L | | 10/10/16 11:33 | 10/18/16 18:33 | 5 |
| Thallium | ND | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 18:33 | 5 |

# Client Sample Results

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-69591-1

## Client Sample ID: FC-CCR-MW8-916

**Lab Sample ID: 550-69591-2**
**Date Collected: 09/13/16 14:01**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

### Method: 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Hg | ND | | 0.00020 | mg/L | | 09/16/16 11:50 | 09/20/16 14:12 | 1 |

## Client Sample ID: FC-CCR-MW49A-916

**Lab Sample ID: 550-69591-3**
**Date Collected: 09/13/16 11:21**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

### Method: 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Fluoride | ND | | 0.40 | mg/L | | | 09/21/16 21:25 | 1 |

### Method: 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | mg/L | | 09/20/16 09:01 | 09/21/16 15:41 | 1 |
| **Lithium** | **1.2** | | 0.20 | mg/L | | 09/20/16 09:01 | 09/21/16 15:41 | 1 |

### Method: 200.8 LL - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.010 | mg/L | | 10/10/16 11:33 | 10/18/16 18:35 | 20 |
| Arsenic | ND | | 0.0040 | mg/L | | 10/10/16 11:33 | 10/18/16 18:35 | 20 |
| **Barium** | **0.029** | | 0.0040 | mg/L | | 10/10/16 11:33 | 10/18/16 18:35 | 20 |
| Cadmium | ND | | 0.0020 | mg/L | | 10/10/16 11:33 | 10/18/16 18:35 | 20 |
| Chromium | ND | | 0.010 | mg/L | | 10/10/16 11:33 | 10/18/16 18:35 | 20 |
| Cobalt | ND | | 0.0040 | mg/L | | 10/10/16 11:33 | 10/18/16 18:35 | 20 |
| Lead | ND | | 0.0020 | mg/L | | 10/10/16 11:33 | 10/18/16 18:35 | 20 |
| **Molybdenum** | **0.027** | | 0.0040 | mg/L | | 10/10/16 11:33 | 10/21/16 00:38 | 20 |
| Selenium | ND | | 0.012 | mg/L | | 10/10/16 11:33 | 10/18/16 18:35 | 20 |
| **Thallium** | **0.0020** | | 0.0020 | mg/L | | 10/10/16 11:33 | 10/18/16 18:35 | 20 |

### Method: 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Hg | ND | | 0.00020 | mg/L | | 09/16/16 11:50 | 09/20/16 14:17 | 1 |

## Client Sample ID: FC-CCR-MW60-916

**Lab Sample ID: 550-69591-4**
**Date Collected: 09/13/16 12:21**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

### Method: 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| **Fluoride** | **6.2** | | 0.40 | mg/L | | | 09/21/16 21:43 | 1 |

### Method: 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | mg/L | | 09/20/16 09:01 | 09/21/16 15:46 | 1 |
| **Lithium** | **0.76** | | 0.20 | mg/L | | 09/20/16 09:01 | 09/21/16 15:46 | 1 |

### Method: 200.8 LL - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0025 | mg/L | | 10/10/16 11:33 | 10/18/16 18:48 | 5 |
| Arsenic | ND | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 18:48 | 5 |
| **Barium** | **0.019** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 18:48 | 5 |
| **Cadmium** | **0.0021** | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 18:48 | 5 |

## Client Sample ID: FC-CCR-MW60-916

**Lab Sample ID: 550-69591-4**
**Date Collected: 09/13/16 12:21**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

### Method: 200.8 LL - Metals (ICP/MS) - Total Recoverable (Continued)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Chromium | ND | | 0.0025 | mg/L | | 10/10/16 11:33 | 10/18/16 18:48 | 5 |
| **Cobalt** | **0.32** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 18:48 | 5 |
| **Lead** | **0.0014** | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 18:48 | 5 |
| **Molybdenum** | **0.16** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/20/16 22:14 | 5 |
| Selenium | ND | | 0.0030 | mg/L | | 10/10/16 11:33 | 10/18/16 18:48 | 5 |
| Thallium | ND | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 18:48 | 5 |

### Method: 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Hg | ND | | 0.00020 | mg/L | | 09/16/16 11:50 | 09/20/16 14:18 | 1 |

## Client Sample ID: FC-CCR-MW61-916

**Lab Sample ID: 550-69591-5**
**Date Collected: 09/13/16 13:19**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

### Method: 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| **Fluoride** | **1.1** | | 0.40 | mg/L | | | 09/22/16 03:33 | 1 |

### Method: 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | mg/L | | 09/20/16 09:01 | 09/21/16 15:52 | 1 |
| **Lithium** | **0.37** | | 0.20 | mg/L | | 09/20/16 09:01 | 09/21/16 15:52 | 1 |

### Method: 200.8 LL - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0025 | mg/L | | 10/10/16 11:33 | 10/18/16 18:51 | 5 |
| Arsenic | ND | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 18:51 | 5 |
| **Barium** | **0.014** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 18:51 | 5 |
| **Cadmium** | **0.00094** | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 18:51 | 5 |
| Chromium | ND | | 0.0025 | mg/L | | 10/10/16 11:33 | 10/18/16 18:51 | 5 |
| **Cobalt** | **0.013** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 18:51 | 5 |
| **Lead** | **0.00089** | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 18:51 | 5 |
| **Molybdenum** | **0.069** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/20/16 22:17 | 5 |
| Selenium | ND | | 0.0030 | mg/L | | 10/10/16 11:33 | 10/18/16 18:51 | 5 |
| Thallium | ND | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 18:51 | 5 |

### Method: 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Hg | ND | | 0.00020 | mg/L | | 09/16/16 11:50 | 09/20/16 14:20 | 1 |

## Client Sample ID: FC-CCR-MW62-916

**Lab Sample ID: 550-69591-6**
**Date Collected: 09/12/16 17:16**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

### Method: 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| **Fluoride** | **1.3** | | 0.40 | mg/L | | | 09/21/16 22:39 | 1 |

# Client Sample Results

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-69591-1

## Client Sample ID: FC-CCR-MW62-916

**Lab Sample ID: 550-69591-6**
**Date Collected: 09/12/16 17:16**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

### Method: 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | mg/L | | 09/20/16 09:01 | 09/21/16 15:58 | 1 |
| Lithium | ND | | 0.20 | mg/L | | 09/20/16 09:01 | 09/21/16 15:58 | 1 |

### Method: 200.8 LL - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0025 | mg/L | | 10/10/16 11:33 | 10/18/16 18:53 | 5 |
| **Arsenic** | **0.0020** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 18:53 | 5 |
| **Barium** | **0.026** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 18:53 | 5 |
| Cadmium | ND | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 18:53 | 5 |
| Chromium | ND | | 0.0025 | mg/L | | 10/10/16 11:33 | 10/18/16 18:53 | 5 |
| **Cobalt** | **0.0069** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 18:53 | 5 |
| Lead | ND | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 18:53 | 5 |
| **Molybdenum** | **0.0044** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/20/16 22:19 | 5 |
| Selenium | ND | | 0.0030 | mg/L | | 10/10/16 11:33 | 10/18/16 18:53 | 5 |
| Thallium | ND | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 18:53 | 5 |

### Method: 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Hg | ND | | 0.00020 | mg/L | | 09/16/16 11:50 | 09/20/16 14:21 | 1 |

## Client Sample ID: FC-CCR-MW63-916

**Lab Sample ID: 550-69591-7**
**Date Collected: 09/12/16 13:43**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

### Method: 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| **Fluoride** | **2.0** | | 0.40 | mg/L | | | 09/21/16 22:57 | 1 |

### Method: 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | mg/L | | 09/20/16 09:01 | 09/21/16 16:04 | 1 |
| Lithium | ND | | 0.20 | mg/L | | 09/20/16 09:01 | 09/21/16 16:04 | 1 |

### Method: 200.8 LL - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0025 | mg/L | | 10/10/16 11:33 | 10/18/16 18:56 | 5 |
| Arsenic | ND | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 18:56 | 5 |
| **Barium** | **0.022** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 18:56 | 5 |
| Cadmium | ND | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 18:56 | 5 |
| Chromium | ND | | 0.0025 | mg/L | | 10/10/16 11:33 | 10/18/16 18:56 | 5 |
| **Cobalt** | **0.0069** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 18:56 | 5 |
| Lead | ND | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 18:56 | 5 |
| **Molybdenum** | **0.0031** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/20/16 22:22 | 5 |
| Selenium | ND | | 0.0030 | mg/L | | 10/10/16 11:33 | 10/18/16 18:56 | 5 |
| Thallium | ND | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 18:56 | 5 |

### Method: 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Hg | ND | | 0.00020 | mg/L | | 09/16/16 11:50 | 09/20/16 14:23 | 1 |

# Client Sample Results

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-69591-1

## Client Sample ID: FC-CCR-MW64-916

**Lab Sample ID: 550-69591-8**
**Date Collected: 09/12/16 14:39**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

### Method: 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| **Fluoride** | **1.5** | | 0.40 | mg/L | | | 09/21/16 23:15 | 1 |

### Method: 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | mg/L | | 09/20/16 09:01 | 09/21/16 16:10 | 1 |
| Lithium | ND | | 0.20 | mg/L | | 09/20/16 09:01 | 09/21/16 16:10 | 1 |

### Method: 200.8 LL - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0025 | mg/L | | 10/10/16 11:33 | 10/18/16 18:58 | 5 |
| Arsenic | ND | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 18:58 | 5 |
| **Barium** | **0.027** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 18:58 | 5 |
| Cadmium | ND | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 18:58 | 5 |
| Chromium | ND | | 0.0025 | mg/L | | 10/10/16 11:33 | 10/18/16 18:58 | 5 |
| **Cobalt** | **0.0015** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 18:58 | 5 |
| Lead | ND | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 18:58 | 5 |
| **Molybdenum** | **0.0052** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/20/16 22:24 | 5 |
| Selenium | ND | | 0.0030 | mg/L | | 10/10/16 11:33 | 10/18/16 18:58 | 5 |
| Thallium | ND | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 18:58 | 5 |

### Method: 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Hg | ND | | 0.00020 | mg/L | | 09/16/16 11:50 | 09/20/16 14:24 | 1 |

## Client Sample ID: FC-CCR-MW65-916

**Lab Sample ID: 550-69591-9**
**Date Collected: 09/12/16 18:03**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

### Method: 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| **Fluoride** | **2.0** | | 0.40 | mg/L | | | 09/21/16 23:34 | 1 |

### Method: 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | mg/L | | 09/20/16 09:01 | 09/21/16 16:13 | 1 |
| Lithium | ND | | 0.20 | mg/L | | 09/20/16 09:01 | 09/21/16 16:13 | 1 |

### Method: 200.8 LL - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0025 | mg/L | | 10/10/16 11:33 | 10/18/16 19:01 | 5 |
| Arsenic | ND | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 19:01 | 5 |
| **Barium** | **0.013** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 19:01 | 5 |
| Cadmium | ND | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 19:01 | 5 |
| Chromium | ND | | 0.0025 | mg/L | | 10/10/16 11:33 | 10/18/16 19:01 | 5 |
| **Cobalt** | **0.0014** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 19:01 | 5 |
| Lead | ND | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 19:01 | 5 |
| **Molybdenum** | **0.0084** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/20/16 22:27 | 5 |
| Selenium | ND | | 0.0030 | mg/L | | 10/10/16 11:33 | 10/18/16 19:01 | 5 |
| Thallium | ND | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 19:01 | 5 |

# Client Sample Results

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-69591-1

## Client Sample ID: FC-CCR-MW65-916

**Lab Sample ID: 550-69591-9**
**Date Collected: 09/12/16 18:03**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

### Method: 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Hg | ND | | 0.00020 | mg/L | | 09/16/16 11:50 | 09/20/16 14:26 | 1 |

## Client Sample ID: FC-CCR-MW66-916

**Lab Sample ID: 550-69591-10**
**Date Collected: 09/12/16 16:18**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

### Method: 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| **Fluoride** | **17** | | 0.40 | mg/L | | | 09/22/16 00:29 | 1 |

### Method: 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | mg/L | | 09/20/16 09:01 | 09/21/16 16:21 | 1 |
| **Lithium** | **0.27** | | 0.20 | mg/L | | 09/20/16 09:01 | 09/21/16 16:21 | 1 |

### Method: 200.8 LL - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0025 | mg/L | | 10/10/16 11:34 | 10/18/16 19:37 | 5 |
| Arsenic | ND | | 0.0010 | mg/L | | 10/10/16 11:34 | 10/18/16 19:37 | 5 |
| **Barium** | **0.011** | | 0.0010 | mg/L | | 10/10/16 11:34 | 10/18/16 19:37 | 5 |
| Cadmium | ND | | 0.00050 | mg/L | | 10/10/16 11:34 | 10/18/16 19:37 | 5 |
| Chromium | ND | | 0.0025 | mg/L | | 10/10/16 11:34 | 10/18/16 19:37 | 5 |
| **Cobalt** | **0.0029** | | 0.0010 | mg/L | | 10/10/16 11:34 | 10/18/16 19:37 | 5 |
| Lead | ND | | 0.00050 | mg/L | | 10/10/16 11:34 | 10/18/16 19:37 | 5 |
| **Molybdenum** | **0.010** | | 0.0010 | mg/L | | 10/10/16 11:34 | 10/21/16 00:55 | 5 |
| **Selenium** | **0.11** | | 0.0030 | mg/L | | 10/10/16 11:34 | 10/18/16 19:37 | 5 |
| **Thallium** | **0.00088** | | 0.00050 | mg/L | | 10/10/16 11:34 | 10/18/16 19:37 | 5 |

### Method: 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Hg | ND | | 0.00020 | mg/L | | 09/16/16 11:50 | 09/20/16 14:28 | 1 |

## Client Sample ID: FC-CCR-MW67-916

**Lab Sample ID: 550-69591-11**
**Date Collected: 09/13/16 07:26**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

### Method: 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| **Fluoride** | **17** | | 0.40 | mg/L | | | 09/22/16 00:47 | 1 |

### Method: 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | mg/L | | 09/20/16 09:01 | 09/21/16 16:27 | 1 |
| **Lithium** | **0.31** | | 0.20 | mg/L | | 09/20/16 09:01 | 09/21/16 16:27 | 1 |

### Method: 200.8 LL - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0025 | mg/L | | 10/10/16 11:33 | 10/18/16 19:21 | 5 |
| **Arsenic** | **0.0023** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 19:21 | 5 |
| **Barium** | **0.021** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 19:21 | 5 |
| Cadmium | ND | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 19:21 | 5 |

## Client Sample ID: FC-CCR-MW67-916

**Lab Sample ID: 550-69591-11**
**Date Collected: 09/13/16 07:26**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

### Method: 200.8 LL - Metals (ICP/MS) - Total Recoverable (Continued)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Chromium | ND | | 0.0025 | mg/L | | 10/10/16 11:33 | 10/18/16 19:21 | 5 |
| **Cobalt** | **0.0057** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 19:21 | 5 |
| Lead | ND | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 19:21 | 5 |
| **Molybdenum** | **0.045** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/21/16 00:40 | 5 |
| **Selenium** | **0.059** | | 0.0030 | mg/L | | 10/10/16 11:33 | 10/18/16 19:21 | 5 |
| Thallium | ND | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 19:21 | 5 |

### Method: 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Hg | ND | | 0.00020 | mg/L | | 09/16/16 11:50 | 09/20/16 14:29 | 1 |

## Client Sample ID: FC-CCR-MW68-916

**Lab Sample ID: 550-69591-12**
**Date Collected: 09/13/16 08:10**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

### Method: 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| **Fluoride** | **5.7** | | 0.40 | mg/L | | | 09/22/16 01:06 | 1 |

### Method: 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | mg/L | | 09/20/16 09:01 | 09/21/16 16:33 | 1 |
| **Lithium** | **0.29** | | 0.20 | mg/L | | 09/20/16 09:01 | 09/21/16 16:33 | 1 |

### Method: 200.8 LL - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0025 | mg/L | | 10/19/16 10:54 | 10/23/16 10:25 | 5 |
| **Arsenic** | **0.0016** | | 0.0010 | mg/L | | 10/19/16 10:54 | 10/23/16 10:25 | 5 |
| **Barium** | **0.0074** | | 0.0010 | mg/L | | 10/19/16 10:54 | 10/23/16 10:25 | 5 |
| Cadmium | ND | | 0.00050 | mg/L | | 10/19/16 10:54 | 10/23/16 10:25 | 5 |
| Chromium | ND | | 0.0025 | mg/L | | 10/19/16 10:54 | 10/23/16 10:25 | 5 |
| **Cobalt** | **0.0025** | | 0.0010 | mg/L | | 10/19/16 10:54 | 10/23/16 10:25 | 5 |
| Lead | ND | | 0.00050 | mg/L | | 10/19/16 10:54 | 10/23/16 10:25 | 5 |
| **Molybdenum** | **0.012** | | 0.0010 | mg/L | | 10/19/16 10:54 | 10/23/16 10:25 | 5 |
| **Selenium** | **0.15** | | 0.0030 | mg/L | | 10/19/16 10:54 | 10/23/16 10:25 | 5 |
| **Thallium** | **0.0012** | | 0.00050 | mg/L | | 10/19/16 10:54 | 10/23/16 10:25 | 5 |

### Method: 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Hg | ND | | 0.00020 | mg/L | | 09/19/16 17:06 | 09/20/16 12:06 | 1 |

## Client Sample ID: FC-CCR-MW69-916

**Lab Sample ID: 550-69591-13**
**Date Collected: 09/13/16 08:58**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

### Method: 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| **Fluoride** | **11** | | 0.40 | mg/L | | | 09/22/16 01:24 | 1 |

# Client Sample Results

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-69591-1

## Client Sample ID: FC-CCR-MW69-916

**Lab Sample ID: 550-69591-13**
**Date Collected: 09/13/16 08:58**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

### Method: 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | mg/L | | 09/20/16 09:01 | 09/21/16 16:39 | 1 |
| **Lithium** | **0.31** | | 0.20 | mg/L | | 09/20/16 09:01 | 09/21/16 16:39 | 1 |

### Method: 200.8 LL - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0025 | mg/L | | 10/10/16 11:33 | 10/18/16 19:24 | 5 |
| **Arsenic** | **0.0093** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 19:24 | 5 |
| **Barium** | **0.016** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 19:24 | 5 |
| Cadmium | ND | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 19:24 | 5 |
| Chromium | ND | | 0.0025 | mg/L | | 10/10/16 11:33 | 10/18/16 19:24 | 5 |
| **Cobalt** | **0.0042** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 19:24 | 5 |
| Lead | ND | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 19:24 | 5 |
| **Molybdenum** | **0.015** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/21/16 00:43 | 5 |
| **Selenium** | **0.012** | | 0.0030 | mg/L | | 10/10/16 11:33 | 10/18/16 19:24 | 5 |
| Thallium | ND | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 19:24 | 5 |

### Method: 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Hg | ND | | 0.00020 | mg/L | | 09/19/16 17:06 | 09/20/16 12:07 | 1 |

## Client Sample ID: FC-CCR-MW70-916

**Lab Sample ID: 550-69591-14**
**Date Collected: 09/12/16 10:51**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

### Method: 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Fluoride | ND | | 0.40 | mg/L | | | 09/22/16 02:20 | 1 |

### Method: 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | mg/L | | 09/20/16 09:01 | 09/21/16 16:45 | 1 |
| **Lithium** | **0.29** | | 0.20 | mg/L | | 09/20/16 09:01 | 09/21/16 16:45 | 1 |

### Method: 200.8 LL - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0025 | mg/L | | 10/10/16 11:33 | 10/18/16 19:26 | 5 |
| Arsenic | ND | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 19:26 | 5 |
| **Barium** | **0.0073** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 19:26 | 5 |
| Cadmium | ND | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 19:26 | 5 |
| Chromium | ND | | 0.0025 | mg/L | | 10/10/16 11:33 | 10/18/16 19:26 | 5 |
| **Cobalt** | **0.0023** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 19:26 | 5 |
| Lead | ND | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 19:26 | 5 |
| **Molybdenum** | **0.0036** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/21/16 00:45 | 5 |
| **Selenium** | **0.13** | | 0.0030 | mg/L | | 10/10/16 11:33 | 10/18/16 19:26 | 5 |
| Thallium | ND | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 19:26 | 5 |

### Method: 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Hg | ND | | 0.00020 | mg/L | | 09/19/16 17:06 | 09/20/16 12:09 | 1 |

# Client Sample Results

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-69591-1

## Client Sample ID: FC-CCR-MW71-916

**Lab Sample ID: 550-69591-15**
**Date Collected: 09/12/16 18:42**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

### Method: 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Fluoride | ND | | 0.40 | mg/L | | | 09/22/16 02:38 | 1 |

### Method: 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | mg/L | | 09/20/16 09:01 | 09/21/16 16:51 | 1 |
| **Lithium** | **0.30** | | 0.20 | mg/L | | 09/20/16 09:01 | 09/21/16 16:51 | 1 |

### Method: 200.8 LL - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0025 | mg/L | | 10/10/16 11:33 | 10/18/16 19:29 | 5 |
| Arsenic | ND | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 19:29 | 5 |
| **Barium** | **0.013** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 19:29 | 5 |
| Cadmium | ND | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 19:29 | 5 |
| Chromium | ND | | 0.0025 | mg/L | | 10/10/16 11:33 | 10/18/16 19:29 | 5 |
| **Cobalt** | **0.0012** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 19:29 | 5 |
| Lead | ND | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 19:29 | 5 |
| **Molybdenum** | **0.0013** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/21/16 00:48 | 5 |
| **Selenium** | **0.18** | | 0.0030 | mg/L | | 10/10/16 11:33 | 10/18/16 19:29 | 5 |
| Thallium | ND | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 19:29 | 5 |

### Method: 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Hg | ND | | 0.00020 | mg/L | | 09/19/16 17:06 | 09/20/16 12:10 | 1 |

## Client Sample ID: FC-CCR-MW72-916

**Lab Sample ID: 550-69591-16**
**Date Collected: 09/13/16 10:09**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

### Method: 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Fluoride | ND | | 0.40 | mg/L | | | 09/22/16 02:56 | 1 |

### Method: 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | mg/L | | 09/20/16 09:01 | 09/21/16 16:57 | 1 |
| **Lithium** | **0.35** | | 0.20 | mg/L | | 09/20/16 09:01 | 09/21/16 16:57 | 1 |

### Method: 200.8 LL - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0025 | mg/L | | 10/10/16 11:33 | 10/18/16 19:32 | 5 |
| Arsenic | ND | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 19:32 | 5 |
| **Barium** | **0.019** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 19:32 | 5 |
| Cadmium | ND | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 19:32 | 5 |
| Chromium | ND | | 0.0025 | mg/L | | 10/10/16 11:33 | 10/18/16 19:32 | 5 |
| **Cobalt** | **0.0073** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 19:32 | 5 |
| Lead | ND | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 19:32 | 5 |
| **Molybdenum** | **0.011** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/21/16 00:50 | 5 |
| Selenium | ND | | 0.0030 | mg/L | | 10/10/16 11:33 | 10/18/16 19:32 | 5 |
| **Thallium** | **0.00056** | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 19:32 | 5 |

# Client Sample Results

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-69591-1

## Client Sample ID: FC-CCR-MW72-916

**Lab Sample ID: 550-69591-16**
**Date Collected: 09/13/16 10:09**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

### Method: 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Hg | ND | | 0.00020 | mg/L | | 09/19/16 17:06 | 09/20/16 12:12 | 1 |

## Client Sample ID: FC-CCR-MW100-916

**Lab Sample ID: 550-69591-17**
**Date Collected: 09/13/16 12:21**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

### Method: 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| **Fluoride** | **6.4** | | 0.40 | mg/L | | | 09/22/16 03:15 | 1 |

### Method: 200.7 Rev 4.4 - Metals (ICP)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | mg/L | | 09/20/16 09:01 | 09/21/16 17:03 | 1 |
| **Lithium** | **0.77** | | 0.20 | mg/L | | 09/20/16 09:01 | 09/21/16 17:03 | 1 |

### Method: 200.8 LL - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0025 | mg/L | | 10/10/16 11:33 | 10/18/16 19:34 | 5 |
| Arsenic | ND | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 19:34 | 5 |
| **Barium** | **0.020** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 19:34 | 5 |
| **Cadmium** | **0.0022** | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 19:34 | 5 |
| Chromium | ND | | 0.0025 | mg/L | | 10/10/16 11:33 | 10/18/16 19:34 | 5 |
| **Cobalt** | **0.33** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/18/16 19:34 | 5 |
| **Lead** | **0.0015** | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 19:34 | 5 |
| **Molybdenum** | **0.17** | | 0.0010 | mg/L | | 10/10/16 11:33 | 10/21/16 00:53 | 5 |
| Selenium | ND | | 0.0030 | mg/L | | 10/10/16 11:33 | 10/18/16 19:34 | 5 |
| Thallium | ND | | 0.00050 | mg/L | | 10/10/16 11:33 | 10/18/16 19:34 | 5 |

### Method: 245.1 - Mercury (CVAA)

| Analyte | Result | Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Hg | ND | | 0.00020 | mg/L | | 09/19/16 17:06 | 09/20/16 12:14 | 1 |

# QC Sample Results

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-69591-1

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 550-98841/2**
**Matrix: Water**
**Analysis Batch: 98841**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Fluoride | ND | | 0.40 | | mg/L | | | 09/21/16 15:40 | 1 |

**Lab Sample ID: LCS 550-98841/5**
**Matrix: Water**
**Analysis Batch: 98841**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fluoride | | | 4.00 | 4.05 | | mg/L | | 101 | 90 - 110 | | |

**Lab Sample ID: LCSD 550-98841/6**
**Matrix: Water**
**Analysis Batch: 98841**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fluoride | | | 4.00 | 4.06 | | mg/L | | 101 | 90 - 110 | 0 | 20 |

**Lab Sample ID: 550-69591-9 MS**
**Matrix: Water**
**Analysis Batch: 98841**

**Client Sample ID: FC-CCR-MW65-916**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fluoride | 2.0 | | 4.00 | 6.15 | | mg/L | | 102 | 80 - 120 | | |

**Lab Sample ID: 550-69591-9 MSD**
**Matrix: Water**
**Analysis Batch: 98841**

**Client Sample ID: FC-CCR-MW65-916**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fluoride | 2.0 | | 4.00 | 6.24 | | mg/L | | 105 | 80 - 120 | 2 | 20 |

## Method: 200.7 Rev 4.4 - Metals (ICP)

**Lab Sample ID: MB 550-98625/1-A**
**Matrix: Water**
**Analysis Batch: 98800**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 98625**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 0.0010 | | mg/L | | 09/20/16 09:01 | 09/21/16 15:12 | 1 |
| Lithium | ND | | 0.20 | | mg/L | | 09/20/16 09:01 | 09/21/16 15:12 | 1 |

**Lab Sample ID: LCS 550-98625/2-A**
**Matrix: Water**
**Analysis Batch: 98800**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 98625**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | | | 1.00 | 1.00 | | mg/L | | 100 | 85 - 115 | | |
| Lithium | | | 1.00 | 0.970 | | mg/L | | 97 | 85 - 115 | | |

## Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

**Lab Sample ID: LCSD 550-98625/3-A** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 98800** — **Prep Batch: 98625**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | | | 1.00 | 0.998 | | mg/L | | 100 | 85 - 115 | 0 | 20 |
| Lithium | | | 1.00 | 0.969 | | mg/L | | 97 | 85 - 115 | 0 | 20 |

**Lab Sample ID: 550-69570-A-1-A MS** — **Client Sample ID: Matrix Spike**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 98800** — **Prep Batch: 98625**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 1.00 | 1.01 | | mg/L | | 101 | 70 - 130 | | |
| Lithium | 0.20 | | 1.00 | 1.16 | | mg/L | | 96 | 70 - 130 | | |

**Lab Sample ID: 550-69570-A-1-B MSD** — **Client Sample ID: Matrix Spike Duplicate**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 98800** — **Prep Batch: 98625**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Beryllium | ND | | 1.00 | 0.997 | | mg/L | | 100 | 70 - 130 | 1 | 20 |
| Lithium | 0.20 | | 1.00 | 1.13 | | mg/L | | 93 | 70 - 130 | 2 | 20 |

## Method: 200.8 LL - Metals (ICP/MS)

**Lab Sample ID: MB 440-361217/1-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total Recoverable**
**Analysis Batch: 363199** — **Prep Batch: 361217**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.00050 | | mg/L | | 10/10/16 11:33 | 10/18/16 18:15 | 1 |
| Arsenic | ND | | 0.00020 | | mg/L | | 10/10/16 11:33 | 10/18/16 18:15 | 1 |
| Barium | ND | | 0.00020 | | mg/L | | 10/10/16 11:33 | 10/18/16 18:15 | 1 |
| Cadmium | ND | | 0.00010 | | mg/L | | 10/10/16 11:33 | 10/18/16 18:15 | 1 |
| Chromium | ND | | 0.00050 | | mg/L | | 10/10/16 11:33 | 10/18/16 18:15 | 1 |
| Cobalt | ND | | 0.00020 | | mg/L | | 10/10/16 11:33 | 10/18/16 18:15 | 1 |
| Lead | ND | | 0.00010 | | mg/L | | 10/10/16 11:33 | 10/18/16 18:15 | 1 |
| Selenium | ND | | 0.00060 | | mg/L | | 10/10/16 11:33 | 10/18/16 18:15 | 1 |
| Thallium | ND | | 0.00010 | | mg/L | | 10/10/16 11:33 | 10/18/16 18:15 | 1 |

**Lab Sample ID: MB 440-361217/1-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total Recoverable**
**Analysis Batch: 363932** — **Prep Batch: 361217**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Molybdenum | ND | | 0.00020 | | mg/L | | 10/10/16 11:33 | 10/21/16 00:03 | 1 |

**Lab Sample ID: LCS 440-361217/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total Recoverable**
**Analysis Batch: 363199** — **Prep Batch: 361217**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | | | 0.0800 | 0.0766 | | mg/L | | 96 | 85 - 115 | | |

## Method: 200.8 LL - Metals (ICP/MS) (Continued)

**Lab Sample ID: LCS 440-361217/2-A**
**Matrix: Water**
**Analysis Batch: 363199**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 361217**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Arsenic | 0.0800 | 0.0770 | | mg/L | | 96 | 85 - 115 |
| Barium | 0.0800 | 0.0754 | | mg/L | | 94 | 85 - 115 |
| Cadmium | 0.0800 | 0.0758 | | mg/L | | 95 | 85 - 115 |
| Chromium | 0.0800 | 0.0838 | | mg/L | | 105 | 85 - 115 |
| Cobalt | 0.0800 | 0.0772 | | mg/L | | 96 | 85 - 115 |
| Lead | 0.0800 | 0.0740 | | mg/L | | 93 | 85 - 115 |
| Selenium | 0.0800 | 0.0765 | | mg/L | | 96 | 85 - 115 |
| Thallium | 0.0800 | 0.0749 | | mg/L | | 94 | 85 - 115 |

**Lab Sample ID: LCS 440-361217/2-A**
**Matrix: Water**
**Analysis Batch: 363932**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 361217**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Molybdenum | 0.0800 | 0.0743 | | mg/L | | 93 | 85 - 115 |

**Lab Sample ID: LCSD 440-361217/3-A**
**Matrix: Water**
**Analysis Batch: 363199**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total Recoverable**
**Prep Batch: 361217**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.0800 | 0.0801 | | mg/L | | 100 | 85 - 115 | 4 | 20 |
| Arsenic | 0.0800 | 0.0792 | | mg/L | | 99 | 85 - 115 | 3 | 20 |
| Barium | 0.0800 | 0.0785 | | mg/L | | 98 | 85 - 115 | 4 | 20 |
| Cadmium | 0.0800 | 0.0790 | | mg/L | | 99 | 85 - 115 | 4 | 20 |
| Chromium | 0.0800 | 0.0806 | | mg/L | | 101 | 85 - 115 | 4 | 20 |
| Cobalt | 0.0800 | 0.0800 | | mg/L | | 100 | 85 - 115 | 4 | 20 |
| Lead | 0.0800 | 0.0781 | | mg/L | | 98 | 85 - 115 | 5 | 20 |
| Selenium | 0.0800 | 0.0786 | | mg/L | | 98 | 85 - 115 | 3 | 20 |
| Thallium | 0.0800 | 0.0781 | | mg/L | | 98 | 85 - 115 | 4 | 20 |

**Lab Sample ID: LCSD 440-361217/3-A**
**Matrix: Water**
**Analysis Batch: 363932**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total Recoverable**
**Prep Batch: 361217**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Molybdenum | 0.0800 | 0.0770 | | mg/L | | 96 | 85 - 115 | 4 | 20 |

**Lab Sample ID: 550-70151-B-21-I MS**
**Matrix: Water**
**Analysis Batch: 363199**

**Client Sample ID: Matrix Spike**
**Prep Type: Total Recoverable**
**Prep Batch: 361217**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0800 | 0.0779 | | mg/L | | 97 | 70 - 130 |
| Arsenic | 0.00094 | | 0.0800 | 0.0803 | | mg/L | | 99 | 70 - 130 |
| Barium | 0.074 | | 0.0800 | 0.156 | | mg/L | | 102 | 70 - 130 |
| Cadmium | ND | | 0.0800 | 0.0701 | | mg/L | | 88 | 70 - 130 |
| Chromium | 0.0014 | | 0.0800 | 0.0746 | | mg/L | | 92 | 70 - 130 |
| Cobalt | 0.0012 | | 0.0800 | 0.0715 | | mg/L | | 88 | 70 - 130 |

## Method: 200.8 LL - Metals (ICP/MS) (Continued)

**Lab Sample ID: 550-70151-B-21-I MS** — **Client Sample ID: Matrix Spike**
**Matrix: Water** — **Prep Type: Total Recoverable**
**Analysis Batch: 363199** — **Prep Batch: 361217**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Lead | 0.00013 | | 0.0800 | 0.0770 | | mg/L | | 96 | 70 - 130 |
| Selenium | ND | | 0.0800 | 0.0710 | | mg/L | | 89 | 70 - 130 |
| Thallium | ND | | 0.0800 | 0.0688 | | mg/L | | 86 | 70 - 130 |

**Lab Sample ID: 550-70151-B-21-I MS** — **Client Sample ID: Matrix Spike**
**Matrix: Water** — **Prep Type: Total Recoverable**
**Analysis Batch: 363932** — **Prep Batch: 361217**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Molybdenum | 0.015 | | 0.0800 | 0.0948 | | mg/L | | 100 | 70 - 130 |

**Lab Sample ID: 550-70151-B-21-J MSD** — **Client Sample ID: Matrix Spike Duplicate**
**Matrix: Water** — **Prep Type: Total Recoverable**
**Analysis Batch: 363199** — **Prep Batch: 361217**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0800 | 0.0774 | | mg/L | | 96 | 70 - 130 | 1 | 20 |
| Arsenic | 0.00094 | | 0.0800 | 0.0790 | | mg/L | | 98 | 70 - 130 | 2 | 20 |
| Barium | 0.074 | | 0.0800 | 0.155 | | mg/L | | 100 | 70 - 130 | 1 | 20 |
| Cadmium | ND | | 0.0800 | 0.0686 | | mg/L | | 86 | 70 - 130 | 2 | 20 |
| Chromium | 0.0014 | | 0.0800 | 0.0742 | | mg/L | | 91 | 70 - 130 | 0 | 20 |
| Cobalt | 0.0012 | | 0.0800 | 0.0710 | | mg/L | | 87 | 70 - 130 | 1 | 20 |
| Lead | 0.00013 | | 0.0800 | 0.0756 | | mg/L | | 94 | 70 - 130 | 2 | 20 |
| Selenium | ND | | 0.0800 | 0.0696 | | mg/L | | 87 | 70 - 130 | 2 | 20 |
| Thallium | ND | | 0.0800 | 0.0680 | | mg/L | | 85 | 70 - 130 | 1 | 20 |

**Lab Sample ID: 550-70151-B-21-J MSD** — **Client Sample ID: Matrix Spike Duplicate**
**Matrix: Water** — **Prep Type: Total Recoverable**
**Analysis Batch: 363932** — **Prep Batch: 361217**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Molybdenum | 0.015 | | 0.0800 | 0.0959 | | mg/L | | 101 | 70 - 130 | 1 | 20 |

**Lab Sample ID: 550-70151-B-22-G MS ^5** — **Client Sample ID: Matrix Spike**
**Matrix: Water** — **Prep Type: Total Recoverable**
**Analysis Batch: 363199** — **Prep Batch: 361217**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0800 | 0.0831 | | mg/L | | 104 | 70 - 130 |
| Arsenic | 0.0020 | | 0.0800 | 0.0857 | | mg/L | | 105 | 70 - 130 |
| Barium | 0.052 | | 0.0800 | 0.136 | | mg/L | | 105 | 70 - 130 |
| Cadmium | ND | | 0.0800 | 0.0794 | | mg/L | | 99 | 70 - 130 |
| Chromium | 0.032 | | 0.0800 | 0.113 | | mg/L | | 101 | 70 - 130 |
| Cobalt | 0.0079 | | 0.0800 | 0.0872 | | mg/L | | 99 | 70 - 130 |
| Lead | ND | | 0.0800 | 0.0803 | | mg/L | | 100 | 70 - 130 |
| Selenium | ND | | 0.0800 | 0.0768 | | mg/L | | 96 | 70 - 130 |
| Thallium | ND | | 0.0800 | 0.0732 | | mg/L | | 92 | 70 - 130 |

## Method: 200.8 LL - Metals (ICP/MS) (Continued)

**Lab Sample ID: 550-70151-B-22-G MS ^5**
**Matrix: Water**
**Analysis Batch: 363932**

**Client Sample ID: Matrix Spike**
**Prep Type: Total Recoverable**
**Prep Batch: 361217**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Molybdenum | 0.0028 | | 0.0800 | 0.0843 | | mg/L | | 102 | 70 - 130 |

**Lab Sample ID: 550-70151-B-22-H MSD ^5**
**Matrix: Water**
**Analysis Batch: 363199**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total Recoverable**
**Prep Batch: 361217**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0800 | 0.0803 | | mg/L | | 100 | 70 - 130 | 3 | 20 |
| Arsenic | 0.0020 | | 0.0800 | 0.0831 | | mg/L | | 101 | 70 - 130 | 3 | 20 |
| Barium | 0.052 | | 0.0800 | 0.131 | | mg/L | | 99 | 70 - 130 | 4 | 20 |
| Cadmium | ND | | 0.0800 | 0.0753 | | mg/L | | 94 | 70 - 130 | 5 | 20 |
| Chromium | 0.032 | | 0.0800 | 0.110 | | mg/L | | 98 | 70 - 130 | 2 | 20 |
| Cobalt | 0.0079 | | 0.0800 | 0.0854 | | mg/L | | 97 | 70 - 130 | 2 | 20 |
| Lead | ND | | 0.0800 | 0.0785 | | mg/L | | 98 | 70 - 130 | 2 | 20 |
| Selenium | ND | | 0.0800 | 0.0731 | | mg/L | | 91 | 70 - 130 | 5 | 20 |
| Thallium | ND | | 0.0800 | 0.0706 | | mg/L | | 88 | 70 - 130 | 4 | 20 |

**Lab Sample ID: 550-70151-B-22-H MSD ^5**
**Matrix: Water**
**Analysis Batch: 363932**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total Recoverable**
**Prep Batch: 361217**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Molybdenum | 0.0028 | | 0.0800 | 0.0824 | | mg/L | | 100 | 70 - 130 | 2 | 20 |

**Lab Sample ID: MB 440-363316/1-A**
**Matrix: Water**
**Analysis Batch: 364256**

**Client Sample ID: Method Blank**
**Prep Type: Total Recoverable**
**Prep Batch: 363316**

| Analyte | MB Result | MB Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.00050 | mg/L | | 10/19/16 10:54 | 10/23/16 10:16 | 1 |
| Arsenic | ND | | 0.00020 | mg/L | | 10/19/16 10:54 | 10/23/16 10:16 | 1 |
| Barium | ND | | 0.00020 | mg/L | | 10/19/16 10:54 | 10/23/16 10:16 | 1 |
| Cadmium | ND | | 0.00010 | mg/L | | 10/19/16 10:54 | 10/23/16 10:16 | 1 |
| Chromium | ND | | 0.00050 | mg/L | | 10/19/16 10:54 | 10/23/16 10:16 | 1 |
| Cobalt | ND | | 0.00020 | mg/L | | 10/19/16 10:54 | 10/23/16 10:16 | 1 |
| Lead | ND | | 0.00010 | mg/L | | 10/19/16 10:54 | 10/23/16 10:16 | 1 |
| Molybdenum | ND | | 0.00020 | mg/L | | 10/19/16 10:54 | 10/23/16 10:16 | 1 |
| Selenium | ND | | 0.00060 | mg/L | | 10/19/16 10:54 | 10/23/16 10:16 | 1 |
| Thallium | ND | | 0.00010 | mg/L | | 10/19/16 10:54 | 10/23/16 10:16 | 1 |

**Lab Sample ID: LCS 440-363316/2-A**
**Matrix: Water**
**Analysis Batch: 364256**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 363316**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Antimony | 0.0800 | 0.0790 | | mg/L | | 99 | 85 - 115 |
| Arsenic | 0.0800 | 0.0776 | | mg/L | | 97 | 85 - 115 |
| Barium | 0.0800 | 0.0767 | | mg/L | | 96 | 85 - 115 |
| Cadmium | 0.0800 | 0.0767 | | mg/L | | 96 | 85 - 115 |

## Method: 200.8 LL - Metals (ICP/MS) (Continued)

**Lab Sample ID: LCS 440-363316/2-A**
**Matrix: Water**
**Analysis Batch: 364256**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total Recoverable**
**Prep Batch: 363316**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chromium | 0.0800 | 0.0771 | | mg/L | | 96 | 85 - 115 |
| Cobalt | 0.0800 | 0.0767 | | mg/L | | 96 | 85 - 115 |
| Lead | 0.0800 | 0.0767 | | mg/L | | 96 | 85 - 115 |
| Molybdenum | 0.0800 | 0.0761 | | mg/L | | 95 | 85 - 115 |
| Selenium | 0.0800 | 0.0769 | | mg/L | | 96 | 85 - 115 |
| Thallium | 0.0800 | 0.0746 | | mg/L | | 93 | 85 - 115 |

**Lab Sample ID: LCSD 440-363316/3-A**
**Matrix: Water**
**Analysis Batch: 364256**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total Recoverable**
**Prep Batch: 363316**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.0800 | 0.0794 | | mg/L | | 99 | 85 - 115 | 0 | 20 |
| Arsenic | 0.0800 | 0.0780 | | mg/L | | 98 | 85 - 115 | 1 | 20 |
| Barium | 0.0800 | 0.0774 | | mg/L | | 97 | 85 - 115 | 1 | 20 |
| Cadmium | 0.0800 | 0.0769 | | mg/L | | 96 | 85 - 115 | 0 | 20 |
| Chromium | 0.0800 | 0.0784 | | mg/L | | 98 | 85 - 115 | 2 | 20 |
| Cobalt | 0.0800 | 0.0768 | | mg/L | | 96 | 85 - 115 | 0 | 20 |
| Lead | 0.0800 | 0.0771 | | mg/L | | 96 | 85 - 115 | 1 | 20 |
| Molybdenum | 0.0800 | 0.0764 | | mg/L | | 96 | 85 - 115 | 0 | 20 |
| Selenium | 0.0800 | 0.0766 | | mg/L | | 96 | 85 - 115 | 0 | 20 |
| Thallium | 0.0800 | 0.0750 | | mg/L | | 94 | 85 - 115 | 1 | 20 |

**Lab Sample ID: 550-69591-12 MS**
**Matrix: Water**
**Analysis Batch: 364256**

**Client Sample ID: FC-CCR-MW68-916**
**Prep Type: Total Recoverable**
**Prep Batch: 363316**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0800 | 0.0784 | | mg/L | | 98 | 70 - 130 |
| Arsenic | 0.0016 | | 0.0800 | 0.0787 | | mg/L | | 96 | 70 - 130 |
| Barium | 0.0074 | | 0.0800 | 0.0838 | | mg/L | | 96 | 70 - 130 |
| Cadmium | ND | | 0.0800 | 0.0721 | | mg/L | | 90 | 70 - 130 |
| Chromium | ND | | 0.0800 | 0.0727 | | mg/L | | 88 | 70 - 130 |
| Cobalt | 0.0025 | | 0.0800 | 0.0696 | | mg/L | | 84 | 70 - 130 |
| Lead | ND | | 0.0800 | 0.0754 | | mg/L | | 94 | 70 - 130 |
| Molybdenum | 0.012 | | 0.0800 | 0.0859 | | mg/L | | 92 | 70 - 130 |
| Selenium | 0.15 | | 0.0800 | 0.227 | | mg/L | | 97 | 70 - 130 |
| Thallium | 0.0012 | | 0.0800 | 0.0671 | | mg/L | | 82 | 70 - 130 |

**Lab Sample ID: 550-69591-12 MSD**
**Matrix: Water**
**Analysis Batch: 364256**

**Client Sample ID: FC-CCR-MW68-916**
**Prep Type: Total Recoverable**
**Prep Batch: 363316**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | | 0.0800 | 0.0834 | | mg/L | | 104 | 70 - 130 | 6 | 20 |
| Arsenic | 0.0016 | | 0.0800 | 0.0820 | | mg/L | | 101 | 70 - 130 | 4 | 20 |
| Barium | 0.0074 | | 0.0800 | 0.0877 | | mg/L | | 100 | 70 - 130 | 5 | 20 |
| Cadmium | ND | | 0.0800 | 0.0771 | | mg/L | | 96 | 70 - 130 | 7 | 20 |
| Chromium | ND | | 0.0800 | 0.0771 | | mg/L | | 94 | 70 - 130 | 6 | 20 |

## Method: 200.8 LL - Metals (ICP/MS) (Continued)

**Lab Sample ID: 550-69591-12 MSD** — **Client Sample ID: FC-CCR-MW68-916**
**Matrix: Water** — **Prep Type: Total Recoverable**
**Analysis Batch: 364256** — **Prep Batch: 363316**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cobalt | 0.0025 | | 0.0800 | 0.0747 | | mg/L | | 90 | 70 - 130 | 7 | 20 |
| Lead | ND | | 0.0800 | 0.0783 | | mg/L | | 98 | 70 - 130 | 4 | 20 |
| Molybdenum | 0.012 | | 0.0800 | 0.0904 | | mg/L | | 97 | 70 - 130 | 5 | 20 |
| Selenium | 0.15 | | 0.0800 | 0.235 | | mg/L | | 107 | 70 - 130 | 3 | 20 |
| Thallium | 0.0012 | | 0.0800 | 0.0705 | | mg/L | | 87 | 70 - 130 | 5 | 20 |

## Method: 245.1 - Mercury (CVAA)

**Lab Sample ID: MB 550-98415/1-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 98694** — **Prep Batch: 98415**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Hg | ND | | 0.00020 | | mg/L | | 09/16/16 11:50 | 09/20/16 13:50 | 1 |

**Lab Sample ID: LCS 550-98415/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 98694** — **Prep Batch: 98415**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Hg | | | 0.0100 | 0.0105 | | mg/L | | 105 | 85 - 115 | | |

**Lab Sample ID: LCSD 550-98415/3-A** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 98694** — **Prep Batch: 98415**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Hg | | | 0.0100 | 0.0114 | | mg/L | | 114 | 85 - 115 | 8 | 20 |

**Lab Sample ID: 550-69525-C-1-E MS** — **Client Sample ID: Matrix Spike**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 98694** — **Prep Batch: 98415**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Hg | ND | | 0.0100 | 0.0114 | | mg/L | | 114 | 70 - 130 | | |

**Lab Sample ID: 550-69525-C-1-F MSD** — **Client Sample ID: Matrix Spike Duplicate**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 98694** — **Prep Batch: 98415**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Hg | ND | | 0.0100 | 0.0114 | | mg/L | | 114 | 70 - 130 | 0 | 20 |

**Lab Sample ID: MB 550-98602/1-A** — **Client Sample ID: Method Blank**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 98691** — **Prep Batch: 98602**

| Analyte | MB Result | MB Qualifier | RL | | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Hg | ND | | 0.00020 | | mg/L | | 09/19/16 17:06 | 09/20/16 11:58 | 1 |

## Method: 245.1 - Mercury (CVAA) (Continued)

**Lab Sample ID: LCS 550-98602/2-A** — **Client Sample ID: Lab Control Sample**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 98691** — **Prep Batch: 98602**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Hg | | | 0.0100 | 0.0102 | | mg/L | | 102 | 85 - 115 | | |

**Lab Sample ID: LCSD 550-98602/3-A** — **Client Sample ID: Lab Control Sample Dup**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 98691** — **Prep Batch: 98602**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Hg | | | 0.0100 | 0.0103 | | mg/L | | 103 | 85 - 115 | 1 | 20 |

**Lab Sample ID: 550-69591-12 MS** — **Client Sample ID: FC-CCR-MW68-916**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 98691** — **Prep Batch: 98602**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Hg | ND | | 0.0100 | 0.00962 | | mg/L | | 96 | 70 - 130 | | |

**Lab Sample ID: 550-69591-12 MSD** — **Client Sample ID: FC-CCR-MW68-916**
**Matrix: Water** — **Prep Type: Total/NA**
**Analysis Batch: 98691** — **Prep Batch: 98602**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Hg | ND | | 0.0100 | 0.00868 | | mg/L | | 87 | 70 - 130 | 10 | 20 |

# QC Association Summary

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-69591-1

## HPLC/IC

### Analysis Batch: 98841

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-69591-1 | FC-CCR-MW7-916 | Total/NA | Water | 300.0 | |
| 550-69591-2 | FC-CCR-MW8-916 | Total/NA | Water | 300.0 | |
| 550-69591-3 | FC-CCR-MW49A-916 | Total/NA | Water | 300.0 | |
| 550-69591-4 | FC-CCR-MW60-916 | Total/NA | Water | 300.0 | |
| 550-69591-5 | FC-CCR-MW61-916 | Total/NA | Water | 300.0 | |
| 550-69591-6 | FC-CCR-MW62-916 | Total/NA | Water | 300.0 | |
| 550-69591-7 | FC-CCR-MW63-916 | Total/NA | Water | 300.0 | |
| 550-69591-8 | FC-CCR-MW64-916 | Total/NA | Water | 300.0 | |
| 550-69591-9 | FC-CCR-MW65-916 | Total/NA | Water | 300.0 | |
| 550-69591-10 | FC-CCR-MW66-916 | Total/NA | Water | 300.0 | |
| 550-69591-11 | FC-CCR-MW67-916 | Total/NA | Water | 300.0 | |
| 550-69591-12 | FC-CCR-MW68-916 | Total/NA | Water | 300.0 | |
| 550-69591-13 | FC-CCR-MW69-916 | Total/NA | Water | 300.0 | |
| 550-69591-14 | FC-CCR-MW70-916 | Total/NA | Water | 300.0 | |
| 550-69591-15 | FC-CCR-MW71-916 | Total/NA | Water | 300.0 | |
| 550-69591-16 | FC-CCR-MW72-916 | Total/NA | Water | 300.0 | |
| 550-69591-17 | FC-CCR-MW100-916 | Total/NA | Water | 300.0 | |
| MB 550-98841/2 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 550-98841/5 | Lab Control Sample | Total/NA | Water | 300.0 | |
| LCSD 550-98841/6 | Lab Control Sample Dup | Total/NA | Water | 300.0 | |
| 550-69591-9 MS | FC-CCR-MW65-916 | Total/NA | Water | 300.0 | |
| 550-69591-9 MSD | FC-CCR-MW65-916 | Total/NA | Water | 300.0 | |

## Metals

### Prep Batch: 98415

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-69591-1 | FC-CCR-MW7-916 | Total/NA | Water | 245.1 | |
| 550-69591-2 | FC-CCR-MW8-916 | Total/NA | Water | 245.1 | |
| 550-69591-3 | FC-CCR-MW49A-916 | Total/NA | Water | 245.1 | |
| 550-69591-4 | FC-CCR-MW60-916 | Total/NA | Water | 245.1 | |
| 550-69591-5 | FC-CCR-MW61-916 | Total/NA | Water | 245.1 | |
| 550-69591-6 | FC-CCR-MW62-916 | Total/NA | Water | 245.1 | |
| 550-69591-7 | FC-CCR-MW63-916 | Total/NA | Water | 245.1 | |
| 550-69591-8 | FC-CCR-MW64-916 | Total/NA | Water | 245.1 | |
| 550-69591-9 | FC-CCR-MW65-916 | Total/NA | Water | 245.1 | |
| 550-69591-10 | FC-CCR-MW66-916 | Total/NA | Water | 245.1 | |
| 550-69591-11 | FC-CCR-MW67-916 | Total/NA | Water | 245.1 | |
| MB 550-98415/1-A | Method Blank | Total/NA | Water | 245.1 | |
| LCS 550-98415/2-A | Lab Control Sample | Total/NA | Water | 245.1 | |
| LCSD 550-98415/3-A | Lab Control Sample Dup | Total/NA | Water | 245.1 | |
| 550-69525-C-1-E MS | Matrix Spike | Total/NA | Water | 245.1 | |
| 550-69525-C-1-F MSD | Matrix Spike Duplicate | Total/NA | Water | 245.1 | |

### Prep Batch: 98602

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-69591-12 | FC-CCR-MW68-916 | Total/NA | Water | 245.1 | |
| 550-69591-13 | FC-CCR-MW69-916 | Total/NA | Water | 245.1 | |
| 550-69591-14 | FC-CCR-MW70-916 | Total/NA | Water | 245.1 | |
| 550-69591-15 | FC-CCR-MW71-916 | Total/NA | Water | 245.1 | |

## Metals (Continued)

### Prep Batch: 98602 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-69591-16 | FC-CCR-MW72-916 | Total/NA | Water | 245.1 | |
| 550-69591-17 | FC-CCR-MW100-916 | Total/NA | Water | 245.1 | |
| MB 550-98602/1-A | Method Blank | Total/NA | Water | 245.1 | |
| LCS 550-98602/2-A | Lab Control Sample | Total/NA | Water | 245.1 | |
| LCSD 550-98602/3-A | Lab Control Sample Dup | Total/NA | Water | 245.1 | |
| 550-69591-12 MS | FC-CCR-MW68-916 | Total/NA | Water | 245.1 | |
| 550-69591-12 MSD | FC-CCR-MW68-916 | Total/NA | Water | 245.1 | |

### Prep Batch: 98625

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-69591-1 | FC-CCR-MW7-916 | Total/NA | Water | 200.7 | |
| 550-69591-2 | FC-CCR-MW8-916 | Total/NA | Water | 200.7 | |
| 550-69591-3 | FC-CCR-MW49A-916 | Total/NA | Water | 200.7 | |
| 550-69591-4 | FC-CCR-MW60-916 | Total/NA | Water | 200.7 | |
| 550-69591-5 | FC-CCR-MW61-916 | Total/NA | Water | 200.7 | |
| 550-69591-6 | FC-CCR-MW62-916 | Total/NA | Water | 200.7 | |
| 550-69591-7 | FC-CCR-MW63-916 | Total/NA | Water | 200.7 | |
| 550-69591-8 | FC-CCR-MW64-916 | Total/NA | Water | 200.7 | |
| 550-69591-9 | FC-CCR-MW65-916 | Total/NA | Water | 200.7 | |
| 550-69591-10 | FC-CCR-MW66-916 | Total/NA | Water | 200.7 | |
| 550-69591-11 | FC-CCR-MW67-916 | Total/NA | Water | 200.7 | |
| 550-69591-12 | FC-CCR-MW68-916 | Total/NA | Water | 200.7 | |
| 550-69591-13 | FC-CCR-MW69-916 | Total/NA | Water | 200.7 | |
| 550-69591-14 | FC-CCR-MW70-916 | Total/NA | Water | 200.7 | |
| 550-69591-15 | FC-CCR-MW71-916 | Total/NA | Water | 200.7 | |
| 550-69591-16 | FC-CCR-MW72-916 | Total/NA | Water | 200.7 | |
| 550-69591-17 | FC-CCR-MW100-916 | Total/NA | Water | 200.7 | |
| MB 550-98625/1-A | Method Blank | Total/NA | Water | 200.7 | |
| LCS 550-98625/2-A | Lab Control Sample | Total/NA | Water | 200.7 | |
| LCSD 550-98625/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 | |
| 550-69570-A-1-A MS | Matrix Spike | Total/NA | Water | 200.7 | |
| 550-69570-A-1-B MSD | Matrix Spike Duplicate | Total/NA | Water | 200.7 | |

### Analysis Batch: 98691

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-69591-12 | FC-CCR-MW68-916 | Total/NA | Water | 245.1 | 98602 |
| 550-69591-13 | FC-CCR-MW69-916 | Total/NA | Water | 245.1 | 98602 |
| 550-69591-14 | FC-CCR-MW70-916 | Total/NA | Water | 245.1 | 98602 |
| 550-69591-15 | FC-CCR-MW71-916 | Total/NA | Water | 245.1 | 98602 |
| 550-69591-16 | FC-CCR-MW72-916 | Total/NA | Water | 245.1 | 98602 |
| 550-69591-17 | FC-CCR-MW100-916 | Total/NA | Water | 245.1 | 98602 |
| MB 550-98602/1-A | Method Blank | Total/NA | Water | 245.1 | 98602 |
| LCS 550-98602/2-A | Lab Control Sample | Total/NA | Water | 245.1 | 98602 |
| LCSD 550-98602/3-A | Lab Control Sample Dup | Total/NA | Water | 245.1 | 98602 |
| 550-69591-12 MS | FC-CCR-MW68-916 | Total/NA | Water | 245.1 | 98602 |
| 550-69591-12 MSD | FC-CCR-MW68-916 | Total/NA | Water | 245.1 | 98602 |

### Analysis Batch: 98694

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-69591-1 | FC-CCR-MW7-916 | Total/NA | Water | 245.1 | 98415 |
| 550-69591-2 | FC-CCR-MW8-916 | Total/NA | Water | 245.1 | 98415 |

## Metals (Continued)

### Analysis Batch: 98694 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-69591-3 | FC-CCR-MW49A-916 | Total/NA | Water | 245.1 | 98415 |
| 550-69591-4 | FC-CCR-MW60-916 | Total/NA | Water | 245.1 | 98415 |
| 550-69591-5 | FC-CCR-MW61-916 | Total/NA | Water | 245.1 | 98415 |
| 550-69591-6 | FC-CCR-MW62-916 | Total/NA | Water | 245.1 | 98415 |
| 550-69591-7 | FC-CCR-MW63-916 | Total/NA | Water | 245.1 | 98415 |
| 550-69591-8 | FC-CCR-MW64-916 | Total/NA | Water | 245.1 | 98415 |
| 550-69591-9 | FC-CCR-MW65-916 | Total/NA | Water | 245.1 | 98415 |
| 550-69591-10 | FC-CCR-MW66-916 | Total/NA | Water | 245.1 | 98415 |
| 550-69591-11 | FC-CCR-MW67-916 | Total/NA | Water | 245.1 | 98415 |
| MB 550-98415/1-A | Method Blank | Total/NA | Water | 245.1 | 98415 |
| LCS 550-98415/2-A | Lab Control Sample | Total/NA | Water | 245.1 | 98415 |
| LCSD 550-98415/3-A | Lab Control Sample Dup | Total/NA | Water | 245.1 | 98415 |
| 550-69525-C-1-E MS | Matrix Spike | Total/NA | Water | 245.1 | 98415 |
| 550-69525-C-1-F MSD | Matrix Spike Duplicate | Total/NA | Water | 245.1 | 98415 |

### Analysis Batch: 98800

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-69591-1 | FC-CCR-MW7-916 | Total/NA | Water | 200.7 Rev 4.4 | 98625 |
| 550-69591-2 | FC-CCR-MW8-916 | Total/NA | Water | 200.7 Rev 4.4 | 98625 |
| 550-69591-3 | FC-CCR-MW49A-916 | Total/NA | Water | 200.7 Rev 4.4 | 98625 |
| 550-69591-4 | FC-CCR-MW60-916 | Total/NA | Water | 200.7 Rev 4.4 | 98625 |
| 550-69591-5 | FC-CCR-MW61-916 | Total/NA | Water | 200.7 Rev 4.4 | 98625 |
| 550-69591-6 | FC-CCR-MW62-916 | Total/NA | Water | 200.7 Rev 4.4 | 98625 |
| 550-69591-7 | FC-CCR-MW63-916 | Total/NA | Water | 200.7 Rev 4.4 | 98625 |
| 550-69591-8 | FC-CCR-MW64-916 | Total/NA | Water | 200.7 Rev 4.4 | 98625 |
| 550-69591-9 | FC-CCR-MW65-916 | Total/NA | Water | 200.7 Rev 4.4 | 98625 |
| 550-69591-10 | FC-CCR-MW66-916 | Total/NA | Water | 200.7 Rev 4.4 | 98625 |
| 550-69591-11 | FC-CCR-MW67-916 | Total/NA | Water | 200.7 Rev 4.4 | 98625 |
| 550-69591-12 | FC-CCR-MW68-916 | Total/NA | Water | 200.7 Rev 4.4 | 98625 |
| 550-69591-13 | FC-CCR-MW69-916 | Total/NA | Water | 200.7 Rev 4.4 | 98625 |
| 550-69591-14 | FC-CCR-MW70-916 | Total/NA | Water | 200.7 Rev 4.4 | 98625 |
| 550-69591-15 | FC-CCR-MW71-916 | Total/NA | Water | 200.7 Rev 4.4 | 98625 |
| 550-69591-16 | FC-CCR-MW72-916 | Total/NA | Water | 200.7 Rev 4.4 | 98625 |
| 550-69591-17 | FC-CCR-MW100-916 | Total/NA | Water | 200.7 Rev 4.4 | 98625 |
| MB 550-98625/1-A | Method Blank | Total/NA | Water | 200.7 Rev 4.4 | 98625 |
| LCS 550-98625/2-A | Lab Control Sample | Total/NA | Water | 200.7 Rev 4.4 | 98625 |
| LCSD 550-98625/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 Rev 4.4 | 98625 |
| 550-69570-A-1-A MS | Matrix Spike | Total/NA | Water | 200.7 Rev 4.4 | 98625 |
| 550-69570-A-1-B MSD | Matrix Spike Duplicate | Total/NA | Water | 200.7 Rev 4.4 | 98625 |

### Prep Batch: 361217

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-69591-1 | FC-CCR-MW7-916 | Total Recoverable | Water | 200.2 | |
| 550-69591-2 | FC-CCR-MW8-916 | Total Recoverable | Water | 200.2 | |
| 550-69591-3 | FC-CCR-MW49A-916 | Total Recoverable | Water | 200.2 | |
| 550-69591-4 | FC-CCR-MW60-916 | Total Recoverable | Water | 200.2 | |
| 550-69591-5 | FC-CCR-MW61-916 | Total Recoverable | Water | 200.2 | |
| 550-69591-6 | FC-CCR-MW62-916 | Total Recoverable | Water | 200.2 | |
| 550-69591-7 | FC-CCR-MW63-916 | Total Recoverable | Water | 200.2 | |
| 550-69591-8 | FC-CCR-MW64-916 | Total Recoverable | Water | 200.2 | |
| 550-69591-9 | FC-CCR-MW65-916 | Total Recoverable | Water | 200.2 | |

## Metals (Continued)

### Prep Batch: 361217 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-69591-10 | FC-CCR-MW66-916 | Total Recoverable | Water | 200.2 | |
| 550-69591-11 | FC-CCR-MW67-916 | Total Recoverable | Water | 200.2 | |
| 550-69591-13 | FC-CCR-MW69-916 | Total Recoverable | Water | 200.2 | |
| 550-69591-14 | FC-CCR-MW70-916 | Total Recoverable | Water | 200.2 | |
| 550-69591-15 | FC-CCR-MW71-916 | Total Recoverable | Water | 200.2 | |
| 550-69591-16 | FC-CCR-MW72-916 | Total Recoverable | Water | 200.2 | |
| 550-69591-17 | FC-CCR-MW100-916 | Total Recoverable | Water | 200.2 | |
| MB 440-361217/1-A | Method Blank | Total Recoverable | Water | 200.2 | |
| LCS 440-361217/2-A | Lab Control Sample | Total Recoverable | Water | 200.2 | |
| LCSD 440-361217/3-A | Lab Control Sample Dup | Total Recoverable | Water | 200.2 | |
| 550-70151-B-21-I MS | Matrix Spike | Total Recoverable | Water | 200.2 | |
| 550-70151-B-21-J MSD | Matrix Spike Duplicate | Total Recoverable | Water | 200.2 | |
| 550-70151-B-22-G MS ^5 | Matrix Spike | Total Recoverable | Water | 200.2 | |
| 550-70151-B-22-H MSD ^5 | Matrix Spike Duplicate | Total Recoverable | Water | 200.2 | |

### Analysis Batch: 363199

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-69591-1 | FC-CCR-MW7-916 | Total Recoverable | Water | 200.8 LL | 361217 |
| 550-69591-2 | FC-CCR-MW8-916 | Total Recoverable | Water | 200.8 LL | 361217 |
| 550-69591-3 | FC-CCR-MW49A-916 | Total Recoverable | Water | 200.8 LL | 361217 |
| 550-69591-4 | FC-CCR-MW60-916 | Total Recoverable | Water | 200.8 LL | 361217 |
| 550-69591-5 | FC-CCR-MW61-916 | Total Recoverable | Water | 200.8 LL | 361217 |
| 550-69591-6 | FC-CCR-MW62-916 | Total Recoverable | Water | 200.8 LL | 361217 |
| 550-69591-7 | FC-CCR-MW63-916 | Total Recoverable | Water | 200.8 LL | 361217 |
| 550-69591-8 | FC-CCR-MW64-916 | Total Recoverable | Water | 200.8 LL | 361217 |
| 550-69591-9 | FC-CCR-MW65-916 | Total Recoverable | Water | 200.8 LL | 361217 |
| 550-69591-10 | FC-CCR-MW66-916 | Total Recoverable | Water | 200.8 LL | 361217 |
| 550-69591-11 | FC-CCR-MW67-916 | Total Recoverable | Water | 200.8 LL | 361217 |
| 550-69591-13 | FC-CCR-MW69-916 | Total Recoverable | Water | 200.8 LL | 361217 |
| 550-69591-14 | FC-CCR-MW70-916 | Total Recoverable | Water | 200.8 LL | 361217 |
| 550-69591-15 | FC-CCR-MW71-916 | Total Recoverable | Water | 200.8 LL | 361217 |
| 550-69591-16 | FC-CCR-MW72-916 | Total Recoverable | Water | 200.8 LL | 361217 |
| 550-69591-17 | FC-CCR-MW100-916 | Total Recoverable | Water | 200.8 LL | 361217 |
| MB 440-361217/1-A | Method Blank | Total Recoverable | Water | 200.8 LL | 361217 |
| LCS 440-361217/2-A | Lab Control Sample | Total Recoverable | Water | 200.8 LL | 361217 |
| LCSD 440-361217/3-A | Lab Control Sample Dup | Total Recoverable | Water | 200.8 LL | 361217 |
| 550-70151-B-21-I MS | Matrix Spike | Total Recoverable | Water | 200.8 LL | 361217 |
| 550-70151-B-21-J MSD | Matrix Spike Duplicate | Total Recoverable | Water | 200.8 LL | 361217 |
| 550-70151-B-22-G MS ^5 | Matrix Spike | Total Recoverable | Water | 200.8 LL | 361217 |
| 550-70151-B-22-H MSD ^5 | Matrix Spike Duplicate | Total Recoverable | Water | 200.8 LL | 361217 |

### Prep Batch: 363316

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-69591-12 | FC-CCR-MW68-916 | Total Recoverable | Water | 200.2 | |
| MB 440-363316/1-A | Method Blank | Total Recoverable | Water | 200.2 | |
| LCS 440-363316/2-A | Lab Control Sample | Total Recoverable | Water | 200.2 | |
| LCSD 440-363316/3-A | Lab Control Sample Dup | Total Recoverable | Water | 200.2 | |
| 550-69591-12 MS | FC-CCR-MW68-916 | Total Recoverable | Water | 200.2 | |
| 550-69591-12 MSD | FC-CCR-MW68-916 | Total Recoverable | Water | 200.2 | |

## Metals (Continued)

### Analysis Batch: 363932

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-69591-1 | FC-CCR-MW7-916 | Total Recoverable | Water | 200.8 LL | 361217 |
| 550-69591-2 | FC-CCR-MW8-916 | Total Recoverable | Water | 200.8 LL | 361217 |
| 550-69591-3 | FC-CCR-MW49A-916 | Total Recoverable | Water | 200.8 LL | 361217 |
| 550-69591-4 | FC-CCR-MW60-916 | Total Recoverable | Water | 200.8 LL | 361217 |
| 550-69591-5 | FC-CCR-MW61-916 | Total Recoverable | Water | 200.8 LL | 361217 |
| 550-69591-6 | FC-CCR-MW62-916 | Total Recoverable | Water | 200.8 LL | 361217 |
| 550-69591-7 | FC-CCR-MW63-916 | Total Recoverable | Water | 200.8 LL | 361217 |
| 550-69591-8 | FC-CCR-MW64-916 | Total Recoverable | Water | 200.8 LL | 361217 |
| 550-69591-9 | FC-CCR-MW65-916 | Total Recoverable | Water | 200.8 LL | 361217 |
| 550-69591-10 | FC-CCR-MW66-916 | Total Recoverable | Water | 200.8 LL | 361217 |
| 550-69591-11 | FC-CCR-MW67-916 | Total Recoverable | Water | 200.8 LL | 361217 |
| 550-69591-13 | FC-CCR-MW69-916 | Total Recoverable | Water | 200.8 LL | 361217 |
| 550-69591-14 | FC-CCR-MW70-916 | Total Recoverable | Water | 200.8 LL | 361217 |
| 550-69591-15 | FC-CCR-MW71-916 | Total Recoverable | Water | 200.8 LL | 361217 |
| 550-69591-16 | FC-CCR-MW72-916 | Total Recoverable | Water | 200.8 LL | 361217 |
| 550-69591-17 | FC-CCR-MW100-916 | Total Recoverable | Water | 200.8 LL | 361217 |
| MB 440-361217/1-A | Method Blank | Total Recoverable | Water | 200.8 LL | 361217 |
| LCS 440-361217/2-A | Lab Control Sample | Total Recoverable | Water | 200.8 LL | 361217 |
| LCSD 440-361217/3-A | Lab Control Sample Dup | Total Recoverable | Water | 200.8 LL | 361217 |
| 550-70151-B-21-I MS | Matrix Spike | Total Recoverable | Water | 200.8 LL | 361217 |
| 550-70151-B-21-J MSD | Matrix Spike Duplicate | Total Recoverable | Water | 200.8 LL | 361217 |
| 550-70151-B-22-G MS ^5 | Matrix Spike | Total Recoverable | Water | 200.8 LL | 361217 |
| 550-70151-B-22-H MSD ^5 | Matrix Spike Duplicate | Total Recoverable | Water | 200.8 LL | 361217 |

### Analysis Batch: 364256

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 550-69591-12 | FC-CCR-MW68-916 | Total Recoverable | Water | 200.8 LL | 363316 |
| MB 440-363316/1-A | Method Blank | Total Recoverable | Water | 200.8 LL | 363316 |
| LCS 440-363316/2-A | Lab Control Sample | Total Recoverable | Water | 200.8 LL | 363316 |
| LCSD 440-363316/3-A | Lab Control Sample Dup | Total Recoverable | Water | 200.8 LL | 363316 |
| 550-69591-12 MS | FC-CCR-MW68-916 | Total Recoverable | Water | 200.8 LL | 363316 |
| 550-69591-12 MSD | FC-CCR-MW68-916 | Total Recoverable | Water | 200.8 LL | 363316 |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-69591-1

## Client Sample ID: FC-CCR-MW7-916

**Lab Sample ID: 550-69591-1**
**Date Collected: 09/13/16 15:10**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 98841 | 09/21/16 20:48 | BCB | TAL PHX |
| Total/NA | Prep | 200.7 | | | 98625 | 09/20/16 09:01 | SGO | TAL PHX |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 98800 | 09/21/16 15:29 | CJD | TAL PHX |
| Total Recoverable | Prep | 200.2 | | | 361217 | 10/10/16 11:33 | Q1N | TAL IRV |
| Total Recoverable | Analysis | 200.8 LL | | 5 | 363199 | 10/18/16 18:30 | RC | TAL IRV |
| Total Recoverable | Prep | 200.2 | | | 361217 | 10/10/16 11:33 | Q1N | TAL IRV |
| Total Recoverable | Analysis | 200.8 LL | | 5 | 363932 | 10/21/16 00:18 | RC | TAL IRV |
| Total/NA | Prep | 245.1 | | | 98415 | 09/16/16 11:50 | EXZ | TAL PHX |
| Total/NA | Analysis | 245.1 | | 1 | 98694 | 09/20/16 14:10 | JTG | TAL PHX |

## Client Sample ID: FC-CCR-MW8-916

**Lab Sample ID: 550-69591-2**
**Date Collected: 09/13/16 14:01**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 98841 | 09/21/16 21:07 | BCB | TAL PHX |
| Total/NA | Prep | 200.7 | | | 98625 | 09/20/16 09:01 | SGO | TAL PHX |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 98800 | 09/21/16 15:35 | CJD | TAL PHX |
| Total Recoverable | Prep | 200.2 | | | 361217 | 10/10/16 11:33 | Q1N | TAL IRV |
| Total Recoverable | Analysis | 200.8 LL | | 5 | 363199 | 10/18/16 18:33 | RC | TAL IRV |
| Total Recoverable | Prep | 200.2 | | | 361217 | 10/10/16 11:33 | Q1N | TAL IRV |
| Total Recoverable | Analysis | 200.8 LL | | 5 | 363932 | 10/21/16 00:20 | RC | TAL IRV |
| Total/NA | Prep | 245.1 | | | 98415 | 09/16/16 11:50 | EXZ | TAL PHX |
| Total/NA | Analysis | 245.1 | | 1 | 98694 | 09/20/16 14:12 | JTG | TAL PHX |

## Client Sample ID: FC-CCR-MW49A-916

**Lab Sample ID: 550-69591-3**
**Date Collected: 09/13/16 11:21**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 98841 | 09/21/16 21:25 | BCB | TAL PHX |
| Total/NA | Prep | 200.7 | | | 98625 | 09/20/16 09:01 | SGO | TAL PHX |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 98800 | 09/21/16 15:41 | CJD | TAL PHX |
| Total Recoverable | Prep | 200.2 | | | 361217 | 10/10/16 11:33 | Q1N | TAL IRV |
| Total Recoverable | Analysis | 200.8 LL | | 20 | 363199 | 10/18/16 18:35 | RC | TAL IRV |
| Total Recoverable | Prep | 200.2 | | | 361217 | 10/10/16 11:33 | Q1N | TAL IRV |
| Total Recoverable | Analysis | 200.8 LL | | 20 | 363932 | 10/21/16 00:38 | RC | TAL IRV |
| Total/NA | Prep | 245.1 | | | 98415 | 09/16/16 11:50 | EXZ | TAL PHX |
| Total/NA | Analysis | 245.1 | | 1 | 98694 | 09/20/16 14:17 | JTG | TAL PHX |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-69591-1

## Client Sample ID: FC-CCR-MW60-916

**Lab Sample ID: 550-69591-4**
**Date Collected: 09/13/16 12:21**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 98841 | 09/21/16 21:43 | BCB | TAL PHX |
| Total/NA | Prep | 200.7 | | | 98625 | 09/20/16 09:01 | SGO | TAL PHX |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 98800 | 09/21/16 15:46 | CJD | TAL PHX |
| Total Recoverable | Prep | 200.2 | | | 361217 | 10/10/16 11:33 | Q1N | TAL IRV |
| Total Recoverable | Analysis | 200.8 LL | | 5 | 363199 | 10/18/16 18:48 | RC | TAL IRV |
| Total Recoverable | Prep | 200.2 | | | 361217 | 10/10/16 11:33 | Q1N | TAL IRV |
| Total Recoverable | Analysis | 200.8 LL | | 5 | 363932 | 10/20/16 22:14 | RC | TAL IRV |
| Total/NA | Prep | 245.1 | | | 98415 | 09/16/16 11:50 | EXZ | TAL PHX |
| Total/NA | Analysis | 245.1 | | 1 | 98694 | 09/20/16 14:18 | JTG | TAL PHX |

## Client Sample ID: FC-CCR-MW61-916

**Lab Sample ID: 550-69591-5**
**Date Collected: 09/13/16 13:19**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 98841 | 09/22/16 03:33 | BCB | TAL PHX |
| Total/NA | Prep | 200.7 | | | 98625 | 09/20/16 09:01 | SGO | TAL PHX |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 98800 | 09/21/16 15:52 | CJD | TAL PHX |
| Total Recoverable | Prep | 200.2 | | | 361217 | 10/10/16 11:33 | Q1N | TAL IRV |
| Total Recoverable | Analysis | 200.8 LL | | 5 | 363199 | 10/18/16 18:51 | RC | TAL IRV |
| Total Recoverable | Prep | 200.2 | | | 361217 | 10/10/16 11:33 | Q1N | TAL IRV |
| Total Recoverable | Analysis | 200.8 LL | | 5 | 363932 | 10/20/16 22:17 | RC | TAL IRV |
| Total/NA | Prep | 245.1 | | | 98415 | 09/16/16 11:50 | EXZ | TAL PHX |
| Total/NA | Analysis | 245.1 | | 1 | 98694 | 09/20/16 14:20 | JTG | TAL PHX |

## Client Sample ID: FC-CCR-MW62-916

**Lab Sample ID: 550-69591-6**
**Date Collected: 09/12/16 17:16**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 98841 | 09/21/16 22:39 | BCB | TAL PHX |
| Total/NA | Prep | 200.7 | | | 98625 | 09/20/16 09:01 | SGO | TAL PHX |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 98800 | 09/21/16 15:58 | CJD | TAL PHX |
| Total Recoverable | Prep | 200.2 | | | 361217 | 10/10/16 11:33 | Q1N | TAL IRV |
| Total Recoverable | Analysis | 200.8 LL | | 5 | 363199 | 10/18/16 18:53 | RC | TAL IRV |
| Total Recoverable | Prep | 200.2 | | | 361217 | 10/10/16 11:33 | Q1N | TAL IRV |
| Total Recoverable | Analysis | 200.8 LL | | 5 | 363932 | 10/20/16 22:19 | RC | TAL IRV |
| Total/NA | Prep | 245.1 | | | 98415 | 09/16/16 11:50 | EXZ | TAL PHX |
| Total/NA | Analysis | 245.1 | | 1 | 98694 | 09/20/16 14:21 | JTG | TAL PHX |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-69591-1

## Client Sample ID: FC-CCR-MW63-916

**Lab Sample ID: 550-69591-7**
**Date Collected: 09/12/16 13:43**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 98841 | 09/21/16 22:57 | BCB | TAL PHX |
| Total/NA | Prep | 200.7 | | | 98625 | 09/20/16 09:01 | SGO | TAL PHX |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 98800 | 09/21/16 16:04 | CJD | TAL PHX |
| Total Recoverable | Prep | 200.2 | | | 361217 | 10/10/16 11:33 | Q1N | TAL IRV |
| Total Recoverable | Analysis | 200.8 LL | | 5 | 363199 | 10/18/16 18:56 | RC | TAL IRV |
| Total Recoverable | Prep | 200.2 | | | 361217 | 10/10/16 11:33 | Q1N | TAL IRV |
| Total Recoverable | Analysis | 200.8 LL | | 5 | 363932 | 10/20/16 22:22 | RC | TAL IRV |
| Total/NA | Prep | 245.1 | | | 98415 | 09/16/16 11:50 | EXZ | TAL PHX |
| Total/NA | Analysis | 245.1 | | 1 | 98694 | 09/20/16 14:23 | JTG | TAL PHX |

## Client Sample ID: FC-CCR-MW64-916

**Lab Sample ID: 550-69591-8**
**Date Collected: 09/12/16 14:39**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 98841 | 09/21/16 23:15 | BCB | TAL PHX |
| Total/NA | Prep | 200.7 | | | 98625 | 09/20/16 09:01 | SGO | TAL PHX |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 98800 | 09/21/16 16:10 | CJD | TAL PHX |
| Total Recoverable | Prep | 200.2 | | | 361217 | 10/10/16 11:33 | Q1N | TAL IRV |
| Total Recoverable | Analysis | 200.8 LL | | 5 | 363199 | 10/18/16 18:58 | RC | TAL IRV |
| Total Recoverable | Prep | 200.2 | | | 361217 | 10/10/16 11:33 | Q1N | TAL IRV |
| Total Recoverable | Analysis | 200.8 LL | | 5 | 363932 | 10/20/16 22:24 | RC | TAL IRV |
| Total/NA | Prep | 245.1 | | | 98415 | 09/16/16 11:50 | EXZ | TAL PHX |
| Total/NA | Analysis | 245.1 | | 1 | 98694 | 09/20/16 14:24 | JTG | TAL PHX |

## Client Sample ID: FC-CCR-MW65-916

**Lab Sample ID: 550-69591-9**
**Date Collected: 09/12/16 18:03**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 98841 | 09/21/16 23:34 | BCB | TAL PHX |
| Total/NA | Prep | 200.7 | | | 98625 | 09/20/16 09:01 | SGO | TAL PHX |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 98800 | 09/21/16 16:13 | CJD | TAL PHX |
| Total Recoverable | Prep | 200.2 | | | 361217 | 10/10/16 11:33 | Q1N | TAL IRV |
| Total Recoverable | Analysis | 200.8 LL | | 5 | 363199 | 10/18/16 19:01 | RC | TAL IRV |
| Total Recoverable | Prep | 200.2 | | | 361217 | 10/10/16 11:33 | Q1N | TAL IRV |
| Total Recoverable | Analysis | 200.8 LL | | 5 | 363932 | 10/20/16 22:27 | RC | TAL IRV |
| Total/NA | Prep | 245.1 | | | 98415 | 09/16/16 11:50 | EXZ | TAL PHX |
| Total/NA | Analysis | 245.1 | | 1 | 98694 | 09/20/16 14:26 | JTG | TAL PHX |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-69591-1

## Client Sample ID: FC-CCR-MW66-916

**Lab Sample ID: 550-69591-10**
**Date Collected: 09/12/16 16:18**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 98841 | 09/22/16 00:29 | BCB | TAL PHX |
| Total/NA | Prep | 200.7 | | | 98625 | 09/20/16 09:01 | SGO | TAL PHX |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 98800 | 09/21/16 16:21 | CJD | TAL PHX |
| Total Recoverable | Prep | 200.2 | | | 361217 | 10/10/16 11:34 | Q1N | TAL IRV |
| Total Recoverable | Analysis | 200.8 LL | | 5 | 363199 | 10/18/16 19:37 | RC | TAL IRV |
| Total Recoverable | Prep | 200.2 | | | 361217 | 10/10/16 11:34 | Q1N | TAL IRV |
| Total Recoverable | Analysis | 200.8 LL | | 5 | 363932 | 10/21/16 00:55 | RC | TAL IRV |
| Total/NA | Prep | 245.1 | | | 98415 | 09/16/16 11:50 | EXZ | TAL PHX |
| Total/NA | Analysis | 245.1 | | 1 | 98694 | 09/20/16 14:28 | JTG | TAL PHX |

## Client Sample ID: FC-CCR-MW67-916

**Lab Sample ID: 550-69591-11**
**Date Collected: 09/13/16 07:26**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 98841 | 09/22/16 00:47 | BCB | TAL PHX |
| Total/NA | Prep | 200.7 | | | 98625 | 09/20/16 09:01 | SGO | TAL PHX |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 98800 | 09/21/16 16:27 | CJD | TAL PHX |
| Total Recoverable | Prep | 200.2 | | | 361217 | 10/10/16 11:33 | Q1N | TAL IRV |
| Total Recoverable | Analysis | 200.8 LL | | 5 | 363199 | 10/18/16 19:21 | RC | TAL IRV |
| Total Recoverable | Prep | 200.2 | | | 361217 | 10/10/16 11:33 | Q1N | TAL IRV |
| Total Recoverable | Analysis | 200.8 LL | | 5 | 363932 | 10/21/16 00:40 | RC | TAL IRV |
| Total/NA | Prep | 245.1 | | | 98415 | 09/16/16 11:50 | EXZ | TAL PHX |
| Total/NA | Analysis | 245.1 | | 1 | 98694 | 09/20/16 14:29 | JTG | TAL PHX |

## Client Sample ID: FC-CCR-MW68-916

**Lab Sample ID: 550-69591-12**
**Date Collected: 09/13/16 08:10**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 98841 | 09/22/16 01:06 | BCB | TAL PHX |
| Total/NA | Prep | 200.7 | | | 98625 | 09/20/16 09:01 | SGO | TAL PHX |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 98800 | 09/21/16 16:33 | CJD | TAL PHX |
| Total Recoverable | Prep | 200.2 | | | 363316 | 10/19/16 10:54 | Q1N | TAL IRV |
| Total Recoverable | Analysis | 200.8 LL | | 5 | 364256 | 10/23/16 10:25 | MQP | TAL IRV |
| Total/NA | Prep | 245.1 | | | 98602 | 09/19/16 17:06 | JTG | TAL PHX |
| Total/NA | Analysis | 245.1 | | 1 | 98691 | 09/20/16 12:06 | JTG | TAL PHX |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-69591-1

## Client Sample ID: FC-CCR-MW69-916

**Lab Sample ID: 550-69591-13**
**Date Collected: 09/13/16 08:58**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 98841 | 09/22/16 01:24 | BCB | TAL PHX |
| Total/NA | Prep | 200.7 | | | 98625 | 09/20/16 09:01 | SGO | TAL PHX |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 98800 | 09/21/16 16:39 | CJD | TAL PHX |
| Total Recoverable | Prep | 200.2 | | | 361217 | 10/10/16 11:33 | Q1N | TAL IRV |
| Total Recoverable | Analysis | 200.8 LL | | 5 | 363199 | 10/18/16 19:24 | RC | TAL IRV |
| Total Recoverable | Prep | 200.2 | | | 361217 | 10/10/16 11:33 | Q1N | TAL IRV |
| Total Recoverable | Analysis | 200.8 LL | | 5 | 363932 | 10/21/16 00:43 | RC | TAL IRV |
| Total/NA | Prep | 245.1 | | | 98602 | 09/19/16 17:06 | JTG | TAL PHX |
| Total/NA | Analysis | 245.1 | | 1 | 98691 | 09/20/16 12:07 | JTG | TAL PHX |

## Client Sample ID: FC-CCR-MW70-916

**Lab Sample ID: 550-69591-14**
**Date Collected: 09/12/16 10:51**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 98841 | 09/22/16 02:20 | BCB | TAL PHX |
| Total/NA | Prep | 200.7 | | | 98625 | 09/20/16 09:01 | SGO | TAL PHX |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 98800 | 09/21/16 16:45 | CJD | TAL PHX |
| Total Recoverable | Prep | 200.2 | | | 361217 | 10/10/16 11:33 | Q1N | TAL IRV |
| Total Recoverable | Analysis | 200.8 LL | | 5 | 363199 | 10/18/16 19:26 | RC | TAL IRV |
| Total Recoverable | Prep | 200.2 | | | 361217 | 10/10/16 11:33 | Q1N | TAL IRV |
| Total Recoverable | Analysis | 200.8 LL | | 5 | 363932 | 10/21/16 00:45 | RC | TAL IRV |
| Total/NA | Prep | 245.1 | | | 98602 | 09/19/16 17:06 | JTG | TAL PHX |
| Total/NA | Analysis | 245.1 | | 1 | 98691 | 09/20/16 12:09 | JTG | TAL PHX |

## Client Sample ID: FC-CCR-MW71-916

**Lab Sample ID: 550-69591-15**
**Date Collected: 09/12/16 18:42**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 98841 | 09/22/16 02:38 | BCB | TAL PHX |
| Total/NA | Prep | 200.7 | | | 98625 | 09/20/16 09:01 | SGO | TAL PHX |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 98800 | 09/21/16 16:51 | CJD | TAL PHX |
| Total Recoverable | Prep | 200.2 | | | 361217 | 10/10/16 11:33 | Q1N | TAL IRV |
| Total Recoverable | Analysis | 200.8 LL | | 5 | 363199 | 10/18/16 19:29 | RC | TAL IRV |
| Total Recoverable | Prep | 200.2 | | | 361217 | 10/10/16 11:33 | Q1N | TAL IRV |
| Total Recoverable | Analysis | 200.8 LL | | 5 | 363932 | 10/21/16 00:48 | RC | TAL IRV |
| Total/NA | Prep | 245.1 | | | 98602 | 09/19/16 17:06 | JTG | TAL PHX |
| Total/NA | Analysis | 245.1 | | 1 | 98691 | 09/20/16 12:10 | JTG | TAL PHX |

# Lab Chronicle

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-69591-1

## Client Sample ID: FC-CCR-MW72-916

**Lab Sample ID: 550-69591-16**
**Date Collected: 09/13/16 10:09**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 98841 | 09/22/16 02:56 | BCB | TAL PHX |
| Total/NA | Prep | 200.7 | | | 98625 | 09/20/16 09:01 | SGO | TAL PHX |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 98800 | 09/21/16 16:57 | CJD | TAL PHX |
| Total Recoverable | Prep | 200.2 | | | 361217 | 10/10/16 11:33 | Q1N | TAL IRV |
| Total Recoverable | Analysis | 200.8 LL | | 5 | 363199 | 10/18/16 19:32 | RC | TAL IRV |
| Total Recoverable | Prep | 200.2 | | | 361217 | 10/10/16 11:33 | Q1N | TAL IRV |
| Total Recoverable | Analysis | 200.8 LL | | 5 | 363932 | 10/21/16 00:50 | RC | TAL IRV |
| Total/NA | Prep | 245.1 | | | 98602 | 09/19/16 17:06 | JTG | TAL PHX |
| Total/NA | Analysis | 245.1 | | 1 | 98691 | 09/20/16 12:12 | JTG | TAL PHX |

## Client Sample ID: FC-CCR-MW100-916

**Lab Sample ID: 550-69591-17**
**Date Collected: 09/13/16 12:21**
**Matrix: Water**
**Date Received: 09/15/16 08:03**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 300.0 | | 1 | 98841 | 09/22/16 03:15 | BCB | TAL PHX |
| Total/NA | Prep | 200.7 | | | 98625 | 09/20/16 09:01 | SGO | TAL PHX |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 98800 | 09/21/16 17:03 | CJD | TAL PHX |
| Total Recoverable | Prep | 200.2 | | | 361217 | 10/10/16 11:33 | Q1N | TAL IRV |
| Total Recoverable | Analysis | 200.8 LL | | 5 | 363199 | 10/18/16 19:34 | RC | TAL IRV |
| Total Recoverable | Prep | 200.2 | | | 361217 | 10/10/16 11:33 | Q1N | TAL IRV |
| Total Recoverable | Analysis | 200.8 LL | | 5 | 363932 | 10/21/16 00:53 | RC | TAL IRV |
| Total/NA | Prep | 245.1 | | | 98602 | 09/19/16 17:06 | JTG | TAL PHX |
| Total/NA | Analysis | 245.1 | | 1 | 98691 | 09/20/16 12:14 | JTG | TAL PHX |

**Laboratory References:**

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

# Certification Summary

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-69591-1

## Laboratory: TestAmerica Phoenix

The certifications listed below are applicable to this report.

| Authority | Program | EPA Region | Certification ID | Expiration Date |
|---|---|---|---|---|
| Arizona | State Program | 9 | AZ0728 | 06-09-17 |

## Laboratory: TestAmerica Irvine

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

| Authority | Program | EPA Region | Certification ID | Expiration Date |
|---|---|---|---|---|
| Arizona | State Program | 9 | AZ0671 | 10-13-16 * |

The following analytes are included in this report, but certification is not offered by the governing authority:

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| 200.8 LL | 200.2 | Water | Antimony |
| 200.8 LL | 200.2 | Water | Arsenic |
| 200.8 LL | 200.2 | Water | Barium |
| 200.8 LL | 200.2 | Water | Cadmium |
| 200.8 LL | 200.2 | Water | Chromium |
| 200.8 LL | 200.2 | Water | Cobalt |
| 200.8 LL | 200.2 | Water | Lead |
| 200.8 LL | 200.2 | Water | Molybdenum |
| 200.8 LL | 200.2 | Water | Selenium |
| 200.8 LL | 200.2 | Water | Thallium |

* Certification renewal pending - certification considered valid.

# Method Summary

Client: Arizona Public Service Company
Project/Site: CCR

TestAmerica Job ID: 550-69591-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 300.0 | Anions, Ion Chromatography | MCAWW | TAL PHX |
| 200.7 Rev 4.4 | Metals (ICP) | 40CFR136A | TAL PHX |
| 200.8 LL | Metals (ICP/MS) | EPA | TAL IRV |
| 245.1 | Mercury (CVAA) | EPA | TAL PHX |

**Protocol References:**

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
EPA = US Environmental Protection Agency
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

**Laboratory References:**

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022
TAL PHX = TestAmerica Phoenix, 4625 East Cotton Ctr Blvd, Suite 189, Phoenix, AZ 85040, TEL (602)437-3340

**TestAmerica Phoenix**
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

# Chain of Custody Record

69591

**Regulatory Program:** CCR

**TestAmerica Laboratories, Inc.**

10/30/2016

| | | | | |
|---|---|---|---|---|
| **Client Contact** | Doug Lavarnway | Doug Lavarnway | Date: | COC No: |
| APS Four Corners | 928-587-0319 | Lab Contact: | Carrier: | 2 of 6 COCs |
| End of County Road 6675 | **Analysis Turnaround Time** | | | Sampler: |
| Fruitland, New Mexico 87416 | | | | **For Lab Use Only:** |
| (928) 587-0319 Phone | TAT if different from Below _____ | | | Walk-in Client: |
| (xxx) xxx-xxxx FAX | | | | Lab Sampling: |
| Project Name: CCR | | | | |
| Site: Four Corners (FC) Power Plant | | | | Job / SDG No.: |
| P O # | | | | |

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=Grab) | Matrix | # of Cont. | Filtered Sample (Y/N) | Perform MS / MSD (Y/N) | EPA 200.7 (Be, Li) | 200.8 (Sb, As, Ba, Cd, Cr, Co, Pb, Mo, Se, Tl) | EPA 245.1 (Hg) | EPA 300.0 (F) | Sample Specific Notes: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW7-916 -01 | 09/13/16 | 1510 | G | W | 4 | N | x | x | x | x | x | |
| FC-CCR-MW8-916 -02 | 09/13/16 | 1401 | G | W | 4 | N | x | x | x | x | x | |
| FC-CCR-MW49A-916 -03 | 09/13/16 | 1121 | G | W | 4 | N | x | x | x | x | x | |
| FC-CCR-MW60-916 -04 | 09/13/16 | 1221 | G | W | 4 | N | x | x | x | x | x | |
| FC-CCR-MW61-916 -05 | 09/13/16 | 1319 | G | W | 4 | N | x | x | x | x | x | |
| FC-CCR-MW62-916 -06 | 09/12/16 | 1716 | G | W | 4 | N | x | x | x | x | x | |
| FC-CCR-MW63-916 -07 | 09/12/16 | 1343 | G | W | 4 | N | x | x | x | x | x | |
| FC-CCR-MW64-916 -08 | 09/12/16 | 1439 | G | W | 4 | N | x | x | x | x | x | |
| FC-CCR-MW65-916 -09 | 09/12/16 | 1803 | G | W | 4 | N | x | x | x | x | x | |
| FC-CCR-MW66-916 -10 | 09/12/16 | 1618 | G | W | 4 | N | x | x | x | x | x | |
| FC-CCR-MW67-916 -11 | 09/13/16 | 0726 | G | W | 4 | N | x | x | x | x | x | |
| FC-CCR-MW68-916 -12 | 09/13/16 | 0810 | G | W | 4 | N | x | x | x | x | x | |

550-69591 Chain of Custody

**Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other**

**Possible Hazard Identification:**
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

**Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)**

**Special Instructions/QC Requirements & Comments:**

**Method 200.8 with collision cell**

1.0 | 1.4 | 1.0 | 1.2 | 1.5

Custody Seals Intact: | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

| Relinquished by: | Company: | Date/Time: | Received by: | Company: | Date/Time: |
|---|---|---|---|---|---|
| J. Edmonds | APS | 09/14/16 1118 | D Rogers | RedJ | 9/14/16 11:18a |
| [signature] | RedJ | 09/15/16 803 | | | |
| Relinquished by: | Company: | Date/Time: | Received in Laboratory by: | Company: | Date/Time: |
| | | | [signature] | TA | 9-15-16 8:03 |

TestAmerica Phoenix
4625 E Cotton Center Blvd
Suite 189
Phoenix, AZ 85040
phone 602.437.3340 fax 602.454.9303

# Chain of Custody Record

69591

Regulatory Program: CCR

TestAmerica Laboratories, Inc.

10/30/2016

| Client Contact | Doug Lavarnway | Doug Lavarnway | Date: | COC No: |
|---|---|---|---|---|
| APS Four Corners | 928-587-0319 | Lab Contact: | Carrier: | 6 of 6 COCs |
| End of County Road 6675 | Analysis Turnaround Time | | | Sampler: |
| Fruitland, New Mexico 87416 | | | | For Lab Use Only: |
| (928) 587-0319 Phone | TAT if different from Below _____ | | | Walk-in Client: |
| (xxx) xxx-xxxx FAX | | | | Lab Sampling: |
| Project Name: CCR | | | | |
| Site: Four Corners (FC) Power Plant | | | | Job / SDG No.: |
| P O # | | | | |

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=Grab) | Matrix | # of Cont. | Filtered Sample (Y/N) | Perform MS/MSD (Y/N) | EPA 200.7 (Be, Li) | 200.8 (Sb, As, Ba, Cd, Cr, Co, Pb, Mo, Se, Tl) | EPA 245.1 (Hg) | EPA 300.0 (F) | Sample Specific Notes: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-CCR-MW69-916 -13 | 091316 | 0858 | G | W | 4 | N | x | x | x | x | x | |
| FC-CCR-MW70-916 -14 | 091216 | 1851 | G | W | 4 | N | x | x | x | x | x | |
| FC-CCR-MW71-916 -15 | 091216 | 1842 | G | W | 4 | N | x | x | x | x | x | |
| FC-CCR-MW72-916 -16 | 091316 | 1009 | G | W | 4 | N | x | x | x | x | x | |
| FC-CCR-MW100-916 -17 | 091316 | 1221 | G | W | 4 | N | x | x | x | x | x | |
| ~~FC-CCR-MW101-916~~ | | | G | W | 4 | N | x | x | x | x | x | |

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)

Special Instructions/QC Requirements & Comments:

Method 200.8 with collision cell

Custody Seals Intact: | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

| Relinquished by: | Company: | Date/Time: | Received by: | Company: | Date/Time: |
|---|---|---|---|---|---|
| J. Edmondson | APS | 091416 / 1118 | [illegible] | Red J | 9/14/16 11:18a |
| [illegible] | Red J | 9/16/16 0350 | [illegible] | | |
| Relinquished by: | Company: | Date/Time: | Received in Laboratory by: | Company: | Date/Time: |
| | | | [illegible] | TA | 9-15-16 8:03 |

Form No. CA-C-WI-002, Rev. 4.2, dated 04/02/2013

**TestAmerica Phoenix**
4625 East Cotton Ctr Blvd Suite 189
Phoenix, AZ 85040
Phone (602) 437-3340 Fax (602) 454-9303

# Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

| | | | | |
|---|---|---|---|---|
| **Client Information (Sub Contract Lab)** | Sampler: | Lab PM: Baker, Ken | Carrier Tracking No(s). | COC No: 550-14854.1 |
| Client Contact: Shipping/Receiving | Phone: | E-Mail: ken.baker@testamericainc.com | | Page: Page 1 of 2 |
| Company: TestAmerica Laboratories, Inc | | | | Job #: 550-69591-1 |
| Address: 17461 Derian Ave, Suite 100, | Due Date Requested: 10/17/2016 | | | |
| City: Irvine | TAT Requested (days): | | | |
| State, Zip: CA, 92614-5817 | | | | |
| Phone: 949-261-1022(Tel) 949-260-3297(Fax) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: CCR | Project #: 55002330 | | | |
| Site: | SSOW#: | | | |

**Analysis Requested**

**Preservation Codes:**
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 200.8_CWA_LL/200.2 200.8-Appendix IV CCR | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | | |
| FC-CCR-MW7-916 (550-69591-1) | 9/13/16 | 15:10 Arizona | | Water | | | X | 1 | AZ Sample |
| FC-CCR-MW8-916 (550-69591-2) | 9/13/16 | 14:01 Arizona | | Water | | | X | 1 | AZ Sample |
| FC-CCR-MW49A-916 (550-69591-3) | 9/13/16 | 11:21 Arizona | | Water | | | X | 1 | AZ Sample |
| FC-CCR-MW60-916 (550-69591-4) | 9/13/16 | 12:21 Arizona | | Water | | | X | 1 | AZ Sample |
| FC-CCR-MW61-916 (550-69591-5) | 9/13/16 | 13:19 Arizona | | Water | | | X | 1 | AZ Sample |
| FC-CCR-MW62-916 (550-69591-6) | 9/12/16 | 17:16 Arizona | | Water | | | X | 1 | AZ Sample |
| FC-CCR-MW63-916 (550-69591-7) | 9/12/16 | 13:43 Arizona | | Water | | | X | 1 | AZ Sample |
| FC-CCR-MW64-916 (550-69591-8) | 9/12/16 | 14:39 Arizona | | Water | | | X | 1 | AZ Sample |
| FC-CCR-MW65-916 (550-69591-9) | 9/12/16 | 18:03 Arizona | | Water | | | X | 1 | AZ Sample |
| FC-CCR-MW66-916 (550-69591-10) | 9/12/16 | 16:18 Arizona | | Water | | | X | 1 | AZ Sample |
| FC-CCR-MW67-916 (550-69591-11) | 9/13/16 | 07:26 Arizona | | Water | | | X | 1 | AZ Sample |

*Possible Hazard Identification*
*Unconfirmed*

*Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)*
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

| | | | | | | |
|---|---|---|---|---|---|---|
| Empty Kit Relinquished by: | Date: | Time: | | Method of Shipment: | | |
| Relinquished by: | Date/Time: 10/7/16 17:00 | Company: | Received by: | Date/Time: | Company | |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: 10/8/16 0915 | Company | |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company | |
| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | | Cooler Temperature(s) °C and Other Remarks: 5.5 / 4.8 ±374 | | | |

# Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-69591-1

**Login Number: 69591**
**List Number: 1**
**Creator: Gravlin, Andrea**

**List Source: TestAmerica Phoenix**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | Check done at department level as required. |

# Login Sample Receipt Checklist

Client: Arizona Public Service Company

Job Number: 550-69591-1

**Login Number: 69591**
**List Number: 2**
**Creator: Garcia, Veronica G**

**List Source: TestAmerica Irvine**
**List Creation: 10/08/16 10:53 AM**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |